

Annual Revision of the U.S. National Income and Product Accounts

- Annually, 1989–91
- Quarterly, 1989:I–1992:I

IN THIS issue of the SURVEY OF CURRENT BUSINESS, the Bureau of Economic Analysis (BEA) presents revised estimates of the national income and product accounts (NIPA's) for 1989–91 and the first quarter of 1992. As is usual in annual NIPA revisions, source data that are more complete, more detailed, or otherwise more appropriate than the information previously available have been incorporated into the estimates, and seasonal factors have been updated. In addition, several methodological changes have been made.

The first section of this article discusses the impact of the revisions on several measures of economic activity, the second section provides a summary of the revisions and the major source data underlying them, and the third section describes the changes in methodology and summarizes the source data and methods used to prepare the NIPA estimates. [Appendix A](#) to this article shows, in current dollars, the revised an-

nual estimates and the revisions for the five summary accounts of the NIPA's. A set of most of the NIPA tables follows this article; the missing tables are scheduled to appear in the September 1992 SURVEY (see the text and list of tables beginning on [page 46](#)). An index to the complete set of NIPA tables begins on [page 117](#).

Impact of the Revisions

The revised estimates show that during 1989–91 the U.S. economy grew at a slower pace than that indicated in the previously published estimates. From the fourth quarter of 1988 to the first quarter of 1992, the growth rate (average annual rate of increase) for real gross domestic product (GDP) was revised down 0.2 percentage point to 0.6 percent ([table 1](#)). The growth rate for real final sales of domestic product was also revised down 0.2 percentage point to 0.8 per-

CHART 1

Real Gross Domestic Product

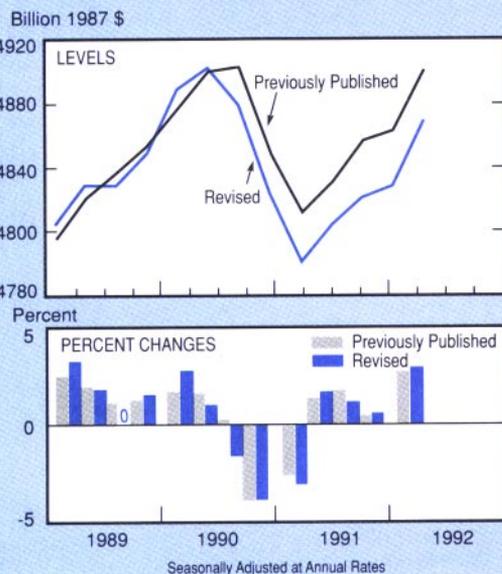
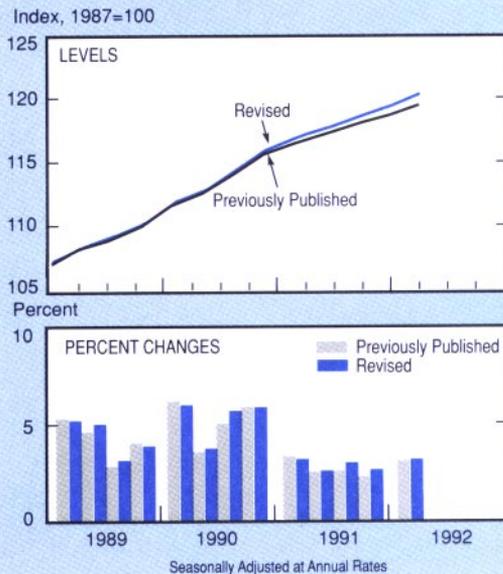


CHART 2

Gross Domestic Purchases Price Index (Fixed Weights)



cent. Among major components, the average annual rates of change for personal consumption expenditures (PCE) for services, nonresidential producers' durable equipment (PDE), and imports of services were lower than previously estimated; the rates of change for exports of services and for Federal nondefense purchases were higher.¹

From the first quarter of 1991 to the first quarter of 1992, both the revised and previously published estimates show that real GDP grew 1.6 percent. There were revisions in the quarterly increases: In the third quarter of 1991, the growth in real GDP was revised down 0.6 percentage point to 1.2 percent. In the other three quarters, the growth in real GDP was revised up 0.2 or 0.3 percentage point.

The revised estimates show that inflation was slightly higher than previously indicated. From the fourth quarter of 1988 to the first quarter of 1992, the average annual rates of increase in

the price indexes (fixed weights) for both gross domestic purchases and gross domestic product were revised up 0.2 percentage point to 4.1 percent (table 2). Among major components, the only substantial revision was an upward revision in the average annual rate of change for the price index for PCE services.

Business cycle.—The expansion in real GDP that ended in the third quarter of 1990 on the basis of the previously published estimates ends one quarter earlier on the basis of the revised estimates. The change in real GDP in the third quarter of 1990 was revised from an increase of 0.2 percent to a decrease of 1.6 percent.

As a result of the substantial downward revision in the third quarter of 1990, the contraction in real GDP lasts one quarter longer and is deeper than previously estimated. Based on the revised estimates, the decrease in real GDP from the second quarter of 1990 to the first quarter of 1991 is 2.2 percent (not at an annual rate); as previously published, the decrease from the third quarter of 1990 to the first quarter of 1991 was 1.6 percent. The increased severity of the contraction was mainly accounted for by PCE and nonresidential PDE.

Table 1.—Revisions in Real GDP and Its Major Components Over the Period 1988:IV-1992:I

[Billions of 1987 dollars, seasonally adjusted annual rates]

	1988:IV	Previously published		Revised		Revision in change			
		1992:I	Change from 1988:IV to 1992:I		1992:I	Change from 1988:IV to 1992:I		Dollar	Percent
			Dollar	Percent (annual rate)		Dollar	Percent (annual rate)		
Gross domestic product	4,779.7	4,900.9	121.2	0.8	4,873.7	94.0	0.6	-27.2	-0.2
Personal consumption expenditures	3,202.9	3,311.3	108.4	1.0	3,289.3	86.4	.8	-22.0	-.2
Durable goods	439.2	427.7	-11.5	-.8	432.3	-6.9	-.5	4.6	.3
Non-durable goods	1,046.8	1,049.2	2.4	.1	1,049.6	2.8	.1	.4	0
Services	1,716.9	1,834.4	117.5	2.1	1,807.3	90.4	1.6	-27.1	-.5
Gross private domestic investment	785.0	679.7	-105.3	-4.3	668.9	-116.1	-4.8	-10.8	-.5
Fixed investment	764.1	696.3	-67.8	-2.8	681.4	-82.7	-3.5	-14.9	-.7
Nonresidential	538.8	509.5	-29.3	-1.7	495.8	-43.0	-2.5	-13.7	-.8
Structures	175.7	146.3	-29.4	-5.5	149.4	-26.3	-4.9	3.1	.6
Producers' durable equipment	363.1	363.2	.1	0	346.4	-16.7	-1.4	-16.8	-1.4
Residential	225.3	186.8	-38.5	-5.6	185.6	-39.7	-5.8	-1.2	-.2
Change in business inventories	20.9	-16.6	-37.5	.....	-12.6	-33.5	.....	4.0	.....
Nonfarm	30.5	-16.3	-46.8	.....	-10.7	-41.2	.....	5.6	.....
Farm	-9.6	-3	9.3	.....	-1.9	7.7	.....	-1.6	.....
Net exports of goods and services	-102.7	-20.1	82.6	.....	-21.5	81.2	.....	-1.4	.....
Exports	438.2	561.4	123.2	7.9	565.4	127.2	8.2	4.0	.3
Merchandise	322.0	413.8	91.8	8.0	408.1	86.1	7.6	-5.7	-.4
Services	116.2	147.6	31.4	7.6	157.3	41.1	9.8	9.7	2.2
Imports	540.9	581.5	40.6	2.3	586.8	45.9	2.5	5.3	.2
Merchandise	444.8	478.4	33.6	2.3	488.0	43.2	2.9	9.6	.6
Services	96.1	103.0	6.9	2.2	98.8	2.7	.9	-4.2	-1.3
Government purchases	894.5	930.0	35.5	1.2	937.0	42.5	1.4	7.0	.2
Federal	378.4	371.7	-6.7	-.5	375.3	-3.1	-.3	3.6	.2
National defense	285.7	266.4	-19.3	-2.1	265.6	-20.1	-2.2	-.8	-.1
Nondefense	92.7	105.3	12.6	4.0	109.7	17.0	5.3	4.4	1.3
State and local	516.1	558.3	42.2	2.4	561.8	45.7	2.6	3.5	.2
Addenda:									
Gross domestic purchases	4,882.4	4,921.0	38.6	.2	4,895.2	12.8	.1	-25.8	-.1
Final sales of domestic product	4,758.7	4,917.5	158.8	1.0	4,886.3	127.6	.8	-31.2	-.2
Gross national product	4,789.0	4,917.8	128.8	.8	4,890.7	101.7	.6	-27.1	-.2

1. Users should be aware that because—as usual—this annual NIPA revision only covered 3 years, discontinuities can occur between the estimates for 1988 (and earlier years), which were not revised, and the estimates for 1989 (and later years), which were revised. As discussed in the section "Methodology," this annual revision resulted in small discontinuities in the NIPA component estimates that are based on the recently revised BEA balance of payments accounts.

Gross saving and investment.—Revisions in gross saving were relatively small (see [appendix A](#), account 5). As a percentage of gross national product (GNP), gross saving was revised down 0.1 percentage point to 14.1 percent for 1989, up 0.1 percentage point to 13.0 percent for 1990, and down 0.2 percentage point to 12.4 percent for 1991. In 1991, private saving is substantially higher than previously estimated, and the government deficit is substantially larger.

The composition of gross saving is considerably different on the revised basis. Personal saving was revised down substantially for all 3 years; as a result, the personal saving rate (personal saving as a percentage of disposable personal income) was revised down 0.4 percentage point to 4.0 percent for 1989, 0.8 percentage point to 4.3 percent for 1990, and 0.5 percentage point to 4.7 percent for 1991. Undistributed corporate profits with inventory valuation and capital consumption adjustments was revised up substantially for 1990 and 1991; consumption of fixed capital, both corporate and noncorporate, was revised up for all 3 years.

The government deficit (NIPA basis), at \$193.3 billion in 1991, is \$21.7 billion larger than previously estimated. The Federal deficit, at \$210.4 billion, is \$8.8 billion larger; the State and local surplus, at \$17.1 billion, is \$12.9 billion

smaller. Within State and local, the “other funds” deficit—that is, the total deficit minus the surplus of social insurance funds—on the revised basis is larger in 1991 than in 1990; previously, it was smaller in 1991 than in 1990.

Revisions in gross investment—that is, gross saving less the statistical discrepancy—were relatively small. Within gross investment, gross private domestic investment was revised down for all 3 years, and net foreign investment was revised up for all 3 years.

Summary of the Revisions

The incorporation of newly available source data and of changes in methodology leads to revisions in current-dollar estimates and in the prices and quantities used to prepare constant-dollar estimates. In turn, these revisions lead to revisions in constant-dollar estimates. This section describes the revisions in the annual current-dollar, price, and constant-dollar estimates and then briefly describes the revisions in the quarterly estimates.

Annual current-dollar estimates

[Table 3](#) summarizes the current-dollar revisions in major NIPA components. It provides a guide to the revisions by identifying the subcomponent series in which revisions were \$2.0 billion

Table 2.—Revisions in the GDP Price Index (Fixed Weights) and in the Gross Domestic Purchases Price Index (Fixed Weights) Over the Period 1988:IV-1992:I

[Index numbers (1987=100), seasonally adjusted]

	1988:IV	Previously published		Revised		Revision in percent change, percentage point
		1992:I	Percent change from 1988:IV to 1992:I (annual rate)	1992:I	Percent change from 1988:IV to 1992:I (annual rate)	
Gross domestic product	105.6	119.6	3.9	120.4	4.1	0.2
Less: Exports of goods and services	107.0	112.5	1.6	113.0	1.7	.1
Plus: Imports of goods and services	106.5	113.6	2.0	112.9	1.8	-.2
Equals: Gross domestic purchases	105.6	119.4	3.9	120.2	4.1	.2
Personal consumption expenditures	106.2	122.0	4.4	122.9	4.6	.2
Durable goods	103.3	110.8	2.2	110.3	2.0	-.2
Nondurable goods	105.7	121.7	4.4	121.8	4.5	.1
Services	107.2	124.9	4.8	126.6	5.3	.5
Gross private domestic investment	104.4	111.0	1.9	111.1	1.9	0
Fixed investment	103.9	110.7	2.0	110.8	2.0	0
Nonresidential	106.3	113.6	2.1	114.0	2.2	.1
Producers' durable equipment	102.6	108.9	1.9	109.2	1.9	0
Residential	105.4	111.8	1.8	111.7	1.8	0
Change in business inventories	104.9	118.2	3.7	118.6	3.8	.1
Government purchases	103.7	119.3	4.4	120.1	4.6	.2
Federal	104.0	119.1	4.3	120.2	4.6	.3
Nondefense	102.9	120.2	4.9	119.7	4.8	-.1
State and local	105.7	117.4	3.3	117.4	3.3	0
Addenda:						
Final sales of domestic product	105.7	119.6	3.9	120.4	4.1	.2
Gross national product	105.6	119.6	3.9	120.4	4.1	.2

Data Availability

The revised NIPA estimates, along with the estimates for 1988 and earlier years (back to 1959), are available on diskette and magnetic tape. For order information, write to the National Income and Wealth Division (BE-54), Bureau of Economic Analysis, Washington, DC 20230, or call (202) 523-0669.

or more and by listing the major source data that underlie the revised estimates. (For a list of the principal source data and estimating methods used in preparing the current-dollar estimates, see table 7.) It should be noted that newly available source data lead to a revision in the level of an estimate not only for the year into which they are directly incorporated, but also usually in the levels for subsequent years. The discussion in this section follows the sequence of entries in table 3.

GDP.—The level of current-dollar GDP was revised up for all 3 years: \$6.8 billion, or 0.1 percent, for 1989; \$8.4 billion, or 0.2 percent, for 1990; and \$4.9 billion, or 0.1 percent, for 1991. The largest dollar revisions among the major components of GDP were in nonresidential producers' durable equipment and in net exports of goods and services.

Personal consumption expenditures (PCE) for goods.—PCE goods was revised up for all 3 years: \$2.2 billion for 1989, \$5.2 billion for 1990, and \$0.5 billion for 1991. Upward revisions in "goods other than motor vehicles and parts" more than accounted for both the 1989 and 1990 revisions. For 1990, the largest upward revisions in this category were in food and in gasoline and oil. The revision in food resulted from the incorporation of revised Census Bureau retail sales data; the revision in gasoline and oil largely reflected newly available data on gasoline consumption from the Federal Highway Administration. Net purchases of used autos was revised down for 1990, reflecting newly available information on sales and margins of used auto dealers from the Census Bureau 1990 Annual Retail Trade Survey and revised data from trade sources on the stock of autos held by consumers.

PCE for services.—PCE services was revised up \$3.0 billion for 1989, up \$0.7 billion for 1990, and down \$1.8 billion for 1991. Revisions in personal business services more than accounted for the upward revisions for 1989 and 1990; personal business services was also revised up

Text continues on page 14.

Acknowledgments

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Eugene P. Seskin and Robert P. Parker coordinated the preparation of the article describing the revisions. John C. Musgrave, Claire G. Pitzer, George M. Smith, and Teresa L. Weadock prepared the tables for the article.

Other staff who made significant contributions to the revision are listed below.

