

# GDP and the Economy

## Third Estimates for the Second Quarter of 2012

**R**EAL GROSS domestic product (GDP) increased at an annual rate of 1.3 percent in the second quarter of 2012, according to the third estimates of the national income and product accounts (NIPAs) (chart 1 and table 1).<sup>1</sup> In the first quarter, real GDP increased 2.0 percent.

The third estimate of real GDP growth was revised down 0.4 percentage point from the second estimate, primarily reflecting downward revisions to inventory investment (mainly farm inventories), to consumer spending (mainly services), and to exports (also mainly services).<sup>2</sup> (See “Revisions to GDP” on page 3 and “Effects of the 2012 Midwest Drought on the NIPA Estimates” on page 6.)

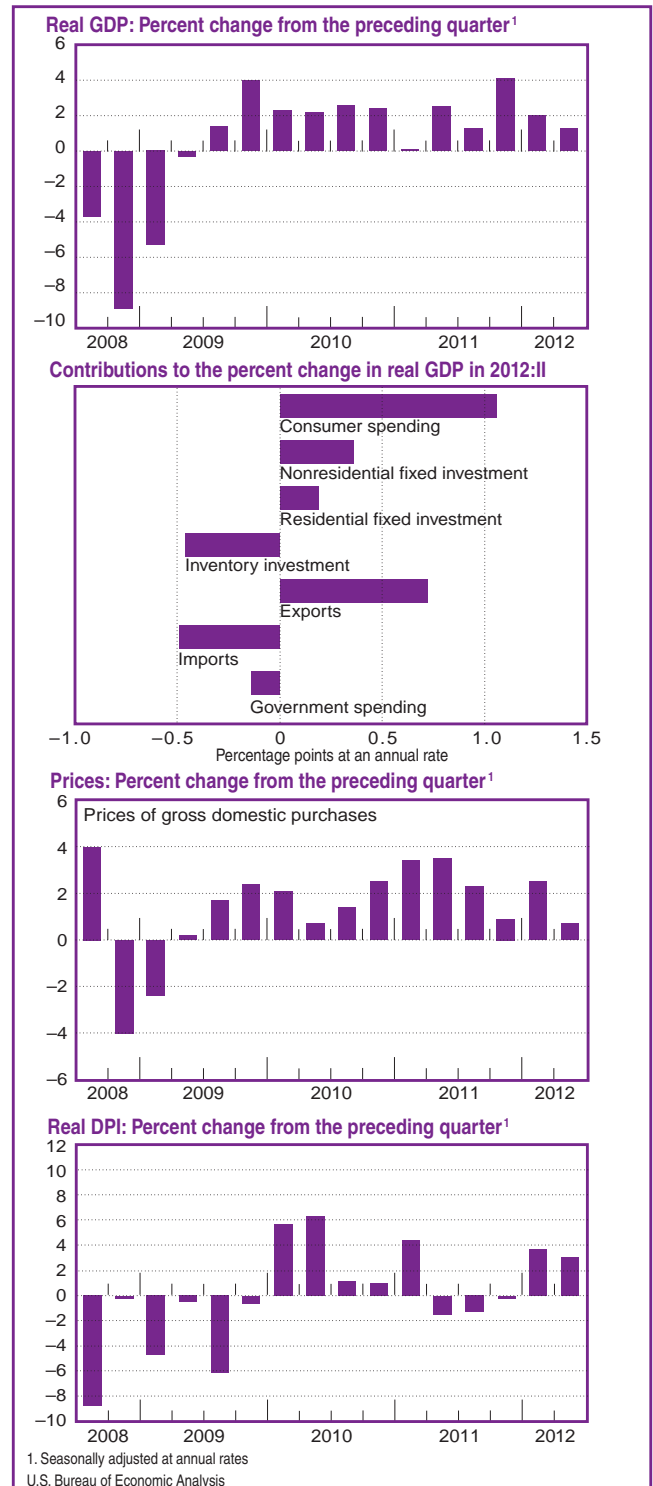
- Prices of goods and services purchased by U.S. residents increased 0.7 percent in the second quarter, 0.1 percentage point less than in the second estimate; in the first quarter, prices increased 2.5 percent. Energy prices turned down in the second quarter, and food prices decelerated. Excluding food and energy, gross domestic purchases prices increased 1.4 percent in the second quarter after increasing 2.4 percent in the first quarter.
- Real disposable personal income (DPI) increased 3.1 percent in the second quarter, the same increase as in the second estimate; in the first quarter, real DPI increased 3.7 percent. Current-dollar DPI increased 3.8 percent in the second quarter, also the same increase as in the second estimate; current-dollar DPI increased 6.3 percent in the first quarter. The personal saving rate, personal saving as a percentage of current-dollar DPI, was 4.0 percent in the second quarter; in the first quarter, the rate was 3.6 percent.
- Profits from current production increased \$21.8 billion in the second quarter after decreasing \$53.0 billion in the first quarter (see page 4).

