Technical Note

Gross Domestic Product (Third Estimate), Corporate Profits, and GDP by Industry, Fourth Quarter and Year 2020

March 25, 2021

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 brief summary of "highlights" is available on BEA's website at www.bea.gov.

COVID-19 Impact on Fourth-Quarter 2020 GDP

Real GDP increased 4.3 percent at an annual rate (1.1 percent at a quarterly rate[1]) in the fourth quarter of 2020, following an increase of 33.4 percent at an annual rate (7.5 percent at a quarterly rate) in the third quarter. The increase in fourth quarter GDP reflected both the continued economic recovery from the sharp declines earlier in the year and the ongoing impact of the COVID-19 pandemic, including new restrictions and closures that took effect in some areas of the United States. Real GDP for the fourth quarter of 2020 is 2.4 percent below the level of real GDP for the fourth quarter of 2019[2].

The increase in real GDP reflected increases in exports, nonresidential fixed investment, consumer spending, residential fixed investment, and private inventory investment that were partly offset by decreases in state and local as well as federal government spending. Imports, which are a subtraction in the calculation of GDP, increased. The full economic effects of the COVID-19 pandemic cannot be quantified in the GDP estimate for the fourth quarter of 2020 because the impacts are generally embedded in source data and cannot be separately identified.

Sources of Revision to Real GDP

The increase in fourth-quarter real GDP was revised up 0.2 percentage point from the “second” estimate. The updated estimates primarily reflected upward revisions to private inventory investment and state and local government spending that were partly offset by downward revisions to nonresidential fixed investment and consumer spending.

[1] Percent changes in quarterly seasonally adjusted series are displayed at annual rates, unless otherwise specified. For more information, see the FAQ “Why does BEA publish percent changes in quarterly series at annual rates?”
[2] The fourth quarter of 2019 was the most recent quarter prior to the onset of the COVID-19 pandemic. The percent change from the fourth quarter of 2019 to the fourth quarter of 2020 is presented in news release table 6, line 1.

- The revision to private inventory investment reflected an upward revision to nonfarm inventories. Within nonfarm, the leading contributor to the upward revision was retail trade (notably, general merchandise and other retail stores) based primarily on revised monthly Census Bureau inventory book values.

- The revision to state and local government spending reflected an upward revision to highways and streets based on revised Census Value Put in Place data.

- Within nonresidential fixed investment, the downward revision was more than accounted for by structures, notably petroleum and natural gas drilling, based primarily on revised footage drilled data from the American Petroleum Institute.

- Within consumer spending, a downward revision to goods was partly offset by an upward revision to services. Within goods, the downward revision was widespread, the largest contributors were recreational goods and vehicles as well as gasoline. The updated estimates primarily reflected revised Census Monthly Retail Trade Survey data and updated data from the Energy Information Administration. Within services, revisions were primarily based on updated Census Quarterly Services Survey data. Upward revisions to health care as well as financial services and insurance were partly offset by a downward revision to services provided by nonprofits, notably hospital services. For health care, the upward revision was widespread, led by hospitals. For financial services and insurance, the upward revision was led by portfolio management and investment advice services.

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, increased 5.5 percent in the fourth quarter, a downward revision of 0.1 percentage point from the second estimate.

Prices

BEA's featured measure of inflation in the U.S. economy, the price index for gross domestic purchases, increased 1.7 percent in the fourth quarter, a downward revision of 0.1 percentage point.

The price index for personal consumption expenditures (PCE) increased 1.5 percent, a downward revision of 0.1 percentage point. Excluding food and energy prices, the PCE price index increased 1.3 percent, a downward revision of 0.1 percentage point from the second estimate.

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), increased 15.7 percent at an annual rate (3.7 percent at a quarterly rate) in the fourth quarter, following an increase of 24.1 percent at an annual rate (5.5 percent at a quarterly rate) in the third quarter.

The average of real GDP and real GDI increased 9.9 percent at an annual rate (2.4 percent at a quarterly rate) in the fourth quarter, following an increase of 28.7 percent at an annual rate (6.5 percent at a quarterly rate) in the third quarter.

Current-dollar GDI increased $874.7 billion in the fourth quarter, primarily reflecting an increase in compensation that was partly offset by decreases in corporate profits and proprietors' income. Subsidies, which are a subtraction in the calculation of GDI, decreased.

- Within compensation, the leading contributor to the increase was wages and salaries. An increase in private industry wages was partly offset by a decrease in government wages, based primarily on data from the Bureau of Labor Statistics monthly Current Employment Statistics report.

- Within corporate profits, the leading contributor to the decrease was nonfinancial industry profits, based primarily on Census Quarterly Financial Report data and tabulations of publicly traded companies' earnings reports.

- Within proprietors' income, a decrease in nonfarm income was partly offset by an increase in farm income.

Profits from current production decreased $31.4 billion, or 1.4 percent (quarterly rate), in the fourth quarter, in contrast to an increase of $499.6 billion, or 27.4 percent, in the third quarter. Domestic profits of financial corporations increased $17.5 billion, domestic profits of nonfinancial corporations decreased $48.2 billion, and rest-of-the-world profits decreased $0.7 billion.