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Table 3.—NIPA Revisions: Selected Component Detail and Major Source Data

NIPA component	Billions of dollars				Major source data incorporated
	Revision in level			Revised 1991 level	
	1989	1990	1991		
Gross domestic product	6.8	8.4	4.9	5,677.5	
Personal consumption expenditures	5.2	5.8	-1.4	3,887.7	
Goods	2.2	5.2	.5	1,697.6	
Motor vehicles and parts	-2	-1.3	1.3	185.4	
<i>Of which:</i>					
Net purchases of used autos	0	-2.1	-2	35.8	Revised stock of autos held by consumers from trade sources for 1990; net stock data for 1991; Census Bureau annual retail trade survey sales and gross margin of used car dealers data for 1990.
Goods other than motor vehicles and parts	2.4	6.5	-8	1,512.2	
<i>Of which:</i>					
Food	1.8	5.6	-1.6	617.7	Revised Census Bureau retail sales for 1989-91; Census Bureau annual retail trade survey sales data for 1990.
Clothing and shoes	-1	-1.8	-2.0	209.0	
Gasoline and oil .....	.7	1.7	2.7	105.5	Revised Federal Highway Administration (FHWA) gasoline consumption data by type of vehicle for 1989; new FHWA gasoline consumption data for 1990; Energy Information Administration gasoline supplied data for 1991.
Services	3.0	.7	-1.8	2,190.1	
<i>Of which:</i>					
Household operation	1.4	2.3	-1.7	223.7	
Transportation	-2.4	-4.8	-8.6	147.3	
<i>Of which:</i>					
Repair, greasing, washing, parking, storage, rental, and leasing ...	-2.3	-6.1	-9.9	83.7	National Automobile Dealers Association data on auto repair at franchised car dealers for 1989 and 1990; BLS consumer expenditures survey data for leasing of vehicles for 1990; revised Census Bureau service annual survey (SAS) data for 1990; new SAS data for 1991.
Medical care	-3	1.8	3.3	580.2	
<i>Of which:</i>					
Physicians .....	.1	.7	3.8	148.1	Revised Census Bureau service annual survey (SAS) data for 1990; new SAS data for 1991.
Hospitals	0	-1.0	.4	255.2	
<i>Of which:</i>					
Nonprofit	-5	-2.6	-3.5	176.8	American Hospital Association (AHA) expense data for FY 1990 for 1989-90; AHA community hospital expense data for 1991.
Government .....	.5	1.6	4.3	49.7	Revised Census Bureau <i>Government Finances</i> tabulations for FY 1990 for 1989-90 and new tabulations for FY 1991 for 1990-91.
Personal business	6.6	8.2	13.9	317.7	
<i>Of which:</i>					
Services furnished without payment by financial intermediaries except life insurance carriers and private noninsured pension plans.	5.7	6.1	13.9	127.4	IRS tabulations of corporate tax return data for 1989 and 1990; Federal Deposit Insurance Corporation data, National Credit Union Administration data, and Office of Thrift Supervision data for 1991; Federal Reserve Board flow-of-funds accounts data for 1989-91.
Expense of handling life insurance	1.6	2.0	1.8	59.7	IRS tabulations of corporate tax return data for 1989 and 1990; American Council on Life Insurance expense data for 1990; BLS tabulations of unemployment insurance wage and salary data for 1991.
Religious and welfare activities	-3	-1.7	-2.0	107.7	BLS consumer expenditures survey data for day care for 1990; BLS tabulations of unemployment insurance wage and salary data for 1989-91.
Net foreign travel	-2.3	-4.6	-5.7	-22.0	Revised BEA balance of payments accounts estimates for 1989-91.
Fixed investment	-2.7	-9.5	-13.9	731.3	
Nonresidential structures .....	.2	2.4	5.5	180.1	
<i>Of which:</i>					
Nonresidential buildings, excluding farm .....	.2	1.8	3.0	124.8	
<i>Of which:</i>					
Industrial .....	.3	1.5	2.5	38.9	Revised Census Bureau value of new construction put in place for 1989-91.
Utilities	0	-3.2	-3.1	28.6	
<i>Of which:</i>					
Electric light and power	0	-2.5	-3.5	10.1	Energy Information Administration (EIA) end-of-year fixed assets, capital expenditures, and monetary interest charged during construction data and BEA tabulation of plant put in service by type of plant for 1990; Rural Electrification Administration utility plant and monetary interest charged during construction data for 1990; Edison Electric Institute capital expenditures data for 1991.
Mining exploration, shafts, and wells .....	.4	4.1	5.8	15.3	
<i>Of which:</i>					
Petroleum and natural gas .....	.4	4.1	5.7	14.2	American Petroleum Institute (API) survey on oil and gas expenditures for exploration data for 1990; Joint Association survey on drilling costs expenditures and footage drilled data for 1990; revised API footage drilled data for 1989-91.
Producers' durable equipment	-2.8	-11.8	-14.6	360.9	
<i>Of which:</i>					
Information processing and related equipment	0	-6.2	-8.4	123.6	Revised Census Bureau manufacturers' shipments data for 1989-91; revised annual survey of manufactures (ASM) coverage adjustment for 1989; new ASM data for 1990.
<i>Of which:</i>					
Computers and peripheral equipment	1.2	-2.5	-3.5	34.2	
Communication equipment	-4	-1.8	-2.2	52.8	
Industrial equipment	-1.4	-2.1	-2.8	81.3	Revised Census Bureau manufacturers' shipments data for 1989-91; revised annual survey of manufactures (ASM) coverage adjustment for 1989; new ASM data for 1990.
Other equipment	-1.3	-3.0	-3.7	73.9	Revised Census Bureau manufacturers' shipments data for 1989-91; revised annual survey of manufactures (ASM) coverage adjustment for 1989; new ASM data for 1990.
Residential investment	0	-1	-4.8	190.3	
<i>Of which:</i>					
Improvements	0	0	-4.3	47.2	BLS consumer expenditures survey and Census Bureau landlord survey data for 1991.

Table 3.—NIPA Revisions: Selected Component Detail and Major Source Data—Continued

NIPA component	Billions of dollars				Major source data incorporated
	Revision in level			Revised 1991 level	
	1989	1990	1991		
Change in business inventories	-2.7	6.3	8.3	-10.2	
Farm	1.0	1.1	3.5	0	Revised USDA data for 1989-90; new USDA data for 1991.
Nonfarm	-3.7	5.3	4.7	-10.3	
Inventory valuation adjustment				3.8	
Change in book value	-3.7	5.3	4.8	-14.0	
Of which:					
Manufacturing	0	5.5	.5	-7.5	Revised Census Bureau inventory book value data for 1989-91; annual survey of manufacturers inventory book value data for 1990.
Retail trade	0	3.1	6.8	2.2	
Of which:					
Automotive	0	4.9	6.9	-1.4	Revised Census Bureau inventory book value data for 1989-90; revised BEA estimates based on data from trade sources for 1991.
Other than manufacturing and trade	-3.6	-4.8	-3.3	-5.9	IRS tabulations of inventory book value from corporate tax returns for 1989; tabulations from corporate tax returns for 1990; Census Bureau <i>Quarterly Financial Report</i> for mining for 1991.
Net exports of goods and services	3.2	5.5	8.9	-21.8	
Exports	3.1	6.6	6.9	598.2	
Merchandise .....	.2	-.1	-4.1	423.1	Revised BEA balance of payments accounts estimates for 1989-91; revised territorial adjustment for 1989-91; revised Census Bureau merchandise exports for 1991.
Services	2.9	6.8	11.0	175.1	Revised BEA balance of payments accounts estimates for 1989-91; revised territorial adjustment for 1989-91.
Imports	-1	1.1	-2.0	620.0	
Merchandise .....	.5	.4	-6	499.9	Revised BEA balance of payments accounts estimates for 1989-91; revised territorial adjustment for 1989-91; revised Census Bureau merchandise imports for 1991.
Services	-7	.7	-1.4	120.1	Revised BEA balance of payments accounts estimates for 1989-91; revised territorial adjustment for 1989-91.
Government purchases	3.8	.3	3.0	1,090.5	
Federal .....	.2	1.5	2.2	447.3	
Of which:					
Nondefense .....	.2	.9	2.0	123.6	Revised FY 1991 Federal budget data for 1990-91; preliminary FY 1992 Federal budget data for 1991.
Of which:					
Compensation of employees	-4	-1	2.3	59.4	Office of Personnel Management data for 1989-91.
State and local	3.6	-1.2	.8	643.2	
Compensation of employees .....	.7	1.6	1.5	435.6	
Structures .....	.5	-4.8	-2.3	86.7	Revised Census Bureau <i>Government Finances</i> tabulations for FY 1990 for 1989-90 and new tabulations for FY 1991 for 1990; Census Bureau value of new construction put in place for 1991.
Goods and services other than employee compensation	2.4	2.0	1.6	120.9	Revised Census Bureau <i>Government Finances</i> tabulations for FY 1990 for 1989-90 and new tabulations for FY 1991 for 1990-91.
Gross domestic product	6.8	8.4	4.9	5,677.5	
Plus: Net receipts of factor income	11.8	10.0	4.3	17.5	Revised BEA balance of payments accounts estimates for 1989-91; BEA direct investment surveys for 1991; revised territorial adjustment for 1989-91; BEA estimate of current cost (replacement cost) adjustment for depreciation.
Receipts of factor income from the rest of the world	12.1	12.9	8.5	143.5	
Payments of factor income to the rest of the world .....	.3	2.9	4.2	126.0	
Equals: Gross national product	18.6	18.4	9.1	5,694.9	
Less: Statistical discrepancy	3.8	-2.7	2.9	21.9	
Equals: Gross national income	14.8	21.0	6.4	5,673.1	
Compensation of employees	-1.1	.9	2.6	3,390.8	
Of which:					
Wages and salaries .....	.6	4.0	4.0	2,812.2	
Government	-.1	.8	3.0	543.5	
Of which:					
Federal	-2	.3	3.1	167.7	Revised Postal Service data for 1990-91; Office of Personnel Management data for 1989-91; revised FY 1991 Federal budget data for 1990-91; preliminary FY 1992 Federal budget data for 1991.
Private .....	.7	3.1	1.0	2,268.7	BLS tabulations of unemployment insurance wage and salary data for 1989-91; revised USDA data for 1989-90; new USDA data for 1991.
Supplements to wages and salaries	-1.7	-3.0	-1.3	578.7	
Of which:					
Other labor income	-1.8	-3.0	-2.3	288.3	
Of which:					
Pension and profit-sharing plans	-1.4	-2.9		47.9	IRS tabulations of corporate tax return data on employer contributions to pension and profit-sharing plans for 1989 and 1990.
Proprietors' income with IVA and CCAadj .....	.3	-6.3	-11.7	368.0	
Farm	-1.2	-.8	.7	35.8	

Table 3.—NIPA Revisions: Selected Component Detail and Major Source Data—Continued

NIPA component	Billions of dollars				Major source data incorporated
	Revision in level			Revised 1991 level	
	1989	1990	1991		
Nonfarm	1.5	-5.5	-12.3	332.2	
<i>Of which:</i>					
Proprietors' income	2.5	1.1	-6.7	318.7	Revised IRS tabulations of partnership tax return data for 1989; new IRS tabulations of sole proprietorship and partnership tax return data for 1990.
CCAdj	-9	-6.7	-5.7	13.8	Capital consumption allowances: IRS tabulations of sole proprietorship and partnership tax return data for 1990. Consumption of fixed capital: Revised BEA fixed investment and price estimates for 1989-91.
Rental income of persons with CCAdj	-5.6	.6	2.3	-10.4	
Rental income of persons	-2.7	4.0	5.0	47.5	Census Bureau current population survey owner- and tenant-occupied units data for 1991; revised Federal Reserve Board mortgage debt outstanding data for 1989-91; Housing and Urban Development survey of mortgage lending activity data for 1989-91; Federal Housing Finance Board interest rate survey data for 1989-91; BLS consumer expenditures survey data on maintenance and repairs for 1991; revised USDA data for 1989-90; revised IRS tabulations of individual income tax data on royalty income for 1989; new IRS data for 1990.
CCAdj	-2.9	-3.5	-2.7	-57.9	Revised BEA fixed investment and price estimates for 1989-91.
Corporate profits with IVA and CCAdj	11.1	42.7	39.5	346.3	
Corporate profits with IVA	-1.6	23.0	22.3	337.8	
Domestic	-7.1	17.5	21.8	271.3	IRS tabulations of corporate tax return data for 1989 and 1990;
Financial	11.5	17.1	19.2	60.9	regulatory agency and public financial reports data on profits for 1991.
<i>Of which:</i>					
Commercial banks	7.6	5.3	5.0	33.3	
Savings and loan associations	2.3	7.7	11.2	13.4	
Nonfinancial	-18.6	.5	2.7	210.4	
Manufacturing	-5.6	11.2	7.6	89.3	
Transportation and public utilities	-2.9	-.6	.3	46.1	
Wholesale and retail trade	-3.1	-4.0	-1.8	44.0	
Other	-7.1	-6.3	-3.3	31.1	
Rest of the world	5.5	5.5	.4	66.5	Revised BEA balance of payments accounts estimates for 1989-91.
Receipts from the rest of the world	2.1	2.8	-1.2	62.5	
Less: Payments to the rest of the world	-3.4	-2.7	-1.6	-4.0	
CCAdj	12.7	19.7	17.1	8.4	Capital consumption allowances: IRS tabulations of corporate tax return data for 1989 and 1990. Consumption of fixed capital: Revised BEA fixed investment and price estimates for 1989-91.
Net interest .....	.1	-29.4	-30.7	449.5	
Net monetary interest	-6.7	-31.8	-33.5	130.0	
Interest paid	40.1	8.4	.....	1,730.5	
Domestic business	28.8	-3.3	.....	1,253.3	IRS tabulations of corporate tax return data for 1989 and 1990; IRS tabulations of sole proprietorship and partnership tax return data for 1990; Federal Reserve Board flow-of-funds accounts data, Investment Company Institute data, Federal Deposit Insurance Corporation data, Office of Thrift Supervision data, and Federal Reserve Board mortgage debt outstanding data for 1989-91.
Persons	1.4	2.1	5.7	112.5	
Government	0	-.4	0	284.6	
Rest of the world	10.0	10.0	9.7	80.0	Revised BEA balance of payments accounts estimates for 1989-91.
Less: Interest received	40.1	8.4	.....	1,730.5	
Domestic business	41.7	32.8	.....	1,083.8	IRS tabulations of corporate tax return data for 1989 and 1990; IRS tabulations of sole proprietorship and partnership tax return data for 1990; Federal Reserve Board flow-of-funds accounts data, Federal Deposit Insurance Corporation data, Office of Thrift Supervision data for 1989-91.
Persons	-7.6	-29.2	-20.4	388.5	
Government	2.3	-.9	-7.3	138.6	
Federal	-1	.9	2.4	33.0	Revised FY 1991 Federal budget data for 1990-91; preliminary FY 1992 Federal budget data for 1991; revised BEA balance of payments accounts estimates for 1989-91.
State and local	2.4	-1.7	-9.8	105.6	Revised Census Bureau <i>Government Finances</i> tabulations for FY 1990 for 1989-90 and new tabulations for FY 1991 for 1990-91.
Rest of the world	3.8	5.6	5.0	119.6	Revised BEA balance of payments accounts estimates for 1989-91.
Net imputed interest	6.8	2.4	2.8	319.5	
Interest paid	7.7	3.6	.....	378.5	Investment companies and life insurance carriers: IRS tabulations of corporate tax return data for 1989 and 1990. Commercial banks: Federal Deposit Insurance Corporation data for 1991. Other: IRS tabulations of corporate tax return data for 1989 and 1990; National Credit Union Administration data and Office of Thrift Supervision data for 1991; Federal Reserve Board flow-of-funds accounts private noninsured pension plan data for 1989-91.
Less: Interest received	7.7	3.6	.....	378.5	Federal Deposit Insurance Corporation data for 1991; Federal Reserve Board flow-of-funds accounts data on assets for 1989-91.
<i>Of which:</i>					
Persons	6.8	2.4	2.4	312.0	
<i>Of which:</i>					
From banks, credit agencies, and investment companies	5.8	6.2	13.9	127.4	
From life insurance carriers and private noninsured pension plans	1.0	-3.8	-11.4	184.7	

Table 3.—NIPA Revisions: Selected Component Detail and Major Source Data—Continued

NIPA component	Billions of dollars				Major source data incorporated
	Revision in level			Revised 1991 level	
	1989	1990	1991		
Consumption of fixed capital	5.9	8.0	3.2	626.1	Revised BEA fixed investment and price estimates for 1989–91.
Corporate	1.9	2.8	–6	383.0	
Noncorporate	4.0	5.3	3.8	243.1	
Capital consumption allowances	14.7	17.7	11.8	574.2	
Corporate	14.6	22.5	16.6	391.5	IRS tabulations of corporate tax return data for 1989 and 1990; revised BEA estimates based on revised fixed investment estimates and BEA depreciation model for 1991.
Noncorporate .....	.1	–4.9	–4.7	182.8	IRS tabulations of sole proprietorship and partnership tax return data for 1990; revised BEA estimates based on revised fixed investment estimates and BEA depreciation model for 1991; revised BEA estimates for other private business based on revised BEA fixed investment estimates for 1989–91.
Less: CCA _{adj}	8.8	9.6	8.7	–51.9	
Corporate	12.7	19.7	17.1	8.4	
Noncorporate	–3.8	–10.2	–8.5	–60.3	
Nonfactor incomes	4.2	4.3	1.2	502.8	
Indirect business tax and nontax liability	3.7	5.0	4.2	475.2	
Of which:					
State and local	3.7	4.8	4.8	397.0	Revised Census Bureau <i>Government Finances</i> tabulations for FY 1990 for 1989–90 and new tabulations for FY 1991 for 1990–91; revised Census Bureau quarterly tax revenue data for 1990 and new data for 1991.
Business transfer payments	–2	–1.3	–3.1	28.1	IRS tabulations of corporate tax return data on corporate gifts for 1989 and 1990; A.M. Best Company medical malpractice loss data for 1990; A.M. Best Company insured losses on auto liability for personal injury data for 1990.
Less: Subsidies less current surplus of government enterprises	–7	–6	–1	.5	
Addenda:					
National income	4.8	8.7	2.0	4,544.2	See entries under "gross national income."
Personal income .....	.1	–15.6	–6.1	4,828.3	See entries under "gross national income" and additional sources below.
Of which:					
Wage and salary disbursements, other labor income, proprietors' income with IVA and CCA _{adj} , and rental income of persons with CCA _{adj}	–6.5	–4.8	–7.8	3,458.1	
Personal dividend income	6.7	15.5	8.5	137.0	IRS tabulations of corporate tax return data for 1989 and 1990; regulatory agency and public financial reports data on dividends for 1991.
Personal interest income	–8	–26.8	–18.0	700.6	
Net interest .....	.1	–29.4	–30.7	449.5	See entries under "net interest."
Net interest paid by government	–2.3	.4	6.9	138.5	See entries under "net interest."
Interest paid by persons	1.4	2.1	5.7	112.5	Federal Reserve Board consumer installment credit data for 1989–91.
Transfer payments to persons .....	.6	.9	11.6	771.1	
From business	–1.3	–2.0	–3.5	22.8	
From government	1.8	2.9	15.1	748.3	
Federal	1.5	1.7	3.6	550.2	Revised FY 1991 Federal budget data for 1990–91; preliminary FY 1992 Federal budget data for 1991.
State and local .....	.3	1.2	11.5	198.0	Revised Census Bureau <i>Government Finances</i> tabulations for FY 1990 for 1989–90 and new tabulations for FY 1991 for 1990–91; Health Care Financing Administration tabulations of medicaid data for 1991; Department of Health and Human Services tabulations of aid to families with dependent children and other categorical assistance data for 1991.
Less: Personal tax and nontax payments	1.6	.3	2.6	618.7	
Of which:					
Federal	1.7	.4	3.0	473.4	Social Security Administration contributions data for 1989–91; Treasury Department personal income tax collections data for 1991.
Equals: Disposable personal income	–1.6	–15.9	–8.8	4,209.6	
Less: Personal outlays	12.5	14.2	10.8	4,009.9	
Personal consumption expenditures	5.2	5.8	–1.4	3,887.7	See entries under "personal consumption expenditures."
Interest paid by persons	1.4	2.1	5.7	112.5	See entries under "personal interest income."
Personal transfer payments to rest of the world (net)	6.0	6.4	6.5	9.7	Revised BEA balance of payments accounts estimates for 1989–91.
Equals: Personal saving	–14.0	–30.2	–19.7	199.6	

BEA Bureau of Economic Analysis
 BLS Bureau of Labor Statistics
 CCA_{adj} Capital consumption adjustment
 FY Fiscal year
 IRS Internal Revenue Service

IVA Inventory valuation adjustment
 USDA U.S. Department of Agriculture

Text continues from page 9.

substantially for 1991, but not enough to offset downward revisions in other types of services. Within personal business services, the incorporation of newly available information from a variety of regular sources led to upward revisions in two components—"services furnished without payment by financial intermediaries except life insurance carriers and private noninsured pension plans" and "expense of handling life insurance."