1. “Real” estimates are in chained (2005) 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 [“Revisions to GDP, GDI, and Their Major Components”](#) in the July 2011 SURVEY OF CURRENT BUSINESS. Quarterly estimates are expressed at seasonally adjusted annual rates, which assumes that a rate of activity for a quarter is 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.”

*Christopher Swann prepared this article.*

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



## Real GDP Overview

Table 1. Real Gross Domestic Product and Components

[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)			
	2012		2011	2012		2011		2012			
	II	III	IV	I	II	III	IV	I	II		
<b>Gross domestic product</b> <sup>1</sup> .....	<b>100.0</b>	<b>1.3</b>	<b>4.1</b>	<b>2.0</b>	<b>1.3</b>	<b>1.3</b>	<b>4.1</b>	<b>2.0</b>	<b>1.3</b>		
<b>Personal consumption expenditures</b> .....	<b>71.0</b>	<b>1.7</b>	<b>2.0</b>	<b>2.4</b>	<b>1.5</b>	<b>1.18</b>	<b>1.45</b>	<b>1.72</b>	<b>1.06</b>		
Goods.....	24.0	1.4	5.4	4.7	0.3	0.33	1.29	1.11	0.08		
Durable goods.....	7.7	5.4	13.9	11.5	-0.2	0.40	1.00	0.85	-0.02		
Nondurable goods.....	16.3	-0.4	1.8	1.6	0.6	-0.06	0.29	0.26	0.10		
Services.....	47.0	1.8	0.3	1.3	2.1	0.85	0.16	0.61	0.99		
<b>Gross private domestic investment</b> .....	<b>13.1</b>	<b>5.9</b>	<b>33.9</b>	<b>6.1</b>	<b>0.7</b>	<b>0.68</b>	<b>3.72</b>	<b>0.78</b>	<b>0.09</b>		
Fixed investment.....	12.7	15.5	10.0	9.8	4.5	1.75	1.19	1.18	0.56		
Nonresidential.....	10.4	19.0	9.5	7.5	3.6	1.71	0.93	0.74	0.36		
Structures.....	2.9	20.7	11.5	12.9	0.6	0.51	0.31	0.35	0.02		
Equipment and software.....	7.4	18.3	8.8	5.4	4.8	1.20	0.62	0.39	0.35		
Residential.....	2.4	1.4	12.1	20.5	8.5	0.03	0.26	0.43	0.19		
Change in private inventories.....	0.4	.....	.....	.....	.....	-1.07	2.53	-0.39	-0.46		
<b>Net exports of goods and services</b> .....	<b>-3.7</b>	.....	.....	.....	.....	<b>0.02</b>	<b>-0.64</b>	<b>0.06</b>	<b>0.23</b>		
Exports.....	14.0	6.1	1.4	4.4	5.3	0.83	0.21	0.60	0.72		
Goods.....	9.9	6.2	6.0	4.0	7.0	0.59	0.58	0.39	0.67		
Services.....	4.1	6.1	-8.8	5.2	1.1	0.25	-0.38	0.21	0.05		
Imports.....	17.7	4.7	4.9	3.1	2.8	-0.81	-0.85	-0.54	-0.49		
Goods.....	14.8	2.9	6.3	2.0	2.9	-0.43	-0.90	-0.29	-0.42		
Services.....	2.9	13.8	-1.7	9.0	2.3	-0.38	0.05	-0.25	-0.07		
<b>Government consumption expenditures and gross investment</b> .....	<b>19.6</b>	<b>-2.9</b>	<b>-2.2</b>	<b>-3.0</b>	<b>-0.7</b>	<b>-0.60</b>	<b>-0.43</b>	<b>-0.60</b>	<b>-0.14</b>		
Federal.....	7.8	-4.3	-4.4	-4.2	-0.2	-0.36	-0.35	-0.34	-0.02		
National defense.....	5.2	2.6	-10.6	-7.1	-0.2	0.15	-0.60	-0.39	-0.01		
Nondefense.....	2.6	-17.4	10.2	1.8	-0.4	-0.51	0.25	0.05	-0.01		
State and local.....	11.8	-2.0	-0.7	-2.2	-1.0	-0.24	-0.08	-0.26	-0.12		

