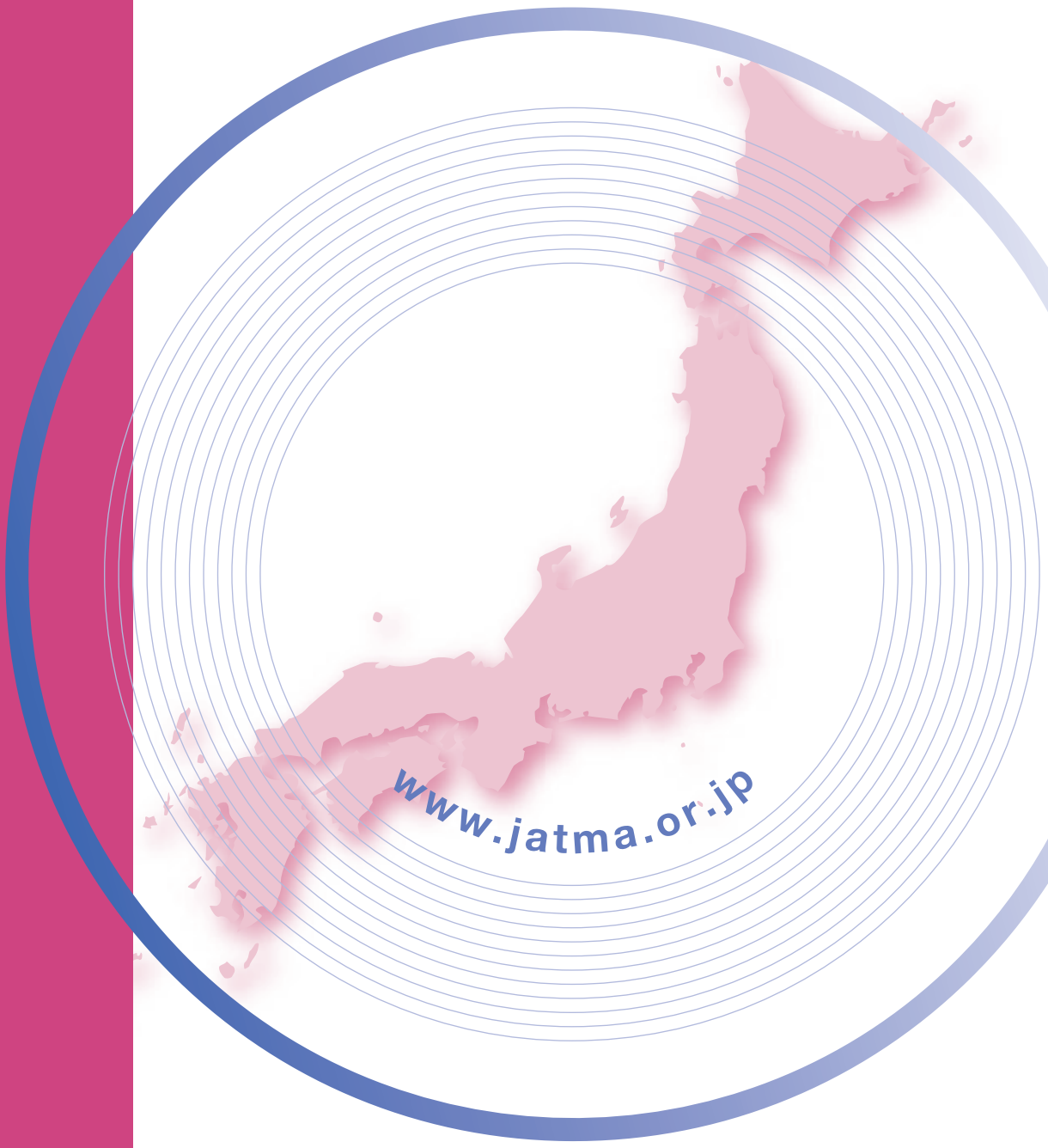
JATMA
THE JAPAN AUTOMOBILE TYRE MANUFACTURERS ASSOCIATION, INC.

TYRE INDUSTRY OF JAPAN

2011



TYRE INDUSTRY OF JAPAN *2011*

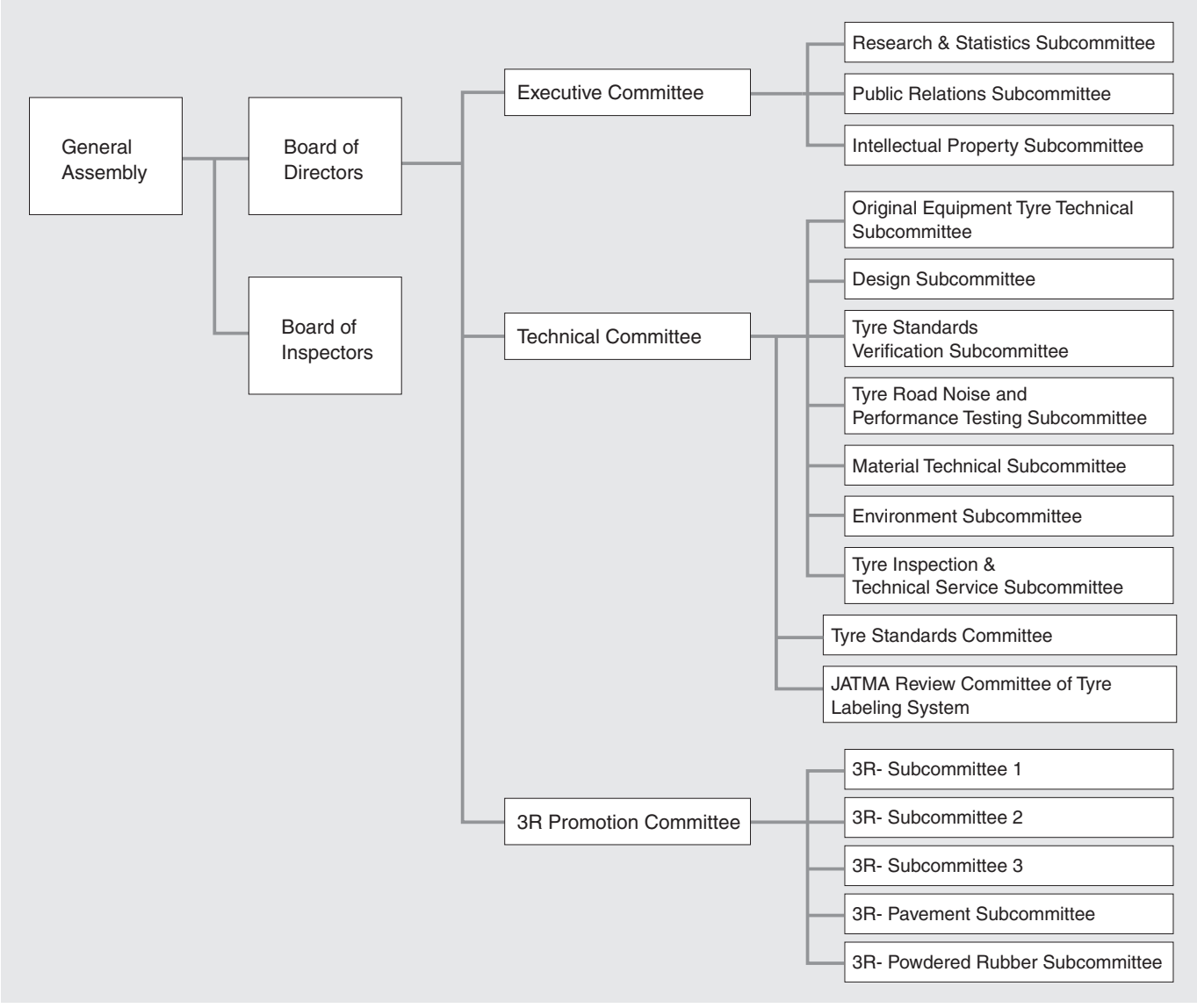
Contents

The Japan Automobile Tyre Manufacturers Association, Inc.

Chairman: Kenji Nakakura, President, Toyo Tire & Rubber Co., Ltd.
Vice-Chairman: Shoshi Arakawa, President, Bridgestone Corporation
Executive Director: Keiichiro Okuda
Established: September 1947 (incorporated in December 1968)
Head Office: Toranomon No. 33 Mori Bldg., 8F, 8-21, Toranomon 3-chome, Minato-ku, Tokyo 105-0001, Japan
Tel.: 03 (3435) 9091 Fax: 03 (3435) 9097
Members: Bridgestone Corporation
Sumitomo Rubber Industries, Ltd.
The Yokohama Rubber Co., Ltd.
Toyo Tire & Rubber Co., Ltd.
Nihon Michelin Tire Co., Ltd.

Organization

Under General Assembly and Board of Directors, three committees are established; Executive, Technical, and 3R Promotion. The committees have relevant subcommittees which promoting their activities such as surveys and studies.



JATMA Member Firms

Bridgestone Corporation

President Shoshi Arakawa

Established: March 1, 1931

Capital: ¥126,354 million
(as of the end of December 2010)

Annual sales: (consolidated) ¥2,861,615 million
(as of the end of December 2010)

Employees: (consolidated) 139,822
(as of the end of December 2010)

Head office: 10-1, Kyobashi 1-chome,
Chuo-ku, Tokyo 104-8340
Tel.: 03 (3567) 0111
http://www.bridgestone.co.jp/

Sumitomo Rubber Industries, Ltd.

President Ikuji Ikeda

Established: March 6, 1917

Capital: ¥42,658 million
(as of the end of December 2010)

Annual sales: (consolidated) ¥604,548 million
(as of the end of December 2010)

Employees: (consolidated) 22,242
(as of the end of December 2010)

Head office: 6-9, Wakinohama-cho 3-chome,
Chuo-ku, Kobe,
Hyogo Prefecture 651-0072
Tel.: 078 (265) 3000
http://www.srigroup.co.jp/

The Yokohama Rubber Co., Ltd.

President Hikomitsu Noji

Established: October 13, 1917

Capital: ¥38,909 million
(as of the end of March 2011)

Annual sales: (consolidated) ¥519,742 million
(as of the end of March 2011)

Employees: (consolidated) 18,473
(as of the end of March 2011)

Head office: 36-11, Shimbashi 5-chome,
Minato-ku, Tokyo 105-8685
Tel.: 03 (5400) 4531
http://www.yrc.co.jp/

Toyo Tire & Rubber Co., Ltd.

President Kenji Nakakura

Established: August 1, 1945

Capital: ¥30,484 million
(as of the end of March 2011)

Annual sales: (consolidated) ¥294,092 million
(as of the end of March 2011)

Employees: (consolidated) 8,536
(as of the end of March 2011)

Head office: 17-18, Edobori 1-chome,
Nishi-ku, Osaka,
Osaka Prefecture 550-8661
Tel.: 06 (6441) 8801
http://www.toyo-rubber.co.jp/

Nihon Michelin Tire Co., Ltd.

President Bernard Delmas

Established: June 10, 1975

Capital: ¥100 million
(as of the end of December 2010)

Employees: 737
(as of the end of December 2010)

Head office: 6-1, Fujimi 1-chome,
Chiyoda-ku, Tokyo 102-8176
Tel.: 03 (5210) 2700
http://www.michelin.co.jp/

I History of the Japanese Tyre Industry

1. Brief History of the Japanese Tyre Industry

The production scale of the automobile tyre industry of Japan steadily increased from the second half of 1990s to 2000, supported by generally firm demand in the domestic market and active export. Demand slowed for a period in 2001 due to the decline in export mainly for U.S., but afterward the production increased steadily as a whole before going into a decline in 2008. In 2010 the domestic demand and the export also turned toward a recovery from decline of the previous year, then rubber production increased after three years to 1.17 million tons, and tyre production quantity to 164.36 million tyres and 1,037.1 billion yens and the rubber consumption accounted for 80% or more of the total rubber consumption in Japan. Looking the previous route that have extended in this manner, it trades the following processes roughly classified.

(1) 1940s-1950s

The industry restructured after World War II, following the destruction of facilities and equipment. In the early 1950s, after the long-term government regulation and during the Korean War, the industry enjoyed special procurement and improved tyre demand. However, after the Korean War, deflationary pressures affected the Japanese economy. Demand for tyres decreased sharply, and the tyre market experienced considerable difficulty.

(2) 1960s

Around 1960, full-fledged motorization, including increased automobiles on the road and the advent of expressways, spurred the industry toward a technological revolution, including expansion and automation of equipment, as well as changes in the raw materials for tyres, and enjoyed a high-growth phase.

(3) 1970s

From 1970, the industry suffered demand downturns temporarily as a result of the first oil crisis. However, exports led the growing Japanese economy. Tyre production expanded, as a result of an increase in the number of vehicles produced and registered, and product diversification spurred demand.

(4) 1980s

Low economic growth under the worldwide recession following the second oil crisis (1979) combined with the progress of radial tyres, which caused demand downturns, forcing the Japanese tyre industry into a period of extreme difficulty. In 1983, however, a turnaround was seen owing to economic recovery in Japan and in principal nations worldwide. In September 1985, however, tyre demand dropped, influenced by the strong yen. Then in December 1986, the Japanese economy started to grow steadily, backed by solid consumer spending and capital investment. As a result, the volume of rubber consumption reached the 1-million-ton mark in 1989.

(5) 1990s

With the collapse of Japan's "bubble economy," the stock market crashed, corporate profits declined, the job environment became uncertain, consumer spending and capital investment slowed, and the yen appreciated causing further deepening of economic stagnation. Signs of recovery were seen in 1995, but in 1997 Japan entered a recession. In 1998 and 1999, large-scale restructuring in the financial sector and the introduction of foreign capital into the automotive industry arose as serious concerns. On the other hand, the global economy in general remained steady despite economic difficulties in Southeast Asia, supported by the robust U.S. economy. In this environment, the Japanese tyre industry grew overall, although rubber consumption fell below the 1-million-ton mark in 1993. Supported by brisk exports, Japanese tyre production volume increased to 1.13 million tons in 1999, a record high.

(6) 2000s

The Japanese economy was on a trend of gentle recovering, and although it was still suffering from such problems as continuing high prices of raw materials, it continued the biggest economic growth after the Second World War owing to improved corporate earnings and increased capital investments. Global economy continued strong as a whole until 2007 owing to supports by the robust economy of the United States, Europe, Middle East and BRICs countries, and tyre rubber production volume marked a record high every year from 2002 and it reached 1.36 million tons in 2007. However, tyre production volume took a downward turn in 2008 after seven years due to the serious worldwide economic crisis from September 2008 and decreased by three hundred seventy thousand tons, then declined to nine hundred seventy thousand tons under one million tons after fifteen years.

