

Business Situation

Preliminary Estimates for the Fourth Quarter of 2002

PRELIMINARY estimates of the national income and product accounts (NIPAs) show more economic growth in the fourth quarter of 2002 than was reported in last month's "advance" estimates.

- Real gross domestic product (GDP) increased 1.4 percent, according to the preliminary estimate, up from 0.7 percent in the advance estimate. Real GDP increased 4.0 percent in the third quarter (table 1 and chart 1).¹ Since the trough in real GDP in the

third quarter of 2001, growth has averaged 2.9 percent.

- Gross domestic purchases increased 2.8 percent in the fourth quarter, according to the preliminary estimate, up from 1.4 percent in the advance estimate. In the third quarter, gross domestic purchases increased 3.9 percent.

The larger-than-usual revisions mainly reflect new and revised estimates of inventory investment, based on revised source data from the Census Bureau. (The source data underlying the GDP revisions are dis-

1. Quarterly estimates in the NIPAs are expressed at seasonally adjusted annual rates, unless otherwise specified. Quarter-to-quarter dollar changes are differences between these published estimates. Percent changes are calculated from unrounded data and annualized. "Real" estimates are in chained (1996) dollars, and price indexes are chain-type measures.

This article was prepared by Daniel Larkins.

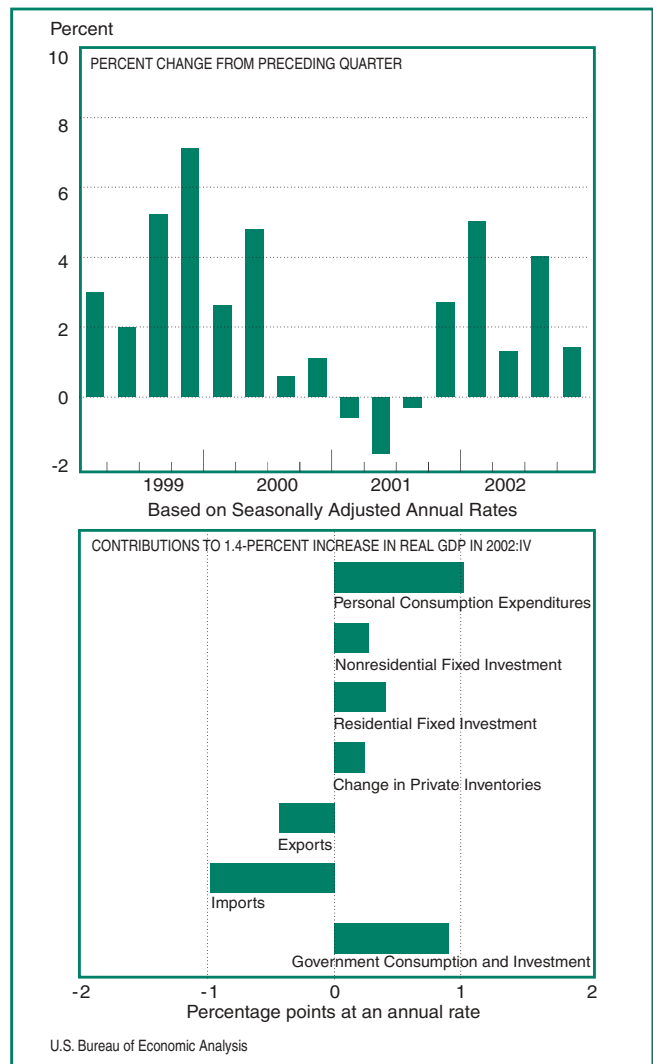
Table 1. Real Gross Domestic Product, Real Gross Domestic Purchases, and Real Final Sales to Domestic Purchasers

[Seasonally adjusted at annual rates]

	Billions of chained (1996) dollars					Percent change from preceding quarter			
	Level	Change from preceding quarter							
	2002	2002				2002			
	IV	I	II	III	IV	I	II	III	IV
Gross domestic product.....	9,519.5	114.4	29.2	93.2	33.9	5.0	1.3	4.0	1.4
Less: Exports of goods and services.....	1,065.5	8.8	34.9	12.2	-12.2	3.5	14.3	4.6	-4.4
Plus: Imports of goods and services.....	1,593.1	29.9	75.8	12.8	27.4	8.5	22.2	3.3	7.2
Equals: Gross domestic purchases.....	10,002.8	132.9	62.6	93.9	68.1	5.6	2.6	3.9	2.8
Less: Change in private inventories.....	24.7	69.5	33.8	13.9	5.9				
Equals: Final sales to domestic purchasers.....	9,968.3	72.1	31.6	80.1	62.2	3.0	1.3	3.3	2.5
Personal consumption expenditures.....	6,634.1	49.8	28.6	67.5	24.2	3.1	1.8	4.2	1.5
Durable goods.....	1,009.7	-16.1	4.8	51.7	-22.7	-6.3	2.0	22.8	-8.5
Nondurable goods.....	1,949.7	36.4	-0.5	4.9	23.9	7.9	-0.1	1.0	5.1
Services.....	3,704.3	25.6	24.0	20.8	17.3	2.9	2.7	2.3	1.9
Private fixed investment.....	1,589.2	-2.0	-3.8	-1.0	17.6	-0.5	-1.0	-0.3	4.5
Nonresidential.....	1,186.1	-18.0	-7.3	-2.4	7.4	-5.8	-2.4	-0.8	2.5
Structures.....	212.6	-9.5	-11.5	-13.5	-5.6	-14.2	-17.6	-21.4	-9.8
Equipment and software.....	992.8	-6.6	7.7	15.8	15.6	-2.7	3.3	6.7	6.6
Residential.....	395.9	12.6	2.5	1.0	8.8	14.2	2.7	1.1	9.4
Government consumption expenditures and gross investment.....	1,736.3	22.8	6.0	12.3	20.7	5.6	1.4	2.9	4.9
Federal.....	631.6	10.6	10.9	6.4	16.5	7.4	7.5	4.3	11.2
National defense.....	413.5	10.5	7.3	6.7	11.0	11.6	7.8	6.9	11.4
Nondefense.....	218.2	0.2	3.6	-0.2	5.5	0.4	6.9	-0.3	10.8
State and local.....	1,105.1	12.2	-4.6	5.9	4.5	4.6	-1.7	2.2	1.6
Addendum: Final sales of domestic product.....	9,485.3	54.5	-1.5	79.3	28.1	2.4	-0.1	3.4	1.2

NOTE: Chained (1996) dollar series are calculated as the product of the chain-type quantity index and the 1996 current-dollar value of the corresponding series, divided by 100. Because the formula for the chain-type quantity indexes uses weights of more than one period, the corresponding chained-dollar estimates usually are not additive. Chained (1996) dollar levels and residuals, which measure the extent of nonadditivity in each table, are shown in NIPA tables 1.2, 1.4, and 1.6. Percent changes are calculated from unrounded data. Percent changes in major aggregates are shown in NIPA table S.1. (See "Selected NIPA Tables," which begins on page D-2 in this issue.)

