May 2002

Business Situation

Advance Estimates for the First Quarter of 2002

A FTER six quarters of subpar performance, the U.S. economy surged in the first quarter of 2002; production, purchases, and incomes increased sharply, while inflation remained very low (chart 1). Real gross domestic product (GDP) increased 5.8 percent, and real gross domestic purchases increased 6.9 percent; in the fourth quarter of 2001, each had increased 1.7 percent, and in the third quarter, each had decreased (table 1). Real disposable personal income increased 10.5 percent after decreasing almost that much in the fourth quarter. Prices of goods and services purchased by U.S. residents increased 0.7 percent, about the same as in the fourth quarter.

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The "advance" estimates of the national income and product accounts (NIPA's) also show that in the first quarter, real inventory investment increased substantially—that is, the rate of inventory liquidation slowed substantially—and contributed 3.1 percentage points to the growth in real GDP (table 2).² In the preceding six quarters, inventory investment had subtracted from GDP growth. Final sales of domestic product—GDP less inventory investment—increased 2.6 percent in the first quarter after increasing 3.8 percent in the fourth.

An increase in consumer spending contributed 2.5 percentage points to GDP growth in the first quarter.³ Increased purchases of nondurable goods and of services more than offset decreased purchases of durable goods. (In the fourth quarter, durable goods had increased very sharply, mainly on the strength of an exceptional rise in motor vehicle purchases.)

Table 1. Real Gross Domestic Product, Real Gross Domestic Purchases, and Real Final Sales to Domestic Purchasers
[Seasonally adjusted at annual rates]

		Billions of chained (1996) dollars Level Change from preceding quarter				Percent change from preceding quarter			
	Level					rescent change from preceding qua			iarter
	2002	2001 2002			2001			2002	
	I	II	III	IV	Ī	II	III	IV	I
Gross domestic product	9,482.1	7.2	-31.3	38.2	133.5	0.3	-1.3	1.7	5.8
Less: Exports of goods and services	1,039.1 1,487.6	-35.8 -33.6	−56.1 −51.8	-30.0 -28.3	16.9 52.7	-11.9 -8.4	-18.8 -13.0	-10.9 -7.5	6.8 15.5
Equals: Gross domestic purchases	9,900.8	10.0	-25.3	41.9	163.8	0.4	-1.0	1.7	6.9
Less: Change in private inventories	-36.2	-11.2	-23.6	-57.4	83.1				
Equals: Final sales to domestic purchasers	9,920.6	19.9	-6.2	92.8	90.3	0.8	-0.3	3.9	3.7
Personal consumption expenditures Durable goods Nondurable goods Services. Private fixed investment Nonresidential Structures. Equipment and software Residential. Government consumption expenditures and gross investment Federal National defense Nondefense State and local	6,597.5 1,000.5 1,932.4 3,692.4 1,621.3 1,226.8 236.4 1,004.4 390.0 1,695.8 591.9 390.2 201.7 1,103.4	39.9 15.7 1.4 24.7 -43.9 -53.0 -9.4 -44.5 5.4 19.6 2.5 2.1 0.5 16.9	15.5 2.1 2.6 10.6 -24.8 -28.9 -5.5 -23.8 2.2 1.1 4.9 2.9 2.0 -3.6	96.4 81.5 11.6 17.8 -49.7 -47.0 -26.9 -13.8 -4.5 39.8 7.9 7.3 24.6	57.2 -21.2 38.8 34.2 -0.6 -18.2 -13.5 -1.2 14.0 31.9 17.0 0.1 15.0	2.5 7.0 0.3 2.8 -9.7 -14.6 -12.2 -15.4 5.9 5.0 2.3 0.9 6.6	1.0 0.9 0.6 1.2 -5.7 -8.5 -7.5 -2.4 0.3 3.6 3.2 4.2 -1.3	6.1 39.4 2.5 2.0 -11.4 -13.8 -35.6 -4.6 10.2 11.4 9.0 9.6	3.5 -8.0 8.4 3.8 -0.2 -5.7 -19.9 -0.5 15.7 7.9 12.4 19.6 0.2 5.6
Addendum: Final sales of domestic product	9,501.8	17.0	-12.3	88.4	60.9	0.7	-0.5	3.8	2.6

