## Prefatory Note

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

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## Part 1

## CURRENT ECONOMIC AND FINANCIAL CONDITIONS

## Summary and Outlook

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

## Summary and Outlook

Class II FOMC—Restricted (FR)

## Domestic Developments

Since the October Greenbook, we have received a great deal of information on economic and financial developments that has led us to reduce the projected increase in real GDP over the coming year. Conditions in financial markets, which improved a bit in October, have deteriorated over the intermeeting period, and throughout the forecast period the price of crude oil is expected to remain at a higher level than we previously projected. In addition, the incoming data on spending, most notably in the household sector, have been more downbeat than we were expecting. The recent readings on factory output have been a bit softer as well. Meanwhile, further improvement in the external sector appears to be providing only a slight offset this quarter to the weakening in domestic demand. As a result, we now think that real GDP will be little changed in the fourth quarter and will increase less than $11 / 2$ percent in 2008-the latter down almost $1 / 2$ percentage point from the last Greenbook. We continue to believe that, by 2009, conditions in mortgage and other financial markets will have improved and the drag from higher energy prices will lessen, thereby promoting a gradual strengthening in economic activity. As a result, we expect that real GDP will rise 2 percent in 2009.

An important factor in our revisions to the forecast this time around was a further reassessment of prospects for residential construction. We now believe that, through early 2008, disruptions to mortgage lending, spreading foreclosures, and falling house prices are likely to lead to a deeper drop in sales and construction than we anticipated in the last Greenbook. And we project that the subsequent recovery will come even more slowly than we expected as mortgage markets take longer to right themselves, homebuyers become convinced more gradually that homes are attractive investments, and homebuilders are forced to make additional production adjustments to reduce their inventory overhangs. We now project that a lower trough for starts in the first half of next year will be followed by a shallower recovery. As another consequence of developments in financial markets, we have factored in greater restraint on capital spending than we previously assumed. In addition, the higher level of oil prices will be a drag on both consumer and business spending in 2008 as a result of lower real income and the reduced pace of business sales. The improved outlook for net exports in this forecast provides a modest offset to the other changes in the economic outlook.

The news on prices has pushed top-line inflation higher in the near term. Longer-run inflation expectations appear to have changed little, and core inflation still appears likely to remain relatively stable over the forecast period at 2 percent in 2008 and 1.9 percent in 2009. The forecast for resource utilization now shows some additional easing in labor

## 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 2007:Q4.
and product markets; labor costs are projected to continue to rise at a moderate rate; and, beyond the near term, prices of core nonfuel imported goods are still expected to increase only modestly despite the drop in the dollar.

## Key Background Factors

We view the deterioration in financial market conditions as implying greater restraint on spending than was the case in the October Greenbook. Accordingly, in this forecast we have assumed that the federal funds rate is reduced 25 basis points at the December FOMC meeting and is held at $4 \frac{1}{4}$ percent through mid-2009. Then, with inflation edging down, a noticeable degree of economic slack remaining, and real GDP increasing at a subpar rate, we assume that the federal funds rate is lowered again, to 4 percent in the second half of 2009. In contrast, futures quotes imply that market participants expect the rate to be cut considerably further, to about 3 percent in early 2009. Yields on longerterm Treasuries are about 40 basis points below their level at the time of the October Greenbook. We assume that those yields will rise gradually during the next two years as the market's outlook for the federal funds rate moves closer to ours and as term premiums widen.

The outlook for mortgage finance has worsened over the intermeeting period. Secondary markets for nonprime loans remain closed, and spreads on prime jumbo loans have risen further. Spreads on prime conforming loans have also risen, and Fannie Mae and Freddie Mac have increased fees to guarantee mortgages pooled into agency mortgage-backed securities. They have also modestly tightened underwriting standards, which may reduce options for borrowers who want to refinance a nonprime loan. We do not anticipate much improvement in mortgage markets until the spring, and a full adjustment to the new environment for mortgage lending is likely to extend into mid-2009. In addition, we now expect house prices to weaken more over the forecast period than we previously assumed. We project that house prices, as measured by the OFHEO purchase-only index, which decreased at an annual rate of 1 percent in the third quarter, will fall at roughly a 3 percent annual rate through 2009.

Corporate credit markets now appear to be, on balance, tighter than we had assumed in the last forecast. In particular, yield spreads on speculative-grade corporate bonds have widened noticeably, as have spreads on leveraged loans. The syndication of loans for previously committed leveraged buyouts has stalled again, and those loans are making their way onto bank balance sheets. Spreads on asset-backed and unsecured lower-rated commercial paper, which narrowed during October, have turned up again, with year-end
pressures accounting for only part of the increase. Asset-backed commercial paper has continued to run off. In addition, spreads on commercial-mortgage-backed securities have risen sharply further, and issuance has been curtailed.

Equity prices have fluctuated significantly since the last Greenbook but, on net, are down 3 percent, and the equity premium has widened a fair bit. For the forecast period, we have adhered to our usual assumption that stock prices will increase, on average, $61 / 2$ percent per year, consistent with our estimate of the required return to equities in recent years.

Regarding fiscal policy, the Congress has made little progress on the budget for fiscal year 2008, but we have maintained our key assumptions for fiscal policy. Importantly, we continue to assume that relief from the alternative minimum tax will be extended through fiscal 2009 without any offset to the resulting revenue loss. The unified budget deficit, which narrowed to $\$ 163$ billion in fiscal 2007, is expected to widen to $\$ 261$ billion in fiscal 2008 and $\$ 284$ billion in fiscal 2009—about $\$ 40$ billion more each year than we showed in the October Greenbook. The more significant deterioration in the budget outlook that we are now expecting is largely the result of the lower individual and corporate tax bases that are part of the changes to our economic forecast. In all, we estimate that the impetus to the rise in real GDP from federal fiscal policy was 0.2 percentage point in calendar year 2007 and that it will continue to be 0.2 percentage point in 2008 before dropping to 0.1 percentage point in 2009.

The real foreign exchange value of the dollar is expected to average about $3 / 4$ percent lower this quarter than we expected in the October Greenbook, and we continue to assume that the dollar will decline modestly over the projection period. Although we anticipate that foreign real GDP will rise a bit more slowly in the near term than we previously thought, we continue to expect solid increases of 3 percent in 2008 and 3¼ percent in 2009.

The spot price of West Texas intermediate (WTI) crude oil has been volatile since the time of the October Greenbook. This forecast begins with the spot price about $\$ 2$ per barrel higher than at the time of the previous Greenbook. However, far-dated futures prices are up considerably more, reflecting mounting concerns about longer-term supply prospects. In our current projection, we assume that the price per barrel of WTI crude oil will decline slowly from an average of $\$ 90$ in the fourth quarter of this year to $\$ 85$ at the
end of 2009. On balance, this path for oil prices is about $\$ 6$ per barrel higher in 2008, and $\$ 8$ per barrel higher in 2009, than in the October Greenbook.

## Recent Developments and the Near-Term Outlook

We now expect that the level of real GDP will be little changed, on balance, in the current quarter after having increased at an annual rate of 5 percent in the third quarter. A number of factors contribute to this uneven quarterly pattern in the pace of economic activity: Most important, final sales are anticipated to slow from the surprisingly robust annual rate of 4 percent recorded in the third quarter to a pace of just $1 / 2$ percent in the current quarter. The deceleration is projected to be pronounced across all major categories of private final sales-consumer spending, business fixed investment, residential construction, and net exports. In addition, inventory investment is expected to slow; after a step-up that contributed 1 percentage point to the change in real GDP in the third quarter, we expect it to be held down this quarter by a sharp run-off in motor vehicle stocks. In the government sector, the ongoing rise in real federal purchases for defense is anticipated to be slower than in the preceding two quarters and to further contribute to the overall deceleration in real GDP this quarter.

The slower pace of demand associated with goods-producing industries is expected to lead to a dip in manufacturing industrial production in the fourth quarter. A lower rate of motor vehicle assemblies plus cuts in the production of construction supplies contribute importantly to the decline, and apart from a moderate uptrend in the output of high-tech goods, production in other sectors is also anticipated to weaken somewhat. As a result, capacity utilization in manufacturing is expected to drop to 80 percent from the recent high of $803 / 4$ percent in the third quarter.

The labor market remained relatively tight through October, but a few signs of some slackening have emerged recently. In particular, initial claims for unemployment insurance have moved up slightly, on average, since early October, and consumer surveys suggest that households perceive labor market conditions to have worsened. We are projecting that private payroll jobs increased 100,000 in November but will taper off to 75,000 in December and that the unemployment rate will remain at 4.7 percent.

After robust gains at midyear, real personal consumption expenditures (PCE) were about unchanged in September and October. Sales of light motor vehicles continued to run at an annual rate of slightly more than 16 million units for a fourth month through November. Other spending turned sluggish as concerns about developments in housing

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

| Measure | 2007:Q3 |  | 2007:Q4 |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Oct. GB | Dec. <br> GB | Oct. GB | Dec. <br> GB |
| Real GDP | 3.3 | 5.0 | 1.4 | . 1 |
| Private domestic final purchases | 2.0 | 2.1 | . 3 | -. 2 |
| Personal consumption expenditures | 3.2 | 2.7 | 2.3 | 1.3 |
| Residential investment | -22.4 | -20.3 | -32.8 | -30.0 |
| Business fixed investment | 6.2 | 10.1 | 3.2 | 4.4 |
| Government outlays for consumption and investment | 3.2 | 3.9 | 3.1 | 2.4 |
|  | Contribution to growth (percentage points) |  |  |  |
| Inventory investment | -. 3 | 1.0 | . 6 | -. 4 |
| Net exports | 1.3 | 1.4 | . 0 | . 1 |

and financial markets appeared to weigh on consumer sentiment and as higher top-line inflation eroded gains in real income. Those negative influences seem to have been a bit greater than we thought at the time of the October Greenbook, and we now expect them to exert more restraint on consumer spending in coming months. Furthermore, the BEA revised down its estimate of wage and salary income for the second quarter, which lowered the level of personal income more than $\$ 40$ billion; factoring in the faster rise in energy prices this quarter as well, we currently estimate that this year’s increase in real disposable personal income will be $2 \frac{1}{4}$ percent, compared with our projection of $23 / 4$ percent in the last Greenbook. After having increased at an annual rate of 2.7 percent in the third quarter, real PCE is projected to rise at an annual rate of 1.3 percent in the current quarter- 1 percentage point below our previous forecast.

Sales of new and existing homes in September and October were, on average, significantly lower than during the summer, and the contraction in the construction of new single-family homes intensified. The declines in single-family starts and, especially, permit issuance were greater than we had expected and suggest that activity in coming months will run below the levels we had expected at the time of the October Greenbook. In the near term, the substantial bounceback in multifamily starts in October from the surprisingly low level in September provides some offset to overall outlays for residential construction in the fourth quarter. However, the lower trajectory for homebuilding now shows through to a larger drop in residential investment in the first quarter of 2008.

The incoming indicators suggest a moderate increase in business fixed investment in the fourth quarter. Trends in construction put in place through October and information on drilling and mining activity through November suggest that investment in nonresidential structures will post a solid increase at an annual rate of $43 / 4$ percent in the fourth quarter. Real outlays for equipment and software are projected to be up at an annual rate of $41 / 4$ percent. We are anticipating a solid gain in outlays for computers and software this quarter, but spending for communications equipment appears to have slumped. For transportation, outlays for medium and heavy trucks seem to have finally stabilized, and purchases of light vehicles appear to have risen. However, orders and shipments of nondefense capital goods excluding transportation and high-tech equipment suggest that business spending for these items will flatten out in the fourth quarter after sizable increases in the preceding two quarters.

In the government sector, data through October from the federal government's Monthly Treasury Statement were consistent with a moderate increase in real outlays for defense this quarter after very rapid gains in the second and third quarters. Federal nondefense purchases are expected to continue to edge up at less than a 1 percent annual rate. At the state and local level, the information on employment and construction put in place through October suggests that real outlays will increase at an annual rate of about $21 / 2$ percent, close to the pace of recent quarters.

Inventory accumulation at nonfarm businesses stepped up noticeably in the third quarter. Much of the increase was in the motor vehicle sector, in which producers have already curtailed assemblies this quarter in an effort to run off excess stocks. For other businesses, the softening of final sales that appears to be under way is expected to lead to a modest amount of unintended accumulation in the current quarter. Altogether, after having boosted the third-quarter rise in real GDP by 1 percentage point, inventory investment in the fourth quarter is slower and is thus projected to shave 0.4 percentage point from the change in real GDP.

We are projecting another strong increase in exports this quarter, although we do not expect a gain as outsized as that in the third quarter. Imports are anticipated to increase at about the same pace as in the third quarter; a slowing in the rise in core imports is likely to be offset by a rebound in real imports of oil. On balance, after having contributed more than $1 \frac{1}{4}$ percentage points to the change in real GDP in the third quarter, real net exports are projected to contribute just 0.1 percentage point this quarter.

The sharp acceleration in energy prices and another relatively large increase in food prices are projected to push up top-line PCE price inflation from an annual rate of $13 / 4$ percent in the third quarter to a rate of $31 / 2$ percent in the fourth quarter, $3 / 4$ percentage point higher than anticipated in the October Greenbook. As we expected, core PCE price inflation has also moved up a bit from the low rates recorded in the spring. The thirdquarter estimate now shows core PCE inflation at an annual rate of 1.8 percent, and we are projecting core PCE price inflation of 2.2 percent this quarter; both figures are 0.2 percentage point higher than in our previous projection.

## The Longer-Term Outlook

A key factor influencing the longer-term outlook continues to be the implications of the turmoil in financial markets. As noted previously, financial conditions have tightened since the time of the last Greenbook. And we are interpreting currently available information as suggesting that these conditions may have begun to affect not only residential construction but also other household spending and perhaps capital spending by some firms. Moreover, we now anticipate that tighter financial conditions will impose more restraint on economic activity over the coming year than we previously thought. By 2009, we expect this restraint-while still important-to have eased.

