

A Look at How BEA Presents the NIPA's

THIS GUIDE IS designed to assist users in locating national income and product accounts (NIPA) estimates and to explain some of the conventions used in their presentation. The system of presentation has evolved over a number of years and has been shaped by many factors—for example, the frequency of the series (annual, quarterly, or monthly) and the extent of historical coverage. The system is best explained by beginning with a brief description of BEA's release schedule for the estimates.

Release schedule

Quarterly estimates of gross domestic product (GDP) are released on the following schedule: "Advance" estimates are released near the end of the first month after the end of a quarter; as more detailed and more comprehensive data become available, "preliminary" and "final" estimates are released near the end of the second and third months, respectively. Quarterly estimates of gross national product, national income, corporate profits, and net interest lag the GDP estimates by 1 month: The first estimates of these items are released with the preliminary GDP estimates, and the revised estimates are released with the final GDP estimates. (The fourth-quarter estimates of these items lag by an additional month.) Monthly estimates of personal income and outlays are released near the end of the month following the reference month; estimates for the most recent 2–4 months are revised at that time.

Ordinarily, annual revisions are carried out each July and cover the months and quarters of the most recent calendar year and the 2 preceding years. (For example, the July 1994 revision will cover 1991, 1992, and 1993.) These revisions are timed to incorporate newly available major annual source data. Comprehensive revisions are carried out at about 5-year intervals. Definitional or classificational changes made to improve the NIPA's as a tool of economic analysis are usually introduced at the time of comprehensive revisions, the most recent of which was released in December 1991.

Presentation of NIPA estimates

Organization of the NIPA tables.—The NIPA tables are grouped into nine categories:

1. National Product and Income
2. Personal Income and Outlays
3. Government Receipts and Expenditures
4. Foreign Transactions
5. Saving and Investment
6. Income, Employment, and Product by Industry
7. Quantity and Price Indexes
8. Supplementary Tables
9. Seasonally Unadjusted Estimates

In the "Supplementary Tables" category, the first table shows percentage changes in the major NIPA aggregates. Other tables cover the following: Selected per capita series; auto, truck, farm sector, and housing sector output; detail on several components of gross national income (consumption of fixed capital, capital consumption adjustment, business transfer payments, supplements to wages and salaries, rental income of persons, dividends, and interest); imputations; and reconciliations of several NIPA measures with the source data (for example, tax return tabulations) from which they are derived or to which they are closely related.

The table numbers have two parts. The first part indicates the category number, and the second part indicates the table number within that category. A letter suffix is used to represent major discontinuities in coverage—for example, the edition of the Standard Industrial Classification (SIC) underlying the estimates.

From time to time, changes in the coverage or in the quality of the statistics result in discontinuities in NIPA time series. For example, beginning with 1960, the estimates cover the 50 States and the District of Columbia; before 1960, Alaska and Hawaii were partly omitted. While it is not possible to identify all discontinuities, major discontinuities are highlighted. In addition to the use of letter suffixes to indicate major discontinuities in coverage, other types of discontinuities are referenced in the footnotes; see, for example, those for tables 2.2 through 2.7 and tables 4.1 through 4.4.

The full set of NIPA tables, which consists of 132 tables and about 5,100 line items, contains annual, quarterly, and monthly estimates. Annual estimates are based on source data that are typically not available on a quarterly or monthly basis. Many of the tables with only annual estimates show detailed breakdowns

Alternative Media

Within minutes of their official release, BEA makes the NIPA estimates available electronically through the Economic Bulletin Board maintained by the U.S. Department of Commerce's Office of Business Analysis (OBA). In addition, BEA provides annual and quarterly NIPA estimates to the National Trade Data Bank and the National Economic, Social, and Environmental Data Bank, which are published by OBA on CD-ROM. For information, call OBA at (202) 482-1986.

BEA also prepares recorded telephone messages summarizing key estimates immediately after their release: For gross domestic product, call (202) 606-5306; for personal income and outlays, call (202) 606-5303.

NIPA estimates are available on computer tape and on diskettes. For a list of NIPA information products, write the National Income and Wealth Division, BE-54, Bureau of Economic Analysis, U.S. Department of Commerce, Washington, DC 20230, or call (202) 606-9700.

of components; for example, tables 5.6 and 5.7 show purchases of structures by type (in current and constant dollars, respectively).

An index is available to help users locate NIPA series and topics covered by the NIPA's. For each series or topic, the index identifies the NIPA table (or tables) containing the item. Commonly used terms that differ from the NIPA wording are cross-referenced to the appropriate NIPA item. This index appeared most recently in the August 1993 SURVEY.