Chart 1. Real Gross Domestic Product



cussed at the end of this article.) In the preliminary estimates, inventory investment increased in the fourth quarter and contributed 0.24 percentage point to GDP growth; in the advance, it had decreased, subtracting 0.56 percentage point.²

In most other respects, the general picture presented in the preliminary estimates is similar to that in the advance estimates. In both, consumer spending, exports, and inventory investment contributed to the slow-down in real GDP growth from the third quarter to the fourth. (Although inventory investment did increase in the fourth quarter, that increase was smaller than the third-quarter increase.) According to the preliminary estimates,

- Consumer spending contributed 1.03 percentage points to fourth-quarter growth after contributing almost three times as much to third-quarter growth (table 2). Auto and truck purchases decreased after surging in the third quarter in response to aggressive sales-incentive programs that included generous rebates and zero-rate financing.
- Exports subtracted 0.44 percentage point from fourth-quarter growth, about as much as they had

2. In this article, “consumer spending” is shorthand for the NIPA series “personal consumption expenditures,” “government spending” is shorthand for “government consumption expenditures and gross investment,” and “inventory investment” is shorthand for “change in private inventories.”

added to third-quarter growth. Imports subtracted 0.98 percentage point from fourth-quarter growth, about twice as much as they had subtracted from third-quarter growth.

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

[Seasonally adjusted at annual rates]

	2002			
	I	II	III	IV
Percent change at annual rate:				
Gross domestic product	5.0	1.3	4.0	1.4
Percentage points at annual rates:				
Personal consumption expenditures	2.22	1.22	2.93	1.03
Durable goods	-0.55	0.16	1.74	-0.75
Nondurable goods	1.57	-0.02	0.22	1.00
Services	1.20	1.08	0.97	0.78
Gross private domestic investment	2.53	1.16	0.55	0.92
Fixed investment	-0.07	-0.15	-0.03	0.67
Nonresidential	-0.66	-0.27	-0.08	0.27
Structures	-0.44	-0.53	-0.62	-0.25
Equipment and software	-0.22	0.26	0.53	0.52
Residential	0.60	0.12	0.05	0.41
Change in private inventories	2.60	1.31	0.58	0.24
Net exports of goods and services	-0.75	-1.40	-0.01	-1.42
Exports	0.33	1.29	0.45	-0.44
Goods	-0.23	0.99	0.28	-0.80
Services	0.56	0.30	0.17	0.35
Imports	-1.08	-2.69	-0.47	-0.98
Goods	-0.40	-2.74	-0.40	-0.70
Services	-0.68	0.05	-0.07	-0.28
Government consumption expenditures and gross investment	1.04	0.27	0.56	0.91
Federal	0.47	0.47	0.29	0.71
National defense	0.46	0.32	0.29	0.47
Nondefense	0.01	0.16	-0.01	0.24
State and local	0.56	-0.21	0.27	0.20

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 through 8.6.

The dampening effects of these components on GDP growth were partly offset by step-ups in Federal Government spending and residential investment and by an upturn in nonresidential fixed investment.

- Federal Government spending increased more than twice as much as in the third quarter; it added 0.71 percentage point to fourth-quarter growth after adding 0.29 percentage point to third-quarter growth. Defense spending accelerated, and nondefense spending turned up.
- Residential investment increased much more than in the third quarter. The increase was the fourth in a row.

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							
	2002	2002				2002			
	IV	I	II	III	IV	I	II	III	IV
Gross domestic product.....	9,519.5	114.4	29.2	93.2	33.9	5.0	1.3	4.0	1.4
Goods	3,739.9	72.6	3.6	80.4	-14.9	8.3	0.4	9.0	-1.6
Services	5,014.7	34.1	42.3	30.9	38.3	2.8	3.5	2.5	3.1
Structures.....	770.1	11.6	-17.2	-10.9	6.1	6.1	-8.4	-5.5	3.2
Addenda:									
Motor vehicle output	363.0	7.9	6.7	28.5	-12.7	9.9	8.1	37.1	-12.9
Gross domestic product less motor vehicle output	9,158.6	106.9	23.3	67.9	44.8	4.9	1.0	3.0	2.0
Final sales of computers						-7.8	13.1	78.5	25.3
Gross domestic product less final sales of computers						5.1	1.2	3.6	1.3

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.

- Nonresidential fixed investment registered a modest increase after declining for eight consecutive quarters. The declines became progressively smaller in the first three quarters of 2002.

The preliminary estimates for the fourth quarter also show the following:

- The deceleration in GDP growth was more than accounted for by a downturn in the production of goods (table 3). In contrast, the construction of structures turned up, and the production of services increased somewhat more than in the third quarter.
- Real motor vehicle output decreased 12.9 percent after jumping 37.1 percent. GDP less motor vehicle output increased 2.0 percent after increasing 3.0 percent.
- Final sales of domestic product—GDP less inventory investment—increased 1.2 percent after increasing 3.4 percent.
- Real disposable personal income (DPI) moderated, increasing 2.7 percent after increasing 3.1 percent. Personal saving as a percentage of current-dollar DPI increased to 4.2 percent from 3.8 percent.³

3. The personal saving rate is measured as personal saving as a percentage of current-dollar DPI. The fourth-quarter estimate of the *national* saving rate (which is measured as gross saving as a percentage of gross national product) will be available at the end of March along with the “final” estimates of fourth-quarter GDP.

Personal Consumption Expenditures

Real personal consumption expenditures slowed sharply in the fourth quarter (table 4 and chart 2).

Table 4. Real Personal Consumption Expenditures

[Seasonally adjusted at annual rates]

	Billions of chained (1996) dollars					Percent change from preceding quarter			
	Level	Change from preceding quarter							
	2002	2002				2002			
	IV	I	II	III	IV	I	II	III	IV
Personal consumption expenditures	6,634.1	49.8	28.6	67.5	24.2	3.1	1.8	4.2	1.5
Durable goods	1,009.7	-16.1	4.8	51.7	-22.7	-6.3	2.0	22.8	-8.5
Motor vehicles and parts	382.5	-30.4	-0.9	38.5	-25.1	-27.1	-1.0	48.8	-22.4
Of which:									
New autos	100.0	-12.5	-1.0	7.8	-13.6	-35.9	-3.7	32.9	-39.8
New light trucks	141.5	-15.8	-3.1	26.9	-14.1	-36.4	-9.2	114.1	-31.7
Furniture and household equipment	447.7	14.6	7.0	6.2	6.3	14.9	6.7	5.8	5.8
Other ¹	187.4	5.3	-0.1	2.9	0.4	12.4	-0.1	6.4	0.9
Nondurable goods	1,949.7	36.4	-0.5	4.9	23.9	7.9	-0.1	1.0	5.1
Food	911.1	14.3	-2.2	-1.3	13.2	6.6	-0.9	-0.6	6.0
Clothing and shoes	361.5	11.0	-0.7	0.2	6.2	13.5	-0.9	0.3	7.2
Gasoline, fuel oil, and other energy goods	158.6	3.8	-0.7	1.0	1.1	10.5	-1.9	2.7	2.6
Other ²	521.8	8.1	3.0	4.9	3.8	6.6	2.3	3.9	3.0
Services	3,704.3	25.6	24.0	20.8	17.3	2.9	2.7	2.3	1.9
Housing	885.9	4.4	4.5	3.6	3.8	2.1	2.1	1.7	1.7
Household operation	386.5	3.6	1.6	1.8	1.8	3.9	1.7	1.9	1.9
Electricity and gas	139.6	3.3	0.1	2.1	3.9	10.4	0.5	6.3	11.9
Other household operation	247.0	0.2	1.5	-0.4	-2.1	0.4	2.3	-0.6	-3.4
Transportation	250.0	2.3	-0.6	-0.5	0.2	3.8	-1.0	-0.8	0.3
Medical care	992.0	8.5	11.3	9.7	7.6	3.6	4.8	4.1	3.1
Recreation	240.3	0.8	1.5	0.0	3.2	1.3	2.5	0.1	5.5
Other ³	947.7	6.1	5.7	6.0	0.7	2.7	2.4	2.6	0.3

1. Includes jewelry and watches, ophthalmic products and orthopedic equipment, books and maps, bicycles and motorcycles, guns and sporting equipment, photographic equipment, boats, and pleasure aircraft.

