## Prefatory Note

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## Part 1

## CURRENT ECONOMIC AND FINANCIAL CONDITIONS

## Summary and Outlook

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

## Summary and Outlook

## Domestic Developments

The information that has become available since the last Greenbook corroborates the view that domestic demand and production are advancing briskly but that labor market activity is improving only modestly. Indeed, the solid growth in spending that has been a hallmark of the household sector for some time seems now to have spread to the business sector. And although the sluggish pace of hiring remains a concern, the sense we get both from the economic statistics and from anecdotal reports is that the economic expansion has now gained a firm footing.

Although the recent data have led us to mark down a bit our forecast of real GDP growth in the first quarter, we continue to believe that the momentum in economic activity that built in the second half of last year will carry over into the first half of this year and that the ongoing gains in spending and production will soon result in a more visible upturn in labor market conditions. Moreover, we continue to anticipate that the considerable stimulus being provided by fiscal and monetary policy will keep aggregate demand on a solid uptrend. In this regard, we have nudged up our projection for real GDP growth over the second half of this year to reflect the slightly more favorable financial conditions that we have built into this forecast. All told, real GDP is projected to rise 5-1/4 percent this year, the same as forecast in the December Greenbook. Although our revised financial assumptions have also led us to raise our GDP forecast for 2005 a touch, we continue to expect the pace of economic activity to decelerate somewhat next year, owing both to a swing in the stance of fiscal policy from substantial stimulus to modest restraint and to a slight tightening of monetary policy. Even so, we project that real GDP will increase 4 percent next year, a bit above our estimate of potential output growth. The GDP growth that we project over the next two years is sufficient to reduce the unemployment rate by the end of 2005 to about 5 percent, our estimate of the NAIRU.

Despite the rapid pace of real GDP growth that we are projecting for this year and next, we anticipate that core inflation will remain subdued. The incoming information on prices has been surprisingly soft, and we have interpreted the recent data on labor productivity as suggesting somewhat larger structural gains over the forecast period than we had assumed in previous Greenbooks. Thus, we continue to anticipate that strong productivity growth and lingering slack in labor and product markets will contain inflationary pressures this year and next, despite some upward impetus from import prices. As a result, we project that the core price index for personal consumption expenditures will rise 1 percent in both 2004 and 2005, a tad below our forecast in the December Greenbook.

## Key Background Factors

As in the December Greenbook, we assume that the federal funds rate will hold steady at 1 percent through the end of this year and then rise gradually to 2 percent over 2005. Futures quotes suggest that financial markets have moved
closer to this view in recent weeks: Market participants now anticipate policy to remain on hold until the latter part of this year, and they have reduced the level of the funds rate expected to prevail in late 2005 to about 2-3/4 percent.

The market's reassessment of future monetary policy has led to a drop of roughly 30 basis points in the yield on ten-year Treasury notes since the December Greenbook. With inflation remaining subdued in our forecast, we anticipate that investors' expectations about the path of the funds rate will continue to move toward our assumption, limiting the rise in long-term rates that would otherwise accompany the monetary tightening that we are assuming for next year. Indeed, we project that Treasury yields will hold steady through 2004 and rise only a bit in 2005. In addition, corporate yields are expected to edge down over this period as the ongoing economic expansion reduces risk spreads.

Equity prices have risen about 6-1/2 percent since the last Greenbook, and we have raised our projected path for the stock market by roughly this amount. Beyond the current quarter, we assume that, on average, share prices will rise at an annual rate of about 6-1/4 percent, maintaining risk-adjusted parity with the projected yield on long-term Treasury securities.

We have made only minor adjustments to our assumptions about fiscal policy in this Greenbook. In light of incoming data showing slower-than-expected spendout rates for military operations in Iraq, we have lowered our assumed path of defense spending for both fiscal 2004 and fiscal 2005. In addition, we are now assuming that the Congress will not renew the temporary extended unemployment compensation program (TEUC); the program, which provided $\$ 11$ billion in unemployment insurance benefits last year, lapsed at the end of December. In contrast, we have made essentially no changes to our assumptions about federal tax policy. ${ }^{1}$ As a result, we continue to expect federal fiscal policy to provide considerable stimulus to economic activity this year but to turn slightly restrictive in 2005 largely because of the expiration of the partial expensing provisions. Consistent with these assumptions, we project that the unified budget deficit will increase from $\$ 374$ billion in fiscal year 2003 to \$462 billion in fiscal 2004 before dropping back to $\$ 360$ billion in fiscal 2005.

The trade-weighted foreign exchange value of the dollar has fallen about $1-1 / 2$ percent since early December, and we have adjusted downward the projected path of the dollar accordingly. We assume that the value of the dollar

[^0]will decline, on average, at an annual rate of a little more than 1 percent from its current level. Despite the depreciation of the dollar, incoming data on foreign economic activity have generally been in line with our expectation of an improvement in the economies of our major trading partners. We therefore continue to project that foreign real GDP will rise about 3-3/4 percent in 2004 and 3-1/2 percent in 2005.

So far in January, crude oil prices have been averaging about $\$ 4.50$ per barrel more than anticipated in early December because of the decline in the dollar, unexpectedly large reductions in oil inventories in several industrial countries, and unusually cold temperatures in parts of the United States this month.
Although participants in futures markets continue to expect additional supplies from Iraq and non-OPEC countries to push down crude prices over the next two years, the anticipated decline is less pronounced than it was previously, in part because recent political developments in Russia are viewed as liable to restrain oil production there. In line with these futures quotes, we have assumed that the spot price of West Texas intermediate crude will decline gradually from its current level of nearly $\$ 36$ per barrel to roughly $\$ 27.50$ per barrel by the end of 2005. Compared with the previous Greenbook, this projection is nearly $\$ 4$ per barrel higher in 2004 and about \$2-1/2 per barrel higher in 2005.

## Recent Developments and the Near-Term Outlook

The available data now suggest that real GDP rose at an annual rate of about $4-3 / 4$ percent in the fourth quarter, on top of the $8-1 / 4$ percent advance posted in the third quarter. Our estimate of last quarter's rise in output is a little higher than we had projected in December; faster growth in consumer spending and exports largely accounts for the difference.

We are projecting another solid rise in real GDP in the first quarter-about 5 percent at an annual rate. We have marked down our first-quarter forecast relative to the December Greenbook in light of both the disappointing news from the labor market and the weaker tone of the investment data. That said, we view the near-term outlook as building on the broad-based strength in domestic final demand that emerged in the second half of last year, with further robust gains this quarter in both business and household spending. Also, given the currently low level of non-motor-vehicle stocks, we expect that businesses will further increase their pace of inventory investment, although the contribution of stockbuilding to GDP growth should be smaller than it was in the fourth quarter.

Industrial production is projected to rise at an annual rate of $6-1 / 2$ percent in the current quarter, following a $6-1 / 4$ percent gain in the fourth quarter. Although automakers' schedules call for production to edge up to an annual rate of 12-1/2 million units this quarter, motor vehicle inventories are a little to the high side of the automakers' target, leading us to expect actual production to fall

## Summary of the Near-Term Outlook

(Percent change at annual rate except as noted)

| Measure | 2003:Q4 |  | 2004:Q1 |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Dec. GB | $\begin{gathered} \text { Jan. } \\ \text { GB } \end{gathered}$ | $\begin{gathered} \text { Dec. } \\ \text { GB } \end{gathered}$ | Jan. GB |
| Real GDP | 4.4 | 4.8 | 5.3 | 5.0 |
| Private domestic final purchases | 3.5 | 4.2 | 5.4 | 4.8 |
| Personal consumption expenditures | 2.0 | 3.1 | 4.3 | 3.6 |
| Residential investment | 15.0 | 17.3 | 3.2 | 11.3 |
| Business fixed investment | 8.1 | 5.0 | 14.7 | 10.0 |
| Government outlays for consumption and investment | 3.2 | 1.5 | 4.9 | 4.0 |
|  | Contribution to growth (percentage points) |  |  |  |
| Inventory investment | 1.1 | . 8 | . 2 | . 5 |
| Net exports | -. 4 | . | -. 5 | -. 4 |

somewhat short of these plans. We anticipate that manufacturing production excluding motor vehicles will increase at an annual rate of 7-1/4 percent in the first quarter, with the gains widespread.

Turning to the components of final demand, we estimate that real consumer spending rose at an annual rate of about 3 percent in the fourth quarter, down from nearly 7 percent in the third quarter. Sales of light motor vehicles last quarter dropped back somewhat from their elevated third-quarter pace despite a surge in December associated with generous end-of-year incentives. In contrast, purchases of other goods and services appear to have been well maintained. We expect PCE growth to pick up to an annual rate of about $3-1 / 2$ percent in the first quarter, fueled by faster growth in labor income and a decline in personal tax payments.

Housing activity remained strong through year-end. In the single-family sector, housing starts rose to an annual rate of 1.66 million units in the fourth quarter, and new permit issuance moved up as well. And although sales of both new and existing homes look to have ended the year a bit lower than they were in the third quarter of 2003, the pace of sales has remained well above that seen over the first half of last year. Given the recent declines in mortgage rates and the further improvement in the labor market that we are anticipating, single-family construction should remain robust in the current quarter, although probably not as strong as in the fourth quarter. In contrast, activity in the multifamily sector
is projected to be relatively soft this quarter because of the weak rental market for such units.

In the business sector, real purchases of equipment and software are estimated to have risen at an annual rate of about 7-1/2 percent in the fourth quarter, well below the double-digit pace of the third quarter. Moreover, with the incoming data on new orders and shipments a little softer than we had expected, we have marked down our forecast of E\&S spending in the first quarter. Nonetheless, our sense from business surveys is that the caution that had restrained capital spending in earlier quarters is dissipating; accordingly, we are projecting that spending this quarter will rise at an annual rate of about $12-1 / 2$ percent, similar to the average pace of increase over the second half of last year. In contrast, the monthly indicators suggest that nonresidential construction declined slightly again in the fourth quarter. With vacancy rates still at elevated levels in most sectors, we expect only a small increase in spending on structures in the first quarter.

In the federal sector, the weaker-than-expected outlays reported in recent monthly Treasury statements have led us to mark down our estimate of the growth in defense spending in the fourth quarter to an annual rate of 1-3/4 percent. Nevertheless, with considerable monies still available for operations in Iraq and Afghanistan, we expect defense purchases to ratchet up at an annual rate of about $10-1 / 2$ percent in the first quarter. After an increase of just $1-1 / 2$ percent in the fourth quarter, real nondefense spending is projected to rise $6-1 / 2$ percent this quarter. ${ }^{2}$ Growth of real spending by state and local governments is projected to continue at a relatively subdued pace, as many of those entities continue to labor under substantial budgetary restraint.

With data on foreign trade available through November, we estimate that imports and exports were, taken together, neutral for real GDP growth in the fourth quarter. Last quarter, real exports, boosted by the pickup in foreign activity and a depreciating dollar, appear to have increased about 18 percent. However, real imports are estimated to have risen sharply as well, as a result of both the surge in U.S. spending late last year and a reversal of some transitory factors that had held down imports in the third quarter. In the current quarter, net exports are projected to arithmetically deduct about $1 / 3$ percentage point from the growth of GDP. Export growth is expected to slow to an annual rate of $7-1 / 2$ percent, subdued by a number of factors, including a dropoff in beef

[^1]exports associated with the discovery of bovine spongiform encephalopathy in the U.S. cattle supply. Meanwhile, import growth is expected to decline to an annual rate of 8 percent this quarter in part because of the weaker dollar.

The strong gains in output over the second half of last year were achieved largely through substantial increases in productivity. Even though employment and hours began to turn up late in the third quarter, the small increases posted in the final three months of the year were well below our expectations. We continue to expect the pace of hiring to pick up more noticeably in the first quarter as firms become more convinced of the strength and durability of the economic expansion. However, given the recent disappointments in the data, we have reduced our forecast of the average pace of payroll employment growth this quarter to about 150,000 per month. With our forecast for real GDP growth, the modest gains in employment and hours that we are projecting imply an increase in labor productivity of 3-3/4 percent at an annual rate this quarter.

The core consumer price index rose at an annual rate of 1 percent in the fourth quarter, and we estimate that the core PCE price index increased $1 / 2$ percent. These readings were lower than our projections in the December Greenbook, and we have trimmed our forecast of core inflation in the first quarter as well. In contrast, we have revised up our first-quarter projection of total PCE inflation by 1 percentage point, to about 1-3/4 percent. Although declining beef prices should hold down the increase in the index for food, rising natural gas prices and the sharp upturn in crude oil prices since early December are likely to boost consumer energy prices significantly this quarter. Regarding wages, the fourthquarter increase in average hourly earnings-at an annual rate of just 1 percent-was also below our expectations. However, we view this reading as an aberration and expect wage growth this quarter to move back up to a little more than 2 percent.

## The Longer-Term Outlook for the Economy

Our longer-term forecast is little changed from the December Greenbook. In particular, we assume that growth of real GDP over 2004 will be strongly supported by favorable financial conditions, expansionary fiscal policy, and continued robust gains in structural productivity. With a further lifting of the caution that had restrained business spending last year, these factors are projected to raise real GDP this year roughly $5-1 / 4$ percent. We anticipate real GDP growth to slow to 4 percent next year because of the expiration of the partial-expensing tax provision, the waning of the stimulative effects of the personal tax cuts, and the modest tightening in monetary policy that we have assumed. Nevertheless, the pace of growth this year and next is sufficient to eliminate the output gap over the forecast period and to reduce the unemployment rate to about 5 percent by the end of 2005 .

| Projections of Real GDP <br> (Percent change at annual rate from end of <br> preceding period except as noted) |  |  |  |
| :---: | ---: | ---: | ---: |
| Measure | 2004 |  | 2005 |
|  | H 1 | H2 |  |
| Real GDP | $\mathbf{5 . 2}$ | $\mathbf{5 . 4}$ | $\mathbf{4 . 0}$ |
| Previous | 5.4 | 5.1 | 3.8 |
| Final sales | 4.7 | 4.9 | 3.9 |
| Previous | 4.9 | 4.9 | 3.8 |
| PCE | 4.1 | 4.4 | 4.0 |
| Previous | 4.6 | 4.7 | 4.2 |
| Residential investment | 6.7 | -2.5 | -.6 |
| Previous | 3.2 | .8 | -.4 |
| BFI | 12.5 | 16.4 | 9.0 |
| Previous | 14.3 | 15.1 | 7.2 |
| Government purchases | 3.5 | 1.6 | 1.9 |
| Previous | 3.5 | 1.6 | 2.1 |
| Exports | 9.8 | 13.3 | 11.1 |
| Previous | 9.3 | 11.7 | 10.1 |
| Imports | 9.5 | 9.2 | 8.8 |
| Previous | 10.5 | 10.1 | 9.0 |
|  | Contribution to growth |  |  |
| Inventory change | percentage points) |  |  |
| Previous | .4 | .5 | .1 |
| Net exports | .5 | .3 | .1 |
| Previous | -.4 | .0 | -.2 |
|  | -.6 | -.3 | -.3 |

Household spending. Consumer spending is projected to rise in real terms about $4-1 / 4$ percent in 2004 and 4 percent in 2005. Although the previously enacted tax cuts continue to provide some stimulus to consumption growth this year, the strength in spending over the next two years can be traced largely to improving labor market conditions and the influence of strong productivity growth on permanent income. In addition, the increase in household wealth that we are projecting exerts a slightly more positive effect on spending growth than in our previous forecast, reflecting the higher path of equity prices in this Greenbook. That said, the revised data in the national income and product
accounts now suggest that the level of consumer spending last year was a little higher than would be predicted based on the fundamentals, and we have reacted by building in a slightly larger increase in the saving rate in this forecast.

