



The 26<sup>th</sup> Voorburg Group Meeting on Service Statistics

September 19 - 23, 2011

Newport, the UK

Mini-presentation

**Turnover for Maintenance and Repair of Motor Vehicles**

**In Japan**



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## 1. Definition of the service being collected

### 1.1 Maintenance and repair of motor vehicles

"Automobile maintenance services" comprises establishments engaged in providing maintenance and repair services of motor vehicles and motorcycles as defined in the Japan Standard Industrial Classification (JSIC) (Rev.12, 2007).

### 1.2 Establishments

A single establishment is the basic unit of the maintenance and repair of motor vehicles sector. If located separately, each establishment is deemed, in principle, a separate establishment, even if the management is shared with another establishment. Individual organs located in the same premises are each dealt with as a separate unit by organ.

In principle, establishments which provide maintenance as well as selling motor vehicles (except selling on commission) are classified into wholesale or retail industry.

### 1.3 Standard classifications Structure

The JSIC is composed of four layers, namely, sections, divisions (2-digit), groups (3-digit), classes (4-digit).

"Automobile maintenance services" is one of the division of section "R: services, n.e.c." In this division, the data on turnover of the establishment classified into group "891 automobile maintenance services" is surveyed in the Monthly Survey on Service Industries (MSSI). This group is further subdivided according to the maintenance and repair services provided at each establishment. The establishments providing overall maintenance and repair services are classified as "8911 general automobile maintenance services" and the establishments providing partial maintenance and repair services are classified as "8919 miscellaneous automobile maintenance services".

**Table 1. JSIC Division 89: Automobile maintenance services**

Section	Division	Group	Class	Description
R				Services, n.e.c.
	89			Automobile maintenance services
		890		Establishments engaged in administrative or ancillary economic activities (89 Automobile maintenance services)
			8901	Establishments engaged in administrative or ancillary economic activities
		<b>891</b>		<b>Automobile maintenance services</b>
			<b>8911</b>	<b>General automobile maintenance services</b>
			<b>8919</b>	<b>Miscellaneous automobile maintenance services</b>

The categories listed in boldface are surveyed in the MSSI.

Table 2 compares the JSIC with the ISIC (rev.4) for the maintenance and repair of motor vehicles sector. In the JSIC, the maintenance and repair of motor vehicles services are separated from the wholesale and retail trade sector, and are classified as one major group of the service sector (see Table 1). On the other hand, in the ISIC, as for motor vehicles and motorcycles, both the wholesale and retail trade sector as well as the maintenance and repair sector are categorised in the same section (see Table 3).

As for detailed classes related to the maintenance and repair of motor vehicles, the JSIC classification is based on service contents (general or partial), however the ISIC one is based on objectives (motor vehicles or motorcycles).

**Table 2. Comparison of Industrial classifications  
for maintenance and repair of motor vehicles**

JSIC	ISIC rev.4
8911	4520 Maintenance and repair of motor vehicles
8919	[4540 Sale, maintenance and repair of motorcycles and related parts and accessories]

**Table 3. ISIC Section G:  
Wholesale and retail trade; repair of motor vehicles and motorcycles**

Section	Division	Group	Class	Description
G				Wholesale and retail trade; repair of motor vehicles and motorcycles
	45			Wholesale and retail trade and repair of motor vehicles and motorcycles
		451	4510	Sale of motor vehicles
		<b>452</b>	<b>4520</b>	<b>Maintenance and repair of motor vehicles</b>
		453	4530	Sale of motor vehicle parts and accessories
		<b>454</b>	<b>4540</b>	<b>Sale, maintenance and repair of motorcycles and related parts and accessories</b>
	46			Wholesale trade, except of motor vehicles and motorcycles
	47			Retail trade, except of motor vehicles and motorcycles

## 2. Market conditions and constraints

### 2.1 The number of establishment

According to the 2009 Economic Census for Business Frame conducted by the Statistics Bureau of Japan (SBJ), the number of establishments engaged in maintenance and repair of motor vehicles, classified as the JSIC group 891, is about 60 thousand (0.98% of the total). Of these, 99.9% are privately owned establishments. Breaking down by size of employee, 90.9% have less than 10 employees. (See Table 4).

