

The Journal of the U.S. Bureau of Economic Analysis

# **GDP** and the Economy

Third Estimates for the Fourth Quarter of 2022

April 4, 2023

This article reflects GDP statistics published on March 30, 2023. Refer to the GDP product page for the latest statistics.

Real gross domestic product (GDP) increased at an annual rate of 2.6 percent in the fourth quarter of 2022, according to the "third" estimates of the National Income and Product Accounts (NIPAs) (chart 1 and table 1). With the third estimate, real GDP growth was revised down 0.1 percentage point from the second estimate issued in February. In the third quarter, real GDP increased 3.2 percent.

In 2022 (from the 2021 annual level to the 2022 annual level), real GDP increased 2.1 percent after increasing 5.9 percent in 2021 (refer to "Real GDP 2022").

Chart 1. Real GDP: Percent Change from Preceding Quarter

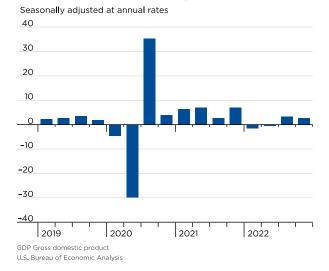
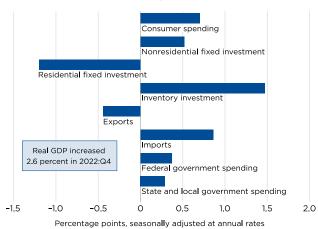


Chart 2. Real GDP: Contributions to the Percent Change in 2022:Q4



GDP Gross domestic product U.S. Bureau of Economic Analysis

## **GDP** by Expenditure

The increase in fourth-quarter real GDP 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, which are a subtraction in the calculation of GDP, decreased (chart 2 and table 1).<sup>2</sup>

- The increase in private inventory investment was led by manufacturing (mainly petroleum and coal products) as well as mining, utilities, and construction industries (led by utilities).
- The increase in consumer spending reflected an increase in services (led by health care as well as
  housing and utilities) that was partly offset by a decrease in goods (led by other durable goods, mainly
  jewelry).
- Within nonresidential fixed investment, increases in structures and intellectual property products (mainly software) were partly offset by a decrease in equipment.
- The increase in federal government spending was led by nondefense spending.
- The increase in state and local government spending primarily reflected an increase in the compensation of state and local government employees.
- Within residential fixed investment, the leading contributors to the decrease were new single-family construction and brokers' commissions.
- Within exports, a decrease in goods (led by nondurable goods excluding petroleum) was partly offset by an increase in services (led by travel as well as transport).
- Within imports, both goods (led by durable consumer goods) and services (led by transport) decreased.

Real GDP growth decelerated in the fourth quarter, increasing 2.6 percent after increasing 3.2 percent in 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.

Real gross domestic income (GDI), which is the sum of incomes earned and costs incurred in the production of GDP, decreased 1.1 percent in the fourth quarter after increasing 2.8 percent in the third quarter.

**Table 1. Real Gross Domestic Product and Related Measures** 

[Seasonally adjusted at annual rates]

Line	Series	Share of current- dollar GDP (percent)	dollar GDP period						Contribution to percent change in real GDP (percentage points)			
		2022	2022				2022					
		Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
1	Gross domestic product (GDP) <sup>1</sup>	100.0	-1.6	-0.6	3.2	2.6	-1.6	-0.6	3.2	2.6		
2	Personal consumption expenditures	67.9	1.3	2.0	2.3	1.0	0.91	1.38	1.54	0.70		
3	Goods	22.9	-0.1	-2.6	-0.4	-0.1	-0.02	-0.61	-0.08	-0.01		
4	Durable goods	8.3	7.6	-2.8	-0.8	-1.3	0.64	-0.24	-0.07	-0.11		
5	Nondurable goods	14.5	-4.4	-2.5	-0.1	0.6	-0.66	-0.37	-0.01	0.09		
6	Services	45.0	2.1	4.6	3.7	1.6	0.93	1.99	1.63	0.72		
7	Gross private domestic investment	17.9	5.4	-14.1	-9.6	4.5	0.98	-2.83	-1.80	0.79		
8	Fixed investment	17.2	4.8	-5.0	-3.5	-3.8	0.83	-0.92	-0.62	-0.68		
9	Nonresidential	13.3	7.9	0.1	6.2	4.0	0.98	0.01	0.80	0.52		
10	Structures	2.6	-4.3	-12.7	-3.6	15.8	-0.11	-0.34	-0.09	0.38		
11	Equipment	5.2	11.4	-2.0	10.6	-3.5	0.55	-0.11	0.53	-0.18		
12	Intellectual property products	5.4	10.8	8.9	6.8	6.2	0.54	0.46	0.36	0.33		
13	Residential	4.0	-3.1	-17.8	-27.1	-25.1	-0.15	-0.93	-1.42	-1.20		
14	Change in private inventories	0.6					0.15	-1.91	-1.19	1.47		
15	Net exports of goods and services	-3.3					-3.13	1.16	2.86	0.42		
16	Exports	11.4	-4.6	13.8	14.6	-3.7	-0.53	1.51	1.65	-0.44		
17	Goods	7.8	-7.2	15.5	17.8	-7.4	-0.58	1.18	1.38	-0.62		
18	Services	3.6	1.6	9.9	7.5	5.0	0.06	0.33	0.26	0.18		
19	Imports	14.7	18.4	2.2	-7.3	-5.5	-2.60	-0.35	1.21	0.86		
20	Goods	12.1	20.4	-0.4	-8.6	-5.9	-2.38	0.05	1.19	0.76		
21	Services	2.6	9.1	16.6	-0.8	-3.7	-0.22	-0.41	0.02	0.10		
22	Government consumption expenditures and gross investment	17.5	-2.3	-1.6	3.7	3.8	-0.40	-0.29	0.65	0.65		
23	Federal	6.5	-5.3	-3.4	3.7	5.8	-0.36	-0.22	0.24	0.37		
24	National defense	3.6	-8.5	1.4	4.7	2.3	-0.33	0.05	0.17	0.08		
25	Nondefense	2.9	-1.1	-9.2	2.5	10.6	-0.03	-0.28	0.07	0.29		
26	State and local	11.0	-0.4	-0.6	3.7	2.6	-0.04	-0.06	0.41	0.29		
	Addenda:											
27	Gross domestic income (GDI) <sup>2</sup>		0.8	-0.8	2.8	-1.1						
28	Average of GDP and GDI		-0.4	-0.7	3.0	0.7						
29	Final sales of domestic product		-1.8	1.3	4.5	1.1						
30	Goods	31.7	-5.4	-3.0	7.3	5.9	-1.76	-0.96	2.28	1.83		
31	Services	60.1	1.0	3.1	3.9	2.4	0.57	1.83	2.30	1.44		
32	Structures	8.2	-4.9	-15.3	-14.6	-8.1	-0.44	-1.44	-1.34	-0.70		