(7) 2010

Japanese economy have continued a recovery trend on support of the government actions for economy and upbeat of overseas economies centered around developing countries, but the vigor was gradually lost by the termination of economic policies and abrupt rising yen from the second half of the year. Global economy is recovering from the effect of financial crisis as a while, and it kept the economy humming especially in China, India and so on. Meanwhile, it remained at gradual recovery in the advanced countries of the United States hovering continuously at a high unemployment rate and the Europe burdened with financial uneasiness and so on. In such a demand environment, tyre production amount in Japan in 2010 was 1.17 million tons in rubber consumption and exceeded the previous year after three years.

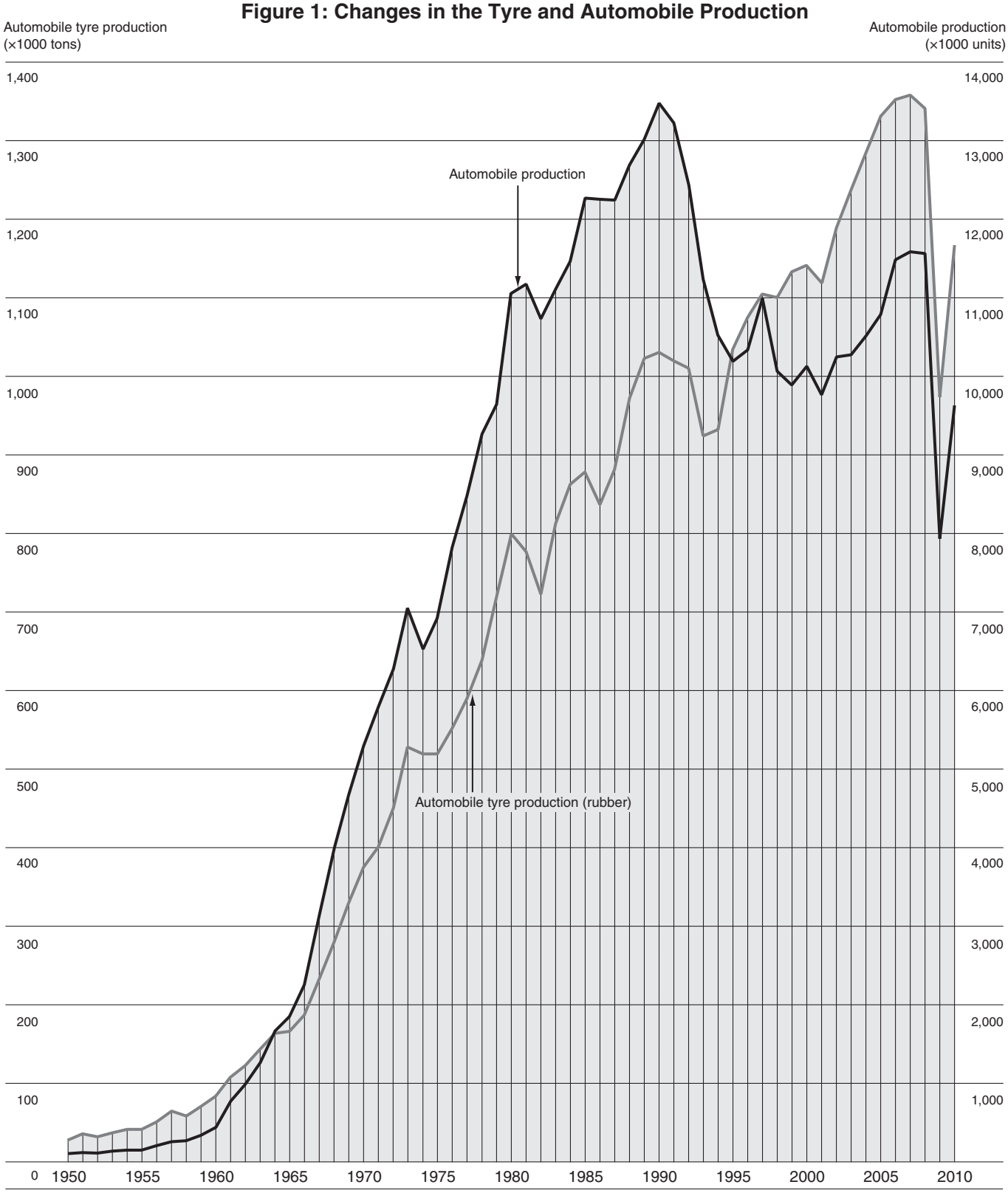
2. Changes in the Tyre and Automobile Production

Table 1: Changes in the Tyre and Automobile Production

	1950	1960	1970	1980	1990	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Automobile Tyre Production (1000 tons of rubber)	14	83	369	784	1,031	1,153	1,119	1,190	1,240	1,285	1,331	1,352	1,358	1,341	973	1,167
Automobile Production (1000 units)	32	482	5,289	11,043	13,487	10,141	9,777	10,257	10,286	10,512	10,800	11,484	11,596	11,576	7,934	9,629

Source: JATMA

Figure 1: Changes in the Tyre and Automobile Production



II The Japanese Tyre Industry Today

1. Overview

The production volume of automobile tyres in 2010 increased in domestic demand and exports also and exceeded the previous year after three years.

The production proportion of tyre industry in rubber product industry (figure 2 and 3) decreased by 0.3% to 81.2% in rubber consumption and increased by 0.5% to 50.8% from the previous year in production value, thereby both rubber consumption and production value remained unchanged from the previous year. (Source: Ministry of Economy, Trade Industry dynamic statistics)

The production ratio of the tyre industry, within the rubber product industry in 2010

(excluding cart tyres, tubes and flaps)

Figure 2: Rubber consumption

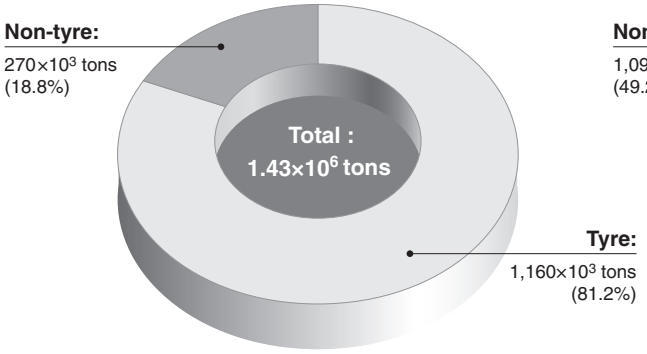
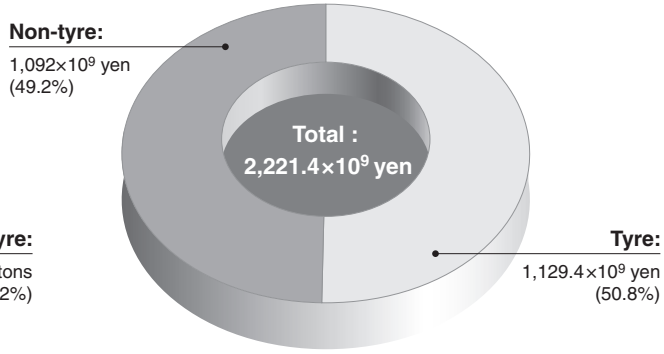
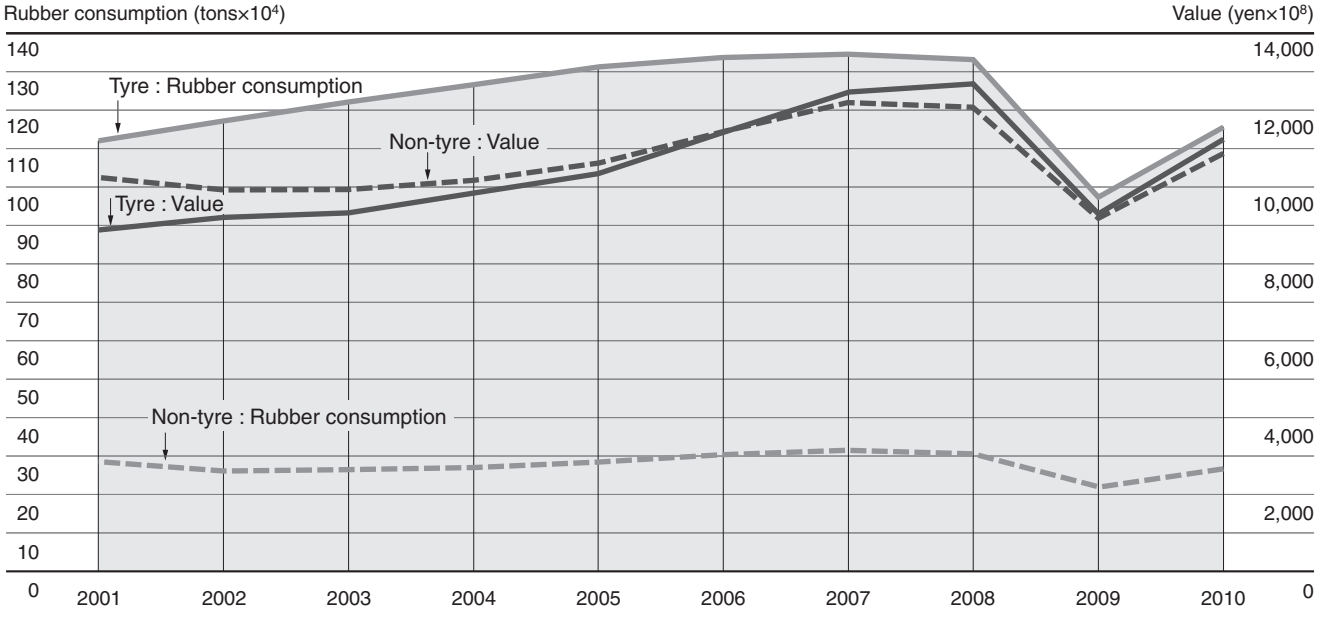


Figure 3: Production value



Source: Ministry of Economy, Trade and Industry dynamic statistics

Figure 4: Changes in production of Japan's rubber products - rubber consumption and value



Source: Ministry of Economy, Trade and Industry dynamic statistics

2. Production Trends by Tyre Category

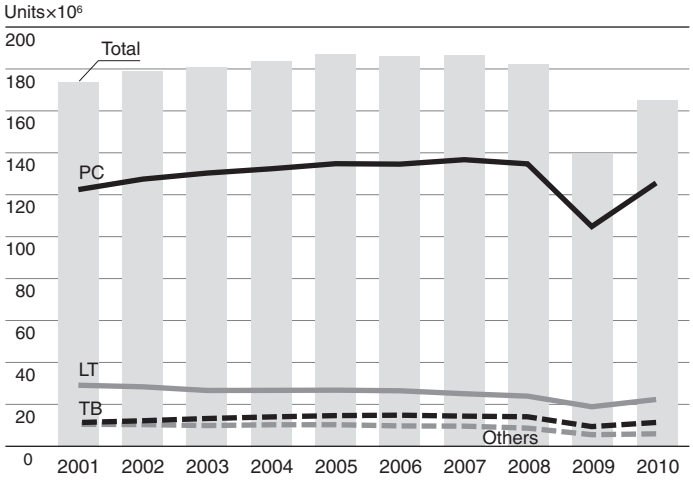
The production volume of automobile tyres in 2010 increased by 18.8% to 164.63 million tyres from the previous year and it exceeded the previous year after three years. Due to the effect of recovering demand in Japan and overseas, the production volume increased by 19.6% for passenger car tyres, by 17.2% for light truck tyres and by 18.6% truck & bus tyres increased, each category increased from the previous year, however, it did not reach the level year before last.

Table 2: Automobile tyre production in 2010

	Production	
	Units($\times 10^3$)	2010/2009(%)
Passenger car tyres	125,457	119.6
Light truck tyres	22,176	117.2
Truck and bus tyres	11,208	118.6
Special vehicle tyres	1,520	114.8
Motorcycle tyres	4,273	105.8
Total	164,634	118.8

N.B.: 1. Special vehicle tyres include off-the-road, industrial, agricultural, and cart tyres.
2. The figures above are the total of only JATMA members.
Source: JATMA

Figure 5: Trends in automobile tyre production



3. Trends in Sales of Original Equipment Tyres

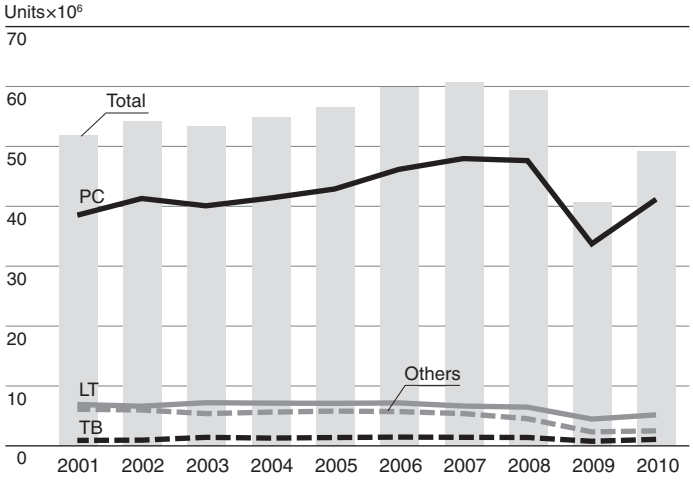
The sales volume of original equipment tyres in 2010 increased by 21.3% to 49.21 million tyres from the previous year and exceeded the previous year after three years. The domestic sales amount of passenger car increased by tax credits and subsidies for eco-friendly car in the second half and the sales amount of export vehicle also increased by recovery trend of global economy, and the sales volume of original equipment tyres increased by 22.2% for passenger car tyres, by 16.3% for light truck tyres and by 54.6% for truck & bus that decreased by half the previous year from the previous year by the reaction.

Table 3: Sales of original equipment tyres in 2010

	Sales	
	Units($\times 10^3$)	2010/2009(%)
Passenger car tyres	40,989	122.2
Light truck tyres	4,990	116.3
Truck and bus tyres	900	154.6
Special vehicle tyres	1,086	116.9
Motorcycle tyres	1,243	101.7
Total	49,208	121.3

N.B.: 1. Special vehicle tyres include off-the-road, industrial, agricultural, and cart tyres.
2. The figures above include other domestic manufacturers than JATMA members.
3. Imported tyres made by Japanese manufacturers are included.
Source: JATMA

Figure 6: Trends in sales of original equipment tyres



4. Trends in Sales of Replacement Tyres

The sales volume of replacement tyres in 2010 increased by 8.5% to 67.55 million tyres from the previous year and exceeded the previous year after four years.

