

Technical Note

Gross Domestic Product (Second Estimate) Corporate Profits (Preliminary Estimate) First Quarter 2023

May 25, 2023

This technical note provides background information about the source data and estimating methods used to produce the estimates presented in the GDP news release; a summary of "highlights" is available on BEA's website at www.bea.gov.

Real GDP and Related Aggregates

Real GDP increased at an annual rate of 1.3 percent (0.3 percent at a quarterly rate¹) in the first quarter of 2023, compared with an increase of 2.6 percent (0.6 percent at a quarterly rate) in the fourth quarter of 2022. The increase in first-quarter real GDP was revised up 0.2 percentage point from the "advance" estimate. The increase in real GDP reflected increases in consumer spending, exports, federal government spending, state and local government spending, and nonresidential fixed investment that were partly offset by decreases in private inventory investment and residential fixed investment. Imports, which are a subtraction in the calculation of GDP, increased.

Sources of Revision to Real GDP

The updated estimates primarily reflected upward revisions to private inventory investment, state and local government spending, nonresidential fixed investment, consumer spending, and exports that were partly offset by a downward revision to residential fixed investment. Imports were revised up.

- The revision to private inventory investment was led by an upward revision to manufacturing, based primarily on new and updated Census Bureau inventory data.
- The revision to state and local government spending primarily reflected an upward revision to structures investment, based on Census Value of Construction Put in Place (VPIP) data.
- Within nonresidential fixed investment, the revised estimates primarily reflected an upward revision to intellectual property products. The upward revision to intellectual property products reflected an upward revision to software, based primarily on new Census Bureau Quarterly Services Survey (QSS) data, that was partly offset by a downward revision to research and

¹ Percent changes in quarterly seasonally adjusted series are displayed at annual rates, unless otherwise specified. For more information, refer to the FAQ [Why does BEA publish percent changes in quarterly series at annual rates?](#)

development, based primarily on new R&D expense data from publicly traded companies' quarterly financial statements.

- Within consumer spending, an upward revision to services was partly offset by a downward revision to goods.
 - Within services, the leading contributor to the upward revision was health care, based primarily on new Census Bureau QSS data.
 - Within goods, the downward revision was led by motor vehicles and parts (mainly new autos), primarily based on new March registrations data from IHS Markit Polk, and by food and beverages, primarily based on updated Census Bureau Monthly Retail Trade Survey data.
- Within residential fixed investment, the leading contributor to the downward revision was improvements, based primarily on newly available home improvement product sales data from Circana and revised Bureau of Labor Statistics (BLS) remodelers' payroll data.
- For both exports and imports, the revised estimates primarily reflected updated data from BEA's International Transactions Accounts as well as new and revised Census trade in goods data for March.
 - Within exports, both goods and services were revised up. For goods, the leading contributor was nondurable industrial supplies and materials (notably, petroleum and products). For services, transport was the leading contributor.
 - Within imports, both goods (led by nondurable consumer goods) and services (led by transport) were revised up.

Compared with the fourth quarter, real GDP decelerated in the first quarter. Consistent with the prior estimate, the deceleration reflected a downturn in private inventory investment and a slowdown in nonresidential fixed investment that were partly offset by an acceleration in consumer spending, an upturn in exports, and a smaller decrease in residential fixed investment. Imports turned up.

Prices

BEA's featured measure of inflation in the U.S. economy, the price index for gross domestic purchases, increased 3.8 percent in the first quarter, the same as previously estimated. Excluding food and energy, gross domestic purchases prices increased 4.3 percent, also the same as previously estimated.

The price index for personal consumption expenditures (PCE) increased 4.2 percent in the first quarter, the same as previously estimated. Excluding food and energy, the "core" PCE price index increased 5.0 percent, an upward revision of 0.1 percentage point. For a comparison of PCE prices to BLS consumer price indexes, refer to NIPA [Table 9.1U. Reconciliation of Percent Change in the CPI with Percent Change in the PCE Price Index](#).

Gross Domestic Income and Corporate Profits

Real gross domestic income (GDI), which measures the output of the economy as the costs incurred and the incomes earned in the production of goods and services (as measured by GDP), decreased 2.3 percent at an annual rate in the first quarter, following a decrease of 3.3 percent (revised) in the fourth quarter. The average of real GDP and real GDI decreased 0.5 percent at an annual rate in the first quarter, following a decrease of 0.4 percent (revised) in the fourth quarter.

Current-dollar GDI increased \$109.8 billion in the first quarter and primarily reflected an increase in compensation, based on employment, hours, and earnings data from the BLS Current Employment Statistics.

Profits from current production decreased \$151.1 billion, or 5.1 percent (quarterly rate), in the first quarter. Domestic profits of financial corporations decreased \$25.4 billion, domestic profits of nonfinancial corporations decreased \$109.3 billion, and rest-of-the-world profits (net) decreased \$16.4 billion.

The BEA profits measure that is conceptually most similar to S&P 500 profits—national after-tax profits without inventory valuation and capital consumption adjustments (shown in line 11 of table 9 of the GDP news release)—decreased \$57.6 billion in the first quarter. First-quarter national after-tax profits decreased 6.0 percent from the same quarter one year ago.

Updates to Fourth-Quarter Wages and Salaries

In addition to presenting updated estimates for the first quarter, today's release presents revised estimates of fourth-quarter wages and salaries, personal taxes, and contributions for government social insurance, based on updated data from the BLS Quarterly Census of Employment and Wages program. Wages and salaries are now estimated to have increased \$53.0 billion in the fourth quarter, a downward revision of \$135.4 billion. Personal current taxes are now estimated to have decreased \$20.3 billion, a downward revision of \$16.2 billion. Contributions for government social insurance are now estimated to have increased \$8.1 billion, a downward revision of \$17.4 billion. With the incorporation of these new data, real gross domestic income is now estimated to have decreased 3.3 percent in the fourth quarter, a downward revision of 2.2 percentage points from the previously published estimate

More Information

The complete set of statistics for the first quarter is available on [BEA's website](#), along with a table presenting the "[Key Source Data and Assumptions](#)" that underlie the statistics. In a few weeks, the Survey of Current Business, BEA's online journal, will present a more detailed analysis of the estimates ("GDP and the Economy").

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