

GDP and the Economy

Advance Estimates for the Third Quarter of 2016

REAL GROSS domestic product (GDP) increased 2.9 percent at an annual rate in the third quarter of 2016, according to the advance estimates of the national income and product accounts (chart 1 and table 1).¹ In the second quarter, real GDP increased 1.4 percent.

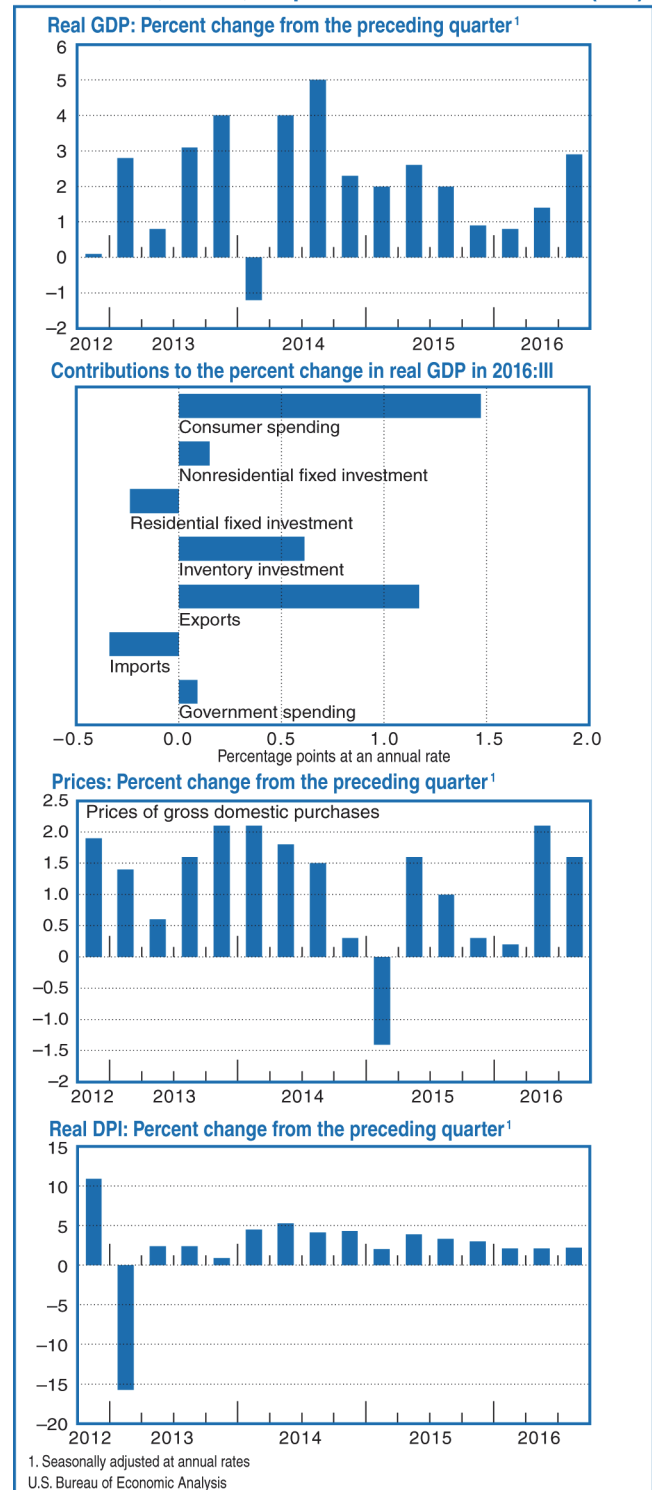
The increase in real GDP in the third quarter reflected positive contributions from consumer spending, exports, inventory investment, federal government spending, and nonresidential fixed investment that were partly offset by negative contributions from residential fixed investment and state and local government spending. Imports, which are a subtraction in the calculation of GDP, increased.²

