Definitions and Classifications Underlying the National Income and Product Accounts

National income and product accounts entries

Income and product aggregates are defined below, and their definitions are amplified by definitions of their major components. The aggregates differ from each other because of distinctions that are made between domestic measures and national measures, between gross and net concepts, and between market-value and factor-cost concepts.

The remaining definitions are presented in the framework of the five-account summary of the national income and product accounts (NIPA's) (shown in table A, page M–14). Each entry has a counterentry, generally in another account. The parenthetical numbers that follow an entry in table A identify the counterentry by account and line number. With the exception of major income and product aggregates, entries are usually defined in the sequence in which they appear in the five-account summary. The definition is not repeated where the counterentry appears, but a cross-reference is made to the place of its first appearance. Following the five-account summary discussion, definitions for several additional items are presented: Gross domestic purchases, final sales to domestic purchasers, final sales of domestic product, population, personal saving as a percentage of disposable personal income, U.S. residents, and the rest of the world.

Major aggregates

Effective with the 1991 comprehensive revision, BEA began featuring gross domestic product (GDP), rather than gross national product (GNP), as the primary measure of U.S. production. *GDP* is the market value of the goods and services *produced by labor and property located in the United States.* As long as the labor and property are located in the United States, the suppliers (that is, the workers and, for property, the owners) may be either U.S. residents or residents of the rest of the world. *GNP* (1–28) covers the goods and services *produced by labor and property supplied by U.S. residents.* As long as the labor and property are supplied by U.S. residents, they may be located either in the United States or abroad. ("U.S. residents" is defined on page M–9.)

To move from GDP to GNP, one must add receipts of factor income from the rest of the world, which represent the goods and services produced abroad using the labor and property supplied by U.S. residents, and subtract payments of factor income to the rest of the world, which represent the goods and services produced in the United States using the labor and property supplied by foreign residents. Factor incomes are measured as compensation of employees, corporate profits (dividends, earnings of unincorporated affiliates, and reinvested earnings of incorporated affiliates), and interest.

Net domestic product (NDP) is the net market value of the goods and services attributable to labor and property located in the United States and is equal to GDP less consumption of fixed capital. It is U.S. production net of the fixed capital "used up" in the production process during the accounting period. *Net national product* (NNP) is the net market value of goods and services attributable to the labor and property supplied by the residents of the United States and is equal to GNP less consumption of fixed capital. The measure of consumption of fixed capital used for both NDP and NNP relates only to fixed capital located in the United States.

Gross national income (1–26) is the costs incurred and the profits earned in the production of GNP. Accordingly, it equals GNP, except for the statistical discrepancy. Gross national income is the sum of (1) factor incomes—compensation of employees, proprietors' income, rental income of persons, corporate profits, and net interest; (2) three nonfactor incomes—business transfer payments, indirect business taxes, and the current surplus of government enterprises less government subsidy payments; and (3) consumption of fixed capital.

National income (1–19) is the sum of the factor incomes. It is a net factor cost measure equal to the income that originates in the production of goods and services supplied by the residents of the United States. *Domestic income,* also a net factor cost measure, is the income that originates in the production of goods and services attributable to labor and property located in the United States.

To summarize, GDP is a gross market value measure, net domestic product is a net market value measure, and domestic income is a net factor cost measure. The corresponding national measures are GNP (gross market value), net national product (net market value), and national income (net factor cost).

Personal income is the income received by persons from all sources—that is, from participation in production, from both government and business transfer payments, and from government interest (which is treated like a transfer payment). "Persons" consists of individuals, nonprofit institutions that primarily serve individuals, private noninsured welfare funds, and private trust funds. Personal income is calculated as the sum of wage and salary disbursements, other labor income, proprietors' income with inventory valuation and capital consumption adjustments, rental income of persons with capital consumption adjustment, personal dividend income, personal interest income, and transfer payments to persons, less personal contributions for social insurance.

Disposable personal income is personal income less personal tax and nontax payments. It is the income available to persons for spending or saving.

National income and product account

GDP (defined above) is the sum of personal consumption expenditures, gross private domestic investment (including change in business inventories and before deduction of charges for consumption of fixed capital), net exports of goods and services (exports less imports), and government purchases. GDP excludes business purchases of goods and services on current account.

Personal consumption expenditures (1–31) is goods and services purchased by persons resident in the United States. Most of personal consumption expenditures (PCE) consists of purchases of new goods and of services by individuals from business. In addition, PCE includes purchases of new goods and of services by nonprofit institutions, net purchases of used goods by individuals and nonprofit institutions, and purchases abroad of goods and services by U.S. residents traveling or working in foreign countries.[3] PCE also includes purchases for certain services provided by the government—primarily tuition payments for higher education and charges for medical care. Finally, PCE includes imputed purchases that keep PCE invariant to changes in the way that certain activities are carried out—for example, whether housing is rented or owned or whether employees are paid in cash or in kind.

The following conventions are used to classify each PCE commodity: *Durable goods* (1–32) are commodities that can be stored or inventoried and that have an average life of at least 3 years; *nondurable goods* (1–33) are all other commodities that can be stored or inventoried; and *services* (1–34) are commodities that cannot be stored and that are consumed at the place and time of purchase.

Gross private domestic investment (1–35) consists of *fixed investment* (1–36) and *change in business inventories* (1–41). Fixed investment consists of both *nonresidential* (1–37) fixed investment and *residential* (1–40) fixed investment. It is measured without a deduction for consumption of fixed capital and includes replacements and additions to the capital stock. It covers all investment by business and nonprofit institutions in the United States, regardless of whether the investment is owned by U.S. residents. (Public purchases of equipment and structures is in the government purchases account.) It excludes investment by U.S. residents in other countries. Nonresidential fixed investment consists of both *structures* (1–38) and *producers' durable equipment* (PDE) (1–39).

Nonresidential structures consists of new construction, brokers' commissions on sale of structures, and net purchases of used structures by business and nonprofit institutions from governments. New construction also includes hotels and motels, and mining exploration, shafts, and wells.

3. Purchases of residential structures by individuals and nonprofit institutions that primarily serve individuals are classified as gross private domestic investment.

Nonresidential PDE consists of private business purchases on capital account of new machinery, equipment, furniture, and vehicles (except for personal-use portions of equipment purchased for both business and personal use, which are included in PCE), plus dealers' margins on sales of used equipment, and net purchases of used equipment from government, from persons, and from the rest of the world.

Residential fixed investment consists of both structures and residential PDE—equipment owned by landlords and rented to tenants. Investment in structures consists of new units, improvements to existing units, mobile homes, brokers' commissions on the sale of residential property, and net purchases of used structures from government.

Change in business inventories (1–41) is the change in the physical volume of inventories held by business, valued in average prices of the period. It differs from the change in the book value of inventories reported by business; an inventory valuation adjustment converts inventories valued at historical cost to replacement cost. (The inventory valuation adjustment is described below.)

Net exports of goods and services (1–42) is exports (1–43) less imports (1–44) of goods and services. Receipts of factor income are excluded from exports, and payments of factor income are excluded from imports.

Government purchases (1–45) is purchases from business (including net purchases of used goods), compensation of government employees, and purchases from the rest of the world. Receipts of certain services provided by government—primarily tuition payments for higher education and charges for medical care—are defined as government sales, which are treated as deductions from government purchases. The change in inventories and purchases of structures and equipment by government enterprises are included, but their current-account purchases are not. Purchases does not include transfer payments, interest paid by government, and subsidies. Transactions in financial assets and land also are excluded.

Compensation of employees (1–1) is the income accruing to employees as remuneration for their work. It is the sum of wages and salaries and of supplements to wages and salaries.

Wages and salaries (1–2) consists of the monetary remuneration of employees, including the compensation of corporate officers; commissions, tips, and bonuses; voluntary employee contributions to certain deferred compensation plans such as 401(k) plans; and receipts in kind that represent income. Wages and salaries consists of *disbursements* (1–3) and *wage accruals less disbursements* (1–4). Disbursements is wages and salaries as just defined except that retroactive wages are counted when paid rather than when earned.

Supplements to wages and salaries (1–5) consists of employer contributions for social insurance and other labor income. *Employer contributions for social insurance* (1–6) consists of employer payments under the following programs: Old-age, survivors, and disability insurance (social security); hospital insurance; unemployment insurance; railroad retirement; government employee retirement; pension benefit guaranty; veterans life insurance; publicly administered workers' compensation; military medical insurance; and temporary disability insurance. *Other labor income* (1–7) consists of employer payments to private pension and profit-sharing plans, private group health and life insurance plans, privately administered workers' compensation plans, supplemental unemployment benefit plans, corporate directors' fees, and several minor categories of employee compensation, including judicial fees to jurors and witnesses, compensation of prison inmates, and marriage fees to justices of the peace.

Proprietors' income with inventory valuation and capital consumption adjustments (1–8) is the current-production income (including income in kind) of sole proprietorships and partnerships and of tax-exempt cooperatives. The imputed net rental income of owner-occupants of farm dwellings is included. Dividends and monetary interest received by nonfinancial business and rental incomes received by persons not primarily engaged in the real estate business are excluded; these incomes are included in dividends, net interest, and rental income of persons. (The inventory valuation and capital consumption adjustments are described below.)

Rental income of persons with capital consumption adjustment (1–9) is the net current-production income of persons from the rental of real property, except income of persons primarily engaged in the real estate business; the imputed net rental income of owner-occupants of nonfarm dwellings; and the royalties received by persons from patents, copyrights, and rights to natural resources. (The capital consumption adjustment is described below.)

Corporate profits with inventory valuation and capital consumption adjustments (1–10) is the income of organizations treated as corporations in the NIPA's. These organizations consist of all entities required to file Federal corporate tax returns, including mutual financial institutions and cooperatives subject to Federal income tax; private noninsured pension funds; nonprofit institutions that primarily serve business; Federal Reserve banks; and federally sponsored credit agencies. The income is that arising from current production. With several differences, this income is measured as receipts less expenses as defined in Federal tax law. Among these differences are the following: Receipts exclude capital gains and dividends received, expenses exclude depletion and capital losses and losses resulting from bad debts, inventory withdrawals are valued at replacement cost, and depreciation is on a consistent accounting basis and valued at replacement cost. Because national income is defined as the income of U.S. residents, its profits component includes income earned abroad by U.S. corporations and excludes income earned in the United States by the rest of the world. (The inventory valuation and capital consumption adjustments are described below.)

