



BEA NEWS



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GROSS DOMESTIC PRODUCT: FIRST QUARTER 2004 (FINAL) CORPORATE PROFITS: FIRST QUARTER 2004 (REVISED)

Real gross domestic product -- the output of goods and services produced by labor and property located in the United States -- increased at an annual rate of 3.9 percent in the first quarter of 2004, according to revised estimates released by the Bureau of Economic Analysis. In the fourth quarter, real GDP increased 4.1 percent.

The GDP estimates released today are based on more complete source data than were available for the preliminary estimates issued last month. In the preliminary estimates, the increase in real GDP was 4.4 percent (see "Revisions" on page 3).

The major contributors to the increase in real GDP in the first quarter were personal consumption expenditures (PCE), exports, equipment and software, private inventory investment, and federal government spending. Imports, which are a subtraction in the calculation of GDP, increased.

Annual Revision of the National Income and Product Accounts

The annual revision of the national income and product accounts, covering the first quarter of 2001 through the first quarter of 2004, will be released along with the "advance" estimate of GDP for the second quarter of 2004 on July 30. An article describing the revision will appear in the August 2004 issue of the Survey of Current Business.

NOTE.--Quarterly estimates 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 (2000) dollars. Price indexes are chain-type measures.

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The slight deceleration in real GDP growth in the first quarter primarily reflected decelerations in exports and in equipment and software that were partly offset by a deceleration in imports and accelerations in federal government spending and in PCE.

The price index for gross domestic purchases, which measures prices paid by U.S. residents, increased 3.5 percent in the first quarter, 0.2 percentage point more than in the preliminary estimate; this index increased 1.3 percent in the fourth quarter. Excluding food and energy prices, the price index for gross domestic purchases increased 2.6 percent in the first quarter, compared with an increase of 1.5 percent in the fourth.

Final sales of computers contributed 0.01 percentage point to the first-quarter change in real GDP after adding 0.29 percentage point to the fourth-quarter change. Motor vehicle output subtracted 0.29 percentage point from the first-quarter change in real GDP after adding 0.13 percentage point to the fourth-quarter change.

Real personal consumption expenditures increased 3.8 percent in the first quarter, compared with an increase of 3.2 percent in the fourth. Real nonresidential fixed investment increased 5.3 percent, compared with an increase of 10.9 percent. Nonresidential structures decreased 7.4 percent, compared with a decrease of 1.4 percent. Equipment and software increased 9.2 percent, compared with an increase of 14.9 percent. Real residential fixed investment increased 4.6 percent, compared with an increase of 7.9 percent.

Real exports of goods and services increased 7.5 percent in the first quarter, compared with an increase of 20.5 percent in the fourth. Real imports of goods and services increased 10.4 percent, compared with an increase of 16.4 percent.

Real federal government consumption expenditures and gross investment increased 8.5 percent in the first quarter, compared with an increase of 0.7 percent in the fourth. National defense increased 13.2 percent, compared with an increase of 3.0 percent. Nondefense decreased 0.3 percent, compared with a decrease of 3.7 percent. Real state and local government consumption expenditures and gross investment decreased 0.3 percent, compared with a decrease of 0.5 percent.

The real change in private inventories added 0.65 percentage point to the first-quarter change in real GDP, after adding 0.71 percentage point to the fourth-quarter change. Private businesses increased inventories \$25.5 billion in the first quarter, following an increase of \$9.0 billion in the fourth quarter and a decrease of \$9.1 billion in the third.

Real final sales of domestic product -- GDP less change in private inventories -- increased 3.2 percent in the first quarter, compared with an increase of 3.4 percent in the fourth.

Gross domestic purchases

Real gross domestic purchases -- purchases by U.S. residents of goods and services wherever produced -- increased 4.4 percent in the first quarter, compared with an increase of 4.3 percent in the fourth.