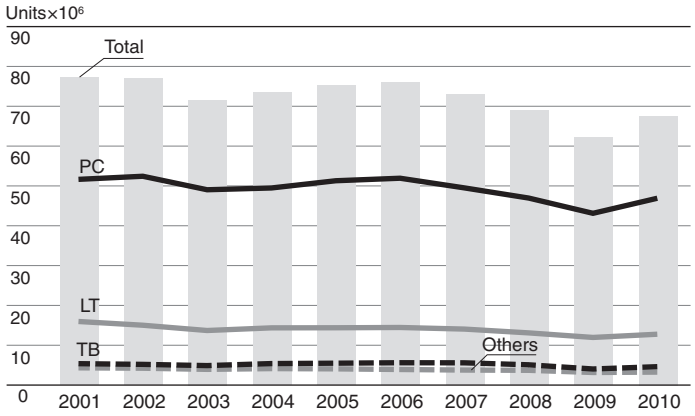
Table 4: Sales of replacement tyres in 2010

	Sales	
	Units($\times 10^3$)	2010/2009(%)
Passenger car tyres	46,908	108.8
Light truck tyres	12,769	106.8
Truck and bus tyres	4,620	114.3
Special vehicle tyres	823	109.7
Motorcycle tyres	2,434	101.0
Total	67,554	108.5

N.B.: 1. Special vehicle tyres include off-the-road, industrial, agricultural, and cart tyres.
2. The figures above include other domestic manufacturers than JATMA members.
3. Imported tyres made by Japanese manufacturers are included.

Source: JATMA

Figure 7: Trends in sales of replacement tyres



Trends in sales of summer tyres and winter tyres for replacement (for four-wheeled vehicles)

The sales amount of summer tyres in 2010 (summer tyre is normal tyre except snow tyre) increased 7.5% to 45.89 million tyres from the previous year and it increased after three years. The sales amount of summer tyres increased by 7.8% for passenger car tyres, by 5.0% for light truck tyres and by 13.0% for truck & bus tyres from the previous year due to the reaction from the reduction by hesitant buying in the previous year by the economic recovery.

Table 5-1: Sales of summer tyres for replacement in 2010

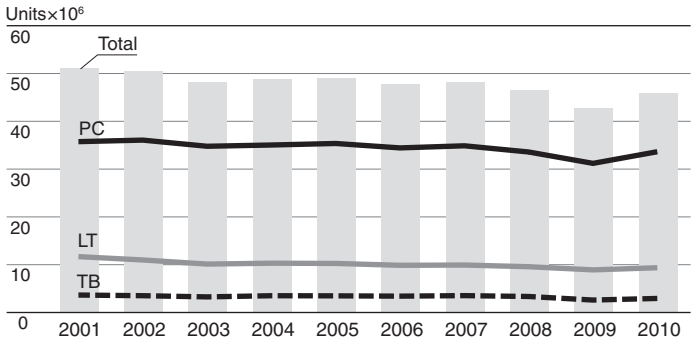
(for four-wheeled vehicles)

	Summer tyres		
	Units($\times 10^3$)	2010/2009(%)	Share of summer tyres in total(%)
Passenger car tyres	33,620	107.8	71.7
Light truck tyres	9,344	105.0	73.2
Truck and bus tyres	2,923	113.0	63.3
Total	45,887	107.5	71.4

N.B.: 1. The share of summer tyres indicates the percentage in total number of replacement sales.
2. Imported tyres made by Japanese manufacturers are included.
3. All-season tyres are included in this category.

Source: JATMA

Figure 8-1: Trends in sales of summer tyres for replacement (for four-wheeled vehicles)



The sales amount of winter tyres in 2010 increased by 11.9% to 18.41million tyres from the previous year and it increased after four years.

The sales amount of winter tyres increased by 11.3% for passenger car tyres, by 12.0% for light truck tyres and by 16.6% for truck & bus tyres, ended in double digit increase each tyre category, from the previous year by the increase in domestic sales amount of automobiles due to tax credits and subsidies for eco-friendly car and by the effect of snowfall.

Table 5-2: Sales of winter tyres for replacement in 2010

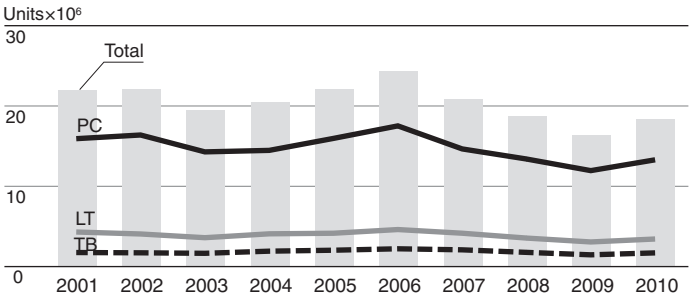
(for four-wheeled vehicles)

	Winter tyres		
	Units($\times 10^3$)	2010/2009(%)	Share of winter tyres in total(%)
Passenger car tyres	13,288	111.3	28.3
Light truck tyres	3,425	112.0	26.8
Truck and bus tyres	1,697	116.6	36.7
Total	18,410	111.9	28.6

N.B.: 1. The share of winter tyres indicates the percentage in total number of replacement sales.
2. Imported tyres made by Japanese manufacturers are included.

Source: JATMA

Figure 8-2: Trends in sales of winter tyres for replacement (for four-wheeled vehicles)



5. Trends in Sales of Export Tyres

The export volume of automobile tyres in 2010 increased by 17.1% to 68.47 million tyres from the previous year and exceeded the previous year after three years.

It increased by 18.8% for passenger car tyres, 10.5% by for light truck tyres and by 13.7% for truck & bus tyres from the previous year and each category exceeded the previous year due to global economic recovery trend.

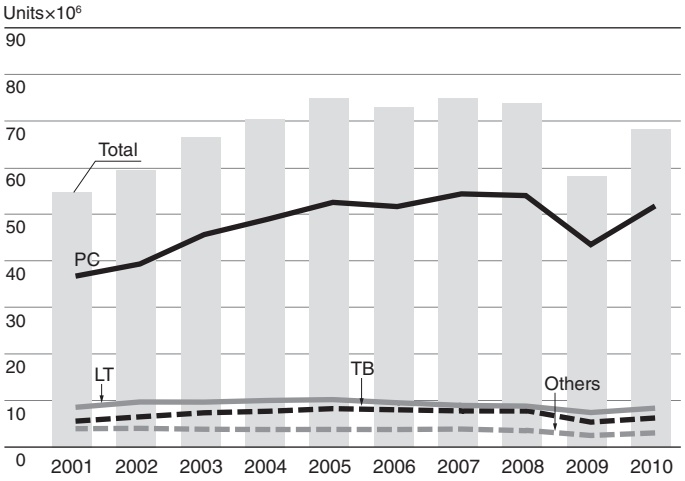
Table 6: Sales of export tyres in 2010

	Sales	
	Units($\times 10^3$)	2010/2009(%)
Passenger car tyres	51,527	118.8
Light truck tyres	8,122	110.5
Truck and bus tyres	6,011	113.7
Special vehicle tyres	710	147.6
Motorcycle tyres	2,098	108.1
Total	68,468	117.1

N.B.: 1. Special vehicle tyres include off-the-road, industrial, agricultural, and cart tyres.
2. The figures above are the total of only JATMA members.

Source: JATMA

Figure 9: Trends in sales of export tyres



6. Exports by Region of Destination

The export volume of automobile tyres in 2010 (customs clearance basis of Ministry of Finance) increased by 20.4% to 73.45 million tyres in quantity basis and increased by 18.4% to 599.9 billion yens in value basis and the product weight increased by 19.4% to 1.46 million tons from the previous year.

By region (quantity basis) the export volume for each region all increased after three years. Especially the export for Europe and the United States pulled the increase.

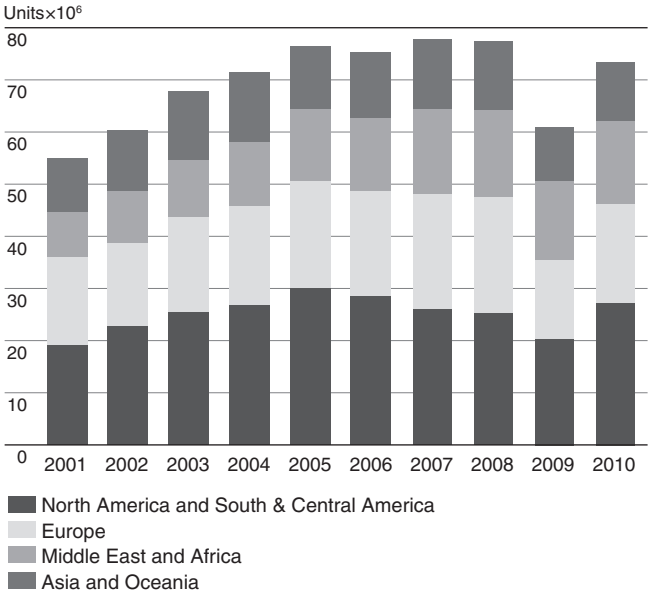
Table 7: Exports by region of destination in 2010

	Tyre Units($\times 10^3$)				2010/2009 (%)	Value (FOB) (yen$\times 10^6$)	2010/2009 (%)
	PC	TB&LT	Others	Total			
North America	20,610	1,669	737	23,016	132.6	163,527	128.5
South & Central America	3,196	1,044	125	4,365	141.4	50,198	131.1
Europe	15,734	1,473	1,701	18,908	125.5	130,722	120.7
Middle East	9,692	3,849	86	13,627	101.6	103,191	100.0
Africa	1,027	1,173	74	2,274	128.4	29,676	116.2
Asia	5,911	1,143	506	7,560	108.0	70,842	112.6
Oceania	2,813	691	193	3,697	111.0	51,746	125.7
Total	58,983	11,042	3,422	73,447	120.4	599,902	118.4
Weight(tons)	695,145	468,174	292,168	1,455,487	119.4		

N.B.: 1. Exchange rates are averages of spot rates for Tokyo interbank trade.
2009: 1dollar = 94yen
2010: 1dollar = 88yen

Source: Ministry of Finance customs records

Figure 10: Export trend by region



7. Imports by Region of Origin

The import volume in 2010 (customs clearance basis of Ministry of Finance) increased by 0.7% to 25.11 million tyres in quantity basis and increased by 9.3% to 79.1 billion yens in value basis and the product weight increased by 6.5% to two hundred thousand tons from the previous year.

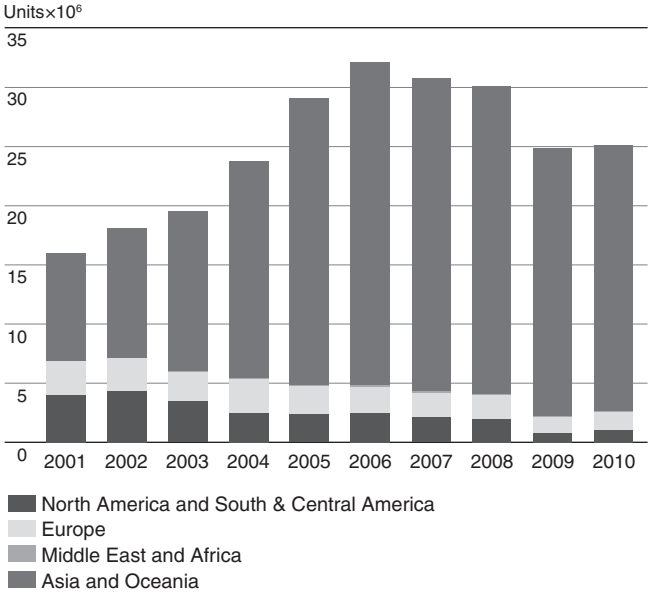
By region (quantity basis) the import from Asia decreased, but from Europe and the United States and so on increased, then it remained unchanged from the previous year.

Table 8: Imports by region of origin in 2010

	Tyre Units($\times 10^3$)				2010/2009 (%)	Value (CIF) (yen$\times 10^6$)	2010/2009 (%)
	PC	TB&LT	Others	Total			
North America	853	4	36	893	129.6	4,500	122.9
South & Central America	79	0	79	158	148.8	878	112.3
Europe	1,145	131	258	1,534	112.1	13,808	135.3
Middle East	53	0	4	57	113.0	318	87.6
Africa	3	0	0	3	47.3	21	43.3
Asia	17,213	2,482	2,774	22,469	98.9	59,601	104.0
Oceania	0	0	0	0	1.5	3	10.5
Total	19,346	2,617	3,151	25,114	100.7	79,129	109.3
Weight(tons)	138,035	28,484	30,873	197,392	106.5		

Source: Ministry of Finance customs records

Figure 11: Import trends by region



III Measures for Tyre Safety

1. Safety Standards for Automobile Tyres

Various standards have been specified regarding tyres from the viewpoint of automobile safety because tyres are automobile's important parts.

Each individual state has its own legislation specifying the standards and the tyres are requested to satisfy the standards of the state where the tyres are to be used. In Japan we have the Safety Regulations for Road Vehicles and their detailed items, enacted by The Ministry of Land, Infrastructure and Transport.

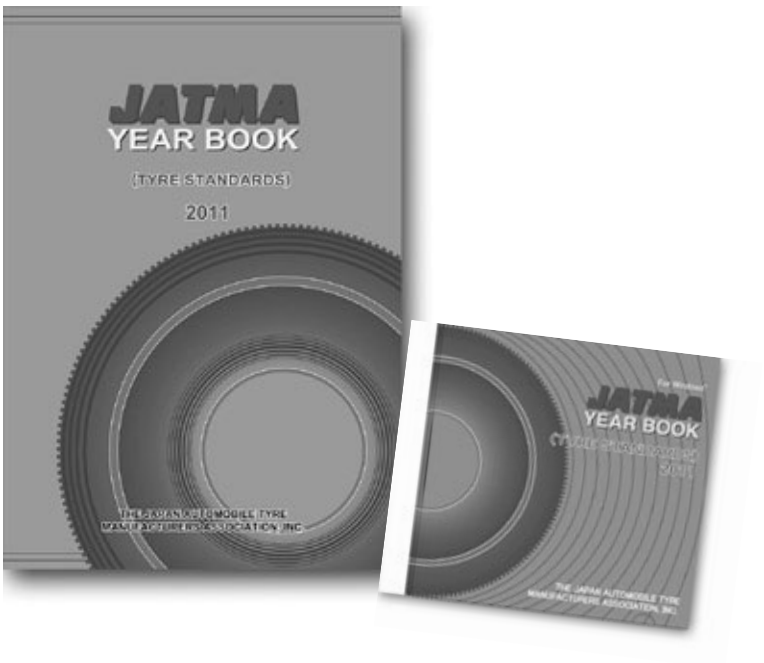
In addition to these regulations, JATMA specifies guideline items for usage and maintenance in "Standards for Selection, Usage and Maintenance" in an effort to enlighten those involved for securing safety.

2. Tyre Standards

In addition to safety standards, JATMA publishes a definitive set of tyre standards in the annual JATMA Year Book. Setting these standards is the responsibility of the Tyre Standards Committee, mainly comprised of representatives of tyre makers, automakers, and related ministries and agencies in the Japanese government.