- Prices of goods and services purchased by U.S. residents increased 1.6 percent in the third quarter of 2016 after increasing 2.1 percent in the second quarter. Energy prices slowed in the third quarter, and food prices decreased more in the third quarter than in the second quarter. Excluding food and energy, gross domestic purchases prices increased 1.8 percent after increasing 2.0 percent (see table 2).
- Real disposable personal income (DPI) increased 2.2 percent in the third quarter after increasing 2.1 percent in the second quarter. Current-dollar DPI increased 3.6 percent after increasing 4.1 percent. The differences in the movements in real DPI and current-dollar DPI reflected a deceleration in the implicit price deflator for consumer spending, which is used to deflate DPI.
- The personal saving rate, personal saving as a percentage of current-dollar DPI, was 5.7 percent in the third quarter, the same as in the second quarter.

1. "Real" estimates are in chained (2009) 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 August 2014 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."

Chart 1. GDP, Prices, Disposable Personal Income (DPI)



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Real GDP Overview

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

[Seasonally adjusted at annual rates]

	Share of current- dollar GDP (percent)	Change from preceding period (percent)					Contribution to percent change in real GDP (percentage points)			
		2016	2015	2016			2015	2016		
		III	IV	I	II	III	IV	I	II	III
Gross domestic product ¹	100.0	0.9	0.8	1.4	2.9	0.9	0.8	1.4	2.9	
Personal consumption expenditures.....	68.7	2.3	1.6	4.3	2.1	1.53	1.11	2.88	1.47	
Goods	22.0	2.1	1.2	7.1	2.2	0.47	0.25	1.51	0.48	
Durable goods	7.5	4.0	-0.6	9.8	9.5	0.30	-0.05	0.70	0.69	
Nondurable goods	14.4	1.2	2.1	5.7	-1.4	0.17	0.30	0.80	-0.21	
Services	46.7	2.3	1.9	3.0	2.1	1.07	0.86	1.37	0.99	
Gross private domestic investment	16.2	-2.3	-3.3	-7.9	3.1	-0.39	-0.56	-1.34	0.52	
Fixed investment	16.1	-0.2	-0.9	-1.1	-0.6	-0.03	-0.15	-0.18	-0.09	
Nonresidential	12.4	-3.3	-3.4	1.0	1.2	-0.43	-0.44	0.12	0.15	
Structures	2.6	-15.2	0.1	-2.1	5.4	-0.45	0.00	-0.06	0.14	
Equipment	5.7	-2.6	-9.5	-2.9	-2.7	-0.16	-0.59	-0.17	-0.16	
Intellectual property products	4.1	4.6	3.7	9.0	4.0	0.18	0.15	0.35	0.16	
Residential	3.7	11.5	7.8	-7.7	-6.2	0.40	0.29	-0.31	-0.24	
Change in private inventories.....	0.1	.....	.....	.....	.....	-0.36	-0.41	-1.16	0.61	
Net exports of goods and services	-2.5	.....	.....	.....	.....	-0.45	0.01	0.18	0.83	
Exports	12.2	-2.7	-0.7	1.8	10.0	-0.34	-0.09	0.21	1.17	
Goods.....	8.0	-4.6	0.1	1.7	14.5	-0.38	0.01	0.13	1.08	
Services	4.2	1.0	-2.2	1.9	2.1	0.04	-0.09	0.08	0.09	
Imports.....	14.7	0.7	-0.6	0.2	2.3	-0.11	0.09	-0.03	-0.34	
Goods.....	11.9	0.7	-1.3	0.0	0.9	-0.09	0.16	0.00	-0.11	
Services	2.7	0.7	2.5	1.1	8.8	-0.02	-0.07	-0.03	-0.23	
Government consumption expenditures and gross investment	17.6	1.0	1.6	-1.7	0.5	0.18	0.28	-0.30	0.09	
Federal	6.7	3.8	-1.5	-0.4	2.5	0.25	-0.10	-0.02	0.17	
National defense	3.9	4.4	-3.2	-3.2	2.1	0.17	-0.13	-0.13	0.08	
Nondefense	2.8	2.8	0.9	3.8	3.0	0.08	0.03	0.10	0.08	
State and local	10.9	-0.6	3.5	-2.5	-0.7	-0.07	0.39	-0.28	-0.08	
Addenda:										
Gross domestic income (GDI) ² .....	.....	1.5	0.8	-0.2	.....	.....	.....	.....	.....	
Average of GDP and GDI .....	.....	1.2	0.8	0.6	.....	.....	.....	.....	.....	
Final sales of domestic product	99.9	1.2	1.2	2.6	2.3	1.24	1.24	2.57	2.29	
Goods	29.7	-0.8	-1.4	2.2	7.4	-0.24	-0.42	0.66	2.15	
Services.....	62.4	2.1	1.1	2.4	1.7	1.26	0.68	1.48	1.08	
Structures	7.8	-1.9	7.4	-8.7	-4.1	-0.15	0.57	-0.73	-0.33	
Motor vehicle output	2.9	-15.2	2.2	7.5	2.0	-0.49	0.06	0.21	0.06	
GDP excluding motor vehicle output	97.1	1.4	0.8	1.2	2.9	1.37	0.77	1.20	2.84	
Final sales of computers	0.4	2.9	54.3	17.8	-6.4	0.01	0.18	0.07	-0.03	
GDP excluding final sales of computers	99.6	0.9	0.7	1.3	2.9	0.86	0.65	1.34	2.93	
Research and development (R&D)	2.6	4.7	0.6	11.8	2.1	0.12	0.01	0.29	0.05	
GDP excluding R&D	97.4	0.8	0.8	1.2	2.9	0.76	0.82	1.12	2.85	

