

Technical Note

Gross Domestic Product (Third Estimate), Corporate Profits, and GDP by Industry, Fourth Quarter and Year 2022

March 30, 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.

Economic Conditions and Fourth-Quarter 2022 GDP

Real GDP increased at an annual rate of 2.6 percent (0.6 percent at a quarterly rate¹) in the fourth quarter of 2022, compared with an increase of 3.2 percent (0.8 percent at a quarterly rate) in the third quarter. The increase occurred amid moderating inflation, low unemployment, continued supply-chain uncertainties, and rising interest rates. The economic effects of these conditions cannot be quantified in the GDP estimate for the fourth quarter of 2022 because the impacts are generally embedded in source data and cannot be separately identified.

Real GDP decelerated in the fourth quarter, compared to the third quarter. The deceleration primarily reflected a downturn in exports and decelerations in consumer spending, nonresidential fixed investment, and state and local government spending. These movements were partly offset by an upturn in private inventory investment, a smaller decrease in residential fixed investment, and an acceleration in federal government spending. Imports, which are a subtraction in the calculation of GDP, decreased less in the fourth quarter than in the third quarter.

The increase in real GDP for the fourth quarter reflected increases in private inventory investment, consumer spending, nonresidential fixed investment, federal government spending, and state and local government spending that were partly offset by decreases in residential fixed investment and exports. Imports decreased.

Sources of Revision to Real GDP

The increase in fourth-quarter real GDP was revised down 0.1 percentage point from the "second" estimate. The updated estimates primarily reflected downward revisions to exports and consumer

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?](#)

spending that were partly offset by upward revisions to nonresidential fixed investment, residential fixed investment, and state and local government spending. Imports were revised down.

- For both exports and imports, the revised estimates primarily reflected updated data from BEA's International Transactions Accounts (ITAs).
 - Within exports, the downward revision was to services, led by "other" business services (which includes professional and business management consulting as well as research and development (R&D) services).
 - Within imports, both services (led by "other" business services) and goods (led by industrial supplies and materials) were revised down.
- Within consumer spending, a downward revision to services was partly offset by an upward revision to goods.
 - For services, the revision primarily reflected downward revisions to financial services (mainly portfolio management), "other" services (led by personal care services), and transportation services (mainly motor vehicle maintenance and repair). These revisions were based primarily on new and revised fourth-quarter data from the Census Quarterly Services Survey (QSS).
 - For goods, upward revisions were widespread, led by "other" nondurable goods as well as recreational goods and vehicles (led by information processing equipment), based on revised Census Monthly Retail Trade Survey data.
- The revision to nonresidential fixed investment primarily reflected an upward revision to structures that was partly offset by a downward revision to intellectual property products.
 - For structures, the upward revision was led by manufacturing as well as commercial and health care, based primarily on revised Census Value of Construction Put in Place (VPIP) data for November and December.
 - All categories of intellectual property products were revised down, based on new and revised Census QSS data. For R&D, the revision also reflected updated R&D expenses reported in publicly traded companies' financial statements.
- The upward revision to residential fixed investment was led by improvements, based primarily on updated wages from the Bureau of Labor Statistics (BLS), and single-family structures, based on revised Census VPIP data.
- The upward revision to state and local government spending was led by structures (mainly power), also based on revised Census VPIP data.

Real final sales to private domestic purchasers, which measures private demand in the domestic economy and is derived as the sum of consumer spending and private fixed investment, was unchanged in the fourth quarter. The estimate was revised down 0.1 percentage point from the second estimate, reflecting the downward revision to consumer spending.

Prices

BEA's featured measure of inflation in the U.S. economy, the price index for gross domestic purchases, increased 3.6 percent in the fourth quarter, unrevised from the second estimate. The price index for personal consumption expenditures (PCE) increased 3.7 percent, the same as previously estimated. Excluding food and energy, the "core" PCE price index increased 4.4 percent, revised up 0.1 percentage point from the second estimate.

