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Confidential (FR) Class II FOMC

# Part 1

October 30, 2002

# 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

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# Summary and Outlook

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## Domestic Developments

Prospects for economic activity over the next several quarters look weaker than they did at the time of the September Greenbook. Consumer spending appears to have been surprisingly muted in September and early October, and the recent data and anecdotes about business investment have also been downbeat. In addition, the demand for labor has remained lackluster, and industrial production has receded somewhat in the past few months. One encouraging sign has been strong activity in housing markets. Altogether, the news has been disappointing and suggests that the economy will expand at only a tepid pace for some time. We now expect real GDP to increase at an annual rate of 1 percent in the fourth quarter and a bit below 2-1/2 percent in the first half of 2003. We have marked down, relative to the September Greenbook, the current-quarter forecast by a full percentage point and the forecast for the first half of next year by more than 1/2 percentage point.

Although we are less sanguine than at the time of the previous projection, we have not read the recent softness of sales and production as suggesting that aggregate economic activity is at serious risk of a cumulative contraction. With inventories having been brought into much better alignment with sales and with capital stocks apparently much closer to firms' desired levels, the imbalances that had contributed most significantly to the declines in output last year have largely been corrected. Nevertheless, a number of factors seem to be weighing on the vigor of the economic recovery. For both businesses and households, uncertainties about a potential military conflict have been layered on top of ongoing worries about economic activity and corporate earnings. Firms appear reluctant to commit to increases in capital spending in this environment, and consumer spending seems to be damped both by these concerns and by the sizable hit that household balance sheets have taken. Meanwhile, the economies of our major trading partners are showing little forward momentum, and expectations of a pickup in their real output growth depend heavily on an acceleration of activity in the United States.

These restraining influences are expected to abate over the course of next year. Improving sentiment and a waning of the drag from past declines in equity prices should boost consumer expenditures. Business investment is also likely to accelerate as the current uncertainties subside and firms take advantage of profit opportunities associated with rising demand and continued technological advance. Aided further by an accommodative monetary policy and additional stimulus from fiscal policy, a gradual strengthening of economic activity is expected to take hold. Real GDP is projected to accelerate to a pace of about 3-1/2 percent in the second half of 2003 and of almost 4 percent in 2004.

Even so, we expect real GDP to expand more slowly than its potential over the next several quarters. Accordingly, the slack in resource utilization should continue to rise over the first half of next year before beginning to ebb. The forecast shows the unemployment rate rising to 6-1/4 percent in early 2003 and remaining there for a couple of quarters before moving down to 5-3/4 percent by the end of the forecast period. With considerable slack in the economy and strong growth in structural productivity, core PCE inflation is anticipated to decline to 1-1/4 percent in 2004.

Our forecast does not incorporate the economic implications of a military conflict with Iraq. Very little is known at this point about what the timing, duration, and cost of such a war might be. Moreover, the uncertainty about military operations is compounded by uncertainty about the way households and businesses would react to a conflict. As a result, our assessment is that we can more clearly portray the underlying fundamentals of the macroeconomic situation leaving aside the potential effects of any war. Of course, some aspects of a potential military conflict are unavoidable in our forecast to the extent that private and public sector behavior has already been influenced.

**Key Background Factors**

In light of the somewhat weaker outlook for economic activity in this Greenbook, we have eliminated the tightening previously built in for 2004 and now assume that the federal funds rate will remain at its current level throughout the forecast period. In contrast, futures quotes suggest that market participants expect some easing in the near term followed by a significant increase in the funds rate over the second half of 2003 and in 2004. The convergence of investor expectations to our assumed path would damp the rise in Treasury and mortgage rates. Accordingly, we anticipate that these rates will remain fairly flat over the forecast period.

Net business financing remains weak. This weakness seems to be due largely to subdued demand for credit. However, the supply of funding appears to have tightened somewhat further, especially for riskier credits. Most bond spreads have widened over the intermeeting period owing to the additional deterioration in corporate credit quality and the volatile conditions in financial markets; spreads on BBB-rated and speculative-grade bonds currently are at their highest levels in more than a decade. In addition, the latest Senior Loan Officer survey reported that banks have imposed some additional net tightening of standards and terms for corporate lending. We expect these supply constraints to ease over the forecast period, albeit slowly, as the economy strengthens and concerns about potential defaults recede.

In the household sector, borrowing has remained on a strong uptrend, led by further robust gains in mortgage debt. Although bankruptcy filings and delinquency rates for nonprime borrowers remain at elevated levels, the affected group seems to be small, and most households appear to have ready access to credit.

Equity prices dropped sharply in late September and early October, but they have since reversed course and regained all of the ground lost since the last Greenbook. As a result, we assume that stock prices will follow essentially the same path going forward as in our previous forecast. This path has share prices increasing nearly 7 percent annually from their current level, which roughly maintains risk-adjusted parity with the return on safe bonds.

Under our baseline assumption of no war with Iraq, we expect the federal unified budget deficit for fiscal year 2003 to be $176 billion, a little larger deficit than the $159 billion for the fiscal year just ended. Before breaking for the elections, the Congress passed only the two military appropriations bills for the new fiscal year (accounting for about half of discretionary spending), leaving the eleven nonmilitary bills for future action; a continuing resolution is funding operations through November 22. We expect that discretionary outlays for this fiscal year will ultimately be closer to the Senate's budget plans, which call for a bit more spending than the President had requested. For fiscal year 2004, we expect that the projected pickup in economic growth will reduce the unified deficit to $146 billion. We estimate that fiscal policy will provide a small positive stimulus to real GDP growth in 2003 and again in 2004.

Economic activity abroad appears to be slightly weaker in the second half of this year than we had projected in the September Greenbook, and we have edged down our projection of foreign real GDP growth in 2003 to 2.9 percent. We expect foreign output to rise 3.4 percent in 2004. Our current-quarter average for the real trade-weighted foreign exchange value of the dollar is now 1-3/4 percent higher than in the September Greenbook. However, we continue to assume that the value of the dollar will decline a bit more than 1 percent per year from its current level.

Crude oil prices currently stand near $27 per barrel for West Texas intermediate (WTI), about $2.50 below the forecast for the current quarter in the September Greenbook. Market participants have apparently interpreted recent news as suggesting slightly lower odds of U.S. military action against Iraq. Oil production from OPEC, including Iraq, has been increasing as well. Looking ahead, we have assumed (in line with futures quotes) that the price of WTI will fall to around $23.50 per barrel by the end of 2003 and about $22.50 per barrel by the end of 2004.

**Recent Developments and the Near-Term Forecast**

We project that real GDP will rise at an annual rate of 1 percent in the current quarter after increasing about 3 percent in the third quarter.[1] A key element of this slowdown is a drop in motor vehicle production from its elevated third-quarter level. We anticipate that this decline will be accompanied by an even larger reduction in household and business purchases of motor vehicles, leaving room for automakers to rebuild stocks, which are currently on the lean side.

As noted, our outlook for real GDP growth in the current quarter represents a downward revision of roughly 1 percentage point relative to the September Greenbook. Indicators of final demand have been less favorable than we had expected, and recent news on the production side has been discouraging. In particular, manufacturing industrial production fell 1/4 percentage point more in September than we had expected a month ago and appears to have declined again in October.

Personal consumption expenditures have entered the fourth quarter on a very shallow trajectory. After a robust gain in July, real consumer spending was roughly flat in August and appears to have dropped markedly in September. Purchases of light motor vehicles were much lower in September and, according to confidential reports from automakers, in October than they had been in July and August. This decline seems to reflect both reduced sales incentives (because the discounts on 2003 models are smaller than the sizable discounts on now-scarce 2002 models) and a disappointing response to the incentives that are being offered—which suggests some weakening in the underlying demand for motor vehicles. We expect household spending on motor vehicles to remain close to its recent level for the remainder of the quarter. On the basis of widespread weakness in the September retail sales report, as well as a pronounced drop in consumer sentiment in October, we see consumption of other items advancing at about the same modest pace as in the third quarter. All told, we project that total real PCE will edge up at an annual rate of only 1/4 percent in the fourth quarter, after a gain of roughly 4 percent in the third quarter.

The good news from the household sector is that home sales and residential construction remain robust. Although the torrid reading on single-family starts in September likely overstates the underlying pace of activity, the sizable increase in permit issuance and large number of unused permits suggest that homebuilding will retain some strength this quarter; we expect that housing starts will equal the average level in the third quarter.

1. West Coast port disruptions are expected to have a very small effect on real GDP in the fourth quarter.

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

| Measure | 2002:Q3 Sept. GB | 2002:Q3 Oct. GB | 2002:Q4 Sept. GB | 2002:Q4 Oct. GB |
|---|---|---|---|---|
| **Real GDP** | **3.2** | **3.1** | **2.0** | **1.0** |
| Private domestic final purchases | 4.2 | 3.0 | .5 | .1 |
| Personal consumption expenditures | 4.8 | 4.1 | 1.1 | .3 |
| Residential investment | -1.5 | -1.1 | -3.6 | 2.9 |
| Business fixed investment | 2.6 | -2.3 | -1.6 | -2.5 |
| Government outlays for consumption and investment | 3.3 | 3.2 | 3.2 | 3.3 |
| | Contribution to growth (percentage points) | | | |
| Inventory investment | -.6 | .0 | .9 | .4 |
| Net exports | -.4 | -.1 | .0 | -.1 |

Business fixed investment is likely to decline further in the fourth quarter. Outlays for nonresidential structures fell sharply in the third quarter, and we expect another sizable drop in the current quarter. The most recent data on orders and shipments, together with anecdotal evidence, are consistent with a tepid fourth-quarter gain in real spending on equipment and software excluding transportation-related items. This small increase, combined with a gain in aircraft spending and a decline in business purchases of autos and trucks, will leave overall real E&S spending about flat in the fourth quarter.

The massive inventory runoff that began in early 2001 appears to have ended in the third quarter. Inventory-sales ratios in most industries appear comfortable by historical standards, and we believe that firms will build stocks at a moderate rate in the fourth quarter.

The pace of federal spending should ease slightly in the current quarter, as increases in spending associated with homeland security and the war on terrorism begin to moderate. However, we have nudged up our forecast to reflect the deployment of troops and military equipment to the Persian Gulf that is currently under way. Real spending by state and local governments is likely to accelerate a bit in the current quarter, as investment turns up after essentially no change, on net, over the first three quarters of the year.

Exports and imports were weaker in August than we had anticipated. We now believe that both categories posted small gains for the third quarter as a whole and that net exports had a small negative effect on the change in real GDP. For the fourth quarter, we project that net exports will again make a small arithmetic deduction from the change in real GDP, with both exports and imports accelerating.

Labor markets have yet to improve materially. Private payrolls have risen only a bit from their April trough, and aggregate hours have been roughly flat, on net, since the beginning of the year. The unemployment rate fell again in September, to 5.6 percent, but the recent decline in this rate is anomalous in light of the very small job gains recorded in the employer survey and the weakness in other indicators of labor market conditions. Claims remain at a level that we interpret as consistent with little or no change in employment in the fourth quarter.[2] We expect the unemployment rate to move up to 5.9 percent by year-end.

Both wage inflation and core consumer price inflation have remained subdued. However, a sharp rise in energy prices should push up overall consumer price inflation somewhat in the fourth quarter. Although we do not expect a further increase in the price of crude oil in the next several months, low inventories of gasoline and heating oil are boosting refiners' margins. We project that core PCE inflation will edge down to an annual rate of 1.5 percent in the fourth quarter while overall PCE inflation will pick up to a rate of 2.1 percent.

**The Longer-Term Outlook for the Economy**

We project that real GDP will rise 3 percent in 2003 and nearly 4 percent in 2004. Low consumer confidence and business hesitancy to hire and invest appear to be currently holding down aggregate demand. However, we expect these forces—and most of the drag on consumer spending from past declines in wealth—to wane next year. As that process unfolds, the ongoing impetus from strong underlying productivity growth, accommodative monetary policy, and stimulative fiscal policy should translate into increasingly robust gains in real GDP.

**Household spending.** We now expect real PCE to increase at an annual rate of 2-1/4 percent in the first half of 2003, a pace similar to the average one expected in the second half of this year. Spending growth should pick up to 2-3/4 percent in the second half of 2003 and to 3-1/4 percent in 2004. Several factors feed this projected acceleration. Besides the diminishing drag from wealth effects noted above, improving labor market conditions are expected to bolster personal

2. The Bureau of Labor Statistics has reported a drop in initial claims for unemployment insurance in recent weeks, but the seasonal factors that the BLS uses appear to have been distorted by the sharp increase in claims that followed the events of September 11, 2001. Using seasonal factors that remove the influence of that period, claims have been running higher.

**Projections of Real GDP**
(Percent change at annual rate from end of preceding period except as noted)

| Measure | 2003 H1 | 2003 H2 | 2004 |
|---|---|---|---|
| **Real GDP** | **2.4** | **3.6** | **3.9** |
| Previous | 3.0 | 3.5 | 3.8 |
| Final sales | 2.1 | 3.5 | 3.9 |
| Previous | 2.6 | 3.6 | 3.8 |
| PCE | 2.2 | 2.8 | 3.2 |
| Previous | 2.4 | 2.6 | 3.1 |
| Residential investment | -1.1 | 2.9 | 5.1 |
| Previous | 1.1 | 2.1 | 4.2 |
| BFI | 5.0 | 9.2 | 11.1 |
| Previous | 7.3 | 10.4 | 10.5 |
| Government purchases | 2.5 | 2.8 | 2.8 |
| Previous | 2.8 | 2.9 | 2.9 |
| Exports | 5.6 | 8.5 | 7.9 |
| Previous | 6.3 | 8.8 | 8.1 |
| Imports | 6.9 | 6.6 | 7.8 |
| Previous | 7.6 | 6.2 | 7.6 |
| | Contribution to growth, percentage points | | |
| Inventory change | .3 | .1 | .0 |
| Previous | .5 | .0 | .0 |
| Net exports | -.4 | -.1 | -.3 |
| Previous | -.5 | .0 | -.3 |

income. Moreover, household income should receive a further boost when the next phase of income tax reductions takes effect in early 2004.

The demand for homes will be supported by these same forces as well as by low mortgage interest rates. We project that the number of single-family housing starts will stay close to its high third-quarter average of 1.35 million units through the middle of next year and will rise roughly with overall economic activity thereafter. In the multifamily sector, where rents and property values have been stagnant and vacancy rates are high, starts are expected to be fairly flat over the next two years at a level a little below the 2002 average.

**Business fixed investment.** Our outlook for business fixed investment is somewhat weaker than in the last Greenbook but continues to show a significant rebound over the next two years. We project that real spending on equipment and software will increase at an annual rate of about 8 percent in the first half of 2003, up from an anticipated 2-1/4 percent rise in the second half of this year. The acceleration is led by gains in the transportation sector, where outlays (particularly for motor vehicles) should recover somewhat after falling, on net, in the latter part of this year. Excluding transportation equipment, the step-up in real E&S is less abrupt, consistent with fairly weak orders data and anecdotal evidence from business contacts that capital spending is advancing only slowly.

We expect that real E&S outlays will increase at an annual rate of 12 percent in the second half of 2003 and a touch faster in 2004.[3] Rising sales should boost desired capital stocks, and stronger cash flow and the partial-expensing tax incentives will also encourage investment. To be sure, these positive influences have been at work to some degree for a while; however, we expect them to translate into material increases in capital outlays only as some of the uncertainties facing businesses dissipate and confidence improves. Among the categories of investment, real purchases of communications equipment will likely be weak at least through next year, but real outlays for computers and software are expected to remain on a strong uptrend that steepens somewhat over the course of the forecast period. Outside the high-tech area, we are looking for a gradual strengthening of spending.

For nonresidential structures, we project a further small drop in real spending in 2003, reflecting the effects of the low rates of industrial capacity utilization and the high vacancy rates for office buildings. In 2004, we expect nonresidential investment to move up at a moderate pace of 4-1/4 percent.

**Inventory investment.** We expect firms to continue building their inventories next year as the expansion gains traction. However, stocks are likely to increase more slowly than sales, putting inventory-sales ratios on a downward trend. In our projection, inventory investment contributes about 1/4 percentage point to the growth rate of real GDP during 2003 and is a neutral influence in 2004.

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3. The partial-expensing incentives, which are scheduled to expire in late 2004, will induce businesses to pull forward investments that would otherwise have been made later. This effect will boost investment spending through the third quarter of 2004 and then depress spending in the fourth quarter of that year and in 2005 as well.

**Government spending.** With much of the step-up in security-related spending completed by the end of 2002 and with the federal budget outlook less rosy now than in previous years, we anticipate only moderate increases in federal outlays over the projection period. Under our baseline assumption of no war with Iraq, real defense spending is projected to rise 2-1/4 percent in 2003 and 1-1/2 percent in 2004, down from an anticipated 7-1/2 percent advance in 2002. Growth in nondefense spending is also expected to slow—albeit less dramatically—from a projected pace of 5-1/4 percent in 2002 to around 3-1/2 percent in 2003 and 2004. In contrast, the spending of states and localities, which we estimate will increase just 1.6 percent over the four quarters of 2002, should accelerate gradually over the next couple of years, as the expanding economy reduces strains on these governments' budgets.