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

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

NOTE. Percent changes are from 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 they are calculated from NIPA table 1.2.5.

The pickup in real GDP growth in the third quarter reflected an upturn in private inventory investment, a pickup in exports, a smaller decrease in state and local government spending, and an upturn in federal government spending. These movements were partly offset by a smaller increase in consumer spending, and a larger increase in imports.

The smaller increase in consumer spending primarily reflected a downturn in spending for nondurable goods; the leading contributor was a downturn in spending for "other" nondurable goods (mainly pharmaceuticals, tobacco, and household supplies).

The upturn in inventory investment primarily reflected an upturn in manufacturing (mainly in durable-goods industries) and in wholesale trade that were partly offset by a downturn in "other" industries.

The pickup in exports primarily reflected a pickup in goods exports. The main contributor to the pickup in goods exports was a pickup in exports of foods, feeds, and beverages, which was more than accounted for by a pickup in exports of soybeans.

The larger increase in imports primarily reflected a pickup in services imports. The main contributors were an upturn in charges for the use of intellectual property, which reflected the fees paid for the broadcast rights to the 2016 Summer Olympics, and a pickup in travel.

The upturn in federal government spending reflected an upturn in national defense spending that was partly offset by a slowdown in nondefense spending.

The smaller decrease in state and local government spending primarily reflected a smaller decrease in structures investment.

Prices

Table 2. Prices for Gross Domestic Purchases

[Percent change at annual rates; based on seasonally adjusted index numbers (2009=100)]

