

*STATISTICAL HANDBOOK OF*

*JAPAN*

**2014**



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and Communications



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## **Preface**

This handbook is designed to provide a clear and coherent overview of present-day Japan through statistics.

It provides statistical tables, figures, maps and photographs to portray conditions in modern-day Japan from a variety of perspectives, including demographics, economic and social trends, and culture. Most of the comments and statistical data for this purpose have been drawn from principal statistical publications available from government and other leading sources.

For more in-depth statistical information on Japan, readers are invited to peruse the Japan Statistical Yearbook.

We hope that this booklet will serve as a guide in your search for knowledge about Japan. We are always happy to receive opinions or requests from readers.

You can also view the contents of this booklet on the website of the Statistics Bureau.

September 2014

**Satohisa INAMI**  
Director-General  
Statistics Bureau  
Ministry of Internal Affairs  
and Communications  
Japan

## Notes for Users

1. The present issue contains statistics that became available by June 30, 2014.
2. Unless otherwise indicated, "year" refers to the calendar year and "fiscal year" refers to the 12 months beginning April 1 of the year stated.
3. Metric units are used in all tables and figures in which the data are measured in weight, volume, length or area.
4. Unless otherwise indicated, amounts shown are in Japanese yen. Refer to Appendix 3 for exchange rates of JPY per U.S. dollar.
5. Statistical figures may not add up to the totals due to rounding.
6. "Billion" means a thousand million; "trillion" means a thousand billion.
7. The following symbols are used in the tables:
  - Data not available
  - Magnitude zero or figures not applicable
  - 0 or 0.0 Less than half of unit employed
  - # Marked break in series
  - \* Provisional or estimate
8. Data relating to "China" generally exclude those for Hong Kong SAR, Macao SAR and Taiwan.
9. All contents of the present issue, including tables, figures, and maps, are also available on the website:

<http://www.stat.go.jp/english/data/handbook/index.htm>
10. When any contents of the present issue are to be quoted or copied in other media (print or electronic), the title is to be referred to as follows:

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# **Chapter 1**

## **Land and Climate**



## 1. Land

Japan is an island nation situated off the eastern seaboard of the Eurasian continent in the northern hemisphere. The islands form a crescent-shaped archipelago stretching from northeast to southwest parallel to the continental coastline with the Sea of Japan in between. The country is located between approximately 20 degrees to 45 degrees north latitude and stretches over 3,200 kilometers. It consists of the main islands of Hokkaido, Honshu, Shikoku, Kyushu and Okinawa, and more than 6,800 smaller islands of varying sizes. Its surface area totals approximately 380,000 square kilometers, a figure equivalent to 0.3 percent of the global land mass.

Since the Japanese archipelago is located in a zone of relatively young tectonic plate movement, it is particularly prone to various geographical phenomena. Therefore, the number of earthquake occurrences is quite high there, and so is the proportion of active volcanoes. The land is full of undulations, with mountainous regions including hilly terrain accounting for about three-quarters of its total area. The mountains are generally steep and are intricately carved out by ravines. Hilly terrain extends between the mountainous regions and the plains.

**Table 1.1**  
**Surface Area of Japan (2013)**  
(Square kilometers)

District	Area
Japan .....	377,962
Honshu .....	a) 231,122
Hokkaido .....	83,457
Kyushu .....	42,195
Shikoku .....	a) 18,793
Okinawa .....	2,277

a) Excluding some areas of which boundaries are not yet fixed.

Source: Ministry of Land, Infrastructure, Transport and Tourism.

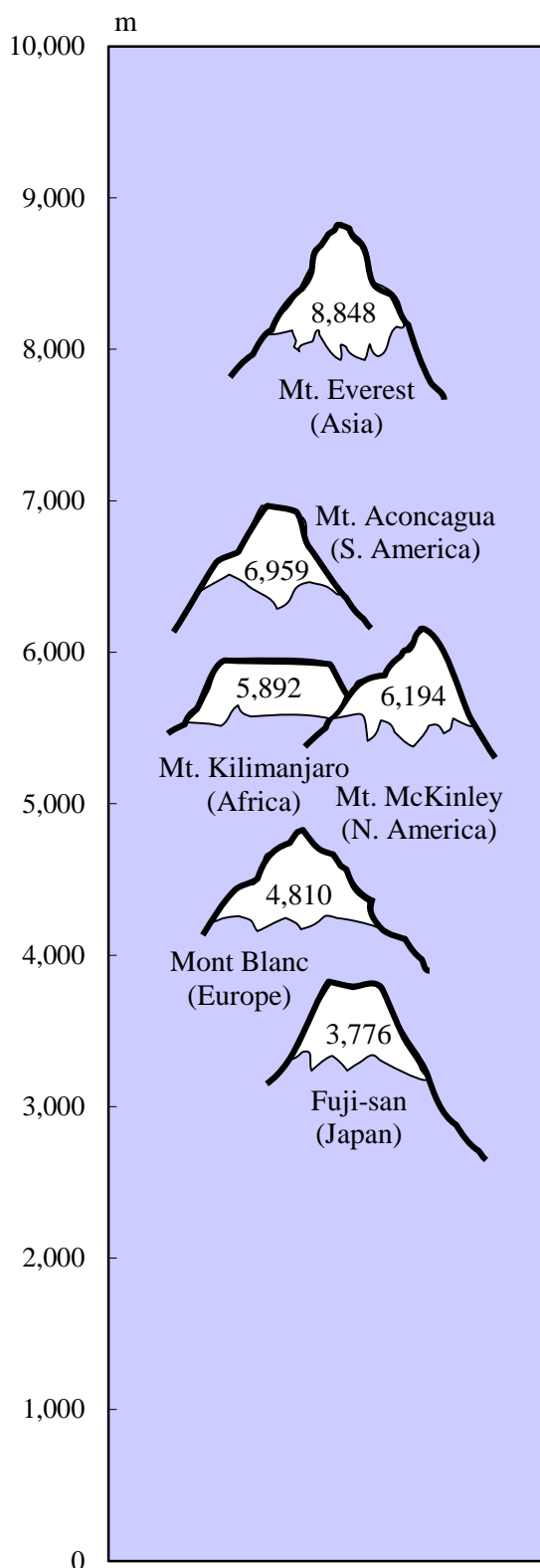
**Table 1.2**  
**Top 10 Countries According to Surface Area (2012) <sup>1)</sup>**  
(1,000 square kilometers)

Country	Area
World .....	136,162
Russia .....	17,098
Canada .....	9,985
U.S.A. ....	9,629
China .....	9,597
Brazil .....	8,515
Australia .....	7,692
India .....	3,287
Argentina .....	2,780
Kazakhstan .....	2,725
Algeria .....	2,382

1) Comprising land area and inland waters. Excluding polar regions and uninhabited islands.

Source: United Nations.

**Figure 1.1**  
**Famous Mountains of the World**



Source: National Astronomical Observatory of Japan.

**Table 1.3**  
**Mountains (2013)**

Name	Height (Meters)
Fuji-san .....	3,776
Kita-dake .....	3,193
Aino-dake .....	3,190
Okuhotaka-dake .....	3,190
Yari-ga-take .....	3,180
Higashi-dake .....	3,141
Akaishi-dake .....	3,121
Karasawa-dake .....	3,110
Kitahotaka-dake .....	3,106
Obami-dake .....	3,101

Source: Ministry of Land, Infrastructure, Transport and Tourism.

**Table 1.4**  
**Rivers (2013)**

Name	Length (Kilometers)
Shinano-gawa .....	367
Tone-gawa .....	322
Ishikari-gawa .....	268
Teshio-gawa .....	256
Kitakami-gawa .....	249
Abukuma-gawa .....	239
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Agano-gawa .....	210

Source: Ministry of Land, Infrastructure, Transport and Tourism.

**Table 1.5**  
**Lakes (2013)**

Name	Area (Square kilometers)
Biwa-ko .....	670.3
Kasumi-ga-ura .....	167.6
Saroma-ko .....	151.8
Inawashiro-ko .....	103.3
Naka-umi .....	86.1
Kussharo-ko .....	79.6
Shinji-ko .....	79.1
Shikotsu-ko .....	78.4
Toya-ko .....	70.7
Hamana-ko .....	65.0

Source: Ministry of Land, Infrastructure, Transport and Tourism.

Forestland and fields account for the largest portion of the nation's surface area. There are approximately 250,000 square kilometers of forestland and fields (which equates to 67 percent of the nation's surface area), followed by approximately 50,000 square kilometers of agricultural land (12 percent). Together, forestland, fields and agricultural land thus cover approximately 80 percent of the nation. There are approximately 20,000 square kilometers of building land (5 percent).

**Table 1.6**  
**Surface Area by Use**

(1,000 square kilometers)							
Year	Total	Forestland and fields	Agricultural land	Inland water	Roads <sup>1)</sup>	Building land <sup>2)</sup>	Others
1980	377.7	256.8	55.9	13.1	9.9	13.9	28.1
1990	377.7	255.2	53.3	13.1	11.4	16.0	28.7
2000	377.9	253.8	49.1	13.5	12.7	17.9	30.9
2010	377.9	253.5	46.7	13.3	13.6	19.0	31.9
Percentage distribution (%)							
2010	100.0	67.1	12.4	3.5	3.6	5.0	8.4

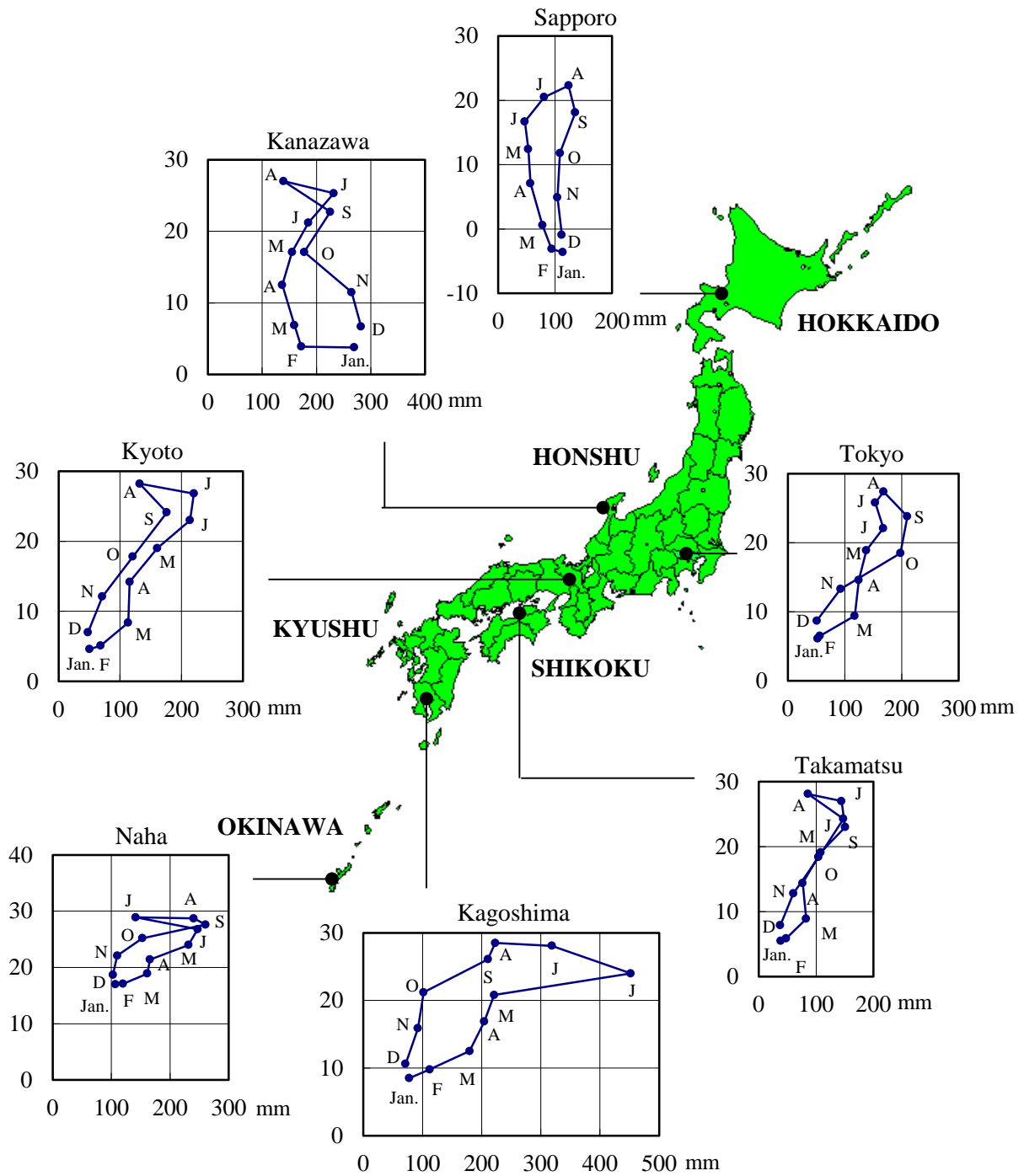
1) Including farm roads and forest roads, etc. 2) Including industrial land and other land for buildings.

Source: Ministry of Land, Infrastructure, Transport and Tourism.

## 2. Climate

The Japanese archipelago has a temperate marine climate, with four distinct seasons, an annual average temperature of between 10 to 20 degrees centigrade, and annual precipitation of 1,000 to 2,500 millimeters. Japan typically experiences hot, humid summers and cold, dry winters. The topography of Honshu, however, features a series of major mountain ranges running from north to south. Because of this feature, the northwest monsoon in the winter brings humid conditions with heavy precipitation (snow) to Honshu's Sea of Japan side but comparatively dry weather with low precipitation to the Pacific Ocean side. In summer, the winds blow mainly from the southeast, giving rise to hot and humid weather. Another unique characteristic of Japan's climate is that it has two long spells of rainy seasons, one in early summer when southeast monsoon begins to blow, and the other in autumn when the winds cease. From summer to autumn, tropical cyclones generated in the tropical seas develop into typhoons and hit Japan, sometimes causing storm and flood damage.

**Figure 1.2**  
**Temperature and Precipitation (Normal value)**  
 (1981-2010 average)



Source: Japan Meteorological Agency.

**Table 1.7**  
**Temperature and Precipitation (Normal value) (1981-2010 average)**

Observing station		Temperature ( )											Precipitation (mm)		
		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Annual <sup>1)</sup>	
Sapporo	Temp.	High	-0.6	0.1	4.0	11.5	17.3	21.5	24.9	26.4	22.4	16.2	8.5	2.1	12.9
		Low	-7.0	-6.6	-2.9	3.2	8.3	12.9	17.3	19.1	14.2	7.5	1.3	-4.1	5.3
	Prec.	114	94	78	57	53	47	81	124	135	109	104	112	1,107	
Tokyo	Temp.	High	9.9	10.4	13.3	18.8	22.8	25.5	29.4	31.1	27.2	21.8	16.9	12.4	20.0
		Low	2.5	2.9	5.6	10.7	15.4	19.1	23.0	24.5	21.1	15.4	9.9	5.1	13.0
	Prec.	52	56	118	125	138	168	154	168	210	198	93	51	1,529	
Kanazawa	Temp.	High	6.8	7.3	11.0	16.9	21.6	25.0	28.8	30.9	26.6	21.3	15.5	10.2	18.5
		Low	0.9	0.7	3.0	8.2	13.1	18.0	22.3	23.7	19.5	13.3	7.7	3.4	11.2
	Prec.	270	172	159	137	155	185	232	139	226	177	265	282	2,399	
Kyoto	Temp.	High	8.9	9.7	13.4	19.9	24.6	27.8	31.5	33.3	28.8	22.9	17.0	11.6	20.8
		Low	1.2	1.4	4.0	9.0	14.0	18.8	23.2	24.3	20.3	13.6	7.8	3.2	11.7
	Prec.	50	68	113	116	161	214	220	132	176	121	71	48	1,491	
Takamatsu	Temp.	High	9.4	10.1	13.4	19.5	24.1	27.3	31.2	32.4	28.4	22.8	17.2	12.1	20.7
		Low	1.6	1.8	4.4	9.4	14.4	19.3	23.6	24.4	20.7	14.2	8.5	3.7	12.2
	Prec.	38	48	83	76	108	151	144	86	148	104	60	37	1,082	
Kagoshima	Temp.	High	12.8	14.3	17.0	21.6	25.2	27.6	31.9	32.5	30.1	25.4	20.3	15.3	22.8
		Low	4.6	5.7	8.4	12.7	17.1	21.0	25.3	25.6	22.8	17.5	11.9	6.7	14.9
	Prec.	78	112	180	205	221	452	319	223	211	102	92	71	2,266	
Naha	Temp.	High	19.5	19.8	21.7	24.1	26.7	29.4	31.8	31.5	30.4	27.9	24.6	21.2	25.7
		Low	14.6	14.8	16.5	19.0	21.8	24.8	26.8	26.6	25.5	23.1	19.9	16.3	20.8
	Prec.	107	120	161	166	232	247	141	241	261	153	110	103	2,041	

1) Annual average for temperature and annual total for precipitation.

Source: Japan Meteorological Agency.

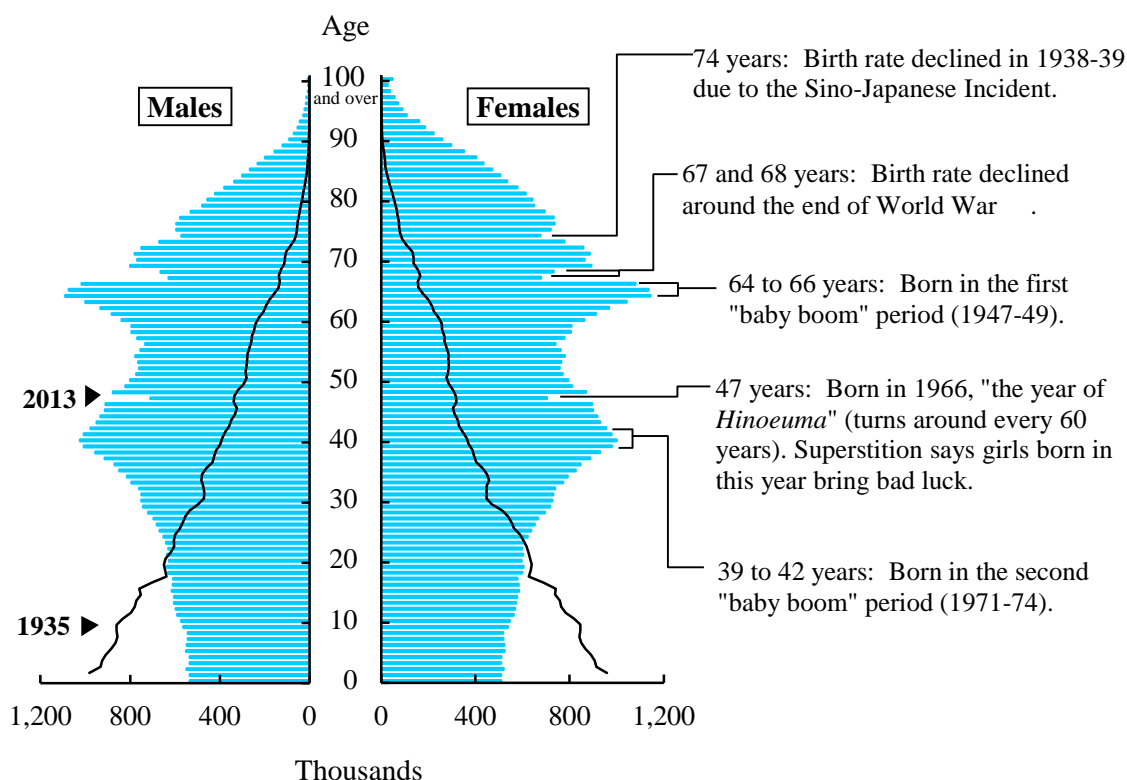
## **Chapter 2**

# **Population**

# 1. Total Population

Japan's total population in 2013 was 127.30 million. This ranked tenth in the world and made up 1.8 percent of the world's total. Japan's population density measured 343.4 persons per square kilometer in 2010, ranking seventh among countries with a population of 10 million or more.

**Figure 2.1**  
**Population Pyramid**



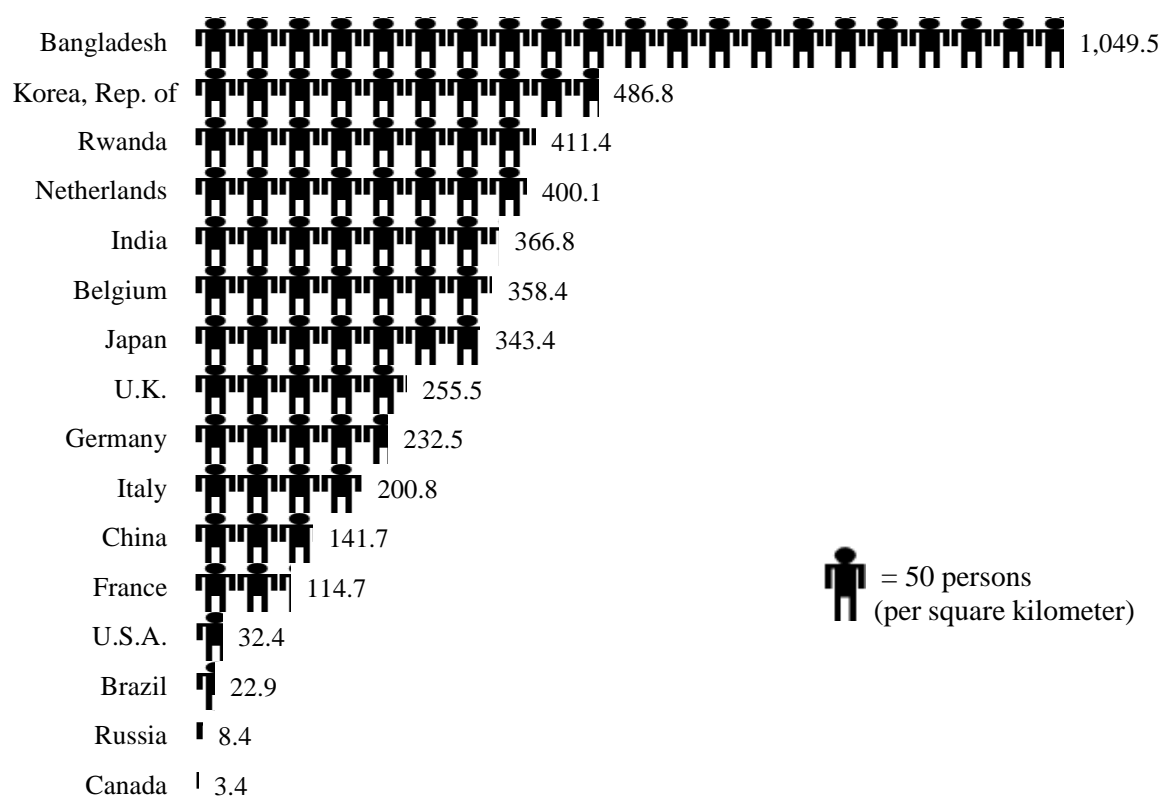
Source: Statistics Bureau, MIC.

**Table 2.1**  
**Countries with a Large Population (2013)**

		(Millions)	
Country	Population	Country	Population
World .....	7,162		
China .....	1,386	Pakistan .....	182
India .....	1,252	Nigeria .....	174
U.S.A. ....	320	Bangladesh .....	157
Indonesia .....	250	Russia .....	143
Brazil .....	200	Japan .....	127

Source: Statistics Bureau, MIC; United Nations.

**Figure 2.2**  
**Population Density by Country (2010)**



Source: Statistics Bureau, MIC; United Nations.

From the eighteenth century through the first half of the nineteenth century, Japan's population remained steady at about 30 million. Following the Meiji Restoration in 1868, it began expanding in tandem with the drive to build a modern nation-state. In 1926, it reached 60 million, and in 1967, it surpassed the 100 million mark. However, Japan's population growth has slowed in more recent years, with the annual pace of population growth averaging about one percent from the 1960s through the 1970s. Since the 1980s, it has declined sharply. Japan's 2005 total population was 127.77 million, declining from the previous year (127.79 million) for the first time after World War II. In 2013, it was 127.30 million, down by 217,000 from the year before.



POPULATION

**Table 2.2**  
**Trends in Population** (as of October 1)

Year	Population (1,000)		Age composition (%)			Average annual rate of increase (%)	Population density (per km <sup>2</sup> )
		Males	0-14 years	15-64	65 and over		
1872 <sup>1)</sup>	34,806	17,666	...	...	...	...	91
1900 <sup>1)</sup>	43,847	22,051	33.9	60.7	5.4	0.83	115
1910 <sup>1)</sup>	49,184	24,650	36.0	58.8	5.2	1.16	129
1920	55,963	28,044	36.5	58.3	5.3	1.30	147
1930	64,450	32,390	36.6	58.7	4.8	1.42	169
1940	71,933	35,387	36.7	58.5	4.8	1.10	188
1950	84,115	41,241	35.4	59.6	4.9	1.58	226
1955	90,077	44,243	33.4	61.2	5.3	1.38	242
1960	94,302	46,300	30.2	64.1	5.7	0.92	254
1965	99,209	48,692	25.7	68.0	6.3	1.02	267
1970	104,665	51,369	24.0	68.9	7.1	1.08	281
1975	111,940	55,091	24.3	67.7	7.9	1.35	301
1980	117,060	57,594	23.5	67.4	9.1	0.90	314
1985	121,049	59,497	21.5	68.2	10.3	0.67	325
1990	123,611	60,697	18.2	69.7	12.1	0.42	332
1995	125,570	61,574	16.0	69.5	14.6	0.31	337
2000	126,926	62,111	14.6	68.1	17.4	0.21	340
2005	127,768	62,349	13.8	66.1	20.2	0.13	343
2010	128,057	62,328	13.2	63.8	23.0	0.05	343
2011	127,799	62,184	13.1	63.6	23.3	-0.20	343
2012	127,515	62,029	13.0	62.9	24.1	-0.22	342
2013	127,298	61,909	12.9	62.1	25.1	-0.17	341
<b>(Projection, January 2012)</b>							
2020	124,100	60,146	11.7	59.2	29.1	-0.36	333
2030	116,618	56,253	10.3	58.1	31.6	-0.62	313
2040	107,276	51,583	10.0	53.9	36.1	-0.83	288
2050	97,076	46,657	9.7	51.5	38.8	-0.99	260

1) As of January 1.

Source: Statistics Bureau, MIC; Ministry of Health, Labour and Welfare; Ministry of Land, Infrastructure, Transport and Tourism.

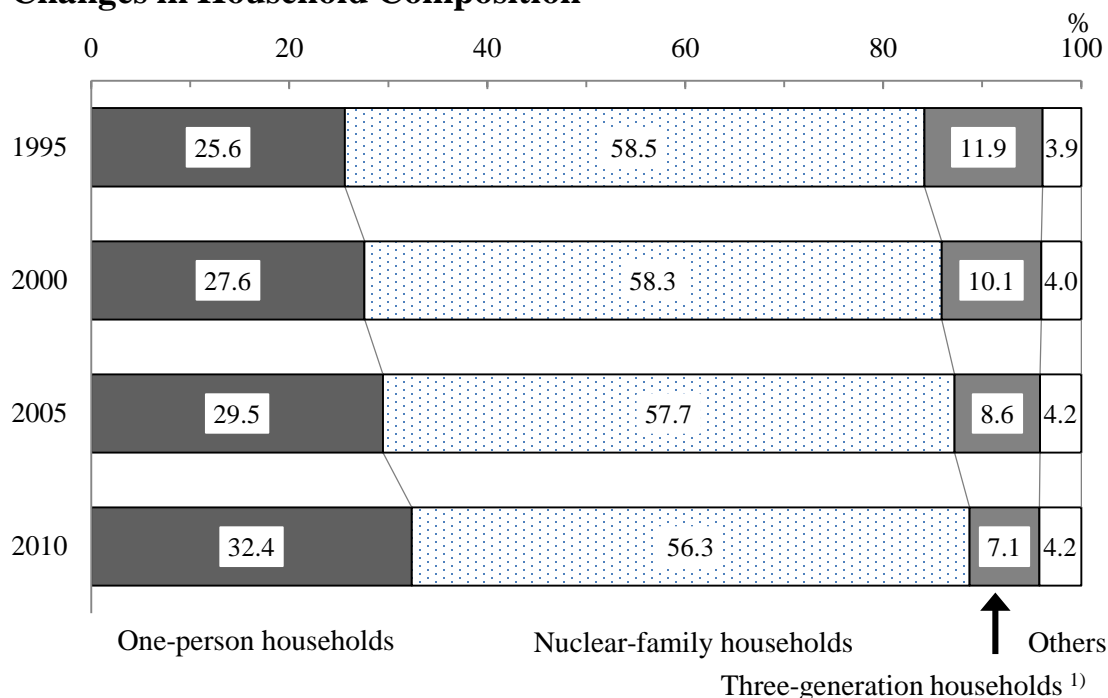
## 2. Households

### (1) Household Size and Household Composition

The Population Census shows that Japan had 51.84 million private households (excluding "institutional households" such as students in school dormitories) in 2010, going over 50 million for the first time since

the Census began. Of that total, 56.3 percent were nuclear-family households, and 32.4 percent were one-person households.

**Figure 2.3**  
**Changes in Household Composition**



1) A household in which at least three generations out of five generations in a direct line live together, regardless of the presence of other household members.

Source: Statistics Bureau, MIC.

**Table 2.3**  
**Households and Household Members**

Year	Private	Average annual		Private	Members	Population	Average annual	
	house-	rate of	rate of	household		(1,000)	rate of	rate of
	holds	increase	increase	members	per		increase	increase
	(1,000)	(%)	(%)	(1,000)	household	(1,000)	(%)	(%)
1970	30,297	a) 3.00		103,351	3.41	104,665	1.08	
1975	33,596	2.09		110,338	3.28	111,940	1.35	
1980	35,824	1.29		115,451	3.22	117,060	0.90	
1985	37,980	1.18		119,334	3.14	121,049	0.67	
1990	40,670	1.38		121,545	2.99	123,611	0.42	
1995	43,900	1.54		123,646	2.82	125,570	0.31	
2000	46,782	1.28		124,725	2.67	126,926	0.21	
2005	49,063	0.96		124,973	2.55	127,768	0.13	
2010	51,842	1.11		125,546	2.42	128,057	0.05	

a) Annual rate of increase between 1960-1970.

Source: Statistics Bureau, MIC.

From the 1920s to the mid-1950s, the average number of household members remained at about five. However, due to the increase in one-person households and nuclear families since 1960s, the size of household was down significantly in 1970, to 3.41 members. The size of household members continued to decline to 2.42 in 2010. Although the Japanese population has shifted into decline, the number of households is expected to continue to increase for some years to come, as the size of the average household will shrink further. The number of households is projected to peak in 2019 and then decrease thereafter.

## (2) Elderly Households

The number of elderly households (private households with household members 65 years of age or over) in 2010 was 19.34 million. They accounted for 37.3 percent of private households. There were 4.79 million one-person elderly households. Among these, there were approximately 2.5 times as many women as men. There were 5.25 million aged-couple households.

**Table 2.4**  
**Trends in Elderly Households**

	(Thousands)						
Type of households	1980	1985	1990	1995	2000	2005	2010
Private households .....	35,824	37,980	40,670	43,900	46,782	49,063	51,842
Elderly households <sup>1)</sup> .....	8,124	9,284	10,729	12,790	15,057	17,220	19,338
(percentage) .....	22.7	24.4	26.4	29.1	32.2	35.1	37.3
One-person households .....	881	1,181	1,623	2,202	3,032	3,865	4,791
Males .....	193	233	310	460	742	1,051	1,386
Females .....	688	948	1,313	1,742	2,290	2,814	3,405
Aged-couple households <sup>2)</sup> .....	1,026	1,415	1,967	2,763	3,661	4,487	5,251

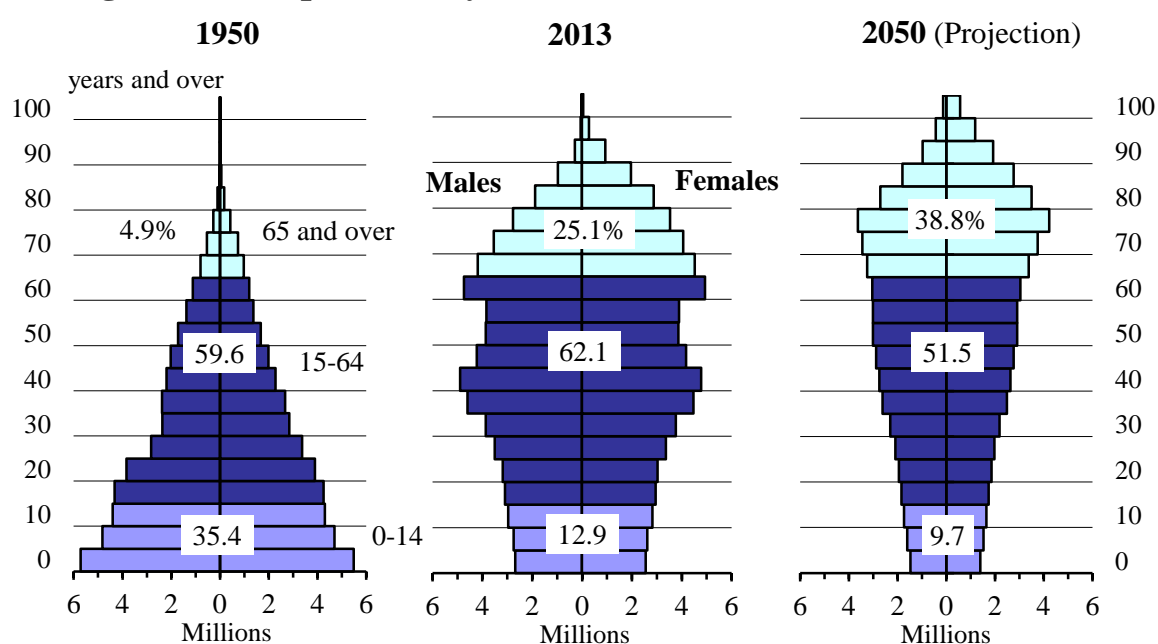
1) For 1980–1990, private households with related members 65 years of age or over; from 1995 on, private households with household members 65 years of age or over. 2) Consisting of a husband 65 years of age and over and his wife 60 years of age and over.

Source: Statistics Bureau, MIC.

### 3. Declining Birth Rate and Aging Population

The population pyramid of 1950 shows that Japan had a standard-shaped pyramid marked by a broad base. The shape of the pyramid, however, has changed dramatically as both the birth rate and death rate have declined. In 2013, the aged population (65 years and over) was 31.90 million, constituting 25.1 percent of the total population (i.e., one in every four persons) and marking a record high.

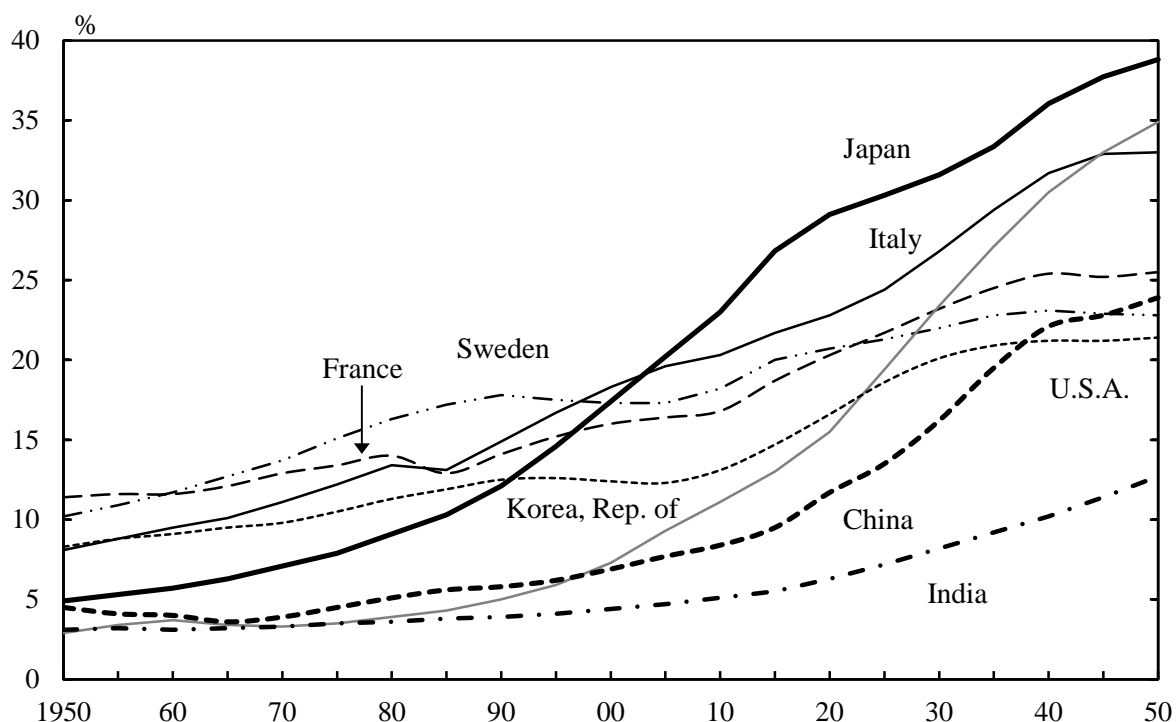
**Figure 2.4**  
**Changes in the Population Pyramid**



Source: Statistics Bureau, MIC; Ministry of Health, Labour and Welfare.

The speed of aging of Japan's population is much faster than in advanced Western European countries or the U.S.A. Although aged population in Japan accounted for only 7.1 percent of the total population in 1970, 24 years later in 1994, it had almost doubled in scale to 14.1 percent. In other countries with an aged population, it took 61 years in Italy, 85 years in Sweden, and 115 years in France for the percentage of the elderly to increase from 7 percent to 14 percent of the population. These comparisons clearly highlight the rapid progress of demographic aging in Japan.

**Figure 2.5**  
**Proportion of Elderly Population by Country (Aged 65 years and over)**



Source: Statistics Bureau, MIC; Ministry of Health, Labour and Welfare; United Nations.

**Table 2.5**  
**Age Structure of Population by Country**

Country	Age Structure of Population by Country (%)					
	2010			2050 (projection)		
	0-14 years	15-64	65 and over	0-14 years	15-64	65 and over
Japan .....	13.2	63.8	23.0	9.7	51.5	38.8
Korea, Rep. of .....	16.2	72.7	11.1	12.0	53.1	34.9
Italy .....	14.0	65.7	20.3	13.9	53.1	33.0
Germany .....	13.4	65.8	20.8	12.6	54.7	32.7
France .....	18.4	64.8	16.8	17.0	57.6	25.5
U.K. ....	17.6	65.9	16.6	16.6	58.7	24.7
Canada .....	16.5	69.4	14.2	16.5	58.8	24.7
China .....	18.1	73.5	8.4	14.7	61.3	23.9
Sweden .....	16.5	65.3	18.2	18.0	59.2	22.8
Brazil .....	25.5	67.6	6.9	15.3	62.2	22.5
U.S.A. ....	19.8	67.1	13.1	18.2	60.4	21.4
Russia .....	14.9	72.0	13.1	17.1	62.4	20.5
India .....	30.2	64.8	5.1	19.5	67.8	12.7

Source: Statistics Bureau, MIC; Ministry of Health, Labour and Welfare; United Nations.

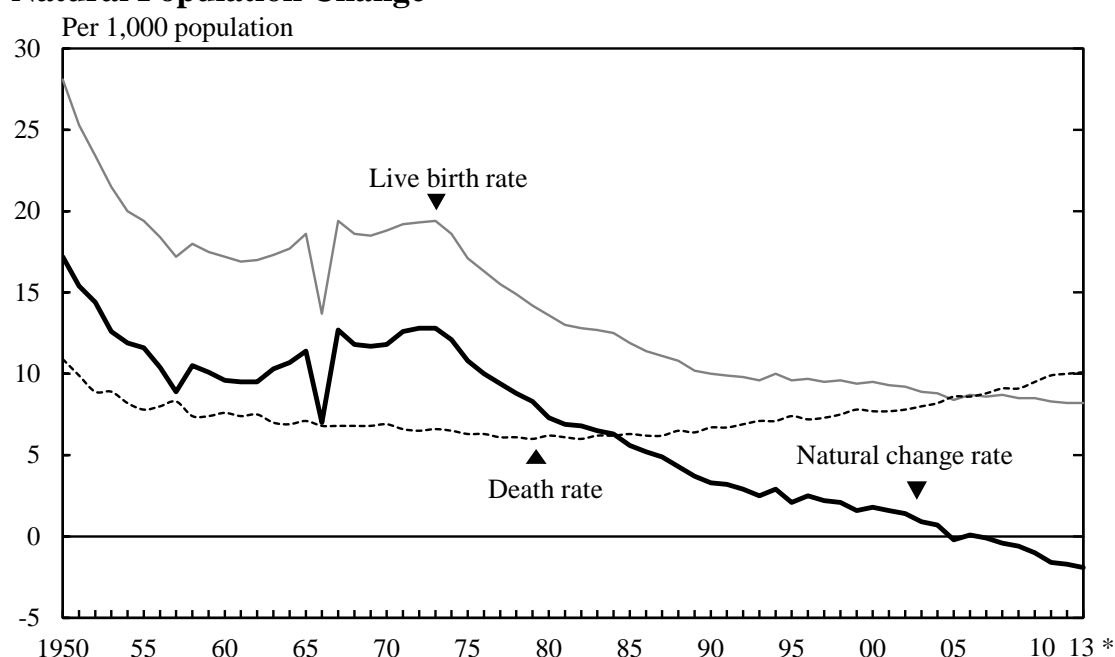
On the other hand, in 2013, the child population (0-14 years) in Japan amounted to 16.39 million, accounting for 12.9 percent of the total population, which was the lowest level on record. In terms of their proportion of the total population, the aged (65 years and over) have surpassed the child population since 1997. The productive-age population (15-64 years) totaled 79.01 million. In share terms, it accounted for 62.1 percent of the entire population, continuing its decline since 1993. As a result, the ratio of the dependent population (the sum of aged and child population divided by the productive-age population) was 61.1 percent.

#### 4. Births and Deaths

Population growth in Japan had primarily been driven by natural increase, while social increase played only a minor part. However, in 2005, the natural change rate (per 1,000 population) fell for the first time since 1899, and has since been on a declining trend. In 2013, the natural change rate was -1.9.

During the second baby boom, the birth rate was at a level of 19 (per 1,000 population) between 1971 and 1973. Since the late 1970s, it has continued to fall. The rate for 2013 was 8.2.

**Figure 2.6**  
**Natural Population Change**



POPULATION

**Table 2.6**  
**Vital Statistics**

Year	Rates per 1,000 population <sup>1)</sup>				Total fertility rate <sup>2)</sup>	Life expectancy at birth (years)	
	Live births	Deaths	Infant mortality	Natural change		Males	Females
1950	28.1	10.9	60.1	17.2	3.65	a) 59.57	a) 62.97
1955	19.4	7.8	39.8	11.6	2.37	63.60	67.75
1960	17.2	7.6	30.7	9.6	2.00	65.32	70.19
1965	18.6	7.1	18.5	11.4	2.14	67.74	72.92
1970	18.8	6.9	13.1	11.8	2.13	69.31	74.66
1975	17.1	6.3	10.0	10.8	1.91	71.73	76.89
1980	13.6	6.2	7.5	7.3	1.75	73.35	78.76
1985	11.9	6.3	5.5	5.6	1.76	74.78	80.48
1990	10.0	6.7	4.6	3.3	1.54	75.92	81.90
1995	9.6	7.4	4.3	2.1	1.42	76.38	82.85
2000	9.5	7.7	3.2	1.8	1.36	77.72	84.60
2005	8.4	8.6	2.8	-0.2	1.26	78.56	85.52
2010	8.5	9.5	2.3	-1.0	1.39	79.55	86.30
2011	8.3	9.9	2.3	-1.6	1.39	79.44	85.90
2012	8.2	10.0	2.2	-1.7	1.41	79.94	86.41
2013	* 8.2	* 10.1	* 2.1	* -1.9	* 1.43	80.21	86.61

1) The infant mortality rate is per 1,000 live births. 2) The average number of children that would be born alive to a hypothetical cohort of women if, throughout their reproductive years, the age-specific fertility rates for the specified year remained unchanged. a) 1950-1952 period.

Source: Ministry of Health, Labour and Welfare.

The decline in the birth rate may partly be attributable to the rising maternal age at childbirth. The average mothers' age at first childbirth rose from 25.6 in 1970 to 30.4 in 2013. The total fertility rate was on a downward trend after dipping below 2.00 in 1975. It marked a record low of 1.26 in 2005 and started to increase after that. The total fertility rate reached 1.43 in 2013.

**Table 2.7**  
**Changes of Mothers' Age at Childbirth**

Year	Number of births (1,000)	Distribution of mothers' age (%)						Mean age bearing first child
		-19	20-24	25-29	30-34	35-39	40 and over	
1970	1,934	1.0	26.5	49.2	18.5	4.2	0.5	25.6
1975	1,901	0.8	25.2	53.4	16.8	3.3	0.5	25.7
1980	1,577	0.9	18.8	51.4	24.7	3.7	0.5	26.4
1985	1,432	1.2	17.3	47.7	26.6	6.5	0.6	26.7
1990	1,222	1.4	15.7	45.1	29.1	7.6	1.0	27.0
1995	1,187	1.4	16.3	41.5	31.3	8.4	1.1	27.5
2000	1,191	1.7	13.6	39.5	33.3	10.6	1.3	28.0
2005	1,063	1.6	12.1	31.9	38.1	14.4	1.9	29.1
2010	1,071	1.3	10.4	28.6	35.9	20.5	3.3	29.9
2011	1,051	1.3	9.9	28.6	35.5	21.1	3.6	30.1
2012	1,037	1.2	9.2	28.2	35.5	21.7	4.1	30.3
2013 *	1,030	1.3	8.9	27.5	35.5	22.3	4.6	30.4

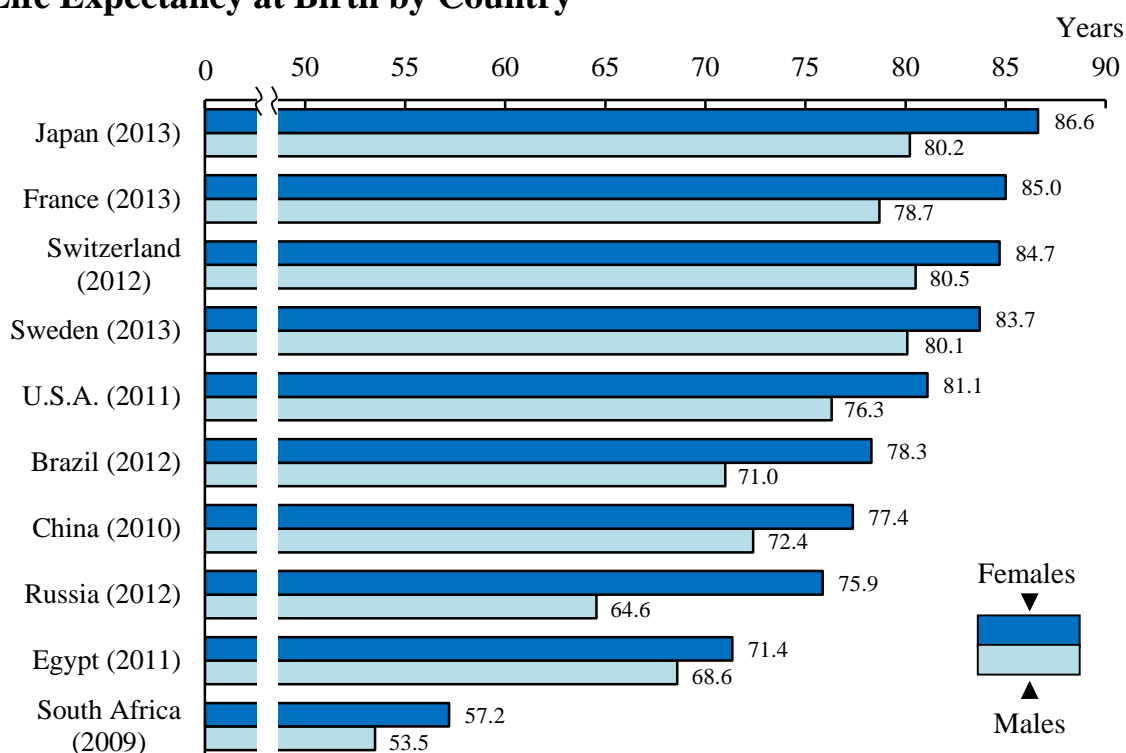
Source: Ministry of Health, Labour and Welfare.

The death rate (per 1,000 population) was steady at 6.0 - 6.3 between 1975 and 1987. Since 1988, however, it has shown uptrend, reflecting the increased percentage of the elderly in the overall population. The death rate was 10.1 in 2013.

Average life expectancy in Japan climbed sharply after World War II, and is today at the highest level in the world. In 2013, the life expectancy at birth was 86.6 years for women and 80.2 years for men. The life expectancy at birth for men exceeded 80 years for the first time, setting a new all-time record for both genders.



**Figure 2.7**  
**Life Expectancy at Birth by Country**



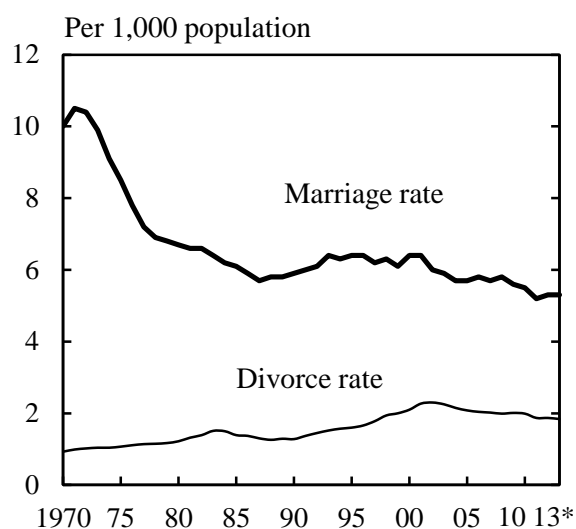
Source: Ministry of Health, Labour and Welfare.

## 5. Marriages and Divorces

The annual number of marriages in Japan exceeded one million couples in the early 1970s, which, coupled with the marriage rate (per 1,000 population) hovering over 10.0, showed an apparent marriage boom. However, both the number of couples and the marriage rate started declining thereafter. They rose again in the late 1980s, in recent years, they have been on a declining trend in general. In 2011, there were 662,000 couples married, marking the first time this number fell below 700,000 couples. In 2013, 661,000 couples married, and the marriage rate was 5.3.

The mean age of first marriage was 30.9 for men and 29.3 for women in 2013, a rise by 2.4 years and 3.1 years, respectively, over the past twenty years (in 1994: grooms, 28.5; brides, 26.2). The declining marriage rate and rising marrying age in recent years as described above is one explanation for the dropping birth rate.

**Figure 2.8**  
**Changes in Marriage Rate and**  
**Divorce Rate**



Source: Ministry of Health, Labour and Welfare.

**Table 2.8**  
**Mean Age of First Marriage**

Year	Groom	Bride
1950	25.9	23.0
1955	26.6	23.8
1960	27.2	24.4
1965	27.2	24.5
1970	26.9	24.2
1975	27.0	24.7
1980	27.8	25.2
1985	28.2	25.5
1990	28.4	25.9
1995	28.5	26.3
2000	28.8	27.0
2005	29.8	28.0
2010	30.5	28.8
2011	30.7	29.0
2012	30.8	29.2
2013 *	30.9	29.3

Source: Ministry of Health, Labour and Welfare.

In contrast, divorces have shown an upward trend since the late 1960s, hitting a peak of 290,000 couples in 2002. Subsequently, both the number of divorces and the divorce rate have been declining since 2003. In 2013, the number of divorces totaled 231,000 couples, and the divorce rate (per 1,000 population) was 1.84.

## 6. Population Density and Regional Distribution

### (1) Population Density

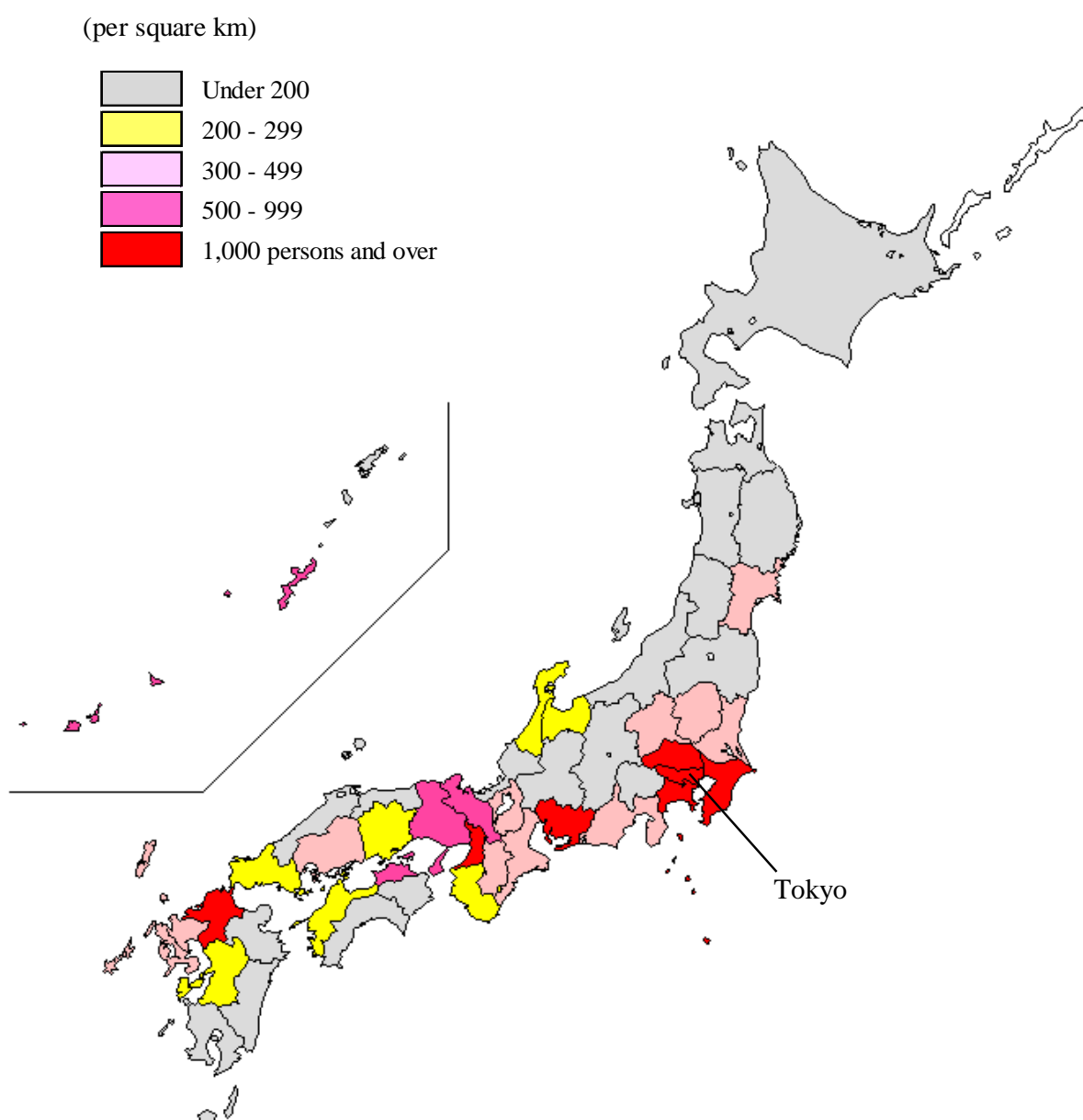
In 2010, Tokyo had the largest population of 13.16 million among Japan's 47 prefectures, followed in decreasing order by the prefectures of Kanagawa, Osaka, Aichi, and Saitama. These five prefectures each had a population of seven million or more, and together accounted for 35.7 percent of the total population.

The population density in Tokyo was the highest among Japan's prefectures, at 6,016 persons per square kilometer. This was almost 18 times the national average (343 persons per square kilometer).

## POPULATION

In 2010, there were 12 cities in Japan with a population of one million or more. Their total population topped 28 million, a figure equivalent to 22.5 percent of the national total. The largest single city was the 23 wards (*ku*) of central Tokyo, with 8.95 million citizens. It was followed in decreasing order by Yokohama-*shi* (3.69 million), Osaka-*shi* (2.67 million), and Nagoya-*shi* (2.26 million).

**Figure 2.9**  
**Population Density by Prefecture (2010)**



Source: Statistics Bureau, MIC.

**Table 2.9**  
**Population of Major Cities**

(Thousands)					
Cities	Population		Cities	Population	
	2005	2010		2005	2010
Tokyo, 23 wards ( <i>ku</i> )	8,490	8,946	Kyoto- <i>shi</i> .....	1,475	1,474
Yokohama- <i>shi</i> .....	3,580	3,689	Fukuoka- <i>shi</i> .....	1,401	1,464
Osaka- <i>shi</i> .....	2,629	2,665	Kawasaki- <i>shi</i> .....	1,327	1,426
Nagoya- <i>shi</i> .....	2,215	2,264	Saitama- <i>shi</i> .....	1,176	1,222
Sapporo- <i>shi</i> .....	1,881	1,914	Hiroshima- <i>shi</i> .....	1,154	1,174
Kobe- <i>shi</i> .....	1,525	1,544	Sendai- <i>shi</i> .....	1,025	1,046

Source: Statistics Bureau, MIC.