The pace of homebuilding, fueled by low mortgage rates and an improving labor market, is also anticipated to remain strong over the forecast period. We project housing starts in the single-family sector to total 1.56 million units this year, only a little below the surprisingly high pace in the second half of 2003. Starts are expected to edge down over 2005 because of a small updrift in mortgage rates and a slightly slower rate of growth in disposable income. The attractiveness of the market for home purchases is expected to continue to weigh on the rental market. As a result, multifamily starts are projected to average about 340,000 units both this year and next-down a bit from the pace of construction in 2003.

Business investment. Propelled by the past and projected acceleration in business output, swelling profits, and continued favorable financing conditions, business investment in equipment and software is expected to pick up further in 2004. Although lingering caution on the part of some business executives is likely to restrain expenditures somewhat early in the year, the ongoing robust pace of economic activity should, by the second half, put to rest any remaining doubts about the sustainability of the expansion. And with the expiration of the partial-expensing allowance looming at the end of 2004, we anticipate that businesses will pull forward some capital investments that they would otherwise have made in 2005. We project that, all told, real E\&S spending will increase 18 percent this year. We expect the pace of spending growth to slow in 2005 to around 9-1/2 percent, in part because of a payback for the expenditures drawn into 2004.

Investment in nonresidential structures is projected to increase about 3 percent this year and 6-3/4 percent in 2005. Outlays in the "other commercial buildings" category, which includes retail structures and warehouses, are likely to be bolstered somewhat over the forecast period by the increases that we are projecting in consumer spending and housing construction. In addition, spending on office buildings should begin to turn up later this year as the recovery in the labor market becomes better established. In contrast, given the low rates of capacity utilization, we expect that the construction of industrial buildings will decline further this year before staging a modest recovery in 2005.

The caution that permeated the business sector in this expansion seems to have damped the pace of inventory investment in recent quarters, leaving stock-sales ratios quite low in many industries. Although we do not detect widespread concerns that current inventory levels are too lean, we expect that the increases
in final sales we are projecting for this year will prompt a noticeable quickening in the pace of stockbuilding in coming quarters. As a result, we project that inventory investment will contribute roughly $1 / 2$ percentage point to real GDP growth this year. We expect firms in 2005 to keep inventory investment in line with final sales, with only a small effect on GDP growth.

Government spending. The rate of increase in real federal expenditures for consumption and investment, 6 percent in 2003, is projected to slow to $4-3 / 4$ percent this year and to $1-1 / 2$ percent in 2005 . We anticipate a sharp jump in defense outlays in the first half of this year, reflecting a step-up in spending related to operations in Iraq; thereafter, however, real defense spending is projected to rise at an average annual rate of $1-1 / 4$ percent. Growth in nondefense spending is projected to average about 4 percent this year but then to slow to 2-1/4 percent in 2005, largely owing to smaller increases in expenditures for homeland security.

Although a number of state governments have recently seen some signs of improvement in their fiscal positions, many other jurisdictions are still facing severe budgetary problems. As a result, we continue to anticipate increases in state and local spending this year of only about 1-1/4 percent. With tax receipts likely to improve with the projected economic expansion, we have built in a small pickup in spending for 2005; however, at 2 percent, even this pace of spending would still be below longer-term trends.

Net exports. Supported by the recent and projected dollar depreciation and by the pickup in economic activity abroad, real export growth is projected to rise from a pace of 6 percent in 2003 to roughly 11-1/4 percent in 2004 and 2005. However, import growth is expected to pick up as well, as the strength of the U.S. economy more than offsets the influence of the declining dollar; in particular, real imports are projected to rise about $9-1 / 2$ percent in 2004 and $8-3 / 4$ percent in 2005. On net, these projected movements in imports and exports are anticipated to make arithmetic deductions from real GDP growth of about 0.2 percentage point in each year. (The International Developments section provides more detail on the outlook for the external sector.)

## Aggregate Supply, the Labor Market, and Inflation

As noted in the introduction, we have raised our estimate of structural productivity in this forecast. Most of this adjustment reflects our reassessment of the extent to which the strong productivity gains in recent years are due to permanent improvements in the efficiency of production rather than an attempt to stretch labor resources beyond what can be sustained indefinitely. We continue to think that both factors have figured into the recent productivity surge, but we are now persuaded by the persistence of the phenomenon to place greater weight on the explanation involving permanent improvements in

Decomposition of Structural Labor Productivity
(Percent change, Q4 to Q4, except as noted)

| Measure | $1973-$ <br> 95 | $1996-$ <br> 2001 | 2002 | 2003 | 2004 | 2005 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Structural labor productivity | 1.5 | 2.8 | 3.3 | 3.7 | 3.3 | 3.1 |
| $\quad$ Previous | 1.4 | 2.7 | 2.6 | 3.1 | 2.7 | 2.9 |
| Contributions $^{1}$ |  |  |  |  |  |  |
| Capital deepening | .6 | 1.3 | .6 | .6 | 1.0 | 1.1 |
| $\quad$ Previous | .6 | 1.2 | .4 | .4 | .8 | 1.0 |
| Multifactor productivity | .6 | 1.2 | 2.4 | 2.9 | 2.1 | 1.7 |
| $\quad$ Previous | .6 | 1.2 | 2.0 | 2.4 | 1.6 | 1.6 |
| Labor composition | .3 | .3 | .3 | .3 | .3 | .3 |
| MEMO |  |  |  |  |  |  |
| Potential GDP | 2.9 | 3.4 | 3.6 | 4.0 | 3.7 | 3.7 |
| $\quad$ Previous | 2.9 | 3.4 | 3.5 | 3.9 | 3.5 | 3.7 |

Note. Components may not sum to totals because of rounding.

1. Percentage points.
efficiency. Thus, we have boosted our estimate of structural productivity growth roughly $1 / 2$ percentage point in each of the past three years. We have also assumed higher structural productivity growth going forward, raising our estimate to more than 3 percent in both 2004 and 2005.

Given our judgment that our previous estimate of the output gap had been providing reasonably accurate signals about the extent of slack in resource utilization, we have passed only a small part of the revisions in structural productivity into potential output growth. ${ }^{3}$ As a result, the output gap in this forecast is similar to that in the December Greenbook: It declines from about 2 percent in the fourth quarter of 2003 to just 0.1 percent in the fourth quarter of 2005.

Productivity and the labor market. As noted above, the meager employment gains posted in the fourth quarter have led us to trim our near-term projection for job growth. In addition, the higher structural productivity gains imply that businesses will not have to hire as many workers to bring their workforces into line with their anticipated longer-run needs. As a result, we forecast that the

[^2]
## The Outlook for the Labor Market

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

| Measure | 2002 | 2003 | 2004 | 2005 |
| :--- | ---: | ---: | ---: | ---: |
| Output per hour, nonfarm business | 4.1 | 5.5 | 2.6 | 1.7 |
| $\quad$ Previous | 4.4 | 5.2 | 1.7 | .5 |
| Nonfarm private payroll employment | -.7 | -.1 | 2.9 | 2.8 |
| $\quad$ Previous | -.7 | .0 | 3.8 | 3.4 |
| Household survey employment | .3 | 1.2 | 2.5 | 1.9 |
| $\quad$ Previous | .3 | 1.2 | 2.7 | 2.1 |
| Labor force participation rate $^{1}$ | 66.5 | 66.1 | 66.5 | 66.8 |
| $\quad$ Previous | 66.5 | 66.2 | 66.7 | 67.1 |
| Civilian unemployment rate $^{1}$ | 5.9 | 5.9 | 5.3 | 5.0 |
| $\quad$ Previous | 5.9 | 6.0 | 5.3 | 5.0 |
| MEMO |  |  |  |  |
| GDP gap ${ }^{2}$ | 2.4 | 1.9 | .4 | .1 |
| $\quad$ Previous | 2.3 | 1.9 | .2 | .1 |

1. Percent, average for the fourth quarter.
2. Percent difference between potential and actual GDP in the fourth quarter of the year indicated. A positive number indicates that the economy is operating below potential.
average monthly increase in private payroll employment will climb from around 150,000 this quarter to about 350,000 by the fourth quarter of this year; job growth is then expected to moderate to around 250,000 per month in 2005 as the pace of economic expansion settles back toward the rate of growth of potential. Consistent with this outlook, we see actual productivity growth slowing from $5-1 / 2$ percent in 2003 to 2-1/2 percent in 2004 and 1-3/4 percent in 2005 and the unemployment rate gradually falling to 5 percent by the end of the forecast period. The jobless rate in 2004 is, on average, a little lower than it was in our previous projection because of our assumption that the extended unemployment insurance program will not be renewed.

Wages and prices. We have made only minor adjustments to our inflation forecast in this Greenbook. As noted above, recent readings on consumer prices have been on the low side of our expectations. And although we think that much of this softness is likely temporary, we have interpreted this information as also suggesting a slightly lower trend in core inflation. More generally, rising import prices are projected to put some upward pressure on prices this year, but continued strong gains in structural productivity and slack in resource utilization should keep inflation in check over the forecast period. All told, we are

## Inflation Projections

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

| Measure | 2002 | 2003 | 2004 | 2005 |
| :--- | ---: | ---: | ---: | ---: |
| PCE chain-weighted price index | 1.8 | 1.4 | 1.0 | 1.0 |
| Previous | 1.8 | 1.7 | .9 | 1.0 |
| Food and beverages | 1.4 | 2.7 | 1.6 | 1.4 |
| Previous | 1.4 | 2.4 | 1.5 | 1.5 |
| Energy | 7.9 | 8.5 | -1.7 | -.4 |
| $\quad$ Previous | 7.0 | 7.9 | -5.9 | -1.1 |
| Excluding food and energy | 1.6 | .8 | 1.0 | 1.0 |
| $\quad$ Previous | 1.6 | 1.2 | 1.1 | 1.1 |
| Consumer price index | 2.2 | 1.9 | 1.2 | 1.2 |
| $\quad$ Previous | 2.2 | 2.0 | 1.0 | 1.3 |
| Excluding food and energy | 2.1 | 1.2 | 1.4 | 1.4 |
| $\quad$ Previous | 2.1 | 1.4 | 1.5 | 1.5 |
| GDP chain-weighted price index | 1.4 | 1.6 | .9 | 1.1 |
| Previous | 1.3 | 1.5 | 1.0 | 1.2 |
| ECI for compensation of private |  |  |  |  |
| $\quad$ industry workers |  |  |  |  |

1. December to December.
projecting core PCE prices to rise 1 percent in both 2004 and 2005, after an increase of $3 / 4$ percent in 2003. Overall PCE prices are anticipated to rise 1 percent each year as well, as a gradual decline in energy prices beyond the current quarter is about offset by increases in food prices averaging a little above core inflation.

For labor compensation, we anticipate that the rate of increase in the employment cost index will edge down from 4 percent in 2003 to around 3-3/4 percent in 2004 and 2005. Double-digit increases in employer costs for health insurance are projected to keep the benefits component of the overall index rising close to 6 percent this year and next. In contrast, the annual rate of increase in wages and salaries is expected to slow to a bit under 3 percent over
the forecast period, restrained, in large part, by labor market slack and continued low rates of price inflation. Nonetheless, our projection for wage and salary growth is a little higher than in the December Greenbook, reflecting the upward revision we made to our structural productivity assumptions.

## Financial Flows and Conditions

Domestic nonfinancial debt is estimated to have risen about $8-1 / 4$ percent last year (the fastest annual increase since 1988), driven by hefty borrowing in the household and government sectors. Debt growth is anticipated to edge down to about $7-1 / 2$ percent in 2004 and to slow to around 6-1/4 percent in 2005.

Household debt expanded at a rapid pace in 2003, boosted by the largest jump in mortgage debt since 1987. Mortgage borrowing this year and next is projected to ease notably as home price gains and cash-out refinancing activity both slow. The reduced reliance on mortgage borrowing is expected to be partly offset by greater use of consumer credit. All told, we project that household debt will grow 8 percent this year and 6-1/4 percent next year, down from an estimated 10-3/4 percent in 2003.

Business borrowing late last year was weaker than we had expected. Evidently many firms have no need to borrow: The financing gap-capital spending less internally generated funds-has been negative recently and is expected to remain so over most of 2004. By 2005, the financing gap turns strongly positive on continued growth in capital spending combined with a downturn in internal funds. We expect the growth of nonfinancial business debt to step up over the forecast period, reaching nearly 6 percent in 2005.

Federal debt, which is estimated to have risen almost 11 percent last year, is projected to expand at an even faster pace this year as a result of the larger anticipated budget deficit. In 2005, as the partial expensing provision lapses and tax revenues pick up, federal debt growth drops back to $7-1 / 2$ percent.

Borrowing by state and local governments continued at a rapid pace in the fourth quarter, leaving debt in the sector up almost $9-1 / 2$ percent for 2003. Debt growth is expected to slow to 7 percent this year and to $4-1 / 2$ percent in 2005 with the improvement in budget positions and a decline in refunding activity.

