

## Updated Summary of NIPA Methodologies

The Bureau of Economic Analysis (BEA) has recently improved its estimates of current-dollar gross domestic product (GDP), current-dollar gross domestic income (GDI), and real GDP as part of the 2009 comprehensive revision of the national income and product accounts (NIPAs).<sup>1</sup> The sources of data and the methodologies that are now used to prepare the NIPA estimates are summarized in this report.<sup>2</sup>

### Current-dollar estimates of GDP and GDI

The current-dollar estimates of GDP and GDI for 2008 are presented in table 1. The components and subcomponents of GDP and GDI are listed along with the estimation method used by BEA (column 1). Information about the sources of data and the methods that are used to prepare the estimates for the comprehensive benchmark revisions and for the annual revisions in nonbenchmark years are also presented, and the major differences between the data and the methods used in benchmark revisions and those used in the annual revisions are noted (column 2). For example, for “furnishings and durable household equipment” in personal consumption expenditures (PCE) (the second item in table 1), the table indicates that one methodology (commodity flow) is used to prepare estimates for benchmark years, and another methodology (retail control) is used to prepare the estimates for all the other years.

Information about the current quarterly estimates is also presented (column 3). For most components, information about the advance quarterly estimates, which are prepared about a month after the end of the quarter are provided because more attention tends to be focused on this “first look” at GDP for a quarter. Major source data that become available for the “second” or “third” quarterly estimates for some NIPA components are also noted. Only the source data and methods are listed; the number of months of available source data and whether

the source data will be revised by the source agency are not included.<sup>3</sup>

### Source data

The source data include a variety of economic measures, such as sales or receipts, wages and salaries, unit sales, housing stock, insurance premiums, expenses, interest rates, mortgage debt, and tax collections.

For most components, the estimates are derived from source data that are “value data”: they encompass both the quantity data and the price data required to prepare current-dollar estimates. For these components, the value data are adjusted to derive estimates that are consistent with NIPA definitions and coverage (see table 1).

For the estimates that are not derived from value data, the sources of the quantity and price data that are used to prepare value estimates are indicated, and the major adjustments that are needed to derive estimates that are consistent with NIPA definitions and coverage are specified.

For the current-dollar estimates of GDP, a “physical quantity times price” method is used for several components. For example, the estimate of expenditures on new autos is calculated as unit sales times expenditure per auto (the average transactions price that reflects all discounts and customer rebates).

For the current-dollar estimates of GDI, two methods are used for several components—an “employment times earnings times hours” method and variations of a “stock of assets/liabilities times an effective interest rate” method.

Some of the source data are used as indicators to interpolate or extrapolate annual estimates. In some cases, extrapolation and interpolation may be based on trends; in that case, the use of “judgmental trend” is indicated.

### Estimation methods

In some cases, BEA also uses four methods to estimate values: the commodity-flow method, the retail-control method, the perpetual inventory method, and the fiscal year analysis method.

**The commodity-flow method** involves estimating values based on various measures of output. For example, the estimates of personal consumption expenditures for furniture and furnishings in benchmark years are based on data on manufacturers’ shipments from the Census

1. The concepts and methodologies that underlie the NIPAs are subject to periodic improvements as part of the comprehensive and annual NIPA revisions, and these improvements are described in a series of articles in the *SURVEY OF CURRENT BUSINESS*; for a list of these articles, see appendix B at the back of this issue. See also Eugene P. Seskin and Shelly Smith, “Improved Estimates of the National Income and Product Accounts: Results of the 2009 Comprehensive Revision,” *SURVEY* 89 (September 2009): 15–41.

2. For descriptions of the fundamental concepts, definitions, classifications, and accounting framework that underlie the NIPAs and of the general sources and methods that are used to prepare the estimates, see *Concepts and Methods of the U.S. National Income and Product Accounts, Introductory Chapters 1–4 and Chapter 5: Personal Consumption Expenditures* available on BEA’s Web site at [www.bea.gov/methodologies/index.htm](http://www.bea.gov/methodologies/index.htm).

3. For specific information on key monthly source data incorporated in the current quarterly estimates, see “GDP and the Economy” in this *SURVEY*.

Bureau, and BEA adjusts the data for imports and exports. In general, this method is used to derive estimates of various components of PCE, equipment and software investment, and of the commodity detail for state and local government consumption expenditures and gross investment.<sup>4</sup> An abbreviated form of this method is used to prepare estimates of equipment and software in nonbenchmark years, and an even more abbreviated form is used to prepare the current quarterly estimates of equipment and software.

**The retail-control method** uses retail sales data, usually compiled by the Census Bureau, to estimate expenditures.<sup>5</sup> It is used to prepare estimates of many subcomponents of PCE for durable and nondurable goods in nonbenchmark years. This method ensures that the growth rate for these subcomponents is the same rate as the “retail control” group, a measure based on the total sales for most kinds of goods and food services businesses from the Census Bureau’s monthly and annual retail trade and food services surveys.

**The perpetual inventory method** is used to derive estimates of fixed capital stock, which are used to estimate consumption of fixed capital. This method is based on investment flows and a geometric depreciation formula.<sup>6</sup>

**The fiscal year analysis** method is used to estimate annual and quarterly estimates of consumption expenditures and gross investment by the federal government. The estimates of expenditures are calculated by program, that is, by activity for a single line item or for a group of line items in the *Budget of the U.S. Government*. For most programs, BEA adjusts budget outlays so that they conform to the NIPAs and classifies the expenditures in the appropriate NIPA category—such as current transfer payments or interest payments—with nondefense consumption expenditures and gross investment determined residually. When a fiscal year analysis is completed, the detailed array of NIPA expenditures by program and by type of expenditure provides a set of control totals for the quarterly estimates.<sup>7</sup>

### International transactions accounts

The source data for the foreign transactions that are reflected in most NIPA components—such as net exports of goods and services, net income receipts and rest-of-the-world corporate profits—are from the international

transactions accounts (ITAs) that are prepared by BEA.<sup>8</sup> As noted in table 1, for some NIPA components, the ITA estimates are adjusted to conform to NIPA concepts and definitions. For the annual estimates of these adjustments and their definitions, see [NIPA table 4.3B](#) in the September 2009 SURVEY (page 129); for summary quarterly estimates, see the reconciliation table in appendix A in this SURVEY.

**Reconciliation tables.** In preparing the annual estimates of several components of GDI, BEA adjusts the source data to conform to the NIPA concepts and coverage. For each subcomponent, an annual NIPA table reconciles the value published by the source agency with the NIPA value published by BEA, and the adjustments are listed. Reconciliation tables for the following subcomponents were published in “[National Income and Product Accounts Tables](#)” in the September 2009 SURVEY: consumption of fixed capital in table 7.13; nonfarm proprietors’ income in table 7.14; corporate profits in table 7.16; net monetary interest in table 7.17; and wages and salaries in table 7.18.

### Estimates of real GDP

BEA uses three methods to estimate real GDP: the deflation method, the quantity extrapolation method, and the direct valuation method.<sup>9</sup> These methods and the source data that are used are presented in table 2.

**The deflation method** is used for most components of GDP. The quantity index is derived by dividing the current-dollar index by an appropriate price index that has the base year—currently 2005—equal to 100. The result is then multiplied by 100.

**The quantity extrapolation method** uses quantity indexes that are obtained by using a quantity indicator to extrapolate from the base-year value of 100.

**The direct valuation method** uses quantity indexes that are obtained by multiplying the base-year price by actual quantity data for the index period. The result is then expressed as an index with the base year equal to 100.

The subcomponents in table 2 are the same as those shown in table 1, but the detail differs to highlight the alternative methodologies that are used to calculate the real estimates.<sup>10</sup>

4. For additional information on the commodity-flow method, see “Chapter 4: Estimating Methods,” 4–8 in *Concepts and Methods of the U.S. National Income and Product Accounts*.

