## Prefatory Note

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

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

## Part 1

## CURRENT ECONOMIC AND FINANCIAL CONDITIONS

## Summary and Outlook

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

The economic data that became available since the September Greenbook came in stronger, on balance, than we had anticipated. Much of the upside surprise was in consumer spending, business investment, and exports. Moreover, conditions in labor markets and in the manufacturing sector were to the firm side of our expectations. As we anticipated in our September forecast, activity in housing markets has continued to contract sharply. All told, we raised our forecast of real GDP growth to an annual rate of $31 / 4$ percent in the third quarter and $11 / 2$ percent in the fourth quarter, thereby leaving growth over the second half of this year about $1 / 2$ percentage point stronger, on average, than in the last Greenbook.

Some of the upside surprise reflects developments in the period before the recent financial turbulence, and we are interpreting that news as suggesting that the underlying momentum of the economy during the summer was stronger than we had earlier judged. But the data for the more recent period also have not been as soft as we had expected, and signs of any appreciable spillover to spending outside housing remain scant. The recent data configuration certainly raises the possibility that we overestimated the restraint on activity that will accompany the heightened stress in financial markets. We have scaled back those effects a bit, but this forecast still assumes that the recent turmoil will exert noticeable restraint on aggregate activity in the period ahead. Although conditions in financial markets have improved somewhat, they have not returned to normal. In addition, banks report tightening terms and standards on loans to businesses and households, and consumer sentiment is surprisingly low given other economic conditions. As a consequence, we are still projecting growth of real GDP to run noticeably below trend over the next few quarters, though by a bit less than in our September forecast.

For 2008, we look for growth of $13 / 4$ percent, the same pace we projected in the September Greenbook. We expect the economy to carry a bit more momentum into next year than we had earlier anticipated. Moreover, the recent drop in the foreign exchange value of the dollar suggests somewhat greater stimulus to domestic production next year. But these positive factors are largely offset by the damping effects on spending of the sharp jump in oil prices that has occurred over the intermeeting period. Because real GDP is expected to increase less quickly than potential output, the unemployment rate creeps up slightly to 4.8 percent by late next year. With the contraction in residential investment abating by the middle of next year and then gradually beginning to reverse, and with the effects of financial stress fading, growth in real output moves up to

## Class II FOMC -- Restricted (FR)

## Key Background Factors Underlying the Baseline Staff Projection

Federal Funds Rate



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 except as noted.

21/4 percent in 2009, a shade above our current projection for the growth of potential that year and unchanged from the September forecast.

Core PCE prices have risen a little less in recent months than we had expected, and we have carried a portion of this favorable news forward. However, because this influence is largely offset by the higher oil prices and the slightly higher rates of resource utilization in the projection, our inflation forecast for the next two years is essentially unchanged from that in the September Greenbook. In particular, we anticipate that core PCE inflation will edge up from 1.8 percent this year to 1.9 percent in both 2008 and 2009. Total PCE prices are projected to rise 3 percent this year owing to the sharp run-up in energy prices as well as to a sizable increase in food prices. We project headline inflation to slow to 1.8 percent in 2008 and to 1.7 percent in 2009 as energy prices turn down and increases in food prices slow to a pace more in line with core inflation.

## Key Background Factors

The September Greenbook was conditioned on the assumption that the Committee would reduce the target federal funds rate 25 basis points at both the September and the October meetings. In the event, the Committee cut the target rate 50 basis points at the September meeting. We assume that the Committee will keep the federal funds rate at $43 / 4$ percent through 2009. In contrast, futures quotes imply that market participants place a high probability on an additional cut to the target rate at this meeting and that they expect the rate to fall below 4 percent by next summer. We assume that yields on long-term Treasuries-which currently stand close to where they were at the time of the September Greenbook-will climb gradually over the forecast period as the market's outlook for the federal funds rate moves more in line with ours and as the flight to quality that has pushed down term premiums unwinds.

Conditions in mortgage markets remain difficult. Securitizations of subprime and alt-A loans have been scarce, securitizations of prime jumbo mortgages have increased only slightly from low levels, and spreads between offer rates on jumbo and conforming mortgages have remained elevated. At the same time, conditions in corporate credit markets have improved since the September Greenbook. Yield spreads on corporate bonds and syndicated loans have declined somewhat, and the issuance of speculativegrade bonds has picked up from the sluggish pace last month. Spreads on asset-backed and unsecured commercial paper have moved down substantially, and the runoff in assetbacked commercial paper has slowed a bit.

Equity prices jumped after the reduction in the target federal funds rate at the September FOMC meeting, and broad equity indexes reached record highs earlier this month.
However, stock markets have since pulled back some. As noted above, we have assumed that the Committee will hold the federal funds rate unchanged at the upcoming FOMC meeting. On the basis of historical experience, we estimate that the surprise to the market conveyed by this action would bring equity prices down another 2 percent. These considerations cause us to place the jumping-off point for stock prices about 1 percent above what we had in the previous Greenbook. Beyond the near term, we have followed our usual approach and assume that equity prices will increase at an annual rate of $61 / 2$ percent, sufficient to maintain risk-adjusted parity with the return on Treasury bonds. As in the previous Greenbook, house prices, as measured by the OFHEO purchase-only index, are forecast to begin to turn down in the fourth quarter and to fall thereafter at an annual rate of about $2 \frac{1}{4}$ percent.

Our fiscal policy assumptions are unchanged from those in the September Greenbook, as the legislation that will determine the fiscal year 2008 budget has not been enacted. We continue to assume that increases in real defense spending will remain brisk through the end of this year, boosted by outlays for military activities in Iraq and Afghanistan, before slowing in 2008 and stepping down further in 2009. Real nondefense spending is anticipated to hold steady in 2008 and to rise 1 percent in 2009-a pace closer to its longer-run average. For tax policy, we continue to assume that relief from the alternative minimum tax will be extended through 2009. In all, the impetus to real GDP growth from federal fiscal policy is expected to be about $1 / 4$ percentage point this year and next before moving closer to zero in 2009. The federal budget deficit narrowed in fiscal 2007 to $\$ 163$ billion, but we anticipate that it will widen to $\$ 217$ billion in fiscal 2008 and $\$ 245$ billion in fiscal 2009 as revenue growth slows to a pace about in line with income and as nominal outlays accelerate.

The foreign exchange value of the dollar has declined since the September Greenbook by more than we had anticipated, and we have lowered the projected level of the real tradeweighted dollar in the fourth quarter $21 / 2$ percent. For the remainder of the projection period, we continue to assume that the broad real dollar will depreciate modestly. We project that foreign real GDP will grow at a $31 / 4$ percent pace through the forecast period, about the same rate we projected in the September forecast.

The spot price of West Texas intermediate crude oil (WTI) has been volatile in the past several weeks but currently stands at more than $\$ 86$ per barrel, about $\$ 9$ above its level at
the time of the September Greenbook. Far-dated futures prices have also risen appreciably. The sharp run-up in spot and futures prices appears to reflect doubts about the adequacy of inventories going into the winter months, fears of further destabilization in the Middle East as tensions heighten between Turkey and Kurdish separatists, and concerns about OPEC's willingness to increase production sufficiently to alleviate tightness in the oil market. On the basis of futures quotes, we assume that the price of WTI will decline over the forecast period to about $\$ 76$ by the end of 2009. Compared with the assumption in the last Greenbook, the price of crude oil is projected to be \$10 per barrel higher in the current quarter and \$6 higher, on average, in 2009.

## Recent Developments and the Near-Term Outlook

We now estimate that real GDP rose at an annual rate of $31 / 4$ percent in the third quarter, about $3 / 4$ percentage point faster than we projected in the September Greenbook. The upside surprise was concentrated in final sales; consumption, business investment, and exports all showed significantly more strength than we anticipated. Even allowing for some of the unanticipated momentum in real activity last quarter to extend into the fourth quarter, we expect real GDP growth to slow considerably as the decline in residential construction steepens, automakers reduce the pace of motor vehicle production, and the contribution from net exports steps down. All told, we project real GDP to rise at an annual rate of about $1 \frac{1}{2}$ percent in the fourth quarter, about $1 / 2$ percentage point faster than we anticipated in the September Greenbook.

Labor demand appears to be slowing, albeit only gradually. Private payroll employment increased 75,000 per month on average in the third quarter, down 40,000 per month from its second-quarter pace. We are anticipating a further slowing in the fourth quarter, to about 50,000 per month. That projection contrasts with the flat employment picture in our previous forecast and reflects both our upwardly revised projection for economic activity in the second half of 2007 and the absence of any marked deterioration in the bulk of the labor market indicators that we follow.

Manufacturing IP is projected to decelerate from an annual rate of 4 percent in the third quarter to a rate of about $3 / 4$ percent in the fourth quarter. Motor vehicle assemblies were noticeably weaker in September than we had forecast, in part because firms reacted more quickly than expected to elevated inventory levels and in part because of the strike at General Motors. Given the lingering inventory imbalances at some automakers, we anticipate cutbacks in vehicle assemblies over the fourth quarter that are in line with the plans that have been announced by the manufacturers. In addition, given the grim

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

| Measure | 2007:Q3 |  | 2007:Q4 |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Sept. <br> GB | $\begin{gathered} \text { Oct. } \\ \text { GB } \end{gathered}$ | Sept. <br> GB | Oct. GB |
| Real GDP | 2.6 | 3.3 | 1.0 | 1.4 |
| Private domestic final purchases | . 9 | 2.0 | . 3 | . 3 |
| Personal consumption expenditures | 2.4 | 3.2 | 1.9 | 2.3 |
| Residential investment | -21.0 | -22.4 | -28.2 | -32.8 |
| Business fixed investment | 1.9 | 6.2 | 3.5 | 3.2 |
| Government outlays for consumption and investment | 2.9 | 3.2 | 3.1 | 3.1 |
|  | Contribution to growth (percentage points) |  |  |  |
| Inventory investment | . 4 | -. 3 | . 3 | . 6 |
| Net exports | . 8 | 1.3 | -. 2 | . 0 |

outlook for the housing market, we expect the contraction in the production of construction supplies to deepen significantly in the fourth quarter. On a more positive note, high-tech production appears poised to expand at a solid rate in the fourth quarter, and we expect that strong demand from abroad will continue to provide support for modest gains in most other areas.

Consumer spending increased at an annual rate of almost $31 / 4$ percent in the third quarter, up considerably from the second quarter. In light of the deterioration in consumer confidence and the anticipated run-up in consumer energy prices, we continue to project a moderation in the growth rate of consumption in the fourth quarter, to $2 \frac{1}{4}$ percent. But even so, this pace of growth is somewhat higher than projected in the September Greenbook, which is consistent with a modestly higher level of real income.

Single-family housing starts averaged 1 million units at an annual rate in the third quarter, 30,000 units lower than we were anticipating in the September Greenbook. Because permit issuance was down noticeably, we lowered our forecast for starts in the fourth quarter by about the same amount, to an annual rate of 900,000 units. Moreover, the latest data for actual and pending sales, as well as scattered anecdotes about flea market prices at builders’ auctions of their inventories, suggest that housing demand is still weakening and that the tightening in lending standards is continuing to impose a drag on demand. In light of this ongoing deterioration, we expect the months' supply of
unsold new homes to climb for the remainder of this year despite the further cuts in production that we see ahead. All told, we expect real residential construction to contract at annual rates of 22 percent in the third quarter and 33 percent in the fourth quarter.

In contrast, August data on nonresidential construction outlays were stronger across the board than we had anticipated. As a result, we marked up our projection of the growth of nonresidential investment in the third quarter by more than 3 percentage points, to $33 / 4$ percent. In our current projection, we have allowed for some of the greater thirdquarter momentum to carry forward, so we have boosted our projection of fourth-quarter growth to $3 ½$ percent. Despite these upward revisions to spending, our projection for nonresidential construction still shows a substantial step-down in growth from the robust pace seen over the first half of 2007.

Elsewhere in the business sector, real spending on equipment and software (E\&S) is estimated to have risen at an annual rate of $71 / 2$ percent in the third quarter, boosted by a jump in outlays for motor vehicles. We expect growth in real E\&S to decline to a 3 percent pace in the fourth quarter, as purchases of motor vehicles reverse some of their third-quarter rise. Excluding transportation equipment, we anticipate that spending on $\mathrm{E} \& \mathrm{~S}$ will increase at about a 6 percent annual rate in both the third and fourth quarters.

In the government sector, information from the Monthly Treasury Statement suggests that real federal purchases rose at an annual rate of about 6 percent in the third quarter, primarily the result of another hefty increase in defense spending. The rise in real federal purchases is projected to slow to an annual rate of about $41 / 2$ percent in the fourth quarter, as outlays for defense are expected to ease. In the state and local sector, incoming information on hiring and construction point to an increase in the sector's real purchases of about $13 / 4$ percent at an annual rate in the third quarter. Spending growth in this category is expected to step up a little in the fourth quarter to $2 \frac{1}{4}$ percent.