## (2) Population Distribution

The percentage of the urban population started increasing in the late 1950s. In 2010, 51.0 percent of the total population was concentrated in the three major metropolitan areas, the Kanto major metropolitan area, the Chukyo major metropolitan area, and the Kinki major metropolitan area. Population density in the Kanto major metropolitan area was 2,631 persons per square kilometer. In the Chukyo major metropolitan area, it was 1,288 persons per square kilometer, and in the Kinki major metropolitan area, it was 1,484 persons per square kilometer.

**Table 2.10**  
**Population of Three Major Metropolitan Areas**<sup>1)</sup>

Areas	Population (1,000)		Surface Area (km <sup>2</sup> )	Population density (per km <sup>2</sup> )
		Percentage of the total (%)		
Kanto major metropolitan area .....	36,923	28.8	14,034	2,631
Chukyo major metropolitan area .....	9,107	7.1	7,072	1,288
Kinki major metropolitan area .....	19,342	15.1	13,033	1,484
Total of three major metropolitan areas .....	65,373	51.0	34,138	1,915

1) Major metropolitan areas consist of central cities (Kanto: *Ku*-area of Tokyo, Yokohama-*shi*, Kawasaki-*shi*, Sagamihara-*shi*, Saitama-*shi*, and Chiba-*shi*; Chukyo: Nagoya-*shi*; Kinki: Osaka-*shi*, Sakai-*shi*, Kyoto-*shi*, and Kobe-*shi*) and surrounding areas (cities, towns and villages).

Source: Statistics Bureau, MIC.

# **Chapter 3**

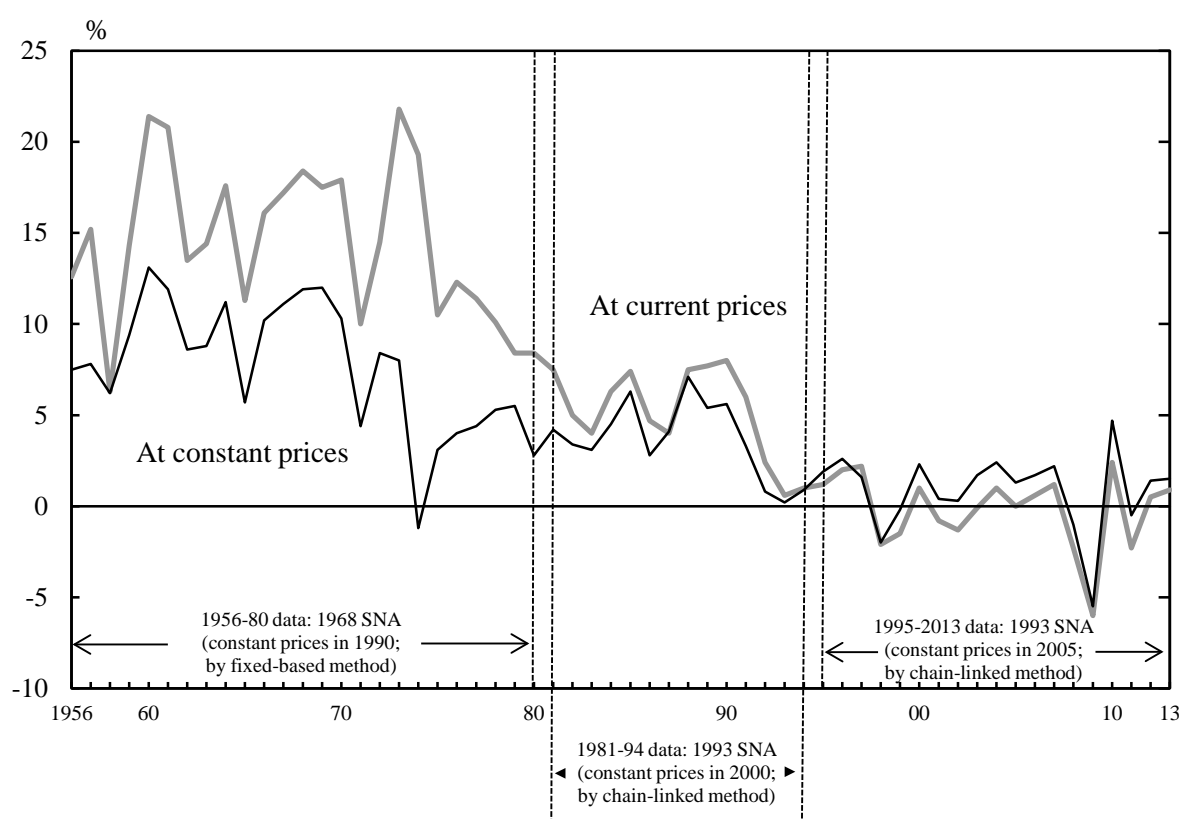
## **Economy**

## 1. Economic Development

After World War II, Japan underwent a period of restoration followed by high economic growth, eventually becoming the economy with the second largest GDP in the world in 1967.

During the 1960s, Japan's economy grew at a rapid pace of over 10 percent per annum. This rapid economic growth was supported by: (i) expansion of private investments in plant and equipment, backed by a high rate of personal savings; (ii) a large shift in the working population from primary to secondary industries, and "an abundant labor force supplied by a high rate of population growth"; and (iii) an increase in productivity brought about by adopting and improving foreign technologies.

**Figure 3.1**  
**Economic Growth Rates** <sup>1)</sup>



1) Data was estimated using a different method beginning in 1995.  
Source: Cabinet Office.

From the late 1960s until the first half of the 1970s, new social problems emerged that reflected warps left by high economic growth. As a result, steps to tackle environmental pollution, urban issues and social security problems became the central targets of administrators, and countermeasures were taken accordingly.

In the 1970s, the sharp increase of Japan's exports of industrial products to the U.S.A. and Europe began to cause international friction. In 1971, the U.S.A. announced it would end the convertibility of the dollar into gold. In December 1971, Japan revalued the yen from 360 yen against the U.S. dollar, which had been maintained for 22 years, to 308 yen. In February 1973, Japan adopted a floating exchange-rate system.

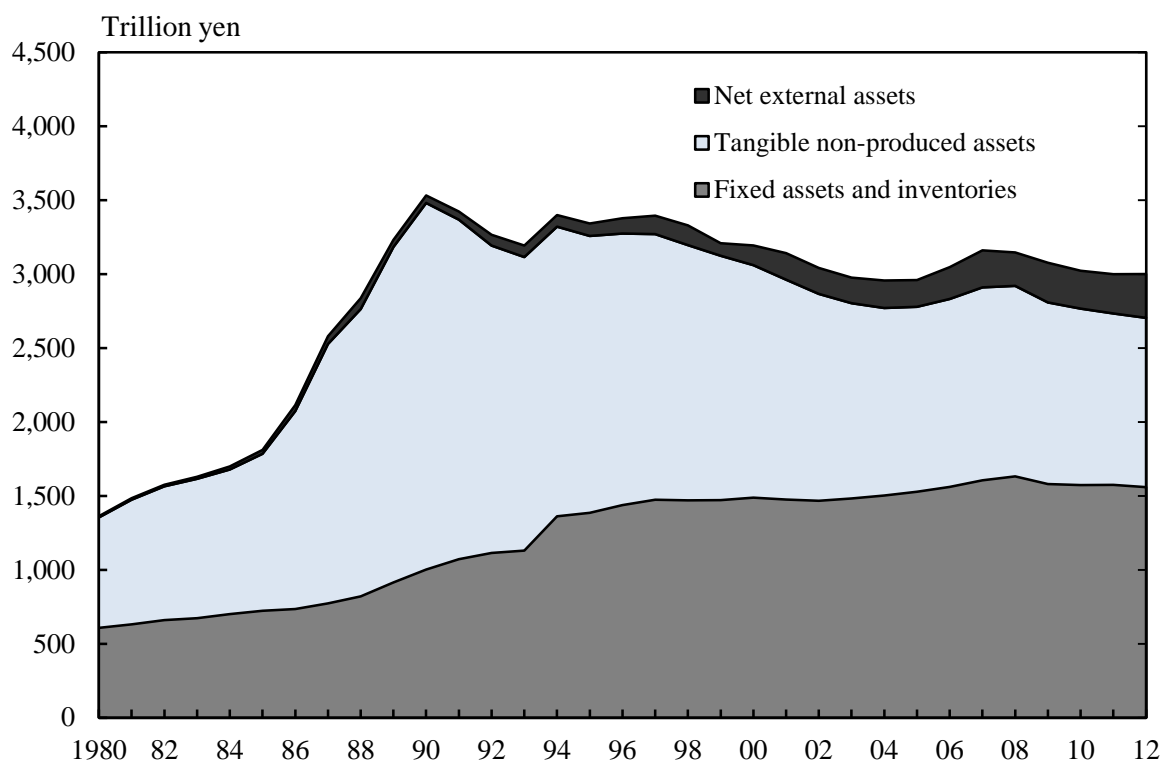
In October 1973, the fourth Middle East War led to the first oil crisis, triggering high inflation. Accordingly, Japan recorded negative economic growth in 1974 for the first time in the post-war period. Following the second oil crisis in 1978, efforts were made to change Japan's industrial structure from "energy-dependent" to "energy-saving," enabling Japan to successfully overcome inflation.

In the 1980s, the trade imbalance with advanced industrial countries expanded because of the yen's appreciation. As part of administrative and financial reforms, Japan National Railways and Nippon Telegraph and Telephone Public Corporation were privatized. As a result, domestic demand-led economic growth was achieved.

## **2. Bubble Economy and Its Collapse**

At the end of the 1980s, Japan's economy enjoyed favorable conditions, with stable wholesale prices and a low unemployment rate. Corporate profits were at their highest level in history, and corporate failures were at their lowest level, while investments in plant and equipment for manufacturing products, such as semiconductors, were very active. Stock and land prices continued to rise rapidly, and large-scale urban developments and resort facility developments in rural areas progressed at a very fast pace. However, excessive funds flowed into the stock and real estate markets, causing abnormal increases in capital asset values (forming an economic bubble).

**Figure 3.2**  
**National Wealth** <sup>1)</sup>



1) Data was estimated using a different method beginning in 1994.

Source: Cabinet Office.

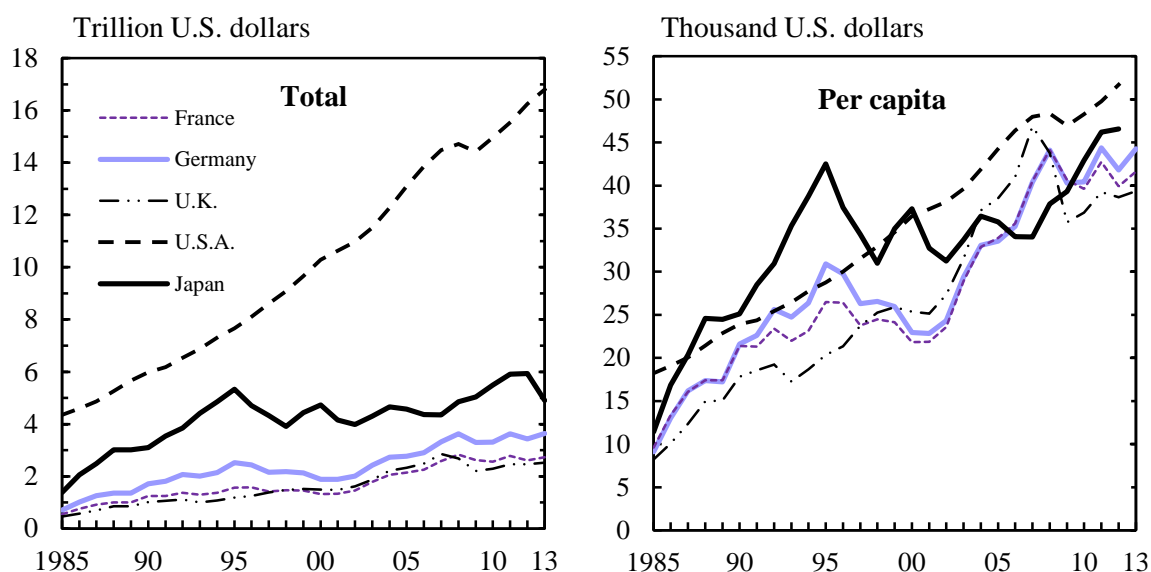
At the end of 1980, Japan's net worth (national wealth) stood at 1,363 trillion yen, 5.6 times the GDP. It then increased, reaching 3,531 trillion yen, 8.0 times the GDP, at the end of 1990, owing to increasing land and stock prices. Since then, Japan's national wealth changed to decreasing by the collapse of the bubble economy. At the end of 2012, it was 3,000 trillion yen.

At the beginning of 1990, stock prices plummeted, followed by sharp declines in land prices. This marked the start of major economic recession (collapse of the bubble economy). Japan's financial and economic systems, which were excessively dependent on land, consequently approached collapse.

Massive bad debts were created in financial institutions' loan portfolios, as corporate borrowers suffered serious losses due to declining land prices. As a result, shareholders' equity in financial institutions shrank. In 1997, large banks began to fail. In 1998 and 1999, the government injected public money into the banking sector to stabilize the financial system.



**Figure 3.3**  
**Gross Domestic Product** (Current prices, converted into U.S. dollars)



Source: OECD.

The Japanese economy began to make a moderate recovery in February 1999. This, however, was only a temporary phenomenon, as investments in plant and equipment were weak and the economy was too dependent on foreign demand and information and communication technologies. With the global decline in IT demand from mid-2000, Japan's exports to Asia dropped, necessitating adjustments of excess inventory and production facilities. In line with this, the Japanese economy again entered into an economic downturn in 2001.

Following the simultaneous terrorist attacks in the U.S.A. in September 2001, further slowdown of the world economy became a matter of serious concern, resulting in greater uncertainty over the outlook for the Japanese economy. There were several causes for this long-term slump in the Japanese economy. Among them, the following two factors likely had the biggest impacts. First, Japanese banks were saddled with large nonperforming loans. A vicious circle developed, in which the long-term economic stagnation exacerbated the bad loan situation, while the bad loans hindered economic growth. Second, there was another vicious circle, in which the continuing economic slump led to pessimism about the future on the part of corporations and consumers, and their hesitation generated further recession.

Subsequently, the Japanese economy maintained a long-lasting recovery beginning in early 2002. However, the path has not always been smooth, given two "soft patches" (temporary softening in the market) and weakness in some parts of the economy.

The first soft patch was caused by slower export growth following economic slowdowns in the U.S.A. and the Asian region, both Japan's major export destinations, since late 2002. The second soft patch resulted from slower export growth owing to a surplus inventory of information-related producer goods in Japan as demand for IT-related goods declined worldwide since late 2004. During the phase of Japan's economic recovery from the beginning of 2002, there was a common trend where exports were showing signs of steady growth, reflecting a brisk recovery of the world economy, but then a soft patch set in and pushed exports down, resulting in sluggish growth in both production and personal spending. As exports picked up, the economy broke away from this slower period.

### **3. Recent Economic Trends**

At the start of 2008, the Japanese economy was faced with a standstill in its path to recovery as private consumption and investments in plant and equipment fell flat and so did production. This occurred against the backdrop of soaring crude oil and raw material prices and repercussions from the American subprime mortgage loan problems that, since mid-2007, rapidly clouded future prospects for the world economy further. In addition, the bankruptcy of the major American securities firm Lehman Brothers in September 2008 (the "Lehman shock") led to a serious financial crisis in Europe and the U.S.A. Japan was also affected by the yen's rise and the sudden economic contraction in the U.S.A. and other countries. Declining exports contributed to a large drop in production and a sharp rise in unemployment. As the economy continued to recover with foreign demand and economic measures after April 2009, the government defined March 2009 as the trough of the economic cycle. On the other hand, in November 2009, the government summed up the price movements of goods and services to conclude that they were "in a state of moderate deflation."

**Table 3.1**  
**Gross Domestic Product** <sup>1)</sup> (Expenditure approach)

	(Billion yen)			
Item	2010	2011	2012	2013
Gross domestic product (GDP) .....	512,364.2	510,044.6	517,439.3	525,336.6
Domestic demand .....	494,573.7	496,709.1	508,157.3	517,399.1
Private demand .....	375,726.2	378,481.6	387,689.3	392,502.5
Private final consumption expenditure .....	300,435.6	301,219.0	307,295.3	313,500.5
Private Residential Investment .....	12,325.5	12,954.4	13,325.6	14,508.2
Private plant and equipment .....	64,075.3	66,698.1	69,167.4	68,120.0
Changes in inventories of private sector .....	-552.1	-1,812.0	-1,542.3	-3,037.9
Public demand .....	118,781.6	118,196.5	120,455.1	124,797.0
Government final consumption expenditure ..	97,335.1	98,536.7	100,231.7	102,199.8
Gross capital formation by public sector .....	21,575.1	19,796.9	20,358.5	22,677.5
Changes in inventories of public sector .....	-63.7	9.2	4.3	-31.5
Net exports of goods and services .....	17,060.7	12,907.5	9,102.9	7,964.8
Exports of goods and services .....	82,398.9	82,106.3	81,987.8	83,350.8
(less) Imports of goods and services .....	65,338.2	69,198.9	72,885.0	75,386.0
(Reference)				
Trading gains/losses .....	-11,006.5	-17,296.1	-18,867.4	-20,741.2
Gross domestic income .....	501,357.7	492,748.5	498,572.0	504,595.4
Net income from the rest of the world .....	13,499.4	15,361.5	15,857.1	18,580.6
Incomes from the rest of the world .....	18,941.6	21,305.6	22,324.0	25,953.8
(less) Incomes to the rest of the world .....	5,442.2	5,944.1	6,466.9	7,373.2
Gross national income (GNI) .....	514,857.1	508,110.0	514,429.0	523,176.0

1) Constant prices in 2005; by chain-linked method.

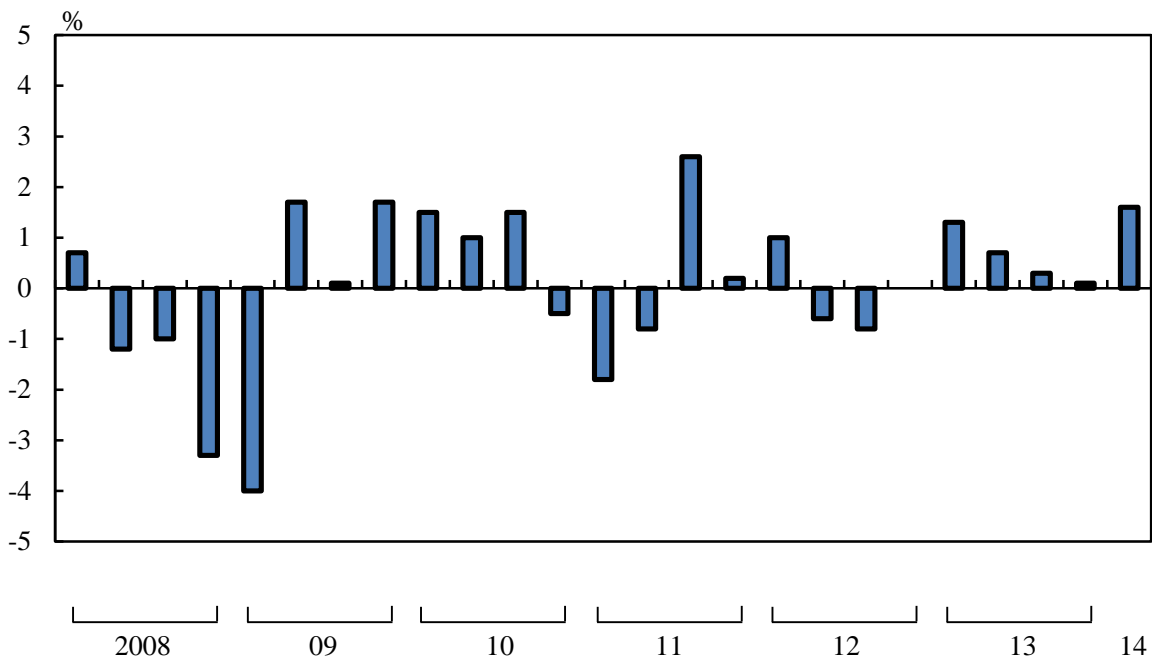
Source: Cabinet Office.

Subsequently, the Japanese economy came to a standstill starting around October 2010. In early 2011, however, it began to rally. The Great East Japan Earthquake that took place on March 11, 2011, and the nuclear power plant accident it caused weakened the economic recovery.

In order to achieve an early end to deflation and break free of economic stagnation, in January 2013, the Government of Japan set forth its "three-arrows" strategy (also known as "Abenomics"). The first "arrow" is "aggressive monetary policy." The Bank of Japan (BOJ) made it clear that it would set a consumer price index annual growth rate of two percent as a "price stabilization target." The BOJ also introduced "quantitative and qualitative monetary easing" to double the monetary base over two years. The second "arrow" is "flexible fiscal policy." An emergency economic stimulus package with a scale of approximately 10 trillion yen was developed. The third "arrow" is "growth strategy that promotes private

investment." Efforts are being made in growth strategies such as encouraging investments by private corporations based on easing of regulations. Based on this, economic conditions have turned toward recovery, as exemplified by an exchange rate that has shifted toward a weakening of the yen, and significant increases in stock prices. Changes have also been observed in the prolonged situation of deflation.

**Figure 3.4**  
**Economic Growth Rates <sup>1)</sup> (Quarterly changes)**



1) 1993 SNA (2005 constant prices; chain-linked method; seasonally adjusted figures).  
Source: Cabinet Office.

## 4. Industrial Structure

Japan's industrial structure has undergone a major transformation over the half century since the end of World War II. The chronological changes in the industrial structure during this period by industry share of employed persons and GDP show that shares in the primary industry in particular have fallen dramatically since 1970, when Japan experienced a rapid economic growth. During the 1980s, the secondary industry's share of employed persons and GDP also began to decline gradually. On the other hand, the tertiary industry's shares of both employed persons and GDP have risen consistently.

In 1970, the primary industry accounted for 19.3 percent of employed persons, the secondary industry for 34.1 percent, and the tertiary industry for 46.6 percent. In 2010, the corresponding shares of these three sectors were 4.2 percent, 25.2 percent and 70.6 percent, respectively.

As for GDP by type of economic activity, in 1970, the primary, secondary and tertiary industries accounted for 5.9 percent, 43.1 percent and 50.9 percent, respectively. In 2010, these figures for the primary, secondary and tertiary industries were 1.2 percent, 25.2 percent and 73.6 percent, respectively.

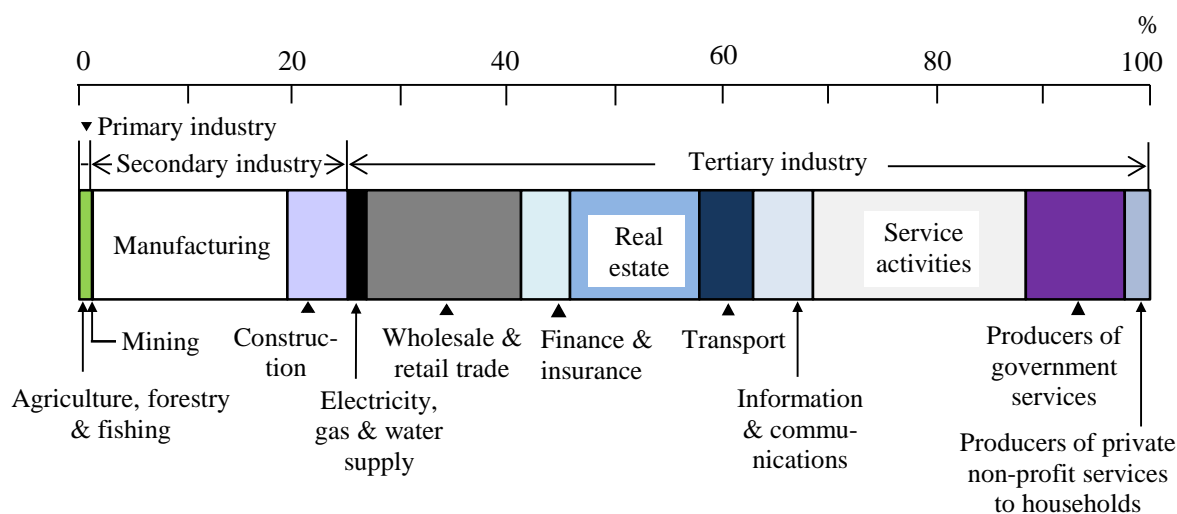
**Table 3.2**  
**Changes in Industrial Structure**

Year	(%)					
	Employed persons <sup>1)</sup>			Gross domestic product (GDP) <sup>2)</sup>		
	Primary industry	Secondary industry	Tertiary industry	Primary industry	Secondary industry	Tertiary industry
1950	48.6	21.8	29.7	-	-	-
1955	41.2	23.4	35.5	19.2	33.7	47.0
1960	32.7	29.1	38.2	12.8	40.8	46.4
1965	24.7	31.5	43.7	9.5	40.1	50.3
1970	19.3	34.1	46.6	5.9	43.1	50.9
1975	13.9	34.2	52.0	5.3	38.8	55.9
1980	10.9	33.6	55.4	# 3.5	# 36.2	# 60.3
1985	9.3	33.2	57.5	3.0	34.9	62.0
1990	7.2	33.5	59.4	2.4	35.4	62.2
1995	# 6.0	# 31.3	# 62.7	# 1.8	# 30.4	# 67.8
2000	5.2	29.5	65.3	1.6	28.4	70.0
2005	4.9	26.4	68.6	1.2	25.8	73.0
2010	4.2	25.2	70.6	1.2	25.2	73.6

1) Due to the revision of the Japan Standard Industrial Classification, the figures from 1995 onward are not strictly consistent with those for 1990 or earlier. 2) Data from 1955 to 1979 are based on the 1968 SNA. Data from 1980 onward are based on the 1993 SNA. Data in 1994 and afterwards differs in the estimation method.

Source: Statistics Bureau, MIC; Cabinet Office.

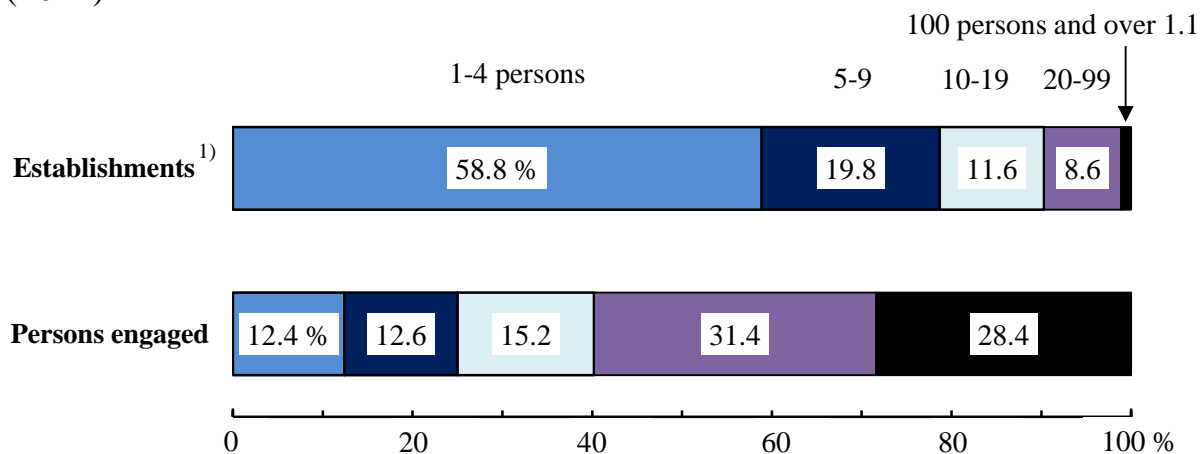
**Figure 3.5**  
**Gross Domestic Product by Type of Economic Activity (2012)**



Source: Cabinet Office.

According to the 2012 Economic Census for Business Activity, there were 5.45 million establishments (excluding businesses whose operational details are unknown, national government services, or local government services) in Japan, at which a total of 55.84 million persons were employed. The average number of persons engaged per establishment was 10.2. Establishments with less than 10 persons accounted for 78.7 percent of the total.

**Figure 3.6**  
**Shares of Establishments and Persons Engaged by Scale of Operation (2012)**



1) Excluding establishments consisting of only loaned or dispatched employees.

Source: Statistics Bureau, MIC; Ministry of Economy, Trade and Industry.

The number of establishments by the major groupings of the Japan Standard Industrial Classification was the most numerous in the "wholesale and retail trade" category, numbering 1.41 million, followed by "accommodations, eating and drinking services" and "construction." In terms of the number of persons engaged, establishments in the "wholesale and retail trade" ranked first as they employed 11.75 million persons, followed by "manufacturing" and "medical, health care and welfare."

**Table 3.3**  
**Number of Establishments and Persons Engaged <sup>1)</sup> (2012)**

Item	Number of establishments	Number of persons engaged
Total .....	5,453,635	55,837,252
<b>By industry</b>		
Primary industry		
Agriculture, forestry and fisheries .....	30,717	356,215
Secondary industry		
Mining and quarrying of stone and gravel .....	2,286	21,427
Construction .....	525,457	3,876,621
Manufacturing .....	493,380	9,247,717
Tertiary industry		
Electricity, gas, heat supply and water .....	3,935	201,426
Information and communications .....	67,204	1,627,310
Transport and postal activities .....	135,468	3,301,682
Wholesale and retail trade .....	1,405,021	11,746,468
Finance and insurance .....	88,831	1,589,449
Real estate and goods rental and leasing .....	379,719	1,473,840
Scientific research, professional and technical services .....	219,470	1,663,790
Accommodations, eating and drinking services .....	711,733	5,420,832
Living-related and personal services and amusement services ...	480,617	2,545,797
Education, learning support .....	161,287	1,721,559
Medical, health care and welfare .....	358,997	6,178,938
Compound services .....	33,357	342,426
Services, n.e.c. ....	356,156	4,521,755
<b>By type of legal organizations</b>		
Individual proprietorships .....	2,204,704	6,374,334
Corporations .....	3,218,023	49,327,187
Companies .....	2,839,291	41,921,403
Organizations other than corporations .....	30,908	135,731

1) Excluding businesses whose operational details are unknown, national government services, or local government services.

Source: Statistics Bureau, MIC; Ministry of Economy, Trade and Industry.

The manufacturing industry in Japan has continued to shrink. Overseas expansion by companies in the manufacturing industry is progressing, against the background of the advancing appreciation of the yen after the Lehman Shock, the decentralization of production bases that occurred after the Great East Japan Earthquake, and the increases in energy charges, etc., that have occurred over the past few years. According to Ministry of Economy, Trade and Industry's "Survey of Overseas Business Activities," which surveys Japanese companies that have local affiliates overseas, the number of overseas affiliates in the manufacturing industry was 10,425 companies at the end of fiscal 2012 (year-on-year increase of 20.0 percent), and the overseas production ratio was 20.3 percent in actual performance in fiscal 2012, indicating a 2.3 percentage point increase as compared to the previous fiscal year.

**Table 3.4**  
**Trends of Overseas Affiliated Company (Manufacturing Industries)**

Fiscal year	Number of overseas affiliates	Value of Sales (Million yen)	Overseas production ratio <sup>1)</sup> (%)	Value of capital investment (Million yen)	Ratio of overseas capital investment <sup>2)</sup> (%)
2003	7,127	71,038,238	15.6	2,108,168	17.9
2004	7,786	79,307,913	16.2	2,525,641	16.3
2005	8,048	87,418,663	16.7	3,491,812	19.6
2006	8,287	99,679,316	18.1	3,948,396	20.0
2007	8,318	111,040,510	19.1	4,231,847	19.5
2008	8,147	91,180,733	17.0	3,608,939	18.4
2009	8,399	78,305,761	17.0	2,058,685	15.9
2010	8,412	89,327,934	18.1	2,325,418	17.1
2011	8,684	88,289,996	18.0	3,082,273	21.5
2012	10,425	98,384,657	20.3	3,815,707	25.8

1) Overseas production ratio = Sales of overseas affiliates / (Sales of overseas affiliates + Sales of domestic companies) × 100. 2) Ratio of overseas capital investment = Amount of capital investment in overseas affiliates / (Amount of capital investment in overseas affiliates + Amount of capital investment in domestic companies) × 100.

Source: Ministry of Economy, Trade and Industry.



In the future, it is anticipated that companies in the manufacturing industry in Japan will expand their overseas businesses. There are many companies that are planning on expanding their business to Indonesia, India, Thailand, and China. In addition, there is also increasing interest in new markets such as Mexico and Myanmar.

# **Chapter 4**

## **Finance**

# **1. National and Local Government Finance**

## **(1) National Government Finance**

Japan's fiscal year starts in April, and ends in March of the following year. In setting the national budget, the government submits a proposed budget for the upcoming fiscal year to the Ordinary Session of the Diet, which begins in January. The proposal is then discussed, and an initial budget is approved usually before the fiscal year begins in April. In the event that the Diet does not approve the budget by the end of March, an interim budget comes into effect. The interim budget is effective from the beginning of April until such time when the proposed budget is approved. If it becomes necessary to amend the budget in the course of a fiscal year, the government submits a supplementary budget for Diet approval.

Japan's national budget consists of the general account, special accounts, and the budget for government-affiliated agencies. Using revenues from general sources such as taxes, the general account covers core national expenditures such as social security, public works, culture/education/science and national defense. Special accounts are accounts established for the national government to carry out projects with specific objectives, and are managed and administered independent of the general account. The number and particulars of special accounts change from year to year; for fiscal 2014, a total of 15 special accounts have been established, including the national debt consolidation fund, the grants of allocation tax and transferred tax and the Great East Japan Earthquake recovery fund. Government-affiliated agencies are entities established by special laws and are entirely funded by the government. Currently, the Japan Finance Corporation, the Okinawa Development Finance Corporation, Japan Bank of International Cooperation, and the Japan International Cooperation Agency (Loan Aid Section) are operated as government-affiliated agencies.

**Table 4.1**  
**Revenue and Expenditure of National Government Finance**

				(Million yen)
Fiscal year	General account	Special accounts	Net total <sup>1)</sup>	Government-affiliated agencies
<b>Revenue</b>				
1995	80,557,216	267,813,630	193,857,594	7,656,940
2000	93,361,027	341,146,379	234,669,754	7,019,433
2005	89,000,271	452,141,039	283,201,972	4,710,476
2010	100,534,563	386,984,918	245,704,270	1,204,493
2011	109,979,528	409,923,670	263,616,197	1,171,167
2012	107,762,033	412,533,483	266,025,492	1,182,853
2013 <sup>2)</sup>	105,848,550	431,559,911	277,492,631	a) 1,710,227
2014 <sup>3)</sup>	95,882,303	414,627,788	238,912,401	1,799,105
<b>Expenditure</b>				
1995	75,938,516	232,465,893	155,325,150	7,535,769
2000	89,321,050	305,775,944	199,466,439	6,987,740
2005	85,519,592	401,183,566	230,182,819	4,102,846
2010	95,312,342	345,074,005	201,228,355	1,406,314
2011	100,715,409	376,463,171	223,614,993	1,273,618
2012	97,087,177	377,011,772	221,852,771	1,215,863
2013 <sup>2)</sup>	105,681,460	394,487,841	242,325,767	a) 2,509,882
2014 <sup>3)</sup>	95,882,303	411,425,772	237,392,727	2,336,960

1) Net total deducting duplications of the general account and special accounts. 2) Final estimates as of the end of December 2013. 3), a) Initial budget.

Source: Ministry of Finance.

In national government finance, expenditure has continued to surpass revenue. Since fiscal 2008 in particular, the worsening economy has decreased tax revenues, contributing to an increasing gap between revenue and expenditure. Since fiscal 2009, bond issues have exceeded tax revenues in most years, but since fiscal 2013, tax revenue exceeded borrowing (on an initial budget basis) in two consecutive years.

The size of the general account budget for fiscal 2014 was 95.88 trillion yen, an increase of 3.27 trillion yen (3.5 percent) from the initial budget of fiscal 2013. This is equivalent to 19.2 percent of the fiscal 2014 GDP, forecasted by the government at 500.4 trillion yen.

**Table 4.2**  
**Expenditure of General Account**

(Billion yen)

Fiscal year	Total	General expenditures	Social security	Education and science	Pensions	National defense	Public works
	(A)+(B)+(C)	(A)					
1995	75,939	50,816	14,543	6,667	1,707	4,720	12,795
2000	89,321	52,046	17,636	6,872	1,418	4,907	11,910
2005	85,520	49,343	20,603	5,701	1,065	4,878	8,391
2010	95,312	56,978	28,249	6,051	709	4,670	5,803
2011	100,715	61,637	29,778	6,036	639	4,818	5,915
2012	97,087	59,192	29,198	5,961	570	4,762	5,776
2013 <sup>1)</sup>	98,077	58,713	29,371	5,772	504	4,866	6,324
2014 <sup>2)</sup>	95,882	56,470	30,518	5,442	444	4,885	5,968

Fiscal year	Economic cooperation	Small- and medium-sized business promotion	Energy measures	Food stable supply	Others	National debt service	Local allocation tax grants, etc.
						(B)	(C)
1995	1,034	623	708	269	7,751	12,820	12,302
2000	1,012	933	677	247	6,434	21,446	15,829
2005	784	237	493	657	6,536	18,736	17,441
2010	746	830	845	1,122	7,953	19,544	18,790
2011	620	2,191	954	1,438	9,249	19,628	19,451
2012	624	825	847	1,353	9,277	21,011	16,885
2013 <sup>1)</sup>	654	509	949	1,179	8,584	21,811	17,553
2014 <sup>2)</sup>	510	185	964	1,051	6,503	23,270	16,142

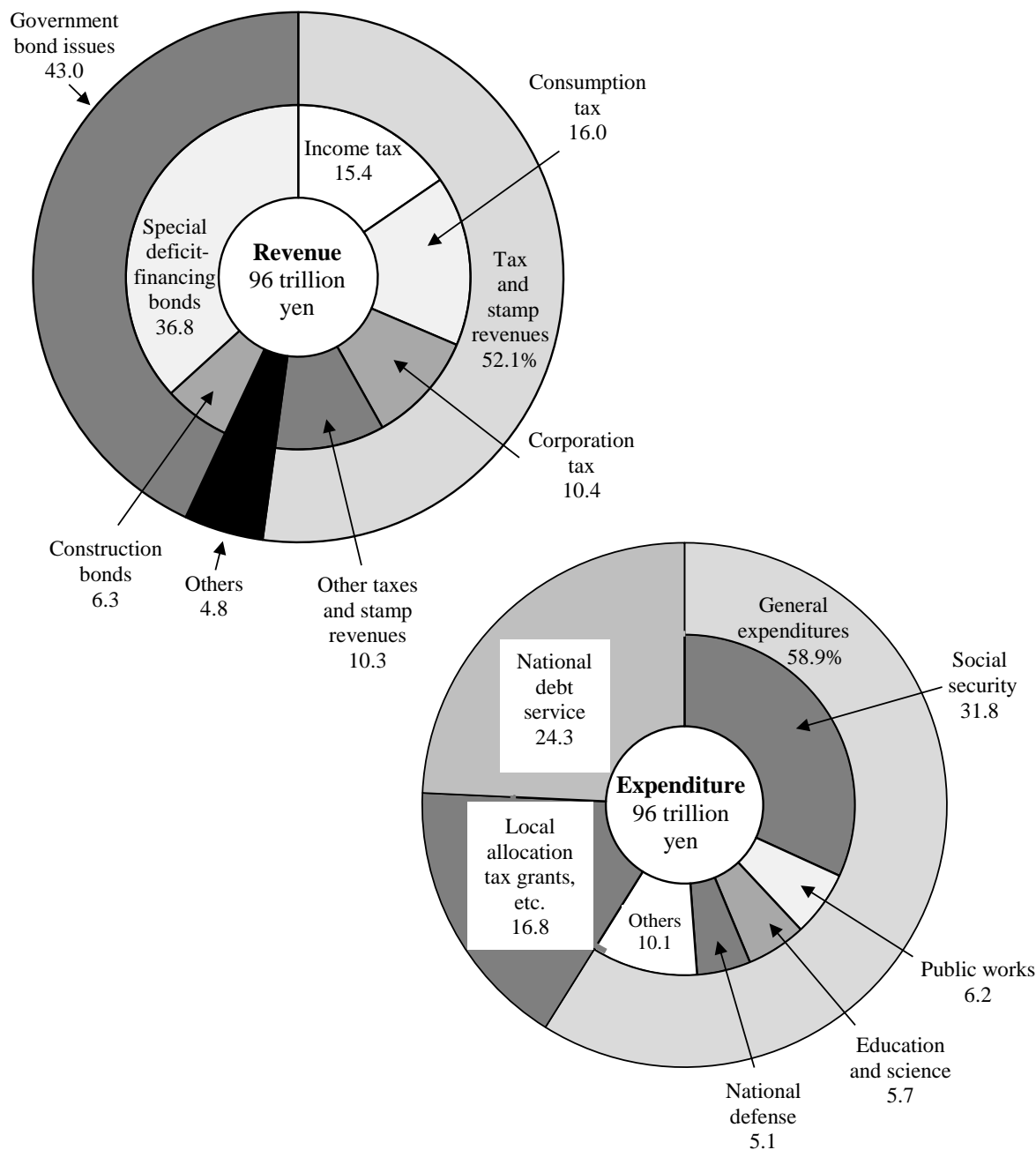
1) Revised budget. 2) Initial budget.

Source: Ministry of Finance.

In fiscal 2014, major expenditures from the initial general account budget include social security (31.8 percent), national debt service (24.3 percent), local allocation tax grants, etc. (16.8 percent), public works (6.2 percent), education and science (5.7 percent) and national defense (5.1 percent).

With regard to revenue sources for the fiscal 2014 initial general account budget, income tax, consumption tax and corporation tax account for 41.8 percent. Even with the addition of other taxes and stamp revenues, these revenue sources only amount to 52.1 percent of the total revenue.

**Figure 4.1**  
**Composition of Revenue and Expenditure of General Account Budget**  
 (Initial budget, FY2014)



Source: Ministry of Finance.

## (2) Local Government Finance

There are two budget categories in the local government finance: the ordinary accounts and the public business accounts. The former covers all kinds of expenses related to ordinary activities of the prefectural and municipal governments. The latter covers the budgets of independently

accounted enterprises such as public enterprises (water supply and sewerage utilities, hospitals, etc.), the national health insurance accounts and the latter-stage elderly medical care accounts.

While expenditures such as national defense are administered solely by the national government, a large portion of expenditures that directly relate to the people's everyday lives are disbursed chiefly through local governments. In particular, a high proportion of the following expenditures are disbursed through local governments: public hygiene and sanitation expenses, which include areas such as medical service and waste disposal; school education expenses; expenses covering judicial, police and fire services; and public welfare expenses, which cover the development and management of welfare facilities for children, the elderly and the mentally and/or physically challenged.

The revenue composition of local governments usually remains almost the same each fiscal year, while their budget scale and structure vary from year to year. The largest portion of fiscal 2011 (net) revenues came from local taxes, accounting for 34.1 percent of the total. The second-largest source, 18.7 percent, was local allocation tax grants.

**Table 4.3**  
**Local Government Finance**<sup>1)</sup> (Ordinary accounts)

	(Million yen)				
Item	FY2007	FY2008	FY2009	FY2010	FY2011
<b>Revenues</b> .....	91,181,397	92,213,459	98,365,695	97,511,501	100,069,646
Local taxes .....	40,266,817	39,558,526	35,182,954	34,316,330	34,171,416
Local allocation tax grants ...	15,202,745	15,406,082	15,820,237	17,193,551	18,752,268
Treasury disbursements .....	10,221,573	11,582,745	16,732,772	14,201,018	15,927,963
Local government bonds .....	9,584,445	9,922,067	12,396,036	12,969,520	11,760,270
<b>Expenditures</b> .....	89,147,615	89,691,477	96,106,449	94,775,014	97,002,646
General administration .....	8,905,803	8,919,649	10,718,365	9,999,758	9,345,975
Public welfare .....	16,976,069	17,821,099	19,767,874	21,316,337	23,182,534
Labor .....	275,910	663,040	918,764	808,224	993,750
Sanitation .....	5,435,815	5,390,177	5,971,517	5,812,417	6,743,245
Civil engineering work .....	13,390,730	12,871,235	13,292,043	11,959,157	11,284,876
Education .....	16,431,769	16,146,676	16,438,041	16,446,685	16,176,813

1) Settled figures of the net total of prefectural and municipal government accounts after deducting duplications.

Source: Ministry of Internal Affairs and Communications.

### (3) National and Local Government Finance

The net total indicates the actual amount of governmental expenditures after eliminating duplications such as the transfer of funds between different accounts in the national budget, the local allocation tax grants and other subsidies from the national government to local governments. In the initial budget for fiscal 2013, the gross total of national government expenditure was 482 trillion yen, the net total was 225 trillion yen after eliminating duplications. Furthermore, the local public finance plan, which consists of the estimated sum of ordinary accounts for the following fiscal year for all local governments, amounted to 84 trillion yen. Therefore, after eliminating duplications between national and local accounts (35 trillion yen), the net total of both national and local government expenditures combined was 275 trillion yen.

**Table 4.4**  
**Expenditures of National and Local Governments (Initial budget)**

Item	Expenditures					
	FY1995	FY2000	FY2005	FY2010	FY2012	FY2013
General account .....	70,987	84,987	82,183	92,299	90,334	92,612
Special accounts .....	241,718	318,689	411,944	367,074	394,095	386,630
Government-affiliated agencies .....	8,086	7,661	4,678	3,135	2,703	2,510
<b>Gross total</b> (national) ....	320,792	411,337	498,805	462,508	487,132	481,751
Duplications .....	160,054	200,435	257,490	244,744	256,050	256,566
<b>Net total</b> (national) .....	160,738	210,902	241,316	217,764	231,082	225,185
Local public finance plan .....	82,509	88,930	83,769	82,127	84,276	84,453
<b>Gross total</b> (national + local) .....	243,247	299,832	325,084	299,891	315,358	309,639
Duplications .....	32,035	37,216	32,689	31,563	34,327	34,514
<b>Net total</b> (national + local) .....	211,213	262,616	292,395	268,328	281,031	275,125

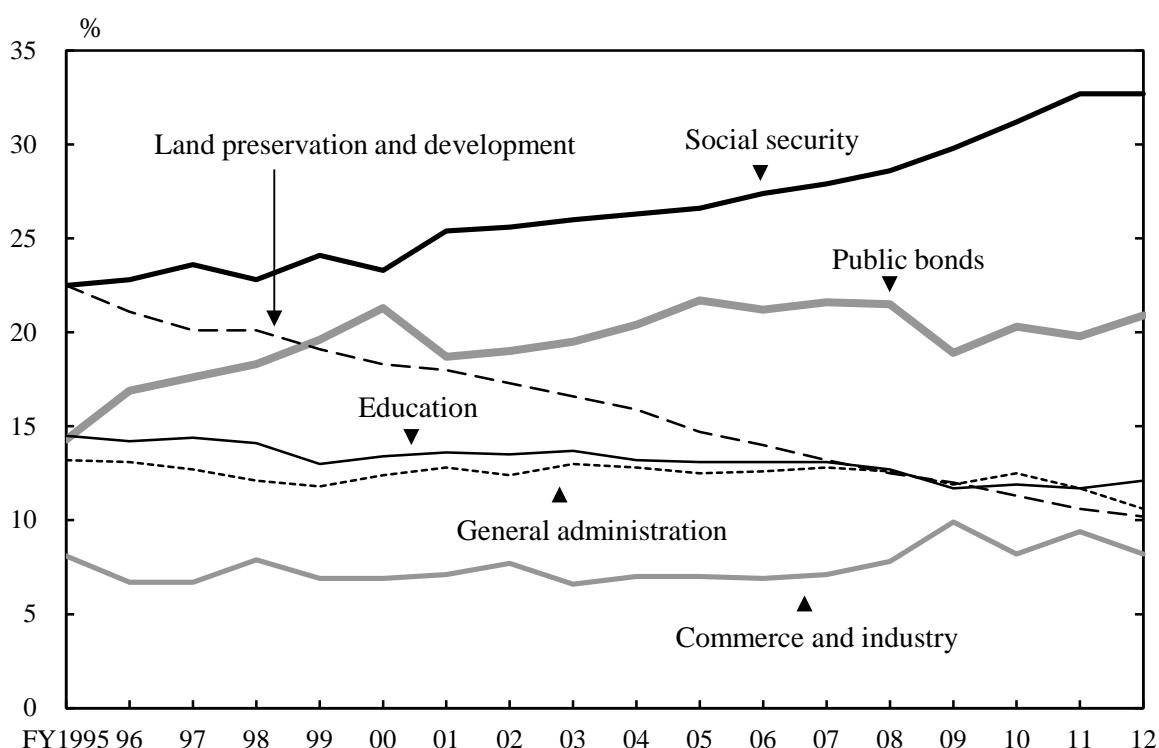
Source: Ministry of Finance.

In fiscal 2012, the net total of national and local government expenditures was 281 trillion yen, approximately 60 percent of which, net of overlaps,



were expenditures "directly related to people's lives." The national government disbursed 42 percent of this amount, while the local governments disbursed 58 percent.

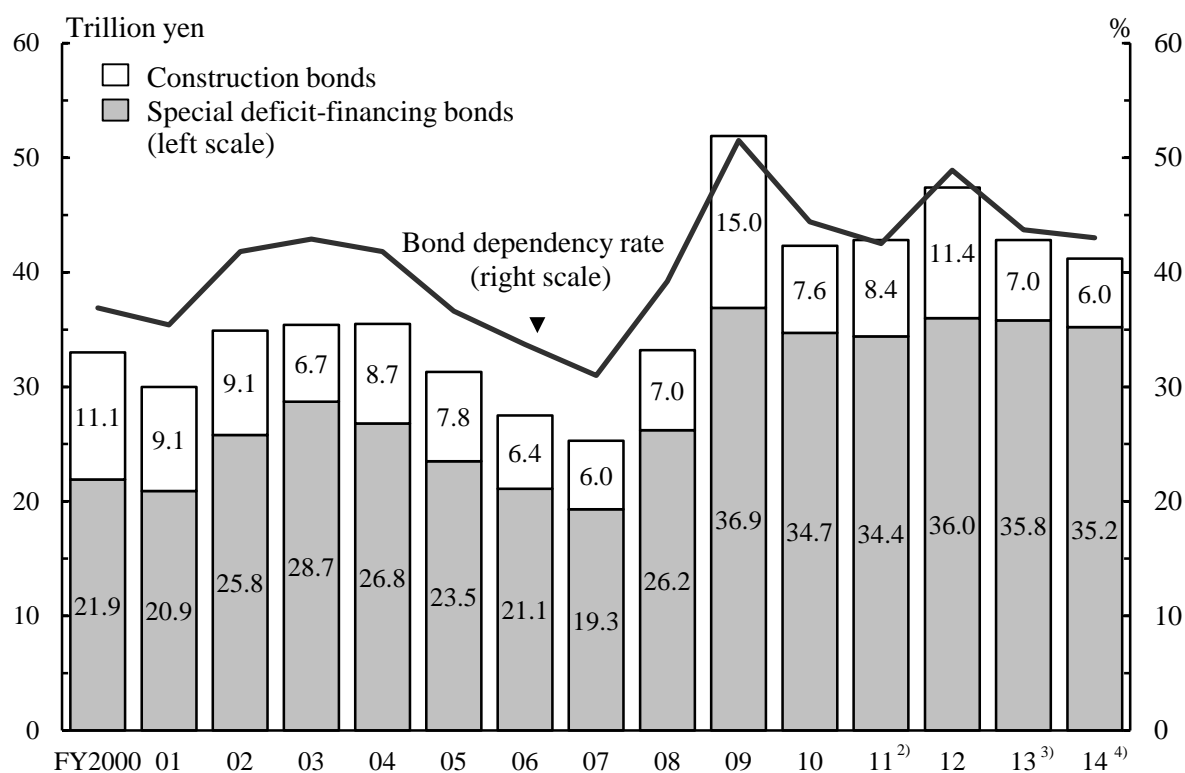
**Figure 4.2**  
**Trends in Ratio of Net Total National and Local Expenditures**  
**by Function**



Source: Ministry of Internal Affairs and Communications.

A function-by-function breakdown of expenditures "directly related to people's lives" showed that social security expenditure accounted for the largest portion (32.7 percent), followed by public bonds (20.9 percent), education (12.1 percent), general administration (10.6 percent), and then land preservation and development (10.2 percent). Public bonds are issued to compensate for shortages of national and local revenues. Their issue volumes have increased mainly due to, for example, economic stimulus measures and decreasing tax revenues since 1992. A rising amount of public bond redemptions, among other factors, has resulted in public bonds making up a high percentage of government expenditures net of overlaps.

**Figure 4.3**  
**Trends in National Government Bond Issue <sup>1)</sup>**

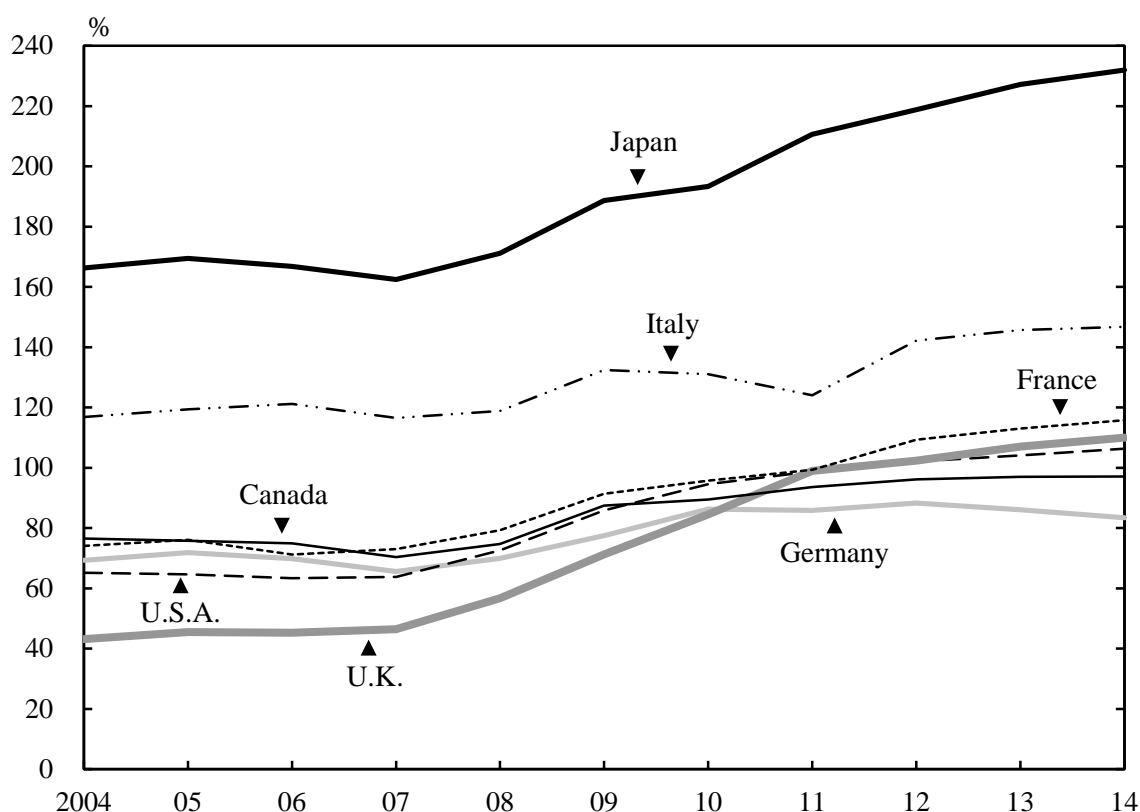


1) Settlement basis. 2) Bond dependency rate was calculated by the revenues including special account for reconstruction from the Great East Japan Earthquake. 3) Based on the revised budget. 4) Based on the initial budget.

Source: Ministry of Finance.

Japan's ratio of outstanding general government debt to GDP, a stock measure in a fiscal context, has been deteriorating rapidly due to its public bond issues over a series of years and is now the worst among major industrial countries.

