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Content last modified 5/20/2009.

Part 1

January 22, 2003

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

Confidential (FR) Class II FOMC

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Domestic Developments

The information that has become available since the last Greenbook continues to depict a sluggish economy, restrained by substantial uncertainty and pessimism on the part of corporate decisionmakers. The labor market deteriorated further late last year, and business spending remained quite weak. Cutbacks in motor vehicle production also were a drag on activity in the fourth quarter. There have been some bright spots: Most notably, consumer spending and housing construction firmed toward the end of the year. But even with these more positive developments, we estimate that real GDP rose only 1/4 percent at an annual rate last quarter.

The lackluster pace of activity in the fourth quarter and anecdotes from the Beige Book and other sources suggest to us that the caution exhibited by businesses over the past year has not yet begun to abate. In particular, firms clearly remain reluctant to add new workers and fixed capital, and they reduced inventories noticeably last quarter. But because final sales have continued to move up, we are not viewing last quarter's inventory drawdown as signaling the start of a more pronounced liquidation of stocks. The absence of a deeper liquidation, coupled with less drag from the motor vehicle sector, helps push up the projected growth rate of real GDP to around 2-1/2 percent in the first quarter of this year; growth rises to almost 3 percent in the second quarter. On net, however, the level of aggregate activity over the first half of 2003 is anticipated to be somewhat below our projection in the December Greenbook.

Beyond the first half, our baseline forecast calls for the pace of economic recovery to accelerate significantly over the projection period. Indeed, the contrast between the weakness apparent in the data that we have in hand and the strength in real activity that we are projecting for later this year has become even sharper in this forecast. As before, we think that stimulus associated with past changes to monetary policy will emerge more forcefully as some of the uncertainty regarding economic prospects recedes. Moreover, the recent proposals coming from the Administration and the Congress suggest that the odds of a sizable new fiscal package being enacted have risen significantly, and we have increased the amount of fiscal stimulus in this projection. We also have again raised our estimate of structural productivity growth, which further boosts real incomes and spending. All told, we have upped our projection of GDP growth about 1/4 percentage point, to 3-1/2 percent, this year and about 1/2 percentage point, to 4-3/4 percent, for 2004.

Despite the faster growth of real activity over the forecast period as a whole, we are now projecting a larger gap in resource utilization than we projected in the December Greenbook, reflecting upward revisions to our potential output assumptions beginning in 2002. We anticipate that, in the near term, firms will continue to look for ways to trim labor costs, so that even the modest output gains projected for this quarter show up disproportionately as productivity improvements rather than as job growth. Accordingly, we are forecasting that the unemployment rate will move up to 6-1/4 percent in the first quarter, a bit higher rate than in the previous projection. As GDP accelerates later this year and in 2004, the unemployment rate then drifts back down to 5-1/2 percent by the end of the forecast period. This path for the unemployment rate and our assumed increase in structural productivity are projected to be sufficient to keep inflation trending down. In particular, we are forecasting that core PCE inflation will decline from a bit above 1-1/2 percent in 2002 to around 1-1/4 percent in 2003 and 2004, a projection that is down slightly from our previous one.

Key Background Factors

As noted above, we are assuming a significantly more expansionary federal fiscal policy than in our previous forecast. The Administration and the Democratic leaders in the Congress have proposed separate sizable fiscal stimulus packages, both of which entail substantial reductions in taxes. Recognizing that the specifics of any final package may differ considerably from our particular assumptions, we have—for purposes of the forecast—adopted the tax cut proposals in the Administration's plan absent the dividend exclusion provision. Specifically, the package we have built in involves accelerating several provisions—including an increase in the child tax credit, an expansion of the 10 percent tax bracket, marginal rate reductions, and marriage penalty relief—passed in 2001 but currently scheduled to be phased in between 2004 and 2010. Such a package, which we assume will be enacted in mid-2003, would reduce tax liabilities relative to current law by roughly $70 billion this calendar year and next.[1] We now estimate that the overall thrust of federal fiscal policy will provide a direct impetus to aggregate demand of 0.6 percentage point in 2003 and 0.8 percentage point in 2004.

On the spending side, the Congress is continuing to work on the remaining appropriations bills for fiscal year 2003. However, no developments have led us to alter our projection of federal discretionary spending. Given our policy assumptions, as well as some additional reduction in receipts suggested by incoming data, we are projecting that the unified budget deficit will grow from an estimated $158 billion in fiscal year 2002 to $217 billion in fiscal 2003 and $253 billion in fiscal 2004. In contrast, we have taken down state and local spending another notch in light of the severe budget problems faced by many state governments. Although direct comparisons are difficult to make, our sense

1. Alternatively, assuming the passage of a 50 percent dividend exclusion instead of accelerating the marginal tax cut for the highest tax bracket would result in a similar reduction of tax liabilities in 2003 and 2004, although the composition of the aggregate demand effects would, of course, be different.

is that restraint from the state and local sector will offset a relatively small portion of the stimulus from federal fiscal policy during the projection period.

In contrast to our fiscal policy assumptions, the financial assumptions underlying this projection are little changed from those in the December Greenbook. The federal funds rate is assumed to remain at 1-1/4 percent until mid-2004 and then to move up about 50 basis points over the second half of that year. Longer-term Treasury rates have declined a bit over the intermeeting period, and we have carried forward a slightly lower level of rates for the next few quarters. Nonetheless, with the economy projected to grow faster than its potential in late 2003 and 2004, long-term Treasury rates are assumed to drift upward over the next two years.

Corporate bond rates, too, have moved down in recent weeks, especially for lower-tier firms. We are projecting a gradual downtrend to continue, as the strengthening economy causes risk spreads to narrow further from their still unusually wide levels. More generally, financing is readily available to interested borrowers, although business demand for credit remains fairly light. Most households also appear to have ready access to credit, and household debt has continued to move up at a strong pace, fueled by hefty mortgage borrowing.

Equity prices have declined about 4 percent, on net, since the last Greenbook, and we have lowered our projected path for the stock market by roughly this amount. We continue to assume that share prices going forward will rise at an annual rate of about 7 percent from their current levels, roughly maintaining risk-adjusted parity with the return on Treasury securities.

We estimate that foreign real GDP rose less than 2 percent in the fourth quarter, the rise being a little weaker than we assumed in the December Greenbook. We expect foreign growth to pick up gradually over the forecast period to roughly 3 percent this year and 3-1/2 percent in 2004. The real trade-weighted foreign exchange value of the dollar has declined over the past month or so, and we have adjusted downward our assumption for the dollar in the current quarter accordingly. We assume that, going forward, the value of the dollar will decline, on average, at an annual rate of about 3/4 percent from its current level, resulting in a path that is about 2 percent below that assumed in the last forecast.

Crude oil prices have risen about $7 per barrel in recent weeks as a result of the ongoing strike in Venezuela and continued concerns about hostilities in the Middle East. The Venezuelan situation seems unlikely to be resolved soon, but OPEC members recently agreed to boost production in an effort to make up for the shortfall. Futures markets expect crude prices to move down sharply in coming months, consistent with a short-lived reduction in world oil supply. In line with these futures quotes, we have assumed that the spot price of West

Texas intermediate crude oil will decline from a first-quarter average of around $33 per barrel to about $23.75 per barrel by the end of 2004. Compared with the previous Greenbook, this projection is almost $6 per barrel higher in the near term but less than $1 per barrel higher by the end of 2004.

Recent Developments and the Near-Term Outlook

Based on the data we have in hand, we estimate that real GDP edged up just 1/4 percent at an annual rate in the fourth quarter, after increasing 4 percent in the third quarter; the estimated growth rate for the fourth quarter is 3/4 percentage point less than in the December Greenbook. As we noted previously, a drop in motor vehicle production from the unusually high third-quarter pace accounts for much of the deceleration in GDP. Moreover, the data through November now point to a sizable liquidation in non-motor-vehicle inventories; the resulting negative swing in stockbuilding from the accumulation in the third quarter likely subtracted 1 percentage point from fourth-quarter GDP growth.

Real GDP is projected to rise in the first quarter at an annual rate of 2-1/2 percent. Growth in final sales is expected to pick up somewhat this quarter, on the strength of the recent firming in household spending. However, much of the acceleration in GDP reflects smaller drags than in the fourth quarter from motor vehicle production and non-motor-vehicle inventory investment. Although we are looking for another drawdown in non-auto stocks this quarter, we are not anticipating that the pace of liquidation will be much different from that in the previous quarter.

Industrial production is projected to edge up 1/2 percent at an annual rate in the current quarter after declining 2-1/2 percent in the fourth quarter. In the motor vehicle sector, automakers' current schedules call for production this quarter to about match the fourth-quarter assembly pace. However, given our forecast for sales, these schedules would imply a rise in stocks above desired levels, so we expect actual production to fall somewhat short of current plans. Excluding motor vehicles, manufacturing production fell at an annual rate of nearly 2 percent last quarter. However, a few of the business surveys that we follow have been more positive of late, and we are projecting this component of IP to stage a modest comeback in the current quarter.

Turning to final demand, we estimate that the growth of consumer spending slowed to an annual rate of just 1-1/4 percent in the fourth quarter, and we are projecting an increase of only 2 percent in the current quarter. Sales of light motor vehicles in the fourth quarter—although still a respectable 16-1/2 million units (annual rate)—were well off their elevated third-quarter pace despite a surge in December associated with an end-of-year jump in incentives. Because this surge likely borrowed from January sales, we expect sales to slacken further

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

Measure	2002:Q4		2003:Q1	
	Dec. GB	Jan. GB	Dec. GB	Jan. GB
Real GDP	**1.0**	**.2**	**2.3**	**2.6**
Private domestic final purchases	.2	1.5	2.8	2.1
Personal consumption expenditures	.0	1.2	2.6	1.9
Residential investment	6.1	11.3	-1.0	9.5
Business fixed investment	-.7	-.7	5.5	.8
Government outlays for consumption and investment	2.2	2.4	3.3	2.7
	Contribution to growth (percentage points)			
Inventory investment	.6	-1.0	-.4	.2
Net exports	-.2	-.5	-.3	.0

this quarter to a pace of around 16 million units. Excluding motor vehicles, real PCE is estimated to have risen at an annual rate of 2-1/2 percent last quarter—a somewhat faster rate than in the third quarter. We are projecting that growth in this component of real PCE will remain at a pace of about 2-1/2 percent in the current quarter.

Residential construction, aided importantly by low mortgage interest rates, remained strong through year-end. In the single-family sector, housing starts jumped to an annual rate of 1.42 million units in the fourth quarter, and permits moved up sharply as well. Given the relatively high backlog of unused permits and with recent indicators of housing demand still signaling strength, we anticipate that construction in the single-family sector will pick up further in the current quarter. In contrast, with vacancy rates rising and rents falling, we expect the pace of multifamily starts to be relatively sluggish this quarter.

In the business sector, real spending on equipment and software likely was little changed in the fourth quarter and is projected to post only a small increase in the current quarter. Part of the weakness last quarter resulted from a sharp drop in business purchases of motor vehicles. Nonetheless, even excluding the transportation sector, the recent spending indicators have been relatively tepid. Orders and shipments for nondefense capital goods appear to have moved sideways through November, and reports from our business contacts about their capital spending plans have been less than encouraging. Meanwhile, outlays for nonresidential construction have continued to trend down, albeit at a slower rate than in previous quarters. With vacancy rates still high in the industrial and office sectors, we are projecting another decline in nonresidential construction in the current quarter.

In the government sector, growth of federal expenditures on consumption and investment appears to have slowed to an annual rate of 3 percent in the fourth quarter owing to a downshift in the growth of expenditures associated with homeland security and the war on terrorism. However, we expect a temporary boost to spending this quarter in light of the ongoing deployment of troops and military equipment to the Middle East. Meanwhile, state and local spending is projected to continue at a relatively subdued pace this quarter, reflecting the pressures on budgets from past and prospective revenue shortfalls.

With the data on foreign trade available through November, we estimate that net exports arithmetically deducted about 1/2 percentage point from the change in GDP in the fourth quarter. Real imports are estimated to have risen at an annual rate of around 3 percent, about the same pace as in the third quarter. In contrast, real exports were surprisingly weak in November, and we now expect to see a small decline for the fourth quarter as a whole. In the current quarter, imports are projected to rise at an annual rate of only 2-1/2 percent, held down by a drop in oil imports from Venezuela. Meanwhile, export growth is expected to move back up to a 4 percent pace.

Recent indicators from the labor market have not provided any compelling evidence that the drag on hiring from the uncertain economic climate has begun to ebb in a meaningful way. Private payrolls declined by more than 100,000 jobs in both November and December, and the unemployment rate moved up to 6 percent, its highest level since April. Moreover, the average level of initial claims for unemployment insurance in recent weeks suggests that hiring remained anemic in January. For the first quarter as a whole, we are projecting no increase in private employment and a further rise in the unemployment rate to 6-1/4 percent.

The core consumer price index rose 1-3/4 percent at an annual rate in the fourth quarter, and based on our usual translation procedures, we expect the core PCE price index to increase a bit less than 1-1/2 percent. These readings were a little lower than we had projected in the last Greenbook, and we have trimmed our projection of inflation in the first quarter in response. With the recent jump in crude oil prices pointing to sizable increases in the prices of gasoline and fuel oil early this year, we expect headline inflation to be well above the core in the first quarter; in particular, total PCE prices are projected to increase at an annual rate of about 2 percent, while the core measure increases at a pace of 1-1/4 percent. Regarding wages, the fourth-quarter increase in average hourly earnings—at an annual rate of 3-1/2 percent—was a touch higher than we were expecting. However, with little net hiring and a rising unemployment rate, we expect this measure of wage change to drop back to about 3 percent in the current quarter.

The Longer-Term Outlook for the Economy

Our longer-term forecast assumes that the uncertainty and pessimism currently restraining business activity will gradually lift over the course of this year to yield an economy in which accommodative monetary policy, expansionary fiscal policy, and strong structural productivity gains provide significant forward momentum to growth. In particular, after increasing at an annual rate of roughly 2-3/4 percent in the first half of this year, real GDP accelerates to a 4-1/2 percent rate of growth in the second half of 2003 and to 4-3/4 percent in 2004. These robust output gains are sufficient to reduce the unemployment rate to a bit under 5-1/2 percent by the end of 2004. Even so, the economic slack evident in this forecast is anticipated to result in a further deceleration in consumer prices over the projection period.