Among the other types of PCE services, transportation services was revised down for all 3 years; the revisions mainly reflected the incorporation of new trade source data on receipts from auto repairs at franchised car dealers for 1989 and 1990, revised data for 1990 and new data for 1991 on receipts from repairs at auto repair shops from Census Bureau service annual surveys, and new Bureau of Labor Statistics (BLS) data on automobile leasing for 1990. Net foreign travel also was revised down for all 3 years, reflecting revisions to the BEA balance of payments accounts (BPA's). Household operation was revised up for 1990, reflecting the incorporation of newly available information from a variety of regular sources. For 1991, medical care services was revised up, reflecting the incorporation of newly available data on physician services from the Census Bureau 1991 Service Annual Survey. Hospitals was revised little for all 3 years, as downward revisions in nonprofit hospitals, reflecting expense data from the American Hospital Association, offset upward revisions in government hospitals, reflecting newly available data from Census Bureau surveys of government finances. Religious and welfare activities was revised down for 1990, primarily reflecting data on day care from a BLS survey.

Nonresidential structures.—Nonresidential structures was revised little for 1989, up \$2.4 billion for 1990, and up \$5.5 billion for 1991. For both 1990 and 1991, upward revisions in industrial buildings and in petroleum and natural gas exploration were partly offset by downward revisions in electric light and power. The upward revisions in industrial buildings reflected revised Census Bureau data on the value of new construction put in place, and the upward revisions in petroleum and natural gas exploration reflected new trade source data on drilling and exploration costs and on drilling footage. The downward revisions in

electric light and power reflected newly available data from a variety of regular sources.

Nonresidential producers' durable equipment (PDE).—Nonresidential PDE was revised down for all 3 years: \$2.8 billion for 1989, \$11.8 billion for 1990, and \$14.6 billion for 1991. The downward revisions were widespread among the components of PDE. For 1989, the revisions reflected a revision to a BEA adjustment to account for undercoverage in manufacturers' shipments. For 1990 and 1991, the revisions primarily reflected the introduction of shipments data from the 1990 Annual Survey of Manufactures. For 1991, the revisions also reflected newly available shipments data from the Census Bureau Current Industrial Report covering civilian aircraft.

Residential fixed investment.—Residential fixed investment was revised little for 1989 and 1990 and was revised down \$4.8 billion for 1991. The 1991 revision was largely accounted for by a downward revision in improvements, reflecting the incorporation of information from BLS and Census Bureau surveys.

Change in business inventories.—The change in business inventories was revised down \$2.7 billion for 1989, up \$6.3 billion for 1990, and up \$8.3 billion for 1991. The change in farm inventories was revised up for all 3 years, reflecting the incorporation of revised estimates from the U.S. Department of Agriculture.

The change in nonfarm inventories was revised down for 1989, up for 1990, and up for 1991. The downward revision for 1989 was accounted for by "other" inventories—that is, inventories of industries other than manufacturing and trade—which were affected by the incorporation of newly available inventory data from Internal Revenue Service (IRS) tabulations of corporate tax return data for 1989. For 1990 and 1991, upward revisions in the changes in manufacturing and in retail trade inventories more than offset downward revisions in the change in "other" inventories: The revisions in manufacturing and retail trade inventories reflected newly available data on inventory book values from Census Bureau annual surveys, revised inventory data from Census Bureau monthly surveys, and revised motor vehicle inventories from trade sources; the revisions in "other" inventories reflected the incorporation of inventory data from IRS tabulations of corporate tax return data for 1990 and from the Census Bureau *Quarterly Financial Report* for mining.

Net exports of goods and services.—Net exports of goods and services was revised up for all 3 years: \$3.2 billion for 1989, \$5.5 billion for 1990, and \$8.9 billion for 1991. The revisions were due primarily to upward revisions in exports. For 1989 and 1990, the upward revisions in exports were almost entirely in services. For 1991, an upward revision in exports of services was partly offset by a downward revision in merchandise exports. For 1989, imports was revised little; for 1990, an upward revision in imports partly offset the upward revision in exports; and for 1991, a downward revision in imports contributed to the upward revision in net exports. The revisions in exports and imports mainly reflected revisions to the BPA's: For merchandise, the revisions reflected the incorporation of newly available regular source data; for services, the revisions, which were primarily in the BPA travel and passenger fares and "other private services" categories, reflected the introduction of major improvements in estimating methodologies and new source data. (For more information about the revisions in the BPA's, see the section "[Changes in methodology.](#)")

Government purchases.—Government purchases was revised up for all 3 years: \$3.8 billion for 1989, \$0.3 billion for 1990, and \$3.0 billion for 1991. For 1989, the revision was primarily in State and local government purchases, reflecting newly available data from Census Bureau surveys of government finances. For 1990, a downward revision in State and local government purchases, which was more than accounted for by structures, was offset by an upward revision in Federal Government purchases. For 1991, the revision was primarily in Federal Government purchases, as newly available budget data for fiscal years 1991 and 1992 led to upward revisions in many nondefense components.

Net receipts of factor income.—Net receipts of factor income from the rest of the world, which is excluded from GDP but included in GNP, was revised up for all 3 years: \$11.8 billion for 1989, \$10.0 billion for 1990, and \$4.3 billion for 1991. For all 3 years, receipts were revised up more than payments; these revisions, which were mainly in interest income, reflected the revisions to the BPA's. The largest contributor to the upward revisions in receipts of interest was revised estimates of receipts on U.S. nonbank firms' claims on unaffiliated foreign banks. The largest contributor to the upward revisions in payments of interest was new estimates of payments on U.S.

banks' claims denominated in foreign currencies. The revisions in both receipts and payments were reduced by the introduction in the BPA's of an adjustment to direct investment income to convert depreciation, depletion, and exploration and development costs from a historical-cost to a current-cost basis.

GNP.—The level of GNP was revised up for all 3 years: \$18.6 billion, or 0.4 percent, for 1989; \$18.4 billion, or 0.3 percent, for 1990; and \$9.1 billion, or 0.2 percent, for 1991. For all 3 years, the revisions in GNP were larger than those in GDP because of the upward revisions in net receipts of factor income.

Gross national income (GNI) and the statistical discrepancy.—GNI measures the costs incurred and the profits earned in the production of GNP, and it is equal to GNP minus the statistical discrepancy. The level of GNI was revised up for all 3 years: \$14.8 billion, or 0.2 percent, for 1989; \$21.0 billion, or 0.4 percent, for 1990; and \$6.4 billion, or 0.1 percent, for 1991. These revisions were about the same as those in GNP; the statistical discrepancy was revised only slightly for all 3 years.

Within GNI, the revisions for all 3 years were more than accounted for by upward revisions in corporate profits with inventory valuation adjustment (IVA) and capital consumption adjustment (CCAdj), in consumption of fixed capital, and in indirect business tax and nontax liability. For 1989, these upward revisions were partly offset by downward revisions in rental income of persons with CCAdj; for 1990 and 1991, they were partly offset by downward revisions in net interest and in nonfarm proprietors' income with IVA and CCAdj.

Compensation of employees.—Compensation of employees was revised down \$1.1 billion for 1989, up \$0.9 billion for 1990, and up \$2.6 billion for 1991. For all 3 years, wages and salaries was revised up, and supplements to wages and salaries was revised down. For 1991, the revision in wages and salaries was largely in the Federal Government, reflecting revised data from the Office of Personnel Management for civilian employees and new budget data from the Office of Management and Budget for military employees. For all 3 years, the revisions in supplements to wages and salaries were more than accounted for by other labor income, primarily in pension and profit-sharing plans, and reflected newly available IRS

tabulations of corporate tax return data for 1989 and 1990.

Proprietors' income with IVA and CCAdj.—Proprietors' income with IVA and CCAdj was revised little for 1989, down \$6.3 billion for 1990, and down \$11.7 billion for 1991. Nonfarm proprietors' income with IVA and CCAdj was revised up for 1989, down for 1990, and down for 1991; these revisions reflected revised 1989 and newly available 1990 IRS tabulations of sole proprietorship and partnership tax return data. The CCAdj for nonfarm proprietors' income was revised down for all 3 years (see the discussion of [consumption of fixed capital](#)).

Rental income of persons with CCAdj.—Rental income of persons with CCAdj was revised down \$5.6 billion for 1989, up \$0.6 billion for 1990, and up \$2.3 billion for 1991. Rental income of persons (without CCAdj) was revised down for 1989, up for 1990, and up for 1991; these revisions largely reflected a new estimating procedure for mortgage interest expense (see the section "[Changes in methodology](#)"). The CCAdj for rental income of persons was revised down for all 3 years (see the discussion of [consumption of fixed capital](#)).

Corporate profits with IVA and CCAdj.—Corporate profits with IVA and CCAdj was revised up for all 3 years: \$11.1 billion for 1989, \$42.7 billion for 1990, and \$39.5 billion for 1991. Corporate profits with IVA was revised down for 1989, up for 1990, and up for 1991. Revisions in domestic profits reflected the incorporation of newly available IRS tabulations of corporate tax return data for 1989 and 1990 (see the section "[Changes in methodology](#)"). Revisions in rest-of-the-world profits reflected the incorporation of revisions to the BPA's. The CCAdj for corporate profits was revised up for all 3 years (see the discussion of [consumption of fixed capital](#)).

By industry, domestic profits (with IVA) of financial corporations was revised up for all 3 years and was primarily accounted for by commercial banks and savings and loan associations. Domestic profits of nonfinancial corporations was revised down for 1989, little for 1990, and up for 1991. For 1989, profits of all major nonfinancial industry groups were revised down. For 1990 and 1991, upward revisions in manufacturing were mostly offset by downward revisions in trade and "other" industries. Profits from the rest of the world was revised up for all 3 years. The upward revisions reflected revisions to the BPA's that raised the estimates of profits from

U.S. investment abroad for 1989 and 1990 and that lowered the estimates of profits from foreign investment in the United States for all 3 years.

Net interest.—Net interest was revised little for 1989, down \$29.4 billion for 1990, and down \$30.7 billion for 1991. For all 3 years, net monetary interest was revised down, and net imputed interest was revised up. For 1989, a downward revision in net monetary interest was offset by an upward revision in net imputed interest. Monetary interest paid and received by domestic business were both revised up, reflecting newly available IRS tabulations of corporate tax return data. Rest-of-the-world monetary interest paid and received were both revised up, reflecting revisions to the BPA's. The revision in net imputed interest was mostly in interest paid by investment companies, reflecting newly available IRS data. For 1990, a large downward revision in net monetary interest was partly offset by an upward revision in net imputed interest. A downward revision in monetary interest paid by domestic business was more than offset by an upward revision in interest received by domestic business; these revisions reflected new IRS tabulations of sole proprietorship, partnership, and corporate tax return data. The revision in net imputed interest was in interest paid by investment companies, reflecting newly available IRS data. For 1991, the revisions were similar to those for 1990.

Consumption of fixed capital.—Consumption of fixed capital—that is, economic depreciation—was revised up for all 3 years: \$5.9 billion for 1989, \$8.0 billion for 1990, and \$3.2 billion for 1991. The revisions reflected revised BEA estimates of fixed investment and prices.

Capital consumption allowances—that is, tax-return-based depreciation—was revised up considerably more than the economic depreciation measure for all 3 years. These upward revisions largely reflected newly available IRS tabulations of corporate tax return data for 1989 and 1990. For 1990 and 1991, upward revisions for corporations were partly offset by downward revisions for nonfarm sole proprietorships and partnerships, reflecting newly available IRS tabulations of tax return data for these entities for 1990.

The CCAdj—which is derived as the difference between the tax-return-based measure and the economic measure of depreciation—was revised up for all 3 years.

Nonfactor incomes.—Nonfactor incomes—indirect business tax and nontax liability, business

transfer payments, and subsidies less current surplus of government enterprises—were revised up for all 3 years: \$4.2 billion for 1989, \$4.3 billion for 1990, and \$1.2 billion for 1991. Upward revisions in indirect business taxes were partly offset by downward revisions in business transfer payments; subsidies less current surplus of government enterprises was revised little for all 3 years. The revisions in indirect business taxes reflected newly available Census Bureau data from surveys of State and local government finances and from quarterly surveys of tax revenues. The revisions in business transfer payments reflected the incorporation of newly available IRS tabulations of corporate tax return data on corporate gifts to nonprofit institutions for 1989 and 1990.

National income.—National income was revised up for all 3 years: \$4.8 billion for 1989, \$8.7 billion for 1990, and \$2.0 billion for 1991. The upward revision for 1989 was more than accounted for by corporate profits; rental income of persons with *ccadj* was revised down. For 1990 and 1991, corporate profits was also revised up, but these revisions were partly offset by downward revisions in proprietors' income and in net interest.

Personal income and its disposition.—The pattern of revisions in personal income—revised little for 1989, down \$15.6 billion for 1990, and down \$6.1 billion for 1991—partly reflected the previously described revisions in the components of national income that are included in personal income—wages and salaries, other labor income, proprietors' income, and rental income of persons. It also reflected revisions in personal dividend income, personal interest income, transfer payments to persons, and personal contributions for social insurance. Personal dividend income was revised up for all 3 years, reflecting the incorporation of the newly available IRS tabulations of corporate tax return data for 1989 and 1990 and the incorporation of data from publicly available corporate financial statements for 1991. Personal interest income was revised little for 1989 and was revised down substantially for 1990 and 1991, largely reflecting the aforementioned revisions in the estimates of net interest. For 1991, the revision in personal interest income was considerably smaller than the revision in net interest because of upward revisions in net interest paid by government and in interest paid by persons.² The revision in net interest paid

by government was more than accounted for by revisions in State and local government interest receipts, reflecting newly available data from Census Bureau surveys of government finances. The revision in interest paid by persons reflected revised data from the Federal Reserve Board on consumer installment credit. Transfer payments was revised little for 1989 and 1990 and up substantially for 1991. The revision for 1991 primarily reflected newly available data from the Health Care Financing Administration on State and local government payments for medicaid; Federal Government payments for medicare also were revised up, reflecting new budget data for fiscal year 1992.

Personal tax and nontax payments was revised up for all 3 years: \$1.6 billion for 1989, \$0.3 billion for 1990, and \$2.6 billion for 1991. Payments to the Federal Government were revised up for 1991, reflecting newly available data from the Social Security Administration and the U.S. Treasury Department.

Reflecting the revisions in personal income and in personal tax and nontax payments, disposable personal income (DPI) was revised down for all 3 years: \$1.6 billion for 1989, \$15.9 billion for 1990, and \$8.8 billion for 1991.

Personal outlays—*PCE*, interest paid by persons, and personal transfer payments to rest of the world (net)—was revised up for all 3 years: \$12.5 billion for 1989, \$14.2 billion for 1990, and \$10.8 billion for 1991. As discussed above, *PCE* was revised up for 1989, up for 1990, and down slightly for 1991. Both interest paid by persons and personal transfer payments to rest of the world (net) were revised up for all 3 years. The revisions in transfer payments largely reflected *BPA* revisions in personal remittances of the foreign-born population of the United States.

Personal saving—the difference between *DPI* and personal outlays—was revised down for all 3 years: \$14.0 billion for 1989, \$30.2 billion for 1990, and \$19.7 billion for 1991.

Annual price estimates

Revisions in fixed-weighted price indexes result from the incorporation of newly available source data and of methodological changes. Source data that affect these indexes consist not only of price indexes, which are used for deflation, but also of current-dollar estimates and quantity data, which are used for preparing constant-dollar estimates

This indirect procedure is used because personal interest income cannot be estimated reliably on the basis of the existing source data for interest received by persons.

2. The annual estimates of personal interest income are calculated as net interest plus net interest paid by government plus interest paid by persons.

by quantity extrapolation or direct valuation (see the section “[Updated summary methodologies](#)”).