5. For additional information, see “Estimating Methods,” 4–9, and the FAQ “What is the retail control method?” on BEA’s Web site at [faq.bea.gov](#).

6. For additional information, see “Estimating Methods,” 4–11.

7. For details, see the methodology paper *Government Transactions at* [www.bea.gov/methodologies/index.htm](#).

8. See *The Balance of Payments of the United States: Concepts, Data Sources, and Estimating Procedures* under “International Accounts” at [www.bea.gov/methodologies/index.htm](#). Improvements in methodology are usually introduced as part of annual ITA revision; see most recently in Anne Flatness, Erin M. Whitaker, and Robert E. Yuskavage, “[Annual Revision of the U.S. International Accounts](#)” SURVEY 89 (July 2009): 35–47.

9. For additional information, see “Estimating Methods,” 4–12.

10. For real estimates, the distinction between annual and quarterly methodologies is less important than it is for the current-dollar estimates. For the relatively few cases in which the annual and quarterly source data differ, the major differences are noted.

*Tables 1 and 2 follow.*

**Table 1. Source Data and Methods for Current-Dollar GDP and Current-Dollar GDI—Continues**

Component	Annual estimates: Source data and methods used to determine level for benchmark and other years or used to prepare an extrapolator or interpolator	Current quarterly estimates: Source data and methods used to prepare an extrapolator <sup>1</sup>
<b>Gross domestic product of \$14,441.4 billion for 2008</b>		
<b>Personal consumption expenditures (\$10,129.9 billion)</b>		
<b>Goods (\$3,403.2 billion)</b>		
<b>Durable goods (\$1,095.2 billion)</b>		
Motor vehicles and parts (\$342.3 billion)	<p>Benchmark years. For new motor vehicles, physical quantity purchased times average retail price: unit sales, information to allocate sales among consumers and other purchasers, and average transactions prices that reflect all discounts and customer rebates, all from trade sources. Sales tax rate from Census Bureau annual survey of retail trade. For net transactions, residual based on net sales by other sectors. For dealers' margins, retail sales from Census Bureau quinquennial census and margin rate from Census Bureau annual survey of retail trade. For motor vehicle parts and accessories, commodity-flow method, starting with manufacturers' shipments from Census Bureau quinquennial census, including an adjustment for exports and imports from Census Bureau foreign trade data.</p> <p>Other years except the most recent year. For new motor vehicles, same as the benchmark years. For net transactions, change in consumer stock of motor vehicles from trade sources. For dealers' margins, for franchised dealers, unit sales and sales prices from trade sources times margin rate for independent dealers from Census Bureau annual survey of retail trade. For motor vehicle parts and accessories, retail-control method, using retail sales from Census Bureau annual survey of retail trade.</p> <p>Most recent year. For dealers' margins, for franchised dealers, unit sales and sales prices from trade sources. For independent dealers, sales from Census Bureau monthly survey of retail trade. For motor vehicles parts and accessories, retail-control method, using retail sales from Census Bureau monthly survey of retail trade.</p>	For new motor vehicles, same as the annual estimates for other years. For net transactions, extrapolated by retail sales of used vehicle dealers from Census Bureau monthly survey of retail trade. For dealers' margins, same as the annual estimates for the most recent year and judgmental trend. For motor vehicles parts and accessories, same as the annual estimates for the most recent year.
Furnishings and durable household equipment (\$270.1 billion)	<p>Benchmark years. Commodity-flow method, starting with manufacturers' shipments from Census Bureau quinquennial census, including an adjustment for exports and imports from Census Bureau foreign trade data.</p> <p>Other years except the most recent year. Retail-control method, using retail sales from Census Bureau annual survey of retail trade.</p> <p>Most recent year. Retail-control method, using Census Bureau monthly survey of retail trade.</p>	Same as the annual estimates for the most recent year.
Recreational goods and vehicles (\$339.9 billion)	<p>Benchmark years. Commodity-flow method, starting with manufacturers' shipments from Census Bureau quinquennial census, including an adjustment for exports and imports from Census Bureau foreign trade data.</p> <p>Other years except the most recent year. Retail-control method, using retail sales from Census Bureau annual survey of retail trade.</p> <p>Most recent year. Retail-control method, using Census Bureau monthly survey of retail trade.</p>	Same as the annual estimates for the most recent year.
Other durable goods (\$142.8 billion)	<p>Benchmark years. Commodity-flow method, starting with manufacturers' shipments from Census Bureau quinquennial census, including an adjustment for exports and imports from Census Bureau foreign trade data.</p> <p>Other years except the most recent year. Retail-control method, using retail sales from Census Bureau annual survey of retail trade.</p> <p>Most recent year. Retail-control method, using Census Bureau monthly survey of retail trade.</p>	Same as the annual estimates for the most recent year.
<b>Nondurable goods (\$2,308.0 billion)</b>		
Food and beverages purchased for off-premises consumption (\$784.3 billion)	<p>Benchmark years. Commodity-flow method, starting with manufacturers' shipments from Census Bureau quinquennial census, including an adjustment for exports and imports from Census Bureau foreign trade data.</p> <p>Other years except the most recent year. Retail-control method, using retail sales from Census Bureau annual survey of retail trade.</p> <p>Most recent year. Retail-control method, using Census Bureau monthly survey of retail trade.</p>	Same as the annual estimates for the most recent year.

See the footnotes at the end of the table.

**Table 1. Source Data and Methods for Current-Dollar GDP and Current-Dollar GDI—Continues**

Component	Annual estimates: Source data and methods used to determine level for benchmark and other years or used to prepare an extrapolator or interpolator	Current quarterly estimates: Source data and methods used to prepare an extrapolator <sup>1</sup>
Clothing and footwear (\$337.5 billion)	<p>Benchmark years. For standard clothing issued to military personnel, federal budget data. For all others, commodity-flow method, starting with manufacturers' shipments from Census Bureau quinquennial census, including an adjustment for exports and imports from Census Bureau foreign trade data.</p> <p>Other years except the most recent year. For standard clothing issued to military personnel, same as for benchmark years. For all others, retail-control method, using retail sales from Census Bureau annual survey of retail trade.</p> <p>Most recent year. For standard clothing issued to military personnel, same as for benchmark years. For all others, retail-control method, using Census Bureau monthly survey of retail trade.</p>	Same as the annual estimates for the most recent year.
Gasoline and other energy goods (\$413.0 billion)	<p>Benchmark years. For motor vehicle fuels, lubricants, and fluids, physical quantity purchased times average retail price: gallons consumed from the Department of Transportation; information to allocate total gallons among consumers and other purchasers from federal agencies and trade sources; average retail price from the Energy Information Administration (EIA). For fuel oil and other fuels, commodity-flow method, starting with manufacturers' shipments from Census Bureau quinquennial census, including an adjustment for exports and imports from Census Bureau foreign trade data.</p> <p>Other years except the most recent year. For motor vehicle fuels, lubricants, and fluids, same as for benchmark years. For fuel oil and other fuels, retail-control method, using Census Bureau annual survey of retail trade.</p> <p>Most recent year. For motor vehicle fuels, lubricants, and fluids, physical quantity purchased times average retail price: gallons consumed and average price from EIA. For fuel oil and other fuels, retail-control method, using Census Bureau monthly survey of retail trade.</p>	Same as the annual estimates for the most recent year.
Other nondurable goods (\$773.2 billion)	<p>Benchmark years. For prescription drugs, Census Bureau quinquennial product-line data on retail sales for prescription drugs. For expenditures abroad by U.S. residents (net), BEA international transactions accounts. For all others, commodity-flow method, starting with manufacturers' shipments from Census Bureau quinquennial census, including an adjustment for exports and imports from Census Bureau foreign trade data.</p> <p>Other years except the most recent year. For prescription drugs, value of sales to pharmacies from a trade source. For tobacco, quantity shipped times consumer price: quantity shipments data from the U.S. Department of Treasury, Alcohol and Tobacco Tax and Trade Bureau times the CPI for tobacco and smoking products from BLS. For expenditures abroad by U.S. residents (net), same as for benchmark years. For all others, retail-control method, using retail sales from Census Bureau annual survey of retail trade.</p> <p>Most recent year. For prescription drugs, for tobacco, and for expenditures abroad by U.S. residents (net), same as other years. For all others, retail-control method, using Census Bureau monthly survey of retail trade.</p>	For expenditures abroad by U.S. residents (net), same as for benchmark years. For all others, same as the annual estimates for the most recent year.