2. Includes tobacco, toilet articles, drug preparations and sundries, stationery and writing supplies, toys, film, flowers, cleaning preparations and paper products, semidurable house furnishings, and magazines and newspapers.

3. Includes personal care, personal business, education and research, religious and welfare activities, and net foreign travel.

NOTE: See note to table 1 for an explanation of chained (1996) dollar series. Chained (1996) dollar levels and residuals are shown in NIPA tables 2.3 and 8.9B (motor vehicles). Percent changes in major aggregates are shown in NIPA table S.1.

Purchases of durable goods decreased after surging in the third quarter in response to generous rebates and zero-rate financing for new motor vehicles. Purchases of services increased somewhat less than in the third quarter. In contrast, purchases of nondurable goods increased more than in the third quarter.

Among durable goods excluding motor vehicles, furniture and household equipment increased about as much as in the third quarter, despite a step-up in purchases of computer equipment and software. "Other" durable goods, which includes such complements as books and eyeglasses, slowed.

In nondurable goods, purchases of food turned up, and clothing increased after little change. Fuels and lubricants increased about as much as in the third quarter. "Other" nondurable goods increased somewhat less than in the third quarter.

In services, the mild slowdown partly reflected a downturn in brokerage charges and investment counseling (in "other" services) and a deceleration in hospital services (in "medical care").

Factors frequently considered in the analysis of consumer spending were not encouraging in the fourth quarter (chart 3). The Index of Consumer Sentiment (prepared by the University of Michigan's Survey Research Center) dropped, the unemployment rate edged higher, and real DPI posted a subpar increase of 2.7 percent.⁴

4. From the trough in real GDP in the first quarter of 1991 to the peak in real GDP in the fourth quarter of 2000, real DPI increased at an average annual rate of 3.1 percent.

Chart 2. Real Personal Consumption Expenditures

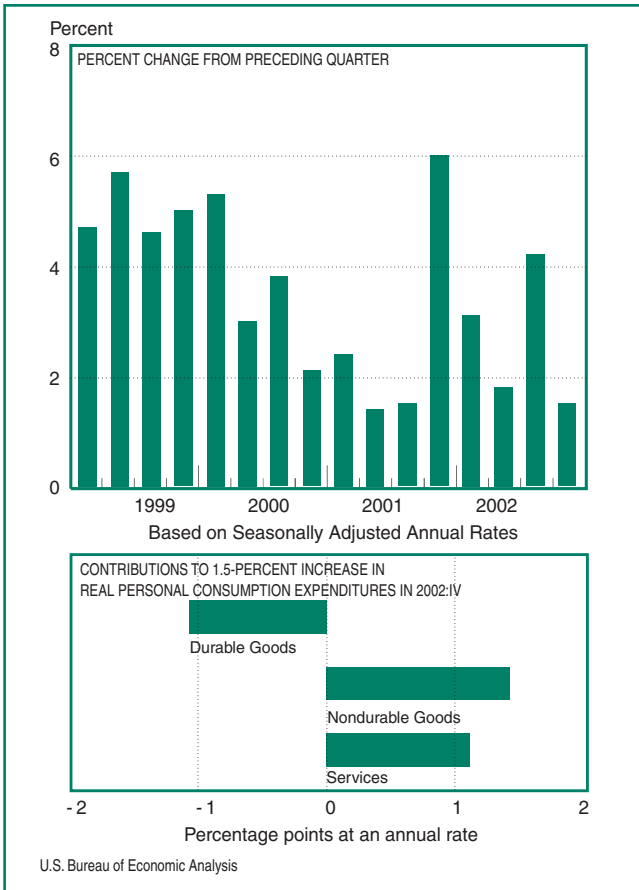
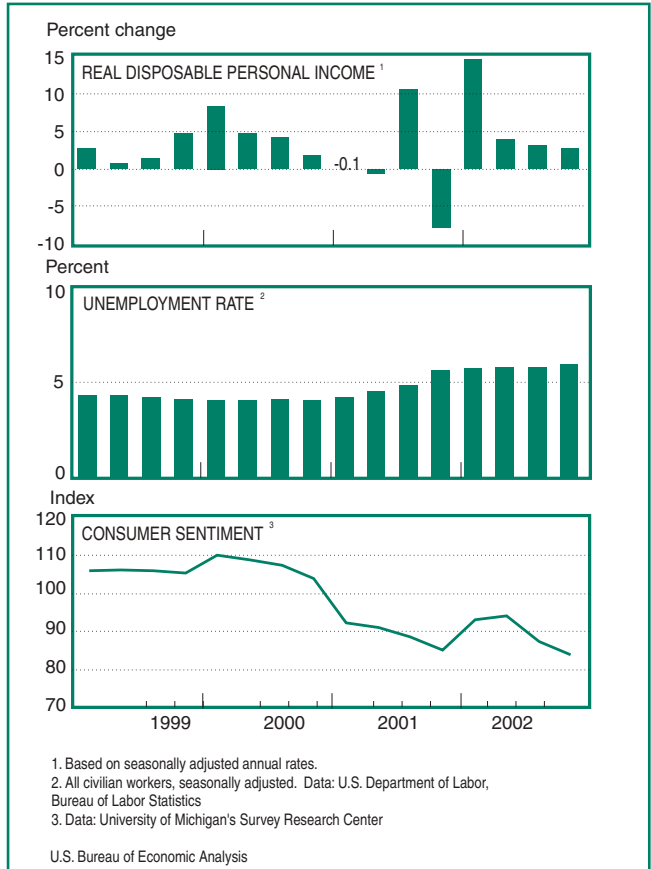


Chart 3. Selected Factors Affecting Consumer Spending



Private Fixed Investment

Real private fixed investment increased in the fourth quarter, its first increase in 2 years. Nonresidential structures continued to be weak, but nonresidential equipment and software increased about as much as in the third quarter, and residential investment increased more than in the third quarter (table 5 and chart 4).

Nonresidential. All major categories of nonresidential structures decreased in the fourth quarter. Oil-well drilling decreased for the fourth time in the last five quarters. Construction of utilities decreased for the fifth time in six quarters. Commercial buildings decreased for the eighth consecutive quarter; investment in commercial buildings is about two-thirds of its level in the fourth quarter of 2000 and is lower than at any time since the beginning of 1996. Industrial buildings decreased slightly. Investment in these buildings, which is much smaller than investment in commercial buildings, has fallen even more precipitously: It is less than half of its level in the fourth quarter of 2000 and is lower than at any time since the beginning of the chained (1996) dollar series in 1987.

