# Measuring the Economy

## A Primer on GDP and the National Income and Product Accounts

**Concepts**

**Framework**

**Measures**

**Interactive Access**

**BEA**
**BUREAU OF ECONOMIC ANALYSIS**
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# Acknowledgments

# Preface

This paper introduces new users to the basics of the U.S. national income and product accounts (NIPAs). It discusses the economic concepts that underlie the NIPAs, and it describes the seven NIPA summary accounts. The Primer also provides a brief overview of the derivation of the NIPA measures and a list of references for further information.

Comments and questions about the NIPA Primer are invited. Please contact BEA's National Income and Wealth Division, 1441 L St., NW, BE–54, Washington, DC 20230 or by e-mail at **GDPniwd@bea.gov**.

# Contents

# Measuring the Economy

## A Primer on GDP and the National Income and Product Accounts

How fast is the economy growing? Is it speeding up or slowing down? How does the trade deficit affect economic growth? What's happening to the pattern of spending on goods and services in the economy?

To answer these types of questions about the economy, economists and policymakers turn to the national income and product accounts (NIPAs) produced by the Bureau of Economic Analysis (BEA). The NIPAs are a set of economic accounts that provide information on the value and composition of output produced in the United States during a given period and on the types and uses of the income generated by that production. Featured in the NIPAs is gross domestic product (GDP), which measures the value of the goods and services produced by the U.S. economy in a given time period.

GDP is one of the most comprehensive and closely watched economic statistics: It is used by the White House and Congress to prepare the Federal budget, by the Federal Reserve to formulate monetary policy, by Wall Street as an indicator of economic activity, and by the business community to prepare forecasts of economic performance that provide the basis for production, investment, and employment planning.

But to fully understand an economy's performance, one must ask not only "What is GDP?" (or "What is the value of the economy's output?"), but other questions such as: "How much of the increase in GDP is the result of inflation and how much is an increase in real output?" "Who is producing the output of the economy?" "What output are they producing?" "What income is generated as a result of that production?" and "How is that income used (to consume more output, to invest, or to save for future consumption or investment)?"

Thus, while GDP is the featured measure of the economy's output, it is only one summary measure. The answers to the follow-up questions are found by looking at other measures found in the NIPAs; these include personal income, corporate profits, and government spending. Because the economy is so complex, the NIPAs simplify the information by organizing it in a way that illustrates the processes taking place.

This paper is intended as an introduction to the NIPAs for the new user. It begins by considering the transactions that occur in a simple economy in order to introduce the economic concepts that underlie the NIPAs. Next, it describes the NIPA sectors for which economic activity is measured and the use of T-accounts to illustrate economic flows. The third section introduces the seven summary accounts of the NIPAs and includes descriptions of the significant aggregates that they contain. The fourth section provides an overview of the derivation of the NIPA measures, including inflation-adjusted, or "real," estimates. The last section provides references, organized by subject area, for users interested in moving beyond an introduction to more in-depth or advanced information about economic accounting and the NIPAs.

# Conceptual Basis of the Accounts

**The circular flow of income and expenditure**

To better understand the economy and the NIPAs, consider a simple economy consisting solely of businesses and individuals, as reflected in the circular flow diagram below:

**The Circular Flow**



*Goods and Services*

*Expenditures*

**Individuals**          **Businesses**

*Income*
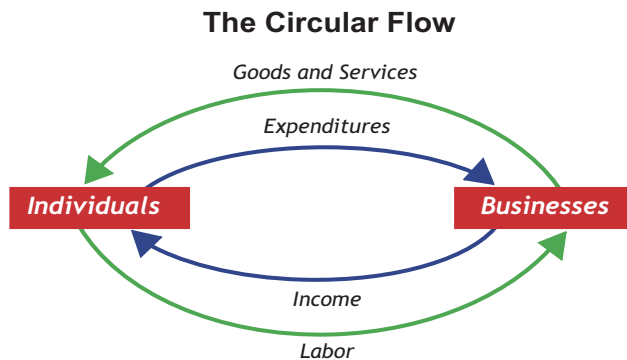
*Labor*

In this simple economy, individuals provide the labor that enables businesses to produce goods and services. These activities are represented by the green lines in the diagram above.

Alternatively, one can think of these transactions in terms of the monetary flows that occur. Businesses provide individuals with income (in the form of compensation) in exchange for their labor. That income is, in turn, spent on the goods and services businesses produce. These activities are represented by the blue lines in the diagram above.

**Economic concepts in the NIPAs**

The circular flow diagram illustrates the interdependence of the "flows," or activities, that occur in the economy, such as the production of goods and services (or the "output" of the economy) and the income generated from that production. The circular flow also illustrates the equality between the income earned from production and the value of goods and services produced.

Of course, the total economy is much more complicated than the illustration above. An economy involves interactions between not only individuals and businesses, but also Federal, state, and local governments and residents of the rest of the world. Also not shown in this simple illustration of the economy are other aspects of economic activity such as investment in capital (produced—or fixed—assets such as structures, equipment, research and development, and software), flows of finan-

cial capital (such as stocks, bonds, and bank deposits), and the contributions of these flows to the accumulation of fixed assets.

The NIPAs provide a framework for presenting actual measures of these economic flows.

**Output**

The featured measure of output in the NIPAs is GDP. GDP measures the value of final goods and services produced in the United States in a given period of time. While GDP is used as an indicator of economic activity, it is not a measure of well-being (for example, it does not account for rates of poverty, crime, or literacy).

The following are several points to keep in mind when considering the output of the economy.

*1. GDP includes market production and some nonmarket production.*

GDP is composed of goods and services that are produced for sale in the "market"—the generic term referring to the forum for economic transactions—and of nonmarket goods and services—those that are not sold in the market, such as the defense services provided by the federal government, the education services provided by local governments, the emergency housing or health care services provided by nonprofit institutions serving households (such as the Red Cross), and the housing services provided by and for persons who own and live in their home (referred to as "owner-occupants"). However, not all productive activity is included in GDP. Some activities, such as the care of one's own children, unpaid volunteer work for charities, and illegal activities, are not included because data are not available to accurately measure their value.

*2. Whenever possible, GDP is valued at market prices.*

The NIPAs value market goods and services using prices set by the market. This approach provides a common unit of measurement (dollars) that facilitates comparisons of the various goods and services that make up economic activity. Using market values also facilitates the analysis of the impacts on the economy of events such as the implementation of government programs or the occurrence of natural disasters.

In some cases, market prices do not fully reflect the value of a good or service, and may include some types of services where an actual exchange has not occurred. In

these cases, the value of the good or service produced is "imputed" from similar market transactions. Imputations measure the value of goods and services that are not fully reflected in market prices. Examples of imputed measures in the NIPAs include the value of compensation-in-kind (such as meals provided by employers) and the value of owner-occupied housing. For more information on owner-occupied housing, see the box on page 5, "An Imputation for the Services of Owner-Occupied Housing."

In cases where there are no similar market transactions available to impute a value of the good or service being produced, the output of these services is valued by estimating the costs (such as employee compensation and purchases of materials and supplies) of producing the good or service.

