

An Upcoming Change in the NIPA Presentation of Private Inventories by Industry

AS part of this year's annual revision of the national income and product accounts (NIPA's), the Bureau of Economic Analysis (BEA) will convert its inventory estimates from a Standard Industrial Classification (SIC) basis to a North American Industry Classification System (NAICS) basis. The conversion affects the detailed estimates by industry but not the aggregate measure of the change in private inventories; thus, current-dollar and real GDP are not affected. This note briefly describes the implementation of NAICS in the inventory estimates and then presents the by-industry breakdowns of the NIPA inventory tables on the old and new bases.

The change in presentation, which was announced last summer, reflects the implementation of NAICS by the Census Bureau in its collection of the major monthly source data that underlie these estimates.¹ The NIPA estimates of income and employment by industry will remain on an SIC basis until the next comprehensive revision of the NIPA's, which is currently scheduled for late 2003.²

During the next several years, BEA and the other Federal statistical agencies are implementing NAICS as the basis for identifying, compiling, and presenting industry data. The structure of the SIC has not materially changed since it was designed in the 1930s, and the focus of the SIC is mainly on manufacturing and other goods-producing industries. NAICS is organized on a more conceptually consistent basis, and it adds new classifications for high-tech and services industries. To

the extent feasible, data on inputs and outputs, on industry performance and productivity, and on unit labor costs and employment will be consistently categorized across the U.S. economy. In addition, NAICS was developed jointly with our two major trading partners—Canada and Mexico—to facilitate cross-border comparisons.³

The Census Bureau has already begun to implement NAICS. The data on manufacturers' shipments, inventories, and orders for March were initially reported on May 2 on an SIC basis, and the revised data were reported on June 5 on a NAICS basis. The data on wholesale trade inventories and sales for March were initially reported on May 8 on an SIC basis and were first published on a NAICS basis on June 1. The data for retail trade inventories and sales for March were initially reported on May 14 on an SIC basis and were first published on a NAICS basis on June 1. For the final NIPA estimate for the first quarter of 2001, BEA is planning to use the same SIC-based inventory data that were used for the preliminary estimate. The inventory estimates for the fourth quarter of 1996 through the advance estimate for the second quarter of 2001 will be presented on a NAICS basis as part of the annual NIPA revision, which will be released on July 27, 2001.

Because the implementation of NAICS results in significant discontinuities at the detailed industry level, the inventory estimates for 1997 will be presented on both the 1987 SIC basis and the NAICS basis. The estimates for 1929–97 on the SIC 1987 basis will be presented in tables 5.10A, 5.11A, 5.12A, 5.13A, and 7.16A. The estimates for 1997 forward on the NAICS basis will be presented in tables 5.10B, 5.11B, 5.12B, 5.13B, and 7.16B.⁴ Footnotes to these tables have been added to clarify the A and B designations for each table.

1. See the box "Implementation of the North American Industry Classification System" "Annual Revision of the National Income and Product Accounts," *SURVEY OF CURRENT BUSINESS* 80 (August 2000): 27.

2. The NIPA estimates of income and employment by industry 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, the income and employment estimates will be converted to NAICS after all the source data for each income estimate has been converted. Converting inventories now maintains the relationship with the source data that have already been converted to a NAICS basis. Inventories are the only component of GDP final expenditures that are 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.

NOTE.—This note was prepared by Paul R. Lally.

3. For more 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.

4. Beginning in the October 2001 *SURVEY*, the estimates in the quarterly report on real inventories, sales, and inventory-sales ratios for manufacturing and trade will be published on the NAICS basis. See the box "Implementing the North American Industry Classification System" in "Real Inventories, Sales, and Inventory-Sales Ratios for Manufacturing and Trade," *SURVEY* 81 (April 2001): 12.

