

Annual Revision of the National Income and Product Accounts

Annual Estimates, 1998–2000

Quarterly Estimates, 1998:I–2001:I

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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 (NIPAs) for 1998–2000 and the first quarter of 2001.¹ As is usual in annual NIPA revisions, these estimates incorporate source data that are more complete, more detailed, and otherwise more appropriate than those that were previously incorporated. In addition, several methodological and presentational changes have been made.

Overall, the picture of the U.S. economy for the 3-year period covered by the revised estimates is similar to that shown by the previously published estimates. Both sets of estimates show strong growth in the U.S. economy, reflecting strength in consumer spending and business investment, and low inflation. In addition, both sets of estimates show a slowdown in economic growth beginning in the second half of 2000.

The most important differences between the revised and the previously published estimates for 1998–2000 are the following:

- The growth rate of real gross domestic product (GDP) from 1997 to 2000 was revised down from 4.5 percent to 4.2 percent. The largest contributors to the downward revision were downward revisions to the growth of investment in software, which accounted for about one-half of the revision, and of personal consumption expenditures (PCE), which accounted for about one-third.

- For 2000, the revised estimates show real GDP growth of 4.1 percent; the previous estimate was 5.0 percent (chart 1). Lower inventory investment

accounted for about one-third of the downward revision; lower software investment and lower PCE for services each accounted for about one-fourth.

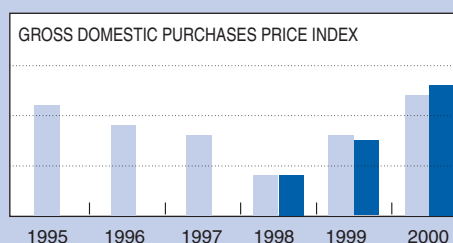
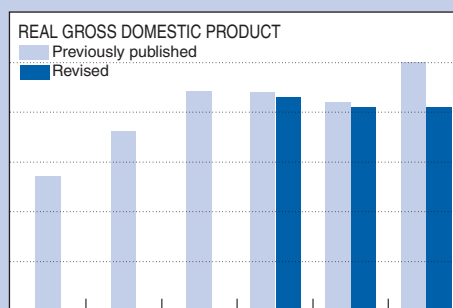
- For 2000, wage and salary accruals was revised up 1.4 percent, and corporate profits from current production was revised down 7.4 percent. Compensation of employees as a percent of gross domestic income was revised up to 57.1 percent from 56.1 percent.

- The decline in the personal saving rate from 1997 to 2000 was less steep in the revised estimates, falling to a rate of 1.0 percent for 2000; in the previously published estimates, the rate had been –0.1 percent for 2000. In contrast, the

CHART 1

Revisions to Annual Percent Changes in Featured Measures

Percent changes



U.S. Bureau of Economic Analysis

1. Information on the structure, definitions, presentation, and methodologies that underlie the NIPAs will soon be available in an updated guide to the NIPAs on BEA's Web site at <www.bea.doc.gov>. For the definitional changes that were made in the 1999 comprehensive revision of the NIPAs, see Brent R. Moulton, Robert P. Parker, and Eugene P. Seskin, "A Preview of the 1999 Comprehensive Revision of the National Income and Product Accounts: Definitional and Classificational Changes," SURVEY 79 (August 1999): 7–20.

national saving rate for 2000 was revised down only slightly, as the upward revision to personal saving was more than offset by downward revisions to government and business saving.

The revised estimates also incorporated several important changes in methodology and presentation:

- Much of the source data from Government agencies is now reported on the basis of the North American Industry Classification System (NAICS) instead of the Standard Industrial Classification (SIC) system. This change did not, by itself, affect the estimates of GDP or of other aggregates, but it did affect the detailed estimates of private inventories by industry, which are now presented on a NAICS basis.²

- Quarterly estimates of fixed investment in prepackaged and custom software have been

improved by using data on receipts from company reports to the Securities and Exchange Commission and data on monthly retail sales of business software from a trade source.

- The estimates of communication equipment in private fixed investment incorporate a newly available price index from the Federal Reserve Board that reflects quality improvements to local area network equipment—routers, switches, and hubs.

- A new NIPA table, table 8.30, presents the contributions of the major components of gross domestic purchases to the percent change in the gross domestic purchases price index.

The first section of this article discusses the impact of the revisions on key NIPA measures of economic activity, and the second section provides a summary of the revisions and the major source data underlying them. The third section describes the changes in the methodology used to prepare the estimates, and the fourth section discusses several changes in the presentation of the NIPA tables.

2. For information on NAICS and its implementation, see John R. Kort, "The North American Industry Classification System in BEA's Economic Accounts," SURVEY 81 (May 2001): 7–13. For information on the new NIPA tables for private inventories, see the section "Presentational Changes."

Acknowledgments

Brent R. Moulton, Associate Director for National Income, Expenditures, and Wealth Accounts, supervised the preparation of this year's annual revision of the national income and product accounts. Karl D. Galbraith, Chief of the Government Division, and Carol E. Moylan, Chief of the National Income and Wealth Division, directed major parts of the revision. Kali K. Kong—assisted by Arnold J. Katz, Janet H. Kmitch, Randal T. Matsunaga, Denise A. McBride, Karin E. Moses, Mary L. Roy, David F. Sullivan, and Ernest D. Wilcox—coordinated and conducted the estimation and review process.

Brent R. Moulton, Eugene P. Seskin, and David F. Sullivan wrote the article. Duane G. Hackmann, Kali K. Kong, and Teresa L. Weadock prepared analyses and other review materials for both the article and the news release. Herb L. Cover—assisted by Mary Carol Barron, Michael J. Boehm, James J. Raley III, John Sporing, Jr., and Mary D. Young—developed and operated the computer systems that were used to compile, check, analyze, and report the final estimates. David F. Sullivan coordinated the presentational improvements and table changes.

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

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Appendix A shows, in current dollars, the revised annual estimates and the revisions for the five summary accounts of the NIPAs. Tables presenting most of the revised monthly, quarterly, and annual NIPA estimates and the "advance" estimates for the second quarter of 2001 follow this article (a list of these tables begins on page 34). In addition, tables presenting historical estimates for GDP and other major NIPA series from 1929 forward begin on page 129.

Impact of the Revisions

According to the revised estimates, the economy grew at a slower rate than was indicated by the previously published estimates: From the fourth quarter of 1997 to the first quarter of 2001, the growth rate (average annual rate of change) of real GDP was revised down 0.3 percentage point to 3.8 percent (table 1). This growth rate still exceeds the average growth over the current economic expansion; from the cyclical trough in the first quarter of 1991 to the first quarter of 2001, the growth rate of real GDP was 3.5 percent (revised down 0.1 percentage point from 3.6 percent). In the revised estimates, equipment and software investment, PCE for goods, PCE for services, non-residential structures, imports of goods and services, change in private inventories, and Federal Government nondefense consumption expenditures and gross investment (Federal nondefense spending) were all weaker; residential investment, exports of goods and services, and Federal defense spending were stronger; State and local spending was little revised.

The percent change from the preceding year for real GDP was revised down for all 3 years: From 4.4 percent to 4.3 percent for 1998, from 4.2 percent to 4.1 percent for 1999, and from 5.0 percent to 4.1 percent for 2000. The revisions for 1998 and 1999 were smaller than average, and the revision for 2000 was considerably larger than average. (In the annual NIPA revisions since 1979, the revisions to the annual estimates—without regard to sign—have averaged 0.3 percentage point.)

On a fourth-quarter-to-fourth-quarter basis, the increase in real GDP during 1998 was revised up from 4.6 percent to 4.8 percent, the increase during 1999 was revised down from 5.0 percent to 4.4 percent, and the increase during 2000 was revised down from 3.4 percent to 2.8 percent.

Both the revised and the previously published estimates show that real GDP increased in each quarter of the revision period (from the first quarter of 1998 to the first quarter of 2001). Within this

period, the revisions to the quarterly estimates of real GDP growth for 2000 were particularly notable: For the first quarter, down 2.5 percentage points to 2.3 percent; for the second quarter, up 0.1 percentage point to 5.7 percent; for the third quarter, down 0.9 percentage point to 1.3 percent; and for the fourth quarter, up 0.9 percentage point to 1.9 percent. In terms of indicating whether the economy was picking up or slowing down, the revised estimates mirror the previously published estimates in 11 of the 13 quarters of the revision period. In the fourth quarter of 2000, the revised estimates show an acceleration, and the previously published estimates showed a deceleration; in the first quarter of 2001, the revised estimates show a deceleration, and the previously published estimates showed an acceleration.³

3. For an analysis of the reliability of the estimates of real GDP, see Bruce T. Grimm and Robert P. Parker, "Reliability of the Quarterly and Annual Estimates of GDP and Gross Domestic Income," *SURVEY* 78 (December 1998): 12–21.

Table 1.—Real GDP and Its Major Components: Change From 1997:IV to 2001:I

(Billions of chained (1996) dollars, seasonally adjusted annual rates)

	1997:IV	Previously published		Revised		Revision in change	
		2001:I	Percent change for 1997:IV–2001:I (annual rate)	2001:I	Percent change for 1997:IV–2001:I (annual rate)	Dollar	Percentage points
Gross domestic product	8,272.9	9,422.8	4.1	9,334.5	3.8	-88.3	-0.3
Personal consumption expenditures	5,507.1	6,426.6	4.9	6,388.5	4.7	-38.1	-0.2
Durable goods	680.9	923.2	9.8	922.4	9.8	-0.8	0
Nondurable goods	1,634.1	1,901.6	4.8	1,878.0	4.4	-23.6	-0.4
Services	3,193.0	3,618.2	3.9	3,605.1	3.8	-13.1	-0.1
Gross private domestic investment	1,438.5	1,786.5	6.9	1,721.0	5.7	-65.5	-1.2
Fixed investment	1,371.3	1,797.1	8.7	1,740.3	7.6	-56.8	-1.1
Nonresidential	1,047.0	1,445.1	10.4	1,373.9	8.7	-71.2	-1.7
Structures	252.7	304.5	5.9	291.7	4.5	-12.8	-1.4
Equipment and software	794.5	1,146.1	11.9	1,087.7	10.1	-58.4	-1.8
Residential	324.9	362.1	3.4	372.9	4.3	10.8	0.9
Change in private inventories	66.1	-19.2	.....	-27.1	.....	-7.9	.....
Net exports of goods and services	-139.2	-422.6	.....	-404.5	.....	18.1	.....
Exports	1,002.1	1,137.1	4.0	1,144.1	4.2	7.0	0.2
Goods	727.1	846.8	4.8	844.4	4.7	-2.4	-0.1
Services	275.4	293.3	2.0	301.8	2.9	8.5	0.9
Imports	1,141.2	1,559.8	10.1	1,548.6	9.8	-11.2	-0.3
Goods	961.9	1,334.2	10.6	1,322.8	10.3	-11.4	-0.3
Services	179.4	227.5	7.6	227.4	7.6	-0.1	0
Government consumption expenditures and gross investment	1,465.3	1,608.2	2.9	1,603.4	2.8	-4.8	-0.1
Federal	528.4	557.5	1.7	552.2	1.4	-5.3	-0.3
National defense	348.5	358.4	0.9	360.3	1.0	1.9	0.1
Nondefense	179.8	199.0	3.2	191.8	2.0	-7.2	-1.2
State and local	936.8	1,050.1	3.6	1,050.5	3.6	0.4	0
Addenda:							
Final sales of domestic product	8,206.3	9,428.2	4.4	9,347.8	4.1	-80.4	-0.3
Gross domestic purchases	8,409.4	9,815.5	4.9	9,710.4	4.5	-105.1	-0.4
Gross national product	8,276.9	9,417.8	4.1	9,329.1	3.8	-88.7	-0.3
Gross domestic income	8,290.5	9,470.3	4.2	9,445.4	4.1	-24.9	-0.1

NOTE.—Chained (1996) dollar series are calculated as the product of the chain-type quantity index and the 1996 current-dollar value of the corresponding series, divided by 100. Because the formula for the chain-type quantity indexes uses the weights of more than one period, the corresponding chained-dollar estimates are usually not additive.

The revised estimates show about the same rate of increase in prices as that shown by the previously published estimates. From the fourth quarter of 1997 to the first quarter of 2001, the average an-

nual rate of increase in the price indexes for both gross domestic purchases and GDP was unrevised at 1.8 percent (table 2). The percent change from the preceding year for the price index for gross domestic purchases was unrevised at 0.8 percent for 1998, was revised down from 1.6 percent to 1.5 percent for 1999, and was revised up from 2.4 percent to 2.6 percent for 2000.

**Table 2.—Chain-Type Price Indexes:
Change From 1997:IV to 2001:I**

	Percent change for 1997:IV–2001:I (annual rate)		Revision in change (percentage points)
	Pre-viously published	Revised	
Gross domestic product	1.8	1.8	0
Less: Exports of goods and services	-0.1	-0.1	0
Plus: Imports of goods and services	0	0.1	0.1
Equals: Gross domestic purchases	1.8	1.8	0
Personal consumption expenditures	1.9	2.0	0.1
Durable goods	-1.9	-1.9	0
Nondurable goods	2.2	2.2	0
Services	2.6	2.7	0.1
Gross private domestic investment	0.2	0.1	-0.1
Fixed investment	0.3	0.2	-0.1
Nonresidential	-0.7	-1.0	-0.3
Structures	3.5	3.5	0
Equipment and software	-2.0	-2.4	-0.4
Residential	3.6	3.8	0.2
Change in private inventories			
Government consumption expenditures and gross investment	2.8	2.8	0
Federal	2.6	2.2	-0.4
National defense	2.4	2.2	-0.2
Nondefense	2.8	2.4	-0.4
State and local	3.0	3.1	0.1
Addenda:			
Final sales of domestic product	1.8	1.8	0
Gross national product	1.8	1.8	0

Summary of the Revisions

In general, revisions to real GDP reflect four factors: (1) Revisions to the current-dollar components of GDP for which chained-dollar estimates are prepared by deflation, (2) revisions to the prices used in deflation, (3) revisions to the quantities used to estimate components of real GDP by extrapolation or direct valuation, and (4) revisions resulting from the use of revised and updated weights in the calculation of real GDP.⁴

The first part of this section describes the revisions to the percent changes in the annual estimates of real GDP and its major components, and the second part describes the revisions to the quarterly estimates. The third part describes the revisions to the current-dollar NIPA estimates and

4. For the GDP components for which chained-dollar estimates are prepared by extrapolation or direct valuation, the current-dollar and chained-dollar estimates are based on independent source data; consequently, the corresponding revisions are unrelated. For a list of these components, see table 2 in "Updated Summary NIPA Methodologies," SURVEY 80 (October 2000): 34–40; an updated version of this table will be published in the October 2001 SURVEY.