Profits before tax (1–11) is the income of organizations treated as corporations in the NIPA's, as described above, except that it reflects the inventory and depreciation accounting practices used for Federal income tax returns. It consists of profits tax liability, dividends, and undistributed corporate profits.

Profits tax liability (1–12) is the sum of Federal, State, and local income taxes on all income subject to taxes; this income includes capital gains and other income excluded from profits before tax. The taxes are measured on an accrual basis, net of applicable tax credits.

Profits after tax (1–13) is profits before tax less profits tax liability. It consists of dividends and undistributed corporate profits. *Dividends* (1–14) is payments in cash or other assets, excluding the corporations' own stock, made by corporations located in the United States and abroad to stockholders who are U.S. residents. The payments are measured net of dividends received by U.S. corporations. Dividends paid to State and local government social insurance funds and general government are included. *Undistributed profits* (1–15) is corporate profits after tax less dividends.

Inventory valuation adjustment (1–16) for corporations is the difference between the cost of inventory withdrawals as valued in determining profits before tax and the cost of withdrawals valued at replacement cost. It is needed because, under the accounting practices used by businesses to determine income as reported in the source data, inventories are often charged to cost of sales (that is, withdrawn) at their acquisition (historical) cost rather than at their replacement cost (the concept underlying the NIPA's). In periods of changing prices, this practice results in profits (or losses) on inventoried goods. The inventory valuation adjustment (IVA) is an estimate of inventory profits, but with the sign reversed. Thus, adding the IVA to income removes the inventory profits, as is appropriate for a measure of current production. As noted above, a similar adjustment is applied to change in business inventories and nonfarm proprietors' income. No adjustment is needed to farm proprietors' income because farm inventories are measured on a current-market-cost basis.

Net interest (1–18) is the interest paid by business less interest received by business, plus interest received from the rest of the world less interest paid to the rest of the world. Interest payments on mortgage and home improvement loans are counted as interest paid by business because home ownership is treated as a business in the NIPA's. In addition to monetary interest, net interest includes imputed interest, which is paid by corporate financial business. The imputed interest paid by life insurance carriers and noninsured pension plans credits their investment income to persons in the year it is earned. The imputed interest payments by financial intermediaries other than life insurance carriers and private noninsured pension plans to persons, governments, and to the rest of the world have imputed service charges as counterentries in GNP; they are included in personal consumption expenditures, in government purchases, and in exports, respectively.

Business transfer payments (1–20) consists of payments *to persons* (1–21) and *to the rest of the world* (1–22) for which no current services are performed. Business transfer payments to persons consists primarily of liability payments for personal injury and of corporate gifts to nonprofit institutions. Business transfer payments to the rest of the world is nonresident taxes—taxes paid by domestic corporations to foreign governments.

Indirect business tax and nontax liability (1–23) consists of tax liabilities that are chargeable to business expense in the calculation of profit-type incomes and of certain other business liabilities to government agencies (except government enterprises) that are treated like taxes. Indirect business taxes includes taxes on sales, property, and production. Employer contributions for social insurance are not included. Taxes on corporate incomes are not included; these taxes cannot be calculated until profits are known, and in that sense they are not a business expense. Nontaxes includes regulatory and inspection fees, special assessments, fines and forfeitures, rents and royalties, and donations. Nontaxes generally excludes business purchases from government of goods and services that are similar to those provided by the private sector. Government receipts from the sales of such products are netted against government purchases so that they do not appear in GDP.

Subsidies less current surplus of government enterprises (1–24). *Subsidies* is the monetary grants paid by government to business, including government enterprises at another level of government. The *current surplus of government enterprises* is their current operating revenue and subsidies received from other levels of government less their current expenses. In the calculation of their current surplus, no deduction is made for depreciation charges and net interest paid. The current surplus of government enterprises is not counted as a profit-type income, and therefore, it is not counted as a factor charge. Subsidies and current surplus are shown as a combined entry because deficits incurred by government enterprises may result from selling goods to business at below-market prices in lieu of giving them subsidies.

Consumption of fixed capital (1–25) is a charge for the using up of fixed capital owned by entities defined as private business in the NIPA's and located in the United States.[4] It is based on the use of uniform service lives, straight-line depreciation, and replacement cost. For nonprofit institutions that primarily serve individuals, it is an imputation in personal consumption expenditures for the value of the current services of the fixed capital assets owned and used by these institutions. *Capital consumption allowances* consists of depreciation charges and accidental damage to fixed capital. For corporate business and nonfarm proprietors, it is based on depreciation as reported on Federal income tax returns. For noncorporate farms and other private business, it is calculated by BEA based on expenditures for fixed capital, uniform service lives, straight-line depreciation, and historical cost. *Capital consumption adjustment* (1–17) for corporations is the difference between depreciation as valued in determining the income reported in the source data and what is referred to as "economic depreciation"—depreciation as valued on the basis of consistent accounting (economic service lives and straight-line depreciation) and at replacement cost. It is equal to the tax-return-based capital consumption allowances less the estimate of consumption of fixed capital. Similar adjustments are calculated for proprietors' income, rental income of persons, and nonprofit institutions that primarily serve individuals.

Statistical discrepancy (1–27) is GNP less gross national income. It arises because GNP and gross national income are estimated independently. (The statistical discrepancy is also equal to GDP less gross domestic income.)

Receipts of factor income from the rest of the world (1–29) consists of receipts by U.S. residents of interest and dividends, of reinvested earnings of foreign affiliates of U.S. corporations, and of compensation paid to U.S. residents by foreigners.

Payments of factor income to the rest of the world (1–30) consists of payments to foreign residents of interest and dividends, of reinvested earnings of U.S. affiliates of foreign corporations, and of compensation paid to foreigners by U.S. residents.

Personal income and outlay account

Wage and salary disbursements (see 1–3).

Other labor income (see 1–7).

Proprietors' income with inventory valuation and capital consumption adjustments (see 1–8).

Rental income of persons with capital consumption adjustment (see 1–9).

Personal dividend income (2–11) is the dividend income of persons from all sources. It equals net dividends paid by corporations (see 1–14) less *dividends received by government* (2–13). Dividends received by government consists of dividends received by State and local governments, primarily by their retirement systems.

Personal interest income (2–14) is the interest income (monetary and imputed) of persons from all sources. It equals net interest (see 1–18) plus *interest paid by government* (2–16) less *interest received by government* (2–17) plus *interest paid by persons* (2–18). The last item consists of all interest paid by individuals except mortgage interest.

Transfer payments to persons is income payments to persons for which no current services are performed. It consists of business transfer payments to persons (see 1–21) and *government transfer payments* (2–21). Government transfer payments consists of benefits from the following social insurance funds: Old-age, survivors, and disability insurance (social security); hospital insurance; supplementary medical insurance; unemployment insurance; government employee retirement; railroad retirement; pension benefit guaranty; veterans life insurance; workers' compensation; military medical insurance; and temporary disability insurance. Government transfer payments also includes benefits from certain other programs: Veterans benefits, in addition to veterans life insurance; food stamps; black lung; supplemental security income; and public assistance (including medicaid). Government payments to nonprofit institutions, other than for work under research and development contracts, are also included.

Personal contributions for social insurance (2–22) includes payments by employees, by the self-employed, and by other individuals who participate in the following programs: Old-age, survivors, and disability insurance (social security); hospital insurance; supplementary medical insurance; unemployment insurance; government employee retirement; railroad retirement; veterans life insurance; and temporary disability insurance.

Personal tax and nontax payments (2–1) is tax payments (net of refunds) by persons resident in the United States that are not chargeable to business expense and certain other personal payments to government agencies (except government enterprises) that are treated like taxes. Personal taxes includes taxes on income, including realized net capital gains;

4. Prior to the 1991 comprehensive revision, this item was called "capital consumption allowances with capital consumption adjustment."

on transfers of estates and gifts; and on personal property. Nontaxes includes donations and fees, fines, and forfeitures. Personal contributions for social insurance is not included. Taxes paid by U.S. residents to foreign governments and taxes paid by foreigners to the U.S. Government are both included in transfer payments.

Personal outlays (2–2) is the sum of personal consumption expenditures (see 1–31), interest paid by persons (see 2–18), and *personal transfer payments to rest of the world (net)* (2–5). The last item is personal remittances in cash and in kind to the rest of the world less such remittances from the rest of the world.

Personal saving (2–6) is personal income less the sum of personal outlays and personal tax and nontax payments. It is the current saving of individuals (including proprietors), nonprofit institutions that primarily serve individuals, life insurance carriers, private noninsured welfare funds, and private trust funds. Personal saving may also be viewed as the sum of the net acquisition of financial assets (such as cash and deposits, securities, and the change in the net equity of individuals in life insurance and in private noninsured pension plans) and the change in physical assets less the sum of net borrowing and of consumption of fixed capital.

Government receipts and expenditures account

Personal tax and nontax payments (see 2–1).

Corporate profits tax liability (see 1–12).

Indirect business tax and nontax liability (see 1–23).

Contributions for social insurance (see 1–6 and 2–22).

Purchases (see 1–45).

Transfer payments (3–2) is transfer payments to persons (see 2–21) and *transfer payments to rest of the world (net)* (3–4). The latter consists of U.S. Government military and nonmilitary grants in cash and nonmilitary grants in kind to foreign governments and of U.S. Government transfers, mainly retirement benefits, to former residents of the United States.

Net interest paid (3–5) by government is interest paid by government (see 2–16) less interest received by government (see 2–17). Interest paid by government is interest paid by government to persons and business and interest paid by government to the rest of the world, that is, to foreign businesses, governments, and persons. Interest received by government is interest received from business and from the rest of the world. Interest paid consists of monetary interest paid on public debt and other financial obligations. Interest received consists of monetary and imputed interest received on loans and investments, including on the balances of State and local government social insurance funds.