**Net exports.** We expect that net exports will make arithmetic deductions from real GDP growth of roughly 1/4 percentage point in 2003 and 1/3 percentage point in 2004. This damping effect is slightly larger than we had projected in the September Greenbook, owing primarily to the higher assumed value of the dollar. We expect that real exports will expand at an average annual rate of 7-1/2 percent over the next two years, a pace slightly above that for 2002; exports should be supported by the pickup in economic activity abroad and the depreciation of the dollar. Real import growth is forecast to average 7-1/4 percent in 2003 and 2004—noticeably below this year's pace. *(The International Developments section provides more detail on the outlook for the external sector.)*

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

| Measure | 1973-95 | 1996-99 | 2000 | 2001 | 2002 | 2003 | 2004 |
|---|---|---|---|---|---|---|---|
| **Structural labor productivity** | **1.4** | **2.5** | **2.6** | **1.9** | **1.7** | **2.0** | **2.3** |
| Previous | 1.4 | 2.5 | 2.6 | 1.9 | 1.7 | 2.1 | 2.3 |
| *Contributions*[1] | | | | | | | |
| Capital deepening | .6 | 1.3 | 1.2 | .4 | .2 | .4 | .6 |
| Previous | .6 | 1.3 | 1.2 | .4 | .3 | .4 | .7 |
| Multifactor productivity | .6 | 1.0 | 1.2 | 1.3 | 1.2 | 1.4 | 1.4 |
| Previous | .6 | 1.0 | 1.2 | 1.3 | 1.2 | 1.4 | 1.4 |
| Labor composition | .3 | .3 | .3 | .3 | .3 | .3 | .3 |
| MEMO | | | | | | | |
| Potential GDP | 2.9 | 3.5 | 3.6 | 2.9 | 2.7 | 3.0 | 3.3 |
| Previous | 2.9 | 3.5 | 3.6 | 2.9 | 2.7 | 3.1 | 3.3 |

NOTE. Components may not sum to totals because of rounding.
1. Percentage points.

**Aggregate Supply, the Labor Market, and Prospects for Inflation**
We project that actual GDP growth will run below our estimate of potential GDP growth through the middle of next year, causing the current slack in resource utilization to increase a little further. The pickup in output growth that we foresee for the second half of next year and for 2004 is sufficient to narrow the output gap somewhat over that period. Still, the degree of slack in our forecast generates a deceleration in labor compensation and core consumer price inflation over the next couple of years.

**Productivity and the labor market.** We estimate that labor productivity in the nonfarm business sector rose roughly 5 percent over the four quarters ending in 2002:Q3 and that its level is now well above its structural level. We continue to believe that this pattern reflects firms' decisions—against a backdrop of uncertainty about the strength of the expansion—to use their existing labor and capital more intensively instead of hiring additional workers. Reflecting the persistently good performance of productivity this year, our forecast calls for actual productivity to stay above its estimated structural level to an unusual extent and for a longer period of time than is typical of previous expansions.

As business confidence improves over time and output accelerates, we expect to see material gains in payroll employment. We anticipate that private payrolls will increase 90,000 per month in the first half of next year, 170,000 per month in the second half of next year, and a little more than 200,000 per month in 2004.

**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 | 3.3 | 1.5 | 1.7 |
| Previous | 1.9 | 3.7 | 1.5 | 1.6 |
| Nonfarm private payroll employment | -1.4 | -.4 | 1.5 | 2.2 |
| Previous | -1.4 | -.3 | 1.9 | 2.2 |
| Household employment survey | -1.0 | .4 | 1.0 | 1.6 |
| Previous | -1.0 | .1 | 1.4 | 1.5 |
| Labor force participation rate[1] | 66.9 | 66.7 | 66.8 | 66.9 |
| Previous | 66.9 | 66.6 | 66.7 | 66.8 |
| Civilian unemployment rate[1] | 5.6 | 5.9 | 6.1 | 5.8 |
| Previous | 5.6 | 6.0 | 6.0 | 5.7 |

1. Percent, average for the fourth quarter.

The unemployment rate is projected to reach 6-1/4 percent next year and then to move down to around 5-3/4 percent by the end of 2004. This path for the unemployment rate is slightly above that in the September Greenbook, although less so than would be warranted solely by the revision to the output gap because we are placing some weight on the surprisingly low readings of the unemployment rate in recent months.[4]

**Prices and wages.** We anticipate that four-quarter inflation as measured by the core PCE price index will come in at 1.6 percent in 2002, decline to 1.3 percent in 2003, and then edge down further to 1.2 percent in 2004. The deceleration stems mainly from the persistence of slack in labor and product markets. In addition, the anticipated pickup in structural productivity growth next year and in 2004 should help trim firms' costs over the forecast period.

Total PCE inflation has been boosted this year by rising energy prices. However, we expect gasoline prices to reverse about half of this year's run-up in 2003 (and a little more in 2004), bringing down overall consumer energy prices. As a result, we are projecting a larger deceleration in total PCE prices than in core prices, from a pace of 1.9 percent in 2002 to a pace of 1-1/4 percent in 2003 and 2004.

Over the forecast period, the easing in price inflation—coupled with the continued slack in labor markets—should be reflected in slower growth in wages and salaries. However, benefit costs are expected to accelerate over the forecast period owing to more-rapid increases in health insurance premiums and some firming of bonuses. All told, we project that compensation per hour in the nonfarm business sector will rise 3.8 percent in 2002 and then slow to a rise of 3.2 percent in 2003 and 3.1 percent in 2004. For the employment cost index, we expect a rise of 3.8 percent in 2002 followed by an increase of 3.4 percent in 2003 and 3.3 percent in 2004.

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4. Once again, we assume that the availability of extended unemployment benefits boosts the projected unemployment rate a little throughout the forecast period by encouraging unemployed individuals to be more selective about taking a job offer and by drawing some people into the labor force to become eligible for these benefits. Moreover, an implication of our assumption that productivity will persist above its structural level is that the unemployment rate will be higher than would be expected given the output gap.

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

| Measure | 2001 | 2002 | 2003 | 2004 |
|---|---|---|---|---|
| PCE chain-weighted price index | 1.5 | 1.9 | 1.2 | 1.3 |
| Previous | 1.5 | 1.7 | 1.4 | 1.3 |
| Food and beverages | 3.1 | 1.5 | 2.0 | 1.8 |
| Previous | 3.1 | 1.4 | 2.0 | 1.9 |
| Energy | -10.3 | 8.2 | -4.9 | -.0 |
| Previous | -10.3 | 5.6 | -2.0 | -.4 |
| Excluding food and energy | 1.9 | 1.6 | 1.3 | 1.2 |
| Previous | 1.9 | 1.6 | 1.4 | 1.3 |
| Consumer price index | 1.9 | 2.3 | 1.6 | 1.7 |
| Previous | 1.9 | 2.2 | 1.8 | 1.7 |
| Excluding food and energy | 2.7 | 2.1 | 2.0 | 1.8 |
| Previous | 2.7 | 2.2 | 2.1 | 1.9 |
| GDP chain-weighted price index | 2.0 | 1.4 | 1.3 | 1.3 |
| Previous | 2.0 | 1.2 | 1.5 | 1.4 |
| ECI for compensation of private industry workers[1] | 4.2 | 3.8 | 3.4 | 3.3 |
| Previous | 4.2 | 3.8 | 3.4 | 3.4 |
| NFB compensation per hour | 1.4 | 3.8 | 3.2 | 3.1 |
| Previous | 1.4 | 3.7 | 3.3 | 3.2 |
| Prices of core non-oil merchandise imports | -2.9 | 1.2 | 2.3 | 1.9 |
| Previous | -2.9 | 1.5 | 2.9 | 1.7 |

1. December to December.

**Financial Flows and Conditions**

Domestic nonfinancial debt is projected to increase at a pace of about 6 percent from the current quarter through mid-2003 and then to slow to an average pace of about 5 percent through the end of 2004. After rising 7-1/2 percent in 2002, the growth rate of federal debt is expected to taper down to 5 percent next year and 4 percent the year after. In 2003 and 2004, nonfederal debt is projected to increase 5-1/2 percent—below this year's estimated pace of 6-1/4 percent—as a pickup in borrowing by nonfinancial businesses does not completely offset slower debt growth for households.

The anticipated slowing in federal debt issuance over the forecast period reflects improved revenues associated with the ongoing economic recovery as well as more moderate growth in outlays over the projection period. Growth in the debt of state and local governments is also expected to moderate in 2003 and 2004 from this year's heavy borrowing, which has been driven in large part by particularly attractive opportunities for advance refunding and a significant deterioration in budget conditions.

Mortgage rates dipped to historically low levels in the intermeeting period and have backed up only a little since then. The relatively attractive rates seen all year have supported rapid growth of household mortgage debt—at a pace of more than 10 percent in the past three quarters. Given the current backlog of applications for refinancing, mortgage borrowing will likely remain brisk through year-end. Looking further ahead, slow growth in residential investment next year, together with a continued deceleration in house prices, should damp mortgage borrowing over the projection period. Consumer credit has expanded at a relatively moderate rate of 5-1/2 percent this year. We expect the growth in consumer credit to slow to an average pace of 5 percent in 2003 and 2004, in keeping with our projection of relatively sluggish increases in nominal spending on autos and other durable goods.

Borrowing by nonfinancial businesses has been extremely light so far this year, especially in recent months, reflecting a combination of weak demand for funds and some stringency on the part of lenders and the markets. We expect the demand for external funds to turn up in coming quarters, as firms deplete large cushions of cash and as investment spending increases more rapidly than profits. In addition, credit conditions should ease somewhat as the expansion shows greater vigor. Thus, we expect the pace of borrowing to strengthen over the forecast period, reaching a 5-1/4 percent pace in 2004.

M2 has continued to increase fairly rapidly, on average, in recent months. Although the lagged effects on M2 of previous policy easings have about played out, liquid deposits are still getting a substantial boost from the effects of mortgage refinancings. M2 is expected to decelerate in the months ahead owing to slow growth of nominal spending. Over the next two years, the opportunity cost of holding M2 assets is projected to be stable, and special factors, such as mortgage refinancing and foreign demands for U.S. currency, are expected to have little effect on M2 growth. At the same time, the gradual improvement in the stock market assumed in this Greenbook siphons some funds out of M2. As a result, the staff forecast has M2 increasing a bit less than nominal GDP.

**Alternative Simulations**

In this section, we use simulations of the FRB/US model to examine several risks to the forecast. The first pair of simulations focuses on the state of aggregate demand: One scenario posits that both business and household spending will be significantly more restrained through 2003 than we project in the baseline forecast, and the other scenario considers the consequences of a more robust rebound in private final demand. The next pair of scenarios allows for a more favorable configuration of supply-side factors. In one, recent impressive gains in output per hour are assumed to herald an additional pickup in structural productivity growth; in the other, we assume that the NAIRU is well below the staff's estimate. In these four scenarios, we assume that the federal funds rate follows the baseline path. The final pair of scenarios considers alternative stances for monetary policy, with the first showing the effects of a market-based forecast of the funds rate and the second demonstrating the effects of a policy easing.

**Weaker investment and consumption.** Consumer spending has slowed of late, and business investment has yet to increase decisively. This combination underscores the risk that household outlays will flag before the economy is boosted by the substantial pickup in business investment that we are expecting. This scenario assumes that households are less confident over the coming year about income and employment prospects than we believe and hence will raise their saving. As a result, real PCE increases only 1-1/2 percent in 2003 and 2-1/2 percent in 2004 (including multiplier effects), compared with 2-1/2 percent and 3-1/4 percent, respectively, in the baseline forecast. The E&S rebound is also delayed in this scenario, with real outlays rising only 3 percent in 2003—a little below the pace seen in the past half year—and increasing 10 percent in 2004. The net effect of this weakness in aggregate demand is to lower growth of real GDP about 1 percentage point in both 2003 and 2004. The unemployment rate rises to 6-3/4 percent by the end of 2004, and the core inflation rate drops to 1 percent in 2004.

**Stronger aggregate demand.** Although the real federal funds rate is assumed to remain very low, our forecast shows only a modest recovery in economic activity. This scenario considers the possibility that the factors now weighing on the economy, and holding down the equilibrium real funds rate, will fade away more quickly than we project and, accordingly, that aggregate demand will turn out to be significantly stronger. To illustrate the risk that the economy's equilibrium real rate will turn out to be much closer to its historical average than is implicitly assumed in the staff forecast, we impose positive shocks on consumption and investment. Under these circumstances, real GDP increases about 4-1/2 percent in 2003 and 2004, and the unemployment rate falls below the NAIRU in 2004. Inflation begins to edge up, but the capital deepening associated with the stronger investment path boosts productivity, limiting the additional pressure on prices.

**Stronger productivity.** Productivity growth has been impressive over the past year even as capital spending and the increase in output have been subpar. In this scenario, we consider the possibility that structural multifactor productivity

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

| Measure | 2002 | | 2003 | | 2004 |
|---|---|---|---|---|---|
| | H1 | H2 | H1 | H2 | |
| *Real GDP* | | | | | |
| **Greenbook Baseline** | **3.1** | **2.1** | **2.4** | **3.6** | **3.9** |
| Weaker aggregate demand | 3.1 | 1.9 | 1.5 | 2.3 | 2.9 |
| Stronger aggregate demand | 3.1 | 2.6 | 3.7 | 5.4 | 4.4 |
| Faster productivity growth | 3.1 | 2.1 | 3.0 | 4.4 | 4.6 |
| Low NAIRU | 3.1 | 2.2 | 2.4 | 3.6 | 3.9 |
| Market-based funds rate | 3.1 | 2.1 | 2.6 | 3.9 | 3.7 |
| Lower funds rate | 3.1 | 2.1 | 2.6 | 4.0 | 4.4 |
| *Civilian unemployment rate*[1] | | | | | |
| **Greenbook Baseline** | **5.9** | **5.9** | **6.2** | **6.1** | **5.8** |
| Weaker aggregate demand | 5.9 | 5.9 | 6.4 | 6.6 | 6.8 |
| Stronger aggregate demand | 5.9 | 5.8 | 5.8 | 5.3 | 4.7 |
| Faster productivity growth | 5.9 | 5.9 | 6.3 | 6.1 | 5.7 |
| Low NAIRU | 5.9 | 5.9 | 6.2 | 6.1 | 5.7 |
| Market-based funds rate | 5.9 | 5.9 | 6.2 | 6.0 | 5.7 |
| Lower funds rate | 5.9 | 5.9 | 6.2 | 6.0 | 5.4 |
| *PCE prices excluding food and energy* | | | | | |
| **Greenbook Baseline** | **1.7** | **1.6** | **1.4** | **1.3** | **1.2** |
| Weaker aggregate demand | 1.7 | 1.6 | 1.4 | 1.2 | 1.0 |
| Stronger aggregate demand | 1.7 | 1.6 | 1.4 | 1.4 | 1.5 |
| Faster productivity growth | 1.7 | 1.6 | 1.3 | 1.1 | 0.8 |
| Low NAIRU | 1.7 | 1.5 | 1.1 | 0.9 | 0.7 |
| Market-based funds rate | 1.7 | 1.6 | 1.4 | 1.4 | 1.2 |
| Lower funds rate | 1.7 | 1.6 | 1.4 | 1.4 | 1.4 |

1. Average for the final quarter of the period.

will rise 1/2 percentage point faster per year than in the baseline forecast. For purposes of this simulation, we assume that current equity valuations already incorporate expectations of such higher productivity growth, so that the stock market path is little different. The improved outlook for aggregate supply implies better prospects for households' permanent income and for corporate earnings; as a result, consumption and investment increase faster than in the baseline. Under these conditions, real GDP is revised up roughly in tandem with the revision to potential output, so the unemployment rate is little different from the baseline. Labor is rewarded for its higher marginal product, but the real wage is boosted primarily through less price inflation rather than faster nominal wage gains. Core PCE price inflation is only 3/4 percent in 2004.

**Low NAIRU.** This scenario assumes that the NAIRU is 4-1/4 percent (3/4 percentage point less than in the baseline) and has been at that level for some time. The lower NAIRU puts significant downward pressure on prices, shaving roughly 1/2 percentage point off PCE inflation by 2004. Because we assume that the funds rate path is the same as in the baseline, the lower inflation rate generates a higher path for the real interest rate and reduces investment spending. In the event, actual GDP is virtually unchanged from the baseline despite the positive implications of the lower NAIRU for potential output.

**Market-based funds rate.** Futures quotes are consistent with a decline in the federal funds rate through the middle of next year, followed by a relatively steep upward trajectory thereafter. The market-based funds rate averages roughly 40 basis points below the baseline over the next several quarters but about 3/4 percentage point above the baseline in 2004. This contour adds 1/4 percentage point to the increase in real GDP in 2003 and shaves a similar amount off the increase in 2004; unemployment and inflation would be little affected.

**Lower funds rate.** In this scenario, the federal funds rate is lowered 50 basis points to 1-1/4 percent by the end of this year and remains at this level through the end of 2004. Relative to the baseline, real GDP rises 1/4 percentage point more rapidly in 2003 and 1/2 percentage point more rapidly in 2004. The unemployment rate drops to 5.4 percent by the end of 2004, and PCE prices rise 1/4 percentage point more rapidly in 2004.

