## Prefatory Note

The attached document represents the most complete and accurate version available based on original copies culled from the files of the FOMC Secretariat at the Board of Governors of the Federal Reserve System. This electronic document was created through a comprehensive digitization process which included identifying the bestpreserved paper copies, scanning those copies, ${ }^{1}$ and then making the scanned versions text-searchable. ${ }^{2}$ Though a stringent quality assurance process was employed, some imperfections may remain.

Please note that this document may contain occasional gaps in the text. These gaps are the result of a redaction process that removed information obtained on a confidential basis. All redacted passages are exempt from disclosure under applicable provisions of the Freedom of Information Act.

[^0]
## 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

Based on the data in hand, final demand in the fourth quarter clearly exceeded our expectations. Moreover, early indicators of activity in January have been upbeat: New claims for unemployment insurance have receded, purchasing managers report that orders have increased, and consumer sentiment has rebounded further. Indeed, stronger final sales during the fourth quarter and a more rapid elimination of excess inventories seem to have left the economy in a better position for a recovery in economic activity early this year. We now think that the contraction in real GDP in the second half of last year was shallower than we previously expected and that real GDP will turn up in the current quarter.

In this forecast, the nascent recovery depends more on the momentum of private demand and a greater turnaround in inventory investment than on a new dose of fiscal stimulus. We have eliminated from our baseline assumptions most of the fiscal stimulus package that we had included earlier.

That said, the forces that for some time we have expected to restrain the pace of recovery remain in play. Although stock prices are currently a bit higher than we previously expected, their decline over the past year and a half will still be a drag on household spending over the forecast period. Also, we have no reason to assume that a broad-based recovery in capital spending will occur sooner than we previously thought. The strength of the dollar, too, should remain a restraint on domestic production.

Thus, the expansion in real GDP is projected to proceed relatively slowly at first, and the unemployment rate is expected to continue to rise through midyear. However, monetary and fiscal policies remain stimulative, and by late this year, economic activity is projected to gain momentum from the normal multiplier and accelerator effects. We anticipate that, in such an environment, real GDP will begin to outpace potential and the jobless rate will drift back below 6 percent by the end of 2003 .

In this forecast, we have slightly raised our estimate of the change in structural productivity and lowered labor costs somewhat, which boosts profits a bit. Core consumer price inflation is still anticipated to move lower over the forecast period. The principal factors tilting down core inflation are the margin of economic slack in labor and product markets, the lagged indirect effects on production costs of the steep decline in energy prices, lower inflation expectations, and a pickup in the rate of increase in structural productivity in 2003.

## Key Background Factors

The financial assumptions underlying this economic forecast have changed only a little, on net, from those in the December Greenbook. Taking into account the

FOMC's action at its December meeting, the federal funds rate is 25 basis points lower than we previously wrote down. We now assume that the funds rate will stay at the current level until late this year, at which point we assume that the Committee will begin to gradually tighten policy. Even though market expectations for the extent of tightening have been tempered over the intermeeting period, the rise in rates anticipated by market participants still noticeably exceeds the staff assumption. Longer-term interest rates in this forecast are, on balance, slightly higher than they were at the time of the December Greenbook, although we still see them edging down over the forecast period as the recovery proceeds relatively slowly and inflation eases slightly further. ${ }^{1}$

Bond and loan markets should remain generally receptive for more creditworthy borrowers. Nonetheless, we expect that the caution currently prevalent among lenders and in financial markets toward riskier firms will persist for a while longer. The spreads between the rates that borrowers face in securities markets-especially more marginal credits-and those on Treasuries remain wide, and they are not likely to narrow much until the market perceives that business cash flow is poised to improve. Similarly, we anticipate that banks will continue to impose relatively high loan rates and stringent terms and conditions on riskier firms in coming quarters and that those wanting to tap equity markets will continue to find financing difficult.

Stock prices are a touch higher than we had anticipated. Looking ahead, the tepid economic recovery that we are forecasting is getting under way with valuations that are still quite high by historical standards, and we believe that the earnings disappointments that appear to be in train for coming quarters will keep share values unchanged in the near term. ${ }^{2}$ For the second half of 2002 and for 2003, when we expect the economy to be on a solid upward trajectory, we have factored in a moderate rise in share values.

With the failure of the Congress, to date, to agree on a fiscal stimulus package, we have altered our fiscal policy assumptions. From the set of policy initiatives that we had previously assumed, we have removed the investment expensing

[^1]provision, the second round of tax rebates, and the provision to subsidize the health insurance costs of the unemployed. We continue to assume that the Congress will pass extended benefits for unemployment insurance, but we have delayed the introduction of those benefits until April 1. At the same time, we have reassessed the fiscal 2002 appropriations bills and have concluded that they will result in somewhat more spending this year than we had been expecting. In addition, we have taken on board the likelihood of some additional funding for defense and homeland security. In sum, the current forecast continues to embody a sharp, temporary increase in fiscal thrust this year, albeit less than we previously assumed.

Our projection of federal outlays has been revised up modestly over the forecast period, but with the removal of the tax cuts, the upward adjustment to the receipts projection was larger. We estimate, on net, a deficit of $\$ 8$ billion in fiscal 2002 and a surplus of $\$ 8$ billion in fiscal 2003.

The spot price of West Texas intermediate crude oil (WTI) generally moved higher in late December after OPEC signaled its intentions to restrain oil production further. However, because demand has been weak, crude oil inventories in the United States have risen. By mid-January, the spot price of WTI had dropped back to $\$ 19$ per barrel-almost $\$ 1$ below our expectation at the time of the December Greenbook. In line with recent quotes from futures markets, we project that the spot price of WTI will gradually increase to $\$ 20.40$ per barrel by the end of this year and to about $\$ 20.75$ per barrel by the end of 2003. Compared with the previous Greenbook, this projection is down about $\$ 1$ per barrel in the near term and roughly $\$ 0.60$ per barrel at the end of 2003.

We have made only small adjustments to other background factors regarding the external sector. The real trade-weighted foreign exchange value of the dollar has moved up further since the last Greenbook, and we now anticipate that the average level will change little, on balance, over the forecast period. Foreign real GDP appears to have been a shade stronger in the fourth quarter, but not enough to alter the longer-run outlook. We continue to project that foreign real GDP will increase 2 percent this year and 3-1/4 percent in 2003.

## Recent Developments and the Near-term Outlook

The information that has become available since early December indicates that domestic final sales turned up noticeably in the fourth quarter. At the same time, nonfarm businesses appear to have liquidated stocks at a quite rapid rate. All told, we estimate that the contraction in real GDP in the final quarter of 2001 was considerably smaller than we were previously projecting-a decline at an annual rate of just $1 / 4$ percent rather than of 2 percent.

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

| Measure | 2001:Q4 |  | 2002:Q1 |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Dec. GB | Jan. GB | Dec. GB | Jan. GB |
| Real GDP | -2.1 | -. 3 | -. 1 | 1.5 |
| Private domestic final purchases | -. 5 | 2.2 | -3.4 | -2.5 |
| Personal consumption expenditures | 3.7 | 4.7 | -2.6 | -1.2 |
| Residential investment | -8.7 | -7.0 | -7.5 | -6.4 |
| Business fixed investment | -19.3 | -8.4 | -7.1 | -8.7 |
| Government outlays for consumption and investment | 8.4 | 9.3 | 3.0 | 4.7 |
|  | Contribution to growth, percentage points |  |  |  |
| Inventory investment | -2.4 | -3.0 | 3.0 | 3.6 |
| Net exports | -. 7 | -. 7 | -. 6 | -. 8 |

Our projection is based largely on preliminary estimates of the spending data that the BEA will use in constructing the advance estimate of real GDP. However, we see some risk that revisions to these data and information not yet available could combine to produce a larger decline in real GDP than we have written down. Indeed, the indicators of production have generally been more downbeat than the spending data. Manufacturing production fell at an annual rate of 7 percent in the fourth quarter-a pace of decline slightly more rapid than that over the first three quarters of the year. More broadly, the average unemployment rate rose sharply from 4.8 percent to 5.6 percent from the third to the fourth quarter, and aggregate hours of work appear to have dropped at an annual rate of $3-3 / 4$ percent. The decline in hours, coupled with our projection for output, implies an increase in productivity at an annual rate of 2-3/4 from in the fourth quarter, which would be an extremely good performance for a recession.

Nonetheless, some of the recent news-such as the decline in new claims for unemployment insurance and the rise in the new orders diffusion indexes in the surveys by the Institute for Supply Management and the Philadelphia Fed-appears to be signaling that economic activity may be bottoming out. Moreover, we believe that, on balance, the incoming data are pointing to firmer underlying final demand as we move into the first quarter of this year. Thus, under our assumption that the pace at which nonfarm inventories are being worked off will slow considerably, we are projecting that real GDP will rise this quarter at an annual rate of 1-1/2 percent.

That expected pickup in production is restrained by several factors. First, not all of the fourth-quarter boost to domestic spending is likely to be sustained: Sales of new light motor vehicles were pulled forward by aggressive incentives, warm weather allowed unseasonably strong construction, and the level of defense spending stepped up. Further, our elimination of a second round of tax rebates and our postponement of extended UI benefits have removed some near-term stimulus to spending. In addition to some payback from these temporary factors, we still expect that business fixed investment will continue to drop. On net, we are projecting that private domestic final purchases, after having rebounded at a 2.2 percent annual rate in the fourth quarter, will turn down again this quarter, although the retrenchment is not as sharp as we showed in the December Greenbook.

The fourth-quarter increase in consumer spending-at an annual rate of 4-3/4 percent-was buoyed importantly by the surge in purchases of autos and trucks, and the projected dropback in new motor vehicle sales this quarter-from an annual rate of 18.4 million units to 15.2 million units-more than accounts for the projected decline in real PCE. Excluding outlays for new motor vehicles, real PCE is estimated to have risen at an annual rate of 1.9 percent in the fourth quarter-well above our expectations at the time of the December Greenbook. Although the loss of jobs was likely a restraint on household spending in recent months, a number of factors have been favorable: Real disposable personal income has remained on a moderate uptrend with the support of falling energy prices and this year's tax rebates, and consumer sentiment has recovered steadily from its early-September level. Those factors along with a tapering off in layoffs should continue to support consumer spending in the current quarter. We also anticipate a rebound in real outlays for energy services as the weather turns more seasonal. Real PCE excluding new motor vehicles is projected to rise at an annual rate of 2-3/4 percent in the current quarter.

If, as we suspect, the favorable weather last quarter allowed builders to accelerate some activity that otherwise would have been extended over the first quarter, starts of new single-family homes may move lower this quarter with the onset of more seasonal temperatures and precipitation. Nonetheless, with mortgage rates still quite low, we are projecting only a small dip in new singlefamily starts from an average annual rate of 1.26 million units in 2001:Q4 to a 1.24 million unit rate this quarter; we expect that the pace of homebuilding will begin to pick up in the spring quarter to a rate of 1.28 million units. In terms of spending, this pattern implies that real outlays on residential construction will record another noticeable drop in the first quarter and then flatten out next quarter.

Business spending on new equipment and software appears to have leveled off in the fourth quarter-a marked improvement from earlier in the year. After three quarterly declines at double-digit annual rates, shipments of computers and peripherals are estimated to have been unchanged in nominal terms last quarter, which, given ongoing price declines, implies an increase, in real terms, at an annual rate of almost 30 percent. Businesses appear to have participated in the temporary surge in spending on motor vehicles, and deliveries of aircraft to domestic firms increased further. These gains appear to have been offset by another plunge in outlays for communications equipment and further weakening of investment in the broad category of other types of non-high-tech, nontransportation equipment.

Various reports from industry sources suggest that the turnaround in business investment in computing equipment is likely to be sustained, and we are projecting a moderate gain in the first quarter. However, prospects for increases elsewhere are not bright. We have had no indications that the retrenchment in spending for communications equipment is abating. In addition, we expect sales of motor vehicles and aircraft to step down again. More broadly, capital spending plans appear to be on hold, awaiting a convincing recovery in sales and profits. All told, we are projecting another decline in real outlays for equipment and software in the current quarter at an annual rate of 5-1/4 percent. In addition, the incoming information on nonresidential construction indicates that sizable declines in outlays continued in the fourth quarter and will extend into early this year. ${ }^{3}$

Federal government expenditures on consumption and investment accelerated sharply at the end of 2001, boosted by the step-up in defense spending and nondefense discretionary outlays. We expect that spending will remain at an elevated pace early this year. Real outlays by state and local governments were also robust in the fourth quarter, even after one leaves aside the bounceback in measured spending caused by the transfer of the World Trade Center in the third quarter. Hiring continued at a high rate, and outlays on construction jumped in October and again in November. We are projecting that real spending by state and local governments increased at an annual rate of 9 percent last quarter. Because we believe that construction spending was boosted sharply in the fourth quarter by the relatively warm weather nationwide, we are expecting construction outlays to fall back noticeably during the first quarter, holding the

[^2]overall rise in real outlays at the state and local level to an annual rate of just $1 / 2$ percent.

With the data on foreign trade through November in hand, we now estimate that the decline in real net exports of goods and services in the fourth quarter subtracted 0.7 percentage point from the change in real GDP last quarter, the same amount that we showed in the December Greenbook. Real exports of goods and services appear to have continued to drop at a double-digit rate last quarter. Real imports also continued to fall, although the decline appears to have moderated noticeably from the pace earlier this year. For the first quarter, we are projecting some firming in export demand but also a sharp rebound in imports. As a result, the arithmetic drag of net exports on the change in real GDP remains sizable, 0.8 percentage point.

The persistent weakness in core imports in the fourth quarter in conjunction with the continued decline in industrial production through year-end seems to imply that the better-than-expected domestic spending in the fourth quarter led to a steeper liquidation of inventories than we previously were projecting. Indeed, the incoming data on the book value of non-auto stocks showed sizable drawdowns at annual rates of more than $\$ 90$ billion per month in October and November compared with a liquidation of $\$ 60$ billion in the third quarter. By our estimates, this more rapid runoff in nonfarm inventories excluding motor vehicles holds down the fourth-quarter change in real GDP by 1-1/4 percentage points.

Turning to labor costs, the narrowest measure of wage trends-average hourly earnings of production or nonsupervisory workers-continued to increase at an annual rate of 4 percent in the fourth quarter. However, we estimate that a broader measure of labor compensation-compensation per hour in the nonfarm business sector-slowed to an annual rate of 3 percent, well below the $4-3 / 4$ percent pace of the first half of the year. ${ }^{4}$ The slowdown in hourly compensation appears in line with the weakening in the labor market and with our belief that flexible components of compensation, such as stock option exercises, were likely reduced last year. With the new information in hand, we

[^3]have also marked down our projections for hourly compensation in the first quarter of 2002.

The news on labor productivity has been good. As noted earlier, we estimate that output per hour in the nonfarm business sector rose at an annual rate of 2-3/4 percent-its largest quarterly increase since early 2000. Businesses continued to cut back employment aggressively in the fourth quarter while the contraction in output slowed. They now appear to have weathered last year's economic slowdown with productivity gains having dipped only slightly below our assumed structural trend of 2 percent.

Incoming data on inflation have, for the most part, been close to our expectations. The core CPI increased at an annual rate of 2.6 percent in the fourth quarter- $1 / 4$ percentage point above our last forecast-whereas we estimate that the core PCE price index will be up at an annual rate of 2.8 percent- $1 / 4$ percentage point lower than we showed in the December Greenbook. ${ }^{5}$ Both measures show declines in prices or only small increases across a range of consumer goods. However, prices of non-energy services-particularly housing services-posted sizable increases. Steep declines in energy prices continued to keep top-line consumer prices little changed in the fourth quarter.