*3. GDP is a measure of current production, not sales.*

In the NIPAs, the measure of output refers to output produced in that period, regardless of when that output is sold. For example, an automaker may produce a car in one period and sell it in a later period. In the first period, the production of the car is recorded in GDP as an addition to inventories, a component of private enterprise investment. In the later period, the sale of the car is recorded twice, both as a consumer expenditure and as a withdrawal from inventories. As no new production took place, GDP is not affected.

*4. GDP is equal to the value of "final" goods and services.*

In the measurement of GDP, *final* products are those that are consumed and not used in a later stage of production, those that are sold, given away, or otherwise transferred to foreign residents, those that are used to produce other goods and that last more than a year, and those that may be inventoried for future consumption. When considering the production process for the entire economy, intermediate products—that is, goods and services that are used as inputs in the production process (and will not contribute to future production)—are excluded, so that the measure of output is an unduplicated total.

For example, consider a simple economy with one product, bread, which is produced in three stages:

1. Wheat is grown, harvested, and sold for $1 by a farmer (for simplification, it is assumed the wheat is produced using no intermediate products);
2. The wheat is used by a miller to produce flour, which is sold for $3; and
3. The flour is used by a baker to produce bread, which is sold to a consumer for $7.

This information is summarized in exhibit 1:

## Exhibit 1

|  | Intermediate product | Income | Sales = Total output |
|---|---|---|---|
| Farmer, wheat | $0 | $1 | $1 |
| Miller, flour | $1 | $2 | $3 |
| Baker, bread | $3 | $4 | $7 |
| Total | $4 | $7 | $11 |

When the miller purchases $1 worth of wheat from the farmer to produce flour and then sells the flour to the baker for $3, the $3 the miller charges for the flour includes the $1 price of the wheat (an intermediate product) plus the $2 value added by his own resources (in this example, his labor). When the baker makes the flour into bread and sells the bread to a consumer for $7, the $7 the baker charges includes the $3 value of the flour (an intermediate product) and the $4 value added by his own resources. The value of the final product—the bread—is the price paid by the consumer ($7); the bread is recognized as the final product because it is eaten by the consumer and not used in another production process. If the total sales of the wheat, the flour, and the bread were all included, the aggregate value ($1 + $3 + $7, or $11) would overstate the value of production by triple-counting the value of the wheat and double-counting the value of the flour.

*5. GDP can be measured in three different ways.*

The nature of economic activity reflected in the circular flow diagram suggests two ways to measure GDP. First, GDP can be measured as the sum of expenditures, or purchases, by final users. This is known as the *expenditures approach* (and is illustrated by the formula familiar to students of economics: GDP = Consumption + Investment + Government spending + eXports – iMports) and is used to identify the final goods and services purchased by persons, businesses, governments, and foreigners. Second, because the market price of a final good or service

will reflect all of the incomes earned and costs incurred in production, GDP can also be measured as the sum of these charges. This is known as the *income approach* and is used to examine the purchasing power of households and the financial status of business income.

In addition, GDP can also be measured either as total sales less the value of intermediate inputs or as the sum of the "value added" at each stage of the production process. The *value-added approach* to measuring GDP is central to the U.S. industry accounts and is used to analyze the industrial composition of U.S. output.

These three approaches can be illustrated using the information from exhibit 1.

|  | Intermediate product | Income | Sales = Total output |
|---|---|---|---|
| Farmer, wheat | $0 | $1 | $1 |
| Miller, flour | $1 | $2 | $3 |
| Baker, bread | $3 | $4 | $7 |
| Total | $4 | $7 | $11 |

Output (sum of final expenditures) = Total income earned from production

Value added = Total output – Total intermediate products

- As demonstrated in point 4 above, GDP can be derived as the sum of final expenditures for bread, which is the $7 spent by consumers.
- It can be derived as the sum of the incomes earned in the production of bread—that is, as the sum of the $1 earned by the farmer for his labor, the $2 earned by the miller for his labor, and the $4 earned by the baker for his labor.
- It can be derived as the value added, or total output less intermediate products, across all industries—that is, the $1 of output by the farmer, plus the $3 of output by the miller, plus the $7 of output by the baker minus the $0 of intermediate inputs by the farmer, minus the $1 of intermediate inputs by the miller, minus the $3 of intermediate inputs by the baker ($11 – $4 = $7).

*6. GDP captures output produced in the United States.*

GDP is a measure of the goods and services produced by labor and property located *within the United States* (in the NIPAs, the United States comprises the 50 states and the District of Columbia). Thus, GDP includes the output of U.S. offices or establishments of foreign companies located in the United States, and it excludes the output of foreign offices or establishments of U.S. companies located outside the United States. This treatment aligns GDP with other key U.S. statistics associated with the *domestic* economy, such as population and employment.

*7. GDP is a "gross" measure.*

GDP reflects production in a given time period, regardless of whether that production is used for consumption, for investment in new fixed assets or inventories, or for replacing depreciated fixed assets. Economic depreciation, or the consumption of fixed capital (CFC), is a measure of the amount that would need to be "set aside" to cover the physical deterioration, normal obsolescence, and accidental damage (except that caused by a catastrophic event) of existing fixed assets. Subtracting CFC from GDP leaves "net domestic product," which is a measure of current production that excludes the investment that is necessary to replace existing fixed assets as they wear out or become obsolete. Thus, net domestic product is a measure that indicates how much of the Nation's output is available for consumption or for adding to the Nation's wealth.

## Income

In addition to GDP, which is measured using the final expenditures approach, the NIPAs also present gross domestic income (GDI), which is GDP measured using the income approach. As noted above, this approach measures output as the sum of the incomes accruing to the owners of the factors of production (capital and labor) and to governments. In other words, as the circular flow diagram suggests, income is equal to product (GDI is equal to GDP).

The NIPAs also include other measures of income. Two of these are gross national income (GNI) and personal income. GNI, the most comprehensive measure of a nation's income, is calculated as GDI plus income receipts from the rest of the world less income payments to the rest of the world. As such, it is a measure of income from production that accrues to U.S. residents, regardless of where that productive activity is located. Its companion production measure is gross national product (GNP). Personal income is the income received by persons from participation in production (including

compensation, proprietors' income, and interest and dividend income) and from transfers from government and businesses. Personal income is closely monitored both as an indicator of economic activity and as a predictor of future spending.

It is important to note that the income measures in the NIPAs do not include gains or losses resulting from changes in the prices of assets (that is, capital gains or losses), because a change in the price of an asset does not represent income from production.

### An Imputation for the Services of Owner-Occupied Housing

Within GDP, personal consumption expenditures include the consumption of housing services by persons who own the housing that they occupy (referred to as "owner-occupants") as well as by those who rent their housing. The imputation ensures that GDP will not change if a house is rented by a landlord or is lived in by its owner.

When a landlord provides housing services to a tenant in exchange for payment—rent—the transaction appears on the product side of the accounts as personal consumption expenditures for housing services and on the income side as rental income of persons. If the NIPAs were strictly constrained to items traded on the market, the measurement would end there. That is, the housing services provided to owner-occupants would be excluded from GDP because homeownership involves no market exchange of housing services for rent. Under this treatment, GDP would increase if a home were rented to a tenant rather than occupied by the homeowner (and would decrease if a home were occupied by the homeowner rather than rented to a tenant).

