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[^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

Incoming data present a mixed picture of the economy going into the third quarter. The labor market remains weak, with both payrolls and hours having fallen in July. However, the spending indicators have been encouraging and, indeed, a bit stronger than we had assumed in the June Greenbook. Household expenditures rose at a solid pace last quarter, and motor vehicle sales moved up briskly in July. Business fixed investment also perked up in the second quarter. Combining these signals with a substantial expected impetus from the federal tax cuts, we continue to think that economic activity is on track to accelerate in the current quarter. We project that real GDP will increase at an annual rate of $3-1 / 2$ percent this quarter, a touch below the June Greenbook forecast.

Looking ahead, we still anticipate an appreciable further pickup in economic activity in response to stimulative fiscal and monetary policies, robust structural productivity growth, and improving business confidence. However, our current outlook that real GDP will increase 4-3/4 percent in 2004 is below our previous projection because financial conditions have become less favorable since midJune. Notably, long-term interest rates have risen slightly more than 1 percentage point, broad indexes of equity prices have slipped 3-1/2 percent, and the foreign exchange value of the dollar has appreciated about 2 percent.

Recent advances in productivity have been impressive, even allowing for persistent business caution in hiring and for a confluence of unusual forces that boosted productivity growth in the nonfarm business sector in the second quarter. ${ }^{1}$ These productivity gains affirm our view that structural productivity and potential output are on a strong uptrend. However, actual output rises even more rapidly than potential in our forecast, and we expect the unemployment rate to move down to 5.5 percent by the end of 2004-a bit above our previous projection.

Price inflation was low last quarter. Core inflation should be somewhat higher in the second half of the year than in the first half because some of the special factors that pushed down inflation earlier this year seem unlikely to recur. Over time, however, slack resource utilization keeps inflation on a downward trajectory. All told, we project that core PCE prices will rise 1.1 percent in 2003 and 0.9 percent in 2004.

## Key Background Factors

We assume that the federal funds rate will remain at 1 percent through the end of 2004, the same path as in the June Greenbook. In contrast, futures quotes

[^1]suggest that market participants now expect the FOMC to begin tightening policy early next year and that they anticipate that the funds rate will exceed 2 percent by year-end. The market's expected path for the funds rate in 2004 and beyond is currently much steeper than it was at the time of the June Greenbook.

Yields on long-term Treasuries and high-grade private debt have moved up more than 1 percentage point since mid-June. We assume that rates will increase a bit further through the end of this year, in accordance with the normal upward drift when short-term yields are forecast to rise over time. However, we anticipate that, in 2004, market participants will gradually come to share our expectation of a flatter trajectory for the funds rate. We assume that long-term rates will decline as this learning process occurs but will remain above the path in the last Greenbook.

Broad indexes of equity prices are down about 3-1/2 percent, on balance, since the June Greenbook, reflecting the run-up in long-term interest rates offset partly by an apparent narrowing of the equity premium. Because we had assumed instead that a slight appreciation would occur, we have lowered the starting point of our assumed path for future stock prices by 4-1/4 percent. Consistent with previous projections, we assume that stock prices will rise at a pace that roughly equates the risk-adjusted return on equities to that on longterm Treasury securities; given the current level of long-term rates, this arbitrage assumption implies a rise of about 6-3/4 percent in stock prices at an annual rate.

As in the last Greenbook, we expect that federal fiscal policy will provide a substantial stimulus to economic activity in the second half of 2003 and in 2004. Withholding tables incorporating the personal tax reductions have been published, and the mailing of the "advance refund" checks for the enhanced child tax credit will be completed on Friday, August 8. The House and the Senate have passed different bills increasing the refundability of the child credit; we assume that a bill accomplishing this objective will be enacted, resulting in a $\$ 2$ billion reduction in 2004 taxes. Federal outlays soared in the second quarter, and we have boosted our forecast of future outlays-including an additional $\$ 1-1 / 2$ billion per month for occupation costs in Iraq, in line with the latest indications from the Defense Department.

We expect a federal deficit of $\$ 406$ billion in the current fiscal year and $\$ 482$ billion in fiscal year 2004. ${ }^{2}$ This estimate for 2004 is nearly $\$ 60$ billion larger than our forecast in the June Greenbook, owing importantly to the weaker economic outlook but also to changes in policy assumptions and technical factors. The staff's measure of fiscal impetus is about 1-1/4 percent of GDP in both 2003 and 2004. Meanwhile, the budgets of state and local governments remain under considerable pressure. Even so, restraint in spending and increases in taxes and fees by these governments are likely to offset only a small part of the federal fiscal stimulus this year and next.

In response to the appreciation of the dollar since the June Greenbook, we have shifted up the projected path of the real trade-weighted exchange rate by $2-1 / 4$ percent. As in our previous projection, we assume some modest depreciation over the forecast period. Our outlook for foreign GDP growth is little changed since the last Greenbook; we still anticipate that trade-weighted foreign growth will be about $1-1 / 2$ percent this year and about $3-1 / 2$ percent next year.

The spot price of West Texas intermediate (WTI) crude oil stands close to $\$ 32$ per barrel, about $\$ 1$ per barrel above its level at the time of the June Greenbook. Moreover, futures prices have moved up, as market participants have come to expect a slower recovery of Iraqi oil production, and we have raised our forecast accordingly. We now project that the price per barrel of WTI will edge down to $\$ 31.40$ in the fourth quarter of 2003 ( $\$ 3.75$ above our previous projection) and $\$ 26.40$ in the fourth quarter of 2004 (nearly $\$ 2$ above our previous projection).

## Recent Developments and the Near-Term Outlook

Economic activity in the second quarter turned out to be stronger than we had estimated in the June Greenbook. Incorporating data released since the BEA's advance report, we now estimate that real GDP rose at an annual rate of 2-1/2 percent and that real final demand by households and businesses increased at an annual rate of 4 percent. The limited data that we have in hand for July are mixed, with continued softness in the labor market, stasis in manufacturing output, and glimmers of strength in consumer spending. It bears emphasizing that the acceleration in output anticipated for the second half of the year remains a matter of forecast, not data.

[^2]Summary of the Near-Term Outlook
(Percent change at annual rate except as noted)

| Measure | 2003:Q2 |  | 2003:Q3 |  |
| :---: | :---: | :---: | :---: | :---: |
|  | June GB | August GB | June GB | August <br> GB |
| Real GDP | 1.5 | 2.6 | 3.8 | 3.6 |
| Private domestic final purchases | 1.9 | 4.0 | 3.7 | 3.9 |
| Personal consumption expenditures | 2.1 | 3.3 | 3.8 | 3.3 |
| Residential investment | -3.9 | 5.3 | 1.8 | 6.1 |
| Business fixed investment | 3.2 | 7.6 | 3.7 | 7.0 |
| Government outlays for consumption and investment | 7.0 | 8.2 | 5.2 | 3.5 |
|  | Contribution to growth (percentage points) |  |  |  |
| Inventory investment | -. 5 | -. 7 | -. 5 | -. 4 |
| Net exports | -. 9 | -1.5 | . 1 | -. 1 |

The labor market has been weaker than we projected. After dropping 71,000 in June, private payroll employment fell 34,000 in July. The workweek also ticked down last month. However, initial claims for unemployment insurance fell in July to their lowest level since the winter, and we expect that private payrolls will stabilize over the next two months. We believe that significant growth in aggregate demand by the fall will raise business confidence in the durability of the recovery and thereby generate an appreciable pickup in hiring in the fourth quarter.

Manufacturing production climbed nearly $1 / 2$ percent in June but appears to have only held steady in July. Motor vehicle assemblies increased last month, but other manufacturing output seems to have reversed much of its June rise. Nonetheless, recent surveys of purchasing managers have been encouraging, which bodes well for the remainder of the quarter.

On the spending side, real consumer outlays rose at an annual rate of 3-1/4 percent in the second quarter, as a result of a very large gain in motor vehicle purchases and a modest increase in expenditures for other items. The limited information we have on consumer spending in July is favorable: Unit sales of light vehicles strengthened, and reports suggest that chain-store sales rose briskly. In our forecast, consumer spending rises at a pace of $3-1 / 2$ percent in the second half of the year, with household outlays for motor vehicles leveling off and other outlays posting a large increase that is spurred by a recovering labor market and stimulus from the personal tax cuts.

Single-family housing starts finished the second quarter on a strong note, reaching their fastest pace since January. However, the rise in mortgage rates since June should weigh on housing demand, and we expect starts to drop back a little despite the overall strengthening of activity. We now forecast spending in this category to increase at an annual rate of 2-1/2 percent in the second half of the year, compared with the $7-1 / 2$ percent average rate in the first half.

Real business spending on equipment and software climbed at an estimated annual rate of 7-3/4 percent in the second quarter, its fastest pace in three years. Although aircraft spending slumped and business outlays for motor vehicles rose only modestly, expenditures moved up for high-tech equipment and software and for other types of equipment. Anecdotal evidence and surveys of capital spending plans are a bit more upbeat than in the past but still suggest that businesses are wary of committing to new projects. Thus we believe that investment demand outside motor vehicles is likely to remain subdued in the second half of this year.

Construction of nonresidential structures rose last quarter for the first time since late 2001. The buildings component posted a solid gain, but high vacancy rates seem likely to push spending in this category down again in the second half of the year. Outlays for drilling and mining structures rose smartly in the second quarter, and we anticipate that the elevated prices of crude oil and natural gas will induce further advances in the second half.

The rise in real GDP last quarter was held down $3 / 4$ percentage point by a runoff in business inventories. We expect that businesses will be hesitant to ramp up production in the second half of the year until they believe that the pickup in sales will persist; this expectation implies a further substantial liquidation. However, by year-end the declines in inventories should bottom out, and inventory investment should be contributing to the growth of output.

Because of a jump in defense outlays, real federal spending surged at an annual rate of 25 percent in the second quarter. Our projection includes an increase of $7-1 / 2$ percent (annual rate) in the second half of 2003, with continued strong growth in defense outlays and moderate gains in nondefense spending. At the state and local level, real expenditures are expected to change little over the remainder of the year.

A sharp decline in real net exports arithmetically deducted 1-1/2 percentage points from real GDP growth last quarter. Real exports fell at an annual rate of 3 percent, but we expect that a pickup in foreign output, a recovery of travel and related services, and continuing effects of past dollar depreciation will propel export growth to a 9 percent pace in the second half of the year. Real imports increased at an annual rate of 9 percent in the second quarter, a faster pace than
we had expected in the June Greenbook; we anticipate that the rate of import growth will moderate to $6-1 / 4$ percent for the rest of this year. Because imports are much larger than exports, this differential in projected growth rates implies that net exports will be a neutral influence on real GDP growth in the second half.

Core PCE prices rose at an annual rate of only 1.2 percent in the second quarter and 1.0 percent for the first half. However, in the past six months we saw sharp decelerations in owners' equivalent rent and the prices of new vehicles and other items that are likely to be reversed to some extent in coming months. Therefore, we anticipate that core PCE inflation will run at 1.3 percent in the second half of the year. Overall PCE prices increased at an annual rate of 0.9 percent in the second quarter, as energy prices reversed part of their first-quarter run-up.

## The Longer-Term Outlook for the Economy

We expect output, driven by expansionary fiscal policy, still-supportive financial conditions, and rapid structural productivity growth, to increase $4-3 / 4$ percent in 2004. As businesses gain confidence that a sustainable expansion is under way, the caution that seems to have recently held back employment and investment should wane. Nonetheless, we have marked down our projected 2004 growth rate by $1 / 2$ percentage point since the last Greenbook, primarily because of the increase in long-term interest rates but also because of the recent appreciation of the dollar and decline in stock prices.

Household spending. Our forecast calls for real consumer spending to increase 4-1/4 percent in 2004, a pace faster than that for the second half of 2003 and a shade below the June Greenbook projection. Buoyed by the tax cuts, a stronger labor market, and the positive influence of productivity growth on compensation, real disposable income should move up briskly, at 5 percent. Moreover, the assumed rise in equity prices should increasingly offset the damping effect on spending of previous equity-price declines.

We expect that real residential investment will rise 4 percent next year. Although the factors bolstering consumer spending in 2004 should also support the demand for housing, the recent run-up in mortgage rates will provide an unfavorable overlay. We now project that single-family starts will equal 1.45 million units next year, only a little above this year's expected pace of 1.41 million units. In light of the high vacancy rate for multifamily housing and continuing softness in rents, we are forecasting that multifamily starts will just edge up to 340,000 units next year from the 330,000 units projected for this year.

| Projections of Real GDP <br> (Percent change at annual rate from end of preceding period except as noted) |  |  |  |
| :---: | :---: | :---: | :---: |
| Measure | 2003 |  | 2004 |
|  | H1 | H2 |  |
| Real GDP | 2.0 | 4.0 | 4.8 |
| Previous | 1.5 | 4.2 | 5.3 |
| Final sales | 2.8 | 3.8 | 4.2 |
| Previous | 2.1 | 4.5 | 4.5 |
| PCE | 2.7 | 3.4 | 4.3 |
| Previous | 2.0 | 4.2 | 4.6 |
| Residential investment | 7.6 | 2.5 | 4.1 |
| Previous | 3.2 | 3.5 | 4.7 |
| BFI | 1.4 | 7.1 | 13.0 |
| Previous | -1.3 | 4.5 | 14.3 |
| Government purchases | 4.2 | 3.0 | 1.2 |
| Previous | 3.7 | 3.5 | . 8 |
| Exports | -2.2 | 9.1 | 9.1 |
| Previous | -1.6 | 8.6 | 9.6 |
| Imports | 1.1 | 6.2 | 10.2 |
| Previous | -. 6 | 4.3 | 10.4 |
|  | Contribution to growth, percentage points |  |  |
| Inventory change | -. 8 | . 2 | . 6 |
| Previous | -. 5 | -. 3 | . 8 |
| Net exports | -. 4 | . 0 | -. 6 |
| Previous | -. 1 | . 2 | -. 6 |

Business spending. We are looking for a pronounced pickup in business investment in equipment and software in 2004, with real outlays rising 16-1/4 percent, compared with a 9-3/4 percent pace in the second half of 2003. In our forecast, the increase in investment is driven by accelerating business output as well as by a cost of capital that is held down by historically low
interest rates, the cuts in dividend and capital gains taxes, and the partial expensing tax provision. ${ }^{3}$

In contrast to this sharp rise in E\&S spending, we have written down only a small increase in business construction spending next year. Outside the drilling and mining sector, the fundamentals remain bleak, suggesting that a sustained expansion is still some way off. Indeed, we do not anticipate that real investment in nonresidential buildings will turn upward until the second half of 2004.