Table 3.—Revisions to Contributions to Percent Change in Real GDP

	1997	1998			1999			2000		
		Pre-viously published	Revised	Revision	Pre-viously published	Revised	Revision	Pre-viously published	Revised	Revision
Percent change at annual rate:										
Gross domestic product	4.4	4.4	4.3	-0.1	4.2	4.1	-0.1	5.0	4.1	-0.9
Percentage points at annual rates:										
Personal consumption expenditures	2.39	3.12	3.18	0.06	3.52	3.35	-0.17	3.56	3.28	-0.28
Durable goods	0.51	0.81	0.80	-0.01	0.96	0.97	0.01	0.77	0.77	0
Nondurable goods	0.58	0.79	0.81	0.02	1.10	0.93	-0.17	1.01	0.94	-0.07
Services	1.29	1.53	1.57	0.04	1.46	1.45	-0.01	1.78	1.57	-0.21
Gross private domestic investment	1.91	2.06	1.96	-0.10	1.15	1.14	-0.01	1.80	1.19	-0.61
Fixed investment	1.47	1.87	1.80	-0.07	1.53	1.29	-0.24	1.59	1.28	-0.31
Nonresidential	1.39	1.54	1.49	-0.05	1.26	1.01	-0.25	1.62	1.25	-0.37
Structures	0.26	0.22	0.21	-0.01	-0.05	-0.07	-0.02	0.28	0.19	-0.09
Equipment and software	1.13	1.32	1.27	-0.05	1.30	1.08	-0.22	1.33	1.06	-0.27
Residential	0.08	0.33	0.32	-0.01	0.27	0.28	0.01	-0.02	0.04	0.06
Change in private inventories	0.44	0.20	0.15	-0.05	-0.37	-0.15	0.22	0.21	-0.09	-0.30
Net exports of goods and services	-0.29	-1.20	-1.20	0	-1.03	-0.98	0.05	-0.87	-0.79	0.08
Exports	1.35	0.26	0.24	-0.02	0.32	0.35	0.03	0.96	1.01	0.05
Goods	1.12	0.18	0.17	-0.01	0.30	0.30	0	0.87	0.85	-0.02
Services	0.23	0.08	0.07	-0.01	0.02	0.05	0.03	0.09	0.17	0.08
Imports	-1.64	-1.46	-1.44	0.02	-1.35	-1.33	0.02	-1.83	-1.81	0.02
Goods	-1.43	-1.21	-1.20	0.01	-1.32	-1.31	0.01	-1.59	-1.54	0.05
Services	-0.21	-0.24	-0.24	0	-0.04	-0.02	0.02	-0.24	-0.26	-0.02
Government consumption expenditures and gross investment	0.43	0.38	0.34	-0.04	0.59	0.58	-0.01	0.50	0.47	-0.03
Federal	-0.03	-0.03	-0.05	-0.02	0.16	0.13	-0.03	0.09	0.10	0.01
National defense	-0.12	-0.07	-0.07	0	0.08	0.08	0	0.01	0	-0.01
Nondefense	0.09	0.04	0.02	-0.02	0.08	0.05	-0.03	0.08	0.10	0.02
State and local	0.45	0.41	0.39	-0.02	0.43	0.44	0.01	0.41	0.37	-0.04

discusses the sources of these revisions. The fourth part describes the revisions to the annual price estimates.

Annual real GDP estimates

The annual percent change in real GDP was revised down 0.1 percentage point to 4.3 percent for 1998, was revised down 0.1 percentage point to 4.1 percent for 1999, and was revised down 0.9 percentage point to 4.1 percent for 2000 (table 3).

For 1998, the largest contributors to the downward revision to real GDP growth were fixed investment in equipment and software investment and change in private inventories; the contributions of these components were partly offset by an upward revision to PCE for services. For 1999, the largest contributors to the downward revision to real GDP growth were equipment and software investment and PCE for nondurable goods; the contributions of these components were partly offset by an upward revision to change in private inventories. For 2000, the largest contributors to the downward revision to real GDP growth were change in private inventories, equipment and software investment, PCE for services, nonresidential structures, and PCE for nondurable goods; the contributions of these components were partly offset by upward revisions to exports of services and to residential investment and by a downward revision to imports of goods (which is subtracted in the calculation of GDP).

Revisions to the components of real GDP.—The annual percent change in real PCE was revised up 0.1 percentage point to 4.8 percent for 1998, was revised down 0.3 percentage point to 5.0 percent for 1999, and was revised down 0.5 percentage point to 4.8 percent for 2000 (table 4). For 1998, the upward revision was mostly accounted for by small upward revisions within PCE for services, the largest of which was to recreation. (Within PCE for nondurable goods, an upward revision to food was largely offset by a downward revision to “other” nondurable goods.) For 1999, the downward revision was mostly accounted for by a downward revision to PCE for nondurable goods, mainly to “other” nondurable goods, to food, and to clothing and shoes. For 2000, the downward revision reflected downward revisions to PCE for services and to PCE for nondurable goods. Within PCE for services, the largest downward revisions were to “other” services and to recreation. Within nondurable goods, the largest downward revision was to “other” nondurable goods.

The change in nonresidential fixed investment was revised down for all 3 years: 0.5 percentage point to 12.5 percent for 1998, 1.9 percentage points to 8.2 percent for 1999, and 2.7 percentage points to 9.9 percent for 2000. For 1998, equipment and software accounted for most of the revision. Within equipment and software, the downward revision was mainly to information processing equipment and software; software more

Table 4.—Revisions to Percent Change in Real GDP

[Percent change from preceding period]

	1997	1998			1999			2000		
		Pre-viously published	Revised	Revision	Pre-viously published	Revised	Revision	Pre-viously published	Revised	Revision
Gross domestic product	4.4	4.4	4.3	-0.1	4.2	4.1	-0.1	5.0	4.1	-0.9
Personal consumption expenditures	3.6	4.7	4.8	0.1	5.3	5.0	-0.3	5.3	4.8	-0.5
Durable goods	6.6	10.6	10.5	-0.1	12.4	12.5	0.1	9.6	9.5	-0.1
Nondurable goods	2.9	4.0	4.1	0.1	5.6	4.7	-0.9	5.0	4.7	-0.3
Services	3.3	3.9	4.0	0.1	3.7	3.7	0	4.5	4.0	-0.5
Gross private domestic fixed investment	9.6	11.8	11.4	-0.4	9.2	7.8	-1.4	9.3	7.6	-1.7
Nonresidential	12.2	13.0	12.5	-0.5	10.1	8.2	-1.9	12.6	9.9	-2.7
Structures	9.1	7.2	6.8	-0.4	-1.4	-2.0	-0.6	9.1	6.2	-2.9
Equipment and software	13.3	15.0	14.6	-0.4	14.1	11.8	-2.3	13.7	11.1	-2.6
Residential	2.0	8.3	8.0	-0.3	6.4	6.7	0.3	-0.5	0.8	1.3
Change in private inventories										
Net exports of goods and services										
Exports	12.3	2.3	2.1	-0.2	2.9	3.2	0.3	9.0	9.5	0.5
Goods	14.5	2.2	2.1	-0.1	4.0	3.9	-0.1	11.6	11.3	-0.3
Services	7.0	2.4	2.3	-0.1	0.5	1.6	1.1	2.9	5.3	2.4
Imports	13.7	11.9	11.8	-0.1	10.7	10.5	-0.2	13.5	13.4	-0.1
Goods	14.2	11.8	11.7	-0.1	12.5	12.4	-0.1	13.9	13.5	-0.4
Services	10.9	12.2	11.9	-0.3	1.7	1.1	-0.6	11.5	12.6	1.1
Government consumption expenditures and gross investment	2.4	2.1	1.9	-0.2	3.3	3.3	0	2.8	2.7	-0.1
Federal	-0.4	-0.5	-0.8	-0.3	2.5	2.2	-0.3	1.5	1.7	0.2
National defense	-2.6	-1.7	-1.8	-0.1	2.0	2.1	0.1	0.2	0.1	-0.1
Nondefense	4.2	1.8	1.1	-0.7	3.4	2.3	-1.1	3.8	4.6	0.8
State and local	4.0	3.6	3.4	-0.2	3.8	3.9	0.1	3.5	3.2	-0.3

than accounted for the revision. For 1999, equipment and software also accounted for most of the revision. Within equipment and software, the downward revision was more than accounted for by downward revisions to the major components of information processing equipment and software (computers and peripheral equipment, software, and “other” information processing equipment). For 2000, both equipment and software and nonresidential structures were revised down. Within equipment and software, the revision was primarily attributable to the software component of information processing equipment and software. Within nonresidential structures, the downward revision reflected downward revisions to mining, exploration, shafts, and wells and to nonresidential buildings.

The change in residential investment was revised down 0.3 percentage point to 8.0 percent for 1998, was revised up 0.3 percentage point to 6.7 percent for 1999, and was revised up 1.3 percentage points to 0.8 percent for 2000. For 2000, the revision was mainly to improvements to residential structures.

The change in inventory investment was revised down \$3.5 billion (chained 1996 dollars) for 1998, was revised up \$16.8 billion for 1999, and was revised down \$10.3 billion for 2000. For all 3 years, nonfarm inventory investment accounted for most of the revisions. The estimates of the change in private inventories are now presented on a North American Industry Classification System (NAICS) basis; thus, for the detailed estimates by industry, the revised estimates are not directly comparable with the previously published estimates (see the section “Changes in Methodology”).

The change in exports of goods and services was revised down 0.2 percentage point to 2.1 percent for 1998, was revised up 0.3 percentage point to 3.2 percent for 1999, and was revised up 0.5 percentage point to 9.5 percent for 2000. For 2000, an upward revision to exports of services was partly offset by a downward revision to exports of goods. Within exports of services, the largest revision was to “other” services. The revision to exports of goods was more than accounted for by “other” goods.

The change in imports of goods and services was revised down for all 3 years: 0.1 percentage point to 11.8 percent for 1998, 0.2 percentage point to 10.5 percent for 1999, and 0.1 percentage point to 13.4 percent for 2000. For 2000, the revision was more than accounted for by imports of goods. Within imports of goods, downward revisions

to “other capital goods, except automotive” and to “other” goods were partly offset by an upward revision to “durable consumer goods, except automotive.” (Within imports of services, an upward revision to “other” private services was largely offset by a downward revision to travel.)

The change in government consumption expenditures and gross investment was revised down 0.2 percentage point to 1.9 percent for 1998, was unrevised at 3.3 percent for 1999, and was revised down 0.1 percentage point to 2.7 percent for 2000. For 2000, the largest downward revision was to State and local government gross investment, reflecting downward revisions to structures and to equipment and software.

Quarterly estimates

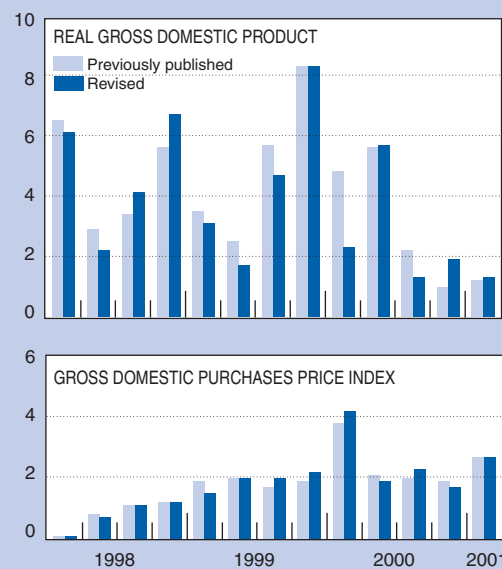
Revisions to the quarterly (and monthly) NIPA estimates reflect the revisions to the annual estimates that resulted from the incorporation of newly available annual source data, the incorporation of new and revised monthly and quarterly source data (including the updating of seasonal factors that are used to indicate quarterly patterns), and the introduction of changes in methodology (see the section “Changes in Methodology”).

Although there were some notable revisions to

CHART 2

Revisions to Quarterly Percent Changes in Featured Measures

Percent changes



Based on seasonally adjusted annual rates

U.S. Bureau of Economic Analysis

the quarterly estimates, both the revised and the previously published estimates show strong growth in real GDP during 1998 and 1999 and a deceleration during 2000. For real GDP, the revisions to the 13 quarterly percent changes (at annual rates) averaged 0.7 percentage point (without regard to sign). (In the annual NIPA revisions since 1979, the revisions to the quarterly estimates have averaged 0.8 percentage point.) The largest downward revision to the percent changes in real GDP was 2.5 percentage points, to 2.3 percent, for the first quarter of 2000 (table 5 and chart 2). This revision was largely attributable to PCE for services, to imports of goods, to change in private inventories, to investment in nonresidential structures, to PCE for durable goods, and to equipment and software investment. The largest upward revision to the percent changes in real GDP was 1.1 percentage points, to 6.7 percent, for the fourth quarter of 1998. The largest contributor to the revision was an upward revision to the change in nonfarm private inventories.

In general, the quarter-to-quarter pattern of changes in the featured measure of prices on the revised basis was not markedly different from that on the previously published basis. For gross domestic purchases prices, the revisions to the 13 quarterly percent changes (at annual rates) averaged 0.2 percentage point (without regard to sign). The largest downward revision was 0.4 percentage point, to 1.5 percent, for the first quarter of 1999; prices of PCE for services accounted for about one-half of the revision. The largest upward revision was 0.4 percentage point, to 4.2 percent, for the first quarter of 2000; prices of PCE for services

and of residential investment accounted for the revision.

Annual current-dollar estimates

Table 6 summarizes the current-dollar revisions to major NIPA components. It provides a guide to the major revisions by identifying the subcomponent series for which revisions were \$4.0 billion or more (absolute value) for any of the years covered by this annual revision and by listing the major source data that underlie the revised estimates. Note that the incorporation of new and revised source data for a given year usually results in a revision to the level of an estimate not only for that year but also for subsequent years.

This annual revision incorporated data primarily from the following Federal statistical sources: Census Bureau annual surveys of State and local governments for fiscal years 1998 and 1999, of manufactures, of merchant wholesale trade, of retail trade for 1999, and of services for 1999 and 2000; Census Bureau monthly surveys of the value of construction put in place for 1998–2000; Federal Government budget data for fiscal years 2000 and 2001; Internal Revenue Service (IRS) tabulations of income tax returns for corporations for 1998 and 1999 and for sole proprietorships and partnerships for 1999; Bureau of Labor Statistics (BLS) tabulations of wages and salaries of employees covered by State unemployment insurance for 2000; U.S. Department of Agriculture farm statistics for 2000; and BEA international transactions accounts for 1998–2000.

Details about the sources of the major revisions to the NIPA components begin on page 18.