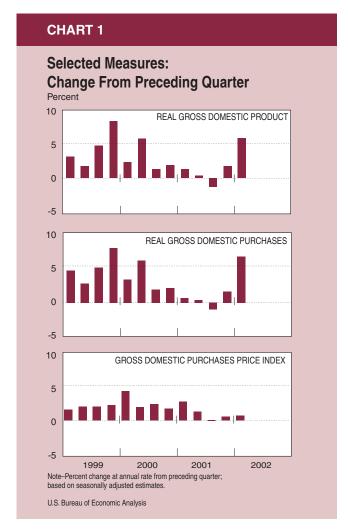
^{1.} Quarterly estimates in the NIPA's are expressed at seasonally adjusted annual rates. Quarter-to-quarter dollar changes are the differences between the published estimates. Quarter-to-quarter percent changes are annualized and are calculated from unrounded data unless otherwise specified.

Real estimates are calculated using a chain-type Fisher formula with annual weights for all years and quarterly weights for all quarters; real estimates are expressed both as index numbers (1996=100) and as chained (1996) dollars. Price indexes (1996=100) are also calculated using a chain-type Fisher formula.

^{2.} In the NIPA's, inventory investment is shown as "change in private inventories." Inventory investment increased (that is, became less negative) from -\$119.3 billion in the fourth quarter to -\$36.2 billion in the first.

^{3.} In the NIPA's, consumer spending is shown as personal consumption expenditures and government spending is shown as government consumption expenditures and gross investment.

An increase in government spending contributed 1.4 percentage points to GDP growth. An increase in Federal Government spending was concentrated in national defense; an increase in State and local government spending was primarily accounted for by investment in structures.



The NIPA estimates also show the following:

- Residential investment increased 15.7 percent, the biggest increase in almost 6 years.
- •Exports and imports both increased after five consecutive decreases. Exports increased 6.8 percent; imports, which are subtracted in the calculation of GDP, increased 15.5 percent.
- Nonresidential fixed investment decreased less than in the fourth quarter. Investment in structures decreased 19.9 percent after decreasing 33.6 percent. Investment in equipment and software decreased 0.5 percent after decreasing 5.3 percent; industrial equipment turned up, and computers and peripheral equipment increased somewhat more than in the fourth quarter.
- Though the pace of inventory liquidation slowed, the level of inventories dropped for the fifth consec-

Table 2. Contributions to Percent Change in Real Gross Domestic Product

[Seasonally adjusted at annual rates]

		2002		
	II III		IV	I
Percent change at annual rate: Gross domestic product	0.3	-1.3	1.7	5.8
Percentage points at annual rates: Personal consumption expenditures Durable goods Nondurable goods Services Gross private domestic investment Fixed investment Nonresidential Structures Equipment and software Residential Change in private inventories Net exports of goods and services Exports Goods Services Imports Goods Services Imports Goods Services Government consumption expenditures and gross investment Federal National defense Nondefense State and local	1.72 0.56 0.06 1.10 -2.16 -1.74 -1.99 -0.44 -1.55 0.25 -0.42 -0.12 -1.37 -1.45 1.25 1.21 0.05	0.67 0.07 0.12 0.48 -1.79 -0.97 -1.08 -0.26 -0.82 0.10 -0.27 -2.13 -1.55 -0.58 1.20 0.66	4.14 2.84 0.50 0.80 -4.12 -1.96 -1.75 -1.27 -0.47 -0.14 -1.14 -0.72 -0.42 1.00 0.40 0.59 1.76 0.34 0.34	2.53 -0.72 1.66 1.59 3.10 -0.01 -0.63 -0.63 -0.63 -0.65 3.10 -1.22 0.64 -0.07 -1.02 -0.85 -1.02 -0.85

Note. More detailed contributions to percent change in real gross domestic product are shown in NIPA table 8.2. Contributions to percent change in major components of real gross domestic product are shown in tables 8.3 froucula 8.6.

