Preview of Revised NIPA Estimates for 1997

Effects of Incorporating the 1997 Benchmark I-O Accounts
Proposed Definitional and Statistical Changes

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THIS article presents preliminary revised estimates of the major aggregates and components of gross domestic product (GDP) within the national income and product accounts (NIPA's) for 1997. These estimates reflect the newly available benchmark input-output (I-O) accounts for 1997, which were published in the December 2002 SURVEY OF CURRENT BUSINESS.[1] This article also identifies some of the proposals that are being considered for the upcoming comprehensive revision of the NIPA's, which BEA plans to release in late 2003 (see the box "NIPA Revision Cycle").

The benchmark I-O accounts are the single most important statistical source for the comprehensive revisions of the NIPA's. The I-O accounts are used to establish the NIPA level of GDP for the benchmark year, and they provide critical information for estimating GDP for periods after the benchmark year.

For the NIPA estimates for the benchmark year, the I-O accounts provide the information that is used to

separate the portion of gross, or total, sales that represents GDP. This information consists of estimates of the shares of each industry's and each commodity's total sales, or gross output, that are final sales and the shares that are intermediate purchases from other industries. As a result, the estimate of GDP avoids double counting (of, for example, the semiconductors that go into computers or the flour that goes into bread) and represents the unduplicated total of output sold to final users.

For the annual and quarterly estimates of the NIPA's, the estimation of final sales and GDP from source data that largely measure total sales (such as manufacturing shipments and wholesale and retail sales) is based on the benchmark-year information. In addition, I-O accounts information on the distribution of final sales is used in the allocation of the annual and quarterly estimates across the components of final demand.

The preliminary revised estimates for 1997 provide the building blocks for the major GDP components. These estimates will be incorporated into the NIPA es-

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1. Ann M. Lawson, Kurt S. Bersani, Mahnaz Fahim-Nader, and Jiemin Guo, "Benchmark Input-Output Accounts of the United States, 1997," SURVEY 82 (December 2002): 19–109.

NIPA Revision Cycle

The comprehensive revision of the NIPA's marks the culmination of an estimating cycle that typically takes 5 years. The cycle begins with three "current" estimates for each quarter, continues with annual revisions of the estimates for the 3 most recent years, and concludes with the comprehensive revision. This cycle reflects the time-dependent nature of the quantity and quality of the source data on which the NIPA's rely.

The release schedule for GDP and related estimates is planned to allow for the incorporation of revised or newly available source data. For GDP and most other NIPA series, "advance" quarterly estimates (based on incomplete monthly data) are released near the end of the first month after the end of the quarter. These estimates are revised in the next 2 months to incorporate revised and newly available monthly and quarterly data. Similarly, annual estimates of GDP that are first available

as the sum of the quarterly estimates for the preceding year are usually revised in the annual revision in July and in the next two annual revisions. These annual revisions are timed to incorporate newly available annual source data and quarterly data that are released too late to be used in the "current" quarterly estimates. The monthly, quarterly, and annual data are usually based on sample surveys.

Comprehensive NIPA revisions are carried out at about 5-year intervals and are timed to incorporate the benchmark I-O accounts, which provide the levels of the components of GDP for the benchmark year. The I-O accounts incorporate the most comprehensive and complete source data available—primarily data from the quinquennial economic census, the census of governments, and the decennial censuses of population and housing.

timates of GDP in the upcoming comprehensive revision, but they do not reflect the definitional changes and other statistical improvements that will also be incorporated. Highlights of this preliminary revision include the following:

- The revised estimate of GDP for 1997 is $27.2 billion, or 0.3 percent, higher than the presently published estimate.
- The implementation of the 1997 North American Industry Classification System by major source data providers affects the components of both personal consumption expenditures (PCE) and private fixed investment in equipment and software.