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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] | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 09/18/02 | 10/30/02 | 09/18/02 | 10/30/02 | 09/18/02 | 10/30/02 | 09/18/02 | 10/30/02 | 09/18/02 | 10/30/02 |
| ANNUAL | | | | | | | | | | | |
| 2000 | | 5.9 | 5.9 | 3.8 | 3.8 | 2.1 | 2.1 | 3.4 | 3.4 | 4.0 | 4.0 |
| 2001 | | 2.6 | 2.6 | 0.3 | 0.3 | 2.4 | 2.4 | 2.8 | 2.8 | 4.8 | 4.8 |
| 2002 | | 3.5 | 3.5 | 2.4 | 2.3 | 1.1 | 1.1 | 1.6 | 1.6 | 5.9 | 5.8 |
| 2003 | | 4.3 | 3.8 | 2.8 | 2.4 | 1.4 | 1.4 | 2.0 | 1.9 | 6.1 | 6.2 |
| 2004 | | 5.2 | 5.2 | 3.7 | 3.8 | 1.5 | 1.3 | 1.8 | 1.7 | 5.8 | 5.9 |
| 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 | 4.5 | 4.5 |
| | Q3 | 1.9 | 1.9 | -0.3 | -0.3 | 2.2 | 2.2 | 0.7 | 0.7 | 4.8 | 4.8 |
| | Q4 | 2.2 | 2.2 | 2.7 | 2.7 | -0.5 | -0.5 | -0.2 | -0.2 | 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 | 2.6 | 2.5 | 1.5 | 1.3 | 1.1 | 1.2 | 3.4 | 3.4 | 5.9 | 5.9 |
| | Q3 | 4.3 | 4.2 | 3.2 | 3.1 | 1.1 | 1.0 | 1.8 | 1.8 | 5.8 | 5.7 |
| | Q4 | 3.2 | 2.9 | 2.0 | 1.0 | 1.2 | 1.8 | 2.2 | 2.7 | 6.0 | 5.9 |
| 2003 | Q1 | 4.8 | 3.9 | 2.9 | 2.2 | 1.9 | 1.6 | 2.0 | 1.4 | 6.1 | 6.2 |
| | Q2 | 4.6 | 3.9 | 3.1 | 2.6 | 1.5 | 1.2 | 1.8 | 1.5 | 6.1 | 6.2 |
| | Q3 | 4.8 | 4.6 | 3.4 | 3.3 | 1.4 | 1.3 | 1.8 | 1.6 | 6.0 | 6.1 |
| | Q4 | 5.1 | 5.2 | 3.7 | 3.8 | 1.4 | 1.3 | 1.8 | 1.7 | 6.0 | 6.1 |
| 2004 | Q1 | 5.6 | 5.7 | 3.8 | 3.9 | 1.8 | 1.7 | 1.8 | 1.7 | 5.9 | 6.0 |
| | Q2 | 5.3 | 5.3 | 3.9 | 4.0 | 1.4 | 1.2 | 1.8 | 1.7 | 5.9 | 5.9 |
| | Q3 | 5.3 | 5.3 | 3.9 | 4.0 | 1.3 | 1.2 | 1.7 | 1.7 | 5.8 | 5.9 |
| | Q4 | 4.8 | 4.9 | 3.5 | 3.6 | 1.3 | 1.2 | 1.7 | 1.8 | 5.7 | 5.8 |
| 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 | 1.1 | 1.1 |
| 2002 | Q2 | 4.5 | 4.5 | 3.2 | 3.1 | 1.2 | 1.3 | 2.4 | 2.4 | 0.3 | 0.3 |
| | Q4 | 3.7 | 3.5 | 2.6 | 2.1 | 1.1 | 1.4 | 2.0 | 2.3 | 0.1 | 0.0 |
| 2003 | Q2 | 4.7 | 3.9 | 3.0 | 2.4 | 1.7 | 1.4 | 1.9 | 1.5 | 0.1 | 0.3 |
| | Q4 | 5.0 | 4.9 | 3.5 | 3.6 | 1.4 | 1.3 | 1.8 | 1.7 | -0.1 | -0.1 |
| 2004 | Q2 | 5.5 | 5.5 | 3.8 | 4.0 | 1.6 | 1.4 | 1.8 | 1.7 | -0.1 | -0.2 |
| | Q4 | 5.1 | 5.1 | 3.7 | 3.8 | 1.3 | 1.2 | 1.7 | 1.7 | -0.2 | -0.1 |
| FOUR-QUARTER[4] | | | | | | | | | | | |
| 2000 | Q4 | 4.6 | 4.6 | 2.3 | 2.3 | 2.3 | 2.3 | 3.4 | 3.4 | -0.1 | -0.1 |
| 2001 | Q4 | 2.0 | 2.0 | 0.1 | 0.1 | 2.0 | 2.0 | 1.9 | 1.9 | 1.6 | 1.6 |
| 2002 | Q4 | 4.1 | 4.0 | 2.9 | 2.6 | 1.2 | 1.4 | 2.2 | 2.3 | 0.4 | 0.3 |
| 2003 | Q4 | 4.9 | 4.4 | 3.3 | 3.0 | 1.5 | 1.3 | 1.8 | 1.6 | -0.1 | 0.2 |
| 2004 | Q4 | 5.3 | 5.3 | 3.8 | 3.9 | 1.4 | 1.3 | 1.7 | 1.7 | -0.3 | -0.4 |

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.

REAL GROSS DOMESTIC PRODUCT AND RELATED ITEMS, ANNUAL VALUES (Seasonally adjusted annual rate) — October 30, 2002

| Item | Units[1] | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 (Projected) | 2003 (Projected) | 2004 (Projected) |
|---|---|---|---|---|---|---|---|---|---|---|
| **EXPENDITURES** | | | | | | | | | | |
| Nominal GDP | Bill. $ | 7813.2 | 8318.4 | 8781.5 | 9274.3 | 9824.6 | 10082.2 | 10433.0 | 10830.5 | 11390.3 |
| Real GDP | Bill. Ch. $ | 7813.2 | 8159.5 | 8508.9 | 8859.0 | 9191.4 | 9214.5 | 9427.4 | 9650.4 | 10014.8 |
| Real GDP | % change | 4.1 | 4.3 | 4.8 | 4.3 | 2.3 | 0.1 | 2.6 | 3.0 | 3.9 |
| Gross domestic purchases | | 4.3 | 5.0 | 5.8 | 5.2 | 2.9 | 0.1 | 3.1 | 3.1 | 4.1 |
| Final sales | | 3.9 | 3.9 | 4.7 | 4.2 | 2.6 | 1.6 | 1.5 | 2.8 | 3.9 |
| Priv. dom. final purchases | | 4.4 | 5.1 | 6.3 | 5.2 | 3.7 | 0.9 | 1.7 | 3.0 | 4.3 |
| Personal cons. expenditures | | 3.1 | 4.1 | 5.0 | 5.0 | 3.5 | 2.8 | 2.3 | 2.5 | 3.2 |
| Durables | | 5.0 | 8.8 | 12.7 | 10.0 | 3.8 | 13.2 | 1.8 | 4.0 | 5.5 |
| Nondurables | | 3.2 | 2.5 | 5.0 | 4.9 | 3.0 | 1.7 | 2.4 | 2.2 | 2.8 |
| Services | | 2.7 | 3.9 | 3.6 | 4.0 | 3.8 | 1.3 | 2.4 | 2.4 | 3.0 |
| Business fixed investment | | 12.1 | 11.8 | 12.3 | 6.6 | 6.2 | -9.3 | -3.3 | 7.1 | 11.1 |
| Equipment & Software | | 11.8 | 13.7 | 14.9 | 9.7 | 5.2 | -8.8 | 1.2 | 9.8 | 13.1 |
| Nonres. structures | | 12.8 | 6.5 | 4.9 | -2.5 | 9.3 | -10.6 | -15.7 | -1.9 | 4.2 |
| Residential structures | | 5.6 | 3.5 | 10.0 | 4.0 | -1.2 | 1.0 | 4.5 | 0.9 | 5.1 |
| Exports | | 9.8 | 8.5 | 2.3 | 4.9 | 7.3 | -11.4 | 6.6 | 7.0 | 7.9 |
| Imports | | 11.2 | 14.3 | 10.8 | 11.9 | 11.1 | -8.0 | 9.4 | 6.8 | 7.8 |
| Gov't. cons. & investment | | 2.7 | 2.4 | 2.7 | 4.5 | 1.3 | 5.1 | 3.4 | 2.6 | 2.8 |
| Federal | | 2.0 | 0.1 | 0.6 | 4.0 | -1.2 | 7.5 | 6.7 | 2.6 | 2.2 |
| Defense | | 0.8 | -1.4 | -0.8 | 4.4 | -2.5 | 7.4 | 7.5 | 2.2 | 1.5 |
| State & local | | 3.0 | 3.7 | 3.8 | 4.8 | 2.6 | 3.9 | 1.6 | 2.7 | 3.2 |
| Change in bus. inventories | Bill. Ch. $ | 30.0 | 63.8 | 76.7 | 62.8 | 65.0 | -61.4 | -1.1 | 32.3 | 42.1 |
| Nonfarm | | 21.2 | 60.6 | 75.0 | 64.1 | 67.2 | -63.2 | -2.6 | 31.5 | 40.9 |
| Net exports | | -89.0 | -113.3 | -221.1 | -320.5 | -398.8 | -415.9 | -479.3 | -517.1 | -554.6 |
| Nominal GDP | % change | 6.0 | 6.2 | 6.0 | 5.9 | 4.6 | 2.0 | 4.0 | 4.4 | 5.3 |
| **EMPLOYMENT AND PRODUCTION** | | | | | | | | | | |
| Nonfarm payroll employment | Millions | 119.6 | 122.7 | 125.9 | 128.9 | 131.7 | 131.9 | 130.8 | 131.9 | 134.5 |
| Unemployment rate | % | 5.4 | 4.9 | 4.5 | 4.2 | 4.0 | 4.8 | 5.8 | 6.2 | 5.9 |
| Industrial prod. index | % change | 5.8 | 7.4 | 3.5 | 4.3 | 2.6 | -5.9 | 1.9 | 3.5 | 4.6 |
| Capacity util. rate - mfg. | % | 81.6 | 82.7 | 81.4 | 80.6 | 80.7 | 75.1 | 73.9 | 74.7 | 77.2 |
| Housing starts | Millions | 1.48 | 1.47 | 1.62 | 1.64 | 1.57 | 1.60 | 1.69 | 1.69 | 1.76 |
| Light motor vehicle sales | | 15.05 | 15.07 | 15.41 | 16.78 | 17.24 | 17.02 | 16.62 | 16.82 | 17.22 |
| North Amer. produced | | 13.34 | 13.14 | 13.39 | 14.30 | 14.38 | 13.94 | 13.33 | 13.50 | 13.80 |
| Other | | 1.70 | 1.93 | 2.02 | 2.48 | 2.86 | 3.08 | 3.29 | 3.32 | 3.42 |
| **INCOME AND SAVING** | | | | | | | | | | |
| Nominal GNP | Bill. $ | 7831.2 | 8325.4 | 8778.1 | 9297.1 | 9848.0 | 10104.1 | 10418.2 | 10809.3 | 11365.4 |
| Nominal GNP | % change | 5.9 | 6.0 | 5.8 | 6.4 | 4.6 | 2.1 | 3.4 | 4.4 | 5.2 |
| Nominal personal income | | 5.9 | 6.3 | 6.7 | 5.1 | 7.7 | 1.4 | 4.2 | 4.2 | 4.9 |
| Real disposable income | | 2.6 | 3.8 | 5.0 | 2.4 | 4.8 | 0.3 | 5.5 | 2.0 | 3.6 |
| Personal saving rate | % | 4.8 | 4.2 | 4.7 | 2.6 | 2.8 | 2.3 | 3.8 | 3.7 | 4.1 |
| Corp. profits, IVA & CCAdj. | % change | 11.4 | 9.9 | -9.6 | 7.0 | -9.1 | 8.2 | -4.4 | 3.3 | 7.2 |
| Profit share of GNP | % | 9.6 | 10.0 | 8.9 | 8.7 | 8.0 | 7.2 | 7.5 | 7.2 | 7.4 |
| Excluding FR Banks | | 9.4 | 9.7 | 8.6 | 8.4 | 7.7 | 7.0 | 7.3 | 7.0 | 7.2 |
| Federal surpl./deficit | Bill. $ | -136.8 | -53.3 | 43.8 | 111.9 | 206.9 | 72.0 | -194.0 | -178.0 | -152.2 |
| State & local surpl./def. | | 21.4 | 31.0 | 40.7 | 38.3 | 18.0 | -31.3 | -47.1 | -26.0 | -5.7 |
| Ex. social ins. funds | | 18.7 | 29.9 | 40.0 | 37.4 | 17.8 | -31.2 | -47.0 | -25.9 | -5.6 |
| Gross natl. saving rate | % | 17.2 | 18.0 | 18.8 | 18.3 | 18.4 | 16.5 | 15.4 | 15.6 | 16.3 |
| Net natl. saving rate | | 5.7 | 6.7 | 7.5 | 6.8 | 6.7 | 3.8 | 2.3 | 2.3 | 3.1 |
| **PRICES AND COSTS** | | | | | | | | | | |
| GDP chn.-wt. price index | % change | 1.9 | 1.8 | 1.1 | 1.6 | 2.3 | 2.0 | 1.4 | 1.3 | 1.3 |
| Gross Domestic Purchases chn.-wt. price index | | 1.9 | 1.4 | 0.8 | 1.9 | 2.5 | 1.3 | 1.7 | 1.3 | 1.3 |
| PCE chn.-wt. price index | | 2.3 | 1.5 | 1.1 | 2.0 | 2.5 | 1.5 | 1.9 | 1.2 | 1.3 |
| Ex. food and energy | | 1.8 | 1.7 | 1.6 | 1.5 | 1.8 | 1.9 | 1.6 | 1.3 | 1.2 |
| CPI | | 3.2 | 1.9 | 1.5 | 2.6 | 3.4 | 1.9 | 2.3 | 1.6 | 1.7 |
| Ex. food and energy | | 2.6 | 2.2 | 2.3 | 2.1 | 2.5 | 2.7 | 2.1 | 2.0 | 1.8 |
| ECI, hourly compensation[2] | | 3.1 | 3.4 | 3.5 | 3.4 | 4.4 | 4.2 | 3.8 | 3.4 | 3.3 |
| Nonfarm business sector | | | | | | | | | | |
| Output per hour | | 2.3 | 2.2 | 2.9 | 2.9 | 2.1 | 1.9 | 3.3 | 1.5 | 1.7 |
| Compensation per Hour | | 3.2 | 3.4 | 5.3 | 4.3 | 7.2 | 1.4 | 3.8 | 3.2 | 3.1 |
| Unit labor cost | | 0.9 | 1.1 | 2.3 | 1.4 | 4.9 | -0.5 | 0.4 | 1.7 | 1.4 |