First-Quarter 2002 Advance GDP Estimate: Source Data and Assumptions

Effective with the release of "Advance Report on Durable Goods Manufacturers' Shipments, Inventories, and Orders" (M3) for March 2002, the Census Bureau suspended monthly estimates for the semiconductor industry after large manufacturers withdrew from the survey. As a result, BEA had to use less reliable information and analysts' judgment as the basis for its estimate of inventory change in the semiconductor industry for March. (Shipments of semiconductors are not used as the basis for NIPA estimates of investment in equipment and software, because semiconductors are considered to be intermediate purchases.)

The "advance" estimate for the first quarter is based on the following major source data; as more and better data become available, the GDP estimate will be revised. (The number of months for which data were available is shown in parentheses.)

Personal consumption expenditures: Sales of retail stores (3), unit auto and truck sales (3), and consumers' shares of new-car and new-truck purchases (2);

Nonresidential fixed investment: Unit auto and truck sales (3), construction put in place (2), manufacturers' shipments of machinery and equipment other than aircraft (3), shipments of civilian aircraft (2), and exports and imports of machinery and equipment (2);

Residential investment: Construction put in place (2), single-family housing starts (3), sales of new houses (3), and sales of existing houses (2);

Change in private inventories: Trade and nondurable manufacturing inventories (2), durable manufacturing inventories other than semiconductors (3), and unit auto and truck inventories (3);

Net exports of goods and services: Exports and imports of goods and services (2);

Government consumption expenditures and gross investment: Some Federal outlays were available for 2 months, others for 3, State and local construction put in place (2), and State and local employment (3).

GDP prices: Consumer price indexes (3), producer price indexes (3), U.S. import and export price indexes (3), and values and quantities of petroleum imports (2).

BEA made assumptions for source data that were not available. Table A shows the assumptions for key series; a more comprehensive list is available on BEA's Web site at <www.bea.gov>.

Table A. Summary of Major Data Assumptions for Advance Estimates, 2002:1

[Billions of dollars, seasonally adjusted at annual rates]

	2001			2002			
	October	November	December	January	February	March 1	
Private fixed investment: Nonresidential structures: Buildings: Value of new nonresidential construction put in place	198.1	193.0	190.8	187.5	181.9	181.0	
Equipment and software:	44.9	49.1	36.9	36.6	39.2	43.3	
Residential structures: Value of new residential construction put in place: 1-unit structures 2-units-or-more	248.9 31.5	247.9 32.1	246.6 34.7	250.9 35.3	258.7 34.7	259.3 34.8	
Change in private inventories: Change in inventories for nondurable manufacturing	-14.8	-21.2	-13.9	-11.0	-4.2	-5.9	
Change in inventories for merchant wholesale and retail industries other than motor vehicles and equipment	-52.3	-58.0	-17.9	-8.0	-21.0	-20.9	
Net exports: ² Exports of goods: U.S. exports of goods, international–transactions–accounts basis	677.5 675.0	672.2 669.2	659.4 656.4	660.0 657.6	661.4 659.0	667.8 665.4	
U.S. imports of goods, international–transactions–accounts basis Excluding gold Net exports of goods. Excluding gold	1,098.4 1,095.5 -421.0 -420.5	1,083.4 1,080.5 -411.3 -411.3	1,031.2 1,029.8 -371.8 -373.5	1,065.4 1,063.7 -405.3 -406.1	1,104.6 1,102.6 -443.2 -443.6	1,135.4 1,132.9 -467.5 -467.5	
Government: State and local: Structures: Value of new construction put in place	183.1	189.5	192.7	204.0	199.9	201.4	

^{2.} Nonmonetary gold is included in balance-of-payments-basis exports and imports but is not used directly in the estimation of NIPA exports and imports.

- utive quarter. The ratio of real private inventories to final sales fell from 2.16 to a record low of 2.13.4
- The production of goods and services stepped up, and the production of structures increased after decreasing (table 3).
- Real final sales of computers decreased 20.5 percent, the third decrease in the past four quarters. Excluding final sales of computers, GDP increased 6.1 percent in the first quarter after increasing 1.4 percent in the fourth.
- Real motor vehicle output increased 4.1 percent, less than half as much as in the fourth quarter.⁵ Final sales of motor vehicles to domestic purchasers turned down sharply. Inventories increased modestly after a record drop in the fourth quarter. The inventory-sales ratio for new domestic autos, which is calculated from units data, increased to 2.3 at the end of the first quarter from 1.8 at the end of the fourth.