Given our outlook for strong final sales and a further substantial runoff in inventories during the second half of this year, we see the ratio of inventories to sales falling well below its apparent trend. We expect that stockbuilding will resume next year and that the inventory-sales ratio will essentially stabilize. The step-up in inventory investment is projected to contribute more than $1 / 2$ percentage point to GDP growth in 2004.

Government spending. We forecast that real federal outlays, after increasing 10 percent in 2003, will be about flat in 2004. Defense spending, which is rising sharply this year, should peak early next year and then slip a bit. Nondefense spending is expected to rise at roughly the same pace-$3-1 / 2$ percent - this year and next.

The budget pressures facing state and local governments are likely to ease only slowly as the economy gains speed. As a result, we anticipate that real outlays in this sector will move up 1-1/2 percent next year-an increase better than the nearly flat profile we expect to see in 2003 but well below the increases in 2000 and 2001.

Net exports. The projected acceleration in foreign economic activity in 2004, together with the effects of the past and projected depreciation of the dollar, should support a 9 percent gain in real U.S. exports. U.S. imports are expected to rise 10-1/4 percent next year, as the effect of a weakening dollar only slightly offsets the influence of burgeoning domestic demand. All told, net exports should arithmetically deduct roughly $1 / 2$ percentage point from the increase in GDP next year. (The International Developments section provides more detail on the outlook for the external sector.)

[^3]| Decomposition of Structural Labor Productivity <br> (Percent change, Q4 to Q4, except as noted) |  |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Measure | $1973-$ <br> 95 | $1996-$ <br> 99 | 2000 | 2001 | 2002 | 2003 | 2004 |
| Structural labor productivity | 1.4 | 2.5 | 2.6 | 1.8 | 2.3 | 2.2 | 2.3 |
| $\quad$ Previous | 1.4 | 2.5 | 2.6 | 1.8 | 2.3 | 2.2 | 2.3 |
| Contributions $^{1}$ |  |  |  |  |  |  |  |
| Capital deepening $^{\text {Previous }}$ | .6 | 1.3 | 1.2 | .5 | .4 | .4 | .6 |
| Multifactor productivity | .6 | 1.3 | 1.2 | .5 | .4 | .3 | .6 |
| $\quad$ Previous | .6 | 1.0 | 1.1 | 1.1 | 1.7 | 1.6 | 1.4 |
| Labor composition | .6 | 1.0 | 1.1 | 1.1 | 1.7 | 1.6 | 1.4 |
| MEMO | .3 | .3 | .3 | .3 | .3 | .3 | .3 |
| Potential GDP |  |  |  |  |  |  |  |
| $\quad$ Previous | 2.9 | 3.5 | 3.7 | 2.9 | 3.3 | 3.1 | 3.2 |

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

1. Percentage points.

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

Slack in labor and product markets continued to widen in the second quarter. However, with actual output rising more rapidly than potential output over the projection period, the output gap should narrow, and the unemployment rate should fall. Even so, the underutilization of resources in our projection should continue to exert downward pressure on the inflation rate through next year.

Productivity and the labor market. Output per hour in the nonfarm business sector appears to have increased at an annual rate of 6-1/4 percent in the second quarter. We interpret this sizable advance as reflecting robust growth in structural productivity, hesitancy by businesses to hire workers or increase hours in the face of an uncertain recovery, and some unusual factors noted earlier. We have not changed our estimate of either structural productivity or potential output growth in this Greenbook. ${ }^{4}$

[^4]The Outlook for the Labor Market
(Percent change, Q4 to Q4, except as noted)

| Measure | 2001 | 2002 | 2003 | 2004 |
| :--- | ---: | ---: | ---: | ---: |
| Output per hour, nonfarm business | 1.9 | 4.1 | 3.2 | .7 |
| $\quad$ Previous | 1.9 | 4.1 | 2.6 | 1.5 |
| Nonfarm private payroll employment | -1.7 | -.7 | .0 | 3.9 |
| $\quad$ Previous | -1.7 | -.7 | .5 | 4.1 |
| Household survey employment $^{\text {Previous }}$ | -.8 | .3 | 1.2 | 2.9 |
| Labor force participation rate $^{1}$ | -.8 | .3 | 1.3 | 2.9 |
| $\quad$ Previous | 66.8 | 66.5 | 66.4 | 66.9 |
| Civilian unemployment rate $^{1}$ | 66.8 | 66.5 | 66.4 | 66.9 |
| $\quad$ Previous | 5.6 | 5.9 | 6.2 | 5.5 |

1. Percent, average for the fourth quarter.

With business caution waning in coming quarters, we see employment and the workweek turning up strongly by the end of the year. Job gains are projected to exceed 350,000 per month in 2004, enough to reduce the growth rate of productivity below its underlying structural pace. The unemployment rate drops appreciably next year in our forecast despite a rise in labor force participation induced by improving labor market conditions. Still, with a somewhat weaker output path than in the June Greenbook, our current projection of the unemployment rate at the end of 2004, at 5.5 percent, is slightly higher.

Prices. We expect that core PCE prices will rise 1.1 percent in 2003 and 0.9 percent in 2004, compared with 1.6 percent in 2002. Slack resource utilization contributes importantly to the decline in inflation both this year and next. Overall PCE prices are projected to rise 1.6 percent this year and 0.7 percent next year. The more-pronounced deceleration compared with the core measure reflects mainly the unwinding of the sharp increase in energy prices earlier this year.

Over the twelve months ending in June 2003, the employment cost index increased $3-1 / 2$ percent. We expect the wages and salaries component of the index to extend its recent deceleration into 2004, and we anticipate that the benefits component will slow a little next year from its recent pace but continue to increase more rapidly than wages and salaries. Altogether, we project that the overall ECI will rise 3.8 percent in 2003 and 3.1 percent in 2004.

| Inflation Projections |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: |
| (Percent change, Q4 to Q4, except as noted) |  |  |  |  |
| Measure | 2001 | 2002 | 2003 | 2004 |
| PCE chain-weighted price index | 1.5 | 1.8 | 1.6 | .7 |
| Previous | 1.5 | 1.8 | 1.3 | .8 |
| Food and beverages | 3.1 | 1.4 | 2.0 | 1.3 |
| Previous | 3.1 | 1.4 | 1.9 | 1.4 |
| Energy | -10.3 | 7.0 | 8.2 | -5.5 |
| Previous | -10.3 | 7.0 | 3.9 | -2.9 |
| Excluding food and energy | 1.9 | 1.6 | 1.1 | .9 |
| $\quad$ Previous | 1.9 | 1.6 | 1.0 | .9 |
| Consumer price index | 1.8 | 2.2 | 1.9 | .9 |
| Previous | 1.8 | 2.2 | 1.7 | 1.2 |
| Excluding food and energy | 2.7 | 2.1 | 1.3 | 1.3 |
| $\quad$ Previous | 2.7 | 2.1 | 1.5 | 1.4 |
| GDP chain-weighted price index | 2.0 | 1.3 | 1.3 | 1.0 |
| Previous | 2.0 | 1.3 | 1.2 | 1.1 |
| ECI for compensation of private |  |  |  |  |
| industry workers ${ }^{1}$ | 4.2 | 3.2 | 3.8 | 3.1 |
| Previous | 4.2 | 3.2 | 3.7 | 3.1 |
| NFB compensation per hour | 1.4 | 2.4 | 3.2 | 2.7 |
| Previous | 1.4 | 3.1 | 3.4 | 2.7 |
| Prices of core non-oil |  |  |  |  |
| merchandise imports | -2.9 | .7 | 2.0 | 1.2 |
| Previous | -2.9 | .7 | 3.7 | 1.1 |
| D |  |  |  |  |

1. December to December.

## Financial Flows and Conditions

The outlook for growth in domestic nonfinancial-sector debt over the second half of 2003 is somewhat weaker than it was in our last forecast, as the sharp rise in long-term interest rates is expected to reduce the volume of borrowing by households, businesses, and state and local governments. This restraint persists into the first half of 2004 but is offset by an upward revision in federal borrowing prompted by the anticipated deterioration in the budget outlook. Overall, we project that total nonfinancial-sector debt will expand 7-3/4 percent in 2003 and 7 percent in 2004.

The jump in long-term interest rates has led us to revise down our projection for household debt growth to $8-1 / 4$ percent in 2003 and 6-3/4 percent in 2004, with
the bulk of the revision occurring by early next year. The rise in mortgage rates should depress refinancings, and the associated reduction in cash-outs holds down the growth of home mortgage debt. In contrast, consumer credit growth has been nudged upward owing to slightly more spending on consumer durables than previously forecast and the reduced relative attractiveness of mortgage financing. Households take on less debt in this forecast but face higher interest rates, and on balance, we anticipate that the debt service burden will decline less on net than we projected in the last Greenbook.

Our forecast of borrowing by nonfinancial businesses has been revised down somewhat over the remainder of this year. Given the solid growth in earnings to date, businesses are expected to rely less on external funding through year-end than we previously forecast, despite a small markup in capital expenditures. In addition, with long-term rates up, bond issuance is anticipated to ebb and the runoff in short-term financing to slow in the second half of this year. On balance, we project that nonfinancial business debt will grow 4 percent this year and 5 percent in 2004, up from 3 percent in 2002.

Federal debt is expected to swell more than previously projected-about 12 percent per year on average over 2003 and 2004, up 1 percentage point from the last Greenbook. In the state and local sector, debt expanded at a pace of nearly 15 percent over the first half of this year. Our projection calls for a slowing over the second half of this year and into next year that is steeper than previously forecast, as the backup in long-term rates is likely to dramatically reduce the volume of advance refunding activity.

M2 growth for the year has been marked up to 8 percent, largely on the strength of incoming data. In the near term, M2 is expected to continue to expand briskly relative to nominal income growth, fueled by households' ongoing adjustment to the near-zero opportunity cost of holding M2 assets, the bulge in deposits related to mortgage-refinancing activity, and the recent changes to personal income taxes (namely, the reduction in withholdings and the rebate checks for the child tax credit). Next year the expansion of M2 is expected to be slower than that of nominal income, as the jump in long-term interest rates leads to an unwinding of the mortgage-related bulge in deposits while households complete their adjustment to the low opportunity cost.

## Alternative Simulations

In this section we explore several risks to the staff forecast using simulations of the FRB/US model. The first pair focuses on aggregate supply factors, with one assuming faster growth of structural productivity and the other a lower NAIRU. We then consider two aggregate demand scenarios. The first assumes a moresubdued rebound of business investment in 2004 whereas the second posits a smaller response of consumption to the current round of tax cuts. The next
scenario assumes that the intermeeting run-up in bond rates is largely reversed by the end of this year. In each of these scenarios, the federal funds rate follows the baseline path. In the final scenario, the funds rate is assumed to follow a path consistent with current readings from the futures market.

Faster structural productivity growth. Our baseline assumption is that the robust gains in output per hour over recent years reflect a faster pace of structural productivity growth as well as an unusual degree of caution in firms' hiring decisions as a result of uncertain prospects for sales. This alternative scenario is based on a different interpretation, according to which nearly all of the gains in output per hour in recent years have been structural. In particular, structural productivity rises $1 / 2$ percentage point per year faster than in the baseline since 2000, an increment that is assumed to carry over to the projection period. As households and firms gradually learn about the more-durable basis of past productivity gains and about the faster pace of underlying growth, consumption and investment outlays rise, pushing GDP growth in 2004 more than $1 / 2$ percentage point above baseline, to $5-1 / 2$ percent. Over the projection period, actual labor productivity rises only a bit more slowly than the augmented pace of structural growth and thus decelerates much less substantially than in the baseline. As a result, the unemployment rate declines just to 5-3/4 percent by the end of 2004. Reflecting both this greater slack in labor markets and the improvement in unit labor costs, relative to baseline, core PCE inflation falls to $1 / 2$ percentage point in the second half of next year.

Low NAIRU. This scenario considers the possibility that the staff's estimate of the NAIRU is too high and, as an alternative, assumes that the NAIRU is currently-and has been for some time- $4-1 / 4$ percent. The lower NAIRU puts downward pressure on prices, and core PCE inflation falls to near $1 / 2$ percent by the end of 2004.

Prolonged subpar investment. This scenario assumes that the pessimism and caution restraining business fixed investment and business investment in inventories persist throughout 2004, rather than dissipating by early in the year. In particular, the contribution of business investment to the pickup in GDP growth in 2004 is set equal to one-half of the nearly 2 percentage point contribution in the baseline. In 2004, these assumptions cut 3/4 percentage point off actual GDP growth, shave 0.1 percentage point off potential growth, and add 0.3 percentage point to the year-end level of the unemployment rate. Inflation, which responds to resource utilization with a lag, is unchanged from baseline in 2004 but would be lower than baseline if the simulation were extended through 2005.