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

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

October 30, 2002

| Item | Units | 2000 Q1 | 2000 Q2 | 2000 Q3 | 2000 Q4 | 2001 Q1 | 2001 Q2 | 2001 Q3 | 2001 Q4 | 2002 Q1 | 2002 Q2 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **EXPENDITURES** | | | | | | | | | | | |
| Nominal GDP | Bill. $ | 9649.5 | 9820.7 | 9874.8 | 9953.6 | 10028.1 | 10049.9 | 10097.7 | 10152.9 | 10313.1 | 10376.9 |
| Real GDP | Bill. Ch. $ | 9097.4 | 9205.7 | 9218.7 | 9243.8 | 9229.9 | 9193.1 | 9186.4 | 9248.8 | 9363.2 | 9392.4 |
| Real GDP | % change | 2.6 | 4.8 | 0.6 | 1.1 | -0.6 | -1.6 | -0.3 | 2.7 | 5.0 | 1.3 |
| Gross domestic purchases | | 3.6 | 5.7 | 1.2 | 1.3 | -1.1 | -1.1 | -0.1 | 2.9 | 5.6 | 2.6 |
| Final sales | | 4.4 | 3.1 | 1.7 | 1.3 | 2.8 | -0.4 | -0.2 | 4.2 | 2.4 | -0.1 |
| Priv. dom. final purchases | | 6.9 | 3.8 | 3.1 | 1.1 | 1.5 | -1.2 | 0.3 | 3.0 | 2.5 | 1.3 |
| Personal cons. expenditures | | 5.3 | 3.0 | 3.8 | 2.1 | 2.4 | 1.4 | 1.5 | 6.0 | 3.1 | 1.8 |
| Durables | | 17.8 | -3.7 | 8.1 | -5.3 | 11.5 | 5.3 | 4.6 | 33.6 | -6.3 | 2.0 |
| Nondurables | | 2.2 | 4.9 | 2.0 | 2.7 | 2.3 | -0.3 | 1.3 | 3.6 | 7.9 | -0.1 |
| Services | | 4.4 | 3.6 | 3.9 | 3.3 | 0.6 | 1.5 | 0.9 | 2.1 | 2.9 | 2.7 |
| Business fixed investment | | 15.0 | 10.2 | 3.5 | -3.2 | -5.4 | -14.5 | -6.0 | -10.9 | -5.8 | -2.4 |
| Equipment & Software | | 15.5 | 10.9 | 0.9 | -5.4 | -6.3 | -16.7 | -9.2 | -2.5 | -2.7 | 3.3 |
| Nonres. structures | | 13.8 | 8.2 | 12.1 | 3.6 | -3.1 | -8.4 | 2.9 | -30.1 | -14.2 | -17.6 |
| Residential structures | | 8.3 | -3.0 | -9.3 | 0.0 | 8.2 | -0.5 | 0.4 | -3.5 | 14.2 | 2.7 |
| Exports | | 7.7 | 14.6 | 11.6 | -4.0 | -6.0 | -12.4 | -17.3 | -9.6 | 3.5 | 14.3 |
| Imports | | 14.7 | 18.6 | 13.8 | -1.6 | -7.9 | -6.8 | -11.8 | -5.3 | 8.5 | 22.2 |
| Gov’t. cons. & investment | | -1.2 | 4.6 | -1.0 | 2.9 | 5.7 | 5.6 | -1.1 | 10.5 | 5.6 | 1.4 |
| Federal | | -13.2 | 16.0 | -7.2 | 2.0 | 9.5 | 6.0 | 1.2 | 13.5 | 7.4 | 7.5 |
| Defense | | -19.9 | 15.0 | -6.1 | 4.7 | 8.3 | 2.7 | 4.6 | 14.3 | 11.6 | 7.8 |
| State & local | | 5.6 | -0.8 | 2.4 | 3.3 | 3.8 | 5.4 | -2.3 | 8.9 | 4.6 | -1.7 |
| Change in bus. inventories | Bill. Ch. $ | 45.3 | 91.5 | 63.1 | 59.9 | -26.9 | -58.3 | -61.8 | -98.4 | -28.9 | 4.9 |
| Nonfarm | | 58.9 | 88.6 | 64.6 | 56.8 | -32.6 | -54.9 | -63.6 | -101.5 | -35.1 | 4.2 |
| Net exports | | -368.8 | -394.6 | -413.1 | -418.5 | -404.5 | -414.8 | -419.0 | -425.3 | -446.6 | -487.4 |
| Nominal GDP | % change | 5.7 | 7.3 | 2.2 | 3.2 | 3.0 | 0.9 | 1.9 | 2.2 | 6.5 | 2.5 |
| **EMPLOYMENT AND PRODUCTION** | | | | | | | | | | | |
| Nonfarm payroll employment | Millions | 131.0 | 131.8 | 131.9 | 132.2 | 132.4 | 132.2 | 131.9 | 131.1 | 130.8 | 130.7 |
| Unemployment rate | % | 4.0 | 4.0 | 4.1 | 4.0 | 4.2 | 4.5 | 4.8 | 5.6 | 5.6 | 5.9 |
| Industrial prod. index | % change | 5.8 | 7.0 | 0.6 | -2.6 | -6.1 | -5.9 | -4.7 | -6.7 | 2.6 | 4.2 |
| Capacity util. rate - mfg. | % | 81.2 | 81.6 | 80.7 | 79.1 | 77.2 | 75.6 | 74.5 | 73.1 | 73.5 | 74.0 |
| Housing starts | Millions | 1.66 | 1.59 | 1.50 | 1.54 | 1.61 | 1.62 | 1.60 | 1.57 | 1.73 | 1.67 |
| Light motor vehicle sales | | 18.15 | 17.14 | 17.42 | 16.26 | 16.95 | 16.54 | 16.23 | 18.37 | 16.34 | 16.35 |
| North Amer. produced | | 15.29 | 14.27 | 14.56 | 13.41 | 14.04 | 13.51 | 13.23 | 15.00 | 13.04 | 13.10 |
| Other | | 2.86 | 2.87 | 2.86 | 2.85 | 2.90 | 3.04 | 3.00 | 3.37 | 3.31 | 3.25 |
| **INCOME AND SAVING** | | | | | | | | | | | |
| Nominal GNP | Bill. $ | 9670.5 | 9846.4 | 9892.5 | 9982.8 | 10038.0 | 10081.0 | 10109.3 | 10188.1 | 10314.9 | 10356.8 |
| Nominal GNP | % change | 5.3 | 7.5 | 1.9 | 3.7 | 2.2 | 1.7 | 1.1 | 3.2 | 5.1 | 1.6 |
| Nominal personal income | | 13.2 | 6.9 | 6.8 | 4.2 | 3.9 | 0.8 | 1.4 | -0.2 | 4.8 | 5.1 |
| Real disposable income | | 8.4 | 4.8 | 4.3 | 1.8 | -0.1 | -0.6 | 10.5 | -7.6 | 14.5 | 3.6 |
| Personal saving rate | % | 2.6 | 2.9 | 2.9 | 2.9 | 2.4 | 1.9 | 4.0 | 0.8 | 3.5 | 4.0 |
| Corp. profits, IVA & CCAdj. | % change | -8.0 | -0.1 | -9.4 | -17.9 | -21.1 | 8.7 | -17.7 | 94.4 | -6.6 | -6.2 |
| Profit share of GNP | % | 8.4 | 8.2 | 8.0 | 7.5 | 7.0 | 7.2 | 6.8 | 8.0 | 7.7 | 7.6 |
| Excluding FR Banks | | 8.0 | 7.9 | 7.7 | 7.2 | 6.7 | 6.9 | 6.5 | 7.7 | 7.5 | 7.3 |
| Federal surpl./deficit | Bill. $ | 223.2 | 197.2 | 213.2 | 193.8 | 173.8 | 144.4 | -51.7 | 21.3 | -145.8 | -190.3 |
| State & local surpl./def. | | 32.7 | 20.2 | 19.2 | -0.2 | -16.5 | -32.3 | -46.2 | -30.2 | -55.8 | -45.1 |
| Ex. social ins. funds | | 32.2 | 20.0 | 19.2 | -0.1 | -16.4 | -32.2 | -46.1 | -30.0 | -55.6 | -45.0 |
| Gross natl. saving rate | % | 18.8 | 18.4 | 18.5 | 17.8 | 16.9 | 16.6 | 16.5 | 15.8 | 15.5 | 15.5 |
| Net natl. saving rate | | 7.3 | 6.9 | 6.8 | 5.9 | 4.8 | 4.1 | 3.3 | 3.1 | 2.7 | 2.4 |
| **PRICES AND COSTS** | | | | | | | | | | | |
| GDP chn.-wt. price index | % change | 3.1 | 2.3 | 1.6 | 2.1 | 3.7 | 2.5 | 2.2 | -0.5 | 1.3 | 1.2 |
| Gross Domestic Purchases chn.-wt. price index | | 3.7 | 2.2 | 2.2 | 2.1 | 3.3 | 1.7 | -0.2 | 0.4 | 1.2 | 2.3 |
| PCE chn.-wt. price index | | 3.4 | 2.3 | 2.1 | 2.2 | 3.3 | 1.8 | -0.1 | 0.8 | 1.1 | 2.7 |
| Ex. food and energy | | 2.2 | 1.8 | 1.3 | 1.8 | 2.8 | 1.2 | 0.7 | 2.7 | 1.4 | 1.9 |
| CPI | | 3.9 | 3.3 | 3.5 | 2.8 | 4.0 | 3.2 | 0.7 | -0.2 | 1.4 | 3.4 |
| Ex. food and energy | | 2.3 | 2.7 | 2.7 | 2.4 | 3.1 | 2.4 | 2.6 | 2.6 | 2.4 | 2.1 |
| ECI, hourly compensation[1] | | 5.6 | 4.7 | 4.1 | 3.5 | 4.6 | 4.0 | 3.7 | 4.2 | 3.6 | 4.4 |
| Nonfarm business sector | | | | | | | | | | | |
| Output per hour | | 0.2 | 6.0 | 0.6 | 1.7 | -1.5 | -0.1 | 2.1 | 7.3 | 8.6 | 1.7 |
| Compensation per hour | | 15.2 | 2.2 | 8.7 | 3.1 | 2.8 | 0.1 | 1.0 | 1.5 | 2.9 | 3.9 |
| Unit labor cost | | 14.9 | -3.6 | 8.0 | 1.4 | 4.3 | 0.3 | -1.1 | -5.4 | -5.7 | 2.2 |

1. Private-industry workers.

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



| | | Projected | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Item | Units | 2002 Q3 | 2002 Q4 | 2003 Q1 | 2003 Q2 | 2003 Q3 | 2003 Q4 | 2004 Q1 | 2004 Q2 | 2004 Q3 | 2004 Q4 |
| **EXPENDITURES** | | | | | | | | | | | |
| Nominal GDP | Bill. $ | 10484.0 | 10558.0 | 10658.3 | 10760.3 | 10882.9 | 11020.5 | 11173.4 | 11319.0 | 11465.7 | 11603.0 |
| Real GDP | Bill. Ch. $ | 9464.8 | 9489.2 | 9541.5 | 9603.6 | 9682.6 | 9774.0 | 9869.0 | 9967.3 | 10066.3 | 10156.8 |
| Real GDP | % change | 3.1 | 1.0 | 2.2 | 2.6 | 3.3 | 3.8 | 3.9 | 4.0 | 4.0 | 3.6 |
| Gross domestic purchases | | 3.1 | 1.1 | 2.5 | 3.0 | 3.5 | 3.6 | 4.3 | 4.4 | 4.2 | 3.4 |
| Final sales | | 3.1 | 0.6 | 2.1 | 2.1 | 3.0 | 4.0 | 3.9 | 3.8 | 4.1 | 3.8 |
| Priv. dom. final purchases | | 3.0 | 0.1 | 2.3 | 2.5 | 3.3 | 3.9 | 4.5 | 4.4 | 4.5 | 3.8 |
| Personal cons. expenditures | | 4.1 | 0.3 | 2.2 | 2.3 | 2.7 | 2.9 | 3.4 | 3.2 | 3.2 | 3.2 |
| Durables | | 23.4 | -8.8 | 2.7 | 3.2 | 5.8 | 4.2 | 6.8 | 5.2 | 4.7 | 5.5 |
| Nondurables | | 1.6 | 0.5 | 2.0 | 2.1 | 2.1 | 2.4 | 2.9 | 2.8 | 2.8 | 2.8 |
| Services | | 1.8 | 2.2 | 2.2 | 2.2 | 2.5 | 2.8 | 3.0 | 3.0 | 3.0 | 3.0 |
| Business fixed investment | | -2.3 | -2.5 | 4.6 | 5.3 | 7.7 | 10.8 | 12.0 | 12.2 | 13.3 | 7.0 |
| Equipment & Software | | 4.1 | 0.3 | 7.6 | 8.1 | 10.2 | 13.4 | 14.6 | 15.0 | 15.8 | 7.3 |
| Nonres. structures | | -19.8 | -11.2 | -4.8 | -3.9 | -0.8 | 2.0 | 3.5 | 2.6 | 4.6 | 5.9 |
| Residential structures | | -1.1 | 2.9 | -2.1 | 0.0 | 2.3 | 3.6 | 5.0 | 5.9 | 5.3 | 4.3 |
| Exports | | 2.5 | 6.7 | 4.3 | 6.9 | 7.3 | 9.6 | 5.7 | 7.9 | 8.0 | 9.9 |
| Imports | | 2.5 | 5.3 | 5.5 | 8.4 | 7.4 | 5.8 | 7.5 | 9.2 | 8.1 | 6.4 |
| Gov't. cons. & investment | | 3.2 | 3.3 | 2.5 | 2.4 | 2.8 | 2.8 | 2.9 | 2.8 | 2.8 | 2.8 |
| Federal | | 6.7 | 5.3 | 2.9 | 2.2 | 2.8 | 2.5 | 2.6 | 2.1 | 2.1 | 2.1 |
| Defense | | 5.9 | 4.9 | 2.5 | 2.1 | 2.2 | 2.2 | 1.3 | 1.5 | 1.8 | 1.3 |
| State & local | | 1.4 | 2.2 | 2.3 | 2.6 | 2.7 | 2.9 | 3.1 | 3.1 | 3.2 | 3.2 |
| Change in bus. inventories | Bill. Ch. $ | 4.6 | 15.1 | 19.2 | 32.5 | 40.4 | 37.4 | 38.1 | 45.1 | 45.0 | 40.3 |
| Nonfarm | | 5.6 | 15.1 | 18.7 | 31.5 | 39.5 | 36.2 | 36.9 | 43.9 | 43.8 | 38.9 |
| Net exports | | -490.2 | -492.9 | -502.4 | -516.6 | -526.1 | -523.3 | -537.7 | -553.2 | -564.3 | -563.1 |
| Nominal GDP | % change | 4.2 | 2.9 | 3.9 | 3.9 | 4.6 | 5.2 | 5.7 | 5.3 | 5.3 | 4.9 |
| **EMPLOYMENT AND PRODUCTION** | | | | | | | | | | | |
| Nonfarm payroll employment | Millions | 130.8 | 130.9 | 131.2 | 131.6 | 132.1 | 132.8 | 133.5 | 134.2 | 134.9 | 135.5 |
| Unemployment rate | % | 5.7 | 5.9 | 6.2 | 6.2 | 6.1 | 6.1 | 6.0 | 5.9 | 5.9 | 5.8 |
| Industrial prod. index | % change | 3.6 | -2.6 | 2.3 | 3.6 | 3.9 | 4.4 | 4.8 | 4.6 | 4.6 | 4.4 |
| Capacity util. rate - mfg. | % | 74.4 | 73.7 | 73.8 | 74.4 | 74.9 | 75.6 | 76.2 | 76.9 | 77.6 | 78.2 |
| Housing starts | Millions | 1.71 | 1.68 | 1.67 | 1.68 | 1.69 | 1.71 | 1.74 | 1.76 | 1.77 | 1.78 |
| Light motor vehicle sales | | 17.63 | 16.16 | 16.60 | 16.70 | 16.94 | 17.04 | 17.22 | 17.22 | 17.22 | 17.22 |
| North Amer. produced | | 14.27 | 12.90 | 13.30 | 13.40 | 13.60 | 13.70 | 13.80 | 13.80 | 13.80 | 13.80 |
| Other | | 3.35 | 3.26 | 3.30 | 3.30 | 3.34 | 3.34 | 3.42 | 3.42 | 3.42 | 3.42 |
| **INCOME AND SAVING** | | | | | | | | | | | |
| Nominal GNP | Bill. $ | 10462.4 | 10538.5 | 10636.4 | 10739.2 | 10862.5 | 10999.1 | 11150.9 | 11295.2 | 11440.0 | 11575.4 |
| Nominal GNP | % change | 4.1 | 2.9 | 3.8 | 3.9 | 4.7 | 5.1 | 5.6 | 5.3 | 5.2 | 4.8 |
| Nominal personal income | | 3.8 | 3.0 | 4.8 | 3.8 | 3.8 | 4.3 | 5.8 | 4.7 | 4.6 | 4.5 |
| Real disposable income | | 3.0 | 1.4 | 1.5 | 2.1 | 2.0 | 2.5 | 5.5 | 3.1 | 3.0 | 2.9 |
| Personal saving rate | % | 3.7 | 4.0 | 3.8 | 3.8 | 3.7 | 3.6 | 4.1 | 4.1 | 4.1 | 4.0 |
| Corp. profits, IVA & CCAdj. | % change | 1.2 | -5.8 | -6.1 | 3.7 | 6.5 | 9.8 | 8.1 | 6.8 | 8.6 | 5.3 |
| Profit share of GNP | % | 7.5 | 7.4 | 7.2 | 7.2 | 7.2 | 7.3 | 7.3 | 7.4 | 7.4 | 7.4 |
| Excluding FR Banks | | 7.3 | 7.1 | 7.0 | 7.0 | 7.0 | 7.1 | 7.1 | 7.1 | 7.2 | 7.2 |
| Federal surpl./deficit | Bill. $ | -203.4 | -236.6 | -206.1 | -187.7 | -162.8 | -155.5 | -183.3 | -164.9 | -145.3 | -115.2 |
| State & local surpl./def. | | -47.0 | -40.7 | -29.8 | -30.7 | -23.8 | -19.9 | -13.6 | -8.3 | -2.8 | 2.0 |
| Ex. social ins. funds | | -46.9 | -40.6 | -29.7 | -30.6 | -23.7 | -19.8 | -13.5 | -8.2 | -2.7 | 2.1 |
| Gross natl. saving rate | % | 15.3 | 15.2 | 15.4 | 15.6 | 15.7 | 15.8 | 16.0 | 16.2 | 16.5 | 16.6 |
| Net natl. saving rate | | 2.1 | 1.9 | 2.0 | 2.2 | 2.3 | 2.5 | 2.7 | 3.0 | 3.3 | 3.4 |
| **PRICES AND COSTS** | | | | | | | | | | | |
| GDP chn.-wt. price index | % change | 1.0 | 1.8 | 1.6 | 1.2 | 1.3 | 1.3 | 1.7 | 1.2 | 1.2 | 1.2 |
| Gross Domestic Purchases chn.-wt. price index | | 1.3 | 1.9 | 1.5 | 1.1 | 1.2 | 1.2 | 1.6 | 1.2 | 1.2 | 1.2 |
| PCE chn.-wt. price index | | 1.7 | 2.1 | 1.1 | 1.1 | 1.2 | 1.2 | 1.2 | 1.3 | 1.3 | 1.3 |
| Ex. food and energy | | 1.7 | 1.5 | 1.4 | 1.4 | 1.3 | 1.3 | 1.2 | 1.2 | 1.2 | 1.2 |
| CPI | | 1.8 | 2.7 | 1.4 | 1.5 | 1.6 | 1.7 | 1.7 | 1.7 | 1.7 | 1.8 |
| Ex. food and energy | | 2.1 | 2.1 | 2.0 | 2.0 | 2.0 | 2.0 | 1.9 | 1.8 | 1.8 | 1.8 |
| ECI, hourly compensation[1] | | 3.7 | 3.5 | 3.5 | 3.4 | 3.3 | 3.4 | 3.3 | 3.3 | 3.3 | 3.4 |
| Nonfarm business sector | | | | | | | | | | | |
| Output per hour | | 3.0 | 0.0 | 0.7 | 1.2 | 2.0 | 2.1 | 1.6 | 1.8 | 1.8 | 1.6 |
| Compensation per hour | | 4.8 | 3.5 | 3.4 | 3.2 | 3.2 | 3.2 | 3.3 | 3.1 | 3.1 | 3.1 |
| Unit labor cost | | 1.8 | 3.5 | 2.7 | 1.9 | 1.2 | 1.0 | 1.7 | 1.3 | 1.2 | 1.5 |