## The Longer-Term Outlook for the Economy

We are forecasting that an economic recovery will begin in the first quarter of this year and that real GDP will increase 2-3/4 percent over the four quarters of 2002 and a tad more than 3-1/2 percent in 2003. Although the overall contour of the forecast is little changed from the December Greenbook, several factors underlying that projection have changed. The initial stage of the recovery in real GDP this year now depends less on fiscal stimulus and more on the impetus from a sharper swing in inventory investment and from the stronger underlying demand in consumer spending that appears to have emerged at the end of 2001. We continue to expect that in 2003 the expansion will take hold more broadly bringing a recovery in capital spending to accompany the ongoing rise in household spending. As before, the pace of the expansion is restrained by the drag from the earlier decline in stock market wealth, a slow recovery in economic profits, and a continued drag from the external sector.
5. The BEA's treatment of insurance payments to consumers held down the reported increase in core PCE prices by 1.4 percentage points during the third quarter of 2001; that effect will be reversed in the fourth-quarter estimate. Excluding this special factor, core PCE prices increased at an annual rate of 1.9 percent in 2001:Q3 and are projected to rise at an annual rate of 1.4 percent in 2001:Q4.

| Projections of Real GDP <br> (Percent change at annual rate from end of <br> preceding period except as noted) |  |  |  |
| :---: | ---: | ---: | ---: |
| Measure | 2002 |  | 2003 |
|  | H 1 | H 2 |  |
| Real GDP | $\mathbf{2 . 0}$ | $\mathbf{3 . 4}$ | $\mathbf{3 . 6}$ |
| Previous | 1.6 | 4.1 | 3.7 |
| Final sales | -.4 | 2.6 | 3.2 |
| Previous | -.2 | 3.3 | 3.2 |
| PCE | 1.1 | 3.3 | 3.2 |
| Previous | .8 | 3.7 | 2.9 |
| Residential investment | -3.4 | 3.8 | 1.0 |
| Previous | -3.8 | 3.6 | 2.4 |
| BFI | -7.5 | 2.9 | 9.5 |
| Previous | -3.9 | 7.1 | 10.4 |
| Government purchases | 4.7 | 3.2 | 2.9 |
| Previous | 3.4 | 3.4 | 3.0 |
| Exports | 2.5 | 4.4 | 7.5 |
| Previous | -.5 | 4.9 | 6.9 |
| Imports | 10.0 | 9.5 | 10.0 |
| Previous | 6.1 | 9.8 | 9.6 |
|  | Contribution to growth, |  |  |
| Inventory change | percentage points |  |  |
| Previous | 2.4 | .8 | .3 |
| Net exports | 1.9 | .7 | .4 |
| Previous | -1.0 | -.8 | -.6 |
|  | -.8 | -.8 | -.6 |

Household spending. We anticipate that real personal consumption expenditures will rise 2-1/4 percent in 2002 and 3-1/4 percent in 2003; next year's rise is a bit faster than shown in the December Greenbook. This forecast incorporates a number of changes. On the plus side, the level of the stock market is a bit higher than we had previously assumed throughout the forecast period, and consumer sentiment has continued to recover somewhat faster than we had anticipated. However, these factors are in part offset this year by our abandonment of the assumption that the Congress would enact another round of tax rebates and boost subsidies for the health insurance of jobless workers.

These adjustments aside, the outlook for consumer spending more broadly continues to be shaped by the reaction of households to the decline in wealth from early 2000 until late 2001 and by their adjustment of their spending to the tax law changes enacted last year. We believe that the permanent tax cuts will have a noticeable influence on household spending, but not large enough to offset the negative wealth effect. In our forecast, the rise in real PCE falls short of the rise in real disposable personal income this year. As a result, the personal saving rate, which rose, on an annual average basis, from 1 percent in 2000 to 1.7 percent in 2001, is anticipated to move higher, to around 3 percent this year, before edging back a bit in 2003.

Residential construction has been little affected by the cyclical downturn in employment and loss of stock market wealth, not only because real disposable income has continued to rise moderately but also because mortgage interest rates have been low. These fundamental influences on homebuilding are expected to remain relatively favorable over the forecast period. Thus, we are forecasting that, after the slight dip in the first quarter of this year, the rate of new single-family housing starts will average around 1.30 million units per year through the end of 2003. Construction of multifamily building is also projected to drift a bit higher from current levels and to average 340,000 units per year in 2002 and 2003.

Business fixed investment. In light of the gain in business spending for equipment and software that appears to have occurred in the final quarter of 2001, we are carrying a higher level of business investment into 2002.
However, we are now projecting that real outlays for equipment and software will be up just $1 / 2$ percent over the four quarters of 2002 . The projection for this year is noticeably weaker than the 5 percent increase shown in the December Greenbook, in large part because of the collapse of the effort to enact a partial expensing provision. We do not expect to see any upturn in equipment and software spending overall until the second half of this year, when an acceleration in output should begin to bolster business confidence about prospects for sales. ${ }^{6}$ However, in manufacturing, where utilization rates are projected to remain quite low, investment appears likely to continue to decline throughout the year. By 2003, the recovery in business spending should gain momentum from the further acceleration in output, some recovery in profits, and some paring down of excess capacity. On balance, these factors are a bit more optimistic in this forecast, but not by enough to offset the downward adjustment from the absence of the tax incentives that we had previously assumed. Real expenditures for equipment and software are projected to rise 12 percent in 2003-a bit less than forecast in the December Greenbook.

[^4]The continued slump in outlays for equipment and software this year is projected to be fairly widespread. We are forecasting a particularly steep drop in business purchases of aircraft, reflecting in large part the fallout from September 11. We see spending for communications equipment continuing to decline through the middle of the year, and though the telecommunications industry believes that the contraction should end later this year, it is not ready to predict any renewed expansion. We anticipate that demand for other types of non-high-tech, nontransportation investment goods is not likely to show a convincing turnaround until next year.

That said, the recent firming in business spending on computing equipment seems to bear out our earlier expectation that real outlays in that category would be an early contributor to the eventual recovery in capital spending. Our optimism was grounded in our view that technological change and rapidly falling prices would keep computing equipment a highly attractive investment. Certainly in the wake of the boom and bust in high-tech investment of the past two years, businesses are likely to remain leery of overinvestment; but the short replacement cycles should become a plus as the economy improves. We continue to project an increase in real investment in computing equipment of around 25 percent this year and an acceleration to a gain of 50 percent in 2003.

Our forecast for nonresidential construction continues to anticipate further retrenchment in spending this year. We still anticipate steep declines this year in drilling and mining, lodging, and industrial buildings-sectors hit hard, respectively, by low oil prices, cutbacks in travel, and depressed rates of capacity utilization. In addition, we now believe that construction spending for office buildings will decline through early 2003 and then recover only modestly. The contraction in outlays for nonresidential construction in this Greenbook is slightly deeper- $10-1 / 4$ percent in 2002 compared with 8 percent in our previous forecast. As before, the recovery in this sector is not expected to get under way until the spring of 2003 and then to be very sluggish, held back in part by a prolonged contraction in industrial building and in drilling.

Inventory investment. In our forecast, by the end of the first quarter of this year, businesses will have been liquidating stocks aggressively for more than a year, and the ratio of inventories to sales will have moved below its level at the beginning of 2001. This improvement sets the stage for a shift to inventory accumulation as production and sales pick up. However, because we believe that businesses will be wary of giving back the progress they have made in controlling stocks, we expect that inventory investment will remain modest and that the nonfarm inventory-sales ratio will drift lower, on average, in 2003, roughly in line with its earlier trend. The transition from liquidation to accumulation of inventories that is projected to occur over the course of this
year adds roughly $1-1 / 2$ percentage points to the increase in real GDP and reverses most of last year's drag from stock drawdowns. The contribution to the rise in real GDP from inventory investment drops to just over 1/4 percentage point in 2003.

Government purchases. As indicated above, this forecast includes a higher projected level of real federal expenditures on consumption and investment than we showed in December. The sharp step-up in spending appears to have occurred during the fourth quarter of 2001, and from that higher level, outlays are expected to increase 7 percent further over the four quarters of 2002. Spending is then anticipated to decelerate in 2003, rising a more moderate 1-1/2 percent.

We anticipate that, as 2002 progresses, the pressures on state and local governments to address the emerging gaps in their general funds budgets will intensify. Although many will no doubt turn to their rainy day funds and to debt markets for some help, they also are likely to rein in spending. As a result, we are forecasting a slowdown in state and local consumption and investment from its robust 5 percent gain during 2001 to an increase of $2-1 / 4$ percent in 2002; the pace of spending is forecast to pick up as the economy improves, to more than $3-1 / 2$ percent in 2003.

Net exports. Demand for exports is anticipated to strengthen over the forecast period, rising $3-1 / 2$ percent in 2002 and $7-1 / 2$ percent in 2003 . At the same time, imports are projected to rise about 10 percent this year and next, reflecting the cyclical recovery in U.S. demand. The arithmetic drag from real net exports on the change in real GDP is expected to be -0.9 percentage point in 2002 and -0.6 percentage point in 2003; in 2001, real net exports are estimated to have had roughly a neutral effect on the change in real GDP. (The International Developments section provides more detail on the outlook for the external sector.)

## Aggregate Supply, the Labor Market, and the Outlook for Inflation

 We have marked up slightly our estimates of the rates of increase in structural productivity over the period from 1999 to 2003 . The change is largely a statistical adjustment that incorporates the revised estimates of hours worked
## Decomposition of Structural Labor Productivity

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

| Measure | $1973-$ <br> 95 | $1996-$ <br> 98 | 1999 | 2000 | 2001 | 2002 | 2003 |
| :--- | :---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Structural labor productivity | $\mathbf{1 . 4}$ | $\mathbf{2 . 4}$ | $\mathbf{2 . 9}$ | $\mathbf{2 . 8}$ | $\mathbf{2 . 0}$ | $\mathbf{1 . 7}$ | $\mathbf{2 . 2}$ |
| $\quad$ Previous | 1.4 | 2.4 | 2.8 | 2.7 | 1.9 | 1.5 | 2.1 |
| Contributions $^{1}$ |  |  |  |  |  |  |  |
| Capital deepening | .6 | 1.1 | 1.5 | 1.4 | .7 | .4 | .8 |
| $\quad$ Previous | .6 | 1.1 | 1.5 | 1.4 | .7 | .3 | .8 |
| Multifactor productivity | .6 | 1.0 | 1.1 | 1.1 | 1.0 | .9 | 1.1 |
| $\quad$ Previous | .6 | 1.0 | 1.0 | 1.0 | .9 | .8 | 1.0 |
| Labor composition | .3 | .3 | .3 | .3 | .3 | .3 | .3 |
| Memo: |  |  |  |  |  |  |  |
| Potential GDP | 2.9 | 3.6 | 3.9 | 3.7 | 2.7 | 2.5 | 3.1 |
| $\quad$ Previous | 2.9 | 3.6 | 3.9 | 3.7 | 2.7 | 2.4 | 3.1 |

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

1. Percentage points.
that the BLS released in early December. ${ }^{7}$ In our accounting, this statistical adjustment adds 0.1 percentage point per year to our estimate of the change in multifactor productivity. Because the revisions had an offsetting effect on the trend in hours, the adjustment did not alter our estimate of potential GDP. However, with investment in equipment and software projected to be at a higher level early this year than we previously thought, we have nudged up this year's estimate of capital deepening and carried that change through to potential output.

These recent adjustments aside, our forecast continues to show a pattern of structural productivity change in recent years and through the forecast period that is shaped importantly by the rate of capital deepening. The increase in structural productivity is estimated to have moved down to 2 percent in 2001. We are projecting that it will slow further, to 1.7 percent, this year, before picking up to 2.2 percent in 2003.
7. The BLS adjusted its published measures of hours, and thus output per hour, for the period from 1999:Q3 to 2001:Q3 to incorporate the results of the 2000 Hours of Work Survey for all private nonfarm employees. That survey collects information on the ratio of hours worked to hours paid. Previously, the hours estimates underlying the published data on output per hour relied principally on data from the establishment survey that are collected on an hourspaid basis.

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

| Measure | 2000 | 2001 | 2002 | 2003 |
| :--- | ---: | ---: | ---: | ---: |
| Output per hour, nonfarm business | 2.6 | 1.5 | 1.7 | 2.3 |
| $\quad$ Previous | 2.3 | 1.0 | 2.0 | 2.2 |
| Nonfarm private payroll employment | 1.7 | -.6 | .8 | 1.5 |
| $\quad$ Previous | 1.7 | -.5 | .6 | 1.6 |
| Household employment survey | 1.0 | -1.0 | .5 | 1.1 |
| $\quad$ Previous | 1.0 | -.9 | .5 | 1.2 |
| Labor force participation rate $^{1}$ | 67.1 | 66.9 | 66.8 | 66.7 |
| $\quad$ Previous | 67.1 | 66.8 | 66.8 | 66.7 |
| Civilian unemployment rate $^{1}$ | 4.0 | 5.6 | 6.0 | 5.8 |
| $\quad$ Previous | 4.0 | 5.5 | 6.0 | 5.8 |

1. Percent, average for the fourth quarter.

Productivity and the labor market. As noted above, labor productivity has held up better in recent quarters than it typically does during an economic contraction. Nonetheless, it rose somewhat more slowly than our assumed structural trend over the four quarters of 2001, and we expect that pattern to continue into the first half of 2002 as the recovery in production and sales is relatively slow. As economic activity accelerates in the second half of this year, businesses should be able to boost productivity to restore the desired relationship between hours worked and output. Thus, our forecast shows nonfarm business productivity increasing at an annual rate of just under 1-1/2 percent during the first two quarters of 2002; it then is anticipated to accelerate to a pace of close to 2 percent in the latter half of the year-a rate above our estimate of the structural trend rate this year. We assume that, over the four quarters of 2003, the actual productivity gain will about match the structural rate of 2-1/4 percent. ${ }^{8}$

Businesses are likely to remain cautious early this year as the recovery gets under way, and we do not expect to see them adding noticeably to payrolls until the spring. As a result, the unemployment rate is projected to continue to move up, reaching a peak of 6.0 percent, on average, in the second quarter-roughly $3 / 4$ percentage point above our assumed short-run NAIRU. Thereafter, as businesses realign their employment and hours with production, we expect to see steady moderate gains in payroll employment of about 165,000 per month

[^5]
## Inflation Projections

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

| Measure | 2000 | 2001 | 2002 | 2003 |
| :--- | ---: | ---: | ---: | ---: |
| PCE chain-weighted price index | 2.6 | 1.3 | 1.3 | 1.2 |
| $\quad$ Previous | 2.6 | 1.3 | 1.4 | 1.2 |
| Food and beverages | 2.5 | 3.2 | 1.9 | 1.8 |
| Previous | 2.5 | 3.4 | 2.0 | 1.8 |
| Energy | 15.4 | -10.0 | -1.7 | 2.0 |
| $\quad$ Previous | 15.4 | -10.2 | -.3 | 1.9 |
| Excluding food and energy | 1.9 | 1.6 | 1.3 | 1.1 |
| $\quad$ Previous | 1.9 | 1.6 | 1.3 | 1.1 |
| Consumer price index | 3.4 | 1.9 | 1.8 | 1.8 |
| $\quad$ Previous | 3.4 | 1.8 | 1.9 | 1.8 |
| Excluding food and energy | 2.5 | 2.7 | 2.1 | 1.8 |
| $\quad$ Previous | 2.5 | 2.7 | 2.0 | 1.8 |
| GDP chain-weighted price index | 2.4 | 1.9 | 1.5 | 1.4 |
| $\quad$ Previous | 2.4 | 1.9 | 1.6 | 1.4 |
| ECI for compensation of private |  |  |  |  |
| industry workers ${ }^{1}$ | 4.4 | 4.0 | 3.0 | 3.0 |
| Previous | 4.4 | 4.0 | 3.1 | 3.0 |
| NFB compensation per hour | 7.8 | 4.0 | 3.4 | 3.2 |
| Previous | 7.4 | 4.4 | 3.8 | 3.3 |
| Prices of core non-oil |  |  |  |  |
| merchandise imports | 1.6 | -3.2 | .4 | 1.5 |
| Previous | 1.6 | -3.2 | .8 | 1.4 |

1. December to December.
through the end of 2003. The unemployment rate is projected to edge off slightly during 2003, to 5.8 percent by the end of the year.