On balance, changes in the other key conditioning factors for this forecast also tilt slightly to a weaker outlook in 2008 and 2009. Although the foreign exchange value of the dollar has fallen further and interest rates for high-quality borrowers are lower in this forecast, oil prices are higher and the stock market and real income are lower than we previously assumed. Thus, we now expect that real GDP will increase 1.3 percent in 2008 and 2.1 percent in 2009.

Household spending. We now anticipate that consumer spending will increase more slowly next year than we projected in the October Greenbook. The downward revision to income in the second quarter of this year and the higher level of energy prices imply that real income is currently lower than previously projected, and we expect that continued bad news on home prices and mortgage market developments will hold consumer sentiment around recent low levels. The somewhat steeper decline in house prices and the lower level of the stock market in this forecast imply a lower level of household wealth and, thus, some additional drag on spending compared with our previous forecast. And we have factored in some drag on consumer spending from financial stress beyond the traditional channels of income and wealth. All told, we have marked down the increase in real PCE in 2008 to $11 / 2$ percent. In 2009, real PCE is projected to rise

## Projections of Real GDP

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

| Measure | $\begin{gathered} \text { 2007: } \\ \text { H2 } \end{gathered}$ | $\begin{gathered} \text { 2008: } \\ \text { H1 } \end{gathered}$ | 2008 | 2009 |
| :---: | :---: | :---: | :---: | :---: |
| Real GDP | 2.5 | 1.0 | 1.3 | 2.1 |
| Previous | 2.4 | 1.6 | 1.7 | 2.2 |
| Final sales | 2.2 | 1.2 | 1.3 | 2.1 |
| Previous | 2.2 | 1.6 | 1.8 | 2.1 |
| PCE | 2.0 | 1.4 | 1.5 | 2.2 |
| Previous | 2.7 | 1.5 | 1.7 | 2.1 |
| Residential investment | -25.3 | -22.6 | -14.6 | -2.3 |
| Previous | -27.7 | -16.1 | -7.5 | 2.0 |
| BFI | 7.3 | . 6 | . 6 | 2.4 |
| Previous | 4.7 | 2.2 | 1.9 | 3.0 |
| Government purchases | 3.1 | 2.1 | 1.6 | . 8 |
| Previous | 3.2 | 2.1 | 1.7 | 1.0 |
| Exports | 13.0 | 7.0 | 7.0 | 6.7 |
| Previous | 12.2 | 7.1 | 6.9 | 6.3 |
| Imports | 4.3 | . 7 | 2.1 | 4.1 |
| Previous | 4.4 | 1.7 | 2.7 | 4.5 |
|  | Contribution to growth (percentage points) |  |  |  |
| Inventory change | . 3 | -. 2 | . 0 | . 0 |
| Previous | . 2 | . 0 | -. 1 | . 1 |
| Net exports | . 7 | . 7 | . 5 | . 1 |
| Previous | . 6 | . 6 | . 4 | . 0 |

$21 / 4$ percent; real income gains are projected to pick up as the pace of economic activity firms and energy prices continue to fall, and the fallout from the stress in financial markets is expected to diminish.

Residential investment. With the outlook for mortgage finance having worsened and home values anticipated to depreciate somewhat more than we thought earlier, we are expecting a greater slump in home sales in coming quarters than we previously projected. Accordingly, we have deepened the contraction in homebuilding; starts of new singlefamily houses are expected to bottom out at 810,000 units in 2008-roughly 100,000
units lower than in our October forecast. In addition, the upturn in housing starts over the remainder of the forecast period is even more subdued than we previously projected. Although the gradual improvement in mortgage credit availability that we are anticipating should promote some recovery in sales, the lower levels of income, wealth, and expected capital gains on homes in this forecast work to damp demand. In 2009, new single-family starts are expected to begin a very gradual recovery, reaching an annual rate of only 830,000 units by the second half of the year-about 200,000 units below our previous forecast. That level of new construction should be consistent with a reduction in the inventory of unsold homes from its current rate of 8 months of sales to about $41 / 2$ months by the end of 2009. Multifamily starts are anticipated to remain close to 300,000 units per year during the forecast period. We project that real investment in residential construction will drop 14¼ percent in 2008 and 2¼ percent in 2009.

Business investment. Although the trajectory of our projection for business investment is shaped principally by changes in the pace of business output, we continue to expect that the higher cost of capital, modestly tighter standards on business lending, and the heightened uncertainty that have been associated with the turbulence in financial markets will also restrain capital spending in coming quarters. Taken together, these influences are expected to slow the rise in business spending on equipment and software ( $\mathrm{E} \& \mathrm{~S}$ ) from our estimate of almost 4 percent this year to $1 / 2$ percent in 2008. Next year, the weakness in capital spending is projected to extend across most major categories of equipment. Outlays for high-tech equipment are expected to slow noticeably, in part because of poor earnings at financial services firms, which are major purchasers of hightech equipment. High fuel costs and uncertainty about potential consolidation of domestic airlines are apt to restrain purchases of new aircraft. Outside of the high-tech and transportation categories, business spending on equipment is projected to decline 2¼ percent. Like E\&S, business investment in nonresidential structures is projected to decelerate sharply from a robust rise of $131 / 4$ percent this year to $1 / 2$ percent in 2008. Although elevated energy prices should continue to spur increases in drilling and mining, smaller increases in sales and employment, along with more-difficult financing conditions, are expected to curtail new spending on office, commercial, and industrial facilities. By 2009, as financial conditions continue to improve and the outlook for a recovery in sales brightens, outlays for $\mathrm{E} \& S$ are projected to rise 3 percent, and nonresidential investment is projected to move up 1 percent.

Government spending. Our outlook for real government purchases continues to show a gradual deceleration in spending at both the federal and the state and local levels. For
federal spending, the trajectory largely reflects the deceleration in outlays for defense associated with a leveling off of spending for military activities in Iraq and Afghanistan; real defense outlays are projected to rise at an annual rate of $41 / 4$ percent in the first half of 2008 and then to slow to an annual rate of $21 / 4$ percent in the second half and $1 \frac{1}{4}$ percent in 2009. Meanwhile, federal nondefense spending is anticipated to be little changed over the four quarters of 2008 and then to increase 1 percent in 2009. State and local governments are anticipated to slow the rise in their spending-to $1 \frac{1}{4}$ percent in 2008 and less than 1 percent in 2009-in response to the budget pressures that are likely to arise as the revenue flow from sales, income, and property taxes decelerates.

Net exports. Export demand is anticipated to continue making significant contributions to domestic production over the next two years, supported by continued solid expansion of economic activity abroad and the effect of past and projected depreciation of the dollar. With domestic demand rising only slowly in 2008, imports are projected to increase modestly for a second year before accelerating some in 2009 as domestic demand firms and prices of core nonfuel imports decelerate. All told, real net exports of goods and services contribute about $1 / 2$ percentage point to the change in real GDP in 2008 and a little less than $1 / 4$ percentage point in 2009—slightly more in both years than in the October Greenbook. (The International Developments section provides more detail on the outlook for the external sector.)

## Aggregate Supply, the Labor Market, and Inflation

Our forecast of aggregate supply is unchanged in this projection. We continue to expect that potential real GDP will increase at an annual rate of a bit more than 2 percent over the forecast period and that structural productivity will rise at an annual rate of $13 / 4$ percent. With the lower path for real output in this forecast, the current small degree of tightness in product and labor markets becomes a small degree of slack in resource utilization by the middle of next year.

Productivity and the labor market. Over the first three quarters of 2007, the combination of relatively strong gains in output and a gradual slowdown in labor demand pushed the level of productivity in the nonfarm business sector above our estimate of its structural trend. As is typical when output decelerates sharply, which it is now projected to do, productivity is also projected to decelerate markedly, rising at an annual rate of less than $1 / 2$ percent, on average, in the current quarter and the first quarter of 2008 and then at a rate of $1 \frac{1}{2}$ percent in the second and third quarters. Over that period, net additions to private payrolls are expected to slip to an average of 30,000 per month, pushing up the

## 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> 05 | 2006 | 2007 | 2008 | 2009 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Structural labor productivity <br> $\quad$ Previous | $\mathbf{1 . 5}$ | $\mathbf{2 . 5}$ | $\mathbf{2 . 7}$ | $\mathbf{2 . 0}$ | $\mathbf{1 . 9}$ | $\mathbf{1 . 8}$ | $\mathbf{1 . 8}$ |
| Contributions |  |  |  |  |  |  |  |
| Capital deepening |  | 2.5 | 2.7 | 2.0 | 1.9 | 1.8 | 1.8 |
| $\quad$ Previous | .7 | 1.4 |  | .7 | .7 | .6 | .6 |
| Multifactor productivity | .7 | 1.4 | .7 | .7 | .6 | .5 | .5 |
| $\quad$ Previous | .5 | .7 | 1.8 | 1.1 | 1.1 | 1.1 | 1.1 |
| Labor composition | .5 | .7 | 1.8 | 1.1 | 1.1 | 1.1 | 1.1 |
| MEMO | .3 | .3 | .3 | .2 | .2 | .2 | .1 |
| Potential GDP |  |  |  |  |  |  |  |
| $\quad$ Previous | 3.0 | 3.3 | 2.7 | 2.2 | 2.2 | 2.2 | 2.1 |

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.

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

| Measure | 2006 | 2007 | 2008 | 2009 |
| :---: | :---: | :---: | :---: | :---: |
| Output per hour, nonfarm business | . 9 | 2.3 | 1.3 | 1.9 |
| Previous | . 9 | 2.0 | 1.8 | 1.9 |
| Nonfarm private payroll employment | 1.8 | 1.2 | . 4 | . 7 |
| Previous | 1.8 | 1.1 | . 5 | . 8 |
| Household survey employment | 2.1 | . 4 | . 6 | . 8 |
| Previous | 2.1 | . 6 | . 7 | . 8 |
| Labor force participation rate ${ }^{1}$ | 66.3 | 65.9 | 65.7 | 65.5 |
| Previous | 66.3 | 66.0 | 65.8 | 65.6 |
| Civilian unemployment rate ${ }^{1}$ | 4.5 | 4.7 | 4.9 | 5.0 |
| Previous | 4.5 | 4.7 | 4.8 | 4.8 |
| Memo |  |  |  |  |
| GDP gap ${ }^{2}$ | . 4 | . 5 | -. 4 | -. 4 |
| Previous | . 4 | . 5 | . 0 | . 1 |

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.
unemployment rate to 4.9 percent by midyear. For the remainder of the forecast period, productivity is projected to rise at its structural rate. And as the pace of real output picks up, hiring by private nonfarm businesses is projected to rise to 70,000 per month in 2009. Nonetheless, even with the slight downtrend in labor force participation that we are assuming, the jobless rate is projected to edge up further, to 5 percent by the spring of 2009.

Prices and labor costs. Reflecting upward revisions to previously published data, core PCE price inflation is now expected to average 2 percent over the four quarters of 2007$1 / 4$ percentage point higher than we showed in the previous forecast-and we are projecting that pace to persist in 2008. The stability of core inflation reflects a number of largely offsetting considerations: The indirect effects of energy prices on prices of core consumer goods and services are likely to be greater in 2008 than in 2007, while the slight easing of resource pressures and the deceleration in the prices of nonfuel imported goods should tend to lower core PCE price inflation. In 2009, core PCE inflation is still projected to edge down to 1.9 percent as the effect of energy prices wanes. Underlying our forecast for core inflation in both years is an assumption of stable long-run inflation expectations.

The trajectory of our projection for overall PCE price inflation continues to be shaped importantly by our assumptions for crude oil prices. The path for oil prices in futures markets is now substantially higher than had been incorporated in the October Greenbook, and as a result, the recent unfavorable news on top-line inflation now appears likely to extend into early 2008. Further increases in the prices of gasoline and fuel oil around the turn of the year, along with a continued rise in consumer prices of natural gas, are expected to lead to another very sharp rise in PCE energy prices in the first quarter of 2008. Food prices also are expected to rise a bit faster than core prices at the beginning of next year. Taken together, our projection for overall PCE price inflation in the first quarter is $2^{1 / 2}$ percent.

Over the remainder of the forecast period, total PCE price inflation is projected to moderate to a pace slightly below core PCE inflation. By the middle of 2008, consumer energy prices are expected to recede as the price of crude oil backs off somewhat. At the same time, agricultural producers are expected to step up the output of farm products, and that should help bring consumer food price inflation more in line with core inflation. On balance, total PCE inflation is projected to drop from $31 / 4$ percent in 2007 to 2 percent in 2008 and to $13 / 4$ percent in 2009.