M2 continued to contract in December, apparently owing to a shift of funds into equity markets and a falloff in mortgage refinancing activity. The drop in the fourth quarter brought down M2 growth for 2003 to about 5-1/4 percent, a rate somewhat slower than that of nominal income growth. Over the forecast period, M2 is expected to continue to increase more slowly than nominal income, as the ongoing portfolio reallocation to capital market instruments in 2004 and tighter monetary policy in 2005 restrain money holdings.

## Alternative Simulations

In this section, we consider several alternatives to the staff forecast, generated using the FRB/US model. The first two scenarios involve faster structural productivity growth, but they differ in the way the more favorable supply-side conditions influence aggregate spending. Next we discuss several alternatives to the outlook for aggregate spending, including two that involve more-robust household spending and a third in which the ongoing recovery in business spending is less robust than expected. In all these scenarios, the federal funds rate remains unchanged at its baseline path. Finally, we consider the implications of adopting a funds rate path consistent with market expectations.

Permanently faster productivity growth. Because we have assumed that the recent outsized increases in output per hour are partly the result of one-time efficiency gains, our baseline projection is for structural productivity growth to moderate this year and next. But we may have understated the ongoing pace of technological innovation and its contribution to past and future gains in output per hour. In this scenario, structural productivity rises about 3-3/4 percent in 2004 and 4 percent in 2005 , on average $3 / 4$ percentage point faster than in the baseline. In response, households and firms are assumed to raise their expectations for the long-run growth of income and earnings, and investors bid up share prices. As a result, consumer spending, residential investment, and business capital expenditures all increase markedly. In total, real GDP grows 6 percent in 2004 and 5-1/2 percent in 2005-enough to outstrip the increase in potential output by a wider margin than in the baseline-and the unemployment rate moves down to $4-3 / 4$ percent by the end of 2005. Despite a tighter labor market, core inflation falls to $3 / 4$ percent in 2005 because of the effect of stronger productivity on unit labor costs.

Temporarily faster productivity growth. In the previous scenario, households, firms, and investors interpret the more rapid rise in productivity as a permanent pickup in the economy's rate of growth. In this scenario, we instead assume that the public views the same improvement in supply-side conditions as signaling only an increase in the level of potential output, with no implication for the future growth thereof. As a result, the perceived improvement in permanent income and earnings is much less pronounced, and the resultant stimulus to aggregate spending is considerably smaller than in the previous scenario: Real GDP grows only a little faster than in the baseline, and with the expansion in demand falling well short of the increase in supply, the unemployment rate falls to only 5-1/2 percent in late 2005. Inflation edges down a bit more than in the previous scenario because of the higher average level of economic slack.

Stronger household spending. In the staff outlook, the growth of household spending (consumption plus residential investment) moderates this year and

## Alternative Scenarios

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

| Measure | $\begin{gathered} \text { 2003: } \\ \text { H2 } \end{gathered}$ | 2004 |  | 2005 |
| :---: | :---: | :---: | :---: | :---: |
|  |  | H1 | H2 |  |
| Real GDP |  |  |  |  |
| Baseline | 6.5 | 5.2 | 5.4 | 4.0 |
| Permanently faster productivity growth | 6.5 | 5.6 | 6.3 | 5.6 |
| Temporarily faster productivity growth | 6.5 | 5.2 | 5.5 | 4.2 |
| Stronger household spending | 6.5 | 5.8 | 6.7 | 5.5 |
| Economic boom | 6.5 | 5.8 | 6.9 | 6.2 |
| Less-robust capital spending | 6.5 | 4.6 | 4.4 | 2.6 |
| Market-based funds rate | 6.5 | 5.2 | 5.4 | 3.6 |
| Civilian unemployment rate ${ }^{1}$ |  |  |  |  |
| Baseline | 5.9 | 5.6 | 5.3 | 5.0 |
| Permanently faster productivity growth | 5.9 | 5.7 | 5.3 | 4.7 |
| Temporarily faster productivity growth | 5.9 | 5.7 | 5.4 | 5.5 |
| Stronger household spending | 5.9 | 5.5 | 4.9 | 3.8 |
| Economic boom | 5.9 | 5.5 | 4.9 | 3.4 |
| Less-robust capital spending | 5.9 | 5.7 | 5.6 | 5.8 |
| Market-based funds rate | 5.9 | 5.6 | 5.3 | 5.2 |
| PCE prices excluding food and energy |  |  |  |  |
| Baseline | . 8 | 1.0 | 1.0 | 1.0 |
| Permanently faster productivity growth | . 8 | 1.0 | . 9 | . 8 |
| Temporarily faster productivity growth | . 8 | 1.0 | . 9 | . 7 |
| Stronger household spending | . 8 | 1.0 | 1.0 | 1.2 |
| Economic boom | . 8 | 1.0 | 1.2 | 1.7 |
| Less-robust capital spending | . 8 | 1.0 | 1.0 | 1.1 |
| Market-based funds rate | . 8 | 1.0 | 1.0 | . 9 |

1. Average for the final quarter of the period.
next to bring the level of spending in better alignment with our view of the fundamentals. But we may have failed to fully and accurately account for all the factors influencing demand in this sector. Although such a mis-estimation could go in either direction, in this scenario we assume that the pace of household spending remains surprisingly strong. As a result, the personal saving rate holds at just over 2 percent rather than rising to $2-3 / 4$ percent in 2005, and single-family housing starts continue in the vicinity of 1.66 million units rather than edging down to 1.51 million units. Under these conditions, real GDP increases about 6-1/4 percent in 2004 and $5-1 / 2$ percent in 2005 , bringing
the unemployment rate down to 3-3/4 percent by the end of 2005. Reduced economic slack boosts core inflation to 1-1/4 percent in 2005.

Economic boom. In the previous scenario, expectations of longer-term earnings growth and inflation were assumed to remain relatively stable despite surprisingly strong near-term economic growth. However, booming economic conditions might cause these expectations to shift significantly, particularly if monetary policy did not tighten appreciably. This scenario builds on the previous one by assuming that equity prices gradually rise an additional 25 percent above baseline and that long-run inflation expectations drift up 1 percentage point. Under such conditions, the unemployment rate falls to $3-1 / 2$ percent by late 2005 , and core inflation picks up to $1-3 / 4$ percent.

Less-robust capital spending. Recent data suggest that a solid recovery in business spending began last year, and we anticipate a further quickening in the pace of equipment spending and inventory investment this year. All told, the nominal share of spending on equipment and software in GDP rises about 1 percentage point in the staff projection. However, the recovery may turn out to be less pronounced than we project, and in this scenario we assume that the pace of E\&S spending will run about 6 percentage points below baseline on average this year and next, leaving the E\&S share of GDP roughly constant. Inventory investment is also assumed to be more subdued than in the baseline, with the aggregate inventory-to-sales ratio drifting down slowly rather than roughly stabilizing. Under these conditions, real GDP rises only $4-1 / 2$ percent in 2004 and $2-1 / 2$ percent in 2005, and the unemployment rate remains around 5-3/4 percent through next year. Despite greater economic slack, core inflation is little changed from baseline because the reduction in capital deepening raises unit labor costs.

Market-based funds rate. Consistent with the staff assumption, futures quotes suggest that market participants expect the funds rate to remain near 1 percent for much of 2004. Thereafter, however, market participants expect the funds rate to rise a little more than in the baseline, to about 2-3/4 percent by late 2005. This alternative path for the funds rate imparts less monetary stimulus to the economy next year, reducing real GDP growth to $3-1 / 2$ percent and causing the unemployment rate to bottom out at 5-1/4 percent. Inflation is a touch below baseline as a result.

| Interval |  | Nominal GDP |  | Real GDP |  | GDP chain-weighted price index |  | Consumer price index ${ }^{1}$ |  | Unemployment rate ${ }^{2}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 12/03/03 | 01/21/04 | 12/03/03 | 01/21/04 | 12/03/03 | 01/21/04 | 12/03/03 | 01/21/04 | 12/03/03 | 01/21/04 |
| ANNUAL |  |  |  |  |  |  |  |  |  |  |  |
| 2001 |  | 2.6 | 2.9 | 0.3 | 0.5 | 2.4 | 2.4 | 2.8 | 2.8 | 4.8 | 4.7 |
| 2002 |  | 3.6 | 3.8 | 2.4 | 2.2 | 1.1 | 1.5 | 1.6 | 1.6 | 5.8 | 5.8 |
| 2003 |  | 4.8 | 4.9 | 3.1 | 3.2 | 1.6 | 1.7 | 2.3 | 2.3 | 6.0 | 6.0 |
| 2004 |  | 6.6 | 6.6 | 5.4 | 5.4 | 1.1 | 1.2 | 1.2 | 1.4 | 5.7 | 5.5 |
| 2005 |  | 5.5 | 5.5 | 4.3 | 4.5 | 1.1 | 1.0 | 1.2 | 1.0 | 5.1 | 5.1 |
| QUARTERLY |  |  |  |  |  |  |  |  |  |  |  |
| 2002 | Q1 | 6.5 | 5.4 | 5.0 | 4.7 | 1.3 | 1.1 | 1.4 | 1.4 | 5.6 | 5.7 |
|  | Q2 | 2.5 | 3.9 | 1.3 | 1.9 | 1.2 | 1.5 | 3.4 | 3.4 | 5.9 | 5.8 |
|  | Q3 | 5.1 | 4.4 | 4.0 | 3.4 | 1.0 | 1.5 | 2.2 | 2.2 | 5.8 | 5.7 |
|  | Q4 | 3.2 | 3.1 | 1.4 | 1.3 | 1.8 | 1.7 | 2.0 | 2.0 | 5.9 | 5.9 |
| 2003 | Q1 | 3.8 | 4.3 | 1.4 | 2.0 | 2.4 | 2.3 | 3.8 | 3.8 | 5.8 | 5.8 |
|  | Q2 | 4.3 | 4.2 | 3.3 | 3.1 | 1.0 | 1.1 | 0.7 | 0.7 | 6.2 | 6.1 |
|  | Q3 | 10.1 | 10.0 | 8.2 | 8.2 | 1.7 | 1.6 | 2.4 | 2.4 | 6.1 | 6.1 |
|  | Q4 | 5.5 | 6.3 | 4.4 | 4.8 | 1.1 | 1.4 | 1.3 | 0.9 | 6.0 | 5.9 |
| 2004 | Q1 | 6.6 | 6.6 | 5.3 | 5.0 | 1.2 | 1.6 | 1.0 | 2.5 | 6.0 | 5.8 |
|  | Q2 | 6.4 | 6.1 | 5.5 | 5.4 | 0.9 | 0.6 | 0.9 | 0.7 | 5.8 | 5.6 |
|  | Q3 | 6.3 | 6.0 | 5.3 | 5.4 | 0.9 | 0.6 | 1.0 | 0.6 | 5.5 | 5.4 |
|  | Q4 | 6.0 | 6.2 | 4.9 | 5.4 | 1.0 | 0.8 | 1.2 | 0.9 | 5.3 | 5.3 |
| 2005 | Q1 | 5.3 | 5.5 | 3.8 | 4.1 | 1.4 | 1.3 | 1.2 | 1.1 | 5.2 | 5.2 |
|  | Q2 | 5.1 | 5.1 | 4.0 | 4.0 | 1.1 | 1.0 | 1.3 | 1.2 | 5.1 | 5.1 |
|  | Q3 | 5.0 | 5.1 | 3.9 | 4.0 | 1.1 | 1.1 | 1.3 | 1.2 | 5.0 | 5.1 |
|  | Q4 | 4.8 | 4.9 | 3.7 | 3.8 | 1.0 | 1.0 | 1.4 | 1.3 | 5.0 | 5.0 |
| TWO-QUARTER ${ }^{3}$ |  |  |  |  |  |  |  |  |  |  |  |
| 2002 | Q2 | 4.5 | 4.7 | 3.1 | 3.3 | 1.3 | 1.3 | 2.4 | 2.4 | 0.3 | 0.2 |
|  | Q4 | 4.1 | 3.8 | 2.7 | 2.3 | 1.4 | 1.6 | 2.1 | 2.1 | 0.0 | 0.1 |
| 2003 | Q2 | 4.1 | 4.2 | 2.3 | $2.5$ | 1.7 | 1.7 | 2.2 | $2.2$ | 0.3 | 0.2 |
|  | Q4 | 7.8 | 8.1 | 6.3 | 6.5 | 1.4 | 1.5 | 1.8 | 1.6 | -0.2 | -0.2 |
| 2004 | Q2 | 6.5 | 6.3 | 5.4 | 5.2 | 1.0 | 1.1 | 0.9 | 1.6 | -0.2 | -0.3 |
|  | Q4 | 6.1 | 6.1 | 5.1 | 5.4 | 0.9 | 0.7 | 1.1 | 0.8 | -0.5 | -0.3 |
| 2005 | Q2 | 5.2 | 5.3 | 3.9 | 4.1 | 1.3 | 1.2 | 1.3 | 1.1 | -0.2 | -0.2 |
|  | Q4 | 4.9 | 5.0 | 3.8 | 3.9 | 1.1 | 1.0 | 1.3 | 1.3 | -0.1 | -0.1 |
| FOUR-QUARTER ${ }^{4}$ |  |  |  |  |  |  |  |  |  |  |  |
| 2001 Q4 |  | 2.0 | 2.4 | 0.1 | -0.0 | 2.0 | 2.4 | 1.8 | 1.8 | 1.7 | 1.7 |
| 2002 Q4 |  | 4.3 | 4.2 | 2.9 | 2.8 | 1.3 | 1.4 | 2.2 | 2.2 | 0.3 | 0.3 |
| 2003 Q4 |  | 5.9 | 6.2 | 4.3 | 4.5 | 1.5 | 1.6 | 2.0 | 1.9 | 0.1 | -0.0 |
| 2004 Q4 |  | 6.3 | 6.2 | 5.3 | 5.3 | 1.0 | 0.9 | 1.0 | 1.2 | -0.7 | -0.6 |
| 2005 | Q4 | 5.0 | 5.1 | 3.8 | 4.0 | 1.2 | 1.1 | 1.3 | 1.2 | -0.3 | -0.2 |

1. For all urban consumers.
2. Percent change from two quarters earlier; for unemployment rate, change in percentage points
3. Percent change from four quarters earlier; for unemployment rate, change in percentage points.