Wages and prices. In light of the incoming information, noted above, that hourly compensation has decelerated more in recent quarters than we previously thought, we have slightly lowered our forecasts of wage inflation in 2002 and 2003. The change is a bit larger for hourly compensation in the nonfarm business sector than for ECI compensation because we believe that much of the added deceleration has been in forms of flexible compensation that the ECI does not measure. We now expect that compensation per hour in the nonfarm business sector will rise just under 3-1/2 percent this year and 3-1/4 percent in 2003 and that ECI compensation will increase 3 percent in both years. Both
measures of labor compensation are expected to have risen 4 percent in 2001. In broad terms, the underlying pattern of deceleration is driven by the persistence of labor market slack over the forecast period and the passthrough of last year's lower price inflation to inflation expectations. While reducing labor costs a bit in this forecast, we have left the price projection little changed on the thought that firms will attempt to restore diminished profit margins. ${ }^{9}$

Core inflation, as measured by the PCE price index, is projected to be 1.3 percent in 2002 and 1.1 percent in 2003 - extending the downtrend that began last year. As before, higher levels of unemployment and the lagged effects of the decline in energy prices are the principal factors in this year's deceleration in core consumer prices. Next year, a faster rise in structural productivity contributes further to lower inflation. Top-line PCE inflation is expected to hold steady at 1.3 percent in 2002 and to rise 1.2 percent in 2003. The projected decline in energy prices is significantly smaller this year than during 2001, and energy prices rise moderately in 2003.

## Financial Flows and Conditions

We project that total domestic nonfinancial debt will increase $4-1 / 2$ percent this year and 4-3/4 percent next year, a step down from the average pace of the past several years. Compared with the outlook for this broad aggregate, household and business borrowing are projected to rebound somewhat more strongly as the recovery takes hold. This forecast presumes that supply constraints will not be widespread enough to materially damp the rise in nonfinancial debt.

Federal government debt should increase in 2002 for the first time in four years, as weakened receipts and higher outlays result in a unified budget deficit. The recovery next year is expected to bring the budget near balance, and federal debt should be about unchanged in 2003.

Borrowing in the household sector appears to have remained robust in the fourth quarter. We expect that home mortgage debt will rise only a little slower than in 2001 because mortgage interest rates should remain low enough to keep housing activity at a high level. However, consumer credit is projected to barely edge up this year, as the surge from auto sales incentives recedes. Although household credit quality has deteriorated somewhat over the past year, the problems have been largely confined to subprime borrowers, and lenders have engaged in only selective tightening of credit conditions. We do not expect any broad-based firming of credit supply to households over the projection period. Rather, the subdued demand for consumer durables that we are forecasting for 2002 is the principal factor holding down the expansion of

[^6]household debt this year before spending and borrowing are projected to pick up modestly in 2003.

Debt growth in the business sector has dropped off considerably in recent months, and we expect it to remain moderate this year in an environment of reduced capital spending and less attractive opportunities for merger-related equity retirements and share repurchases. Although the sharp runoff of bank loans and commercial paper should be coming to an end, corporate borrowing likely will remain concentrated in the bond market, where investment-grade firms have been taking advantage of favorable rates to lengthen the maturity of their liabilities, lower interest costs, and build up liquid assets. Weaker firms are likely to continue to face cautious lenders and investors in coming quarters, but credit supply conditions for these businesses should ease in 2003 as the economy improves.

Borrowing by state and local governments will likely be boosted by offerings to finance infrastructure investment, even as governments work to bring their operating budgets into balance. In addition, low interest rates will provide some further impetus for governments to advance refund their outstanding debt, though retirements from earlier refundings should limit the net effect on debt growth.

M2 is expected to decelerate in 2002 but to still increase faster than nominal income as households adjust to last year's dramatic declines in opportunity costs. With opportunity costs not expected to fall further, the accumulation of liquid assets will diminish. Moreover, the lift to money growth from the recent mortgage refinancing boom appears to have peaked. In 2003, with the assumed tightening of monetary policy, a modest rise in opportunity costs will damp the increase in money.

## Alternative Simulations

According to our reading of the data, the recession is now bottoming out and will be followed by a modest recovery. However, this interpretation is subject to considerable uncertainty. To illustrate these risks, we consider several alternative scenarios for both the demand and the supply sides of the economy using the staff model. The first scenario focuses on the chance that we may have underestimated the disappointment and the associated effects that will be felt by firms and investors if earnings fail to rebound strongly in coming quarters. The second concerns an opposite demand risk, that a strong rebound in business investment may now be under way. Our third simulation considers the possibility that we have been too pessimistic about the supply side and that productivity growth may turn out to be stronger than we have assumed. By contrast, the fourth scenario involves a less favorable supply situation in which firms have more pricing leverage than we expect. In all these scenarios, we

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

| Measure | 2001 | 2002 |  |  |  |
| :--- | ---: | ---: | :---: | :---: | :---: |
|  | 2003 |  |  |  |  |
|  | Q 4 | Q 1 | Q 2 | H 2 |  |
| Real GDP |  |  |  |  |  |
| Baseline | $\mathbf{- . 3}$ | $\mathbf{1 . 5}$ | $\mathbf{2 . 5}$ | $\mathbf{3 . 4}$ | $\mathbf{3 . 6}$ |
| Business retrenchment | -.3 | .9 | 1.7 | 2.2 | 1.9 |
| Investment boom | -.3 | 2.7 | 4.2 | 4.7 | 4.5 |
| Productivity acceleration | -.3 | 1.5 | 3.4 | 4.6 | 4.8 |
| Profits restoration | -.3 | 1.5 | 2.4 | 3.3 | 3.7 |
| Low NAIRU | -.3 | 1.7 | 2.5 | 3.6 | 3.7 |
| Market-based funds rate | -.3 | 1.5 | 2.5 | 3.3 | 2.9 |
| Easier monetary policy | -.3 | 1.5 | 2.6 | 3.9 | 4.3 |
|  |  |  |  |  |  |
| Civilian unemployment rate |  |  |  |  |  |
| Baseline | $\mathbf{5 . 6}$ | $\mathbf{5 . 9}$ | $\mathbf{6 . 0}$ | $\mathbf{6 . 0}$ | $\mathbf{5 . 8}$ |
| Business retrenchment | 5.6 | 6.0 | 6.1 | 6.3 | 6.7 |
| Investment boom | 5.6 | 5.8 | 5.8 | 5.6 | 5.1 |
| Productivity acceleration | 5.6 | 5.9 | 6.0 | 5.9 | 5.4 |
| Profits restoration | 5.6 | 5.9 | 6.0 | 6.0 | 5.8 |
| Low NAIRU | 5.6 | 5.9 | 6.0 | 5.9 | 5.7 |
| Market-based funds rate | 5.6 | 5.9 | 6.0 | 6.0 | 6.0 |
| Easier monetary policy | 5.6 | 5.9 | 6.0 | 5.9 | 5.4 |
|  |  |  |  |  |  |
| PCE prices excluding food and energy |  |  |  |  |  |
| Baseline | $\mathbf{2 . 8}$ | $\mathbf{1 . 3}$ | $\mathbf{1 . 4}$ | $\mathbf{1 . 3}$ | $\mathbf{1 . 1}$ |
| Business retrenchment | 2.8 | 1.3 | 1.4 | 1.3 | 1.0 |
| Investment boom | 2.8 | 1.3 | 1.3 | 1.2 | 1.0 |
| Productivity acceleration | 2.8 | 1.3 | 1.4 | 1.2 | .8 |
| Profits restoration | 2.8 | 1.5 | 1.8 | 1.9 | 1.9 |
| Low NAIRU | 2.8 | 1.2 | 1.2 | 1.0 | .6 |
| Market-based funds rate | 2.8 | 1.3 | 1.4 | 1.3 | 1.0 |
| Easier monetary policy | 2.8 | 1.3 | 1.4 | 1.3 | 1.3 |
|  |  |  |  |  |  |

1. Average for the final quarter of the period.
assume that the nominal federal funds rate follows its baseline path. After this discussion, we briefly consider both a low-NAIRU scenario and two alternative assumptions for the funds rate.

Business retrenchment. In the staff forecast, share prices begin to rise steadily after the middle of the year and capital spending starts to recover as investors and firms see clear signs of improvement in the outlook for earnings. But
investor expectations of future profitability may be excessively rosy, creating the risk of severe disappointment in coming months. In this scenario, we consider a more adverse reaction by investors and firms to the baseline outlook for profits. In particular, we simulate a 20 percent decline in equity prices, accompanied by cutbacks in capital spending that postpone the bottoming out in E\&S outlays until the end of the year. As a result of this shift in expectations, the recovery in overall activity is rather anemic, and with output increasing much less than potential, the unemployment rate drifts up to $6-3 / 4$ percent by late next year. Inflation falls just a bit more than in the baseline because the effect of greater labor market slack is mostly offset by less capital deepening and a slower rise in labor productivity.

Investment boom. In this scenario, we turn out to have been too cautious in interpreting the recent signs of strength, and underestimate the speed of the turnaround in investment spending. In particular, the pace of spending for both high-tech and traditional equipment quickly recovers this year to a rate in line with the average seen in the late 1990s and 2000. The pickup in investment demand, in turn, yields stronger aggregate income and profits, stimulating consumer spending and pushing up stock prices. Under these conditions, output gains are above potential through 2003, and the unemployment rate falls to nearly 5 percent by late next year. Inflation differs little from the baseline path, in part because of the productivity gains arising from stronger capital formation.

Productivity acceleration. Recent productivity performance has been quite impressive for an economy in a recession. Our baseline forecast has multifactor productivity increasing at about the same rate as the average pace in the second half of the 1990s. In this scenario, we assume that the rise in trend multifactor productivity this year and next will be $1 / 2$ percentage point faster than in the baseline, or a little more than 1-1/2 percent per year-a figure that, although high, is still short of the 2 percent rate recorded in the 1960s. The pace of actual GDP is boosted somewhat more than the increase in potential, as the improvement in longer-run prospects for earnings and income generates both stronger investment and increased consumption. As a result, the unemployment rate edges below $5-1 / 2$ percent by late next year. But despite a tighter labor market, the stronger productivity performance enables prices to decelerate more than in the baseline, and hence core inflation falls to $3 / 4$ percent in 2003.

Profits restoration. The past year has witnessed an extraordinary decline in corporate earnings, causing profit margins to fall by more than is customary in recessions, and the staff projects that profit margins will remain low as firms continue to have little pricing leverage going forward. However, one risk is that competitive pressures may prove to be less intense than we anticipate-perhaps because the shakeout of weakened competitors will take place more rapidly than expected. In this scenario, we assume that the markup of prices over unit labor
costs rises sufficiently to return the level of profits to the peak recorded in 2000. This greater profitability comes largely at the expense of a lower share of labor income, but it has little effect on real output. It does, however, increase inflation, which climbs to nearly 2 percent by the second half of this year despite an unemployment rate that remains in the vicinity of 6 percent.

Low NAIRU. This scenario considers the possibility that the staff's estimate of the NAIRU may be too high. It assumes that the NAIRU is $4-1 / 4$ percent (a percentage point less than in the baseline) and has been at that level for some time. The lower NAIRU puts significant downward pressure on prices and provides a slight boost to the forecast of real GDP, owing to its implications for the level of potential output.

Market-based funds rate. According to futures quotes, investors, like the staff, expect the funds rate to remain close to its current level in the near term, but they anticipate a more rapid snapback next year, with the funds rate rising above 4 percent in the second half of 2003. Such a policy would slow output growth next year to close to its potential rate, keeping the unemployment rate at 6 percent. Inflation would thereby be a touch lower than in the baseline.

Lower funds rate. In this scenario, the funds rate is lowered gradually to 1 percent by the May meeting and is held at this level until early next year. In 2003, this additional monetary stimulus is gradually phased out, and the funds rate reaches 3 percent by the end of the year. The reduction in rates has a substantial effect on real activity, boosting GDP growth to $4-1 / 4$ percent in 2003 and lowering the unemployment rate to $5-1 / 2$ percent by the end of the year. Inflation is also modestly higher.

Strictly Confidential <FR> Class II FOMC

| Interval |  | Nominal GDP |  | Real GDP |  | GDP chain-weighted price index |  | Consumer price index ${ }^{1}$ |  | $\underset{\text { Unemployment }}{\substack{\text { Une }}}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 12/05/01 | 01/23/02 | 12/05/01 | 01/23/02 | 12/05/01 | 01/23/02 | 12/05/01 | 01/23/02 | 12/05/01 | 01/23/02 |
| ANNUAL |  |  |  |  |  |  |  |  |  |  |  |
| 1999 |  | 5.5 | 5.5 | 4.1 | 4.1 | 1.4 | 1.4 | 2.2 | 2.2 | 4.2 | 4.2 |
| 2000 |  | 6.5 | 6.5 | 4.1 | 4.1 | 2.3 | 2.3 | 3.4 | 3.4 | 4.0 | 4.0 |
| 2001 |  | 3.2 | 3.3 | 1.0 | 1.1 | 2.2 | 2.2 | 2.8 | 2.8 | 4.7 | 4.8 |
| 2002 |  | 2.4 | 2.7 | 0.9 | 1.3 | 1.5 | 1.4 | 1.3 | 1.3 | 6.0 | 6.0 |
| 2003 |  | 5.3 | 4.9 | 3.7 | 3.4 | 1.5 | 1.5 | 1.9 | 1.9 | 5.9 | 5.9 |
| QUARTERLY |  |  |  |  |  |  |  |  |  |  |  |
| 2000 | Q1 | 6.3 | 6.3 | 2.3 | 2.3 | 3.8 | 3.8 | 4.3 | 4.3 | 4.1 | 4.0 |
|  | ${ }^{2} 2$ | 8.0 | 8.0 | 5.7 | 5.7 | 2.1 | 2.1 | 2.8 | 2.8 | 4.0 | 4.0 |
|  | Q3 | 3.3 | 3.3 | 1.3 | 1.3 | 1.9 | 1.9 | 3.5 | 3.5 | 4.0 | 4.1 |
|  | Q4 | 3.7 | 3.7 | 1.9 | 1.9 | 1.8 | 1.8 | 3.0 | 3.0 | 4.0 | 4.0 |
| 2001 | Q1 | 4.6 | 4.6 | 1.3 | 1.3 | 3.3 | 3.3 | 4.2 | 4.2 | 4.2 | 4.2 |
|  | Q2 | 2.4 | 2.4 | 0.3 | 0.3 | 2.1 | 2.1 | 3.0 | 3.0 | 4.5 | 4.5 |
|  | Q3 | 1.1 | 0.9 | -1.1 | -1.3 | 2.2 | 2.3 | 0.7 | 0.7 | 4.8 | 4.8 |
|  | Q4 | -1.8 | -0.1 | -2.1 | -0.3 | 0.3 | 0.2 | -0.6 | -0.4 | 5.5 | 5.6 |
| 2002 | Q1 | 1.8 | 3.3 | -0.1 | 1.5 | 1.9 | 1.7 | 1.3 | 1.1 | 5.9 | 5.9 |
|  | Q2 | 5.0 | 4.1 | 3.3 | 2.5 | 1.6 | 1.6 | 2.2 | 2.2 | 6.1 | 6.0 |
|  | Q3 | 6.1 | 5.0 | 4.5 | 3.5 | 1.5 | 1.5 | 2.1 | 2.1 | 6.1 | 6.0 |
|  | Q4 | 5.1 | 4.7 | 3.6 | 3.3 | 1.5 | 1.4 | 2.0 | 2.0 | 6.0 | 6.0 |
| 2003 | Q1 | 5.4 | 5.2 | 3.5 | 3.4 | 1.8 | 1.7 | 1.9 | 1.9 | 6.0 | 5.9 |
|  | Q2 | 5.0 | 4.8 | 3.7 | 3.5 | 1.3 | 1.3 | 1.8 | 1.8 | 5.9 | 5.9 |
|  | Q3 | 5.1 | 4.9 | 3.7 | 3.6 | 1.3 | 1.3 | 1.8 | 1.8 | 5.8 | 5.9 |
|  | Q4 | 5.1 | 5.0 | 3.7 | 3.7 | 1.3 | 1.3 | 1.8 | 1.8 | 5.8 | 5.8 |
| TWO-QUARTER ${ }^{3}$ |  |  |  |  |  |  |  |  |  |  |  |
| 2000 | Q2 | 7.2 | 7.2 | 4.0 | 4.0 | 2.9 | 2.9 | 3.6 | 3.6 | -0.1 | -0.1 |
|  | Q4 | 3.5 | 3.5 | 1.6 | 1.6 | 1.8 | 1.8 | 3.2 | 3.2 | 0.0 | 0.0 |
| 2001 | Q2 | 3.5 | 3.5 | 0.8 | 0.8 | 2.7 | 2.7 | 3.6 | 3.6 | 0.5 | 0.5 |
|  | Q4 | -0.4 | 0.4 | -1.6 | -0.8 | 1.2 | 1.2 | 0.0 | 0.1 | 1.0 | 1.1 |
| 2002 | Q2 | 3.4 | 3.7 | 1.6 | 2.0 | 1.7 | 1.6 | 1.7 | 1.6 | 0.6 | 0.4 |
|  | Q4 | 5.6 | 4.9 | 4.1 | 3.4 | 1.5 | 1.4 | 2.0 | 2.0 | -0.1 | 0.0 |
| 2003 | Q2 | 5.2 | 5.0 | 3.6 | 3.5 | 1.6 | 1.5 | 1.9 | 1.8 | -0.1 | -0.1 |
|  | Q4 | 5.1 | 5.0 | 3.7 | 3.7 | 1.3 | 1.3 | 1.8 | 1.8 | -0.1 | -0.1 |
| FOUR-QUARTER ${ }^{4}$ |  |  |  |  |  |  |  |  |  |  |  |
| 1999 | Q4 | 6.0 | 6.0 | 4.4 | 4.4 | 1.6 | 1.6 | 2.6 | 2.6 | -0.3 | -0.3 |
| 2000 | Q4 | 5.3 | 5.3 | 2.8 | 2.8 | 2.4 | 2.4 | 3.4 | 3.4 | -0.1 | -0.1 |
| 2001 | Q4 | 1.6 | 1.9 | -0.4 | 0.0 | 1.9 | 1.9 | 1.8 | 1.9 | 1.5 | 1.6 |
| 2002 | Q4 | 4.5 | 4.3 | 2.8 | 2.7 | 1.6 | 1.5 | 1.9 | 1.8 | 0.5 | 0.4 |
| 2003 | Q4 | 5.1 | 5.0 | 3.7 | 3.6 | 1.4 | 1.4 | 1.8 | 1.8 | -0.3 | -0.2 |