We anticipate that inventory investment will be a slight drag on GDP growth in the third quarter and will provide a modest boost to growth in the current quarter. In the motor vehicle sector, following aggressive restraint in production in recent months, days’ supply in September was only a little to the upside of what the auto industry views as comfortable given the underlying pace of sales. The further cutbacks to light vehicle production scheduled for the fourth quarter, together with our expectation that unit sales will hold near their recent pace of 16 million units, imply that inventories will be on the lean side at the end of the fourth quarter. Outside of motor vehicles, we estimate that
inventory investment fell more sharply in the third quarter than we had anticipated in the last Greenbook, likely because of the surprising strength in final sales. We project that inventory investment will rise somewhat in the fourth quarter.

The data through August suggest that real exports soared in the third quarter while real imports posted only a modest recovery from their second-quarter decline. Accordingly, we now put the contribution of net exports to U.S. growth in the third quarter at $1 \frac{1}{4}$ percentage points. For the fourth quarter, we project the contribution of net exports to be zero, as export growth slows to a still-solid pace and the growth in imports picks up further.

The core PCE price index is estimated to have increased at an annual rate of 1.6 percent in the third quarter, down $1 / 4$ percentage point from what we had in the September Greenbook. The downward revision to our third-quarter estimate largely reflects softer-than-expected incoming data on prices for the nonmarket components of PCE. Although we expect the pace of nonmarket price increases to move up somewhat over the remainder of this year, we do not have it running as high as we did in the previous forecast. Thus, we are looking for core PCE prices to increase at an annual rate of 2.0 percent in the fourth quarter, roughly 0.1 percentage point below our September projection. With energy prices projected to move up at an annual rate of 11 percent, headline PCE prices accelerate to a rate of $23 / 4$ percent in the fourth quarter.

## The Longer-Term Outlook

We view the stronger spending momentum in the second half of 2007 as unlikely to carry through much beyond the end of this year. Although the turmoil in credit markets seems not to have imposed much restraint on economic activity outside of housing thus far, a few tenuous indicators pointing in that direction have emerged. For example, the results from the special questions put to Beige Book respondents indicated that a noticeable fraction of businesses were considering scaling back their capital spending plans in light of recent financial developments. And the survey of senior loan officers reported an appreciable tightening in both terms and standards in most market segments. Consumers also appear to be more downbeat than would be expected given the stock market, employment, and inflation. As a result, we continue to expect the stress in credit markets to restrain spending by businesses and consumers in largely the same way we had assumed in the last Greenbook. Among the other conditioning factors in this forecast is the sharper fall in the dollar since the September Greenbook, which suggests a stronger outlook for net exports; but this factor is balanced by the additional restraint that the

## Projections of Real GDP

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

| Measure | $2007:$ <br> H2 | 2008: <br> H1 | 2008 | 2009 |
| :---: | ---: | ---: | ---: | ---: |
| Real GDP | 2.4 | $\mathbf{1 . 6}$ | $\mathbf{1 . 7}$ | 2.2 |
| Previous | 1.8 | 1.5 | 1.7 | 2.2 |
| Final sales | 2.2 | 1.6 | 1.8 | 2.1 |
| Previous | 1.4 | 1.5 | 1.7 | 2.1 |
| PCE | 2.7 | 1.5 | 1.7 | 2.1 |
| Previous | 2.2 | 1.7 | 1.8 | 2.1 |
| Residential investment | -27.7 | -16.1 | -7.5 | 2.0 |
| Previous | -24.7 | -16.1 | -7.4 | 2.5 |
| BFI | 4.7 | 2.2 | 1.9 | 3.0 |
| Previous | 2.7 | 2.1 | 1.9 | 3.1 |
| Government purchases | 3.2 | 2.1 | 1.7 | 1.0 |
| Previous | 3.0 | 2.0 | 1.7 | 1.0 |
| Exports | 12.2 | 7.1 | 6.9 | 6.3 |
| Previous | 9.6 | 5.8 | 5.8 | 5.9 |
| Imports | 4.4 | 1.7 | 2.7 | 4.5 |
| Previous | 4.6 | 1.4 | 2.7 | 4.4 |
|  | Contribution to growth |  |  |  |
|  | (percentage points) |  |  |  |
| Inventory change | .2 | .0 | -.1 | .1 |
| Previous | .4 | -.1 | -.0 | .1 |
| Net exports | .6 | .6 | .4 | .0 |
| Previous | .3 | .4 | .2 | -.0 |

sharply higher path for oil prices poses for consumer and business spending. Accordingly, our projections for growth in real GDP of 13/4 percent in 2008 and 2¼ percent in 2009 are unchanged from those in the September Greenbook.

Household spending. Real personal consumption expenditures are projected to increase $13 / 4$ percent in 2008 and to accelerate to growth of $2 \frac{1}{4}$ percent in 2009. For some time now, the basic story behind our outlook for consumption has been that spending growth will moderate over 2008 because of the sharp deceleration in house prices and a waning of the effects on spending from the run-up in equity wealth over the past few years. Moreover, as was the case in the September Greenbook, we have incorporated some
additional restraint on spending from lingering consumer pessimism, tighter standards on consumer loans, and rising debt service costs associated with payment resets on variablerate mortgages. Consumption growth is projected to turn up a bit in 2009, reflecting a somewhat faster pace of real income growth and a diminution of the fallout from financial market stress. The saving rate is projected to average $3 / 4$ percent in 2008, about the same as in 2007, but then to rise in 2009 to $11 / 2$ percent.

Residential investment. We expect housing construction to continue to decline through the first half of 2008 and then to begin a very subdued recovery. As in the last Greenbook, our forecast assumes that the market for prime jumbo mortgages normalizes over the course of 2008 while subprime originations as a share of sales recover only to the level seen in the first half of 2004, before their subsequent sharp run-up. In addition, we assume that homebuyers' fears of buying into a falling market will dissipate enough to make homes a more attractive investment. Even given this improvement in demand, we expect builders to hold single-family starts below 1 million units next year and to keep them at a level only slightly above that in 2009; given our outlook for sales, this pace of starts would be consistent with the supply of unsold new homes dropping from its current level of $71 / 2$ months to about $41 / 2$ months by the end of 2009. As a result, we expect real residential investment to decline $71 / 2$ percent next year and to rise 2 percent in 2009.

Business investment. The growth of real spending by businesses for equipment and software is projected to slow from nearly 4 percent this year to $21 / 2$ percent next year, a result of the projected deceleration in business output growth and some fallout from the recent turmoil in credit markets. As credit markets normalize and the outlook for final sales improves, real spending on E\&S picks up modestly to a pace of $33 / 4$ percent in 2009. Growth of high-tech spending is projected to average about $63 / 4$ percent in 2008 and 2009, about half the projected pace over 2007 and well below the average pace over the past decade. Spending on equipment other than high-tech and transportation is projected to dip a bit next year and then to post a small increase in 2009. Spending on transportation equipment, which contracted sharply this year in response to the earlier pulling forward of the purchases of heavy trucks, is projected to run about flat, on net, next year, and then to stage a modest recovery in 2009.

Outlays for nonresidential structures are projected to decelerate sharply from a $91 / 2$ percent rate of growth this year to roughly a 1 percent pace in 2008 and 2009. We anticipate that building activity will be restrained by the projected deceleration in the
pace of business output and by tighter credit conditions. We have revised up the projected growth of drilling and mining expenditures since the September Greenbook in light of the surge in oil prices; even so, we anticipate a marked decline in the growth rate of spending in this category as well.

Government spending. Our projection for real government purchases is unchanged from that in the previous Greenbook. We expect the rise in real federal purchases to slow to about $21 / 4$ percent in 2008 and 1 percent in 2009 as outlays for defense decelerate. In the state and local sector, increases in real purchases are expected to step down to a pace of $11 / 2$ percent in 2008 and 1 percent in 2009 as slower gains in revenues from sales taxes, income taxes, and property taxes put additional pressures on these jurisdictions' budgets.

Net exports. Real exports are projected to grow at an annual rate of about $61 / 2$ percent in 2008 and 2009 on the strength of solid growth abroad and the effects of past and projected dollar depreciation. Imports, which have advanced only slowly this year, largely because of moderation in the growth of domestic demand, are projected to rise in 2008 at about the same pace as in 2007 and then to accelerate in 2009 in line with domestic demand. All told, net exports contribute nearly $1 / 2$ percentage point to real GDP growth in 2008 and are roughly a neutral influence in 2009. (The International Developments section provides more detail on the outlook for the external sector.)

## Aggregate Supply, the Labor Market, and Inflation

We have made no changes to the supply side of our projection this round. We continue to project that potential output will rise at an average annual rate of a bit more than 2 percent per year over the forecast period and that structural productivity will grow at an annual pace of $13 / 4$ percent. Given the upward revision to our forecast for actual GDP over the second half of this year, we have product markets running a little tighter throughout this projection than in the September Greenbook. Nonetheless, by the end of 2008, the shortfall in actual growth relative to potential should have been sufficient to essentially eliminate the small degree of excess pressure in product and labor markets that we estimate exists currently.

Productivity and the labor market. Given the higher level of output now projected for the second half of this year, and taking account of the initial estimate of the upcoming benchmark revision to payroll employment, we now estimate that labor productivity will be close to its structural level by the end of this year. We anticipate that productivity will

## 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 $^{\text {Previous }}$ |  | 2.5 | 2.7 | 2.0 | 1.9 | 1.8 | 1.8 |
| Multifactor productivity | .7 | 1.4 |  | .7 | .7 | .6 | .6 |
| $\quad$ Previous | .7 | 1.4 | .7 | .7 | .6 | .5 | .5 |
| Labor composition | .5 | .7 | 1.8 | 1.1 | 1.1 | 1.1 | 1.1 |
| MEMO | .3 | .7 | 1.8 | 1.1 | 1.1 | 1.1 | 1.1 |
| Potential GDP | .3 | .3 | .3 | .2 | .2 | .2 | .1 |
| $\quad$ Previous |  |  |  |  |  |  |  |

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 | 2.0 | 1.8 | 1.9 |
| $\quad$ Previous | .9 | 1.9 | 1.7 | 1.9 |
| Nonfarm private payroll employment | 1.8 | 1.1 | .5 | .8 |
| $\quad$ Previous | 1.8 | 1.0 | .5 | .8 |
| Household survey employment | 2.1 | .6 | .7 | .8 |
| $\quad$ Previous | 2.1 | .6 | .6 | .8 |
| Labor force participation rate $^{1}$ | 66.3 | 66.0 | 65.8 | 65.6 |
| $\quad$ Previous | 66.3 | 66.0 | 65.8 | 65.6 |
| Civilian unemployment rate $^{1}$ | 4.5 | 4.7 | 4.8 | 4.8 |
| $\quad$ Previous | 4.5 | 4.7 | 4.9 | 4.9 |
| MEMO |  |  |  |  |
| GDP gap $^{2}$ | .4 | .5 | .0 | .1 |
| $\quad$ Previous | .4 | .2 | -.3 | -.2 |

[^0]
## Inflation Projections

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

| Measure | 2006 | 2007 | 2008 | 2009 |
| :---: | ---: | ---: | ---: | ---: |
| PCE chain-weighted price index | 1.9 | 3.0 | 1.8 | 1.7 |
| Previous | 1.9 | 2.9 | 1.7 | 1.8 |
| Food and beverages | 2.3 | 4.5 | 2.1 | 2.1 |
| Previous | 2.3 | 4.2 | 2.2 | 2.1 |
| Energy | -4.0 | 16.1 | .4 | -2.1 |
| Previous | -4.0 | 14.7 | -2.6 | -.9 |
| Excluding food and energy | 2.3 | 1.8 | 1.9 | 1.9 |
| Previous | 2.3 | 1.9 | 1.9 | 1.9 |
| Consumer price index | 1.9 | 3.7 | 2.0 | 1.7 |
| Previous | 1.9 | 3.6 | 1.7 | 1.8 |
| Excluding food and energy | 2.7 | 2.3 | 2.1 | 2.1 |
| $\quad$ Previous | 2.7 | 2.3 | 2.1 | 2.1 |
| GDP chain-weighted price index | 2.7 | 2.0 | 2.3 | 2.1 |
| Previous | 2.7 | 2.5 | 2.1 | 2.1 |
| ECI for compensation of private |  |  |  |  |
| industry workers ${ }^{1}$ | 3.2 | 3.4 | 3.7 | 3.7 |
| Previous | 3.2 | 3.4 | 3.7 | 3.6 |
| Compensation per hour, |  |  |  |  |
| nonfarm business sector | 5.0 | 4.7 | 4.5 | 4.3 |
| Previous | 5.0 | 4.7 | 4.4 | 4.2 |
| Prices of core nonfuel imports | 2.4 | 3.0 | 1.2 | .7 |
| Previous | 2.4 | 2.9 | 1.2 | 1.0 |
| Decerber Derer |  |  |  |  |

1. December to December.
increase in 2008 and 2009 at close to its estimated structural rate of about $13 / 4$ percent per year. Consistent with this outlook, private payroll gains are forecast to average 50,000 per month over 2008 and 80,000 per month over 2009. Given the assumed gradual downward trend in the labor force participation rate, these payroll gains imply only a small increase in the unemployment rate over the forecast period.

