

✕ THE MOTOR INDUSTRY ✕
OF JAPAN

2016

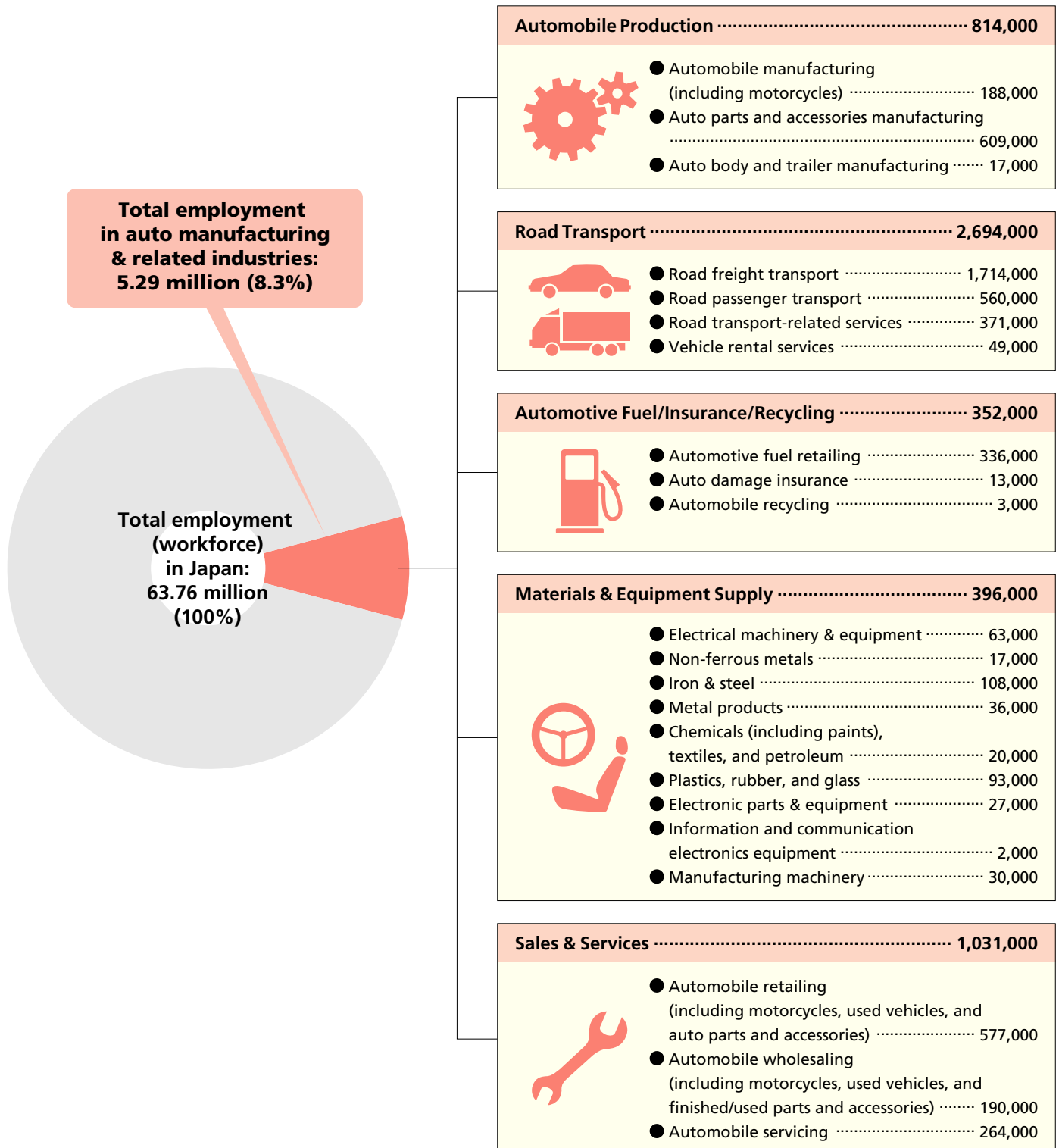
JAPAN AUTOMOBILE MANUFACTURERS ASSOCIATION, INC.

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 to sales, servicing, freight shipping and other auto-centered operations. Auto-related employment in Japan at present totals 5.29 million people.

● EMPLOYMENT IN THE AUTOMOBILE MANUFACTURING AND RELATED INDUSTRIES

Number of employees



Note: Figures are rounded off to the nearest thousand.

Automobile Manufacturing Is an Integrated Industry

An automobile typically is composed of 20,000 to 30,000 parts, all of which even the largest vehicle manufacturers cannot produce themselves. Automakers therefore either outsource production or purchase finished products (such as tires, batteries, air conditioners and audio systems). Finished products purchased by the automakers include products manufactured abroad, and 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.

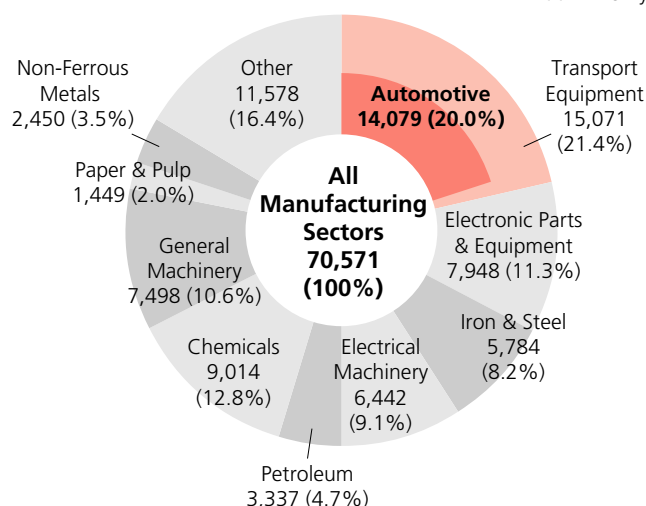
● PRINCIPAL MATERIALS AND COMPONENTS USED IN AUTOMOBILE MANUFACTURING

Cast iron	Engine parts, e.g. cylinder blocks
Common steel	Chassis, frames, wheel parts
Special steel	Gears, axle shafts, crankshafts, fuel 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 aftertreatment 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 aftertreatment parts
Textiles	Seats, linings, seatbelts
Leather	Seats, packing
Paper	Filters
Wood	Load-carrying platforms, interior equipment
Paints	Ornamental and rustproof paints
Chemicals	Antifreeze, engine oil, transmission oil, brake oil
Animal and vegetable oils	For casting
Fats and oils	For lubrication, heat treatment, etc.

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, inverters, meters	
Audio systems, 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

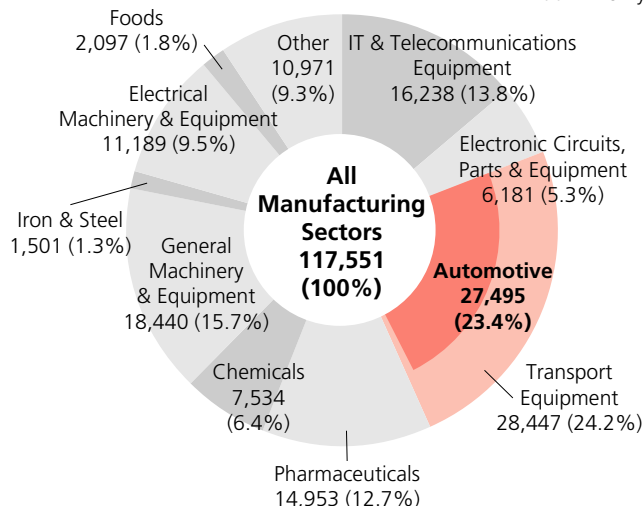
● INVESTMENTS IN EQUIPMENT OF MAJOR MANUFACTURING SECTORS (PROJECTED, FY 2015)

x 100 million yen



● INVESTMENTS IN R&D OF MAJOR MANUFACTURING SECTORS (FY 2014)

x 100 million yen



Note: Japan's fiscal year (FY) starts on April 1 and ends on March 31 of the following year.
Source: Survey on Planned Capital Spending, Development Bank of Japan

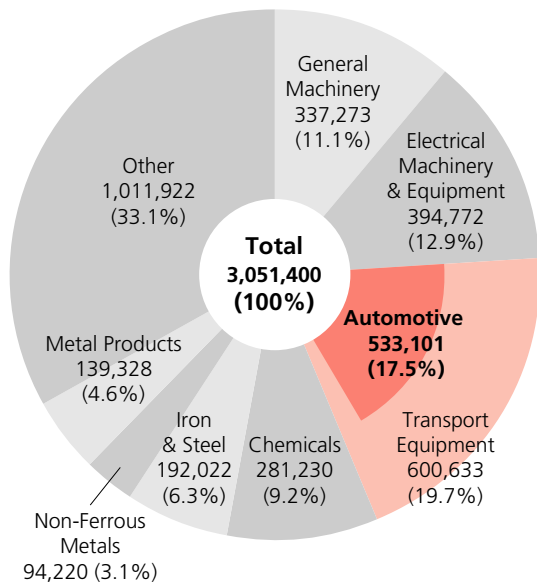
Source: Survey on Research Activities in Science and Technology, Ministry of Internal Affairs and Communications

Automobile Manufacturing Is a Core Industry

The automotive industry is one of the Japanese economy's core industrial sectors. In 2014 automotive shipments accounted for 17.5% of the total value of Japan's manufacturing shipments, and 40.0% 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 53.3 trillion yen in 2014, up 2.6% from the previous year.

SHIPMENTS OF MAJOR MANUFACTURING SECTORS IN VALUE TERMS (2014)

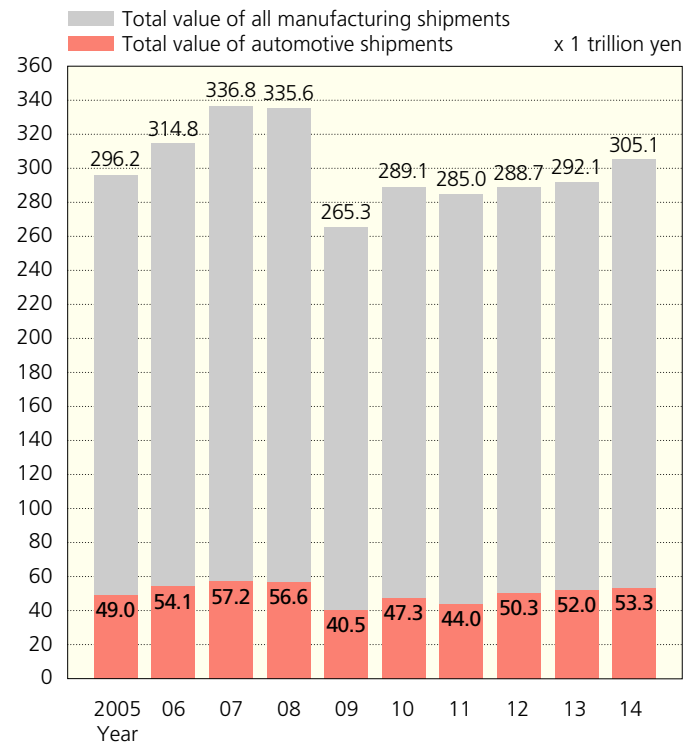
x 100 million yen



Breakdown of automotive shipments:

- Automobiles (including motorcycles) 220,293
- Auto bodies and trailers 5,730
- Automotive parts and accessories 307,078

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	Transport Equipment				Subtotal	As % of Value of Machinery Shipments	As % of Total Value of Manufacturing Shipments
								Automotive					
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
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
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
2009	242,757	159,884	69,400	124,267	289,320	400,593	471,866	404,915	1,161,779	894,503	2,652,590	34.9	15.3
2010	262,120	181,463	89,114	122,920	306,186	442,848	542,136	472,962	1,291,170	944,290	2,891,077	36.6	16.4
2011	263,512	186,656	90,225	121,277	322,495	403,789	505,870	439,592	1,232,154	955,863	2,849,688	35.7	15.4
2012	260,379	180,121	89,228	128,607	330,816	369,426	564,858	502,627	1,265,100	963,841	2,887,276	39.7	17.4
2013	274,092	179,053	88,059	130,606	320,911	368,283	582,032	519,710	1,271,226	977,885	2,920,921	40.9	17.8
2014	281,230	192,022	94,220	139,328	337,273	394,772	600,633	533,101	1,332,678	1,011,922	3,051,400	40.0	17.5

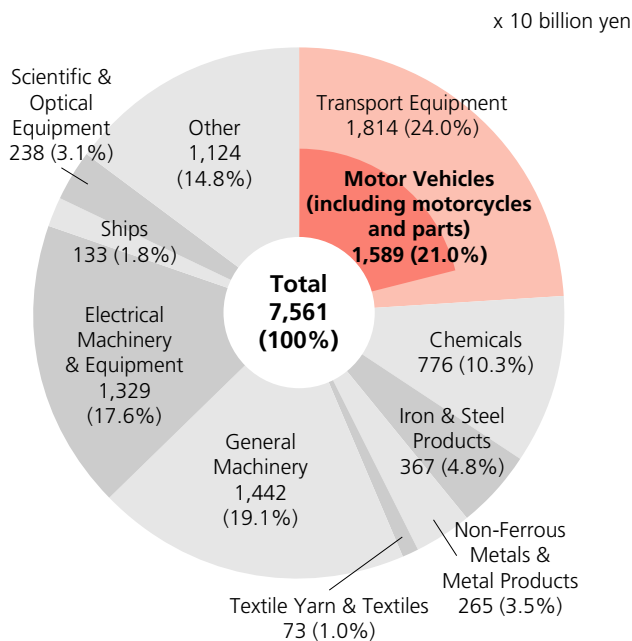
Notes: 1. Shipments from all manufacturing operations with four or more employees are included in this data. 2. Compilation of data on production in value terms was discontinued in 1996 and replaced by data on shipments in value terms. 3. Figures in value terms include domestic consumption tax revenue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

Source for all statistical data on this page: Census of Manufactures, Ministry of Economy, Trade and Industry

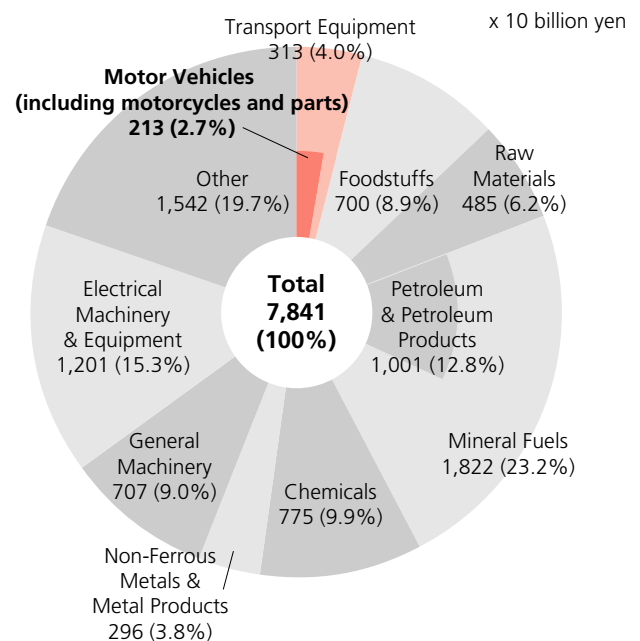
Motor Vehicle Exports and Imports in Value Terms Both Show an Increase

In 2015 Japan's gross exports rose by 3.4% from the previous year, but imports declined by 8.7%. In value terms, automotive exports grew 7.5% from 2014 to 15.9 trillion yen, and automotive imports increased by 1.6% year-on-year to 2.1 trillion yen.

EXPORTS BY PRINCIPAL COMMODITY (FOB) IN 2015



IMPORTS BY PRINCIPAL COMMODITY (CIF) IN 2015



AUTOMOTIVE EXPORTS IN VALUE TERMS (FOB)

x 100 million yen

Year	Motor Vehicles				Exports Total	
		Chg. (%)	Passenger Cars, Trucks, Buses	Auto Parts	Motorcycles & Motorcycle Parts	Chg. (%)
2007	185,267	114.5	143,170	33,555	8,543	111.5
2008	175,126	94.5	137,361	30,655	7,110	96.5
2009	93,679	53.5	66,933	23,089	3,657	66.9
2010	125,956	134.5	91,741	30,833	3,382	124.4
2011	115,417	91.6	82,042	29,972	3,403	97.3
2012	127,521	110.5	92,250	32,051	3,220	97.3
2013	142,411	111.7	104,125	34,762	3,524	109.5
2014	147,849	103.8	109,194	34,750	3,905	104.8
2015	158,912	107.5	120,463	34,830	3,619	103.4

AUTOMOTIVE IMPORTS IN VALUE TERMS (CIF)

x 100 million yen

Year	Motor Vehicles				Imports Total	
		Chg. (%)	Passenger Cars, Trucks, Buses	Auto Parts	Motorcycles & Motorcycle Parts	Chg. (%)
2007	16,531	108.5	9,294	6,291	945	108.6
2008	15,138	91.6	7,499	6,662	978	108.0
2009	8,982	59.3	4,549	3,696	736	65.2
2010	11,518	128.2	5,958	4,879	682	118.0
2011	12,805	111.2	7,352	4,717	736	112.1
2012	15,506	121.1	9,082	5,549	875	103.8
2013	18,948	122.2	10,857	6,981	1,109	114.9
2014	20,925	110.4	11,623	8,148	1,154	105.7
2015	21,261	101.6	11,398	8,770	1,093	91.3

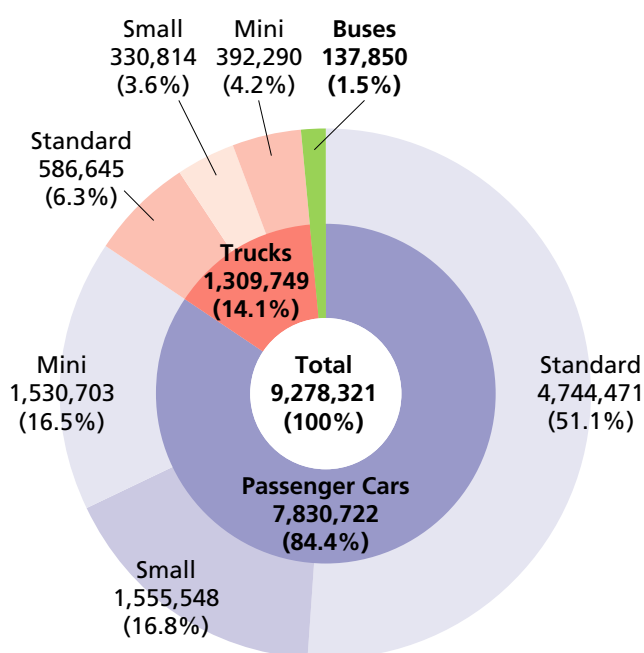
Notes: 1. "Passenger Cars, Trucks, Buses" includes chassis. 2. FOB: Free on board; CIF: Cost, insurance, and freight. 3. "Chg. (%)" means change from the previous year (with the previous year's result indexed at 100).

Motor Vehicle Production Down for First Time in 2 Years

In 2015 motor vehicle production in Japan totalled 9.28 million units, down 5.1% from the previous year. Passenger car production declined 5.4% to a total of 7.83 million units. Within that category, whereas small car and minicar production dropped 11.2% and 18.1%, to 1.56 million and 1.53 million units respectively, standard car production rose 1.9% to 4.74 million units. Meanwhile, truck and bus production showed a decrease from 2014, slipping 3.5% to 1.31 million units and 1.4% to 138,000 units, respectively.

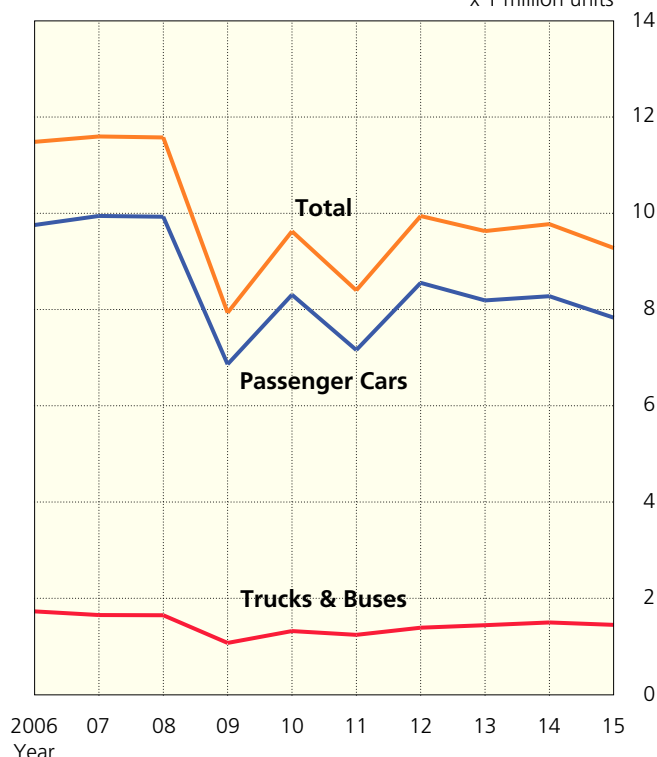
MOTOR VEHICLE PRODUCTION BY TYPE IN 2015

In vehicle units



TRENDS IN MOTOR VEHICLE PRODUCTION

x 1 million units

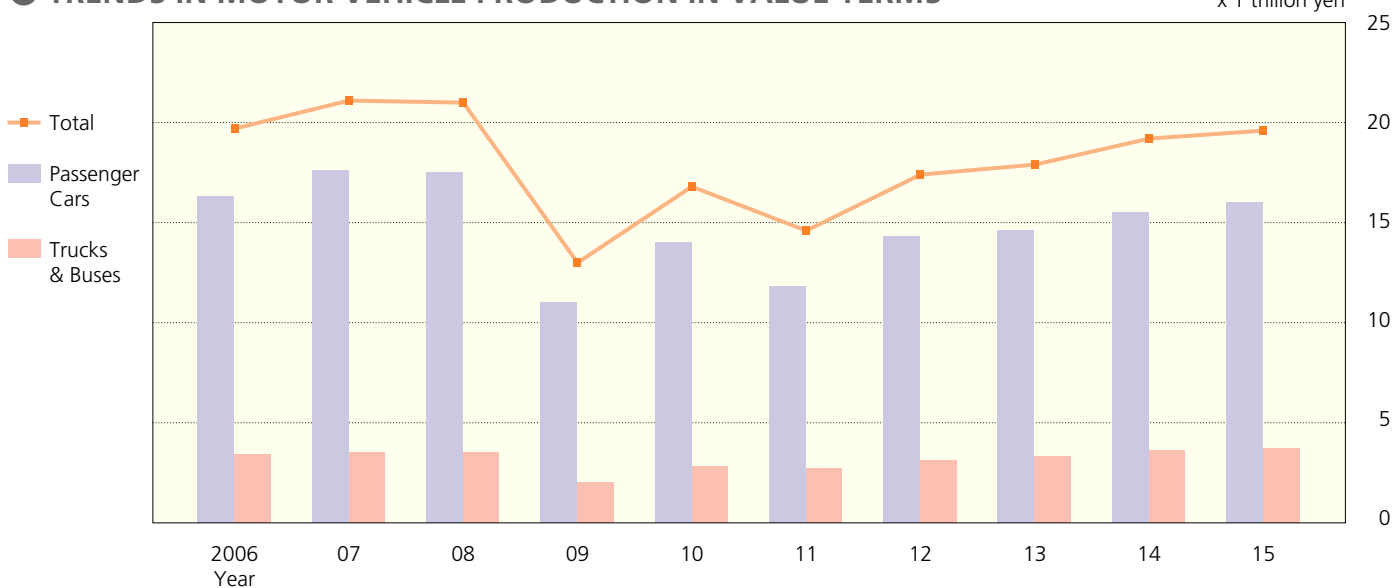


MOTOR VEHICLE PRODUCTION

Year	Passenger Cars					Trucks		
	Standard	Small	Mini	Subtotal	Chg. (%)	Standard	Small	Mini
1970	51,619	2,377,639	749,450	3,178,708	121.7	258,100	1,253,861	551,922
1975	209,032	4,198,550	160,272	4,567,854	116.2	288,170	1,610,475	438,987
1980	403,338	6,438,847	195,923	7,038,108	114.0	885,198	2,113,311	914,679
1985	494,792	6,991,432	160,592	7,646,816	108.1	1,278,212	1,877,893	1,388,583
1990	1,750,783	7,361,224	835,965	9,947,972	109.9	1,249,525	1,262,943	986,171
1995	2,553,703	4,140,629	916,201	7,610,533	97.5	824,140	909,321	804,276
2000	3,376,447	3,699,893	1,283,094	8,359,434	103.2	649,180	483,282	594,356
2005	4,191,360	3,416,622	1,408,753	9,016,735	103.4	723,663	436,763	546,185
2006	4,915,428	3,302,265	1,537,210	9,754,903	108.2	699,410	419,404	521,879
2007	5,864,354	2,638,842	1,441,441	9,944,637	101.9	718,901	365,532	453,587
2008	5,786,333	2,714,413	1,427,397	9,928,143	99.8	734,923	329,758	443,718
2009	3,459,589	2,145,279	1,257,293	6,862,161	69.1	371,686	215,139	398,276
2010	4,846,411	2,159,119	1,304,832	8,310,362	121.1	520,627	238,776	449,776
2011	4,180,361	1,861,279	1,116,885	7,158,525	86.1	512,260	234,586	389,150
2012	4,686,396	2,252,672	1,615,435	8,554,503	119.5	583,156	275,992	407,206
2013	4,618,014	1,888,759	1,682,550	8,189,323	95.7	580,012	300,635	427,530
2014	4,657,765	1,750,895	1,868,410	8,277,070	101.1	604,768	327,928	425,065
2015	4,744,471	1,555,548	1,530,703	7,830,722	94.6	586,645	330,814	392,290

Notes: 1. Passenger cars and trucks are classified under Japan's Road Vehicles Act in three categories, based primarily on engine capacity: "standard" (over 2,000cc), "small" (661cc-vehicle and have 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



● MOTOR VEHICLE PRODUCTION IN VALUE TERMS

x 1 million yen

Year	Passenger Cars				Trucks					Buses			Total
	Standard	Small	Mini	Subtotal	Standard	Small	Mini	Tractors	Subtotal	Large	Small	Subtotal	
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
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	1,127,974	312,497	281,888	34,778	1,757,137	109,723	166,115	275,838	12,998,681
2010	10,239,303	2,609,861	1,207,423	14,056,587	1,684,489	358,081	323,800	75,944	2,442,314	118,300	211,359	329,659	16,828,560
2011	8,451,638	2,343,337	1,045,460	11,840,435	1,713,798	351,515	285,454	89,976	2,440,743	97,157	199,301	296,458	14,577,636
2012	9,683,441	3,091,067	1,486,926	14,261,434	1,954,449	422,502	302,836	106,209	2,785,996	120,992	237,199	358,191	17,405,621
2013	10,422,008	2,628,986	1,579,510	14,630,504	1,987,340	479,914	312,959	102,073	2,882,286	119,670	290,001	409,671	17,922,461
2014	11,110,107	2,636,872	1,795,440	15,542,419	2,189,242	546,377	313,522	118,091	3,167,232	124,114	318,410	442,524	19,152,175
2015	12,041,915	2,458,198	1,473,103	15,973,216	2,189,038	576,037	300,368	131,002	3,196,445	139,614	328,488	468,102	19,637,763

Source: Ministry of Economy, Trade and Industry

In vehicle units

Subtotal		Buses				Total		Year
		Large (≥30 passengers)	Small (≤29 passengers)	Subtotal	Chg. (%)			
2,063,883	102.1	15,265	31,301	46,566	111.3	5,289,157	113.1	1970
2,337,632	90.8	13,624	22,481	36,105	78.8	6,941,591	105.9	1975
3,913,188	115.2	16,470	75,118	91,588	146.4	11,042,884	114.6	1980
4,544,688	105.2	15,547	64,044	79,591	110.2	12,271,095	107.0	1985
3,498,639	89.0	15,787	24,398	40,185	95.5	13,486,796	103.5	1990
2,537,737	93.9	12,814	34,452	47,266	96.2	10,195,536	96.6	1995
1,726,818	98.8	8,035	46,509	54,544	112.7	10,140,796	102.5	2000
1,706,611	98.6	11,763	64,550	76,313	126.3	10,799,659	102.7	2005
1,640,693	96.1	11,063	77,574	88,637	116.1	11,484,233	106.3	2006
1,538,020	93.7	11,516	102,154	113,670	128.2	11,596,327	101.0	2007
1,508,399	98.1	11,660	127,442	139,102	122.4	11,575,644	99.8	2008
985,101	65.3	8,783	78,012	86,795	62.4	7,934,057	68.5	2009
1,209,179	122.7	10,274	99,060	109,334	126.0	9,628,875	121.4	2010
1,135,996	93.9	9,427	94,682	104,109	95.2	8,398,630	87.2	2011
1,266,354	111.5	10,598	111,622	122,220	117.4	9,943,077	118.4	2012
1,308,177	103.3	9,755	122,926	132,681	108.6	9,630,181	96.9	2013
1,357,761	103.8	9,402	130,432	139,834	105.4	9,774,665	101.5	2014
1,309,749	96.5	11,425	126,425	137,850	98.6	9,278,321	94.9	2015

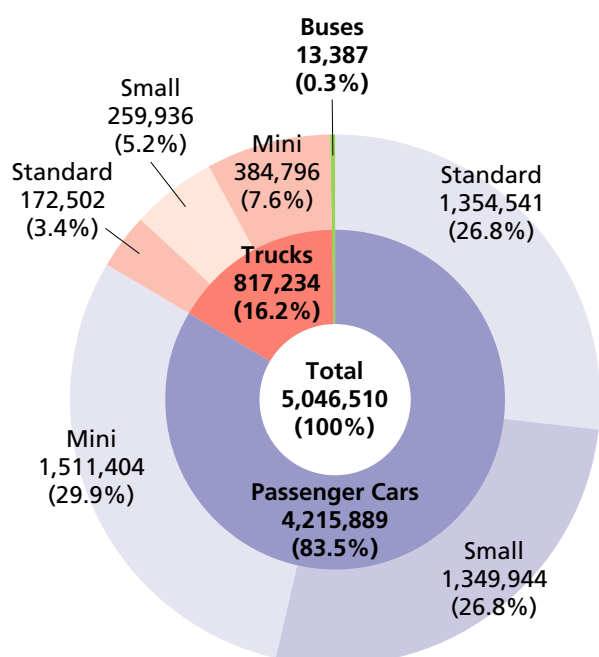
2,000cc), and "mini" (660cc and under); see page 66 for details. 2. KD sets have been excluded since 1979; they represent less than 60% of the cost of compositional components per
Source: Japan Automobile Manufacturers Association

Motor Vehicle Sales Decline for First Time in 4 Years

Passenger car and commercial vehicle demand in Japan in 2015 totalled 5.05 million units, a decrease of 9.3% from the previous year. Total passenger car sales declined 10.3% to 4.22 million units, with standard cars, small cars, and minicars dropping 5.8% to 1.36 million units, 5.1% to 1.35 million units, and 17.8% to 1.51 million units, respectively. Notwithstanding the growth in standard and small truck sales, overall truck sales fell 4.0% from 2014 to 817,000 units, whereas buses increased 11.7% to 13,000 units.

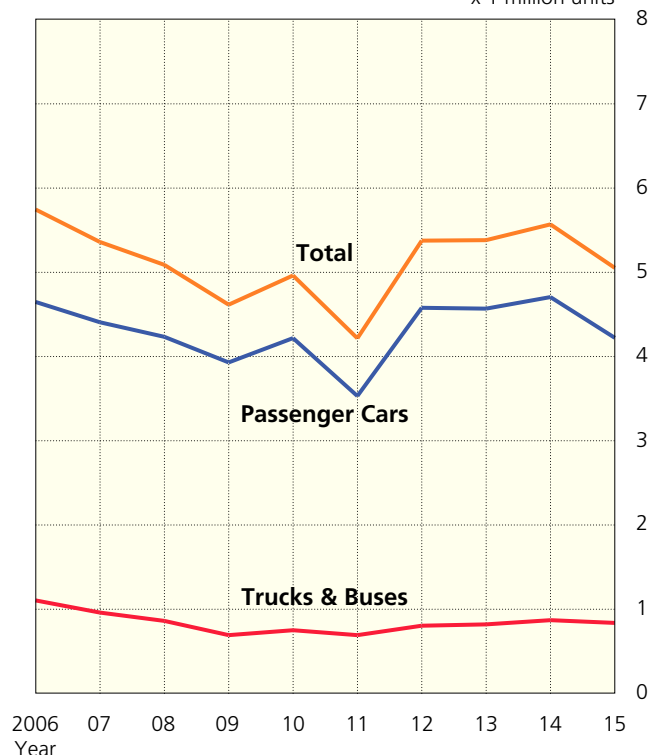
NEW MOTOR VEHICLE REGISTRATIONS BY TYPE IN 2015

In vehicle units



TRENDS IN NEW MOTOR VEHICLE REGISTRATIONS

x 1 million units



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
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
2010	1,419,909	1,507,693	1,284,665	4,212,267	107.4	101,697	187,642	441,755	731,094	108.6
2011	1,139,910	1,246,126	1,138,752	3,524,788	83.7	107,290	185,097	382,393	674,780	92.3
2012	1,411,700	1,602,951	1,557,681	4,572,332	129.7	136,359	227,326	421,765	785,450	116.4
2013	1,399,407	1,472,704	1,690,171	4,562,282	99.8	143,272	235,883	422,820	801,975	102.1
2014	1,437,589	1,422,883	1,839,119	4,699,591	103.0	164,815	252,828	433,671	851,314	106.2
2015	1,354,541	1,349,944	1,511,404	4,215,889	89.7	172,502	259,936	384,796	817,234	96.0

Notes: 1. Chassis-based through 2002, data compilation became vehicle registration number-based as of 2003. 2. Truck figures include special-purpose vehicles (except large ones). 3. Data

● NEW MINI-VEHICLE SALES BY TYPE

In vehicle units

Year	Passenger Cars (Minicars)	Commercial Vehicles ("Bonnet" minivans)	Commercial Vehicles (Cab-over-engine minivans)	Commercial Vehicles (Mini-trucks)	Total	
						Chg. (%)
2006	1,507,598	68,714	204,838	242,469	2,023,619	105.2
2007	1,447,106	57,509	196,040	219,164	1,919,819	94.9
2008	1,426,979	51,622	185,806	205,486	1,869,893	97.4
2009	1,283,429	42,932	167,358	194,452	1,688,171	90.3
2010	1,284,665	41,630	180,505	219,620	1,726,420	102.3
2011	1,138,752	33,023	168,705	180,665	1,521,145	88.1
2012	1,557,681	27,730	198,843	195,192	1,979,446	130.1
2013	1,690,171	25,199	194,728	202,893	2,112,991	106.7
2014	1,839,119	22,929	194,431	216,311	2,272,790	107.6
2015	1,511,404	18,536	184,127	182,133	1,896,200	83.4

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	SUVs	Minivans	Total	
						Chg. (%)
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
2010	365,565	8,762	195,783	946,473	1,516,583	108.7
2011	378,041	8,482	170,304	748,133	1,304,960	86.0
2012	430,995	10,165	212,341	902,715	1,556,216	119.3
2013	404,075	9,887	227,532	770,541	1,412,035	90.7
2014	423,917	9,691	374,220	750,999	1,558,827	110.4
2015	337,968	9,972	383,478	759,155	1,490,573	95.6

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						Year
Large	Small	Subtotal	Chg. (%)	Total	Chg. (%)	Total Vehicle Registrations	Chg. (%)	Total Mini-Vehicles	Chg. (%)	
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
6,475	10,828	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
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
4,777	7,998	12,775	101.6	4,956,136	107.5	3,229,716	110.6	1,726,420	102.3	2010
3,136	7,515	10,651	83.4	4,210,219	84.9	2,689,074	83.3	1,521,145	88.1	2011
4,266	7,672	11,938	112.1	5,369,720	127.5	3,390,274	126.1	1,979,446	130.1	2012
4,181	7,075	11,256	94.3	5,375,513	100.1	3,262,522	96.2	2,112,991	106.7	2013
4,498	7,485	11,983	106.5	5,562,888	103.5	3,290,098	100.8	2,272,790	107.6	2014
5,260	8,127	13,387	111.7	5,046,510	90.7	3,150,310	95.8	1,896,200	83.4	2015

includes imported cars. 4. "Chg. (%)" means change from the previous year (with the previous year's result indexed at 100).

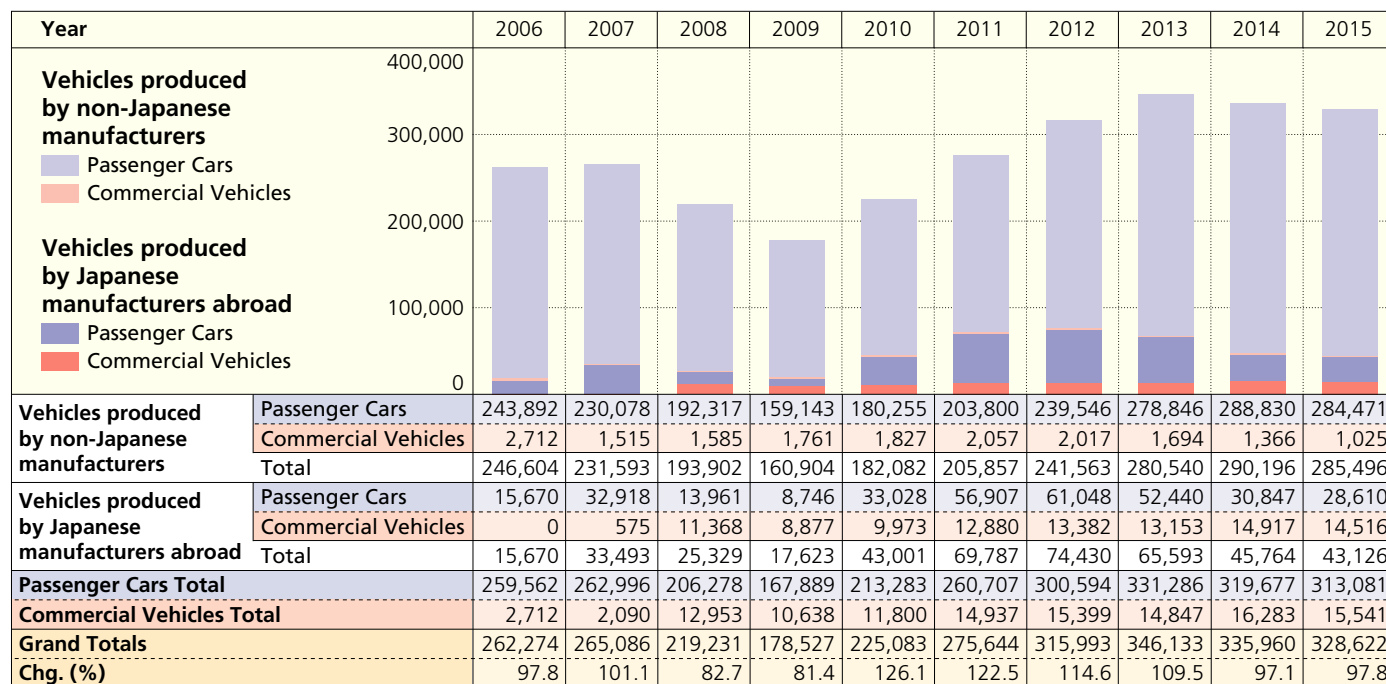
Sources: Japan Automobile Dealers Association; Japan Mini Vehicles Association

Sales of Imported Vehicles Dip for Second Consecutive Year

Imported vehicle sales in Japan in 2015 totalled 329,000 units, down 2.2% from the previous year, with passenger cars falling 2.1% to 313,000 units and commercial vehicles (trucks and buses) dropping 4.6% to 16,000 units. Meanwhile, sales of used imported vehicles increased 2.0% to 514,000 units, with used imported passenger cars growing 2.1% to 495,000 units and used imported trucks rising 1.4% to 15,000 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
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
2010	230,791	158.4	11,922	780	243,493	156.7	353,260
2011	273,798	118.6	14,185	816	288,799	118.6	386,949
2012	333,380	121.8	15,107	948	349,435	121.0	421,991
2013	343,730	103.1	16,255	1,348	361,333	103.4	438,737
2014	336,764	98.0	16,662	1,278	354,704	98.2	410,143
2015	320,295	95.1	15,873	820	336,988	95.0	353,519

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).