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

| Measure | 2006 | 2007 | 2008 | 2009 |
| :---: | ---: | ---: | ---: | ---: |
| PCE chain-weighted price index | 1.9 | 3.2 | 2.0 | 1.7 |
| Previous | 1.9 | 3.0 | 1.8 | 1.7 |
| Food and beverages | 2.3 | 4.6 | 2.2 | 2.0 |
| Previous | 2.3 | 4.5 | 2.1 | 2.1 |
| Energy | -4.0 | 18.6 | 1.8 | -1.3 |
| Previous | -4.0 | 16.1 | .4 | -2.1 |
| Excluding food and energy | 2.3 | 2.0 | 2.0 | 1.9 |
| Previous | 2.3 | 1.8 | 1.9 | 1.9 |
| Consumer price index | 1.9 | 3.9 | 2.2 | 1.8 |
| Previous | 1.9 | 3.7 | 2.0 | 1.7 |
| Excluding food and energy | 2.7 | 2.3 | 2.2 | 2.1 |
| Previous | 2.7 | 2.3 | 2.1 | 2.1 |
| GDP chain-weighted price index | 2.7 | 2.4 | 2.2 | 2.0 |
| Previous | 2.7 | 2.0 | 2.3 | 2.1 |
| ECI for compensation of private |  |  |  |  |
| industry workers ${ }^{1}$ | 3.2 | 3.2 | 3.7 | 3.7 |
| Previous | 3.2 | 3.4 | 3.7 | 3.7 |
| Compensation per hour, |  |  |  |  |
| nonfarm business sector | 5.0 | 3.7 | 4.5 | 4.2 |
| Previous | 5.0 | 4.7 | 4.5 | 4.3 |
| Prices of core nonfuel imports | 2.4 | 2.9 | 1.1 | .9 |
| Previous | 2.4 | 3.0 | 1.2 | .7 |

1. December to December.

Our principal indicators of hourly compensation have recently shown very different rates of inflation. We now estimate that hourly compensation in the nonfarm business sector, which tends to fluctuate widely, will increase $33 / 4$ percent in 2007 after having risen 5 percent in 2006. The employment cost index (ECI) for hourly compensation rose $31 / 4$ percent in 2006 and is expected to do so again in 2007. This year, ECI wages and salaries have accelerated, but the rise in benefit costs has been unusually slow. In 2008 and 2009, we are projecting a faster rise in benefit costs while wage inflation remains relatively stable, and our forecast shows increases in overall ECI inflation of 33/4 percent in both years. Our projection for nonfarm business hourly compensation is for an increase of $41 / 2$ percent in 2008 and $41 / 4$ percent in 2009-in line, on average, with its recent trend.

## Financial Flows and Conditions

After having expanded at an annual rate of 8 percent over the first three quarters of 2007, domestic nonfinancial debt is expected to increase at a 7 percent pace in the fourth quarter and $43 / 4$ percent in 2008 and 2009. This deceleration reflects a projected slowdown in borrowing across all major sectors of the economy except the federal government.

Household borrowing is projected to slow markedly in the fourth quarter, restrained importantly by a reduced rate of mortgage borrowing associated with declining house prices, sharply lower home sales, and the effects of tighter terms and standards on loans. As noted above, our projection assumes that house prices in the aggregate will continue to decline over the forecast period and that home sales will fall further before flattening out in late 2008 and 2009. In addition, we expect standards and terms on mortgages to remain tight for some borrowers at least through next year. Other consumer borrowing is also anticipated to slow in line with the projected deceleration in household spending for durable goods. All told, we expect that, after a rise of 63/4 percent this year, household debt will increase about 3½ percent per year in 2008 and 2009.

Nonfinancial business debt is projected to expand at an annual rate of $93 / 4$ percent in the fourth quarter, only slightly below the pace earlier in the year. In 2008 and 2009, this debt is projected to increase almost 6 percent per year. Net issuance of corporate bonds is expected to post a sizable gain in the fourth quarter, boosted in part by a number of large merger and acquisition deals that have already been completed. But outstanding nonfinancial commercial paper is expected to be flat after net paydowns in the third quarter. The rise in bank lending appears to be moderating, although it remains sizable, in part because banks have not been able to syndicate some previously committed loan agreements to other investors. The resulting bloating of bank balance sheets is expected to crowd out some other business lending by banks, at least over the next few quarters. Still, most of the projected slowing in the overall expansion of nonfinancial business debt in 2008 and 2009 reflects the subsiding of cash-financed mergers and share repurchases. The increase in federal government debt is now estimated to slow from 5 percent in 2007 to about $41 / 2$ percent in 2008 and then rebound in 2009 to almost 6 percent. The debt of state and local governments is projected to decelerate after this year's strong increase of $101 / 2$ percent to an average rate of $63 / 4$ percent over the next two years, as rising interest rates slow issuance for new capital spending and advance refundings. Concerns of capital shortfalls and possible ratings downgrades at bond insurers boosted spreads and
tempered issuance a bit in November. However, we assume that the major insurers should be able to raise additional capital if such funds are needed to avoid a downgrade.

We expect M2 to increase at an annual rate of about $51 / 2$ percent in the fourth quarter. The pickup from the third-quarter pace reflects a shift toward the safe, liquid assets in M2; this shift was associated with financial market jitters as well as the reduction in the opportunity cost of holding money as a result of declines in market rates. We expect the change in the opportunity cost to support a rise of $43 / 4$ percent in M2 in 2008, somewhat faster than the increase in nominal GDP. In 2009, M2 is projected to slow to a pace of 4¼ percent.

## Alternative Simulations

In this section, we explore alternatives to the staff forecast using simulations of the FRB/US model. The first scenario assumes that the downturn in the housing market, and the restraint it imposes on household spending, will prove more severe than in the baseline. The second scenario considers the possibility that, given the developments in capital markets, the supply of credit to businesses and households may be much more restricted than we anticipate. We next consider two upside risks to aggregate demand. The first is the possibility that we have overstated the drag from financial stress on private spending outside of residential investment. For the second, we build on the additional domestic demand of the previous scenario by also assuming that the baseline paths for the dollar and foreign output will result in better export performance than assumed in the baseline. The fifth simulation examines the effects of faster growth of potential output. The sixth scenario presents the implications of firms raising prices more quickly in response to rising costs, thereby limiting the erosion of their profit margins that we project in the baseline. We evaluate each of these scenarios under the assumption that monetary policy responds to the change in the outlook as suggested by an estimated version of the Taylor rule. In the final scenario, we assume that the federal funds rate follows a path implied by quotes from the futures markets.

Greater housing correction. The baseline forecast assumes that the housing slump will intensify: Home prices fall 3 percent per year over the next two years, and home sales and housing starts fall further before flattening out next year and stage only an anemic recovery thereafter. These developments, in turn, restrain consumer spending through standard income and wealth effects. However, we may have underestimated both the magnitude of these consumption effects and the degree to which housing market conditions may continue to deteriorate. In this scenario, the sensitivity of household

## Alternative Scenarios

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

| Measure and scenario | 2007 |  | 2008 |  | 2009 |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | H1 | H2 | H1 | H2 |  |
| Real GDP |  |  |  |  |  |
| Greenbook baseline | 2.2 | 2.5 | 1.0 | 1.6 | 2.1 |
| Greater housing correction | 2.2 | 2.5 | . 7 | 1.2 | 1.7 |
| Credit crunch | 2.2 | 2.5 | -1.3 | . 6 | 2.9 |
| Stronger domestic demand | 2.2 | 2.6 | 1.5 | 1.9 | 2.1 |
| With better export performance | 2.2 | 2.6 | 1.7 | 2.1 | 2.3 |
| More room to grow | 2.2 | 2.5 | 1.5 | 2.3 | 2.9 |
| Greater cost pressure | 2.2 | 2.5 | 1.0 | 1.4 | 1.9 |
| Market-based federal funds rate | 2.2 | 2.5 | 1.1 | 2.0 | 2.9 |
| Unemployment rate ${ }^{1}$ |  |  |  |  |  |
| Greenbook baseline | 4.5 | 4.7 | 4.8 | 4.9 | 5.0 |
| Greater housing correction | 4.5 | 4.7 | 4.8 | 5.0 | 5.3 |
| Credit crunch | 4.5 | 4.7 | 5.1 | 5.5 | 5.4 |
| Stronger domestic demand | 4.5 | 4.7 | 4.7 | 4.7 | 4.8 |
| With better export performance | 4.5 | 4.7 | 4.7 | 4.7 | 4.7 |
| More room to grow | 4.5 | 4.7 | 4.8 | 4.9 | 5.0 |
| Greater cost pressure | 4.5 | 4.7 | 4.8 | 4.9 | 5.1 |
| Market-based federal funds rate | 4.5 | 4.7 | 4.8 | 4.8 | 4.7 |
| Core PCE inflation |  |  |  |  |  |
| Greenbook baseline | 1.9 | 2.0 | 2.0 | 1.9 | 1.9 |
| Greater housing correction | 1.9 | 2.0 | 2.0 | 1.9 | 1.9 |
| Credit crunch | 1.9 | 2.0 | 2.0 | 1.9 | 1.8 |
| Stronger domestic demand | 1.9 | 2.0 | 2.0 | 1.9 | 1.9 |
| With better export performance | 1.9 | 2.0 | 2.0 | 1.9 | 1.9 |
| More room to grow | 1.9 | 2.0 | 1.9 | 1.7 | 1.7 |
| Greater cost pressure | 1.9 | 2.0 | 2.1 | 2.4 | 2.4 |
| Market-based federal funds rate | 1.9 | 2.0 | 2.1 | 2.0 | 2.1 |
| Federal funds rate ${ }^{1}$ |  |  |  |  |  |
| Greenbook baseline | 5.3 | 4.5 | 4.3 | 4.3 | 4.0 |
| Greater housing correction | 5.3 | 4.5 | 4.2 | 4.0 | 3.3 |
| Credit crunch | 5.3 | 4.5 | 3.4 | 2.6 | 3.3 |
| Stronger domestic demand | 5.3 | 4.5 | 4.6 | 4.7 | 4.3 |
| With better export performance | 5.3 | 4.5 | 4.6 | 4.9 | 4.7 |
| More room to grow | 5.3 | 4.4 | 4.2 | 4.1 | 3.8 |
| Greater cost pressure | 5.3 | 4.5 | 4.3 | 4.4 | 4.3 |
| Market-based federal funds rate | 5.3 | 4.2 | 3.6 | 3.1 | 3.1 |

1. Percent, average for the final quarter of the period.
spending to real estate wealth is twice as great as assumed in the baseline, putting this response at the upper end of the range of empirical estimates. In addition, the cumulative decline in nominal home prices is 15 percent rather than 6 percent, cutting an additional
$\$ 21 / 4$ trillion from household net worth by the end of 2009 relative to baseline and eliminating the current overvaluation in house prices suggested by some of the models we follow. Finally, residential investment falls an additional 10 percent relative to baseline because households perceive that the long-term expected capital gains associated with homeownership are appreciably less than we have assumed in the baseline. However, we do not assume that these developments will induce additional disruption to the functioning of the financial system. In this scenario, real GDP rises only 1 percent in 2008 and $1 \frac{134}{4}$ percent in 2009, causing the unemployment rate to reach $5 \frac{1}{4}$ percent. The additional slack is too small and emerges too gradually to have an appreciable effect on inflation over the projection period. In response to weaker real activity, the federal funds rate falls to $31 / 4$ percent at the end of 2009.

Credit crunch. The recent financial market turbulence has put a number of large financial institutions under considerable stress, and these pressures will likely restrain household and business spending through increases in borrowing costs and tighter lending standards. However, the pressures on the balance sheets of these institutions could prove to be more severe than assumed in the baseline, and consequently the financial system may provide significantly less credit than we anticipate. In this scenario, financial market turbulence leads to a credit crunch, which restricts lending considerably more than the baseline forecast. Although the magnitude of the resultant fallout for the real economy is highly uncertain, we assume that, by the second half of next year, the credit crunch directly depresses the level of real aggregate spending $\$ 200$ billion at an annual rate-a decline roughly consistent with the unusual weakness in private spending seen during the "headwinds" period of the early 1990s. Actual spending and production fall even more relative to baseline because of the follow-on effects that include declining payroll employment, falling profits, and a rise in risk spreads on private securities and loans over comparable Treasury yields. As a result, the economy falls into a recession early next year and stays there through the third quarter. Real activity begins to recover thereafter, reflecting an assumed gradual improvement in the functioning of credit markets and a reduction in the federal funds rate to $21 / 2$ percent by the fourth quarter of next year; all told, real GDP in 2009 rises faster than its potential. Under these conditions, the unemployment rate rises steadily over 2008 and peaks a bit above $51 / 2$ percent in the first quarter of 2009 before declining slowly over the remainder of the forecast period. Because the recession is relatively shallow and the monetary easing has the effect of keeping long-run inflation expectations stable, inflation is only a touch below baseline in 2009.

Stronger domestic demand. In the baseline forecast, we have incorporated effects of financial turmoil on business investment and household spending beyond those implied by the interest rate and wealth effects in our standard models. But we may have overstated the magnitude of these financial turmoil effects, especially on activity outside of the housing sector. In this scenario, we remove the drag on consumer and business capital spending that we built into our forecast to account for the effects of financial turmoil. However, we retain our baseline assumptions for the effects of mortgage market disruption on the housing market. In this scenario, real GDP increases almost $1 / 2$ percentage point faster than baseline in 2008. Inflation is little changed as monetary policy is a bit tighter than in the baseline.

Stronger domestic demand with better export performance. In addition to possibly overstating the fallout from recent financial market disruptions outside of housing, we may also be understating the strength in aggregate demand in other areas; for example, demand for exports has been strong of late. This scenario builds on the previous simulation and further assumes that our baseline paths for the exchange rate and foreign activity lead to better export performance than suggested by our models. Specifically, over the next two years exports rise a little faster than their 2007 pace-about 2 percentage points per year faster than baseline. As a result, real GDP expands more than $1 / 2$ percentage point faster than baseline in 2008, and the unemployment rate remains at $43 / 4$ percent through 2009. Monetary policy tightens in response, and the federal funds rate peaks just below 5 percent in the first half of 2009.

More room to grow. The staff's estimate of potential GDP growth is below the consensus among other forecasters. In this scenario, we assume that potential output expands $23 / 4$ percent in 2008 and 2009, about $1 / 2$ percentage point faster than in the baseline. About one-third of the additional economic potential is assumed to come from higher labor force participation, while the rest is the result of faster trend productivity growth. Because financial market participants are assumed to already hold this alternative view of higher potential growth, asset prices are largely unaffected. All told, the revision to projected aggregate demand is roughly equal to the revision in aggregate supply, and resource utilization is little changed from baseline. Because nominal compensation responds slowly to faster productivity growth, unit labor costs are held down for an extended period. As a consequence, core inflation and the nominal federal funds rate are both $1 / 4$ percentage point below the baseline in 2009, leaving the real federal funds rate little changed.