Transportation equipment increased in the fourth quarter after decreasing for three consecutive quarters, as purchases of aircraft turned up; purchases of motor vehicles increased, but substantially less than in the third quarter. Information processing equipment also increased much less than in the third quarter; computer equipment and software accounted for about half of the fourth-quarter increase. In industrial equipment, the up-and-down pattern of recent quarters continued, as a 5.5-percent decrease followed a 6.4-percent increase; "special industry machinery" (which includes equipment for manufacturing semiconductors) was flat after increasing, and metalworking machinery turned down.

In recent quarters, conditions that are frequently considered in the analysis of investment spending have been mixed (chart 5). The capacity utilization rate for manufacturing, mining, and utilities remains about 10 percent below the level reached in the expansion of the 1990s, and no clear trend characterizes the most recent quarters. Domestic corporations' profits from current production are also well below the levels reached in the

Table 5. Real Private Fixed Investment

[Seasonally adjusted at annual rates]

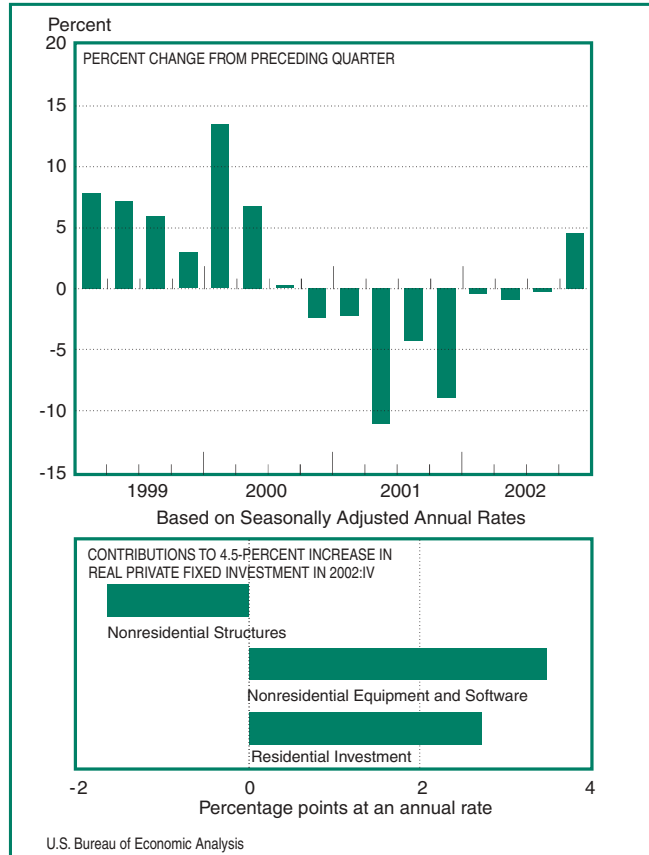
	Billions of chained (1996) dollars					Percent change from preceding quarter			
	Level	Change from preceding quarter							
	2002	2002				2002			
	IV	I	II	III	IV	I	II	III	IV
Private fixed investment	1,589.2	-2.0	-3.8	-1.0	17.6	-0.5	-1.0	-0.3	4.5
Nonresidential.....	1,186.1	-18.0	-7.3	-2.4	7.4	-5.8	-2.4	-0.8	2.5
Structures.....	212.6	-9.5	-11.5	-13.5	-5.6	-14.2	-17.6	-21.4	-9.8
Nonresidential buildings, including farm.....	137.9	-6.4	-8.9	-9.1	-1.2	-14.8	-20.8	-22.2	-3.5
Utilities.....	44.3	1.5	-2.4	-2.8	-1.3	12.7	-18.2	-20.9	-10.6
Mining exploration, shafts, and wells.....	26.5	-4.6	0.1	-0.4	-3.4	-43.0	1.0	-4.4	-38.3
Other structures.....	4.8	0.0	0.0	-1.3	-0.2	1.7	-3.1	-60.5	-9.6
Equipment and software..	992.8	-6.6	7.7	15.8	15.6	-2.7	3.3	6.7	6.6
Information processing equipment and software.....	580.0	8.6	16.6	18.2	4.8	6.7	12.9	13.7	3.3
Computers and peripheral equipment ¹	303.1	.....	.....	.....	.....	34.8	15.4	44.1	7.6
Software ¹	190.4	.....	.....	.....	.....	-3.6	12.4	11.7	2.1
Other ¹	160.8	.....	.....	.....	.....	7.8	12.2	2.8	2.8
Industrial equipment....	145.8	3.6	-2.7	2.3	-2.1	10.4	-7.1	6.4	-5.5
Transportation equipment.....	151.6	-13.9	-8.1	-1.7	9.9	-29.7	-19.7	-4.6	30.9
Of which: Motor vehicles.....	131.5	-10.9	5.9	7.2	2.6	-30.2	21.9	26.1	8.2
Other.....	142.6	-1.6	5.5	0.2	2.3	-4.6	17.5	0.5	6.7
Residential.....	395.9	12.6	2.5	1.0	8.8	14.2	2.7	1.1	9.4
Structures.....	386.1	12.4	2.5	1.0	8.7	14.4	2.7	1.1	9.5
Single-family.....	206.2	5.9	1.2	1.4	6.4	12.9	2.5	2.7	13.7
Multifamily.....	25.2	1.9	-0.2	-0.6	-1.0	34.7	-2.6	-8.3	-14.4
Other structures ²	154.6	4.5	1.4	0.3	3.3	13.1	3.9	0.8	8.9
Equipment.....	9.8	0.1	0.0	0.0	0.1	4.1	3.1	-0.3	2.4

1. "Computers and peripheral equipment" include new items only; "software" excludes software "embedded" or bundled, in computers and other equipment. Because of the large price changes that characterize the components of information processing equipment, the nonadditivity of the chained-dollar estimates is substantial, and the relative importance of the components cannot be inferred on the basis of these estimates. Contributions may be taken directly from NIPA table 8.4.

2. Includes home improvements, new manufactured home sales, brokers' commissions on home sales, net purchases of used structures, and other residential structures (which consists primarily of dormitories and of fraternity and sorority houses).

NOTE: See note to table 1 for an explanation of chained (1996) dollar series. Chained (1996) dollar levels and residuals are shown in NIPA tables 5.5 and 8.9B (motor vehicles). Percent changes in major aggregates are shown in NIPA table S.1.