Source: Trade Statistics of Japan, Ministry of Finance

USED IMPORTED VEHICLE SALES

In vehicle units

Year	Passenger Cars	Chg. (%)	Trucks	Chg. (%)	Special-Purpose Vehicles	Chg. (%)	Other	Total	Chg. (%)
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
2010	461,050	97.9	13,381	106.6	7,878	78.1	182	482,491	97.7
2011	462,435	100.3	14,370	107.4	6,756	85.8	164	483,725	100.3
2012	487,675	105.5	14,636	101.9	5,469	81.0	248	508,028	105.0
2013	487,750	100.0	15,428	105.4	4,724	86.4	220	508,122	100.0
2014	485,055	99.4	15,156	98.2	3,963	83.9	185	504,359	99.3
2015	495,170	102.1	15,373	101.4	3,649	92.1	171	514,363	102.0

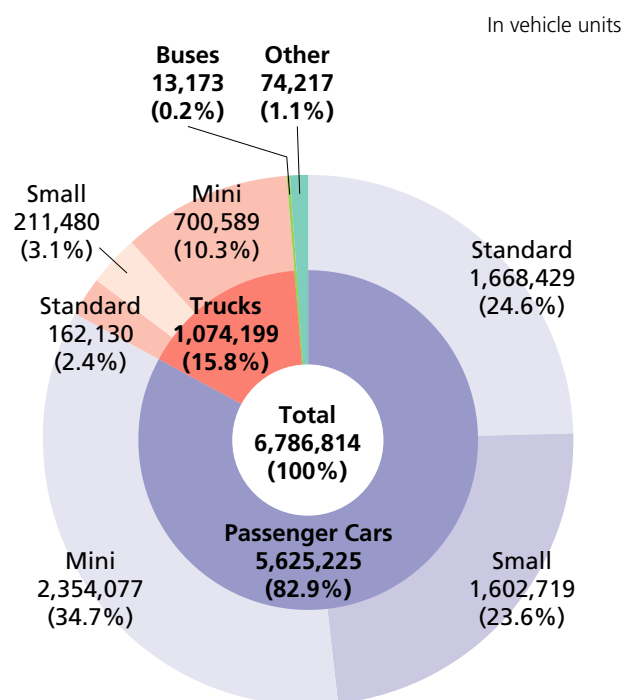
Notes: 1. For motor vehicle classifications in Japan, see page 66. 2. "Other" includes buses, large special-purpose vehicles and small-sized three-wheeled trucks. 3. "Chg. (%)" means change from the previous year (with the previous year's result indexed at 100).

Source: Japan Automobile Importers Association

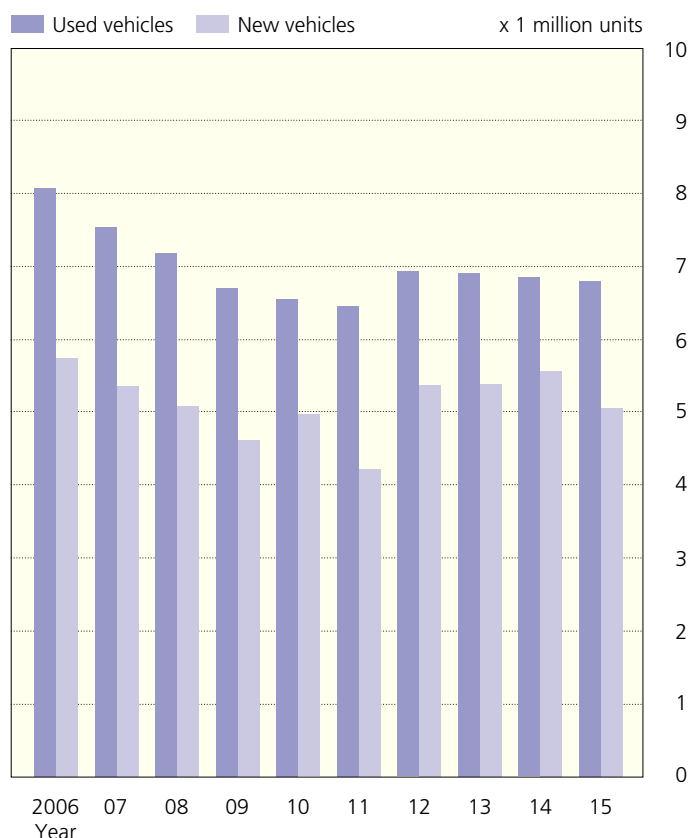
Used Vehicle Sales Fall for Third Consecutive Year

In 2015 sales of used motor vehicles slipped 0.8% from the previous year to total 6.79 million units. Used passenger car sales dipped 0.5% to 5.63 million units, with standard passenger cars rising 2.3% to 1.67 million units, but small cars and minicars dropping 3.1% to 1.60 million units and 0.6% to 2.35 million units, respectively. Sales of used trucks slid 2.4% to 1.07 million units, whereas sales of used buses climbed 5.1% to 13,000 units.

USED VEHICLE SALES BY TYPE IN 2015



TRENDS IN NEW AND USED MOTOR VEHICLE SALES



USED MOTOR VEHICLE SALES

In vehicle units

Year	Passenger Cars					Trucks					Buses		Other			
	Standard	Small	Mini	Subtotal	Chg. (%)	Standard	Small	Mini	Subtotal	Chg. (%)		Chg. (%)		Chg. (%)	Total	Chg. (%)
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
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
2010	1,592,110	1,816,696	1,873,466	5,282,272	98.9	177,327	245,642	732,854	1,155,823	92.6	14,163	92.6	87,238	91.4	6,539,496	97.6
2011	1,542,614	1,733,519	1,906,523	5,182,656	98.1	168,470	233,556	769,613	1,171,639	101.4	13,849	97.8	82,007	94.0	6,450,151	98.6
2012	1,688,606	1,826,335	2,133,725	5,648,666	109.0	168,439	235,246	769,469	1,173,154	100.1	14,799	106.9	82,484	100.6	6,919,103	107.3
2013	1,666,732	1,740,725	2,255,560	5,663,017	100.3	167,793	223,734	746,631	1,138,158	97.0	12,830	86.7	81,016	98.2	6,895,021	99.7
2014	1,630,421	1,653,214	2,367,235	5,650,870	99.8	163,536	215,295	721,406	1,100,237	96.7	12,531	97.7	76,536	94.5	6,840,174	99.2
2015	1,668,429	1,602,719	2,354,077	5,625,225	99.5	162,130	211,480	700,589	1,074,199	97.6	13,173	105.1	74,217	97.0	6,786,814	99.2

Notes: 1. Passenger cars and trucks 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" (660cc and under); see page 66 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).

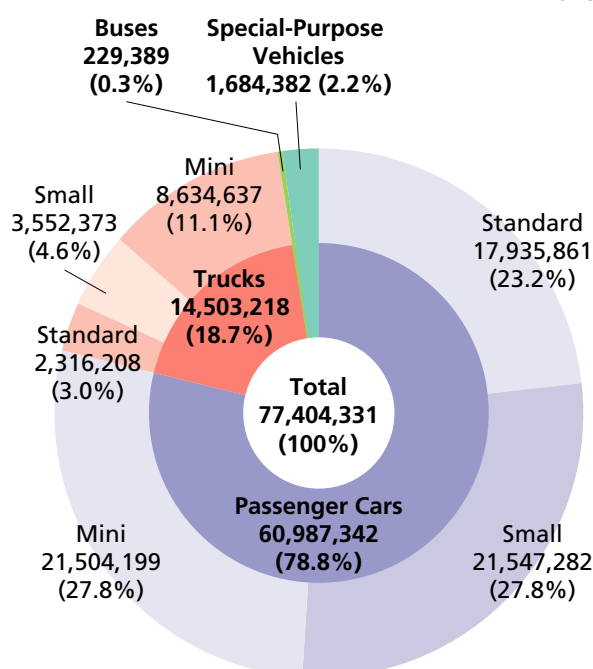
Sources: Japan Automobile Dealers Association; Japan Mini Vehicles Association

Continued Increase in Number of Motor Vehicles in Use

At the end of December 2015, motor vehicles in use in Japan (excluding motorcycles) totalled 77.4 million units, a 0.3% increase over the previous year. Passenger cars in use increased 0.5% to 61.0 million units, with standard and minicars growing 1.3% and 2.5% to 17.9 million and 21.5 million units respectively, but small cars dropping 1.9% to 21.5 million units. Meanwhile, trucks in use dipped 0.8% from 2014 to 14.5 million units, but buses in use rose 1.1% to 229,000 units. At the end of March 2015, the average service life of motor vehicles in Japan was 12.38 years for passenger cars, 13.72 years for trucks, and 16.95 years for buses.

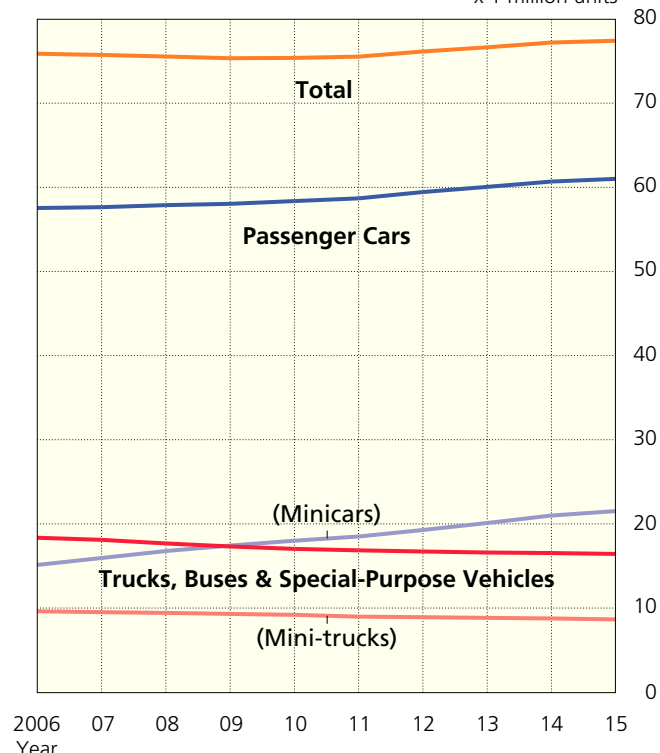
MOTOR VEHICLES IN USE BY TYPE AT END OF 2015

In vehicle units



TRENDS IN MOTOR VEHICLES IN USE

x 1 million units



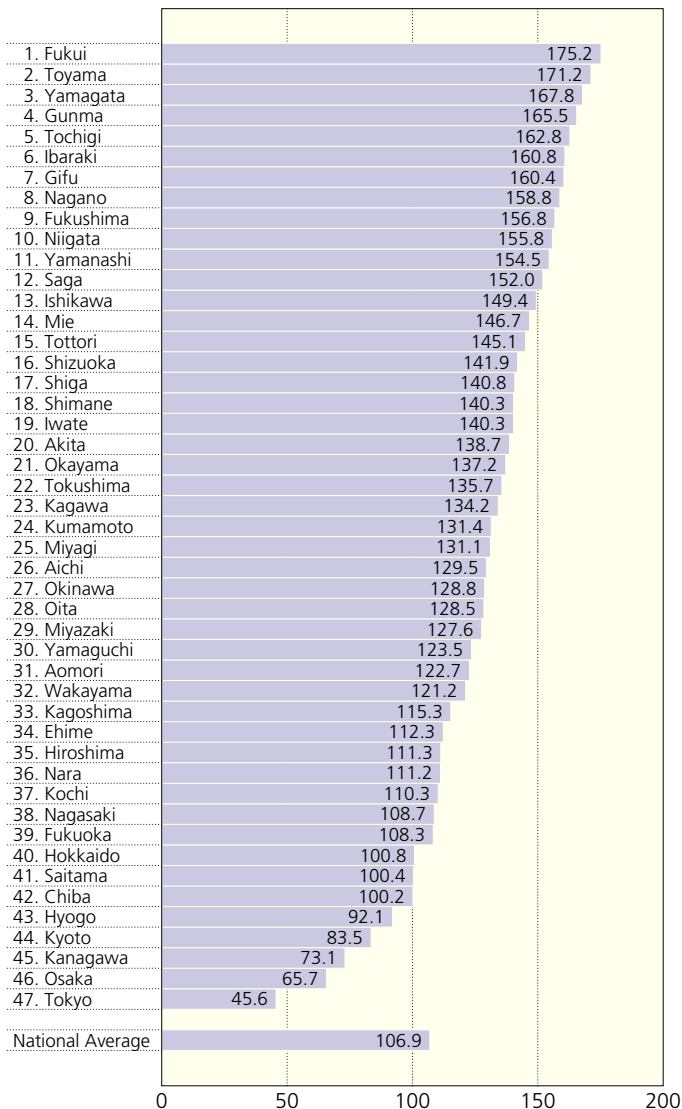
MOTOR VEHICLES IN USE (at end of every calendar year)

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	97.8
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
2010	16,890,402	23,470,003	17,986,982	58,347,387	100.6	2,281,711	3,825,632	9,177,282	15,284,625	98.2
2011	17,039,684	23,143,892	18,486,738	58,670,314	100.6	2,266,420	3,740,361	8,963,641	14,970,422	97.9
2012	17,294,021	22,868,749	19,258,239	59,421,009	101.3	2,266,836	3,672,649	8,895,635	14,835,120	99.1
2013	17,509,103	22,435,835	20,090,359	60,035,297	101.0	2,270,812	3,614,925	8,818,149	14,703,886	99.1
2014	17,714,352	21,974,741	20,978,424	60,667,517	101.1	2,294,449	3,581,884	8,748,653	14,624,986	99.5
2015	17,935,861	21,547,282	21,504,199	60,987,342	100.5	2,316,208	3,552,373	8,634,637	14,503,218	99.2

Notes: 1. "Special-purpose vehicles" refers to emergency vehicles, special vehicles equipped with beds, refrigerated trucks, tank trucks, tractors, bulldozers, steamrollers, snowplows, vehicles. 3. "Chg. (%)" means change from the previous year (with the previous year's result indexed at 100).

● PRIVATE PASSENGER CARS IN USE PER 100 HOUSEHOLDS BY PREFECTURE (at March 31, 2015)

In vehicle units



Source: Automobile Inspection & Registration Information Association

● PASSENGER CARS IN USE BY YEAR OF FIRST REGISTRATION

At March 31, 2015

Year of First Registration	Vehicles in Use	% of "Vehicles in Use" Total
April 2014-March 2015	2,646,251	6.70
April 2013-March 2014	2,966,143	7.51
April 2012-March 2013	2,785,446	7.05
April 2011-March 2012	2,577,457	6.53
April 2010-March 2011	2,469,831	6.25
April 2009-March 2010	2,599,271	6.58
April 2008-March 2009	2,168,848	5.49
April 2007-March 2008	2,435,280	6.17
April 2006-March 2007	2,444,490	6.19
April 2005-March 2006	2,529,268	6.40
April 2004-March 2005	2,419,296	6.13
April 2003-March 2004	2,096,680	5.31
April 2002-March 2003	1,931,337	4.89
April 2001-March 2002	1,440,321	3.65
-March 2001	5,981,198	15.15
Total "Vehicles in Use"	39,491,117	100.00

● AVERAGE AGE BY TYPE

In years

Year	Passenger Cars	Trucks	Buses
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
2010	7.56	9.62	10.50
2011	7.74	10.04	10.78
2012	7.95	10.43	11.12
2013	8.07	10.73	11.38
2014	8.13	10.93	11.56
2015	8.29	11.09	11.76

● AVERAGE SERVICE LIFE BY TYPE

In years

Year	Passenger Cars	Trucks	Buses
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
2010	12.70	12.72	16.59
2011	12.43	13.04	17.37
2012	12.16	12.81	16.82
2013	12.58	13.24	17.91
2014	12.64	13.31	17.63
2015	12.38	13.72	16.95

Notes: 1. "Average age" means the average number of years elapsed since first registration. 2. "Average service life" means average vehicle lifespan. 3. "Average age" and "average service life" figures are as at the end of every fiscal year. 4. The above three tables exclude mini-vehicles.

Source: Automobile Inspection & Registration Information Association

In vehicle units

Buses				Special-Purpose Vehicles		Total		Trailers	Three-Wheeled 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
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
108,136	119,135	227,271	99.5	1,502,593	99.2	75,361,876	100.0	152,834	3,120	2010
107,435	118,513	225,948	99.4	1,646,203	109.6	75,512,887	100.2	154,100	3,089	2011
107,528	118,551	226,079	100.1	1,643,325	99.8	76,125,533	100.8	155,835	14,816	2012
107,723	118,204	225,927	99.9	1,653,956	100.6	76,619,066	100.6	157,212	15,478	2013
108,545	118,399	226,944	100.5	1,669,019	100.9	77,188,466	100.7	159,863	16,376	2014
110,096	119,293	229,389	101.1	1,684,382	100.9	77,404,331	100.3	162,350	17,391	2015

snowmobiles, etc., that are identified as special-purpose vehicles by special registration numbers. 2. "Three-wheeled vehicles" includes three-wheeled passenger cars, trucks, and special-purpose

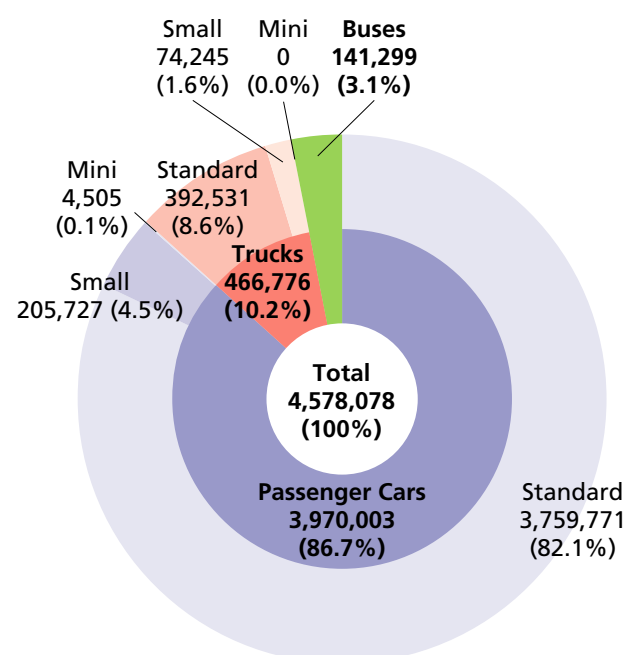
Source: Ministry of Land, Infrastructure, Transport and Tourism

Motor Vehicle Exports Show First Increase in 3 Years

Exports of motor vehicles in 2015 grew 2.5% from the previous year to 4.58 million units. Passenger car exports rose 3.5% to 3.97 million units, whereas truck exports and bus exports dipped 4.4% and 0.2%, to 467,000 units and 141,000 units respectively.

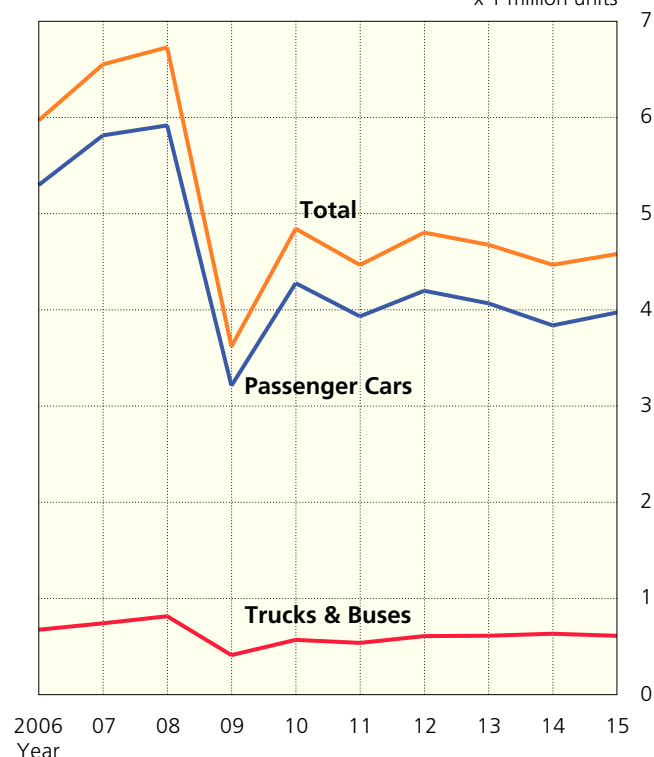
MOTOR VEHICLE EXPORTS BY TYPE IN 2015

In vehicle units



TRENDS IN MOTOR VEHICLE EXPORTS

x 1 million units



MOTOR VEHICLE EXPORTS

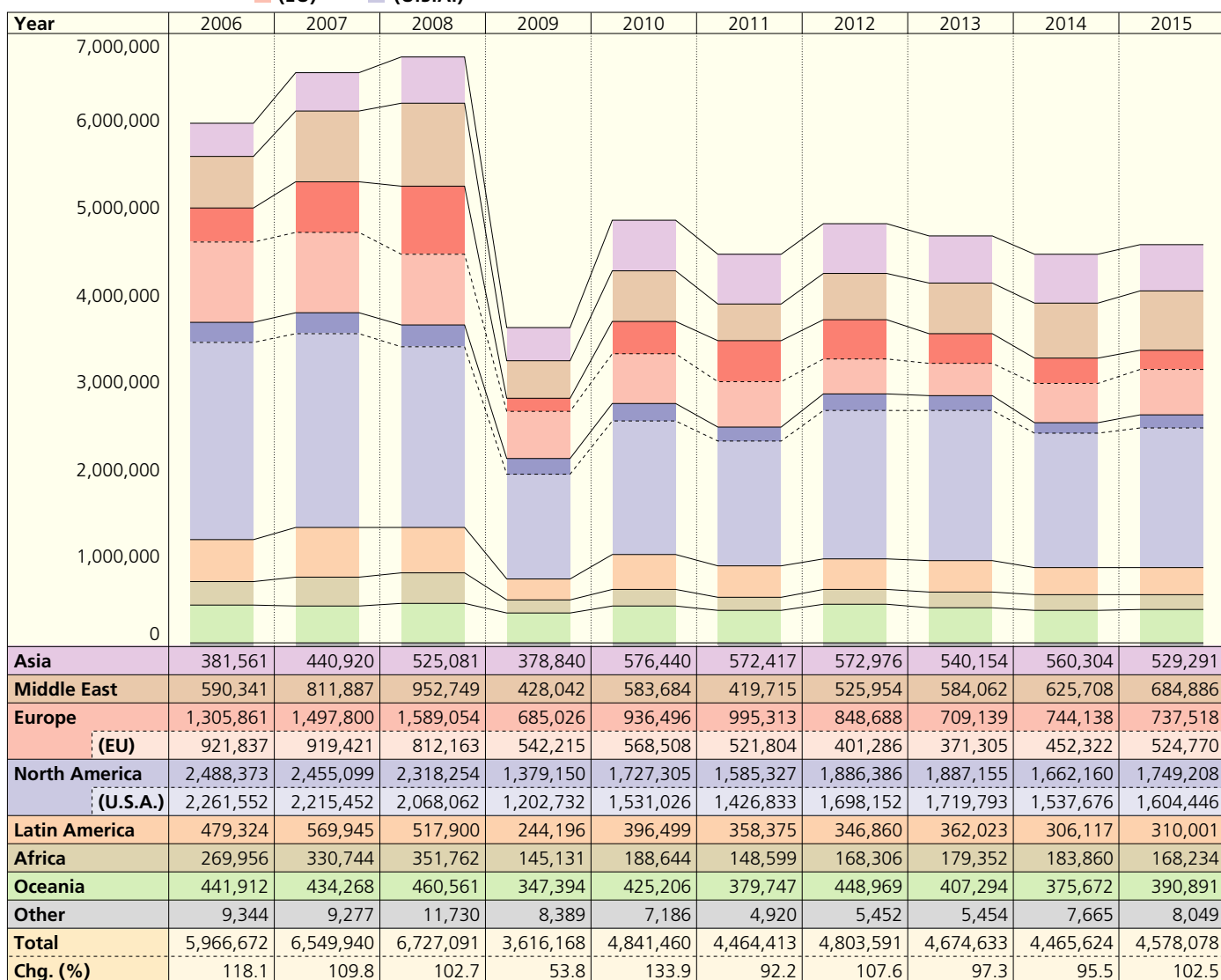
Year	Passenger Cars					Trucks		
	Standard	Small	Mini	Subtotal	Chg. (%)	Standard	Small	Mini
1970	715,450		10,136	725,586	129.5	65,170	272,549	13,892
1975	1,821,835		5,451	1,827,286	105.8	168,370	643,232	22,071
1980	345,413	3,580,623	21,124	3,947,160	127.2	332,257	1,548,251	73,177
1985	493,047	3,932,414	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
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
2010	3,453,951	818,660	2,755	4,275,366	133.2	397,404	52,908	0
2011	3,176,195	743,509	10,200	3,929,904	91.9	369,973	53,786	8
2012	3,550,010	641,749	6,735	4,198,494	106.8	410,251	66,652	16
2013	3,564,559	499,541	1,419	4,065,519	96.8	397,694	74,465	20
2014	3,593,941	239,198	2,456	3,835,595	94.3	408,859	79,614	0
2015	3,759,771	205,727	4,505	3,970,003	103.5	392,531	74,245	0

Notes: 1. Figures represent ex-factory export shipments of motor vehicles manufactured in Japan, which are classified in the above categories as per Japanese law, including the Road Vehicles Act. 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).

MOTOR VEHICLE EXPORT TRENDS BY DESTINATION

■ Asia
 ■ Middle East
 ■ Europe
 ■ North America
 ■ Latin America
 ■ Africa
 ■ Oceania
 ■ Other
 ■ (EU)
 ■ (U.S.A.)

In vehicle units



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

In vehicle units

		Buses						Year
Subtotal	Chg. (%)	Large	Small	Subtotal	Chg. (%)	Total	Chg. (%)	
351,611	120.9	4,520	5,059	9,579	141.6	1,086,776	126.7	1970
833,673	95.3	6,406	10,247	16,653	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
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
450,312	142.7	13,969	101,813	115,782	125.8	4,841,460	133.9	2010
423,767	94.1	14,495	96,247	110,742	95.6	4,464,413	92.2	2011
476,919	112.5	19,026	109,152	128,178	115.7	4,803,591	107.6	2012
472,179	99.0	19,712	117,223	136,935	106.8	4,674,633	97.3	2013
488,473	103.5	15,886	125,670	141,556	103.4	4,465,624	95.5	2014
466,776	95.6	19,649	121,650	141,299	99.8	4,578,078	102.5	2015

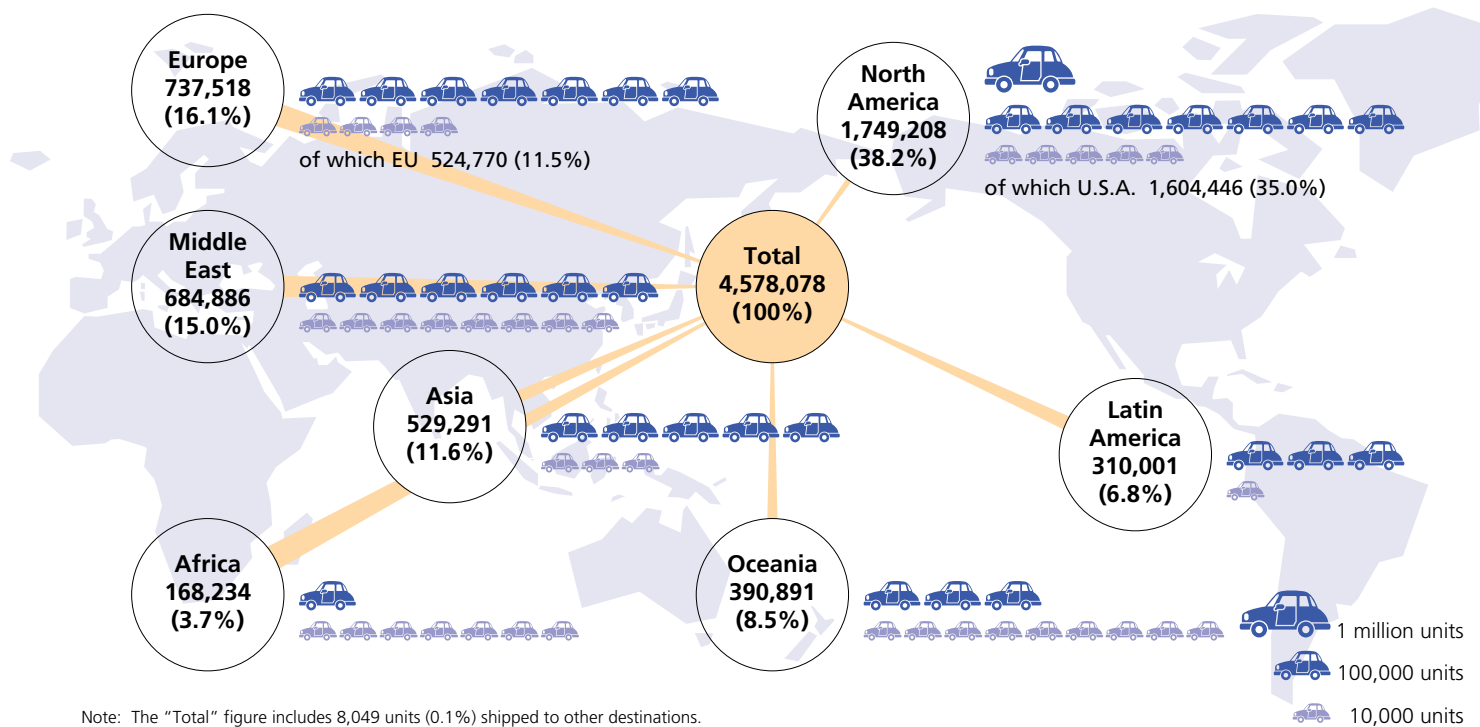
2. Vehicle type classification in this table differs somewhat from that used in Ministry of Finance export data. 3. KD sets have been excluded since 1979; they represent less than 60% of the cost of Source: Japan Automobile Manufacturers Association

An Increase in Motor Vehicle Exports to the EU, the Middle East, North America, Oceania, and Latin America

Compared to the previous year, motor vehicle exports in 2015 climbed 16.0% to the EU, 9.5% to the Middle East, 5.2% to North America, 4.1% to Oceania, and 1.3% to Latin America, but declined 8.5% to Africa, 5.5% to Asia, and 0.9% to Europe as a whole.

MOTOR VEHICLE EXPORTS BY DESTINATION IN 2015

In vehicle units



Note: The "Total" figure includes 8,049 units (0.1%) shipped to other destinations.

MOTOR VEHICLE EXPORT TRENDS BY DESTINATION

In %

Destination	2006	07	08	09	10	11	12	13	14	15
Asia	6.4	6.7	7.8	10.5	11.9	12.8	11.9	11.6	12.5	11.6
Middle East	9.9	12.4	14.2	11.8	12.1	9.4	11.0	12.5	14.0	15.0
Europe	21.9 (15.4)	22.9 (14.0)	23.6 (12.1)	19.0 (15.0)	19.3 (11.7)	22.3 (11.7)	17.7 (8.4)	15.2 (7.9)	16.7 (10.1)	16.1 (11.5)
North America	41.7 (37.9)	37.5 (33.8)	34.5 (30.7)	38.1 (33.3)	35.7 (31.6)	35.5 (32.0)	39.3 (35.4)	40.4 (36.8)	37.2 (34.4)	38.2 (35.0)
Latin America	8.0	8.7	7.7	6.8	8.2	8.0	7.2	7.7	6.9	6.8
Africa	4.5	5.1	5.2	4.0	3.9	3.4	3.5	3.8	4.1	3.7
Oceania	7.4	6.6	6.8	9.6	8.8	8.5	9.3	8.7	8.4	8.5
Other	0.2	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.1
Year	2006	07	08	09	10	11	12	13	14	15

● MOTOR VEHICLE EXPORTS BY DESTINATION & BY VEHICLE TYPE IN 2015

In vehicle units

Destination		Passenger Cars				Trucks				Buses			Total
		Standard	Small	Mini	Subtotal	Standard	Small	Mini	Subtotal	Large	Small	Subtotal	
Asia	South Korea	14,896	0	0	14,896	0	0	0	0	0	0	0	14,896
	China	165,005	3,721	0	168,726	222	0	0	222	0	341	341	169,289
	Taiwan	63,485	3,616	0	67,101	8,763	91	0	8,854	1,078	280	1,358	77,313
	Hong Kong	14,430	5,783	53	20,266	10,247	527	0	10,774	98	815	913	31,953
	Thailand	2,494	0	0	2,494	6,528	0	0	6,528	278	9,300	9,578	18,600
	Singapore	13,852	2,214	0	16,066	7,339	1,782	0	9,121	48	299	347	25,534
	Malaysia	22,800	2,740	0	25,540	12,219	3,816	0	16,035	142	3,670	3,812	45,387
	Philippines	14,345	963	0	15,308	6,383	1,498	0	7,881	405	21,315	21,720	44,909
	Indonesia	19,283	1,634	14	20,931	13,324	0	0	13,324	1,764	1,698	3,462	37,717
	Pakistan	263	3,229	5	3,497	4,554	126	0	4,680	783	591	1,374	9,551
	Other	26,184	1,496	108	27,761	17,579	4,941	0	22,520	626	3,235	3,861	54,142
Subtotal		357,037	25,369	180	382,586	87,158	12,781	0	99,939	5,222	41,544	46,766	529,291
Middle East	Bahrain	20,678	1	0	20,679	3,544	870	0	4,414	542	1,746	2,288	27,381
	Saudi Arabia	108,814	963	0	109,777	48,597	3,900	0	52,497	1,677	5,092	6,769	169,043
	Kuwait	46,378	1,430	0	47,808	2,483	1,039	0	3,522	978	1,511	2,489	53,819
	Oman	65,077	738	0	65,815	24,236	2,322	0	26,558	918	5,936	6,854	99,227
	Israel	38,433	2,331	0	40,764	988	0	0	988	0	0	0	41,752
	United Arab Emirates	138,526	1,312	0	139,838	21,145	11,155	0	32,300	3,077	11,555	14,632	186,770
	Qatar	30,887	72	0	30,959	3,065	1,262	0	4,327	848	2,554	3,402	38,688
	Other	47,216	1,303	0	48,519	15,607	1,211	0	16,818	1,034	1,835	2,869	68,206
Subtotal		496,009	8,150	0	504,159	119,665	21,759	0	141,424	9,074	30,229	39,303	684,886
Europe	Sweden	24,334	0	2	24,336	0	0	0	0	0	0	0	24,336
	Denmark	7,270	0	0	7,270	0	0	0	0	0	0	0	7,270
	UK	104,866	22,836	0	127,702	0	0	0	0	0	0	0	127,702
	Netherlands	24,872	468	5	25,345	0	0	0	0	0	0	0	25,345
	Belgium	15,321	2,064	0	17,385	0	0	0	0	0	0	0	17,385
	France	52,568	1,495	3,576	57,639	0	0	0	0	0	0	0	57,639
	Germany	89,671	5,045	20	94,736	0	0	0	0	0	0	0	94,736
	Spain	50,544	541	0	51,085	0	0	0	0	0	0	0	51,085
	Italy	28,963	2,017	6	30,986	4,668	0	0	4,668	0	0	0	35,654
	Finland	9,402	240	0	9,642	5	0	0	5	0	0	0	9,647
	Poland	19,845	312	0	20,157	25	0	0	25	0	0	0	20,182
	Austria	13,648	725	0	14,373	49	0	0	49	0	42	42	14,464
	Greece	552	245	0	797	0	0	0	0	0	0	0	797
	Other	35,829	278	24	36,131	2,397	0	0	2,397	0	0	0	38,528
	Subtotal	477,685	36,266	3,633	517,584	7,144	0	0	7,144	0	42	42	524,770
	Norway	22,747	9	355	23,111	512	0	0	512	0	0	0	23,623
	Switzerland	17,695	468	61	18,224	0	0	0	0	0	0	0	18,224
	Russia	141,124	152	0	141,276	2,980	576	0	3,556	1	209	210	145,042
	Turkey	8,440	294	0	8,734	7,848	0	0	7,848	0	0	0	16,582
	Ukraine	6,599	68	0	6,667	226	0	0	226	0	0	0	6,893
	Other	2,167	206	11	2,384	0	0	0	0	0	0	0	2,384
Subtotal		676,457	37,463	4,060	717,980	18,710	576	0	19,286	1	251	252	737,518
North America	Canada	139,214	2,820	120	142,154	2,608	0	0	2,608	0	0	0	144,762
	U.S.A.	1,519,221	57,924	129	1,577,274	26,386	786	0	27,172	0	0	0	1,604,446
Subtotal		1,658,435	60,744	249	1,719,428	28,994	786	0	29,780	0	0	0	1,749,208
Latin America	Mexico	75,396	16,493	0	91,889	15,209	558	0	15,767	168	8,035	8,203	115,859
	Puerto Rico	6,038	213	0	6,251	48	0	0	48	0	0	0	6,299
	Colombia	10,885	1,396	15	12,296	12,584	360	0	12,944	952	0	952	26,192
	Ecuador	11,251	150	0	11,401	3,819	178	0	3,997	1,118	19	1,137	16,535
	Peru	12,809	1,098	0	13,907	2,837	772	0	3,609	18	2,058	2,076	19,592
	Chile	30,694	6,408	0	37,102	2,820	545	0	3,365	0	411	411	40,878
	Brazil	20,129	0	0	20,129	0	0	0	0	0	0	0	20,129
	Other	37,074	6,773	1	43,848	11,833	2,101	0	13,934	974	5,761	6,735	64,517
Subtotal		204,276	32,531	16	236,823	49,150	4,514	0	53,664	3,230	16,284	19,514	310,001
Africa	Algeria	795	0	0	795	821	533	0	1,354	170	322	492	2,641
	Egypt	14,393	2,947	0	17,340	14,693	27,006	0	41,699	653	4,018	4,671	63,710
	Nigeria	633	0	0	633	519	0	0	519	470	2,330	2,800	3,952
	Kenya	605	25	0	630	8,629	684	0	9,313	1	46	47	9,990
	South Africa	24,342	1,523	0	25,865	15,354	1,334	0	16,688	2	12,996	12,998	55,551
	Other	15,904	731	0	16,635	8,248	1,047	0	9,295	677	5,783	6,460	32,390
Subtotal		56,672	5,226	0	61,898	48,264	30,604	0	78,868	1,973	25,495	27,468	168,234
Oceania	Australia	277,190	27,862	0	305,052	29,234	2,632	0	31,866	20	2,903	2,923	339,841
	New Zealand	25,822	7,905	0	33,727	4,691	395	0	5,086	41	578	619	39,432
	Other	5,092	473	0	5,565	3,279	198	0	3,477	71	2,505	2,576	11,618
Subtotal		308,104	36,240	0	344,344	37,204	3,225	0	40,429	132	5,986	6,118	390,891
Other		2,781	4	0	2,785	3,386	0	0	3,386	17	1,861	1,878	8,049
Grand Totals		3,759,771	205,727	4,505	3,970,003	392,531	74,245	0	466,776	19,649	121,650	141,299	4,578,078

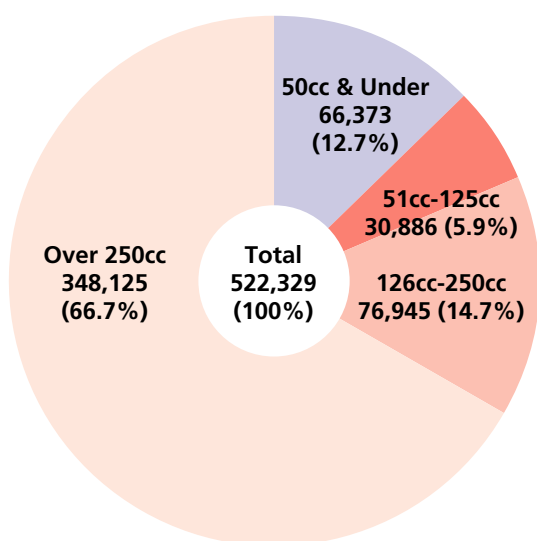
Source: Japan Automobile Manufacturers Association

Motorcycle Production Down for First Time in 2 Years

Overall domestic motorcycle production in 2015 declined 12.5% from the previous year to 522,000 units. Class 1 motor-driven cycles (50cc and under) fell 13.3% to 66,000 units, Class 2 motor-driven cycles (51cc to 125cc) slipped 2.0% to 31,000 units, mini-sized motorcycles (126cc to 250cc) dropped 17.7% to 77,000 units, and small-sized motorcycles (over 250cc) decreased 12.0% to 348,000 units. The combined total for larger motorcycles (all those over 50cc) shrank 12.4% to 456,000 units.