Publication of the NIPA tables.—The "National Income and Product Accounts" section of the SURVEY is the primary vehicle for the publication of the NIPA's. Except for years in which comprehensive revisions are released, a full set of NIPA tables is published in the SURVEY at the time of the annual revision, usually in July. In other months, the SURVEY contains a set of "Selected NIPA Tables," which presents the quarterly estimates that are released each month (and the corresponding annual estimates). The selected set comprises 53 tables from the first eight NIPA categories. (Seasonally unadjusted estimates are compiled only once a year and thus are not included in the selected set of tables.) For users' convenience in tracking specific estimates, the numbering system established for the full set of tables is retained in the selected set; as a result, gaps in table numbering occur in the presentation of the selected tables. A note preceding the NIPA tables indicates whether the estimates are advance, preliminary, or final.

The SURVEY presents estimates only for the most recent 2–4 years. A separate volume or set of volumes containing historical estimates is published after comprehensive revisions. The most

recently published set is *The National Income and Product Accounts of the United States: Volume 1, 1929–58, and Volume 2, 1959–88*. (These two volumes are available from the U.S. Government Printing Office; see inside back cover of this issue for order information.) This set of historical volumes contains the most up-to-date estimates for the years 1929–87. For 1988, the second historical volume contains the most up-to-date estimates for all tables except tables 7.1, 7.2, and 8.1; for these tables, the latest estimates for 1988 are in the September 1993 SURVEY. For 1989, the latest estimates for most series are in the July 1992 SURVEY; the estimates for tables 3.15–3.20 and 9.1–9.6 are in the September 1992 SURVEY, and those for tables 7.1, 7.2, and 8.1 are in the September 1993 SURVEY. For 1990–92, the latest estimates for most series are in the August 1993 SURVEY; the estimates for tables 1.15, 1.16, 3.15–3.20, 7.1, 7.2, 7.15, 8.1, and 9.1–9.6 are in the September 1993 SURVEY. (The complete official time series are also available on alternative media; see box on preceding page.)

Some detailed tables in the historical volumes cover shorter time spans than the volume title indicates. In addition, tables with an "A" or a "B" suffix (for example, 6.4A) appear only in the historical volumes. A letter suffix, as explained earlier, is used to represent major discontinuities in coverage.

Historical summary NIPA series are presented each year in the SURVEY, most recently in the September 1993 issue. In this summary presentation, most of the components found in tables 1.1 and 1.2 and several other major components are shown back to 1929 annually, to 1946 quarterly on a current-dollar basis, and to 1947 quarterly on a constant-dollar basis. In addition,

Additional Information About the NIPA's

NIPA methodology papers

No. 1: *An Introduction to National Economic Accounting*. (1985). 19 pp. \$12.50 (NTIS Accession No. PB 85-247567).

No. 2: *Corporate Profits: Profits Before Tax, Profits Tax Liability, and Dividends*. (1985). 67 pp. \$19.50 (NTIS Accession No. PB 85-245397).

No. 3: *Foreign Transactions*. (1987). 52 pp. \$19.50 (NTIS Accession No. PB 88-100649).

No. 4: *GNP: An Overview of Source Data and Estimating Methods*. (1987). 36 pp. \$17.50 (NTIS Accession No. PB 88-134838). The source data and estimating methods are updated in the August 1993 SURVEY OF CURRENT BUSINESS (see below).

No. 5: *Government Transactions*. (1988). 120 pp. \$27.00 (NTIS Accession No. PB 90-118480).

No. 6: *Personal Consumption Expenditures*. (1990). 92 pp. \$19.50 (NTIS Accession No. PB 90-254244).

NIPA Methodology Papers 1 through 6 (photocopies) are available from the National Technical Information Service (NTIS); to order, write to U.S. Department of Commerce, National Technical Information Service, 5285 Port Royal Road, Springfield, VA 22161 or call (703) 487-4650.

Reliability of the NIPA's

- *The Use of National Income and Product Accounts for Public Policy: Our Successes and Failures* (BEA Staff Paper No. 43). (1985). 32 pp. \$17.50 (NTIS Accession No. PB 86-191541).

- "Evaluation of the GDP Estimates," October 1993 SURVEY OF CURRENT BUSINESS.

Recent revisions of the NIPA's

The following is a list of articles in the SURVEY OF CURRENT BUSINESS that cover the 1991 comprehensive revision and the 1992 and 1993 annual revisions.

- "Gross Domestic Product as a Measure of U.S. Production," August 1991.
- "A Preview of the Comprehensive Revision of the National Income and Product Accounts: Definitional and Classificational Changes," September 1991.
- "A Preview of the Comprehensive Revision of the National Income and Product Accounts: New and Redesigned Tables," October 1991.
- "The Comprehensive Revision of the U.S. National Income and Product Accounts: A Review of Revisions and Major Statistical Changes," December 1991.
- "Alternative Measures of Change in Real Output and Prices," April 1992.
- "Annual Revision of the U.S. National Income and Product Accounts," July 1992 and August 1993.

the fixed-weighted price indexes for several major components and the implicit price deflator are shown back to 1959 annually and quarterly (some price indexes start in 1982), and most of the major components of national income and personal income found in tables 1.14 and 2.1 are shown back to 1929 annually and to 1946 quarterly.