Comprehensive revisions of the NIPA's incorporate the best and final source data for all of the components in the accounts, thereby making the series consistent for all time periods. Comprehensive revisions also provide the opportunity to introduce major changes that are outlined in BEA's strategic plan for maintaining and improving its economic accounts.[2] The plan emphasizes BEA's efforts to provide new and improved measures of output, services, investment, prices, saving, fixed assets, and industry classification; to improve the consistency and integration of the economic accounts; and to increase the consistency of the accounts with international guidelines.[3]

Comprehensive revisions incorporate both definitional and statistical changes. Definitional changes are changes to the composition or classification of the components in the accounts. They are primarily made to adapt the NIPA's to a changing economy; an example is the recognition of computer software as investment in the 1999 comprehensive revision.[4] Statistical changes are changes in estimating procedures that are generally made to incorporate new measures or techniques or to incorporate data from new sources; an example is the adoption of chain indexes in 1996, which made the growth rates of real GDP and its components invariant to the choice of base period.

This article is the first in a series of articles about the upcoming comprehensive revision of the NIPA's. Forthcoming articles will provide more detailed information on definitional and statistical changes and will describe the new and redesigned tables.

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2. See J. Steven Landefeld, "BEA's Strategic Plan for 2001–2005," SURVEY 82 (May 2002): 8–32, or <www.bea.gov/bea/about/finalstratplan.pdf>.

3. For detailed information on the international guidelines for national accounts, see Commission of the European Communities, International Monetary Fund, Organization for Economic Co-operation and Development, United Nations, and the World Bank, *System of National Accounts 1993* (Brussels/Luxembourg, New York, Paris, and Washington, DC, 1993).

4. In the 1999 comprehensive revision, definitional changes more than accounted for the $74.5 billion upward revision to GDP for the benchmark year 1992.

Preliminary Revised NIPA Estimates for 1997

The incorporation of the 1997 benchmark I-O accounts significantly affects the estimates on the product side of the NIPA's; the income side is less affected. The revised estimate of GDP for 1997 is $27.2 billion, or 0.3 percent, higher than the presently published estimate (table 1). A large upward revision to PCE was partly offset by downward revisions to gross private domestic investment, government spending, and net exports.

PCE for services was revised up $42.0 billion, reflecting upward revisions to housing, medical care, personal care, recreation, and transportation that were partly offset by a downward revision to religious and welfare activities. PCE for goods was revised up slightly, as a substantial upward revision to durable goods was almost entirely offset by a substantial downward revision to nondurable goods. Most of the up-

Table 1. Gross Domestic Product and Components, 1997

[Billions of dollars]

	Published	Preliminary revised	Revision
Gross domestic product	**8,318.4**	**8,345.6**	**27.2**
Personal consumption expenditures	**5,529.3**	**5,571.6**	**42.3**
Durable goods	642.5	670.1	27.6
Motor vehicles and parts	264.2	284.6	20.4
Furniture and household equipment	248.9	254.8	5.9
Other durable goods	129.4	130.7	1.3
Nondurable goods	1,641.6	1,614.3	–27.3
Food	812.2	794.6	–17.6
Clothing and shoes	271.7	255.4	–16.3
Gasoline, fuel oil, and other energy goods	143.2	148.9	5.7
Other	414.5	415.3	0.8
Services	3,245.2	3,287.2	42.0
Housing	810.5	829.3	18.8
Household operation	333.0	335.8	2.8
Transportation	234.4	242.7	8.3
Medical care	854.6	866.4	11.8
Recreation	206.2	215.1	8.9
Personal care	60.6	69.6	9.0
Personal business	489.0	488.4	–0.6
Education and research	130.5	131.8	1.3
Religious and welfare activities	149.5	132.3	–17.2
Net foreign travel	–23.1	–24.2	–1.1
Gross private domestic investment	**1,390.5**	**1,382.1**	**–8.4**
Fixed investment	1,327.7	1,319.9	–7.8
Nonresidential	999.4	982.0	–17.4
Structures	255.8	252.6	–3.2
Nonresidential buildings, including farm	182.6	186.9	4.3
Utilities	36.1	35.9	–0.2
Mining exploration, shafts, and wells	30.1	22.4	–7.7
Other structures	7.0	7.5	0.5
Equipment and software	743.6	729.4	–14.2
Information processing equipment and software	325.2	321.6	–3.6
Computers and peripheral equipment	79.6	81.9	2.3
Software	116.5	98.0	–18.5
Other	129.2	141.7	12.5
Industrial equipment	141.0	140.8	–0.2
Transportation equipment	151.4	154.4	3.0
Other	126.0	112.6	–13.4
Residential	328.2	337.9	9.7
Structures	320.4	331.7	11.3
Equipment	7.9	6.2	–1.7
Change in private inventories	62.9	62.2	–0.7
Net exports of goods and services	**–89.3**	**–91.2**	**–1.8**
Exports	966.4	964.5	–1.9
Imports	1,055.8	1,055.7	–0.1
Government consumption expenditures and gross investment	**1,487.9**	**1,483.1**	**–4.8**
Federal	538.2	537.8	–0.4
National defense	352.6	352.6	0.0
Nondefense	185.6	185.2	–0.4
State and local	949.7	945.3	–4.4