Newly available price index information includes revised price indexes for domestic, exported, and imported computers, for foreign travel, for single-family houses, and for defense goods and services. Newly available current-dollar estimates affected the price estimates for three types of PCE services: “Services furnished without payment by financial intermediaries except life insurance carriers and private non-insured pension plans,” health insurance, and brokerage charges. Newly available quantity data affected the price estimates for petroleum and natural gas exploration, for margins on used autos, for change in farm inventories, and for Federal Government and State and local government employee compensation.

The level of the GDP fixed-weighted price index was revised up for all 3 years: 0.2 index point to 108.6 for 1989, 0.4 index point to 113.5 for 1990, and 0.5 index point to 118.1 for 1991. Reflecting these revisions in level, the annual percent increase in the index was revised up 0.1 percentage point to 4.4 percent for 1989, 0.2 percentage point to 4.5 percent for 1990, and 0.1 percentage point to 4.0 percent for 1991. (Revisions in the price change for gross domestic purchases were about the same as those for GDP.) Revisions in the annual percent changes in the price indexes for components of GDP were generally small; they were largest for PCE services for 1991, nonresidential structures for 1990, exports of goods and services for 1991, and imports of goods and services for 1990 and 1991 ([table 4](#)).

The change in the prices of PCE services was revised up 0.5 percentage point to 5.3 percent for 1991. The revision was in services furnished without payment by financial intermediaries except life insurance carriers and private noninsured pension plans, in brokerage charges, and in net foreign travel. All but the revision in net foreign travel primarily reflected revised data on quantities. The revisions in the prices used to deflate net foreign travel reflected newly available consumer price indexes for foreign countries.

The change in the prices of nonresidential structures was revised up 0.5 percentage point to 3.1 percent for 1990. The upward revision was attributable to petroleum and natural gas exploration; both the current-dollar estimates and the quantity measure of constant-dollar exploration were revised to reflect trade source information on footage drilled.

The change in the prices of exports was revised up 0.5 percentage point to 2.1 percent for 1991. This revision primarily reflected the revisions in the prices for foreign travel that were noted above.

The change in the prices of imports was revised down 0.6 percentage point to 3.7 percent for 1990 and up 0.7 percentage point to 1.0 percent for 1991. Both revisions were largely in foreign travel. For 1990, the revision also reflected corrected prices of petroleum and products and of automotive vehicles, engines, and parts.

Annual constant-dollar estimates

In general, revisions in real GDP reflect four factors: (1) Revisions in current-dollar components of GDP whose real estimates are prepared by deflation, (2) revisions in the prices used in deflation, (3) revisions in the quantities used to estimate components of real GDP by extrapolation or direct valuation, and (4) revisions caused by shifts in the composition of current-dollar GDP. The following tabulation provides a breakdown of the percent revisions in the level of real GDP and of the revisions in the annual percent change of real GDP. In the tabulation and in the analysis that follows, factors (3) and (4) are combined as “other” revisions.

	Percent revision in level			Revision in annual percent change		
	1989	1990	1991	1989	1990	1991
Current-dollar revisions.....	0.1	0.2	0.1	0.2	0.1	-0.1
Less: Price revisions.....	0	-1	-2	0	-1	-1
Plus: Other revisions.....	-1	-3	-5	-2	-2	-3
Equals: Constant-dollar revisions....	0	-2	-6	0	-2	-5

The level of real GDP was unrevised for 1989, was revised down 0.2 percent for 1990, and was revised down 0.6 percent for 1991. Reflecting these revisions in level, the annual percent change in real GDP was unrevised at 2.5 percent for 1989, was revised down 0.2 percentage point to 0.8 percent for 1990, and was revised down 0.5 percentage point to -1.2 percent for 1991 ([table 4](#)). For 1989, current-dollar revisions were offset by “other” revisions; for 1990, price and “other” revisions accounted for the downward revision; for 1991, all three factors contributed to the revision.

For 1990, the downward revision in the change in real GDP was more than accounted for by PCE services and nonresidential PDE. For 1991, the downward revision was largely accounted for by PCE services, with other sizable downward revisions in PCE goods, nonresidential PDE, and residential fixed investment.

Table 4.—Revisions in Percent Change in GDP, Real GDP, and Price Indexes (Fixed Weights)

[Percent change from preceding year]

	1988	1989			1990			1991		
		Previously published	Revised	Revision	Previously published	Revised	Revision	Previously published	Revised	Revision
Current dollars										
Gross domestic product	7.9	7.0	7.2	0.2	5.1	5.2	0.1	2.9	2.8	-0.1
Personal consumption expenditures	8.0	6.7	6.9	.2	6.4	6.4	0	3.9	3.7	-.2
Durable goods	8.3	5.2	5.1	-.1	1.3	1.1	-.2	-4.4	-3.9	.5
Nondurable goods	6.2	6.8	7.0	.2	6.2	6.5	.3	2.8	2.2	-.6
Services	9.0	7.1	7.2	.1	7.7	7.6	-.1	6.5	6.3	-.2
Gross private domestic fixed investment	7.5	3.1	2.8	-.3	.1	-.7	-.8	-7.2	-7.8	-.6
Nonresidential	9.6	4.6	4.2	-.4	2.9	1.7	-1.2	-6.3	-6.3	0
Structures	6.2	6.1	6.2	.1	2.9	4.0	1.1	-12.1	-10.4	1.7
Producers' durable equipment	11.3	3.9	3.1	-.8	2.8	.5	-2.3	-3.3	-4.1	-.8
Residential	3.0	-.5	-.5	0	-6.6	-6.6	0	-9.6	-11.7	-2.1
Change in business inventories										
Net exports of goods and services										
Exports	22.0	13.7	14.4	.7	9.0	9.6	.6	7.4	7.4	0
Imports	8.9	6.4	6.4	0	6.3	6.5	.2	-4	-9	-.5
Government purchases	4.2	5.7	6.1	.4	7.4	7.0	-.4	4.3	4.5	.2
Federal .....	.5	3.7	3.8	.1	5.9	6.2	.3	4.8	4.9	.1
National defense	1.2	1.5	1.5	0	4.5	4.7	.2	3.2	3.1	-.1
Nondefense	-1.6	11.1	11.3	.2	9.9	10.5	.6	9.1	10.0	.9
State and local	7.1	7.2	7.9	.7	8.4	7.5	-.9	3.9	4.3	.4
Constant (1987) dollars										
Gross domestic product	3.9	2.5	2.5	0	1.0	.8	-2	-7	-1.2	-5
Personal consumption expenditures	3.6	1.9	1.9	0	1.2	1.2	0	-.1	-.6	-.5
Durable goods	6.2	2.8	2.8	0	-.4	-.3	.1	-6.0	-5.6	-.4
Nondurable goods	2.4	1.4	1.6	.2	.1	.5	.4	-.7	-1.3	-.6
Services	3.7	2.0	1.9	-.1	2.3	1.9	-.4	1.7	1.1	-.6
Gross private domestic fixed investment	4.2	.4	.1	-.3	-1.6	-2.8	-1.2	-7.6	-8.5	-.9
Nonresidential	6.6	2.2	1.7	-.5	1.2	-.4	-1.6	-6.6	-7.0	-.4
Structures	1.6	2.0	2.1	.1	.3	.8	.5	-13.4	-12.0	1.4
Producers' durable equipment	9.3	2.3	1.6	-.7	1.6	-1.0	-2.6	-3.4	-4.6	-1.2
Residential	-1.1	-3.8	-3.8	0	-8.7	-9.1	-.4	-10.4	-12.6	-2.2
Change in business inventories										
Net exports of goods and services										
Exports	15.8	11.3	11.9	.6	7.8	8.1	.3	6.3	5.8	-.5
Imports	3.7	3.7	3.7	0	2.2	3.0	.8	.3	-.1	-.4
Government purchases .....	.6	1.5	2.0	.5	3.2	2.8	-.4	1.1	1.2	.3
Federal	-2.0	-6	-3	.3	1.6	2.0	.4	1.1	1.2	.1
National defense	-1.7	-2.2	-2.0	.2	.2	.1	.5	0	-.2	-.2
Nondefense	-2.9	4.7	5.1	.4	5.5	5.8	.3	3.9	5.2	1.3
State and local	2.6	3.1	3.7	.6	4.4	3.4	-1.0	.7	1.2	.5
Price indexes (fixed weights)										
Gross domestic product	3.9	4.3	4.4	.1	4.3	4.5	.2	3.9	4.0	.1
Personal consumption expenditures	4.3	4.8	4.9	.1	5.2	5.3	.1	4.1	4.4	.3
Durable goods	2.0	2.5	2.4	-.1	2.1	1.7	-.4	2.4	2.4	0
Nondurable goods	3.8	5.5	5.4	-.1	6.2	6.1	-.1	3.7	3.6	-.1
Services	5.1	5.0	5.2	.2	5.4	5.6	.2	4.8	5.3	.5
Gross private domestic fixed investment	3.1	2.9	2.9	0	2.3	2.6	.3	1.7	1.6	-.1
Nonresidential	2.6	2.7	2.7	0	2.3	2.4	.1	2.1	1.9	-.2
Structures	4.6	4.2	4.2	0	2.6	3.1	.5	1.5	1.7	.2
Producers' durable equipment	1.6	1.9	1.9	0	2.2	2.1	-.1	2.1	2.1	0
Residential	4.3	3.4	3.4	0	2.4	2.7	.3	.9	.9	0
Change in business inventories										
Net exports of goods and services										
Exports	5.7	2.3	2.3	0	1.6	1.7	.1	1.6	2.1	.5
Imports	5.4	3.1	3.0	-.1	4.3	3.7	-.6	.3	1.0	.7
Government purchases	3.7	4.1	4.1	0	4.2	4.2	0	3.5	3.5	0
Federal	2.8	4.3	4.3	0	4.5	4.5	0	3.9	4.1	.2
National defense	3.1	4.1	4.1	0	4.6	4.6	0	3.6	3.9	.3
Nondefense	2.0	4.8	4.6	-.2	4.3	4.5	.2	4.8	4.9	.1
State and local	4.3	4.0	4.0	0	3.9	3.9	0	3.2	3.1	-.1
Addendum:										
Gross domestic purchases	3.9	4.3	4.4	.1	4.5	4.6	.1	3.6	3.8	.2

Revisions in components of real GDP.—The annual percent change in PCE was unrevised for 1989 and 1990 and was revised down 0.5 percentage point to -0.6 percent for 1991. The downward revision for 1991 largely reflected current-dollar revisions both in nondurable goods and in services. Within nondurable goods, the downward revision was mainly in food; within services, it was mainly in household operation other than electricity and gas, in transportation, and in "other services."

The change in nonresidential fixed investment was revised down for all 3 years: 0.5 percentage point to 1.7 percent for 1989, 1.6 percentage points to -0.4 percent for 1990, and 0.4 percentage point to -7.0 percent for 1991. These revisions largely reflected downward revisions in current-dollar PDE. Within PDE, industrial equipment and "other equipment" were revised down for all 3 years, and information processing and related equipment was revised down for 1990 and 1991.

The change in residential investment was unrevised for 1989, was revised down 0.4 percentage point to -9.1 percent for 1990, and was revised down 2.2 percentage points to -12.6 percent for 1991. The downward revision for 1990 largely reflected price revisions in single-family construction; the downward revision for 1991 largely reflected current-dollar revisions in improvements to existing structures.

The change in exports of goods and services was revised up 0.6 percentage point to 11.9 percent for 1989, up 0.3 percentage point to 8.1 percent for 1990, and down 0.5 percentage point

to 5.8 percent for 1991. The upward revisions for 1989 and 1990 reflected current-dollar revisions in services. The downward revision for 1991 largely reflected current-dollar revisions in merchandise, mainly in the "other goods" end-use category.

The change in imports of goods and services was unrevised for 1989, was revised up 0.8 percentage point to 3.0 percent for 1990, and was revised down 0.4 percentage point to -0.1 percent for 1991. For 1990, the upward revision was attributable to price revisions in both services and merchandise; in merchandise, the price revisions were mainly in automotive vehicles, engines, and parts and in petroleum and products. For 1991, the downward revision was more than accounted for by a downward revision in services that reflected both current-dollar revisions and price revisions.

The change in government purchases was revised up 0.5 percentage point to 2.0 percent for 1989, down 0.4 percentage point to 2.8 percent for 1990, and up 0.3 percentage point to 1.2 percent for 1991. The revisions largely reflected current-dollar revisions in State and local government purchases, mainly in structures.

Quarterly estimates

Quarterly estimates are affected by annual NIPA revisions in three major ways: (1) Adjustments to reflect revisions in the annual estimates, (2) incorporation of new and revised source data (including the updating of seasonal factors) that are used to indicate quarterly patterns, and (3) changes in the methodology used to prepare the quarterly estimates.

Table 5.—GDP, Real GDP, the GDP Price Index (Fixed Weights), and the Gross Domestic Purchases Price Index (Fixed Weights): Revisions in Percent Change From Preceding Quarter

[Percent change at annual rates; based on seasonally adjusted annual rates]

	GDP			Real GDP			GDP price index (fixed weights)			Gross domestic purchases price index (fixed weights)		
	Pre-viously published	Revised	Revision	Pre-viously published	Revised	Revision	Pre-viously published	Revised	Revision	Pre-viously published	Revised	Revision
1988:IV	8.1			3.9			3.7			4.2		
1989:I	7.8	8.6	.8	2.5	3.2	.7	4.8	5.0	.2	5.3	5.2	-.1
II	6.3	6.3	0	1.9	1.8	-.1	4.5	4.7	.2	4.6	5.0	.4
III	4.6	3.8	-.8	1.1	0	-1.1	3.5	3.7	.2	2.8	3.1	.3
IV	4.9	5.1	.2	1.2	1.5	.3	3.7	3.6	-.1	4.0	3.9	-.1
1990:I	6.3	7.7	1.4	1.7	2.8	1.1	5.0	5.4	.4	6.1	5.9	-.2
II	6.2	5.8	-.4	1.6	1.0	-.6	4.6	4.6	0	3.5	3.7	.2
III	4.9	2.7	-2.2	.2	-1.6	-1.8	4.8	4.7	-.1	5.0	5.6	.6
IV	-9	.1	1.0	-3.9	-3.9	0	3.2	4.1	.9	5.8	5.8	0
1991:I	2.3	1.8	-.5	-2.5	-3.0	-.5	5.4	4.7	-.7	3.2	3.2	0
II	4.6	5.2	.6	1.4	1.7	.3	3.3	3.5	.2	2.4	2.5	.1
III	4.1	4.0	-.1	1.8	1.2	-.6	2.6	3.0	.4	2.5	2.9	.4
IV	2.2	2.8	.6	.4	.6	.2	2.1	2.4	.3	2.2	2.5	.3
1992:I	5.8	6.2	.4	2.7	2.9	.2	3.3	3.6	.3	3.0	3.1	.1

In general, the quarter-to-quarter patterns of changes in BEA's measures of real output and prices are not markedly different on the revised basis (table 5). An exception is the revision in real GDP in the third quarter of 1990, which shifts the change in that quarter from positive to negative (see "Business cycle" in the section "Impact of the Revisions").

For real GDP, the revisions in the 13 quarterly percent changes (at annual rates) averaged 0.6 percentage point (without regard to sign). Changes for three quarters were revised by 1.0 percentage point or more. For the third quarter of 1989, the change in real GDP was revised down 1.1 percentage points to 0 percent; this revision was largely accounted for by PCE. For the first quarter of 1990, the change in real GDP was revised up 1.1 percentage points to 2.8 percent; this revision was accounted for by nonfarm inventory investment. For the third quarter of 1990, real GDP was revised down 1.8 percentage points to -1.6 percent; this revision was more than accounted for by nonfarm inventory investment, PCE, and fixed investment.

For gross domestic purchases prices, the revisions in the 13 quarterly percent changes (at annual rates) averaged 0.2 percentage point (without regard to sign). In only one quarter was the revision larger than 0.4 percentage point: For the third quarter of 1990, the increase in gross domestic purchases prices was revised up 0.6 percentage point to 5.6 percent. This revision reflected upward revisions in the prices of PCE, nonresidential fixed investment, and residential fixed investment.

Methodology

This section of the article describes several changes in the source data and in the methods used to prepare the NIPA estimates that were incorporated in this annual revision, and it updates previously published tables showing methodologies for current- and constant-dollar estimates of GDP. This annual revision also involved, in a few cases, abbreviated methodologies—that is, the use of source data that were less detailed than those usually incorporated in an annual revision.³

3. The abbreviated methodologies were used in preparing the following estimates: Nonresidential producers' durable equipment except for computers and trucks for 1990-91, nonfarm inventory valuation adjustment for 1989-91, and Federal Government purchases for 1991. As part of next year's annual revision, BEA will replace these abbreviated methodologies with the usual methodologies. BEA does not expect the revisions that result from this replacement to be large.

Changes in methodology

U.S. balance of payments accounts revisions.—The BEA balance of payments accounts (BPA's) provide the basis for the foreign transactions entries in the NIPA's. (Differences between the BPA's and the NIPA's are identified in NIPA table 4.5 in this issue of the SURVEY.) In last month's regular annual BPA revision, BEA incorporated newly available data from regular sources and introduced a number of major improvements that involved definitional changes, new estimating methodologies, and new source data. (For a description of the annual BPA revision, see "U.S. International Transactions, First Quarter 1992 and Revised Estimates for 1976-91" in the June 1992 SURVEY.) The BPA definitional changes had previously been incorporated into the NIPA's and so did not affect this annual NIPA revision. These changes were the following: (1) The recording of receipts and payments for "other private services" and for royalties and license fees on a *gross* rather than on a *net* basis, and (2) the recording of direct investment income (both dividends and interest) and portfolio dividend payments before deduction of nonresident taxes withheld and, as an offsetting entry, the recording of these nonresident taxes in unilateral transfers.