Table 3. Real Gross Domestic Product by Type of Product

[Seasonally adjusted at annual rates]

	Billions of chained (1996) dollars					Percent change from preceding quarter			
	Level Change from preceding quarter					r ercent change from preceding qu			uaitei
	2002	2001 2002			2002	2001			2002
	I	Ш	III	IV	1	II	III	IV	I
Gross domestic product	9,482.1	7.2	-31.3	38.2	133.5	0.3	-1.3	1.7	5.8
Goods	3,726.1 4,952.8 805.2	-34.0 32.3 4.2	-40.8 21.3 -15.1	16.2 36.1 -13.2	78.5 47.0 11.7	-3.6 2.7 2.0	-4.4 1.8 -7.1	1.8 3.0 -6.4	8.9 3.9 6.1
Addenda: Motor vehicle output Gross domestic product less motor vehicle output	355.0 9,127.8	18.0 -9.1	6.9 -37.5	8.5 30.6	3.5 129.8	24.7 -0.4	8.5 -1.7	10.2 1.4	4.1 5.9
Final sales of computers						-26.5 0.6	-10.7 -1.2	31.2 1.4	-20.5 6.1

Note. See note to table 1 for an explanation of chained (1996) dollar series. Chained (1996) dollar levels and residuals for most items are shown in NIPA table 1.4. Detail on motor vehicle output is shown in NIPA table 8.9B.

^{4.} Other ratios (NIPA table 5.13B) also decreased, reaching their lowest levels since the mid-1960s.

^{5.} Estimates of real motor vehicle output are presented in NIPA table 9B.

Prices

The price index for gross domestic purchases, which measures the prices of goods and services purchased by U.S. residents, increased 0.7 percent in the first quarter after increasing 0.5 percent in the fourth (table 4) About 0.3 percentage point of the first-quarter increase was accounted for by a pay raise for Federal civilian and military personnel.⁶ The fourth-quarter increase had reflected insurance-related price effects associated with the September 11th terrorist attack; excluding these effects the index decreased 0.2 percent in the fourth quarter.⁷

Excluding food and energy prices, which are more volatile than most other prices, the price index for gross domestic purchases slowed to a 0.9-percent increase from a 2.0-percent increase (chart 2).

Prices of personal consumption expenditures (PCE) increased 0.6 percent, about the same as in the fourth quarter. Prices of energy goods and services decreased

Table 4. Price Indexes[Percent change at annual rates; based on seasonally adjusted index numbers (1996=100)]

		2002		
	II	III	IV	I
Gross domestic product	2.1	2.3	-0.1	0.8
Less: Exports of goods and services	-1.0 -6.0	-1.7 -17.1	-3.0 2.4	-0.6 -1.2
Equals: Gross domestic purchases	1.3	-0.1	0.5	0.7
Less: Change in private inventories				
Equals: Final sales to domestic purchasers	1.3	-0.1	0.5	0.7
Personal consumption expenditures Durable goods Nondurable goods Services. Private fixed investment Nonresidential Structures. Equipment and software. Residential Government consumption expenditures and gross investment Federal. National defense Nondefense State and local	1.3 -3.5 2.7 1.7 0.6 -0.1 4.7 -1.9 2.6 1.8 1.2 1.0 1.7 2.1	-0.2 -2.8 -1.5 0.9 0.3 -0.5 2.7 -1.7 2.5 0 0.2 0.3 -0.5	0.8 -1.6 -3.2 -0.1 -1.6 1.0 -2.5 3.8 -0.3 -0.5 -0.8	0.6 -4.3 0.2 1.9 -1.8 -2.1 -2.3 -2.0 -1.0 3.2 6.9 7.0 6.7
Addenda: Gross domestic purchases: Food. Energy. Less food and energy. Personal consumption expenditures: Food. Energy goods and services' Less food and energy.	2.6 6.1 0.9 2.6 9.2 0.7	3.7 -21.0 0.6 3.8 -20.6 0.5	2.5 -33.0 2.0 2.4 -31.8 2.7	2.3 -8.8 0.9 2.4 -9.2 0.8

^{1.} Consists of gasoline, fuel oil, and other energy goods and of electricity and gas. Nors. Percent changes in major aggregates are shown in NIPA table 8.1. Index numbers are shown in tables 7.17, 7.2, and 7.4.