Chart 4. Real Private Fixed Investment

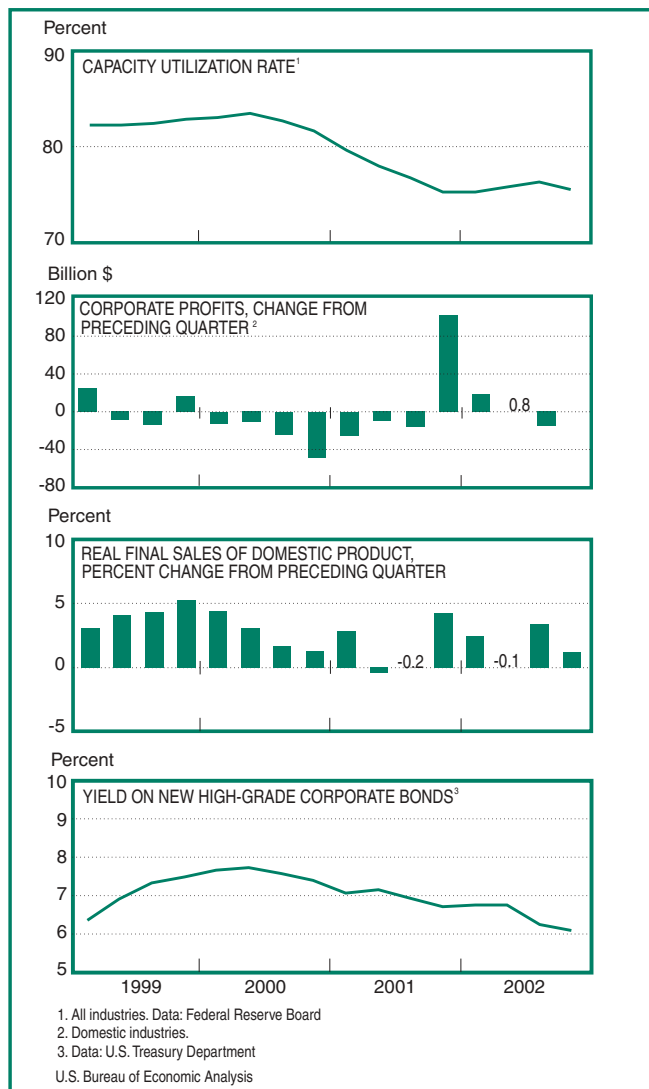


1990s.⁵ Growth of real final sales of domestic product has averaged 1.7 percent over the past four quarters, compared with a 3.4-percent average over the most recent expansion. Long-term interest rates have trended down, but not dramatically; the rate in the fourth quarter was 63 basis points lower than a year ago and 132 basis points lower than 2 years ago.

Residential. Real private residential investment increased 9.4 percent after increasing modestly in the two preceding quarters (table 5 and chart 4). Single-family investment accounted for most of the step-up, but “other” structures also contributed; the step-up in other structures was more than accounted for by an upturn in brokers’ commissions on home sales.

5. Corporate profits for the fourth quarter of 2002 will be released at the end of March, along with the final NIPA estimates.

Chart 5. Selected Factors Affecting Nonresidential Investment



Inventory Investment, next page

Inventory Investment

Real inventory investment increased in the fourth quarter but less than in the third (table 6 and chart 6).

In manufacturing, inventory liquidation in the third quarter gave way to slight accumulation in the fourth. Inventories of aircraft manufacturers turned up sharply. This swing from liquidation to accumulation was partly offset by swings in the other direction by manufacturers of chemicals, plastics, and motor vehicles.

Retail trade inventories increased about as much as in the third quarter. Inventories of motor vehicle dealers and of general merchandise stores increased more than in the third quarter; these step-ups were largely offset by slower accumulation by furniture stores and a swing from accumulation to liquidation in inventories of "other" retail stores.

Wholesale trade inventories also increased about as much as in the third quarter. Apparel wholesalers decreased their inventories in the fourth quarter after increasing them in the third; this downturn was largely

offset by wholesalers of farm products, who did not decrease their inventories as much as in the third quarter.

Inventories in the construction, mining, and utilities group increased modestly after decreasing. Materials at construction sites more than accounted for the upswing.

Farm inventories were drawn down a little in the fourth quarter after a larger decrease in the third. An upturn in crop inventories more than offset a downturn in livestock inventories.

The ratio of real private nonfarm inventories to final sales of goods and structures increased to 3.64 from 3.61 (see NIPA table 5.13B). A ratio that includes all final sales of domestic businesses increased to 2.02 from 2.01.⁶ Both ratios have been trending down since the mid-1970s.

Table 6. Real Change in Private Inventories, by Industry

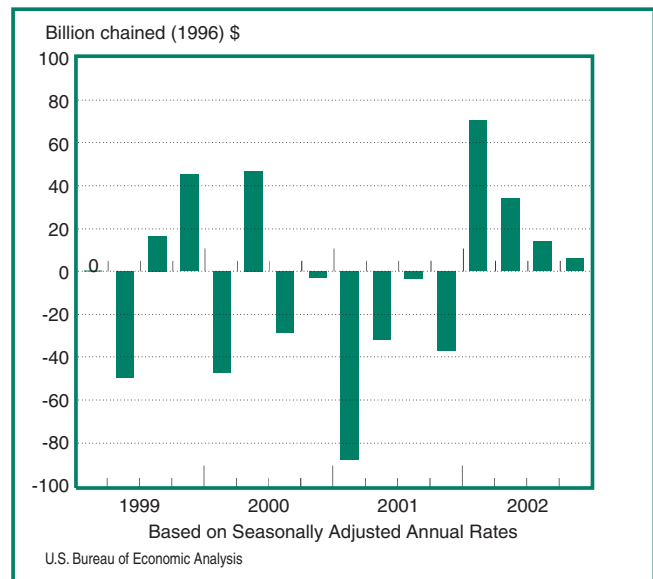
[Billions of chained (1996) dollars; seasonally adjusted at annual rates]

	Level					Change from preceding quarter			
	2001		2002			2002			
	IV	I	II	III	IV	I	II	III	IV
Change in private inventories	-98.4	-28.9	4.9	18.8	24.7	69.5	33.8	13.9	5.9
Farm.....	3.6	6.4	0.8	-2.2	-0.8	2.8	-5.6	-3.0	1.4
Construction, mining, and utilities	4.3	1.6	-1.0	-2.3	0.4	-2.7	-2.6	-1.3	2.7
Manufacturing	-40.2	-31.9	-14.1	-2.6	0.2	8.3	17.8	11.5	2.8
Durable goods industries	-35.2	-25.9	-15.0	-10.3	4.7	9.3	10.9	4.7	15.0
Nondurable goods industries.....	-5.1	-6.0	0.8	7.4	-4.3	-0.9	6.8	6.6	-11.7
Wholesale trade	-26.8	-19.8	-8.7	7.9	7.0	7.0	11.1	16.6	-0.9
Durable goods industries	-29.9	-17.0	-7.7	6.5	4.4	12.9	9.3	14.2	-2.1
Nondurable goods industries.....	1.9	-3.2	-1.3	1.6	2.6	-5.1	1.9	2.9	1.0
Retail trade.....	-40.6	13.8	22.0	15.5	14.9	54.4	8.2	-6.5	-0.6
Of which: Motor vehicle dealers	-34.8	14.0	15.6	4.7	8.2	48.8	1.6	-10.9	3.5
Other industries ¹	2.3	0.0	5.0	2.3	2.6	-2.3	5.0	-2.7	0.3
Addenda:									
Motor vehicles.....	-33.5	10.2	20.1	6.3	12.2	43.7	9.9	-13.8	5.9
Autos.....	-12.7	7.8	10.8	6.0	6.6	20.5	3.0	-4.8	0.6
Trucks.....	-18.8	2.8	8.7	0.9	5.3	21.6	5.9	-7.8	4.4

1. Includes inventories held by establishments in the following industries: Transportation; communication; finance, insurance, and real estate; and services.

NOTE: See note to table 1 for an explanation of chained (1996) dollar series. Chained (1996) dollar levels and residuals are shown in NIPA tables 5.11B and 8.9B (motor vehicles).

Chart 6. Real Private Inventory Investment: Change from Preceding Quarter



6. Using the ratio that includes all final sales of domestic businesses in the denominator implies that the production of services results in a demand for inventories that is similar to that generated in the production of goods and structures. In contrast, using the "goods and structures" ratio implies that the production of services does not generate demand for inventories. Both implications are extreme. Production of some services may require substantial inventories, while production of other services may not.

