## * THE MOTOR INDUSTRY シ OF JAPAN



Japan Automobile ManuFacturers Association, Inc.

## Contents

## Automotive Industry

Automobile-Related Industries and Total Employment ..... 2
Investment in Materials and Equipment ..... 3
Automotive Shipments in Value Terms ..... 4
Automotive Trade ..... 5
Motor Vehicles
Production ..... 6
New Registrations ..... 8
Imported Vehicle Sales ..... 10
Used Vehicle Sales ..... 11
Motor Vehicles in Use and Motor Vehicle Density ..... 12
Exports ..... 14
Exports by Destination ..... 16
Motorcycles
Production ..... 18
Sales ..... 19
Motorcycles in Use ..... 20
Exports ..... 21
Exports by Destination ..... 22

## Automobiles and Society

Attention to the Environment ..... 24
Road Safety ..... 36
Motor Vehicle Thefts ..... 39
ITS and ASV ..... 40
Taxes ..... 43
Global Operations
Overseas Production (1) North America ..... 48
(2) China ..... 50
(3) South Asia ..... 52
(4) Southeast Asia ..... 53
(5) Europe \& Russia ..... 56
Overseas Production Volumes ..... 58
Global Industry Ties ..... 59
Motor Vehicles Worldwide
Global Production (Including Motorcycles) ..... 62
New Registrations ..... 64
Motor Vehicles \& Motorcycles in Use / Motor Vehicle \& Motorcycle Density ..... 66
Exports (Including Motorcycles) ..... 67
Vehicle-Based Systems
Motor Vehicle Classification ..... 68
Measuring Motor Vehicle Fuel Consumption ..... 69
References
JAMA Member Manufacturers, etc. ..... 70
Related Automotive Associations ..... 74

## A Vast Range of Related Industries

Automobiles are the focus of an extremely wide range of industrial and related activity, from materials supply and vehicle production and distribution to sales, servicing and other auto-centered operations. Auto-related employment in Japan at present totals 5.15 million people.

- EMPLOYMENT IN THE AUTOMOBILE MANUFACTURING AND RELATED INDUSTRIES

Total employment in auto manufacturing \& related industries: 5.15 million (8.1\%)

Total employment (workforce) in Japan: 63.76 million (100\%)

| Number of employees |  |
| :---: | :---: |
| Automobile Production .......................................... 866,000 |  |
| - Automobile manufacturing <br> (including motorcycles) $\qquad$ 183,000 <br> Auto parts and accessories manufacturing $\qquad$ 664,000 <br> Auto body and trailer manufacturing $\qquad$ 19,000 |  |
| Road Transport ................................................... 2,728,000 |  |
|  |  |



Automotive Fuel/Financing \& Insurance/Recycling .... 314,000


| Sales \& Service | ................................................. 1,012,000 |
| :---: | :---: |
|  |  |

## Automobile Manufacturing is an Integrated Industry

An automobile typically is composed of 20,000 to 30,000 parts, all of which even the largest manufacturers cannot produce themselves. Automakers therefore either outsource production or purchase finished products (such as tires and batteries), including products manufactured abroad. The volume of imported components increases yearly. Automobile manufacturing is thus an integrated industry because it relies on many supporting industries to produce the great diversity of materials and components it uses. Trends in the automobile industry, which makes huge investments in equipment and research-and-development activities, are considered a barometer of the economy.

## PRINCIPAL MATERIALS AND COMPONENTS USED IN AUTOMOBILE MANUFACTURING

| Cast iron | Engine parts, e.g. cylinder blocks |
| :---: | :---: |
| Common steel | Chassis, frames, wheel parts |
| Special steel | Gears, axfuel injection equipment |
| Copper | Electricals, radiators, cables |
| Lead, tin, zinc | Engine metals, solder, body varnish, batteries |
| Aluminum | Engine parts (e.g. pistons, cylinder heads), wheels, chassis |
| Noble metals | Emissions after-treatment parts |
| Other non-ferrous metals | Magnets, plating |
| Synthetic resin | Steering wheels, bumpers, radiator grilles, body components |
| Glass | Window glass, mirrors, headlamps |
| Rubber | Tires, sealing parts, vibration control parts |
| Ceramics | Plugs, electronic parts, sensors, emissions after-treatment parts |
| Textiles | Seats, linings, seatbelts |
| Leather | Seats, packing |
| Paper | Filters |
| Wood | Load-carrying platforms, interior equipment |
| Paints | Ornamental and rustproof paints |
| Chemicals | Āntifreeze, engine oil, transmission oil, brake oil |
| Animal and vegetable oils | For casting |
| Fats and oils | For lubrication, heat treatment, etc. |

INVESTMENTS IN EQUIPMENT OF MAJOR MANUFACTURING SECTORS (PROJECTED, FY 2009)

| Springs, dampers |  |
| :---: | :---: |
| Turbochargers |  |
| Bearings |  |
| Machined parts, e.g. pumps |  |
| Tires and tubes |  |
| Batteries |  |
| Window glass |  |
| Onboard tools, e.g. jacks |  |
| Supplies, e.g. extinguishers, tire chains |  |
| Electronic parts | Sensors, ECUs, actuators |
| Lights, cables, optical fibers |  |
| Air conditioners, air cleaners |  |
| Starters, alternators, generators, meters |  |
| Radios, cassette decks, CD/DVD players, phones, navigation systems |  |
| Safety equipment, e.g. anti-lock brakes, airbags, traction control |  |
| Coke | For casting |
| Petroleum, electricity, natural gas | Fuel, heat treatment, paint drying power generation |

INVESTMENTS IN R\&D OF MAJOR
MANUFACTURING SECTORS (FY 2008)


Source: Survey on Research Activities in Science and Technology, Ministry of Internal Affairs and Communications

## Automobile Manufacturing is a Core Industry

The automotive industry is one of the Japanese economy's core industrial sectors. In 2008 automotive shipments accounted for $16.9 \%$ of the total value of Japan's manufacturing shipments, and $36.3 \%$ of the value of the machinery industries' combined shipments. Automotive shipments (both domestic and export shipments, including motorcycles, auto parts, etc.) in value terms totalled 56.6 trillion yen in 2008.

## SHIPMENTS OF MAJOR MANUFACTURING SECTORS IN VALUE TERMS (2008)

$\times 100$ million yen


Breakdown of Automotive Shipments:

- Automobiles (including motorcycles) 235,304
- Auto bodies and trailers

6,012

- Automotive parts and accessories


## COMPARISON OF VALUE OF AUTOMOTIVE SHIPMENTS TO TOTAL VALUE OF ALL MANUFACTURING SHIPMENTS



SHIPMENTS OF MAJOR MANUFACTURING SECTORS IN VALUE TERMS
x 100 million yen

| Year | Chemicals | Iron \& Steel | Non-Ferrous Metals | Metal Products | Machinery Industries |  |  |  |  | Other | Total | Automotive Shipments |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | General Machinery | Electrical Machinery \& Equipment | Transpor | Automotive | Subtotal |  |  | As \% of Value of Machinery Shipments | As \% of Total Value of Manufacturing Shipments |
| 1970 | 55,402 | 65,648 | 30,547 | 37,277 | 68,028 | 73,305 | 72,758 | 54,673 | 223,008 | 287,383 | 690,348 | 24.5 | 7.9 |
| 1975 | 104,381 | 113,063 | 39,087 | 65,731 | 106,112 | 108,213 | 147,935 | 105,241 | 379,551 | 589,807 | 1,274,329 | 27.7 | 8.3 |
| 1980 | 179,787 | 178,956 | 81,186 | 106,465 | 175,998 | 222,346 | 249,536 | 212,346 | 682,457 | 952,724 | 2,146,998 | 31.1 | 9.9 |
| 1985 | 205,524 | 177,543 | 63,836 | 130,944 | 241,904 | 408,422 | 361,793 | 276,927 | 1,055,932 | 1,063,240 | 2,653,206 | 26.2 | 10.4 |
| 1990 | 235,030 | 182,687 | 78,217 | 185,736 | 332,249 | 545,286 | 468,582 | 423,106 | 1,397,439 | 1,205,939 | 3,233,726 | 30.3 | 13.1 |
| 1995 | 233,625 | 140,727 | 64,964 | 176,465 | 298,844 | 548,309 | 442,145 | 395,613 | 1,330,364 | 1,155,277 | 3,060,356 | 29.7 | 12.9 |
| 1999 | 230,548 | 113,217 | 57,890 | 152,382 | 279,720 | 549,051 | 438,774 | 390,043 | 1,309,238 | 1,092,402 | 2,913,984 | 29.8 | 13.4 |
| 2000 | 237,994 | 119,630 | 62,189 | 155,868 | 304,132 | 595,817 | 444,474 | 400,429 | 1,385,612 | 1,115,720 | 3,035,824 | 28.9 | 13.2 |
| 2001 | 232,284 | 112,018 | 58,492 | 145,450 | 282,965 | 524,657 | 451,522 | 404,215 | 1,299,143 | 1,060,156 | 2,867,544 | 31.1 | 14.1 |
| 2002 | 227,483 | 109,627 | 56,685 | 137,365 | 254,773 | 460,411 | 479,974 | 431,630 | 1,230,660 | 967,300 | 2,693,618 | 35.1 | 16.0 |
| 2003 | 233,271 | 119,030 | 56,321 | 132,430 | 260,683 | 480,137 | 498,869 | 450,500 | 1,275,564 | 956,603 | 2,737,344 | 35.3 | 16.5 |
| 2004 | 241,493 | 141,413 | 61,931 | 134,543 | 290,742 | 498,469 | 506,995 | 458,122 | 1,335,931 | 968,597 | 2,844,183 | 34.3 | 16.1 |
| 2005 | 250,271 | 168,964 | 67,116 | 140,159 | 312,108 | 495,083 | 539,999 | 489,548 | 1,385,037 | 988,717 | 2,962,417 | 35.3 | 16.5 |
| 2006 | 261,995 | 184,727 | 90,162 | 144,510 | 333,313 | 511,634 | 598,356 | 541,091 | 1,484,034 | 1,023,649 | 3,148,346 | 36.5 | 17.2 |
| 2007 | 282,939 | 211,917 | 107,705 | 151,889 | 362,734 | 553,265 | 639,100 | 571,848 | 1,597,840 | 1,058,017 | 3,367,566 | 35.8 | 17.0 |
| 2008 | 281,299 | 243,322 | 104,805 | 151,492 | 402,477 | 518,797 | 637,666 | 566,053 | 1,558,940 | 1,015,930 | 3,355,788 | 36.3 | 16.9 |

Notes: 1. Shipments from all manufacturing operations with four or more employees are included in this data. 2. Compilation of data on production in value terms was discontinued in 1996 and replaced by data on shipments in value terms. 3. Figures in value terms include domestic consumption tax revenue from shipments. 4. "Electrical Machinery \& Equipment" includes IT-related electronic parts and equipment as of 2002.

## Motor Vehicle Imports and Exports Both on the Decline

In 2009 Japan's gross exports and imports decreased from the previous year, by $33.1 \%$ and $34.8 \%$ respectively. In value terms, automotive exports shrank $46.5 \%$ to 9.4 trillion yen, with motor vehicle, motorcycle and parts exports all showing a decline. Automotive imports also fell, by $41.8 \%$ year-on-year to 0.8 trillion yen, with both motor vehicle and parts imports dropping significantly.

## EXPORTS BY PRINCIPAL COMMODITY (FOB) IN 2009



## IMPORTS BY PRINCIPAL COMMODITY (CIF) IN 2009

$x 10$ billion yen

AUTOMOTIVE EXPORTS IN VALUE TERMS (FOB)
$\times 100$ million yen

| Year | Motor Vehicles |  |  |  |  | Exports Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Chg. (\%) | Passenger Cars, Trucks, Buses | Auto Parts | Motorcycles \& Motorcycle Parts |  | Chg. (\%) |
| 2000 | 94,546 | 101.2 | 69,301 | 18,642 | 6,603 | 516,542 | 108.6 |
| 2001 | 97,802 | 103.4 | 72,108 | 18,804 | 6,891 | 489,792 | 94.8 |
| 2002 | 115,675 | 118.3 | 87,746 | 21,172 | 6,757 | 521,090 | 106.4 |
| 2003 | 118,363 | 102.3 | 88,950 | 22,998 | 6,415 | 545,484 | 104.7 |
| 2004 | 124,773 | 105.4 | 92,142 | 25,617 | 7,014 | 611,700 | 112.1 |
| 2005 | 135,132 | 108.3 | 99,288 | 28,006 | 7,839 | 656,565 | 107.3 |
| 2006 | 161,795 | 119.7 | 122,995 | 30,227 | 8,573 | 752,462 | 114.6 |
| 2007 | 185,267 | 114.5 | 143,170 | 33,555 | 8,543 | 839,314 | 111.5 |
| 2008 | 175,126 | 94.5 | 137,361 | 30,655 | 7,110 | 810,181 | 96.5 |
| 2009 | 93,679 | 53.5 | 66,933 | 23,089 | 3,657 | 541,706 | 66.9 |

Note: "Chg. (\%)" means change from the previous year (with the previous year's result indexed at 100).
AUTOMOTIVE IMPORTS IN VALUE TERMS (CIF)

| Year | Motor Vehicles |  |  |  | Imports Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Chg. (\%) | Passenger Cars, Trucks, Buses | Auto Parts |  | Chg. (\%) |
| 2000 | 9,880 | 108.8 | 7,679 | 2,200 | 409,384 | 116.1 |
| 2001 | 10,390 | 105.2 | 7,814 | 2,576 | 424,155 | 103.6 |
| 2002 | 11,234 | 108.1 | 8,038 | 3,196 | 422,275 | 99.6 |
| 2003 | 11,799 | 105.0 | 8,279 | 3,520 | 443,620 | 105.1 |
| 2004 | 12,842 | 108.8 | 9,055 | 3,787 | 492,166 | 110.9 |
| 2005 | 13,353 | 104.0 | 9,149 | 4,204 | 569,494 | 115.7 |
| 2006 | 14,412 | 107.9 | 9,163 | 5,249 | 673,443 | 118.3 |
| 2007 | 15,586 | 108.1 | 9,294 | 6,291 | 731,359 | 108.6 |
| 2008 | 14,160 | 90.9 | 7,499 | 6,662 | 789,548 | 108.0 |
| 2009 | 8,245 | 58.2 | 4,549 | 3,696 | 514,994 | 65.2 |

[^0] vessel (border of exporting country); CIF (cost, insurance, freight): Transaction value, including freight and insurance, up to offloading from transport vessel (border of importing country). 3. "Chg. (\%)" means change from the previous year (with the previous year's result indexed at 100).

## Motor Vehicle Production Falls for Second Consecutive Year

In 2009 motor vehicle production in Japan decreased for the second consecutive year, totalling 7.93 million units, down 31.5\% from the previous year. Passenger car production fell $30.9 \%$ to 6.86 million units. Within that category, standard car production declined $40.2 \%$ to a total of 3.46 million units, small car production dropped $21.0 \%$ to 2.15 million units, and minicar production decreased $11.9 \%$ to 1.26 million units. Truck and bus production also showed a decline from 2008, plunging $34.7 \%$ and $37.3 \%$, to 985,000 and 87,000 units respectively.

MOTOR VEHICLE PRODUCTION BY TYPE IN 2009


## TRENDS IN MOTOR VEHICLE PRODUCTION

$\times 1$ million units


## O MOTOR VEHICLE PRODUCTION

| Year | Passenger Cars |  |  |  |  | Trucks |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Standard | Small | Mini | Total |  | Standard |  |  | Small |  |
|  |  |  |  |  | Chg. (\%) | Gasoline | Diesel | Subtotal | Gasoline | Diesel |
| 1970 | 51,619 | 2,377,639 | 749,450 | 3,178,708 | 121.7 | 52,047 | 206,053 | 258,100 | 1,156,729 | 97,132 |
| 1975 | 209,032 | 4,198,550 | 160,272 | 4,567,854 | 116.2 | 84,304 | 203,866 | 288,170 | 1,441,759 | 168,716 |
| 1980 | 403,338 | 6,438,847 | 195,923 | 7,038,108 | 114.0 | 457,208 | 427,990 | 885,198 | 1,663,834 | 449,477 |
| 1985 | 494,792 | 6,991,432 | 160,592 | 7,646,816 | 108.1 | 842,792 | 435,420 | 1,278,212 | 1,218,423 | 659,470 |
| 1990 | 1,750,783 | 7,361,224 | 835,965 | 9,947,972 | 109.9 | 635,255 | 614,270 | 1,249,525 | 517,972 | 744,971 |
| 1995 | 2,553,703 | 4,140,629 | 916,201 | 7,610,533 | 97.5 | 232,514 | 591,626 | 824,140 | 304,495 | 604,826 |
| 2000 | 3,376,447 | 3,699,893 | 1,283,094 | 8,359,434 | 103.2 | 153,280 | 495,900 | 649,180 | 204,253 | 279,029 |
| 2001 | 3,460,006 | 3,378,915 | 1,278,642 | 8,117,563 | 97.1 | 150,414 | 444,989 | 595,403 | 199,037 | 246,233 |
| 2002 | 3,671,023 | 3,637,501 | 1,309,830 | 8,618,354 | 106.2 | 157,225 | 522,739 | 679,964 | 198,002 | 182,301 |
| 2003 | 3,753,446 | 3,434,662 | 1,290,220 | 8,478,328 | 98.4 | 157,420 | 615,307 | 772,727 | 250,019 | 199,443 |
| 2004 | 4,044,563 | 3,309,147 | 1,366,675 | 8,720,385 | 102.9 | 127,529 | 642,424 | 769,953 | 261,902 | 184,634 |
| 2005 | 4,191,360 | 3,416,622 | 1,408,753 | 9,016,735 | 103.4 | 106,530 | 617,133 | 723,663 | 233,694 | 203,069 |
| 2006 | 4,915,367 | 3,302,326 | 1,537,210 | 9,754,903 | 108.2 | 96,083 | 603,327 | 699,410 | 213,687 | 205,717 |
| 2007 | 5,864,354 | 2,638,842 | 1,441,441 | 9,944,637 | 101.9 | 125,262 | 593,639 | 718,901 | 177,425 | 188,107 |
| 2008 | 5,786,333 | 2,714,413 | 1,427,397 | 9,928,143 | 99.8 | 121,443 | 613,480 | 734,923 | 163,237 | 166,521 |
| 2009 | 3,459,589 | 2,145,279 | 1,257,293 | 6,862,161 | 69.1 | 83,442 | 288,243 | 371,685 | 127,004 | 88,135 |

Notes: 1. Passenger cars are classified under Japan's Road Vehicles Act in three categories, based primarily on engine capacity: "standard" (over 2,000cc), "small" (661cc-2,000cc), and been treated as components since 1988. 3. "Chg. (\%)" means change from the previous year (with the previous year's result indexed at 100).

TRENDS IN MOTOR VEHICLE PRODUCTION IN VALUE TERMS $\times 1$ trillion yen


MOTOR VEHICLE PRODUCTION IN VALUE TERMS $x 1$ million yen

| Year | Passenger Cars |  |  |  | Trucks |  |  |  |  | Buses |  |  | Grand Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Standard | Small | Mini | Total | Standard | Small | Mini | Tractors | Total | Large | Small | Total |  |
| 1985 | 895,041 | 7,049,323 | 85,925 | 8,030,289 | 1,793,000 | 1,519,934 | 679,498 | 46,745 | 4,039,177 | 103,053 | 101,007 | 204,060 | 12,273,526 |
| 1990 | 3,717,356 | 8,676,715 | 572,188 | 12,966,259 | 1,953,924 | 1,180,028 | 591,144 | 64,913 | 3,790,009 | 134,015 | 66,988 | 201,003 | 16,957,271 |
| 1995 | 5,147,637 | 4,869,427 | 790,303 | 10,807,367 | 1,619,428 | 849,511 | 510,579 | 124,764 | 3,104,282 | 107,647 | 89,441 | 197,088 | 14,108,737 |
| 2000 | 6,640,075 | 4,298,370 | 1,237,605 | 12,176,050 | 1,111,558 | 543,408 | 357,765 | 45,453 | 2,058,184 | 80,897 | 109,007 | 189,904 | 14,424,138 |
| 2001 | 7,483,041 | 4,136,594 | 1,225,030 | 12,844,665 | 1,079,881 | 522,666 | 344,339 | 41,561 | 1,988,447 | 96,949 | 111,499 | 208,448 | 15,041,560 |
| 2002 | 8,573,769 | 4,468,191 | 1,166,197 | 14,208,157 | 1,209,751 | 441,509 | 324,822 | 36,334 | 2,012,416 | 97,050 | 131,813 | 228,863 | 16,449,436 |
| 2003 | 8,454,215 | 4,243,705 | 1,054,329 | 13,752,249 | 1,539,221 | 540,480 | 338,236 | 67,945 | 2,485,882 | 116,560 | 130,268 | 246,828 | 16,484,959 |
| 2004 | 8,836,999 | 4,067,398 | 1,146,115 | 14,050,512 | 1,805,315 | 561,422 | 333,606 | 89,959 | 2,790,302 | 105,985 | 129,577 | 235,562 | 17,076,376 |
| 2005 | 9,352,545 | 4,178,641 | 1,169,871 | 14,701,057 | 1,916,692 | 588,224 | 357,615 | 104,567 | 2,967,098 | 127,605 | 163,069 | 290,674 | 17,958,829 |
| 2006 | 10,891,826 | 4,088,449 | 1,333,394 | 16,313,669 | 2,029,030 | 574,272 | 352,050 | 122,267 | 3,077,619 | 131,726 | 203,231 | 334,957 | 19,726,245 |
| 2007 | 13,122,924 | 3,167,910 | 1,309,576 | 17,600,410 | 2,146,513 | 512,887 | 319,400 | 120,346 | 3,099,146 | 129,209 | 264,477 | 393,686 | 21,093,242 |
| 2008 | 13,006,119 | 3,207,109 | 1,293,624 | 17,506,852 | 2,110,682 | 463,435 | 312,374 | 136,277 | 3,022,768 | 136,115 | 313,594 | 449,709 | 20,979,329 |
| 2009 | 7,261,654 | 2,548,371 | 1,155,681 | 10,965,706 | 1,072,163 | 305,123 | 281,888 | 29,549 | 1,688,723 | 105,256 | 166,115 | 271,371 | 12,925,800 |

Source: Ministry of Economy, Trade and Industry

In vehicle units

|  | Mini | Total |  | Buses |  |  |  | Total |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Large | Small | Total |  |  | Chg. (\%) | Year |
| Subtotal |  |  | Chg. (\%) | (230 passengers) | ( 29 passengers) | Total | Chg. (\%) |  | Chg. (\%) | Year |
| 1,253,861 | 551,922 | 2,063,883 | 102.1 | 15,265 | 31,301 | 46,566 | 111.3 | 5,289,157 | 113.1 | 1970 |
| 1,610,475 | 438,987 | 2,337,632 | 90.8 | 13,624 | 22,481 | 36,105 | 78.8 | 6,941,591 | 105.9 | 1975 |
| 2,113,311 | 914,679 | 3,913,188 | 115.2 | 16,470 | 75,118 | 91,588 | 146.4 | 11,042,884 | 114.6 | 1980 |
| 1,877,893 | 1,388,583 | 4,544,688 | 105.2 | 15,547 | 64,044 | 79,591 | 110.2 | 12,271,095 | 107.0 | 1985 |
| 1,262,943 | 986,171 | 3,498,639 | 89.0 | 15,787 | 24,398 | 40,185 | 95.5 | 13,486,796 | 103.5 | 1990 |
| 909,321 | 804,276 | 2,537,737 | 93.9 | 12,814 | 34,452 | 47,266 | 96.2 | 10,195,536 | 96.6 | 1995 |
| 483,282 | 594,356 | 1,726,818 | 98.8 | 8,035 | 46,509 | 54,544 | 112.7 | 10,140,796 | 102.5 | 2000 |
| 445,270 | 560,863 | 1,601,536 | 92.7 | 11,205 | 46,887 | 58,092 | 106.5 | 9,777,191 | 96.4 | 2001 |
| 380,303 | 512,373 | 1,572,640 | 98.2 | 11,141 | 55,180 | 66,321 | 114.2 | 10,257,315 | 104.9 | 2002 |
| 449,462 | 524,427 | 1,746,616 | 111.1 | 11,406 | 49,668 | 61,074 | 92.1 | 10,286,018 | 100.3 | 2003 |
| 446,536 | 514,202 | 1,730,691 | 99.1 | 12,286 | 48,156 | 60,442 | 99.0 | 10,511,518 | 102.2 | 2004 |
| 436,763 | 546,185 | 1,706,611 | 98.6 | 11,763 | 64,550 | 76,313 | 126.3 | 10,799,659 | 102.7 | 2005 |
| 419,404 | 521,879 | 1,640,693 | 96.1 | 11,063 | 77,574 | 88,637 | 116.1 | 11,484,233 | 106.3 | 2006 |
| 365,532 | 453,587 | 1,538,020 | 93.7 | 11,516 | 102,154 | 113,670 | 128.2 | 11,596,327 | 101.0 | 2007 |
| 329,758 | 443,718 | 1,508,399 | 98.1 | 11,660 | 127,442 | 139,102 | 122.4 | 11,575,644 | 99.8 | 2008 |
| 215,139 | 398,276 | 985,100 | 65.3 | 9,243 | 78,012 | 87,255 | 62.7 | 7,934,516 | 68.5 | 2009 |

[^1]
## Motor Vehicle Sales Dip for Fourth Year in a Row

Passenger car and commercial vehicle demand in Japan in 2009 totalled 4.61 million units, a decline of 9.3\% from the previous year. Total passenger car sales dropped $7.2 \%$ to 3.92 million units, with the standard car segment decreasing $7.3 \%$ to 1.16 million units, small cars falling $4.5 \%$ to 1.48 million units, and minicars sliding $10.1 \%$ to 1.28 million units. Sales of trucks and buses declined $19.8 \%$ and $18.0 \%$ from 2008 , to 673,000 and 13,000 units respectively.

NEW MOTOR VEHICLE REGISTRATIONS BY TYPE IN 2009

In vehicle units

## Buses <br> 12,572 <br> (0.3\%)



- TRENDS IN NEW MOTOR VEHICLE REGISTRATIONS



## O NEW MOTOR VEHICLE REGISTRATIONS

| Year | Passenger Cars |  |  |  |  | Trucks |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Standard | Small | Mini | Subtotal | Chg. (\%) | Standard | Small | Mini | Subtotal | Chg. (\%) |
| 1970 | 9,068 | 1,652,899 | 717,170 | 2,379,137 | 116.8 | 168,086 | 986,673 | 538,743 | 1,693,502 | 95.6 |
| 1975 | 49,125 | 2,531,396 | 157,120 | 2,737,641 | 119.7 | 121,118 | 999,155 | 431,181 | 1,551,454 | 100.7 |
| 1980 | 71,931 | 2,608,215 | 174,030 | 2,854,176 | 94.0 | 154,472 | 1,144,167 | 839,308 | 2,137,947 | 102.2 |
| 1985 | 73,539 | 2,869,527 | 161,017 | 3,104,083 | 100.3 | 118,009 | 945,484 | 1,367,685 | 2,431,178 | 104.7 |
| 1990 | 467,490 | 3,839,221 | 795,948 | 5,102,659 | 115.9 | 193,775 | 1,449,678 | 1,006,456 | 2,649,909 | 93.7 |
| 1995 | 889,260 | 2,654,291 | 900,355 | 4,443,906 | 105.6 | 177,264 | 1,411,296 | 815,265 | 2,403,825 | 104.6 |
| 2000 | 770,220 | 2,208,387 | 1,281,265 | 4,259,872 | 102.5 | 84,626 | 1,015,313 | 586,660 | 1,686,599 | 99.6 |
| 2001 | 741,489 | 2,274,996 | 1,273,198 | 4,289,683 | 100.7 | 83,038 | 943,591 | 574,227 | 1,600,856 | 94.9 |
| 2002 | 674,094 | 2,460,103 | 1,307,157 | 4,441,354 | 103.5 | 76,035 | 739,502 | 518,843 | 1,334,380 | 83.4 |
| 2003 | 1,229,907 | 2,194,194 | 1,291,819 | 4,715,920 | - | 208,752 | 373,259 | 509,044 | 1,091,055 | - |
| 2004 | 1,358,281 | 2,037,767 | 1,372,083 | 4,768,131 | 101.1 | 186,588 | 361,449 | 519,067 | 1,067,104 | 97.8 |
| 2005 | 1,271,349 | 2,089,992 | 1,387,068 | 4,748,409 | 99.6 | 197,548 | 351,708 | 536,648 | 1,085,904 | 101.8 |
| 2006 | 1,225,867 | 1,908,267 | 1,507,598 | 4,641,732 | 97.8 | 209,283 | 354,870 | 516,021 | 1,080,174 | 99.5 |
| 2007 | 1,299,168 | 1,654,025 | 1,447,106 | 4,400,299 | 94.8 | 171,998 | 293,021 | 472,713 | 937,732 | 86.8 |
| 2008 | 1,250,987 | 1,549,677 | 1,426,979 | 4,227,643 | 96.1 | 146,690 | 249,655 | 442,914 | 839,259 | 89.5 |
| 2009 | 1,160,175 | 1,480,137 | 1,283,429 | 3,923,741 | 92.8 | 87,692 | 180,509 | 404,742 | 672,943 | 80.2 |

[^2]NEW MINI-VEHICLE SALES BY TYPE
In vehicle units

| Year | Passenger Cars <br> (Minicars) | Commercial <br> Vehicles <br> ("Bonnet" <br> minivans) | Commercial <br> Vehicles <br> (Cab-over-engine <br> minivans) | Commercial <br> Vehicles <br> (Mini-trucks) | Total |  |
| :---: | ---: | ---: | ---: | ---: | ---: | ---: |

Note: "Chg. (\%)" means change from the previous year (with the previous year's result indexed at 100).
Source: Japan Mini Vehicles Association

- RECREATIONAL VEHICLE (RV) SALES

In vehicle units

| Year | Station Wagons | Vans | Off-Road 4WD Vehicles | Minivans | Total | Chg. (\%) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2000 | 602,624 | 12,554 | 233,605 | 1,227,266 | 2,076,049 | 111.1 |
| 2001 | 656,407 | 12,216 | 256,913 | 1,177,207 | 2,102,743 | 101.3 |
| 2002 | 850,219 | 10,187 | 198,291 | 1,123,797 | 2,182,494 | 103.8 |
| 2003 | 771,384 | 6,927 | 183,435 | 1,201,270 | 2,163,016 | 99.1 |
| 2004 | 669,501 | 7,347 | 170,447 | 1,230,788 | 2,078,083 | 96.1 |
| 2005 | 612,667 | 9,363 | 179,776 | 1,169,006 | 1,970,812 | 94.8 |
| 2006 | 509,936 | 9,406 | 211,135 | 1,126,216 | 1,856,693 | 94.2 |
| 2007 | 460,950 | 8,752 | 226,159 | 980,181 | 1,676,042 | 90.3 |
| 2008 | 454,164 | 9,396 | 213,209 | 938,694 | 1,615,463 | 96.4 |
| 2009 | 339,827 | 7,433 | 157,284 | 890,265 | 1,394,809 | 86.3 |

Note: "Chg. (\%)" means change from the previous year (with the previous year's result indexed at 100).
Source: Japan Automobile Dealers Association

| In vehicle units |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Buses |  |  |  | Total |  |  |  |  |  |  |
| Large | Small | Subtotal | Chg. (\%) |  | Chg. (\%) | Total Vehicle Registrations | Chg. (\%) | Total MiniVehicles | Chg. (\%) | Year |
| 10,256 | 17,572 | 27,828 | 104.2 | 4,100,467 | 106.9 | 2,844,554 | 104.9 | 1,255,913 | 111.7 | 1970 |
| 8,818 | 11,018 | 19,836 | 87.4 | 4,308,931 | 111.9 | 3,720,630 | 118.8 | 588,301 | 82.1 | 1975 |
| 9,414 | 13,973 | 23,387 | 97.5 | 5,015,510 | 97.3 | 4,002,172 | 93.1 | 1,013,338 | 118.3 | 1980 |
| 8,798 | 12,775 | 21,573 | 106.4 | 5,556,834 | 102.2 | 4,028,132 | 101.3 | 1,528,702 | 104.8 | 1985 |
| 9,162 | 15,763 | 24,925 | 105.9 | 7,777,493 | 107.2 | 5,975,089 | 107.4 | 1,802,404 | 106.3 | 1990 |
| 6,474 | 10,829 | 17,303 | 97.0 | 6,865,034 | 105.2 | 5,149,414 | 104.8 | 1,715,620 | 106.2 | 1995 |
| 4,333 | 12,238 | 16,571 | 114.5 | 5,963,042 | 101.7 | 4,095,117 | 102.7 | 1,867,925 | 99.7 | 2000 |
| 4,420 | 11,512 | 15,932 | 96.1 | 5,906,471 | 99.1 | 4,059,046 | 99.1 | 1,847,425 | 98.9 | 2001 |
| 4,729 | 11,630 | 16,359 | 102.7 | 5,792,093 | 98.1 | 3,966,093 | 97.7 | 1,826,000 | 98.8 | 2002 |
| 5,862 | 15,341 | 21,203 | - | 5,828,178 | 100.6 | 4,027,315 | 101.5 | 1,800,863 | 98.6 | 2003 |
| 5,098 | 13,049 | 18,147 | 85.6 | 5,853,382 | 100.4 | 3,962,232 | 98.4 | 1,891,150 | 105.0 | 2004 |
| 5,856 | 11,898 | 17,754 | 97.8 | 5,852,067 | 100.0 | 3,928,351 | 99.1 | 1,923,716 | 101.7 | 2005 |
| 6,064 | 11,536 | 17,600 | 99.1 | 5,739,506 | 98.1 | 3,715,887 | 94.6 | 2,023,619 | 105.2 | 2006 |
| 5,153 | 10,464 | 15,617 | 88.7 | 5,353,648 | 93.3 | 3,433,829 | 92.4 | 1,919,819 | 94.9 | 2007 |
| 5,357 | 9,976 | 15,333 | 98.2 | 5,082,235 | 94.9 | 3,212,342 | 93.5 | 1,869,893 | 97.4 | 2008 |
| 4,234 | 8,338 | 12,572 | 82.0 | 4,609,256 | 90.7 | 2,921,085 | 90.9 | 1,688,171 | 90.3 | 2009 |

3. Truck figures include special-purpose vehicles (except large ones). 4. Data includes imported cars. 5. "Chg. (\%)" means change from the previous year (with the previous year's result indexed at 100). Sources: Japan Automobile Dealers Association; Japan Mini Vehicles Association

## Sales of Imported Vehicles Decline for Second Straight Year

Imported vehicle sales in Japan in 2009 totalled 179,000 units, down 18.6\% from the previous year. Passenger car sales plunged $18.6 \%$ to 168,000 units, and commercial vehicles (trucks and buses) fell $17.9 \%$ to 11,000 units. Sales of used imported vehicles also declined, dropping $7.0 \%$ to 494,000 units, with passenger cars decreasing $6.7 \%$ to 471,000 units, but trucks increasing $0.9 \%$ to 13,000 units.