Dividends received by government (see 2–13).

Subsidies less current surplus of government enterprises (see 1–24).

Wage accruals less disbursements (see 1–4).

Surplus or deficit (-), national income and product accounts (3–9) is the sum of government receipts (lines 12, 13, 14, and 15 of account 3) less the sum of government expenditures (lines 1, 2, 5, 6, 7, and 8 of account 3). It may also be viewed as the sum of the net acquisition of financial assets by government and government enterprises and net government purchases of land and of rights to government-owned land including oil resources, less net borrowing.

Foreign transactions account

Imports of goods and services (see 1–44).

Payments of factor income (see 1–30).

Transfer payments to rest of the world (see 1–22, 2–5, and 3–4).

Net foreign investment (4–10) is U.S. exports of goods and services, receipts of factor income, and capital grants received by the United States (net) (see below), less imports of goods and services by the United States, payments of factor income, and transfer payments to the rest of the world (net). It may also be viewed as the acquisition of foreign assets by U.S. residents less the acquisition of U.S. assets by foreign residents. It includes the statistical discrepancy in the balance of payments accounts.

Exports of goods and services (see 1–43).

Receipts of factor income (see 1–29).

Capital grants received by the United States (net) (4–3) is mainly the allocation of Special Drawing Rights to the United States.

Gross saving and investment account

Personal saving (see 2–6).

Wage accruals less disbursements (see 1–4).

Undistributed corporate profits with inventory valuation and capital consumption adjustments (see 1–15, 1–16, and 1–17).

Consumption of fixed capital (see 1–25).

Government surplus or deficit (-), national income and product accounts (see 3–9).

Capital grants received by the United States (net) (see 4–3).

Statistical discrepancy (see 1–27).

Gross private domestic investment (see 1–35).

Net foreign investment (see 4–10).

Other definitions

Gross domestic purchases is the market value of goods and services purchased by U.S. residents, regardless of where those goods and services were produced. It may be calculated as GDP minus net exports of goods and services; equivalently, it is the sum of personal consumption expenditures, gross private domestic investment, and government purchases. *Final sales to domestic purchasers* is gross domestic purchases minus change in business inventories; equivalently, it is the sum of personal consumption expenditures, gross private domestic fixed investment, and government purchases. *Final sales of domestic product* is GDP minus change in business inventories; equivalently, it is final sales to domestic purchasers plus net exports.

Population is the total population of the United States, including Armed Forces overseas and the institutionalized population. The monthly estimate is the average of Census

Bureau survey estimates for the first of the month and the first of the following month; the quarterly and annual estimates are the averages of the relevant monthly estimates.

Personal saving as a percentage of disposable personal income (DPI), frequently referred to as "the personal saving rate," is calculated on a quarterly and an annual basis as the ratio of personal saving to DPI. Monthly, the saving rate is calculated as the ratio of an unweighted, centered 3-month moving average of personal saving to a similarly calculated average of DPI.

U.S. residents consists of individuals, governments, business enterprises, trusts, associations, and similar institutions that have the center of their economic interest in the United States and that reside or expect to reside in the United States for 1 year or more. (For example, business enterprises resident in the United States include U.S. affiliates of foreign companies.) In addition, U.S. residents includes all U.S. citizens who reside outside the United States for less than 1 year and U.S. citizens residing abroad for 1 year or more who meet one of the following criteria: Owners or employees of U.S. business enterprises who reside abroad to further the enterprises' business and who intend to return within a reasonable period; U.S. Government civilian and military employees and members of their immediate families; and students who attend foreign educational institutions.

Rest of the world consists of foreign residents who are transactors with U.S. residents. Foreign residents include international institutions located in the United States, foreign nationals employed by their home Governments in the United States, and foreign affiliates of U.S. companies. Rest-of-the-world production is production abroad that is attributable to factors of production supplied by U.S. residents less the production in the United States attributable to factors of production supplied by foreign residents. Production is measured by the net inflow of labor and property incomes.

Real output and related measures

Real output

The tables in this volume contain, in addition to estimates in current dollars, estimates in "real," or physical quantity, terms—that is, estimates from which price change has been removed. The featured measure of real GDP is a fixed-weighted quantity series in which the weights are 1987 prices. This series is expressed in constant dollars and as an index with 1987 equal to 100.

The constant-dollar estimates of GDP are prepared at a detailed level using one of three methods. The method used for most GDP components is deflation; that is, constant-dollar estimates are obtained by dividing the most detailed current-dollar components by appropriate price indexes, with the base period—at present, the year 1987—equal to 100. The other two methods, quantity extrapolation and direct base-year valuation, are similar to each other in that they both use quantity data. For quantity extrapolation, constant-dollar estimates are obtained by extrapolating the base-year current-dollar estimates in both directions from the base period (1987) by quantity indicators. For direct base-year valuation, constant-dollar estimates are obtained by multiplying base-year prices by actual quantity data for each period.

Two alternatives to constant-dollar real output measures are based on the price weights for more than a single year. These alternative indexes use the Fisher Ideal index formula to provide a measure of change between two, not necessarily adjacent, periods.[5] In one alternative, the weights change each year; in the other, the weights change each benchmark year—that is, at about 5-year intervals.

The first alternative index is referred to as the *chain-type annual-weighted quantity index.* For this alternative, a Fisher Ideal quantity index is used to calculate the change from year $t-1$ to year t. Thus, the annual change is provided by the geometric mean of the year t values of two fixed-weighted quantity indexes, one of which uses prices of year $t-1$ as weights and the other, prices of year t as weights. Annual changes computed in this manner are "chained" (multiplied) together to form a time series.

The second alternative index is referred to as the *benchmark-years-weighted quantity index.* For this alternative, the Fisher Ideal index formula is adapted to use weights from two adjacent benchmark years, which are customarily 5 years apart. For each pair of adjacent benchmark years and the interval between them, two fixed-weighted quantity indexes are computed: One with the prices of the first benchmark year as weights, and the other with the prices of the second benchmark year. The geometric mean of these indexes is the benchmark-years-weighted quantity index. Cumulation of the annual changes in the benchmark-years-weighted index is equal to the Fisher Ideal change calculated directly from one benchmark to the next. Benchmark years are used as weighting periods because, for components of GDP that incorporate information from the quinquennial economic censuses, the benchmark-year price and quantity estimates are considered to be more accurate than those for other years.

Price indexes

The featured measure of GDP prices is the fixed-weighted GDP price index. It is a weighted average of detailed price indexes for the goods and services that make up GDP using weights that reflect the composition of GDP in 1987. Because the same weights are used for each period, changes in this index measure changes in prices over any period.

The fixed-weighted price indexes for several components of GDP—producers' durable equipment, exports, and imports—and for total GDP and the investment aggregates are not shown for periods prior to 1982. For those periods, the combination of the high level and very rapid decline of the price index for computers and the large 1987 quantity weights for computers results in misleading measures of price change (see page 39 of the article cited in footnote 5).

Two alternatives to the fixed-weighted price index are also shown in this volume. They involve the use of the Fisher Ideal index formula and are analogues to the two alternative

5. For more detail, see Allan H. Young, "Alternative Measures of Change in Real Output and Prices," Survey of Current Business 72 (April 1992): 32–48.

quantity measures discussed above. One alternative is referred to as the *chain-type annual-weighted price index;* the other, as the *benchmark-years-weighted price index.*

Implicit price deflators

The implicit price deflator is a byproduct of the estimation of constant-dollar GDP. It is derived as the ratio of current- to constant-dollar GDP (multiplied by 100). It is also a weighted average of the detailed price indexes used in estimating constant-dollar GDP, but the indexes are combined using weights that reflect the composition of GDP in each period. Consequently, changes in the implicit price deflator reflect not only changes in prices, but also changes in the composition of GDP, and its use as a measure of price change should be avoided.

Command-basis GNP and terms of trade

Another measure of constant-dollar product—*command-basis GNP*—also is included in this volume. Command-basis GNP measures the amount of the goods and services over which a country has "command" as a result of current production; that is, it measures U.S. production in terms of its purchasing power. GNP and command-basis GNP differ in how constant-dollar estimates are prepared: In estimating constant-dollar GNP, the current-dollar value of exports of goods and services is deflated by export prices, the current-dollar value of imports of goods and services is deflated by import prices, and the current-dollar value of most factor income is deflated by the implicit price deflator for net domestic product. In estimating the constant-dollar measure of command-basis GNP, exports of goods and services and receipts of factor income are deflated by the implicit price deflator for imports of goods and services and payments of factor income.

The *terms of trade* measures the claim of a given level of U.S. production on foreign production. It is calculated as the ratio (with the decimal point shifted two places to the right) of the implicit price deflator for the sum of exports of goods and services and receipts of factor income to the implicit price deflator for the sum of imports of goods and services and payments of factor income.

Classifications of production

Type of product

Type of product classifications—goods (durable and nondurable), services, and structures—are presented in this volume for GDP and for final sales of domestic product. Goods are products that can be stored or inventoried, services are products that cannot be stored and are consumed at the place and time of purchase, and structures are products that are generally constructed at the location where they will be used and that typically have long economic lives.

If a product has characteristics of more than one of the above classifications, it is classified on the basis of the dominant characteristic. Accordingly, the following products are included in goods: Restaurant meals; expenditures abroad by U.S. residents other than for travel; replacement parts whose installation cost is minimal; dealers' margins on used equipment; and movable household appliances, such as refrigerators, even when they are included in the purchase price of a new home. The following products are included in services: Airline transportation and hospital charges, which include food; natural gas and electricity; current operating expense of nonprofit institutions, foreign travel by U.S. residents; expenditures in the United States by foreigners; repair services, which include the cost of parts (except for replacement parts whose installation cost is minimal); defense research and development; and exports and imports of certain goods, primarily military equipment purchased and sold by the Federal Government. The following products are included in structures: Mobile homes; certain types of installed equipment, such as elevators and heating and air conditioning systems; brokers' commissions on sale of structures; architectural and engineering fees included in the value of structures; land development costs; and mining exploration, shafts, and wells.[6]

In personal consumption expenditures, exports, imports, and government purchases, durable goods have an average life of at least 3 years. In fixed investment, producers' durable equipment is goods, other than structures, with an average life of at least 1 year. In change in business inventories, goods held by manufacturing and trade establishments are classified as durables or nondurables in accordance with the classification of the industry holding the inventories. Inventories held by construction establishments are classified as durables; inventories held by all other industries are classified as nondurables.