Exports and Imports

Real exports of goods and services decreased about as much in the fourth quarter as they had increased in the third. Real imports of goods and services increased about twice as much as in the third quarter (table 7 and charts 7 and 8).

Exports of goods decreased 11.1 percent after increasing 4.1 percent. A downturn in nonautomotive

capital goods dominated the movement in exports; auto exports also turned down. Exports of services increased 12.3 percent, twice as much as in the third quarter; step-ups in travel and in passenger fares were mainly responsible.

Imports of goods increased 6.1 percent after increasing 3.4 percent. The step-up primarily reflected

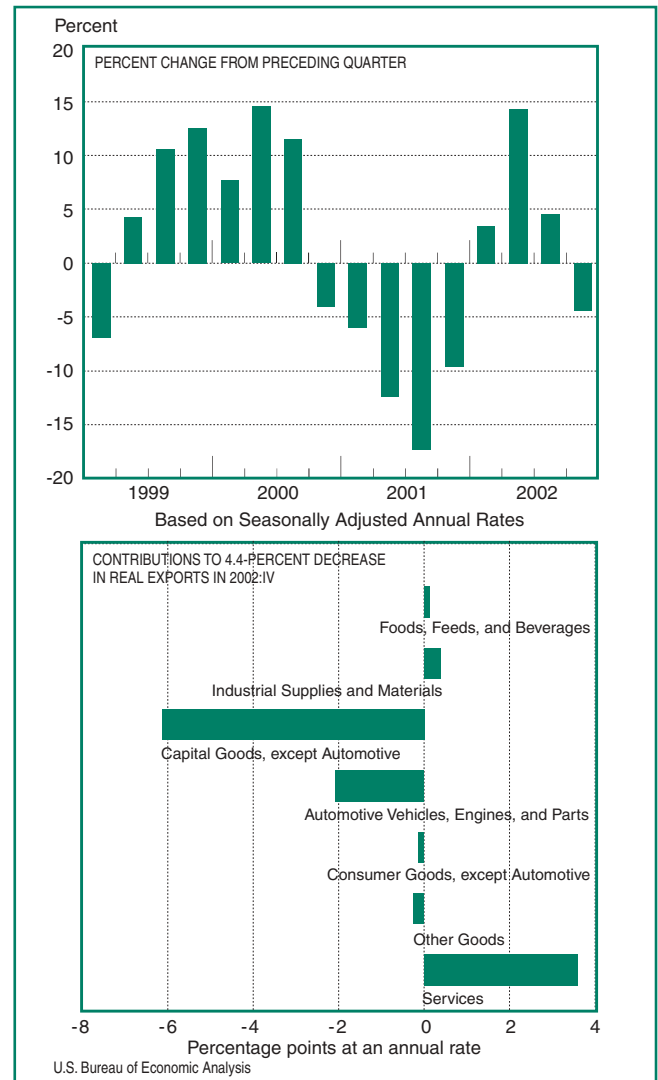
Table 7. Real Exports and Imports of Goods and Services

[Seasonally adjusted at annual rates]

	Billions of chained (1996) dollars					Percent change from preceding quarter			
	Level	Change from preceding quarter				Percent change from preceding quarter			
	2002	2002				2002			
	IV	I	II	III	IV	I	II	III	IV
Exports of goods and services	1,065.5	8.8	34.9	12.2	-12.2	3.5	14.3	4.6	-4.4
Exports of goods ¹	751.1	-6.5	27.7	7.7	-22.4	-3.4	15.9	4.1	-11.1
Foods, feeds, and beverages	59.8	0.3	-2.1	-1.9	0.4	1.5	-12.1	-12.0	2.9
Industrial supplies and materials	164.1	-1.3	7.3	-2.7	1.0	-3.1	19.5	-6.4	2.5
Capital goods, except automotive	319.0	-4.9	11.7	9.1	-17.8	-5.9	15.6	11.6	-19.5
Automotive vehicles, engines, and parts	74.7	-0.6	6.4	1.8	-5.2	-3.2	40.5	9.6	-23.6
Consumer goods, except automotive	85.7	-1.6	2.2	1.5	-0.3	-7.5	11.2	7.2	-1.6
Other	47.0	1.7	1.3	-0.2	-0.7	15.8	11.5	-1.5	-5.5
Exports of services ¹	313.0	14.0	7.5	4.3	9.0	21.7	10.7	5.9	12.3
Imports of goods and services	1,593.1	29.9	75.8	12.8	27.4	8.5	22.2	3.3	7.2
Imports of goods ¹	1,360.4	11.3	79.2	11.1	20.1	3.7	27.9	3.4	6.1
Foods, feeds, and beverages	55.8	0.6	1.4	0.4	0.8	4.7	10.5	3.5	5.3
Industrial supplies and materials, except petroleum and products	171.0	2.3	4.3	4.0	1.9	5.9	11.1	9.9	4.5
Petroleum and products	90.6	-4.4	6.3	-3.1	5.1	-19.0	34.5	-13.3	25.9
Capital goods, except automotive	398.2	10.6	16.1	-3.3	3.3	11.8	17.9	-3.2	3.4
Automotive vehicles, engines, and parts	203.5	3.1	16.5	2.1	-2.4	6.8	40.4	4.0	-4.5
Consumer goods, except automotive	342.7	8.2	24.0	8.0	8.3	11.6	35.8	10.1	10.4
Other	88.0	-7.2	7.6	2.6	1.4	-30.3	46.3	12.6	7.0
Imports of services ¹	232.7	16.6	-1.2	1.7	6.7	35.7	-2.1	3.1	12.4

1. Exports and imports of certain goods, primarily military equipment purchased and sold by the Federal Government, are included in services.
 Note. See note to table 1 for an explanation of chained (1996) dollar series. Chained (1996) dollar levels and residuals are shown in NIPA table 4.4. Percent changes in major aggregates are shown in NIPA table S.1.