TRENDS IN IMPORTED MOTOR VEHICLE SALES
In vehicle units


Note: "Chg. (\%)" means change from the previous year (with the previous year's result indexed at 100).
Source: Japan Automobile Importers Association

IMPORTED MOTOR VEHICLES (ON CUSTOMS CLEARANCE BASIS)
In vehicle units

| Year | Passenger Cars | Chg. (\%) | Commercial Vehicles | Other | Total Motor Vehicles | Chg. (\%) | Motorcycles |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1980 | 46,285 | 71.4 | 547 | 1,085 | 47,917 | 72.2 | 17,015 |
| 1985 | 52,225 | 118.3 | 380 | 546 | 53,151 | 118.4 | 7,087 |
| 1990 | 251,169 | 128.6 | 911 | 761 | 252,841 | 128.6 | 28,696 |
| 1995 | 401,836 | 136.0 | 2,469 | 390 | 404,695 | 130.3 | 43,936 |
| 2000 | 283,582 | 109.2 | 1,470 | 376 | 285,428 | 109.3 | 74,906 |
| 2001 | 287,116 | 101.2 | 1,827 | 578 | 289,521 | 101.4 | 101,265 |
| 2002 | 288,657 | 100.5 | 1,288 | 569 | 290,514 | 100.3 | 629,193 |
| 2003 | 281,526 | 97.5 | 1,405 | 733 | 283,664 | 97.6 | 562,415 |
| 2004 | 286,798 | 101.9 | 1,715 | 748 | 289,261 | 102.0 | 485,572 |
| 2005 | 282,654 | 98.6 | 1,420 | 660 | 284,734 | 98.4 | 444,635 |
| 2006 | 278,726 | 98.6 | 1,615 | 654 | 280,995 | 98.7 | 458,966 |
| 2007 | 291,387 | 104.5 | 1,662 | 708 | 293,757 | 104.5 | 458,722 |
| 2008 | 228,255 | 78.3 | 14,288 | 796 | 243,339 | 82.8 | 413,817 |
| 2009 | 145,687 | 63.8 | 9,088 | 593 | 155,368 | 63.8 | 367,727 |

Notes: 1. "Other" denotes special-purpose vehicles and engine-mounted chassis. 2. "Chg. (\%)" means change from the previous year (with the previous year's result indexed at 100).

## USED IMPORTED VEHICLE SALES

In vehicle units

| Year | Passenger Cars | Chg. (\%) | Trucks | Chg. (\%) | Special-Purpose Vehicles | Chg. (\%) | Other | Total | Chg. (\%) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2000 | 511,296 | 105.2 | 4,499 | 102.1 | 47,022 | 108.9 | 179 | 562,996 | 105.5 |
| 2001 | 525,571 | 102.8 | 4,682 | 104.1 | 47,290 | 100.6 | 257 | 577,800 | 102.6 |
| 2002 | 537,750 | 102.3 | 5,169 | 110.4 | 42,669 | 90.2 | 315 | 585,903 | 101.4 |
| 2003 | 555,895 | 103.4 | 6,148 | 118.9 | 38,025 | 89.1 | 308 | 600,376 | 102.5 |
| 2004 | 576,809 | 103.8 | 7,961 | 129.5 | 31,856 | 83.8 | 281 | 616,907 | 102.8 |
| 2005 | 588,397 | 102.0 | 9,468 | 118.9 | 27,269 | 85.6 | 228 | 625,362 | 101.4 |
| 2006 | 586,398 | 99.7 | 11,121 | 117.5 | 22,640 | 83.0 | 303 | 620,462 | 99.2 |
| 2007 | 543,211 | 92.6 | 12,518 | 112.6 | 17,574 | 77.6 | 204 | 573,507 | 92.4 |
| 2008 | 504,710 | 92.9 | 12,441 | 99.4 | 13,292 | 75.6 | 355 | 530,798 | 92.6 |
| 2009 | 470,986 | 93.3 | 12,547 | 100.9 | 10,083 | 75.9 | 165 | 493,781 | 93.0 |

Notes: 1. Passenger cars are classified under Japan's Road Vehicles Act in three categories, based primarily on engine capacity: "standard" (over 2,000cc), "small" ( $661 \mathrm{cc}-2,000 \mathrm{cc}$ ), and "mini" ( 660 cc and under); see page 74 for details. 2. "Other" includes buses, large special-purpose vehicles and small-sized three-wheeled trucks. 3. "Chg. (\%)" means change from the previous year (with the previous year's result indexed at 100).

## Used Vehicle Sales Show Fourth Straight Year of Decline

In 2009 sales of used motor vehicles decreased $6.7 \%$ from the previous year to total 6.70 million units, with used passenger car sales declining $5.8 \%$ to 5.34 million units. In this category, standard passenger cars dropped $6.3 \%$ to 1.62 million units, small cars fell $4.6 \%$ to 1.86 million units, and minicars decreased $6.5 \%$ to 1.87 million units. Meanwhile, used truck sales declined $10.1 \%$ from 2008 to 1.25 million units and used bus sales dipped $5.6 \%$ to 15,000 units.

- USED VEHICLE SALES BY TYPE IN 2009



## TRENDS IN NEW AND USED MOTOR VEHICLE SALES



USED MOTOR VEHICLE SALES
In vehicle units

| Year | Passenger Cars |  |  |  |  | Trucks |  |  |  |  | Buses |  | Other |  | Total | Chg. <br> (\%) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Standard | Small | Mini | Subtotal | Chg. (\%) | Standard | Small | Mini | Subtotal | Chg. (\%) |  | Chg. <br> (\%) |  | Chg. <br> (\%) |  |  |
| 1985 | 160,150 | 3,295,092 | 356,726 | 3,811,968 | 100.9 | 139,459 | 589,321 | 1,125,545 | 1,854,325 | 108.3 | 11,655 | 103.1 | 44,620 | 116.7 | 5,722,568 | 103.3 |
| 1990 | 304,193 | 3,945,086 | 304,782 | 4,554,061 | 106.2 | 185,851 | 555,634 | 1,746,495 | 2,487,980 | 102.1 | 13,377 | 98.3 | 54,118 | 107.3 | 7,109,536 | 104.7 |
| 1995 | 994,311 | 3,845,076 | 727,259 | 5,566,646 | 106.6 | 221,523 | 521,244 | 1,538,718 | 2,281,485 | 102.2 | 13,327 | 105.4 | 84,409 | 119.1 | 7,945,867 | 105.4 |
| 2000 | 1,742,786 | 3,050,087 | 1,448,546 | 6,241,419 | 104.8 | 201,714 | 412,511 | 1,169,626 | 1,783,851 | 99.1 | 15,173 | 102.7 | 173,475 | 105.2 | 8,213,918 | 103.5 |
| 2001 | 1,830,588 | 2,913,775 | 1,552,297 | 6,296,660 | 100.9 | 202,981 | 398,804 | 1,110,833 | 1,712,618 | 96.0 | 16,466 | 108.5 | 170,179 | 98.1 | 8,195,923 | 99.8 |
| 2002 | 1,861,694 | 2,744,604 | 1,714,827 | 6,321,125 | 100.4 | 206,088 | 374,111 | 1,089,079 | 1,669,278 | 97.5 | 17,064 | 103.6 | 159,825 | 93.9 | 8,167,292 | 99.7 |
| 2003 | 1,910,017 | 2,640,456 | 1,809,840 | 6,360,313 | 100.6 | 220,470 | 379,461 | 1,062,660 | 1,662,591 | 99.6 | 17,392 | 101.9 | 154,971 | 97.0 | 8,195,267 | 100.3 |
| 2004 | 1,984,562 | 2,524,764 | 1,777,866 | 6,287,192 | 98.9 | 225,715 | 363,523 | 972,000 | 1,561,238 | 93.9 | 17,240 | 99.1 | 136,242 | 87.9 | 8,001,912 | 97.6 |
| 2005 | 2,002,563 | 2,460,410 | 1,890,154 | 6,353,127 | 101.0 | 240,060 | 368,778 | 980,714 | 1,589,552 | 101.8 | 18,871 | 109.5 | 144,910 | 106.4 | 8,106,460 | 101.3 |
| 2006 | 1,959,739 | 2,304,226 | 2,033,569 | 6,297,534 | 99.1 | 244,770 | 365,180 | 1,003,607 | 1,613,557 | 101.5 | 20,643 | 109.4 | 135,130 | 93.3 | 8,066,864 | 99.5 |
| 2007 | 1,810,596 | 2,105,122 | 2,022,866 | 5,938,584 | 94.3 | 220,989 | 302,043 | 935,745 | 1,458,777 | 90.4 | 16,418 | 79.5 | 116,317 | 86.1 | 7,530,096 | 93.3 |
| 2008 | 1,728,090 | 1,944,766 | 1,995,333 | 5,668,189 | 95.4 | 225,848 | 278,673 | 884,836 | 1,389,357 | 95.2 | 16,193 | 98.6 | 104,516 | 89.9 | 7,178,255 | 95.3 |
| 2009 | 1,619,370 | 1,855,071 | 1,864,874 | 5,339,315 | 94.2 | 194,180 | 266,395 | 787,957 | 1,248,532 | 89.9 | 15,293 | 94.4 | 95,452 | 91.3 | 6,698,592 | 93.3 |

[^3]
## Motor Vehicles Motor Vehicles in Use and Motor Vehicle Density

## Continued Increase in Number of Passenger Cars in Use

At the end of December 2009, motor vehicles in use in Japan (excluding motorcycles) totalled 75.3 million units, a $0.3 \%$ decrease from the previous year. Passenger cars in use increased $0.3 \%$ to 58.0 million units, with minicars growing $3.9 \%$ to 17.4 million units, but standard and small cars dropping $0.4 \%$ and $1.8 \%$, to 16.7 million and 23.9 million units respectively. Meanwhile, trucks in use slipped $2.1 \%$ from 2008 to 15.6 million units and buses in use decreased $1.0 \%$ to 228,000 units. At the end of March 2009, the average service life of motor vehicles in Japan was 11.68 years for passenger cars, 13.50 years for trucks, and 15.00 years for buses.

MOTOR VEHICLES IN USE BY TYPE AT END OF 2009

In vehicle units

| Buses | Special-Purpose |
| :---: | :---: |
| 228,397 | Vehicles |
| $(0.3 \%)$ | $\mathbf{1 , 5 1 5 , 4 1 1}(2.0 \%)$ |

Standard 2,319,612 (3.1\%)


9,288,679
(12.3\%) Standard 16,688,645 (22.2\%)


- TRENDS IN MOTOR VEHICLES IN USE


MOTOR VEHICLES IN USE (at end of every calendar year)

| Year | Passenger Cars |  |  |  |  | Trucks |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Standard | Small | Mini | Subtotal | Chg. (\%) | Standard | Small | Mini | Subtotal | Chg. (\%) |
| 1970 | 77,374 | 6,457,181 | 2,244,417 | 8,778,972 | 126.6 | 798,256 | 4,478,486 | 3,005,017 | 8,281,759 | 107.1 |
| 1975 | 207,511 | 14,417,680 | 2,611,130 | 17,236,321 | 108.7 | 1,158,465 | 6,100,206 | 2,785,182 | 10,043,853 | 98.9 |
| 1980 | 472,314 | 21,011,096 | 2,176,110 | 23,659,520 | 104.4 | 1,494,464 | 7,155,221 | 4,527,794 | 13,177,479 | 104.8 |
| 1985 | 711,914 | 25,116,179 | 2,016,487 | 27,844,580 | 102.6 | 1,668,852 | 6,679,665 | 8,791,289 | 17,139,806 | 105.5 |
| 1990 | 1,784,594 | 30,554,652 | 2,584,926 | 34,924,172 | 107.1 | 2,176,488 | 6,609,536 | 12,535,415 | 21,321,439 | 101.1 |
| 1995 | 7,874,189 | 31,030,462 | 5,775,386 | 44,680,037 | 104.7 | 2,574,433 | 6,213,405 | 11,642,311 | 20,430,149 | 98.9 |
| 2000 | 13,942,626 | 28,593,491 | 9,901,258 | 52,437,375 | 102.5 | 2,596,421 | 5,474,660 | 10,154,427 | 18,225,508 | 97 |
| 2001 | 14,806,684 | 27,943,396 | 10,790,436 | 53,540,516 | 102.1 | 2,572,244 | 5,307,676 | 9,986,298 | 17,866,218 | 98.0 |
| 2002 | 15,375,465 | 27,493,644 | 11,670,730 | 54,539,839 | 101.9 | 2,531,293 | 5,111,024 | 9,838,107 | 17,480,424 | 97.8 |
| 2003 | 15,836,593 | 26,885,069 | 12,490,928 | 55,212,590 | 101.2 | 2,476,588 | 4,870,933 | 9,732,853 | 17,080,374 | 97.7 |
| 2004 | 16,295,520 | 26,401,167 | 13,297,363 | 55,994,050 | 101.4 | 2,464,873 | 4,694,922 | 9,621,053 | 16,780,848 | 98.2 |
| 2005 | 16,634,529 | 26,254,546 | 14,201,714 | 57,090,789 | 102.0 | 2,474,378 | 4,594,363 | 9,665,130 | 16,733,871 | 99.7 |
| 2006 | 16,714,523 | 25,698,303 | 15,108,217 | 57,521,043 | 100.8 | 2,465,823 | 4,431,103 | 9,602,484 | 16,499,410 | 98.6 |
| 2007 | 16,771,502 | 24,921,226 | 15,931,025 | 57,623,753 | 100.2 | 2,455,268 | 4,323,579 | 9,495,420 | 16,274,267 | 98.6 |
| 2008 | 16,748,373 | 24,356,113 | 16,760,486 | 57,864,972 | 100.4 | 2,386,255 | 4,102,553 | 9,407,694 | 15,896,502 | 97.7 |
| 2009 | 16,688,645 | 23,919,019 | 17,412,189 | 58,019,853 | 100.3 | 2,319,612 | 3,952,534 | 9,288,679 | 15,560,825 | 97.9 |

Notes: 1. "Special-purpose vehicles" refers to emergency vehicles, special vehicles equipped with beds, refrigerated trucks, tank trucks, tractors, bulldozers, steamrollers, snowplows,
100). 3. "Three-wheeled vehicles" includes three-wheeled passenger cars, trucks and special-purpose vehicles.

- PRIVATE PASSENGER CARS IN USE PER 100 HOUSEHOLDS BY PREFECTURE (at March 31, 2009)

In vehicle units


- PASSENGER CARS IN USE BY YEAR OF FIRST REGISTRATION

At March 31, 2009

| Year of First <br> Registration | Vehicles in Use | (\%) of Total Vehicles <br> in Use |
| :---: | ---: | ---: |
| April 2008-March 2009 | $2,485,329$ | 6.09 |
| April 2007-March 2008 | $2,900,598$ | 7.11 |
| April 2006-March 2007 | $2,934,507$ | 7.19 |
| April 2005-March 2006 | $3,156,504$ | 7.74 |
| April 2004-March 2005 | $3,157,848$ | 7.74 |
| April 2003-March 2004 | $3,018,204$ | 7.40 |
| April 2002-March 2003 | $3,079,64$ | 7.55 |
| April 2001-March 2002 | $2,824,891$ | 6.92 |
| April 2000-March 2001 | $2,818,791$ | 6.91 |
| April 1999-March 2000 | $2,465,924$ | 6.04 |
| April 1998-March 1999 | $2,400,717$ | 5.88 |
| April 1997-March 1998 | $2,158,363$ | 5.29 |
| April 1996-March 1997 | $2,203,475$ | 5.40 |
| April 1995-March 1996 | $1,403,175$ | 3.44 |
| -March 1995 | $3,791,755$ | 9.30 |
| Total Vehicles in Use | $40,799,245$ | 100.00 |

AVERAGE AGE BY TYPE
At March 31, 2009

| Year | Passenger Cars | Trucks | Buses |
| :---: | ---: | ---: | ---: |
| 2000 | 5.84 | 7.14 | 8.28 |
| 2001 | 6.04 | 7.48 | 8.64 |
| 2002 | 6.23 | 7.77 | 8.97 |
| 2003 | 6.39 | 8.10 | 9.24 |
| 2004 | 6.58 | 8.17 | 9.33 |
| 2005 | 6.77 | 8.36 | 9.53 |
| 2006 | 6.90 | 8.50 | 9.61 |
| 2007 | 7.09 | 8.68 | 9.80 |
| 2008 | 7.23 | 8.98 | 10.02 |
| 2009 | 7.48 | 9.16 | 10.26 |

- AVERAGE SERVICE LIFE

BY TYPE
At March 31, 2009

| Year | Passenger Cars | Trucks | Buses |
| ---: | ---: | ---: | ---: |
| 2000 | 9.96 | 10.53 | 13.03 |
| 2001 | 10.40 | 10.68 | 13.72 |
| 2002 | 10.55 | 10.92 | 13.98 |
| 2003 | 10.77 | 11.23 | 14.41 |
| 204 | 10.97 | 11.84 | 14.48 |
| 2005 | 10.93 | 11.72 | 15.34 |
| 2006 | 11.10 | 11.47 | 15.02 |
| 2007 | 11.66 | 11.92 | 14.83 |
| 2008 | 11.67 | 11.72 | 15.62 |
| 2009 | 11.68 | 13.50 | 15.00 |

Notes: 1. "Average age" means the average number of years elapsed since first registration. 2. "Average service life" means average vehicle lifespan. The method of calculating average service life changed in 2001 for passenger cars and trucks and in 2002 for buses. 3. The above three tables exclude mini-vehicles.

Source: Automobile Inspection \& Registration Information Association

In vehicle units

| Buses |  |  |  | Special-Purpose Vehicles |  | Total |  | Trailers | ThreeWheeled Vehicles | Year |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Large | Small | Subtotal | Chg. (\%) |  | Chg. (\%) |  | Chg. (\%) |  |  |  |
| 104,895 | 83,085 | 187,980 | 110.5 | 333,132 | 110.5 | 17,581,843 | 116.2 | 23,079 | 243,934 | 1970 |
| 102,186 | 124,098 | 226,284 | 101.7 | 584,100 | 101.7 | 28,090,558 | 104.9 | 39,808 | 47,998 | 1975 |
| 106,633 | 123,387 | 230,020 | 100.4 | 789,155 | 100.4 | 37,856,174 | 104.5 | 56,804 | 17,724 | 1980 |
| 108,967 | 122,261 | 231,228 | 100.5 | 941,647 | 100.5 | 46,157,261 | 103.7 | 65,485 | 6,123 | 1985 |
| 114,819 | 130,849 | 245,668 | 101.6 | 1,206,390 | 101.6 | 57,697,669 | 104.7 | 87,359 | 4,056 | 1990 |
| 114,478 | 128,617 | 243,095 | 99.1 | 1,500,219 | 99.1 | 66,853,500 | 102.8 | 120,171 | 3,621 | 1995 |
| 110,046 | 125,437 | 235,483 | 99.9 | 1,750,733 | 99.9 | 72,649,099 | 101.3 | 133,676 | 3,827 | 2000 |
| 110,272 | 124,544 | 234,816 | 99.7 | 1,766,212 | 99.7 | 73,407,762 | 101.0 | 135,363 | 3,715 | 2001 |
| 110,058 | 123,347 | 233,405 | 99.4 | 1,735,682 | 99.4 | 73,989,350 | 100.8 | 136,172 | 3,603 | 2002 |
| 109,909 | 121,909 | 231,818 | 99.3 | 1,689,629 | 99.3 | 74,214,411 | 100.3 | 137,510 | 3,478 | 2003 |
| 109,703 | 121,231 | 230,934 | 99.6 | 1,649,686 | 99.6 | 74,655,518 | 100.6 | 142,032 | 3,471 | 2004 |
| 109,917 | 121,816 | 231,733 | 100.3 | 1,630,062 | 98.8 | 75,686,455 | 101.4 | 147,626 | 3,280 | 2005 |
| 109,763 | 121,918 | 231,681 | 100.0 | 1,606,934 | 98.6 | 75,859,068 | 100.2 | 151,441 | 3,238 | 2006 |
| 109,621 | 121,307 | 230,928 | 99.7 | 1,585,873 | 98.7 | 75,714,821 | 99.8 | 154,798 | 3,201 | 2007 |
| 109,808 | 120,873 | 230,681 | 99.9 | 1,536,160 | 96.9 | 75,528,315 | 99.8 | 157,951 | 3,119 | 2008 |
| 108,760 | 119,637 | 228,397 | 99.0 | 1,515,411 | 98.6 | 75,324,486 | 99.7 | 152,381 | 3,127 | 2009 |

## Motor Vehicle Exports Drop for First Time in 8 Years

Exports of motor vehicles in 2009 plunged $46.2 \%$ from the previous year to 3.62 million units, marking the first decline in eight years. Passenger car exports fell $45.8 \%$ to 3.21 million units, truck exports plummeted $52.1 \%$ to 316,000 units, and bus exports dropped $40.0 \%$ to 92,000 units. The total value of automotive exports fell $39.8 \%$ to US $\$ 97.0$ billion, with the value of automobile exports declining $45.6 \%$ to US\$ 69.4 billion and the value of auto parts exports decreasing $17.7 \%$ to US\$ 27.5 billion.


- TRENDS IN MOTOR VEHICLE EXPORTS


MOTOR VEHICLE EXPORTS

| Year | Passenger Cars |  |  |  |  | Trucks |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Standard | Small | Mini | Subtotal | Chg. (\%) | Standard | Small | Mini |
| 1970 | 715,450 |  | 10,136 | 725,586 | 129.5 | 65,170 | 272,549 | 13,892 |
| 1975 | 1,821,835 |  | 5,451 | 1,827,286 | 105.8 | 168,370 | 643,232 | 22,070 |
| 1980 | 345,413 | 3,580,623 | 21,124 | 3,947,160 | 127.2 | 332,257 | 1,548,251 | 73,177 |
| 1985 | 493,047 | 3,932,414 | 1,301 | 4,426,762 | 111.2 | 1,196,973 | 1,029,757 | 11,374 |
| 1990 | 1,343,967 | 3,138,147 | 16 | 4,482,130 | 101.8 | 944,737 | 364,376 | 8 |
| 1995 | 1,156,122 | 1,732,050 | 8,044 | 2,896,216 | 86.2 | 612,654 | 236,929 | 276 |
| 2000 | 2,333,263 | 1,462,069 | 520 | 3,795,852 | 101.0 | 530,823 | 86,329 | 718 |
| 2001 | 2,384,696 | 1,183,917 | 104 | 3,568,717 | 94.0 | 486,458 | 66,376 | 57 |
| 2002 | 2,783,405 | 1,228,525 | 443 | 4,012,373 | 112.4 | 567,313 | 70,218 | 62 |
| 2003 | 2,856,312 | 1,222,433 | 1,753 | 4,080,498 | 101.7 | 553,406 | 76,787 | 61 |
| 2004 | 2,995,259 | 1,217,013 | 1,755 | 4,214,027 | 103.3 | 591,233 | 96,453 | 109 |
| 2005 | 3,164,603 | 1,198,273 | 292 | 4,363,168 | 103.5 | 521,848 | 89,946 | 162 |
| 2006 | 3,845,081 | 1,449,608 | 808 | 5,295,497 | 121.4 | 488,632 | 89,201 | 141 |
| 2007 | 4,450,934 | 1,359,414 | 1,611 | 5,811,959 | 109.8 | 527,010 | 89,128 | 312 |
| 2008 | 4,379,569 | 1,534,975 | 885 | 5,915,429 | 101.8 | 567,596 | 90,581 | 41 |
| 2009 | 2,403,359 | 804,980 | 300 | 3,208,639 | 54.2 | 267,060 | 48,447 | 0 |

Notes: 1. Passenger cars are classified under Japan's Road Vehicles Act in three categories, based primarily on engine capacity: "standard" (over 2,000cc), "small" ( $661 \mathrm{cc}-2,000 \mathrm{cc}$ ), and "mini" ( 660 cc and manufactured in Japan. 3. KD sets have been excluded since 1979; they represent less than $60 \%$ of the cost of compositional components per vehicle and have been treated as components since 1988 .

MOTOR VEHICLE EXPORT TRENDS (BY REGION OF DESTINATION)


Note: "Chg. (\%)" means change from the previous year (with the previous year's result indexed at 100).
In vehicle units

| Subtotal |  | Buses |  |  |  | Total | Chg. (\%) | Year |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Chg. (\%) | Large | Small | Subtotal | Chg. (\%) |  |  |  |
| 351,611 | 120.9 | 4,520 | 5,059 | 9,579 | 141.6 | 1,086,776 | 126.7 | 1970 |
| 833,672 | 95.3 | 6,407 | 10,247 | 16,654 | 104.3 | 2,677,612 | 102.3 | 1975 |
| 1,953,685 | 137.2 | 7,616 | 58,500 | 66,116 | 179.4 | 5,966,961 | 130.8 | 1980 |
| 2,238,104 | 108.0 | 6,249 | 59,357 | 65,606 | 116.7 | 6,730,472 | 110.2 | 1985 |
| 1,309,121 | 90.6 | 6,066 | 33,895 | 39,961 | 113.7 | 5,831,212 | 99.1 | 1990 |
| 849,859 | 82.8 | 8,028 | 36,706 | 44,734 | 60.8 | 3,790,809 | 85.0 | 1995 |
| 617,870 | 100.8 | 7,131 | 34,032 | 41,163 | 107.3 | 4,454,885 | 101.0 | 2000 |
| 552,891 | 89.5 | 9,593 | 34,888 | 44,481 | 108.1 | 4,166,089 | 93.5 | 2001 |
| 637,593 | 115.3 | 9,346 | 39,416 | 48,762 | 109.6 | 4,698,728 | 112.8 | 2002 |
| 630,254 | 98.8 | 8,300 | 37,291 | 45,591 | 93.5 | 4,756,343 | 101.2 | 2003 |
| 687,795 | 109.1 | 11,692 | 44,149 | 55,841 | 122.5 | 4,957,663 | 104.2 | 2004 |
| 611,956 | 89.0 | 9,957 | 67,980 | 77,937 | 139.6 | 5,053,061 | 101.9 | 2005 |
| 577,974 | 94.4 | 11,567 | 81,634 | 93,201 | 119.6 | 5,966,672 | 118.1 | 2006 |
| 616,450 | 106.7 | 13,887 | 107,644 | 121,531 | 130.4 | 6,549,940 | 109.8 | 2007 |
| 658,218 | 106.8 | 17,574 | 135,870 | 153,444 | 126.3 | 6,727,091 | 102.7 | 2008 |
| 315,507 | 47.9 | 11,106 | 80,916 | 92,022 | 60.0 | 3,616,168 | 53.8 | 2009 |

[^4]
## A Drop in Motor Vehicle Exports Worldwide

In 2009 motor vehicle exports to every destination declined. Compared to the previous year, they fell $58.7 \%$ to Africa, $56.9 \%$ to Europe, $55.1 \%$ to the Middle East, $52.8 \%$ to Latin America, $40.5 \%$ to North America, 27.9\% to Asia, and $24.6 \%$ to Oceania.

