

GDP and the Economy

Advance Estimates for the First Quarter of 2016

REAL GROSS domestic product (GDP) increased 0.5 percent at an annual rate in the first quarter of 2016, according to the advance estimates of the national income and product accounts (chart 1 and table 1).¹ In the fourth quarter of 2015, real GDP increased 1.4 percent.

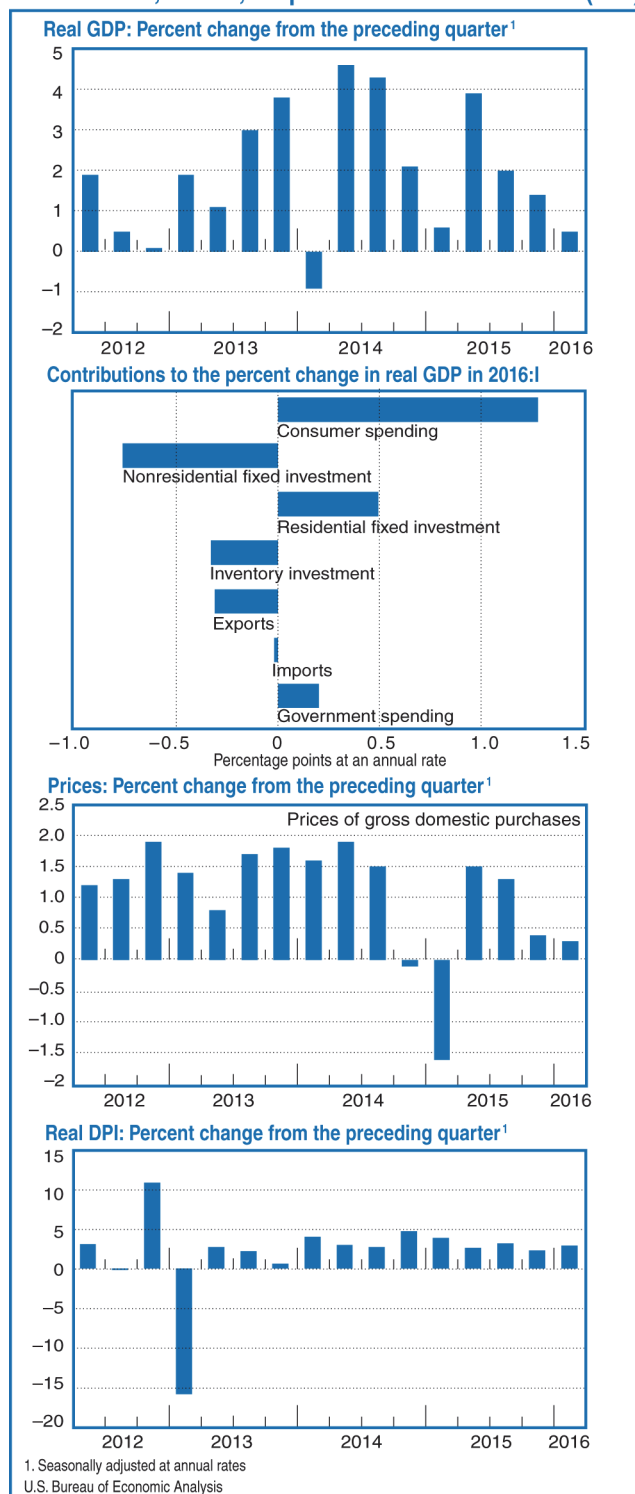
The increase in real GDP in the first quarter reflected positive contributions from consumer spending, residential fixed investment, and state and local government spending that were partly offset by negative contributions from nonresidential fixed investment, private inventory investment, exports, and federal 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 0.3 percent in the first quarter of 2016 after increasing 0.4 percent in the fourth quarter of 2015. Excluding food and energy, gross domestic purchases prices increased 1.4 percent after increasing 1.0 percent (see table 2).
- Real disposable personal income (DPI) increased 2.9 percent in the first quarter after increasing 2.3 percent in the fourth quarter. Current-dollar DPI increased 3.2 percent in the first quarter after increasing 2.7 percent in the fourth quarter.
- The personal saving rate, personal saving as a percentage of current-dollar DPI, was 5.2 percent in the first quarter; in the fourth quarter, the rate was 5.0 percent.