**Figure 4.4**  
**Ratio of General Government Gross Debt to GDP**

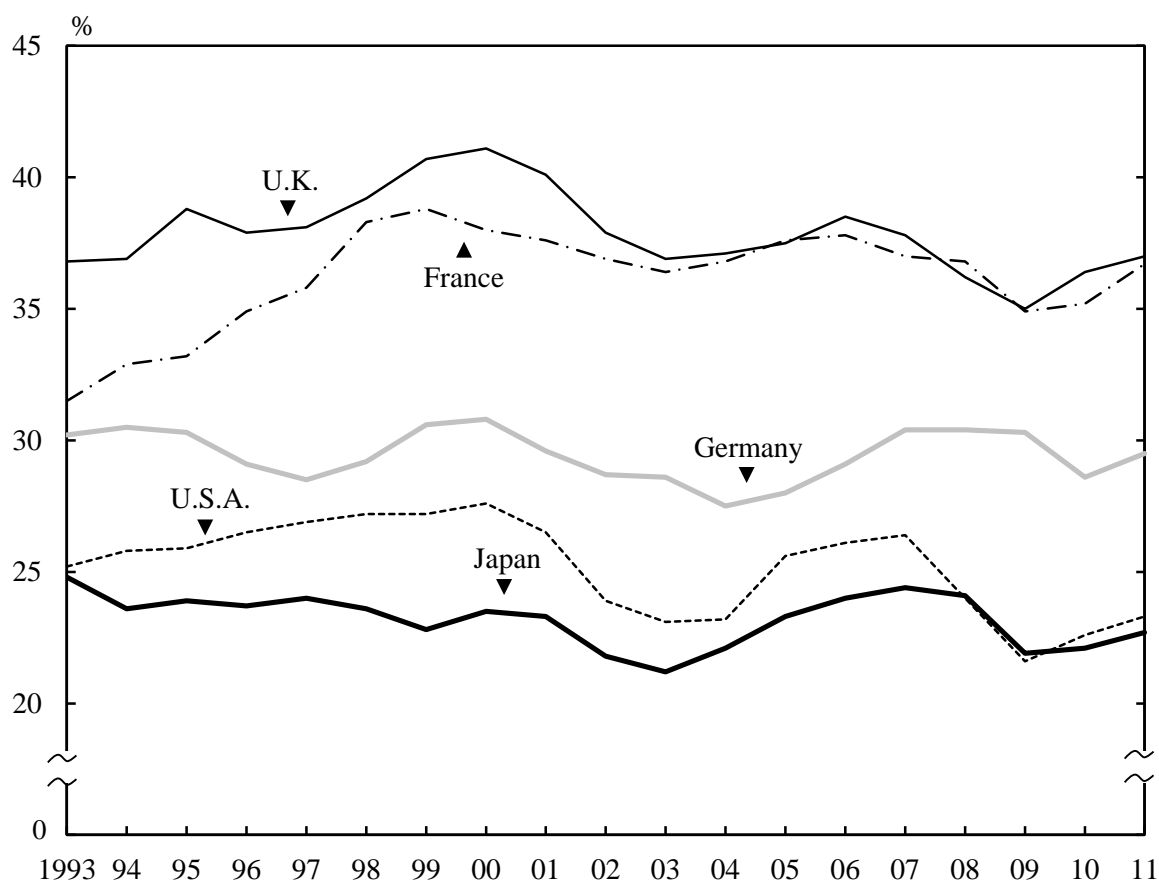


Source: Ministry of Finance.

#### (4) Tax

Taxes consist of national tax (income tax, corporation tax, etc.), which is paid to the national government, and local tax, which is paid to the local government of the place of residence. The ratio of taxation burden, which is the ratio of national and local taxes to national income, was 18.3 percent in fiscal 1975. This ratio gradually increased thereafter, reaching 27.7 percent in fiscal 1989. The ratio subsequently decreased due to the decline in tax revenue arising from the recession that ensued after the bubble economy ended, reaching 21.2 percent in fiscal 2003. In fiscal 2014, it was 24.1 percent in terms of national and local taxes combined (14.5 percent for national tax and 9.6 percent for local tax). Japan's ratio is lower in comparison with other major industrial countries. Nevertheless, the consumption tax rate was raised from 5 percent to 8 percent on April 1, 2014. This was the first increase in seventeen years. Hereafter, there is a possibility that the taxation burden will become heavier due to an increase in welfare and pension-related spending as the population ages.

**Figure 4.5**  
**Ratio of Taxation Burden to National Income by Country (Actual basis)**



Source: Ministry of Finance.

## 2. Bank of Japan and Money Stock

As the central bank, the Bank of Japan (i) issues Bank of Japan notes, or the currency of Japan; (ii) manages and stores treasury funds and provide loans to the government; (iii) provides deposit and loan services to general financial institutions; and (iv) implements monetary policies by adjusting the level of money stock to promote sound development of the economy.

At the end of 2013, currency in circulation totaled 94.77 trillion yen (90.14 trillion yen in Bank of Japan notes and 4.63 trillion yen in coins), up 3.9 percent from the year before.

**Table 4.5****Currency in Circulation** (Outstanding at year-end)

(Billion yen)					
Item	2009	2010	2011	2012	2013
Total .....	85,511	86,856	88,547	91,231	94,770
Bank of Japan notes .....	80,954	82,314	83,997	86,653	90,143
Coins .....	4,556	4,541	4,550	4,578	4,627

Source: Bank of Japan.

The Bank of Japan compiles and publishes statistics on the following indicators: (i) M1, or cash currency in circulation plus deposit money; (ii) M2, or cash currency in circulation plus deposits in banks, etc. in Japan; (iii) M3, or M1 plus quasi-money plus CDs (certificates of deposit); and (iv) broadly-defined liquidity, which covers a broad range of liquidity, including government securities. The average outstanding money stock as of the end of 2013 was 577 trillion yen in M1 and 863 trillion yen in M2.

**Table 4.6****Money Stock**<sup>1)</sup> (Average amounts outstanding)

(Billion yen)						
End of year	M2	M3	M1	Quasi-money	CDs	Broadly-defined liquidity
2009	764,435	1,063,518	486,668	551,162	25,688	1,453,284
2010	782,288	1,082,937	501,479	550,529	30,929	1,452,734
2011	806,995	1,111,535	528,019	552,704	30,812	1,455,413
2012	827,848	1,136,010	545,730	557,281	32,999	1,466,513
2013	863,031	1,174,818	577,052	562,940	34,827	1,532,544

1) "Money stock" indicates the balance of currency held by corporations, individuals, local governments, etc.

Source: Bank of Japan.

In January 2013, the Government and the Bank of Japan decided to strengthen policy coordination in order to overcome deflation and achieve sustainable economic growth with stable prices. In order to achieve price stability targets at the earliest possible time, in April 2013, the Bank of Japan changed the operating target for money market operations from the uncollateralized overnight call rate to a monetary base to facilitate

quantitative easing. Japan's monetary base is the amount of currency supplied by the Bank of Japan. It is the combined total of banknotes in circulation, coins in circulation, and current account balances. Under the monetary easing measures that were adopted in April 2013, the monetary base was 225.53 trillion yen as of the end of April 2014 (up 45.2 percent from the same month of the previous year), which became a record-setting high.

**Table 4.7**  
**Financial Markets** (Interest rates, etc.)

End of year	Basic discount rate and basic loan rate	Call rates <sup>1)</sup>	Prime lending rates <sup>2)</sup>	Loan contract rates <sup>3)</sup>	(% per annum)	
					10 years' Govt. bonds yields to subscribers	
2004	0.10	0.002	1.375	1.399		1.445
2005	0.10	0.004	1.375	1.270		1.456
2006	0.40	0.275	1.625	1.450		1.634
2007	0.75	0.459	1.875	1.673		1.478
2008	0.30	0.103	1.675	1.494		1.382
2009	0.30	0.094	1.475	1.256		1.246
2010	0.30	0.079	1.475	1.187		1.189
2011	0.30	0.075	1.475	1.102		1.085
2012	0.30	0.076	1.475	1.034		0.730
2013	0.30	0.068	1.475	0.880		0.648

1) Uncollateralized overnight. 2) Short-term loans. 3) Average of short-term loan contracts of domestically licensed banks.

Source: Bank of Japan.

### 3. Financial Institutions

In addition to the Bank of Japan, Japan's financial system is comprised of private and public financial institutions. Private financial institutions include those that accept deposits (banks, credit depositories, agricultural cooperatives, etc.) and those that do not (securities companies, insurance companies, etc.).

As to the latest number of offices, including the branches of financial institutions operated domestically, post offices handling postal savings had the largest network with 24,224 offices. This was followed by domestically licensed banks, including city banks and regional banks, with a combined total of 13,389 offices and branches. Securities companies operated at

2,091 offices including branches. In the course of the financial system reform, mergers and restructuring progressed among major banks, resulting in their being reorganized into three major financial groups. Regional banks and credit depositories operating in their respective regions have been making their efforts to expand operations base through corporate mergers, but there were no major mergers recently.

**Table 4.8**  
**Number of Financial Institutions**

Institutions	Reference date	Total	Head offices	Branches	Overseas offices
Domestically licensed banks					
City banks .....	Sep. 2013	2,525	5	2,390	130
Regional banks .....	Sep. 2013	7,520	64	7,441	15
Regional banks II .....	Sep. 2013	3,060	41	3,018	1
Trust banks .....	Sep. 2013	284	4	270	10
Financial institutions for small business					
Credit depositories .....	Feb. 2014	7,457	267	7,190	-
Credit cooperatives .....	Feb. 2014	1,716	156	1,560	-
Securities companies <sup>1)</sup> .....	Feb. 2014	2,091	256	1,835	-
Agricultural cooperatives .....	Mar. 2013	8,435	-	-	-
Post offices .....	Mar. 2014	24,224	-	-	-

1) Excluding branch offices of foreign securities firms in Japan.

Source: Japanese Bankers Association; Shinkin Central Bank Research Institute; Community Bank Shinyo Kumiai; Japan Securities Dealers Association; The Norinchukin Bank; Japan Post Co., Ltd.

For a long time, the business role of each type of financial institution had been clearly divided and regulated by specialized systems. However, the deregulation and reform of financial systems produced dramatic changes, eventually causing significant alterations in the financial system. A rapid surge in asset prices from the mid-1980s and the following correction of asset prices in the 1990s created a massive expansion of loans and huge bad debts in their wake. In the financial crisis between 1997 and 1998, several large financial institutions went bankrupt. This prompted legislative enactments in 1998 that were intended to stabilize the financial system, which accelerated the implementation of measures to deal with bankrupt financial institutions, including temporary nationalization. As a result, the overdue task of addressing bad debts was laid to rest.

In order to lead a revival of the nation's economy by solving the bad debt problems of major banks, the government launched the Program for Financial Revival in October 2002, demanding that major banks reduce their ratio of bad debts from 8.4 percent in March 2002 to approximately half that level by March 2005. As a result, the ratio of the major banks' bad debts decreased to 2.9 percent in March 2005, meeting the government's target, and the bad debt problems have thus been settled. The ratio recorded in March 2014 was 1.3 percent.

#### **4. Financial Assets**

The Flow of Funds Accounts Statistics, which is a comprehensive set of records of financial transactions, assets and liabilities, indicates that financial assets in the domestic sectors totaled 6,433 trillion yen according to preliminary figures at the end of March 2014. Of these assets, those of the domestic nonfinancial sector were 3,208 trillion yen. The household sector (including the business funds of individual proprietorships) had assets of 1,630 trillion yen, in the forms of deposits, stocks and other financial assets. In Japan, the household sector holds more than 50 percent of its financial assets in cash or relatively secure forms of assets.



**Table 4.9**  
**Financial Assets and Liabilities of Japan**

(Billion yen)			
Sectors	March 2013	March 2014 *	Annual growth (%)
<b>Financial assets</b>			
Domestic sectors .....	6,135,549	6,432,567	4.8
Financial institutions .....	3,090,222	3,224,370	4.3
Domestic nonfinancial sector .....	3,045,327	3,208,197	5.3
Nonfinancial corporations .....	909,860	992,809	9.1
General government .....	508,887	534,480	5.0
Households (incl. individual proprietorships) .....	1,578,734	1,630,405	3.3
Private nonprofit institutions serving households ..	47,845	50,503	5.6
Overseas .....	436,509	480,727	10.1
<b>Financial liabilities</b>			
Domestic sectors .....	5,826,975	6,102,958	4.7
Financial institutions .....	3,002,702	3,125,861	4.1
Domestic nonfinancial sector .....	2,824,274	2,977,097	5.4
Nonfinancial corporations .....	1,313,188	1,423,409	8.4
General government .....	1,123,582	1,157,747	3.0
Households (incl. individual proprietorships) .....	360,536	368,134	2.1
Private nonprofit institutions serving households ..	26,968	27,807	3.1
Overseas .....	741,385	807,063	8.9

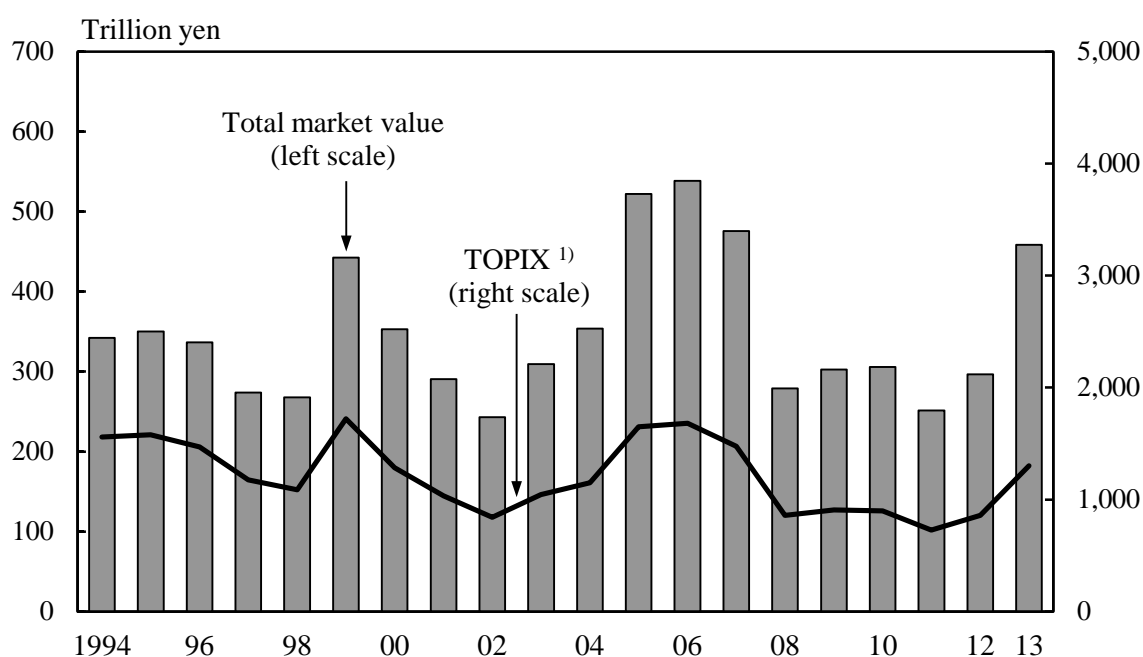
Source: Bank of Japan.

## 5. Stock Market

Stock prices in Japan rose sharply in the second half of the 1980s, spearheading the bubble economy. However, the stock market started to fall in 1990 ahead of land prices. At the end of 1989, the total market value of the first section of the Tokyo Stock Exchange was 591 trillion yen, but only three years later, at the end of 1992, it dropped by more than 50 percent to 281 trillion yen. The market recovered to reach 442 trillion yen at the end of 1999, later dipped again, and increased to 539 trillion yen at the end of 2006. The subprime mortgage problem surfaced after August 2007 and the September 2008 Lehman shock led to a fall in the total market value, which amounted to 251 trillion yen at the end of 2011. In 2012, the Japanese economy appeared to be entering a period of slowdown, but towards the end of the year, confidence inspired by the new Government's anti-deflationary economic and fiscal policies led to a

correction of the high yen, and share prices soared. Afterwards, changes in policies of the Bank of Japan in April 2013 were regarded as affecting stocks and markets, and the Nikkei Stock Average at the end of 2013 was 16,291.31 yen, representing an increase of 56.7 percent as compared to the end of 2012 (10,395.18 yen) and the first significant gain in 41 years. However, this value fell for four consecutive months starting in 2014, and the Nikkei Stock Average was 14,304.11 yen at the end of April.

**Figure 4.6**  
**Trends in Stock Price Index and Total Market Value**  
 (Tokyo Stock Exchange, first section) (End of year)



1) Index of the total market value of all stocks listed on the first section of the Tokyo Stock Exchange against a base value of 100 as of January 4, 1968.

Source: Tokyo Stock Exchange.

At the end of March 2014, the total number of individual stockholders (individuals of Japanese nationality and domestic groups without corporate status) in possession of stocks listed on the Tokyo/Nagoya/Fukuoka/Sapporo Stock Exchanges totaled 45.8 million. In value terms, the ratio of stocks they possessed was 18.7 percent. The ratio of Japanese stocks held by foreign investors (total of corporations and individuals) was 30.8 percent in value terms, the highest ever recorded. Records also show that Internet trading remained on a strong growth path.

A survey conducted of 251 securities firms by the Japan Securities Dealers Association (JSDA) showed that 24.3 percent of those companies offered Internet trading at the end of March 2014. Internet trading thus accounted for 25.4 percent of the total value of stock brokerage transactions from the period of October 2013 to March 2014.

**Table 4.10**  
**Stock Prices** (Tokyo Stock Exchange, first section)

Year	Number of listed companies <sup>1)</sup>	Total market value <sup>1)</sup> (million yen)	Total trading value (million yen)	TOPIX <sup>1) 2)</sup> Tokyo stock price index, average	Nikkei Stock Average (225 issues) <sup>1)</sup> (yen)
1998	1,340	267,783,547	96,001,269	1,086.99	13,842.17
1999	1,364	442,443,338	178,041,139	1,722.20	18,934.34
2000	1,447	352,784,685	242,632,346	1,283.67	13,785.69
2001	1,491	290,668,537	199,844,292	1,032.14	10,542.62
2002	1,495	242,939,136	190,869,955	843.29	8,578.95
2003	1,533	309,290,031	237,905,753	1,043.69	10,676.64
2004	1,595	353,558,256	323,918,214	1,149.63	11,488.76
2005	1,667	522,068,129	459,136,406	1,649.76	16,111.43
2006	1,715	538,629,548	644,308,788	1,681.07	17,225.83
2007	1,727	475,629,039	735,333,528	1,475.68	15,307.78
2008	1,715	278,988,813	568,538,950	859.24	8,859.56
2009	1,684	302,712,168	368,679,737	907.59	10,546.44
2010	1,670	305,693,030	354,598,763	898.80	10,228.92
2011	1,672	251,395,748	341,587,524	728.61	8,455.35
2012	1,695	296,442,945	306,702,280	859.80	10,395.18
2013	1,774	458,484,253	640,193,836	1,302.29	16,291.31
2014 Jan.	1,779	431,693,051	54,197,216	1,220.64	14,914.53
Feb.	1,782	429,176,802	49,419,631	1,211.66	14,841.07
Mar.	1,797	427,231,620	47,135,962	1,202.89	14,827.83
Apr.	1,807	414,201,211	41,947,055	1,162.44	14,304.11

1) End of year or month. 2) Index of the total market value of all stocks listed on the first section of the Tokyo Stock Exchange against a base value of 100 as of January 4, 1968.

Source: Nihon Keizai Shimbun, Inc.; Tokyo Stock Exchange.

## **Chapter 5**

# **Agriculture, Forestry and Fisheries**

## 1. Overview of Agriculture, Forestry and Fisheries

Over the course of Japan's economic growth, its agricultural, forestry and fishing industries employ fewer and fewer workers every year, and their GDP share has also dropped. The number of workers decreased from 14.39 million in 1960 (32.7 percent of the total workforce) to 2.38 million in 2010 (4.2 percent), and the GDP share of the industries fell from 12.8 percent in 1960 to 1.2 percent in 2010.

**Table 5.1**  
**Agricultural, Forestry and Fisheries Output**

Item	(Billion yen)				
	2008	2009	2010	2011	2012
Total .....	10,539	10,073	10,026	10,082	10,335
Agriculture .....	8,466	8,190	8,121	8,246	8,525
Crops .....	5,820	5,590	5,513	5,639	5,879
Rice .....	1,901	1,795	1,552	1,850	2,029
Vegetables .....	2,111	2,085	2,249	2,134	2,190
Fruits and nuts .....	741	698	750	743	747
Livestock and its products .....	2,585	2,547	2,553	2,551	2,588
Beef cattle .....	459	482	464	463	503
Dairy cattle .....	748	791	773	751	775
Pigs .....	579	512	529	536	537
Chickens .....	744	709	735	753	724
Forestry .....	445	412	422	417	392
Fisheries .....	1,628	1,470	1,483	1,419	1,418

Source: Ministry of Agriculture, Forestry and Fisheries.

## 2. Agriculture

### (1) Agricultural Production

Japan's total agricultural output in 2012 was 8.53 trillion yen, up 3.4 percent from the previous year. Crops yielded 5.88 trillion yen, up 4.2 percent from the previous year. This was because of an increase in rice output due to rising prices.

**Table 5.2**  
**Agricultural Production**

	(Thousand tons)				
Products	1995	2000	2005	2010	2012
Cereal grains					
Rice .....	10,748	9,490	9,074	8,483	8,523
Wheat .....	444	688	875	571	858
Vegetables, potatoes and legumes					
Potatoes .....	3,365	2,898	2,752	2,290	2,500
Sweet potatoes .....	1,181	1,073	1,053	864	a) 876
Soybeans, dried .....	119	235	225	223	236
Cucumbers .....	827	767	675	588	587
Tomatoes .....	753	806	759	691	722
Cabbages .....	1,544	1,449	1,364	1,360	1,443
Chinese cabbages .....	1,163	1,036	924	889	921
Onions .....	1,278	1,247	1,087	1,042	1,098
Lettuces .....	537	537	552	538	566
Japanese radishes .....	2,148	1,876	1,627	1,496	1,469
Carrots .....	725	682	615	596	613
Fruits					
Mandarin oranges .....	1,378	1,143	1,132	786	846
Apples .....	963	800	819	787	794
Grapes .....	250	238	220	185	198
Japanese pears .....	383	393	362	259	275
Industrial crops					
Crude tea .....	a) 80	a) 85	100	85	a) 86
Sugar beets <sup>1)</sup> .....	3,813	3,673	4,201	3,090	3,758

1), a) Figures are total of main producing prefectures.

Source: Ministry of Agriculture, Forestry and Fisheries.

**Table 5.3**  
**Production Volumes of Meat, Milk and Eggs**

	(Tons)				
Products	1995	2000	2005	2010	2012
Pork .....	1,322,065	1,270,685	1,244,963	1,292,451	1,296,971
Beef .....	600,099	529,674	498,428	514,078	517,844
Veal .....	806	629	1,042	881	806
Horse meat .....	8,433	7,215	7,129	5,880	4,896
Broilers .....	1,631,060	1,551,101	1,702,001	1,835,091	1,889,158
Cow milk .....	8,382,162	8,497,278	8,285,215	7,720,456	7,630,418
Eggs .....	2,550,586	2,540,075	2,481,000	2,515,323	2,506,768

Source: Ministry of Agriculture, Forestry and Fisheries.

## (2) Farmers and Farmland

In 2010, the number of farm households engaged in commercial farming (which refers to households with cultivated land under management of 0.3 hectares and over, or with annual sales of agricultural products amounting to 500,000 yen and over) was 1.63 million. Of these commercial farm households, 27.7 percent were full-time farm households, 13.8 percent were part-time farm households with farming income exceeding non-farming income, and 58.6 percent were part-time farm households with non-farming income exceeding farming income.

Of the commercial farm household members, 2.61 million people were engaged in farming as their principal occupation (commercial farmers) in 2010, of whom 61.6 percent were aged 65 years and over.

In 2012, the total income per commercial farm household was 4.76 million yen, up 2.8 percent from the previous year. Of that amount, 1.35 million yen was from farming income, 1.55 million yen from non-farming income, and 1.85 million yen from pension benefits and other sources.

**Table 5.4**  
**Commercial Farm Households and Commercial Farmers**

Year	Commercial farm households				Commercial farmers	(Thousands)
	Total	Full-time	Part-time			Aged 65 years and over (%)
			Mainly farming	Mainly other job		
1990	2,971	473	521	1,977	4,819	33.1
1995	2,651	428	498	1,725	4,140	43.5
2000	2,337	426	350	1,561	3,891	52.9
2005	1,963	443	308	1,212	3,353	58.2
2010	1,631	451	225	955	2,606	61.6

Source: Ministry of Agriculture, Forestry and Fisheries.

Japan's cultivated acreage shrank year after year from 6.09 million hectares in 1961 to 4.54 million hectares in 2013. In the one-year period of 2013, there were 7,140 hectares of new cultivation but also a 19,800-hectare decrease. The most common cause for the decrease was degraded farmland, accounting for approximately 50 percent of all cases,

followed by land-use conversion for residential and other land uses, making up approximately 30 percent.

### 3. Forestry

Japan's forest land area is 25.08 million hectares (approximately 70 percent of its entire surface area). Of this, natural forests account for 54 percent while planted forests, most of which are conifer plantations, make up 41 percent. Meanwhile, Japan's forest growing stock is 4,901 million cubic meters, of which 3,042 million cubic meters are from planted forests.

In the forests, many planted forest resources have matured and are entering their harvest period. For forests to continuously exhibit their functions of soil conservation and prevention of global warming, it is necessary to smoothly follow the cycle of planting, tending and thinning planted forests.

**Table 5.5**  
**Forest Land Area and Forest Resources (2012)**

Item	Total	National forest	Non-national forest		
			Municipal	Private	Others
Forest land area (1,000 ha) .....	25,081	7,674	2,919	14,437	51
Forest growing stock (million m <sup>3</sup> ) ..	4,901	1,152	558	3,184	7
Planted forest					
Land area (1,000 ha) .....	10,289	2,327	1,287	6,662	14
Growing stock (million m <sup>3</sup> ) .....	3,042	467	350	2,221	3
Natural forest					
Land area (1,000 ha) .....	13,429	4,717	1,495	7,186	30
Growing stock (million m <sup>3</sup> ) .....	1,858	684	207	963	4

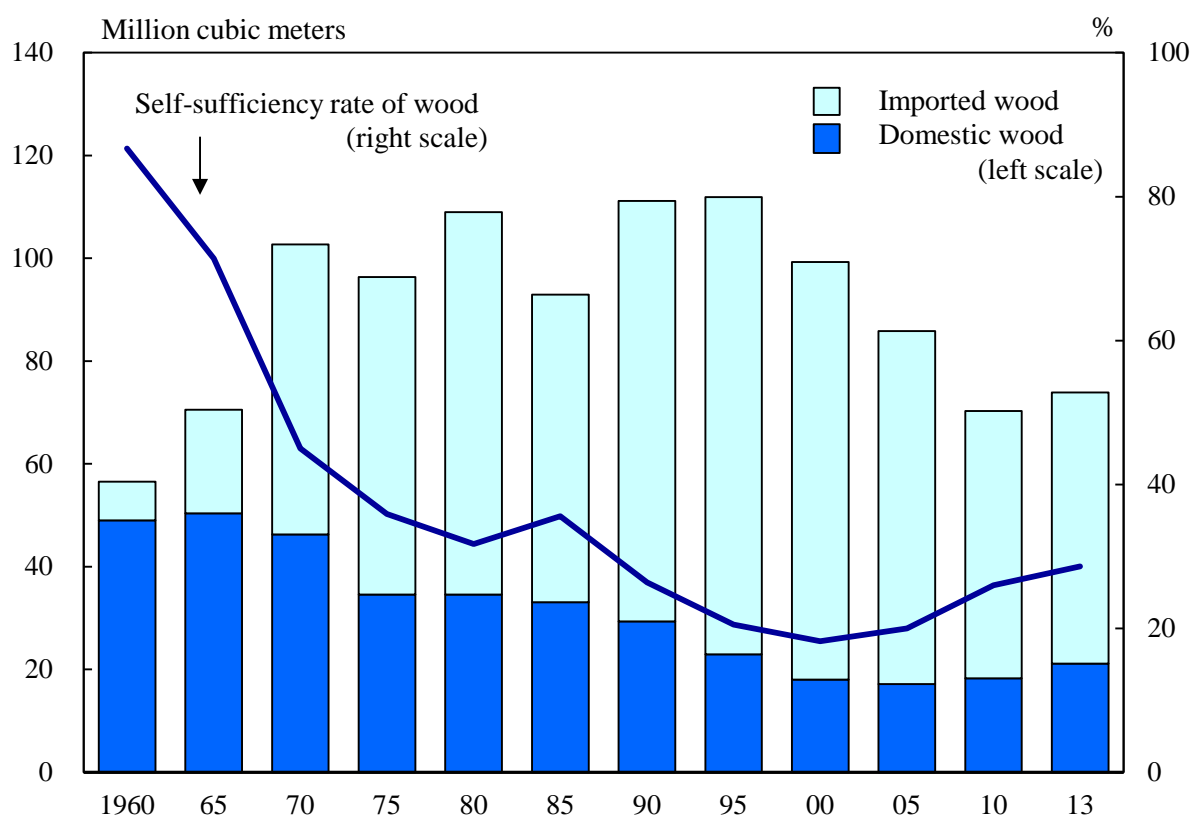
Source: Ministry of Agriculture, Forestry and Fisheries.

Domestic wood supply (log conversion) totaled 21.1 million cubic meters in 2013, which is equivalent to 40.0 percent of the peak in 1967 (52.7 million cubic meters). In 2013, Japan's self-sufficiency rate for lumber was 28.6 percent. Currently, Japan depends mostly on imported lumber for pulp, woodchip and plywood material.



The slowdown in domestic lumber production activities has resulted in a decline in the number of workers engaged in forestry. In 2010, there were 69,000 workers engaged in forestry, a level that represented the same number recorded ten years before. However, approximately one out of six workers was aged 65 and over, highlighting the aging of the labor force.

**Figure 5.1**  
**Industrial Wood Supply and Self-Sufficiency Rate <sup>1)</sup>**



1) The volume in log equivalent.

Source: Ministry of Agriculture, Forestry and Fisheries.

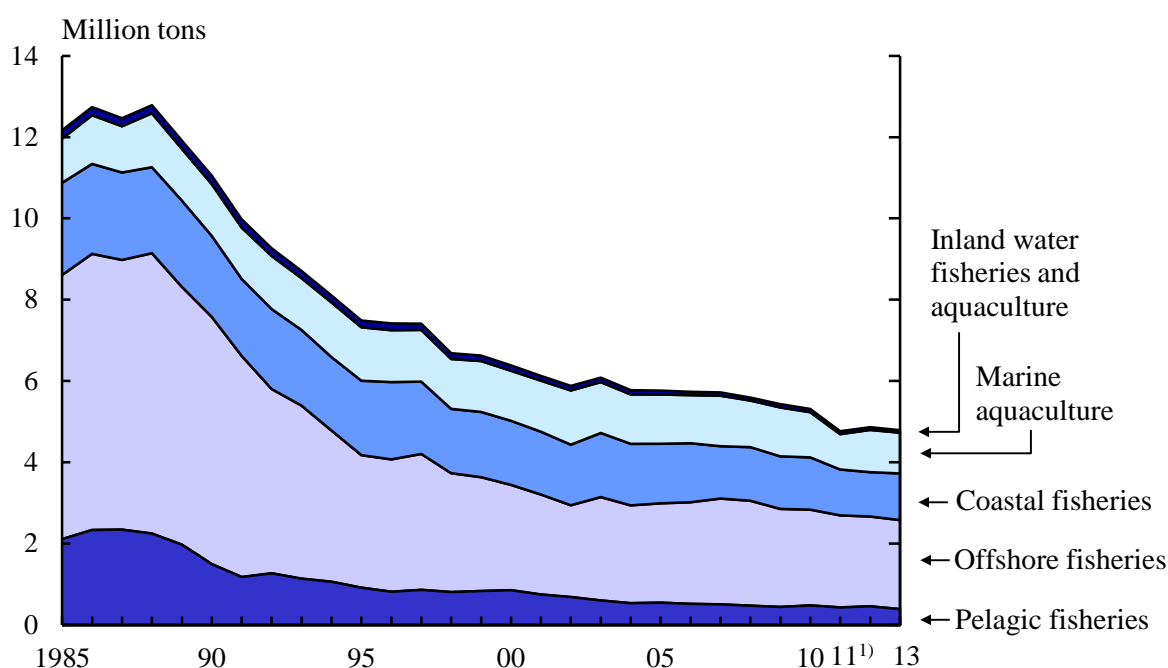
## 4. Fisheries

### (1) Fishery Production

In Japan, a country surrounded by ocean, the fishing industry has played an important role in supplying animal protein and bringing a healthy and rich diet to the population. However, in recent years, consumption of seafood has decreased greatly due to changes in the environment surrounding food in Japan, and it has been pointed out that consumers are "shifting away from fish."

Japan's fishery output has been on the decline since 1989. Its 2013 fishery production totaled 4.79 million tons. Of this, marine fishery and aquaculture production amounted to 4.73 million tons.

**Figure 5.2**  
**Production by Type of Fishery**



1) Excluding figures lost in Iwate, Miyagi and Fukushima prefectures because of the Great East Japan Earthquake.

Source: Ministry of Agriculture, Forestry and Fisheries.

**Table 5.6**  
**Production by Fishery Type and Species**

Fishery type and species	(Thousand tons)				
	2000	2005	2010	2012	2013*
Total .....	6,384	5,765	5,313	4,864	4,791
Marine fisheries .....	5,022	4,457	4,122	3,758	3,727
Tunas .....	286	239	208	209	178
Bonito .....	341	370	303	289	287
Sardine .....	150	28	70	136	235
Mackerels .....	346	620	492	444	389
Alaska pollack .....	300	194	251	230	228
Crabs .....	42	34	32	30	30
Squids .....	624	330	267	216	220
Marine aquaculture .....	1,231	1,212	1,111	1,040	1,002
Yellowtails .....	137	160	139	160	151
Oysters .....	221	219	200	161	167
Laver .....	392	387	329	342	318
<i>Wakame</i> Sea weed .....	67	63	52	48	51
Pearl (tons) .....	30	29	21	20	20
Inland water fisheries .....	71	# 54	# 40	33	31
Salmons and trouts .....	17	# 19	# 14	14	13
Sweetfish .....	11	# 7	# 3	3	2
Shellfishes .....	20	# 14	# 14	11	11
Inland water aquaculture .....	61	# 42	39	34	30
Eel .....	24	19	21	17	14
Trouts .....	15	12	9	8	8
Common carp .....	11	4	4	3	3

Source: Ministry of Agriculture, Forestry and Fisheries.

## (2) Fishery Workers

The number of workers in the marine fishery industry (the workers who engage in work at sea for 30 days or more yearly) has been decreasing constantly. In 2012, there was a 2.4 percent decrease from the previous year, bringing the count to 174,000 workers (excluding Iwate, Miyagi and Fukushima prefectures). Among male workers, the ratio of those aged 65 years and over was 36.4 percent, showing the progressive trend of an aging workforce.

**Table 5.7**  
**Number of Enterprises and Workers Engaged in the Marine Fishery/  
 Aquaculture Industry**

Year	Enterprises			Workers		
	Total	Individual households	Corporate entities	Total	Self-employed	Hired
2000	145,930	137,690	8,240	260,200	...	...
2005	126,020	118,930	7,090	222,170	...	...
2010	103,740	98,300	5,440	202,880	128,270	74,610
2011 <sup>1)</sup>	91,170	86,150	5,020	177,870	111,960	65,910
2012 <sup>1)</sup>	88,880	83,950	4,940	173,660	108,560	65,090

1) Excluding Iwate, Miyagi and Fukushima prefectures.

Source: Ministry of Agriculture, Forestry and Fisheries.

As aging of fishing vessels progresses and the fishery workers aging increases, fisheries has been gaining attention as a place for employment, based on the diversification of values regarding work and life, and support is also being provided for new fishery workers.

## 5. Self-Sufficiency in Food

Japan's food self-sufficiency rate in terms of calories, although there is a downward trend over the long term, the ratio has been fluctuating at a level of around 40 percent since fiscal 2000. Compared to a ratio of 53 percent in fiscal 1980, the ratio was 39 percent in fiscal 2012. The principal cause for the drop in the food self-sufficiency rate is the fact that a significant change in the diet of the Japanese led to lower consumption of rice, a crop in which Japan is self-sufficient, while there was an increase in consumption of livestock products that domestic agricultural production alone cannot supply sufficiently.

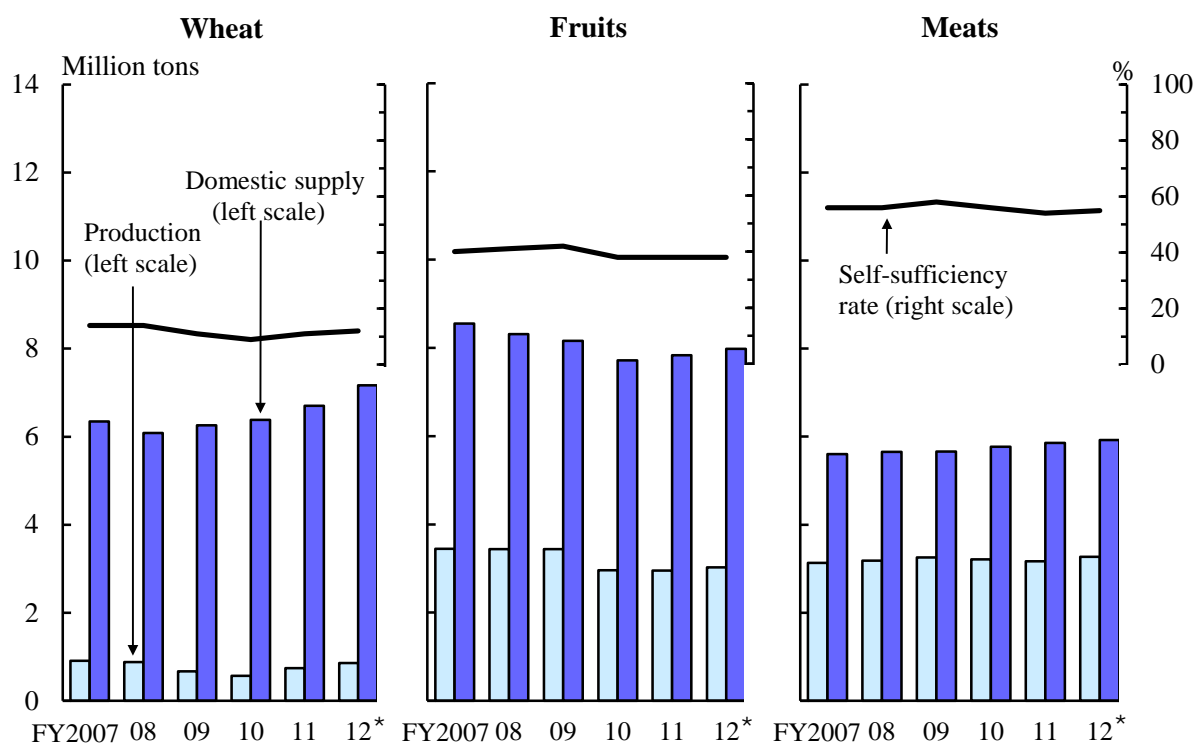
In fiscal 2012, the self-sufficiency rate (on an item-specific weight basis) was 100 percent in rice, 12 percent in wheat, 10 percent in beans, 78 percent in vegetables, 38 percent in fruits, 55 percent in meat and 58 percent in seafood. Although completely self-sufficient in rice, the staple food of its people, Japan relied almost entirely on imports for wheat and bean supply.

**Table 5.8**  
**Supply of Cereal Grains**

Fiscal year	Area planted (1,000 ha)	Production (1,000 t)	Yield per hectare (t)	Imports (1,000 t)	Supplies for domestic consumption (1,000 t)
<b>Rice</b>					
1995	2,118	10,748	5.07	495	10,290
2000	1,770	9,490	5.36	879	9,790
2005	1,706	8,998	5.27	978	9,222
2010	1,628	8,554	5.25	831	9,018
2012*	1,581	8,692	5.50	848	8,667
<b>Wheat</b>					
1995	151	444	2.93	5,750	6,355
2000	183	688	3.76	5,688	6,311
2005	214	875	4.10	5,292	6,213
2010	207	571	2.76	5,473	6,384
2012*	209	858	4.10	6,578	7,167

Source: Ministry of Agriculture, Forestry and Fisheries.

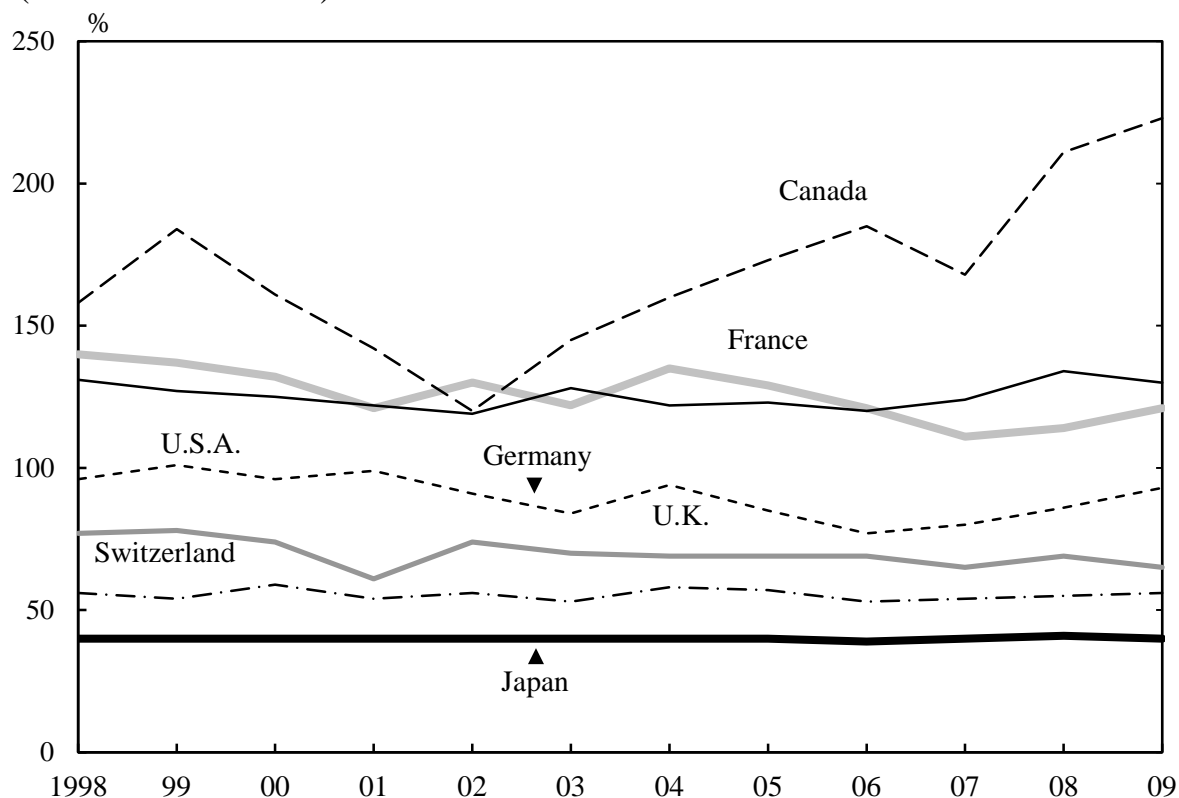
**Figure 5.3**  
**Self-Sufficiency Rates for Selected Categories of Agricultural Produce**



Source: Ministry of Agriculture, Forestry and Fisheries.

Japan's present food self-sufficiency rate is the lowest among major industrialized countries, and Japan is thus the world's leading net importer of agricultural products.

**Figure 5.4**  
**Trends in Food Self-Sufficiency Rates of Major Countries** <sup>1)</sup>  
 (In terms of calories)



1) Estimates.

Source: Ministry of Agriculture, Forestry and Fisheries.

## **Chapter 6**

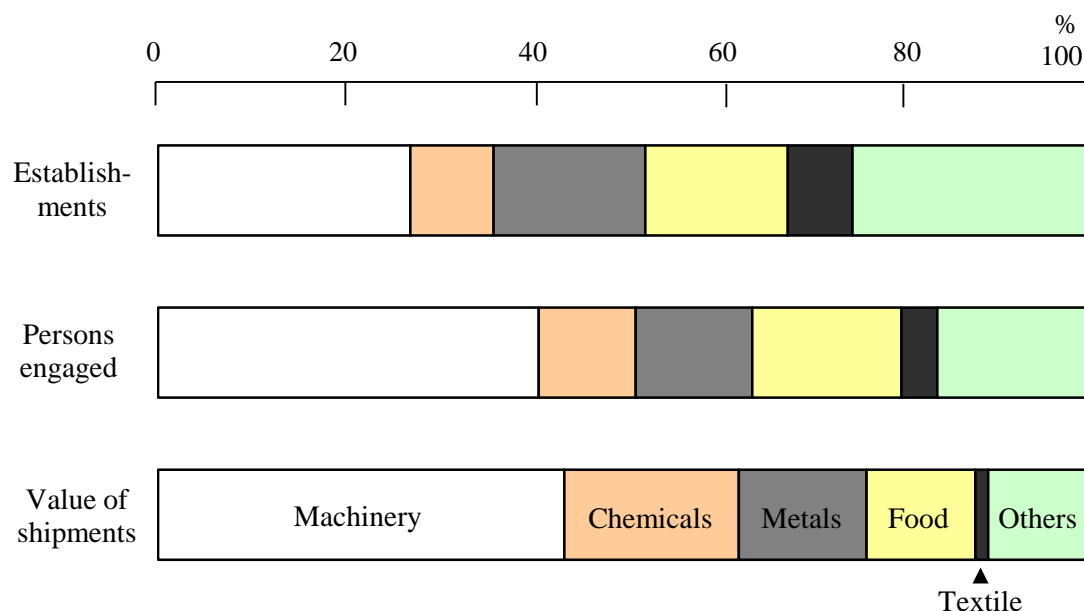
# **Manufacturing and Construction**

## 1. Overview of the Manufacturing Sector

The proportion of added value produced in Japan's manufacturing sector to its nominal GDP has still been around 20 percent recently, the sector has a large ripple effect on other sectors.

In Japan, the September 2008 Lehman Brothers bankruptcy (the "Lehman Shock") led to a sharp drop in worldwide demand for the mainstays of Japan's manufacturing industries, namely, consumer durables such as automobiles and capital goods such as machine tools. Additionally, in 2011, the Great East Japan Earthquake, the historically high yen, and the slowing global economy contributed to sluggish domestic production. Anxiety about industrial hollowing out increased. With such conditions as the background, the Japanese government announced an economic policy ("*Abenomics*") in January 2013. As a result, economic conditions have turned toward recovery, and improvements in earnings, centering on enterprises in the manufacturing industry, came to be observed.

**Figure 6.1**  
**Composition of Establishments, Persons Engaged and Value of Manufactured Goods Shipments by Sector**<sup>1)</sup> (2012)



1) Establishments with four or more persons engaged.

Source: Ministry of Economy, Trade and Industry.



**Table 6.1**  
**Number of Establishments, Persons Engaged and Value of Manufactured Goods Shipments of the Manufacturing Industry <sup>1)</sup> (2012)**

Industries	Number of establishments	Number of persons engaged	Value of manufactured goods shipments (billion yen)
<b>Manufacturing</b> .....	216,262	7,425,339	288,728
Food .....	28,852	1,092,789	24,302
Beverages, tobacco and feed .....	4,373	100,891	9,615
Textile mill products .....	15,010	286,148	3,923
Lumber and wood products <sup>2)</sup> .....	6,092	93,920	2,223
Furniture and fixtures .....	6,101	96,769	1,731
Pulp, paper and paper products .....	6,382	186,608	6,815
Printing and allied industries .....	12,830	281,104	5,482
Chemical and allied products .....	4,787	338,327	26,038
Petroleum and coal products .....	915	24,872	17,077
Plastic products <sup>3)</sup> .....	13,693	412,189	11,106
Rubber products .....	2,698	111,743	3,177
Leather tanning, leather products and fur skins .....	1,554	22,643	350
Ceramic, stone and clay products .....	10,571	241,997	6,831
Iron and steel .....	4,542	219,044	18,012
Non-ferrous metals and products .....	2,876	141,696	8,923
Fabricated metal products .....	27,951	572,631	12,861
General-purpose machinery .....	7,491	319,554	10,624
Production machinery .....	19,944	544,213	15,539
Business oriented machinery .....	4,475	202,708	6,919
Electronic parts, devices and electronic circuits.....	4,692	394,488	13,338
Electrical machinery, equipment and supplies ...	9,503	468,807	14,983
Information and communication electronics equipment .....	1,719	173,516	8,622
Transport equipment .....	11,038	945,164	56,486
Miscellaneous manufacturing industries .....	8,173	153,518	3,753

1) Establishments with four or more persons engaged. 2) Excluding furniture. 3) Excluding plastic furniture, plastic plate making for printing, etc., which are included in other industrial classification.

Source: Ministry of Economy, Trade and Industry.

In 2012, there were 216,262 establishments (with four or more persons engaged) and a total of 7.43 million persons engaged in the manufacturing sector. These establishments shipped 288.7 trillion yen worth of manufactured products, with added value amounting to 88.4 trillion yen.

Based on the Indices on Mining and Manufacturing (2010 average = 100), the production index for 2013 was 97.0, down 0.8 percent from the previous year, while shipments stood at 96.9, a decrease of 0.6 percent from the year before.

**Table 6.2**  
**Indices on Mining and Manufacturing (2013)**

Industries	(2010 average = 100)							
	Production <sup>1)</sup>		Shipments		Inventory <sup>2)</sup>		Inventory Ratio <sup>3)</sup>	
	Annual growth (%)	Annual growth (%)	Annual growth (%)	Annual growth (%)	Annual growth (%)	Annual growth (%)	Annual growth (%)	
<b>Mining and manufacturing ..</b>	97.0	-0.8	96.9	-0.6	105.7	-4.3	109.0	-3.7
Manufacturing .....	97.0	-0.8	96.9	-0.6	105.7	-4.3	109.0	-3.7
Food and tobacco .....	97.8	0.1	96.8	0.1	73.7	6.7	82.9	1.0
Textile .....	98.4	-2.0	97.3	-0.7	106.6	-4.3	108.3	-0.3
Pulp, paper and paper products .....	97.3	1.1	97.1	2.1	93.9	-9.7	107.0	-10.8
Chemicals .....	97.4	1.0	96.3	1.7	105.0	-1.9	114.4	-2.3
Chemicals (excl. Drugs) .....	94.2	1.6	94.0	2.3	105.0	-1.9	114.4	-2.3
Petroleum and coal products .....	94.8	0.7	96.7	0.1	87.3	-8.4	97.9	-3.9
Plastic products .....	98.2	-0.1	96.9	-0.7	104.8	1.9	107.6	1.0
Ceramic, stone and clay products .....	99.7	2.5	100.1	1.8	104.8	-2.7	107.8	-2.4
Iron and steel .....	97.9	0.4	99.0	1.0	125.3	17.0	118.9	11.1
Non-ferrous metals .....	96.3	-1.9	94.7	-2.0	106.4	-11.0	112.6	-3.6
Fabricated metals .....	98.9	-0.9	99.0	1.0	117.1	6.5	126.0	9.5
General-purpose machinery .	101.0	0.3	97.9	-2.7	109.7	-2.2	114.3	-1.6
Production machinery .....	106.2	-3.3	109.0	-1.8	130.6	-5.8	99.1	0.8
Business oriented machinery	95.4	-10.8	100.7	-3.7	109.1	-6.8	113.6	-3.6
Electronic parts and devices .....	88.5	1.5	97.4	4.4	103.1	-15.4	140.5	-7.3
Electrical machinery .....	101.2	3.1	101.0	3.1	134.6	2.7	123.3	5.0
Information and communication electronics equipment .....	68.6	-11.1	58.2	-17.7	85.3	-7.8	124.0	-47.6
Transport equipment .....	99.8	-2.0	99.8	-1.8	77.8	-36.3	87.0	-17.1
Other manufacturing .....	97.6	-1.0	99.0	0.1	100.4	-2.1	99.0	-3.0
Mining .....	96.6	-4.4	92.3	-3.6	92.4	-0.4	102.6	6.3
(Reference)								
Electricity, gas, heat supply and water .....	94.8	-1.7	95.5	-1.5	-	-	-	-

1) Value added weights. 2) End of the year.

3) Inventory ratio = Inventory quantity / Shipments quantity

Source: Ministry of Economy, Trade and Industry.

**Table 6.3**  
**Indices of Industrial Production** <sup>1)</sup>

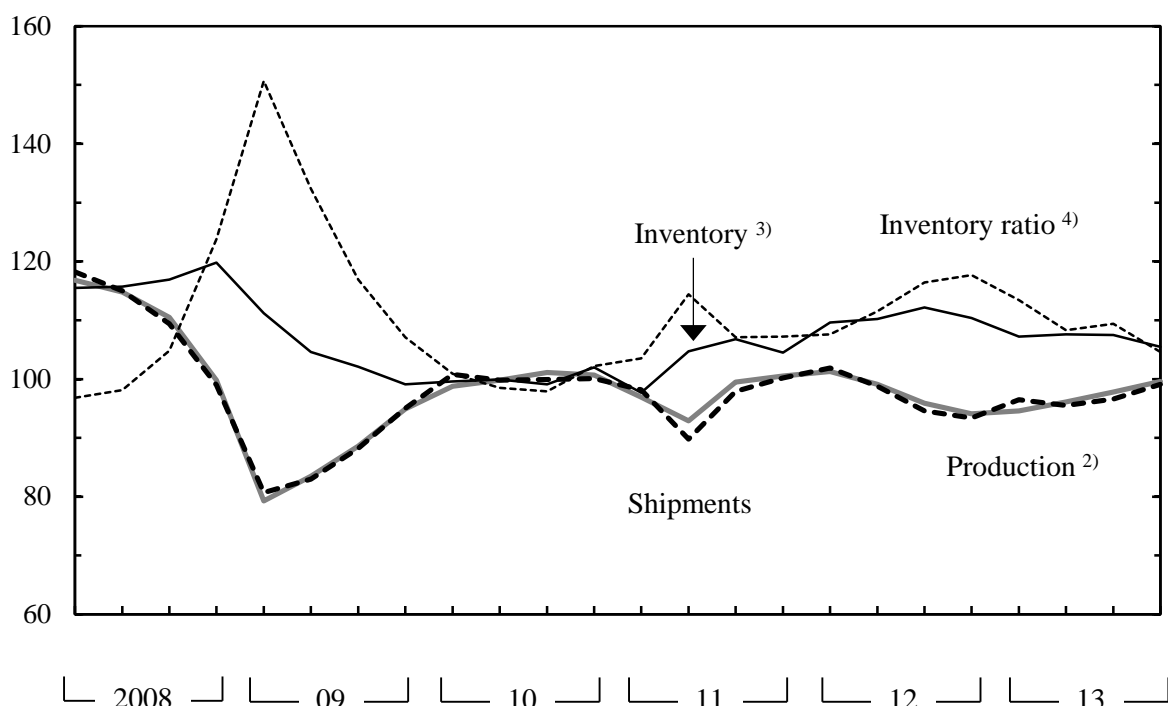
(2010 average = 100)

Industries	2009	2011	2012	2013	Annual growth (%)
<b>Mining and manufacturing</b> .....	86.5	97.2	97.8	97.0	-0.8
Manufacturing .....	86.5	97.2	97.8	97.0	-0.8
Food and tobacco .....	100.9	95.6	97.7	97.8	0.1
Textile .....	93.9	102.8	100.4	98.4	-2.0
Pulp, paper and paper products .....	95.8	97.8	96.2	97.3	1.1
Chemicals .....	94.1	98.6	96.4	97.4	1.0
Chemicals (excl. Drugs) .....	93.0	97.0	92.7	94.2	1.6
Petroleum and coal products .....	99.7	94.4	94.1	94.8	0.7
Plastic products .....	91.2	97.2	98.3	98.2	-0.1
Ceramic, stone and clay products .....	84.4	96.7	97.3	99.7	2.5
Iron and steel .....	76.8	97.3	97.5	97.9	0.4
Non-ferrous metals .....	85.9	96.1	98.2	96.3	-1.9
Fabricated metals .....	98.2	98.3	99.8	98.9	-0.9
General-purpose machinery .....	86.2	108.4	100.7	101.0	0.3
Production machinery .....	67.9	115.5	109.8	106.2	-3.3
Business oriented machinery .....	85.8	110.0	107.0	95.4	-10.8
Electronic parts and devices .....	77.3	90.7	87.2	88.5	1.5
Electrical machinery .....	84.8	99.9	98.2	101.2	3.1
Information and communication					
electronics equipment .....	90.2	81.8	77.2	68.6	-11.1
Transport equipment .....	81.2	91.2	101.8	99.8	-2.0
Other manufacturing .....	92.9	98.2	98.6	97.6	-1.0
Mining .....	104.1	100.0	101.0	96.6	-4.4
(Reference)					
Electricity, gas, heat supply and water ..	94.4	95.9	96.4	94.8	-1.7

1) Value added weights.

Source: Ministry of Economy, Trade and Industry.

**Figure 6.2**  
**Trends in Indices on Mining and Manufacturing** <sup>1)</sup> (2010 average = 100)



1) Seasonal adjustment indices. 2) Value added weights. 3) End of the quarter.

4) Inventory ratio = Inventory quantity / Shipments quantity

Source: Ministry of Economy, Trade and Industry.

## 2. Principal Industries in the Manufacturing Sector

This section describes the major industries in the manufacturing sector. For each industry, (a) is described by the "Census of Manufactures 2012 (with four or more persons engaged)," and (b) is described by the "Indices on Mining and Manufacturing" (2010 average = 100).

### (1) Machinery Industry

#### (A) Transport Equipment Industry

(a) In 2012, a total of 11,038 establishments employed 945,164 persons, and shipped 56.5 trillion yen worth of products.

(b) In 2013, production and shipments decreased year-on-year by 2.0 percent and 1.8 percent, respectively. As a result, both production and shipments recorded their first decrease in two years. This was due to a

decrease in the production and shipment of passenger cars, motor vehicle parts, etc.

(B) Production Machinery Industry

(a) In 2012, a total of 19,944 establishments employed 544,213 persons, and shipped 15.5 trillion yen worth of products.

(b) In 2013, production and shipments decreased year-on-year by 3.3 percent and 1.8 percent, respectively. As a result, both production and shipments recorded their second consecutive year of decrease. This was attributable to a decline in the production and shipment of semiconductor and flat-panel display manufacturing equipment, etc.

(C) Electrical Machinery, Equipment and Supplies Industry

(a) In 2012, a total of 9,503 establishments employed 468,807 persons, and shipped 15.0 trillion yen worth of products.

(b) In 2013, both production and shipments increased year-on-year by 3.1 percent. As a result, both production and shipments recorded their first increase in three years. This was due to an increase in the production and shipment of household electrical machinery, etc.