Strictly Confidential <FR> Class II FOMC

| Item | Units ${ }^{1}$ | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | $2003$ | Projecte $2004$ | $2005$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Expenditures |  |  |  |  |  |  |  |  |  |  |
| Nominal GDP | Bill. \$ | 8304.3 | 8747.0 | 9268.4 | 9817.0 | 10100.8 | 10480.8 | 10991.9 | 11717.6 | 12367.4 |
| Real GDP | Bill. Ch. \$ | 8703.5 | 9066.9 | 9470.3 | 9817.0 | 9866.6 | 10083.0 | 10401.9 | 10959.8 | 11456.8 |
| Real GDP | \% change | 4.3 | 4.5 | 4.7 | 2.2 | -0.0 | 2.8 | 4.5 | 5.3 | 4.0 |
| Gross domestic purchases |  | 5.1 | 5.5 | 5.5 | 3.0 | 0.1 | 3.6 | 4.2 | 5.3 | 4.0 |
| Final sales |  | 3.7 | 4.8 | 4.2 | 2.9 | 1.1 | 1.8 | 4.5 | 4.8 | 3.9 |
| Priv. dom. final purchases |  | 5.2 | 6.4 | 5.3 | 4.3 | 0.8 | 2.3 | 4.6 | 5.3 | 4.3 |
| Personal cons. expenditures |  | 4.3 | 5.4 | 4.9 | 4.1 | 2.7 | 2.7 | 4.0 | 4.2 | 4.0 |
| Durables |  | 9.9 | 14.4 | 7.3 | 4.7 | 9.4 | 1.8 | 12.3 | 7.4 | 7.0 |
| Nondurables |  | 2.5 | 4.7 | 4.9 | 3.0 | 1.7 | 2.8 | 4.6 | 5.5 | 4.8 |
| Services |  | 4.0 | 3.8 | 4.4 | 4.5 | 1.8 | 2.9 | 2.0 | 3.0 | 3.0 |
| Business fixed investment |  | 11.4 | 10.9 | 7.7 | 7.8 | -10.2 | -2.8 | 5.9 | 14.4 | 9.0 |
| Equipment \& Software |  | 13.8 | 13.4 | 10.8 | 7.5 | -9.4 | 1.6 | 8.2 | 17.9 | 9.6 |
| Nonres. structures |  | 4.6 | 3.9 | -0.9 | 8.8 | -12.4 | -14.9 | -1.2 | 2.9 | 6.8 |
| Residential structures |  | 3.1 | 10.3 | 3.6 | -1.8 | 1.7 | 7.1 | 11.8 | 2.0 | -0.6 |
| Exports |  | 8.3 | 2.6 | 5.6 | 6.5 | -11.5 | 3.3 | 5.9 | 11.5 | 11.1 |
| Imports |  | 14.3 | 11.0 | 12.1 | 11.2 | -7.4 | 9.4 | 3.5 | 9.4 | 8.8 |
| Gov't. cons. \& investment |  | 1.2 | 3.3 | 4.2 | 0.4 | 3.6 | 4.5 | 2.5 | 2.5 | 1.9 |
| Federal |  | -0.5 | 0.1 | 4.2 | -2.2 | 6.3 | 10.1 | 6.1 | 4.7 | 1.6 |
| Defense |  | -1.5 | -1.2 | 4.3 | -3.5 | 6.6 | 10.9 | 7.7 | 5.0 | 1.4 |
| State \& local |  | 2.2 | 5.1 | 4.2 | 1.7 | 2.3 | 1.6 | 0.5 | 1.3 | 2.1 |
| Change in bus. inventories | Bill. Ch. \$ | 71.2 | 72.6 | 68.9 | 56.5 | -36.0 | 5.7 | 0.3 | 47.0 | 98.3 |
| Nonfarm |  | 68.5 | 71.2 | 71.5 | 57.8 | -36.3 | 9.3 | 1.8 | 46.8 | 97.3 |
| Net exports |  | -104.6 | -203.7 | -296.2 | -379.5 | -398.1 | -470.6 | -506.6 | -526.1 | -545.9 |
| Nominal ${ }^{\text {GDP }}$ | \% change | 5.9 | 5.7 | 6.3 | 4.6 | 2.4 | 4.2 | 6.2 | 6.2 | 5.1 |
| GDP Gap ${ }^{2}$ | $\%$ | -0.8 | -1.5 | -2.3 | -2.3 | 0.6 | 1.8 | 2.5 | 1.0 | 0.2 |
| Employment and Production |  |  |  |  |  |  |  |  |  |  |
| Nonfarm payroll employment | Millions | 122.8 | 125.9 | 129.0 | 131.8 | 131.8 | 130.4 | 130.1 | 131.8 | 135.6 |
| Unemployment rate | \% | 4.9 | 4.5 | 4.2 | 4.0 | 4.7 | 5.8 | 6.0 | 5.5 | 5.1 |
| Industrial prod. index | \% change | 8.1 | 4.4 | 4.9 | 2.3 | -5.2 | 1.3 | 1.6 | 6.3 | 4.7 |
| Capacity util. rate - mfg. | \% | 82.6 | 82.0 | 81.4 | 81.1 | 75.4 | 73.9 | 73.4 | 76.7 | 79.5 |
| Housing starts | Millions | 1.47 | 1.62 | 1.64 | 1.57 | 1.60 | 1.70 | 1.85 | 1.90 | 1.86 |
| Light motor vehicle sales |  | 15.12 | 15.52 | 16.90 | 17.36 | 17.12 | 16.78 | 16.67 | 17.24 | 17.70 |
| North Amer. produced |  | 13.18 | 13.48 | 14.41 | 14.49 | 14.04 | 13.49 | 13.36 | 13.82 | 14.20 |
| Other |  | 1.95 | 2.03 | 2.49 | 2.87 | 3.08 | 3.29 | 3.31 | 3.42 | 3.50 |
| Income and Saving |  |  |  |  |  |  |  |  |  |  |
| Nominal GNP | Bill. \$ | 8337.3 | 8768.3 | 9302.2 | 9855.9 | 10135.9 | 10502.3 | 11027.4 | 11773.9 | 12411.9 |
| Nominal GNP | \% change | 5.8 | 5.5 | 6.5 | 4.7 | 2.6 | 3.8 | 6.2 | 6.3 | 4.9 |
| Nominal personal income |  | 6.4 | 7.0 | 5.5 | 7.1 | 2.4 | 2.4 | 3.9 | 5.7 | 5.8 |
| Real disposable income |  | 4.3 | 5.6 | 2.8 | 4.4 | 1.3 | 3.5 | 3.7 | 5.0 | 4.2 |
| Personal saving rate | \% | 3.6 | 4.3 | 2.4 | 2.3 | 1.7 | 2.3 | 2.1 | 2.3 | 2.8 |
| Corp. profits, IVA \& CCAdj. | \% change | 9.1 | -10.0 | 9.6 | -8.6 | 8.7 | 8.3 | 24.6 | 7.9 | -2.7 |
| Profit share of GNP | \% | 10.4 | 9.1 | 9.2 | 8.3 | 7.6 | 8.6 | 9.6 | 10.5 | 9.9 |
| Excluding FR Banks |  | 10.1 | 8.9 | 8.9 | 8.0 | 7.3 | 8.4 | 9.4 | 10.3 | 9.8 |
| Federal surpl./deficit | Bill. \$ | -55.8 | 38.8 | 103.6 | 189.5 | 50.5 | -240.0 | -421.7 | -478.4 | -325.8 |
| State \& local surpl./def. |  | 39.1 | 52.0 | 50.4 | 50.0 | 17.3 | -3.2 | -9.0 | -1.2 | 8.9 |
| Ex. social ins. funds |  | 38.0 | 50.3 | 48.7 | 47.9 | 14.0 | -6.6 | -12.4 | -4.7 | 5.3 |
| Gross natl. saving rate | \% | 17.5 | 18.2 | 18.0 | 18.0 | 16.4 | 14.7 | 13.2 | 13.9 | 14.5 |
| Net natl. saving rate |  | 6.6 | 7.4 | 6.9 | 6.7 | 4.4 | 2.7 | 1.5 | 2.6 | 3.1 |
| Prices and Costs |  |  |  |  |  |  |  |  |  |  |
| GDP chn.-wt. price index \% change 1.5 1.1 1.6 2.2 1.4 0.9 1.9 |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
| PCE chn.-wt. price index |  | 1.3 | 0.9 | 2.1 | 2.3 | 1.6 | 1.8 | 1.4 | 1.0 | 1.0 |
| Ex. food and energy |  | 1.4 | 1.4 | 1.6 | 1.5 | 2.1 | 1.6 | 0.8 | 1.0 | 1.0 |
| CPI |  | 1.9 | 1.5 | 2.6 | 3.4 | 1.8 | 2.2 | 1.9 | 1.2 | 1.2 |
| Ex. food and energy |  | 2.2 | 2.3 | 2.0 | 2.6 | 2.7 | 2.1 | 1.2 | 1.4 | 1.4 |
| ECI, hourly compensation ${ }^{3}$ |  | 3.4 | 3.5 | 3.4 | 4.4 | 4.2 | 3.2 | 4.1 | 3.7 | 3.8 |
| Nonfarm business sector |  |  |  |  |  |  |  |  |  |  |
| Output per hour |  | 2.2 | 2.7 | 3.3 | 2.2 | 2.9 | 4.1 | 5.5 | 2.6 | 1.7 |
| Compensation per Hour |  | 4.0 | 5.6 | 4.9 | 6.7 | 3.3 | 2.0 | 3.1 | 3.4 | 3.7 |
| Unit labor cost |  | 1.2 | 2.3 | 1.4 | 4.9 | -0.5 | -1.6 | -2.2 | 0.8 | 2.0 |

1. Changes are from fourth quarter to fourth quarter.
2. Percent difference between potential and actual. A positive number indicates that the economy is operating below potential.
3. Private-industry workers.