Household spending. Our longer-term forecast for consumer spending is considerably stronger than it was in the December Greenbook, reflecting our assumption that the additional fiscal stimulus embedded in this forecast will be implemented in the form of personal tax cuts. These tax cuts provide an initial boost to disposable income of about $40 billion at an annual rate in the third quarter of 2003, when the tax law changes are assumed to go into effect, and another boost of roughly $95 billion in early 2004, when taxpayers who did not adjust their withholding schedules file their 2003 tax returns.[2] Consumers are assumed to respond to this additional income only gradually, and thus the level of spending continues to ratchet up through the end of 2004; in terms of growth rates, the new tax assumptions in this forecast contribute about 1/2 percentage point to the annual rates of increase in PCE in the second half of 2003 and in 2004.[3] Because the response of spending is only gradual, the saving rate is boosted about 1/2 percentage point over the forecast period and averages a bit more than 4-1/2 percent in 2004.

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2. In the December Greenbook, we had included an unspecified personal tax cut worth about $25 billion in 2004. Therefore, the $95 billion figure cited in the text represents an increment of $70 billion relative to the previous projection. In addition, both this Greenbook and previous forecasts include the 2004 tax cut enacted as part of the Economic Growth and Tax Relief Reconciliation Act of 2001.

3. Consistent with our treatment of the tax cuts included in previous Greenbooks, we have assumed that about one-half of the additional disposable income is received by households that have very short planning periods and simply spend all of their extra cash flow over three quarters. The remainder is received by households that save part of the increase in their permanent income and take a few years to fully adjust their spending to its new long-run level.

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

Measure	2003 H1	2003 H2	2004
Real GDP	**2.8**	**4.5**	**4.7**
Previous	2.6	4.1	4.3
Final sales	2.4	4.2	4.5
Previous	2.7	3.8	4.2
PCE	2.4	3.9	4.2
Previous	2.8	3.3	3.7
Residential investment	6.3	6.0	5.7
Previous	-.2	2.4	5.8
BFI	2.2	9.4	12.7
Previous	5.9	10.0	12.1
Government purchases	2.3	1.9	1.9
Previous	2.8	2.6	2.7
Exports	5.8	9.1	8.8
Previous	4.9	8.3	7.7
Imports	5.8	7.2	9.2
Previous	6.6	7.2	8.4
	Contribution to growth, percentage points		
Inventory change	.4	.3	.3
Previous	-.1	.3	.1
Net exports	-.3	-.1	-.5
Previous	-.4	-.2	-.4

Consumer spending gains this year and next will also be supported by waning negative wealth effects, improving labor market conditions, and the effects of strong productivity growth on permanent income; indeed, this last factor is a little larger in this projection than in the previous one, reflecting the upward adjustments we have made to our estimates of structural productivity. All told, personal consumption expenditures are projected to rise about 3 percent in 2003 and 4-1/4 percent in 2004.

Homebuilding is also projected to increase over the forecast period from its already robust pace. We anticipate that single-family starts will rise from a pace of 1.36 million units in 2002 to 1.46 million units in 2003 and 1.56 million units in 2004. In our projection, besides the factors supporting household spending more generally, continued low mortgage rates should help to keep new housing affordable. In the multifamily sector, starts are expected to move up gradually from their 2002 pace, as improving labor market conditions boost household formations and consequently the demand for rental units.

Business fixed investment. After increasing only modestly in the first half of this year, business fixed investment is projected to pick up markedly, as firms shed their reluctance to spend and increasingly invest in new plant and equipment to take advantage of favorable financing terms and the profit opportunities generated by the acceleration in business output. As in previous Greenbooks, we think that the partial expensing tax incentive, before its expiration in late 2004, will also propel investment.

After edging up only 1-3/4 percent in 2002, spending on equipment and software is expected to rise about 9 percent in 2003 and 15-1/2 percent in 2004. Among the categories of E&S, investment in computer equipment is expected to be particularly strong, reflecting increasing demand by businesses that are replacing outdated hardware; this upgrading should also stimulate investment in new software needed to make effective use of the new computers. Additional purchases of computer-related components of communications equipment (for example, routers, hubs, and switches) seem likely to accompany this demand, but with the telecom sector still quite depressed, spending for communications equipment as a whole is projected to remain sluggish for most of this year. Excluding the high-tech sector, investment spending should, in contrast to last year's 2-3/4 percent decline, rise about 6-3/4 percent this year and 10-1/2 percent in 2004, with the increases driven mainly by the projected acceleration in business output and by the expensing provision.

Investment in nonresidential structures is projected to decline a further 4-1/2 percent this year and then to rise about 2-3/4 percent in 2004. Outlays for industrial buildings and office structures seem likely to remain weak for some time, given currently high vacancy rates and the low levels of capacity utilization that we are projecting over the forecast period. In contrast, prospects for the construction of retail space should eventually look a little brighter, and we are forecasting outlays in this sector to turn up in 2004.

Inventory investment. As some of the current uncertainty lifts and firms become more persuaded of the sustainability of stronger sales growth, we expect businesses to gradually rebuild stocks. As a result, inventory investment is projected to make a positive contribution to real GDP growth of roughly 1/3 percentage point in 2003 and 1/4 percentage point in 2004. Even so, we expect that aggregate inventory-sales ratios will remain on a downward trajectory throughout the forecast period, reflecting ongoing improvements in supply-chain management practices.

Government spending. As in the previous Greenbook, we expect the deteriorating outlook for the federal budget deficit to restrain the growth in federal expenditures over the forecast period. Under our baseline assumption of no war with Iraq, real defense spending is projected to rise 2-1/2 percent in 2003 and 1-1/2 percent in 2004, well below the increase in these outlays in 2002. Growth in nondefense outlays is also expected to slow, with increases averaging just 2-1/4 percent per year over the forecast period.

We have marked down our projected growth rates of spending by state and local governments to 1-3/4 percent in 2003 and 2 percent in 2004, rates similar to the average in 2002. The weakening budget positions of most states will likely require some type of action, and we think that many will respond by cutting planned expenditures and raising taxes over the next two years. Local governments are generally in somewhat better shape because they rely less on income and sales taxes. But even for these jurisdictions, the prospect of a reduction in aid from the states is likely to constrain spending plans.

Net exports. Supported by the recent and projected depreciation of the dollar and a pickup in activity abroad, real export growth is projected to rise from a pace of 5-1/4 percent in 2002 to a pace of 7-1/2 percent in 2003 and 8-3/4 percent in 2004. In part reflecting the lower dollar, real imports are expected to rise just 6-1/2 percent this year, down from 9 percent in 2002. In 2004, however, the effects of dollar depreciation should be more than offset by the acceleration in the U.S. economy, pushing import growth back up above 9 percent. On net, these projected movements in imports and exports are anticipated to make small arithmetic deductions from real GDP growth of 1/4 percentage point in 2003 and nearly 1/2 percentage point in 2004. *(The International Developments section provides more detail on the outlook for the external sector.)*

Aggregate Supply, the Labor Market, and Prospects for Inflation
As noted in the introduction, we have raised our estimates of structural productivity in this forecast. Part of this adjustment reflects our reevaluation of the extent to which the strong productivity performance of 2002 resulted from a series of permanent improvements to the level of

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

Measure	1973-95	1996-99	2000	2001	2002	2003	2004
Structural labor productivity	1.4	2.5	2.6	1.9	2.3	2.2	2.4
Previous	1.4	2.5	2.6	1.9	1.9	2.0	2.3
Contributions[1]							
Capital deepening	.6	1.3	1.2	.4	.3	.3	.7
Previous	.6	1.3	1.2	.4	.2	.4	.6
Multifactor productivity	.6	1.0	1.2	1.3	1.8	1.6	1.5
Previous	.6	1.0	1.2	1.3	1.4	1.4	1.4
Labor composition	.3	.3	.3	.3	.3	.3	.3
MEMO							
Potential GDP	2.9	3.5	3.6	2.9	3.3	3.2	3.4
Previous	2.9	3.5	3.6	2.9	2.9	3.0	3.3

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

structural productivity spurred by severe pressures on firms' profitability. In particular, the ongoing disinclination by firms to add to their work forces leads us to believe that this effect has been a little larger than we had previously assumed and that it will persist into 2003. We also have built in a slightly more optimistic longer-term path for the underlying growth of multifactor productivity. Taken together, these adjustments have raised our estimate of potential GDP growth to about 3-1/4 percent in 2002, 2003, and 2004, roughly 1/4 percentage point higher than forecast in the December Greenbook.

Productivity and the labor market. Apart from these assumed structural improvements, we continue to regard some of the strong productivity growth last year as an indication that firms have stretched their labor resources beyond what can be sustained indefinitely. Thus, we expect that the improving sales and profit outlook that we are projecting will gradually lead firms to hire more aggressively to bring their work forces into line with their anticipated longer-run needs and that productivity growth will average somewhat less than its structural rate over the forecast period. Specifically, we anticipate that productivity growth will average less than 2 percent this year and next and that private payroll employment gains will

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

Measure	2001	2002	2003	2004
Output per hour, nonfarm business	1.9	3.8	1.8	1.8
Previous	1.9	3.9	1.2	1.7
Nonfarm private payroll employment	-1.4	-.5	1.5	3.3
Previous	-1.4	-.4	1.7	2.7
Household employment survey	-1.0	.0	1.3	2.4
Previous	-1.0	.5	1.2	1.9
Labor force participation rate[1]	66.9	66.5	66.8	67.1
Previous	66.9	66.7	66.9	67.0
Civilian unemployment rate[1]	5.6	5.9	6.1	5.4
Previous	5.6	5.8	5.9	5.4

1. Percent, average for the fourth quarter.

pick up from around zero in the current quarter to about 225,000 per month in the second half of this year and to roughly 300,000 per month in 2004. As a result, after rising to around 6-1/4 percent in the first half of 2003, the unemployment rate is projected to fall gradually to around 5-1/2 percent by the end of 2004. This path for the jobless rate is slightly higher than in the December Greenbook over most of the forecast period, mainly because of our more downbeat near-term outlook for the labor market.

Wages and prices. Given the slack in labor and product markets that has opened up over the past year, we anticipate that wage and price inflation will continue to edge down in 2003 and 2004. Our inflation projection is slightly lower than in the previous forecast, reflecting the higher unemployment rate and larger output gap embodied in this Greenbook.

For labor compensation, we anticipate that the rate of increase in the employment cost index will edge down from 3-1/2 percent in 2002 to 3-1/4 percent in 2003 and 2004. Double-digit increases in employer costs for health insurance have kept the benefits component of this index rising briskly over the past year, and we see no reason to expect this source of labor cost pressure to diminish during the forecast period. Over time, however, we think that employers will look for ways to offset rising health insurance costs in other parts of the compensation package and that, in a labor market marked by high unemployment and reduced job security, some of this offset will come in the form of smaller wage increases. As a

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

Measure	2001	2002	2003	2004
PCE chain-weighted price index	1.5	1.8	1.3	1.2
Previous	1.5	1.9	1.3	1.3
Food and beverages	3.1	1.4	2.1	1.8
Previous	3.1	1.4	2.0	1.9
Energy	-10.3	7.7	-1.6	-1.2
Previous	-10.3	6.9	-3.4	-.2
Excluding food and energy	1.9	1.6	1.3	1.2
Previous	1.9	1.7	1.4	1.3
Consumer price index	1.9	2.3	1.7	1.6
Previous	1.9	2.2	1.7	1.8
Excluding food and energy	2.7	2.1	1.9	1.8
Previous	2.7	2.1	2.0	1.9
GDP chain-weighted price index	2.0	1.3	1.2	1.3
Previous	2.0	1.4	1.4	1.4
ECI for compensation of private industry workers[1]	4.2	3.5	3.3	3.3
Previous	4.2	3.5	3.4	3.5
NFB compensation per hour	1.4	4.1	3.2	3.1
Previous	1.4	3.9	3.4	3.3
Prices of core non-oil merchandise imports	-2.9	.6	3.1	1.7
Previous	-2.9	.6	2.4	1.8

1. December to December.

result, we are assuming a sizable deceleration in the wages and salaries component of the ECI, from an increase of 3 percent in 2002 to a rise of a little less than 2-1/2 percent in 2004.

Modest increases in compensation, coupled with robust growth in structural productivity, are anticipated to restrain the rise in unit labor costs and thus limit the need for businesses to increases their prices to remain profitable. These disinflationary forces are countered a bit this year by a projected rise in non-oil import prices associated with continued responses to past increases in commodity prices and with the recent and prospective declines in the exchange value of the dollar. In contrast, the sharp increase in energy prices currently in train is expected to be reversed quickly, as the anticipated decline in crude oil prices puts downward pressure on prices for gasoline and fuel oil. All told, core PCE inflation is projected to slow from 1.6 percent in 2002 to 1.2 percent in 2004. As noted above, higher energy prices last year pushed overall PCE price inflation above the core index in 2002. However, the overall index is projected to rise at the same rate as the core in both 2003 and 2004.

Financial Flows and Conditions

Growth of domestic nonfinancial debt is expected to dip to 5-3/4 percent in 2003 from an estimated 6-3/4 percent last year, as slower debt growth for households and the federal government outweighs faster debt growth for nonfinancial businesses. In 2004, a pickup in borrowing by the federal government and nonfinancial businesses nudges up total domestic debt growth to 6-1/4 percent.

In light of the expanded fiscal stimulus package, the current forecast incorporates more federal borrowing over the next two years than the December Greenbook did, enough to cause a small rise in the ratio of federal debt held by the public to GDP. In the state and local sector, debt growth moderates over the forecast period from last year's rapid pace; this moderation results both from state and local government actions to shore up their budgets—thus reducing their borrowing needs—and from somewhat diminished advance refunding.

Borrowing by nonfinancial businesses, which was sluggish last year, is expected to pick up steadily over the forecast period. It should be bolstered by a growing demand for external finance as the upswing in capital spending outpaces the rise in internal funds and by less restrictive credit supply, particularly for lower-rated firms. After expanding a tepid 2-3/4 percent in 2002, business debt is projected to increase 4-1/2 percent in 2003 and 5-3/4 percent in 2004.

Household debt is expected to grow more slowly in 2003 and 2004 than it did last year, with much of the deceleration coming from a reduction in mortgage borrowing. Cash-out refinancings, which provided a substantial boost to home mortgage borrowing last year, are anticipated to wane over the forecast period as mortgage rates edge up and house price appreciation slows substantially. Consumer credit, which grew modestly last year, is projected to remain sluggish in the near-term before picking up a little steam from the stronger spending on consumer durable goods.