Gross national product

Real gross national product -- the goods and services produced by the labor and property supplied by U.S. residents -- increased 3.4 percent in the first quarter, compared with an increase of 5.5 percent in the fourth. GNP includes, and GDP excludes, net receipts of income from the rest of the world, which decreased \$13.2 billion in the first quarter after increasing \$36.4 billion in the fourth; in the first quarter, receipts decreased \$0.6 billion, and payments increased \$12.6 billion.

Current-dollar GDP

Current-dollar GDP -- the market value of the nation's output of goods and services -- increased 6.9 percent, or \$189.2 billion, in the first quarter to a level of \$11,451.2 billion. In the fourth quarter, current-dollar GDP increased 5.7 percent, or \$155.0 billion.

Revisions

The final estimate of the first-quarter increase in real GDP is 0.5 percentage point, or \$13.9 billion, lower than the preliminary estimate issued last month. The downward revision to the percentage change in real GDP reflected an upward revision to imports and a downward revision to PCE for services, that were partly offset by an upward revision to exports.

	<u>Advance</u> (Percent change from preceding quarter)	<u>Preliminary</u>	<u>Final</u>
Real GDP.....	4.2	4.4	3.9
Current-dollar GDP.....	6.8	7.2	6.9
Gross domestic purchases price index.....	3.2	3.3	3.5

Corporate Profits

Profits from current production (corporate profits with inventory valuation and capital consumption adjustments) increased \$20.9 billion in the first quarter, according to revised estimates. In the fourth quarter, profits increased \$81.4 billion. Current-production cash flow (net cash flow with inventory valuation and capital consumption adjustments) -- the internal funds available to corporations for investment -- increased \$20.1 billion in the first quarter, compared with an increase of \$70.6 billion in the fourth.

Taxes on corporate income increased \$0.4 billion in the first quarter, compared with an increase of \$13.1 billion in the fourth. Profits after tax with inventory valuation and capital consumption adjustments increased \$20.4 billion in the first quarter, after increasing \$68.2 billion in the fourth. Dividends increased \$8.0 billion, compared with an increase of \$7.5 billion; current-production undistributed profits increased \$12.3 billion, compared with an increase of \$60.9 billion.

Domestic profits increased \$31.2 billion in the first quarter, compared with an increase of \$33.9 billion in the fourth. Domestic profits of financial corporations increased \$19.6 billion in the first quarter, compared with an increase of \$5.2 billion in the fourth. Domestic profits of nonfinancial corporations increased \$11.7 billion in the first quarter, compared with an increase of \$28.7 billion in the fourth. In the first quarter, real gross value added increased, and profits per unit of real gross value added was unchanged; an increase in the prices corporations received was offset by an increase in unit labor costs.

The foreign component of profits (rest-of-the-world profits) decreased \$10.4 billion in the first quarter, in contrast to an increase of \$47.5 billion in the fourth. This measure is calculated as (1) receipts by U.S. residents of earnings from their foreign affiliates plus dividends received by U.S. residents from unaffiliated foreign corporations minus (2) payments by U.S. affiliates of earnings to their foreign parents plus dividends paid by U.S. corporations to unaffiliated foreign residents. The first-quarter decrease was accounted for by a larger increase in payments than in receipts.

The revised estimate of first-quarter corporate profits from current production is \$6.5 billion higher than the preliminary estimate issued last month. The foreign component of profits (rest-of-the-world profits) and domestic profits of nonfinancial corporations were revised up \$11.5 billion and \$5.6 billion, respectively. Domestic profits of financial corporations was revised down \$10.7 billion.

Profits before tax with inventory valuation adjustment is the best available measure of industry profits because estimates of the capital consumption adjustment by industry do not exist. This measure reflects the depreciation-accounting practices used for federal income tax returns. According to this measure, domestic profits of financial corporations increased, and domestic profits of nonfinancial corporations decreased. Decreases in profits of nonfinancial corporations were widespread among major industry groups with the largest occurring in manufacturing and in wholesale trade; only retail trade increased.