Sector

In addition to the breakdowns of GDP that appear in the five-account summary of the NIPA's (table A), this measure of production also is shown in the tables of this volume for each of the three sectors of the economy—business, households and institutions, and general government. The production of each of these sectors is defined below.

Business: Production by all entities that produce goods and services for sale at a price intended at least to approximate the costs of production (including profits) plus production by certain other entities treated as business in the NIPA's. It mainly covers the production of corporate and noncorporate private entities organized for profit. Also included is production associated with mutual financial institutions, private noninsured pension funds, cooperatives, nonprofit organizations (that is, entities determined to be nonprofit by the Internal Revenue Service (IRS) for purposes of determining income tax liability) that primarily serve business, Federal Reserve banks, federally sponsored credit agencies, and government enterprises.[7] Owner-occupied housing as well as buildings and equipment owned and used by nonprofit insti-

6. In the purchases of structures tables, compensation of government employees engaged in new construction projects is included in purchases of structures.

7. For more detail on government enterprises, see the next section on legal form of organization.

tutions that primarily serve individuals are treated as business entities selling their current services to their owners, and thus are included in business product. Production of the business sector can be measured either in terms of the net value of the goods and services business produces or in terms of the costs incurred and profits earned by business from production.

Households and institutions: Production by households, consisting of families and unrelated individuals, and by nonprofit institutions that primarily serve individuals. Production is measured by the compensation of the employees of these entities.

General government: Production by all Federal Government and State and local government agencies except government enterprises. Production is measured by the compensation of the employees of these agencies.

Legal form of organization

For the domestic business sector, income and its components are shown in the tables of this volume for four legal forms of organizations—corporate business, sole proprietorships and partnerships, other private business, and government enterprises (employee compensation only). The entities whose production is included in each of these legal forms are specified below.

Corporate business: All entities required to file Federal corporate tax returns (IRS Form 1120 series), including mutual financial institutions and cooperatives subject to Federal income tax, private noninsured pension funds, nonprofit institutions that primarily serve business, Federal Reserve banks, and Federally sponsored credit agencies.

Sole proprietorships: All entities that would be required to file IRS Schedule C (Profits or Loss from Business) or Schedule F (Farm Income and Expenses) if the proprietor met the filing requirements, together with owner-occupied farm housing.

Partnerships: All entities required to file Federal partnership income tax returns, IRS Form 1065 (U.S. Partnership Return of Income).

Other private business: All entities that would be required to report rental and royalty income on the individual income tax return in IRS Schedule E (Supplemental Income and Loss) if the individual met the filing requirements, tax-exempt cooperatives, owner-occupied nonfarm housing, and buildings and equipment owned and used by nonprofit institutions that primarily serve individuals.

Government enterprises: Government agencies that cover a substantial proportion of their operating costs by selling goods and services to the public and that maintain their own separate accounts. A "mixed" treatment of government enterprises is used in the NIPA's, in which some types of transactions are recorded as if they were part of the general government sector and others as if they were part of the business sector.

Government enterprises are treated like other businesses and included in the NIPA business sector in that (1) their sales to final users are recorded in the business production account; (2) their outlays for materials and business services are considered intermediate rather than final and therefore are eliminated in the consolidation of the business sector production account; and (3) both their wage, salary, and other compensation payments and their income are considered charges against business product rather than charges against government product. Within the business sector, government enterprises are classified as noncorporate businesses. The profit-like income of these businesses accrues to general government and is called the current surplus of government enterprises (see definition on page M–8).

Government enterprises are treated like other government agencies and included in the NIPA government sector in that (1) their interest payments are combined with those of general government rather than those of business; (2) their purchases of equipment and structures and their inventory change are combined with general government purchases rather than with business purchases in gross private domestic investment; and (3) as a consequence of (2), no entries are recorded for consumption of fixed capital.

Industry

Industrial distributions are presented in this volume for national income and its components, capital consumption allowances, employment and hours, and the change in business inventories and the stock of business inventories.[8] The classification underlying the distributions of private activities is based on the Standard Industrial Classification (SIC).[9]

The industry distributions in most of the tables in category 6 "Income, Employment, and Product by Industry" are shown as follows: Estimates for 1929 to 1948, based on the 1942 SIC, are shown in tables designated as part A (in volume 1 only); estimates for 1948 to 1987, based on the 1972 SIC, are shown as part B; and estimates for 1987 forward, based on the 1987 SIC, are shown as part C. The industry distributions based on the 1987 SIC reflect the corresponding shift of most of the NIPA source data. Estimates for earlier years, which are now based on either the 1942 or the 1972 SIC, have not been adjusted to the 1987 SIC because of a lack of adequate source data. Instead, the estimates for 1987 are shown on the basis of both the 1972 and the 1987 SIC. In volume 1 (1929–58), the estimates for 1948 are shown on the basis of both the 1942 and 1972 SIC.

Industrial distributions of government activities are not provided; instead, they are combined into a single category. For most series, separate estimates are shown for the activities of the Federal Government, of State and local governments, and of government enterprises. Expenditures by the Federal Government and State and local governments are also shown by type and function.

8. An industrial distribution of fixed investment is also prepared as part of the procedure used to estimate capital stock. This distribution is based on data collected from establishments. For further information, write to the National Income and Wealth Division (BE-54), Bureau of Economic Analysis, U.S. Department of Commerce, Washington, DC 20230.

9. See *Standard Industrial Classification Manual, 1987*, Executive Office of the President, Office of Management and Budget (Washington, DC: U.S. Government Printing Office, 1988); *Standard Industrial Classification Manual, 1972*, Executive Office of the President, Office of Management and Budget (Washington, DC: U.S. Government Printing Office, 1972); and *Standard Industrial Classification Manual, 1942*, Executive Office of the President, Bureau of the Budget (Washington, D.C.: U.S. Government Printing Office, 1942).

The industrial distributions for private activities are based on data collected either from "establishments" or from "companies" (also called enterprises or firms). Establishments, as defined for purposes of the SIC, are economic units, generally at a single physical location, where business is conducted or where services or industrial operations are performed. Companies consist of one or more establishments owned by the same legal entity or group of affiliated entities. Establishments are classified into an SIC industry on the basis of their principal product or service, and companies are classified into an SIC industry on the basis of the principal SIC industry of all their establishments. Because large multiestablishment companies typically own establishments that are classified in different SIC industries, industrial distributions of the same economic activity for establishments and companies can be significantly different. For example, employment by steel-manufacturing companies differs from employment by steel-manufacturing establishments because the former includes employment by establishments that are not classified as steel manufacturing and excludes employment by establishments that manufacture steel but are not owned by steel-manufacturing companies.

For the NIPA series, industrial distributions on a consistent establishment or company basis are not available. For the following series, the industrial distributions are based on establishment data: Compensation of employees, employment, hours, inventories, rental income of persons, farm proprietors' income, farm net interest, and farm noncorporate capital consumption allowances. For nonfarm proprietors, industrial distributions of proprietors' income, net interest, and capital consumption allowances are based on company data. These data are regarded as being substantially the same as if they were based on establishment data because nearly all unincorporated companies own only a single establishment (and the few multiestablishment companies usually own establishments in the same SIC industry). For corporations, industrial distributions of profits, nonfarm net interest, and capital consumption allowances are based on company data. As a result, the industrial distribution of national income presented in this volume reflects a mix of establishment and company data.

In addition to the establishment-company data problem, individual industry series presented in this volume are not fully comparable over time. Historical comparability is affected primarily by two factors. First, in some instances, the composition of industries may change due to SIC changes, and as noted above, information was lacking to permit BEA to conform the estimates for 1986 and earlier years to the 1987 SIC. This factor affects estimates based on establishment data as well as those based on company data.

Second, historical comparability is affected because the industrial classification of the same establishment or company may change over time. This factor affects company-based estimates much more than establishment-based estimates. The classification of a company is subject to change due to the following: Shifts in the level of consolidation of entities for which company reports are filed; mergers and acquisitions; and other shifts in principal activities, especially for large diversified firms. For example, the level of consolidation used by corporations in filing their Federal income tax returns was significantly altered in the 1930's and 1940's. Affiliated corporations were not allowed to file consolidated returns from 1934 to 1941; as a result, the company consisted only of individual corporations. In other years, the company consisted of either an individual corporation or a grouping of affiliated corporations. Changes in the level of consolidation used by corporations in filing these returns affected the industrial distribution of corporate profits, net interest, and capital consumption allowances, which are derived primarily from tabulations of corporate tax returns.

In addition to the SIC industrial distributions of private activities, some NIPA tables show the following special SIC groupings, the titles of which correspond to the 1987 SIC:

Financial industries consists of the following SIC industries: Depository institutions; nondepository institutions; security and commodity brokers; insurance carriers; regulated investment companies; small business investment companies; and real estate investment trusts.[10]

Nonfinancial industries consists of all other private industries.

Commodity-producing industries consists of the following SIC divisions: Agriculture, forestry, and fishing; mining; construction; and manufacturing.

Distributive industries consists of the following SIC divisions: Transportation (excluding the U.S. Postal Service); communications; electric, gas, and sanitary services; wholesale trade; and retail trade.

Service industries consists of the rest-of-the-world sector and the following SIC divisions: Finance, insurance, and real estate; and services.

10. Regulated investment companies, small business investment companies, and real estate investment trusts are included in the SIC classification "holding and other investment offices" and are not shown separately in the NIPA tables.

Definitions and Classifications Underlying the National Income and Product Accounts

National income and product accounts entries

Income and product aggregates are defined below, and their definitions are amplified by definitions of their major components. The aggregates differ from each other because of distinctions that are made between domestic measures and national measures, between gross and net concepts, and between market-value and factor-cost concepts.