Growth of M2 is expected to slow to about 5 percent per year over the next two years, mainly because of the expected drop-off in mortgage refinancing activity and higher returns in equity markets. In addition, growth of M2 is expected to be tempered this year as adjustments to historically low opportunity costs run their course. In 2004, nominal GDP accelerates, but a widening in opportunity costs associated with the assumed policy tightening late that year damps money growth.

Alternative Simulations

In this section we explore several risks to the staff forecast using simulations of the FRB/US model. We begin by examining how the outlook would change if the baseline fiscal stimulus package were not enacted. We then consider several supply-side scenarios, including both faster and slower productivity growth, and a lower NAIRU. In all these simulations, the federal funds rate path is the same as in the baseline. The last simulation shows the implications of aligning monetary policy with market expectations.

Political gridlock. Enactment of the baseline fiscal stimulus package is an important factor in generating the pickup in activity that we project for later this year and next. However, it is not a foregone conclusion that such a package will be passed. Accordingly, in this scenario, we assume that political gridlock occurs, raising personal income taxes $40 billion in the second half of 2003 and $95 billion in 2004 relative to baseline. The lower level of disposable income implies weaker household spending, which in turn prompts firms to scale back their investment plans. As a result, real GDP grows about 1/2 percentage point more slowly in both the second half of 2003 and in 2004, preventing the unemployment rate from falling below 5-3/4 percent even by the end of next year. Because of increased labor market slack, core inflation is a touch lower in 2004.

Faster productivity growth. As discussed earlier, we believe that firms implemented a variety of one-time efficiency gains last year, contributing to a jump of 1.8 percent in the level of structural multifactor productivity in 2002. We expect that this pace will moderate to about 1.5 percent in 2004. But given our uncertainty about the causes of last year's impressive productivity performance, we cannot rule out the possibility that firms will continue to register more rapid gains in output per hour on an ongoing basis. In this scenario, we assume that structural multifactor productivity increases 1.8 percent both this year and next. We further assume—in contrast to similar scenarios in past Greenbooks—that these larger gains come as a surprise to investors, households, and firms, leading them to revise up their expectations for the long-run growth of income and profits. Under these circumstances, the additional pickup in aggregate spending outstrips the boost to potential output, primarily because higher equity valuations help fuel stronger consumer spending. Overall, real GDP increases more than 5 percent in 2004, and by the end of next year, the

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

Measure	2002 H1	2002 H2	2003 H1	2003 H2	2004
Real GDP					
Baseline	**3.1**	**2.1**	**2.8**	**4.5**	**4.7**
No fiscal package enactment	3.1	2.1	2.8	4.1	4.2
Slower productivity growth	3.1	2.1	2.7	4.2	4.3
Faster productivity growth	3.1	2.1	2.9	4.9	5.2
Low NAIRU	3.1	2.1	2.8	4.5	4.7
Market-based funds rate	3.1	2.1	2.8	4.5	4.5
Civilian unemployment rate[1]					
Baseline	**5.9**	**5.9**	**6.2**	**6.1**	**5.4**
No fiscal package enactment	5.9	5.9	6.2	6.2	5.8
Slower productivity growth	5.9	5.9	6.2	6.0	5.4
Faster productivity growth	5.9	5.9	6.2	6.1	5.3
Low NAIRU	5.9	5.9	6.2	6.1	5.3
Market-based funds rate	5.9	5.9	6.2	6.1	5.5
PCE prices excluding food and energy					
Baseline	**1.7**	**1.6**	**1.3**	**1.4**	**1.2**
No fiscal package enactment	1.7	1.6	1.3	1.4	1.1
Slower productivity growth	1.7	1.6	1.4	1.5	1.4
Faster productivity growth	1.7	1.6	1.3	1.3	1.1
Low NAIRU	1.7	1.6	1.1	1.0	.7
Market-based funds rate	1.7	1.6	1.3	1.4	1.2

1. Average for the final quarter of the period.

unemployment rate is one-tenth below baseline. Despite faster growth and a tighter labor market, core inflation falls to just above 1 percent in 2004 because of lower unit labor costs.

Slower productivity growth. On the other hand, we may have overestimated how much of last year's rise in actual productivity was permanent. In this scenario, we assume that structural multifactor productivity grew only 1.3 percent in 2002 and will continue to do so this year and next. Thus, in this scenario the economy not only starts out 2003 with less slack in product markets but also faces a long-run potential growth rate that is two-tenths lower than in the baseline projection.

Consistent with the previous scenario, we assume that this less favorable supply-side situation comes as a surprise to the market, leading to—among other things—a modest fall in equity prices. Under these conditions, the hit to aggregate spending this year and next is greater than that to potential output, as households and firms gradually adjust the level of their spending to accord with a less optimistic assessment of the level of permanent income and sales. All told, real GDP rises only 3-1/2 percent in 2003 and 4-1/4 percent in 2004. Because more of the productivity gains in 2002 were transitory under this scenario, firms would, other things being equal, increase their hiring above that in the baseline this year and next. However, this factor is offset by the reduction in labor demand associated with weaker aggregate demand relative to supply, and thus the unemployment rate is little changed from baseline. Core inflation remains in the vicinity of 1-1/2 percent through next year—despite persistent slack in labor and product markets—owing to upward pressure on unit labor costs from slower productivity growth.

Low NAIRU. This scenario considers the possibility that the staff's estimate of the NAIRU may be too high and, as an alternative, assumes that it is (and has been for some time) 4-1/4 percent—3/4 percentage point below baseline. Under this assumption, core inflation falls to about 3/4 percent in 2004. By contrast, real output and unemployment are little affected.

Market-based funds rate. Futures quotes are consistent with a federal funds rate that remains near 1-1/4 percent for much of 2003. Past that point, the market expects the funds rate to rise gradually and to approach 2-3/4 percent by the end of next year. Incorporating this path for the funds rate into the outlook shaves 1/4 percentage point off the rise in real GDP in 2004 and adds one-tenth to the unemployment rate by the end of next year. Core inflation is unchanged.

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Strictly Confidential <FR> January 22, 2003
Class II FOMC

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

Interval		Nominal GDP		Real GDP		GDP chain-weighted price index		Consumer price index[1]		Unemployment rate[2]	
		12/04/02	01/22/03	12/04/02	01/22/03	12/04/02	01/22/03	12/04/02	01/22/03	12/04/02	01/22/03
ANNUAL											
2000		5.9	5.9	3.8	3.8	2.1	2.1	3.4	3.4	4.0	4.0
2001		2.6	2.6	0.3	0.3	2.4	2.4	2.8	2.8	4.8	4.8
2002		3.6	3.5	2.4	2.4	1.1	1.1	1.6	1.6	5.8	5.8
2003		4.2	3.9	2.6	2.6	1.5	1.3	1.9	2.1	6.0	6.2
2004		5.6	6.0	4.2	4.6	1.4	1.3	1.7	1.5	5.6	5.7
QUARTERLY											
2001	Q1	3.0	3.0	-0.6	-0.6	3.7	3.7	4.0	4.0	4.2	4.2
	Q2	0.9	0.9	-1.6	-1.6	2.5	2.5	3.2	3.2	4.5	4.5
	Q3	1.9	1.9	-0.3	-0.3	2.2	2.2	0.7	0.7	4.8	4.8
	Q4	2.2	2.2	2.7	2.7	-0.5	-0.5	-0.2	-0.2	5.6	5.6
2002	Q1	6.5	6.5	5.0	5.0	1.3	1.3	1.4	1.4	5.6	5.6
	Q2	2.5	2.5	1.3	1.3	1.2	1.2	3.4	3.4	5.9	5.9
	Q3	5.1	5.1	4.0	4.0	1.0	1.0	1.8	1.8	5.7	5.7
	Q4	3.1	2.0	1.0	0.2	2.1	1.8	2.3	2.4	5.8	5.9
2003	Q1	4.0	3.8	2.3	2.6	1.7	1.2	1.7	2.9	6.0	6.2
	Q2	4.2	4.1	2.9	2.9	1.2	1.2	1.7	1.6	6.0	6.2
	Q3	5.2	5.6	3.9	4.3	1.3	1.2	1.6	1.1	6.0	6.2
	Q4	5.6	5.9	4.2	4.6	1.3	1.3	1.7	1.4	5.9	6.1
2004	Q1	6.1	6.7	4.4	5.0	1.6	1.6	1.8	1.6	5.8	6.0
	Q2	5.6	6.2	4.3	4.9	1.3	1.2	1.8	1.6	5.7	5.8
	Q3	5.6	6.0	4.3	4.7	1.3	1.2	1.8	1.6	5.6	5.6
	Q4	5.4	5.6	4.1	4.4	1.3	1.2	1.8	1.6	5.4	5.4
TWO-QUARTER[3]											
2001	Q2	1.9	1.9	-1.1	-1.1	3.1	3.1	3.5	3.5	0.5	0.5
	Q4	2.1	2.1	1.2	1.2	0.8	0.8	0.2	0.2	1.1	1.1
2002	Q2	4.5	4.5	3.1	3.1	1.3	1.3	2.4	2.4	0.3	0.3
	Q4	4.1	3.5	2.5	2.1	1.5	1.4	2.1	2.1	-0.1	0.0
2003	Q2	4.1	4.0	2.6	2.8	1.5	1.2	1.7	2.2	0.2	0.3
	Q4	5.4	5.7	4.1	4.5	1.3	1.2	1.7	1.2	-0.1	-0.1
2004	Q2	5.9	6.5	4.4	5.0	1.5	1.4	1.8	1.6	-0.2	-0.3
	Q4	5.5	5.8	4.2	4.5	1.3	1.2	1.8	1.6	-0.3	-0.4
FOUR-QUARTER[4]											
2000	Q4	4.6	4.6	2.3	2.3	2.3	2.3	3.4	3.4	-0.1	-0.1
2001	Q4	2.0	2.0	0.1	0.1	2.0	2.0	1.9	1.9	1.6	1.6
2002	Q4	4.3	4.0	2.8	2.6	1.4	1.3	2.2	2.3	0.2	0.3
2003	Q4	4.7	4.8	3.3	3.6	1.4	1.2	1.7	1.7	0.1	0.2
2004	Q4	5.7	6.1	4.3	4.7	1.4	1.3	1.8	1.6	-0.6	-0.7

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

REAL GROSS DOMESTIC PRODUCT AND RELATED ITEMS, ANNUAL VALUES (Seasonally adjusted annual rate) January 22, 2003

Item	Units[1]	1996	1997	1998	1999	2000	2001	2002 (Projected)	2003 (Projected)	2004 (Projected)
EXPENDITURES										
Nominal GDP	Bill. $	7813.2	8318.4	8781.5	9274.3	9824.6	10082.2	10438.4	10850.1	11500.9
Real GDP	Bill. Ch. $	7813.2	8159.5	8508.9	8859.0	9191.4	9214.5	9432.9	9681.6	10128.2
Real GDP	% change	4.1	4.3	4.8	4.3	2.3	0.1	2.6	3.6	4.7
Gross domestic purchases		4.3	5.0	5.8	5.2	2.9	0.1	3.2	3.6	5.0
Final sales		3.9	3.9	4.7	4.2	2.6	1.6	1.7	3.3	4.5
Priv. dom. final purchases		4.4	5.1	6.3	5.2	3.7	0.9	2.1	3.6	5.3
Personal cons. expenditures		3.1	4.1	5.0	5.0	3.5	2.8	2.6	3.1	4.2
Durables		5.0	8.8	12.7	10.0	3.8	13.2	1.8	4.8	7.0
Nondurables		3.2	2.5	5.0	4.9	3.0	1.7	3.1	2.6	3.5
Services		2.7	3.9	3.6	4.0	3.8	1.3	2.5	3.1	4.0
Business fixed investment		12.1	11.8	12.3	6.6	6.2	-9.3	-2.5	5.8	12.7
Equipment & Software		11.8	13.7	14.9	9.7	5.2	-8.8	1.8	8.9	15.6
Nonres. structures		12.8	6.5	4.9	-2.5	9.3	-10.6	-14.4	-4.4	2.7
Residential structures		5.6	3.5	10.0	4.0	-1.2	1.0	7.2	6.1	5.7
Exports		9.8	8.5	2.3	4.9	7.3	-11.4	5.2	7.4	8.8
Imports		11.2	14.3	10.8	11.9	11.1	-8.0	9.0	6.5	9.2
Gov't. cons. & investment		2.7	2.4	2.7	4.5	1.3	5.1	3.1	2.1	1.9
Federal		2.0	0.1	0.6	4.0	-1.2	7.5	5.5	2.6	1.8
Defense		0.8	-1.4	-0.8	4.4	-2.5	7.4	6.6	2.6	1.6
State & local		3.0	3.7	3.8	4.8	2.6	3.9	1.8	1.8	2.0
Change in bus. inventories	Bill. Ch. $	30.0	63.8	76.7	62.8	65.0	-61.4	-3.4	15.8	50.4
Nonfarm		21.2	60.6	75.0	64.1	67.2	-63.2	-4.5	14.8	48.9
Net exports		-89.0	-113.3	-221.1	-320.5	-398.8	-415.9	-481.0	-516.8	-564.0
Nominal GDP	% change	6.0	6.2	6.0	5.9	4.6	2.0	4.0	4.8	6.1
EMPLOYMENT AND PRODUCTION										
Nonfarm payroll employment	Millions	119.6	122.7	125.9	128.9	131.7	131.9	130.8	131.6	135.0
Unemployment rate	%	5.4	4.9	4.5	4.2	4.0	4.8	5.8	6.2	5.7
Industrial prod. index	% change	5.5	8.0	4.0	4.9	2.7	-5.7	1.7	4.2	5.9
Capacity util. rate - mfg.	%	81.2	82.7	81.9	81.4	81.4	75.6	73.8	74.8	78.2
Housing starts	Millions	1.48	1.47	1.62	1.64	1.57	1.60	1.71	1.81	1.93
Light motor vehicle sales		15.05	15.07	15.41	16.78	17.24	17.02	16.70	16.60	17.50
North Amer. produced		13.34	13.14	13.39	14.30	14.38	13.94	13.42	13.30	14.05
Other		1.70	1.93	2.02	2.48	2.86	3.08	3.29	3.30	3.45
INCOME AND SAVING										
Nominal GNP	Bill. $	7831.2	8325.4	8778.1	9297.1	9848.0	10104.1	10429.5	10851.8	11496.0
Nominal GNP	% change	5.9	6.0	5.8	6.4	4.6	2.1	3.6	4.9	6.0
Nominal personal income		5.9	6.3	6.7	5.1	7.7	1.4	4.3	4.4	5.4
Real disposable income		2.6	3.8	5.0	2.4	4.8	0.3	5.9	2.7	4.8
Personal saving rate	%	4.8	4.2	4.7	2.6	2.8	2.3	3.9	3.9	4.6
Corp. profits, IVA & CCAdj.	% change	11.4	9.9	-9.6	7.0	-9.1	8.2	-7.4	7.5	10.2
Profit share of GNP	%	9.6	10.0	8.9	8.7	8.0	7.2	7.4	7.1	7.5
Excluding FR Banks		9.4	9.7	8.6	8.4	7.7	7.0	7.2	6.9	7.3
Federal surpl./deficit	Bill. $	-136.8	-53.3	43.8	111.9	206.9	72.0	-197.8	-201.5	-229.1
State & local surpl./def.		21.4	31.0	40.7	38.3	18.0	-31.3	-51.8	-47.4	-18.4
Ex. social ins. funds		18.7	29.9	40.0	37.4	17.8	-31.2	-51.7	-47.3	-18.3
Gross natl. saving rate	%	17.2	18.0	18.8	18.3	18.4	16.5	15.2	15.2	16.0
Net natl. saving rate		5.7	6.7	7.5	6.8	6.7	3.8	2.1	1.9	2.9
PRICES AND COSTS										
GDP chn.-wt. price index	% change	1.9	1.8	1.1	1.6	2.3	2.0	1.3	1.2	1.3
Gross Domestic Purchases chn.-wt. price index		1.9	1.4	0.8	1.9	2.5	1.3	1.6	1.3	1.2
PCE chn.-wt. price index		2.3	1.5	1.1	2.0	2.5	1.5	1.8	1.3	1.2
Ex. food and energy		1.8	1.7	1.6	1.5	1.8	1.9	1.6	1.3	1.2
CPI		3.2	1.9	1.5	2.6	3.4	1.9	2.3	1.7	1.6
Ex. food and energy		2.6	2.2	2.3	2.1	2.5	2.7	2.1	1.9	1.8
ECI, hourly compensation[2]		3.1	3.4	3.5	3.4	4.4	4.2	3.5	3.3	3.3
Nonfarm business sector										
Output per hour		2.3	2.2	2.9	2.9	2.1	1.9	3.8	1.8	1.8
Compensation per Hour		3.2	3.4	5.3	4.3	7.2	1.4	4.1	3.2	3.1
Unit labor cost		0.9	1.1	2.3	1.4	4.9	-0.5	0.3	1.5	1.3