Profits before tax decreased \$25.4 billion in the first quarter, in contrast to an increase of \$92.2 billion in the fourth. The before-tax measure of profits does not reflect, as does profits from current production, the capital consumption and inventory valuation adjustments. These adjustments convert depreciation of fixed assets and inventory withdrawals reported on a tax-return, historical-cost basis to the current-cost measures used in the national income and product accounts. The capital consumption adjustment increased \$63.9 billion in the first quarter (from \$269.2 billion to \$333.1 billion), compared with an increase of \$9.1 billion in the fourth. The inventory valuation adjustment decreased \$17.6 billion (from -\$21.7 billion to -\$39.3 billion), compared with a decrease of \$19.9 billion.

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Summary BEA estimates are available on recorded messages at the time of public release at the following telephone numbers:

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|----------------|---------------------------------|
| (202) 606-5306 | Gross domestic product |
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| (202) 606-5362 | U.S. international transactions |

Most of BEA's estimates and analyses are published in the Survey of Current Business, BEA's monthly journal. Subscriptions and single copies of the printed Survey are for sale by the Superintendent of Documents, U.S. Government Printing Office. Internet: <bookstore.gpo.gov>; phone: 202-512-1800; fax: 202-512-2250; mail: Stop SSOP, Washington, DC 20402-0001.

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Next release -- July 30, 2004, at 8:30 A.M. EDT for:
Annual revision (first quarter 2001 through first
quarter 2004) and advance estimates of gross
domestic product for the second quarter of 2004

Table 9.—Relation of Gross Domestic Product, Gross National Product, and National Income
 [Billions of dollars]

	2001	2002	2003	Seasonally adjusted at annual rates				
				2003				2004
				I	II	III	IV	
Gross domestic product	10,100.8	10,480.8	10,987.9	10,735.8	10,846.7	11,107.0	11,262.0	11,451.2
Plus: Income receipts from the rest of the world	319.0	299.1	317.3	296.8	299.5	312.1	360.7	363.0
Less: Income payments to the rest of the world	283.8	277.6	273.6	269.0	266.2	274.3	284.8	300.7
Equals: Gross national product	10,135.9	10,502.3	11,031.6	10,763.7	10,880.0	11,144.8	11,337.9	11,513.5
Less: Consumption of fixed capital	1,266.9	1,288.6	1,310.9	1,305.7	1,303.4	1,309.1	1,325.3	1,338.9
Less: Statistical discrepancy	-112.2	-77.2	12.9	23.2	-8.3	38.2	-1.3	-16.8
Equals: National income	8,981.2	9,290.8	9,707.8	9,434.8	9,584.9	9,797.5	10,013.8	10,191.5
Compensation of employees	5,940.4	6,019.1	6,203.0	6,115.8	6,164.8	6,229.4	6,302.0	6,410.3
Wage and salary accruals	4,942.9	4,974.6	5,100.2	5,034.6	5,070.8	5,118.8	5,176.6	5,249.2
Supplements to wages and salaries	997.6	1,044.5	1,102.8	1,081.2	1,093.9	1,110.6	1,125.4	1,161.2
Proprietors' income with inventory valuation and capital consumption adjustments	770.6	797.7	846.9	813.5	838.8	860.9	874.3	895.0
Rental income of persons with capital consumption adjustment	163.1	173.0	164.2	163.2	153.4	157.0	183.0	188.5
Corporate profits with inventory valuation and capital consumption adjustments	770.4	904.2	1,069.9	927.1	1,022.8	1,124.2	1,205.6	1,226.5
Net interest and miscellaneous payments	568.4	582.4	583.2	589.3	581.7	579.9	581.8	591.0
Taxes on production and imports less subsidies	674.5	721.8	740.4	729.4	725.2	745.2	761.8	773.7
Business current transfer payments	92.5	89.8	95.2	90.1	92.5	97.1	101.2	103.2
Current surplus of government enterprises	1.2	2.8	5.0	6.3	5.8	3.7	4.1	3.4
Addendum:								
Gross domestic income	10,213.0	10,558.0	10,974.9	10,712.7	10,855.0	11,068.8	11,263.3	11,468.0

r Revised.