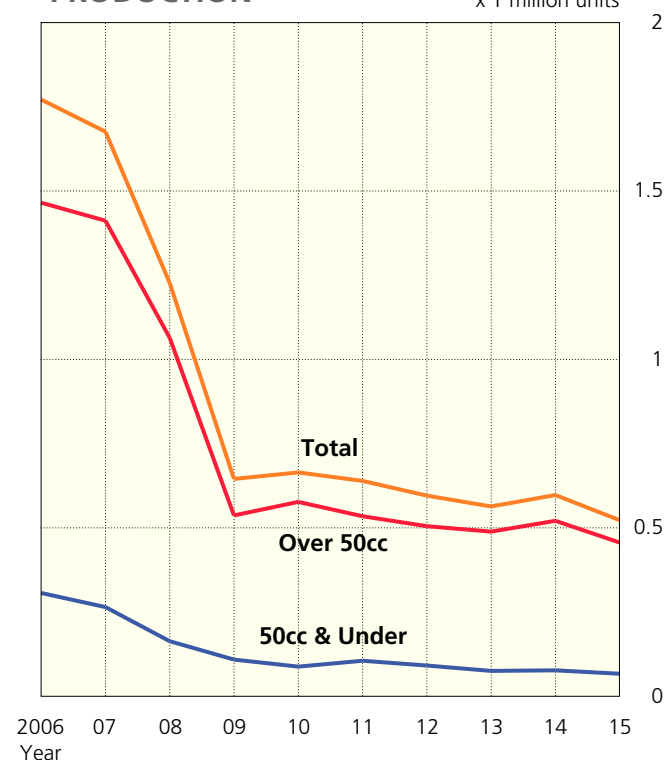
MOTORCYCLE PRODUCTION BY ENGINE CAPACITY IN 2015

In vehicle units



TRENDS IN MOTORCYCLE PRODUCTION

x 1 million units



MOTORCYCLE PRODUCTION

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
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
2010	87,513	80,630	108,950	387,082	576,662	664,175	103.0
2011	104,936	64,507	104,636	365,108	534,251	639,187	96.2
2012	90,886	39,569	91,925	373,093	504,587	595,473	93.2
2013	74,940	27,670	88,108	372,591	488,369	563,309	94.6
2014	76,569	31,529	93,536	395,424	520,489	597,058	106.0
2015	66,373	30,886	76,945	348,125	455,956	522,329	87.5

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).

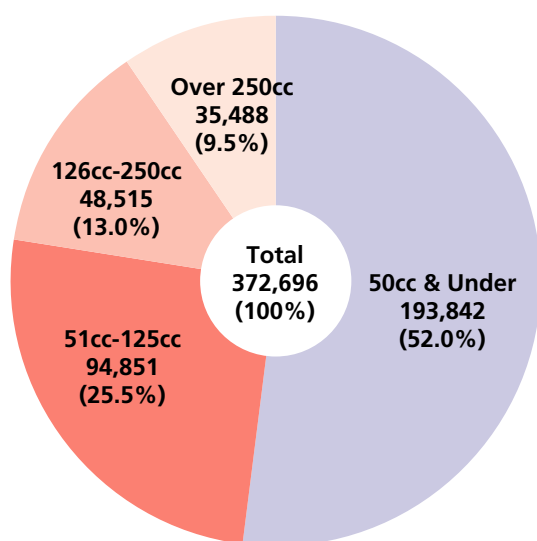
Source: Japan Automobile Manufacturers Association

Overall Motorcycle Sales Decline for Second Consecutive Year

Domestic motorcycle sales (defined here as ex-factory shipments to domestic dealers, not as new registrations) in 2015 totalled 373,000 units, down 10.6% from the previous year. By engine capacity, sales of Class 1 motor-driven cycles (50cc and under) declined 15.3% to 194,000 units, while Class 2 motor-driven cycles (51cc to 125cc), mini-sized motorcycles (126cc to 250cc), and small-sized motorcycles (over 250cc) dropped 1.5% to 95,000 units, 8.6% to 49,000 units, and 7.8% to 35,000 units, respectively. Overall sales of motorcycles with engine capacity over 50cc thus totalled 179,000 units, a decrease of 4.8% from 2014.

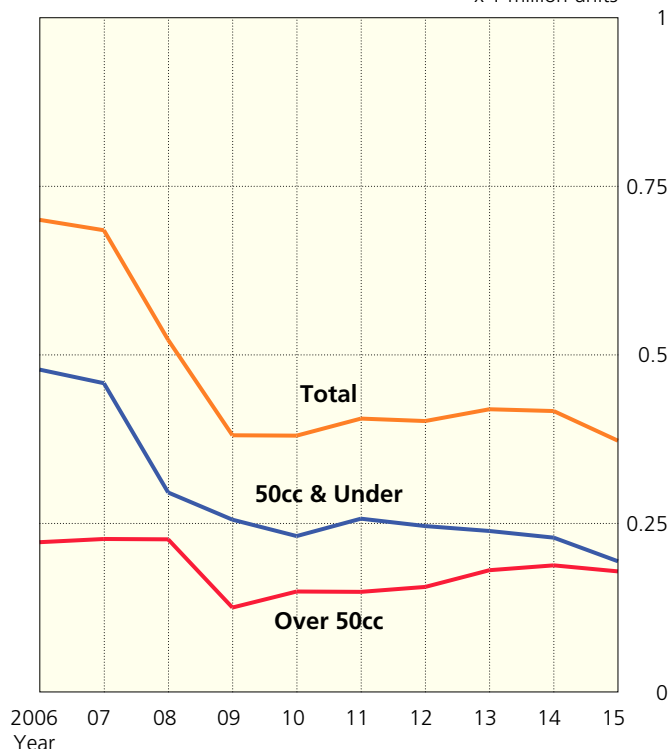
● MOTORCYCLE SALES BY ENGINE CAPACITY IN 2015

In vehicle units



● TRENDS IN MOTORCYCLE SALES

x 1 million units



● 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		
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
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
2010	231,247	96,368	27,275	25,352	148,995	380,242	99.9
2011	257,045	95,702	31,767	21,019	148,488	405,533	106.7
2012	246,095	90,291	39,707	25,802	155,800	401,895	99.1
2013	238,786	100,947	47,788	31,877	180,612	419,398	104.4
2014	228,918	96,249	53,072	38,484	187,805	416,723	99.4
2015	193,842	94,851	48,515	35,488	178,854	372,696	89.4

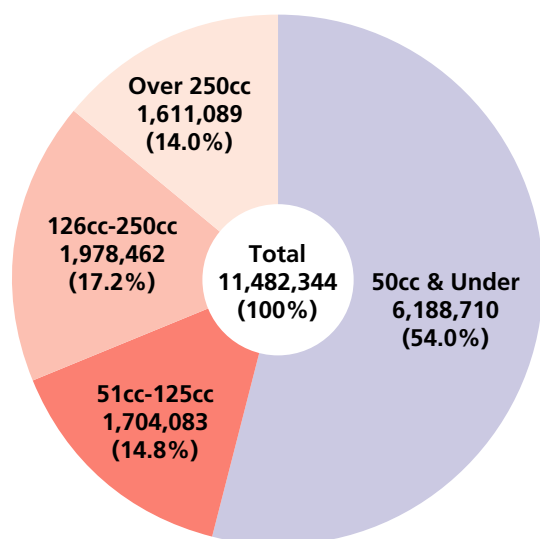
Note: "Chg. (%)" means change from the previous year (with the previous year's result indexed at 100).

A Continued Overall Decline in Motorcycles in Use

At March 31, 2015, motorcycles in use in Japan totalled 11.48 million units, down 1.8% from the previous year. By engine capacity, Class 1 motor-driven cycles, accounting for 54.0% of all motorcycles in use, dropped 3.9% to 6.19 million units and mini-sized motorcycles slipped 0.1% to 1.98 million units in 2015, whereas Class 2 motor-driven cycles and small-sized motorcycles in use rose 1.7% and 1.0%, to 1.70 million and 1.61 million units respectively. Thus, motorcycles over 50cc in use increased 0.8%, to a total of 5.29 million units.

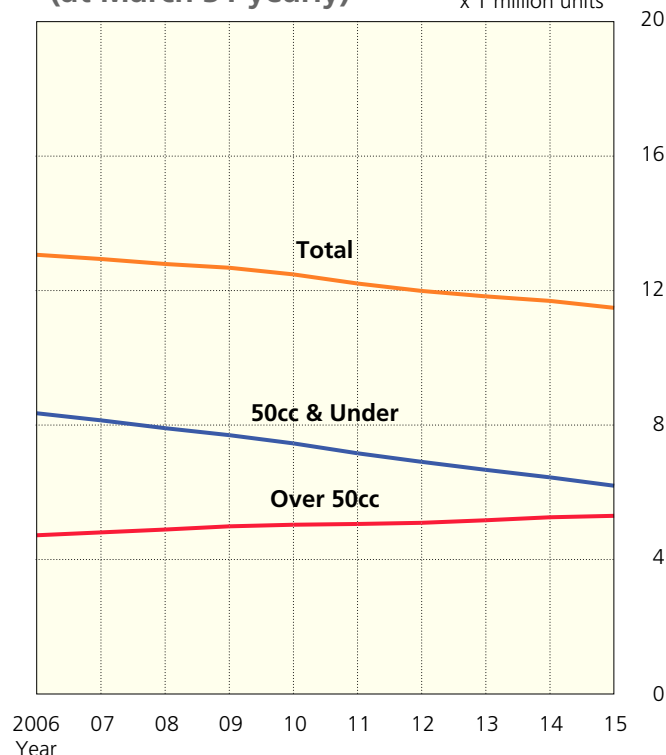
● MOTORCYCLES IN USE BY ENGINE CAPACITY (at March 31, 2015)

In vehicle units



● TRENDS IN MOTORCYCLES IN USE (at March 31 yearly)

x 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
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
2010	7,448,862	1,511,440	1,992,939	1,524,176	5,028,555	12,477,417	98.4
2011	7,154,455	1,540,667	1,975,623	1,535,181	5,051,471	12,205,926	97.8
2012	6,899,459	1,582,925	1,959,845	1,542,856	5,085,626	11,985,085	98.2
2013	6,661,807	1,626,094	1,969,187	1,566,341	5,161,622	11,823,429	98.7
2014	6,438,002	1,674,884	1,980,411	1,595,335	5,250,630	11,688,632	98.9
2015	6,188,710	1,704,083	1,978,462	1,611,089	5,293,634	11,482,344	98.2

Notes: 1. Motor-driven cycle data is as at April 1, and since 2006 motorcycles with engine capacity of 125cc 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).

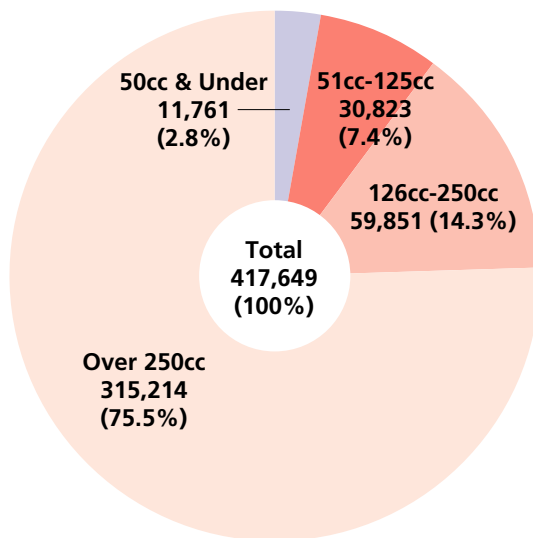
Sources: Ministry of Land, Infrastructure, Transport and Tourism; since 2006 (only for the 125cc-and-under categories), Ministry of Internal Affairs and Communications

Overall Motorcycle Exports Decrease for First Time in 2 Years

Motorcycle exports in 2015 decreased 10.3% from the previous year to 418,000 units. By engine capacity, exports of Class 1 motor-driven cycles, mini-sized motorcycles, and small-sized motorcycles dropped 8.0%, 6.3%, and 12.2%, to 12,000, 60,000, and 315,000 units respectively, whereas Class 2 motor-driven cycles rose 3.5% to 31,000 units.

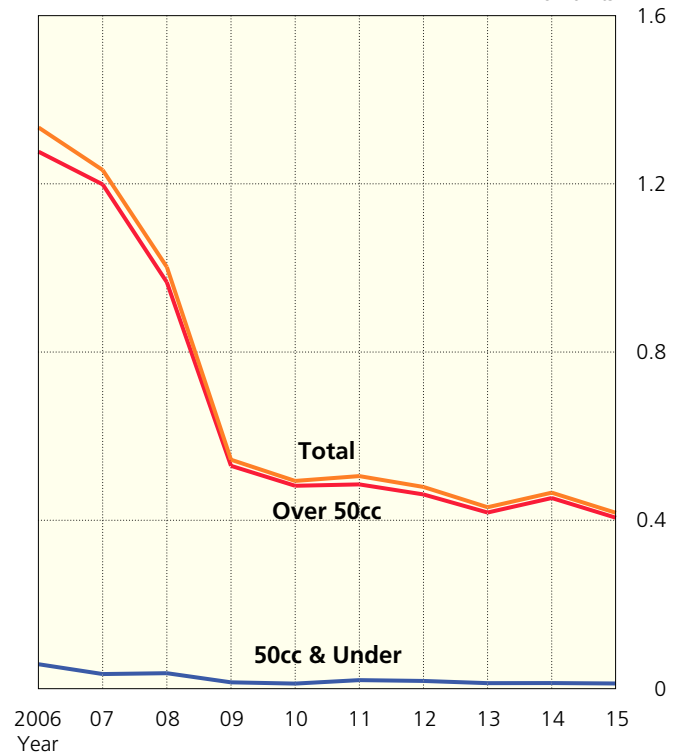
MOTORCYCLE EXPORTS BY ENGINE CAPACITY IN 2015

In vehicle units



TRENDS IN MOTORCYCLE EXPORTS

x 1 million units



MOTORCYCLE EXPORTS

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	326,815	914,325	187,185	309,277	1,410,787	1,737,602	133.8
1975	288,843	1,546,170	328,313	527,344	2,401,827	2,690,670	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
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
2010	11,522	48,976	85,506	347,460	481,942	493,464	90.7
2011	19,745	45,853	83,594	355,793	485,240	504,985	102.3
2012	17,794	35,579	69,963	355,827	461,369	479,163	94.9
2013	12,560	27,676	64,566	326,095	418,337	430,897	89.9
2014	12,778	29,771	63,891	359,144	452,806	465,584	108.0
2015	11,761	30,823	59,851	315,214	405,888	417,649	89.7

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).

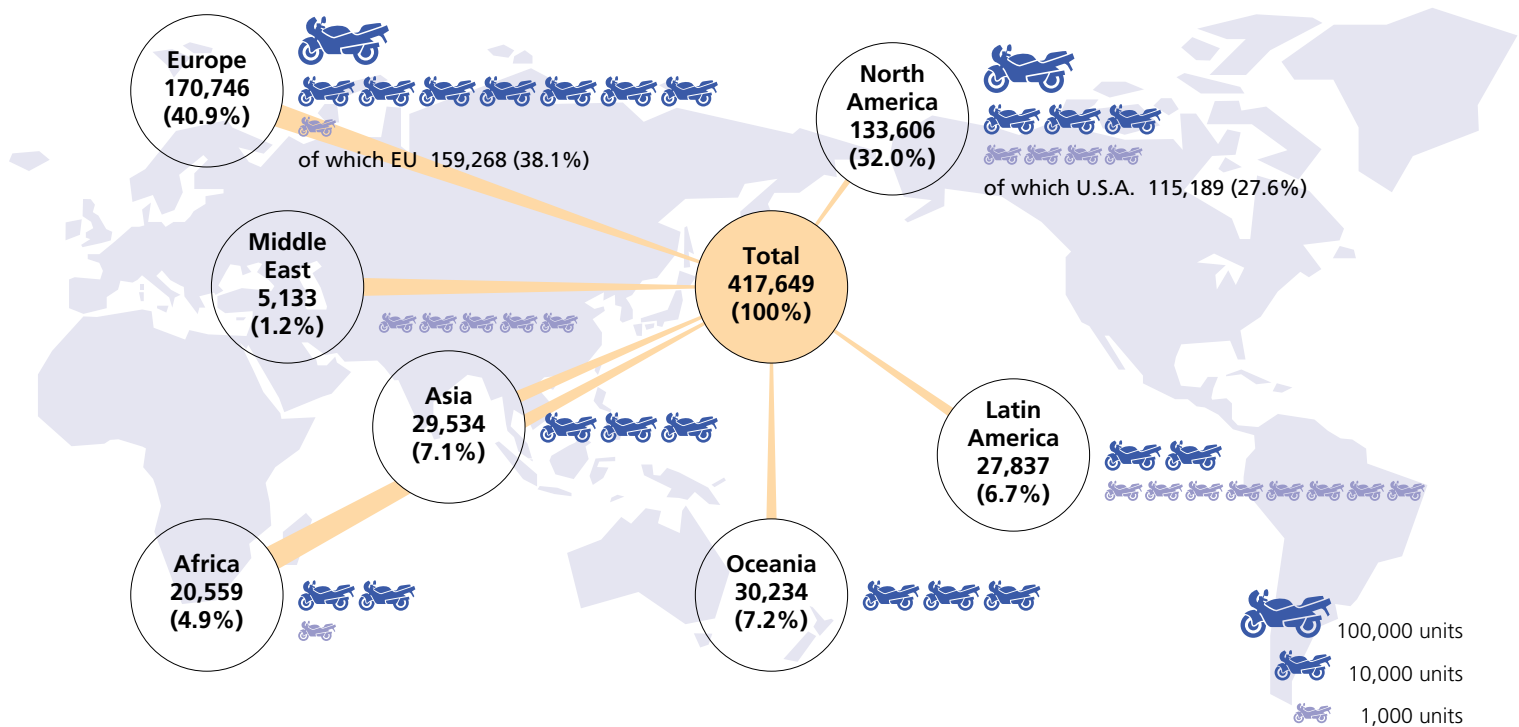
Source: Japan Automobile Manufacturers Association

An Increase in Motorcycle Exports to the Middle East, Africa, Asia, and Latin America

Compared to the previous year, motorcycle exports in 2015 grew 39.4% to the Middle East, 21.7% to Africa, 12.2% to Asia, and 2.3% to Latin America, but declined 27.2% to North America, 9.4% to Oceania, and 2.2% to Europe.

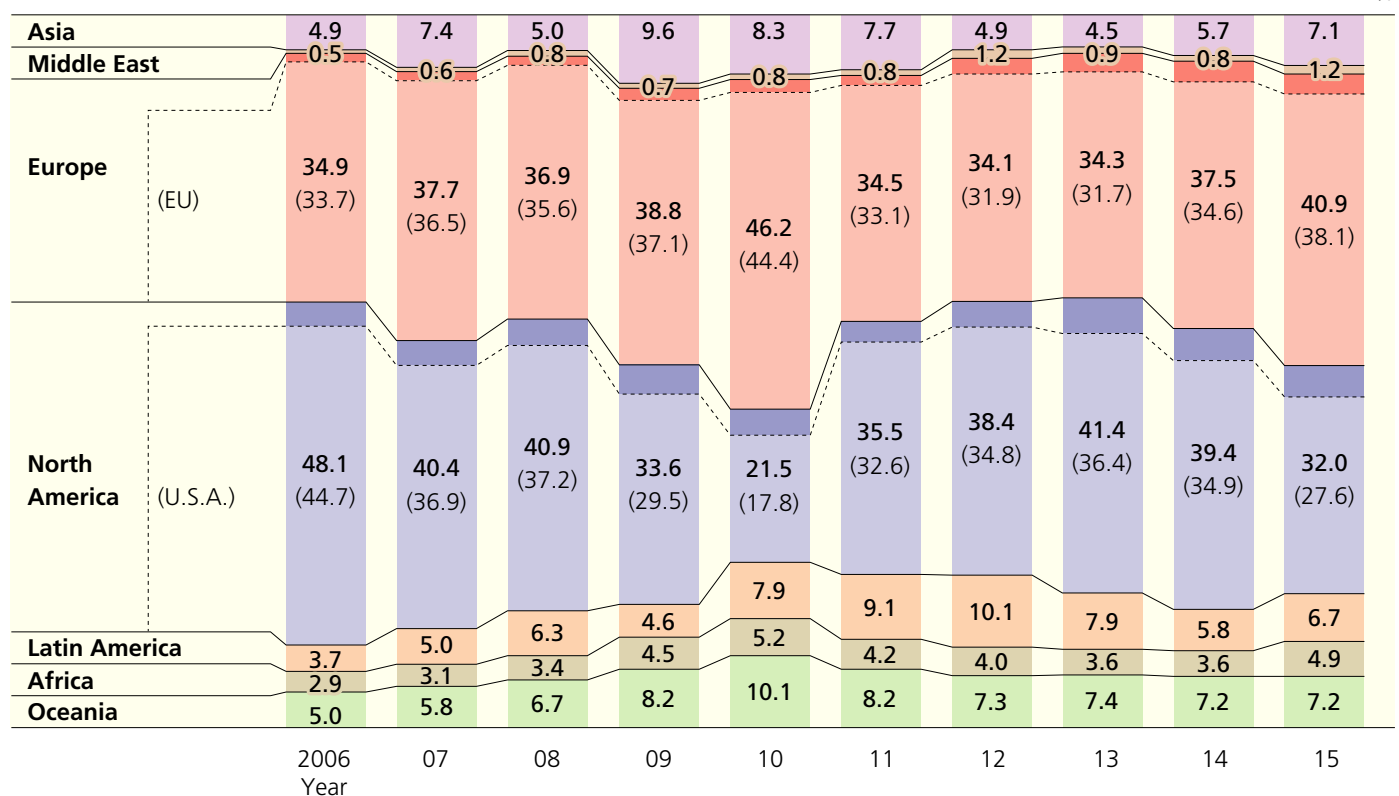
MOTORCYCLE EXPORTS BY DESTINATION IN 2015

In vehicle units



MOTORCYCLE EXPORT TRENDS BY DESTINATION

In %



● MOTORCYCLE EXPORTS BY DESTINATION & BY ENGINE CAPACITY IN 2015

In vehicle units

Destination		Motor-Driven Cycles Class 1 (50cc & Under)	Over 50cc				Total	
			Motor-Driven Cycles Class 2 (51cc-125cc)	Mini-Sized Motorcycles (126cc-250cc)	Small-Sized Motorcycles (Over 250cc)	Subtotal		
Asia	South Korea	0	24	19	2,744	2,787	2,787	
	China	0	0	3	677	680	680	
	Taiwan	0	1,426	0	4,667	6,093	6,093	
	Hong Kong	0	33	167	3,145	3,345	3,345	
	Thailand	0	161	1,379	3,425	4,965	4,965	
	Singapore	0	153	399	3,068	3,620	3,620	
	Malaysia	0	0	10	5,065	5,075	5,075	
	Philippines	0	0	118	550	668	668	
	Indonesia	0	64	745	637	1,446	1,446	
	Other	21	7	42	785	834	855	
Subtotal		21	1,868	2,882	24,763	29,513	29,534	
Middle East	Saudi Arabia	0	46	10	532	588	588	
	Israel	0	88	102	1,261	1,451	1,451	
	United Arab Emirates	36	398	137	992	1,527	1,563	
	Other	12	28	92	1,399	1,519	1,531	
Subtotal		48	560	341	4,184	5,085	5,133	
Europe	Sweden	0	0	298	1,208	1,506	1,506	
	Denmark	0	10	106	635	751	751	
	UK	0	143	850	7,501	8,494	8,494	
	Netherlands	1	794	2,673	18,771	22,238	22,239	
	Belgium	0	35	42	858	935	935	
	France	802	3,618	2,046	39,445	45,910	45,911	
	Germany	411	542	1,342	30,077	31,961	32,372	
	Portugal	0	24	28	989	1,041	1,041	
	Spain	144	357	360	11,519	12,236	12,380	
	Italy	39	189	3,038	25,014	28,241	28,280	
	Finland	9	22	73	411	506	515	
	Poland	0	0	65	399	464	464	
	Hungary	0	0	44	782	826	826	
	Greece	6	10	24	1,168	1,202	1,208	
	Slovenia	24	26	51	732	809	833	
	Czech Republic	0	0	25	611	636	636	
	Other	0	1	116	760	877	877	
	Subtotal		1,436	5,771	11,181	140,880	157,832	159,268
	Europe	Norway	0	15	81	568	664	664
		Switzerland	0	76	263	5,245	5,584	5,584
Turkey		0	37	50	3,933	4,020	4,020	
Russia		30	38	46	1,022	1,106	1,136	
Other		0	0	7	67	74	74	
Subtotal		1,466	5,937	11,628	151,715	169,280	170,746	
North America		Canada	1,056	1,446	3,527	12,388	17,361	18,417
	U.S.A.	7,514	6,879	20,854	79,942	107,675	115,189	
	Subtotal	8,570	8,325	24,381	92,330	125,036	133,606	
Latin America	Mexico	57	38	399	2,393	2,830	2,887	
	Nicaragua	0	0	786	10	796	796	
	Panama	15	48	310	752	1,110	1,125	
	Colombia	0	52	791	1,985	2,828	2,828	
	Venezuela	0	0	0	476	476	476	
	Ecuador	9	28	208	209	445	454	
	Peru	0	14	421	429	864	864	
	Chile	45	102	771	1,440	2,313	2,358	
	Brazil	0	0	238	13,878	14,116	14,116	
	Other	44	143	921	825	1,889	1,933	
Subtotal		170	425	4,845	22,397	27,667	27,837	
Africa	Guinea	0	723	503	0	1,226	1,226	
	Togo	0	983	1,392	0	2,375	2,375	
	Mali	0	1,804	748	0	2,552	2,552	
	Niger	0	1,410	150	0	1,560	1,560	
	Dem Rep Congo	0	650	36	0	686	686	
	Ethiopia	0	0	2,314	21	2,335	2,335	
	Kenya	0	119	287	0	406	406	
	Uganda	0	1,242	12	0	1,254	1,254	
	South Africa	42	622	1,368	1,715	3,705	3,747	
	Malawi	0	274	136	0	410	410	
	Other	9	2,266	813	920	3,999	4,008	
Subtotal		51	10,093	7,759	2,656	20,508	20,559	
Oceania	Australia	1,248	2,381	6,358	15,349	24,088	25,336	
	New Zealand	181	1,196	1,521	1,727	4,444	4,625	
	Other	6	38	136	93	267	273	
Subtotal		1,435	3,615	8,015	17,169	28,799	30,234	
Grand Totals		11,761	30,823	59,851	315,214	405,888	417,649	

Source: Japan Automobile Manufacturers Association

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

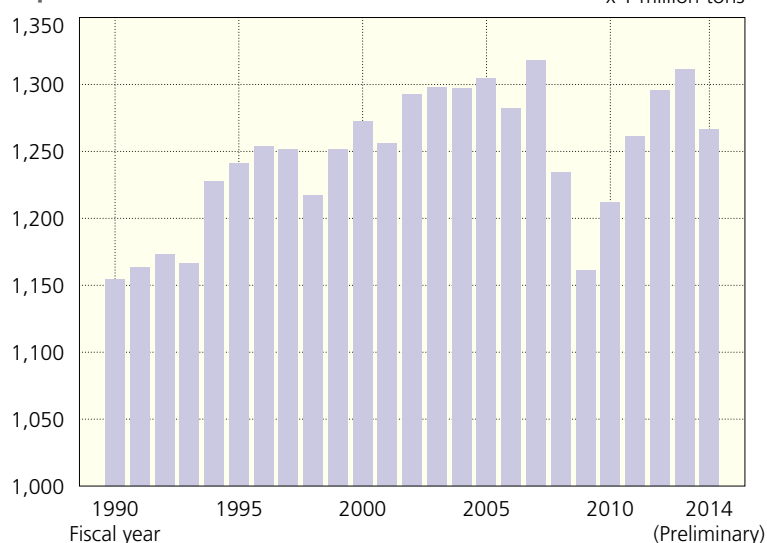
In 2014 Japan's CO₂ emissions totalled 1.27 billion tons (preliminary figure), of which the transportation sector accounted for 17%. Since peaking in 2001 following a decade of growth, CO₂ emission volumes in Japan's transport sector have steadily declined and, owing largely to increased fuel efficiency in passenger cars and greater efficiency in goods distribution, recently fallen back to roughly the same level recorded in 1990. The automobile industry will continue to vigorously promote CO₂ emissions reduction in road transport by further improving vehicle fuel efficiency and expanding the market supply of next-generation vehicles.

CO₂ EMISSIONS IN JAPAN

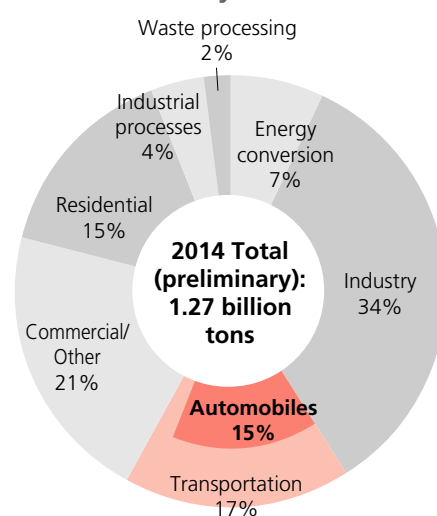
The transportation sector accounts for 17% of Japan's total CO₂ emissions, which in 2014 amounted to 1.27 billion tons (preliminary figure).

Japan's CO₂ Emission Volumes, 1990-2014

x 1 million tons



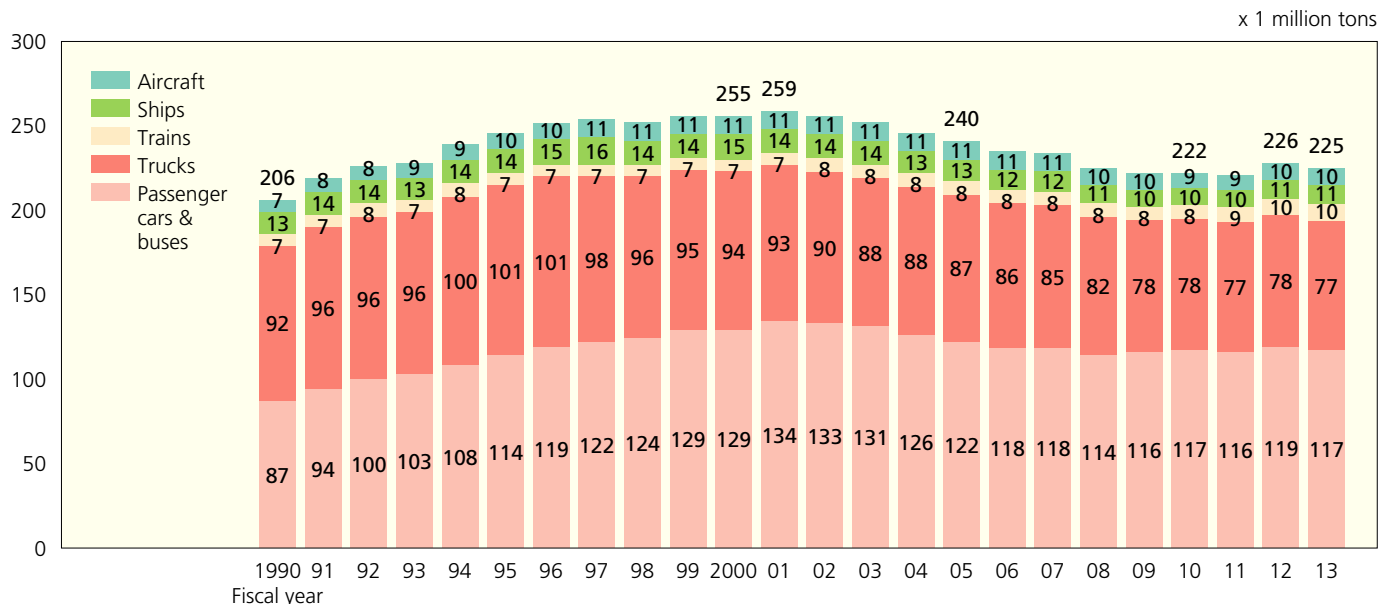
CO₂ Emission Shares by Sector in 2014



Source: Ministry of the Environment

TRENDS IN CO₂ EMISSION VOLUMES IN JAPAN'S TRANSPORT SECTOR, BY MODE

Motor vehicle-emitted CO₂ accounts for about 90% of the totality of CO₂ emitted by Japan's transport sector. CO₂ emissions from road transportation in Japan have seen a significant decrease since transport-sector emissions peaked in 2001.

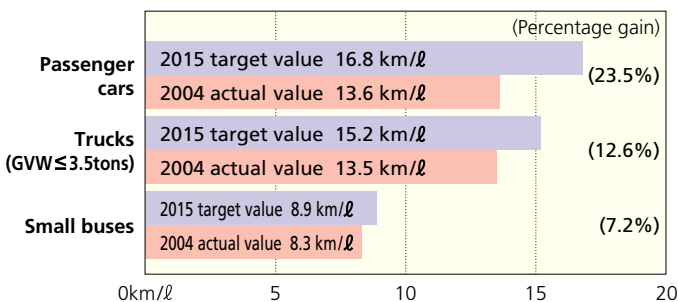


Source: Ministry of the Environment

CO₂ Emissions Reduction: Improving Vehicle Fuel Efficiency

For gasoline-powered passenger cars and trucks weighing 3.5 tons or less, fuel efficiency targets for 2015 were formulated in 2007, applying "top runner" criteria whereby the target value for a given vehicle weight category is established based on the leading fuel efficiency performance to date for that weight category. The 2015 target for passenger cars signifies a nearly 24% increase in average fuel efficiency compared to the 2004 level. For heavy-duty vehicles (trucks and buses with GVW>3.5 tons), fuel efficiency targets—the first in the world—were introduced in 2006 for 2015. Compliance here means a more than 12% increase in average fuel efficiency compared to the 2002 level. As a result of JAMA members' continuous efforts to increase the fuel efficiency of conventional vehicles and expand the next-generation vehicle supply, an even more stringent fuel efficiency target introduced for passenger cars for 2020 has already been achieved. For small trucks weighing 3.5 tons or less, a fuel efficiency target for 2022 was introduced in July 2015. Japan's automakers are working hard to further advance fuel efficiency technologies to ensure compliance.

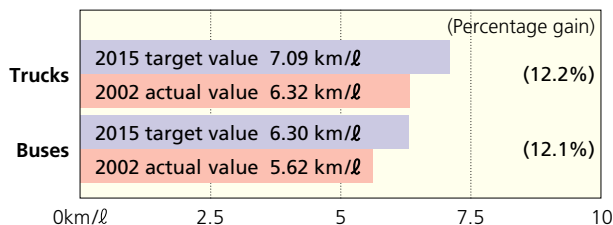
2015 AVERAGE FUEL EFFICIENCY TARGETS FOR NEW PASSENGER CARS & TRUCKS/SMALL BUSES



Note: Fuel efficiency here is JC08 test cycle-based (see page 67), and targets were established assuming the same 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

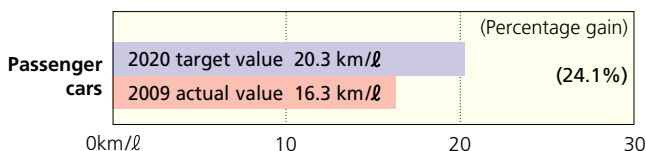
2015 AVERAGE FUEL EFFICIENCY TARGETS FOR NEW HEAVY-DUTY VEHICLES (GVW>3.5t)



Note: Fuel efficiency here is JE05 test cycle-based (see page 67), and targets were established assuming the same 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

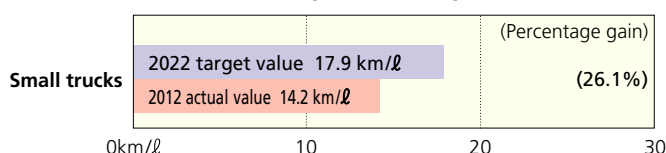
2020 AVERAGE FUEL EFFICIENCY TARGET FOR NEW PASSENGER CARS



Note: Fuel efficiency here is JC08 test cycle-based (see page 67), and the target was established assuming the same shipment volume ratios by vehicle weight category for 2020 as those recorded in 2009.

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

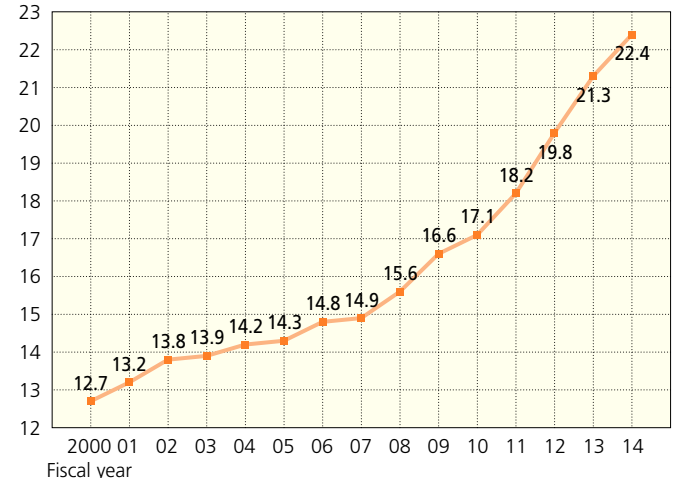
2022 AVERAGE FUEL EFFICIENCY TARGET FOR NEW SMALL TRUCKS (GVW ≤ 3.5t)



Note: Fuel efficiency here is JC08 test cycle-based (see page 67), and the target was established assuming the same shipment volume ratios by vehicle weight category for 2022 as those recorded in 2012.

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

AVERAGE FUEL EFFICIENCY OF DOMESTIC NEW GASOLINE-POWERED PASSENGER CARS



Note: Figures here are JC08 test cycle-based (see page 67).

