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Confidential (FR) Class II FOMC

**Part 1** May 1, 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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# Domestic Developments

Real GDP increased rapidly in the first quarter. The ongoing liquidation of inventories slowed more quickly than we had anticipated, and we have interpreted that surprise as having shifted forward some of the boost to production that we had assumed would occur in the second quarter. Nonetheless, final demand also exceeded our expectations. Productivity has surged in the past two quarters, and although some of these gains are likely cyclical, we believe they signify a higher underlying rate of structural productivity growth than we had been estimating. We now expect real GDP to rise 3-3/4 percent this year and 4-1/4 percent in 2003—a touch faster next year than we had projected in the March Greenbook. However, with the greater revision we have made to potential real GDP, we also anticipate somewhat higher unemployment: The unemployment rate is forecast to hit 6 percent this summer and to drop just below 5-1/2 percent near the end of the projection period.

Although the timing of inventory investment is important for the near-term dynamics of production, the speed and strength of this expansion will ultimately depend on final demand. Here the latest information has been positive on balance. Spending by households and businesses rose at an annual rate of 3 percent in the first quarter, 1 percentage point faster than our March forecast, and we have edged up our projection for demand in this category for the second quarter. However, we now project a much smaller swing in inventory investment, a sharper slowing in government outlays, and greater drag from the external sector. All told, we expect real GDP to increase at an annual rate of 2 percent in the current quarter—a downward revision of 1-1/2 percentage points from the March Greenbook.

Our more optimistic outlook for potential output, all else being equal, would push up real GDP growth this year and next. But investors appear to have become less optimistic about future earnings growth, and equity prices have fallen considerably since the last Greenbook. Our lower assumed path for equity prices damps output growth over the next several quarters. In 2003, the revision to potential output shows through to a steeper trajectory for real GDP. Alternative simulations later in this section explore the sensitivity of the forecast to our views of structural productivity growth and the path of business investment—two areas of significant uncertainty.

The latest news on inflation has been in line with our expectations. Looking forward, faster growth in structural labor productivity and lower levels of aggregate resource utilization in this forecast have led us to trim our inflation projection slightly. We now expect core PCE prices to rise just 1-1/4 percent on average in 2002 and 2003. The consequences of less favorable outcomes for inflation are explored in the alternative simulations section.

**Key Background Factors**

This forecast again assumes that an appreciable tightening of policy will be necessary over the projection period. However, in light of the slightly larger projected GDP gap, we have delayed that assumed tightening a bit. Financial markets have made a more significant downward adjustment to the expected funds-rate path, narrowing the difference between their expectations and ours. The increase in short-term interest rates in our projection should cause Treasury bond yields to move up slightly in 2003, but that rise is tempered by an assumption that markets converge to our view of future funds rates by the end of the forecast period.

Risk spreads for lower-rated corporate issues have been roughly unchanged during the intermeeting period, after having fallen noticeably from their peaks last fall. As the economic expansion proceeds and concern about potential defaults eases, we expect that spreads will narrow somewhat further. On the household side, bankruptcy filings and delinquency rates for nonprime borrowers are at elevated levels. However, only a small share of households appear to be affected, and we do not expect credit supply to impinge materially on aggregate household spending going forward.

Our assumed path for stock prices is roughly 8 percent lower throughout the forecast period than the path in the March Greenbook because equity prices have lost nearly this much ground since then. As in the previous projection, we assume that share prices will increase from their current level at a pace that roughly maintains risk-adjusted parity with the return on corporate bonds.

Federal personal tax receipts in April came in well below our expectations and even further below the budget estimates of the Administration and the Congress. With the tally of collections for this filing season nearly complete, we now estimate that these receipts will fall roughly $45 billion short of our previous projection. Although detailed information about the composition of this year's tax payments will not be available for some time, we presume that much of the surprise stems from an even larger decline in capital gains realizations than we had expected.

On the appropriations front, the Administration's fiscal year 2002 supplemental request would raise outlays both this year and next relative to our previous forecast, and we have included this spending fully in the current forecast. We have not altered our point estimate of fiscal 2003 appropriations (which would affect outlays in 2003 and subsequent years), although substantial uncertainty remains: It is conceivable that the negative surprise in tax receipts will induce greater spending discipline, but efforts to bridge conflicting spending priorities could work in the opposite direction. We now expect the unified budget to run deficits of $119 billion in 2002 and $77 billion in 2003, compared with our March Greenbook projection of $65 billion and $31 billion, respectively.

Economic activity abroad has been a little stronger than we anticipated in March, and we have marked up our forecast of foreign real GDP growth nearly 1/2 percentage point this year, to about 3 percent. We still expect foreign output to grow 3-1/2 percent next year. The real trade-weighted foreign exchange value of the dollar has eased slightly, on net, over the intermeeting period; we have assumed that it will be essentially flat over the next year and a half.

The spot price of West Texas intermediate (WTI) crude oil is currently around $27 per barrel, about $2.50 higher than we expected in the March Greenbook. The run-up in oil prices during the past several months is due to production restraint by OPEC, the prospect of stronger global demand, the Iraqi suspension of exports, and uncertainty about supplies from Venezuela and the Middle East. We expect that, over time, prices will decline as OPEC production moves up. In line with readings in futures markets, the price of WTI crude should fall to around $23.50 per barrel by the end of 2003, about 50 cents above our March projection.

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

We project that real GDP will increase at an annual rate of 2 percent in the current quarter after a gain of 5-3/4 percent in the first quarter. We had anticipated that businesses would start to slow the pace of inventory reduction after the large decline in stocks in the fourth quarter, but we were surprised by the degree to which this occurred. Still, business sentiment about the strength of the recovery going forward remains subdued, so we expect that firms will draw down inventories a little further and then be cautious in rebuilding stocks. For final sales, we are looking for a considerable deceleration between the first and second quarters.

Personal consumption expenditures appear to have slowed this spring after having shown brisk gains during the winter. Sales incentives for motor vehicles are about as high as they were in the fall, and household purchases remain at a fairly high level, but they are not expected to increase further. Our forecast assumes that consumer outlays apart from motor vehicles will increase at a modest pace in the second quarter, in line with the advances of the past few months.

We expect that homebuilding will step down a bit this quarter. Builders took advantage of unseasonably warm and dry weather during the winter to move forward some of their planned construction. The drop in private housing starts in March likely represented a payback for these “early” starts, and the payback should continue this spring; indeed, permit issuance suggests that the level of

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

| Measure | 2002:Q1 March GB | 2002:Q1 May GB | 2002:Q2 March GB | 2002:Q2 May GB |
|---|---|---|---|---|
| **Real GDP** | **3.8** | **5.8** | **3.5** | **2.0** |
| Private domestic final purchases | 1.9 | 3.0 | 2.3 | 2.5 |
| Personal consumption expenditures | 2.1 | 3.5 | 2.4 | 2.8 |
| Residential investment | 7.7 | 16.5 | .4 | -.4 |
| Business fixed investment | -1.4 | -5.2 | 2.3 | 1.8 |
| Government outlays for consumption and investment | 7.4 | 7.0 | 2.9 | 1.1 |
| | Contribution to growth, percentage points | | | |
| Inventory investment | 1.7 | 3.1 | 2.3 | 1.1 |
| Net exports | -1.0 | -1.1 | -1.2 | -1.5 |

starts in the second quarter will be below its first-quarter average. Still, the pace of starts in March was among the fastest recorded in the past two years, and sales of new and existing homes are consistent with continued strong housing demand.

In the business sector, shipments of nondefense capital goods excluding aircraft fell in both February and March, and new orders dropped sharply in March after small gains in the previous two months. We expect shipments to slip a little further in the second quarter; however, this decline in nominal shipments will likely translate into a rise in real spending because of continuing declines in computer prices. Moreover, total spending on equipment and software should receive a positive impetus from two categories that are not reflected in the orders and shipments data—motor vehicles and software. For investment in nonresidential structures, we expect a further decline this quarter; indeed, construction data for February and March were weaker than we had anticipated in the last Greenbook, and we have marked down the projected level of second-quarter spending in this category as well.

Real government expenditures on consumption and gross investment are likely to slow sharply in the second quarter. At the federal level, a deceleration in defense spending—following a first-quarter gain at an annual rate of nearly 20 percent—should more than offset a projected pickup in nondefense outlays. At the state and local level, we project that a weather-related drop in construction outlays will hold overall spending flat this quarter.

In the current quarter, net exports should make a substantial negative arithmetic contribution to the change in real GDP. The recovery in demand both here and abroad spurred sharp rebounds in exports and imports in the first quarter. We expect both categories to show further gains in the second quarter, with imports again outpacing exports by a wide margin.

Inflation remains low. The change in the core PCE price index slowed to an annual rate of 0.8 percent in the first quarter; however, this figure reflects surprisingly small increases in medical costs and the prices of nonmarket services, and we expect a somewhat larger rise in the current quarter. Overall PCE inflation dropped to an annual rate of 0.6 percent in the first quarter. This index should be boosted in the second quarter by the uptick in core inflation and by sizable increases in oil and gas prices.

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

We expect real GDP to rise at an annual rate of 3-1/2 percent in the second half of 2002 and 4-1/4 percent in 2003. The shift by firms from inventory liquidation to some replenishment of stocks provides a boost to activity, especially over the next few quarters. Final sales will receive continued support from an accommodative monetary policy and from fiscal stimulus, and they should gather momentum later this year as capital spending recovers more noticeably and as the drag on household spending from earlier declines in net worth begins to wane. Indeed, with our more optimistic outlook for potential output, higher expected income should encourage households to spend more, and higher expected sales should induce businesses to invest more. With the dollar remaining high and foreign economic activity increasing more slowly than domestic activity, the external sector will remain a modest drag on overall activity.

**Household spending.** We expect that real consumer spending will pick up to an average pace of about 3 percent in the second half of this year and nearly 3-1/2 percent in 2003. This forecast is close to our previous one, as the effect of a lower stock market path roughly offsets the projected response of households to the higher future income associated with faster productivity growth.

Interpreting movements in consumption over the past year is difficult because of the prominence of special factors such as permanent tax cuts, temporary tax rebates, terrorist attacks, and the upshift in auto incentives. Still, we think that the present level of consumption is roughly in line with fundamentals. Past declines in equity prices will probably continue to damp spending going forward, but other determinants of consumption appear generally positive. In particular, the gradual firming of labor markets should provide a boost to personal income, and the strong underlying trend in productivity should make households fairly optimistic about their longer-run income prospects.

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

| Measure | 2002 H1 | 2002 H2 | 2003 |
|---|---|---|---|
| **Real GDP** | **3.9** | **3.5** | **4.2** |
| Previous | 3.7 | 3.6 | 4.0 |
| Final sales | 1.7 | 2.8 | 3.7 |
| Previous | 1.6 | 2.5 | 3.4 |
| PCE | 3.2 | 3.0 | 3.4 |
| Previous | 2.2 | 2.9 | 3.3 |
| Residential investment | 7.7 | 1.6 | -1.2 |
| Previous | 4.0 | 3.3 | -2.1 |
| BFI | -1.8 | 5.6 | 12.0 |
| Previous | .4 | 5.5 | 11.9 |
| Government purchases | 4.0 | 3.9 | 3.8 |
| Previous | 5.2 | 4.0 | 3.1 |
| Exports | 6.2 | 6.7 | 7.6 |
| Previous | 5.6 | 4.9 | 7.1 |
| Imports | 15.6 | 9.8 | 10.3 |
| Previous | 13.3 | 11.4 | 10.3 |
| | Contribution to growth, percentage points | | |
| Inventory change | 2.2 | .7 | .5 |
| Previous | 2.0 | 1.1 | .6 |
| Net exports | -1.3 | -.7 | -.7 |
| Previous | -1.1 | -1.0 | -.7 |

We expect that demand for homes will be supported by these same fundamental forces as well as by fairly low mortgage rates. Accordingly, single-family housing starts are expected to run close to 1.35 million units in both 2002 and 2003, up from the 1.27 million unit pace of 2001. Multifamily starts are projected to average 330,000 units, the same level as last year.

**Business fixed investment.** We continue to anticipate a gradual rebound in business investment over the next year and a half. We expect real equipment and software spending to rise at an annual rate of about 8 percent in the second half of 2002 and to increase roughly 14 percent in 2003, close to the corresponding figures in the last Greenbook.

In the high-tech sector, we still see sharply divergent patterns of spending for different categories. Real outlays on computers and peripherals are already increasing briskly and are likely to accelerate over the next year and a half. In contrast, because of the ongoing shakeout in the communications services market, real spending on communications equipment should be about flat in the second half of this year and increase only moderately thereafter. Outlays for software are projected to rise at a fairly steady clip in the second half of 2002 and in 2003.

Our forecast calls for equipment spending outside high-tech to increase modestly in the second half of this year and to accelerate in 2003. Rising sales should boost desired capital stocks and thereby bolster investment demand. We had anticipated that the partial expensing tax incentive would have little effect on investment in the near term, and recent anecdotal reports are consistent with that view. However, we still expect that this tax provision will begin to encourage investment later this year and provide an even larger boost next year.

For nonresidential construction, we project a further small drop in real spending in the second half of 2002 and a 5-1/4 percent rise in 2003. Investment in non-office commercial space is likely to be roughly unchanged this year, but most other major categories of construction should decline sharply. We expect that a low level of capacity utilization will make industrial structures the lagging sector when building picks up again next year.

**Inventory investment.** The smaller-than-expected liquidation in the first quarter implies that less future accumulation will be needed to move inventory-sales ratios to their desired levels. Therefore, though we still anticipate that firms will be rebuilding stocks in the second half of this year and next year, we have trimmed our projection of inventory investment a bit.

**Government spending.** We expect that federal outlays will increase at an annual rate of 5-1/4 percent in real terms in the second half of 2002 and 3-1/2 percent in 2003. All else being equal, the Administration's supplemental appropriations request would push up our projection of federal spending this year and next. However, we now believe that the BEA will translate this year's unified budget outlays into smaller NIPA outlays than we had been expecting, and this factor has led us to mark down our near-term forecast. On balance, we have trimmed the projected level of federal purchases through the first quarter of next year and have boosted the level thereafter.

Deteriorating fiscal positions last year forced many states and localities to cut spending and some to raise taxes and fees. These actions, as well as the economic expansion that is now under way, are alleviating budget pressures. Over time, healthier budgets and strong underlying demand for schools and other infrastructure should bolster state and local spending. We project that real state and local purchases will increase at an annual rate of about 3-1/4 percent in the second half of 2002 and 4 percent in 2003, close to the average pace of the late 1990s.

**Net exports.** Real exports are expected to increase at an annual rate of 6-3/4 percent in the second half of 2002 and 7-1/2 percent in 2003. Real imports are likely to rise even faster—at a pace of roughly 10 percent in the second half of this year and next year—as the dollar remains strong and economic activity expands more rapidly in the United States than abroad. As a result, the external sector should make a negative arithmetic contribution to the change in real GDP of about 1 percent in 2002 and 3/4 percent in 2003. *(The International Developments section provides more detail on the outlook for the external sector.)*

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

Labor productivity in the nonfarm business sector rose at an annual rate of 5-1/2 percent in the fourth quarter of 2001, and it appears to have jumped 8-1/2 percent in the first quarter. We have taken this astonishing surge in productivity as a signal that underlying productivity growth has been stronger

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

| Measure | 1973-95 | 1996-98 | 1999 | 2000 | 2001 | 2002 | 2003 |
|---|---|---|---|---|---|---|---|
| **Structural labor productivity** | **1.4** | **2.4** | **2.9** | **3.0** | **2.3** | **2.0** | **2.6** |
| Previous | 1.4 | 2.4 | 2.9 | 2.8 | 2.1 | 1.8 | 2.5 |
| *Contributions*[1] | | | | | | | |
| Capital deepening | .6 | 1.2 | 1.4 | 1.4 | .6 | .4 | .9 |
| Previous | .6 | 1.1 | 1.5 | 1.4 | .7 | .5 | 1.0 |
| Multifactor productivity | .6 | .9 | 1.3 | 1.4 | 1.4 | 1.3 | 1.5 |
| Previous | .6 | .9 | 1.1 | 1.1 | 1.1 | 1.0 | 1.2 |
| Labor composition | .3 | .3 | .3 | .3 | .3 | .3 | .3 |
| MEMO | | | | | | | |
| Potential GDP | 2.9 | 3.7 | 4.1 | 4.0 | 3.1 | 2.9 | 3.5 |
| Previous | 2.9 | 3.6 | 3.9 | 3.8 | 2.8 | 2.7 | 3.5 |

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

than we had previously estimated. Specifically, we have boosted our estimate of multifactor productivity growth about 1/4 percentage point per year starting in 1999 and running through the forecast period. Incorporating the revised forecast for capital deepening, our projection now calls for structural labor productivity growth of 2.0 percent in 2002 and 2.6 percent in 2003 and for potential output growth of 2.9 percent this year and 3.5 percent next year. The revisions we have made to potential and actual output imply an output gap that will be about 1/2 percentage point wider throughout the forecast period than we had previously estimated.

**Productivity and the labor market.** Even with the upward revision to our estimate of structural labor productivity, the remarkable recent increases in actual productivity have moved it well above its estimated structural level in the first quarter. We believe that businesses were surprised by the strength of final demand in late 2001 and remain cautious regarding the vigor of the expansion, a view that receives some support from recent business surveys. In coming quarters, firms should begin in earnest to boost their workweeks and hire additional workers; as hours climb, actual productivity will revert gradually toward its now-higher structural level. We anticipate that the pace of gains in private payroll employment will perk up to increases of about 240,000 per month in the second half of this year and 200,000 per month in 2003.

The unemployment rate is projected to peak close to 6 percent around midyear and then to drift down to 5-1/2 percent by the end of next year. This path for the unemployment rate is a little higher than in the March Greenbook, owing

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

| Measure | 2000 | 2001 | 2002 | 2003 |
|---|---|---|---|---|
| Output per hour, nonfarm business | 2.6 | 2.0 | 2.4 | 2.4 |
| Previous | 2.6 | 2.0 | 2.2 | 2.2 |
| Nonfarm private payroll employment | 1.8 | -1.1 | 1.1 | 2.1 |
| Previous | 1.8 | -1.1 | 1.1 | 2.0 |
| Household employment survey | 1.0 | -1.0 | .9 | 1.5 |
| Previous | 1.0 | -1.0 | 1.1 | 1.5 |
| Labor force participation rate[1] | 67.1 | 66.9 | 66.9 | 66.9 |
| Previous | 67.1 | 66.9 | 66.8 | 66.9 |
| Civilian unemployment rate[1] | 4.0 | 5.6 | 5.7 | 5.4 |
| Previous | 4.0 | 5.6 | 5.5 | 5.3 |

1. Percent, average for the fourth quarter.

importantly to the wider expected output gap. Over the next several quarters, the availability of extended unemployment benefits should further boost the unemployment rate by encouraging longer spells of unemployment and by drawing people into the labor force to become eligible for these benefits. We estimate that the extended benefits will boost the unemployment rate by 0.2 percentage point this quarter and next and by 0.1 percentage point in the fourth quarter.

**Wages and prices.** The lower levels of resource utilization are a moderating influence on compensation and price inflation going forward. In addition, the improved performance of structural productivity helps to damp price pressures.

The contour of our compensation forecast is shaped principally by the damping influence of the low rate of overall consumer price inflation last year and by continued labor market slack. We expect that these factors will be partly offset by an acceleration in health benefit costs. The large premium increases recently announced by the California public employees' retirement system (CalPERS) are indicative of the widespread anecdotal reports that employer costs for health insurance are rising rapidly. All told, we project the employment cost index for hourly compensation to increase 3.5 percent both this year and next, after having risen 4.2 percent in 2001. Unlike the ECI, the productivity and costs (P&C) measure of hourly compensation in the nonfarm business sector includes the exercise of stock options. We expect this factor to hold down compensation in 2002; therefore, we project that compensation per hour will follow its 3.9 percent rise in 2001 with increases of 3.0 percent in 2002 and 3.4 percent in 2003.

Core consumer prices are likely to decelerate a little between 2001 and 2003, owing primarily to the persistence of greater slack in resource utilization. We anticipate that core PCE inflation will fall from 1.6 percent in 2001 to 1.2 percent in 2002 but then will tick up to 1.3 percent in 2003 as the prices of non-oil imports begin to increase again and the indirect effects of last year's decline in energy prices wane. Overall PCE inflation is expected to drift down from 1.5 percent this year to 1.3 percent in 2003, reflecting largely movements in energy prices.

**Financial Flows and Conditions**

Domestic nonfinancial debt is projected to increase at an annual rate of 5-3/4 percent in 2002 and 5-1/2 percent in 2003, a bit slower than its 6 percent pace last year and roughly in line with nominal GDP. A moderate slowdown in borrowing by nonfederal sectors is expected to more than offset the first year-to-year expansion in federal debt since 1997.

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

| Measure | 2000 | 2001 | 2002 | 2003 |
|---|---|---|---|---|
| PCE chain-weighted price index | 2.6 | 1.3 | 1.5 | 1.3 |
| Previous | 2.6 | 1.2 | 1.5 | 1.4 |
| Food and beverages | 2.5 | 3.2 | 1.9 | 2.0 |
| Previous | 2.5 | 3.2 | 2.1 | 2.1 |
| Energy | 15.4 | -9.9 | 4.6 | -1.7 |
| Previous | 15.4 | -9.9 | 1.4 | -.3 |
| Excluding food and energy | 1.9 | 1.6 | 1.2 | 1.3 |
| Previous | 1.9 | 1.6 | 1.4 | 1.4 |
| Consumer price index | 3.4 | 1.9 | 2.3 | 1.8 |
| Previous | 3.4 | 1.9 | 2.0 | 1.9 |
| Excluding food and energy | 2.5 | 2.7 | 2.2 | 2.0 |
| Previous | 2.5 | 2.7 | 2.2 | 2.1 |
| GDP chain-weighted price index | 2.4 | 1.9 | 1.4 | 1.4 |
| Previous | 2.4 | 1.8 | 1.7 | 1.6 |
| ECI for compensation of private industry workers[1] | 4.4 | 4.2 | 3.5 | 3.5 |
| Previous | 4.4 | 4.2 | 3.2 | 3.3 |
| NFB compensation per hour | 7.8 | 3.9 | 3.0 | 3.4 |
| Previous | 7.8 | 3.9 | 3.1 | 3.3 |
| Prices of core non-oil merchandise imports | 1.6 | -3.1 | .3 | 2.7 |
| Previous | 1.6 | -3.1 | -.6 | 2.3 |

1. December to December.

Unexpectedly meager incoming tax receipts have led us to revise up sharply our estimate for federal debt growth in the current quarter, to a seasonally adjusted annual rate of 12-1/2 percent. We expect federal debt to increase 5-1/4 percent in 2002 and 2 percent in 2003, as tax collection shortfalls seem likely to persist for some time and the track for spending now appears higher, pushing off the return to surpluses well beyond the Greenbook horizon.

Household debt is projected to increase 7 percent in 2002 and 2003, a pace noticeably below that of recent years but still fairly brisk. With longer-term interest rates expected to remain roughly stable over the forecast period, households are projected to continue to tap mortgage markets in volume, both to finance a high level of housing activity and to consolidate debts. The weaker expansion of consumer credit of late is also likely to persist, as nominal expenditures on durable goods decline this year and increase only slowly next year. Despite the high level of the aggregate debt-service burden, indicators of credit quality suggest that most households remain in relatively good financial shape.

Projected growth of business debt slows to 4-1/2 percent this year—the smallest annual increase since 1994—before picking up to 6-1/4 percent in 2003. Businesses' need for funds will be limited this year by improving corporate profits and by an end to the sizable net equity retirements of recent years. The financing gap is likely to widen appreciably next year—tracking the strengthening expenditures for capital goods and inventories—which will raise overall business borrowing. Bond issuance should provide most of the funding, but given our view that the runoff in the commercial paper market is almost over, we expect that short-term borrowing should also provide a significant fraction of total funding.

Even though a deterioration of businesses' debt repayment performance has been evident in loan and bond markets, the most serious problems have been concentrated in specific sectors, particularly telecoms. In general, most firms appear to have ready access to credit, albeit on somewhat stringent terms. Moreover, credit supply conditions are expected to ease over time as business conditions improve. Indeed, a smaller fraction of respondents to the April Senior Loan Officer Opinion Survey reported tightening standards on C&I loans to large and middle-market firms than in any survey since May 2000.

Growth of state and local debt is expected to slow to 4-1/4 percent this year and 3-3/4 percent in 2003, about half the pace of last year. Although capital expenditures by state and local governments are expected to remain strong, borrowing is likely to step down owing to a slowing in advance-refunding activity as well as to paydowns of obligations that had previously been advance-refunded.

M2 growth has been held down this year by the leveling off of its opportunity cost, by the unwinding of the precautionary demand for liquid assets that built up last fall, and by the slowdown in mortgage refinancing. Tax-related effects have also held down money growth in March and April but are expected to boost growth in May. For the year as a whole, the increase in M2 is likely to be well below last year's rapid pace but about in line with the growth in nominal GDP. With policy tightening assumed to start later this year, the opportunity cost of holding M2 is expected to rise, keeping next year's growth in M2 below that of income.

**Alternative Simulations**
In this section we examine the sensitivity of the forecast to some alternative assumptions about the supply and demand sides of the economy. We first examine the implications of the possibility that we have been too cautious in revising our estimates of structural productivity growth in light of the recent impressive gains in output per hour. The second scenario considers the results of our possibly having overreacted to these data. As a third simulation, we explore the consequences of a failure of our anticipated recovery in business investment to materialize. The last two scenarios consider the downside and upside risks to the inflation forecast.

**Stronger productivity.** In response to the recent surge in output per hour, we have considerably marked up our estimate of past and prospective structural multifactor productivity—but not so much as a mechanical reading of our time-series models suggests. In this scenario, we consider the implications of a less cautious approach and take on board the full predictions of our statistical models. This change boosts the current level of potential output about 3/4 percent and adds two-tenths to potential output growth this year and next. With the federal funds rate following its baseline path, the growth of real GDP picks up to more than 4-1/2 percent next year, owing to increases in both business investment (prompted by increased profitability) and consumer spending (spurred by higher permanent income). Still, the output gap is wider on average over the forecast period, and consistent with Okun’s law, the unemployment rate will be 1/4 percentage point higher than the baseline by late next year. Inflation is more subdued than in the baseline both because unemployment is higher and because faster growth in output per hour holds down increases in unit labor costs.

**Weaker productivity.** Of course, the recent outsized gains in productivity may have been just some combination of statistical noise and a temporary squeezing of more output from businesses’ existing workforces to cope with the surprising strength in demand. In this scenario, we evaluate the outlook under the assumption that structural multifactor productivity has been and will be the same as we assumed last December, before the latest round of upward revisions to trend growth. This less optimistic view implies both a lower current level of potential output and slower trend growth going forward (a reduction of more than 1/2 percentage point per year below baseline). Under these less favorable supply-side conditions and with the assumption that the funds rate follows its baseline path, real GDP growth runs in the vicinity of only 3 percent later this year and next. However, with the downward revision to potential output implying a narrower output gap, Okun’s law implies that the unemployment rate will fall below the baseline level. Inflation climbs to 2 percent in 2003.

**Flat investment.** The staff forecast of above-trend GDP growth later this year and next is predicated on a recovery in business capital spending. However, firms may not anticipate enough growth in sales and earnings to justify this pickup in investment. In this scenario, the level of nominal investment in equipment and software remains flat over the next two years, leaving it about 15 percent below our baseline forecast by the end of 2003. Under the baseline monetary policy, stagnant capital spending yields increasingly anemic GDP growth because of both its direct effect on aggregate sales and its indirect effect on consumer spending. (Consumer spending weakens because of multiplier effects and the slower pace of capital deepening, which reduces expected longer-run gains in household income and decreases share prices.) Under these conditions, the unemployment rate drifts up to 6-1/4 percent by late next year. But inflation is little changed from baseline because the effect of increased labor market slack on wages and prices is roughly offset by smaller gains in productivity.

**Heightened inflation pressures.** In the baseline outlook, price inflation remains subdued in part because of our expectation that the relatively high unemployment rate will moderate the growth of wages. In addition, given the slack in product markets, we think that firms will have only limited ability to pass on cost increases let alone to raise profit margins. However, both assumptions could turn out to be mistaken. In this scenario, we assume that shocks in health insurance premiums and other labor costs are sufficient to boost the level of nominal compensation above the baseline more than 1-1/4 percent by late next year. Such a shock to compensation could be generated, for example, by an increase in health insurance costs economywide that is roughly comparable in magnitude to the recently announced CalPERS increase. We also assume that firms have enough pricing leverage to fully pass on these higher costs and thus keep the profit share unchanged. The combined effect of these two developments is a large pickup in core PCE inflation, which climbs to 2-1/4 percent later this year. Under the baseline monetary policy, however, real activity is little affected: The stimulus from lower real interest rates today effectively offsets the depressing effect of expectations of tighter monetary policy down the road.

**Low NAIRU.** The staff estimates that a temporary reduction in the effective NAIRU caused by accelerating productivity helps explain the combination of low inflation and low unemployment experienced in recent years. An alternative explanation is that pricing behavior has permanently changed. Consistent with this view, this scenario assumes that the NAIRU has been and will continue to be 4-1/4 percent. Relative to baseline, this assumption implies a decline in inflation to less than 1 percent by next year; real activity is essentially unaffected.

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

| Measure | 2001 Q4 | 2002 Q1 | 2002 Q2 | 2002 H2 | 2003 |
|---|---|---|---|---|---|
| *Real GDP* | | | | | |
| **Baseline** | **1.7** | **5.8** | **2.0** | **3.5** | **4.2** |
| Stronger productivity | 1.7 | 5.8 | 2.1 | 3.8 | 4.6 |
| Weaker productivity | 1.7 | 5.8 | 1.7 | 2.7 | 3.1 |
| Flat investment | 1.7 | 5.8 | 1.5 | 2.8 | 2.5 |
| Heightened inflation pressures | 1.7 | 5.8 | 2.0 | 3.3 | 4.2 |
| Low NAIRU | 1.7 | 5.8 | 2.0 | 3.5 | 4.3 |
| *Civilian unemployment rate*[1] | | | | | |
| **Baseline** | **5.6** | **5.6** | **5.9** | **5.7** | **5.4** |
| Stronger productivity | 5.6 | 5.6 | 5.9 | 5.8 | 5.6 |
| Weaker productivity | 5.6 | 5.6 | 5.9 | 5.5 | 5.2 |
| Flat investment | 5.6 | 5.6 | 5.9 | 5.9 | 6.3 |
| Heightened inflation pressures | 5.6 | 5.6 | 5.9 | 5.7 | 5.4 |
| Low NAIRU | 5.6 | 5.6 | 5.9 | 5.7 | 5.4 |
| *PCE prices excluding food and energy* | | | | | |
| **Baseline** | **2.7** | **.8** | **1.3** | **1.4** | **1.3** |
| Stronger productivity | 2.7 | .8 | 1.2 | 1.2 | 1.0 |
| Weaker productivity | 2.7 | .8 | 1.5 | 1.8 | 2.0 |
| Flat investment | 2.7 | .8 | 1.3 | 1.4 | 1.3 |
| Heightened inflation pressures | 2.7 | .8 | 1.8 | 2.2 | 2.2 |
| Low NAIRU | 2.7 | .8 | 1.2 | 1.2 | .9 |

1. Average for the final quarter of the period.

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Strictly Confidential <FR> May 1, 2002
Class II FOMC

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

| | | Nominal GDP | | Real GDP | | GDP chain-weighted price index | | Consumer price index[1] | | Unemployment rate[2] | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Interval | | 03/13/02 | 05/01/02 | 03/13/02 | 05/01/02 | 03/13/02 | 05/01/02 | 03/13/02 | 05/01/02 | 03/13/02 | 05/01/02 |
| ANNUAL | | | | | | | | | | | |
| 1999 | | 5.5 | 5.5 | 4.1 | 4.1 | 1.4 | 1.4 | 2.2 | 2.2 | 4.2 | 4.2 |
| 2000 | | 6.5 | 6.5 | 4.1 | 4.1 | 2.3 | 2.3 | 3.4 | 3.4 | 4.0 | 4.0 |
| 2001 | | 3.4 | 3.4 | 1.2 | 1.2 | 2.2 | 2.2 | 2.8 | 2.8 | 4.8 | 4.8 |
| 2002 | | 3.8 | 3.9 | 2.4 | 2.6 | 1.4 | 1.2 | 1.5 | 1.7 | 5.6 | 5.8 |
| 2003 | | 5.5 | 5.4 | 3.8 | 3.8 | 1.6 | 1.5 | 2.0 | 1.9 | 5.4 | 5.5 |
| QUARTERLY | | | | | | | | | | | |
| 2000 | Q1 | 6.3 | 6.3 | 2.3 | 2.3 | 3.8 | 3.8 | 3.9 | 3.9 | 4.0 | 4.0 |
| | Q2 | 8.0 | 8.0 | 5.7 | 5.7 | 2.1 | 2.1 | 3.3 | 3.3 | 4.0 | 4.0 |
| | Q3 | 3.3 | 3.3 | 1.3 | 1.3 | 1.9 | 1.9 | 3.5 | 3.5 | 4.1 | 4.1 |
| | Q4 | 3.7 | 3.7 | 1.9 | 1.9 | 1.8 | 1.8 | 2.8 | 2.8 | 4.0 | 4.0 |
| 2001 | Q1 | 4.6 | 4.6 | 1.3 | 1.3 | 3.3 | 3.3 | 4.0 | 4.0 | 4.2 | 4.2 |
| | Q2 | 2.4 | 2.4 | 0.3 | 0.3 | 2.1 | 2.1 | 3.2 | 3.2 | 4.5 | 4.5 |
| | Q3 | 0.9 | 0.9 | -1.3 | -1.3 | 2.3 | 2.3 | 0.7 | 0.7 | 4.8 | 4.8 |
| | Q4 | 1.0 | 1.5 | 1.4 | 1.7 | -0.3 | -0.1 | -0.2 | -0.2 | 5.6 | 5.6 |
| 2002 | Q1 | 5.4 | 6.7 | 3.8 | 5.8 | 1.5 | 0.8 | 1.2 | 1.4 | 5.6 | 5.6 |
| | Q2 | 5.7 | 4.1 | 3.5 | 2.0 | 2.1 | 2.1 | 3.4 | 4.0 | 5.7 | 5.9 |
| | Q3 | 5.3 | 4.6 | 3.6 | 3.2 | 1.6 | 1.3 | 1.9 | 2.0 | 5.6 | 5.9 |
| | Q4 | 5.1 | 5.4 | 3.6 | 3.9 | 1.4 | 1.4 | 1.7 | 1.7 | 5.5 | 5.7 |
| 2003 | Q1 | 5.9 | 6.0 | 3.9 | 4.1 | 1.9 | 1.8 | 1.9 | 1.7 | 5.5 | 5.6 |
| | Q2 | 5.4 | 5.5 | 3.9 | 4.1 | 1.4 | 1.3 | 1.9 | 1.8 | 5.4 | 5.5 |
| | Q3 | 5.5 | 5.6 | 3.9 | 4.2 | 1.5 | 1.3 | 1.9 | 1.8 | 5.3 | 5.5 |
| | Q4 | 5.6 | 5.6 | 4.1 | 4.2 | 1.5 | 1.4 | 1.9 | 1.9 | 5.3 | 5.4 |
| TWO-QUARTER[3] | | | | | | | | | | | |
| 2000 | Q2 | 7.2 | 7.2 | 4.0 | 4.0 | 2.9 | 2.9 | 3.6 | 3.6 | -0.1 | -0.1 |
| | Q4 | 3.5 | 3.5 | 1.6 | 1.6 | 1.8 | 1.8 | 3.3 | 3.3 | 0.0 | 0.0 |
| 2001 | Q2 | 3.5 | 3.5 | 0.8 | 0.8 | 2.7 | 2.7 | 3.5 | 3.5 | 0.5 | 0.5 |
| | Q4 | 0.9 | 1.2 | 0.0 | 0.1 | 1.0 | 1.1 | 0.2 | 0.2 | 1.1 | 1.1 |
| 2002 | Q2 | 5.5 | 5.4 | 3.7 | 3.9 | 1.8 | 1.4 | 2.3 | 2.7 | 0.1 | 0.3 |
| | Q4 | 5.2 | 5.0 | 3.6 | 3.5 | 1.5 | 1.4 | 1.8 | 1.9 | -0.2 | -0.2 |
| 2003 | Q2 | 5.6 | 5.7 | 3.9 | 4.1 | 1.7 | 1.5 | 1.9 | 1.8 | -0.1 | -0.2 |
| | Q4 | 5.6 | 5.6 | 4.0 | 4.2 | 1.5 | 1.4 | 1.9 | 1.8 | -0.1 | -0.1 |
| FOUR-QUARTER[4] | | | | | | | | | | | |
| 1999 | Q4 | 6.0 | 6.0 | 4.4 | 4.4 | 1.6 | 1.6 | 2.6 | 2.6 | -0.3 | -0.3 |
| 2000 | Q4 | 5.3 | 5.3 | 2.8 | 2.8 | 2.4 | 2.4 | 3.4 | 3.4 | -0.1 | -0.1 |
| 2001 | Q4 | 2.2 | 2.3 | 0.4 | 0.5 | 1.8 | 1.9 | 1.9 | 1.9 | 1.6 | 1.6 |
| 2002 | Q4 | 5.4 | 5.2 | 3.7 | 3.7 | 1.7 | 1.4 | 2.0 | 2.3 | -0.1 | 0.1 |
| 2003 | Q4 | 5.6 | 5.7 | 4.0 | 4.2 | 1.6 | 1.4 | 1.9 | 1.8 | -0.3 | -0.3 |

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)

May 1, 2002

| Item | Units[1] | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | - - Projected - - 2002 | 2003 |
|---|---|---|---|---|---|---|---|---|---|---|
| **EXPENDITURES** | | | | | | | | | | |
| Nominal GDP | Bill. $ | 7400.5 | 7813.2 | 8318.4 | 8781.5 | 9268.6 | 9872.9 | 10208.1 | 10605.6 | 11178.8 |
| Real GDP | Bill. Ch. $ | 7543.8 | 7813.2 | 8159.5 | 8508.9 | 8856.5 | 9224.0 | 9333.8 | 9577.8 | 9945.7 |
| Real GDP | % change | 2.2 | 4.1 | 4.3 | 4.8 | 4.4 | 2.8 | 0.5 | 3.7 | 4.2 |
| Gross domestic purchases | | 1.7 | 4.3 | 5.0 | 5.8 | 5.3 | 3.5 | 0.4 | 4.6 | 4.6 |
| Final sales | | 2.9 | 3.9 | 3.9 | 4.7 | 4.3 | 3.4 | 2.0 | 2.3 | 3.7 |
| Priv. dom. final purchases | | 3.2 | 4.4 | 5.1 | 6.3 | 5.4 | 4.7 | 1.2 | 3.0 | 4.3 |
| Personal cons. expenditures | | 2.8 | 3.1 | 4.1 | 5.0 | 5.2 | 4.2 | 3.1 | 3.1 | 3.4 |
| Durables | | 3.7 | 5.0 | 8.8 | 12.7 | 11.3 | 5.3 | 13.6 | -0.5 | 5.6 |
| Nondurables | | 2.5 | 3.2 | 2.5 | 5.0 | 5.0 | 3.6 | 1.4 | 3.7 | 2.9 |
| Services | | 2.7 | 2.7 | 3.9 | 3.6 | 4.0 | 4.3 | 1.9 | 3.5 | 3.2 |
| Business fixed investment | | 7.5 | 12.1 | 11.8 | 12.3 | 7.4 | 8.9 | -9.4 | 1.9 | 12.0 |
| Equipment & Software | | 8.9 | 11.8 | 13.7 | 14.9 | 11.2 | 8.3 | -8.5 | 4.8 | 14.1 |
| Nonres. structures | | 3.3 | 12.8 | 6.5 | 4.9 | -3.6 | 10.8 | -11.8 | -6.7 | 5.3 |
| Residential structures | | -1.5 | 5.6 | 3.5 | 10.0 | 3.4 | -1.2 | 2.9 | 4.6 | -1.2 |
| Exports | | 9.7 | 9.8 | 8.5 | 2.3 | 4.5 | 7.0 | -10.9 | 6.5 | 7.6 |
| Imports | | 5.0 | 11.2 | 14.3 | 10.8 | 11.5 | 11.3 | -8.5 | 12.7 | 10.3 |
| Gov't. cons. & investment | | -0.8 | 2.7 | 2.4 | 2.7 | 4.0 | 1.2 | 5.1 | 4.0 | 3.8 |
| Federal | | -5.3 | 2.0 | 0.1 | 0.6 | 4.5 | -1.4 | 4.9 | 6.5 | 3.5 |
| Defense | | -4.7 | 0.8 | -1.4 | -0.8 | 4.7 | -2.2 | 5.5 | 6.8 | 3.4 |
| State & local | | 2.1 | 3.0 | 3.7 | 3.8 | 3.7 | 2.5 | 5.2 | 2.6 | 4.0 |
| Change in bus. inventories | Bill. Ch. $ | -- | -- | 63.8 | 76.7 | 62.1 | 50.6 | -61.7 | 4.6 | 77.4 |
| Nonfarm | | 41.9 | 21.2 | 60.6 | 75.0 | 63.5 | 52.3 | -59.0 | 5.5 | 76.5 |
| Net exports | | -78.4 | -89.0 | -113.3 | -221.1 | -316.9 | -399.1 | -408.7 | -494.6 | -588.9 |
| Nominal GDP | % change | 4.3 | 6.0 | 6.2 | 6.0 | 6.0 | 5.3 | 2.3 | 5.2 | 5.7 |
| **EMPLOYMENT AND PRODUCTION** | | | | | | | | | | |
| Nonfarm payroll employment | Millions | 117.2 | 119.6 | 122.7 | 125.8 | 128.9 | 131.8 | 132.2 | 132.0 | 134.7 |
| Unemployment rate | % | 5.6 | 5.4 | 4.9 | 4.5 | 4.2 | 4.0 | 4.8 | 5.8 | 5.5 |
| Industrial prod. index | % change | 3.5 | 5.8 | 7.4 | 3.5 | 4.3 | 2.6 | -5.9 | 3.8 | 4.4 |
| Capacity util. rate - mfg. | % | 82.6 | 81.6 | 82.7 | 81.4 | 80.6 | 80.7 | 75.1 | 74.4 | 76.9 |
| Housing starts | Millions | 1.35 | 1.48 | 1.47 | 1.62 | 1.64 | 1.57 | 1.60 | 1.69 | 1.68 |
| Light motor vehicle sales | | 14.77 | 15.05 | 15.06 | 15.43 | 16.78 | 17.25 | 17.02 | 16.59 | 17.09 |
| North Amer. produced | | 12.87 | 13.34 | 13.12 | 13.41 | 14.30 | 14.39 | 13.94 | 13.26 | 13.61 |
| Other | | 1.90 | 1.70 | 1.93 | 2.02 | 2.48 | 2.86 | 3.08 | 3.33 | 3.48 |
| **INCOME AND SAVING** | | | | | | | | | | |
| Nominal GNP | Bill. $ | 7420.9 | 7831.2 | 8325.4 | 8778.1 | 9261.8 | 9860.8 | 10202.8 | 10620.7 | 11181.2 |
| Nominal GNP | % change | 4.4 | 5.9 | 6.0 | 5.8 | 6.0 | 5.4 | 2.4 | 5.2 | 5.4 |
| Nominal personal income | | 4.3 | 5.9 | 6.3 | 6.7 | 4.8 | 7.3 | 2.9 | 4.9 | 5.2 |
| Real disposable income | | 1.7 | 2.6 | 3.8 | 5.0 | 2.1 | 4.0 | 2.1 | 5.6 | 3.0 |
| Personal saving rate | % | 5.6 | 4.8 | 4.2 | 4.7 | 2.4 | 1.0 | 1.6 | 2.8 | 2.5 |
| Corp. profits, IVA & CCAdj. | % change | 11.3 | 11.4 | 9.9 | -9.6 | 11.3 | -1.2 | -3.0 | 7.2 | 5.6 |
| Profit share of GNP | % | 9.0 | 9.6 | 10.0 | 8.9 | 8.9 | 8.9 | 7.5 | 8.3 | 8.2 |
| Excluding FR Banks | | 8.7 | 9.4 | 9.7 | 8.6 | 8.6 | 8.6 | 7.2 | 8.0 | 7.9 |
| Federal surpl./deficit | Bill. $ | -192.0 | -136.8 | -53.3 | 43.8 | 119.2 | 218.6 | 119.0 | -64.0 | 39.7 |
| State & local surpl./def. | | 15.3 | 21.4 | 31.0 | 40.7 | 42.1 | 32.8 | 17.6 | 22.2 | 33.7 |
| Ex. social ins. funds | | 11.4 | 18.7 | 29.9 | 40.0 | 41.7 | 33.1 | 17.7 | 22.5 | 34.0 |
| Gross natl. saving rate | % | 16.9 | 17.2 | 18.0 | 18.8 | 18.4 | 18.1 | 17.1 | 16.9 | 17.4 |
| Net natl. saving rate | | 5.1 | 5.7 | 6.7 | 7.5 | 6.8 | 6.3 | 4.4 | 4.2 | 4.7 |
| **PRICES AND COSTS** | | | | | | | | | | |
| GDP chn.-wt. price index | % change | 2.1 | 1.9 | 1.8 | 1.1 | 1.6 | 2.4 | 1.9 | 1.4 | 1.4 |
| Gross Domestic Purchases chn.-wt. price index | | 2.1 | 1.9 | 1.4 | 0.8 | 1.9 | 2.5 | 1.1 | 1.5 | 1.5 |
| PCE chn.-wt. price index | | 2.1 | 2.3 | 1.5 | 1.1 | 2.0 | 2.6 | 1.3 | 1.5 | 1.3 |
| Ex. food and energy | | 2.3 | 1.8 | 1.7 | 1.6 | 1.5 | 1.9 | 1.6 | 1.2 | 1.3 |
| CPI | | 2.6 | 3.2 | 1.9 | 1.5 | 2.6 | 3.4 | 1.9 | 2.3 | 1.8 |
| Ex. food and energy | | 3.1 | 2.6 | 2.2 | 2.3 | 2.1 | 2.5 | 2.7 | 2.2 | 2.0 |
| ECI, hourly compensation[2] | | 2.6 | 3.1 | 3.4 | 3.5 | 3.4 | 4.4 | 4.2 | 3.5 | 3.5 |
| Nonfarm business sector | | | | | | | | | | |
| Output per hour | | 1.1 | 2.3 | 2.3 | 2.9 | 2.9 | 2.6 | 2.0 | 2.4 | 2.4 |
| Compensation per Hour | | 2.6 | 3.2 | 3.5 | 5.3 | 4.5 | 7.8 | 3.9 | 3.0 | 3.4 |
| Unit labor cost | | 1.5 | 0.9 | 1.1 | 2.3 | 1.5 | 5.0 | 1.8 | 0.4 | 1.0 |

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)

May 1, 2002

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

1. Private-industry workers.

Strictly Confidential <FR>
Class II FOMC

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

May 1, 2002

| Item | Units | 2001 Q3 | 2001 Q4 | 2002 Q1 | 2002 Q2 | 2002 Q3 | 2002 Q4 | 2003 Q1 | 2003 Q2 | 2003 Q3 | 2003 Q4 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | - - - - - - - - - - - Projected | - - - | - - - | - - - | - - - | - - - | - - - | - - - |
| **EXPENDITURES** | | | | | | | | | | | |
| Nominal GDP | Bill. $ | 10224.9 | 10263.3 | 10432.0 | 10537.4 | 10656.5 | 10796.7 | 10954.1 | 11101.1 | 11252.8 | 11407.3 |
| Real GDP | Bill. Ch. $ | 9310.4 | 9348.6 | 9482.2 | 9528.7 | 9604.4 | 9696.1 | 9794.4 | 9893.9 | 9995.8 | 10098.9 |
| Real GDP | % change | -1.3 | 1.7 | 5.8 | 2.0 | 3.2 | 3.9 | 4.1 | 4.1 | 4.2 | 4.2 |
| Gross domestic purchases | | -1.0 | 1.7 | 6.8 | 3.4 | 3.9 | 4.2 | 4.9 | 4.8 | 4.6 | 4.2 |
| Final sales | | -0.5 | 3.8 | 2.6 | 0.8 | 2.1 | 3.5 | 3.3 | 3.5 | 3.7 | 4.2 |
| Priv. dom. final purchases | | -0.4 | 2.6 | 3.0 | 2.5 | 2.7 | 3.8 | 4.1 | 4.3 | 4.3 | 4.3 |
| Personal cons. expenditures | | 1.0 | 6.1 | 3.5 | 2.8 | 2.8 | 3.1 | 3.4 | 3.4 | 3.4 | 3.4 |
| Durables | | 0.9 | 39.4 | -8.0 | 1.2 | 2.5 | 3.0 | 5.9 | 5.5 | 5.5 | 5.6 |
| Nondurables | | 0.6 | 2.5 | 8.4 | 1.3 | 2.3 | 2.8 | 2.9 | 2.9 | 2.9 | 2.9 |
| Services | | 1.2 | 2.0 | 3.8 | 3.9 | 3.1 | 3.3 | 3.2 | 3.2 | 3.2 | 3.2 |
| Business fixed investment | | -8.5 | -13.8 | -5.2 | 1.8 | 2.4 | 9.0 | 10.6 | 12.1 | 12.1 | 13.0 |
| Equipment & Software | | -8.8 | -5.3 | -0.5 | 4.5 | 3.9 | 11.8 | 13.3 | 14.5 | 14.1 | 14.6 |
| Nonres. structures | | -7.5 | -33.6 | -17.8 | -6.1 | -2.3 | 0.5 | 2.6 | 4.4 | 6.1 | 8.0 |
| Residential structures | | 2.4 | -4.6 | 16.5 | -0.4 | 1.5 | 1.7 | -0.7 | -0.3 | -1.0 | -2.6 |
| Exports | | -18.8 | -10.9 | 7.0 | 5.3 | 5.3 | 8.2 | 4.7 | 7.4 | 8.1 | 10.5 |
| Imports | | -13.0 | -7.5 | 14.9 | 16.3 | 10.2 | 9.5 | 10.3 | 11.6 | 10.4 | 8.9 |
| Gov't. cons. & investment | | 0.3 | 10.2 | 7.0 | 1.1 | 3.6 | 4.2 | 3.8 | 3.8 | 3.9 | 3.7 |
| Federal | | 3.6 | 11.4 | 12.4 | 3.3 | 5.1 | 5.6 | 4.2 | 3.5 | 3.4 | 2.7 |
| Defense | | 3.2 | 9.0 | 19.6 | 1.1 | 3.5 | 4.2 | 4.0 | 3.6 | 3.5 | 2.4 |
| State & local | | -1.3 | 9.6 | 4.3 | -0.0 | 2.9 | 3.5 | 3.6 | 4.0 | 4.1 | 4.3 |
| Change in bus. inventories | Bill. Ch. $ | -61.9 | -119.3 | -36.2 | -4.5 | 25.0 | 34.2 | 57.0 | 74.7 | 88.1 | 89.9 |
| Nonfarm | | -59.0 | -113.8 | -31.0 | -5.1 | 24.3 | 33.6 | 56.4 | 73.7 | 87.1 | 88.7 |
| Net exports | | -411.0 | -412.7 | -446.0 | -489.7 | -513.8 | -528.9 | -556.4 | -582.8 | -603.7 | -612.7 |
| Nominal GDP | % change | 0.9 | 1.5 | 6.7 | 4.1 | 4.6 | 5.4 | 6.0 | 5.5 | 5.6 | 5.6 |
| **EMPLOYMENT AND PRODUCTION** | | | | | | | | | | | |
| Nonfarm payroll employment | Millions | 132.4 | 131.5 | 131.2 | 131.5 | 132.2 | 133.0 | 133.7 | 134.4 | 135.0 | 135.6 |
| Unemployment rate | % | 4.8 | 5.6 | 5.6 | 5.9 | 5.9 | 5.7 | 5.6 | 5.5 | 5.5 | 5.4 |
| Industrial prod. index | % change | -4.7 | -6.7 | 2.5 | 4.7 | 3.8 | 4.2 | 4.2 | 4.4 | 4.6 | 4.6 |
| Capacity util. rate - mfg. | % | 74.5 | 73.1 | 73.6 | 74.2 | 74.7 | 75.3 | 75.9 | 76.5 | 77.2 | 77.9 |
| Housing starts | Millions | 1.60 | 1.58 | 1.71 | 1.65 | 1.68 | 1.70 | 1.70 | 1.68 | 1.67 | 1.67 |
| Light motor vehicle sales | | 16.12 | 18.41 | 16.27 | 16.60 | 16.60 | 16.90 | 16.95 | 17.05 | 17.11 | 17.25 |
| North Amer. produced | | 13.15 | 15.02 | 12.94 | 13.30 | 13.30 | 13.51 | 13.53 | 13.58 | 13.62 | 13.70 |
| Other | | 2.97 | 3.39 | 3.33 | 3.30 | 3.30 | 3.39 | 3.42 | 3.47 | 3.49 | 3.55 |
| **INCOME AND SAVING** | | | | | | | | | | | |
| Nominal GNP | Bill. $ | 10213.8 | 10275.3 | 10442.7 | 10554.5 | 10673.9 | 10811.6 | 10966.9 | 11109.9 | 11251.8 | 11396.3 |
| Nominal GNP | % change | 0.9 | 2.4 | 6.7 | 4.4 | 4.6 | 5.3 | 5.9 | 5.3 | 5.2 | 5.2 |
| Nominal personal income | | 2.7 | -0.2 | 5.2 | 4.6 | 4.9 | 4.9 | 5.0 | 5.3 | 5.3 | 5.3 |
| Real disposable income | | 12.3 | -8.1 | 13.9 | 2.1 | 3.3 | 3.4 | 1.0 | 3.6 | 3.6 | 3.6 |
| Personal saving rate | % | 3.8 | 0.4 | 2.8 | 2.7 | 2.8 | 2.9 | 2.4 | 2.5 | 2.5 | 2.6 |
| Corp. profits, IVA & CCAdj. | % change | -29.2 | 93.4 | 24.5 | 7.5 | -4.2 | 2.9 | 5.3 | 6.2 | 5.1 | 5.6 |
| Profit share of GNP | % | 6.8 | 8.0 | 8.3 | 8.4 | 8.2 | 8.1 | 8.1 | 8.2 | 8.2 | 8.2 |
| Excluding FR Banks | | 6.6 | 7.8 | 8.1 | 8.1 | 7.9 | 7.9 | 7.9 | 7.9 | 7.9 | 7.9 |
| Federal surpl./deficit | Bill. $ | -13.6 | 97.4 | -59.8 | -68.7 | -58.7 | -68.7 | 21.3 | 36.5 | 50.3 | 50.8 |
| State & local surpl./def. | | 1.9 | 24.8 | 16.7 | 18.7 | 21.3 | 32.2 | 36.9 | 34.1 | 32.6 | 31.3 |
| Ex. social ins. funds | | 2.0 | 24.9 | 16.9 | 19.0 | 21.6 | 32.5 | 37.2 | 34.4 | 32.9 | 31.6 |
| Gross natl. saving rate | % | 17.2 | 16.6 | 16.9 | 16.7 | 16.9 | 16.9 | 17.2 | 17.4 | 17.5 | 17.6 |
| Net natl. saving rate | | 3.9 | 3.9 | 4.3 | 4.1 | 4.2 | 4.2 | 4.5 | 4.7 | 4.8 | 4.8 |
| **PRICES AND COSTS** | | | | | | | | | | | |
| GDP chn.-wt. price index | % change | 2.3 | -0.1 | 0.8 | 2.1 | 1.3 | 1.4 | 1.8 | 1.3 | 1.3 | 1.4 |
| Gross Domestic Purchases chn.-wt. price index | | -0.1 | 0.5 | 0.7 | 2.6 | 1.4 | 1.3 | 1.7 | 1.4 | 1.4 | 1.4 |
| PCE chn.-wt. price index | | -0.2 | 0.8 | 0.6 | 2.7 | 1.4 | 1.2 | 1.3 | 1.3 | 1.3 | 1.3 |
| Ex. food and energy | | 0.5 | 2.7 | 0.8 | 1.3 | 1.4 | 1.4 | 1.4 | 1.3 | 1.3 | 1.3 |
| CPI | | 0.7 | -0.2 | 1.4 | 4.0 | 2.0 | 1.7 | 1.7 | 1.8 | 1.8 | 1.9 |
| Ex. food and energy | | 2.6 | 2.6 | 2.3 | 2.3 | 2.3 | 2.1 | 2.1 | 2.0 | 2.0 | 2.0 |
| ECI, hourly compensation[1] | | 3.7 | 4.2 | 3.6 | 3.5 | 3.5 | 3.4 | 3.5 | 3.5 | 3.5 | 3.5 |
| Nonfarm business sector | | | | | | | | | | | |
| Output per hour | | 1.1 | 5.5 | 8.5 | 0.5 | 0.0 | 1.0 | 2.2 | 2.3 | 2.4 | 2.5 |
| Compensation per hour | | 3.7 | 2.2 | 2.6 | 2.9 | 3.1 | 3.3 | 3.5 | 3.4 | 3.4 | 3.4 |
| Unit labor cost | | 2.6 | -2.7 | -5.9 | 2.5 | 3.1 | 2.3 | 1.3 | 1.1 | 0.9 | 0.8 |

1. Private-industry workers.

CONTRIBUTIONS TO GROWTH IN REAL GROSS DOMESTIC PRODUCT AND RELATED ITEMS



| Item | 1999 Q3 | 1999 Q4 | 2000 Q1 | 2000 Q2 | 2000 Q3 | 2000 Q4 | 2001 Q1 | 2001 Q2 | 2001 Q3 | 99Q4/ 98Q4 | 00Q4/ 99Q4 | 01Q4/ 00Q4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Real GDP | 4.7 | 8.3 | 2.3 | 5.7 | 1.3 | 1.9 | 1.3 | 0.3 | -1.3 | 4.4 | 2.8 | 0.5 |
| Gross dom. purchases | 5.4 | 8.4 | 3.6 | 6.5 | 2.0 | 2.3 | 0.7 | 0.4 | -1.1 | 5.4 | 3.6 | 0.5 |
| Final sales | 4.2 | 6.2 | 4.7 | 3.9 | 2.3 | 2.4 | 3.9 | 0.7 | -0.5 | 4.2 | 3.3 | 2.0 |
| Priv. dom. final purchases | 4.2 | 4.8 | 6.2 | 4.0 | 3.3 | 2.2 | 2.4 | -0.0 | -0.3 | 4.5 | 3.9 | 1.1 |
| Personal cons. expenditures | 3.0 | 4.0 | 3.9 | 2.5 | 2.9 | 2.1 | 2.1 | 1.7 | 0.7 | 3.5 | 2.9 | 2.1 |
| Durables | 0.7 | 1.1 | 1.5 | -0.2 | 0.7 | -0.2 | 0.8 | 0.6 | 0.1 | 0.9 | 0.4 | 1.1 |
| Nondurables | 0.5 | 1.5 | 1.0 | 1.0 | 0.8 | 0.1 | 0.5 | 0.1 | 0.1 | 1.0 | 0.7 | 0.3 |
| Services | 1.7 | 1.4 | 1.5 | 1.8 | 1.4 | 2.2 | 0.7 | 1.1 | 0.5 | 1.6 | 1.7 | 0.8 |
| Business fixed investment | 1.3 | 0.8 | 1.9 | 1.5 | 0.9 | 0.1 | -0.0 | -2.0 | -1.1 | 0.9 | 1.1 | -1.2 |
| Equipment & Software | 1.5 | 0.6 | 1.6 | 1.2 | 0.5 | -0.1 | -0.4 | -1.6 | -0.8 | 1.0 | 0.8 | -0.8 |
| Nonres. structures | -0.2 | 0.1 | 0.3 | 0.4 | 0.5 | 0.2 | 0.4 | -0.4 | -0.3 | -0.1 | 0.3 | -0.4 |
| Residential structures | -0.0 | 0.1 | 0.4 | -0.0 | -0.5 | -0.1 | 0.4 | 0.3 | 0.1 | 0.1 | -0.1 | 0.1 |
| Net exports | -0.8 | -0.2 | -1.3 | -0.8 | -0.7 | -0.4 | 0.6 | -0.1 | -0.3 | -1.0 | -0.8 | 0.0 |
| Exports | 1.0 | 1.3 | 1.0 | 1.4 | 1.1 | -0.5 | -0.1 | -1.4 | -2.1 | 0.5 | 0.8 | -1.2 |
| Imports | -1.8 | -1.4 | -2.3 | -2.3 | -1.8 | 0.1 | 0.8 | 1.3 | 1.9 | -1.5 | -1.6 | 1.2 |
| Government cons. & invest. | 0.8 | 1.5 | -0.2 | 0.8 | -0.3 | 0.6 | 0.9 | 0.9 | 0.1 | 0.7 | 0.2 | 0.9 |
| Federal | 0.4 | 0.9 | -0.8 | 0.9 | -0.7 | 0.3 | 0.2 | 0.1 | 0.2 | 0.3 | -0.1 | 0.3 |
| Defense | 0.5 | 0.6 | -0.9 | 0.6 | -0.4 | 0.4 | 0.3 | 0.1 | 0.1 | 0.2 | -0.1 | 0.2 |
| Nondefense | -0.1 | 0.3 | 0.0 | 0.3 | -0.2 | -0.1 | -0.1 | 0.0 | 0.1 | 0.1 | 0.0 | 0.1 |
| State and local | 0.3 | 0.7 | 0.6 | -0.1 | 0.3 | 0.3 | 0.7 | 0.8 | -0.2 | 0.4 | 0.3 | 0.6 |
| Change in bus. inventories | 0.4 | 2.2 | -2.3 | 1.8 | -1.0 | -0.5 | -2.6 | -0.4 | -0.8 | 0.2 | -0.5 | -1.5 |
| Nonfarm | 0.9 | 1.5 | -2.0 | 1.5 | -0.8 | -0.7 | -2.6 | -0.3 | -0.8 | 0.1 | -0.5 | -1.5 |
| Farm | -0.4 | 0.6 | -0.3 | 0.3 | -0.2 | 0.2 | 0.0 | -0.1 | -0.0 | 0.0 | -0.0 | -0.0 |

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

CONTRIBUTIONS TO GROWTH IN REAL GROSS DOMESTIC PRODUCT AND RELATED ITEMS

May 1, 2002

| Item | 2001 Q4 | 2002 Q1 | 2002 Q2 | 2002 Q3 | 2002 Q4 | 2003 Q1 | 2003 Q2 | 2003 Q3 | 2003 Q4 | 01Q4/ 00Q4 | 02Q4/ 01Q4 | 03Q4/ 02Q4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Real GDP | 1.7 | 5.8 | 2.0 | 3.2 | 3.9 | 4.1 | 4.1 | 4.2 | 4.2 | 0.5 | 3.7 | 4.2 |
| Gross dom. purchases | 1.8 | 7.0 | 3.5 | 4.0 | 4.4 | 5.0 | 5.0 | 4.8 | 4.4 | 0.5 | 4.7 | 4.8 |
| Final sales | 3.8 | 2.7 | 0.9 | 2.1 | 3.5 | 3.3 | 3.5 | 3.7 | 4.1 | 2.0 | 2.3 | 3.7 |
| Priv. dom. final purchases | 2.2 | 2.6 | 2.1 | 2.3 | 3.2 | 3.5 | 3.6 | 3.6 | 3.7 | 1.1 | 2.6 | 3.6 |
| Personal cons. expenditures | 4.1 | 2.5 | 1.9 | 1.9 | 2.2 | 2.4 | 2.3 | 2.3 | 2.3 | 2.1 | 2.1 | 2.4 |
| Durables | 2.8 | -0.7 | 0.1 | 0.2 | 0.2 | 0.5 | 0.4 | 0.4 | 0.4 | 1.1 | -0.0 | 0.5 |
| Nondurables | 0.5 | 1.7 | 0.3 | 0.5 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.3 | 0.7 | 0.6 |
| Services | 0.8 | 1.6 | 1.6 | 1.3 | 1.4 | 1.3 | 1.3 | 1.3 | 1.3 | 0.8 | 1.5 | 1.3 |
| Business fixed investment | -1.8 | -0.6 | 0.2 | 0.3 | 1.0 | 1.1 | 1.3 | 1.3 | 1.4 | -1.2 | 0.2 | 1.3 |
| Equipment & Software | -0.5 | -0.0 | 0.4 | 0.3 | 0.9 | 1.1 | 1.2 | 1.2 | 1.2 | -0.8 | 0.4 | 1.2 |
| Nonres. structures | -1.3 | -0.6 | -0.2 | -0.1 | 0.0 | 0.1 | 0.1 | 0.2 | 0.2 | -0.4 | -0.2 | 0.1 |
| Residential structures | -0.2 | 0.7 | -0.0 | 0.1 | 0.1 | -0.0 | -0.0 | -0.0 | -0.1 | 0.1 | 0.2 | -0.1 |
| Net exports | -0.1 | -1.1 | -1.5 | -0.8 | -0.5 | -0.9 | -0.9 | -0.7 | -0.2 | 0.0 | -1.0 | -0.7 |
| Exports | -1.1 | 0.7 | 0.5 | 0.5 | 0.8 | 0.5 | 0.7 | 0.8 | 1.0 | -1.2 | 0.6 | 0.7 |
| Imports | 1.0 | -1.8 | -2.0 | -1.3 | -1.3 | -1.4 | -1.6 | -1.4 | -1.2 | 1.2 | -1.6 | -1.4 |
| Government cons. & invest. | 1.8 | 1.3 | 0.2 | 0.7 | 0.8 | 0.7 | 0.7 | 0.7 | 0.7 | 0.9 | 0.7 | 0.7 |
| Federal | 0.7 | 0.7 | 0.2 | 0.3 | 0.4 | 0.3 | 0.2 | 0.2 | 0.2 | 0.3 | 0.4 | 0.2 |
| Defense | 0.3 | 0.7 | 0.0 | 0.1 | 0.2 | 0.2 | 0.2 | 0.1 | 0.1 | 0.2 | 0.3 | 0.1 |
| Nondefense | 0.3 | 0.0 | 0.2 | 0.2 | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| State and local | 1.1 | 0.5 | 0.0 | 0.4 | 0.4 | 0.4 | 0.5 | 0.5 | 0.5 | 0.6 | 0.3 | 0.5 |
| Change in bus. inventories | -2.2 | 3.1 | 1.1 | 1.1 | 0.3 | 0.8 | 0.6 | 0.5 | 0.1 | -1.5 | 1.4 | 0.5 |
| Nonfarm | -2.1 | 3.2 | 1.0 | 1.1 | 0.3 | 0.8 | 0.6 | 0.5 | 0.1 | -1.5 | 1.4 | 0.5 |
| Farm | -0.1 | -0.0 | 0.2 | -0.0 | -0.0 | -0.0 | 0.0 | -0.0 | 0.0 | -0.0 | 0.1 | 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] | | | | 2001 | | | | 2002 | | | | 2003 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 2000[a] | 2001[a] | 2002 | 2003 | Q1[a] | Q2[a] | Q3[a] | Q4[a] | Q1[a] | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 |
| **Unified budget** | | | | | Not seasonally adjusted | | | | | | | | | | | |
| Receipts[2] | 2025 | 1991 | 1894 | 2021 | 460 | 660 | 409 | 466 | 413 | 552 | 462 | 442 | 447 | 635 | 496 | 482 |
| Outlays[2] | 1789 | 1864 | 2013 | 2098 | 482 | 467 | 451 | 503 | 509 | 505 | 495 | 536 | 526 | 522 | 515 | 554 |
| Surplus/deficit[2] | 236 | 127 | -119 | -77 | -22 | 194 | -42 | -37 | -97 | 47 | -33 | -93 | -79 | 114 | -19 | -72 |
| On-budget | 87 | -33 | -277 | -255 | -88 | 119 | -51 | -81 | -127 | -21 | -48 | -148 | -107 | 36 | -37 | -134 |
| Off-budget | 150 | 161 | 157 | 178 | 65 | 75 | 10 | 44 | 30 | 68 | 15 | 54 | 27 | 78 | 18 | 61 |
| Surplus excluding deposit insurance | 233 | 126 | -120 | -80 | -23 | 193 | -42 | -37 | -96 | 46 | -33 | -94 | -80 | 113 | -19 | -73 |
| Means of financing | | | | | | | | | | | | | | | | |
| Borrowing | -223 | -90 | 147 | 105 | 24 | -157 | 69 | 60 | 51 | 13 | 23 | 88 | 82 | -75 | 10 | 58 |
| Cash decrease | 4 | 8 | 7 | -8 | -7 | -15 | -1 | -8 | 38 | -42 | 20 | 12 | -5 | -30 | 15 | 15 |
| Other[3] | -18 | -45 | -35 | -20 | 6 | -21 | -26 | -14 | 8 | -17 | -10 | -6 | 2 | -9 | -6 | -0 |
| Cash operating balance, end of period | 53 | 44 | 37 | 45 | 28 | 44 | 44 | 52 | 14 | 57 | 37 | 25 | 30 | 60 | 45 | 30 |
| **NIPA federal sector** | | | | | Seasonally adjusted annual rates | | | | | | | | | | | |
| Receipts | 2012 | 2041 | 1970 | 2101 | 2087 | 2091 | 1907 | 2027 | 1925 | 1954 | 1975 | 2002 | 2102 | 2133 | 2167 | 2200 |
| Expenditures | 1813 | 1891 | 1994 | 2091 | 1882 | 1905 | 1921 | 1929 | 1992 | 2023 | 2034 | 2070 | 2081 | 2097 | 2117 | 2149 |
| Consumption expenditures | 492 | 506 | 550 | 590 | 508 | 510 | 514 | 525 | 552 | 558 | 566 | 574 | 590 | 596 | 601 | 606 |
| Defense | 322 | 337 | 367 | 391 | 338 | 340 | 343 | 348 | 371 | 373 | 376 | 380 | 390 | 394 | 398 | 401 |
| Nondefense | 170 | 170 | 183 | 200 | 169 | 171 | 171 | 177 | 181 | 185 | 189 | 194 | 200 | 202 | 203 | 205 |
| Other spending | 1321 | 1384 | 1444 | 1501 | 1375 | 1395 | 1407 | 1404 | 1440 | 1464 | 1468 | 1496 | 1491 | 1501 | 1515 | 1544 |
| Current account surplus | 199 | 150 | -24 | 10 | 205 | 187 | -14 | 97 | -67 | -69 | -59 | -69 | 21 | 36 | 50 | 51 |
| Gross investment | 96 | 100 | 111 | 120 | 98 | 100 | 102 | 107 | 109 | 113 | 114 | 117 | 119 | 121 | 122 | 124 |
| Current and capital account surplus | 102 | 50 | -135 | -110 | 108 | 87 | -116 | -9 | -176 | -181 | -173 | -185 | -97 | -84 | -72 | -73 |
| **Fiscal indicators[4]** | | | | | | | | | | | | | | | | |
| High-employment (HEB) surplus/deficit | -5 | -5 | -136 | -136 | 34 | 38 | -127 | -3 | -184 | -182 | -176 | -199 | -121 | -115 | -110 | -119 |
| Change in HEB, percent of potential GDP | -.9 | -0 | 1 | -.1 | 0 | -0 | 2 | -1 | 2 | -0 | -.1 | .2 | -.7 | -.1 | -.1 | .1 |
| Fiscal impetus (FI) percent, calendar year | 2 | 8 | 22 | 10 | 3 | 3 | 9 | -4 | 14 | 4 | 2 | 5 | 2 | 2 | 2 | 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 February 2002 baseline surplus estimates are -$9 billion in FY 2002 and $51 billion in FY 2003. CBO's April 2002 baseline surplus estimates, which includes the March 2002 stimulus bill, are -$46 billion in FY 2002 and -$40 billion in FY 2003. 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

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



| | | | Nonfederal | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Households | | | | | |
| Period [1] | Total | Federal government | Total | Total | Home mortgages | Consumer credit | Business | State and local governments | Memo: Nominal GDP |
| *Year* | | | | | | | | | |
| 1996 | 5.4 | 4.0 | 5.8 | 7.0 | 6.8 | 8.1 | 6.2 | -0.6 | 6.0 |
| 1997 | 5.6 | 0.6 | 7.3 | 6.4 | 6.7 | 4.7 | 9.0 | 5.3 | 6.2 |
| 1998 | 6.9 | -1.4 | 9.6 | 8.4 | 9.2 | 5.9 | 11.6 | 7.2 | 6.0 |
| 1999 | 6.8 | -1.9 | 9.3 | 8.6 | 9.3 | 7.4 | 11.3 | 4.4 | 6.0 |
| 2000 | 5.0 | -8.0 | 8.5 | 8.5 | 8.4 | 9.6 | 9.8 | 2.2 | 5.3 |
| 2001 | 6.0 | -0.2 | 7.4 | 8.6 | 9.9 | 6.0 | 6.0 | 8.3 | 2.3 |
| 2002 | 5.7 | 5.2 | 5.8 | 7.1 | 8.5 | 3.8 | 4.6 | 4.2 | 5.2 |
| 2003 | 5.6 | 2.1 | 6.3 | 6.9 | 7.9 | 4.3 | 6.2 | 3.7 | 5.7 |
| *Quarter* | | | | | | | | | |
| 2001:1 | 5.4 | -0.1 | 6.7 | 7.6 | 7.8 | 9.0 | 5.4 | 8.1 | 4.6 |
| 2 | 5.3 | -7.6 | 8.2 | 9.2 | 11.3 | 4.6 | 7.0 | 8.3 | 2.4 |
| 3 | 6.9 | 7.7 | 6.7 | 8.5 | 9.9 | 1.5 | 5.5 | 3.2 | 0.9 |
| 4 | 6.0 | -0.5 | 7.4 | 8.1 | 9.2 | 8.3 | 5.5 | 12.8 | 1.5 |
| 2002:1 | 5.1 | 3.1 | 5.5 | 8.0 | 9.6 | 4.0 | 2.9 | 4.7 | 6.7 |
| 2 | 6.4 | 12.5 | 5.1 | 6.8 | 8.1 | 3.7 | 4.0 | 1.0 | 4.1 |
| 3 | 5.2 | 2.1 | 5.8 | 6.4 | 7.6 | 3.6 | 5.4 | 4.5 | 4.6 |
| 4 | 5.6 | 2.7 | 6.2 | 6.6 | 7.8 | 3.7 | 5.8 | 6.4 | 5.4 |
| 2003:1 | 6.1 | 6.4 | 6.1 | 6.6 | 7.7 | 3.9 | 5.9 | 3.7 | 6.0 |
| 2 | 5.4 | 2.1 | 6.1 | 6.6 | 7.7 | 4.1 | 6.0 | 3.6 | 5.5 |
| 3 | 5.2 | 0.6 | 6.2 | 6.8 | 7.7 | 4.2 | 6.0 | 3.6 | 5.6 |
| 4 | 5.1 | -0.7 | 6.3 | 6.9 | 7.7 | 4.4 | 6.1 | 3.6 | 5.6 |

Note. Quarterly data are at seasonally adjusted annual rates.
1. Data after 2001:Q4 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

Strictly Confidential (FR)
Class II FOMC

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

May 1, 2002

| | | | | | Seasonally adjusted annual rates | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Calendar year | | | | 2001 | | 2002 | | | | 2003 | | | |
| Category | 2000 | 2001 | 2002 | 2003 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 |
| *Net funds raised by domestic nonfinancial sectors* | | | | | | | | | | | | | | |
| 1 Total | 711.9 | 1047.3 | 1127.7 | 1141.4 | 1176.6 | 1136.3 | 1010.4 | 1284.0 | 1061.1 | 1155.5 | 1257.1 | 1131.3 | 1096.7 | 1080.4 |
| 2 Net equity issuance | -159.7 | -55.7 | 23.3 | -2.5 | -120.8 | -5.1 | 20.2 | 31.0 | 25.0 | 17.0 | 0.0 | 0.0 | -5.0 | -5.0 |
| 3 Net debt issuance | 871.6 | 1103.0 | 1104.4 | 1143.9 | 1297.4 | 1141.4 | 990.2 | 1253.0 | 1036.1 | 1138.5 | 1257.1 | 1131.3 | 1101.7 | 1085.4 |
| *Borrowing sectors* | | | | | | | | | | | | | | |
| Nonfinancial business | | | | | | | | | | | | | | |
| 4 Financing gap [1] | 264.2 | 172.4 | 97.3 | 197.7 | 173.1 | 51.8 | 64.1 | 80.6 | 112.9 | 131.4 | 163.0 | 187.4 | 209.0 | 231.3 |
| 5 Net equity issuance | -159.7 | -55.7 | 23.3 | -2.5 | -120.8 | -5.1 | 20.2 | 31.0 | 25.0 | 17.0 | 0.0 | 0.0 | -5.0 | -5.0 |
| 6 Credit market borrowing | 585.7 | 391.5 | 320.6 | 446.2 | 369.0 | 377.5 | 202.3 | 282.5 | 383.0 | 414.5 | 430.7 | 444.7 | 449.7 | 459.7 |
| Households | | | | | | | | | | | | | | |
| 7 Net borrowing [2] | 554.6 | 610.3 | 550.8 | 569.8 | 629.7 | 609.9 | 619.1 | 532.0 | 514.3 | 537.8 | 544.5 | 558.4 | 577.8 | 598.5 |
| 8 Home mortgages | 382.3 | 490.7 | 462.0 | 467.0 | 513.4 | 490.8 | 520.2 | 448.2 | 429.2 | 450.2 | 452.2 | 462.2 | 470.2 | 483.2 |
| 9 Consumer credit | 139.0 | 95.2 | 64.5 | 74.5 | 24.4 | 137.0 | 68.0 | 63.0 | 62.0 | 65.0 | 69.0 | 73.0 | 76.0 | 80.0 |
| 10 Debt/DPI (percent) [3] | 97.1 | 100.0 | 102.2 | 104.9 | 98.9 | 102.9 | 101.4 | 102.1 | 102.6 | 103.0 | 104.1 | 104.6 | 105.1 | 105.6 |
| State and local governments | | | | | | | | | | | | | | |
| 11 Net borrowing | 27.2 | 106.8 | 58.3 | 52.8 | 43.0 | 171.5 | 64.7 | 13.8 | 63.8 | 90.8 | 52.8 | 52.8 | 52.8 | 52.8 |
| 12 Current surplus [4] | 191.9 | 190.9 | 204.1 | 225.3 | 181.1 | 199.8 | 195.1 | 199.4 | 204.4 | 217.7 | 224.8 | 224.4 | 225.4 | 226.6 |
| Federal government | | | | | | | | | | | | | | |
| 13 Net borrowing | -295.9 | -5.6 | 174.8 | 75.1 | 255.7 | -17.6 | 104.1 | 424.7 | 75.0 | 95.4 | 229.1 | 75.4 | 21.4 | -25.6 |
| 14 Net borrowing (quarterly, n.s.a.) | -295.9 | -5.6 | 174.8 | 75.1 | 68.6 | 59.5 | 50.8 | 12.8 | 23.5 | 87.8 | 82.0 | -74.5 | 10.1 | 57.5 |
| 15 Unified deficit (quarterly, n.s.a.) | -254.8 | -92.3 | 175.6 | 56.7 | 41.9 | 37.1 | 96.6 | -47.1 | 32.9 | 93.2 | 79.1 | -113.7 | 18.8 | 72.5 |
| *Depository institutions* | | | | | | | | | | | | | | |
| 16 Funds supplied | 445.3 | 280.5 | 315.0 | 376.6 | 288.1 | 406.4 | 316.4 | 267.8 | 328.6 | 347.4 | 385.8 | 353.7 | 378.1 | 388.8 |
| Memo (percentage of GDP) | | | | | | | | | | | | | | |
| 17 Domestic nonfinancial debt [5] | 181.0 | 184.8 | 188.3 | 188.7 | 185.6 | 187.8 | 187.4 | 188.1 | 188.7 | 188.8 | 188.8 | 189.0 | 188.9 | 188.8 |
| 18 Domestic nonfinancial borrowing | 8.8 | 10.8 | 10.4 | 10.2 | 12.7 | 11.1 | 9.5 | 11.9 | 9.7 | 10.5 | 11.5 | 10.2 | 9.8 | 9.5 |
| 19 Federal government [6] | -3.0 | -0.1 | 1.6 | 0.7 | 2.5 | -0.2 | 1.0 | 4.0 | 0.7 | 0.9 | 2.1 | 0.7 | 0.2 | -0.2 |
| 20 Nonfederal | 11.8 | 10.9 | 8.8 | 9.6 | 10.2 | 11.3 | 8.5 | 7.9 | 9.0 | 9.7 | 9.4 | 9.5 | 9.6 | 9.7 |

Note. Data after 2001:Q4 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.

2.6.4 FOF

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# International Developments

Evidence that economic activity abroad has reached a turning point has become increasingly clear in recent months. Export-weighted foreign real output now appears to have rebounded in the first quarter of this year, and some central banks have already begun to tighten monetary policy. However, there are significant differences in the strength and timing of the recovery across regions. Leading the pack are the technology-dependent developing Asian economies, which were among the hardest-hit in last year's slowdown. Activity in this region already showed a sharp pickup at the end of last year and appears to have continued to expand at a rapid clip in the first quarter. The Canadian economy also appears to have grown at a robust rate in the first quarter, and recent indicators suggest that growth in Europe has turned positive. In contrast, notable weakness persists in South America, and the Japanese economy apparently is still contracting, although not so sharply as last year.

At the same time, recent events in the Middle East and Venezuela have injected a note of caution into the generally favorable outlook. A rise in oil prices of about $2.50 per barrel since mid-March is likely to have some damping effect on economic activity, although the current level of prices does not appear to pose a serious threat of derailing the foreign recovery. Increased concern about the robustness of the global rebound has been reflected in long-term bond yields abroad, which edged down over the intermeeting period in many foreign industrial countries following a rise earlier in the year. In addition, equity prices have fallen on several exchanges, and confidence measures in some countries are improving only slowly.

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

| Indicator | 2001 | | | Projection | | | |
|---|---|---|---|---|---|---|---|
| | | | | 2002 | | | 2003 |
| | H1 | Q3 | Q4 | Q1 | Q2 | H2 | |
| Foreign output | -.0 | -.5 | .7 | 2.7 | 2.8 | 3.1 | 3.4 |
| *March GB* | -.0 | -.4 | .5 | 1.6 | 2.4 | 2.9 | 3.4 |
| Foreign CPI | 2.6 | 1.6 | .2 | 1.6 | 2.8 | 2.7 | 2.5 |
| *March GB* | 2.6 | 1.6 | .2 | 1.3 | 2.4 | 2.4 | 2.2 |

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

On balance, we have revised up our outlook for this year for the economies where the latest data have been the most positive and have made little change to the rest. Our projection for export-weighted foreign growth has increased about ½ percentage point to a rate of nearly 3 percent for this year, and it remains at about 3½ percent for 2003. Foreign inflation is projected to be higher this year than last, largely reflecting the turnaround in oil prices, but remaining excess capacity should keep average inflation moderate through next year.

Even with the upward revision, we anticipate less robust growth abroad than in the U.S. economy. This difference, in conjunction with our projection for a relatively flat path for the dollar, implies that the negative arithmetic contribution of increased import growth will outweigh a significant boost from improved export growth over the forecast period. Net exports are projected to subtract about 1 percentage point from U.S. real GDP growth this year and about ¾ percentage point next year after being essentially neutral last year.

**Oil prices.** A number of factors affecting both the supply of and demand for oil have contributed to a sharp run-up in prices since the beginning of the year. These include stronger signs of world economic recovery; production restraint by OPEC; heightened tensions in the Middle East, leading to a suspension of exports by Iraq; and political instability in Venezuela. The spot price of WTI has been quite volatile in the intermeeting period, fluctuating between $23 and $28 per barrel. The price is currently about $27 per barrel, up from its average value near $19 per barrel in December. In line with recent quotes from futures markets, we project that prices will decrease to about $23 by the end of the forecast period as production restraints are eased. Compared with the previous Greenbook, this projection is about $2.50 per barrel higher in the near term and about $.50 per barrel higher by the end of next year.

**International financial markets.** The foreign exchange value of the dollar moved nearly 2½ percent lower during the intermeeting period, as measured by the staff's major currencies index. Much of the downward move occurred toward the end of the period following mixed economic data releases in the United States and some questioning of the U.S. government's commitment to a "strong dollar" policy. In addition, market commentary seemed to focus on the large and growing U.S. current account deficit, although no particular data release or event during the period clearly triggered the renewed attention. The dollar depreciated almost 3 percent, on balance, against the yen, 2¾ percent against the euro, and 2 percent against the Canadian dollar. The price of gold rose 5½ percent.

The dollar gained ¾ percent against the currencies of our other important trading partners, primarily because of appreciations of nearly 30 percent against the Argentine peso and 4 percent against the Mexican peso. Argentina continued to struggle to find a program that would stabilize its economic situation, and its negotiations with the IMF have stalled.

Reflecting recent developments, our forecast for the dollar starts from a level about 2 percent lower against the major foreign currencies than was projected in the March Greenbook. We again assume that the dollar will maintain a generally flat trajectory over the forecast period. The higher rate of U.S. economic growth compared with that of other industrial countries should support the dollar. However, our forecast balances this influence against the possibility that downward pressure will emerge if investors become less willing to continue increasing their holdings of dollar-denominated assets. Moreover, improved global economic growth may stimulate a pickup in investors' risk appetite, which would restrain the dollar vis-a-vis the currencies of emerging-market and commodity-exporting countries.

With signs of recovery emerging, central banks in some industrial countries have begun to reverse last year's monetary policy easing. In Canada, a slew of strong first-quarter indicators along with a weak exchange rate prompted an increase of 25 basis points in official interest rates in mid-April. Both Sweden and New Zealand, which are estimated to have little slack in their respective economies, have also hiked rates. However, other central banks appear to be willing to wait before starting to reverse the past year's monetary easing, and the Bank of Mexico lowered rates recently out of concerns about the strength of the peso. Financial markets also appear to be taking a somewhat cautious stance, as long-term bond yields have recently edged down between 5 and 10 basis points in many foreign industrial countries in response to a reassessment of the timing of global expansion. In addition, earnings worries, particularly in the technology sector, have weighed on European equities, as share prices in the telecommunications manufacturing sector have tumbled 30 percent since the March FOMC, and more broadly based indexes have fallen 5 percent. Share prices in Japan bucked the downward trend, showing little change.

Share prices in Asian emerging-market economies were mixed. In Latin America, Mexican stocks have risen about 2 percent, but share prices in Brazil and Chile have moved lower. The overall EMBI+ spread for emerging-market debt yields over those of U.S. government securities has widened a tad since the March FOMC meeting.

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

**Foreign industrial countries.** Economic activity in the foreign industrial countries appears to have reached a trough in the fourth quarter. Recent information suggests a pickup in the first quarter to a higher average rate of growth than we had expected in March. Consequently, we have revised up our outlook for 2002. Given continued improvements in business and consumer confidence, the rebound in the U.S. economy, and the further effects of monetary stimulus already in place, we project that growth will continue to firm this year and next, averaging about 2½ percent in 2002 and nearly 3 percent in 2003. Headline inflation rates in Europe and Canada moved up noticeably in recent months because of some temporary factors, namely weather-related rises in food prices and some VAT increases. Inflation rates in these countries are projected to remain higher in the near-term than we assumed in the March Greenbook as higher oil prices feed through. However, we still expect inflation to moderate over the forecast period as the oil effect recedes and output remains below our estimates of potential in most countries.

Much of the upward revision to the industrial country forecast is for Canada, a result of both stronger-than-expected recent data as well as a bit higher growth for the U.S. economy. Monthly GDP on average in January and February was up 4½ percent at an annual rate from the fourth quarter, and employment growth in March was very strong, suggesting a more robust first quarter outcome than we had anticipated. Buoyed by strong demand in both the external and the domestic sectors, the Canadian economy is projected to grow faster than its rate of potential over the forecast period, about closing our estimated output gap by the end of 2003. On April 16, the Bank of Canada increased its overnight rate by 25 basis points, citing stronger-than-expected growth in both the United States and Canada. We expect further rate increases over the forecast period, as the Bank of Canada reverses about 250 of the 375 basis points of easing begun in 2001. The rate of inflation is projected to rise later this year in response to both the strength in domestic demand and higher oil prices, but it should remain well within the target band.

The euro-area economy is estimated to have returned to positive growth in the first quarter, and we project a further pickup over the rest of the year. The recovery is expected to be led in the first half of the year by a positive inventory swing, as the rate of liquidation slows. This shift is consistent with an apparent rise in euro-area industrial production in the first quarter, the first quarterly increase in production since the fourth quarter of 2000. Final domestic demand is projected to pick up more slowly, however, as some confidence indicators have only recently rebounded to pre-September 11 levels, suggesting that investment and consumption may not contribute much to growth until the second half of the year. Euro-area inflation is projected to remain above the European Central Bank’s 2 percent target ceiling this year as a result of recent developments in oil prices. We expect the ECB to keep monetary policy on hold until later this year, when it is likely to begin to tighten moderately as signs of stronger growth become evident. In the United Kingdom, real GDP edged up about ½ percent (s.a.a.r.) in the first quarter, as continued growth in the service sector barely offset a fall in output of goods-producing industries. However, we expect the rate of growth to return quickly to potential, as indicators suggest that the manufacturing sector is rebounding sharply and retail sales remain strong. With labor markets relatively tight, the Bank of England is expected to begin raising official rates around midyear, erasing most of the 200 basis points of loosening that occurred last year.

In Japan, recent indicators suggest that the economy is continuing to contract, although at a more moderate rate than last year. Though first-quarter trade data indicate that net exports contributed positively to growth, largely because of an increase in exports to Asia and the United States, indicators of domestic demand have continued to weaken. In particular, core machinery orders in January and February were roughly 7 percent below their fourth-quarter average level, and nonresidential building starts have continued to decline. We expect real GDP growth to turn positive by the end of the year in response to improving global demand but to remain quite low through 2003. With the output gap still enormous, consumer price deflation is likely to continue through the forecast period, although it should diminish somewhat as economic activity stabilizes. The Bank of Japan is expected to maintain nominal short-term interest rates near zero throughout the forecast period.

**Other countries.** In emerging Asia, recent data suggest that the recovery has become both stronger and more widespread, boosted by a rebound in demand for high-tech products, particularly memory chips. Fourth-quarter growth in the region came in at a robust 6 percent, although in some cases, particularly Taiwan, this was partly a result of special one-time factors. First-quarter data point to further rapid growth, evidenced by strong consumption demand and increases in government spending in Korea, as well as sizable gains in production and trade data in both the ASEAN countries and Taiwan. In addition, China recorded higher-than-expected growth in the first quarter, with contributions from all major components of demand. A notable exception to the generally robust regional performance is Hong Kong, where recent data suggest that economic conditions remain weak. We project that average growth for emerging Asia will be a bit more than 4½ percent in the first half of this year, improving to about 5½ percent by the end of the forecast period. Inflationary pressures are expected to increase somewhat in some of the emerging Asian economies as a result of recent increases in oil prices, but inflation rates are generally expected to remain in a moderate range.

Conditions in Latin America are more mixed. In Brazil and Mexico, there are some indications that a recovery may have begun early this year. Industrial production was up in February in both countries, Mexican exports have stabilized, and business confidence in Mexico is quite high. In contrast, conditions in both Argentina and Venezuela have deteriorated. We expect economic activity in those two countries to remain weak, but the rest of Latin America should recover. Following last year's contraction, the Mexican economy is projected to grow about 3¼ percent this year–a bit stronger than in the March Greenbook–and 4 percent next year, in line with the U.S. recovery. On average, the Latin America economies are projected to grow a little more than 2¾ percent this year and about 3½ percent next year. Inflationary pressures are projected to remain contained in Mexico and Brazil, with both countries aggressively pursuing ambitious inflation targets.

**Prices of internationally traded goods.** The price index for imports of non-oil core goods declined about 2 percent at an annual rate in the first quarter. Although this was the fourth consecutive quarterly decline in this index, it was less steep than earlier, largely reflecting some easing in the rate of deflation in industrial supplies. The recent behavior of prices of industrial commodities, which turned around late last year, suggests that prices in this category are stabilizing. With commodity prices expected to continue moving up this year along with the strengthening of world demand, import prices should first stabilize, then begin to rise. We are projecting core import prices to fall a bit more in the current quarter but then to increase in the second half of the year and pick up more next year. We expect core import prices to increase about ¼ percent on balance in 2002 and to rise about 2¾ percent in 2003.

The price index for exports of U.S. core goods dropped about 1¼ percent at an annual rate in the first quarter, largely reflecting continued declines in U.S. producer prices. Export prices for core goods are projected to begin to move back up in the second quarter but to show only moderate increases over the rest of the forecast period, in line with the inflation projected for U.S. goods prices.

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

| Trade category | 2001 | | | 2002 | Projection | | |
|---|---|---|---|---|---|---|---|
| | | | | | 2002 | | 2003 |
| | H1 | Q3 | Q4 | Q1 | Q2 | H2 | |
| *Exports* | | | | | | | |
| Core goods | -.5 | -1.5 | -3.4 | -1.3 | 2.4 | 1.1 | 1.4 |
| *Imports* | | | | | | | |
| Non-oil core goods | -1.5 | -6.2 | -3.4 | -1.9 | -.6 | 1.8 | 2.7 |
| Oil (dollars per barrel) | 24.21 | 23.51 | 18.40 | 18.12 | 22.94 | 22.47 | 20.92 |

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.** The nominal U.S. trade deficit in goods and services widened in January and February compared with the fourth quarter of last year, primarily as a result of a jump in imports. For the two months on average the trade deficit was $359 billion at an annual rate, $27 billion larger than in the fourth quarter. The value of exported goods and services was up about 3½ percent at an annual rate on average in January and February compared with the fourth quarter, as a decline in exports of goods was outweighed by a sizable gain in exports of services. Service receipts in the travel and passenger fare categories rebounded 20 percent (quarterly rate) from the fourth quarter but remain about 10 percent below the average level in July and August. Receipts associated with the Winter Olympic Games also provided a boost to service exports in February. The value of imports was up nearly 12 percent at an annual rate on average for January and February, partly reflecting an increase in February services imports related to royalties and license fees for the Olympics broadcasting rights. Import payments for travel and passenger fares rebounded 16 percent (quarterly rate) from the fourth quarter, but remain about 15 percent below their average level in July and August. Imports of goods were up at an annual rate of about 5 percent over this period.

Real exports of goods and services are estimated to have increased 7 percent at an annual rate in the first quarter, the first quarterly gain since mid-2000. The increase was entirely in services exports, as exports of core goods continued to fall. As foreign growth recovers, exports of core goods are projected to rebound, growing at an average rate of about 5 percent over the forecast period. The considerably stronger projected growth in exports than in foreign GDP largely reflects the reversal of the divergence that appeared over the past year as

U.S. goods exports dropped much more sharply than did total GDP. This divergence may be partly related to the inclusion of intermediate production inputs in core exports, as the export drop more closely paralleled last year's slump in foreign industrial production than it did the relatively shallow cycle in foreign GDP. As production abroad recovers, core exports should rise in response. Although the dollar is projected to be little changed over the forecast period from its current level, the lagged effects of past dollar appreciation provide some offset to the impetus to exports from foreign growth. Exports of computers and semiconductors should make sizable positive contributions to real export growth this year and next after falling sharply last year, and service receipts, especially travel and passenger fares, should continue to recover. We project that real exports of all goods and services, after declining 11 percent in 2001, will increase 6½ percent in 2002 and about 7½ percent in 2003.

The level of real imported goods and services also registered its first quarterly increase since mid-2000, rising an estimated 15 percent at an annual rate in the first quarter. All major categories except oil contributed to the increase, reflecting a surge in U.S. domestic demand. We continue to predict further sizable increases in imports both this year and next, boosted by growth in U.S. activity. Growth in total imports of goods and services is expected to average about 12 percent over the remainder of 2002, as cyclical growth in demand for core goods and a rebound in the travel portion of service imports is augmented by the lagged effects of the dollar's past appreciation. We project a bit slower but still strong 10¼ percent rate of growth in 2003 as the effect of past dollar appreciation wanes.

The U.S. current account deficit as a share of GDP is estimated to have been about 4¼ percent in the first quarter. We expect the current account deficit to increase to about $630 billion by the end of 2003, 5½ percent of GDP. Although the bulk of the deterioration in the current account next year is attributable to a widening in the deficit on goods and services, the deficit on investment income is also projected to widen about $25 billion by the end of next year, reflecting the relative strength of the U.S. recovery compared to that abroad and rising interest rates.

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

| Measure | 2001 | | | Projection | | | |
|---|---|---|---|---|---|---|---|
| | | | | 2002 | | | 2003 |
| | H1 | Q3 | Q4 | Q1 | Q2 | H2 | |
| Real exports | -6.7 | -18.8 | -10.9 | 7.0 | 5.3 | 6.7 | 7.6 |
| *March GB* | -6.7 | -18.8 | -12.2 | 6.3 | 4.8 | 4.9 | 7.1 |
| Real imports | -6.7 | -13.0 | -7.5 | 14.9 | 16.3 | 9.8 | 10.3 |
| *March GB* | -6.7 | -13.0 | -7.0 | 12.9 | 13.8 | 11.4 | 10.3 |

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

**Alternative simulations.** Our baseline forecast projects that most foreign economies will grow this year after stagnating in 2001. The pace of recovery is expected to be modest, with output remaining below potential through the end of the forecast period. However, a stronger-than-expected recovery abroad could enhance investment opportunities in foreign countries and thereby increase the attractiveness of foreign-denominated assets relative to U.S. assets. To assess the effect of stronger growth abroad combined with heightened confidence in foreign economic prospects, we used the FRB/Global model to consider two alternative simulations. The first consists of an autonomous shock to foreign demand that raises spending by 1 percent of GDP in the major foreign industrial countries and 2 percent of GDP in the major developing countries in the absence of endogenous adjustments. This shock was phased in over three quarters beginning in 2002:Q2. In the second simulation, we combined this autonomous increase in spending with a shock that raises the risk premium on U.S. assets.

Two alternative U.S. monetary policy responses were considered. In the first case, the Federal Reserve holds the real federal funds rate unchanged from its baseline; in the other, it adjusts the real federal funds rate according to a Taylor rule with a coefficient of ½ on core PCE inflation and ½ on the output gap. In both, monetary authorities in the major foreign industrial countries and in most developing countries adjust interest rates according to a Taylor rule.

In the first scenario, the spending shock raises foreign demand substantially in the second half of 2002, as the direct effects are magnified by multiplier effects and spillovers across countries. In the case of the fixed real federal funds rate, U.S. real output growth is up relative to the baseline about 0.4 percentage point in the second half of 2002 and about 0.2 percentage point in the first half of 2003. The effects of the shock on core price inflation are modest and are most apparent in 2003, as core price inflation adjusts more slowly than output in response to changes in aggregate demand. The Taylor rule reduces the effect of the shock on activity, especially in 2003, as the federal funds rate moves up about 35 basis points in 2003:H1. However, the effects of the shock on core price inflation are almost identical to those in the fixed real rate case since changes in monetary policy affect core price inflation with a considerable lag.

**Alternative Simulation 1:**
**More Expansionary Foreign Demand**
(Percent change from previous period, annual rate)

| Indicator and simulation | 2002 | | 2003 | |
|---|---|---|---|---|
| | H1 | H2 | H1 | H2 |
| *U.S. real GDP* | | | | |
| Baseline | 3.9 | 3.5 | 4.1 | 4.2 |
| Fixed real rate | 4.0 | 3.9 | 4.3 | 4.2 |
| Taylor rule | 4.0 | 3.9 | 4.2 | 4.0 |
| *U.S. PCE prices excl. food and energy* | | | | |
| Baseline | 1.1 | 1.4 | 1.3 | 1.3 |
| Fixed real rate | 1.1 | 1.4 | 1.5 | 1.6 |
| Taylor rule | 1.1 | 1.4 | 1.5 | 1.5 |

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

In our second alternative simulation, we combined the autonomous increase in foreign spending with a shock that raises the risk premium on U.S assets, thus immediately lowering the value of the dollar by 10 percent before allowing for the effects of adjustments in domestic and foreign real interest rates. We considered the same two alternative responses for U.S. monetary policy as above and maintained the same assumptions about monetary policy in foreign countries.

In the case of the fixed real federal funds rate, the rise in foreign demand combined with the dollar’s depreciation raises real GDP growth relative to baseline about 0.8 percentage point in the second half of 2002 and 0.4 percentage point in 2003. Core price inflation rises about 0.6 percentage point above baseline in 2002:H2 and around 0.5 percentage point in 2003. As in the first simulation, the Taylor rule reduces the effects of the shock on output in

2003 but has only a small effect on core inflation. In this case, the federal funds rate is higher by about 120 basis points in 2003:H1 before it begins to decline.

**Alternative Simulation 2:**
**More Expansionary Foreign Demand and 10% Dollar Depreciation**
(Percent change from previous period, annual rate)

| Indicator and simulation | 2002 | | 2003 | |
|---|---|---|---|---|
| | H1 | H2 | H1 | H2 |
| *U.S. real GDP* | | | | |
| Baseline | 3.9 | 3.5 | 4.1 | 4.2 |
| Fixed real rate | 4.1 | 4.3 | 4.5 | 4.6 |
| Taylor rule | 4.1 | 4.2 | 4.1 | 4.0 |
| *U.S. PCE prices excl. food and energy* | | | | |
| Baseline | 1.1 | 1.4 | 1.3 | 1.3 |
| Fixed real rate | 1.0 | 2.0 | 2.0 | 1.7 |
| Taylor rule | 1.0 | 2.0 | 2.0 | 1.6 |

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

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

| Measure and country | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | -----Projected---- | | |
| REAL GDP (1) | | | | | | | | | |
| Total foreign | 2.1 | 4.1 | 4.1 | 1.6 | 4.8 | 4.0 | 0.0 | 2.9 | 3.4 |
| Industrial Countries | 2.0 | 2.7 | 3.5 | 2.6 | 3.9 | 3.2 | 0.4 | 2.4 | 2.9 |
| of which: | | | | | | | | | |
| Canada | 1.5 | 2.6 | 4.5 | 4.2 | 5.1 | 3.5 | 0.9 | 3.7 | 3.4 |
| Japan | 2.5 | 3.7 | 0.5 | -1.3 | 0.6 | 2.3 | -1.9 | -0.3 | 1.1 |
| United Kingdom | 2.0 | 2.9 | 3.6 | 2.6 | 2.7 | 2.6 | 1.6 | 1.8 | 2.7 |
| Euro Area (2) | 1.5 | 1.6 | 3.1 | 1.9 | 3.6 | 2.8 | 0.6 | 2.1 | 2.8 |
| Germany | 1.1 | 1.4 | 1.7 | 0.6 | 3.0 | 2.5 | 0.0 | 1.8 | 2.7 |
| Developing Countries | 2.5 | 6.2 | 5.1 | -0.1 | 6.2 | 5.3 | -0.5 | 3.6 | 4.3 |
| Asia | 7.0 | 6.6 | 4.9 | -2.0 | 8.7 | 6.3 | 0.7 | 4.9 | 5.4 |
| Korea | 7.5 | 6.4 | 3.4 | -5.2 | 13.8 | 5.1 | 4.4 | 5.5 | 5.9 |
| China | 10.4 | 5.3 | 8.7 | 9.5 | 4.1 | 8.0 | 7.5 | 7.5 | 7.5 |
| Latin America | -3.7 | 6.1 | 5.9 | 1.3 | 4.3 | 4.5 | -1.6 | 2.7 | 3.5 |
| Mexico | -7.1 | 7.1 | 6.7 | 2.9 | 5.4 | 4.9 | -1.5 | 3.3 | 4.0 |
| Brazil | -0.9 | 4.2 | 1.3 | -1.1 | 4.2 | 4.1 | -2.3 | 2.3 | 2.5 |
| CONSUMER PRICES (3) | | | | | | | | | |
| Industrial Countries | 1.3 | 1.5 | 1.5 | 0.9 | 1.2 | 1.9 | 0.9 | 1.7 | 1.1 |
| of which: | | | | | | | | | |
| Canada | 2.0 | 2.0 | 1.0 | 1.1 | 2.3 | 3.1 | 1.1 | 2.9 | 1.8 |
| Japan | -0.8 | 0.2 | 2.1 | 0.7 | -1.2 | -1.2 | -1.3 | -0.8 | -0.6 |
| United Kingdom (4) | 2.9 | 3.2 | 2.7 | 2.5 | 2.2 | 2.1 | 2.0 | 2.4 | 2.4 |
| Euro Area (2) | NA | NA | 1.5 | 0.8 | 1.5 | 2.7 | 2.2 | 2.2 | 1.5 |
| Germany | 1.4 | 1.3 | 1.5 | 0.3 | 1.1 | 2.5 | 1.7 | 1.9 | 0.9 |
| Developing Countries | 17.0 | 11.1 | 6.8 | 9.0 | 4.6 | 4.1 | 2.8 | 3.1 | 4.0 |
| Asia | 6.4 | 4.8 | 2.7 | 4.4 | 0.1 | 1.8 | 1.0 | 1.9 | 3.4 |
| Korea | 4.4 | 5.0 | 4.9 | 5.8 | 1.2 | 2.5 | 3.3 | 3.4 | 3.7 |
| China | 11.1 | 6.8 | 0.9 | -1.2 | -0.9 | 0.9 | -0.2 | 1.1 | 3.8 |
| Latin America | 42.0 | 25.8 | 15.5 | 15.4 | 12.5 | 8.4 | 5.4 | 5.6 | 5.3 |
| Mexico | 48.7 | 28.0 | 17.0 | 17.4 | 13.6 | 8.8 | 5.2 | 4.5 | 4.6 |
| Brazil | 21.5 | 9.6 | 4.6 | 1.5 | 8.2 | 6.1 | 7.5 | 5.2 | 4.3 |

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.

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

| | 2001 | | | | Projected 2002 | | | | Projected 2003 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 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 | 0.8 | -0.8 | -0.5 | 0.7 | 2.7 | 2.8 | 3.0 | 3.1 | 3.4 | 3.4 | 3.5 | 3.5 |
| Industrial Countries | 1.7 | -0.1 | -0.1 | 0.0 | 2.2 | 2.3 | 2.5 | 2.7 | 2.9 | 2.9 | 2.8 | 2.8 |
| of which: | | | | | | | | | | | | |
| Canada | 1.1 | 0.9 | -0.6 | 2.0 | 4.5 | 3.5 | 3.2 | 3.4 | 3.5 | 3.5 | 3.3 | 3.3 |
| Japan | 4.1 | -4.8 | -2.1 | -4.8 | -0.9 | -0.5 | -0.3 | 0.3 | 0.9 | 1.0 | 1.2 | 1.3 |
| United Kingdom | 2.6 | 2.0 | 1.7 | -0.0 | 0.4 | 2.2 | 2.4 | 2.1 | 2.5 | 2.7 | 2.7 | 2.7 |
| Euro Area (2) | 2.0 | 0.3 | 0.7 | -0.7 | 1.1 | 1.8 | 2.6 | 2.8 | 2.9 | 2.8 | 2.7 | 2.7 |
| Germany | 1.6 | 0.2 | -0.7 | -1.0 | 0.6 | 1.4 | 2.5 | 2.8 | 2.8 | 2.7 | 2.6 | 2.5 |
| Developing Countries | -0.7 | -1.7 | -1.1 | 1.7 | 3.5 | 3.4 | 3.7 | 3.8 | 4.1 | 4.2 | 4.4 | 4.4 |
| Asia | -0.7 | -2.5 | -0.1 | 6.2 | 4.6 | 4.8 | 5.0 | 5.1 | 5.3 | 5.4 | 5.5 | 5.5 |
| Korea | 4.9 | 1.0 | 5.3 | 6.4 | 5.2 | 5.5 | 5.5 | 5.7 | 5.8 | 5.9 | 6.0 | 6.0 |
| China | 8.2 | 7.7 | 7.1 | 7.1 | 8.5 | 7.2 | 7.2 | 7.2 | 7.5 | 7.5 | 7.5 | 7.5 |
| Latin America | -1.1 | -1.3 | -2.1 | -1.9 | 2.7 | 2.4 | 2.7 | 2.9 | 3.3 | 3.4 | 3.6 | 3.6 |
| Mexico | -1.8 | -1.5 | -1.8 | -0.9 | 3.5 | 3.0 | 3.3 | 3.5 | 3.8 | 3.9 | 4.1 | 4.1 |
| Brazil | 3.8 | -3.0 | -3.3 | -6.5 | 2.5 | 2.2 | 2.3 | 2.2 | 2.5 | 2.5 | 2.5 | 2.5 |
| **CONSUMER PRICES (3)** | Four-quarter changes | | | | | | | | | | | |
| Industrial Countries | 1.7 | 2.2 | 1.7 | 0.9 | 1.1 | 0.8 | 1.1 | 1.7 | 1.5 | 1.3 | 1.2 | 1.1 |
| of which: | | | | | | | | | | | | |
| Canada | 2.8 | 3.6 | 2.7 | 1.1 | 1.5 | 1.0 | 1.6 | 2.9 | 2.6 | 2.2 | 1.9 | 1.8 |
| Japan | -1.0 | -1.2 | -1.1 | -1.3 | -1.5 | -1.3 | -1.3 | -0.8 | -0.7 | -0.7 | -0.6 | -0.6 |
| United Kingdom (4) | 1.9 | 2.3 | 2.4 | 2.0 | 2.4 | 2.0 | 2.0 | 2.4 | 2.3 | 2.3 | 2.4 | 2.4 |
| Euro Area (2) | 2.4 | 3.1 | 2.5 | 2.2 | 2.5 | 1.9 | 2.3 | 2.2 | 1.9 | 1.6 | 1.5 | 1.5 |
| Germany | 2.4 | 3.2 | 2.4 | 1.7 | 2.0 | 1.5 | 1.7 | 1.9 | 1.2 | 1.0 | 0.9 | 0.9 |
| Developing Countries | 3.8 | 4.1 | 3.5 | 2.8 | 2.5 | 2.4 | 2.6 | 3.1 | 3.8 | 3.9 | 4.0 | 4.0 |
| Asia | 1.8 | 2.4 | 1.9 | 1.0 | 0.8 | 0.6 | 1.1 | 1.9 | 2.6 | 3.0 | 3.2 | 3.4 |
| Korea | 3.7 | 5.1 | 4.2 | 3.3 | 2.5 | 2.0 | 2.3 | 3.4 | 3.8 | 3.7 | 3.7 | 3.7 |
| China | 0.7 | 1.6 | 0.8 | -0.2 | -0.6 | -0.9 | 0.1 | 1.1 | 2.2 | 3.1 | 3.5 | 3.8 |
| Latin America | 7.2 | 6.8 | 6.0 | 5.4 | 5.1 | 5.3 | 5.4 | 5.6 | 6.9 | 6.3 | 5.8 | 5.3 |
| Mexico | 7.5 | 6.9 | 6.0 | 5.2 | 4.7 | 4.7 | 4.6 | 4.5 | 5.8 | 5.2 | 4.9 | 4.6 |
| Brazil | 6.2 | 7.1 | 6.6 | 7.5 | 7.6 | 7.4 | 6.4 | 5.2 | 5.0 | 4.7 | 4.5 | 4.3 |

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.

OUTLOOK FOR U.S. INTERNATIONAL TRANSACTIONS

| | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | Projected 2002 | Projected 2003 |
|---|---|---|---|---|---|---|---|---|---|
| NIPA REAL EXPORTS and IMPORTS | | | | | | | | | |
| Percentage point contribution to GDP growth, Q4/Q4 | | | | | | | | | |
| Net Goods & Services | 0.4 | -0.2 | -0.8 | -1.1 | -1.0 | -0.8 | 0.0 | -1.0 | -0.7 |
| Exports of G&S | 1.0 | 1.1 | 1.0 | 0.3 | 0.5 | 0.8 | -1.2 | 0.6 | 0.7 |
| Imports of G&S | -0.6 | -1.3 | -1.7 | -1.3 | -1.5 | -1.6 | 1.2 | -1.6 | -1.4 |
| Percentage change, Q4/Q4 | | | | | | | | | |
| Exports of G&S | 9.7 | 9.8 | 8.5 | 2.3 | 4.5 | 7.0 | -10.9 | 6.5 | 7.6 |
| Services | 8.8 | 8.9 | 1.4 | 2.9 | 1.9 | 4.1 | -6.9 | 10.3 | 5.2 |
| Computers | 39.1 | 21.6 | 25.8 | 8.1 | 13.8 | 23.1 | -22.9 | 13.0 | 32.5 |
| Semiconductors | 79.6 | 44.6 | 21.3 | 9.1 | 34.6 | 26.9 | -35.3 | 27.3 | 34.0 |
| Other Goods 1/ | 4.6 | 7.3 | 9.8 | 1.3 | 3.2 | 5.7 | -9.6 | 2.8 | 5.3 |
| Imports of G&S | 5.0 | 11.2 | 14.3 | 10.8 | 11.5 | 11.3 | -8.5 | 12.7 | 10.3 |
| Services | 5.5 | 5.3 | 14.0 | 8.5 | 2.8 | 12.2 | -15.0 | 14.0 | 5.7 |
| Oil | 2.4 | 7.8 | 3.9 | 4.1 | -3.4 | 12.4 | 0.2 | 2.0 | 3.1 |
| Computers | 35.0 | 17.8 | 33.0 | 25.8 | 25.1 | 13.6 | -13.7 | 38.1 | 32.5 |
| Semiconductors | 92.4 | 56.7 | 32.9 | -8.7 | 33.5 | 22.5 | -51.3 | 36.0 | 33.9 |
| Other Goods 2/ | -1.2 | 10.4 | 12.7 | 11.5 | 12.9 | 10.4 | -5.7 | 11.0 | 9.6 |
| Billions of chained 1996 dollars | | | | | | | | | |
| Net Goods & Services | -78.4 | -89.0 | -113.3 | -221.1 | -316.9 | -399.1 | -408.7 | -494.6 | -588.9 |
| Exports of G&S | 808.2 | 874.2 | 981.5 | 1002.4 | 1034.8 | 1133.2 | 1081.7 | 1062.0 | 1133.8 |
| Imports of G&S | 886.6 | 963.1 | 1094.8 | 1223.5 | 1351.7 | 1532.3 | 1490.4 | 1556.7 | 1722.7 |
| Billions of dollars | | | | | | | | | |
| US CURRENT ACCOUNT BALANCE | -109.9 | -120.9 | -139.8 | -217.5 | -324.4 | -444.7 | -417.1 | -483.1 | -583.4 |
| Current Acct as Percent of GDP | -1.5 | -1.5 | -1.7 | -2.5 | -3.5 | -4.5 | -4.1 | -4.6 | -5.2 |
| Net Goods & Services (BOP) | -96.4 | -101.8 | -107.8 | -166.8 | -261.8 | -375.7 | -347.5 | -421.9 | -511.7 |
| Investment Income, Net | 25.0 | 25.5 | 13.6 | -1.2 | -8.5 | -9.6 | -13.7 | 1.5 | -11.1 |
| Direct, Net | 64.9 | 69.4 | 72.4 | 66.3 | 67.0 | 81.2 | 95.2 | 98.8 | 95.2 |
| Portfolio, Net | -39.9 | -43.9 | -58.8 | -67.5 | -75.6 | -90.9 | -109.0 | -97.3 | -106.2 |
| Other Income & Transfers,Net | -38.6 | -44.6 | -45.7 | -49.4 | -54.0 | -59.3 | -55.9 | -62.8 | -60.7 |

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

May 1, 2002

OUTLOOK FOR U.S. INTERNATIONAL TRANSACTIONS

| | 1998 Q1 | 1998 Q2 | 1998 Q3 | 1998 Q4 | 1999 Q1 | 1999 Q2 | 1999 Q3 | 1999 Q4 | 2000 Q1 | 2000 Q2 | 2000 Q3 | 2000 Q4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NIPA REAL EXPORTS and IMPORTS | | | | | | | | | | | | |
| Percentage point contribution to GDP growth | | | | | | | | | | | | |
| Net Goods & Services | -1.8 | -1.8 | -0.8 | 0.2 | -1.8 | -1.2 | -0.7 | -0.1 | -1.3 | -0.8 | -0.7 | -0.4 |
| Exports of G&S | 0.1 | -0.5 | -0.2 | 1.7 | -0.8 | 0.4 | 1.0 | 1.3 | 0.9 | 1.4 | 1.1 | -0.5 |
| Imports of G&S | -1.9 | -1.4 | -0.5 | -1.5 | -1.0 | -1.6 | -1.7 | -1.3 | -2.2 | -2.2 | -1.8 | 0.1 |
| Percentage change from previous period, s.a.a.r. | | | | | | | | | | | | |
| Exports of G&S | 0.5 | -4.0 | -2.2 | 16.3 | -6.8 | 4.2 | 9.7 | 12.1 | 9.0 | 13.5 | 10.6 | -4.0 |
| Services | 2.4 | 8.0 | -8.4 | 10.5 | -3.9 | 3.8 | 2.0 | 6.0 | 10.3 | 9.9 | -6.7 | 3.7 |
| Computers | -8.3 | 8.2 | 12.0 | 22.8 | 0.5 | 26.8 | 18.3 | 11.0 | 32.7 | 49.2 | 25.8 | -7.9 |
| Semiconductors | 5.9 | -17.2 | 272.7 | -56.6 | 45.4 | 31.6 | 36.5 | 25.8 | 29.9 | 64.5 | 35.0 | -10.2 |
| Other Goods 1/ | 0.0 | -9.2 | -9.3 | 27.8 | -11.5 | 1.1 | 11.0 | 14.2 | 5.3 | 9.1 | 16.3 | -6.5 |
| Imports of G&S | 15.9 | 11.3 | 4.2 | 12.2 | 8.4 | 13.3 | 13.8 | 10.5 | 17.1 | 16.4 | 13.0 | -0.5 |
| Services | 21.3 | 6.7 | 7.0 | 0.1 | -8.2 | 1.8 | 7.9 | 11.0 | 20.6 | 12.4 | 17.1 | 0.0 |
| Oil | 3.6 | 42.8 | 1.1 | -21.6 | 3.9 | 29.8 | -5.8 | -31.5 | 29.7 | 40.3 | -4.9 | -7.7 |
| Computers | 38.4 | 18.5 | 6.4 | 43.6 | 40.6 | 41.1 | 8.3 | 13.8 | 12.8 | 34.4 | 18.4 | -7.2 |
| Semiconductors | 8.5 | -25.4 | -6.3 | -8.2 | 37.0 | 47.5 | 12.7 | 39.6 | 45.6 | 24.9 | 64.9 | -24.9 |
| Other Goods 2/ | 14.2 | 11.9 | 4.1 | 16.2 | 9.0 | 11.3 | 17.6 | 14.0 | 14.6 | 13.1 | 11.9 | 2.4 |
| Billions of chained 1996 dollars, s.a.a.r. | | | | | | | | | | | | |
| Net Goods & Services | -180.8 | -223.1 | -241.2 | -239.2 | -283.0 | -313.4 | -333.3 | -337.8 | -371.1 | -392.8 | -411.2 | -421.1 |
| Exports of G&S | 1003.4 | 993.1 | 987.6 | 1025.6 | 1007.6 | 1018.0 | 1041.8 | 1072.1 | 1095.5 | 1130.6 | 1159.3 | 1147.5 |
| Imports of G&S | 1184.2 | 1216.2 | 1228.9 | 1264.8 | 1290.6 | 1331.4 | 1375.1 | 1409.8 | 1466.6 | 1523.4 | 1570.6 | 1568.5 |
| Billions of dollars, s.a.a.r. | | | | | | | | | | | | |
| US CURRENT ACCOUNT BALANCE | -174.0 | -209.6 | -242.1 | -244.1 | -265.8 | -309.5 | -352.3 | -369.9 | -419.6 | -432.5 | -461.2 | -465.3 |
| Current Account as % of GDP | -2.0 | -2.4 | -2.7 | -2.7 | -2.9 | -3.4 | -3.8 | -3.9 | -4.3 | -4.4 | -4.6 | -4.6 |
| Net Goods & Services (BOP) | -139.5 | -169.9 | -181.9 | -176.0 | -211.5 | -251.5 | -284.5 | -299.9 | -349.3 | -363.1 | -389.4 | -401.2 |
| Investment Income, Net | 9.9 | 5.8 | -12.3 | -8.3 | -5.2 | -6.6 | -15.5 | -6.8 | -17.5 | -14.4 | -14.5 | 7.9 |
| Direct, Net | 74.2 | 69.8 | 57.8 | 63.3 | 66.2 | 63.0 | 63.3 | 75.7 | 65.5 | 72.5 | 84.2 | 102.8 |
| Portfolio, Net | -64.2 | -64.0 | -70.1 | -71.5 | -71.4 | -69.6 | -78.8 | -82.5 | -83.0 | -86.8 | -98.7 | -94.9 |
| Other Inc. & Transfers, Net | -44.4 | -45.5 | -47.9 | -59.8 | -49.1 | -51.5 | -52.2 | -63.3 | -52.8 | -55.0 | -57.4 | -72.0 |

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

OUTLOOK FOR U.S. INTERNATIONAL TRANSACTIONS

| | 2001 | | | | Projected 2002 | | | | 2003 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 |
| NIPA REAL EXPORTS and IMPORTS | | | | | | | | | | | | |
| Percentage point contribution to GDP growth | | | | | | | | | | | | |
| Net Goods & Services | 0.6 | -0.1 | -0.2 | -0.1 | -1.1 | -1.5 | -0.8 | -0.5 | -0.9 | -0.8 | -0.6 | -0.2 |
| Exports of G&S | -0.1 | -1.4 | -2.1 | -1.1 | 0.7 | 0.5 | 0.5 | 0.8 | 0.5 | 0.7 | 0.8 | 1.0 |
| Imports of G&S | 0.8 | 1.3 | 1.9 | 1.0 | -1.8 | -2.0 | -1.3 | -1.2 | -1.4 | -1.5 | -1.4 | -1.2 |
| Percentage change from previous period, s.a.a.r. | | | | | | | | | | | | |
| Exports of G&S | -1.2 | -11.9 | -18.8 | -10.9 | 7.0 | 5.3 | 5.3 | 8.2 | 4.7 | 7.4 | 8.1 | 10.5 |
| Services | 1.8 | 2.4 | -17.2 | -13.1 | 27.8 | 6.5 | 3.9 | 4.5 | 5.4 | 5.2 | 5.2 | 5.1 |
| Computers | -5.7 | -41.3 | -24.1 | -15.8 | -18.9 | 26.2 | 26.2 | 26.2 | 31.0 | 32.2 | 33.5 | 33.5 |
| Semiconductors | -22.4 | -56.1 | -46.6 | -4.0 | 36.0 | 21.4 | 26.1 | 26.1 | 30.9 | 33.4 | 35.9 | 35.9 |
| Other Goods 1/ | -0.1 | -10.8 | -16.8 | -9.9 | -2.0 | 2.4 | 3.4 | 7.7 | 0.9 | 5.0 | 5.8 | 9.7 |
| Imports of G&S | -5.0 | -8.4 | -13.0 | -7.5 | 14.9 | 16.3 | 10.2 | 9.5 | 10.3 | 11.6 | 10.4 | 8.9 |
| Services | 5.0 | -2.1 | -29.1 | -28.5 | 50.2 | 4.6 | 3.0 | 4.5 | 5.2 | 5.9 | 5.9 | 5.9 |
| Oil | 27.3 | 4.0 | -26.7 | 3.8 | -21.3 | 44.4 | 9.4 | -12.9 | -3.1 | 22.6 | 8.1 | -11.9 |
| Computers | -11.1 | -29.1 | -24.8 | 17.0 | 81.1 | 21.5 | 26.2 | 31.0 | 31.0 | 32.2 | 33.5 | 33.5 |
| Semiconductors | -31.8 | -75.0 | -58.4 | -20.4 | 77.5 | 21.4 | 26.0 | 26.0 | 30.8 | 33.3 | 35.7 | 35.8 |
| Other Goods 2/ | -8.4 | -4.8 | -4.5 | -5.2 | 6.6 | 16.2 | 10.2 | 11.1 | 10.6 | 9.7 | 9.1 | 8.9 |
| Billions of chained 1996 dollars, s.a.a.r. | | | | | | | | | | | | |
| Net Goods & Services | -404.5 | -406.7 | -411.0 | -412.7 | -446.0 | -489.7 | -513.8 | -528.9 | -556.4 | -582.8 | -603.7 | -612.7 |
| Exports of G&S | 1144.1 | 1108.3 | 1052.2 | 1022.2 | 1039.7 | 1053.3 | 1067.0 | 1088.2 | 1100.8 | 1120.5 | 1142.5 | 1171.2 |
| Imports of G&S | 1548.6 | 1515.0 | 1463.2 | 1434.9 | 1485.7 | 1543.0 | 1580.8 | 1617.1 | 1657.2 | 1703.4 | 1746.2 | 1784.0 |
| Billions of dollars, s.a.a.r. | | | | | | | | | | | | |
| US CURRENT ACCOUNT BALANCE | -448.5 | -431.7 | -394.1 | -393.9 | -441.2 | -471.6 | -496.2 | -523.5 | -537.6 | -567.7 | -598.2 | -630.2 |
| Current Account as % of GDP | -4.4 | -4.2 | -3.9 | -3.8 | -4.2 | -4.5 | -4.7 | -4.8 | -4.9 | -5.1 | -5.3 | -5.5 |
| Net Goods & Services (BOP) | -381.3 | -363.4 | -313.8 | -331.4 | -370.6 | -418.9 | -443.7 | -454.5 | -479.6 | -505.7 | -526.3 | -535.3 |
| Investment Income, Net | -14.6 | -14.5 | -24.4 | -1.5 | -2.8 | 3.6 | 3.9 | 1.4 | -0.6 | -4.7 | -14.5 | -24.5 |
| Direct, Net | 90.8 | 93.8 | 87.9 | 108.4 | 99.3 | 100.0 | 99.0 | 96.9 | 96.8 | 97.1 | 94.1 | 92.6 |
| Portfolio, Net | -105.3 | -108.4 | -112.3 | -109.9 | -102.1 | -96.3 | -95.1 | -95.5 | -97.5 | -101.8 | -108.6 | -117.1 |
| Other Inc. & Transfers, Net | -52.7 | -53.8 | -55.9 | -61.0 | -67.9 | -56.4 | -56.4 | -70.4 | -57.4 | -57.4 | -57.4 | -70.4 |

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