Domestic corporate profits and proprietors' income were in part boosted by provisions from federal government pandemic response programs, such as the Paycheck Protection Program (PPP) and tax credits for employee retention and paid sick leave, which provided financial support to businesses impacted by the pandemic. The fourth-quarter impact was lessened from the second and third quarters as the provisions from these programs decreased. More information on federal subsidy programs is presented in "Effects of Selected Federal Pandemic Response Programs on Federal Government Receipts, Expenditures, and Saving" on BEA's website.

The fourth-quarter estimate of financial corporate profits was reduced by a $2.7 billion ($10.8 billion at an annual rate) criminal penalty imposed on Goldman Sachs for violations of the Foreign Corrupt Practices Act. The penalty, levied by the U.S. Department of Justice in partnership with state and foreign authorities, was recorded in the national income and product accounts (NIPAs) as a business current transfer payment to government and to the rest of the world; the estimate of GDI was not affected by the settlement. The NIPAs record these types of penalties on an accrual basis in the quarter when the judgment is finalized, which is not necessarily the same quarter when the charges are recorded on a company's own financial statements.

BEA's profits measure that is conceptually most similar to S&P 500 profits—national after-tax profits without inventory valuation and capital consumption adjustments—decreased $36.4 billion in the fourth quarter. Fourth-quarter national after-tax profits (shown in line 11 of table 9 of the GDP news release) increased 4.1 percent from the same quarter one year ago.

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 6.1 percent at an annual rate (1.5 percent at a quarterly rate), private services-producing industries increased 4.9 percent (1.2 percent at a quarterly rate), and government decreased 1.1 percent (0.3 percent at a quarterly rate).

Overall, 17 of 22 industry groups contributed to the fourth-quarter increase in real GDP (table 13). Within private goods-producing industries, the leading contributors to the increase were construction and durable goods manufacturing (led by computer and electronic products as well as fabricated metal products). Within private services-producing industries, the leading contributors to the increase in real GDP were finance and insurance (led by Federal Reserve banks, credit intermediation, and related activities); health care and social assistance (led by ambulatory health care services); administrative and waste management services (led by administrative and support services); and professional, scientific, and technical services. These increases were partly offset by decreases in accommodation and food services (led by food services and drinking places); utilities; and educational services.

Federal Government Economic Response to the COVID-19 Pandemic

Since the onset of the COVID-19 pandemic, several legislative acts, including the CARES Act and the Coronavirus Response and Relief Supplemental Appropriations Act, were signed into law. The acts established several temporary programs and provided additional funding for existing federal programs to support individuals, communities, and businesses impacted by the pandemic. Because the effects of the acts were in the form of transfers to individuals, subsidies to businesses, and grants to state and local governments, their effects on GDP show up indirectly through the components of GDP, such as consumer spending, business investment, and government spending. Thus, BEA cannot separately identify the total effect of the acts on changes in GDP.

It is possible, however, to identify the impacts of select recovery programs on aggregate federal government spending. In the fourth quarter, expanded Unemployment Insurance Program benefits boosted the level of government social benefits, and the portion of forgivable loans to businesses and nonprofits provided through the Paycheck Protection Program raised government subsidies to industry and social benefit payments to persons, but both programs were at lower levels than in the second and third quarters.

Further information on these and other pandemic response programs, including estimates of the effects of these programs on federal government spending, is available in "Effects of Selected Federal Pandemic Response Programs on Federal Government Receipts, Expenditures, and Saving" and estimates for subsidies associated with forgivable PPP loans are available by industry in "Paycheck Protection Program Subsidies by Industry in the National Accounts, 2020Q4" on BEA's website.

GDP and GDI for 2020

Real GDP decreased 3.5 percent in 2020 (from the 2019 annual level to the 2020 annual level), unrevised from the second estimate, compared with an increase of 2.2 percent in 2019.

The decrease in real GDP in 2020 reflected decreases in PCE, exports, private inventory investment, nonresidential fixed investment, and state and local government spending that were partly offset by increases in federal government spending and residential fixed investment. Imports decreased.

Real GDI decreased 3.5 percent in 2020, compared with an increase of 1.8 percent in 2019 (table 1). The average of real GDP and real GDI decreased 3.5 percent in 2020, compared with an increase of 2.0 percent in 2019.

In 2020, profits from current production decreased $130.2 billion, in contrast to an increase of $7.6 billion in 2019. Profits of domestic financial corporations decreased $0.5 billion, in contrast to an increase of $38.0 billion. Profits of domestic nonfinancial corporations decreased $55.7 billion, compared with a decrease of $23.3 billion. Rest-of-the-world profits decreased $74.0 billion, compared with a decrease of $7.1 billion.

For GDP by industry, private services-producing industries led the decrease in GDP in 2020. Private goods-producing industries and the government sector also decreased. Overall, 16 of 22 industry groups contributed to the decrease, led by accommodation and food services; arts, entertainment, and recreation; health care and social assistance; and transportation and warehousing.

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 monthly journal, will present a more detailed analysis of the estimates ("GDP and the Economy").

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