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

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

Item	Units	2000 Q1	2000 Q2	2000 Q3	2000 Q4	2001 Q1	2001 Q2	2001 Q3	2001 Q4	2002 Q1	2002 Q2
EXPENDITURES											
Nominal GDP	Bill. $	9649.5	9820.7	9874.8	9953.6	10028.1	10049.9	10097.7	10152.9	10313.1	10376.9
Real GDP	Bill. Ch. $	9097.4	9205.7	9218.7	9243.8	9229.9	9193.1	9186.4	9248.8	9363.2	9392.4
Real GDP	% change	2.6	4.8	0.6	1.1	-0.6	-1.6	-0.3	2.7	5.0	1.3
Gross domestic purchases		3.6	5.7	1.2	1.3	-1.1	-1.1	-0.1	2.9	5.6	2.6
Final sales		4.4	3.1	1.7	1.3	2.8	-0.4	-0.2	4.2	2.4	-0.1
Priv. dom. final purchases		6.9	3.8	3.1	1.1	1.5	-1.2	0.3	3.0	2.5	1.3
Personal cons. expenditures		5.3	3.0	3.8	2.1	2.4	1.4	1.5	6.0	3.1	1.8
Durables		17.8	-3.7	8.1	-5.3	11.5	5.3	4.6	33.6	-6.3	2.0
Nondurables		2.2	4.9	2.0	2.7	2.3	-0.3	1.3	3.6	7.9	-0.1
Services		4.4	3.6	3.9	3.3	0.6	1.5	0.9	2.1	2.9	2.7
Business fixed investment		15.0	10.2	3.5	-3.2	-5.4	-14.5	-6.0	-10.9	-5.8	-2.4
Equipment & Software		15.5	10.9	0.9	-5.4	-6.3	-16.7	-9.2	-2.5	-2.7	3.3
Nonres. structures		13.8	8.2	12.1	3.6	-3.1	-8.4	2.9	-30.1	-14.2	-17.6
Residential structures		8.3	-3.0	-9.3	0.0	8.2	-0.5	0.4	-3.5	14.2	2.7
Exports		7.7	14.6	11.6	-4.0	-6.0	-12.4	-17.3	-9.6	3.5	14.3
Imports		14.7	18.6	13.8	-1.6	-7.9	-6.8	-11.8	-5.3	8.5	22.2
Gov't. cons. & investment		-1.2	4.6	-1.0	2.9	5.7	5.6	-1.1	10.5	5.6	1.4
Federal		-13.2	16.0	-7.2	2.0	9.5	6.0	1.2	13.5	7.4	7.5
Defense		-19.9	15.0	-6.1	4.7	8.3	2.7	4.6	14.3	11.6	7.8
State & local		5.6	-0.8	2.4	3.3	3.8	5.4	-2.3	8.9	4.6	-1.7
Change in bus. inventories	Bill. Ch. $	45.3	91.5	63.1	59.9	-26.9	-58.3	-61.8	-98.4	-28.9	4.9
Nonfarm		58.9	88.6	64.6	56.8	-32.6	-54.9	-63.6	-101.5	-35.1	4.2
Net exports		-368.8	-394.6	-413.1	-418.5	-404.5	-414.8	-419.0	-425.3	-446.6	-487.4
Nominal GDP	% change	5.7	7.3	2.2	3.2	3.0	0.9	1.9	2.2	6.5	2.5
EMPLOYMENT AND PRODUCTION											
Nonfarm payroll employment	Millions	131.0	131.8	131.9	132.2	132.4	132.2	131.9	131.1	130.8	130.7
Unemployment rate	%	4.0	4.0	4.1	4.0	4.2	4.5	4.8	5.6	5.6	5.9
Industrial prod. index	% change	5.4	7.1	0.2	-1.6	-6.1	-6.1	-4.6	-5.8	1.4	4.4
Capacity util. rate - mfg.	%	82.0	82.4	81.4	80.0	77.9	76.1	74.8	73.4	73.4	73.9
Housing starts	Millions	1.66	1.59	1.50	1.54	1.61	1.62	1.60	1.57	1.73	1.67
Light motor vehicle sales		18.15	17.14	17.42	16.26	16.95	16.54	16.23	18.37	16.34	16.35
North Amer. produced		15.29	14.27	14.56	13.41	14.04	13.51	13.23	15.00	13.04	13.10
Other		2.86	2.87	2.86	2.85	2.90	3.04	3.00	3.37	3.31	3.25
INCOME AND SAVING											
Nominal GNP	Bill. $	9670.5	9846.4	9892.5	9982.8	10038.0	10081.0	10109.3	10188.1	10314.9	10356.8
Nominal GNP	% change	5.3	7.5	1.9	3.7	2.2	1.7	1.1	3.2	5.1	1.6
Nominal personal income		13.2	6.9	6.8	4.2	3.9	0.8	1.4	-0.2	4.8	5.1
Real disposable income		8.4	4.8	4.3	1.8	-0.1	-0.6	10.5	-7.6	14.5	3.9
Personal saving rate	%	2.6	2.9	2.9	2.9	2.4	1.9	4.0	0.8	3.5	4.0
Corp. profits, IVA & CCAdj.	% change	-8.0	-0.1	-9.4	-17.9	-21.1	8.7	-17.7	94.4	-6.6	-6.2
Profit share of GNP	%	8.4	8.2	8.0	7.5	7.0	7.2	6.8	8.0	7.7	7.6
Excluding FR Banks		8.0	7.9	7.7	7.2	6.7	6.9	6.5	7.7	7.5	7.3
Federal surpl./deficit	Bill. $	223.2	197.2	213.2	193.8	173.8	144.4	-51.7	21.3	-145.8	-195.6
State & local surpl./def.		32.7	20.2	19.2	-0.2	-16.5	-32.3	-46.2	-30.2	-55.8	-45.1
Ex. social ins. funds		32.2	20.0	19.2	-0.1	-16.4	-32.2	-46.1	-30.0	-55.6	-44.9
Gross natl. saving rate	%	18.8	18.4	18.5	17.8	16.9	16.6	16.5	15.8	15.5	15.5
Net natl. saving rate		7.3	6.9	6.8	5.9	4.8	4.1	3.3	3.1	2.7	2.4
PRICES AND COSTS											
GDP chn.-wt. price index	% change	3.1	2.3	1.6	2.1	3.7	2.5	2.2	-0.5	1.3	1.2
Gross Domestic Purchases chn.-wt. price index		3.7	2.2	2.2	2.1	3.3	1.7	-0.2	0.4	1.2	2.3
PCE chn.-wt. price index		3.4	2.3	2.1	2.2	3.3	1.8	-0.1	0.8	1.1	2.7
Ex. food and energy		2.2	1.8	1.3	1.8	2.8	1.2	0.7	2.7	1.4	1.9
CPI		3.9	3.3	3.5	2.8	4.0	3.2	0.7	-0.2	1.4	3.4
Ex. food and energy		2.3	2.7	2.7	2.4	3.1	2.4	2.6	2.6	2.4	2.1
ECI, hourly compensation[1]		5.6	4.7	4.1	3.5	4.6	4.0	3.7	4.2	3.6	4.4
Nonfarm business sector											
Output per hour		0.2	6.0	0.6	1.7	-1.5	-0.1	2.1	7.3	8.6	1.7
Compensation per hour		15.2	2.2	8.7	3.1	2.8	0.1	1.0	1.5	2.9	3.9
Unit labor cost		14.9	-3.6	8.0	1.4	4.3	0.3	-1.1	-5.4	-5.3	2.2

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)

January 22, 2003

Item	Units	2002 Q3	2002 Q4	2003 Q1	2003 Q2	2003 Q3	2003 Q4	2004 Q1	2004 Q2	2004 Q3	2004 Q4
			- - - - - - - - - -	- - - - - - - -	- - - - - - - - Projected	- - - - - - - -	- - - - - - - -	- - - - - - - -	- - - - - - - -	- - - - - - - -	- - - - - - - -
EXPENDITURES											
Nominal GDP	Bill. $	10506.2	10557.4	10656.4	10763.9	10911.0	11068.9	11249.3	11420.5	11587.0	11746.9
Real GDP	Bill. Ch. $	9485.6	9490.2	9551.6	9620.4	9722.2	9832.1	9952.7	10073.0	10188.7	10298.5
Real GDP	% change	4.0	0.2	2.6	2.9	4.3	4.6	5.0	4.9	4.7	4.4
Gross domestic purchases		3.9	0.7	2.5	3.3	4.4	4.3	5.4	5.4	5.0	4.2
Final sales		3.4	1.2	2.4	2.3	3.8	4.6	4.6	4.4	4.4	4.5
Priv. dom. final purchases		3.4	1.5	2.1	2.9	4.5	4.9	5.6	5.6	5.3	4.9
Personal cons. expenditures		4.2	1.2	1.9	2.8	3.8	4.0	4.4	4.3	4.1	4.1
Durables		22.8	-8.6	-1.5	5.6	9.7	5.7	7.6	7.1	6.2	7.0
Nondurables		1.0	3.6	2.0	2.3	2.7	3.2	3.5	3.5	3.5	3.5
Services		2.3	2.1	2.4	2.6	3.2	4.0	4.2	4.2	3.9	3.9
Business fixed investment		-0.8	-0.7	0.8	3.7	8.4	10.4	13.4	13.1	14.0	10.5
Equipment & Software		6.7	0.2	3.8	6.3	12.0	13.9	17.1	16.5	16.9	11.9
Nonres. structures		-21.4	-3.5	-8.5	-4.8	-3.2	-1.0	0.8	1.3	3.6	5.1
Residential structures		1.1	11.3	9.5	3.1	5.5	6.6	7.6	7.3	4.8	3.2
Exports		4.6	-1.0	4.0	7.7	8.1	10.1	6.5	8.8	8.9	11.0
Imports		3.3	2.9	2.5	9.1	7.9	6.5	8.8	10.8	9.7	7.7
Gov't. cons. & investment		2.9	2.4	2.7	1.8	1.7	2.0	2.0	1.9	2.0	1.9
Federal		4.3	3.1	4.3	2.2	1.8	2.1	2.3	1.7	1.9	1.5
Defense		6.9	0.5	4.8	2.3	1.5	2.0	2.3	1.3	1.8	1.1
State & local		2.2	2.0	1.8	1.6	1.7	2.0	1.9	1.9	2.0	2.0
Change in bus. inventories	Bill. Ch. $	18.8	-8.5	-2.2	13.0	26.3	26.1	37.3	50.9	58.2	55.4
Nonfarm		20.8	-8.0	-2.8	12.0	25.2	24.8	35.9	49.4	56.6	53.7
Net exports		-488.0	-501.9	-501.3	-516.1	-525.6	-524.2	-541.4	-560.8	-576.2	-577.7
Nominal GDP	% change	5.1	2.0	3.8	4.1	5.6	5.9	6.7	6.2	6.0	5.6
EMPLOYMENT AND PRODUCTION											
Nonfarm payroll employment	Millions	130.8	130.8	130.7	131.2	131.8	132.6	133.5	134.5	135.5	136.5
Unemployment rate	%	5.7	5.9	6.2	6.2	6.2	6.1	6.0	5.8	5.6	5.4
Industrial prod. index	% change	3.4	-2.4	0.6	4.4	5.9	5.8	6.4	6.2	5.7	5.3
Capacity util. rate - mfg.	%	74.3	73.8	73.8	74.3	75.2	76.0	76.9	77.8	78.6	79.3
Housing starts	Millions	1.70	1.75	1.77	1.79	1.83	1.87	1.90	1.92	1.94	1.95
Light motor vehicle sales		17.63	16.50	16.00	16.22	16.99	17.19	17.37	17.48	17.54	17.59
North Amer. produced		14.27	13.25	12.70	13.00	13.65	13.85	13.93	14.03	14.09	14.14
Other		3.35	3.24	3.30	3.22	3.34	3.34	3.44	3.45	3.45	3.45
INCOME AND SAVING											
Nominal GNP	Bill. $	10495.3	10551.0	10654.8	10768.4	10913.8	11069.9	11249.0	11418.8	11581.2	11734.9
Nominal GNP	% change	5.5	2.1	4.0	4.3	5.5	5.8	6.6	6.2	5.8	5.4
Nominal personal income		3.6	3.8	4.5	3.8	4.2	5.1	6.0	5.1	5.3	5.1
Real disposable income		3.1	2.6	0.4	2.0	4.8	3.4	8.4	3.6	3.7	3.6
Personal saving rate	%	3.8	4.2	3.9	3.8	4.0	3.9	4.8	4.7	4.6	4.5
Corp. profits, IVA & CCAdj.	% change	-6.9	-9.7	-5.6	7.1	14.7	15.3	12.0	11.6	10.0	7.3
Profit share of GNP	%	7.3	7.1	7.0	7.0	7.1	7.3	7.4	7.5	7.6	7.6
Excluding FR Banks		7.1	6.9	6.7	6.8	6.9	7.1	7.2	7.3	7.3	7.4
Federal surpl./deficit	Bill. $	-200.7	-249.2	-211.9	-196.3	-204.5	-193.4	-265.1	-242.9	-221.3	-187.2
State & local surpl./def.		-52.5	-53.8	-54.8	-53.4	-46.3	-34.9	-26.7	-22.0	-16.2	-8.5
Ex. social ins. funds		-52.4	-53.7	-54.7	-53.3	-46.2	-34.8	-26.6	-21.9	-16.1	-8.4
Gross natl. saving rate	%	15.0	14.9	14.9	15.1	15.3	15.5	15.7	15.8	16.1	16.2
Net natl. saving rate		1.9	1.6	1.6	1.8	2.0	2.2	2.5	2.8	3.1	3.2
PRICES AND COSTS											
GDP chn.-wt. price index	% change	1.0	1.8	1.2	1.2	1.2	1.3	1.6	1.2	1.2	1.2
Gross Domestic Purchases chn.-wt. price index		1.2	1.8	2.2	1.1	0.9	1.1	1.5	1.1	1.2	1.2
PCE chn.-wt. price index		1.7	1.8	2.1	1.2	0.9	1.1	1.2	1.2	1.2	1.2
Ex. food and energy		1.8	1.4	1.2	1.4	1.4	1.3	1.3	1.2	1.2	1.1
CPI		1.8	2.4	2.9	1.6	1.1	1.4	1.6	1.6	1.6	1.6
Ex. food and energy		2.1	1.8	1.9	2.0	1.9	1.9	1.8	1.8	1.7	1.7
ECI, hourly compensation[1]		2.5	3.5	3.4	3.3	3.3	3.3	3.4	3.3	3.3	3.3
Nonfarm business sector											
Output per hour		5.6	-0.5	2.5	0.8	2.3	1.5	2.1	2.1	1.5	1.4
Compensation per hour		5.5	4.3	3.7	3.2	3.1	3.1	3.3	3.1	3.0	3.0
Unit labor cost		-0.1	4.9	1.2	2.4	0.8	1.5	1.1	1.0	1.5	1.6