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

NOTE: Percent changes are from NIPA table 1.1.1, contributions are from NIPA table 1.1.2, and shares are from NIPA table 1.1.10.

Table 2. 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)			
	2012		2011	2012		2011		2012			
	II	III	IV	I	II	III	IV	I	II		
<b>Gross domestic product</b> <sup>1</sup> .....	<b>100.0</b>	<b>1.3</b>	<b>4.1</b>	<b>2.0</b>	<b>1.3</b>	<b>1.3</b>	<b>4.1</b>	<b>2.0</b>	<b>1.3</b>		
Final sales of domestic product.....	99.6	2.3	1.5	2.4	1.7	2.35	1.56	2.35	1.71		
Change in private inventories.....	0.4	.....	.....	.....	.....	-1.07	2.53	-0.39	-0.46		
Goods.....	28.2	2.1	16.1	3.9	1.3	0.58	4.23	1.09	0.38		
Services.....	64.8	0.5	-1.0	0.6	1.2	0.33	-0.62	0.38	0.76		
Structures.....	7.0	5.5	7.2	7.4	1.7	0.37	0.49	0.50	0.12		
<b>Addenda:</b>											
Motor vehicle output.....	2.8	1.5	24.0	30.9	7.3	0.03	0.55	0.72	0.20		
GDP excluding motor vehicle output.....	97.2	1.3	3.6	1.3	1.1	1.25	3.54	1.23	1.06		
Final sales of computers.....	0.4	31.5	31.1	4.5	-19.9	0.12	0.12	0.02	-0.10		
GDP excluding final sales of computers.....	99.6	1.2	4.0	1.9	1.4	1.16	3.97	1.94	1.35		
Gross domestic income (GDI) <sup>2</sup> .....	.....	-0.2	4.5	3.8	0.2	.....	.....	.....	.....		

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

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

NOTE: For GDP and its components, percent changes are from NIPA table 1.2.1, contributions are from NIPA table 1.2.2, and shares are calculated from NIPA table 1.2.5. For GDI, percent changes are from NIPA table 1.7.1.

Consumer spending slowed in the second quarter, adding 1.06 percentage points to real GDP growth after adding 1.72 percentage points in the first quarter. The slowdown reflected a downturn in durable goods, especially in motor vehicles and parts, and a slowdown in nondurable goods. Services picked up.

Nonresidential fixed investment slowed, adding 0.36 percentage point to real GDP growth after adding 0.74 percentage point. Investment in structures investment slowed, mainly reflecting a downturn in power and communication. Equipment and software also slowed somewhat.