<sup>1.</sup> The GDP estimates under the contribution columns are also percent changes.

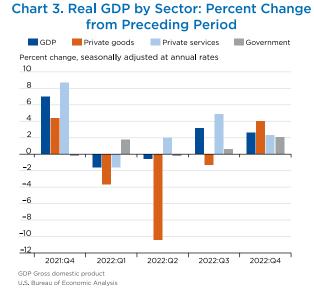
Note. Percent changes are from National Income and Product Accounts (NIPA) tables 1.1.1 and 1.2.1, contributions are from NIPA tables 1.1.2 and 1.2.2, and shares are from NIPA table 1.1.10 or are calculated from NIPA table 1.2.5.

<sup>2.</sup> GDI is deflated by the implicit price deflator for GDP.

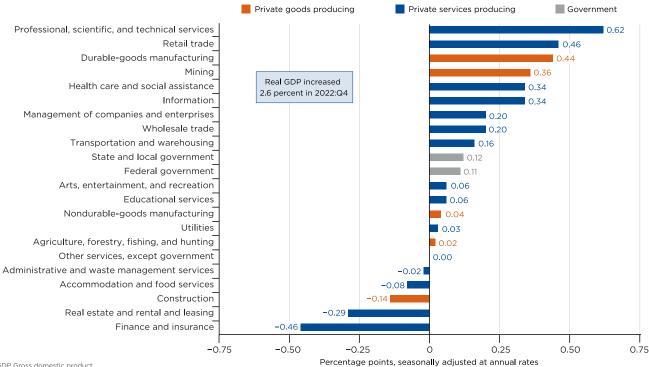
# **GDP** by Industry

The third estimate of GDP includes estimates of GDP by industry, or value added—a measure of an industry's contribution to GDP. In the fourth quarter, private goods-producing industries increased 4.0 percent, private services-producing industries increased 2.3 percent, and government increased 2.1 percent (chart 3 and table 2). Overall, 17 of 22 industry groups contributed to the fourth-quarter increase in real GDP (chart 4).

- Within private goods-producing industries, the increase was led by durable-goods manufacturing and mining. Partly offsetting these increases was a decrease in construction.
- 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 included decreases in finance and insurance as well as real estate and
  rental and leasing.
- The increase in government reflected increases in federal government as well as state and local government.



### Chart 4. Contributions to Percent Change in Real GDP by Industry Group, 2022:Q4



GDP Gross domestic product U.S. Bureau of Economic Analysis

**Table 2. Real Gross Domestic Product by Industry Group and Related Measures** 

[Seasonally adjusted at annual rates]