See the footnotes at the end of the table.

**Table 1. Source Data and Methods for Current-Dollar GDP and Current-Dollar GDI—Continues**

Component	Annual estimates: Source data and methods used to determine level for benchmark and other years or used to prepare an extrapolator or interpolator	Current quarterly estimates: Source data and methods used to prepare an extrapolator <sup>1</sup>
<b>Services</b> (\$6,726.8 billion)		
Household consumption expenditures (for services) (\$6,448.0 billion)		
Housing and utilities (\$1,843.7 billion)	<p>Benchmark years. For rental value of nonfarm dwellings, data on housing stock and average annual rent from Census Bureau decennial census of housing and survey of residential finance, adjusted for utilities included in rent. For rental value of farm dwellings, USDA data on gross rental value of farm dwellings. For electricity and natural gas, variation of commodity-flow method, using annual residential revenue from EIA. For all others, commodity-flow method, starting with receipts from Census Bureau quinquennial census and annual surveys of state and local governments, adjusted to a calendar year basis from a fiscal year basis.</p> <p>Other years except the most recent year. For rental value of nonfarm dwellings, data from Census Bureau biennial American Housing Survey or on the number of housing units from Census Bureau monthly current population survey or BLS CPI for rent. For rental value of farm dwellings and for electricity and gas, same as benchmark years.</p> <p>Most recent year. For electricity and gas, residential revenue from EIA. For all others, same as other years.</p>	<p>For housing, unit stock adjusted using Census Bureau data on housing completions and judgmental trend. For average rent, BLS CPI for rent. For electricity and gas, advance estimate: projected quantities based on degree-day data from NOAA times prices based on BLS CPIs for electricity and for gas; second and third estimates: EIA data on kilowatt hour of electricity to residential customers and on cubic-foot sales and cents per cubic feet of gas to residential customers, both adjusted from a billing to a usage basis. For all others, judgmental trend.</p>
Health care (\$1,554.2 billion)	<p>Benchmark years. Commodity-flow method, starting with receipts from Census Bureau quinquennial census and Census of Governments.</p> <p>Other years. Receipts from Census Bureau service annual survey, annual surveys of state and local governments, adjusted to a calendar year basis from a fiscal year basis, federal government agency data, and judgmental trend.</p>	<p>For hospitals and nursing homes, advance and second estimate: wages and salaries derived from BLS monthly employment times earnings times hours and judgmental trend; third estimate: receipts from Census Bureau quarterly services survey. For all others, wages and salaries derived from BLS monthly employment times earnings times hours and judgmental trend.</p>
Transportation (\$307.8 billion)	<p>Benchmark years. For air transportation, commodity-flow method, starting with passenger revenue data from the Bureau of Transportation Statistics. For all others, commodity-flow method, starting with receipts from Census Bureau quinquennial census, BLS consumer expenditure survey, and trade sources.</p> <p>Other years. For air transportation, same as benchmark years. For all others, receipts from Census Bureau service annual survey, annual retail trade survey, trade sources, and judgmental trend.</p>	Trade sources and judgmental trend.
Recreation (\$383.1 billion)	<p>Benchmark years. Commodity-flow method, starting with receipts from Census Bureau quinquennial census, Census of Governments, and trade sources.</p> <p>Other years. Receipts from Census Bureau service annual survey, annual surveys of state and local governments, adjusted to a calendar year basis from a fiscal year basis, annual retail trade survey, and judgmental trend.</p>	<p>For casino gambling, various states gaming control commissions' data. For cable television and package tours, advance and second estimate: wages and salaries derived from BLS monthly employment times earnings times hours, trade source, and judgmental trend; third estimate: receipts from Census Bureau quarterly services survey. For all others, wages and salaries derived from BLS monthly employment times earnings times hours, trade source, and judgmental trend.</p>

See the footnotes at the end of the table.

**Table 1. Source Data and Methods for Current-Dollar GDP and Current-Dollar GDI—Continues**

Component	Annual estimates: Source data and methods used to determine level for benchmark and other years or used to prepare an extrapolator or interpolator	Current quarterly estimates: Source data and methods used to prepare an extrapolator <sup>1</sup>
Food services and accommodations (\$608.7 billion)	Benchmark years. Commodity-flow method, starting with receipts from Census Bureau quinquennial census, Census of Governments, and federal government agency data. Other years. Receipts from Census Bureau annual retail trade survey, annual surveys of state and local governments, adjusted to a calendar year basis from a fiscal year basis, trade sources, and judgmental trend.	For food services, retail-control method using monthly retail sales from Census Bureau monthly survey of retail trade. For all others, revenue data from a trade source, and judgmental trend.
Financial services and insurance (\$835.6 billion)	Benchmark years. For insurance services, trade sources. For all others, commodity-flow method, starting with receipts from Census Bureau quinquennial census, and data from federal and state government administrative agencies and from trade sources. Other years. For insurance services, same as benchmark years and judgmental trend. For all others, Census Bureau service annual survey, federal and state government administrative data, and trade sources.	For financial service changes and fees, advance and second estimates: judgmental trend; third estimate: Federal Deposit Insurance Corporation <i>Call Report</i> data. For financial services furnished without payment, advance and second estimates: judgmental trend; third estimate: FRB tabulations of <i>Call Report</i> data. For all others, wages and salaries derived from BLS monthly employment times earnings times hours, trade sources and judgmental trend.
Other services (\$915.0 billion)	Benchmark years. For net foreign travel, estimated as part of the international transactions accounts; see the entry "Exports and imports of services" under net exports of goods and services. For all others, commodity-flow method, starting with receipts from Census Bureau quinquennial census, Census of Governments, and trade sources. Other years. For net foreign travel, same as benchmark years. For all others, receipts from Census Bureau service annual survey, trade sources, annual survey of state and local government finances, and judgmental trend.	For telephone services, for internet service providers, and for legal services, advance and second estimates: judgmental trend; third estimate: receipts from Census Bureau quarterly services survey. For net foreign travel, same as benchmark years. For all others, wages and salaries derived from BLS monthly employment times earnings times hours, trade sources, and judgmental trend.
Final consumption expenditures of nonprofit institutions serving households (\$278.7 billion)	Benchmark years. For gross output of nonprofit institutions, operating expenses from Census Bureau quinquennial census for tax-exempt and religious organizations and a trade source. Other years. For gross output of nonprofit institutions, operating expenses from Census Bureau annual survey for tax-exempt organizations, trade sources, and judgmental trend.	For hospitals and nursing homes, advance and second estimate: wages and salaries derived from BLS monthly employment times earnings times hours and judgmental trend; third estimate: expenses from Census Bureau quarterly services survey. For all others, wages and salaries derived from BLS monthly employment times earnings times hours and judgmental trend.

See the footnotes at the end of the table.