With one exception, the BPA changes that reflected new estimating methodologies and new source data did affect the NIPA estimates. The exception was the change that removed capital gains and losses from direct investment income; NIPA estimates of factor incomes already excluded such gains and losses. Incorporation of the other BPA changes led to revisions in the following NIPA components: Exports and imports of services, receipts and payments of factor income, and transfer payments to rest of the world (net).

For exports and imports of services, the changes were mainly in the travel and passenger fares and "other private services" components. In travel and passenger fares, these changes primarily reflected the incorporation of new data on travel payments and receipts between the United States and Mexico, revised data on Canadian expenditures in the United States, and new data on interline settlements between U.S. and foreign airlines. In "other private services," the changes reflected the incorporation of preliminary results of the 1991 BEA benchmark survey of transactions with unaffiliated foreigners.

For receipts and payments of factor income, the changes were in both direct and portfolio investment income. In direct investment income, the

basis for measuring depreciation, depletion, and exploration and development costs was changed from a historical-cost to a current-cost basis by introducing a current-cost adjustment. In portfolio investment, new (or revised) estimates were introduced for dividend and interest receipts on U.S. holdings of foreign stocks and bonds, for interest receipts on U.S. nonbank firms' claims on unaffiliated foreign banks, and for interest receipts and payments on U.S. banks' claims and liabilities denominated in foreign currencies.

For transfer payments to rest of the world (net), the change was in transfer payments by persons, and it reflected the incorporation of new estimates of personal remittances of the foreign-born population of the United States.

The introduction of the revised BPA estimates also affected other NIPA components and several aggregates. The revisions in travel and passenger fares within exports and imports of services led to revisions in the net foreign travel component of PCE services and, thus, in GDP. The revisions in receipts and payments of factor income led to revisions in GNP, corporate profits, and net interest and, thus, in national income, personal interest income, and personal income. The revisions in personal transfer payments to rest of the world (net) led to revisions in personal outlays and saving and in net foreign investment.

Because this annual NIPA revision—as usual—covered only 3 years, the BPA revisions were brought into the NIPA's at the best level beginning

with the estimates for 1989; the estimates for earlier years were not revised. As a result, there are discontinuities in the NIPA estimates. The extent of these discontinuities is quantified in table 6. For GDP, the change from 1988 to 1989 in current dollars is understated by \$0.5 billion; for GNP, the change is overstated by \$3.9 billion. (Revisions to the NIPA's for earlier years will be made in the next comprehensive NIPA revision.)

Mortgage interest.—The revised estimates of rental income of persons and net interest reflect an improved procedure for estimating mortgage interest. Annual and quarterly estimates of mortgage interest are now estimated using the product of mortgage debt outstanding, which is based on Federal Reserve Board data, and a BEA estimate of the *effective* rate of interest. The result is then used to extrapolate a benchmark estimate of mortgage interest paid based on data from the Census Bureau decennial survey of residential finance.

In the revised estimates, the effective rate of interest was calculated using distributions of mortgage debt outstanding that accounted for adjustable-rate mortgages (ARM's) and that incorporated new information on mortgage refinancing and other types of terminations. Under the old procedure, the effective rate did not account for the impact of interest-rate changes on ARM's and did not adequately reflect the impact of refinancing. The new procedure uses informa-

Table 6.—Discontinuities in NIPA Foreign Transactions: 1988–89

[Billions of dollars]

	1988			1989	Change, 1988 to 1989	
	Published	Discontinuity ¹	Adjusted		Published	Adjusted
Net exports of goods and services	-108.0	1.2	-106.8	-79.7	28.3	27.1
Exports	444.2	1.8	446.0	508.0	63.8	62.0
Merchandise	325.8	0	325.8	371.6	45.8	45.8
Services	118.4	1.8	120.2	136.4	18.0	16.2
Imports	552.2	.6	552.8	587.7	35.5	34.9
Merchandise	452.1	0	452.1	485.1	33.0	33.0
Services	100.1	.6	100.7	102.6	2.5	1.9
Net receipts of factor income	7.9	4.4	12.3	16.0	8.1	3.7
Receipts	128.7	6.4	135.1	157.5	28.8	22.4
Corporate profits	64.1	-1.5	62.6	66.7	2.6	4.1
Net interest	63.7	7.9	71.6	89.9	26.2	18.3
Compensation of employees .....	.9	0	.9	.9	0	0
Payments	120.8	2.0	122.8	141.5	20.7	18.7
Corporate profits	15.0	-1.4	13.6	7.3	-7.7	-6.3
Net interest	104.8	3.4	108.2	133.2	28.4	25.0
Compensation of employees	1.0	0	1.0	1.0	0	0
Transfer payments to rest of the the world (net)	17.3	6.1	23.4	25.6	8.3	2.2
Addenda:						
Personal consumption expenditures	3,296.1	-1.7	3,294.4	3,523.1	227.0	228.7
GDP	4,900.4	-.5	4,899.9	5,250.8	350.4	350.9
GNP	4,908.2	3.9	4,912.1	5,266.8	358.6	354.7

1. Equals the revisions to the U.S. balance of payments accounts that have not been carried back in the NIPA's at this time.

tion from the Department of Housing and Urban Development on mortgage originations and terminations by date of origination and from the Federal Housing Finance Board on interest rates and originations of fixed- and adjustable-rate mortgages.

Internal Revenue Service (IRS) tabulations of corporate tax return data.—The revised estimates of several NIPA components reflected the incorporation of newly available tabulations of corporate tax return data for 1989 and 1990. (Table 7 identifies the components for which these tabulations are source data.) Since 1982, the IRS tabulations of corporate tax returns have been available only for the first of the 3 years covered by annual NIPA revisions—1989 for this year's revision. This year, IRS has compiled preliminary tabulations for 1990, the second of the 3 years. These preliminary tabulations were based on about three-quarters of the full sample of returns; complete tabulations for 1990 and preliminary tabulations for 1991 will be available for next year's annual revision.

State and local government wages and salaries.—Beginning with the estimates for 1991, an improved methodology was introduced for the quarterly estimates of State and local government wages and salaries. Under the new procedure, these wages and salaries are estimated as the product of State and local government employment from the monthly Bureau of Labor Statistics (BLS) establishment survey and earnings of State and local government employees from the quarterly BLS Employment Cost Index survey. Previously, these wages and salaries had been estimated judgmentally.

Updated summary methodologies

Table 7 identifies the principal source data and estimating methods used to prepare the current-dollar estimates of the product- and income-side components of GDP, and table 8 identifies the principal source data and estimating methods used to prepare the constant-dollar estimates of the product-side components. These tables have been updated to reflect the methodological changes introduced in the comprehensive (benchmark) revision released last December and those introduced this month.⁴

Current-dollar estimates of GDP.—The components in table 7 are as shown in the national income and product account (see appendix A, account 1), starting on the product side and proceeding to the income side. The subcomponents in table 7, with their 1991 dollar values, are grouped according to the methodology used to prepare them.

The column in table 7 for the annual estimates covers the several annual estimates in the estimating cycle; the major differences in methodology as the estimates move through the three annual revisions to a benchmark revision are few enough to condense into the table. For example, for most goods in PCE (the first item on the product side), the table indicates one methodology for benchmark years and another for all other years.

The column for the quarterly estimates is a condensation in two respects. First, it refers to the advance estimate for the current quarter—that is, the estimate prepared in the first month following the end of the quarter. That one estimate, rather than all three of the current quarterly estimates, is described because more attention focuses on the “first look” at the quarter. Second, even for the advance estimate, the column does not detail how many months of source data are available nor whether the data are subject to revision by the source agency.

Table 7 lists source data representing a variety of different economic measures—wages and salaries, premiums, expenses, interest rates, mortgage debt, tax collections, unit sales, housing stock, employment, and average price, to name a few. For most components, the source data are “value data”; that is, they embody both the quantity and price dimensions that are required for current-dollar estimates. In these cases, the methodology indicated in table 7 is the adjustment of the value data to derive estimates consistent with NIPA definitions and coverage.

When value data are not used in preparing an estimate, the table indicates the combination of data with separate quantity and price dimensions that is used to derive the required value estimate (as well as any major adjustments needed to derive estimates consistent with NIPA definitions and coverage). On the product side, a “physical quantity times price” method is used for several components. For example, the estimate for new autos is prepared as unit sales times average list price. An “employment times earnings times hours” method and variations of a “stock of assets/liabilities times an interest rate” method also are used for several components.

4. See “The Comprehensive Revision of the U.S. National Income and Product Accounts: A Review of Revisions and Major Statistical Changes,” SURVEY 71 (December 1991): 37–40.

Some of the source data shown in [table 7](#) for the annual estimates are used to interpolate and extrapolate the levels established by source data that are viewed as final, and all of the source data shown for the advance quarterly estimates are used to extrapolate the level of the preceding quarter.⁵ In addition to using indicator series, as is the case when specific source data are listed in the table, extrapolation and interpolation may be based on trends, as is the case when “judgmental trend” is listed in the table.

Constant-dollar estimates of GDP.—[Table 8](#) shows which of three methods is used to prepare constant-dollar estimates and indicates the source data with which it is implemented.⁶ The method

5. Extrapolation is a method of extending estimates from one period forward (or backward) in time to other periods. In simple terms, extrapolation applies a percent change—either the percent change in the indicator series or the percent change in the trend—to the level of the preceding (following) period. Interpolation is a method of filling in estimates between two periods. Interpolation applies a more complex mathematical formula—there are several in use—to preserve the pattern of the indicator series consistent with the level of the source data viewed as final.

6. With few exceptions, BEA does not prepare constant-dollar estimates of income measures because, unlike product measures, price indexes cannot be associated with them. Three exceptions are disposable personal income and, as presented in the “Business Cycle Indicators” section of the SURVEY, personal income and corporate profits. In these cases, the estimates are adjusted for price change by reference to the prices of the goods and services on which the income is spent. BEA derives constant-dollar net national product and national income by preparing constant-dollar estimates of consumption

used for most of GDP is deflation. In deflation, constant-dollar estimates are obtained by dividing the most detailed current-dollar components by appropriate price indexes, with the base period—at present, the year 1987—equal to 100.

The other two methods, quantity extrapolation and direct base-year valuation, are similar to each other in that they both use quantity data. For quantity extrapolation, constant-dollar estimates are obtained by extrapolating the base-year current-dollar estimates in both directions from the base period (1987) by quantity indicators. For direct base-year valuation, constant-dollar estimates are obtained by multiplying base-year prices by actual quantity data for each period.

The subcomponents in [table 8](#) are the same as those shown in [table 7](#), except where more detail is needed to highlight differences in methodology for constant-dollar estimates. For [table 8](#), the distinction between annual and quarterly methodology is far less important than it is for the current-dollar methodology, and major differences between the annual and quarterly source data are noted within the individual entries.

Tables 7 and 8 and appendix A follow. 

of fixed capital and of the nonfactor incomes and then subtracting these estimates from constant-dollar GNP.

Table 7.—Principal Source Data and Estimating Methods Used in Preparing Current-Dollar Estimates of GDP

Component (billions of dollars)	Subcomponent (billions of dollars)	Annual estimates: Source data and methods used to determine level for benchmark and other final years or, for other years, used to prepare an extrapolator or interpolator	Advance quarterly estimates: Source data and methods used to prepare an extrapolator
Product side (GDP of \$5,677.5 billion in 1991)			
Personal consumption expenditures (\$3,887.7) ¹	Durable and nondurable goods: (\$1,697.6)		
	Most goods (goods except subcomponents listed separately) (\$1,422.6)	Benchmark years—Commodity-flow method, starting with manufacturers' shipments from Census Bureau quinquennial census and including an adjustment for exports and imports from Census Bureau merchandise trade. Other years—Retail-control method, using retail trade sales from Census Bureau annual survey or, for most recent year, monthly survey of retail trade.	Same as annual for most recent year.
	New autos (\$79.5)	Physical quantity purchased times average retail price: Unit sales, information with which to allocate sales among consumers and other purchasers, and average list prices, all from trade sources.	Same as annual.
	Net purchases of used autos (\$35.8)	Benchmark years—For net transactions, change in the consumer stock of autos from trade sources. For dealers' margin, retail sales from Census Bureau quinquennial census and margin rate from Census Bureau annual survey of retail trade. Other years except most recent—For net transactions, same as benchmark. For dealers' margin, franchised dealers' unit sales times sales price, both from trade sources, times margin rate for independent dealers from Census Bureau annual survey; independent dealers' margin from Census Bureau annual survey. Most recent year—For net transactions, same as benchmark. For dealers' margin, for franchised dealers, unit sales and sales price from trade sources; for independent dealers, sales from Census Bureau monthly survey of retail trade.	For net transactions, residual based on net sales by other sectors. For dealers' margin, unit sales of franchised dealers from trade source and sales price from Bureau of Labor Statistics consumer price index for used cars.
	New trucks (\$36.2)	Benchmark years—Commodity-flow method, starting with manufacturers' shipments from Census Bureau quinquennial census and including an adjustment for exports and imports from Census Bureau merchandise trade. Other years except most recent—Abbreviated commodity-flow method, starting with manufacturers' shipments from Census Bureau annual survey and including an adjustment for exports and imports from Census Bureau merchandise trade. Most recent year—Physical quantity purchased times average retail price: Unit sales and information with which to allocate sales among consumers and other purchasers from trade sources and average price based on Bureau of Labor Statistics consumer price index for new trucks.	Same as annual for most recent year.
Gasoline and oil ² (\$105.5)	Benchmark years—Physical quantity purchased times average retail price: Gallons consumed from the Dept. of Transportation, information with which to allocate that total among consumers and other purchasers from Federal agencies and trade sources, and average retail price from Census Bureau quinquennial census. Years except most recent—Same as benchmark years, except average retail price from the Energy Information Admin. Most recent year—Physical quantity purchased times average retail price: Gallons consumed and average price both from the Energy Information Admin.	Same as annual for most recent year.	

See footnotes at end of table.

Table 7.—Principal Source Data and Estimating Methods Used in Preparing Current-Dollar Estimates of GDP—Continued

Component (billions of dollars)	Subcomponent (billions of dollars)	Annual estimates: Source data and methods used to determine level for benchmark and other final years or, for other years, used to prepare an extrapolator or interpolator	Advance quarterly estimates: Source data and methods used to prepare an extrapolator
Product side (GDP of \$5,677.5 billion in 1991)—Continued			
Personal consumption expenditures—Continued	Durable and nondurable goods—Continued		
	Food furnished to employees (including military) (\$11.3)	Benchmark years—For commercial employees, number of employees of appropriate industries from Bureau of Labor Statistics tabulations times BEA estimate of per capita expenditures for food; for military personnel, outlays from the <i>Budget of the United States</i> prepared by the Office of Management and Budget. Years other than benchmark years—Same as benchmark years, except per capita expenditures for food based on Bureau of Labor Statistics consumer price index for food.	For commercial employees, same as annual for years other than benchmark years; for military personnel, judgmental trend.
	Expenditures abroad by U.S. residents (\$4.2) less personal remittances in kind to nonresidents (\$0.6)	Estimated as part of the balance of payments; see the entry for service exports and imports, net, under net exports of goods and services.	Judgmental trend.
	Services: (\$2,190.1)		
	Nonfarm dwellings—space rent for owner-occupied and rent for tenant-occupied (\$546.4)	Benchmark years—Based on data on housing stock and average annual rent from Census Bureau decennial census of housing and survey of residential finance. Other years—Based on data on housing stock and average annual rent from the Census Bureau biennial housing survey or on the number of households from Census Bureau monthly current population survey and Bureau of Labor Statistics consumer price indexes for rent.	Same as annual: For housing stock, judgmental trend; for average rent, Bureau of Labor Statistics consumer price indexes for rent.
Rental value of farm dwellings (\$5.3)	Benchmark years—Based on data on housing stock and average annual rent from Census Bureau quinquennial census and decennial census of housing and survey of residential finance. Other years—Based on data on net value of farm housing stock from BEA capital stock series.	Judgmental trend.	
Motor vehicle and other repair, other purchased intercity transportation, legal and funeral services, barbershops and beauty parlors, nursing homes, laundries, employment agency fees, accounting and tax return preparation services, recreation (except video cassette rentals, cable TV, casino gambling, parimutuel net receipts, and lotteries), hotels and motels, and other private education and research (\$361.7)	Benchmark years—Receipts and expenses from Census Bureau quinquennial census adjusted for receipts from business and governments. Other years—Receipts, for spectator sports from trade sources, for legitimate theaters and other private education and research from tabulations of wages and salaries of employees covered by State unemployment insurance from the Bureau of Labor Statistics, for others in this group from Census Bureau service annual survey.	For nursing homes, other private education and research, employment agency fees, and clubs and fraternal organizations, wages and salaries derived from Bureau of Labor Statistics monthly employment times earnings times hours; for legitimate theaters and motion pictures, receipts from trade sources; for radio and TV repair, number of TV's based on stock and sales from trade source times Bureau of Labor Statistics consumer price index for appliance and furniture repair; for others in this group, judgmental trend.	