Table 5.10A—Change in Private Inventories by Industry Group

[Billions of dollars]

| | Line |
|---|------|
| Change in private inventories | 1 |
| Farm | 2 |
| Nonfarm | 3 |
| Change in book value ¹ | 4 |
| Inventory valuation adjustment ² | 5 |
| Manufacturing | 6 |
| Durable goods | 7 |
| Nondurable goods | 8 |
| Wholesale trade | 9 |
| Durable goods | 10 |
| Nondurable goods | 11 |
| Merchant wholesalers | 12 |
| Durable goods | 13 |
| Nondurable goods | 14 |
| Nonmerchant wholesalers | 15 |
| Durable goods | 16 |
| Nondurable goods | 17 |
| Retail trade | 18 |
| Durable goods | 19 |
| Motor vehicle dealers ³ | 20 |
| Other ³ | 21 |
| Nondurable goods | 22 |
| Other | 23 |
| Durable goods | 24 |
| Nondurable goods | 25 |

1. This series is derived from the Census Bureau series "current cost inventories."
 2. The inventory valuation adjustment (IVA) shown in this table differs from the IVA that adjusts business incomes. The IVA in this table reflects the mix of methods (such as first-in, first-out and last-in, first-out) underlying inventories derived primarily from Census Bureau statistics (see footnote 1). This mix differs from that underlying business income derived primarily from Internal Revenue Service statistics.
 3. Inventories of auto and home supply stores are included in "other durable goods."
 NOTE.— Estimates in this table are based on the Standard Industrial Classification (SIC).

Table 5.10B—Change in Private Inventories by Industry

[Billions of dollars]

| | Line |
|---|------|
| Change in private inventories | 1 |
| Farm | 2 |
| Construction, mining, and utilities | 3 |
| Manufacturing | 4 |
| Durable goods industries | 5 |
| Nondurable goods industries | 6 |
| Wholesale trade | 7 |
| Durable goods industries | 8 |
| Nondurable goods industries | 9 |
| Retail trade | 10 |
| Motor vehicle dealers | 11 |
| Food and beverage stores | 12 |
| General merchandise stores | 13 |
| Other retail stores | 14 |
| Other industries | 15 |
| Addenda: | |
| Change in private inventories | 16 |
| Durable goods industries | 17 |
| Nondurable goods industries | 18 |
| Nonfarm industries | 19 |
| Nonfarm change in book value ¹ | 20 |
| Nonfarm inventory valuation adjustment ² | 21 |
| Wholesale trade | 22 |
| Merchant wholesale trade | 23 |
| Durable goods industries | 24 |
| Nondurable goods industries | 25 |
| Nonmerchant wholesale trade | 26 |

1. This series is derived from the Census Bureau series "current cost inventories."
 2. The inventory valuation adjustment (IVA) shown in this table differs from the IVA that adjusts business incomes. The IVA in this table reflects the mix of methods (such as first-in, first-out and last-in, first-out) underlying inventories derived primarily from Census Bureau statistics (see footnote 1). This mix differs from that underlying business income derived primarily from Internal Revenue Service statistics.
 NOTE.— Estimates in this table are based on the North American Industry Classification System (NAICS).

Table 5.11A—Real Change in Private Inventories by Industry Group

[Billions of chained (1996) dollars]

| | Line |
|--|------|
| Change in private inventories | 1 |
| Farm | 2 |
| Nonfarm | 3 |
| Manufacturing | 4 |
| Durable goods | 5 |
| Nondurable goods | 6 |
| Wholesale trade | 7 |
| Durable goods | 8 |
| Nondurable goods | 9 |
| Merchant wholesalers | 10 |
| Durable goods | 11 |
| Nondurable goods | 12 |
| Nonmerchant wholesalers | 13 |
| Durable goods | 14 |
| Nondurable goods | 15 |
| Retail trade | 16 |
| Durable goods | 17 |
| Motor vehicle dealers ¹ | 18 |
| Other ¹ | 19 |
| Nondurable goods | 20 |
| Other | 21 |
| Durable goods | 22 |
| Nondurable goods | 23 |
| Residual | 24 |

1. Inventories of auto and home supply stores are included in "other durable goods."
 NOTE.— Estimates in this table are based on the Standard Industrial Classification (SIC).
 Chained (1996) dollar series for real change in private inventories are calculated as the period-to-period change in chained-dollar end-of-period inventories. Quarterly changes in end-of-period inventories are stated at annual rates. Because the formula for the chain-type quantity indexes uses weights of more than one period, the corresponding chained-dollar estimates are usually not additive. The residual line is the difference between the first line and the sum of the most detailed lines.