Weaker fiscal response. The recently enacted tax cuts are a significant stimulus to consumer spending in the staff forecast. A downside risk, however,

## Alternative Simulations

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

| Measure | 2003 |  |  | 2004 |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Q2 | Q3 | Q4 | H1 | H2 |
| Real GDP |  |  |  |  |  |
| Greenbook Baseline | 2.6 | 3.6 | 4.4 | 4.8 | 4.8 |
| Faster structural productivity growth | 2.6 | 3.7 | 4.8 | 5.4 | 5.5 |
| Low NAIRU | 2.6 | 3.7 | 4.4 | 4.9 | 4.9 |
| Prolonged subpar investment | 2.6 | 3.6 | 4.4 | 4.0 | 3.9 |
| Weaker fiscal response | 2.6 | 3.0 | 3.9 | 4.6 | 4.7 |
| Lower bond yields | 2.6 | 3.6 | 4.4 | 6.0 | 5.7 |
| Market-based funds rate | 2.6 | 3.6 | 4.4 | 4.8 | 4.5 |
| Civilian unemployment rate ${ }^{1}$ |  |  |  |  |  |
| Greenbook Baseline | 6.2 | 6.3 | 6.2 | 5.9 | 5.5 |
| Faster structural productivity growth | 6.2 | 6.3 | 6.3 | 6.1 | 5.8 |
| Low NAIRU | 6.2 | 6.3 | 6.2 | 5.9 | 5.4 |
| Prolonged subpar investment | 6.2 | 6.3 | 6.2 | 6.0 | 5.8 |
| Weaker fiscal response | 6.2 | 6.3 | 6.3 | 6.1 | 5.7 |
| Lower bond yields | 6.2 | 6.3 | 6.2 | 5.7 | 5.0 |
| Market-based funds rate | 6.2 | 6.3 | 6.2 | 5.9 | 5.6 |
| PCE prices excluding food and energy |  |  |  |  |  |
| Greenbook Baseline | 1.2 | 1.4 | 1.2 | 1.0 | . 9 |
| Faster structural productivity growth | 1.2 | 1.4 | 1.1 | . 8 | . 5 |
| Low NAIRU | 1.2 | 1.4 | 1.1 | . 8 | . 6 |
| Prolonged subpar investment | 1.2 | 1.4 | 1.2 | 1.0 | . 9 |
| Weaker fiscal response | 1.2 | 1.4 | 1.2 | 1.0 | . 8 |
| Lower bond yields | 1.2 | 1.4 | 1.2 | 1.1 | 1.0 |
| Market-based funds rate | 1.2 | 1.4 | 1.2 | 1.0 | . 9 |

1. Average for the final quarter of the period.
is that the response of consumption will be more modest, perhaps in light of continued uncertainties about employment and income prospects. In this scenario, households save their tax rebates and are only half as responsive to the other tax provisions as in the baseline. Consequently, annualized GDP growth is $1 / 2$ percentage point below baseline in the second half of this year and $1 / 4$ percentage point below baseline in 2004.

Lower bond yields. The baseline projection assumes that over 2004 the absence of any policy tightening will cause bond yields to gradually give back a good deal of their recent run-up. In this alternative scenario, the reversal occurs much more rapidly: Relative to baseline, bond yields are almost 100 basis points lower by the end of this year and 30 basis points lower at the end of next
year. The change in bond rates boosts the stock market about 15 percent above baseline later this year, a difference that narrows over 2004. Stimulated by stronger consumption-via a higher stock market-and interest-sensitive expenditures, GDP growth surges to 6 percent in the first half of next year, and by year-end the unemployment rate falls to 5 percent.

Market-based funds rate. Futures markets are consistent with the federal funds rate rising above 2 percent by the end of 2004, well above the path assumed in the baseline. However, most of the divergence occurs in late 2004, too late to have much effect on output and inflation within the forecast period.
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Strictly Confidential <FR> Class II FOMC

STAFF PROJECTIONS OF CHANGES IN GDP, PRICES, AND UNEMPLOYMENT (Percent, annual rate)

| Interval |  | Nominal GDP |  | Real GDP |  | GDP chain-weighted price index |  | Consumer price index ${ }^{1}$ |  | Unemployment rate ${ }^{2}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 06/18/03 | 08/06/03 | 06/18/03 | 08/06/03 | 06/18/03 | 08/06/03 | 06/18/03 | 08/06/03 | 06/18/03 | 08/06/03 |
| ANNUAL |  |  |  |  |  |  |  |  |  |  |  |
| 2001 |  | 2.6 | 2.6 | 0.3 | 0.3 | 2.4 | 2.4 | 2.8 | 2.8 | 4.8 | 4.8 |
| 2002 |  | 3.6 | 3.6 | 2.4 | 2.4 | 1.1 | 1.1 | 1.6 | 1.6 | 5.8 | 5.8 |
| 2003 |  | 3.8 | 3.9 | 2.3 | 2.4 | 1.5 | 1.5 | 2.2 | 2.3 | 6.1 | 6.1 |
| 2004 |  | 5.9 | 5.5 | 4.8 | 4.4 | 1.1 | 1.0 | 1.1 | 1.1 | 5.8 | 5.8 |
| QUARTERLY |  |  |  |  |  |  |  |  |  |  |  |
| 2001 | Q1 | 3.0 | 3.0 | -0.6 | -0.6 | 3.7 | 3.7 | 4.0 | 4.0 | 4.2 | 4.2 |
|  | Q2 | 0.9 | 0.9 | -1. 6 | -1. 6 | 2.5 | 2.5 | 3.2 | 3.2 | 4.4 | 4.4 |
|  | Q3 | 1.9 | 1.9 | -0.3 | -0.3 | 2.2 | 2.2 | 0.9 | 0.9 | 4.8 | 4.8 |
|  | Q4 | 2.2 | 2.2 | 2.7 | 2.7 | -0.5 | -0.5 | -0.7 | -0.7 | 5.6 | 5.6 |
| 2002 | Q1 | 6.5 | 6.5 | 5.0 | 5.0 | 1.3 | 1.3 | 1.4 | 1.4 | 5.6 | 5.6 |
|  | Q2 | 2.5 | 2.5 | 1.3 | 1.3 | 1.2 | 1.2 | 3.4 | 3.4 | 5.9 | 5.9 |
|  | Q3 | 5.1 | 5.1 | 4.0 | 4.0 | 1.0 | 1.0 | 2.2 | 2.2 | 5.8 | 5.8 |
|  | Q4 | 3.2 | 3.2 | 1.4 | 1.4 | 1.8 | 1.8 | 2.0 | 2.0 | 5.9 | 5.9 |
| 2003 | Q1 | 4.1 | 3.8 | 1.6 | 1.4 | 2.5 | 2.4 | 3.8 | 3.8 | 5.8 | 5.8 |
|  | Q2 | 2.4 | 3.6 | 1.5 | 2.6 | 0.9 | 1.0 | 0.6 | 0.7 | 6.1 | 6.2 |
|  | Q3 | 4.3 | 4.6 | 3.8 | 3.6 | 0.4 | 0.9 | 1.4 | 1.9 | 6.2 | 6.3 |
|  | Q4 | 5.7 | 5.5 | 4.6 | 4.4 | 1.1 | 1.0 | 1.0 | 1.4 | 6.1 | 6.2 |
| 2004 | Q1 | 6.8 | 6.2 | 5.3 | 4.8 | 1.5 | 1.3 | 1.1 | 0.8 | 6.0 | 6.0 |
|  | Q2 | 6.4 | 5.8 | 5.3 | 4.8 | 1.0 | 0.9 | 1.2 | 0.8 | 5.9 | 5.9 |
|  | Q3 | 6.4 | 5.8 | 5.4 | 4.8 | 1.0 | 0.9 | 1.2 | 1.0 | 5.7 | 5.8 |
|  | Q4 | 6.4 | 5.7 | 5.4 | 4.8 | 0.9 | 0.9 | 1.1 | 1.0 | 5.4 | 5.5 |
| TWO-QUARTER ${ }^{3}$ |  |  |  |  |  |  |  |  |  |  |  |
| 2001 | Q2 | 1.9 | 1.9 | -1.1 | -1.1 | 3.1 | 3.1 | 3.5 | 3.5 | 0.5 | 0.5 |
|  | Q4 | 2.1 | 2.1 | 1.2 | 1.2 | 0.8 | 0.8 | 0.2 | 0.2 | 1.2 | 1.2 |
| 2002 | Q2 | 4.5 | 4.5 | 3.1 | 3.1 | 1.3 | 1.3 | 2.4 | 2.4 | 0.3 | 0.3 |
|  | Q4 | 4.1 | 4.1 | 2.7 | 2.7 | 1.4 | 1.4 | 2.1 | 2.1 | 0.0 | 0.0 |
| 2003 | Q2 | 3.3 | 3.7 | 1.5 | 2.0 | 1.7 | 1.7 | 2.2 | 2.2 | 0.2 | 0.3 |
|  | Q4 | 5.0 | 5.0 | 4.2 | 4.0 | 0.8 | 1.0 | 1.2 | 1.6 | 0.0 | 0.0 |
| 2004 | Q2 | 6.6 | 6.0 | 5.3 | 4.8 | 1.3 | 1.1 | 1.2 | 0.8 | -0.2 | -0.3 |
|  | Q4 | 6.4 | 5.7 | 5.4 | 4.8 | 1.0 | 0.9 | 1.2 | 1.0 | -0. 5 | -0.4 |
| FOUR-QUARTER ${ }^{4}$ |  |  |  |  |  |  |  |  |  |  |  |
| 2001 | Q4 | 2.0 | 2.0 | 0.1 | 0.1 | 2.0 | 2.0 | 1.8 | 1.8 | 1.7 | 1.7 |
| 2002 | Q4 | 4.3 | 4.3 | 2.9 | 2.9 | 1.3 | 1.3 | 2.2 | 2.2 | 0.3 | 0.3 |
| 2003 | Q4 | 4.1 | 4.4 | 2.9 | 3.0 | 1.2 | 1.3 | 1.7 | 1.9 | 0.2 | 0.3 |
| 2004 | Q4 | 6.5 | 5.9 | 5.3 | 4.8 | 1.1 | 1.0 | 1.2 | 0.9 | -0.8 | -0.7 |

[^5]| Item | Units ${ }^{1}$ | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | $\begin{gathered} - \text { - Proje } \\ 2003 \end{gathered}$ | $\begin{gathered} \text { Ied - - } \\ 2004 \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| EXPENDITURES |  |  |  |  |  |  |  |  |  |
| Nominal GDP | Bill. \$ | 8318.4 | 8781.5 | 9274.3 | 9824.6 | 10082.2 | 10446.2 | 10857.3 | 11458.7 |
| Real GDP | Bill. Ch. \$ | 8159.5 | 8508.9 | 8859.0 | 9191.4 | 9214.5 | 9439.9 | 9667.9 | 10097.3 |
| Real GDP | \% change | 4.3 | 4.8 | 4.3 | 2.3 | 0.1 | 2.9 | 3.0 | 4.8 |
| Gross domestic purchases |  | 5.0 | 5.8 | 5.2 | 2.9 | 0.1 | 3.7 | 3.1 | 5.1 |
| Final sales |  | 3.9 | 4.7 | 4.2 | 2.6 | 1.6 | 1.7 | 3.3 | 4.2 |
| Priv. dom. final purchases |  | 5.1 | 6.3 | 5.2 | 3.7 | 0.9 | 2.3 | 3.3 | 5.3 |
| Personal cons. expenditures |  | 4.1 | 5.0 | 5.0 | 3.5 | 2.8 | 2.7 | 3.1 | 4.3 |
| Durables |  | 8.8 | 12.7 | 10.0 | 3.8 | 13.2 | 1.9 | 7.7 | 7.1 |
| Nondurables |  | 2.5 | 5.0 | 4.9 | 3.0 | 1.7 | 3.4 | 4.1 | 5.6 |
| Services |  | 3.9 | 3.6 | 4.0 | 3.8 | 1.3 | 2.5 | 1.7 | 3.1 |
| Business fixed investment |  | 11.8 | 12.3 | 6.6 | 6.2 | -9.3 | -1.7 | 4.2 | 13.0 |
| Equipment \& Software |  | 13.7 | 14.9 | 9.7 | 5.2 | -8.8 | 3.3 | 5.4 | 16.2 |
| Nonres. structures |  | 6.5 | 4.9 | -2. 5 | 9.3 | -10.6 | -15.9 | 0.4 | 2.1 |
| Residential structures |  | 3.5 | 10.0 | 4.0 | -1.2 | 1.0 | 6.7 | 5.0 | 4.1 |
| Exports |  | 8.5 | 2.3 | 4.9 | 7.3 | -11.4 | 3.9 | 3.3 | 9.1 |
| Imports |  | 14.3 | 10.8 | 11.9 | 11.1 | -8.0 | 10.1 | 3.6 | 10.2 |
| Gov't. cons. \& investment |  | 2.4 | 2.7 | 4.5 | 1.3 | 5.1 | 3.6 | 3.6 | 1.2 |
| Federal |  | 0.1 | 0.6 | 4.0 | -1.2 | 7.5 | 7.5 | 9.8 | 0.8 |
| Defense |  | -1.4 | -0.8 | 4.4 | -2.5 | 7.4 | 9.3 | 13.3 | -0.7 |
| State \& local |  | 3.7 | 3.8 | 4.8 | 2.6 | 3.9 | 1.6 | 0.1 | 1.5 |
| Change in bus. inventories | Bill. Ch. \$ | 63.8 | 76.7 | 62.8 | 65.0 | -61.4 | 5.2 | -12.6 | 54.0 |
| Nonfarm |  | 60.6 | 75.0 | 64.1 | 67.2 | -63.2 | 4.1 | -14.1 | 52.7 |
| Net exports |  | -113.3 | -221.1 | -320.5 | -398.8 | -415.9 | -488.5 | -543.2 | -603.0 |
| Nominal GDP | \% change | 6.2 | 6.0 | 5.9 | 4.6 | 2.0 | 4.3 | 4.4 | 5.9 |
| EMPLOYMENT AND PRODUCTION |  |  |  |  |  |  |  |  |  |
| Nonfarm payroll employment | Millions | 122.8 | 125.9 | 129.0 | 131.8 | 131.8 | 130.4 | 130.1 | 133.1 |
| Unemployment rate |  | 4.9 | 4.5 | 4.2 | 4.0 | 4.8 | 5.8 | 6.1 | 5.8 |
| Industrial prod. index | \% change | 8.0 | 4.0 | 4.9 | 2.7 | -5.7 | 1.4 | 1.1 | 7.1 |
| Capacity util. rate - mfg. | \% | 82.7 | 81.9 | 81.4 | 81.4 | 75.6 | 73.7 | 73.1 | 76.8 |
| Housing starts | Millions | 1.47 | 1.62 | 1.64 | 1.57 | 1.60 | 1.71 | 1.73 | 1.79 |
| Light motor vehicle sales |  | 15.07 | 15.41 | 16.78 | 17.24 | 17.02 | 16.70 | 16.53 | 17.16 |
| North Amer. produced |  | 13.14 | 13.39 | 14.30 | 14.38 | 13.94 | 13.42 | 13.16 | 13.60 |
| Other |  | 1.93 | 2.02 | 2.48 | 2.86 | 3.08 | 3.29 | 3.37 | 3.56 |
| INCOME AND SAVING |  |  |  |  |  |  |  |  |  |
| Nominal GNP | Bill. \$ | 8325.4 | 8778.1 | 9297.1 | 9848.0 | 10104.1 | 10436.7 | 10848.9 | 11446.6 |
| Nominal GNP | \% change | 6.0 | 5.8 | 6.4 | 4.6 | 2.1 | 3.8 | 4.4 | 5.8 |
| Nominal personal income |  | 6.3 | 6.7 | 5.1 | 7.7 | 1.4 | 3.6 | 4.1 | 5.7 |
| Real disposable income |  | 3.8 | 5.0 | 2.4 | 4.8 | 0.3 | 5.2 | 3.5 | 5.1 |
| Personal saving rate | \% | 4.2 | 4.7 | 2.6 | 2.8 | 2.3 | 3.7 | 3.8 | 4.7 |
| Corp. profits, IVA \& CCAdj. | \% change | 9.9 | -9.6 | 7.0 | -9.1 | 8.2 | -1.9 | 9.9 | 1.5 |
| Profit share of GNP |  | 10.0 | 8.9 | 8.7 | 8.0 | 7.2 | 7.5 | 7.9 | 7.7 |
| Excluding FR Banks |  | 9.7 | 8.6 | 8.4 | 7.7 | 7.0 | 7.3 | 7.7 | 7.5 |
| Federal surpl./deficit | Bill. \$ | -53.3 | 43.8 | 111.9 | 206.9 | 72.0 | -199.9 | -396.9 | -427.8 |
| State \& local surpl./def. |  | 31.0 | 40.7 | 38.3 | 18.0 | -31.3 | -51.5 | -32.0 | -8.3 |
| Ex. social ins. funds |  | 29.9 | 40.0 | 37.4 | 17.8 | -31.2 | -51.4 | -31.9 | -8. 2 |
| Gross natl. saving rate | \% | 18.0 | 18.8 | 18.3 | 18.4 | 16.5 | 15.0 | 13.7 | 14.5 |
| Net natl. saving rate |  | 6.7 | 7.5 | 6.8 | 6.7 | 3.8 | 1.9 | 0.5 | 1.4 |
| PRICES AND COStS |  |  |  |  |  |  |  |  |  |
| GDP chn.-wt. price index Gross Domestic Purchases chn.-wt. price index | \% change | 1.8 | 1.1 | 1.6 | 2.3 | 2.0 | 1.3 | 1.3 | 1.0 |
|  |  | 1.4 | 0.8 | 1.9 | 2.5 | 1.3 | 1.6 | 1.5 | 0.8 |
| PCE chn.-wt. price index |  | 1.5 | 1.1 | 2.0 | 2.5 | 1.5 | 1.8 | 1.6 | 0.7 |
| Ex. food and energy |  | 1.7 | 1.6 | 1.5 | 1.8 | 1.9 | 1.6 | 1.1 | 0.9 |
| CPI |  | 1.9 | 1.5 | 2.6 | 3.4 | 1.8 | 2.2 | 1.9 | 0.9 |
| Ex. food and energy |  | 2.2 | 2.3 | 2.0 | 2.6 | 2.7 | 2.1 | 1.3 | 1.3 |
| ECI, hourly compensation ${ }^{2}$ |  | 3.4 | 3.5 | 3.4 | 4.4 | 4.2 | 3.2 | 3.8 | 3.1 |
| Nonfarm business sector Output per hour Compensation per Hour Unit labor cost |  |  |  |  |  |  |  |  |  |
|  |  | 2.2 | 2.9 | 2.9 | 2.1 | 1.9 | 4.1 | 3.2 | 0.7 |
|  |  | 3.4 | 5.3 | 4.3 | 7.2 | 1.4 | 2.4 | 3.2 | 2.7 |
|  |  | 1.1 | 2.3 | 1.4 | 4.9 | -0.5 | -1.5 | 0.1 | 1.9 |