Table 10.—Personal Income and Its Disposition
 [Billions of dollars]

	2001	2002	2003	Seasonally adjusted at annual rates				
				2003				2004
				I	II	III	IV	
Personal income	8,713.1	8,910.3	9,208.0	9,048.7	9,145.9	9,256.3	9,381.0	9,522.5
Compensation of employees, received	5,940.4	6,019.1	6,203.0	6,114.4	6,166.2	6,229.4	6,302.0	6,408.8
Wage and salary disbursements	4,942.9	4,974.6	5,100.2	5,032.2	5,072.2	5,118.8	5,176.6	5,247.7
Supplements to wages and salaries	997.6	1,044.5	1,102.8	1,081.2	1,093.9	1,110.6	1,125.4	1,161.2
Proprietors' income with inventory valuation and capital consumption adjustments	770.6	797.7	846.9	813.5	838.8	860.9	874.3	895.0
Farm	25.0	14.3	19.5	13.0	20.0	21.5	23.3	18.9
Nonfarm	745.6	783.4	827.4	800.5	818.8	839.4	850.9	876.1
Rental income of persons with capital consumption adjustment	163.1	173.0	164.2	163.2	153.4	157.0	183.0	188.5
Personal income receipts on assets	1,374.9	1,378.5	1,393.3	1,388.6	1,390.2	1,389.2	1,405.2	1,416.5
Personal interest income	1,003.7	982.4	964.6	970.6	964.9	957.0	965.7	969.0
Personal dividend income	371.2	396.2	428.7	418.0	425.3	432.2	439.5	447.6
Personal current transfer receipts	1,192.6	1,292.2	1,377.5	1,337.6	1,369.7	1,398.7	1,403.8	1,422.2
Less: Contributions for government social insurance	728.5	750.3	776.8	768.7	772.3	779.0	787.2	808.6
Less: Personal current taxes	1,243.7	1,053.1	991.4	1,009.4	1,000.2	938.5	1,017.7	991.3
Equals: Disposable personal income	7,469.4	7,857.2	8,216.5	8,039.2	8,145.8	8,317.8	8,363.3	8,531.2
Less: Personal outlays	7,342.2	7,674.0	8,043.0	7,888.3	7,956.7	8,118.5	8,208.6	8,343.4
Equals: Personal saving	127.2	183.2	173.5	151.0	189.0	199.3	154.7	187.8
Personal saving as a percentage of disposable personal income	1.7	2.3	2.1	1.9	2.3	2.4	1.9	2.2
Addendum:								
Disposable personal income, billions of chained (2000) dollars	7,320.2	7,596.7	7,801.1	7,662.0	7,753.5	7,882.9	7,906.1	8,002.1

r Revised.

1. Personal income is also equal to national income less corporate profits with inventory valuation and capital consumption adjustments, taxes on production and imports less subsidies, contributions for government social insurance, net interest and miscellaneous payments, business current transfer payments, current surplus of government enterprises, and wage accruals less disbursements, plus personal income receipts on assets, and personal current transfer receipts.