Greater cost pressure. In the baseline projection, firms are not able to fully pass on the labor and energy cost increases they are facing, causing their profit margins to shrink noticeably. However, we may be underestimating the ability of firms to respond to cost pressures by raising prices. In this scenario, we assume that firms pass cost increases to their customers to a greater degree, and as a result, markups decline at about half the rate in the baseline. In turn, this causes core PCE inflation to run at just under $21 / 2$ percent over the second half of 2008 and in 2009. Real activity is little changed in 2008, but in 2009 real GDP increases about $1 / 4$ percentage point less than in the baseline, and the unemployment rate is above 5 percent for most of the year.

Market-based federal funds rate. Quotes from futures markets imply a path for the federal funds rate that declines sharply over the next few quarters and is roughly 1 percentage point below the staff's assumed path from mid-2008 through the end of 2009. In this scenario, the federal funds rate follows the path implied by futures markets. Given our view of the economic fundamentals, the increased stimulus from such a lower path would boost real GDP growth to nearly 3 percent in 2009 and would add $1 / 4$ percentage point to core inflation.

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

| Measure | 2007 | 2008 | 2009 |
| :---: | :---: | :---: | :---: |
| Real GDP <br> (percent change, Q4 to Q4) |  |  |  |
| Projection | 2.3 | 1.3 | 2.1 |
| Confidence interval |  |  |  |
| Greenbook forecast errors | 1.9-2.8 | -.2-2.8 | .7-3.4 |
| FRB/US stochastic simulations | 2.0-2.6 | . $1-2.5$ | .7-3.6 |
| Civilian unemployment rate (percent, Q4) |  |  |  |
| Projection | 4.7 | 4.9 | 5.0 |
| Confidence interval |  |  |  |
| Greenbook forecast errors | 4.6-4.8 | 4.3-5.5 | 4.0-6.0 |
| FRB/US stochastic simulations | 4.6-4.8 | 4.4-5.3 | 4.3-5.6 |
| PCE prices <br> excluding food and energy <br> (percent change, Q4 to Q4) |  |  |  |
| Projection | 2.0 | 2.0 | 1.9 |
| Confidence interval |  |  |  |
| Greenbook forecast errors | 1.7-2.2 | 1.3-2.7 | 1.0-2.9 |
| FRB/US stochastic simulations | 1.9-2.0 | 1.6-2.4 | 1.4-2.6 |
| Federal funds rate (percent, Q4) |  |  |  |
| Projection | 4.5 | 4.3 | 4.0 |
| Confidence interval |  |  |  |
| FRB/US stochastic simulations | 4.5-4.5 | 3.1-5.4 | 2.5-5.7 |

Note. Shocks underlying FRB/US stochastic simulations are randomly drawn from the 1986-2005 set of model equation residuals. Intervals derived from Greenbook forecast errors are based on the 1986-2005 set of Greenbook historical errors.

## Forecast Confidence Intervals and Alternative Scenarios under the Assumption that Monetary Policy Follows an Estimated Taylor Rule

Confidence Intervals based on FRB/US Stochastic Simulations

Greenbook baseline<br>$\square$ Greater housing correction<br>$\square$ Credit crunch

Stronger domestic demand (SDD)
$\square$ SDD with better export performance
$\square$ More room to grow

$\square$ Greater cost pressure<br>$\square$ Market-based federal funds rate

Real GDP


PCE Prices excluding Food and Energy


Unemployment Rate


Federal Funds Rate


Class II FOMC - Restricted (FR)

## Evolution of the Staff Forecast

Change in Real GDP


Unemployment Rate


Change in PCE Prices excluding Food and Energy




1. Level, except for two-quarter and four-quarter intervals.

Class II FOMC
Restricted（FR）
Changes in Real Gross Domestic Product and Related Items
（Percent，annual rate except as noted）

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|  | $\underset{\sigma}{\mathrm{o}}$ | $\overline{\mathrm{N}}$ | in NT. | $\stackrel{+}{-}+\underset{\rightarrow}{+}$ | $7 \div$ | NサNNOO． | No． N $^{\text {O }}$ | NソT－OT． | $\because ?$ |
|  | $\overline{0}$ | $9$ | $\underset{\sim}{\sim} \underset{\sim}{\infty}$ |  | $7 \cdot$ |  | $\rightarrow \underset{i}{T}$ | ヘง－TO－ | ก フ．ソo． |
| $\stackrel{\infty}{\infty}$ | $\pm$ | No | $\leftrightarrows \infty=$ | $\underset{\sim}{\sim} \because \because$ | $\mathrm{N}$ | - T - T O O | $\underset{i}{\cdots} \rightarrow \underset{i}{0}$ | กัーTO－ | 0000 |
|  | $\underset{\sim}{\infty}$ | $\because 9$ | $\underset{\sim}{\sim} \underset{\sim}{\infty}$ |  | YO. | O．YO－O． | プの？ | nn－TO－ | $\prod_{1} \prod_{1}$ |
|  | $\approx$ | $\underset{\sim}{+}$ | $\bigcirc \underset{\sim}{\square}+9$ |  | $e_{i}{\underset{i}{i}}^{2}$ | O．YOMOO． | $\underset{-}{\sim} \because 9$ | ナ． | $n_{i} 0_{i} n_{i}$ |
|  | $\sigma$ | re? | $\forall \infty,$ | $0.0-\infty$ | $\cdots$ | －－Toob | nom $0_{i}$ | ナ． | กT．No． |
| $\stackrel{\rightharpoonup}{\mathrm{e}}$ | $\pm$ | $-\underset{\sim}{\tau}$ | ナ OT？ | $0 \underset{\sim}{\infty} \uparrow$ | $\stackrel{n}{i}$ | $\cdots \cdots \cdots$ サー． | －O9\％ | no n ¢ On | $\forall_{i} 0 m_{1}$ |
|  | $\approx$ | $\begin{aligned} & 0 m \\ & \operatorname{nin} \end{aligned}$ | $\underset{\sim}{\circ} \dot{\sim}$ | $\underset{\sim}{n} \underset{\sim}{n}$ | $\underset{T}{\sim}$ | Frnnnー | $\underset{\sim}{\sim} \underset{i}{\sim}$ | $\infty$ on nom | $0 m 00$ |
|  | $\approx$ | $\begin{aligned} & \infty \\ & \dot{n} \dot{\sim} \end{aligned}$ | $\stackrel{0}{0} \stackrel{n}{n}=$ | $\underset{-1}{0} \rightarrow T$ | $\varphi_{i} \varphi_{i}$ | $\rightrightarrows \rightrightarrows \cdots n \infty \infty$ |  |  | ヘソ ？－ |
|  | $\bar{\sigma}$ | $0 \cdot$ |  | $\left.\begin{array}{l} 0 \\ \stackrel{i}{\mathrm{~N}} \end{array}\right) \quad \underset{\sim}{?}$ | $q_{i} 9$ | ソ บ OO．ソ ¢ | $n_{i} n-e_{i}$ | $\overbrace{i} \overbrace{i} ?$ | $\wedge_{i}{\underset{i}{*}}^{\text {N }}$ |
| E |  | $\begin{aligned} & \text { Real GDP } \\ & \text { Previous } \end{aligned}$ |  |  | $\begin{aligned} & \text { Residential investment } \\ & \text { Previous } \end{aligned}$ |  |  |  |  |


| Item | 2007 |  |  |  | 2008 |  |  |  | 2009 |  |  |  | $2007{ }^{1}$ | $2008{ }^{1}$ | $2009{ }^{1}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 |  |  |  |
| GDP chain-wt. price index | 4.2 | 2.6 | . 9 | 1.8 | 2.5 | 2.2 | 2.0 | 1.9 | 2.1 | 2.0 | 1.9 | 1.9 | 2.4 | 2.2 | 2.0 |
| Previous | 4.2 | 2.6 | . 5 | . 8 | 2.7 | 2.2 | 2.1 | 2.0 | 2.2 | 2.2 | 2.1 | 2.0 | 2.0 | 2.3 | 2.1 |
| PCE chain-wt. price index | 3.5 | 4.3 | 1.7 | 3.5 | 2.5 | 2.0 | 1.8 | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 | 3.2 | 2.0 | 1.7 |
| Previous | 3.5 | 4.3 | 1.5 | 2.7 | 2.3 | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 | 3.0 | 1.8 | 1.7 |
| Energy | 16.1 | 51.3 | -6.7 | 20.8 | 8.5 | 1.1 | -. 7 | -1.4 | -1.5 | -1.4 | -1.1 | -1.0 | 18.6 | 1.8 | -1.3 |
| Previous | 16.1 | 51.3 | -6.8 | 11.2 | 8.2 | -1.4 | -2.0 | -2.6 | -2.4 | -2.3 | -2.1 | -1.8 | 16.1 | . 4 | -2.1 |
| Food | 4.8 | 4.7 | 4.7 | 4.1 | 2.8 | 2.1 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 4.6 | 2.2 | 2.0 |
| Previous | 4.8 | 4.7 | 4.7 | 3.7 | 2.2 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 4.5 | 2.1 | 2.1 |
| Ex. food \& energy | 2.4 | 1.4 | 1.8 | 2.2 | 2.1 | 2.0 | 2.0 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 2.0 | 2.0 | 1.9 |
| Previous | 2.4 | 1.4 | 1.6 | 2.0 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.8 | 1.9 | 1.9 |
| CPI | 3.8 | 6.0 | 1.9 | 4.0 | 2.9 | 2.1 | 1.9 | 1.7 | 1.8 | 1.8 | 1.8 | 1.8 | 3.9 | 2.2 | 1.8 |
| Previous | 3.8 | 6.0 | 1.9 | 3.2 | 2.8 | 1.9 | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 | 3.7 | 2.0 | 1.7 |
| Ex. food \& energy | 2.3 | 1.9 | 2.5 | 2.3 | 2.3 | 2.2 | 2.2 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.3 | 2.2 | 2.1 |
| Previous | 2.3 | 1.9 | 2.5 | 2.3 | 2.2 | 2.2 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.3 | 2.1 | 2.1 |
| ECI, hourly compensation ${ }^{2}$ | 2.3 | 3.5 | 3.1 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.6 | 3.2 | 3.7 | 3.7 |
| Previous ${ }^{2}$ | 2.3 | 3.5 | 3.8 | 3.8 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.6 | 3.4 | 3.7 | 3.7 |
| Nonfarm business sector |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Output per hour Previous | . 7 | 2.2 2.0 | 6.3 4.1 | .2 1.3 | .5 1.6 | 1.5 1.8 | 1.6 | 1.8 | 2.0 2.0 | 2.0 2.0 | 1.9 1.8 | 1.9 1.8 | 2.3 2.0 | 1.3 1.8 | 1.9 1.9 |
| Compensation per hour | 5.9 | 1.0 | 4.2 | 3.6 | 4.1 | 4.6 | 4.6 | 4.6 | 4.4 | 4.3 | 4.2 | 4.1 | 3.7 | 4.5 | 4.2 |
| Previous | 5.9 | 4.3 | 4.5 | 4.3 | 4.2 | 4.6 | 4.6 | 4.5 | 4.4 | 4.4 | 4.3 | 4.3 | 4.7 | 4.5 | 4.3 |
| Unit labor costs | 5.2 | -1.1 | -2.0 | 3.4 | 3.6 | 3.1 | 2.9 | 2.7 | 2.3 | 2.3 | 2.3 | 2.1 | 1.3 | 3.1 | 2.3 |
| Previous | 5.2 | 2.2 | . 4 | 2.9 | 2.6 | 2.7 | 2.6 | 2.5 | 2.3 | 2.3 | 2.4 | 2.4 | 2.7 | 2.6 | 2.4 |