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

| Item | Units | $\begin{aligned} & 2001 \\ & \text { Q1 } \end{aligned}$ | $\begin{gathered} 2001 \\ \text { Q2 } \end{gathered}$ | $\begin{aligned} & 2001 \\ & \text { Q3 } \end{aligned}$ | $\begin{gathered} 2001 \\ \text { Q4 } \end{gathered}$ | $\begin{aligned} & 2002 \\ & \text { Q1 } \end{aligned}$ | $\begin{aligned} & 2002 \\ & \mathrm{Q} 2 \end{aligned}$ | $\begin{aligned} & 2002 \\ & \text { Q3 } \end{aligned}$ | $\begin{gathered} 2002 \\ \mathrm{Q4} \end{gathered}$ | $\begin{aligned} & 2003 \\ & \mathrm{Q} 1 \end{aligned}$ | $\begin{gathered} \text { Projected } \\ 2003 \\ \text { Q2 } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |  |  |
| EXPENDITURES |  |  |  |  |  |  |  |  |  |  |  |
| Nominal GDP | Bill. \$ | 10028.1 | 10049.9 | 10097.7 | 10152.9 | 10313.1 | 10376.9 | 10506.2 | 10588.8 | 10688.4 | 10783.3 |
| Real GDP | Bill. Ch. \$ | 9229.9 | 9193.1 | 9186.4 | 9248.8 | 9363.2 | 9392.4 | 9485.6 | 9518.2 | 9552.0 | 9614.3 |
| Real GDP | \% change | -0.6 | -1.6 | -0.3 | 2.7 | 5.0 | 1.3 | 4.0 | 1.4 | 1.4 | 2.6 |
| Gross domestic purchases |  | -1.1 | -1.1 | -0.1 | 2.9 | 5.6 | 2.6 | 3.9 | 2.9 | 0.6 | 4.0 |
| Final sales |  | 2.8 | -0.4 | -0.2 | 4.2 | 2.4 | -0.1 | 3.4 | 1.1 | 2.3 | 3.4 |
| Priv. dom. final purchases |  | 1.5 | -1.2 | 0.3 | 3.0 | 2.5 | 1.3 | 3.4 | 2.2 | 1.6 | 4.0 |
| Personal cons. expenditures |  | 2.4 | 1.4 | 1.5 | 6.0 | 3.1 | 1.8 | 4.2 | 1.7 | 2.0 | 3.3 |
| Durables |  | 11.5 | 5.3 | 4.6 | 33.6 | -6.3 | 2.0 | 22.8 | -8.2 | -2.0 | 22.6 |
| Nondurables |  | 2.3 | -0.3 | 1.3 | 3.6 | 7.9 | -0.1 | 1.0 | 5.1 | 6.1 | 0.1 |
| Services |  | 0.6 | 1.5 | 0.9 | 2.1 | 2.9 | 2.7 | 2.3 | 2.2 | 0.9 | 1.5 |
| Business fixed investment |  | -5. 4 | -14.5 | -6.0 | -10.9 | -5. 8 | -2.4 | -0.8 | 2.3 | -4.4 | 7.6 |
| Equipment \& Software |  | -6.3 | -16.7 | -9.2 | -2. 5 | -2.7 | 3.3 | 6.7 | 6.2 | -4.8 | 7.8 |
| Nonres. structures |  | -3.1 | -8.4 | 2.9 | -30.1 | -14.2 | -17.6 | -21.4 | -9.9 | -2.9 | 7.1 |
| Residential structures |  | 8.2 | -0.5 | 0.4 | -3. 5 | 14.2 | 2.7 | 1.1 | 9.4 | 10.1 | 5.3 |
| Exports |  | -6.0 | -12.4 | -17.3 | -9.6 | 3.5 | 14.3 | 4.6 | -5.8 | -1. 3 | -3.0 |
| Imports |  | -7.9 | -6.8 | -11.8 | -5.3 | 8.5 | 22.2 | 3.3 | 7.4 | -6. 2 | 9.1 |
| Gov't. cons. \& investment |  | 5.7 | 5.6 | -1.1 | 10.5 | 5.6 | 1.4 | 2.9 | 4.6 | 0.4 | 8.2 |
| Federal |  | 9.5 | 6.0 | 1.2 | 13.5 | 7.4 | 7.5 | 4.3 | 11.0 | 0.7 | 25.1 |
| Defense |  | 8.3 | 2.7 | 4.6 | 14.3 | 11.6 | 7.8 | 6.9 | 11.0 | -3.3 | 44.1 |
| State \& local |  | 3.8 | 5.4 | -2.3 | 8.9 | 4.6 | -1.7 | 2.2 | 1.2 | 0.2 | -0.5 |
| Change in bus. inventories | Bill. Ch. \$ | -26.9 | -58.3 | -61.8 | -98.4 | -28.9 | 4.9 | 18.8 | 25.8 | 4.8 | -18.4 |
| Nonfarm |  | -32.6 | -54.9 | -63.6 | -101.5 | -35.1 | 4.2 | 20.8 | 26.5 | 3.8 | -17.5 |
| Net exports |  | -404.5 | -414.8 | -419.0 | -425.3 | -446.6 | -487.4 | -488.0 | -532.2 | -510.3 | -552.8 |
| Nominal GDP | \% change | 3.0 | 0.9 | 1.9 | 2.2 | 6.5 | 2.5 | 5.1 | 3.2 | 3.8 | 3.6 |
| EMPLOYMENT AND PRODUCTION |  |  |  |  |  |  |  |  |  |  |  |
| Nonfarm payroll employment | Millions | 132.5 | 132.2 | 131.7 | 130.9 | 130.5 | 130.4 | 130.2 | 130.3 | 130.2 | 130.0 |
| Unemployment rate | \% | 4.2 | 4.4 | 4.8 | 5.6 | 5.6 | 5.9 | 5.8 | 5.9 | 5.8 | 6.2 |
| Industrial prod. index | \% change | -6.1 | -6.1 | -4.6 | -5.8 | 1.4 | 4.4 | 3.4 | -3.4 | 0.3 | -3.2 |
| Capacity util. rate - mfg. |  | 77.9 | 76.1 | 74.8 | 73.4 | 73.4 | 73.9 | 74.3 | 73.5 | 73.2 | 72.7 |
| Housing starts | Millions | 1.61 | 1.63 | 1.60 | 1.57 | 1.72 | 1.68 | 1.70 | 1.74 | 1.74 | 1.72 |
| Light motor vehicle sales |  | 16.95 | 16.54 | 16.23 | 18.37 | 16.34 | 16.35 | 17.63 | 16.50 | 15.84 | 16.21 |
| North Amer. produced |  | 14.04 | 13.51 | 13.23 | 15.00 | 13.04 | 13.10 | 14.27 | 13.25 | 12.45 | 12.93 |
| Other |  | 2.90 | 3.04 | 3.00 | 3.37 | 3.31 | 3.25 | 3.35 | 3.24 | 3.38 | 3.29 |
| INCOME AND SAVING |  |  |  |  |  |  |  |  |  |  |  |
| Nominal GNP | Bill. \$ | 10038.0 | 10081.0 | 10109.3 | 10188.1 | 10314.9 | 10356.8 | 10495.3 | 10579.7 | 10678.2 | 10769.6 |
| Nominal GNP | \% change | 2.2 | 1.7 | 1.1 | 3.2 | 5.1 | 1.6 | 5.5 | 3.3 | 3.8 | 3.5 |
| Nominal personal income |  | 3.9 | 0.8 | 1.4 | -0.2 | 4.8 | 5.1 | 2.0 | 2.4 | 3.7 | 3.3 |
| Real disposable income |  | -0.1 | -0.6 | 10.5 | -7.6 | 14.5 | 3.9 | 1.8 | 1.4 | 2.1 | 2.4 |
| Personal saving rate | \% | 2.4 | 1.9 | 4.0 | 0.8 | 3.5 | 4.0 | 3.5 | 3.6 | 3.6 | 3.3 |
| Corp. profits, IVA \& CCAdj. | \% change | -21.1 | 8.7 | -17.7 | 94.4 | -6. 6 | -6.2 | -6.9 | 13.7 | 10.7 | 18.8 |
| Profit share of GNP |  | 7.0 | 7.2 | 6.8 | 8.0 | 7.7 | 7.6 | 7.3 | 7.5 | 7.6 | 7.9 |
| Excluding FR Banks |  | 6.7 | 6.9 | 6.5 | 7.7 | 7.5 | 7.3 | 7.1 | 7.3 | 7.5 | 7.7 |
| Federal surpl./deficit | Bill. \$ | 173.8 | 144.4 | -51.7 | 21.3 | -145.8 | -195.6 | -210.5 | -256.6 | -275.3 | -386.9 |
| State \& local surpl./def. |  | -16.5 | -32.3 | -46.2 | -30.2 | -55.8 | -45.1 | -54.7 | -52.4 | -66.9 | -36.3 |
| Ex. social ins. funds |  | -16.4 | -32.2 | -46.1 | -30.0 | -55.6 | -44.9 | -54.6 | -52.3 | -66.8 | -36.2 |
| Gross natl. saving rate | \% | 16.9 | 16.6 | 16.5 | 15.8 | 15.5 | 15.5 | 14.6 | 14.3 | 14.0 | 13.5 |
| Net natl. saving rate |  | 4.8 | 4.1 | 3.3 | 3.1 | 2.7 | 2.4 | 1.4 | 1.1 | 0.8 | 0.3 |
| PRICES AND Costs |  |  |  |  |  |  |  |  |  |  |  |
| GDP chn.-wt. price index | \% change | 3.7 | 2.5 | 2.2 | -0.5 | 1.3 | 1.2 | 1.0 | 1.8 | 2.4 | 1.0 |
| Gross Domestic Purchases <br> chn.-wt. price index |  | 3.3 | 1.7 | -0.2 | 0.4 | 1.2 | 2.3 | 1.2 | 1.8 | 3.4 | 0.3 |
| PCE chn.-wt. price index |  | 3.3 | 1.8 | -0.1 | 0.8 | 1.1 | 2.7 | 1.7 | 1.8 | 2.7 | 0.9 |
| Ex. food and energy |  | 2.8 | 1.2 | 0.7 | 2.7 | 1.4 | 1.9 | 1.8 | 1.5 | 0.8 | 1.2 |
| CPI |  | 4.0 | 3.2 | 0.9 | -0.7 | 1.4 | 3.4 | 2.2 | 2.0 | 3.8 | 0.7 |
| Ex. food and energy |  | 2.9 | 2.6 | 2.6 | 2.8 | 2.1 | 2.1 | 2.1 | 1.7 | 1.3 | 0.8 |
| ECI, hourly compensation ${ }^{1}$ |  | 4.6 | 3.7 | 3.9 | 4.4 | 3.6 | 4.4 | 2.5 | 3.0 | 5.5 | 3.4 |
| Nonfarm business sector Output per hour |  | -1.4 | -0.1 | 2.1 | 7.2 | 8.6 | 1.7 | 5.5 | 0.7 | 2.4 | 6.2 |
| Compensation per hour |  | 2.8 | 0.1 | 1.0 | 1.5 | 2.9 | 4.0 | 1.8 | 1.1 | 3.9 | 2.9 |
| Unit labor cost |  | 4.3 | 0.3 | -1.1 | -5.4 | -5.3 | 2.3 | -3.4 | 0.4 | 1.4 | -3.1 |