The remaining definitions are presented in the framework of the five-account summary of the national income and product accounts (NIPA's) (shown in table A, page M–14). Each entry has a counterentry, generally in another account. The parenthetical numbers that follow an entry in table A identify the counterentry by account and line number. With the exception of major income and product aggregates, entries are usually defined in the sequence in which they appear in the five-account summary. The definition is not repeated where the counterentry appears, but a cross-reference is made to the place of its first appearance. Following the five-account summary discussion, definitions for several additional items are presented: Gross domestic purchases, final sales to domestic purchasers, final sales of domestic product, population, personal saving as a percentage of disposable personal income, U.S. residents, and the rest of the world.

Major aggregates

Effective with the 1991 comprehensive revision, BEA began featuring gross domestic product (GDP), rather than gross national product (GNP), as the primary measure of U.S. production. *GDP* is the market value of the goods and services *produced by labor and property located in the United States.* As long as the labor and property are located in the United States, the suppliers (that is, the workers and, for property, the owners) may be either U.S. residents or residents of the rest of the world. *GNP* (1–28) covers the goods and services *produced by labor and property supplied by U.S. residents.* As long as the labor and property are supplied by U.S. residents, they may be located either in the United States or abroad. ("U.S. residents" is defined on page M–10.)

To move from GDP to GNP, one must add receipts of factor income from the rest of the world, which represent the goods and services produced abroad using the labor and property supplied by U.S. residents, and subtract payments of factor income to the rest of the world, which represent the goods and services produced in the United States using the labor and property supplied by foreign residents. Factor incomes are measured as compensation of employees, corporate profits (dividends, earnings of unincorporated affiliates, and reinvested earnings of incorporated affiliates), and interest.

Net domestic product (NDP) is the net market value of the goods and services attributable to labor and property located in the United States and is equal to GDP less consumption of fixed capital. It is U.S. production net of the fixed capital "used up" in the production process during the accounting period. *Net national product* (NNP) is the net market value of goods and services attributable to the labor and property supplied by the residents of the United States and is equal to GNP less consumption of fixed capital. The measure of consumption of fixed capital used for both NDP and NNP relates only to fixed capital located in the United States.

Gross national income (1–26) is the costs incurred and the profits earned in the production of GNP. Accordingly, it equals GNP, except for the statistical discrepancy. Gross national income is the sum of (1) factor incomes—compensation of employees, proprietors' income, rental income of persons, corporate profits, and net interest; (2) three nonfactor incomes—business transfer payments, indirect business taxes, and the current surplus of government enterprises less government subsidy payments; and (3) consumption of fixed capital.

National income (1–19) is the sum of the factor incomes. It is a net factor cost measure equal to the income that originates in the production of goods and services supplied by the residents of the United States. *Domestic income,* also a net factor cost measure, is the income that originates in the production of goods and services attributable to labor and property located in the United States.

To summarize, GDP is a gross market value measure, net domestic product is a net market value measure, and domestic income is a net factor cost measure. The corresponding national measures are GNP (gross market value), net national product (net market value), and national income (net factor cost).

Personal income is the income received by persons from all sources—that is, from participation in production, from both government and business transfer payments, and from government interest (which is treated like a transfer payment). "Persons" consists of individuals, nonprofit institutions that primarily serve individuals, private noninsured welfare funds, and private trust funds. Personal income is calculated as the sum of wage and salary disbursements, other labor income, proprietors' income with inventory valuation and capital consumption adjustments, rental income of persons with capital consumption adjustment, personal dividend income, personal interest income, and transfer payments to persons, less personal contributions for social insurance.

Disposable personal income is personal income less personal tax and nontax payments. It is the income available to persons for spending or saving.

National income and product account

GDP (defined above) is the sum of personal consumption expenditures, gross private domestic investment (including change in business inventories and before deduction of charges for consumption of fixed capital), net exports of goods and services (exports less imports), and government purchases. GDP excludes business purchases of goods and services on current account.

Personal consumption expenditures (1–31) is goods and services purchased by persons resident in the United States. Most of personal consumption expenditures (PCE) consists of purchases of new goods and of services by individuals from business. In addition, PCE includes purchases of new goods and of services by nonprofit institutions, net purchases of used goods by individuals and nonprofit institutions, and purchases abroad of goods and services by U.S. residents traveling or working in foreign countries.[1] PCE also includes purchases for certain services provided by the government—primarily tuition payments for higher education and charges for medical care. Finally, PCE includes imputed purchases that keep PCE invariant to changes in the way that certain activities are carried out—for example, whether housing is rented or owned or whether employees are paid in cash or in kind.

The following conventions are used to classify each PCE commodity: *Durable goods* (1–32) are commodities that can be stored or inventoried and that have an average life of at least 3 years; *nondurable goods* (1–33) are all other commodities that can be stored or inventoried; and *services* (1–34) are commodities that cannot be stored and that are consumed at the place and time of purchase.

Gross private domestic investment (1–35) consists of *fixed investment* (1–36) and *change in business inventories* (1–41). Fixed investment consists of both *nonresidential* (1–37) fixed investment and *residential* (1–40) fixed investment. It is measured without a deduction for consumption of fixed capital and includes replacements and additions to the capital stock. It covers all investment by business and nonprofit institutions in the United States, regardless of whether the investment is owned by U.S. residents. (Public purchases of equipment and structures is in the government purchases account.) It excludes investment by U.S. residents in other countries. Nonresidential fixed investment consists of both *structures* (1–38) and *producers' durable equipment* (PDE) (1–39).

Nonresidential structures consists of new construction, brokers' commissions on sale of structures, and net purchases of used structures by business and nonprofit institutions from governments. New construction also includes hotels and motels, and mining exploration, shafts, and wells.

1. Purchases of residential structures by individuals and nonprofit institutions that primarily serve individuals are classified as gross private domestic investment.

Nonresidential PDE consists of private business purchases on capital account of new machinery, equipment, furniture, and vehicles (except for personal-use portions of equipment purchased for both business and personal use, which are included in PCE), plus dealers' margins on sales of used equipment, and net purchases of used equipment from government, from persons, and from the rest of the world.

Residential fixed investment consists of both structures and residential PDE—equipment owned by landlords and rented to tenants. Investment in structures consists of new units, improvements to existing units, mobile homes, brokers' commissions on the sale of residential property, and net purchases of used structures from government.

Change in business inventories (1–41) is the change in the physical volume of inventories held by business, valued in average prices of the period. It differs from the change in the book value of inventories reported by business; an inventory valuation adjustment converts inventories valued at historical cost to replacement cost. (The inventory valuation adjustment is described below.)

Net exports of goods and services (1–42) is exports (1–43) less imports (1–44) of goods and services. Receipts of factor income are excluded from exports, and payments of factor income are excluded from imports.

Government purchases (1–45) is purchases from business (including net purchases of used goods), compensation of government employees, and purchases from the rest of the world. Receipts of certain services provided by government—primarily tuition payments for higher education and charges for medical care—are defined as government sales, which are treated as deductions from government purchases. The change in inventories and purchases of structures and equipment by government enterprises are included, but their current-account purchases are not. Purchases does not include transfer payments, interest paid by government, and subsidies. Transactions in financial assets and land also are excluded.

Compensation of employees (1–1) is the income accruing to employees as remuneration for their work. It is the sum of wages and salaries and of supplements to wages and salaries.

Wages and salaries (1–2) consists of the monetary remuneration of employees, including the compensation of corporate officers; commissions, tips, and bonuses; voluntary employee contributions to certain deferred compensation plans such as 401(k) plans; and receipts in kind that represent income. Wages and salaries consists of *disbursements* (1–3) and *wage accruals less disbursements* (1–4). Disbursements is wages and salaries as just defined except that retroactive wages are counted when paid rather than when earned.

Supplements to wages and salaries (1–5) consists of employer contributions for social insurance and other labor income. *Employer contributions for social insurance* (1–6) consists of employer payments under the following programs: Old-age, survivors, and disability insurance (social security); hospital insurance; unemployment insurance; railroad retirement; government employee retirement; pension benefit guaranty; veterans life insurance; publicly administered workers' compensation; military medical insurance; and temporary disability insurance. *Other labor income* (1–7) consists of employer payments to private pension and profit-sharing plans, private group health and life insurance plans, privately administered workers' compensation plans, supplemental unemployment benefit plans, corporate directors' fees, and several minor categories of employee compensation, including judicial fees to jurors and witnesses, compensation of prison inmates, and marriage fees to justices of the peace.

Proprietors' income with inventory valuation and capital consumption adjustments (1–8) is the current-production income (including income in kind) of sole proprietorships and partnerships and of tax-exempt cooperatives. The imputed net rental income of owner-occupants of farm dwellings is included. Dividends and monetary interest received by nonfinancial business and rental incomes received by persons not primarily engaged in the real estate business are excluded; these incomes are included in dividends, net interest, and rental income of persons. (The inventory valuation and capital consumption adjustments are described below.)

Rental income of persons with capital consumption adjustment (1–9) is the net current-production income of persons from the rental of real property, except income of persons primarily engaged in the real estate business; the imputed net rental income of owner-occupants of nonfarm dwellings; and the royalties received by persons from patents, copyrights, and rights to natural resources. (The capital consumption adjustment is described below.)

Corporate profits with inventory valuation and capital consumption adjustments (1–10) is the income of organizations treated as corporations in the NIPA's. These organizations consist of all entities required to file Federal corporate tax returns, including mutual financial institutions and cooperatives subject to Federal income tax; private noninsured pension funds; nonprofit institutions that primarily serve business; Federal Reserve banks; and federally sponsored credit agencies. The income is that arising from current production. With several differences, this income is measured as receipts less expenses as defined in Federal tax law. Among these differences are the following: Receipts exclude capital gains and dividends received, expenses exclude depletion and capital losses and losses resulting from bad debts, inventory withdrawals are valued at replacement cost, and depreciation is on a consistent accounting basis and valued at replacement cost. Because national income is defined as the income of U.S. residents, its profits component includes income earned abroad by U.S. corporations and excludes income earned in the United States by the rest of the world. (The inventory valuation and capital consumption adjustments are described below.)