| Item | Units | $\begin{aligned} & 2001 \\ & \text { Q1 } \end{aligned}$ | $\begin{gathered} 2001 \\ \text { Q2 } \end{gathered}$ | $\begin{aligned} & 2001 \\ & \text { Q3 } \end{aligned}$ | $\begin{aligned} & 2001 \\ & \text { Q4 } \end{aligned}$ | $\begin{aligned} & 2002 \\ & \text { Q1 } \end{aligned}$ | $\begin{gathered} 2002 \\ \text { Q2 } \end{gathered}$ | $\begin{aligned} & 2002 \\ & Q 3 \end{aligned}$ | $\begin{aligned} & 2002 \\ & Q 4 \end{aligned}$ | $\begin{gathered} 2003 \\ \text { Q1 } \end{gathered}$ | $\begin{gathered} 2003 \\ \text { Q2 } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Expenditures |  |  |  |  |  |  |  |  |  |  |  |
| Nominal GDP | Bill. \$ | 10024.8 | 10088.2 | 10096.2 | 10193.9 | 10329.3 | 10428.3 | 10542.0 | 10623.7 | 10735.8 | 10846.7 |
| Real GDP | Bill. Ch. \$ | 9882.2 | 9866.3 | 9834.6 | 9883.6 | 9997.9 | 10045.1 | 10128.4 | 10160.8 | 10210.4 | 10288.3 |
| Real GDP | \% change | -0.2 | -0.6 | -1.3 | 2.0 | 4.7 | 1.9 | 3.4 | 1.3 | 2.0 | 3.1 |
| Gross domestic purchases |  | -0.7 | -0.4 | -0.8 | 2.4 | 5.2 | 3.1 | 3.4 | 2.7 | 1.1 | 4.3 |
| Final sales |  | 1.4 | 0.7 | -0.7 | 3.2 | 2.6 | 1.3 | 1.8 | 1.7 | 2.7 | 3.3 |
| Priv. dom. final purchases |  | -0.1 | -0.0 | 0.5 | 2.8 | 2.9 | 2.2 | 1.7 | 2.2 | 2.3 | 3.8 |
| Personal cons. expenditures |  | 0.5 | 2.3 | 1.9 | 6.2 | 4.1 | 2.6 | 2.0 | 2.2 | 2.5 | 3.3 |
| Durables |  | 1.7 | 9.8 | 0.7 | 27.3 | 1.6 | 0.5 | 5.0 | 0.3 | 0.5 | 17.7 |
| Nondurables |  | 0.4 | -1.1 | 2.9 | 4.7 | 6.1 | 0.4 | 0.2 | 4.6 | 5.7 | 1.2 |
| Services |  | 0.3 | 2.4 | 1.6 | 2.8 | 3.8 | 4.1 | 2.2 | 1.5 | 1.5 | 1.7 |
| Business fixed investment |  | -4.5 | -13.6 | -8.4 | -14.0 | -7.0 | -3.0 | -1.1 | -0.1 | -0.6 | 7.0 |
| Equipment \& Software |  | -4.0 | -16.4 | -12.2 | -4.1 | -0.2 | 1.2 | 3.7 | 1.7 | 0.5 | 8.0 |
| Nonres. structures |  | -5.9 | -5.6 | 2.2 | -35.3 | -23.9 | -14.5 | -14.6 | -5.6 | -4.0 | 3.9 |
| Residential structures |  | 2.6 | 3.7 | 3.1 | -2.5 | 8.7 | 8.9 | 4.2 | 6.8 | 4.5 | 4.5 |
| Exports |  | -4.5 | -13.4 | -17.7 | -9.8 | 4.4 | 8.7 | 4.3 | -3.7 | -2.0 | -1.1 |
| Imports |  | -6.2 | -8.5 | -10.8 | -3.8 | 8.4 | 17.1 | 4.1 | 8.2 | -6.8 | 9.1 |
| Gov't. cons. \& investment |  | 5.8 | 5.8 | -4.1 | 7.4 | 4.6 | 4.0 | 2.5 | 7.1 | -0.4 | 7.4 |
| Federal |  | 8.9 | 6.7 | 0.0 | 9.9 | 8.4 | 10.5 | 3.9 | 18.2 | -0.2 | 23.5 |
| Defense |  | 7.7 | 2.6 | 2.4 | 14.2 | 8.2 | 9.5 | 4.5 | 22.1 | -5.6 | 41.9 |
| State \& local |  | 4.2 | 5.3 | -6.0 | 6.1 | 2.7 | 0.6 | 1.7 | 1.5 | -0.5 | -0.8 |
| Change in bus. inventories | Bill. Ch. \$ | 4.3 | -28.8 | -44.0 | -75.5 | -23.5 | -8.0 | 32.8 | 21.5 | 1.6 | -4.5 |
| Nonfarm |  | -2.1 | -26.9 | -45.8 | -70.3 | -28.6 | 4.2 | 36.0 | 25.4 | 0.3 | -2.4 |
| Net exports |  | -385.9 | -391.7 | -401.3 | -413.4 | -431.2 | -467.6 | -471.9 | -511.5 | -490.0 | -526.0 |
| Nominal GDP | \% change | 2.9 | 2.6 | 0.3 | 3.9 | 5.4 | 3.9 | 4.4 | 3.1 | 4.3 | 4.2 |
| GDP Gap ${ }^{1}$ | $\%$ | -0.8 | 0.2 | 1.3 | 1.7 | 1.4 | 1.8 | 1.8 | 2.4 | 2.8 | 3.0 |
| Employment and Production |  |  |  |  |  |  |  |  |  |  |  |
| Nonfarm payroll employment | Millions | 132.5 | 132.2 | 131.7 | 130.9 | 130.5 | 130.4 | 130.2 | 130.3 | 130.2 | 130.0 |
| Unemployment rate | \% | 4.2 | 4.4 | 4.8 | 5.6 | 5.7 | 5.8 | 5.7 | 5.9 | 5.8 | 6.1 |
| Industrial prod. index | \% change | -6.3 | -5.0 | -5.2 | -4.5 | 1.9 | 4.2 | 1.2 | -1.9 | 0.9 | -4.0 |
| Capacity util. rate - mfg. | \% | 77.5 | 76.0 | 74.6 | 73.5 | 73.7 | 74.1 | 74.2 | 73.5 | 73.5 | 72.7 |
| Housing starts | Millions | 1.61 | 1.63 | 1.60 | 1.57 | 1.72 | 1.68 | 1.70 | 1.74 | 1.74 | 1.74 |
| Light motor vehicle sales |  | 17.05 | 16.64 | 16.32 | 18.47 | 16.42 | 16.42 | 17.71 | 16.58 | 15.92 | 16.31 |
| North Amer. produced |  | 14.14 | 13.60 | 13.31 | 15.09 | 13.11 | 13.17 | 14.35 | 13.33 | 12.53 | 13.01 |
| Other |  | 2.91 | 3.04 | 3.00 | 3.37 | 3.31 | 3.25 | 3.36 | 3.25 | 3.39 | 3.30 |
| Income and Saving |  |  |  |  |  |  |  |  |  |  |  |
| Nominal GNP | Bill. \$ | 10052.1 | 10115.5 | 10107.8 | 10268.3 | 10351.3 | 10435.9 | 10560.5 | 10661.6 | 10763.7 | 10880.0 |
| Nominal GNP | \% change | 1.8 | 2.5 | -0.3 | 6.5 | 3.3 | 3.3 | 4.9 | 3.9 | 3.9 | 4.4 |
| Nominal personal income |  | 4.6 | 1.2 | 1.7 | 2.0 | 1.5 | 5.0 | 1.4 | 1.7 | 3.0 | 4.4 |
| Real disposable income |  | -0.3 | -1.4 | 12.2 | -4.4 | 10.6 | 4.1 | -0.9 | 0.6 | 2.4 | 4.9 |
| Personal saving rate | \% | 1.9 | 1.1 | 2.8 | 1.0 | 2.5 | 2.8 | 2.1 | 1.8 | 1.9 | 2.3 |
| Corp. profits, IVA \& CCAdj. | \% change | -18.0 | -3.8 | -17.4 | 114.5 | 7.9 | 10.3 | -0.9 | 16.5 | -3.3 | 48.1 |
| Profit share of GNP | \% | 7.5 | 7.4 | 7.1 | 8.4 | 8.5 | 8.6 | 8.5 | 8.8 | 8.6 | 9.4 |
| Excluding FR Banks |  | 7.2 | 7.1 | 6.8 | 8.2 | 8.3 | 8.4 | 8.3 | 8.6 | 8.4 | 9.2 |
| Federal surpl./deficit | Bill. \$ | 156.1 | 128.9 | -80.1 | -2.8 | -188.8 | -232.0 | -242.9 | -296.3 | -320.4 | -424.7 |
| State \& local surpl./def. |  | 36.1 | 24.6 | 11.6 | -3.0 | -7.4 | -11.9 | 6.8 | -0.4 | -40.6 | -14.7 |
| Ex. social ins. funds |  | 33.1 | 21.3 | 8.1 | -6.6 | -10.8 | -15.3 | 3.4 | -3.8 | -44.0 | -18.1 |
| Gross natl. saving rate | \% | 17.1 | 16.3 | 15.9 | 16.1 | 15.3 | 15.1 | 14.4 | 13.8 | 12.9 | 13.2 |
| Net natl. saving rate |  | 5.6 | 4.4 | 3.3 | 4.4 | 3.5 | 3.2 | 2.5 | 1.8 | 0.9 | 1.4 |
| Prices and Costs |  |  |  |  |  |  |  |  |  |  |  |
| GDP chn. -wt. price index $\%$ change 3.2 3.2 1.6 1.6 1.1 1.5 1.2 |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |
| PCE chn.-wt. price index |  | 3.2 | 2.5 | 0.5 | 0.4 | 0.7 | 2.9 | 2.0 | 1.7 | 2.8 | 0.5 |
| Ex. food and energy |  | 2.7 | 1.9 | 1.3 | 2.5 | 1.0 | 1.9 | 2.0 | 1.5 | 0.9 | 0.8 |
| CPI |  | 4.0 | 3.2 | 0.9 | -0.7 | 1.4 | 3.4 | 2.2 | 2.0 | 3.8 | 0.7 |
| Ex. food and energy |  | 2.9 | 2.6 | 2.6 | 2.8 | 2.1 | 2.1 | 2.1 | 1.7 | 1.3 | 0.8 |
| ECI, hourly compensation ${ }^{2}$ |  | 4.6 | 3.7 | 3.9 | 4.4 | 3.6 | 4.4 | 2.5 | 3.0 | 5.5 | 3.4 |
| Nonfarm business sector |  |  |  |  |  |  |  |  |  |  |  |
| Output per hour |  | -0.2 | 3.4 | 1.5 | 6.9 | 9.6 | 0.8 | 4.7 | 1.6 | 3.1 | 6.3 |
| Compensation per hour |  | 4.7 | 2.1 | 2.6 | 4.0 | 2.1 | 2.8 | 1.4 | 1.5 | 3.2 | 4.9 |
| Unit labor cost |  | 4.7 | 0.3 | -0.9 | -5.7 | -5.2 | 2.9 | -3.7 | -0.1 | 0.4 | -1.3 |

[^3]Strictly Confidential <FR>
Class II FOMC
REAL GROSS DOMESTIC PRODUCT AND RELATED ITEMS, QUARTERLY VALUES (Seasonally adjusted, annual rate except as noted)

2. Private-industry workers
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Class II FOMC
CONTRIBUTIONS TO GROWTH IN REAL GROSS DOMESTIC PRODUCT AND RELATED ITEMS January 21, 2004

Note: Components may not sum to totals because of rounding.

Note: Components may not sum to totals because of rounding.
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| Item | Fiscal year |  |  |  | 2003 |  |  |  | 2004 |  |  |  | 2005 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $2002^{\text {a }}$ | $2003{ }^{\text {a }}$ | 2004 | 2005 | Q1 ${ }^{\text {a }}$ | Q2 ${ }^{\text {a }}$ | Q3 ${ }^{\text {a }}$ | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 |
| Unified budget |  |  |  |  | Not seasonally adjusted |  |  |  |  |  |  |  |  |  |  |  |
| Receipts ${ }^{1}$ | 1853 | 1782 | 1827 | 2024 | 398 | 528 | 429 | 441 | 402 | 535 | 450 | 468 | 442 | 609 | 504 | 510 |
| Outlays ${ }^{1}$ | 2011 | 2156 | 2289 | 2384 | 543 | 544 | 534 | 569 | 584 | 575 | 561 | 602 | 597 | 591 | 594 | 616 |
| Surplus/deficit ${ }^{1}$ | -159 | -374 | -462 | -360 | -145 | -17 | -105 | -129 | -182 | -40 | -111 | -135 | -155 | 19 | -90 | -106 |
| On-budget | -318 | -535 | -635 | -548 | -169 | -91 | -113 | -178 | -218 | -115 | -124 | -178 | -196 | -64 | -110 | -156 |
| Off-budget | 160 | 161 | 173 | 188 | 24 | 75 | 9 | 50 | 36 | 74 | 13 | 43 | 41 | 83 | 20 | 50 |
| Means of financing |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Borrowing | 221 | 374 | 497 | 377 | 64 | 106 | 108 | 119 | 155 | 90 | 133 | 118 | 147 | 20 | 92 | 82 |
| Cash decrease | -17 | 26 | -10 | 0 | 20 | -17 | -5 | 2 | 14 | -33 | 8 | 15 | 0 | -30 | 15 | 15 |
| Other ${ }^{2}$ | -46 | -25 | -24 | -17 | 62 | -73 | 2 | 8 | 13 | -17 | -29 | 2 | 7 | -9 | -17 | 9 |
| Cash operating balance, end of period | 61 | 35 | 45 | 45 | 13 | 30 | 35 | 33 | 19 | 53 | 45 | 30 | 30 | 60 | 45 | 30 |
| NIPA federal sector |  |  |  |  | Seasonally adjusted annual rates |  |  |  |  |  |  |  |  |  |  |  |
| Receipts | 1895 | 1843 | 1866 | 2087 | 1864 | 1864 | 1784 | 1866 | 1834 | 1858 | 1906 | 1971 | 2075 | 2130 | 2172 | 2194 |
| Expenditures | 2062 | 2228 | 2349 | 2442 | 2184 | 2289 | 2284 | 2308 | 2352 | 2363 | 2373 | 2394 | 2443 | 2454 | 2476 | 2501 |
| Consumption expenditures | 573 | 649 | 704 | 740 | 636 | 669 | 672 | 679 | 704 | 715 | 720 | 725 | 741 | 745 | 751 | 757 |
| Defense | 370 | 426 | 467 | 490 | 409 | 448 | 444 | 448 | 466 | 475 | 478 | 480 | 490 | 493 | 497 | 501 |
| Nondefense | 202 | 223 | 238 | 250 | 227 | 221 | 229 | 231 | 238 | 240 | 242 | 245 | 250 | 252 | 254 | 256 |
| Other spending | 1489 | 1579 | 1645 | 1701 | 1548 | 1620 | 1612 | 1629 | 1649 | 1647 | 1653 | 1669 | 1702 | 1709 | 1725 | 1745 |
| Current account surplus | -167 | -385 | -483 | -355 | -320 | -425 | -499 | -442 | -518 | -504 | -468 | -423 | -368 | -324 | -304 | -307 |
| Gross investment | 87 | 92 | 101 | 104 | 87 | 96 | 97 | 98 | 101 | 103 | 104 | 104 | 104 | 104 | 105 | 105 |
| Gross saving less gross investment ${ }^{3}$ | -165 | -387 | -492 | -364 | -318 | -430 | -505 | -448 | -526 | -515 | -478 | -433 | -377 | -333 | -313 | -316 |
| Fiscal indicators ${ }^{4}$ <br> High-employment (HEB) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| surplus/deficit | -108 | -305 | -445 | -356 | -232 | -335 | -432 | -381 | -474 | -476 | -450 | -418 | -368 | -328 | -311 | -316 |
| Change in HEB, percent of potential GDP | 1.9 | 1.7 | 1.1 | -0.9 | 0.1 | 0.9 | 0.8 | -0.5 | 0.8 | -0.0 | -0.3 | -0.3 | -0.5 | -0.4 | -0.2 | 0.0 |
| Fiscal impetus (FI) percent of GDP | 1.0 | 1.2 | 1.1 | -0.2 | 0.1 | 0.5 | 0.4 | 0.3 | 0.3 | 0.2 | 0.1 | 0.2 | -0.4 | 0.0 | 0.0 | 0.0 |

 from the on-budget surplus and shown separately as off-budget, as classified under current law.
2. Other means of financing are checks issued less checks paid, accrued items, and changes in other financial assets and liabilities.

 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. a--Actual
Staff Projections of Federal Sector Accounts and Related Items

| Strictly Confidential (FR) Class II FOMC |  |  | Change in Debt of the Domestic Nonfinancial Sectors <br> (Percent) <br> January 21, 2004 |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Period ${ }^{1}$ | Total | Federal government | Nonfederal |  |  |  | Business | State and local governments | Memo: Nominal GDP |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  | Home mortgages | Consumer credit |  |  |  |
| Year |  |  |  |  |  |  |  |  |  |
| 1998 | 6.9 | -1.4 | 9.6 | 8.1 | 8.8 | 6.5 | 12.1 | 6.3 | 5.7 |
| 1999 | 6.3 | -1.9 | 8.8 | 8.2 | 9.0 | 7.8 | 10.7 | 3.4 | 6.3 |
| 2000 | 4.9 | -8.0 | 8.4 | 8.7 | 8.3 | 10.7 | 9.5 | 1.3 | 4.6 |
| 2001 | 6.3 | -0.2 | 7.7 | 9.0 | 9.8 | 8.0 | 6.1 | 8.9 | 2.4 |
| 2002 | 7.1 | 7.6 | 7.0 | 10.0 | 12.4 | 4.4 | 2.9 | 11.2 | 4.2 |
| 2003 | 8.3 | 10.9 | 7.7 | 10.8 | 12.9 | 5.4 | 3.6 | 9.4 | 6.2 |
| 2004 | 7.6 | 12.3 | 6.6 | 8.0 | 8.8 | 6.4 | 4.7 | 6.9 | 6.2 |
| 2005 | 6.2 | 7.5 | 5.9 | 6.3 | 6.3 | 6.9 | 5.8 | 4.5 | 5.1 |
| Quarter |  |  |  |  |  |  |  |  |  |
| 2003:1 | 6.5 | 4.5 | 6.9 | 10.0 | 12.1 | 4.3 | 3.5 | 5.6 | 4.3 |
| 2 | 11.1 | 20.4 | 9.1 | 11.9 | 14.0 | 5.8 | 5.3 | 11.9 | 4.2 |
| 3 | 7.4 | 8.2 | 7.3 | 10.1 | 11.8 | 6.1 | 3.4 | 9.1 | 10.0 |
| 4 | 7.0 | 9.0 | 6.6 | 9.7 | 11.4 | 4.9 | 2.2 | 9.6 | 6.3 |
| 2004:1 | 7.9 | 13.5 | 6.7 | 8.8 | 10.3 | 5.2 | 3.9 | 7.0 | 6.6 |
| 2 | 8.2 | 15.8 | 6.5 | 8.1 | 8.9 | 6.5 | 4.4 | 7.4 | 6.1 |
| 3 | 6.9 | 9.5 | 6.3 | 7.3 | 7.8 | 6.4 | 5.1 | 6.4 | 6.0 |
| 4 | 6.5 | 8.3 | 6.1 | 6.8 | 7.0 | 6.8 | 5.2 | 6.1 | 6.2 |
| 2005:1 | 6.9 | 11.3 | 5.9 | 6.5 | 6.5 | 6.8 | 5.4 | 5.1 | 5.5 |
| 2 | 6.3 | 8.2 | 5.9 | 6.3 | 6.3 | 6.8 | 5.6 | 4.4 | 5.1 |
| 3 | 5.6 | 5.2 | 5.7 | 6.0 | 6.0 | 6.6 | 5.7 | 4.1 | 5.1 |
| 4 | 5.5 | 4.7 | 5.7 | 5.8 | 5.7 | 6.6 | 5.8 | 3.9 | 4.9 |