Prices and labor costs. The recent news on core PCE inflation has been favorable, but we anticipate that the downward revision to the outlook implied by that development will be offset by the indirect effects of higher oil prices and slightly tighter resource utilization. As a result, our forecast for core PCE inflation, at 1.9 percent in both 2008 and 2009, is similar to that in the last Greenbook. The flat contour of our projection for
core PCE inflation also reflects several offsetting influences. Although the inflationary pressures from the pass-through of past energy-price shocks and core import prices should dissipate in 2008 and 2009, we do not expect nonmarket prices to continue increasing at the meager rates they have recorded this year.

Headline PCE price inflation is projected to decelerate markedly, from 3 percent this year to 1.8 percent in 2008 and 1.7 percent in 2009, a result of our assumption that oil prices will peak in the current quarter and then fall about 10 percent through 2009. Food prices also contribute to the projected slowdown in overall inflation, as futures prices point to moderating farm prices over the projection period.

With respect to labor costs, the growth of P\&C hourly compensation is anticipated to decline gradually over the forecast period and to average about $41 / 2$ percent in 2008 and 2009. The major factor explaining this contour is the slowing in overall consumer price inflation. In contrast, ECI compensation has for some time been increasing substantially less quickly than we had anticipated, and we view the risks as pointing to some acceleration in this measure over the forecast period. On the whole, we do not see labor costs as a major positive or negative factor in our price outlook over the next two years.

## Financial Flows and Conditions

After having expanded at an annual rate of $71 / 2$ percent in the first half of the year, domestic nonfinancial debt is expected to increase at a $61 / 2$ percent pace in the second half 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 has moderated over the past year, restrained by the effects of higher interest rates and sharply slower house-price appreciation and home sales. As noted above, our projection calls for aggregate house prices to decline over the forecast period and for home sales to fall further before posting a modest recovery in 2009. Against this backdrop, we expect standards and terms on mortgages to remain tight for some borrowers at least through next year. In addition, the senior loan officer survey suggests that the availability of consumer credit is being trimmed as well. Thus, we expect growth of household debt to slow further to an annual rate of about $43 / 4$ percent in the second half of this year and to $3 ½$ percent in 2008 and 2009.

Nonfinancial business debt is estimated to have expanded at an annual rate of $91 / 4$ percent in the third quarter, only a little less than during the first half of the year. Net issuance of
corporate bonds slowed last quarter, and outstanding commercial paper declined. However, bank lending surged last quarter, in part because some banks were forced to retain sizable portions of loans from leveraged buyouts they had underwritten. We expect that the demand for funds by nonfinancial firms to finance mergers and share repurchases-which stayed very strong through the third quarter-will subside over the projection period. All told, the growth of nonfinancial business debt is projected to slow to an annual rate of $81 / 4$ percent in the fourth quarter and to about 6 percent in 2008 and 2009.

Federal government debt is expected to expand at an average rate of $41 / 2$ percent over the next two years, similar to the pace this year. Growth in state and local government debt is projected to slow from 10 percent this year to an average pace of $61 / 2$ percent over the next two years as issuance for advance refundings is reduced amid interest rates that remain above the levels earlier this year.

We now estimate that M2 expanded at an annual rate of 5 percent in the third quarter, somewhat faster than nominal GDP. In part, the expansion reflected a surge in liquid deposits and retail money funds as investors evidently sought refuge during the recent financial market turmoil. We expect M2 growth to slow to an average pace of $41 / 2$ percent over the next two years, a bit above nominal GDP growth, as opportunity costs drift down over the projection period.

## Alternative Simulations

In this section, we evaluate alternatives to the staff forecast using simulations of the FRB/US model. The first scenario assumes that the downturns in house prices and residential investment will prove more severe than in the baseline and that the associated decline in wealth will impose more restraint on household spending. The second scenario builds on the first and further assumes that stress in financial markets will have larger and more-prolonged effects on business investment than in the baseline. We next consider two scenarios in which economic growth is faster than in the baseline, with the first driven by a continuation of the recent strength in aggregate demand and the second by more-favorable supply-side conditions. In the fifth simulation, we assume a greater passthrough of energy costs into final prices than is assumed 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 monetary policy follows a path implied by quotes from the futures market.

## 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 | 2.4 | 1.6 | 1.9 | 2.2 |
| Greater housing correction | 2.2 | 2.4 | 1.3 | 1.4 | 1.8 |
| With larger fallout from financial stress | 2.2 | 2.4 | 1.0 | 1.2 | 1.4 |
| Greater momentum in aggregate demand | 2.2 | 2.4 | 2.2 | 2.9 | 3.3 |
| Faster growth in potential output | 2.2 | 2.4 | 2.1 | 2.6 | 3.0 |
| Greater energy cost pass-through | 2.2 | 2.4 | 1.5 | 1.8 | 2.2 |
| Market-based federal funds rate | 2.2 | 2.4 | 1.8 | 2.3 | 2.9 |
| Unemployment rate ${ }^{1}$ |  |  |  |  |  |
| Greenbook baseline | 4.5 | 4.7 | 4.7 | 4.8 | 4.8 |
| Greater housing correction | 4.5 | 4.7 | 4.7 | 4.9 | 5.1 |
| With larger fallout from financial stress | 4.5 | 4.7 | 4.8 | 5.0 | 5.3 |
| Greater momentum in aggregate demand | 4.5 | 4.7 | 4.6 | 4.5 | 4.1 |
| Faster growth in potential output | 4.5 | 4.7 | 4.7 | 4.8 | 4.8 |
| Greater energy cost pass-through | 4.5 | 4.7 | 4.7 | 4.8 | 4.8 |
| Market-based federal funds rate | 4.5 | 4.7 | 4.7 | 4.7 | 4.5 |
| Core PCE inflation |  |  |  |  |  |
| Greenbook baseline | 1.9 | 1.8 | 1.9 | 1.9 | 1.9 |
| Greater housing correction | 1.9 | 1.8 | 1.9 | 1.9 | 1.9 |
| With larger fallout from financial stress | 1.9 | 1.8 | 1.9 | 1.9 | 1.9 |
| Greater momentum in aggregate demand | 1.9 | 1.8 | 1.9 | 1.9 | 1.9 |
| Faster growth in potential output | 1.9 | 1.8 | 1.8 | 1.7 | 1.7 |
| Greater energy cost pass-through | 1.9 | 1.9 | 2.2 | 2.0 | 2.0 |
| Market-based federal funds rate | 1.9 | 1.8 | 2.0 | 2.0 | 2.1 |
| Federal funds rate ${ }^{1}$ |  |  |  |  |  |
| Greenbook baseline | 5.3 | 4.8 | 4.8 | 4.8 | 4.8 |
| Greater housing correction | 5.3 | 4.8 | 4.7 | 4.4 | 4.0 |
| With larger fallout from financial stress | 5.3 | 4.8 | 4.6 | 4.2 | 3.6 |
| Greater momentum in aggregate demand | 5.3 | 4.8 | 5.0 | 5.5 | 6.6 |
| Faster growth in potential output | 5.3 | 4.7 | 4.7 | 4.7 | 4.6 |
| Greater energy cost pass-through | 5.3 | 4.8 | 4.9 | 4.9 | 5.0 |
| Market-based federal funds rate | 5.3 | 4.5 | 4.1 | 3.9 | 3.9 |

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

Greater housing correction. The baseline forecast for the housing market assumes sharp declines in activity until the middle of next year and a subdued recovery thereafter. However, the weakness in demand for housing may persist longer-if, for example, some borrowers remain shut out of mortgage markets. Moreover, in an environment of persistently weak housing demand and rising foreclosure rates, home prices may decline
more than in the baseline. In this scenario, we assume that subprime-mortgage originations remain close to zero for the entire projection period, thereby reducing the level of residential investment 5 percent relative to baseline by the end of 2009. In addition, we assume that nominal house prices decline 20 percent over the forecast horizon, a development that lowers household net worth $\$ 31 / 2$ trillion relative to baseline and eliminates the current overvaluation in the housing market that is suggested by some of the models we follow. Finally, we double the sensitivity of household spending to housing wealth (relative to our assumption in the baseline), putting this response at the upper end of the range of empirical estimates. As a result, real GDP rises only $11 / 2$ percent next year and less than 2 percent in 2009, causing the unemployment rate to rise above 5 percent. ${ }^{1}$ This additional slack is too modest 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 4 percent by the second half of 2009.

Greater housing correction with larger fallout from financial stress. In the baseline, we have assumed that continued stress in financial markets will restrain economic activity noticeably over the next year. Thus far, that assumption remains a forecast with only limited supporting evidence. Even so, we perceive a risk that we might not have made enough allowance for these restraining effects. In this alternative, we build on the previous simulation and assume that the combination of heightened economic uncertainty and restrictions on credit availability leads firms to hold nominal capital expenditures flat through 2008 and 2009. As a result, real GDP growth falls to 1 percent in early 2008 and only gradually recovers through 2009. Weakness in real activity pushes the unemployment rate up to $51 / 4$ percent in the second half of 2009. The federal funds rate falls to $31 / 2$ percent by the end of 2009. Again, inflation is little affected over the projection period, in part because long-run inflation expectations remain well anchored.

Greater momentum in aggregate demand. Recent readings on employment, business investment, and, especially, household consumption have been stronger than we had anticipated in the previous Greenbook. We have built some of this underlying strength into the forecast. However, there may be more momentum than we have allowed. In this scenario, we assume a greater willingness to spend on the part of households so that the saving rate remains steady at its fourth-quarter level of $1 / 2$ percent through 2009. Moreover, business fixed investment continues to increase at its estimated 2007 pace of $51 ⁄ 2$ percent instead of decelerating as in the baseline. As a consequence, real GDP

[^1]growth moves above 3 percent in 2009, while the unemployment rate declines to 4 percent; the federal funds rate rises to $61 / 2$ percent by the end of 2009. Inflation is little changed over the projection period but would be moving up noticeably over 2010.

Faster growth in potential output. The staff's estimate of the growth rate of potential output is below the consensus among other forecasters. In this scenario, we take on board a higher estimate and assume that potential output expands $23 / 4$ percent in 2008 and 2009, $1 / 2$ percentage point faster than in the baseline. We assume that households and firms already recognize these more favorable conditions, so asset prices are unaffected. Nonetheless, the outlook for consumption and investment is improved relative to baseline because faster trend growth implies faster growth in permanent income and corporate earnings. All told, the revision to projected aggregate demand is roughly similar to the revision in aggregate supply, so the unemployment rate differs little from baseline. Although the increase in productivity growth would eventually boost wages, the long lags in this process mean that unit labor costs are depressed for an extended period. This lowers core inflation $1 / 4$ percentage point below the baseline in 2009. The nominal federal funds rate declines a bit relative to baseline, but in real terms, it is little changed from baseline.

Greater energy cost pass-through. In the baseline, we have built in only a modest passthrough to core prices from the recent run-up in energy prices, though not quite as small as some recent evidence might suggest. One risk, however, is that pass-through could be much greater, similar to the amount experienced during the persistent oil price shocks of the 1970s. In this scenario, pass-through is much higher than in the baseline; in addition, long run inflation expectations are not as well anchored and respond more to actual inflation than seems to have been the case in recent years. Despite these pessimistic assumptions, core PCE inflation is only 0.2 percentage point above baseline in 2008 and 0.1 percentage point above in 2009; real activity is little changed. In response, the federal funds rate edges up 15 basis points.

Market-based federal funds rate. Quotes from futures markets imply that the federal funds rate will fall to 3 $3 / 4$ percent by mid-2008 and remain below 4 percent through 2009. Conditional on our reading of the forces bearing on the economy, the increased stimulus from such a lower path would boost real GDP growth to nearly 3 percent by 2009 and lead to inflation $1 / 4$ percentage point higher than in the baseline.