[^2]Class II FOMC
Restricted（FR）
Other Macroeconomic Indicators
December 5， 2007

|  | $\begin{aligned} & \overline{2} \\ & \hat{8} \\ & \text { N人 } \end{aligned}$ | $\bigcirc \underset{i n+i}{\bigcirc \infty} \underset{+}{+}-$ | nのヘNo． ivingio． | تio | Fina | $\because \underset{\varrho}{n}$ | $\underset{\sim}{q} \bar{m}$ | $\stackrel{n}{n}^{-}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & \infty \\ & \underset{N}{\infty} \\ & \hline \end{aligned}$ | $\bigcirc \underset{\forall}{\Omega} \underset{\dot{j}}{\infty} \underset{i}{+}$ | Noonno． $\operatorname{iNVNO}$ | $=9$ | $n-\underset{n}{n} \text { n }$ | oio | òn | $n^{n}$ |
|  | $\stackrel{\rightharpoonup}{\hat{O}}$ | $\underset{\sim}{\underset{\gamma}{i}} \underset{\sim}{n} n$ | ononot． ivivio $\dot{\infty}$ | $\underset{-}{+}$ | $\stackrel{\infty}{\infty} \underset{\sim}{N} \underset{\sim}{n}$ | $\stackrel{n}{\sim}$ | ${\underset{1}{N}}^{\circ}$ | ${\underset{\mathrm{i}}{ }}^{6}$ |
| $\begin{aligned} & 2 \\ & 8 \\ & 8 \\ & 1 \end{aligned}$ | $\pm$ | $\because \underset{i n}{\bigcirc \rightarrow \infty} \underset{i}{\infty}-$ | $\bigcirc 0 \infty$ N $\infty$ Nウヘウণ | تi | $\underset{\sim}{0} \underset{\sim}{0} \underset{\sim}{n}$ | $9 ?$ | $\begin{aligned} & 8 . \\ & e_{1} \end{aligned}$ | $n^{n}$ |
|  | $\hat{\theta}$ | $\cdots \underset{i n}{\bigcirc} \underset{\sim}{\infty} \underset{i}{+}-$ | nor No 0 ？ NヘNウo̊ | تin | Fin n n o | $\cdots \underset{0}{\tau}$ | $\underset{\sim}{q} \vec{r}$ | $n^{n}$ |
|  | $\approx$ | $\stackrel{N}{\bullet} \underset{\sim}{\infty} \underset{i}{\infty} \underset{i}{+}$ | $\cdots \cdots, \sigma_{\infty} \infty$ NヘN No | Fio |  | $\underset{\sim}{*} \because$ | $\underset{\sim}{\sim} \underset{\sim}{\sim}$ | $\stackrel{n}{\mathrm{~N}}^{-}$ |
|  | $\overline{0}$ | $\stackrel{\ddots}{+} \underset{+}{\infty} \underset{i}{+}$ | $\infty \rightarrow 0$ ナ $\infty$ ． <br>  | Fio | $\bigcirc \underset{\sim}{\circ} \underset{\sim}{n} \times \underset{r}{n}$ | in | $\underset{\sim}{\ddagger}$ | $\stackrel{n}{\mathrm{~N}}^{-}$ |
| $\stackrel{\infty}{\infty}$ | $\pm$ | $\neg \underset{\forall}{-\infty} \underset{+}{\infty}+0$ | nNoN N No | $=0$ | N．nn on $\dot{\infty}$ ヘ | no | on | $\stackrel{n}{\mathrm{i}}^{-}$ |
|  | $\underset{\sigma}{\vartheta}$ | $\underset{\sim}{\gamma} \underset{+}{+} \rightarrow$ |  | $=\infty$ | $\stackrel{n}{n} \stackrel{+}{i}$ | $\stackrel{\ominus}{0}$ | ${\underset{i}{2}}^{2}$ | $\stackrel{\mathrm{U}}{\mathrm{U}}^{n}$ |
|  | $\underset{O}{\sim}$ | $\underset{\sim}{\infty} \underset{\sim}{\sim} \rightarrow$ |  | تi | $\stackrel{N}{\circ} \mathrm{~N} \underset{\sim}{\mathrm{~N}} \mathrm{~J}$ | $\underset{7}{7}$ | $\underset{i}{N}$ | $\mathrm{i}^{m}$ |
|  | $2$ |  |  | $=0$ | $\underset{N}{N} \underset{\sim}{n}$ | $\stackrel{0}{0} \underset{=}{ }$ | $\underset{\sim}{\infty} \underset{\sim}{\infty}$ | $\begin{aligned} & \stackrel{i}{U}^{( } \end{aligned}$ |
| $\stackrel{\substack{\mathrm{e} \\ \text { N }}}{ }$ | $\pm$ | $\forall \underset{\forall}{\forall} \underset{\sim}{n} n$ | $\wedge_{i}{\underset{\sim}{1}}_{0}^{\infty} \infty$ | No. |  | $\stackrel{0}{0} \dot{\bullet} \dot{=}$ | $\underset{\sim}{n} \underset{1}{N}$ | ${\underset{\mathrm{i}}{ }}^{\circ}$ |
|  | $\stackrel{\omega}{\infty}$ | $\because \underset{\sim}{\forall} \underset{\sim}{\top}$ | $\underset{\sim}{+} \underset{\sim}{+} \underset{+}{\circ} \underset{\infty}{\circ} \underset{\infty}{\infty}$ | $\cdots$ | $\cdots \underset{+}{\sim} \stackrel{m}{+}$ | $\underset{i}{*} \underset{\sim}{\circ}$ | ${\underset{\sim}{N}}_{\infty}^{\infty}$ | $\stackrel{\sim}{i} \underset{\sim}{\tau}$ |
|  | $\underset{O}{\mathrm{O}}$ | $\stackrel{n}{\sim} \stackrel{n}{\sim}+.$ | nnmmmm लir $\dot{\sim} \dot{\infty}$ | $\because \underset{-}{0}$ | $\underbrace{0}_{0} \infty \quad \infty \quad \cdots$ | $\stackrel{\infty}{\infty} \dot{\sim}$ | $\hat{N}_{1}^{m}$ | $\infty$ |
|  | $\overline{0}$ | $\stackrel{n}{\sim}$ |  | $\because \underset{\sim}{\bullet}$ | の $t+00$ <br> ギゥi－－－ |  | ${\underset{N}{N}}^{9}$ | $\begin{aligned} & \infty \\ & \dot{\sim}-1 \end{aligned}$ |
|  | E |  |  |  |  |  |  |  |

[^3]3．Percent，annual values are for the fourth quarter of the year indicated．
4．Percent difference between actual and potential GDP；a negative number indicates that the economy is operating below potential．（In previous Annual values are for the fourth quarter of the year indicated．
5．Percent change，annual rate．
7．Percent change，annual rate，with inventory valuation and capital consumption adjustments． 8．Billions of dollars，annual values are annual averages．

| Item | Fiscal year |  |  |  | 2007 |  |  |  | 2008 |  |  |  | 2009 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $2006{ }^{\text {a }}$ | $2007{ }^{\text {a }}$ | 2008 | 2009 | Q1 ${ }^{\text {a }}$ | Q2 ${ }^{\text {a }}$ | Q3 ${ }^{\text {a }}$ | Q4 ${ }^{\text {a }}$ | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 |
| Unified budget Not Neasonally adjust |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Receipts ${ }^{1}$ | 2407 | 2568 | 2632 | 2750 | 547 | 824 | 622 | 594 | 554 | 838 | 646 | 633 | 570 | 869 | 678 | 653 |
| Outlays ${ }^{1}$ | 2655 | 2730 | 2892 | 3034 | 725 | 687 | 664 | 725 | 732 | 725 | 711 | 763 | 767 | 761 | 743 | 798 |
| Surplus/deficit ${ }^{1}$ | -248 | -163 | -261 | -284 | -178 | 137 | -42 | -131 | -178 | 114 | -65 | -129 | -197 | 107 | -65 | -145 |
| Previous | -248 | -163 | -217 | -245 | -178 | 137 | -42 | -118 | -172 | 126 | -53 | -116 | -193 | 118 | -54 | -132 |
| On-budget | -435 | -344 | -456 | -485 | -212 | 53 | -49 | -198 | -202 | 22 | -78 | -201 | -219 | 11 | -76 | -219 |
| Off-budget | 186 | 181 | 195 | 201 | 34 | 85 | 7 | 67 | 24 | 91 | 13 | 71 | 22 | 96 | 11 | 74 |
| Means of financing |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Borrowing | 237 | 206 | 211 | 302 | 152 | -110 | 106 | 103 | 145 | -102 | 65 | 124 | 186 | -78 | 69 | 139 |
| Cash decrease | -16 | -23 | 40 | 0 | 25 | -19 | -50 | 30 | 19 | -14 | 4 | 10 | 15 | -25 | 0 | 10 |
| Other ${ }^{2}$ | 28 | -20 | 10 | -18 | 1 | -8 | -14 | -3 | 14 | 3 | -5 | -5 | -5 | -5 | -5 | -5 |
| Cash operating balance, end of period | 52 | 75 | 35 | 35 | 6 | 25 | 75 | 45 | 25 | 39 | 35 | 25 | 10 | 35 | 35 | 25 |
| NIPA federal sector |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Receipts | 2437 | 2635 | 2731 | 2811 | 2620 | 2670 | 2689 | 2700 | 2722 | 2740 | 2760 | 2777 | 2796 | 2822 | 2850 | 2877 |
| Expenditures | 2685 | 2844 | 3003 | 3148 | 2838 | 2877 | 2917 | 2937 | 3011 | 3012 | 3051 | 3086 | 3140 | 3165 | 3200 | 3237 |
| Consumption expenditures | 798 | 843 | 901 | 941 | 830 | 850 | 867 | 878 | 900 | 909 | 918 | 925 | 939 | 946 | 954 | 960 |
| Defense | 533 | 570 | 616 | 644 | 556 | 574 | 589 | 598 | 614 | 622 | 629 | 634 | 643 | 648 | 653 | 656 |
| Nondefense | 266 | 273 | 285 | 297 | 274 | 276 | 278 | 280 | 286 | 287 | 289 | 291 | 296 | 299 | 301 | 304 |
| Other spending | 1887 | 2001 | 2101 | 2206 | 2008 | 2027 | 2050 | 2059 | 2111 | 2102 | 2133 | 2161 | 2201 | 2218 | 2246 | 2277 |
| Current account surplus | -248 | -209 | -272 | -336 | -219 | -207 | -228 | -237 | -289 | -271 | -291 | -309 | -344 | -342 | -349 | -360 |
| Gross investment | 117 | 121 | 127 | 131 | 117 | 120 | 123 | 124 | 126 | 128 | 129 | 130 | 131 | 131 | 132 | 132 |
| Gross saving less gross investment ${ }^{3}$ | -262 | -220 | -285 | -348 | -227 | -216 | -240 | -249 | -301 | -284 | -303 | -320 | -356 | -354 | -360 | -370 |
| Fiscal indicators ${ }^{4}$ <br> High-employment (HEB) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| surplus/deficit | -282 | -245 | -290 | -331 | -241 | -236 | -278 | -268 | -308 | -285 | -297 | -308 | -339 | -336 | -343 | -353 |
| Change in HEB, percent of potential GDP | -0.5 | -0.4 | 0.2 | 0.2 | 0.1 | -0.1 | 0.3 | -0.1 | 0.3 | -0.2 | 0.1 | 0.1 | 0.2 | -0.0 | 0.0 | 0.0 |
| Fiscal impetus (FI), percent of GDP | 0.3 | 0.2 | 0.2 | 0.1 | -0.0 | 0.1 | 0.1 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Previous | 0.3 | 0.2 | 0.2 | 0.1 | -0.0 | 0.1 | 0.1 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 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
[^4]
## Staff Projections of Federal Sector Accounts and Related Items

| Class II FOMC <br> Restricted (FR) |  | Change in Debt of the Domestic Nonfinancial Sectors (Percent) |  |  |  |  | December 5, 2007 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Households |  |  |  |  |  |
| Period ${ }^{1}$ | Total | Total | Home mortgages | Consumer credit | Business | State and local governments | Federal government | Nominal GDP |
| Year |  |  |  |  |  |  |  |  |
| 2002 | 7.3 | 10.9 | 13.3 | 5.7 | 2.4 | 11.0 | 7.6 | 3.6 |
| 2003 | 8.1 | 11.5 | 14.2 | 5.2 | 2.6 | 8.3 | 10.9 | 5.9 |
| 2004 | 8.9 | 11.3 | 13.9 | 5.5 | 5.8 | 7.4 | 9.0 | 6.5 |
| 2005 | 9.1 | 10.7 | 12.6 | 4.3 | 7.8 | 10.2 | 7.0 | 6.3 |
| 2006 | 8.8 | 10.3 | 11.3 | 4.5 | 9.6 | 8.2 | 3.9 | 5.4 |
| 2007 | 8.1 | 6.8 | 7.0 | 5.4 | 10.8 | 10.6 | 5.1 | 4.8 |
| 2008 | 4.7 | 3.6 | 3.3 | 3.8 | 5.9 | 7.0 | 4.5 | 3.5 |
| 2009 | 4.7 | 3.3 | 3.1 | 3.1 | 5.7 | 6.5 | 5.9 | 4.1 |
| Quarter |  |  |  |  |  |  |  |  |
| 2007:1 | 8.0 | 7.1 | 7.8 | 4.7 | 9.3 | 11.2 | 6.7 | 4.9 |
| 2 | 7.2 | 7.6 | 8.0 | 5.3 | 10.7 | 10.3 | -1.4 | 6.6 |
| 3 | 8.9 | 6.9 | 6.8 | 6.1 | 11.9 | 8.4 | 8.8 | 5.9 |
| 4 | 7.1 | 4.9 | 4.7 | 5.0 | 9.7 | 11.0 | 6.2 | 1.9 |
| 2008:1 | 5.4 | 4.1 | 3.8 | 4.5 | 6.6 | 7.1 | 5.8 | 3.2 |
| 2 | 3.9 | 3.6 | 3.3 | 3.9 | 5.8 | 7.0 | -. 7 | 3.6 |
| 3 | 4.5 | 3.3 | 3.0 | 3.4 | 5.4 | 6.7 | 5.3 | 3.5 |
| 4 | 4.8 | 3.2 | 2.9 | 3.2 | 5.3 | 6.6 | 7.5 | 3.7 |
| 2009:1 | 5.0 | 3.1 | 2.8 | 3.1 | 5.5 | 6.5 | 8.6 | 4.0 |
| 2 | 3.8 | 3.1 | 2.9 | 3.0 | 5.6 | 6.4 | 1.1 | 4.2 |
| $3$ | $4.6$ | 3.3 | 3.1 | 3.0 | 5.6 | 6.3 | 5.3 | 4.1 |
| 4 | 5.2 | 3.6 | 3.6 | 3.0 | 5.5 | 6.2 | 8.2 | 4.0 |

Note. Quarterly data are at seasonally adjusted annual rates. 1. Data after 2007: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. 2.6.3 FOF
Class II FOMC
Flow of Funds Projections: Highlights


[^5]
## Class II FOMC—Restricted (FR)

## International Developments

Conditions in financial markets abroad deteriorated over the intermeeting period as concerns about the U.S. housing sector and exposure to mortgage-related assets intensified. In advanced foreign economies, term money market yields rose, sovereign bond yields dropped, and equity indexes declined. Recent indicators suggest that total foreign GDP growth will slow from a surprisingly strong rate of $41 / 2$ percent in the third quarter to $23 / 4$ percent in the current quarter. Foreign growth is expected to remain near this pace in early 2008 before picking up to a rate of $31 / 4$ percent thereafter. This outlook, which is a little softer over the next year than we previously projected, reflects the reduced pace of U.S. activity and, for the advanced foreign economies, larger and morepersistent effects from the turmoil in financial markets. Although we have seen little evidence pointing to a more substantial slowing of activity abroad, such an outcome remains an important risk.