Table 5.11B—Real Change in Private Inventories by Industry

[Billions of chained (1996) dollars]

| | Line |
|--|------|
| Change in private inventories | 1 |
| Farm | 2 |
| Construction, mining, and utilities | 3 |
| Manufacturing | 4 |
| Durable goods industries | 5 |
| Nondurable goods industries | 6 |
| Wholesale trade | 7 |
| Durable goods industries | 8 |
| Nondurable goods industries | 9 |
| Retail trade | 10 |
| Motor vehicle dealers | 11 |
| Food and beverage stores | 12 |
| General merchandise stores | 13 |
| Other retail stores | 14 |
| Other industries | 15 |
| Residual | 16 |
| Addenda: | |
| Change in private inventories | 17 |
| Durable goods industries | 18 |
| Nondurable goods industries | 19 |
| Nonfarm industries | 20 |
| Wholesale trade | 21 |
| Merchant wholesale trade | 22 |
| Durable goods industries | 23 |
| Nondurable goods industries | 24 |
| Nonmerchant wholesale trade | 25 |

NOTE.— Estimates in this table are based on the North American Industry Classification System (NAICS).
 Chained (1996) dollar series for real change in private inventories are calculated as the period-to-period change in chained-dollar end-of-period inventories. Quarterly changes in end-of-period inventories are stated at annual rates. Because the formula for the chain-type quantity indexes uses weights of more than one period, the corresponding chained-dollar estimates are usually not additive. The residual line is the difference between the first line and the sum of the most detailed lines.

Table 5.12A—Private Inventories and Domestic Final Sales of Business by Industry Group

[Billions of dollars]

| | Line |
|--|------|
| Private inventories ¹ | 1 |
| Farm | 2 |
| Nonfarm | 3 |
| Durable goods | 4 |
| Nondurable goods | 5 |
| Manufacturing | 6 |
| Durable goods | 7 |
| Nondurable goods | 8 |
| Wholesale trade | 9 |
| Durable goods | 10 |
| Nondurable goods | 11 |
| Merchant wholesalers | 12 |
| Durable goods | 13 |
| Nondurable goods | 14 |
| Nonmerchant wholesalers | 15 |
| Durable goods | 16 |
| Nondurable goods | 17 |
| Retail trade | 18 |
| Durable goods | 19 |
| Motor vehicle dealers ² | 20 |
| Other ² | 21 |
| Nondurable goods | 22 |
| Other | 23 |
| Durable goods | 24 |
| Nondurable goods | 25 |
| Final sales of domestic business ³ | 26 |
| Final sales of goods and structures of domestic business ³ | 27 |
| Ratio of private inventories to final sales of domestic business | |
| Private inventories to final sales | 28 |
| Nonfarm inventories to final sales | 29 |
| Nonfarm inventories to final sales of goods and structures | 30 |

1. Inventories are as of the end of the quarter. The quarter-to-quarter change in inventories calculated from current-dollar inventories in this table is not the current-dollar change in the private inventories component of GDP. The former is the difference between two inventory stocks, each valued at its respective end-of-quarter prices. The latter is the change in the physical volume of inventories valued at average prices of the quarter. In addition, changes calculated from this table are at quarterly rates, whereas, the change in private inventories is stated at annual rates.

2. Inventories of auto and home supply stores are included in "other durable goods."

3. Quarterly totals at monthly rates. Final sales of domestic business equals final sales of domestic product less gross product of households and institutions and of general government, and it includes a small amount of final sales by farm and by government enterprises.

NOTE.— Estimates in this table are based on the Standard Industrial Classification (SIC).

Table 5.12B—Private Inventories and Domestic Final Sales by Industry

[Billions of dollars]