Table 5.—GDP, Real GDP, the GDP Price Index, and the Gross Domestic Purchases Price Index: Revisions to Percent Change From Preceding Quarter

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

	GDP			Real GDP			GDP price index			Gross domestic purchases price index		
	Pre-viously published	Revised	Revision	Pre-viously published	Revised	Revision	Pre-viously published	Revised	Revision	Pre-viously published	Revised	Revision
1997:IV	4.2			2.8			1.4			1.3		
1998:I	7.6	7.2	-0.4	6.5	6.1	-0.4	1.0	1.1	0.1	0.1	0.1	0
II	4.1	3.3	-0.8	2.9	2.2	-0.7	1.1	1.0	-0.1	0.8	0.7	-0.1
III	5.0	5.6	0.6	3.4	4.1	0.7	1.5	1.4	-0.1	1.1	1.1	0
IV	6.8	7.8	1.0	5.6	6.7	1.1	1.1	1.1	0	1.2	1.2	0
1999:I	5.9	4.9	-1.0	3.5	3.1	-0.4	2.2	1.7	-0.5	1.9	1.5	-0.4
II	3.9	3.0	-0.9	2.5	1.7	-0.8	1.4	1.4	0	2.0	2.0	0
III	6.7	6.1	-0.6	5.7	4.7	-1.0	1.1	1.4	0.3	1.7	2.0	0.3
IV	9.7	10.0	0.3	8.3	8.3	0	1.6	1.8	0.2	1.9	2.2	0.3
2000:I	8.3	6.3	-2.0	4.8	2.3	-2.5	3.3	3.8	0.5	3.8	4.2	0.4
II	8.2	8.0	-0.2	5.6	5.7	0.1	2.4	2.1	-0.3	2.1	1.9	-0.2
III	3.8	3.3	-0.5	2.2	1.3	-0.9	1.6	1.9	0.3	2.0	2.3	0.3
IV	3.0	3.7	0.7	1.0	1.9	0.9	2.0	1.8	-0.2	1.9	1.7	-0.2
2001:I	4.5	4.6	0.1	1.2	1.3	0.1	3.2	3.3	0.1	2.7	2.7	0

Table 6.—NIPA Revisions: Selected Component Detail and Major Source Data

NIPA component	Billions of dollars				Major source data incorporated ¹
	Revision in level			Revised 2000 level	
	1998	1999	2000		
Gross domestic product	-8.7	-30.6	-90.2	9,872.9	
Personal consumption expenditures	5.1	-18.5	-28.9	6,728.4	
Goods	0.2	-14.6	-21.1	2,809.2	
<i>Of which:</i>					
Motor vehicles and parts	0	4.0	7.1	346.8	
<i>Of which:</i>					
Other motor vehicles	0.5	4.8	6.0	136.5	Trucks: Revised Census Bureau annual survey of manufactures (ASM) product shipments data for 1998; new ASM data for 1999; revised BEA tabulations of exports and imports for 1998–2000; trade source unit sales, prices, and registrations by sector for new trucks for 2000.
Goods other than motor vehicles and parts	0.2	-18.6	-28.2	2,462.4	
<i>Of which:</i>					
Furniture and household equipment	-0.9	-3.3	-4.5	307.3	Revised Census Bureau annual retail trade survey (ARTS) sales data for 1998; new ARTS data for 1999; revised Census Bureau monthly sales data for 2000.
Food	6.8	2.0	4.3	957.5	Revised Census Bureau annual retail trade survey (ARTS) sales data for 1998; new ARTS data for 1999; revised Census Bureau monthly sales data for 2000.
Clothing and shoes	-1.6	-6.1	-9.2	319.1	Revised Census Bureau annual retail trade survey (ARTS) sales data for 1998; new ARTS data for 1999; revised Census Bureau monthly sales data for 2000.
Other nondurable goods	-4.1	-10.4	-16.4	529.8	Revised Census Bureau annual retail trade survey (ARTS) sales data for 1998; new ARTS data for 1999; revised Census Bureau monthly sales data for 2000.
Services	5.0	-3.9	-7.8	3,919.2	
<i>Of which:</i>					
Medical care	0.4	-3.7	-1.8	996.5	
<i>Of which:</i>					
Physicians	-0.7	-1.1	4.2	245.6	Revised Census Bureau service annual survey (SAS) data for 1998 and 1999; new SAS data for 2000.
Hospitals	-0.9	-4.5	-6.9	392.7	
<i>Of which:</i>					
Proprietary	-0.7	-4.4	-4.2	45.1	FY 1999 trade source data on expenses for 1998 and 1999; new Census Bureau service annual survey data for 2000.
Recreation	2.3	1.8	-8.5	256.2	Revised Census Bureau service annual survey (SAS) data for 1998 and 1999; new SAS data for 2000.
Other services	-1.1	-5.3	-2.2	1,049.3	
<i>Of which:</i>					
Personal business	-3.9	-8.9	-5.9	638.9	
<i>Of which:</i>					
Services furnished without payment by financial intermediaries except life insurance carriers	-1.4	-5.0	-5.0	265.4	Revised IRS tabulations of corporate tax return data for 1998; new IRS tabulations for 1999; revised Federal Reserve Board (FRB) flow-of-funds accounts sector assets data for 1998 and 1999; new FRB data for 2000; new Federal Deposit Insurance Corporation data, Credit Union National Association data, Office of Thrift Supervision data, and trade source data on investment companies for 2000.
Religious and welfare activities	1.3	2.8	4.7	190.3	BLS tabulations of wages and salaries of employees covered by State unemployment insurance for 2000.
Gross private domestic investment	-11.2	-13.4	-65.2	1,767.5	
Fixed investment	-7.3	-28.6	-60.1	1,718.1	
Nonresidential	-6.3	-28.5	-69.1	1,293.1	
Structures	-0.8	-2.1	-10.6	313.6	
<i>Of which:</i>					
Nonresidential buildings, excluding farm	-0.8	-2.1	-5.8	221.8	
<i>Of which:</i>					
Industrial	-0.9	-2.8	-6.4	30.2	Revised Census Bureau value of construction put in place data for 1998–2000.
Utilities	-0.3	2.2	3.3	51.7	
<i>Of which:</i>					
Electric light and power	0	0.5	7.5	21.3	Revised Census Bureau value of construction put in place data for 1998–2000; BEA tabulations of monetary interest charged during construction for 1999 and 2000.
Mining exploration, shafts, and wells	0.9	-1.7	-7.9	27.6	
<i>Of which:</i>					
Petroleum and natural gas	0.9	-1.4	-7.8	25.9	Trade source data on drilling costs for 1999; revised trade source data on footage drilled for 1999 and 2000.
Equipment and software	-5.4	-26.3	-58.5	979.5	
<i>Of which:</i>					
Information processing equipment and software	-4.0	-33.3	-65.7	466.5	
Computers and peripheral equipment	-0.7	-3.5	-5.0	109.3	Revised Census Bureau annual survey of manufactures (ASM) product shipments data for 1998; new ASM data for 1999; revised Census Bureau monthly industry shipments data for 2000; revised BEA tabulations of exports and imports for 1998–2000.
Software	-4.0	-20.3	-46.5	183.1	Revised Census Bureau service annual survey (SAS) industry receipts data for 1998; new SAS data for 1999 and 2000.
Communication equipment	0.5	-5.7	-7.0	116.8	Revised Census Bureau annual survey of manufactures (ASM) product shipments data for 1998; new ASM data for 1999; revised Census Bureau monthly industry shipments data for 2000; revised BEA tabulations of exports and imports for 1998–2000.
Other	0.2	-3.8	-7.2	57.3	Revised Census Bureau annual survey of manufactures (ASM) product shipments data for 1998; new ASM data for 1999; revised Census Bureau monthly industry shipments data for 2000; revised BEA tabulations of exports and imports for 1998–2000.
Transportation equipment	0	5.6	3.7	195.9	
<i>Of which:</i>					
Trucks, buses, and truck trailers	0.2	3.1	2.4	114.2	Revised Census Bureau annual survey of manufactures (ASM) product shipments data for 1998; new ASM data for 1999; revised BEA tabulations of exports and imports for 1998–2000; trade source unit sales, prices, and registrations by sector for new trucks for 2000.
Aircraft	0	3.2	1.2	30.1	Revised Census Bureau annual survey of manufactures (ASM) product shipments data for 1998; new ASM data for 1999; revised BEA tabulations of exports and imports for 1998–2000; Census Bureau current industrial reports data for complete civilian aircraft for 2000.
Other equipment	0.2	1.8	4.1	154.3	Revised Census Bureau annual survey of manufactures (ASM) product shipments data for 1998; new ASM data for 1999; revised Census Bureau monthly industry shipments data for 2000; revised BEA tabulations of exports and imports for 1998–2000.

See footnotes at the end of the table.

Table 6.—NIPA Revisions: Selected Component Detail and Major Source Data—Continued

NIPA component	Billions of dollars				Major source data incorporated ¹
	Revision in level			Revised 2000 level	
	1998	1999	2000		
Residential	-1.0	-0.3	9.1	425.1	
Structures	-1.0	-0.2	9.2	415.6	
Of which:					
New	-0.6	1.5	9.6	363.4	
Of which:					
Single-family structures	0	1.4	3.8	220.7	Revised Census Bureau value of construction put in place data for 1998–2000.
Improvements	0	0	5.7	102.4	Revised Census Bureau value of construction put in place data for 2000.
Change in private inventories	-3.9	15.3	-5.1	49.4	
Farm	0.3	-1.3	-0.5	-1.8	Revised USDA data for 1998 and 1999; new USDA data for 2000.
Nonfarm	-4.1	16.6	-4.7	51.1	
Change in book value	-6.8	7.2	-4.5	74.5	Revised Census Bureau annual survey of manufactures (ASM), annual trade survey (ATS), and annual retail trade survey (ARTS) inventory book value data for 1998; revised IRS tabulations of inventory book value data from corporate tax returns for 1998; new ASM, ATS, and ARTS data for 1999; new IRS tabulations of inventory book value data from sole proprietorship, partnership, and corporate tax returns for 1999; revised Census Bureau monthly inventory data for 2000; Census Bureau Quarterly Financial Report data for mining for 2000.
Inventory valuation adjustment	2.7	9.3	-0.2	-23.4	Revised Census Bureau annual survey of manufactures (ASM), annual trade survey (ATS), and annual retail trade survey (ARTS) information on accounting methods used for inventory reporting for 1998; new ASM, ATS, and ARTS information for 1999; revised data on cost of inventories for 1998–2000; revised BEA unit labor cost indexes for 1998–2000.
Net exports of goods and services	-0.2	3.1	6.7	-364.0	Revised BEA international transactions accounts estimates for 1998–2000.
Exports	-1.1	-0.4	5.6	1,102.9	
Goods	-0.7	-0.9	-3.0	785.6	
Services	-0.4	0.5	8.6	317.3	
Imports	-0.8	-3.6	-1.1	1,466.9	
Goods	-0.5	-1.7	-3.7	1,244.9	
Services	-0.3	-1.9	2.4	221.9	
Government consumption expenditures and gross investment.	-2.4	-1.9	-2.7	1,741.0	
Federal consumption expenditures and gross investment	-1.4	-4.6	-5.0	590.2	
National defense	-0.1	-0.5	-1.6	375.4	
Of which:					
Gross investment	-0.1	-1.1	-3.7	53.5	
Of which:					
Equipment and software	0	-1.1	-4.4	48.2	Revised allocation of FY 1999 Federal budget data for 1998 and 1999; revised FY 2000 Federal budget data for 1999 and 2000; preliminary FY 2001 Federal budget data for 2000; revised Census Bureau service annual survey (SAS) industry receipts data for 1998; new SAS data for 1999 and 2000.
Nondefense	-1.3	-4.0	-3.4	214.8	
Consumption expenditures	-0.6	-1.8	2.3	171.8	
Of which:					
Services	0.3	2.1	4.2	163.6	
Of which:					
Other services	0.4	3.0	6.5	43.6	Revised allocation of FY 1999 Federal budget data for 1998 and 1999; revised FY 2000 Federal budget data for 1999 and 2000; preliminary FY 2001 Federal budget data for 2000.
Gross investment	-0.7	-2.3	-5.8	43.0	
Of which:					
Equipment and software	-0.8	-2.9	-5.8	32.2	Revised allocation of FY 1999 Federal budget data for 1998 and 1999; revised allocation of FY 2000 Federal budget data for 1999 and 2000; preliminary FY 2001 Federal budget data for 2000; revised Census Bureau service annual survey (SAS) industry receipts data for 1998; new SAS data for 1999 and 2000.
State and local consumption expenditures and gross investment.	-1.0	2.7	2.2	1,150.8	
Consumption expenditures	-0.1	3.4	11.0	929.0	
Of which:					
Services	0.3	3.1	9.8	801.2	
Of which:					
Compensation of general government employees, except own-account investment.	0.6	1.6	8.5	661.8	Revised BLS tabulations of wages and salaries of employees covered by State unemployment insurance for 1998 and 1999; new BLS tabulations for 2000; revised Census Bureau <i>Government Finances (GF)</i> tabulations for FY 1998; new <i>GF</i> tabulations for FY 1999; revised <i>GF</i> tabulations of retirement plans for FY 1998 and FY 1999; new <i>GF</i> tabulations for FY 2000; HHS medical expenditure panel survey data on health insurance for 1997; BLS data on employer costs for health insurance for 2000 and 2001.
Gross investment	-0.9	-0.8	-8.8	221.8	
Structures	-1.6	-0.2	-4.6	165.0	Revised Census Bureau <i>Government Finances (GF)</i> tabulations for FY 1998; new <i>GF</i> tabulations for FY 1999; revised Census Bureau value of construction put in place data for 1998–2000.
Equipment and software	0.6	-0.5	-4.2	56.8	Revised Census Bureau <i>Government Finances (GF)</i> tabulations for FY 1998; new <i>GF</i> tabulations for FY 1999; revised Census Bureau service annual survey (SAS) industry receipts data for 1998; new SAS data for 1999 and 2000.
Gross domestic product	-8.7	-30.6	-90.2	9,872.9	
Plus: Net receipts of income	0	4.3	-7.8	-12.1	Revised BEA international transactions accounts estimates for 1998–2000.
Income receipts from the rest of the world	0.7	7.9	13.6	384.2	
Less: Income payments to the rest of the world	0.7	3.6	21.4	396.3	
Equals: Gross national product	-8.6	-26.4	-97.9	9,860.8	
Less: Statistical discrepancy ²	-6.2	-0.8	-46.7	-130.4	
Equals: Gross national income	-2.3	-25.5	-51.2	9,991.2	

See footnotes at the end of the table.