Line	Series	Share of current- dollar GDP (percent) 2022	Chai	Change from preceding period (percent) 2022				Contribution to percent change in real GDP (percentage points)  2022			
		04	Q1	02	Q3	04	Q1	Q2	Q3	04	
1	Gross domestic product (GDP) <sup>1</sup>	100.0	-1.6	-0.6	3.2	2.6	-1.6	-0.6	3.2	2.6	
2	Private industries	88.4	-2.0	-0.6	3.6	2.6	-1.80	-0.57	3.17	2.34	
3	Agriculture, forestry, fishing, and hunting	1.2	0.1	-12.8	-1.7	1.7	0.00	-0.15	-0.02	0.02	
4	Mining	1.7	-13.7	-0.2	27.0	21.0	-0.25	0.00	0.50	0.36	
5	Utilities	1.7	8.2	1.0	-16.0	1.8	0.13	0.02	-0.31	0.03	
6	Construction	4.0	-1.6	-19.2	-17.8	-3.6	-0.06	-0.84	-0.77	-0.14	
7	Manufacturing	11.1	-3.1	-8.5	0.5	4.5	-0.34	-0.97	0.06	0.49	
8	Durable goods	6.1	1.2	-4.1	-0.5	7.5	0.07	-0.25	-0.03	0.44	
9	Nondurable Goods	5.0	-8.0	-13.4	1.6	0.8	-0.41	-0.72	0.08	0.04	
10	Wholesale trade	6.3	0.2	-6.8	6.1	3.2	0.01	-0.45	0.38	0.20	
11	Retail trade	5.8	-14.8	1.4	6.8	8.1	-0.93	0.08	0.39	0.46	
12	Transporation and warehousing	3.2	-10.7	2.4	10.9	5.1	-0.35	0.07	0.33	0.16	
13	Information	5.5	-2.3	1.5	17.3	6.4	-0.13	0.08	0.88	0.34	
14	Finance, insurance, real estate, rental, and leasing	20.0	-1.1	1.9	1.1	-3.7	-0.23	0.39	0.22	-0.75	
15	Finance and insurance	7.7	-5.7	2.1	-2.7	-5.8	-0.48	0.17	-0.21	-0.46	
16	Real estate and rental and leasing	12.4	2.0	1.8	3.5	-2.4	0.25	0.22	0.43	-0.29	
17	Professional and business services	13.1	3.3	4.2	5.7	6.3	0.43	0.54	0.72	0.80	
18	Professional, scientific, and technical services	7.9	0.4	3.3	7.8	8.2	0.03	0.26	0.59	0.62	
19	Management of companies and enterprises	1.8	0.9	8.1	4.6	11.3	0.02	0.15	0.08	0.20	
20	Administrative and waste management services	3.3	12.0	4.1	1.4	-0.6	0.38	0.14	0.05	-0.02	
21	Educational services, health care, and social assistance	8.5	3.1	2.7	5.5	4.8	0.26	0.23	0.45	0.40	
22	Educational services	1.1	5.1	-4.1	5.6	4.9	0.06	-0.05	0.06	0.06	
23	Health care and social assistance	7.3	2.8	3.8	5.4	4.8	0.20	0.27	0.39	0.34	
24	Arts, entertainment, recreation, accomodation, and food services	4.3	-8.8	10.6	7.3	-0.4	-0.38	0.41	0.29	-0.02	
25	Arts, entertainment, and recreation	1.1	-0.8	19.2	26.1	5.4	-0.01	0.18	0.25	0.06	
26	Accommodation and food services	3.2	-11.4	7.9	1.4	-2.4	-0.37	0.23	0.04	-0.08	
27	Other services, except government	2.1	2.0	1.2	2.5	0.1	0.04	0.03	0.05	0.00	
28	Government	11.6	1.8	-0.2	0.6	2.1	0.21	-0.03	0.08	0.24	
29	Federal	3.6	0.4	-0.5	-1.5	3.2	0.01	-0.02	-0.05	0.11	
30	State and local	8.0	2.5	-0.1	1.6	1.5	0.20	-0.01	0.13	0.12	
	Addenda:										
31	Private goods-producing industries <sup>2</sup>	17.9	-3.7	-10.4	-1.3	4.0	-0.65	-1.96	-0.23	0.72	
32	Private services-producing industries <sup>3</sup>	70.5	-1.6	2.0	4.9	2.3	-1.15	1.40	3.40	1.62	

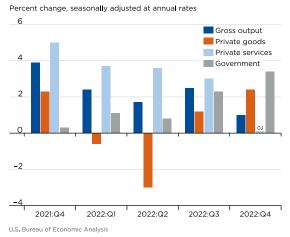
- 1. The GDP estimates under the contribution columns are also percent changes.
- 2. Consists of agriculture, forestry, fishing, and hunting; mining; construction; and manufacturing.
- 3. Consists of utilities; wholesale trade; retail trade; transportation and warehousing; information; finance, insurance, real estate, rental, and leasing; professional and business services; educational services, health care, and social assistance; arts, entertainment, recreation, accommodation, and food services; and other services, except government.

Note. Percent changes are from these GDP by industry tables: "Value Added by Industry as a Percentage of Gross Domestic Product," "Percent Changes in Chain-Type Quantity Indexes for Value Added by Industry," and "Contributions to Percent Change in Real Gross Domestic Product by Industry."

## **Gross Output by Industry**

Real gross output—principally a measure of an industry's sales or receipts, which includes sales to final users in the economy (GDP) and sales to other industries (intermediate inputs)—increased 1.0 percent in the fourth quarter (chart 5 and table 3). Private goods-producing industries increased 2.4 percent, private services-producing industries increased 0.1 percent, and government increased 3.4 percent. Overall, 11 of 22 industry groups contributed to the increase in real gross output.

Chart 5. Real Gross Output by Sector: Percent Change from Preceding Period



**Table 3. Real Gross Output by Industry Group and Related Measures** 

[Seasonally adjusted at annual rates]

		Change from preceding period (percent)						
Line	Series		20	22				
		Q1	Q2	Q3	<b>Q4</b>			
1	All industries	2.4	1.7	2.5	1.0			
2	Private industries		1.8	2.6	0.7			
3	Agriculture, forestry, fishing, and hunting	-1.6	-3.7	1.1	-2.0			
4	Mining	6.3	6.2	9.4	-4.0			
5	Utilities	10.9	7.1	-5.3	-4.5			
6	Construction	-6.3	-13.6	-10.8	-1.7			
7	Manufacturing	0.5	-0.8	3.9	4.9			
8	Durable goods	2.9	5.9	7.2	8.0			
9	Nondurable goods	-2.0	-7.1	0.6	1.7			
10	Wholesale trade	13.8	-2.2	-1.5	-5.2			
11	Retail trade	8.0	2.8	1.9	-1.7			
12	Transporation and warehousing	0.2	10.1	5.4	-3.3			
13	Information	10.8	5.8	2.8	-0.2			
14	Finance, insurance, real estate, rental, and leasing	0.6	0.1	3.7	-0.5			
15	Finance and insurance	-4.1	3.1	8.8	0.8			
16	Real estate and rental and leasing	4.2	-2.0	0.0	-1.5			
17	Professional and business services	5.5	6.2	3.4	3.3			
18	Professional, scientific, and technical services	5.7	5.4	7.7	7.2			
19	Management of companies and enterprises	1.2	3.5	2.5	8.3			
20	Administrative and waste management services	7.3	9.1	-4.3	-6.6			
21	Educational services, health care, and social assistance	1.4	1.5	3.4	1.5			
22	Educational services	6.7	2.5	6.4	-1.6			
23	Health care and social assistance	0.7	1.4	3.0	2.0			
24	Arts, entertainment, recreation, accomodation, and food services	-1.2	19.1	6.5	6.1			
25	Arts, entertainment, and recreation	5.3	22.7	26.3	10.5			
26	Accommodation and food services	-2.9	18.2	1.6	4.8			
27	Other services, except government	2.1	-3.1	8.7	4.0			
28	Government	1.1	0.8	2.3	3.4			
29	Federal	-3.1	2.4	3.6	1.8			
30	State and local	2.9	0.2	1.8	4.1			
	Addenda:							
31	Private goods-producing industries <sup>1</sup>	-0.6	-3.0	1.2	2.4			
32	Private services-producing industries <sup>2</sup>	3.7	3.6	3.0	0.1			