MOTOR VEHICLE EXPORTS BY DESTINATION IN 2009


MOTOR VEHICLE EXPORT TRENDS (BY REGION OF DESTINATION)
In \%


MOTOR VEHICLE EXPORTS BY DESTINATION IN 2009

| Destination |  | Passenger Cars |  |  |  | Trucks |  |  |  | Buses |  |  | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Standard | Small | Mini | Subtotal | Standard | Small | Mini | Subtotal | Large | Small | Subtotal |  |
| Asia | China | 140,631 | 2,357 | 0 | 142,988 | 6,620 | 0 | 0 | 6,620 | 0 | 977 | 977 | 150,585 |
|  | Taiwan | 23,943 | 2,985 | 0 | 26,928 | 3,274 | 696 | 0 | 3,970 | 1,275 | 227 | 1,502 | 32,400 |
|  | Thailand | 4,994 | 1 | 0 | 4,995 | 13,975 | 324 | 0 | 14,299 | 52 | 11,872 | 11,924 | 31,218 |
|  | Singapore | 12,525 | 4,278 | 25 | 16,828 | 2,877 | 710 | 0 | 3,587 | 60 | 284 | 344 | 20,759 |
|  | Malaysia | 5,315 | 8,766 | 0 | 14,081 | 12,269 | 8,696 | 0 | 20,965 | 490 | 3,251 | 3,741 | 38,787 |
|  | Philippines | 9,139 | 1,747 |  | 10,886 | 1,704 | 416 | 0 | 2,120 | 402 | 4,499 | 4,901 | 17,907 |
|  | Indonesia | 8,180 | 4,869 | 22 | 13,071 | 13,049 | 0 | 0 | 13,049 | 738 | 21 | 759 | 26,879 |
|  | Pakistan |  | 4,922 | 0 | 4,999 | 2,921 | 12 | 0 | 2,933 | 348 | 661 | 1,009 | 8,941 |
|  | Other | 29,656 | 6,252 | 201 | 36,109 | 8,476 | 5,073 | 0 | 13,549 | 359 | 1,347 | 1,706 | 51,364 |
|  | Subtotal | 234,460 | 36,177 | 248 | 270,885 | 65,165 | 15,927 | 0 | 81,092 | 3,724 | 23,139 | 26,863 | 378,840 |
| Middle <br> East | Iran | 13,211 | 50 | 0 | 13,261 | 9,332 | 0 | 0 | 9,332 | 0 | 0 | 0 | 22,593 |
|  | Saudi Arabia | 45,897 | 55,610 | 0 | 101,507 | 25,897 | 1,865 | 0 | 27,762 | 578 | 5,011 | 5,589 | 134,858 |
|  | Kuwait | 16,097 | 5,819 | 0 | 21,916 | 2,117 | 435 | 0 | 2,552 | 512 | 1,237 | 1,749 | 26,217 |
|  | Oman | 33,619 | 8,563 | 0 | 42,182 | 15,888 | 933 | 0 | 16,821 | 565 | 6,235 | 6,800 | 65,803 |
|  | Israel | 31,722 | 15,572 | 0 | 47,294 | 629 | 0 | 0 | 629 | 0 | 0 | 0 | 47,923 |
|  | United Arab Emirates | 25,653 | 18,376 | 0 | 44,029 | 4,389 | 7,468 | 0 | 11,857 | 380 | 4,658 | 5,038 | 60,924 |
|  | Qatar | 10,366 | 3,455 | 0 | 13,821 | 1,538 | 768 | 0 | 2,306 | 84 | 1,080 | 1,164 | 17,291 |
|  | Other | 15,676 | 23,647 | 0 | 39,323 | 8,750 | 676 | 0 | 9,426 | 870 | 2,814 | 3,684 | 52,433 |
|  | Subtotal | 192,241 | 131,092 | 0 | 323,333 | 68,540 | 12,145 | 0 | 80,685 | 2,989 | 21,035 | 24,024 | 428,042 |
| Europe | Sweden | 11,599 | 2,042 | 1 | 13,642 | 105 | 0 | 0 | 105 | 0 | 0 | 0 | 13,747 |
|  | Denmark | 3,375 | 2,523 | 0 | 5,898 | 63 | 0 | 0 | 63 | 0 | 0 | 0 | 5,961 |
|  | UK | 56,808 | 44,611 | 25 | 101,444 | 521 | 245 | 0 | 766 | 0 | 0 | 0 | 102,210 |
|  | Netherlands | 24,084 | 5,764 | 0 | 29,848 | 241 | 0 | 0 | 241 | 0 | 0 | 0 | 30,089 |
|  | Belgium | 8,829 | 5,296 | 0 | 14,125 | 226 | 323 | 0 | 549 | 0 | 0 | 0 | 14,674 |
|  | France | 41,595 | 17,250 | 12 | 58,857 | 189 | 832 | 0 | 1,021 | 0 | 0 | 0 | 59,878 |
|  | E Germany | 69,039 | 52,601 | 4 | 121,644 | 746 | 331 | 0 | 1,077 | 0 | 0 | 0 | 122,721 |
|  | U Spain | 24,111 | 6,791 | 1 | 30,903 | 202 | 644 | 0 | 846 | 0 | 0 | 0 | 31,749 |
|  | Italy | 31,522 | 40,720 | 0 | 72,242 | 1,309 | 339 | 0 | 1,648 | 0 | 0 | 0 | 73,890 |
|  | Finland | 4,848 | 831 | 0 | 5,679 | 684 | 6 | 0 | 690 | 0 | 0 | 0 | 6,369 |
|  | Poland | 13,808 | 1,153 | 0 | 14,961 | 21 | 0 | 0 | 21 | 0 | 0 | 0 | 14,982 |
|  | Austria | 15,300 | 7,319 | 0 | 22,619 | 230 | 0 | 0 | 230 | 0 | 44 | 44 | 22,893 |
|  | Greece | 9,835 | 7,329 | 0 | 17,164 | 198 | 0 | 0 | 198 | 0 | 0 | 0 | 17,362 |
|  | Other | 15,776 | 7,595 | 0 | 23,371 | 2,209 | 110 | 0 | 2,319 | 0 | 0 | 0 | 25,690 |
|  | Subtotal | 330,529 | 201,825 | 43 | 532,397 | 6,944 | 2,830 | 0 | 9,774 | 0 | 44 | 44 | 542, 215 |
|  | Norway | 13,714 | 1,648 | 0 | 15,362 | 1,447 | 0 | 0 | 1,447 | 0 | 0 | 0 | 16,809 |
|  | Switzerland | 18,012 | 14,100 | 0 | 32,112 | 885 | 0 | 0 | 885 | 0 | 0 | 0 | 32,997 |
|  | Russia | 53,869 | 13,403 | 0 | 67,272 | 1,034 | 1 | 0 | 1,035 | 0 | 20 | 20 | 68,327 |
|  | Turkey | 4,060 | 8,993 | 0 | 13,053 | 874 | 124 | 0 | 998 | 0 | 0 | 0 | 14,051 |
|  | Ukraine | 4,287 | 3,500 | 0 | 7,787 | 372 | 0 | 0 | 372 | 0 | 0 | 0 | 8,159 |
|  | Other | 1,749 | 716 | 0 | 2,465 | 3 | 0 | 0 | 3 | 0 | 0 | 0 | 2,468 |
|  | Subtotal | 426,220 | 244,185 | 43 | 670,448 | 11,559 | 2,955 | 0 | 14,514 | 0 | 64 | 64 | 685,026 |
| North America | Canada | 147,510 | $27,700$ | 4 | $175,214$ | $1,204$ | $0$ | 0 | 1,204 | 0 | 0 | 0 | 176,418 |
|  | U.S.A. | 1,020,600 | $171,541$ | 5 | $1,192,146$ | $9,047$ | 1,539 | 0 | 10,586 | 0 | 0 | 0 | 1,202,732 |
|  | Subtotal | 1,168,110 | 199,241 | 9 | 1,367,360 | 10,251 | 1,539 | 0 | 11,790 | 0 | 0 | 0 | 1,379,150 |
| Latin America | Mexico | 38,679 | 7,534 | 0 | 46,213 | 11,063 | 373 | 0 | 11,436 | 0 | 2,341 | 2,341 | 59,990 |
|  | Puerto Rico | 22,157 | 8,346 | 0 | 30,503 | 10 | 0 | 0 | 10 | 0 | 0 | 0 | 30,513 |
|  | Colombia | 5,505 | 3,848 | 0 | 9,353 | 9,677 | 622 | 0 | 10,299 | 514 | 27 | 541 | 20,193 |
|  | Venezuela | 104 | 2,190 | 0 | 2,294 | 3,712 | 234 | 0 | 3,946 | 240 | 0 | 240 | 6,480 |
|  | Ecuador | 16,537 | 3,816 | 0 | 20,353 | 1,903 | 400 | 0 | 2,303 | 0 | 89 | 89 | 22,745 |
|  | Chile | 21,430 | 10,776 | 0 | 32,206 | 3,837 | 394 | 0 | 4,231 | 0 | 107 | 107 | 36,544 |
|  | Other | 30,254 | 20,260 | 0 | 50,514 | 10,133 | 2,110 | 0 | 12,243 | 553 | 4,421 | 4,974 | 67,731 |
|  | Subtotal | 134,666 | 56,770 | 0 | 191,436 | 40,335 | 4,133 | 0 | 44,468 | 1,307 | 6,985 | 8,292 | 244,196 |
| Africa | Algeria | 2,902 | 6,255 | 0 | 9,157 | 6,599 | 209 | 0 | 6,808 | 1,653 | 717 | 2,370 | 18,335 |
|  | Egypt | 2,366 | 8,454 | 0 | 10,820 | 6,325 | 6,514 | 0 | 12,839 | 151 | 3,628 | 3,779 | 27,438 |
|  | Nigeria | 2,760 | 432 | 0 | 3,192 | 476 | 39 | 0 | 515 | 526 | 4,570 | 5,096 | 8,803 |
|  | South Africa | 13,318 | 14,934 | 0 | 28,252 | 8,845 | 380 | 0 | 9,225 | 0 | 10,239 | 10,239 | 47,716 |
|  | Other | 13,526 | 9,291 | 0 | 22,817 | 12,820 | 2,689 | 0 | 15,509 | 646 | 3,867 | 4,513 | 42,839 |
|  | Subtotal | 34,872 | 39,366 | 0 | 74,238 | 35,065 | 9,831 | 0 | 44,896 | 2,976 | 23,021 | 25,997 | 145,131 |
| Oceania | Australia | 194,854 | 85,893 | 0 | 280,747 | 28,724 | 1,567 | 0 | 30,291 | 62 | 2,745 | 2,807 | 313,845 |
|  | New Zealand | 10,593 | 10,816 | 0 | 21,409 | 2,451 | 210 | 0 | 2,661 | 0 | 132 | 132 | 24,202 |
|  | Other | 3,456 | 1,357 | 0 | 4,813 | 2,531 | 139 | 0 | 2,670 | 32 | 1,832 | 1,864 | 9,347 |
|  | Subtotal | 208,903 | 98,066 | 0 | 306,969 | 33,706 | 1,916 | 0 | 35,622 | 94 | 4,709 | 4,803 | 347,394 |
| Other |  | 3,887 | 83 | 0 | 3,970 | 2,439 | 1 | 0 | 2,440 | 16 | 1,963 | 1,979 | 8,389 |
| Grand Totals |  | 2,403,359 | 804,980 | 300 | 3,208,639 | 267,060 | 48,447 | 0 | 315,507 | 11,106 | 80,916 | 92,022 | 3,616,168 |

Note: Passenger cars are classified under Japan's Road Vehicles Act in three categories, based primarily on engine capacity: "standard" (over 2,000cc), "small" ( $661 \mathrm{cc}-2,000 \mathrm{cc}$ ), and "mini" ( 660 cc and under); see page 74 for details.

## Motorcycle Production Falls for Fourth Consecutive Year

Overall domestic motorcycle production in 2009 decreased $47.4 \%$ from the previous year to 645,000 units. While Class 1 motor-driven cycles (50cc and under) declined $33.5 \%$ to 108,000 units, the combined total for larger motorcycles (all those over 50cc) plunged $49.6 \%$ to 536,000 units, with Class 2 motor-driven cycles (51cc to 125cc), mini-sized motorcycles ( 126 cc to 250 cc ) and small-sized motorcycles (over 250 cc ) dropping $55.3 \%$ to 57,000 units, $35.0 \%$ to 125,000 units, and $52.4 \%$ to 354,000 units respectively.

MOTORCYCLE PRODUCTION BY ENGINE
CAPACITY IN 2009
In vehicle units

- TRENDS IN MOTORCYCLE PRODUCTION
$\times 1$ million units


In vehicle units

| Year | Motor-Driven Cycles Class 1 (50cc \& Under) | Over 50cc |  |  |  | Total | Chg. (\%) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Motor-Driven Cycles Class 2 (51cc-125cc) | Mini-Sized Motorcycles (126cc-250cc) | Small-Sized Motorcycles (Over 250cc) | Subtotal |  |  |
| 1970 | 895,599 | 1,407,205 | 259,145 | 385,723 | 2,052,073 | 2,947,672 | 114.4 |
| 1975 | 1,030,822 | 1,887,701 | 331,733 | 552,291 | 2,771,725 | 3,802,547 | 84.3 |
| 1980 | 2,493,910 | 2,181,206 | 660,831 | 1,098,577 | 3,940,614 | 6,434,524 | 143.8 |
| 1985 | 2,014,850 | 1,373,423 | 469,728 | 678,346 | 2,521,497 | 4,536,347 | 112.7 |
| 1990 | 1,343,220 | 686,734 | 270,304 | 506,637 | 1,463,675 | 2,806,895 | 100.4 |
| 1995 | 951,803 | 1,038,938 | 217,738 | 544,760 | 1,801,436 | 2,753,239 | 101.0 |
| 2000 | 636,546 | 630,221 | 297,433 | 851,191 | 1,778,845 | 2,415,391 | 107.3 |
| 2001 | 610,993 | 598,551 | 260,269 | 858,227 | 1,717,047 | 2,328,040 | 96.4 |
| 2002 | 588,956 | 543,294 | 241,356 | 741,882 | 1,526,532 | 2,115,488 | 90.9 |
| 2003 | 458,072 | 376,800 | 235,499 | 760,534 | 1,372,833 | 1,830,905 | 86.5 |
| 2004 | 331,449 | 304,622 | 271,126 | 832,387 | 1,408,135 | 1,739,584 | 95.0 |
| 2005 | 298,549 | 260,343 | 279,274 | 953,419 | 1,493,036 | 1,791,585 | 103.0 |
| 2006 | 306,246 | 149,868 | 276,043 | 1,039,229 | 1,465,140 | 1,771,386 | 98.9 |
| 2007 | 264,336 | 178,827 | 269,689 | 963,245 | 1,411,761 | 1,676,097 | 94.6 |
| 2008 | 162,928 | 128,381 | 192,863 | 742,667 | 1,063,911 | 1,226,839 | 73.2 |
| 2009 | 108,417 | 57,424 | 125,384 | 353,676 | 536,484 | 644,901 | 52.6 |

Notes: 1. KD sets have been excluded since 1979; they represent less than $60 \%$ of the cost of compositional components per vehicle and have been treated as components since 1988 . 2. "Chg. (\%)" means change from the previous year (with the previous year's result indexed at 100).

## Motorcycle Sales Decline for Fourth Straight Year

Domestic motorcycle sales in 2009 dropped $27.1 \%$ from 2008 to 381,000 units. While sales of Class 1 motor-driven cycles ( 50 cc and under) decreased $13.6 \%$ to 256,000 units, sales of Class 2 motor-driven cycles (51cc to 125cc), minisized motorcycles ( 126 cc to 250 cc ) and small-sized motorcycles (over 250 cc ) plummeted $45.5 \%$ to 66,000 units, $33.2 \%$ to 37,000 units, and $55.5 \%$ to 22,000 units respectively. Overall sales of motorcycles with engine capacity over 50 cc thus totalled 125,000 units, a plunge of 44.7\% from 2008.

MOTORCYCLE SALES BY ENGINE
CAPACITY IN 2009
In vehicle units


O TRENDS IN MOTORCYCLE SALES


O MOTORCYCLE SALES (SHIPMENTS TO DOMESTIC DEALERS)
In vehicle units

| Year | Motor-Driven Cycles Class 1 (50cc \& Under) | Over 50cc |  |  |  | Total | Chg. (\%) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Motor-Driven Cycles Class 2 (51cc-125cc) | Mini-Sized Motorcycles (126cc-250cc) | Small-Sized Motorcycles (Over 250cc) | Subtotal |  |  |
| 1970 | 598,165 | 461,570 | 61,608 | 69,586 | 592,764 | 1,190,929 | 98.0 |
| 1975 | 778,117 | 307,276 | 15,882 | 28,018 | 351,176 | 1,129,293 | 100.6 |
| 1980 | 1,978,426 | 200,238 | 88,188 | 103,184 | 391,610 | 2,370,036 | 122.7 |
| 1985 | 1,646,115 | 130,574 | 173,887 | 145,674 | 450,135 | 2,096,250 | 102.6 |
| 1990 | 1,213,512 | 169,618 | 158,882 | 76,921 | 405,421 | 1,618,933 | 97.6 |
| 1995 | 884,718 | 138,115 | 98,833 | 91,186 | 328,134 | 1,212,852 | 101.6 |
| 2000 | 558,459 | 102,116 | 72,886 | 46,416 | 221,418 | 779,877 | 93.2 |
| 2001 | 544,988 | 78,263 | 79,156 | 48,279 | 205,698 | 750,686 | 96.3 |
| 2002 | 535,327 | 94,468 | 94,414 | 46,873 | 235,755 | 771,082 | 102.7 |
| 2003 | 539,610 | 89,906 | 87,881 | 42,724 | 220,511 | 760,121 | 98.6 |
| 2004 | 500,388 | 62,780 | 97,135 | 39,718 | 199,633 | 700,021 | 92.1 |
| 2005 | 470,922 | 88,747 | 99,658 | 47,186 | 235,591 | 706,513 | 100.9 |
| 2006 | 478,196 | 82,211 | 91,395 | 48,564 | 222,170 | 700,366 | 99.1 |
| 2007 | 458,023 | 100,720 | 86,081 | 40,120 | 226,921 | 684,944 | 97.8 |
| 2008 | 295,908 | 120,990 | 55,674 | 49,743 | 226,407 | 522,315 | 76.3 |
| 2009 | 255,561 | 65,888 | 37,180 | 22,148 | 125,216 | 380,777 | 72.9 |

[^5]
## Ninth Consecutive Year of Rise in Number of Motorcycles Over 50cc in Use

As of March 31, 2009, the number of motorcycles in use in Japan dipped to 12.68 million, down $0.9 \%$ from the previous year. By engine capacity, Class 1 motor-driven cycles, which account for $60.7 \%$ of all motorcycles in use, dropped $2.6 \%$ to 7.69 million units, whereas Class 2 motor-driven cycles in use increased $3.5 \%$ to 1.48 million units. Also, mini-sized and small-sized motorcycles in use rose $1.0 \%$ and $1.8 \%$, to 2.00 million and 1.51 million units respectively. Thus, motorcycles over 50 cc in use increased $2.0 \%$, to a total of 4.98 million units.

MOTORCYCLES IN USE BY ENGINE CAPACITY (at March 31, 2009)

In vehicle units


- TRENDS IN MOTORCYCLES IN USE (at March 31 yearly) $\times 1$ million units


MOTORCYCLES IN USE (at March 31 yearly)
In vehicle units

| Year | Motor-Driven Cycles Class 1 (50cc \& Under) | Over 50cc |  |  |  | Total | Chg. (\%) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Motor-Driven Cycles Class 2 (51cc-125cc) | Mini-Sized Motorcycles (126cc-250cc) | Small-Sized Motorcycles (Over 250cc) | Subtotal |  |  |
| 1970 | 3,727,426 | 4,431,745 | 583,316 | 109,771 | 5,124,832 | 8,852,258 | 100.5 |
| 1975 | 4,851,140 | 3,132,818 | 492,307 | 276,715 | 3,901,840 | 8,752,980 | 101.9 |
| 1980 | 8,794,335 | 2,281,006 | 506,567 | 383,639 | 3,171,212 | 11,965,547 | 109.8 |
| 1985 | 14,609,399 | 1,747,957 | 1,047,426 | 775,627 | 3,571,010 | 18,180,409 | 104.8 |
| 1990 | 13,539,269 | 1,517,228 | 1,669,771 | 1,045,519 | 4,232,518 | 17,771,787 | 97.6 |
| 1995 | 11,165,390 | 1,421,031 | 1,823,446 | 1,177,229 | 4,421,706 | 15,587,096 | 98.0 |
| 2000 | 9,643,487 | 1,337,395 | 1,704,522 | 1,288,399 | 4,330,316 | 13,973,803 | 98.0 |
| 2001 | 9,354,554 | 1,344,330 | 1,712,597 | 1,308,417 | 4,365,344 | 13,719,898 | 98.2 |
| 2002 | 9,136,832 | 1,334,792 | 1,734,395 | 1,334,354 | 4,403,541 | 13,540,373 | 98.7 |
| 2003 | 8,915,037 | 1,329,410 | 1,772,545 | 1,352,199 | 4,454,154 | 13,369,191 | 98.7 |
| 2004 | 8,739,686 | 1,341,088 | 1,810,594 | 1,370,331 | 4,522,013 | 13,261,699 | 99.2 |
| 2005 | 8,566,613 | 1,353,732 | 1,857,439 | 1,397,392 | 4,608,563 | 13,175,176 | 99.3 |
| 2006 | 8,345,225 | 1,378,714 | 1,908,402 | 1,428,149 | 4,715,265 | 13,060,490 | 99.1 |
| 2007 | 8,134,692 | 1,397,085 | 1,950,512 | 1,452,893 | 4,800,490 | 12,935,182 | 99.0 |
| 2008 | 7,902,051 | 1,429,738 | 1,976,829 | 1,478,724 | 4,885,291 | 12,787,342 | 98.9 |
| 2009 | 7,694,009 | 1,479,588 | 1,996,311 | 1,505,304 | 4,981,203 | 12,675,212 | 99.1 |

[^6]
## Motorcycle Exports Decline for Third Straight Year

Motorcycle exports in 2009 fell $45.7 \%$ from the previous year to 544,000 units. By engine capacity, exports of Class 1 motor-driven cycles plunged $60.0 \%$ to 14,000 units and exports of Class 2 motor-driven cycles slid $53.0 \%$ to 45,000 units. Exports in the mini-sized and small-sized motorcycle categories declined $32.3 \%$ and $46.8 \%$, to 101,000 and 383,000 units respectively. In 2009 the total value of motorcycle and motorcycle components exports dropped 39.3\% from the previous year to US\$ 4.4 billion, with the value of motorcycle exports falling $43.7 \%$ to US\$ 3.1 billion and the value of components exports decreasing $25.7 \%$ to US\$ 1.3 billion.

MOTORCYCLE EXPORTS BY ENGINE
CAPACITY IN 2009
In vehicle units


Over 250cc
383,380
(70.5\%)

- TRENDS IN MOTORCYCLE EXPORTS


O MOTORCYCLE EXPORTS
In vehicle units

| Year | Motor-Driven <br> Cycles Class 1 <br> (50cc \& Under) | Over 50cc |  |  |  | Total | Chg. (\%) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Motor-Driven Cycles Class 2 (51cc-125cc) | Mini-Sized Motorcycles (126cc-250cc) | Small-Sized Motorcycles (Over 250cc) | Subtotal |  |  |
| 1970 | 326,815 | 914,325 | 187,185 | 309,277 | 1,410,787 | 1,737,602 | 133.8 |
| 1975 | 288,974 | 1,546,170 | 328,313 | 527,344 | 2,401,827 | 2,690,801 | 83.0 |
| 1980 | 501,027 | 1,907,481 | 548,306 | 972,226 | 3,428,013 | 3,929,040 | 144.0 |
| 1985 | 369,167 | 1,350,412 | 296,865 | 525,038 | 2,172,315 | 2,541,482 | 119.7 |
| 1990 | 147,301 | 507,840 | 117,222 | 411,381 | 1,036,443 | 1,183,744 | 107.3 |
| 1995 | 61,627 | 691,433 | 129,961 | 442,689 | 1,264,083 | 1,325,710 | 94.2 |
| 2000 | 82,038 | 549,040 | 204,591 | 805,508 | 1,559,139 | 1,641,177 | 116.1 |
| 2001 | 59,406 | 530,728 | 194,058 | 793,221 | 1,518,007 | 1,577,413 | 96.1 |
| 2002 | 74,811 | 462,137 | 149,900 | 731,834 | 1,343,871 | 1,418,682 | 89.9 |
| 2003 | 114,315 | 312,768 | 144,873 | 708,999 | 1,166,640 | 1,280,955 | 90.3 |
| 2004 | 84,832 | 265,245 | 173,037 | 804,030 | 1,242,312 | 1,327,144 | 103.6 |
| 2005 | 57,860 | 197,378 | 177,824 | 899,161 | 1,274,363 | 1,332,223 | 100.4 |
| 2006 | 57,558 | 124,335 | 183,980 | 968,153 | 1,276,468 | 1,334,026 | 100.1 |
| 2007 | 34,192 | 134,570 | 177,673 | 886,361 | 1,198,604 | 1,232,796 | 92.4 |
| 2008 | 36,234 | 95,114 | 149,530 | 721,309 | 965,953 | 1,002,187 | 81.3 |
| 2009 | 14,493 | 44,708 | 101,298 | 383,380 | 529,386 | 543,879 | 54.3 |

[^7]
## Motorcycles Exports by Destination

## A Rise in Motorcycle Exports to Asia

Whereas motorcycle exports in 2009 increased $3.8 \%$ to Asia, they declined $60.4 \%$ to Latin America, 55.4\% to North America, $48.6 \%$ to the Middle East, $43.0 \%$ to Europe, $33.8 \%$ to Oceania, and 28.2 \% to Africa. North America and Europe have long been Japan's major motorcycle export destinations with a combined share of that market of about $80 \%$, which decreased to $72.4 \%$ in 2009.

MOTORCYCLE EXPORTS BY DESTINATION IN 2009


MOTORCYCLE EXPORT TRENDS (BY REGION OF DESTINATION)
In \%

| Asia |  | $\begin{gathered} 11.9 \\ 1.6 \end{gathered}$ | 14.7 |  | $\begin{gathered} 7.0 \\ 0: 7= \\ \hline \end{gathered}$ | $7.2$ | $6.2$ | $\begin{array}{r} 4.9 \\ 0.5 \\ 0 \end{array}$ | $7.4$ | $\begin{gathered} 5.0 \\ 0.8 \\ =0 \end{gathered}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Middle East |  |  |  |  |  |  |  |  |  |  | $0: 7=$ |
| Europe | (EU) | $\begin{gathered} 39.8 \\ (38.0) \end{gathered}$ | $\begin{gathered} 31.3 \\ (30.0) \end{gathered}$ | $\begin{gathered} 30.7 \\ (29.1) \end{gathered}$ | $\begin{gathered} 34.3 \\ (32.5) \end{gathered}$ | $\begin{gathered} 36.3 \\ (35.1) \end{gathered}$ | $\begin{gathered} 35.0 \\ (33.8) \end{gathered}$ | $\begin{gathered} 34.9 \\ (33.7) \end{gathered}$ | $\begin{gathered} 37.7 \\ (36.5) \end{gathered}$ | $\begin{gathered} 36.9 \\ (35.6) \end{gathered}$ | $\begin{gathered} 38.8 \\ (37.1) \end{gathered}$ |
| North America | (U.S.A.) | $\begin{gathered} 33.0 \\ (30.1) \end{gathered}$ | $\begin{gathered} 37.6 \\ (34.8) \end{gathered}$ | $\begin{gathered} 43.3 \\ (39.9) \end{gathered}$ | $\begin{gathered} 47.6 \\ (43.4) \end{gathered}$ | $\begin{gathered} 43.3 \\ (39.6) \end{gathered}$ | $\begin{gathered} 47.0 \\ (42.6) \end{gathered}$ | $\begin{gathered} 48.1 \\ (44.7) \end{gathered}$ | $\begin{gathered} 40.4 \\ (36.9) \end{gathered}$ | $\begin{gathered} 40.9 \\ (37.2) \end{gathered}$ | $\begin{gathered} 33.6 \\ (29.5) \end{gathered}$ |
| Latin America |  |  |  | $4.3$ |  | 6.5 | 4.0 | $3.7$ | 5.0 | 6.3 | 4.6 |
| Africa |  |  |  |  | 4.1 |  |  |  |  | 3.4 |  |
| Oceania |  | 1.7 3.5 | 3.3 | 2.3 3.6 | 2.5 3.8 | 3.9 | 4.6 | 5.0 | 5.8 | 6.7 | 8.2 |
|  |  | $\begin{aligned} & 2000 \\ & \text { Year } \end{aligned}$ | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 |

MOTORCYCLE EXPORTS BY DESTINATION IN 2009

| Destination |  |  | Over 50cc |  |  |  | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Motor-Driven <br> Cycles Class 1 <br> (50cc \& Under) | Motor-Driven Cycles Class 2 (51cc-125cc) | Mini-Sized Motorcycles (126cc-250cc) | Small-Sized Motorcycles (Over 250cc) | Subtotal |  |
| Asia | South Korea | 79 | 42 | 24 | 784 | 850 | 929 |
|  | Taiwan | 0 | 1,090 | 0 | 340 | 1,430 | 1,430 |
|  | Hong Kong | 345 | 83 | 317 | 2,610 | 3,010 | 3,355 |
|  | Singapore | 0 | 16 | 63 | 868 | , 947 | , 947 |
|  | Malaysia | 0 | 0 | 284 | 2,332 | 2,616 | 2,616 |
|  | Philippines | 0 | 6,000 | 36,000 | 38 | 42,038 | 42,038 |
|  | Other | 54 | 44 | 74 | 692 | 810 | 864 |
|  | Subtotal | 478 | 7,275 | 36,762 | 7,664 | 51,701 | 52,179 |
| Middle East | Israel | 0 | 38 | 75 | 1,031 | 1,144 | 1,144 |
|  | United Arab Emirates | 21 | 278 | 196 | 547 | 1,021 | 1,042 |
|  | Other | 27 | 98 | 622 | 1,024 | 1,744 | 1,771 |
|  | Subtotal | 48 | 414 | 893 | 2,602 | 3,909 | 3,957 |
| Europe | Sweden | 60 | 20 | 490 | 557 | 1,067 | 1,127 |
|  | Denmark | 0 | 120 | 149 | 1,023 | 1,292 | 1,292 |
|  | UK | 30 | 685 | 1,532 | 16,923 | 19,140 | 19,170 |
|  | Netherlands | 0 | 1,077 | 2,324 | 33,819 | 37,220 | 37,220 |
|  | Belgium | 0 | , 50 | 2,324 | 1,548 | 1,674 | 1,674 |
|  | France | 353 | 6,123 | 1,881 | 41,496 | 49,500 | 49,853 |
|  | - Germany | 645 | 389 | 2,011 | 28,927 | 31,327 | 31,972 |
|  | E Portugal | 5 | 78 | 30 | 937 | 1,045 | 1,050 |
|  | U Spain | 14 | 853 | 1,076 | 11,139 | 13,068 | 13,082 |
|  | Italy | 42 | 211 | 2,398 | 32,917 | 35,526 | 35,568 |
|  | Finland | 3 | 72 | 2, 111 | 628 | - 811 | -814 |
|  | Poland | 10 | 18 | 168 | 662 | 848 | 858 |
|  | Hungary | 26 | 8 | 245 | 2,379 | 2,632 | 2,658 |
|  | Greece | 9 | 16 | 244 | 2,569 | 2,829 | 2,838 |
|  | Slovenia | 3 | 4 | 18 | 560 | 582 | 585 |
|  | Czech Republic | 17 | 10 | 79 145 | 936 | 1,025 | 1,042 |
|  | Other | 9 | 17 | 145 | 545 | 1,707 | 716 |
|  | Subtotal | 1,226 | 9,751 | 12,977 | 177,565 | 200,293 | 201,519 |
|  |  |  | 0 | 55 | 305 | 360 |  |
|  | Switzerland | 0 | 0 | 518 | 4,915 | 5,433 | 5,433 |
|  | Russia | 24 | 128 | 65 | 2,386 | 2,579 | 2,603 |
|  | Croatia | 9 | 10 | 5 | 616 | 631 | 640 |
|  | Other | 0 | 5 | 44 | 328 | 377 | 377 |
|  | Subtotal | 1,391 | 9,894 | 13,664 | 186,115 | 209,673 | 211,064 |
| North America | Canada | 1,075 | 1,153 | 3,145 | 16,613 | 20,911 | 21,986 |
|  | U.S.A. | 8,344 | 1,479 | 24,230 | 126,602 | 152,311 | 160,655 |
|  | Subtotal | 9,419 | 2,632 | 27,375 | 143,215 | 173,222 | 182,641 |
| Latin America | Mexico | 41 | 260 | 475 | 1,492 | 2,227 | 2,268 |
|  | Guatemala | 0 | 20 | 566 | 112 | 698 | 698 |
|  | Honduras | 0 | 2 | 478 | 29 | 509 | 509 |
|  | Panama | 12 | 14 | 156 | 331 | 501 | 513 |
|  | Colombia | 4 | 10 | 3,038 | 2,331 | 5,379 | 5,383 |
|  | Peru | 0 | 210 | 740 | 122 | 1,072 | 1,072 |
|  | Chile | 8 | 54 | 209 | 497 | 760 | 768 |
|  | Brazil | 0 | 6 | 395 | 8,565 | 8,966 | 8,966 |
|  | Argentina | 0 | 54 | 277 | 2,486 | 2,817 | 2,817 |
|  | Other | 136 | 302 | 951 | 668 | 1,921 | 2,057 |
|  | Subtotal | 201 | 932 | 7,285 | 16,633 | 24,850 | 25,051 |
| Africa | Guinea | 0 | 1,007 | 184 | 30 | 1,221 | 1,221 |
|  | Mali | 0 | 630 | 359 | 0 | 989 | 989 |
|  | Niger | 0 | 910 | 140 | 0 | 1,050 | 1,050 |
|  | Dem Rep Congo | 0 | 1,798 | 20 | 0 | 1,818 | 1,818 |
|  | Ethiopia | 0 | 0 | 1,097 | 0 | 1,097 | 1,097 |
|  | Kenya | 0 | 712 | 698 | 10 | 1,420 | 1,420 |
|  | Uganda | 0 | 1,416 | 60 | 0 | 1,476 | 1,476 |
|  | Tanzania | 0 | 906 | 72 | 0 | 978 | 978 |
|  | Mozambique | 0 | 1,508 | 100 | 0 | 1,608 | 1,608 |
|  | Namibia | 0 | 1,351 | 0 | 0 | 1,351 | 1,351 |
|  | South Africa | 66 | 2,158 | 914 | 2,552 | 5,624 | 5,690 |
|  | Other | 12 | 3,038 | 1,485 | 1,173 | 5,696 | 5,708 |
|  | Subtotal | 78 | 15,434 | 5,129 | 3,765 | 24,328 | 24,406 |
| Oceania | Australia | 2,565 |  |  |  | 36,797 | 39,362 |
|  | New Zealand | 306 | 1,277 | 1,563 | 1,812 | 4,652 | 4,958 |
|  | Other | 7 | 66 | , 29 | 159 | 254 | 261 |
|  | Subtotal | 2,878 | 8,127 | 10,190 | 23,386 | 41,703 | 44,581 |
| Grand Totals |  | 14,493 | 44,708 | 101,298 | 383,380 | 529,386 | 543,879 |

## Climate Change and CO2 Emissions Reduction: The Response of the Transport Sector

Under the Kyoto Protocol, adopted in 1997 by most industrialized countries to reduce CO2 and other greenhouse gas emissions and enforced in February 2005, Japan pledged to reduce its annual GHG emissions volume to 6\% below the 1990 level by 2012. In April 2005, the Japanese government formulated a target achievement plan (revised in March 2008) and has since promoted diverse CO2 reduction measures in all major sectors including the industrial, consumer, and transport sectors. In line with the national initiative, the automobile industry has been making vigorous efforts with respect to increasing vehicle fuel efficiency, developing and promoting alternative-energy and next-generation vehicles, raising public awareness of eco-friendly driving practices, and supporting the government's efforts to improve traffic flow. After peaking in 2001, CO2 emissions in Japan's transport sector have been on a steady decline, owing largely to increased fuel efficiency in passenger cars and greater efficiency in goods distribution.