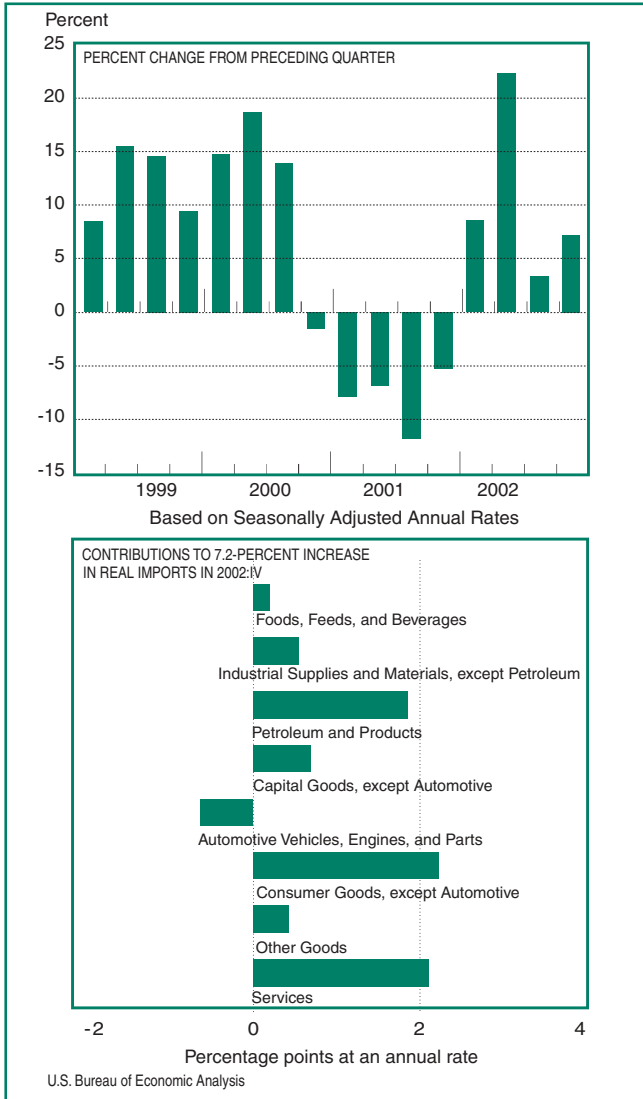
Chart 7. Real Exports



upturns in petroleum and in nonautomotive capital goods. In contrast, imports of autos turned down. Imports of services increased 12.4 percent after increasing

3.1 percent; virtually all categories of services were stronger than in the third quarter.

Chart 8. Real Imports



Government Spending

Government spending increased 4.9 percent in the fourth quarter after increasing 2.9 percent in the third (table 8 and chart 9). A step-up in spending by the Federal Government more than offset a mild slowdown in spending by State and local governments.

Spending on national defense increased 11.4 percent after increasing 6.9 percent. Federal nondefense spending increased 10.8 percent after decreasing slightly; the upturn mainly reflected a step-up in compensation of employees.

Gross investment by State and local governments increased 2.6 percent after increasing 4.4 percent; investment in structures slowed, and investment in

equipment and software turned down. Consumption expenditures increased a little less than in the third quarter, partly reflecting a slowdown in compensation of employees.

Chart 9. Real Government Consumption and Investment

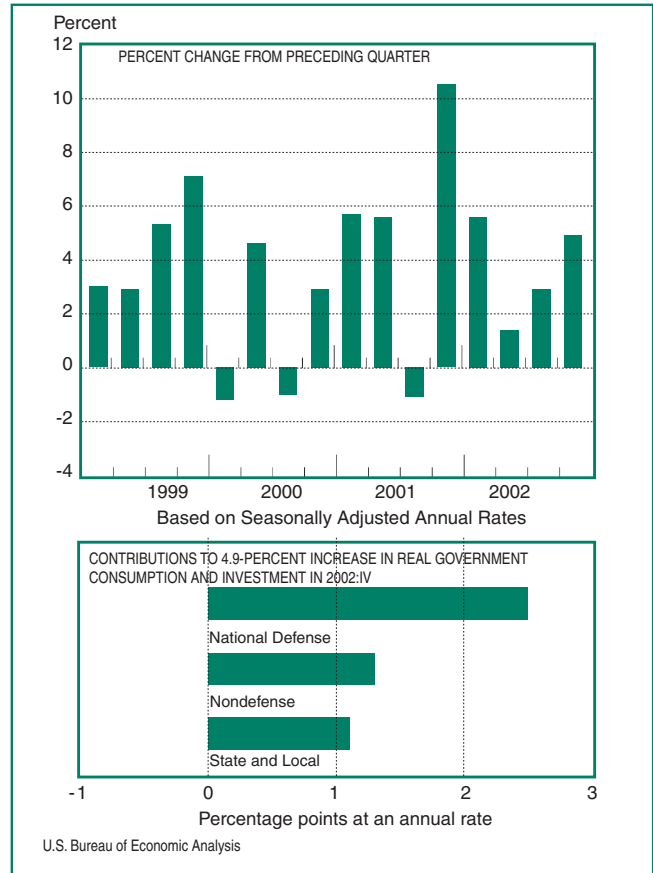


Table 8. Real Government Consumption Expenditures and Gross Investment

[Seasonally adjusted at annual rates]

	Billions of chained (1996) dollars					Percent change from preceding quarter			
	Level	Change from preceding quarter							
	2002	2002				2002			
	IV	I	II	III	IV	I	II	III	IV
Government consumption expenditures and gross investment¹	1,736.3	22.8	6.0	12.3	20.7	5.6	1.4	2.9	4.9
Federal.....	631.6	10.6	10.9	6.4	16.5	7.4	7.5	4.3	11.2
National defense.....	413.5	10.5	7.3	6.7	11.0	11.6	7.8	6.9	11.4
Consumption expenditures.....	349.3	7.6	7.2	4.1	11.3	9.8	9.1	5.1	14.0
Gross investment.....	64.3	3.2	0.0	2.8	-0.7	23.5	-0.4	19.6	-4.2
Nondefense.....	218.2	0.2	3.6	-0.2	5.5	0.4	6.9	-0.3	10.8
Consumption expenditures.....	172.6	0.6	2.2	1.4	4.7	1.5	5.3	3.4	11.7
Gross investment.....	45.9	-0.5	1.6	-1.9	0.8	-4.0	14.0	-15.1	7.2
State and local.....	1,105.1	12.2	-4.6	5.9	4.5	4.6	-1.7	2.2	1.6
Consumption expenditures.....	886.1	5.2	3.5	3.6	3.1	2.4	1.6	1.7	1.4
Gross investment.....	219.0	7.2	-8.4	2.3	1.4	14.0	-14.3	4.4	2.6

1. Gross government investment consists of general government and government enterprise expenditures for fixed assets; inventory investment is included in government consumption expenditures.

Note. See note to table 1 for an explanation of chained (1996) dollar series. Chained (1996) dollar levels and residuals are shown in NIPA table 3.8. Percent changes in major aggregates are shown in NIPA table S.1.

Prices

Inflation stepped up slightly in the fourth quarter; most of the step-up was accounted for by food and energy prices. The price index for gross domestic purchases, which measures the prices of goods and services purchased by U.S. residents, increased 1.6 percent after increasing 1.2 percent (table 9). Excluding food and energy, the price index increased 1.3 percent after increasing 1.2 percent (chart 10).

Prices of goods and services purchased by consumers increased 1.6 percent, virtually the same as in the third quarter. Food and energy prices accelerated, but prices of other goods and services slowed. Prices of “other nondurable goods,” including prices of nonprescription drugs, turned down. Prices of “other ser-

vices,” which includes brokerage charges and investment counseling, also moderated.

Prices paid by government increased 1.5 percent, about the same as in the third quarter. A step-up in prices paid by State and local governments, mainly in energy-related prices, was largely offset a slowdown in prices paid by the Federal Government.

Prices of private nonresidential fixed investment increased after decreasing for five consecutive quarters. An increase in the price of structures more than offset a small decrease in the price of equipment and software. Prices of residential investment increased after no change.

The GDP price index, which measures the prices paid for goods and services produced in the United States, increased 1.6 percent in the fourth quarter, the same as the increase in the price index for gross domestic purchases. Prices of both exports and imports slowed considerably.