The standards cover tyres, rims and valves in seven categories: passenger cars, light trucks, trucks and buses, off-road vehicles, agricultural equipment, industrial vehicles and motorcycles.

The Japanese Ministry of Land, Infrastructure and Transport has incorporated JATMA's Tyre Standards in its vehicle inspection procedures since 1982. Internationally, the standards rank as authoritative guidelines together with the ETRTO standards of Europe and TRA standards of the United States. The JATMA standards are also mentioned in the U.S. Department of Transportation's Federal Motor Vehicle Safety Standards and are mutually recognized standards for tyres exported from Japan to Canada and Australia.



3. Legal Limits on Tread Wear

Balding tyres are a threat to traffic safety, especially on wet roads. The Ministry of Land, Infrastructure and Transport prescribes skidproof requirements in terms of minimum groove depth in its Safety Regulations for Road Vehicles. These requirements, which include wear limits for high-speed and ordinary driving (see table 9,10), proscribe the use of tyres with a groove depth shallower than that specified. Inspection often catch tyres with improper air pressures, uneven wear or insufficient grooves (see figure 13).

4. Product Inspection

In 1954, JATMA started its tyre inspection activity at its branch offices.

Defective or damaged tyres are now observed and checked at seven offices according to the requests from their consumers to find causes of the damages and to provide advice to them regarding correct usage of tyres.

Table 9: Wear limit for automobile tyres

Tyre type	Groove depth limit
Passenger car tyres	1.6 mm
Light truck tyres	1.6 mm
Truck and bus tyres	1.6 mm
Motorcycle tyres	0.8 mm

Table 10: Wear limit for automobile tyres in high-speed driving

Tyre type	Groove depth limit
Passenger car tyres	1.6 mm
Light truck tyres	2.4 mm
Truck and bus tyres	3.2 mm

Figure 12: Tyre groove depth and braking distance

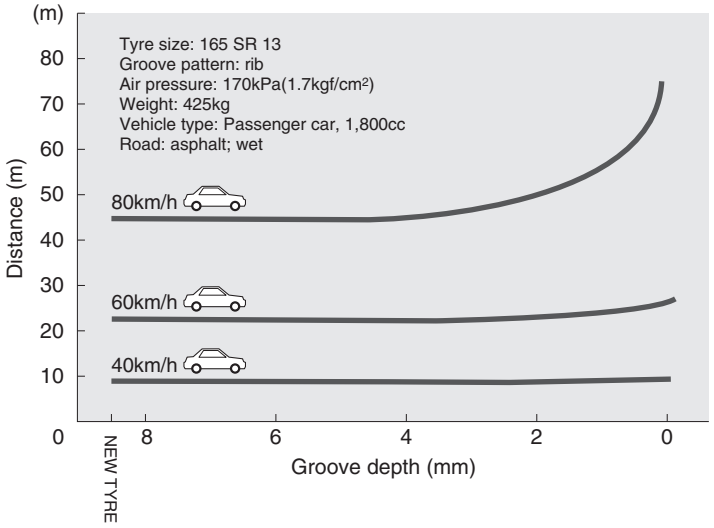
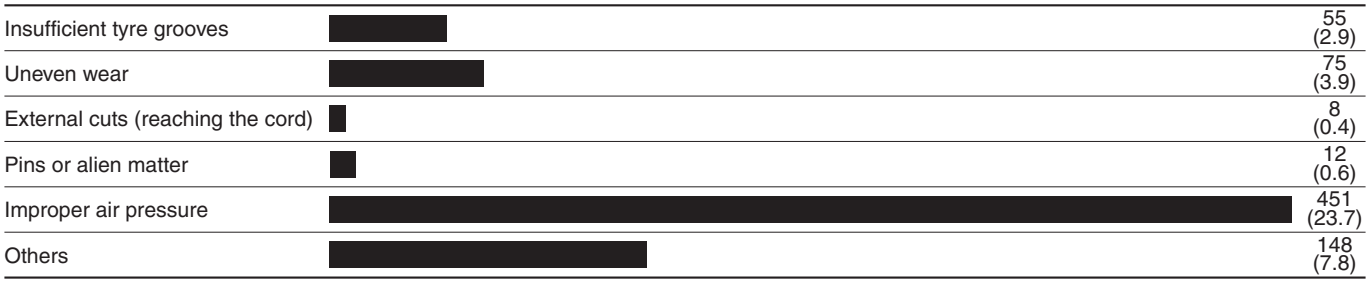


Figure 13: Breakdown of tyre defects

(Parentheses show defect rates)



Notes:

1. Multiple tyre defects per vehicle are possible, thus the number of tyre defects does not correspond to the number of vehicles with tyre defects.

2. The defect rate is the number of defects divided by the number of vehicles inspected.

3. Tyre inspections were carried out a total of 33 times (20 times on expressways and 13 times on ordinary roads) in 2010.

4. In the breakdown of tyre defects, the item "improper air pressure" includes insufficient pressure and excessive pressure.

Ⅳ Consideration for Environment

1. Approach to "Reduce"

A new concept of "Reduce Index (Re Index)" focused on longer (wear) life and weight saving has been adopted. The industry is making efforts aiming at an effect of 10% (expecting 3-5% of actual reduction).

Table 11: Monitoring of Re Achievement Rates

Category	Monitored Size	Classification	Re Achievement Rate				
			2006	2007	2008	2009	2010
Passenger car tyres	155/65R13	Summer tyres	104	108	100	110	115
		Studless tyres	100	110	112	99	–
Passenger car tyres	175/65R14	Summer tyres	99	108	110	103	114
		Studless tyres	101	110	115	94	–
Passenger car tyres	195/65R15	Summer tyres	111	102	109	107	113
		Studless tyres	103	110	108	96	–
Passenger car tyres	215/45R17	Summer tyres	109	120	114	110	109
		Studless tyres	95	105	111	96	–
Light truck tyres	145R12	Summer tyres	122	–	–	102	107
		Studless tyres	110	121	–	–	–
Light truck tyres	185R14	Summer tyres	122	–	–	107	103
		Studless tyres	105	123	–	–	–
Light truck tyres	205/70R16	Summer tyres	–	110	103	–	–
		Studless tyres	–	–	105	–	–
Truck and bus tyres	225/80R17.5	Summer tyres	100	97	–	115	105
		Studless tyres	87	112	112	103	–
Truck and bus tyres	245/70R19.5	Summer tyres	–	105	103	115	104
		Studless tyres	–	–	107	98	–
Truck and bus tyres	11R22.5	Summer tyres	100	108	106	119	107
		Studless tyres	100	–	110	105	–

N.B.: 1. Re Index = L÷M

Re Achievement Rate = Re Index×100

where L=Wear Life Index (life index for the present model based on the previous model assumed as 100)

M=Weight Index (Weight index for the present model based on the previous model assumed as 100)

2. Tyres surveyed : Representative sizes selected in advance from replacement tyres for the domestic market.

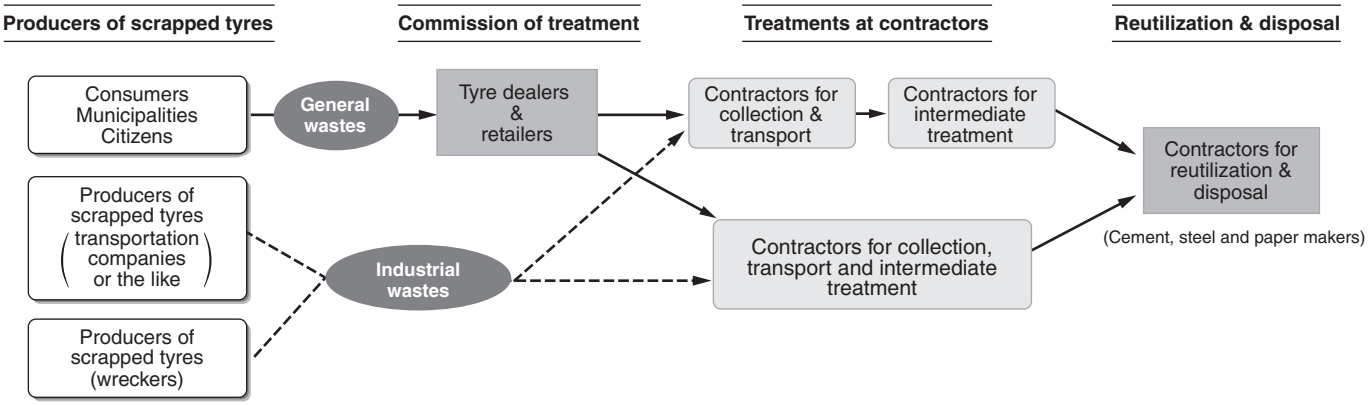
3. Monitoring of 245/70R19.5 (truck and bus tyres) began instead of former 7.50R16 (light truck tyres) for 2007 and the future.

Source: JATMA

2. Flow of Scrapped Tyres, from Generation to Treatment and Recycling

The tyre industry have disposed appropriately scraped tyres by charging a disposal fee based on the system not to be requested a license specified by Wastes of Disposal and Public Cleaning ACT since 1995. The Industrial Waste Wide Area Recycling Designating System was abolished on Apr. 1, 2011. According, it is fundamental that the producers of scrapped tyres of transportation companies etc. dispose appropriately existing designated industrial waste on one's own responsibility from now on.

Figure 14: Flow of scrapped tyres, from generation to treatment and recycling



3. Recycling Situation in Scrapped Tyres

The volume of newly scrapped tyres “On purchase of new tyres” in 2010 increased by 4 million tyres to 76 million tyres in quantity basis and by 54 thousand tons to 835 thousand tons in weight basis by increased sales amount of brand new tyres from the previous year.

Meanwhile, the volume of newly scrapped tyres “On scrapped automobiles” is 18 million tyres the same as the previous year in quantity basis, but decreased by 7 thousand tons to 162 thousand tons. The reason is seemed that the scrapped vehicles of passenger car and lightweight truck increased by subsidies for eco-friendly car, but that the number of scrapped heavy vehicles decreased by the decline of number of vehicles registered and lengthening the age of service etc. due to the downturn of financial condition in truck market. The total of the volume of newly scrapped tyres “On purchase of new tyres” and “On scrapped automobiles” was 94 million tyres and 997 thousand tons, increased by 4 million tyres and 47 thousand tons respectively.

Regarding the situation in scrapped tyre recycling, the demand for scrapped tyres as an alternative fuel has recently continued to be high due to rise in prices of crude oil and coal, the same situation continued in 2010 also, and the total of recycled volume was 904 thousand tons and the recycling rate was 91% the same as the previous year. The feature of recent recycling situation is as follows.

The utilization of scrapped tyres by paper manufacturing companies increases year by year, it increased by 111% to 388 thousand tons in 2010 from the previous year and paper manufacturing companies used 40% of all scrapped tyres.

Figure 15: Recycling of used tyres in 2010

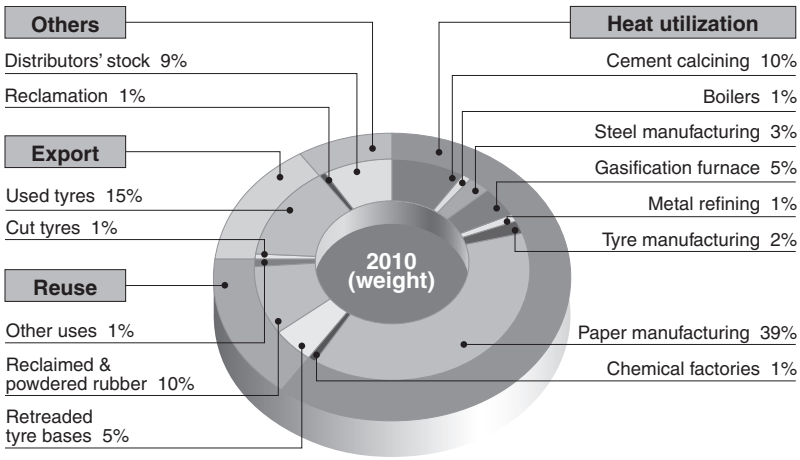


Table 12: Newly scrapped tyres

(Tyres: millions; Tons: thousands)

		2006	2007	2008	2009	2010		
						units and tons	distribution(%)	2010/2009(%)
On purchase of new tyres	Tyres	84	81	78	72	76	81	106
	Tons	875	901	860	781	835	84	107
On scrapped automobiles	Tyres	19	18	18	18	18	19	100
	Tons	181	163	196	169	162	16	96
Total	Tyres	103	99	96	90	94	100	104
	Tons	1,056	1,064	1,056	950	997	100	105

Source: JATMA

Table 13: Recycled tyres

(Tons: thousands)

					2006	2007	2008	2009	2010		
					tons	tons	tons	tons	tons	distribution(%)	2010/2009(%)
Kind of recycling	Domestic	Reuse		Retreaded tyre bases	36	37	38	46	48	5	104
				Reclaimed & powdered rubber	107	111	106	83	97	10	117
				Other uses	20	17	10	7	1	1	14
				Subtotal (A)	163	165	154	136	146	15	107
		Heat utilization	Biomass power generation and the like	Paper manufacturing	274	328	339	349	388	39	111
				Chemical factories	9	12	24	11	9	1	82
				Subtotal (B)	283	340	363	360	397	40	110
			For cement, steel and the like	Cement calcining	168	148	141	112	95	10	85
				Steel manufacturing	49	40	39	28	30	3	107
				Gasification furnace	34	42	48	48	49	5	102
				Tyre manufacturing	22	18	19	18	23	2	128
				Boilers	11	11	12	9	8	1	89
				Metal refining	8	8	2	1	1	1	100
				Subtotal (C)	292	267	261	216	206	21	95
			Subtotal (B+C)		575	607	624	576	603	60	105
	Export			Used tyres	132	148	146	142	147	15	104
				Cut tyres	64	32	11	6	8	1	133
				Subtotal (D)	196	180	157	148	155	16	105
Total recycling (A+B+C+D)					934	952	935	860	904	91	105
Others	Reclamation				11	11	8	3	4	1	133
	Distributors' stock				111	101	113	87	89	9	102
	Subtotal (E)				122	112	121	90	93	9	103
Total used tyres (A+B+C+D+E)					1,056	1,064	1,056	950	997	100	105

N.B.: There can be some cases that distribution's subtotals and the sums of their constituent items don't match due to the handling of decimals.

Source: JATMA

4. Situation in Illegal Piling & Dumping of Scrapped Tyres

As of February 2011 the number of cases of illegal piling & dumping of scrapped tyres was 124, and the total weight of scrapped tyres was 40,689 tons, which decreased by 6 cases and 1,410 tons from last February.

The demand for fuel is still high and illegal piling & dumping is decreasing.

The number of cases of removal operation carried out by municipalities and performers during the last year was total 17 cases (illegal piling 12 cases, illegal dumping 5 cases) and there was not a case by the operation of JATMA Support Program for Dumping Site Restoration in 2010.