2. Equals disposable personal income deflated by the implicit price deflator for personal consumption expenditures.

Table 13.—Gross Value Added of Nonfinancial Domestic Corporate Business

	2001	2002	2003	Seasonally adjusted at annual rates				
				2003				2004
				I	II	III	IV	
Billions of dollars								
Gross value added of nonfinancial corporate business	5,299.3	5,410.6	5,650.3	5,479.2	5,581.7	5,720.2	5,820.2	5,917.3
Consumption of fixed capital	610.5	618.2	623.3	622.9	619.4	621.3	629.4	635.7
Net value added	4,688.9	4,792.4	5,027.1	4,856.3	4,962.3	5,098.9	5,190.8	5,281.6
Compensation of employees	3,597.0	3,570.1	3,667.4	3,612.6	3,640.5	3,683.1	3,733.5	3,800.4
Wage and salary accruals	3,016.7	2,971.8	3,035.3	2,992.7	3,013.7	3,047.0	3,087.8	3,132.0
Supplements to wages and salaries	580.4	598.3	632.1	619.9	626.8	636.1	645.7	668.4
Taxes on production and imports less subsidies	440.3	464.5	480.8	474.1	469.0	486.0	494.2	500.1
Net operating surplus	651.5	757.7	878.8	769.6	852.8	929.7	963.1	981.1
Net interest and miscellaneous payments	205.8	206.9	203.7	204.5	201.4	202.9	206.2	210.5
Business current transfer payments	50.0	59.1	58.1	55.1	56.7	59.6	60.9	63.0
Corporate profits with inventory valuation and capital consumption adjustments	395.6	491.7	617.0	510.0	594.7	667.3	696.0	707.7
Taxes on corporate income	108.7	101.6	129.4	119.8	117.7	133.6	146.6	142.5
Profits after tax with inventory valuation and capital consumption adjustments	286.9	390.2	487.6	390.2	477.0	533.7	549.4	565.2
Net dividends	248.2	257.2	271.8	265.8	274.8	270.8	275.7	273.5
Undistributed profits with inventory valuation and capital consumption adjustments	38.7	133.0	215.8	124.4	202.2	262.9	273.7	291.6
Addenda:								
Profits before tax (without inventory valuation and capital consumption adjustments)	309.6	336.5	422.6	398.4	383.4	433.6	474.9	449.2
Profits after tax (without inventory valuation and capital consumption adjustments)	200.9	234.9	293.1	278.6	265.7	299.9	328.3	306.7
Inventory valuation adjustment	9.1	-2.2	-12.6	-28.1	1.2	-1.8	-21.7	-39.3
Capital consumption adjustment	76.8	157.5	207.1	139.7	210.1	235.5	242.8	297.8
Billions of chained (2000) dollars								
Gross value added of nonfinancial corporate business ¹	5,235.4	5,339.0	5,564.9	5,412.1	5,505.2	5,629.6	5,712.8	5,779.7
Consumption of fixed capital ²	609.0	624.1	636.8	634.5	630.9	639.4	642.5	642.1
Net value added ³	4,626.4	4,714.9	4,928.1	4,777.6	4,874.2	4,990.2	5,070.3	5,137.6
Dollars								
Price, costs, and profits per unit of real gross value added of nonfinancial corporate business:								
Price per unit of real gross value added of nonfinancial corporate business ⁴	1.012	1.013	1.015	1.012	1.014	1.016	1.019	1.024
Compensation of employees (unit labor cost) .....	.687	.669	.659	.668	.661	.654	.654	.658
Unit nonlabor cost .....	.250	.253	.246	.251	.245	.243	.243	.243
Consumption of fixed capital .....	.117	.116	.112	.115	.113	.110	.110	.110
Taxes on production and imports less subsidies plus business current transfer payments .....	.094	.098	.097	.098	.095	.097	.097	.097
Net interest and miscellaneous payments .....	.039	.039	.037	.038	.037	.036	.036	.036
Corporate profits with inventory valuation and capital consumption adjustments (unit profits from current production) .....	.076	.092	.111	.094	.108	.119	.122	.122
Taxes on corporate income .....	.021	.019	.023	.022	.021	.024	.026	.025
Profits after tax with inventory valuation and capital consumption adjustments .....	.055	.073	.088	.072	.087	.095	.096	.098

r Revised.

1. Effective December 10, 2003, the price index used to estimate chained-dollar gross value added of nonfinancial corporate business has been revised to reflect the 2000 reference year. Effective with the estimates scheduled for release in July 2004, the current-dollar value added will be deflated by a revised chain-type price index calculated using gross value added price indexes for each nonfinancial industry.

2. Chained-dollar consumption of fixed capital of nonfinancial corporate business is calculated as the product of

the chain-type quantity index and the 2000 current-dollar value of the corresponding series, divided by 100.