## Summary of Staff Projections

(Percent change from end of previous period except as noted, s.a.a.r.)

| Indicator | 2007 |  | Projection |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | H1 | Q3 | $\begin{gathered} \text { 2007: } \\ \text { Q4 } \end{gathered}$ | 2008 |  | 2009 |
|  |  |  |  | H1 | H2 |  |
| Foreign output | 4.3 | 4.5 | 2.8 | 2.9 | 3.2 | 3.2 |
| October GB | 4.3 | 3.5 | 3.1 | 3.2 | 3.3 | 3.2 |
| Foreign CPI | 3.0 | 4.0 | 3.7 | 2.4 | 2.4 | 2.4 |
| October GB | 2.9 | 4.0 | 2.6 | 2.4 | 2.4 | 2.4 |
|  | Contribution to U.S. real GDP growth (percentage points) |  |  |  |  |  |
| U.S. net exports | 0.4 | 1.4 | 0.1 | 0.7 | 0.3 | 0.1 |
| October GB | 0.4 | 1.3 | 0.0 | 0.6 | 0.2 | 0.0 |

Note. Change for year measured as Q4/Q4; half-years are Q2/Q4 or Q4/Q2.
Oil prices have been quite volatile since we completed the October Greenbook. Spot prices spiked to record highs and then reversed course to register little net change. Futures prices for delivery in 2009, however, have moved up about $\$ 8$ per barrel. Over the same period, the nominal trade-weighted exchange value of the dollar has declined about $1 / 2$ percent. Accordingly, our starting point for the broad real dollar is a bit lower than in the previous projection, and we continue to project modest further depreciation.

The lower path of the dollar, along with the downward revision to U.S. GDP growth, results in a somewhat more positive trajectory for the U.S. external sector than in the previous forecast. After having contributed more than $1 \frac{1}{4}$ percentage points to U.S. GDP growth in the third quarter, real net exports are expected to contribute 0.1 percentage point this quarter as export growth moderates. Averaging through the quarterly volatility, real net exports are projected to continue to rise in 2008 and 2009. The U.S. current account deficit is projected to average about $\$ 820$ billion this quarter and next before declining to $\$ 730$ billion in 2009. As a share of GDP, the current account deficit declines from nearly 6 percent at present to about 5 percent in 2009.

## Oil Prices

The spot price of West Texas intermediate (WTI) crude oil hit a record high just short of $\$ 100$ per barrel in mid-November amid heightened supply concerns. By December 4, the spot price had fallen to a bit below $\$ 90$ on increasing doubts about the strength of the U.S. economy. On net, the spot price of WTI has risen only about $\$ 2$ per barrel since we closed the October Greenbook. Futures prices, however, have moved up significantly more. We now project that the price of WTI will average $\$ 90$ per barrel in the current quarter and then gradually decline to a little less than $\$ 85$ by the end of 2009. Compared with the previous Greenbook, this projection is about $\$ 6$ per barrel higher in 2008 and \$8 higher in 2009.

The higher path for oil prices appears to reflect intensified concerns about supply. NonOPEC oil production has fallen short of expectations this year, thus continuing its disappointing performance of recent years, and OPEC remains reluctant to boost production significantly; at today's meeting, the cartel decided not to increase production. These supply factors have been in play for some time now, but many industry insiders and observers have recently struck a more pessimistic tone regarding the prospects for global oil production, both in the near term and further out. In addition, oil prices have been pressured upward by concerns about declining inventories, some disruptions to oil shipments, and the depreciation of the dollar.

## International Financial Markets

After some improvements in October, foreign financial markets, like those in the United States, came under renewed stress as concerns about credit losses and asset write-downs intensified. Market liquidity deteriorated as spreads of term interbank rates over overnight index swap rates rose substantially for the dollar and sterling and more moderately for the euro; the widening of these spreads was driven in part by year-end
funding pressures. The amount of outstanding asset-backed commercial paper issued in Europe declined further. Yields on long-term sovereign bonds declined 10 to 45 basis points in the larger advanced foreign economies, as financial uncertainties boosted demand for safer assets.

Major stock indexes in Europe, Japan, and Canada dropped 5 percent to 8 percent over the intermeeting period. Bank stocks were hit particularly hard by the recent turmoil in financial markets. Emerging-market equity prices also fell sharply on balance, but generally remain above the levels that prevailed in early summer, prior to the onset of the market turmoil.

The trade-weighted exchange value of the dollar dropped sharply in the period between the completion of the October Greenbook and the October FOMC meeting; most of the movement was against the major foreign currencies. Subsequently, however, the dollar has registered little change on balance. Since the time of our previous projection, the dollar has depreciated on net against the euro and yen but has appreciated against the Canadian dollar. Among our other important trading partners, the dollar has weakened somewhat against the Chinese renminbi and other emerging Asian currencies, but it has strengthened relative to the Mexican peso and Brazilian real. The net result of these changes, along with estimated changes in prices here and abroad, is a $3 / 4$ percent downward revision to the starting point of our path for the broad real dollar. We continue to project a modest rate of depreciation for the broad real dollar over the forecast period.
. The Desk did not intervene during the period
for the accounts of the System or the Treasury.

## Advanced Foreign Economies

Real GDP in the advanced foreign economies grew at an annual rate of 3 percent in the third quarter. This figure is $3 / 4$ percentage point higher than estimated in the October Greenbook, reflecting unexpectedly strong growth in Canada and Japan. We project that real GDP growth in the advanced foreign economies will step down to $1 \frac{1}{4}$ percent in the current and next two quarters, consistent with the tenor of recent indicators, including retail sales in Canada and the euro area and surveys of purchasing managers in Europe. The decline in growth is due in part to the lagged effects of previous interest rate hikes and the projected slowdown in U.S. growth. It also reflects our view that stresses in financial markets will have a negative effect on economic activity, although the size of
the effect remains highly uncertain. By the second half of 2008, real GDP growth is projected to edge up to a 2 percent pace, a rate close to trend.

Our outlook for growth is somewhat lower in the current quarter and in 2008 than it was in the previous Greenbook. The downward revision results from the weaker projection for U.S. growth and the recent worsening of financial market conditions; we now believe that the effects of the financial turmoil will be larger and more protracted than we previously assumed.

The inflation outlook for these economies is slightly higher than in the October Greenbook. Factors pushing up our projection include the higher path of oil prices and, in some countries, higher food prices, as well as higher-than-expected readings on core inflation in the euro area. We project that four-quarter inflation for the advanced foreign economies will rise to around 2 percent in the current quarter but slip back to near $11 / 2$ percent by the end of next year, as food and energy prices level out. Japanese inflation, however, is expected to rise to just above zero this quarter and to about $1 / 2$ percent by 2009.

The combination of rising inflation and softening output growth creates a challenge for central banks. The Bank of Canada lowered its policy rate 25 basis points to 4.25 percent on December 4; we assume no further moves in Canada over the forecast period. We assume that the Bank of England will lower its official interest rate a cumulative 50 basis points in the near term but that the European Central Bank will keep its policy rate on hold at 4 percent. For the Bank of Japan, we have delayed assumed interest rate hikes but left the endpoint in 2009 unchanged at 1.25 percent.

## Emerging Market Economies

We see little evidence to date that the turmoil in financial markets has affected economic activity in the emerging market economies. We estimate that real GDP grew at an annual rate of $61 / 2$ percent in the third quarter. This estimate is $11 / 4$ percentage points above that in the October Greenbook, as GDP data in a number of economies came in above expectations. For the current quarter, we see growth moderating to $4 \frac{1}{4}$ percent, down somewhat from our previous projection, as we expect some payback from the strong third-quarter performance. By the second half of next year, real GDP growth rises to about a 5 percent pace, little changed from the previous outlook.

For emerging Asia, we estimate that real GDP growth slowed to $7 \frac{1}{4}$ percent in the third quarter. We expect growth to slow further in the current quarter and to remain near 6 percent over the forecast period. According to staff estimates, growth in China stepped down considerably in the third quarter, to $81 / 4$ percent, as the trade surplus narrowed and investment decelerated. We expect Chinese GDP to expand at a 9 percent pace in the current quarter, a little lower than our previous forecast because of some moderation in exports and industrial production for October, and to accelerate slightly in 2008 and 2009. Elsewhere in emerging Asia, real GDP growth also appears to have moderated in the third quarter, to a still-strong pace of 7 percent. For the forecast period, growth is expected to step down to about 5 percent, a pace closer to trend, reflecting some softening in demand for the region's exports.

For Latin America, we estimate that real GDP expanded at an annual rate of 53/4 percent in the third quarter, about 2 percentage points higher than in the October Greenbook. This revision primarily reflects surprisingly strong data for Mexico, where real GDP rose at a 6 percent rate on vigorous activity in the services and construction sectors. We expect growth in Latin America to dip to $21 / 2$ percent in the current quarter and then rebound to about $31 / 2$ percent in 2008 and 2009. This contour is primarily driven by the forecast for Mexico, where we expect some payback from the strong third quarter as well as less stimulus from the U.S. manufacturing sector in the current quarter.

Four-quarter inflation in the emerging market economies jumped to $41 / 2$ percent in the third quarter because of higher food prices. Additional increases in food prices, related to adverse weather in Asia, along with the upward revision to oil prices, have led us to mark up our inflation projection to about 5 percent through the first half of next year.
Thereafter, inflation falls back to $31 / 4$ percent. This pattern is most pronounced in China, where four-quarter inflation, boosted by higher vegetables prices, is estimated to have reached $61 / 2$ percent in the current quarter.

## Prices of Internationally Traded Goods

We estimate that core import prices will rise at an annual rate of $21 / 2$ percent in the current quarter, slightly more slowly than in the third quarter. Core import prices rose briskly in October; prices for imported foods once again rose sharply, and prices for imported metals rebounded from a September decline. However, we do not expect further large increases in these categories, as spot commodity prices for agricultural products have leveled off on average, and spot prices for metals have fallen.

For the first quarter of next year, we expect core import prices to rise at a $2^{1 ⁄ / 4}$ percent pace, pushed up by the recent decline of the dollar, and then to decelerate to less than a 1 percent pace as the dollar's effect quickly wanes. The subdued inflation outlook reflects the projected slowing of the rate of depreciation of the dollar and, consistent with futures markets, the basically flat path for commodities prices. Compared with the October Greenbook, this forecast is little changed, as the effect of the lower value of the dollar is offset by the lower path of commodity prices.

## Staff Projections of Selected Trade Prices

(Percent change from end of previous period excepted as noted; s.a.a.r.)

| Trade category | 2007 |  | Projection |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | H1 | Q3 | $\begin{gathered} \text { 2007: } \\ \text { Q4 } \end{gathered}$ | 2008 |  | 2009 |
|  |  |  |  | H1 | H2 |  |
| Imports |  |  |  |  |  |  |
| Core goods | 3.1 | 2.8 | 2.5 | 1.5 | 0.8 | 0.9 |
| October GB | 3.1 | 2.9 | 2.7 | 1.5 | 0.8 | 0.7 |
| Oil (dollars per barrel) | 63.84 | 70.33 | 82.40 | 83.56 | 82.04 | 80.32 |
| October GB | 63.84 | 70.56 | 81.92 | 78.19 | 75.15 | 71.80 |
| Exports |  |  |  |  |  |  |
| Core goods | 6.7 | 4.4 | 5.5 | 1.5 | 0.7 | 0.8 |
| October GB | 6.7 | 3.1 | 2.4 | 1.0 | 0.5 | 0.7 |

Note. Prices for core exports and nonfuel core imports, which exclude computers and semiconductors, are on a NIPA 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.

We project that core export prices will rise at an annual rate of $51 / 2$ percent in the current quarter, a pace faster than in the third quarter and well above the rate in the previous forecast. Core export prices rose surprisingly sharply in October; soaring prices for agricultural products and higher prices for petroleum products accounted for most of the increase, but prices for finished goods also rose moderately.

Over the next several quarters, we project that core export price inflation will slow, leveling out at an annual rate below 1 percent in the second half of next year. The slowing is due primarily to the waning effects of the recent increases in prices for oil and various agricultural products. Further out, core export prices rise at the low rate of inflation projected for domestically produced goods.

## Trade in Goods and Services

Real net exports added more than $1 \frac{1}{4}$ percentage points to U.S. GDP growth in the third quarter, as exports surged and imports increased only moderately. In the current quarter, we project that real net exports will contribute 0.1 percentage point to GDP growth as exports decelerate to a still-robust pace. Net exports are expected to add $1 / 2$ percentage point to growth in 2008 and a little less than $1 / 4$ percentage point in 2009, as exports continue to grow strongly and imports gradually accelerate. These contributions are about 0.1 percentage point more positive than in the October Greenbook; they reflect a higher forecast for exports because of the weaker dollar and a lower forecast for imports because of the downward revision to the projection for U.S. growth.

Real exports of goods and services are estimated to have shot up at an annual rate of 19 percent in the third quarter, led by strong increases in exports of automotive products, aircraft, and agricultural goods. In the current quarter, we expect export growth to fall to a still-robust rate of $71 / 2$ percent, as the growth of core exports declines to a pace more consistent with foreign GDP growth and relative prices. Exports of computers are also projected to decelerate after strong growth in the third quarter. In contrast, exports of services and semiconductors are expected to bounce back from relatively weak growth in the third quarter.