## 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 | 1.7 | 2.2 |
| Confidence interval |  |  |  |
| Greenbook forecast errors | 1.8-2.8 | .2-3.3 | .8-3.6 |
| FRB/US stochastic simulations | 1.8-2.8 | .6-3.0 | .8-3.8 |
| Civilian unemployment rate (percent, Q4) |  |  |  |
| Projection | 4.7 | 4.8 | 4.8 |
| Confidence interval |  |  |  |
| Greenbook forecast errors | 4.6-4.8 | 4.2-5.4 | 3.8-5.8 |
| FRB/US stochastic simulations | 4.6-4.8 | 4.3-5.1 | 4.2-5.3 |
| PCE prices <br> excluding food and energy (percent change, Q4 to Q4) |  |  |  |
| Projection | 1.8 | 1.9 | 1.9 |
| Confidence interval |  |  |  |
| Greenbook forecast errors | 1.6-2.1 | 1.2-2.6 | 1.0-2.9 |
| FRB/US stochastic simulations | 1.7-2.0 | 1.4-2.4 | 1.3-2.6 |
| Federal funds rate (percent, Q4) |  |  |  |
| Projection | 4.8 | 4.8 | 4.8 |
| Confidence interval |  |  |  |
| FRB/US stochastic simulations | 4.6-5.0 | 3.6-6.0 | 3.3-6.4 |

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


Real GDP


PCE Prices excluding Food and Energy


Unemployment Rate


Federal Funds Rate


## 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.


|  | ¢ | $\underset{N}{N}$ | הָ Nin | $\overrightarrow{\mathrm{N}} \text { ले }$ | $0 \cdots$ |  | $\begin{aligned} & \infty \stackrel{n}{\sim} \stackrel{n}{f} \underset{i}{\sim} \end{aligned}$ | $0$ | $0 \infty \text { のー }$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\stackrel{\infty}{\infty}$ | $\underset{\sim}{i}$ | $\infty \underset{\sim}{\infty} ?$ | N- | $\stackrel{n}{\sim}$ |  | $\underset{\sim}{i} \underset{\sim}{n}$ | $\underset{\sim}{\sim} \underset{\sim}{n}$ | $\pm N M-$ |
|  | $\stackrel{\rightharpoonup}{\mathrm{S}}$ | mo | non ? | $\stackrel{\leftrightarrow}{\bullet} \underset{\sim}{\infty} \underset{\sim}{\infty} \underset{i}{\sim}$ | Nio | on ono on <br>  | GNNM $\xrightarrow[\sim]{n} \infty$ |  | ＋o－m |
| $\underset{\substack{\mathrm{N}}}{ }$ | $\pm$ | N N | $\xrightarrow[-]{0} \underset{\sim}{0}$ | $\underset{\sim}{n} \underset{\sim}{n} \underset{\sim}{n}$ | $\underset{\sim}{i}$ |  | $\underset{\sim}{\infty} \underset{\sim}{n} \underset{\sim}{n}$ | の90009 | $\infty \underset{\sim}{\infty} \underset{\sim}{\infty}-$ |
|  | $\stackrel{\omega}{\sigma}$ | $\begin{gathered} \mathrm{N} \\ \mathrm{~N} \end{gathered}$ | $\underset{\sim}{*} \underset{\sim}{N}$ | जa ano | $\begin{aligned} & 0 \\ & \underset{i}{*} \stackrel{+}{i} \end{aligned}$ | $\begin{array}{ccc} 0 & \infty \\ \text { nim } \\ \cdots \end{array}$ |  | $09 \rightarrow 09$ | ONーー |
|  | $\approx$ | $\stackrel{N}{\mathrm{~N}}$ | $\underset{\sim}{n} \underset{\sim}{n}$ | $\stackrel{\rightharpoonup}{\mathrm{N}} \stackrel{\cdots}{\mathrm{~N}} \stackrel{\infty}{-}$ | $\stackrel{\rightharpoonup}{\mathrm{i}}$ | NGOON <br> Nウッチー・ | $\underset{\sim}{n} \stackrel{t}{n} \underset{\sim}{*}$ | GO으으․ | $\bullet=ナ ー$ |
|  | $\overline{0}$ | $\overrightarrow{\mathrm{N}}$ | $\stackrel{\infty}{-} \rightarrow \underset{\sim}{\sim}$ | $\text { a } \underset{\sim}{n} \underset{\sim}{n}$ | $\vec{i}$ | －a のヘn n $\dot{\text { mi }} \dot{\text { ri－}}$ | ֵֵn no |  | $\cdots \sim$ |
| $\underset{\sim}{\infty}$ | $\pm$ | $9$ | $\infty \text { No }$ | הa No | $\stackrel{+}{\mathrm{i}}$ | $\underset{\rightarrow}{\infty} \underset{\sim}{\top} \text { no }$ |  | $\underset{\sim}{\text { NTG }}$ | いのナー |
|  | $\cdots$ | $9 \infty$ | $\underset{N}{N}-\underset{\sim}{\infty}$ | $\underset{\rightarrow}{-\infty} \underset{\sim}{\circ}$ | $\because$ | $\underset{\sim}{n} \underset{\sim}{n}$ | $\stackrel{+}{+} \stackrel{a}{i}$ | $\underset{\sim}{\sim} \underset{\sim}{\sim} \underset{\sim}{\infty}-$ | ナ $\quad$－ |
|  | $\mathrm{O}$ | $\stackrel{\infty}{\square}$ | $\underset{\sim}{*} \underset{\sim}{n} \because$ | $\underset{\sim}{\sim} \underset{\sim}{\sim} \underset{\sim}{\infty}$ |  | $ー ○ い ナ ナ ー$ ㄱ ำ－－ | $\underset{\sim}{\circ} \underset{\sim}{\circ} \underset{\sim}{n}$ | NG Nir | $\pm \odot \cdots ー$ |
|  | $\bar{\sigma}$ | $\because$ | $\infty \infty$ | $\stackrel{n}{?} \underset{\sim}{n}$ | $\begin{aligned} & \nabla_{i} \\ & \underset{\sim}{N} \end{aligned}$ | nnNono． ヘヘ ヘウー | $\underset{\sim}{n} \underset{\sim}{n}$ | $\overrightarrow{\text { Nor mir }}$ | ñon－ |
| $\hat{N}_{\hat{N}}^{2}$ | $\pm$ | $\underset{\sim}{\circ}$ | obnm | $\cdots \cdots \underset{0}{\cdots} \rightarrow$ | $\begin{aligned} & \infty \\ & \cdots \\ & \cdots \\ & \end{aligned}$ | ninoroo． mmmナm－ | $\begin{gathered} n \\ \underset{\sim}{n} \stackrel{\sim}{n} \stackrel{n}{n} \end{gathered}$ | $\underset{\min }{\dot{\sim}} \underset{\sim}{o} \cdot \underset{N}{n}$ | $\cdots \sim \sim$ |
|  | $\stackrel{\sim}{0}$ | $\begin{aligned} & m \stackrel{o}{0} \\ & m \stackrel{1}{2} \end{aligned}$ |  | N $+\infty$ の + $\dot{m} \sim N$ | $\stackrel{+}{N}$ |  |  | Nの $\infty$ n $\infty$ ． $\cdots$ in | $\bigcirc \pm \uparrow$－ |
|  |  | $\dot{\infty} \dot{\sim}$ | on rin | $\underset{\rightarrow}{i} \underset{i}{i} \underset{\sim}{n}$ | $\begin{aligned} & \infty \\ & \underset{1}{\top} \underset{\sim}{\underset{\sim}{*}} \end{aligned}$ |  | $\underset{\sim}{ \pm} \underset{\sim}{n} \stackrel{n}{\sim}$ |  | $৩$－ |
|  | $\begin{aligned} & 0 \\ & 2 \end{aligned}$ | $\bigcirc$ | $\xrightarrow{n} \underset{\sim}{n}$ | N下 $\infty$ O－ $\dot{m} \dot{\infty} \dot{\operatorname{rin}}$ | $\bigoplus_{1}^{n} \underset{1}{0}$ | $\overrightarrow{\mathrm{i}} \underset{\sim}{n} \cdots \underset{\bullet}{\star}$ | $\frac{N}{6} \underset{0}{0}$ | nn $n \infty \infty$ ○우 | oopin |
| $\underset{\Xi}{E}$ |  | $\begin{aligned} & \text { Real GDP } \\ & \text { Previous } \end{aligned}$ |  |  |  |  |  |  |  |

[^2]| $\begin{aligned} & \overline{2} \\ & \underset{\sim}{8} \end{aligned}$ | $\begin{gathered} \mathrm{N} \\ \mathrm{~N} \end{gathered}$ | $\overline{\mathrm{N}} \underset{\mathrm{~N}}{\mathrm{~N}}$ |  | on in | $0 \rightarrow \text { rom n }$ <br> ウ்ウ்ச்－－ |  | $00 . \because 0$ | $\bigcirc \infty$－ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \bar{\infty} \\ & \underset{\sim}{\circ} \end{aligned}$ | $\underset{\sim}{i}$ | $\stackrel{m}{i} \xlongequal[\sim]{n}$ | $\underset{\sim}{\sim} \rightarrow \stackrel{n}{\sim}$ | $\begin{aligned} & n \\ & \\ & \hline \end{aligned}$ |  | ōn |  | $\pm N \backsim-$ |
| $\begin{aligned} & \text { N} \\ & \underset{\sim}{\circ} \end{aligned}$ | $\begin{aligned} & \text { no } \\ & \text { in } \end{aligned}$ |  | $\stackrel{+}{i} \underset{\sim}{\infty} \underset{\sim}{\infty} \underset{i}{i}$ | $\underset{\sim}{N}$ | on $\quad$ o o on ウナ ゥ் ণir | すNNn $\cdots \sim \infty$ | n $\ddagger+\infty \cdots \cdots$ ヘヘ ヘ ㄴーi | $\checkmark$－$-m$ |
| $\begin{aligned} & \stackrel{\rightharpoonup}{8} \\ & \text { N} \end{aligned}$ | $\begin{aligned} & 0 \\ & \stackrel{0}{\mathrm{~N}} \stackrel{1}{2} \end{aligned}$ | $\bigcirc \bigcirc \rightarrow$ ． $\dot{\min }$ i | $\forall ナ \bullet \bullet \bullet$ мi $\dot{\operatorname{cin}}$ | $\begin{aligned} & \infty \infty \\ & \underset{1}{\infty} \underset{1}{~} \end{aligned}$ | Nサツ n m m nin N NI | $\begin{aligned} & \text { N N N N } \\ & \text { No } \\ & \hline 1 \end{aligned}$ | いい ペーか。 ヘヘウゥi－ |  |
| $\stackrel{n}{0}$ | $\hat{i}$ | $90 m m$ ヘi mi | $\infty \infty$ ก <br> $\dot{\sim}$－i i | $\stackrel{\rightharpoonup}{\bullet}$ | $\vec{n} \vec{A}$ | $\frac{\infty}{9} \frac{\infty}{9} \stackrel{0}{\sim}-$ |  | nmm？ |
| $\underset{\text { Y }}{\substack{\mathrm{O}}}$ | $\vec{m}$ | $\stackrel{\infty}{\infty} \stackrel{n}{\sim} \underset{\sim}{*}$ | Nronn м் inल | $\underset{0}{\bullet}$ | $\stackrel{n}{n} \underset{\sim}{n} \text { n n n }$ |  | N. | が |
| $\begin{aligned} & \bar{m} \\ & \underset{\sim}{\delta} \end{aligned}$ | $\stackrel{N}{\text { rim }}$ | $\stackrel{\rightharpoonup}{\mathrm{m}} \underset{\dot{\gamma}}{ }$ | $\forall \rightarrow m a n$ $\dot{m} \infty \dot{\sim}$ | $\underset{=}{i}$ |  | $\frac{\Omega}{\stackrel{a}{n}} \stackrel{\infty}{n} \stackrel{\infty}{i}$ | Hinnoti | $\pm \pm \pm \bigcirc$ |
| $\begin{aligned} & \text { 강 } \\ & \text { N-N } \end{aligned}$ | $99$ | $\infty, \ldots$ | $99 \underset{-}{9}$ | $\bigcirc$ |  | $\underset{F}{\underset{F}{*}} \underset{\sim}{\infty}$ | $\underset{\forall}{\odot} \underset{\sim}{\circ} \underset{\sim}{\infty} \underset{\sim}{\infty} \underset{\sim}{\sim}$ | $\cdots \sim \sim 1$ |
| $\begin{aligned} & \bar{\circ} \\ & \text { 앙 } \end{aligned}$ | ก ソ | $\because \because$ | $\stackrel{\infty}{\infty}{ }_{\mathrm{N}}^{\infty} \stackrel{\infty}{0} \underset{-}{-} \underset{-}{\bullet}$ | $\underset{-}{\star} \underset{\sim}{\star}$ | OOOO－T oig |  | $0 \bigcirc \text { tin N }$ | NNNO m？ |
| $\underset{ \pm}{\Xi}$ |  |  | $\begin{gathered} \text { Personal cons. expend. } \\ \text { Previous } \\ \text { Durables } \\ \text { Nondurables } \\ \text { Services } \end{gathered}$ |  |  |  |  |  |