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)				
		2015				2016				
		I	II	III	IV	I	II	III	IV	I
Gross domestic product¹	100.0	3.9	2.0	1.4	0.5	3.9	2.0	1.4	0.5	
Personal consumption expenditures	68.7	3.6	3.0	2.4	1.9	2.42	2.04	1.66	1.27	
Goods	21.8	5.5	5.0	1.6	0.1	1.20	1.08	0.36	0.03	
Durable goods	7.3	8.0	6.6	3.8	-1.6	0.57	0.47	0.28	-0.12	
Nondurable goods	14.4	4.3	4.2	0.6	1.0	0.62	0.61	0.09	0.15	
Services	46.9	2.7	2.1	2.8	2.7	1.23	0.96	1.30	1.24	
Gross private domestic investment	16.5	5.0	-0.7	-1.0	-3.5	0.85	-0.11	-0.16	-0.60	
Fixed investment	16.1	5.2	3.7	0.4	-1.6	0.83	0.60	0.06	-0.27	
Nonresidential	12.5	4.1	2.6	-2.1	-5.9	0.53	0.33	-0.27	-0.76	
Structures	2.6	6.2	-7.2	-5.1	-10.7	0.18	-0.21	-0.14	-0.30	
Equipment	5.8	0.3	9.9	-2.1	-8.6	0.03	0.57	-0.12	-0.53	
Intellectual property products	4.1	8.3	-0.8	-0.2	1.7	0.33	-0.03	-0.01	0.07	
Residential	3.6	9.3	8.2	10.1	14.8	0.30	0.27	0.33	0.49	
Change in private inventories	0.4	.....	.....	.....	.....	0.02	-0.71	-0.22	-0.33	
Net exports of goods and services	-2.8	.....	.....	.....	.....	0.18	-0.26	-0.14	-0.34	
Exports	11.9	5.1	0.7	-2.0	-2.6	0.64	0.09	-0.25	-0.31	
Goods	7.7	6.5	-0.9	-5.4	-3.4	0.55	-0.07	-0.45	-0.27	
Services	4.2	2.3	3.9	5.0	-0.9	0.10	0.16	0.20	-0.04	
Imports	14.7	3.0	2.3	-0.7	0.2	-0.46	-0.35	0.11	-0.02	
Goods	11.9	3.2	1.4	-1.3	-0.7	-0.41	-0.18	0.17	0.08	
Services	2.8	2.0	6.4	1.9	3.8	-0.05	-0.17	-0.05	-0.10	
Government consumption expenditures and gross investment	17.6	2.6	1.8	0.1	1.2	0.46	0.32	0.02	0.20	
Federal	6.8	0.0	0.2	2.3	-1.6	0.00	0.02	0.15	-0.11	
National defense	4.1	0.3	-1.4	2.8	-3.6	0.01	-0.06	0.11	-0.15	
Nondefense	2.7	-0.5	2.8	1.5	1.5	-0.01	0.08	0.04	0.04	
State and local	10.9	4.3	2.8	-1.2	2.9	0.46	0.30	-0.13	0.31	
Addenda:										
Gross domestic income (GDI) ² .....	.....	2.2	2.0	0.9	.....	.....	.....	.....	.....	
Average of GDP and GDI .....	.....	3.0	2.0	1.1	.....	.....	.....	.....	.....	
Final sales of domestic product	99.6	3.9	2.7	1.6	0.9	3.90	2.70	1.61	0.87	
Goods	29.7	5.9	2.2	-0.7	-3.0	1.79	0.67	-0.20	-0.91	
Services	62.5	2.0	1.8	2.5	1.7	1.24	1.12	1.54	1.04	
Structures	7.8	12.2	2.5	0.6	5.4	0.90	0.19	0.05	0.41	
Motor vehicle output	2.9	14.5	19.2	-21.1	1.5	0.40	0.53	-0.71	0.04	
GDP excluding motor vehicle output	97.1	3.6	1.5	2.2	0.5	3.52	1.45	2.09	0.50	
Final sales of computers	0.4	41.5	5.0	9.8	75.1	0.13	0.02	0.04	0.23	
GDP excluding final sales of computers	99.6	3.8	2.0	1.4	0.3	3.78	1.96	1.35	0.31	
Research and development (R&D)	2.6	9.7	-0.7	-0.5	2.2	0.25	-0.02	-0.01	0.06	
GDP excluding R&D	97.4	3.8	2.1	1.4	0.5	3.67	2.00	1.40	0.48	

