

Technical Note

Gross Domestic Product, First Quarter 2021 (Second Estimate) Corporate Profits, First Quarter 2021 (Preliminary Estimate)

May 27, 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 First-Quarter 2021 GDP

Real GDP increased 6.4 percent at an annual rate (1.6 percent at a quarterly rate¹) in the first quarter of 2021, following an increase of 4.3 percent at an annual rate (1.1 percent at a quarterly rate) in the fourth quarter. The increase in first quarter GDP reflected the continued economic recovery, reopening of establishments, and continued government response related to the COVID-19 pandemic. In the first quarter, government assistance payments, such as direct economic impact payments, expanded unemployment benefits, and Paycheck Protection Program loans, were distributed to households and businesses through the Coronavirus Response and Relief Supplemental Appropriations Act and the American Rescue Plan Act. Real GDP for the first quarter of 2021 is 0.9 percent below the level of real GDP for the fourth quarter of 2019².

The increase in real GDP reflected increases in consumer spending, nonresidential fixed investment, federal government spending, residential fixed investment, and state and local government spending that were partly offset by decreases in private inventory investment and exports. 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 first quarter of 2021 because the impacts are generally embedded in source data and cannot be separately identified.

Sources of Revision to Real GDP

The increase in first-quarter real GDP was unrevised from the "advance" estimate. The updated estimates primarily reflected upward revisions to consumer spending, nonresidential fixed investment, and residential investment that were offset by downward revisions to exports, private inventory investment, and state and local government spending. Imports were revised up.

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. Calculated as the percent change from the fourth quarter of 2019 to the first quarter of 2021 in news release table 3, line 1.

- Within consumer spending, an upward revision to goods was partly offset by a downward revision to services.
 - For goods, the revision was led by upward revisions to motor vehicles (notably, used and new light trucks), based on revised Census Monthly Retail Trade Survey (MRTS) data and IHS Automotive/Polk registrations data, and other durable goods (notably, jewelry), based on MRTS.
 - For services, the revision primarily reflected a downward revision to health care, led by nonprofit hospital services as well as physician services, based on new first-quarter data from the Census Quarterly Services Survey (QSS).
- The revision to nonresidential fixed investment was more than accounted for by an upward revision to intellectual property products. Partly offsetting was a downward revision to equipment.
 - Within intellectual property products, the revision reflected upward revisions to software, based on new QSS data, and research and development, based primarily on new R&D expense data from publicly traded companies' financial statements.
 - For equipment, the largest contributor to the downward revision was information processing and related equipment (notably, computers and peripheral equipment), based primarily on updated Census trade in goods data for imports. Also contributing was a downward revision to transportation equipment (notably, aircraft and light trucks) based primarily on updated shipments data from the Census Manufacturing Shipments, Inventories, and Orders survey and IHS Automotive/Polk registrations data.
- The upward revision to residential investment was led by new single-family structures, based on new March and revised January and February Census Value of Construction Put in Place (VPIP) data.
- For exports and imports, the revised estimates primarily reflected updated data from BEA's International Transactions Accounts. Within exports, the downward revision was primarily attributable to petroleum and products. Within imports, the revision primarily reflected an upward revision to nondurable consumer goods, except food.
- The revision to private inventory investment was led by downward revisions to manufacturing and information industries that were partly offset by an upward revision to wholesale trade. The revisions primarily reflected new and revised monthly Census inventory data as well as new April price data that is used to adjust the inventory valuation for manufacturing industries.
- Within state and local government spending, the revision reflected a downward revision to structures investment, based on new March and revised January and February VPIP data. Compensation was also revised down, based on revised Bureau of Labor Statistics (BLS) Current Employment Statistics data on employment.

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 11.3 percent in the first quarter, an upward revision of 0.7 percentage point.

Prices

BEA's featured measure of inflation in the U.S. economy, the price index for gross domestic purchases, increased 3.9 percent in the first quarter, an upward revision of 0.1 percentage point.