**Table 4. The number of establishments engaged in maintenance and repair of motor vehicles (2009)**

Maintenance and repair of motor vehicles						
	Privately owned		Size of employee			
	Individual proprietorship	Corporations	Under 10	10-99	100 and over	
59,323	59,279	33,092	26,159	53,912	5,347	35
(100%)	(99.9%)	(55.8%)	(44.1%)	(90.9%)	(9.0%)	(0.1%)

Source: 2009 Economic Census for Business Frame (SBJ).

### 2.2 Output and gross value added

The amount of output and gross value added (GVA) in Japan can be seen in the Input-Output Tables. In 2005, the ratio of output for maintenance and repair of motor vehicles is about 0.4% of the industrial total, and GVA is about 0.6%.

As for maintenance and repair of motor vehicles, the ratio of GVA for output is 45.6% in 2005, which is much higher than the ratio of GVA for output for the industrial total (34.4%).

**Table 5. Output and gross value added (GVA) of maintenance and repair of motor vehicles (2005 based)**

Year	Output (million yen)	GVA and ratio of GVA/output	
		(million yen)	(%)
1995	6,430,918	3,003,094	46.7
2000	6,323,271	2,863,490	45.3
2005	6,438,119	2,936,882	45.6

Source: Input-Output Table based on 2005 (Ministry of Internal Affairs and Communications, Japan).

### 2.3 Maintenance system of motor vehicles in Japan

In Japan, inspections and checkups of motor vehicles are required by law.

Drivers have to carry an automobile inspection certificate while driving. Major inspections are initial inspections, renewal inspections and structure-changing inspections.

**Table 6. Types of motor vehicle inspections**

Type	Time
Initial inspections	Before using a new motor vehicle or reusing a registration cancelled vehicle (used car)
Renewal inspections	Using a motor vehicle continuously beyond the expiry date of the previous inspection certificate
Structure-changing inspections	Using a motor vehicle which has undergone structural changes (size, maximum loading capacity)

Validation periods of initial and renewal inspection certificates are as below.

**Table 7. Validation periods of motor vehicle inspections**

Type of motor vehicles	Initial inspections (year)	Renewal inspections (year)
Private passenger cars Light vehicles Motorcycles	3	2
Light trucks Large-sized special motor vehicles	2	2
Rental cars (only passenger cars)	2	1
Buses and Taxis	1	1
Trucks		
less than 8 tons	2	1
8 tons and over	1	1

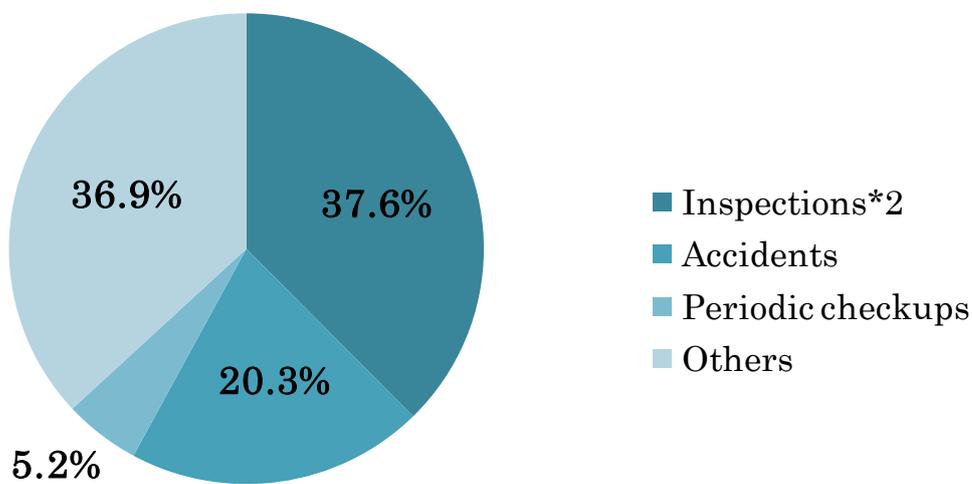
There are two ways for inspections. One is to use national inspection stations, and the other is to use car maintenance facilities sanctioned by the government. Most users choose the latter, which they have to pay a service fee for inspecting a car instead of national inspection stations, drawing up the necessary documents and submitting them to the national inspection stations instead of users.