Additional presentations of NIPA estimates.—Certain NIPA estimates also appear in other parts of the SURVEY. These presentations show estimates or analyses that do not fit neatly into the system or publication schedule for the standard presentation.

“Gross Product by Industry” shows current- and constant-dollar estimates of gross product, or gross product originating (GPO), by industry. GPO by industry is the contribution of each industry—including government—to GDP. The most recent SURVEY article is in the November 1993 issue; it presents estimates for 1989–91 and newly revised current-dollar estimates for 1947–76. The article updates and extends the GPO estimates for 1977–90 that were published in the May and July 1993 issues of the SURVEY.

“Reconciliation and Other Special Tables” regularly shows tables that reconcile NIPA estimates with related series and that present analytically useful extensions of NIPA estimates. At present, tables in this section show the reconciliation of relevant NIPA series with those in the balance of payments accounts and the reconciliation of BEA compensation with Bureau of Labor Statistics earnings.

“Constant-Dollar Inventories, Sales, and Inventory-Sales Ratios for Manufacturing and Trade” (scheduled in March, June, September, and December) shows quarterly and monthly estimates for the series indicated. Also shown are quarterly fixed-weighted inventory-sales ratios (using sales as weights) and quarterly and monthly inventories for manufacturing by stage of fabrication. The current-dollar sales figures are from the Census Bureau and are deflated by BEA; the inventory estimates are from the NIPA’s. Historical series, quarterly beginning with 1977 and monthly beginning with July 1991, are in the January 1993 SURVEY.

“Fixed Reproducible Tangible Wealth in the United States” (usually in August) shows annual estimates of stocks for fixed private capital, government-owned fixed capital, and durable goods owned by consumers. Historical estimates and related investment series are available in *Fixed Reproducible Tangible Wealth in the United States, 1925–89* (see inside back cover). A summary of wealth estimates in current and constant dollars for 1925–92 is in the September 1993 SURVEY.

“Business Cycle Indicators” (the “yellow,” or “C,” pages) shows monthly or quarterly estimates and historical charts for a number of NIPA series.

“Relationship Between Personal Income and Adjusted Gross Income” shows a detailed reconciliation between the BEA meas-

ure of personal income and the IRS measure of adjusted gross income. This article and its tables expand on table 8.24 that is regularly presented as part of the annual NIPA revision. The most recent article, covering 1990 and 1991, is in the November 1993 SURVEY.

Statistical conventions used for NIPA estimates


Most of the estimates are presented in billions of dollars. The major exceptions are certain current-dollar annual estimates, which are presented in millions of dollars, and estimates presented as index numbers. Current-dollar estimates are valued in the prices of the period in which the transaction takes place. Constant-dollar estimates are valued in the prices of a period designated the base period (at present, 1987), thus removing price change from any period-to-period movement in the series. The designation of 1987 as the base period also means that levels in 1987 are set equal to 100 in calculating quantity and price indexes and implicit price deflators.¹

For quarters and months, the estimates (except indexes) are presented at annual rates. Annual rates show values for a quarter or a month at their annual equivalent (that is, the value that would be registered if the rate of activity measured for a month or a quarter were maintained for a full year). Annual rates make it easier to compare values for time periods of different lengths—for example, quarters and years.

The percent changes shown in table 8.1 are also expressed at annual rates and are calculated from the published quarterly estimates, which are rounded to the nearest one-tenth of a billion dollars. The annual rates for quarterly percent changes are calculated with a variant of the compound interest rate formula:

$$r = \left[\left(\frac{Q_t}{Q_{t-1}} \right)^4 - 1 \right] \times 100,$$

where r = the percent change at an annual rate and Q_t and Q_{t-1} = the quarterly estimates for a quarter and the preceding quarter, respectively.

Quarterly and monthly NIPA estimates are seasonally adjusted, if necessary. Seasonal adjustment removes from the time series the average impact of variations that normally occur at about the same time and in about the same magnitude each year—for example, weather, holidays, and tax payment dates. In most cases, BEA uses source data that are seasonally adjusted by the source agency; in others, the statistical procedures used by BEA—for example, the X-11 variant of the Census Method II seasonal adjustment program—are based on historical experience. After seasonal adjustment, cyclical and other short-term changes in the economy stand out more clearly. 

1. BEA also prepares two alternative measures of real output and prices. These alternatives use the Fisher Ideal index formula to provide a measure of change between two periods. In one alternative, the weights change each year; in the other, the weights change each benchmark year—that is, at about 5-year intervals.