

# GDP and the Economy

## Advance Estimates for the Second Quarter of 2006

IN the second quarter of 2006, real gross domestic product (GDP) decelerated and inflation accelerated, according to the “advance” estimates of the national income and product accounts (NIPAs).<sup>1</sup>

Real GDP increased 2.5 percent, following a 5.6-percent surge in the first quarter (chart 1 and table 1).<sup>2</sup> The slowdown primarily reflected a sharp deceleration in consumer spending, a downturn in business investment in equipment and software, a deceleration in exports, and a downturn in Federal Government spending.<sup>3</sup>

- Prices of goods and services purchased by U.S. residents increased 4.0 percent, following an increase of 2.7 percent. Energy prices turned up, and food prices decelerated.
- Real disposable personal income (DPI) increased 1.0 percent, slowing from the 1.7-percent rate in the first quarter.
- The personal saving rate—personal saving as a percentage of current-dollar DPI—was -1.5 percent in the second quarter; in the first quarter, it was -1.0 percent.

The NIPA estimates for the first quarter of 2006 and for 2003–2005 have been revised as part of the regular annual NIPA revision. See “Annual Revision of the National Income and Product Accounts” in this issue.

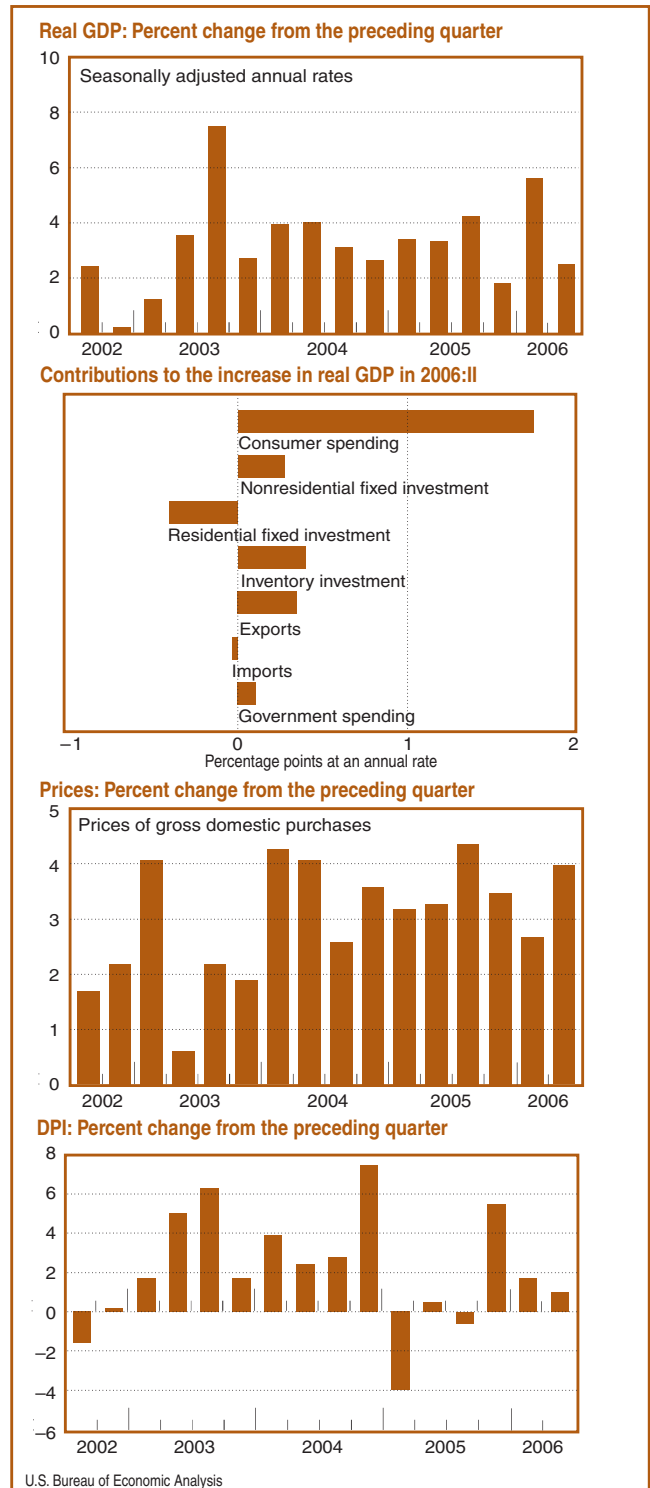
For a summary of the source data used for quarterly GDP estimates and annual revision estimates, see the box “Gross Domestic Product: Revisions and Source Data.”