Table 7.—Principal Source Data and Estimating Methods Used in Preparing Current-Dollar Estimates of GDP—Continued

Component (billions of dollars)	Subcomponent (billions of dollars)	Annual estimates: Source data and methods used to determine level for benchmark and other final years or, for other years, used to prepare an extrapolator or interpolator	Advance quarterly estimates: Source data and methods used to prepare an extrapolator
Product side (GDP of \$5,677.5 billion in 1991)—Continued			
Personal consumption expenditures—Continued	Services—Continued		
	Physicians, dentists, and other professional medical services (\$245.4)	Benchmark years—For nonprofit professional services, expenses; for others in this group, receipts, adjusted for government purchases, from Census Bureau quinquennial census. Other years—Receipts and revenues, adjusted for government purchases, from Census Bureau service annual survey.	For physicians and dentists, judgmental trend; for other professional medical services, wages and salaries derived from Bureau of Labor Statistics monthly employment times earnings times hours.
	Private nursery, elementary, and secondary schools, day care, welfare activities, and trade unions and professional associations (\$108.8)	Benchmark years—For religious-affiliated schools, enrollment from the Dept. of Education times BEA estimate of average expenditures per pupil; for nursery schools and day care, expenditures from Bureau of Labor Statistics consumer expenditure survey; for others in this group, receipts and expenses from Census Bureau quinquennial census. Other years except most recent—For nursery schools and day care, same as benchmark years; for others in this group, annual tabulations of wages and salaries of employees covered by State unemployment insurance from the Bureau of Labor Statistics. Most recent year—For nursery schools and day care, judgmental trend; for others in this group, tabulations of wages and salaries of employees covered by State unemployment insurance from the Bureau of Labor Statistics.	For political organizations and foundations, judgmental trend; for others in this group, wages and salaries derived from Bureau of Labor Statistics monthly employment times earnings times hours.
	Financial services furnished without payment by banks, credit agencies, and investment companies ³ (\$127.4)	See entry for net interest: Imputed—banks, credit agencies, and investment companies.	Judgmental trend.
	Brokerage charges and investment counseling, bank service charges, intercity transportation except other, and private higher education (\$104.5)	Years except most recent—For private higher education, expenses, and for others in this group, receipts, all from annual reports of government administrative agencies. Most recent year—For brokerage and bank service charges and intercity transportation, receipts from reports of government administrative agencies; for private higher education, enrollment from the Dept. of Education times price index for higher education from trade source.	For stock brokerage charges, stock exchange transactions from trade sources; for income from sale of investment company securities, sales of open-end investment company shares from trade source; for other brokerage charges and investment counseling and for bank service charges, judgmental trend; for intercity transportation, receipts from trade sources; for private higher education, wages and salaries derived from Bureau of Labor Statistics monthly employment times earnings times hours.

See footnotes at end of table.

Table 7.—Principal Source Data and Estimating Methods Used in Preparing Current-Dollar Estimates of GDP—Continued

Component (billions of dollars)	Subcomponent (billions of dollars)	Annual estimates: Source data and methods used to determine level for benchmark and other final years or, for other years, used to prepare an extrapolator or interpolator	Advance quarterly estimates: Source data and methods used to prepare an extrapolator
Product side (GDP of \$5,677.5 billion in 1991)—Continued			
Personal consumption expenditures—Continued	Services—Continued		
	Domestic services (\$9.9)	Benchmark years—For cleaning services, receipts from Census Bureau quinquennial census; for other domestic services, number of workers times weekly hours times earnings from the Bureau of Labor Statistics. Other years—Number of workers times weekly hours times earnings from the Bureau of Labor Statistics.	Judgmental trend.
	Public higher education and hospitals, water and other sanitary services, and lotteries (\$107.8)	Years except most recent—For lotteries, net receipts from Census Bureau quinquennial census and annual surveys of State and local governments, adjusted to a calendar year basis from a fiscal year basis; for others in this group, receipts from the same sources. Most recent year—Judgmental trend.	Same as annual for most recent year.
	Insurance, private hospitals, religious activities, cable TV, utilities, and local transport (\$542.3)	Years except most recent—For life insurance, expenses from trade sources; for insurance other than life insurance, premiums and benefits from trade sources; for private hospitals, receipts and expenses from Census Bureau quinquennial census (benchmark year), expenses from trade sources (other years); for religious activities, expenses based on contributions and membership from trade sources; for cable TV and utilities, receipts from government agencies and trade sources; for local transport, receipts from trade source. Most recent year—For life insurance, tabulations of wages and salaries of employees covered by State unemployment insurance from the Bureau of Labor Statistics; for insurance other than life insurance, judgmental trend; for religious activities, expenses based on population from the Census Bureau and per capita disposable personal income from BEA; for local transport, passenger trips from trade source times Bureau of Labor Statistics consumer price index for intracity mass transit; for others in this group, same as other years.	For life insurance, hospitals, and religious activities, wages and salaries derived from Bureau of Labor Statistics monthly employment times earnings times hours; for electricity and gas, projected quantities based on degree day data from the National Oceanic and Atmospheric Admin. times price based on Bureau of Labor Statistics consumer price indexes for utilities; for others in this group, judgmental trend.
	Foreign travel by U.S. residents (\$36.1) less expenditures in the United States by nonresidents (\$58.1)	Estimated as part of the balance of payments; see the entry for service exports and imports, net, under net exports of goods and services.	Same as annual.
Other services: Video cassette rentals, casino gambling, and parimutuel net receipts; other housing except hotels and motels; bridge, etc., tolls; other household operation except repairs and insurance; travel and entertainment card fees; stenographic and reproduction services; and money orders and classified advertising (\$52.7)	Various source data.	For casino gambling, receipts from State agency; for others in this group, judgmental trend.	

Table 7.—Principal Source Data and Estimating Methods Used in Preparing Current-Dollar Estimates of GDP—Continued

Component (billions of dollars)	Subcomponent (billions of dollars)	Annual estimates: Source data and methods used to determine level for benchmark and other final years or, for other years, used to prepare an extrapolator or interpolator	Advance quarterly estimates: Source data and methods used to prepare an extrapolator
Product side (GDP of \$5,677.5 billion in 1991)—Continued			
Fixed Investment (\$731.3)	Nonresidential structures: (\$180.1) ⁴		
	Utilities: Telecommunications (\$8.7)	Value put in place from Census Bureau monthly construction survey.	Same as annual.
	Utilities: Other (\$19.9)	Expenditures from Federal regulatory agencies and trade sources.	Judgmental trend.
	Mining exploration, shafts, and wells (\$15.3)	Benchmark years—Expenditures from Census Bureau quinquennial census. Other years—For petroleum and natural gas, physical quantity times average price: Footage drilled and cost per foot from trade sources; for other mining, expenditures from Census Bureau plant and equipment survey.	Same as annual for years other than benchmark years.
	Other nonfarm buildings and structures (\$134.0)	Benchmark years—Contract construction receipts for new construction and architectural and engineering fees from Census Bureau quinquennial censuses, and BEA estimates of force-account construction from a variety of sources. Other years—Value put in place from Census Bureau monthly construction survey.	Same as annual for years other than benchmark years.
	Farm buildings (\$2.6)	Expenditures for new construction from Dept. of Agriculture surveys.	Judgmental trend of value put in place from the Census Bureau.
	Nonresidential producers' durable equipment: (\$360.9)		
Equipment except autos (\$324.3)	Benchmark years—Commodity-flow method, starting with manufacturers' shipments from Census Bureau quinquennial census and including an adjustment for exports and imports from Census Bureau merchandise trade. Other years—Abbreviated commodity-flow method, starting with manufacturers' shipments from Census Bureau annual survey or, for most recent year (except aircraft and trucks), monthly survey of manufactures and including an adjustment for exports and imports from Census Bureau merchandise trade. For aircraft, manufacturers' shipments from Census Bureau current industrial report. For trucks, domestic and North American imports, physical quantity purchased times average retail price: Unit sales and information with which to allocate sales among business and other purchasers from trade sources and average price based on Bureau of Labor Statistics producer price indexes; imports other than North American, from Census Bureau merchandise trade; truck trailers, shipments from Census Bureau current industrial report.	For trucks, see entry for personal consumption expenditures; for others in this group, same as annual for years other than benchmark years but with less detail.	
New and used autos (\$36.6)	For new autos, see entry for personal consumption expenditures; for used autos, change in business stock of autos at least 1 year old from trade source.	For new autos, same as annual; for used autos, judgmental trend.	

See footnotes at end of table.

Table 7.—Principal Source Data and Estimating Methods Used in Preparing Current-Dollar Estimates of GDP—Continued

Component (billions of dollars)	Subcomponent (billions of dollars)	Annual estimates: Source data and methods used to determine level for benchmark and other final years or, for other years, used to prepare an extrapolator or interpolator	Advance quarterly estimates: Source data and methods used to prepare an extrapolator
Product side (GDP of \$5,677.5 billion in 1991)—Continued			
Fixed investment— Continued	Residential investment: (\$190.3) ⁵		
	Permanent-site new single-family housing units (\$95.4)	Value put in place based on phased housing starts and average construction cost from Census Bureau monthly construction surveys.	Same as annual.
	Permanent-site new multifamily housing units (\$15.1)	Value put in place from Census Bureau monthly construction survey.	Same as annual.
	Mobile homes (\$4.6)	Benchmark years—See entry for equipment except autos under nonresidential producers' durable equipment. Other years—Physical quantity shipped times price: Shipments from trade sources and average retail price from Census Bureau monthly survey.	Same as annual for years other than benchmark years.
	Improvements (\$47.2)	Expenditures by owner-occupants from Bureau of Labor Statistics quarterly consumer expenditure survey and by landlords from Census Bureau quarterly survey of landlords.	Judgmental trend.
	Brokers' commissions (\$22.1)	Physical quantity times price times average commission rate: Number of single-family houses sold, mean sales price, and commission rates from Census Bureau monthly construction survey and trade sources.	Same as annual.
	Producers' durable equipment (\$6.6)	See entry for most goods for personal consumption expenditures.	Same as annual.

See footnotes at end of table.

Table 7.—Principal Source Data and Estimating Methods Used in Preparing Current-Dollar Estimates of GDP—Continued

Component (billions of dollars)	Subcomponent (billions of dollars)	Annual estimates: Source data and methods used to determine level for benchmark and other final years or, for other years, used to prepare an extrapolator or interpolator	Advance quarterly estimates: Source data and methods used to prepare an extrapolator
Product side (GDP of \$5,677.5 billion in 1991)—Continued			
Change in business inventories (-\$10.2)	Manufacturing and trade (-\$4.2)	<p>Benchmark years—Inventories from Census Bureau quinquennial censuses revalued (in effect, by the calculation of the IVA⁶) to current replacement cost, using information on the proportions of inventories reported with different accounting methods, the commodity composition of goods held in inventory, and the turnover period, all from Census Bureau quinquennial censuses and surveys, combined with cost of goods held in inventory, largely from Bureau of Labor Statistics producer price indexes.</p> <p>Other years—For petroleum bulk stations, physical quantities times price: Monthly quantities and prices from the Energy Information Admin.; for retail auto dealers for the most recent year, quantities times average prices from trade sources; for all other except nonmerchant wholesale trade, inventories from Census Bureau annual surveys or, for the most recent year, monthly surveys, revalued as described above; for nonmerchant wholesale trade, judgmental trend.</p>	Same as annual for most recent year.
	Other nonfarm industries (-\$5.9)	Inventories revalued to current replacement cost (except when noted as physical quantity times price) as described for manufacturing and trade: For years except most recent, Internal Revenue Service tabulations of business tax returns; for the most recent year, Census Bureau quarterly survey of corporations for mining, monthly quantities from the Energy Information Admin. combined with Bureau of Labor Statistics producer price indexes for electric utilities, and judgmental trend for all others.	For electric utilities, same as annual for the most recent year; for all others, judgmental trend.
	Farm (\$0.0)	Physical quantities times current prices from Dept. of Agriculture surveys.	Judgmental projection by BEA and the Dept. of Agriculture.
Net exports of goods and services (-\$21.8)	Merchandise exports and imports, net (-\$76.9)	Estimated as part of the balance of payments: Import and export documents compiled monthly by the Census Bureau with adjustments by BEA for coverage and valuation to put the data on a balance-of-payments basis. Adjusted for NIPA coverage of U.S. territories and Puerto Rico with data from the Commonwealth of Puerto Rico and the U.S. Virgin Islands, and coverage of gold with data from the Bureau of Mines and the Bureau of the Mint.	Same as annual.
	Service exports and imports, net (\$55.1)	Estimated as part of the balance of payments: For government transactions, reports by Federal agencies on their purchases and sales abroad; for most others in this group (including travel, passenger fares, other transportation, and royalties and license fees), BEA quarterly or annual surveys (supplemented with data from other sources). Adjusted for NIPA coverage of U.S. territories and Puerto Rico, see entry above, and to include financial services furnished without payment, see entry for net interest: Imputed—banks, credit agencies, and investment companies.	Same as annual.

See footnotes at end of table.

Table 7.—Principal Source Data and Estimating Methods Used in Preparing Current-Dollar Estimates of GDP—Continued

Component (billions of dollars)	Subcomponent (billions of dollars)	Annual estimates: Source data and methods used to determine level for benchmark and other final years or, for other years, used to prepare an extrapolator or interpolator	Advance quarterly estimates: Source data and methods used to prepare an extrapolator
Product side (GDP of \$5,677.5 billion in 1991)—Continued			
Government purchases (\$1090.5)	Federal national defense (\$323.8)	Within a control total established by the fiscal year analysis: For compensation, military wages from the <i>Budget of the United States</i> prepared by the Office of Management and Budget, civilian wages and benefits from the Office of Personnel Management, and employer contributions for social insurance mainly from outlays from <i>Monthly Treasury Statement</i> ; for purchases by type, one of three methods, based mainly on data from Dept. of Defense reports: (1) Physical quantity delivered times price paid; (2) by category, the ratio of funds for purchases not estimated by method (1) to total funds times disbursements; and (3) mainly disbursements.	For components of compensation, employment from the Dept. of Defense, outlays from <i>Monthly Treasury Statement</i> , and judgmental trend; for other, same methods as annual, with partial data for (1) and outlays from <i>Monthly Treasury Statement</i> and judgmental trend for (2) and (3).
	Federal nondefense (\$123.6)	Within a control total established by the fiscal year analysis: For net purchases of agricultural commodities by the Commodity Credit Corporation, book values of acquisitions and physical quantities of dispositions from agency reports times average market prices from the Dept. of Agriculture; for financial services furnished without payment, see entry for net interest: Imputed—banks, credit agencies, and investment companies; for compensation, civilian wages and benefits from the Office of Personnel Management and employer contributions for social insurance mainly from outlays from <i>Monthly Treasury Statement</i> ; for construction, value put in place from Census Bureau monthly construction survey; for all other, outlays from <i>Monthly Treasury Statement</i> .	For components of compensation, judgmental trend; for other, same as annual.
	State and local compensation (\$435.6)	Mainly tabulations of wages and salaries of employees covered by State unemployment insurance from the Bureau of Labor Statistics and contributions from the Social Security Admin., other agencies administering social insurance programs, and Census Bureau surveys of State and local government retirement funds.	For wages and salaries, employment from Bureau of Labor Statistics monthly employment times earnings from judgmental trend; for other compensation, judgmental trend.
	State and local structures (\$86.7)	Benchmark years—See entry for other nonfarm buildings and structures for fixed investment, nonresidential structures. Other years except most recent—Expenditures data from Census Bureau quinquennial censuses and annual surveys of these governments. Most recent year—Value of construction put in place from Census Bureau monthly construction survey.	Same as annual for most recent year.
	State and local brokerage charges and financial services furnished without payment (\$8.3)	See entries for personal consumption expenditures for services.	See entries for personal consumption expenditures for services.
	State and local other than compensation, structures, and brokerage charges and financial services furnished without payment (\$112.5)	Years except most recent—Total expenditures from Census Bureau quinquennial censuses and annual surveys of these governments, selectively replaced with source data that are more appropriate for the NIPA's and adjusted as follows: For coverage; for netting and grossing differences; and to a calendar year basis from a fiscal year basis and for other timing differences; to exclude interest, subsidies, net expenditures of government enterprises, and transfer payments; and to exclude compensation and structures. Most recent year—Judgmental trend.	Same as annual for most recent year.