**Table 1. Source Data and Methods for Current-Dollar GDP and Current-Dollar GDI—Continues**

Component	Annual estimates: Source data and methods used to determine level for benchmark and other years or used to prepare an extrapolator or interpolator	Current quarterly estimates: Source data and methods used to prepare an extrapolator <sup>1</sup>
<b>Fixed investment (\$2,170.8 billion)</b>		
<b>Nonresidential structures (\$609.5 billion)</b>		
Commercial and health care (\$185.2 billion)	Benchmark years. BEA's benchmark input-output accounts. Other years. Construction spending (value put in place) from Census Bureau monthly construction survey.	Same as the annual estimates for other years.
Manufacturing (\$60.8 billion)	Construction spending (value put in place) from Census Bureau monthly construction survey.	Same as the annual estimates.
Power and communication (\$94.4 billion)	Construction spending (value put in place) from Census Bureau monthly construction survey.	Same as the annual estimates.
Mining exploration, shafts, and wells (\$165.8 billion)	Benchmark years. Expenditures from Census Bureau quinquennial census. Other years except the most recent year. For petroleum and natural gas, physical quantity times average price: footage drilled and cost per foot from trade sources. For other mining, expenditures from Census Bureau annual capital expenditures survey. Most recent year. For mining, Census Bureau quarterly survey of mining corporations. For electric utilities, monthly physical quantities from EIA combined with BLS producer price indexes. For all others, judgmental trend.	Same as the annual estimates for the most recent year.
Other structures (\$103.3 billion)	Benchmark years. BEA's benchmark input-output accounts. Other years. Construction spending (value put in place) from Census Bureau monthly construction survey.	Same as the annual estimates for other years.
<b>Nonresidential equipment and software (\$1,084.1 billion)</b>		
Equipment except new autos, new light trucks, and net purchases of used autos and used light trucks (\$740.9 billion)	Benchmark years. Commodity-flow method, starting with manufacturers' shipments from Census Bureau quinquennial census, including an adjustment for exports and imports from Census Bureau foreign trade data. Other years except the most recent year. For aircraft, manufacturers' shipments from Census Bureau current industrial report, including an adjustment for exports and imports from Census Bureau foreign trade data. For computers, manufacturers' shipments from Census Bureau monthly survey of manufacturers and FRB industrial production index, adjusted for exports and imports. For heavy trucks, physical quantity purchased times average price: unit sales and information to allocate sales among business and other purchasers, from trade sources. For truck trailers, shipments from trade source. For all others, abbreviated commodity-flow method, starting with manufacturers' shipments from Census Bureau annual survey, adjusted for exports and imports. Most recent year. For aircraft, computers, and heavy trucks, same as other years. For all others, abbreviated commodity-flow method, starting with manufacturers' shipments from Census Bureau monthly survey of manufactures, adjusted for exports and imports.	Same as the annual estimates for the most recent year but with less detail.
New autos, new light trucks, and net purchases of used autos and used light trucks (\$79.2 billion)	See the entry "Motor vehicles and parts" under personal consumption expenditures.	See the entry under personal consumption expenditures.
Software (\$264.1 billion)	Benchmark years. For purchased software, commodity-flow method, starting with industry receipts data from Census Bureau quinquennial census, including an adjustment for exports and imports from Census Bureau foreign trade data. For own-account software, production costs based on BLS employment data and on Census Bureau quinquennial census. Other years. For purchased software, commodity-flow method, starting with industry receipts data from Census Bureau service annual survey, including an adjustment for exports and imports from Census Bureau foreign trade data. For own-account software, production costs based on BLS employment data.	For purchased software, advance and second estimates: receipts from company reports to the Securities and Exchange Commission; third estimate: receipts from Census Bureau quarterly services survey. For own-account software, private fixed investment in computers and peripheral equipment.

See the footnotes at the end of the table.

**Table 1. Source Data and Methods for Current-Dollar GDP and Current-Dollar GDI—Continues**

Component	Annual estimates: Source data and methods used to determine level for benchmark and other years or used to prepare an extrapolator or interpolator	Current quarterly estimates: Source data and methods used to prepare an extrapolator <sup>1</sup>
<b>Residential investment (\$477.2 billion)<sup>2</sup></b>		
Permanent-site new single-family housing units (\$185.8 billion)	Construction spending (value put in place) based on phased housing starts and average construction cost from Census Bureau monthly construction survey.	Same as the annual estimates.
Permanent-site new multi-family housing units (\$44.2 billion)	Construction spending (value put in place) from Census Bureau monthly construction survey.	Same as the annual estimates.
Manufactured homes (\$5.9 billion)	Benchmark years. See the entry "Equipment except new autos, new light trucks, and net purchases of used autos and used light trucks" under nonresidential equipment and software. Other years. Physical quantity shipped times price: shipments from trade source and average retail price from Census Bureau monthly survey.	Same as the annual estimates for other years.
Improvements (\$165.5 billion)	Benchmark years. Construction spending (value put in place) from Census Bureau construction survey based on expenditures by owner-occupants from BLS quarterly consumer expenditure survey. Others years. A weighted 3-year moving average of the improvements estimates from Census Bureau construction spending (value put in place) construction survey.	Judgmental trend.
Brokers' commissions (\$66.9 billion)	Physical quantity times price times BEA estimate of average commission rate: Number of single-family houses sold and mean sales price from Census Bureau monthly construction survey and trade source.	Same as the annual estimates.
Equipment (\$10.0 billion)	See the entry "Furnishings and durable household equipment" under personal consumption expenditures.	Same as the annual estimates.
<b>Change in private inventories (−\$34.8 billion)</b>		
Farm (−\$7.1 billion)	USDA change in inventories adjusted to exclude Commodity Credit Corporation (CCC) forfeitures and to include net CCC loans at market value.	For crops, BEA quarterly allocation of USDA annual projections of crop output and cash receipts. For livestock, USDA quarterly data.
Manufacturing and trade (−\$27.5 billion)	Benchmark years. Inventories from Census Bureau quinquennial censuses revalued to current replacement cost, with information on the proportions of inventories reported using different accounting methods, on the commodity composition of goods held in inventory, and on the turnover period, all from Census Bureau quinquennial censuses and annual surveys, combined with prices, largely based on BLS producer price indexes. (The difference between Census Bureau change in inventories and BEA change in private inventories is the inventory valuation adjustment.) Other years except the most recent year. Inventories from Census Bureau annual surveys, revalued as described above. Most recent year. For retail auto dealers, quantities times average prices from trade sources. For all others, inventories from Census Bureau monthly surveys, revalued as described above.	Same as the annual estimate for the most recent year.
Mining, utilities, construction, and other nonfarm industries (−\$0.1 billion)	Benchmark years. Mining and construction inventories from Census Bureau quinquennial censuses revalued to current replacement cost as described above for manufacturing and trade. Other years except the most recent year. IRS tabulations of business tax returns, revalued as described above. Most recent year. For mining, Census Bureau quarterly survey of mining corporations, revalues as described above. For electric utilities, monthly physical quantities from EIA combined with BLS producer price indexes. For all others, judgmental trend.	For electric utilities, same as the annual estimate for the most recent year. For all others, judgmental trend.