The price index for personal consumption expenditures (PCE) increased 3.7 percent, an upward revision of 0.2 percentage point from the advance estimate. Excluding food and energy prices, the PCE price index increased 2.5 percent, an upward revision of 0.2 percentage point from the advance estimate. The upward revision was led by used motor vehicle prices, based on the BLS Producer 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), increased 6.8 percent at an annual rate (1.7 percent at a quarterly rate) in the first quarter, following an increase of 19.4 percent at an annual rate (4.5 percent at a quarterly rate) in the fourth quarter. The average of real GDP and real GDI increased 6.6 percent at an annual rate (1.6 percent at a quarterly rate) in the first quarter, following an increase of 11.6 percent at an annual rate (2.8 percent at a quarterly rate) in the fourth quarter. The increase in current-dollar GDI for the first quarter primarily reflected increases in compensation and net interest which were partly offset by a decrease in proprietors' income.

Subsidies, which are a subtraction in the calculation of GDI, decreased. Provisions from federal government pandemic response programs such as the [Paycheck Protection Program](#) and tax credits for paid sick leave decreased in the first quarter. More information on federal subsidy programs and their impacts on income measures is presented in [Effects of Selected Federal Pandemic Response Programs on Federal Government Receipts, Expenditures, and Saving](#) on BEA's website.

Profits from current production decreased \$0.2 billion, or less than 0.1 percent (quarterly rate), in the first quarter. Domestic profits of financial corporations decreased \$3.6 billion, domestic profits of nonfinancial corporations increased \$12.4 billion, and rest-of-the-world profits decreased \$9.0 billion.

Estimates of corporate profits were affected by a legal settlement paid by Boeing in the first quarter. The national income and product accounts (NIPAs) record these settlements on an accrual basis in the quarter when the settlement is finalized, regardless of when they are recorded on a company's financial statement. The settlement agreement paid by Boeing totaled \$2.5 billion (\$10.1 billion at an annual rate), and reflected payments of \$0.2 billion to the federal government, \$0.6 billion to the air transportation industry, and \$1.7 billion to the "rest of the world."

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—increased \$95.5 billion in the first

quarter. First-quarter national after-tax profits (shown in line 11 of table 9 of the GDP news release) increased 25.2 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 \$360.5 billion in the fourth quarter of 2020, an upward revision of \$157.8 billion. The revision to fourth-quarter wages and salaries resulted in a revision to GDI; real GDI increased 19.4 percent (annual rate) in the fourth quarter, an upward revision of 3.7 percentage points from the previously published estimate.

Federal Government Economic Response to the COVID-19 Pandemic

Since the onset of the COVID-19 pandemic, several [legislative acts](#), including the Coronavirus Aid, Relief, and Economic Security (CARES) Act, the Coronavirus Response and Relief Supplemental Appropriations (CRRSA) Act and the American Rescue Plan (ARP) 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 first quarter, the CRRSA and ARP Acts expanded provisions provided through the [Unemployment Insurance Program](#) and the Paycheck Protection Program originally introduced by the CARES Act. These programs provided additional social benefit payments to persons and government subsidies to industry in the first quarter.

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](#) on BEA's website.

Looking Ahead: 2021 Annual Update of the National Economic Accounts

BEA will release results from the 2021 annual update of the National Economic Accounts, which includes the NIPAs as well as the Industry Economic Accounts, later this year. Results from the annual update of the NIPAs will be released on July 29, 2021, along with the advance estimate of GDP for the second quarter of 2021. Results from the annual update of the Industry Economic Accounts will be released on September 30, 2021, along with the third estimate of GDP for the second quarter of 2021. The update of the National Economic Accounts will cover the first quarter of 1999 through the first quarter of 2021 and

will result in revisions to GDP, GDP by Industry, and gross domestic income. More information on the 2021 annual update was included in the May *Survey of Current Business* article, "GDP and the Economy."

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

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