	Change from preceding period (percent)				Contribution to percent change in gross domestic purchases prices (percentage points)			
	2015				2016			
	IV	I	II	III	IV	I	II	III
Gross domestic purchases¹	0.3	0.2	2.1	1.6	0.3	0.2	2.1	1.6
Personal consumption expenditures	0.4	0.3	2.0	1.4	0.27	0.19	1.35	0.97
Goods	-2.6	-4.0	0.8	-0.9	-0.56	-0.87	0.17	-0.18
Durable goods	-1.8	-0.9	-2.5	-4.1	-0.14	-0.06	-0.19	-0.30
Nondurable goods	-2.9	-5.6	2.5	0.8	-0.42	-0.81	0.36	0.12
Services	1.8	2.4	2.6	2.6	0.82	1.06	1.18	1.16
Gross private domestic investment	0.3	0.6	1.8	1.3	0.04	0.09	0.29	0.21
Fixed investment	0.4	0.6	2.2	1.6	0.07	0.10	0.35	0.25
Nonresidential	-0.1	0.2	1.2	0.3	-0.01	0.03	0.14	0.04
Structures	-0.2	-1.5	3.2	-0.4	-0.01	-0.04	0.08	-0.01
Equipment	0.1	0.3	0.1	1.1	0.00	0.02	0.01	0.06
Intellectual property products	-0.2	1.3	1.4	-0.3	-0.01	0.05	0.05	-0.01
Residential	2.2	2.0	5.6	5.8	0.08	0.07	0.20	0.21
Change in private inventories .....	.....	.....	.....	.....	-0.02	-0.01	-0.06	-0.04
Government consumption expenditures and gross investment	0.1	-0.4	2.7	2.2	0.01	-0.08	0.47	0.38
Federal	-0.8	1.5	2.1	1.6	-0.05	0.10	0.14	0.10
National defense	-0.9	0.9	2.1	1.5	-0.04	0.04	0.08	0.06
Nondefense	-0.6	2.3	2.2	1.7	-0.02	0.06	0.06	0.05
State and local	0.6	-1.6	3.1	2.6	0.06	-0.17	0.33	0.28
Addenda:								
Gross domestic purchases:								
Food	-0.4	-1.5	-1.8	-2.2	-0.02	-0.07	-0.09	-0.11
Energy goods and services	-14.3	-31.0	15.0	1.1	-0.43	-0.98	0.35	0.03
Excluding food and energy	0.8	1.4	2.0	1.8	0.77	1.25	1.84	1.64
Personal consumption expenditures (PCE):								
Food and beverages purchased for off-premises consumption	-0.1	-1.7	-1.8	-2.1	.....	.....	.....	.....
Energy goods and services	-14.2	-30.6	15.5	2.1	.....	.....	.....	.....
Excluding food and energy	1.2	2.1	1.8	1.7	.....	.....	.....	.....
Gross domestic product (GDP)	0.8	0.5	2.3	1.5	.....	.....	.....	.....
Exports of goods and services	-5.5	-5.1	3.9	2.3	.....	.....	.....	.....
Imports of goods and services	-7.6	-6.0	2.1	2.5	.....	.....	.....	.....

1. The estimates of 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 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.

Prices paid by U.S. residents, as measured by the gross domestic purchases price index, increased 1.6 percent in the third quarter after increasing 2.1 percent in the second quarter. The slowdown reflected slowdowns in consumer prices, in prices paid for fixed investment, and in prices paid by government.

The slowdown in consumer prices reflected a downturn in the prices paid for goods; prices paid for services increased 2.6 percent, the same rate as in the second quarter.

The downturn in the prices paid for goods reflected a slowdown in nondurable goods and a larger decrease in durable goods. The slowdown in nondurable goods was more than accounted for by a downturn in gasoline and fuel oil prices.

The slowdown in prices paid for fixed investment reflected downturns in prices paid for structures and for intellectual property products (specifically, software decreased more than in the second quarter, and entertainment, literary, and artistic originals turned down).

The slowdown in prices paid by government reflected slowdowns in the prices paid by state and local governments (specifically, for investment in structures) and in the prices paid by the federal government.

Consumer prices for energy goods and services slowed sharply.

Consumer prices excluding food and energy, a measure of the "core" rate of inflation, slowed slightly, increasing 1.7 percent after increasing 1.8 percent.

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. It is derived from the prices of personal consumption expenditures (PCE), private investment, and government consumption expenditures and gross investment.

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 the FAQ "[What is the core PCE price index?](#)" on BEA's Web site.)