1. Private-industry workers.

## CONTRIBUTIONS TO GROWTH IN REAL GROSS DOMESTIC PRODUCT AND RELATED ITEMS



| Item | 2000 Q3 | 2000 Q4 | 2001 Q1 | 2001 Q2 | 2001 Q3 | 2001 Q4 | 2002 Q1 | 2002 Q2 | 2002 Q3 | 00Q4/ 99Q4 | 01Q4/ 00Q4 | 02Q4/ 01Q4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Real GDP | 0.6 | 1.1 | -0.6 | -1.6 | -0.3 | 2.7 | 5.0 | 1.3 | 3.1 | 2.3 | 0.1 | 2.6 |
| Gross dom. purchases | 1.3 | 1.3 | -1.1 | -1.2 | -0.1 | 3.0 | 5.8 | 2.7 | 3.2 | 3.0 | 0.2 | 3.2 |
| Final sales | 1.7 | 1.2 | 2.7 | -0.5 | -0.2 | 4.1 | 2.5 | -0.1 | 3.1 | 2.6 | 1.6 | 1.5 |
| Priv. dom. final purchases | 2.6 | 1.0 | 1.2 | -1.0 | 0.3 | 2.6 | 2.2 | 1.1 | 2.6 | 3.1 | 0.8 | 1.5 |
| Personal cons. expenditures | 2.5 | 1.4 | 1.5 | 0.9 | 1.0 | 4.1 | 2.2 | 1.2 | 2.8 | 2.4 | 1.9 | 1.6 |
| Durables | 0.6 | -0.4 | 0.9 | 0.4 | 0.4 | 2.5 | -0.6 | 0.2 | 1.8 | 0.3 | 1.0 | 0.2 |
| Nondurables | 0.4 | 0.5 | 0.5 | -0.1 | 0.3 | 0.7 | 1.6 | -0.0 | 0.3 | 0.6 | 0.3 | 0.5 |
| Services | 1.5 | 1.3 | 0.2 | 0.6 | 0.4 | 0.9 | 1.2 | 1.1 | 0.7 | 1.5 | 0.5 | 1.0 |
| Business fixed investment | 0.5 | -0.4 | -0.7 | -1.9 | -0.7 | -1.3 | -0.7 | -0.3 | -0.2 | 0.8 | -1.2 | -0.4 |
| Equipment & Software | 0.1 | -0.5 | -0.6 | -1.6 | -0.8 | -0.2 | -0.2 | 0.3 | 0.3 | 0.5 | -0.8 | 0.1 |
| Nonres. structures | 0.4 | 0.1 | -0.1 | -0.3 | 0.1 | -1.1 | -0.4 | -0.5 | -0.6 | 0.3 | -0.4 | -0.5 |
| Residential structures | -0.4 | 0.0 | 0.3 | -0.0 | 0.0 | -0.2 | 0.6 | 0.1 | -0.0 | -0.1 | 0.0 | 0.2 |
| Net exports | -0.7 | -0.2 | 0.5 | -0.4 | -0.2 | -0.3 | -0.8 | -1.4 | -0.1 | -0.8 | -0.1 | -0.6 |
| Exports | 1.3 | -0.5 | -0.7 | -1.4 | -1.9 | -1.0 | 0.3 | 1.3 | 0.2 | 0.8 | -1.3 | 0.6 |
| Imports | -2.0 | 0.2 | 1.2 | 1.0 | 1.7 | 0.7 | -1.1 | -2.7 | -0.3 | -1.5 | 1.2 | -1.2 |
| Government cons. & invest. | -0.2 | 0.5 | 1.0 | 1.0 | -0.2 | 1.9 | 1.0 | 0.3 | 0.6 | 0.2 | 0.9 | 0.6 |
| Federal | -0.5 | 0.1 | 0.5 | 0.4 | 0.1 | 0.8 | 0.5 | 0.5 | 0.4 | -0.1 | 0.4 | 0.4 |
| Defense | -0.2 | 0.2 | 0.3 | 0.1 | 0.2 | 0.5 | 0.5 | 0.3 | 0.2 | -0.1 | 0.3 | 0.3 |
| Nondefense | -0.2 | -0.1 | 0.2 | 0.3 | -0.1 | 0.3 | 0.0 | 0.2 | 0.2 | 0.0 | 0.2 | 0.1 |
| State and local | 0.3 | 0.4 | 0.5 | 0.6 | -0.3 | 1.1 | 0.6 | -0.2 | 0.2 | 0.3 | 0.5 | 0.2 |
| Change in bus. inventories | -1.1 | -0.1 | -3.3 | -1.1 | -0.1 | -1.4 | 2.6 | 1.3 | 0.0 | -0.3 | -1.5 | 1.1 |
| Nonfarm | -1.0 | -0.3 | -3.4 | -0.8 | -0.3 | -1.4 | 2.5 | 1.5 | 0.1 | -0.4 | -1.6 | 1.1 |
| Farm | -0.2 | 0.2 | 0.2 | -0.3 | 0.2 | 0.1 | 0.1 | -0.2 | -0.0 | 0.1 | 0.0 | -0.0 |

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

Strictly Confidential <FR>
Class II FOMC

CONTRIBUTIONS TO GROWTH IN REAL GROSS DOMESTIC PRODUCT AND RELATED ITEMS

October 30, 2002

| Item | 2002 Q4 | 2003 Q1 | 2003 Q2 | 2003 Q3 | 2003 Q4 | 2004 Q1 | 2004 Q2 | 2004 Q3 | 2004 Q4 | 02Q4/ 01Q4 | 03Q4/ 02Q4 | 04Q4/ 03Q4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Real GDP | 1.0 | 2.2 | 2.6 | 3.3 | 3.8 | 3.9 | 4.0 | 4.0 | 3.6 | 2.6 | 3.0 | 3.9 |
| Gross dom. purchases | 1.1 | 2.5 | 3.1 | 3.6 | 3.7 | 4.4 | 4.5 | 4.4 | 3.6 | 3.2 | 3.3 | 4.2 |
| Final sales | 0.6 | 2.1 | 2.1 | 3.0 | 3.9 | 3.9 | 3.8 | 4.0 | 3.8 | 1.5 | 2.8 | 3.9 |
| Priv. dom. final purchases | 0.1 | 1.9 | 2.2 | 2.8 | 3.3 | 3.8 | 3.8 | 3.8 | 3.2 | 1.5 | 2.5 | 3.7 |
| Personal cons. expenditures | 0.2 | 1.5 | 1.6 | 1.9 | 2.0 | 2.4 | 2.2 | 2.2 | 2.3 | 1.6 | 1.8 | 2.3 |
| Durables | -0.8 | 0.2 | 0.3 | 0.5 | 0.3 | 0.5 | 0.4 | 0.4 | 0.4 | 0.2 | 0.3 | 0.4 |
| Nondurables | 0.1 | 0.4 | 0.4 | 0.4 | 0.5 | 0.6 | 0.6 | 0.6 | 0.6 | 0.5 | 0.4 | 0.6 |
| Services | 0.9 | 0.9 | 0.9 | 1.0 | 1.2 | 1.3 | 1.3 | 1.3 | 1.3 | 1.0 | 1.0 | 1.3 |
| Business fixed investment | -0.3 | 0.5 | 0.5 | 0.8 | 1.1 | 1.2 | 1.3 | 1.4 | 0.8 | -0.4 | 0.7 | 1.2 |
| Equipment & Software | 0.0 | 0.6 | 0.6 | 0.8 | 1.1 | 1.2 | 1.2 | 1.3 | 0.6 | 0.1 | 0.8 | 1.1 |
| Nonres. structures | -0.3 | -0.1 | -0.1 | -0.0 | 0.0 | 0.1 | 0.1 | 0.1 | 0.1 | -0.5 | -0.0 | 0.1 |
| Residential structures | 0.1 | -0.1 | 0.0 | 0.1 | 0.2 | 0.2 | 0.3 | 0.2 | 0.2 | 0.2 | 0.0 | 0.2 |
| Net exports | -0.1 | -0.3 | -0.5 | -0.3 | 0.1 | -0.5 | -0.5 | -0.4 | 0.1 | -0.6 | -0.3 | -0.3 |
| Exports | 0.6 | 0.4 | 0.7 | 0.7 | 0.9 | 0.6 | 0.8 | 0.8 | 1.0 | 0.6 | 0.7 | 0.8 |
| Imports | -0.7 | -0.8 | -1.2 | -1.0 | -0.8 | -1.1 | -1.3 | -1.2 | -0.9 | -1.2 | -0.9 | -1.1 |
| Government cons. & invest. | 0.6 | 0.5 | 0.5 | 0.5 | 0.5 | 0.6 | 0.5 | 0.5 | 0.5 | 0.6 | 0.5 | 0.5 |
| Federal | 0.3 | 0.2 | 0.1 | 0.2 | 0.2 | 0.2 | 0.1 | 0.1 | 0.1 | 0.4 | 0.2 | 0.2 |
| Defense | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.3 | 0.1 | 0.1 |
| Nondefense | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| State and local | 0.3 | 0.3 | 0.3 | 0.3 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.2 | 0.3 | 0.4 |
| Change in bus. inventories | 0.4 | 0.2 | 0.5 | 0.3 | -0.1 | 0.0 | 0.3 | -0.0 | -0.2 | 1.1 | 0.2 | 0.0 |
| Nonfarm | 0.4 | 0.1 | 0.5 | 0.3 | -0.1 | 0.0 | 0.2 | -0.0 | -0.2 | 1.1 | 0.2 | 0.0 |
| Farm | 0.0 | 0.0 | 0.0 | -0.0 | 0.0 | 0.0 | 0.0 | -0.0 | 0.0 | -0.0 | 0.0 | 0.0 |

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

**Staff Projections of Federal Sector Accounts and Related Items**
(Billions of dollars except as noted)

| Item | Fiscal year[1] | | | | 2002 | | | | 2003 | | | | 2004 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 2001[a] | 2002 | 2003 | 2004 | Q1[a] | Q2[a] | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 |
| **Unified budget** | | | | | Not seasonally adjusted | | | | | | | | | | | |
| Receipts[2] | 1991 | 1853 | 1936 | 2042 | 413 | 523 | 452 | 434 | 430 | 599 | 473 | 459 | 453 | 635 | 496 | 489 |
| Outlays[2] | 1863 | 2012 | 2112 | 2188 | 509 | 507 | 494 | 532 | 537 | 528 | 515 | 552 | 555 | 547 | 534 | 573 |
| Surplus/deficit[2] | 127 | -159 | -176 | -146 | -97 | 16 | -42 | -98 | -107 | 71 | -42 | -93 | -103 | 88 | -38 | -85 |
| On-budget | -33 | -316 | -340 | -329 | -127 | -58 | -53 | -136 | -144 | -3 | -57 | -136 | -144 | 6 | -55 | -130 |
| Off-budget | 161 | 158 | 164 | 183 | 30 | 73 | 11 | 39 | 37 | 74 | 14 | 44 | 41 | 81 | 17 | 45 |
| Surplus excluding deposit insurance | 126 | -160 | -176 | -146 | -96 | 15 | -43 | -98 | -107 | 71 | -42 | -93 | -103 | 87 | -38 | -85 |
| Means of financing | | | | | | | | | | | | | | | | |
| Borrowing | -90 | 221 | 181 | 163 | 51 | 21 | 89 | 87 | 91 | -36 | 39 | 88 | 97 | -54 | 31 | 80 |
| Cash decrease | 8 | -17 | 16 | 0 | 38 | -26 | -21 | 17 | 12 | -28 | 15 | 15 | 0 | -30 | 15 | 15 |
| Other[3] | -46 | -46 | -21 | -17 | 8 | -11 | -26 | -6 | 3 | -7 | -12 | -10 | 5 | -4 | -8 | -10 |
| Cash operating balance, end of period | 44 | 61 | 45 | 45 | 14 | 40 | 61 | 44 | 32 | 60 | 45 | 30 | 30 | 60 | 45 | 30 |
| **NIPA federal sector** | | | | | Seasonally adjusted annual rates | | | | | | | | | | | |
| Receipts | 2024 | 1911 | 1948 | 2077 | 1885 | 1889 | 1879 | 1877 | 1939 | 1968 | 2007 | 2044 | 2054 | 2088 | 2122 | 2171 |
| Expenditures | 1909 | 2041 | 2146 | 2239 | 2031 | 2079 | 2083 | 2113 | 2145 | 2156 | 2170 | 2199 | 2237 | 2252 | 2268 | 2286 |
| Consumption expenditures | 517 | 570 | 610 | 639 | 566 | 581 | 587 | 596 | 611 | 615 | 619 | 624 | 640 | 644 | 648 | 652 |
| Defense | 337 | 374 | 400 | 416 | 372 | 383 | 386 | 391 | 400 | 403 | 405 | 408 | 417 | 419 | 422 | 424 |
| Nondefense | 180 | 195 | 210 | 222 | 194 | 199 | 201 | 205 | 211 | 212 | 214 | 216 | 223 | 225 | 226 | 228 |
| Other spending | 1392 | 1471 | 1536 | 1600 | 1464 | 1498 | 1496 | 1517 | 1534 | 1541 | 1550 | 1575 | 1597 | 1609 | 1620 | 1634 |
| Current account surplus | 115 | -130 | -198 | -162 | -146 | -190 | -203 | -237 | -206 | -188 | -163 | -155 | -183 | -165 | -145 | -115 |
| Gross investment | 98 | 107 | 118 | 123 | 106 | 107 | 113 | 115 | 117 | 118 | 120 | 121 | 123 | 124 | 125 | 127 |
| Current and capital account surplus | 17 | -237 | -316 | -286 | -252 | -297 | -317 | -352 | -323 | -306 | -283 | -277 | -306 | -289 | -271 | -242 |
| **Fiscal indicators[4]** | | | | | | | | | | | | | | | | |
| High-employment (HEB) surplus/deficit | -39 | -238 | -302 | -286 | -258 | -295 | -319 | -345 | -309 | -288 | -265 | -265 | -304 | -294 | -282 | -257 |
| Change in HEB, percent of potential GDP | 0 | 2 | .5 | -.3 | 2 | .3 | .2 | .2 | -.4 | -.2 | -.2 | -0 | .3 | -.1 | -.1 | -.2 |
| Fiscal impetus (FI) percent, calendar year | 11 | 20 | 10 | 7 | 10 | 6 | .7 | 3 | 4 | 1 | 2 | 1 | 3 | 1 | 1 | .1 |

1. Fiscal year data for the unified budget come from OMB; quarterly data come from the Monthly Treasury Statement and may not sum to OMB fiscal year totals.
2. OMB's July 2002 baseline surplus estimates are -$62 billion in FY 2003 and $17 billion in FY 2004. CBO's August 2002 baseline surplus estimates are -$145 billion in FY 2003 and -$111 billion in FY 2004. Budget receipts, outlays, and surplus/deficit include corresponding social security (OASDI) categories. The OASDI surplus and the Postal Service surplus are excluded from the on-budget surplus and shown separately as off-budget, as classified 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. HEB is the NIPA current and capital account surplus in current dollars, with cyclically sensitive receipts and outlays adjusted to the level of potential output associated with an unemployment rate of 6 percent. Quarterly figures for change in HEB and FI are not at annual rates. The sign on Change in HEB, as a percent of nominal potential GDP, is reversed. FI is the weighted difference of discretionary changes in federal spending and taxes in chained (1996) dollars, scaled by real federal consumption plus investment. For FI and the change in HEB, negative values indicate aggregate demand restraint.
a--Actual

**Strictly Confidential (FR)**
**Class II FOMC**

**Change in Debt of the Domestic Nonfinancial Sectors**
**(Percent)**

**October 30, 2002**

| | | | Nonfederal | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Households | | | | | |
| Period [1] | Total | Federal government | Total | Total | Home mortgages | Consumer credit | Business | State and local governments | Memo: Nominal GDP |
| *Year* | | | | | | | | | |
| 1997 | 5.6 | 0.6 | 7.3 | 6.4 | 6.7 | 4.7 | 9.0 | 5.3 | 6.2 |
| 1998 | 6.8 | -1.4 | 9.6 | 8.2 | 8.9 | 5.9 | 11.8 | 7.2 | 6.0 |
| 1999 | 6.6 | -1.9 | 9.1 | 8.3 | 9.0 | 7.4 | 11.1 | 4.4 | 5.9 |
| 2000 | 4.9 | -8.0 | 8.4 | 8.3 | 8.2 | 9.6 | 9.9 | 2.2 | 4.6 |
| 2001 | 6.1 | -0.2 | 7.5 | 8.6 | 9.7 | 6.9 | 6.1 | 8.1 | 2.0 |
| 2002 | 6.5 | 7.4 | 6.3 | 9.2 | 10.7 | 5.6 | 2.4 | 9.4 | 4.0 |
| 2003 | 5.5 | 5.0 | 5.6 | 6.6 | 7.6 | 4.9 | 4.6 | 5.1 | 4.4 |
| 2004 | 5.3 | 4.1 | 5.6 | 6.1 | 6.6 | 5.0 | 5.3 | 4.5 | 5.3 |
| *Quarter* | | | | | | | | | |
| 2002:1 | 4.8 | 1.2 | 5.6 | 9.2 | 10.3 | 4.8 | 1.9 | 4.5 | 6.5 |
| 2 | 8.2 | 15.5 | 6.7 | 9.0 | 10.8 | 5.9 | 2.9 | 12.4 | 2.5 |
| 3 | 6.2 | 7.5 | 5.9 | 9.2 | 10.5 | 5.9 | 1.6 | 8.5 | 4.2 |
| 4 | 6.1 | 4.5 | 6.4 | 8.2 | 9.5 | 5.3 | 3.3 | 11.1 | 2.9 |
| 2003:1 | 5.8 | 5.6 | 5.9 | 7.2 | 8.6 | 5.0 | 4.2 | 6.4 | 3.9 |
| 2 | 6.0 | 8.1 | 5.6 | 6.7 | 7.8 | 4.8 | 4.3 | 5.5 | 3.9 |
| 3 | 4.8 | 1.7 | 5.5 | 6.2 | 6.9 | 4.8 | 4.8 | 4.5 | 4.6 |
| 4 | 5.0 | 4.4 | 5.2 | 5.7 | 6.4 | 4.7 | 4.8 | 3.7 | 5.2 |
| 2004:1 | 5.5 | 5.9 | 5.4 | 5.8 | 6.3 | 4.8 | 5.0 | 4.5 | 5.7 |
| 2 | 5.5 | 5.9 | 5.4 | 5.8 | 6.3 | 4.9 | 5.2 | 4.4 | 5.3 |
| 3 | 4.7 | 0.9 | 5.5 | 6.0 | 6.5 | 4.8 | 5.2 | 4.4 | 5.3 |
| 4 | 5.2 | 3.4 | 5.6 | 6.1 | 6.6 | 5.0 | 5.3 | 4.4 | 4.9 |

Note. Quarterly data are at seasonally adjusted annual rates.
1. Data after 2002:Q2 are staff projections. Changes are measured from end of the preceding period to end of period indicated except for annual nominal GDP growth, which is calculated from Q4 to Q4.