Table 6.—NIPA Revisions: Selected Component Detail and Major Source Data—Continued

NIPA component	Billions of dollars				Major source data incorporated ¹
	Revision in level			Revised 2000 level	
	1998	1999	2000		
Compensation of employees	5.4	10.9	77.0	5,715.2	
Wage and salary accruals	-0.7	2.3	67.8	4,837.2	
<i>Of which:</i>					
Wage and salary disbursements	2.1	2.2	67.8	4,837.2	
Government	0	-0.1	7.5	768.4	
<i>Of which:</i>					
State and local	0	0.4	6.0	572.9	Revised BLS tabulations of wages and salaries of employees covered by State unemployment insurance for 1998 and 1999; new BLS tabulations for 2000.
Private	2.1	2.3	60.3	4,068.8	Revised BLS tabulations of wage and salaries of employees covered by State unemployment insurance for 1998 and 1999; new BLS tabulations for 2000; revised USDA data on farm wages for 1998 and 1999; new USDA data for 2000; new BEA international transactions accounts data on rest-of-the-world wage and salary accruals for 1998–2000.
Supplements to wages and salaries	6.1	8.8	9.2	878.0	
<i>Of which:</i>					
Other labor income	5.1	8.7	10.2	534.2	
<i>Of which:</i>					
Private pension and profit-sharing plans	4.7	9.3	.....	69.8	DOL tabulations of employer contributions to pension and profit-sharing plans for 1998; Pension Benefit Guaranty Corporation tabulations of assets and liabilities for 1999 and 2000.
Proprietors' income with IVA and CCAdj	3.1	8.5	4.6	715.0	
Farm	0.2	1.3	8.0	30.6	
<i>Of which:</i>					
Proprietors' income with IVA	0	1.4	7.1	38.2	Revised USDA data for 1998 and 1999; new USDA data for 2000.
Nonfarm	3.0	7.2	-3.4	684.4	
<i>Of which:</i>					
Proprietors' income	2.5	1.1	-8.9	625.9	New IRS tabulations of sole proprietorship and partnership tax return data for 1999.
CCAdj	0.7	5.4	5.4	59.6	Capital consumption allowances: New IRS tabulations of sole proprietorship and partnership tax return data for 1999. Consumption of fixed capital: Revised BEA fixed investment and price estimates for 1998–2000.
Rental income of persons with CCAdj	3.2	4.3	1.6	141.6	
<i>Of which:</i>					
Rental income of persons	2.7	4.2	4.2	202.5	Revised Federal Reserve Board flow-of-funds accounts residential mortgage liabilities data for 1998–2000; revised USDA data on rent on farms owned by nonoperator landlords for 1998 and 1999; new USDA data for 2000; new trade source data on property insurance for 1999; new Census Bureau American housing survey data on owner- and tenant-occupied units and mean rent for 1999; new Census Bureau current population survey data on owner- and tenant-occupied units for 2000; revised IRS tabulations of individual tax return data for 1998; new IRS data for 1999; revised BEA fixed investment and price estimates for 1998–2000.
Corporate profits with IVA and CCAdj	-37.6	-30.8	-69.8	876.4	
Profits before tax	-37.1	-46.7	-80.2	845.4	Revised IRS tabulations of corporate tax return data for 1998; new IRS tabulations for 1999; regulatory agency and public financial reports profits data for 2000; revised BEA fixed investment in software for 1998–2000.
<i>Of which:</i>					
Domestic	-35.9	-49.9	-75.8	708.6	
Construction	-0.3	2.1	4.3	43.8	
Manufacturing	-14.6	-21.3	-30.1	161.0	
Transportation	-1.1	-8.7	-11.0	14.0	
Communications	-0.3	-20.8	-19.4	12.5	
Wholesale trade	-1.9	-3.9	-5.4	63.0	
Retail trade	-2.3	-5.7	-6.1	84.6	
Finance, insurance, and real estate	-6.5	16.4	7.7	220.1	
Financial	-6.4	19.0	10.8	204.4	
Other	-0.1	-2.5	-3.2	15.6	
Services	-5.5	-5.6	-9.7	57.5	
Rest of the world	-1.2	3.2	-4.4	136.8	Revised BEA international transactions accounts estimates for 1998–2000.
Receipts from the rest of the world	-2.4	4.0	1.8	204.9	
Less: Payments to the rest of the world	-1.1	0.8	6.1	68.1	
IVA	1.3	6.2	0.5	-12.4	
CCAdj	-1.9	9.6	9.9	43.4	Capital consumption allowances: Revised IRS tabulations of corporate tax return data for 1998; new IRS tabulations for 1999. Consumption of fixed capital: Revised BEA fixed investment and price estimates for 1998–2000.

See footnotes at the end of the table.

Table 6.—NIPA Revisions: Selected Component Detail and Major Source Data—Continued

NIPA component	Billions of dollars				Major source data incorporated ¹
	Revision in level			Revised 2000 level	
	1998	1999	2000		
Net interest ³	29.2	-0.6	-34.5	532.7	
Monetary interest paid	-7.1	-13.4		2,764.8	
Of which:					
Domestic business	-5.1	-4.7		2,019.7	Revised IRS tabulations of corporate tax return data for 1998; new IRS tabulations for 1999; new IRS tabulations of sole proprietorship and partnership tax return data for 1999; revised Federal Reserve Board (FRB) flow-of-funds accounts residential mortgage liabilities data for 1998 and 1999; new FRB flow-of-funds accounts residential mortgage liabilities data for 2000 and nonfinancial corporate liabilities data for 1999 and 2000; revised USDA data on interest paid by farmers for 1998 and 1999; new USDA data for 2000; new Federal Deposit Insurance Corporation data, Credit Union National Association data, Office of Thrift Supervision data, and trade source data on investment companies for 2000.
Financial corporations	-5.4	-3.2		930.5	
Nonfinancial corporations	-2.8	10.3		521.9	
Sole proprietorships and partnerships	-0.2	-17.8		183.4	
Other private business	3.2	5.9		383.9	
Persons	-6.1	-15.1	-6.9	205.3	Revised Federal Reserve Board (FRB) consumer credit data for 2000; new FRB interest rate data for 1998-2000; new regulatory agency data for 2000.
Government	1.0	2.5	6.5	362.8	
Of which:					
State and local	1.5	3.0	4.1	80.7	Revised Census Bureau <i>Government Finances (GF)</i> tabulations for FY 1998; new <i>GF</i> tabulations for FY 1999.
Monetary interest received	-7.1	-13.4		2,764.8	
Domestic business	-34.8	-6.4		1,832.3	Revised IRS tabulations of corporate tax return data for 1998; new IRS tabulations for 1999; new IRS tabulations of sole proprietorship partnership tax return data for 1999; new Federal Reserve Board flow-of-funds accounts nonfinancial corporate assets data for 1999 and 2000; new Federal Deposit Insurance Corporation data, Credit Union National Association data, Office of Thrift Supervision data, and trade source data on investment companies for 2000.
Of which:					
Financial corporations	-23.1	3.1		1,454.0	
Nonfinancial corporations	-11.7	-12.5		301.6	
Persons	25.3	-11.2		542.4	
Imputed interest paid (by domestic financial corporate business)	-1.1	-3.6		566.1	
Banks, credit agencies, and investment companies	-0.9	-6.0		373.3	Revised IRS tabulations of corporate tax return data for 1998; new IRS tabulations for 1999; revised Federal Reserve Board (FRB) flow-of-funds accounts sector assets data for 1998 and 1999; new FRB data for 2000; new Federal Deposit Insurance Corporation data, Credit Union National Association data, Office of Thrift Supervision data, and trade source data on investment companies for 2000.
Life insurance carriers	-0.3	2.4	10.1	192.8	Revised IRS tabulations of corporate tax return data for 1998; new IRS tabulations for 1999; new trade source data on life insurance for 1999; new Federal Reserve Board flow-of-funds accounts life insurance companies' assets data for 1999 and 2000.
Imputed interest received	-1.1	-3.6		566.1	Revised Federal Reserve Board (FRB) flow-of-funds accounts sector assets data for 1998-1999; new FRB data for 2000; new Federal Deposit Insurance Corporation data for 2000.
Of which:					
Persons	-1.6	-2.6	5.1	458.2	
From banks, credit agencies, and investment companies	-1.4	-5.0	-5.0	265.4	
From life insurance carriers	-0.3	2.4	10.1	192.8	
Rest of the world	0	-0.5	4.5	21.2	
Consumption of fixed capital	-5.3	-9.6	-15.8	1,241.3	
Private	-5.1	-8.1	-10.6	1,029.9	Revised BEA fixed investment and price estimates for 1998-2000.
Of which:					
Corporate	-4.1	-7.7	-12.3	727.1	
Capital consumption allowances	-5.7	6.7	3.1	1,056.3	
Corporate	-6.1	1.9	-2.5	770.5	Revised IRS tabulations of corporate tax return data for 1998; new IRS tabulations for 1999; revised BEA fixed investment estimates for 1998-2000.
Noncorporate	0.3	4.8	5.5	285.8	New IRS tabulations of sole proprietorship and partnership tax return data for 1999; revised BEA fixed investment estimates for 1998-2000.
Less: CCA _{adj}	-0.6	14.9	13.7	26.4	CCA _{adj} is calculated as consumption of fixed capital less capital consumption allowances.
Corporate	-1.9	9.6	9.9	43.4	
Noncorporate	1.2	5.2	3.8	-17.0	
Of which:					
Nonfarm proprietors' income	0.7	5.4	5.4	59.6	
Government	-0.4	-1.5	-5.3	211.3	
Of which:					
General government	-0.3	-1.4	-4.9	180.1	Perpetual-inventory calculations at current cost, based on gross investment and on investment prices for 1998-2000. See also entries for gross investment.
Nonfactor income	-0.3	-8.3	-14.4	769.0	
Of which:					
Indirect business tax and nontax liability	1.7	-5.0	-6.9	762.7	
Of which:					
State and local	0.8	-5.0	-9.7	651.5	Revised Census Bureau <i>Government Finances (GF)</i> tabulations for FY 1998 and FY 1999; new <i>GF</i> tabulations for FY 2000; revised Census Bureau quarterly tax revenue data for 1998 and 1999; new tax revenue data for 2000.
Less: Subsidies less current surplus of government enterprises	2.0	4.9	9.7	37.6	
Of which:					
Federal	1.0	4.1	8.4	46.8	Revised allocations of FY 1999 Federal budget data for 1998 and 1999; revised FY 2000 Federal budget data for 1999 and 2000; preliminary FY 2001 Federal budget data for 2000; new FY 1999 Postal Service financial data for 1998 and 1999; new Treasury Department data for 2000. For consumption of government enterprise fixed capital: Perpetual-inventory calculations at current cost based on gross investment and on investment prices for 1998-2000. See also entries for gross investment.

See footnotes at the end of the table.

Table 6.—NIPA Revisions: Selected Component Detail and Major Source Data—Continued

NIPA component	Billions of dollars				Major source data incorporated ¹
	Revision in level			Revised 2000 level	
	1998	1999	2000		
Addenda:					
Gross domestic income	-2.5	-29.8	-43.4	10,003.4	
National income	3.3	-7.6	-21.1	7,980.9	See entries under "gross national income."
Gross saving	-7.2	-10.2	-39.4	1,785.7	
Personal income	35.0	-12.3	37.5	8,319.2	See entries under "gross national income" and additional sources below.
Wage and salary disbursements	2.1	2.2	67.8	4,837.2	
Other labor income	5.1	8.7	10.2	534.2	
Proprietors' income with IVA and CCAAdj	3.1	8.5	4.6	715.0	
Rental income of persons with CCAAdj	3.2	4.3	1.6	141.6	
Personal dividend income	-2.8	-27.2	-17.4	379.2	Revised IRS tabulations of corporate tax return data for 1998; new IRS tabulations for 1999; regulatory agency and public financial statements data on dividends for 2000.
Personal interest income	23.6	-13.7	-33.7	1,000.6	See entries under "net interest."
Net interest	29.2	-0.6	-34.5	532.7	See entries under "net interest."
Domestic business	27.9	-1.4	-30.7	676.5	
Rest of the world	1.1	0.7	-3.7	-143.7	
Net interest paid by government	0.6	2.1	7.7	262.6	See entries under "net interest."
Federal	-0.3	-0.8	3.5	262.9	
State and local	1.0	2.9	4.2	-0.3	
Interest paid by persons	-6.1	-15.1	-6.9	205.3	See entries under "net interest."
Transfer payments to persons	0.7	3.4	1.3	1,069.1	
Of which:					
From government	0.7	1.9	-1.1	1,036.0	
Of which:					
Federal	-0.5	0	-4.0	765.3	
Of which:					
Hospital and supplementary medical insurance	0	0	-5.1	215.9	New Treasury Department data for 2000.
Less: Personal contributions for social insurance	0.1	-1.4	-3.0	357.7	
Less: Personal tax and nontax payments	-0.5	7.2	-3.7	1,288.2	
Federal	-1.1	1.1	-8.2	1,009.5	Revised Social Security Administration (SSA) data on taxable wages for 1998 and 1999; new SSA data for 2000; Treasury Department personal income tax collections data for 2000.
State and local	0.6	6.2	4.6	278.7	Revised Census Bureau <i>Government Finances (GF)</i> tabulations for FY 1998 and FY 1999; new <i>GF</i> tabulations for FY 2000; revised Census Bureau quarterly tax revenue data for 1998 and 1999; new tax revenue data for 2000.
<i>Equals:</i> Disposable personal income	35.6	-19.7	41.2	7,031.0	
Less: Personal outlays	-0.6	-32.9	-35.0	6,963.3	
Personal consumption expenditures	5.1	-18.5	-28.9	6,728.4	See entries under "personal consumption expenditures."
Interest paid by persons	-6.1	-15.1	-6.9	205.3	See entries under "net interest."
Personal transfer payments to the rest of the world (net)	0.3	0.6	0.8	29.6	Revised BEA international transactions accounts estimates for 1998-2000.
<i>Equals:</i> Personal saving	36.1	13.3	76.2	67.7	

1. In these descriptions, "new" indicates this is the first time that data from the specific source are being incorporated into the component estimate for the given year, and "revised" indicates that data from the specific source were incorporated previously and now revised data from that source are being incorporated.

2. The statistical discrepancy is gross national product (GNP) less gross national income (GNI); it is also the difference between gross domestic product (GDP) and gross domestic income (GDI), which is GNI less net income receipts from the rest of the world. The statistical discrepancy arises because the product-side measures of GNP and GDP are estimated independently from the income-side measures of GNI and GDI.

3. Net interest is the sum of monetary interest paid by domestic business and by the rest of the world and imputed interest paid by domestic financial corporate business, less monetary interest received by domestic business and by the rest of the world and imputed interest received by domestic business and by the rest of the world.

BEA Bureau of Economic Analysis
BLS Bureau of Labor Statistics
CCAAdj Capital consumption adjustment
DOL Department of Labor
FY Fiscal year
HHS Department of Health and Human Services
IRS Internal Revenue Service
IVA Inventory valuation adjustment
USDA U.S. Department of Agriculture

Gross domestic product (GDP).—The level of current-dollar GDP was revised down for all 3 years: \$8.7 billion, or 0.1 percent, for 1998; \$30.6 billion, or 0.3 percent, for 1999; and \$90.2 billion, or 0.9 percent, for 2000.