## Staff Projections for <br> Trade in Goods and Services

(Percent change from end of previous period, s.a.a.r.)

| Measure | 2007 |  | Projection |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | H1 | Q3 | $\begin{gathered} \text { 2007: } \\ \text { Q4 } \end{gathered}$ | 2008 |  | 2009 |
|  |  |  |  | H1 | H2 |  |
| Real exports | 4.3 | 18.9 | 7.4 | 7.0 | 6.9 | 6.7 |
| October GB | 4.3 | 16.9 | 7.7 | 7.1 | 6.7 | 6.3 |
| Real imports | 0.5 | 4.3 | 4.3 | 0.7 | 3.5 | 4.1 |
| October GB | 0.5 | 3.5 | 5.3 | 1.7 | 3.7 | 4.5 |

NOTE. Change for year is measured as Q4/Q4; half-years are Q2/Q4 or Q4/Q2.
Export growth is anticipated to moderate over the course of 2008 and 2009. Exports of core goods are projected to remain strong throughout the forecast period, supported by past dollar depreciation and continued solid foreign GDP growth. However, exports of
services, which react more quickly to changes in relative prices, are expected to decelerate as the impact of recent rapid dollar depreciation fades and the dollar declines much more slowly over the forecast period. Since the October Greenbook, we have revised up our projection for total real export growth in 2008 and 2009 about $1 / 4$ percentage point on average, reflecting the weaker dollar.

Real imports of goods and services increased at a $41 / 4$ percent rate in the third quarter, supported by a robust increase in imports of core goods. In the fourth quarter, imports of core goods are expected to decelerate sharply, in line with the weak projected pace of U.S. GDP growth. However, total real import growth is expected to hold steady, as the deceleration in imports of core goods is offset by a seasonal surge in imports of oil and a rebound in imports of computers after steep declines in the middle of the year. Compared with the previous Greenbook, our estimate of real import growth is a little stronger for the third quarter, on account of stronger-than-expected imports in the recent trade data, and a little weaker for the fourth quarter, partly because of lower projected U.S. GDP growth.

Real import growth is expected to accelerate over the course of 2008 and 2009, as imports of core goods and services strengthen in response to both a projected pickup in U.S. growth and a projected decline in import price inflation. Imports of computers and semiconductors are expected to continue to expand, whereas real imports of oil and natural gas are expected to be flat on average. Compared with the October Greenbook, we have revised down our projection for real import growth in 2008 and 2009 in line with the lower projected path of U.S. GDP growth.

## Alternative Simulations

Our baseline projection has the dollar depreciating gradually over the forecast period, but the dollar could decline more abruptly if foreigners become less willing to acquire the dollar-denominated assets associated with financing the current account deficit. In our alternative scenarios, we use the FRB/Global model to illustrate how the macroeconomic effects of a sharp decline in the dollar may hinge on the response of financial markets. In particular, we first consider a case in which a sudden depreciation of the dollar has relatively benign effects, pushing up aggregate demand and interest rates but inducing little stress in financial markets. We contrast this scenario with a "disorderly" alternative, in which the initial fall of the dollar is accompanied by shocks that markedly boost the equity premium and term premiums on longer-term bonds.

In the first scenario, we consider the effects of a rise in the foreign exchange risk premium in 2008:Q1 that induces an immediate 10 percent dollar depreciation in the absence of endogenous changes in domestic or foreign interest rates. The depreciation of the dollar stimulates U.S. net exports, raising real GDP growth 0.4 percentage point relative to baseline in 2008 and 0.5 percentage point in 2009. Core PCE price inflation rises roughly 0.3 percentage point in 2008:H1 in response to higher import prices and remains slightly above baseline over the rest of the forecast period. Given higher activity and prices, the federal funds rate rises 1.1 percentage points above baseline by the end of 2009. The trade balance initially deteriorates because of J-curve effects, but it rises roughly 0.3 percentage point of GDP by the latter part of the forecast period and somewhat more thereafter.

The second scenario assumes the same shock to the dollar as in the first scenario but adds autonomous shocks that boost equity and term premiums 100 basis points. In this case, real GDP growth falls 0.1 percentage point in 2008 and is unchanged in 2009 (both relative to baseline), as the contractionary effects of the equity and term premium shocks offset the stimulative effects of the lower dollar. As in the first scenario, core PCE inflation rises slightly because of the increase in import prices. With activity and inflation changing little, the federal funds rate remains essentially unchanged. The trade balance improves more in this scenario than in the first, as the lower level of U.S. activity weighs on import demand. Although this scenario suggests that even a "disorderly" correction would have little adverse effect on the U.S. economy, a great deal of uncertainty surrounds this assessment; in particular, a disorderly correction may have larger contractionary effects through channels such as business and consumer sentiment that are not explicitly modeled in FRB/Global.

## Alternative Scenarios

10 Percent Dollar Depreciation and Disorderly Correction
(Percent change from previous period, annual rate, except as noted)

| Indicator and simulation | 2008 |  | 2009 |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
|  | H1 | H2 | H1 | H2 |  |
| U.S. real GDP |  |  |  |  |  |
| Baseline | 1.0 | 1.6 | 2.0 | 2.1 |  |
| 10 percent dollar depreciation | 1.2 | 2.2 | 2.6 | 2.4 |  |
| Disorderly dollar correction | 0.9 | 1.5 | 2.0 | 2.1 |  |
| U.S. core PCE prices |  |  |  |  |  |
| Baseline | 2.0 | 1.9 | 1.9 | 1.9 |  |
| 10 percent dollar depreciation | 2.3 | 1.9 | 2.0 | 2.0 |  |
| Disorderly dollar correction | 2.3 | 1.9 | 2.0 | 1.9 |  |
| U.S. federal funds rate (percent) |  |  |  |  |  |
| Baseline | 4.25 | 4.25 | 4.25 | 4.0 |  |
| 10 percent dollar depreciation | 4.45 | 4.85 | 5.15 | 5.1 |  |
| Disorderly dollar correction | 4.35 | 4.35 | 4.35 | 4.1 |  |
| U.S. trade balance (percent of GDP) |  |  |  |  |  |
| Baseline | -5.1 | -4.6 | -4.5 | -4.2 |  |
| 10 percent dollar depreciation | -5.4 | -4.6 | -4.3 | -3.9 |  |
| Disorderly dollar correction | -5.3 | -4.5 | -4.1 | -3.6 |  |

Note. Half-year changes are measured as Q2/Q4 or Q4/Q2. The federal funds rate is the average rate for the final quarter of the period. The monetary authorities in the United States and the major foreign economies adjust their policy rates according to Taylor rules.

Evolution of the Staff Forecast

Current Account Balance


Foreign Real GDP


Core Import Prices*

Class II FOMC
Restricted (FR)
OUTLOOK FOR FOREIGN REAL GDP AND CONSUMER PRICES: SELECTED COUNTRIES (Percent, 24 to 24 )

| Measure and country | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | -----Projected---- |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  | 2007 | 2008 | 2009 |
| REAL GDP (1) |  |  |  |  |  |  |  |  |  |
| Total foreign | 0.4 | 3.1 | 3.0 | 3.8 | 3.9 | 3.9 | 4.0 | 3.1 | 3.2 |
| Advanced Foreign Economies of which: | 0.9 | 2.5 | 1.8 | 2.5 | 2.8 | 2.5 | 2.6 | 1.8 | 2.1 |
| Canada | 1.3 | 3.5 | 1.5 | 3.5 | 3.2 | 1.9 | 2.9 | 1.7 | 2.0 |
| Japan | -1.7 | 2.0 | 2.4 | 1.1 | 2.8 | 2.4 | 1.3 | 1.5 | 1.5 |
| United Kingdom | 2.1 | 2.3 | 3.4 | 2.6 | 1.8 | 3.2 | 2.9 | 2.1 | 2.6 |
| Euro Area (2) | 1.0 | 1.1 | 1.2 | 1.6 | 1.9 | 3.3 | 2.2 | 1.7 | 2.1 |
| Germany | 1.1 | -0.0 | 0.1 | 0.1 | 1.6 | 3.9 | 1.9 | 1.6 | 2.2 |
| Emerging Market Economies | $-0.4$ | 4.0 | 4.8 | 5.6 | 5.4 | 5.8 | 5.8 | 4.8 | 4.8 |
| Asia | 1.1 | 6.4 | 6.9 | 5.9 | 7.5 | 6.7 | 7.7 | 6.1 | 6.2 |
| Korea | 4.7 | 7.7 | 4.2 | 2.9 | 5.7 | 4.0 | 5.3 | 4.3 | 4.2 |
| China | 7.1 | 8.5 | 10.1 | 9.6 | 10.0 | 10.4 | 11.4 | 9.7 | 9.5 |
| Latin America | $-1.3$ | 1.6 | 2.4 | 5.3 | 3.1 | 4.9 | 4.0 | 3.4 | 3.5 |
| Mexico | -1.3 | 2.0 | 2.1 | 4.8 | 2.5 | 4.3 | 3.6 | 3.0 | 3.2 |
| Brazil | -0.7 | 5.0 | 0.8 | 5.0 | 3.1 | 4.7 | 3.7 | 3.9 | 4.0 |
| CONSUMER PRICES (3) |  |  |  |  |  |  |  |  |  |
| Advanced Foreign Economies of which: | 0.9 | 2.1 | 1.3 | 1.8 | 1.5 | 1.3 | 2.1 | 1.6 | 1.6 |
| Canada | 1.1 | 3.8 | 1.7 | 2.3 | 2.2 | 1.3 | 2.6 | 2.0 | 1.9 |
| Japan | -1.1 | -0.5 | -0.3 | 0.5 | -1.0 | 0.3 | 0.1 | 0.3 | 0.5 |
| United Kingdom (4) | 1.0 | 1.5 | 1.3 | 1.4 | 2.1 | 2.7 | 2.1 | 2.1 | 2.1 |
| Euro Area (2) | 2.1 | 2.3 | 2.0 | 2.3 | 2.3 | 1.8 | 2.7 | 1.7 | 1.9 |
| Germany | 1.5 | 1.2 | 1.1 | 2.1 | 2.2 | 1.3 | 2.8 | 1.6 | 1.8 |
| Emerging Market Economies | 2.8 | 2.9 | 3.1 | 3.9 | 3.0 | 2.9 | 4.9 | 3.3 | 3.2 |
| Asia | 1.2 | 0.8 | 2.2 | 3.2 | 2.6 | 2.3 | 5.1 | 3.0 | 3.0 |
| Korea | 3.3 | 3.3 | 3.5 | 3.4 | 2.5 | 2.1 | 3.3 | 3.1 | 2.6 |
| China | $-0.1$ | -0.6 | 2.7 | 3.3 | 1.4 | 2.1 | 6.4 | 2.9 | 3.0 |
| Latin America | 5.3 | 6.4 | 4.9 | 5.7 | 3.8 | 4.2 | 4.3 | 4.0 | 3.7 |
| Mexico | 5.1 | 5.2 | 3.9 | 5.3 | 3.1 | 4.1 | 3.8 | 3.6 | 3.3 |
| Brazil | 7.5 | 10.7 | 11.5 | 7.2 | 6.1 | 3.2 | 4.2 | 4.2 | 4.0 |

[^6]|  | 2007 |  |  |  | $\begin{aligned} & \text { - Projected } \\ & 2008 \end{aligned}$ |  |  |  | 2009 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Measure and country | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 |
| REAL GDP (1) ----------------- Quarterly changes at an annual rate |  |  |  |  |  |  |  |  |  |  |  |  |
| Total foreign | 4.0 | 4.6 | 4.5 | 2.8 | 2.9 | 3.0 | 3.1 | . 2 | 3.2 | 3.2 | 3.2 | 3.2 |
| Advanced Foreign Economies | 3.6 | 2.3 | 3.0 | 1.7 | 1.6 | 1.7 | 1.9 | 2.0 | 2.0 | 2.1 | 2.1 | 2.1 |
| Canada | 3.5 | 3.8 | 2.9 | 1.6 | 1.3 | 1.6 | 1.8 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 |
| Japan | 2.6 | $-1.6$ | 2.6 | 1.6 | 1.6 | 1.5 | 1.5 | 1.5 | 1.4 | 1.6 | 1.6 | 1.6 |
| United Kingdom | 3.2 | 3.3 | 3.0 | 1.9 | 1.9 | 1.9 | 2.2 | 2.4 | 2.5 | 2.6 | 2.6 | 2.6 |
| $\begin{aligned} & \text { Euro Area (2) } \\ & \text { Germany } \end{aligned}$ | 3.2 2.2 | 1.0 | 2.8 | 1.5 | 1.3 | 1.4 | 1.7 | 2.0 | 2.2 | 2.2 | 2.2 | 2.2 |
| Emerging Market Economies | 4.6 7.2 | $\begin{array}{r} 8.0 \\ 10.6 \end{array}$ | $6.4$ | $4.3$ | 4.7 6.0 | 4.7 6.1 | 4.9 6.2 | 4.9 6.2 | 4.9 6.2 | 4.9 6.2 | 4.8 6.2 | 4.8 6.2 |
| Korea | 3.6 | 7.4 | 5.4 | 4.7 | 4.3 | 4.4 | 4.4 | 4.3 | 4.3 | 4.3 | 4.2 | 4.2 |
| China | 14.2 | 14.1 | 8.2 | 9.0 | 9.5 | 9.7 | 10.0 | 9.7 | 9.5 | 9.5 | 9.5 | 9.5 |
| Latin America | 2.0 | 5.8 | 5.8 | 2.5 | 3.3 | 3.1 | 3.5 | 3.6 | 3.5 | 3.5 | 3.5 | 3.5 |
| Mexico | 1.2 | 5.7 | 5.9 | 1.8 | 2.9 | 2.7 | 3.2 | 3.4 | 3.3 | 3.3 | 3.2 | 3.2 |
| Brazil | 3.6 | 3.2 | 4.2 | 3.7 | 3.8 | 3.8 | 3.9 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| CONSUMER PRICES (3) |  |  |  |  |  |  |  |  |  |  |  |  |
| Advanced Foreign Economies of which: | 1.6 | 1.6 | 1.5 | 2.1 | 1.8 | 1.6 | 1.8 | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 |
| Canada | 1.9 | 2.0 | 2.1 | 2.6 | 2.0 | 1.7 | 2.1 | 2.0 | 2.0 | 1.9 | 1.9 | 1.9 |
| Japan United Kingdom (4) | -0.1 2.9 | -0.0 | -0.1 1.8 | 0.1 | 0.3 | 1.2 2.0 | 2.1 | 0.3 | 0.4 | 0.5 | 0.5 | 0.5 |
| Euro Area (2) | 1.9 | 1.9 | 1.9 | 2.7 | 2.6 | 2.4 | 2.4 | 1.7 | 1.8 | 1.8 | 1.8 | 1.9 |
| Germany | 1.9 | 2.0 | 2.2 | 2.8 | 2.4 | 2.2 | 2.1 | 1.6 | 1.7 | 1.7 | 1.7 | 1.8 |
| Emerging Market Economies | 3.1 | 3.3 | 4.4 | 4.9 | 4.9 | 4.8 | 3.8 | 3.3 | 3.3 | 3.2 | 3.2 | 3.2 |
| Asia | 2.7 | 3.0 | 4.5 | ${ }_{3} \cdot 1$ | 5.1 | 4.9 | 3.6 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| Korea | 2.8 | 3.6 | 6.1 | 6.4 | 6.2 | 5.6 | 3.4 | 2.9 | 2.9 | 2.8 | 2.9 | 3.0 |
| Latin America | 4.2 | 4.2 | 4.3 | 4.3 | 4.2 | 4.5 | 4.2 | 4.0 | 3.8 | 3.8 | 3.7 | 3.7 |
| Mexico | 4.1 | 4.0 | 4.0 | 3.8 | 3.8 | 4.1 | 3.8 | 3.6 | 3.5 | 3.4 | 3.4 | 3.3 |
| Brazil | 3.1 | 3.4 | 4.2 | 4.2 | 4.1 | 4.2 | 4.2 | 4.2 | 4.1 | 4.0 | 4.0 | 4.0 |