To prevent such a variation in GDP from occurring, the NIPAs treat home ownership as if the owner-occupants rent their homes to themselves. The value of these housing services is based on the rents charged for similar tenant-occupied housing. Therefore, GDP is based on the number and quality of housing units in service and will not change if a house switches from being rented by a landlord to being lived in by its owner. On the income side of the accounts, the owner-occupant is treated similarly to a business. Expenses associated with owner-occupied housing—such as depreciation, maintenance and repairs, property taxes, and mortgage interest—are deducted from the value of the housing services, leaving a profit-like remainder of income, "rental income of persons."

# NIPA Sectors

From the NIPAs, one can determine who demands the goods and services that are produced, or one can examine who supplies the output being produced. Three major types of producers (or sectors) are recognized:

**Businesses.** This sector engages in the production and sale of goods and services for profit, or at least for a price that approximates the costs of production. The sector comprises all for-profit corporate and noncorporate private entities and certain other entities, including mutual financial institutions, private noninsured pension funds, cooperatives, nonprofit organizations that primarily serve businesses, Federal Reserve banks, federally sponsored credit agencies, and government enterprises. Government enterprises are government agencies—such as the U.S. Postal Service or state government-run utilities—that cover a substantial portion of their operating costs by selling goods and services to the public.

**Households and institutions.** This sector engages in the production of household services—that is, the housing services provided to homeowners, the goods and services provided by nonprofit institutions, and the compensation paid to domestic workers. The sector consists of households (families and unrelated individuals) and nonprofit institutions servings households (such as Goodwill Industries International).

**General governments.** This sector receives revenues from taxes and other sources and uses these revenues to provide public goods and services, such as education and defense, and transfer payments, such as social security or Medicaid benefits. The sector includes Federal, state, and local government agencies, except for government enterprises.

In addition, various measures are shown for subsets of these sectors (or subsectors). For example, separate measures are available for farm businesses, nonfarm businesses, corporations, noncorporate businesses, households, nonprofit institutions serving households, Federal Government, state and local governments, and pension plans.

# The T-account

A T-account offers another way to illustrate the flows of the economy. More detailed than the circular flow diagram, it is a two-sided table that matches "sources" of funds on the right, or credit side, with "uses" on the left, or debit side. The entries on each side sum to a total shown at the bottom; the totals on each side are equal. The example below presents a very simple "income and outlay" account for an individual.

The right side of the account shows an individual's sources of income: Compensation (primarily wages and salaries) and the interest and dividends received from the ownership of assets (such as bonds or stocks). The sum of these sources is "total income." The left side shows the individual's uses of income: Consumption (purchases of goods and services), tax payments, and saving. The sum of these uses is "total expenditures and saving." As with the circular flow diagram, the T-account shows that income equals expenditures.

The structure of the T-account provides two analytical benefits. First, because it is an identity, it enables one to identify and estimate a "balancing item" between the two sides of the account: In the example, the difference between the individual's total income on the right side and the individual's consumption and tax payments on the left side provides a measure of the individual's saving. Second, when constructed for more than one economic sector, the T-accounts provide a "double-entry" system in which a source of income in an account for one sector also appears as a use of income in the account of another sector. This accounting framework tracks the flow of economic activity from one sector to another.

## Income and Outlay Account for an Individual

| Uses of income | | Sources of income | |
|---|---|---|---|
| Consumption | 50 | Compensation | 70 |
| Tax payments | 20 | Interest received | 20 |
| Saving | 30 | Dividends received | 10 |
| **Total Expenditures and Saving** | **100** | **Total Income** | **100** |

# The Seven NIPA Summary Accounts

In the NIPAs, the flows of production-related activities and income between sectors of the economy are summarized in the seven T-accounts presented below. The parenthetical numbers following each entry in an account indicate the table and line item location of the "counter-entries," or the flow from one sector of the economy to another.

The first account, the Domestic Income and Product Account, displays the expenditure and income approaches to measuring GDP. The right-hand side of the account shows the final expenditures by consumers, private business, governments and foreigners. The left-hand side of the account shows the incomes that are generated in the production of that output.

Account 2 presents the sources and uses of income for private enterprises (that is, corporate and noncorporate businesses and households and institutions in their role as producers). Account 3 presents personal income and outlays (that is, the income and outlays of households and nonprofit institutions, except for the outlays they make as producers). Account 4 presents government receipts and expenditures. Account 5, the Foreign Transactions Current Account, summarizes the current transactions relating to production, income, and outlays of the United States with the rest of the world. Accounts 6 and 7 are capital accounts; they reflect the transactions that contribute to the accumulation of fixed assets and inventories by showing the Nation's saving and the use of that saving for investment in fixed assets and inventories and for net lending or borrowing. Specifically, account 6 is a consolidated "saving-investment" account for the domestic sectors of the United States, and account 7 summarizes the capital transactions of the United States with the rest of the world.

### Account 1. Domestic Income and Product Account

Account 1 is a production account for the United States: The right, or "product" side, of account 1 shows the nation's total final expenditures organized by type of expenditure, and the left, or "income" side, shows the incomes and other costs incurred in production. The summary measure of production on the right side—GDP—is defined as the market value of final goods and services produced by labor and property within the United States during a given period.

The entries on the right side of account 1 show the approach used by BEA for deriving GDP: It is measured using the expenditures approach—that is, as the sum of purchases by final users. Specifically, GDP is the sum of the following measures:

- *Personal consumption expenditures* consist of purchases of goods and services by households and by nonprofit institutions serving households (NPISHs). These goods and services include imputed expenditures on items such as the services of housing by a homeowner (the equivalent of rent), financial and insurance services for which there is no explicit charge, and medical care provided to individuals and financed by government or by private insurance.

- *Gross private domestic investment* consists of purchases of fixed assets (structures, equipment, and intellectual property products) by private businesses that contribute to production and have a useful life of more than one year, of purchases of homes by households, and of private business investment in inventories. Inventory investment, which is shown as "change in private inventories," includes the value of goods produced during a period but not sold, less sales of goods from inventories that were produced in previous periods. It is measured as ending period less beginning period inventories valued at current prices (and is equivalent to additions to, less withdrawals from, inventories). Intermediate inputs, which become an integral part of the final product and do not contribute to future production, are not included in investment.

- *Exports* consists of goods and services that are sold, given away, or otherwise transferred by U.S. residents to residents of the rest of the world.

- *Imports,* which is deducted in the calculation of GDP, consists of goods and services that are sold, given away, or otherwise transferred by the rest of the world to U.S. residents. The value of imports is already included in the other expenditure components of GDP, because market transactions do not distinguish the source of the goods and services. Therefore, imports must be deducted in order to derive a measure of total domestic output. Deducting total imports purchased by all sectors from total exports, rather than deducting each sector's imports from its total expenditures, provides an analytically useful measure—net exports—that enables one to examine the effects of foreign trade on the economy.

- *Government consumption expenditures and gross investment* measures final expenditures by Federal, state,

and local governments. "Government consumption expenditures" represents the value of goods and services provided to the public by governments (such as defense or education). "Gross investment" consists of government purchases of structures, equipment, and intellectual property products to use in producing those goods and services. These expenditures do not include government spending for social benefit programs (such as Medicaid), interest payments, and subsidies.