9.2 percent after decreasing more than 30 percent. Smaller first-quarter decreases were posted by gasoline and oil, by fuel oil and coal, and by electricity and gas.⁸ Excluding food and energy prices, PCE prices slowed to a 0.8-percent increase after increasing 2.7 percent. Prices of PCE services decelerated, partly reflecting slowdowns in prices of insurance and medical services, both of which had posted large increases in the fourth quarter in the aftermath of the terrorist attacks. Prices of durable goods decreased more than in the fourth quarter, partly reflecting a downturn in prices of motor vehicles and parts.

Prices paid by government increased 3.2 percent after two quarters of little or no change. Prices paid by the Federal Government increased 6.9 percent after decreasing 0.5 percent; the increase partly reflected the pay raise. Prices paid by State and local governments increased 1.4 percent after a 0.2-percent decrease.

Prices of private nonresidential fixed investment decreased 2.1 percent after decreasing 1.6 percent. Prices of structures turned down, and prices of equipment and software decreased a little less than in the fourth quarter. Prices of residential investment decreased for the first time in 10 years.

The GDP price index, which measures the prices paid for goods and services produced in the United States, increased 0.8 percent after decreasing 0.1 percent. This index, unlike the price index for gross domestic purchases, includes the prices of exports and

^{8.} On a month-to-month basis, prices of all three components of PCE energy increased in March: Electricity and gas increased slightly; fuel oil and coal, moderately; and gasoline and fuel oil, sharply.



^{6.} In the NIPA's, an increase in the rate of Federal employee compensation is treated as an increase in the price of employee services purchased by the Federal Government.

^{7.} In terms of the NIPA's, the effects of the terrorist attacks, including the insurance-related price effects, were discussed in several recent "Business Situation" articles. For the most extensive treatment, see the box "The Terrorist Attacks of September 11th as Reflected in the National Income and Product Accounts," Survey of Current Business 81 (November 2001): 2–3. Revised estimates were presented in the box "Adjustments for the Terrorist Attacks," Survey 81 (December 2001): 2.

excludes the prices of imports. Export prices decreased less than in the fourth quarter. Import prices decreased after increasing; the increase had been accounted for by a rebound in prices of imported services after a third-quarter drop that reflected payments from for-

eign insurers and reinsurers. Excluding the insurancerelated price effects on imports and on PCE (and a small effect on State and local government spending), the GDP index increased 0.9 percent in the fourth quarter.

Personal Income

Real disposable personal income (DPI) increased 10.5 percent in the first quarter after decreasing 8.1 percent in the fourth. Current-dollar personal income turned up sharply, and personal tax and nontax payments turned down sharply (chart 3 and table 5). As a result

of the sharper increase in DPI than in personal outlays (largely PCE), the personal saving rate increased to 2.1

CHART 3 Selected Personal Income and **Saving Measures** Billion \$ CHANGE IN PERSONAL INCOME 160 120 40 Percent 20 CHANGE IN REAL DISPOSABLE PERSONAL INCOME 10 -10 Percent PERSONAL SAVING RATE 2000 2001 Note-Changes are from preceding guarter; based on seasonally adjusted annual U.S. Bureau of Economic Analysis

 $\label{thm:come} \textbf{Table 5. Personal Income and Its Disposition} \\$

[Billions of dollars; seasonally adjusted at annual rates]