(D) Electronic Parts and Devices Industry

(a) In 2012, a total of 4,692 establishments employed 394,488 persons, and shipped 13.3 trillion yen worth of products.

(b) In 2013, production and shipments increased by 1.5 percent and 4.4 percent, respectively, from the previous year. As a result, both production and shipments recorded their first increase in three years. This was due to an increase in the production and shipment of electronic parts, and integrated circuits.

**(E) Information and Communication Electronics Equipment Industry**

(a) In 2012, a total of 1,719 establishments employed 173,516 persons, and shipped 8.6 trillion yen worth of products.

(b) In 2013, production and shipments decreased by 11.1 percent and 17.7 percent, respectively, from the previous year. As a result, both production and shipments recorded their third consecutive year of decrease. The reason why production decreased was because all sectors other than electronic computers fell, and shipments of all types of information and communication electronics equipment decreased.

**(2) Chemical Industry**

(a) In 2012, a total of 4,787 establishments employed 338,327 persons, and shipped 26.0 trillion yen worth of products.

(b) In 2013, production and shipments increased by 1.0 percent and 1.7 percent, respectively, from the previous year. As a result, both production and shipments recorded their first increase in three years. In 2013, production and shipments in the chemical industry (excluding drugs) increased by 1.6 percent and 2.3 percent, respectively, from the previous year. As a result, both production and shipments recorded their first increase in three years. This was attributable to an increase in the production and shipment of soap, synthetic detergent and surface-active agents, aromatic hydrocarbons (petroleum, origin), etc.

**(3) Iron and Steel Industry**

(a) In 2012, a total of 4,542 establishments employed 219,044 persons, and shipped 18.0 trillion yen worth of products.

(b) In 2013, production increased by 0.4 percent compared to the previous year, for the second consecutive year with an increase. Shipments increased by 1.0 percent from the previous year. This was attributable to a rise in the production and shipment of hot rolled steel, etc.

**Table 6.4**  
**Crude Steel Production in Selected Countries**

Country	(Thousand tons)				
	2005	2010	2011	2012	2013
China .....	355,790	638,743	701,968	716,542	779,041
Japan .....	112,471	109,599	107,601	107,232	110,595
U.S.A. ....	94,897	80,495	86,398	88,695	86,878
India .....	45,780	68,976	73,471	77,264	81,213
Russia .....	66,146	66,942	68,852	70,426	69,462
Korea, Rep. of .....	47,820	58,363	68,519	69,073	66,094
Germany .....	44,524	43,830	44,284	42,661	42,645
Turkey .....	20,965	29,143	34,107	35,885	34,654
Brazil .....	31,610	32,948	35,220	34,524	34,163
Ukraine .....	38,641	33,432	35,332	32,975	32,771

Source: The Japan Iron and Steel Federation; World Steel Association.

**Table 6.5**  
**Steel Production**

Products	(Thousand tons)				
	2009	2010	2011	2012	2013
Pig iron .....	66,943	82,283	81,028	81,405	83,849
Ferroalloys .....	722	893	834	908	938
Crude steel .....	87,534	109,599	107,601	107,232	110,595
Semi-finished steel .....	85,359	106,960	104,594	104,571	107,991
Ordinary hot-rolled steel .....	63,417	77,260	74,492	74,911	77,006
Special hot-rolled steel .....	13,269	20,505	20,340	19,896	19,960

Source: Ministry of Economy, Trade and Industry.

#### (4) Fabricated Metal Products Industry

(a) In 2012, a total of 27,951 establishments employed 572,631 persons, and shipped 12.9 trillion yen worth of products.

(b) In 2013, production decreased by 0.9 percent and shipments increased by 1.0 percent compared to the previous year. Consequently, production recorded its first decrease in two years, while shipments increased for the second consecutive year. A decrease in the production of metal products for building contributed to the total production decrease in the industry. The increase in total shipments was caused by a rise in metal products for building and in fabricated structural metal products.

### 3. Construction

The construction industry, accounting for about 10 percent of both GDP and all employed persons, is one of the core industries in Japan. Construction investments at current prices had been on a declining trend since reaching a peak of 84 trillion yen in fiscal 1992, and fell to half of this peak (42 trillion yen) in fiscal 2010, but turned upward in fiscal 2011.

Construction investments in fiscal 2013 amounted to 48.7 trillion yen at current prices, which was a 10.2 percent increase as compared to the previous fiscal year; it totaled 45.5 trillion yen at constant fiscal 2005 prices, which was a 7.7 percent from the previous fiscal year. This can be considered to be the impact of recovery from the Great East Japan Earthquake as well as improvements in the economic climate.

A breakdown of construction investment shows that building construction totaled 26.4 trillion yen (up 12.7 percent from the previous fiscal year), while civil engineering works amounted to 22.3 trillion yen (up 7.4 percent).

In terms of public and private construction investment in fiscal 2013, public investment amounted to 20.6 trillion yen (up 10.2 percent from the previous fiscal year), while private investment totaled 28.1 trillion yen (up 10.2 percent). Public investment accounted for 42.3 percent of total construction investment, while private investment accounted for 57.7 percent.



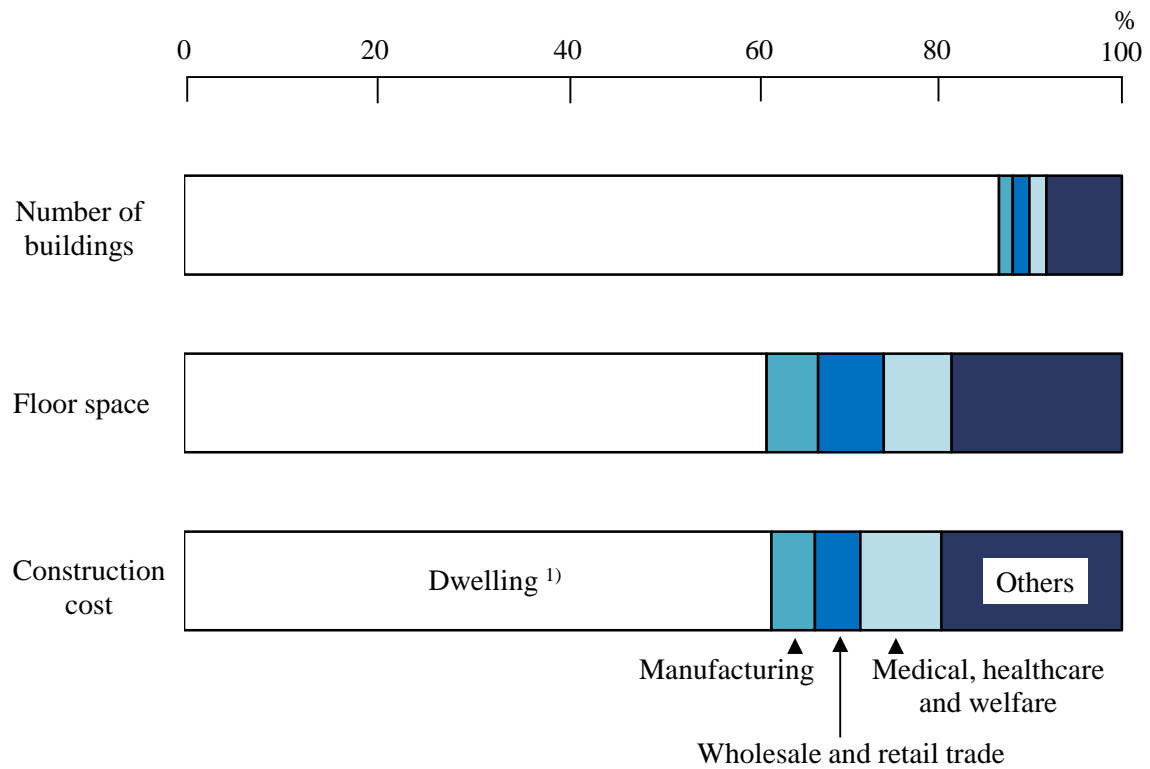
**Table 6.6**  
**Construction Investment** (Current prices)

Item	(Billion yen)			
	FY2010	FY2011	FY2012*	FY2013*
Total .....	41,928	43,292	44,200	48,720
Building construction .....	22,099	22,480	23,430	26,410
Dwellings .....	13,493	13,840	14,570	16,430
Public sector .....	515	465	480	690
Private sector .....	12,978	13,375	14,090	15,740
Non-dwellings .....	8,606	8,640	8,860	9,980
Public sector .....	1,694	1,678	1,680	2,000
Private sector .....	6,912	6,962	7,180	7,980
Mining and manufacturing .....	1,067	1,155	...	...
Others .....	5,845	5,807	...	...
Civil engineering works .....	19,829	20,812	20,770	22,310
Public sector .....	15,772	16,468	16,530	17,910
Public works .....	13,020	13,854	13,970	15,330
Others .....	2,753	2,613	2,560	2,580
Private sector .....	4,057	4,345	4,240	4,400
Total .....				
Public investment .....	17,982	18,611	18,690	20,600
Private investment .....	23,946	24,682	25,510	28,120
Building construction .....				
Public investment .....	2,210	2,143	2,160	2,690
Private investment .....	19,890	20,337	21,270	23,720
Civil engineering works .....				
Public investment .....	15,772	16,468	16,530	17,910
Private investment .....	4,057	4,345	4,240	4,400

Source: Ministry of Land, Infrastructure, Transport and Tourism.

The 2013 total floor space of building starts was 147.67 million square meters, up 11.4 percent from the previous year. In particular, the floor space of buildings for medical, healthcare and welfare use increased by 14.9 percent compared to the previous year, to 10.70 million square meters. Meanwhile, the number of housing construction starts (in the case of apartment buildings, the number of apartment units was counted) increased for owned houses, rental units and built-for-sale units alike, totaling 0.98 million housing units. This was an 11.0 percent increase from the previous year, for the fourth consecutive year with an increase.

**Figure 6.3**  
**Building Construction Started by Use Objective (2013)**



1) Including dormitories and dormitories-industry concurrent use.  
 Source: Ministry of Land, Infrastructure, Transport and Tourism.

# **Chapter 7**

## **Energy**

## 1. Supply and Demand

Japan is dependent on imports for 91.3 percent of its energy supply. Since experiencing the two oil crises of the 1970s, Japan has taken measures to promote energy conservation, introduce alternatives to petroleum, and secure a stable supply of petroleum through stockpiling and other measures. As a result, its dependence on petroleum declined from 77.4 percent in fiscal 1973 to 43.7 percent in fiscal 2010. However, after the Great East Japan Earthquake, the percentage of fossil fuels has been increasing, as a substitute for nuclear power as fuel for power generation. The level of dependence on petroleum, which had been on a declining trend in recent years, increased to 47.3 percent in fiscal 2012. As a result, the government has been working to construct energy policies aiming to provide a stable energy supply and lower energy costs. In this process, the introduction of energy saving and renewable energy has been promoted, and reviews are being conducted in a direction toward lowering the level of dependence on nuclear energy.

In fiscal 2012, the total primary energy supply in Japan was 21,710 petajoules, down 1.2 percent from the previous fiscal year. Its breakdown was: 47.3 percent in petroleum, 22.6 percent in coal, 22.5 percent in natural gas, 3.0 percent in hydro power, and 0.6 percent in nuclear power. Other sources were also used, though only in small quantities, including energy from waste, geothermal, and natural energy (solar photovoltaic, wind power, biomass energy, etc.).

### Energy units

Joule (J) is employed as a common unit (International System of Units: SI) for energy across all energy sources in presenting international statistical information. The unit Petajoule (PJ:  $10^{15}$  or quadrillion joules) is used here to reduce the number of digits. The energy of one kiloliter of petroleum is calculated using the following formulae:

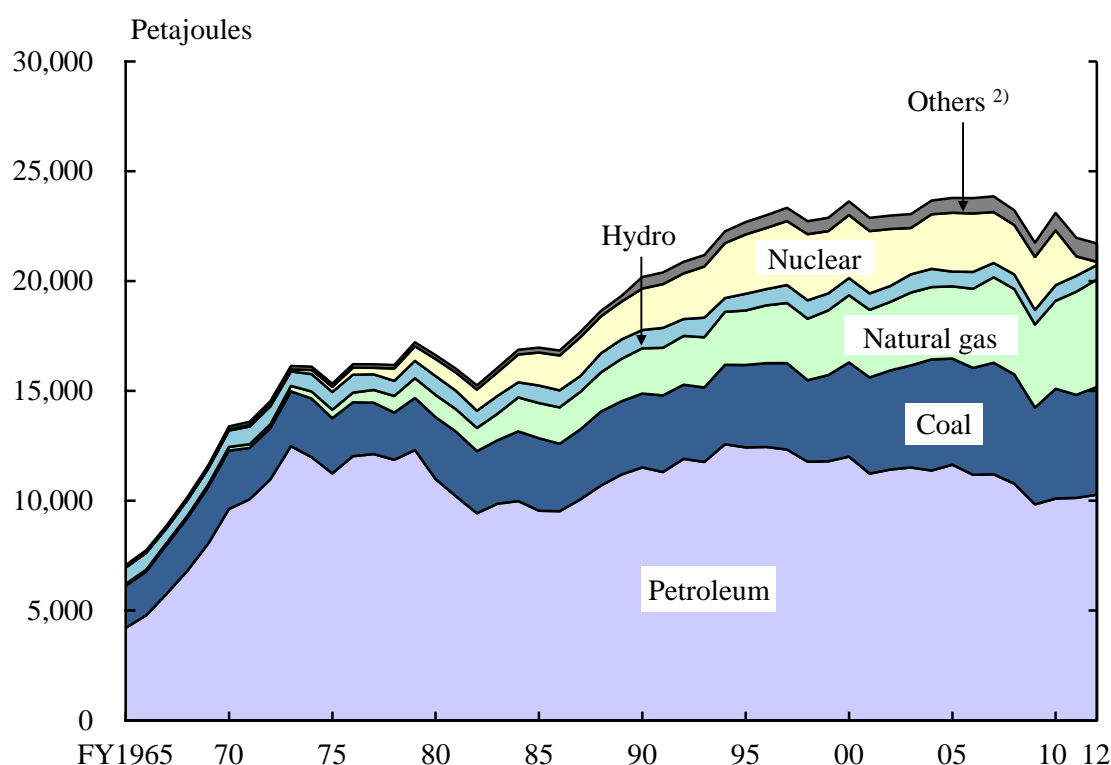
$$1 \text{ kiloliter of petroleum} = 3.87 \times 10^{10} \text{ joules}$$

$$1 \text{ petajoule} = 10^{15} \text{ joules}$$

Petroleum is traded internationally using the volume unit of barrels. One barrel equals approximately 158.987 liters.

Japan's final energy consumption was increasing almost steadily since the mid-1980s. However, it has trended downward since fiscal 2005. Final energy consumption in fiscal 2012 decreased by 1.3 percent compared to the previous fiscal year. While energy consumption in the industrial sector has remained mostly level, there were sharp increases in energy consumption in the commercial and residential sector and in the transport sector. In the commercial and residential sector, energy consumption by the commercial sector in particular has risen in recent years. It increased by 41.9 percent over the 23 years from fiscal 1990 through fiscal 2012. This has been mainly caused by (i) the rise in the total floor area of office buildings and large-scale retail stores; (ii) an increase in the amount of air conditioning equipment and lighting appliances used in those facilities; and (iii) the growth of office automation and extending opening hours.

**Figure 7.1**  
**Total Primary Energy Supply** <sup>1)</sup>



1) A different statistical method was used for figures of fiscal 1989 and prior. 2) Solar photovoltaic, wind power, geothermal energy, etc.  
Source: Ministry of Economy, Trade and Industry.

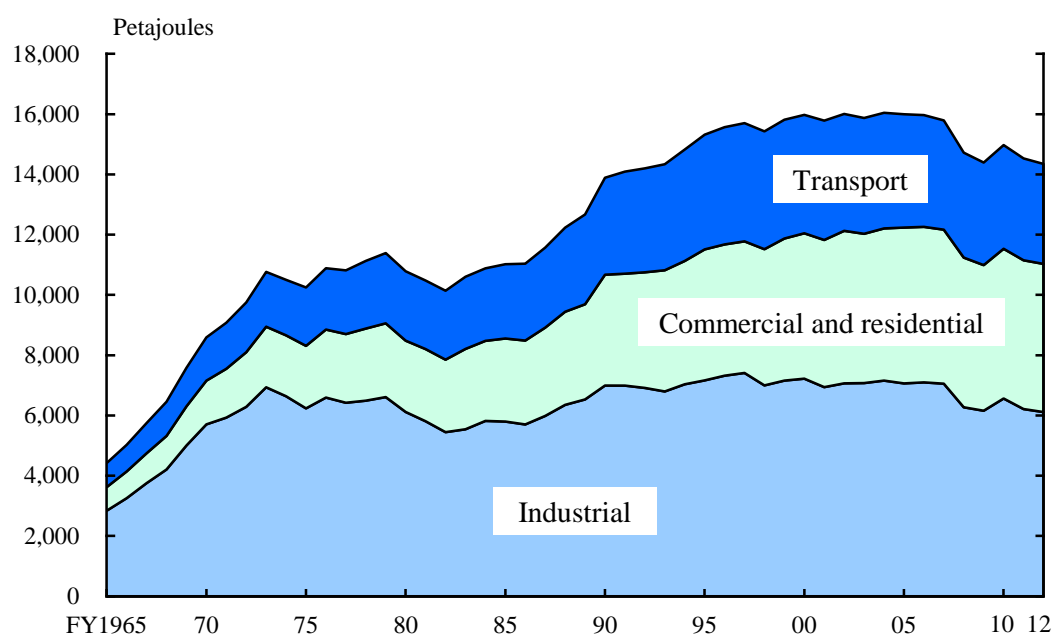
**Table 7.1**  
**Trends in Total Primary Energy Supply and Percentage**  
**by Energy Source**

(Petajoules)					
Item	FY2000	FY2005	FY2010	FY2011	FY2012
<b>Total primary energy supply .....</b>	23,622	23,784	# 23,097	21,967	21,710
Energy self-sufficiency (%) <sup>1)</sup> ..	19.6	18.4	# 19.0	12.4	8.7
Petroleum .....	12,008	11,641	10,101	10,132	10,278
Coal .....	4,286	4,829	4,997	4,687	4,903
Natural gas .....	3,061	3,288	4,002	4,696	4,891
Hydro .....	778	672	712	724	658
Nuclear .....	2,873	2,677	2,495	885	139
Others <sup>2)</sup> .....	616	676	# 790	842	841
<b>Percentage</b>					
Petroleum .....	50.8	48.9	43.7	46.1	47.3
Coal .....	18.1	20.3	21.6	21.3	22.6
Natural gas .....	13.0	13.8	17.3	21.4	22.5
Hydro .....	3.3	2.8	3.1	3.3	3.0
Nuclear .....	12.2	11.3	10.8	4.0	0.6
Others <sup>2)</sup> .....	2.6	2.8	# 3.4	3.8	3.9

1) Domestic production of primary energy (including nuclear)/Domestic supply of primary energy × 100 2) Solar photovoltaic, wind power, geothermal energy, etc.

Source: Ministry of Economy, Trade and Industry.

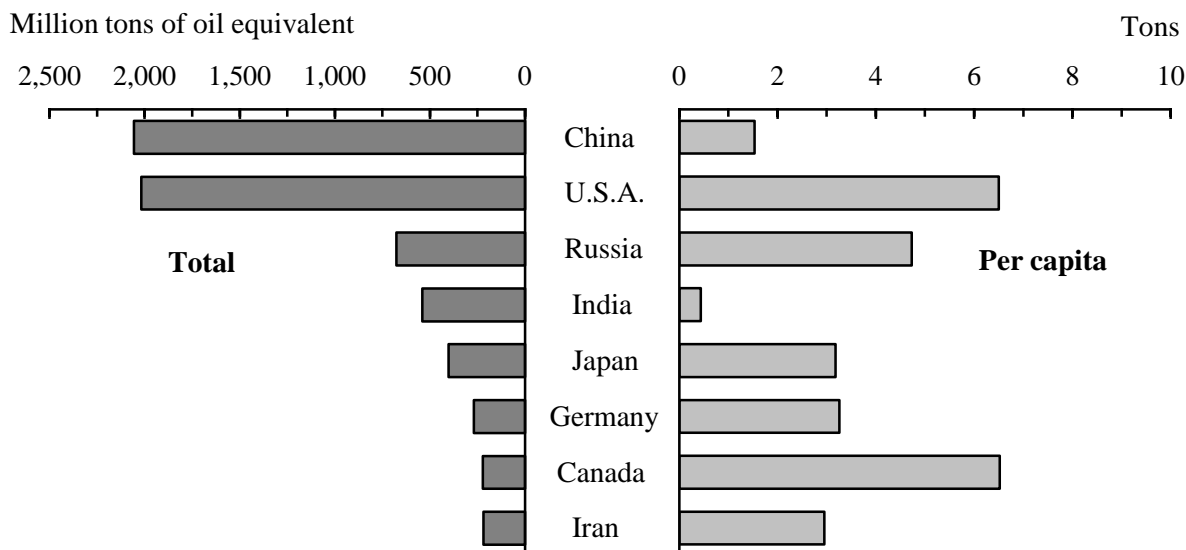
**Figure 7.2**  
**Trends in Final Energy Consumption by Sector <sup>1)</sup>**



1) A different statistical method was used for figures of fiscal 1989 and prior.

Source: Ministry of Economy, Trade and Industry.

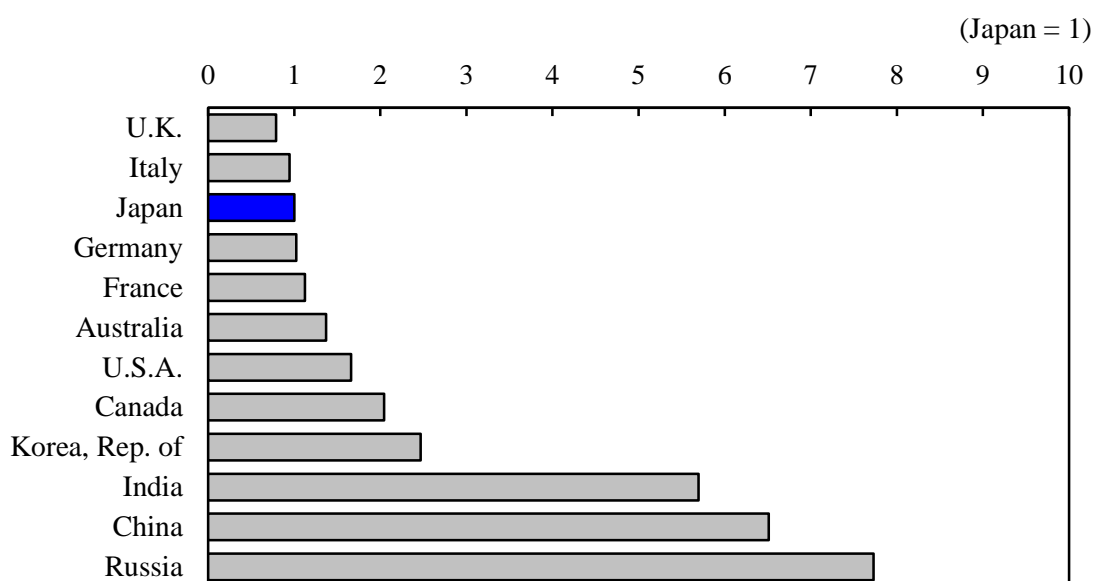
**Figure 7.3**  
**Consumption of Commercial Energy by Country (2010)**



Source: United Nations.

Total primary energy supply per GDP is lower in Japan than in other industrialized countries. This indicates that Japan is one of the most energy-efficient countries in the world.

**Figure 7.4**  
**International Comparison of Energy/GDP Ratio <sup>1)</sup> (2011)**



1) Total primary energy supply (tons of oil equivalent)/GDP (thousand 2005 U.S. dollars).  
 Source: International Energy Agency.

## 2. Electric Power

Approximately half of Japan's primary energy supply of petroleum, coal and other energy sources is converted into electric power.

Electricity output (including in-house power generation) in Japan totaled 1,094 billion kWh in fiscal 2012, down 1.3 percent from the previous fiscal year. Of this total, thermal power accounted for 90.2 percent; hydro power, 7.6 percent; nuclear power, 1.5 percent. In the field of thermal power generation, huge replacement has been made from petroleum to natural gas.

**Table 7.2**  
**Trends in Electricity Output and Power Consumption**<sup>1)</sup>

	(Million kWh)				
Item	FY2000	FY2005	FY2010	FY2011	FY2012
<b>Electricity Output</b>					
Total .....	1,091,500	1,157,926	1,156,888	1,107,829	1,093,950
Thermal .....	669,177	761,841	771,306	906,946	986,758
Hydro .....	96,817	86,350	90,681	91,709	83,645
Nuclear .....	322,050	304,755	288,230	101,761	15,939
Others <sup>2)</sup> .....	3,456	4,980	6,671	7,413	7,608
<b>Percentage</b>					
Total .....	100.0	100.0	100.0	100.0	100.0
Thermal .....	61.3	65.8	66.7	81.9	90.2
Hydro .....	8.9	7.5	7.8	8.3	7.6
Nuclear .....	29.5	26.3	24.9	9.2	1.5
Others <sup>2)</sup> .....	0.3	0.4	0.6	0.7	0.7
<b>Power Consumption</b>					
Total .....	982,066	1,043,800	1,056,441	1,002,445	991,612
Generated by electric power suppliers ..	858,078	918,265	931,059	883,787	875,276
Consumption of in-house generation ....	123,988	125,535	125,382	118,658	116,336

1) Including in-house generation. 2) Solar photovoltaic, wind power, geothermal energy, etc.  
Source: Ministry of Economy, Trade and Industry.



### 3. Gas

Gas production was 1,324 petajoules in fiscal 2012, up 1.4 percent from the previous fiscal year. Of this total, natural gas plus liquefied natural gas (LNG) accounted for 96.1 percent; and the remaining 3.9 percent were petroleum gases, such as volatile oil, liquefied petroleum gas, etc. Gas purchases for fiscal 2012 totaled 263 petajoules.

Gas sales for fiscal 2012 totaled 1,521 petajoules, or year-on-year growth of 1.1 percent. Of this total, 52.4 percent was sold to industry, 27.0 percent to residential use, and 12.4 percent to the commercial sector.

**Table 7.3**

**Trends in Production and Purchases, and Sales of Gas**<sup>1)</sup>

	(Petajoules)							
Item	FY2005		FY2010		FY2011		FY2012	
<b>Production and purchases</b>	1,394		1,547		1,581		1,587	
Production .....	1,235 (100.0)		1,288 (100.0)		1,306 (100.0)		1,324 (100.0)	
Petroleum gases <sup>2)</sup> .....	67	(5.4)	46	(3.6)	50	(3.9)	52	(3.9)
Natural gas and LNG .....	1,168	(94.6)	1,241	(96.4)	1,256	(96.1)	1,272	(96.1)
Others .....	-	(-)	-	(-)	-	(-)	-	(-)
Purchases .....	159 (100.0)		259 (100.0)		275 (100.0)		263 (100.0)	
Coal gases .....	2	(1.3)	-	(-)	-	(-)	-	(-)
Petroleum gases <sup>3)</sup> .....	10	(6.4)	6	(2.4)	6	(2.1)	6	(2.2)
Natural gas and LNG <sup>4)</sup> ...	147	(92.3)	253	(97.6)	269	(97.8)	257	(97.8)
Others .....	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
<b>Sales</b> .....	1,359 (100.0)		1,477 (100.0)		1,503 (100.0)		1,521 (100.0)	
Residential .....	416 (30.6)		410 (27.7)		410 (27.3)		410 (27.0)	
Commercial .....	205 (15.1)		198 (13.4)		188 (12.5)		188 (12.4)	
Industrial .....	619 (45.5)		738 (50.0)		782 (52.0)		796 (52.4)	
Others <sup>5)</sup> .....	120	(8.8)	131	(8.9)	124	(8.3)	126	(8.3)

1) Figures in parentheses indicate percentage. 2) Benzine gas, liquefied petroleum gas, other petroleum-based gas. 3) Vaporized liquefied petroleum gas, other petroleum-based gas. 4) Natural gas, vaporized liquefied natural gas. 5) Public offices, schools, medical institutions, etc.

Source: Ministry of Economy, Trade and Industry.

## **Chapter 8**

### **Science and Technology/**

### **Information and Communication**

# 1. Science and Technology

## (1) Researchers and R&D Expenditures

Japan's expenses for the research and development (R&D) of science and technology are of a top level among major countries, and support the technology-based nation of Japan. Researchers in the fields of science and technology (including social sciences and humanities) as of the end of March 2013 totaled 835,700. The total R&D spending in fiscal 2012 amounted to 17.3 trillion yen, a decrease of 0.3 percent from the previous fiscal year. Relative to GDP, R&D spending was 3.67 percent, which is the same rate as that of the previous fiscal year.

**Table 8.1**  
**Trends in Research and Development**

Year	Number of Researchers <sup>1)</sup>	Fiscal year	R&D expenditures (billion yen)	GDP (billion yen)	Ratio of R&D expenditures to GDP (%)
2004	787,300	2003	16,804	501,889	3.35
2005	790,900	2004	16,938	502,761	3.37
2006	819,900	2005	17,845	505,349	3.53
2007	826,600	2006	18,463	509,106	3.63
2008	827,300	2007	18,944	513,023	3.69
2009	839,000	2008	18,800	489,520	3.84
2010	840,300	2009	17,246	473,934	3.64
2011	842,900	2010	17,110	480,233	3.56
2012	844,400	2011	17,379	473,669	3.67
2013	835,700	2012	17,325	472,597	3.67

1) Business enterprises, and non-profit institutions and public organizations: full time equivalent. In "full time equivalent," the number of researchers partly engaged in R&D is recalculated based on the actual number of hours they spent in R&D. Universities and colleges: headcount.

Source: Statistics Bureau, MIC.

As of the end of March 2013, the number of researchers amounted to 481,400 persons in business enterprises, 39,000 persons in non-profit institutions and public organizations, and 315,200 persons in universities

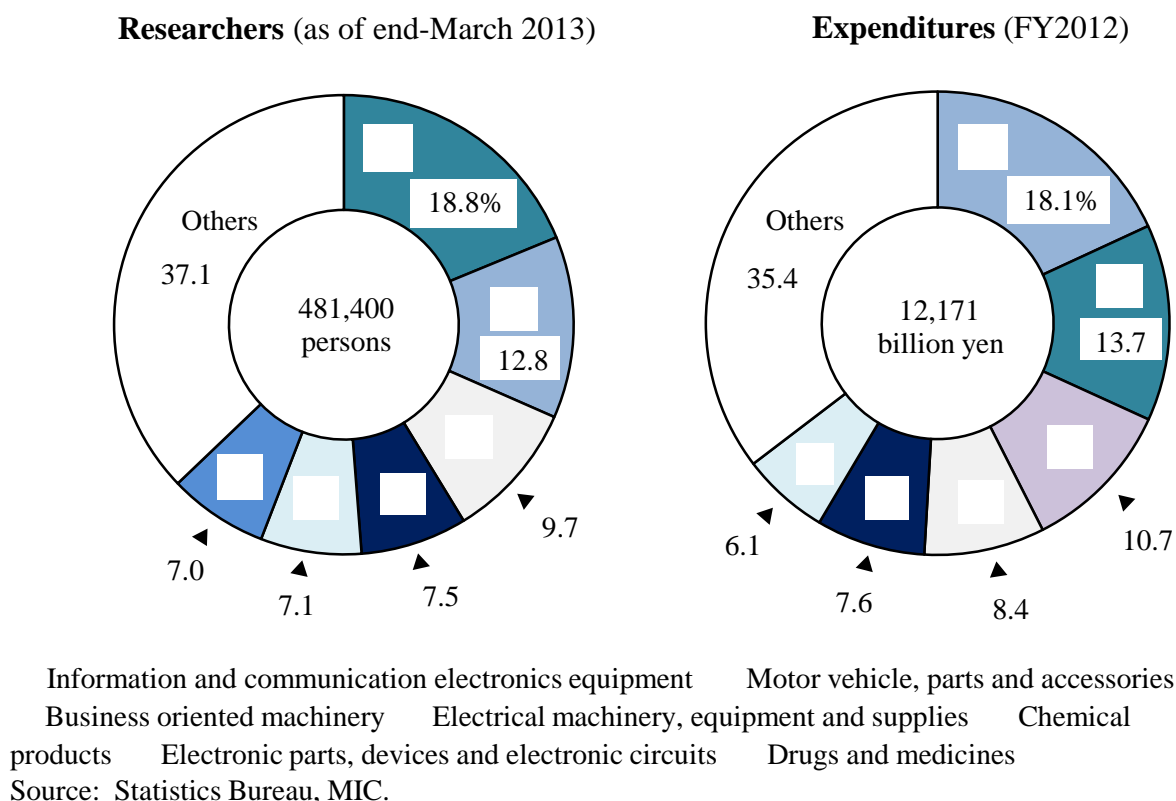
and colleges. In terms of R&D expenditures in fiscal 2012, business enterprises spent 12.2 trillion yen (70.2 percent of total R&D expenditures), non-profit institutions and public organizations spent 1.6 trillion yen (9.2 percent), and universities and colleges spent 3.6 trillion yen (20.6 percent).

Universities and colleges spend more than 90 percent of their R&D expenditure on natural sciences for basic research and applied research, while business enterprises allocate over 70 percent for development purposes.

Based on the Science and Technology Basic Law that was promulgated and enforced in 1995, the Japanese government has formulated a Basic Plan since fiscal 1996, and has promoted science and technology policies. Currently, the Fourth Science and Technology Basic Plan (fiscal 2011 to fiscal 2015), which orients recovery and reconstruction from the Great East Japan Earthquake as one of its main pillars, is being initiated. Within R&D spending in fiscal 2012, the amount of expenses used for the three fields the government should address as priority issues set in the Fourth Science and Technology Basic Plan consisted of 792.6 billion yen towards "Promotion of Life Innovation," 560.8 billion yen towards "Promotion Green Innovation," and 86.8 billion yen towards "Recovery and Reconstruction from the Great East Japan Earthquake." Among these, R&D spending for "Recovery and Reconstruction from the Great East Japan Earthquake" increased by 34.8 percent as compared to the previous fiscal year.

Approximately 90 percent of the 481,400 researchers at business enterprises at the end of March 2013, or 426,700 persons, were in the manufacturing industries; the largest number was in "the information and communication electronics equipment industry," followed by "the motor vehicle, parts and accessories industry," then by "the business oriented machinery industry." In terms of R&D expenditures in fiscal 2012, of 12.2 trillion yen spent by business enterprises, 10.7 trillion yen was spent by manufacturing industries. "The motor vehicle, parts and accessories industry" spent the most, followed by "the information and communication electronics equipment industry," then by "the drugs and medicines industry."

**Figure 8.1**  
**Researchers and Expenditures by Industry (Business enterprises)**



## (2) Technology Balance of Payments (Technology Trade)

Technology trade is defined as the export or import of technology by business enterprises with other countries, such as patents, expertise, and technical guidance. In fiscal 2012, Japan earned 2,721.0 billion yen from technology exports, which was up 14.1 percent from the previous fiscal year. This was the first increase in two years. Of the total receipts, 74.1 percent was from overseas parent/subsidiary companies. Meanwhile, Japan paid 448.6 billion yen for technology imports. This was up 8.2 percent from the previous fiscal year, recording the first increase in five years. Of this figure, 23.2 percent was for payments to overseas parent/subsidiary companies.

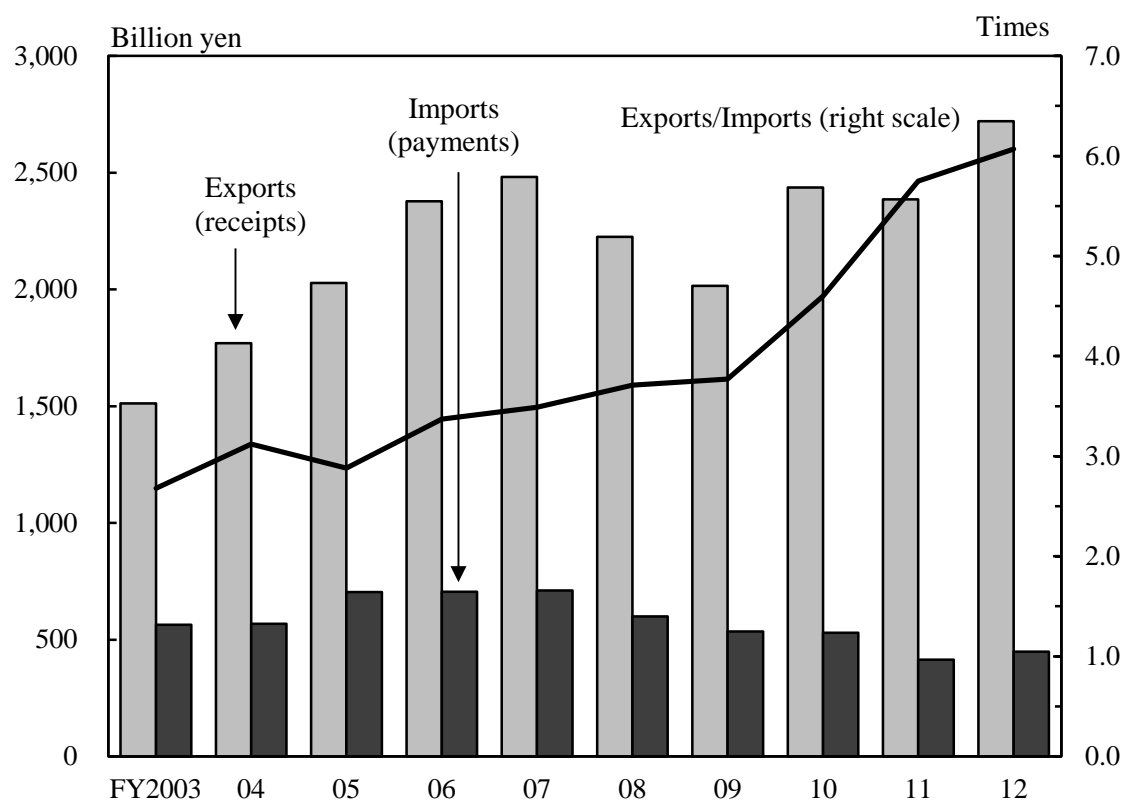
**Table 8.2**  
**Technology Trade by Business Enterprises**<sup>1)</sup>

Fiscal year	Technology Trade				Exports value	Imports value
	Exports		Imports			
	Value (billion yen)	Annual increase rate (%)	Value (billion yen)	Annual increase rate (%)		
1990	339.4	3.0	371.9	12.7	0.91	
1995	562.1	21.6	391.7	5.7	1.43	
2000	1,057.9	10.1	443.3	8.0	2.39	
2005	2,028.3	14.6	703.7	24.0	2.88	
2010	2,436.6	20.9	530.1	-0.9	4.60	
2011	2,385.2	-2.1	414.8	-21.8	5.75	
2012	2,721.0	14.1	448.6	8.2	6.07	

1) The survey coverage was expanded in FY1996 and FY2001.

Source: Statistics Bureau, MIC.

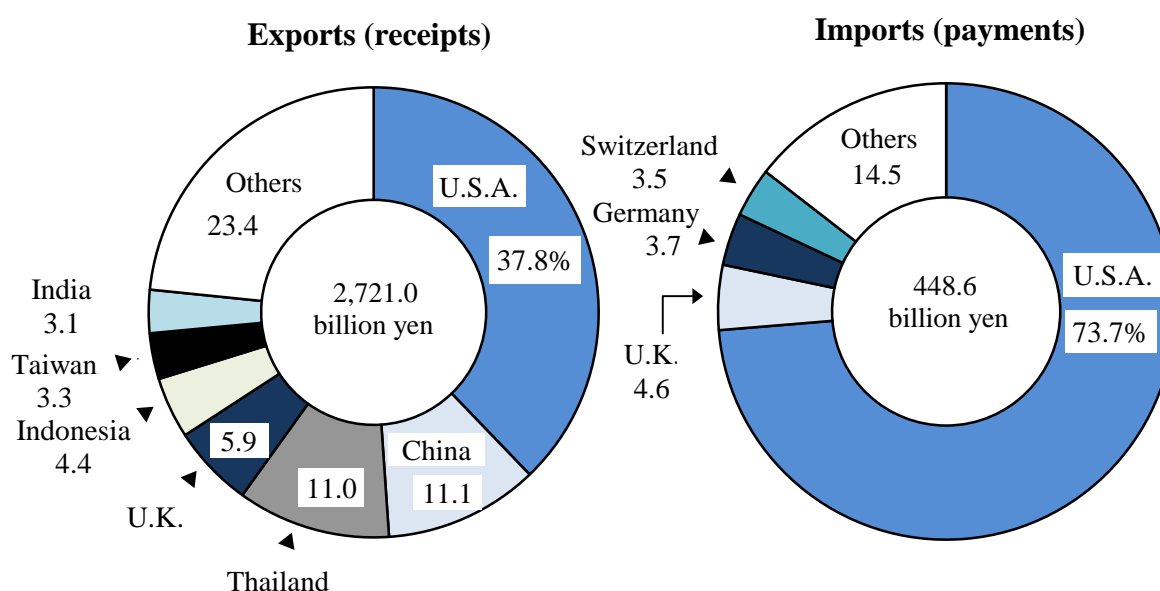
**Figure 8.2**  
**Trends in Technology Trade by Business Enterprises**



Source: Statistics Bureau, MIC.

In fiscal 2012, Japan exported 2,721.0 billion yen of technologies; major destinations for export were: the U.S.A. (1,028.7 billion yen, or 37.8 percent of total exports), followed by China (302.7 billion yen), Thailand (298.8 billion yen), and the U.K. (161.8 billion yen). On the other hand, Japan imported 448.6 billion yen of technologies, mainly from the U.S.A. (330.7 billion yen, or 73.7 percent of total imports), followed by the U.K. (20.6 billion yen), Germany (16.4 billion yen), and Switzerland (15.8 billion yen).

**Figure 8.3**  
**Composition of Technology Trade by Major Country/Region**  
 (FY2012)



Source: Statistics Bureau, MIC.

## 2. Patents

The total number of patent applications remained robust in and after 1998 as more than 400,000 applications were filed every year, but a gradual drop has been seen since 2006. It fell significantly in 2009. In 2013, there were 328,436 applications (down 4.2 percent from the previous year).

**Table 8.3**  
**Patents**

Item	(Cases)				
	1995	2000	2005	2010	2013
Applications .....	369,215	436,865	427,078	344,598	328,436
Registrations .....	109,100	125,880	122,944	222,693	277,079
Existing vested rights .....	681,459	1,040,607	1,123,055	1,423,432	1,838,177

Source: Japan Patent Office.

**Table 8.4**  
**PCT International Applications by Country of Origin**

Country	(Filings)					
	2008	2009	2010	2011	2012	2013
Total .....	163,241	155,402	164,340	182,437	195,325	204,918
U.S.A. ....	51,643	45,628	45,031	49,112	51,650	57,036
Japan .....	28,760	29,802	32,150	38,903	43,688	43,911
China .....	6,120	7,900	12,296	16,402	18,617	21,512
Germany .....	18,855	16,795	17,568	18,852	18,764	17,942
Korea, Rep. of .....	7,899	8,035	9,669	10,419	11,819	12,383
France .....	7,072	7,237	7,246	7,438	7,851	7,934
U.K. ....	5,467	5,044	4,891	4,849	4,896	4,862
Switzerland .....	3,799	3,672	3,728	4,008	4,192	4,357
Netherlands .....	4,363	4,462	4,063	3,503	4,071	4,177
Sweden .....	4,136	3,568	3,314	3,464	3,587	3,948

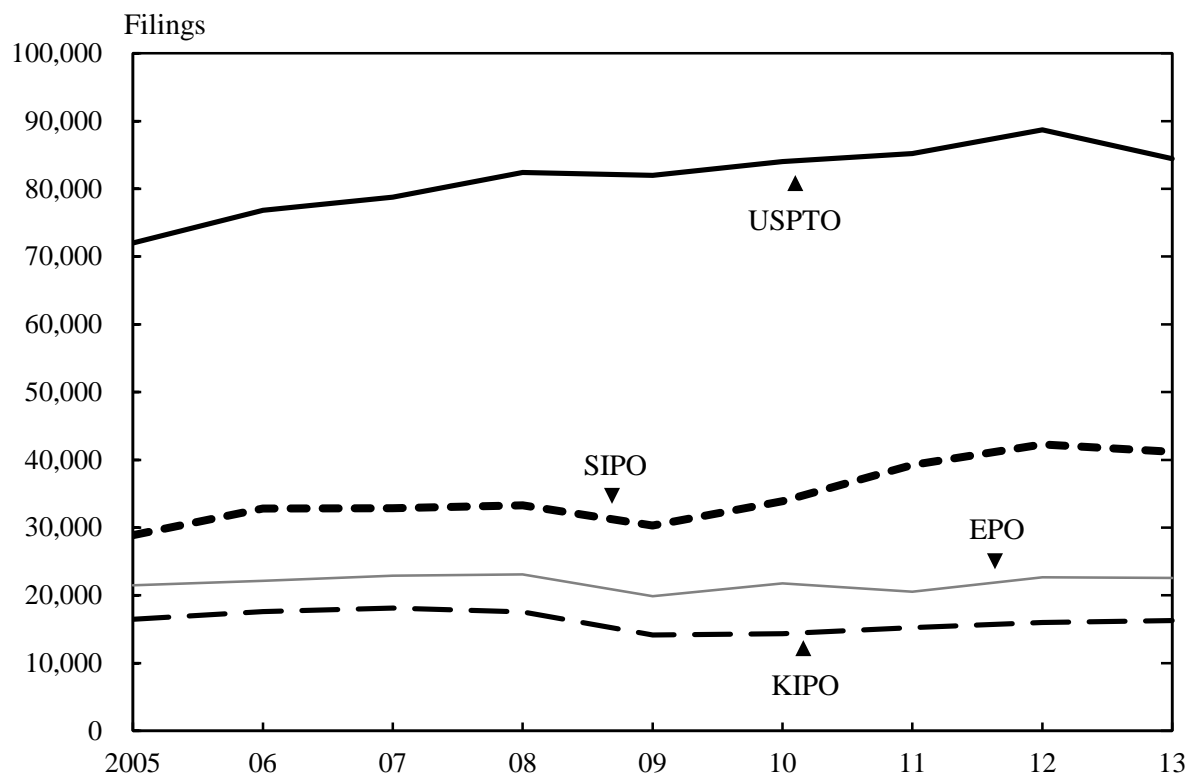
Source: World Intellectual Property Organization.

Over 140 countries, including Japan, have joined the international patent system of the World Intellectual Property Organization (WIPO) as of May 2014. In 2013, the number of international patent applications filed under the Patent Cooperation Treaty (PCT) was 204,918, of which 43,911 were from Japan, accounting for 21.4 percent.

The United States Patent and Trademark Office ranked first among major patent offices for applications filed by Japanese applicants in 2013, with 84,429 filings. The number of patent applications filed by Japanese applicants at the State Intellectual Property Office of the People's Republic of China was 41,193 filings.



**Figure 8.4**  
**Changes in the Number of Patent Applications Filed with**  
**Major Offices by Japanese Applicants**



EPO: European Patent Office; KIPO: Korean Intellectual Property Office; SIPO: State Intellectual Property Office of the People's Republic of China; USPTO: United States Patent and Trademark Office.

Source: Japan Patent Office.

### 3. Information and Communication

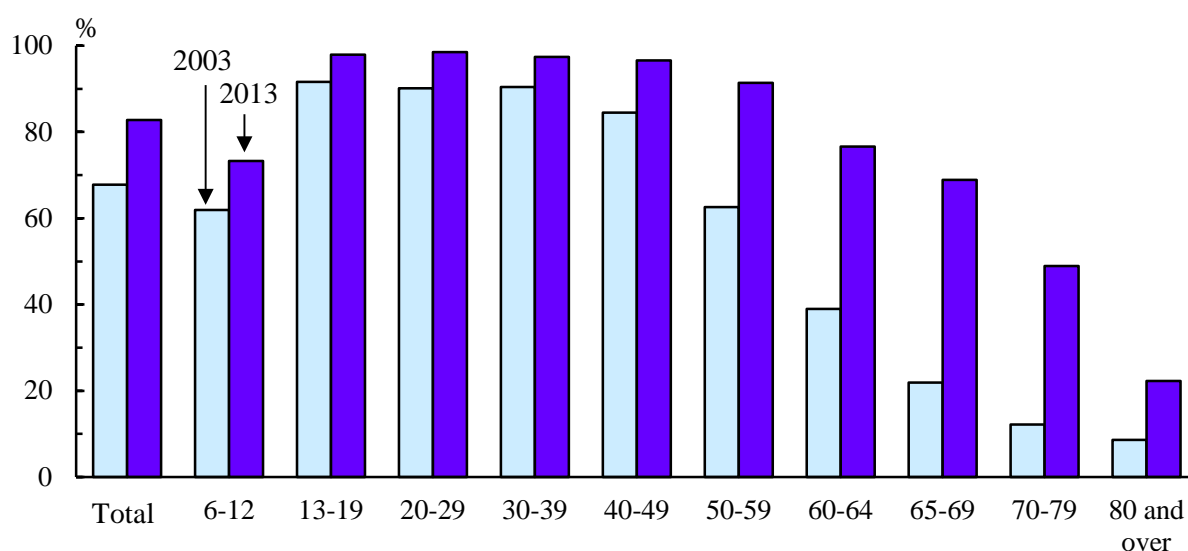
#### (1) Diffusion of the Internet

The user population of the Internet, the commercial use of which began in 1993, continues to increase. The number of people who used the Internet over the last year (individuals who are 6 years of age and older; Internet-connected equipment covers any and all types of Internet connection devices used, including PCs, cell phones, personal handyphone systems, smartphones, tablet terminals, and game machines) was 100.44 million people as of the end of 2013. The number of people who used the Internet for the first time exceeded 100 million people, making up 82.8 percent of the population 6 years of age and older. Observation by age

group shows that the individual Internet usage rate exceeded 90 percent among people in each age group between 13 and 59, although the rate drops as the age increases.

According to the status of Internet use by terminal as of the end of 2013, the usage rate of home PCs was the highest (58.4 percent), followed by smartphones (42.4 percent), PCs outside the home (27.9 percent). Figures for the rate of Internet use by terminal by age group show that over 70 percent of people in each age group of between 13 and 49 use home PCs. In the 20-39 age groups, usage of smartphones surpassed that of home PCs.

**Figure 8.5**  
**Trends in Internet Usage Rate by Age Group** <sup>1)</sup>



1) Ages 6 years and over.

Source: Ministry of Internal Affairs and Communications.

Among enterprises, the Internet usage rate at the end of 2013 was 99.9 percent, which was the same rate as that of the previous year. Trends in the Internet usage rate remained flat, at around 99 percent, showing that Internet usage at businesses is fully diffused.

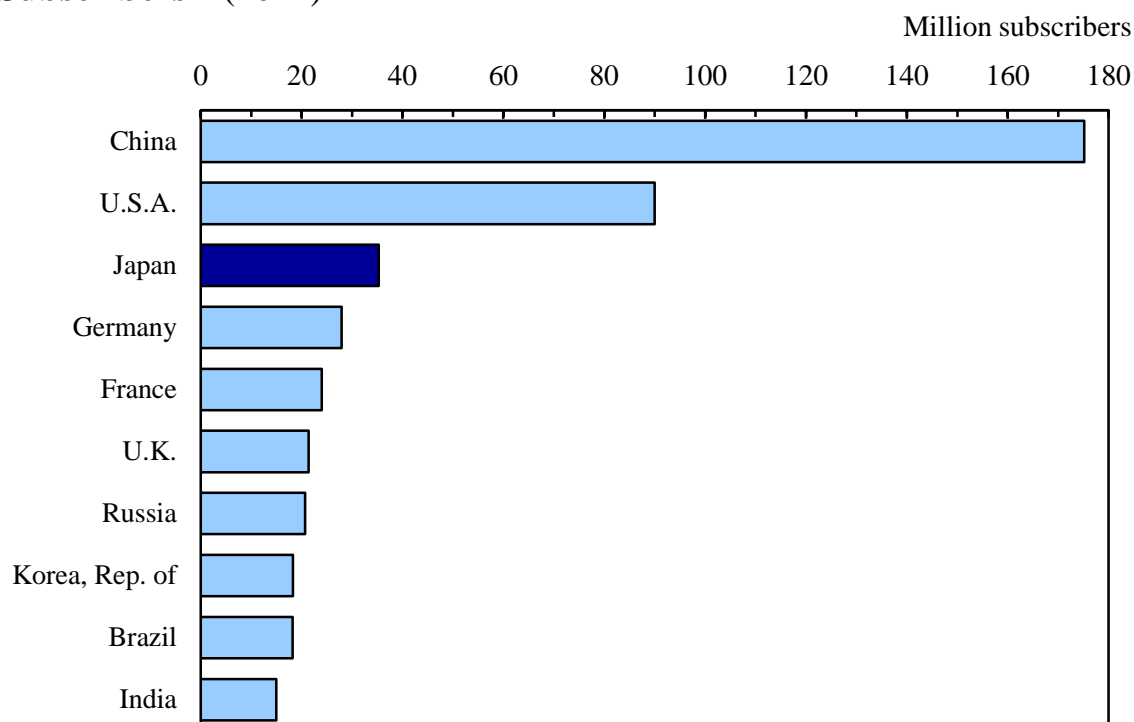
## (2) Progress of Communication Technologies

The number of broadband (connection) subscribers as of the end of March 2014 was 89.73 million. Among the number of broadband subscribers, those with subscriptions for 3.9G mobile phones (LTE) were the highest,

amounting to 46.41 million subscriptions and accounting for 51.7 percent of the total. Compared to the previous year, 3.9G mobile phones (LTE) increased by 128 percent, and it is clear that they are popularizing rapidly. Those with FTTH (Fiber To The Home: enables for ultra-high-speed Internet access of several dozen to a maximum of 1 Gbps) using optical fiber was the second highest, with 25.35 million subscribers (6 percent increase as compared to the previous year), making up 28.3 percent of the total.

In addition, although its percentage within the total number of broadband subscribers is small, in recent years, the number of subscribers of BWA (Broadband Wireless Access) service (access service connecting to networks via broadband wireless access systems using the 2.5 GHz band [WiMAX, etc.]) has been increasing. As of the end of March 2014, the number of BWA subscribers was 7.46 million (up 40 percent as compared to the previous year).

**Figure 8.6**  
**International Comparison of the Number of Broadband**  
**Subscribers** <sup>1)</sup> (2012)



1) Fixed (wired) broadband.

Source: International Telecommunication Union.

In 2012, the number of fixed (wired) broadband subscribers in Japan was 35.29 million, the third-largest after China (175.18 million) and the U.S.A. (90.01 million).

Meanwhile, IP phone services (voice phone services that use Internet Protocol technology across part or all of the communication network), which use broadband circuits as access lines, entered full-scale use between 2002 and 2003. As of the end of March 2014, the total number of IP phone subscribers was 33.78 million.

**Table 8.5**  
**Telecommunications Services** <sup>1)</sup>

Item	(Thousands)					
	1995	2000	2005	2010	2013	2014
Public phones (NTT <sup>2)</sup> only) ...	801	736	442	283	210	...
Fixed phone service subscribers .....	59,936	55,547	51,626	37,918	28,471	26,094
Mobile phone subscribers <sup>3)</sup> ....	4,331	56,846	91,474	116,295	141,129	149,561
IP phone subscribers .....	-	-	8,305	23,172	31,271	33,780
ISDN (Integrated Services Digital Network) subscribers ...	344	6,683	7,981	5,421	4,273	3,949
DSL (Digital Subscriber Line) subscribers .....	-	0	13,676	9,735	5,425	4,470
Cable Internet subscribers .....	-	216	2,961	5,314	6,012	6,023
FTTH (Fiber To The Home) subscribers .....	-	-	2,890	17,802	23,854	25,353
International phone calls, sent and received .....	599,400	801,200	# 1,103,700	1,101,600	879,800	...

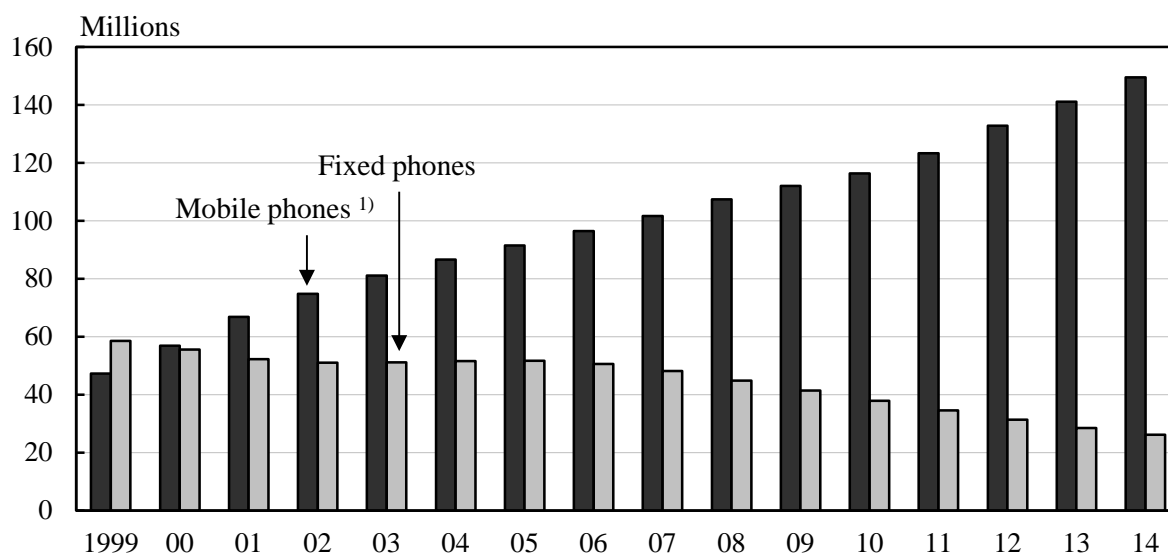
1) End of March. 2) Nippon Telegraph and Telephone Corporation. 3) Subscribers of cell phones and PHS (Personal Handyphone System).