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

Table 3. Personal Income and Its Disposition

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

	Level		Change from preceding period			
	2016		2015	2016		
	II	III	IV	I	II	III
Personal income	15,893.2	16,046.8	134.1	49.9	153.1	153.6
Compensation of employees	10,005.1	10,118.7	152.4	0.1	112.6	113.6
Wages and salaries	8,104.3	8,198.9	130.7	-13.4	93.0	94.6
Private industries	6,799.9	6,881.3	122.0	-20.6	84.7	81.4
Goods-producing industries	1,340.4	1,349.3	24.3	-6.9	12.7	8.9
Manufacturing	822.0	828.8	17.7	-12.0	10.0	6.8
Services-producing industries	5,459.5	5,532.0	97.7	-13.7	72.0	72.5
Trade, transportation, and utilities	1,267.1	1,278.6	19.1	-10.5	13.5	11.4
Other services-producing industries	4,192.3	4,253.4	78.6	-3.1	58.5	61.1
Government	1,304.4	1,317.6	8.7	7.2	8.3	13.2
Supplements to wages and salaries	1,900.8	1,919.8	21.7	13.5	19.5	19.0
Proprietors' income with IVA and CCAdj	1,407.8	1,415.5	11.9	3.0	3.9	7.6
Farm	29.8	28.4	-6.5	-5.8	-2.5	-1.4
Nonfarm	1,378.0	1,387.1	18.4	8.8	6.4	9.0
Rental income of persons with CCAdj	700.6	707.5	9.2	15.5	7.8	7.0
Personal income receipts on assets	2,255.8	2,270.0	-39.7	0.4	19.9	14.3
Personal interest income	1,310.2	1,317.6	-43.1	3.1	14.1	7.4
Personal dividend income	945.5	952.5	3.5	-2.7	5.7	6.9
Personal current transfer receipts	2,763.6	2,785.8	16.0	35.8	19.6	22.2
Government social benefits to persons	2,710.6	2,732.2	15.7	35.6	19.2	21.7
Social security	894.1	899.8	6.9	4.8	7.8	5.7
Medicare	659.2	666.0	8.2	10.1	9.2	6.8
Medicaid	558.8	570.2	1.9	8.4	3.1	11.4
Unemployment insurance	30.3	29.9	-0.6	0.1	-1.2	-0.5
Veterans benefits	95.2	95.7	2.2	0.9	2.1	0.5
Other	473.0	470.7	-3.0	11.4	-1.9	-2.3
Other current transfer receipts from business, net	53.0	53.5	0.3	0.2	0.4	0.5
Less: Contributions for government social insurance	1,239.7	1,250.7	15.8	4.9	10.7	11.0
Less: Personal current taxes	1,945.2	1,973.5	19.4	-31.1	12.5	28.3
Equals: Disposable personal income (DPI)	13,948.0	14,073.3	114.7	81.1	140.6	125.3
Less: Personal outlays	13,154.5	13,272.7	86.4	62.3	192.6	118.2
Equals: Personal saving	793.5	800.6	28.3	18.7	-52.0	7.1
Personal saving as a percentage of DPI	5.7	5.7				

NOTE: Dollar levels are from NIPA tables 2.1 and 2.2B.

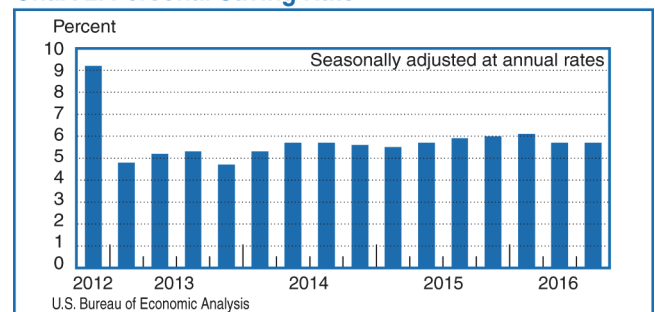
Personal income, which is measured in current dollars, picked up slightly in the third quarter, increasing \$153.6 billion after increasing \$153.1 billion in the second quarter. The slight pickup primarily reflected pickups in nonfarm proprietors' income, government social benefits, wages and salaries, and personal dividend income and a smaller decrease in farm proprietors' income that were mostly offset by slowdowns in personal interest income and rental income.