Source: Japan Automobile Manufacturers Association

VEHICLE TECHNOLOGIES FOR INCREASED FUEL EFFICIENCY

Improved engine efficiency

More efficient fuel consumption:

- Direct injection
- Variable mechanisms (variable cylinder activation, VVT&L, etc.)
- Downsized engine supercharging

Reduction of friction loss:

- Reduction of piston & piston ring friction loss
- Low-viscosity lubricating oil

Reduced aerodynamic drag

- Improved body configuration

Reduced vehicle weight

- Expanded use of lightweight materials
- Improved body structure

Improved powertrain performance

- Expansion of lock-up area
- Expanded number of transmission gears
- Continuously variable transmission

Reduced rolling resistance

- Low rolling-resistance tires

Other

- Electric power steering
- Idling prevention (stop-start)

In-Use Status of Next-Generation Vehicles

Beginning in April 2009, when the government's tax incentive/subsidy programs for the purchase of eco-friendly vehicles were first introduced, the share of next-generation vehicles (including hybrid, plug-in hybrid, electric, fuel cell, natural gas, clean diesel, and other new-energy vehicles) in total passenger car sales surged. In 2015 about 6.25 million next-generation vehicles were in circulation in Japan, but this is still a very small number, accounting for only 8.1% of all the motor vehicles in use in Japan today. The more widespread use of these vehicles requires not only further advances in vehicle and related technologies, but also, among other government initiatives, the establishment of the necessary fuel/energy supply infrastructures and the continued provision of purchasing incentives.

TRENDS IN NEXT-GENERATION PASSENGER CAR NEW REGISTRATIONS

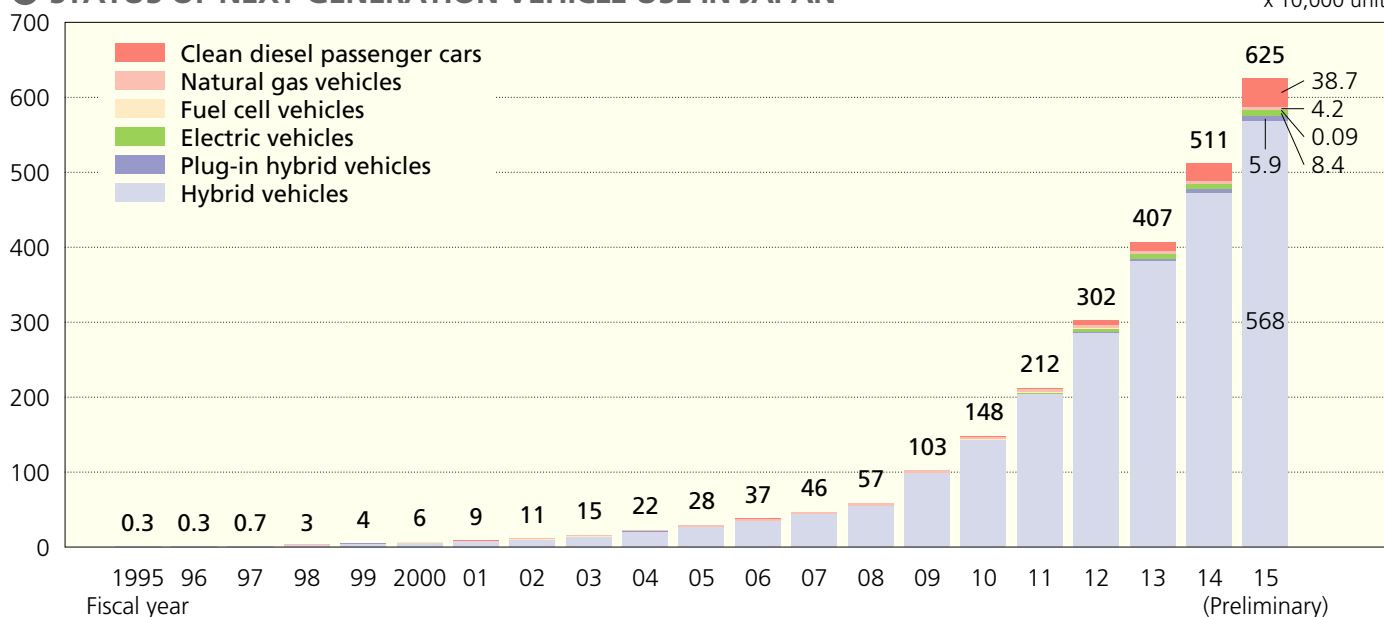
In vehicle units

Fiscal Year	2011	2012	2013	2014	2015
Hybrid vehicles	631,335	857,240	1,015,356	950,294	959,376
Plug-in hybrid vehicles	3,742	13,178	12,972	14,714	14,997
Electric vehicles	11,226	13,911	15,594	15,471	13,282
Fuel cell vehicles	0	0	0	102	494
Clean diesel vehicles	11,861	55,513	78,384	100,070	154,121
Total	658,164	939,842	1,122,306	1,080,651	1,142,270

Source: Japan Automobile Manufacturers Association

STATUS OF NEXT-GENERATION VEHICLE USE IN JAPAN

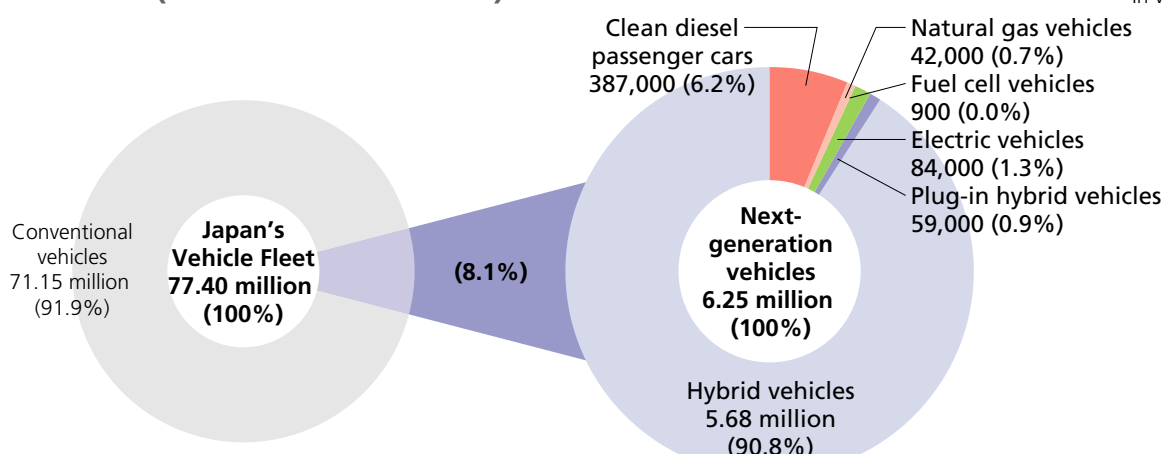
x 10,000 units



Source: Japan Automobile Manufacturers Association

COMPOSITION OF JAPAN'S VEHICLE FLEET, WITH BREAKDOWN OF NEXT-GENERATION VEHICLE SHARE (FISCAL 2015 ESTIMATE)

In vehicle units



Note: Figures are rounded off.

Source: Japan Automobile Manufacturers Association

Promoting Fuel-Conserving Ecodriving

Individual drivers can increase fuel efficiency and thus help reduce CO₂ emissions by improving their driving habits. JAMA has therefore been conducting an ongoing public-awareness campaign, in collaboration with the government and industry partners, to promote sound, fuel-conserving ecodriving practices, urging drivers to adopt the ten smart tips listed below. While the already widespread use of digital tachographs in truck fleet operations in Japan continues to expand, automakers are equipping more and more passenger cars not only with fuel efficiency gauges and systems for real-time on-screen displays of fuel efficiency performance, but also with idling-prevention (stop-start) systems and “eco-mode” buttons that activate fuel efficiency-promoting functions.

● TEN TIPS FOR FUEL-CONSERVING ECODRIVING as promoted in Japan

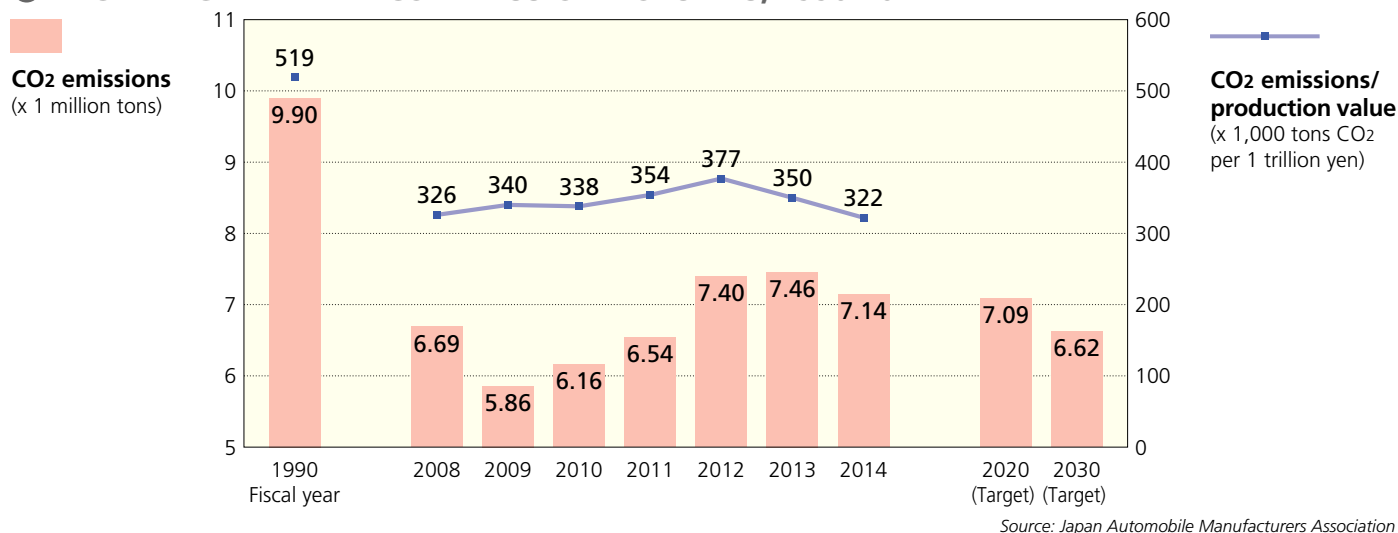
	<p>1. Accelerate gently.</p> <p>Think “eco-start” when you accelerate—increasing your speed at a relaxed pace, to 20km/h in 5 seconds, boosts fuel efficiency by 10%. Gentle acceleration also contributes to safer driving.</p>		<p>6. Plan your itinerary to avoid congested routes.</p> <p>Plan the route to your destination using a map or your navigation system before starting off. Check traffic information to avoid congested areas and save time and fuel. Ten minutes of unnecessary driving in a one-hour trip results in a 17% drop in fuel efficiency.</p>
	<p>2. Maintain a steady speed and keep your distance.</p> <p>Maintain a suitably steady speed for safe and fuel-efficient driving. Tailgating leads to unnecessary acceleration/deceleration, resulting in 2% and 6% lower fuel efficiency in urban and suburban areas, respectively.</p>		<p>7. Check your tire pressure regularly.</p> <p>Driving on tires whose air pressure is 50kPa (0.5kg/cm²) lower than it should be decreases fuel efficiency by 2% in urban areas and 4% in suburban areas. Timely replacement of engine oil and items such as oil filters and air cleaner elements also contributes to increased fuel efficiency.</p>
	<p>3. Slow down by releasing the accelerator.</p> <p>Releasing the accelerator when recognizing the need to slow down (e.g., at changing traffic lights) stops the fuel supply, resulting in a 2% gain in fuel efficiency. Use your engine's braking function whenever appropriate, including on downhill descents.</p>		<p>8. Reduce your load.</p> <p>Onboard weight is a key factor in fuel efficiency performance. Driving with 100kg of unnecessary onboard weight causes a 3% loss in fuel efficiency. Another factor is your vehicle's aerodynamic drag, which you can reduce by removing exterior rack equipment when not in use.</p>
	<p>4. Make appropriate use of your air conditioner.</p> <p>The AC function is for cooling and dehumidifying <i>only</i>, so don't leave your AC on when you're heating the cabin. When you do use it, be sure not to set it too low. (Continuous use of the AC functioning at 25°C when the outdoor temperature is 25°C results in a fuel efficiency loss of 12%.)</p>		<p>9. Respect parking rules and regulations.</p> <p>Don't leave your vehicle where it blocks traffic. Illegal or imprudent on-street parking causes traffic congestion which leads to increased emissions and a greater risk of accident. Roads that are not encumbered by illegally or improperly parked vehicles promote smoother traffic flow and higher fuel efficiency.</p>
	<p>5. Don't warm up or idle your engine.</p> <p>Today's passenger cars don't require warming up, so start off slowly right after turning on the ignition. When waiting or loading/unloading, make a habit of turning your engine off instead of letting it idle. Ten minutes of engine idling (with the AC off) wastes 130cc of fuel. (See notes below.)</p>		<p>10. Check the readings on your fuel efficiency-monitoring equipment.</p> <p>Be aware of your vehicle's fuel efficiency performance by consulting onboard equipment that monitors it.</p>

Notes: 1. Warming up a vehicle engine is necessary only in extremely cold climates (-20°C or colder) or after long periods of non-use. 2. For drivers stopping engine idling manually, i.e. by turning their vehicle's ignition off and then back on again, caution is advised as follows (but does not apply to drivers of vehicles equipped with idling-prevention systems): 1) Stepping on the brake pedal repeatedly during engine shut-down may diminish braking power; 2) Drivers not accustomed to shutting down their engines and starting them up again may experience slow or faulty restarts; 3) Excessive shutting down and restarting may drain the batteries, resulting in engine start-up failure; 4) Do not use this method when stopped at the head of a line or on a gradient, because turn signals and windshield wipers, as well as airbags and other safety features, will not function during engine shut-down.

CO₂ Reductions at Manufacturers' Facilities

Japan's automakers, together with the member companies of the Japan Auto-Body Industries Association (JABIA), have for years taken measures to reduce energy consumption and otherwise cut CO₂ emissions at their production plants. Having more recently expanded their voluntary CO₂ reduction activities to also include administrative and research facilities, their combined facility-emitted CO₂ in 2014 totalled 7.14 million tons, down 320,000 tons from the previous year. JAMA and JABIA members now aim to reduce their combined facility-emitted CO₂ to 7.09 million tons (a 28% reduction from the 1990 level) by 2020 and to 6.62 million tons (a 33% reduction from 1990) by 2030.

● FACILITY-GENERATED CO₂ EMISSION VOLUMES, 1990-2014



Voluntary Initiatives to Reduce the Use of Hazardous Substances in Motor Vehicles

JAMA member manufacturers have, on a voluntary basis, eliminated the use of four so-called substances of concern (SOCs)—lead, mercury, hexavalent chromium and cadmium—in new vehicles to lessen their environmental impact, particularly when they are dismantled and processed at the end of their service life. Separate restrictions on the use of SOC have been established for motorcycles.

● RESTRICTIONS ON THE USE OF SUBSTANCES OF CONCERN IN NEW VEHICLES & COMPLIANCE STATUS

SOC	Restrictions	Compliance Status
Lead	As of January 2006, a 90% decrease or more from the 1996 level of 1,850 grams (i.e., a maximum permissible level of 185 grams); for large commercial vehicles including buses, a 75% decrease or more from the 1996 level (or a maximum level of 462.5 grams). Batteries are exempt.	All models have complied since January 2006.
Mercury	As of January 2005, banned except for trace amounts in safety-related components such as: - Instrument panel displays - Liquid crystal displays in navigation devices - Discharge lamps - Fluorescent cabin lamps	All models have complied since January 2003. Instrument panel displays are now mercury-free in all models, as are fluorescent cabin lamps in passenger cars. Navigation-device liquid crystal displays and discharge lamps will be mercury-free in the near future.
Hexavalent chromium	Banned as of January 2008.	All models have complied since January 2008.
Cadmium	Banned as of January 2007.	All models have complied since January 2006.

A Voluntary Approach to Reducing Vehicle Cabin VOCs

New-model passenger cars marketed in and after 2007 and new-model commercial vehicles sold in and after 2008 have met the target values established by Japan's Ministry of Health, Labor and Welfare for indoor concentration levels of 13 volatile organic compounds (VOCs). In July 2012, ISO 12219-1 was established as the global standard for restricting the use of in-cabin VOCs in passenger cars. Accordingly, JAMA's previously established VOC test procedure for passenger cars has been replaced by the ISO procedure. However, for trucks and buses not covered by the ISO standard, JAMA test methods for measuring in-cabin VOC concentration levels will remain in application. Meanwhile, automakers are working to lower in-cabin VOC concentration levels even further. This voluntary initiative applies only to vehicles that are manufactured and sold in Japan.

● COMPARISON OF JAMA AND ISO IN-CABIN VOC TEST PROCEDURES

	JAMA Procedure	ISO Procedure (For passenger cars)
Heating method	Radiation lamp heating from above the cabin (No radiation density prescribed.)	Radiation lamp heating from above the cabin (Radiation density: $400 \pm 50 \text{ W/m}^2$)
In-cabin temperature	40°C in driver's breathing zone (Note: 35°C for buses.)	No in-cabin test temperature prescribed. (Presumed to be 40°C in driver's breathing zone [compact car].)
Pre-test conditions	Cabin doors and windows left open for at least 30 minutes.	Cabin doors and windows left open for one hour.
Ambient mode	—	Cabin doors and windows closed for at least 7.5 hours, then cabin air sample-tested over a period of 30 minutes.
Parking mode (airtight state)	Cabin air sample-tested over a period of 30 minutes, 4.5 hours after reaching the prescribed temperature.	Cabin air sample-tested over a period of 30 minutes, 3.5 hours after start of heating.
Driving mode	Cabin air sample-tested over a period of 15 minutes, with engine and AC on (internal air circulation mode). (Note: 30 minutes for trucks and 120 minutes for buses.)	Cabin air sample-tested over a period of 30 minutes, with engine and AC on (external air ventilation mode).
Test procedure schematic	<p>(For passenger cars)</p>	<p>B.G.: "Background" air, i.e., air in test chamber.</p>

Source: ISO 12219-1:2012

● TARGET VALUES FOR INDOOR CONCENTRATION LEVELS OF 13 SUBSTANCES (VOCs)

Substance	Target Value for Indoor Concentration Level	Principal Sources
Formaldehyde	100 $\mu\text{g}/\text{m}^3$ (0.08 ppm)	Adhesives for plywood, wallpaper, etc.
Toluene	260 $\mu\text{g}/\text{m}^3$ (0.07 ppm)	Adhesives/paints for interior finishing materials, furniture, etc.
Xylene	870 $\mu\text{g}/\text{m}^3$ (0.20 ppm)	Adhesives/paints for interior finishing materials, furniture, etc.
Paradichlorobenzene	240 $\mu\text{g}/\text{m}^3$ (0.04 ppm)	Moth repellents, lavatory air fresheners
Ethylbenzene	3,800 $\mu\text{g}/\text{m}^3$ (0.88 ppm)	Adhesives/paints for plywood, furniture, etc.
Styrene	220 $\mu\text{g}/\text{m}^3$ (0.05 ppm)	Insulation materials, bath units, tatami-mat core materials
Chlorpyrifos	1 $\mu\text{g}/\text{m}^3$ (0.07 ppb) (see note)	Insecticides (esp. ant exterminators)
Di-n-butyl phthalate	220 $\mu\text{g}/\text{m}^3$ (0.02 ppm)	Paints, pigments, adhesives
Tetradecane	330 $\mu\text{g}/\text{m}^3$ (0.04 ppm)	Kerosene, paints
Di-2-ethylhexyl phthalate	120 $\mu\text{g}/\text{m}^3$ (7.6 ppb)	Wallpaper, flooring materials, wire-coating materials
Diazinon	0.29 $\mu\text{g}/\text{m}^3$ (0.02 ppb)	Pesticides
Acetaldehyde	48 $\mu\text{g}/\text{m}^3$ (0.03 ppm)	Adhesives for construction materials, wallpaper, etc.
Fenobucarb	33 $\mu\text{g}/\text{m}^3$ (3.8 ppb)	Insecticides (esp. termite exterminators)

Note: 0.1 $\mu\text{g}/\text{m}^3$ (0.007 ppb) for children.

Global Harmonization in the Regulation of Vehicle Exhaust Emissions

Japan's vehicle exhaust emissions regulations have always been among the world's most stringent, and its automakers have worked very hard to develop the advanced technologies required to comply with them. As a result, NO_x and other atmospheric pollutant levels have been, even in large urban areas, on a steady decline. Based on the Ministry of the Environment-affiliated Central Environment Council's policy recommendations for future reductions in motor vehicle exhaust emissions (released in April 2005), comprehensive and even stricter new regulations, covering both gasoline and diesel vehicles, were implemented by the Japanese government in 2009. Japan has participated in international discussions on the global harmonization of emission test cycles and in 2010 introduced the UN test cycle for motorcycle emissions. Japan will adopt UN test cycles to measure emissions from heavy-duty diesel vehicles and from gasoline-powered passenger cars in 2016 and 2018, respectively (see page 67).

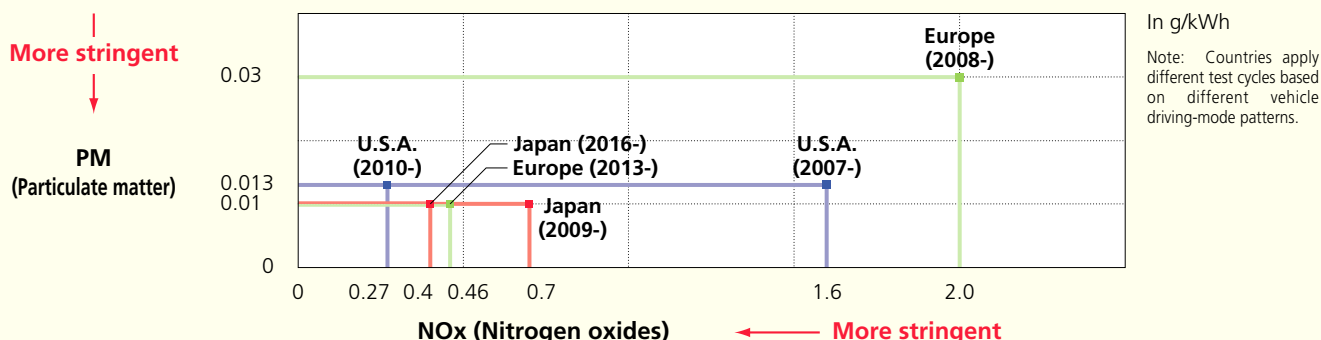
● COMPARISON OF HEAVY-DUTY DIESEL TRUCK EMISSIONS REGULATIONS

All regulatory values below apply to the heaviest truck categories. In g/kWh

	NO _x Nitrogen oxides	THC Total hydrocarbons	NMHC Non-methane hydrocarbons	CO Carbon monoxide	PM Particulate matter
Japan (GVW=Over 3.5 tons) ⁽¹⁾					
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⁾	2.0	—	0.17	2.22	0.027
Post-new long-term regulations (2009, 2010)	0.7	—	0.17	2.22	0.01
Future regulations (2016, 2017, 2018)	0.4	—	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: 1) NO _x + NMHC 3.22 2) NO _x + NMHC 3.35 with mandatory NMHC value of 0.67			20.78	0.134
2007 standard ⁽³⁾	0.27 (1.6)	—	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) ⁽⁴⁾	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	0.46	0.16	4.0	0.01
	Steady state mode	(0.4)	(0.13)	(1.5)	(0.01)
EEV ⁽⁵⁾	Transient mode	2.0	0.40	3.0	0.02
	Steady state mode	(2.0)	(0.25)	(1.5)	(0.02)

(1) GVW (gross vehicle weight) (Japan) = Vehicle weight + Maximum load + Maximum occupants x 55 kg. Weight per occupant and other details slightly differ from those of U.S. and European regulations. (2) Japan's 1997-2004 regulations applied to the over-2.5t GVW vehicle category; regulations as of 2005 apply to the over-3.5t GVW vehicle category. (3) The U.S.'s 2007 standard permitted an NO_x compliance level of around 1.6g until 2010 depending on engine family type. (4) EURO III (Europe): All vehicle categories were regulated in the steady state (ESC) mode only, except DPF- and NO_x reduction catalyst-equipped vehicles, which were regulated in both the steady state (ESC) and transient (ETC) modes. Beginning with EURO IV, all vehicle categories, whether DPF- and NO_x reduction catalyst-equipped or not, are regulated in both modes. (5) 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.

● COMPARISON OF HEAVY-DUTY DIESEL TRUCK EMISSIONS REGULATIONS (PM and NO_x)



● MOTOR VEHICLE EMISSIONS REGULATIONS IN JAPAN

Vehicle Type			Current Regulations				Future Regulations							
			Test cycle	Year enforced	Emission	Regulatory value (Average)	Test cycle	Year enforced	Emission	Regulatory value (Average)				
Gasoline and LPG Vehicles	Passenger cars		JC08 (g/km) (1)	2009	CO	1.15	WLTP (g/km) (2)	2018	CO	1.15				
					NMHC	0.05			NMHC	0.10				
					NOx	0.05			NOx	0.05				
			JC08 (g/km) (1)	2009	PM (3)	0.005			WLTP (g/km) (2)	2018	PM (3)	0.005		
	Trucks and buses	Mini	JC08 (g/km) (1)	2009	CO	4.02	WLTP (g/km) (2)	2019	CO	4.02				
					NMHC	0.05			NMHC	0.10				
					NOx	0.05			NOx	0.05				
			JC08 (g/km) (1)	2009	PM (3)	0.005			WLTP (g/km) (2)	2019	PM (3)	0.005		
		Light-duty (GVW≤1.7t)	JC08 (g/km) (1)	2009	CO	1.15	WLTP (g/km) (2)	2018	CO	1.15				
					NMHC	0.05			NMHC	0.10				
					NOx	0.05			NOx	0.05				
			JC08 (g/km) (1)	2009	PM (3)	0.005			WLTP (g/km) (2)	2018	PM (3)	0.005		
		Medium-duty (1.7t<GVW≤3.5t)	JC08 (g/km) (1)	2009	CO	2.55	WLTP (g/km) (2)	2019	CO	2.55				
					NMHC	0.05			NMHC	0.15				
					NOx	0.07			NOx	0.07				
			JC08 (g/km) (1)	2009	PM (3)	0.007			WLTP (g/km) (2)	2019	PM (3)	0.007		
		Heavy-duty (GVW>3.5t)	JE05 (g/kWh)	2009	CO	16.0	(Continued application of current regulations)							
					NMHC	0.23								
					NOx	0.7								
			PM (3)	0.01										
Diesel Vehicles	Passenger cars (4)		JC08 (g/km) (1)	2009	CO	0.63	WLTP (g/km) (2)	2018	CO	0.63				
					NMHC	0.024			NMHC	0.024				
					NOx	0.08			NOx	0.15				
					PM	0.005			PM	0.005				
	Trucks and buses	Light-duty (GVW≤1.7t)	JC08 (g/km) (1)	2009	CO	0.63	WLTP (g/km) (2)	2018	CO	0.63				
					NMHC	0.024			NMHC	0.024				
					NOx	0.08			NOx	0.15				
					PM	0.005			PM	0.005				
		Medium-duty (1.7t<GVW≤3.5t)	JC08 (g/km) (1)	2009 (5)	CO	0.63	WLTP (g/km) (2)	2019	CO	0.63				
					NMHC	0.024			NMHC	0.024				
					NOx	0.15			NOx	0.24				
					PM	0.007			PM	0.007				
		Heavy-duty (GVW>3.5t)	JE05 (g/kWh)	2009 (5)	CO	2.22	WHTC (g/kWh) (6)	2016	CO	2.22				
					NMHC	0.17			NMHC	0.17				
					NOx	0.7			NOx (7)	0.4				
					PM	0.01			PM	0.01				
	Motorcycles	Motor-driven cycles Class 1		WMTC (g/km) (8)	2010	CO	2.2							
		Motor-driven cycles Class 2		WMTC (g/km) (8)	2010	THC	0.45							
						NOx	0.16							
Mini-sized motorcycles						WMTC (g/km) (8)	2010					CO	2.62	
		THC	0.27											
		NOx	0.21											
Small-sized motorcycles		WMTC (g/km) (8)	2010	CO	2.62									
				THC	0.27									
				NOx	0.21									
Class I motorcycles*		Under 0.150ℓ in engine capacity with a maximum speed of 50km/h, or under 0.150ℓ in engine capacity with a maximum speed of 99km/h. *Equivalent to motor-driven cycles, Class 1 and Class 2.				WMTC (g/km) (8)	2016					CO	1.14	
					THC	0.30								
					NOx	0.07								
Class II motorcycles*		Under 0.150ℓ in engine capacity with a maximum speed of <130km/h, or 0.150ℓ or over in engine capacity with a maximum speed of <130km/h. *Equivalent to mini-sized and small-sized motorcycles with a maximum speed of <130km/h.				WMTC (g/km) (8)	2016	CO	1.14					
					THC	0.20								
					NOx	0.07								
Class III motorcycles*		With a maximum speed of ≥130km/h. *Equivalent to mini-sized and small-sized motorcycles with a maximum speed of ≥130km/h.				WMTC (g/km) (8)	2016	CO	1.14					
					THC	0.17								
					NOx	0.09								

(1) All vehicles weighing 3.5t or less are regulated on the basis of (values measured in cold-start state in JC08 test cycle) x 0.25 + (values measured in warm-start state in JC08 test cycle) x 0.75. (2) WLTP: Worldwide Harmonized Light Vehicles Test Procedure, on the basis of values measured in cold-start state. (3) PM values apply only to direct-injection, lean-burn vehicles equipped with absorption-type NOx reduction catalysts. (4) Small-sized diesel passenger cars have an equivalent inertia weight (EIW) of 1.25t (GVW of 1.265t) or less, and mid-sized diesel passenger cars have an EIW over 1.25t. (5) Enforced since 2010 for the 1.7t<GVW≤2.5t medium-duty segment and the 3.5t<GVW≤12t heavy-duty segment. (6) WHTC: World Harmonized Transient Cycle, on the basis of (values measured in cold-start state) x 0.14 + (values measured in warm-start state) x 0.86. (7) Enforcement: 2016 for GVW>7.5t; 2017 for tractors; 2018 for 3.5t<GVW≤7.5t. (8) WMTC: World Motorcycle Test Cycle.

Note: CO: Carbon monoxide; NMHC: Non-methane hydrocarbons; THC: Total hydrocarbons; NOx: Nitrogen oxides; PM: Particulate matter.

Sources: Ministry of the Environment; Ministry of Land, Infrastructure, Transport and Tourism

Improving Air Quality

Japan's central government as well as local governments in major metropolitan areas 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, the issuance of inspection-compliance certification is prohibited for vehicles that fail to meet the legal standards at inspection time. Moreover, local governments in major metropolitan areas have introduced additional regulations for diesel trucks and buses for the specific purpose of reducing PM emissions. Enforcement of those regulations means that restrictions are imposed on diesel vehicle circulation in the areas concerned.

● PROVISIONS OF THE NATIONAL AUTOMOTIVE NOx AND PM LAW/ DIESEL TRUCK & BUS PM EMISSION REGULATIONS FOR MAJOR METROPOLITAN AREAS

	Provisions of the National Automotive NOx and PM Law (Major Metropolitan Areas)	Provisions of PM Emission Regulations for Diesel Vehicles (Major Metropolitan Areas)
Areas Regulated	Tokyo and Aichi, Chiba, Hyogo, Kanagawa, Mie, Osaka, and Saitama (designated areas)	Tokyo (except for islands) and Chiba, Kanagawa, and Saitama (all areas); Hyogo (designated areas); Osaka (same areas as those designated under the Automotive NOx & PM Law)
Vehicle Types Regulated	Diesel, gasoline, and LPG trucks and buses Diesel passenger cars	Diesel trucks and buses Note: Not applicable to diesel passenger vehicles with up to 10-passenger occupancy.
Substances Regulated	NOx and PM	PM only NOx and PM in Hyogo and Osaka
Regulatory Values in Force	Trucks and Buses GVW = Gross vehicle weight GVW=1.7 tons & under: NOx: 0.48g/km (same as 1988 regulatory value for new gasoline vehicles) PM: 0.055g/km (half the 2002 regulatory value for new diesel vehicles) GVW=Over 1.7 tons to 2.5 tons: NOx: 0.63g/km (same as 1994 regulatory value for new gasoline vehicles) PM: 0.06g/km (half the 2003 regulatory value for new diesel vehicles) GVW=Over 2.5 tons to 3.5 tons: NOx: 5.9g/kWh (same as 1995 regulatory value for new gasoline vehicles) PM: 0.175g/kWh (half the 2003 regulatory value for new diesel vehicles) GVW=Over 3.5 tons: NOx: 5.9g/kWh (same as 1998-1999 regulatory value for new diesel vehicles) PM: 0.49g/kWh (same as 1998-1999 regulatory value for new diesel vehicles) Passenger Cars NOx: 0.48g/km (same as 1978 regulatory value for new gasoline vehicles) PM: 0.055g/km (half the 2002 regulatory value for new diesel vehicles)	In Chiba and Kanagawa, same as 1997, 1998, and 1999 regulatory values for new diesel trucks and buses In Tokyo and in Saitama, same as 2002, 2003, and 2004 regulatory values for new diesel trucks and buses In Hyogo and Osaka, same values as those mandated by the Automotive NOx & PM Law
Specific Provisions	New Vehicles In regulated areas, new vehicles not meeting the standards cannot be registered. Vehicles in Use 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. 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 No restriction. Vehicles in Use Vehicles not meeting the standards are prohibited from travelling through regulated areas after grace periods have expired. In Osaka, vehicles not meeting the standards are prohibited from travelling on roads directly accessing regulated areas. In Tokyo and in Chiba, Kanagawa, and Saitama, vehicles equipped with local government-specified PM reduction systems are deemed to be in compliance with the standards. Note: Applicable to diesel trucks and buses registered anywhere in Japan and travelling through regulated areas.
Grace Periods	From first registration: ● Small trucks 8 years etc. ● Diesel passenger cars 9 years etc. ● Standard trucks 9 years etc. ● Minibuses 10 years etc. ● Large buses 12 years etc.	Seven years from first registration, regardless of vehicle type (truck or bus) Note: In Chiba, vehicles neither registered in nor travelling through areas designated under the Automotive NOx & PM Law will be exempted for a period of 12 years, provided vehicle owners apply for such an exemption. In Hyogo, grace periods differ according to year of first registration and vehicle type. In Osaka, grace periods are the same as those specified in the Automotive NOx & PM Law.

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 motor vehicle environmental performance certification criteria keyed to Japan's latest fuel efficiency and emission standards. Trucks and buses that comply with NO_x (nitrogen oxides) and PM (particulate matter) emissions requirements are also certified, separately. To boost widespread public awareness of vehicles with advanced fuel efficiency and/or low emissions, such vehicles are identified with appropriately coded stickers.

● CERTIFICATION FOR VEHICLES WITH ADVANCED FUEL EFFICIENCY

For Gasoline and Diesel Passenger Cars

Performance Criteria	Vehicle Sticker
Compliant +20% with 2020 fuel efficiency standards	
Compliant +10% with 2020 fuel efficiency standards	
Compliant with 2020 fuel efficiency standards	
Compliant +20% with 2015 fuel efficiency standards	
Compliant +10% with 2015 fuel efficiency standards	
Compliant +5% with 2015 fuel efficiency standards	
Compliant with 2015 fuel efficiency standards	

Note: Fuel efficiency is JC08 test cycle-based.

For Small Trucks and Buses with GVW≤2.5t

Performance Criteria	Vehicle Sticker
Compliant +35% with 2015 fuel efficiency standards	
Compliant +25% with 2015 fuel efficiency standards	
Compliant +20% with 2015 fuel efficiency standards	
Compliant +15% with 2015 fuel efficiency standards	
Compliant +10% with 2015 fuel efficiency standards	
Compliant +5% with 2015 fuel efficiency standards	
Compliant with 2015 fuel efficiency standards	

Note: Fuel efficiency is JC08 test cycle-based.

For Trucks and Buses with GVW>2.5t

Performance Criteria	Vehicle Sticker
Compliant +35% with 2015 fuel efficiency standards	
Compliant +25% with 2015 fuel efficiency standards	
Compliant +15% with 2015 fuel efficiency standards	
Compliant +10% with 2015 fuel efficiency standards	
Compliant +5% with 2015 fuel efficiency standards	
Compliant with 2015 fuel efficiency standards	

Note: Fuel efficiency is JC08 or JE05 test cycle-based.

● CERTIFICATION FOR VEHICLES WITH LOW EMISSIONS

Performance Criteria	Vehicle Sticker
Emissions down by 10% from 2009 standards	
Emissions down by 75% from 2005 standards	
Emissions down by 50% from 2005 standards	

● CERTIFICATION FOR TRUCKS AND BUSES WITH LOW NO_x & PM EMISSIONS

Performance Criteria	Vehicle Sticker
Compliant with 2016 emission standards	
Compliant with 2009 emission standards	
Compliant with 2005 emission standards	
Compliant with other designated NO _x and PM emission standards	

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 has, moreover, provided continuous cooperation in, and financial support for, the development, maintenance, and upgrading of related systems. In line with legislative provisions promoting the so-called 3R initiatives (“reduce, reuse, and 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 2014 the volume of auto plant-generated waste destined for landfill disposal totalled 300 tons, surpassing by a very wide margin the 2015 target of 10,000 tons.

● INDUSTRY MEASURES IN LINE WITH NATIONAL LEGISLATION

	Promotion of Effective Utilization of Resources Law (the “3R” Law)		Distribution, Servicing and Use	End-of-Life Vehicle Recycling Law
	Product Design	Waste Management		ELV Recycling
“Reduce” initiatives	For designated products: - Weight reduction/ Downsizing - Longer product life - Reduced use of hazardous substances	For designated areas of activity: - Reduction/recycling of designated waste products generated in vehicle manufacturing operations: 1) Scrap metals 2) Casting sand residue		Basic premise: - Environmentally responsible vehicle design on the part of automobile manufacturers
“Reuse” initiatives	For designated products: - Use of recyclable materials			
“Recycle” initiatives	- Ease of dismantling - Ease of sorting - Non-hazardous recycling - Materials identification	- Total waste volume*: 1990 (baseline): 352,000 tons ↓ 2014: 300 tons JAMA target: 10,000 tons by fiscal 2015 *For landfill disposal, including scrap metals, casting sand residue, and other waste		- Recovery and recycling of: 1) Fluorocarbons 2) Airbags 3) ASR Note: Motorcycles are not covered by the ELV Recycling Law.

● ELV RECOVERY IN NUMBERS

In vehicle units

Fiscal Year		2014	2015
No. of ELVs recovered		3,331,901	3,156,459
Appropriate disposal of three designated items	Fluorocarbons	2,904,066	2,741,493
	Airbags (1)	2,403,905	2,354,249
	ASR (2)	3,277,214	3,122,567

(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.