Table 7.—Principal Source Data and Estimating Methods Used in Preparing Current-Dollar Estimates of GDP—Continued

Component (billions of dollars)	Subcomponent (billions of dollars)	Annual estimates: Source data and methods used to determine level for benchmark and other final years or, for other years, used to prepare an extrapolator or interpolator	Advance quarterly estimates: Source data and methods used to prepare an extrapolator
Income side (Gross national income of \$5,673.1 billion in 1991)			
Compensation of employees⁷ (\$3,390.8)	Wages and salaries: Private industries (\$2,268.9)	For most, annual tabulations of wages and salaries of employees covered by State unemployment insurance from the Bureau of Labor Statistics; for remainder, wages from a variety of sources (such as the Dept. of Agriculture for farms and the Railroad Retirement Board for railroad transportation) and indirect estimation for only a few cases (such as a percentage of revenues for tips not reported as wages).	For most, wages and salaries derived, by industry, from Bureau of Labor Statistics monthly employment times earnings times hours; for others, judgmental trend.
	Wages and salaries: Federal government (\$167.7)	For civilians, wages from the Office of Personnel Management; for military personnel, wages from the <i>Budget of the United States</i> prepared by the Office of Management and Budget.	For civilians, judgmental trend; for military personnel, employment from the Dept. of Defense and judgmental trend.
	Wages and salaries: State and local governments (\$375.8)	Mainly tabulations of wages and salaries of employees covered by State unemployment insurance from the Bureau of Labor Statistics.	Employment from Bureau of Labor Statistics monthly survey times earnings from judgmental trend.
	Employer contributions for social insurance (\$290.4)	Tabulations from the Social Security Admin. and other agencies administering social insurance programs, and Census Bureau surveys of State and local government retirement funds.	For Federal programs, BEA-derived wages and salaries of employees covered by the programs; for State and local government programs, judgmental trend.
	Other labor income (\$288.3)	Years except most recent—For private pension and profit-sharing plans, employer contributions from Internal Revenue Service tabulations of business tax returns; for group health and life insurance, mainly total premiums paid from trade sources and the Health Care Financing Admin. and data on employer share from trade source; for workers' compensation, contributions from trade sources. Most recent year—For group health insurance, total premiums paid from the Health Care Financing Admin.; for others in the category, judgmental trend.	Judgmental trend.
Proprietors' income with IVA and CCAAdj (\$368.0)	Farm income with IVA (\$43.4)	Based on Dept. of Agriculture data on net income, obtained by deriving gross income (cash receipts from marketing, inventory change, government payments, other cash income, and nonmoney income) and subtracting production expenses; adjusted to exclude corporate income from Internal Revenue Service tabulations of business tax returns and adjusted to a NIPA basis.	Dept. of Agriculture projection adjusted for consistency with NIPA's.
	Farm CCAAdj (-\$7.6)	The CCAAdj is described under the entry for consumption of fixed capital.	
	Nonfarm income (\$318.7)	Years except most recent—Income from Internal Revenue Service tabulations of business tax returns, adjusted for understatement of income on tax returns and for several conceptual differences. Most recent year—For construction, trade, and services, indicators of activity (such as value of housing put in place); for most others, judgmental trends.	Same as annual for most recent year.
	Nonfarm IVA (-\$0.3) Nonfarm CCAAdj (\$13.8)	The IVA is described under the entry for corporate profits with IVA and CCAAdj. The CCAAdj is described under the entry for consumption of fixed capital.	

See footnotes at end of table.

Table 7.—Principal Source Data and Estimating Methods Used in Preparing Current-Dollar Estimates of GDP—Continued

Component (billions of dollars)	Subcomponent (billions of dollars)	Annual estimates: Source data and methods used to determine level for benchmark and other final years or, for other years, used to prepare an extrapolator or interpolator	Advance quarterly estimates: Source data and methods used to prepare an extrapolator
Income side (Gross national income of \$5,673.1 billion in 1991)—Continued			
Rental income of persons with CCAj (-\$10.4)	Owner-occupied nonfarm housing (-\$3.1)	Derived as space rent—see the entry for nonfarm housing for personal consumption expenditures—less related expenses, including maintenance and repair from Bureau of Labor Statistics quarterly consumer expenditure survey, mortgage interest from Census Bureau decennial survey of residential finance and mortgage debt from the Federal Reserve Board times a BEA interest rate, and property taxes from Census Bureau quarterly surveys of State and local tax collections.	For owner-occupied space rent, same as annual; for depreciation, interest, and taxes, based on NIPA estimates of those components; for other expenses, based on judgmental trend.
	Tenant-occupied nonfarm housing (\$25.7)	Same as described under owner-occupied housing and adjusted to cover only rental income accruing to persons not primarily engaged in the real estate business.	Same as annual.
	Farms owned by nonoperator landlords (\$3.9)	Prepared in conjunction with farm proprietors' income; see that entry.	Judgmental trend.
	Nonfarm nonresidential properties (\$13.1)	Years through 1983—Rents paid and received by business and government, adjusted for expenses associated with property (mainly depreciation, taxes, interest, and repairs), from Internal Revenue Service tabulations of business tax returns, Census Bureau surveys, and the <i>Budget of the United States</i> prepared by the Office of Management and Budget. Other years—Judgmental trend.	Judgmental trend.
	Royalties (\$7.8)	Years except most recent—Internal Revenue Service tabulations of royalties reported on individual tax returns. Most recent year—Oil production and prices from the Dept. of Energy.	Same as annual for most recent year.
	CCAj (-\$57.9)	The CCAj is described under the entry for consumption of fixed capital.	
Corporate profits with IVA and CCAj (\$346.3)	Domestic profits before tax (\$268.2)	Years except most recent—Receipts less deductions from Internal Revenue Service tabulations of business tax returns, adjusted for understatement of income on tax returns and several conceptual differences. Most recent year—For about 70 industries, profits from Census Bureau quarterly survey of corporate profits, regulatory agency reports, and compilations of publicly available corporate financial statements.	For some industries in transportation, some in finance, etc., and all in services, judgmental trend; for others in this group, same as annual for most recent year. (Released at time of preliminary estimate of GDP for the first, second, and third quarters and of final estimate for the fourth quarter.)
	Rest-of-the-world profits before tax (\$66.5)	Estimated as part of the balance of payments: For direct investment income, BEA surveys; for portfolio income, BEA and Treasury Dept. surveys and BEA study of pension funds and mutual funds. Adjusted for NIPA coverage of U.S. territories and Puerto Rico—see entry for merchandise exports and imports, net, under net exports of goods and services.	Same as annual. (Released on same schedule as domestic profits before tax.) ⁸
	IVA ⁶ (\$3.1)	For corporations and for nonfarm sole proprietorships and partnerships, the difference between the NIPA change in business inventories (that is, physical volume of inventories valued in prices of the current period), as described in the entry for change in business inventories, and the change in inventories reported by businesses for tax purposes, from Internal Revenue Service tabulations of business tax returns.	Same as annual.
	CCAj (\$8.4)	The CCAj is described under the entry for consumption of fixed capital.	

Table 7.—Principal Source Data and Estimating Methods Used in Preparing Current-Dollar Estimates of GDP—Continued

Component (billions of dollars)	Subcomponent (billions of dollars)	Annual estimates: Source data and methods used to determine level for benchmark and other final years or, for other years, used to prepare an extrapolator or interpolator	Advance quarterly estimates: Source data and methods used to prepare an extrapolator
Income side (Gross national income of \$5,673.1 billion in 1991)—Continued			
Net interest (\$449.5)	Domestic monetary, net (\$169.6)	<p>Years except most recent—For farm interest paid and received, Dept. of Agriculture surveys; for residential mortgage interest, Census Bureau decennial survey of residential finance and mortgage debt from the Federal Reserve Board times a BEA interest rate; for all other interest paid and received by business, Internal Revenue Service tabulations of business tax returns, adjusted for misreporting on tax returns and several conceptual differences.</p> <p>Most recent year—For farm and mortgage interest, same as other years; for all other interest, interest receipts and payments from regulatory agencies (such as the Federal Deposit Insurance Corporation), from trade sources, or obtained by applying an interest rate to a stock of assets/liabilities from Federal Reserve Board flow-of-funds accounts.</p>	<p>Derived by combining estimates of (1) interest received by persons, (2) government interest paid and received, and (3) interest paid by persons. For (1), judgmental trend; for (2), <i>Monthly Treasury Statement</i> for Federal and judgmental trend for State and local; for (3), consumer debt from the Federal Reserve Board times BEA estimates of interest rates. (Released on same schedule as domestic profits before tax.)⁸</p>
	Rest-of-the-world monetary, net (-\$39.6)	<p>Estimated as part of the balance of payments: For direct investment income, BEA surveys; for portfolio income, BEA and Treasury Dept. surveys and BEA study of pension funds and mutual funds. Adjusted for NIPA coverage of U.S. territories and Puerto Rico—see entry for merchandise exports and imports, net, under net exports of goods and services.</p>	<p>Same as annual. (Released on same schedule as domestic profits before tax.)⁸</p>
	Imputed—banks, credit agencies, and investment companies (\$134.9)	<p>Property income earned on investment of deposits and monetary interest paid (and for mutual depositories, profits from Internal Revenue Service tabulations of business tax returns when available) from annual reports of regulatory agencies and the Federal Reserve Board. The counterentry, financial services furnished without payment, is allocated to persons, government, and rest of the world on the basis of deposit liabilities from the same sources.</p>	<p>Judgmental trend. (Released on same schedule as domestic profits before tax.)</p>
	Imputed—life insurance carriers and private noninsured pension plans (\$184.7)	<p>Property income earned (and for life insurance carriers, profits) from Internal Revenue Service tabulations of business tax returns or, for the most recent year, from trade sources and the Federal Reserve Board.</p>	<p>Judgmental trend. (Released on same schedule as domestic profits before tax.)</p>
Business transfer payments (\$28.1)		<p>Payments to persons: For charitable contributions, for years except the most recent, Internal Revenue Service tabulations of business tax returns or, for most recent year, judgmental trend; for other components (such as liability payments for personal injury), for years except the most recent, information from government agency reports and trade sources or, for most recent year, judgmental trend. Payments to nonresidents: Estimated as part of the balance of payments.</p>	<p>Judgmental trend.</p>
Indirect business tax and nontax liability (\$475.2)	Federal government (\$78.2)	<p>For excise taxes, collections from the Internal Revenue Service; for customs duties, receipts from <i>Monthly Treasury Statement</i>; and for nontaxes (such as fines), receipts from the <i>Budget of the United States</i> prepared by the Office of Management and Budget.</p>	<p>For customs duties, the <i>Monthly Treasury Statement</i>; for most excise taxes, indicators of activity (such as gasoline production for gasoline tax); for others in this group, judgmental trend.</p>
	State and local governments (\$397.0)	<p>Receipts from Census Bureau quinquennial censuses and annual and quarterly surveys.</p>	<p>Judgmental trend.</p>

See footnotes at end of table.

Table 7.—Principal Source Data and Estimating Methods Used in Preparing Current-Dollar Estimates of GDP—Continued

Component (billions of dollars)	Subcomponent (billions of dollars)	Annual estimates: Source data and methods used to determine level for benchmark and other final years or, for other years, used to prepare an extrapolator or interpolator	Advance quarterly estimates: Source data and methods used to prepare an extrapolator
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Income side (Gross national income of \$5,673.1 billion in 1991)—Continued

Subsidies less current surplus of government enterprises (\$0.5)	Federal government (\$23.1)	For subsidies, payments by the Commodity Credit Corporation from agency reports and, for most other agencies, outlays from <i>Monthly Treasury Statement</i> ; for current surplus, mainly reports of various agencies, such as the Postal Service.	For subsidies, reports from the Commodity Credit Corporation and outlays from <i>Monthly Treasury Statement</i> ; for current surplus, judgmental trend.
	State and local governments (-\$22.6)	For subsidies, limited to railroad, Census Bureau annual surveys of expenditures; for current surplus, see entry for State and local purchases other than compensation, structures, and brokerage charges and financial services furnished without payment.	Judgmental trend.
Consumption of fixed capital (\$626.1)	Capital consumption allowances (\$574.2)	Years except most recent—For depreciation of corporations and of nonfarm sole proprietorships and partnerships, Internal Revenue Service tabulations of business tax returns, adjusted for several conceptual differences; for other depreciation (including noncorporate farms, nonprofit institutions, and owner-occupied houses), perpetual-inventory calculations; for accidental damage to fixed capital, losses reported to insurance companies and government agencies.	Judgmental trend.
	Less: CCA _{adj} (-\$51.9)	Most recent year—For depreciation of corporations and nonfarm sole proprietorships and partnerships, BEA estimates of tax-return-based depreciation; for other depreciation and accidental damage to fixed capital, same as other years.	For capital consumption allowances, judgmental trend; for current-cost series, perpetual-inventory calculations based on investment and on investment prices.
		Obtained in two parts: (1) The part that places a historical-cost series for capital consumed on a consistent basis with regard to service lives and on a straight-line depreciation pattern is the difference between tax-return-based calculations at historical cost and the perpetual-inventory calculations; (2) the part that places the historical-cost series on a current-cost basis is the difference between two perpetual-inventory calculations, one at historical cost and one at current cost.	

1. Includes \$3.1 billion for food produced and consumed on farms, standard clothing issued to military personnel, and used trucks.

2. The retail-control method cited under personal consumption expenditures (PCE) for most goods is based on retail trade sales data that include sales of gasoline service stations. Estimates of PCE for gasoline and oil are derived separately and are deducted from the retail-control totals (that include goods sold by gasoline service stations) to derive the estimates for PCE for most goods.

3. Also referred to as services furnished without payment by financial intermediaries except life insurance carriers and private noninsured pension plans.

4. Includes -\$0.4 for brokers' commissions on sale of structures and net purchases of used structures.

5. Includes -\$0.7 billion for other structures (dormitories, fraternity and sorority houses, nurses' homes, etc.) and net purchases of used structures.

6. The IVA on the income side and the IVA mentioned with the change in business inventories on the product side differ because the source data on the two sides reflect different mixes of methods (last-in, first-out, etc.) underlying reported inventories.

7. Includes -\$0.2 for rest of the world, net.

8. For profits and interest from the rest of the world and for parts of domestic net monetary interest, data become available to replace the judgmental trend by the time of the final estimate in the current quarterly sequence.

CCA_{adj} Capital consumption adjustment

IVA Inventory valuation adjustment

NIPA National income and product accounts

Source: 1991 estimates—SURVEY OF CURRENT BUSINESS, July 1992.

Table 8.—Methodology Used in Preparing Constant-Dollar Estimates of GDP

Component	Subcomponent	Deflation, using price based on—		Using quantity for—		
		Components of the Consumer Price Index (CPI) or the Producer Price Index (PPI)	Other	Extrapolation	Direct valuation	
Personal consumption expenditures	Durable and nondurable goods:					
	Most goods (goods except subcomponents listed separately).	Except as noted, CPI; military clothing, PPI.	Computers, BEA price index and PPI.			
	New autos	CPI			Used autos, in two parts: (1) Margin, unit sales from trade sources with dealer margins from Census Bureau and trade sources; (2) change in stock, based on unit sales and BEA constant-dollar value, with depreciated original value in base-year dollars.	
	Net purchases of used autos.	.....	.....	.....
	New trucks	CPI				
	Gasoline and oil	CPI				
	Food furnished to employees (including military).	CPI				
	Expenditures abroad by U.S. residents less personal remittances in kind to nonresidents.	Foreign consumer price indexes (exchange-rate adjusted).			
	Services:					
	Nonfarm dwellings—space rent for owner-occupied and rent for tenant-occupied.	CPI				
Rental value of farm dwellings.	.....	.....	BEA net stock of farm dwellings based on Dept. of Agriculture data.		

See footnotes at end of table.

Table 8.—Methodology Used in Preparing Constant-Dollar Estimates of GDP

Component	Subcomponent	Deflation, using price based on—		Using quantity for—	
		Components of the Consumer Price Index (CPI) or the Producer Price Index (PPI)	Other	Extrapolation	Direct valuation
Personal consumption expenditures— Continued	Services—Continued				
	Motor vehicle and other repair, other purchased intercity transportation, legal and funeral services, barbershops and beauty parlors, nursing homes, laundries, employment agency fees, accounting and tax return preparation services, recreation (except video cassette rentals, cable TV, casino gambling, parimutuel net receipts, and lotteries), hotels and motels, and other private education and research.	Except as noted, CPI.	Nursing homes, composite index of input prices from the Health Care Financing Admin.; clubs and fraternal organizations, and other private education and research, BEA composite index of input prices.		
	Physicians, dentists, and other professional medical services.	CPI			
	Private nursery, elementary, and secondary schools, day care, welfare activities, and trade unions and professional associations.	.....	BEA composite indexes of input prices.		
	Public education and hospitals, water and other sanitary services, and lotteries.	CPI			
	Financial services furnished without payment by banks, credit agencies, and investment companies ¹.	.....	.....	Paid employee hours of relevant financial institutions.	
	Brokerage charges and investment counseling, bank service charges, intercity transportation except other, and private higher education.	Except as noted, CPI.	Airline transportation, BEA index based on revenue per passenger mile from the Dept. of Transportation and trade source, and CPI component; private higher education, BEA composite index of input prices.	Stock brokerage charges, BEA orders derived from volume data from the Securities and Exchange Commission and trade sources.	
Domestic services	CPI				

See footnotes at end of table.

Table 8.—Methodology Used in Preparing Constant-Dollar Estimates of GDP—Continued

Component	Subcomponent	Deflation, using price based on—		Using quantity for—	
		Components of the Consumer Price Index (CPI) or the Producer Price Index (PPI)	Other	Extrapolation	Direct valuation
Personal consumption expenditures—Continued	Services—Continued				
	Insurance, private hospitals, religious activities, cable TV, utilities, and local transport.	Except as noted, CPI.	Life insurance and religious activities, BEA composite index of input prices; nonprofit hospitals, composite index of input prices from the Health Care Financing Admin.	Auto insurance, deflated premiums; health insurance, deflated benefits.	
	Foreign travel by U.S. residents less expenditures in the United States by nonresidents.	Expenditures in the United States, CPI.	Foreign travel, BEA composite index of foreign consumer price indexes (exchange-rate adjusted).		
	Other services: Video cassette rentals, casino gambling, and parimutuel net receipts; other housing except hotels and motels; bridge, etc., tolls; other household operation except repairs and insurance; travel and entertainment card fees; stenographic and reproduction services; and money orders and classified advertising.	Except as noted, CPI.	.....	Parimutuel net receipts, deflated winnings.	
Fixed investment	Nonresidential structures:				
	Utilities	Gas and petroleum pipelines, PPI.	Telecommunications, cost index from trade source; railroads, BEA price index; other, cost indexes from government agencies and trade sources.		
	Mining exploration, shafts, and wells.	Casing, PPI	Exploration, cost index from trade source; mines, implicit price deflator for nonfarm nonresidential buildings.	Drilling, footage by geographic area from trade source.	
	Other nonfarm buildings and structures.	.....	Buildings, BEA index based on cost index from trade source and Census Bureau price deflator for single-family houses under construction; structures, cost indexes from government agencies.		
	Farm buildings .....	.....	Implicit price deflator for nonfarm nonresidential buildings.		