[^7]Strictly Confidential <FR> Class II FOMC

| Item | Units ${ }^{1}$ | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | -----12001 | rojected | 2003 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  | 2002 |  |
| EXPENDITURES |  |  |  |  |  |  |  |  |  |  |
| Nominal GDP | Bill. \$ | 7400.5 | 7813.2 | 8318.4 | 8781.5 | 9268.6 | 9872.9 | 10198.2 | 10478.4 | 10992.2 |
| Real GDP | Bill. Ch. \$ | 7543.8 | 7813.2 | 8159.5 | 8508.9 | 8856.5 | 9224.0 | 9322.7 | 9442.5 | 9763.7 |
| Real GDP | \% change | 2.2 | 4.1 | 4.3 | 4.8 | 4.4 | 2.8 | 0.0 | 2.7 | 3.6 |
| Gross domestic purchases |  | 1.7 | 4.3 | 5.0 | 5.8 | 5.3 | 3.5 | 0.1 | 3.5 | 4.0 |
| Final sales |  | 2.9 | 3.9 | 3.9 | 4.7 | 4.3 | 3.4 | 1.7 | 1.1 | 3.2 |
| Priv. dom. final purchases |  | 3.2 | 4.4 | 5.1 | 6.3 | 5.4 | 4.7 | 1.1 | 1.5 | 3.9 |
| Personal cons. expenditures |  | 2.8 | 3.1 | 4.1 | 5.0 | 5.2 | 4.2 | 2.8 | 2.2 | 3.2 |
| Durables |  | 3.7 | 5.0 | 8.8 | 12.7 | 11.3 | 5.3 | 12.4 | -0.9 | 6.5 |
| Nondurables |  | 2.5 | 3.2 | 2.5 | 5.0 | 5.0 | 3.6 | 1.0 | 2.9 | 2.9 |
| Services |  | 2.7 | 2.7 | 3.9 | 3.6 | 4.0 | 4.3 | 1.8 | 2.6 | 2.7 |
| Business fixed investment |  | 7.5 | 12.1 | 11.8 | 12.3 | 7.4 | 8.9 | -8.0 | -2.4 | 9.5 |
| Equipment \& Software |  | 8.9 | 11.8 | 13.7 | 14.9 | 11.2 | 8.3 | -7.3 | 0.4 | 12.0 |
| Nonres. structures |  | 3.3 | 12.8 | 6.5 | 4.9 | -3.6 | 10.8 | -10.1 | -10.3 | 1.9 |
| Residential structures |  | -1.5 | 5.6 | 3.5 | 10.0 | 3.4 | -1.2 | 2.3 | 0.1 | 1.0 |
| Exports |  | 9.7 | 9.8 | 8.5 | 2.3 | 4.5 | 7.0 | -11.1 | 3.4 | 7.5 |
| Imports |  | 5.0 | 11.2 | 14.3 | 10.8 | 11.5 | 11.3 | -7.6 | 9.8 | 10.0 |
| Gov't. cons. \& investment |  | -0.8 | 2.7 | 2.4 | 2.7 | 4.0 | 1.2 | 4.9 | 4.0 | 2.9 |
| Federal |  | -5.3 | 2.0 | 0.1 | 0.6 | 4.5 | -1.4 | 4.6 | 7.1 | 1.5 |
| Defense |  | -4.7 | 0.8 | -1.4 | -0.8 | 4.7 | -2.2 | 5.1 | 5.1 | 1.4 |
| State \& local |  | 2.1 | 3.0 | 3.7 | 3.8 | 3.7 | 2.5 | 5.1 | 2.3 | 3.6 |
| Change in bus. inventories | Bill. Ch. \$ | -- | -- | 63.8 | 76.7 | 62.1 | 50.6 | -66.2 | -5.3 | 52.2 |
| Nonfarm |  | 41.9 | 21.2 | 60.6 | 75.0 | 63.5 | 52.3 | -64.2 | -5.4 | 51.0 |
| Net exports |  | -78.4 | -89.0 | -113.3 | -221.1 | -316.9 | -399.1 | -412.8 | -498.0 | -591.1 |
| Nominal GDP | \% change | 4.3 | 6.0 | 6.2 | 6.0 | 6.0 | 5.3 | 1.9 | 4.3 | 5.0 |
| EMPLOYMENT AND PRODUCTION |  |  |  |  |  |  |  |  |  |  |
| Nonfarm payroll employment | Millions | 117.2 | 119.6 | 122.7 | 125.8 | 128.9 | 131.8 | 132.2 | 131.8 | 133.8 |
| Unemployment rate | \% | 5.6 | 5.4 | 4.9 | 4.5 | 4.2 | 4.0 | 4.8 | 6.0 | 5.9 |
| Industrial prod. index | \% change | 3.5 | 5.8 | 7.4 | 3.5 | 4.3 | 2.6 | -6.0 | 2.5 | 4.3 |
| Capacity util. rate - mfg. |  | 82.6 | 81.6 | 82.7 | 81.4 | 80.6 | 80.7 | 75.0 | 73.1 | 75.5 |
| Housing starts | Millions | 1.35 | 1.48 | 1.47 | 1.62 | 1.64 | 1.57 | 1.61 | 1.62 | 1.66 |
| Light motor vehicle sales |  | 14.77 | 15.05 | 15.06 | 15.43 | 16.78 | 17.25 | 17.02 | 15.47 | 16.16 |
| North Amer. produced |  | 12.87 | 13.34 | 13.12 | 13.41 | 14.30 | 14.39 | 13.94 | 12.57 | 13.12 |
| Other |  | 1.90 | 1.70 | 1.93 | 2.02 | 2.48 | 2.86 | 3.08 | 2.90 | 3.05 |
| INCOME AND SAVING |  |  |  |  |  |  |  |  |  |  |
| Nominal GNP | Bill. \$ | 7420.9 | 7831.2 | 8325.4 | 8778.1 | 9261.8 | 9860.8 | 10188.8 | 10471.9 | 10982.7 |
| Nominal GNP | \% change | 4.4 | 5.9 | 6.0 | 5.8 | 6.0 | 5.4 | 1.9 | 4.3 | 4.9 |
| Nominal personal income |  | 4.3 | 5.9 | 6.3 | 6.7 | 4.8 | 7.3 | 3.0 | 4.1 | 4.4 |
| Real disposable income |  | 1.7 | 2.6 | 3.8 | 5.0 | 2.1 | 4.0 | 2.4 | 4.2 | 2.7 |
| Personal saving rate | \% | 5.6 | 4.8 | 4.2 | 4.7 | 2.4 | 1.0 | 1.7 | 3.1 | 2.7 |
| Corp. profits, IVA \& CCAdj. | \% change | 11.3 | 11.4 | 9.9 | -9.6 | 11.3 | -1.2 | -14.6 | 5.1 | 6.1 |
| Profit share of GNP | \% | 9.0 | 9.6 | 10.0 | 8.9 | 8.9 | 8.9 | 7.3 | 7.1 | 7.2 |
| Excluding FR Banks |  | 8.7 | 9.4 | 9.7 | 8.6 | 8.6 | 8.6 | 7.0 | 6.9 | 6.9 |
| Federal surpl./deficit | Bill. \$ | -192.0 | -136.8 | -53.3 | 43.8 | 119.2 | 218.6 | 112.8 | -52.0 | -3.8 |
| State \& local surpl./def. |  | 15.3 | 21.4 | 31.0 | 40.7 | 42.1 | 32.8 | 14.0 | 14.6 | 17.2 |
| Ex. social ins. funds |  | 11.4 | 18.7 | 29.9 | 40.0 | 41.7 | 33.1 | 14.3 | 14.9 | 17.5 |
| Gross natl. saving rate | \% | 16.9 | 17.2 | 18.0 | 18.8 | 18.4 | 18.1 | 16.8 | 16.2 | 16.6 |
| Net natl. saving rate |  | 5.1 | 5.7 | 6.7 | 7.5 | 6.8 | 6.3 | 4.2 | 3.5 | 3.7 |
| PRICES AND COSTS |  |  |  |  |  |  |  |  |  |  |
| GDP chn.-wt. price index Gross Domestic Purchases chn.-wt. price index | \% change | 2.1 | 1.9 | 1.8 | 1.1 | 1.6 | 2.4 | 1.9 | 1.5 | 1.4 |
|  |  | 2.1 | 1.9 | 1.4 | 0.8 | 1.9 | 2.5 | 1.2 | 1.4 | 1.4 |
| PCE chn.-wt. price index |  | 2.1 | 2.3 | 1.5 | 1.1 | 2.0 | 2.6 | 1.3 | 1.3 | 1.2 |
| Ex. food and energy |  | 2.3 | 1.8 | 1.7 | 1.6 | 1.5 | 1.9 | 1.6 | 1.3 | 1.1 |
| CPI |  | 2.7 | 3.2 | 1.9 | 1.5 | 2.6 | 3.4 | 1.9 | 1.8 | 1.8 |
| Ex. food and energy |  | 3.0 | 2.6 | 2.2 | 2.4 | 2.0 | 2.5 | 2.7 | 2.1 | 1.8 |
| ECI, hourly compensation ${ }^{2}$ |  | 2.6 | 3.1 | 3.4 | 3.5 | 3.4 | 4.4 | 4.0 | 3.0 | 3.0 |
| Nonfarm business sector |  |  |  |  |  |  |  |  |  |  |
| Output per hour |  | 1.1 | 2.3 | 2.3 | 2.9 | 2.9 | 2.6 | 1.5 | 1.7 | 2.3 |
| Compensation per Hour |  | 2.6 | 3.2 | 3.5 | 5.3 | 4.5 | 7.8 | 4.0 | 3.4 | 3.2 |
| Unit labor cost |  | 1.5 | 0.9 | 1.1 | 2.3 | 1.5 | 5.0 | 2.5 | 1.7 | 1.0 |

1. Changes are from fourth quarter to fourth quarter.
2. Private-industry workers.

Strictly Confidential <FR> Class II FOMC

REAL GROSS DOMESTIC PRODUCT AND RELATED ITEMS, QUARTERLY VALUES
January 23, 2002 (Seasonally adjusted, annual rate except as noted)