The left—or income—side of the Domestic Income and Product Account measures output using the income approach, as the sum of all the incomes earned and costs incurred in production. Specifically, the left side shows

## Table A. Summary National Income and Product Accounts, 2012

[Billions of dollars]

### Account 1. Domestic Income and Product Account

| Line | | | Line | | |
|---|---|---|---|---|---|
| 1 | Compensation of employees, paid | 8,620.0 | 15 | Personal consumption expenditures (3–3) | 11,149.6 |
| 2 | Wages and salaries | 6,935.1 | 16 | Goods | 3,769.7 |
| 3 | Domestic (3–12) | 6,920.5 | 17 | Durable goods | 1,202.7 |
| 4 | Rest of the world (5–11) | 14.6 | 18 | Nondurable goods | 2,567.0 |
| 5 | Supplements to wages and salaries (3–14) | 1,684.9 | 19 | Services | 7,379.9 |
| 6 | Taxes on production and imports (4–15) | 1,122.9 | 20 | Gross private domestic investment | 2,475.2 |
| 7 | *Less:* Subsidies (4–8) | 57.3 | 21 | Fixed investment (6–2) | 2,409.1 |
| 8 | Net operating surplus | 4,033.2 | 22 | Nonresidential | 1,970.0 |
| 9 | Private enterprises (2–19) | 4,060.9 | 23 | Structures | 437.3 |
| 10 | Current surplus of government enterprises (4–25) | –27.7 | 24 | Equipment | 907.6 |
| 11 | Consumption of fixed capital (6–14) | 2,542.9 | 25 | Intellectual property products | 625.0 |
| | | | 26 | Residential | 439.2 |
| 12 | **Gross domestic income** | **16,261.6** | 27 | Change in private inventories (6–4) | 66.1 |
| | | | 28 | Net exports of goods and services | –547.2 |
| 13 | Statistical discrepancy (6–20) | –17.0 | 29 | Exports (5–1) | 2,195.9 |
| | | | 30 | Imports (5–9) | 2,743.1 |
| | | | 31 | Government consumption expenditures and gross investment (4–1 plus 6–3) | 3,167.0 |
| | | | 32 | Federal | 1,295.7 |
| | | | 33 | National defense | 817.1 |
| | | | 34 | Nondefense | 478.6 |
| | | | 35 | State and local | 1,871.3 |
| 14 | **GROSS DOMESTIC PRODUCT** | **16,244.6** | 36 | **GROSS DOMESTIC PRODUCT** | **16,244.6** |

### Account 2. Private Enterprise Income Account

| Line | | | Line | | |
|---|---|---|---|---|---|
| 1 | Income payments on assets | 2,654.2 | 19 | Net operating surplus, private enterprises (1–9) | 4,060.9 |
| 2 | Interest and miscellaneous payments (2–21 and 3–20 and 4–20 and 5–13) | 2,407.2 | 20 | Income receipts on assets | 2,475.8 |
| 3 | Dividend payments to the rest of the world (5–14) | 141.1 | 21 | Interest (2–2 and 3–4 and 4–7 and 5–5) | 1,809.9 |
| 4 | Reinvested earnings on foreign direct investment in the United States (5–15) | 105.9 | 22 | Dividend receipts from the rest of the world (5–6) | 297.9 |
| 5 | Business current transfer payments (net) | 106.9 | 23 | Reinvested earnings on U.S. direct investment abroad (5–7) | 368.1 |
| 6 | To persons (net) (3–24) | 41.4 | | | |
| 7 | To government (net) (4–23) | 70.6 | | | |
| 8 | To the rest of the world (net) (5–19) | –5.1 | | | |
| 9 | Proprietors' income with IVA and CCAdj (3–17) | 1,224.9 | | | |
| 10 | Rental income of persons with CCAdj (3–18) | 541.2 | | | |
| 11 | Corporate profits with IVA and CCAdj | 2,009.5 | | | |
| 12 | Taxes on corporate income | 434.8 | | | |
| 13 | To government (4–16) | 402.4 | | | |
| 14 | To the rest of the world (5–19) | 32.4 | | | |
| 15 | Profits after tax with IVA and CCAdj | 1,574.7 | | | |
| 16 | Net dividends (3–21 plus 4–21) | 770.3 | | | |
| 17 | Undistributed corporate profits with IVA and CCAdj (6–12) | 804.3 | | | |
| 18 | **USES OF PRIVATE ENTERPRISE INCOME** | **6,536.7** | 24 | **SOURCES OF PRIVATE ENTERPRISE INCOME** | **6,536.7** |

### Account 3. Personal Income and Outlay Account

| Line | | | Line | | |
|---|---|---|---|---|---|
| 1 | Personal current taxes (4–14) | 1,498.0 | 10 | Compensation of employees, received | 8,611.6 |
| 2 | Personal outlays | 11,558.4 | 11 | Wages and salaries | 6,926.8 |
| 3 | Personal consumption expenditures (1–15) | 11,149.6 | 12 | Domestic (1–3) | 6,920.5 |
| 4 | Personal interest payments (2–21 and 3–20 and 4–20 and 5–13) | 248.4 | 13 | Rest of the world (5–3) | 6.3 |
| 5 | Personal current transfer payments | 160.4 | 14 | Supplements to wages and salaries (1–5) | 1,684.9 |
| 6 | To government (4–24) | 88.5 | 15 | Employer contributions for employee pension and insurance funds | 1,170.6 |
| 7 | To the rest of the world (net) (5–17) | 71.9 | 16 | Employer contributions for government social insurance | 514.3 |
| 8 | Personal saving (6–11) | 687.4 | 17 | Proprietors' income with IVA and CCAdj (2–9) | 1,224.9 |
| | | | 18 | Rental income of persons with CCAdj (2–10) | 541.2 |
| | | | 19 | Personal income receipts on assets | 1,958.5 |
| | | | 20 | Personal interest income (2–2 plus 3–4 plus 4–7 plus 5–5 less 2–21 less 4–20 less 5–13) | 1,211.6 |
| | | | 21 | Personal dividend income (2–16 less 4–21) | 746.9 |
| | | | 22 | Personal current transfer receipts | 2,358.3 |
| | | | 23 | Government social benefits (4–4) | 2,316.8 |
| | | | 24 | From business (net) (2–6) | 41.4 |
| | | | 25 | *Less:* Contributions for government social insurance, domestic (4–18) | 950.7 |
| 9 | **PERSONAL TAXES, OUTLAYS, AND SAVING** | **13,743.8** | 26 | **PERSONAL INCOME** | **13,743.8** |

GDI as the sum of the income earned—by labor (compensation of employees), by governments (taxes on production and imports less subsidies), and by entrepreneurs (net operating surplus, which is a profits-like measure for private enterprises, described below, and for government enterprises)—and the consumption of fixed capital. These entries appear again as sources of income in accounts 2 through 5.