Profits before tax (1–11) is the income of organizations treated as corporations in the NIPA's, as described above, except that it reflects the inventory and depreciation accounting practices used for Federal income tax returns. It consists of profits tax liability, dividends, and undistributed corporate profits.

Profits tax liability (1–12) is the sum of Federal, State, and local income taxes on all income subject to taxes; this income includes capital gains and other income excluded from profits before tax. The taxes are measured on an accrual basis, net of applicable tax credits.

Profits after tax (1–13) is profits before tax less profits tax liability. It consists of dividends and undistributed corporate profits. *Dividends* (1–14) is payments in cash or other assets, excluding the corporations' own stock, made by corporations located in the United States and abroad to stockholders who are U.S. residents. The payments are measured net of dividends received by U.S. corporations. Dividends paid to State and local government social insurance funds and general government are included. *Undistributed profits* (1–15) is corporate profits after tax less dividends.

Inventory valuation adjustment (1–16) for corporations is the difference between the cost of inventory withdrawals as valued in determining profits before tax and the cost of withdrawals valued at replacement cost. It is needed because, under the accounting practices used by businesses to determine income as reported in the source data, inventories are often charged to cost of sales (that is, withdrawn) at their acquisition (historical) cost rather than at their replacement cost (the concept underlying the NIPA's). In periods of changing prices, this practice results in profits (or losses) on inventoried goods. The inventory valuation adjustment (IVA) is an estimate of inventory profits, but with the sign reversed. Thus, adding the IVA to income removes the inventory profits, as is appropriate for a measure of current production. As noted above, a similar adjustment is applied to change in business inventories and nonfarm proprietors' income. No adjustment is needed to farm proprietors' income because farm inventories are measured on a current-market-cost basis.

Net interest (1–18) is the interest paid by business less interest received by business, plus interest received from the rest of the world less interest paid to the rest of the world. Interest payments on mortgage and home improvement loans are counted as interest paid by business because home ownership is treated as a business in the NIPA's. In addition to monetary interest, net interest includes imputed interest, which is paid by corporate financial business. The imputed interest paid by life insurance carriers and noninsured pension plans credits their investment income to persons in the year it is earned. The imputed interest payments by financial intermediaries other than life insurance carriers and private noninsured pension plans to persons, governments, and to the rest of the world have imputed service charges as counterentries in GNP; they are included in personal consumption expenditures, in government purchases, and in exports, respectively.

Business transfer payments (1–20) consists of payments *to persons* (1–21) and *to the rest of the world* (1–22) for which no current services are performed. Business transfer payments to persons consists primarily of liability payments for personal injury and of corporate gifts to nonprofit institutions. Business transfer payments to the rest of the world is nonresident taxes—taxes paid by domestic corporations to foreign governments.

Indirect business tax and nontax liability (1–23) consists of tax liabilities that are chargeable to business expense in the calculation of profit-type incomes and of certain other business liabilities to government agencies (except government enterprises) that are treated like taxes. Indirect business taxes includes taxes on sales, property, and production. Employer contributions for social insurance are not included. Taxes on corporate incomes are not included; these taxes cannot be calculated until profits are known, and in that sense they are not a business expense. Nontaxes includes regulatory and inspection fees, special assessments, fines and forfeitures, rents and royalties, and donations. Nontaxes generally excludes business purchases from government of goods and services that are similar to those provided by the private sector. Government receipts from the sales of such products are netted against government purchases so that they do not appear in GDP.

Subsidies less current surplus of government enterprises (1–24). *Subsidies* is the monetary grants paid by government to business, including government enterprises at another level of government. The *current surplus of government enterprises* is their current operating revenue and subsidies received from other levels of government less their current expenses. In the calculation of their current surplus, no deduction is made for depreciation charges and net interest paid. The current surplus of government enterprises is not counted as a profit-type income, and therefore, it is not counted as a factor charge. Subsidies and current surplus are shown as a combined entry because deficits incurred by government enterprises may result from selling goods to business at below-market prices in lieu of giving them subsidies.

Consumption of fixed capital (1–25) is a charge for the using up of fixed capital owned by entities defined as private business in the NIPA's and located in the United States.[2] It is based on the use of uniform service lives, straight-line depreciation, and replacement cost. For nonprofit institutions that primarily serve individuals, it is an imputation in personal consumption expenditures for the value of the current services of the fixed capital assets owned and used by these institutions. *Capital consumption allowances* consists of depreciation charges and accidental damage to fixed capital. For corporate business and nonfarm proprietors, it is based on depreciation as reported on Federal income tax returns. For noncorporate farms and other private business, it is calculated by BEA based on expenditures for fixed capital, uniform service lives, straight-line depreciation, and historical cost. *Capital consumption adjustment* (1–17) for corporations is the difference between depreciation as valued in determining the income reported in the source data and what is referred to as "economic depreciation"—depreciation as valued on the basis of consistent accounting (economic service lives and straight-line depreciation) and at replacement cost. It is equal to the tax-return-based capital consumption allowances less the estimate of consumption of fixed capital. Similar adjustments are calculated for proprietors' income, rental income of persons, and nonprofit institutions that primarily serve individuals.

Statistical discrepancy (1–27) is GNP less gross national income. It arises because GNP and gross national income are estimated independently. (The statistical discrepancy is also equal to GDP less gross domestic income.)

Receipts of factor income from the rest of the world (1–29) consists of receipts by U.S. residents of interest and dividends, of reinvested earnings of foreign affiliates of U.S. corporations, and of compensation paid to U.S. residents by foreigners.

Payments of factor income to the rest of the world (1–30) consists of payments to foreign residents of interest and dividends, of reinvested earnings of U.S. affiliates of foreign corporations, and of compensation paid to foreigners by U.S. residents.

Personal income and outlay account

Wage and salary disbursements (see 1–3).

Other labor income (see 1–7).

Proprietors' income with inventory valuation and capital consumption adjustments (see 1–8).

Rental income of persons with capital consumption adjustment (see 1–9).

Personal dividend income (2–11) is the dividend income of persons from all sources. It equals net dividends paid by corporations (see 1–14) less *dividends received by government* (2–13). Dividends received by government consists of dividends received by State and local governments, primarily by their retirement systems.

Personal interest income (2–14) is the interest income (monetary and imputed) of persons from all sources. It equals net interest (see 1–18) plus *interest paid by government* (2–16) less *interest received by government* (2–17) plus *interest paid by persons* (2–18). The last item consists of all interest paid by individuals except mortgage interest.

Transfer payments to persons is income payments to persons for which no current services are performed. It consists of business transfer payments to persons (see 1–21) and *government transfer payments* (2–21). Government transfer payments consists of benefits from the following social insurance funds: Old-age, survivors, and disability insurance (social security); hospital insurance; supplementary medical insurance; unemployment insurance; government employee retirement; railroad retirement; pension benefit guaranty; veterans life insurance; workers' compensation; military medical insurance; and temporary disability insurance. Government transfer payments also includes benefits from certain other programs: Veterans benefits, in addition to veterans life insurance; food stamps; black lung; supplemental security income; and public assistance (including medicaid). Government payments to nonprofit institutions, other than for work under research and development contracts, are also included.

Personal contributions for social insurance (2–22) includes payments by employees, by the self-employed, and by other individuals who participate in the following programs: Old-age, survivors, and disability insurance (social security); hospital insurance; supplementary medical insurance; unemployment insurance; government employee retirement; railroad retirement; veterans life insurance; and temporary disability insurance.

Personal tax and nontax payments (2–1) is tax payments (net of refunds) by persons resident in the United States that are not chargeable to business expense and certain other personal payments to government agencies (except government enterprises) that are treated like taxes. Personal taxes includes taxes on income, including realized net capital gains

2. Prior to the 1991 comprehensive revision, this item was called "capital consumption allowances with capital consumption adjustment."

on transfers of estates and gifts; and on personal property. Nontaxes includes donations and fees, fines, and forfeitures. Personal contributions for social insurance is not included. Taxes paid by U.S. residents to foreign governments and taxes paid by foreigners to the U.S. Government are both included in transfer payments.

Personal outlays (2–2) is the sum of personal consumption expenditures (see 1–31), interest paid by persons (see 2–18), and *personal transfer payments to rest of the world (net)* (2–5). The last item is personal remittances in cash and in kind to the rest of the world less such remittances from the rest of the world.

Personal saving (2–6) is personal income less the sum of personal outlays and personal tax and nontax payments. It is the current saving of individuals (including proprietors), nonprofit institutions that primarily serve individuals, life insurance carriers, private noninsured welfare funds, and private trust funds. Personal saving may also be viewed as the sum of the net acquisition of financial assets (such as cash and deposits, securities, and the change in the net equity of individuals in life insurance and in private noninsured pension plans) and the change in physical assets less the sum of net borrowing and of consumption of fixed capital.

Government receipts and expenditures account

Personal tax and nontax payments (see 2–1).

Corporate profits tax liability (see 1–12).

Indirect business tax and nontax liability (see 1–23).

Contributions for social insurance (see 1–6 and 2–22).

Purchases (see 1–45).

Transfer payments (3–2) is transfer payments to persons (see 2–21) and *transfer payments to rest of the world (net)* (3–4). The latter consists of U.S. Government military and nonmilitary grants in cash and nonmilitary grants in kind to foreign governments and of U.S. Government transfers, mainly retirement benefits, to former residents of the United States.

Net interest paid (3–5) by government is interest paid by government (see 2–16) less interest received by government (see 2–17). Interest paid by government is interest paid by government to persons and business and interest paid by government to the rest of the world, that is, to foreign businesses, governments, and persons. Interest received by government is interest received from business and from the rest of the world. Interest paid consists of monetary interest paid on public debt and other financial obligations. Interest received consists of monetary and imputed interest received on loans and investments, including on the balances of State and local government social insurance funds.

Dividends received by government (see 2–13).

Subsidies less current surplus of government enterprises (see 1–24).

Wage accruals less disbursements (see 1–4).