| Item | Units | $\begin{gathered} 1999 \\ \text { Q1 } \end{gathered}$ | $\begin{gathered} 1999 \\ \text { Q2 } \end{gathered}$ | $\begin{gathered} 1999 \\ \text { Q3 } \end{gathered}$ | $\begin{gathered} 1999 \\ Q 4 \end{gathered}$ | $\begin{aligned} & 2000 \\ & \text { Q1 } \end{aligned}$ | $\begin{gathered} 2000 \\ \mathrm{Q} 2 \end{gathered}$ | $\begin{gathered} 2000 \\ \text { Q3 } \end{gathered}$ | $\begin{aligned} & 2000 \\ & \text { Q4 } \end{aligned}$ | $\begin{gathered} 2001 \\ \text { Q1 } \end{gathered}$ | $\begin{gathered} 2001 \\ \mathrm{Q} 2 \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| EXPENDITURES |  |  |  |  |  |  |  |  |  |  |  |
| Nominal GDP | Bill. \$ | 9093.1 | 9161.4 | 9297.4 | 9522.5 | 9668.7 | 9857.6 | 9937.5 | 10027.9 | 10141.7 | 10202.6 |
| Real GDP | Bill. Ch. \$ | 8733.5 | 8771.2 | 8871.5 | 9049.9 | 9102.5 | 9229.4 | 9260.1 | 9303.9 | 9334.5 | 9341.7 |
| Real GDP | \% change | 3.1 | 1.7 | 4.7 | 8.3 | 2.3 | 5.7 | 1.3 | 1.9 | 1.3 | 0.3 |
| Gross domestic purchases |  | 4.8 | 2.9 | 5.3 | 8.2 | 3.5 | 6.3 | 2.0 | 2.2 | 0.7 | 0.4 |
| Final sales |  | 3.0 | 3.9 | 4.2 | 6.1 | 4.8 | 3.9 | 2.3 | 2.4 | 4.0 | 0.7 |
| Priv. dom. final purchases |  | 5.3 | 5.9 | 4.9 | 5.5 | 7.5 | 4.6 | 3.9 | 2.6 | 2.8 | -0.0 |
| Personal cons. expenditures |  | 4.9 | 5.7 | 4.4 | 5.7 | 5.9 | 3.6 | 4.3 | 3.1 | 3.0 | 2.5 |
| Durables |  | 7.1 | 15.7 | 9.0 | 13.7 | 19.0 | -2.5 | 8.2 | -2.1 | 10.6 | 7.0 |
| Nondurables |  | 5.6 | 4.3 | 2.6 | 7.6 | 5.1 | 4.7 | 4.2 | 0.6 | 2.4 | 0.3 |
| Services |  | 4.1 | 4.5 | 4.3 | 3.2 | 3.7 | 4.4 | 3.5 | 5.6 | 1.8 | 2.8 |
| Business fixed investment |  | 6.0 | 7.7 | 10.2 | 5.8 | 15.8 | 12.2 | 7.1 | 1.0 | -0.2 | -14.6 |
| Equipment \& Software |  | 10.5 | 11.9 | 16.2 | 6.4 | 18.1 | 12.4 | 4.7 | -1.1 | -4.1 | -15.4 |
| Nonres. structures |  | -6.5 | -4.3 | -7.0 | 4.0 | 8.8 | 11.8 | 15.2 | 7.6 | 12.3 | -12.2 |
| Residential structures |  | 10.3 | 3.0 | -0.8 | 1.6 | 8.5 | -0.8 | -10.4 | -1.1 | 8.5 | 5.9 |
| Exports |  | -6.8 | 4.2 | 9.7 | 12.1 | 9.0 | 13.5 | 10.6 | -4.0 | -1.2 | -11.9 |
| Imports |  | 8.4 | 13.3 | 13.8 | 10.5 | 17.1 | 16.4 | 13.0 | -0.5 | -5.0 | -8.4 |
| Gov't. cons. \& investment |  | 2.0 | 1.2 | 4.4 | 8.5 | -1.1 | 4.4 | -1.8 | 3.3 | 5.3 | 5.0 |
| Federal |  | -3.7 | 0.8 | 7.2 | 14.5 | -12.8 | 15.9 | -10.4 | 4.6 | 3.2 | 1.8 |
| Defense |  | -3.5 | -3.5 | 12.8 | 14.3 | -20.0 | 15.4 | -10.4 | 10.5 | 7.5 | 2.3 |
| State \& local |  | 5.2 | 1.4 | 2.9 | 5.4 | 5.6 | -1.1 | 3.0 | 2.7 | 6.4 | 6.6 |
| Change in bus. inventories | Bill. Ch. \$ | 83.4 | 32.7 | 39.6 | 92.7 | 28.9 | 78.9 | 51.7 | 42.8 | -27.1 | -38.3 |
| Nonfarm |  | 78.7 | 34.2 | 52.2 | 88.7 | 37.8 | 75.1 | 56.6 | 39.7 | -27.3 | -35.8 |
| Net exports |  | -283.0 | -313.4 | -333.3 | -337.8 | -371.1 | -392.8 | -411.2 | -421.1 | -404.5 | -406.7 |
| Nominal GDP | \% change | 4.9 | 3.0 | 6.1 | 10.0 | 6.3 | 8.0 | 3.3 | 3.7 | 4.6 | 2.4 |
| EMPLOYMENT AND PRODUCTION |  |  |  |  |  |  |  |  |  |  |  |
| Nonfarm payroll employment | Millions | 127.8 | 128.5 | 129.2 | 130.1 | 131.0 | 131.9 | 131.9 | 132.3 | 132.6 | 132.5 |
| Unemployment rate |  | 4.3 | 4.3 | 4.2 | 4.1 | 4.0 | 4.0 | 4.1 | 4.0 | 4.2 | 4.5 |
| Industrial prod. index | \% change | 3.6 | 3.3 | 4.7 | 5.8 | 5.8 | 7.0 | 0.6 | -2.6 | -6.1 | -5.9 |
| Capacity util. rate - mfg. | \% | 80.5 | 80.4 | 80.5 | 81.0 | 81.2 | 81.6 | 80.7 | 79.1 | 77.2 | 75.6 |
| Housing starts | Millions | 1.71 | 1.57 | 1.65 | 1.66 | 1.67 | 1.59 | 1.51 | 1.54 | 1.63 | 1.62 |
| Light motor vehicle sales |  | 16.17 | 16.76 | 17.06 | 17.11 | 18.13 | 17.27 | 17.30 | 16.32 | 16.89 | 16.65 |
| North Amer. produced |  | 13.87 | 14.32 | 14.58 | 14.41 | 15.25 | 14.40 | 14.47 | 13.45 | 13.96 | 13.62 |
| Other |  | 2.30 | 2.44 | 2.47 | 2.70 | 2.87 | 2.87 | 2.83 | 2.87 | 2.93 | 3.03 |
| INCOME AND SAVING |  |  |  |  |  |  |  |  |  |  |  |
| Nominal GNP | Bill. \$ | 9089.5 | 9157.0 | 9283.8 | 9517.0 | 9650.7 | 9841.0 | 9919.4 | 10032.1 | 10131.3 | 10190.9 |
| Nominal GNP | \% change | 5.2 | 3.0 | 5.7 | 10.4 | 5.7 | 8.1 | 3.2 | 4.6 | 4.0 | 2.4 |
| Nominal personal income |  | 3.0 | 4.7 | 5.2 | 6.3 | 8.6 | 8.5 | 5.5 | 6.8 | 5.8 | 3.5 |
| Real disposable income |  | 1.4 | 2.0 | 2.1 | 3.0 | 3.3 | 5.8 | 2.6 | 4.2 | 2.7 | 2.4 |
| Personal saving rate | \% | 3.5 | 2.7 | 2.1 | 1.4 | 0.8 | 1.3 | 0.8 | 1.0 | 1.1 | 1.1 |
| Corp. profits, IVA \& CCAdj. | \% change | 36.1 | -10.2 | -4.9 | 31.9 | 6.1 | 10.7 | 1.0 | -19.6 | -24.6 | -14.3 |
| Profit share of GNP |  | 9.2 | 8.8 | 8.6 | 9.0 | 9.0 | 9.1 | 9.0 | 8.4 | 7.8 | 7.5 |
| Excluding FR Banks |  | 8.9 | 8.6 | 8.3 | 8.7 | 8.7 | 8.8 | 8.7 | 8.1 | 7.5 | 7.2 |
| Federal surpl./deficit | Bill. \$ | 85.2 | 116.5 | 132.0 | 143.1 | 212.8 | 209.1 | 229.9 | 222.5 | 205.3 | 186.7 |
| State \& local surpl./def. |  | 48.9 | 36.2 | 38.3 | 44.9 | 33.2 | 34.7 | 34.8 | 28.6 | 22.3 | 21.3 |
| Ex. social ins. funds |  | 48.4 | 35.8 | 38.0 | 44.7 | 33.3 | 34.9 | 35.1 | 29.1 | 22.6 | 21.4 |
| Gross natl. saving rate | \% | 19.0 | 18.5 | 18.3 | 18.0 | 18.0 | 18.3 | 18.2 | 17.9 | 17.3 | 17.2 |
| Net natl. saving rate |  | 7.6 | 6.9 | 6.4 | 6.3 | 6.3 | 6.6 | 6.4 | 6.0 | 5.1 | 4.6 |
| PRICES AND COSTS |  |  |  |  |  |  |  |  |  |  |  |
| GDP chn.-wt. price index Gross Domestic Purchases chn.-wt. price index | \% change | 1.7 | 1.4 | 1.4 | 1.8 | 3.8 | 2.1 | 1.9 | 1.8 | 3.3 | 2.1 |
|  |  | 1.5 | 2.0 | 2.0 | 2.2 | 4.2 | 1.9 | 2.3 | 1.7 | 2.7 | 1.3 |
| PCE chn.-wt. price index |  | 1.3 | 2.0 | 2.2 | 2.4 | 4.0 | 2.1 | 2.4 | 2.0 | 3.2 | 1.3 |
| Ex. food and energy |  | 1.4 | 1.2 | 1.5 | 1.8 | 2.9 | 1.7 | 1.6 | 1.5 | 2.6 | 0.7 |
| CPI |  | 1.7 | 2.7 | 2.9 | 3.1 | 4.3 | 2.8 | 3.5 | 3.0 | 4.2 | 3.0 |
| Ex. food and energy |  | 1.8 | 2.1 | 1.8 | 2.5 | 2.5 | 2.7 | 2.5 | 2.4 | 3.1 | 2.6 |
| ECI, hourly compensation ${ }^{1}$ |  | 1.4 | 4.6 | 3.4 | 4.6 | 5.6 | 4.7 | 3.8 | 3.5 | 4.6 | 4.0 |
| Nonfarm business sector |  |  |  |  |  |  |  |  |  |  |  |
| Output per hour |  | 2.3 | -1.3 | 3.2 | 7.8 | 0.0 | 6.7 | 1.6 | 2.3 | -0.1 | 2.1 |
| Compensation per hour |  | 3.6 | 4.2 | 5.5 | 4.7 | 6.9 | 8.1 | 7.4 | 8.9 | 4.9 | 4.7 |
| Unit labor cost |  | 1.3 | 5.6 | 2.2 | -2.9 | 6.9 | 1.3 | 5.7 | 6.4 | 5.0 | 2.6 |

1. Private-industry workers.

2. Private-industry workers.

| Strictly Confidential <FR> Class II FOMC | CONTRIBUTIONS |  | GROWTH | REAL G | DOME | PRODU | ID REL | ITEMS |  |  | Januar | , 2002 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Item | $\begin{gathered} 1999 \\ Q 3 \end{gathered}$ | $\begin{gathered} 1999 \\ Q 4 \end{gathered}$ | $\begin{aligned} & 2000 \\ & \text { Q1 } \end{aligned}$ | $\begin{gathered} 2000 \\ \mathrm{Q} 2 \end{gathered}$ | $\begin{gathered} 2000 \\ Q 3 \end{gathered}$ | $\begin{gathered} 2000 \\ Q 4 \end{gathered}$ | $\begin{aligned} & 2001 \\ & \text { Q1 } \end{aligned}$ | $\begin{gathered} 2001 \\ Q 2 \end{gathered}$ | $\begin{gathered} 2001 \\ Q 3 \end{gathered}$ | $\begin{gathered} 9924 / \\ 9824 \end{gathered}$ | $\begin{gathered} 0004 / 4 \\ 9924 \end{gathered}$ | $\begin{aligned} & 01 Q 4 / \\ & 00 Q 4 \end{aligned}$ |
| Real GDP | 4.7 | 8.3 | 2.3 | 5.7 | 1.3 | 1.9 | 1.3 | 0.3 | -1.3 | 4.4 | 2.8 | 0.0 |
| Gross dom. purchases | 5.4 | 8.4 | 3.6 | 6.5 | 2.0 | 2.3 | 0.7 | 0.4 | -1.1 | 5.4 | 3.6 | 0.1 |
| Final sales | 4.2 | 6.2 | 4.7 | 3.9 | 2.3 | 2.4 | 3.9 | 0.7 | -0.5 | 4.2 | 3.3 | 1.7 |
| Priv. dom. final purchases | 4.2 | 4.8 | 6.2 | 4.0 | 3.3 | 2.2 | 2.4 | -0.0 | -0.3 | 4.5 | 3.9 | 1.0 |
| Personal cons. expenditures | 3.0 | 4.0 | 3.9 | 2.5 | 2.9 | 2.1 | 2.1 | 1.7 | 0.7 | 3.5 | 2.9 | 1.9 |
| Durables | 0.7 | 1.1 | 1.5 | -0.2 | 0.7 | -0.2 | 0.8 | 0.6 | 0.1 | 0.9 | 0.4 | 1.0 |
| Nondurables | 0.5 | 1.5 | 1.0 | 1.0 | 0.8 | 0.1 | 0.5 | 0.1 | 0.1 | 1.0 | 0.7 | 0.2 |
| Services | 1.7 | 1.4 | 1.5 | 1.8 | 1.4 | 2.2 | 0.7 | 1.1 | 0.5 | 1.6 | 1.7 | 0.7 |
| Business fixed investment | 1.3 | 0.8 | 1.9 | 1.5 | 0.9 | 0.1 | -0.0 | -2.0 | -1.1 | 0.9 | 1.1 | -1.0 |
| Equipment \& Software | 1.5 | 0.6 | 1.6 | 1.2 | 0.5 | -0.1 | -0.4 | -1.6 | -0.8 | 1.0 | 0.8 | -0.7 |
| Nonres. structures | -0.2 | 0.1 | 0.3 | 0.4 | 0.5 | 0.2 | 0.4 | -0.4 | -0.3 | -0.1 | 0.3 | -0.3 |
| Residential structures | -0.0 | 0.1 | 0.4 | -0.0 | -0.5 | -0.1 | 0.4 | 0.3 | 0.1 | 0.1 | -0.1 | 0.1 |
| Net exports | -0.8 | -0.2 | -1.3 | -0.8 | -0.7 | -0.4 | 0.6 | -0.1 | -0.3 | -1.0 | -0.8 | -0.1 |
| Exports | 1.0 | 1.3 | 1.0 | 1.4 | 1.1 | -0.5 | -0.1 | -1.4 | -2.1 | 0.5 | 0.8 | -1.2 |
| Imports | -1.8 | -1.4 | -2.3 | -2.3 | -1.8 | 0.1 | 0.8 | 1.3 | 1.9 | -1.5 | -1.6 | 1.1 |
| Government cons. \& invest. | 0.8 | 1.5 | -0.2 | 0.8 | -0.3 | 0.6 | 0.9 | 0.9 | 0.1 | 0.7 | 0.2 | 0.9 |
| Federal | 0.4 | 0.9 | -0.8 | 0.9 | -0.7 | 0.3 | 0.2 | 0.1 | 0.2 | 0.3 | -0.1 | 0.3 |
| Defense | 0.5 | 0.6 | -0.9 | 0.6 | -0.4 | 0.4 | 0.3 | 0.1 | 0.1 | 0.2 | -0.1 | 0.2 |
| Nondefense | -0.1 | 0.3 | 0.0 | 0.3 | -0.2 | -0.1 | -0.1 | 0.0 | 0.1 | 0.1 | 0.0 | 0.1 |
| State and local | 0.3 | 0.7 | 0.6 | -0.1 | 0.3 | 0.3 | 0.7 | 0.8 | -0.2 | 0.4 | 0.3 | 0.6 |
| Change in bus. inventories | 0.4 | 2.2 | -2.3 | 1.8 | -1.0 | -0.5 | -2.6 | -0.4 | -0.8 | 0.2 | -0.5 | -1.7 |
| Nonfarm | 0.9 | 1.5 | -2.0 | 1.5 | -0.8 | -0.7 | -2.6 | -0.3 | -0.8 | 0.1 | -0.5 | -1.8 |
| Farm | -0.4 | 0.6 | -0.3 | 0.3 | -0.2 | 0.2 | 0.0 | -0.1 | -0.0 | 0.0 | -0.0 | 0.0 |

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

Note. Components may not sum to totals because of rounding.
Strictly Confidential (FR) Class II FOMC

| Item | Fiscal year ${ }^{1}$ |  |  |  | 2001 |  |  |  | 2002 |  |  |  | 2003 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $2000^{\text {a }}$ | $2001{ }^{\text {a }}$ | 2002 | 2003 | Q1 ${ }^{\text {a }}$ | Q2 ${ }^{\text {a }}$ | Q3 ${ }^{\text {a }}$ | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 |
| Unified budget $\quad$ _ Not seasonally adjuste |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Receipts ${ }^{2}$ | 2025 | 1991 | 1994 | 2070 | 460 | 660 | 409 | 466 | 433 | 617 | 478 | 457 | 452 | 655 | 506 | 490 |
| Outlays ${ }^{2}$ | 1789 | 1864 | 2002 | 2062 | 482 | 467 | 451 | 503 | 505 | 500 | 494 | 526 | 518 | 512 | 506 | 543 |
| Surplus/deficit ${ }^{2}$ | 236 | 127 | -8 | 8 | -22 | 194 | -42 | -37 | -72 | 118 | -16 | -68 | -67 | 143 | -0 | -53 |
| On-budget | 87 | -34 | -159 | -164 | -88 | 119 | -51 | -81 | -97 | 48 | -30 | -121 | -93 | 66 | -16 | -112 |
| Off-budget | 150 | 161 | 152 | 172 | 65 | 75 | 10 | 44 | 24 | 70 | 14 | 52 | 27 | 77 | 16 | 59 |
| Surplus excluding deposit insurance | 233 | 126 | -9 | 6 | -23 | 193 | -42 | -37 | -73 | 117 | -17 | -69 | -67 | 142 | -1 | -53 |
| Means of financing Borrowing | -223 | -90 | 49 | 12 | 24 | -157 | 69 | 60 | 46 | -108 | 52 | 55 | 69 | -104 | -8 | 38 |
| Cash decrease | 4 | 8 | -1 | 0 | -7 | -15 | -1 | -8 | 31 | 8 | -31 | 20 | -5 | -30 | 15 | 15 |
| Other ${ }^{3}$ | -18 | -45 | -40 | -20 | 6 | -21 | -26 | -14 | -4 | -17 | -4 | -6 | 2 | -9 | -7 | -0 |
| Cash operating balance, end of period | 53 | 44 | 45 | 45 | 28 | 44 | 44 | 52 | 21 | 14 | 45 | 25 | 30 | 60 | 45 | 30 |
| NIPA federal sector $\quad$ - Seasonally adjusted a |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Receipts | 2012 | 2041 | 1982 | 2074 | 2087 | 2091 | 1907 | 2025 | 1939 | 1967 | 1997 | 2024 | 2062 | 2089 | 2119 | 2154 |
| Expenditures | 1813 | 1891 | 2005 | 2094 | 1882 | 1905 | 1921 | 1952 | 1995 | 2027 | 2044 | 2072 | 2088 | 2100 | 2116 | 2141 |
| Consumption expenditures | 492 | 506 | 560 | 596 | 508 | 510 | 514 | 533 | 557 | 571 | 580 | 582 | 598 | 600 | 604 | 606 |
| Defense | 322 | 337 | 362 | 380 | 338 | 340 | 343 | 350 | 363 | 365 | 369 | 372 | 381 | 383 | 385 | 387 |
| Nondefense | 170 | 170 | 198 | 216 | 169 | 171 | 171 | 182 | 194 | 206 | 211 | 210 | 216 | 217 | 219 | 220 |
| Other spending | 1321 | 1384 | 1444 | 1498 | 1375 | 1395 | 1407 | 1420 | 1438 | 1455 | 1464 | 1490 | 1490 | 1500 | 1512 | 1535 |
| Current account surplus | 199 | 150 | -22 | -20 | 205 | 187 | -14 | 73 | -56 | -60 | -47 | -47 | -26 | -11 | 3 | 13 |
| Gross investment | 96 | 100 | 107 | 112 | 98 | 100 | 102 | 104 | 107 | 109 | 110 | 111 | 112 | 112 | 114 | 114 |
| Current and capital account surplus | 102 | 50 | -130 | -133 | 107 | 87 | -116 | -31 | -163 | -168 | -157 | -158 | -138 | -123 | -111 | -101 |
| Fiscal indicators ${ }^{4}$ <br> High-employment (HEB) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| surplus/deficit <br> Change in HEB, percent | -13 | -23 | -118 | -124 | 17 | 19 | -147 | -36 | -150 | -147 | -139 | -142 | -129 | -116 | -108 | -103 |
| of potential GDP | -. 8 | . 1 | . 9 | 0 | 0 | -0 | 2 | -1 | 1 | -0 | -. 1 | 0 | -. 1 | -. 1 | -. 1 | -. 1 |
| Fiscal impetus (FI) percent, calendar year | 2 | 9 | 21 | 3 | 3 | 3 | 9 | -4 | 15 | 5 | 1 | . 4 | 1 | -. 1 | . 5 | -. 4 |