<Reference> Support program scheme for dumping site restoration

Voluntary removal of scrapped tyres by local government entity (including administrative subrogation)

application

specified form (including the standard)

Support program for dumping site restoration by JATMA

[Requirements for support]

1. The local government submits an application (as a responsible entity).
2. The scrapped tyres in question have been confirmed to be waste material.
3. The plan and budjet of the local government for removal are submitted.
4. Funding support does not exceed 2/3 of the total removal budget and the maximum is 3 million yen.
   If removal all of the waste at once would be prohibitively difficult, the waste may be removed over the course of several years, under the conditions given below.
   - Priority is lowered from the second year.
   - Funding is dispensed every fiscal year.
5. Responsibilities of persons or firms involved in dumping or piling has been pursued.
6. Administrative directive has been issued.
7. The waste endangers the preservation of living environment (e.g. breeding of mosquitoes and flies, complaints by residents, danger of fire and collapse, etc.).
8. No third party rights apply in such cases.
9. The disposal company and the users are adequate.
10. Preventive steps have been taken.
11. If the site is part of a legal vehicle dismantling route, it is not covered by this support program.
12. Measures not to deal the funding as a donation can be taken (e.g. project contributions).

N.B.: If the budget for the removal project exceeds the limit of the JATMA support program, we recommend that the applicant apply for the program operated by the Waste Management Foundation.

[Procedures for operation]

① JATMA branch offices/district automobile tyre sales councils act as information desks and consult with municipalities on the matter concerned.
② JATMA headquarters secretariat receives the application form. (collecting information from the district committee on tyre recycling)
- Discussion as to whether to accept it at 3R-Subcommittee 1
- Discussion at 3R Promotion Committee
- Discussion and decision at Executive Committee
- Report to Board of Directors

support decided (Delivery of notice)

Operation of removal by municipalities

Report of completion

[Procedures for accounting]

① Acceptance and review of business report
② Delivery of notice on fixed support value
③ Acceptance of support bill
④ Payment of the support value

5. Tyre Labeling System

The need for further improvement of energy efficiency in the transport field is globally discussed as IEA (International Energy Agency) made a proposal at G8 Summit. In the circumstances, the Japanese government established “the Fuel-Efficient Tyre Promotion Council” in order to study promotion of fuel-efficient tyres etc. JATMA took part in it and the discussions focused on concrete measures had been made over and over from January 2009. And eventually, in January 2010, JATMA launched their voluntary standard “Tyre Labeling System” by displaying performance levels of fuel efficient tyres on the labels plainly for consumers, for the purpose of further promotion of fuel efficient tyres.

Principal contents of the system

- **Scope :** Summer tyre for passenger car that is purchased as a replacement by a consumer at a tyre shop
- **Grading System :**

  Rolling Resistance Coefficient (RRC) ·····A range of five grades (Grade AAA to C)

  Wet Grip Performance·····A range of four grades (Grade a to d)

Unit (N/kN)

RRC	Grade
RRC ≦ 6.5	AAA
6.6 ≦ RRC ≦ 7.7	AA
7.8 ≦ RRC ≦ 9.0	A
9.1 ≦ RRC ≦ 10.5	B
10.6 ≦ RRC ≦ 12.0	C

Unit (%)

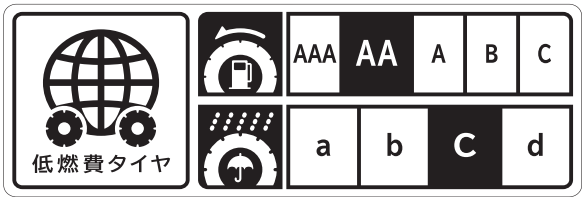
Wet Grip Performance (G)	Grade
155 ≦ G	a
140 ≦ G ≦ 154	b
125 ≦ G ≦ 139	c
110 ≦ G ≦ 124	d

- **Performance requirements for fuel efficient tyres**

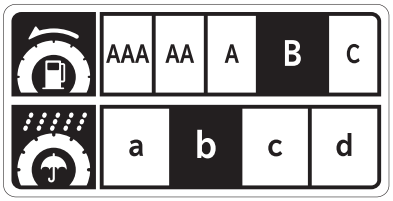
  Rolling Resistance Coefficient ·····9.0 and below (Grade AAA to A)

  Wet Grip Performance·····110 and above (Grade a to d)
- **Labeling method (Display)**

(Fuel efficient tyre)



(Non fuel efficient tyre)



: Uniform mark of fuel efficient tyres

: Rolling Resistance Performance

: Wet Grip Performance

- **Date of application :**

  The application shall begin from January 2010 in voluntary stages and it targets to cover all the applicable tyres before the end of December 2011.

  Completion shall be by the end of 2010 for fuel efficient tyres.

1. Automobiles and Tyres

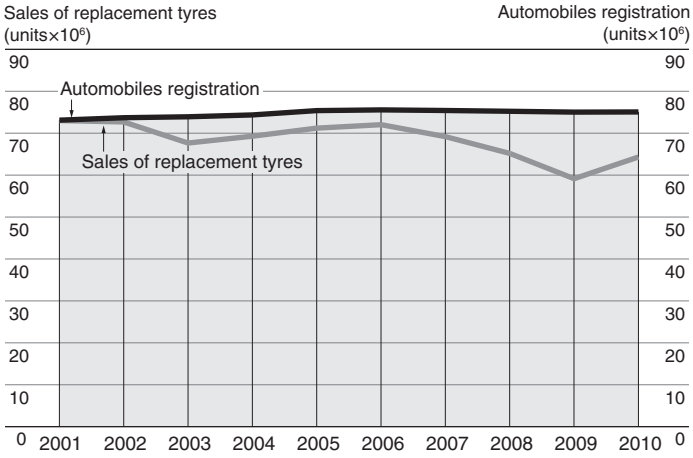
①The number of automobiles registered as of the end of December 2010 increased by 0.1% to 75.04 million from the previous year and replacement tyres (total four-wheeled vehicles) that increased by 8.7% to 64.3 million tyres from the previous year were supplied as replacement.

Table 14: Automobile registrations and sales of replacement tyres in 2010

Automobile	Registrations($\times 10^3$)	2010/2009(%)
Passenger cars	58,347	100.6
Trucks and buses	16,692	98.3
Total	75,039	100.1
Replacement tyres	**Sales($\times 10^3$)**	**2010/2009(%)**
Passenger car tyres	46,908	108.8
Commercial vehicle tyres	17,389	108.7
Total	64,297	108.7

Source: Ministry of Land, Infrastructure and Transport, JATMA

Figure 16: Trends in automobile registrations sales of replacement tyres



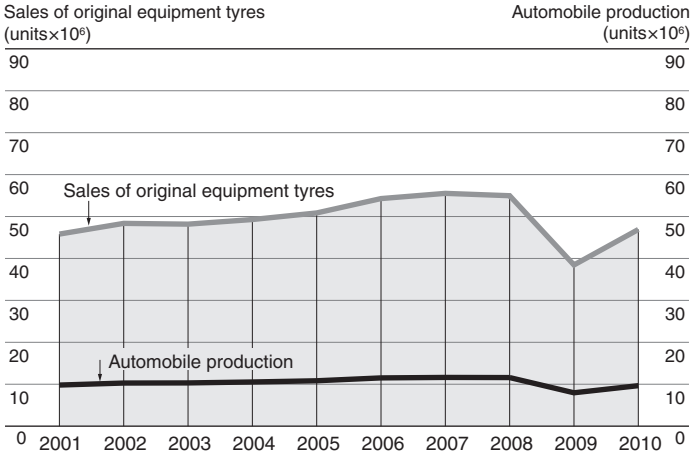
②The domestic production volume of automobiles in 2010 increased both for domestic and for overseas shipment, and increased by 21.4% to 9.63 million from the previous year. Because of this, the sales volume of original equipment tyres (total four-wheeled vehicles) increased in a similar way and increased by 22.0% to 46.88 million tyres from the previous year.

Table 15: Automobile production and sales of original equipment tyres in 2010

Automobile	Productions($\times 10^3$)	2010/2009(%)
Passenger cars	8,310	121.1
Trucks and buses	1,319	123.0
Total	9,629	121.4
Original equipment tyres	**Sales($\times 10^3$)**	**2010/2009(%)**
Passenger car tyres	40,989	122.2
Commercial vehicle tyres	5,890	120.9
Total	46,879	122.0

Source: Japan Automobile Manufacturers Association, JATMA

Figure 17: Trends in automobile production and sales of original equipment tyres



2. Distribution Channels

The distribution of automobile tyres is divided into three channels: original equipment, replacement and exports. The channel for replacement is particularly wide-ranging with distributors as key stations as shown in Figure 18. The routes for the channel are roughly divided into two types: direct sales and indirect sales. Direct sales are those under which distributors sell tyres directly to some large users, such as transport, bus and taxi companies, and government and municipal users. Indirect sales are those under which dealers supply tyres to endusers. About 200 distributors and about 145 thousand dealers supply replacement tyres. In addition, the component ratio (quantity) of sales each channel in 2010 is 26.6% for original equipments, 36.5% for replacements and 36.9% for exports.

The ratio for original equipments recovered a little and the one for replacements declined.

Figure 18: Distribution channels

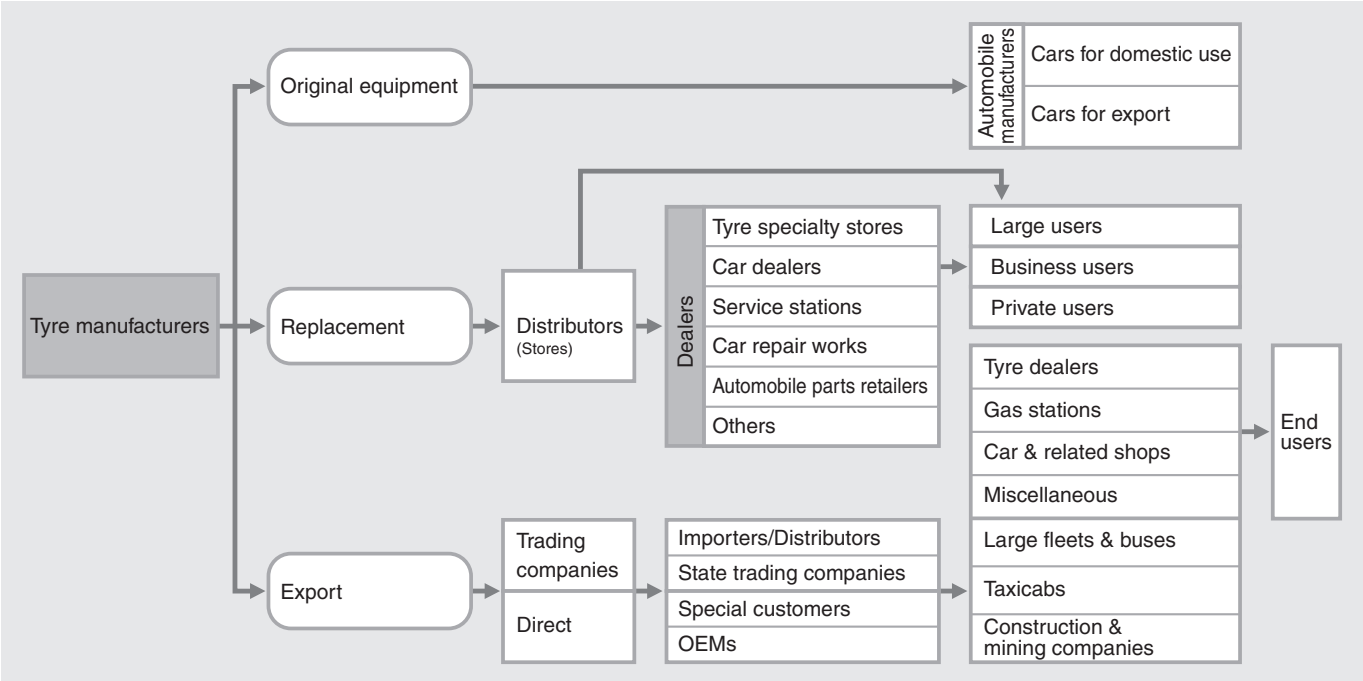


Figure 19: Trends in sales share of automobile tyres

(based on unit)

3. Raw Materials

More than 100 raw materials are used in the production of automobile tyres, including raw rubber, tyre cord, carbon black, bead wire and compounding ingredients. Approximately half of these materials are chemical products based on petroleum, principally naphtha. As a result, the tyre industry is dependent on petroleum.

The percent distribution of raw materials used in tyres in 2010 was approximately the same as the previous year, rubber constituting about half of a tyre (natural rubber 28% and synthetic rubber 22%), next comes reinforcing agent 26%, and then tyre cord 13%.

Table 16: Basic composition

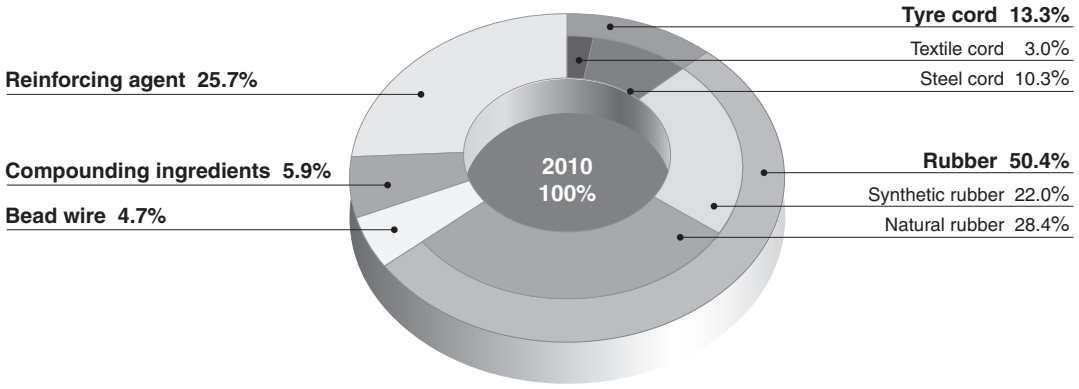
Composition	Examples
Rubber	Natural rubber, Synthetic rubber
Compounding ingredients	Vulcanizing agent, Vulcanizing accelerator, Vulcanizing accelerator aid, Antioxidant, Filler, Softener
Reinforcing agent	Carbon black, Silica
Tyre cord	Steel cord, Textile cord

Table 17: Consumption of main raw materials used in automobile tyres in 2010

Raw Materials		Consumption (tons)	2010/2009(%)
Tyre cord	Steel	238,566	119.5
	Nylon	20,385	132.3
	Polyester	45,836	123.2
	Rayon	3,603	129.7
	Others	958	139.0
	Total	309,348	121.0
Rubber	Natural rubber	655,578	119.3
	Synthetic rubber	507,153	124.9
	Total	1,162,731	121.7
Reinforcing agent		594,058	121.4

Source: JATMA

Figure 20: Tyre raw material weight composition



4. Tyre Production Worldwide

The production volume of automobile tyres (for four-wheeled vehicle) in the world in 2009 was estimated 1.27 billion tyres, decreased by 8% from the previous year due to global economic downturn.