1. Private-industry workers.

2. Private-industry workers.

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

| Strictly Confidential <FR> Class II FOMC | CONTRIBUTIONS TO | REAL | MESTIC | AND R | ITEMS |  | , 2003 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Item | $\begin{gathered} 2003 \\ \text { Q4 } \end{gathered}$ | $\begin{gathered} 2004 \\ \text { Q1 } \end{gathered}$ | $\begin{gathered} 2004 \\ \mathrm{Q} 2 \end{gathered}$ | $\begin{gathered} 2004 \\ \text { Q3 } \end{gathered}$ | $\begin{gathered} 2004 \\ Q 4 \end{gathered}$ | $\begin{aligned} & 03 Q 4 / \\ & 02 Q 4 \end{aligned}$ | $\begin{gathered} 04 \mathrm{Q4/} \\ 03 \mathrm{Q} 4 \end{gathered}$ |
| Real GDP | 4.4 | 4.8 | 4.8 | 4.8 | 4.8 | 3.0 | 4.8 |
| Gross dom. purchases | 4.4 | 5.5 | 5.6 | 5.3 | 5.1 | 3.2 | 5.4 |
| Final sales | 3.7 | 3.2 | 3.9 | 4.6 | 5.1 | 3.3 | 4.2 |
| Priv. dom. final purchases | 3.2 | 3.5 | 4.5 | 5.0 | 5.2 | 2.8 | 4.6 |
| Personal cons. expenditures | 2.5 | 2.7 | 2.9 | 3.2 | 3.2 | 2.1 | 3.0 |
| Durables | 0.3 | 0.4 | 0.6 | 0.6 | 0.7 | 0.6 | 0.6 |
| Nondurables | 1.1 | 1.2 | 1.2 | 1.1 | 1.1 | 0.8 | 1.1 |
| Services | 1.1 | 1.1 | 1.1 | 1.5 | 1.5 | 0.7 | 1.3 |
| Business fixed investment | 0.7 | 0.8 | 1.4 | 1.5 | 1.6 | 0.4 | 1.3 |
| Equipment \& Software | 0.8 | 0.8 | 1.3 | 1.4 | 1.6 | 0.4 | 1.3 |
| Nonres. structures | -0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.0 | 0.1 |
| Residential structures | -0.0 | -0.0 | 0.2 | 0.3 | 0.3 | 0.2 | 0.2 |
| Net exports | 0.0 | -0.7 | -0.8 | -0.5 | -0.2 | -0.2 | -0.6 |
| Exports | 1.0 | 0.6 | 0.9 | 0.9 | 1.1 | 0.3 | 0.9 |
| Imports | -1.0 | -1.3 | -1.7 | -1.4 | -1.3 | -0.5 | -1.5 |
| Government cons. \& invest. | 0.5 | 0.4 | 0.2 | 0.2 | 0.2 | 0.7 | 0.2 |
| Federal | 0.4 | 0.3 | 0.0 | -0.0 | 0.0 | 0.7 | 0.1 |
| Defense | 0.3 | 0.1 | -0.1 | -0.1 | -0.1 | 0.6 | -0.0 |
| Nondefense | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| State and local | 0.1 | 0.1 | 0.2 | 0.2 | 0.2 | 0.0 | 0.2 |
| Change in bus. inventories | 0.7 | 1.6 | 0.9 | 0.2 | -0.3 | -0.3 | 0.6 |
| Nonfarm | 0.7 | 1.6 | 0.9 | 0.2 | -0.3 | -0.4 | 0.6 |
| Farm | -0.0 | -0.1 | -0.0 | -0.0 | 0.0 | 0.1 | -0.0 |

Note. Components may not sum to totals because of rounding.
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| Item | Fiscal year |  |  |  | 2002 |  |  |  | 2003 |  |  |  | 2004 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $2001{ }^{\text {a }}$ | $2002^{\text {a }}$ | 2003 | 2004 | Q1 ${ }^{\text {a }}$ | Q2 ${ }^{\text {a }}$ | Q3 ${ }^{\text {a }}$ | Q4 ${ }^{\text {a }}$ | Q1 ${ }^{\text {a }}$ | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 |
| Unified budget ${ }^{1}$ |  |  |  |  | Not seasonally adjusted |  |  |  |  |  |  |  |  |  |  |  |
| Receipts ${ }^{2}$ | 1991 | 1853 | 1772 | 1822 | 413 | 523 | 452 | 428 | 398 | 528 | 418 | 431 | 412 | 517 | 461 | 463 |
| Outlays ${ }^{2}$ | 1864 | 2011 | 2178 | 2304 | 509 | 507 | 493 | 536 | 542 | 545 | 555 | 587 | 583 | 576 | 559 | 592 |
| Surplus/deficit ${ }^{2}$ | 127 | -158 | -406 | -482 | -97 | 16 | -41 | -108 | -144 | -18 | -136 | -155 | -171 | -59 | -97 | -129 |
| On-budget | -33 | -317 | -572 | -662 | -127 | -58 | -52 | -161 | -168 | -92 | -150 | -199 | -211 | -138 | -113 | -175 |
| Off-budget | 161 | 160 | 165 | 180 | 30 | 73 | 11 | 53 | 24 | 75 | 13 | 43 | 41 | 80 | 16 | 47 |
| Means of financing |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Borrowing | -90 | 221 | 403 | 516 | 51 | 21 | 89 | 96 | 64 | 106 | 137 | 156 | 157 | 113 | 91 | 104 |
| Cash decrease | 8 | -17 | 21 | -5 | 38 | -26 | -21 | 28 | 20 | -17 | -10 | 2 | 8 | -30 | 15 | 15 |
| Other ${ }^{3}$ | -45 | -46 | -17 | -29 | 8 | -11 | -27 | -16 | 61 | -72 | 9 | -2 | 5 | -24 | -8 | 10 |
| Cash operating balance, end of period | 44 | 61 | 40 | 45 | 14 | 40 | 61 | 33 | 13 | 30 | 40 | 38 | 30 | 60 | 45 | 30 |
| NIPA federal sector |  |  |  |  | Seasonally adjusted annual rates |  |  |  |  |  |  |  |  |  |  |  |
| Receipts | 2024 | 1906 | 1838 | 1873 | 1885 | 1884 | 1864 | 1861 | 1870 | 1854 | 1768 | 1848 | 1847 | 1880 | 1917 | 1944 |
| Expenditures | 1909 | 2039 | 2188 | 2311 | 2031 | 2079 | 2075 | 2117 | 2145 | 2241 | 2249 | 2292 | 2304 | 2322 | 2327 | 2346 |
| Consumption expenditures | 517 | 570 | 643 | 698 | 566 | 581 | 590 | 609 | 627 | 663 | 674 | 685 | 702 | 703 | 703 | 705 |
| Defense | 337 | 375 | 430 | 473 | 372 | 383 | 389 | 403 | 409 | 450 | 459 | 466 | 476 | 475 | 474 | 473 |
| Nondefense | 180 | 195 | 213 | 226 | 194 | 199 | 201 | 206 | 218 | 213 | 216 | 219 | 226 | 228 | 230 | 232 |
| Other spending | 1392 | 1469 | 1545 | 1613 | 1464 | 1498 | 1485 | 1508 | 1519 | 1578 | 1575 | 1607 | 1602 | 1619 | 1624 | 1641 |
| Current account surplus | 115 | -133 | -350 | -438 | -146 | -196 | -211 | -257 | -275 | -387 | -481 | -444 | -457 | -442 | -410 | -402 |
| Gross investment | 98 | 106 | 114 | 127 | 106 | 107 | 108 | 108 | 109 | 116 | 123 | 126 | 127 | 127 | 127 | 127 |
| Gross saving less gross investment ${ }^{4}$ | 116 | -138 | -359 | -456 | -151 | -201 | -216 | -261 | -279 | -397 | -498 | -463 | -476 | -459 | -426 | -417 |
| Fiscal indicators ${ }^{5}$ <br> High-employment (HEB) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| surplus/deficit | 114 | -80 | -279 | -400 | $-100$ | -137 | -158 | -191 | -199 | -311 | -414 | -384 | -416 | -411 | -390 | -394 |
| Change in HEB, percent of potential GDP | 0.1 | 1.9 | 1.8 | 0.9 | 1.7 | 0.3 | 0.2 | 0.3 | 0.1 | 1.0 | 0.9 | -0.3 | 0.2 | -0.1 | -0.2 | 0.0 |
| Fiscal impetus (FI) percent of GDP | 0.6 | 1.1 | 1.3 | 1.3 | 0.1 | 0.4 | 0.1 | 0.3 | 0.0 | 0.6 | 0.6 | 0.7 | 0.2 | 0.1 | 0.1 | 0.2 |

[^6]| Strictly Confidential (FR) Class II FOMC |  |  | Change in Debt of the Domestic Nonfinancial Sectors(Percent) $\quad$ August 6, 2003 |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Period ${ }^{1}$ | Total | Federal government | Nonfederal |  |  |  | Business | State and local governments | Memo: Nominal GDP |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  | Home mortgages | Consumer credit |  |  |  |
| Year |  |  |  |  |  |  |  |  |  |
| 1997 | 5.5 | 0.6 | 7.2 | 6.4 | 6.7 | 4.7 | 9.0 | 4.0 | 6.2 |
| 1998 | 6.9 | -1.4 | 9.6 | 8.1 | 8.8 | 5.9 | 12.1 | 6.3 | 6.0 |
| 1999 | 6.3 | -1.9 | 8.8 | 8.3 | 9.0 | 7.4 | 10.6 | 3.4 | 5.9 |
| 2000 | 4.9 | -8.0 | 8.4 | 8.5 | 8.3 | 10.2 | 9.6 | 1.3 | 4.6 |
| 2001 | 6.2 | -0.2 | 7.6 | 8.7 | 9.8 | 6.8 | 6.3 | 8.9 | 2.0 |
| 2002 | 7.2 | 7.6 | 7.1 | 10.0 | 12.4 | 3.5 | 2.9 | 11.7 | 4.3 |
| 2003 | 7.8 | 12.7 | 6.8 | 8.3 | 9.8 | 4.5 | 3.9 | 11.9 | 4.4 |
| 2004 | 6.9 | 11.3 | 5.9 | 6.8 | 7.5 | 5.7 | 4.9 | 5.5 | 5.9 |
| Quarter |  |  |  |  |  |  |  |  |  |
| 2002:1 | 5.1 | 1.2 | 5.9 | 9.2 | 10.3 | 4.9 | 2.3 | 5.3 | 6.5 |
| 2 | 8.4 | 15.5 | 6.9 | 8.9 | 11.0 | 5.3 | 3.3 | 14.0 | 2.5 |
| 3 | 6.6 | 7.5 | 6.4 | 9.6 | 12.7 | 4.0 | 2.0 | 10.6 | 5.1 |
| 4 | 7.8 | 5.5 | 8.3 | 10.9 | 13.5 | -0.2 | 4.0 | 15.0 | 3.2 |
| 2003:1 | 6.5 | 2.2 | 7.4 | 10.0 | 12.0 | 4.3 | 3.7 | 10.1 | 3.8 |
| 2 | 10.4 | 24.3 | 7.5 | 8.5 | 10.1 | 4.9 | 3.8 | 19.5 | 3.6 |
| 3 | 7.0 | 11.2 | 6.0 | 7.3 | 8.5 | 3.4 | 3.5 | 10.5 | 4.6 |
| 4 | 6.5 | 11.2 | 5.5 | 6.4 | 7.2 | 5.0 | 4.4 | 5.7 | 5.5 |
| 2004:1 | 6.4 | 11.0 | 5.3 | 6.4 | 7.1 | 5.1 | 4.1 | 5.1 | 6.2 |
| 2 | 8.6 | 21.7 | 5.7 | 6.5 | 7.1 | 5.5 | 4.6 | 5.5 | 5.8 |
| 3 | 5.9 | 5.6 | 5.9 | 6.7 | 7.3 | 5.7 | 5.1 | 5.3 | 5.8 |
| 4 | 6.1 | 5.3 | 6.3 | 7.1 | 7.7 | 5.8 | 5.5 | 5.5 | 5.7 |

Note. Quarterly data are at seasonally adjusted annual rates.