In theory, GDI should be equal to GDP. In practice, differences in the source data used to estimate the two measures result in a "statistical discrepancy," which, in the NIPAS, is calculated as GDP less GDI. Because the

### Account 4. Government Receipts and Expenditures Account

| Line | | | Line | | |
|---|---|---|---|---|---|
| 1 | Consumption expenditures (1–31) | 2,548.0 | 13 | Current tax receipts | 3,041.2 |
| 2 | Current transfer payments | 2,384.7 | 14 | Personal current taxes (3–1) | 1,498.0 |
| 3 | Government social benefits | 2,334.8 | 15 | Taxes on production and imports (1–6) | 1,122.9 |
| 4 | To persons (3–23) | 2,316.8 | 16 | Taxes on corporate income (2–13) | 402.4 |
| 5 | To the rest of the world (5–18) | 18.0 | 17 | Taxes from the rest of the world (5–18) | 17.8 |
| 6 | Other current transfer payments to the rest of the world (net) (5–18) | 49.9 | 18 | Contributions for government social insurance (3–25 and 5–18) | 955.3 |
| 7 | Interest payments (2–21 and 3–20 and 4–20 and 5–13) | 631.6 | 19 | Income receipts on assets | 131.4 |
| 8 | Subsidies (1–7) | 57.3 | 20 | Interest and miscellaneous receipts (2–2 and 3–4 and 4–7 and 5–5) | 107.9 |
| 9 | Net government saving (6–13) | –1,362.3 | 21 | Dividends (2–16 less 3–21) | 23.4 |
| 10 | Federal | –1,109.7 | 22 | Current transfer receipts | 159.1 |
| 11 | State and local | –252.7 | 23 | From business (net) (2–7) | 70.6 |
| | | | 24 | From persons (3–6) | 88.5 |
| | | | 25 | Current surplus of government enterprises (1–10) | –27.7 |
| 12 | **GOVERNMENT CURRENT EXPENDITURES AND NET SAVING** | **4,259.2** | 26 | **GOVERNMENT CURRENT RECEIPTS** | **4,259.2** |

### Account 5. Foreign Transactions Current Account

| Line | | | Line | | |
|---|---|---|---|---|---|
| 1 | Exports of goods and services (1–29) | 2,195.9 | 9 | Imports of goods and services (1–30) | 2,743.1 |
| 2 | Income receipts from the rest of the world | 818.6 | 10 | Income payments to the rest of the world | 565.7 |
| 3 | Wage and salary receipts (3–13) | 6.3 | 11 | Wage and salary payments (1–4) | 14.6 |
| 4 | Income receipts on assets | 812.3 | 12 | Income payments on assets | 551.1 |
| 5 | Interest (2–21 and 3–20 and 4–20) | 146.3 | 13 | Interest (2–2 and 3–4 and 4–7) | 304.1 |
| 6 | Dividends (2–22) | 297.9 | 14 | Dividends (2–3) | 141.1 |
| 7 | Reinvested earnings on U.S. direct investment abroad (2–23) | 368.1 | 15 | Reinvested earnings on foreign direct investment in the United States (2–4) | 105.9 |
| | | | 16 | Current taxes and transfer payments to the rest of the world (net) | 144.6 |
| | | | 17 | From persons (net) (3–7) | 71.9 |
| | | | 18 | From government (net) (3–25 plus 4–5 plus 4–6 less 4–17 less 4–18) | 45.4 |
| | | | 19 | From business (net) (2–8 plus 2–14) | 27.3 |
| | | | 20 | Balance on current account, NIPAs (7–1) | –439.0 |
| 8 | **CURRENT RECEIPTS FROM THE REST OF THE WORLD** | **3,014.5** | 21 | **CURRENT PAYMENTS TO THE REST OF THE WORLD AND BALANCE ON CURRENT ACCOUNT** | **3,014.5** |

### Account 6. Domestic Capital Account

| Line | | | Line | | |
|---|---|---|---|---|---|
| 1 | Gross domestic investment | 3,094.2 | 10 | Net saving | 129.4 |
| 2 | Private fixed investment (1–21) | 2,409.1 | 11 | Personal saving (3–8) | 687.4 |
| 3 | Government fixed investment (1–31) | 619.0 | 12 | Undistributed corporate profits with IVA and CCAdj (2–17) | 804.3 |
| 4 | Change in private inventories (1–27) | 66.1 | 13 | Net government saving (4–9) | –1,362.3 |
| 5 | Capital account transactions (net) | –6.6 | 14 | *Plus:* Consumption of fixed capital (1–11) | 2,542.9 |
| 6 | Transfer payments for catastrophic losses (7–3) | 7.7 | 15 | Private | 2,049.3 |
| 7 | Other capital account transactions (7–4) | –14.2 | 16 | Government | 493.6 |
| 8 | Net lending or net borrowing (–), NIPAs (7–5) | –432.4 | 17 | General government | 434.2 |
| | | | 18 | Government enterprises | 59.4 |
| | | | 19 | *Equals:* Gross saving | 2,672.2 |
| | | | 20 | Statistical discrepancy (1–13) | –17.0 |
| 9 | **GROSS DOMESTIC INVESTMENT, CAPITAL ACCOUNT TRANSACTIONS (NET), AND NET LENDING** | **2,655.2** | 21 | **GROSS SAVING AND STATISTICAL DISCREPANCY** | **2,655.2** |

### Account 7. Foreign Transactions Capital Account

| Line | | | Line | | |
|---|---|---|---|---|---|
| | | | 2 | Capital account transactions (net) | –6.6 |
| | | | 3 | Transfer payments for catastrophic losses (6–6) | 7.7 |
| | | | 4 | Other capital account transactions (6–7) | –14.2 |
| | | | 5 | Net lending or net borrowing (–), NIPAs (6–8) | –432.4 |
| 1 | **BALANCE ON CURRENT ACCOUNT, NIPAs (5–20)** | **–439.0** | 6 | **CAPITAL ACCOUNT TRANSACTIONS (NET) AND NET LENDING, NIPAs** | **–439.0** |

CCAdj Capital consumption adjustment
IVA Inventory valuation adjustment
NIPAs National income and product accounts
NOTE. The seven summary accounts constitute a double-entry accounting system in which each of the entries in a summary account appears again in that account or in one of the other summary accounts. The numbers in parentheses indicate these "counterentries." In some cases, an entry may be equal to another entry in the summary accounts. For example, supplements to wages and salaries appears in account 1, line 5 and in account 3, line 14. In other cases, an entry may be equal to a combination of other entries (or of parts of other entries). For example, for private enterprise interest payments (account 2, line 2), the counterentry includes parts of private enterprise interest receipts (account 2, line 21), of personal interest income (account 3, line 20), of government interest receipts (account 4, line 20), and of interest payments to the rest of the world (account 5, line 13).

source data used to develop the product-side estimates of the account are based on more comprehensive surveys and censuses, BEA considers them more reliable. Therefore, the statistical discrepancy appears as a component on the income side of the account to equate GDI with GDP.

## Account 2. The Private Enterprise Income Account

The right side of account 2 shows the sources of private enterprise income, and the left side shows the distribution of this income among the various types of private enterprises, facilitating the subsequent presentation of related counter-entries on the sources side of the personal, government, and foreign accounts (accounts 3, 4, and 5, respectively). Private enterprises include most of the business sector and part of the household sector—specifically, the ownership of housing. Private enterprises do not include government enterprises, as they are not privately owned; these are included in account 4.