By major component, for 1998, downward revisions to equipment and software investment and to change in private inventories were partly offset by an upward revision to PCE for services. For 1999, downward revisions to equipment and software investment, to PCE for nondurable goods, and to Federal Government consumption expenditures and gross investment were partly offset by an upward revision to change in private inventories. For 2000, downward revisions to equipment and software investment, to PCE for nondurable

goods, to nonresidential structures, to PCE for services, and to Federal Government consumption expenditures and gross investment were partly offset by upward revisions to residential structures and to exports of services.

PCE for goods.—PCE for goods was revised up \$0.2 billion for 1998, was revised down \$14.6 billion for 1999, and was revised down \$21.1 billion for 2000. For 1999 and 2000, downward revisions to "goods other than motor vehicles and parts" were partly offset by upward revisions to motor vehicles and parts.

"Goods other than motor vehicles and parts" was revised up \$0.2 billion for 1998, was revised down \$18.6 billion for 1999, and was revised down

\$28.2 billion for 2000. These revisions resulted from the incorporation of revised 1998 and newly available 1999 annual data for retail sales and food services sales and revised monthly sales data for 2000.⁵

For 1999 and 2000, more than one-half of the revisions to “goods other than motor vehicles and parts” was accounted for by “other nondurable goods.” Within “other nondurable goods,” the largest revisions were to magazines, newspapers, and sheet music and to nondurable toys and sport supplies.

Motor vehicles and parts was revised down less than \$0.1 billion for 1998, was revised up \$4.0 billion for 1999, and was revised up \$7.1 billion for 2000. For 1999 and 2000, the revisions were primarily to new trucks, reflecting the incorporation of newly available product shipments data from the Census Bureau’s annual survey of manufactures for 1999 and the extrapolation of the revised 1999 estimates, using unit sales and price data from trade sources.

PCE for services.—PCE for services was revised up \$5.0 billion for 1998, was revised down \$3.9 billion for 1999, and was revised down \$7.8 billion for 2000. For 1999, the revision was more than accounted for by “other services.” For 2000, the revision was more than accounted for by recreation services.

For 1999, the largest downward revision within “other services” was to personal business services and was primarily accounted for by “services furnished without payment by financial intermediaries except life insurance carriers.”⁶ Within this category, the revisions were primarily to commercial banks and to regulated investment companies. The revision to commercial banks was based on revised data on assets by sector from the Federal Reserve Board flow-of-funds accounts, and the revision to regulated investment companies reflected the incorporation of expense data from IRS tabulations of corporate tax returns.

For 2000, the downward revision to recreation services was primarily accounted for by Internet service providers (ISP), reflecting the incorpora-

tion of revenue and subscriber data from financial reports filed with the Securities and Exchange Commission and total ISP subscriber data from a trade source.

Nonresidential structures.—Nonresidential structures was revised down for all 3 years: \$0.8 billion for 1998, \$2.1 billion for 1999, and \$10.6 billion for 2000. For 2000, downward revisions to “petroleum and natural gas well drilling and exploration” and to industrial structures were partly offset by an upward revision to electric light and power utilities. The revision to “petroleum and natural gas well drilling and exploration” reflected newly incorporated trade source data on drilling footage. The revisions to industrial structures and to electric utilities primarily reflected the incorporation of revised Census Bureau data on the value of construction put in place.⁷

Equipment and software.—Equipment and software was revised down for all 3 years: \$5.4 billion for 1998, \$26.3 billion for 1999, and \$58.5 billion for 2000. The revisions were mostly accounted for by downward revisions to software that resulted from the incorporation of revised 1998 and newly available 1999 and 2000 data from the Census Bureau’s service annual surveys. (The improved methodology for the quarterly estimates of pre-packaged and custom software was not a source of these revisions, because it only affects the quarterly pattern of the revised software estimates and the extrapolation from the revised annual levels; see the section “Changes in Methodology.”)

Residential fixed investment.—Residential fixed investment was revised down \$1.0 billion for 1998, was revised down \$0.3 billion for 1999, and was revised up \$9.1 billion for 2000. For 2000, the revision was accounted for by upward revisions to single-family structures and to improvements to residential structures, reflecting revised Census Bureau data on the value of construction put in place.⁸

Change in private inventories.—The change in private inventories was revised down \$3.9 billion for

5. The revised annual data are on a NAICS basis; for further details, see the section “Changes in Methodology, NAICS and PCE.”

6. This PCE category consists of imputed payments made by persons to depository institutions—that is, commercial banks, mutual savings banks, savings and loan associations, credit unions, and regulated investment companies—to purchase checking, bookkeeping, and investment services for which they do not pay an explicit service charge. For additional information, go to BEA’s Web site at <www.bea.doc.gov>, click on “Methodologies,” and under “National programs,” see “MP6: Personal Consumption Expenditures,” 11–12.

7. The Census Bureau data on value of construction put in place are the major source data for the estimates of both nonresidential and residential structures. The revised estimates of structures are based on the “best period-to-period change” rather than on the “best level” of the appropriate Census Bureau series; see the box “Incorporating Source Data on the Basis of ‘Best Change’” in Eugene P. Seskin and David F. Sullivan, “Annual Revision of the National Income and Product Accounts,” SURVEY 80 (August 2000): 16.

8. See footnote 7.

1998, was revised up \$15.3 billion for 1999, and was revised down \$5.1 billion for 2000.⁹ As part of this annual revision, the change in private inventories estimates have been converted to a North American Industry Classification System (NAICS) basis from a Standard Industrial Classification (SIC) basis (see the section “Changes in Methodology”).

The revisions to the change in farm inventories were less than \$1.5 billion (absolute value) for all 3 years.¹⁰

The change in private nonfarm inventories was revised down \$4.1 billion for 1998, was revised up \$16.6 billion for 1999, and was revised down \$4.7 billion for 2000. For 1999, the upward revision reflected upward revisions to both the change in book value and the inventory valuation adjustment (IVA). The revision to the change in book value reflected newly available book value data from the Census Bureau annual surveys and newly available tabulations of inventory book value data from IRS tabulations of tax return data for corporations and for sole proprietorships and partnerships for 1999. The upward revision to the IVA reflected newly available information from the Census Bureau on the accounting methods used in inventory reporting and revised BEA unit labor cost indexes.

Net exports of goods and services.—Net exports of goods and services was revised down \$0.2 billion for 1998, was revised up \$3.1 billion for 1999, and was revised up \$6.7 billion for 2000. For 2000, an upward revision to exports of services and a downward revision to imports of goods were partly offset by a downward revision to exports of goods and an upward revision to imports of services. The revisions to exports and imports of goods primarily reflected the incorporation of revised NIPA adjustments for U.S. territories and Puerto Rico (see footnote 3 in NIPA table 4.5B). The revisions to exports and imports of services reflected revised data from BEA’s international transactions accounts (ITA’s) (see the section “Changes in Methodology”). In addition, the revision to exports of services reflected the incorporation of a

revised NIPA adjustment for “services furnished without payment by financial intermediaries except life insurance carriers.”

Government consumption expenditures and gross investment.—Government consumption expenditures and gross investment was revised down for all 3 years: \$2.4 billion for 1998, \$1.9 billion for 1999, and \$2.7 billion for 2000.

Federal Government consumption expenditures and gross investment was revised down for all 3 years: \$1.4 billion for 1998, \$4.6 billion for 1999, and \$5.0 billion for 2000. For 1999 and 2000, the downward revisions were accounted for primarily by nondefense consumption expenditures and gross investment. For 2000, the revision reflected a downward revision to gross investment that was partly offset by an upward revision to consumption expenditures. The downward revision to gross investment was accounted for by equipment and software, and the upward revision to consumption expenditures was more than accounted for by “other” services. The revisions primarily reflected revised Federal budget data for fiscal year 2000, preliminary budget data for fiscal year 2001, and newly available data on software from the Census Bureau service annual surveys for 1999 and 2000.

State and local government consumption expenditures and gross investment was revised down \$1.0 billion for 1998, was revised up \$2.7 billion for 1999, and was revised up \$2.2 billion for 2000. For 2000, an upward revision to consumption expenditures was mostly offset by a downward revision to gross investment. Compensation of employees accounted for most of the upward revision to consumption expenditures. Both structures and equipment and software accounted for the downward revision to investment. The revision to employee compensation primarily reflected the incorporation of newly available BLS tabulations of wages and salaries of employees covered by State unemployment insurance. The revision to structures reflected revised Census Bureau data on the value of construction put in place. The revision to equipment and software was more than accounted for by software, reflecting newly available Census Bureau service annual survey data on industry receipts.

Net receipts of income.—Net receipts of income from the rest of the world, which is excluded from GDP but included in gross national product, was

9. Change in private inventories is calculated by adjusting inventories reported by businesses on a non-LIFO (last-in-first-out) book-value basis to a current-period replacement-cost basis; this revaluation eliminates gains or losses that result from holding inventories when prices change. The inventory valuation adjustment, which is calculated as the change in private inventories less the change in book values, reflects inventory price changes for firms that value inventory withdrawals at acquisition (historical) cost.

10. The inventory valuation adjustment is not needed for farm inventories, because they are measured on the basis of current market price.

revised up less than \$0.1 billion for 1998, was revised up \$4.3 billion for 1999, and was revised down \$7.8 billion for 2000. For 2000, a large upward revision to income payments to the rest of the world was partly offset by an upward revision to income receipts from the rest of the world. These revisions primarily reflected the incorporation of the annual revision of the ITA's. The revised estimates of income receipts primarily reflected improved estimates of "other" private income receipts for banks and updated source data; the revised estimates of income payments primarily reflected improved estimates of "other" private income payments for banks, improved estimates for nonbank liabilities to foreigners, and updated source data (see the section "Changes in Methodology").

Gross national product (GNP).—GNP was revised down for all 3 years: \$8.6 billion, or 0.1 percent, for 1998; \$26.4 billion, or 0.3 percent, for 1999; and \$97.9 billion, or 1.0 percent, for 2000. The differences between the revisions to GNP and those to GDP reflect the revisions to net receipts of income.

Gross domestic income (GDI).—GDI, which measures the costs incurred and the incomes earned in the production of GDP, was revised down for all 3 years: \$2.5 billion for 1998, \$29.8 billion for 1999, and \$43.4 billion for 2000 (see the addenda to table 6).

For 1998, downward revisions to domestic corporate profits with inventory valuation adjustment (IVA) and capital consumption adjustment (CCAdj) and to consumption of fixed capital (CFC) were mostly offset by upward revisions to domestic net interest and to supplements to wages and salaries. For 1999, the downward revision to GDI reflected downward revisions to domestic corporate profits with IVA and CCAdj, to CFC, and to indirect business tax and nontax liability that more than offset upward revisions to supplements to wages and salaries and to proprietors' income with IVA and CCAdj. For 2000, the downward revision to GDI reflected downward revisions to domestic corporate profits with IVA and CCAdj, to domestic net interest, to CFC, and to indirect business tax and nontax liability that more than offset upward revisions to wage and salary accruals and to supplements to wages and salaries. "Subsidies less current surplus of government enterprises," which is subtracted in the calculation of GDI, was revised up for all 3 years.

Statistical discrepancy.—Revisions to the statistical discrepancy reflect the differences between the revisions to GDP and those to GDI.¹¹ For all 3 years, the downward revisions to GDP were larger than those to GDI. For 1998, the statistical discrepancy was revised from -\$24.8 billion to -\$31.0 billion (from -0.3 percent to -0.4 percent of GDP). For 1999, the statistical discrepancy was revised from -\$71.9 billion to -\$72.7 billion (revised less than 0.1 percentage point at -0.8 percent of GDP). For 2000, the statistical discrepancy was revised from -\$83.7 billion to -\$130.4 billion (from -0.8 percent to -1.3 percent of GDP).

Compensation of employees.—Compensation of employees was revised up for all 3 years: \$5.4 billion for 1998, \$10.9 billion for 1999, and \$77.0 billion for 2000. For 1998 and 1999, the revisions were mostly accounted for by upward revisions to other labor income. For 2000, the very large upward revision was mostly accounted for by an upward revision to wage and salary accruals, although an upward revision to other labor income also contributed.

For 1998 and 1999, the upward revisions to other labor income were mostly accounted for by revisions to employer contributions to pension and profit-sharing plans that reflected newly available preliminary and partial tabulations of data from IRS Form 5500 for 1998 and a judgmental-trend estimate for 1999.

For 2000, the revision to wage and salary accruals was due to upward revisions to private wages and salaries and to State and local government wages and salaries, reflecting the incorporation of BLS tabulations of wages and salaries of employees covered by State unemployment insurance (UI).¹² The upward revision to other labor income cannot be attributed to the same level of component detail as the revisions for 1998 and 1999, because for 2000, the previously published estimates were prepared at a less detailed level.

Proprietors' income with IVA and CCAdj.—Proprietors' income with IVA and CCAdj was revised up for all 3 years: \$3.1 billion for 1998, \$8.5 billion for 1999, and \$4.6 billion for 2000. For 1998 and 1999,

11. For a further discussion, see the box "The Statistical Discrepancy" in Robert P. Parker and Eugene P. Seskin, "Annual Revision of the National Income and Product Accounts," SURVEY 77 (August 1997): 19.

12. The incorporation of the more comprehensive quarterly UI data in the NIPA estimates of wages and salaries was previewed in the box "BEA Estimates of Wages and Salaries for 2000" in the "Business Situation," SURVEY 81 (May 2001): 6.

the upward revisions were primarily accounted for by nonfarm proprietors' income.¹³ For 2000, an upward revision to farm proprietors' income was partly offset by a downward revision to nonfarm proprietors' income.

Rental income of persons with CCAAdj.—Rental income of persons with CCAAdj was revised up for all 3 years: \$3.2 billion for 1998, \$4.3 billion for 1999, and \$1.6 billion for 2000.

Corporate profits with IVA and CCAAdj.—Corporate profits with IVA and CCAAdj was revised down for all 3 years: \$37.6 billion for 1998, \$30.8 billion for 1999, and \$69.8 billion for 2000. Most of the downward revisions were accounted for by profits before tax. For 1998, the CCAAdj was revised down, and the IVA was revised up. For 1999 and 2000, both the CCAAdj and the IVA were revised up. (For more information on the CCAAdj, see the entry "Consumption of fixed capital.")

Corporate profits before tax was revised down for all 3 years, primarily reflecting downward revisions to domestic profits. Rest-of-the-world profits was also revised down for 1998 and 2000; it was revised up for 1999. The revisions to domestic profits primarily reflected revised IRS tabulations of corporate tax returns for 1998, newly available preliminary tabulations for 1999, and other data from regular sources. In addition, the NIPA adjustment to corporate profits that converts the treatment of expenditures on software from an expense to an investment was revised down, reflecting the downward revisions to investment in software.¹⁴

Net interest.—Net interest was revised up \$29.2 billion for 1998, was revised down \$0.6 billion for 1999, and was revised down \$34.5 billion for 2000.¹⁵

For 1998, the revision reflected a downward revision to monetary interest received by domestic corporate business that was partly offset by a downward revision to monetary interest paid by domestic corporate business.