[^4]Strictly Confidential (FR)
Class II FOMC

| Category | 2002 | 2003 | 2004 | 2005 | 2003 |  | 2004 |  |  |  | 2005 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 |
| Net funds raised by domestic nonfinancial sectors |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1 Total | 1333.1 | 1658.6 | 1622.8 | 1441.3 | 1565.3 | 1514.2 | 1698.1 | 1795.4 | 1533.9 | 1463.9 | 1603.1 | 1484.7 | 1345.3 | 1331.9 |
| 2 Net equity issuance | -41.8 | -48.3 | -78.5 | -59.0 | -41.2 | -33.8 | -71.0 | -86.0 | -81.0 | -76.0 | -70.0 | -60.0 | -58.0 | -48.0 |
| 3 Net debt issuance | 1374.9 | 1706.9 | 1701.3 | 1500.3 | 1606.5 | 1548.0 | 1769.1 | 1881.4 | 1614.9 | 1539.9 | 1673.1 | 1544.7 | 1403.3 | 1379.9 |
| Borrowing sectors |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Nonfinancial business |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 4 Financing gap ${ }^{1}$ | 37.1 | -42.0 | -57.2 | 144.6 | -78.7 | -78.3 | -99.0 | -96.0 | -42.4 | 8.6 | 96.5 | 143.8 | 165.4 | 172.6 |
| 5 Net equity issuance | -41.8 | -48.3 | -78.5 | -59.0 | -41.2 | -33.8 | -71.0 | -86.0 | -81.0 | -76.0 | -70.0 | -60.0 | -58.0 | -48.0 |
| 6 Credit market borrowing | 200.9 | 257.6 | 346.1 | 444.1 | 245.2 | 158.3 | 284.3 | 327.3 | 380.6 | 392.5 | 417.0 | 440.4 | 453.1 | 465.8 |
| Households |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 7 Net borrowing ${ }^{2}$ | 771.1 | 917.8 | 750.8 | 639.1 | 906.5 | 887.2 | 829.3 | 775.1 | 718.6 | 680.2 | 655.4 | 648.8 | 631.1 | 621.1 |
| 8 Home mortgages | 669.2 | 782.7 | 599.0 | 466.1 | 764.6 | 760.9 | 701.4 | 621.2 | 561.9 | 511.5 | 484.0 | 475.3 | 458.2 | 447.1 |
| 9 Consumer credit | 81.4 | 104.4 | 129.8 | 148.9 | 121.3 | 99.7 | 106.4 | 133.9 | 134.4 | 144.6 | 147.5 | 149.4 | 148.8 | 150.0 |
| 10 Debt/DPI (percent) ${ }^{3}$ | 103.1 | 109.0 | 112.9 | 114.6 | 109.2 | 111.3 | 112.0 | 113.0 | 113.5 | 113.8 | 114.2 | 114.5 | 114.8 | 115.1 |
| State and local governments |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 11 Net borrowing | 145.5 | 135.2 | 108.8 | 75.3 | 137.3 | 147.8 | 110.8 | 118.8 | 104.8 | 100.8 | 86.8 | 74.8 | 70.8 | 68.8 |
| 12 Current surplus ${ }^{4}$ | 170.1 | 163.0 | 152.3 | 166.7 | 199.3 | 157.2 | 148.8 | 154.2 | 149.5 | 156.8 | 162.6 | 164.8 | 167.8 | 171.5 |
| Federal government |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 13 Net borrowing | 257.5 | 396.1 | 495.6 | 341.8 | 317.5 | 354.7 | 544.7 | 660.2 | 410.9 | 366.5 | 513.9 | 380.7 | 248.3 | 224.2 |
| 14 Net borrowing (n.s.a.) | 257.5 | 396.1 | 495.6 | 341.8 | 107.6 | 118.7 | 155.2 | 90.0 | 132.7 | 117.6 | 147.5 | 20.2 | 92.1 | 82.1 |
| 15 Unified deficit (n.s.a.) | 230.6 | 394.7 | 468.2 | 331.7 | 104.5 | 128.7 | 182.2 | 40.3 | 111.0 | 134.7 | 154.9 | -18.8 | 89.6 | 106.0 |
| Depository institutions |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 16 Funds supplied | 482.5 | 396.8 | 437.7 | 516.4 | 144.3 | 67.2 | 370.0 | 474.2 | 504.1 | 402.8 | 520.8 | 537.6 | 580.4 | 426.8 |
| Memo (percentage of GDP) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 17 Domestic nonfinancial debt ${ }^{5}$ | 190.7 | 195.9 | 198.3 | 200.8 | 196.2 | 196.8 | 197.3 | 198.3 | 199.1 | 199.5 | 200.1 | 200.9 | 201.4 | 201.8 |
| 18 Domestic nonfinancial borrowing | 13.1 | 15.5 | 14.5 | 12.1 | 14.5 | 13.7 | 15.4 | 16.2 | 13.7 | 12.9 | 13.8 | 12.6 | 11.3 | 11.0 |
| 19 Federal government ${ }^{6}$ | 2.5 | 3.6 | 4.2 | 2.8 | 2.9 | 3.1 | 4.8 | 5.7 | 3.5 | 3.1 | 4.2 | 3.1 | 2.0 | 1.8 |
| 20 Nonfederal | 10.7 | 11.9 | 10.3 | 9.4 | 11.6 | 10.6 | 10.7 | 10.5 | 10.2 | 9.8 | 9.5 | 9.5 | 9.3 | 9.2 |

[^5](This page intentionally blank.)

## International Developments

Incoming data confirm that, after treading water for the first half of last year, foreign activity rebounded in the second half. The pickup in growth was most pronounced among the developing Asian economies. We expect growth in the current year to become more evenly distributed across regions, as the recoveries in Europe and Latin America become more firmly established.

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

| Indicator | 2003 |  | Projection |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | H1 | Q3 | $2003:$ | 2004 |  |  |  |
|  |  |  | Q 4 | Q 1 | Q 2 | H 2 |  |
| Foreign output | .6 | 3.9 | 3.9 | 3.8 | 3.8 | 3.8 | 3.5 |
| $\quad$ December GB | .6 | 3.6 | 3.8 | 3.7 | 3.7 | 3.6 | 3.4 |
| Foreign CPI | 1.9 | 1.4 | 3.1 | 2.6 | 1.9 | 1.9 | 1.9 |
| $\quad$ December GB | 2.0 | 1.4 | 2.7 | 2.5 | 1.9 | 1.9 | 1.9 |

Note. Changes for years are measured as Q4/Q4; for half-years, Q2/Q4 or Q4/Q2. Aggregates reflect updated trade weights.

Oil prices in January are averaging about $\$ 4.50$ per barrel higher than anticipated in early December. In line with quotes from futures markets, we continue to project oil prices to drift down over the forecast period. Although spot prices are roughly $\$ 2$ lower than their previous peak in mid-March, fardated futures contracts (with a horizon of roughly six years) are almost \$4 higher than they were in mid-March. One interpretation of this development is that the market now assigns a higher probability to the event that oil prices will rise further or remain elevated for some time. To assess the effect of one such outcome, we report the results of an alternative simulation that incorporates a further, sustained increase in oil prices.

Since the December FOMC meeting, the exchange value of the dollar has declined about $11 / 2$ percent as measured by the staff's broad index. Our forecast for the path of the dollar starts at this lower level, and we have retained a slight downward tilt as the need to finance the large U.S. external imbalance is likely to remain a source of downward market pressure on the dollar.

The sizable decline in the dollar since early 2002 has contributed to a marked slowing in both the realized and projected widening of the current account deficit. We estimate that by the end of 2005 the decline in the dollar will have narrowed the deficit roughly $\$ 160$ billion, or $1 \frac{1}{4}$ percent of GDP, compared with what it would have been had the dollar stayed at its early-2002 level. Nonetheless, we project that the current account deficit will continue to widen
over the forecast period, reaching $\$ 590$ billion by the end of next year, as faster projected growth here than abroad implies a growing trade deficit.

We now estimate that, in the fourth quarter of 2003, the arithmetic contribution of net exports to U.S. GDP growth was near zero, compared with the negative 0.3 percent projected in the December Greenbook. The improvement is due to significantly stronger export growth. For both this year and next, we project net exports to subtract a little less than $1 / 4$ percentage point from real GDP growth.

## Oil Prices

The spot price of West Texas intermediate (WTI) crude oil closed at $\$ 35.78$ per barrel on January 20, up from about $\$ 30$ in the days preceding the December Greenbook. Spot prices were driven up by reports of low and declining oil inventories in OECD countries, particularly the United States; recent cold weather; and a sharp increase in natural gas prices, which is encouraging industrial users to substitute toward oil. Strong economic activity, a decline in the exchange value of the dollar, and a slow recovery of oil exports from Iraq, where security problems persist, have also put upward pressure on oil prices. We project, in line with futures markets, that the spot price of WTI will fall to about $\$ 29.70$ by the fourth quarter of 2004 and to about $\$ 27.50$ by the fourth quarter of 2005. This projection is consistent with an expected rise in supply from Iraq and non-OPEC countries. Even so, relative to the December Greenbook, the spot price is projected to be about $\$ 3.75$ higher on average in 2004 and $\$ 2.65$ higher in 2005. The higher oil futures prices toward the end of the forecast period may partly reflect recent events in Russia, where the government appears to be reasserting control over the oil industry. Over the past few years, Russia has been the source of the largest production gains outside OPEC, but tighter government controls could discourage investment by both international oil companies and domestic producers.

## International Financial Markets

On balance over the intermeeting period, the dollar depreciated about $13 / 4$ percent against the major foreign currencies and about $1 \frac{1}{4}$ percent against the currencies of our other important trading partners. Downward pressures on the dollar in late December and early January likely reflected long-standing concerns of market participants about the need to finance the U.S. current account deficit. The weak December employment report, released on January 9, reinforced the belief that U.S. monetary policy would remain accommodative for some time and further depressed the dollar. Late in the intermeeting period, however, better-than-expected U.S. data and expressions of concern by European financial officials about the euro's rise caused the dollar to retrace much of its decline.

The dollar depreciated 3 percent on balance against the euro and $51 / 4$ percent against sterling over the period. In contrast, the dollar was little changed on net against the yen and Canadian dollar. The Japanese monetary authorities intervened steadily and very heavily during the intermeeting period to counter upward pressures on the yen. Total purchases of dollars for yen by Japan's Ministry of Finance over the intermeeting period exceeded $\$ 80$ billion; in the first full week of January alone, the MoF purchased almost $\$ 45$ billion-fully one quarter of the MoF's 2003 full-year purchases of $\$ 177$ billion (itself a new yearly record). The dollar moved little on net against the Canadian dollar as depreciation during much of the period was retraced in the past week, following the report of a much smaller than expected Canadian trade surplus for November and a 25 basis point rate cut by the Bank of Canada. The dollar depreciated about 3 percent on net vis-à-vis the Mexican peso and the Brazilian real and registered more moderate declines against the currencies of several developing Asian economies.

Owing to these shifts in the dollar's exchange value, the broad real dollar index is now projected to be more than 2 percent lower this quarter than in the December Greenbook. We project that the broad real dollar will depreciate at an annual rate of about $11 / 4$ percent over the remainder of the forecast period as the need to finance the large U.S. current account deficit continues to exert downward pressure.

Market participants still appear to expect further policy tightening by the Bank of England in the near term, but they no longer seem to anticipate any rate hikes by the ECB before the end of this year and even place some probability on a rate cut, owing in part to the inflation-restraining effects of the euro's strength. Canadian short-term interest rates declined in expectation of the Bank of Canada's January $20^{\text {th }}$ rate cut. Ten-year sovereign yields declined 15 to 20 basis points in the euro area and the United Kingdom and somewhat more in Canada, compared with a decline of 20 basis points in the United States. With expectations of generally benign inflation and further indications that a global economic upswing is under way, share prices rose 3 to 10 percent in the industrial countries and 5 to 25 percent in emerging markets.

The Desk did not intervene
during the period for the accounts of the System or the Treasury.

## Foreign Industrial Countries

Recent indicators have remained favorable for most foreign industrial countries. After having recovered to just over 3 percent in the fourth quarter of last year,
real GDP growth in the foreign industrial countries is expected to continue at only a slightly slower pace throughout 2004 and 2005, as a stronger global economic environment more than offsets the headwind of substantial currency appreciation vis-à-vis the dollar in a number of industrial countries. Domestic demand is expected to continue to support growth in Canada and the United Kingdom and to gain momentum gradually in the euro area.

Twelve-month headline inflation rates are expected to decline in Canada and the euro area and to increase in the United Kingdom by the end of the forecast period. In Japan, deflation is expected to continue, though at a diminishing rate.

In Japan, economic indicators for the fourth quarter suggest that the economy is continuing to expand, with exports, machinery orders, and industrial production all moving up. Strong demand for Japanese exports from emerging Asia and an associated upturn in investment have contributed significantly to recent gains. Personal consumption, however, continues to be sluggish as wages remain flat. Looking forward, slower growth in exports and investment should lower real GDP growth from an estimated $31 / 2$ percent pace in 2003:Q4 to about 2 percent this year and next. Fiscal policy is expected to remain contractionary. The Bank of Japan eased monetary policy on January 20 by raising its target range for the outstanding balance of bank accounts held at the BOJ from $¥ 27-32$ trillion to $¥ 30-35$ trillion. We expect this policy of gradual quantitative easing to continue.

