

GDP and the Economy

Advance Estimates for the Second Quarter of 2022

Real gross domestic product (GDP) decreased at an annual rate of 0.9 percent in the second quarter of 2022, according to the “advance” estimates of the National Income and Product Accounts (chart 1 and table 1).¹ In the first quarter, real GDP decreased 1.6 percent.

Chart 1. Real GDP: Percent Change from Preceding Quarter

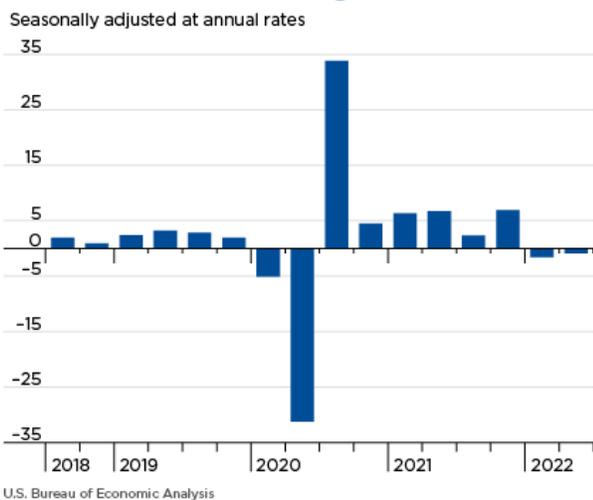
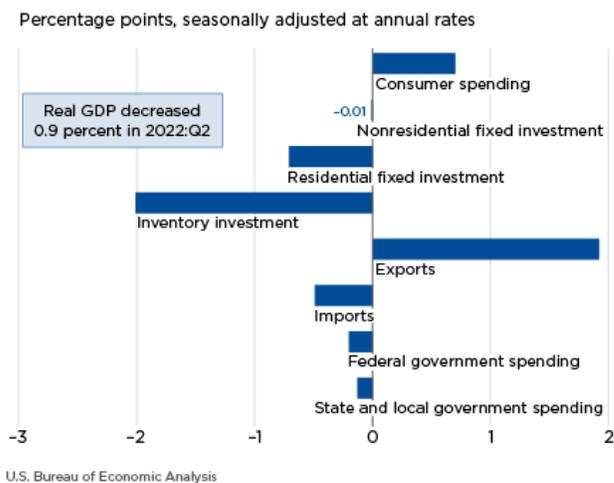


Chart 2. Real GDP: Contributions to the Percent Change in 2022:Q2



The decrease in real GDP in the second quarter of 2022 occurred amid continued inflation, low unemployment, ongoing supply-chain challenges, and rising interest rates. The economic effects of these factors cannot be quantified in the GDP estimate for the second quarter, because the impacts are generally embedded in source data and cannot be separately identified. Real GDP for the second quarter of 2022 is 2.5 percent above the level of real GDP for the fourth quarter of 2019, the most recent quarter prior to the onset of the COVID-19 pandemic. For more information, refer to the “[Technical Note](#)” and “[Federal Recovery Programs and BEA Statistics](#).”

GDP by Expenditure

Real GDP decreased 0.9 percent in the second quarter of 2022, following a decrease of 1.6 percent in the first quarter. The decrease in real GDP primarily reflected decreases in private inventory investment, residential fixed investment, federal government spending, state and local government spending, and nonresidential fixed investment, while imports, which are a subtraction in the calculation of GDP, increased. Exports and consumer spending increased (chart 2 and table 1).²

- The decrease in private inventory investment was led by retail trade (notably, general merchandise stores as well as motor vehicle dealers).
- The decrease in residential fixed investment reflected decreases in brokers' commissions and other ownership transfer costs.
- The decrease in federal government spending was led by a decrease in nondefense spending that was partly offset by an increase in defense spending. The decrease in nondefense spending reflected the sale of crude oil from the Strategic Petroleum Reserve, which results in a corresponding decrease in consumption expenditures. Because the oil sold by the government enters private inventories, there is no direct net effect on GDP.
- The decrease in state and local government spending was led by a decrease in gross investment in structures.
- The decrease in nonresidential fixed investment reflected decreases in structures and equipment that were mostly offset by an increase in intellectual property products.
- Within exports, both goods and services increased. Within goods, the leading contributors to the increase were industrial supplies and materials (notably, petroleum and products); foods, feeds, and beverages; and nonfood and nonautomotive consumer goods. Within services, the increase was led by travel.
- Within imports, the increase reflected an increase in services (mainly travel).
- The increase in consumer spending reflected an increase in services that was partly offset by a decrease in goods.
 - Within services, increases were widespread; food services and accommodations (purchased meals and beverages), health care (both hospitals and outpatient services), and "other" services (international travel) were leading contributors.
 - Within goods, the decrease reflected both nondurable goods (notably, food and beverages and gasoline and other energy goods) and durable goods (mainly recreational goods and vehicles as well as furnishings and durable household equipment).