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 slowdown in real GDP in the first quarter reflected a larger decrease in nonresidential fixed investment, a slowdown in consumer spending, a downturn in federal government spending, an upturn in imports, and larger decreases in private inventory investment and in exports that were partly offset by an upturn in state and local government spending and a pickup in residential fixed investment.

The slowdown in consumer spending reflected slowdowns in spending for both goods and services.

Within goods, the main contributors to the slowdown were a larger decrease in motor vehicles and parts (primarily new motor vehicles) and a downturn "other" nondurable goods (mainly pharmaceutical and other medical products).

The slowdown in services primarily reflected slowdowns in recreational services, in food services and accommodations, and in spending by nonprofit institutions serving households that were partly offset by an upturn in spending for electricity and gas.

The larger decrease in nonresidential fixed investment reflected larger decreases in equipment and in structures.

The larger decrease in structures was mainly attributable to a larger decrease in mining exploration, shafts, and wells, the largest for this series and the fifth consecutive quarterly decrease.

The larger decrease in equipment investment was primarily attributable to downturns in industrial equipment and in information processing equipment (mainly communication equipment).

The pickup in residential fixed investment reflected pickups in "other" structures (mainly brokers commissions) and in multifamily structures that were partly offset by a slowdown in single-family structures.

The larger decrease in inventory investment primarily reflected a larger decrease in nonfarm inventory investment.

The larger decrease in exports reflected a downturn in services that was partly offset by a smaller decrease in goods.

The upturn in imports reflected a smaller decrease in goods imports and a pickup in services imports.

The downturn in federal government spending primarily reflected a downturn in defense spending.

The upturn in state and local government spending was primarily accounted for by an upturn in investment in structures.