1. Data after 2003:Q1 are staff projections. Changes are measured from end of the preceding period to

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Class II FOMC

| Category |  |  |  |  | Seasonally adjusted annual rates |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Calendar year |  |  |  | 2002 |  | 2003 |  |  |  | 2004 |  |  |  |
|  | 2001 | 2002 | 2003 | 2004 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 |
| Net funds raised by domestic nonfinancial sectors |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1 Total | 1077.0 | 1339.0 | 1559.1 | 1512.6 | 1178.0 | 1562.6 | 1277.0 | 2121.8 | 1449.2 | 1388.6 | 1398.0 | 1930.6 | 1322.8 | 1399.0 |
| 2 Net equity issuance | -47.4 | -40.5 | -54.9 | -28.3 | -140.3 | -27.9 | -62.0 | -63.6 | -50.0 | -44.0 | -25.0 | -24.0 | -32.0 | -32.0 |
| 3 Net debt issuance | 1124.5 | 1379.5 | 1614.0 | 1540.9 | 1318.3 | 1590.5 | 1339.0 | 2185.4 | 1499.2 | 1432.6 | 1423.0 | 1954.6 | 1354.8 | 1431.0 |
| Borrowing sectors |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Nonfinancial business |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 4 Financing gap ${ }^{1}$ | 141.4 | 80.7 | 38.9 | 135.9 | 90.2 | 95.2 | 68.5 | 34.5 | 12.6 | 39.8 | 86.2 | 127.7 | 154.6 | 175.2 |
| 5 Net equity issuance | -47.4 | -40.5 | -54.9 | -28.3 | -140.3 | -27.9 | -62.0 | -63.6 | -50.0 | -44.0 | -25.0 | -24.0 | -32.0 | -32.0 |
| 6 Credit market borrowing | 410.7 | 202.5 | 276.6 | 363.5 | 140.2 | 281.4 | 263.5 | 270.7 | 252.3 | 319.8 | 305.7 | 345.4 | 383.6 | 419.3 |
| Households |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 7 Net borrowing ${ }^{2}$ | 613.7 | 768.0 | 702.3 | 624.6 | 768.5 | 900.8 | 849.2 | 735.9 | 648.1 | 576.1 | 581.7 | 605.1 | 632.3 | 679.3 |
| 8 Home mortgages | 480.2 | 667.1 | 591.2 | 498.4 | 718.1 | 790.6 | 723.3 | 629.0 | 543.7 | 468.6 | 470.4 | 482.5 | 499.7 | 541.0 |
| 9 Consumer credit | 108.7 | 60.1 | 78.7 | 104.2 | 68.3 | -3.8 | 73.7 | 87.8 | 62.1 | 91.1 | 94.6 | 101.8 | 108.5 | 111.8 |
| 10 Debt/DPI (percent) ${ }^{3}$ | 99.8 | 103.3 | 107.7 | 109.5 | 103.5 | 105.3 | 106.8 | 108.4 | 108.0 | 109.1 | 108.8 | 109.2 | 109.6 | 110.1 |
| State and local governments |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 11 Net borrowing | 105.7 | 151.4 | 172.5 | 88.8 | 143.9 | 209.8 | 146.3 | 290.5 | 162.9 | 90.5 | 82.8 | 90.8 | 88.8 | 92.8 |
| 12 Current surplus ${ }^{4}$ | 140.6 | 127.7 | 149.7 | 181.5 | 126.1 | 126.6 | 108.4 | 146.3 | 157.6 | 186.6 | 174.9 | 182.3 | 181.0 | 187.7 |
| Federal government |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 13 Net borrowing | -5.6 | 257.5 | 462.5 | 463.9 | 265.7 | 198.5 | 79.9 | 888.2 | 435.8 | 446.2 | 452.8 | 913.3 | 250.0 | 239.7 |
| 14 Net borrowing (quarterly, n.s.a.) | -5.6 | 257.5 | 462.5 | 463.9 | 89.4 | 96.2 | 63.5 | 106.3 | 137.1 | 155.6 | 156.8 | 112.6 | 90.7 | 103.9 |
| 15 Unified deficit (quarterly, n.s.a.) | -94.3 | 230.8 | 453.5 | 455.4 | 41.5 | 108.3 | 143.9 | 17.8 | 136.4 | 155.4 | 170.6 | 58.6 | 97.3 | 128.8 |
| Depository institutions |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 16 Funds supplied | 289.4 | 487.8 | 437.7 | 447.9 | 749.1 | 558.5 | 586.6 | 499.3 | 412.3 | 252.8 | 327.1 | 488.9 | 559.9 | 415.7 |
| Memo (percentage of GDP) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 17 Domestic nonfinancial debt ${ }^{5}$ | 185.7 | 191.2 | 197.8 | 201.1 | 191.3 | 193.3 | 194.9 | 197.3 | 199.3 | 199.9 | 200.2 | 201.1 | 201.9 | 202.0 |
| 18 Domestic nonfinancial borrowing | 11.2 | 13.2 | 14.9 | 13.4 | 12.5 | 15.0 | 12.5 | 20.3 | 13.7 | 13.0 | 12.7 | 17.2 | 11.7 | 12.2 |
| 19 Federal government ${ }^{6}$ | -0.1 | 2.5 | 4.3 | 4.0 | 2.5 | 1.9 | 0.7 | 8.2 | 4.0 | 4.0 | 4.0 | 8.0 | 2.2 | 2.0 |
| 20 Nonfederal | 11.2 | 10.7 | 10.6 | 9.4 | 10.0 | 13.1 | 11.8 | 12.0 | 9.8 | 8.9 | 8.6 | 9.2 | 9.6 | 10.2 |

[^8](This page intentionally blank.)

## International Developments

Economic growth in the foreign economies appears to have been anemic during the second quarter on average, but monthly indicators suggest that severe weakness early in the quarter gave way to somewhat stronger performance as the quarter progressed. We see the upward contour of these monthly indicators as the first sign of a recovery abroad. Several factors should support this recovery through the rest of this year and next. Most important, the U.S. economy is expected to rebound strongly over the forecast period. In addition, the adverse economic effects of SARS appear to have abated, financial and monetary conditions abroad remain generally supportive, and high-tech production seems poised to bounce back. Nevertheless, given well-known structural problems in the foreign economies--particularly in Japan and the euro area--the pace of recovery is expected to be moderate at best, and excess capacity is expected to persist in most countries.

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

| Indicator | 2002 | $\begin{gathered} \text { 2003: } \\ \text { Q1 } \end{gathered}$ | Projection |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | 2003 |  | 2004 |
|  |  |  | Q2 | H2 |  |
| Foreign output | 2.8 | . 6 | . 6 | 2.5 | 3.4 |
| Previous GB | 2.8 | . 4 | . 8 | 2.6 | 3.4 |
| Foreign CPI | 2.6 | 4.0 | . 2 | 1.6 | 1.8 |
| Previous GB | 2.6 | 4.0 | 1.0 | 1.9 | 1.9 |

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

Our projections for foreign growth are almost identical to those in the June Greenbook, as we judge that changes in key conditioning variables have had roughly offsetting effects on the outlook. On the one hand, the staff forecast for U.S. growth is a bit less robust than in the previous forecast; long-term interest rates in the foreign economies have moved up (albeit less than in the United States); and the projected path of oil prices is higher than in our last forecast. On the other hand, foreign equity markets have continued to rally, and several major central banks cut policy rates earlier than we had expected. In addition, the German government has recently opted to loosen fiscal policy next year, and the dollar has strengthened during the intermeeting period, a welcome development for foreign exporters.

Foreign inflation fell sharply in the second quarter. The price of oil dropped from the high levels that were reached before the Iraq war, and in the Asian economies that were affected by SARS, retailers attempted to entice customers
back into stores. We project that inflationary pressures abroad will be subdued through the forecast period, as output remains below potential in most countries.

More-favorable market sentiment regarding the prospects for U.S. economic recovery and a rise in U.S. long-term interest rates supported a strengthening of the dollar over the intermeeting period. In response to these developments, we have raised our projection for the broad real value of the dollar in the third quarter by $2 \frac{1}{4}$ percent relative to the June Greenbook. Our forecast seeks to balance those factors that may cause the dollar to strengthen (in particular, stronger growth in the United States than abroad) against factors that may weigh on the dollar (including potential financing pressures from the U.S. current account deficit). Reconciling these considerations, we project that the dollar will weaken slightly through the end of next year, but the entire path for the dollar is above that in the previous forecast.

After subtracting nearly $1 / 2$ percentage point from U.S. GDP growth in the first half of this year, net exports are projected to make a zero arithmetic contribution to growth in the second half, with the weakening of the dollar since early 2002 helping boost exports while restraining imports somewhat. Next year, net exports are projected to subtract $1 / 2$ percentage point from growth, as the strengthening U.S. recovery fuels an acceleration in imports. The U.S. current account deficit is expected to expand from about $\$ 560$ billion (annual rate) in the third quarter of 2003 to more than $\$ 610$ billion in the second half of 2004.

## Oil Prices

Since the June FOMC meeting, the spot price of West Texas intermediate (WTI) crude oil has moved up on balance, closing at $\$ 32.23$ per barrel on August 5. Oil prices have remained elevated owing in part to concerns about the slow pace at which Iraq's oil exports are recovering. Lean oil inventories in OECD countries, particularly in the United States, and unusually strong Japanese oil demand, owing to the continued shutdown of the country's nuclear reactors, have also kept upward pressure on oil prices. We expect the spot price of WTI to edge down to about $\$ 31.40$ per barrel in the fourth quarter, $\$ 3.75$ higher than projected in the June Greenbook, and then to decline to about $\$ 26.75$ per barrel in the second half of 2004, $\$ 2$ above the June Greenbook projection. The higher path of oil prices in this forecast reflects recent quotes from futures markets and is consistent with a perception that continued security problems in Iraq will hinder the country's oil production for some time.

## International Financial Markets

The foreign exchange value of the dollar, as measured by the staff's major currencies index, rose 2 percent during the intermeeting period; it was boosted by a shift in market expectations regarding U.S. monetary policy and greater
optimism about the U.S. recovery. The run-up in long-term U.S. interest rates contributed to significant but smaller increases in interest rates abroad. Ten-year government bond yields rose 45 to 70 basis points in Canada, the euro area, and the United Kingdom and 30 basis points in Japan, compared with an increase of more than 100 basis points in the United States. In contrast, short-term market interest rates in the major foreign industrial economies moved slightly lower on average, in part because of unanticipated reductions in policy rates by central banks in the United Kingdom, Canada, and Sweden. Monetary authorities in those countries cited diminished inflation risks as a key factor in their decisions.

Against the currencies of our other important trading partners, the dollar firmed 1 percent on balance, with gains against the Brazilian real, Mexican peso, Indonesian rupiah, and Philippine peso that were only partly offset by declines against the Korean won and the Taiwan dollar. Central banks in many emergingmarket economies eased monetary policy during the intermeeting period, some to counter upward pressures on their currencies and others in reaction to evidence of lower inflation and concerns about domestic activity.

Incorporating market developments since the close of the June Greenbook puts the third-quarter value of the staff's broad real index for the dollar about $21 / 4$ percent above its level in our previous forecast. Looking ahead, we project that the dollar will move down 1 percent over the forecast period. This downward tilt is due in part to the staff's assumption that U.S. long-term interest rates turn lower next year. In addition, the growth in foreign holdings of U.S. external liabilities--the counterpart of the burgeoning U.S. current account deficit--may also exert downward pressure on the dollar.

Share prices rose in most foreign countries during the intermeeting period. In foreign industrial countries, broad indexes moved up between 1 and 5 percent. Technology shares were among the biggest gainers. In many of the emerging Asian economies, brighter prospects for technology firms, as well as the apparent ending of the SARS threat and easier monetary policies, supported sizable equity-price gains. Stock prices in many Latin American countries rose as well. In contrast, spreads on emerging-market sovereign bonds widened 25 basis points over the intermeeting period, with Brazilian spreads up 100 basis points. Market commentary suggested that higher interest rates in the industrial countries may be drawing capital away from the emerging-market economies and, thus, contributing to the higher spreads.
intervene during the period for the accounts of the System or the Treasury.

## Foreign Industrial Countries

Real GDP in the foreign industrial countries is estimated to have expanded only a bit during the second quarter. Monthly indicators, however, point to a firming of activity as the quarter progressed, and measures of business and consumer confidence have recently moved up. Activity in coming quarters should be supported by monetary stimulus, a waning of negative effects from previous currency appreciations, and the recovery of the U.S. economy. The recent rise in long-term interest rates is likely to be a damping factor. All told, we expect growth in these countries to rise from $1 / 2$ percent at an annual rate in the second quarter to $13 / 4$ percent in the second half and to $21 / 2$ percent next year.

We project that four-quarter inflation rates in these countries will trend down through early 2004 and will subsequently remain low, as the level of output in most countries stays well below potential. Japanese deflation is expected to persist through the forecast period.

Real GDP in the euro area appears to have remained stagnant in the second quarter, as the German economy likely posted its third consecutive quarterly contraction. Signs have recently emerged, however, that activity in the region may be poised for a modest recovery. For example, German business confidence rose in May and June, and euro-area consumer confidence ticked up in June and July. Notably, macroeconomic policy is becoming more supportive of growth. The ECB's monetary easing this year has provided helpful stimulus, and we believe another rate cut is likely before year-end, as inflation moves well below 2 percent. In addition, the largest euro-area countries have decided to pursue a more stimulative fiscal policy next year, despite the requirements of the Stability and Growth Pact; the fiscal impulse in Germany is now expected to be $1 / 2$ percent of GDP in 2004. These factors should support a recovery in domestic demand and allow GDP growth in the euro area to rise from 1 percent in the second half of this year to above 2 percent next year.

In the United Kingdom, recent data point to a moderate pickup in activity in the third quarter. Business confidence posted further gains in July, and purchasing managers' indexes for both manufacturing and services have firmed. In addition, consumer confidence has risen, and retail sales have shown evidence of renewed strength. Accommodative monetary policy and fiscal stimulus already in the pipeline should help to support activity going forward. Growth is thus projected to rise from $3 / 4$ percent during the first half of this year to about $13 / 4$ percent in the second half and to $2 \frac{1}{4}$ percent next year.

Canadian growth is estimated to have slowed to just $1 / 2$ percent in the second quarter, with SARS leaving a marked imprint on tourism and retail sales. The effects of SARS, however, dissipated as the quarter progressed, and recent
employment data--as well as purchasing managers' indexes for manufacturing and services--suggest that the economy strengthened in June. In a surprise move, the Bank of Canada lowered its policy rate in June in response to evidence that inflationary pressures had ebbed, and we expect another rate cut before the end of the year. Given this monetary stimulus and, more important, the projected U.S. recovery, growth in Canada is expected to snap back, reaching 3 percent by the end of this year and continuing at about that pace next year.

Japanese real GDP is estimated to have contracted slightly in the second quarter, weighed down by a drop in exports. We project growth of only $1 / 2$ percent in the second half of the year. Consumption should remain flat, amid continued high levels of unemployment. The Bank of Japan's Tankan index of business conditions held steady in June, and survey respondents projected a slight improvement for September. This factor, combined with a rise in May machinery orders, suggests some support for business investment. For 2004, we project that growth will edge up to 1 percent as the global recovery spurs exports.

## Other Countries

Real GDP in China fell in the second quarter, with activity being held back by the effects of SARS and the payback for the economy's unsustainably rapid firstquarter growth. Recent data, however, including retail sales and industrial production for June, indicate that the pace of activity has picked up considerably. Looking ahead, we expect Chinese growth to rebound to 8 percent (annual rate) by the fourth quarter and to continue at about that pace next year, as domestic demand expands rapidly.

We have revised down our growth forecast for Korea because we now see indications that consumption growth--which led the country's economic expansion for almost two years--has weakened. Elsewhere in emerging Asia, the limited data that are available for June have been encouraging. For example, industrial production figures generally point to strength, and Taiwan reported a solid increase in export orders. Overall, we expect growth in the emerging Asian economies to come in at $41 / 2$ percent in the second half of this year and to rise to $51 / 2$ percent next year, in line with a projected pickup in global demand for hightech goods.