| | Line |
|--|------|
| Private inventories ¹ | 1 |
| Farm | 2 |
| Construction, mining, and utilities | 3 |
| Manufacturing | 4 |
| Durable goods industries | 5 |
| Nondurable goods industries | 6 |
| Wholesale trade | 7 |
| Durable goods industries | 8 |
| Nondurable goods industries | 9 |
| Retail trade | 10 |
| Motor vehicle dealers | 11 |
| Food and beverage stores | 12 |
| General merchandise stores | 13 |
| Other retail stores | 14 |
| Other industries | 15 |
| Addenda: | |
| Private inventories | 16 |
| Durable goods industries | 17 |
| Nondurable goods industries | 18 |
| Nonfarm industries | 19 |
| Wholesale trade | 20 |
| Merchant wholesale trade | 21 |
| Durable goods industries | 22 |
| Nondurable goods industries | 23 |
| Nonmerchant wholesale trade | 24 |
| Final sales of domestic business ² | 25 |
| Final sales of goods and structures of domestic business ² | 26 |
| Ratio of private inventories to final sales of domestic business | |
| Private inventories to final sales | 27 |
| Nonfarm inventories to final sales | 28 |
| Nonfarm inventories to final sales of goods and structures | 29 |

1. Inventories are as of the end of the quarter. The quarter-to-quarter change in inventories calculated from current-dollar inventories in this table is not the current-dollar change in the private inventories component of GDP. The former is the difference between two inventory stocks, each valued at its respective end-of-quarter prices. The latter is the change in physical volume of inventories valued at average prices of the quarter. In addition, changes calculated from this table are at quarterly rates, whereas, the change in private inventories is stated at annual rates.

2. Quarterly totals at monthly rates. Final sales of domestic business equals final sales of domestic product less gross product of households and institutions and of general government, and it includes a small amount of final sales by farm and by government enterprises.

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

Table 5.13A—Real Private Inventories and Real Domestic Final Sales of Business by Industry Group

[Billions of chained (1996) dollars]

| | Line |
|--|------|
| Private inventories ¹ | 1 |
| Farm | 2 |
| Nonfarm | 3 |
| Durable goods | 4 |
| Nondurable goods | 5 |
| Manufacturing | 6 |
| Durable goods | 7 |
| Nondurable goods | 8 |
| Wholesale trade | 9 |
| Durable goods | 10 |
| Nondurable goods | 11 |
| Merchant wholesalers | 12 |
| Durable goods | 13 |
| Nondurable goods | 14 |
| Nonmerchant wholesalers | 15 |
| Durable goods | 16 |
| Nondurable goods | 17 |
| Retail trade | 18 |
| Durable goods | 19 |
| Motor vehicle dealers ² | 20 |
| Other ² | 21 |
| Nondurable goods | 22 |
| Other | 23 |
| Durable goods | 24 |
| Nondurable goods | 25 |
| Residual | 26 |
| Final sales of domestic business ³ | 27 |
| Final sales of goods and structures of domestic business ³ | 28 |
| Ratio of private inventories to final sales of domestic business | |
| Private inventories to final sales | 29 |
| Nonfarm inventories to final sales | 30 |
| Nonfarm inventories to final sales of goods and structures | 31 |

1. Inventories are as of the end of the quarter. The quarter-to-quarter changes calculated from this table are at quarterly rates, whereas, the change in private inventories is stated at annual rates.

2. Inventories of auto and home supply stores are included in "other durable goods."

3. Quarterly totals at monthly rates. Final sales of domestic business equals final sales of domestic product less gross product of households and institutions and of general government, and it includes a small amount of final sales by farm and by government enterprises.

NOTE.— Estimates in this table are based on the Standard Industrial Classification (SIC). Chained (1996) dollar inventory series are calculated to ensure that the chained (1996) dollar change in inventories for 1996 equals the current-dollar change in inventories for 1996 and that the average of the 1995 and 1996 end-of-year chain-weighted and fixed-weighted inventories are equal. Chained (1996) dollar final sales are calculated as the product of the chain-type quantity index and the 1996 current-dollar value of the corresponding series, divided by 100. Because the formula for the chain-type quantity indexes uses weights of more than one period, the corresponding chained-dollar estimates are usually not additive. The residual line is the difference between the first line and the sum of the most detailed lines for inventories.