Source: Ministry of Internal Affairs and Communications.

### (3) Telephone

The number of fixed phone service subscription contracts has continued to decrease in recent years. As of the end of March 2014, the number of fixed phone subscribers was 26.09 million (down 8.3 percent from the previous year). Meanwhile, the number of mobile phone subscribers (cell phones and personal handyphone systems) totaled 141.13 million at the end of March 2013, marking a rise by 6.0 percent year-on-year to 149.56 million at the end of March 2014.

**Figure 8.7**  
**Telephone Service Subscribers**



1) Subscribers of cell phones and PHS (Personal Handyphone System).  
 Source: Ministry of Internal Affairs and Communications.

#### (4) Postal Service

As of the end of March 2014, Japan Post Co., Ltd. had 24,511 post offices nationwide. In fiscal 2013, post offices handled 22.28 billion pieces of domestic mail (including parcels), which was a 0.1 percent decrease from the previous fiscal year. Furthermore, the total quantity of international mail (letters, express mail services [EMS], and parcels) sent in fiscal 2013 amounted to 47.16 million pieces (a decrease of 1.5 percent from the previous fiscal year).

**Table 8.6**  
**Postal Services**

							(Millions)
Item	FY1995	FY2000	FY2005	FY2010	FY2012	FY2013	
<b>Domestic</b>							
Letters .....	24,262.9	26,114.4	22,666.1	19,757.9	18,814.4	18,524.6	
Parcels .....	400.2	310.5	2,075.0	2,968.4	3,483.5	3,752.6	
<b>International</b>							
Sent .....	122.8	106.0	77.5	54.2	47.9	47.2	
Letters <sup>1)</sup> .....	119.9	104.3	76.1	52.8	46.6	45.4	
Parcels .....	2.9	1.7	1.5	1.4	1.3	1.8	

1) Including express mail services (EMS).

Source: Japan Post Co., Ltd.

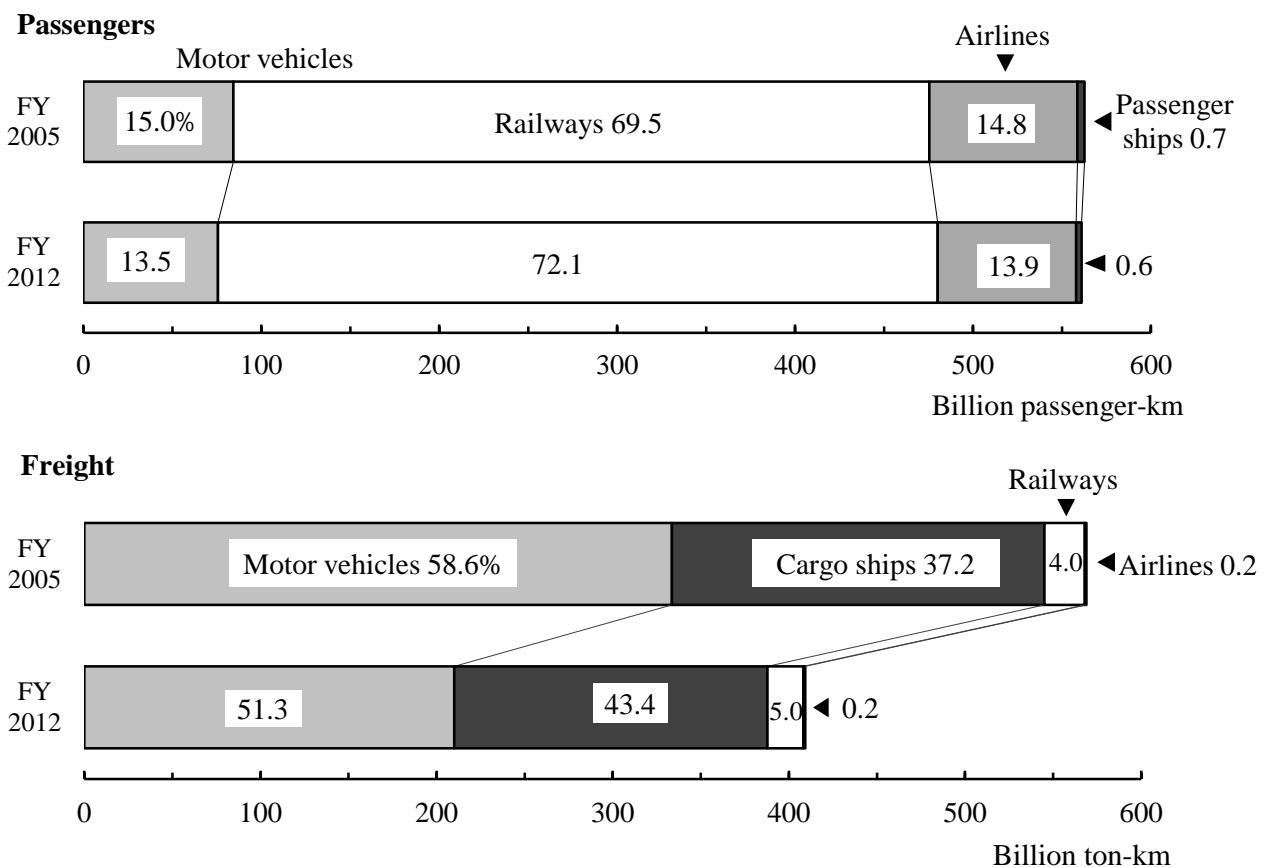
# **Chapter 9**

## **Transport**

# 1. Domestic Transport

Various modes of domestic transport are used in Japan; almost all passenger transport is by railway, while nearly all freight transport is by motor vehicle and cargo ship. The transport sector, which released 20 percent of the total CO<sub>2</sub> emissions in fiscal 2012, is improving the energy efficiency of cars, promoting the broader use of environmentally-friendly cars, and in an attempt to further reduce emissions, the Government works to promote the development and commercialization of next-generation large vehicles and the dissemination of "eco driving."

**Figure 9.1**  
**Composition of Domestic Transport**





## (1) Domestic Passenger Transport

No major changes have been observed in recent years in the volume of domestic passenger transport. Under these circumstances, a shift from private automobiles to public transportation should be promoted as a measure against global warming. Therefore, in addition to promotion of computerization such as adoption of IC cards (multiple-use IC [integrated circuit] cards) and increased convenience in public transportation through the improvement of transfers, workplace "eco-commuting" measures have been promoted along with cooperation on regional eco-commuting measures to develop greener commuter traffic.

In fiscal 2012, the number of domestic transport passengers was 29.29 billion (up 1.5 percent from the previous fiscal year). The total volume of passenger transport was 561.1 billion passenger-kilometers (up 3.3 percent).

**Table 9.1**  
**Domestic Passenger Transport**

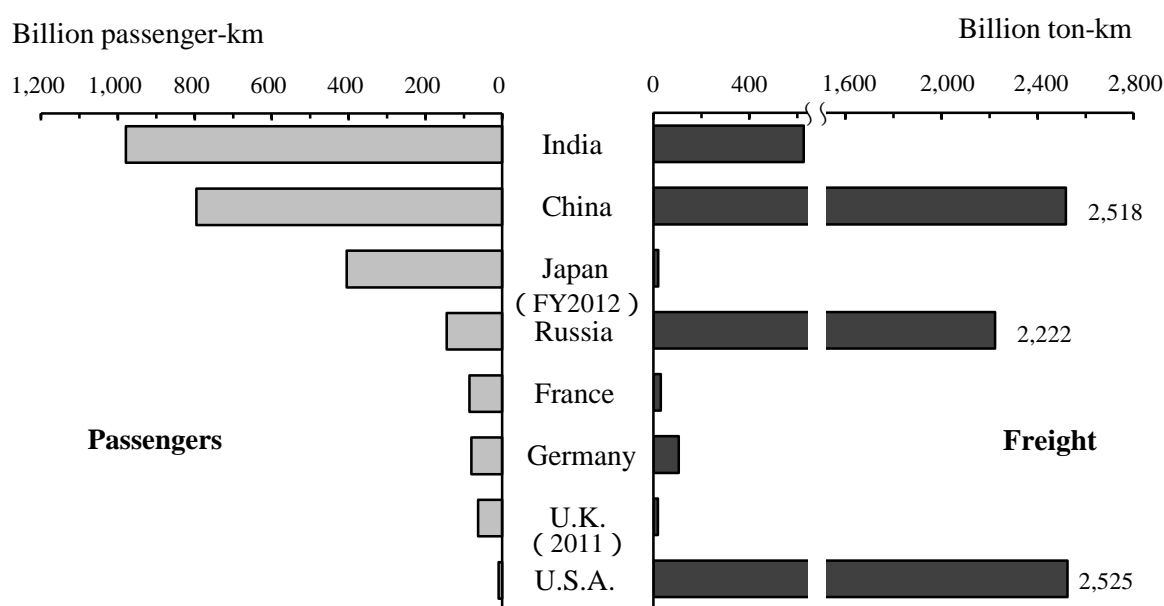
Item	Passengers carried (thousands)		Passenger kilometers (millions)	
	FY2011 <sup>1)</sup>	FY2012	FY2011 <sup>1)</sup>	FY2012
Total transport volume .....	28,868,966	29,291,761	543,195	561,071
Railways .....	22,632,362	23,041,825	395,067	404,394
JR (Japan Railways) .....	8,837,406	8,962,809	246,937	253,788
Other than JR .....	13,794,956	14,079,016	148,130	150,606
Motor vehicles .....	6,073,486	6,076,806	73,916	75,668
Buses (Commercial use) .....	4,413,757	4,437,253	66,696	68,458
Taxis and limousine hires .....	1,659,729	1,639,553	7,221	7,210
Airlines .....	79,052	85,996	71,165	77,917
Passenger ships .....	84,066	87,134	3,047	3,092

1) Excluding some data of the Hokkaido District Transport Bureau and the Tohoku District Transport Bureau.

Source: Ministry of Land, Infrastructure, Transport and Tourism.

In fiscal 2012, the Japan Railways (JR) group reported 8.96 billion passengers (up 1.4 percent from the previous fiscal year) and 253.79 billion passenger-kilometers (up 2.8 percent). Railways other than JR reported 14.08 billion passengers (up 2.1 percent) and 150.61 billion passenger-kilometers (up 1.7 percent).

**Figure 9.2**  
**Rail Transport by Country (2012)**



Source: Ministry of Land, Infrastructure, Transport and Tourism; The World Bank.

To promote the use of buses, approaches to improve punctuality and speed using bus lanes and to improve convenience of buses, such as by introducing a bus location system that provides locational information of buses as well as an IC card system that enables for smooth riding of buses, are being carried out. Commercial buses transported 4.44 billion passengers (up 0.5 percent from the previous fiscal year) and achieved 68.46 billion passenger-kilometers (up 2.6 percent); both figures increased in fiscal 2012.

Taxi and limousine hire services have marked a long-term downward trend in passengers. They carried 1.64 billion passengers (down 1.2 percent from the previous fiscal year) and reported 7.21 billion passenger-kilometers (down 0.2 percent) in fiscal 2012.

**Table 9.2**  
**Number of Motor Vehicles Owned**

Type of vehicles	FY1995	FY2000	FY2005	FY2010	FY2013
Trucks and trailers .....	20,235,051	18,064,744	16,707,445	15,137,641	14,749,266
Buses .....	242,907	235,550	231,696	226,839	226,542
Passenger cars .....	45,068,530	52,449,354	57,097,670	58,139,471	60,051,338
Special purpose vehicles .....	1,524,405	1,754,311	1,618,698	1,646,018	1,669,679
Two-wheeled vehicles <sup>1)</sup> .....	3,035,643	3,021,014	3,336,551	3,510,804	3,575,746

1) Two-wheeled vehicles with engine displacement of more than 125cc.

Source: Ministry of Land, Infrastructure, Transport and Tourism.

Fiscal 2012 air transport records show that there were 86.00 million passengers (up 8.8 percent from the previous fiscal year), and passenger-kilometers amounted to 77.92 billion (up 9.5 percent).

In fiscal 2012, passenger ships reported 87.13 million passengers (up 3.6 percent from the previous fiscal year) and 3.09 billion passenger-kilometers (up 1.5 percent).

## **(2) Domestic Freight Transport**

In the area of domestic freight, a total of 4.78 billion metric tons (down 2.5 percent from the previous fiscal year) of freight was transported for a total of 409.24 billion ton-kilometers (down 4.1 percent) in fiscal 2012.

As for transport tonnage volume in fiscal 2012, motor vehicle transport accounted for more than 90 percent of the total.

**Table 9.3**  
**Domestic Freight Transport**

Item	Freight tonnage (thousands)		Ton kilometers (millions)	
	FY2011	FY2012	FY2011	FY2012
Total transport volume .....	4,898,783	4,775,236	426,951	409,235
Railways .....	39,886	42,340	19,998	20,471
Motor vehicles .....	4,496,954	4,365,927	231,061	209,956
Commercial use .....	3,153,051	3,011,839	202,441	180,336
Non-commercial use .....	1,343,904	1,354,088	28,620	29,620
Cargo ships .....	360,983	365,992	174,900	177,791
Airlines <sup>1)</sup> .....	960	977	992	1,017

1) Including overweight baggage and postal mail.

Source: Ministry of Land, Infrastructure, Transport and Tourism.

## 2. International Transport

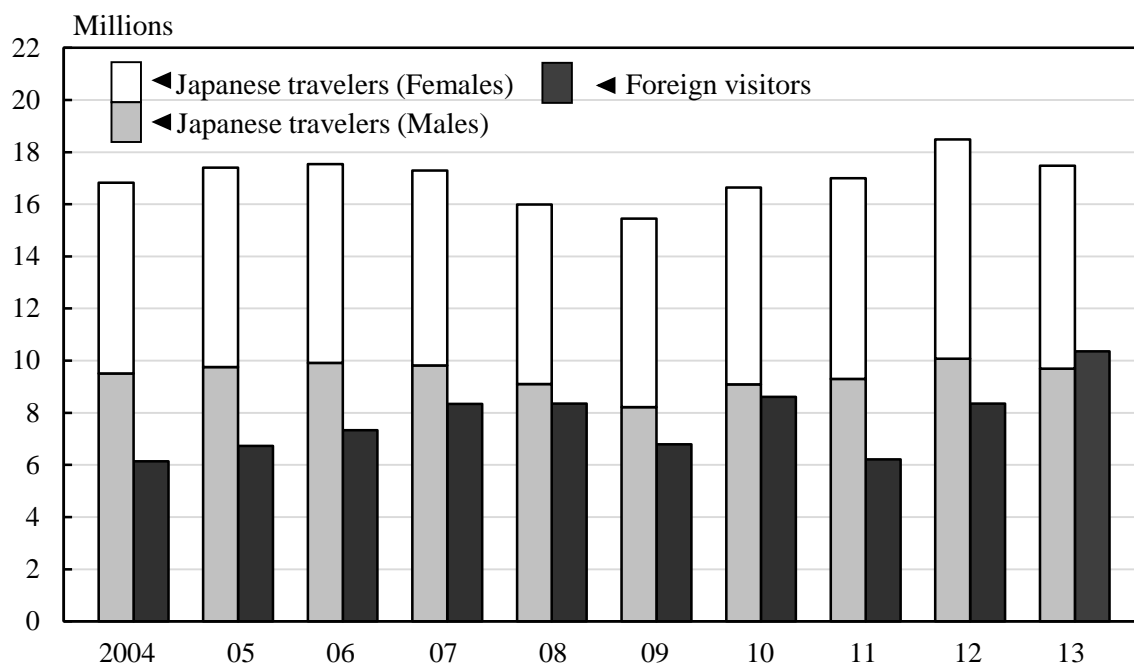
### (1) International Passenger Transport

The global economic downturns after September 2008, the spread of new influenza in early 2009, and the influence of the Great East Japan Earthquake decreased international air passenger transport with Japanese airlines. In 2013, however, they transported 14.86 million passengers (up 6.2 percent from the previous year) on international flights, and registered 65.61 billion passenger-kilometers (up 6.9 percent). Both recorded their second consecutive year of increase. This increase is attributed to permeation of a sense of inexpensiveness of travel costs due to correction of the yen appreciation, visa alleviation measures for various Southeast Asian countries, an increase in the supply of airline seats based on new services by low-cost air carriers, etc.

The number of Japanese overseas travelers in 2013 was 17.47 million (down 5.5 percent from the previous year). This was the first downturn in the four years since 2009.

According to reports on arrivals by tourist offices in countries around the world, China, Republic of Korea and the U.S.A. had many Japanese visitors in 2012.

**Figure 9.3**  
**Japanese Overseas Travelers and Foreign Visitor Arrivals**



Source: Ministry of Justice; Japan National Tourism Organization.

**Table 9.4**  
**Japanese Travelers**

Country or area of destination	2011		2012		2013	
	Number of arrivals	Annual growth (%)	Number of arrivals	Annual growth (%)	Number of arrivals	Annual growth (%)
China .....	3,658,169	-2.0	3,518,153	-3.8	2,877,500	-18.2
Korea, Rep. of .....	3,289,051	8.8	3,518,792	7.0	2,747,750	-21.9
U.S.A. <sup>1)</sup> .....	3,249,569	-4.0	3,698,073	13.8	...	...
Taiwan .....	1,294,758	19.9	1,432,315	10.6	1,421,550	-0.8
Hong Kong SAR .....	1,283,687	-2.5	1,254,602	-2.3	1,057,033	-15.7
Thailand .....	1,127,893	13.5	1,373,716	21.8	1,537,979	12.0
Germany <sup>2)</sup> .....	642,542	6.2	734,475	14.3	...	...
France .....	612,259	2.7	732,283	19.6	...	...

1) Including territories and dependencies (Northern Mariana Islands, Guam, American Samoa, Puerto Rico and United States Virgin Islands, etc.). 2) Arrivals in registered tourist accommodations.

Source: Japan National Tourism Organization.

The number of foreign visitors to Japan was 10.36 million in 2013 (up 24.0 percent from the previous year). Broken down by country/region, the number of visitors from Asian countries was highest, totaling 8.12 million persons (up 27.0 percent from the previous year). Among Asian countries, the number of visitors from Republic of Korea was highest, amounting to 2.46 million, a figure that accounted for 23.7 percent of the total number of foreign visitors to Japan.

**Table 9.5**  
**Foreign Visitors**

Region, country or area of origin	2011		2012		2013	
	Number of arrivals	Percentage distribution	Number of arrivals	Percentage distribution	Number of arrivals	Percentage distribution
Total arrivals <sup>1)</sup> .....	6,218,752	100.0	8,358,105	100.0	10,363,904	100.0
Asia .....	4,723,661	76.0	6,387,977	76.4	8,115,789	78.3
Korea, Rep. of .....	1,658,073	26.7	2,042,775	24.4	2,456,165	23.7
China .....	1,043,246	16.8	1,425,100	17.1	1,314,437	12.7
Taiwan .....	993,974	16.0	1,465,753	17.5	2,210,821	21.3
Hong Kong SAR .....	364,865	5.9	481,665	5.8	745,881	7.2
Thailand .....	144,969	2.3	260,640	3.1	453,642	4.4
Singapore .....	111,354	1.8	142,201	1.7	189,280	1.8
Europe.....	569,279	9.2	775,840	9.3	904,132	8.7
U.K. ....	140,099	2.3	173,994	2.1	191,798	1.9
Africa.....	19,361	0.3	24,725	0.3	26,697	0.3
North America .....	685,046	11.0	876,401	10.5	981,981	9.5
U.S.A. ....	565,887	9.1	716,709	8.6	799,280	7.7
Canada .....	101,299	1.6	135,355	1.6	152,766	1.5
South America .....	31,762	0.5	51,151	0.6	49,930	0.5
Oceania.....	189,150	3.0	241,513	2.9	284,886	2.7
Australia .....	162,578	2.6	206,404	2.5	244,569	2.4

1) Including stateless people, etc.

Source: Japan National Tourism Organization.

In 2013, of the total number of foreign visitors to Japan, tourists numbered 7.96 million persons, or 76.8 percent of total foreign visitors. The highest number of tourists came from Taiwan with 2.07 million travelers, followed by Republic of Korea with 1.97 million travelers.

## (2) International Freight Transport

The volume of seaborne foreign transport in 2012 was 1,001.1 million tons, up 3.6 percent over the previous year. Of this figure, total exports decreased by 2.8 percent to 50.4 million tons, and total imports decreased by 1.0 percent to 530.9 million tons.

**Table 9.6**  
**Seaborne Foreign Transport**

Year	Total	Exports	Imports	(Thousand tons)
				Cross Transport
1995	703,606	38,761	529,929	134,916
2000	739,377	34,960	538,875	165,542
2005	777,869	45,403	529,239	203,225
2010	819,075	44,758	465,898	308,419
2011	966,697	51,863	535,977	378,857
2012	1,001,130	50,414	530,855	419,861

Source: Ministry of Land, Infrastructure, Transport and Tourism.

Air-shipped international freight in 2013 totaled 1.20 million tons in terms of volume (up 5.6 percent from the previous year) and 6.53 billion tons in terms of ton-kilometers (up 7.2 percent).

# **Chapter 10**

## **Commerce**



## 1. Wholesale and Retail

The 2012 Economic Census for Business Activity showed that 1.41 million wholesale and retail establishments were in operation in Japan. The number of persons engaged became 11.75 million. Sales in the wholesale and retail industries amounted to 415.12 trillion yen, accounting for 31.1 percent of the total of all industries.

### (1) Wholesale Trade

The number of wholesale establishments was 372,000 in 2012. Observed by size of operation in terms of persons engaged, establishments with less than 20 persons accounted for 89.3 percent of the total. A total of 86.6 percent were corporations, while 13.2 percent were individual proprietorships.

**Table 10.1**

**Establishments and Persons Engaged in the Wholesale and Retail Sector (2012)**

Item	Total	Wholesale	Retail
<b>Number of Establishments</b> .....	1,405,021	371,663	1,033,358
Size of operation (persons engaged)			
1-4 persons .....	825,858	183,335	642,523
5-9 .....	294,114	95,349	198,765
10-19 .....	167,674	53,092	114,582
20-29 .....	52,460	16,779	35,681
30-49 .....	31,140	11,539	19,601
50-99 .....	18,752	6,242	12,510
100 and over .....	9,208	3,361	5,847
Loaned or dispatched employees only .....	5,815	1,966	3,849
<b>Persons engaged</b> .....	11,746,468	3,915,256	7,831,212
Regular employees .....	9,633,026	3,345,068	6,287,958
Full-time employees .....	5,084,354	2,711,122	2,373,232
Other than full-time employees <sup>1)</sup> .....	4,548,672	633,946	3,914,726
Temporary employees .....	521,317	93,721	427,596
Loaned or dispatched employees from the separately operated establishments .....	401,948	143,674	258,274
Loaned or dispatched employees to the separately operated establishments .....	116,139	92,084	24,055

1) Among regular employees, excludes workers generally referred to as "full-time employees" and "regular members of staff," and includes those referred to as "contract employees," "non-regular members of staff," "part-timers," and similar appellations.

Source: Statistics Bureau, MIC; Ministry of Economy, Trade and Industry.

The number of persons engaged in wholesale was 3.92 million in 2012, of which 728,000 were persons other than full-time employees (including those who are referred to as "contract employees," "non-regular members of staff," "part-timers," and similar appellations) and temporary employees, making up 18.6 percent of the total.

## (2) Retail Trade

The number of retail establishments in operation totaled 1.03 million in 2012. Observed by size of operation in terms of persons engaged, the establishments with less than 10 persons accounted for 81.4 percent of the total. By type of legal organization, 56.3 percent of retail establishments were corporations, while 43.5 percent were individual proprietorships. The proportion of individual proprietorships was higher in the retail sector than in the wholesale sector.

The number of persons engaged in retail was 7.83 million in 2012, of which 4.34 million were persons other than full-time employees (including those referred to as "contract employees," "non-regular members of staff," "part-timers," and similar appellations) and temporary employees, comprising 55.4 percent of the total.

## 2. Eating and Drinking Places

There were 611,000 eating and drinking places establishments in operation and 4.20 million persons engaged in 2012.

**Table 10.2**  
**Eating and Drinking Places (2012)**

Size of operation (persons engaged)	Establishments		Persons engaged	
	Number	Ratio (%)	Number	Ratio (%)
Total .....	610,782	100.0	4,201,947	100.0
1-4 persons .....	375,915	61.5	829,459	19.7
5-9 .....	120,006	19.6	778,085	18.5
10-19 .....	67,759	11.1	920,588	21.9
20-29 .....	27,012	4.4	640,682	15.2
30 and over .....	19,563	3.2	1,033,133	24.6
Loaned or dispatched employees only ..	527	0.1	-	-

Source: Statistics Bureau, MIC; Ministry of Economy, Trade and Industry.

## **Chapter 11**

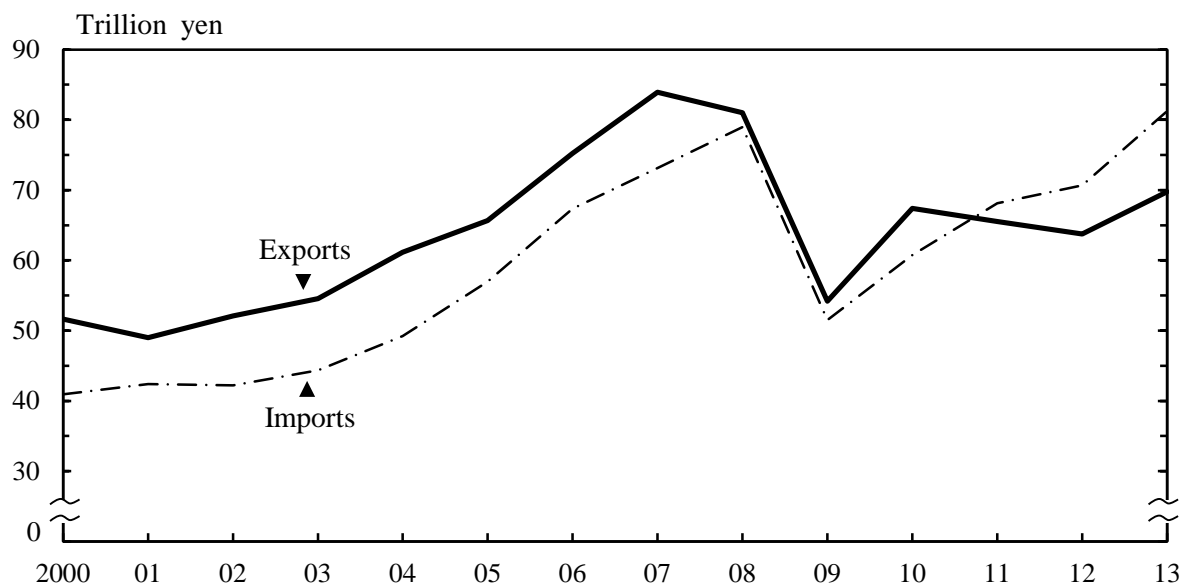
# **Trade, International Balance of Payments, and International Cooperation**

## 1. Trade

### (1) Overview of Trade

In 2013, Japan's international trade on a customs clearance basis increased, together with exports and imports, due to an increase in yen conversion associated with yen depreciation. Exports (in FOB value) amounted to 69.8 trillion yen, which was a 9.5 percent increase as compared to the previous year, and the first increase in three years. Imports (in CIF value) amounted to 81.2 trillion yen, which was a 14.9 percent increase as compared to the previous year, and an increase for the fourth consecutive year. Trade deficit totaled 11.5 trillion yen. Since 2011, in which the trade deficit entered the red for the first time in 31 years, this was the third consecutive year of red figures.

**Figure 11.1**  
**Foreign Trade**



Source: Ministry of Finance.

**Table 11.1**  
**Trends in Foreign Trade and Indices of Trade**

Year	Value (billion yen)			Indices of trade (2010=100)					
	(Customs clearance basis)			Exports			Imports		
	Exports (FOB)	Imports (CIF)	Balance	Value index	Quantum index <sup>1)</sup>	Unit value index	Value index	Quantum index <sup>1)</sup>	Unit value index
2004	61,170	49,217	11,953	90.8	97.8	92.8	81.0	96.7	83.7
2005	65,657	56,949	8,707	97.4	98.6	98.8	93.7	99.5	94.2
2006	75,246	67,344	7,902	111.6	106.3	105.1	110.8	103.3	107.3
2007	83,931	73,136	10,796	124.5	111.4	111.8	120.4	103.2	116.7
2008	81,018	78,955	2,063	120.2	109.7	109.6	129.9	102.5	126.7
2009	54,171	51,499	2,671	80.4	80.5	99.8	84.8	87.8	96.5
2010	67,400	60,765	6,635	100.0	100.0	100.0	100.0	100.0	100.0
2011	65,546	68,111	-2,565	97.3	96.2	101.1	112.1	102.6	109.3
2012	63,748	70,689	-6,941	94.6	91.6	103.3	116.3	105.0	110.8
2013	69,774	81,243	-11,468	103.5	90.2	114.8	133.7	105.3	127.0

1) Quantum index = Value index / Unit value index × 100

Source: Ministry of Finance.

Japan's 2013 exports increased by 11.1 percent from the previous year in terms of unit value index (an increase for the fourth consecutive year), and decreased by 1.5 percent from the previous year in terms of quantum index (a decrease for the third consecutive year).

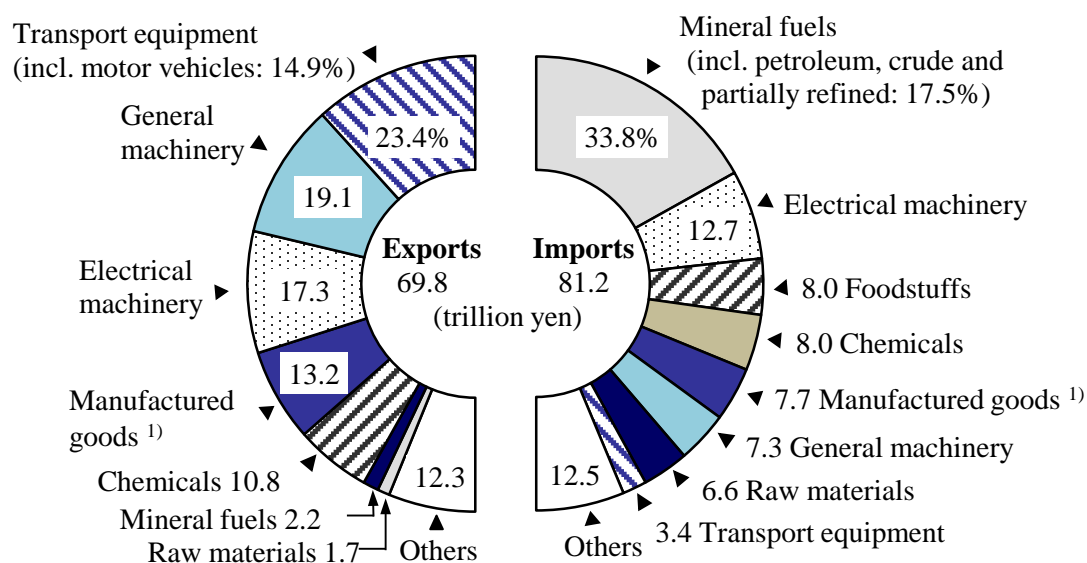
Japan's imports in 2013, unit value index and quantum index, increased by 14.6 percent and 0.3 percent compared to the previous year; both indices recorded their fourth consecutive year of increase.

## (2) Trade by Commodity

Japan's exports in 2013 consisted of transport equipment, which accounted for the largest portion of the total export value, 23.4 percent, followed by general machinery and electrical machinery, making up 19.1 percent and 17.3 percent, respectively. Motor vehicles, which are in the transport equipment category, constituted 14.9 percent of the total export value, down 0.4 percent in quantity and up 12.9 percent in value from the previous year. One characteristic of Japan's exports is the large proportion of high value-added products manufactured with advanced technology, such as motor vehicles, iron and steel and integrated circuits.

The leading import item category was mineral fuels, which represented 33.8 percent of the total value imported, followed by electrical machinery and foodstuffs, with 12.7 percent and 8.0 percent, respectively. Crude petroleum and partially refined petroleum, in the mineral fuels category, constituted 17.5 percent of the total import value, down 0.6 percent in quantity and up 17.5 percent in value from the previous year.

**Figure 11.2**  
**Component Ratios of Foreign Trade by Commodity (2013)**



1) Consisting of iron and steel products, non-ferrous metals, textile yarn and fabrics, etc.  
Source: Ministry of Finance.

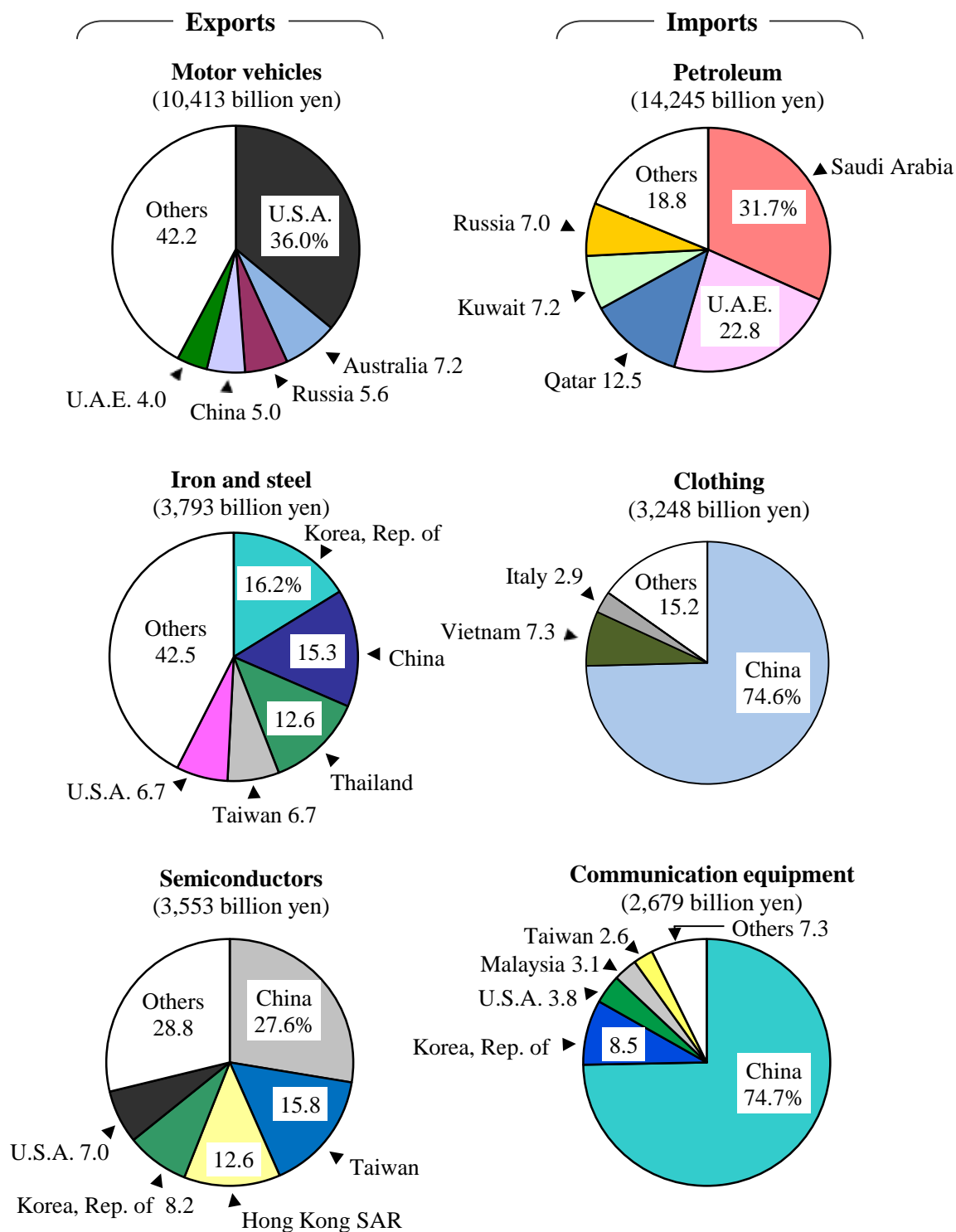
**Table 11.2**  
**Value of Exports and Imports, by Principal Commodity**

					(Billion yen)
Item	2010	2011	2012	2013	Annual growth (%)
<b>Exports, total</b> .....	67,400	65,546	63,748	69,774	9.5
Foodstuffs .....	406	359	355	436	22.6
Raw materials .....	946	972	1,060	1,206	13.8
Mineral fuels .....	1,105	1,247	1,026	1,533	49.5
Chemicals .....	6,925	6,798	6,365	7,507	18.0
Organic Chemicals .....	1,873	1,908	1,818	2,520	38.6
Manufactured goods <sup>1)</sup> .....	8,785	8,786	8,442	9,177	8.7
Iron and steel products .....	3,675	3,709	3,496	3,793	8.5
General machinery .....	13,317	13,803	12,843	13,359	4.0
Power generating machinery .....	2,327	2,317	2,261	2,520	11.4
Electrical machinery .....	12,650	11,600	11,405	12,052	5.7
Semiconductors and other electronic parts .....	4,153	3,565	3,339	3,553	6.4
Transport equipment .....	15,258	14,033	14,995	16,332	8.9
Motor vehicles .....	9,174	8,204	9,225	10,413	12.9
Others .....	8,007	7,948	7,258	8,172	12.6
Scientific and optical instruments .....	2,014	2,109	2,084	2,223	6.6
<b>Imports, total</b> .....	60,765	68,111	70,689	81,243	14.9
Foodstuffs .....	5,199	5,854	5,852	6,473	10.6
Fish and fish preparation .....	1,260	1,350	1,400	1,466	4.7
Raw materials .....	4,766	5,270	4,768	5,358	12.4
Mineral fuels .....	17,398	21,816	24,088	27,444	13.9
Petroleum, crude and partially refined .	9,406	11,415	12,247	14,245	16.3
Chemicals .....	5,379	6,098	5,926	6,464	9.1
Medical and pharmaceutical products ..	1,523	1,725	1,941	2,138	10.2
Manufactured goods <sup>1)</sup> .....	5,379	6,069	5,508	6,245	13.4
Non-ferrous metals .....	1,606	1,813	1,370	1,541	12.5
General machinery .....	4,826	4,970	5,004	5,969	19.3
Electrical machinery .....	8,101	7,989	8,438	10,309	22.2
Communication equipment .....	1,253	1,576	2,149	2,679	24.7
Transport equipment .....	1,681	1,738	2,312	2,788	20.6
Others .....	8,036	8,307	8,793	10,192	15.9
Clothing and clothing accessories .....	2,328	2,598	2,680	3,248	21.2

1) Consisting of iron and steel products, non-ferrous metals, textile yarn and fabrics, etc.

Source: Ministry of Finance.

**Figure 11.3**  
**Japan's Major Export and Import Commodities (2013)**



Source: Ministry of Finance.



### (3) Trade by Country/Region

Japan has maintained a trade surplus with Asia and the U.S.A., while has been in a continuous deficit with the Middle East and Oceania.

**Table 11.3**

**Trends in Exports and Imports by Country/Region**

(Billion yen)

Year	Total	Asia	China	Korea, Rep. of	Taiwan	U.S.A.	EU 28 <sup>1)</sup>	Middle East	Oceania
<b>Exports from Japan</b>									
2008	81,018	39,966	12,950	6,168	4,782	14,214	11,430	3,508	2,200
2009	54,171	29,338	10,236	4,410	3,399	8,733	6,749	2,013	1,409
2010	67,400	37,827	13,086	5,460	4,594	10,374	7,616	2,216	1,796
2011	65,546	36,686	12,902	5,269	4,058	10,018	7,619	1,955	1,778
2012	63,748	34,855	11,509	4,911	3,673	11,188	6,501	2,262	1,837
2013	69,774	37,867	12,625	5,512	4,061	12,928	# 7,000	2,478	2,029
<b>Imports to Japan</b>									
2008	78,955	32,034	14,830	3,052	2,258	8,040	7,292	17,351	5,378
2009	51,499	22,989	11,436	2,051	1,711	5,512	5,518	8,640	3,542
2010	60,765	27,511	13,413	2,504	2,025	5,911	5,821	10,387	4,327
2011	68,111	30,391	14,642	3,170	1,852	5,931	6,411	12,832	4,893
2012	70,689	31,306	15,039	3,234	1,921	6,082	6,642	13,542	4,901
2013	81,243	35,972	17,660	3,493	2,315	6,815	# 7,649	15,667	5,376

1) EU member countries were 27 countries, before July 2013.

Source: Ministry of Finance.

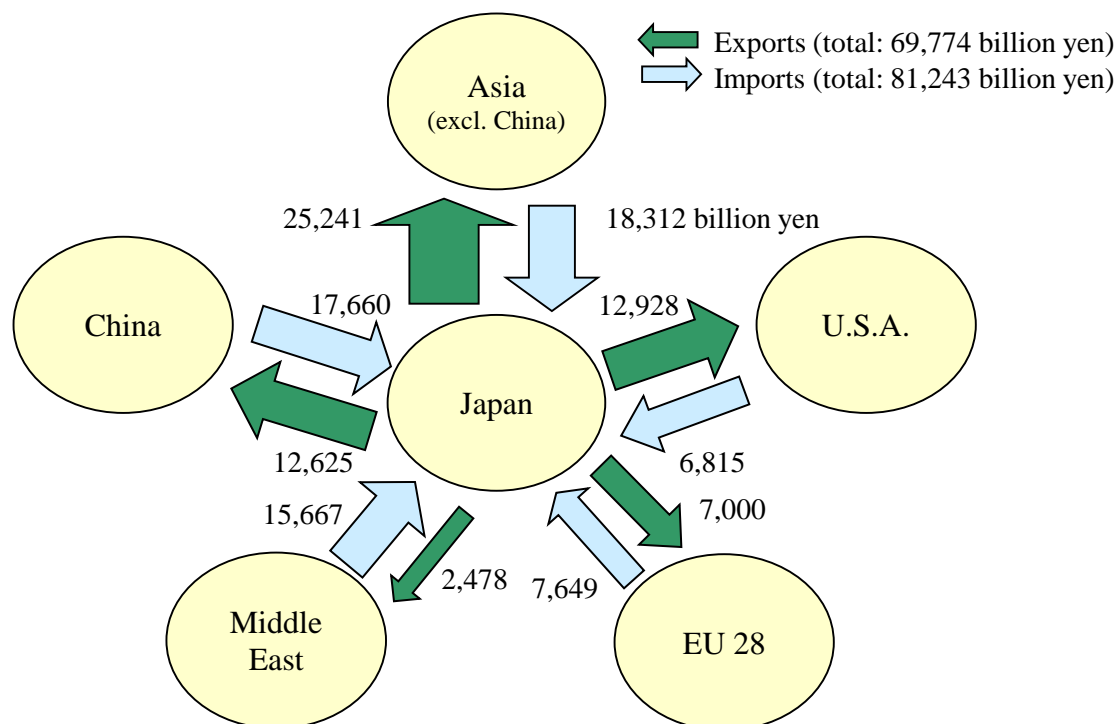
#### (A) Trade with Asia

Japan's 2013 trade balance with Asia resulted in 1.9 trillion yen in surplus, a decrease for the third consecutive year (down 46.6 percent from the previous year). Exports (in FOB value) totaled 37.9 trillion yen (up 8.6 percent), marking the first increase in three years; this was mainly due to the contributions for the increase in manufactured goods and chemicals. Imports (in CIF value) amounted to 36.0 trillion yen (up 14.9 percent), an increase for the fourth consecutive year; this was mainly attributed to the increase in electrical machinery, clothing and clothing accessories.

In 2013, Japan's trade with China amounted to 12.6 trillion yen in exports and 17.7 trillion yen in imports. Trade with China accounts for about 20

percent of the value of both Japan's imports and its exports. China is Japan's largest trading partner in terms of the combined value of imports and exports.

**Figure 11.4**  
**Japan's Foreign Trade by Country/Region (2013)**



Source: Ministry of Finance.

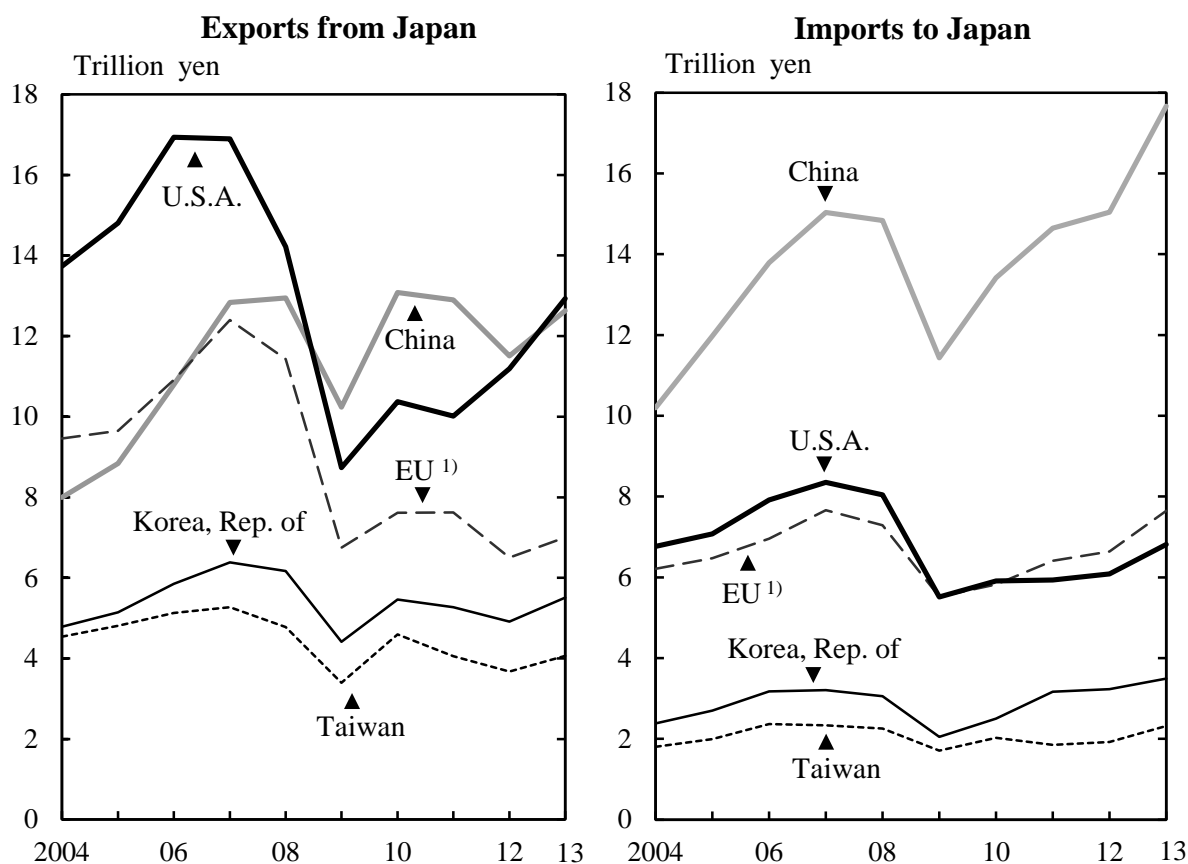
**(B) Trade with U.S.A.**

Japan's 2013 trade balance with the U.S.A. showed a surplus of 6.1 trillion yen. This was bigger than the previous year (up 19.7 percent). Exports (in FOB value) totaled 12.9 trillion yen (up 15.6 percent), making Japan the biggest export counterpart for the first time in five years since 2008. Transport equipment and general machinery made major contributions to the increase. Imports (in CIF value) totaled 6.8 trillion yen (up 12.0 percent), the fourth consecutive annual increase. The rise was due mainly to the contributions of electrical machinery and general machinery.

(C) Trade with EU

In July 2013, the EU was enlarged from 27 to 28 member countries. (For this reason, 2013 year-on-year growth figures have been calculated based on 2012 data revised to include all 28 countries for the full year.) In 2013, Japan's exports (FOB value) to the EU (28 countries) increased by 7.7 percent year-on-year to 7.0 trillion yen. Commodities such as general machinery and electrical machinery contributed to the growth in exports. Imports (CIF value) from the EU (28 countries) totaled 7.6 trillion yen, up 15.2 percent from the previous year. Commodities such as chemicals and transport equipment contributed to the growth in imports. As a result, Japan's trade balance with the EU (28 countries) registered a deficit of 648.7 billion yen.

**Figure 11.5**  
**Trends in Japan's Trade by Country/Region**



1) 15 countries: before May 2004, 25 countries: from May 2004 to Dec. 2006, 27 countries: from Jan. 2007 to June 2013, 28 countries: from July 2013 onward.

Source: Ministry of Finance.

## 2. International Balance of Payments

Breaking down the current account in 2013, goods and services fell by 3.9 trillion yen the previous year to -12.3 trillion yen, indicating a bigger deficit. Primary income amounted to 16.5 trillion yen, which was a 16.5 percent increase from the previous year, indicating an increase in its surplus. As a result, current account totaled 3.2 trillion yen, and its surplus shrank for the third consecutive year.

Breaking down the financial account in 2013, although there was an increase in net assets for direct investment, since there was a decrease in net assets for portfolio investment, financial account amounted to -1.6 trillion yen.

**Table 11.4**  
**International Balance of Payments**

Item	(Billion yen)			
	2010	2011	2012	2013
Current account .....	19,090.3	10,133.3	4,683.5	3,234.3
Goods and services .....	6,564.6	-3,378.1	-8,304.1	-12,252.1
Goods .....	9,516.0	-330.2	-4,271.9	-8,773.4
Exports .....	64,391.4	62,965.3	61,956.8	67,829.0
Imports .....	54,875.4	63,295.5	66,228.7	76,602.4
Services .....	-2,951.3	-3,047.9	-4,032.2	-3,478.6
Primary income .....	13,617.3	14,621.0	14,132.2	16,475.5
Secondary income .....	-1,091.7	-1,109.6	-1,144.5	-989.2
Capital account .....	-434.1	28.2	-80.4	-743.6
Financial account <sup>1)</sup> .....	22,257.8	13,228.4	4,915.8	-1,631.0
Direct investment .....	6,251.1	9,310.1	9,499.9	13,023.7
Portfolio investment .....	13,249.3	-12,925.5	3,221.5	-25,483.8
Financial derivatives (other than reserves) ...	-1,026.2	-1,347.0	590.3	5,551.6
Other investment .....	-8.9	4,401.0	-5,344.5	1,427.1
Reserve assets .....	3,792.5	13,789.7	-3,051.5	3,850.4
Net errors and omissions .....	3,601.7	3,066.9	312.6	-4,121.7

1) Positive figures (+) show increase in net assets, negative figures (-) show decrease in net assets.

Source: Ministry of Finance.

Japan's external assets (the balance of overseas assets held by residents in Japan) as of the end of 2013 amounted to 798.7 trillion yen, while its external liabilities (assets held in Japan by nonresidents) were 473.6

trillion yen. As a result, Japan's net external assets (external assets minus external liabilities) were 325.0 trillion yen.

**Table 11.5**  
**Trends in Japan's International Investment Position** <sup>1)</sup>

Item	(Billion yen)				
	2009	2010	2011	2012	2013
Assets .....	555,956	561,448	582,785	663,322	798,652
Liabilities .....	287,710	305,542	317,359	367,007	473,645
Net assets .....	268,246	255,906	265,426	296,315	325,007

1) End of year.

Source: Bank of Japan.

Japan's foreign reserve assets remained at around 220 billion U.S. dollars during the period from 1996 to 1998. Beginning in 1999, foreign reserve assets increased continuously. At the end of 2012, however, they began to decrease, falling to 1,268.1 billion U.S. dollars (down 2.1 percent year-on-year). Moreover, at the end of 2013, they were amounted to 1,266.8 billion U.S. dollars (down 0.1 percent), marking a second consecutive annual decrease.

**Table 11.6**  
**Reserve Assets**

End of year	Total	(Million U.S. dollars)				
		Foreign currency <sup>1)</sup>	Reserve position in IMF	SDRs	Gold <sup>2)</sup>	Other reserve assets <sup>3)</sup>
2009	1,049,397	996,552	4,313	20,968	27,161	403
2010	1,096,185	1,035,817	4,608	20,626	34,695	439
2011	1,295,841	1,220,785	17,181	19,745	37,666	464
2012	1,268,125	1,193,077	13,697	19,911	40,939	501
2013	1,266,815	1,202,443	14,202	20,129	29,560	481

1) Including securities in market value. 2) Market value. 3) Including Asian Bond Fund.

Source: Ministry of Finance.

The yen against the U.S. dollar was 83.19 yen in May 1995. The trend subsequently shifted to a progressively weaker yen, which eventually

reached 143.79 yen in July 1998. After hovering between the 100 and 140 yen ranges for the most part, the yen began appreciating sharply in late 2008. From 2011 into 2012, the yen stayed between the higher 70 yen range and the lower 80 yen range. In April 2013, the Bank of Japan introduced quantitative and qualitative monetary easing to put an end to deflation. Based on this, the exchange rate shifted towards yen depreciation. As of June 2014, the exchange rate was 101.39 yen.

**Figure 11.6**  
**Yen Exchange Rate against the U.S. Dollar**



Source: Bank of Japan.

### 3. International Cooperation

In Japan, there are diverse international cooperation donors: official development assistance (ODA) by the government, direct investments and export credits by private corporations, grants by private nonprofit agencies, assistance activities by NGOs and volunteer citizen groups, etc. In addition, there are various forms of assistance, including bilateral assistance and assistance through multilateral institutions.

**Table 11.7**  
**Net Flow of Development Cooperation** <sup>1)</sup>

(Million U.S. dollars)

Item	2008	2009	2010	2011	2012
Total value .....	31,805	45,454	48,249	61,828	48,977
Official flows .....	7,615	17,704	14,720	13,736	15,998
Official development assistance (ODA) .....	9,601	9,467	11,058	10,831	10,605
Bilateral official development assistance <sup>2)</sup> .....	6,823	6,176	7,337	6,943	6,402
Grants <sup>2)</sup> .....	7,764	5,493	6,943	8,567	6,759
Grants-in-aid <sup>2)</sup> .....	4,777	2,374	3,464	5,033	3,117
Technical cooperation .....	2,987	3,118	3,478	3,534	3,641
Loans, etc. ....	-940	684	395	-1,624	-356
Contributions to multilateral institutions <sup>3)</sup> .....	2,777	3,290	3,720	3,888	4,202
Other official flows (OOF) .....	-1,986	8,237	3,662	2,905	5,393
Official export credits (over one year) .....	-629	-786	-1,039	-622	-623
Direct investment finance, etc. ....	-1,952	7,498	4,217	3,889	6,829
Concessional lending to multilateral institutions .....	594	1,525	485	-362	-813
Private flows (PF) .....	23,738	27,217	32,837	47,594	32,494
Private export credits (over one year) .....	-4,878	-1,220	2,767	1,853	-3,951
Direct investment .....	25,710	19,440	21,650	40,315	31,215
Bilateral investment in securities, etc. ....	3,952	7,010	7,428	5,844	6,470
Concessional lending to multilateral institutions .....	-1,046	1,987	992	-419	-1,241
Grants by private nonprofit agencies .....	452	533	692	497	487
ODA as percentage of GNI (%) .....	0.19	0.18	0.20	0.18	* 0.17
ODA as percentage of GNI (DAC average) (%) .....	0.30	0.31	0.32	0.31	* 0.29

1) Net disbursement at current prices. Negative figures (-) indicate that loan repayments, etc., exceeded the disbursed amount. 2) Including bilateral grants through multilateral institutions. 3) Expenditures clearly addressing a country at the point of disbursement are considered as bilateral ODA.

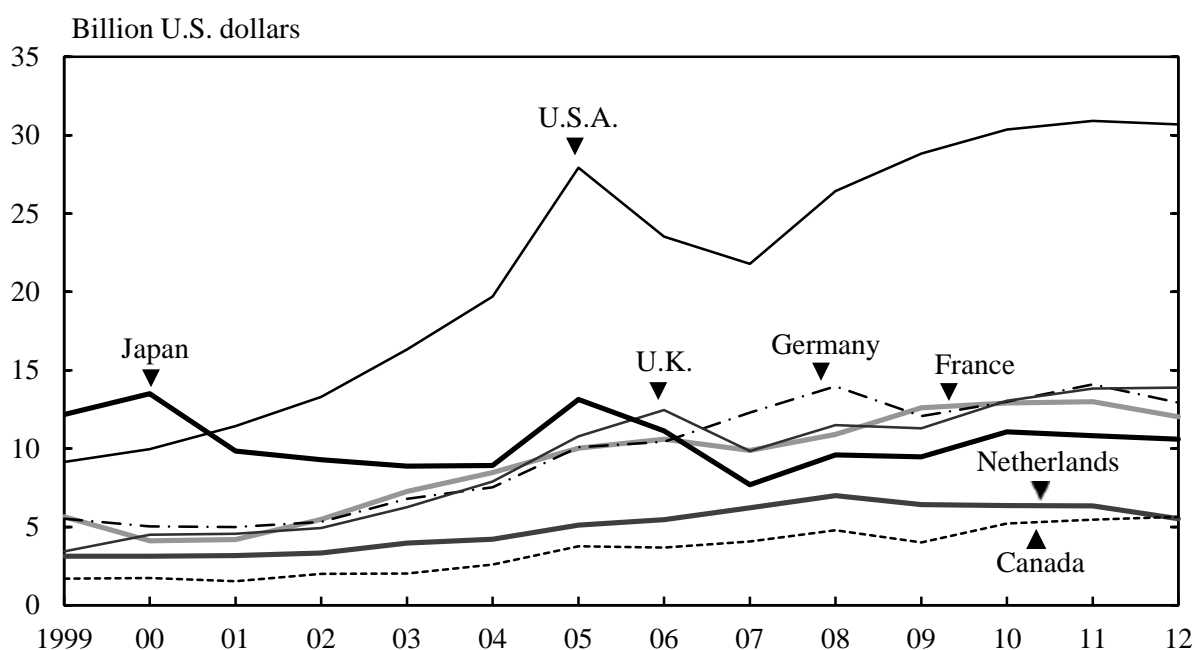
Source: Ministry of Foreign Affairs; Ministry of Finance; OECD.