## - JAPAN'S GHG EMISSION VOLUMES: ACTUAL \& TARGETED under the Kyoto Protocol

Japan's GHG emissions in 1990 totalled 1,261 million tons (in equivalent tons of CO 2 ). In order for Japan to meet its target under the Kyoto Protocol, it was determined that its total annual GHG emissions would have to be reduced to 1,186 million tons by 2010. In fact, however, total GHG emissions in 2008 (preliminary figure) increased $1.9 \%$ over the 1990 level, to 1,286 million tons, marking a gap of $7.9 \%$ from the target volu me. To close that gap, further measures to reduce GHG emissions will need to be adopted in addition to the measures taken to date.
$x 1$ million tons


## ACTUAL \& TARGETED CO2 EMISSION VOLUMES IN JAPAN'S TRANSPORT SECTOR

Of Japan's total CO2 emissions, the transportation sector accounts for roughly 20\%, of which $90 \%$ are auto-emitted—making CO2 reduction in road transport a priority concern. With steadily declining CO2 emissions since 2001, the transport sector's original target of an annual total of 250 million tons of $\mathrm{CO}_{2}$ emissions by 2010 has been revised downward to a more challenging 240-243 million tons. JAMA believes this target is achievable if stakeholders throughout the sector-including automakers, fuel suppliers, government and vehicle users-make the efforts required to meet that goal.
x 1 million tons


## CO2 Emissions Reduction: Improving Vehicle Fuel Efficiency

In 1998 Japan's Energy Conservation Law recommended vehicle fuel efficiency targets for fiscal year 2010, applying "top runner" criteria whereby the leading fuel efficiency performance to date (1998) for a given vehicle weight category was established as the target value. Auto manufacturers have worked hard to comply, and in 2008 the average fuel efficiency of domestic-market new gasoline-powered passenger cars reached $16.9 \mathrm{~km} /$ liter, largely surpassing the 2010 target of $15.1 \mathrm{~km} / \mathrm{liter}$. In 2006 fuel efficiency targets were established for heavy-duty vehicles, i.e. trucks and buses weighing more than 3.5 tons, for enforcement in 2015. Furthermore, new and stricter fuel efficiency targets, also for 2015, were introduced in 2007 for passenger cars and trucks/small buses weighing 3.5 tons or less. Japan's automakers will therefore continue to advance fuel efficiency technologies in order to meet these new targets.

## - 2010 AVERAGE FUEL EFFICIENCY TARGETS FOR PASSENGER CARS \& TRUCKS



Note: Fuel efficiency here is 10.15 test cycle-measured (see page 75), and targets were established assuming the same respective shipment volume ratios by vehicle weight category for 2010 as those recorded in 1995.

Sources: Ministry of Economy, Trade and Industry; Ministry of Land, Infrastructure, Transport and Tourism
O TRENDS IN DOMESTIC-MARKET
NEW PASSENGER CAR COMPLIANCE WITH
THE 2010 FUEL EFFICIENCY TARGET Compliance rate (\%)
 Fiscal Year
Note: Compliance rates are calculated on the basis of unit sales of new gasolinepowered passenger cars.

Source: Japan Automobile Manufacturers Association
2015 AVERAGE FUEL EFFICIENCY TARGETS FOR PASSENGER CARS \& TRUCKS/SMALL BUSES

|  |  |  | (Percentage gain) |  |
| :---: | :---: | :---: | :---: | :---: |
| Passenger cars | 2015 target value $16.8 \mathrm{~km} / \mathrm{\ell}$ 2004 actual value $13.6 \mathrm{~km} / \ell$ |  |  | (23.5\%) |
| Trucks (GVW $\leq 3.5$ tons) | 2015 target value $15.2 \mathrm{~km} / \mathrm{\ell}$ 2004 actual value $13.5 \mathrm{~km} / \ell$ |  |  | (12.6\%) |
| Small buses | 2015 target value $8.9 \mathrm{~km} / \mathrm{\ell}$ 2004 actual value $8.3 \mathrm{~km} / \ell$ |  |  | (7.2\%) |
| 0km | / $\ell$ | 10 | 15 |  |

Note: Fuel efficiency here is JC08 test cycle-measured (see page 75), and targets were established assuming the same respective shipment volume ratios by vehicle weight category for 2015 as those recorded in 2004.

Sources: Ministry of Economy, Trade and Industry; Ministry of Land, Infrastructure, Transport and Tourism

## 2015 AVERAGE FUEL EFFICIENCY TARGETS

 FOR HEAVY-DUTY VEHICLES (GVW>3.5t)| Trucks |  | (Percentage gain) |
| :---: | :---: | :---: |
|  | 2015 target value $7.09 \mathrm{~km} / \ell$ <br> 2002 actual value $6.32 \mathrm{~km} / \mathrm{l}$ | (12.2\%) |
| Buses | 2015 target value $6.30 \mathrm{~km} / \ell$ 2002 actual value $5.62 \mathrm{~km} / \ell$ | (12.1\%) |
|  | / 2.5 | 7.5 |

Note: Fuel efficiency here is JE05 test cycle-measured (see page 75), and targets were established assuming the same respective shipment volume ratios by vehicle weight category for 2015 as those recorded in 2002. Sources: Ministry of Economy, Trade and Industry; Ministry of Land, Infrastructure, Transport and Tourism

O AVERAGE FUEL EFFICIENCY PERFORMANCE OF GASOLINE-POWERED PASSENGER CARS


Note: Figures are for domestic-market new passenger cars only.
Source: Japan Automobile Manufacturers Association

## VEHICLE TECHNOLOGIES FOR INCREASED FUEL EFFICIENCY



## In－Use Status of Alternative－Energy and Fuel－Efficient／Low－Emission Vehicles

Alternative－energy vehicles that run on power／fuels such as electricity，natural gas，and diesel－alternative LPG are becoming increasingly popular owing to their significantly reduced CO2 and other tailpipe emissions．In 2008 nearly 610,000 alternative－energy vehicles，including hybrid vehicles，were in circulation in Japan and that number is expected to grow．The more widespread use of alternative－energy vehicles will largely depend on the automakers＇ resolution of a number of technological issues（for fuel cell and hydrogen vehicles，for example）and on the expansion of the fuel／energy supply infrastructure．Meanwhile，the use of more fuel－efficent and low－emission gasoline－powered vehicles continues to be actively promoted．In 2008，the combined total of domestic alternative－ energy and fuel－efficient／low－emission vehicle shipments was 3.6 million units．

## DOMESTIC SHIPMENTS OF ALTERNATIVE－ENERGY \＆FUEL－EFFICIENT／LOW－EMISSION VEHICLES（Fiscal 2008）In vehicle units

|  |  | Passenger Cars |  | Trucks |  | Buses | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Standard and small－sized vehicles | Mini－ vehicles | Standard and small－sized vehicles | Mini－ vehicles |  |  | Chg．（\％） |
| Fuel cell vehicles |  | 15 | 0 | 0 | 0 | 0 | 15 | － |
| Electric vehicles |  | 0 | 0 | 0 | 0 | 0 | 0 | － |
| Hybrid vehicles |  | 117，826 | 0 | 3，063 | 63 | 149 | 121，101 | 133.8 |
| Natural gas vehicles |  | 0 | 14 | 1，618 | 714 | 33 | 2，379 | 109.4 |
| Methanol vehicles |  | 0 | 0 | 0 | 0 | 0 | 0 | － |
| Subtotal |  | 117，841 | 14 | 4，681 | 777 | 182 | 123，495 | 133.2 |
| Vehicles certified as fuel－ efficient and low－emission vehicles（see Note1） |  | 1，823，081 | 1，047，864 | 30，661 | 9，153 | 0 | 2，910，759 | 94.8 |
|  |  | 184，673 | 193，149 | 52，726 | 114，287 | 0 | 544，835 | 84.5 |
|  | 戓気気（3） | 0 | 0 | 0 | 0 | 0 | 0 | － |
|  | ららへ（4） | 0 | 0 | 0 | 17，100 | 0 | 17，100 | 15.2 |
|  | さ（5） | 0 | 0 | 0 | 0 | 0 | 0 | － |
| Subtotal |  | 2，007，754 | 1，241，013 | 83，387 | 140，540 | 0 | 3，472，694 | 90.5 |
| Diesel－alternative LPG vehicles |  | 0 | 0 | 590 | 0 | 19 | 609 | 69.7 |
| Hydrogen vehicles |  | 0 | 0 | 0 | 0 | 0 | 0 | － |
| Total |  | 2，125，595 | 1，241，027 | 88，658 | 141，317 | 201 | 3，596，798 | 91.5 |

 2000 emission standards．（4）$\hat{i} \hat{\sim}=$ Emissions down by $50 \%$ from 2000 emission standards．（5）$\hat{\sim}$＝Emissions down by $25 \%$ from 2000 emission standards．
Notes：1．Vehicles that meet or surpass 2010 fuel efficiency standards（as per Japan＇s Energy Conservation Law）and are certified compliant with the criteria for low－emission environmental performance certification（see starred rankings above）．2．＂Chg．（\％）＂means change from the previous year（with the previous year＇s result indexed at 100）．

TRENDS IN ALTERNATIVE－ENERGY \＆FUEL－EFFICIENT／LOW－EMISSION VEHICLE SHIPMENTS（DOMESTIC）


Alternative－Energy Vehicles
This designation includes hybrid，electric natural gas，methanol（virtually no longer in use）， fuel cell，diesel－alternative LPG and hydrogen vehicles．
－ $2 \hat{2} \hat{y y}$
Emissions down by 75\％from 2005 standards式会
Emissions down by 50\％from 2005 standards気放
Emissions down by 75\％from 2000 standards Ets

Emissions down by 50\％from 2000 standards $\dot{z}$

Emissions down by 25\％from 2000 standards

## TRENDS IN ALTERNATIVE－ENERGY VEHICLE USE IN JAPAN

In vehicle units

|  | Fiscal Year | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Electric vehicles |  | 2,600 | 3,800 | 4,700 | 5,600 | 7,700 | 8,500 | 9,900 | 9,400 | 9,400 | 8,900 |
| Hybrid vehicles |  | 37,400 | 50,400 | 74,600 | 91,200 | 132,500 | 196,800 | 343,600 | 429,300 | 441,300 | 536,500 |
| Natural gas vehicles | 5,252 | 7,811 | 12,012 | 16,561 | 20,638 | 24,263 | 27,605 | 31,462 | 34,203 | 37,117 |  |
| Methanol vehicles | 222 | 157 | 135 | 114 | 58 | 33 | 26 | 20 | 20 | 17 |  |
| Diesel－alternative LPG vehicles | 10,955 | 12,602 | 14,962 | 17,054 | 19,483 | 20,670 | 21,868 | 23,007 | 22,917 | 22,608 |  |
| Total | 56,429 | 74,770 | 106,409 | 130,529 | 180,379 | 250,266 | 402,999 | 493,189 | 507,840 | 605,142 |  |

Sources：Japan Automobile Research Institute；Japan Gas Association；Automobile Inspection \＆Registration Information Association；Organization for the Promotion of Low－Emission Vehicles

## CO2 Emissions Reduction: Improving Traffic Flow

Improved road traffic flow enables increased vehicle speed and increased fuel efficiency, which in turn contributes to $\mathrm{CO}_{2}$ reduction. Improving traffic flow by upgrading road networks and overall infrastructure is therefore urgently required. JAMA advocates such upgrades, including efforts to mitigate congestion at intersections, as well as the early completion of the Tokyo metropolitan area's three major beltways (or ring roads) and the greater use of expressways. To help ensure steady progress in this regard, the government and other relevant public-sector players must jointly establish a data compilation/analysis and response formulation/implementation scheme to evaluate the impact of traffic flow-related measures on $\mathrm{CO}_{2}$ reduction and to follow up accordingly. JAMA in fact conducted a quantitative assessment of the impact on $\mathrm{CO}_{2}$ reduction of the operation of the Oji section (opened for service in December 2002) of the Tokyo Metropolitan Expressway's inner beltway. This study determined that operation of the new section enabled increased average vehicle speed on that beltway and on surrounding local roads, resulting in an estimated reduction in $\mathrm{CO}_{2}$ emissions of 20,000 to 30,000 tons annually.

- IMPACT OF VEHICLE SPEED ON CO2 EMISSIONS


Average vehicle speed
Source: Japan Automobile Research Institute

- IMPACT OF THE OJI SECTION'S OPERATION ON CO2 REDUCTION

|  |  | $\begin{array}{c}\text { Before } \\ \text { Operation }\end{array}$ | $\begin{array}{c}\text { After } \\ \text { Operation }\end{array}$ | $\begin{array}{c}\text { Increase/ } \\ \text { Decrease }\end{array}$ |
| :--- | :--- | ---: | ---: | ---: |
| $\begin{array}{l}\text { Average vehicle } \\ \text { speed } \\ \text { in } \mathrm{km} / \mathrm{h}\end{array}$ | $\begin{array}{l}\text { Tokyo Metropolitan } \\ \text { Expressway }\end{array}$ | 56.0 | 56.2 | 0.2 |
|  | Local roads | 22.5 | 22.8 | 0.3 |
| $\begin{array}{l}\text { CO2 emissions } \\ \text { volume } \\ \times 10,000\end{array}$ | $\begin{array}{l}\text { tons/year }\end{array}$ |  |  |  |
|  | Expressway |  |  |  |$)$

Note: Vehicle speed and $\mathrm{CO}_{2}$ emissions were calculated on the basis of three established models, including that of the Japan Automobile Research Institute. The estimated annual $\mathrm{CO}_{2}$ reduction volume varies between 20,000 and 30,000 tons depending on the model used.

Source: Japan Automobile Manufacturers Association

## PROPOSED DATA INPUT/ANALYSIS \& RESPONSE FORMULATION SCHEME FOR IMPROVED TRAFFIC FLOW



Source: Japan Automobile Manufacturers Association

## CO2 Reductions at Production Plants

In line with an environmental action plan formulated by JAMA in 1996, Japan's automobile manufacturers have implemented multiple energy-conservation measures at their production facilities. The original target of a $10 \%$ slash in plant CO2 emissions by 2010 compared to the 1990 level was revised in 2007 and 2008 (to cuts of $12.5 \%$ and $22 \%$, respectively), to be achieved jointly with Japan's auto-body manufacturers from 2008 on. In 2009, the joint target for 2010 was further revised to a stringent $25 \%$ reduction, down to 6.32 million tons. In 2008, however, combined plant $\mathrm{CO}_{2}$ emissions dropped to 5.07 million tons, a $39.9 \%$ plunge from the 1990 level, attributable to the large decrease in production volumes resulting from the economic downturn that began in autumn of that year.

O REDUCTIONS IN PRODUCTION PLANT-GENERATED CO2 EMISSIONS
CO2 emissions
( $\times 1$ million tons)


CO2 emissions/ production value ( x ,, 000 tons $\mathrm{CO}_{2}$ per 1 trillion yen)

## Promoting Vehicles with Greater Fuel Efficiency and Lower Emissions

Vehicles with greater fuel efficiency help counter global warming through their reduced emission of CO2, while vehicles with reduced tailpipe emissions help improve air quality. The Japanese government has established one certification system for gasoline and diesel vehicles as well as heavy-duty trucks and buses with advanced fuel efficiency; another certification system for gasoline and diesel (including heavy-duty) vehicles whose emissions performance is superior to current regulatory levels for carbon monoxide (CO), nitrogen oxides (NOx), and particulate matter (PM); and a third certification system for trucks and buses that comply with 2009 or 2005 emission (including NOx and PM) standards or with the "long-term" or "new short-term" regulatory standards (see page 30). To boost widespread public awareness of vehicles with advanced fuel efficiency and/or low emissions, such vehicles are identified with appropriately coded stickers (see below; sticker affixation is optional only when emissions performance is under the four-star rating).

## ADVANCED FUEL EFFICIENCY CERTIFICATION

For Gasoline and LPG Vehicles

| Rating/Performance Level |  | Vehicle <br> Sticker |
| :--- | :--- | :--- |
| Compliant +25\% <br> compared to <br> standards | Performing 25\% better <br> or more compared to <br> 2010 target fuel <br> efficiency standards |  |
| Compliant +20\% <br> compared to <br> standards | Performing 20\% better <br> or more compared to <br> 2010 target fuel <br> efficiency standards |  |
| Compliant +15\% <br> compared to <br> standards | Performing 15\% better <br> or more compared to <br> 2010 target fuel <br> efficiency standards |  |

For Diesel Vehicles

| Rating/Performance Level |  | Vehicle <br> Sticker |
| :--- | :--- | :--- |
| Compliant +25\% <br> compared to <br> standards | Performing 25\% better <br> or more compared to <br> 2005 fuel efficiency <br> standards |  |
| Compliant +20\% <br> compared to <br> standards | Performing 20\% better <br> or more compared to <br> 2005 fuel efficiency <br> standards |  |
| Compliant +15\% <br> compared to <br> standards | Performing 15\% better <br> or more compared to <br> 2005 fuel efficiency <br> standards |  |

For Trucks and Buses with GVW>2.5 tons

| Rating/Performance Level |  | Vehicle Sticker |
| :---: | :---: | :---: |
| Compliant with standards | Meeting 2015 target fuel efficiency standards or better | (5in |

## ENVIRONMENTAL PERFORMANCE CERTIFICATION FOR VEHICLES WITH LOW EMISSIONS

| Rating/Performance Level |  | Vehicle Sticker |
| :---: | :---: | :---: |
| そう $\hat{*}$ | Emissions down by 75\% from 2005 standards |  |
| $\star$ | Heavy-duty diesel vehicles compliant with, and with NOx and PM emissions down by 10\% from, 2005 standards |  |
| E | Heavy-duty diesel vehicles compliant with, and with NOx emissions down by $10 \%$ from, 2005 standards |  |
| E | Heavy-duty diesel vehicles compliant with, and with PM emissions down by $10 \%$ from, 2005 standards |  |

## LOW NOx \& PM EMISSIONS CERTIFICATION FOR TRUCKS AND BUSES

| Rating/Performance Level | Vehicle <br> Sticker |
| :--- | :---: |
| Compliant with 2009 emission standards |  |
| Compliant with 2005 emission standards |  |

## Vehicle Exhaust Emissions: New Regulations Enforced in 2009

Japan's vehicle exhaust emissions regulations have always been among the most stringent in the world, and its automakers have worked very hard to develop the advanced technologies required to comply with them. As a result, NOx and other atmospheric pollutant levels have been on a steady decline even in large urban areas. In April 2005, the Ministry of the Environment-affiliated Central Environment Council's report entitled Future Policy for Motor Vehicle Exhaust Emissions Reduction recommended that stricter and uniform limit values be applied to gasoline and diesel vehicle emissions alike, beginning with new regulations enforced as of 2009. Air quality standards for 2010 should be largely satisfied nationwide through compliance with those regulations.

## COMPARISON OF HEAVY-DUTY DIESEL TRUCK EMISSIONS REGULATIONS

|  |  | NOx <br> Nitrogen oxides | HC <br> Hydrocarbons | NMHC <br> Non-methane hydrocarbons | CO <br> Carbon monoxide | PM <br> Particulate matter |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Japan (GVW=Over 3.5 tons) |  |  |  |  |  |  |
| Long-term regulations (1997, 1998, 1999) |  | 4.50 | 2.90 | - | 7.40 | 0.25 |
| New short-term regulations ( 2003,2004 ) |  | 3.38 | 0.87 | - | 2.22 | 0.18 |
| New long-term regulations (2005) |  | 2.0 | - | 0.17 | 2.22 | 0.027 |
| Post-new long-term regulations (2009, 2010) |  | 0.7 (1) | - | 0.17 | 2.22 | 0.01 |
| U.S.A. (GVW=Over 3.85 tons) |  |  |  |  |  |  |
| 1998 standard |  | 5.36 | 1.74 | - - | 20.78 | 0.134 |
| 2004 standard |  | Automobile manufacturers must comply with one of the following: <br> 1) $\mathrm{NOx}+\mathrm{NMHC} 3.22$ <br> 2) $\mathrm{NOx}+\mathrm{NMHC} 3.35$ with mandatory NMHC value of 0.67 |  |  | 20.78 | 0.134 |
| 2007 standard |  | 0.27 | - | 0.188 | 20.78 | 0.013 |
| 2010 standard |  | 0.27 | - | 0.188 | 20.78 | 0.013 |
| Europe (GVW=Over 3.5 tons) |  |  |  |  |  |  |
| EURO II (1995) |  | 7.0 | 1.1 | - | 4.0 | 0.15 |
| EURO III (2000) | Transient mode | 5.0 | - | 0.78 | 5.45 | 0.16 |
|  | Steady state mode | (5.0) | (0.66) | - | (2.1) | (0.10) |
| EURO IV (2005) | Transient mode | 3.5 | - | 0.55 | 4.0 | 0.03 |
|  | Steady state mode | (3.5) | (0.46) | - | (1.5) | (0.02) |
| EURO V (2008) | Transient mode | 2.0 | - | 0.55 | 4.0 | 0.03 |
|  | Steady state mode | (2.0) | (0.46) | - | (1.5) | (0.02) |
| EURO VI (2013) | Transient mode | 0.4 | 0.16 | - | 4.0 | 0.01 |
|  | Steady state mode | (0.4) | (0.13) | - | (1.5) | (0.01) |
| EEV | Transient mode | 2.0 | - | 0.40 | 3.0 | 0.02 |
|  | Steady state mode | (2.0) | (0.25) | - | (1.5) | (0.02) |

[^8] value and enforcement date are to be decided by the Central Environment Council in 2010.
Notes: 1. GVW (gross vehicle weight) (Japan) = Vehicle weight + Maximum load + Maximum occupants $\times 55 \mathrm{~kg}$. Weight per occupant and other details slightly differ from those of U.S. and European regulations. 2. Japan's 1997-2004 regulations apply to the over 2.5 t GVW vehicle category; regulations as of 2005 apply to the over 3.5 t GVW vehicle category. 3 . EURO III (Europe): All vehicle categories are regulated in the steady state (ESC) mode only, except DPF- and NOx reduction catalyst-equipped vehicles, which are regulated in both modes. Beginning with EURO IV, all vehicle categories, whether DPF- and NOx reduction catalyst-equipped or not, are regulated in both the steady state (ESC) and transient (ETC) modes. 4. EEV (Europe): Enhanced Environmentally Friendly Vehicles. EEV regulations constitute a special category and are applied by EU member countries only in specific instances when urban air quality is particularly poor (for example, when temporary restrictions on vehicle circulation in cities are enforced). Emission values indicated are provisional. 5. The U.S.' 2007 standard permits an NOx compliance level of around 1.6 g until 2010 depending on engine family type. Source: Ministry of the Environment

## COMPARISON OF HEAVY-DUTY DIESEL TRUCK EMISSIONS REGULATIONS (PM and NOx)



MOTOR VEHICLE EMISSIONS REGULATIONS IN JAPAN

(1) All vehicles weighing 3.5 t or less are regulated as follows: Beginning in 2008, on the basis of (values measured in cold-start state in JC08 test cycle) $\times 0.25+$ (values measured in 10.15 test cycle) $\times 0.75$; and beginning in 2011, on the basis of (values measured in cold-start state in JC08 test cycle) $\times 0.25+$ (values measured in warm-start state in JC08 test cycle) $\times 0.75$. (2) PM values apply only to direct-injection, lean-burn vehicles equipped with absorption-type NOx reduction catalysts. (3) Small-sized diesel passenger cars have an equivalent inertia weight (EIW) of 1.25 (GVW of 1.265 t) or less, and mid-sized diesel passenger cars have an EIW over 1.25 t. (4) Medium-duty diesel vehicles weighing 2.5 t or less and heavy-duty diesel vehicles weighing 12 t or less are scheduled to be regulated beginning in 2010. (5) To be reduced to approximately one-third of the value indicated in the chart $(0.7 \mathrm{~g} / \mathrm{kWh})$ as a post-2009 target value; exact value and enforcement date are to be decided by the Central Environment Council in 2010.
Note: CO: carbon monoxide; NMHC: non-methane hydrocarbons; HC: hydrocarbons; NOx: nitrogen oxides; PM: particulate matter.

## Improving Air Quality

Japan's central government as well as local governments in the greater Tokyo region have implemented measures to address air-quality problems caused by motor vehicles. In accordance with national legislation aimed at curbing nitrogen oxide (NOx) and particulate matter (PM) emissions in major metropolitan areas, the issuance of inspectioncompliance certification is prohibited for vehicles that fail to meet the legal standards at inspection time. Moreover, the Tokyo metropolitan and surrounding prefectural governments have introduced additional regulations for diesel vehicles for the specific purpose of reducing PM emissions. Enforcement of these regulations means that restrictions are imposed on diesel vehicle circulation in the areas concerned.

## PROVISIONS OF THE NATIONAL MOTOR VEHICLE NOx \& PM EMISSIONS ACT/ DIESEL-VEHICLE PM EMISSION REGULATIONS FOR THE GREATER TOKYO REGION

|  | Provisions of the National Motor Vehicle NOx \& PM Emissions Act (Major Metropolitan Areas) | Provisions of PM Emission Regulations for Diesel Vehicles (Greater Tokyo Region Only) |
| :---: | :---: | :---: |
| Areas Regulated | Tokyo, Osaka, and Saitama, Chiba, Kanagawa, Aichi, Mie, and Hyogo prefectures (designated areas) | Tokyo (except for islands) and Saitama, Chiba, and Kanagawa prefectures (all areas) |
| Vehicle Types Regulated | Diesel, gasoline, and LPG trucks and buses Diesel passenger cars | Diesel trucks and buses <br> Note: Not applicable to diesel passenger cars with up to 10-passenger occupancy |
| Substances Regulated | NOx and PM | PM only |
| Regulatory Values in Force | Trucks and Buses GVW = Gross vehicle weight <br> GVW=Under 1.7 tons: <br> NOx Same as 1988 regulatory values for new gasoline vehicles PM Half the 2002 regulatory values for new diesel vehicles GVW=1.7 to 2.5 tons: <br> NOx Same as 1994 regulatory values for new gasoline vehicles PM Half the 2002 regulatory values for new diesel vehicles <br> GVW=2.5 to 3.5 tons: <br> NOX Same as 1995 regulatory values for new gasoline vehicles PM Half the 2003 regulatory values for new diesel vehicles GVW=Over 3.5 tons: <br> NOx Same as 1998-1999 regulatory values for new diesel vehicles PM Same as 1998-1999 regulatory values for new diesel vehicles <br> Passenger Cars <br> NOx Same as 1978 regulatory values for new diesel vehicles PM Half the 2002 regulatory values for new diesel vehicles | In Chiba and Kanagawa, same as 1997, 1998, and 1999 regulatory values for new diesel vehicles <br> In Tokyo and Saitama, same as 2002, 2003, and 2004 regulatory values for new trucks and buses |
| Specific Provisions | New Vehicles <br> In regulated areas, new vehicles not meeting the standards cannot be registered. <br> Vehicles in Use <br> Regulated vehicles whose principal places of use (as declared in their inspection certificates) fall in regulated areas and that do not meet the standards will not be granted inspection certification after grace periods have expired. <br> Note: Vehicles whose principal places of use (as declared in their inspection certificates) do not fall in regulated areas can travel through regulated areas even if they do not meet the standards. | New Vehicles <br> No restriction. <br> Vehicles in Use <br> Vehicles not meeting the standards will be prohibited from travelling through regulated areas after grace periods have expired. Vehicles equipped with local government-specified PM reduction systems are deemed to be in compliance with the standards. <br> Note: Applicable to diesel trucks and buses registered anywhere in Japan and travelling through regulated areas. |
| Grace Periods |  | Seven years from first registration, regardless of vehicle type (truck or bus) <br> Note: Except in Chiba Prefecture, where vehicles neither registered in nor travelling through areas designated under the national Motor Vehicle NOx and PM Emissions Act will be exempted for a period of 12 years, provided vehicle owners apply for such an exemption. |

## Reducing Automobile-Emitted Noise

Automobiles generate various kinds of noise, including the noise emitted by the engine, intake system, powertrain, and cooling and exhaust systems. In addition, tires generate tire/road noise. Automotive noise in Japan is regulated by standards-on accelerated running noise, steady running noise, and stationary exhaust proximity noise-which have become progressively more stringent, requiring automakers to develop the technologies necessary for compliance. All vehicles manufactured as of September 2003 comply with the latest noise standards. Furthermore, strengthened regulations in effect from April 2010 mandate a) that mufflers be tamper-resistant so as to prevent the alteration of their noise-suppression performance, and b) that replacement mufflers meet Japan's accelerated running noise standard through type approval compliance and be ID-marked accordingly.

## THE PROGRESS IN MOTOR VEHICLE NOISE REDUCTION (accelerated running noise)



Source: Japan Automobile Manufacturers Association

## - testing motor vehicle noise levels



Steady running noise


Exhaust proximity noise


O OVERVIEW OF JAPAN'S MOTOR VEHICLE NOISE REGULATIONS (for accelerated running noise)

| Vehicle Type |  |  |  | Regulation |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | 1971 | 1976-1977 | 1979 | 1982-1987 | 1998-2001 |
| Large-Sized Vehicles | Vehicles with GVW>3.5 tons and maximum engine output>150 kW |  | vehicles, etc. <br> Trucks <br> Buses | 92 | 89 | 86 | 83 | $\begin{aligned} & 82 \\ & -81 \\ & -81 \end{aligned}$ |
| Medium-Sized Vehicles | Vehicles with GVW>3.5 tons and maximum engine output $\leq 150 \mathrm{~kW}$ | $4 \mathrm{~W}$ | vehicles, etc. <br> Trucks <br> Buses | 89 | 87 | 86 | 83 | $\begin{array}{r} 81 \\ -80 \\ 80 \\ \hline \end{array}$ |
| Small-Sized Vehicles | Vehicles with GVW $\leq 3.5$ tons | Other than mini-vehic Mini-vehic | GVW>1.7 tons $\mathrm{GVW} \leq 1.7$ tons "Bonnet" type Cab-over-engine type | 85 | 83 | 81 | 78 | 76 -76 -76 -76 |
| Passenger Cars | Vehicles exclusively for the transport of passengers, with up to 10-passenger occupancy | Over 6 occ <br> 6 occupan | ants <br> or fewer | 84 | 82 | 81 | 78 | 76 76 |
| Motorcycles | Small-sized motorcycles (over 250cc) and mini-sized motorcycles (126cc-250cc) |  | Small-sized <br> Mini-sized | $\begin{array}{r} 86 \\ \hline 84 \\ \hline \end{array}$ | 83 | 78 | 75 | $\begin{aligned} & 73 \\ & 73 \\ & \hline \end{aligned}$ |
| Motor-Driven Cycles | Class 1 motor-driven cycles (50cc \& under) and Class 2 motor-driven cycles (51cc-125cc) |  | Class 2 | $\begin{array}{r} 82 \\ -80 \\ \hline \end{array}$ | 79 | 75 | 72 | $\begin{aligned} & 71 \\ & \hline 71 \end{aligned}$ |

Notes: 1. In pre-1987 regulations, " 150 kW " reads " 200 horsepower." 2. "4WD vehicles, etc." includes 4WDs, tractors, and cranes.