For 1999, downward revisions to monetary in-

terest paid by domestic nonfarm sole proprietorships and partnerships and to imputed interest paid by domestic business were mostly offset by a downward revision to monetary interest received by domestic corporate business and an upward revision to monetary interest paid by domestic nonfinancial corporate business.

The revisions to monetary interest reflected revised and newly available IRS tabulations of tax return data for corporations and for sole proprietorships and partnerships. The revisions to imputed interest reflected newly incorporated regular source data.

For 2000, the downward revision was attributable to the revised 1999 levels and newly incorporated regular source data from regulatory agencies, particularly from the Federal Reserve Board flow-of-funds accounts.¹⁶

Consumption of fixed capital (CFC).—CFC, which is the charge for the using up of private and government fixed capital, was revised down for all 3 years: \$5.3 billion for 1998, \$9.6 billion for 1999, and \$15.8 billion for 2000. Relatively large downward revisions to the private component of CFC and smaller downward revisions to the government component reflected the incorporation of revised BEA estimates of fixed investment, primarily for software, and of revised prices, primarily for communication equipment. (The estimates of investment and prices are direct inputs into the calculation of both private and government net capital stocks, which are used to calculate the CFC.)

Private capital consumption allowances (CCA)—that is, tax-return-based depreciation for corporations and nonfarm proprietorships and historical-cost depreciation (using consistent service lives) for farm proprietorships, rental income of persons, and nonprofit institutions—was revised down \$5.7 billion for 1998, was revised up \$6.7 billion for 1999, and was revised up \$3.1 billion for 2000.

Private capital consumption adjustment (CCAAdj), which is derived as the difference between private CCA and private CFC, was revised down \$0.6 billion for 1998, was revised up \$14.9 billion for 1999, and was revised up \$13.7 billion for 2000.

Nonfactor income.—Nonfactor income—which comprises indirect business tax and nontax liabil-

13. The revised estimates of nonfarm proprietors' income incorporated an improved adjustment for the nonfiling of tax returns (see the section "Changes in Methodology").

14. For a discussion of BEA's treatment of expenditures on software as fixed investment, see Moulton, Parker, and Seskin, "A Preview of the 1999 Comprehensive Revision," 8–11.

15. Net interest is calculated as the sum of monetary interest paid by domestic business and by the rest of the world and imputed interest paid by domestic financial corporate business, less monetary interest received by domestic business and by the rest of the world and imputed interest received by domestic business and by the rest of the world.

16. For 2000, the revision cannot be attributed to the same level of component detail as for 1999, because for 2000, the previously published estimates were prepared at a less detailed level.

ity, business transfer payments, and “subsidies less current surplus of government enterprises”—was revised down for all 3 years: \$0.3 billion for 1998, \$8.3 billion for 1999, and \$14.4 billion for 2000. For 1999 and 2000, the revisions primarily reflected downward revisions to indirect business taxes and upward revisions to “subsidies less current surplus of government enterprises,” which is subtracted in aggregating nonfactor incomes.

The revisions to indirect business taxes were mainly to State and local indirect business taxes—specifically to general sales taxes—reflecting newly available and revised data from Census Bureau surveys of State and local governments.

The revisions to “subsidies less current surplus of government enterprises” were mostly accounted for by the Federal Government component—specifically by the current surplus of government enterprises for the Postal Service—reflecting newly incorporated fiscal year 1999 financial data from the Postal Service and fiscal year 2001 Federal budget data.

National income.—National income—income that originates from production—was revised up \$3.3 billion for 1998, was revised down \$7.6 billion for 1999, and was revised down \$21.1 billion for 2000. These revisions reflected the previously described revisions to compensation of employees, proprietors’ income, rental income of persons, corporate profits, and net interest.

Personal income and its disposition.—Personal income—income received by persons from participation in production, from government and business transfer payments, and from government interest—was revised up \$35.0 billion for 1998, was revised down \$12.3 billion for 1999, and was revised up \$37.5 billion for 2000. These revisions partly reflected the previously described revisions to the components of national income that are included in personal income—wage and salary disbursements, other labor income, proprietors’ income, and rental income of persons—and to the components of personal income—personal dividend income and personal interest income—that are derived from related components of national income. The revisions also reflected revisions to transfer payments to persons and to personal contributions for social insurance.

Personal dividend income—which consists of dividend income received by persons from all sources and which equals national income dividends less dividends received by government—was

revised down for all 3 years: \$2.8 billion for 1998, \$27.2 billion for 1999, and \$17.4 billion for 2000. These revisions reflected newly incorporated IRS tabulations of corporate tax return data, the annual revision of the ITA’s, and data from public financial statements.

Personal interest income—which consists of monetary and imputed interest received by persons from all sources and which equals net interest plus interest paid by persons and interest paid by government less interest received by government—was revised up \$23.6 billion for 1998, was revised down \$13.7 billion for 1999, and was revised down \$33.7 billion for 2000. These revisions reflected the previously described revisions to net interest, and they also reflected upward revisions to interest paid by government and downward revisions to interest paid by persons that more than offset small upward revisions to interest received by government. The only notable revision to interest paid and received by government was an upward revision to State and local government interest paid for 2000, reflecting newly available data from Census Bureau surveys of State and local governments. Downward revisions to interest paid by persons—\$6.1 billion for 1998, \$15.1 billion for 1999, and \$6.9 billion for 2000—primarily reflected the incorporation of Federal Reserve Board estimates of the effective rate of interest paid on consumer debt (see the section “Changes in Methodology”).

Transfer payments to persons was revised up for all 3 years: \$0.7 billion for 1998, \$3.4 billion for 1999, and \$1.3 billion for 2000.

Personal contributions for social insurance—which is subtracted in calculating personal income—was revised up \$0.1 billion for 1998, was revised down \$1.4 billion for 1999, and was revised down \$3.0 billion for 2000.

Personal tax and nontax payments was revised down \$0.5 billion for 1998, was revised up \$7.2 billion for 1999, and was revised down \$3.7 billion for 2000. For 1999, an upward revision to State and local tax and nontax payments accounted for most of the revision. For 2000, a downward revision to Federal tax and nontax payments was partly offset by an upward revision to State and local tax and nontax payments. The revisions to State and local tax and nontax payments reflected new and revised data from Census Bureau surveys of State and local governments. The revision to Federal tax and nontax payments reflected newly incorporated data from the Treasury Department and the Social Security Administration.

Reflecting the revisions to personal income and to personal tax and nontax payments, disposable personal income (DPI) was revised up \$35.6 billion for 1998, was revised down \$19.7 billion for 1999, and was revised up \$41.2 billion for 2000.

Personal outlays—PCE, interest paid by persons, and “personal transfer payments to the rest of the world (net)” —was revised down for all 3 years: \$0.6 billion for 1998, \$32.9 billion for 1999, and \$35.0 billion for 2000. For 1998, a downward revision to interest paid by persons was mostly offset by an upward revision to PCE. For 1999 and 2000, the revisions were attributable to large downward revisions to PCE and to interest paid by persons.

Personal saving—the difference between DPI and personal outlays—was revised up for all 3 years: \$36.1 billion for 1998, \$13.3 billion for 1999, and \$76.2 billion for 2000. For 1998, the revision primarily reflected the upward revision to DPI. For 1999, the revision reflected the downward revision to personal outlays that was partly offset by the downward revision to DPI. For 2000, the revision reflected the large upward revision to DPI and the large downward revision to personal outlays. The revisions to the personal saving rate—personal saving as a percentage of DPI—reflected the revisions to personal saving. The rate was revised up from 4.2 percent to 4.7 percent for 1998, was revised up from 2.2 percent to 2.4 percent for 1999, and was revised up from a negative 0.1 percent to 1.0 percent for 2000.

Gross saving and investment.—Gross saving was revised down for all 3 years: \$7.2 billion for 1998, \$10.2 billion for 1999, and \$39.4 billion for 2000. Gross saving as a percentage of GNP was revised less than 0.1 percentage point at 18.8 percent for 1998, was revised down 0.1 percentage point to 18.4 percent for 1999, and was revised down 0.2 percentage point to 18.1 percent for 2000.

For 1998, the downward revision to gross saving was primarily attributable to gross government saving, reflecting a downward revision to the Federal Government current surplus. Within gross private saving, a large downward revision to undistributed corporate profits with IVA and CCAdj and a downward revision to corporate CFC were offset by a large upward revision to personal saving.

For 1999, the downward revision to gross saving reflected a downward revision to gross government saving that was partly offset by an upward revision to gross private saving. The downward

revision to gross government saving reflected downward revisions to the State and local government current surplus and to the Federal Government current surplus. Within gross private saving, an upward revision to personal saving was partly offset by a downward revision to corporate CFC. (Within undistributed corporate profits with IVA and CCAdj, which was revised little, a downward revision to undistributed profits was largely offset by upward revisions to the CCAdj and to the IVA.)

For 2000, a large downward revision to gross government saving was partly offset by an upward revision to gross private saving. The revision to gross government saving reflected large downward revisions to the Federal Government current surplus and to the State and local government current surplus. Within gross private saving, a large upward revision to personal saving was partly offset by a large downward revision to undistributed corporate profits with IVA and CCAdj and a downward revision to corporate CFC.

Gross investment—the sum of gross private domestic investment, gross government investment, and net foreign investment—was revised down for all 3 years: \$13.4 billion for 1998, \$10.9 billion for 1999, and \$86.0 billion for 2000. The revisions were primarily accounted for by downward revisions to gross private domestic investment for all 3 years and to gross government investment for 2000.

Annual price estimates

Revisions to the chain-type price indexes result from the incorporation of newly available and revised source data, the introduction of methodological changes that affect the use of source data, and the regularly scheduled incorporation of annual weights for the most recent year (2000). In this annual revision, the source data for price indexes that were used for deflation and the source data that affect implicit prices were revised.¹⁷ Methodological changes included a new price index for local area network equipment (see the section “Changes in Methodology”). In addition, the prices used for deflation reflected updated seasonal factors.

Newly available source data resulted in revisions to the implicit prices for four types of PCE for services—automobile insurance, health insurance, brokerage and investment charges, and “services

17. The implicit prices are computed by dividing the current-dollar estimates by the chained-dollar estimates that are derived from the quantity data used in quantity extrapolation and direct valuation. Thus, differences between the current-dollar revisions and the chained-dollar revisions to these components are reflected as revisions to their implicit prices.

furnished without payment by financial intermediaries except life insurance carriers”—and for Federal Government and State and local government compensation of employees. The revisions to most of these prices reflected the previously discussed revisions to the corresponding current-dollar estimates.

The annual percent increase in the chain-type price index for gross domestic purchases was unrevised at 0.8 percent for 1998, was revised down 0.1 percentage point to 1.5 percent for 1999, and was revised up 0.2 percentage point to 2.6 percent for 2000 (see the addendum to table 7 and chart 1). For 1999 and 2000, the revisions to the annual percent increase in the price index for GDP were the same as those to the price index for gross domestic purchases. For 1998, the percent increase in the price index for GDP was revised down 0.1 percentage point to 1.2 percent.

The largest contributor to the upward revision to the price index for gross domestic purchases for 2000 was the upward revision to the prices of PCE for services; within services, the largest upward revision was to the price associated with brokerage charges and investment counseling.

For 1998, the revisions to the prices of all the major components of GDP were small. For 1999, the largest revision was a downward revision of 0.7 percentage point to exports of services. For 2000,

the largest upward revisions were 1.1 percentage points to imports of services (which enter negatively because imports are subtracted in the calculation of GDP) and 0.9 percentage point to residential investment; equipment and software was revised down 0.6 percentage point.

Changes in Methodology

This section describes the changes in the source data and in the estimation methods that were incorporated in this annual revision.¹⁸ Several of these changes were identified as high-priority items in BEA's strategic plan for maintaining and improving the Nation's economic accounts.¹⁹

Classification by industry.—For this annual NIPA revision, BEA's industry-based estimates of change in private inventories were converted to the North American Industry Classification System (NAICS) basis, beginning with the 1997 estimates. The conversion reflected the implementation of NAICS by the Census Bureau in its collection of the major monthly source data that underlie these estimates. The conversion affects the detailed estimates by industry but not the aggregate measure of the

18. These changes update the methodological information in the two tables that were published in "Updated Summary NIPA Methodologies," 18-40; updated tables will be published in the October 2001 SURVEY.

19. See "BEA's Mid-Decade Strategic Plan: A Progress Report," SURVEY 76 (June 1996): 52-55.

Table 7.—Revisions to Percent Change in GDP Price Indexes

[Percent change from preceding period]

	1997	1998			1999			2000		
		Pre-viously published	Revised	Revision	Pre-viously published	Revised	Revision	Pre-viously published	Revised	Revision
Gross domestic product	1.9	1.3	1.2	-0.1	1.5	1.4	-0.1	2.1	2.3	0.2
Personal consumption expenditures	1.9	1.1	1.1	0	1.8	1.6	-0.2	2.4	2.7	0.3
Durable goods	-2.3	-2.4	-2.4	0	-2.4	-2.5	-0.1	-1.7	-1.6	0.1
Nondurable goods	1.3	0	0	0	2.3	2.3	0	3.7	3.7	0
Services	3.1	2.3	2.3	0	2.4	2.2	-0.2	2.6	3.1	0.5
Gross private domestic fixed investment	-0.1	-0.8	-0.9	-0.1	-0.1	-0.1	0	1.3	1.2	-0.1
Nonresidential	-1.0	-1.9	-2.1	-0.2	-1.3	-1.4	-0.1	0.5	0.1	-0.4
Structures	4.2	3.3	3.3	0	2.3	2.5	0.2	4.0	4.1	0.1
Equipment and software	-2.7	-3.6	-3.9	-0.3	-2.5	-2.6	-0.1	-0.5	-1.1	-0.6
Residential	2.7	2.8	2.8	0	3.8	3.8	0	3.6	4.5	0.9
Change in private inventories										
Net exports of goods and services										
Exports	-1.5	-2.2	-2.2	0	-0.4	-0.6	-0.2	1.6	1.8	0.2
Goods	-2.7	-3.1	-3.1	0	-1.4	-1.4	0	1.1	1.1	0
Services	1.4	-0.1	0	0.1	1.9	1.2	-0.7	3.1	3.4	0.3
Imports	-3.6	-5.4	-5.4	0	0.6	0.6	0	4.0	4.3	0.3
Goods	-4.1	-6.0	-6.0	0	0.2	0.2	0	4.6	4.8	0.2
Services	-0.6	-2.3	-2.3	0	2.9	2.7	-0.2	0.6	1.7	1.1
Government consumption expenditures and gross investment	2.2	1.4	1.5	0.1	2.6	2.8	0.2	3.8	3.9	0.1
Federal	1.6	1.0	1.0	0	2.6	2.4	-0.2	3.1	2.9	-0.2
National defense	1.4	0.8	0.8	0	2.5	2.3	-0.2	3.1	2.8	-0.3
Nondefense	2.1	1.3	1.3	0	2.8	2.5	-0.3	3.3	3.0	-0.3
State and local	2.6	1.7	1.7	0	2.7	2.9	0.2	4.1	4.4	0.3
Addendum:										
Gross domestic purchases	1.6	0.8	0.8	0	1.6	1.5	-0.1	2.4	2.6	0.2

change in private inventories; thus current-dollar and real GDP are not affected.²⁰

Change in private inventories is the only component of GDP final expenditures that is presented by industry; the other components (personal consumption expenditures, private fixed investment, net exports, and government consumption expenditures and gross investment) are presented by type of product.