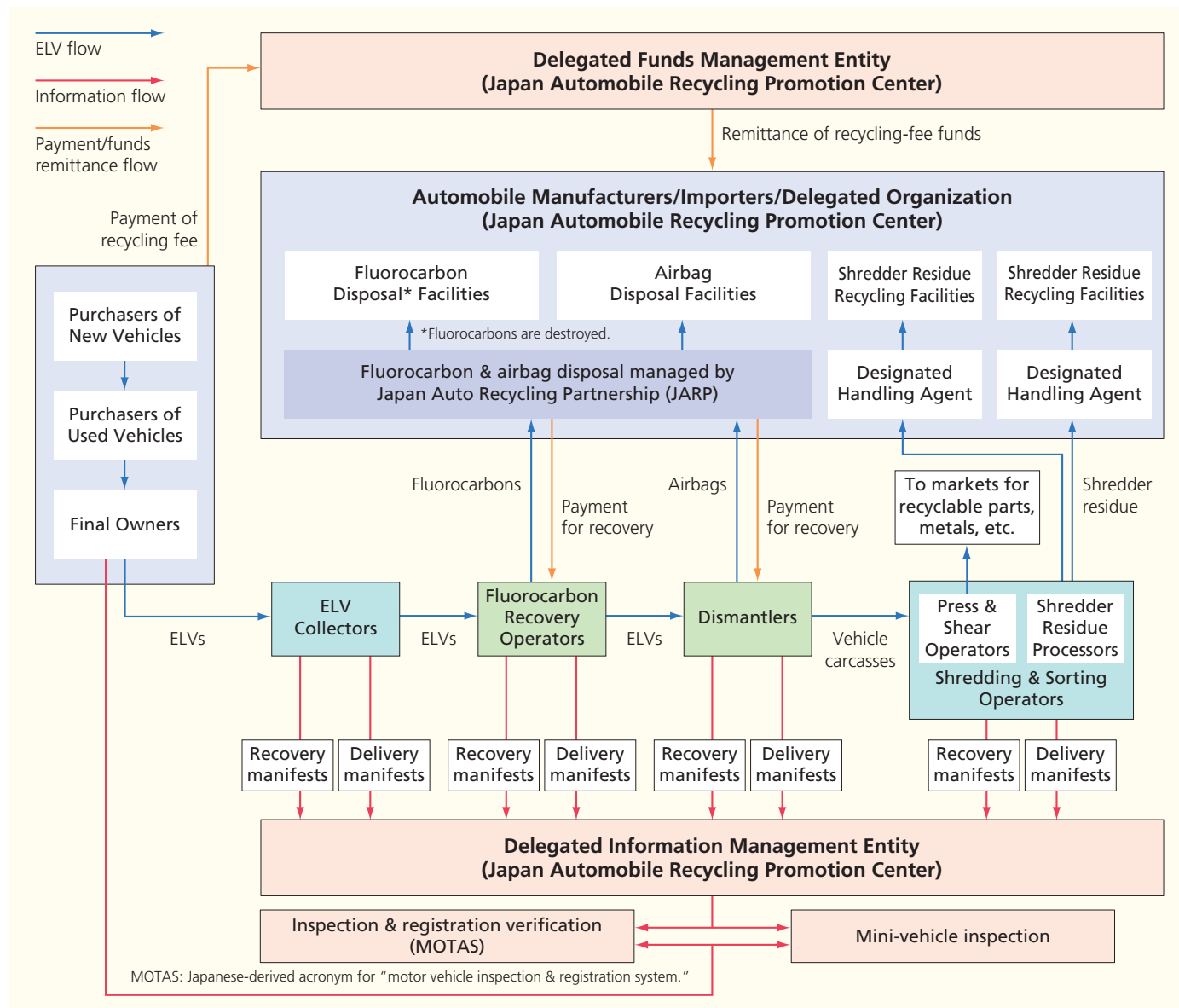
Source: Japan Automobile Recycling Promotion Center

● RECYCLING RATES: TARGETED & ACHIEVED

Three Designated Items	Target	Achieved
Fluorocarbons	Destruction	2.90 million vehicle units (2014)
Airbags	85%	94-95% (2014)
ASR	2005: 30% 2010: 50% 2015: 70%	96.8-98.1% (2014)

Sources: Government-affiliated entities

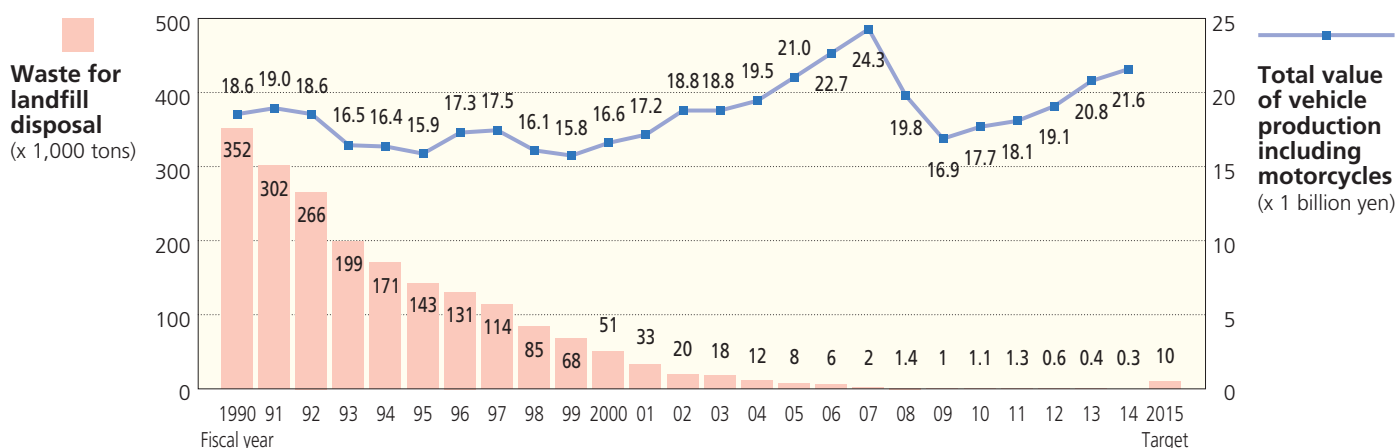
● THE ELV RECYCLING FLOW (as per the provisions of the End-of-Life Vehicle Recycling Law)



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.

● 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. It surpassed the 2015 target of 10,000 tons for the first time in 2005, shrinking to 8,000 tons. In 2014 plant-generated waste further decreased to 300 tons, very significantly surpassing the 2015 target.

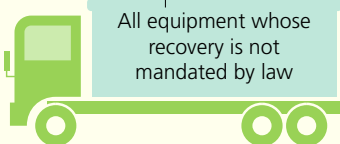
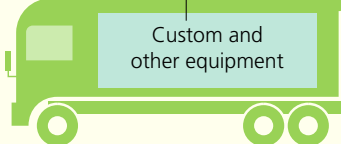


Source: Japan Automobile Manufacturers Association

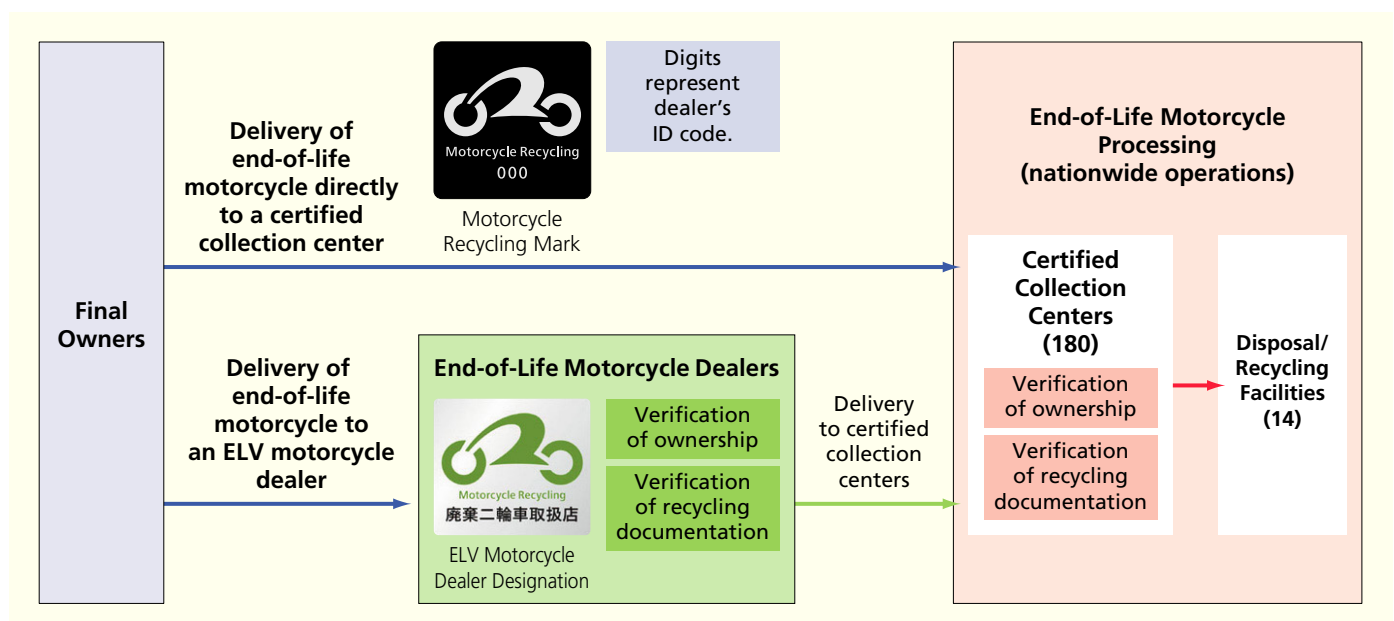
Voluntary Initiatives to Recycle Commercial Vehicle Rack Equipment and Motorcycles

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, in cooperation with the Japan Auto-Body Industries Association, promotes the voluntary development and use of rack equipment that is easy to dismantle and contains minimal amounts of hazardous substances. JAMA has also introduced a recycling-and-disposal system for such equipment and encourages operator participation in the system. As of January 2016, a total of 159 operators across Japan are participating in this system voluntarily. Meanwhile, since October 2004 JAMA's four motorcycle-manufacturing members, along with 12 motorcycle importers, have been voluntarily operating a recycling system under which motorcycle dealers nationwide sell only vehicles that feature an official motorcycle recycling mark, enabling, without any additional charge to their final owners, their recovery and processing through the proper disposal channels at the end of their service life. In October 2011, the motorcycle recycling fee was eliminated for vehicles sold prior to the introduction of the motorcycle recycling system seven years earlier. The disposal of municipally-owned end-of-life motorcycles requires advance approval by the Japan Automobile Recycling Promotion Center.

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

Voluntary Recovery (from Cab-Type Vehicles)		Voluntary Recovery (from Single-Body Vehicles)		Vehicles Not Covered by the End-of-Life Vehicle Recycling Law	
(Color code explains cost burden placement.)		(Color code explains cost burden placement.)		Van-type CVs such as:	Freezer trucks/vans, refrigerator trucks/vans, dry vans, etc.
				Tank-type CVs such as:	Tank trucks, cement mixers, waterspraying trucks, water-supply trucks, sewage removal trucks, etc.
Cost Burden for Equipment Not Covered by the Law	The End-of-Life Vehicle Recycling Law does not cover some types of rack and custom equipment for commercial vehicles. Recovery costs through final disposal are therefore not included in the vehicle recycling fee but rather market-determined.				
Cost Burden for Equipment Covered by the Law	For all commercial vehicle rack equipment covered by the End-of-Life Vehicle Recycling Law, including single-body vehicle equipment (exclusive of custom equipment), the vehicle recycling fee covers the entire cost of recovery through final disposal.				
				Hauling CVs such as:	Specialized hauling trucks, vehicle carriers, container trucks, lift-equipped vehicles, etc.
				Special- purpose CVs such as:	Special all-terrain vehicles, fire trucks, wreckers, pump trucks, ladder-equipped vehicles, etc.

● THE MOTORCYCLE RECYCLING FLOW

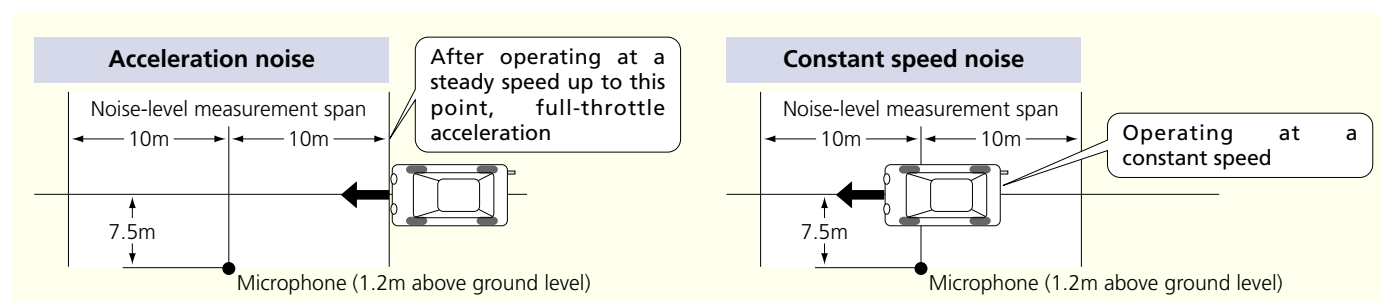


Note: The cost of ELV motorcycle delivery from ELV dealers to certified collection centers is financed by the motorcycle manufacturers on the basis of the consumer's recycling fee paid at the time of motorcycle purchase.
Source: Japan Automobile Recycling Promotion Center

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. Tires also generate tire-road noise. Automotive noise in Japan is regulated by standards—on acceleration noise, constant speed noise, and stationary noise—which have become progressively more stringent, requiring automakers to develop the technologies necessary for compliance. As regards the noise intentionally emitted through tampered mufflers, which has been recognized as a public nuisance, strengthened regulations in effect since April 2010 mandate a) that mufflers be tamper-resistant so as to prevent the alteration of their noise-suppression mechanism, and b) that replacement mufflers meet the relevant acceleration noise standard through type approval compliance and be ID-marked accordingly. Although very significant progress has been made as a result of these efforts, the Japanese government is nevertheless updating its noise regulations in line with the results of studies conducted under the United Nations' World Forum for Harmonization of Vehicle Regulations (WP.29). UN Regulation (or "UN R") 41-04, the new international standard on motorcycle acceleration noise, has been enforced in Japan since January 2014, and in its "New Measures for Reducing Automobile-Emitted Noise" released in July 2015, the government announced an approximate timetable for its adoption of UN R51-03 regulating motor vehicle acceleration noise testing and UN R117-02 regulating tire noise. Meanwhile, UN guidelines on equipping electric and hybrid vehicles with a proximity warning system (to counter their quietness at low speeds) were established in 2011 on the basis of existing Japanese guidelines.

● PROCEDURES FOR TESTING MOTOR VEHICLE NOISE LEVELS



● OVERVIEW OF JAPAN'S MOTOR VEHICLE NOISE REGULATIONS (for acceleration noise)

In dB(A)

Passenger Cars, Trucks and Buses					Regulation				
Vehicle Type			1971	1976-1977	1979	1982-1987	1998-2001		
Large-sized vehicles	Vehicles with GVW>3.5 tons and maximum engine output>150 kW	4WD vehicles, etc.	92	89	86	83	82		
		Trucks Buses							
Medium-sized vehicles	Vehicles with GVW>3.5 tons and maximum engine output≤150 kW	4WD vehicles, etc.	89	87	86	83	81		
		Trucks Buses							
Small-sized vehicles	Vehicles with GVW≤3.5 tons	Other than mini-vehicles Mini-vehicles	85	83	81	78	76		
Passenger cars	Vehicles exclusively for the transport of passengers, with up to 10-passenger occupancy	Over 6 occupants 6 occupants or fewer	84	82	81	78	76		

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

Motorcycles							
Vehicle Type		Regulation					
		1971	1976-1977	1979	1982-1987	1998-2001	2014-
Small-sized motorcycles	Over 250cc	86	83	78	75	73	
Mini-sized motorcycles	126cc-250cc	84					
Class III (see note)	Over 50 (PMR*-based)	Mini-sized and small-sized motorcycles under the previous classification					77
Motor-driven cycles Class 2	51cc-125cc	82	79	75	72	71	
Class II (see note)	26-50 (PMR*-based)	Mostly Class 2 but also some Class 1 motor-driven cycles and some mini-sized motorcycles under the previous classification					74
Motor-driven cycles Class 1	50cc & under	80	79	75	72	71	
Class I (see note)	25 & under (PMR*-based)	Class 1 motor-driven cycles under the previous classification					73

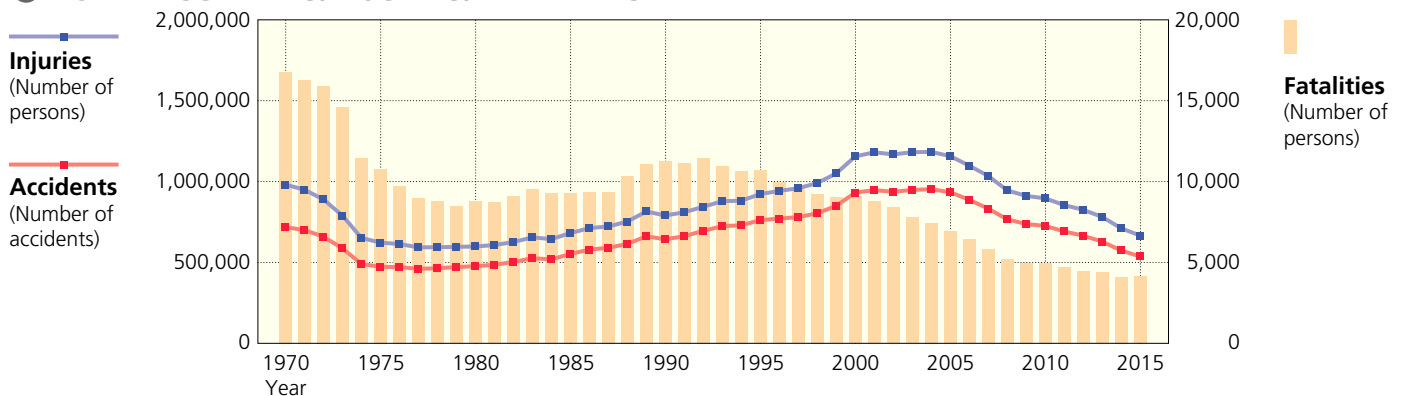
*PMR: Power-to-mass ratio. Note: Since 2014, for noise regulation purposes, motorcycles in Japan have been classified (based on their PMR values) under the Class I, II and III categories, and the Class 1 motor-driven cycle, Class 2 motor-driven cycle, mini-sized motorcycle and small-sized motorcycle categories no longer apply.

Source: Ministry of the Environment

Road Fatalities Slightly Increase, but Road Accidents and Resulting Injuries Decline for Eleventh Straight Year

In 2015 road fatalities (defined here as deaths occurring within 24 hours after accident) in Japan increased by four over the previous year, to a total of 4,117. Road accidents and road injuries declined, for the eleventh consecutive year, to 536,899 and 666,023 respectively. Seatbelt use is a major contributing factor to reduced fatalities and reduced injuries in road traffic accidents. The June 2008 revision to the Road Traffic Act requires all automobile passengers, including rear-seat occupants, to use seatbelts. Although the rate of use of rear seatbelts in 2015 stood at 35.1% on regular roads and at 71.3% on expressways, those rates remain low compared to the rate of use of front seatbelts, which approaches 100%. Further measures are needed to encourage rear-seat occupants to buckle up.

ROAD ACCIDENTS/INJURIES/FATALITIES



ROAD ACCIDENTS/INJURIES/FATALITIES (exact figures)

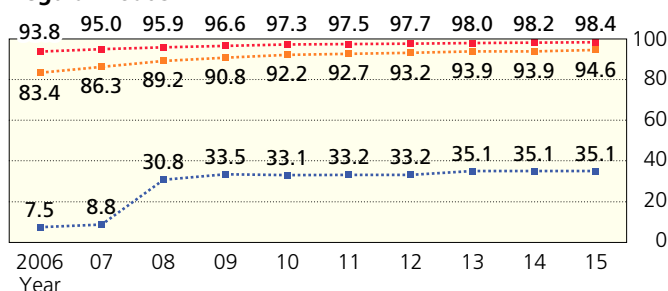
Year	1970	1975	1980	1985	1990	1995	2000	2005	2010	2011	2012	2013	2014	2015
Accidents	718,080	472,938	476,677	552,788	643,097	761,794	931,950	934,346	725,924	692,084	665,157	629,033	573,842	536,899
Injuries (Number of persons)	981,096	622,467	598,719	681,346	790,295	922,677	1,155,707	1,157,113	896,297	854,613	825,392	781,492	711,374	666,023
Fatalities (Number of persons)	16,765	10,792	8,760	9,261	11,227	10,684	9,073	6,937	4,948	4,691	4,438	4,388	4,113	4,117

Source: National Police Agency

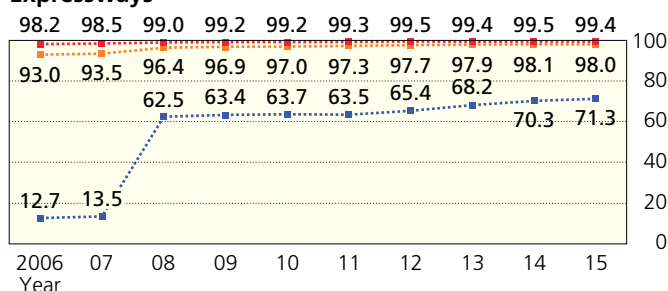
SEATBELT USE RATES BY SEAT POSITION

Driver's seat Front passenger's seat Rear seat In %

Regular Roads



Expressways

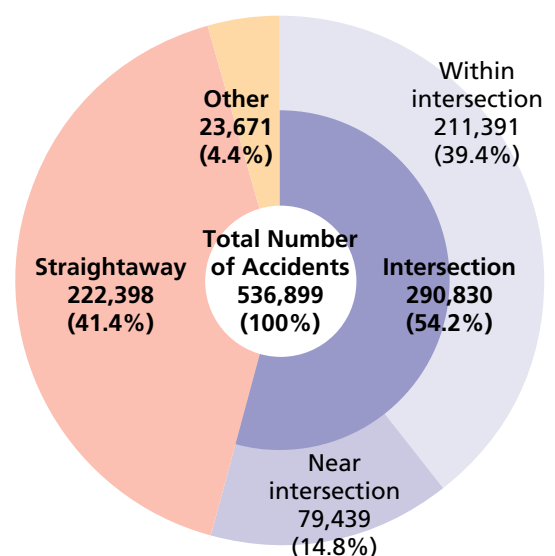


Notes: 1. The survey on seatbelt use is conducted annually in October. 2. 2015 survey samples totalled roughly 413,000 on regular roads and 87,000 on expressways.

Sources: National Police Agency; Japan Automobile Federation

ROAD ACCIDENTS IN 2015 BY ROAD CONFIGURATION

Number of accidents



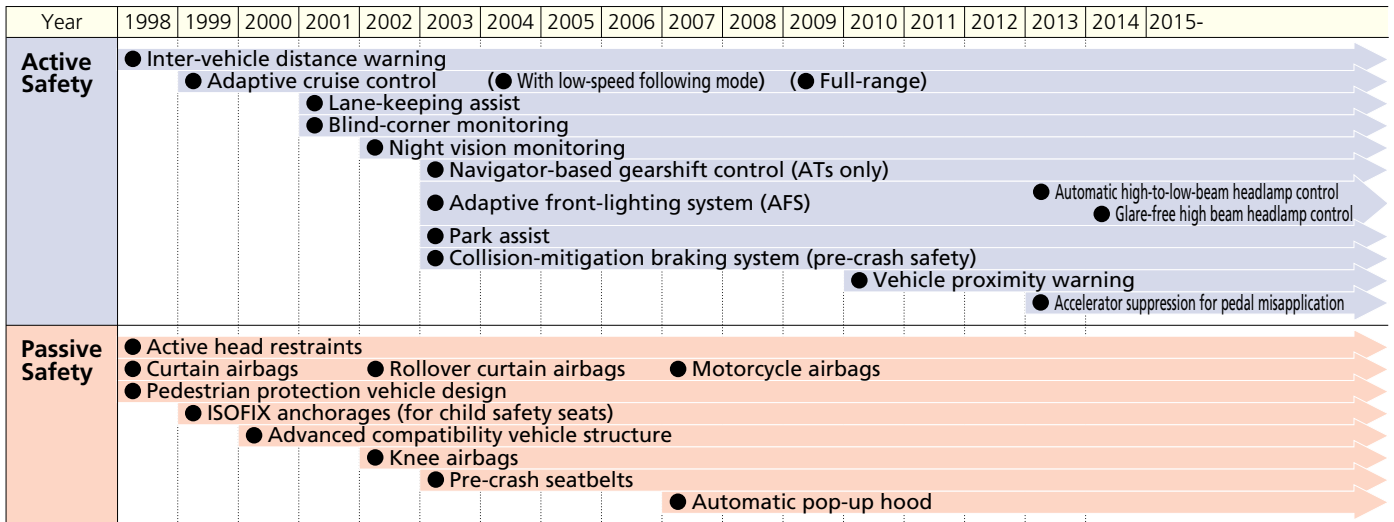
Notes: 1. "Straightaway" includes some curves and tunnels. 2. "Other" includes railroad crossings.

Source: National Police Agency

Equipping More Vehicles with Advanced Safety Features

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 upgrading vehicle safety equipment and expanding its onboard installation rates, 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



Source: Japan Automobile Manufacturers Association

● SAFETY FEATURE ONBOARD INSTALLATION STATUS (for passenger cars produced in 2014 for home market)

	Safety Feature	Installation Status			
		In no. of models (1)	In % (2)	In vehicle units	In % (2)
Active Safety	Brake assist	176 (164)	97.2	4,284,790	97.9
	Unfastened seatbelt warning (front passenger's seat)	91 (88)	50.3	2,472,209	56.5
	Power-window jamming prevention (with auto-up function)	175 (172)	96.7	4,316,616	98.6
	Power-window jamming prevention (without auto-up function)	28 (27)	15.5	810,426	18.5
	High-intensity discharge headlamps	158 (58)	87.3	2,507,035	57.3
	Adaptive front-lighting system (AFS)	36 (14)	19.9	194,422	4.4
	Back-up monitoring (rear obstacle detection)	124 (26)	68.5	1,532,990	35.0
	Vehicle perimeter monitoring	36 (8)	19.9	311,427	7.1
	Vehicle perimeter obstacle warning	36 (6)	19.9	285,354	6.5
	Blind-corner monitoring	20 (0)	11.0	157,484	3.6
	Night vision monitoring	2 (0)	1.1	505	0.0
	Curve detection	15 (3)	8.3	76,832	1.8
	Tire pressure monitoring	16 (13)	8.8	93,411	2.1
	Driver inattention warning	25 (3)	13.8	232,537	5.3
	Inter-vehicle distance warning	24 (2)	13.3	406,426	9.3
	Lane departure warning	38 (2)	21.0	375,128	8.6
	Rear collision warning-equipped headrest control	2 (0)	1.1	1,333	0.0
	Collision-mitigation braking system (pre-crash safety)	53 (2)	29.3	520,530	11.9
	Adaptive cruise control	43 (1)	23.8	224,778	5.1
	Adaptive cruise control with low-speed following mode	10 (1)	5.5	109,538	2.5
	Full-range adaptive cruise control	16 (2)	8.8	122,750	2.8
	Lane-keeping assist	18 (1)	9.9	59,294	1.4
	Back-up monitoring (parking assistance)	10 (0)	5.5	30,144	0.7
	Navigator-based gearshift control	16 (4)	8.8	31,813	0.7
	Pre-crash seatbelts	27 (2)	14.9	70,201	1.6
	Electronic stability control	158 (125)	87.3	3,393,909	77.5
	Traction control with anti-lock braking system	138 (114)	76.2	3,028,733	69.2
	Navigator-based stop sign alert with brake assist	8 (6)	4.4	64,056	1.5
	Rearward-approaching-vehicle warning	17 (2)	9.4	135,628	3.1
	Emergency braking warning	68 (59)	37.6	2,312,427	52.8
Passive Safety	Vehicle proximity warning (for HVs/EVs) (3)	39 (38)	33.9	815,406	28.5
	Collision-mitigation braking system (pre-crash safety at low-speed vehicle operation)	38 (1)	21.0	1,277,268	29.2
	Accelerator suppression for pedal misapplication	39 (5)	21.5	1,411,279	32.2
	Automatic high-to-low-beam headlamp control	21 (1)	11.6	96,458	2.2
	Glare-free high beam headlamp control	6 (1)	3.3	18,890	0.4
	Side airbags	139 (64)	76.8	1,627,956	37.2
Passive Safety	Curtain airbags	137 (62)	75.7	1,369,452	31.3
	Active head restraints	125 (123)	69.1	3,341,266	76.3
	ISOFIX anchorages (for child safety seats)	176 (174)	97.2	4,347,343	99.3
	Three-point seatbelt for rear center seat (4)	130 (129)	82.3	2,476,812	83.6
Total		181		4,377,953	

(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) In 2014 a total of 115 hybrid/electric car models (2,859,744 vehicle units) were produced. (4) In 2014 a total of 158 passenger car models (2,961,103 vehicle units) were produced, excluding mini and other passenger cars which are not eligible for rear seat inclusion.

Note: Passenger cars here include minicars.

Source: Japan Automobile Manufacturers Association

JAMA Initiatives in Promoting Greater Road Safety

JAMA supports the Japanese government's goals for reduced road fatalities and injuries (see "Japan's Road Safety Targets" in the next section) and pursues its own road safety-promoting initiatives, which are summarized 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.		
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 ABS, BA, and stability control. • 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.

Japan's 10th Basic Plan for Road Safety

Japan's road safety measures are promoted on the basis of its succession of consecutive "basic plans" for road safety, the first of which was implemented in 1971. The provisions of the tenth national road safety plan (2016-2020) are premised on the ultimate goal of eliminating road accidents altogether and were formulated on the basis of three guiding principles, namely: 1) the overarching priority of protecting human life, with a particular emphasis on promoting road safety for children, the elderly, and the disabled; 2) the application of advanced technologies to improve road safety; and 3) the promotion of research activity and technological innovation targeting greater road safety.

● JAPAN'S ROAD SAFETY TARGETS

- To reduce the annual number of road fatalities to 2,500 or fewer by 2020, and thus to make Japan's roads the safest in the world.
- To reduce the annual number of road injuries (including fatalities for deaths occurring within 24 hours of accident) to 500,000 or fewer by 2020.

● EIGHT MAJOR AREAS OF ROAD SAFETY PROMOTIONAL ACTIVITY

Road Infrastructure Improvements <ul style="list-style-type: none"> - Creation of safe pedestrian walkways alongside community roads - Expanded measures for greater safety on main roads - Creation of a bicycle-friendly road use environment - Expansion of parking space availability 	Road Safety Public Awareness-Promoting Initiatives <ul style="list-style-type: none"> - Provision of population segment-targeted road safety education - Conduct of road safety public awareness campaigns - Promotion of road safety awareness campaigns undertaken by civic organizations - Promotion of road safety activities in local communities with the participation of residents
Promotion of Safe Driving <ul style="list-style-type: none"> - Upgrading of driver education programs - Implementation of improvements to the driver licensing system - Promotion of safe-driving management activities in commercial operations - Promotion of planning & monitoring initiatives for greater safety in commercial vehicle operations 	Enhancement of Vehicle Safety <ul style="list-style-type: none"> - Upgrading of vehicle safety standards - Enhanced new car assessment information supply - Implementation of improvements to the national vehicle recall system - Promotion of bicycle safety
Enforcement of Road Traffic Laws <ul style="list-style-type: none"> - Strict enforcement of traffic regulations - Systematic investigation of road traffic violations - Stronger crackdowns on "hot-rodding" motorcyclists 	Reinforcement of Emergency Road Rescue Operations Infrastructure <ul style="list-style-type: none"> - Upgrading of rescue operation systems - Upgrading of emergency medical support systems - Development of coordination activities in emergency rescue operations
Provision of Fair Compensation for Road Accident Victims <ul style="list-style-type: none"> - Promotion of improvements to automobile liability coverage - Enhanced support for the provision of fair "damages" compensation - Enhanced trauma care for road accident victims 	Promotion of Road Safety Research and Analysis <ul style="list-style-type: none"> - Promotion of R&D activities for greater road safety - Promotion of comprehensive analysis of road accident causation

Source: Japan's 10th Basic Plan for Road Safety

Wider ITS Applications and the Transition to Automated Driving

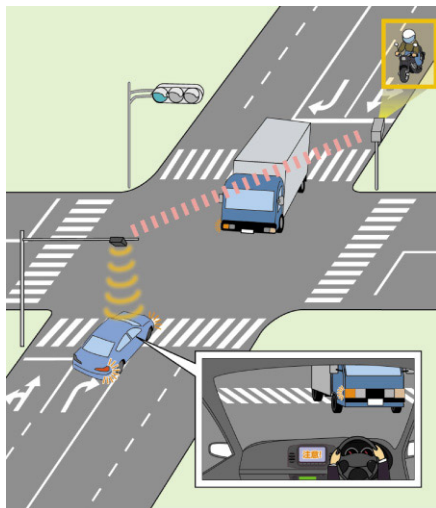
Intelligent Transport Systems aim to radically improve transport safety, efficiency and convenience through the use of information and communication technologies integrating road users, road infrastructure, and vehicles. In 1996 the Japanese government formulated its Comprehensive Concept for the Promotion of ITS, on the basis of which it has promoted, as a national project, ITS development in a number of areas. Advanced navigation systems are already widely in use, as are ETC (electronic toll collection) and smart highway toll stations using ETC exclusively. A wide range of technologies developed on the basis of Advanced Safety Vehicle (ASV) research are also in application. The Public-Private ITS Initiative/Roadmaps policy initiative formulated by the Japanese government in June 2014 (and updated in June 2015) details measures to be taken for further ITS development under public-private cooperative efforts, with the focus on safe-driving support as well as automated driving systems and on the expanded use of road traffic data. To achieve the stipulated goals, coordinated inter-ministerial and inter-agency efforts, including the upgrading of communication infrastructures, are required.

INTRODUCTION OF ROAD-TO-VEHICLE SAFE-DRIVING SUPPORT SYSTEMS

Incorporating ITS technologies, road-to-vehicle (also referred to as "vehicle-to-infrastructure") systems providing safe-driving support and cruise assistance have been in operation in Japan since 2010-11. More recently, ETC 2.0, an advanced electronic toll collection system that also provides drivers with real-time information on traffic conditions, has been introduced, for use on intercity and intracity expressways.

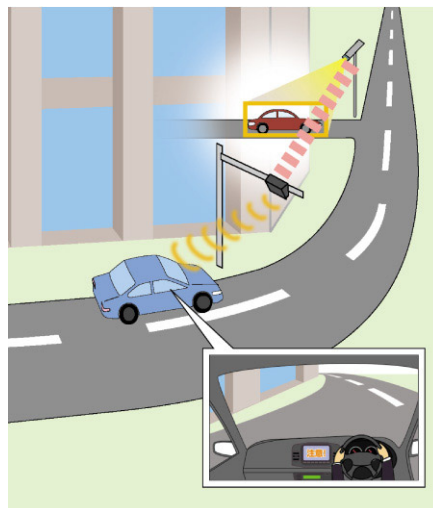
● "DSSS"* SYSTEM FEATURES (EXAMPLES)

1. "Oncoming traffic" warning (here, on right turn)



*DSSS: "Driving Safety Support System"

2. "Entering traffic ahead" warning



Source: Universal Traffic Management Society of Japan

● ETC 2.0 DEVICE-BASED SYSTEM FEATURES (EXAMPLES)



Sources: Ministry of Land, Infrastructure, Transport and Tourism, etc.

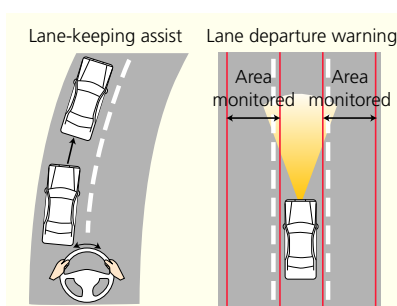
EXPANDING AVAILABILITY OF ASV TECHNOLOGIES IN THE MARKET

In the area of safe-driving assistance using ITS technologies, a wide range of vehicle safety features, including adaptive front-lighting systems, lane-keeping assist systems, full-range adaptive cruise control systems and collision-mitigation braking 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 (see page 39 for details on the status of their onboard installation).

● PRACTICAL APPLICATION OF ASV TECHNOLOGIES

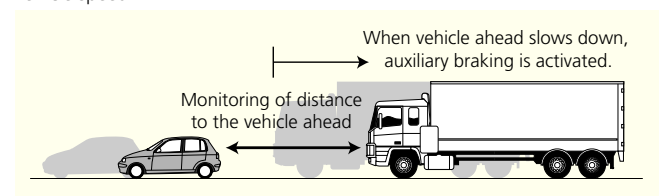
1. Lane-Keeping Assist

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.



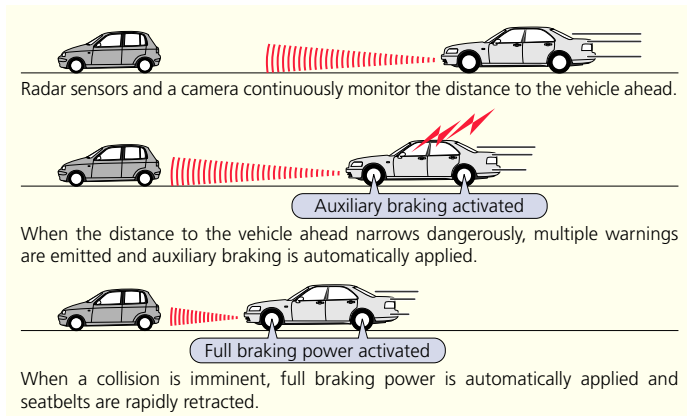
2. Full-Range Adaptive Cruise Control

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.



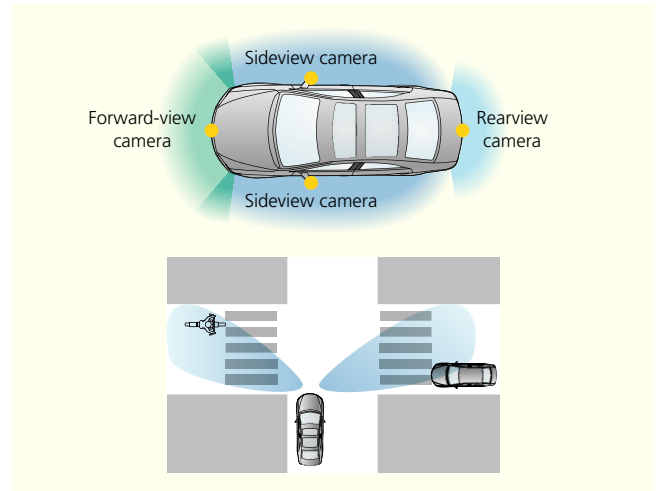
3. Collision-Mitigation Braking System (pre-crash safety)

Based on the distance from and speed relative to the vehicle ahead obtained principally by means of radar technology, the system's electronic control unit calculates the risk of collision. In the event of such a risk, multiple warnings are emitted and auxiliary braking is applied. When a collision is imminent, full braking power is applied and seatbelts are retracted automatically.



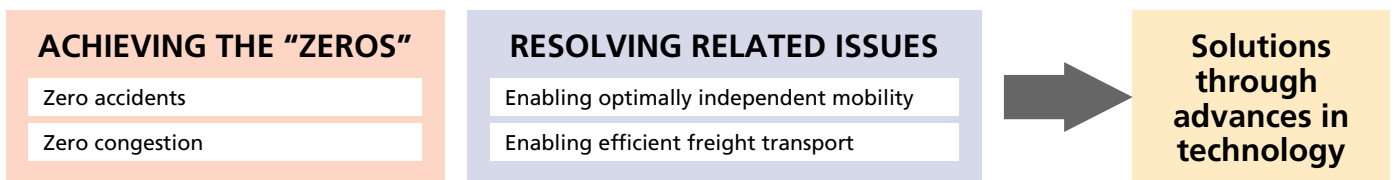
4. Vehicle Perimeter Monitoring & Blind-Corner Monitoring

In blind-corner monitoring (bottom image), front cameras with built-in prisms transmit both left and right views to the in-cabin display screen.