1. Fiscal year data for the unified budget come from OMB; quarterly data come from the Monthly Treasury Statement and may not sum to OMB fiscal year totals.
2. OMB's August 2001 baseline surplus estimates are $\$ 187$ billion in FY 2002 and $\$ 211$ billion in FY 2003. CBO's January 2002 deficit estimates, assuming discretio
 surplus and the Postal Service surplus are excluded from the on-budget surplus and shown separately as off-budget, as classified under current law.

 a--Actual


[^8]Strictly Confidential (FR)
Class II FOMC


[^9]1. For corporations: Excess of capital expenditures over U.S. internal funds. 5. Average debt levels in the period (computed as the average of period-end debt positions) divided by nominal GDP. 6. Excludes government-insured mortgage pool securities.
2. 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

## International Developments

Indicators from late last year have tended to confirm that foreign growth was negative in the fourth quarter-although a bit less so than had been projected in the December Greenbook. Evidence on the direction in which the global economy is headed, especially in those countries thought to be near turning points in their business cycles, has been less clear, but on balance that picture looks slightly brighter as well. Many countries still seem to be working through adjustments to inventory overhangs and other imbalances. Accordingly, domestic demand remains soft-making external demand, and especially performance of the U.S. economy, critical to near-term recovery. Financial markets in some foreign countries, especially Asian high-tech exporters, have been heartened by signs of firmer near-term U.S. economic growth and by stronger demand for some high-tech products. Activity in the most affected countries in developing Asia has taken on a firmer tone, but indicators elsewhere have been more mixed.

We again project that positive foreign growth will resume in the current quarter, as a number of factors are in position to boost activity. Our outlook for a gradual recovery of foreign growth in 2002 and some further improvement next year-essentially unchanged from the outlook in December-relies on an anticipated pickup in U.S. GDP, moderate oil prices, the considerable macroeconomic policy easing that has occurred in many countries, and the eventual ending of inventory liquidations and investment overhangs. Two areas cast shadows over this generally positive view: Argentina and Japan. Argentina seems to be headed for further deep trouble, and contagion-though not manifest in any important way so far-still is a risk. The worst-case scenarios associated with Japan's financial-sector problems and decade-long slump have not materialized, but a sharper crisis cannot be ruled out. In the absence of such outcomes, foreign growth should be sufficient to narrow but not fully close most output gaps by the end of the forecast period, and foreign inflation is expected to remain subdued.

After declining significantly in 2001, U.S. exports and, especially, imports should pick up dramatically this year and expand further in 2003. With foreign growth lagging U.S. growth and the dollar projected to remain little changed from its present high level, we expect the arithmetic contribution to U.S. GDP growth from the external sector to be negative over the forecast period and somewhat larger than the modest negative contribution recorded last year. The U.S. current account deficit as a share of GDP, now at about 4-1/4 percent, is projected rise to about 5 percent in 2003.

Summary of Staff Projections

| Indicator | 2001 |  | Projection |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | H1 | Q3 | $\begin{gathered} 2001 \\ \text { Q4 } \end{gathered}$ | 2002 |  |  | 2003 |
|  |  |  |  | Q1 | Q2 | H2 |  |
| Foreign output | 0.1 | -0.2 | -0.4 | 0.5 | 1.7 | 2.8 | 3.3 |
| December GB | -0.1 | -0.3 | -0.7 | 0.5 | 1.7 | 2.8 | 3.3 |
| Foreign CPI | 2.5 | 1.8 | 0.4 | 1.5 | 2.2 | 2.2 | 2.2 |
| December GB | 2.5 | 1.8 | 1.6 | 1.7 | 2.0 | 2.2 | 2.2 |

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

Oil prices. During the latter half of December, the spot price of West Texas Intermediate (WTI) moved higher as OPEC signaled its intention to restrain oil production further. On December 28, OPEC announced a cut of 1-1/2 million barrels per day in its production target, following pledges from several nonOPEC producers (Angola, Mexico, Norway, Oman, and Russia) to reduce their oil exports by close to $1 / 2$ million barrels per day. The modest run-up in oil prices was brief, and by mid-January the spot price of WTI had fallen $\$ 3$, to below $\$ 19$ per barrel. Unusually warm weather, combined with weaker economic activity and reduced air travel, has damped demand and helped raise U.S. crude oil inventories above seasonal norms. We project that the spot price of WTI, in line with recent quotes from futures markets, will increase gradually to about $\$ 20.75$ by the end of the forecast period. Compared with the previous Greenbook, this projection is down about $\$ 1$ per barrel in the near term and roughly $\$ 0.60$ at the end of 2003.

International financial markets. The foreign exchange value of the dollar moved higher on balance during the intermeeting period, with the staff's broad nominal index showing an increase of about 1-3/4 percent. The dollar appreciated over 6 percent against the yen, bringing its rise from its mid-September low against that currency to about 15 percent. Large injections of liquidity by the Bank of Japan reflected in a doubling of balances held at the BOJ may have weighed on the yen, and Japanese officials made a number of public statements indicating that yen depreciation would not be resisted. The weakening of the yen may have pressured other currencies, particularly the Korean won and the Taiwan dollar, which fell against the U.S. dollar 4 percent and 1-3/4 percent, respectively. The U.S. dollar also firmed 2 percent against the Canadian dollar, but it was little changed against the euro and sterling. The
introduction of euro notes and coins at the turn of the year occurred without significant disruption.

Intense political and economic pressures in Argentina finally forced the abandonment of its currency board in early January. The crisis and associated financial restrictions intended to prevent bank runs and support a new dual exchange rate system severely impaired liquidity and disabled many segments of the economy. Under the new framework, pesos and dollars can be exchanged for certain transactions at a fixed rate of 1.4 pesos to the dollar. The floating rate for all other transactions has depreciated to as much as 2 pesos to the dollar despite efforts by the Argentine central bank to give the peso support through intervention. Spillovers to other currency markets have been limited. The Brazilian real depreciated 2 percent against the dollar during the intermeeting period, while the Mexican peso edged up $1 / 2$ percent.

Our outlook for the dollar starts from a somewhat higher level in the current quarter than that in the previous Greenbook, reflecting the dollar's rise during the intermeeting period. Thereafter it remains essentially flat. This assumption represents a balance of forces that may come into play going forward: Evidence of an even stronger U.S. recovery vis-a-vis that of our global trading partners or intensification of market concerns about the weakness of the Japanese financial system could continue to drive the dollar upward. But downward pressure could emerge as well-for example, if investors eventually become less willing to absorb the large and growing volume of U.S. external liabilities generated by our continuing current account deficit.

During the intermeeting period, long-term bond yields were little changed on average in foreign industrial countries, whereas equity prices generally moved down. Canadian long-term yields declined 17 basis points, partly reflecting reactions to a quarter-point easing by the Bank of Canada on January 15. European long-term yields were about flat. Long-term government bond yields in Japan edged upward, leaving a small positive spread over the ten-year yen-denominated swap yield, which declined slightly. Higher Japanese government bond yields may be a reaction in part to the government's reemphasizing its willingness to bail out the financial system. Equity price declines in Japan of 5 percent during the intermeeting period reflected continuing news of deteriorating economic prospects. Share price declines in most of the euro area were less, but stocks in Spain lost 5-1/2 percent as investors became skittish about the exposure of Spanish firms and financial institutions to developments in Argentina.

Among emerging markets, share prices in Brazil and Chile moved lower, as business with neighboring Argentina has been disrupted, but Mexican stocks
rose more than 7 percent. Equity prices in many Asian emerging-market economies showed even stronger gains, reflecting in part signs of a bottoming out of some segments of the global high-tech industry. The overall EMBI + spread for emerging-market debt yields over those of U.S. government securities has narrowed a bit since the beginning of the year, when the index was re-weighted; the subcomponents for Brazil and Mexico are about unchanged. Since Argentina suspended payments to its private creditors in late December, trading in Argentine bonds has been spotty and volatile, but spreads on those instruments that are still trading remain quite high.
. The Desk did not
intervene during the period for the accounts of the System or the Treasury.
Foreign industrial countries. Recent indicators suggest that average real GDP in foreign industrial countries weakened further in the fourth quarter, after showing small contractions in the second and third quarters. We continue to project a gradual firming this year, with growth of about 1-3/4 percent in 2002 and nearly 3 percent in 2003. Recovery should be supported by a projected revival of U.S. growth, reduced oil prices, the further effects of monetary stimulus already in place, and an expected reduction of inventory overhangs. Headline inflation rates have moved down noticeably in recent months because of both lower oil prices and sluggish activity and are expected to remain subdued throughout the forecast period.

The Japanese economy remains very weak. Real GDP plunged 2.2 percent (s.a.a.r.) in the third quarter, and recent data indicate that a contraction occurred in the fourth quarter as well. Production indexes fell in October and November on average, and the unemployment rate reached a record high in November-both occurrences suggesting that consumption spending was restrained during the final quarter of last year. Core machinery orders have been soft, the Bank of Japan's Tankan index of business conditions worsened further in December, and survey respondents project another decline in the index for March. In late December, the Cabinet approved a slightly contractionary draft budget outline for fiscal year 2002, in which public works spending is slated to decline about 10 percent. Accordingly, we expect the economy to shrink somewhat more this year. However, by year-end the global recovery and a weaker yen should stabilize the present contraction of exports, and the inventory correction should work itself out. On December 19, the Bank of Japan voted to ease monetary policy, raising its target for the outstanding balance of financial institutions’ accounts held at the BOJ to $¥ 10$ trillion- 15 trillion from "above $¥ 6$ trillion"—a step that should help set conditions for a return to positive growth in 2003. The Bank of Japan is expected to maintain short-term interest
rates near zero through the forecast period. Consumer-price deflation is projected to continue at a rate of about 1 percent during the forecast period.

The Canadian economy contracted in the third quarter, and GDP is estimated to have declined slightly further in the fourth quarter. Some strength has been apparent in housing and auto sales (mostly due to financing incentives), partly offsetting weakness in exports and tourism. Real GDP is projected to pick up in the first half of this year and to expand more robustly in the second half, as a firming of U.S. demand lifts exports and as moderate fiscal stimulus and previous substantial monetary easing boost domestic demand. We assume that, after the latest cut of 25 basis points on January 15, the Bank of Canada will hold its policy rate steady through the end of 2002. Thereafter, we expect interest rates to rise as the Canadian expansion solidifies and inflation picks up from a near-zero rate to $1-1 / 2$ percent.

The latest data suggest that the euro-area economy contracted in the fourth quarter, but forward-looking measures such as confidence indicators point to a rebound soon. We expect positive but sluggish activity in the first half of the year. By midyear, growth should revive to near potential, as consumption and investment spending respond to lower oil prices and the cumulative effects of monetary easing and as stronger global activity spurs a pickup in exports. We expect the ECB to keep its policy rate on hold until early next year, when we anticipate that it will tighten moderately as signs of stronger growth become more evident. Euro-area inflation-now at about 2 percent-is projected to decline somewhat and stay contained during the forecast period, as output remains below potential. Although the United Kingdom showed firmer growth in 2001 than did continental Europe, activity in both manufacturing and services sagged toward year-end. The pause should be only temporary, and U.K. growth should return to near potential by the end of 2002.

Other countries. Among the emerging-market countries, Argentina's struggles and the risks they pose for the region contrast with generally better news from Asia. We look for economic growth in the fourth quarter of last year to come in slightly positive in developing Asia but to remain significantly negative in Latin America. Thereafter-if the Argentine crisis remains contained and global recovery proceeds as projected-both regions should show a gradual, but uneven recovery over the next two years. With slack still in place for most emerging-market countries during the forecast period, inflation will remain subdued through the end of 2003.

The outlook for developing Asia has been revised upward a bit further. Although performances of individual countries in the region have been mixed, additional signs of nascent recovery have emerged in recent months. Industrial
production firmed toward the end of last year in Korea and the ASEAN countries - especially Singapore and Malaysia, which had been battered by the global slump. Prospects for recovery in world demand for the region's high-tech exports have solidified further in recent months, adding to optimism. Although the Chinese economy has remained robust, neither Hong Kong nor Taiwan has shown much vigor lately. Stronger U.S. growth in coming quarters, along with some stimulative monetary and fiscal measures taken recently by several countries in the region, should support recovery. Average growth in emerging Asia is projected to reach about 3 percent this year and nearly 5 percent in 2003.

The worsening economic and political situation in Argentina has led us to revise downward that country's already bleak outlook. Argentina's recession likely will deepen in the near term, and we expect declines in activity to continue through this year. Depreciation of the currency will raise inflationary pressures over the forecast period. So far, there has been little evidence of financial spillovers to other countries in the region, but contagion remains a risk. Both Brazil and Mexico have continued to experience weak activity in recent months for reasons other than events in Argentina, but there have been some tentative, encouraging signs. Industrial production recovered in both countries in November from previous declines, and news on the fiscal front has been positive. Strong tax revenues in Brazil should permit it to meet the fiscal objectives in its IMF program; passage by the Mexican congress of new tax measures and of a budget for 2002 is consistent with ongoing fiscal discipline (although the tax package falls well short of the government's original proposal last April). U.S. recovery should help reverse the recent contraction of Mexican exports and lead soon to a return to positive growth. For Latin America as a whole, we expect real GDP to increase about 2 percent in 2002 and $3-1 / 2$ percent in 2003.

Prices of internationally traded goods. The price index for imports of non-oil core goods is estimated to have declined a bit less than 4 percent at an annual rate in the fourth quarter-the third consecutive quarterly decline. In the current quarter, it is projected to fall at an annual rate of $1-1 / 2$ percent. Import price inflation should turn mildly positive in the second quarter, partly reflecting a sharp turnaround in primary commodity prices. We expect core import price inflation to average about $1 / 2$ percent in 2002 and 1-1/2 percent in 2003.

The price index for exports of U.S. core goods also is estimated to have dropped about 4 percent at an annual rate in the fourth quarter and is expected to show a further decline in the current quarter. This projection is consistent with weak industrial demand abroad and continued declines in U.S. wholesale goods prices. Export prices for core goods are projected to begin to move back up in
the second quarter but to show only a small increase over the rest of the forecast period, in line with the moderate inflation projected for U.S. goods prices.

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

| Trade category | 2001 |  | Projection |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | H1 | Q3 | $\begin{gathered} 2001 \\ \text { Q4 } \end{gathered}$ | 2002 |  |  | 2003 |
|  |  |  |  | Q1 | Q2 | H2 |  |
| Exports |  |  |  |  |  |  |  |
| Core goods | -0.5 | -1.5 | -3.8 | -1.6 | 0.9 | 1.3 | 0.8 |
| Imports |  |  |  |  |  |  |  |
| Non-oil core goods | -1.5 | -6.2 | -3.8 | -1.5 | 0.1 | 1.4 | 1.5 |
| Oil (dollars per barrel) | 24.21 | 23.51 | 18.55 | 16.71 | 17.27 | 17.77 | 18.29 |

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. In November, the U.S. trade deficit in goods and services was $\$ 27.9$ billion, somewhat smaller than in October. For OctoberNovember combined, the deficit was $\$ 343$ billion at a seasonally adjusted annual rate, about $\$ 10$ billion less than in the third quarter (after a one-time, large, estimated insurance payment by foreign insurers related to the events of September 11 is excluded from the third-quarter figure), as imports declined more than exports.