ward revision to durable goods was accounted for by motor vehicles and parts. The downward revision to nondurable goods was more than accounted for by food and by clothing and shoes.

Gross private domestic investment was revised down $8.4 billion, mainly reflecting a downward revision to fixed investment. Nonresidential fixed investment was revised down substantially, as equipment and software and nonresidential structures were both revised down. The downward revision to equipment and software was more than accounted for by a downward revision to software. The downward revision to structures primarily reflected a downward revision to mining exploration, shafts, and wells that was partly offset by an upward revision to industrial buildings.

In contrast, residential investment was revised up, primarily reflecting an upward revision to structures. Within structures, single-family structures was revised up $10.5 billion.

Net exports of goods and services was revised down $1.8 billion, reflecting a downward revision to exports.[5]

Government spending was revised down $4.8 billion. State and local government spending accounted for most of this revision.

The income side of the I-O accounts has little aggregate impact on the NIPA's because the I-O accounts use the published NIPA estimates for total compensation and indirect business taxes (IBT) and because the I-O accounts do not provide any separate data on profits and other property-type income, which are included in the residual "other value added." The NIPA estimates of compensation and IBT will be revised in the upcoming comprehensive revision.

New information in the I-O accounts used to benchmark the NIPA's

In addition to the use of more comprehensive and more recent source data, the benchmark I-O accounts incorporate other definitional, statistical, and presentational improvements. The new information that is contained in the I-O accounts will be incorporated into the NIPA's as part of the comprehensive revision.

The recently released 1997 benchmark I-O estimates incorporated detailed data that were not available for the last comprehensive revision of the NIPA's. These data included data on inventories, on receipts and expenses, on sales by detailed commodity and by merchandise line, and on final industry and product shipments from the 1997 Economic Census and data on trade margins from both the Economic Census and the 1997 annual surveys of merchant wholesale and retail trade.[6] In addition, the detailed commodity-flow method was used to prepare the I-O estimates of PCE and of private equipment and software.[7] This method enables the use of data from the economic censuses that are more detailed than the data available from annual surveys, the use of improved estimates of the sales of businesses in the mining, manufacturing, and wholesale trade industries that have no employees and are excluded from the economic censuses, and the use of improved adjustments for the underreporting of sales on tax returns used for the economic censuses.[8] The 1997 I-O estimates of foreign transactions also reflected the results of the 2001 and 2002 annual revisions of the U.S. international transactions accounts (ITA's).[9]

Changes introduced in the 1997 I-O accounts

Two significant changes were introduced into the 1997 benchmark I-O accounts: The capitalization of computer software and the use of the 1997 North American Industry Classification System (NAICS).

Software. The capitalization of computer software was introduced into the 1997 I-O accounts in order to be consistent with the treatment used in the NIPA's, which was introduced as part of the 1999 comprehensive revision of the NIPA's in order to recognize this important and growing form of investment.[10] As a result of this change, three types of software—prepackaged software, custom software, and own-account software—are now treated as investment. In the previ-

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5. The treatment of certain foreign transactions on a NIPA basis differs from the treatment of these transactions in the I-O accounts. NIPA exports and imports include, and the I-O accounts exclude, the value of U.S. goods that are returned to the United States from other countries, foreign goods that are reexported from the United States to other counties, and certain transactions between foreigners that involve U.S. intermediaries. These adjustments do not cause differences between the NIPA and I-O estimates of net exports. For more information, see appendix E in Lawson et al., "Benchmark Input-Output Accounts," 51.