Table 1. Real Gross Domestic Product (GDP) and Related Measures

[Seasonally adjusted at annual rates]

Line	Series	Share of current-dollar GDP (percent)	Change from preceding period (percent)				Contribution to percent change in real GDP (percentage points)			
		2022	2021		2022		2021		2022	
		Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
1	Gross domestic product (GDP)¹	100.0	2.3	6.9	-1.6	-0.9	2.3	6.9	-1.6	-0.9
2	Personal consumption expenditures	68.4	2.0	2.5	1.8	1.0	1.35	1.76	1.24	0.70
3	Goods	23.7	-8.8	1.1	-0.3	-4.4	-2.21	0.28	-0.07	-1.08
4	Durable goods	8.5	-24.6	2.5	5.9	-2.6	-2.52	0.22	0.49	-0.22
5	Nondurable goods	15.2	2.0	0.4	-3.7	-5.5	0.30	0.06	-0.56	-0.85
6	Services	44.7	8.2	3.3	3.0	4.1	3.57	1.48	1.31	1.78
7	Gross private domestic investment	18.6	12.4	36.7	5.0	-13.5	2.05	5.82	0.93	-2.73
8	Fixed investment	18.2	-0.9	2.7	7.4	-3.9	-0.16	0.50	1.28	-0.72
9	Nonresidential	13.5	1.7	2.9	10.0	-0.1	0.22	0.40	1.26	-0.01
10	Structures	2.5	-4.1	-8.3	-0.9	-11.7	-0.11	-0.22	-0.02	-0.32
11	Equipment	5.6	-2.3	2.8	14.1	-2.7	-0.13	0.17	0.73	-0.16
12	Intellectual property products	5.3	9.1	8.9	11.2	9.2	0.46	0.45	0.56	0.47
13	Residential	4.7	-7.7	2.2	0.4	-14.0	-0.38	0.10	0.02	-0.71
14	Change in private inventories	0.5	---	---	---	---	2.20	5.32	-0.35	-2.01
15	Net exports of goods and services	-4.3	---	---	---	---	-1.26	-0.23	-3.23	1.43
16	Exports	12.0	-5.3	22.4	-4.8	18.0	-0.59	2.24	-0.55	1.92
17	Goods	8.6	-5.0	23.4	-7.6	15.6	-0.39	1.64	-0.63	1.19
18	Services	3.4	-5.9	19.9	2.4	24.2	-0.19	0.59	0.08	0.72
19	Imports	16.3	4.7	17.9	18.9	3.1	-0.68	-2.46	-2.69	-0.49
20	Goods	13.6	-0.3	18.9	20.2	-0.1	0.04	-2.16	-2.40	0.01
21	Services	2.7	35.0	13.1	12.1	21.1	-0.72	-0.31	-0.29	-0.50
22	Government consumption expenditures and gross investment	17.3	0.9	-2.6	-2.9	-1.9	0.17	-0.46	-0.51	-0.33
23	Federal	6.4	-5.1	-4.3	-6.8	-3.2	-0.35	-0.29	-0.46	-0.20
24	National defense	3.7	-1.7	-6.0	-9.9	2.5	-0.07	-0.24	-0.39	0.09
25	Nondefense	2.6	-9.5	-2.0	-2.5	-10.5	-0.29	-0.05	-0.07	-0.30
26	State and local	10.9	4.9	-1.6	-0.5	-1.2	0.52	-0.17	-0.05	-0.13
Addenda:										
27	Gross domestic income (GDI) ²	---	6.4	6.3	1.8	---	---	---	---	---
28	Average of GDP and GDI	---	4.3	6.6	0.1	---	---	---	---	---
29	Final sales of domestic product	---	0.1	1.5	-1.2	1.1	---	---	---	---
30	Goods	31.9	0.1	19.0	-6.6	-4.9	0.05	5.70	-2.18	-1.60
31	Services	59.4	4.7	2.4	1.4	3.3	2.77	1.44	0.83	1.94
32	Structures	8.6	-5.8	-2.9	-2.5	-13.6	-0.52	-0.25	-0.22	-1.27