Looking at each country, the first was China (production share 18% of the world), the second was the United States (12%), the third was Japan (11%), followed by South Korea and Germany. The top three countries account for about 40% of the total production worldwide.

Table 18: Share of world tyre production by geographic region in 2009

(units×10^6)

	2009			Share			2009/2008(%)		
	PC	CV	Total	PC	CV	Total	PC	CV	Total
North America	141	34	175	16	10	14	84	82	84
South & Central America	43	29	72	5	8	6	88	88	88
Europe	256	69	325	28	19	26	85	80	84
Middle East and Africa	31	14	45	3	4	3	83	83	83
Asia and Oceania	440	213	653	48	59	51	101	99	100
Total	910	359	1,270	100	100	100	92	92	92

N.B.: 1. PC : Passenger car tyres.
2. CV : Commercial vehicle tyres including truck, bus and light truck tyres.
3. Totals were calculated in thousands and indicated in millions.
4. Including some estimates.

Source: JATMA

Table 19: Tyre production by leading manufacturing countries

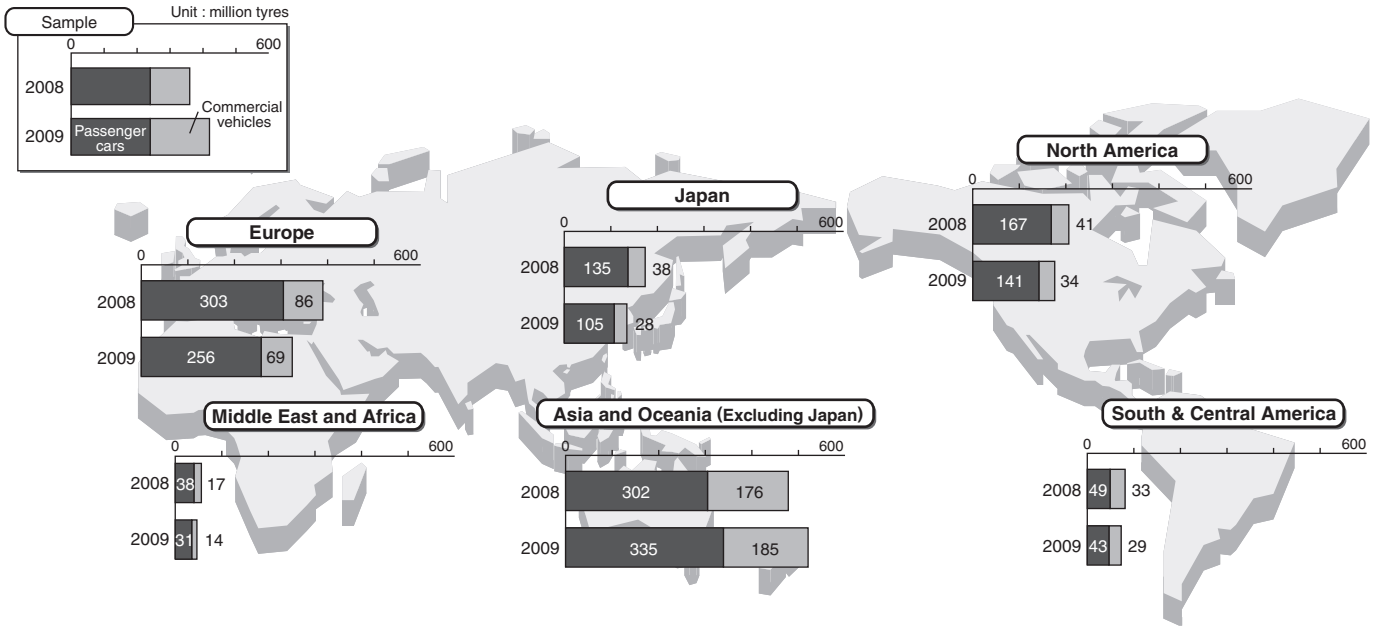
(units×10^6)

	2009			Share			2009/2008(%)		
	PC	CV	Total	PC	CV	Total	PC	CV	Total
China	168	62	230	19	17	18	114	108	112
U. S. A.	119	30	149	13	8	12	86	83	85
Japan	105	28	133	12	8	11	78	74	77
Korea	58	17	75	6	5	6	88	93	89
Germany	55	7	62	6	2	5	89	59	84

N.B.: 1. PC : Passenger car tyres.
2. CV : Commercial vehicle tyres including truck, bus and light truck tyres.
3. Totals were calculated in thousands and indicated in millions. 2009/2008 percentages were calculated in thousands.
4. The figure for China is estimate.

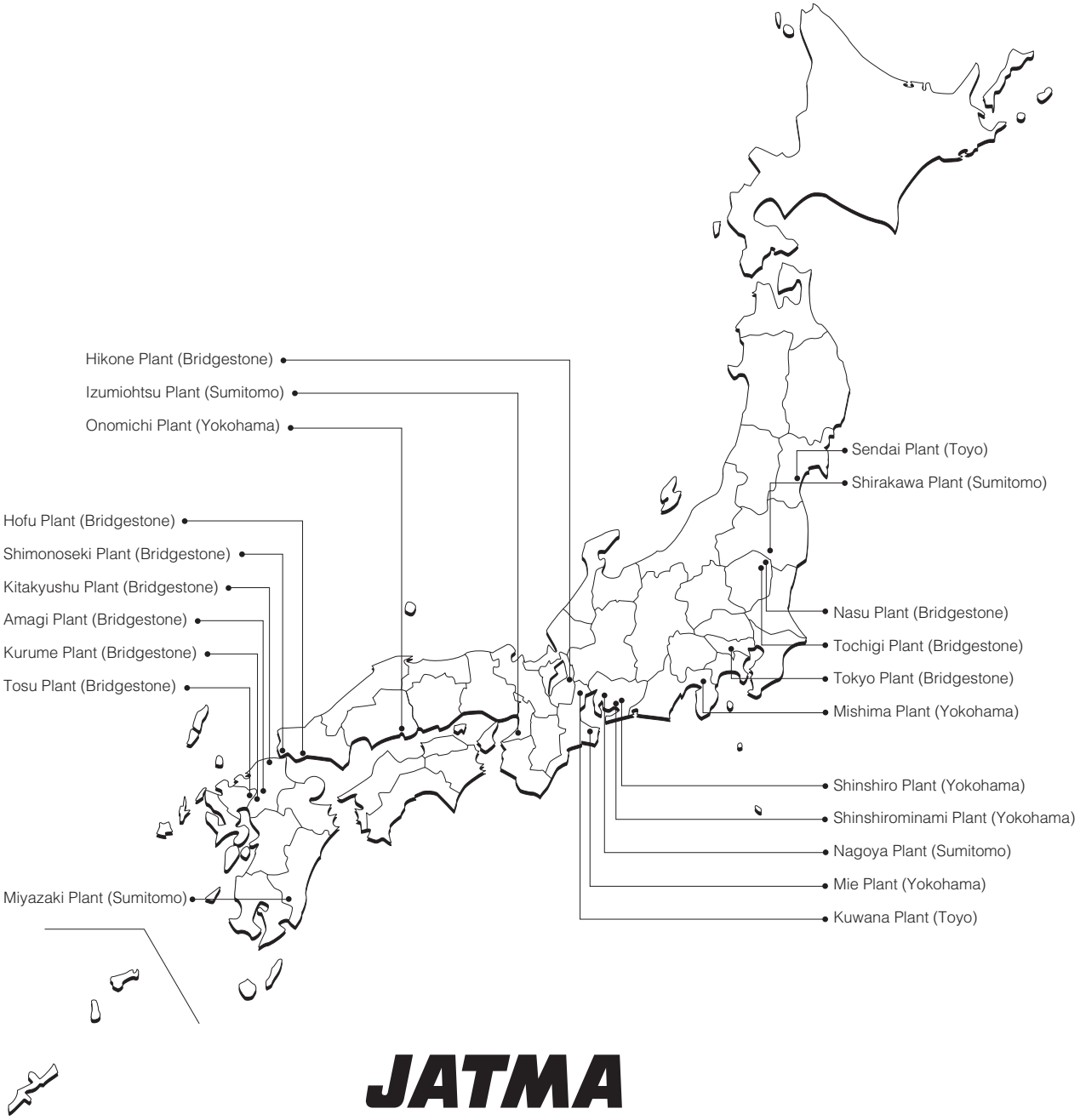
Source: JATMA

Figure 21: Tyre Production Worldwide



Distribution of Member Firms' Automobile Tyre Plants

(May 2011)



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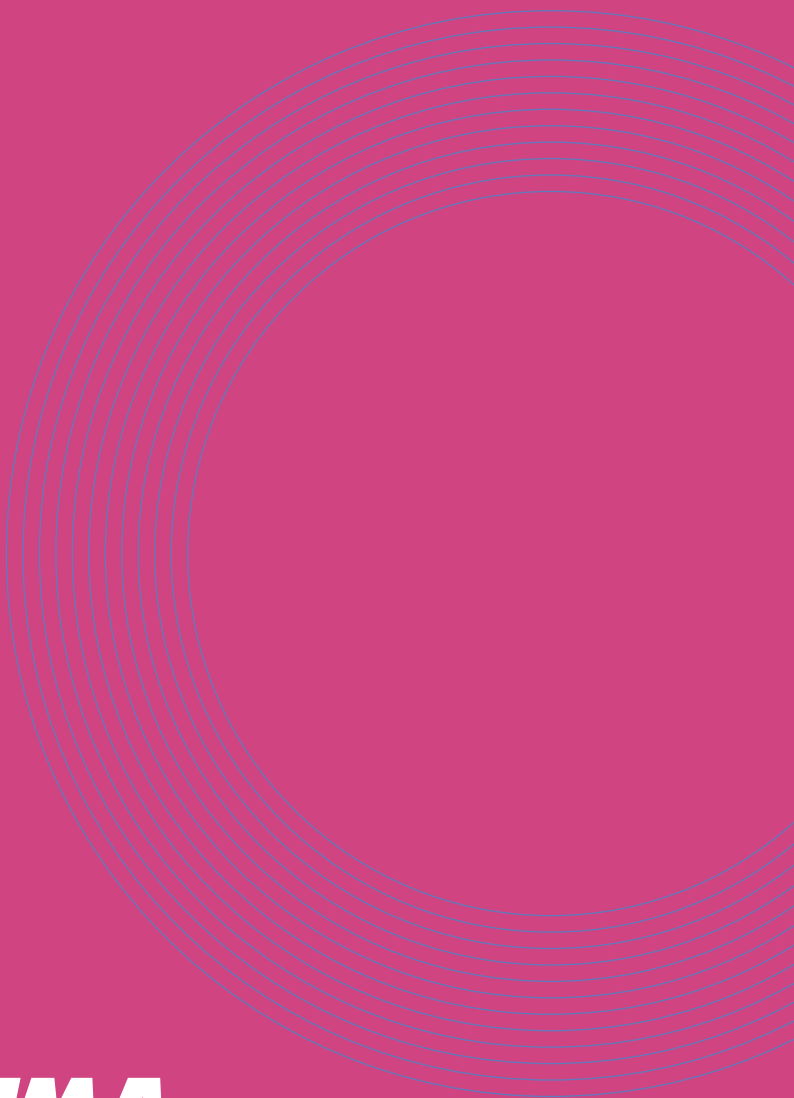
Aug. 2011



JATMA

THE JAPAN AUTOMOBILE TYRE MANUFACTURERS ASSOCIATION,INC.

Time-series Statistical Tables

【Contents 】

Production of automobile tyres and tubes

t yres : $\times 10^3$, rubber : tons, ( ) : year to year comparison %

		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Truck and bus tyres	Tyres	11,324	12,184	13,256	14,020	14,639	14,837	14,394	14,140	9,450	11,208
		(96.0)	(107.6)	(108.8)	(105.8)	(104.4)	(101.4)	(97.0)	(98.2)	(66.8)	(118.6)
	Rubber	286,237	310,704	341,463	358,109	371,681	380,344	370,286	363,618	240,743	281,604
		(93.3)	(108.5)	(109.9)	(104.9)	(103.8)	(102.3)	(97.4)	(98.2)	(66.2)	(117.0)
Light truck tyres	Tyres	29,130	28,386	26,628	26,681	26,771	26,485	25,082	23,986	18,915	22,176
		(94.3)	(97.4)	(93.8)	(100.2)	(100.3)	(98.9)	(94.7)	(95.6)	(78.9)	(117.2)
	Rubber	175,918	178,442	171,628	176,267	178,709	176,636	164,489	159,078	122,208	141,588
		(93.0)	(101.4)	(96.2)	(102.7)	(101.4)	(98.8)	(93.1)	(96.7)	(76.8)	(115.9)
Passenger car tyres	Tyres	122,449	127,441	130,328	132,386	134,806	134,594	136,731	134,787	104,885	125,457
		(100.6)	(104.1)	(102.3)	(101.6)	(101.8)	(99.8)	(101.6)	(98.6)	(77.8)	(119.6)
	Rubber	511,242	550,647	572,596	592,779	617,709	625,274	642,881	626,504	472,117	570,528
		(101.3)	(107.7)	(104.0)	(103.5)	(104.2)	(101.2)	(102.8)	(97.5)	(75.4)	(120.8)
Off-the-road tyres	Tyres	509	495	497	512	519	554	588	588	293	438
		(99.2)	(97.2)	(100.4)	(103.0)	(101.4)	(106.7)	(106.1)	(100.0)	(49.8)	(149.5)
	Rubber	107,354	111,489	115,655	118,107	122,949	130,611	142,492	157,097	117,670	152,870
		(95.7)	(103.9)	(103.7)	(102.1)	(104.1)	(106.2)	(109.1)	(110.3)	(74.9)	(129.9)
Industrial tyres	Tyres	1,040	972	982	936	827	721	748	763	429	449
		(95.1)	(93.5)	(101.0)	(95.3)	(88.4)	(87.2)	(103.7)	(102.0)	(56.2)	(104.7)
	Rubber	10,583	10,113	10,209	9,864	9,395	8,721	9,144	9,108	4,696	5,451
		(94.2)	(95.6)	(100.9)	(96.6)	(95.2)	(92.8)	(104.9)	(99.6)	(51.6)	(116.1)
Agricultural tyres	Tyres	605	549	582	608	630	614	625	621	411	333
		(87.4)	(90.7)	(106.0)	(104.5)	(103.6)	(97.5)	(101.8)	(99.4)	(66.2)	(81.0)
	Rubber	4,323	4,344	4,615	5,153	5,486	5,503	5,552	6,068	3,525	2,816
		(85.9)	(100.5)	(106.2)	(111.7)	(106.5)	(100.3)	(100.9)	(109.3)	(58.1)	(79.9)
Motorcycle tyres	Tyres	6,697	6,376	6,158	6,120	6,334	6,405	6,645	6,074	4,040	4,273
		(101.2)	(95.2)	(96.6)	(99.4)	(103.5)	(101.1)	(103.7)	(91.4)	(66.5)	(105.8)
	Rubber	15,230	14,311	14,187	14,328	15,147	15,649	16,190	14,784	9,744	10,060
		(102.7)	(94.0)	(99.1)	(101.0)	(105.7)	(103.3)	(103.5)	(91.3)	(65.9)	(103.2)
Cart tyres	Tyres	1,637	1,954	1,670	2,096	1,989	1,422	1,016	676	191	300
		(102.7)	(119.4)	(85.5)	(125.5)	(94.9)	(71.5)	(71.4)	(66.5)	(28.3)	(157.1)
	Rubber	4,925	5,877	5,155	6,713	6,380	4,615	3,231	2,330	647	1,039
		(102.8)	(119.3)	(87.7)	(130.2)	(95.0)	(72.3)	(70.0)	(72.1)	(27.8)	(160.6)
Flaps and rim-bands	Rubber	3,632	3,883	4,100	3,846	3,948	4,420	3,863	2,436	1,356	1,208
		(88.4)	(106.9)	(105.6)	(93.8)	(102.7)	(112.0)	(87.4)	(63.1)	(55.7)	(89.1)
Total	Tyres	173,391	178,357	180,101	183,359	186,515	185,632	185,829	181,635	138,614	164,634
		(99.1)	(102.9)	(101.0)	(101.8)	(101.7)	(99.5)	(100.1)	(97.7)	(76.3)	(118.8)
	Rubber	1,119,444	1,189,810	1,239,608	1,285,166	1,331,404	1,351,773	1,358,128	1,341,023	972,706	1,167,164
		(97.1)	(106.3)	(104.2)	(103.7)	(103.6)	(101.5)	(100.5)	(98.7)	(72.5)	(120.0)