In the ODA framework, Japan has contributed to the growth of developing countries as the world's number-one ODA donor for ten consecutive years up until 2000. Recently, Japan's ODA budget has been declining because of the country's severe economic and financial situation. Its 2012 ODA spending (on the basis of net disbursement at current prices) decreased by 2.1 percent over the previous year to 10.6 billion U.S. dollars.

In the 2012 comparison of the ODA provided by the member countries of the Development Assistance Committee (DAC) of the OECD, Japan was the fifth-largest contributor behind the U.S.A., the U.K., Germany and

France. The ratio of Japan's ODA to Gross National Income (GNI) was 0.17 percent, or a decrease of 0.01 percentage points compared with that of the previous year.

**Figure 11.7**  
**Trends in ODA by Country** <sup>1)</sup>



1) Net disbursement at current prices.  
Source: Ministry of Foreign Affairs; OECD.

Of the 10.6 billion U.S. dollars in ODA provided by Japan in 2012, 6.4 billion U.S. dollars or 60.4 percent was bilateral ODA (down 7.8 percent year-on-year), and 4.2 billion U.S. dollars or 39.6 percent was ODA contributed through multilateral institutions (up 8.1 percent).

Bilateral ODA provided in 2012 consisted of 3.1 billion U.S. dollars in grants-in-aid, 3.6 billion U.S. dollars in technical cooperation, and -0.4 billion U.S. dollars in loans, etc. (negative value indicates a larger amount of repayment received in 2012 than the amount lent in the same year).

By region, bilateral ODA (including assistance to Eastern European countries and graduated countries) was distributed as follows: Sub-Saharan Africa, 27.0 percent; Asia, 25.4 percent; Middle East and North Africa, 23.6 percent; Oceania, 2.0 percent; Europe, 0.6 percent; and Latin America and the Caribbean, -3.0 percent.



**Table 11.8**  
**Regional Distribution of Bilateral ODA** <sup>1)</sup>

(Million U.S. dollars)

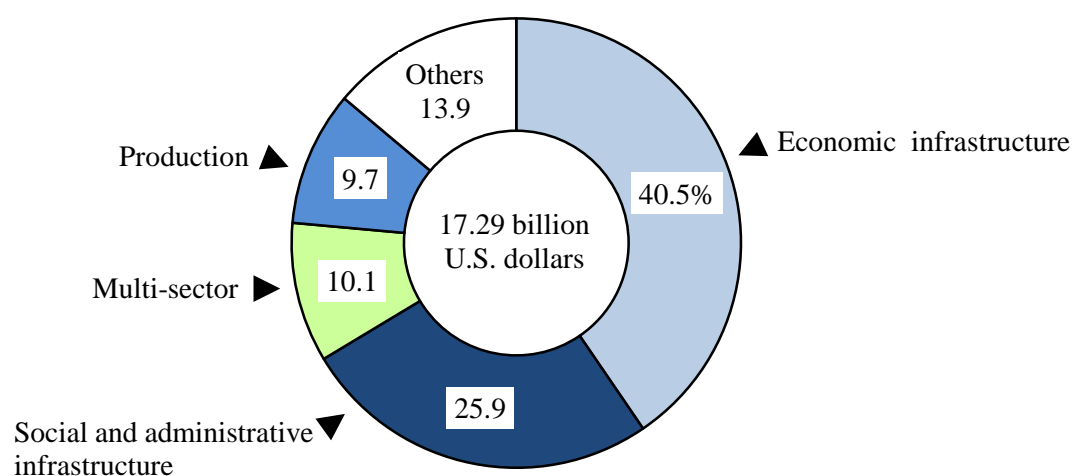
Region	1990	2000	2010	2011	2012
Total .....	6,940	9,640	7,428	6,861	6,352
Asia .....	4,117	5,284	2,529	1,371	1,612
ASEAN <sup>2)</sup> .....	2,299	# 3,126	902	-169	407
Middle East and North Africa .....	666	727	1,592	952	1,498
Sub-Saharan Africa .....	831	970	1,733	1,734	1,718
Latin America and the Caribbean ..	561	800	-344	335	-192
Oceania .....	114	151	176	159	128
Europe .....	158	118	181	174	35
Multiple regions, etc. ....	494	1,592	1,562	2,136	1,553

1) Net disbursement at current prices. Including assistance to Eastern European countries and graduated countries. Negative figures (-) indicate that loan repayments, etc., exceeded the disbursed amount. 2) The data in 1990: 6 countries, the data from 2000: 10 countries.

Source: Ministry of Foreign Affairs.

Bilateral ODA in 2012 (including assistance to Eastern European countries and graduated countries) was broken down by purpose (on a commitment basis) as follows: 40.5 percent for improving the economic infrastructure, followed in descending order by social and administrative infrastructure (including education, water supply and sanitation), with 25.9 percent.

**Figure 11.8**  
**Distribution of Bilateral ODA by Sector** <sup>1)</sup> (2012)



1) Commitment basis. Including assistance to Eastern European countries and graduated countries.  
Source: Ministry of Foreign Affairs.

In addition to the financial assistance described above, Japan has also been active in the areas of human resources development and technology transfer, both vital to the growth of a developing country, through its ODA activities.

**Table 11.9**  
**Number of Persons Involved in Technical Cooperation by Type**<sup>1)</sup>

Type of cooperation	FY2000	FY2005	FY2010	FY2011	FY2012
Total .....	31,968	37,291	41,212	46,799	45,704
Trainees received .....	17,513	24,504	23,978	27,847	26,081
Dispatched					
Experts .....	3,381	3,488	8,296	9,082	9,021
Research team .....	9,428	6,862	7,046	8,527	9,325
Japan Overseas					
Cooperation Volunteers .....	1,370	1,804	1,459	1,046	948
Other volunteers .....	276	633	433	297	329

1) Numbers of persons newly received/dispatched in the aforementioned fiscal year.

Source: Japan International Cooperation Agency.

# **Chapter 12**

## **Labor**

Because of the effects of the Great East Japan Earthquake that occurred in March 2011, the data on labor in 2011 (1. Labor Force - 3. Unemployment) is supplementary estimated figures.

## **1. Labor Force**

The labor force, defined as the sum of the employed and unemployed in the population aged 15 years and over, numbered 65.77 million people in Japan in 2013, up 220,000 (0.3 percent) for the first increase in six years.

As for trends in Japan's labor force, until the mid-1990s, both the labor force and the number of persons employed grew along with the population and the working-age population. In 1997, the working-age population began decreasing, and the labor force and the number of persons employed shifted to a downward trend. The labor force is expected to shrink in the long run as the falling birth rate and the aging population change the population composition.

The 2013 labor force participation rate (rate of the labor force to the population aged 15 years and over) was 59.3 percent (up 0.2 percentage points from the previous year). Observed by gender, the rate was 70.5 percent for men (down 0.3 percentage points) and 48.9 percent for women (up 0.7 percentage points).

**Table 12.1**  
**Population by Labor Force Status**

Year	Population aged 15 years and over	Labor force			Not in labor force	Unemployment rate (%)
		Total	Employed	Unemployed		
<b>Total</b>						
1995	105,100	66,660	64,570	2,100	38,360	3.2
2000	108,360	67,660	64,460	3,200	40,570	4.7
2005	110,080	66,510	63,560	2,940	43,460	4.4
2010	111,110	66,320	62,980	3,340	44,730	5.1
2011 <sup>1)</sup>	111,110	65,910	62,890	3,020	45,170	4.6
2012	110,980	65,550	62,700	2,850	45,400	4.3
2013	110,880	65,770	63,110	2,650	45,060	4.0
<b>Males</b>						
1995	51,080	39,660	38,430	1,230	11,390	3.1
2000	52,530	40,140	38,170	1,960	12,330	4.9
2005	53,230	39,010	37,230	1,780	14,160	4.6
2010	53,650	38,500	36,430	2,070	15,130	5.4
2011 <sup>1)</sup>	53,630	38,220	36,360	1,870	15,380	4.9
2012	53,550	37,890	36,160	1,730	15,650	4.6
2013	53,490	37,730	36,100	1,620	15,740	4.3
<b>Females</b>						
1995	54,020	27,010	26,140	870	26,980	3.2
2000	55,830	27,530	26,290	1,230	28,240	4.5
2005	56,850	27,500	26,330	1,160	29,300	4.2
2010	57,460	27,830	26,560	1,270	29,600	4.6
2011 <sup>1)</sup>	57,480	27,680	26,530	1,150	29,790	4.2
2012	57,420	27,660	26,540	1,120	29,760	4.0
2013	57,380	28,040	27,010	1,030	29,320	3.7

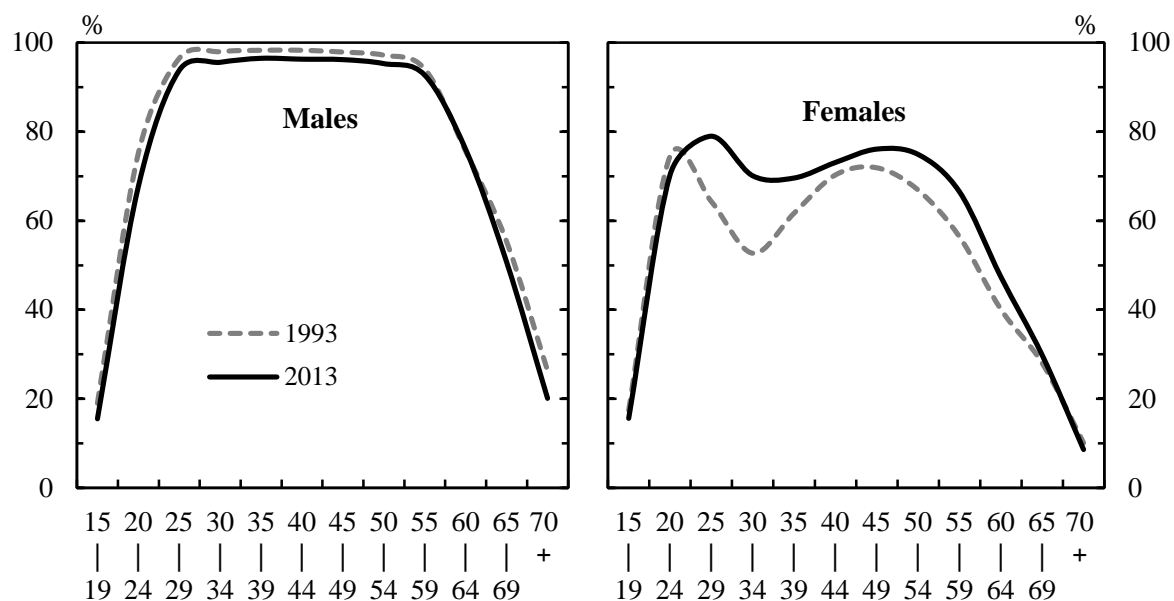
1) Supplementary estimated figures (excluding "Population aged 15 years and over").

Source: Statistics Bureau, MIC.

The female labor force participation rate by age group shows an M-shaped curve. This curve indicates that women leave the labor force when they get married or give birth to a child and then rejoin the labor force after their child has grown and the burden of child-rearing is reduced. A comparison with the data from twenty years ago (1993) shows that, in 2013, the 35-39 age group replaced the 30-34 age group to form the bottom of the M-shaped curve. The participation rate rose by 17.4 percentage points in the 30-34 age group and by 7.9 percentage points in the 35-39 age group,

resulting in a noticeable change in the bottom of the curve: it has become flatter and more gradual. This is considered to be an effect of the trend towards getting married and having children later in life.

**Figure 12.1**  
**Labor Force Participation Rate by Gender**



Source: Statistics Bureau, MIC.

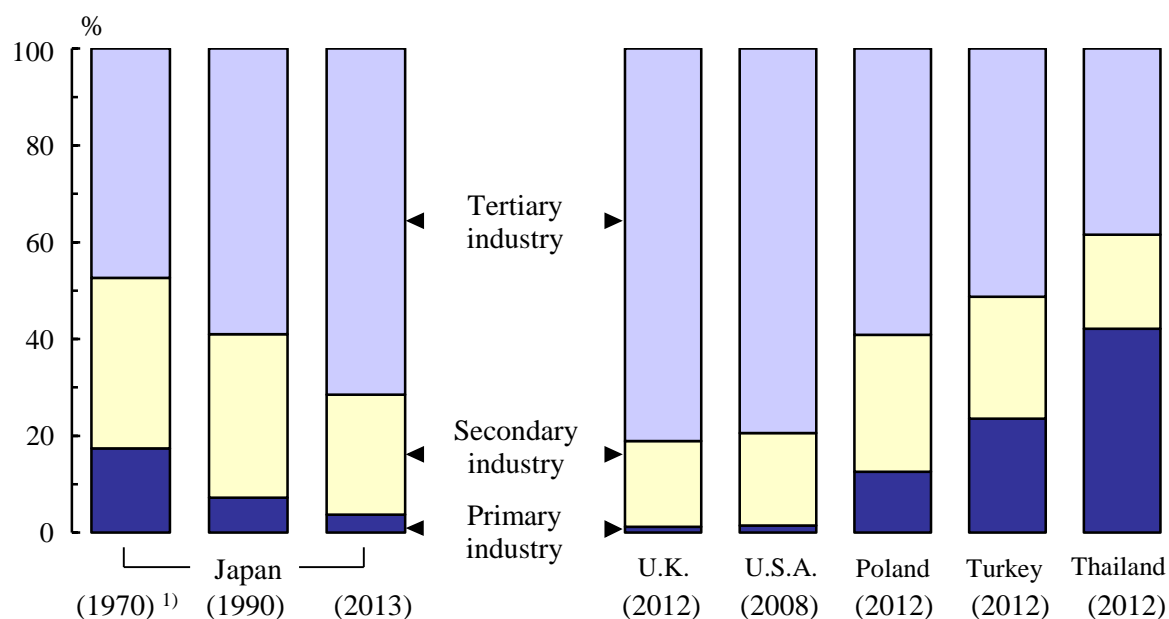
## 2. Employment

The number of employed persons in Japan had declined continuously since 1998, but it began to rise in 2004 and continued rising for four years in a row. However, a downward trend set in once again in 2008, which led to an increase of 410,000 in 2013, from 62.70 million (56.5 percent of the population aged 15 years and over) in the previous year to 63.11 million (56.9 percent).

### (1) Employment by Industry

In 2013, the primary industry accounted for 3.7 percent of employment; the secondary industry, 24.5 percent; and the tertiary industry, 71.5 percent.

**Figure 12.2**  
**Structure of Employment by Country**



1) Excluding Okinawa prefecture.

Source: Statistics Bureau, MIC; International Labour Organization.

Over the long term, the percentage employed in primary industry has been continually falling, while the percentage employed in tertiary industry has been continually rising. The percentage employed in secondary industry has also been trending downward. By industry, the number of persons employed in the primary industries of agriculture and forestry, and in the secondary industries of construction has been on a downward trend.

**Table 12.2**  
**Employment by Industry**

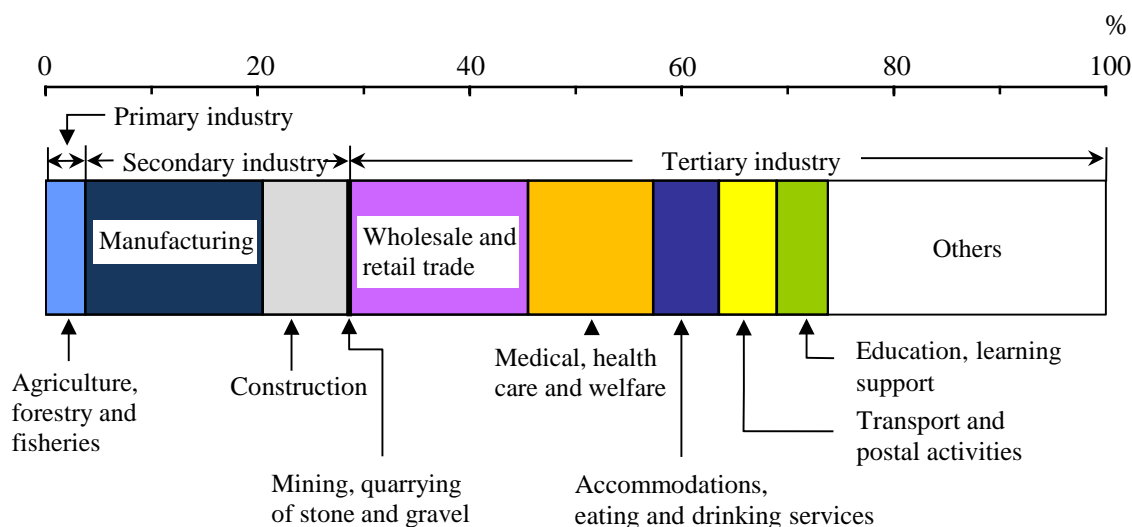
Industries	2010	2011 <sup>1)</sup>	2012	2013 <sup>4)</sup>	(Thousands)	
					Percentage	
					Males	Females
Total <sup>2)</sup> .....	62,980	62,890	62,700	63,110	57.2	42.8
<b>Primary industry</b> .....	<b>2,550</b>	<b>2,490</b>	<b>2,400</b>	<b>2,330</b>	<b>61.4</b>	<b>38.6</b>
Agriculture and forestry .....	2,370	2,310	2,240	2,170	60.4	39.6
Fisheries .....	180	180	160	160	75.0	25.0
<b>Secondary industry</b> .....	<b>15,670</b>	<b>15,540</b>	<b>15,380</b>	<b>15,410</b>	<b>75.5</b>	<b>24.5</b>
Mining and quarrying of stone and gravel .....	30	30	30	30	-	-
Construction .....	5,040	5,020	5,030	4,990	85.8	14.2
Manufacturing .....	10,600	10,490	10,320	10,390	70.5	29.5
<b>Tertiary industry</b> .....	<b>44,110</b>	<b>44,310</b>	<b>44,300</b>	<b>44,450</b>	<b>50.8</b>	<b>49.2</b>
Electricity, gas, heat supply and water .....	340	310	310	300	86.7	13.3
Information and communications ..	1,970	1,900	1,880	1,920	74.0	26.0
Transport and postal activities .....	3,520	3,510	3,400	3,400	81.8	18.2
Wholesale and retail trade .....	10,620	10,570	10,420	10,570	49.0	51.0
Finance and insurance .....	1,630	1,620	1,630	1,650	46.1	53.9
Real estate and goods rental and leasing .....	1,100	1,130	1,120	1,100	62.7	37.3
Scientific research, professional and technical services .....	1,980	2,080	2,050	2,070	66.2	33.8
Accommodations, eating and drinking services .....	3,860	3,820	3,760	3,840	37.8	62.2
Living-related and personal services and amusement services .....	2,400	2,420	2,390	2,420	40.9	59.1
Education, learning support .....	2,890	2,940	2,950	2,990	44.8	55.2
Medical, health care and welfare ...	6,560	6,780	7,060	7,350	24.5	75.5
Compound services .....	450	440	470	550	62.5	37.5
Services, n.e.c. ....	4,560	4,570	4,620	4,010	61.8	38.2
Government <sup>3)</sup> .....	2,230	2,220	2,240	2,280	74.7	25.3

1) Supplementary estimated figures. 2) Including "Industries unable to classify." 3) Excluding elsewhere classified. 4) Dispatched workers were classified into "Service, n.e.c." until 2012. From 2013, they were classified into each industry which they actually worked.

Source: Statistics Bureau, MIC.



**Figure 12.3**  
**Distribution of Employment by Industry (2013)**



Source: Statistics Bureau, MIC.

In tertiary industry, which accounted for approximately 70 percent of all industry, employment increased from the previous year by 230,000 and 70,000 in the "medical, health care and welfare" and "wholesale and retail trade" sectors, respectively. Meanwhile, employment in "transport and postal activities" decreased by 50,000.

Depending on the industrial sector, a difference was seen in the employment tendency between men and women. In 2013, the percentage of female employment was highest in "medical, health care and welfare" (75.5 percent), followed by "accommodations, eating and drinking services" (62.2 percent) and "living-related and personal services and amusement services" (59.1 percent).

## (2) Employment by Occupation

In terms of occupation, employment in the "manufacturing process workers" category has been declining in recent years, due to the overseas relocation of production sites and increased imports of manufactured goods. The number of "manufacturing process workers" was 9.00 million in 2013, down 0.2 percent from the previous year's 9.02 million. In contrast, the trend toward a service-oriented economy, the aging population, and improvements to the welfare services have been on a

rising trend over the last few years in the number of "service workers" such as home-care workers.

**Table 12.3**  
**Employment by Occupation**

Occupation	2010	2011 <sup>1)</sup>	2012	2013	(Thousands)	
					Percentage	
					Males	Females
Total <sup>2)</sup> .....	62,980	62,890	62,700	63,100	57.2	42.8
Administrative and managerial workers .....	1,620	1,580	1,530	1,430	88.8	11.2
Professional and engineering workers.....	9,610	9,870	10,100	10,040	53.8	46.2
Clerical workers.....	12,370	12,340	12,140	12,350	40.6	59.4
Sales workers .....	8,900	8,920	8,750	8,600	57.1	42.9
Service workers.....	7,540	7,530	7,580	7,800	32.4	67.6
Security workers .....	1,240	1,230	1,220	1,250	94.4	5.6
Agricultural, forestry and fishery workers ...	2,530	2,460	2,370	2,290	63.3	36.7
Manufacturing process workers .....	9,250	9,050	9,020	9,000	71.2	28.8
Transport and machine operation workers ...	2,230	2,230	2,220	2,240	97.8	2.2
Construction and mining workers .....	2,990	3,010	3,020	3,020	98.3	1.7
Carrying, cleaning, packaging, and related workers.....	4,130	4,140	4,140	4,270	54.8	45.2

1) Supplementary estimated figures. 2) Including "Labor force status not reported."

Source: Statistics Bureau, MIC.

In 2013, percentages of male and female employed persons by occupation shows that men were particularly prominent among "construction and mining workers" (98.3 percent) and "transport and machine operation workers" (97.8 percent). Women were prominent among "service workers" (67.6 percent) and "clerical workers" (59.4 percent).

### (3) Employment by Employment Pattern

Observation of employment by patterns in Japan shows that regular staff members have been on a declining trend since the late 1990s, while non-regular staff members, including part-time workers and agency-dispatched workers, have increased almost continuously.

In 2013, there were 52.01 million employees (excluding company executives), of whom 19.06 million, or 36.7 percent, were non-regular staff members. The ratio of non-regular staff members among all male employees was 21.2 percent, while the corresponding ratio for females was 55.8 percent, revealing a large difference between the genders.

A breakdown of non-regular staff members by age group shows that among men, many young and elderly men are employed as non-regular staff members relative to other age groups. Among women, the older the age group is, the greater the non-regular staff ratio is.

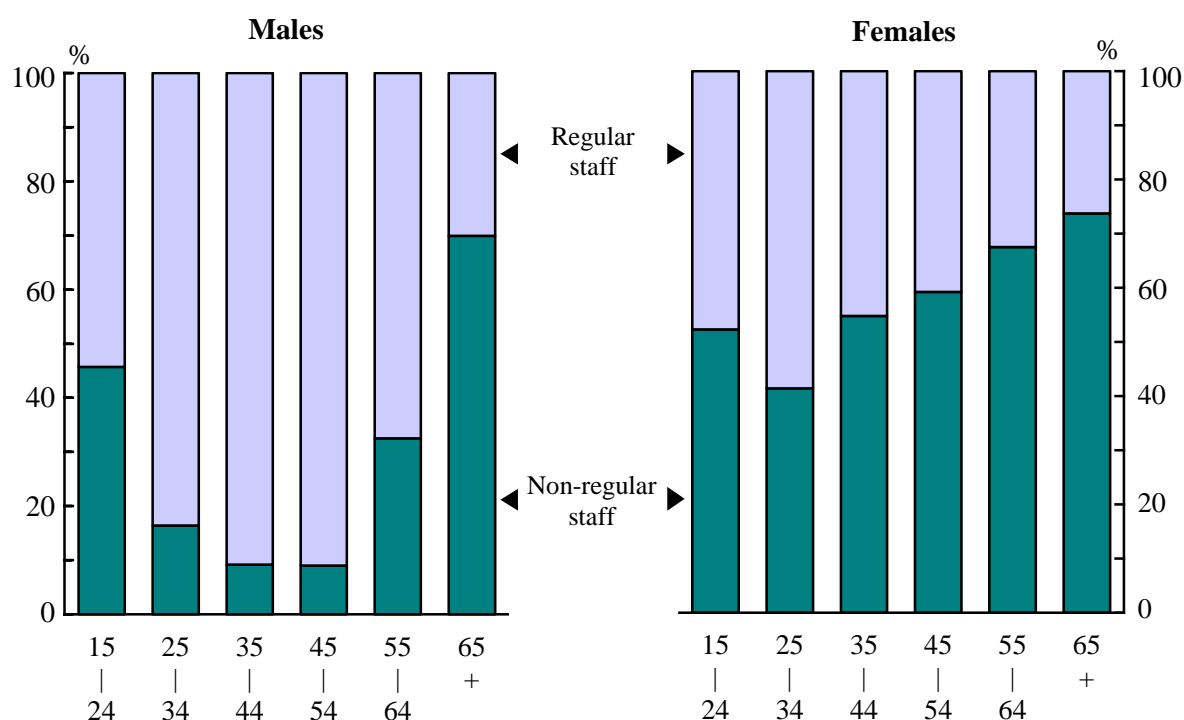
**Table 12.4**  
**Employment by Employment Pattern (2013)**

	Employees <sup>1)</sup>	Regular staff		Non-regular staff	
		Percentage		Percentage	
Total .....	52,010	32,940	63.3	19,060	36.7
Males .....	28,780	22,670	78.8	6,100	21.2
Females .....	23,230	10,270	44.2	12,960	55.8

1) Excluding company executives.

Source: Statistics Bureau, MIC.

**Figure 12.4**  
**Employment Pattern by Gender and Age (2013)**



Source: Statistics Bureau, MIC.

Factors behind the rise in non-regular staff members include labor cost-cutting and the trend where seeking work-ready, pre-trained workers was preferred to developing human resources by hiring new graduates. As a result, there was a change in terms of employment patterns in that non-regular staff members increased, particularly among young people.

The employment rate of new graduates had been worsening as a result of the economic slowdown since 2008, but their employment situation showed a sign of improvement in 2013.

### 3. Unemployment

In 2013 the unemployed numbered 2.65 million persons, down by 7.0 percent from the previous year and representing a decline for the fourth consecutive year. The unemployment rate was 4.0 percent, down 0.3 percentage points from the previous year.

After the ratio of job openings to job seekers peaked out in 2006, it was on a falling trend in recent years. The ratio has been increasing since 2009 and is gradually recovering.

**Figure 12.5**  
**Unemployment Rate and Ratio of Job Openings to Job Seekers**



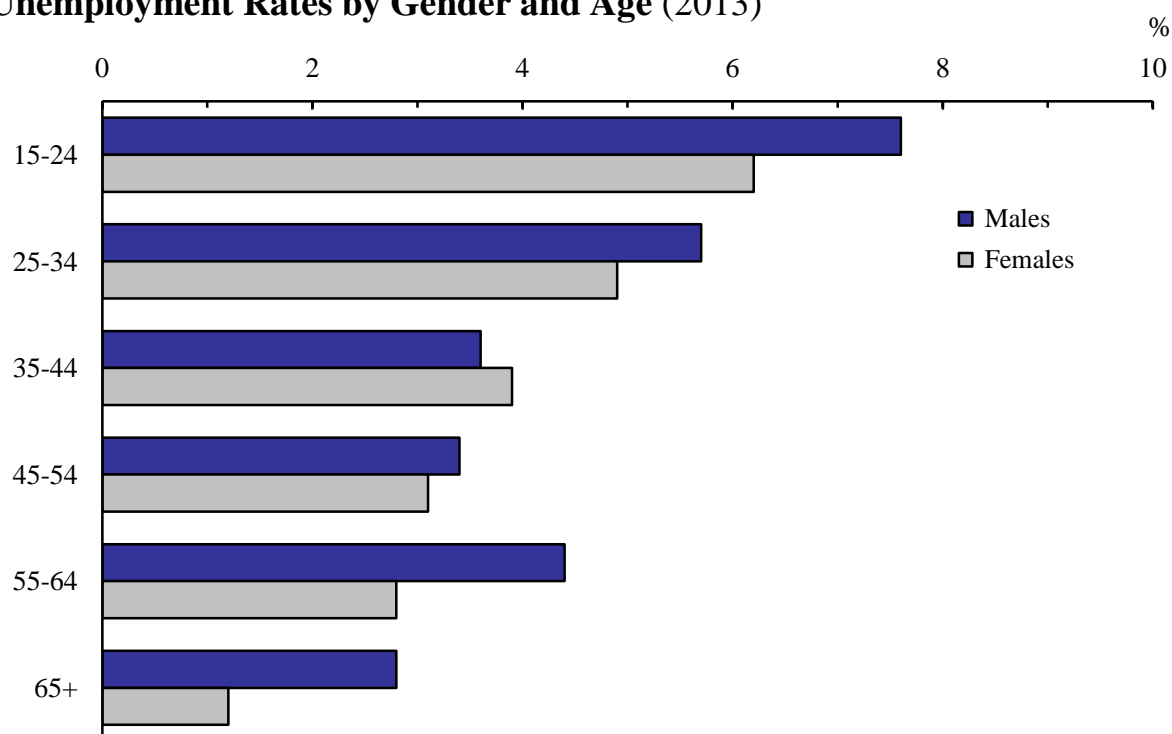
1) The data for 2011 indicates supplementary estimated figure.

Source: Statistics Bureau, MIC; Ministry of Health, Labour and Welfare.

A breakdown by gender shows that the unemployment rate in 2013 was 4.3 percent among men, and 3.7 percent among women. The unemployment rate has been higher among men for sixteenth consecutive years since 1998.

The unemployment rate was seen as notably higher in younger age groups than in other age groups, in men and women alike.

**Figure 12.6**  
**Unemployment Rates by Gender and Age (2013)**



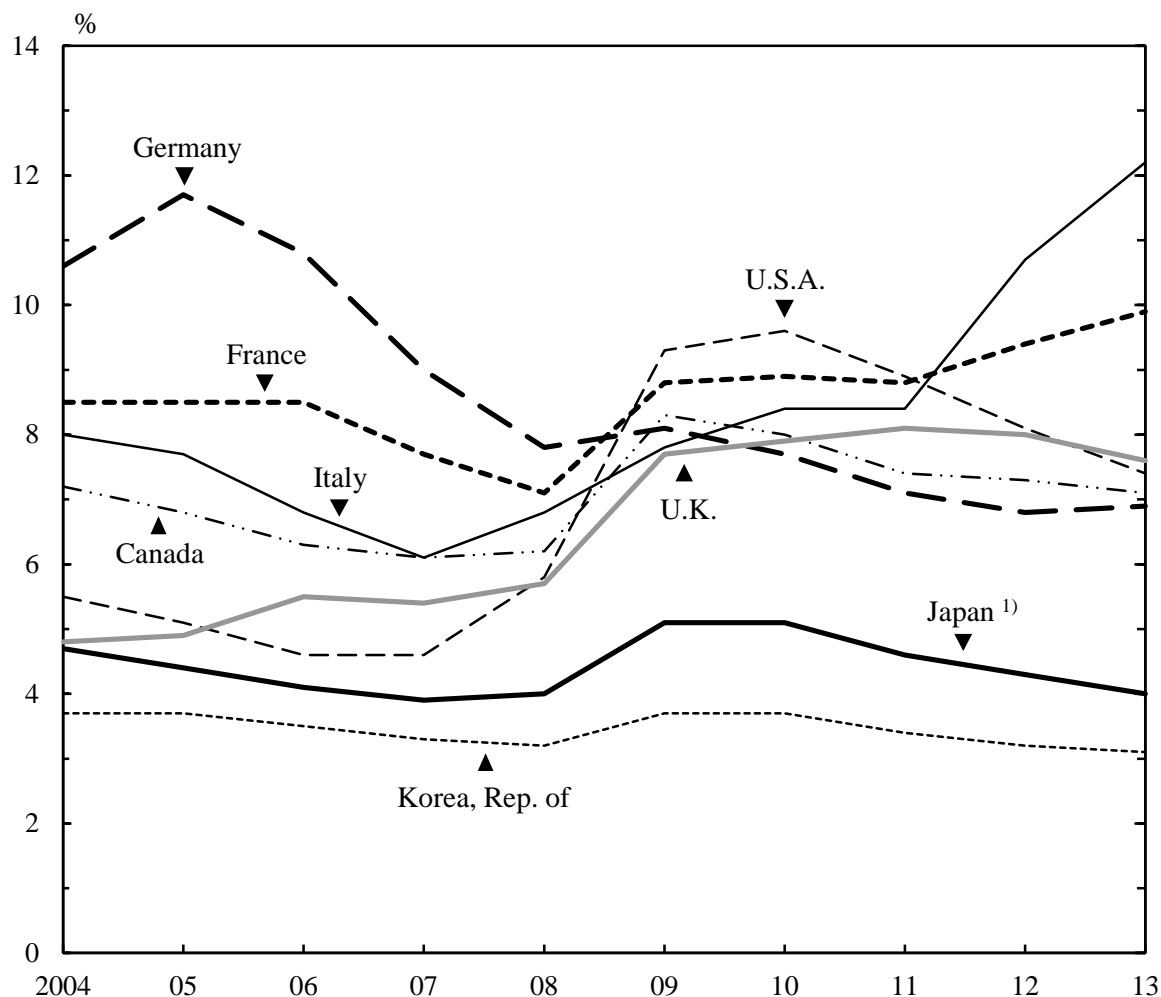
Source: Statistics Bureau, MIC.

Analyzing the total number of unemployed in 2013 (2.65 million people), by reasons for job-seeking, the major reasons were: (i) involuntarily dismissed due to corporate or business circumstances, or reaching retirement age limit, 0.90 million persons; (ii) voluntarily left their jobs for personal or family reasons, 0.96 million persons; (iii) new job seekers due to the necessity to earn income, 0.34 million; and (iv) new job seekers just graduated from schools, 0.15 million.

In terms of the duration of unemployment, most were unemployed for "1 year or more" (1.04 million persons), followed by "less than 3 months" (0.76 million persons). The younger a job seeker is, the shorter the

job-seeking period tends to be; on the other hand, the older a person, the longer the job-seeking period tends to be.

**Figure 12.7**  
**Unemployment Rates by Country**



1) The data for 2011 indicates supplementary estimated figure.

Source: Statistics Bureau, MIC; Cabinet Office.

#### 4. Hours of Work and Wages

In 2013, the monthly average of total hours worked was 145.5 per regular employee (in establishments with five or more regular employees), down 1.0 percent from the previous year, and an annual average of 1,746 hours.

Of the total monthly hours worked, 134.9 were scheduled working hours, representing a decrease of 1.3 percent from the previous year. Non-scheduled work such as overtime work averaged 10.6 hours per month, representing an increase of 2.3 percent from the previous year. Working days averaged 18.9 days per month in 2013.

In 2013, the monthly average of total cash earnings per regular employee (in establishments with five or more regular employees) was 314,000 yen. This total amount includes 260,000 yen in "contractual cash earnings" (which include "scheduled cash earnings" plus "non-scheduled cash earnings" for working overtime, on holidays and late at night, as well as other allowances), and 54,000 yen in "special cash earnings" (which include summer and year-end bonuses, payments to celebrate employees' marriages, etc.).

**Table 12.5****Hours of Work and Wages**<sup>1)</sup> (Monthly average)

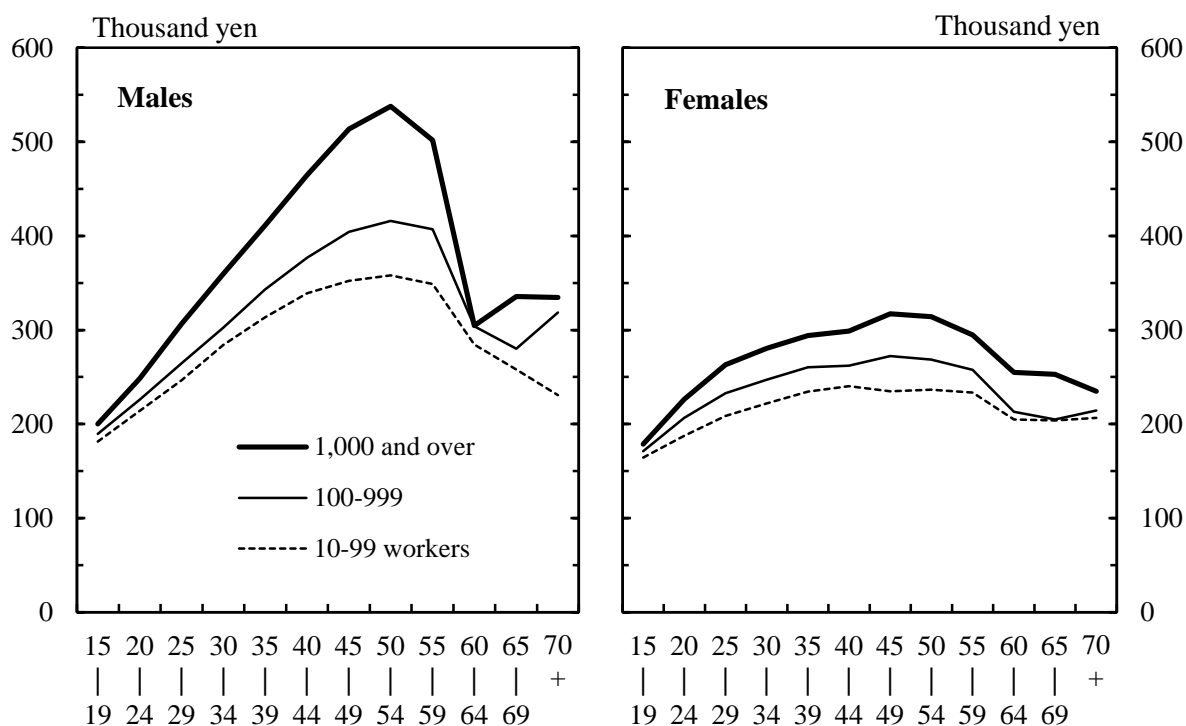
Year	Days worked	Hours of Work			Wages (1,000 yen)				
		Total	Scheduled	Non-scheduled	Total	Contractual	Scheduled	Non-scheduled	Special <sup>2)</sup>
2000	20.0	154.4	144.6	9.8	355	284	265	19	72
2005	19.5	150.2	139.8	10.4	335	273	253	19	62
2010	19.0	146.2	136.2	10.0	317	263	245	18	54
2011	19.0	145.6	135.6	10.0	317	262	244	18	54
2012	19.1	147.1	136.7	10.4	314	262	243	19	53
2013	18.9	145.5	134.9	10.6	314	260	241	19	54
Indices (2010 average = 100) <sup>3)</sup>									
2000	-	105.4	105.8	98.2	110.5	106.4	106.7	-	-
2005	-	102.9	102.7	104.3	104.7	102.8	102.6	-	-
2010	-	100.0	100.0	100.0	100.0	100.0	100.0	-	-
2011	-	99.8	99.7	101.0	99.8	99.6	99.4	-	-
2012	-	100.3	100.2	101.6	99.1	99.5	99.2	-	-
2013	-	99.3	98.9	103.9	99.1	99.0	98.6	-	-

1) Establishments with 5 or more regular employees. 2) Bonuses and other special allowances. 3) Data was recalculated for sample adjustments.

Source: Ministry of Health, Labour and Welfare.

Generally, the average earnings (scheduled cash earnings) in Japan go up with age until roughly the 40s to mid-50s are reached and then declines. This reflects one characteristic of Japan's seniority employment system in which salaries are determined mainly on the basis of employment duration. Into the 1990s, an increasing number of enterprises reviewed their salary system, resulting in more widespread introduction of a merit-based pay system placing emphasis on performance. There has been a trend in recent years, particularly among large enterprises, to value the practice of long-term employment once again and attach importance to job execution skills.

**Figure 12.8**  
**Monthly Contractual Cash Earnings by Size of Enterprise (2013)**



Source: Ministry of Health, Labour and Welfare.



## **Chapter 13**

# **Family Budgets and Prices**

## 1. Family Budgets

In 2010, there were approximately 52 million households in Japan, of which about 70 percent are two-or-more-person households and about 30 percent are one-person households. Family budgets vary significantly depending on the employment situation and ages of their members. In this section, family budgets in various types of households are described on the basis of the 2013 results of the Family Income and Expenditure Survey.

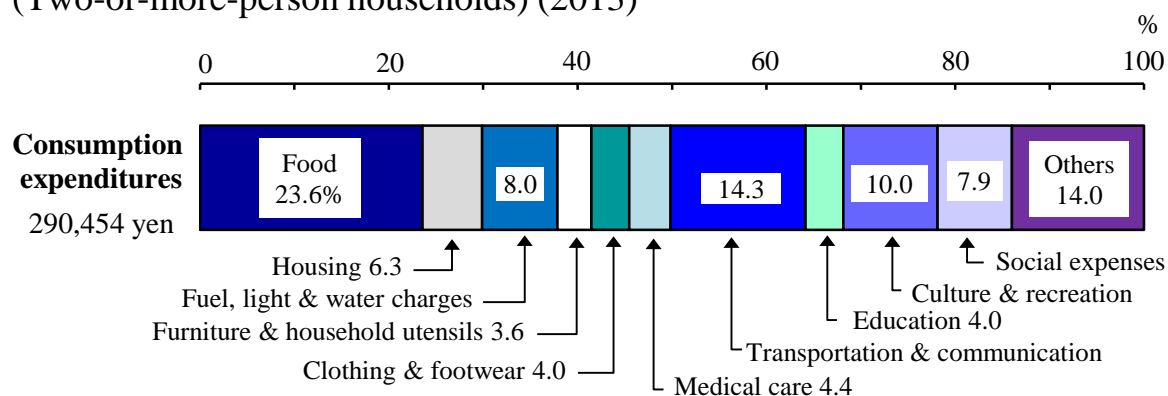
### (1) Income and Expenditure

#### (A) Two-or-more-person Households

The 2013 average monthly consumption expenditures per two-or-more-person household (the average number of household members being 3.05 and the average age of the household head being 57.9 years) was 290,454 yen. Compared to the previous year, it increased by 1.5 percent in nominal terms and increased by 1.0 percent in real terms. The share of food expenses to total consumption expenditures (Engel's coefficient) was 23.6 percent.

The consumption expenditures per two-or-more-person household was 345,443 yen in March 2014. Compared to the same month of the previous year, this was an increase of 7.2 percent in real terms. This is thought to be an impact of last-minute demand immediately before the increase in consumption tax rate in April.

**Figure 13.1**  
**Average Monthly Consumption Expenditures**  
 (Two-or-more-person households) (2013)



Source: Statistics Bureau, MIC.

## (a) Workers' Households

A workers' household means a household of which the head is employed by a company, public office, school, factory, store, etc. The average income of workers' households (the average number of household members being 3.42 and the average age of the household head being 48.0 years) was 523,589 yen in 2013, of which about 80 percent came from the household head's income.

**Table 13.1****Average Monthly Income and Expenditures (Workers' households <sup>1)</sup>)**

Item	(Thousand yen)				
	2009	2010	2011	2012	2013
Income (A) .....	518.2	520.7	510.1	518.5	523.6
Wages and salaries .....	484.9	485.3	473.1	479.6	486.6
Others .....	33.3	35.4	37.0	38.9	37.0
Disposable income (A-C) .....	427.9	430.0	420.5	425.0	426.1
Expenditures .....	409.4	409.0	398.4	407.4	416.6
Consumption expenditures (B) .....	319.1	318.3	308.8	313.9	319.2
Non-consumption expenditures (C) <sup>2)</sup> .....	90.3	90.7	89.6	93.5	97.5
Surplus ((A-C)-B) .....	108.9	111.7	111.7	111.1	107.0
Net increase in deposits and insurance .....	69.5	76.8	76.8	77.8	74.3
Average propensity to consume (%) <sup>3)</sup> .....	74.6	74.0	73.4	73.9	74.9
Ratio of net increase in deposits and insurance (%) <sup>4)</sup> ..	16.2	17.9	18.3	18.3	17.4
Engel's coefficient (%) .....	22.0	21.9	22.2	22.1	22.1
Annual rate of increase (%) (real terms)					
Disposable income .....	-1.9	1.3	-1.9	1.1	-0.2
Consumption expenditures .....	-0.3	0.6	-2.7	1.6	1.2

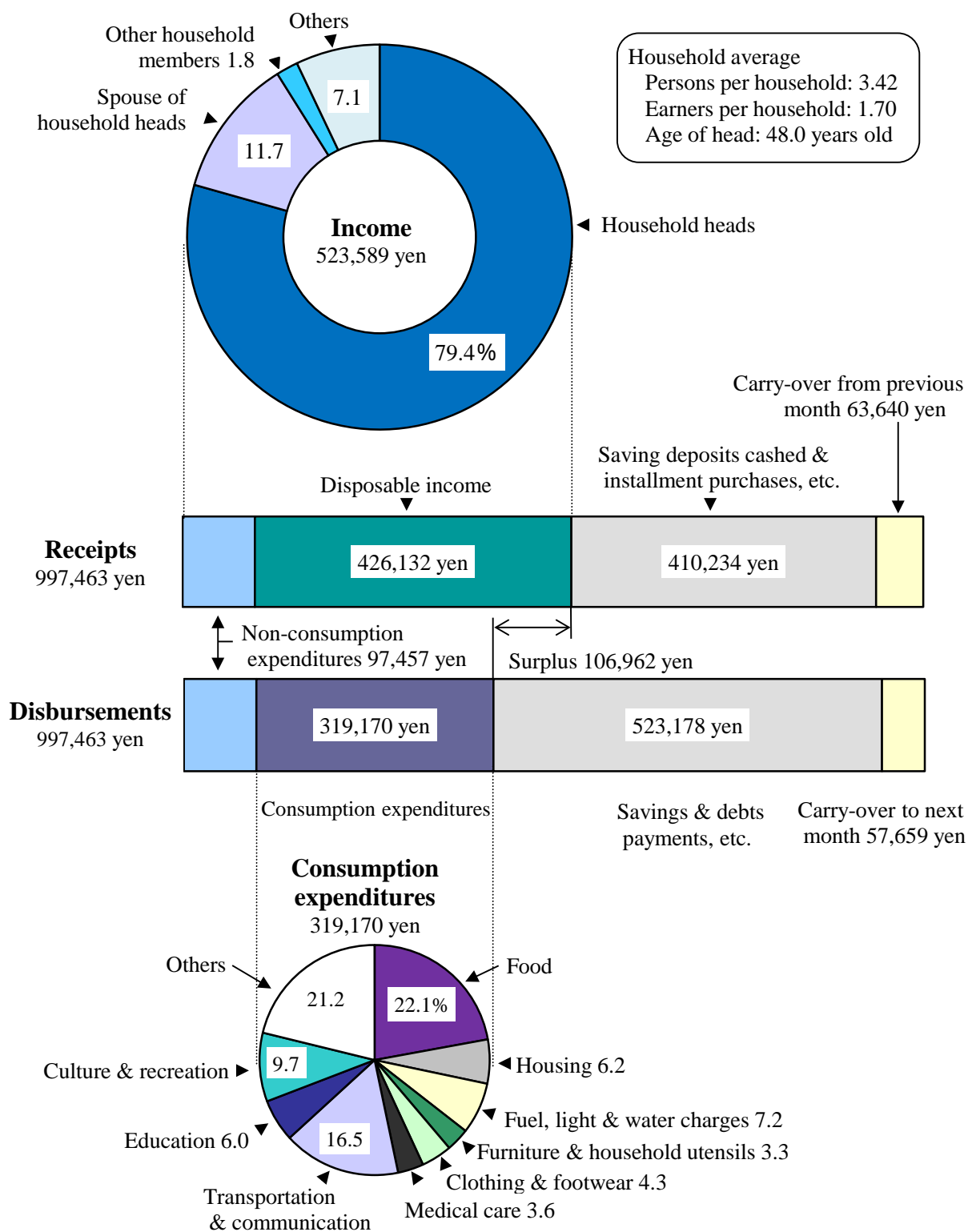
1) Two-or-more-person households. 2) Direct taxes, social insurance contributions, etc.

3) Ratio of consumption expenditures to disposable income. 4) Ratio of net increase in deposits and insurance to disposable income.

Source: Statistics Bureau, MIC.

Disposable income, calculated as income minus non-consumption expenditures such as taxes and social insurance contributions, was 426,132 yen. Of this disposable income, 319,170 yen was used for living expenses (consumption expenditures), such as food and housing expenses, while the remainder (surplus), totaling 106,962 yen, was applied to savings, life insurance premiums and repaying debt such as housing loans.

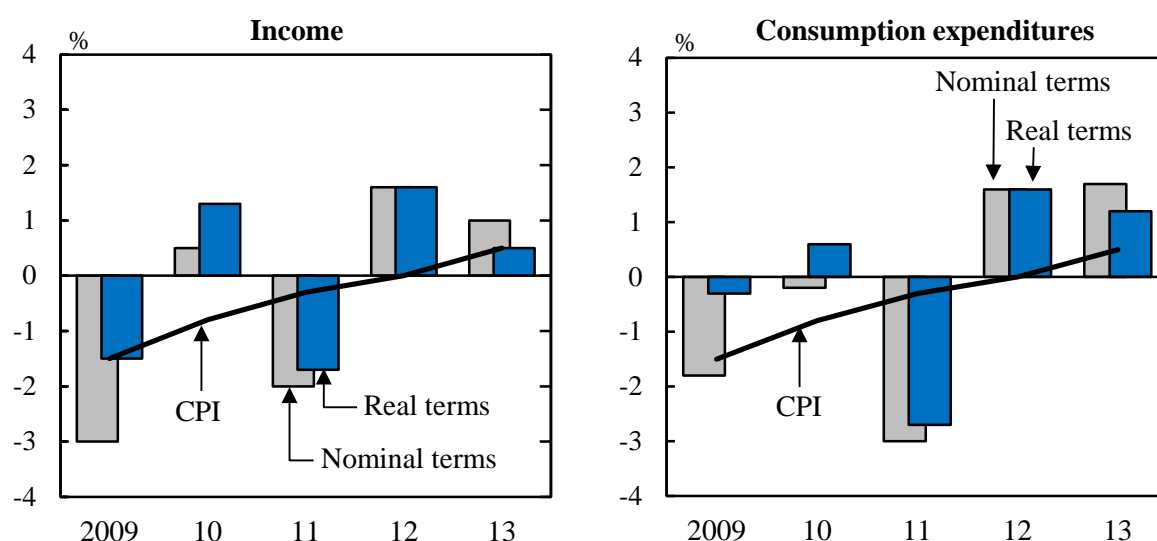
**Figure 13.2**  
**Balance of Income and Expenditures**  
 (Monthly average, workers' households <sup>1)</sup>) (2013)



1) Two-or-more-person households.  
 Source: Statistics Bureau, MIC.

A comparison of consumption expenditures by category showed that some categories, including spending on "food" and "transportation and communication," increased from the previous year in real terms, while "housing," "fuel, light and water charges," and other spending decreased in real terms.

**Figure 13.3**  
**Annual Change in Household Income and Expenditures**  
 (Workers' households <sup>1)</sup>)

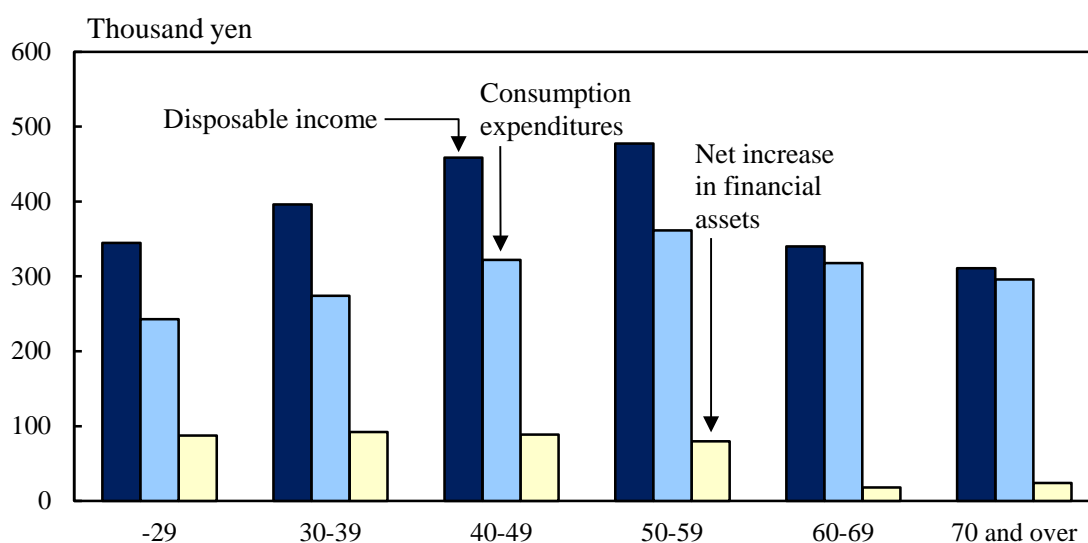


1) Two-or-more-person households.  
 Source: Statistics Bureau, MIC.

Family budgets differ among households according to their stages in life. Observed by age group of the household head, the 2013 average monthly disposable income of workers' households was the highest in households in the 50s group (477,361 yen), followed by those in the 40s group (458,544 yen) and the 30s group (396,225 yen).

The 2013 average propensity to consume (the ratio of consumption expenditures to disposable income) was the lowest in households in the 30s group (69.1 percent). The figure was 70.2 percent in those in the 40s group, 75.8 percent in the 50s group, 93.4 percent in the 60s group, and 95.2 percent in the 70-and-over group. The percentage tends to be higher as the age goes up, except for the under-30 group (70.5 percent). Meanwhile, a net increase in financial assets (an amount added to savings) was the highest in households in the 30s group, followed by those in the 40s group.

**Figure 13.4**  
**Average Monthly Family Income and Expenditures by Age Group**  
**of Household Head (Workers' households <sup>1)</sup>) (2013)**



1) Two-or-more-person households.

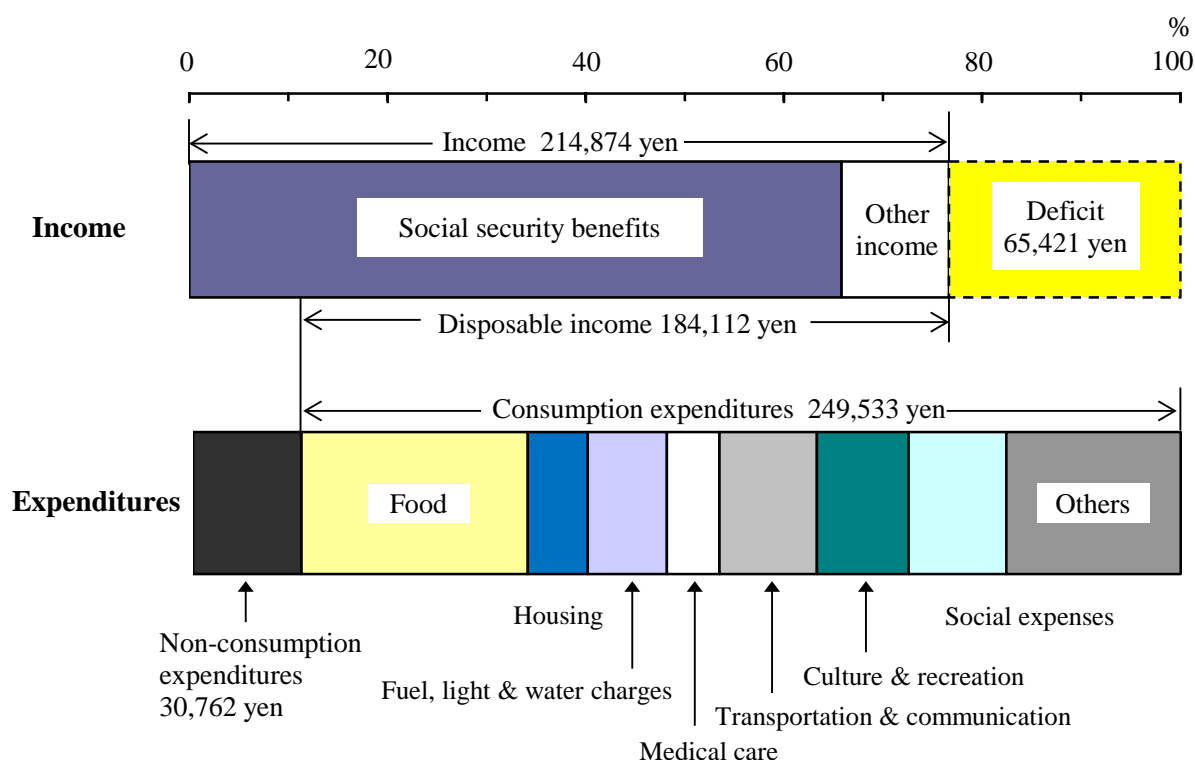
Source: Statistics Bureau, MIC.