See footnotes at end of table.

Table 8.—Methodology Used in Preparing Constant-Dollar Estimates of GDP—Continued

Component	Subcomponent	Deflation, using price based on—		Using quantity for—	
		Components of the Consumer Price Index (CPI) or the Producer Price Index (PPI)	Other	Extrapolation	Direct valuation
Fixed investment— Continued	Nonresidential producers' durable equipment:				
	Equipment except autos and telegraph installation.	Domestic components, except as noted, PPI; imported transportation equipment, PPI.	Imported components except computers and transportation equipment, Bureau of Labor Statistics import price indexes; domestic and imported computers, BEA price index and PPI.		
	New and used autos	New autos, CPI ..	.....	.....	Used autos, in two parts: (1) Margin, unit sales from trade sources with dealer margins from Census Bureau and trade sources; (2) change in stock, based on unit sales and BEA constant-dollar value, with depreciated original value in base-year dollars.
	Telephone and telegraph installation.	.....	Cost index from trade source.		
	Residential investment:				
	Permanent-site new single-family housing units.	.....	Census Bureau price deflator for new one-family houses under construction.		
	Permanent-site new multifamily housing units.	.....	BEA price index.		
	Mobile homes	PPI			
	Improvements	Major replacements, CPI.	Additions and alterations, BEA index based on Census Bureau price deflator for new one-family houses under construction and CPI component.		
	Brokers' commissions .....	.....	.....	Numbers of new and used houses sold from Census Bureau and trade sources.	
Producers' durable equipment.	PPI				

See footnotes at end of table.

Table 8.—Methodology Used in Preparing Constant-Dollar Estimates of GDP—Continued

Component	Subcomponent	Deflation, using price based on—		Using quantity for—	
		Components of the Consumer Price Index (CPI) or the Producer Price Index (PPI)	Other	Extrapolation	Direct valuation
Change in business inventories	Nonfarm: Purchased goods, all industries.	Except as noted, PPI.	Crude petroleum, index from the Energy Information Admin.; computers, BEA price index; and imported goods purchased by trade industries, Bureau of Labor Statistics import price indexes.	.....	Petroleum bulk terminals, quantities and prices of stocks from the Energy Information Admin.
	Nonfarm: Work-in-process and finished goods, manufacturing.	Except as noted, PPI; some overhead cost items, CPI.	BEA indexes of unit labor cost.		
	Farm .....	.....	.....	.....	Crops and livestock by type, quantities and prices from the Dept. of Agriculture.
Net exports of goods and services²	Merchandise exports and imports, net ² .	Transportation equipment, PPI.	Bureau of Labor Statistics export and import price indexes; for petroleum imports, unit-value index based on Census Bureau values and quantities; computers, BEA price index and PPI; and gold price from trade source.		
	Service exports and imports, net ² .	Travel receipts, medical receipts, and students' expenditures, CPI; freight and port expenditures, PPI.	Military transfers and direct defense expenditures abroad, selected implicit price deflators for national defense purchases (see below); passenger fares, Bureau of Labor Statistics export and import price indexes; travel payments and U.S. Government payments for miscellaneous services, BEA composite index of foreign consumer price indexes (exchange-rate adjusted); royalties and fees, and other private services, implicit price deflator for gross domestic product.	Exports of financial services furnished without payment, ¹ paid employee hours of relevant financial institutions.	

See footnotes at end of table.

Table 8.—Methodology Used in Preparing Constant-Dollar Estimates of GDP—Continued

Component	Subcomponent	Deflation, using price based on—		Using quantity for—	
		Components of the Consumer Price Index (CPI) or the Producer Price Index (PPI)	Other	Extrapolation	Direct valuation
Government purchases	Federal national defense	Selected goods, PPI; utilities and communications, CPI and PPI.	Some goods, some services, and most military structures, BEA indexes based on Dept. of Defense prices paid; some services, BEA earnings index; computers, BEA price index and PPI; nonmilitary structures, cost indexes from trade sources and government agencies.	Military compensation, full-time equivalent employment by rank and length of service; civilian compensation, full-time equivalent employment by grade adjusted for change from base year in hours worked.	Many goods, some services, and a few military structures, quantities and prices from Dept. of Defense reports.
	Federal nondefense	Most goods, PPI; rent, utilities, and communications, CPI.	Structures, cost indexes from trade sources and government agencies; computers, BEA price index and PPI; most services, BEA earnings indexes.	Compensation, full-time equivalent employment by grade adjusted for change from base year in hours worked; financial services furnished without payment ¹ , paid employee hours of relevant financial institutions.	Net purchases of agricultural commodities by the Commodity Credit Corporation, quantities by crop from agency reports with Dept. of Agriculture prices; selected petroleum transactions, quantities and prices from the Dept. of Energy.
	State and local compensation.	.....	.....	For employees in education, full-time equivalent employment by education and experience times change from base year in hours worked; for other employees, full-time equivalent employment times change from base year in hours worked.	
	State and local structures ...	.....	Cost indexes from trade sources and government agencies.		
	Brokerage charges and financial services furnished without payment.	.....	See entries for personal consumption expenditures for services.		
	State and local other than compensation, structures, and brokerage charges and financial services furnished without payment.	Services except as noted and goods used in maintenance and repair, CPI; goods except as noted and electricity, PPI.	Transportation, books, and postal services, BEA indexes based on Dept. of Defense prices paid; computers, BEA price index and PPI.		

1. Also referred to as "services furnished without payment by financial intermediaries except life insurance carriers and private noninsured pension plans."

2. Constant-dollar estimates of merchandise exports and imports and of service exports and imports are prepared separately. Constant-dollar receipts and payments of factor income from the rest of the world, the difference between GDP and GNP, are prepared using the following methods: Except as noted, deflation by implicit price index for

net domestic product; imputed interest paid to nonresidents, extrapolation by paid employee hours of relevant institutions.

APPENDIX A.—Revisions in the National Income and Product Accounts

[Billions of dollars]

	1989		1990		1991	
	Revised level	Revision	Revised level	Revision	Revised level	Revision
Account 1.—National Income and Product Account						
Compensation of employees	3,100.2	-1.1	3,291.2	.9	3,390.8	2.6
Wages and salaries	2,586.4	.6	2,742.9	4.0	2,812.2	4.0
Disbursements	2,586.4	.6	2,742.8	3.9	2,812.2	3.9
Wage accruals less disbursements	0	0	.1	0	-1	0
Supplements to wages and salaries	513.8	-1.7	548.4	-3.0	578.7	-1.3
Employer contributions for social insurance	261.9	.2	277.4	.1	290.4	1.0
Other labor income	251.9	-1.8	271.0	-3.0	288.3	-2.3
Proprietors' income with inventory valuation and capital consumption adjustments	347.3	.3	366.9	-6.3	368.0	-11.7
Rental income of persons with capital consumption adjustment	-13.5	-5.6	-12.3	.6	-10.4	2.3
Corporate profits with inventory valuation and capital consumption adjustments	362.8	11.1	361.7	42.7	346.3	39.5
Profits before tax	342.9	-1.6	355.4	23.1	334.7	22.3
Profits tax liability	141.3	3.3	136.7	1.4	124.0	-5
Profits after tax with inventory valuation and capital consumption adjustments	221.5	7.8	225.1	41.5	222.3	40.0
Dividends	134.6	6.7	149.3	15.6	146.5	8.7
Undistributed profits with inventory valuation and capital consumption adjustments	86.9	1.1	75.7	25.8	75.8	31.2
Inventory valuation adjustment	-17.5	0	-14.2	0	3.1	0
Capital consumption adjustment	37.4	12.7	20.5	19.7	8.4	17.1
Net interest	452.7	.1	460.7	-29.4	449.5	-30.7
National income	4,249.5	4.8	4,468.3	8.7	4,544.2	2.0
Business transfer payments	26.6	-2	26.4	-1.3	28.1	-3.1
To persons	21.1	-1.3	21.2	-2.0	22.8	-3.5
To rest of the world	5.4	1.0	5.2	.7	5.3	.4
Indirect business tax and nontax liability	414.7	3.7	444.2	5.0	475.2	4.2
Less: Subsidies less current surplus of government enterprises	5.4	-7	4.2	-6	.5	-1
Consumption of fixed capital	580.4	5.9	602.8	8.0	626.1	3.2
Gross national income	5,265.7	14.8	5,537.5	21.0	5,673.1	6.4
Statistical discrepancy	1.1	3.8	5.4	-2.7	21.9	2.9
Gross national product	5,266.8	18.6	5,542.9	18.4	5,694.9	9.1
Less: Receipts of factor income from the rest of the world	157.5	12.1	160.6	12.9	143.5	8.5
Plus: Payments of factor income to the rest of the world	141.5	.3	139.9	2.9	126.0	4.2
GROSS DOMESTIC PRODUCT	5,250.8	6.8	5,522.2	8.4	5,677.5	4.9
Personal consumption expenditures	3,523.1	5.2	3,748.4	5.8	3,887.7	-1.4
Durable goods	459.4	-4	464.3	-1.6	446.1	.9
Nondurable goods	1,149.5	2.6	1,224.5	6.8	1,251.5	-4
Services	1,914.2	3.0	2,059.7	.7	2,190.1	-1.8
Gross private domestic investment	832.3	-5.3	799.5	-3.1	721.1	-5.6
Fixed investment	798.9	-2.7	793.2	-9.5	731.3	-13.9
Nonresidential	568.1	-2.6	577.6	-9.4	541.1	-9.0
Structures	193.3	.2	201.1	2.4	180.1	5.5
Producers' durable equipment	374.8	-2.8	376.5	-11.8	360.9	-14.6
Residential	230.9	0	215.6	-1	190.3	-4.8
Change in business inventories	33.3	-2.7	6.3	6.3	-10.2	8.3
Net exports of goods and services	-79.7	3.2	-68.9	5.5	-21.8	8.9
Exports	508.0	3.1	557.0	6.6	598.2	6.9
Imports	587.7	-1	625.9	1.1	620.0	-2.0
Government purchases	975.2	3.8	1,043.2	.3	1,090.5	3.0
Federal	401.6	.2	426.4	1.5	447.3	2.2
National defense	299.9	-1	314.0	.6	323.8	.3
Nondefense	101.7	.2	112.4	.9	123.6	2.0
State and local	573.6	3.6	616.8	-1.2	643.2	.8
GROSS DOMESTIC PRODUCT	5,250.8	6.8	5,522.2	8.4	5,677.5	4.9

APPENDIX A.—Revisions in the National Income and Product Accounts—Continued

[Billions of dollars]

	1989		1990		1991	
	Revised level	Revision	Revised level	Revision	Revised level	Revision
Account 2.—Personal Income and Outlay Account						
Personal tax and nontax payments	593.3	1.6	621.3	.3	618.7	2.6
Personal outlays	3,634.9	12.5	3,867.3	14.2	4,009.9	10.8
Personal consumption expenditures	3,523.1	5.2	3,748.4	5.8	3,887.7	-1.4
Interest paid by persons	103.0	1.4	109.6	2.1	112.5	5.7
Personal transfer payments to rest of the world (net)	8.9	6.0	9.3	6.4	9.7	6.5
Personal saving	152.1	-14.0	175.6	-30.2	199.6	-19.7
PERSONAL TAXES, OUTLAYS, AND SAVING	4,380.3	.1	4,664.2	-15.6	4,828.3	-6.1
Wage and salary disbursements	2,586.4	.6	2,742.8	3.9	2,812.2	3.9
Other labor income	251.9	-1.8	271.0	-3.0	288.3	-2.3
Proprietors' income with inventory valuation and capital consumption adjustments	347.3	.3	366.9	-6.3	368.0	-11.7
Rental income of persons with capital consumption adjustment	-13.5	-5.6	-12.3	.6	-10.4	2.3
Personal dividend income	126.5	6.7	140.3	15.5	137.0	8.5
Dividends	134.6	6.7	149.3	15.6	146.5	8.7
Less: Dividends received by government	8.1	0	9.0	0	9.5	.3
Personal interest income	668.2	-8	694.5	-26.8	700.6	-18.0
Net interest	452.7	.1	460.7	-29.4	449.5	-30.7
Interest paid by government	251.0	0	269.9	-4	284.6	0
Less: Interest received by government	138.6	2.4	145.7	-1.0	146.1	-6.9
Interest paid by persons	103.0	1.4	109.6	2.1	112.5	5.7
Transfer payments to persons	625.0	.6	685.8	.9	771.1	11.6
From business	21.1	-1.3	21.2	-2.0	22.8	-3.5
From government	603.8	1.8	664.6	2.9	748.3	15.1
Less: Personal contributions for social insurance	211.4	-3	224.8	.5	238.4	.4
PERSONAL INCOME	4,380.3	.1	4,664.2	-15.6	4,828.3	-6.1
Account 3.—Government Receipts and Expenditures Account						
Purchases	975.2	3.8	1,043.2	.3	1,090.5	3.0
Transfer payments	615.1	2.3	678.0	3.7	720.0	19.9
To persons	603.8	1.8	664.6	2.9	748.3	15.1
To rest of the world (net)	11.3	.5	13.4	.8	-28.3	4.8
Net interest paid	112.4	-2.3	124.2	.4	138.5	6.9
Less: Dividends received by government	8.1	0	9.0	0	9.5	.3
Subsidies less current surplus of government enterprises	5.4	-7	4.2	-6	.5	-1
Less: Wage accruals less disbursements	0	0	.1	0	-1	0
Surplus or deficit (-), national income and product accounts	-77.5	5.5	-136.1	3.4	-193.3	-21.7
Federal	-122.3	1.9	-166.2	-9	-210.4	-8.8
State and local	44.8	3.7	30.1	4.4	17.1	-12.9
GOVERNMENT EXPENDITURES AND SURPLUS	1,622.6	8.6	1,704.4	7.1	1,746.8	7.7
Personal tax and nontax payments	593.3	1.6	621.3	.3	618.7	2.6
Corporate profits tax liability	141.3	3.3	136.7	1.4	124.0	-5
Indirect business tax and nontax liability	414.7	3.7	444.2	5.0	475.2	4.2
Contributions for social insurance	473.2	-2	502.3	.6	528.8	1.4
Employer	261.9	.2	277.4	.1	290.4	1.0
Personal	211.4	-3	224.8	.5	238.4	.4
GOVERNMENT RECEIPTS	1,622.6	8.6	1,704.4	7.1	1,746.8	7.7

APPENDIX A.—Revisions in the National Income and Product Accounts—Continued

[Billions of dollars]

	1989		1990		1991	
	Revised level	Revision	Revised level	Revision	Revised level	Revision
Account 4.—Foreign Transactions Account						
Exports of goods and services	508.0	3.1	557.0	6.6	598.2	6.9
Receipts of factor income	157.5	12.1	160.6	12.9	143.5	8.5
Capital grants received by the United States (net)	0	0	0	0	0	0
RECEIPTS FROM THE REST OF THE WORLD	665.5	15.2	717.6	19.4	741.7	15.4
Imports of goods and services	587.7	−1	625.9	1.1	620.0	−2.0
Payments of factor income	141.5	.3	139.9	2.9	126.0	4.2
Transfer payments to rest of the world (net)	25.6	7.5	27.9	7.9	−13.3	11.8
From persons (net)	8.9	6.0	9.3	6.4	9.7	6.5
From government (net)	11.3	.5	13.4	.8	−28.3	4.8
From business	5.4	1.0	5.2	.7	5.3	.4
Net foreign investment	−89.3	7.5	−76.1	7.5	9.0	1.4
PAYMENTS TO THE REST OF THE WORLD	665.5	15.2	717.6	19.4	741.7	15.4
Account 5.—Gross Saving and Investment Account						
Gross private domestic investment	832.3	−5.3	799.5	−3.1	721.1	−5.6
Net foreign investment	−89.3	7.5	−76.1	7.5	9.0	1.4
GROSS INVESTMENT	742.9	2.2	723.4	4.4	730.1	−4.2
Personal saving	152.1	−14.0	175.6	−30.2	199.6	−19.7
Wage accruals less disbursements	0	0	0	0	0	0
Undistributed corporate profits with inventory valuation and capital consumption adjustments	86.9	1.1	75.7	25.8	75.8	31.2
Consumption of fixed capital	580.4	5.9	602.8	8.0	626.1	3.2
Government surplus or deficit (−), national income and product accounts	−77.5	5.5	−136.1	3.4	−193.3	−21.7
Capital grants received by the United States (net)	0	0	0	0	0	0
Statistical discrepancy	1.1	3.8	5.4	−2.7	21.9	2.9
GROSS SAVING AND STATISTICAL DISCREPANCY	742.9	2.2	723.4	4.4	730.1	−4.2