## Vehicle Recycling and Waste Reduction

Under Japan's End-of-Life Vehicle (ELV) Recycling Law which entered into force in January 2005, automobile manufacturers and importers are responsible for recovery, recycling and appropriate disposal with respect to fluorocarbons, airbags, and automobile shredder residue (ASR). Compliance with the law was anticipated to enable ASR to be recycled at a rate of $70 \%$ by 2015, resulting in an automobile recycling rate, by vehicle weight, of $95 \%$ (as compared with the $80 \%$ rate prevailing prior to the introduction of the law); those rates were in fact surpassed in 2008. Japan's vehicle recycling infrastructure as mandated by its ELV Recycling Law is the first in the world to administer the entire process of auto recycling-from ELV recovery to final disposal-on the basis of electronic "manifests" (or compliance checklists). JAMA itself played a central role in the development and implementation of this advanced vehicle recycling system. It also provided financial support for related software development and continues to help finance system maintenance and upgrades. In line with national efforts to "reduce, reuse, recycle," Japan's automakers are also striving to design vehicles using lightweight materials that are easy to dismantle and recycle, and to reduce and recycle waste generated in the manufacturing process. In 2008 the total volume of auto plant-generated waste destined for landfill disposal dropped to 1,400 tons, a $99.6 \%$ decrease from the 1990 level, very largely surpassing the 2010 target of 11,000 tons.

## INDUSTRY MEASURES IN LINE WITH NATIONAL LEGISLATION

|  | Promotion of Effective Utilization of Resources Law (the "3-R" Law) |  |  | End-of-Life Vehicle Recycling Law |
| :---: | :---: | :---: | :---: | :---: |
|  | Product Design | Waste Management |  | ELV Recycling |
| "Reduce" initiatives | For designated products: <br> - Weight reduction/ Downsizing <br> - Longer product life <br> - Reduced use of hazardous substances | For designated areas of activity: <br> - Reduction/recycling of designated waste products generated in vehicle manufacturing operations: <br> 1) Scrap metals <br> 2) Casting sand residue |  |  |
| "Reuse" initiatives | For designated products: <br> - Use of recyclable materials |  |  | - Recovery and recycling of: <br> 1) ASR <br> 2) Airbags <br> 3) Fluorocarbons <br> Note: Motorycles are not covered by <br> the ELV Recycling Law. |
| "Recycle" initiatives | - Ease of dismantling <br> - Ease of sorting <br> - Non-hazardous recycling <br> - Materials identification | - Total waste volume*: <br> 1990 (baseline): 352,000 tons <br> $\downarrow$ <br> 2008: 1,400 tons <br> (a 99.6\% reduction from 1990) <br> JAMA target: <br> 11,000 tons by FY 2010 <br> *For landfill disposal, including scrap <br> metals, casting sand residue, and <br> other waste. |  | ( |

## ELV RECOVERY IN NUMBERS

In vehicle units

| Fiscal Year |  | 2008 | 2009 |
| :---: | :--- | :---: | :---: |
| No. of ELVs recovered |  | $3,580,882$ | $3,918,415$ |
| Appropriate <br> disposal of <br> 3 designated <br> items | Fluorocarbons | $2,717,277$ | $3,059,873$ |
|  | Airbags *1 | $1,306,233$ | $1,697,379$ |
|  | ASR *2 | $3,547,252$ | $3,800,649$ |

*1. Through recovery/appropriate disposal of inflators or through onboard deactivation.
*2. Covers all categories of processors, whether for direct disposal or for transfer to other markets.

## RECYCLING RATES: TARGETED \& ACHIEVED

| Three Designated <br> Items | Target | Achieved |
| :--- | :--- | :--- |
| Fluorocarbons | Destruction | 3.06 million <br> vehicle units (2009) |
| Airbags | $85 \%$ | $94 \%-95 \%$ (2008) |
| ASR | $2005: 30 \%$ <br> $2010: 50 \%$ <br> $2015: 70 \%$ | $72 \%-81 \%$ (2008) |

THE ELV RECYCLING FLOW (as per the provisions of the End-of-Life Vehicle Recycling Law)


Note: The Japan Automobile Recycling Promotion Center assumes the same responsibilities as automobile manufacturers and importers when an ELV has no manufacturer representation under the provisions of this law. It also assumes transport-to-mainland costs for ELVs turned in on Japan's smallest islands. In addition, this organization provides financial assistance in the disposal of illegally abandoned vehicles.

## REDUCTIONS IN PRODUCTION PLANT-GENERATED WASTE

As a result of the efforts made by Japan's automobile manufacturers, the total volume of auto plant-generated waste destined for landfill has decreased dramatically despite the overall growth trend in vehicle production. Having shrunk in 2005 to 8,000 tons, down more than $97 \%$ from the 1990 baseline level and for the first time surpassing the 2010 target of 11,000 tons, plant-generated waste dropped to 1,400 tons in 2008 , a $99.6 \%$ decrease from the 1990 level.


## Voluntary Initiatives to Recycle Commercial Vehicle Rack Equipment and Motorcycles

Japan's End-of-Life Vehicle Recycling Law does not cover some types of commercial vehicle rack and custom equipment, nor does it cover motorcycles. In response, JAMA i) promotes the development and use of rack equipment that is easy to dismantle and contains minimal amounts of hazardous substances, and ii) has introduced a nationwide cooperative recycling and disposal system for such equipment (participiation in the system by recycling operators is voluntary and steadily expanding). In October 2004, JAMA's four motorcycle-manufacturing members along with 12 motorcycle importers in Japan voluntarily launched a motorcycle recycling system, under which end-oflife motorcycles are delivered to designated ELV motorcycle dealers (about 15,000 nationwide) or certified collection centers (about 190 nationwide); abandoned motorcycles are delivered directly to certified collection centers by local authorities. Collected ELV motorcycles are then processed and recycled in the same way as electrical appliances. The Japan Automobile Recycling Promotion Center responds to inquiries about this motorcycle recycling system.

## COMMERCIAL VEHICLE RACK EQUIPMENT NOT COVERED BY THE END-OF-LIFE VEHICLE RECYCLING LAW

| Vehicles Not Covered by <br> the End-of-Life Vehicle Recycling Law |  |
| :---: | :--- |
| Van-type CVs <br> such as: | Freezer trucks/vans, <br> refrigerator trucks/vans, <br> dry vans, etc. |
| Tank-type CVs <br> such as: | Tank trucks, cement mixers, <br> waterspraying trucks, <br> water-supply trucks, <br> sewage removal trucks, etc. |
| Hauling CVs <br> such as: | Specialized hauling trucks, <br> vehicle carriers, container trucks, <br> lift-equipped vehicles, etc. |
| Special- <br> purpose CVs <br> such as: | Special all-terrain vehicles, <br> fire trucks, wreckers, <br> pump trucks, <br> ladder-equipped vehicles, etc. |

THE MOTORCYCLE RECYCLING FLOW
$\xrightarrow{\longrightarrow}$

Payment/funds remittance flow


Motorcycle Recycling Mark (the "R mark")


ELV Motorcycle
Dealer
Designation


## Automobiles and Society

## Road Safety (1) Status of Road Accidents

## Road Accidents Continue to Decline, with Fatalities Dropping Below 5,000

Road fatalities (defined as occurring within 24 hours after the accident) in Japan in 2009 totalled 4,914, marking the ninth consecutive annual decrease and dropping below 5,000 for the first time since 1952. The government's objective of reducing the annual number of road fatalities to below 5,000 by 2012 was thus achieved three years ahead of the target date. Road accidents and road injuries also declined, for the fifth consecutive year, to 736,688 and 910,115 respectively. Increased seatbelt use is one of the major factors behind the downward trend in road fatalities. The June 2008 revision to the Road Traffic Act required all automobile passengers, including rear-seat occupants, to use seatbelts. As a result, the rate of use of rear seatbelts in 2009 increased to $33.5 \%$ on regular roads and to $63.4 \%$ on expressways. However, the rate of use of rear seatbelts remains low compared to that of front seatbelts, which approaches $100 \%$. Further measures are needed to encourage rear-seat occupants to buckle up.

ROAD ACCIDENTS/INJURIES/FATALITIES


Fatalities (Number of persons)

Accidents (Number of accidents)

ROAD ACCIDENTS/INJURIES/FATALITIES (exact figures)

| Year | 1970 | 1975 | 1980 | 1985 | 1990 | 1995 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Accidents | 718,080 | 472,938 | 476,677 | 552,788 | 643,097 | 761,789 | 931,934 | 947,169 | 936,721 | 947,993 | 952,191 | 933,828 | 886,864 | 832,454 | 766,147 |
| Injuries | 936,688 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| (Number of persons) | 981,096 | 622,467 | 598,719 | 681,346 | 790,295 | 922,677 | $1,155,697$ | $1,180,955$ | $1,167,855$ | $1,181,431$ | $1,183,120$ | $1,156,633$ | $1,098,199$ | $1,034,445$ | 945,504 |
| Fatalities <br> (Number of persons) | 16,765 | 10,792 | 8,760 | 9,261 | 11,227 | 10,679 | 9,066 | 8,747 | 8,326 | 7,702 | 7,358 | 6,871 | 6,352 | 5,744 | 5,155 |

## SEATBELT USE RATES BY SEAT POSITION

Driver's seat Front passenger's seat Rear seat
In \%
Regular Roads


| Expressways |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 97.1 | 97.4 | 97.3 | 97.7 | 98.2 | 98.5 | 99.0 | 99.2 |
|  | , |  | - | …… | ㅈ..… | :":1: |  |
| 90.6 | 91.4 | 91.3 | 92.1 | 93.0 | 93.5 | 96.4 | 96.9 |
|  |  |  |  |  |  | 62.5 |  |
|  |  |  |  |  |  |  |  |
|  | 11.0 | 11.5 | 9.8 | 12.7 | 13.5 |  |  |
| 2002 | 03 | 04 | 05 | 06 | 07 | 08 | 09 |
| Year |  |  |  |  |  |  |  |

Notes: 1. The survey on seatbelt use is conducted annually in October. 2. 2009 survey samples totalled roughly 416,000 on regular roads and 89,000 on expressways.

Sources: National Police Agency; Japan Automobile Federation

## ROAD ACCIDENTS IN 2009 BY ROAD CONFIGURATION <br> Number of accidents

Notes: 1. "Straightaway" includes some curves and tunnels. 2. "Other" includes railroad crossings.

## Automobiles and Society

## Equipping More Vehicles with Advanced Safety Features

Road accidents, injuries and fatalities in Japan continued to decline in 2009 (see page 38). Nevertheless, road accidents still claim thousands of lives every year in Japan and in 2009, they injured more than 900,000 people. Further efforts are therefore required to make the nation's roads safer for all their users. Road safety involves three factors-vehicles, road users, and road infrastructure-and greater road safety requires that progress be made in all three areas. The automotive industry continuously strives for greater active safety by enhancing and expanding the installation rates of onboard vehicle safety equipment to help prevent accident occurrence. At the same time, it seeks to increase passive safety through enhanced structural safety and vehicle features designed to mitigate injury when accidents do occur.

VEHICLE SAFETY FEATURES \& YEAR OF INTRODUCTION

| Year | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009- |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Active Safety | Inter-vehicle distance warning <br> - Adaptive cruise control <br> With low-speed following mode) |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  | - Lane-keeping assist <br> - Blind-corner monitoring |  |  |  |  |  |  |  |  |
|  |  |  |  |  | - Nigh | on mo Navig Adap Park Collis | ring r-base frontmitiga | arshif ing sy braki | trol (A <br> (AFS) <br> stem | only) |  |  |
|  | - Active head restraints |  |  |  |  |  |  |  |  |  |  |  |
| Passive Safety |  |  |  |  |  |  |  |  |  |  |  |  |
|  | - Pedestrian protection vehicle design <br> - ISOFIX anchorages (for child safety seats) |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  | Adva | com |  | structain Pre-c | seatbe |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  | Auto | ic pop <br> le airb | hood |

Source: Japan Automobile Manufacturers Association
SAFETY FEATURE ONBOARD INSTALLATION STATUS (for passenger cars produced in 2008 for home market)

|  | Safety Feature | Installation Status |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | In no. of models (see Note 1) |  | $\begin{gathered} \text { In \% } \\ \text { (see Note 2) } \end{gathered}$ | In vehicle units | $\begin{gathered} \text { In \% } \\ \text { (see Note 2) } \end{gathered}$ |
| Active Safety | Anti-lock braking system (ABS) | 177 | (139) | 98.3 | 3,653,307 | 87.4 |
|  | Brake assist | 167 | (133) | 92.8 | 3,677,084 | 88.0 |
|  | Unfastened seatbelt warning (driver's seat) | 176 | (138) | 97.8 | 3,866,386 | 92.5 |
|  | Unfastened seatbelt warning (front passenger's seat) | 54 | (54) | 30.0 | 1,246,359 | 29.8 |
|  | High-intensity discharge headlamps | 142 | (38) | 78.9 | 1,717,574 | 41.1 |
|  | Adaptive front-lighting system (AFS) | 40 | (18) | 22.2 | 271,562 | 6.5 |
|  | Back-up monitoring (rear obstacle detection) | 96 | (27) | 53.3 | 588,010 | 14.1 |
|  | Vehicle perimeter monitoring | 32 | (2) | 17.8 | 166,140 | 4.0 |
|  | Vehicle perimeter obstacle warning | 25 | (3) | 13.9 | 164,403 | 3.9 |
|  | Blind-corner monitoring | 6 | (0) | 3.3 | 43,069 | 1.0 |
|  | Night vision monitoring | 2 | (0) | 1.1 | 1,106 | 0 |
|  | Curve detection | 18 | (2) | 10.0 | 173,758 | 4.2 |
|  | Tire pressure monitoring | 7 | (6) | 3.9 | 34,890 | 0.8 |
|  | Driver inattention warning | 15 | (0) | 8.3 | 62,340 | 1.5 |
|  | Inter-vehicle distance warning | 37 | (13) | 20.6 | 30,543 | 0.7 |
|  | Lane deviation warning | 17 | (2) | 9.4 | 13,266 | 0.3 |
|  | Rear collision warning-equipped headrest control | 13 | (7) | 7.2 | 34,681 | 0.8 |
|  | Collision-mitigation braking system (pre-crash safety) | 40 | (7) | 22.2 | 34,167 | 0.8 |
|  | Adaptive cruise control | 42 | (15) | 23.3 | 32,328 | 0.8 |
|  | Adaptive cruise control with low-speed following mode | 7 | (1) | 3.9 | 11,016 | 0.3 |
|  | Full-range adaptive cruise control | 5 | (0) | 2.8 | 7,054 | 0.2 |
|  | Lane-keeping assist | 16 | (2) | 8.9 | 4,200 | 0.1 |
|  | Back-up monitoring (parking assistance) | 18 | (0) | 10.0 | 64,621 | 1.5 |
|  | Navigator-based gearshift control | 27 | (9) | 15.0 | 130,030 | 3.1 |
|  | Pre-crash seatbelts | 49 | (28) | 27.2 | 644,178 | 15.4 |
|  | Electronic stability control | 105 | (38) | 58.3 | 484,576 | 11.6 |
|  | Traction control with ABS | 107 | (39) | 59.4 | 611,090 | 14.6 |
|  | Navigator-based stop sign alert with brake assist | 3 | (3) | 1.7 | 53,682 | 1.3 |
|  | Rearward-approaching-vehicle warning | 1 | (0) | 0.6 | 329 | 0 |
| Passive Safety | Side airbags | 125 | (41) | 69.4 | 786,416 | 18.8 |
|  | Curtain airbags | 121 | (34) | 67.2 | 598,339 | 14.3 |
|  | Active head restraints | 107 | (89) | 59.4 | 2,288,203 | 54.8 |
|  | ISOFIX anchorages (for child safety seats) | 127 | (102) | 70.6 | 3,243,382 | 77.6 |
|  | Three-point seatbelt for rear center seat* | 65 | (52) | 47.1 | 674,386 | 23.1 |
|  | Total | 180 |  |  | 4,178,390 |  |

Notes: 1. "In no. of models" indicates the number of models in which the safety feature is installed as standard or optional equipment. Figures in parentheses indicate the number of models in which the safety feature is standard equipment. 2. "In \%" means as a percentage of the total number of models/units produced. 3. Passenger cars here include minicars.

## JAMA Initiatives in Promoting Greater Road Safety

In April 2004 JAMA pledged its support of the Japanese government's goal to reduce road fatalities by 50\% over a period of ten years. JAMA's own initiatives towards that goal are outlined below.

## - JAMA'S ROAD SAFETY INITIATIVES IN EIGHT PRIORITY AREAS

| Priority Area | Road Users: Public Awareness Campaigns | Vehicles: Safety Measures | Road Infrastructure: Proposals to Government |
| :---: | :---: | :---: | :---: |
| (1) Accidents involving pedestrians or cyclists | - Continued implementation of road safety public awareness campaigns, based on the results of accident causation studies. | - More widespread application of AFS (*1), ABS (*2), BA (*3), and stability control. | - For infrastructural improvements, based on the results of accident causation studies. |
| (2) Special measures for the elderly | - Development of road safety educational programs specifically for the elderly. | - Development of technologies specifically geared to aging-related physical changes. | - For more widespread roadway/sidewalk demarcation and greater barrier-free mobility. |
| (3) Greater use of seatbelts | - Public awareness campaigns to promote the use of seatbelts. | - More widespread application of warning devices that remind vehicle occupants to buckle up. |  |
| (4) Delays in driver recognition and incorrect vehicle control | - Campaigns aimed at preventing faulty driver recognition and incorrect vehicle control. | - Research into the mechanisms of accident causation and human-machine interface conditions using data recorders, etc. |  |
| (5) Accidents occurring at twilight/night | - Campaigns to promote the early lighting of automobile headlamps. | - More widespread application of AFS. | - For improved nighttime road illumination. |
| (6) Accidents occurring at intersections | - Public awareness campaigns to encourage drivers to exercise greater caution at intersections, where the majority of fatal road accidents occur. | - More widespread application of $A B S, B A$, and stability control. <br> - Improvement of side-impact protection performance. | - For road infrastructure regulations for effective utilization of ITS technologies. |
| (7) Collisions with stationary objects |  | - Improvement of side-impact and vehicle occupant protection performance and of side and curtain airbags. | - For expanded provision of underground power lines and impact-absorbing road installations. |
| (8) Compatibility |  | - R\&D on crash-compatible vehicle bodies and compatibility evaluation methods to improve vehicle performance. |  |

*1. Adaptive front-lighting systems. *2. Anti-lock braking systems. *3. Brake-assist systems.

## Automobiles and Society Road Safety (4) National Initiatives

## Japan's 8th Basic Plan for Road Safety

Japan's road safety measures are promoted in line with the nation's consecutive "basic plans" for road safety, the first of which was implemented in 1970. Under the slogan "Towards a 'Zero Road Accidents' Society," the eighth road safety plan (2006-2010) aims to create a highly road safety-conscious society that places maximum priority on human life and, in particular, the safety of those of its members who are most vulnerable to road accidents-namely, pedestrians, senior citizens, and persons who are handicapped. Two major objectives in the area of increased road safety are (1) further reductions in the occurrence of road accidents and road fatalities, and (2) increased pedestrian protection through sidewalk construction.

## JAPAN'S ROAD SAFETY TARGETS

## Government Target for 2012

- To reduce the annual number of road fatalities to below 5,000 by 2012, and thus to make Japan's roads the safest in the world.

Targets Set in the 8th Basic Plan for Road Safety

- To reduce the annual number of road fatalities to below 5,500 by 2010.
- To reduce the total annual number of road fatalities and injuries to below 1 million by 2010.


## EIGHT MAJOR AREAS OF ROAD SAFETY PROMOTIONAL ACTIVITY

| Road Infrastructure Improvements <br> - Sidewalk construction/upgrades, especially in school zones <br> - More pedestrian routes <br> - Measures to deal with accident black spots <br> - Increased use of ITS | Road Safety Public Awareness Campaigns <br> - Promotion of "hands-on" awareness activities <br> - Promotion of road safety education for the elderly <br> - Promotion of the greater use of rear seatbelts <br> - Promotion of road safety activities in local communities with the participation of residents |
| :---: | :---: |
| Promotion of Safe Driving <br> - Implementation of special driver-education programs for the elderly <br> - Promotion of the greater diffusion of automotive video-equipped data recorders | Enhancement of Vehicle Safety <br> - Promotion of the development and diffusion of advanced safety vehicles <br> - Implementation of improvements to the national vehicle recall system |
| Enforcement of Road Traffic Laws <br> - Dissemination of guidelines for cyclists and enforcement of related regulations <br> - Stronger crackdowns on "hot-rodding" motorcyclists | Reinforcement of Emergency Rescue Operations Infrastructure <br> - Improved training and deployment of emergency rescue personnel <br> - Upgrading and expansion of emergency call systems <br> - Promotion of doctor-staffed ambulances/helicopters |
| Provision of Fair Compensation for Road Accident Victims - Enhanced support for the provision of fair "damages" compensation | Promotion of Road Safety Research and Analysis <br> - Promotion of further safe-driving research <br> - Promotion of comprehensive analysis of road accident causation |

## Automobiles and Society

## Efforts to Prevent Theft

Since peaking at 64,223 in 2003, the annual number of automobile thefts in Japan has fallen significantly, dropping to 25,808 in 2009. This is largely attributable to the widespread use of immobilizers (portable electronic lock systems). Meanwhile, although motorcycle thefts had been in steady decline since 2000, 82,120 such thefts were reported in 2009, showing a $2.2 \%$ increase over the previous year. To enhance motor vehicles' "theft-resistance," the automobile industry has introduced and promotes the use of electronic devices such as "smart keys" equipped with immobilizers.

## TRENDS IN CONFIRMED MOTOR VEHICLE THEFTS



TRENDS IN CONFIRMED MOTORCYCLE THEFTS

- A SAMPLE IMMOBILIZER DEVICE AND HOW IT WORKS



## Widespread Applications of Intelligent Transport Systems（ITS）

Intelligent Transport Systems（ITS）use cutting－edge information and communication technologies to network data between road users，roads（i．e．，infrastructure）and vehicles for the dual purpose of reducing road congestion and accident occurrence．In 1996 the Japanese government formulated its Comprehensive Concept for the Promotion of ITS，on the basis of which it has promoted，as a national project，ITS development in a number of areas．In 2004 Japan established its ITS Promotion Council which，in October of that year，announced ITS developmental guidelines aimed at achieving progress with respect to safety and security，fuel efficiency and environmental protection，and comfort and convenience．Accordingly，a wide range of ITS technologies and services，including safe－driving，cruise－ assist，advanced navigation，onboard telematics and electronic toll collection systems，have been energetically promoted in parallel with the further development of Advanced Safety Vehicle（ASV）technologies．Many of these technologies／services are already in extensive use in Japan．

## IMMINENT INTRODUCTION OF SAFE－DRIVING AND CRUISE－ASSIST SYSTEMS

Following their full－scale testing in 2008，two intelligent communication－based emergency warning systems for drivers are scheduled for practical introduction in 2010：a safe－driving support system（or＂DSSS，＂for＂Driving Safety Support System＂）and an advanced cruise－assist system for highways（＂AHS＂）that both use vehicle navigation system－integrated telematics．Expanded development of these and other ITS technologies is expected in the coming years．

HOW A SAFE－DRIVING SUPPORT SYSTEMM WORKS（EXAMPLE）
Note：Use of the illustration below was permitted on the proviso that it not be altered in any way．


HOW AN ADVANCED HIGHWWAY CRUISE－ASSIST SYSTEIM WORKS（EXAMIPLE）
Note：English captions for this illustration were sourced from the organization indicated below on the proviso that no changes be made to them．


1 Obstacle（stopped vehicle）
2 Information collection technologies
3 Road condition detection sensor
4 Information provision antenna
5 Road－vehicle communication technologies
6 Operational support
7 Decelerates
8 Warning
9 Warning，stopped vehicle ahead
10 Information
11 Stopped vehicle 300 m ahead
12 Communication technologies

## PRACTICAL UTILIZATION OF ITS SERVICES

To promote the broader use of ITS, wide-ranging development and practical application initiatives have been carried out as a national project, involving the coordinated efforts of government, industry and the academic community. In the area of advanced navigation systems, there has been remarkable growth in the use of Japan's VICS (Vehicle Information and Communication System) and onboard telematics. Similarly, more and more motorists and motorcyclists are opting to use ETC (electronic toll collection) systems, and the introduction of so-called smart highway toll stations using ETC exclusively continues to expand nationwide.

CAR NAVIGATION \& VICS UNIT SHIPMENTS


ETC UTILIZATION STATUS

sources: Japan Electronics and Information Technology Industries Association,
Source: Ministry of Land, Infrastructure, Transport and Tourism
Vehicle Information and Communication System Center

## " "SMART" HIGHWAY TOLL STATION LOCATIONS

What are "smart" highway toll stations?
They are toll stations for ETC users exclusively, enabling unmanned tollbooth operation and smooth traffic flow. The reduced cost of their construction and operation facilitates the introduction of additional such toll stations, thus promoting greater convenience in road use. There were a total of 51 smart highway toll stations in operation in Japan as of January 2010.


## ASV TECHNOLOGIES AVAILABLE IN THE MARKET

In the area of safe-driving assistance, a wide range of vehicle safety technologies, including collision-mitigation braking systems, lane-keeping assist systems and adaptive cruise control systems, have been developed based on the results of research conducted on the Advanced Safety Vehicle (ASV) concept. Most of these advanced technologies have already been introduced to the market.

- FEATURES OF THE ADVANCED SAFETY VEHICLE (ASV)


Principal ASV Safety Technologies Developed (Second Phase)

| 1 | Collision-Mitigation Braking System |
| :--- | :--- | :--- |
| 2 | Curve Detection System |
| 3 | Full-Range Adaptive Cruise Control |
| 4 | Lane Deviation Warning System |
| 5 | Lane-Keeping Assist System |
| 6 | Blind-Corner Monitoring |
| 7 | Adaptive Front-Lighting System |


| 8 | Rear-End Collision Neck Injury Mitigation System |
| :---: | :--- |
| 9 | Vehicle Body Design for Mitigating Pedestrian Injury \& Airbag System for Pedestrian Protection |
| 10 | Driver Inattention Warning System |
| 11 | Unfastened Seatbelt Warning System (for all passengers) |
| 12 | Side Obstacle Warning System |
| 13 | Sudden Braking Warning System (for driver of vehicle in rear) |
| 14 | Intelligent Night Vision |

Source: Ministry of Land, Infrastructure, Transport and Tourism
THE ADVANCED SAFETY VEHICLE (ASV) PROJECT, PHASES 1-4: Summary of Contents and Scheduling

|  | Phase 1 (Five-Year Plan) | Phase 2 (Five-Year Plan) | Phase 3 (Five-Year Plan) | Phase 4 (Five-Year Plan) |
| :---: | :---: | :---: | :---: | :---: |
| Implementation Period | FY 1991 through FY 1995 | FY 1996 through FY 2000 | FY 2001 through FY 2005 | FY 2006 through FY 2010 |
| Objective | Technological verification | R\&D for market introduction | - Preparation for widespread use <br> - Development of new technologies | - Promotion of widespread use <br> - Practical application of some "DSSS" systems (see page 43) |
| Technologies Verified | Individual onboard autonomous systems | - Individual onboard autonomous systems -Compatibility with road infrastructural provisions | - Individual onboard autonomous systems - Compatibility with road infrastructural provisions | - Individual onboard autonomous systems <br> -Compatibility with other vehicles <br> - Compatibility with road infrastructural provisions |

Source: Ministry of Land, Infrastructure, Transport and Tourism

## PRACTICAL APPLICATION OF ASV TECHNOLOGIES

## 1. Lane-Keeping Assist

Sensors (cameras) positioned on the vehicle monitor the road ahead and, through auxiliary control of the steering wheel, help keep the vehicle centered in the lane whenever the vehicle deviates from its course because of, for example, a crosswind or road surface unevenness.


## 2. Adaptive Cruise Control

Information from front sensors helps a vehicle keep a safe distance from the vehicle ahead through brake or speed control according to a preset vehicle speed.


## Automobiles and Society

## Eight Trillion Yen in Annual Automobile-Related Tax Revenue

Since the initial earmarking of funds for road construction and road maintenance programs in line with Japan's first five-year road improvement plan in 1954, there has been a steady increase both in the number of automobile-related taxes assessed on users and in their respective rates. Currently, the automobile tax structure consists of nine different taxes, creating a very heavy tax burden for Japanese motor vehicle owners. Under the government's budget for fiscal 2010, the total value of tax revenue from these automobile-related taxes was estimated at 7.7 trillion yen, or $10.7 \%$ of Japan's anticipated total tax revenue of 72 trillion yen in fiscal 2010.

TAX REVENUE (Estimated) BY SOURCE IN FISCAL 2010 (as per Japan's fiscal 2010 budget)

Consumption tax (on fuels) 5,001
$x 100$ million yen


Notes: 1. Automobile-related consumption tax revenue is not included in the "Consumption tax" segment in the chart on the left, but is included in the breakdown of automobile-related tax revenue appearing in the chart on the right. 2. Automobile-related consumption tax revenue values have been calculated by JAMA. 3. The consumption tax is a national sales tax, of which $1 \%$ of the revenue is redistributed to local government coffers.

AUTOMOBILE-RELATED TAXES IN JAPAN (at April 1, 2010)

| Tax Category | On Acquisition |  | During Ownership |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Acquisition Tax | Consumption Tax | Tonnage Tax | Automobile Tax |
| How Assessed | Assessed on the acquisition of an automobile, whether new or used, based on the purchase price | Assessed on the purchase price of the automobile | Assessed according to vehicle weight at each vehicle inspection | Fixed amount assessed each year on the owner as of April 1 |
| National/Local Tax | Prefectural tax | National and local tax | National tax | Prefectural tax |
| Tax Rate/ Amount | (Private use) <br> - $5 \%$ of purchase price (3\% for commercial and mini-vehicles) - Exempted for vehicles purchased for 500,000 yen or less | $5 \%$ (of which $1 \%$ is a local tax) | 1) Alternative-energy/next-generation vehicles (through April 30, 2012): No tax assessed <br> 2) Vehicles on the road 18 years or longer since first registration: Previous rates apply (Private use) <br> 3) Passenger cars (per 0.5 t ): 5,000 yen/year <br> 4) Trucks (per ton of GVW) <br> - Over 2.5 tons: 5,000 yen/year <br> - Up to 2.5 tons: 3,800 yen/year <br> 5) Buses (per ton of GVW): 5,000 yen/year <br> 6) Mini-vehicles (single rate): 3,800 yen/year <br> 7) Motorcycles <br> - 251cc and over (single rate): 2,200 yen/year <br> - 126 to 250 cc: $5,500 y e n / o n$ registration | Passenger cars (for private use) Up to 1,000cc 29,500 yen/year $-1,001$ to $1,500 \mathrm{cc}$ 34,500 yen/year - 1,501 to 2,000cc 39,500 yen/year -2,001 to 2,500cc 45,000 yen/year -2,501 to 3,000cc 51,000 yen/year - 3,001 to 3,500cc 58,000 yen/year - 3,501 to 4,000cc 66,500 yen/year - 4,001 to 4,500cc 76,500 yen/year $-4,501$ to $6,000 \mathrm{cc}$ 88,000 yen/year Over 6,000cc 111,000 yen/year |

JAPAN'S ESTIMATED AUTOMOBILE-RELATED TAX REVENUE IN FISCAL 2010

|  |  |  | Tax Revenue (x 100 million yen) | Original Tax Rate | Current Tax Rate | Comparison with Original Tax Rate (multiplier value) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Taxes on Automobiles | On acquisition | Acquisition tax | 2,286 | 3\% | $\stackrel{5 \%}{(E x c l u d i n g ~ c o m m e r c i a l / m i n i-v e h i c l e s) ~}$ | 1.7 |
|  |  | Consumption tax (on automobiles) | 6,874 | 5\% | - | - |
|  | During ownership | Tonnage tax | 7,535 | $¥ 2,500 / 0.5 \mathrm{t}$ (Registered vehicles for private use) | $\begin{array}{\|c\|} \hline ¥ 5,000 / 0.5 \mathrm{t} \\ \hline \text { (Registered vehicles for private use) } \end{array}$ | 2.0 |
|  |  | Automobile tax | 16,272 | Based on engine capacity | No change | - |
|  |  | Mini-vehicle tax | 1,792 | $\neq 7,200 /$ year (Passenger cars for private use) | No change | - |
|  |  | Total | 34,759 |  |  |  |
| Taxes on Fuels | While in use | Gasoline tax | 25,760 | ¥24.3/l | ¥48.6/l | 2.0 |
|  |  | Regional gasoline excise tax | 2,756 | $¥ 4.4 / \mathrm{l}$ | $¥ 5.2 / \ell$ | 1.2 |
|  |  | Diesel handling tax | 8,432 | $¥ 15.0 / \mathrm{l}$ | ¥32.1/l | 2.1 |
|  |  | LPG tax | 240 | $¥ 17.5 / \mathrm{kg}$ | No change | - |
|  |  | Consumption tax (on fuels) | 5,001 | 5\% | - | - |
|  |  | Total | 42,189 |  |  |  |
| Grand Total |  |  | 76,948 |  |  |  |

Notes: 1. Consumption tax revenue values have been calculated by JAMA. 2. Tax rates indicated effective as of April 1, 2010.