2.6.3 FOF

**Flow of Funds Projections: Highlights**
**(Billions of dollars except as noted)**



| | | | | | Seasonally adjusted annual rates | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Calendar year | | | | 2002 | | | | 2003 | | | |
| Category | 2001 | 2002 | 2003 | 2004 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 |
| *Net funds raised by domestic nonfinancial sectors* | | | | | | | | | | | | |
| 1 Total | 1045.9 | 1205.2 | 1058.8 | 1102.7 | 933.8 | 1633.1 | 1097.1 | 1156.8 | 1125.1 | 1184.5 | 933.6 | 992.0 |
| 2 Net equity issuance | -61.8 | -47.6 | -81.8 | -56.5 | -3.7 | 26.9 | -136.7 | -77.0 | -74.0 | -77.0 | -87.0 | -89.0 |
| 3 Net debt issuance | 1107.8 | 1252.8 | 1140.5 | 1159.2 | 937.5 | 1606.2 | 1233.8 | 1233.8 | 1199.1 | 1261.5 | 1020.6 | 1081.0 |
| *Borrowing sectors* | | | | | | | | | | | | |
| Nonfinancial business | | | | | | | | | | | | |
| 4 Financing gap [1] | 141.4 | 75.7 | 114.2 | 163.7 | 68.9 | 68.6 | 79.5 | 85.7 | 91.8 | 107.8 | 122.4 | 134.8 |
| 5 Net equity issuance | -61.8 | -47.6 | -81.8 | -56.5 | -3.7 | 26.9 | -136.7 | -77.0 | -74.0 | -77.0 | -87.0 | -89.0 |
| 6 Credit market borrowing | 399.8 | 169.2 | 327.2 | 391.8 | 132.4 | 201.1 | 108.8 | 234.5 | 296.7 | 311.7 | 346.7 | 353.5 |
| Households | | | | | | | | | | | | |
| 7 Net borrowing [2] | 610.3 | 704.5 | 554.5 | 541.2 | 703.0 | 705.5 | 736.4 | 673.1 | 603.6 | 568.6 | 541.2 | 504.8 |
| 8 Home mortgages | 477.8 | 574.0 | 453.7 | 423.7 | 554.2 | 595.7 | 595.9 | 550.2 | 512.2 | 476.2 | 425.2 | 401.2 |
| 9 Consumer credit | 110.2 | 95.4 | 87.8 | 93.5 | 81.4 | 101.9 | 103.7 | 94.6 | 89.1 | 87.0 | 87.6 | 87.6 |
| 10 Debt/DPI (percent) [3] | 99.8 | 102.7 | 107.0 | 108.7 | 101.3 | 102.0 | 103.1 | 104.5 | 105.8 | 106.8 | 107.6 | 108.2 |
| State and local governments | | | | | | | | | | | | |
| 11 Net borrowing | 103.2 | 130.5 | 77.3 | 71.3 | 62.3 | 173.6 | 122.9 | 163.2 | 96.8 | 84.8 | 69.8 | 57.8 |
| 12 Current surplus [4] | 140.6 | 134.3 | 161.9 | 192.0 | 128.2 | 133.8 | 133.3 | 141.9 | 154.9 | 156.2 | 165.3 | 171.3 |
| Federal government | | | | | | | | | | | | |
| 13 Net borrowing | -5.6 | 248.7 | 181.6 | 154.9 | 39.8 | 526.0 | 265.7 | 163.0 | 202.1 | 296.4 | 62.9 | 164.9 |
| 14 Net borrowing (quarterly, n.s.a.) | -5.6 | 248.7 | 181.6 | 154.9 | 50.8 | 21.1 | 89.4 | 87.3 | 91.3 | -36.3 | 38.7 | 87.8 |
| 15 Unified deficit (quarterly, n.s.a.) | -92.3 | 220.7 | 171.2 | 137.9 | 96.6 | -15.6 | 42.2 | 97.5 | 107.0 | -70.8 | 42.2 | 92.8 |
| *Depository institutions* | | | | | | | | | | | | |
| 16 Funds supplied | 289.4 | 318.4 | 287.3 | 338.3 | 254.5 | 396.7 | 374.5 | 247.9 | 172.2 | 336.1 | 362.9 | 278.0 |
| Memo (percentage of GDP) | | | | | | | | | | | | |
| 17 Domestic nonfinancial debt [5] | 186.7 | 191.7 | 195.7 | 196.2 | 189.0 | 190.9 | 192.4 | 193.9 | 195.0 | 196.0 | 196.4 | 196.3 |
| 18 Domestic nonfinancial borrowing | 11.0 | 12.0 | 10.5 | 10.2 | 9.1 | 15.5 | 11.8 | 11.7 | 11.3 | 11.7 | 9.4 | 9.8 |
| 19 Federal government [6] | -0.1 | 2.4 | 1.7 | 1.4 | 0.4 | 5.1 | 2.5 | 1.5 | 1.9 | 2.8 | 0.6 | 1.5 |
| 20 Nonfederal | 11.0 | 9.6 | 8.9 | 8.8 | 8.7 | 10.4 | 9.2 | 10.1 | 9.4 | 9.0 | 8.8 | 8.3 |

Note. Data after 2002:Q2 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 debt positions) divided by disposable personal income.
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.

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# International Developments

Continued weak economic data have led us to shave a bit off the outlook for foreign growth, despite some modest improvements in financial market conditions. Foreign equity markets plunged to new multiyear lows in early October, but have more than reversed the decline since then, except in Japan. The price of oil has declined since our September forecast. However, industrial production and exports appear to have decelerated from their first-half pace in a wide range of countries, and declining business confidence suggests that foreign firms will remain cautious about investing and hiring.

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

| Indicator | 2001 | | 2002: H1 | Projection | | |
|---|---|---|---|---|---|---|
| | H1 | H2 | | 2002: H2 | 2003 | 2004 |
| Foreign output | -0.1 | 0.3 | 3.2 | 2.3 | 2.9 | 3.4 |
| *Previous GB* | *-0.1* | *0.3* | *3.1* | *2.7* | *3.2* | *3.4* |
| Foreign CPI | 2.6 | 0.8 | 2.6 | 2.1 | 2.0 | 1.9 |
| *Previous GB* | *2.6* | *0.8* | *2.6* | *2.3* | *2.1* | *1.9* |

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

Domestic demand has remained weak in Japan and the euro area, as businesses have cut back spending and consumers have failed to take up the slack. In Japan, details of proposed reforms announced this morning are too sketchy to alter our outlook for the economy. Uncertainties concerning prospects for resolving Japan's longstanding problems will likely weigh on private spending while monetary and fiscal policies are unlikely to provide much offsetting stimulus. In the euro area, despite disagreements about the implementation of the Stability and Growth Pact, fiscal policy is likely to turn contractionary. On the other hand, we now project that the European Central Bank will lower interest rates by early next year, providing some support to domestic demand. We project that euro-area growth will remain anemic in the first half of 2003 but will strengthen in the second half of 2003 and in 2004.

In Canada, Mexico, and emerging Asia, we estimate that output growth has slowed in the second half from the rapid pace earlier in the year, and we project it to rise moderately in 2003 and 2004 in line with growth in U.S. demand. In South America, economic and financial conditions will likely continue to be quite fragile, and it remains to be seen whether Brazil's newly elected president will be able to restore investor confidence and keep the economy from sliding into financial crisis.

The past run-up in oil prices has boosted foreign consumer price inflation this year, but we expect that continued excess capacity abroad and a gradual decline in oil prices will lower foreign inflation over the forecast period. In light of reduced inflation pressures and heightened uncertainty about the growth outlook, we have lowered the projected path for policy interest rates in several countries.

After appreciating in the days preceding the September FOMC meeting, the foreign exchange value of the dollar has declined slightly on net over the intermeeting period. We continue to project modest depreciation of the dollar over the forecast period, taking the broad real dollar down about 2½ percent over the next two years. The negative arithmetic contribution from net exports to U.S. GDP growth is expected to be just over ¼ percentage point (annual rate) on average over the forecast period, about the same as in the September Greenbook.

**Oil Prices**

The current spot price of West Texas intermediate (WTI) crude oil is about $27 per barrel. After hovering around $29 per barrel through most of September and the beginning of October, the spot price decreased, reflecting increased supplies from OPEC and the market's reaction to statements by the Bush administration that a diplomatic solution in Iraq may be possible. We project that, in line with recent quotes from futures markets, the spot price of WTI will decrease to about $22.50 per barrel by the end of the forecast period. Compared with the September Greenbook, the current projection is $2 per barrel lower in the fourth quarter of 2002 and about $1 per barrel lower by December 2004.

**International Financial Markets**

The foreign exchange value of the dollar, as measured by the staff's major currencies index, is about ½ percent lower than at the time of the September FOMC meeting. The dollar edged lower against all the major currencies, led by a 1 percent depreciation against the Canadian dollar. Against the currencies of our other important trading partners, the dollar was little changed on net, as a 1 percent depreciation versus the Mexican peso offset a 5 percent appreciation of the dollar against the Brazilian *real*.

Because the pace of the dollar's depreciation during the intermeeting period has been slower than we had projected, we have adjusted up the projected value of the dollar 1¾ percent in the fourth quarter. We project that the rate of dollar depreciation beyond the current quarter will be about the same as previously assumed, just over 1 percent per year. As in past Greenbooks, we continue to be concerned about the willingness of investors to hold a large and growing stock of U.S. external liabilities at current exchange rates for the indefinite future.

Along with U.S. share prices, foreign equities tumbled further early in the intermeeting period but most subsequently recovered, resulting in net gains from

3 to 7 percent on the major exchanges. Mildly encouraging quarterly earnings reports released by several large corporations helped trigger the turnaround. The exception was Japan, where the Nikkei fell almost 8 percent on balance as continued government indecision over the nature and scope of banking reform and fiscal stimulus weighed on share prices. In concert with the recovery of share prices in Europe and North America, yields on long-term government bonds rose about 20 basis points in Europe and 40 basis points in Canada. Again, Japanese securities were the exception to the rule, with the yield on the benchmark ten-year government bond falling 25 basis points.

The yield spread of emerging-market sovereign debt over U.S. Treasuries narrowed on balance over the intermeeting period, with Brazilian and Argentine EMBI+ yield spreads declining 400 and 625 basis points, respectively, while showing considerable day-to-day volatility. Share prices in Brazil and Argentina gained about 3 and 16 percent, respectively. The upbeat tone in Latin American financial markets may, in part, be due to the fact that the winner of Brazil's presidential election was perceived to have moderated his stance on a number of fiscal and financial market concerns.

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

**Foreign Industrial Countries**

In response to recent data, forecasts for growth in the major foreign industrial countries have been marked down in the near term. Declining business confidence and volatility in financial markets have contributed to a slowing in growth from above 3 percent in the first half of 2002 to just under 2 percent in the second half. The weakness in the global recovery has led us to push back projected monetary policy tightening in several countries and to project an easing in euro-area interest rates by early next year. GDP growth is projected to edge up over the forecast period as monetary policy remains stimulative, the U.S. recovery strengthens, and the effects of previous financial volatility dissipate, with growth near 2½ percent in both 2003 and 2004.

Headline inflation rates in the foreign industrial countries have ticked up since earlier in the year, reflecting the pass-through of higher energy prices. By early next year, however, twelve-month inflation rates should begin to decline as price pressures are attenuated by declining oil prices, continuing excess capacity in most countries, and the past and projected further appreciation of many major foreign currencies against the dollar.

In Japan, a lack of detail about government plans to reform the troubled banking sector and about the accompanying package of social safety net measures has added considerable uncertainty to our projection for economic growth. We assume only a slight step-up in the pace of bank reform, and against the background of weak incoming data we forecast growth below 1 percent in 2003 as consumption growth slows and unemployment rises in response to some amount of actual or anticipated corporate restructuring. Projected growth rises slightly in 2004. Japan's output gap is expected to widen, and deflation is expected to continue throughout the forecast period.

Euro-area growth is projected to remain anemic through the middle of 2003 before picking up to a bit above 2½ percent in the second half of 2003 and in 2004. Weakening business confidence going into the fourth quarter suggests that businesses will remain hesitant to increase capital spending and hiring in the near term. Despite the recent debate over a more flexible implementation of the Stability and Growth Pact, fiscal policy is likely to turn contractionary in Germany as the government attempts to bring its deficit back below the 3 percent deficit limit. Consumption spending was depressed early this year, especially in Germany, by consumer perceptions that prices were pushed up significantly during the introduction of euro notes and coins. Consumption spending has begun to recover but is likely to be restrained by sluggish labor market conditions. With growth subdued, inflation is expected to fall below the ECB's 2 percent target ceiling early next year and to remain there throughout the forecast period.

In the United Kingdom, fourth-quarter growth is expected to be slower than in the third quarter as the contribution from the change in inventories subsides and consumption growth moderates. In 2003, growth is forecast to increase as investment turns up after two years of decline. A possible correction in booming U.K. house prices remains a downside risk to the forecast. Inflation is expected to remain at or near the Bank of England's 2½ percent target throughout the forecast period, and the Bank is projected to begin tightening in 2004.

After having exhibited brisk growth through the first part of the year, the Canadian economy is projected to slow in the fourth quarter, as both consumption and investment decelerate. Automobile sales and residential construction are expected to retreat from the elevated levels reached earlier this year. Domestic demand, however, should receive continued support from Canada's robust labor market. Output growth is expected to move back up over the course of 2003 and to reach 3 percent in 2004, in line with the U.S. recovery. The Bank of Canada has left its target for the overnight rate unchanged through its last two policy meetings, most recently on October 16, following three moves up of 25 basis points each earlier in the year. The Bank of Canada is expected to keep rates steady through the end of 2003 in reaction to the uncertain environment for global growth before starting to tighten again in the second half of 2004.

**Other Countries**

There is little sign of any significant improvement in economic, financial, and political conditions in South America. As expected, Lula was elected president of Brazil on October 27, winning a run-off against José Serra, the candidate preferred by most market participants. Brazilian financial markets remained volatile over the intermeeting period, and uncertainty about future economic policies continues to be high. Accordingly, we continue to project a weak economy, with output declining in the second half of the year and rising slowly thereafter, but more severe outcomes are a distinct possibility. Prospects also remain dim elsewhere in South America. Although economic activity may have bottomed out in Argentina, major impediments to a sustained recovery remain. Political tensions in Venezuela have again intensified, and Moody's has downgraded its sovereign debt.

Mexico is a relatively bright spot in Latin America, although recent indicators suggest that the pace of recovery slowed in the third quarter, as evidenced by only modest increases in industrial production and exports. The Bank of Mexico tightened monetary policy in late September because inflation was running about a percentage point above the government's target of 4-1/2 percent for this year. The tighter monetary policy, together with deceleration in the U.S. economy, should restrain Mexican growth in the second half of this year to about 3 percent. Growth is projected to pick up over the next two years, in line with the pattern of U.S. growth. The outlook is somewhat weaker than that in the September Greenbook, in light of downward revisions to U.S. growth and a lower path for oil prices.

In most of emerging Asia, growth has continued at a robust pace, although there are signs of some moderation in the third quarter. Industrial production and exports were strong in Korea in the third quarter, driven in part by gains in the auto sector. Export growth has generally weakened in the ASEAN countries, in part reflecting softening demand for high-tech goods. In China, real GDP posted a gain of 7.5 percent in the third quarter, reflecting strength in both exports and domestic demand. Hong Kong is lagging behind the rest of emerging Asia with weak domestic demand, depressed asset markets, and a high unemployment rate. In Indonesia, the October bombing in Bali has heightened uncertainty and clouded the country's outlook, raising concerns about the tourism industry and foreign investment. Reflecting this uncertainty, the outlook for Indonesia has been revised down some. Indonesia's problems are likely to be localized, however, and we have not built in any significant spillover to the rest of emerging Asia. Overall, we expect growth in Asia to slow to about 4¼ percent in the second half of this year, a bit below the

September Greenbook projection, before rising to a little over 5 percent next year and to 5½ percent in 2004. This projection continues to be driven largely by the outlook for U.S. demand and the expected recovery in the global high-tech sector.