1. Private-industry workers.

CONTRIBUTIONS TO GROWTH IN REAL GROSS DOMESTIC PRODUCT AND RELATED ITEMS

Item	2000 Q3	2000 Q4	2001 Q1	2001 Q2	2001 Q3	2001 Q4	2002 Q1	2002 Q2	2002 Q3	00Q4/ 99Q4	01Q4/ 00Q4	02Q4/ 01Q4
Real GDP	0.6	1.1	-0.6	-1.6	-0.3	2.7	5.0	1.3	4.0	2.3	0.1	2.6
Gross dom. purchases	1.3	1.3	-1.1	-1.2	-0.1	3.0	5.8	2.7	4.0	3.0	0.2	3.3
Final sales	1.7	1.2	2.7	-0.5	-0.2	4.1	2.5	-0.1	3.5	2.6	1.6	1.7
Priv. dom. final purchases	2.6	1.0	1.2	-1.0	0.3	2.6	2.2	1.1	2.9	3.1	0.8	1.8
Personal cons. expenditures	2.5	1.4	1.5	0.9	1.0	4.1	2.2	1.2	2.9	2.4	1.9	1.8
Durables	0.6	-0.4	0.9	0.4	0.4	2.5	-0.6	0.2	1.7	0.3	1.0	0.1
Nondurables	0.4	0.5	0.5	-0.1	0.3	0.7	1.6	-0.0	0.2	0.6	0.3	0.6
Services	1.5	1.3	0.2	0.6	0.4	0.9	1.2	1.1	1.0	1.5	0.5	1.0
Business fixed investment	0.5	-0.4	-0.7	-1.9	-0.7	-1.3	-0.7	-0.3	-0.1	0.8	-1.2	-0.3
Equipment & Software	0.1	-0.5	-0.6	-1.6	-0.8	-0.2	-0.2	0.3	0.5	0.5	-0.8	0.1
Nonres. structures	0.4	0.1	-0.1	-0.3	0.1	-1.1	-0.4	-0.5	-0.6	0.3	-0.4	-0.4
Residential structures	-0.4	0.0	0.3	-0.0	0.0	-0.2	0.6	0.1	0.1	-0.1	0.0	0.3
Net exports	-0.7	-0.2	0.5	-0.4	-0.2	-0.3	-0.8	-1.4	-0.0	-0.8	-0.1	-0.7
Exports	1.3	-0.5	-0.7	-1.4	-1.9	-1.0	0.3	1.3	0.5	0.8	-1.3	0.5
Imports	-2.0	0.2	1.2	1.0	1.7	0.7	-1.1	-2.7	-0.5	-1.5	1.2	-1.2
Government cons. & invest.	-0.2	0.5	1.0	1.0	-0.2	1.9	1.0	0.3	0.6	0.2	0.9	0.6
Federal	-0.5	0.1	0.5	0.4	0.1	0.8	0.5	0.5	0.3	-0.1	0.4	0.4
Defense	-0.2	0.2	0.3	0.1	0.2	0.5	0.5	0.3	0.3	-0.1	0.3	0.3
Nondefense	-0.2	-0.1	0.2	0.3	-0.1	0.3	0.0	0.2	-0.0	0.0	0.2	0.1
State and local	0.3	0.4	0.5	0.6	-0.3	1.1	0.6	-0.2	0.3	0.3	0.5	0.2
Change in bus. inventories	-1.1	-0.1	-3.3	-1.1	-0.1	-1.4	2.6	1.3	0.6	-0.3	-1.5	0.9
Nonfarm	-1.0	-0.3	-3.4	-0.8	-0.3	-1.4	2.5	1.5	0.7	-0.4	-1.6	0.9
Farm	-0.2	0.2	0.2	-0.3	0.2	0.1	0.1	-0.2	-0.1	0.1	0.0	-0.0

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

Strictly Confidential <FR>
Class II FOMC

CONTRIBUTIONS TO GROWTH IN REAL GROSS DOMESTIC PRODUCT AND RELATED ITEMS

January 22, 2003

Item	2002 Q4	2003 Q1	2003 Q2	2003 Q3	2003 Q4	2004 Q1	2004 Q2	2004 Q3	2004 Q4	02Q4/ 01Q4	03Q4/ 02Q4	04Q4/ 03Q4
Real GDP	0.2	2.6	2.9	4.3	4.6	5.0	4.9	4.7	4.4	2.6	3.6	4.7
Gross dom. purchases	0.7	2.6	3.4	4.6	4.5	5.6	5.6	5.2	4.4	3.3	3.8	5.2
Final sales	1.2	2.4	2.3	3.8	4.6	4.6	4.4	4.4	4.5	1.7	3.3	4.5
Priv. dom. final purchases	1.2	1.8	2.5	3.8	4.2	4.8	4.7	4.5	4.2	1.8	3.1	4.6
Personal cons. expenditures	0.8	1.3	2.0	2.7	2.8	3.1	3.0	2.9	2.9	1.8	2.2	3.0
Durables	-0.8	-0.1	0.5	0.8	0.5	0.6	0.6	0.5	0.6	0.1	0.4	0.6
Nondurables	0.7	0.4	0.5	0.6	0.7	0.7	0.7	0.7	0.7	0.6	0.5	0.7
Services	0.9	1.0	1.1	1.4	1.7	1.8	1.8	1.7	1.6	1.0	1.3	1.7
Business fixed investment	-0.1	0.1	0.4	0.9	1.1	1.4	1.3	1.5	1.1	-0.3	0.6	1.3
Equipment & Software	0.0	0.3	0.5	0.9	1.1	1.3	1.3	1.4	1.0	0.1	0.7	1.3
Nonres. structures	-0.1	-0.2	-0.1	-0.1	-0.0	0.0	0.0	0.1	0.1	-0.4	-0.1	0.1
Residential structures	0.5	0.4	0.1	0.3	0.3	0.4	0.3	0.2	0.2	0.3	0.3	0.3
Net exports	-0.5	0.0	-0.5	-0.3	0.1	-0.6	-0.6	-0.5	-0.0	-0.7	-0.2	-0.4
Exports	-0.1	0.4	0.7	0.8	1.0	0.7	0.9	0.9	1.1	0.5	0.7	0.9
Imports	-0.4	-0.4	-1.3	-1.1	-0.9	-1.2	-1.5	-1.4	-1.1	-1.2	-0.9	-1.3
Government cons. & invest.	0.4	0.5	0.4	0.3	0.4	0.4	0.4	0.4	0.4	0.6	0.4	0.4
Federal	0.2	0.3	0.2	0.1	0.1	0.2	0.1	0.1	0.1	0.4	0.2	0.1
Defense	0.0	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.3	0.1	0.1
Nondefense	0.2	0.1	0.0	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1
State and local	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.3	0.3	0.2	0.2	0.2
Change in bus. inventories	-1.0	0.2	0.6	0.5	-0.0	0.4	0.5	0.3	-0.1	0.9	0.3	0.3
Nonfarm	-1.1	0.2	0.6	0.5	-0.0	0.4	0.5	0.3	-0.1	0.9	0.3	0.3
Farm	0.1	0.0	0.0	-0.0	0.0	0.0	0.0	-0.0	0.0	-0.0	0.0	0.0

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

Strictly Confidential (FR)
Class II FOMC

January 22, 2003

Staff Projections of Federal Sector Accounts and Related Items

(Billions of dollars except as noted)

Item	Fiscal year[1]				2002				2003				2004			
	2001[a]	2002[a]	2003	2004	Q1[a]	Q2[a]	Q3[a]	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Unified budget					Not seasonally adjusted											
Receipts[2]	1991	1853	1901	1929	413	523	452	426	432	581	462	451	424	574	479	482
Outlays[2]	1863	2011	2118	2181	509	507	494	538	538	528	514	550	554	545	532	570
Surplus/deficit[2]	127	-158	-217	-253	-97	16	-42	-112	-106	53	-53	-99	-129	29	-53	-87
On-budget	-33	-317	-384	-436	-127	-58	-53	-149	-144	-23	-68	-143	-171	-51	-71	-134
Off-budget	161	160	167	183	30	73	11	37	39	76	15	44	42	80	18	46
Surplus excluding deposit insurance	126	-159	-219	-253	-96	15	-43	-113	-106	53	-53	-99	-129	29	-53	-87
Means of financing																
Borrowing	-90	221	228	270	51	21	89	95	115	-49	66	94	124	5	46	83
Cash decrease	8	-17	16	0	38	-26	-21	28	-5	0	-7	15	0	-30	15	15
Other[3]	-46	-46	-26	-17	8	-11	-27	-11	-5	-5	-6	-10	5	-4	-8	-10
Cash operating balance, end of period	44	61	45	45	14	40	61	33	38	38	45	30	30	60	45	30
NIPA federal sector					Seasonally adjusted annual rates											
Receipts	2024	1909	1913	1985	1885	1884	1874	1858	1912	1940	1943	1985	1948	1985	2022	2074
Expenditures	1909	2039	2129	2216	2031	2079	2075	2107	2124	2136	2147	2178	2213	2228	2244	2261
Consumption expenditures	517	570	610	634	566	581	590	594	611	615	618	622	635	638	642	646
Defense	337	375	401	417	372	383	389	391	402	405	407	409	417	420	422	424
Nondefense	180	195	208	217	194	199	201	204	209	210	211	213	217	219	220	221
Other spending	1392	1469	1519	1581	1464	1498	1485	1513	1513	1522	1529	1557	1578	1589	1601	1615
Current account surplus	115	-130	-215	-231	-146	-196	-201	-249	-212	-196	-204	-193	-265	-243	-221	-187
Gross investment	98	106	113	117	106	107	108	110	112	114	115	116	117	118	119	120
Current and capital account surplus	17	-236	-328	-348	-252	-303	-309	-360	-324	-310	-319	-309	-382	-361	-340	-307
Fiscal indicators[4]																
High-employment (HEB) surplus/deficit	-40	-235	-303	-358	-257	-295	-306	-339	-298	-280	-294	-296	-386	-378	-370	-349
Change in HEB, percent of potential GDP	0	2	.5	.4	2	.3	.1	.3	-.4	-.2	.1	-0	.8	-.1	-.1	-.2
Fiscal impetus (FI) percent, calendar year	11	20	11	15	10	6	.2	2	4	1	5	2	9	1	1	-.1

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

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									
1997	5.6	0.6	7.3	6.4	6.7	4.7	9.0	5.3	6.2
1998	6.8	-1.4	9.6	8.2	8.9	5.9	11.8	7.2	6.0
1999	6.5	-1.9	9.0	8.3	9.0	7.4	10.9	4.4	5.9
2000	4.9	-8.0	8.4	8.3	8.2	9.6	9.8	2.2	4.6
2001	6.1	-0.2	7.6	8.6	9.7	6.9	6.3	8.1	2.0
2002	6.8	7.6	6.6	9.2	11.7	3.7	2.8	11.0	4.0
2003	5.7	6.3	5.6	6.4	8.0	2.8	4.4	6.4	4.8
2004	6.2	6.7	6.1	6.7	7.6	4.5	5.7	4.1	6.1
Quarter									
2001:3	6.8	6.3	6.9	9.0	9.9	4.3	5.2	4.3	1.9
4	6.4	1.3	7.5	8.3	9.2	9.0	5.7	11.7	2.2
2002:1	4.9	1.2	5.7	9.1	10.3	4.8	2.2	4.5	6.5
2	8.2	15.5	6.7	8.7	11.0	4.4	3.4	12.0	2.5
3	6.7	7.5	6.5	9.6	12.8	3.5	2.3	9.7	5.1
4	6.6	5.4	6.9	8.4	10.7	2.0	3.2	16.2	2.0
2003:1	6.3	8.2	5.9	7.1	9.3	2.3	3.8	8.9	3.8
2	5.6	6.7	5.4	6.1	7.6	2.5	4.1	7.4	4.1
3	5.1	4.6	5.3	6.1	7.0	3.0	4.4	4.4	5.6
4	5.2	5.0	5.2	5.8	6.9	3.3	4.8	4.3	5.9
2004:1	6.1	8.6	5.5	6.2	7.1	3.8	5.1	4.2	6.7
2	6.9	11.7	5.8	6.4	7.3	4.3	5.4	4.1	6.2
3	5.4	2.3	6.1	6.7	7.5	4.6	5.8	4.0	6.0
4	5.8	3.5	6.3	6.9	7.6	5.0	6.1	4.0	5.6

Note. Quarterly data are at seasonally adjusted annual rates.
1. Data after 2002:Q3 are staff projections. Changes are measured from end of the preceding period to end of period indicated except for annual nominal GDP growth, which is calculated from Q4 to Q4.