[^3]

| 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 | . 5 | . 8 | 2.7 | 2.2 | 2.1 | 2.0 | 2.2 | 2.2 | 2.1 | 2.0 | 2.0 | 2.3 | 2.1 |
| Previous | 4.2 | 2.7 | . 8 | 2.3 | 2.1 | 2.1 | 2.1 | 2.0 | 2.2 | 2.1 | 2.0 | 2.0 | 2.5 | 2.1 | 2.1 |
| PCE chain-wt. price index | 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 |
| Previous | 3.5 | 4.2 | 1.6 | 2.4 | 1.5 | 1.8 | 1.8 | 1.8 | 1.8 | 1.8 | 1.8 | 1.8 | 2.9 | 1.7 | 1.8 |
| Energy | 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 |
| Previous | 16.1 | 51.3 | -6.9 | 5.8 | -6.7 | -2.1 | -. 6 | -. 8 | -. 9 | -. 8 | -. 8 | -. 9 | 14.7 | -2.6 | -. 9 |
| Food | 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 |
| Previous | 4.8 | 4.7 | 4.2 | 2.9 | 2.4 | 2.3 | 2.2 | 2.2 | 2.1 | 2.1 | 2.1 | 2.1 | 4.2 | 2.2 | 2.1 |
| Ex. food \& energy | 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 |
| Previous | 2.4 | 1.3 | 1.9 | 2.1 | 2.0 | 2.0 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 |
| CPI | 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 |
| Previous | 3.8 | 6.0 | 1.9 | 2.6 | 1.4 | 1.8 | 1.9 | 1.8 | 1.8 | 1.8 | 1.8 | 1.8 | 3.6 | 1.7 | 1.8 |
| Ex. food \& energy | 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 |
| Previous | 2.3 | 1.9 | 2.6 | 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 | 3.8 | 3.8 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.6 | 3.4 | 3.7 | 3.7 |
| Previous ${ }^{2}$ | 2.3 | 3.5 | 3.8 | 3.8 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.6 | 3.6 | 3.6 | 3.4 | 3.7 | 3.6 |
| Nonfarm business sector Output per hour | . 7 | 2.0 | 4.1 | 1.3 | 1.6 | 1.8 | 1.9 | 1.9 | 2.0 | 2.0 | 1.8 | 1.8 | 2.0 | 1.8 | 1.9 |
| Previous | . 7 | 2.2 | 3.4 | 1.4 | 1.3 | 1.8 | 1.8 | 2.0 | 1.9 | 1.8 | 1.9 | 1.9 | 1.9 | 1.7 | 1.9 |
| Compensation per hour | 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 |
| Previous | 5.9 | 4.1 | 5.0 | 3.9 | 3.9 | 4.5 | 4.6 | 4.5 | 4.3 | 4.3 | 4.2 | 4.2 | 4.7 | 4.4 | 4.2 |
| Unit labor costs | $5.2$ | 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 |
| Previous | 5.2 | 1.8 | 1.5 | 2.4 | 2.5 | 2.7 | 2.7 | 2.5 | 2.4 | 2.4 | 2.3 | 2.2 | 2.7 | 2.6 | 2.3 |

[^4]Class II FOMC
Restricted（FR）
Other Macroeconomic Indicators
October 24， 2007

|  | $\begin{aligned} & \text { oे } \\ & \stackrel{\rightharpoonup}{\mathrm{N}} \end{aligned}$ | $\underset{\sim}{\sim} \underset{+}{\infty} \rightarrow \underset{i}{\sim}$ |  | $\because \underset{\sigma}{0}$ | $\stackrel{m}{\square} \text { in } \underset{\sim}{i}$ | ソ | $\underset{\sim}{n} \stackrel{n}{1}$ | $\underset{\sim}{0}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & \infty \\ & \underset{N}{\infty} \\ & \hline \end{aligned}$ | $\infty \underset{\sim}{\infty} \underset{\sim}{\infty} \bigcirc$ |  | No. | $\underset{\forall}{\circ} \underset{\sim}{N} \underset{\sim}{\square}$ | $9 \underset{=}{=}$ | $\stackrel{\infty}{\infty}_{\sim_{1}^{\infty}}^{1}$ | $n \underset{n}{n}$ |
|  | $\begin{aligned} & \stackrel{\rightharpoonup}{\mathrm{O}} \\ & \underset{N}{2} \end{aligned}$ | $n \underset{\forall}{\sim} \underset{\sim}{r} n$ | $\mathfrak{n} \text { Nin Ni No n }$ | $\underset{-}{\square}$ | $\underset{\forall}{\forall} \underset{\sim}{*}{ }^{+} n ?$ | $\stackrel{N}{N}$ | $\frac{N}{N}^{N}$ | $\underset{\sim}{n}$ |
| $\underset{\substack{\mathrm{e}}}{\mathrm{e}}$ | $\pm$ | $\because \underset{\sim}{\infty} \underset{+}{\top} \rightarrow \underset{i}{N}$ |  | $\underset{\sim}{\sigma}$ | $\underset{\sim}{m} \underset{\sim}{n} \underset{\sim}{9}$ | no | $\underset{\sim}{\stackrel{\rightharpoonup}{\leftrightarrows}}$ | $\dot{0}=$ |
|  | $\hat{\vartheta}$ | $\because \underset{\sim}{\infty} \underset{+}{\top} \rightarrow \underset{i}{ }$ | $0 \infty$ กOOM <br> Nivirio | $\cdots$ | $\stackrel{n}{\square} \underset{\sim}{+} \underset{\sim}{0}$ | $\stackrel{\rightharpoonup}{\mathrm{r}} \underset{=}{=}$ | $\underset{1}{\infty} \frac{0}{1}$ | $\underset{\sim}{n} \underset{\sim}{i}$ |
|  | $\approx$ | $\underset{+}{\infty} \underset{+}{\top} \longrightarrow ?$ | ○NOO O N ㅅN $\dot{\sim} \dot{\infty}$ | $\cdots$ | $\underset{\forall}{\star} \underset{\sim}{+} \stackrel{n}{\infty}$ | $\frac{n}{1} \underset{\sim}{0}$ | $\underset{\sim}{e} \underset{1}{0}$ | $\dot{n}$ |
|  | $\approx$ | $\cdots \underset{\sim}{\infty} \underset{\sim}{\infty} O M$ | $\vec{m} \vec{m} \dot{m i n}_{\infty}^{\infty} \vec{\infty}$ | $\cdots$ | $\underset{\sim}{\forall} \underset{\sim}{\circ}$ | $\underset{\sim}{*} \underset{=}{\sim}$ | min | $\mathfrak{m}$ |
| $\stackrel{\infty}{\infty}$ | $\pm$ | $\cdots \underset{\sim}{\infty} \underset{\sim}{\infty} O M$ | No nioo． $\dot{\sim} \dot{\gamma} \dot{\sim} \dot{\infty} \dot{\infty}$ | $\cdots$ | $\underset{\sim}{n} \underset{\sim}{n} 9$ |  | $\stackrel{\ominus}{\stackrel{\rightharpoonup}{1}} \underset{1}{ }$ | $n \div$ |
|  | $\hat{\sigma}$ | $\underset{\forall}{\sim} \underset{\sim}{\sim}-\underset{i}{+}$ |  | $\stackrel{\rightharpoonup}{\square}$ | $\underset{\sim}{\circ} \underset{\sim}{*} \stackrel{n}{n}$ | $\stackrel{n}{-}=$ | $\begin{aligned} & 0 \\ & N_{1} \end{aligned}$ | $\stackrel{m}{n}$ |
|  | $\approx$ | $\stackrel{\sim}{\sim} \underset{+}{+\infty} \sim$ | $\mathfrak{\sim} \underset{\sim}{i}-\underset{\infty}{\infty}$ | NO | $\bigcirc$ | $\stackrel{\forall}{i}$ | $\underset{\sim}{\underset{1}{*}}$ | $\dot{n}$ |
|  | $\cdots$ | $\underset{\forall}{\wedge} \underset{\sim}{r} \text { O. }$ | $\stackrel{n}{n} \underset{\sim}{\circ}$ | No | $\underset{\sim}{\mathrm{N}} \underset{\sim}{\mathrm{~m}}$ | $\underset{\sim}{\sim}$ | $\stackrel{\infty}{c}_{\substack{\infty \\ 1}}$ | $n$ |
| $\begin{aligned} & \hat{e} \\ & \underset{i}{2} \end{aligned}$ | $\pm$ | $\cdots \underset{\sim}{\sim} \underset{\sim}{n} n$ |  | YO | $\underset{\sim}{n} \text { N } n$ | $\stackrel{O}{\odot}$ | ${\underset{\sim}{N}}_{\infty}^{N}$ | $\underset{\sim}{n}=$ |
|  | $\hat{o}$ | $n \underset{\sim}{\wedge} \underset{+}{o} \uparrow n$ |  | $\cdots$ | $\text { ni no } \underset{+}{ } \rightarrow 9$ | $\underset{i}{9} \stackrel{0}{=}$ | ${\underset{\sim}{N}}_{\sim}^{T}$ | $\underset{\sim}{n}$ |
|  | $\underset{O}{\approx}$ |  | nnmonn n | $\because 0$ | ob，onn | $\stackrel{\infty}{\infty} \dot{\sim}$ | ${\underset{i}{1}}^{m}$ | $\stackrel{N}{ \pm} \underset{\sim}{\top}$ |
|  | $\cdots$ | $\stackrel{n}{\sim} \underset{\sim}{n} 0 .$ | $\rightrightarrows=\infty \rightarrow \infty \underset{\sim}{\infty} \underset{\sim}{\infty}$ | $\cdots \underset{\sim}{\bullet}$ | のナナ ナ $\bigcirc$ <br> $\dot{\text {－in }}-\dot{-}$ |  | $\frac{2}{2}$ | $\underset{\sim}{\infty}$ |
|  | 哭 |  |  |  |  |  |  |  |

[^5][^6]| Item | Fiscal year |  |  |  | 2007 |  |  |  | 2008 |  |  |  | 2009 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $2006{ }^{\text {a }}$ | $2007{ }^{\text {a }}$ | 2008 | 2009 | Q1 ${ }^{\text {a }}$ | Q2 ${ }^{\text {a }}$ | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 |
| Unified budget |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Receipts ${ }^{1}$ | 2407 | 2568 | 2674 | 2786 | 547 | 824 | 622 | 608 | 559 | 851 | 656 | 645 | 573 | 879 | 688 | 664 |
| Outlays ${ }^{1}$ | 2655 | 2731 | 2891 | 3031 | 725 | 687 | 664 | 726 | 731 | 725 | 708 | 761 | 766 | 761 | 743 | 796 |
| Surplus/deficit ${ }^{1}$ | -248 | -163 | -217 | -245 | -178 | 137 | -42 | -118 | -172 | 126 | -53 | -116 | -193 | 118 | -54 | -132 |
| Previous | -248 | -161 | -226 | -255 | -178 | 137 | -40 | -118 | -176 | 129 | -61 | -115 | -197 | 121 | -64 | -131 |
| On-budget | -435 | -344 | -419 | -457 | -212 | 53 | -49 | -186 | -198 | 33 | -67 | -190 | -218 | 19 | -68 | -209 |
| Off-budget | 186 | 181 | 201 | 212 | 34 | 85 | 7 | 68 | 26 | 93 | 14 | 73 | 25 | 99 | 14 | 77 |
| Means of financing |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Borrowing | 237 | 206 | 178 | 263 | 152 | -110 | 106 | 79 | 137 | -95 | 57 | 111 | 182 | -89 | 59 | 127 |
| Cash decrease | -16 | -23 | 40 | 0 | 25 | -19 | -50 | 45 | 22 | -26 | 0 | 10 | 15 | -25 | 0 | 10 |
| Other ${ }^{2}$ | 28 | -20 | -1 | -18 | 1 | -8 | -14 | -6 | 14 | -5 | -5 | -5 | -5 | -5 | -5 | -5 |
| Cash operating balance, end of period | 52 | 75 | 35 | 35 | 6 | 25 | 75 | 30 | 9 | 35 | 35 | 25 | 10 | 35 | 35 | 25 |
| NIPA federal sector |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Receipts | 2437 | 2641 | 2763 | 2856 | 2620 | 2684 | 2697 | 2725 | 2754 | 2774 | 2799 | 2820 | 2840 | 2866 | 2898 | 2927 |
| Expenditures | 2685 | 2843 | 3008 | 3150 | 2838 | 2877 | 2915 | 2943 | 3012 | 3021 | 3055 | 3090 | 3142 | 3167 | 3202 | 3241 |
| Consumption expenditures | 798 | 843 | 901 | 941 | 830 | 850 | 865 | 879 | 900 | 909 | 917 | 925 | 940 | 946 | 953 | 961 |
| Defense | 533 | 569 | 616 | 644 | 556 | 574 | 587 | 598 | 614 | 622 | 628 | 634 | 643 | 648 | 652 | 657 |
| Nondefense | 266 | 273 | 286 | 297 | 274 | 276 | 278 | 280 | 286 | 288 | 289 | 291 | 296 | 299 | 301 | 304 |
| Other spending | 1887 | 2001 | 2107 | 2209 | 2008 | 2027 | 2050 | 2064 | 2112 | 2112 | 2138 | 2166 | 2203 | 2221 | 2248 | 2280 |
| Current account surplus | -248 | -203 | -245 | -294 | -219 | -193 | -218 | -218 | -258 | -247 | -256 | -270 | -303 | -301 | -303 | -314 |
| Gross investment | 117 | 121 | 127 | 131 | 117 | 120 | 122 | 125 | 127 | 128 | 129 | 130 | 131 | 131 | 132 | 133 |
| Gross saving less gross investment ${ }^{3}$ | -262 | -214 | -258 | -306 | -227 | -202 | -230 | -231 | -271 | -260 | -269 | -282 | -314 | -312 | -314 | -324 |
| Fiscal indicators ${ }^{4}$ <br> High-employment (HEB) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| surplus/deficit | -283 | -236 | -275 | -311 | -240 | -224 | -259 | -254 | -288 | -273 | -277 | -286 | -316 | -314 | -317 | -328 |
| Change in HEB, percent of potential GDP | -0.5 | -0.5 | 0.2 | 0.2 | 0.1 | -0.1 | 0.2 | -0.0 | 0.2 | -0.1 | 0.0 | 0.0 | 0.2 | -0.0 | -0.0 | 0.1 |
| 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 | 0.3 | 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
5. 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 aggregate demand stimulus.