Imports of goods and services declined 0.8 percent in November. This decrease followed a strong rebound in October from the September low. Even so, the level of imports in November was nearly 6 percent less than the average for July-August. We estimate that in December imports picked up somewhat, leaving the rate of decline in NIPA real imports of goods and services for the fourth quarter significantly less negative than that in the third quarter. As the recovery in U.S. activity takes hold in 2002, imports of goods and services should rise, beginning in the current quarter. Specifically, we project that imports will grow at an annual rate of 9-3/4 percent in 2002 and 10 percent in 2003. The lagged effects on relative prices of the dollar's appreciation over the past two years should provide stimulus to imports in the near term, but the
primary boost throughout the forecast period derives from revived U.S. growth and the high U.S. elasticity of import demand.

Exports of goods and services rose 0.7 percent in November. This rise followed a small increase in October from the September low. The level of goods and services exports in November was still 6 percent less than the average for JulyAugust. Recent data suggest that the rates of decline in exports of high-tech goods and other capital equipment have moderated; declines in these categories were particularly pronounced as global investment weakened. We estimate that most categories of goods exports stopped declining or rose slightly in December. Even so, we estimate that fourth-quarter NIPA real exports of goods and services declined 12 percent at an annual rate, the result of a plunge in services receipts and weaker goods exports. Looking ahead, we expect export growth to turn positive in the current quarter as services receipts continue to recover (particularly travel and passenger fares) and as goods exports benefit from some firming in foreign demand. As foreign growth recovers, exports of goods and services should rebound, growing 3-1/2 percent in 2002 and picking up to 7-1/2 percent in 2003.

We estimate that in the fourth quarter the U.S. current account deficit as a share of GDP returned to $4-1 / 4$ percent from the smaller figure recorded in the third quarter. We expect that the current account deficit as a share of GDP will rise to about 5 percent in 2003.

## Summary of Staff Projections

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

| Measure | 2001 |  | Projection |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | H1 | Q3 | $\begin{array}{r} 2001 \\ \text { Q4 } \end{array}$ | 2002 |  |  | 2003 |
|  |  |  |  | Q1 | Q2 | H2 |  |
| Real exports | -6.7 | -18.8 | -11.6 | 4.3 | 0.8 | 4.4 | 7.5 |
| December GB | -6.7 | -17.7 | -3.6 | -2.1 | 1.2 | 4.9 | 6.9 |
| Real imports | -6.7 | -13.0 | -3.7 | 9.5 | 10.6 | 9.5 | 10.0 |
| December GB | -6.7 | -12.9 | 2.6 | 3.1 | 9.2 | 9.8 | 9.6 |

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


#### Abstract

Alternative simulations. Our baseline forecast projects that the financial crisis in Argentina will induce a sharp downturn in economic activity and a roughly 60 percent decline in the value of the peso by the end of next year from its former one-to-one parity with the dollar. However, spillover effects on other key developing countries are assumed to be modest. In the first alternative scenario, we considered the possibility that the Argentine crisis leads to a much more severe erosion of confidence in developing countries, especially in Latin America. In particular, we used the FRB/Global model to assess the impact of a substantial increase in the risk premium on the Mexican peso, Brazilian real, Chilean peso, and Venezuelan bolivar. This risk premium shock would induce a 20 percent decline in each country's currency in the absence of any adjustment of their real interest rates relative to that of the United States. In addition, the risk premium shock was coupled with a shock to consumer and business confidence that depresses the autonomous component of domestic demand by 5 percent of baseline GDP in South America, 3 percent in Mexico, and 1 percent in developing countries in Asia.


Two alternative U.S. monetary policy responses were considered in the scenario. In one case, the Federal Reserve holds the real federal funds rate unchanged from its baseline; in the other, it adjusts the federal funds rate according to a Taylor rule. In both cases, monetary policy in the major foreign industrial countries adjusts interest rates according to a Taylor rule. Major developing countries-including those affected by the shock-are assumed to follow a Taylor rule that is consistent with these countries responding aggressively to inflation to mitigate the effects of currency depreciation on inflation and inflation expectations.

Under either U.S. policy response, the effects of Argentine contagion on the United States are limited. In the fixed real rate case, annual U.S. real GDP growth is 0.2 percentage point less than baseline in the second half of 2002 and 0.1 percentage point less in 2003. The core PCE inflation rate is 0.1 percentage point below baseline in 2002:H2 and lower by the same amount in 2003. The small size of these effects on the U.S. economy reflects the fact that U.S. trade with the economies most directly affected constitutes only a tiny fraction of U.S. GDP, so that the rise in the trade-weighted dollar and the decline in U.S. real net exports are modest. When U.S. policy follows a Taylor rule, the federal funds rate falls about 20 basis points in 2003, and GDP and inflation essentially remain at baseline.

Another risk to the forecast is that weakness in financial markets in Japan may curtail Japanese economic activity more severely than in our baseline forecast. To assess this possibility, we used the FRB/Global model to consider the impact of a shock that depresses the autonomous component of Japanese demand by

5 percent of baseline GDP. The demand shock was phased in gradually over four quarters beginning in 2002:Q1 and was coupled with an exogenous rise in the risk premium on yen-denominated assets that would induce the yen-dollar exchange rate to depreciate to 160 yen per dollar by 2002:Q2, if long-term interest rate differentials remained unchanged.

As above, two alternative responses of U.S. monetary policy were considered. In both cases, monetary policy in the major foreign countries adjusts interest rates according to a Taylor rule. However, because Japan is constrained by a zero-bound on interest rates, Japanese monetary policy cannot respond to the contraction in domestic demand.

In the case of the fixed real federal funds rate, annual real U.S. GDP growth is 0.4 percentage point lower, relative to baseline, in 2002:H2 and again in 2003; the core PCE inflation rate is reduced 0.2 percentage point starting in 2002: H 2 . U.S. net exports deteriorate and core consumer-price inflation moves down because of both a fall in Japanese domestic absorption and an appreciation of the dollar.

In the Taylor rule case, the effects on output and inflation are attenuated. In fact, in 2003, output growth returns to baseline, as a fall of 50 basis points in the nominal federal funds rate helps offset the effects of the external shock. Because of longer lags in the inflation adjustment process, a Taylor rule does not completely stabilize the core inflation rate in 2003. Still, the PCE inflation rate falls slightly less in 2003 in this case than when the real federal funds rate is fixed.

## Alternative Simulation 1:

Argentine Contagion
(Percent change from previous period, annual rate)

| Indicator and simulation | 2002 |  | 2003 |  |
| :--- | :--- | :--- | :--- | :--- |
|  | H 1 | H 2 | H 1 | H 2 |
| U.S. real GDP |  |  |  |  |
| Baseline | 2.0 | 3.4 | 3.5 | 3.7 |
| $\quad$ Fixed real rate | 1.9 | 3.2 | 3.4 | 3.6 |
| Taylor rule | 1.9 | 3.3 | 3.5 | 3.7 |
|  |  |  |  |  |
| U.S. PCE prices excl. food and energy |  |  |  |  |
| Baseline | 1.4 | 1.3 | 1.1 | 1.1 |
| $\quad$ Fixed real rate | 1.4 | 1.2 | 1.0 | 1.0 |
| $\quad$ Taylor rule | 1.4 | 1.2 | 1.1 | 1.1 |

Note. H1 is Q2/Q4; H2 is Q4/Q2.

## Alternative Simulation 2:

 Currency and Domestic Demand Shocks in Japan(Percent change from previous period, annual rate)

| Indicator and simulation | 2002 |  | 2003 |  |
| :--- | :---: | :---: | :---: | :---: |
|  | H 1 | H 2 | H 1 | H 2 |
| U.S. real GDP |  |  |  |  |
| Baseline |  |  |  |  |
| $\quad$ Fixed real rate | 2.0 | 3.4 | 3.5 | 3.7 |
| $\quad$ Taylor rule | 1.8 | 3.0 | 3.2 | 3.3 |
|  | 1.8 | 3.1 | 3.5 | 3.7 |
| U.S. PCE prices excl. food and energy |  |  |  |  |
| Baseline |  |  |  |  |
| $\quad$ Fixed real rate | 1.4 | 1.3 | 1.1 | 1.1 |
| $\quad$ Taylor rule | 1.4 | 1.1 | 0.9 | 0.9 |

Note. H1 is Q2/Q4; H2 is Q4/Q2.
Strictly Confidential (FR)
Class II FOMC

| Measure and country | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | -----Projected---- |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  | 2001 | 2002 | 2003 |
| REAL GDP (1) |  |  |  |  |  |  |  |  |  |
| Total foreign | 2.2 | 4.0 | 4.2 | 1.6 | 4.7 | 4.0 | -0.1 | 1.9 | 3.3 |
| Industrial Countries of which: | 2.0 | 2.7 | 3.5 | 2.6 | 3.9 | 3.1 | 0.3 | 1.7 | 2.9 |
| Canada | 1.5 | 2.6 | 4.5 | 4.2 | 5.1 | 3.5 | 0.4 | 2.3 | 3.4 |
| Japan | 2.5 | 3.7 | 0.5 | -1.3 | 0.6 | 2.3 | -1.1 | -0.8 | 1.1 |
| United Kingdom | 2.0 | 2.9 | 3.6 | 2.6 | 2.7 | 2.7 | 1.8 | 2.2 | 2.7 |
| Euro Area (2) | 1.5 | 1.6 | 3.1 | 2.0 | 3.6 | 2.8 | 0.6 | 1.6 | 2.8 |
| Germany | 1.1 | 1.4 | 1.7 | 0.6 | 3.0 | 2.5 | -0.2 | 1.3 | 2.7 |
| Developing Countries | 2.5 | 6.0 | 5.2 | -0.1 | 6.2 | 5.4 | -0.8 | 2.3 | 4.0 |
| Asia | 7.0 | 6.6 | 4.8 | -1.9 | 8.6 | 6.1 | -0.8 | 2.9 | 4.8 |
| Korea | 7.5 | 6.4 | 3.4 | -5.2 | 13.8 | 5.2 | 2.0 | 2.0 | 4.6 |
| China | 10.4 | 5.3 | 8.7 | 9.5 | 4.1 | 8.0 | 7.5 | 7.4 | 7.5 |
| Latin America | -3.8 | 6.0 | 6.0 | 1.2 | 4.4 | 4.8 | -1.0 | 1.8 | 3.3 |
| Mexico | -7.1 | 7.1 | 6.7 | 2.8 | 5.5 | 5.2 | -1.2 | 2.1 | 3.7 |
| Brazil | -0.8 | 2.7 | 2.3 | -1.1 | 4.2 | 4.3 | 0.2 | 2.1 | 2.6 |
| CONSUMER PRICES (3) |  |  |  |  |  |  |  |  |  |
| Industrial Countries of which: | 1.3 | 1.5 | 1.5 | 1.0 | 1.2 | 1.8 | 0.9 | 0.9 | 0.9 |
| Canada | 2.0 | 2.0 | 1.0 | 1.1 | 2.3 | 3.1 | 1.1 | 1.7 | 1.6 |
| Japan | -0.8 | 0.2 | 2.0 | 0.7 | -1.2 | -1.2 | -1.3 | -1.2 | -1.2 |
| United Kingdom (4) | 2.9 | 3.2 | 2.7 | 2.5 | 2.2 | 2.1 | 2.0 | 2.0 | 2.4 |
| Euro Area (2) | NA | NA | 1.5 | 0.8 | 1.5 | 2.7 | 2.2 | 1.4 | 1.4 |
| Germany | 1.4 | 1.3 | 1.5 | 0.3 | 1.1 | 2.5 | 1.7 | 0.8 | 0.9 |
| Developing Countries | 16.9 | 11.1 | 6.8 | 9.0 | 4.6 | 4.2 | 2.9 | 3.2 | 3.9 |
| Asia | 6.4 | 4.8 | 2.7 | 4.4 | 0.2 | 1.8 | 1.1 | 2.2 | 3.3 |
| Korea | 4.3 | 5.0 | 4.9 | 5.9 | 1.2 | 2.8 | 3.4 | 1.9 | 2.7 |
| China | 11.1 | 6.8 | 0.9 | -1.2 | -0.9 | 0.9 | -0.1 | 2.4 | 3.8 |
| Latin America | 42.0 | 25.8 | 15.5 | 15.4 | 12.5 | 8.4 | 5.4 | 5.3 | 4.7 |
| Mexico | 48.7 | 28.0 | 17.0 | 17.4 | 13.6 | 8.8 | 5.2 | 4.4 | 4.3 |
| Brazil | 21.5 | 9.6 | 4.6 | 1.5 | 8.2 | 6.1 | 7.5 | 6.3 | 5.6 |

[^10]Strictly Confidential (FR)
Class II FOMC

| Measure and country | 2001 |  |  |  | 2002 Project |  |  |  | 2003 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 |
| REAL GDP (1) |  |  |  |  |  |  |  |  |  |  |  |  |
| Total foreign | 0.9 | -0.8 | -0.2 | -0.4 | 0.5 | 1.7 | 2.6 | 2.9 | 3.2 | 3.3 | 3.3 | 3.4 |
| Industrial Countries of which: | 2.0 | -0.2 | -0.1 | -0.4 | 0.4 | 1.5 | 2.2 | 2.7 | 2.9 | 2.9 | 2.9 | 2.8 |
| Canada | 1.7 | 0.6 | -0.8 | -0.1 | 0.7 | 2.2 | 2.7 | 3.5 | 3.5 | 3.5 | 3.3 | 3.3 |
| Japan | 4.1 | -4.8 | -2.2 | -1.6 | -1. 5 | -1. 3 | -0.4 | 0.1 | 0.7 | 0.9 | 1.4 | 1.4 |
| United Kingdom | 2.9 | 2.0 | 1.8 | 0.6 | 1.5 | 2.3 | 2.5 | 2.5 | 2.7 | 2.7 | 2.7 | 2.7 |
| Euro Area (2) | 2.3 | 0.3 | 0.5 | -0.7 | 0.0 | 1.1 | 2.3 | 2.7 | 2.9 | 2.9 | 2.8 | 2.7 |
| Germany | 1.6 | -0.1 | -0.6 | -1.5 | -0. 5 | 0.9 | 2.3 | 2.5 | 2.8 | 2.8 | 2.6 | 2.6 |
| Developing Countries | -0.8 | -1. 5 | -0.4 | -0.4 | 0.8 | 2.1 | 3.1 | 3.3 | 3.7 | 3.9 | 4.1 | 4.2 |
| Asia | -0.9 | -2.9 | 0.2 | 0.2 | 1.4 | 2.5 | 3.6 | 4.0 | 4.5 | 4.7 | 5.0 | 5.0 |
| Korea | 1.2 | 1.8 | 5.1 | 0.0 | 1.0 | 1.5 | 2.5 | 3.0 | 4.0 | 4.5 | 5.0 | 5.0 |
| China | 8.2 | 7.7 | 7.1 | 7.1 | 7.0 | 7.1 | 7.6 | 7.8 | 7.5 | 7.5 | 7.5 | 7.5 |
| Latin America | -1.2 | -0.7 | -1.0 | -1.2 | 0.1 | 1.7 | 2.8 | 2.6 | 3.1 | 3.3 | 3.4 | 3.5 |
| Mexico | -1.8 | -1.0 | -0.9 | -1.0 | 0.3 | 2.0 | 3.3 | 3.0 | 3.5 | 3.7 | 3.8 | 3.9 |
| Brazil | 0.9 | -0.5 | 0.5 | -0.0 | 0.8 | 2.2 | 2.7 | 2.7 | 2.6 | 2.6 | 2.6 | 2.6 |
| CONSUMER PRICES (3) |  |  |  |  |  |  |  |  |  |  |  |  |
| Industrial Countries | 1.7 | 2.2 | 1.7 | 0.9 | 0.7 | 0.2 | 0.3 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 |
| of which: |  |  |  |  |  |  |  |  |  |  |  |  |
| Canada | 2.8 | 3.6 | 2.7 | 1.1 | 1.0 | 0.2 | 0.6 | 1.7 | 1.8 | 1.7 | 1.6 | 1.6 |
| Japan | -1.0 | -1.2 | -1.1 | -1.3 | -1.6 | -1.4 | -1.7 | -1.2 | -1.2 | -1.2 | -1.2 | $-1.2$ |
| United Kingdom (4) | 1.9 | 2.3 | 2.4 | 2.0 | 2.0 | 1.7 | 1.7 | 2.0 | 2.3 | 2.3 | 2.4 | 2.4 |
| Euro Area (2) | 2.5 | 3.1 | 2.7 | 2.2 | 2.0 | 1.3 | 1.3 | 1.4 | 1.4 | 1.4 | 1.4 | 1.4 |
| Germany | 2.4 | 3.2 | 2.4 | 1.7 | 1.2 | 0.5 | 0.7 | 0.8 | 0.9 | 0.9 | 0.9 | 0.9 |
| Developing Countries | 3.8 | 4.1 | 3.5 | 2.9 | 3.1 | 2.9 | 3.0 | 3.2 | 3.7 | 3.8 | 3.9 | 3.9 |
| Asia | 1.8 | 2.4 | 1.9 | 1.1 | 1.2 | 1.3 | 1.7 | 2.2 | 2.7 | 3.0 | 3.2 | 3.3 |
| Korea | 4.2 | 5.3 | 4.3 | 3.4 | 2.6 | 1.6 | 1.2 | 1.9 | 2.3 | 2.4 | 2.5 | 2.7 |
| China | 0.6 | 1.6 | 0.8 | -0.1 | 0.4 | 0.8 | 1.6 | 2.4 | 2.7 | 3.1 | 3.5 | 3.8 |
| Latin America | 7.2 | 6.8 | 6.0 | 5.4 | 5.9 | 5.7 | 5.5 | 5.3 | 5.6 | 5.2 | 4.9 | 4.7 |
| Mexico | 7.5 | 6.9 | 6.0 | 5.2 | 5.5 | 5.0 | 4.7 | 4.4 | 4.9 | 4.7 | 4.5 | 4.3 |
| Brazil | 6.2 | 7.1 | 6.6 | 7.5 | 8.0 | 8.0 | 7.2 | 6.3 | 6.1 | 5.9 | 5.7 | 5.6 |