<sup>1.</sup> Consists of agriculture, forestry, fishing and hunting; mining; construction; and manufacturing.

Note. Percent changes are from the table "Percent Changes in Chain-Type Quantity Indexes for Gross Output by Industry."

<sup>2.</sup> Consists of utilities; wholesale trade; retail trade; transportation and warehousing; information; finance, insurance, real estate, rental, and leasing; professional and business services; educational services, health care, and social assistance; arts, entertainment, recreation, accommodation, and food services; and other services, except government.

### **Prices**

The U.S. Bureau of Economic Analysis' (BEA's) 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 3.6 percent in the fourth quarter after increasing 4.8 percent in the third quarter (table 4 and chart 6). The price index for personal consumption expenditures (PCE) increased 3.7 percent in the fourth quarter after increasing 4.3 percent in the third. The increase in PCE prices reflected an increase in prices for services that was partly offset by a decrease in prices for goods.

- Within services, price increases were widespread. The leading contributors were housing and utilities (mainly prices for the imputed rental of owner-occupied nonfarm housing) and food services and accommodations (led by food services). Other notable increases included health care (led by physician services), transportation services (led by motor vehicle maintenance and repair), other services (led by personal care and clothing services), and financial services and insurance.
- Within goods, the leading contributor was a decrease in gasoline and other energy goods.

Within gross domestic purchases, food prices increased 7.1 percent in the fourth quarter after increasing 13.4 percent in the third quarter. Prices for energy goods and services decreased 13.9 percent after decreasing 13.1 percent. Gross domestic purchases prices excluding food and energy increased 4.1 percent after increasing 5.0 percent.

Consumer prices excluding food and energy, a measure of the "core" rate of inflation, increased 4.4 percent in the fourth quarter after increasing 4.7 percent in the third quarter.



#### **Table 4. 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)				
		2022			2.1	2022				
	- 1	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
1	Gross domestic purchases <sup>1</sup>	8.1	8.5	4.8	3.6	8.1	8.5	4.8	3.6	
2	Personal consumption expenditures	7.5	7.3	4.3	3.7	4.90	4.81	2.85	2.46	
3	Goods	12.6	10.6	2.7	-0.5	2.76	2.37	0.64	-0.10	
4	Durable goods	8.3	2.4	3.5	-1.5	0.70	0.22	0.29	-0.12	
5	Nondurable goods	15.2	15.7	2.3	0.1	2.07	2.15	0.35	0.02	
6	Services	4.9	5.6	5.2	6.0	2.13	2.44	2.22	2.56	
7	Gross private domestic investment	9.9	9.9	7.6	3.3	1.77	1.76	1.30	0.57	
8	Fixed investment	10.0	10.3	7.7	4.0	1.68	1.72	1.28	0.67	
9	Nonresidential	6.9	8.5	7.6	3.6	0.87	1.06	0.94	0.46	
10	Structures	16.7	17.5	20.1	7.7	0.39	0.40	0.45	0.19	
11	Equipment	7.6	9.2	5.9	6.1	0.38	0.45	0.29	0.31	
12	Intellectual property products	1.9	3.9	3.7	-0.6	0.10	0.20	0.19	-0.03	
13	Residential	18.9	15.2	8.1	5.1	0.82	0.66	0.34	0.20	
14	Change in private inventories					0.09	0.03	0.02	-0.10	
15	Government consumption expenditures and gross investment	8.7	11.6	3.6	3.6	1.45	1.90	0.62	0.61	
16	Federal	5.7	6.0	4.8	3.2	0.36	0.38	0.30	0.20	
17	National defense	6.6	7.5	2.7	3.0	0.23	0.26	0.10	0.10	
18	Nondefense	4.5	4.1	7.6	3.4	0.13	0.12	0.20	0.09	
19	State and local	10.6	15.0	2.9	3.9	1.09	1.52	0.32	0.41	
	Addenda:									
	Gross domestic purchases:									
20	Food	11.2	14.7	13.4	7.1	0.54	0.68	0.60	0.33	
21	Energy goods and services	43.6	53.6	-13.1	-13.9	1.07	1.37	-0.43	-0.46	
22	Excluding food and energy	7.0	6.9	5.0	4.1	6.51	6.41	4.59	3.77	
	Personal consumption expenditures:									
23	Food and beverages purchased for off- premises consumption	11.4	15.3	13.0	6.9					
24	Energy goods and services	43.4	52.7	-13.3	-12.8					
25	Excluding food and energy	5.6	4.7	4.7	4.4					
26	Gross domestic product	8.3	9.0	4.4	3.9					
27	Exports of goods and services	17.3	20.0	-9.7	-6.1					
28	Imports of goods and services	13.5	13.2	-4.1	-5.5					

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

Note. Most percent changes are from National Income and Product Accounts (NIPA) table 1.6.7; percent changes for 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. Gross domestic product, export, and import prices are from NIPA table 1.1.7.

#### **Note on Prices**

The U.S. Bureau of Economic Analysis (BEA) 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 gross domestic product (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.