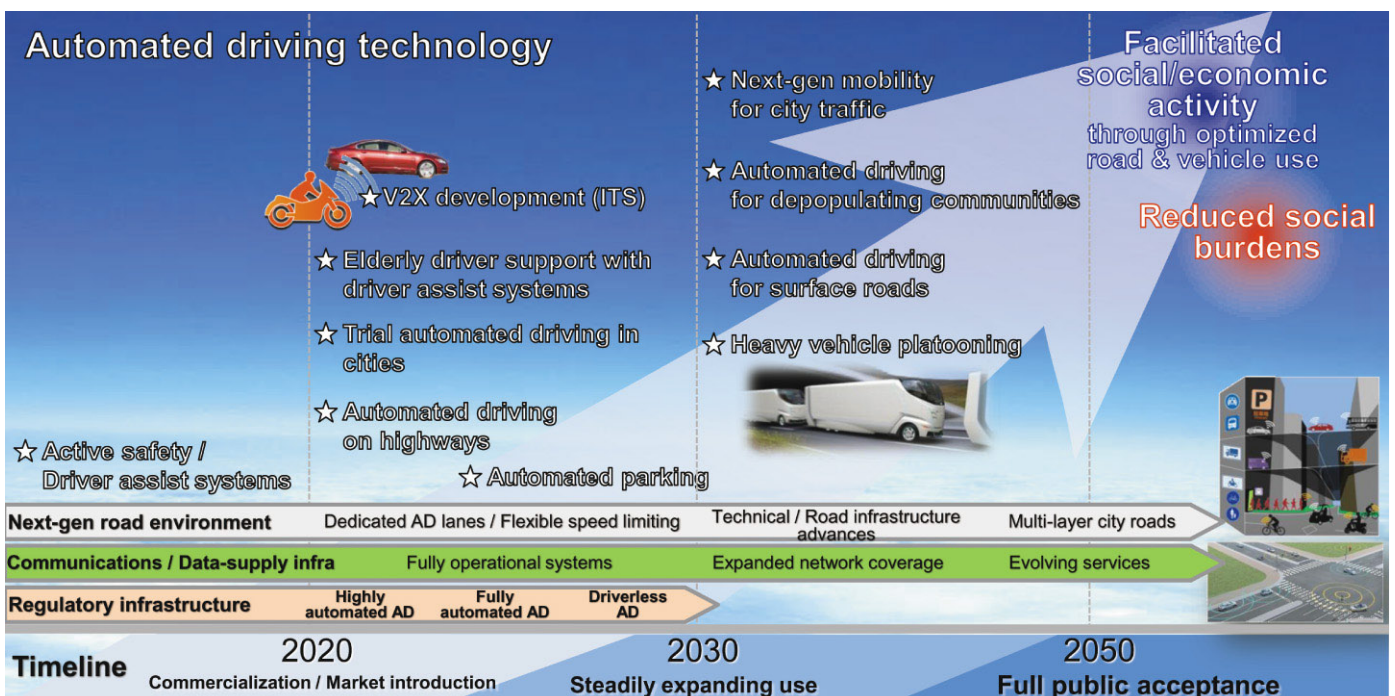


THE TRANSITION TO AUTOMATED DRIVING

In November 2015, JAMA released a roadmap for achieving safe and efficient road transport for all road users in Japan through the use of automated driving. Targeting the elimination of accidents and congestion and optimized road and vehicle use for people and the transport of goods, the roadmap envisions the wider introduction of automated driving functions in the lead-up to 2020; between 2020 and 2030, the expanded application of automated driving technologies in various driving environments; and by 2050, predicated on full public acceptance which Japan's automakers will promote, a comprehensive deployment of advanced levels of automated driving, the result of integrated efforts on the part of industry, government, and academia.



THE JAMA ROADMAP FOR THE PROMOTION OF AUTOMATED DRIVING



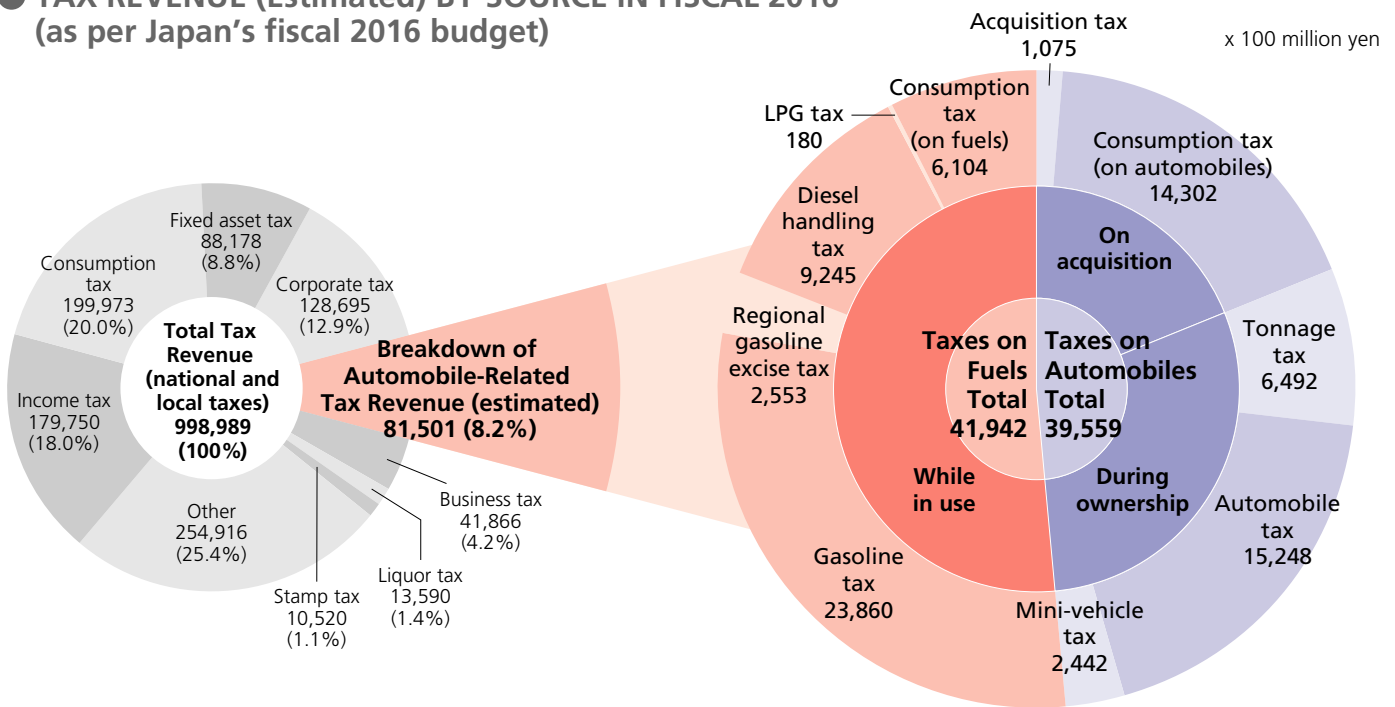
Note: "V2X" means vehicle-to-connected infrastructure.

Source: Japan Automobile Manufacturers Association

8 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 motor vehicle owners in Japan. Under the government's budget for fiscal 2016, the total value of tax revenue from these automobile-related taxes has been estimated at 8.2 trillion yen, or 8.2% of Japan's projected total tax revenue of 100 trillion yen in fiscal 2016.

● TAX REVENUE (Estimated) BY SOURCE IN FISCAL 2016 (as per Japan's fiscal 2016 budget)



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 (including the consumption tax revenue from automobile servicing, not shown but included in figures here) have been calculated by JAMA. 3. The consumption tax is a national sales tax, of which 1.7% of the revenue is redistributed as revenue to local governments.

Sources: Ministry of Finance; Ministry of Internal Affairs and Communications

● AUTOMOBILE-RELATED TAXES IN JAPAN (as of April 1, 2016)

Tax Category	On Acquisition		During Ownership
	Acquisition Tax	Consumption Tax	Tonnage 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 mandatory vehicle inspection
National/Local Tax	Prefectural tax	National and local tax	National tax
Tax Rate/Amount	(Private use) - 3% of purchase price (2% for commercial vehicles and mini-vehicles) - Exempted for vehicles purchased for ¥500,000 or less Note: For eco-friendly vehicles, reductions/exemptions apply to the acquisition tax (see pages 48-51).	8% (of which 1.7% is a local tax)	1) Only eco-friendly vehicles and new passenger cars and small trucks and buses (GVW≤2.5t) complying with 2015 fuel efficiency standards, with emissions down by 75% from 2005 standards: ¥2,500/0.5t/year for private-use passenger cars (i.e., base rate) 2) Vehicles on the road 18 years or longer since first registration: ¥6,300/0.5t/year for private-use passenger cars 3) Vehicles on the road 13 years or longer since first registration: ¥5,700/0.5t/year for private-use passenger cars 4) Other vehicles for private use: - Passenger cars: ¥4,100/0.5t/year - Trucks (GVW>2.5t): ¥4,100/t/year; Trucks (GVW≤2.5t): ¥3,300/t/year - Buses: ¥4,100/t/year; Mini-vehicles: ¥3,300/year - Motorcycles (251cc and over): ¥1,900/year - Motorcycles (126 to 250cc): ¥4,900 upon registration Note: For eco-friendly vehicles, reductions/exemptions apply to the tonnage tax (see pages 48-51).

● JAPAN'S ESTIMATED AUTOMOBILE-RELATED TAX REVENUE IN FISCAL 2016

			Tax Revenue (x 100 million yen)	Base Tax Rate (for reference)	Current Tax Rate	Comparison with Base Tax Rate (multiplier value)
Taxes on Automobiles	On acquisition During ownership	Acquisition tax	1,075	3%	3% (Excluding commercial/mini-vehicles)	1.0
		Consumption tax (on automobiles)	14,302	8%		
		Tonnage tax	6,492	¥2,500/0.5t/year (Vehicles for private use)	¥4,100/0.5t/year (Vehicles for private use)	1.6
		Automobile tax	15,248	Based on engine capacity (e.g., for 1,001≤1,500cc passenger cars, ¥34,500/year; see below)		
		Mini-vehicle tax	2,442	¥10,800/year (Passenger cars for private use)		
		Total	39,559			
Taxes on Fuels	While in use	Gasoline tax	23,860	¥24.3/ℓ	¥48.6/ℓ	2.0
		Regional gasoline excise tax	2,553	¥4.4/ℓ	¥5.2/ℓ	1.2
		Diesel handling tax	9,245	¥15.0/ℓ	¥32.1/ℓ	2.1
		LPG tax	180	¥17.5/kg		
		Consumption tax (on fuels)	6,104	8%		
				Total	41,942	
Grand Total			81,501			

Notes: 1. Consumption tax revenue values (including the consumption tax revenue from automobile servicing, not shown but included in figures here) have been calculated by JAMA.
2. Current tax rates effective as of April 1, 2016.

● TAX RATES IN EFFECT (Examples), 1954-2016, TO SUPPORT ROAD NETWORK IMPROVEMENTS

Duration	“Five-Year” Plan	Fiscal Year	Acquisition Tax	Tonnage Tax ¥/0.5t/year	Gasoline Tax ¥/ℓ	Regional Gasoline Excise Tax ¥/ℓ	Diesel Handling Tax ¥/ℓ	LPG Tax ¥/kg
1954-57	First	‘54 ‘55 ‘56 ‘57	[Commercial and mini- vehicles excluded]	[In the case of a passenger car for private use]	13.0 11.0 ↓ 14.8 ↓ 19.2 ↓ 22.1 24.3	2.0 ↓ 3.5 ↓ 4.0 4.4	6.0 8.0 ↓ 10.4 ↓ 12.5 15.0	5 10 ↓ 17.5
1958-60	Second	‘59						
1961-63	Third	‘61 ‘64 ‘66						
1964-66	Fourth	‘67 ‘68						
1967-69	Fifth	‘70 ‘71						
1970-72	Sixth	‘74 ‘76 ‘79						
1973-77	Seventh							
1978-82	Eighth							
1983-87	Ninth							
1988-92	Tenth							
1993-97	Eleventh	‘93						
1998-2002	Twelfth	‘98						
2003-07	As per the national priority infrastructure development plan		3%	2,500 5,000 6,300 ↓ 6,300 5,000 4,100 (2,500*) 4,100 (2,500*)	29.2 36.5 45.6 ↓ 48.6	5.3 6.6 8.2 ↓ 5.2	19.5 24.3 ↓ 32.1	
2008-	As per the national medium-term road infrastructure plan							
2010-11	—							
2012-13	—							
2014-	—							
Comparison with base tax rate (multiplier value)			1.00	1.64	2.00	1.18	2.14	1.00

Base tax rate: *The base tonnage tax rate (¥2,500/0.5t/year) is applied only to eco-friendly vehicles and new passenger cars and small trucks and buses (GVW≤2.5t) complying with 2015 fuel efficiency standards, with emissions down by 75% from 2005 standards. Source: Japan Automobile Manufacturers Association

		While in Use				
Automobile Tax	Mini-Vehicle Tax	Gasoline Tax	Regional Gasoline Excise Tax	Diesel Handling Tax	LPG Tax	Consumption Tax
Fixed amount assessed on the owner each year as of April 1	Fixed amount assessed on the owner each year as of April 1	Assessed on gasoline		Assessed on light oil	Assessed on LPG	Assessed on the purchase price of fuels
		Included in the fuel price				
Prefectural tax	Municipal tax	National tax		Prefectural tax	National tax	National and local tax
Passenger cars (for private use) - Up to 1,000cc ¥29,500/year - 1,001 to 1,500cc ¥34,500/year - 1,501 to 2,000cc ¥39,500/year - 2,001 to 2,500cc ¥45,000/year - 2,501 to 3,000cc ¥51,000/year - 3,001 to 3,500cc ¥58,000/year - 3,501 to 4,000cc ¥66,500/year - 4,001 to 4,500cc ¥76,500/year - 4,501 to 6,000cc ¥88,000/year - Over 6,000cc ¥111,000/year	1) Mini-vehicles (for private use) - Passenger cars ¥10,800/year - Trucks ¥5,000/year 2) Motorcycles - Up to 50cc ¥2,000/year - 51 to 90cc ¥2,000/year - 91 to 125cc ¥2,400/year - 126 to 250cc ¥3,600/year - 251cc and over ¥6,000/year Note: For eco-friendly new mini-vehicles (cars and trucks) purchased in fiscal 2015, reductions apply to the mini-vehicle tax in fiscal 2016 (see page 50).	¥48.6/ℓ	¥5.2/ℓ	¥32.1/ℓ (light oil)	¥17.5/kg (LPG)	8% of the purchase price of fuels (of which 1.7% is a local tax) [For light oil, imposed on the light oil price excluding the diesel handling tax]

Source: Japan Automobile Manufacturers Association





















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

To help expedite the shift to low-carbon road transport in the interest of curbing global warming, the Japanese government has, since April 2009, applied auto-related tax incentives to promote the wider use of eco-friendly vehicles. A new package of incentives, introduced for application beginning in April 2015, updates vehicle eligibility requirements in line with upgraded fuel efficiency standards.

INCENTIVES & ELIGIBILITY REQUIREMENTS FOR NEW VEHICLES

● ACQUISITION AND TONNAGE TAX REDUCTIONS/EXEMPTIONS

Period in effect: April 1, 2015 through March 31, 2017 for the acquisition tax; May 1, 2015 through April 30, 2017 for the tonnage tax.

Vehicle Type			Reductions/Exemptions	
	Requirements	Certification Sticker(s)	Acquisition Tax (3)	Tonnage Tax (4)
Passenger Cars				
Electric Vehicles, Fuel Cell Vehicles, Plug-In Hybrid Vehicles, Clean Diesel Vehicles (1), Natural Gas Vehicles (2)			Exempt	Exempt at time of 1st and 2nd vehicle inspection
Gasoline Vehicles (including hybrid vehicles)	Compliant +20% with 2020 fuel efficiency standards, with emissions down by 75% from 2005 standards	 	Exempt	Exempt at time of 1st and 2nd vehicle inspection
	Compliant +10% with 2020 fuel efficiency standards, with emissions down by 75% from 2005 standards	 	80% reduction	75% reduction
	Compliant with 2020 fuel efficiency standards, with emissions down by 75% from 2005 standards	 	60% reduction	50% reduction
	Compliant +10% with 2015 fuel efficiency standards, with emissions down by 75% from 2005 standards	 	40% reduction	25% reduction
	Compliant +5% with 2015 fuel efficiency standards, with emissions down by 75% from 2005 standards	 	20% reduction	
Small Trucks and Buses (GVW≤2.5t)				
Electric Vehicles, Fuel Cell Vehicles, Plug-In Hybrid Vehicles, Natural Gas Vehicles (2)			Exempt	Exempt at time of 1st and 2nd vehicle inspection
Gasoline Vehicles (including hybrid vehicles)	Compliant +25% with 2015 fuel efficiency standards, with emissions down by 75% from 2005 standards	 	Exempt	Exempt at time of 1st and 2nd vehicle inspection
	Compliant +20% with 2015 fuel efficiency standards, with emissions down by 75% from 2005 standards	 	80% reduction	75% reduction
	Compliant +15% with 2015 fuel efficiency standards, with emissions down by 75% from 2005 standards	 	60% reduction	50% reduction
	Compliant +10% with 2015 fuel efficiency standards, with emissions down by 75% from 2005 standards	 	40% reduction	25% reduction
	Compliant +5% with 2015 fuel efficiency standards, with emissions down by 75% from 2005 standards	 	20% reduction	

(1) Only passenger cars complying with 2009 emission standards. (2) With NOx emissions down by 10% from 2009 emission standards. (3) Acquisition tax reductions/exemptions are applied once, at the time of new vehicle purchase during the period in which these reductions/exemptions are in effect. (4) Tonnage tax reductions are applied once, at the time of new vehicle purchase during the period in which these reductions/exemptions are in effect. (5) Beginning in April 2016, these incentives will also apply to heavy-duty trucks and buses with GVW>7.5t that comply with 2016 emission standards.

Note: In addition to the tonnage tax reductions/exemptions for passenger cars and small trucks and buses (GVW≤2.5t) listed here, new passenger cars and small trucks and buses (GVW≤2.5t) complying with 2015 fuel efficiency standards and with emissions down by 75% from 2005 standards benefit from the application of the base tonnage tax rate (see pages 46-47).

Vehicle Type			Reductions/Exemptions	
	Requirements	Certification Sticker(s)	Acquisition Tax (3)	Tonnage Tax (4)
Mid-Sized Trucks and Buses (2.5t<GVW≤3.5t)				
Electric Vehicles, Fuel Cell Vehicles, Plug-In Hybrid Vehicles, Natural Gas Vehicles (2)			Exempt	Exempt at time of 1st and 2nd vehicle inspection
Diesel Vehicles (including hybrid vehicles)	Compliant +15% with 2015 fuel efficiency standards, with NOx and PM emissions down by 10% from 2009 standards		Exempt	Exempt at time of 1st and 2nd vehicle inspection
	Compliant +10% with 2015 fuel efficiency standards, with NOx and PM emissions down by 10% from 2009 standards		80% reduction	75% reduction
	Compliant +15% with 2015 fuel efficiency standards, and compliant with 2009 emission standards		80% reduction	75% reduction
	Compliant +5% with 2015 fuel efficiency standards, with NOx and PM emissions down by 10% from 2009 standards		60% reduction	50% reduction
	Compliant +10% with 2015 fuel efficiency standards, and compliant with 2009 emission standards		60% reduction	50% reduction
	Compliant with 2015 fuel efficiency standards, with NOx and PM emissions down by 10% from 2009 standards		40% reduction	25% reduction
	Compliant +5% with 2015 fuel efficiency standards, and compliant with 2009 emission standards		40% reduction	25% reduction
Gasoline Vehicles (including hybrid vehicles)	Compliant +15% with 2015 fuel efficiency standards, with emissions down by 75% from 2005 standards		Exempt	Exempt at time of 1st and 2nd vehicle inspection
	Compliant +10% with 2015 fuel efficiency standards, with emissions down by 75% from 2005 standards		80% reduction	75% reduction
	Compliant +15% with 2015 fuel efficiency standards, with emissions down by 50% from 2005 standards		80% reduction	75% reduction
	Compliant +5% with 2015 fuel efficiency standards, with emissions down by 75% from 2005 standards		60% reduction	50% reduction
	Compliant +10% with 2015 fuel efficiency standards, with emissions down by 50% from 2005 standards		60% reduction	50% reduction
	Compliant with 2015 fuel efficiency standards, with emissions down by 75% from 2005 standards		40% reduction	25% reduction
	Compliant +5% with 2015 fuel efficiency standards, with emissions down by 50% from 2005 standards		40% reduction	25% reduction
Heavy-Duty Trucks and Buses (GVW>3.5t)				
Electric Vehicles, Fuel Cell Vehicles, Plug-In Hybrid Vehicles, Natural Gas Vehicles (2)			Exempt	Exempt at time of 1st and 2nd vehicle inspection
Diesel Vehicles (including hybrid vehicles)	Compliant +15% with 2015 fuel efficiency standards (5), with NOx and PM emissions down by 10% from 2009 standards		Exempt	Exempt at time of 1st and 2nd vehicle inspection
	Compliant +10% with 2015 fuel efficiency standards (5), with NOx and PM emissions down by 10% from 2009 standards		80% reduction	75% reduction
	Compliant +15% with 2015 fuel efficiency standards (5), and compliant with 2009 emission standards		80% reduction	75% reduction
	Compliant +5% with 2015 fuel efficiency standards (5), with NOx and PM emissions down by 10% from 2009 standards		60% reduction	50% reduction
	Compliant +10% with 2015 fuel efficiency standards (5), and compliant with 2009 emission standards		60% reduction	50% reduction
	Compliant with 2015 fuel efficiency standards (5), with NOx and PM emissions down by 10% from 2009 standards		40% reduction	25% reduction
	Compliant +5% with 2015 fuel efficiency standards (5), and compliant with 2009 emission standards		40% reduction	25% reduction

● ACQUISITION AND TONNAGE TAX REDUCTIONS/EXEMPTIONS FOR HEAVY-DUTY VEHICLES EQUIPPED WITH ADVANCED SAFETY FEATURES AND PUBLIC-USE ASSISTED-MOBILITY VEHICLES

Period in effect: April 1, 2015 through March 31, 2017 for the acquisition tax; May 1, 2015 through April 30, 2018 for the tonnage tax.

Vehicle Type		Reductions/Exemptions	
		Acquisition Tax	Tonnage Tax
Trucks (3.5t<GVW≤22t) and Buses (GVW≤12t, for seated passengers only) equipped with a collision-mitigation braking system and/or an electronic stability control system	Equipped with either of the two systems	¥3.5 million deduction from purchase price (1), (2)	50% reduction (1), (3)
	Equipped with both systems	¥5.25 million deduction from purchase price (1), (2)	75% reduction (1), (3)
Assisted-Mobility Vehicles	Low-floor ("non-step") buses (for use in public transport)	¥10 million deduction from purchase price (2)	Exempt (3)
	Buses equipped with an electric lift (for use in public transport)	• For large buses (occupancy≥30 persons), ¥6.5 million deduction from purchase price (2) • For small buses (occupancy<30 persons), ¥2 million deduction from purchase price (2)	Exempt (3)
	Universal design-based taxis (for use in public transport)	¥1.0 million deduction from purchase price (2)	Exempt (3)

(1) For large trucks (20t<GVW≤22t) equipped with only one of the systems, period in effect: April 1, 2015 through October 31, 2016. Thereafter, only those equipped with both systems will be eligible for incentives (specifically, an acquisition tax incentive of a ¥3.5 million deduction from vehicle purchase price and a tonnage tax incentive of a 50% reduction from the applicable tonnage tax rate). Eligibility for small buses (GVW≤5t, for seated passengers only) requires that they be equipped with a collision-mitigation braking system. (2) Deductions are applied once, at the time of first registration. (3) Tonnage tax reductions/exemptions are applied once, at the time of new vehicle purchase during the period in which these reductions/exemptions are in effect.

Notes: 1. The acquisition tax is assessed on the amount remaining after deduction. 2. The above tonnage tax reductions/exemptions do not apply to vehicles targeted by this scheme that are eligible for the tonnage tax reductions/exemptions prescribed for eco-friendly vehicles (see pages 48 and 49), to which the latter measures only are applied. Regarding the acquisition tax, owners of vehicles covered under this scheme can opt either for the deductions indicated here or for the acquisition tax reductions/exemptions prescribed for eco-friendly vehicles (see pages 48 and 49).

● FISCAL 2016 AUTOMOBILE TAX REDUCTIONS FOR PASSENGER CARS AND SMALL TRUCKS AND BUSES (GVW≤2.5t) *

Requirements	Reduction
Electric Vehicles, Fuel Cell Vehicles, Plug-In Hybrid Vehicles, Clean Diesel Vehicles (1), Natural Gas Vehicles (2) Compliant +10% with 2020 fuel efficiency standards, with emissions down by 75% from 2005 standards	75% reduction (3)
Compliant +20% with 2015 fuel efficiency standards, with emissions down by 75% from 2005 standards	50% reduction (3)

*Also applies to trucks and buses (2.5t<GVW≤3.5t, gasoline vehicles only) certified as fuel-efficient and low-emission vehicles.

(1) Only passenger cars complying with 2009 emission standards. (2) With NOx emissions down by 10% from 2009 emission standards. (3) Reductions to be applied in fiscal 2017 for new vehicles purchased in fiscal 2016 (amounts assessed are rounded off).

Note: This scheme also mandates a yearly 15% (10% for trucks and buses) surcharge on the automobile tax for gasoline and LPG-powered vehicles on the road 13 years or longer, and for diesel vehicles on the road 11 years or longer, since first registration.

● FISCAL 2016 MINI-VEHICLE TAX REDUCTIONS (Minicars and Mini-Trucks) *

Requirements		Reduction
Minicars	Electric Vehicles, Fuel Cell Vehicles, Natural Gas Vehicles (1)	75% reduction (2)
	Compliant +20% with 2020 fuel efficiency standards, with emissions down by 75% from 2005 standards	50% reduction (2)
	Compliant with 2020 fuel efficiency standards, with emissions down by 75% from 2005 standards	25% reduction (2)
Mini-Trucks	Electric Vehicles, Fuel Cell Vehicles, Natural Gas Vehicles (1)	75% reduction (2)
	Compliant +35% with 2015 fuel efficiency standards, with emissions down by 75% from 2005 standards	50% reduction (2)
	Compliant +15% with 2015 fuel efficiency standards, with emissions down by 75% from 2005 standards	25% reduction (2)

*Applies only to newly registered three- or four-wheeled mini-vehicles.

(1) With NOx emissions down by 10% from 2009 emission standards. (2) Reductions to be applied in fiscal 2017 for new vehicles purchased in fiscal 2016 (amounts assessed are rounded off).





















Note: This scheme also mandates a yearly 20% surcharge on the mini-vehicle tax for mini-vehicles (excluding electric vehicles) on the road 13 years or longer since first registration.

INCENTIVES & ELIGIBILITY REQUIREMENTS FOR USED VEHICLES

● ACQUISITION INCENTIVES

FOR PASSENGER CARS AND SMALL TRUCKS AND BUSES (GVW≤2.5t) *

Period in effect: April 1, 2015 through March 31, 2017.

Requirements (1)	Certification Stickers	Incentive
Passenger Cars		
Compliant +20% with 2020 fuel efficiency standards, with emissions down by 75% from 2005 standards (2)	 	¥450,000 deduction from purchase price
Compliant +10% with 2020 fuel efficiency standards, with emissions down by 75% from 2005 standards (2)	 	¥350,000 deduction from purchase price
Compliant with 2020 fuel efficiency standards, with emissions down by 75% from 2005 standards (2)	 	¥250,000 deduction from purchase price
Compliant +10% with 2015 fuel efficiency standards, with emissions down by 75% from 2005 standards (2)	 	¥150,000 deduction from purchase price
Compliant +5% with 2015 fuel efficiency standards, with emissions down by 75% from 2005 standards (2)	 	¥50,000 deduction from purchase price
Small Trucks and Buses (GVW≤2.5t)		
Compliant +25% with 2015 fuel efficiency standards, with emissions down by 75% from 2005 standards (2)	 	¥450,000 deduction from purchase price
Compliant +20% with 2015 fuel efficiency standards, with emissions down by 75% from 2005 standards (2)	 	¥350,000 deduction from purchase price
Compliant +15% with 2015 fuel efficiency standards, with emissions down by 75% from 2005 standards (2)	 	¥250,000 deduction from purchase price
Compliant +10% with 2015 fuel efficiency standards, with emissions down by 75% from 2005 standards (2)	 	¥150,000 deduction from purchase price
Compliant +5% with 2015 fuel efficiency standards, with emissions down by 75% from 2005 standards (2)	 	¥50,000 deduction from purchase price

*Also applies to trucks and buses (gasoline vehicles only) and heavy-duty trucks and buses (hybrid vehicles only) certified as fuel-efficient and low-emission vehicles.

(1) Applies additionally to electric vehicles, fuel cell vehicles, plug-in hybrid vehicles, clean diesel passenger cars (compliant with 2009 emission standards) and natural gas vehicles (with NOx emissions down by 10% from 2009 emission standards). (2) Fuel consumption and exhaust emission requirements are JC08 test cycle-based, with "Compliant +20% with 2020 fuel efficiency standards," "Compliant +10% with 2020 fuel efficiency standards," "Compliant with 2020 fuel efficiency standards," "Compliant +25% with 2015 fuel efficiency standards," "Compliant +20% with 2015 fuel efficiency standards," "Compliant +15% with 2015 fuel efficiency standards," "Compliant +10% with 2015 fuel efficiency standards," and "Compliant +5% with 2015 fuel efficiency standards" being equivalent to "Compliant +80% with 2010 fuel efficiency standards," "Compliant +65% with 2010 fuel efficiency standards," "Compliant +50% with 2010 fuel efficiency standards," "Compliant +38% with 2010 fuel efficiency standards," "Compliant +32% with 2010 fuel efficiency standards," respectively, when measured in the old 10·15-mode test cycle.

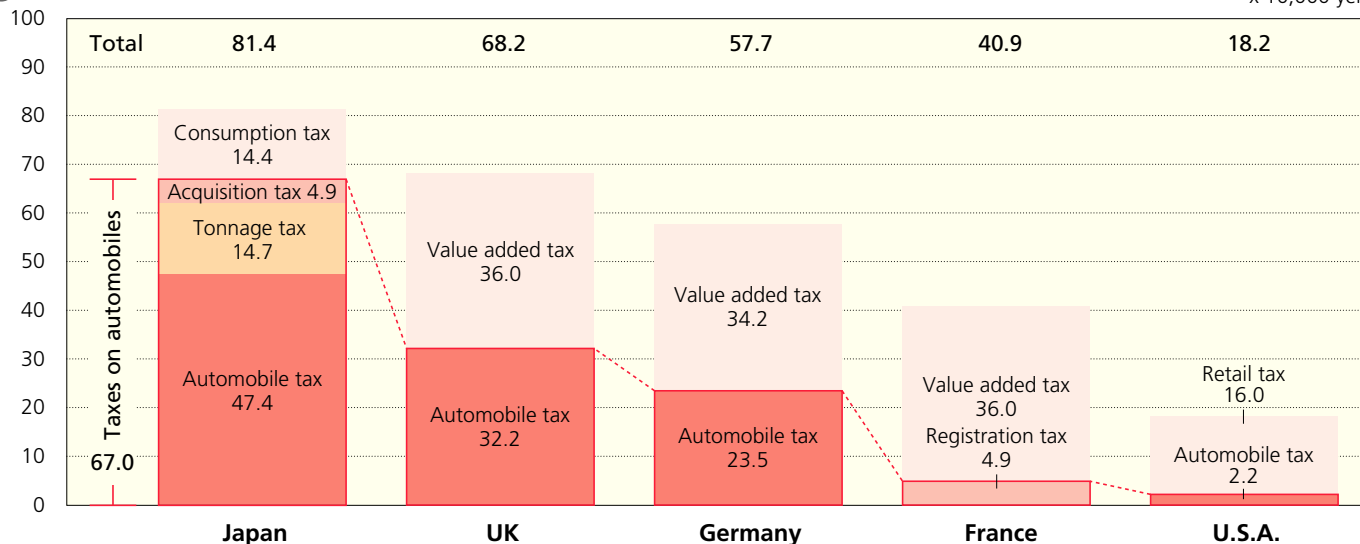
Note: The acquisition tax is assessed on the amount remaining after deduction.

Automobile-Related Taxes Are Onerous

Consider the case of a passenger car costing 1.8 million yen when purchased new and providing 12 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 1.6 million yen. In addition to these various taxes, the user will also be required to pay onerous expressway tolls, automobile insurance premiums (mandatory and optional), a recycling fee, periodic inspection fees, and maintenance costs.

INTERNATIONAL COMPARISON OF AUTOMOBILE-RELATED TAXES

x 10,000 yen



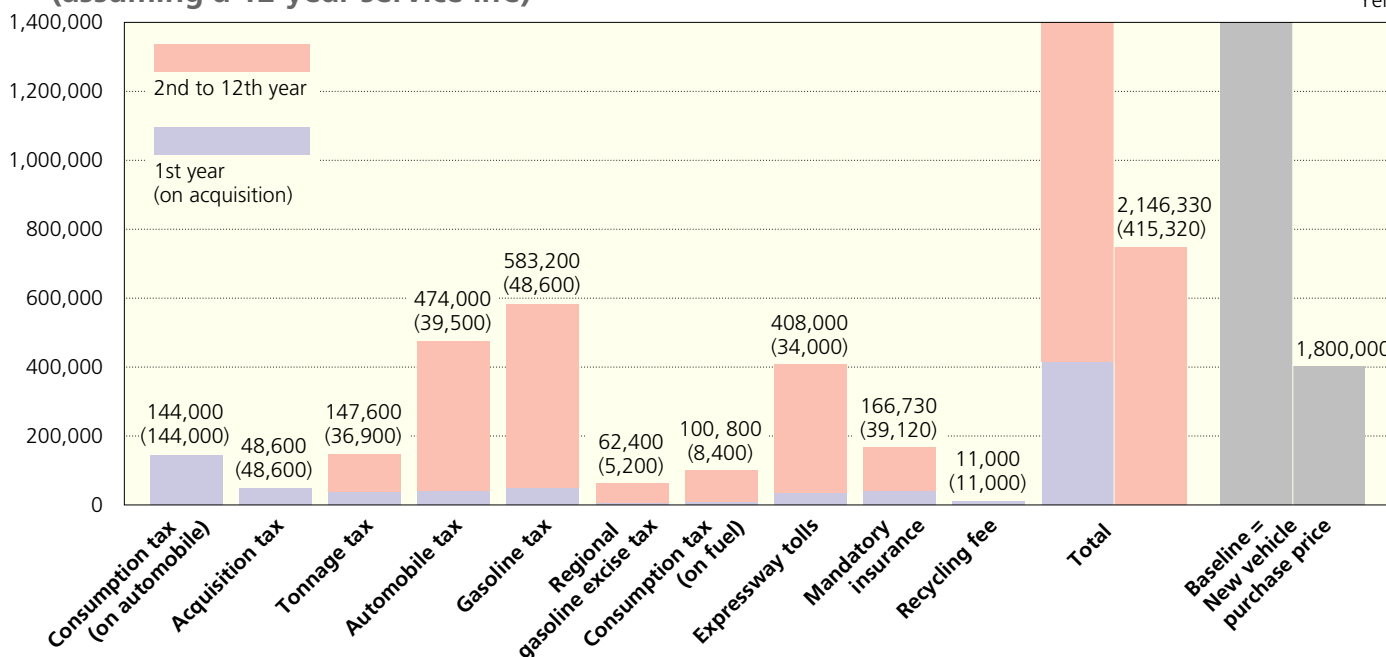
Assumptions: 1) Engine capacity: 1800cc. 2) 1t<GVW≤1.5t. 3) Purchase price: ¥1.8 million. 4) Fuel consumption (JC08 test cycle-based): 15.5km/ℓ (CO₂ emissions: 150g/km). 5) France = Paris; U.S.A. = New York City. 6) France: Vehicle in no. 8 horsepower "class." 7) Service life: 12 years. 8) Currency exchange rates: EUR 1 = JPY 134, GBP 1 = JPY 185, USD 1 = JPY 121 (averaged April 2015-March 2016).

Notes: 1. As shown here, tax amounts other than Japan's may not be the most current. 2. Does not include applicable incentives/surcharges, if any. 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.

Source: Japan Automobile Manufacturers Association

TAXES ASSESSED ON PASSENGER CAR OWNERSHIP/USE (PRIVATE) (assuming a 12-year service life)

Yen



Assumptions: 1) A passenger car with 1800cc engine capacity and purchase price of ¥1.8 million (retail price, excluding consumption tax). 2) 1t<GVW≤1.5t. 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, 2016. 6) Consumption tax = 8% of retail price. 7) The recycling fee indicated is the average rate for an 1800cc passenger car.

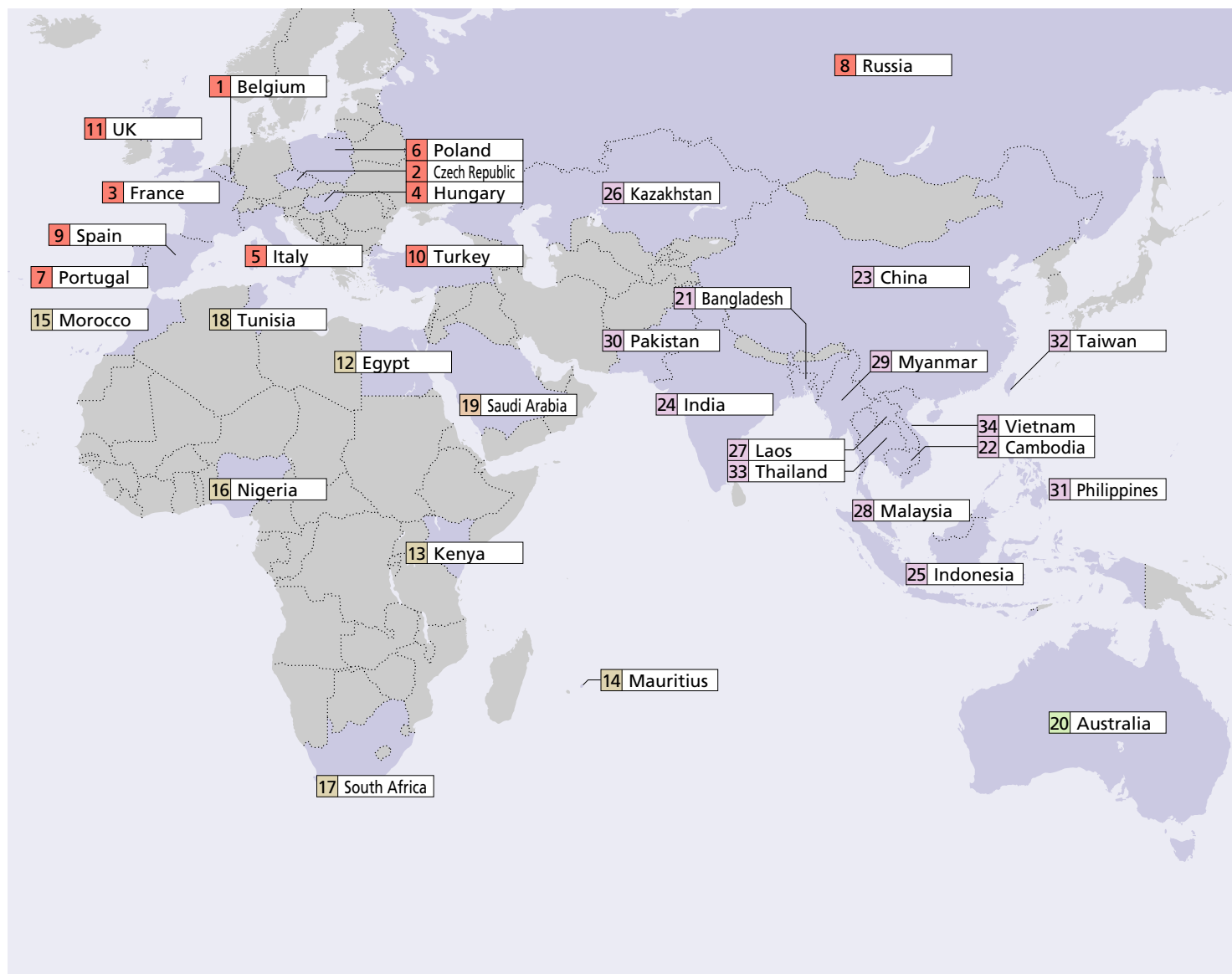
Notes: 1. Estimated expressway tolls, mandatory insurance premium payments and recycling fee are included here because they can be considered similar to taxes. (Mandatory insurance premium values indicated effective as of April 1, 2016.) 2. Value of expressway tolls was estimated by JAMA based on expressway toll revenue in 2014.