The Mexican economy contracted in the first quarter, and indicators for the second quarter have been weak on average. Industrial production and overall economic activity fell in May, and the unemployment rate rose in June. However, both exports and business confidence posted increases in June. We expect Mexican real GDP to rise at a $23 / 4$ percent rate in the second half of this year and to accelerate to almost 5 percent growth next year, driven largely by the recovery in the United States. Recent data for Brazil have generally been weaker
than expected, but the competitive level of the exchange rate and further reductions in policy interest rates should support modest growth through the remainder of this year and next.

We now expect that average four-quarter inflation in the developing countries will hover around $23 / 4$ percent through the end of next year, a number somewhat lower than that in the last Greenbook, with large output gaps in many countries helping to keep inflation at bay. Hong Kong is projected to experience sustained deflation over the forecast period.

## Staff Projections of Selected Trade Prices

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

| Trade category | 2002 | $\begin{gathered} \text { 2003: } \\ \text { Q1 } \end{gathered}$ | Projection |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | 2003 |  | 2004 |
|  |  |  | Q2 | H2 |  |
| Exports |  |  |  |  |  |
| Core goods | 2.1 | 4.6 | 2.2 | . 7 | 1.1 |
| Imports |  |  |  |  |  |
| Non-oil core goods | . 7 | 5.5 | -. 3 | 1.4 | 1.2 |
| Oil (dollars per barrel) | 25.75 | 30.77 | 26.37 | 28.34 | 23.76 |

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 multi-quarter periods is the price for the final quarter of the period.

## Prices of Internationally Traded Goods

After being driven up in the first quarter by a spike in the price of natural gas, prices of imported core goods fell $1 / 4$ percent at an annual rate in the second quarter, as natural gas prices moved back down. Prices of imported core goods excluding natural gas have been much more stable, increasing at rates of $13 / 4$ percent in the first quarter and $11 / 4$ percent in the second quarter. In light of the depreciation of the dollar that occurred in the first half of this year, we were surprised by the relative weakness of core import prices in the second quarter. One possible explanation is that, in an environment with considerable economic slack, foreign producers may be more hesitant to allow the dollar price of their exports to rise when their home currencies appreciate. We have also lowered our estimate of core import price inflation in the current quarter from the one in the June Greenbook; this change reflects largely the appreciation of the dollar over the intermeeting period and the lower projection for foreign prices. In 2004, core
import prices should increase a bit more than 1 percent, in line with the subdued pace of foreign inflation and the relatively flat projected trajectory of the dollar.

Prices of exported core goods have followed a pattern broadly similar to that of core import prices--surging in the first quarter as increases in energy costs boosted prices of industrial supplies and then slowing in the second quarter as energy prices retreated. Over the remainder of the forecast period, core export price inflation is expected to remain subdued, in line with projected prices of U.S. domestic goods.

## Trade in Goods and Services

After declining $11 / 4$ percent at an annual rate in the first quarter, real exports of goods and services are estimated to have fallen 3 percent in the second quarter, a drop somewhat larger than that in our previous forecast. The second-quarter decrease in exports is the third straight quarterly contraction and reflects both the continued weakness of activity in the foreign economies and disruptions associated with SARS and the Iraq war. Whereas exports of services are estimated to have fallen since the beginning of the year, mainly because of a sharp drop in international travel, exports of core goods remained about flat in the first quarter before turning down in the second quarter.

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

| Measure | 2002 | $\begin{gathered} \text { 2003: } \\ \text { Q1 } \end{gathered}$ | Projection |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | 2003 |  | 2004 |
|  |  |  | Q2 | H2 |  |
| Real exports | 3.9 | -1.3 | -3.0 | 9.1 | 9.1 |
| Previous GB | 3.9 | -1.2 | -2.0 | 8.6 | 9.6 |
| Real imports | 10.1 | -6.2 | 9.1 | 6.2 | 10.2 |
| Previous GB | 10.1 | -6.2 | 5.3 | 4.3 | 10.4 |

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

We project that real exports of goods and services will rebound through the forecast period, expanding at a 9 percent rate. The growth of exported core goods is projected to rise to about $61 / 2$ percent in the second half of 2003 and to $71 / 2$ percent in 2004, reflecting the anticipated pickup in foreign GDP and the lagged effects of the dollar's decline since early last year. Exports of services are projected to bounce back at a 9 percent rate in the second half of this year, as travel-related activity recovers, before decelerating somewhat in 2004. In
addition, exports of computers and semiconductors should recover from the hightech slump and resume growth more in line with historical experience.

Since the June Greenbook, we have substantially revised up our projection for real imports of goods and services in the second quarter. We now estimate that they rose 9 percent, after a $61 / 4$ percent decline in the first quarter. The surprisingly large second-quarter rebound reflects, in part, U.S. growth that was stronger than anticipated as well as a boost to import demand from lower import prices. Merchandise imports (particularly oil and core goods) are estimated to have increased in the second quarter, but imports of services, restrained by reduced travel, remained weak.

After average growth of about 1 percent in the first half of 2003, real imports of goods and services are projected to expand at a rate of $61 / 4$ percent in the second half, with a rise in imported core goods of about $71 / 2$ percent, driven by the projected recovery in U.S. growth. Imports of services are now expected to bounce back, as a recovery in travel more than offsets the effects of the dollar's net decline since early last year. In 2004, total import growth is projected to pick up to more than 10 percent. Core goods imports should rise nearly as fast, as U.S. economic activity strengthens. As with exports, imports of computers and semiconductors are projected to grow steadily over the forecast period.

## Alternative Simulations

At times over the past decade, the emerging Asian economies have recorded annual growth rates of 7 percent or higher for sustained periods. Given the continued vibrancy of these economies, growth in the region may far exceed the 5 percent pace envisioned in our forecast once recovery in the region gains steam. Such a bounceback could boost sentiment and spending in the Japanese economy as well. We used the FRB/Global model to assess the effects of such a scenario on U.S. output and prices. In particular, we considered a shock to autonomous demand in emerging Asia and Japan that would raise private spending in those economies by 2 percent of their baseline GDP in the absence of endogenous adjustment. The shock, which is assumed to occur in 2003:Q3, keeps demand above baseline throughout the forecast period. The increase in Asian demand helps stimulate U.S. net exports, boosting U.S. real GDP growth in 2003:H2 about 0.3 percentage point relative to baseline and an additional 0.1 percentage point in 2004. Given some delay in the response of core prices to activity, the core PCE inflation rate is unchanged in 2003 but rises slightly relative to baseline near the end of the forecast period.

We also considered a second scenario in which the autonomous shock to Asian demand is combined with an improvement in investor sentiment toward the region that lowers the risk premiums for most Asian currencies. In addition,
certain key Asian currencies are assumed to be revalued. This alternative also begins in 2003:Q3 and has been scaled so that the currencies of all Asian economies except Hong Kong would appreciate 10 percent against the dollar if interest rate spreads remained unchanged. The combined shocks provide a stronger lift to U.S. net exports, boosting U.S. real GDP growth 0.4 percentage point above baseline in 2003:H2 and 0.3 percentage point above baseline next year. Core PCE inflation rises slightly relative to baseline in the second half of 2003 and 0.4 percentage point in 2004, in part because of the direct effect of higher prices for imported goods and services.

## Alternative Simulations:

 Increase in Demand and Fall in Risk Premiums in Asia(Percent change from previous period, annual rate)

| Indicator and simulation | 2003 |  | 2004 |  |
| :--- | :---: | :---: | :---: | :---: |
|  | H 1 | H 2 | H 1 | H 2 |
| U.S. real GDP <br> Baseline |  |  |  |  |
| Simulation 1: Asian demand <br> Simulation 2: Asian demand and <br> $\quad$ currencies | 2.0 | 4.0 | 4.8 | 4.8 |
|  | 2.0 | 4.3 | 4.9 | 4.9 |
| U.S. PCE prices excl. food and energy <br> Baseline | 2.0 | 4.4 | 5.0 | 5.1 |
| Simulation 1: Asian demand <br> Simulation 2: Asian demand and <br> currencies | 1.0 | 1.3 | 1.0 | 0.9 |

Note. H 1 is $\mathrm{Q} 2 / \mathrm{Q} 4$; H 2 is $\mathrm{Q} 4 / \mathrm{Q} 2$. In these simulations, the nominal federal funds rate remains unchanged from baseline, and the monetary authorities in major foreign economies adjust their policy rates according to a Taylor rule.
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| Measure and country | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | $\begin{array}{r} \text { Pro } \\ 2003 \end{array}$ | ted $2004$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| REAL GDP (1) |  |  |  |  |  |  |  |  |  |
| Total foreign | 4.0 | 4.2 | 1.5 | 4.9 | 4.4 | 0.2 | 2.8 | 1.5 | 3.4 |
| Industrial Countries of which: | 2.7 | 3.5 | 2.7 | 4.2 | 3.8 | 0.6 | 2.6 | 1.4 | 2.4 |
| Canada | 2.7 | 4.4 | 4.4 | 5.9 | 4.2 | 1.4 | 3.5 | 2.1 | 3.0 |
| Japan | 3.3 | 0.3 | -1.3 | -0.5 | 5.1 | -2.4 | 2.4 | 0.3 | 1.0 |
| United Kingdom | 2.8 | 3.7 | 2.6 | 3.2 | 2.2 | 1.9 | 2.3 | 1.3 | 2.3 |
| Euro Area (2) | 1.6 | 3.2 | 2.0 | 3.8 | 2.7 | 0.6 | 1.2 | 0.6 | 2.1 |
| Germany | 1.4 | 1.7 | 0.7 | 3.3 | 1.9 | 0.1 | 0.7 | -0.2 | 1.7 |
| Developing Countries | 6.1 | 5.4 | -0.3 | 6.1 | 5.3 | -0.3 | 3.1 | 1.8 | 4.7 |
| Asia | 6.6 | 5.0 | -2.1 | 8.6 | 6.3 | 0.9 | 5.6 | 2.7 | 5.5 |
| Korea | 6.4 | 3.4 | $-5.2$ | 13.8 | 5.1 | 4.2 | 7.0 | 2.0 | 4.6 |
| China | 5.3 | 8.7 | 9.5 | 4.1 | 8.0 | 7.5 | 8.0 | 6.8 | 8.1 |
| Latin America | 6.3 | 6.1 | 1.2 | 4.2 | 4.5 | -1.4 | 1.1 | 0.8 | 4.4 |
| Mexico | 7.1 | 6.8 | 2.9 | 5.4 | 4.8 | $-1.5$ | 2.0 | 0.9 | 4.9 |
| Brazil | 5.2 | 2.3 | $-1.7$ | 3.5 | 4.0 | -0.7 | 3.4 | 1.6 | 3.0 |
| CONSUMER PRICES (3) |  |  |  |  |  |  |  |  |  |
| Industrial Countries of which: | 1.5 | 1.5 | 1.0 | 1.2 | 1.8 | 1.0 | 2.2 | 1.3 | 1.2 |
| Canada | 2.0 | 1.0 | 1.1 | 2.4 | 3.1 | 1.1 | 3.8 | 2.0 | 2.1 |
| Japan | 0.2 | 2.1 | 0.7 | -1.1 | -1.3 | $-1.3$ | -0.4 | -0.5 | -0.7 |
| United Kingdom (4) | 3.2 | 2.7 | 2.5 | 2.2 | 2.1 | 2.0 | 2.6 | 2.4 | 2.4 |
| Euro Area (2) | 1.9 | 1.5 | 0.8 | 1.5 | 2.5 | 2.1 | 2.3 | 1.5 | 1.1 |
| Germany | 1.3 | 1.5 | 0.3 | 1.1 | 1.7 | 1.5 | 1.2 | 0.4 | 0.3 |
| Developing Countries | 11.1 | 6.8 | 9.0 | 4.6 | 4.1 | 2.8 | 3.1 | 2.6 | 2.7 |
| Asia | 4.7 | 2.8 | 4.4 | 0.1 | 1.8 | 1.0 | 0.7 | 1.3 | 1.7 |
| Korea | 5.0 | 4.9 | 5.8 | 1.2 | 2.5 | 3.3 | 3.4 | 2.8 | 2.7 |
| China | 6.8 | 0.9 | -1.2 | -0.9 | 0.8 | -0.2 | -0.7 | 0.8 | 1.2 |
| Latin America | 25.8 | 15.5 | 15.4 | 12.5 | 8.4 | 5.3 | 6.4 | 4.7 | 4.1 |
| Mexico | 28.0 | 17.0 | 17.3 | 13.4 | 8.7 | 5.1 | 5.3 | 3.7 | 3.6 |
| Brazil | 9.6 | 4.6 | 2.0 | 8.4 | 6.4 | 7.5 | 10.7 | 12.2 | 6.8 |