1. The GDP estimates under the contribution columns are also percent changes.

2. GDI is deflated by the implicit price deflator for GDP.

Note. Percent changes are from National Income and Product Account (NIPA) tables 1.1.1 and 1.2.1, contributions are from NIPA tables 1.1.2 and 1.2.2, and shares are from NIPA table 1.1.10 or are calculated from NIPA table 1.2.5.

Prices

The Bureau of Economic Analysis' featured measure of inflation in the U.S. economy, the price index for gross domestic purchases (goods and services purchased by U.S. residents), increased 8.2 percent in the second quarter after increasing 8.0 percent in the first quarter (table 2 and chart 3). Price increases were widespread across all major expenditure categories and were led by increases in consumer goods and services.

- Within goods, the leading contributors to the price increase were gasoline and other energy goods, food and beverages purchased for off-premises consumption (groceries), other nondurable goods (notably, household supplies, newspapers, and recreational items), and furnishings and durable household equipment.
- Within services, the leading contributor was an increase in prices paid for housing and utilities (mainly reflecting imputed rental of owner-occupied nonfarm housing) and transportation services (notably, air transportation).

Food prices increased 14.4 percent in the second quarter after increasing 11.2 percent in the first quarter. Prices for energy goods and services increased 51.7 percent after increasing 43.2 percent. Gross domestic purchases prices excluding food and energy increased 6.6 percent after increasing 6.9 percent.

Consumer prices excluding food and energy, a measure of the “core” rate of inflation, increased 4.4 percent in the second quarter after increasing 5.2 percent in the first quarter.

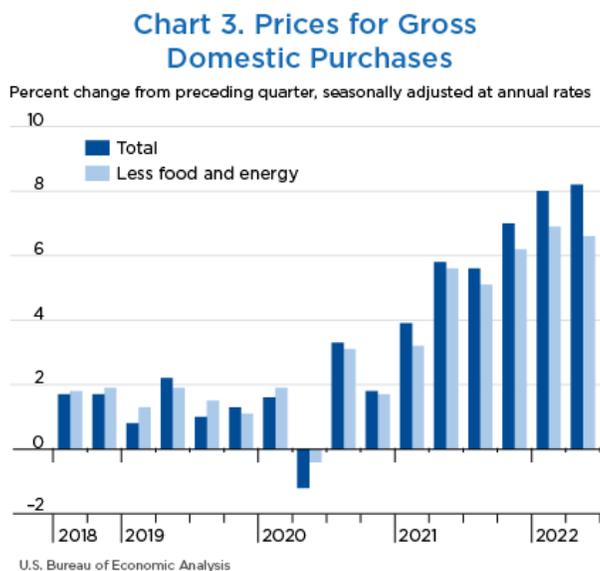


Table 2. Prices for Gross Domestic Purchases

[Percent change at annual rates; based on seasonally adjusted index numbers (2012=100)]