On the right side of account 2, sources of private enterprise income include both income from current production—net operating surplus—and income from the provision of financial capital—income receipts on assets. The net operating surplus reflects the incomes earned by all private enterprises from production after deducting operating costs (such as employee compensation and taxes on production and imports). Income receipts on assets reflects income that accrues to the providers of financial capital—holders of debt or stock. It comprises interest receipts, dividend receipts from the rest of the world, and businesses' share of the reinvested earnings of their foreign affiliates. (Because the account consolidates the earnings of all U.S. businesses, receipts and payments of dividends between domestic businesses cancel each other.)

The left side of the account shows the shares of income among corporate enterprises (corporate profits), unincorporated enterprises owned by persons (proprietors' income), and homeowners (rental income of persons). It also shows summary information on the income distributed to the providers of financial capital (income payments on assets), not distinguished by sector in this account, and on the receipts of transfer payments.

Proprietors' income and rental income of persons reappear as sources of income on the right side of the personal income and outlay account, and net interest and dividend payments by enterprises equal the sum of net interest and dividends received by all other sectors. Only corporate profits (which is similar to net operating surplus but is measured after the deduction of interest payments) does not have a counter-entry on the sources side of a separate income and outlay account; a separate account for corporations is unnecessary because the

detailed entries in account 2 show the use of this income for tax payments, dividend payments, and for undistributed corporate profits (which can be thought of as a measure of corporate saving).[1]

Corporate profits is one of the most closely followed measures of economic activity because it provides a summary measure of U.S. corporate financial health. Further, undistributed profits, a source of retained earnings, provide much of the funding for investment in structures and equipment that contributes to the Nation's productive capacity.

## Account 3. The Personal Income and Outlay Account

The personal income and outlay account shows the sources and uses of income of individuals, enterprises that are owned by households, and nonprofit institutions that serve households.

The right side of the account features the components of personal income, which is the income that persons receive in return for their provision of labor, land, and capital used in current production, plus current transfer receipts less contributions for government social insurance (domestic).[2] The largest source of income for individuals is compensation, which they receive for their labor; compensation includes employee and employer contributions to retirement and pension plans. Proprietors' income is the income received by individuals for their labor and use of capital. Rental income is the income received by persons from their rental of property. Other components of personal income include interest income, dividend income, and current transfers. Current transfers include government social benefits payments for programs such as social security and Medicaid. Lastly, "contributions for government social insurance, domestic" (mandatory contributions to social insurance programs such as social security) is deducted in the measurement of personal income because the benefits accruing from these contributions are already reflected in current transfers.

The left side of the account shows that personal income is used primarily for consumption of goods and services. The entry for "personal consumption expenditures" flows directly into account 1, and is, in fact, the largest component of GDP. In other words, households are the largest consumers of U.S. final product. The other entries illustrate that households also pay taxes and make

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1. Likewise, a separate account for the business sector as a whole—that is, private enterprises and government enterprises—is unnecessary because the sources and uses of government enterprise income are reflected in account 4.

2. Personal income does not include holding gains or losses associated with changes in asset prices, as this type of change reflects a change in wealth rather than a change in productive activity.

interest and transfer payments. The difference between a household's income and the sum of these outlays is its saving.

## Account 4. The Government Receipts and Expenditures Account

This account is also an income and outlay account, showing—for Federal, state, and local governments (including government enterprises)—total receipts of income on the right side and the current uses of income (including saving) on the left side. The bulk of government income is derived from the receipt of taxes; governments also receive contributions for government social insurance, income receipts on assets, transfers (such as donations, fees, and fines), and the current surplus of government enterprises.

The left side of the account features the uses of government receipts, which include current expenditures and government saving. Government transfer payments, which account for a large share of government current expenditures, are payments for which no current good or service is provided by the recipient, such as unemployment benefits. "Other current transfer payments to the rest of the world" consists of U.S. Government military and nonmilitary grants to foreign governments. Interest payments reflect interest paid on public debt, and subsidies refers to the provision of subsidies to businesses.

The balancing item of the account is net government saving, which shows the difference between current receipts and current expenditures. Because of differences in coverage and timing, Federal Government net saving in the NIPAs is not equal to the well-known measure of the Federal Government's unified budget surplus or deficit, which is an administrative cash-flow measure derived from the Treasury Department's Federal budget statements and which includes both current and capital receipts and expenditures. The NIPA measure of government saving represents the portion of current expenditures that are covered by current receipts rather than by other methods of financing.

## Account 5. Foreign Transactions Current Account

Account 5 summarizes all of the current transactions of the United States with the rest of the world. It is shown from the perspective of the rest of the world; that is, U.S. imports from other countries are shown as a source of income for the rest of the world on the right side of the account, and exports of U.S. goods are shown as a use of that income on the left side. Similarly, payments made to the rest of the world from the left side of accounts 2, 3, and 4 (compensation, interest, dividends, or transfers) are shown as sources of foreign income, while the corresponding receipts by residents of the United States are shown as uses of foreign income. Exports and imports (as a deduction) flow directly into account 1 as components of GDP.

The balancing item, "balance on current account, national income and product accounts," is measured as "current receipts"—U.S. exports of goods and services and income receipts from the rest of the world—less "current payments"—U.S. imports of goods and services, income payments to the rest of the world, and current taxes and transfer payments to the rest of the world. Current taxes and transfer payments includes taxes paid to foreign governments (less taxes received by the United States from foreigners) and current transfers paid by persons, governments, and businesses. Because the balance on the current account includes the income receipts and payments and current taxes and transfer transactions with the rest of the world, it is a broader measure than the trade deficit (or surplus) of goods and services published jointly each month by the Census Bureau and BEA.

The balance on the current account shows the extent to which current payments to the rest of the world are funded by current receipts; a positive balance suggests that current receipts from the rest of the world exceed current payments to the rest of the world, thereby allowing U.S. residents to lend or acquire other assets abroad. Conversely, any deficit must be funded through borrowing or the disposal of assets. Thus, the balance on the current account can be viewed as the acquisition of foreign assets by U.S. residents less the acquisition of U.S. assets by foreign residents.

## Account 6. Domestic Capital Account

The domestic capital account shows the relationship between saving and investment in the U.S. economy. It can be used to answer key questions about the economy, such as: Are fixed assets being replaced? Is there a shortfall of saving? Which sector shows positive saving? Which sector invests?

The right side of the account shows the sources of saving for the U.S. economy by sector: Personal saving, business saving (specifically, undistributed corporate profits), and government saving. The sum of each sector's saving is net saving. Gross saving is net saving plus the consumption of fixed capital. When gross saving is equal to or larger than consumption of fixed capital, the amount of saving is sufficient to cover the replacement of fixed assets.

The statistical discrepancy from account 1 appears again in this account. Given the theoretical equality between GDP and GDI, the statistical discrepancy can be viewed as actual (positive or negative) income that is not captured by the data used to measure GDI and, therefore, not distributed to the sectors. Instead, it is shown as a

source of (positive or negative) saving in this account, and its addition leads to the summary measure, "gross saving and statistical discrepancy."