We expect average consumer price inflation in the developing countries of about 3 percent over the forecast period, with inflation in Asia being significantly lower than in Latin America. The relatively low inflation rates in developing countries reflect our projection that excess capacity will persist over the forecast period in the vast majority of the countries. However, in some countries, most notably Argentina and Venezuela, currency depreciations are expected to lead to high inflation rates over the forecast period.

**Prices of Internationally Traded Goods**
The price index for U.S. imports of non-oil core goods is estimated to have risen about 1¾ percent at an annual rate in the third quarter, the second consecutive quarterly increase following a year of decline. The turnaround in prices largely reflects the behavior of prices of non-petroleum industrial supplies, which rose sharply in the spring and have edged up a bit further since, following a decline of nearly 20 percent between January 2001 and February 2002. In addition, prices of non-high-tech machinery rose about 2 percent at an annual rate in the third quarter, and prices of automotive products and consumer goods posted small increases. The price of core goods imports is expected to increase at about a 3¼ percent rate in the fourth quarter, reflecting the depreciation of the dollar since last spring and sharp increases in commodity prices. In 2003 and 2004, the rate of core import price inflation is expected to drop back to around 2 percent as commodity price increases are projected to moderate, in line with quotes on futures exchanges.

The price index for exports of U.S. core goods is estimated to have risen at an annual rate of about 4 percent in the third quarter, a bit faster than in the second quarter. We project that export price inflation will slow to around 1 percent next year and remain around that rate in 2004, in line with projected U.S. producer price inflation.

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

| Trade category | 2001 | | 2002: H1 | Projection | | |
|---|---|---|---|---|---|---|
| | H1 | H2 | | 2002: H2 | 2003 | 2004 |
| *Exports* | | | | | | |
| Core goods | -0.6 | -2.6 | 1.2 | 3.0 | 0.9 | 1.1 |
| *Imports* | | | | | | |
| Non-oil core goods | -1.3 | -4.5 | -0.1 | 2.5 | 2.3 | 1.9 |
| Oil (dollars per barrel) | 24.21 | 18.39 | 24.04 | 25.84 | 21.53 | 20.11 |

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.

**Trade in Goods and Services**

We estimate that real exports of goods and services rose around 2½ percent at an annual rate in the third quarter, following a surge of 14 percent in the second quarter. Exports of services were little changed in the third quarter following sizable gains in the two preceding quarters; goods exports rose at about a 3½ percent rate, with gains widespread across major categories. Exports of goods and services are expected to accelerate somewhat in the near term, averaging 5½ percent growth this quarter and next. Exports of core goods continue the cyclical rebound begun earlier this year in response to improved activity abroad. Over the remainder of the forecast period, their growth is projected to average around 5 percent, boosted by a pickup in foreign growth and a small decline in the value of the dollar. Exports of services should resume their upward trend over the forecast period.

As with exports, real imports of goods and services are estimated to have risen around 2½ percent at an annual rate in the third quarter following a surge in the second quarter. All of the increase was in imports of goods, as service imports fell for a second consecutive quarter following a very large increase in the first quarter. The third-quarter rise in goods imports was concentrated in industrial supplies and consumer goods and may partly incorporate an acceleration of shipments through West Coast ports as a work stoppage began to appear more likely.[1]

Growth of merchandise imports is expected to pick up in the fourth quarter, reflecting both some increase in oil imports and some pickup in growth of high-tech imports, which slowed in the third quarter following rapid increases earlier in the year. Imported core goods are projected to grow about 5¼ percent in the fourth quarter and to expand on average nearly 6 percent over the remainder of the forecast period, as the effects of continued recovery in the U.S. economy and the cyclical rebound from last year's sharp fall in the level of imports are only slightly offset by the effect of past and projected dollar depreciation. Real imports of computers and semiconductors should also contribute significantly to import growth over the next two years, and service imports are expected to pick up gradually.

The U.S. current account deficit as a share of nominal GDP is projected to rise from 5 percent in the second quarter of this year to 5¼ percent by the fourth quarter and to 5½ percent by the end of 2004. Most of the increase in the deficit is in the balance on goods and services, although net investment income is also expected to continue to decline in response to the growing net liability position.

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1. We have seen anecdotal reports that suggest that some large retailers such as Wal-Mart did bring stocks in early, although we do not have estimates of the amount. August trade data show an increase in imported goods of about $1.5 billion (monthly rate). We have assumed for the purposes of the forecast that about $500 million of the August increase was a result of accelerated imports. (West Coast ports account for about 20 percent of total goods imports, or about $18 billion at a monthly rate.) Some acceleration of imports likely occurred in September as well, but the ports were closed for three days at the end of the month, so we have assumed that these effects were roughly offsetting. Thus, the $500 million in monthly August imports translates into about $2 billion at an annual rate in additional imports for the third quarter. We have assumed that imports are reduced by an equal amount in the fourth quarter.

Because the docks were closed for eight days in October and the backlog has not been fully cleared, we have assumed that monthly imports in October will be depressed by about $1.7 billion at a monthly rate, about 10 percent of the total amount of imports that pass through the affected ports. Although the ports were closed for about 25 percent of the month, some make-up in imports is apparently occurring, despite reports of continued work slowdowns, as the backlog of ships is reportedly dropping. We have assumed that the backlog will be cleared by the end of November.

A similar but much smaller adjustment was made for exports, which are only about one-fifth the value of imports for West Coast ports.

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

| Measure | 2001 | | 2002: H1 | Projection | | |
|---|---|---|---|---|---|---|
| | H1 | H2 | | 2002: H2 | 2003 | 2004 |
| Real exports | -9.3 | -13.5 | 8.7 | 4.6 | 7.0 | 7.9 |
| *Previous GB* | *-9.3* | *-13.5* | *8.7* | *6.0* | *7.6* | *8.1* |
| Real imports | -7.3 | -8.6 | 15.2 | 3.9 | 6.8 | 7.8 |
| *Previous GB* | *-7.3* | *-8.6* | *15.3* | *5.6* | *6.9* | *7.6* |

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

**Alternative Simulations**
Our baseline forecast assumes that financial sector reform in Japan has only a slightly restrictive effect on Japanese real activity over the forecast period. However, a wide variety of circumstances may undermine public confidence in the reform efforts, including the perception that it is proceeding too slowly, or, alternatively, that it turns out to be more aggressive than expected. To assess the effect of such a loss in confidence, we used the FRB/Global model to consider an autonomous decline in Japanese consumer spending. The shock begins in 2002:Q4, is phased in over four quarters, and has the effect of lowering Japanese GDP 2.3 percentage points below baseline in 2003:H1 and about 5 percentage points below baseline in 2004:H2.

Despite this large decline in Japanese GDP, U.S. output growth is only 0.1 percentage point below baseline in 2003 and 2004, while the effect on core PCE inflation is negligible. The small contractionary effects of the shock on U.S. demand in part reflect the fact that exports to Japan are less than 1 percent of U.S. GDP. In addition, spillover effects of the shock to other countries, including Japan's major trading partners in Asia that are also important export markets for the United States, are relatively modest.

In a second simulation, in addition to the first shock, we incorporated a reaction by the Bank of Japan involving quantitative easing, such as non-sterilized intervention in foreign exchange markets, that causes an immediate 20 percent yen depreciation in 2002:Q4. As a result, Japanese GDP declines only 1.2 percentage points below baseline in 2002:H2 and recovers to its baseline level by the end of the forecast horizon. However, with the real trade-weighted dollar appreciating roughly 4 percent above baseline, U.S. real net exports fall more in this case, inducing a 0.2 and 0.3 percentage point fall in U.S. GDP growth in 2003 and 2004, respectively. Core PCE inflation is also lower in this case as dollar appreciation restrains import prices.

**Alternative Simulations:**
**Japanese Financial Sector Reform**
(Percent change from previous period, annual rate)

| Indicator and simulation | 2002 | | 2003 | | 2004 | |
|---|---|---|---|---|---|---|
| | H1 | H2 | H1 | H2 | H1 | H2 |
| *U.S. real GDP* | | | | | | |
| Baseline | 3.1 | 2.1 | 2.4 | 3.6 | 4.0 | 3.8 |
| Simulation 1: Negative demand shock in Japan | 3.1 | 2.1 | 2.3 | 3.5 | 3.9 | 3.7 |
| Simulation 2: Negative demand shock and stimulative monetary policy in Japan | 3.1 | 2.1 | 2.3 | 3.4 | 3.7 | 3.5 |
| *U.S. PCE prices excl. food and energy* | | | | | | |
| Baseline | 1.7 | 1.6 | 1.4 | 1.3 | 1.2 | 1.2 |
| Simulation 1: Negative demand shock in Japan | 1.7 | 1.6 | 1.4 | 1.3 | 1.2 | 1.2 |
| Simulation 2: Negative demand shock and stimulative monetary policy in Japan | 1.7 | 1.6 | 1.2 | 1.1 | 1.0 | 1.1 |

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

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OUTLOOK FOR FOREIGN REAL GDP AND CONSUMER PRICES: SELECTED COUNTRIES
(Percent, Q4 to Q4)

| | | | | | | | -----Projected---- | | |
|---|---|---|---|---|---|---|---|---|---|
| Measure and country | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 |
| REAL GDP (1) | | | | | | | | | |
| Total foreign | 4.1 | 4.2 | 1.6 | 5.0 | 3.9 | 0.1 | 2.8 | 2.9 | 3.4 |
| Industrial Countries | 2.8 | 3.5 | 2.7 | 4.2 | 3.1 | 0.4 | 2.5 | 2.3 | 2.7 |
| of which: | | | | | | | | | |
| Canada | 2.7 | 4.4 | 4.4 | 5.7 | 3.5 | 0.8 | 4.0 | 2.7 | 3.0 |
| Japan | 3.7 | 0.5 | -1.3 | 0.6 | 2.3 | -1.5 | 0.7 | 0.8 | 1.2 |
| United Kingdom | 2.8 | 3.7 | 2.6 | 3.2 | 2.2 | 1.6 | 2.0 | 2.5 | 2.9 |
| Euro Area (2) | 1.6 | 3.1 | 2.1 | 3.9 | 2.7 | 0.4 | 1.3 | 2.1 | 2.8 |
| Germany | 1.4 | 1.7 | 0.7 | 3.3 | 1.9 | 0.1 | 0.9 | 1.8 | 2.7 |
| Developing Countries | 6.2 | 5.3 | -0.2 | 6.2 | 5.3 | -0.4 | 3.1 | 3.9 | 4.5 |
| Asia | 6.6 | 4.9 | -2.0 | 8.8 | 6.3 | 0.8 | 5.1 | 5.1 | 5.5 |
| Korea | 6.4 | 3.4 | -5.2 | 13.8 | 5.1 | 4.4 | 5.9 | 5.6 | 5.2 |
| China | 5.3 | 8.7 | 9.5 | 4.1 | 8.0 | 7.5 | 8.1 | 7.2 | 7.5 |
| Latin America | 6.3 | 6.1 | 1.2 | 4.2 | 4.5 | -1.5 | 1.6 | 2.9 | 3.8 |
| Mexico | 7.1 | 6.7 | 2.8 | 5.4 | 4.9 | -1.5 | 2.7 | 3.6 | 4.5 |
| Brazil | 5.4 | 2.4 | -1.6 | 3.7 | 3.8 | -0.6 | 0.4 | 0.7 | 1.4 |
| CONSUMER PRICES (3) | | | | | | | | | |
| Industrial Countries | 1.5 | 1.5 | 0.9 | 1.2 | 1.9 | 0.9 | 1.9 | 1.0 | 1.1 |
| of which: | | | | | | | | | |
| Canada | 2.0 | 1.0 | 1.1 | 2.3 | 3.1 | 1.1 | 3.6 | 1.9 | 2.1 |
| Japan | 0.2 | 2.1 | 0.7 | -1.2 | -1.2 | -1.3 | -0.7 | -1.0 | -0.9 |
| United Kingdom (4) | 3.2 | 2.7 | 2.5 | 2.2 | 2.1 | 2.0 | 2.4 | 2.3 | 2.5 |
| Euro Area (2) | 1.9 | 1.5 | 0.8 | 1.5 | 2.7 | 2.1 | 2.1 | 1.3 | 1.4 |
| Germany | 1.3 | 1.5 | 0.3 | 1.1 | 2.5 | 1.7 | 1.3 | 0.7 | 0.7 |
| Developing Countries | 11.1 | 6.8 | 9.0 | 4.6 | 4.1 | 2.8 | 2.7 | 3.1 | 2.9 |
| Asia | 4.8 | 2.7 | 4.4 | 0.1 | 1.8 | 1.0 | 0.6 | 1.9 | 2.1 |
| Korea | 5.0 | 4.9 | 5.8 | 1.2 | 2.5 | 3.3 | 4.0 | 3.2 | 3.0 |
| China | 6.8 | 0.9 | -1.2 | -0.9 | 0.9 | -0.2 | -1.2 | 1.0 | 1.2 |
| Latin America | 25.8 | 15.5 | 15.4 | 12.5 | 8.4 | 5.4 | 6.0 | 5.6 | 4.6 |
| Mexico | 28.0 | 17.0 | 17.3 | 13.5 | 8.8 | 5.2 | 5.0 | 4.5 | 3.6 |
| Brazil | 9.6 | 4.6 | 2.0 | 8.4 | 6.4 | 7.5 | 8.0 | 9.4 | 8.7 |

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

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Class II FOMC

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OUTLOOK FOR FOREIGN REAL GDP AND CONSUMER PRICES: SELECTED COUNTRIES
(Percent changes)

| | | | | | Projected | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 2002 | | | | 2003 | | | | 2004 | | | |
| Measure and country | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 |
| REAL GDP (1) | Quarterly changes at an annual rate | | | | | | | | | | | |
| Total foreign | 2.8 | 3.6 | 2.4 | 2.2 | 2.7 | 2.9 | 3.0 | 3.1 | 3.3 | 3.4 | 3.4 | 3.4 |
| Industrial Countries | 3.4 | 2.9 | 2.1 | 1.6 | 1.9 | 2.3 | 2.4 | 2.6 | 2.6 | 2.7 | 2.7 | 2.7 |
| of which: | | | | | | | | | | | | |
| Canada | 6.2 | 4.3 | 3.3 | 2.1 | 2.4 | 2.7 | 2.8 | 2.9 | 3.0 | 3.0 | 3.0 | 3.0 |
| Japan | -0.0 | 2.6 | -0.5 | 0.7 | 0.7 | 0.8 | 0.9 | 0.9 | 0.9 | 1.1 | 1.2 | 1.4 |
| United Kingdom | 0.5 | 2.5 | 2.8 | 2.1 | 2.3 | 2.4 | 2.5 | 2.7 | 3.0 | 3.1 | 2.9 | 2.8 |
| Euro Area (2) | 1.4 | 1.6 | 1.3 | 0.9 | 1.4 | 2.0 | 2.4 | 2.7 | 2.8 | 2.8 | 2.8 | 2.8 |
| Germany | 1.1 | 1.1 | 1.1 | 0.4 | 0.9 | 1.6 | 2.2 | 2.7 | 2.7 | 2.7 | 2.7 | 2.8 |
| Developing Countries | 2.0 | 4.5 | 3.0 | 3.1 | 3.8 | 3.9 | 4.0 | 4.0 | 4.3 | 4.5 | 4.5 | 4.5 |
| Asia | 5.8 | 6.2 | 3.9 | 4.7 | 4.9 | 5.0 | 5.2 | 5.3 | 5.4 | 5.5 | 5.5 | 5.5 |
| Korea | 7.8 | 5.6 | 5.1 | 5.2 | 5.6 | 5.6 | 5.6 | 5.6 | 5.2 | 5.2 | 5.2 | 5.2 |
| China | 8.5 | 9.3 | 7.5 | 7.2 | 7.2 | 7.3 | 7.2 | 7.2 | 7.5 | 7.5 | 7.5 | 7.5 |
| Latin America | -1.1 | 3.3 | 2.3 | 1.8 | 2.8 | 3.0 | 3.0 | 3.0 | 3.6 | 3.8 | 3.8 | 3.8 |
| Mexico | -0.0 | 4.7 | 3.3 | 2.8 | 3.6 | 3.6 | 3.6 | 3.6 | 4.3 | 4.6 | 4.6 | 4.6 |
| Brazil | 3.5 | 2.4 | -1.0 | -3.0 | 0.0 | 1.0 | 1.0 | 1.0 | 1.2 | 1.5 | 1.5 | 1.5 |
| CONSUMER PRICES (3) | Four-quarter changes | | | | | | | | | | | |
| Industrial Countries | 1.1 | 1.0 | 1.4 | 1.9 | 1.7 | 1.3 | 1.0 | 1.0 | 1.0 | 1.0 | 1.1 | 1.1 |
| of which: | | | | | | | | | | | | |
| Canada | 1.5 | 1.3 | 2.3 | 3.6 | 3.3 | 2.7 | 2.0 | 1.9 | 1.9 | 1.9 | 2.0 | 2.1 |
| Japan | -1.5 | -1.1 | -0.9 | -0.7 | -0.7 | -0.9 | -1.3 | -1.0 | -1.0 | -1.0 | -1.0 | -0.9 |
| United Kingdom (4) | 2.4 | 1.9 | 2.0 | 2.4 | 2.2 | 2.4 | 2.3 | 2.3 | 2.4 | 2.4 | 2.5 | 2.5 |
| Euro Area (2) | 2.6 | 2.1 | 2.0 | 2.1 | 1.6 | 1.4 | 1.5 | 1.3 | 1.2 | 1.3 | 1.3 | 1.4 |
| Germany | 2.0 | 1.1 | 1.0 | 1.3 | 0.5 | 0.7 | 0.9 | 0.7 | 0.6 | 0.6 | 0.7 | 0.7 |
| Developing Countries | 2.6 | 2.5 | 2.6 | 2.7 | 3.0 | 2.8 | 2.8 | 3.1 | 3.1 | 3.0 | 2.9 | 2.9 |
| Asia | 0.8 | 0.6 | 0.6 | 0.6 | 0.9 | 0.9 | 1.3 | 1.9 | 2.0 | 2.1 | 2.1 | 2.1 |
| Korea | 2.5 | 2.7 | 2.5 | 4.0 | 4.3 | 3.4 | 3.7 | 3.2 | 3.0 | 3.0 | 3.0 | 3.0 |
| China | -0.6 | -1.0 | -0.8 | -1.2 | -0.9 | -0.6 | -0.2 | 1.0 | 1.2 | 1.2 | 1.2 | 1.2 |
| Latin America | 5.1 | 5.4 | 6.0 | 6.0 | 6.9 | 6.3 | 5.6 | 5.6 | 5.4 | 5.1 | 4.8 | 4.6 |
| Mexico | 4.8 | 4.8 | 5.2 | 5.0 | 5.8 | 5.2 | 4.4 | 4.5 | 4.4 | 4.1 | 3.8 | 3.6 |
| Brazil | 7.7 | 7.9 | 7.7 | 8.0 | 8.8 | 9.6 | 9.5 | 9.4 | 9.2 | 8.8 | 8.7 | 8.7 |