For this annual NIPA revision, a concordance between NAICS and the NIPA expenditures by type of product was developed for the estimates of private fixed investment in equipment and software.²¹ The estimates of net exports and government consumption expenditures and gross investment were not affected by the conversion to NAICS. For the other NIPA industry-based estimates—such as profits, nonfarm proprietors' income, and net interest for 1998 and 1999—industry concordances between NAICS and SIC were developed. The NIPA estimates of income and employment by industry will remain on an SIC basis until the next comprehensive revision of the NIPAs, which is currently scheduled for late 2003.²²

NAICS and PCE.—The NAICS conversion also affected the estimation of PCE for most goods other than motor vehicles.²³ These categories of PCE goods, termed the “control group,” are estimated using Census Bureau data on retail sales to extrapolate an overall value; the commodity composition is determined by merchandise-line allocations by kind of business.²⁴

The revised estimates incorporate data on retail sales and on food services sales on a NAICS basis; previously, the retail sales data were on an SIC basis. Under NAICS, establishments using similar production processes are classified in the same industry; therefore, selling methods rather than class of customer (used under the SIC) determine

whether establishments are classified in retail trade or in wholesale trade. As a result, many establishments that were classified as wholesale trade are now classified as retail trade—notably, motor vehicle parts and accessory stores and office supply stores. A small number of establishments were reclassified from retail trade to wholesale trade and to the manufacturing sector. Eating and drinking places, which were part of retail trade, have become part of a newly defined NAICS sector, accommodations and food services. Under the SIC, the retail control group consisted of retail sales excluding new- and used-auto dealers and building materials stores; military commissary and exchange sales were then added to the control group. Under NAICS, food services sales are retained in the control group, even though they are no longer part of retail sales. In addition, the control group now excludes office supplies and stationery stores and “food service contractors and mobile food services” because only a small percentage of their sales are to individuals.

Prescription drugs in PCE.—Expenditures for prescription drugs are now estimated using data on retail sales of prescription drugs from a continuing survey of more than 20,000 retail pharmaceutical outlets by a trade source. Previously, these expenditures were estimated based on Census Bureau retail sales data, using the retail control method (see the preceding section “NAICS and PCE”). Prescription drugs remain in the PCE control group, the value of which is not affected by this change. However, the independent estimate of prescription drugs affects the other categories in the control group because it affects the commodity allocation of sales.²⁵

Software investment.—The quarterly estimates of fixed investment in prepackaged software and in custom software have been improved. The estimates of prepackaged software are now interpolated and extrapolated using data on receipts from company reports to the Securities and Exchange Commission (SEC) and data on monthly retail sales of business software from a trade source. The estimates of custom software are now interpolated and extrapolated using the SEC data. Previously, the quarterly estimates of prepackaged software and of custom software were interpolated and

20. For additional details about the implementation of NAICS in the inventory estimates, see “An Upcoming Change in the NIPA Presentation of Private Inventories by Industry,” *SURVEY 81* (June 2001): 22–26.

21. The concordance between the NAICS product coding scheme and the one used in the 1992 input-output table was developed because NAICS is an industry, not a product, classification system and because NIPA final expenditure categories are based on aggregations of purchases commodities in the 1992 input-output table.

22. These estimates are based on data from various statistical agencies, each of which has its own NAICS implementation schedule. In order to maintain a consistent industry classification, these estimates will be converted to NAICS after the major source data for each income estimate have been converted.

23. School lunches, food furnished to employees (including military), food produced and consumed on farms, clothing issued to military personnel, and net foreign remittances are also excluded.

24. The revised estimates of PCE for goods other than motor vehicles incorporate merchandise-line allocations by NAICS-based kind of business, on the basis of 1997 Economic Census.

25. The new treatment for prescription drugs is similar to that used for tobacco products; the value of the drugs is removed from the control group before the commodity composition of the remainder is determined using a two-stage process as described in “MP6: Personal Consumption Expenditures,” 41.

extrapolated using BLS tabulations of State unemployment insurance data on wages and salaries of workers in the prepackaged software and computer programming services industries (SIC 7372 and SIC 7371, respectively). The Census Bureau service annual survey continues as the primary data source for the annual estimates of prepackaged and custom software.

Net exports of goods and services and net receipts of income.—The major source of the NIPA estimates of foreign transactions is BEA's U.S. international transactions accounts (ITA's). In this year's annual ITA revision, newly available data from regular sources and from surveys conducted by BEA, the U.S. Treasury Department, and the Federal Reserve System were incorporated, and several changes in the estimating methodologies were introduced.

The methodological changes included improved estimates of "other" private income receipts and payments for banks, improved estimates for nonbank liabilities to foreigners (which affects "other" private income payments), improved estimates of the balance of payments adjustments to the Census-basis goods data, and the reclassification of goods in the end-use commodity categories.²⁶ The reclassification involved two significant changes for both exports and imports: Cellular phones, previously part of capital goods, were reclassified to consumer goods, and off-the-road construction vehicles, previously part of automobiles, engines, and parts, were reclassified to capital goods. In addition, the NIPA's also incorporated revisions to the items that adjust for the differences between the NIPA's and the ITA's (these differences are identified in NIPA table 4.5B).

As usual, the ITA revisions were incorporated into the NIPA's at their "best level," beginning with estimates for 1998. (The revisions to the ITA's for years before 1998 will be incorporated in the next comprehensive NIPA revision.) As a result, there are discontinuities between the NIPA estimates for 1997 and those for 1998 (table 8). The change in current-dollar net exports of goods and services (and in current-dollar GDP) from 1997 to 1998 is understated by \$1.6 billion. The discontinuity is primarily accounted for by exports of "other" goods, reflecting the improved estimates of the balance of payments adjustments to the Census-basis goods data.

For net receipts of income, the change from 1997 to 1998 is overstated by \$2.6 billion. The discontinuity is more than accounted for by interest received from the rest of the world, reflecting the improved estimates of "other" private income receipts for banks. For GNP, which includes both net exports of goods and services and net receipts of income, the change is overstated by \$1.0 billion.

Nonfiler income adjustment.—The adjustment to nonfarm proprietors' income that accounts for the undercoverage of business income because of the nonfiling of tax returns has been improved. IRS tabulations of sole proprietorship and partnership income tax returns are the primary source for the estimates of nonfarm proprietors' income. The nonfiling of tax returns by self-employed persons results in an undercoverage of income in tax return tabulations. The nonfiler adjustment incorporated in the revised estimates of nonfarm proprietors' income is based on information from the most recent "exact-match" study, which was conducted for 1996. In the previously published estimates, the nonfiler adjustment was prepared by extrapolating the results of a similar study for 1990.²⁷

27. Exact-match studies provide tabulations for persons who did not file income tax returns by matching information from the annual income supplement of the Current Population Survey with individual income tax returns. For more information on the previous adjustment, see "Improved Estimates of the National Income and Product Accounts for 1959-94: Results of the Comprehensive Revision," SURVEY 76 (January/February 1996): 24-25.

Table 8.—Discontinuities in NIPA Foreign Transactions: 1997-98

[Billions of dollars]

	1997			1998	Change, 1997 to 1998	
	Published	Discontinuity ¹	Adjusted	Revised	Published	Adjusted
Net exports of goods and services	-89.3	-1.6	-90.9	-151.7	-62.4	-60.8
Exports	966.4	-2.0	964.5	964.9	-1.5	0.4
Goods	688.9	-1.3	687.6	681.3	-7.6	-6.3
Services	277.5	-6	276.9	283.6	6.1	6.7
Imports	1,055.8	-4	1,055.4	1,116.7	60.9	61.3
Goods	885.1	-1	884.9	930.0	44.9	45.0
Services	170.7	-2	170.5	186.7	16.0	16.2
Net receipts of income	7.1	2.6	9.6	-3.4	-10.5	-13.0
Receipts	281.3	3.2	284.5	286.1	4.9	1.6
Corporate profits	159.4	-1	159.3	145.3	-14.1	-13.9
Interest	120.1	3.3	123.4	138.9	18.8	15.5
Compensation of employees	1.8	0	1.8	1.9	0.1	0.1
Payments	274.2	0.6	274.9	289.6	15.3	14.7
Corporate profits	48.7	-6	48.2	43.1	-5.6	-5.1
Interest	218.8	1.2	220.0	239.6	20.7	19.5
Compensation of employees	6.7	0	6.7	6.9	0.3	0.3
Transfer payments to rest of the world (net)	40.8	0	40.8	44.5	3.7	3.7
Addenda:						
GDP	8,318.4	-1.6	8,316.8	8,781.5	463.2	464.7
GNP	8,325.4	1.0	8,326.4	8,778.1	452.7	451.7

26. See Christopher L. Bach, "U.S. International Transactions, Revised Estimates for 1989-2000," SURVEY 81 (July 2001): 30-36.

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

“Smoothing” irregular payments.—Quarterly tobacco settlement payments (except the first payment) and quarterly (and monthly) agricultural subsidy payments disbursed as emergency assistance are now interpolated and extrapolated across the quarters (and months) of the year, reflecting the accruals of these payments over time rather than their disbursements in a particular period.²⁸ Using interpolation and extrapolation minimizes the variation in the resulting quarter-to-quarter (and month-to-month) changes. Previously, certain tobacco settlement payments and the emergency agricultural subsidies were recorded on a disbursements basis, a treatment that is generally reserved in the NIPA’s for one-time or unusual transactions.²⁹

The tobacco settlement payments reduce the estimates of corporate profits and increase the estimates of State and local government indirect business tax and nontax accruals (specifically, in nontaxes) by offsetting amounts. The agricultural subsidy payments are a component of Federal Government current expenditures (“subsidies less current surplus of government enterprises”), of farm proprietors’ income, and of rental income of persons (nonoperator farm landlords); in addition, they are implicitly included in the source data for corporate profits.

Interest paid by persons.—The revised estimates of interest paid by persons, which are a source of revisions to both personal interest income and personal outlays, now incorporate the Federal Reserve Board’s (FRB’s) estimates of the effective rate of interest paid on consumer debt.³⁰ Interest paid by persons is mainly estimated by multiplying the effective rate of interest on consumer debt by the FRB’s estimate of the value of consumer debt outstanding. Previously, the effective rate of interest was judgmentally estimated.

New prices.—In this annual revision, the price measures of some components of private fixed investment, Federal Government spending, and

State and local government spending are improved.

A newly available price index from the FRB that reflects quality improvements to local area network (LAN) equipment—routers, switches, and hubs—is now used in the deflation of communication equipment, which is a component of equipment and software within private fixed investment. The improved deflator, which is a weighted geometric mean of the FRB LAN equipment index and the producer price index (PPI) for telephone and telegraph apparatus, is now used to deflate the LAN portion of communication equipment; previously, the PPI for telephone and telegraph apparatus was used to deflate LAN equipment.

An improved price index is now used in the deflation of custom software, a component of private fixed investment, of Federal Government gross investment, and of State and local government gross investment. The price index is based on a weighted average of the own-account software price index and the PPI for prepackaged software applications sold separately (nonsuite).³¹ The use of the index for nonsuite applications more appropriately reflects the type of existing programs or program modules that are often incorporated into custom software. Previously, the PPI for all prepackaged software applications, together with the own-account software price index, was used to deflate custom software.

Presentational Changes

Inventory tables.—As part of this annual revision, BEA’s industry-based estimates of change in private inventory have been converted to a NAICS basis from an SIC basis. Because the implementation of NAICS results in significant discontinuities at the detailed industry level, new NIPA tables are introduced that show the inventory estimates by SIC industry group and by NAICS industries.³² The estimates for 1929–97 on an SIC basis are presented in tables 5.10A, 5.11A, 5.12A, 5.13A, and 7.16A. The estimates for 1997 forward on the NAICS basis are presented in tables 5.10B, 5.11B, 5.12B, 5.13B, and 7.16B.

28. Beginning in 1998, the emergency assistance agricultural subsidies have been disbursed on a continuing basis under three Federal supplemental appropriations; these subsidies accounted for 27 percent of total agricultural subsidies disbursed in 1998, for 45 percent in 1999, and for 41 percent in 2000.

29. As part of the 1996 comprehensive revision, all other Federal agricultural subsidy payments were “smoothed” across the year.

30. These FRB estimates are weighted averages of the interest rates charged by commercial banks and finance companies on eight types of consumer loans. These estimates, which are also reflected in the FRB’s quarterly measure of households’ debt-service burden, will be incorporated in the “final” quarterly NIPA release.

31. A weighted average is used because custom software consists of a mixture of new programming and existing programs or program modules (including prepackaged software) that are incorporated into new systems. For a discussion of the estimation of software prices, go to BEA’s Web site at <www.bea.doc.gov>, look under “Papers & presentations,” and click on “Recognition of Business and Government Expenditures for Software as Investment: Methodology and Quantitative Impacts, 1959–98” by Robert Parker and Bruce Grimm.

32. See “An Upcoming Change,” 22–26.

Table 8.30.—In this annual revision, a new NIPA table, table 8.30, is introduced that shows contributions to percent change in the price index for gross domestic purchases. The new table facilitates the analysis of the sources of change in the aggregate price level in much the same way as NIPA table 8.2, “Contributions to Percent Change in Real Gross Domestic Product,” facilitates the analysis of the sources of change in real output. In table 8.30, the component’s contribution indicates the difference between the actual change in the gross domestic purchases price index and the change in the index if the price of the component were held constant.

Analyses of price change that simply compare the rates of change in various chain-type indexes should be avoided, because the sum of individually calculated price effects will not usually equal the change in the aggregate price index. The new table provides contributions to percent change in the price index that are accurate and exactly additive. Users of the new table should note, however, that the contributions of particular subaggregates to the rate of price change in an aggregate will often be similar from one period to the next.