Line	Series	Change from preceding period (percent)				Contribution to percent change in gross domestic purchases prices (percentage points)			
		2021		2022		2021		2022	
		Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
1	Gross domestic purchases¹	5.6	7.0	8.0	8.2	5.6	7.0	8.0	8.2
2	Personal consumption expenditures	5.3	6.4	7.1	7.1	3.54	4.19	4.63	4.65
3	Goods	7.3	10.2	11.8	10.2	1.67	2.27	2.62	2.28
4	Durable goods	9.7	10.8	6.5	1.4	0.81	0.88	0.54	0.13
5	Nondurable goods	5.9	9.8	15.0	15.5	0.86	1.39	2.07	2.15
6	Services	4.3	4.4	4.6	5.4	1.87	1.92	2.02	2.37
7	Gross private domestic investment	6.1	8.8	9.9	9.0	1.03	1.53	1.78	1.62
8	Fixed investment	7.0	8.9	9.8	9.6	1.20	1.51	1.68	1.65
9	Nonresidential	4.3	7.8	7.0	8.1	0.56	0.99	0.89	1.04
10	Structures	11.1	24.4	18.2	15.8	0.26	0.54	0.42	0.37
11	Equipment	4.6	6.9	7.1	8.2	0.25	0.37	0.38	0.44
12	Intellectual property products	0.9	1.6	1.8	4.5	0.05	0.08	0.09	0.23
13	Residential	14.8	11.9	18.2	13.7	0.64	0.52	0.78	0.60
14	Change in private inventories	---	---	---	---	-0.17	0.02	0.10	-0.02
15	Government consumption expenditures and gross investment	6.1	7.6	9.8	11.6	1.02	1.27	1.60	1.88
16	Federal	5.0	5.7	7.5	6.3	0.33	0.36	0.47	0.39
17	National defense	4.9	5.5	8.4	7.1	0.18	0.21	0.30	0.25
18	Nondefense	5.2	5.8	6.4	5.1	0.14	0.16	0.17	0.13
19	State and local	6.7	8.9	11.2	14.9	0.70	0.91	1.13	1.49
Addenda:									
Gross domestic purchases:									
20	Food	7.9	9.0	11.2	14.4	0.40	0.46	0.56	0.69
21	Energy goods and services	19.4	34.0	43.2	51.7	0.48	0.82	1.07	1.34
22	Excluding food and energy	5.1	6.2	6.9	6.6	4.72	5.72	6.38	6.12
Personal consumption expenditures:									
23	Food and beverages purchased for off-premises consumption	7.7	8.7	11.4	15.3	---	---	---	---
24	Energy goods and services	18.9	34.2	42.8	52.4	---	---	---	---
25	Excluding food and energy	4.6	5.0	5.2	4.4	---	---	---	---
26	Gross domestic product	6.0	7.1	8.2	8.7	---	---	---	---
27	Exports of goods and services	9.7	6.4	18.0	19.8	---	---	---	---
28	Imports of goods and services	6.1	5.6	13.8	12.5	---	---	---	---

1. The estimated prices for gross domestic purchases under the contribution columns are also percent changes.

Note. Most percent changes are from NIPA table 1.6.7; percent changes for personal consumption expenditures (PCE) for food and energy goods and services and for PCE excluding food and energy are from NIPA table 2.3.7. Contributions are from NIPA table 1.6.8. GDP, export, and import prices are from NIPA table 1.1.7.

Note on Prices

BEA's gross domestic purchases price index is the most comprehensive index of prices paid by U.S. residents for all goods and services, regardless of whether those goods and services were produced domestically or imported. It is derived from the prices of personal consumption expenditures (PCE), private investment, and government consumption expenditures and gross investment.

The GDP price index measures the prices of goods and services produced in the United States, including the prices of goods and services produced for export. The difference between the gross domestic purchases price index and the GDP price index reflects the differences between imports prices (included in the gross domestic purchases index) and exports prices (included in the GDP price index). For other measures that are affected by import and export prices, see the FAQ "[How do the effects of dollar depreciation show up in the GDP accounts?](#)" on BEA's website.

BEA also produces price indexes for all the components of GDP. The PCE price index is a measure of the total cost of consumer goods and services, including durable goods, nondurable goods, and services. PCE prices for food, for energy goods and services, and for all items except food and energy are also estimated and reported.

Because prices for food and for energy can be volatile, the price measure that excludes food and energy is often used as a measure of underlying, or "core," inflation. The core PCE price index includes purchased meals and beverages, such as restaurant meals and pet food. (See "[What is the core PCE price index?](#)" on BEA's website.)

BEA also prepares a supplemental PCE price index, the "market-based" PCE price index, that is based on market transactions for which there are corresponding price measures. This index excludes many imputed expenditures, such as financial services furnished without payment, that are included in PCE and in the PCE price index. BEA also prepares a market-based measure that excludes food and energy.

Personal Income

Measured in current dollars, personal income increased \$353.8 billion in the second quarter, compared to an increase of \$247.2 billion in the first quarter (table 3). The second-quarter increase in personal income primarily reflected increases in compensation (led by increases in both private and government wages and salaries), proprietors' income (both farm and nonfarm), personal income receipts on assets, and rental income.