2.6.3 FOF

Strictly Confidential (FR)
Class II FOMC

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

January 22, 2003

	Calendar year				Seasonally adjusted annual rates									
					2002				2003				2004	
Category	2001	2002	2003	2004	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	H1	H2
Net funds raised by domestic nonfinancial sectors														
1 Total	1056.2	1273.3	1109.1	1291.5	949.9	1627.5	1205.9	1310.0	1244.9	1126.9	1022.5	1042.0	1361.9	1221.0
2 Net equity issuance	-61.8	-38.7	-66.3	-56.5	-8.6	18.1	-129.1	-35.1	-56.0	-57.0	-71.0	-81.0	-64.0	-49.0
3 Net debt issuance	1118.0	1312.0	1175.3	1348.0	958.5	1609.4	1335.0	1345.1	1300.9	1183.9	1093.5	1123.0	1425.9	1270.0
Borrowing sectors														
Nonfinancial business														
4 Financing gap [1]	141.4	80.4	99.3	158.9	68.9	68.6	90.3	93.6	84.8	90.8	105.9	115.8	132.9	184.9
5 Net equity issuance	-61.8	-38.7	-66.3	-56.5	-8.6	18.1	-129.1	-35.1	-56.0	-57.0	-71.0	-81.0	-64.0	-49.0
6 Credit market borrowing	409.9	193.5	310.1	424.2	153.8	235.2	158.8	226.0	273.2	295.9	321.7	349.5	393.4	455.0
Households														
7 Net borrowing [2]	610.4	710.1	539.9	598.5	702.6	679.8	770.7	687.6	593.1	524.8	529.0	513.0	567.3	629.8
8 Home mortgages	477.9	627.0	477.7	491.2	553.4	604.3	724.1	626.2	559.2	469.2	440.2	442.2	471.2	511.2
9 Consumer credit	110.2	63.3	50.0	82.0	81.7	76.4	60.1	35.0	41.0	45.0	54.0	60.0	74.0	90.0
10 Debt/DPI (percent) [3]	99.8	102.6	106.3	106.8	101.3	101.9	103.0	104.2	105.5	106.4	106.5	106.9	106.3	107.2
State and local governments														
11 Net borrowing	103.2	152.4	98.0	67.3	62.3	168.4	139.9	238.8	136.8	115.8	69.8	69.8	67.8	66.8
12 Current surplus [4]	140.6	129.3	137.6	173.9	128.2	133.9	128.3	127.0	127.5	130.7	139.5	152.7	166.0	181.8
Federal government														
13 Net borrowing	-5.6	256.1	227.3	257.9	39.8	526.0	265.7	192.7	297.9	247.4	173.0	190.8	397.5	118.4
14 Net borrowing (quarterly, n.s.a.)	-5.6	256.1	227.3	257.9	50.8	21.1	89.4	94.8	115.3	-48.6	66.3	94.3	129.1	128.8
15 Unified deficit (quarterly, n.s.a.)	-94.3	235.3	204.6	240.9	96.6	-15.6	42.2	112.2	105.6	-53.0	52.7	99.2	100.6	140.4
Depository institutions														
16 Funds supplied	289.4	439.9	374.2	428.4	259.6	401.9	744.1	354.3	315.8	369.0	443.3	368.9	418.1	438.7
Memo (percentage of GDP)														
17 Domestic nonfinancial debt [5]	186.6	191.8	196.0	195.9	189.0	190.9	192.1	194.3	195.6	196.5	196.5	196.2	196.0	196.2
18 Domestic nonfinancial borrowing	11.1	12.6	10.8	11.7	9.3	15.5	12.7	12.7	12.2	11.0	10.0	10.1	12.6	10.9
19 Federal government [6]	-0.1	2.5	2.1	2.2	0.4	5.1	2.5	1.8	2.8	2.3	1.6	1.7	3.5	1.0
20 Nonfederal	11.1	10.1	8.7	9.5	8.9	10.4	10.2	10.9	9.4	8.7	8.4	8.4	9.1	9.9

Note. Data after 2002:Q3 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

We estimate that growth of foreign output in the fourth quarter dipped to 1.8 percent, an estimate that is a bit weaker than in the December Greenbook. Growth in the current quarter is also projected to be soft, but our outlook for this year and next calls for foreign activity to accelerate, leaving foreign GDP at the end of the forecast period slightly stronger than in the December Greenbook. The pace of the expected recovery is mixed across regions. We have strengthened further our forecasts of activity in North America and to a lesser extent in developing Asia in response to faster projected growth in the United States. These upward revisions are offset in part by more subdued growth projected for Europe and a more pessimistic outlook for Japan.

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

Indicator	2002		Projection				
	H1	Q3	2002: Q4	2003			2004
				Q1	Q2	H2	
Foreign output	3.3	3.0	1.8	2.4	3.0	3.2	3.5
December GB	*3.3*	*2.9*	*2.0*	*2.5*	*2.8*	*3.1*	*3.4*
Foreign CPI	2.6	2.7	2.3	2.3	2.1	2.0	2.0
December GB	*2.6*	*2.7*	*1.8*	*1.8*	*2.0*	*2.0*	*2.0*

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

Oil prices currently are about $7 per barrel higher than anticipated in early December, reflecting the ongoing general strike in Venezuela, which has squeezed global oil supplies, as well as the heightened anxiety over developments in the Middle East. In line with quotes from futures markets, we continue to project oil prices to decline over the forecast period. For 2004, oil prices are only slightly higher than in the December Greenbook. The upward revision to our near-term outlook for foreign inflation in part reflects the recent pickup in oil prices.

Since the December FOMC meeting, the exchange value of the dollar has declined about 4 percent as measured by the major currencies index, with particularly large drops against the euro and the Swiss franc. Our forecasted path for the dollar starts at this lower level, and we have retained a slight downward tilt against most major foreign currencies going forward, as the need to finance the widening U.S. external imbalance is likely to be a source of downward market pressure on the dollar. Despite a somewhat weaker dollar, the projected current account deficit still widens to $625 billion by the end of the forecast period, as faster projected growth here than abroad implies a growing trade deficit. After subtracting ½ percentage point from U.S. growth in the fourth quarter of 2002, net exports are projected to subtract ¼ percentage point in 2003 and almost ½ percentage point in 2004.

Oil Prices

The spot price of West Texas intermediate (WTI) crude oil is currently around $34 per barrel, up from about $27 per barrel early in December. The recent increase in oil prices is attributable primarily to a decrease in world oil supplies, caused by the ongoing strike in Venezuela, along with the market's perception that military action in Iraq is closer. In line with recent quotes from futures markets, we project that the spot price of WTI will decrease to about $23.75 per barrel by the end of 2004. Compared with the December Greenbook, the current oil price projection averages $6 per barrel higher in the first quarter of 2003, but the downward-sloping profile of the projection is much steeper, resulting in an average price for 2004 that is only about $0.75 per barrel higher. However, if oil production in Venezuela does not rebound significantly over the first half of the year, OPEC may offset the lost production only sufficiently to keep prices during 2003 near the upper limit of its target range (roughly $30 per barrel for WTI), and noticeably above the price implicit in our projection. Should the possibility of military action in Iraq be realized and lead to significant oil supply disruptions in the Persian Gulf, higher oil prices would pose additional risks to the outlook.

International Financial Markets

The foreign exchange value of the dollar, as measured by the staff's major currencies index, has fallen nearly 4 percent since the December FOMC meeting. The dollar depreciated against all seven currencies in the index, led by declines of about 6 percent against the euro and the Swiss franc. A wave of dollar weakening occurred in the final weeks of last year. Currency traders noted that heightened tensions over Iraq and North Korea appeared to weigh disproportionately on the dollar. The U.S. economy's dependence on international inflows to finance its large external deficit makes the dollar vulnerable to geopolitical events that might trigger a general pull-back in international financial flows. The dollar fluctuated narrowly during the first few business days of the year but fell again late in the intermeeting period in response to the mounting likelihood of conflict with Iraq. In contrast, the dollar rose slightly against the currencies of our other important trading partners, particularly the Mexican peso. On balance, the broad nominal dollar index was down 1½ percent over the intermeeting period.

To reflect these developments we have adjusted down the broad real dollar in the current quarter by 2 percent compared with the December Greenbook. For the remainder of the forecast period, we have maintained a mild downward tilt to our outlook for the dollar against most major foreign currencies, as we continue to believe that it is unlikely that investors will be willing, at current exchange rates, to add indefinitely to their already large holdings of U.S. external liabilities. However, compared with our previous forecast, we have somewhat reduced the projected rates of depreciation of the dollar against the European currencies, reflecting the downward revision to our outlook for European economic growth and the significant adjustment in spot rates that has already occurred. We continue to write down a flat path for the dollar/yen exchange rate, as Japan's economic outlook is sufficiently uncertain as to leave open the possibilities of exchange rate movements in either direction.

Share prices declined on all major bourses in December, and yields on bellwether government bonds generally fell about 20 basis points between the December FOMC meeting and the end of 2002. Share prices and long-term government bond yields shot up on January 2 in North America and Europe in response to stronger-than-expected ISM data on U.S. manufacturing, fluctuated in fairly narrow bands over the following week, but fell back in response to renewed global tensions later in the month. On net over the intermeeting period, the Dow Jones Euro Stoxx share price index declined 6 percent and the Japanese Nikkei index fell 2½ percent.

In emerging markets, developments in Venezuela and Brazil attracted the most attention from market participants. In Venezuela, the ongoing general strike in opposition to President Chavez has led to a near-complete standstill in the country's oil production and exports; the country's EMBI+ yield spread widened from 900 to 1,400 basis points over the intermeeting period, and the dollar appreciated nearly 50 percent against the bolivar. Late in the period, Venezuelan authorities announced a temporary suspension of foreign exchange trading. The Caracas stock market has not been open for business since November 29. Financial market indicators in Brazil improved as President Lula's new administration continued to express market-friendly opinions. However, late in the period financial markets retraced some of these gains, as sentiment turned less favorable. On net, the dollar has depreciated 7 percent against the *real*, share prices in Brazil have risen 9 percent, and Brazil's EMBI+ spread has declined more than 250 basis points to about 1,400 basis points.

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

Foreign Industrial Countries
We estimate that growth in the foreign industrial countries was only 1.5 percent in the final quarter of 2002. We project a slow pickup in most major foreign industrial countries to about potential rates by the end of 2004, as these economies are supported by the recovery in global demand and accommodative monetary conditions. With the exception of Germany and Japan, twelve-month headline inflation rates in most major foreign industrial countries were above 2 percent at the end of 2002. Although higher oil prices will keep inflation rates elevated in the near term, inflation should move lower later this year as oil prices decline and output remains below our estimates of potential in most countries. By 2004, we expect inflation to be well within target ranges set by most foreign industrial countries.

Japan's prolonged deflationary slump continues. The Bank of Japan's December Tankan survey projects a decline in business conditions for March, and along with other indicators, suggests continued weak business investment going forward. Household expenditure surveys confirm a marked weakening in private consumption late last year, and consumption is expected to remain sluggish in response to ongoing declines in incomes and uncertain employment prospects. The tax cuts in the recently announced 2003 fiscal budget will be largely offset by reduced supplemental budget spending, leaving fiscal policy roughly neutral this year. Net exports should continue to provide some support, but we expect GDP growth of around only ½ percent this year and about 1 percent next year.

Economic growth in the euro area slowed in the second half of 2002 and is expected to remain sluggish in the first half of this year, with German fiscal contraction helping to keep the euro area's largest economy in the doldrums. We project that euro-area growth will move up to about 2½ percent in 2004, but substantial slack will remain, and inflation is expected to slow to about 1½ percent by the end of the forecast period. Easing inflation pressures and accumulating euro strength should allow the European Central Bank to reduce interest rates further this year. This should help offset the effects of recent declines in consumer confidence and bolster household spending. Incipient signs of an upturn in business expectations of future production suggest that investment spending may have reached a bottom after sharp declines over the past two years. The projected pickup in global demand also should support euro-area growth, but euro appreciation over the past year is likely to reduce the stimulus from the external sector.

In Canada, recent data suggest that economic growth has slowed from the 5 percent pace recorded in the first half of 2002. Consumption indicators have continued to be strong, as have indicators of residential investment, but motor vehicle production seems to have slowed in the fourth quarter, bringing GDP growth to an estimated 2 percent. In line with the projected strength of the U.S. economy, we expect Canadian growth of about 3 percent this year and next. With output near potential, we expect the Bank of Canada to begin tightening monetary policy early in 2004.

Other Countries
South America's major economies have moved along divergent paths in recent months. In Brazil, President Lula's government has continued to voice support for orthodox economic policies, contributing to a strengthening of financial markets. With industrial production rising in recent months, we have revised up somewhat the growth prospects for the country. However, sovereign spreads remain high, financial markets are fragile, and more severe outcomes involving debt-service problems remain a distinct possibility. In Venezuela, the ongoing national strike that has crippled the country's oil industry has brought the country close to paralysis. Other than the consequences for oil prices, we do not foresee contagion or spillover effects on other developing countries. Economic activity appears to have bottomed out in Argentina, but President Duhalde has so far failed to build the political consensus for economic reform that will be needed for a sustained recovery. The recent signing of the letter of intent with the IMF indicates some progress, but it is too soon to tell if this will actually lead to some of the fiscal and other policy measures that are necessary for growth to resume.