1. Three GDP estimates for each quarter are prepared: Advance, preliminary, and final. Each incorporates more comprehensive and improved source data. Detailed information on BEA estimates, revisions, and accuracy can be found on BEA’s Web site at <[www.bea.gov/bea/about/infoqual.htm](http://www.bea.gov/bea/about/infoqual.htm)> and at <[www.bea.gov/bea/faq/national/gdp\\_accuracy.htm](http://www.bea.gov/bea/faq/national/gdp_accuracy.htm)>. Quarterly estimates are expressed at seasonally adjusted annual rates, which show the value that would be registered if the rate of activity measured for a quarter were maintained for a year. The annual rates are determined simply by multiplying the estimated rate of activity by 4. Quarter-to-quarter dollar changes are differences between these published estimates. Percent changes are calculated from unrounded data and annualized.

2. “Real” estimates are in chained (2000) dollars, and price indexes are chain-type measures.

3. “Consumer spending” is shorthand for “personal consumption expenditures,” “Federal Government spending” is shorthand for “Federal Government consumption expenditures and gross investment,” and “inventory investment” is shorthand for “change in private inventories.”

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



Christopher Swann prepared this article.

## 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)			
	2006		2005		2006		2005		2006	
	II	III	IV	I	II	III	IV	I	II	
<b>Gross domestic product<sup>1</sup>.....</b>	<b>100.0</b>	<b>4.2</b>	<b>1.8</b>	<b>5.6</b>	<b>2.5</b>	<b>4.2</b>	<b>1.8</b>	<b>5.6</b>	<b>2.5</b>	
<b>Personal consumption expenditures.....</b>	<b>69.9</b>	<b>3.9</b>	<b>0.8</b>	<b>4.8</b>	<b>2.5</b>	<b>2.76</b>	<b>0.53</b>	<b>3.38</b>	<b>1.74</b>	
Durable goods.....	8.0	9.0	-12.3	19.8	-0.5	0.74	-1.08	1.50	-0.04	
Nondurable goods.....	20.6	3.4	3.9	5.9	1.7	0.70	0.79	1.20	0.34	
Services.....	41.3	3.2	2.0	1.6	3.5	1.32	0.83	0.67	1.43	
<b>Gross private domestic investment.....</b>	<b>17.0</b>	<b>5.2</b>	<b>16.2</b>	<b>7.8</b>	<b>1.7</b>	<b>0.84</b>	<b>2.51</b>	<b>1.31</b>	<b>0.28</b>	
Fixed investment.....	16.5	6.3	2.8	8.2	-0.7	1.02	0.46	1.34	-0.12	
Nonresidential.....	10.4	5.9	5.2	13.7	2.7	0.59	0.52	1.36	0.28	
Structures.....	3.0	-7.0	12.0	8.7	12.7	-0.20	0.31	0.25	0.36	
Equipment and software.....	7.4	11.0	2.8	15.6	-1.0	0.78	0.21	1.11	-0.07	
Residential.....	6.1	7.1	-0.9	-0.3	-6.3	0.43	0.06	-0.02	-0.40	
Change in private inventories.....	0.5	.....	.....	.....	.....	-0.18	2.05	-0.03	0.40	
<b>Net exports of goods and services.....</b>	<b>-5.9</b>	.....	.....	.....	.....	<b>-0.06</b>	<b>-1.07</b>	<b>-0.04</b>	<b>0.33</b>	
Exports.....	10.9	3.2	9.6	14.0	3.3	0.33	0.97	1.41	0.35	
Goods.....	7.6	3.7	11.5	17.3	2.2	0.27	0.80	1.20	0.17	
Services.....	3.2	2.1	5.5	6.7	5.8	0.06	0.17	0.21	0.18	
Imports.....	16.8	2.5	13.2	9.1	0.2	-0.39	-2.04	-1.46	-0.03	
Goods.....	14.2	2.7	14.1	9.4	-0.6	-0.36	-1.84	-1.27	0.09	
Services.....	2.6	1.2	8.3	7.4	4.5	-0.03	-0.20	-0.19	-0.12	
<b>Government consumption expenditures and gross investment.....</b>	<b>19.0</b>	<b>3.4</b>	<b>-1.1</b>	<b>4.9</b>	<b>0.6</b>	<b>0.64</b>	<b>-0.21</b>	<b>0.94</b>	<b>0.11</b>	
Federal.....	7.0	9.6	-4.6	8.8	-3.4	0.66	-0.33	0.61	-0.24	
National defense.....	4.7	11.2	-9.9	8.9	-1.0	0.52	-0.49	0.41	-0.05	
Nondefense.....	2.3	6.2	7.1	8.5	-7.8	0.14	0.16	0.20	-0.19	
State and local.....	12.0	-0.1	1.0	2.7	3.0	-0.01	0.13	0.33	0.35	