The left side of the account reflects the uses of that saving: Gross domestic investment (which reflects investment by private businesses and governments); capital account transactions; and "net lending or net borrowing (–), national income and product accounts." Gross domestic investment—a measure of gross capital formation—is the purchase of new fixed assets plus the change in private inventories. Capital account transactions (net) are cash or in-kind transfer payments to the rest of the world that are linked to the acquisition or disposition of an asset; they provide an indirect measure of the net acquisition of foreign assets by U.S. residents less the net acquisition of U.S. assets by the rest of the world. The balancing item—net lending or net borrowing (–), national

income and product accounts—is shown on the left side of the domestic capital account. When this item is negative, domestic investment cannot be completely funded from the Nation's own saving. When this item is positive, domestic saving is greater than what is needed for the Nation's own investment.

### Account 7. Foreign Transactions Capital Account.

This account summarizes the capital transactions with the rest of the world that already appear in account 6. While seemingly repetitive, the account shows the counter-entries for those transactions (and thus maintains the "double-entry" characteristic of the summary accounts); additionally, it is useful to separately identify current and capital transactions with the rest of the world in separate accounts.

# Derivation of the NIPA Measures

A variety of data sources are used to estimate the NIPA measures. These data sources differ in availability, quality, coverage, and underlying definitions. As a consequence, the timing of the release of estimates and of subsequent revisions is based on the availability of these source data.

## Estimate "vintages"

The data used by BEA are often available only after some lag. In general, the longer the lag time, the better the data are in terms of coverage and detail. Because both quick release and accuracy are highly valued, there is a constant trade off between quality and timing. As a result, BEA releases several "vintages" of NIPA estimates for any given quarter or year, with each vintage—or revision—being based on better source data.

"Advance" current quarterly estimates (based on incomplete monthly data), are released near the end of the first month after the end of the quarter. At the end of each of the following two months, revised estimates are released that incorporate revised and newly available monthly and quarterly data; these releases are referred to as "second" and "third" quarterly estimates.

Annual estimates of GDP that are first available as the sum of the quarterly estimates are revised in the "annual revision" (typically each July) and generally in the following two annual revisions; the period of revision can be extended beyond this three-year range if the revisions to earlier periods warrant immediate incorporation (rather than waiting for the next "comprehensive" revision, described below). 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; improvements in methodology may also be incorporated.

The revision cycle culminates, at about 5-year intervals, in a comprehensive revision of the NIPAs. Comprehensive revisions differ from annual revisions in that the data used for comprehensive revisions are based in large part on quinquennial censuses of economic activity, while the monthly, quarterly, and annual data discussed above are generally based on sample surveys. Additionally, comprehensive revisions have traditionally been used to introduce major improvements in definitions, estimating methods, and data presentations into the accounts, and the revision period is generally much longer than that for annual revisions, often back as far as 1929.

## Current-dollar estimates

For most NIPA components, the current-dollar estimates are derived from source data that are "value data," where value = price x quantity. Frequently, BEA—which does not collect much of its own data—must adjust the data that are collected by others, primarily government agencies, trade associations, and international organizations.

Most source data are collected for purposes other than the estimation of the NIPAs, and therefore use definitions, population parameters, or time periods that differ from NIPA concepts. Much of the data must be adjusted by filling gaps in coverage or by using available data as proxies for the desired NIPA measure. For periods for which data are not available, NIPA estimates may be derived using existing estimates. For example, when annual source data are available and quarterly source data are not, the quarterly NIPA measures are often estimated by *interpolation*. For the periods beyond those covered by annual estimates (such as the most recent quarter), the quarterly estimates are derived by e*xtrapolation*. These interpolations and extrapolations are often based on "indicators"—related data that are used to approximate movements in the NIPA measures.

## Quantity and price estimates

Changes over time in the current-dollar measures provided in the NIPAs may reflect a change in quantity, a change in price, or a combination of both. For some analyses, it is important to know these separate effects—for instance, to know how much of the change in GDP is due to changes in the quantities of goods and services without the influence of price changes.

Therefore, the NIPAs provide separate estimates of changes in quantities and prices, derived as indexes that provide information on the change from some reference period. BEA describes estimates of quantities as "real" expenditures—for example "real GDP" or "real PCE." The relation of an index level to the index level in any other period shows the change in the index over time; indeed, the change in real GDP over time is the featured measure of economic activity. In addition, BEA provides measures of the contributions of various components (such as personal consumption expenditures or investment) to GDP growth.

BEA also provides quantity measures in value terms—called chained dollars—by scaling the quantity index to dollar levels. Specifically, the index in the

reference year is set equal to the current-dollar level in the same year, and the change in the index in successive and previous periods is multiplied by the current-dollar level to form a time series in monetary terms.

To facilitate the analysis of the drivers of change in the real estimates, BEA provides measures of the contribu-tions of real components to the percent change in real aggregates. These are provided because the chained-dol-lar measures of components are not additive, and there-fore, accurate measures of a component's contribution to change cannot be derived from the chained-dollar mea-sures.

# Additional Reading

Approaching a subject as complex as the NIPAs is best done one step at a time. This paper provided the first step; for readers interested in continuing their education, this section offers references, organized by subject area.

### Concepts, framework, and history

*NIPA Handbook: Concepts and Methods of the U.S. National Income and Product Accounts.* Chapters 1–4 of this handbook describe the fundamental concepts, definitions, classifications, and accounting framework that underlie the national income and product accounts (NIPAs) of the United States.

An Introduction to National Economic Accounting (MP–1): Bureau of Economic Analysis, Website publication. This paper presents an in-depth derivation of the seven account summary of the NIPAs from generalized production, income and outlay, and saving-investment accounts for each sector and shows the links between the NIPAs and business or financial accounting principles.

Streitweiller, Mary. "BEA Briefing: A Primer on BEA's Input-Output Accounts," SURVEY OF CURRENT BUSINESS 89 (June 2009): 40–52.

*Concepts and Methods of the U.S. Input-Output Accounts.* Bureau of Economic Analysis, September 2006. Web site publication.

Lequiller, Francois and Derek Blades. *Understanding National Accounts.* Organisation for Economic Co-operation and Development, 2006.

Marcuss, Rosemary D. and Richard E. Kane. "U.S. National Income and Product Statistics: Born of the Great Depression and World War II." SURVEY 87 (February 2007): 32–46. This article reviews the early impetus for the development of the accounts.

### Estimating methods and source data

"Updated Summary of NIPA Methodologies." This article is updated annually and is available on the Web site and in the SURVEY (usually in the November issue).

*NIPA Handbook: Concepts and Methods of the U.S. National Income and Product Accounts.* Chapters 5–11 and 13, and other forthcoming chapters of this handbook describe the sources and methods used to prepare the expenditure and income components of the accounts.

In addition, numerous SURVEY articles describe annual and comprehensive revisions to the NIPAs. SURVEY articles and other methodology papers are available on the Web site; go to www.bea.gov, then select "National" and "Methodologies" or "Articles."

### Quantity, price, and chained-dollar indexes

A series of articles are available on the website; go to www.bea.gov and select "National," "Articles," and then scroll down to "Chain-type measures." They include:

Landefeld, J. Steven, Brent R. Moulton, and Cindy M. Vojtech. "Chained-Dollar Indexes: Issues, Tips on Their Use, and Upcoming Changes." SURVEY 83 (November 2003): 8–16.