| Class II FOMC <br> Restricted (FR) |  | Change in Debt of the Domestic Nonfinancial Sectors <br> (Percent) |  |  |  |  | October 24, 2007 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Households |  |  |  |  |  |  |
| Period ${ }^{1}$ | Total | Total | Home mortgages | Consumer credit | Business | State and local governments | Federal government | Nominal GDP |
| Year |  |  |  |  |  |  |  |  |
| 2002 | 7.3 | 10.8 | 13.3 | 5.7 | 2.5 | 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 | 11.4 | 13.9 | 5.5 | 5.8 | 7.4 | 9.0 | 6.5 |
| 2005 | 9.0 | 10.5 | 12.3 | 4.3 | 7.7 | 10.2 | 7.0 | 6.3 |
| 2006 | 8.7 | 10.0 | 10.9 | 4.6 | 9.6 | 8.2 | 3.9 | 5.4 |
| 2007 | 7.2 | 6.1 | 6.2 | 4.9 | 9.6 | 9.9 | 4.6 | 4.4 |
| 2008 | 4.7 | 3.5 | 3.3 | 3.6 | 6.1 | 6.9 | 4.1 | 4.0 |
| 2009 | 4.7 | 3.5 | 3.4 | 3.0 | 5.8 | 6.2 | 5.2 | 4.3 |
| Quarter |  |  |  |  |  |  |  |  |
| 2007:1 | 7.9 | 7.0 | 7.7 | 4.9 | 8.9 | 11.1 | 6.7 | 4.9 |
| 2 | 7.1 | 7.1 | 7.4 | 4.8 | 10.6 | 11.9 | -1.4 | 6.6 |
| 3 | 7.4 | 5.2 | 5.1 | 5.0 | 9.2 | 9.0 | 8.8 | 3.9 |
| 4 | 5.8 | 4.5 | 4.2 | 4.5 | 8.2 | 6.1 | 4.3 | 2.3 |
| 2008:1 | 5.2 | 3.9 | 3.6 | 4.0 | 6.8 | 7.0 | 5.2 | 4.2 |
| 2 | 3.9 | 3.5 | 3.3 | 3.6 | 5.8 | 6.9 | -. 2 | 4.0 |
| 3 | 4.5 | 3.3 | 3.1 | 3.3 | 5.7 | 6.6 | 4.6 | 4.0 |
| 4 | 4.7 | 3.1 | 2.9 | 3.1 | 5.5 | 6.5 | 6.6 | 3.9 |
| 2009:1 | 5.1 | 3.3 | 3.2 | 3.0 | 5.7 | 6.2 | 8.4 | 4.4 |
| 2 | 3.8 | 3.4 | 3.3 | 2.9 | 5.7 | 6.1 | . 3 | 4.4 |
| 3 | 4.5 | 3.5 | 3.4 | 2.9 | 5.6 | 6.0 | 4.5 | 4.3 |
| 4 | 5.0 | 3.6 | 3.5 | 2.9 | 5.5 | 5.9 | 7.4 | 4.3 |

Note. Quarterly data are at seasonally adjusted annual rates.
GDP growth, which is calculated from Q4 to Q4.
Class II FOMC
Flow of Funds Projections: Highlights


[^7](This page intentionally blank.)

## Class II FOMC—Restricted (FR)

## International Developments

Conditions in foreign financial markets show some improvement following the turmoil of late summer. Although recovery has been somewhat uneven across markets, with conditions in money markets in particular continuing to show some stresses, most foreign equity indexes registered gains, on net, over the intermeeting period. Indicators of foreign activity suggest that foreign real GDP growth moderated to $31 / 2$ percent in the third quarter, as had been anticipated at the time of the September Greenbook. We expect foreign real GDP growth to slow to about 3 percent in the fourth quarter. Over the remainder of the forecast period, growth holds steady at $31 / 4$ percent, unchanged from the previous forecast.

Oil prices have climbed in recent weeks, with the spot price of West Texas Intermediate (WTI) crude oil reaching a record high $\$ 89.48$ per barrel on October 18 before retreating somewhat. Concerns about the potential for geopolitical tensions to adversely affect oil supply have boosted both spot and futures prices. Our current projection also includes a weaker path for the dollar. Since the time of the September Greenbook, the nominal trade-weighted exchange value of the dollar has moved down $21 / 2$ percent, with most of the move against the major foreign currencies. We project a modest further depreciation over the rest of the forecast period.

In the third quarter, net exports are estimated to have contributed $11 / 4$ percentage points to real U.S. GDP growth, as exports surged. This contribution is about $1 / 2$ percentage point larger than in the September Greenbook. We project that real net exports will make a neutral contribution to real GDP growth in the current quarter, as export growth falls back from the third quarter's brisk pace and imports pick up. For the remainder of the forecast period, the contribution is expected to remain positive on average, as exports continue to grow strongly and imports remain subdued. The contribution is slightly larger than projected in the September Greenbook. We project the U.S. current account deficit will widen a bit over this quarter and next before narrowing to about $\$ 760$ billion, or 5 percent of GDP, in 2009.

## Summary of Staff Projections

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

| Indicator | 2006 | $\begin{gathered} \text { 2007: } \\ \text { H1 } \end{gathered}$ | Projection |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | 2007 |  | 2008 | 2009 |
|  |  |  | Q3 | Q4 |  |  |
| Foreign output | 3.9 | 4.3 | 3.5 | 3.1 | 3.2 | 3.2 |
| September GB | 3.9 | 4.3 | 3.4 | 3.1 | 3.2 | 3.2 |
| Foreign CPI | 2.1 | 2.9 | 4.0 | 2.6 | 2.4 | 2.4 |
| September GB | 2.1 | 2.9 | 4.1 | 2.3 | 2.3 | 2.3 |
|  | Contribution to growth (percentage points) |  |  |  |  |  |
| U.S. net exports | 0.4 | 0.4 | 1.3 | 0.0 | 0.4 | 0.0 |
| September GB | 0.4 | 0.4 | 0.8 | -0.2 | 0.2 | 0.0 |

Note. Changes for years measured as Q4/Q4; half-year is measured as Q2/Q4.

## Oil Prices

The spot price of WTI crude oil traded in a range of $\$ 80$ to $\$ 84$ per barrel for much of the period since the September Greenbook. Late in the intermeeting period, however, the spot price of WTI surged toward the $\$ 90$ per barrel mark before falling to $\$ 86.48$ on October 23. Far-dated futures prices also climbed, with the December 2015 contract rising nearly $\$ 6$ per barrel to about $\$ 75$ per barrel. Given the path of futures prices, we project that the price of WTI will average $\$ 86$ per barrel in the current quarter and then fall to about $\$ 76$ by the end of 2009. Relative to the September Greenbook, this projection is about $\$ 10$ per barrel higher in the near term and about $\$ 6$ higher at the end of the forecast period.

Global demand for oil appears to have remained strong, with little apparent effect from the recent financial market turmoil. The recent depreciation of the dollar has provided some support to oil prices, although this channel can explain only a small portion of the run-up in oil prices over the intermeeting period. A more substantial cause appears to be the escalation of geopolitical tensions in recent weeks. In particular, Turkish threats of an incursion into northern Iraq to fight Kurdish separatists have raised concerns about further destabilization in the Middle East and the resulting risks to oil supply. Concerns also have been prompted by preliminary data suggesting that crude oil inventories in the OECD countries declined in the third quarter, in contrast to the typical build ahead of the winter heating months. Moreover, OPEC does not appear willing to increase production
to alleviate tightness in the oil market beyond its plans for a small increase in November, even as oil prices have soared to record highs.

## International Financial Markets

After the larger-than-expected cut in the federal funds target rate announced by the FOMC on September 18, equity prices rose across the globe, and risk spreads and implied volatilities on a wide range of assets declined. Conditions in European interbank money markets improved substantially at the shortest maturities over subsequent weeks, but improvements for longer maturities were less pronounced. In an attempt to alleviate the stress in euro money markets, the European Central Bank continued to provide large amounts of short- and medium-term euro liquidity. The Bank of England also injected short-term liquidity and allowed banks greater flexibility in meeting target balances. Late in the period, in response to weak U.S. housing data and disappointing earnings reports, equity markets reversed some of their gains and risk spreads crept up. However, conditions improved on balance over the period.

The trade-weighted major currencies index of the dollar fell $3 ½$ percent over the intermeeting period, and the dollar declined $13 / 4$ percent against the currencies of our other important trading partners. The dollar depreciated 5¼ percent against the Canadian dollar, with the exchange rate crossing parity for the first time since 1976. It depreciated about $21 / 2$ percent against the euro and sterling over the period, but declined less against the yen as some investors reportedly reestablished yen-funded carry-trade positions. The dollar also depreciated $2 ½$ percent versus the Mexican peso and by similar amounts against several currencies in emerging Asia. All told, the starting point for the projected path of the broad real dollar is down $21 / 2$ percent from its level in the previous Greenbook. Going forward, we continue to project a modest further depreciation of the broad real dollar.

Equity indexes in the advanced foreign economies rose on net over the period. Major indexes in Europe and Japan rose 3 to 4 percent. Ten-year European, Canadian, and Japanese nominal sovereign yields and corresponding ten-year inflation-indexed bonds were little changed over the period. Equity prices increased sharply in most emergingmarket economies, with increases of more than 10 percent recorded in Brazil and several emerging Asian economies.

. The Desk did not

intervene during the period for the accounts of the System or the Treasury.

## Advanced Foreign Economies

We estimate that real GDP growth in the advanced foreign economies ticked up to $21 / 4$ percent in the third quarter. Available data suggest that growth recovered from a second-quarter contraction in Japan but stepped down in Canada. We estimate that growth rebounded in the euro area in the third quarter, but recent surveys suggest some softening. Moreover, banks in the euro area have tightened credit standards for households and businesses. We continue to expect that recent market disruptions will have a small negative effect on GDP growth, though considerable uncertainty about the size of this effect remains. For the advanced foreign economies, the average pace of activity is projected to edge down to around 2 percent in the current quarter, partly as a result of the lagged effects of previous interest rate hikes and the projected slowdown in U.S. growth. Over 2008 and 2009, we project real GDP to expand at about 2 percent, a rate close to trend.

We project that four-quarter inflation for the advanced foreign economies on average will rise to around 2 percent in the current quarter but slip back to near $13 / 4$ percent for the rest of the forecast period. However, we expect Japanese inflation to remain near zero this quarter and to rise to about $1 / 2$ percent by 2009. Our inflation outlook for the advanced foreign economies is slightly lower than in the September Greenbook, as currency appreciation and more-favorable-than-expected inflation readings more than offset the effects of higher oil prices.

We have lowered our assumed paths of policy interest rates in the United Kingdom and Japan. We now assume that the Bank of England will reduce rates 50 basis points over this quarter and the next, bringing the policy rate to 5.25 percent, and that the Bank of Japan will raise rates to 1.25 percent in 2009, an endpoint that is 50 basis points lower than in our previous forecast. We continue to assume that the ECB will keep policy rates on hold at 4 percent.

## Emerging Market Economies

Financial markets in most emerging-market economies were generally less affected by the recent financial turmoil, and indicators we have received so far suggest that activity in these economies on average expanded at a solid 5 percent pace in the third quarter. This
estimate is slightly higher than in the previous Greenbook. We project growth of just under 5 percent for the remainder of the forecast period, an outlook that is little changed from the September Greenbook.

In emerging Asia, real GDP is estimated to have slowed from a second-quarter surge to $61 / 2$ percent in the third quarter. Looking forward, we expect growth in the region to remain near $611 / 4$ percent in the current quarter and beyond. This outlook is little changed from the previous Greenbook, despite the effects of higher oil prices. We estimate that growth in China slowed to about $91 / 2$ percent in the third quarter, reflecting some narrowing in the trade surplus and a moderation of industrial production growth, and we project China’s growth to remain at roughly this rate in 2008 and 2009.

Real GDP growth in Latin America is estimated to have stepped down in the third quarter to about $33 / 4$ percent. We project that it will decline further to $31 / 4$ percent in the current quarter and will remain close to that rate for the remainder of the forecast. This contour is largely shaped by the outlook for Mexico, which in turn reflects the path for U.S. manufacturing.

Four-quarter inflation in the emerging-market economies jumped from $31 / 4$ percent in the second quarter to $41 / 2$ percent in the third quarter. The increase was due to higher food prices in several countries, in part reflecting higher global grain prices. Inflation is expected to remain elevated at more than 4 percent through the first half of next year before falling to near 3 percent. This pattern is most pronounced in China, where higher food prices are estimated to have boosted four-quarter inflation to 6 percent in the third quarter, while non-food price inflation has remained very low. We project that Chinese inflation will remain more than 5 percent on average through the first half of next year and drop to less than 3 percent by the end of 2008 as the pressures on food price inflation lessen.

## Prices of Internationally Traded Goods

We estimate that core import price inflation slowed to 3 percent in the third quarter. In September, core import prices edged down as prices fell for imported industrial supplies, particularly metals. In contrast, prices for imported finished goods rose at a moderate pace for the fourth consecutive month.

In spot markets, metals prices have generally risen thus far in October. Higher prices for metals and other commodities, combined with the recent depreciation of the dollar,
should keep core import price inflation around $23 / 4$ percent (a.r.) in the current quarter and about $2 \frac{1}{2}$ percent in early 2008. For the remainder of the forecast, we project that core import price inflation will stabilize at an annual rate just below 1 percent, as commodity prices are projected to level off, consistent with readings from futures markets, and the dollar depreciates at a more modest pace. Compared with the September Greenbook, this forecast is revised up somewhat in the near term on account of the recent depreciation of the dollar.

## Staff Projections of Selected Trade Prices

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

| Trade category | 2006 | $\begin{gathered} \text { 2007: } \\ \text { H1 } \end{gathered}$ | Projection |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | 2007 |  | 2008 | 2009 |
|  |  |  | Q3 | Q4 |  |  |
| Imports |  |  |  |  |  |  |
| Core goods | 2.4 | 3.1 | 2.9 | 2.7 | 1.2 | 0.7 |
| September GB | 2.4 | 3.0 | 2.8 | 2.5 | 1.2 | 1.0 |
| Oil (dollars per barrel) | 55.33 | 63.84 | 70.56 | 81.92 | 75.15 | 71.80 |
| September GB | 55.33 | 63.84 | 70.25 | 72.09 | 67.32 | 65.99 |
| Exports |  |  |  |  |  |  |
| Core goods | 4.3 | 6.7 | 3.1 | 2.4 | 0.8 | 0.7 |
| September GB | 4.3 | 6.6 | 2.9 | 2.0 | 0.7 | 0.9 |

Note. Prices for core exports and non-oil 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 estimate that core export prices decelerated sharply to 3 percent in the third quarter. This deceleration reflects a slowing of the inflation rate for nonagricultural supplies, which offset a pickup in the inflation rate for agricultural products. We expect core export prices to decelerate further in the current quarter and then to rise less than 1 percent beginning early next year, reflecting the expected path for commodity prices. Compared with the September Greenbook, the forecast for core export price inflation is a little higher in the near term, largely reflecting an upward revision to agricultural and petroleum prices.

## Trade in Goods and Services

Stronger-than-expected trade data for August have led us to revise up our estimate of the contribution from real net exports to U.S. GDP growth in the third quarter to
1.3 percentage points, 0.4 percentage point more than we had previously projected. For the current quarter, we project a neutral contribution, as export growth moderates and imports pick up, in part reflecting the seasonal pattern for oil imports. Net exports are then projected to contribute nearly $1 / 2$ percentage point to growth next year and to be neutral in 2009. The outlook is for a somewhat more positive contribution than in the September Greenbook, mainly in 2008, as we have revised up export growth in light of the weaker dollar.

Real imports of goods and services are estimated to have increased $31 / 2$ percent in the third quarter. Imports of core goods rebounded from their unusual weakness earlier this year, more than offsetting falling imports of oil, computers, and natural gas. In the current quarter, real import growth is expected to step up to $51 / 4$ percent, with much of the pickup attributable to a seasonal rebound in oil imports following the third quarter's steep decline. In addition, imports of computers, after falling in the middle of the year, are expected to move up and contribute significantly to overall import growth. In contrast, imports of core goods and services are expected to decelerate sharply, pulled down, in part, by slowing U.S. GDP growth.

| Staff Projections for Trade in Goods and Services (Percent change from end of previous period, s.a.a.r.) |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Measure | 2006 | $\begin{gathered} \text { 2007: } \\ \text { H1 } \end{gathered}$ | Projection |  |  |  |
|  |  |  | 2007 |  | 2008 | 2009 |
|  |  |  | Q3 | Q4 |  |  |
| Real imports | 3.7 | 0.5 | 3.5 | 5.3 | 2.7 | 4.5 |
| September GB | 3.7 | 0.6 | 3.8 | 5.4 | 2.7 | 4.4 |
| Real exports | 9.3 | 4.3 | 16.9 | 7.7 | 6.9 | 6.3 |
| September GB | 9.3 | 4.4 | 13.3 | 5.9 | 5.8 | 5.9 |

Note. Changes for years are measured as Q4/Q4; half-year is measured as Q2/Q4.
Real import growth is expected to rise over the course of 2008 and 2009, as imports of core goods and services pick up along with strengthening U.S. GDP growth and slowing
import price inflation. Imports of computers and semiconductors are expected to grow in line with their historical pace, while imports of oil are projected to be flat on average. Our projection for real import growth in 2008 and 2009 is about unchanged from the previous Greenbook.

Real exports of goods and services are estimated to have soared 17 percent at an annual rate in the third quarter. Exports of core goods surged, with aircraft, automotive products, and agricultural goods all exhibiting strong growth in the quarter. Exports of computers are also estimated to have grown rapidly, after falling earlier this year. In contrast, exports of services decelerated. Taken together, our estimate for total export growth is about $31 / 2$ percentage points higher than in the previous Greenbook, reflecting the strength of exports in the August trade data. After core exports soared in July, we had anticipated a decline in August, but instead they maintained their elevated level.

In the current quarter, real export growth is expected to step down to $73 / 4$ percent, as exports of core goods decelerate to a pace more in line with expected foreign growth and recent developments in relative prices. Export growth then edges down further over the remainder of the forecast period. Exports of core goods maintain solid growth, buoyed by the lagged effects of recent sharp declines in the dollar. However, exports of services, which react more quickly to changes in relative prices, decelerate as the effect of recent rapid dollar depreciation fades and the dollar declines much more slowly going forward.

Compared with the September Greenbook, we have revised up our forecast for real export growth by almost 2 percentage points in the current quarter and by about $3 / 4$ percentage point on average in 2008 and 2009. This upward revision reflects the weaker path of the dollar as well as our sense that the recent trade data were pointing to greater underlying strength in exports than we had previously assumed.

## Alternative Simulations

Our baseline forecast calls for a decline in foreign inflation and for a modest depreciation of the broad real dollar. However, with the global economy operating near potential, any number of developments, such as an acceleration in wages or a widening of markups over cost, could lead to an increase in foreign inflation. Such an outcome would lead to tighter foreign monetary policy than in the baseline, which would reinforce downward pressure on the dollar. Moreover, in an environment where investors already have become uneasy about the dollar's prospects, market jitters could lead the dollar to fall more than implied by changes in interest rate differentials alone. Accordingly, we used the FRB/Global
model to consider the effects of two alternative scenarios, one that explores the reaction to the foreign inflation shock by itself, and another that combines the inflation shock with additional dollar depreciation.

In the first scenario, the shock increases the inflation rates of the major U.S. trading partners 1 percentage point starting in the fourth quarter of 2007. In response to consequent monetary tightening abroad, foreign GDP growth falls 0.7 percentage point below baseline in 2008 and 0.4 percentage point in 2009. The spillover effects on U.S. activity are mitigated as the broad real dollar depreciates in response to higher interest rates abroad, leaving U.S. GDP growth little changed.

In the second scenario, the foreign inflation shock is accompanied by a risk-premium shock that would lead to an additional 10 percent dollar depreciation in the absence of endogenous adjustment. The further decline in the dollar boosts the growth rate of U.S. real GDP, which rises above baseline by 0.7 percentage point on average in 2008. Output rises because U.S. exports become more competitive abroad and because U.S. consumers substitute away from imports toward domestically produced goods. Core PCE price inflation increases 0.2 percentage point above baseline in the second half of 2007, mainly because of higher import prices, and 0.1 percentage point in 2008 in response to higher resource utilization. Given higher activity and prices, the federal funds rate rises about 1 percentage point above its baseline level by the end of 2009; this higher path for interest rates restrains real GDP growth, pushing it below baseline by the second half of 2009. The nominal trade balance as a percent of GDP exhibits a J-curve effect, initially falling (thereby creating a larger deficit) before moving 0.3 percentage point above baseline by the end of 2009.

## Alternative Simulations:

Higher Foreign Inflation and Dollar Depreciation
(Percent change from previous period, annual rate, except as noted)

| Indicator and simulation | 2007 | 2008 |  | 2009 |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
|  | H 2 | H 1 | H 2 | H 1 | H 2 |
| U.S. real GDP <br> Baseline | 2.4 | 1.6 | 1.9 | 2.2 | 2.2 |
| Higher inflation abroad <br> Higher inflation abroad and dollar <br> depreciation | 2.4 | 1.5 | 1.9 | 2.2 | 2.2 |
| U.S. core PCE prices | 2.3 | 2.3 | 2.5 | 2.6 | 1.8 |
| Baseline | 1.8 | 1.9 | 1.9 | 1.9 | 1.9 |
| Higher inflation abroad <br> Higher inflation abroad and dollar <br> depreciation | 1.8 | 1.9 | 1.9 | 1.8 | 1.8 |
| U.S. federal funds rate (percent) | 2.0 | 2.0 | 2.0 | 1.9 | 2.0 |
| Baseline | 5.0 | 4.75 | 4.75 | 4.75 | 4.75 |
| Higher inflation abroad <br> Higher inflation abroad and dollar <br> depreciation | 5.0 | 4.75 | 4.65 | 4.65 | 4.55 |
| U.S. trade balance <br> (percent of GDP) | 5.0 | 5.15 | 5.65 | 5.85 | 5.65 |
| Baseline |  |  |  |  |  |
| Depreciation (low pass-through) <br> Higher inflation abroad and dollar <br> depreciation | -5.2 | -5.2 | -4.7 | -4.5 | -4.2 |

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*

*Prices for merchandise imports excluding computers, semiconductors, oil, and natural gas.
Class II
Restricted
(FR)
OUTLOOK FOR FOREIGN REAL GDP AND CONSUMER PRICES: SELECTED COUNTRIES (Percent, Q4 to Q4)

| 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 | 3.8 | 3.9 | 3.8 | 3.2 | 3.2 |
| Advanced Foreign Economies of which: | 0.9 | 2.5 | 1.8 | 2.6 | 2.7 | 2.5 | 2.5 | 2.0 | 2.1 |
| Canada | 1.3 | 3.5 | 1.5 | 3.5 | 3.2 | 1.9 | 2.8 | 1.9 | 2.0 |
| Japan | $-1.7$ | 2.0 | 2.4 | 1.1 | 2.8 | 2.5 | 1.2 | 1.9 | 1.6 |
| United Kingdom | 2.1 | 2.3 | 3.4 | 2.6 | 1.8 | 3.2 | 2.9 | 2.3 | 2.4 |
| Euro Area (2) | 1.0 | 1.1 | 1.2 | 1.6 | 1.9 | 3.3 | 2.2 | 1.9 | 2.0 |
| Germany | 1.1 | -0.0 | 0.1 | 0.1 | 1.6 | 3.9 | 2.0 | 1.9 | 2.0 |
| Emerging Market Economies | $-0.4$ | 4.0 | 4.8 | 5.6 | 5.4 | 5.7 | 5.5 | 4.9 | 4.8 |
| Asia | 1.1 | 6.4 | 6.9 | 5.9 | 7.5 | 6.7 | 7.6 | 6.3 | 6.2 |
| Korea | 4.7 | 7.7 | 4.2 | 2.9 | 5.7 | 4.0 | 5.1 | 4.5 | 4.3 |
| China | 7.1 | 8.5 | 10.1 | 9.6 | 10.0 | 10.4 | 11.9 | 9.7 | 9.5 |
| Latin America | $-1.3$ | 1.6 | 2.4 | 5.3 | 3.1 | 4.9 | 3.6 | 3.5 | 3.5 |
| Mexico | -1.3 | 2.0 | 2.1 | 4.8 | 2.5 | 4.3 | 3.2 | 3.2 | 3.2 |
| Brazil | -0.7 | 5.0 | 0.8 | 5.0 | 3.1 | 4.7 | 3.8 | 4.0 | 4.0 |
| CONSUMER PRICES (3) |  |  |  |  |  |  |  |  |  |
| Advanced Foreign Economies of which: | 0.9 | 2.1 | 1.3 | 1.8 | 1.5 | 1.3 | 2.0 | 1.7 | 1.7 |
| Canada | 1.1 | 3.8 | 1.7 | 2.3 | 2.2 | 1.3 | 2.7 | 2.2 | 2.0 |
| 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 | 1.8 | 2.1 | 2.0 |
| Euro Area (2) | 2.1 | 2.3 | 2.0 | 2.3 | 2.3 | 1.8 | 2.2 | 1.8 | 1.9 |
| Germany | 1.5 | 1.2 | 1.1 | 2.1 | 2.2 | 1.3 | 2.5 | 1.6 | 1.8 |
| Emerging Market Economies | 2.8 | 2.9 | 3.1 | 3.9 | 3.0 | 2.9 | 4.4 | 3.2 | 3.1 |
| Asia | 1.2 | 0.8 | 2.2 | 3.2 | 2.6 | 2.3 | 4.5 | 2.9 | 2.9 |
| Korea | 3.3 | 3.3 | 3.5 | 3.4 | 2.5 | 2.1 | 2.9 | 2.9 | 2.4 |
| China | $-0.1$ | -0.6 | 2.7 | 3.3 | 1.4 | 2.1 | 5.6 | 2.8 | 2.9 |
| Latin America | 5.3 | 6.4 | 4.9 | 5.7 | 3.8 | 4.2 | 4.1 | 3.8 | 3.8 |
| Mexico | 5.1 | 5.2 | 3.9 | 5.3 | 3.1 | 4.1 | 3.8 | 3.5 | 3.5 |
| Brazil | 7.5 | 10.7 | 11.5 | 7.2 | 6.1 | 3.2 | 4.2 | 3.7 | 3.7 |

[^8]|  | 2007 |  |  |  | $\begin{aligned} & -\quad \text { Projected } \\ & 2008 \end{aligned}$ |  |  |  | 2009 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Measure and country | Q1 | $\bigcirc 2$ | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 |
| REAL GDP (1) ------------------ Quarterly changes at an annual rate |  |  |  |  |  |  |  |  |  |  |  |  |
| Total foreign | 4.2 | 4.4 | 3.5 | 3.1 | 3.2 | 3.2 | 3.3 | 3.3 | 3.2 | 3.2 | 3.2 | 3.2 |
| Advanced Foreign Economies of which: | 3.8 | 2.2 | 2.3 | 1.9 | 2.0 | 1.9 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 |
| Canada | 3.9 | 3.4 | 2.1 | 1.9 | 1.9 | 1.6 | 1.9 | 2.0 | 2.0 | 2.0 | 2.0 | 2.1 |
| Japan | 3.0 | -1.2 | 1.4 | 1.7 | 2.0 | 2.2 | 1.9 | 1.7 | 1.7 | 1.7 | 1.6 | 1.6 |
| United Kingdom | 3.2 3.1 | 3.3 1.3 | 3.3 2.8 | 1.8 1.9 | 2.1 1.8 | 2.3 1.9 | 2.4 2.0 | 2.4 | 2.4 | 2.4 | 2.4 | 2.4 |
| Germany | 2.2 | 1.0 | 2.8 | 1.8 | 1.8 | 1.9 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 |
| Emerging Market Economies | 4.7 | 7.6 | 5.1 | 4.8 | 4.9 | 4.9 | 4.9 | 4.9 | 4.9 | 4.9 | 4.8 | 4.8 |
| Asia | 7.5 | 10.1 | 6.5 | 6.2 | 6.2 | 6.3 | 6.3 | 6.3 | 6.2 | 6.2 | 6.2 | 6.2 |
| Korea | 3.6 | 7.4 | 5.0 | 4.6 | 4.5 | 4.5 | 4.5 | 4.4 | 4.4 | 4.4 | 4.3 | 4.3 |
| China | 14.2 | 14.7 | 9.4 | 9.3 | 9.5 | 9.7 | 10.0 | 9.7 | 9.5 | 9.5 | 9.5 | 9.5 |
| Latin America | 2.0 | 5.3 | 3.8 | 3.3 | 3.5 | 3.4 | 3.5 | 3.5 | 3.5 | 3.5 | 3.4 | 3.4 |
| Mexico | 1.2 | 5.3 | 3.5 | 2.9 | 3.2 | 3.1 | 3.3 | 3.3 | 3.3 | 3.3 | 3.2 | 3.2 |
| Brazil | 3.6 | 3.2 | 4.2 | 4.2 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| CONSUMER PRICES (3) |  |  |  |  |  |  |  |  |  |  |  |  |
| Advanced Foreign Economies | 1.6 | 1.6 | 1.6 | 2.0 | 1.8 | 1.6 | 1.7 | 1.7 | 1.6 | 1.6 | 1.6 | 1.7 |
| Canada. | 1.9 | 2.0 | 2.1 | 2.7 | 2.2 | 1.9 | 2.3 | 2.2 | 2.1 | 2.0 | 2.0 | 2.0 |
| Japan | -0.1 | -0.0 | -0.1 | 0.1 | 0.3 | 0.2 | 0.2 | 0.3 | 0.4 | 0.5 | 0.5 | 0.5 |
| United Kingdom (4) | 2.9 | 2.6 | 1.8 | 1.8 | 1.8 | 1.8 | 2.2 | 2.1 | 2.0 | 2.0 | 2.0 | 2.0 |
| Euro Area (2) | 1.9 | 1.9 | 1.9 | 2.2 | 2.2 | 2.0 | 2.0 | 1.8 | 1.8 | 1.8 | 1.9 | 1.9 |
| Germany | 1.9 | 2.0 | 2.2 | 2.5 | 2.2 | 1.9 | 1.8 | 1.6 | 1.7 | 1.7 | 1.8 | 1.8 |
| Emerging Market Economies | 3.1 | 3.3 | 4.4 | 4.4 | 4.3 | 4.2 | 3.2 | 3.2 | 3.1 | 3.1 | 3.1 | 3.1 |
| Asia | 2.7 2.0 | 3.0 | 4.5 2.3 | 4.5 2.9 | 4.4 3.4 | 4.2 2.9 | 2.9 2.9 | 3.9 2.9 | 3.9 2.7 | 2.8 2.6 | 2.8 <br> 2.5 |  |
| China | 2.8 | 3.6 | 6.1 | 5.6 | 5.4 | 4.8 | 2.6 | 2.8 | 2.8 | 2.8 | 2.8 | 2.9 |
| Latin America | 4.2 | 4.2 | 4.3 | 4.1 | 4.0 | 4.2 | 3.9 | 3.8 | 3.8 | 3.8 | 3.8 | 3.8 |
| Mexico | 4.1 | 4.0 | 4.0 | 3.8 | 3.6 | 3.9 | 3.6 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| Brazil | 3.1 | 3.4 | 4.2 | 4.2 | 3.8 | 3.8 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 |

[^9]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 |  |  |  |  |  |  |  |  |  |
|  | Percent | e point | contribu | ion to | growth | Q4/Q4 |  |  |  |
| Net Goods \& Services | -0.2 | -0.9 | -0.1 | -0.9 | $-0.1$ | 0.4 | 0.5 | 0.4 | 0.0 |
| Exports of G\&S | -1.3 | 0.4 | 0.6 | 0.7 | 0.7 | 1.0 | 0.9 | 0.8 | 0.8 |
| Imports of G\&S | 1.1 | $-1.3$ | -0.7 | -1.7 | -0.8 | -0.6 | -0.4 | -0.5 | -0.8 |
| Percentage change, Q4/Q4 |  |  |  |  |  |  |  |  |  |
| Exports of G\&S | -11.9 | 3.8 | 5.8 | 7.4 | 7.0 | 9.3 | 8.2 | 6.9 | 6.3 |
| Services | -8.9 | 10.2 | 3.0 | 8.3 | 4.1 | 8.3 | 5.3 | 6.3 | 4.7 |
| Computers | $-23.5$ | $-1.1$ | 11.3 | 5.8 | 14.0 | 8.2 | 0.7 | 9.5 | 9.5 |
| Semiconductors | -34.6 | 10.1 | 38.3 | -6.0 | 17.5 | 2.4 | 14.9 | 11.0 | 11.0 |
| Core Goods 1/ | -10.2 | 0.6 | 4.9 | 8.0 | 7.5 | 10.2 | 9.6 | 6.9 | 6.8 |
| Imports of G\&S | $-7.6$ | 9.7 | 4.8 | 11.5 | 5.1 | 3.7 | 2.5 | 2.7 | 4.5 |
| Services | $-5.9$ | 8.8 | 2.2 | 9.3 | 1.4 | 6.1 | 0.3 | 1.6 | 3.5 |
| Oil | 3.7 | 3.8 | 1.2 | 10.8 | 1.2 | -9.0 | 2.6 | -1.2 | -0.1 |
| Natural Gas | $-6.5$ | 19.5 | 1.3 | 4.9 | 11.3 | -13.4 | 8.2 | 5.7 | 3.1 |
| Computers | -13.6 | 13.2 | 17.0 | 23.2 | 12.2 | 13.6 | 10.1 | 15.5 | 15.5 |
| Semiconductors | -51.1 | 11.0 | $-0.1$ | 9.8 | 7.6 | -0.5 | 5.8 | 5.0 | 5.0 |
| Core Goods 2/ | $-6.5$ | 10.0 | 5.2 | 11.4 | 6.0 | 5.9 | 2.1 | 3.0 | 5.1 |
| Billions of Chained 2000 Dollars |  |  |  |  |  |  |  |  |  |
| Net Goods \& Services |  | $-471.3$ |  |  |  |  |  |  |  |
| Exports of G\&S | $1036.7$ | $1013.3$ | $1026.1$ | $1126.1$ | 1203.4 | 1304.1 | 1407.5 | 1524.7 | 1624.0 |
| Imports of G\&S | 1435.8 | 1484.6 | 1545.0 | 1719.9 | 1821.5 | 1928.6 | 1971.7 | 2025.8 | 2101.9 |
| Billions of dollars |  |  |  |  |  |  |  |  |  |
| US CURRENT ACCOUNT BALANCE | -384.7 | -459.6 | -522.1 | -640.2 | $-754.8$ | -811.5 | $-782.3$ | -786.3 | -760.0 |
| Current Acct as Percent of GDP | $-3.8$ | -4.4 | -4.8 | $-5.5$ | $-6.1$ | -6.2 | -5.7 | -5.5 | -5.1 |
| Net Goods \& Services (BOP) | -365.1 | $-423.7$ | -496.9 | -612.1 | -714.4 | -758.5 | -719.2 | $-705.8$ | $-653.4$ |
| Investment Income, Net |  |  |  |  |  |  |  |  |  |
| Direct, Net | 115.9 | 102.4 | 112.7 | 139.4 | 152.5 | 174.2 | 207.8 | 241.2 | 257.9 |
| Portfolio, Net | -79.0 | -69.1 | -61.5 | -76.9 | -98.1 | -131.0 | $-166.6$ | -215.7 | -260.5 |
| Other Income \& Transfers, Net | -56.5 | -69.2 | $-76.3$ | -90.6 | -94.9 | -96.1 | -104.3 | -106.1 | -104.1 |

[^10]NIPA REAL EXPORTS and IMPORTS
OUTLOOK FOR U.S. INTERNATIONAL TRANSACTIONS

|  | 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 |

[^11]Last Page

$$
\text { October 24, } 2007
$$

6
0
1
$\vdots$
$\vdots$
0

$$
\because \infty \quad \text { †mமo }
$$

nnarm
NIPA REAL EXPORTS and IMPORTS

$$
\square
$$



[^12]
[^0]:    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.
[^1]:    ${ }^{1}$ A bit less than half the cumulative effect on real GDP is due to the assumed larger propensity to consume out of wealth.

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

[^3]:    1．Change from fourth quarter of previous year to fourth quarter of year indicated．
    2．Billions of chained（2000）dollars．

[^4]:    1. Change from fourth quarter of previous year to fourth quarter of year indicated.
    2. Private-industry workers.
[^5]:    1．Change from fourth quarter of previous year to fourth quarter of year indicated，unless otherwise indicated．

[^6]:    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．

[^7]:    Note. Data after 2007:Q2 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
[^8]:    1. Foreign GDP aggregates calculated using shares of U.S. exports. -oil 3. Foreign CPI aggregates calculated using shares of U.S. non-oil imports.
[^9]:    1. Foreign GDP aggregates calculated using shares of U.S. exports

    Foreign GDP aggregates calculated using shares of U.S. exports.
    Harmonized data for euro area from Eurostat.
    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.

[^10]:    2. Merchandise imports excluding oil, natural gas, computers, and semiconductors.
[^11]:    1. Merchandise exports excluding computers and semiconductors.
    2. Merchandise imports excluding oil, natural gas, computers, and semiconductors.
[^12]:    1. Merchandise exports excluding computers and semiconductors.
    2. Merchandise exports excluding computers and semiconductors. and semiconductors.