Residential fixed investment decelerated, adding 0.19 percentage point to real GDP growth after adding 0.43 percentage point. Improvements turned down, and single-family structures slowed. In contrast, brokers' commissions picked up.

Inventory investment subtracted 0.46 percentage point from real GDP growth after subtracting 0.39 percentage point. The larger decrease mainly reflected a larger decrease in farm inventory investment.

Exports, mainly goods exports, picked up and contributed 0.72 percentage point to real GDP growth after contributing 0.60 percentage point.

Imports, mainly services imports, slowed and subtracted 0.49 percentage point from real GDP growth after subtracting 0.54 percentage point.

Government spending decreased less in the second quarter, subtracting 0.14 percentage point from real GDP growth after subtracting 0.60 percentage point. The smaller decrease reflected smaller decreases in national defense spending and in state and local government spending.

Real final sales of domestic product, real GDP less inventory investment, slowed, increasing 1.7 percent in the second quarter after increasing 2.4 percent in the first quarter.

Motor vehicle output slowed sharply, adding 0.20 percentage point to real GDP growth after adding 0.72 percentage point.

Final sales of computers turned down and subtracted 0.10 percentage point from real GDP growth after adding 0.02 percentage point.

Real gross domestic income, which measures the output of the economy as the costs incurred and the incomes earned in the production of GDP, increased 0.2 percent after increasing 3.8 percent.

## Revisions to GDP

**Table 3. Second and Third Estimates for the Second Quarter of 2012**  
 [Seasonally adjusted at annual rates]

	Change from preceding quarter (percent)			Contribution to percent change in real GDP (percentage points)		
	Second	Third	Third minus second	Second	Third	Third minus second
<b>Gross domestic product (GDP) <sup>1</sup></b> .....	<b>1.7</b>	<b>1.3</b>	<b>-0.4</b>	<b>1.7</b>	<b>1.3</b>	<b>-0.4</b>
<b>Personal consumption expenditures</b> .....	<b>1.7</b>	<b>1.5</b>	<b>-0.2</b>	<b>1.20</b>	<b>1.06</b>	<b>-0.14</b>
Goods .....	0.4	0.3	-0.1	0.09	0.08	-0.01
Durable goods .....	0.0	-0.2	-0.2	0.00	-0.02	-0.02
Nondurable goods .....	0.5	0.6	0.1	0.09	0.10	0.01
Services .....	2.4	2.1	-0.3	1.11	0.99	-0.12
<b>Gross private domestic investment</b> .....	<b>3.0</b>	<b>0.7</b>	<b>-2.3</b>	<b>0.40</b>	<b>0.09</b>	<b>-0.31</b>
Fixed investment .....	5.1	4.5	-0.6	0.63	0.56	-0.07
Nonresidential .....	4.2	3.6	-0.6	0.43	0.36	-0.07
Structures .....	2.8	0.6	-2.2	0.08	0.02	-0.06
Equipment and software .....	4.7	4.8	0.1	0.34	0.35	0.01
Residential .....	8.9	8.5	-0.4	0.20	0.19	-0.01
Change in private inventories .....				-0.23	-0.46	-0.23
<b>Net exports of goods and services</b> .....				<b>0.32</b>	<b>0.23</b>	<b>-0.09</b>
Exports .....	6.0	5.3	-0.7	0.82	0.72	-0.10
Goods .....	7.3	7.0	-0.3	0.70	0.67	-0.03
Services .....	3.0	1.1	-1.9	0.12	0.05	-0.07
Imports .....	2.9	2.8	-0.1	-0.51	-0.49	0.02
Goods .....	2.5	2.9	0.4	-0.37	-0.42	-0.05
Services .....	4.6	2.3	-2.3	-0.13	-0.07	0.06
<b>Government consumption expenditures and gross investment</b> .....	<b>-0.9</b>	<b>-0.7</b>	<b>0.2</b>	<b>-0.18</b>	<b>-0.14</b>	<b>0.04</b>
Federal .....	-0.1	-0.2	-0.1	-0.01	-0.02	-0.01
National defense .....	-0.1	-0.2	-0.1	0.00	-0.01	-0.01
Nondefense .....	-0.3	-0.4	-0.1	-0.01	-0.01	0.00
State and local .....	-1.4	-1.0	0.4	-0.17	-0.12	0.05
<b>Addenda:</b>						
Final sales of domestic product .....	2.0	1.7	-0.3	1.97	1.71	-0.26
Gross domestic purchases price index .....	0.8	0.7	-0.1			
GDP price index .....	1.6	1.6	0.0			