Source: Japan Automobile Manufacturers Association

Global Manufacturing Operations Expand Their Range

Japanese automobile manufacturers have continued to develop local production operations, whether as wholly-owned subsidiaries or as joint ventures, in the United States, Europe, Southeast Asia, China and, recently, Russia and other countries with emerging markets. These operations contribute to the strengthening of local economies

● GEOGRAPHICAL DISTRIBUTION OF JAPANESE AUTOMAKERS' OVERSEAS PRODUCTION BASES

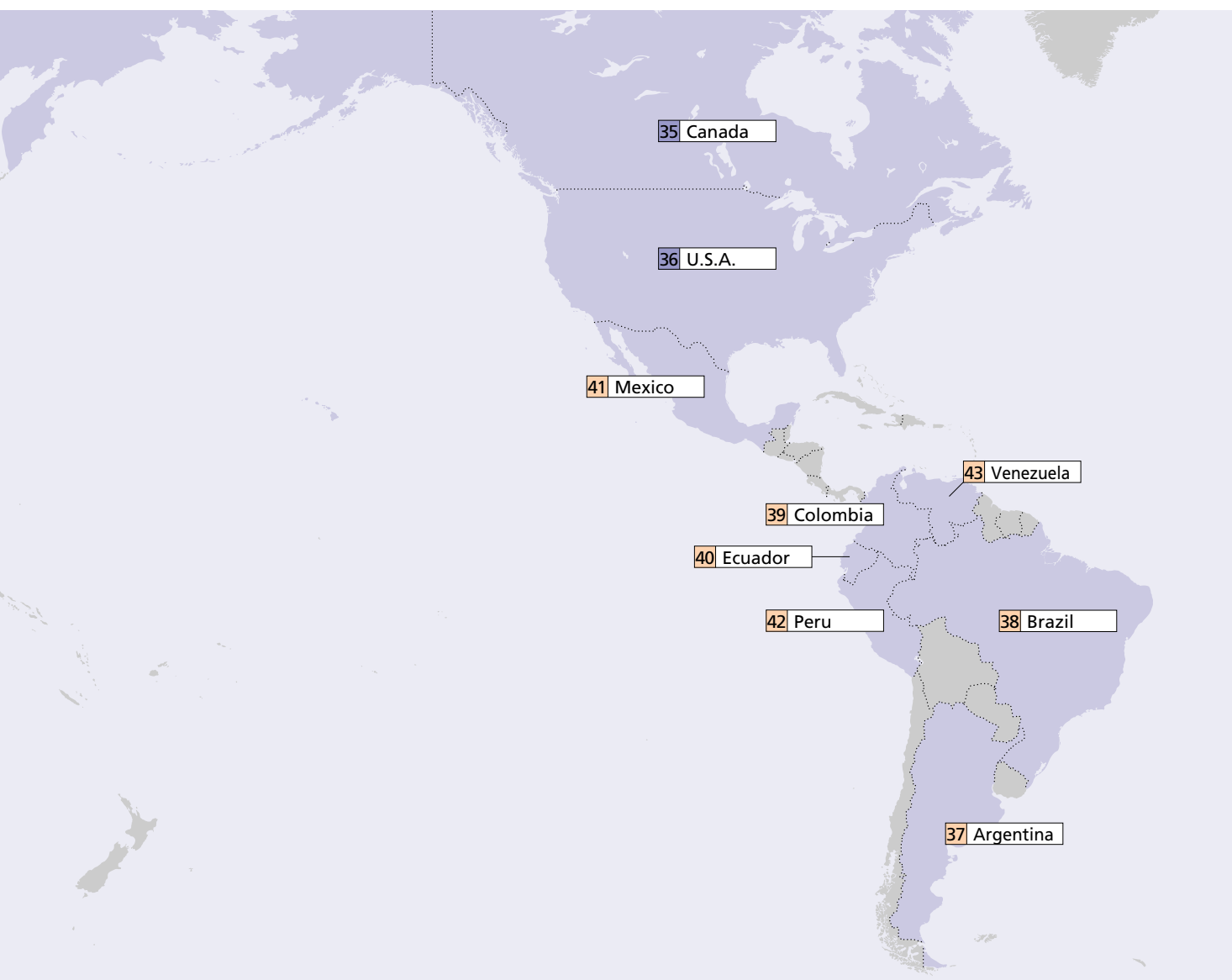


● JAPANESE AUTOMAKERS' OVERSEAS PRODUCTION BASES: Number of Plants by Country &

Country/ Territory	Country No. (see map)	Motor Vehicles (incl. parts)	Motor- cycles (incl. parts)	Motor Vehicles & Motorcycles (incl. parts)	Parts Only
Europe					
Belgium	1	-	-	-	1
Czech Republic	2	1	-	-	-
France	3	1	1	-	-
Hungary	4	1	-	-	-
Italy	5	-	1	-	1
Poland	6	-	-	-	2
Portugal	7	2	-	-	-
Russia	8	6	-	-	-
Spain	9	1	-	-	1
Turkey	10	4	-	-	-
UK	11	3	-	-	1
Europe Total		19	2	-	6

Country/ Territory	Country No. (see map)	Motor Vehicles (incl. parts)	Motor- cycles (incl. parts)	Motor Vehicles & Motorcycles (incl. parts)	Parts Only
Africa					
Egypt	12	5	-	-	-
Kenya	13	3	1	-	-
Mauritius	14	1	-	-	-
Morocco	15	1	-	-	-
Nigeria	16	1	2	-	-
South Africa	17	5	-	-	-
Tunisia	18	1	-	-	-
Africa Total		17	3	-	-
Middle East					
Saudi Arabia	19	1	-	-	-
Middle East Total		1	-	-	-
Oceania					
Australia	20	1	-	-	1
Oceania Total		1	-	-	1

through employment creation, local parts purchasing and, in many cases, export revenue for the host countries. Locally-produced automobile parts such as engines and transmissions, as well as finished vehicles of some models, are exported to Japan and other destinations.



Items Produced

Country/ Territory	Country No. (see map)	Motor Vehicles (incl. parts)	Motor- cycles (incl. parts)	Motor Vehicles & Motorcycles (incl. parts)	Parts Only
Asia					
Bangladesh	21	2	1	-	-
Cambodia	22	-	2	-	-
China	23	24	8	-	16
India	24	11	7	-	1
Indonesia	25	12	7	1	8
Kazakhstan	26	1	-	-	-
Laos	27	-	1	-	-
Malaysia	28	12	3	-	2
Myanmar	29	1	-	-	-
Pakistan	30	6	3	1	-
Philippines	31	6	4	-	4
Taiwan	32	9	2	-	-
Thailand	33	16	4	-	8
Vietnam	34	9	4	1	1
Asia Total		109	46	3	40

Country/ Territory	Country No. (see map)	Motor Vehicles (incl. parts)	Motor- cycles (incl. parts)	Motor Vehicles & Motorcycles (incl. parts)	Parts Only
North America					
Canada	35	5	-	-	2
U.S.A.	36	13	1	-	13
North America Total		18	1	-	15
Latin America					
Argentina	37	1	2	1	-
Brazil	38	7	4	-	2
Colombia	39	1	2	-	-
Ecuador	40	2	-	-	-
Mexico	41	6	3	-	-
Peru	42	-	1	-	-
Venezuela	43	3	-	-	-
Latin America Total		20	12	1	2
World Total		185	64	4	64

Source: Japan Automobile Manufacturers Association

Japanese Automakers' Overseas Production Rises Notably in Asia and Latin America

The global operations of Japanese automobile manufacturers continue to grow, focusing on on-site manufacturing to meet local needs. Whether as independent operations, joint ventures or technical tie-ups, local manufacturing activities are conducted in numerous countries around the world (see pages 54-55). In 2015 Japanese automakers' overseas production totalled more than 18 million units, with Asia and Latin America seeing the most significant increases.

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	252,332	159,710	11,859,709
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	5,145,418	0	1,228,294	1,136,145	2,687,527	2,108,161	790,794	168,651	96,836	10,117,520
2010	7,127,042	0	1,356,126	1,250,226	3,390,095	2,653,231	982,342	206,476	119,473	13,181,554
2011	7,547,259	0	1,410,628	1,302,277	3,068,979	2,422,152	1,029,511	233,709	93,675	13,383,761
2012	8,500,993	0	1,484,110	1,383,583	4,253,869	3,324,703	1,234,584	248,711	101,381	15,823,648
2013	9,056,388	0	1,537,025	1,379,733	4,540,685	3,627,226	1,284,187	232,191	106,278	16,756,754
2014	9,112,629	596	1,654,208	1,382,052	4,785,769	3,813,351	1,591,099	241,841	90,125	17,476,267
2015	9,472,178	437	1,668,880	1,401,523	4,823,222	3,847,517	1,820,525	217,990	91,616	18,094,848

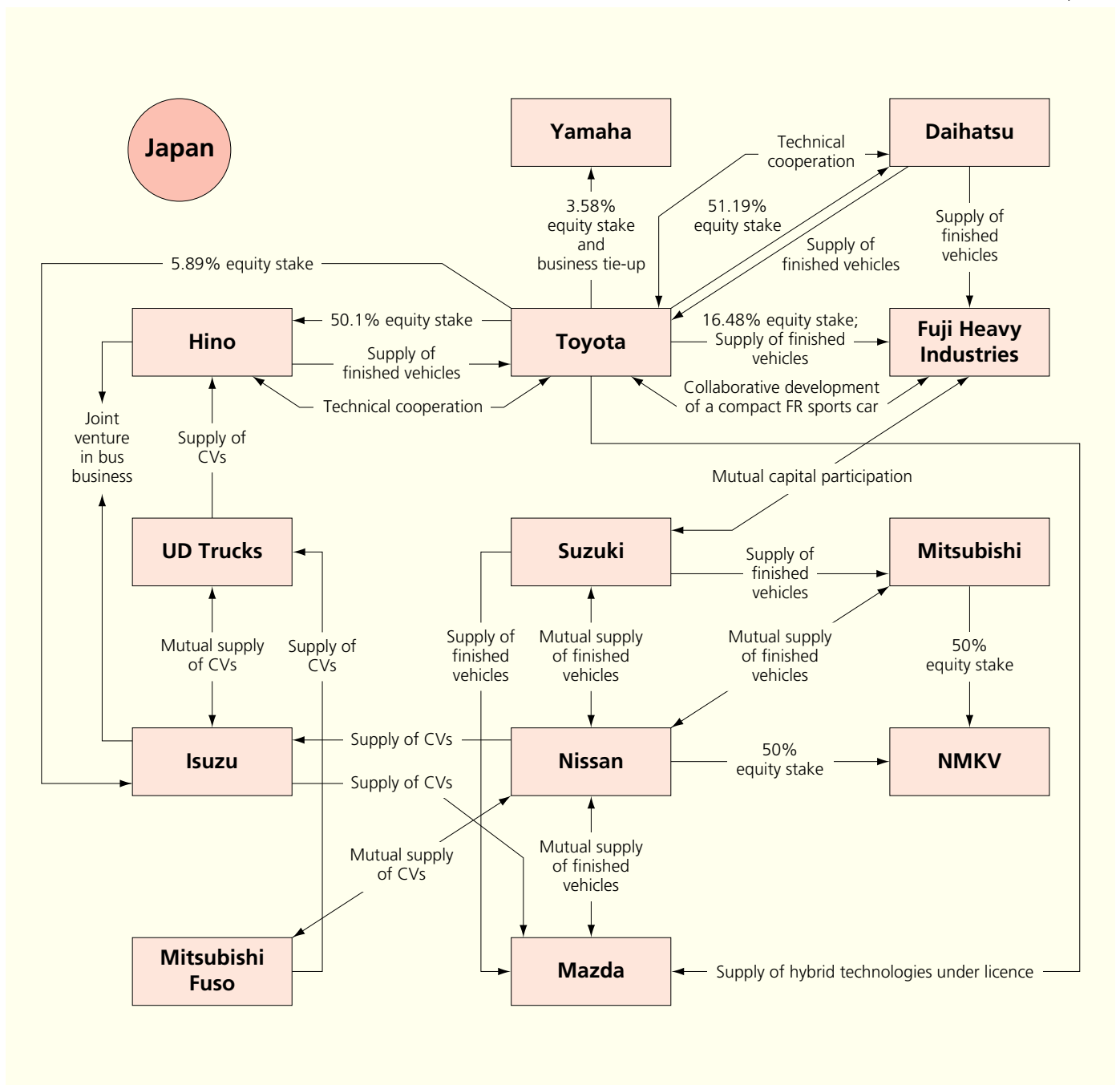
Notes: 1. Data in principle is for Japanese-brand vehicles only. 2. Until 1997, data was based on statistics supplied by the national automobile trade associations of respective countries. 3. Mexico is included in Latin America and Turkey in Europe. 4. Data excludes vehicles produced with technical assistance only provided by Japanese automakers. 5. The figures reflect the use of a new method, adopted as of January 2007, for computing overseas unit production.

Source: Japan Automobile Manufacturers Association

Japanese Automakers Forge Extensive International Alliances

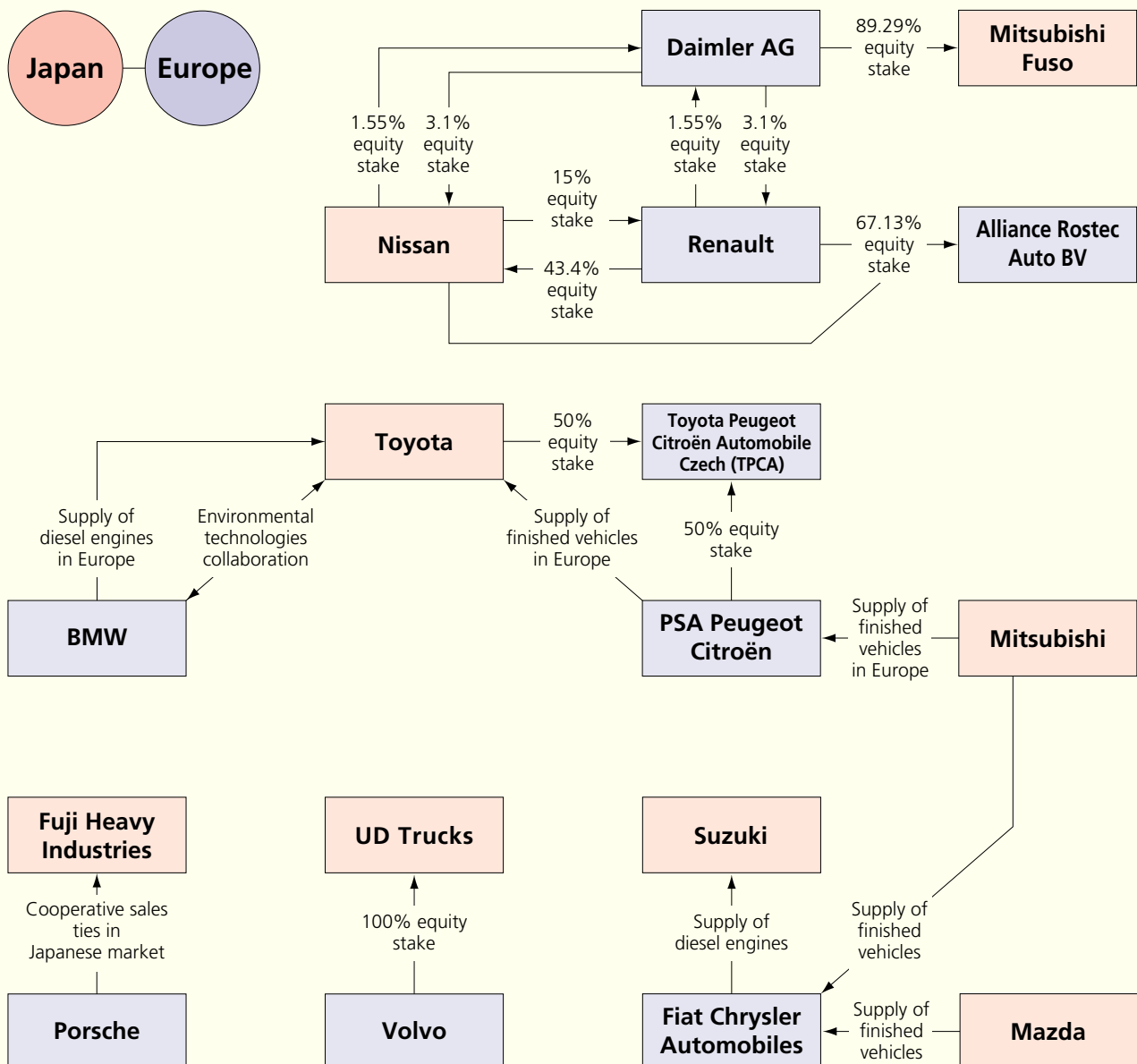
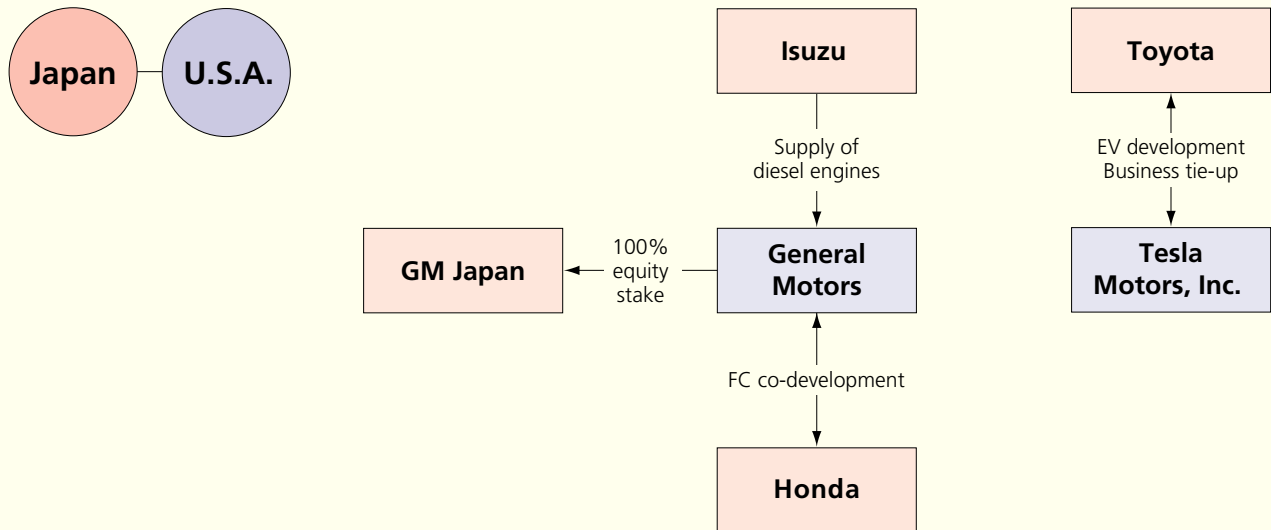
With economic globalization, Japanese automobile manufacturers have rapidly adapted to the needs of individual markets, not only by shifting production to those markets but also by forging extensive alliances with overseas manufacturers. Various forms of partnership currently exist between Japanese, 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 growth of motorization in China and Southeast Asia, Japanese automakers have been 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.

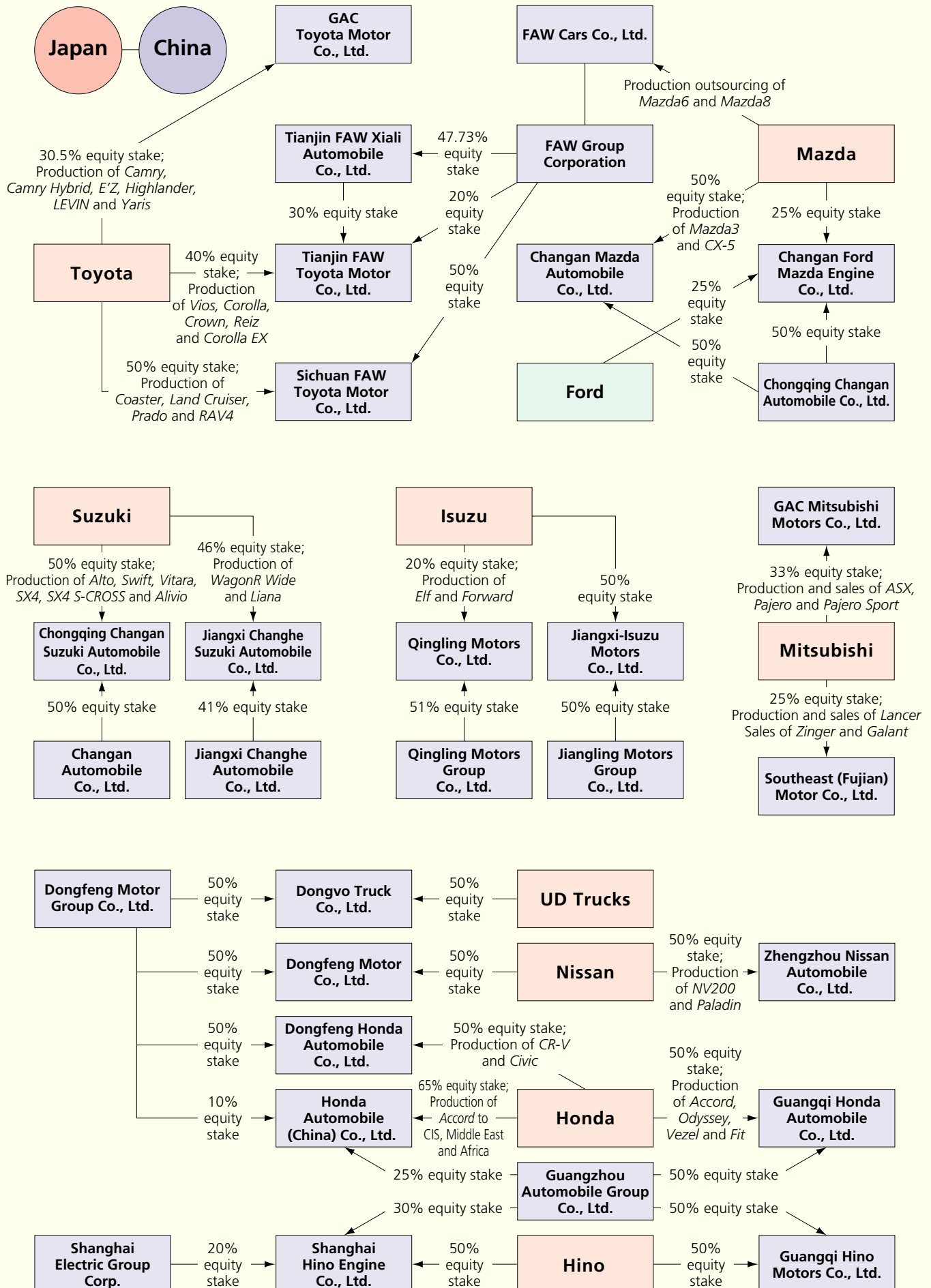
At March 31, 2016



Note: In principle, the tie-ups shown above cover only technical cooperation related to motor vehicle production and exclude sales tie-ups.

Source: Japan Automobile Manufacturers Association



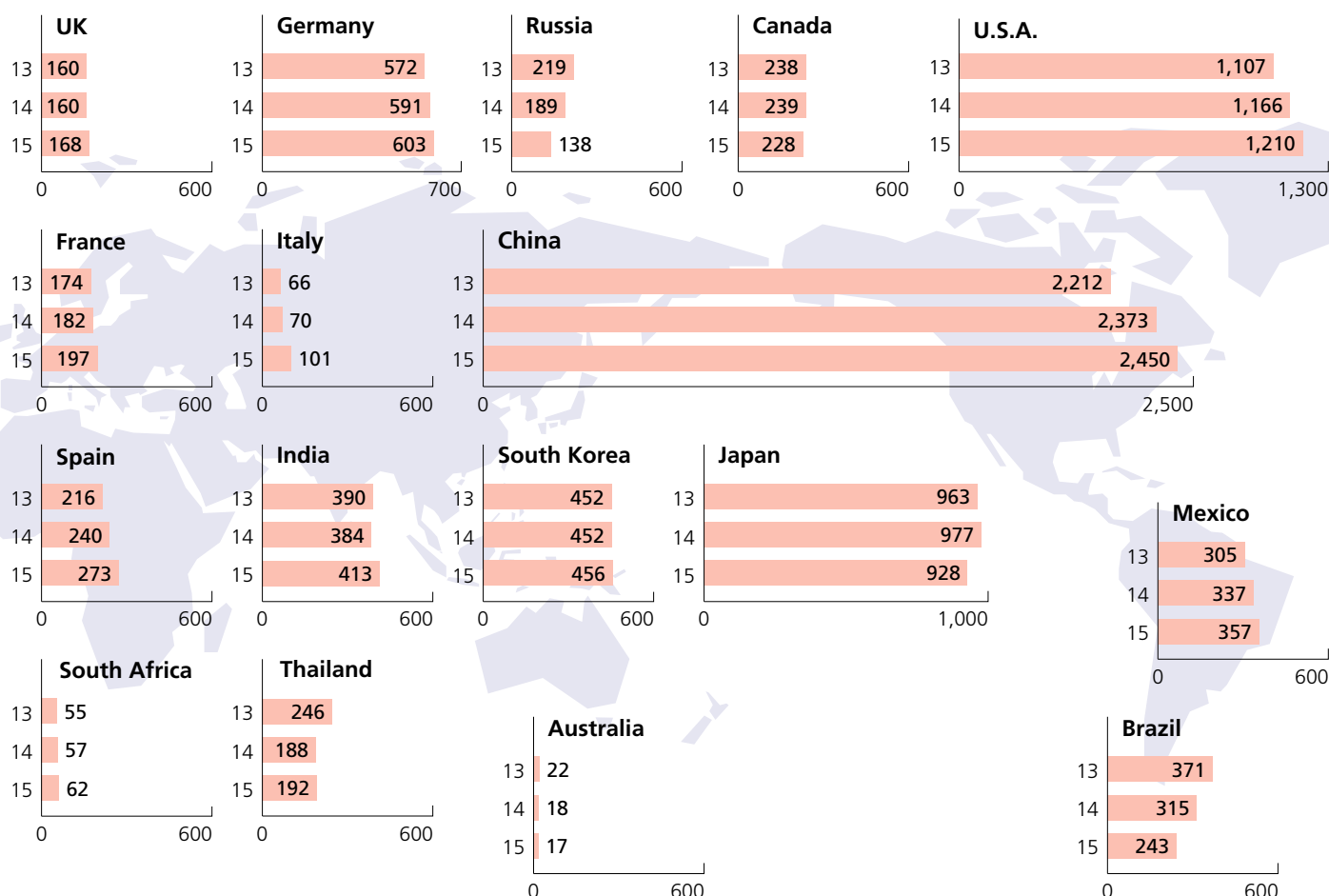


Motor Vehicle Production Increases Worldwide Except in Latin America

In 2015 worldwide motor vehicle production (excluding motorcycles) grew 1.1% from the previous year to a total of 90.80 million units. By region, production increased in Africa (up 16.2% to 836,000 units), Europe (up 3.9% to 21.22 million units), North America (up 2.3% to 14.38 million units), and Asia-Oceania (up 0.8% to 47.79 million units), but decreased in Latin America (down 8.2% to 6.58 million units).

MOTOR VEHICLE PRODUCTION EXCLUDING MOTORCYCLES (MAJOR PRODUCING COUNTRIES)

x 10,000 units



GLOBAL MOTORCYCLE PRODUCTION (BY COUNTRY/TERRITORY)

In vehicle units

Country/ Territory	2012			2013			2014		
	Mopeds	Motorcycles	Total	Mopeds	Motorcycles	Total	Mopeds	Motorcycles	Total
Austria	—	—	76,575	—	—	81,167	—	—	—
Czech Republic	22	2,297	2,319	26	1,328	1,354	17	1,058	1,075
France	—	—	56,963	—	—	38,885	—	—	—
Germany	—	—	101,690	—	—	105,015	—	—	—
Italy	—	—	330,000	—	—	240,635	—	—	—
Spain	—	—	44,019	—	—	5,010	—	—	—
UK	—	—	20,590	—	—	15,531	—	—	—
Brazil	0	1,690,187	1,690,187	0	1,673,477	1,673,477	—	—	—
China	—	21,316,197	23,629,791	—	20,467,563	22,889,147	—	18,907,705	21,267,823
India	—	—	15,744,156	—	—	16,883,049	—	—	18,499,970
Indonesia	—	—	7,079,991	—	—	7,780,295	—	—	7,926,104
Japan	0	595,473	595,473	0	563,309	563,309	0	597,058	597,058
Malaysia	—	—	543,088	—	—	549,244	—	—	439,907
Pakistan	—	—	824,245	—	—	794,763	—	—	737,006
Philippines	—	—	588,458	—	—	729,690	—	—	749,506
Taiwan	—	—	1,086,084	—	—	1,115,223	—	—	1,175,259
Thailand	—	—	2,606,161	—	—	2,218,625	—	—	1,816,545

Note: "—" means data is not available at the end of March 2016.

Sources: Motorcycle manufacturers' associations of individual countries, etc.

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

In vehicle units

Country/Region/ Territory	2013			2014			2015		
	Passenger Cars	Trucks & Buses	Total	Passenger Cars	Trucks & Buses	Total	Passenger Cars	Trucks & Buses	Total
Austria	146,566	19,862	166,428	136,000	16,000	152,000	131,380	15,350	146,730
Belgium	465,504	38,000	503,504	481,636	35,195	516,831	369,172	40,168	409,340
Finland	7,600	103	7,703	45,000	35	45,035	69,000	0	69,000
France	1,458,220	282,000	1,740,220	1,499,464	322,000	1,821,464	1,553,800	416,200	1,970,000
Germany	5,439,904	278,318	5,718,222	5,604,026	303,522	5,907,548	5,707,938	325,226	6,033,164
Italy	388,465	269,741	658,206	401,317	296,547	697,864	663,139	351,084	1,014,223
Netherlands	0	29,183	29,183	29,196	2,232	31,428	41,870	4,504	46,374
Portugal	109,698	44,318	154,016	117,744	43,765	161,509	115,468	41,158	156,626
Spain	1,754,668	408,670	2,163,338	1,898,342	504,636	2,402,978	2,218,980	514,221	2,733,201
Sweden	161,080	0	161,080	154,174	0	154,174	188,987	0	188,987
UK	1,509,762	88,110	1,597,872	1,528,148	70,731	1,598,879	1,587,677	94,479	1,682,156
Czech Republic	1,128,473	4,458	1,132,931	1,246,506	4,714	1,251,220	1,298,236	5,367	1,303,603
Hungary	317,857	3,430	321,287	434,069	3,530	437,599	491,720	3,650	495,370
Poland	475,000	115,159	590,159	472,600	120,904	593,504	534,700	125,903	660,603
Romania	410,959	38	410,997	391,422	12	391,434	387,171	6	387,177
Slovakia	975,000	0	975,000	971,160	0	971,160	1,000,001	0	1,000,001
Slovenia	89,395	4,339	93,734	118,533	58	118,591	133,092	0	133,092
Double Counts Portugal/World	0	-6,084	-6,084	0	-5,749	-5,749	0	-7,866	-7,866
Double Counts Eastern Europe/World	-100,000	0	-100,000	-120,000	0	-120,000	-123,360	0	-123,360
European Union (EU27)	14,738,151	1,579,645	16,317,796	15,409,337	1,718,132	17,127,469	16,368,971	1,929,450	18,298,421
Turkey	633,604	491,930	1,125,534	733,439	437,006	1,170,445	791,027	567,769	1,358,796
Serbia	113,487	391	113,878	101,576	1,574	103,150	82,400	1,230	83,630
Russia	1,927,578	264,667	2,192,245	1,682,921	204,272	1,887,193	1,214,849	169,550	1,384,399
Azerbaijan	0	227	227	0	247	247	0	415	415
Belarus	2,553	20,373	22,926	9,350	13,640	22,990	8,469	6,564	15,033
Kazakhstan	37,469	3,215	40,684	37,157	3,005	40,162	12,453	2,024	14,477
Ukraine	45,758	4,691	50,449	25,941	2,810	28,751	5,654	2,590	8,244
Uzbekistan	246,641	0	246,641	245,660	0	245,660	185,400	0	185,400
Double Counts CIS/World	-285,140	0	-285,140	-196,442	0	-196,442	-131,550	0	-131,550
CIS	1,974,859	293,173	2,268,032	1,804,587	223,974	2,028,561	1,295,275	181,143	1,476,418
Europe	17,460,101	2,365,139	19,825,240	18,048,939	2,380,686	20,429,625	18,537,673	2,679,592	21,217,265
Canada	965,191	1,414,643	2,379,834	913,533	1,480,621	2,394,154	888,565	1,394,909	2,283,474
U.S.A.	4,368,835	6,697,597	11,066,432	4,253,098	7,407,604	11,660,702	4,163,679	7,936,416	12,100,095
North America	5,334,026	8,112,240	13,446,266	5,166,631	8,888,225	14,054,856	5,052,244	9,331,325	14,383,569
Mexico	1,771,987	1,282,862	3,054,849	1,915,709	1,452,301	3,368,010	1,968,054	1,597,415	3,565,469
Argentina	506,539	284,468	791,007	363,711	253,618	617,329	308,756	224,927	533,683
Brazil	2,722,979	989,401	3,712,380	2,502,293	644,093	3,146,386	2,018,954	410,509	2,429,463
Colombia	74,836	2,103	76,939	70,149	988	71,137	77,000	1,070	78,070
Ecuador	0	15,236	15,236	0	5,986	5,986	0	4,800	4,800
Venezuela	45,986	25,767	71,753	11,039	8,720	19,759	9,739	8,561	18,300
Double Counts South America/World	-62,000	-25,000	-87,000	-43,000	-18,000	-61,000	-37,700	-11,000	-48,700
Latin America	5,060,327	2,574,837	7,635,164	4,819,901	2,347,706	7,167,607	4,344,803	2,236,282	6,581,085
North and Latin America	10,394,353	10,687,077	21,081,430	9,986,532	11,235,931	21,222,463	9,397,047	11,567,607	20,964,654
Australia	170,808	45,118	215,926	166,933	13,378	180,311	159,872	13,137	173,009
Bangladesh	162	0	162	536	0	536	540	0	540
China	18,084,169	4,032,656	22,116,825	19,928,505	3,803,095	23,731,600	21,079,427	3,423,899	24,503,326
India	3,155,694	742,731	3,898,425	3,162,372	682,485	3,844,857	3,378,063	747,681	4,125,744
Indonesia	924,753	281,615	1,206,368	1,013,172	285,351	1,298,523	824,445	274,335	1,098,780
Iran	630,639	113,041	743,680	925,975	164,871	1,090,846	884,866	97,471	982,337
Japan	8,189,323	1,440,858	9,630,181	8,277,070	1,497,595	9,774,665	7,830,722	1,447,599	9,278,321
Malaysia	543,892	57,515	601,407	545,122	50,012	595,134	558,324	56,347	614,671
Pakistan	121,234	20,911	142,145	126,020	22,726	148,746	182,548	47,138	229,686
Philippines	57,880	8,752	66,632	74,322	32,616	106,938	77,539	34,954	112,493
South Korea	4,122,604	398,825	4,521,429	4,124,116	400,816	4,524,932	4,135,108	420,849	4,555,957
Taiwan	291,037	47,683	338,720	332,629	46,594	379,223	298,418	52,667	351,085
Thailand	1,071,076	1,385,981	2,457,057	743,258	1,137,329	1,880,587	772,250	1,143,170	1,915,420
Vietnam	36,717	859	37,576	44,328	4,543	48,871	45,400	4,600	50,000
Double Counts Asia/World	-198,000	0	-198,000	-201,000	0	-201,000	-205,130	0	-205,130
Asia-Oceania	37,201,988	8,576,545	45,778,533	39,263,358	8,141,411	47,404,769	40,022,392	7,763,847	47,786,239
Algeria	0	0	0	1,244	0	1,244	20,000	0	20,000
Egypt	13,777	17,027	30,804	17,542	24,973	42,515	12,000	24,000	36,000
Morocco	146,842	20,610	167,452	209,999	21,987	231,986	260,129	28,200	288,329
South Africa	265,257	280,656	545,913	277,491	288,592	566,083	341,025	274,633	615,658
Tunisia	0	1,860	1,860	0	1,860	1,860	0	540	540
Zimbabwe	0	23	23	0	0	0	0	0	0
Double Counts South Africa/World	-22,055	-98,342	-120,397	-23,070	-101,010	-124,080	-28,370	-96,220	-124,590
Africa	403,821	221,834	625,655	483,206	236,402	719,608	604,784	231,153	835,937
Grand Totals	65,460,263	21,850,595	87,310,858	67,782,035	21,994,430	89,776,465	68,561,896	22,242,199	90,804,095

Notes: 1. Includes preliminary figures. 2. Some EU countries do not release truck and bus production data.