**Table 1. Source Data and Methods for Current-Dollar GDP and Current-Dollar GDI—Continues**

Component	Annual estimates: Source data and methods used to determine level for benchmark and other years or used to prepare an extrapolator or interpolator	Current quarterly estimates: Source data and methods used to prepare an extrapolator <sup>1</sup>
<b>Net exports of goods and services (–\$707.8 billion)</b>		
Exports and imports of goods, net (–\$859.5 billion)	Estimated as part of the international transactions accounts: export and import documents compiled monthly by the Census Bureau with adjustments by BEA for coverage and valuation to convert the data to a balance-of-payments basis. Adjusted for the balance-of-payments coverage of U.S. territories and Puerto Rico with data from the Commonwealth of Puerto Rico, the U.S. Virgin Islands, and the Census Bureau, and coverage of gold transactions adjusted with data from the U.S. Geological Survey and trade sources.	For territorial adjustment, Census Bureau foreign trade data and judgmental trend. For gold, judgmental trend. For all others, same as the annual estimates.
Exports and imports of services, net (\$151.8 billion)	Estimated as part of the international transactions accounts: for government transactions, reports by federal agencies on their purchases and sales abroad. For most others in this group (including travel, passenger fares, other transportation, and royalties and license fees), BEA quarterly or annual surveys (supplemented with data from other sources). Adjusted for the balance-of-payments coverage of U.S. territories and Puerto Rico (see the above entry); adjusted to include financial services furnished without payment (see the entry “Banks, credit agencies, and investment companies” under net interest and miscellaneous payments).	For territorial adjustment, judgmental trend. For all others, same as the annual estimates.
<b>Government consumption expenditures and gross investment (\$2,883.2 billion)</b>		
<b>Federal government (\$1,082.6 billion)</b>		
National defense except consumption of general government fixed capital (\$655.1 billion)	Within a control total established by fiscal year analysis: for compensation, military wages from OMB’s <i>Budget of the United States</i> , civilian wages from BLS tabulations from the Quarterly Census of Employment and Wages (QCEW), civilian benefits from the Office of Personnel Management (OPM), and employer contributions for federal employee retirement plans from outlays from the <i>Monthly Treasury Statement</i> ; for other than compensation by type, based mainly on data from Department of Defense (DOD) reports; for software, see the entry “Software” under nonresidential equipment and software.	For components of compensation, military employment from DOD and civilian employment from BLS. For other than compensation, same as the annual estimates. For software, see the entry under nonresidential equipment and software.
National defense consumption of general government fixed capital (\$82.9 billion)	Perpetual-inventory method, based on gross investment estimates and on investment prices.	Same as the annual estimates.
Nondefense except consumption of general government fixed capital (\$314.3 billion)	Within a control total established by fiscal year analysis: for CCC inventory change, book values of acquisitions and physical quantities of dispositions from agency reports times average market prices from USDA; for compensation, civilian wages from BLS tabulations from the QCEW, civilian benefits from OPM and employer contributions for federal employee retirement plans from outlays from the <i>Monthly Treasury Statement</i> ; for petroleum sales, distribution and price data from the Department of Energy; for research and development, obligations from the National Science Foundation and disbursements from the National Aeronautics and Space Administration; for construction, construction spending (value put in place) from Census Bureau monthly construction survey; for software, see the entry “Software” under nonresidential equipment and software; for all others, outlays from the <i>Monthly Treasury Statement</i> . For financial services furnished without payment, see the entry “Banks, credit agencies, and investment companies” under net interest and miscellaneous payments.	For components of compensation, employment from BLS. For software, see the entry under nonresidential equipment and software. For other than compensation and software, same as the annual estimates.
Nondefense consumption of general government fixed capital (\$30.4 billion)	Perpetual-inventory method, based on gross investment estimates and on investment prices.	Same as the annual estimates.

See the footnotes at the end of the table.

**Table 1. Source Data and Methods for Current-Dollar GDP and Current-Dollar GDI—Continues**

Component	Annual estimates: Source data and methods used to determine level for benchmark and other years or used to prepare an extrapolator or interpolator	Current quarterly estimates: Source data and methods used to prepare an extrapolator <sup>1</sup>
<b>State and local government (\$1,800.6 billion)</b>		
Consumption expenditures and gross investment except those items listed below (\$305.1 billion)	All years except the 3 most recent years. Total expenditures from Census Bureau Census of Governments and annual surveys of state and local governments, selectively replaced with source data that are more appropriate for the NIPAs and adjusted as follows: for coverage; for netting and grossing differences; to a calendar year basis from a fiscal year basis; for other timing differences; to exclude items not directly included in GDP (interest, subsidies, net expenditures of government enterprises, and transfer payments); and to exclude items described below. The 3 most recent years. Judgmental trend.	Judgmental trend.
Compensation of general government employees (\$1,026.9 billion)	For wages and salaries, BLS tabulations from the QCEW. For employer contributions for government social insurance, tabulations from the Social Security Administration and other agencies administering social insurance programs. For employer contributions for employee pension and insurance funds, data from trade sources, Centers for Medicare and Medicaid Services, Census Bureau annual surveys of state and local government retirement funds, adjusted to a calendar year basis from a fiscal year basis, and Census Bureau annual surveys of state and local governments, adjusted to a calendar year basis from a fiscal year basis.	For wages and salaries, derived from BLS monthly employment times earnings from BLS employment cost index. For other compensation, judgmental trend.
Consumption of general government fixed capital (\$146.3 billion)	Perpetual-inventory method based on gross investment estimates and on investment prices.	Same as the annual estimates.
Structures (\$290.9 billion)	Construction spending (value put in place) from Census Bureau monthly construction surveys, benchmarked to quinquennial Census of Governments and annual surveys of state and local governments.	Construction spending (value put in place) from Census Bureau monthly construction surveys.
Software (\$13.3 billion)	See the entry "Software" under nonresidential equipment and software.	Same as the annual estimates.
Brokerage charges and financial services furnished without payment (\$18.1 billion)	See the entry "Financial services and insurance" under personal consumption expenditures.	Same as the annual estimates.

**Gross domestic income of \$14,340.4 billion for 2008****Compensation of employees, paid (\$8,044.8 billion)**

## Wage and salary accruals (\$6,548.2 billion).

Private industries (\$5,406.9 billion)	For most industries, BLS tabulations from the QCEW. For others, wages from a variety of sources (such as USDA for farms and the Railroad Retirement Board for railroad transportation), adjusted for understatement of income on tax returns and for coverage differences.	For most industries, wages and salaries derived from BLS monthly employment times earnings times hours. For others, judgmental trend.
Federal government (\$294.6 billion)	For civilians, wages from BLS tabulations from the QCEW. For military personnel, wages from OMB's <i>Budget of the United States</i> .	For civilians, employment from BLS and judgmental trend. For military personnel, DOD employment and judgmental trend.
State and local government (\$846.7 billion)	BLS tabulations from the QCEW.	Derived from BLS monthly employment times earnings from BLS employment cost index.
<b>Employer contributions for employee pension and insurance funds (\$1,023.9 billion)<sup>3</sup></b>		
Group health insurance (\$544.6 billion)	All years except the 2 most recent years. For private and for state and local governments, total contributions from the Centers for Medicare and Medicaid Services (CMS) less employee contributions from BLS consumer expenditure survey. Second most recent year. For private, preliminary CMS tabulations. For state and local governments, judgmental trend. Most recent year. Judgmental trend.	Judgmental trend.
Private pension and profit-sharing funds (\$205.7 billion)	All years except the 2 most recent years. Tabulations from the Department of Labor. Two most recent years. Tabulations from the Pension Benefit Guaranty Corporation and corporate financial data.	Judgmental trend.

See the footnotes at the end of the table.