In the euro area, economic growth turned positive in the third quarter of last year, and recent data suggest a further increase to 2 percent at an annual rate in the fourth quarter. Signs of recovery are particularly evident in Germany, where industrial production in October and November averaged $21 / 2$ percent above the third-quarter level. Despite the recent rapid appreciation of the euro, exports are projected to continue to support growth in the near term. In particular, a recovery in global investment spending is expected to benefit Germany's large capital-equipment manufacturing sector. Growth in the euro area is expected to peak at around $2 \frac{1}{2}$ percent in the second half of 2004 before edging down in 2005-a pattern that narrows, but does not close, the output gap. With budget balances still above 3 percent of GDP, fiscal policy is expected to be contractionary in France and Germany in 2004. Twelve-month inflation rates are expected to move below the ECB's target of 2 percent, declining to 1.6 percent by the end of 2005 in response to the stronger euro and remaining economic slack. In this environment, we expect the ECB to leave its policy rate unchanged throughout 2004 and the beginning of 2005.

British real GDP is estimated to have risen $31 / 4$ percent at an annual rate in the fourth quarter, supported by robust public spending and continued strength in consumption. GDP growth is forecast to decline to about $2 \frac{1}{2}$ percent by the end of 2005, reflecting an expectation that housing prices will decelerate and consumption growth will moderate. Inflation is expected to increase, though to remain below the Bank of England's 2 percent CPI inflation target until the end of 2005 .

In Canada, it appears that robust domestic demand, marked by strong gains in employment and a hot residential construction sector, supported growth of nearly $33 / 4$ percent in the fourth quarter. Growth is expected to edge down a bit as consumption and investment moderate. Twelve-month inflation is expected to temporarily dip below the lower bound of the Bank of Canada's 1-3 percent inflation target range in the first quarter of 2004, owing to technical factors, but to then return to within the target range over the rest of the forecast period.

## Other Countries

For developing Asia, data released since the December Greenbook indicate that the rebound in growth has continued, although there has been some moderation from the third-quarter SARS-related bounceback. Real GDP data for China imply growth of 8 percent (a.r.) in the fourth quarter, bringing growth in 2003 to nearly 10 percent, the strongest in the region. For developing Asia as a whole, we continue to estimate that real GDP grew about 5 percent in 2003, largely as a result of the rebound in global demand for high-tech products. We also continue to expect the pace of expansion in developing Asia to average about $51 / 2$ percent over the next two years.

Real GDP growth in China is expected to average about 8 percent over the forecast period, with investment and exports continuing to be the main sources of strength. We have assumed that the Chinese will maintain their current exchange rate peg over the forecast period, although there appears to be growing market sentiment that they may either revalue or move toward a limited amount of exchange rate flexibility. Growth in the other developing Asian economies is expected to range between 4 percent and 6 percent over the forecast period, largely reflecting continued strength in exports in response to increasing global high-tech demand. In addition, the property sector in Hong Kong has begun to pick up, raising hopes for an end to the deflation that has occurred for the past several years. However, the projected pace of expansion is not uniform across the region. In particular, projected growth in the Philippines and Indonesia is near the low end of the range, reflecting continued fiscal problems in the Philippines and political instability in both countries. In addition, the continued high level of household debt and political uncertainty remain key risks to the outlook for Korea.

In Mexico, the industrial sector is showing some signs of revival: Average output in October and November was about $1 \frac{1}{4}$ percent higher than it was in the third quarter. Also, exports, which are heavily weighted toward manufactures, rose 2 percent on a monthly basis on average in October and November. We continue to believe that a turnaround in the U.S. industrial sector will support recovery in its Mexican counterpart, and we project GDP growth of 51/4 percent this year and $41 / 4$ percent next. In Brazil, indications are that the economic recovery that began in the third quarter of last year has become more firmly established, fueled by the export sector and declines in interest rates. Real GDP is projected to grow at a rate of $31 / 2$ percent over the forecast period under the assumption that the government continues to pursue economic reforms. For Latin America as a whole, we expect growth to average about 5 percent in 2004 and 4 percent in 2005.

We estimate that twelve-month inflation in the developing world ended 2003 at a subdued 3 percent and expect it to remain at that rate this year before edging down a bit in 2005.

## Prices of Internationally Traded Goods

Based on monthly trade price surveys from the BLS, we estimate that core import prices rose $11 / 2$ percent (a.r.) in 2003:Q4. Much of the rise was driven by higher prices for the commodity-intensive categories of industrial supplies and foods, feeds, and beverages. In the first and second quarters of 2004, we project core import prices to increase $33 / 4$ percent (a.r.), about $11 / 2$ percentage points higher than in the December Greenbook, reflecting further depreciation of the dollar and the rise in commodity prices during the intermeeting period. Even though we have been reducing our assumption of the extent to which changes in the foreign exchange value of the dollar show through to import prices, the dollar has declined so much in recent months, and commodity prices have grown so quickly, that an upswing in import prices appears likely over the next few quarters. We project more subdued increases thereafter, with prices responding primarily to continued foreign price inflation.

We estimate that core export price inflation jumped to $5 \frac{1}{4}$ percent (a.r.) in the fourth quarter, driven by a surge in agricultural prices. For the first quarter of 2004, we project core export prices to increase at a 4 percent rate, $21 / 2$ percentage points faster than in the December Greenbook. The upward revision is due primarily to further increases in prices of agricultural commodities and the recent increases in prices of petroleum products. We project core export prices to increase at a more moderate rate over the rest of the forecast period.

## Selected Trade Prices

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

| Trade category | 2003 |  | Projection |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | H1 | Q3 | $\begin{gathered} 2003: \\ \text { Q4 } \end{gathered}$ | 2004 |  |  | 2005 |
|  |  |  |  | Q1 | Q2 | H2 |  |
| Exports |  |  |  |  |  |  |  |
| Core goods | 3.5 | 1.1 | 5.2 | 3.9 | 1.6 | . 3 | . 6 |
| Imports |  |  |  |  |  |  |  |
| Non-oil core goods | 2.5 | . 6 | 1.5 | 3.8 | 3.6 | 2.8 | . 7 |
| Oil (dollars per barrel) | 26.46 | 28.03 | 27.83 | 30.20 | 29.57 | 26.99 | 24.94 |

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.

## Trade in Goods and Services

After three years of lackluster performance, a robust recovery of real exports of goods and services now appears to be underway. In the third quarter, real exports grew at an annual rate of 10 percent, the highest rate since the third quarter of 2000. With nominal exports for October and November showing substantial increases, real exports of goods and services are estimated to have accelerated considerably further in the fourth quarter, lifted by the earlier declines in the dollar and the recent pickup in foreign growth. Core goods accounted for most of the rise in overall export growth, boosted by a spike in aircraft sales as well as the tendency for core goods exports to surge in the fourth quarter, even on a seasonally adjusted basis.

Several factors should bring export growth rates down in 2004:Q1, including the tendency of core exports to grow more slowly in the first quarter and a tempering of growth in services exports after their strong rebound in the second half of last year. Additionally, exports in the first quarter will be held back by the bans on U.S. beef imposed by our trading partners. It is not clear when these bans will be lifted, but our working assumption is that U.S. beef exports will be near zero in the first half of 2004, that some of the bans will be lifted by the second half of 2004, and that U.S. beef exports will not fully recuperate until the end of 2005.

Over the remainder of the forecast period, real exports of goods and services should continue to show solid growth. Exported core goods are projected to
grow about 10 percent in both 2004 and 2005. Expanding activity abroad accounts for more than 4 percentage points of this growth each year, and dollar depreciation accounts for about $31 / 2$ percentage points on average. In addition, we continue to bump up the projection for core export growth over that implied by movements in foreign GDP and relative prices, as the level of core exports remains below its long-run relationship with these fundamental determinants. This adjustment is somewhat larger than in the December Greenbook, owing to the very strong export growth figures to date and the more widespread boom in global trade. Real exports of services are projected to grow about $7 \frac{1}{2}$ percent in 2004 and 2005. Exports of computers and semiconductors are expected to grow at double-digit rates, reflecting our forecast of a strong recovery in the global high-tech sector.

Real imports of goods and services are estimated to have risen 12 percent (a.r.) in the fourth quarter. Nearly all this growth was in imports of core goods, supported by strong U.S. GDP growth in the second half of 2003 as well as some bounceback from a soft third quarter. October and November data came in stronger than we had anticipated in the last Greenbook, leading us to revise up our 2003:Q4 estimate for growth of real core imports to 19 percent (a.r.). In the first quarter, we expect core import growth to return to a more moderate rate. Real service imports, which rebounded in the third quarter, are estimated to have been held back in the fourth quarter by the weaker dollar. We expect this restraining influence to persist in the first quarter of 2004, causing real service imports to decline a bit.

In 2004 and 2005 we project real imports of goods and services to grow briskly but at a rate somewhat below that of real exports. Real imports of core goods are projected to grow $91 / 4$ percent (a.r.) on average, as the restraining influence of higher core import prices is offset by the effect of continued strong U.S. GDP growth. Real imports of services should grow slowly this year and accelerate a bit in the next as the effect of the weaker dollar on service prices wanes.

Summary of Staff Projections for Trade in Goods and Services
(Percent change from end of previous period, s.a.a.r.)

| Measure | 2003 |  | Projection |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | H1 | Q3 | $\begin{gathered} \text { 2003: } \\ \text { Q4 } \end{gathered}$ | 2004 |  |  | 2005 |
|  |  |  |  | Q1 | Q2 | H2 |  |
| Real exports | -1.5 | 9.9 | 17.9 | 7.6 | 12.0 | 13.3 | 11.1 |
| December GB | -1.1 | 11.0 | 12.8 | 8.1 | 10.5 | 11.7 | 10.1 |
| Real imports | . 9 | . 8 | 11.8 | 7.9 | 11.2 | 9.2 | 8.8 |
| December GB | 1.0 | 1.5 | 11.3 | 8.9 | 12.2 | 10.1 | 9.0 |

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

## Alternative Simulations

Our baseline Greenbook forecast projects that oil prices will begin to decline in early 2004. However, destabilizing events in Iraq or other oil-producing regions may induce oil prices to rise significantly higher than in our baseline projection. Accordingly, in our alternative scenario, we used the FRB/Global model to consider the effects of a sustained increase of $\$ 10$ per barrel in the price of West Texas intermediate crude oil. The shock begins in 2004:Q1 and lasts through the forecast period. Higher oil prices put upward pressure on production costs and inflation. The core PCE inflation rate rises about 0.2 percentage point above baseline in the second half of 2004 and 0.1 percentage point in 2005. The shock reduces U.S. real GDP growth 0.2 percentage point below baseline in 2004 and has a negligible effect on growth in 2005. Higher oil prices weaken consumer spending by depressing household disposable income, and accelerator effects lead to a decline in investment relative to baseline. However, the contractionary effects of the shock on output are cushioned by a decline in real interest rates and by a pickup in real exports to Mexico and Canada, which benefit from higher oil prices.

| Alternative Simulation: <br> Oil Price Rises \$10 per Barrel <br> (Percent change from previous period, annual rate) |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
| Indicator and simulation | 2004 |  | 2005 |  |
|  | H 1 | H 2 | H 1 | H 2 |
| U.S. real GDP |  |  |  |  |
| Baseline | 5.2 | 5.4 | 4.1 | 3.9 |
| Higher Oil Price | 5.0 | 5.2 | 4.0 | 3.9 |
|  |  |  |  |  |
| U.S. PCE prices excl. food and energy |  |  |  |  |
| Baseline | 1.0 | 1.0 | 1.0 | 1.1 |
| Higher Oil Price | 1.1 | 1.2 | 1.1 | 1.2 |

Note. H1 is Q2/Q4; H2 is Q4/Q2. In these simulations, the nominal federal funds rate remains unchanged from baseline, and the monetary authorities in major foreign economies adjust their policy rates according to a Taylor rule.

| Measure and country | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | -----Projected---- |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  | 2003 | 2004 | 2005 |
| REAL GDP (1) |  |  |  |  |  |  |  |  |  |
| Total foreign | 4.2 | 1.5 | 5.0 | 4.3 | 0.3 | 2.8 | 2.2 | 3.8 | 3.5 |
| Industrial Countries of which: | 3.4 | 2.7 | 4.4 | 3.7 | 0.7 | 2.5 | 1.5 | 2.9 | 2.8 |
| Canada | 4.4 | 4.4 | 5.9 | 4.2 | 1.4 | 3.5 | 1.5 | 3.4 | 3.3 |
| Japan | 0.4 | -1.2 | 0.4 | 3.9 | -2.2 | 1.8 | 2.2 | 2.0 | 1.8 |
| United Kingdom | 3.4 | 2.8 | 3.3 | 2.9 | 1.9 | 2.0 | 2.4 | 3.0 | 2.5 |
| Euro Area (2) | 3.2 | 2.0 | 3.9 | 2.7 | 0.8 | 1.1 | 0.8 | 2.4 | 2.2 |
| Germany | 1.7 | 0.7 | 3.3 | 1.9 | 0.5 | 0.5 | 0.3 | 2.4 | 2.1 |
| Developing Countries | 5.4 | -0.3 | 6.1 | 5.3 | -0.3 | 3.4 | 3.3 | 5.1 | 4.6 |
| Asia | 5.0 | -2.2 | 8.6 | 6.2 | 0.9 | 5.7 | 5.0 | 5.7 | 5.4 |
| Korea | 3.4 | -5.2 | 13.8 | 5.1 | 4.2 | 7.0 | 1.3 | 5.2 | 5.2 |
| China | 8.7 | 9.5 | 4.1 | 8.0 | 7.5 | 8.0 | 9.9 | 8.3 | 7.7 |
| Latin America | 6.1 | 1.2 | 4.2 | 4.4 | -1.4 | 1.4 | 1. 4 | 4.8 | 4.0 |
| Mexico | 6.8 | 2.9 | 5.4 | 4.8 | -1. 5 | 2.0 | 1.3 | 5.2 | 4.2 |
| Brazil | 2.5 | -1.6 | 3.4 | 3.8 | -0.8 | 3.7 | -0.7 | 3.5 | 3.5 |
| CONSUMER PRICES (3) |  |  |  |  |  |  |  |  |  |
| Industrial Countries of which: | 1.5 | 0.9 | 1.1 | 1.7 | 0.9 | 2.1 | 1.3 | 1.3 | 1.3 |
| Canada | 1.0 | 1.1 | 2.4 | 3.1 | 1.1 | 3.8 | 1.7 | 1.7 | 1.6 |
| Japan | 2.1 | 0.7 | -1.1 | -1.3 | $-1.3$ | -0.4 | -0.5 | -0.2 | -0.1 |
| United Kingdom (4) | 1.7 | 1.4 | 1.2 | 1.0 | 1.0 | 1.6 | 1.3 | 1.6 | 2.0 |
| Euro Area (2) | 1.5 | 0.8 | 1.5 | 2.5 | 2.1 | 2.3 | 2.0 | 1.7 | 1.6 |
| Germany | 1.5 | 0.3 | 1.1 | 1.7 | 1.5 | 1.2 | 1.2 | 1.3 | 1.0 |
| Developing Countries | 6.8 | 9.0 | 4.6 | 4.1 | 2.8 | 2.9 | 3.0 | 3.0 | 2.7 |
| Asia | 2.7 | 4.4 | 0.1 | 1.8 | 1.1 | 0.7 | 2.1 | 2.4 | 2.1 |
| Korea | 5.0 | 5.8 | 1.2 | 2.6 | 3.4 | 3.4 | 3.5 | 3.0 | 3.0 |
| China | 0.8 | -1.2 | -1.0 | 0.9 | -0.1 | -0.5 | 2.7 | 2.5 | 1.7 |
| Latin America | 15.5 | 15.4 | 12.5 | 8.4 | 5.3 | 6.5 | 4.9 | 4.0 | 3.5 |
| Mexico | 17.0 | 17.3 | 13.4 | 8.7 | 5.1 | 5.3 | 4.0 | 3.6 | 3.1 |
| Brazil | 4.6 | 2.0 | 8.4 | 6.4 | 7.5 | 10.7 | 11.5 | 5.7 | 5.2 |