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	2015			2016
	II	III	IV	I	II	III	IV	I
Gross domestic purchases¹	1.5	1.3	0.4	0.3	1.5	1.3	0.4	0.3
Personal consumption expenditures	2.2	1.3	0.3	0.3	1.46	0.85	0.23	0.19
Goods	2.5	-0.3	-2.8	-4.1	0.53	-0.05	-0.62	-0.90
Durable goods	-0.2	-2.4	-1.5	-1.1	-0.02	-0.17	-0.11	-0.08
Nondurable goods	3.8	0.8	-3.5	-5.6	0.54	0.12	-0.51	-0.82
Services	2.1	2.0	1.9	2.4	0.93	0.91	0.85	1.08
Gross private domestic investment	-1.0	1.5	0.6	0.4	-0.16	0.25	0.10	0.06
Fixed investment	-1.0	1.5	0.8	0.5	-0.15	0.23	0.12	0.08
Nonresidential	-1.0	1.2	0.4	0.2	-0.12	0.14	0.05	0.02
Structures	-2.4	1.3	-0.1	-1.6	-0.07	0.03	0.00	-0.04
Equipment	0.0	0.3	0.0	0.4	0.00	0.02	0.00	0.02
Intellectual property products	-1.5	2.3	1.4	1.0	-0.06	0.09	0.05	0.04
Residential	-0.8	2.6	2.1	1.9	-0.03	0.09	0.07	0.06
Change in private inventories .....	.....	.....	.....	.....	-0.01	0.02	-0.02	-0.02
Government consumption expenditures and gross investment	1.2	0.9	0.2	0.1	0.20	0.16	0.04	0.02
Federal	0.8	0.9	1.3	1.6	0.06	0.06	0.08	0.10
National defense	0.3	0.4	1.3	1.1	0.01	0.02	0.05	0.04
Nondefense	1.6	1.8	1.3	2.4	0.04	0.05	0.03	0.06
State and local	1.4	1.0	-0.4	-0.8	0.15	0.10	-0.04	-0.09
Addenda:								
Gross domestic purchases:								
Food	-1.2	2.1	-0.3	-1.7	-0.06	0.10	-0.02	-0.09
Energy goods and services	15.1	-1.2	-17.0	-30.1	0.42	-0.04	-0.53	-0.96
Excluding food and energy	1.2	1.3	1.0	1.4	1.14	1.20	0.91	1.31
Personal consumption expenditures (PCE):								
Food and beverages purchased for off-premises consumption	-1.1	2.2	0.0	-1.8	.....	.....	.....	.....
Energy goods and services	15.1	-1.9	-17.2	-30.3	.....	.....	.....	.....
Excluding food and energy	1.9	1.4	1.3	2.1	.....	.....	.....	.....
Gross domestic product (GDP)	2.1	1.3	0.9	0.7	.....	.....	.....	.....
Exports of goods and services	-1.0	-4.1	-5.5	-5.6	.....	.....	.....	.....
Imports of goods and services	-4.2	-3.5	-7.5	-7.5	.....	.....	.....	.....

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 0.3 percent in the first quarter after increasing 0.4 percent in the third quarter. The slowdown primarily reflected a larger decrease in the prices paid for consumer spending on nondurable goods, a slowdown in the prices paid for nonresidential fixed investment, and a larger decrease in prices paid by state and local governments.

The larger decrease in the prices paid for nondurable goods primarily reflected a larger decrease gasoline and other energy goods.

The slowdown in prices paid for nonresidential fixed investment primarily reflected a larger decrease in the prices paid for investment in structures and a slowdown in the prices paid for investment in intellectual property products that were partly offset by a pickup in the prices paid for equipment.

The larger decrease in the prices paid by state and local governments reflected larger decreases in the prices paid for investment in structures and in the prices paid for consumption expenditures.