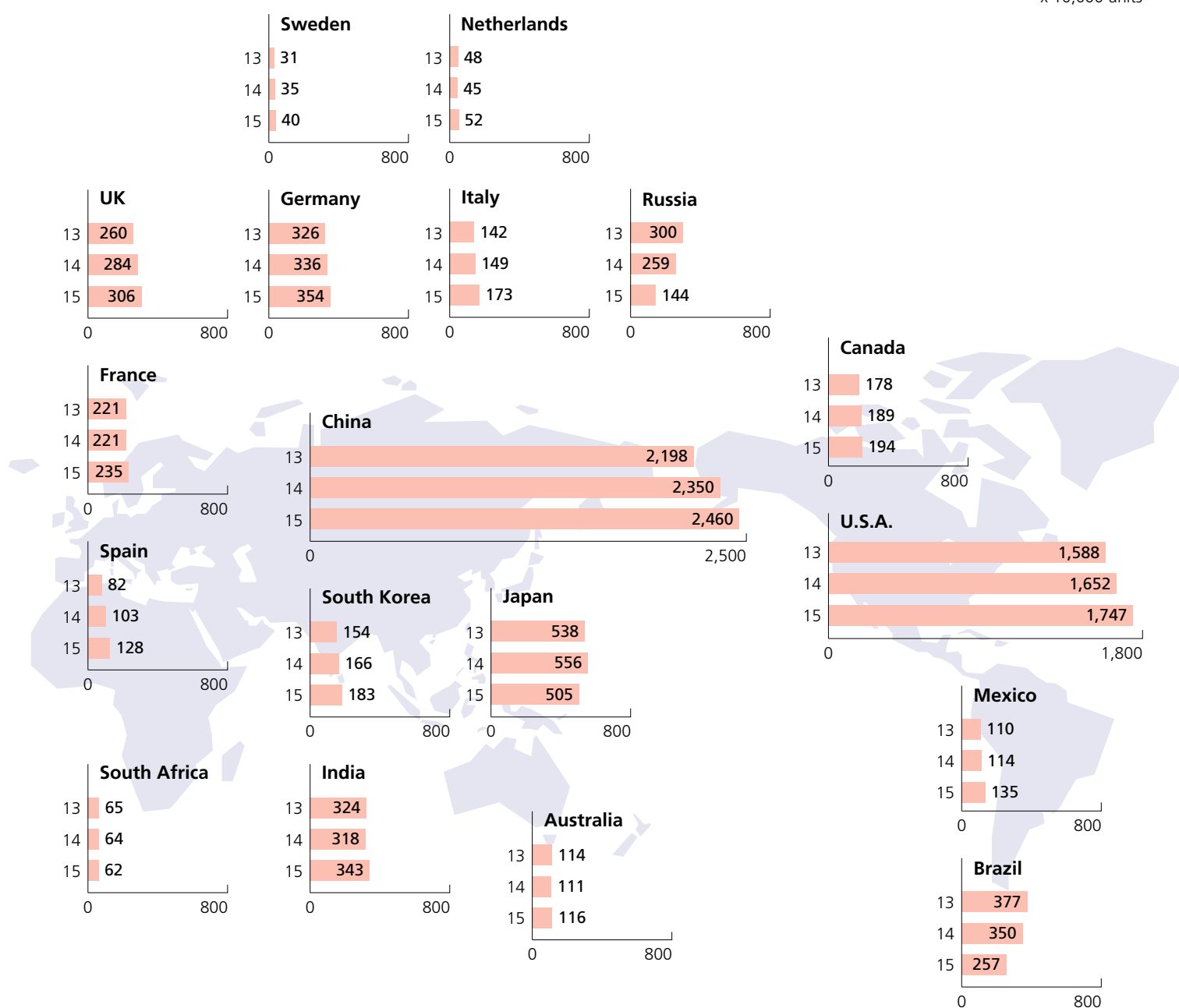
Sources: International Organization of Motor Vehicle Manufacturers (OICA); for Japan, Japan Automobile Manufacturers Association

Motor Vehicle Sales Rise in Spain, Mexico, the Netherlands, Italy, Sweden, and Elsewhere

In 2015 new motor vehicle registrations (excluding motorcycles) increased 2.0% over the previous year to a global total of 89.68 million units. Vehicle sales rose in Spain (up 24.0% to 1.28 million units), Mexico (up 19.0% to 1.35 million units), the Netherlands (up 15.7% to 521,000 units), Italy (up 15.6% to 1.73 million units), and Sweden (up 12.5% to 397,000 units). On the other hand, new registrations dropped from the previous year in Russia (down 44.5% to 1.44 million units) and Brazil (down 26.6% to 2.57 million units).

NEW REGISTRATIONS OF MOTOR VEHICLES EXCLUDING MOTORCYCLES (SELECTED COUNTRIES)

x 10,000 units



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

In vehicle units

Country	2013			2014			2015		
	Passenger Cars	Commercial Vehicles	Total	Passenger Cars	Commercial Vehicles	Total	Passenger Cars	Commercial Vehicles	Total
Austria	319,035	38,857	357,892	303,318	38,897	342,215	308,555	41,042	349,597
Belgium	486,065	61,074	547,139	482,939	62,316	545,255	501,066	70,458	571,524
Czech Republic	164,736	21,203	185,939	192,314	23,280	215,594	230,857	29,213	260,070
Denmark	182,086	28,753	210,839	189,055	32,658	221,713	207,717	37,767	245,484
Finland	103,455	13,913	117,368	106,237	13,876	120,113	108,812	14,664	123,476
France	1,790,456	416,917	2,207,373	1,795,885	415,042	2,210,927	1,917,226	427,866	2,345,092
Germany	2,952,431	305,287	3,257,718	3,036,773	319,945	3,356,718	3,206,042	333,783	3,539,825
Greece	58,694	3,876	62,570	71,218	5,447	76,665	75,805	6,239	82,044
Hungary	56,139	16,836	72,975	67,476	21,243	88,719	77,171	23,762	100,933
Italy	1,304,648	116,166	1,420,814	1,360,578	132,430	1,493,008	1,575,524	149,863	1,725,387
Netherlands	416,717	64,399	481,116	387,569	62,777	450,346	449,350	71,818	521,168
Poland	289,913	63,284	353,197	327,709	64,767	392,476	354,975	77,464	432,439
Portugal	105,921	20,768	126,689	142,826	29,531	172,357	178,503	35,151	213,654
Romania	57,710	13,306	71,016	82,809	17,527	100,336	98,325	22,266	120,591
Slovakia	65,998	9,206	75,204	72,237	9,723	81,960	77,968	12,123	90,091
Spain	722,689	100,261	822,950	890,125	139,657	1,029,782	1,094,077	182,982	1,277,059
Sweden	269,599	43,468	313,067	303,948	48,519	352,467	345,108	51,585	396,693
UK	2,264,737	330,976	2,595,713	2,476,435	366,590	2,843,025	2,633,503	427,903	3,061,406
Russia	2,649,181	349,469	2,998,650	2,333,067	259,329	2,592,396	1,284,366	153,564	1,437,930
Switzerland	307,885	35,833	343,718	301,942	36,462	338,404	323,783	38,867	362,650
Turkey	664,655	228,469	893,124	587,331	220,155	807,486	725,596	285,598	1,011,194
Canada	755,615	1,024,908	1,780,523	760,449	1,129,938	1,890,387	713,058	1,226,891	1,939,949
U.S.A.	7,585,341	8,298,102	15,883,443	7,749,432	8,773,231	16,522,663	7,572,662	9,897,997	17,470,659
Mexico	698,217	402,325	1,100,542	745,250	390,159	1,135,409	892,194	459,454	1,351,648
Brazil	3,040,783	726,587	3,767,370	2,794,687	703,325	3,498,012	2,122,956	446,020	2,568,976
Argentina	684,379	279,538	963,917	432,696	181,152	613,848	431,097	174,836	605,933
China	17,927,730	4,056,349	21,984,079	19,707,677	3,791,324	23,499,001	21,146,320	3,451,263	24,597,583
India	2,553,979	687,323	3,241,302	2,570,736	606,269	3,177,005	2,772,745	652,591	3,425,336
Japan	4,562,282	813,231	5,375,513	4,699,591	863,297	5,562,888	4,215,889	830,621	5,046,510
South Korea	1,243,868	299,696	1,543,564	1,359,834	302,034	1,661,868	1,533,670	300,116	1,833,786
Malaysia	576,657	79,136	655,793	588,348	78,139	666,487	591,298	75,376	666,674
Indonesia	880,032	349,779	1,229,811	863,268	332,141	1,195,409	755,566	275,856	1,031,422
Thailand	631,225	699,465	1,330,690	369,826	511,984	881,810	304,872	492,707	797,579
Australia	566,454	569,773	1,136,227	531,596	581,628	1,113,224	515,683	639,725	1,155,408
Egypt	220,000	63,000	283,000	273,500	75,600	349,100	258,400	73,700	332,100
South Africa	450,561	200,184	650,745	439,264	205,240	644,504	412,670	205,079	617,749
Other	5,492,957	1,707,561	7,200,518	6,019,435	1,657,136	7,676,571	6,298,508	1,669,856	7,968,364
Grand Totals	63,102,830	22,539,278	85,642,108	65,417,380	22,502,768	87,920,148	66,311,917	23,366,066	89,677,983


Sources: International Organization of Motor Vehicle Manufacturers (OICA); for Japan, Japan Automobile Dealers Association; Japan Mini Vehicles Association; Japan Automobile Manufacturers Association

More than 1.2 Billion Motor Vehicles in Use Worldwide

There were over 1.2 billion motor vehicles (excluding motorcycles) in use worldwide in 2014, equivalent to 167 motor vehicles per 1,000 inhabitants or one vehicle for every 6 persons. Motorcycle density in recent years has been particularly high in Malaysia, Indonesia, and Thailand, with one motorcycle in use for every three persons; in Greece, with one in use for every six persons; and in Italy, with one in use for every seven persons. In Japan, one motorcycle is in use for every 11 persons.

MOTOR VEHICLE DENSITY: INTERNATIONAL COMPARISONS (at end of 2014)

In vehicle units

 x 1 person

Country	No. of Motor Vehicles per 1,000 Inhabitants Total Motor Vehicles Passenger Cars	No. of Persons per Motor Vehicle (No. of Persons per Passenger Car)
U.S.A.	809 379	1.2 (2.6)
Australia	715 566	1.4 (1.8)
Italy	687 607	1.5 (1.6)
Canada	644 612	1.6 (1.6)
Japan	608 478	1.6 (2.1)
Austria	605 552	1.7 (1.8)
France	594 496	1.7 (2.0)
Switzerland	589 535	1.7 (1.9)
Spain	587 476	1.7 (2.1)
UK	583 512	1.7 (2.0)
Germany	576 537	1.7 (1.9)
Belgium	575 496	1.7 (2.0)
World Average	167 122	6.0 (8.2)

Sources: Ministry of Land, Infrastructure, Transport and Tourism; Ward's, etc.; for population data, OECD, U.N.


MOTOR VEHICLES IN USE WORLDWIDE (at end of 2014)










In vehicle units

Country	Passenger Cars	Commercial Vehicles	Total
Germany	44,403,124	3,244,457	47,647,581
Italy	37,080,753	4,865,167	41,945,920
France	31,800,000	6,280,000	38,080,000
UK	32,612,782	4,500,576	37,113,358
Spain	22,114,278	5,148,126	27,262,404
Netherlands	8,192,570	1,044,958	9,237,528
Belgium	5,511,080	876,401	6,387,481
Austria	4,694,921	444,500	5,139,421
Sweden	4,585,520	581,206	5,166,726
Poland	20,069,000	3,565,000	23,634,000
Switzerland	4,384,490	444,717	4,829,207
Turkey	9,857,915	4,474,671	14,332,586
Russia	40,850,000	9,650,000	50,500,000
U.S.A.	120,983,811	137,043,118	258,026,929
Canada	21,729,596	1,120,204	22,849,800
Mexico	25,509,204	10,381,046	35,890,250
Argentina	10,092,000	3,191,000	13,283,000
Brazil	32,715,000	9,027,000	41,742,000
Japan	60,667,517	16,520,949	77,188,466
China	120,724,000	22,107,000	142,831,000
South Korea	15,747,162	4,370,793	20,117,955
India	27,174,000	10,928,000	38,102,000
Thailand	8,381,000	7,224,000	15,605,000
Indonesia	12,595,000	8,278,000	20,873,000
Australia	13,297,260	3,500,302	16,797,562
South Africa	6,620,891	3,013,447	9,634,338
Other	141,988,946	43,467,474	185,456,420
Grand Totals	884,381,820	325,292,112	1,209,673,932

Sources: Ministry of Land, Infrastructure, Transport and Tourism; Ward's, etc.

MOTORCYCLE DENSITY: INTERNATIONAL COMPARISONS (No. of Persons per Motorcycle)

 x 1 person

2014	Malaysia	3	
2012	Indonesia	3	
2014	Thailand	3	
2013	Greece	6	
2013	Italy	7	
2013	Spain	9	
2013	Switzerland	9	
2014	Japan	11	
2013	Austria	11	
2013	Netherlands	14	
2013	Germany	14	
2014	China	15	

Note: Data for Japan as at March 31.

Sources: Ministry of Land, Infrastructure, Transport and Tourism; Ministry of Internal Affairs and Communications; Federation of Asian Motorcycle Industries (FAMI); European Association of Motorcycle Manufacturers (ACEM), etc.; for population data, OECD, U.N.

MOTORCYCLES IN USE WORLDWIDE

In vehicle units

Year	Country/Territory	Total
2013	Italy	8,531,770
2013	Spain	4,998,320
2013	France	2,585,009
2013	UK	1,219,400
2013	Netherlands	1,235,139
2013	Switzerland	862,913
2013	Austria	755,497
2013	Poland	2,316,610
2013	Czech Republic	512,975
2013	Germany	5,876,553
2013	Greece	1,778,596
2014	China	91,530,292
2012	Indonesia	75,980,927
2014	Japan	11,688,632
2014	Thailand	20,305,708
2014	Taiwan	13,735,994
2014	Malaysia	11,734,527
2014	Philippines	4,475,714

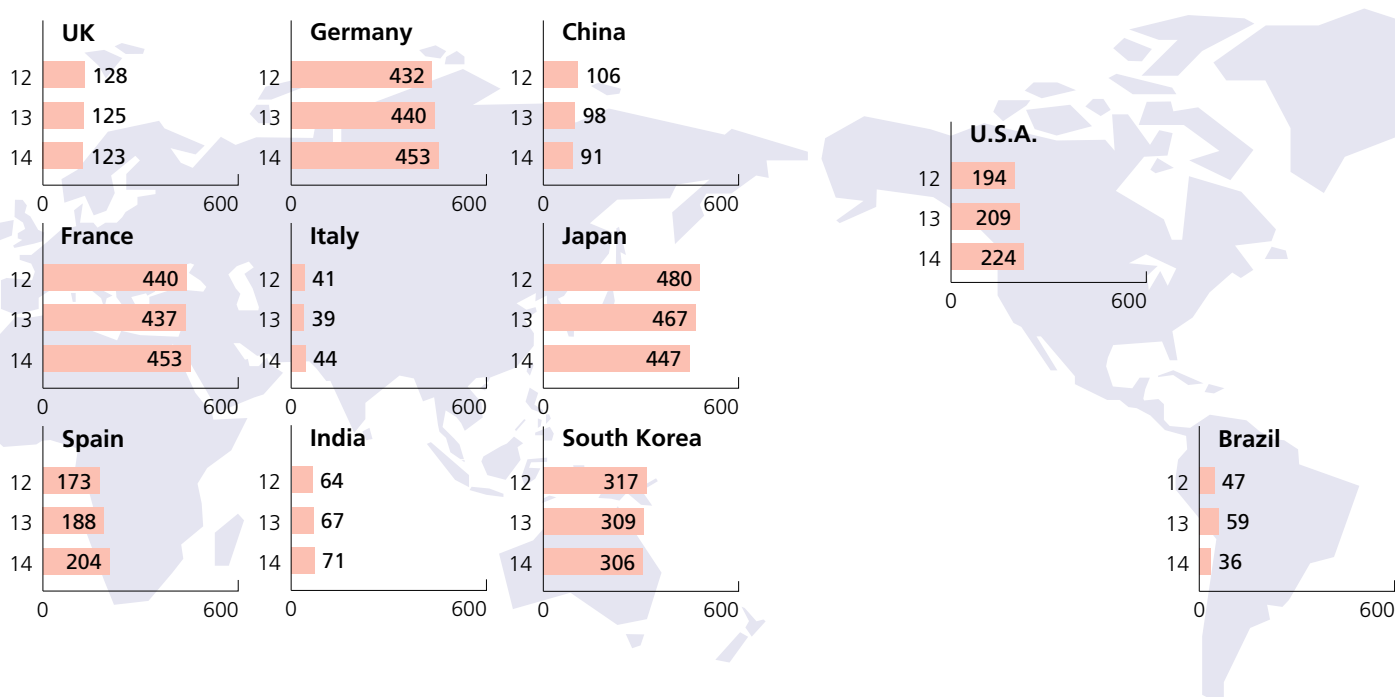
Sources: Ministry of Land, Infrastructure, Transport and Tourism; Ministry of Internal Affairs and Communications; Federation of Asian Motorcycle Industries (FAMI); European Association of Motorcycle Manufacturers (ACEM), etc.

Motor Vehicle Exports Increase in Italy, Spain, the U.S.A., and India

Motor vehicle exports (excluding motorcycles) in 2014 increased over the previous year in Italy (up 11.6% to 439,000 units), Spain (up 8.5% to 2.04 million units), the U.S.A. (up 7.1% to 2.24 million units), and India (up 5.2% to 708,000 units), but decreased in Brazil (down 39.2% to 360,000 units) and China (down 6.8% to 910,000 units). Meanwhile, motorcycle exports in 2014 showed a year-on-year rise in Indonesia (up 53.8% to 42,000 units), Taiwan (up 18.3% to 499,000 units), and India (up 17.9% to 2.46 million units), but declined in China (down 7.8% to 8.28 million units).

● MOTOR VEHICLE EXPORTS (MAJOR EXPORTING COUNTRIES)

x 10,000 units



● MOTOR VEHICLE EXPORTS (MAJOR EXPORTING COUNTRIES)

In vehicle units

Country	2012			2013			2014		
	Passenger Cars	Commercial Vehicles	Total	Passenger Cars	Commercial Vehicles	Total	Passenger Cars	Commercial Vehicles	Total
Japan	4,198,494	605,097	4,803,591	4,065,519	609,114	4,674,633	3,835,595	630,029	4,465,624
U.S.A.	1,515,337	425,622	1,940,959	1,624,236	467,236	2,091,472	1,784,937	454,592	2,239,529
Germany	4,131,279	189,548	4,320,827	4,197,516	207,244	4,404,760	4,303,127	226,277	4,529,404
UK	1,211,766	63,733	1,275,499	1,201,395	47,910	1,249,305	1,195,196	34,822	1,230,018
France	3,898,019	506,303	4,404,322	3,842,199	530,355	4,372,554	3,961,884	571,759	4,533,643
Italy	174,514	232,867	407,381	169,576	223,657	393,233	189,112	249,554	438,666
Spain	1,326,777	402,395	1,729,172	1,493,731	386,243	1,879,974	1,631,744	408,149	2,039,893
Brazil	352,179	119,867	472,046	461,402	130,221	591,623	265,620	93,951	359,571
South Korea	3,012,584	158,050	3,170,634	2,948,352	140,931	3,089,283	2,919,781	143,423	3,063,204
China	661,204	394,857	1,056,061	596,286	381,006	977,292	533,009	377,352	910,361
India	559,414	80,027	639,441	596,142	77,050	673,192	622,470	85,782	708,252

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

● MOTORCYCLE EXPORTS (MAJOR EXPORTING COUNTRIES/TERRITORY)

In vehicle units

Country/Territory	2012			2013			2014		
	Mopeds	Motorcycles & Scooters	Total	Mopeds	Motorcycles & Scooters	Total	Mopeds	Motorcycles & Scooters	Total
Japan	0	479,163	479,163	0	430,897	430,897	0	465,584	465,584
China	—	8,707,120	8,707,120	—	8,982,918	8,982,918	—	8,281,143	8,281,143
Taiwan	—	—	483,610	—	—	421,884	—	—	499,172
Indonesia	—	—	77,129	—	—	27,135	—	—	41,746
India	—	—	1,956,378	—	—	2,084,000	—	—	2,457,597

Note: "—" means data is not available at the end of March 2016.

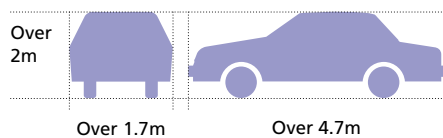
Sources: Automobile/motorcycle manufacturers' associations of individual countries; for Japan, Japan Automobile Manufacturers Association

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

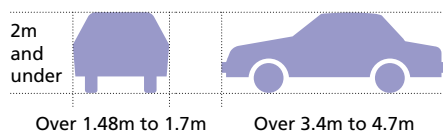
Japan classifies motor vehicles according to the provisions of two basic laws: the Road Vehicles Act and the Road Traffic Act. Road Vehicles Act classifications are used for registration statistics, vehicle inspection, and related maintenance and repair. Road Traffic Act classifications determine the 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.)

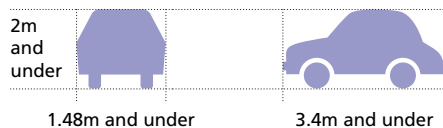
Standard Over 2,000cc in engine capacity, excluding diesel engines



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



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
Gross vehicle weight: ≥ 11 tons Payload: ≥ 6.5 tons or Occupancy: ≥ 30 persons

Ordinary Motor Vehicles
Gross vehicle weight: < 5 tons Payload: < 3 tons or Occupancy: < 11 persons

Middle-Category Motor Vehicles (1)
Gross vehicle weight: $5 \leq \text{tons} < 11$ Payload: $3 \leq \text{tons} < 6.5$ or Occupancy: $11 \leq \text{persons} < 30$

Special-Purpose Motor Vehicles
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 15km per hour in maximum speed, up to 4.7m in length, up to 2m in height (2), and up to 1.7m in width.

(1) As per a revision to the Road Traffic Act, the middle-category motor vehicle classification went into application in June 2007.
(2) Projections on small special-purpose vehicles should not exceed 2.8m.
Note: The Road Traffic Act stipulates that the driver of any one-rider, three- or four-wheeled vehicle of up to 50cc in engine capacity, with a legal maximum speed of 50km/h and a maximum load of 30kg, is required to hold an "ordinary motor vehicle" driver's license.

CLASSIFICATION OF MOTORCYCLES

Road Vehicles Act					
Category	Engine Capacity	Rated Output	Width	Height	Length
Small-sized	Over 250cc	Over 1.0kW	Over 1.3m	Over 2.0m	Over 2.5m
Mini-sized	126cc to 250cc	Over 1.0kW	1.3m and under	2.0m and under	2.5m and under
Motor-driven cycles Class 2	51cc to 125cc	Over 0.6kW to 1.0kW	1.3m and under	2.0m and under	2.5m and under
Motor-driven cycles Class 1	50cc and under	0.6kW and under	1.3m and under	2.0m and under	2.5m and under

Road Traffic Act	
Category	Engine Capacity
Large	Over 400cc
Ordinary	51cc to 400cc
Motorized bicycles	50cc 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

Large-Sized Number Plates	
Larger-than-standard-size plates are issued to vehicles weighing 8 tons or more, with payload of 5 tons or more, or 30-person or more occupancy.	22cm × 44cm
Mid-Sized Number Plates	
Standard-size plates are issued to standard and small vehicles and mini-vehicles with engine capacity of more than 360cc, whether for private or commercial business use.	16.5cm × 33cm
Small-Sized Number Plates	
Small-size plates are issued to small- and mini-sized motorcycles and mini-vehicles with engine capacity of 360cc or less, excluding those designated with any one of the 40-to-49, 50-to-59 or 80-to-89 number categories.	12.5cm × 23cm

Motor Vehicle Registry Designation:
Kanji indicate geographical area of vehicle registration.

品川 500
さ 23-45

Designated Number Categories Indicating Vehicle Type	
Ordinary trucks	1, 10-19, 100-199
Ordinary buses	2, 20-29, 200-299
Ordinary passenger cars	3, 30-39, 300-399
Three- or four-wheeled small trucks	4, 40-49, 400-499
Three- or four-wheeled small passenger cars and buses	5, 50-59, 500-599
Special-purpose vehicles	6, 60-69, 600-699
Large special-purpose vehicles	7, 70-79, 700-799
Large special-purpose vehicles used as construction machinery	8, 80-89, 800-899
	9, 90-99, 900-999
	0, 00-09, 000-099

Number Assignment

From "1" to "99-99"

Usage Designations	
Ordinary and large motor vehicles	
Private use	さすせそたちつてとなにぬねのはひふほまみむめもやゆらりるろ
Commercial business use	あいうえかきくけこ
Rental vehicle	わ
Foreign military vehicle	EHKMTYよ
Mini-vehicles	
Private use	あいうえかきくけこさすせそたちつてとなにぬねのはひふほまみむめもやゆらるろ
Commercial business use	りれ
Rental vehicle	わ
Foreign military vehicle	AB
Hiragana character indicates vehicle usage category: private, commercial business, rental or foreign military vehicle (private or official).	

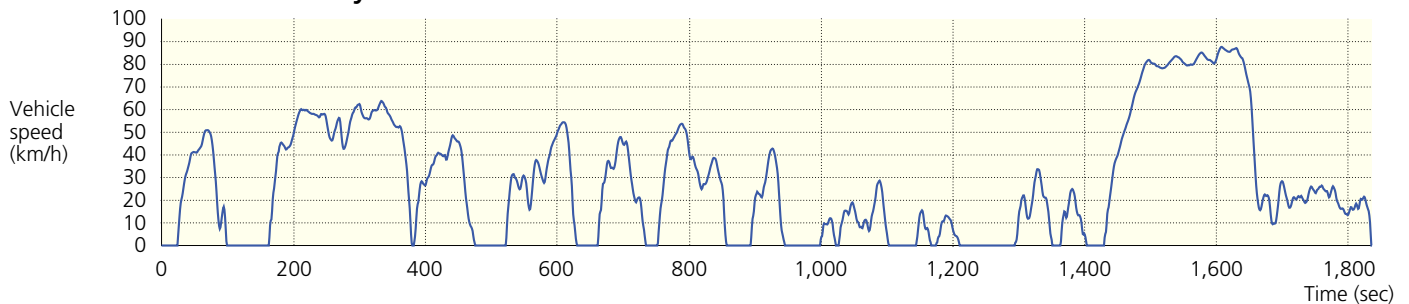
Number Plate Colors	
Ordinary and large motor vehicles	
Private use or rental vehicle	Green characters on white background
Commercial business use	White characters on green background
Mini-vehicles	
Private use or rental vehicle	Black characters on yellow background
Commercial business use	Yellow characters on black background

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

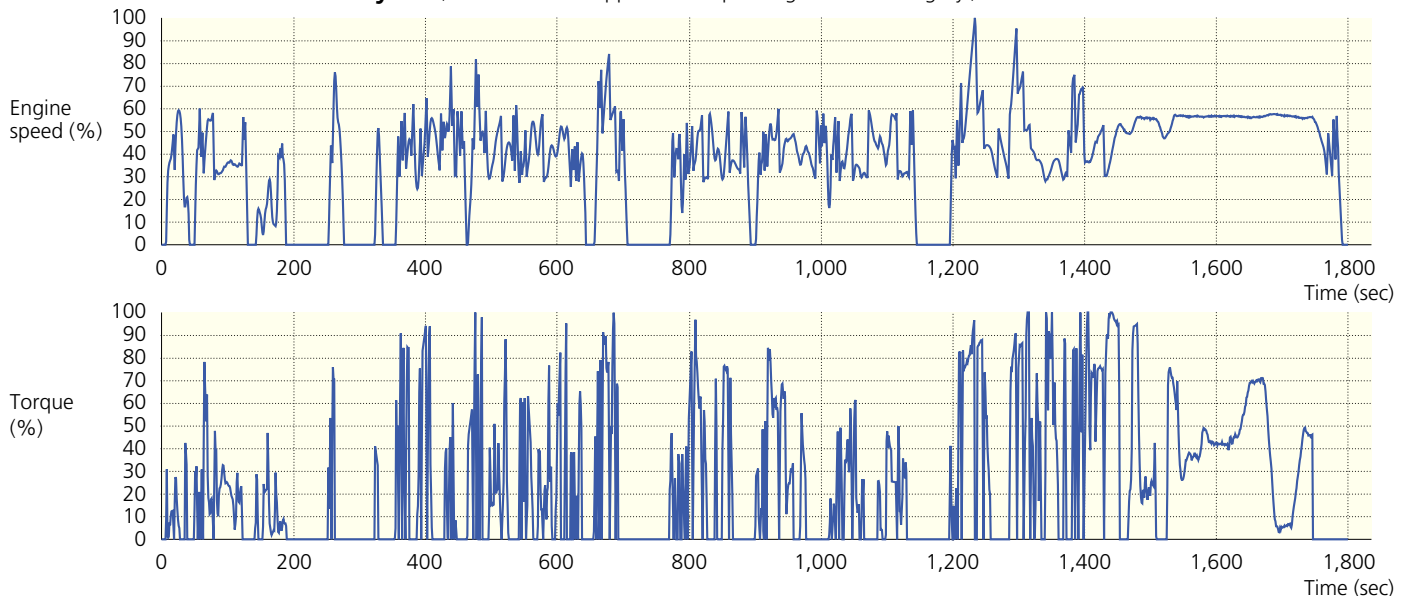
The JC08 test cycle is currently the only test cycle applied in Japan to measure fuel consumption rates as well as exhaust emissions in non-heavy-duty vehicles, having replaced the 10•15-mode test cycle. The objective in using the JC08 test cycle is to obtain test results that are as close as possible to actual on-road fuel consumption rates, and certified fuel efficiency values are established on the basis of JC08 test cycle results. Beginning in 2018, for the purpose of global harmonization, Japan will replace its JC08 test cycle with the Worldwide Harmonized Light Vehicles Test Procedure (WLTP). Meanwhile, Japan's JE05 test cycle for measuring diesel exhaust emissions from heavy-duty vehicles will be replaced, beginning in 2016, by the World Harmonized Transient Cycle.

● COMPARISON OF THE JE05 AND WHTC TEST CYCLES FOR HEAVY-DUTY VEHICLES (measuring fuel consumption)

The JE05 Test Cycle



The WHTC Test Cycle (Note: Phased-in application depending on GVW category.)



● COMPARISON OF THE JC08 AND WLTP TEST CYCLES FOR PASSENGER CARS & LIGHT COMMERCIAL VEHICLES (measuring fuel consumption and exhaust emissions)

(Note: Phased-in application of WLTP depending on GVW category.)

	Maximum speed (km/h)	Average speed (km/h)	Maximum acceleration (km/h/sec)	Duration (sec)	Distance (km)	Idling time (%)
JC08	81.60	24.41	5.50	1,204	8.17	29.7
WLTP	97.40	36.39	5.70	1,477	14.94	15.4

Alternative Systems Expedite Certification

Motor vehicle certification in Japan is based primarily on the Type Approval System, which is applied both to domestic and imported automobiles and covers most mass-produced models. The Preferential Handling Procedure for imported motor vehicles is an alternative procedure which was instituted to expedite the certification of foreign-made vehicles that are imported in limited quantities. The third procedure, the Type Notification System, is mainly applied to large commercial vehicles.

THE TYPE APPROVAL SYSTEM

This certification procedure is applied to domestic and imported mass-produced models. The Ministry of Land, Infrastructure, Transport and Tourism (MLIT) inspects a sample vehicle and the quality-control system of the automobile manufacturer concerned, then completes the type approval process within two months in principle. All finished vehicles that have been granted type approval are then inspected by the manufacturer, eliminating the need to present them for new vehicle inspection. For imported vehicles, the MLIT not only dispatches officials overseas to conduct certification inspections but also accepts the test results of designated foreign testing institutes.

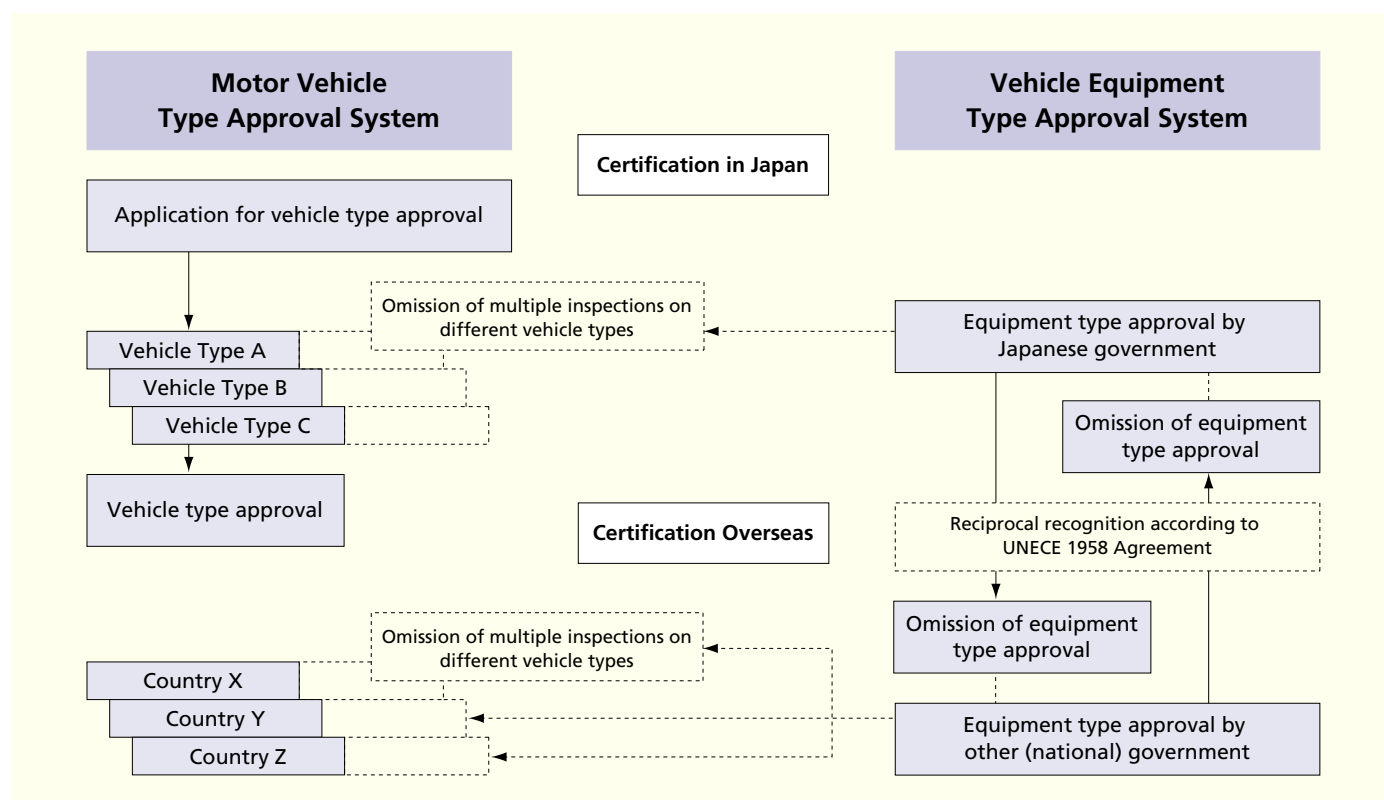
THE PREFERENTIAL HANDLING PROCEDURE FOR IMPORTED VEHICLES

This procedure is applied to models that are imported into Japan in quantities of 5,000 units or less per year. Designed to make the importation of vehicles simpler and faster, it exempts the applicant from undergoing the sample vehicle inspection that is mandatory under the Type Approval System. The MLIT inspects only the application documentation and issues a form indicating completion of the procedure within one month.

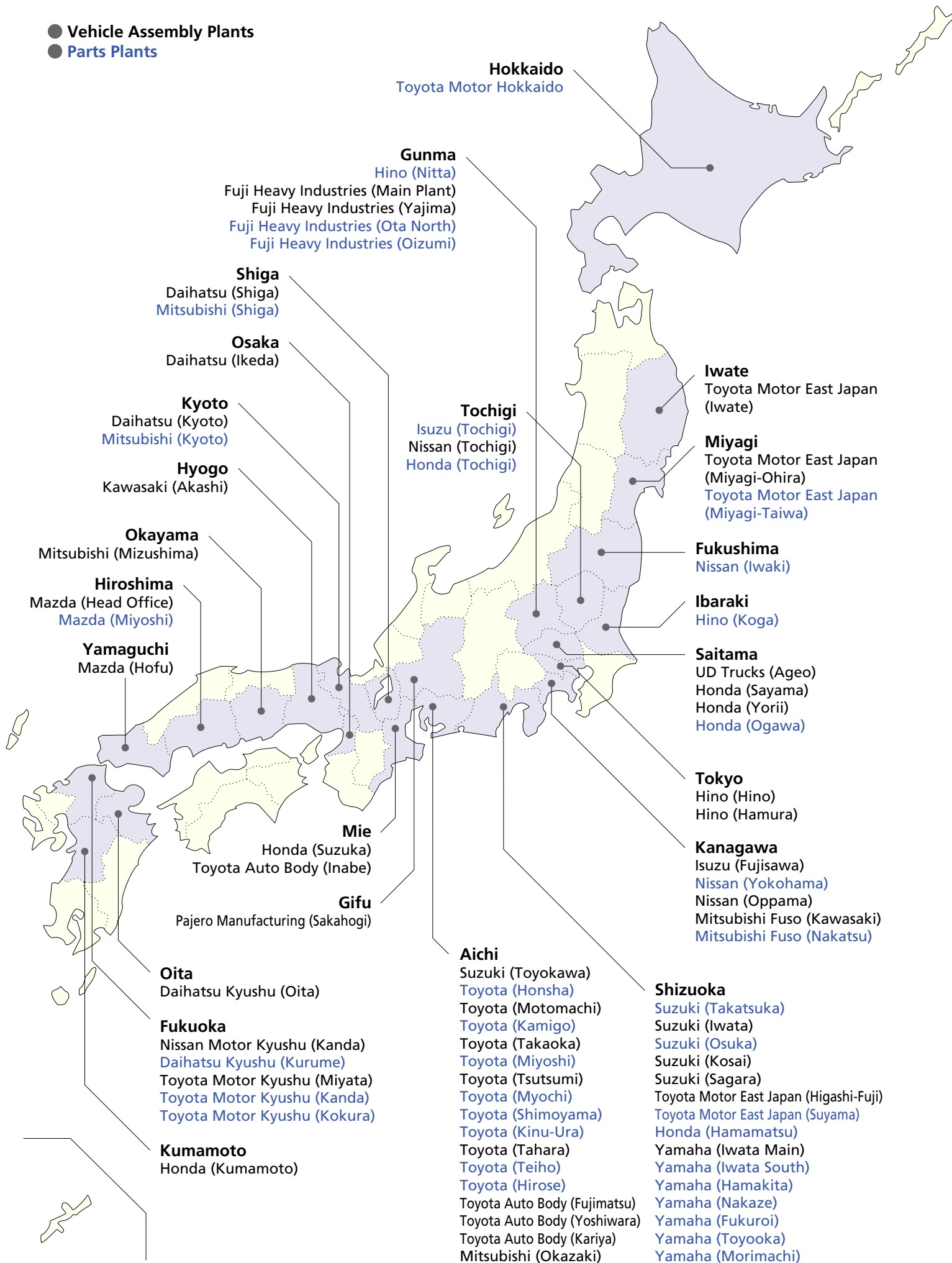
RATIONALIZATION OF MOTOR VEHICLE/RECIPROCAL EQUIPMENT TYPE APPROVAL SYSTEMS

Increased globalization in the automobile industry worldwide is underscoring the need for the more widespread adoption of reciprocal recognition systems, under which certification is mutually recognized between importing and exporting countries or regions. Meanwhile, the U.N.'s World Forum for Harmonization of Vehicle Regulations (also known as WP.29) is making steady progress in the establishment of global technical regulations (GTRs) focusing on vehicle safety and environmental standards. In 1998 the Japanese government officially acceded to the UNECE 1958 Agreement, under which each signatory government reciprocally recognizes certifications of vehicle structure and equipment issued by all the other signatory countries. It also introduced the Vehicle Equipment Type Approval System, which specifically addresses the expanding common use of equipment in vehicle manufacturing. This system not only allows equipment and parts that have been certified by 1958 Agreement co-signatory countries to be exempted from undergoing certification procedures in Japan, but furthermore does not require them to be inspected again if they are used in other models.

● JAPAN'S RATIONALIZATION OF MOTOR VEHICLE/RECIPROCAL EQUIPMENT TYPE APPROVAL SYSTEMS



- Vehicle Assembly Plants
- Parts Plants





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THE MOTOR INDUSTRY OF JAPAN 2016 Published May 2016

Japan Automobile Manufacturers Association, Inc.

Jidosha Kaikan, 1-30 Shiba Daimon 1-chome, Minato-ku, Tokyo 105-0012 Japan

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