Personal current taxes increased \$62.4 billion in the second quarter after increasing \$306.0 billion in the first quarter.

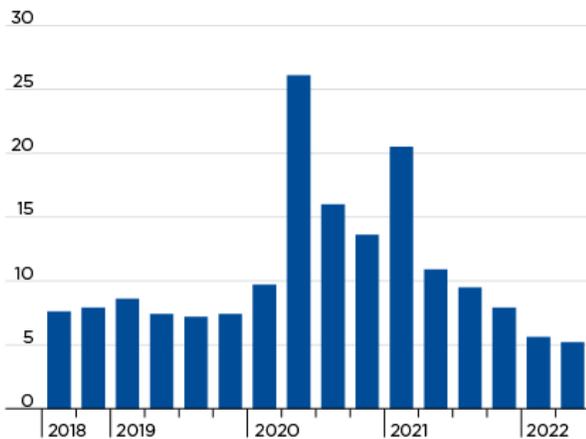
Disposable personal income (DPI) increased \$291.4 billion in the second quarter after decreasing \$58.8 billion in the first quarter. Personal outlays increased \$346.0 billion after increasing \$364.9 billion in the first quarter.

The personal saving rate (chart 4)—personal saving as a percentage of DPI—was 5.2 percent in the second quarter, compared with 5.6 percent in the first quarter.

Real DPI (chart 5) decreased 0.5 percent in the second quarter after decreasing 7.8 percent in the first quarter. Current-dollar DPI increased 6.6 percent after decreasing 1.3 percent.

Chart 4. Personal Saving Rate

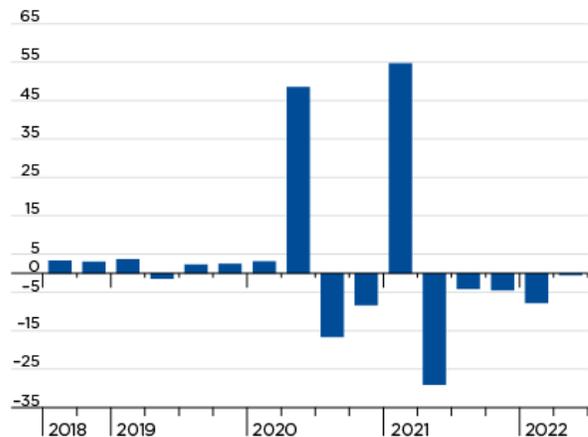
Percent, seasonally adjusted at annual rates



Note. The personal saving rate is personal saving as a percentage of disposable personal income.
U.S. Bureau of Economic Analysis

Chart 5. Real Disposable Personal Income

Percent change from preceding quarter, seasonally adjusted at annual rates



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Table 3. Personal Income and Its Disposition

[Billions of dollars; quarterly estimates are seasonally adjusted at annual rates]