Personal current taxes picked up, reflecting an upturn in state and local income taxes and a pickup in federal income taxes.

Disposable personal income increased \$125.3 billion in the third quarter; in the second quarter, it increased \$140.6 billion.

Personal saving—disposable personal income less personal outlays—was \$800.6 billion in the third quarter, increasing \$7.1 billion after decreasing \$52.0 billion.

The personal saving rate—personal saving as a percentage of disposable personal income—was 5.7 percent in the third quarter, the same as in the second quarter.

Chart 2. Personal Saving Rate


Source Data for the Advance Estimates for the Third Quarter of 2016

Table 4A. Source Data and Key Assumptions for the Advance Estimates of GDP and Its Components

[Billions of dollars, seasonally adjusted at annual rates]

	2016					
	April	May	June	July	August	Sept. ¹
Private fixed investment:						
Nonresidential structures:						
Value of new nonresidential construction put in place	409.1	415.9	419.8	424.2	422.4	423.3
Residential structures:						
Value of new residential construction put in place:						
Single family	243.3	240.1	238.6	237.9	235.6	233.7
Multifamily	58.9	60.3	60.4	60.5	62.0	61.5
Change in private inventories:						
Change in inventories for nondurable manufacturing	3.4	5.5	5.4	-4.8	4.9	-3.9

1. Assumption.

Table 4B. Census Bureau Data From the *Advance Economic Indicators Report*

[Billions of dollars, seasonally adjusted at annual rates]

	2016		
	July	August	Sept. ¹
Change in private inventories:			
Merchant wholesale trade inventories		589.5	590.7
Retail trade inventories		605.8	607.6
Net exports of goods:			
U.S. exports of goods, Census basis	123.8	124.6	125.6
U.S. imports of goods, Census basis	182.5	183.7	181.7

1. Data for the third month of the quarter are preliminary and are subject to further revision.

Source Data and Key Assumptions for the Advance Estimates of GDP

The advance estimates of many components of GDP are based on 3 months of source data, but the estimates of some components are based on only 2 months of data. For the following items, the number of months for which data are available is shown in parentheses.

Consumer spending: sales of retail stores (3), unit auto and truck sales (3), consumers' shares of auto and truck sales (2), motor vehicle fuels data (3), and electricity and gas usage and unit-value data (3);

Nonresidential fixed investment: unit auto and truck sales (3), construction spending (value put in place) (2), manufacturers' shipments of machinery and equipment (3), and exports and imports of machinery and equipment (3);

Residential fixed investment: construction spending (value put in place) (2), single-family housing starts (3), sales of new homes (3), and sales of existing houses (3);

Inventory investment: nondurable-goods manufacturing inventories (2), trade inventories (3) durable-goods manufacturing inventories (3), and unit auto and truck inventories (3);

Net exports of goods and services: exports and imports of goods (3) and services (2) and values and quantities of petroleum imports (3);

Government spending: federal government outlays (3),

state and local government construction spending (value put in place) (2), and state and local government employment (3);

Compensation: employment, average hourly earnings, and average weekly hours (3); and

Prices: consumer price indexes (3), producer price indexes (3), and values and quantities of petroleum imports (3).

Key assumptions

When source data were unavailable, BEA made various assumptions for August and September, including the following (table 4A):

- An increase in nonresidential structures,
- A decrease in single-family structures,
- A decrease in multifamily structures, and
- A decrease in nondurable-goods manufacturing inventories.

A more comprehensive list is available on BEA's Web site.

Advance indicators data

Table 4b shows the data for wholesale and retail trade inventories and for exports and imports of goods from the Census Bureau's *Advance Economic Indicators Report*.