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

The third estimate of the percent change in real GDP was 0.4 percentage point less than the second estimate. The average revision (without regard to sign) between the second estimate and the third estimate is 0.3 percentage point. The downward revision to the percent change in real GDP primarily reflected downward revisions to inventory investment, to consumer spending, and to exports.

The revision to consumer spending primarily reflected a downward revision to spending for services. Within services, the largest contributor to the revision was financial services and insurance, specifically, portfolio management and investment advice services and financial service charges and fees. The revision was based on the incorporation of newly available second-quarter Census Bureau quarterly services survey data and newly available Federal Deposit Insurance Corporation *Call Report* data.

The revision to inventory investment primarily reflected a downward revision to farm inventories, based on the incorporation of revised farm income statistics from the Economic Research Service. These data, which were released too late to be incorporated into last month's estimate, reflected the effects of this summer's extreme hot weather and drought in the Midwest on farm production. (See "Effects of the 2012 Midwest Drought on the NIPA Estimates" on page 6.)

The revision to exports was mostly to services exports. Within services, the largest contributor to the revision was travel, based on the incorporation of revised data from the international transactions accounts.

### Source Data for the Third Estimates

The third estimate of GDP for the second quarter of 2012 incorporated the following source data.

*Personal consumption expenditures:* Census Bureau retail sales for June (revised) and quarterly services survey data for the second quarter (new) and Federal Deposit Insurance Corporation *Call Report* data for the second quarter (new).

*Nonresidential fixed investment:* Census Bureau construction spending (value put in place) data for May and June (revised) and quarterly services survey data for the second quarter (new).

*Residential fixed investment:* Census Bureau construction spending (value put in place) data for May and June (revised).

*Change in private inventories:* manufacturers' and trade inventories for June (revised) and farm income statistics (revised) from the Economic Research Service of the U.S. Department of Agriculture.

*Exports and imports of goods and services:* Bureau of Economic Analysis international transactions accounts data for April, May, and June (revised).

*Government consumption expenditures and gross investment:* Census Bureau construction spending (value put in place) data for May and June (revised).

*GDP prices:* export and import prices for April, May, and June (revised), and Federal Reserve Board *Call Report* data for the second quarter (new).

## Corporate Profits

**Table 4. Corporate Profits**  
[Seasonally adjusted]

	Billions of dollars (annual rate)						Percent change from preceding quarter (quarterly rate)			
	Level		Change from preceding quarter							
	2012		2011		2012		2011		2012	
	II	III	IV	I	II	III	IV	I	II	
<b>Current production measures:</b>										
Corporate profits .....	1,921.9	29.6	122.6	-53.0	21.8	1.6	6.7	-2.7	1.1	
Domestic industries.....	1,485.3	18.0	119.5	-5.0	-11.9	1.3	8.6	-0.3	-0.8	
Financial .....	389.2	14.9	88.0	-12.3	-39.7	4.4	24.9	-2.8	-9.3	
Nonfinancial .....	1,096.1	3.2	31.4	7.3	27.8	0.3	3.1	0.7	2.6	
Rest of the world.....	436.5	11.5	3.1	-48.0	33.6	2.6	0.7	-10.7	8.4	
Receipts from the rest of the world.....	641.5	-8.3	-5.0	-13.7	10.0	-1.3	-0.8	-2.1	1.6	
Less: Payments to the rest of the world.....	205.0	-19.9	-8.2	34.4	-23.6	-8.9	-4.0	17.7	-10.3	
Less: Taxes on corporate income.....	443.3	-23.1	8.4	83.2	-10.3	-6.0	2.3	22.5	-2.3	
Equals: Profits after tax.....	1,478.5	52.7	114.3	-136.2	31.9	3.7	7.8	-8.6	2.2	
Net dividends .....	747.5	18.4	12.0	9.2	20.4	2.7	1.7	1.3	2.8	
Undistributed profits from current production .....	731.0	34.2	102.3	-145.5	11.6	4.7	13.4	-16.8	1.6	
Net cash flow .....	1,841.8	41.9	139.4	-169.8	6.0	2.3	7.5	-8.5	0.3	