6. The 1999 comprehensive revision did incorporate preliminary sales for retail trade and product shipments for computers from the 1997 Economic Census.

7. The commodity-flow method first converts domestic sales, which is the value of sales of commodities produced by domestic firms at producers' prices, to domestic supply, which is the value of sales to domestic purchasers at producers' prices and, therefore, includes imports and excludes exports. Then, it allocates domestic supply among domestic purchasers— that is, persons, business, and government.

8. See Robert P. Parker, "Improved Adjustments for Misreporting of Tax Return Information Used to Estimate the National Income and Product Accounts, 1977, "Survey 64 (June 1984): 17–25.

9. For the upcoming comprehensive revision of the NIPA's, the estimates for 1997 (and earlier years) will also reflect the results of the 2003 annual revision of the ITA's.

10. See Robert P. Parker and Bruce T. Grimm, "Recognition of Business and Government Expenditures for Software as Investment: Methodology and Quantitative Impacts, 1959–98" (paper presented at the BEA Advisory Committee meeting, Washington, DC, May 5, 2000), <www.bea.gov/bea/papers/software.pdf>.

ous I-O accounts, only software that was bundled with, or embedded in, equipment by the producer of the equipment was included in investment.

In addition, the 1997 I-O accounts incorporated several improvements to the measurement of computer software. Software originals used for reproduction were capitalized, more detailed occupational data were used in estimating own-account software by industry, the total costs of producing own-account software were calculated more directly, estimates of intermediate consumption of software (embedded or bundled with other equipment) were improved, and the coverage of international trade in software was expanded.[11]

NAICS. The 1997 I-O accounts are based on the 1997 NAICS, which replaced the 1987 Standard Industrial Classification (SIC) system.[12] NAICS-based classifications are more in line with the principle underlying the I-O classifications: Industries are classified in the I-O accounts so that each industry has a unique production function. As a result of the incorporation of NAICS, the 1997 benchmark accounts provide a more detailed presentation of the increasingly important service industries.

Effects of incorporating the I-O changes

The 1997 I-O accounts introduced significant changes to the components of PCE and of private fixed investment.

NAICS. For the NIPA's, the conversion to a NAICS-based industry classification scheme directly affected only the industry-based estimates of change in private inventories.[13] The other major components of GDP final expenditures are presented by product, but the components of both PCE and private fixed investment in equipment and software were affected indirectly as a result of the implementation of NAICS by major source data providers: Detailed product types were aggregated into component groupings that more closely reflect the NAICS-industry structure. The use of NAICS was reflected in the estimates of PCE and private investment in the following ways: The changed grouping of NAICS industries affected the grouping of detailed commodities in NIPA components; as a result of the increased detail provided by NAICS, the placement of primary activities among subcomponents was

improved; and because of the differences between NAICS and the SIC, the methodologies used to estimate some NIPA components were changed.

The effects of the conversion to NAICS cannot be precisely distinguished from the effects of using more comprehensive and updated data sources.[14] However, the effects on specific NIPA components can be approximated. For PCE for religious and welfare activities, the revised NAICS-based estimate is $17.2 billion less than the presently published NIPA estimate, primarily because the increased industry detail provided by NAICS resulted in improved allocations to PCE commodity categories. Within religious and welfare activities, the downward revision was more than accounted for by a large downward revision to social welfare that was partly offset by an upward revision to foundations.

The downward revision to social welfare was attributable to three NAICS-related changes. First, the increased NAICS detail on both residential-care facilities and on intermediate-care facilities enabled the Census Bureau to separately collect and tabulate data on residential facilities for the developmentally disabled. As a result of this separation and of the similarity of the definition of this type of care to that of nursing homes, the receipts and expenses of these facilities were moved from social welfare to PCE for medical care. Similarly, data on voluntary health organizations and other grant-making organizations were separately collected and tabulated, and their receipts and expenses were moved from social welfare to foundations within religious and welfare. Finally, new detail for civic and social organizations and for "membership organizations, not elsewhere classified" showed that a portion of each of these subcomponents belonged more appropriately in PCE for recreation.