3. Chained-dollar net value added of nonfinancial corporate business is the difference between the gross value added and the consumption of fixed capital.

4. The deflator for gross value added of nonfinancial corporate business divided by 100.

NOTE.—Estimates in this table are based on the 1997 North American Industry Classification System (NAICS).

Appendix Table A.—Real Gross Domestic Product and Related Aggregates and Price Indexes: Percent Change From Preceding Period

	2001	2002	2003	Seasonally adjusted at annual rates																
				2000				2001				2002				2003				2004
				II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV	I ^r	
Gross domestic product (GDP) and related aggregates:																				
GDP	0.5	2.2	3.1	6.4	-0.5	2.1	-0.2	-0.6	-1.3	2.0	4.7	1.9	3.4	1.3	2.0	3.1	8.2	4.1	3.9	
Goods	-2.0	2.1	4.3	10.5	-3.3	.2	-3.4	-6.0	-4.1	4.1	7.7	-1.1	6.5	-2.8	4.3	2.2	18.3	7.1	6.0	
Services	2.3	3.1	2.6	4.8	1.5	3.6	1.6	1.9	1.4	2.9	3.9	-4.2	2.4	3.5	1.0	3.6	2.1	2.8	3.4	
Structures	-4	-3.0	2.4	1.6	-.7	.4	1.0	4.0	-6.4	-9.6	-1.0	-1.1	-1.4	2.1	-.3	2.8	13.9	2.4	0	
Motor vehicle output	-4.8	11.4	2.7	-14.7	-18.1	-12.6	-14.6	19.1	1.5	30.2	11.3	5.5	10.8	-4.9	-6.4	2.1	26.6	3.7	-8.2	
GDP excluding motor vehicle output .....	.7	1.9	3.1	7.4	.3	2.7	.3	-1.3	-1.4	1.1	4.5	1.8	3.1	1.5	2.3	3.1	7.6	4.2	4.4
Final sales of computers ¹	13.6	11.1	41.0	49.6	9.2	18.6	52.2	-17.1	-17.9	27.2	5.0	6.6	50.9	34.8	34.6	32.8	93.4	32.3	.4	
GDP excluding final sales of computers .....	.4	2.1	2.8	6.0	-.6	1.9	-.7	-.4	-1.1	1.8	4.7	1.8	3.0	1.0	1.7	2.8	7.6	3.9	3.9
Farm gross value added ²	-4.2	1.9	3.2	5.2	4.8	-18.2	-2.0	-15.8	-16.6	100.1	-64.2	94.9	50.5	-1.5	-39.5	59.0	-3.2	-16.6	-7.9	
Nonfarm business gross value added ³ .....	.1	2.3	3.7	7.5	-.8	2.2	-.8	-1.0	-2.5	1.6	6.7	.8	4.0	1.6	2.4	3.8	10.4	4.2	4.7
Price indexes:																				
GDP	2.4	1.5	1.7	2.0	1.9	1.8	3.2	3.2	1.6	1.6	1.1	1.5	1.5	1.7	2.3	1.1	1.6	1.5	2.8	
GDP excluding food and energy	2.1	1.8	1.4	1.6	1.7	1.7	2.3	2.3	2.1	2.6	1.4	1.6	1.5	1.6	1.7	.7	1.3	1.4	2.4	
GDP excluding final sales of computers	2.7	1.8	1.8	2.2	2.1	1.9	3.7	3.4	1.8	1.8	1.4	1.6	1.7	1.9	2.5	1.2	1.8	1.6	3.0	
Gross domestic purchases	2.0	1.4	1.9	1.8	2.3	1.8	2.6	2.3	1.0	.5	1.0	2.4	1.6	1.7	3.4	.4	1.8	1.3	3.5	
Gross domestic purchases excluding food and energy	1.9	1.7	1.4	1.3	1.6	1.4	2.3	2.0	1.9	2.3	1.2	1.5	1.5	1.5	1.8	.9	1.3	1.5	2.6	
Gross domestic purchases excluding final sales of computers to domestic purchasers	2.3	1.6	2.1	2.1	2.5	2.0	3.2	2.6	1.3	.8	1.2	2.6	1.8	2.0	3.6	.5	2.0	1.5	3.6	
Personal consumption expenditures	2.0	1.4	1.8	2.0	1.9	1.8	3.2	2.5	.5	.4	.7	2.9	2.0	1.7	2.8	.5	1.8	1.0	3.2	
Personal consumption expenditures excluding food and energy	1.9	1.7	1.2	1.3	.9	1.5	2.8	1.9	1.3	2.5	1.0	1.9	2.0	1.5	.9	.8	1.0	1.2	2.0	