NOTE. Levels of these and other profits series are shown in NIPA tables 1.12, 1.14, 1.15, and 6.16D.

Profits from current production increased \$21.8 billion, or 1.1 percent at a quarterly rate, in the second quarter after decreasing \$53.0 billion, or 2.7 percent, in the first quarter.

Domestic profits of financial corporations decreased \$39.7 billion, or 9.3 percent, after decreasing \$12.3 billion, or 2.8 percent.

Domestic profits of nonfinancial corporations increased \$27.8 billion, or 2.6 percent, after increasing \$7.3 billion, or 0.7 percent.

Profits from the rest of the world increased \$33.6 billion, or 8.4 percent, after decreasing \$48.0 billion, or 10.7 percent. In the second quarter, receipts increased \$10.0 billion, and payments decreased \$23.6 billion.

Taxes on corporate income decreased \$10.3 billion, or 2.3 percent, after increasing \$83.2 billion, or 22.5 percent, in the first quarter. About \$43 billion of the first-quarter increase in taxes reflected the effect of the expiration of “bonus depreciation” in 2011.

Net dividends increased \$20.4 billion, or 2.8 percent, after increasing \$9.2 billion, or 1.3 percent.

### 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.

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

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: the IRS data are based on well-specified accounting definitions, and 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

**Table 5. Corporate Profits by Industry**  
[Seasonally adjusted]

	Billions of dollars (annual rate)					Percent change from preceding quarter (quarterly rate)				
	Level	Change from preceding quarter								
	2012	2011			2012		2011		2012	
	II	III	IV	I	II	III	IV	I	II	
<b>Industry profits:</b>										
Profits with IVA .....	2,124.3	34.2	124.7	177.3	23.5	1.9	6.9	9.2	1.1	
Domestic industries .....	1,687.7	22.6	121.5	225.4	-10.2	1.7	9.0	15.3	-0.6	
Financial .....	441.9	15.2	88.3	12.1	-39.3	4.2	23.2	2.6	-8.2	
Nonfinancial .....	1,245.8	7.4	33.2	213.4	29.0	0.8	3.4	21.3	2.4	
Utilities .....	41.3	-26.3	4.9	23.2	3.0	-72.0	47.2	154.4	7.7	
Manufacturing .....	372.8	19.7	37.0	77.6	9.3	8.6	14.9	27.2	2.5	
Wholesale trade .....	149.6	10.6	0.7	28.6	15.0	11.2	0.6	27.0	11.2	
Retail trade .....	136.4	1.9	17.1	17.7	-2.2	1.9	16.5	14.7	-1.6	
Transportation and warehousing .....	55.0	-0.2	3.9	7.2	-1.7	-0.3	8.6	14.4	-3.0	
Information .....	118.6	-2.7	-2.1	24.4	8.8	-3.1	-2.4	28.5	8.0	
Other nonfinancial .....	372.2	4.4	-28.3	34.7	-3.1	1.2	-7.7	10.2	-0.8	
Rest of the world .....	436.5	11.5	3.1	-48.0	33.6	2.6	0.7	-10.7	8.4	
<b>Addenda:</b>										
Profits before tax (without IVA and CCAj) .....	2,108.2	-0.4	97.1	188.1	-16.3	0.0	5.3	9.7	-0.8	
Profits after tax (without IVA and CCAj) .....	1,664.9	22.8	88.8	104.8	-6.0	1.6	6.0	6.7	-0.4	
IVA .....	16.0	34.4	27.7	-10.8	39.7					
CCAj .....	-202.4	-4.6	-2.1	-230.3	-1.7					