For a comparison of PCE prices to BLS consumer price indexes, refer to national income and product accounts (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 output of the economy as the costs incurred and the incomes earned in the production of goods and services (as measured by GDP), decreased 1.1 percent at an annual rate (0.3 percent at a quarterly rate) in the fourth quarter, in contrast to an increase of 2.8 percent at an annual rate (0.7 percent at a quarterly rate) in the third quarter. For a given quarter, the estimates of GDP and GDI may differ for a variety of reasons, including the incorporation of largely independent source data. However, over longer time spans, the estimates of GDP and GDI tend to follow similar patterns of change. The average of real GDP and real GDI increased 0.7 percent (0.2 percent at a quarterly rate), following an increase of 3.0 percent (0.7 percent at a quarterly rate).

Current-dollar GDI increased \$175.4 billion in the fourth quarter and primarily reflected an increase in compensation, based on employment, hours, and earnings data from the BLS Current Employment Statistics, that was partly offset by decreases in corporate profits and net interest.

Profits from current production decreased \$60.5 billion, or 2.0 percent (quarterly rate), in the fourth quarter. Domestic profits of financial corporations decreased \$59.0 billion, domestic profits of nonfinancial corporations decreased \$22.9 billion, and rest-of-the-world profits increased \$21.4 billion.

The BEA profit measure that is conceptually most like 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 \$169.5 billion in the fourth quarter. Fourth-quarter national after-tax profits decreased 1.4 percent from the same quarter one year ago.

Estimates of corporate profits were affected by several legal settlements in the fourth quarter. Settlements are recorded in the NIPAs on an accrual basis in the quarter when the settlement is finalized, regardless of when they are recorded on a company's financial statement. In the fourth

quarter, the following settlements reduced corporate profits by approximately \$2.0 billion (\$8.1 billion at an annual rate):

- Glencore International AG agreed to pay penalties and fines totaling approximately \$316 million (\$1.3 billion at an annual rate) for paying bribes to officials in multiple countries.
- Wells Fargo agreed to pay \$1.7 billion (\$6.8 billion at an annual rate) in penalties and fines to settle allegations that it illegally assessed fees and interest charges on auto and car loans.

The estimate of GDI was not impacted by these settlements because they were recorded in the NIPAs as business current transfer payments to the federal government, which offset the reductions to corporate profits.

Real GDP by Industry

Today's release includes estimates of GDP by industry, or value added—a measure of an industry's contribution to GDP (shown in table 12 of the news release). Private goods-producing industries increased 4.0 percent (1.0 percent at a quarterly rate), private services-producing industries increased 2.3 percent (0.6 percent at a quarterly rate), and government increased 2.1 percent (0.5 percent at a quarterly rate) in the fourth quarter.

Overall, 17 of 22 industry groups contributed to the fourth-quarter increase in real GDP. Within private goods-producing industries, the increase was led by durable goods manufacturing and mining, while construction decreased. Within private services-producing industries, the leading contributors to the increase were professional, scientific, and technical services; retail trade; health care and social assistance; and information. Notable offsets include decreases in finance and insurance as well as real estate and rental and leasing. The increase in government reflected increases in both federal government and state and local government.

GDP, GDI, and GDP by Industry for 2022

Real GDP increased 2.1 percent in 2022 (from the 2021 annual level to the 2022 annual level), compared with an increase of 5.9 percent in 2021. The increase in real GDP in 2022 primarily reflected increases in consumer spending, exports, private inventory investment, and nonresidential fixed investment that were partly offset by decreases in residential fixed investment and federal government spending. Imports increased.

Measured from the fourth quarter of 2021 to the fourth quarter of 2022, real GDP increased 0.9 percent during the period, compared with an increase of 5.7 percent from the fourth quarter of 2020 to the fourth quarter of 2021.

Real GDI increased 2.3 percent in 2022, compared with an increase of 5.5 percent in 2021. The average of real GDP and real GDI increased 2.2 percent in 2022, compared with an increase of 5.7 percent in 2021.

In 2022, profits from current production increased \$181.5 billion, compared with an increase of \$511.0 billion in 2021. Profits of domestic financial corporations decreased \$52.0 billion, in contrast to an increase of \$69.0 billion. Profits of domestic nonfinancial corporations increased \$192.3 billion, compared with an increase of \$459.2 billion. Rest-of-the-world profits increased \$41.2 billion, in contrast to a decrease of \$17.3 billion.

For GDP by industry in 2022, private services-producing industries led the increase, increasing 3.4 percent, while government increased 1.3 percent. Private goods-producing industries decreased 2.8 percent. Overall, 15 of 22 industry groups contributed to the increase.

More Information

The complete set of statistics for the fourth 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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