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.

Consumer spending decelerated sharply, increasing 2.5 percent after increasing 4.8 percent, and accounted for more than half of the slowdown in real GDP. It contributed 1.74 percentage points to real GDP growth after contributing 3.38 percentage points. Spending for durable goods turned down, particularly motor vehicles and parts. Nondurable goods slowed.

Nonresidential fixed investment slowed, increasing 2.7 percent and contributing 0.28 percentage point to real GDP growth after increasing 13.7 percent and contributing 1.36 percentage points; business investment in equipment and software turned down.

Inventory investment turned up and added 0.40 percentage point to GDP growth. The upturn reflected more inventory investment by mining, construction, and utilities industries and by merchant wholesalers.

Exports increased 3.3 percent and contributed 0.35 percentage point to real GDP growth after increasing 14.0 percent and contributing 1.41 percentage points. Goods exports sharply decelerated; civilian aircraft, engines, and parts turned down, and exports of industrial supplies and materials slowed sharply.

Imports decelerated, increasing 0.2 percent, following an increase of 9.1 percent. Goods imports turned down, reflecting a downturn in automotive vehicles, engines, and parts and a larger decrease in petroleum and petroleum products than in the first quarter.

Federal Government decreased 3.4 percent and subtracted 0.24 percentage point from real GDP growth. In the first quarter, spending increased 8.8 percent.

**Table 2. Real Gross Domestic Product (GDP) by Type of Product**

[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)			
	2006		2005		2006		2005		2006	
	II	III	IV	I	II	III	IV	I	II	
<b>Gross domestic product<sup>1</sup>.....</b>	<b>100.0</b>	<b>4.2</b>	<b>1.8</b>	<b>5.6</b>	<b>2.5</b>	<b>4.2</b>	<b>1.8</b>	<b>5.6</b>	<b>2.5</b>	
Final sales of domestic product.....	99.6	4.4	-0.3	5.6	2.1	4.36	-0.28	5.61	2.05	
Change in private inventories.....	0.5	.....	.....	.....	.....	-0.18	2.05	-0.03	0.40	
Goods.....	31.3	6.7	3.1	12.8	3.0	2.07	0.97	3.86	0.94	
Services.....	57.7	3.5	0.8	2.4	2.5	2.02	0.46	1.39	1.47	
Structures.....	11.1	0.7	3.1	2.9	0.4	0.09	0.33	0.33	0.05	
<b>Addenda:</b>										
Motor vehicle output.....	3.1	22.6	-19.1	3.8	-10.1	0.70	-0.71	0.12	-0.34	
GDP excluding motor vehicle output.....	96.9	3.6	2.6	5.6	2.9	3.48	2.47	5.46	2.79	
Final sales of computers.....	0.6	11.6	33.8	9.5	-3.9	0.08	0.20	0.07	-0.03	
GDP excluding final sales of computers.....	99.4	4.1	1.6	5.6	2.5	4.10	1.56	5.52	2.48	

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

NOTE: 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.

Real final sales of domestic product—real GDP less inventory investment—slowed, increasing 2.1 percent after increasing 5.6 percent.

Motor vehicle output turned down sharply, decreasing 10.1 percent after increasing 3.8 percent.

Final sales of computers turned down, decreasing 3.9 percent after increasing 9.5 percent.

**Prices**

**Table 3. Prices for Gross Domestic Purchases**

[Percent change at annual rates; based on seasonally adjusted index numbers (2000=100)]

	Change from preceding period (percent)				Contribution to percent change in gross domestic purchases prices (percentage points)			
	2005		2006		2005		2006	
	III	IV	I	II	III	IV	I	II
<b>Gross domestic purchases<sup>1</sup></b> .....	<b>4.4</b>	<b>3.5</b>	<b>2.7</b>	<b>4.0</b>	<b>4.4</b>	<b>3.5</b>	<b>2.7</b>	<b>4.0</b>
<b>Personal consumption expenditures</b> .....	<b>4.1</b>	<b>2.9</b>	<b>2.0</b>	<b>4.1</b>	<b>2.74</b>	<b>1.93</b>	<b>1.35</b>	<b>2.73</b>
Durable goods .....	-2.9	-1.3	-1.0	-0.8	-0.23	-0.10	-0.07	-0.06
Nondurable goods .....	9.0	0.6	1.1	8.3	1.70	0.11	0.21	1.57
Services .....	3.2	5.0	3.1	3.1	1.27	1.92	1.22	1.22
<b>Gross private domestic investment</b> .....	<b>3.7</b>	<b>4.3</b>	<b>3.7</b>	<b>2.5</b>	<b>0.59</b>	<b>0.68</b>	<b>0.58</b>	<b>0.41</b>
Fixed investment .....	4.0	4.6	3.8	2.6	0.62	0.71	0.59	0.41
Nonresidential .....	2.2	3.5	3.7	2.9	0.21	0.34	0.36	0.29
Structures .....	13.2	16.8	12.4	10.7	0.32	0.41	0.32	0.29
Equipment and software .....	-1.5	-1.0	0.6	0.0	-0.11	-0.07	0.04	0.00
Residential .....	6.9	6.3	3.8	2.0	0.40	0.37	0.23	0.12
Change in private inventories .....					-0.03	-0.03	-0.01	0.00
<b>Government consumption expenditures and gross investment</b> .....	<b>5.9</b>	<b>4.7</b>	<b>4.4</b>	<b>4.6</b>	<b>1.05</b>	<b>0.84</b>	<b>0.79</b>	<b>0.83</b>
Federal .....	3.3	0.4	7.6	3.5	0.23	0.03	0.49	0.23
National defense .....	3.4	1.0	6.7	3.7	0.15	0.04	0.29	0.17
Nondefense .....	3.2	-0.7	9.5	3.0	0.07	-0.01	0.20	0.07
State and local .....	7.4	7.3	2.6	5.3	0.82	0.81	0.30	0.59
<b>Addenda:</b>								
Gross domestic purchases:								
Food .....	1.2	2.3	2.6	1.7	0.12	0.22	0.24	0.16
Energy goods and services .....	54.1	14.8	-2.4	30.3	2.08	0.70	-0.11	1.35
Excluding food and energy .....	2.5	3.0	3.0	2.9	2.18	2.54	2.59	2.46
Personal consumption expenditures (PCE):								
Food .....	1.4	2.3	2.8	1.7				
Energy goods and services .....	56.3	9.8	0.1	29.7				
Excluding food and energy .....	1.6	2.5	2.1	2.9				
"Market-based" PCE .....	4.3	2.5	1.7	4.2				
Excluding food and energy .....	1.2	1.9	1.6	2.7				
Gross domestic product .....	3.3	3.3	3.3	3.3				

1. The estimates 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 calculated from index numbers in NIPA table 2.3.4. Contributions are from NIPA table 1.6.8.

Inflation, as measured by the price index for gross domestic purchases, accelerated, increasing 4.0 percent after increasing 2.7 percent. Energy prices turned up sharply, increasing 30.3 percent after decreasing 2.4 percent. Food prices decelerated. Excluding food and energy prices, inflation was essentially unchanged.

Consumer prices accelerated, increasing 4.1 percent after increasing 2.0 percent; prices of gasoline, fuel oil, and other energy goods turned up sharply.

Prices of private fixed investment decelerated, increasing 2.6 percent after increasing 3.8 percent. Prices of nonresidential structures and equipment and software slowed, as did residential fixed investment prices.

Prices paid by government picked up slightly. Prices paid by state and local governments accelerated. Prices paid by the Federal Government decelerated.

Consumer prices excluding food and energy, a measure of the "core" rate of inflation, increased 2.9 percent, following a 2.1-percent increase.

The "market-based" PCE price index accelerated sharply, reflecting a boost in energy prices.

The GDP price index, which measures the prices paid for goods and services produced in the United States, increased 3.3 percent, 0.7 percentage point less than the increase in the price index for gross domestic purchases. The smaller increase in the GDP price index reflected an increase in export prices (included in the GDP price index) that was smaller than the increase in import prices (included in the price index for gross domestic purchases but not in the GDP price index).

**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 and investment.

BEA also produces price indexes for all 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 and for energy goods and services, and for all items except food and energy are also estimated and reported. However, because prices for food and energy can be volatile, the price measure that excludes food and energy is often used as a measure of underlying, or "core," inflation.

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

More information on these market-based measures is available on BEA's Web site at <[www.bea.gov/bea/faq/national/markbsdPCE.htm](http://www.bea.gov/bea/faq/national/markbsdPCE.htm)>. For a comparison of price measures, including a comparison of the PCE price index and the Consumer Price Index, visit <[www.bea.gov/bea/papers.htm](http://www.bea.gov/bea/papers.htm)>.

**Personal Income**

**Table 4. Personal Income and Its Disposition**

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

	Level	Change from preceding period			
	2006	2005		2006	
	II	III	IV	I	II
<b>Personal income</b> .....	<b>10,812.9</b>	<b>101.2</b>	<b>221.0</b>	<b>163.8</b>	<b>165.4</b>
Compensation of employees, received .....	7,426.6	139.9	90.8	130.9	111.3
Wage and salary disbursements .....	5,982.4	113.9	71.8	103.9	91.5
Private industries .....	4,976.3	107.0	64.3	93.9	83.5
Goods-producing industries .....	1,159.7	26.4	11.0	19.5	15.3
Manufacturing .....	733.2	12.4	5.3	11.0	7.2
Services-producing industries .....	3,816.6	80.7	53.2	74.5	68.2
Trade, transportation, and utilities ....	979.6	15.1	9.4	10.8	13.9
Other services-producing industries .....	2,837.0	65.5	43.8	63.7	54.3
Government.....	1,006.1	6.9	7.5	10.0	8.0
Supplements to wages and salaries .....	1,444.2	26.0	19.0	27.0	19.8
Proprietors' income with IVA and CCAAdj .....	1,017.3	1.5	29.5	11.5	9.0
Farm .....	19.5	1.0	-1.0	-4.8	-4.4
Nonfarm .....	997.8	0.6	30.4	16.3	13.4
Rental income of persons with CCAAdj .....	68.0	-114.3	93.0	-4.7	-8.8
Personal income receipts on assets .....	1,649.9	32.2	47.5	22.1	47.6
Personal interest income.....	1,021.4	16.4	30.5	7.4	32.3
Personal dividend income .....	628.5	15.8	17.0	14.7	15.3
Personal current transfer receipts .....	1,589.9	58.9	-29.2	30.6	19.5
Less: Contributions for government social insurance.....	938.9	17.0	10.4	26.7	13.3
Less: Personal current taxes.....	1,373.2	23.2	32.6	78.4	47.2
<b>Equals: Disposable personal income</b> .....	<b>9,439.7</b>	<b>78.0</b>	<b>188.4</b>	<b>85.4</b>	<b>118.2</b>
Less: Personal outlays .....	9,580.7	179.9	84.2	154.0	162.2
<b>Equals: Personal saving</b> .....	<b>-141.0</b>	<b>-101.8</b>	<b>104.1</b>	<b>-68.5</b>	<b>-44.0</b>
<b>Addenda: Special factors in personal income</b>					
In government wages and salaries:					
Federal pay raise.....	6.9	0.0	0.0	6.5	0.4
Reservists' pay .....	6.0	0.0	0.0	7.2	-1.2
In supplements to wages and salaries:					
Employer contributions for social insurance .....	4.6	0.0	0.0	4.6	0.0
In nonfarm proprietors' income:					
Hurricane-related destruction of uninsured business property .....	0.0	-21.6	21.1	0.5	0.0
In rental income of persons:					
Hurricane-related destruction of uninsured residential property.....	0.0	-103.7	101.1	2.6	0.0
In personal current transfer receipts:					
Social security retroactive payments.....	0.0	0.0	2.2	-2.2	0.0
Cost-of-living adjustments under Federal transfer programs .....	24.4	0.0	0.0	24.4	0.0
Medicare part D—prescription drug benefits .....	44.3	0.0	0.0	32.9	11.4
Hurricane-related net insurance settlements (personal property excluding housing) ....	0.0	45.5	-41.9	-3.6	0.0
In contributions for government social insurance:					
Increase in taxable wage base.....	6.5	0.0	0.0	6.5	0.0
Changes in premium for supplementary medical insurance.....	4.9	0.0	0.0	4.9	0.0
In personal current taxes:					
Federal tax law changes .....	-4.1	0.0	0.0	-4.1	0.0
Refunds, settlements, and other .....	26.2	0.0	0.0	26.2	0.0

Personal income, which is only measured in current dollars, increased \$165.4 billion, similar to the increase of \$163.8 billion in the first quarter.

Compensation increased \$111.3 billion, compared with the increase of \$130.9 billion in the first quarter, reflecting decelerations both in wage and salary disbursements and in supplements to wages and salaries. The Federal pay raise had boosted first-quarter compensation somewhat.

Personal interest income accelerated sharply, increasing \$32.3 billion and mainly reflecting rising interest rates. It had increased \$7.4 billion in the first quarter.

Personal current transfer receipts decelerated, reflecting the first-quarter introduction of the Medicare prescription drug benefit plan and cost-of-living adjustments to social security and several other Federal Government programs.

Personal current taxes decelerated, primarily reflecting a deceleration in Federal income taxes, most notably nonwithheld taxes.

Current-dollar disposable personal income accelerated, primarily reflecting the deceleration in personal current taxes.

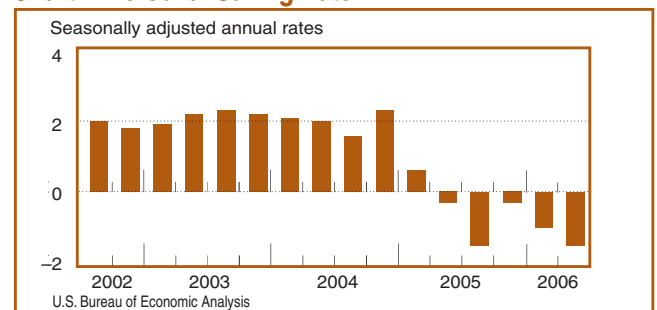
NOTE. Dollar levels are from NIPA tables 2.1 and 2.2B.  
IVA Inventory valuation adjustment

CCAAdj Capital consumption adjustment

**Saving**

Personal saving—disposable personal income less personal outlays—decreased to -\$141.0 billion from -\$97.0 billion. Saving from current income may be near zero or negative when outlays are financed by borrowing (including borrowing financed through credit cards or home equity loans), by selling investments or other assets, or by using saving from previous periods. See the FAQs on “Personal Saving” on BEA’s Web site at <[www.bea.gov/bea/faq/national/faq\\_personalsaving.pdf](http://www.bea.gov/bea/faq/national/faq_personalsaving.pdf)>.

**Chart 2. Personal Saving Rate**



## Source Data for the Advance Estimates

**Table 5. Monthly Advance Estimates of Key NIPA Components Based on Partial Data, 2006:II**

[Billions of dollars, seasonally adjusted at annual rates]

	2006					
	Jan.	Feb.	March <sup>1</sup>	April	May	June <sup>1</sup>
<b>Private fixed investment:</b>						
Nonresidential structures:						
Value of new nonresidential construction put in place.....	277.9	277.8	284.5	289.0	288.2	288.6
Equipment and software:						
Manufacturers' shipments of complete aircraft.....	33.2	47.6	37.5	27.0	34.0	38.7
Residential structures:						
Value of new residential construction put in place:						
Single family.....	455.8	457.5	457.3	449.4	441.8	435.1
Multifamily.....	54.7	55.6	56.4	57.0	56.7	55.9
<b>Change in private inventories:</b>						
Change in inventories for nondurable manufacturing.....	35.1	-10.1	14.7	14.3	-12.1	8.5
Change in inventories for merchant wholesale and retail industries other than motor vehicles and equipment.....	22.0	32.4	35.2	48.2	74.0	72.2
<b>Net exports:<sup>2</sup></b>						
Exports of goods:						
U.S. exports of goods, international-transactions-accounts basis.....	976.9	969.0	988.3	982.0	1,010.5	1,011.8
Excluding gold.....	969.3	962.3	979.8	975.1	1,001.2	1,003.2
Imports of goods:						
U.S. imports of goods, international-transactions-accounts basis.....	1,843.5	1,785.4	1,800.8	1,816.8	1,851.6	1,873.7
Excluding gold.....	1,837.5	1,780.1	1,795.0	1,811.4	1,844.6	1,867.6
Net exports of goods.....	-866.7	-816.3	-812.6	-834.8	-841.0	-861.9
Excluding gold.....	-868.3	-817.8	-815.1	-836.4	-843.4	-864.4
<b>State and local government structures:</b>						
Value of new construction put in place.....	235.8	240.0	243.8	245.1	247.1	246.1

1. Assumption.

2. Nonmonetary gold is included in balance-of-payments exports and

imports, but it is not used directly in estimating national income and product account exports and imports.

### Summary of Source Data for the Advance Estimates of GDP

The advance GDP estimates of many components of GDP are based on 3 months of data. However, the estimates of some components are based on only 2 months of source data.

For the following items, the number of months for which source data are available is shown in parentheses.

*Personal consumption expenditures:* Sales of retail stores (3), unit auto and truck sales (3), and consumers' shares of auto and truck sales (2);

*Nonresidential fixed investment:* Unit auto and truck sales (3), construction put in place (2), manufacturers' shipments of machinery and equipment other than aircraft (3), shipments of civilian aircraft (2), and exports and imports of machinery and equipment (2);

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

*Change in private inventories:* 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 and services (2);

*Government consumption expenditures and gross investment:* Federal outlays (3), state and local construction put in place (2), and state and local employment (3);

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

*GDP prices:* Consumer price indexes (3), producer price indexes (3), and values and quantities of petroleum imports (2).

#### Unavailable source data

When source data were unavailable, BEA made various assumptions for June, including the following:

- An increase in nondurable-goods manufacturing inventories,
- An increase in non-motor vehicle merchant wholesale and retail inventories, and
- Little change in exports of goods excluding gold and an increase in imports of goods excluding gold.

Table 5 shows the assumptions for key series; a more comprehensive list is available on BEA's Web site at <[www.bea.gov/bea/dn/home/gdp.htm](http://www.bea.gov/bea/dn/home/gdp.htm)>.

### Gross Domestic Product: Revisions and Source Data

To estimate gross domestic product (GDP) and its components, the Bureau of Economic Analysis (BEA) relies on data released on varying schedules from a wide range of sources. To provide the most accurate estimates possible, BEA progressively incorporates more reliable, more recent data into each successive quarterly GDP estimate.<sup>1</sup>

For its source data, BEA typically relies on expenditure data in current dollars. BEA then adjusts these data to conform with concepts and definitions consistent with the national income and product accounts. In some cases, BEA uses other methods to derive appropriate expenditure data.