[^11]GDP AND CONSUMER PRICES: SELECTED COUNTRIES
(Percent changes)

|  | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | $\begin{aligned} & ---- \\ & 2001 \end{aligned}$ | $\begin{array}{r} \text { Projec } \\ 2002 \end{array}$ | $\begin{gathered} ------- \\ 2003 \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| NIPA REAL EXPORTS and IMPORTS Percentage point contribution to GDP growth, Q4/Q4 |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| Net Goods \& Services | 0.4 | -0.2 | -0.8 | -1.1 | -1.0 | -0.8 | -0.1 | -0.9 | -0.6 |
| Exports of G\&S | 1.0 | 1.1 | 1.0 | 0.3 | 0.5 | 0.8 | -1.2 | 0.3 | 0.7 |
| Imports of G\&S | -0.6 | -1.3 | -1.7 | -1.3 | -1.5 | -1.6 | 1.1 | -1.2 | $-1.3$ |
| Percentage change, Q4/Q4 |  |  |  |  |  |  |  |  |  |
| Exports of G\&S | 9.7 | 9.8 | 8.5 | 2.3 | 4.5 | 7.0 | -11.1 | 3.4 | 7.5 |
| Services | 8.8 | 8.9 | 1.4 | 2.9 | 1.9 | 4.1 | -9.2 | 4.9 | 5.1 |
| Computers | 39.1 | 21.6 | 25.8 | 8.1 | 13.8 | 23.1 | -23.0 | 25.1 | 32.6 |
| Semiconductors | 79.6 | 44.6 | 21.3 | 9.1 | 34.6 | 26.9 | -32.0 | 22.7 | 34.2 |
| Other Goods 1/ | 4.6 | 7.3 | 9.8 | 1.3 | 3.2 | 5.7 | -9.0 | 0.1 | 5.0 |
| Imports of G\&S | 5.0 | 11.2 | 14.3 | 10.8 | 11.5 | 11.3 | -7. 6 | 9.8 | 10.0 |
| Services | 5.5 | 5.3 | 14.0 | 8.5 | 2.8 | 12.2 | -15.5 | 10.9 | 5.3 |
| Oil | 2.4 | 7.8 | 3.9 | 4.1 | -3.4 | 12.4 | -0.5 | 5.5 | 4.0 |
| Computers | 35.0 | 17.8 | 33.0 | 25.8 | 25.1 | 13.6 | -13.1 | 25.1 | 32.6 |
| Semiconductors | 92.4 | 56.7 | 32.9 | -8.7 | 33.5 | 22.5 | -50.0 | 26.2 | 34.2 |
| Other Goods 2/ | -1.2 | 10.4 | 12.7 | 11.5 | 12.9 | 10.4 | -4.4 | 8.4 | 9.2 |
| Billions of chained 1996 dollars |  |  |  |  |  |  |  |  |  |
| Net Goods \& Services | -78.4 | -89.0 | -113.3 | -221.1 | -316.9 | -399.1 | -412.8 | -498.0 | -591.1 |
| Exports of G\&S | 808.2 | 874.2 | 981.5 | 1002.4 | 1034.8 | 1133.2 | 1081.3 | 1040.1 | 1098.7 |
| Imports of G\&S | 886.6 | 963.1 | 1094.8 | 1223.5 | 1351.7 | 1532.3 | 1494.1 | 1538.0 | 1689.8 |
| Billions of dollars |  |  |  |  |  |  |  |  |  |
| US CURRENT ACCOUNT BALANCE | -109.9 | -120.9 | -139.8 | -217.5 | -324.4 | -444.7 | -419.4 | -464.2 | -555.4 |
| Current Acct as Percent of GDP | -1.5 | -1.5 | -1.7 | -2.5 | -3.5 | -4.5 | -4.1 | -4.4 | -5.1 |
| Net Goods \& Services (BOP) | -96.4 | -101.8 | -107.8 | -166.8 | -261.8 | -375.7 | -348.7 | -394.2 | -481.5 |
| Investment Income, Net | 25.0 | 25.5 | 13.6 | -1.2 | -8.5 | -9.6 | -13.1 | -10.2 | -13.3 |
| Direct, Net | 64.9 | 69.4 | 72.4 | 66.3 | 67.0 | 81.2 | 94.6 | 90.3 | 88.3 |
| Portfolio, Net | -39.9 | -43.9 | -58.8 | -67.5 | -75.6 | -90.9 | -107.6 | -100.5 | $-101.6$ |
| Other Income \& Transfers, Net | -38.6 | -44.6 | -45.7 | -49.4 | -54.0 | -59.3 | -57.6 | -59.8 | -60.7 |

[^12]|  | 2001 |  |  | -------------------------- Projected |  |  |  |  | 2003 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 |
| NIPA REAL EXPORTS and IMPORTS |  |  |  |  |  |  |  |  |  |  |  |  |
| Percentage point contribution to GDP growth |  |  |  |  |  |  |  |  |  |  |  |  |
| Net Goods \& Services | 0.6 | -0.1 | -0.2 | -0.7 | -0.8 | -1.2 | -1. 0 | -0.5 | -0.8 | -0.8 | -0.6 | -0.2 |
| Exports of G\&S | -0.1 | -1.4 | -2.1 | -1.2 | 0.4 | 0.1 | 0.3 | 0.6 | 0.4 | 0.7 | 0.8 | 1.0 |
| Imports of $G \& S$ | 0.8 | 1.3 | 1.9 | 0.5 | -1.2 | -1.3 | -1.3 | -1.1 | -1.2 | -1.4 | -1.4 | -1.2 |
| Percentage change from previous period, s.a.a.r. |  |  |  |  |  |  |  |  |  |  |  |  |
| Exports of G\&S | -1. 2 | -11.9 | -18.8 | -11. 6 | 4.3 | 0.8 | 2.8 | 6.0 | 4.3 | 7.3 | 8.1 | 10.5 |
| Services | 1.8 | 2.4 | -17.2 | -21.4 | 12.3 | 1.0 | 2.8 | 3.9 | 4.9 | 5.1 | 5.3 | 5.3 |
| Computers | -5.8 | -41.1 | -24.3 | -16.1 | 23.9 | 23.9 | 26.3 | 26.3 | 31.1 | 32.3 | 33.6 | 33.6 |
| Semiconductors | -22.4 | -56.1 | -46.6 | 17.0 | 17.0 | 21.6 | 26.2 | 26.2 | 31.1 | 33.5 | 36.0 | 36.0 |
| Other Goods 1/ | -0.1 | -10.8 | -16.8 | -7.6 | -1.4 | -2.0 | -0.3 | 4.4 | 0.5 | 4.7 | 5.7 | 9.5 |
| Imports of G\&S | -5.0 | -8.4 | -13.0 | -3.7 | 9.5 | 10.6 | 10.3 | 8.6 | 9.5 | 11.0 | 10.3 | 9.1 |
| Services | 4.9 | -2.0 | -29.1 | -30.0 | 28.8 | 4.8 | 6.5 | 5.3 | 5.2 | 5.2 | 5.3 | 5.4 |
| Oil | 27.1 | 4.3 | -26.7 | 0.9 | -4.1 | 28.9 | 10.9 | -9.4 | -5.0 | 23.9 | 11.0 | -10.4 |
| Computers | -11.0 | -29.1 | -24.9 | 20.4 | 21.6 | 21.6 | 26.3 | 31.1 | 31.1 | 32.3 | 33.6 | 33.6 |
| Semiconductors | -31.8 | -75.0 | -58.4 | -12.2 | 26.2 | 26.2 | 26.2 | 26.2 | 31.1 | 33.5 | 36.0 | 36.0 |
| Other Goods 2/ | -8.4 | -4.8 | -4.5 | 0.5 | 5.7 | 9.3 | 9.6 | 8.9 | 9.6 | 9.2 | 9.0 | 9.0 |
| Billions of chained 1996 dollars, s.a.a.r. |  |  |  |  |  |  |  |  |  |  |  |  |
| Net Goods \& Services | -404.5 | -406.7 | -411.0 | -429.0 | -451.5 | -487.2 | -518.0 | -535.1 | -560.4 | -584.6 | -604.9 | -614.4 |
| Exports of G\&S | 1144.1 | 1108.3 | 1052.2 | 1020.4 | 1031.1 | 1033.2 | 1040.3 | 1055.6 | 1066.9 | 1085.7 | 1107.1 | 1135.1 |
| Imports of G\&S | 1548.6 | 1515.0 | 1463.2 | 1449.4 | 1482.7 | 1520.4 | 1558.3 | 1590.8 | 1627.3 | 1670.4 | 1712.0 | 1749.5 |
| Billions of dollars, s.a.a.r. |  |  |  |  |  |  |  |  |  |  |  |  |
| US CURRENT ACCOUNT BALANCE | -447.1 | -430.3 | -378.4 | -421.6 | -418.3 | -449.7 | -479.8 | -508.9 | $-519.4$ | -543.4 | -566.4 | -592.4 |
| Current Account as \% of GDP | -4.4 | -4.2 | -3.7 | -4.1 | -4.1 | -4.3 | -4.6 | -4.8 | -4.8 | -5.0 | -5.1 | -5.3 |
| Net Goods \& Services (BOP) | -380.1 | -362.2 | -308.8 | -343.6 | $-352.2$ | -383.7 | -412.4 | -428.4 | -452.5 | -475.3 | -494.4 | -503.6 |
| Investment Income, Net | -14.6 | -14.6 | -14.9 | -8.1 | -10.2 | -9.5 | -11.0 | -10.1 | -9.5 | -10.7 | -14.5 | -18.4 |
| Direct, Net | 90.7 | 93.7 | 96.2 | 97.7 | 93.7 | 91.9 | 88.2 | 87.3 | 88.0 | 88.7 | 88.1 | 88.6 |
| Portfolio, Net | -105.3 | -108.3 | -111.0 | -105.8 | -103.9 | -101.4 | -99.2 | -97.4 | -97.4 | -99.4 | -102.6 | -107.0 |
| Other Inc. \& Transfers, Net | -52.4 | -53.5 | -54.7 | -69.9 | -55.9 | -56.4 | -56.4 | -70.4 | -57.4 | -57.4 | -57.4 | -70.4 |

[^13]
[^0]:    ${ }^{1}$ In some cases, original copies needed to be photocopied before being scanned into electronic format. All scanned images were deskewed (to remove the effects of printer- and scanner-introduced tilting) and lightly cleaned (to remove dark spots caused by staple holes, hole punches, and other blemishes caused after initial printing).
    ${ }^{2}$ A two-step process was used. An advanced optimal character recognition computer program (OCR) first created electronic text from the document image. Where the OCR results were inconclusive, staff checked and corrected the text as necessary. Please note that the numbers and text in charts and tables were not reliably recognized by the OCR process and were not checked or corrected by staff.

[^1]:    1. Longer-term interest rates were subject to wide daily swings in early December. Although interest rates on longer-term Treasuries and high-grade corporate bonds have risen compared with their levels when the December Greenbook was completed, these yields have fallen about $1 / 4$ percentage point compared with their levels at the time of the December FOMC meeting. To assess the financial factors that influenced our current forecast, the rise in long-term rates since we closed the previous Greenbook is the relevant change.
    2. Included in the set of alternative simulations at the end of this section of Part 1 is one that considers the effects of a more adverse reaction of investors and businesses to earnings early this year.
[^2]:    3. Because the BEA treated the lease of the World Trade Center by a private business as a purchase, it boosted the level of nonresidential construction in the third quarter of 2001 and made an offsetting reduction in the level of state and local construction. That adjustment will, other things being equal, steepen the reported decline in nonresidential construction in the fourth quarter and boost the reported change in state and local spending.
[^3]:    4. Late last year, the BEA, which estimates the wage and salary component of hourly compensation, reviewed the summary of the payroll reports that employers filed with state UI offices for the second quarter of 2001 (the ES-202 report). The ES-202 report covers wage and salary income across both production and white collar workers and includes taxable distributions, such as stock option exercises. Before receiving that information, the BEA uses the average hourly earnings data to extrapolate its wage and salary estimates. The second-quarter ES-202 data indicated that wage and salary income had been increasing less rapidly than the average hourly earnings suggested. As a result, the BEA adjusted its extrapolation for the third and fourth quarters and has been estimating a slower rise in wages and salaries.
[^4]:    6. One of our alternative simulations considers the economic consequences of an early rebound in business investment.
[^5]:    8. In an alternative simulation, we consider the implications of a faster rise in multifactor productivity than assumed in the baseline.
[^6]:    9. In an alternative simulation, we consider a scenario in which businesses are more aggressive in marking up prices to restore profitability.
[^7]:    1. For all urban consumers.
    2. Level, except as noted.
    3. Percent change from two quarters earlier; for unemployment rate, change in percentage points.
    4. Percent change from four quarters earlier; for unemployment rate, change in percentage points.
[^8]:    Note. Quarterly data are at seasonally adjusted annual rates.

    1. Data after 2001: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. On a monthly average basis, total debt is projected to grow 5.9 percent in 2001, 4.7 percent in 2002, and 4.6 percent in 2003 .
    3. On a monthly average basis, federal debt is projected to grow -1.3 percent in $2001,1.3$ percent in 2002 , and 0.1 percent in 2003 . 4. On a monthly average basis, nonfederal debt is projected to grow 7.5 percent in 2001, 5.4 percent in 2002, and 5.6 percent in 2003. 2.6.3 FOF
[^9]:    Note. Data after 2000:Q3 are staff projections. 4. NIPA surplus less changes in retirement fund assets plus consumption of fixed capital.

[^10]:    Foreign GDP aggregates calculated using shares of U.S. exports.
    2. Harmonized data for euro area from Eurostat.
    4. CPI excluding mortgage interest payments, which is the targeted inflation rate.

[^11]:    Foreign GDP aggregates calculated using shares of U.S. exports.
    Harmonized data for euro area from Eurostat.
    2. Harmonized data for euro area from Eurostat.
    3. Foreign CPI aggregates calculated using shares of U.S. non-oil imports.
    4. CPI excluding mortgage interest payments, which is the targeted inflation rate.

[^12]:    1. Merchandise exports excluding computers, and semiconductors.
    2. Merchandise imports excluding oil, computers, and semiconductors.
[^13]:    Merchandise exports excluding computers, and semiconductors
    2. Merchandise imports excluding oil, computers, and semiconductors.