N.B.: 1. Source : JATMA (Total of members only)

N.B.: 2. 2001 and following years had a category shift between truck and bus tyres and light truck tyres.

Domestics shipment of automobile tyres and tubes

t yres : $\times 10^3$, rubber : tons, ( ) : year to year comparison %

		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Truck and bus tyres	Tyres	5,763	5,735	5,884	6,317	6,441	6,687	6,681	6,300	4,319	5,166
		(114.1)	(99.5)	(102.6)	(107.4)	(102.0)	(103.8)	(99.9)	(94.3)	(68.6)	(119.6)
	Rubber	130,391	128,834	131,007	139,788	141,192	147,320	147,205	138,982	94,056	111,821
		(105.5)	(98.8)	(101.7)	(106.7)	(101.0)	(104.3)	(99.9)	(94.4)	(67.7)	(118.9)
Light truck tyres	Tyres	20,593	18,839	17,446	17,288	16,934	17,070	16,563	15,227	11,863	14,130
		(89.6)	(91.5)	(92.6)	(99.1)	(98.0)	(100.8)	(97.0)	(91.9)	(77.9)	(119.1)
	Rubber	109,093	100,336	94,121	96,668	93,992	94,671	92,450	86,314	64,126	74,287
		(85.7)	(92.0)	(93.8)	(102.7)	(97.2)	(100.7)	(97.7)	(93.4)	(74.3)	(115.8)
Passenger car tyres	Tyres	85,618	87,860	84,587	84,140	81,326	83,538	82,986	80,637	62,649	74,139
		(101.6)	(102.6)	(96.3)	(99.5)	(96.7)	(102.7)	(99.3)	(97.2)	(77.7)	(118.3)
	Rubber	343,109	360,881	348,198	349,752	342,992	360,177	363,277	345,910	253,185	302,168
		(103.4)	(105.2)	(96.5)	(100.4)	(98.1)	(105.0)	(100.9)	(95.2)	(73.2)	(119.3)
Off-the-road tyres	Tyres	183	165	168	192	207	215	217	192	102	140
		(99.5)	(90.2)	(101.8)	(114.3)	(107.8)	(103.9)	(100.9)	(88.5)	(53.1)	(137.3)
	Rubber	11,323	10,732	12,696	15,573	17,208	16,758	18,594	18,487	7,514	12,757
		(95.9)	(94.8)	(118.3)	(122.7)	(110.5)	(97.4)	(111.0)	(99.4)	(40.6)	(169.8)
Industrial tyres	Tyres	818	778	789	855	785	726	733	762	470	556
		(93.9)	(95.1)	(101.4)	(108.4)	(91.8)	(92.5)	(101.0)	(104.0)	(61.7)	(118.3)
	Rubber	7,333	7,048	7,715	8,437	8,267	8,079	8,413	8,686	5,184	6,230
		(94.9)	(96.1)	(109.5)	(109.4)	(98.0)	(97.7)	(104.1)	(103.2)	(59.7)	(120.2)
Agricultural tyres	Tyres	575	534	550	553	602	592	577	640	486	491
		(86.7)	(92.9)	(103.0)	(100.5)	(108.9)	(98.3)	(97.5)	(110.9)	(75.9)	(101.0)
	Rubber	3,989	4,014	4,202	4,693	5,027	5,124	5,102	6,137	4,320	4,277
		(84.1)	(100.6)	(104.7)	(111.7)	(107.1)	(101.9)	(99.6)	(120.3)	(70.4)	(99.0)
Motorcycle tyres	Tyres	3,563	3,373	2,744	2,733	2,904	2,934	2,798	2,368	1,440	1,456
		(99.7)	(94.7)	(81.4)	(99.6)	(106.3)	(101.0)	(95.4)	(84.6)	(60.8)	(101.1)
	Rubber	7,440	6,941	6,158	6,299	6,866	7,101	6,694	5,728	3,418	3,447
		(98.6)	(93.3)	(88.7)	(102.3)	(109.0)	(103.4)	(94.3)	(85.6)	(59.7)	(100.8)
Cart tyres	Tyres	1,379	1,577	1,313	1,710	1,469	959	703	403	117	93
		(103.8)	(114.4)	(83.3)	(130.2)	(85.9)	(65.3)	(73.3)	(57.3)	(29.0)	(79.5)
	Rubber	4,191	4,714	3,944	5,314	4,546	2,919	2,104	1,298	361	257
		(103.4)	(112.5)	(83.7)	(134.7)	(85.5)	(64.2)	(72.1)	(61.7)	(27.8)	(71.2)
Flaps and rim-bands	Rubber	1,245	1,265	1,117	1,088	1,058	1,125	1,221	1,310	600	835
		(88.6)	(101.6)	(88.3)	(97.4)	(97.2)	(106.3)	(108.5)	(107.3)	(45.8)	(139.2)
Total	Tyres	118,492	118,861	113,481	113,788	110,668	112,721	111,258	106,529	81,446	96,171
		(99.7)	(100.3)	(95.5)	(100.3)	(97.3)	(101.9)	(98.7)	(95.7)	(76.5)	(118.1)
	Rubber	618,114	624,765	609,158	627,612	621,148	643,274	645,060	612,852	432,764	516,079
		(99.7)	(101.1)	(97.5)	(103.0)	(99.0)	(103.6)	(100.3)	(95.0)	(70.6)	(119.3)

N.B.: 1. Source : JATMA (Total of members only)

N.B.: 2. 2001 and following years had a category shift between truck and bus tyres and light truck tyres.

Export shipment of automobile tyres and tubes

tyres : $\times 10^3$, rubber : tons, ( ) : year to year comparison %

		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Truck and bus tyres	Tyres	5,569	6,491	7,364	7,693	8,252	8,002	7,760	7,743	5,288	6,011
		(83.1)	(116.6)	(113.4)	(104.5)	(107.3)	(97.0)	(97.0)	(99.8)	(68.3)	(113.7)
	Rubber	155,823	182,398	210,140	217,848	232,049	229,625	224,257	224,628	152,284	171,056
		(85.2)	(117.1)	(115.2)	(103.7)	(106.5)	(99.0)	(97.7)	(100.2)	(67.8)	(112.3)
Light truck tyres	Tyres	8,540	9,684	9,654	10,008	10,192	9,516	8,939	8,800	7,347	8,122
		(105.8)	(113.4)	(99.7)	(103.7)	(101.8)	(93.4)	(93.9)	(98.4)	(83.5)	(110.5)
	Rubber	67,302	79,073	80,387	83,921	86,924	82,301	75,470	73,511	61,294	68,985
		(105.4)	(117.5)	(101.7)	(104.4)	(103.6)	(94.7)	(91.7)	(97.4)	(83.4)	(112.5)
Passenger car tyres	Tyres	36,697	39,303	45,611	48,961	52,531	51,627	54,352	53,989	43,389	51,527
		(98.6)	(107.1)	(116.0)	(107.3)	(107.3)	(98.3)	(105.3)	(99.3)	(80.4)	(118.8)
	Rubber	167,554	187,375	223,786	245,576	267,417	266,372	282,515	279,444	225,166	269,567
		(98.5)	(111.8)	(119.4)	(109.7)	(108.9)	(99.6)	(106.1)	(98.9)	(80.6)	(119.7)
Off-the-road tyres	Tyres	329	335	339	332	327	359	388	401	241	350
		(98.5)	(101.8)	(101.2)	(97.9)	(98.5)	(109.8)	(108.1)	(103.4)	(60.1)	(145.2)
	Rubber	96,772	100,271	103,091	102,809	105,961	113,909	122,943	137,891	112,522	140,328
		(96.8)	(103.6)	(102.8)	(99.7)	(103.1)	(107.5)	(107.9)	(112.2)	(81.6)	(124.7)
Industrial tyres	Tyres	200	206	189	177	151	141	146	118	108	109
		(88.9)	(103.0)	(91.7)	(93.7)	(85.3)	(93.4)	(103.5)	(80.8)	(91.5)	(100.9)
	Rubber	3,176	3,171	2,699	2,284	2,078	2,225	2,304	2,064	1,692	2,044
		(87.8)	(99.8)	(85.1)	(84.6)	(91.0)	(107.1)	(103.6)	(89.6)	(82.0)	(120.8)
Agricultural tyres	Tyres	66	69	61	70	51	46	47	33	34	29
		(76.7)	(104.5)	(88.4)	(114.8)	(72.9)	(90.2)	(102.2)	(70.2)	(103.0)	(85.3)
	Rubber	470	488	414	490	420	365	357	243	278	224
		(99.2)	(103.8)	(84.8)	(118.4)	(85.7)	(86.9)	(97.8)	(68.1)	(114.4)	(80.6)
Motorcycle tyres	Tyres	3,100	3,036	2,861	2,798	2,747	2,701	2,935	2,666	1,941	2,098
		(101.9)	(97.9)	(94.2)	(97.8)	(98.2)	(98.3)	(108.7)	(90.8)	(72.8)	(108.1)
	Rubber	7,505	7,313	6,982	6,870	6,916	6,978	7,597	6,921	5,060	5,471
		(103.5)	(97.4)	(95.5)	(98.4)	(100.7)	(100.9)	(108.9)	(91.1)	(73.1)	(108.1)
Cart tyres	Tyres	253	375	379	393	514	521	348	299	98	222
		(96.9)	(148.2)	(101.1)	(103.7)	(130.8)	(101.4)	(66.8)	(85.9)	(32.8)	(226.5)
	Rubber	711	1,135	1,262	1,365	1,754	1,805	1,184	1,056	312	771
		(99.2)	(159.6)	(111.2)	(108.2)	(128.5)	(102.9)	(65.6)	(89.2)	(29.5)	(247.1)
Flaps and rim-bands	Rubber	3,263	3,438	3,756	3,575	3,835	4,052	3,610	4,074	3,696	3,372
		(105.3)	(105.4)	(109.2)	(95.2)	(107.3)	(105.7)	(89.1)	(112.9)	(90.7)	(91.2)
Total	Tyres	54,754	59,499	66,458	70,432	74,765	72,913	74,915	74,049	58,446	68,468
		(97.9)	(108.7)	(111.7)	(106.0)	(106.2)	(97.5)	(102.7)	(98.8)	(78.9)	(117.1)
	Rubber	502,576	564,662	632,517	664,738	707,354	707,632	720,237	729,832	562,304	661,818
		(94.5)	(112.4)	(112.0)	(105.1)	(106.4)	(100.0)	(101.8)	(101.3)	(77.0)	(117.7)

N.B.: 1. Source : JATMA (Total of members only)

N.B.: 2. 2001 and following years had a category shift between truck and bus tyres and light truck tyres.

Sales of original equipment tyres

t yres : $\times 10^3$, ( ) : year to year comparison %

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Truck and bus tyres	728	776	1,239	1,116	1,207	1,282	1,243	1,217	582	900
	(131.4)	(106.6)	(159.7)	(90.1)	(108.2)	(106.2)	(97.0)	(97.9)	(47.8)	(154.6)
Light truck tyres	6,725	6,443	7,020	6,950	6,919	6,986	6,471	6,277	4,290	4,990
	(95.8)	(95.8)	(109.0)	(99.0)	(99.6)	(101.0)	(92.6)	(97.0)	(68.3)	(116.3)
Passenger car tyres	38,333	41,121	39,894	41,191	42,703	45,986	47,782	47,443	33,551	40,989
	(99.2)	(107.3)	(97.0)	(103.3)	(103.7)	(107.7)	(103.9)	(99.3)	(70.7)	(122.2)
Total for four-wheeled vehicle tyres	45,786	48,340	48,153	49,257	50,829	54,254	55,496	54,937	38,423	46,879
	(99.1)	(105.6)	(99.6)	(102.3)	(103.2)	(106.7)	(102.3)	(99.0)	(69.9)	(122.0)
Off-the-road tyres	67	58	53	67	77	90	96	88	37	65
	(97.1)	(86.6)	(91.4)	(126.4)	(114.9)	(116.9)	(106.7)	(91.7)	(42.0)	(175.7)
Industrial tyres	282	259	281	319	403	426	456	412	149	223
	(93.1)	(91.8)	(108.5)	(113.5)	(126.3)	(105.7)	(107.0)	(90.4)	(36.2)	(149.7)
Agricultural tyres	598	560	554	581	630	642	627	690	522	519
	(86.3)	(93.6)	(98.9)	(104.9)	(108.4)	(101.9)	(97.7)	(110.0)	(75.7)	(99.4)
Motorcycle tyres	2,277	2,158	1,856	2,003	2,346	2,485	2,379	1,933	970	996
	(92.3)	(94.8)	(86.0)	(107.9)	(117.1)	(105.9)	(95.7)	(81.3)	(50.2)	(102.7)
Cart tyres	1,327	1,518	1,305	1,667	1,531	1,276	1,065	802	221	279
	(104.0)	(114.4)	(86.0)	(127.7)	(91.8)	(83.3)	(83.5)	(75.3)	(27.6)	(126.2)
Total	50,337	52,893	52,202	53,894	55,816	59,173	60,119	58,862	40,322	48,961
	(98.7)	(105.1)	(98.7)	(103.2)	(103.6)	(106.0)	(101.6)	(97.9)	(68.5)	(121.4)

N.B.: 1. Source : JATMA (Total of members only)

N.B.: 2. 2001 and following years had a category shift between truck and bus tyres and light truck tyres.