Table 5.13B—Real Private Inventories and Real Domestic Final Sales by Industry

[Billions of chained (1996) dollars]

| | Line |
|--|------|
| Private inventories ¹ | 1 |
| Farm | 2 |
| Construction, mining, and utilities | 3 |
| Manufacturing | 4 |
| Durable goods industries | 5 |
| Nondurable goods industries | 6 |
| Wholesale trade | 7 |
| Durable goods industries | 8 |
| Nondurable goods industries | 9 |
| Retail trade | 10 |
| Motor vehicle dealers | 11 |
| Food and beverage stores | 12 |
| General merchandise stores | 13 |
| Other retail stores | 14 |
| Other industries | 15 |
| Residual | 16 |
| Addenda: | |
| Private inventories | 17 |
| Durable goods industries | 18 |
| Nondurable goods industries | 19 |
| Nonfarm industries | 20 |
| Wholesale trade | 21 |
| Merchant wholesale trade | 22 |
| Durable goods industries | 23 |
| Nondurable goods industries | 24 |
| Nonmerchant wholesale trade | 25 |
| Final sales of domestic business ² | 26 |
| Final sales of goods and structures of domestic business ² | 27 |
| Ratio of private inventories to final sales of domestic business | |
| Private inventories to final sales | 28 |
| Nonfarm inventories to final sales | 29 |
| Nonfarm inventories to final sales of goods and structures | 30 |

1. Inventories are as of the end of the quarter. The quarter-to-quarter changes calculated from this table are at quarterly rates, whereas, the change in private inventories is stated at annual rates.

2. Quarterly totals at monthly rates. Final sales of domestic business equals final sales of domestic product less gross product of households and institutions and of general government, and it includes a small amount of final sales by farm and by government enterprises.

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

Chained (1996) dollar inventory series are calculated to ensure that the chained (1996) dollar change in inventories for 1996 equals the current-dollar change in inventories for 1996 and that the average of the 1995 and 1996 end-of-year chain-weighted and fixed-weighted inventories are equal. Chained (1996) dollar final sales are calculated as the product of the chain-type quantity index and the 1996 current-dollar value of the corresponding series, divided by 100. Because the formula for the chain-type quantity indexes uses weights of more than one period, the corresponding chained-dollar estimates are usually not additive. The residual line is the difference between the first line and the sum of the most detailed lines for inventories.

Table 7.16A—Implicit Price Deflators for Private Inventories by Industry Group

[Index numbers, 1996=100]

| | Line |
|---|------|
| Private inventories ¹ | 1 |
| Farm | 2 |
| Nonfarm | 3 |
| Durable goods | 4 |
| Nondurable goods | 5 |
| Manufacturing | 6 |
| Durable goods | 7 |
| Nondurable goods | 8 |
| Wholesale | 9 |
| Durable goods | 10 |
| Nondurable goods | 11 |
| Merchant wholesalers | 12 |
| Durable goods | 13 |
| Nondurable goods | 14 |
| Nonmerchant wholesalers | 15 |
| Durable goods | 16 |
| Nondurable goods | 17 |
| Retail trade | 18 |
| Durable goods | 19 |
| Motor vehicle dealers | 20 |
| Other | 21 |
| Nondurable goods | 22 |
| Other | 23 |
| Durable goods | 24 |
| Nondurable goods | 25 |

1. Implicit price deflators are as of the end of quarter and are consistent with the inventory stocks shown in tables 5.12A and 5.13A.

NOTE.— Estimates in this table are based on the Standard Industrial Classification (SIC).

Table 7.16B—Implicit Price Deflators for Private Inventories by Industry

[Index numbers, 1996=100]

| | Line |
|---|------|
| Private inventories ¹ | 1 |
| Farm | 2 |
| Construction, mining, and utilities | 3 |
| Manufacturing | 4 |
| Durable goods industries | 5 |
| Nondurable goods industries | 6 |
| Wholesale trade | 7 |
| Durable goods industries | 8 |
| Nondurable goods industries | 9 |
| Retail trade | 10 |
| Motor vehicle dealers | 11 |
| Food and beverage stores | 12 |
| General merchandise stores | 13 |
| Other retail stores | 14 |
| Other industries | 15 |
| Addenda: | |
| Private inventories | 16 |
| Durable goods industries | 17 |
| Nondurable goods industries | 18 |
| Nonfarm industries | 19 |
| Wholesale trade | 20 |
| Merchant wholesale trade | 21 |
| Durable goods industries | 22 |
| Nondurable goods industries | 23 |
| Nonmerchant wholesale trade | 24 |

1. Implicit price deflators are as of the end of quarter and are consistent with the inventory stocks shown in tables 5.12B and 5.13B.

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