Surplus or deficit (-), national income and product accounts (3–9) is the sum of government receipts (lines 12, 13, 14, and 15 of account 3) less the sum of government expenditures (lines 1, 2, 5, 6, 7, and 8 of account 3). It may also be viewed as the sum of the net acquisition of financial assets by government and government enterprises and net government purchases of land and of rights to government-owned land including oil resources, less net borrowing.

Foreign transactions account

Imports of goods and services (see 1–44).

Payments of factor income (see 1–30).

Transfer payments to rest of the world (see 1–22, 2–5, and 3–4).

Net foreign investment (4–10) is U.S. exports of goods and services, receipts of factor income, and capital grants received by the United States (net) (see below), less imports of goods and services by the United States, payments of factor income, and transfer payments to the rest of the world (net). It may also be viewed as the acquisition of foreign assets by U.S. residents less the acquisition of U.S. assets by foreign residents. It includes the statistical discrepancy in the balance of payments accounts.

Exports of goods and services (see 1–43).

Receipts of factor income (see 1–29).

Capital grants received by the United States (net) (4–3) is mainly the allocation of Special Drawing Rights to the United States.

Gross saving and investment account

Personal saving (see 2–6).

Wage accruals less disbursements (see 1–4).

Undistributed corporate profits with inventory valuation and capital consumption adjustments (see 1–15, 1–16, and 1–17).

Consumption of fixed capital (see 1–25).

Government surplus or deficit (-), national income and product accounts (see 3–9).

Capital grants received by the United States (net) (see 4–3).

Statistical discrepancy (see 1–27).

Gross private domestic investment (see 1–35).

Net foreign investment (see 4–10).

Other definitions

Gross domestic purchases is the market value of goods and services purchased by U.S. residents, regardless of where those goods and services were produced. It may be calculated as GDP minus net exports of goods and services; equivalently, it is the sum of personal consumption expenditures, gross private domestic investment, and government purchases. *Final sales to domestic purchasers* is gross domestic purchases minus change in business inventories; equivalently, it is the sum of personal consumption expenditures, gross private domestic fixed investment, and government purchases. *Final sales of domestic product* is GDP minus change in business inventories; equivalently, it is final sales to domestic purchasers plus net exports.

Population is the total population of the United States, including Armed Forces overseas and the institutionalized population. The monthly estimate is the average of Census

Bureau survey estimates for the first of the month and the first of the following month; the quarterly and annual estimates are the averages of the relevant monthly estimates.

Personal saving as a percentage of disposable personal income (DPI), frequently referred to as "the personal saving rate," is calculated on a quarterly and an annual basis as the ratio of personal saving to DPI. Monthly, the saving rate is calculated as the ratio of an unweighted, centered 3-month moving average of personal saving to a similarly calculated average of DPI.

U.S. residents consists of individuals, governments, business enterprises, trusts, associations, and similar institutions that have the center of their economic interest in the United States and that reside or expect to reside in the United States for 1 year or more. (For example, business enterprises resident in the United States include U.S. affiliates of foreign companies.) In addition, U.S. residents includes all U.S. citizens who reside outside the United States for less than 1 year and U.S. citizens residing abroad for 1 year or more who meet one of the following criteria: Owners or employees of U.S. business enterprises who reside abroad to further the enterprises' business and who intend to return within a reasonable period; U.S. Government civilian and military employees and members of their immediate families; and students who attend foreign educational institutions. U.S residents excludes residents of commonwealths associated with the United States (Puerto Rico and the Northern Mariana Islands) and residents of U.S. territories (for example, Guam).

Rest of the world consists of foreign residents who are transactors with U.S. residents. Foreign residents include international institutions located in the United States, foreign nationals employed by their home Governments in the United States, and foreign affiliates of U.S. companies. Rest-of-the-world production is production abroad that is attributable to factors of production supplied by U.S. residents less the production in the United States attributable to factors of production supplied by foreign residents. Production is measured by the net inflow of labor and property incomes.

Real output and related measures

Real output

The tables in this volume contain, in addition to estimates in current dollars, estimates in "real," or physical quantity, terms—that is, estimates from which price change has been removed. The featured measure of real GDP is a fixed-weighted quantity series in which the weights are 1987 prices. This series is expressed in constant dollars and as an index with 1987 equal to 100.

The constant-dollar estimates of GDP are prepared at a detailed level using one of three methods. The method used for most GDP components is deflation; that is, constant-dollar estimates are obtained by dividing the most detailed current-dollar components by appropriate price indexes, with the base period—at present, the year 1987—equal to 100. The other two methods, quantity extrapolation and direct base-year valuation, are similar to each other in that they both use quantity data. For quantity extrapolation, constant-dollar estimates are obtained by extrapolating the base-year current-dollar estimates in both directions from the base period (1987) by quantity indicators. For direct base-year valuation, constant-dollar estimates are obtained by multiplying base-year prices by actual quantity data for each period.

Two alternatives to constant-dollar real output measures are based on the price weights for more than a single year. These alternative indexes use the Fisher Ideal index formula to provide a measure of change between two, not necessarily adjacent, periods.[3] In one alternative, the weights change each year; in the other, the weights change each benchmark year—that is, at about 5-year intervals. Annual estimates of these alternative indexes for 1929–58 and quarterly estimates for 1947–58 are not yet available; annual and quarterly estimates for 1959–88 were published in volume 2.

The first alternative index is referred to as the *chain-type annual-weighted quantity index.* For this alternative, a Fisher Ideal quantity index is used to calculate the change from year $t-1$ to year t. Thus, the annual change is provided by the geometric mean of the year t values of two fixed-weighted quantity indexes, one of which uses prices of year $t-1$ as weights and the other, prices of year t as weights. Annual changes computed in this manner are "chained" (multiplied) together to form a time series.

The second alternative index is referred to as the *benchmark-years-weighted quantity index.* For this alternative, the Fisher Ideal index formula is adapted to use weights from two adjacent benchmark years, which are customarily 5 years apart. For each pair of adjacent benchmark years and the interval between them, two fixed-weighted quantity indexes are computed: One with the prices of the first benchmark year as weights, and the other with the prices of the second benchmark year. The geometric mean of these indexes is the benchmark-years-weighted quantity index. Cumulation of the annual changes in the benchmark-years-weighted index is equal to the Fisher Ideal change calculated directly from one benchmark to the next. Benchmark years are used as weighting periods because, for components of GDP that incorporate information from the quinquennial economic censuses, the benchmark-year price and quantity estimates are considered to be more accurate than those for other years.

Price indexes

The fixed-weighted price indexes in this volume are weighted averages of detailed price indexes for the goods and services that make up GDP using weights that reflect the composition of GDP in 1987. Because the same weights are used for each period, changes in this index measure changes in prices over any period.

The fixed-weighted price indexes for several components of GDP—producers' durable equipment, exports, and imports—and for total GDP and the investment aggregates are not shown for periods prior to 1982. For those periods, the combination of the high level and very rapid decline of the price index for computers and the large 1987 quantity weights for

3. For more detail, see Allan H. Young, "Alternative Measures of Change in Real Output and Prices," SURVEY OF CURRENT BUSINESS 72 (April 1992): 32–48.

computers results in misleading measures of price change (see page 39 of the article cited in footnote 3).

Two alternatives to the fixed-weighted price index are also calculated. They use the Fisher Ideal index formula and are analogues to the two alternative quantity measures discussed above. One alternative is referred to as the *chain-type annual-weighted price index;* the other, as the *benchmark-years-weighted price index.* Annual estimates of these indexes for 1929–58 and quarterly estimates for 1947–58 are not yet available; annual and quarterly estimates for 1959–88 were published in volume 2.

Implicit price deflators

The implicit price deflator is a byproduct of the estimation of constant-dollar GDP. It is derived as the ratio of current- to constant-dollar GDP (multiplied by 100). It is also a weighted average of the detailed price indexes used in estimating constant-dollar GDP, but the indexes are combined using weights that reflect the composition of GDP in each period. Consequently, changes in the implicit price deflator reflect not only changes in prices, but also changes in the composition of GDP, and its use as a measure of price change should be avoided.

Command-basis GNP and terms of trade

Another measure of constant-dollar product—*command-basis GNP*—also is included in this volume. Command-basis GNP measures the amount of the goods and services over which a country has "command" as a result of current production; that is, it measures U.S. production in terms of its purchasing power. GNP and command-basis GNP differ in how constant-dollar estimates are prepared: In estimating constant-dollar GNP, the current-dollar value of exports of goods and services is deflated by export prices, the current-dollar value of imports of goods and services is deflated by import prices, and the current-dollar value of most factor income is deflated by the implicit price deflator for net domestic product. In estimating the constant-dollar measure of command-basis GNP, exports of goods and services and receipts of factor income are deflated by the implicit price deflator for imports of goods and services and payments of factor income.

The *terms of trade* measures the claim of a given level of U.S. production on foreign production. It is calculated as the ratio (with the decimal point shifted two places to the right) of the implicit price deflator for the sum of exports of goods and services and receipts of factor income to the implicit price deflator for the sum of imports of goods and services and payments of factor income.

Classifications of production

Type of product

Type of product classifications—goods (durable and nondurable), services, and structures—are presented in this volume for GDP and for final sales of domestic product. Goods are products that can be stored or inventoried, services are products that cannot be stored and are consumed at the place and time of purchase, and structures are products that are generally constructed at the location where they will be used and that typically have long economic lives.

If a product has characteristics of more than one of the above classifications, it is classified on the basis of the dominant characteristic. Accordingly, the following products are included in goods: Restaurant meals; expenditures abroad by U.S. residents other than for travel; replacement parts whose installation cost is minimal; dealers' margins on used equipment; and movable household appliances, such as refrigerators, even when they are included in the purchase price of a new home. The following products are included in services: Airline transportation and hospital charges, which include food; natural gas and electricity; current operating expense of nonprofit institutions, foreign travel by U.S. residents; expenditures in the United States by foreigners; repair services, which include the cost of parts (except for replacement parts whose installation cost is minimal); defense research and development; and exports and imports of certain goods, primarily military equipment purchased and sold by the Federal Government. The following products are included in structures: Mobile homes; certain types of installed equipment, such as elevators and heating and air conditioning systems; brokers' commissions on sale of structures; architectural and engineering fees included in the value of structures; land development costs; and mining exploration, shafts, and wells.[4]

In personal consumption expenditures, exports, imports, and government purchases, durable goods have an average life of at least 3 years. In fixed investment, producers' durable equipment is goods, other than structures, with an average life of at least 1 year. In change in business inventories, goods held by manufacturing and trade establishments are classified as durables or nondurables in accordance with the classification of the industry holding the inventories. Inventories held by construction establishments are classified as durables; inventories held by all other industries are classified as nondurables.