Profits with inventory valuation adjustment (IVA) increased \$23.5 billion, or 1.1 percent, in the second quarter after increasing \$177.3 billion, or 9.2 percent, in the first quarter.

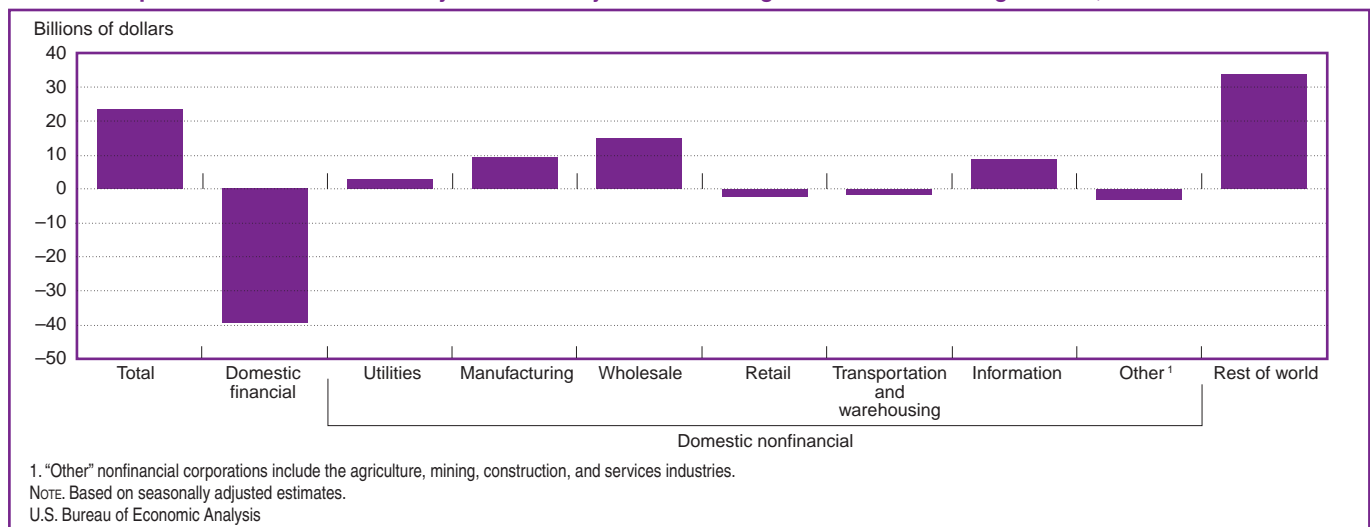
Profits of domestic industries decreased \$10.2 billion, or 0.6 percent, after increasing \$225.4 billion, or 15.3 percent.

Profits of domestic financial industries decreased \$39.3 billion, or 8.2 percent, after increasing \$12.1 billion, or 2.6 percent.

Profits of domestic nonfinancial industries increased \$29.0 billion, or 2.4 percent, after increasing \$213.4 billion, or 21.3 percent. The deceleration reflected a deceleration in manufacturing industries, a downturn in "other" nonfinancial industries, a deceleration in utilities, a downturn in retail trade industries, decelerations in information industries and in wholesale trade industries, and a downturn in transportation and warehousing.

NOTE: Levels of these and other profits series are shown in NIPA tables 1.12, 1.14, 1.15, and 6.16D.  
IVA Inventory valuation adjustment      CCAj Capital consumption adjustment

**Chart 2. Corporate Profits With Inventory Valuation Adjustment: Change From the Preceding Quarter, 2012:II**



### 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, BEA would also add the capital consumption adjustment (CCAj) for

each industry. However, estimates of the CCAj 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 *Concepts and Methods of the U.S. National Income and Product Accounts* at [www.bea.gov/methodologies/index.htm](http://www.bea.gov/methodologies/index.htm).