## TAX RATES IN EFFECT (Examples), 1954-2012, TO SUPPORT ROAD NETWORK IMPROVEMENTS

| Year | Five-Year Plan | Year | Acquisition Tax | $\begin{gathered} \text { Tonnage } \\ \text { Tax } \\ \text { Yen/0.5ton year } \end{gathered}$ | Gasoline <br> Tax <br> Yen/l | Regional Gasoline Excise Tax Yen/l | Diesel Handling Tax Yen/l | LPG Tax Yen/kg |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1954-'57 | First | $\begin{aligned} & \text { '54 } \\ & \hline \text { '55 } \\ & \hline 56 \\ & \hline 57 \end{aligned}$ | $\left[\begin{array}{l}\text { Commercial } \\ \text { and mini- } \\ \text { vehicles excluded }\end{array}\right]$ | In the case of a passenger car for private use | $\begin{gathered} 13.0 \\ 11.0 \\ \downarrow \\ 14.8 \end{gathered}$ | $\begin{aligned} & 2.0 \\ & 3.5 \end{aligned}$ | $\begin{aligned} & 6.0 \\ & 8.0 \end{aligned}$ |  |
| '58-60 | Second | '59 |  |  | $\begin{gathered} \dagger \\ 19.2 \end{gathered}$ |  | 10.4 |  |
| '61-63 | Third | '61 |  |  | $\begin{array}{r} \downarrow \\ 22.1 \\ \hline \end{array}$ | $\begin{array}{r} \downarrow \\ 4.0 \end{array}$ | $\begin{array}{r} \dagger \\ 12.5 \\ \hline \end{array}$ |  |
| '64-'66 | Fourth | '64 |  |  | 24.3 | 4.4 | 15.0 |  |
| '67-69 | Fifth | $\begin{array}{r} \hline 67 \\ \hline 68 \\ \hline \end{array}$ | $3 \%$ |  | $\begin{array}{r} \downarrow \\ 29.2 \\ 36.5 \\ 45.6 \end{array}$ | $\begin{aligned} & 1 \\ & 5.3 \\ & 6.6 \\ & 8.2 \end{aligned}$ | $\begin{gathered} \downarrow \\ 19.5 \\ 24.3 \end{gathered}$ | $\begin{gathered} 10 \\ \downarrow \\ \hline \end{gathered}$ |
| '70-72 | Sixth | '70 | $\begin{array}{r} \downarrow \\ 5 \% \end{array}$ |  |  |  |  | 17.5 |
| '73-77 | Seventh | $\begin{array}{r} 174 \\ י 76 \\ \hline \end{array}$ |  | $\begin{aligned} & \hline 5,000 \\ & 6,300 \end{aligned}$ |  |  |  |  |
| '78-'82 | Eighth | '79 |  |  |  |  |  |  |
| '83-'87 | Ninth |  |  |  | $48.6$ | 8.2 | 24.3 |  |
| '88-'92 | Tenth |  |  |  |  |  |  |  |
| '93-'97 | Eleventh | '93 |  |  |  | 5.2 | 32.1 |  |
| '98-'02 | Twelfth | '98 |  |  |  |  |  |  |
| 2003-07 | As per the national priority infrastructure development plan |  |  |  |  |  |  |  |
| '08- | As per the national medium-term road infrastructure plan |  |  | 6,300 |  |  |  | , |
| '10- | - |  | 5\% | 5,000 | 48.6 | 5.2 | 32.1 | 17.5 |
| Comparison with original tax rate (multiplier value) |  |  | 1.67 | 2.00 | 2.00 | 1.18 | 2.14 | 1.00 |

Note: Tax rates indicated effective as of April 1, 2010.
Source: Japan Automobile Manufacturers Association


## Tax Incentives to Promote the Wider Use of Eco-Friendly Vehicles

In 2009, at the urging of Japan's automobile industry, the Japanese government expanded the scope of its tax incentive measures for eco-friendly vehicles. As a result, both new and extended tax incentives came into effect in Japan starting April 1, 2009 for vehicles meeting stipulated environmental performance criteria. Through reductions in the tonnage tax as well as the acquisition and automobile taxes, the measures aim to accelerate the renewal of Japan's vehicle fleet in the shift to a low-carbon society.

## INCENTIVES \& ELIGIBILITY REQUIREMENTS FOR NEW VEHICLES

## ACQUISITION AND TONNAGE TAX REDUCTIONS/EXEMPTIONS

The incentives below are in effect from April 1, 2009 through March 31, 2012 for the acquisition tax (imposed once only, at the time of vehicle purchase) and from April 1, 2009 through April 30, 2012 for the tonnage tax (with reductions applicable once only, upon first payment of the tax at the time of first mandatory inspection after vehicle purchase; for vehicles in use, at the time of first mandatory inspection during the effective period).

| Vehicle Type | Requirements |  | Reductions/Exemptions |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Certification Sticker(s) | Acquisition Tax | Tonnage Tax |
| Alternative-Energy/ <br> Next-Generation <br> Vehicles | Electric (including fuel cell) vehicles Plug-in hybrid vehicles Clean diesel vehicles (1) Hybrid vehicles (2) Natural gas vehicles (3) |  | Exempt | Exempt |
| Fuel-Efficient and Low-Emission Vehicles (4) (Passenger cars and mini-vehicles) | Compliant $+25 \%$ compared to 2010 fuel efficiency standards and emissions down by $75 \%$ from 2005 standards |  | 75\% reduction | 75\% reduction |
|  | Compliant $+15 \%$ (or better) to $+20 \%$ (or better) compared to 2010 fuel efficiency standards and emissions down by $75 \%$ from 2005 standards |  | 50\% reduction | 50\% reduction |
| Trucks and Buses (2.5t<GVW $\leq 3.5 t$ ) (5) | [Diesel Vehicles:] Compliant with 2015 fuel efficiency standards and 2009 emission standards |  | 75\% reduction | 75\% reduction |
|  | [Gasoline Vehicles:] Compliant with 2015 fuel efficiency standards and emissions down by 50\% from 2005 standards (6) |  | 50\% reduction | 50\% reduction |
| Heavy-Duty Trucks and Buses (GVW>3.5t) | Compliant with 2015 fuel efficiency standards and 2009 emission standards | $7 \mathrm{max}$ | 75\% reduction | 75\% reduction |
|  | Compliant with 2015 fuel efficiency standards and 2005 emission standards, with NOx and/or PM emissions down by $10 \%$ from those standards |  | 50\% reduction | 50\% reduction |

(1) Passenger cars complying with 2009 emission standards. (2) GVW $\leq 3.5$ t: Compliant $+25 \%$ compared to 2010 fuel efficiency standards and compliant with 2005 emission standards, with NOx emissions down by $75 \%$ from those standards. GVW>3.5t: Compliant with 2015 fuel efficiency standards and 2005 emission standards, with NOx or PM emissions down by $10 \%$ from those standards. (3) GVW $\leq 3.5$ t: Emissions down by $75 \%$ from 2005 standards. GVW $>3.5$ : Compliant with 2005 emission standards, with NOx emissions down by $10 \%$ from those standards. (4) See page 29 for detailed information on environmental performance vehicle certification requirements and certification stickers. (5) The incentives in this category went into effect on April 1, 2010. (6) A 75\% reduction for gasoline vehicles with 2015 fuel efficiency standards and emissions down by $75 \%$ from 2005 standards.

ACQUISITION AND TONNAGE TAXES ON NEW VEHICLES: EXAMPLES OF AMOUNTS ASSESSED, BY VEHICLE TYPE

|  | Alternative-Energy/ Next-Generation Vehicles |  | Passenger Cars |  | Mini-Vehicles |  | Heavy-Duty Vehicles |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Tax Status | Exempt | With 75\% reduction | With 50\% reduction | With 75\% reduction | With 50\% reduction | With 75\% reduction | With 50\% reduction |
| Acquisition Tax | As of April 1, 2010 | 0 | 20,200 | 40,500 | 6,700 | 13,500 | 90,000 | 180,000 |
|  | Prior to April 1, 2010 | 81,000 | 81,000 | 81,000 | 27,000 | 27,000 | 360,000 | 360,000 |
| Tonnage Tax | As of April 1, 2010 | 0 | 11,200 | 22,500 | 2,800 | 5,700 | 18,700 | 37,500 |
|  | Prior to April 1, 2010 | 22,500 | 45,000 | 45,000 | 11,400 | 11,400 | 75,000 | 75,000 |
| Total Reduction (acquisition tax + tonnage tax) |  | 103,500 | 94,600 | 63,000 | 28,900 | 19,200 | 326,300 | 217,500 |

Assumptions: For passenger cars: purchase price $=¥ 1.8$ million, $G V W<1.5$ t; For mini-vehicles: purchase price $=¥ 1$ million; For heavy-duty vehicles: purchase price $=¥ 8$ million, $G V W=15$ t. Notes: 1. Reductions are applied to the vehicle acquisition and tonnage taxes on the basis of compliance with stipulated requirements, and reduction amounts vary according to vehicle purchase price and weight. 2. Figures in above chart are in Japanese yen. 3. All tonnage tax assessment values shown above have been calculated on the basis of new tax rates in application from April 1, 2010.

FISCAL 2010-2011 AUTOMOBILE TAX REDUCTIONS

| Requirements | Certification Stickers | Reduction |
| :---: | :---: | :---: |
| Compliant $+25 \%$ compared to 2010 fuel efficiency standards and emissions down by 75\% from 2005 standards |  | 50\% reduction* |

*Also applies to electric (including fuel cell) and plug-in hybrid vehicles. In the case of natural gas vehicles, applies only to those with emissions down by $75 \%$ from 2005 standards and to heavy-duty natural gas vehicles compliant with, and with NOx emissions down by $10 \%$ from, 2005 emission standards.
Notes: 1. The above incentive will be in effect from April 1, 2010 through March 31, 2012, with reductions applicable once only. 2. For eligible vehicles newly registered in 2010 and 2011, the automobile tax reduction is applied in the year subsequent to the year of registration. 3. This scheme also mandates a yearly $10 \%$ surcharge on the automobile tax for hybrid vehicles and diesel vehicles on the road 11 years or longer, and for gasoline and LPG-powered vehicles on the road 13 years or longer, since first registration.

## INCENTIVES \& ELIGIBILITY REQUIREMENTS FOR USED VEHICLES

## ACQUISITION INCENTIVES/ACQUISITION TAX REDUCTIONS

| Applicable in Fiscal 2010-2011 |  |  |
| :---: | :---: | :---: |
| Requirements | Certification Stickers | Amount Deducted |
| Compliant $+25 \%$ compared to 2010 fuel efficiency standards and emissions down by $75 \%$ from 2005 standards |  | $¥ 300,000$ <br> (deducted from purchase price) |
| Compliant $+15 \%$ (or better) to $+20 \%$ (or better) compared to 2010 fuel efficiency standards and emissions down by 75\% from 2005 standards |  | $¥ 150,000$ <br> (deducted from purchase price) |

Note: Also applies to gasoline trucks and buses (2.5t<GVW $\leq 3.5$ ) certified as fuel-efficient and low-emission vehicles.

| Applicable in Fiscal 2009-2011 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Vehicle Type |  | Requirements | Certification Sticker(s) | Reduction |
| Electric (including fuel cell) vehicles |  |  |  | 2.7\% reduction |
| Natural gas vehicles | 3.5t \& under | Emissions down by 75\% from 2005 standards |  | 2.7\% reduction |
|  | Over 3.5t | Compliant with, and with NOx emissions down by 10\% from, 2005 standards |  |  |
| Hybrid vehicles (trucks and buses) | 3.5t \& under | Compliant +25\% compared to 2010 fuel efficiency standards and emissions down by 75\% from 2005 standards |  | 2.7\% reduction |
|  | Over 3.5t | Compliant with 2015 fuel efficiency standards and 2005 emission standards, with NOx and/or PM emissions down by 10\% from those standards |  |  |
| Plug-in hybrid vehicles |  |  |  | 2.4\% reduction |
| Hybrid vehicles (passenger cars) |  | Compliant $+25 \%$ compared to 2010 fuel efficiency standards and emissions down by 75\% from 2005 standards |  | 1.6\% reduction |


| Applicable in Fiscal 2010-2011 for Diesel Vehicles |  |  |  |
| :---: | :---: | :---: | :---: |
| Vehicle Type | Requirements | Period of Application | Reduction |
| Clean diesel passenger cars | Compliant with 2009 emission standards | April 1, 2010-August 31, 2010 | 0.5\% reduction |
| Trucks and buses (GVW>2.5t) | Compliant with 2015 fuel efficiency standards and 2009 | April 1, 2010-August 31, 2010 | $2.5 t<G V W \leq 3.5 t$ vehicles only: <br> 1.0\% reduction |
|  |  | April 1, 2010-September 30, 2010 | $3.5 \mathrm{t}<\mathrm{GVW} \leq 12 \mathrm{t}$ vehicles only: <br> 2.0\% reduction |
|  |  | October 1, 2010-August 31, 2011 | $3.5 \mathrm{t}<\mathrm{GV} \mathrm{W} \leq 12 \mathrm{t}$ vehicles only: 1.0\% reduction |

## Automobile-Related Taxes are Onerous

Consider the case of a passenger car costing 1.8 million yen when purchased new and providing 11 years of service to the original owner for private use. During that period, six different categories of taxes (including consumption tax at the time of vehicle purchase and on fuel) will be assessed on the owner/user, amounting to a grand total of roughly 1.43 million yen, which is equivalent to the purchase price of a new 1000cc passenger car. In addition to these various taxes (totalling about 130,000 yen yearly), the user will also be required to pay onerous highway tolls, automobile insurance premiums (mandatory and optional), a recycling fee, periodic inspection fees and maintenance costs.


Assumptions: 1) Engine capacity: 1800 cc. 2) GVW: Under 1.5 t. 3) Purchase price: $¥ 1.8$ million. 4) France $=$ Paris. U.S.A. $=$ New York City. 5) Germany: Euro 4 emission regulations apply. 6) France: Vehicle in no. 8 horsepower "class." 7) Service life: 11 years. 8) Currency exchange rates: $€ 1=¥ 133, £ 1=¥ 152$, US $\$ 1=¥ 94$ (averaged April 2009-March 2010).

Notes: 1. As shown here, tax amounts other than Japan's may not be the most current. 2. Does not include any green tax regimens that may apply. 3. Does not include registration fees. 4. Automobile tax on private vehicles (i.e. for personal use only) was abolished in France as of 2000. 5. The tonnage tax amount shown here reflects Japan's new tonnage tax rate for passenger cars (5,000 yen/year per 0.5 tons) in effect from April 1, 2010.

Source: Japan Automobile Manufacturers Association


Assumptions: 1) A passenger car with 1800 cc engine capacity and purchase price of $¥ 1.8$ million (retail price, excluding consumption tax). 2) GVW: Under 1.5 t. 3) Annual fuel consumption: 1,000 liters. 4) Tonnage tax imposed yearly, but collected only at time of mandatory vehicle inspection. 5) Tax amounts reflect rates in effect from April 1,2007 except for the tonnage tax amounts, which reflect Japan's new tonnage tax rate for passenger cars (5,000 yen/year per 0.5 tons) in effect from April $1,2010.6$ ) Consumption tax $=5 \%$ of retail price. 7) The recycling fee indicated is the average rate for an 1800cc passenger car.
Notes: 1. Estimated highway tolls, mandatory insurance premium payments and recycling fee are included here because they can be considered similar to taxes. (Mandatory insurance premium values indicated effective as of April 1, 2010.) 2. Value of highway tolls was estimated by JAMA based on highway toll revenue in 2004.

## Global Operations Overseas Production (1) North America

## Global Manufacturing Operations

Japanese automobile manufacturers have continued to develop local production operations in the United States, Europe, Southeast Asia and, recently, China. These operations contribute to the revitalization of local economies through employment creation, local parts purchasing and, in many cases, export revenue for the host countries.

- LOCATIONS OF JAPANESE AUTOMAKERS' PRODUCTION BASES IN NORTH AMERICA

- JAPANESE AUTOMAKERS' NORTH AMERICAN MANUFACTURING OPERATIONS (AUTOMOBILES/COMPONENTS/PARTS)



## Global Operations Overseas Production (2) China

## - LOCATIONS OF JAPANESE AUTOMAKERS' PRODUCTION BASES IN CHINA

Motor Vehicle Production BaseMotorcycle Production BaseMotor Vehicle / Motorcycle Production Base

- JAPANESE AUTOMAKERS' MANUFACTURING OPERATIONS IN CHINA (AUTOMOBILES/COMPONENTS/PARTS)

| Manufacturer |  | Location | Est. | StartUp | Capitalization (x 1 million) |  | Equity Stake | Other Stakeholders | Employees |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| China |  |  |  |  |  |  |  |  |  |  |
| Isuzu | 1 | Qingling Motors Co., Ltd. | $\begin{array}{\|c\|} \hline \text { May } \\ 85 \end{array}$ |  | $\begin{array}{r} \text { CNY } \\ 2,000 \end{array}$ | 20\% | Assembly of CVs and RVs | Qingling Motors Gr. 51\% | 100 | 2,824 |
| Suzuki | 2 | Chongqing Changan Suzuki Automobile Co., Ltd. | 1993 | 1995 | $\begin{gathered} \text { USD } \\ 190 \end{gathered}$ | 35\% | Gazelle, Swift, SX4, Alto | Changan Automobile Gr. 51\% | 170 | 3,900 |
|  | 3 | Jiangxi Changhe Suzuki Automobile Co., Ltd. | 1995 | 1995 | $\begin{array}{r} \text { USD } \\ 311.8 \end{array}$ | 46\% | Bei Dou Xing, Liana, Landy | Jiangxi Changhe Automobile Co., Ltd. 51\% | 200 | 2,700 |
|  | 4 | Jinan Qingqi Suzuki Motorcycle Co., Ltd. | 1994 | 1996 | USD 24 | 50\% | FD110, GS125, GSX125/150 GT125, GZ150, AN150, UE125, UZ125, UZ100, AN125X1150X | CHINA SOUTH INDUSTRIES GROUP CORP 50\% | 560 | 2,486 |
|  | 5 | Nanjing Jincheng Motorcycle Co., Ltd. | 2004 | 2005 |  |  | $\begin{aligned} & \text { AJ50, FD110C, } \\ & \text { GX125 } \end{aligned}$ |  | 100 | 300 |
|  | 6 | Jiangmen Dachangjiang Group, Co., Ltd. | 1992 | 1993 |  |  | AX100, AN125, EN125, GN125, GZ125, HJ125T, UZ125 |  | 3,000 | 8,605 |
| Toyota | 7 | Sichuan FAW Toyota Motor Co., Ltd. |  | 2005 |  | 45\% | Coaster, Land Cruiser, Prado, PRIUS |  | 5 | 2,374 |
|  | 8 | Tianjin FAW Toyota Engine Co., Ltd. | 1996 | 1998 | $\begin{aligned} & \text { USD } \\ & 248 \end{aligned}$ | 50\% | Engines |  |  | 1,898 |
|  | 9 | Tianjin Fengjin Auto Parts Co., Ltd. | 1995 | 1998 | $\begin{aligned} & \text { USD } \\ & 230 \end{aligned}$ | 90\% | Constant velocity joints, Axle, Differentials |  |  | 763 |



| Manufactu |  | Location | Company Name | Est. | Start Up | Capita <br> (x 1 m | ization illion) | Equity Stake | Products | Other Stakeholders | Annual Prod Cap. (x 1,000 | Emp | oyees |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| China |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Yamaha | 36 | Zhuzhou JiansheYamaha Motor Co., Ltd. |  | $\begin{array}{\|c\|} \hline \text { Dec. } \\ 93 \\ \hline \end{array}$ | $\begin{array}{\|c\|} \hline \text { Jun. } \\ 96 \end{array}$ | $\begin{aligned} & \text { CNY } \\ & 498 \end{aligned}$ | 44.2\% | CYGNUS, JOG future, AVENUE |  | Chongqing Jianshe Motorcycle Co.,Ltd. 50\% Tair Yea Ltd. 5.8\% |  | 170 | 1,150 |
|  | 37 | Chonga Yamaha | $\begin{aligned} & \text { Tshe } \\ & \text { Co., Ltd. } \end{aligned}$ | $\begin{array}{\|c} \hline \text { Nov. } \\ 92 \end{array}$ | $\begin{aligned} & \text { Jun. } \\ & 94 \end{aligned}$ | $\begin{gathered} \mathrm{CNY} \\ 380 \end{gathered}$ | 50\% | YBR25 SRZ150 TTR50 | $\begin{aligned} & Y B R 125, \\ & Y B 125, \end{aligned}$ | Chonga Motorcycle | g Jianshe o.,Ltd. 50\% | 420 | 2,100 |
|  | 38 | Jiangsu Yamaha | Co., Ltd. | $\begin{array}{\|c\|} \hline \text { Dec. } \\ 94 \\ \hline \end{array}$ | $\begin{array}{\|c\|} \hline \text { Jan. } \\ 95 \\ \hline \end{array}$ | $\begin{gathered} \text { CNY } \\ 120 \end{gathered}$ | 50\% | FORCE, | T110, | Jiangsu Li Machinery | hai Power Group Corp \% | 192 | 627 |

Source: Japan Automobile Manufacturers Association

## Global Operations Overseas Production (3) South Asia

LOCATIONS OF JAPANESE AUTOMAKERS'
Pakistan

PRODUCTION BASES IN SOUTH ASIA
Motor Vehicle Production BaseMotorcycle Production BaseMotor Vehicle / Motorcycle Production Base
JAPANESE AUTOMAKERS' SOUTH ASIAN MANUFACTURING OPERATIONS (AUTOMOBILES/COMPONENTS/PARTS)


## LOCATIONS OF JAPANESE AUTOMAKERS' PRODUCTION BASES IN SOUTHEAST ASIA



JAPANESE AUTOMAKERS' SOUTHEAST ASIAN MANUFACTURING OPERATIONS (AUTOMOBILES/COMPONENTS/PARTS)


## Global Operations Overseas Production (4) Southeast Asia




## Global Operations Overseas Production (5) Europe \& Russia

## - LOCATIONS OF JAPANESE AUTOMAKERS' PRODUCTION BASES IN EUROPE \& RUSSIA



JAPANESE AUTOMAKERS' EUROPEAN \& RUSSIAN MANUFACTURING OPERATIONS (AUTOMOBILES/COMPONENTS/PARTS)



Source: Japan Automobile Manufacturers Association

## Overseas Production Benefits Local Economies

The global operations of Japanese automobile manufacturers continue to grow, focusing increasingly on overseas production. Whether as independent operations, joint ventures or technical tie-ups, local manufacturing activities are conducted in numerous countries around the world. Overseas production brings significant benefits to local economies and host countries, including employment, industrial development and technology transfer.

OVERSEAS PRODUCTION BY JAPANESE AUTOMOBILE MANUFACTURERS
In vehicle units

| Year | Asia | Middle East | Europe | EU | North America | U.S.A. | Latin America | Africa | Oceania | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1985 | 208,589 | - | 44,658 | 43,175 | 296,569 | 296,569 | 90,252 | 99,500 | 151,574 | 891,142 |
| 1986 | 282,912 | - | 75,163 | 73,903 | 426,087 | 425,644 | 87,115 | 119,000 | 133,109 | 1,123,386 |
| 1987 | 355,758 | - | 102,943 | 100,794 | 608,446 | 592,761 | 104,925 | 134,000 | 127,003 | 1,433,075 |
| 1988 | 456,489 | - | 132,129 | 130,326 | 723,396 | 672,766 | 125,531 | 145,000 | 152,334 | 1,734,879 |
| 1989 | 597,402 | - | 205,005 | 203,215 | 1,040,868 | 932,242 | 144,811 | 184,500 | 166,541 | 2,339,127 |
| 1990 | 952,390 | - | 226,613 | 223,164 | 1,570,114 | 1,298,878 | 160,654 | 186,000 | 169,169 | 3,264,940 |
| 1991 | 1,035,715 | - | 285,994 | 282,278 | 1,684,964 | 1,378,907 | 169,001 | 172,000 | 134,051 | 3,481,725 |
| 1992 | 1,120,430 | - | 358,601 | 351,296 | 1,853,097 | 1,547,361 | 195,161 | 167,500 | 109,276 | 3,804,065 |
| 1993 | 1,315,346 | - | 496,574 | 472,744 | 2,030,478 | 1,691,239 | 211,802 | 179,000 | 106,754 | 4,339,954 |
| 1994 | 1,553,585 | - | 502,332 | 477,728 | 2,346,619 | 1,982,209 | 197,325 | 168,000 | 128,213 | 4,896,074 |
| 1995 | 1,882,850 | - | 641,573 | 575,852 | 2,595,436 | 2,215,657 | 110,660 | 226,000 | 102,961 | 5,559,480 |
| 1996 | 1,950,621 | - | 738,378 | 650,990 | 2,641,451 | 2,275,525 | 140,031 | 195,674 | 118,097 | 5,784,252 |
| 1997 | 2,003,286 | - | 814,689 | 714,699 | 2,664,588 | 2,290,685 | 190,596 | 182,218 | 136,107 | 5,991,484 |
| 1998 | 1,215,202 | 5,688 | 920,985 | 814,847 | 2,674,299 | 2,270,516 | 260,131 | 144,181 | 150,685 | 5,371,171 |
| 1999 | 1,547,671 | 3,493 | 929,303 | 835,582 | 2,797,175 | 2,311,163 | 246,710 | 130,216 | 125,575 | 5,780,143 |
| 2000 | 1,673,740 | 4,258 | 953,170 | 837,679 | 2,991,924 | 2,480,691 | 387,732 | 146,435 | 130,933 | 6,288,192 |
| 2001 | 1,872,521 | 5,660 | 1,032,004 | 939,034 | 3,061,612 | 2,451,496 | 407,887 | 162,825 | 137,084 | 6,679,593 |
| 2002 | 2,380,621 | 6,000 | 1,153,059 | 1,015,748 | 3,375,453 | 2,720,449 | 445,862 | 155,973 | 135,498 | 7,652,466 |
| 2003 | 3,007,348 | 5,820 | 1,338,476 | 1,245,469 | 3,487,012 | 2,821,723 | 457,467 | 162,969 | 148,471 | 8,607,563 |
| 2004 | 3,638,978 | 10,800 | 1,454,903 | 1,296,516 | 3,840,744 | 3,143,603 | 534,863 | 191,537 | 125,726 | 9,797,551 |
| 2005 | 3,964,209 | 10,500 | 1,545,355 | 1,369,556 | 4,080,713 | 3,383,277 | 645,074 | 225,725 | 134,581 | 10,606,157 |
| 2006 | 4,129,856 | 11,400 | 1,702,836 | 1,509,402 | 4,001,639 | 3,281,073 | 745,827 | 259,050 | 121,635 | 10,972,243 |
| 2007 | 4,523,751 | 3,342 | 1,976,407 | 1,789,875 | 4,049,068 | 3,324,326 | 895,099 | 252,384 | 159,710 | 11,859,761 |
| 2008 | 4,877,074 | 0 | 1,876,109 | 1,693,151 | 3,576,246 | 2,893,466 | 920,738 | 257,646 | 143,741 | 11,651,554 |
| 2009 | 5,145,450 | 0 | 1,228,294 | 1,136,145 | 2,687,527 | 2,108,161 | 790,794 | 168,651 | 96,836 | 10,117,552 |

## Japanese Automakers Forge Extensive International Alliances

With economic globalization, Japanese automobile manufacturers have rapidly adapted to the needs of individual markets, not only by shifting production to those markets but also by forging extensive alliances with overseas manufacturers. Various forms of partnership currently exist between Japanese, U.S. and European automakers-including capital and technical tie-ups, joint R\&D and production operations and cooperative sales ties-and such arrangements are expanding yearly. With the rapid spread of motorization in China and Southeast Asia, Japanese automakers are actively building relationships with local manufacturers there on the basis of capital tie-ups and the supply of production as well as environment- and safety-related technologies.




## Motor Vehicle Production Decreases Worldwide

In 2009 worldwide motor vehicle production (excluding motorcycles) declined $13.5 \%$ from the previous year to a total of 60.99 million units. By region, production decreased in Africa (down 36.0\%), North America (down 33.2\%), Europe (down 21.9\%), Latin America (down 12.3\%), and Asia-Oceania (down 0.7\%).


GLOBAL MOTORCYCLE PRODUCTION (BY COUNTRY/TERRITORY)
In vehicle units

| Country/ Territory | 2006 |  |  | 2007 |  |  | 2008 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Mopeds | Motorcycles | Total | Mopeds | Motorcycles | Total | Mopeds | Motorcycles | Total |
| Austria | - | 69,045 | 69,045 | - | - | 78,269 | - | - | 79,176 |
| Czech Republic | 122 | 893 | 1,015 | 135 | 2,005 | 2,140 | - | - | - |
| Germany | 1,017 | 105,323 | 106,340 | 253 | 105,304 | 105,557 | - | 105,993 | 105,993 |
| Italy | 174,000 | 528,500 | 702,500 | 190,000 | 502,500 | 692,500 | 171,000 | 470,000 | 641,000 |
| Netherlands | 8,000 | 0 | 8,000 | 9,459 | 0 | 9,459 | - | - | - |
| Spain | 110,916 | 157,440 | 268,356 | 111,520 | 142,289 | 253,809 | - | - | - |
| UK | - | 38,300 | 38,300 | - | 32,100 | 32,100 | - | - | 33,900 |
| Russia | - | - | 25,000 | - | - | 25,000 | - | - | - |
| US.A. | - | - | --- | - | 270,352 | 270,352 | - | - | - |
| Argentina | - | - | 208,977 | - | - | 225,397 | - | - |  |
| Brazil | - | 1,413,268 | 1,413,268 | - | 1,734,349 | 1,734,349 | - | - | - |
| Colombia | - |  | 425,987 | - |  | 448,556 | - | - | - |
| China | - | - | 21,934,055 | - | - | 25,625,526 | - | - | 27,501,066 |
| India | - | - | 8,384,707 | - | - | 8,157,781 | - | - | 8,408,335 |
| Indonesia | - | - | 4,458,886 | - | - | 4,722,521 | - | - | 6,264,265 |
| Japan | 0 | 1,771,386 | 1,771,386 | 0 | 1,676,097 | 1,676,097 | 0 | 1,226,839 | 1,226,839 |
| Malaysia | 373,358 | 59,041 | 432,399 | 380,365 | 66,050 | 446,415 | 453,815 | 82,752 | 536,567 |
| Pakistan | - | - | 360,561 | - | - | 329,395 | - | - | 411,715 |
| Philippines | - | - | 308,617 | - | - | 350,330 | - | - | 317,127 |
| South Korea | - | - | 146,817 | - | - | 131,272 | - | - | 133,737 |
| Taiwan | - | - | 1,412,953 | - | - | 1,509,425 | - | - | 1,555,042 |
| Thailand | - | - | 1,334,970 | - | - | 1,160,967 | - | - | 1,227,893 |
| Other | - | - | 1,030,903 | - | - | 1,802,665 | - | - | 1,269,117 |
| Grand Totals | - | - | 44,843,042 | - | - | 49,789,882 | - | - | 49,711,772 |

Note: "-" means data is not available.