Other I-O changes. The introduction of the I-O accounts resulted in changes to several components within investment in equipment and software that were not related to the conversion to NAICS. For example, the component "tractors" was dropped, and the products in this component were reclassified into several other components, including "construction machinery," "agricultural machinery," and "other nonresidential equipment." In addition, the component

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11. See Lawson et al., "Benchmark Input-Output Accounts," 26–28.

12. See John R. Kort, "The North American Industry Classification System in BEA's Economic Accounts," SURVEY 81 (May 2001): 7–13; "Upcoming Changes in the NAICS-Based 1997 Benchmark Input-Output Accounts," SURVEY 81 (December 2001): 71–73; and Ann M. Lawson and Karen J. Horowitz, "A Preview of the 1997 Benchmark Input-Output Accounts: New and Detailed Summary Industries," SURVEY 82 (August 2002): 143–148.

13. See "An Upcoming Change in the NIPA Presentation of Private Inventories by Industry," SURVEY 81 (June 2001): 22–24.

14. The construction of comparable SIC-based and NAICS-based I-O accounts is precluded for several reasons. Although the Census Bureau tabulated data for shipments and receipts on both an SIC basis and a NAICS basis for 1997, the preparation of the I-O accounts required additional data, such as expenses, that were tabulated by the Census Bureau only on a NAICS basis, and the empirical relationships between NAICS-defined industries and SIC-defined industries provided by the shipments and receipts data cannot generally be used for these additional data. Further, the relationships were not provided when confidential information about an individual company within an industry would be disclosed.

"instruments" was separated into "medical equipment and instruments" and "nonmedical instruments" (the sum of these two new components will not equal the original component "instruments," because of product reclassifications; for example, "electromedical and electrotherapeutic apparatus" was reclassified from the category "electrical not elsewhere classified" to "medical equipment and instruments").

In addition, the NIPA estimates were affected by the incorporation of I-O estimates that were based on more comprehensive, revised, and newly available source data and that used improved estimating methods. For example, PCE for "other" motor vehicles was revised up $21.7 billion, primarily reflecting both an improved estimation method and newly available data for used trucks. PCE for "other" housing was revised up $15.2 billion, primarily as a result of an improved allocation of the consumption of hotel and motel services between persons and businesses. Investment in residential structures was revised up $11.3 billion, reflecting revised data on value of construction put in place of single-family homes from the Census Bureau.

Proposed Changes to the NIPA's

In the upcoming comprehensive revision of the NIPA's, BEA is considering implementing several definitional changes and other statistical changes.[15] Among these changes are the following:

- Change the definition and methodology for the measurement of insurance services in order to recognize the unpriced services that are funded by investment income and to avoid the large swings in measured services that result from disasters such as the terrorist attacks of September 11, 2001.
- Convert the estimates of income and employment by industry to a NAICS basis in order to better measure the changing composition of activity in the dynamic economy.
- Introduce several newly available price indexes for deflation in order to improve the measures of real services in GDP and to improve the adjustments for quality change.
- Introduce a new presentation that shows incomes and outlays for households and for nonprofit institutions serving households in order to provide information about the differences in their saving, expenditures, and other economic behavior.
- Reclassify owner-occupied housing (both farm and nonfarm) and the rental value of fixed assets owned and used by nonprofit institutions serving

households from the business sector to the households-and-institutions sector so that the business-sector data will focus solely on the companies that produce and sell goods and services in economic markets.
- Allocate part of "consumption of imputed services furnished without payment by financial intermediaries" to borrowers in order to avoid overstating the unpriced services provided to depositors in final demand and GDP and to provide a better understanding of the impact of financial services on industry inputs and output.
- Change the presentation of government consumption expenditures and gross investment in order to emphasize government's role as a producer of services and to make the presentation parallel to that of the output and intermediate inputs of private business in the I-O accounts and the GDP-by-industry accounts.
- Change the presentation of the NIPA tables so they conform more closely with the international guidelines for national accounts in the *System of National Accounts 1993 (SNA)* and thus facilitate comparisons of NIPA data for the United States with data for other countries.