**Table 1. Source Data and Methods for Current-Dollar GDP and Current-Dollar GDI—Continues**

Component	Annual estimates: Source data and methods used to determine level for benchmark and other years or used to prepare an extrapolator or interpolator	Current quarterly estimates: Source data and methods used to prepare an extrapolator <sup>1</sup>
Government employee retirement plans (\$204.3 billion)	All years except the most recent year. For federal plans, outlays from the <i>Monthly Treasury Statement</i> . For state and local government plans, Census Bureau annual surveys of state and local government retirement funds, adjusted to a calendar year basis from a fiscal year basis. Most recent year. For federal plans, same as all years except the most recent. For state and local government plans, Census Bureau annual surveys of state retirement funds, adjusted to a calendar year basis from a fiscal year basis.	For federal plans, same as the annual estimates for the most recent year. For state and local government plans, judgmental trend.
Workers' compensation (\$54.7 billion)	All years except the most recent year. Employer contributions from trade sources. Most recent year. Judgmental trend.	Judgmental trend.
Group life insurance (\$13.0 billion)	All years except the most recent year. Group premiums and estimates of employer share from trade sources. Most recent year. Judgmental trend.	Judgmental trend.
Employer contributions for government social insurance (\$472.7 billion)	Tabulations from the Social Security Administration and other agencies administering social insurance programs.	For federal programs, BEA-derived wages and salaries of employees covered by the programs. For state and local programs, judgmental trend.
<b>Taxes on production and imports (\$1,047.3 billion)</b>		
Federal government (\$92.0 billion)	For excise taxes, collections from the Office of Tax Analysis, from the Alcohol and Tobacco Tax and Trade Bureau, and from the IRS. For customs duties, receipts from the <i>Monthly Treasury Statement</i> .	For customs duties, receipts from the <i>Monthly Treasury Statement</i> . For most excise taxes, derived from indicators of activity (such as gasoline production for gasoline tax). For others, judgmental trend.
State and local government (\$955.3 billion)	Receipts from Census Bureau quinquennial census and annual surveys, adjusted to a calendar year basis from a fiscal year basis.	Judgmental trend.
<b>Less: Subsidies (\$53.5 billion)</b>		
Federal government (\$50.6 billion)	For agricultural (CCC) subsidy payments, data from USDA reports. For all others, data from OMB's <i>Budget of the United States</i> .	USDA reports and judgmental trend.
State and local government (\$3.0 billion)	For railroad and electric power, Census Bureau annual surveys of expenditures adjusted to a calendar year basis from a fiscal year basis and California administrative records.	Judgmental trend and California administrative records.
<b>Net operating surplus (\$3,454.8 billion)</b>		
<b>Private enterprises (\$6,461.7 billion)</b>		
<b>Net interest and miscellaneous payments (\$1,043.1 billion) <sup>4</sup></b>		
Domestic monetary interest, net (\$494.5 billion)	All years except the most recent year. For farm interest paid, USDA surveys. For residential mortgage interest paid, Census Bureau decennial survey of residential finance and mortgage debt from FRB times a BEA interest rate. For most other interest paid and received by business, IRS tabulations of business tax returns, adjusted for misreporting on tax returns and for conceptual differences. Most recent year. For farm and mortgage interest paid, same as all years except the most recent. For other interest, interest receipts and payments from regulatory agencies (such as the Federal Deposit Insurance Corporation), from trade sources, or derived by applying BEA interest rates to interest-bearing assets/liabilities from FRB flow-of-funds accounts.	Derived by combining estimates of (1) interest received by persons, (2) government interest paid less received, and (3) interest paid by persons. For (1), judgmental trend. For (2), data from the <i>Monthly Treasury Statement</i> and the Bureau of the Public Debt for federal and judgmental trend for state and local; and for (3), for margin interest, advance estimate: judgmental trend; second or third estimate: data from regulatory agencies. For other than margin interest, consumer debt from FRB times BEA estimates of interest rates.
Domestic imputed interest, net (\$527.6 billion) Banks, credit agencies, and investment companies (\$254.0 billion)		

See the footnotes at the end of the table.

**Table 1. Source Data and Methods for Current-Dollar GDP and Current-Dollar GDI—Continues**

Component	Annual estimates: Source data and methods used to determine level for benchmark and other years or used to prepare an extrapolator or interpolator	Current quarterly estimates: Source data and methods used to prepare an extrapolator <sup>1</sup>
Depositor services (\$226.6 billion)	For commercial banks, data from FRB tabulations of Federal Financial Examination Council <i>Call Reports</i> used to calculate the interest rate spread between a risk-free reference rate and the average interest rate paid to depositors times the average balance of deposits. Depositor services allocated to persons, government, and to the rest of the world on the basis of deposit liabilities from FRB. For credit agencies and investment companies, property income earned on investment of deposits less monetary interest paid to depositors (and for mutual depositories, profits from IRS tabulations of business tax returns) from annual reports of regulatory agencies and FRB. Depositor services allocated to persons, government, and to the rest of the world on the basis of deposit liabilities from FRB.	For advance estimate, judgmental trend. For second and third estimates, same as annual estimates for commercial banks.
Borrower services (\$27.4 billion)	For commercial banks, data from FRB tabulations of Federal Financial Examination Council <i>Call Reports</i> used to calculate the interest rate spread between the average rate paid by borrowers and the reference rate times the average balance of borrowers.	For advance estimate, judgmental trend. For second or third estimates, same as annual estimates for commercial banks.
Life insurance carriers (\$265.4 billion)	Property income earned on investment of policyholders' reserves from trade source.	Judgmental trend.
Property and casualty insurance companies (\$8.2 billion)	Expected investment income derived using premiums earned and investment gains from trade source.	Judgmental trend.
<b>Business current transfer payments (net) (\$118.8 billion)</b>		
To persons (net) (\$32.6 billion)	All years except the most recent year. For payments to persons for charitable contributions, IRS tabulations of business tax returns. For other components (such as liability payments for personal injury and net insurance settlements), information from government agency reports and trade sources. Most recent year. Judgmental trend.	Same as the annual estimates for the most recent year.
To government (net) (\$78.8 billion)	For federal, receipts from OMB's <i>Budget of the United States</i> . For state and local, receipts from Census Bureau quinquennial Census of Governments and from annual surveys, adjusted to a calendar year basis from a fiscal year basis and net insurance settlements, as described above.	Judgmental trend.
To the rest of the world (net) (\$7.3 billion)	Estimated as part of the international transactions accounts.	Same as the annual estimates.
<b>Proprietors' income with inventory valuation adjustment and capital consumption adjustment (\$1,106.3 billion)</b>		
Farm proprietors' income with inventory valuation adjustment (\$55.6 billion)	USDA data on net income, obtained by deriving gross income (cash receipts from marketing, inventory change, government payments, other cash income, and nonmoney income) and subtracting production expenses, adjusted to exclude corporate income based on USDA quinquennial census and annual survey data.	For crops, BEA quarterly allocation of USDA annual projections of crop output. For livestock, USDA quarterly projections of cash receipts and inventories. For both crops and livestock, quarterly allocation of USDA annual projections of government subsidy payments and production expenses.
Farm capital consumption adjustment (-\$6.8 billion)	See the entry "Less: Capital consumption adjustment" under consumption of fixed capital.	See the entry under consumption of fixed capital.

**Table 1. Source Data and Methods for Current-Dollar GDP and Current-Dollar GDI—Continues**

Component	Annual estimates: Source data and methods used to determine level for benchmark and other years or used to prepare an extrapolator or interpolator	Current quarterly estimates: Source data and methods used to prepare an extrapolator <sup>1</sup>
Nonfarm proprietors' income (\$888.0 billion)	All years except the most recent year. Income from IRS tabulations of business tax returns, adjusted for understatement of income on tax returns and for conceptual differences. Most recent year. For construction, trade, and services, indicators of activity (such as value of housing put in place). For most others, judgmental trend.	Same as the annual estimates for the most recent year.
Inventory valuation adjustment (-\$5.1 billion)	See the entry "Inventory valuation adjustment" under corporate profits.	See the entry under corporate profits.
Nonfarm capital consumption adjustment (\$174.6 billion)	See the entry "Less: Capital consumption adjustment" under consumption of fixed capital.	See the entry under consumption of fixed capital.
<b>Rental income of persons with capital consumption adjustment (\$210.4 billion)</b>		
Owner-occupied nonfarm housing (\$118.0 billion)	Benchmark years. Derived as imputed rental of nonfarm housing (see the entry "Housing and utilities" under personal consumption expenditures) less related expenses, including property insurance from trade source and mortgage interest and property taxes from Census Bureau decennial survey of residential finance. Other years. Same as benchmark years, except mortgage interest, based on mortgage debt from FRB times a BEA interest rate, and property taxes from Census Bureau annual surveys of state and local tax collections.	For imputed rental of owner-occupied housing, same as the annual estimates. For depreciation, interest, closing costs, real estate dealers' commissions, and taxes, based on NIPA estimates of those components. For other expenses, judgmental trend.
Tenant-occupied nonfarm housing (\$57.0 billion)	Benchmark years. Derived as actual value of housing less related expenses (see the entry above). Other years. Same as benchmark years except for mortgage interest, which is based on mortgage debt from FRB times a BEA interest rate, and property taxes from Census Bureau annual surveys of state and local tax collections.	Same as owner-occupied nonfarm housing.
Owner-occupied farm housing (\$6.2 billion)	Benchmark years. Derived as imputed rental of farm housing (see the entry "Housing and utilities" under personal consumption expenditures) less related expenses, such as mortgage interest and property taxes, from USDA data. For farms owned by nonoperator landlords, derived from USDA data. Other years. Imputed rental of farm housing (see the entry "Housing and utilities" under personal consumption expenditures); expenses from USDA data.	
Tenant-occupied farm housing (\$5.5 billion)	Benchmark years. For farm housing owned by farm operator landlords, imputed rental of farm housing (see the entry "Housing and utilities" under personal consumption expenditures) less related expenses, such as mortgage interest and property taxes, from USDA data. For farms owned by nonoperator landlords, derived from USDA data. Other years. For farm housing owned by farm operator landlords, derived as imputed rental of farm housing; expenses from USDA data. For farms owned by nonoperator landlords, derived from USDA data.	Judgmental trend.
Nonfarm nonresidential properties (-\$0.1 billion)	Benchmark years. Nonfarm nonresidential fixed assets from BEA capital stock series times a rate of return on capital based on IRS tabulations of business tax returns. Other years. BEA capital stock series and judgmental trend.	Judgmental trend.
Royalties (\$23.8 billion)	All years except the most recent year. IRS tabulations of royalties reported on individual income tax returns. Most recent year. Judgmental trend.	Same as the annual estimates for the most recent year.
<b>Corporate profits with inventory valuation adjustment and capital consumption adjustment (\$983.2 billion)</b>		
Domestic profits before tax (\$1,085.5 billion)	All years except the most recent year. Receipts less deductions from IRS tabulations of business tax returns, adjusted for understatement of income on tax returns and for conceptual differences. Most recent year. Profits from Census Bureau <i>Quarterly Financial Report</i> , regulatory agency reports, and compilations of publicly available corporate financial statements.	For some industries in transportation and in finance, judgmental trend. For others, same as the annual estimates for the most recent year. (Preliminary estimate is released with the second estimate of GDP for the first, second, and third quarters and with the third estimate of GDP for the fourth quarter.)