N.B.: 3. The figures include imported tyres.

Sales of replacement tyres

t yres : $\times 10^3$, ( ) : year to year comparison %

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Truck and bus tyres	5,375	5,200	4,893	5,401	5,494	5,608	5,588	5,091	4,042	4,620
	(124.4)	(96.7)	(94.1)	(110.4)	(101.7)	(102.1)	(99.6)	(91.1)	(79.4)	(114.3)
Light truck tyres	15,965	15,027	13,701	14,368	14,389	14,462	14,057	13,103	11,959	12,769
	(93.0)	(94.1)	(91.2)	(104.9)	(100.1)	(100.5)	(97.2)	(93.2)	(91.3)	(106.8)
Passenger car tyres	51,648	52,426	49,037	49,486	51,299	51,931	49,504	46,952	43,124	46,908
	(104.6)	(101.5)	(93.5)	(100.9)	(103.7)	(101.2)	(95.3)	(94.8)	(91.8)	(108.8)
Total for four-wheeled vehicle tyres	72,988	72,653	67,631	69,255	71,182	72,001	69,149	65,146	59,125	64,297
	(103.0)	(99.5)	(93.1)	(102.4)	(102.8)	(101.2)	(96.0)	(94.2)	(90.8)	(108.7)
Off-the-road tyres	120	113	113	118	128	131	132	117	76	87
	(96.8)	(94.2)	(100.0)	(104.4)	(108.5)	(102.3)	(100.8)	(88.6)	(65.0)	(114.5)
Industrial tyres	767	738	742	771	770	756	741	711	530	593
	(95.9)	(96.2)	(100.5)	(103.9)	(99.9)	(98.2)	(98.0)	(96.0)	(74.5)	(111.9)
Agricultural tyres	203	197	200	204	195	167	130	120	110	114
	(94.9)	(97.0)	(101.5)	(102.0)	(95.6)	(85.6)	(77.8)	(92.3)	(91.7)	(103.6)
Motorcycle tyres	2,393	2,341	2,155	2,239	2,198	2,147	2,096	2,092	1,877	1,908
	(99.5)	(97.8)	(92.1)	(103.9)	(98.2)	(97.7)	(97.6)	(99.8)	(89.7)	(101.7)
Cart tyres	54	50	45	47	46	40	38	35	33	29
	(98.2)	(92.6)	(90.0)	(104.4)	(97.9)	(87.0)	(95.0)	(92.1)	(94.3)	(87.9)
Total	76,525	76,092	70,886	72,634	74,519	75,242	72,286	68,221	61,751	67,028
	(102.8)	(99.4)	(93.2)	(102.5)	(102.6)	(101.0)	(96.1)	(94.4)	(90.5)	(108.5)

N.B.: 1. Source : JATMA (Total of members only)

N.B.: 2. 2001 and following years had a category shift between truck and bus tyres and light truck tyres.

N.B.: 3. The figures include imported tyres.

Sales of summer tyres and winter tyres for replacement(for four-wheeled vehicles)

tyres : $\times 10^3$, ( ) : year to year comparison %

		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Truck and bus tyres	Total	5,375	5,200	4,893	5,401	5,494	5,608	5,588	5,091	4,042	4,620
		(124.4)	(96.7)	(94.1)	(110.4)	(101.7)	(102.1)	(99.6)	(91.1)	(79.4)	(114.3)
	Summer	3,634	3,494	3,248	3,490	3,465	3,401	3,511	3,331	2,587	2,923
		(120.1)	(96.1)	(93.0)	(107.5)	(99.3)	(98.2)	(103.2)	(94.9)	(77.7)	(113.0)
	Winter	1,741	1,706	1,645	1,911	2,029	2,207	2,077	1,760	1,455	1,697
		(134.2)	(98.0)	(96.4)	(116.2)	(106.2)	(108.8)	(94.1)	(84.7)	(82.7)	(116.6)
Light truck tyres	Total	15,965	15,027	13,701	14,368	14,389	14,462	14,057	13,103	11,959	12,769
		(93.0)	(94.1)	(91.2)	(104.9)	(100.1)	(100.5)	(97.2)	(93.2)	(91.3)	(106.8)
	Summer	11,668	10,975	10,112	10,297	10,245	9,858	9,911	9,561	8,901	9,344
		(91.9)	(94.1)	(92.1)	(101.8)	(99.5)	(96.2)	(100.5)	(96.5)	(93.1)	(105.0)
	Winter	4,297	4,052	3,589	4,071	4,144	4,604	4,146	3,542	3,058	3,425
		(96.2)	(94.3)	(88.6)	(113.4)	(101.8)	(111.1)	(90.1)	(85.4)	(86.3)	(112.0)
Passenger car tyres	Total	51,648	52,426	49,037	49,486	51,299	51,931	49,504	46,952	43,124	46,908
		(104.6)	(101.5)	(93.5)	(100.9)	(103.7)	(101.2)	(95.3)	(94.8)	(91.8)	(108.8)
	Summer	35,727	36,048	34,761	35,023	35,343	34,417	34,859	33,564	31,183	33,620
		(101.4)	(100.9)	(96.4)	(100.8)	(100.9)	(97.4)	(101.3)	(96.3)	(92.9)	(107.8)
	Winter	15,921	16,378	14,276	14,463	15,956	17,514	14,645	13,388	11,941	13,288
		(112.8)	(102.9)	(87.2)	(101.3)	(110.3)	(109.8)	(83.6)	(91.4)	(89.2)	(111.3)
Total	Total	72,988	72,653	67,631	69,255	71,182	72,001	69,149	65,146	59,125	64,297
		(103.0)	(99.5)	(93.1)	(102.4)	(102.8)	(101.2)	(96.0)	(94.2)	(90.8)	(108.7)
	Summer	51,029	50,517	48,121	48,810	49,053	47,675	48,281	46,456	42,671	45,887
		(100.1)	(99.0)	(95.3)	(101.4)	(100.5)	(97.2)	(101.3)	(96.2)	(91.9)	(107.5)
	Winter	21,959	22,136	19,510	20,445	22,129	24,326	20,868	18,690	16,454	18,410
		(110.5)	(100.8)	(88.1)	(104.8)	(108.2)	(109.9)	(85.8)	(89.6)	(88.0)	(111.9)

N.B.: 1. Source : JATMA (Total of members only)

N.B.: 2. 2001 and following years had a category shift between truck and bus tyres and light truck tyres.

N.B.: 3. 1998 and following years had all season tyres in the summer tyre category.

Exports of tyres and tubes based on Ministry of Finance customs statistics

tyres : $\times 10^3$, value : FOB dollar $\times 10^3$, ( ) : year to year comparison %

		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Asia	Tyres	6,955	8,308	9,263	9,718	8,549	9,002	9,063	9,129	6,999	7,560
		(103.0)	(119.5)	(111.5)	(104.9)	(88.0)	(105.3)	(100.7)	(100.7)	(76.7)	(108.0)
	Value	362,435	435,717	516,696	560,008	546,351	626,039	680,002	799,530	674,912	808,485
		(93.2)	(120.2)	(118.6)	(108.4)	(97.6)	(114.6)	(108.6)	(117.6)	(84.4)	(119.8)
Middle East	Tyres	6,615	7,764	9,093	10,265	11,416	11,775	13,921	14,702	13,412	13,627
		(102.9)	(117.4)	(117.1)	(112.9)	(111.2)	(103.1)	(118.2)	(105.6)	(91.2)	(101.6)
	Value	370,692	416,413	492,264	570,464	688,061	787,641	956,237	1,184,574	1,107,936	1,173,872
		(102.3)	(112.3)	(118.2)	(115.9)	(120.6)	(114.5)	(121.4)	(123.9)	(93.5)	(106.0)
Europe	Tyres	16,889	16,094	18,240	19,029	20,567	20,275	22,170	22,200	15,070	18,908
		(99.3)	(95.3)	(113.3)	(104.3)	(108.1)	(98.6)	(109.3)	(100.1)	(67.9)	(125.5)
	Value	699,251	708,867	959,556	1,094,021	1,222,552	1,288,941	1,668,181	1,849,351	1,162,604	1,486,981
		(94.6)	(101.4)	(135.4)	(114.0)	(111.7)	(105.4)	(129.4)	(110.9)	(62.9)	(127.9)
North America	Tyres	16,368	20,589	22,929	23,714	26,484	24,792	22,090	20,729	17,352	23,016
		(81.9)	(125.8)	(111.4)	(103.4)	(111.7)	(93.6)	(89.1)	(93.8)	(83.7)	(132.6)
	Value	899,766	1,131,111	1,261,722	1,397,852	1,604,256	1,659,175	1,529,500	1,613,517	1,359,334	1,870,321
		(78.0)	(125.7)	(111.5)	(110.8)	(114.8)	(103.4)	(92.2)	(105.5)	(84.2)	(137.6)
South and Central America	Tyres	2,689	2,074	2,448	2,978	3,559	3,673	3,815	4,512	3,086	4,365
		(110.1)	(77.1)	(118.0)	(121.7)	(119.5)	(103.2)	(103.9)	(118.3)	(68.4)	(141.4)
	Value	192,740	160,502	180,845	213,858	255,035	295,779	351,155	437,762	410,729	573,743
		(92.1)	(83.3)	(112.7)	(118.3)	(119.3)	(116.0)	(118.7)	(124.7)	(93.8)	(139.7)
Africa	Tyres	2,150	2,063	2,012	2,171	2,253	2,142	2,329	2,140	1,771	2,274
		(109.2)	(96.0)	(97.5)	(107.9)	(103.7)	(95.0)	(108.7)	(91.9)	(82.8)	(128.4)
	Value	153,593	161,499	198,408	231,973	243,941	247,077	274,414	289,539	273,759	338,985
		(102.6)	(105.1)	(122.9)	(116.9)	(105.2)	(101.3)	(111.1)	(105.5)	(94.5)	(123.8)
Oceania	Tyres	3,303	3,516	3,853	3,694	3,711	3,683	4,214	3,959	3,332	3,697
		(117.3)	(106.4)	(109.6)	(95.9)	(100.5)	(99.2)	(114.4)	(94.0)	(84.2)	(111.0)
	Value	223,002	245,870	302,139	333,283	363,509	373,273	462,104	490,931	442,356	589,773
		(104.2)	(110.3)	(122.9)	(110.3)	(109.1)	(102.7)	(123.8)	(106.2)	(90.1)	(133.3)
Total	Tyres	54,969	60,408	67,838	71,569	76,539	75,342	77,602	77,371	61,022	73,447
		(95.7)	(109.9)	(112.3)	(105.5)	(106.9)	(98.4)	(103.0)	(99.7)	(78.9)	(120.4)
	Value	2,901,479	3,259,979	3,911,630	4,401,459	4,923,705	5,277,926	5,921,593	6,665,204	5,431,630	6,842,160
		(90.2)	(112.4)	(120.0)	(112.5)	(111.9)	(107.2)	(112.2)	(112.6)	(81.5)	(126.0)

Source: Ministry of Finance customs export records

Imports of tyres and tubes based on Ministry of Finance customs statistics

t yres : $\times 10^3$, value : CIF yen $\times 10^4$, ( ) : year to year comparison %

		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Passenger car tyres	Tyres	11,321	13,618	14,173	18,830	23,810	25,925	24,089	23,572	19,302	19,346
		(107.3)	(120.3)	(104.1)	(132.9)	(126.4)	(108.9)	(92.9)	(97.9)	(81.9)	(100.2)
	Value	3,603,274	4,030,513	3,852,532	4,685,202	5,908,881	7,147,540	7,261,682	7,386,186	5,292,031	5,527,743
		(110.4)	(111.9)	(95.6)	(121.6)	(126.1)	(121.0)	(101.6)	(101.7)	(71.6)	(104.5)
Commercial vehicle tyres	Tyres	1,262	1,301	1,884	1,648	1,657	2,707	3,207	3,145	2,880	2,617
		(102.3)	(103.1)	(144.8)	(87.5)	(100.5)	(163.4)	(118.5)	(98.1)	(91.6)	(90.9)
	Value	749,069	594,360	610,127	672,942	708,528	1,046,032	1,159,415	1,124,280	911,466	947,069
		(100.3)	(79.3)	(102.7)	(110.3)	(105.3)	(147.6)	(110.8)	(97.0)	(81.1)	(103.9)
Motorcycle tyres	Tyres	3,140	2,939	3,129	3,038	3,347	3,155	3,091	2,895	2,362	2,595
		(108.3)	(93.6)	(106.5)	(97.1)	(110.2)	(94.3)	(98.0)	(93.6)	(81.6)	(109.9)
	Value	379,351	341,410	358,836	353,929	393,009	398,770	463,459	382,082	330,296	385,462
		(102.4)	(90.0)	(105.1)	(98.6)	(111.0)	(101.5)	(116.2)	(82.4)	(86.4)	(116.7)
Others	Tyres	263	278	299	278	294	384	423	510	401	556
		(173.0)	(105.7)	(107.6)	(93.0)	(105.8)	(130.6)	(110.3)	(120.5)	(78.6)	(138.7)
	Value	154,449	126,857	188,451	217,732	286,310	405,295	528,694	712,295	395,608	701,082
		(119.0)	(82.1)	(148.6)	(115.5)	(131.5)	(141.6)	(130.4)	(134.7)	(55.5)	(177.2)
Tubes	Value	34,608	48,735	47,100	39,957	43,837	42,523	128,103	421,909	312,576	351,526
		(169.6)	(140.8)	(96.6)	(84.8)	(109.7)	(97.0)	(301.3)	(329.4)	(74.1)	(112.5)
Total	Tyres	15,986	18,136	19,485	23,794	29,108	32,171	30,811	30,122	24,945	25,114
		(107.8)	(113.4)	(107.4)	(122.1)	(122.3)	(110.5)	(95.8)	(97.8)	(82.8)	(100.7)
	Value	4,920,751	5,141,875	5,057,046	5,969,762	7,340,565	9,040,160	9,541,352	10,026,752	7,241,977	7,912,882
		(108.6)	(104.5)	(98.4)	(118.0)	(123.0)	(123.2)	(105.5)	(105.1)	(72.2)	(109.3)

Source: Ministry of Finance customs import records