Line	Series	Level		Change from preceding period			
		2022		2021		2022	
		Q1	Q2	Q3	Q4	Q1	Q2
1	Personal income	21,257.2	21,611.0	153.9	186.3	247.2	353.8
2	Compensation of employees	13,424.9	13,660.5	339.9	376.2	292.3	235.6
3	Wages and salaries	11,084.7	11,290.7	306.8	341.0	256.5	205.9
4	Private industries	9,499.1	9,692.2	271.7	329.4	236.7	193.1
5	Goods-producing industries	1,777.9	1,809.6	42.9	63.2	49.9	31.7
6	Manufacturing	1,045.0	1,058.0	10.8	36.6	27.8	13.0
7	Services-producing industries	7,721.2	7,882.6	228.9	266.2	186.8	161.4
8	Trade, transportation, and utilities	1,727.9	1,758.5	44.9	57.1	43.9	30.6
9	Other services-producing industries	5,993.3	6,124.1	184.0	209.1	142.9	130.8
10	Government	1,585.6	1,598.5	35.1	11.6	19.8	12.9
11	Supplements to wages and salaries	2,340.2	2,369.8	33.1	35.1	35.8	29.7
12	Proprietors' income with IVA and CCAAdj	1,878.2	1,930.8	18.8	-8.5	19.7	52.6
13	Farm	109.1	136.1	-8.8	-22.7	21.2	26.9
14	Nonfarm	1,769.1	1,794.8	27.6	14.2	-1.4	25.7
15	Rental income of persons with CCAAdj	748.4	788.9	12.7	14.6	4.8	40.5
16	Personal income receipts on assets	3,007.8	3,049.5	13.1	44.0	18.7	41.6
17	Personal interest income	1,679.0	1,705.8	-3.0	20.4	22.2	26.8
18	Personal dividend income	1,328.9	1,343.6	16.1	23.5	-3.5	14.8
19	Personal current transfer receipts	3,896.8	3,908.8	-191.5	-195.2	-45.5	12.0
20	Government social benefits to persons	3,829.1	3,835.0	-188.2	-194.1	-46.4	5.9
21	Social security	1,198.9	1,206.7	7.5	9.7	72.1	7.8
22	Medicare	862.1	865.9	11.2	21.3	14.2	3.8
23	Medicaid	791.0	804.5	44.6	7.8	8.1	13.6
24	Unemployment insurance	25.1	20.0	-208.1	-234.7	-12.5	-5.1
25	Veterans' benefits	177.5	181.8	5.8	6.9	8.3	4.3
26	Other	774.4	756.1	-49.2	-5.2	-136.5	-18.3
27	Other current transfer receipts, from business (net)	67.7	73.8	-3.3	-1.2	1.0	6.1
28	<i>Less:</i> Contributions for government social insurance	1,698.9	1,727.5	39.1	44.8	42.8	28.6
29	<i>Less:</i> Personal current taxes	3,060.9	3,123.3	108.6	113.8	306.0	62.4
30	<i>Equals:</i> Disposable personal income (DPI)	18,196.3	18,487.7	45.3	72.4	-58.8	291.4
31	<i>Less:</i> Personal outlays	17,173.4	17,519.3	291.2	352.2	364.9	346.0
32	Personal consumption expenditures	16,670.1	17,000.4	283.2	349.3	355.9	330.3
33	Personal interest payments ¹	278.5	292.0	4.3	-0.1	6.9	13.5
34	Personal current transfer payments	224.8	226.9	3.7	3.0	2.2	2.1
35	<i>Equals:</i> Personal saving	1,022.9	968.4	-245.9	-279.8	-423.7	-54.6
36	Personal saving as a percentage of DPI	5.6	5.2	---	---	---	---
Addenda:							
Percent change at annual rate							
37	Current-dollar DPI	---	---	1.0	1.6	-1.3	6.6
38	Real DPI, chained (2012) dollars	---	---	-4.1	-4.5	-7.8	-0.5
The effects of selected federal pandemic response programs on personal income (billions of dollars)							
In farm proprietors' income with IVA and CCAAdj:							
39	Coronavirus Food Assistance Program ²	0.6	0.0	-5.5	-7.5	-0.6	-0.6
40	Paycheck Protecton Program loans to businesses ³	0.0	0.0	-4.3	-6.3	-0.8	0.0
In nonfarm proprietors' income with IVA and CCAAdj:							
41	Paycheck Protecton Program loans to businesses ³	0.0	0.0	-67.5	-98.3	-11.9	0.0
In government social benefits to persons, Medicare:							
42	Increase in Medicare reimbursement rates ⁴	14.8	6.9	0.1	0.3	0.2	-7.9

Line	Series	Level		Change from preceding period			
		2022		2021		2022	
		Q1	Q2	Q3	Q4	Q1	Q2
	In government social benefits to persons, Unemployment insurance ⁵ :						
43	Extended Unemployment Benefits	0.7	0.5	-0.2	-3.3	-1.7	-0.2
44	Pandemic Emergency Unemployment Compensation	1.0	0.7	-43.1	-58.1	-2.4	-0.3
45	Pandemic Unemployment Assistance	0.9	0.5	-32.0	-47.6	-1.5	-0.4
46	Pandemic Unemployment Compensation Payments	0.0	0.0	-124.0	-113.2	0.0	0.0
	In government social benefits to persons, other:						
47	Child tax credit ⁶	105.6	105.6	184.5	4.2	-117.5	0.0
48	Economic impact payments ⁷	0.0	0.0	-251.2	-24.7	-14.2	0.0
49	Lost wages supplemental payments ⁸	0.0	0.0	-0.5	-0.1	0.0	0.0
50	Paycheck Protection Program loans to NPISH ³	0.0	0.0	-10.7	-12.0	-2.0	0.0
51	Provider Relief Fund to NPISH ⁹	53.7	44.2	10.8	27.0	-10.7	-9.5
	In personal outlays, personal interest payments:						
52	Student loan forbearance ¹⁰	-37.8	-37.8	0.0	0.0	0.0	0.0