See the footnotes at the end of the table.

**Table 1. Source Data and Methods for Current-Dollar GDP and Current-Dollar GDI—Table Ends**

Component	Annual estimates: Source data and methods used to determine level for benchmark and other years or used to prepare an extrapolator or interpolator	Current quarterly estimates: Source data and methods used to prepare an extrapolator <sup>1</sup>
Inventory valuation adjustment (IVA) (−\$38.2 billion)	The IVA on the income side (for corporations and for nonfarm sole proprietorships and partnerships) and the IVA on the product side (see the entry “Change in private inventories”) differ because the source data reflect different proportions of inventories reported using different accounting methods (such as last-in-first out (LIFO)). The income-side IVA is based on the product-side IVA, adjusted by the relationship between non-LIFO inventories from IRS tabulations of business tax returns and non-LIFO inventories from the Census Bureau.	Same as the annual estimates.
Capital consumption adjustment (−\$64.1 billion)	See the entry “Less: Capital consumption adjustment” under consumption of fixed capital.	See the entry under consumption of fixed capital.
<b>Current surplus of government enterprises (−\$6.9 billion)</b>		
Federal government (−\$3.8 billion)	Mainly reports of various agencies, such as the Postal Service, and consumption of fixed capital (CFC) estimates derived with perpetual-inventory calculations at current cost, based on gross investment estimates and on investment prices.	For CFC estimates, same as the annual estimates. For all others, judgmental trend.
State and local government (−\$3.2 billion)	For current operating receipts, mainly revenue data from Census Bureau annual surveys of state and local governments, adjusted to a calendar year basis from a fiscal year basis. For current operating expenditures, see the entries “Consumption expenditures and gross investment” and “Consumption of general government fixed capital” under state and local government.	Judgmental trend.
<b>Consumption of fixed capital (\$1,847.1 billion)</b>		
<b>Government (\$310.9 billion)</b>		
General government (\$259.5 billion)	Perpetual-inventory method, based on gross investment estimates and on investment prices.	Same as the annual estimates.
Government enterprises (\$51.4 billion)	Perpetual-inventory method, based on gross investment estimates and on investment prices.	Same as the annual estimates.
<b>Private (\$1,536.2 billion)</b>		
Domestic business (\$1,252.3 billion)	Perpetual-inventory method, based on gross investment estimates and on investment prices.	Same as the annual estimates.
Capital consumption allowances (\$1,340.2 billion)	All years except the most recent year. For depreciation of corporations and of nonfarm sole proprietorships and partnerships, IRS tabulations of business tax returns, adjusted for conceptual differences. For other depreciation (including farm proprietorships and partnerships and other private business), perpetual-inventory calculations based on investment at acquisition cost. Most recent year. For depreciation of corporations and of nonfarm sole proprietorships and partnerships, BEA estimates of tax-return-based depreciation. For other depreciation, same as above.	Judgmental trend.
Less: Capital consumption adjustment (\$87.8 billion)	The difference between capital consumption allowances and consumption of fixed capital.	Same as the annual estimates.
Households and institutions (\$283.9 billion)	Perpetual-inventory method based on gross investment estimates and on investment prices.	Same as the annual estimates.

BEA Bureau of Economic Analysis  
 BLS Bureau of Labor Statistics  
 CPI Consumer price index  
 EIA Energy Information Administration  
 FRB Federal Reserve Board  
 IRS Internal Revenue Service  
 GDP Gross domestic product  
 NIPA National income and product account  
 NOAA National Oceanic and Atmospheric Administration

OMB Office of Management and Budget  
 USDA U.S. Department of Agriculture

1. For most components, information about the advance quarterly estimates is provided. In addition, major source data that become available during the “second” or “third” quarterly estimates for particular NIPA components are also noted.

2. Residential investment includes −\$0.9 billion for dormitories and net purchases of used structures.

3. Employer contributions for employee pension and insurance funds includes \$1.7 billion for supplemental unemployment.

4. Net interest and miscellaneous payments includes \$21.0 billion for government rents and royalties.

**Table 2. Methodology Used in Preparing Estimates of Real GDP—Continues**

Component	Deflation, using price based on		Using quantity for extrapolation or direct valuation
	CPI or PPI	Other index	
<b>Personal consumption expenditures</b>			
<b>Goods</b>			
Durable goods			
Motor vehicles and parts	CPI	.....	Direct valuation. Unit sales from trade sources with dealers' margins from Census Bureau and trade sources, for used autos and used light truck dealers' margins.
Furnishings and durable household equipment	CPI		
Recreational goods and vehicles	CPI		
Other durable goods	CPI		
Nondurable goods			
Food and beverages purchased for off-premises consumption	CPI		
Clothing and footwear	CPI PPI, for standard clothing issued to military personnel.		
Gasoline and other energy goods	CPI		
Other nondurable goods	CPI	BEA installation support services price index, for expenditures abroad by U.S. residents.	
<b>Services</b>			
Household consumption expenditures (for services)			
Housing and utilities	CPI	.....	Quantity extrapolation. Chained-dollar net stock of farm housing from BEA capital stock estimates.
Health care	CPI PPI, for physicians offices, hospitals, proprietary and government nursing homes, home health care services, medical care laboratories, and diagnostic imaging centers.		
Transportation	CPI PPI, for domestic scheduled air passenger revenue.		
Recreation	CPI		
Food services and accommodations	CPI		
Financial services and insurance	CPI PPI, for brokerage services, dealer transactions, workers' compensation.	BEA composite index of prices, for financial services furnished without payment of other financial institutions, <sup>1</sup> health insurance, life insurance, and portfolio management services.	Quantity extrapolation. BLS index of total output (less BEA real bank service charges) times consumer share based on deposits and loans, for banks. BEA transactions derived from volume data from a trade source, for investment companies' charges. BLS banking output index, for trust, fiduciary, and custody activities.

See the footnotes at the end of the table.