### **Updates**

In the third estimate of the fourth quarter, the growth rate in real GDP was revised down 0.1 percentage point from the second estimate (table 5). The updated estimates primarily reflected downward revisions to exports and consumer 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.

- 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 services).
- 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). For goods, upward revisions were widespread, led by
  other nondurable goods as well as recreational goods and vehicles (led by information processing
  equipment).
- 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. All categories of intellectual property products were revised down.
- The upward revision to residential fixed investment was led by improvements and single-family structures.
- The upward revision to state and local government spending was led by structures (mainly power).
- Within imports, both services (led by other business services) and goods (led by industrial supplies and materials) were revised down.

Table 5. Second and Third Estimates for the Fourth Quarter of 2022

[Seasonally adjusted at annual rates]

		Change fro	om preceding	period (percent)			Third stimate   Third estimate   minus second estimate    -0.1		
Line	Series	Second Third estimate		Third estimate minus second estimate	Second estimate	Third estimate	minus second		
1	Gross domestic product (GDP) <sup>1</sup>	2.7	2.6	-0.1	2.7	2.6	-0.1		
2	Personal consumption expenditures	1.4	1.0	-0.4	0.93	0.70	-0.23		
3	Goods	-0.5	-0.1	0.4	-0.13	-0.01	0.12		
4	Durable goods	-1.8	-1.3	0.5	-0.16		0.05		
5	Nondurable goods	0.2	0.6	0.4	0.03	0.09	0.06		
6	Services	2.4	1.6	-0.8	1.06	0.72	-0.34		
7	Gross private domestic investment	3.7	4.5	0.8	0.66	0.79	0.13		
8	Fixed investment	-4.6	-3.8	0.8	-0.81	-0.68	0.13		
9	Nonresidential	3.3	4.0	0.7	0.43	0.52	0.09		
10	Structures	8.5	15.8	7.3	0.21	0.38	0.17		
11	Equipment	-3.2	-3.5	-0.3	-0.17	-0.18	-0.01		
12	Intellectual property products	7.4	6.2	-1.2	0.39	0.33	-0.06		
13	Residential	-25.9	-25.1	0.8	-1.24	-1.20	0.04		
14	Change in private inventories				1.47	1.47	0.00		
15	Net exports of goods and services				0.46	0.42	-0.04		
16	Exports	-1.6	-3.7	-2.1	-0.19	-0.44	-0.25		
17	Goods	-7.4	-7.4	0.0	-0.62	-0.62	0.00		
18	Services	12.5	5.0	-7.5	0.43	0.18	-0.25		
19	Imports	-4.2	-5.5	-1.3	0.65	0.86	0.21		
20	Goods	-5.5	-5.9	-0.4	0.71	0.76	0.05		
21	Services	2.1	-3.7	-5.8	-0.06	0.10	0.16		
22	Government consumption expenditures and gross investment	3.6	3.8	0.2	0.63	0.65	0.02		
23	Federal	5.9	5.8	-0.1	0.37	0.37	0.00		
24	National defense	2.2	2.3	0.1	0.08	0.08	0.00		
25	Nondefense	10.8	10.6	-0.2	0.29	0.29	0.00		
26	State and local	2.3	2.6	0.3	0.25	0.29	0.04		
	Addenda:								
27	Final sales of domestic product	1.2	1.1	-0.1					
28	Gross domestic income (GDI) <sup>2</sup>		-1.1						
29	Average of GDP and GDI		0.7						
30	Gross domestic purchases price index	3.6	3.6	0.0					
31	GDP price index	3.9	3.9	0.0					

<sup>1.</sup> The GDP estimates under the contribution columns are also percent changes.

<sup>2.</sup> GDI is deflated by the implicit price deflator for GDP.

#### Information on Key Source Data, Assumptions, and Methodologies

A comprehensive table that presents the key source data and assumptions (under "Current Release") that are used to prepare each vintage of the estimate of gross domestic product (GDP) for the current quarter is available on the U.S. Bureau of Economic Analysis (BEA) 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 *NIPA Handbook: Concepts and Methods of the U.S. National Income and Product Accounts* on BEA's website.

## **Corporate Profits**

Measured in current dollars, profits from current production (corporate profits with the inventory valuation adjustment (IVA) and the capital consumption adjustment (CCAdj)) decreased \$60.5 billion, or 2.0 percent at a quarterly rate, in the fourth quarter after decreasing \$1.3 billion in the third quarter (table 6). Profits of domestic financial corporations decreased \$59.0 billion, profits of domestic nonfinancial corporations decreased \$22.9 billion, and rest-of-the-world profits increased \$21.4 billion.

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 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.

**Table 6. Corporate Profits**[Seasonally adjusted]

		Billions of dollars (annual rate)					Percent change from preceding quarter				
Line	Series	Level	Level Change from preceding quarter				(quarterly rate)				
		2022		20	22			20	22		
		Q4	Q1	Q2	Q3	Q4	Q1	Q2	<b>Q</b> 3	Q4	
	Current production measures:										
1	Corporate profits with IVA and CCAdj	2,939.5	3.7	131.6	-1.3	-60.5	0.1	4.6	0.0	-2.0	
2	Domestic industries	2,471.3	-10.4	106.2	14.3	-81.9	-0.4	4.4	0.6	-3.2	
3	Financial	403.6	-26.8	-46.0	-1.8	-59.0	-5.0	-9.0	-0.4	-12.8	
4	Nonfinancial	2,067.8	16.4	152.2	16.1	-22.9	0.9	7.9	0.8	-1.1	
5	Rest of the world	468.2	14.2	25.5	-15.5	21.4	3.3	5.8	-3.4	4.8	
6	Receipts from the rest of the world	976.3	17.1	56.1	1.0	7.2	1.9	6.2	0.1	0.7	
7	Less: Payments to the rest of the world	508.1	2.9	30.6	16.5	-14.2	0.6	6.4	3.3	-2.7	
9	Less: Taxes on corporate income	464.3	65.1	-16.4	-21.6	7.3	15.1	-3.3	-4.5	1.6	
10	Equals: Profits after tax	2,475.2	-61.4	148.0	20.4	-67.8	-2.5	6.2	0.8	-2.7	
11	Net dividends	1,653.8	13.4	-3.1	-56.5	-30.1	0.8	-0.2	-3.2	-1.8	
12	Undistributed profits from current production	821.4	-74.8	151.2	76.9	-37.6	-10.6	24.0	9.8	-4.4	
13	Net cash flow with IVA	3,146.0	-14.6	116.4	181.6	10.4	-0.5	4.1	6.1	0.3	