Landefeld, J. Steven and Robert P. Parker. "BEA's Chain Indexes, Time Series, and Measures of Long-Term Economic Growth." SURVEY 77 (May 1997): 58–68.

### Reliability of the estimates

A series of articles are available on the website; go to www.bea.gov and select "National," "Articles," and then scroll down to "Reliability." They include:

Fixler, Dennis J., Ryan Greenaway-McGrevy, and Bruce T. Grimm. "The Revisions to GDP, GDI, and Their Major Components," SURVEY 94 (August 2014).

Fixler, Dennis J., Ryan Greenaway-McGrevy, and Bruce T. Grimm. "Revisions to GDP, GDI, and Their Major Components," SURVEY 91 (June 2011): 9–31.

# Accessing the NIPA Estimates Interactively

The seven NIPA accounts only summarize the activities described by the full set of NIPA tables. The NIPA measures appear in much greater detail, (for example, by type of product, by type of expenditure, by sector, by industry, or by function) along with other important aggregates on BEA's Web site at www.bea.gov.

### NIPA table arrangement

The NIPA tables (over 350) are arranged in roughly the same order as the seven summary accounts. Section 1 of the NIPA tables includes summary income and product tables and other related aggregates. Section 2 includes tables on personal income and outlays. Section 3 includes tables on government receipts and expenditures. Section 4 includes tables on transactions with the rest of the world. Section 5 contains tables on domestic saving and investment. Also included in the full set of NIPA tables, but not shown in the summary accounts, are tables (in section 6) that display estimates of income and employment by industry, tables (in section 7) that feature supplemental economic measures, such as motor vehicle output and housing output, as well as reconciliations of NIPA measures to underlying source data, and tables (in section 8) that contain seasonally unadjusted estimates.

### NIPA table numbering system

The NIPA tables are numbered so that users can quickly identify the type of estimate (such as current dollars, quantity indexes, and percent changes) shown in each table. Table numbers are in the format "X.Y.Z," where "X" indicates the NIPA table section, "Y" indicates the table number in the section, and "Z" indicates the type of estimate presented. The system is outlined below:

| Table | Estimate Description |
|---|---|
| X.Y.1 | Percent change from preceding period in real estimates |
| X.Y.2 | Contributions to percent change in real estimates |
| X.Y.3 | Real estimates, quantity indexes |
| X.Y.4 | Price indexes |
| X.Y.5 | Current dollars |
| X.Y.6 | Real estimates, chained dollars |
| X.Y.7 | Percent change in prices |
| X.Y.8 | Contributions to percent change in prices |
| X.Y.9 | Implicit price deflators |
| X.Y.10 | Percent shares of GDP |

An example of how to use BEA's interactive NIPA tables follows.

To access the interactive tables, please visit BEA's Web site at www.bea.gov, or click **here.**

**Example**

To retrieve data on the percent changes in real consumer spending over time from BEA's Web site (www.bea.gov), begin by selecting "Interactive Data" on BEA's home page and then select "GDP & Personal Income" and finally, "Begin using the data.".(Alternatively, begin by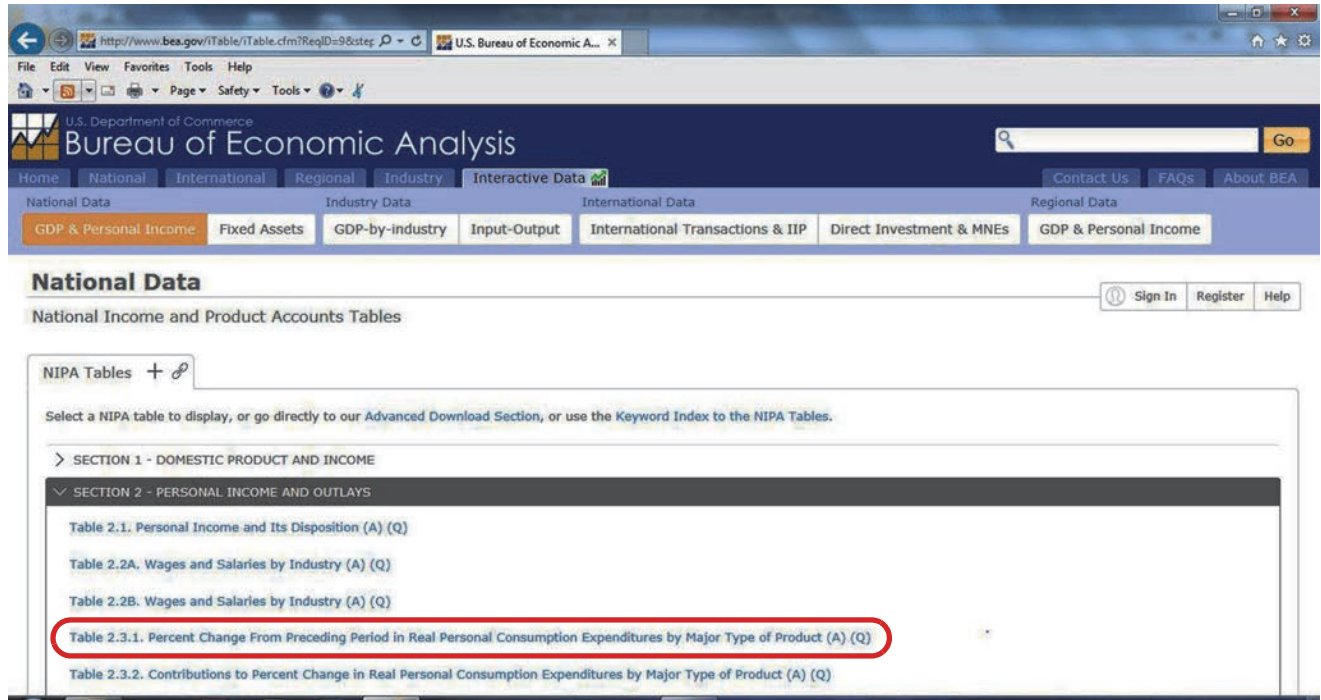 selecting "National," then "Interactive tables: GDP and the National Income and Product Account Historical Tables," and finally "Begin using the data.")

Consumer spending, or personal consumption expenditures (PCE), is a component of the personal income and outlay account. Therefore, select "Section 2" from the list of NIPA table groups:

From the resulting list of section 2 tables, detailed PCE estimates are found in the NIPA table family 2.3. From the NIPA table numbering system described above, per-

cent changes in real PCE are found in tables ending in 1. Therefore, one would select NIPA table 2.3.1:

The interactive NIPA tables can be customized to meet a user's specific needs. The "modify" selection allows one to select the time period and the frequency (annuals, quarters, and in some cases, months) of the data. Note that the quarterly and monthly estimates are both seasonally adjusted and annualized. (Seasonal adjustment removes variations that occur in the same month or quarter every year so that the remaining movements in the series better reflect trends in economic activity. Annualized growth rates are published to facilitate comparisons between estimates of different frequencies.)

The "download" selection presents several options for downloading the data, and the "print" table allows printing directly from the Web. There is also a "chart" feature that allows the selection of one or more components from the selected table for charting; the charts can also be downloaded or printed. Once "chart" is selected, this option becomes "table," as shown: