

# Motor Vehicles, Model Year 1997

By Ralph W. Morris

**S**ALES OF new motor vehicles in the United States totaled 15.4 million units in model year 1997, slightly below the level of sales in 1996 (chart 1).<sup>1</sup> Motor vehicle sales have been within a range of 15.2 million units to 15.5 million units each year since 1994. Sales

1. The data on unit sales, inventories, and production in this article are mainly from the *Ward's Automotive Reports* and the American Automobile Manufacturers Association, Inc., and the data on prices are mainly from the Bureau of Economic Analysis (BEA). These data underlie the estimates of auto and truck output in the national income and product accounts. The quarterly data are seasonally adjusted by BEA.

For this article, the model year is defined as beginning on October 1 and ending on the following September 30. Thus, model year 1997 covers the fourth calendar quarter of 1996 and the first, second, and third calendar quarters of 1997. All years mentioned in this article are model years unless otherwise stated.

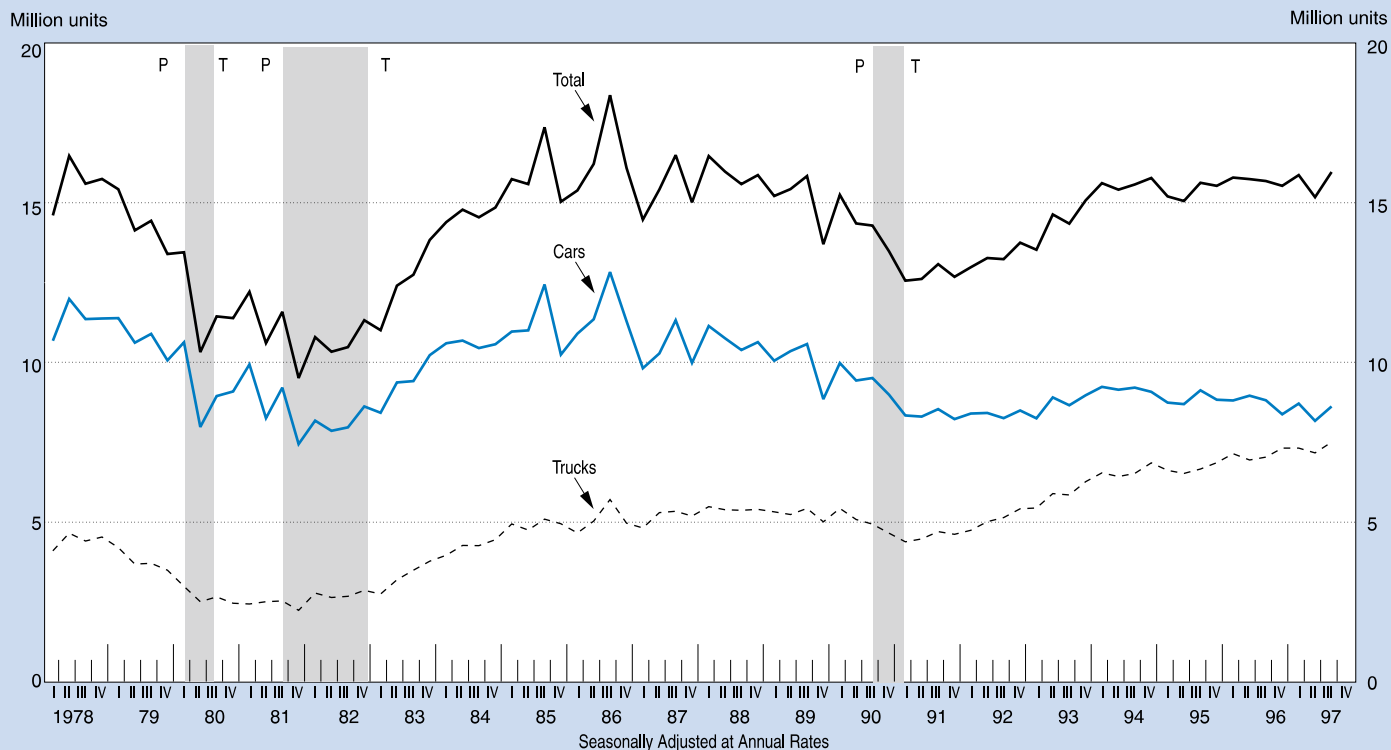
decreased 0.5 percent in 1997 after increasing 1.5 percent in 1996. The slight decrease was more than accounted for by sales of domestic cars; sales of domestic trucks and sales of both imported cars and trucks increased (table 1).<sup>2</sup>

Sales in 1997 reflected favorable developments in many of the factors that are usually considered in analyses of consumers spending. The unemployment rate decreased for the fifth consecutive

2. Sales of domestic vehicles consist of the sales in the United States of domestic-nameplate vehicles and "transplant" vehicles manufactured in North America—that is, in Canada, the United States, and Mexico. Domestic-nameplate vehicles are those manufactured at factories owned by U.S. companies, and transplant vehicles are those manufactured at foreign-owned factories. Sales of imported vehicles consists of vehicles manufactured outside North America and sold in the United States.

## CHART 1

### New Motor Vehicle Sales



Note.—Peak (P) indicates the end of business cycle expansion and the beginning of recession (shaded area). Trough (T) indicates the end of business cycle recession and the beginning of expansion. Business cycle peaks and troughs designated by the National Bureau of Economic Research, Inc.  
Data: American Automobile Manufacturers Association, Inc. and *Ward's Automotive Reports*, seasonally adjusted by BEA.

year. Real disposable personal income increased 2.8 percent. The Index of Consumer Sentiment (prepared by the University of Michigan's Survey Research Center) increased to its highest level in more than 30 years. In addition, the rise in equity prices in the past couple of years has produced sizable gains in wealth for many households; in 1997, personal sector holdings of corporate equities and mutual fund shares increased about 17 percent.<sup>3</sup>

Several factors specific to the motor vehicle industry were also favorable. Manufacturers offered sales-incentive programs to consumers throughout the year. Many of these programs were considerably more attractive than those offered in 1996, and several were modified to cover a broader selection of models. These programs included rebates, below-market-rate financing, and discount packages on optional equipment on selected models.

New-vehicle prices increased less in 1997 than in 1996. The consumer price index (CPI) for new cars increased 0.8 percent in 1997 after increasing 1.7 percent in 1996, and the CPI for new light trucks increased 1.8 percent after increasing 2.6 percent.<sup>4</sup> The modest increases in 1997

reflected both the extensive sales-incentive programs and the ongoing efforts by manufacturers to hold down production costs.

**Data Availability**

BEA prepares seasonally adjusted estimates of auto and truck unit sales, of auto unit production and inventory change, and of average expenditure per new car. These estimates are available online by subscribing to STAT-USA's Economic Bulletin Board; for more information, call (202) 482-1986, or visit STAT-USA'S Web site at <<http://www.stat-usa.gov>>.

These estimates are also available monthly in a print-out or on a diskette by subscription from BEA as follows:

- "Auto Output Printout Subscription"—product number NLS-0167, price \$108.00;
- As part of the "NIPA Monthly Update Diskette Subscription"—product number NDS-0171, price \$204.00.

To order using Visa or MasterCard, call the BEA Order Desk at 1-800-704-0415 (from outside the United States, call (202) 606-9666). To order by mail, send a check payable to "Bureau of Economic Analysis, BE-53" to BEA Order Desk, Bureau of Economic Analysis, BE-53, U.S. Department of Commerce, Washington, DC 20230. (Please allow 4-6 weeks for delivery of the first installment of your subscription.)

**Table 1.—Selected Motor Vehicle Indicators**

	Model year <sup>1</sup>						Seasonally adjusted annual rates				
	1992	1993	1994	1995	1996	1997	1996		1997		
							III	IV	I	II	III
Thousands of units											
New-motor-vehicle sales .....	12,868	13,913	15,179	15,233	15,460	15,380	15,492	15,341	15,678	14,916	15,769
New-car sales .....	8,160	8,428	8,936	8,736	8,654	8,259	8,634	8,200	8,536	7,994	8,444
Domestic .....	6,195	6,595	7,173	7,167	7,361	6,924	7,356	6,914	7,168	6,726	7,024
U.S. nameplates .....	5,048	5,348	5,707	5,518	5,428	4,964	.....	.....	.....	.....	.....
Transplants .....	1,146	1,247	1,466	1,649	1,933	1,960	.....	.....	.....	.....	.....
Import .....	1,966	1,833	1,763	1,570	1,293	1,335	1,278	1,286	1,369	1,268	1,420
New-truck sales .....	4,707	5,486	6,244	6,498	6,806	7,121	6,858	7,141	7,142	6,922	7,325
Light .....	4,446	5,167	5,869	6,070	6,389	6,707	6,444	6,748	6,722	6,509	6,893
Domestic .....	4,026	4,789	5,499	5,666	5,976	6,155	6,027	6,271	6,176	5,941	6,288
Import .....	421	378	370	404	413	552	417	478	546	569	605
Other .....	261	320	375	427	417	414	414	393	420	413	432
Domestic-car production .....	5,643	5,827	6,548	6,466	6,194	5,879	6,794	5,589	5,954	5,773	6,240
Domestic-car inventories <sup>2</sup> .....	.....	.....	.....	.....	.....	.....	1,514	1,376	1,334	1,318	1,354
Domestic-car inventory-sales ratio <sup>3</sup> .....	.....	.....	.....	.....	.....	.....	2.47	2.39	2.23	2.35	2.31
Dollars											
Average expenditure per new car <sup>4</sup> .....	16,893	17,526	18,431	18,849	19,397	20,305	19,731	20,079	20,204	20,290	20,647
Domestic .....	16,281	16,595	17,406	17,695	18,064	18,580	18,239	18,435	18,441	18,537	18,908
Import .....	18,861	20,998	22,598	24,111	26,972	29,296	28,319	28,918	29,430	29,584	29,251

1. A model year begins on October 1 and ends on September 30. Thus, it covers the fourth quarter of one calendar year and the first three quarters of the next calendar year. Model year 1997, for example, encompasses the fourth quarter of 1996 and the first, second, and third quarters of 1997.

2. End of quarter, not at annual rate.

3. Ratio of end-of-quarter inventories to average monthly sales for the quarter.

4. BEA estimate, using average base price and adjustments for options, transportation charges, taxes, discounts, and rebates for each model, weighted by that model's share of sales; not at annual rate.

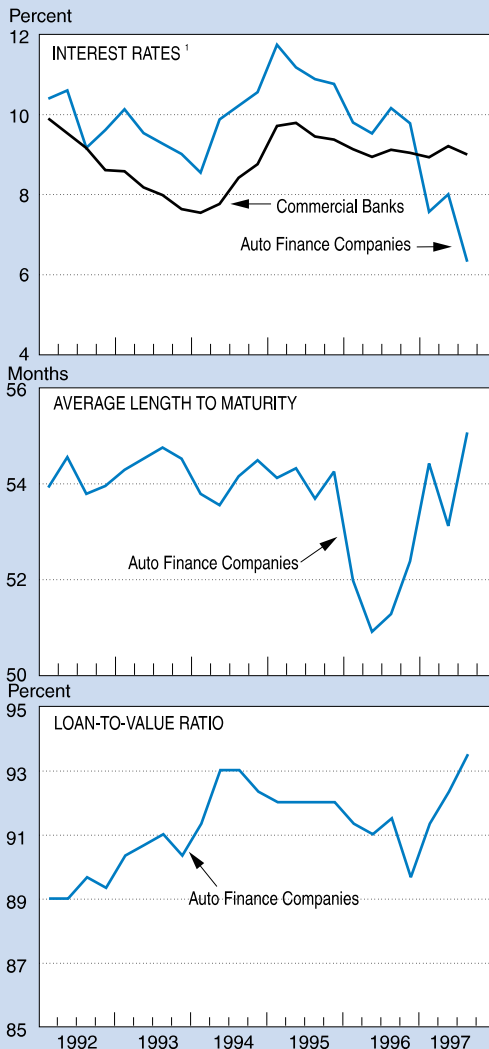
Source: American Automobile Manufacturers Association, Inc., and *Ward's Automotive Reports*; data are seasonally adjusted by BEA.

Finance terms on new-vehicle loans also remained favorable in 1997. Interest rates on new-car loans decreased for the second consecutive year: Rates for new-car loans made by motor vehicle finance companies averaged 7.9 percent in 1997, down from 10.1 percent in 1996, and rates for loans made by commercial banks averaged 9.0 percent, down from 9.1 percent (chart 2). The sharper drop in the rates for finance companies partly reflected the effect of manufacturers' offering sales-incentive programs with below-market rates through their financial subsidiaries. In addition, the average length to

maturity of new-car loans made by the finance companies increased to 53.7 months from 52.1 months. (Longer term loans tend to increase sales to marginal buyers because they reduce monthly payments.)

However, new-vehicle sales may have been dampened by developments in the used-vehicle market. A growing number of 2- and 3-year-old vehicles have become available in the used-vehicle market as leasing arrangements expire; this growth reflects the sharp increase in new-vehicle leasing in previous years. These vehicles are particularly attractive because they tend to have low mileage and tend to be well equipped with options and safety features. In addition, in contrast to the increase in new-car prices, used-car prices decreased 2.6 percent in 1997; the decrease in used-car prices may be partly related to the increase in the number of formerly leased cars entering the used-car market.

Another factor that has dampened motor vehicle sales in recent years probably continued in 1997: Owners are keeping their cars for longer periods; according to estimates by R.L. Polk and Company, the average age of cars on the road reached 8.6 years in calendar year 1996, compared with 7.8 years in 1990 (data for 1997 are not yet available).

**CHART 2**
**Finance Terms on 48-Month New Car Installment Loans**


1. Most common interest rates (annual percentage rate) at reporting institutions. Data: Federal Reserve Board.

U.S. Department of Commerce, Bureau of Economic Analysis

### New Cars

Sales of new cars decreased 4.6 percent to 8.3 millions units in 1997 after decreasing 0.9 percent in 1996. The 1997 decrease, the largest since 1991, was more than accounted for by the decrease in sales of domestic cars; a decrease in the sales of domestic-nameplate cars more than offset an increase in the sales of "transplant" cars. Sales of imported cars increased.

The average expenditure per new car increased 4.7 percent to \$20,305 in 1997.<sup>5</sup> The increase partly reflected the increase in the share of total car sales that was accounted for by imported cars, which have a larger average expenditure than domestic cars. For domestic cars, the average expenditure increased 2.5 percent to \$18,580; the increase partly reflected increased sales of models with extra features, such as antilock

5. BEA derives the average expenditure per new car, using data mainly from the Automotive Invoice Service and Bureau of Labor Statistics, by adding the price of optional equipment, transportation charges, and taxes to the base price and by subtracting discounts and rebates. Movements in the average expenditure differ from movements in the new-car component of the CPI, because the average expenditure, unlike the CPI (which is a fixed-weighted price index), reflects changes in the mix of models and options sold and includes cars sold to businesses and governments as well as cars sold to consumers and because the CPI, unlike the average expenditure, is adjusted to remove the influence of quality change on prices.

brakes, air conditioning, and power windows. The average expenditure for imported cars increased 8.6 percent to \$29,296; the increase was partly attributable to the shift in composition of imported-car sales: The sales of luxury cars increased, while the sales of other cars decreased.

Sales of domestic cars decreased 5.9 percent in 1997 to 6.9 million units, the lowest level since 1993. The decrease was more than accounted for by sales of domestic-nameplate cars, which decreased 8.5 percent after increasing 1.6 percent; sales of transplant cars increased 1.4 percent after increasing 17.2 percent.

Sales of imported cars increased 3.1 percent to 1.3 million units, the first increase since 1987. Sales of cars imported from Europe more than accounted for the increase and may partly reflect the strengthening of the U.S. dol-

lar against most European currencies (including the German mark). Sales of cars imported from Japan decreased despite the strengthening of the U.S. dollar against the Japanese yen.

The market share (percent of total new-car sales) of domestic-nameplate-car sales decreased to 60.1 percent in 1997 from 62.8 percent in 1996 (chart 3). The share of transplant-car sales increased to 23.7 percent from 22.3 percent, and the share of imported-car sales increased to 16.2 percent from 14.9 percent.

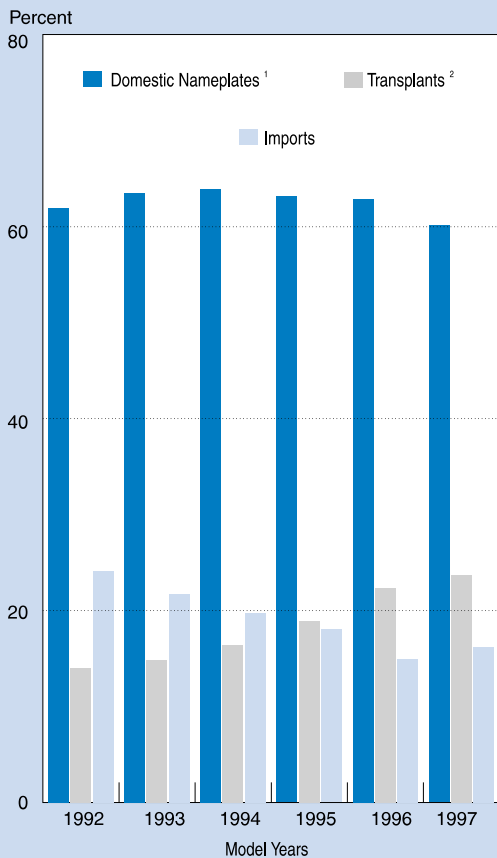
Sales of all size-classes of cars except luxury cars decreased in 1997. Sales of small cars decreased to 2.2 million units, and their market share decreased to 27.1 percent from 27.4 percent. Sales of middle-sized cars decreased to 4.0 million, and their market share decreased to 48.2 percent from 49.3 percent. Sales of large cars decreased to 0.8 million, and their market share remained unchanged at 10.0 percent. Sales of luxury cars increased to 1.2 million, and their market share increased to 14.6 percent from 13.3 percent (chart 4).

By quarter, new-car sales decreased in the first quarter of the model year, increased in the second quarter, decreased in the third quarter, and increased in the fourth quarter (chart 5).

Domestic-car production was 5.9 million units in 1997, the lowest production in 4 years. Domestic-car production has trended down in recent years despite the growth in the production

**CHART 3**

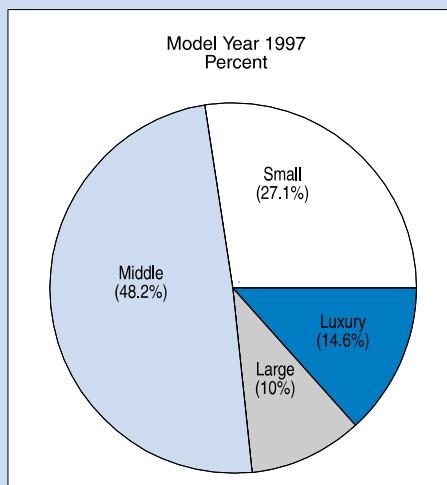
**Share of New Cars by Source**



1. Domestic nameplates are cars manufactured in North America at factories owned by domestic companies.  
 2. Transplants are cars manufactured in North America at factories owned by foreign companies.  
 Data: Motor Vehicle Manufacturers Association of the United States, Inc. and Ward's Automotive Reports, seasonally adjusted by BEA.

**CHART 4**

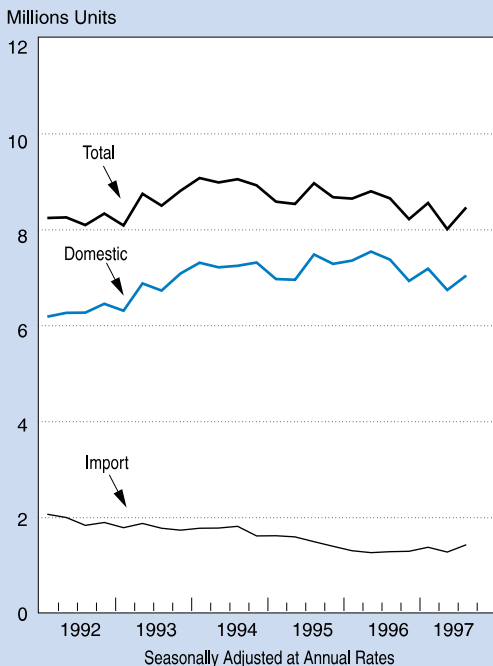
**Share of New Car Sales by Size Class**



Note—Based on data for October 1, 1996 through September 30, 1997.  
 Data: Ward's Automotive Reports

**CHART 5**

**Retail Sales of New Cars**



Data: American Automobile Manufacturers Association, Inc. and *Ward's Automotive Reports*, seasonally adjusted by BEA. U.S. Department of Commerce, Bureau of Economic Analysis

of U.S. assembly plants owned by foreign, mainly Japanese and European, manufacturers.

Domestic-car inventories were 1.4 million units at the end of model year 1997, slightly lower than at the end of 1996. The inventory-sales ratio was 2.3 at the end of 1997; the traditional industry target is 2.4.

**New Trucks**

Sales of new trucks increased 4.6 percent to a record 7.1 million units in 1997 after increasing 4.7 percent in 1996. The 1997 increase was accounted for by increases in sales of light domestic trucks and of light imported trucks; sales of "other" trucks decrease slightly.<sup>6</sup> In 1997, the share of total sales of new motor vehicles that was accounted for by trucks increased for the sixth consecutive year, to a record 46.3 percent.

Sales of light trucks increased 5.0 percent in 1997 after increasing 5.3 percent in 1996. The 1997 increase was mostly accounted for by sales of sport-utility vehicles, but sales of compact

6. Light trucks are those with a gross vehicle weight of up to 10,000 pounds; these trucks include light conventional pickups, compact pickups, sport-utility vehicles, and passenger vans. "Other" trucks are those with a gross vehicle weight of over 10,000 pounds; these trucks range from medium-duty general delivery trucks to heavy-duty diesel tractor-trailers.

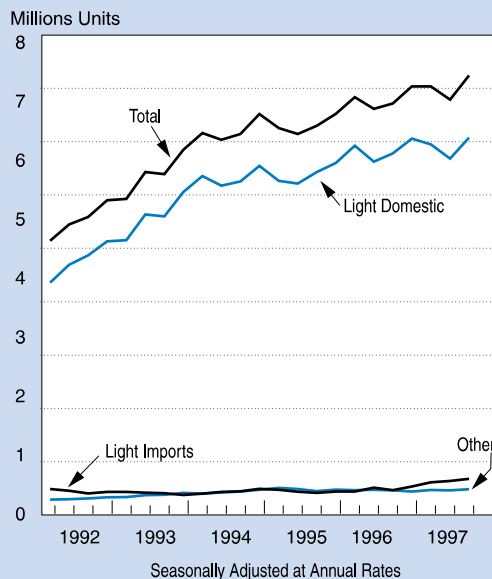
pickups and vans also contributed. Sales of conventional pickups decreased.

Most light-truck purchases are for personal use; consequently, many of the same factors that affect car sales also affect truck sales. Nevertheless, cars sales decreased and truck sales increased in 1997, as truck purchases continue to be substituted for car purchases. This shift partly reflected the proliferation of redesigned, multi-purpose trucks that have blurred the distinction between cars and trucks in terms of function and comfort. Moreover, many consumers prefer the additional recreation and utility features, such as load-carrying and towing capacity and four-wheel drive capability, that many light trucks offer. In recent years, the composition of truck sales has shifted toward "upscale" models that offer more power, luxury, and options than the basic models.

Sales of light domestic trucks increased 3.1 percent to 6.2 million units in 1997 after increasing 5.5 percent to 6.0 million units in 1996. Sales of domestic-nameplate trucks increased 2.7 percent to 5.7 million units, and their share of total light-truck sales decreased to 84.6 percent. Sales of transplant trucks changed little at 0.5 million units, and their market share decreased to 7.2 percent.

**CHART 6**

**Retail Sales of New Trucks**



Note—Retail sales of domestic trucks are classified by gross vehicle weight as light (up to 10,000 pounds) and "other" (over 10,000 pounds). Imported trucks include imports by U.S. manufacturers. Data: American Automobile Manufacturers Association, Inc. and *Ward's Automotive Reports*, seasonally adjusted by BEA. U.S. Department of Commerce, Bureau of Economic Analysis

Sales of light imported trucks increased 33.7 percent to 0.6 million units, and their market share increased to 8.2 percent. Sales of imported sport-utility vehicles increased substantially; sales of imported pickups decreased. In recent years, sales of imported sport-utility vehicles may have been boosted by the introduction of several new and redesigned models into the U.S. market, particularly of models into the small-vehicle segment of the market.

Sales of “other” trucks remained unchanged at 0.4 million units. Nearly all of these trucks are purchased by businesses. The domestic models’ share of total sales of “other” trucks was almost 95 percent.

By quarter, new-truck sales increased in the first quarter of the model year, changed little in the second quarter, decreased in the third quarter, and increased in the fourth quarter (chart 6). 