[^6]Strictly Confidential (FR)
Class II FOMC


[^7]|  | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | ---- | $\begin{array}{r} \text { Project } \\ 2004 \end{array}$ | 2005 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| NIPA REAL EXPORTS and IMPORTS Percentage point contribution to GDP growth, Q4/Q4 |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| Net Goods \& Services | -0.8 | $-1.1$ | -1.0 | -0.9 | -0.2 | -0.9 | 0.1 | -0.2 | -0.2 |
| Exports of G\&S | 0.9 | 0.3 | 0.6 | 0.7 | -1.3 | 0.3 | 0.6 | 1.1 | 1.1 |
| Imports of $G \& S$ | $-1.7$ | -1.4 | $-1.6$ | $-1.6$ | 1.1 | $-1.2$ | -0.5 | -1.3 | -1.3 |
| Percentage change, Q4/Q4 |  |  |  |  |  |  |  |  |  |
| Exports of $G \& S$ | 8.3 | 2.6 | 5.6 | 6.5 | -11.5 | 3.3 | 5.9 | 11.5 | 11.1 |
| Services | 0.4 | 4.4 | 5.3 | 1.8 | -8.3 | 9.3 | 4.2 | 8.6 | 6.1 |
| Computers | 26.7 | 7.3 | 13.4 | 22.7 | -22.8 | -0.9 | 10.7 | 34.5 | 31.1 |
| Semiconductors | 21.1 | 9.5 | 34.6 | 27.6 | -34.9 | 8.8 | 34.3 | 37.7 | 33.5 |
| Other Goods 1/ | 9.8 | 1.2 | 3.3 | 5.9 | -9.9 | 0.5 | 4.7 | 9.7 | 10.4 |
| Imports of $G \& S$ | 14.3 | 11.0 | 12.1 | 11.2 | $-7.4$ | 9.4 | 3.5 -1.3 | 9.4 | 8.8 |
| Services | 11.9 | 10.4 | 6.5 | 10.7 | $-4.6$ | 6.7 | -1.3 | 3.1 | 4.9 |
| Oil | 4.2 | 4.2 | -3.4 | 13.3 | 0.1 | 3.7 | 0.5 | 1.3 | 1.5 |
| Computers | 32.6 | 26.4 | 26.0 | 13.9 | -12.9 | 13.5 | 15.8 | 36.7 | 31.1 |
| Semiconductors | 32.5 | -7.8 | 34.2 | 22.8 | -51.2 | 9.7 | -0.4 | 37.3 | 33.5 |
| Other Goods 2/ | 13.1 | 11.2 | 12.9 | 10.5 | -6.2 | 10.3 | 4.3 | 9.4 | 8.1 |
| Billions of Chained 2000 Dollars |  |  |  |  |  |  |  |  |  |
| Net Goods \& Services | $-104.6$ | $-203.8$ | -296.3 | $-379.5$ | -398.1 | -470.6 | -506.6 | -526.1 | -545.9 |
| Exports of G\&S | 943.7 | 966.5 | 1008.2 | 1096.3 | 1039.0 | 1014.2 | 1033.2 | 1147.2 | 1278.6 |
| Imports of G\&S | 1048.3 | 1170.3 | 1304.5 | 1475.8 | 1437.1 | 1484.7 | 1539.9 | 1673.2 | 1824.5 |


| Billions of dollars |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| US CURRENT ACCOUNT BALANCE | -127.7 | -204.7 | -290.8 | -411.5 | -393.7 | -480.9 | -544.8 | -556.1 | -581.2 |
| Current Acct as Percent of GDP | -1. 5 | -2.3 | -3.1 | -4.2 | -3.9 | -4.6 | -5.0 | -4.7 | -4.7 |
| Net Goods \& Services (BOP) | -107.0 | $-163.2$ | -261.2 | -375.4 | -357.8 | -418.0 | -487.1 | -521.1 | -536.5 |
| Investment Income, Net | 25.1 | 11.5 | 22.3 | 24.2 | 15.7 | 1.3 | 13.5 | 33.8 | 22.0 |
| Direct, Net | 72.4 | 65.5 | 78.2 | 94.9 | 106.5 | 93.5 | 93.8 | 118.1 | 127.4 |
| Portfolio, Net | -47.3 | -54.1 | -55.9 | -70.7 | -90.8 | -92.2 | -80.3 | -84.3 | -105.4 |
| Other Income \& Transfers, Net | $-45.7$ | -53.0 | -52.0 | $-60.3$ | -51.6 | $-64.1$ | $-71.2$ | -68.7 | -66.7 |

[^8]Strictly $\begin{aligned} & \text { Confidential (FR) } \\ & \text { Class II }\end{aligned}$ FOMC
NIPA REAL EXPORTS and IMPORTS
OUTLOOK FOR U.S. INTERNATIONAL TRANSACTIONS

|  | 2003 |  |  |  | 2004 |  |  |  | 2005 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 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 Exports of G\&S Imports of $G \& S$ | 0.8 | -1.3 | 0.8 | 0.0 | -0.4 | -0.4 | -0.2 | 0.1 | -0.3 | -0.3 | -0.1 | 0.1 |
|  | -0.2 | -0.1 | 0.9 | 1.6 | 0.7 | 1.1 | 1.2 | 1.4 | 0.9 | 1.1 | 1.1 | 1.4 |
|  | 1.0 | -1.2 | -0.1 | -1.6 | -1.1 | -1.6 | -1.3 | -1.3 | -1.1 | -1.5 | -1.3 | -1.2 |
|  |  | Perce | ntage ch | nge fro | previous | us period | , s.a.a | r. |  |  |  |  |
| Exports of G\&S | -2.0 | -1.1 | 9.9 | 17.9 | 7.6 | 12.0 | 12.2 | 14.3 | 8.6 | 11.4 | 11.2 | 13.2 |
|  | -10.2 | 0.3 | 12.7 | 15.9 | 10.3 | 9.0 | 8.1 | 7.0 | 6.3 | 6.2 | 6.0 | 5.9 |
| Computers | -7.4 | -11.2 | 48.7 | 22.9 | 22.9 | 38.6 | 38.6 | 38.6 | 23.9 | 33.5 | 33.5 | 33.5 |
| Semiconductors | 44.5 | 30.4 | 35.0 | 27.7 | 27.7 | 41.2 | 41.2 | 41.2 | 26.2 | 36.0 | 36.0 | 36.0 |
| Other Goods 1/ | 0.1 | -3.0 | 4.8 | 17.9 | 3.9 | 10.0 | 10.7 | 14.5 | 7.4 | 10.6 | 10.3 | 13.4 |
| Imports of G\&S | -6.8 | 9.1 | 0.8 | 11.8 | 7.9 | 11.2 | 9.5 | 8.9 | 7.8 | 10.2 | 8.8 | 8.4 |
| Services <br> Oil | -7.6 | -10.9 | 13.5 | 1.4 | -1.3 | 3.4 | 4.7 | 5.9 | 4.9 | 4.9 | 4.9 | 4.6 |
|  | -12.7 | 55.8 | -3.2 | -22.5 | -2.0 | 22.8 | 0.6 | -13.0 | 1.6 | 20.4 | -3.9 | -9.6 |
| Computers | -0.4 | 18.9 | 15.8 | 31.1 | 31.1 | 38.6 | 38.6 | 38.6 | 23.9 | 33.6 | 33.6 | 33.6 |
| Semiconductors | -1.0 | 3.1 | -1.5 | -2.0 | 26.2 | 41.2 | 41.2 | 41.2 | 26.2 | 36.0 | 36.0 | 36.0 |
| Other Goods 2/ | -6.4 | 9.1 | -2.5 | 18.9 | 9.5 | 9.4 | 9.1 | 9.5 | 7.5 | 8.2 | 8.4 | 8.5 |
| Billions of Chained 2000 Dollars, s.a.a.r. |  |  |  |  |  |  |  |  |  |  |  |  |
| Net Goods \& ServicesExports of $\mathrm{G} \& \mathrm{~S}$Imports of $\mathrm{G} \& S$ | -490.1 | -526.1 | -505.2 | -505.2 | -515.5 | -527.3 | -532.2 | $-529.3$ | -537.1 | $-546.9$ | -551.3 |  |
|  | 1012.4 | 1009.6 | 1033.7 | 1077.2 | 1097.1 | 1128.7 | 1161.7 | 1201.2 | 1226.3 | 1259.9 | 1293.8 | $1334.5$ |
|  | 1502.5 | 1535.7 | 1538.9 | 1582.4 | 1612.6 | 1655.9 | 1693.9 | 1730.5 | 1763.4 | 1806.7 | 1845.1 | 1882.9 |
| Billions of dollars, s.a.a.r. |  |  |  |  |  |  |  |  |  |  |  |  |
| US CURRENT ACCOUNT BALANCE | -554.8 | -557.6 | -540.5 | -526.1 | -554.1 | -552.1 | -561.7 | -556.4 | -575.2 | -574.9 | -585.5 | -589.2 |
| Current Account as \% of GDP | -5.2 | -5.1 | -4.9 | -4.7 | -4.8 | -4.7 | -4.8 | -4.6 | -4.7 | -4.7 | -4.7 | -4.7 |
| Net Goods \& Services (BOP) | -486.5 | -496.7 | -485.6 | -479.6 | -507.5 | $-522.8$ | -528.2 | -525.9 | $-531.6$ | -538.4 | -540.1 | -535.7 |
| Investment Income, Net | 6.3 | 12.1 | 15.3 | 20.5 | 30.3 | 37.6 | 33.4 | 33.8 | 30.5 | 27.7 | 18.8 | 10.8 |
| Direct, Net | 88.3 | 88.8 | 95.9 | 102.3 | 112.6 | 120.9 | 118.3 | 120.6 | 122.4 | 127.3 | 128.3 | 131.5 |
| Portfolio, Net | -82.0 | -76.7 | -80.6 | -81.8 | -82.3 | -83.3 | -84.9 | -86.8 | -91.9 | -99.6 | -109.5 | -120.6 |
| Other Inc. \& Transfers, Net | -74.6 | -73.0 | -70.2 | -66.9 | -76.9 | -66.9 | -66.9 | -64.2 | -74.2 | -64.2 | -64.2 | -64.3 |

[^9]
[^0]:    1. In particular, we continue to assume that several of the provisions affecting personal taxes in the Jobs and Growth Tax Relief Reconciliation Act of 2003-the child tax credit, the reduced marriage penalty, the expanded 10 percent income tax bracket, and the increased alternative minimum tax exemption-will be extended into 2005 and that the tax provision permitting partial expensing of equipment investment will expire as scheduled.
[^1]:    2. The quarterly pattern of real nondefense spending largely reflects President Bush's decision to declare December 26, 2003, as a holiday for federal workers; this action temporarily held down the level of real outlays in the fourth quarter. A projected rebound in the level of real spending to its underlying path boosts the growth rate above trend this quarter. The paid holiday does not affect nominal spending.
[^2]:    3. As a technical matter, in reassessing the relationship between structural productivity and potential output, we reduced the growth of trend labor input in the nonfarm business sector to reflect the divergence in recent years in the employment trends suggested by the household and payroll surveys.
[^3]:    2. Private-industry workers
[^4]:    Note. Quarterly data are at seasonally adjusted annual rates.

    1. Data after 2003:Q3 are staff projections. Changes are measured from end of the preceding period to end of period indicated except for annual nominal GDP growth, which is calculated from Q4 to Q4.
    2.6.3 FOF
[^5]:    Note. Data after 2003:Q3 are staff projections.

    1. For corporations: Excess of capital expenditu
    2. NIPA state and local government saving plus consumption of fixed capital and net capital transfers.
    
    n.s.a. Not seasonally adjusted.
    3. For corporations: Excess of capital expenditures over U.S. internal funds.
    4. Includes change in liabilities not shown in lines 8 and 9 . 3. Average debt levels in the period (computed as the average of period-end debt positions)
    divided by disposable personal income. divided by disposable personal income.
    2.6.4 FOF
[^6]:    1. Foreign GDP aggregates calculated using shares of U.S. exports.
    2. Harmonized data for euro area from Eurostat.
    3. CPI excluding mortgage interest payments, which is the targeted inflation rate.
[^7]:    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.

[^8]:    1. Merchandise exports excluding computers and semiconductors.
    2. Merchandise imports excluding oil, computers, and semiconductors.
[^9]:    1. Merchandise exports excluding computers and semiconductors.
    2. Merchandise imports excluding oil, computers, and semiconductors