**Table 2. Methodology Used in Preparing Estimates of Real GDP—Continues**

Component	Deflation, using price based on		Using quantity for extrapolation or direct valuation
	CPI or PPI	Other index	
Other services	CPI	BEA composite index of prices, for social assistance services, labor organization dues, and for net foreign travel.	
Final consumption expenditures of nonprofit institutions serving households	PPI, for employment agency services, international scheduled passenger revenue.	BLS import price index for passenger fares for foreign travel. BEA composite index of input prices for gross output of nonprofit categories.	
<b>Fixed investment</b>			
<b>Nonresidential structures</b>			
Commercial and health care	PPI, for office buildings, warehouses, and mobile structures.	BEA index based on costs per square foot from trade source, for commercial structures; BEA index based on cost index from trade source and on Census Bureau price index for single-family houses under construction, for health care.	
Manufacturing	PPI, for industrial buildings.	BEA index based on costs per square foot from trade source.	
Power and communication	PPI, for power excluding electric.	Cost indexes from trade sources and government agencies, for power; cost index from trade source, for communication.	
Mining exploration, shafts, and wells	PPI, for oil and gas well drilling, and oil and gas field services.	BEA index based on cost index from trade source and on Census Bureau price index for single-family houses under construction, for mines.	Quantity extrapolation. Footage by geographic area from trade source, for drilling.
Other structures	PPI, for brokers' commissions and new school construction.	BEA index, for railroads; BEA index based on cost index from trade source and on Census Bureau price index for single-family houses under construction, for other components.	
<b>Nonresidential equipment and software</b>			
Equipment except those listed below	PPI, for most domestic components and for imported transportation equipment.	BLS import price indexes, for imported components except transportation equipment.	
New autos, new light trucks, and net purchases of used autos and used light trucks	CPI, for new autos and new light trucks.	.....	Direct valuation. For used autos and used light trucks, see the entry "Motor vehicles and parts" under personal consumption expenditures.
Telephone and telegraph installation	.....	BEA cost index.	
Telephone switching equipment	.....	BEA price index.	
Photocopying equipment	.....	BEA price index.	
Software	PPI, for prepackaged software.	BEA cost index, BLS employment cost index, and PPI, for own-account and custom software.	
<b>Residential investment</b>			
Permanent-site new single-family housing units	.....	Census Bureau price index for single-family houses under construction.	

See the footnotes at the end of the table.



**Table 2. Methodology Used in Preparing Estimates of Real GDP—Continues**

Component	Deflation, using price based on		Using quantity for extrapolation or direct valuation
	CPI or PPI	Other index	
Permanent-site new multifamily housing units	.....	BEA price index.	
Manufactured homes Improvements	PPI .....	BEA composite index of input prices, for major replacements; BEA index based on Census Bureau price index for single-family houses under construction and BEA index for major replacements, for additions and alterations.	
Brokers' commissions	PPI		
Equipment	CPI		

**Change in private inventories**

Farm	.....	USDA average market prices.	
Nonfarm			
Purchased goods of all industries	PPI	Composite price from the Energy Information Administration (EIA), for crude petroleum; BLS import price indexes, for imported goods purchased by trade industries.	Direct valuation. Quantities and prices of stocks of coal, petroleum, and natural gas from the EIA, for utilities.
Work-in-process and finished goods, manufacturing	PPI	BEA indexes of unit labor costs.	

**Net exports of goods and services**

Exports and imports of goods	PPI for gold, semiconductor exports, selected transportation equipment, and selected imports of refined petroleum.	BLS export and import price indexes; unit-value indexes based on Census Bureau values and quantities, for electric energy exports and imports and for petroleum imports.	
Exports and imports of services	CPI, for travel receipts, medical receipts, and nonresident students' expenditures. PPI, for selected other transportation.	Selected deflators, for military transfers and defense expenditures: see "National defense except consumption of general government fixed capital" below. BLS export and import price indexes, for passenger fares; BEA composite index of foreign CPIs, <sup>2</sup> for travel payments, for miscellaneous services, and for U.S. students' expenditures abroad; BLS export and import price indexes, for selected other transportation; BEA price indexes, CPI, PPI, and implicit price deflator for final sales to domestic purchasers, for royalties and fees, and for other private services.	Quantity extrapolation. BLS index of total bank output (less BEA real bank service charges), for exports of financial services furnished without payment; <sup>1</sup> premiums deflated by PPI, for exports and imports of insurance.

See the footnotes at the end of the table.

**Table 2. Methodology Used in Preparing Estimates of Real GDP—Continues**

Component	Deflation, using price based on		Using quantity for extrapolation or direct valuation
	CPI or PPI	Other index	
<b>Government consumption expenditures and gross investment</b>			
<b>Federal government</b>			
National defense except consumption of general government fixed capital	PPI, for selected goods and services. CPI and PPI, for utilities and communications.	BEA indexes based on DOD prices paid, for some goods and services and for most military structures; BLS employment cost indexes, for some services; cost indexes from trade sources and government agencies, for nonmilitary structures; BEA index derived from nondefense compensation, for own-account software; BEA index derived from nondefense compensation price index and PPI, for custom software.	Quantity extrapolation. Full-time equivalent employment by rank and length of service, for military compensation; full-time equivalent employment by grade, adjusted for change from base year in hours worked, for civilian compensation. Direct valuation. Quantities and prices from DOD reports, for some goods and services and a few military structures; quantities from DOE, for electricity and natural gas.
National defense consumption of general government fixed capital	.....	.....	Direct valuation. Perpetual-inventory calculations based on gross investment.
Nondefense except consumption of general government fixed capital	PPI, for most goods and selected services. CPI, for rent, utilities, and communications.	Cost indexes from trade sources and government agencies, for structures; BLS employment cost indexes, for some services; BEA index derived from nondefense compensation, for own-account software; BEA index derived from nondefense compensation price index and PPI, for custom software.	Quantity extrapolation. Full-time equivalent employment by grade, adjusted for change from base year in hours worked, for compensation; BLS index of total bank output (less BEA real bank service charges), for financial services furnished without payment. <sup>1</sup> Direct valuation. Quantities by crop from agency reports and USDA prices, for net purchases of agricultural commodities by the Commodity Credit Corporation; DOE quantities and prices, for selected petroleum transactions.
Nondefense consumption of general government fixed capital	.....	.....	Direct valuation. Perpetual-inventory calculations based on gross investment.
<b>State and local government</b>			
Consumption expenditures and gross investment except those listed below	CPI, for services. PPI, for electricity, hospitals, most professional services, and goods.	BEA indexes based on federal nondefense prices paid, for transportation, books, and postal services; BEA composite indexes of input prices, for elementary and secondary education, welfare, and libraries; BEA composite price index for state and local construction, for maintenance and repair services.	
Compensation of general government employees	.....	.....	Quantity extrapolation. Full-time equivalent employment by education and experience, adjusted for change from base year in hours worked, for employees in education; full-time equivalent employment, adjusted for change from base year in hours worked, for other employees.

See the footnotes at the end of the table.

**Table 2. Methodology Used in Preparing Estimates of Real GDP—Table Ends**

Component	Deflation, using price based on		Using quantity for extrapolation or direct valuation
	CPI or PPI	Other index	
Consumption of general government fixed capital	.....	.....	Direct valuation. Perpetual-inventory calculations based on gross investment.
Structures	.....	Cost indexes from trade sources and government agencies.	
Software	.....	See the entry for "Software" under nonresidential equipment and software.	
Brokerage charges and financial services furnished without payment	.....	.....	Quantity extrapolation. See the entry for "Financial services and insurance" under personal consumption expenditures.

BEA Bureau of Economic Analysis  
 BLS Bureau of Labor Statistics  
 CPI Consumer price index  
 DOD Department of Defense  
 DOE Department of Energy  
 DOT Department of Transportation

GDP Gross domestic product  
 PPI Producer price index  
 USDA U.S. Department of Agriculture  
 1. Also referred to as "services furnished without payment by financial intermediaries, except life insurance carriers."  
 2. The foreign CPIs are adjusted for differences in exchange rates.