## Effects of the 2012 Midwest Drought on the NIPA Estimates

This summer's severe heat and drought adversely affected agricultural production in several Midwestern states. The national income and product accounts (NIPAs) reflect the effects of the drought in several ways. For the most part, the crop losses resulting from the drought are reflected in the source data that BEA uses to estimate farm output and inventories. When the source data do not completely reflect the effects of such events, BEA attempts to supplement these data, applying methodologies similar to those used in the past. While the drought could indirectly affect many components of gross domestic product (GDP), such as personal consumption expenditures and exports, it is only possible to separately identify the drought's direct effects on a few components, such as the change in farm inventories on the expenditure side of GDP and farm proprietors' income on the income side. (See also [FAQ 1012](#) on BEA's Web site.)

### Effects on real GDP

The production of agricultural crops, such as corn and soybeans, is reflected in the expenditure-side components of GDP. Specifically, the reduction in farm production caused by the drought directly affects the estimates of farm inventories, a component of the change in private inventories. Annual changes in farm inventories of crops are estimated as crops harvested in the year and available for sale, less crops sold in the period, plus net Commodity Credit Corporation (CCC) loan transactions. Because crop production takes place throughout the year, even if crops are harvested only once a year, BEA's estimates spread the value of crop output throughout the year. For each quarter, the change in farm inventories of crops is calculated as the estimated crop output allocated to that quarter, less crops sold in that quarter, plus net CCC loan transactions.

The regular source data for crop output and sales are derived from the U.S. farm income and wealth statistics, which are published by the Economic Research Service (ERS) of the U.S. Department of Agriculture three times a year in February, August, and November. The most recent farm statistics were issued at the end of August and included revised farm forecasts for calendar year 2012. To estimate the loss attributed to the drought, BEA first compared the harvest quantities reported in the August

report, which reflected production under drought conditions, with those in the February report, which reflected predrought estimates. Then, BEA used prevailing prices to value the ERS estimates of the change in crop inventories for the year 2012. This resulted in a downward revision to crop inventory investment of about \$11.5 billion (current dollars) between the predrought February report and the August report.

Because most of the ERS farm statistics are annual estimates, BEA used additional ERS reports to adjust the quarterly pattern of crop output to reflect the timing of the effects of the drought during June and July. Specifically, since corn and soybeans were the crops most impacted by the drought, BEA focused its adjustments on these crops. Based on the pattern of projected corn and soybean output shown in the monthly issues of two ERS reports, *Feed Outlook* and *Oil Crops Outlook*, second-quarter crop output was revised down \$11.9 billion, and market sales were revised down \$3.7 billion, contributing to a downward revision of \$7.8 billion to second-quarter farm inventories. After adjusting for inflation, the change in real farm inventories was revised down \$5.7 billion (chained 2005 dollars) for the second quarter. These estimates only reflect the losses in June. Somewhat larger impacts are anticipated for the third and fourth quarters.

### Effects on personal income

The second-quarter estimate of personal income also reflects the effects of crop losses caused by the drought, specifically on farm proprietors' income. However, many farmers participate in crop insurance programs; in the NIPAs, crop insurance benefits are included on an accrual basis in the quarters when the losses occur, not when the insurance payments are received. Crop insurance benefits do not directly affect either GDP or gross domestic income, but they do affect farm proprietors' income. In the second quarter, \$6.0 billion in losses to the farm sector were offset by crop insurance benefits. Consequently, the downward revision of \$2.7 billion to farm proprietors' income in the second quarter was smaller than the corresponding revisions to crop output and inventories. Benefit payments to farmers for federal crop insurance are recorded as net insurance settlements within business current transfer payments to government.