### (b) Non-working Elderly Households

According to an analysis of the average monthly income and expenditures of non-working elderly households (two-or-more-person households where the age of the household head is 60 and over), the average income was 214,874 yen in 2013. Social security benefits amounted to 184,489 yen, thus accounting for 85.9 percent of income.

Disposable income averaged 184,112 yen, while consumption expenditures averaged 249,533 yen. The average propensity to consume in non-working elderly households was 135.5 percent, which means consumption expenditures exceeded disposable income. The deficit of disposable income to consumption expenditures (65,421 yen) increased from that of the previous year (57,025 yen). This deficit was financed by withdrawing financial assets such as deposits, etc.

**Figure 13.5**  
**Average Monthly Income and Expenditures**  
 (Non-working elderly households <sup>1)</sup>) (2013)



1) Two-or-more-person households.  
 Source: Statistics Bureau, MIC.

### (B) One-person Households

The average monthly consumption expenditures of one-person households in 2013 was 160,776 yen, up 2.8 percent in nominal terms and up 2.3 percent in real terms from the previous year. Compared on an age-group basis to the previous year in real terms, the average monthly consumption expenditures were up 4.5 percent for the under 35-year-old group and up 5.9 percent in the 35-59 age group, while there was a 0.4-percent decrease in the 60-and-over. Spending on categories such as "fuel, light and water charges," "furniture and household utensils" and "medical care" tended to be larger in older age groups. Meanwhile, older age groups were found to spend increasingly less on categories such as "housing."

**Table 13.2**  
**Average Monthly Consumption Expenditures of One-Person Households**  
**by Age Group**

	(Yen)					
	2009	2010	2011	2012	2013	Annual growth <sup>1)</sup> (%)
Average .....	162,731	162,009	160,891	156,450	160,776	2.3
Under 35 years .....	171,233	156,582	169,813	158,474	166,354	4.5
35-59 .....	183,380	186,396	180,173	168,929	179,798	5.9
60 and over .....	146,861	150,669	147,077	149,089	149,220	-0.4

1) Real terms.

Source: Statistics Bureau, MIC.

## (2) Savings and Debts

Two-or-more-person households in 2013 showed that the average amount of savings per workers' household was 12.44 million yen, resulting in its ratio to yearly income (7.08 million yen) amounting to 175.7 percent. The median value dividing households with savings into equal halves (the value of savings of the household that is in the middle when households are lined up in order from those with the lowest amount of savings to those with the highest amount of savings) was 7.35 million yen. On the other hand, the average amount of debt per household was 7.40 million yen, which was 104.5 percent relative to yearly income. The median value dividing households with debt into equal halves was 11.80 million yen. The portion for "housing and/or land" averaged 6.87 million yen of household debt. A total of 42.2 percent of workers' households held "debts for housing and/or land."

**Table 13.3**  
**Average Amount of Savings and Debts (Workers' households <sup>1)</sup>)**

(Thousand yen)							
Year	Yearly income	Savings	Ratio of savings to yearly income (%)	Debts	Housing and/or land	Ratio of debts to yearly income (%)	Ratio of households holding debts (%)
2009	7,090	12,030	169.7	6,430	5,960	90.7	52.8
2010	6,970	12,440	178.5	6,790	6,290	97.4	52.8
2011	6,890	12,330	179.0	6,470	6,010	93.9	51.9
2012	6,910	12,330	178.4	6,950	6,480	100.6	53.5
2013	7,080	12,440	175.7	7,400	6,870	104.5	54.0

1) Two-or-more-person households.

Source: Statistics Bureau, MIC.



By age group of the head of the household, the average amount of savings was found to be the highest in the 60s group, while debts were the highest in the 30s group.

**Table 13.4**  
**Amount of Savings and Debts by Age Group of Household Head**  
 (Workers' households <sup>1)</sup>) (2013)

Item	Average	(Million yen)					
		-29	30-39	40-49	50-59	60-69	70 and over
Yearly income .....	7.08	4.59	5.89	7.52	8.25	6.39	5.57
Savings .....	12.44	2.95	6.14	10.33	15.14	21.85	19.33
Financial institutions .....	11.81	2.87	5.87	9.48	14.29	21.39	19.31
Demand deposits .....	2.95	1.33	2.33	2.67	3.00	4.50	3.74
Time deposits .....	4.50	0.87	1.84	3.27	5.52	9.27	7.72
Life insurance, etc. ....	3.20	0.51	1.30	2.70	4.36	5.10	5.49
Securities .....	1.16	0.17	0.39	0.83	1.40	2.51	2.36
Non-financial institutions .....	0.63	0.08	0.27	0.85	0.85	0.46	0.02
Debts .....	7.40	3.45	10.16	10.11	5.88	2.27	0.36
Housing and/or land .....	6.87	3.08	9.67	9.58	5.18	1.89	0.32
Other than housing and/or land ....	0.35	0.12	0.31	0.33	0.50	0.26	0.01
Monthly and yearly installments ..	0.18	0.25	0.19	0.20	0.20	0.11	0.03

1) Two-or-more-person households.

Source: Statistics Bureau, MIC.

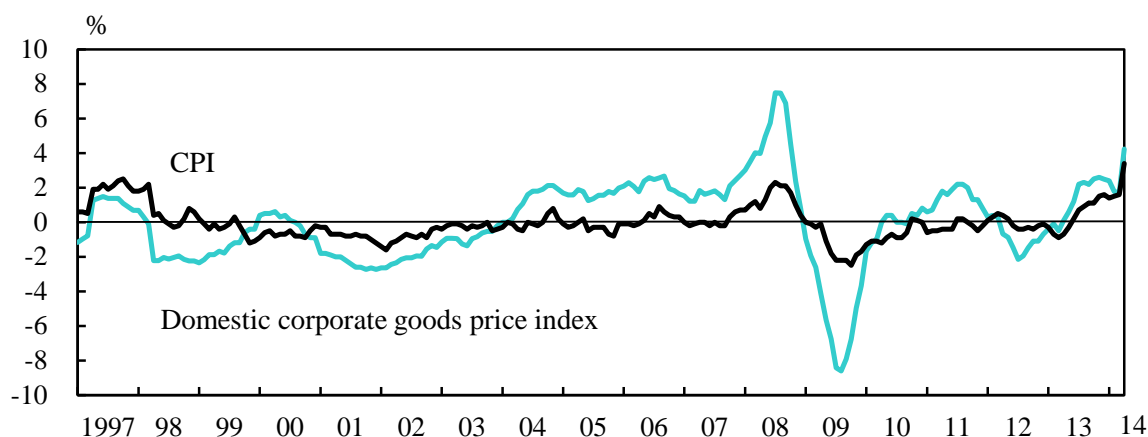
By yearly income group, a positive correlation was observed between yearly income and savings/debts: the higher the yearly income, the higher the amount of savings as well as debts.

## 2. Prices

According to trends in price indices in recent years, domestic corporate goods prices were on a downward trend starting in 1992, after the collapse of the bubble economy. The range of the drop gradually shrank starting in 2002, and then prices turned upward in 2004. The direct cause behind the increase and decrease in domestic corporate goods prices was the change in the prices of imported raw materials such as crude petroleum and iron ore, due to fluctuations in the conditions of international commodity markets as well as in the exchange rate, and its impact is significant in the advance and decline from 2008 to 2009 around the time of the Lehman Shock. Starting in 2010, domestic corporate goods prices fluctuated within a range of plus or minus 2 percent, and although they dropped from the second quarter of 2012 to the first quarter of 2013, they subsequently

turned upward. On the other hand, the width of the increase in consumer prices also shrank starting in 1992. Although the width of the increase of this index expanded temporarily when the consumption tax rate was raised from 3 percent to 5 percent in 1997, it subsequently went on a downward trend. From the second quarter of 2006 to the third quarter of 2007, consumer prices were affected by the steep rise and fall reaction of crude petroleum prices, and prices increased and fell by a small width. Starting in the fourth quarter of 2007, prices were once again on an upward trend due to sharp increases in the price of crude petroleum and raw materials, and in the third quarter of 2008, the increase in prices exceeded 2 percent year-on-year. Thereafter, consumer prices were affected by the fall in prices of imported raw materials, and started to decrease in the first quarter of 2009. After that, they showed a downward trend. Starting in June 2013, however, the index turned upward.

**Figure 13.6**  
**Price Trends** (Percent change from previous year)



Source: Statistics Bureau, MIC; Bank of Japan.

### (1) Consumer Price Index (CPI)

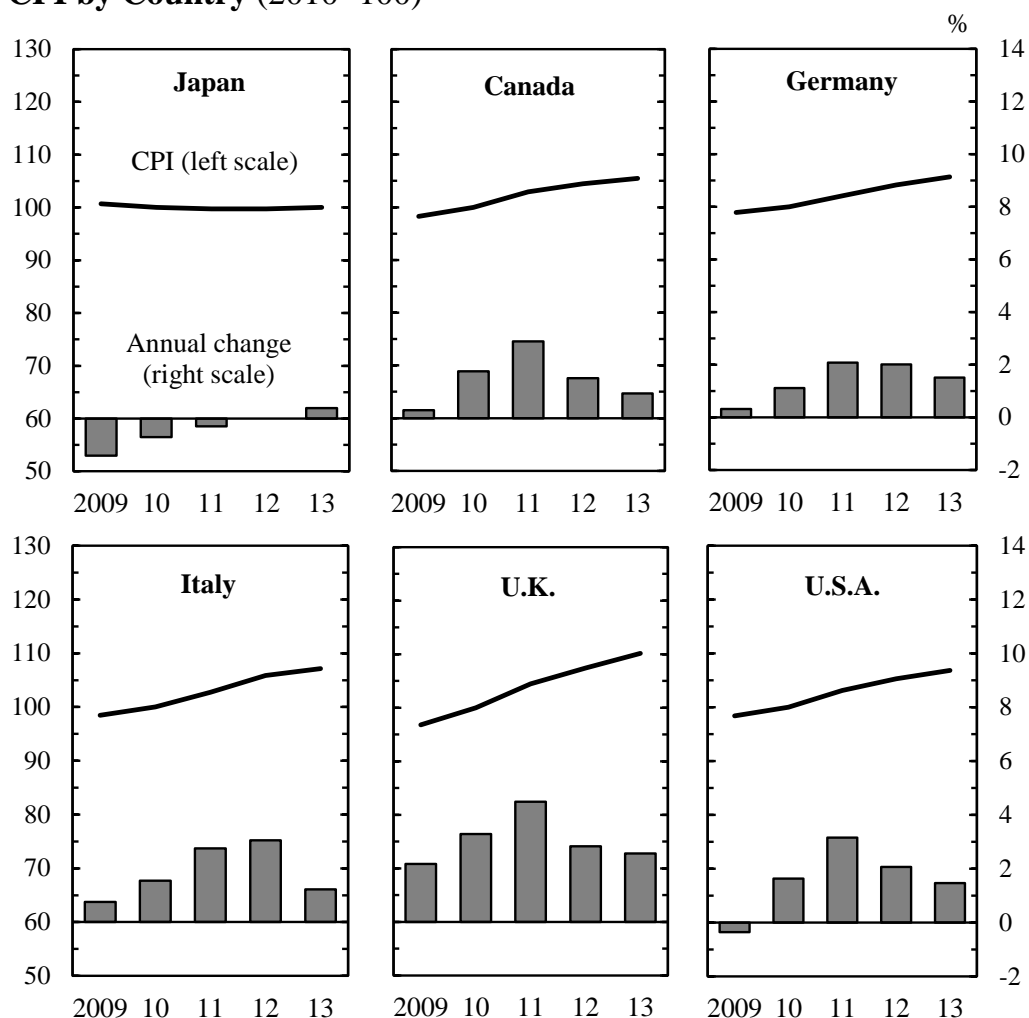
The all items index of consumer prices (with base year 2010 = 100) was 100.0 in 2013, up 0.4 percent from the previous year. The year-on-year change of the all items index increased for the first time in five years since 2008. In April 2014, the consumption tax rate was raised from 5 percent to 8 percent. Therefore, the CPI (all items index) for April 2014 was 103.1. In terms of comparisons to the same month of the previous year, the all items index increased by 1.8 points, from 1.6 percent in March to 3.4 percent in April.

**Table 13.5**  
**CPI for Major Categories of Goods and Services**

(2010=100)						
Item	Weight	2000	2005	2011	2012	2013
All items .....	10000	102.7	100.4	99.7	99.7	100.0
All items, less imputed rent .....	8442	103.1	100.3	99.7	99.7	100.2
Food .....	2525	98.4	96.8	99.6	99.7	99.6
Housing .....	2122	100.9	100.6	99.8	99.5	99.1
Fuel, light and water charges .....	704	94.6	94.4	103.3	107.3	112.3
Furniture and household utensils .....	345	131.1	111.6	94.4	91.7	89.7
Clothing and footwear .....	405	106.3	100.2	99.7	99.7	100.1
Medical care .....	428	98.7	101.2	99.3	98.5	98.0
Transportation and communication ...	1421	103.0	101.6	101.2	101.5	102.9
Education .....	334	103.2	107.4	97.9	98.2	98.8
Culture and recreation .....	1145	118.0	107.9	96.0	94.5	93.6
Miscellaneous .....	569	95.4	97.1	103.8	103.5	104.8
Goods .....	4931	104.5	100.1	99.3	99.3	99.9
Services .....	5069	100.8	100.7	100.1	100.0	100.1

Source: Statistics Bureau, MIC.

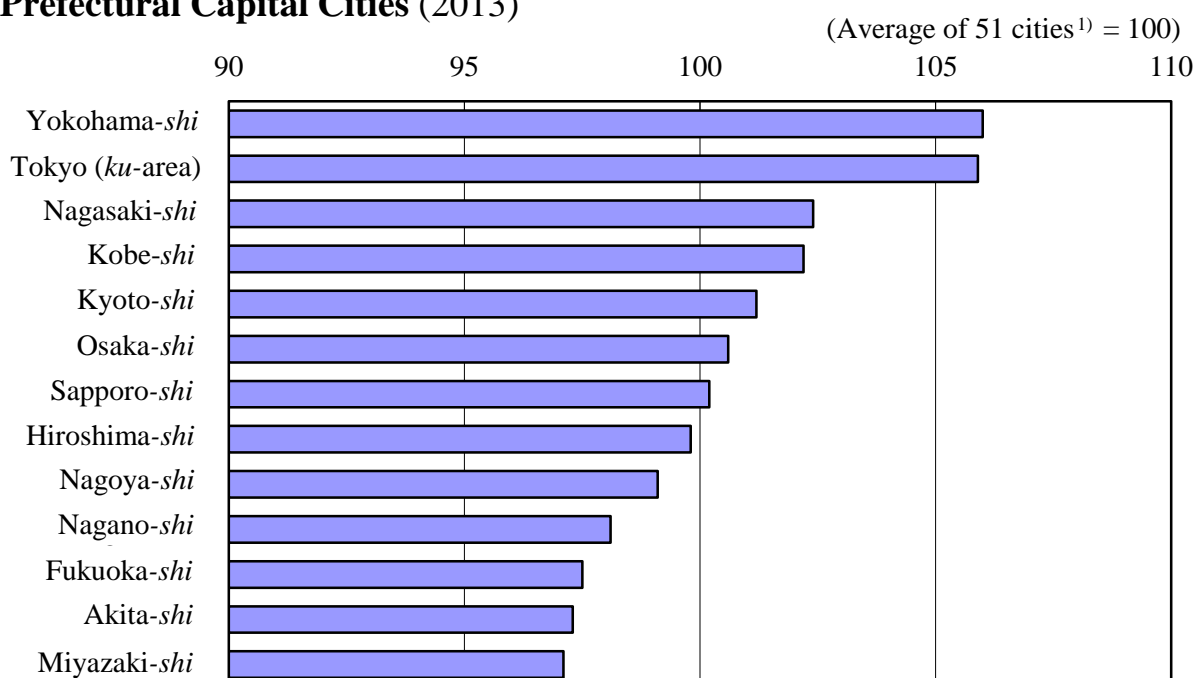
**Figure 13.7**  
**CPI by Country (2010=100)**



Source: Statistics Bureau, MIC; International Monetary Fund.

According to the regional difference index of consumer prices (all items, less imputed rent), which compares the difference in consumer price levels by prefectural capital cities, Yokohama-*shi* had the highest score in 2013, with a figure of 106.0 against the average of 51 cities set at 100, after which came Tokyo (*ku*-area), with 105.9. On the other hand, Miyazaki-*shi* registered the lowest score, with 97.1. Comparing Yokohama-*shi* and Miyazaki-*shi*, the price index for Yokohama-*shi* was 9.2 percent higher than that of Miyazaki-*shi*.

**Figure 13.8**  
**Regional Difference Index of Consumer Prices by Selected**  
**Prefectural Capital Cities (2013)**



1) 51 cities: 47 prefectural capital cities and 4 Cabinet-Order designated cities (Kawasaki-*shi*, Hamamatsu-*shi*, Sakai-*shi* and Kitakyushu-*shi*).

Source: Statistics Bureau, MIC.

## (2) Corporate Goods and Services Price Indices

The corporate goods price index measures the price developments of goods traded between companies. It is comprised of the domestic corporate goods price index (index of transaction prices between companies for domestic products targeted at the domestic market), the export price index, and the import price index.

In 2013, the domestic corporate goods price index (2010 as the base year = 100) was 101.9, up 1.3 percent from the previous year.

In 2013, although the export price index decreased to 99.8 on a contract currency basis (down 1.8 percent from the previous year), measured on a yen basis, the index increased to 107.0 (up 11.7 percent). Meanwhile, the import price index fell to 113.2 on a contract currency basis (down 1.7 percent from the previous year) and increased to 122.7 on a yen basis (up 14.5 percent).

The corporate services price index measures price movements of services traded between companies. In 2013, the corporate services price index (2005 as the base year = 100) was 96.2, up 0.4 percent from the previous year.

**Table 13.6**  
**Corporate Goods and Services Price Indices**

Item	Weight	2005	2010	2011	2012	2013
<b>Corporate goods price index (2010=100)</b>						
Domestic corporate goods price index .....	1000.0	97.2	100.0	101.5	100.6	101.9
Manufacturing industry products .....	902.5	97.4	100.0	101.3	99.7	100.3
Export price index (yen basis) .....	1000.0	115.7	100.0	97.8	95.8	107.0
Import price index (yen basis) .....	1000.0	94.1	100.0	107.5	107.2	122.7
<b>Corporate services price index (2005=100)</b>						
All items .....	1000.0	100.0	96.9	96.2	95.8	96.2
Transportation .....	210.3	100.0	99.7	99.6	99.4	101.7
Information and communications .....	216.5	100.0	95.0	94.0	93.4	92.1
Advertising services .....	68.5	100.0	89.7	89.5	89.4	89.2
Leasing and rental .....	84.6	100.0	84.3	82.5	81.3	81.6

Source: Bank of Japan.

# **Chapter 14**

## **Environment and Life**

## 1. Environmental Issues

The list of environmental issues is wide-ranging, from waste management to global warming. Japan is, while pursuing regional development at home, taking the initiative in efforts to prevent global warming and conserve the natural environment to help achieve sustainable growth of the entire world.

In fiscal 2012, Japan's total emission of greenhouse gases, which are a major cause of global warming, amounted to 1.34 billion tons (calculated after their conversion into carbon dioxide), representing an increase of 2.8 percent from the previous fiscal year. Carbon dioxide accounted for 95 percent of these greenhouse gases, with an emission volume of 1.28 billion tons. A breakdown of carbon dioxide emissions by sector revealed that emissions from the industrial sector accounted for 33 percent of the total, followed in order by emissions from the commercial sector (office buildings, etc.), the transport sector, the residential sector, and the energy sector (electric power plants, etc.).

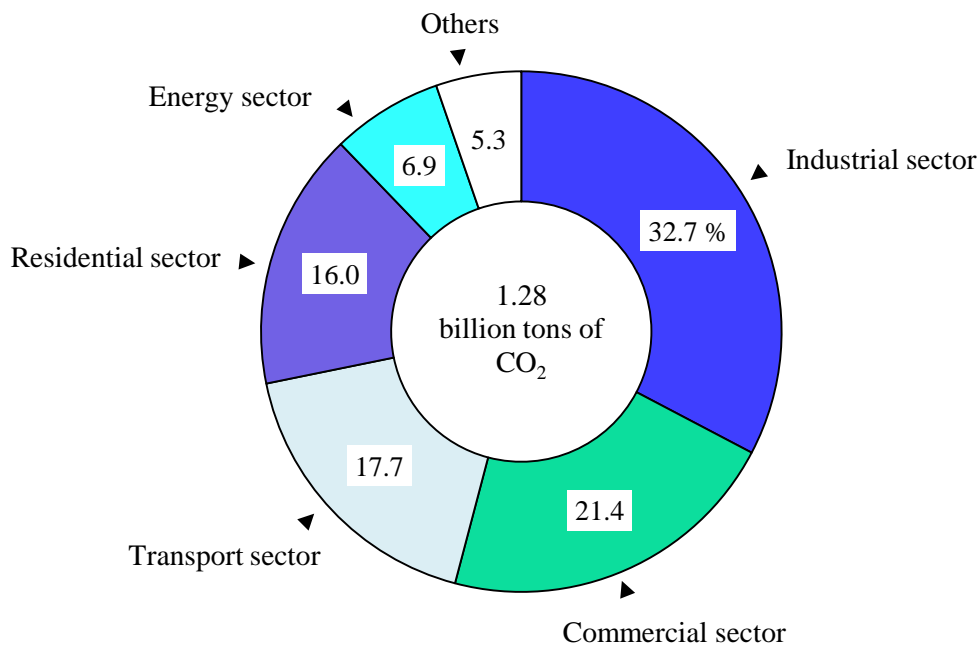
**Table 14.1**  
**Breakdown of Carbon Dioxide Emissions in Japan <sup>1)</sup>**

Item	(Million tons)					
	FY1990	FY2000	FY2005	FY2010	FY2011	FY2012
Total .....	1,141	1,251	1,282	1,191	1,241	1,276
Industrial sector .....	482	467	459	421	417	418
Commercial sector .....	164	206	235	217	250	272
Transport sector .....	217	265	254	233	230	226
Residential sector .....	127	158	174	172	189	203
Energy sector .....	68	71	79	81	88	88
Industrial processes .....	60	54	50	41	41	41
Waste (incineration, etc.) .....	22	31	30	26	26	27

1) Volume of carbon dioxide after reallocation to the end-use sector.

Source: Ministry of the Environment.

**Figure 14.1**  
**Sources of Carbon Dioxide Emissions in Japan <sup>1)</sup> (FY2012)**



1) Volume of carbon dioxide after reallocation to the end-use sector.  
 Source: Ministry of the Environment.

The state of waste management in Japan had remained grave due to the shrinking remaining capacity of final disposal sites and increased illegal dumping. This led to the Basic Act on Establishing a Sound Material-Cycle Society (brought into force in January 2001), which defines basic principles for the creation of a sound material-cycle society. This law has established a legal framework to address issues such as waste disposal and automobile and electrical appliance recycling. Another ongoing effort is the promotion of the "3Rs" (reduce, reuse and recycle) in waste management, including appropriate management of hazardous materials and R&D on waste recycling technology.



Of various types of waste generated as a result of business activities, 20 of them, including sludge, waste oil, and soot and dusts, are designated as "industrial waste." The fiscal 2011 nationwide industrial waste generation totaled 381.21 million tons. Sludge, animal waste and debris, which account for approximately 80 percent of the total industrial waste, are now increasingly recycled into construction materials, organic fertilizers, and other materials. Thanks to this development, the volume of final disposal (to be put into landfills) fell from 89.73 million tons in fiscal 1990 to 12.44 million tons in fiscal 2011.

Meanwhile, a total of 45.43 million tons of "nonindustrial waste" (household waste and also shop, office and restaurant waste) was generated in fiscal 2011. This translates to 976 grams per person per day. In terms of nonindustrial waste disposal in fiscal 2011, the total volume processed was 42.85 million tons. The total volume of recycled waste was 9.38 million tons, with the recycling rate at 20.6 percent.

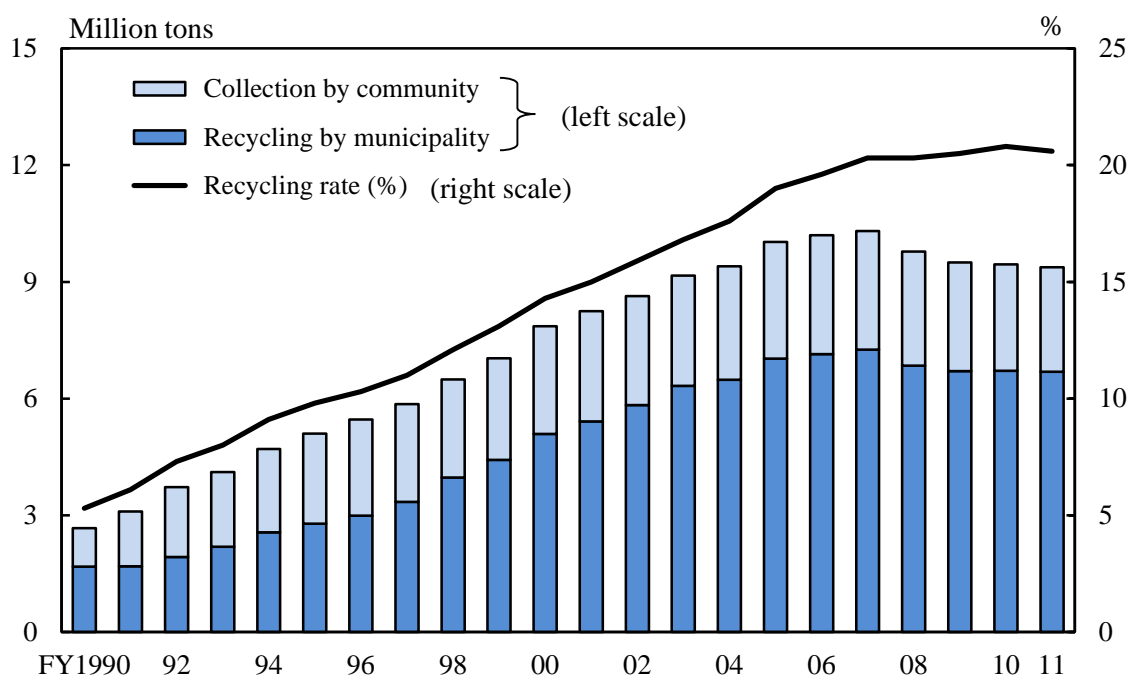
**Table 14.2**  
**Waste Generation and Disposal** (Industrial and nonindustrial waste)

	(Thousand tons)				
Item	FY1990	FY2000	FY2005	FY2010	FY2011
<b>Industrial waste</b>					
Total volume of waste generation .....	394,736	406,037	421,677	385,988	381,206
Recycling .....	150,568	184,237	218,888	204,733	199,996
Treatment for waste reduction .....	154,443	176,933	178,560	167,000	168,771
Final disposal .....	89,725	44,868	24,229	14,255	12,439
<b>Nonindustrial waste</b> <sup>1)</sup>					
Total volume of waste generation .....	50,257	54,834	52,720	45,359	45,430
Municipally scheduled and collected .....	42,495	46,695	44,633	38,827	39,025
Directly brought to					
waste treatment facilities .....	6,776	5,373	5,090	3,803	3,724
Recyclable waste					
collected by community .....	986	2,765	2,996	2,729	2,682
Waste generated					
daily per person (in grams) .....	1,115	1,185	1,131	976	976
Total volume of processed waste .....	49,282	52,090	49,754	42,791	42,853
Direct incineration .....	36,192	40,304	38,486	33,799	34,002
Intermediate treatment for recycling, etc. ...		6,479	7,283	6,161	6,113
Direct recycling .....	3,300	2,224	2,541	2,170	2,145
Direct final disposal .....	9,790	3,084	1,444	662	593

1) Due to the Great East Japan Earthquake, figures for FY2010 exclude those for Minamisanriku-cho (Miyagi Prefecture). Figures for FY2011 exclude disaster waste.

Source: Ministry of the Environment.

**Figure 14.2**  
**Recycling of Nonindustrial Waste <sup>1)</sup>**



$$\text{Recycling rate (\%)} = \frac{\text{Total volume of recycled waste}}{\text{Total volume of processed waste} + \text{Volume of collection by community}} \times 100$$

$$\text{Total volume of recycled waste} = \text{Volume of recycling by municipality} + \text{Volume of collection by community}$$

1) Due to the Great East Japan Earthquake, figures for FY2010 exclude those for Minamisanriku-cho (Miyagi Prefecture). Figures for FY2011 exclude disaster waste.

Source: Ministry of the Environment.

## 2. Housing

According to the Housing and Land Survey conducted in October 2008, the total number of dwellings (in the case of apartment buildings, counting the number of individual units) in Japan was 57.59 million, up by 3.70 million (6.9 percent) from 2003. The number of households was 49.97 million, representing the excess in number of dwellings over households by 7.61 million.

In 2008, the number of occupied dwellings (where people usually live) amounted to 49.60 million, accounting for 86.1 percent of the total number of dwellings. Of these, the number of dwellings used exclusively for living

totaled 48.28 million, accounting for 97.3 percent of the occupied dwellings.

A breakdown of occupied dwellings by class of ownership showed that owned houses totaled 30.32 million, accounting for 61.1 percent of the total, which represented a decrease of 0.1 percentage points from the figure of 61.2 percent in 2003. Rented houses, on the other hand, numbered 17.77 million, accounting for 35.8 percent of the total.

**Table 14.3**  
**Housing Conditions**

Year	Total households	Total number of dwellings	Occupied dwellings	Ownership		Dwellings exclusively for living	Floor space per dwelling (m <sup>2</sup> )
				Owned	Rented		
1983	35,197	38,607	34,705	21,650	12,951	31,935	81.6
1988	37,812	42,007	37,413	22,948	14,015	34,701	85.0
1993	41,159	45,879	40,773	24,376	15,691	38,457	88.4
1998	44,360	50,246	43,922	26,468	16,730	41,744	89.6
2003	47,255	53,891	46,863	28,666	17,166	45,258	92.5
2008	49,973	57,586	49,598	30,316	17,770	48,281	92.4

Source: Statistics Bureau, MIC.

**Table 14.4**  
**Occupied Dwellings by Type of Building**

Year	Total	Detached houses	Tenement houses	Apartments	Others
1983	34,705	22,306	2,882	9,329	187
1988	37,413	23,311	2,490	11,409	203
1993	40,773	24,141	2,163	14,267	202
1998	43,922	25,269	1,828	16,601	224
2003	46,863	26,491	1,483	18,733	156
2008	49,598	27,450	1,330	20,684	134

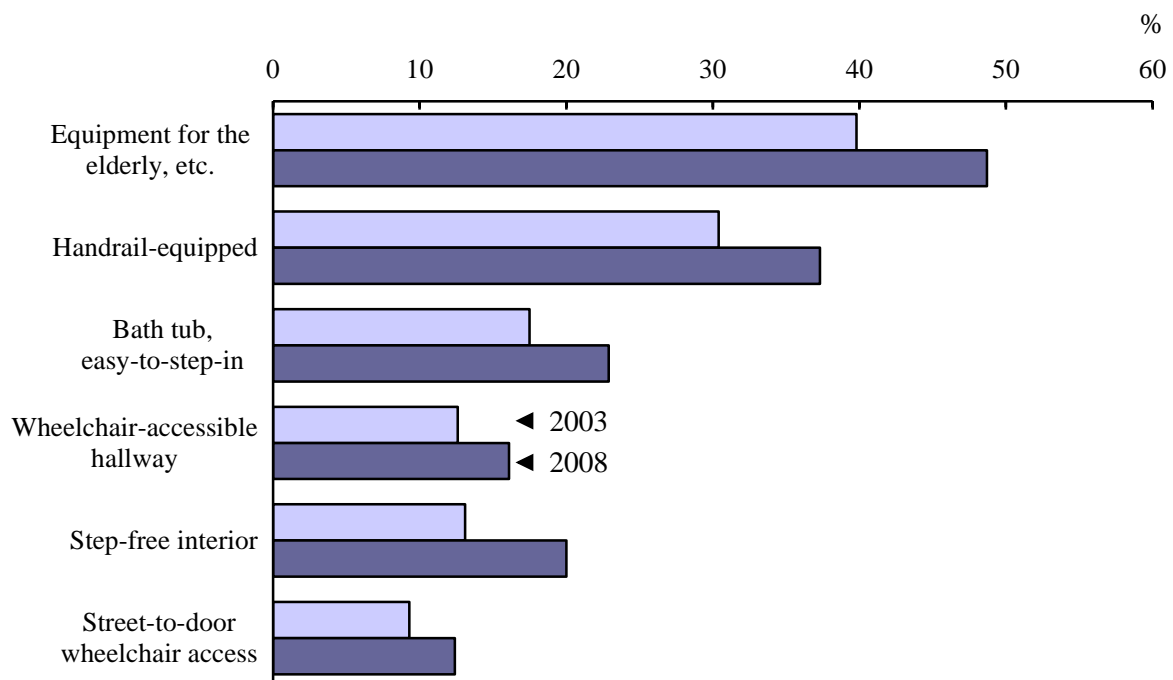
Source: Statistics Bureau, MIC.

Occupied dwellings by building type showed that 27.45 million or 55.3 percent were detached houses, and 20.68 million or 41.7 percent were apartments. The proportion of apartments has consistently increased in recent years.

In terms of construction materials, 25.42 million or 92.6 percent of the detached houses were wood-frame houses (including fire-resistant ones). On the other hand, 15.04 million or 72.7 percent of the component apartments were steel-framed concrete structures.

A study of housing with accessibility equipment for the elderly and physically challenged persons showed that the number of housing units "with equipment for the elderly, etc." was 24.15 million, or 48.7 percent of all housing, up 8.9 percentage points from 18.66 million (39.8 percent) in 2003. Housing "equipped with handrails" accounted for 37.3 percent of all housing, and housing with a "step-free interior" made up 20.0 percent. Figures increased from 2003 in all categories of equipment surveyed.

**Figure 14.3**  
**Ratio of Housing with Barrier-Free Features**



Source: Statistics Bureau, MIC.

### 3. Traffic Accidents

In 1970, the annual number of fatalities from traffic accidents hit a record high of 16,765, leading to the enactment of the Traffic Safety Measures Basic Law in the same year. Based on this law, the government has since promoted traffic safety measures in a comprehensive and systematic manner. As a result, the number of traffic accident fatalities declined to 4,411 in 2012, and they recorded their twelfth consecutive year of decrease. This represented less than one-third of that of 1970.

In 2012, traffic deaths per 100,000 population were 3.5 persons, while the number of persons killed per 10,000 motor vehicles was 0.6 persons.

**Table 14.5**  
**Traffic Accidents and Casualties**

Year	Traffic accidents	Injuries	Traffic deaths <sup>1)</sup>		
				per 10,000 motor vehicles	per 100,000 population
1970	718,080	981,096	16,765	9.0	16.2
1980	476,677	598,719	8,760	2.2	7.5
1990	643,097	790,295	11,227	1.9	9.1
2000	931,950	1,155,707	9,073	1.2	7.1
2010	725,903	896,294	4,922	0.6	3.8
2011	692,056	854,610	4,663	0.6	3.6
2012	665,138	825,396	4,411	0.6	3.5

1) Death within 24 hours of the accident.

Source: National Police Agency.

### 4. Crime

In 2013, the reported number of penal code offenses (excluding cases related to traffic accidents) was 1.32 million, a decrease of 61,443 (4.4 percent) compared to the previous year. The proportion of thefts was the highest, accounting for approximately 75 percent, or 986,272 cases (down 5.2 percent from the previous year).

The number of persons arrested for penal code offenses was 262,486 in 2013, a decrease of 24,535 (8.5 percent) compared to the previous year, marking a nine-consecutive-year decline.

The ratio of arrests to reported number of offenses marked a post-World War II low at 19.8 percent in 2001. Since 2002, however, it has shown signs of recovery, accounting for 29.8 percent in 2013.

**Table 14.6**  
**Trends in Crime** <sup>1)</sup> (Penal code offenses)

Year	Reported offenses	Resultant arrests	Persons arrested	Arrest rate <sup>2)</sup> (%)	Crime rate per 100,000 population
1980	1,357,461	811,189	392,113	59.8	1,159.6
1985	1,607,697	1,032,879	432,250	64.2	1,328.1
1990	1,636,628	692,593	293,264	42.3	1,324.0
1995	1,782,944	753,174	293,252	42.2	1,419.9
2000	2,443,470	576,771	309,649	23.6	1,925.5
2005	2,269,293	649,503	386,955	28.6	1,775.7
2010	1,585,856	497,356	322,620	31.4	1,238.0
2012	1,382,121	437,612	287,021	31.7	1,084.0
2013	1,320,678	394,123	262,486	29.8	1,037.5

1) Excluding traffic offenses. 2) The ratio of arrests to reported number of offenses.

Source: National Police Agency.

Various kinds of computers and computer networks are currently playing an essential role as a social foundation. In line with this, crimes utilizing computer networks are becoming increasingly diversified. The number of arrests for cybercrime in 2013, involving the abuse of computer technology and telecommunications technology, was 8,113, up 10.6 percent from the previous year. This represented about a ninefold increase from the 913 cases registered in 2000.

The police organization consists of the National Public Safety Commission and the National Police Agency, both of which are state organizations, as well as the Prefectural Public Safety Commission and prefectural police, both of which are organizations under the authority of individual prefectures. As of April 1, 2013, the prefectural police operated police headquarters, police academies, 1,173 police stations, 6,248 police boxes (*Koban*) and 6,614 police substations (*Chuzai*) in 47 prefectures.

Local police officers at their respective police boxes/substations are engaged in standing guard over their communities, patrolling, and dealing with criminal cases and accidents to prevent crimes and catch criminals.

## **Chapter 15**

# **Social Security, Health Care, and Public Hygiene**

## 1. Social Security

In Japan, the birth rate has been falling, while the number of elderly people has been growing. As these trends continue, Japanese society faces the prospect of accelerating population decline. Meanwhile, its social security system is required to address various changes in the socioeconomic environment, including the expanding the fiscal deficit.

In April 2000, a long-term care insurance system was launched. This is due to the fact that the issue of elderly care, including the excessive burden of care resting on family members alone, had loomed as a social problem as the aging of society progressed. In order to respond to changes in the social structure such as further development of the aging of society after the start of the system, as well as needs of the public, who desire in-home care, an aim is being made towards the Community Comprehensive Care System (system where medical care, nursing care, prevention, and livelihood support are provided in an integrated manner in a locale where a person is used to living) and a long-term care insurance system of high quality that provides peace of mind. Revisions of this system and of nursing care compensation are being carried out.

The number of users of long-term care insurance services (fiscal yearly average) totaled 4.58 million in fiscal 2012, and increased by approximately 2.5-fold over 12 years in comparison to the approximately 1.84 million users in fiscal 2000 when the system was initiated. In addition, the amount of nursing care costs in fiscal 2012 (includes allowances for high-cost long-term care service, for high-cost medical care and long-term care service, and for long-term care service to a person admitted to a specified facility), totaled 8.8 trillion yen.



**Table 15.1**  
**Trends in Social Security Benefit Expenditures by Institutional Scheme**

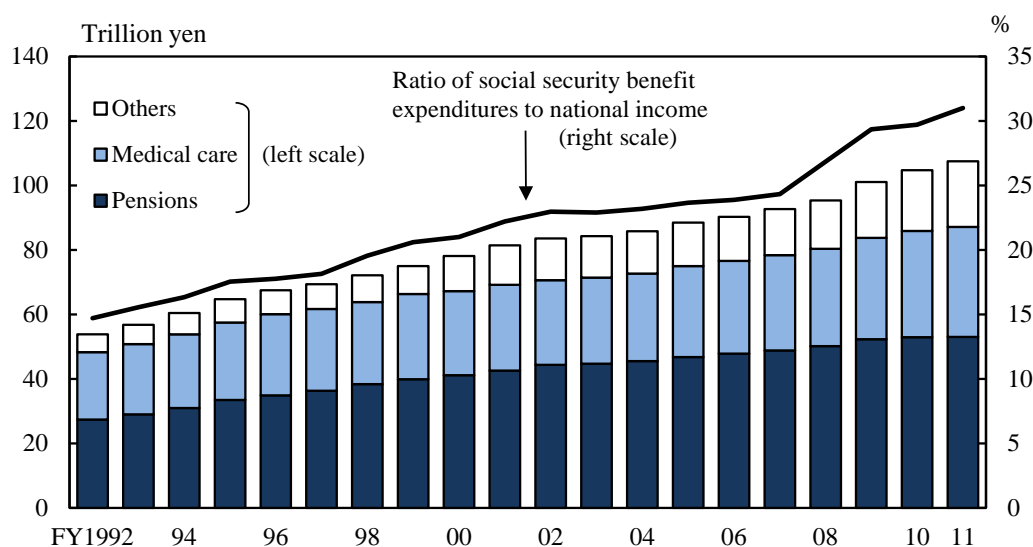
	(Billion yen)				
Item	FY2000	FY2005	FY2009	FY2010	FY2011
Total .....	78,133	88,488	101,100	104,679	107,495
Medical insurance <sup>1)</sup> .....	14,567	16,179	18,230	18,828	19,313
Health and medical services for the aged <sup>1)</sup> ....	10,447	10,754	11,007	11,700	12,261
Long-term care insurance .....	3,262	5,815	7,051	7,434	7,809
Pension benefits .....	39,173	45,205	51,014	51,743	51,910
Employment insurance <sup>2)</sup> .....	2,665	1,442	2,704	2,097	2,044
Workers' accident compensation insurance ....	1,019	953	922	907	925
Family allowance <sup>3)</sup> .....	712	1,158	1,610	3,042	3,205
Public assistance .....	1,939	2,594	3,007	3,330	3,502
Social welfare .....	2,186	2,635	3,355	3,394	4,402
Public health .....	555	548	1,307	1,385	1,380
Gratuities for retired public employees ..	1,420	1,059	772	702	632
Aid for war victims .....	188	146	120	116	112

1) The medical care system was changed in 2008. 2) Including unemployment benefits for Seamen's insurance. 3) Including income support for single parent families and families with challenged children.

Source: Ministry of Health, Labour and Welfare.

In fiscal 2011, social security benefit expenditures totaled 107.5 trillion yen (up 2.7 percent from the previous fiscal year), a figure which amounted to 841,100 yen per person. The ratio of Japan's social security benefit expenditures to national income registered 31.0 percent. Benefits for the aged accounted for approximately 70 percent of total social security benefit expenditures.

**Figure 15.1**  
**Trends in Social Security Benefit Expenditures by Sector** <sup>1)</sup>



1) Because of retrospective tabulation up to FY2005 of expenditure items data that were added in FY2011, a gap has occurred with FY2004 data.

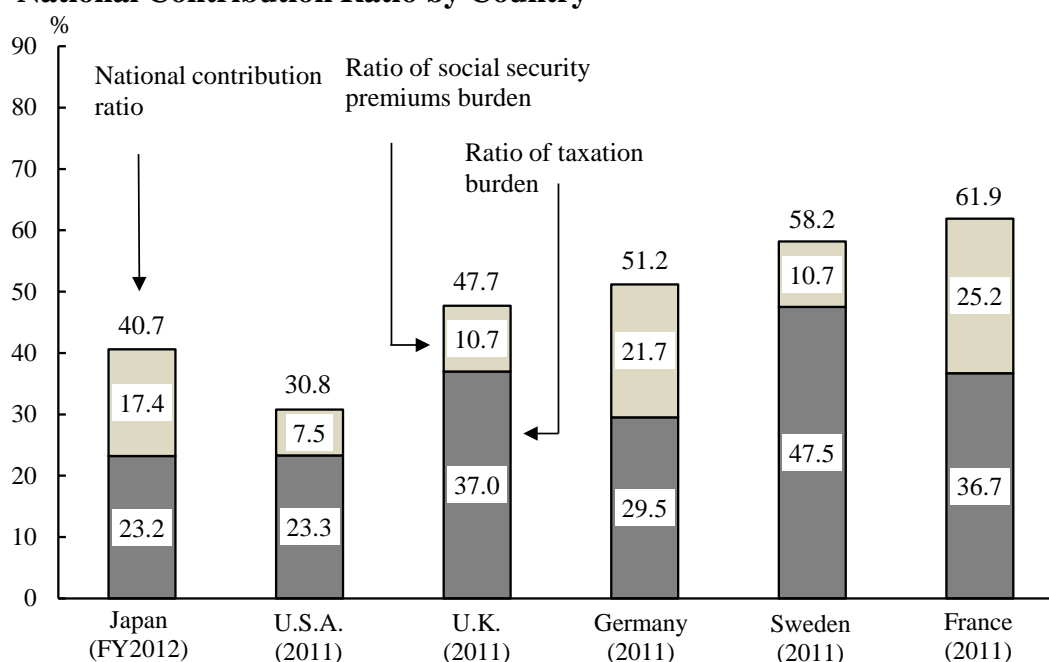
Source: Ministry of Health, Labour and Welfare.

In fiscal 2011, pensions accounted for half (49.4 percent) of total social security benefit expenditures, while medical care accounted for 31.7 percent, and social welfare and others for 18.9 percent. Social security benefit expenditures are forecasted to continue growing, and are projected to reach 149 trillion yen in fiscal 2025.

In accordance with the rise in social security benefit expenditures, the amount of funds necessary to cover these expenditures has also increased, reaching 115.7 trillion yen in fiscal 2011. This was financed by 60.1 trillion yen from social insurance contributions, 43.5 trillion yen from taxes and 12.1 trillion yen from other sources. The government is making approaches towards drastic reform of the tax system, including raising the consumption tax, as the first step towards simultaneously ensuring stable funding for social security and achieving sound public finance.

The national contribution ratio (the combined ratios of taxes and social security costs to national income) was 40.7 percent in fiscal 2012 (taxation burden: 23.2 percent; social security premiums: 17.4 percent), up 0.9 percentage points from 39.8 percent (taxation burden: 22.7 percent; social security premiums: 17.1 percent) in fiscal 2011. The national contribution ratio in 2011 was 30.8 percent in the U.S.A., 47.7 percent in the U.K., and 58.2 percent in Sweden. While the ratio in Japan was higher than that of the U.S.A., it was lower than European countries.

**Figure 15.2**  
**National Contribution Ratio by Country**



Source: Ministry of Finance.

The social welfare institutions shown below provide users with various services either for free or partially free.

**Table 15.2**  
**Social Welfare Institutions** (as of October 1, 2012)

Type of institutions	Institutions	Users	Workers <sup>1)</sup>
Total .....	48,250	2,797,021	804,149
Institutions under the Public Assistance Act <sup>2)</sup> .....	231	18,744	6,061
Welfare for the elderly .....	4,962	137,421	42,253
Nursing homes .....	905	56,860	16,270
Nursing homes with a moderate fee .....	2,045	80,561	19,241
Welfare centers .....	2,012	-	6,743
Support for the physically challenged, etc. <sup>3)</sup> .....	5,330	149,514	96,425
Support for social participation of the physically challenged ...	295	...	2,564
Protection for women .....	46	417	369
Child welfare <sup>4)</sup> .....	29,079	2,252,366	542,248
Day nurseries .....	22,720	2,187,568	470,708
Maternal and child welfare .....	57	...	262
Others <sup>5)</sup> .....	8,250	238,559	113,967
Pay nursing homes for the elderly .....	6,301	221,907	108,463

1) Full time equivalent. 2) Excluding medical care aid institutions. 3) "Users" excludes local activity support center. 4) "Institutions" and "workers" exclude maternity homes, and children's playgrounds; "Users" excludes maternity homes, and living assistance homes for mothers and children. 5) "Institutions" and "workers" exclude facilities for medical treatment that is free of charge or low-cost; "Users" excludes homes for the visually impaired, and facilities for medical treatment that is free of charge or low-cost.

Source: Ministry of Health, Labour and Welfare.

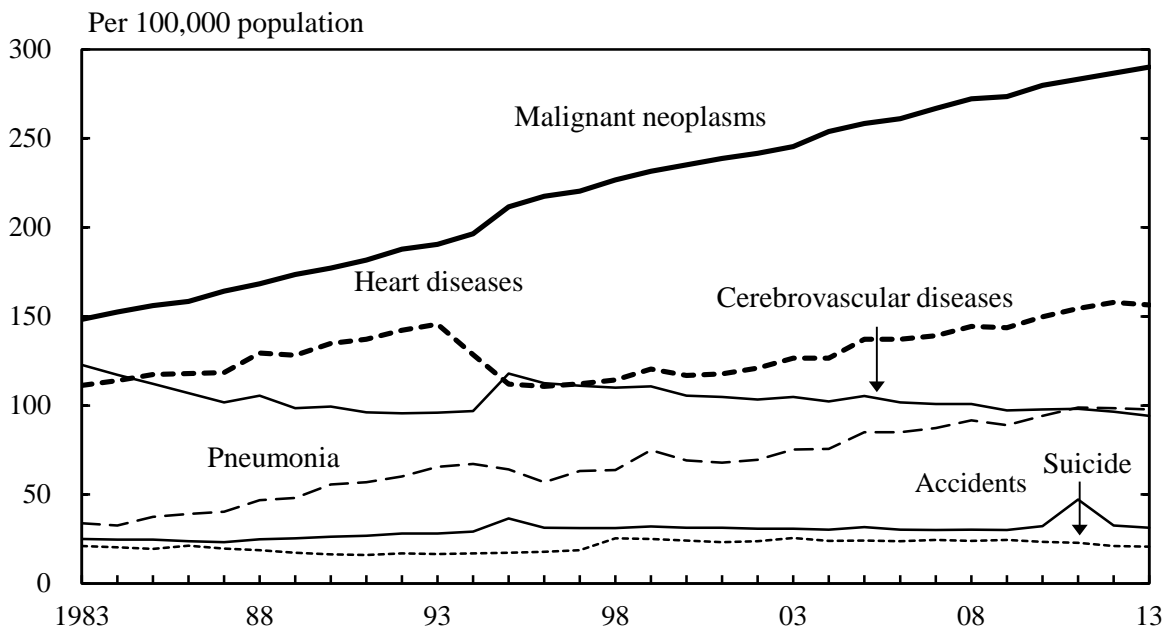
## 2. Health Care and Public Hygiene

Japan has a universal health insurance regime to ensure that anyone can receive necessary medical treatment. Under this regime, every citizen enters a publicly regulated medical insurance system, such as employees' health insurance or national health insurance.

This medical care system has contributed to Japan's achieving the highest life expectancy in the world, as well as a high standard of healthcare along with improvements in the living environment and better nutrition. Currently, reform of the whole system is being undertaken in order to preserve the stability of this medical insurance system in the future.

Life expectancy at birth was 86.6 years for women and 80.2 years for men in 2013. Japan's life expectancy remains the highest level in the world. Japan's infant mortality rate was 2.1 per 1,000 births in 2013.

**Figure 15.3**  
**Death Rates by Major Cause**



Source: Ministry of Health, Labour and Welfare.

The death rate was 1,009.1 per 100,000 population in 2013. The leading cause of death was malignant neoplasms (290.1 per 100,000 population), followed by lifestyle diseases such as heart diseases (156.4; excluding hypertensive diseases), in which people's daily diet and behavior are significant factors therefore, and pneumonia (97.8). Malignant neoplasms became the leading cause of death in 1981. The death rate by malignant neoplasms has continued to increase since, reaching 28.8 percent of all deaths in 2013.

Due to the increasingly complex social environment created by a highly-technological, competition-oriented society, the stress levels felt by all age groups are rising. The number of suicides in Japan was 26,038 in 2013, and had remained at the same level of around 30,000 a year since 1998. In 2013, suicide became the leading cause of deaths for people aged between 15 and 39.

In the past, humanity faced the threat of epidemic diseases such as smallpox, bubonic plague and new strains of influenza. Currently, in Japan, infection control measures are being advanced, such as through the promotion of vaccinations, with the objective of preventing the occurrence and spreading of infectious diseases.

In terms of healthcare provision, Japan had 300,664 physicians engaged in medical care, or 235.8 physicians per 100,000 population, in 2012. While the number of physicians providing healthcare is increasing nationwide, their uneven distribution has become a problem due to the lack of physicians specializing in certain areas of medicine and the lack of physicians operating in regional parts of the country.

**Table 15.3**  
**Number of Medical Personnel at Work**

Personnel	2004	2006	2008	2010	2012
<b>Number</b>					
Physicians .....	267,943	275,127	283,915	292,338	300,664
Dentists .....	94,022	95,944	98,063	100,161	101,110
Pharmacists .....	223,564	234,429	249,251	258,713	262,520
Nurses and Assistant nurses .....	1,146,181	1,194,121	1,252,224	1,320,871	1,373,521
<b>Rates per 100,000 population</b>					
Physicians .....	209.7	215.1	221.7	228.3	235.8
Dentists .....	73.6	75.0	76.6	78.2	79.3
Pharmacists .....	175.0	183.3	194.6	202.0	205.9
Nurses and Assistant nurses .....	896.9	933.6	977.7	1,031.5	1,077.1

Source: Statistics Bureau, MIC; Ministry of Health, Labour and Welfare.

As of October 1, 2012, the number of hospitals in Japan (excluding medical clinics and dental clinics) totaled 8,565. The number of hospital beds amounted to 1,578,254 (1,237.7 per 100,000 population).

**Table 15.4**  
**Number of Medical Care Institutions and Beds**

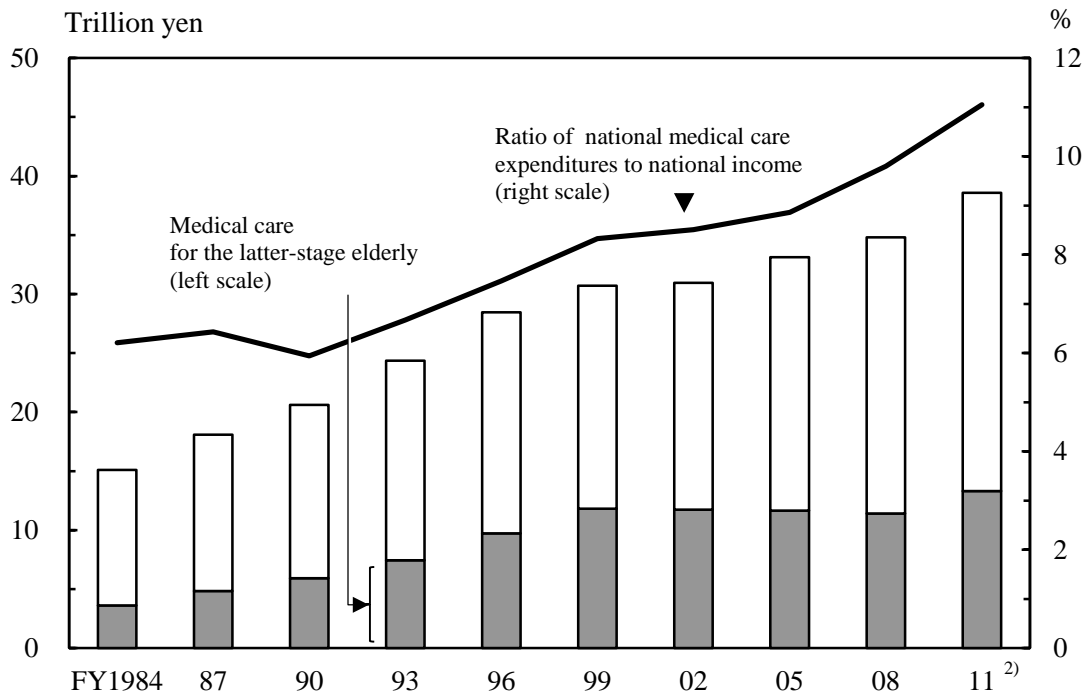
Type of Institution	2002	2005	2008	2011	2012
<b>Institutions</b>					
<b>Number</b>					
Total .....	169,079	173,200	175,656	176,308	177,191
Hospitals .....	9,187	9,026	8,794	8,605	8,565
Medical clinics .....	94,819	97,442	99,083	99,547	100,152
Dental clinics .....	65,073	66,732	67,779	68,156	68,474
<b>Rates per 100,000 population</b>					
Total .....	132.7	135.6	137.6	138.0	139.0
Hospitals .....	7.2	7.1	6.9	6.7	6.7
Medical clinics .....	74.4	76.3	77.6	77.9	78.5
Dental clinics .....	51.1	52.2	53.1	53.3	53.7
<b>Beds</b>					
<b>Number</b>					
Total .....	1,839,376	1,798,637	1,756,115	1,712,539	1,703,950
Hospitals .....	1,642,593	1,631,473	1,609,403	1,583,073	1,578,254
Medical clinics .....	196,596	167,000	146,568	129,366	125,599
Dental clinics .....	187	164	144	100	97
<b>Rates per 100,000 population</b>					
Total .....	1,443.4	1,407.7	1,375.3	1,340.0	1,336.3
Hospitals .....	1,289.0	1,276.9	1,260.4	1,238.7	1,237.7
Medical clinics .....	154.3	130.7	114.8	101.2	98.5
Dental clinics .....	0.1	0.1	0.1	0.1	0.1

Source: Ministry of Health, Labour and Welfare.