Insurance services. Insurance companies provide financial protection to policyholders through pooled risk, and they provide financial intermediation services through the investment of reserves that are held to cover extraordinary losses. In most periods, the premiums received and the investment income earned provide the funds needed for an expected, or "normal," level of insurance claims and insurance services and an amount that is added to reserves. However, in some periods, funds must be withdrawn from reserves to cover extraordinary losses. Therefore, after accounting for investment income, insurance companies set premiums so that they can cover the expected costs of providing the services, of settling claims, and of maintaining reserves against future claims.

In the NIPA's, the value of insurance services (except for life insurance) is currently measured as the difference between the premiums received and the insured losses incurred during a period. To supplement the value of premiums received, BEA plans to add the value of the expected investment income on the funds on which policyholders have claim. This expected investment income is not output in and of itself, but it will be used to impute the value of the unpriced component of the intermediation services provided to policyholders; this change recognizes that in setting their premiums, insurance companies take into account the expected income that may be earned from the invest-

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15. See Brent R. Moulton, "Note on the Upcoming Comprehensive Revision of the National Income and Product Accounts," SURVEY 82 (November 2002): 6–7.

ment of reserves. Additionally, in calculating the value of insurance reserves, expected losses, rather than the actual losses incurred in a period, will be deducted; this change recognizes that in setting their premiums, insurance companies do not yet know the actual losses in the period. This change will eliminate the large swings in measured insurance services that resulted from disasters such as Hurricane Andrew in 1992 and the terrorist attacks of September 11, 2001. Finally, improvements will be made to real measures of the value of insurance services.[16]

Income and employment by industry. The NIPA estimates of income and employment by industry will be converted from an SIC basis to a NAICS basis. The annual estimates will be presented on a NAICS basis beginning with 1998, and the quarterly estimates will be presented on a NAICS basis beginning with 2000. The estimates will be presented on an SIC basis through 2000. BEA is also investigating the feasibility of providing NAICS-based estimates for selected industries before 1998.

Newly available price indexes. The producer price index (PPI) program of the Bureau of Labor Statistics (BLS) has been expanding its coverage of services, and BEA is incorporating these indexes as deflators in the NIPA's when appropriate. Among the new indexes that BEA plans to incorporate are the PPI's for property and casualty insurance and for investment advice. In addition, BEA is researching the development of new quality-adjusted price indexes for software, for photocopy equipment, and for nonresidential structures. BEA is evaluating the use of quality-adjusted price indexes for communications equipment that were developed by the Federal Reserve Board.

Households and nonprofit institutions serving households. BEA's sector for households and institutions, the basis of the measures of personal income and PCE, includes both households and nonprofit institutions serving households. Because the economic organization and the economic behavior of households differ from those of these nonprofit institutions, BEA's data users have long been interested in obtaining separate estimates for these two types of institutional units. For the comprehensive revision, BEA is developing a table that will distinguish estimates of the income and outlays of households and of these nonprofit institutions within the personal income and outlay account; thus, this table will provide information that will allow analysis of differences in the trends and cyclical move-

ments of saving, expenditures, and other economic behavior of households and nonprofit institutions. In addition, a new table will reconcile the new estimates for these nonprofit institutions with similar estimates in the Internal Revenue Service's *SOI Bulletin.*

Owner-occupied housing and the rental value of fixed assets. Currently, the implicit services of owner-occupied housing are classified in the business sector. BEA will reclassify these services, so that the implicit services of all types of owner-occupied housing (both farm and nonfarm) will be included in the GDP of the subsector "private households" in the sector "households and institutions." Additionally, the rental value of fixed assets owned and used by nonprofit institutions serving households, which are currently classified in the business sector as part of the real estate industry, will be reclassified to the GDP of the subsector "nonprofit institutions" in the sector "households and institutions." As a result of this reclassification, the presentation of GDP for nonprofit institutions will parallel that for general government. As a result of both reclassifications, the definition of the business sector in the NIPA's will be consistent with that in the BLS productivity estimates. These reclassifications will not change the aggregate value of these services or of GDP.