CCAdj Capital consumption adjustment

IVA Inventory valuation adjustment

1. Consists of nonmortgage interest paid by households. Note that mortgage interest paid by households is an expense item in the calculation of rental income of persons.
2. The Coronavirus Food Assistance Program, initially established by the Coronavirus Aid, Relief and Economic Security Act (CARES), provides direct support to farmers and ranchers where prices and market supply chains have been impacted by the COVID-19 pandemic.
3. The Paycheck Protection Program, initially established by the CARES Act, provides forgivable loans to help small businesses and nonprofit institutions make payroll and cover other expenses. It also provides funding to reimburse private lending institutions for the costs of administering these loans. For more information, see "[How does the Paycheck Protection Program impact the national income and product accounts \(NIPAs\)?](#)".
4. A 2 percent reduction in reimbursements paid to Medicare service providers that went into effect in 2013 was initially suspended by the CARES Act. The resulting increased reimbursement rates went into effect beginning on May 1, 2020.
5. Unemployment insurance benefits were expanded through several programs that were initially established through the CARES Act. For more information, see "[How will the expansion of unemployment benefits in response to the COVID-19 pandemic be recorded in the NIPAs?](#)".
6. The American Rescue Plan increased the Child Tax Credit to \$3,000 per child over the age of six and \$3,600 for children under the age of six, and raised the age limit from 16 to 17. It also authorized that up to half of these credits could be distributed through advance payments during the tax year, while the rest would be claimed when parents file tax returns the following year.
7. Economic impact payments, initially established by the CARES Act, provide direct payments to individuals. For more information, see "[How are the economic impact payments to support individuals during the COVID-19 pandemic recorded in the NIPAs?](#)".
8. The Federal Emergency Management Agency (FEMA) was authorized to make payments from the Disaster Relief Fund to supplement wages lost as a result of the COVID-19 pandemic.
9. The Department of Health and Human Services distributes money from the Provider Relief Fund to hospitals and health care providers on the front lines of the coronavirus response. This funding supports health care-related expenses or lost revenue attributable to COVID-19 and ensures uninsured Americans can get treatment for COVID-19. In the NIPAs, funds provided to nonprofit hospitals are recorded as social benefits.
10. Interest payments due on certain categories of federally-held student loans were initially suspended by the CARES Act. For more information, see "[How does the federal response to the COVID-19 affect BEA's estimate of personal interest payments?](#)".

Note. Dollar levels and percent changes are from NIPA tables 2.1 and 2.2B.

Information on Key Source Data, Assumptions, and Methodologies

A comprehensive table that presents the “[Key Source Data and Assumptions](#)” that are used to prepare each vintage of the estimate of GDP for the current quarter is available on BEA's website. For the advance estimates that are released near the end of the month after the close of the quarter, the table shows the months of source data for the quarter that are available; for most components of GDP, 3 months of data are available. For the components for which only 2 months of source data are available, BEA's assumptions for the third month are shown. Second estimates are released near the end of the second month after the close of the quarter, and third estimates are released near the end of the third month after the close of the quarter. With each vintage, the table is updated to add newly available and revised source data that have been incorporated into the estimates.

For additional details about the source data and the methodologies that are used to prepare the estimates, see “[Concepts and Methods of the U.S. National Income and Product Accounts](#)” on BEA's website.

1. “Real” estimates are in chained (2012) dollars, and price indexes are chain-type measures. Each GDP estimate for a quarter (advance, second, and third) incorporates increasingly comprehensive and improved source data; for more information, see “[The Revisions to GDP, GDI, and Their Major Components](#)” in the January 2021 *Survey of Current Business*. Quarterly estimates are expressed at seasonally adjusted annual rates, which reflect a rate of activity for a quarter as if it were maintained for a year.
2. In this article, “consumer spending” refers to “personal consumption expenditures,” “inventory investment” refers to “change in private inventories,” and “government spending” refers to “government consumption expenditures and gross investment.”