**CCAdj** Capital consumption adjustment

Inventory valuation adjustment

**IVA** 

Note. Levels of these and other profits series are shown in National Income and Product Accounts tables 1.12 and 6.16D.

#### **Note on Measuring Corporate Profits**

Corporate profits is a widely followed economic indicator used to gauge corporate health, assess investment conditions, and analyze the effect on corporations of economic policies and conditions. In addition, corporate profits is an important component in key measures of income.

The U.S. Bureau of Economic Analysis' (BEA's) measure of corporate profits aims to capture the income earned by corporations from current production in a manner that is fully consistent with the National Income and Product Accounts (NIPAs). The measure is defined as receipts arising from current production less associated expenses. Receipts exclude income in the form of dividends and capital gains, and expenses exclude bad debts, natural resource depletion, and capital losses.

Because direct estimates of NIPA-consistent corporate profits are unavailable, BEA derives these estimates in three steps.

First, BEA measures profits before taxes to reflect corporate income regardless of any redistributions of income through taxes. Estimates for the current quarter are based on corporate earnings reports from sources including the U.S. Census Bureau Quarterly Financial Report, Federal Deposit Insurance Corporation call reports, other regulatory reports, and tabulations from corporate financial reports. The estimates are benchmarked to Internal Revenue Service (IRS) data when these data are available for two reasons: (1) the IRS data are based on well-specified accounting definitions, and (2) they are comprehensive, covering all incorporated businesses—publicly traded and privately held—in all industries.

Second, to remove the effects of price changes on inventories valued at historical cost and of tax accounting for inventory withdrawals, BEA adds an inventory valuation adjustment that values inventories at current cost.

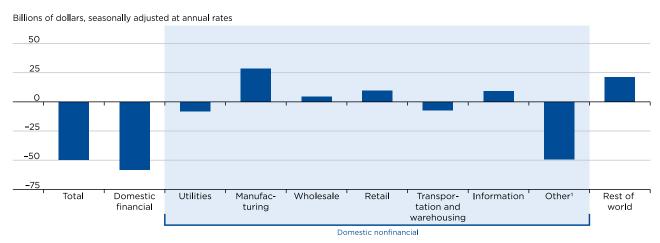
Third, to remove the effects of tax accounting on depreciation, BEA adds a capital consumption adjustment (CCAdj). CCAdj is defined as the difference between capital consumption allowances (tax return depreciation) and consumption of fixed capital (the decline in the value of the stock of assets due to wear and tear, obsolescence, accidental damage, and aging).

## **Corporate Profits by Industry**

Industry profits (corporate profits by industry with IVA) decreased \$49.8 billion, or 1.5 percent at a quarterly rate, in the fourth quarter after increasing \$35.3 billion, or 1.1 percent, in the third quarter (table 7 and chart 7). Domestic profits decreased \$71.2 billion in the fourth quarter, primarily reflecting decreases in financial industries and other nonfinancial industries that were partly offset by increases in manufacturing, retail trade, and information.

Profits after tax (without IVA and CCAdj)—BEA's profits measure that is conceptually most like the profits for companies in the Standard & Poor's 500 Index—decreased \$169.5 billion in the fourth quarter after decreasing \$152.3 billion in the third quarter.

Chart 7. Corporate Profits with Inventory Valuation Adjustment in 2022:Q4,
Change from Preceding Quarter



1. Other nonfinancial corporations includes the agriculture, mining, construction, and services industries.

U.S. Bureau of Economic Analysis

**Table 7. Corporate Profits by Industry** 

[Seasonally adjusted]

		Billions of dollars (annual rate)					Percent change from preceding quarter				
Line	Series	Level	Level Change from preceding quarter				(quarterly rate)				
		2022		2	022			2	022		
		Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
	Industry profits:										
1	Corporate profits with IVA	3,238.2	80.2	171.1	35.3	-49.8	2.7	5.6	1.1	-1.5	
2	Domestic industries	2,770.0	66.1	145.6	50.8	-71.2	2.6	5.5	1.8	-2.5	
3	Financial	497.6	-20.2	-41.0	3.4	-58.3	-3.3	-6.9	0.6	-10.5	
4	Nonfinancial	2,272.4	86.3	186.6	47.4	-12.9	4.4	9.1	2.1	-0.6	
5	Utilities	27.8	2.6	1.7	8.1	-8.2	11.1	6.5	29.1	-22.8	
6	Manufacturing	664.4	33.2	68.7	18.9	28.6	6.5	12.5	3.1	4.5	
7	Wholesale trade	234.1	14.3	-5.4	44.9	4.3	8.1	-2.8	24.3	1.9	
8	Retail trade	321.8	-1.2	10.2	4.6	9.8	-0.4	3.4	1.5	3.1	
9	Transportation and warehousing	114.5	-7.4	35.0	-2.7	-7.2	-7.7	39.1	-2.2	-5.9	
10	Information	161.5	2.2	-9.9	0.6	9.1	1.4	-6.1	0.4	6.0	
11	Other nonfinancial	748.4	42.5	86.3	-26.8	-49.4	6.1	11.7	-3.3	-6.2	
12	Rest of the world	468.2	14.2	25.5	-15.5	21.4	3.3	5.8	-3.4	4.8	
	Addenda:										
13	Profits before tax (without IVA and CCAdj)	3,185.6	137.7	193.3	-173.9	-162.2	4.3	5.8	-4.9	-4.8	
14	Profits after tax (without IVA and CCAdj)	2,721.3	72.7	209.7	-152.3	-169.5	2.6	7.4	-5.0	-5.9	
15	IVA	52.5	-57.5	-22.2	209.2	112.4					
16	CCAdj	-298.6	-76.5	-39.4	-36.6	-10.6					