Table 9. Price Indexes

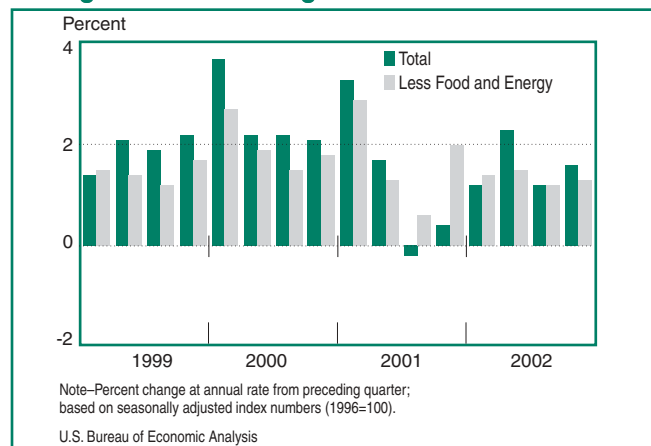
[Percent change at annual rates; based on seasonally adjusted index numbers (1996=100)]

	2002			
	I	II	III	IV
Gross domestic product	1.3	1.2	1.0	1.6
Less: Exports of goods and services.....	-0.8	3.0	3.5	0.8
Plus: Imports of goods and services	-1.6	11.1	4.4	0.8
Equals: Gross domestic purchases	1.2	2.3	1.2	1.6
Less: Change in private inventories.....				
Equals: Final sales to domestic purchasers	1.1	2.3	1.3	1.6
Personal consumption expenditures.....	1.1	2.7	1.7	1.6
Durable goods	-4.2	-2.9	-1.9	-2.2
Nondurable goods	0.2	4.6	0.6	1.2
Services.....	2.7	3.0	3.0	2.6
Private fixed investment.....	-1.5	-0.2	-0.9	1.6
Nonresidential.....	-2.0	-1.4	-1.3	0.3
Structures	-3.6	0.7	0.4	2.3
Equipment and software.....	-1.5	-2.1	-1.9	-0.3
Residential.....	0.0	3	0.0	4.7
Government consumption expenditures and gross investment.....	3.6	2.8	1.4	1.5
Federal.....	8.4	2.3	1.3	0.3
National defense.....	7.3	2.0	1.5	1.1
Nondefense	10.4	2.9	1.0	-1.2
State and local.....	1.1	3.1	1.5	2.2
Addenda:				
Gross domestic purchases:				
Food	2.4	0.4	0.7	1.8
Energy	-8.7	29.9	3.8	8.9
Less food and energy	1.4	1.5	1.2	1.3
Personal consumption expenditures:.....				
Food	2.4	0.5	0.9	1.8
Energy goods and services ¹	-9.1	29.6	3.3	7.6
Less food and energy	2.7	1.4	1.9	1.8

1. Consists of gasoline, fuel oil, and other energy goods and of electricity and gas.

NOTE: Percent changes in major aggregates are shown in NIPA table 8.1. Index numbers are shown in tables 7.1, 7.2, and 7.4.

Chart 10. Gross Domestic Purchases Prices: Change From Preceding Quarter



Revisions

The preliminary estimate of a 1.4-percent increase in real GDP in the fourth quarter is 0.7 percentage point higher than the advance estimate released last month (table 10). In the past 20 years, the average revision, without regard to sign, from the advance estimate to the preliminary estimate was 0.5 percentage point.

An upward revision to inventory investment reflected the incorporation of revised Census Bureau data for November, newly available data for December, revised Department of Agriculture data for 2002, and newly available data for 2003. In the preliminary estimate, inventory investment contributed 0.24 percentage point to GDP growth; in the advance, it had subtracted 0.56 percentage point.

Consumer purchases of nondurable goods were revised up (adding an additional 0.23 percentage point to GDP growth) on the basis of the following:

- revised Census Bureau data on retail sales for November and December,
- monthly survey data from the Energy Information Administration on gasoline and fuel oil consumption for November, and
- revised seasonally adjusted consumer price indexes from the Bureau of Labor Statistics.

Consumer purchases of services were also revised up (adding an additional 0.23 percentage point to GDP growth); the revision mainly reflected the incorporation of newly available data from the Energy Information Administration on electricity and natural gas usage and unit values for October.

The effect of these upward revisions on GDP was partly offset by a downward revision to exports and an upward revision to imports that primarily reflected the incorporation of newly available Census Bureau goods data for December.

Table 10. Revisions to Change in Real Gross Domestic Product and Prices, Fourth Quarter 2002

[Seasonally adjusted at annual rates]

	Percent change from preceding quarter		Preliminary estimate minus advance estimate	
	Advance estimate	Preliminary estimate	Percentage points	Billions of chained (1996) dollars
Gross domestic product	0.7	1.4	0.7	16.3
<i>Less:</i> Exports	-1.7	-4.4	-2.7	-7.5
Goods	-6.7	-11.1	-4.4	-9.2
Services	10.3	12.3	2.0	1.4
<i>Plus:</i> Imports	3.7	7.2	3.5	13.2
Goods	2.7	6.1	3.4	11.2
Services	8.6	12.4	3.8	2.0
Equals: Gross domestic purchases	1.4	2.8	1.4	34.2
<i>Less:</i> Change in private inventories				21.4
Equals: Final sales to domestic purchasers	1.9	2.5	0.6	14.9
Personal consumption expenditures	1.0	1.5	0.5	8.4
Durable goods	-7.3	-8.5	-1.2	-3.2
Nondurable goods	3.9	5.1	1.2	5.5
Services	1.3	1.9	0.6	5.2
Private fixed investment	3.1	4.5	1.4	5.6
Nonresidential	1.5	2.5	1.0	2.9
Structures	-9.3	-9.8	-0.5	-0.3
Equipment and software	5.0	6.6	1.6	3.5
Residential	6.8	9.4	2.6	2.3
Government consumption expenditures and gross investment	4.6	4.9	0.3	1.2
Federal	10.1	11.2	1.1	1.4
National defense	11.2	11.4	0.2	0.2
Nondefense	8.3	10.8	2.5	1.2
State and local	1.7	1.6	-0.1	-0.2
Addenda:				
Final sales of domestic product	1.3	1.2	-0.1	-2.9
Gross domestic purchases price index	1.8	1.6	-0.2	.....
GDP price index	1.8	1.6	-0.2	.....

NOTE: The preliminary estimates for the fourth quarter of 2002 incorporate the following revised or additional major source data that were not available when the advance estimates were prepared.

Personal consumption expenditures: Retail sales (revised) for October, November, and December, consumers' share of new-car purchases for December, average unit value for domestic new autos for December (revised), brokerage services data for the fourth quarter, electricity and natural gas usage.

Nonresidential fixed investment: Construction put-in-place for October and November (revised) and December, manufacturers' shipments of machinery and equipment for November and December (revised), and manufacturers' shipments of complete civilian aircraft for November (revised) and December.

Residential fixed investment: Construction put-in-place for October and November (revised) and December.

Change in private inventories: Manufacturing and trade inventories for November (revised) and December.

Exports and imports of goods and services: Exports and imports of goods for November (revised) and December.

Government consumption expenditures and gross investment: Monthly Treasury Statement detailed data for December, and State and local government construction put-in-place for October and November (revised) and December.

Wages and salaries: Employment, average hourly earnings, and average weekly hours for November and December (revised).

GDP prices: Detailed merchandise export and import price indexes for October through December (revised), unit-value index for petroleum imports for November (revised) and December, seasonally adjusted consumer price indexes for October through December (revised), and housing prices for the fourth quarter.