	Level	Change from preceding quarter				
	2002		2001		2002	
	I	II	III	IV	I	
Wage and salary disbursements	5,151.8 4,314.3 1,177.0 819.0 1,154.3 1,983.0 837.5	50.4 39.6 -1.9 -3.1 7.9 33.6 10.8	23.6 10.8 -6.9 -9.1 -0.1 17.8 12.9	-3.4 -14.1 -16.4 -17.2 -2.9 5.2 10.7	31.8 17.4 -4.1 -4.9 9.1 12.4 14.3	
Other labor income	567.6	2.9	3.2	3.1	9.1	
Proprietors' income with IVA and CCAdj Farm Nonfarm	760.6 26.1 734.6	10.1 -1.1 11.2	7.4 3.6 3.9	-11.9 -12.7 0.7	19.8 6.5 13.4	
Rental income of persons with CCAdj Personal dividend income Personal interest income	160.7 435.7 965.6	-0.6 7.1 -9.9	5.0 8.1 –9.5	3.7 8.4 –20.6	13.0 7.3 –5.3	
Transfer payments to persons	1,215.2	16.3	19.6	14.8	41.4	
$\textit{Less:} \ Personal \ contributions \ for \ social \ insurance \ldots$	379.3	1.9	0.2	-1.4	6.5	
Personal income	8,877.9	74.4	57.2	-4.6	110.7	
Less: Personal tax and nontax payments	1,244.9	6.2	-155.9	137.2	-87.8	
Equals: Disposable personal income	7,633.0	68.2	213.2	-141.9	198.5	
Less: Personal outlays	7,472.3	65.5	9.3	115.6	65.7	
Equals: Personal saving	160.7	2.7	203.8	-257.4	132.8	
Addenda: Special factors in personal income:						
In private wages and salaries: Effects of the September 11 terrorist attacks	0	0	-3.3	3.3	0	
In government wages and salaries: Federal pay raise Effects of the September 11 terrorist attacks	8.4 3.1	0	0 0.9	0 2.8	8.4 -0.6	
In transfer payments to persons: Social security retroactive payments	0 13.2	0	0	1.8 0.7	-1.8 12.5	
Correction for error in indexing for social security and supplemental security income benefits	0	0	4.2	-3.7	-0.5	
In personal tax and nontax payments: Federal tax law changes Refunds and State tax law changes	-42.6 -1.3	0 -6.1	0 4.6	0 2.2	-42.6 -0.2	

Note. Most dollar levels are in NIPA table 2.1. IVA Inventory valuation adjustment. CCAdj Capital consumption adjustment.

^{9.} DPI is personal income less personal tax and nontax payments. It is the income available to persons for spending or saving.

percent from 0.4 percent.10

The upturn in personal income mainly reflected an upturn in wage and salary disbursements, an upturn in proprietors' income, and a step-up in transfer payments to persons.

Wage and salary disbursements increased \$31.8 billion after a small decrease. More than half of a \$14.3 billion increase in disbursements by governments reflected the Federal pay raise. Disbursements by service industries and by distributive industries also increased. In contrast, disbursements by goods-producing industries decreased for the fourth consecutive quarter.

Proprietors' income increased \$19.8 billion after decreasing \$11.9 billion. An upturn in farm proprietors' income primarily reflected an upturn in crop prices. A step-up in nonfarm proprietors' income was mostly accounted for by commissions of real estate brokers.

The step-up in transfer payments partly reflected cost-of-living adjustments to several Federal programs.

Personal interest income and rental income of persons also contributed to the upturn in personal income in the first quarter. Interest income decreased much less than in the fourth quarter, primarily reflecting smaller decreases in interest rates. Rental income in-

creased more than in the fourth quarter, primarily reflecting a deceleration in expenses associated with mortgage originations.

Personal tax and nontax payments decreased after increasing. Federal withholding was reduced as a result of the new 10-percent tax bracket provided in the Economic Growth and Tax Relief and Reconciliation Act of 2001 and as a result of the indexation provisions of current tax law. Federal nonwithheld taxes (payments of estimated taxes plus final settlements less refunds) were reduced on the basis of Federal budget projections for 2002.

BEA Estimates of Wages and Salaries for 2001

The change in the national income and product accounts (NIPA) estimate of personal income from 2000 to 2001 is 4.9 percent, which is 1.2 percentage points (or \$90 billion) more than the change in the U.S. total of the State estimates of personal income that is published in this issue. As explained in the "Note on the Estimates of State Personal Income" on pages 36–37, the State estimates incorporate newly available Bureau of Labor Statistics tabulations of wages and salaries of employees covered by unemployment insurance for 2001. These and other data will be incorporated into the NIPA estimates in the upcoming annual NIPA revision, which is scheduled for release on July 31, 2002.

^{10.} The personal saving rate is measured as personal saving as a percentage of current-dollar DPI. The first-quarter estimate of the *national* saving rate (which is measured as gross saving as a percentage of gross national product) will be included in the "preliminary" estimate of first-quarter GDP, which will be released May 24, 2002.