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

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# OUTLOOK FOR U.S. INTERNATIONAL TRANSACTIONS

| | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | ------ 2002 | Projected 2003 | ------ 2004 |
|---|---|---|---|---|---|---|---|---|---|
| NIPA REAL EXPORTS and IMPORTS | | | | | | | | | |
| | Percentage point contribution to GDP growth, Q4/Q4 | | | | | | | | |
| Net Goods & Services | -0.2 | -0.8 | -1.1 | -1.0 | -0.8 | -0.1 | -0.6 | -0.3 | -0.3 |
| Exports of G&S | 1.1 | 1.0 | 0.3 | 0.5 | 0.8 | -1.3 | 0.6 | 0.7 | 0.8 |
| Imports of G&S | -1.3 | -1.7 | -1.3 | -1.5 | -1.5 | 1.2 | -1.2 | -0.9 | -1.1 |
| | Percentage change, Q4/Q4 | | | | | | | | |
| Exports of G&S | 9.8 | 8.5 | 2.3 | 4.9 | 7.3 | -11.4 | 6.6 | 7.0 | 7.9 |
| Services | 8.9 | 1.4 | 2.9 | 3.2 | 4.8 | -9.2 | 8.7 | 4.7 | 5.7 |
| Computers | 21.6 | 25.8 | 8.1 | 13.4 | 23.0 | -23.4 | 3.5 | 32.6 | 33.5 |
| Semiconductors | 44.6 | 21.3 | 9.1 | 34.6 | 26.9 | -34.9 | 31.0 | 34.2 | 36.0 |
| Other Goods 1/ | 7.3 | 9.8 | 1.3 | 3.2 | 5.7 | -9.3 | 4.5 | 4.7 | 4.9 |
| Imports of G&S | 11.2 | 14.3 | 10.8 | 11.9 | 11.1 | -8.0 | 9.4 | 6.8 | 7.8 |
| Services | 5.3 | 14.0 | 8.5 | 5.9 | 10.9 | -8.6 | 6.4 | 2.3 | 3.9 |
| Oil | 7.8 | 3.9 | 4.1 | -3.4 | 13.3 | 0.1 | -0.1 | 2.3 | 3.7 |
| Computers | 17.8 | 33.0 | 25.8 | 26.0 | 13.6 | -13.8 | 19.5 | 32.6 | 33.5 |
| Semiconductors | 56.7 | 32.9 | -8.7 | 34.2 | 22.5 | -51.4 | 31.4 | 34.2 | 36.0 |
| Other Goods 2/ | 10.4 | 12.7 | 11.5 | 12.7 | 10.4 | -6.2 | 9.7 | 5.6 | 6.0 |
| | Billions of chained 1996 dollars | | | | | | | | |
| Net Goods & Services | -89.0 | -113.3 | -221.1 | -320.5 | -398.8 | -415.9 | -479.3 | -517.1 | -554.6 |
| Exports of G&S | 874.2 | 981.5 | 1002.4 | 1036.3 | 1137.2 | 1076.1 | 1064.5 | 1131.8 | 1218.5 |
| Imports of G&S | 963.1 | 1094.8 | 1223.5 | 1356.8 | 1536.0 | 1492.0 | 1543.8 | 1648.9 | 1773.1 |
| | Billions of dollars | | | | | | | | |
| US CURRENT ACCOUNT BALANCE | -117.8 | -128.4 | -203.8 | -292.9 | -410.3 | -393.4 | -511.9 | -561.1 | -611.3 |
| Current Acct as Percent of GDP | -1.5 | -1.5 | -2.3 | -3.2 | -4.2 | -3.9 | -4.9 | -5.2 | -5.4 |
| Net Goods & Services (BOP) | -101.8 | -107.8 | -166.9 | -262.2 | -378.7 | -358.3 | -433.9 | -479.7 | -516.5 |
| Investment Income, Net | 28.6 | 25.1 | 12.7 | 23.9 | 27.6 | 20.5 | -13.4 | -19.6 | -23.3 |
| Direct, Net | 69.4 | 72.4 | 65.5 | 75.0 | 88.9 | 102.6 | 79.0 | 81.9 | 87.4 |
| Portfolio, Net | -40.8 | -47.3 | -52.9 | -51.1 | -61.2 | -82.1 | -92.5 | -101.5 | -110.7 |
| Other Income & Transfers,Net | -44.6 | -45.7 | -49.6 | -54.5 | -59.3 | -55.6 | -64.6 | -61.8 | -71.5 |

1. Merchandise exports excluding computers, and semiconductors.
2. Merchandise imports excluding oil, computers, and semiconductors.

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# OUTLOOK FOR U.S. INTERNATIONAL TRANSACTIONS

| | 1999 Q1 | 1999 Q2 | 1999 Q3 | 1999 Q4 | 2000 Q1 | 2000 Q2 | 2000 Q3 | 2000 Q4 | 2001 Q1 | 2001 Q2 | 2001 Q3 | 2001 Q4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NIPA REAL EXPORTS and IMPORTS | | | | | | | | | | | | |
| Percentage point contribution to GDP growth | | | | | | | | | | | | |
| Net Goods & Services | -1.8 | -1.4 | -0.7 | 0.1 | -1.1 | -1.0 | -0.7 | -0.2 | 0.5 | -0.4 | -0.2 | -0.3 |
| Exports of G&S | -0.8 | 0.4 | 1.1 | 1.3 | 0.8 | 1.5 | 1.2 | -0.5 | -0.7 | -1.4 | -2.0 | -1.0 |
| Imports of G&S | -1.0 | -1.9 | -1.8 | -1.2 | -1.9 | -2.5 | -1.9 | 0.3 | 1.2 | 1.0 | 1.7 | 0.7 |
| Percentage change from previous period, s.a.a.r. | | | | | | | | | | | | |
| Exports of G&S | -6.9 | 4.3 | 10.6 | 12.6 | 7.7 | 14.6 | 11.6 | -4.0 | -6.0 | -12.4 | -17.3 | -9.6 |
| Services | -1.5 | 3.4 | 4.7 | 6.4 | 10.2 | 11.2 | -5.9 | 4.4 | -6.0 | -2.5 | -13.9 | -13.8 |
| Computers | 0.8 | 24.7 | 20.6 | 9.2 | 33.5 | 45.9 | 28.8 | -8.8 | -7.3 | -41.7 | -22.8 | -17.6 |
| Semiconductors | 34.2 | 45.2 | 41.3 | 19.0 | 14.6 | 90.9 | 43.4 | -17.5 | -34.6 | -47.3 | -40.9 | -11.7 |
| Other Goods 1/ | -12.0 | 0.9 | 10.8 | 15.5 | 4.2 | 9.1 | 16.7 | -5.9 | -2.9 | -10.5 | -16.5 | -6.9 |
| Imports of G&S | 8.4 | 15.4 | 14.5 | 9.4 | 14.7 | 18.6 | 13.8 | -1.6 | -7.9 | -6.8 | -11.8 | -5.3 |
| Services | 0.2 | 6.8 | 9.7 | 7.1 | 20.7 | 9.6 | 15.1 | -0.5 | 0.3 | 8.5 | -23.2 | -16.5 |
| Oil | 3.9 | 29.8 | -5.8 | -31.5 | 28.6 | 40.4 | -2.3 | -6.5 | 23.3 | 7.2 | -26.9 | 3.9 |
| Computers | 35.0 | 43.7 | 14.4 | 13.5 | 2.5 | 40.4 | 27.9 | -9.5 | -21.6 | -24.5 | -18.7 | 14.6 |
| Semiconductors | 23.0 | 67.9 | 16.3 | 35.0 | 23.5 | 50.0 | 69.8 | -28.5 | -43.9 | -68.8 | -55.9 | -27.5 |
| Other Goods 2/ | 7.8 | 12.2 | 17.4 | 13.4 | 13.1 | 15.5 | 12.3 | 1.3 | -9.4 | -6.1 | -4.7 | -4.5 |
| Billions of chained 1996 dollars, s.a.a.r. | | | | | | | | | | | | |
| Net Goods & Services | -283.2 | -319.6 | -339.6 | -339.5 | -368.8 | -394.6 | -413.1 | -418.5 | -404.5 | -414.8 | -419.0 | -425.3 |
| Exports of G&S | 1007.5 | 1018.1 | 1044.1 | 1075.6 | 1095.8 | 1133.9 | 1165.5 | 1153.7 | 1135.8 | 1098.8 | 1048.0 | 1021.8 |
| Imports of G&S | 1290.7 | 1337.7 | 1383.7 | 1415.2 | 1464.6 | 1528.5 | 1578.6 | 1572.2 | 1540.3 | 1513.6 | 1467.0 | 1447.2 |
| Billions of dollars, s.a.a.r. | | | | | | | | | | | | |
| US CURRENT ACCOUNT BALANCE | -238.7 | -280.6 | -320.6 | -331.6 | -376.4 | -392.3 | -428.7 | -443.9 | -430.9 | -396.9 | -365.3 | -380.3 |
| Current Account as % of GDP | -2.6 | -3.1 | -3.4 | -3.5 | -3.9 | -4.0 | -4.3 | -4.5 | -4.3 | -3.9 | -3.6 | -3.7 |
| Net Goods & Services (BOP) | -209.5 | -253.4 | -286.5 | -299.6 | -348.7 | -367.7 | -393.3 | -405.0 | -388.6 | -373.3 | -319.1 | -352.1 |
| Investment Income, Net | 20.8 | 24.9 | 18.3 | 31.5 | 25.1 | 30.6 | 22.1 | 32.8 | 10.3 | 30.1 | 9.4 | 32.4 |
| Direct, Net | 72.3 | 71.4 | 71.3 | 85.0 | 79.0 | 86.9 | 89.2 | 100.3 | 89.0 | 111.3 | 95.6 | 114.4 |
| Portfolio, Net | -51.5 | -46.5 | -53.0 | -53.5 | -53.9 | -56.3 | -67.1 | -67.5 | -78.7 | -81.2 | -86.3 | -82.0 |
| Other Inc. & Transfers, Net | -50.0 | -52.1 | -52.4 | -63.5 | -52.8 | -55.3 | -57.5 | -71.7 | -52.5 | -53.7 | -55.6 | -60.6 |

1. Merchandise exports excluding computers, and semiconductors.
2. Merchandise imports excluding oil, computers, and semiconductors.

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# OUTLOOK FOR U.S. INTERNATIONAL TRANSACTIONS

| | 2002 | | | | 2003 (Projected) | | | | 2004 (Projected) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 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 | -0.1 | -0.1 | -0.3 | -0.5 | -0.3 | 0.1 | -0.5 | -0.5 | -0.3 | 0.1 |
| Exports of G&S | 0.3 | 1.3 | 0.2 | 0.6 | 0.4 | 0.7 | 0.7 | 0.9 | 0.6 | 0.8 | 0.8 | 1.0 |
| Imports of G&S | -1.1 | -2.7 | -0.3 | -0.7 | -0.8 | -1.2 | -1.0 | -0.8 | -1.0 | -1.3 | -1.1 | -0.9 |
| *Percentage change from previous period, s.a.a.r.* | | | | | | | | | | | | |
| Exports of G&S | 3.5 | 14.3 | 2.5 | 6.7 | 4.3 | 6.9 | 7.3 | 9.6 | 5.7 | 7.9 | 8.0 | 9.9 |
| Services | 21.7 | 10.7 | 0.3 | 3.2 | 4.2 | 4.5 | 4.8 | 5.4 | 5.5 | 5.7 | 5.7 | 5.8 |
| Computers | -21.1 | -0.5 | 2.0 | 43.2 | 31.1 | 32.3 | 33.5 | 33.5 | 33.5 | 33.5 | 33.5 | 33.5 |
| Semiconductors | 13.7 | 65.8 | 37.6 | 13.4 | 31.1 | 33.5 | 36.0 | 36.0 | 36.0 | 36.0 | 36.0 | 36.0 |
| Other Goods 1/ | -3.2 | 14.2 | 1.5 | 6.1 | 1.2 | 4.7 | 4.9 | 8.3 | 1.7 | 5.0 | 5.0 | 7.9 |
| Imports of G&S | 8.5 | 22.2 | 2.5 | 5.3 | 5.5 | 8.4 | 7.4 | 5.8 | 7.5 | 9.2 | 8.1 | 6.4 |
| Services | 35.7 | -2.1 | -1.4 | -2.0 | 0.3 | 1.9 | 3.2 | 3.7 | 4.1 | 4.0 | 3.9 | 3.7 |
| Oil | -19.0 | 34.5 | -11.3 | 2.9 | -3.7 | 29.7 | 7.6 | -18.4 | 0.8 | 29.8 | 7.4 | -17.9 |
| Computers | 52.4 | 5.6 | 2.8 | 23.4 | 31.1 | 32.3 | 33.5 | 33.5 | 33.5 | 33.5 | 33.5 | 33.5 |
| Semiconductors | 45.2 | 41.8 | 6.6 | 36.0 | 31.1 | 33.5 | 36.0 | 36.0 | 36.0 | 36.0 | 36.0 | 36.0 |
| Other Goods 2/ | 1.9 | 28.8 | 4.9 | 5.3 | 5.3 | 5.6 | 5.6 | 5.9 | 6.0 | 6.1 | 6.1 | 6.0 |
| *Billions of chained 1996 dollars, s.a.a.r.* | | | | | | | | | | | | |
| Net Goods & Services | -446.6 | -487.4 | -490.2 | -492.9 | -502.4 | -516.6 | -526.1 | -523.3 | -537.7 | -553.2 | -564.3 | -563.1 |
| Exports of G&S | 1030.6 | 1065.5 | 1072.1 | 1089.8 | 1101.4 | 1119.9 | 1139.7 | 1166.3 | 1182.5 | 1205.2 | 1228.6 | 1257.8 |
| Imports of G&S | 1477.1 | 1552.9 | 1562.4 | 1582.7 | 1603.8 | 1636.5 | 1665.8 | 1689.6 | 1720.2 | 1758.4 | 1792.8 | 1820.9 |
| *Billions of dollars, s.a.a.r.* | | | | | | | | | | | | |
| US CURRENT ACCOUNT BALANCE | -449.8 | -519.1 | -529.7 | -548.9 | -545.8 | -557.3 | -564.9 | -576.4 | -591.2 | -607.9 | -621.7 | -624.5 |
| Current Account as % of GDP | -4.4 | -5.0 | -5.1 | -5.2 | -5.1 | -5.2 | -5.2 | -5.2 | -5.3 | -5.4 | -5.4 | -5.4 |
| Net Goods & Services (BOP) | -382.0 | -441.8 | -452.2 | -459.5 | -467.0 | -479.3 | -487.6 | -485.0 | -498.7 | -514.2 | -526.0 | -527.0 |
| Investment Income, Net | 2.7 | -18.5 | -20.0 | -17.9 | -20.3 | -19.5 | -18.7 | -19.9 | -20.9 | -22.2 | -24.1 | -26.0 |
| Direct, Net | 88.3 | 70.7 | 76.6 | 80.6 | 79.3 | 81.0 | 83.2 | 84.1 | 85.3 | 86.6 | 88.0 | 89.7 |
| Portfolio, Net | -85.5 | -89.2 | -96.6 | -98.5 | -99.6 | -100.4 | -101.9 | -104.0 | -106.2 | -108.8 | -112.1 | -115.7 |
| Other Inc. & Transfers, Net | -70.6 | -58.9 | -57.5 | -71.5 | -58.5 | -58.5 | -58.5 | -71.5 | -71.5 | -71.5 | -71.5 | -71.5 |

1. Merchandise exports excluding computers, and semiconductors.
2. Merchandise imports excluding oil, computers, and semiconductors.