As for checkups, there are daily checkups and periodic checkups. Daily checkups are to make sure the brakes are functional and air pressure of tires is appropriate. This is supposed to be done by users. As for periodic checkups for passenger cars, there are 12-month-checkups and 24-month-checkups, in which more items will be inspected than daily checkups.

Periodic checkups may require the car to be disassembled, so users often use authorized maintenance facilities which are the only ones allowed to disassemble cars, even though users are allowed to do periodic checkups by themselves. In particular, most of the users do 24-month-checkups with the renewal inspections, because they could be conducted at the same time.

According to the survey on automobile assembly and maintenance services, the breakdown of turnover for maintenance and repair of motor vehicles by types is shown in Figure 1; inspection maintenance is the highest with 37.6%, followed by maintenance due to accidents with 20.3%.

Figure 1. Turnover for maintenance and repair of motor vehicles by types (FY2009)\*<sup>1</sup>



\*1 Turnover of car maintenance facilities allowed to disassemble cars by the government, including car dealers.

\*2 Inspections include periodic checkups conducted at the same time.

Source: FY2009 survey on automobile assembly and maintenance services (Ministry of Land, Infrastructure, Transport and Tourism, Japan).

### 3. Turnover data method

#### 3.1 Collected turnover data

Data of monthly turnover for maintenance and repair of motor vehicles has been collected from the MSSSI by the SBJ. The survey unit of the MSSSI is establishment. Establishments are classified into industry group according to their main economic activities. Turnover in the MSSSI is that of an establishment whose primary industry is service industry. Therefore, turnover for maintenance and repair of motor vehicles includes sales for supply of maintenance and repair services as well as sales from other economic activities.

### 3.2 Sampling method

The MSSSI is a sample survey. The sampling frame of the survey uses the 2006 Establishment and Enterprise Census.

The sample size of the MSSSI is about 39,000. The method of Neyman allocation is used to allocate the sample to each substratum. The substratum is composed of two conditions.

The primary stratification is by industry group according to main economic activities of establishments, and the establishments contained in an industry stratum are sub stratified by employment size. At first, required sample size is calculated in each stratum. If the sample size is larger than subjects, all of establishments contained in the stratum are surveyed every month. In another case, establishment is selected from each stratum considering the geographical condition. The sample size of maintenance and repair of motor vehicles is about 590 (required sample size is 540). Half of the sample are changed in January every year.

## 4. Results of the Survey

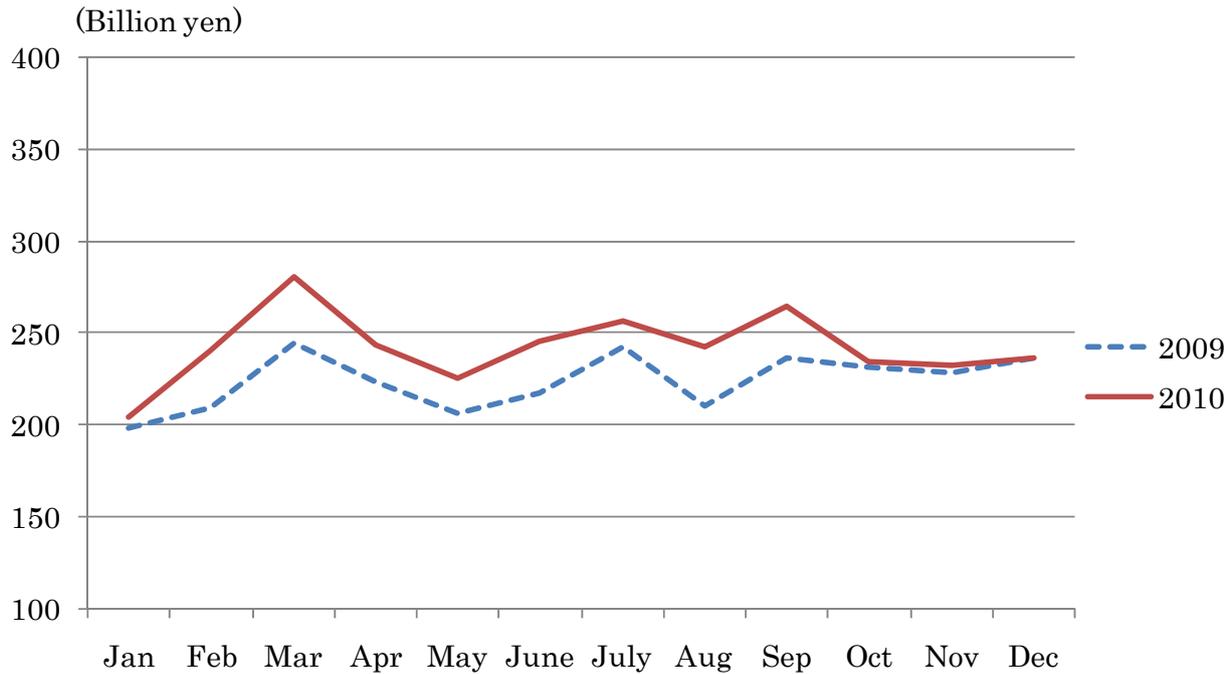
The results of the MSSSI are released in two stages. The preliminary tabulation is released two months after the survey month, around the end of the month. The final tabulation is released five months after the survey month, around the end of the month. The trends of turnover for the maintenance and repair of motor vehicles are shown in Table 8.