The formula used to calculate the contributions to percent change in the price index is

$$C_{i,t}^P = 100 \times \frac{(q_{i,t-1} + (q_{i,t}/Q_t^F)) \times (p_{i,t} - p_{i,t-1})}{\sum_j (q_{j,t-1} + (q_{j,t}/Q_t^F)) \times p_{j,t-1}}$$

where Q_t^F denotes the Fisher quantity index for

gross domestic purchases in period t relative to period $t-1$, $p_{i,t}$ denotes the price of the i th component in period t , and $q_{i,t}$ denotes its quantity. The range of subscript j in the denominator includes all the deflation-level components of gross domestic purchases. The values shown in table 8.30 for particular subaggregates are sums of the $C_{i,t}^P$ for their most detailed components.

Other presentational changes.—Several new price index series have been added to the addenda of NIPA tables 7.2 and 8.1. In table 7.2, the chain-type price indexes for GDP food, for GDP energy goods and services, and for GDP less food and energy are added. In table 8.1, the percent changes in the price indexes for those GDP components and for gross domestic purchases indexes for food, for energy goods and services, and for purchases less food and energy are added. (Some of these series are already included in the monthly GDP news release.)

The format of the monthly “Selected NIPA Tables” in the SURVEY will be changed to show estimates for the 2 most recent years and the five most recent quarters; previously, the “Selected NIPA Tables” showed estimates for the 2 most recent years and the six most recent quarters. This change, which will be implemented in the September 2001 SURVEY, is being made to accommodate the larger numerical values in many tables in the space available.

Appendix A follows. 

Availability of Revised Estimates and Related Information

The estimates shown in the NIPA tables that follow this article and the estimates for earlier periods (for most tables, beginning with 1929 for annual estimates and with 1946 for quarterly estimates) are available on BEA’s Web site at <www.bea.doc.gov>. Later this year, the NIPA estimates will be available on a CD-ROM.

Publication of the revised estimates and related estimates will continue in subsequent issues of the SURVEY OF CURRENT BUSINESS. The September SURVEY will present table 5.16, which shows changes in the net stock of produced assets; reconciliation table 8.28, which shows the relationship between personal income in the NIPAs and adjusted gross income from the Internal Revenue Service; and new estimates of fixed assets and consumer durable goods for 2000 and revised estimates for 1998–99.

The October SURVEY will present “Updated Summary NIPA Methodologies,” which lists the principal source data

and estimating methods used in preparing the current-dollar and real estimates of GDP; tables 3.15–3.17 (government spending by function), tables 3.18–3.20 (government sector reconciliation tables), and tables 9.1–9.6 (seasonally unadjusted estimates); revised real inventories, sales, and inventory-sales ratios for manufacturing and trade for 1997:I–2001:I; and revised estimates of State personal income that incorporate the results of this annual revision of the NIPAs.

The December SURVEY will present revised and updated estimates of GDP by industry.

Later this year, BEA will publish *National Income and Product Accounts of the United States, 1929–97*, which will present the full set of NIPA tables and will describe definitions and statistical conventions.

The availability of the CD-ROM and the volume will be announced in the SURVEY and on BEA’s Web site.

Appendix A.—Revisions to the National Income and Product Accounts

[Billions of dollars]

	1998		1999		2000	
	Revised	Revision	Revised	Revision	Revised	Revision
Account 1.—National Income and Product Account						
Compensation of employees	4,989.6	5.4	5,310.7	10.9	5,715.2	77.0
Wage and salary accruals	4,192.1	-0.7	4,477.4	2.3	4,837.2	67.8
Disbursements	4,192.8	2.1	4,472.2	2.2	4,837.2	67.8
Wage accruals less disbursements	-0.7	-2.8	5.2	0	0	0
Supplements to wages and salaries	797.5	6.1	833.4	8.8	878.0	9.2
Employer contributions for social insurance	306.9	1.0	323.6	0	343.8	-1.0
Other labor income	490.6	5.1	509.7	8.7	534.2	10.2
Proprietors' income with inventory valuation and capital consumption adjustments	623.8	3.1	672.0	8.5	715.0	4.6
Rental income of persons with capital consumption adjustment	138.6	3.2	147.7	4.3	141.6	1.6
Corporate profits with inventory valuation and capital consumption adjustments	777.4	-37.6	825.2	-30.8	876.4	-69.8
Corporate profits with inventory valuation adjustment	739.4	-35.7	773.4	-40.5	833.0	-79.7
Profits before tax	721.1	-37.1	776.3	-46.7	845.4	-80.2
Profits tax liability	238.8	-5.8	253.0	-2.9	271.5	-12.7
Profits after tax	482.3	-31.3	523.3	-43.8	573.9	-67.5
Dividends	348.7	-2.8	343.5	-27.2	379.6	-17.4
Undistributed profits	133.6	-28.5	179.8	-16.6	194.3	-50.1
Inventory valuation adjustment	18.3	1.3	-2.9	6.2	-12.4	0.5
Capital consumption adjustment	38.0	-1.9	51.7	9.6	43.4	9.9
Net interest	511.9	29.2	506.5	-0.6	532.7	-34.5
National income	7,041.4	3.3	7,462.1	-7.6	7,980.9	-21.1
Business transfer payments	38.0	0	41.3	1.6	43.9	2.2
To persons	28.8	0.1	31.1	1.4	33.1	2.4
To the rest of the world	9.2	-0.1	10.2	0.3	10.8	-0.2
Indirect business tax and nontax liability	681.3	1.7	713.1	-5.0	762.7	-6.9
Less: Subsidies less current surplus of government enterprises	23.5	2.0	33.3	4.9	37.6	9.7
Consumption of fixed capital	1,072.0	-5.3	1,151.4	-9.6	1,241.3	-15.8
Private	884.3	-5.1	953.3	-8.1	1,029.9	-10.6
Government	187.6	-0.4	198.1	-1.5	211.3	-5.3
General government	160.1	-0.3	168.9	-1.4	180.1	-4.9
Government enterprises	27.6	0.1	29.2	-0.1	31.2	-0.4
Gross national income	8,809.1	-2.3	9,334.6	-25.5	9,991.2	-51.2
Less: Income receipts from the rest of the world	286.1	0.7	313.8	7.9	384.2	13.6
Plus: Income payments to the rest of the world	289.6	0.7	320.5	3.6	396.3	21.4
Gross domestic income	8,812.5	-2.5	9,341.3	-29.8	10,003.4	-43.4
Statistical discrepancy	-31.0	-6.2	-72.7	-0.8	-130.4	-46.7
GROSS DOMESTIC PRODUCT	8,781.5	-8.7	9,268.6	-30.6	9,872.9	-90.2
Personal consumption expenditures	5,856.0	5.1	6,250.2	-18.5	6,728.4	-28.9
Durable goods	693.2	-0.7	760.9	-0.4	819.6	-0.7
Nondurable goods	1,708.5	0.9	1,831.3	-14.2	1,989.6	-20.4
Services	3,454.3	5.0	3,658.0	-3.9	3,919.2	-7.8
Gross private domestic investment	1,538.7	-11.2	1,636.7	-13.4	1,767.5	-65.2
Fixed investment	1,465.6	-7.3	1,578.2	-28.6	1,718.1	-60.1
Nonresidential	1,101.2	-6.3	1,174.6	-28.5	1,293.1	-69.1
Structures	282.4	-0.8	283.5	-2.1	313.6	-10.6
Equipment and software	818.9	-5.4	891.1	-26.3	979.5	-58.5
Residential	364.4	-1.0	403.5	-0.3	425.1	9.1
Change in private inventories	73.1	-3.9	58.6	15.3	49.4	-5.1
Net exports of goods and services	-151.7	-0.2	-250.9	3.1	-364.0	6.7
Exports	964.9	-1.1	989.8	-0.4	1,102.9	5.6
Imports	1,116.7	-0.8	1,240.6	-3.6	1,466.9	-1.1
Government consumption expenditures and gross investment	1,538.5	-2.4	1,632.5	-1.9	1,741.0	-2.7
Federal	539.2	-1.4	564.0	-4.6	590.2	-5.0
National defense	349.1	-0.1	364.5	-0.5	375.4	-1.6
Nondefense	190.1	-1.3	199.5	-4.0	214.8	-3.4
State and local	999.3	-1.0	1,068.5	2.7	1,150.8	2.2
GROSS DOMESTIC PRODUCT	8,781.5	-8.7	9,268.6	-30.6	9,872.9	-90.2

Appendix A.—Revisions to the National Income and Product Accounts—Continued

[Billions of dollars]

	1998		1999		2000	
	Revised	Revision	Revised	Revision	Revised	Revision
Account 2.—Personal Income and Outlay Account						
Personal tax and nontax payments	1,070.4	-0.5	1,159.2	7.2	1,288.2	-3.7
Personal outlays	6,054.1	-0.6	6,457.2	-32.9	6,963.3	-35.0
Personal consumption expenditures	5,856.0	5.1	6,250.2	-18.5	6,728.4	-28.9
Interest paid by persons	173.7	-6.1	179.7	-15.1	205.3	-6.9
Personal transfer payments to the rest of the world (net)	24.3	0.3	27.2	0.6	29.6	0.8
Personal saving	301.5	36.1	160.9	13.3	67.7	76.2
PERSONAL TAXES, OUTLAYS, AND SAVING	7,426.0	35.0	7,777.3	-12.3	8,319.2	8319.2
Wage and salary disbursements	4,192.8	2.1	4,472.2	2.2	4,837.2	67.8
Other labor income	490.6	5.1	509.7	8.7	534.2	10.2
Proprietors' income with inventory valuation and capital consumption adjustments	623.8	3.1	672.0	8.5	715.0	4.6
Rental income of persons with capital consumption adjustment	138.6	3.2	147.7	4.3	141.6	1.6
Personal dividend income	348.3	-2.8	343.1	-27.2	379.2	-17.4
Dividends	348.7	-2.8	343.5	-27.2	379.6	-17.4
Less: Dividends received by government	0.4	0	0.4	0	0.4	0
Personal interest income	964.4	23.6	950.0	-13.7	1,000.6	-33.7
Net interest	511.9	29.2	506.5	-0.6	532.7	-34.5
Net interest paid by government	278.8	0.6	263.8	2.1	262.6	7.7
Interest paid by persons	173.7	-6.1	179.7	-15.1	205.3	-6.9
Transfer payments to persons	983.7	0.7	1,019.6	3.4	1,069.1	1.3
From business	28.8	0.1	31.1	1.4	33.1	2.4
From government	955.0	0.7	988.4	1.9	1,036.0	-1.1
Less: Personal contributions for social insurance	316.3	0.1	337.1	-1.4	357.7	-3.0
PERSONAL INCOME	7,426.0	35.0	7,777.3	-12.3	8,319.2	37.5
Account 3.—Government Receipts and Expenditures Account						
Consumption expenditures	1,261.4	-0.7	1,328.0	2.3	1,422.7	15.5
Transfer payments	965.9	0.8	1,000.1	2.0	1,050.0	-0.2
To persons	955.0	0.7	988.4	1.9	1,036.0	-1.1
To the rest of the world (net)	11.0	0.2	11.6	0	14.0	0.9
Net interest paid	278.8	0.6	263.8	2.1	262.6	7.7
Less: Dividends received by government	0.4	0	0.4	0	0.4	0
Subsidies less current surplus of government enterprises	23.5	2.0	33.3	4.9	37.6	9.7
Less: Wage accruals less disbursements	0	0	0	0	0	0
Current surplus or deficit (-), national income and product accounts	84.5	-6.2	161.3	-13.1	251.4	-60.0
Federal	43.8	-5.2	119.2	-5.2	218.6	-33.2
State and local	40.7	-1.0	42.1	-7.9	32.8	-26.8
GOVERNMENT CURRENT EXPENDITURES AND SURPLUS	2,613.8	-3.4	2,786.1	-1.9	3,023.9	3023.9
Personal tax and nontax payments	1,070.4	-0.5	1,159.2	7.2	1,288.2	-3.7
Corporate profits tax liability	238.8	-5.8	253.0	-2.9	271.5	-12.7
Indirect business tax and nontax liability	681.3	1.7	713.1	-5.0	762.7	-6.9
Contributions for social insurance	623.3	1.2	660.7	-1.4	701.5	-4.1
Employer	306.9	1.0	323.6	0	343.8	-1.0
Personal	316.3	0.1	337.1	-1.4	357.7	-3.0
GOVERNMENT CURRENT RECEIPTS	2,613.8	-3.4	2,786.1	-1.9	3,023.9	-27.3

Appendix A.—Revisions to the National Income and Product Accounts—Continued

[Billions of dollars]

	1998		1999		2000	
	Revised	Revision	Revised	Revision	Revised	Revision
Account 4.—Foreign Transactions Account						
Exports of goods and services	964.9	-1.1	989.8	-0.4	1,102.9	5.6
Income receipts	286.1	0.7	313.8	7.9	384.2	13.6
RECEIPTS FROM THE REST OF THE WORLD	1,251.1	-0.3	1,303.6	7.5	1,487.1	19.2
Imports of goods and services	1,116.7	-0.8	1,240.6	-3.6	1,466.9	-1.1
Income payments	289.6	0.7	320.5	3.6	396.3	21.4
Transfer payments to the rest of the world (net)	44.5	0.4	49.0	0.9	54.4	1.5
From persons (net)	24.3	0.3	27.2	0.6	29.6	0.8
From government (net)	11.0	0.2	11.6	0	14.0	0.9
From business	9.2	-0.1	10.2	0.3	10.8	-0.2
Net foreign investment	-199.7	-0.6	-306.6	6.6	-430.5	-2.6
PAYMENTS TO THE REST OF THE WORLD	1,251.1	-0.3	1,303.6	7.5	1,487.1	19.2
Account 5.—Gross Saving and Investment Account						
Gross private domestic investment	1,538.7	-11.2	1,636.7	-13.4	1,767.5	-65.2
Gross government investment	277.1	-1.7	304.6	-4.1	318.3	-18.3
Net foreign investment	-199.7	-0.6	-306.6	6.6	-430.5	-2.6
GROSS INVESTMENT	1,616.2	-13.4	1,634.7	-10.9	1,655.3	-86.0
Personal saving	301.5	36.1	160.9	13.3	67.7	76.2
Wage accruals less disbursements (private)	-0.7	-2.8	5.2	0	0	0
Undistributed corporate profits with inventory valuation and capital consumption adjustments	189.9	-29.0	228.7	-0.7	225.3	-39.7
Consumption of fixed capital	1,072.0	-5.3	1,151.4	-9.6	1,241.3	-15.8
Private	884.3	-5.1	953.3	-8.1	1,029.9	-10.6
Government	187.6	-0.4	198.1	-1.5	211.3	-5.3
General government	160.1	-0.3	168.9	-1.4	180.1	-4.9
Government enterprises	27.6	0.1	29.2	-0.1	31.2	-0.4
Government current surplus or deficit (-), national income and product accounts	84.5	-6.2	161.3	-13.1	251.4	-60.0
Statistical discrepancy	-31.0	-6.2	-72.7	-0.8	-130.4	-46.7
GROSS SAVING AND STATISTICAL DISCREPANCY	1,616.2	-13.4	1,634.7	-10.9	1,655.3	-86.0