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| Measure and country | 2002 |  |  |  | $\begin{array}{r} -------\quad-\quad 2003 \end{array}$ |  |  |  | 2004 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 |
| REAL GDP (1) | --- | --- | - | - Q | erly | hange | at a | annu | rate |  |  |  |
| Total foreign | 3.4 | 3.6 | 2.7 | 1.3 | 0.6 | 0.6 | 2.1 | 2.9 | 3.2 | 3.3 | 3.4 | 3.5 |
| Industrial Countries of which: | 3.5 | 3.2 | 2.3 | 1.2 | 1.4 | 0.5 | 1.5 | 2.1 | 2.3 | 2.4 | 2.5 | 2.6 |
| Canada | 5.8 | 3.8 | 2.7 | 1.6 | 2.4 | 0.4 | 2.2 | 3.2 | 3.1 | 3.1 | 3.0 | 3.0 |
| Japan | 0.1 | 5.4 | 2.6 | 1.5 | 0.6 | -0.3 | 0.4 | 0.7 | 0.8 | 1.0 | 1.1 | 1.1 |
| United Kingdom | 1.2 | 2.4 | 3.7 | 2.0 | 0.4 | 1.2 | 1.8 | 1.9 | 2.2 | 2.3 | 2.3 | 2.6 |
| Euro Area (2) | 1.6 | 1.6 | 1.3 | 0.3 | 0.2 | 0.2 | 0.8 | 1.2 | 1.7 | 2.0 | 2.4 | 2.4 |
| Germany | 1.2 | 0.6 | 1.2 | -0.1 | -0.9 | -0.5 | 0.1 | 0.6 | 1.2 | 1.5 | 2.0 | 2.0 |
| Developing Countries | 3.3 | 4.2 | 3.4 | 1. 5 | -0.7 | 0.7 | 3.0 | 4.2 | 4.6 | 4.7 | 4.8 | 4.8 |
| Asia | 6.4 | 7.1 | 3.4 | 5.3 | 2.7 | -0.9 | 4.1 | 5.0 | 5.3 | 5.6 | 5.6 | 5.7 |
| Korea | 10.5 | 5.4 | 3.9 | 8.3 | -1.4 | -0.2 | 5.0 | 5.0 | 4.5 | 4.5 | 4.5 | 5.0 |
| China | 8.5 | 9.3 | 7.5 | 6.8 | 16.3 | -2.9 | 6.5 | 8.0 | 8.0 | 8.0 | 8.2 | 8.2 |
| Latin America | 1.2 | 2.0 | 3.2 | -1.7 | -4.1 | 1.8 | 2.1 | 3.7 | 4.4 | 4.4 | 4.4 | 4.4 |
| Mexico | 2.0 | 3.6 | 2.4 | -0.1 | -2.0 | 0.2 | 1.7 | 3.8 | 4.9 | 4.9 | 4.9 | 4.9 |
| Brazil | 7.6 | -0.8 | 4.1 | 2.9 | -0.2 | 1.0 | 2.5 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| CONSUMER PRICES (3) |  |  |  |  |  |  |  |  |  |  |  |  |
| Industrial Countries | 1.2 | 1.0 | 1.4 | 2.2 | 2.5 | 1.8 | 1.5 | 1.3 | 0.7 | 1.2 | 1.2 | 1.2 |
| Canada | 1.6 | 1.3 | 2.3 | 3.8 | 4.5 | 2.8 | 2.3 | 2.0 | 1.0 | 2.3 | 2.1 | 2.1 |
| Japan | -1. 5 | -1.1 | -0.9 | -0.4 | -0.3 | -0.3 | -0.4 | -0. 5 | -0.6 | -0.7 | -0.7 | -0.7 |
| United Kingdom (4) | 2.4 | 1.9 | 2.0 | 2.6 | 2.9 | 2.9 | 2.7 | 2.4 | 2.0 | 2.3 | 2.4 | 2.4 |
| Euro Area (2) | 2.6 | 2.1 | 2.1 | 2.3 | 2.3 | 2.0 | 1.9 | 1.5 | 1.0 | 1.0 | 1.1 | 1.1 |
| Germany | 2.0 | 1.1 | 1.1 | 1.2 | 1.1 | 0.9 | 0.7 | 0.4 | -0.1 | 0.1 | 0.2 | 0.3 |
| Developing Countries | 2.7 | 2.6 | 2.8 | 3.1 | 3.6 | 3.1 | 2.7 | 2.6 | 2.2 | 2.4 | 2.7 | 2.7 |
| Asia | 0.8 | 0.6 | 0.5 | 0.7 | 1.4 | 1.2 | 1.1 | 1.3 | 1.0 | 1.3 | 1.7 | 1.7 |
| Korea | 2.6 | 2.6 | 2.5 | 3.4 | 4.1 | 3.3 | 3.1 | 2.8 | 2.2 | 2.4 | 2.7 | 2.7 |
| China | -0.6 | -1.1 | -0.8 | -0.7 | 0.5 | 0.7 | 0.5 | 0.8 | 0.1 | 0.4 | 1.0 | 1.2 |
| Latin America | 5.2 | 5.4 | 6.0 | 6.4 | 7.1 | 6.3 | 5.3 | 4.7 | 4.3 | 4.2 | 4.3 | 4.1 |
| Mexico | 4.8 | 4.8 | 5.2 | 5.3 | 5.5 | 4.7 | 3.9 | 3.7 | 3.8 | 3.8 | 3.8 | 3.6 |
| Brazil | 7.7 | 7.9 | 7.7 | 10.7 | 15.6 | 17.0 | 15.6 | 12.2 | 7.5 | 6.3 | 6.8 | 6.8 |

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

Strictly Confidential（FR）
Class II FOMC $\quad$ OUTLOOK FOR U．S．INTERNATIONAL TRANSACTIONS $\quad 2003$
NIPA REAL EXPORTS and IMPORTS

| மのレ | －サーのロ | へのサ6mの |
| :---: | :---: | :---: |
| －0ं | ゥゥம் | －チмற்ஸ் |
| 1 | mm | तrmmma |
| Nmı | mmanm | 6mトの・ |
| $00^{\circ}$ | miomivi |  |
| 100 | $\cdots \mathrm{mom}$ |  |


| -221.1 | -320.5 | -398.8 | -415.9 | -488.5 | -543.2 | -603.0 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 1002.4 | 1036.3 | 1137.2 | 1076.1 | 1058.8 | 1068.5 | 1153.1 |
| 1223.5 | 1356.8 | 1536.0 | 1492.0 | 1547.4 | 1611.7 | 1756.1 |


| Billions of dollars |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| US CURRENT ACCOUNT BALANCE | －117．2 | －127．7 | －204．7 | －290．8 | －411．5 | －393．7 | －480．9 | －557．3 | －600．9 |
| Current Acct as Percent of GDP | －1．5 | －1．5 | －2．3 | －3．1 | －4．2 | －3．9 | －4．6 | －5．1 | －5．2 |
| Net Goods \＆Services（BOP） | －102．9 | －107．0 | －163．2 | －261．2 | －375．4 | －357．8 | －418．0 | －502．9 | －547．1 |
| Investment Income，Net | 28.6 | 25.1 | 11.5 | 22.3 | 24.2 | 15.7 | 1.3 | 17.5 | 13.9 |
| Direct，Net | 69.4 | 72.4 | 65.5 | 78.2 | 94.9 | 106.5 | 93.5 | 101.9 | 101.8 |
| Portfolio，Net | －40．8 | －47．3 | －54．1 | －55．9 | －70．7 | －90．8 | －92．2 | －84．4 | －88．0 |
| Other Income \＆Transfers，Net | －43．0 | －45．7 | －53．0 | －52．0 | －60．3 | －51．6 | －64．1 | －71．9 | －67．6 |

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|  |  | 2002 |  |  |  | 2003 |  |  |  | 2004 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 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 | -0.7 | -1.4 | 0.0 | -1.6 | 0.8 | -1.5 | -0.0 | 0.0 | -0.7 | -0.8 | -0.5 | -0.2 |
|  | Exports of G\&S | 0.3 | 1.3 | 0.5 | -0.6 | -0.1 | -0.3 | 0.7 | 1.0 | 0.6 | 0.9 | 0.9 | 1.1 |
|  | Imports of $\mathrm{G} \& \mathrm{~S}$ | -1.1 | -2.7 | -0.4 | -1.0 | 0.9 | -1.2 | -0.8 | -1.0 | -1.3 | -1.7 | -1.4 | -1.3 |
| Percentage change from previous period, s.a.a.r. |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Expo | orts of G\&S | 3.5 | 14.3 | 4.6 | -5.8 | -1.3 | -3.0 | 7.5 | 10.6 | 6.6 | 9.0 | 9.2 | 11.5 |
|  | Services | 21.7 | 10.7 | 5.9 | 8.0 | -8.0 | -4.2 | 10.7 | 7.9 | 5.3 | 5.2 | 5.5 | 5.6 |
|  | Computers | -21.1 | -0.5 | -0.8 | 17.9 | -7.2 | -14.7 | 31.0 | 33.5 | 33.5 | 33.5 | 33.5 | 33.5 |
|  | Semiconductors | 13.7 | 65.8 | 21.3 | -39.4 | 44.8 | 32.1 | 17.1 | 36.3 | 36.3 | 36.3 | 36.3 | 36.2 |
|  | Other Goods 1/ | -3.1 | 14.2 | 3.3 | -10.7 | 0.2 | -3.7 | 4.1 | 9.0 | 3.8 | 7.5 | 7.7 | 11.2 |
| Imports of G\&S |  | 8.5 | 22.2 | 3.3 | 7.4 | -6.2 | 9.1 | 5.4 | 6.9 | 9.3 | 12.0 | 10.0 | 9.4 |
|  | Services | 35.7 | -2.1 | 3.1 | 13.0 | -4.0 | -17.6 | 11.1 | 3.5 | 3.1 | 5.6 | 5.5 | 5.5 |
|  | Oil | -19.0 | 34.5 | -13.3 | 24.1 | -12.6 | 51.9 | -22.2 | -16.8 | 0.2 | 28.5 | -1.3 | -10.1 |
|  | Computers | 52.4 | 5.6 | -4.4 | 8.2 | -2.1 | 23.3 | 23.9 | 33.6 | 33.6 | 33.6 | 33.6 | 33.6 |
|  | Semiconductors | 45.2 | 41.8 | -5.9 | -26.4 | -1.0 | 7.4 | 17.1 | 36.3 | 36.3 | 36.3 | 36.3 | 36.3 |
|  | Other Goods 2/ | 1.9 | 28.8 | 6.3 | 5.2 | -6.4 | 11.2 | 6.5 | 8.6 | 9.7 | 9.9 | 9.9 | 9.9 |
| Billions of chained 1996 dollars, s.a.a.r. |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Net | Goods \& Services | -446.6 | -487.4 | -488.0 | -532.2 | -510.3 | -552.8 | -554.8 | -555.0 | -574.6 | -598.8 | -615.1 | -623.3 |
|  | Exports of G\&S | 1030.6 | 1065.5 | 1077.7 | 1061.6 | 1058.1 | 1050.0 | 1069.3 | 1096.6 | 1114.2 | 1138.4 | 1163.9 | 1196.0 |
|  | Imports of G\&S | 1477.1 | 1552.9 | 1565.7 | 1593.8 | 1568.4 | 1602.8 | 1624.1 | 1651.6 | 1688.8 | 1737.2 | 1779.0 | 1819.4 |


| Billions of dollars, s.a.a.r. |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| US CURRENT ACCOUNT BALANCE | -426.9 | -491.3 | -490.9 | -514.3 | -544.6 | -557.7 | -562.9 | -563.9 | -575.7 | -596.1 | -611.2 | -620.5 |
| Current Account as \% of GDP | -4.1 | -4.7 | -4.7 | -4.9 | -5.1 | -5.2 | -5.2 | -5.1 | -5.1 | -5.2 | -5.3 | -5.3 |
| Net Goods \& Services (BOP) | -360.2 | -419.5 | -427.9 | -464.5 | -486.4 | -498.7 | -512.9 | -513.6 | -526.4 | -544.0 | -556.3 | -561.9 |
| Investment Income, Net | 2.2 | -12.4 | -1.9 | 17.2 | 15.8 | 12.2 | 21.2 | 21.0 | 18.0 | 15.3 | 12.5 | 9.6 |
| Direct, Net | 95.7 | 85.6 | 87.7 | 104.9 | 97.9 | 97.8 | 105.9 | 106.1 | 103.7 | 102.2 | 101.1 | 100.4 |
| Portfolio, Net | -93.5 | -98.1 | -89.6 | -87.7 | -82.1 | -85.5 | -84.8 | -85.1 | -85.7 | -86.8 | -88.6 | -90.8 |
| Other Inc. \& Transfers, Net | -68.9 | -59.3 | -61.1 | -67.1 | -73.9 | -71.2 | -71.2 | -71.4 | -67.4 | -67.4 | -67.4 | -68.2 |

[^12]
[^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 optical 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. The difference between the growth rates of GDP and nonfarm business output (excluding housing) was abnormally large last quarter owing to smaller-than-average increases in the output produced by governments and by households and institutions and to sizable declines in the measured output of the farming and housing sectors.
[^2]:    2. The Administration's latest estimate of the 2003 deficit is almost $\$ 50$ billion higher than ours. Two-thirds of this difference can be attributed to higher outlays, and the remainder reflects an amount by which the Administration discounted its revenue projection to allow for uncertainty. The Administration's estimate for the 2004 deficit roughly matches ours, with both lower defense spending and lower revenue (owing to another discount for uncertainty).
[^3]:    3. Some of the projected strength in E\&S spending toward the end of 2004 is "borrowed" from 2005, with firms accelerating their investment outlays to take advantage of the partial expensing rules before those rules expire at the end of 2004. As a result, the growth in E\&S outlays will likely dip in early 2005.
[^4]:    4. The Bureau of Labor Statistics will release revisions to historical productivity data and a preliminary estimate of second-quarter productivity on August 7. The revised data will incorporate new estimates of hours based on the usual benchmarking to new data as well as extensive changes in the methods used by the BLS to measure hours. Owing to the scale of these changes, our current estimate of productivity growth in the past several years is especially uncertain. Moreover, these figures may be altered again substantially after new estimates of output are released in the comprehensive NIPA revision in December. The Greenbook Supplement will include a discussion of the data released on August 7.
[^5]:    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.
[^6]:    
     and shown separately as off-budget, as chassified under current law.
    3. Other means of financing are checks issued less checks paid, accrued items, and changes in other financial assets and liabilities.
    4. Gross saving is the current account surplus plus consumption of fixed capital of the general government as well as government enterprises.
    
     taxes in chained (1996) dollars, scaled by real GDP. The annual FI estimates are on a calendar year basis. Also, for FI and the change in HEB, positive values indicate aggregate demand stimulus.
    a--Actual

[^7]:    end of period indicated except for annual nominal GDP growth, which is calculated from Q4 to Q4.
    2.6.3 FOF

[^8]:    4. NIPA surplus less changes in retirement fund assets plus consumption of fixed capital.
    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.

    Note. Data after 2003:Q1 are staff projections.

    1. For corporations: Excess of capital expenditures over U.S. internal funds.
    2. Includes change in liabilities not shown in lines 8 and 9 .
    3. Average debt levels in the period (computed as the average of period-end
    4. Average debt levels in the period (computed as the average of period-end debt positions)
    divided by disposable personal income.
    2.6.4 FOF
[^9]:    Foreign GDP aggregates calculated using shares of U. S exports

    1. Foreign GDP aggregates calculated using shares of U.S. exports.
    2. Foreign CPI aggregates calculated using shares of U.S. non-oil imports.
[^10]:    1. Foreign GDP aggregates calculated using shares of U.S. exports.

    Foreign GDP aggregates calculated using shares of U.S. exports
    Harmonized data for euro area from Eurostat.
    3. Foreign CPI aggregates calculated using shares of U.S. non-oil imports.

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

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