The source data can be grouped into four categories:

- **Revised data.** These data are based on revised estimates of monthly or quarterly source data; they are presumed to be more accurate than previously released data.
- **Monthly or quarterly data.** These data include either monthly data for all 3 months of a quarter or data for a complete quarter.
- **Monthly and trend-based data.** These data typically include 2 months of source data but limited or no data for the third month, necessitating a calculation for the third month.<sup>2</sup>
- **Trend-based data.** These data are typically calculated by BEA from previous estimates and trends, using moving averages of various lengths, regressions, and judgment by BEA economists.

A description of each quarterly GDP estimate and its source data follows.

**Advance estimates.** These estimates are released a month after the quarter ends and offer the first look at GDP growth for a given quarter. They are based on source data in the last three categories listed above. “Monthly or quarterly data” and “monthly and trend-based data” account for about 75 percent of the source data used for the advance estimates. Trend-based data account for the rest.

**Preliminary estimates.** These estimates are released a month after the advance estimates. They reflect a strong boost to the quality of source data, almost 70 percent of which are revised data.

**Final estimates.** These estimates are released a month after the preliminary estimates. They reflect a minor boost to the quality of source data. While the same

amount of revised data is used, the percentage of “monthly or quarterly data” is 8.4 percent, compared with 6.6 percent in the preliminary estimates.

BEA also releases annual revised GDP estimates, which revise quarterly and annual GDP estimates for the previous 3 years. The first annual revision is usually released in July of the following year.<sup>3</sup> In this revision, nearly all of the data used to calculate the advance quarterly estimates have been replaced.

Many estimates in the first annual revision are based on source data that cover a full year (annual data) and are then interpolated or extrapolated as appropriate. Annual source data often also contain additional, or more complete, information than the quarterly or monthly source data. Nearly half of the first annual revision estimates are based on source data that were not available when the final quarterly estimates were prepared. Another 25 percent of the source data are revised data. Only about 6 percent of the source data used for the first annual revision estimates are either trend-based data or unrevised monthly or quarterly data.

The second and third annual revisions incorporate even more up-to-date or revised annual data and further revised monthly or quarterly data. These revisions also incorporate revised seasonal adjustment factors.

After the third annual revision, GDP estimates are not revised again until the next comprehensive revision, which is released roughly every 5 years. In years when comprehensive revisions are published, no annual revision is published.

Comprehensive revisions include substantive changes in estimating methodologies and account definitions. These revisions also incorporate even more detailed source data, including data from various economic censuses.

3. For a given year, the first annual revision estimates follow a previous annual estimate, known as the early annual estimate, which is simply an average of the year’s four quarters. The early annual estimate is released with the “advance” quarterly GDP estimate for the fourth quarter, usually in January of the following year.

#### Shares of Sources for the Successive GDP Estimates for the Third Quarter of 2003

[Percent]

Sources	Advance	Preliminary	Final	First annual
Trend-based data .....	25.1	22.6	20.9	5.6
Monthly data and trend-based data ..	29.7	1.7	1.2	.....
Monthly or quarterly data .....	45.3	6.6	8.4	.....
Revised data .....	.....	69.2	69.5	47.2
Annual data .....	.....	.....	.....	47.2

1. For a more detailed version of this article, see Bruce T. Grimm and Teresa L. Weadock, “Gross Domestic Product: Revisions and Source Data,” *SURVEY OF CURRENT BUSINESS* 86 (February 2006): 11–15.

2. Information on the assumptions used for unavailable source data is provided in a technical note that is available on BEA’s Web site, <www.bea.gov>, as part of the advance GDP release. In addition, on the day of the release of personal income and outlays after the release of the advance estimates, more detailed information is posted on BEA’s Web site; under “Gross Domestic Product” and “Supplemental Estimates,” see “Key source data and assumptions for ‘advance’ estimates.”

Bruce T. Grimm