[^7]Class II FOMC
Restricted (FR)
OUTLOOK FOR U.S. INTERNATIONAL TRANSACTIONS

|  | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | $\begin{array}{r} \text { Project } \\ 2008 \end{array}$ | 2009 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| NIPA REAL EXPORTS and IMPORTS Percentage point contribution to GDP growth, Q4/Q4 |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| Net Goods \& Services | -0.2 | -0.9 | -0.1 | -0.9 | -0.1 | 0.4 | 0.6 | 0.5 | 0.1 |
| Exports of $G \& S$ | -1.3 | 0.4 | 0.6 | 0.7 | 0.7 | 1.0 | 1.0 | 0.9 | 0.9 |
| Imports of G\&S | 1.1 | $-1.3$ | -0.7 | $-1.7$ | -0.8 | -0.6 | -0.4 | -0.4 | -0.7 |
| Percentage change, Q4/Q4 |  |  |  |  |  |  |  |  |  |
| Exports of G\&S | -11.9 | 3.8 | 5.8 | 7.4 | 7.0 | 9.3 | 8.6 | 7.0 | 6.7 |
| Services | -8.9 | 10.2 | 3.0 | 8.3 | 4.1 | 8.3 | 5.7 | 6.5 | 4.9 |
| Computers | -23.5 | -1.1 | 11.3 | 5.8 | 14.0 | 8.2 | -0.4 | 9.5 | 9.5 |
| Semiconductors | -34.6 | 10.1 | 38.3 | -6.0 | 17.5 | 2.4 | 16.8 | 11.0 | 11.0 |
| Core Goods 1/ | -10.2 | 0.6 | 4.9 | 8.0 | 7.5 | 10.2 | 9.9 | 7.0 | 7.2 |
| Imports of $G \& S$ | $-7.6$ | 9.7 | 4.8 | 11.5 | 5.1 | 3.7 | 2.4 | 2.1 | 4.1 |
| Services | -5.9 | 8.8 | 2.2 | 9.3 | 1.4 | 6.1 | -0.6 | 0.9 | 3.2 |
| Oil | 3.7 | 3.8 | 1.2 | 10.8 | 1.2 | -9.0 | 2.9 | -1.1 | -0.4 |
| Natural Gas | -6.5 | 19.5 | 1.3 | 4.9 | 11.3 | -13.4 | -6.6 | 21.2 | 3.8 |
| Computers | -13.6 | 13.2 | 17.0 | 23.2 | 12.2 | 13.6 | 8.2 | 15.5 | 15.5 |
| Semiconductors | $-51.1$ | 11.0 | $-0.1$ | 9.8 | 7.6 | -0.5 | 6.1 | 5.0 | 5.0 |
| Core Goods $2 /$ | -6.5 | 10.0 | 5.2 | 11.4 | 6.0 | 5.9 | 2.5 | 2.1 | 4.7 |
| Billions of Chained 2000 Dollars |  |  |  |  |  |  |  |  |  |
| Net Goods \& Services | -399.1 | $-471.3$ | -518.9 | -593.8 | -618.0 | -624.5 | -562.0 | $-484.4$ | -449.2 |
| Exports of $G \& S$ | 1036.7 | 1013.3 | 1026.1 | 1126.1 | 1203.4 | 1304.1 | 1410.3 | 1530.1 | 1634.4 |
| Imports of G\&S | 1435.8 | 1484.6 | 1545.0 | 1719.9 | 1821.5 | 1928.6 | 1972.2 | 2014.6 | 2083.6 |
| Billions of dollars |  |  |  |  |  |  |  |  |  |
| US CURRENT ACCOUNT BALANCE | $-384.7$ | $-459.6$ | -522.1 | -640.2 | -754.8 | -811.5 | -774.3 | -774.4 | -729.0 |
| Current Acct as Percent of GDP | $-3.8$ | -4.4 | -4.8 | -5.5 | -6.1 | -6. 2 | -5.6 | -5.4 | -4.9 |
| Net Goods \& Services (BOP) | $-365.1$ | -423.7 | -496.9 | -612.1 | -714.4 | $-758.5$ | -714.6 | -697.8 | -640.7 |
| Investment Income, Net | 36.9 | 33.2 | 51.1 | 62.5 | 54.5 | 43.2 | 44.1 | 29.9 | 16.2 |
| Direct, Net | 115.9 | 102.4 | 112.7 | 139.4 | 152.5 | 174.2 | 208.4 | 245.9 | 266.9 |
| Portfolio, Net | -79.0 | -69.1 | -61.5 | -76.9 | -98.1 | -131.0 | -164.2 | -216.1 | -250.7 |
| Other Income \& Transfers, Net | -56.5 | -69.2 | $-76.3$ | -90.6 | -94.9 | -96.1 | -103.8 | $-106.5$ | -104.5 |

[^8]NIPA REAL EXPORTS and IMPORTS

|  | 2004 |  |  |  | 2005 |  |  |  | 2006 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 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 | -0.8 | -1.5 | -0.4 | -1.1 | 0.3 | 0.8 | -0.1 | -1.4 | 0.1 | 0.5 | -0.2 | 1.2 |
| Exports of G\&S | 0.9 | 0.6 | 0.3 | 1.0 | 0.6 | 0.9 | 0.2 | 1.1 | 1.2 | 0.6 | 0.6 | 1.5 |
| Imports of G\&S | -1.7 | -2.1 | -0.7 | -2.0 | -0.3 | -0.1 | -0.3 | -2.5 | -1.1 | -0.1 | -0.9 | -0.3 |
| Percentage change from previous period, s.a.a.r. |  |  |  |  |  |  |  |  |  |  |  |  |
| Exports of G\&S | 10.0 | 6.5 | 3.1 | 10.0 | 6.0 | 9.5 | 2.1 | 10.6 | 11.5 | 5.7 | 5.7 | 14.3 |
| Services | 16.2 | 5.1 | -3.4 | 16.8 | 6.5 | 0.9 | 2.6 | 6.3 | 2.9 | 3.9 | 2.0 | 26.0 |
| Computers | -7.0 | 1.7 | 16.7 | 13.4 | 17.4 | 24.9 | 12.8 | 2.0 | 14.6 | 13.0 | -3.9 | 9.9 |
| Semiconductors | 16.7 | -13.4 | -20.9 | -2. 4 | -1.7 | 9.3 | 23.2 | 43.8 | 25.3 | 14.5 | -11.5 | -13.5 |
| Core Goods 1/ | 7.8 | 9.2 | 7.7 | 7.4 | 5.6 | 13.1 | 0.2 | 11.6 | 14.9 | 5.7 | 9.2 | 11.0 |
| Imports of G\&S | 12.3 | 15.2 | 4.8 | 13.8 | 2.1 | 0.8 | 2.1 | 16.2 | 6.9 | 0.9 | 5.4 | 1.6 |
| Services | 16.5 | 8.9 | 1.8 | 10.5 | -3.5 | -0.5 | 0.0 | 10.3 | 9.5 | -0.1 | 1.3 | 14.2 |
| Oil | 39.2 | -26.3 | -7.1 | 58.3 | 5.4 | -26.2 | -14.2 | 57.1 | -3.6 | -26.1 | 3.3 | -6.9 |
| Natural Gas | 33.4 | 43.1 | 48.5 | -57.3 | 53.9 | -4.0 | 108.6 | -50.2 | -49.4 | 123.0 | 24.1 | -59.8 |
| Computers | 20.7 | 30.1 | 25.6 | 17.0 | 5.7 | 9.8 | 17.0 | 16.6 | 27.0 | 16.9 | 16.0 | -3.2 |
| Semiconductors | 43.0 | 18.5 | 3.9 | -17.4 | -9.5 | 7.7 | 15.7 | 18.8 | 0.1 | -1.5 | 20.9 | -17.9 |
| Core Goods $2 /$ | 6.5 | 23.0 | 5.4 | 11.6 | 2.3 | 6.1 | 2.9 | 13.2 | 9.7 | 5.4 | 5.5 | 3.1 |
| Billions of Chained 2000 Dollars, s.a.a.r. |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| Exports of G\&S | $1101.8$ | $1119.4$ | $1128.0$ | $1155.3$ | $1172.4$ | $1199.3$ | $1205.6$ | $1236.4$ | $1270.6$ | $1288.4$ | $1306.6$ | $1350.9$ |
| Imports of $G \& S$ | 1650.9 | 1710.5 | 1730.8 | 1787.7 | 1796.8 | 1800.3 | 1809.7 | 1879.0 | 1910.7 | 1915.0 | 1940.4 | 1948.2 |
| Billions of dollars, s.a.a.r. |  |  |  |  |  |  |  |  |  |  |  |  |
| US CURRENT ACCOUNT BALANCE | -559.8 | -634.7 | -632.3 | -733.8 | -729.6 | -732.9 | -693.6 | -863.2 | -802.4 | -822.4 | -869.3 | -751.8 |
| Current Account as \% of GDP | -4.9 | -5.5 | -5.4 | -6.1 | -6.0 | -6.0 | -5.5 | -6.8 | -6.2 | -6.3 | -6.6 | -5.6 |
| Net Goods \& Services (BOP) | $-544.1$ | -602.4 | -626.4 | -675.4 | -666.6 | -682.7 | -723.8 | -784.4 | -758.8 | -770.3 | -797.2 | -707.7 |
| Investment Income, Net | 82.2 | 59.4 | 69.2 | 39.2 | 56.2 | 53.5 | 72.8 | 35.3 | 48.3 | 49.2 | 30.0 | 45.3 |
| Direct, Net | 146.2 | 129.6 | 143.4 | 138.4 | 140.4 | 147.3 | 176.1 | 146.2 | 168.0 | 178.6 | 161.9 | 188.3 |
| Portfolio, Net | -63.9 | -70.3 | -74.2 | -99.2 | -84.3 | -93.8 | -103.3 | -110.9 | -119.8 | -129.4 | -132.0 | -143.0 |
| Other Inc. \& Transfers, Net | -97.8 | -91.7 | -75.1 | -97.6 | -119.2 | -103.8 | -42.6 | -114.1 | -91.8 | -101.2 | -102.1 | -89.4 |

[^9]Last Page
NIPA REAL EXPORTS and IMPORTS
6
0
1


[^10]
[^0]:    1．Change from fourth quarter of previous year to fourth quarter of year indicated
    2．Billions of chained $(2000)$ dollars．

[^1]:    1．Change from fourth quarter of previous year to fourth quarter of year indicated．
    2．Billions of chained（2000）dollars．

[^2]:    1. Change from fourth quarter of previous year to fourth quarter of year indicated
    2. Private-industry workers.
[^3]:    1．Change from fourth quarter of previous year to fourth quarter of year indicated，unless otherwise indicated．

[^4]:    aggregate demand stimulus.
    a--Actual

[^5]:    Note. Data after 2007: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.
    4. 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
[^6]:    1. Foreign GDP aggregates calculated using shares of U.S. exports. 3. Foreign CPI aggregates calculated using shares of U.S. non-oil imports.
[^7]:    1. Foreign GDP aggregates calculated using shares of U.S. exports
    2. Foreign GDP aggregates calculated using shares of U.S. exports.
    3. Foreign CPI aggregates calculated using shares of U.S. non-oil imports.
    4. CPI excluding mortgage interest payments, which is the targeted inflation rate.
[^8]:    2. Merchandise imports excluding oil, natural gas, computers, and semiconductors.
[^9]:    2. Merchandise exports excluding computers and semiconductors.
[^10]:    . Merchandise exports excluding computers and semiconductors.
    1
    2
    2. Merchandise imports excluding oil, natural gas, computers, and semiconductors.