Sector

In addition to the breakdowns of GDP that appear in the five-account summary of the NIPA's (table A), this measure of production also is shown in the tables of this volume for each of the three sectors of the economy—business, households and institutions, and general government. The production of each of these sectors is defined below.

Business: Production by all entities that produce goods and services for sale at a price intended at least to approximate the costs of production (including profits) plus production by certain other entities treated as business in the NIPA's. It mainly covers the production of corporate and noncorporate private entities organized for profit. Also included is production associated with mutual financial institutions.

4. In the purchases of structures tables, compensation of government employees engaged in new construction projects is included in purchases of structures.

private noninsured pension funds, cooperatives, nonprofit organizations (that is, entities determined to be nonprofit by the Internal Revenue Service (IRS) for purposes of determining income tax liability) that primarily serve business, Federal Reserve banks, federally sponsored credit agencies, and government enterprises.[5] Owner-occupied housing as well as buildings and equipment owned and used by nonprofit institutions that primarily serve individuals are treated as business entities selling their current services to their owners, and thus are included in business product. Production of the business sector can be measured either in terms of the net value of the goods and services business produces or in terms of the costs incurred and profits earned by business from production.

Households and institutions: Production by households, consisting of families and unrelated individuals, and by nonprofit institutions that primarily serve individuals. Production is measured by the compensation of the employees of these entities.

General government: Production by all Federal Government and State and local government agencies except government enterprises. Production is measured by the compensation of the employees of these agencies.

Legal form of organization

For the domestic business sector, income and its components are shown in the tables of this volume for four legal forms of organizations—corporate business, sole proprietorships and partnerships, other private business, and government enterprises (employee compensation only). The entities whose production is included in each of these legal forms are specified below.

Corporate business: All entities required to file Federal corporate tax returns (IRS Form 1120 series), including mutual financial institutions and cooperatives subject to Federal income tax, private noninsured pension funds, nonprofit institutions that primarily serve business, Federal Reserve banks, and Federally sponsored credit agencies.

Sole proprietorships: All entities that would be required to file IRS Schedule C (Profits or Loss from Business) or Schedule F (Farm Income and Expenses) if the proprietor met the filing requirements, together with owner-occupied farm housing.

Partnerships: All entities required to file Federal partnership income tax returns, IRS Form 1065 (U.S. Partnership Return of Income).

Other private business: All entities that would be required to report rental and royalty income on the individual income tax return in IRS Schedule E (Supplemental Income and Loss) if the individual met the filing requirements, tax-exempt cooperatives, owner-occupied nonfarm housing, and buildings and equipment owned and used by nonprofit institutions that primarily serve individuals.

Government enterprises: Government agencies that cover a substantial proportion of their operating costs by selling goods and services to the public and that maintain their own separate accounts. A "mixed" treatment of government enterprises is used in the NIPA's, in which some types of transactions are recorded as if they were part of the general government sector and others as if they were part of the business sector.

Government enterprises are treated like other businesses and included in the NIPA business sector in that (1) their sales to final users are recorded in the business production account; (2) their outlays for materials and business services are considered intermediate rather than final and therefore are eliminated in the consolidation of the business sector production account; and (3) both their wage, salary, and other compensation payments and their income are considered charges against business product rather than charges against government product. Within the business sector, government enterprises are classified as noncorporate businesses. The profit-like income of these businesses accrues to general government and is called the current surplus of government enterprises (see definition on page M–8).

Government enterprises are treated like other government agencies and included in the NIPA government sector in that (1) their interest payments are combined with those of general government rather than those of business; (2) their purchases of equipment and structures and their inventory change are combined with general government purchases rather than with business purchases in gross private domestic investment; and (3) as a consequence of (2), no entries are recorded for consumption of fixed capital.

Industry

Industrial distributions are presented in this volume for national income and its components, capital consumption allowances, employment and hours, and the change in business inventories and the stock of business inventories.[6] The classification underlying the distributions of private activities is based on the Standard Industrial Classification (SIC).[7]

The industry distributions in most of the tables in category 6 "Income, Employment, and Product by Industry" are designated as follows: In this volume, estimates for 1929 to 1948, based on the 1942 SIC, are shown in tables designated as part A, and estimates for 1948 to 1958, based on the 1972 SIC, are shown as part B. In volume 2, estimates for 1959–87, based on the 1972 SIC, are shown as part B, and estimates for 1987–88, based on the 1987 SIC, are shown as part C. The industry distributions based on the 1987 SIC reflect the corresponding shift of most of the NIPA source data. Estimates for earlier years, which are now based on either the 1942 or the 1972 SIC, have not been adjusted to the 1987 SIC because of a lack of adequate source data. Instead, the estimates for 1987 are shown in volume 2 on the basis of both the 1972

5. For more detail on government enterprises, see the next section on legal form of organization.

6. An industrial distribution of fixed investment is also prepared as part of the procedure used to estimate capital stock. This distribution is based on data collected from establishments. For further information, write to the National Income and Wealth Division (BE-54), Bureau of Economic Analysis, U.S. Department of Commerce, Washington, DC 20230.

7. See *Standard Industrial Classification Manual, 1987*, Executive Office of the President, Office of Management and Budget (Washington, DC: U.S. Government Printing Office, 1988); *Standard Industrial Classification Manual, 1972*, Executive Office of the President, Office of Management and Budget (Washington, DC: U.S. Government Printing Office, 1972); and *Standard Industrial Classification Manual, 1942*, Executive Office of the President, Bureau of the Budget (Washington, D.C.: U.S. Government Printing Office, 1942).

and the 1987 SIC. In this volume, the estimates for 1948 are shown on the basis of both the 1942 and the 1972 SIC.

Industrial distributions of government activities are not provided; instead, they are combined into a single category. For most series, separate estimates are shown for the activities of the Federal Government, of State and local governments, and of government enterprises. Expenditures by the Federal Government and State and local governments are also shown by type and function.

The industrial distributions for private activities are based on data collected either from "establishments" or from "companies" (also called enterprises or firms). Establishments, as defined for purposes of the SIC, are economic units, generally at a single physical location, where business is conducted or where services or industrial operations are performed. Companies consist of one or more establishments owned by the same legal entity or group of affiliated entities. Establishments are classified into an SIC industry on the basis of their principal product or service, and companies are classified into an SIC industry on the basis of the principal SIC industry of all their establishments. Because large multiestablishment companies typically own establishments that are classified in different SIC industries, industrial distributions of the same economic activity for establishments and companies can be significantly different. For example, employment by steel-manufacturing companies differs from employment by steel-manufacturing establishments because the former includes employment by establishments that are not classified as steel manufacturing and excludes employment by establishments that manufacture steel but are not owned by steel-manufacturing companies.

For the NIPA series, industrial distributions on a consistent establishment or company basis are not available. For the following series, the industrial distributions are based on establishment data: Compensation of employees, employment, hours, inventories, rental income of persons, farm proprietors' income, farm net interest, and farm noncorporate capital consumption allowances. For nonfarm proprietors, industrial distributions of proprietors' income, net interest, and capital consumption allowances are based on company data. These data are regarded as being substantially the same as if they were based on establishment data because nearly all unincorporated companies own only a single establishment (and the few multiestablishment companies usually own establishments in the same SIC industry). For corporations, industrial distributions of profits, nonfarm net interest, and capital consumption allowances are based on company data. As a result, the industrial distribution of national income presented in this volume reflects a mix of establishment and company data.

In addition to the establishment-company data problem, individual industry series presented in this volume are not fully comparable over time. Historical comparability is affected primarily by two factors. First, in some instances, the composition of industries may change due to SIC changes, and as noted above, information was lacking to permit BEA to conform the estimates for 1986 and earlier years to the 1987 SIC. This factor affects estimates based on establishment data as well as those based on company data.

Second, historical comparability is affected because the industrial classification of the same establishment or company may change over time. This factor affects company-based estimates much more than establishment-based estimates. The classification of a company is subject to change due to the following: Shifts in the level of consolidation of entities for which company reports are filed; mergers and acquisitions; and other shifts in principal activities, especially for large diversified firms. For example, the level of consolidation used by corporations in filing their Federal income tax returns was significantly altered in the 1930's and 1940's. Affiliated corporations were not allowed to file consolidated returns from 1934 to 1941; as a result, the company consisted only of individual corporations. In other years, the company consisted of either an individual corporation or a grouping of affiliated corporations. Changes in the level of consolidation used by corporations in filing these returns affected the industrial distribution of corporate profits, net interest, and capital consumption allowances, which are derived primarily from tabulations of corporate tax returns.

In addition to the SIC industrial distributions of private activities, some NIPA tables show the following special SIC groupings, the titles of which correspond to the 1987 SIC:

Financial industries consists of the following SIC industries: Depository institutions; nondepository institutions; security and commodity brokers; insurance carriers; regulated investment companies; small business investment companies; and real estate investment trusts.[8]

Nonfinancial industries consists of all other private industries.

Commodity-producing industries consists of the following SIC divisions: Agriculture, forestry, and fishing; mining; construction; and manufacturing.

Distributive industries consists of the following SIC divisions: Transportation (excluding the U.S. Postal Service); communications; electric, gas, and sanitary services; wholesale trade; and retail trade.

Service industries consists of the rest-of-the-world sector and the following SIC divisions: Finance, insurance, and real estate; and services.

8. Regulated investment companies, small business investment companies, and real estate investment trusts are included in the SIC classification "holding and other investment offices" and are not shown separately in the NIPA tables.