Incoming data suggest that Mexican export growth weakened and activity decelerated in the fourth quarter, in line with estimates of weaker U.S. activity. As in previous years, the Mexican congress approved a tight fiscal budget for the current year. Inflation for 2002 came in at 5¾ percent, missing the official target of 4½ percent. The Bank of Mexico has tightened monetary policy to signal its commitment to its ambitious target of 3 percent inflation for this year, and further tightening of monetary policy is quite possible. However, given the robust growth projected for the United States, this should not prevent the Mexican economy from posting sizable gains over the forecast period.

In developing Asia, there has been a general softening of economic conditions, with China being an important exception. In Korea, industrial production appears to have moderated, and export growth has slowed slightly. Although the situation in North Korea and general global uncertainty are expected to restrain consumer and investor confidence a bit, the South Korean economy should remain fairly strong this year and next. However, the large runup in consumer debt over the past two years is a source of downside risk to domestic demand. Growth is estimated to have slowed significantly in the ASEAN region and in Taiwan in the second half of last year, reflecting softer demand for high-tech goods and global financial market volatility. With projected strong U.S. growth, recovery of high-tech demand, and declines in oil prices, growth in these economies should return to robust rates. GDP growth in China last year, estimated at over 8 percent, was supported by a surge in investment and in exports. We look for growth to remain a buoyant 7½ percent this year and in 2004, as China continues to benefit from its entry into the WTO and to attract large inflows of foreign direct investment.

Average inflation in developing countries overall is estimated to have come in at a restrained 3 percent in the fourth quarter of 2002. On balance, we expect inflation to remain contained, as growth over the forecast period is not expected to be sufficient to remove excess capacity in the vast majority of these economies. That said, inflationary pressures remain in some countries, particularly Argentina and Brazil, with the latter missing its inflation target last year by about 6 percentage points. In China, Hong Kong, and Taiwan, deflation has persisted, but is expected to abate.

Prices of Internationally Traded Goods
The price index for U.S. imports of non-oil core goods is estimated to have risen about 1½ percent at an annual rate in the fourth quarter of 2002, the third consecutive quarterly increase following a year of declines. Product categories driving this rise include foods, feeds, and beverages as well as industrial supplies and materials. In the first half of 2003, core import prices are expected to rise at an annual rate of about 4 percent, reflecting a weaker exchange value of the dollar as well as continued pass-through of primary commodity price inflation that occurred during the last half of 2002. Thereafter, core import prices are expected to rise in line with inflation abroad and modest dollar depreciation.

The price index for U.S. exports of core goods is estimated to have risen at an annual rate of about 1½ percent in the fourth quarter of 2002, a substantially lower rate than the previous quarter's 4½ percent. The slowdown is largely due to prices of agricultural exports, which are estimated to have risen 2 percent at an annual rate in the fourth quarter after having jumped 23 percent in the third quarter. We project that inflation of core export prices will slow to less than 1 percent this year, in line with projected U.S. producer price inflation.

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

Trade category	2002		Projection				
	H1	Q3	2002: Q4	2003			2004
				Q1	Q2	H2	
Exports							
Core goods	1.2	4.4	1.4	.2	.3	.7	1.2
Imports							
Non-oil core goods	-.1	1.2	1.4	4.9	3.1	2.3	1.7
Oil (dollars per barrel)	24.04	25.50	25.94	29.66	28.33	23.96	21.24

NOTE. Prices for core exports and non-oil core imports, which exclude computers and semiconductors, are on a NIPA chain-weighted basis.

The price of imported oil for multiquarter periods is the price for the final quarter of the period.

Trade in Goods and Services

Since the December Greenbook, we have received data on U.S. international trade for October and November. Relative to our expectations at the time of the last Greenbook, these data have come in surprisingly weak and have led us to mark down our projections for both exports and imports for the fourth quarter of 2002. The downward revisions owe entirely to lower estimates for trade in goods; our estimates for trade in services are somewhat stronger. We estimate that real exports of goods and services fell 1 percent and real imports of goods and services rose about 3 percent in the fourth quarter.

The estimated decline in real exports in the fourth quarter occurred in semiconductors and core goods. Within core goods, sluggish or weakening growth was widespread across trade categories, especially in machinery, automotive, and agricultural products. Aircraft exports declined in the fourth quarter, reversing the run-up in the third quarter. In contrast, real exports of services and computers are estimated to have risen in the fourth quarter; the rise in computers followed two years of declines.

Most of the small increase in real imports in the fourth quarter is estimated to have been from oil and services payments. Growth of imported core goods is estimated to have slowed to near zero because of small declines in imported automotive products, machinery, and industrial supplies that were offset by increases in imported consumer goods and aircraft. For semiconductors, the decline in imports nearly matched the drop in exports.

The slowdown of trade in core goods in the second half of last year broadly mirrors but has been more pronounced than the slowdown in U.S. and foreign economic growth. These developments can be interpreted as being consistent with historical experience, as trade in core goods typically shows greater cyclical fluctuation than would be expected from its long-term relationship with real GDP and relative prices. However, in putting together the December forecast, we did not anticipate that the deceleration in economic growth in the fourth quarter would affect trade to such an extent. Other factors may also have been at work. For example, anticipatory shipping in advance of last year's port closures may have resulted in some payback in the fourth quarter. Because economic growth in the United States and abroad is projected to pick up in the current quarter and to accelerate throughout this year, we have not extrapolated forward the recent weakness in trade.

Exports of goods and services are projected to increase 7½ percent this year and 8¾ percent in 2004. Nearly half of this increase is accounted for by growth in exported core goods. We project that exports of core goods will rise 5¼ percent and 6¾ percent this year and next, respectively. These projections are a bit stronger than in the December Greenbook, owing mainly to the lower path for the exchange value of the dollar. Similarly, exports of services are expected to increase a bit faster than previously projected, rising around 5½ percent over the forecast period. In addition, exports of computers and semiconductors are expected to recover significantly from the high-tech downturn and to resume growth that is broadly in line with historical experience.

Imports of goods and services are projected to rise 6½ percent this year and to accelerate to about 9¼ percent in 2004. More than half of this increase reflects our projections for growth of imported core goods, which rise about 5¾ percent this year and almost 8 percent next year. For 2003, growth in imported core goods is a touch weaker than previously projected, largely reflecting the less favorable terms of trade associated with the lower path for the dollar. In 2004, however, the stronger outlook for U.S. economic growth more than offsets the lower dollar, leading us to write down a faster rate of increase for imports of core goods than previously projected. As in the case of exports, imports of services, computers, and semiconductors are projected to grow steadily over the forecast period.

Net exports are expected to subtract ½ percentage point from U.S. real GDP growth in the fourth quarter of 2002 and about ¼ percentage point this year. The effect on growth this year is a little less negative than in the December Greenbook, primarily the result of the downwardly revised path for the dollar. In 2004 net exports subtract almost ½ percentage point from growth, about the same as in the December Greenbook, as U.S. economic growth accelerates more than growth abroad.

The U.S. current account deficit as a share of GDP is projected to increase over the forecast period, from about 5 percent in the fourth quarter of 2002 to around 5⅓ percent in late 2004. The widening deficit is almost entirely attributable to changes in the balance on goods and services. In dollar terms, the deficit is projected to reach nearly $625 billion, about the same as in the December Greenbook.

Summary of Staff Projections for Trade in Goods and Services

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

Measure	2002		Projection				
	H1	Q3	2002: Q4	2003 Q1	2003 Q2	2003 H2	2004
Real exports	8.7	4.6	-1.0	4.0	7.7	9.1	8.8
December GB	*8.7*	*3.3*	*5.9*	*3.2*	*6.7*	*8.3*	*7.7*
Real imports	15.2	3.3	2.9	2.5	9.1	7.2	9.2
December GB	*15.2*	*2.3*	*5.6*	*4.6*	*8.7*	*7.2*	*8.4*

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

Alternative Simulations

Our baseline forecast projects that oil prices will begin to decline in coming months as current supply disruptions are alleviated. However, the effect of the prolonged strike in Venezuela serves as a reminder that geopolitical events can disrupt oil supplies and cause oil prices to rise significantly higher than projected in the Greenbook baseline forecast. In our first alternative scenario, we used the FRB/Global model to consider the effects of a $20 per barrel increase in the price of West Texas intermediate crude oil beginning in 2003:Q1 and lasting four quarters. Oil prices then return to baseline values in 2004:Q1. Our second alternative scenario combines this rise in oil prices with shocks to consumer and business confidence in both the United States and foreign economies.

The oil price shock by itself reduces U.S. real GDP growth by 0.3 percentage point in 2003. Higher oil prices weaken consumer spending by depressing household disposable income, and accelerator effects lead to a decline in investment. However, because the shock lasts only four quarters, output growth rebounds in 2004, bringing the level of GDP back to baseline. The shock increases the core PCE inflation rate about 0.4 percentage point in the second half of 2003, as increased production costs put upward pressure on prices. Reflecting lags in the response of core PCE prices to oil prices, inflation remains elevated in the first half of 2004 before moving down thereafter.

Our second simulation adds shocks to consumer and business confidence to the direct income effects of the oil price increase. The magnitude of such shocks is inherently uncertain. In this exercise, we have calibrated these shocks by adjusting the residuals of the FRB/Global model's U.S. consumption and investment equations to be consistent with their historical response to changes in oil prices. For the United States, the confidence shocks used in this exercise are roughly equivalent to an autonomous decline in consumption and investment spending that would reduce the level of U.S. real GDP about ½ percent after one year in the absence of endogenous adjustment. The shocks for foreign countries were calibrated to generate declines in foreign output of roughly comparable magnitude. (All confidence shocks die out in 2004.) In this simulation, U.S. real GDP growth falls 1 percentage point below baseline in 2003, considerably more than in the case without confidence effects. Output growth rebounds in 2004 as household and business confidence recovers. Core PCE inflation rises in 2003 by a magnitude similar to the case without confidence effects but falls more quickly in 2004, reflecting the lagged response of inflation to lower aggregate demand induced by the fall in confidence.

Alternative Simulations:
Oil Price Rises $20 per Barrel for Four Quarters
(Percent change from previous period, annual rate)

Indicator and simulation	2003		2004	
	H1	H2	H1	H2
U.S. real GDP				
Baseline	2.8	4.5	5.0	4.5
Simulation 1: Oil price rise without confidence effects	2.5	4.2	5.3	5.0
Simulation 2: Oil price rise with confidence effects	1.7	3.6	5.8	5.1
U.S. PCE prices excl. food and energy				
Baseline	1.3	1.4	1.3	1.2
Simulation 1: Oil price rise without confidence effects	1.5	1.8	1.7	1.0
Simulation 2: Oil price rise with confidence effects	1.5	1.7	1.5	.8

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

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Strictly Confidential (FR) January 22, 2003
Class II FOMC

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

							-----Projected----		
Measure and country	1996	1997	1998	1999	2000	2001	2002	2003	2004
REAL GDP (1)									
Total foreign	4.1	4.2	1.6	4.9	4.2	0.1	2.9	2.9	3.5
Industrial Countries	2.7	3.4	2.7	4.1	3.5	0.3	2.6	2.2	2.6
of which:									
Canada	2.7	4.4	4.4	5.7	3.5	0.8	3.8	2.9	3.1
Japan	3.3	0.3	-1.3	-0.5	5.2	-2.7	1.8	0.5	0.9
United Kingdom	2.8	3.7	2.6	3.2	2.2	1.6	2.3	2.4	3.0
Euro Area (2)	1.7	3.1	2.1	3.8	2.7	0.5	1.4	1.6	2.6
Germany	1.4	1.7	0.7	3.3	1.9	0.1	0.8	0.8	2.3
Developing Countries	6.2	5.3	-0.2	6.2	5.3	-0.3	3.2	4.1	4.8
Asia	6.6	4.9	-2.0	8.8	6.3	1.0	4.9	5.2	5.8
Korea	6.4	3.4	-5.2	13.8	5.1	4.4	6.0	5.3	5.5
China	5.3	8.7	9.5	4.1	8.0	7.5	8.1	7.5	7.7
Latin America	6.3	6.1	1.2	4.2	4.5	-1.5	1.9	3.2	4.3
Mexico	7.1	6.7	2.8	5.4	4.9	-1.5	2.7	4.0	5.0
Brazil	5.3	2.2	-1.7	3.5	4.2	-0.8	2.9	1.7	2.0
CONSUMER PRICES (3)									
Industrial Countries	1.5	1.5	0.9	1.2	1.9	1.0	2.1	1.3	1.3
of which:									
Canada	2.0	1.0	1.1	2.3	3.1	1.1	3.8	2.1	2.4
Japan	0.2	2.1	0.7	-1.2	-1.2	-1.3	-0.4	-0.7	-0.8
United Kingdom (4)	3.2	2.7	2.5	2.2	2.1	2.0	2.6	2.7	2.3
Euro Area (2)	1.9	1.5	0.8	1.5	2.7	2.1	2.2	1.6	1.4
Germany	1.3	1.5	0.3	1.1	2.5	1.7	1.1	0.9	0.7
Developing Countries	11.1	6.8	9.0	4.6	4.1	2.8	2.9	3.0	2.8
Asia	4.8	2.7	4.4	0.1	1.8	1.0	0.7	1.6	1.9
Korea	5.0	4.9	5.8	1.2	2.5	3.3	3.4	3.7	3.0
China	6.8	0.9	-1.2	-0.9	0.9	-0.2	-0.8	0.1	1.2
Latin America	25.8	15.5	15.4	12.5	8.4	5.4	6.5	5.4	4.3
Mexico	28.0	17.0	17.3	13.5	8.8	5.2	5.3	4.3	3.5
Brazil	9.6	4.6	2.0	8.4	6.4	7.5	10.7	11.9	8.7

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

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

					Projected							
	2002				2003				2004			
Measure and country	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
REAL GDP (1)	Quarterly changes at an annual rate											
Total foreign	2.7	3.9	3.0	1.8	2.4	3.0	3.1	3.3	3.5	3.5	3.5	3.5
Industrial Countries	3.2	3.2	2.6	1.5	1.9	2.1	2.3	2.5	2.6	2.7	2.6	2.6
of which:												
Canada	5.7	4.4	3.1	2.0	2.6	2.9	3.0	3.2	3.3	3.3	3.0	2.9
Japan	0.2	3.8	3.2	0.2	0.4	0.5	0.6	0.6	0.8	0.9	1.0	1.0
United Kingdom	1.0	2.6	3.8	1.8	2.2	2.3	2.3	2.7	3.0	3.1	2.9	2.9
Euro Area (2)	1.7	1.3	1.3	1.2	1.1	1.4	1.8	2.1	2.4	2.5	2.7	2.7
Germany	1.1	0.6	1.1	0.5	0.3	0.5	1.0	1.4	1.8	2.2	2.5	2.5
Developing Countries	1.9	5.1	3.6	2.2	3.1	4.3	4.3	4.5	4.8	4.8	4.9	4.9
Asia	5.9	6.8	2.6	4.1	5.0	5.1	5.3	5.5	5.8	5.8	5.9	5.9
Korea	7.9	5.8	5.1	5.1	5.0	5.2	5.4	5.5	5.5	5.5	5.5	5.5
China	8.5	9.3	7.5	7.2	7.5	7.5	7.5	7.5	7.7	7.7	7.7	7.7
Latin America	-1.2	3.8	4.4	0.6	1.7	3.8	3.6	3.8	4.3	4.3	4.3	4.3
Mexico	-0.2	5.4	4.0	1.5	3.6	3.9	4.2	4.5	5.0	5.0	5.0	5.0
Brazil	3.4	3.5	3.8	1.0	1.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
CONSUMER PRICES (3)	Four-quarter changes											
Industrial Countries	1.2	1.0	1.4	2.1	2.0	1.7	1.5	1.3	1.2	1.2	1.3	1.3
of which:												
Canada	1.5	1.3	2.3	3.8	3.5	2.9	2.3	2.1	2.1	2.1	2.2	2.4
Japan	-1.5	-1.1	-0.9	-0.4	-0.3	-0.5	-0.7	-0.7	-0.8	-0.8	-0.8	-0.8
United Kingdom (4)	2.4	1.9	2.0	2.6	3.0	3.3	3.2	2.7	2.1	2.1	2.2	2.3
Euro Area (2)	2.6	2.1	2.0	2.2	2.0	1.8	1.9	1.6	1.4	1.4	1.4	1.4
Germany	2.0	1.1	1.0	1.1	0.5	0.6	0.8	0.9	0.7	0.7	0.8	0.7
Developing Countries	2.6	2.5	2.7	2.9	3.3	3.1	3.0	3.0	3.0	2.9	2.9	2.8
Asia	0.8	0.6	0.5	0.7	0.9	0.9	1.2	1.6	1.8	1.9	1.9	1.9
Korea	2.6	2.6	2.5	3.4	4.1	3.6	3.8	3.7	3.1	3.0	3.0	3.0
China	-0.6	-1.0	-0.8	-0.8	-0.9	-0.9	-0.6	0.1	0.7	1.1	1.2	1.2
Latin America	5.1	5.4	6.0	6.5	7.5	6.9	6.0	5.4	4.9	4.7	4.5	4.3
Mexico	4.8	4.8	5.2	5.3	6.2	5.5	4.7	4.3	4.0	3.9	3.7	3.5
Brazil	7.7	7.9	7.7	10.7	13.8	15.0	14.8	11.9	9.4	8.8	8.7	8.7

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

OUTLOOK FOR U.S. INTERNATIONAL TRANSACTIONS

	1996	1997	1998	1999	2000	2001	2002 (Projected)	2003 (Projected)	2004 (Projected)
NIPA REAL EXPORTS and IMPORTS									
	Percentage point contribution to GDP growth, Q4/Q4								
Net Goods & Services	-0.2	-0.8	-1.1	-1.0	-0.8	-0.1	-0.7	-0.2	-0.4
Exports of G&S	1.1	1.0	0.3	0.5	0.8	-1.3	0.5	0.7	0.9
Imports of G&S	-1.3	-1.7	-1.3	-1.5	-1.5	1.2	-1.2	-0.9	-1.3
	Percentage change, Q4/Q4								
Exports of G&S	9.8	8.5	2.3	4.9	7.3	-11.4	5.2	7.4	8.8
Services	8.9	1.4	2.9	3.2	4.8	-9.2	11.4	5.4	5.5
Computers	21.6	25.8	8.1	13.4	23.0	-23.4	1.0	33.5	33.5
Semiconductors	44.6	21.3	9.1	34.6	26.9	-34.9	11.0	34.2	36.0
Other Goods 1/	7.3	9.8	1.3	3.2	5.7	-9.3	2.2	5.3	6.8
Imports of G&S	11.2	14.3	10.8	11.9	11.1	-8.0	9.0	6.5	9.2
Services	5.3	14.0	8.5	5.9	10.9	-8.6	9.6	2.1	5.9
Oil	7.8	3.9	4.1	-3.4	13.3	0.1	3.6	-0.1	4.2
Computers	17.8	33.0	25.8	26.0	13.6	-13.8	14.7	32.9	33.5
Semiconductors	56.7	32.9	-8.7	34.2	22.5	-51.4	13.3	34.2	36.0
Other Goods 2/	10.4	12.7	11.5	12.7	10.4	-6.2	8.7	5.8	7.9
	Billions of chained 1996 dollars								
Net Goods & Services	-89.0	-113.3	-221.1	-320.5	-398.8	-415.9	-481.0	-516.8	-564.0
Exports of G&S	874.2	981.5	1002.4	1036.3	1137.2	1076.1	1062.2	1118.4	1213.2
Imports of G&S	963.1	1094.8	1223.5	1356.8	1536.0	1492.0	1543.2	1635.2	1777.2
	Billions of dollars								
US CURRENT ACCOUNT BALANCE	-117.8	-128.4	-203.8	-292.9	-410.3	-393.4	-499.1	-553.7	-604.8
Current Acct as Percent of GDP	-1.5	-1.5	-2.3	-3.2	-4.2	-3.9	-4.8	-5.1	-5.3
Net Goods & Services (BOP)	-101.8	-107.8	-166.9	-262.2	-378.7	-358.3	-429.6	-499.0	-533.8
Investment Income, Net	28.6	25.1	12.7	23.9	27.6	20.5	-4.6	7.1	0.5
Direct, Net	69.4	72.4	65.5	75.0	88.9	102.6	81.0	92.6	93.2
Portfolio, Net	-40.8	-47.3	-52.9	-51.1	-61.2	-82.1	-85.6	-85.5	-92.7
Other Income & Transfers,Net	-44.6	-45.7	-49.6	-54.5	-59.3	-55.6	-65.0	-61.8	-71.5

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

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Class II FOMC

January 22, 2003

OUTLOOK FOR U.S. INTERNATIONAL TRANSACTIONS

	1999 Q1	1999 Q2	1999 Q3	1999 Q4	2000 Q1	2000 Q2	2000 Q3	2000 Q4	2001 Q1	2001 Q2	2001 Q3	2001 Q4
NIPA REAL EXPORTS and IMPORTS												
Percentage point contribution to GDP growth												
Net Goods & Services	-1.8	-1.4	-0.7	0.1	-1.1	-1.0	-0.7	-0.2	0.5	-0.4	-0.2	-0.3
Exports of G&S	-0.8	0.4	1.1	1.3	0.8	1.5	1.2	-0.5	-0.7	-1.4	-2.0	-1.0
Imports of G&S	-1.0	-1.9	-1.8	-1.2	-1.9	-2.5	-1.9	0.3	1.2	1.0	1.7	0.7
Percentage change from previous period, s.a.a.r.												
Exports of G&S	-6.9	4.3	10.6	12.6	7.7	14.6	11.6	-4.0	-6.0	-12.4	-17.3	-9.6
Services	-1.5	3.4	4.7	6.4	10.2	11.2	-5.9	4.4	-6.0	-2.5	-13.9	-13.8
Computers	0.8	24.7	20.6	9.2	33.5	45.9	28.8	-8.8	-7.3	-41.7	-22.8	-17.6
Semiconductors	34.2	45.2	41.3	19.0	14.6	90.9	43.4	-17.5	-34.6	-47.3	-40.9	-11.7
Other Goods 1/	-12.0	0.9	10.8	15.5	4.2	9.1	16.7	-5.9	-2.9	-10.5	-16.5	-6.9
Imports of G&S	8.4	15.4	14.5	9.4	14.7	18.6	13.8	-1.6	-7.9	-6.8	-11.8	-5.3
Services	0.2	6.8	9.7	7.1	20.7	9.6	15.1	-0.5	0.3	8.5	-23.2	-16.5
Oil	3.9	29.8	-5.8	-31.5	28.6	40.4	-2.3	-6.5	23.3	7.2	-26.9	3.9
Computers	35.0	43.7	14.4	13.5	2.5	40.4	27.9	-9.5	-21.6	-24.5	-18.7	14.6
Semiconductors	23.0	67.9	16.3	35.0	23.5	50.0	69.8	-28.5	-43.9	-68.8	-55.9	-27.5
Other Goods 2/	7.8	12.2	17.4	13.4	13.1	15.5	12.3	1.3	-9.4	-6.2	-4.6	-4.5
Billions of chained 1996 dollars, s.a.a.r.												
Net Goods & Services	-283.2	-319.6	-339.6	-339.5	-368.8	-394.6	-413.1	-418.5	-404.5	-414.8	-419.0	-425.3
Exports of G&S	1007.5	1018.1	1044.1	1075.6	1095.8	1133.9	1165.5	1153.7	1135.8	1098.8	1048.0	1021.8
Imports of G&S	1290.7	1337.7	1383.7	1415.2	1464.6	1528.5	1578.6	1572.2	1540.3	1513.6	1467.0	1447.2
Billions of dollars, s.a.a.r.												
US CURRENT ACCOUNT BALANCE	-238.7	-280.6	-320.6	-331.6	-376.4	-392.3	-428.7	-443.9	-430.9	-396.9	-365.3	-380.3
Current Account as % of GDP	-2.6	-3.1	-3.4	-3.5	-3.9	-4.0	-4.3	-4.5	-4.3	-3.9	-3.6	-3.7
Net Goods & Services (BOP)	-209.5	-253.4	-286.5	-299.6	-348.7	-367.7	-393.3	-405.0	-388.6	-373.3	-319.1	-352.1
Investment Income, Net	20.8	24.9	18.3	31.5	25.1	30.6	22.1	32.8	10.3	30.1	9.4	32.4
Direct, Net	72.3	71.4	71.3	85.0	79.0	86.9	89.2	100.3	89.0	111.3	95.6	114.4
Portfolio, Net	-51.5	-46.5	-53.0	-53.5	-53.9	-56.3	-67.1	-67.5	-78.7	-81.2	-86.3	-82.0
Other Inc. & Transfers, Net	-50.0	-52.1	-52.4	-63.5	-52.8	-55.3	-57.5	-71.7	-52.5	-53.7	-55.6	-60.6

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

Strictly Confidential (FR)
Class II FOMC

January 22, 2003

OUTLOOK FOR U.S. INTERNATIONAL TRANSACTIONS

	2002				2003 (Projected)				2004 (Projected)			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
NIPA REAL EXPORTS and IMPORTS												
Percentage point contribution to GDP growth												
Net Goods & Services	-0.7	-1.4	0.0	-0.5	0.0	-0.5	-0.3	0.1	-0.6	-0.6	-0.5	-0.0
Exports of G&S	0.3	1.3	0.5	-0.1	0.4	0.7	0.8	1.0	0.7	0.9	0.9	1.1
Imports of G&S	-1.1	-2.7	-0.4	-0.4	-0.4	-1.3	-1.1	-0.9	-1.2	-1.5	-1.4	-1.1
Percentage change from previous period, s.a.a.r.												
Exports of G&S	3.5	14.3	4.6	-1.0	4.0	7.7	8.1	10.1	6.5	8.8	8.9	11.0
Services	21.7	10.7	5.9	8.1	4.4	6.1	5.5	5.5	5.4	5.6	5.5	5.6
Computers	-21.1	-0.5	-0.8	33.5	33.5	33.5	33.5	33.5	33.5	33.5	33.5	33.5
Semiconductors	13.7	65.8	21.3	-33.7	31.1	33.5	36.0	36.0	36.0	36.0	36.0	36.0
Other Goods 1/	-3.1	14.2	3.3	-4.4	0.6	5.4	6.0	9.3	3.4	6.9	6.9	10.2
Imports of G&S	8.5	22.2	3.3	2.9	2.5	9.1	7.9	6.5	8.8	10.8	9.7	7.7
Services	35.7	-2.1	3.1	5.3	-0.6	0.2	3.9	5.0	6.3	6.2	5.7	5.3
Oil	-19.0	34.5	-13.3	22.2	-23.1	45.1	9.8	-18.7	-0.5	26.8	10.9	-15.6
Computers	52.4	5.6	-4.4	12.6	31.1	33.5	33.5	33.5	33.5	33.5	33.5	33.5
Semiconductors	45.2	41.8	-5.9	-15.1	31.1	33.5	36.0	36.0	36.0	36.0	36.0	36.0
Other Goods 2/	1.9	28.8	6.3	0.2	4.4	5.4	6.3	7.2	7.7	8.2	8.0	7.7
Billions of chained 1996 dollars, s.a.a.r.												
Net Goods & Services	-446.6	-487.4	-488.0	-501.9	-501.3	-516.1	-525.6	-524.2	-541.4	-560.8	-576.2	-577.7
Exports of G&S	1030.6	1065.5	1077.7	1075.0	1085.6	1105.8	1127.4	1154.9	1173.4	1198.5	1224.3	1256.6
Imports of G&S	1477.1	1552.9	1565.7	1576.9	1586.8	1621.8	1653.1	1679.1	1714.7	1759.3	1800.5	1834.3
Billions of dollars, s.a.a.r.												
US CURRENT ACCOUNT BALANCE	-449.8	-510.4	-506.2	-530.0	-542.9	-552.1	-555.2	-564.4	-580.1	-598.5	-616.6	-624.1
Current Account as % of GDP	-4.4	-4.9	-4.8	-5.0	-5.1	-5.1	-5.1	-5.1	-5.2	-5.2	-5.3	-5.3
Net Goods & Services (BOP)	-382.0	-437.3	-441.4	-457.6	-488.2	-503.5	-505.0	-499.3	-513.7	-530.7	-544.7	-546.0
Investment Income, Net	2.7	-14.5	-5.5	-1.0	3.8	9.9	8.2	6.4	5.1	3.7	-0.4	-6.6
Direct, Net	88.3	75.2	75.3	85.4	89.3	94.6	93.5	92.9	92.7	92.7	93.2	94.3
Portfolio, Net	-85.5	-89.7	-80.8	-86.4	-85.5	-84.7	-85.2	-86.5	-87.6	-88.9	-93.6	-100.8
Other Inc. & Transfers, Net	-70.6	-58.7	-59.2	-71.5	-58.5	-58.5	-58.5	-71.5	-71.5	-71.5	-71.5	-71.5

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