CCAdj Capital consumption adjustment IVA Inventory valuation adjustment

Note. Levels of these and other profits series are shown in National Income and Product Accounts tables 1.12, 1.14, 1.15, and 6.16D.

### **Note on Corporate Profits by Industry**

Industry profits are corporate profits by industry with inventory valuation adjustment (IVA). The IVA removes the effect of price changes on inventories. The IVA is the difference between the cost of inventory withdrawals at acquisition cost and replacement cost. Ideally, the U.S. Bureau of Economic Analysis (BEA) would also add the capital consumption adjustment (CCAdj) for each industry. However, estimates of the CCAdj are only available for two broad categories: total financial industries and total nonfinancial industries. For more information about BEA's methodology, see "Corporate Profits" in NIPA Handbook: Concepts and Methods of the U.S. National Income and Product Accounts on BEA's website.

## Real GDP 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 (chart 8 and table 8).

- The increase in consumer spending reflected an increase in services that was partly offset by a decrease in goods.
  - Within services, the increase was led by other services (notably, international travel), food services and accommodations (led by purchased meals and beverages), and health care (led by outpatient services).
  - The decrease in goods primarily reflected decreases in food and beverages (groceries) as well as motor vehicles and parts (mainly used light trucks) that were partly offset by increases in recreational goods and vehicles (notably, information processing equipment) and other nondurable goods (mainly pharmaceuticals).
- The increase in exports reflected increases in both goods (mainly nondurable industrial supplies and materials) and services (notably, travel).
- The increase in private inventory investment primarily reflected increases in manufacturing, wholesale trade, and retail trade (notably, motor vehicle dealers).
- The increase in nonresidential fixed investment reflected increases in intellectual property products (led by software) and in equipment (led by information processing equipment) that were partly offset by a decrease in structures (led by commercial and health care as well as power and communication structures).
- The decrease in residential fixed investment mainly reflected a decrease in new single-family construction as well as brokers' commissions.
- The decrease in federal government spending reflected decreases in both defense and nondefense spending.
- Within imports, both goods (led by nonautomotive capital goods) and services (led by travel) increased.

Real GDI increased 2.3 percent in 2022 after increasing 5.5 percent in 2021. The average of real GDP and real GDI increased 2.2 percent in 2022 after increasing 5.7 percent in 2021.

Chart 8. Real GDP: Contributions to the Percent Change in 2022

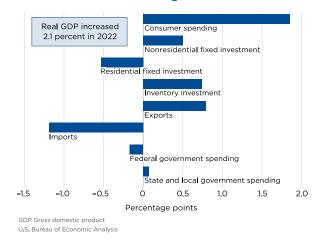


Table 8. Real Gross Domestic Product by Expenditure, Annual

Line	Series	Share of current- dollar GDP (percent)	Chang precedin (per	g period	Contribution to percent change in real GDP (percentage points)		
		2022	2021	2022	2021	2022	
1	Gross domestic product (GDP) <sup>1</sup>	100.0	5.9	2.1	5.9	2.1	
2	Personal consumption expenditures	68.2	8.3	2.7	5.54	1.85	
3	Goods	23.3	12.2	-0.5	2.72	-0.11	
4	Durable goods	8.6	18.5	-0.4	1.46	-0.04	
5	Nondurable goods	14.8	8.8	-0.5	1.26	-0.08	
6	Services	44.8	6.3	4.5	2.83	1.96	
7	Gross private domestic investment	18.2	9.0	4.0	1.55	0.72	
8	Fixed investment	17.6	7.4	-0.2	1.30	-0.03	
9	Nonresidential	13.1	6.4	3.9	0.83	0.50	
10	Structures	2.6	-6.4	-6.6	-0.19	-0.17	
11	Equipment	5.2	10.3	4.3	0.52	0.22	
12	Intellectual property products	5.4	9.7	8.8	0.50	0.46	
13	Residential	4.4	10.7	-10.6	0.47	-0.53	
14	Change in private inventories	0.6			0.24	0.74	
15	Net exports of goods and services	-3.8			-1.25	-0.40	
16	Exports	11.7	6.1	7.1	0.64	0.79	
17	Goods	8.1	7.4	6.3	0.52	0.49	
18	Services	3.6	3.3	8.7	0.12	0.30	
19	Imports	15.5	14.1	8.1	-1.89	-1.19	
20	Goods	12.9	14.5	6.9	-1.61	-0.85	
21	Services	2.6	12.3	14.2	-0.28	-0.34	
22	Government consumption expenditures and gross investment	17.5	0.6	-0.6	0.11	-0.10	
23	Federal	6.5	2.3	-2.5	0.17	-0.17	
24	National defense	3.6	-1.2	-2.8	-0.05	-0.11	
25	Nondefense	2.8	7.3	-2.2	0.22	-0.07	
26	State and local	11.0	-0.5	0.7	-0.06	0.07	
	Addenda:						
27	Gross domestic income (GDI) <sup>2</sup>		5.5	2.3			
28	Average of GDP and GDI		5.7	2.2			

- 1. The GDP estimates under the contribution columns are also percent changes.
- 2. GDI is deflated by the implicit price deflator for GDP. It is not estimated with the fourth-quarter advance or second estimates.