r Revised.

1. For some components of final sales of computers, includes computer parts.

2. Farm output less intermediate goods and services purchased.

3. Consists of GDP less gross value added of farm, of households and institutions, and of general government.

See "Explanatory Note" at the end of the tables.

Explanatory Note: NIPA Measures of Quantities and Prices

Current-dollar GDP is a measure of the market value of goods, services, and structures produced in the economy in a particular period. Changes in current-dollar GDP can be decomposed into quantity and price components. Quantities, or "real" measures, and prices are expressed as index numbers with the reference year -- at present, the year 2000 -- equal to 100.

Annual changes in quantities and prices are calculated using a Fisher formula that incorporates weights from two adjacent years. (Quarterly changes in quantities and prices are calculated using a Fisher formula that incorporates weights from two adjacent quarters; quarterly indexes are adjusted for consistency to the annual indexes before percent changes are calculated.) For example, the 2001-02 annual percent change in real GDP uses prices for 2001 and 2002 as weights, and the 2001-02 annual percent change in GDP prices uses quantities for 2001 and 2002 as weights. These annual changes are "chained" (multiplied) together to form time series of quantity and price indexes. Percent changes in Fisher indexes are not affected by the choice of reference year. (BEA also publishes a measure of the price level known as the implicit price deflator (IPD), which is calculated as the ratio of the current-dollar value to the corresponding chained-dollar value, multiplied by 100. The values of the IPD are very close to the values of the corresponding "chain-type" price index.)

Index numbers of quantity and price indexes for GDP and its major components are presented in this release in tables 5 and 6. Percent changes from the preceding period are presented in tables 1, 4, 7, and 8. Contributions by major components to changes in real GDP are presented in table 2.

Measures of real GDP and its major components are also presented in dollar-denominated form, designated "chained (2000) dollar estimates." For most series, these estimates, which are presented in table 3, are computed by multiplying the current-dollar value in 2000 by a corresponding quantity index number and then dividing by 100. For example, if a current-dollar GDP component equaled \$100 in 2000 and if real output for this component increased 10 percent in 2001, then the chained (2000) dollar value of this component in 2001 would be \$110 ($= \$100 \times 110 / 100$). Percent changes calculated from chained-dollar estimates and from chain-type quantity indexes are the same; any differences will be small and due to rounding.

Chained-dollar values for the detailed GDP components will not necessarily sum to the chained-dollar estimate of GDP (or to any intermediate aggregate). This is because the relative prices used as weights for any period other than the reference year differ from those of the reference year. A measure of the extent of such differences is provided by a "residual" line, which indicates the difference between GDP (or other major aggregate) and the sum of the most detailed components in the table. For periods close to the reference year, when there usually has not been much change in the relative prices that are used as weights, the residuals tend to be small, and the chained-dollar estimates can be used to approximate the contributions to growth and to aggregate the detailed estimates. For periods further from the reference year, the residuals tend to be larger, and the chained-dollar estimates are less useful for analyses of contributions to growth. Thus, the contributions to percent change shown in table 2 provide a better measure of the composition of GDP growth. In particular, for components for which relative prices are changing rapidly, calculation of contributions using chained-dollar estimates may be misleading even just a few years from the reference year.

Reference: "Chained-Dollar Indexes: Issues, Tips on Their Use, and Upcoming Changes," November 2003 Survey, pp. 8-16.