GLOBAL MOTOR VEHICLE PRODUCTION (BY COUNTRY/REGION/TERRITORY)

| Country/Region/ Territory | 2007 |  |  | 2008 |  |  | 2009 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Passenger Cars | Trucks \& Buses | Total | Passenger Cars | Trucks \& Buses | Total | Passenger Cars | Trucks \& Buses | Total |
| Austria | 199,969 | 28,097 | 228,066 | 125,836 | 25,441 | 151,277 | 56,000 | 15,714 | 71,714 |
| Belgium | 789,674 | 44,729 | 834,403 | 680,131 | 44,367 | 724,498 | 510,300 | 12,510 | 522,810 |
| Finland | 24,006 | 303 | 24,309 | 17,519 | 376 | 17,895 | 10,907 | 64 | 10,971 |
| France | 2,550,869 | 464,985 | 3,015,854 | 2,145,935 | 423,043 | 2,568,978 | 1,821,734 | 228,028 | 2,049,762 |
| Germany (1) | 5,709,139 | 504,321 | 6,213,460 | 5,532,030 | 513,700 | 6,045,730 | 4,964,523 | 245,334 | 5,209,857 |
| Italy | 910,860 | 373,452 | 1,284,312 | 659,221 | 364,553 | 1,023,774 | 661,100 | 182,139 | 843,239 |
| Netherlands | 61,912 | 76,656 | 138,568 | 59,223 | 73,271 | 132,494 | 50,620 | 25,981 | 76,601 |
| Portugal | 134,047 | 42,195 | 176,242 | 132,242 | 42,913 | 175,155 | 101,680 | 24,335 | 126,015 |
| Spain | 2,195,780 | 693,923 | 2,889,703 | 1,943,049 | 598,595 | 2,541,644 | 1,812,688 | 357,390 | 2,170,078 |
| Sweden (2) | 316,850 | 49,170 | 366,020 | 252,287 | 56,012 | 308,299 | 128,738 | 27,600 | 156,338 |
| UK | 1,534,567 | 215,686 | 1,750,253 | 1,446,619 | 202,896 | 1,649,515 | 999,460 | 90,679 | 1,090,139 |
| Czech Republic | 925,060 | 12,588 | 937,648 | 934,046 | 12,521 | 946,567 | 967,760 | 6,809 | 974,569 |
| Hungary | 287,982 | 4,045 | 292,027 | 342,359 | 3,696 | 346,055 | 180,500 | 2,040 | 182,540 |
| Poland | 695,000 | 97,703 | 792,703 | 842,000 | 103,959 | 945,959 | 819,000 | 60,186 | 879,186 |
| Romania | 234,103 | 7,609 | 241,712 | 231,056 | 14,252 | 245,308 | 279,320 | 17,178 | 296,498 |
| Slovakia | 571,071 | 0 | 571,071 | 575,776 | 0 | 575,776 | 461,340 | 0 | 461,340 |
| Slovenia | 174,209 | 24,193 | 198,402 | 180,233 | 17,610 | 197,843 | 202,570 | 10,179 | 212,749 |
| Double Countings Germany/Belgium | 196,323 | 0 | 196,323 | 132,402 | 0 | 132,402 | 80,300 | 0 | 80,300 |
| Double Countings ItalyEU | 15,088 | 0 | 15,088 | 0 | 0 | 0 | 0 | 0 | 0 |
| Double Countings Germanyltaly | 0 | 0 | 0 | 12,472 | 0 | 12,472 | 3,886 | 0 | 3,886 |
| Double Countings Portugal/apan | 0 | 18,569 | 18,569 | 0 | 19,695 | 19,695 | 0 | 5,804 | 5,804 |
| European Union (3) | 17,103,687 | 2,621,086 | -19,724,773 | 15,954,688 | 2,477,510 | 18,432,198 | 13,944,054 | 1,300,362 | 15,244,416 |
| Turkey | 634,883 | 464,530 | 1,099,413 | 621,567 | 525,543 | 1,147,110 | 510,931 | 358,674 | 869,605 |
| Serbia | 8,236 | 1,667 | 9,903 | 9,818 | 1,810 | 11,628 | 8,720 | 1,355 | 10,075 |
| Russia | 1,288,652 | 371,468 | 1,660,120 | 1,469,429 | 320,872 | 1,790,301 | 595,839 | 126,592 | 722,431 |
| Belarus | 0 | 27,708 | 27,708 | 0 | 28,511 | 28,511 | 0 | 11,520 | 11,520 |
| Ukraine | 380,061 | 22,530 | 402,591 | 400,799 | 22,328 | 423,127 | 65,646 | 3,649 | 69,295 |
| Uzbekistan | 170,000 | 14,900 | 184,900 | 195,038 | 13,000 | 208,038 | 110,200 | 7,700 | 117,900 |
| Double Countings UkraineNorld | 255,006 | 2,748 | 257,754 | 270,000 | 0 | 270,000 | 44,220 | 0 | 44,220 |
| CIS | 1,583,707 | 434,782 | 2,018,489 | 1,795,266 | 384,711 | 2,179,977 | 727,465 | 149,461 | 876,926 |
| Europe | 19,330,513 | 3,522,065 | 22,852,578 | 18,381,339 | 3,389,574 | 21,770,913 | 15,191,170 | 1,809,852 | 17,001,022 |
| Canada | 1,342,133 | 1,236,657 | 2,578,790 | 1,195,436 | 886,805 | 2,082,241 | 822,363 | 667,288 | 1,489,651 |
| U.S.A. | 3,924,268 | 6,856,461 | 10,780,729 | 3,776,641 | 4,916,900 | 8,693,541 | 2,249,061 | 3,462,762 | 5,711,823 |
| North America | 5,266,401 | 8,093,118 | 13,359,519 | 4,972,077 | 5,803,705 | -10,775,782 | 3,071,424 | $4,130,050$ | 7,201,474 |
| Mexico | 1,209,097 | 886,148 | 2,095,245 | 1,217,458 | 950,486 | 2,167,944 | 939,469 | 617,821 | 1,557,290 |
| Argentina | 350,735 | 193,912 | 544,647 | 399,236 | 197,850 | 597,086 | 380,067 | 132,857 | 512,924 |
| Brazil | 2,391,354 | 585,796 | 2,977,150 | 2,545,729 | 670,247 | 3,215,976 | 2,576,628 | 605,989 | 3,182,617 |
| Venezuela | 119,960 | 52,458 | 172,418 | 88,116 | 46,926 | 135,042 | 80,299 | 35,998 | 116,297 |
| Double Countings VenezuelaNorld | 80,000 | 25,729 | 105,729 | 58,400 | 23,800 | 82,200 | 58,770 | 20,180 | 78,950 |
| Other | 68,047 | 42,762 | 110809 | 34,138 | 37,916 | 72,054 | 34,600 | 31,120 | 65,720 |
| Latin America | 4,059,193 | 1,735,347 | 5,794,540 | 4,226,277 | 1,879,625 | 6,105,902 | 3,952,293 | 1,403,605 | 5,355,898 |
| North and Latin America | 9,325,594 | 9,828,465 | 19,154,059 | 9,198,354 | 7,683,330 | 16,881,684 | 7,023,717 | 5,533,655 | 12,557,372 |
| Australia | 283,348 | 51,269 | 334,617 | 285,590 | 43,966 | 329,556 | 188,158 | 39,125 | 227,283 |
| China | 6,381,116 | 2,501,340 | 8,882,456 | 6,737,745 | 2,561,435 | 9,299,180 | 10,383,831 | 3,407,163 | 13,790,994 |
| India | 1,713,479 | 540,250 | 2,253,729 | 1,846,051 | 486,277 | 2,332,328 | 2,166,238 | 466,456 | 2,632,694 |
| Indonesia | 309,208 | 102,430 | 411,638 | 431,423 | 169,205 | 600,628 | 352,172 | 112,644 | 464,816 |
| Iran | 882,000 | 115,240 | 997,240 | 940,870 | 110,560 | 1,051,430 | 692,230 | 60,080 | 752,310 |
| Japan | 9,944,637 | 1,651,690 | 11,596,327 | 9,928,143 | 1,647,501 | 11,575,644 | 6,862,161 | 1,072,355 | 7,934,516 |
| Malaysia | 347,971 | 93,690 | 441,661 | 484,512 | 46,298 | 530,810 | 442,186 | 43,005 | 485,191 |
| Pakistan | 140,614 | 29,247 | 169,861 | 126,268 | 24,989 | 155,973 | 92,900 | 16,840 | 109,740 |
| Philippines | 38,923 | 10,569 | 49,492 | 46,458 | 12,692 | 54,434 | 35,340 | 5,310 | 40,650 |
| South Korea | 3,723,482 | 362,826 | 4,086,308 | 3,450,478 | 376,204 | 3,826,682 | 3,158,417 | 354,509 | 3,512,926 |
| Taiwan | 212,685 | 70,354 | 283,039 | 138,714 | 44,260 | 182,974 | 183,986 | 42,370 | 226,356 |
| Thailand | 315,444 | 971,902 | 1,287,346 | 401,309 | 992,433 | 1,393,742 | 305,250 | 663,055 | 968,305 |
| Vietnam | 22,542 | 1,356 | 23,898 | 31,684 | 1,734 | 33,418 | 24,100 | 1,380 | 25,480 |
| Double Countings ChinaNorld | 102,754 | 0 | 102,754 | 81,750 | 0 | 81,750 | 115,600 | 0 | 115,600 |
| Asia-Oceania | 24,212,695 | 6,502,163 | 30,714,858 | 24,767,495 | 6,517,554 | 31,285,049 | 24,771,369 | 6,284,292 | 31,055,661 |
| Egypt | 68,934 | 35,539 | 104,473 | 72,485 | 42,297 | 114,782 | 38,420 | 27,580 | 66,000 |
| Morocco | 27,612 | 9,059 | 36,671 | 32,056 | 9,675 | 41,731 | 17,000 | 6,370 | 23,370 |
| South Africa | 276,018 | 258,472 | 534,490 | 321,124 | 241,841 | 562,965 | 224,000 | 156,000 | 380,000 |
| Other | 3,072 | 4,387 | 7,459 | 2,040 | 4,615 | 6,655 | 1,100 | 3,030 | 4,130 |
| Double Countings EgyptWorld | 20,858 | 12,750 | 33,608 | 22,876 | 17,310 | 40,186 | 21,120 | 11,670 | 32,790 |
| Double Countings South AfricaNorld | 22,234 | 82,685 | 104,919 | 25,900 | 77,200 | 103,100 | 18,000 | 49,780 | 67,780 |
| Africa | 332,544 | 212,022 | 544,566 | 378,929 | 203,918 | 582,847 | 241,400 | 131,530 | 372,930 |
| Grand Totals | 53,201,346 | 20,064,715 | 73,266,061 | 52,726,117 | 17,794,376 | 70,520,493 | 47,227,656 | 13,759,329 | 60,986,985 |

(1) Figures for Germany include Belgian GM assembly. (2) Sweden's official figures (not shown here) include overseas production, but figures here represent only domestic production. (3) "European Union" means EU27. Note: All figures are estimates.

## Motor Vehicle Sales Increase in Indonesia, Brazil, Russia, China, and Elsewhere

In 2008 overall new motor vehicle registrations (excluding motorcycles) decreased to a global total of 63.11 million units, down $5.7 \%$ from the previous year. Vehicle sales rose in Indonesia (to 0.61 million units, up 40.3\%), Brazil (to 2.82 million units, up $14.5 \%$ ), Russia (to 3.30 million units, up $14.4 \%$ ), and China (to 9.38 million units, up $6.7 \%$ ). On the other hand, new registrations dropped from the previous year in the United States (to 13.49 million units, down $18.0 \%$ ), Italy (to 2.43 million units, down 12.7\%), the United Kingdom (to 2.48 million units, down 11.2\%), Mexico (to 1.03 million units, down $6.8 \%$ ), Japan (to 5.08 million units, down $5.1 \%$ ), Germany (to 3.43 million units, down $1.6 \%$ ), India (to 1.98 million units, down $0.6 \%$ ), and France (to 2.57 million units, down $0.4 \%$ ).

- NEW REGISTRATIONS OF MOTOR VEHICLES EXCLUDING MOTORCYCLES (BY COUNTRY)

|  | Sweden |  | Netherlands |  |
| :--- | :--- | :--- | :--- | :--- |
| 06 | 33 | 06 | 57 |  |
| 07 | 36 | 07 | 60 |  |
| 08 | 08 | 60 |  |  |
|  | 30 | 800 | 0 | 800 |


|  | UK |  |
| :--- | :--- | :--- |
| 06 | 273 |  |
| 07 | 280 |  |
| 08 | 248 |  |
| 0 |  | 800 |












NEW REGISTRATIONS OF PASSENGER CARS AND COMMERCIAL VEHICLES (BY COUNTRY)

| Country | In vehicle units |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2006 |  |  | 2007 |  |  | 2008 |  |  |
|  | Passenger Cars | Commercial Vehicles | Total | Passenger Cars | Commercial Vehicles | Total | Passenger Cars | Commercial Vehicles | Total |
| Austria | 308,594 | 40,147 | 348,741 | 298,182 | 42,874 | 341,056 | 293,697 | 43,142 | 336,839 |
| Belgium | 526,141 | 69,457 | 595,598 | 524,795 | 78,665 | 603,460 | 535,947 | 77,951 | 613,898 |
| Czech Republic | 123,987 | 60,362 | 184,349 | 174,456 | 74,574 | 249,030 | 182,554 | 71,758 | 254,312 |
| Denmark | 154,227 | 69,402 | 223,629 | 159,820 | 63,528 | 223,348 | 149,886 | 40,959 | 190,845 |
| Finland | 145,700 | 20,941 | 166,641 | 125,608 | 22,190 | 147,798 | 139,647 | 21,632 | 161,279 |
| France | 2,000,549 | 498,397 | 2,498,946 | 2,064,543 | 519,492 | 2,584,035 | 2,050,283 | 523,432 | 2,573,715 |
| Germany | 3,467,961 | 304,433 | 3,772,394 | 3,148,163 | 334,116 | 3,482,279 | 3,090,040 | 334,999 | 3,425,039 |
| Greece | 267,706 | 26,376 | 294,082 | 279,794 | 27,026 | 306,820 | 267,239 | 25,564 | 292,803 |
| Hungary | 187,676 | 21,604 | 209,280 | 173,686 | 23,619 | 197,305 | 153,227 | 21,557 | 174,784 |
| Italy | 2,330,201 | 272,031 | 2,602,232 | 2,493,105 | 293,140 | 2,786,245 | 2,161,682 | 269,653 | 2,431,335 |
| Netherlands | 483,999 | 84,718 | 568,717 | 505,643 | 97,275 | 602,918 | 499,983 | 104,155 | 604,138 |
| Poland | 238,683 | 56,015 | 294,698 | 293,314 | 78,362 | 371,676 | 320,017 | 81,371 | 401,388 |
| Portugal | 194,684 | 76,457 | 271,141 | 201,868 | 81,160 | 283,028 | 213,386 | 67,904 | 281,290 |
| Slovakia | 59,084 | 24,435 | 83,519 | 59,700 | 29,394 | 89,094 | 72,022 | 30,431 | 102,453 |
| Spain | 1,634,608 | 318,526 | 1,953,134 | 1,614,835 | 324,461 | 1,939,296 | 1,161,176 | 201,367 | 1,362,543 |
| Sweden | 282,766 | 47,194 | 329,960 | 306,794 | 51,923 | 358,717 | 253,982 | 47,477 | 301,459 |
| UK | 2,344,864 | 386,968 | 2,731,832 | 2,404,007 | 392,481 | 2,796,488 | 2,131,795 | 351,384 | 2,483,179 |
| Romania | 247,518 | 40,798 | 288,316 | 315,621 | 51,198 | 366,819 | 270,995 | 53,085 | 324,080 |
| Russia | 1,918,207 | 332,551 | 2,250,758 | 2,502,249 | 383,112 | 2,885,361 | 2,910,802 | 390,000 | 3,300,802 |
| Switzerland | 269,421 | 29,276 | 298,697 | 284,674 | 30,728 | 315,402 | 288,525 | 32,801 | 321,326 |
| Turkey | 373,219 | 296,385 | 669,604 | 357,465 | 276,741 | 634,206 | 305,998 | 220,546 | 526,544 |
| Canada | 858,826 | 807,182 | 1,666,008 | 841,585 | 848,760 | 1,690,345 | 872,720 | 800,802 | 1,673,522 |
| U.S.A. | 7,820,854 | 9,228,127 | 17,048,981 | 7,618,413 | 8,841,902 | 16,460,315 | 6,813,369 | 6,679,796 | 13,493,165 |
| Mexico | 680,946 | 458,772 | 1,139,718 | 641,394 | 458,472 | 1,099,866 | 589,045 | 436,475 | 1,025,520 |
| Brazil | 1,556,220 | 371,518 | 1,927,738 | 1,975,518 | 487,210 | 2,462,728 | 2,193,277 | 627,073 | 2,820,350 |
| Argentina | 336,296 | 124,182 | 460,478 | 422,176 | 142,750 | 564,926 | 452,539 | 159,231 | 611,770 |
| Venezuela | - | - | 343,351 | - | - | 491,899 | - | - | 271,622 |
| China | 4,257,516 | 2,958,009 | 7,215,525 | 5,309,728 | 3,481,800 | 8,791,528 | 5,692,049 | 3,688,453 | 9,380,502 |
| India | 1,311,354 | 439,519 | 1,750,873 | 1,510,906 | 481,545 | 1,992,451 | 1,543,925 | 436,241 | 1,980,166 |
| Japan | 4,641,732 | 1,097,774 | 5,739,506 | 4,400,299 | 953,349 | 5,353,648 | 4,227,643 | 854,592 | 5,082,235 |
| South Korea | 935,681 | 228,573 | 1,164,254 | 986,416 | 232,919 | 1,219,335 | 958,854 | 195,629 | 1,154,483 |
| Malaysia | 446,172 | 44,596 | 490,768 | 442,885 | 44,291 | 487,176 | 497,459 | 50,656 | 548,115 |
| Indonesia | 53,319 | 266,194 | 319,513 | 70,100 | 363,241 | 433,341 | 45,238 | 562,567 | 607,805 |
| Thailand | 195,458 | 486,705 | 682,163 | 182,767 | 448,484 | 631,251 | 238,990 | 375,088 | 614,078 |
| Australia | 769,241 | 193,425 | 962,666 | 835,195 | 214,787 | 1,049,982 | 791,223 | 220,941 | 1,012,164 |
| Egypt | 132,373 | 38,241 | 170,614 | 162,819 | 45,889 | 208,708 | 198,800 | 62,312 | 261,112 |
| South Africa | 426,822 | 219,744 | 646,566 | 384,431 | 228,277 | 612,708 | 294,985 | 193,966 | 488,951 |
| Other | 1,582,986 | 597,473 | 2,180,459 | 1,268,050 | 535,024 | 1,803,074 | 1,153,383 | 467,570 | 1,620,953 |
| Grand Totals | 43,565,591 | 20,636,507 | 64,545,449 | 45,341,004 | 21,084,759 | 66,917,662 | 44,016,382 | 18,822,560 | 63,110,564 |

Note: The "-" for some entries for Venezuela means that the relevant data is not available at the end of March 2010, which accounts for the discrepancy, in the "Grand Totals" row, between the three "Total" figures and the figures (for both passenger cars and commercial vehicles) they represent.

Sources: Automobile manufacturers' associations of individual countries; for Japan, Japan Automobile Dealers Association, Japan Mini Vehicles Association

## Continuing Growth in Motor Vehicle Ownership Worldwide

There were 973.1 million motor vehicles (excluding motorcycles) in use worldwide in 2008, equivalent to 144 motor vehicles per 1,000 inhabitants or one vehicle for every 6.9 persons. Meanwhile, the number of motorcycles owned worldwide in 2008 stood at around 200 million units. Motorcycle density was particularly high in Malaysia, with one motorcycle in use for every three persons, in Thailand and Vietnam, with one in use for every four persons, and in Italy, with one in use for every six persons. In Japan, one motorcycle was in use for every ten persons.

MOTOR VEHICLE DENSITY: INTERNATIONAL COMPARISONS (at end of 2008)


Sources: Ministry of Land, Infrastructure, Transport and Tourism; VDA; ANFIA; Ward's; Gendai Advanced Studies Research Organization; for population data, OECD, etc.

MOTORCYCLE DENSITY: INTERNATIONAL COMPARISONS (No. of Persons per Motorcycle) in $\times 1$ person


Sources: Ministry of Land, Infrastructure, Transport and Tourism; Ministry of Internal Affairs and Communications; International Motorcycle Manufacturers Association (IMMA), etc.; for population data, OECD, UN

MOTOR VEHICLES IN USE WORLDWIDE (at end of 2008)

In vehicle units

| Country | Passenger <br> Cars | Commercial <br> Vehicles | Total |
| :--- | ---: | ---: | ---: |
| Germany | $41,321,171$ | $2,682,465$ | $44,003,636$ |
| Italy | $36,105,183$ | $4,789,308$ | $40,894,491$ |
| France | $30,850,000$ | $6,362,000$ | $37,212,000$ |
| UK | $31,167,000$ | $4,450,000$ | $35,617,000$ |
| Spain | $22,145,364$ | $5,467,781$ | $27,613,145$ |
| Netherlands | $7,777,751$ | $1,130,015$ | $8,907,766$ |
| Belgium | $5,086,756$ | 777,960 | $5,864,716$ |
| Austria | $4,284,919$ | 390,700 | $4,675,619$ |
| Sweden | $4,278,995$ | 523,673 | $4,802,668$ |
| Poland | $16,079,533$ | $3,015,000$ | $19,094,533$ |
| Switzerland | $3,989,881$ | 374,800 | $4,364,681$ |
| Turkey | $6,796,629$ | $3,394,000$ | $10,190,629$ |
| Russia | $32,020,998$ | $6,242,845$ | $38,263,843$ |
| U.S.A. | $135,882,003$ | $114,356,659$ | $250,238,662$ |
| Canada | $19,612,930$ | 907,166 | $20,520,096$ |
| Mexico | $16,827,296$ | $8,485,000$ | $25,312,296$ |
| Argentina | $6,243,879$ | $2,215,848$ | $8,459,727$ |
| Brazil | $21,884,000$ | $5,597,000$ | $27,481,000$ |
| Japan | $57,864,972$ | $17,663,343$ | $75,528,315$ |
| China | $3,389,200$ | $12,606,900$ | $50,996,100$ |
| South Korea | $12,483,809$ | $4,310,000$ | $16,793,809$ |
| India | $12,900,000$ | $5,610,000$ | $18,510,000$ |
| Thailand | $4,188,292$ | $5,583,416$ | $9,771,708$ |
| Indonesia | $4,750,000$ | $3,500,000$ | $8,250,000$ |
| Australia | $11,803,536$ | $2,880,647$ | $14,684,183$ |
| South Africa | $5,275,000$ | $2,215,000$ | $7,490,000$ |
| Other | $120,795,411$ | $36,722,029$ | $157,517,440$ |
| Grand Totals | $710,804,508$ | $262,253,555$ | $973,058,063$ |

Sources: Ministry of Land, Infrastructure, Transport and Tourism; VDA; ANFIA; Ward's; Gendai Advanced Studies Research Organization

## MOTORCYCLES IN USE WORLDWIDE

In vehicle units

| Country/Territory |  | Total |
| :--- | :--- | ---: |
| 2007 | Italy | $9,280,259$ |
| 2007 | Germany | $5,461,608$ |
| 2007 | Spain | $4,774,341$ |
| 2007 | France | $2,641,765$ |
| 2007 | UK | $1,296,500$ |
| 2007 | Sweden | 536,837 |
| 2008 | Netherlands | $1,170,875$ |
| 2008 | Switzerland | 635,700 |
| 2008 | Austria | 663,704 |
| 2008 | Poland | $1,545,000$ |
| 2006 | Greece | 740,922 |
| 2007 | Russia | $4,350,000$ |
| 2008 | Turkey | $2,181,383$ |
| 2006 | Canada | 484,903 |
| 2007 | Brazil | $10,925,415$ |
| 2007 | Argentina | $2,028,939$ |
| 2007 | China | $87,096,613$ |
| 2007 | Indonesia | $36,000,000$ |
| 2008 | Japan | $12,787,342$ |
| 2007 | Thailand | $15,961,927$ |
| 2008 | Taiwan | $14,365,442$ |
| 2008 | Malaysia | $8,487,451$ |
| 2007 | Vietnam | $20,145,759$ |
| 2007 | South Korea | $1,785,051$ |
| 2008 | Pakistan | $4,797,949$ |
| 2008 | Philippines | $2,982,511$ |

Sources: IMMA; Association des Constructeurs Européens de Motocycles (ACEM), etc.; for Japan, Ministry of Land, Infrastructure, Transport and Tourism; Ministry of Internal Affair and Communications, etc.

## Motor Vehicle Exports Decrease in Every Country Except Japan

Motor vehicle exports (excluding motorcycles) in 2008 increased year-on-year in Japan (to 6.73 million units, up 2.7\%), but decreased in other exporting countries including the United States (to 1.97 million units, down 17.9\%), Spain (to 2.18 million units, down 8.7\%), France (to 4.32 million units, down $8.0 \%$ ), South Korea (to 2.68 million units, down $5.7 \%$ ), the United Kingdom (to 1.25 million units, down $4.8 \%$ ), and Germany (to 4.50 million units, down 3.5\%). Motorcycle exports in 2008 rose from the previous year in China (to 9.73 million units, up 18.9\%), Germany (to 94,000 units, up $6.2 \%$ ), and Austria (to 76,000 units, up 1.3\%), but dropped in Japan (to 1.00 million units, down 18.7\%) and Taiwan (to 682,000 units, down 11.6\%).

O MOTOR VEHICLE EXPORTS (MAJOR EXPORTING COUNTRIES)
x 10,000 units


EXPORTS OF PASSENGER CARS, TRUCKS AND BUSES (MAJOR EXPORTING COUNTRIES)
In vehicle units

| Country | 2006 |  |  | 2007 |  |  | 2008 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Passenger Cars | Trucks \& Buses | Total | Passenger Cars | Trucks \& Buses | Total | Passenger Cars | Trucks <br> \& Buses | Total |
| Japan | 5,295,497 | 671,175 | 5,966,672 | 5,811,959 | 737,981 | 6,549,940 | 5,915,429 | 811,662 | 6,727,091 |
| U.S.A. | 1,672,640 | 382,052 | 2,054,692 | 1,939,144 | 456,423 | 2,395,567 | 1,588,076 | 378,096 | 1,966,172 |
| Germany | 3,893,002 | 289,721 | 4,182,723 | 4,303,754 | 360,563 | 4,664,317 | 4,131,660 | 369,147 | 4,500,807 |
| UK | 1,106,093 | 136,222 | 1,242,315 | 1,185,459 | 131,562 | 1,317,021 | 1,128,586 | 125,611 | 1,254,197 |
| France | 3,738,684 | 553,680 | 4,292,364 | 4,109,972 | 586,686 | 4,696,658 | 3,736,921 | 585,270 | 4,322,191 |
| Italy | 367,087 | 228,865 | 595,952 | 374,177 | 276,331 | 650,508 | 279,670 | 281,283 | 560,953 |
| Belgium | 814,354 | 33,873 | 848,227 | 716,028 | 42,241 | 758,269 | 610,784 | 42,085 | 652,869 |
| Spain | 1,689,092 | 583,780 | 2,272,872 | 1,803,955 | 585,269 | 2,389,224 | 1,655,154 | 525,698 | 2,180,852 |
| Brazil | 458,766 | 175,707 | 634,473 | 476,136 | 167,434 | 643,570 | 422,679 | 145,903 | 568,582 |
| South Korea | 2,530,180 | 118,040 | 2,648,220 | 2,718,548 | 128,590 | 2,847,138 | 2,508,911 | 175,054 | 2,683,965 |

Sources: Ward's, etc.; for Japan, Japan Automobile Manufacturers Association

- MOTORCYCLE EXPORTS (MAJOR EXPORTING COUNTRIES/TERRITORY)

In vehicle units

| Country/Territory | 2006 |  |  | 2007 |  |  | 2008 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Mopeds | Motorcycles \& Scooters | Total | Mopeds | Motorcycles \& Scooters | Total | Mopeds | Motorcycles \& Scooters | Total |
| Japan | 0 | 1,334,026 | 1,334,026 | 0 | 1,232,796 | 1,232,796 | 0 | 1,002,187 | 1,002,187 |
| Germany | 2,450 | 87,868 | 90,318 | 3,323 | 85,418 | 88,741 | 1,619 | 92,624 | 94,243 |
| Italy | 161,241 | 341,106 | 502,347 | 166,112 | 371,363 | 537,475 | - | - | - |
| Spain | 65,796 | 114,857 | 180,653 | 63,530 | 109,686 | 173,216 | - | - | - |
| Austria | - | 66,573 | 66,573 | - | 75,507 | 75,507 | - | 76,474 | 76,474 |
| South Korea | - | - | 60,696 | - | - | 48,916 | - | - | - |
| China | - | 6,543,628 | 6,543,628 | - | 8,177,741 | 8,177,741 | - | 9,727,315 | 9,727,315 |
| Taiwan | - | - | 676,287 | - | - | 771,396 | - | - | 681,970 |

Note: "-" means data is not available at end of March 2010.

## Classifications According to the Road Vehicles Act and the Road Traffic Act

Japan classifies motor vehicles according to the provisions of two basic laws: the Road Vehicles Act and the Road Traffic Act. Road Vehicles Act classifications are used for registration statistics, vehicle inspection, and related maintenance and repair. Road Traffic Act classifications determine the different categories of driver's licenses. Vehicle registration number/character combinations are determined by vehicle type and usage in accordance with Road Vehicles Act designations, and a "vanity plate" system has been introduced nationwide.

- CLASSIFICATION UNDER THE ROAD VEHICLES ACT (for registration, inspection, etc. )

Standard
Over 2,000cc in engine capacity, excluding diesel engines


Small Over 660cc to 2,000cc in engine capacity, excluding diesel engines


Over 1.48 m to 1.7 m Over 3.4 m to 4.7 m

Mini 660cc and under in engine capacity


Note: A vehicle that exceeds any one of the requisites above is classified in the higher category.

- CLASSIFICATION UNDER THE ROAD TRAFFIC ACT (for driver's license issuance)

| Large Motor Vehicles | Middle-Category Motor Vehicles (*1) |
| :---: | :---: |
| Gross vehicle weight: $\geq 11$ tons <br> Payload: $\geq 6.5$ tons <br> or Occupancy: $\geq 30$ persons | Gross vehicle weight: $5 \leq$ tons<11 <br> Payload: $3 \leq$ tons $<6.5$ <br> or Occupancy: $11 \leq$ persons<30 |
| Ordinary Motor Vehicles | Special-Purpose Motor Vehicles |
| Gross vehicle weight: <5 tons <br> Payload: <3 tons <br> or Occupancy: <11 persons | Motor vehicles with caterpillar treads such as bulldozers, steamrollers, graders, snowplows, tractors, etc. are classified into two categories: large and small. Small special-purpose motor vehicles are those of up to 15 km per hour in maximum speed, up to 4.7 m in length, up to 2 m in height (*2), and up to 1.7 m in width. |

*1. As per a revision to the Road Traffic Act, the middle-category motor vehicle classification went into application in June2007. *2. Projections on small special-purpose vehicles should not exceed 2.8 m .
Note: The Road Traffic Act stipulates that the driver of any one-rider, three- or four-wheeled vehicle of up to 50 cc in engine capacity, with a legal maximum speed of $50 \mathrm{~km} / \mathrm{h}$ and a maximum load of 30 kg , is required to hold an "ordinary motor vehicle" driver's license.

- CLASSIFICATION OF MOTORCYCLES

| Road Vehicles Act |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :---: |
| Category | Engine Capacity | Width | Height | Length |  |
| Small-sized | Over 250cc | Over | Over | Over |  |
|  |  | 1.3 m | 2.0 m | 2.5 m |  |
| Mini-sized | Over 125cc to 250cc | 1.3 m and <br> under | 2.0 m and <br> under | 2.5 m and <br> under |  |
| Motor-driven <br> cycles Class 2 | Over 50cc to 125cc | 1.3 m and <br> under | 2.0 m and <br> under | 2.5 m and <br> under |  |
| Motor-driven <br> cycles Class 1 | 50 cc and under | 1.3 m and <br> under | 2.0 m and <br> under | 2.5 m and <br> under |  |


| Road Traffic Act |  |
| :--- | :---: |
| Category | Engine <br> Capacity |
| Large | Over 400cc |
| Ordinary | 51 cc to 400cc |
| Motorized <br> bicycles | 50 cc and under |

Note: A motorcycle that exceeds any one of the requisites above is classified in the higher category.