**Table 8. Turnover for the maintenance and repair of motor vehicles**  
(Billion yen)

2009		2,685
2010		2,906
2010	January	204
	February	241
	March	281
	April	243
	May	225
	June	246
	July	257
	August	242
	September	265
	October	234
	November	232
	December	237

Source: MSSSI (SBJ).

**Figure 2. Turnover for maintenance and repair of motor vehicles**



Source: MSSJ (SBJ).

## 5. Future Plan

### 5.1 Relationship with Economic Census

In Japan, the Economic Census is conducted every five years, which covers all economic activities of every industrial sector at the same point in time. The Economic Census has two stages.

Every establishment was surveyed in the 2009 Economic Census for Business Frame (ECBF) conducted by the SBJ. Each establishment was classified by its economic activities based on JSIC (Rev.12, 2007). The result of the 2009 ECBF is to be used as a sampling frame for the MSSJ in 2013.

At this time there isn't a Census for measuring the turnover for maintenance and repair of motor vehicles. However, the Economic Census for Business Activities (ECBA) is going to cover accounting items of each establishment. The turnover of every establishment, including those classified as maintenance and repair of motor vehicles sector, is going to be surveyed. The first ECBA will be conducted in February 2012.

The results of the Economic Census will be used to improve the accuracy of the MSSJ. Particularly, the Census results will be used as a benchmark for turnover for the service sector, and is expected to help improving the accuracy of estimation of monthly turnover.

## **5.2 Review of survey method**

The MSSSI was launched in July 2008. The survey method is currently being reviewed. In the current method, each establishment is considered as a unit of survey. So, the sample, especially those from the major enterprises and particular industries, includes a lot of establishments providing services only within their own enterprises or offering customer services which do not bring turnover.

The sample also includes the establishments which run several business activities. This leads to two main problems; one is the turnover of incidental activities for those establishments is underestimated, or the other one is the turnover of service industries includes article sales.

Therefore, to improve the accuracy of monthly statistics, the SBJ is considering a new survey method for the turnover by business activities for major enterprises and network-type enterprises. We plan to survey the turnover of each of the top 4 activities in service industries, which exclude article sales for each enterprise.

In addition to this, to supplement the Economic Census conducted once every 5 years, the SBJ is deliberating the commencement of an annual survey. This annual survey is planned to be conducted on larger sample than the monthly survey to figure out the regional turnover (except for that of the network-type industry) and the industrial turnover with more detail.

## **6. Summary**

The maintenance and repair of motor vehicles were not surveyed on monthly turnover until the MSSSI was started in 2008. To elucidate the monthly turnover for this industry is an achievement of the MSSSI.

In Japan, the services on maintenance and repair of motor vehicles are often offered in combination with retail business such as automobile dealer, as part of the services after the sales. The SBJ keeps reviewing the survey with attention to the actual industry situation and improving the accuracy of the estimates of turnover so that we can provide more reliable turnover statistics.