Consumer prices excluding food and energy, a measure of the “core” rate of inflation, picked up, increasing 2.1 percent after increasing 1.3 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			
	2015	2016	2015		2016	
	IV	I	II	III	IV	I
Personal income	15,561.1	15,691.9	197.2	166.7	117.4	130.8
Compensation of employees	9,806.9	9,898.0	127.2	94.3	97.4	91.1
Wages and salaries	7,951.7	8,027.7	109.3	78.2	81.7	76.0
Private industries	6,672.3	6,737.0	100.8	69.1	76.6	64.7
Goods-producing industries	1,322.6	1,327.2	15.2	8.3	11.1	4.5
Manufacturing	808.8	809.6	9.6	2.4	4.7	0.8
Services-producing industries	5,349.7	5,409.9	85.5	60.8	65.5	60.2
Trade, transportation, and utilities	1,257.0	1,265.5	18.2	14.3	13.5	8.5
Other services-producing industries	4,092.7	4,144.4	67.3	46.4	51.9	51.7
Government	1,279.3	1,290.6	8.6	9.2	5.1	11.3
Supplements to wages and salaries	1,855.2	1,870.3	17.9	16.1	15.7	15.1
Proprietors' income with IVA and CCAdj	1,406.7	1,413.0	7.5	23.1	6.7	6.3
Farm	57.1	49.9	-3.6	8.3	-8.1	-7.2
Nonfarm	1,349.7	1,363.1	11.2	14.8	14.8	13.4
Rental income of persons with CCAdj	671.7	684.9	17.1	9.5	8.2	13.1
Personal income receipts on assets	2,195.3	2,194.4	32.8	24.5	-7.5	-0.8
Personal interest income	1,318.3	1,321.0	30.8	21.6	-16.6	2.6
Personal dividend income	876.9	873.5	2.0	2.9	9.1	-3.5
Personal current transfer receipts	2,698.0	2,731.2	25.5	24.3	22.4	33.2
Government social benefits to persons	2,654.0	2,686.7	25.0	23.8	21.8	32.7
Social security	881.7	886.3	7.8	5.1	7.2	4.6
Medicare	631.4	641.0	5.5	7.1	9.0	9.5
Medicaid	546.3	552.6	5.1	11.4	5.9	6.3
Unemployment insurance	32.2	32.5	-1.9	-0.2	-0.8	0.3
Veterans benefits	97.8	98.6	3.3	1.0	2.7	0.8
Other	464.7	475.8	5.2	-0.6	-2.2	11.2
Other current transfer receipts from business, net	44.0	44.5	0.5	0.5	0.6	0.5
Less: Contributions for government social insurance	1,217.6	1,229.6	13.1	9.0	9.6	12.1
Less: Personal current taxes	1,985.7	2,010.0	38.6	18.6	28.4	24.3
Equals: Disposable personal income (DPI)	13,575.4	13,681.9	158.6	148.1	89.0	106.5
Less: Personal outlays	12,897.1	12,969.6	182.3	131.7	90.9	72.5
Equals: Personal saving	678.3	712.3	-23.7	16.4	-1.9	33.9
Personal saving as a percentage of DPI	5.0	5.2	.....	.....	.....	.....
Addenda: The effects of special factors on changes in DPI						
In government social benefits to persons:						
ACA premium assistance tax credit	24.7	33.1	3.8	-1.7	-2.2	8.4
In personal current taxes:						
Refunds, settlements, and back taxes	32.9	39.0	0.0	0.0	0.0	6.1
In personal current transfer payments to governments:						
ACA penalty payment	0.0	4.6	0.0	0.0	0.0	4.6

 NOTE: Dollar levels are from NIPA tables 2.1 and 2.2B.
 ACA Affordable Care Act
 IVA Inventory valuation adjustment

CCAdj Capital consumption adjustment

Personal income, which is measured in current dollars, picked up in the first quarter, increasing \$130.8 billion after increasing \$117.4 billion in the fourth quarter. The pickup primarily reflected an upturn in personal interest income and a pickup in government social benefits to persons that were partly offset by a downturn in personal dividend income.

The upturn in personal interest income primarily reflected the pattern of interest paid on Treasury Inflation-Protected Securities, which is mostly based on data from the Treasury Department.

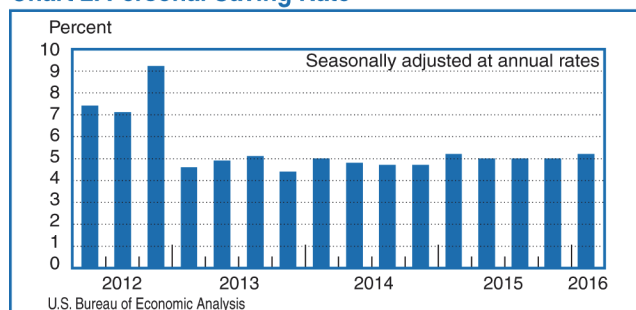
The pickup in government social benefits to persons primarily reflected an upturn in "other social benefits to persons (mainly refundable tax credits).

Personal current taxes slowed, reflecting a slowdown in state and local taxes.

Disposable personal income, measured as personal income less personal current taxes, picked up in the first quarter, increasing \$106.5 billion after increasing \$89.0 billion in the fourth quarter.

Personal saving—disposable personal income less personal outlays—increased \$33.9 billion in the first quarter to \$712.3 billion after decreasing \$1.9 billion in the fourth quarter.