## SIGNIFICANCE OF VEHICLE REGISTRATION DATA \& NUMBER PLATE TYPES



## Japan's Test Cycles for Measuring Fuel Consumption and Exhaust Emissions

In 2011 Japan's JC08 test cycle is scheduled to replace the $10 \cdot 15$-mode cycle most commonly used until now to measure fuel consumption and exhaust emissions in non-heavy-duty vehicles. The objective in doing so is to obtain test results that are as close as possible to actual on-road fuel consumption rates. Fuel consumption rates obtained through testing on the basis of the JC08 cycle have already been adopted for new vehicles introduced into the market in or after July 2007. Currently, fuel consumption rates obtained on the basis of both the $10 \cdot 15$ and the JC08 test cycles, and the 13-mode (through August 2011) and JE05 test cycles for heavy-duty vehicles, are provided to indicate certified fuel efficiency values. Beginning in April 2011, however, the JC08 cycle will be the only test cycle applied to measure non-HDV fuel consumption rates.

- THE 10•15-MODE TEST CYCLE

Vehicle speed


The $10 \cdot 15$-mode cycle consists of a sequence of vehicle operational modes, such as idling, acceleration, steady running and deceleration, which constitutes a typical urban and/or expressway running pattern. Measurement is made with a warm start, at a maximum speed of $70 \mathrm{~km} / \mathrm{h}$.

- THE 11-MODE TEST CYCLE


The 11 -mode cycle consists of four cycles of 11 vehicle operational modes that are typical of a suburban-to-urban running pattern. Measurement is made with a cold start, at a maximum speed of $60 \mathrm{~km} / \mathrm{h}$.

## THE JC08 TEST CYCLE

Vehicle speed


The JC08 cycle also reflects typical running patterns in congested city traffic (idling and frequently-alternating acceleration and deceleration) and on expressways, but increases the duration of the test cycle and the variation in running patterns. Measurement is made with both a cold start and a warm start, at a maximum speed of $82 \mathrm{~km} / \mathrm{h}$.

THE JE05 TEST CYCLE FOR HEAVY-DUTY VEHICLES (GVW>3.5t)
Vehicle speed


The JEO5 cycle consists of idling and frequently-alternating acceleration and deceleration, reflecting a typical running pattern in today's congested cities, and of an expressway runnning pattern. Engine revolution and torque modes are predetermined to reach target speed based on test vehicle specifications. Measurement is made on the engine alone, while following the stipulated running pattern.

## Company Name / Offices

## Plants / Facilities

## Major Products

## DAIHATSU

Daihatsu Motor Co., Ltd.
Head Office : 1-1 Daihatsu-cho, Ikeda, Osaka 563-8651
Tel: (072) 751-8811
Tokyo Branch Office : 19-15, Shinbashi 6-chome,
Minato-ku, Tokyo 105-0004 Tel: (03) 6430-8854
http://www.daihatsu.co.jp/

## Daihatsu Motor Kyushu Co., Ltd.

Head Office : 1 Showashinden, Nakatsu, Oita 879-0107 Tel: (0979) 33-1230

Fuji Heavy Industries Ltd.
Head Office : Subaru Bldg. 7-2, Nishi-Shinjuku 1-chome, Shinjuku-ku, Tokyo 160-8316 Tel: (03) 3347-2111
http://www.fhi.co.jp/ Shinjuku-ku, Tokyo 160-8316 Tel: (03) 3347-2111
http://www.fhi.co.jp/


| Head (Ikeda) Plant | 1-1 Daihatsu-cho, Ikeda, Osaka |
| :--- | :--- |
| Kyoto Plant | 563-8651 <br> 1 Kita-hosoike, Shimoueno, <br> Oyamazaki-cho, Otokuni-gun, <br> Khiga (Ryuo) Plant <br> Kyoto 618-0081 <br> 2910 Yamanoue, Ryuou-cho, <br> Gada Plant |
| Gamou-gun, Shiga 520-2593 <br> 21-2 Yato 3-chome, Kawanishi, Hyogo <br> Kagami Plant666-0131 <br> 2293 kagami, Ryuou-cho, <br> Gamou-gun, Shiga 520-2573 |  |

- Move, Copen, Boon, Coo, Esse, Terios Kid, etc.
- Boon Luminas, etc.
- Move, Tanto, Engines, Transmissions, Light Alloy Castings, etc.
- Press Dies, Unit Facilities,

Body Facilities, etc.

- Industrial Engines

| Oita Nakatsu plant | 1 Showashinden, Nakatsu, Oita |
| :--- | :--- |
|  | $879-0107$ <br> Kurume plant1 Yoshimoto, Tanushimaru-machi, <br> kurume, Fukuoka 839-1206 |

- Hijet, Atrai, Bego, Mira, Move Conte and Tanto Exe - Engines (for mini-vehicles)

|  |  |
| :--- | :--- |
| Gunma Main Plant | 1-1 Subaru-cho, Ota-shi, Gunma |
|  | $373-8555$ |
| Gunma Yajima | $1-1$ Shoya-cho, Ota-shi, Gunma |
| Plant | $373-0822$ |
| Gunma Ota North | $27-1$ Kanayama-machi, Ota-shi, |
| Plant | Gunma 373-0027 |
| Gunma Oizumi | $1-1-1$ Izumi, Oizumi-machi, Oura-gun, |
| Plant | Gunma 370-0531 |
| Gunma Isesaki | 100 Suehiro-cho, Isesaki-shi, Gunma |
| Plant | $372-8508$ |
| Tokyo Office | $3-9-6$ Osawa, Mitaka-shi, Tokyo |
|  | $181-8577$ |
| Eco Technologies | $1-1-11$ Yonan, Utsunomiya-shi, Tochigi |
| Plant | $320-8564$ |

- Stella and Sambar
- Legacy, Impreza, Forester
and Exiga
- Automobile Undercarriages
- Automobile Engines and

Transmissions

- Spare Parts
- Industrial-use Vehicles

HINO Motors, Ltd.
Head Office : 1-1 Hinodai 3-chome, Hino, Tokyo 191-8660 Tel: (042) 586-5111
http://www.hino-global.com

| Hino Plant | 1-1 Hinodai 3-chome, Hino, Tokyo <br> 191-8660 |
| :--- | :--- |
| Hamura Plant | 1-1 Midorigaoka 3-chome, Hamura, <br> Tokyo 205-8660 |
| Nitta Plant | 10-1 Hayakawa, Nitta, Ota, Gunma <br> 370-0344 |

- Heavy- and Medium-duty Trucks and Engines
- Light-duty Trucks,

Toyota Commissioned Vehicles,
Unit Products for Toyota

- Engines, Transmissions, etc.


## HONDA

HONDA MOTOR CO., LTD.
Head Office : 1-1 Minami-Aoyama 2-chome, Minato-ku, Tokyo 107-8556 Tel: (03) 3423-1111
http://www.honda.co.jp/

Saitama Factory 10-1 Shinsayama 1-chome, Sayama, Saitama 350-1382
$\begin{array}{ll}\text { Tochigi Factory } & \begin{array}{l}19 \text { Matsuyama-cho, Mohka, } \\ \text { Tochigi 321-4346 }\end{array}\end{array}$

| HamamatsuFactory | 13-1 Aoi-higashi 1-chome, Naka-ku, |
| :---: | :---: |
|  | Hamamatsu, Shizuoka 433-8501 |
| Hosoe plant | 5794-1 Kiga, Hosoe-machi, |
|  | Kita-ku, Hamamatsu, Shizuoka 431-1305 |
| Suzuka Factory | 1907 Hirata-cho, Suzuka, Mie |
|  | 513-8666 |
| Kumamoto Factory | 1500 Hirakawa, Ozu-machi, |
|  | Kikuchi-gun, Kumamoto 869-1293 |

- Accord, Inspire, Accord Wagon, Legend, Elysion, Odyssey, CR-V, Step WGN and Motor Vehicle Engines
- Parts for Engines,

Parts for Suspensions,
Motor Vehicle Differentials and
Parts for Light 4WDs,
Parts for Drive-lines

- Motorcycle Engines,

Outboard Engines,
AT Transmissions, etc.

- Civic Series, Stream, Partner, Fit, Insight, Airwave, CR-Z and Motor Vehicle Engines
- Small-sized Motorcycles and Scooters, Lawn Mowers,
General Purpose Engines,
Micro Combined Heat and Power Cogeneration

Isuzu Motors Limited
Head Office : 26-1 Minami-Oi 6-chome, Shinagawa-ku, Tokyo 140-8722 Tel: (03) 5471-1141
http://www.isuzu.co.jp/
Tochigi Plant

Fujisawa Plant
2691 Ohaza Hakuchu, Ohira-Machi, Shimotsuga-gun, Tochigi 329-4424 8 Tsuchidana, Fujisawa, Kanagawa 252-0806

## - Axles for CVs

- and Related Parts, and Engines
- GIGA Series, Buses,

FORWARD Series, ELF Series,
Pickups, Trucks, Engines, etc.

[^9]
## Company Name / Offices

## Plants / Facilities

## Major Products

## Kawasaki

## Kawasaki Heavy Industries, Ltd.

Kobe Head Office : Kobe Crystal Tower, 1-3 Higashi
Kawasaki-cho 1-chome, Chuo-ku, Kobe, Hyogo 650-8680 Tel: (078) 371-9530
Tokyo Head Office : World Trade Center Bldg., 4-1 Hamamatsu-cho 2-chome, Minato-ku, Tokyo 105-6116 Tel: (03) 3435-2111
http://www.khi.co.jp/

## ~

## MAZDA MOTOR CORPORATION

Head Office : 3-1 Shinchi, Fuchu-cho, Aki-Gun, Hiroshima 730-8670 Tel: (082) 282-1111
Tokyo Head Office : 1-7 Uchisaiwai-cho 1-chome, Chiyoda-ku, Tokyo 100-0011 Tel: (03) 3508-5031
Osaka Branch Office : 1-88-800 Oyodo-naka 1-chome, Kita-ku, Osaka 531-6008 Tel: (06) 6440-5811
http://www.mazda.co.jp/

| Akashi Plant |  |
| :--- | :--- |
| 1-1 Kawasaki-cho, Akashi, Hyogo <br> $673-8666$ | - Motorcycles (65-2000), <br> ATVs (All-Terrain Vehicles), <br> Utility Vehicles, <br> Jet Ski® Watercraft and <br> General-purpose Gasoline Engines |

## $\therefore$ MITSUBISHI MOTORS

MITSUBISHI MOTORS CORPORATION
Head Office : 33-8 Shiba 5-chome, Minato-ku, Tokyo 108-8410 Tel: (03)3456-1111
http://www.mitsubishi-motors.co.jp/ http://www.mitsubishi-motors.com/jp/

| Head Office Plant | 3-1 Shinchi, Fuchu-cho, Aki-Gun, Hiroshima 730-8670 | - Demio, Verisa ,Roadster, RX-8, MPV, Premacy, CX-7, CX-9, Biante, Bongo, Engines, Transmissions |
| :---: | :---: | :---: |
| Hofu Plant | 888-1 Nishinoura, Hofu, Yamaguchi 747-0835 | - Axela, Atenza, Transmissions |
| Miyoshi Office | 551-1 Higashi-sakeya-machi, Miyoshi, Hiroshima 728-0023 | - Engines |

## Nagoya Plant

 Okazaki PlantPowertrain Plant Kyoto Plant

Shiga Plant Mizushima Plant

1 Aza-Nakashinkiri, Hashime-cho, Okazaki, Aichi 444-8501

1 Tatsumi-cho, Uzumasa, Ukyo-ku, Kyoto 616-8501

Colt, Colt Plus, Grandis, Outlander, RVR

Engines and Transmissions
Engines

- Galant fortis, Outlander, i, eK Wagon,

Lancer, Lancer Wagon,
Delica Space Gear, Minica, Pajero Mini, Mini Cab, Town Box and i-MiEV

## $\therefore$ FリSロ

Mitsubishi Fuso Truck and Bus Corporation
Head Office : 890-12 Kashimada, Saiwai-ku, Kawasaki, Kanagawa 212-0058 Tel: (044)330-7700
http://www.mitsubishi-fuso.com/

| Kawasaki Plant | 10 Okura-cho, Nakahara-ku, <br> Kawasaki, Kanagawa 211-8522 |
| :---: | :--- |
| Nakatsu Plant | 4001 Sakuradai, Nakatsu, Aikawa- <br> machi, Aiko-gun, Kanagawa 243-0303 <br> 3998-16 Minami, Motohoshizaki-cho, |
| Oye Bus Plant | Minato-ku, Nagoya, Aichi 455-0025 |

## Ageo Plant

Konosu Plant
Hanyu Plant

UD Trucks Co., LTD.
Head Office : 1-1 Ageo, Saitama 362-8523 Tel: (048) 781-2301 http://www.udtrucks.co.jp/ http://www.udtrucks.com/

## (ID) UD TRUCKS

$\qquad$

1-1 Ageo, Saitama 362-8523
3121-1 Mida, Konosu, Saitama 365-0062 705-24 Komatsudai 2-chome, Hanyu, Saitama 348-0038

## NISSAN

## Nissan Motor Co., Ltd.

Global Headquarters: 1-1, Takashima 1-chome, Nishi-ku, Yokohama-shi, Kanagawa 220-8686
TEL: (045) 523-5523
http://www.nissan.co.jp/
http://www.nissan-global.com/JP/
$\left.\begin{array}{ll}\text { Yokohama Plant } & \begin{array}{l}\text { 2 Takara-cho, Kanagawa-ku, } \\ \text { Yokohama-shi, Kanagawa 220-8623 }\end{array} \\ \begin{array}{l}\text { Oppama Plant, } \\ \text { Nissan Research Center } \\ \text { 1 Natsushima-cho, Yokosuka-shi, }\end{array} \\ \text { Kanagawa 237-8523 }\end{array}, \begin{array}{l}\text { 2500 Kamigamou, Kaminokawa-machi, } \\ \text { Kawachi-gun, Tochigi 329-0692 }\end{array}\right\}$

- Trucks (large, medium, small) and Engines for Trucks, Buses and Industrial Vehicles
Transmissions and Gears and Related Parts
Small-sized Buses, etc.

Large-, Medium- and Small-sized
Trucks, Buses and Engines

- Cast Parts
- Transmissions
- Engines, Axles, and Industrial Parts

Tiida, Note, March, Bluebird Sylphy and Cube

- President, Cima, Fuga,

Fairlady Z/370Z, Infiniti M/G/EX, Skyline and Assembly of Axles - Murano, X-Trail, Dualis, Teana, Lafesta and Assembly of Axles - Engines

- Industrial Parts
- Product/Technical Development and Design Development


## Plants / Facilities

## Major Products

Suzuki Motor Corporation
Head Office : 300 Takatsuka-cho, Minami-ku, Hamamatsu, Shizuoka 432-8611 Tel: (053) 440-2061
Tokyo Branch Office : 23-2 Daikyo-cho, Shinjuku-ku, Tokyo 160-0015 Tel: (03) 3356-2501
http://www.suzuki.co.jp/ http://www.globalsuzuki.com/

| Head (Takatsuka) | 300 Takatsuka-cho, Minami-ku, |
| :---: | :---: |
| Plant | Hamamatsu, Shizuoka 432-8611 |
| Iwata Plant | 2500 Iwai, Iwata, Shizuoka 438-0016 |
| Osuka Plant | 6333 Nishiobuchi, Kakegawa, Shizuoka 437-1304 |
| Kosai Plant | 4520 Shirasuka, Kosai, Shizuoka 431-0451 |
| Toyokawa Plant | 1-2 Utari, Shiratori-cho, Toyokawa, Aichi 442-8575 |
| Sagara Plant | 1111 Shirai, Makinohara, Shizuoka 421-0502 |

- Motorcycle Engines, Machining
- Carry, Every, Jimny, Escudo, etc. - Castings
- Wagon R, MR Wagon, Alto, Palette, Swift, Solio, etc.
- Motorcycles,

Outboard Motors Assembling - SX4, Kizashi, Automobile Engines Assembling, Foundry of Engine Components, Machining

## TOYOTA

## TOYOTA MOTOR CORPORATION

Head Office : 1 Toyota-cho, Toyota, Aichi 471-8571
Tel: (0565) 28-2121
Tokyo Head Office : 4-18 Koraku 1-chome, Bunkyo-ku, Tokyo 112-8701 Tel: (03) 3817-7111
Nagoya Office : 7-1 Meieki 4-chome, Nakamura-ku, Nagoya, Aichi 450-8711 Tel: (052) 552-2111
http://www.toyota.co.jp/

Toyota Motor Kyushu, Inc.
Head Office : 1 Kamiaruki, Miyawaka, Fukuoka 823-0015
Tel: (0949) 32-5151

| Honsha Plant | 1 Toyota-cho, Toyota, Aichi 471-8571 |
| :---: | :---: |
| Motomachi Plant | 1 Motomachi, Toyota, Aichi 471-8573 |
| Kamigo Plant | 1 Taisei-cho, Toyota, Aichi 470-1217 |
| Takaoka Plant | 1 Sankou, Honda-cho, Toyota, Aichi 473-0938 |
| Miyoshi Plant | 1 Namiki, Uchikoshi-cho, Miyoshi, Aichi 470-0213 |
| Tsutsumi Plant | 1 Umanokashira, Tsutsumi-cho, Toyota, Aichi 473-0932 |
| Myochi Plant | 1 Nishiyama, Myochi-cho, Miyoshi, Aichi 470-0214 |
| Shimoyama Plant | 1 Shimoyama, Uchikoshi-cho, Miyoshi, Aichi 470-0213 |
| Kinu-ura Plant | 10-1 Tamatsuura-machi, Hekinan, Aichi 447-0834 |
| Tahara Plant | 3-1 Midorigahama, Tahara, Aichi 441-3401 |
| Teiho Plant | 7 Teiho-cho, Toyota, Aichi 471-8574 |
| Hirose Plant | 543 Kirigahora, Nishi-hirose-cho, Toyota, Aichi 470-0309 |
| Higashi-Fuji | 1200 Mishuku, Susono, Shizuoka |
| Technical Center | 410-1193 |
| Shibetsu Proving | 4545-1 Onnebetsu-cho, Shibetsu, |
| Ground | Hokkaido 095-0181 |

1 Toyota-cho, Toyota, Aichi 471-8571 1 Motomachi, Toyota, Aichi 471-8573
Taisei-cho, Toyota, Aichi 470-1217
1 Sankou, Honda-cho, Toyota, Aichi 473-0938 1 Namiki, Uchikoshi-cho, Miyoshi, 470-0213

Toyota, Aichi 473-0932
1 Nishiyama, Myochi-cho, Miyoshi, 470-0214 Aichi 470-0213
, Amatsura-machi, Hekinan, Alchi 447-0834
-1 Midorigahama, Tahara
Aich $441-3401$

543 Kirigahora, Nishi-hirose-cho,
470-0309
410-1193
Hokkaido 095-0181

- Hybrid System Parts, Forged Parts
- Crown, MarkX, Estima
- Engines
- Corolla, ist, Vitz, Ractis, iQ, Scion xD - Transmission-related Parts, Cold-forged and Sintered Parts, Engine-related Parts
- Prius, Premio, Allion, Camry,

Wish, Scion tC

- Powertrain-related Suspension Cast Parts, Powertrain-related Suspension Machined Parts
Engines, Turbocharges,
Catalytic Converters
- Transmission-related Parts
- LS, RAV4, GS, IS, IS F, Land Cruiser GX, Vanguard, Engines
- Mechanical Equipment, Moldings for Resin and Casting and Forging Research and Development and Production of Electronic Control Devices, ICs
- Development of New Technology for Auto Bodies and Research in New Technology for Engines
- Test and Evaluation for Fast-driving and Cold-climate Running Performance
- Harrier, SAI, IS, ES, RX, HS, Highlander - Engines and Hybrid System Parts
- Automobile Parts Including Automatic Transmissions, Continuously Variable Transmissions, Transfers, Aluminum Wheels


## Toyota Motor Tohoku, Inc.

Head Office : 1-1 Matsusakadaira 5-chome, Taiwa-cho,
Kurokawa-gun, Miyagi 981-3408 Tel: (022) 345-6711

1 Kamiaruki, Miyawaka, Fukuoka 823-0015 9-2 Torigoe-cho, Kanda-machi, Miyako-gun, Fukuoka 800-0304 3914-58 Kusami, Kokura-minami-ku, Kita-Kyushu, Fukuoka

Head Office : 145-1 Yufutsu, Tomakomai, Hokkaido 059-1393 Tel: (0144) 57-2121
Toyota Motor Hokkaido, Inc.

145-1 Yufutsu, Tomakomai, Hokkaido 059-1393


YAMAHA MOTOR CO., Ltd.
Head Office : 2500 Shingai, Iwata, Shizuoka 438-8501
Tel: (0538) 32-1115
Tokyo Office : 1-1 Marunouchi 2-chome, Chiyoda-ku, Tokyo 100-0005 Tel: (03) 5220-7200
http://www.yamaha-motor.co.jp/

| Iwata Main Factory | 2500 Shingai, Iwata, Shizuoka 438-8501 |
| :---: | :---: |
| Iwata South | 800 Tenryu, Iwata, Shizuoka 438-0075 |
| Factory |  |
| Hamakita Factory | 1280 Nakajo, Hamakita-ku, Hamamatsu, Shizuoka 434-8501 |
| Nakaze Factory | 4444 Nakaze, Hamakita-ku, Hamamatsu, Shizuoka 434-0012 |
| Fukuroi Factory | 3080 Yamashina, Fukuroi, Shizuoka 437-0066 |
| Toyooka Factory | 1204 Toyooka-mura, Iwata-gun, Shizuoka 438-0114 |
| Morimachi Factory | 1-2 Nakagawa, Morimachi, Syuchi-gun, Shizuoka 437-0223 |

- Motorcycles (50-1900) and Assembly and Casting/Processing of Snowmobiles - Cast Parts and Continuous Manufacturing of Engines - Forging and Steel Processing
- Plastic Forming and Painting
- Processing of Engine Parts and Packing of Motorcycle Parts for Export - Processing of Major Body Parts
- Frame Welding


## Special Friend:

GM

## GM Japan

## General Motors Japan LIMITED

Head Office : 12-8 Higashi-shinagawa 4-chome,
Shinagawa-ku, Tokyo 140-8687 Tel: (03) 6711-5700
http://www.gmjapan.co.jp/


- Japan Auto Parts Industries Association (JAPIA) 16-15, Takanawa 1-chome, Minato-ku, Tokyo 108-0074 (03) 3445-4211
- Japan Auto-Body Industries Association Inc. (JABIA) 1-30, Shiba-Daimon 1-chome, Minato-ku, Tokyo 105-0012 (03) 3578-1681
- Japan Automotive Machinery and Tool Manufacturers Association (JAMTA) 5-8, Shiba-Koen 3-chome, Minato-ku, Tokyo 105-001 (03) 3431-3773
- Society of Automotive Engineers of Japan, Inc. (JSAE) 10-2, Goban-cho, Chiyoda-ku, Tokyo 102-0076 (03) 3262-8211
- Japan Automobile Research Institute, Inc. (JARI) [Tsukuba] 2530, Karima, Tsukuba, Ibaraki 305-0822 (029) 856-1112
- Japan Automobile Research Institute, Inc. (JARI) [Tokyo] 1-30, Shiba-Daimon 1-chome, Minato-ku, Tokyo 105-0012 (03) 5733-7921
- Automotive Dispute Resolution Center (ADR)

19-5, Toranomon 1-chome, Minato-ku, Tokyo 105-0001 (0120) 028-222

- Japan Automobile Recycling Promotion Center (JARC) 1-30, Shiba-Daimon 1-chome, Minato-ku, Tokyo 105-0012 (03) 5733-8300
- Japan Auto Recycling Partnership (JARP)

1-30, Shiba-Daimon 1-chome, Minato-ku, Tokyo 105-0012 (03) 5405-6150

- Automobile Inspection \& Registration Information Association (AIRIA) 7-2, Irifune 3-chome, Chuo-ku, Tokyo 104-0042 (03) 5542-5101
- Automobile Business Association of Japan

1-30, Shiba-Daimon 1-chome, Minato-ku, Tokyo 105-0012 (03) 3578-3880

- Japan Automobile Dealers Association (JADA)

1-30, Shiba-Daimon 1-chome, Minato-ku, Tokyo 105-8530 (03) 5733-3100

- Japan Mini Vehicles Association

1-30, Shiba-Daimon 1-chome, Minato-ku, Tokyo 105-0012 (03) 5472-7861

- Japan Used Car Dealers Association

25-3, Yoyogi 3-chome, Shibuya-ku, Tokyo 151-0053 (03) 5333-5881

- Japan Automobile Importers Association (JAIA)

1-15, Shiba 3-chome, Minato-ku, Tokyo 104-0045 (03) 5765-6812

- Japan Automobile Federation (JAF)

1-30, Shiba-Daimon 1-chome, Minato-ku, Tokyo 105-0012 (03) 3436-2811

- Japan Auto Appraisal Institute (JAAI) 34-4, Nishi-Shinbashi 2-chome, Minato-ku, Tokyo 105-0003 (03) 5776-0901
- Automobile Fair Trade Council (AFTC)

9-3, Hirakawa-cho 1-chome, Chiyoda-ku, Tokyo 102-0093 (03) 3265-7975

- Japan Automobile Service Promotion Association (JASPA) 10-1, Roppongi 6-chome, Minato-ku, Tokyo 106-6117 (03) 3404-6141
- Japan Automotive Leasing Association (JALA) 23-1, Shiba 2-chome, Minato-ku, Tokyo 105-0014 (03) 5484-7037
- Motorcycle Federation of Japan (MFJ) 11-6, Tsukiji 3-chome, Chuo-ku, Tokyo 104-0045 (03) 5565-0900
- Motorcycle Safety Association 28-11, Honcho 2-chome, Nakano-ku, Tokyo 164-0012 (03) 3372-5156
- Nippon MotorCycle Association (NMCA)

7-12, Otsuka 5-chome, Bunkyo-ku, Tokyo 112-0012 (03) 6902-8190

- Japan Automobile Education Foundation (JAEF) 1-30, Shiba-Daimon 1-chome, Minato-ku, Tokyo 105-0012 (03) 5733-3841
- General Insurance Association of Japan

9, Kanda-Awajicho 2-chome, Chiyoda-ku, Tokyo 101-8335 (03) 3255-1306

- Institute for Traffic Accident Research and Data Analysis 6-6, Kojimachi, Chiyoda-ku, Tokyo 102-0083 (03) 3515-2525
- Japan Automobile Transport Technology Association (JATA) 6, Rokuban-cho, Chiyoda-ku, Tokyo 102-0085 (03) 3556-2161
- Japan Automobile Standards Internationalization Center (JASIC) 6, Rokuban-cho, Chiyoda-ku, Tokyo 102-0085 (03) 5216-7241
- ITS Japan

6-8, Shiba-Koen 2-chome, Minato-ku, Tokyo 105-0011 (03) 5777-1012

- Japan Industrial Vehicles Association (JIVA)

5-26, Moto-Akasaka 1-chome, Minato-ku, Tokyo 107-0051 (03) 3403-5556

- Japan Trucking Association

6-1, Nishi-Shinjuku 1-chome, Shinjuku-ku, Tokyo 163-1519 (03) 5323-7109

- Nihon Bus Association

4-1, Marunouchi 3-chome, Chiyoda-ku, Tokyo 100-0005 (03) 3216-4011

- All Japan Freight Forwarders Association

2-21, Kanda-Awajicho, Chiyoda-ku, Tokyo 101-0063 (03) 5296-1670

- Japan Federation of Taxicab Associations

8-13, Kudan-Minami 4-chome, Chiyoda-ku, Tokyo 102-0074 (03) 3239-1531

- Japan Rent-A-Car Association

1-30, Shiba-Daimon 1-chome, Minato-ku, Tokyo 105-0012 (03) 5472-7328

- Japan Federation of Authorized Driving School Associations 2-1, Yotsuya 3-chome, Shinjuku-ku, Tokyo 160-0004 (03) 3359-8431
- Japan Automobile Tyre Manufacturers Association, Inc. 8-21, Toranomon 3-chome, Minato-ku, Tokyo 105-0001 (03) 3435-9091
- Auto-Parts \& Accessories Retail Association (APARA) 1-7, Shiba 5-chome, Minato-ku, Tokyo 108-0014 (03) 3454-1427
- Japan Traffic Safety Association

8-13, Kudan-Minami 4-chome, Chiyoda-ku, Tokyo 102-0074 (03) 3264-2641

- The Japan Research Center for Transport Policy 12-6, Kudan-Kita 1-chome, Chiyoda-ku, Tokyo 102-0073 (03) 3263-1945
- Japan Road Association

3-1, Kasumigaseki 3-chome, Chiyoda-ku, Tokyo 100-8955 (03) 3581-2211

- Express Highway Research Foundation of Japan (EHRF)

17-5, Shiba 4-chome, Minato-ku, Tokyo 108-0014 (03) 6436-2100

- Vehicle Information and Communication System Center 5-7, Kyobashi 2-chome, Chuo-ku, Tokyo 104-0031 (03) 3562-1720
© JAMA. All rights reserved. Printed with soy ink.


[^0]:    Notes: 1. Motor vehicles include passenger cars, trucks, buses, and chassis. 2. FOB (free-on-board): Transaction value, including freight and insurance, up to loading onboard transport

[^1]:    "mini" ( 660 cc and under); see page 74 for details. 2 . KD sets have been excluded since 1979; they represent less than $60 \%$ of the cost of compositional components per vehicle and have

[^2]:    Notes: 1. Data compilation was chassis-based through 2002, then vehicle registration number-based as of 2003. 2. Figures for mini-vehicle as of 2004 reflect the use of a new calculation method.

[^3]:    Notes: 1. Passenger cars are classified under Japan's Road Vehicles Act in three categories, based primarily on engine capacity: "standard" (over 2,000cc), "small" (661cc-2,000cc), and "mini" ( 660 cc and under); see page 74 for details. 2. Includes imported vehicles. 3. "Other" refers to emergency vehicles, special vehicles equipped with beds, refrigerated trucks, tank trucks, tractors, bulldozers, steamrollers, snowplows, snowmobiles, etc., that are assigned special registration numbers. 4. "Chg. (\%)" means change from the previous year (with the previous year's result indexed at 100).

[^4]:    under); see page 74 for details. Vehicle type classification in this table differs somewhat from that used in Ministry of Finance export data. 2. Figures represent ex-factory export shipments of motor vehicles 4. "Chg. (\%)" means change from the previous year (with the previous year's result indexed at 100).

[^5]:    Note: "Chg. (\%)" means change from the previous year (with the previous year's result indexed at 100),

[^6]:    Notes: 1. Motor-driven cycle data is as at April 1, and since 2006 motorcycles with engine capacity of 125 cc and under whose owners fail to pay the mandatory motorcycle ownership tax are not included in this data. 2. "Chg. (\%)" means change from the previous year (with the previous year's result indexed at 100).

    Sources: Ministry of Land, Infrastructure, Transport and Tourism; since 2006 (only for the 125 cc -and-under categories), Ministry of Internal Affairs and Communications

[^7]:    Notes: 1. Figures represent ex-factory export shipments of motorcycles manufactured in Japan. 2. Class 2 motor-driven cycles include three-wheeled motor-driven cycles. 3. KD sets have been excluded since 1979; they represent less than $60 \%$ of the cost of compositional components per vehicle and have been treated as components since 1988. 4. "Chg. (\%)" means change from the previous year (with the previous year's result indexed at 100).

[^8]:    (1) The NOx value in Japan's post-new long-term regulations is to be reduced to approximately one-third of the value indicated in the chart ( $0.7 \mathrm{~g} / \mathrm{kWh}$ ) as a post-2009 target value; exact

[^9]:    Note: Manufacturers are listed in alphabetical order. Only plants related to motor vehicle production are listed here.