Imputed banking services. Banks and other depository institutions channel funds from depositors to borrowers, and in conducting these intermediation activities, they provide services—such as processing checks, electronic funds transfers, bookkeeping, protecting deposited funds, and investment services. There may be explicit charges for these services, or the charges may be implicit; for example, banks may pay depositors lower interest rates rather than charging for each service provided.

BEA has long imputed the value of these implicit services as the monetary interest that banks receive from lending deposited funds less the monetary interest that they pay on deposits, and it has treated this measure as consumption by the depositors. In contrast, the *SNA* recommends that the value of these implicit services should be allocated partly to depositors and partly to borrowers, recognizing that both depositors and borrowers may receive these unpriced services from banks and other depository institutions. For the comprehensive revision, BEA is considering an allocation that is based on the difference between the rate of interest earned (paid) by depositors (lenders) and a reference rate of interest that represents the opportunity cost of borrowing or lending funds in the absence of any implicit services. Because households tend to hold a larger share of deposits and because business firms tend to receive a larger share of loans, the current

16. See Dennis J. Fixler, "Rethinking the NIPA Treatment of Insurance Service for the Comprehensive Revision" (paper presented at the BEA Advisory Committee meeting, Washington, DC, November 15, 2002), <www.bea.gov/bea/about/advisory.htm>; and Obie G. Whichard and Maria Borga, "Selected Issues in the Measurement of U.S. International Services," SURVEY 82 (June 2002): 36–56.

treatment that allocates all of the unpriced services to depositors tends to overstate the unpriced services in final demand (by households) and to understate the unpriced services in intermediate consumption (by business).

General government. Governments serve several functions in the economy—as producers of nonmarket services, as final consumers of these services (services that are provided to the general public are treated as government consumption expenditures), and as providers of transfer payments; these functions may be financed through taxation and through contributions to social insurance funds. The NIPA's currently present the consumption of general government as its expenditures for compensation of employees (except the labor services of employees engaged in construction or software production that is classified as investment), for consumption of fixed capital, and for goods and services (net of sales). The value of general government GDP (or value added) equals the sum of its expenditures for the compensation of employees and the consumption of fixed capital, which is a partial measure of the services of government fixed assets (general government purchases of goods and services are included in the GDP of the business sector).[17] This presentation does not explicitly recognize that governments are engaged in producing services—using labor, capital, and intermediate inputs.

BEA is designing a new presentation of government consumption expenditures that will explicitly recognize the services produced by general government and will treat government purchases of goods and services

as intermediate inputs, just as it treats intermediate purchases by business. This change will make the presentation of the services produced by government and of the goods and services purchased by government parallel to the presentation of the output and intermediate inputs of private business in the I-O accounts and the GDP-by-industry accounts.

As a result of these changes, the distribution of GDP by type of product will be affected, but because the gross output of general government will increase by the amount of the intermediate inputs, the value of general government GDP (which equals gross output less intermediate inputs) will not change. Thus, general government GDP will continue to be measured as the sum of compensation and consumption of fixed capital.

Conformity with the *SNA*. BEA's strategic plans for 1995 and 2002 emphasized the goal of consistency in its accounts with the international guidelines published in the *SNA*. BEA is a world leader in implementing key parts of the SNA, including the use of chain-type indexes in estimating real GDP, the recognition of computer software as investment, and the measurement of implicit financial services.

In the upcoming comprehensive revision, BEA plans additional changes to the presentation of the NIPA's in order to better conform to the *SNA* guidelines. For example, some flows, such as interest and dividends, may be presented as gross flows rather than as netting receipts against payments. Additionally, the income side of the national income and product account may emphasize presentation on a "domestic" basis (that is, the incomes generated by domestic sectors) rather than on a "national" basis (that is, summing to gross national product or gross national income). Some new aggregates, such as "operating surplus" (a measure of business income that is independent of interest and other financing costs), may be introduced.

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17. In contrast, the value of business GDP equals the sum of business income from production in the form of compensation of employees, indirect business tax and nontax liability, and property-type income (that is, corporate profits, proprietors' income, inventory valuation adjustments, rental income of persons, net interest, private capital consumption allowances, business transfer payments, and the current surplus of government enterprises less subsidies).