The personal saving rate was 5.2 percent in the first quarter; in the fourth quarter, the rate was 5.0 percent.

Chart 2. Personal Saving Rate


Source Data for the Advance Estimates

**Table 4. Source Data and Key Assumptions for the Advance Estimates of GDP and Its Components
for the First Quarter of 2016**

[Billions of dollars, seasonally adjusted at annual rates]

	2015					
	Oct.	Nov.	Dec.	Jan.	Feb.	March ¹
Private fixed investment:						
Nonresidential structures:						
Value of new nonresidential construction put in place.....	403.8	400.3	392.8	403.4	398.3	400.8
Residential structures:						
Value of new residential construction put in place:						
Single family	226.1	228.6	231.1	232.2	235.0	236.9
Multifamily	53.4	56.7	57.2	59.2	59.8	60.2
Change in private inventories:						
Change in inventories for nondurable manufacturing	2.6	-7.6	-17.7	-26.3	-18.1	-11.3
Change in inventories for merchant wholesale and retail industries other than motor vehicles and equipment.....	3.5	-8.8	-11.0	10.4	-11.8	15.1
State and local government structures:						
Value of new construction put in place	269.2	263.9	270.9	279.6	274.5	277.1

1. Assumption.

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: trade and nondurable-goods manufacturing inventories (2), 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 from February to March, including the following (table 4):

- An increase in nonresidential structures,
 - An increase in single-family structures,
 - An increase in multifamily structures,
 - A decrease in nondurable-goods manufacturing inventories,
 - An increase in nonmotor vehicle merchant wholesale and retail inventories, and
 - An increase in state and local government structures.
- A more comprehensive list is available on BEA's Web site.

Preview of the Upcoming Annual NIPA Revision

On July 29, 2016, the Bureau of Economic Analysis (BEA) will release the results of the annual revision of the national income and product accounts (NIPAs) together with the advance estimate of gross domestic product (GDP) for the second quarter of 2016. The revision will cover the most recent 3 years (2013 through 2015) and the first quarter of 2016. The reference year for index numbers and chained-dollar estimates will remain 2009.

Regular source data updates. The annual revision will incorporate the usual annual source data for 2013 through 2015 that are more complete and more detailed than those previously available, including the following:

- Census Bureau data from the annual surveys of manufactures, of merchant wholesale trade, of retail trade, of services, and of state and local governments;
- Federal government budget data;
- Internal Revenue Service tabulations of tax returns for corporations and for sole proprietorships and partnerships; and
- Department of Agriculture farm income statistics.

Newly available source data and other refinements. Additionally, the revision will incorporate the following newly available source data and refinements to BEA's methods:

- Beginning with the advance estimate of GDP for the second quarter of 2016, BEA expects to incorporate newly available Census Bureau data on wholesale and

retail trade inventories that are scheduled to be released in time for the advance estimates of the NIPAs. BEA currently estimates inventories for the quarter based on Census Bureau-reported inventory data for the first two months of the quarter and BEA assumptions for the third month. The scheduled accelerated release of these data by the Census Bureau will allow BEA to calculate a more accurate estimate of the change in private inventories component of GDP for the advance estimate.

- In November 2015, the Census Bureau released revised monthly estimates of construction spending for January 2005 through October 2015. BEA uses these data to prepare annual estimates of private fixed investment for residential structures. For the upcoming revision, BEA will incorporate revised Census Bureau data into its annual estimates of residential improvements for 2013 through 2015. Estimates for earlier years will be revised during a future revision of the NIPAs. For details, see the FAQ [“How will the revised Census Bureau construction spending data affect BEA's quarterly and annual estimates of private fixed investment?”](#)
- As part of its regular review and update of seasonal adjustment factors, BEA will continue to refine or improve its seasonal adjustments for several GDP components. For more information, see the FAQ [“How does BEA account for seasonality in GDP?”](#)