Note. Percent changes are from National Income and Product Accounts (NIPA) table 1.1.1, contributions to percent change are from NIPA table 1.1.2, and shares are from NIPA table 1.1.10.

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 (table 9). Overall, 15 of 22 industry groups contributed to the increase (chart 9).

- Increases within the private services-producing industries were widespread; the leading contributors to the increase were professional, scientific, and technical services; information (led by data processing, internet publishing, and other information services); real estate and rental and leasing (led by housing); administrative and waste management services; and health care and social assistance (led by ambulatory health care services).
- The increase in government reflected an increase in state and local government.
- Within private goods-producing industries, the leading contributors to the decrease were construction, mining (led by oil and gas extraction), and nondurable-goods manufacturing (led by petroleum and coal products). The decrease was partly offset by an increase in durable-goods manufacturing (led by motor vehicles, bodies and trailers, and parts).

Chart 9. Contributions to Percent Change in Real GDP by Industry Group, 2022 Private goods producing Private services producing Professional, scientific, and technical services 0.55 Information 0.43 Real estate and rental and leasing Administrative and waste management services 0.30 Health care and social assistance 0.29 Arts, entertainment, and recreation 0.20 State and local government 0.16 Accommodation and food services 0.16 Durable-goods manufacturing Management of companies and enterprises Other services, except government Transportation and warehousing 0.07 Finance and insurance 0.06 Educational services 0.05 Real GDP increased Wholesale trade 2.1 percent in 2022 Federal government Agriculture, forestry, fishing, and hunting -0.03 Utilities -0.04 Nondurable-goods manufacturing Mining Retail trade -0.22 Construction 0.5 0.75 -0.25 0.25 -0.75-0.5 Percentage points

GDP Gross domestic product U.S. Bureau of Economic Analysis

Table 9. Real Gross Domestic Product by Industry Group and Related Measures, Annual

Line	Series	Share of current- dollar GDP (percent)	Chang precedin (perc	g period	Contribution to percent change in real GDP (percentage points)		
		2022	2021	2022	2021	2022	
1	Gross domestic product (GDP)	100.0	5.9	2.1	5.9	2.1	
2	Private industries	88.4	6.7	2.2	5.83	1.89	
3	Agriculture, forestry, fishing, and hunting	1.1	-8.5	-3.2	-0.08	-0.03	
4	Mining	1.9	-16.3	-6.5	-0.21	-0.18	
5	Utilities	1.7	-4.1	-2.2	-0.07	-0.04	
6	Construction	4.0	2.5	-10.4	0.10	-0.43	
7	Manufacturing	11.0	6.7	0.2	0.71	0.04	
8	Durable goods	6.0	9.7	2.2	0.57	0.15	
9	Nondurable Goods	5.0	3.0	-2.1	0.14	-0.11	
10	Wholesale trade	6.3	5.5	0.3	0.34	0.02	
11	Retail trade	5.8	2.6	-3.8	0.15	-0.22	
12	Transporation and warehousing	3.2	7.5	2.3	0.21	0.07	
13	Information	5.5	13.9	7.6	0.75	0.43	
14	Finance, insurance, real estate, rental, and leasing	20.2	4.8	2.2	1.02	0.48	
15	Finance and insurance	7.9	7.2	0.5	0.61	0.06	
16	Real estate and rental and leasing	12.3	3.2	3.3	0.42	0.42	
17	Professional and business services	13.1	11.7	7.5	1.47	0.99	
18	Professional, scientific, and technical services	7.9	11.1	6.9	0.85	0.55	
19	Management of companies and enterprises	1.9	10.9	7.2	0.21	0.14	
20	Administrative and waste management services	3.3	13.6	9.4	0.41	0.30	
21	Educational services, health care, and social assistance	8.4	4.6	3.9	0.40	0.34	
22	Educational services	1.1	3.3	4.5	0.04	0.05	
23	Health care and social assistance	7.3	4.8	3.8	0.36	0.29	
24	Arts, entertainment, recreation, accomodation, and food services	4.2	28.3	8.8	0.91	0.35	
25	Arts, entertainment, and recreation	1.1	35.2	20.9	0.26	0.20	
26	Accommodation and food services	3.1	26.2	5.1	0.65	0.16	
27	Other services, except government	2.0	5.4	4.0	0.11	0.08	
28	Government	11.6	0.5	1.3	0.07	0.16	
29	Federal	3.6	1.0	-0.2	0.04	0.00	
30	State and local	8.0	0.3	1.9	0.03	0.16	
	Addenda:						
31	Private goods-producing industries <sup>1</sup>	18.0	3.1	-2.8	0.53	-0.61	
32	Private services-producing industries <sup>2</sup>	70.4	7.6	3.4	5.30	2.50	

<sup>1.</sup> Consists of agriculture, forestry, fishing and hunting; mining; construction; and manufacturing.

Note. Percent changes are from these GDP by industry tables: "Value Added by Industry as a Percentage of Gross Domestic Product," "Percent Changes in Chain-Type Quantity Indexes for Value Added by Industry," and "Contributions to Percent Change in Real Gross Domestic Product by Industry."

<sup>2.</sup> Consists of utilities; wholesale trade; retail trade; transportation and warehousing; information; finance, insurance, real estate, rental, and leasing; professional and business services; educational services, health care, and social assistance; arts, entertainment, recreation, accommodation, and food services; and other services, except government.

- 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 2018 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."



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