National medical care expenditures have been increasing gradually. In fiscal 2011, the expenditures totaled 38.6 trillion yen or 11.13 percent of Japan's national income. The cost of medical care per person averaged 301,900 yen in fiscal 2011.

Medical costs for treating the latter-stage elderly in fiscal 2011 were 13.3 trillion yen, or about one-third of national medical care expenditure, and accounted for 3.81 percent of the national income. The per-capita cost of medical care for the latter-stage elderly averaged 918,206 yen for the year. Rising medical costs for the latter-stage elderly, resulting from the rapidly aging population, etc., is one of the major contributors to the overall uptrend in national medical care expenditures.

**Figure 15.4**  
**Trends in Medical Care Expenditures** <sup>1)</sup>



1) The medical care system was changed in FY2000 and in FY2008.

2) Excluding medical care expenditures pertaining to the Great East Japan Earthquake (4.5 billion yen in total, combining the payment for estimated billing and the medical care expenditures of unidentified insurers).

Source: Ministry of Health, Labour and Welfare.

## **Chapter 16**

# **Education and Culture**



## 1. School-Based Education

Japan's primary and secondary education is based on a 6-3-3 system: 6 years in elementary school, 3 years in lower secondary school, and 3 years in upper secondary school. The period of compulsory schooling is the 9 years at elementary and lower secondary schools. Higher education institutions are universities, junior colleges, and colleges of technology. Other education establishments include kindergartens, which provide pre-school education, and schools for special needs education. There are also specialized training colleges and miscellaneous schools for a wide range of vocational and other practical skills learning. Given the nearly 100-percent upper secondary school entrance rate, the School Education Act was amended in 1998 to authorize combined lower and upper secondary schooling, which began at some lower and upper secondary schools in 1999. On an additional note, school years in Japan start in April and end in March.

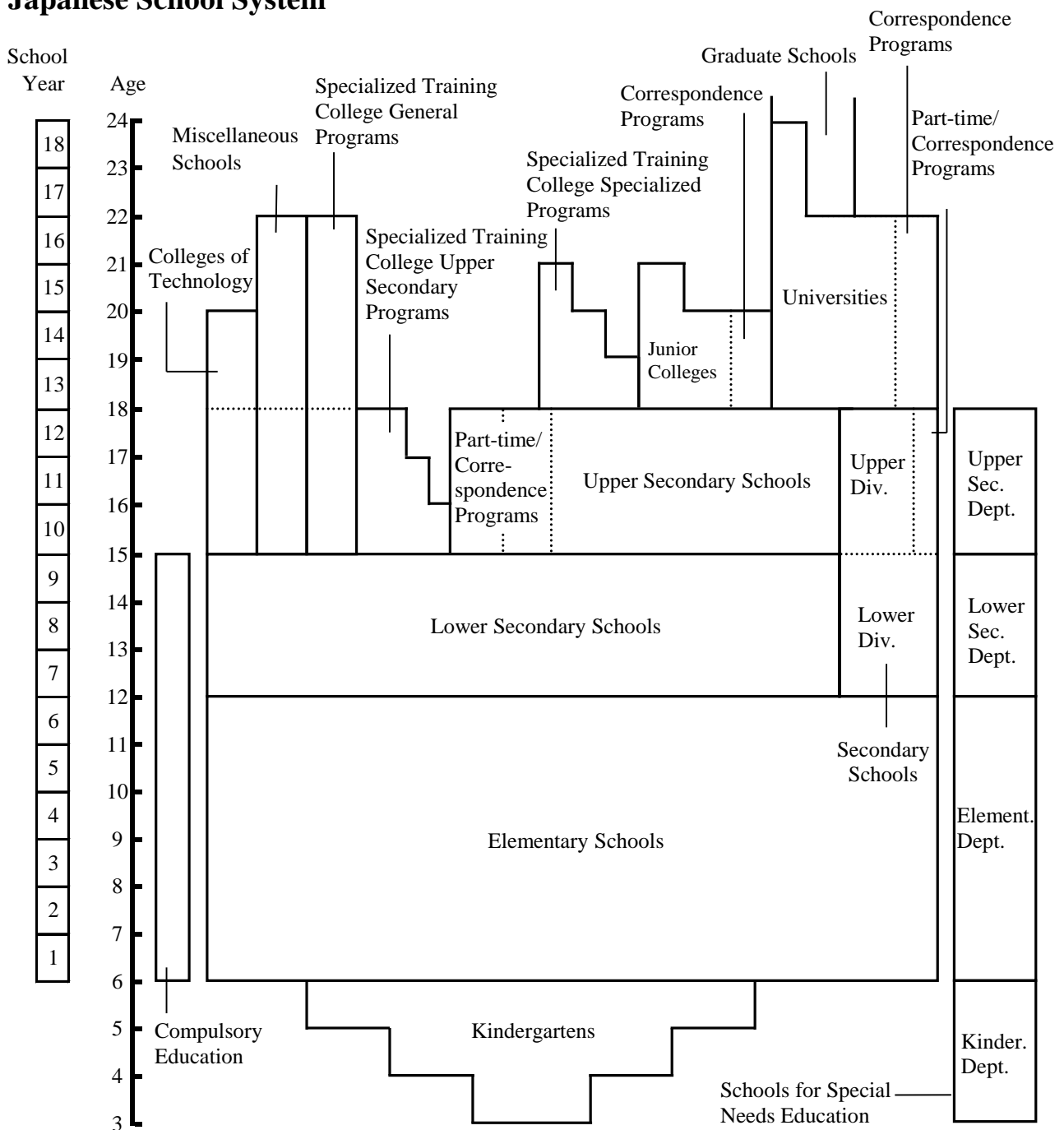
**Table 16.1**  
**Educational Institutions in Japan** (as of May 1, 2013)

Type of institution	Schools			Full-time teachers (1,000)	Students (1,000)		
	Total	National	Public		Private	Males	Females
Kindergartens .....	13,043	49	4,817	8,177	111	804	780
Elementary schools .....	21,131	74	20,836	221	418	3,416	3,261
Lower secondary schools .....	10,628	73	9,784	771	254	1,809	1,727
Upper secondary schools .....	4,981	15	3,646	1,320	235	1,672	1,647
Secondary schools .....	50	4	29	17	2	15	16
Schools for special needs education <sup>1)</sup> .....	1,080	45	1,021	14	78	86	46
Colleges of technology .....	57	51	3	3	4	49	10
Junior colleges .....	359	-	19	340	9	16	122
Universities .....	782	86	90	606	179	1,653	1,216
Graduate schools .....	624	86	74	464	105	177	78
Specialized training colleges ...	3,216	10	196	3,010	40	295	365
Miscellaneous schools.....	1,330	-	9	1,321	9	63	59

1) Schools for mentally and/or physically challenged children, inclusive of kindergarten to upper secondary school levels.

Source: Ministry of Education, Culture, Sports, Science and Technology.

**Figure 16.1**  
**Japanese School System**



Source: Ministry of Education, Culture, Sports, Science and Technology.

Of the March 2013 upper secondary school graduates, 53.2 percent went straight on to enter a university or junior college. The ratio of upper secondary school graduates who entered a university, junior college, etc. in 2013 was 55.1 percent (55.1 percent of male and 55.2 percent of female graduates), including graduates from previous years.

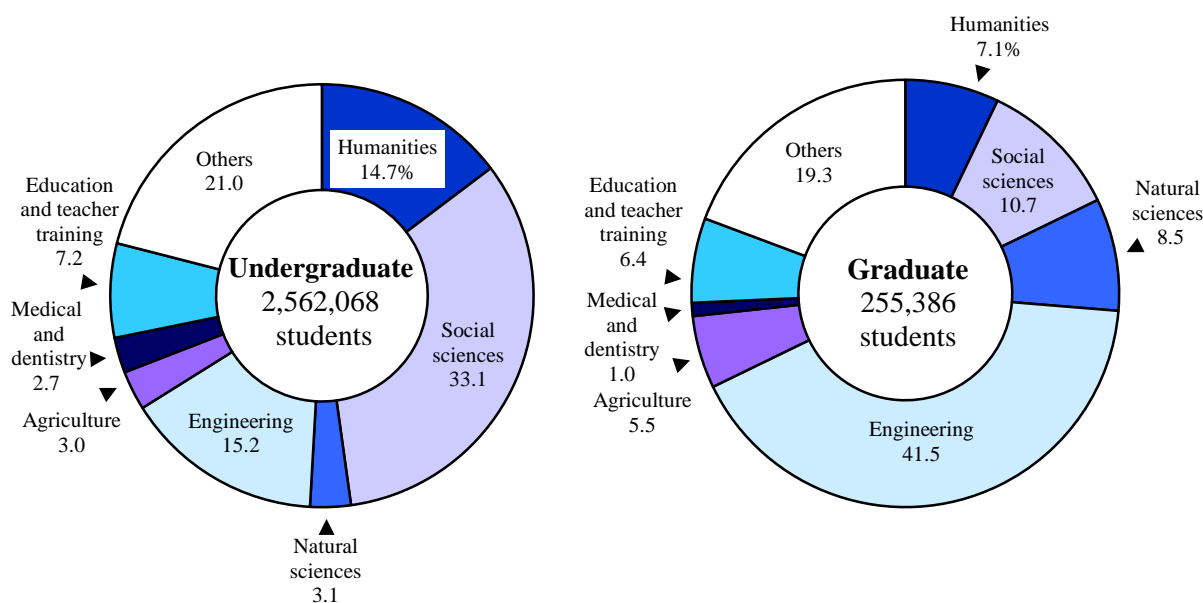
**Table 16.2**  
**Number of University Students** (as of May 1)

	2005	2010	2011	2012	2013
<b>Total</b> .....	2,865,051	2,887,414	2,893,489	2,876,134	2,868,872
Undergraduate .....	2,508,088	2,559,191	2,569,349	2,560,909	2,562,068
Graduate schools .....	254,480	271,454	272,566	263,289	255,386
Others <sup>1)</sup> .....	102,483	56,769	51,574	51,936	51,418
<b>Females</b> .....	1,124,900	1,185,580	1,200,182	1,206,134	1,216,012
Undergraduate .....	1,009,217	1,077,782	1,094,283	1,101,644	1,113,812
Graduate schools .....	75,734	82,133	82,534	80,460	78,400
Others <sup>1)</sup> .....	39,949	25,665	23,365	24,030	23,800
National .....	627,850	625,048	623,304	618,134	614,783
Public .....	124,910	142,523	144,182	145,578	146,160
Private .....	2,112,291	2,119,843	2,126,003	2,112,422	2,107,929

1) Auditing students, non-degree students, research students, etc.

Source: Ministry of Education, Culture, Sports, Science and Technology.

**Figure 16.2**  
**University Students by Major Subject** (as of May 1, 2013)

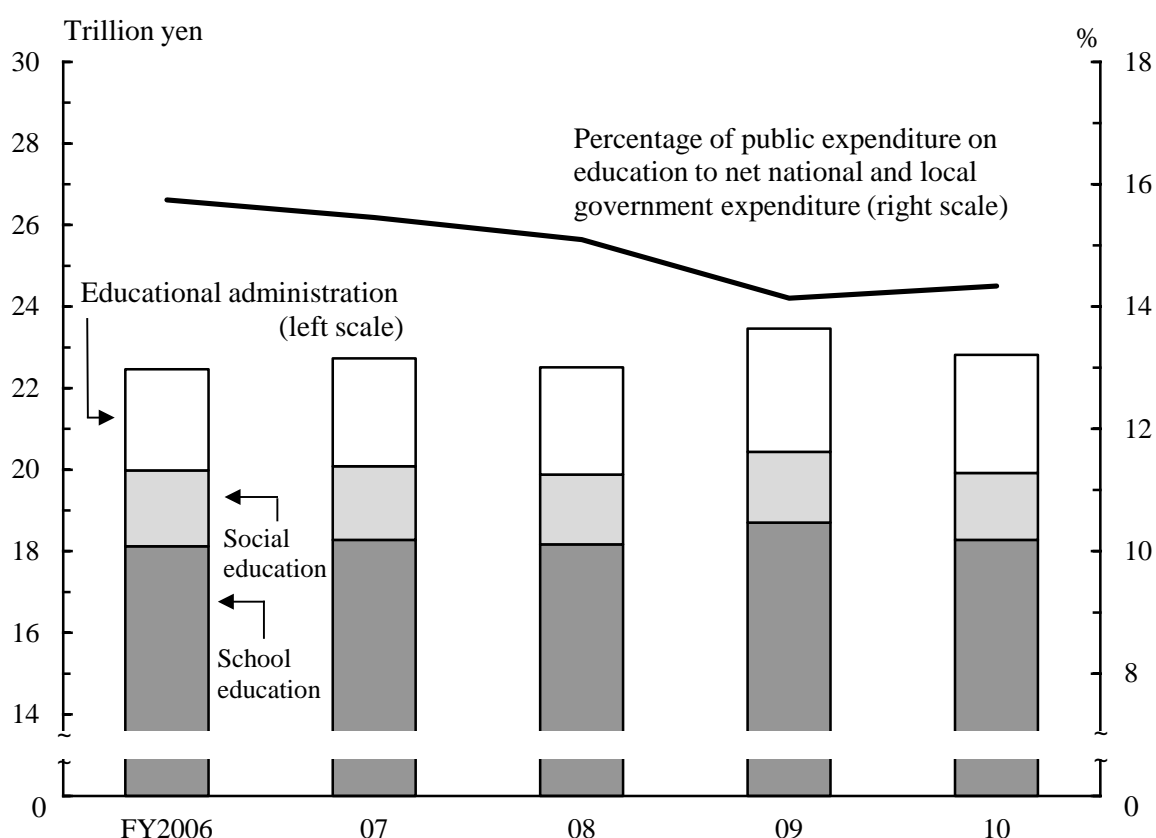


Source: Ministry of Education, Culture, Sports, Science and Technology.

As of May 1, 2012, a total of 110,518 foreign students were enrolled in Japanese junior colleges, universities, and graduate schools. Of the total foreign students, 91.0 percent were from Asia, including 69,117 from China, 14,097 from the Republic of Korea and 3,305 from Vietnam.

Fiscal 2010 public expenditure on education in Japan was 22.8 trillion yen, which was equivalent to 14.3 percent of the net expenditure of national and local governments. Fiscal 2012 school expenditure by households with children attending public school averaged 55,197 yen per elementary school pupil, 131,534 yen per lower-secondary school student and 230,837 yen per upper-secondary school student.

**Figure 16.3**  
**Public Expenditures on Education**



Source: Ministry of Education, Culture, Sports, Science and Technology.

## 2. Lifelong Learning

In recent years, people's demands for learning are increasing and the contents are becoming more diverse and advanced. This has raised more and more expectations over the realization of a "Lifelong Learning Society" in which people are able to utilize their learning outcomes.

**Table 16.3**  
**Social Education Facilities**  
(as of October 1, 2011)

Facilities	Number
Citizens' public halls .....	14,681
Libraries .....	3,274
Museums .....	1,262
General museums .....	143
Science museums .....	109
Historical museums .....	448
Art museums .....	452
Outdoor museums .....	18
Zoological gardens .....	32
Botanical gardens .....	10
Zoological and botanical gardens ....	8
Aquariums .....	42
Centers for children and youths .....	1,048
Women's education centers .....	375
Culture halls .....	1,866
Lifelong learning centers .....	409

Source: Ministry of Education, Culture, Sports, Science and Technology.

**Table 16.4**  
**Sports Facilities**  
(as of October 1, 2011)

Facilities	Public	Private
Total .....	47,571	15,532
Fields and tracks .....	913	17
Baseball grounds .....	6,279	143
Other ball game grounds ...	1,415	325
Playgrounds .....	7,346	240
Swimming pools, indoor ..	1,615	1,607
Swimming pools, outdoor ....	2,093	87
Gymnasiums .....	6,949	356
<i>Judo</i> and <i>Kendo</i> gyms .....	2,364	405
Tennis courts, indoor .....	194	322
Tennis courts, outdoor .....	4,963	886
Physical training gyms .....	1,681	1,479
Dance halls .....	113	1,269
Golf courses .....	162	2,182
Golf practice ranges .....	28	1,641
Camping sites .....	1,565	379
Gate ball and croquet fields ..	2,030	139

Source: Ministry of Education, Culture, Sports, Science and Technology.

Today, in order to develop a society where people have the freedom to continue learning throughout their lives, efforts are being made to develop learning opportunities such as school education, social education, cultural activities, sports activities, recreational activities, volunteer activities, and corporate in-house education. In providing places and opportunities for such lifelong learning, educational institutions, social education facilities (public halls, libraries, museums, etc.) and sports facilities play a vital role.

### 3. Leisure Activities

The results of the 2011 Survey on Time Use and Leisure Activities conducted with people aged 10 and over show that the per-day average amount of free time was 6 hours and 27 minutes, which is the time remaining after activities that are physiologically necessary (sleeping, eating, etc.) and societally essential (work, housework, etc.). It was found that 1 hour and 14 minutes of free time was spent on hobbies, sports, learning for personal development, volunteer activities, etc.

**Table 16.5**  
**Major Leisure Activities by Gender (10 years old and over) (2011)**

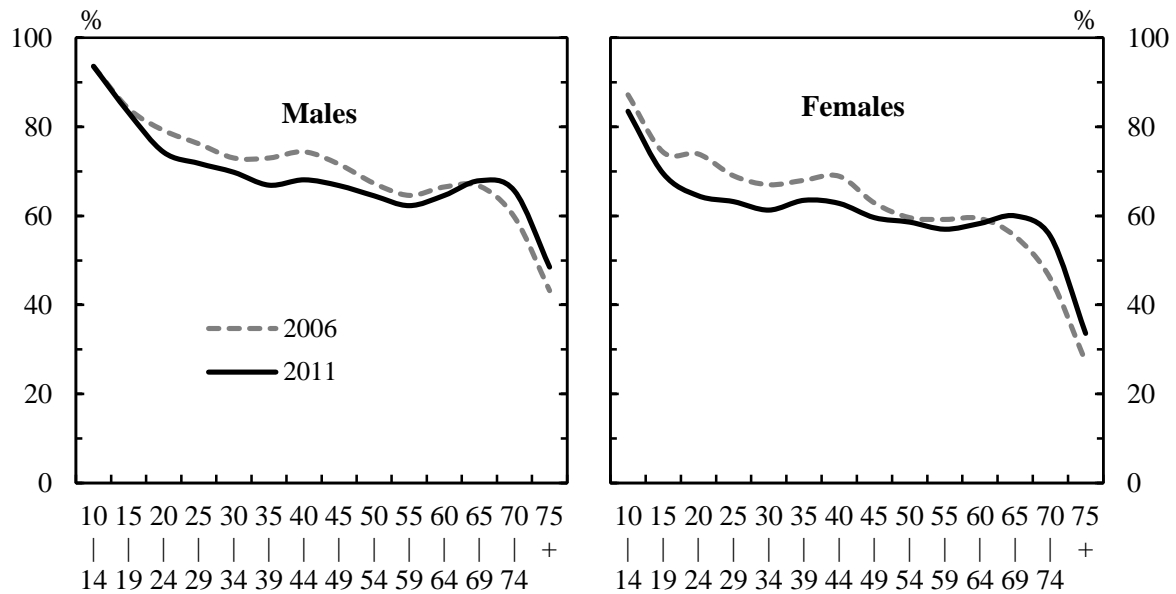
Leisure Activities	Total	Males	Females
Free time per day (hours and minutes) .....	6:27	6:38	6:16
Active leisure time (hours and minutes) .....	1:14	1:28	1:04
Participation rate (%) <sup>1)</sup>			
Hobbies and amusements .....	84.8	84.8	84.9
Sports <sup>2)</sup> .....	63.0	67.9	58.3
Learning, self-education and training <sup>2)</sup> .....	35.2	34.3	36.1
Travel (domestic) <sup>3)</sup> .....	57.9	57.2	58.6
Travel (abroad) <sup>3)</sup> .....	8.9	8.5	9.2
Volunteer activities .....	26.3	24.5	27.9

1) Total participants / Population (10 years old and over) × 100 2) Excluding school and professional activities. 3) Excluding day trips.

Source: Statistics Bureau, MIC.

The participation rate (percentage of people who engaged in the activity within the past 12 months) for "sports" was 63.0 percent. The most popular sport for both genders was "walking or light physical exercise" (men: 31.1 percent; women: 39.2 percent). Other popular sports for men were "bowling" (15.1 percent) and "golf (including golf practice range)" (13.7 percent). For women, such sports were "bowling" (10.6 percent) and "swimming" (9.7 percent). The participation rate for "learning, self-education, and training (excluding school and professional activities)" was 35.2 percent. Men preferred "computing etc." (14.8 percent) and "foreign language" (11.0 percent), while women preferred "cooking, sewing or home management, etc." (12.6 percent), as well as "arts and culture" (12.3 percent).

**Figure 16.4**  
**Participation Rates for Sports by Gender and Age Group**



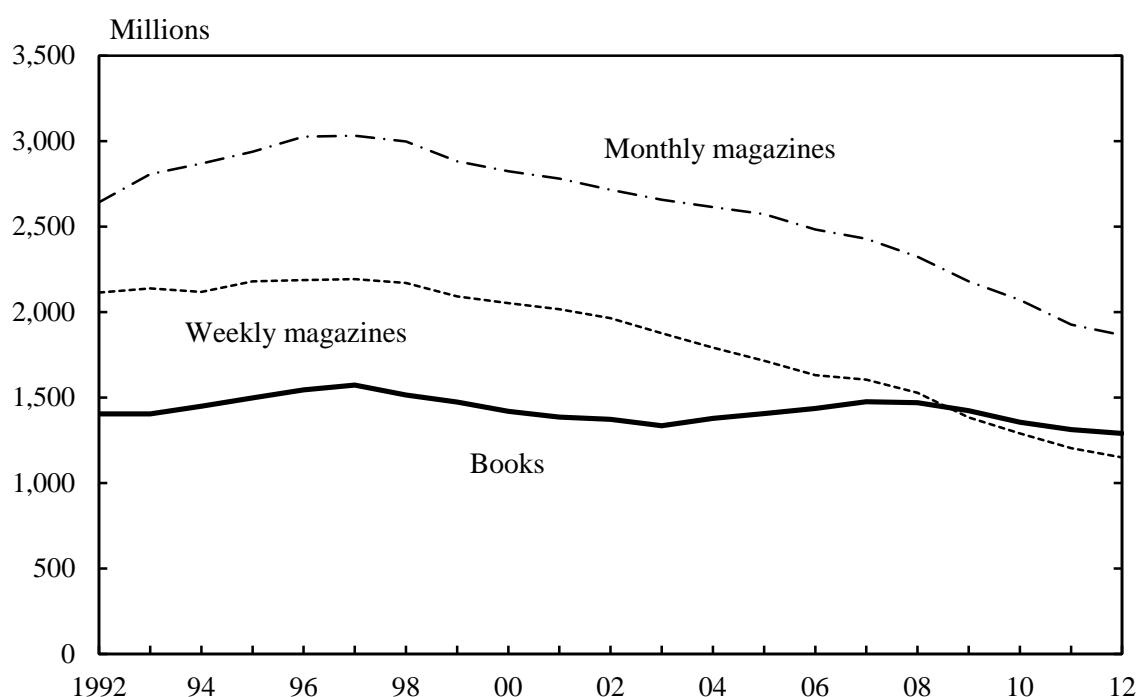
Source: Statistics Bureau, MIC.

## 4. Publishing and Mass Media

The total number of books and magazines published in Japan during 2012 was 1.29 billion and 3.01 billion, respectively, of which 1.86 billion were monthlies and 1.15 billion were weeklies.

A total of 82,200 new book titles were released in 2012. The number of magazine titles published was 3,936 (including 2,184 monthlies and 104 weeklies) at the end of March 2013. In recent years, the spread of electronic media, such as the Internet and e-books, that compete with traditional print media has had a heavy impact. The publishing industry is facing a major turning point.

**Figure 16.5**  
**Trends in Number of Publications**



Source: Shuppan News Co., Ltd.



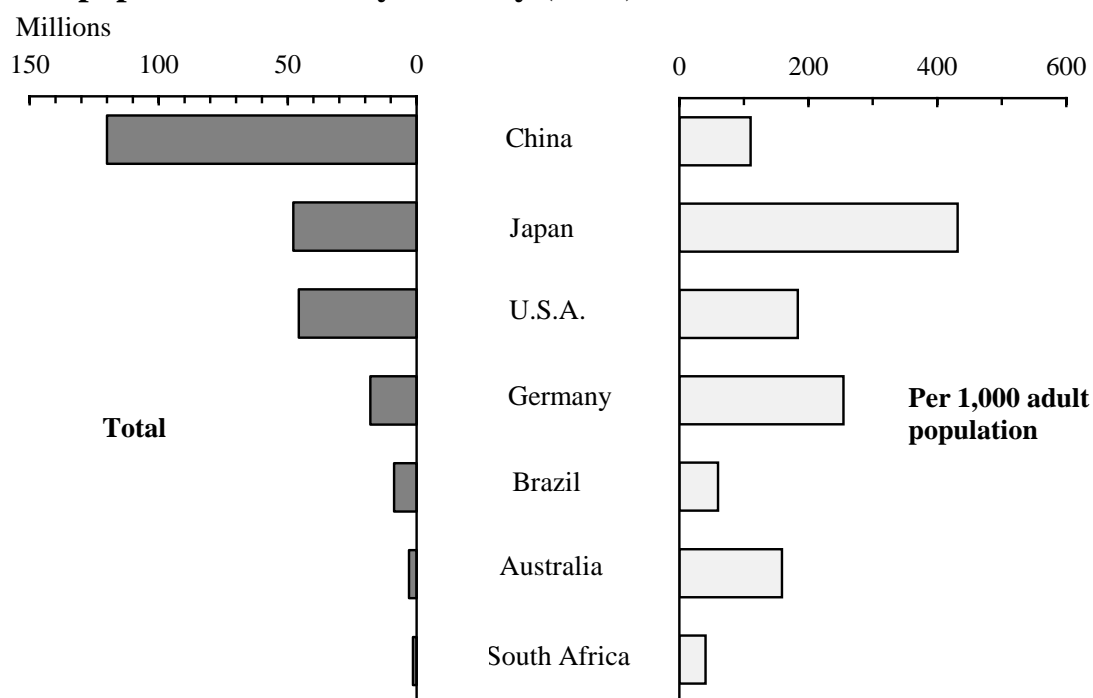
**Table 16.6**  
**Number of New Publications**

Subject	(Titles)				
	2000	2005	2010	2011	2012
Total .....	65,065	78,304	77,773	78,863	82,200
General works .....	2,587	2,551	2,080	1,912	1,981
Philosophy .....	2,997	3,763	4,381	4,292	4,342
General history .....	4,634	5,102	4,969	4,655	4,847
Social sciences .....	14,099	16,201	15,757	15,732	16,094
Natural sciences .....	5,218	6,226	6,780	6,668	6,935
Technology and engineering ..	6,105	8,104	8,499	8,583	9,104
Industry and commerce .....	3,000	3,337	3,478	3,456	3,631
Art .....	8,895	10,884	11,535	12,454	12,763
Languages .....	1,766	2,063	1,884	1,948	2,053
Literature .....	11,484	13,595	12,879	12,989	13,893
Children's books .....	3,334	5,064	4,675	4,592	4,898
School textbooks .....	946	1,414	856	1,582	1,659

Source: Shuppan News Co., Ltd.

A total of 117 daily newspapers were in circulation, and the penetration was 0.86 newspapers per household as of October 2013.

**Figure 16.6**  
**Newspaper Circulation by Country (2012)**

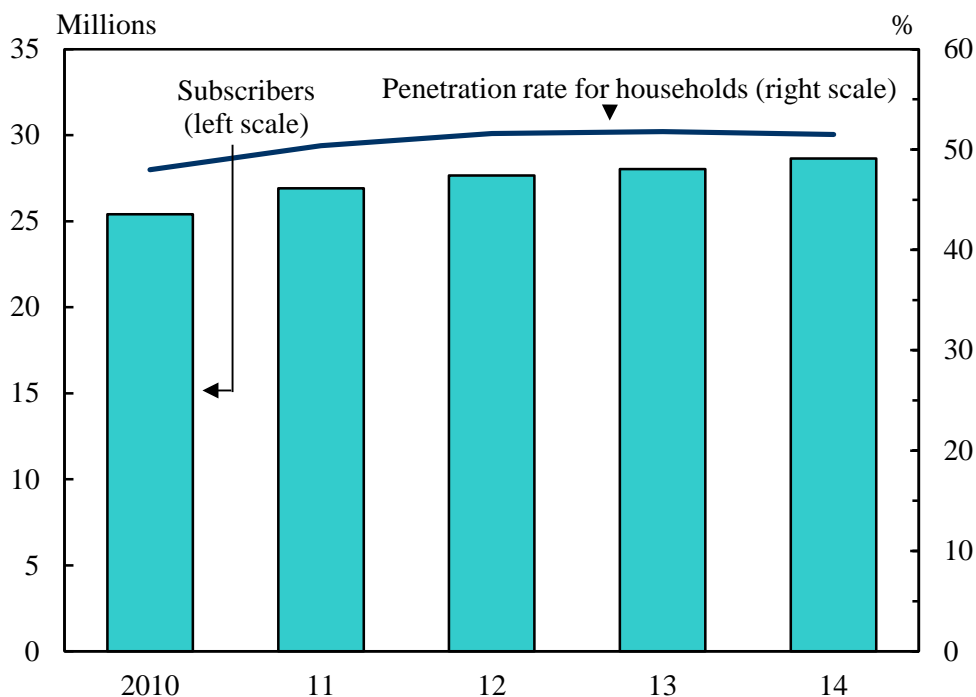


Source: World Association of Newspapers and News Publishers.

Japan has a public broadcasting network (NHK: Nippon Hoso Kyokai, or Japan Broadcasting Corporation), as well as commercial networks. NHK was the pioneer broadcasting station, and has been funded through fees paid by subscribers.

Major broadcasting services can be divided roughly into three categories: terrestrial, satellite, and cable television. Terrestrial digital broadcasting was launched in some areas of the Kanto, Kinki and Chukyo regions in December 2003 and then also in other areas, including all prefectural capitals, in December 2006. As of March 31, 2012, analog broadcasting ended and was completely replaced with terrestrial digital broadcasting in all parts of Japan. Satellite broadcasters offer an increasing number of channels through, for example, new digital broadcasting which began in March 2002.

**Figure 16.7**  
**Subscribers of Cable Television Service <sup>1)</sup>**



1) As of March each year.

Source: Ministry of Internal Affairs and Communications.

Subscribers of cable television services have increased to 28.6 million households, or 51.5 percent of all households in March 2014.

In 2013, advertising expenditures in the four major mass media types in Japan (newspapers, magazines, radio and television) totaled 2.8 trillion yen, which marked an increase for the second consecutive year. This accounted for 46.6 percent of total 2013 advertising expenditures, which were 6.0 trillion yen. Internet advertising expenditure made up 15.7 percent, up 8.1 percent from the previous year.

**Table 16.7**  
**Advertising Expenditures by Medium**

Year	Total	News- papers	Maga- zines	Radio	Tele- vision	Satellite media- related	Internet	Others
<b>Advertising expenditures (billion yen)</b>								
2005	6,823.5	1,037.7	484.2	177.8	2,041.1	48.7	377.7	2,656.3
2010	5,842.7	639.6	273.3	129.9	1,732.1	78.4	774.7	2,214.7
2011	5,709.6	599.0	254.2	124.7	1,723.7	89.1	806.2	2,112.7
2012	5,891.3	624.2	255.1	124.6	1,775.7	101.3	868.0	2,142.4
2013	5,976.2	617.0	249.9	124.3	1,791.3	111.0	938.1	2,144.6
<b>Percentage distribution (%)</b>								
2005	100.0	15.2	7.1	2.6	29.9	0.7	5.6	38.9
2010	100.0	11.0	4.7	2.2	29.6	1.3	13.3	37.9
2011	100.0	10.5	4.4	2.2	30.2	1.6	14.1	37.0
2012	100.0	10.6	4.3	2.1	30.2	1.7	14.7	36.4
2013	100.0	10.3	4.2	2.1	30.0	1.8	15.7	35.9

Source: Dentsu Inc.

## 5. Cultural Assets

As a country with a long history, Japan has been endowed with an abundance of valuable cultural assets, including works of art, historic landmarks, and many natural monuments. To pass on this cultural heritage to future generations, the Japanese government has accorded many of the most important assets as national treasures, designated important cultural properties, historic sites, places of scenic beauty, or natural monuments, based on the Act on Protection of Cultural Properties. The government has also been engaged in efforts to preserve and repair existing cultural assets, search for and recover other buried artifacts and restore historic landmarks.

**Table 16.8**  
**Cultural Properties Designated by the National Government**  
 (as of May 1, 2014)

Type of cultural properties	Number	
Designated important cultural properties .....	12,936	a) 1,089
Fine and applied arts .....	10,524	a) 871
Buildings .....	2,412	a) 218
Historic sites, places of scenic beauty and natural monuments .....	3,113	b) 172
Historic sites .....	1,724	b) 61
Places of scenic beauty .....	378	b) 36
Natural monuments .....	1,011	b) 75
Important tangible folk cultural properties .....	214	
Important intangible folk cultural properties .....	286	
Important intangible cultural properties		
Recognized individuals .....	77	
Performing arts .....	38	
Craft techniques .....	39	
Recognized holding groups .....	26	
Performing arts .....	12	
Craft techniques .....	14	
Traditional building preservation areas .....	106	

a) National treasures only. b) Specially designated places only.

Source: Ministry of Education, Culture, Sports, Science and Technology.

As of May 1, 2014, 12,936 items were assigned as designated important cultural properties, of which 1,089 were classified as national treasures. In addition, the government has provided support for such activities as theatrical performances, music, handicrafts and other important intangible cultural properties. It also has worked to preserve important folk-cultural

properties such as annual cultural events and folk performing arts, as well as to train people to carry on such traditions.

Japan ratified the UNESCO World Heritage Convention (the Convention Concerning the Protection of the World Cultural and Natural Heritage) in 1992.

In June 2013, "Fujisan [Mt. Fuji], Sacred Place and Source of Artistic Inspiration" straddling the border between Yamanashi and Shizuoka Prefectures, were designated as Japan's 17th World Heritage Site. A graceful, conical stratovolcano, Mt. Fuji is Japan's highest mountain. It is famed worldwide as a symbol of Japan. The mountain inspired the development of the Japanese belief in sacred mountains, as well as unique Japanese artistic culture with outstanding universal value, such as *ukiyo-e* by KATSUSHIKA Hokusai and UTAGAWA Hiroshige, which were influential far beyond Japan's borders in the late 19th century.

Subsequently, in June 2014, "Tomioka Silk Mill and Related Sites" in Gunma Prefecture were designated as Japan's 18th World Heritage Site. The Tomioka Silk Mill was a government-run mechanical silk mill established by the Meiji Government in 1872. The timber-frame cocoon warehouse and silk mill, which were constructed by blending Japanese and European techniques, remain in nearly their original condition. Even after privatization, silk reeling continued to be carried out, and as the cutting edge in silk-reeling technology development, the Tomioka Silk Mill raised the Japanese silk cultivation and silk reeling industry to the world's top level. Heritage site possesses constituent elements that represent the process of a technological revolution in silk reeling and silk cultivation, which supports silk reeling, and also conveys the entire raw silk production process to the present day.

**Table 16.9**  
**Heritage Sites Inscribed on the World Heritage List** (as of June 25, 2014)

Year	Type of heritage	World heritage	Prefecture
1993	Cultural	Buddhist Monuments in the Horyu-ji Area	Nara
	Cultural	Himeji-jo (castle)	Hyogo
	Natural	Yakushima (island)	Kagoshima
	Natural	Shirakami-Sanchi (mountains)	Aomori, Akita
1994	Cultural	Historic Monuments of Ancient Kyoto	Kyoto, Shiga
1995	Cultural	Historic Villages of Shirakawa-go and Gokayama	Gifu, Toyama
1996	Cultural	Hiroshima Peace Memorial (Genbaku Dome)	Hiroshima
	Cultural	Itsukushima Shinto Shrine	Hiroshima
1998	Cultural	Historic Monuments of Ancient Nara	Nara
1999	Cultural	Shrines and Temples of Nikko	Tochigi
2000	Cultural	Gusuku Sites and Related Properties of the Kingdom of Ryukyu	Okinawa
2004	Cultural	Sacred Sites and Pilgrimage Routes in the Kii Mountain Range	Mie, Nara, Wakayama
2005	Natural	Shiretoko (peninsula)	Hokkaido
2007	Cultural	Iwami Ginzan Silver Mine and its Cultural Landscape	Shimane
2011	Natural	Ogasawara Islands	Tokyo
	Cultural	Hiraizumi-Temples, Gardens and Archaeological Sites Representing the Buddhist Pure Land	Iwate
2013	Cultural	Fujisan, Sacred Place and Source of Aristic Inspiration	Shizuoka, Yamanashi
2014	Cultural	Tomioka Silk Mill and Related Sites	Gunma

Source: Ministry of Education, Culture, Sports, Science and Technology.

In 2006, the UNESCO Convention for the safeguarding of the intangible cultural heritage entered into force. As of December 2013, Japan has 22 entries on its list, including: *Nogaku* Theater, *Ningyo Johruri Bunraku* Puppet Theater, *Kabuki* Theater (the kind of *Kabuki* performed using a traditional method of acting and directing), and *Washoku*, the traditional dietary culture of the Japanese, notably for the celebration of the New Year.

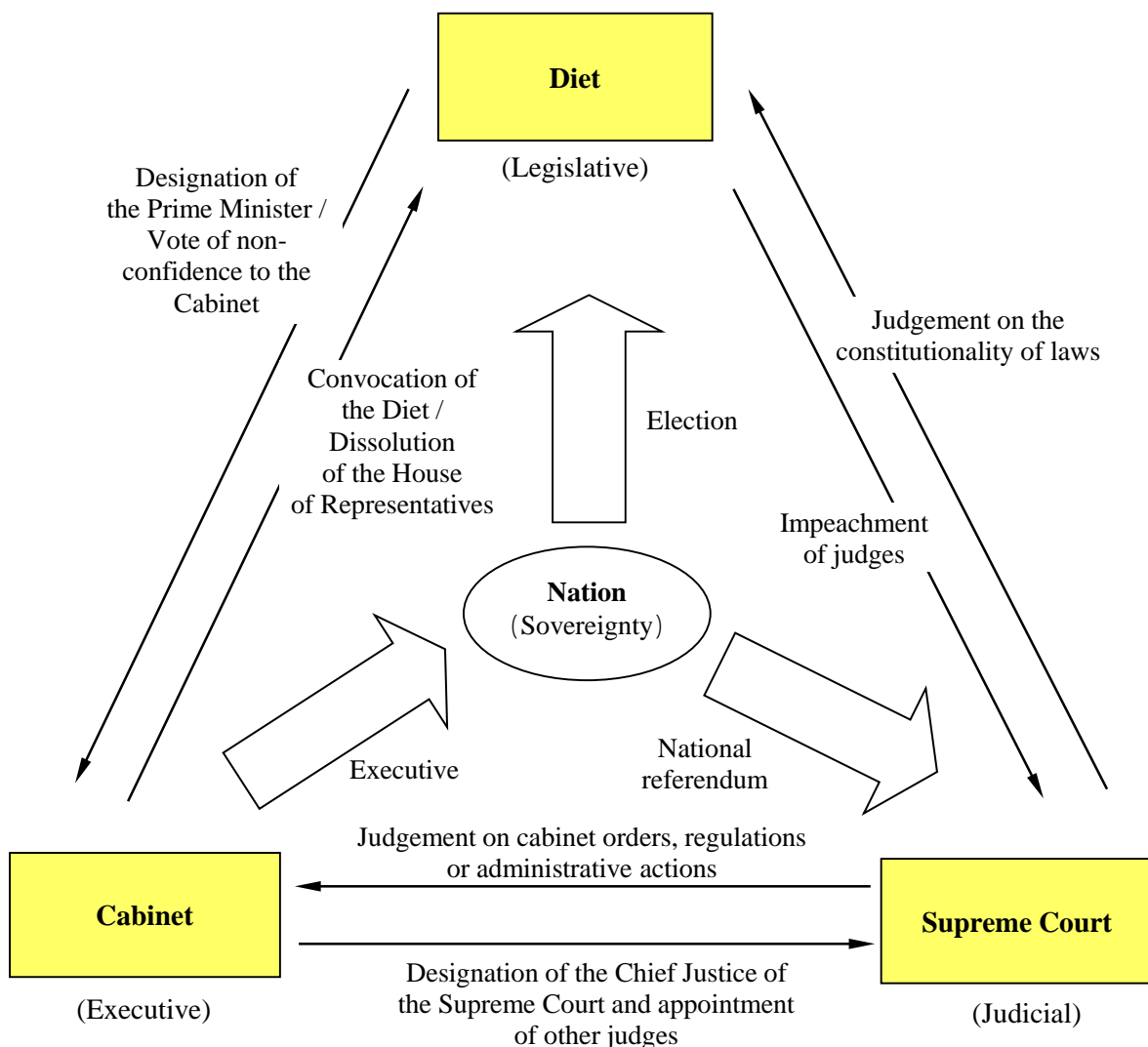
# **Chapter 17**

## **Government System**

# 1. Division of Powers

The Japanese Constitution, which went into effect on May 3, 1947, is based on three core principles: sovereignty of the people, respect for fundamental human rights and pacifism. To control governmental power effectively through checks and balances, governmental power is separated into three independent branches: legislative, executive and judicial, and each contains a separate set of agencies and personnel.

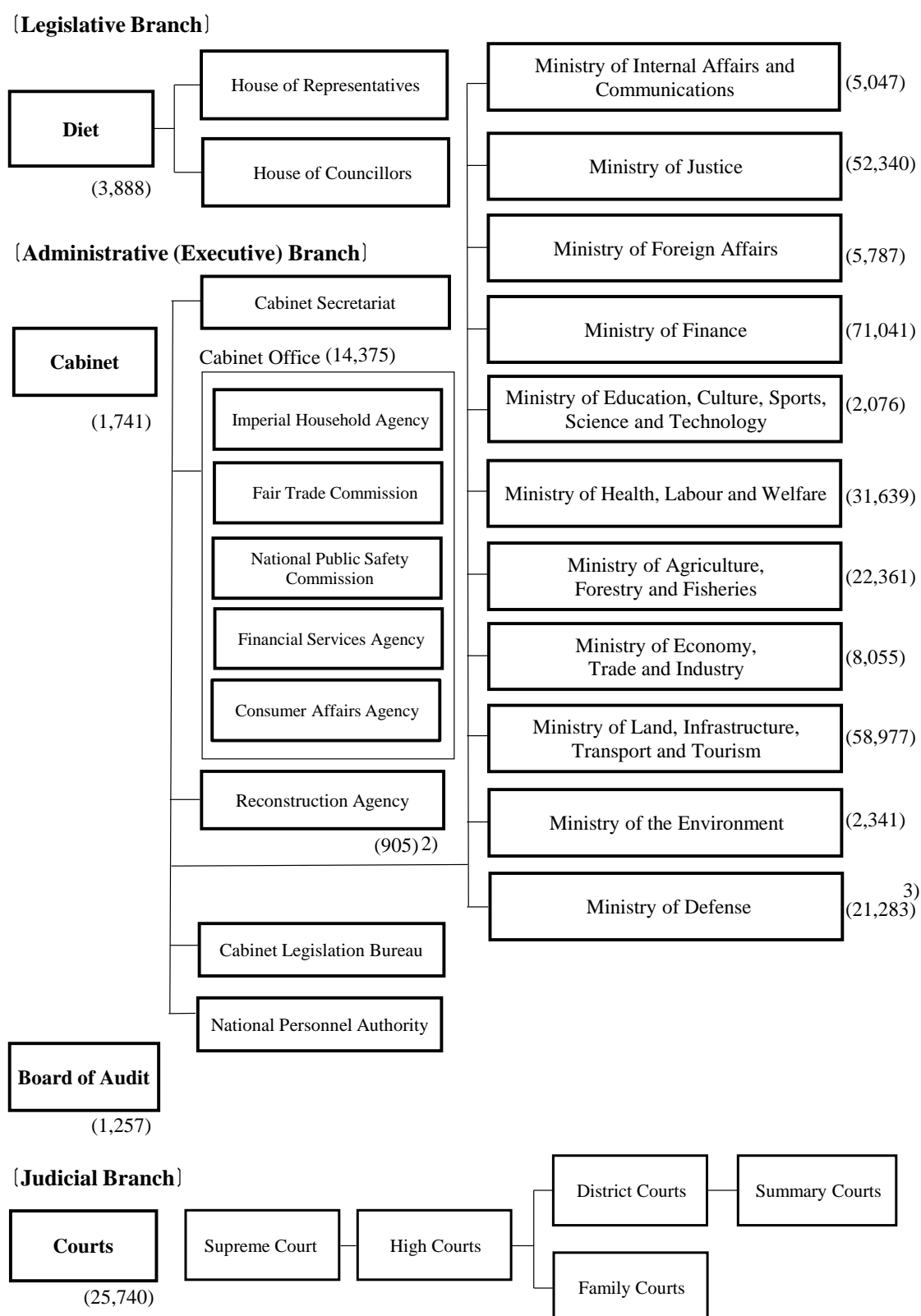
**Figure 17.1**  
**Separation of the Three Branches of Government**  
**under the Japanese Constitution**



Source: Prime Minister of Japan and His Cabinet.



**Figure 17.2**  
**Government Organization of Japan** <sup>1)</sup> (FY2014)



1) Figures in parentheses refer to budgetary fixed number of national government employees. 2) Of the 905 employees, 186 are from the Reconstruction Agency and 719 are from other ministries. 3) Excluding the number of the personnel of the Self-Defense Forces.

Source: Ministry of Internal Affairs and Communications; Ministry of Finance.

## **2.The Legislative Branch**

The Diet is the highest organ of state power, and is the sole law-making organ of the State. The Diet consists of the House of Representatives and the House of Councillors. Both Houses consist of elected members, representative of all the people.

The most important responsibility of the Diet is to enact legislation. The Diet also has the authority to fulfill a number of additional functions, including the deliberation and passage of the budget and other matters of fiscal importance, the approval of treaties, the designation of the Prime Minister and the initiation of motions to amend the Constitution. Each House may conduct investigations relating to the government, and demand the presence and testimony of witnesses, and the production of records. For the Diet to pass a resolution, the agreement of both Houses of the Diet is necessary. However, when the two Houses differ in their resolutions regarding legislative bills, draft budgets, the approval of treaties or the designation of the Prime Minister, under the terms of the Constitution, decision of the House of Representatives overrides that of the House of Councillors.

The term of office for Diet members is set by the Constitution. Members of the House of Representatives serve a four-year term, while members of the House of Councillors, six years. Elections for the latter are held every three years, so that one half of the seats are contested in each election.

The House of Representatives has 480 members. Of these, 300 are elected under a single-seat constituency system, while 180 are elected under a proportional representation system in which the nation is divided into 11 regions. The last general election was held in December 2012. The House of Councillors has 242 members, of whom 96 are elected through proportional representation, and 146 are elected as representatives from 47 electoral districts of the nation, i.e. prefectures. The last regular election was held in July 2013.

All Japanese citizens, both men and women, aged 20 years or older, have the right to vote in elections for both Houses of the Diet. Furthermore, both men and women above the qualifying age are eligible to run in elections. The qualifying age for members of the House of Representatives is 25 years or older, while the qualifying age for members of the House of Councillors is 30 years or older.

**Table 17.1**  
**Number of the Diet Members by Political Group**

House of Representatives (as of May 16, 2014)			House of Councillors (as of June 5, 2014)		
Membership 480, Vacancies 0			Membership 242, Vacancies 0		
Name	Males	Females	Name	Males	Females
Incumbents .....	441	39	Incumbents .....	203	39
Liberal Democratic Party .....	271	23	Liberal Democratic Party .....	97	17
The Democratic Party of Japan, and Club of Independents .....	52	3	The Democratic Party of Japan, and The Shin-Ryokufukai .....	49	9
Japan Restoration Party .....	48	5	New Komeito .....	17	3
New Komeito .....	28	3	Japan Restoration Party and Unity Party .....	13	1
Your Party .....	9	0	Your Party .....	11	2
Unity Party .....	9	0	Japanese Communist Party .....	7	4
Japanese Communist Party .....	7	1	Social Democratic Party .....	2	1
People's Life Party .....	5	2	New Renaissance Party and Group of Independents .....	3	0
Social Democratic Party .....	2	0	People's Life Party .....	1	1
Independents .....	10	2	Independents .....	3	1

Source: House of Representatives; House of Councillors.

### 3. The Executive Branch

The Cabinet exercises its executive power on the basis of the laws and budgets adopted by the Diet. The Cabinet, composed of the Prime Minister and other Ministers of State, is collectively responsible to the Diet, regarding the exercise of the executive power. The Prime Minister is elected in the Diet from among its members. The majority of the ministers of state to be appointed by the Prime Minister must be Diet members. Thus, Japan adopts the parliamentary Cabinet system, in which the organization and existence of the Cabinet rest on the confidence in the Diet.

The Cabinet's powers include the following: (i) implementing laws; (ii) engaging in foreign diplomacy; (iii) signing treaties; (iv) overseeing the operational affairs of public officers; (v) formulating a budget and submitting it to the Diet; (vi) enacting Cabinet orders; and (vii) deciding amnesty. In addition, the Cabinet powers also include naming the Chief Justice of the Supreme Court and appointing other judges. The Cabinet also gives advice and approval to the Emperor in matters of state, and bears the responsibility for this.

**Table 17.2**  
**Successive Prime Ministers**

Date <sup>1)</sup>	Name	Date <sup>1)</sup>	Name
Dec. 26, 2012	Shinzo ABE	Apr. 26, 2001	Junichiro KOIZUMI
Sep. 2, 2011	Yoshihiko NODA	Apr. 5, 2000	Yoshiro MORI
Jun. 8, 2010	Naoto KAN	Jul. 30, 1998	Keizo OBUCHI
Sep. 16, 2009	Yukio HATOYAMA	Jan. 11, 1996	Ryutaro HASHIMOTO
Sep. 24, 2008	Taro ASO	Jun. 30, 1994	Tomiichi MURAYAMA
Sep. 26, 2007	Yasuo FUKUDA	Apr. 28, 1994	Tsutomu HATA
Sep. 26, 2006	Shinzo ABE	Aug. 9, 1993	Morihiro HOSOKAWA

1) Date of initial cabinet formation.

Source: Prime Minister of Japan and His Cabinet.

## 4. The Judicial Branch

Judicial power resides in the courts and is independent from the executive branch and the legislative branch.

The Constitution provides for the establishment of the Supreme Court as the highest court with final judgment, while the Court Act provides for four lower-level courts (High Court, District Court, Family Court and Summary Court). At present, there are eight High Courts, 50 District Courts, 50 Family Courts and 438 Summary Courts throughout the nation.

To ensure fair judgments, Japan uses a three-tiered judicial system. The first courts in the court hierarchy are the District Courts, the second being the High Courts, and the highest court being the Supreme Court. The system allows a case to be heard and ruled on up to three times in principle, should a party involved in the case so desire. The Summary Courts and Family Courts handle simple cases, domestic relations and cases involving juveniles as first instances.

The Supreme Court has the authority to deliver the final judgment on the legitimacy of any law, ordinance, regulation, or disposition. It is chaired by the Chief Justice and 14 judges.

A new *saiban-in* (lay judge) system began in May 2009. This is a system under which citizens participate in criminal trials as judges to determine, together with professional judges, whether the defendant is guilty or not and, if found guilty, what sentence should apply. What is hoped for is that the public's participation in criminal trials will make citizens feel more involved in the justice process and make the trials easier to understand,

thus leading to the public's greater trust in the justice system. A total of 6,060 people were tried in *saiban-in* trials held between the start of the system and December 2013.

**Table 17.3****Judicial Cases Newly Commenced, Terminated or Pending (All courts)**

(Thousands)

Year	Civil and administrative cases			Criminal cases <sup>1)</sup>		
	Commenced	Terminated	Pending	Commenced	Terminated	Pending
2000	3,052	3,062	780	1,638	1,636	43
2005	2,713	2,827	576	1,568	1,572	47
2010	2,179	2,241	536	1,158	1,161	36
2011	1,985	2,046	476	1,106	1,107	35
2012	1,708	1,751	433	1,099	1,101	32

Year	Domestic cases			Juvenile cases <sup>1)</sup>		
	Commenced	Terminated	Pending	Commenced	Terminated	Pending
2000	561	555	78	286	288	49
2005	718	713	99	237	238	32
2010	815	815	106	165	168	25
2011	816	815	107	153	153	25
2012	857	854	110	134	139	20

1) Persons involved.

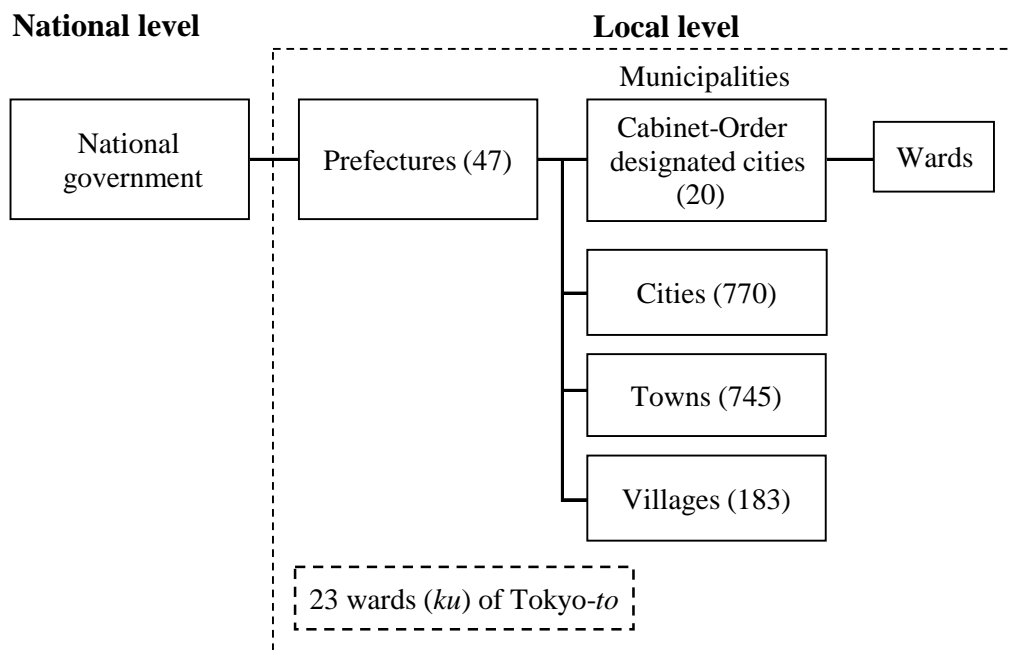
Source: Supreme Court.

## 5. Local Governments

The affairs of local governments are conducted on two levels in Japan: by the prefectures and by the municipalities within each prefecture. As of April 5, 2014, Japan has 47 prefectures, within which there are 1,718 municipalities, plus the 23 wards (*ku*) in metropolitan Tokyo. In order to strengthen the administrative and fiscal foundation of the municipalities, municipal mergers were promoted by law. Consequently, the number of municipalities was reduced by nearly half from the 3,232 existing at the end of March 1999.

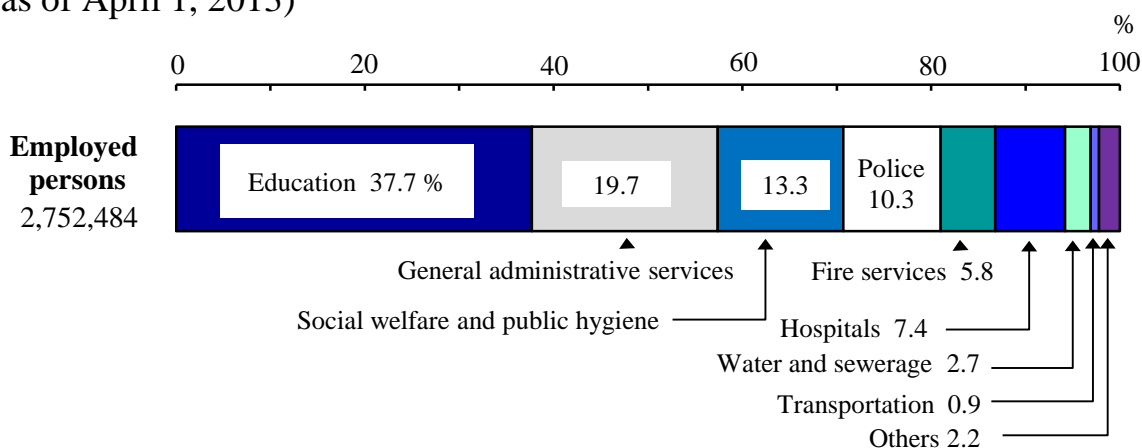
Municipalities that satisfy certain population criteria (i.e., 500,000 people or more) are eligible for designation as "Cabinet-Order designated cities." This designation gives them administrative and fiscal authority equivalent to those of prefectures. With the addition of Kumamoto-*shi* in April 2012, there are presently 20 cities that have earned this designation. (See the map on the inside back cover.)

**Figure 17.3**  
**Government System by Level** <sup>1)</sup> (as of April 5, 2014)



1) Figures in parentheses indicate number.  
 Source: Ministry of Internal Affairs and Communications.

**Figure 17.4**  
**Local Government Employees by Type of Administrative Services**  
 (as of April 1, 2013)



Source: Ministry of Internal Affairs and Communications.

## Appendix 1

### Population, Surface Area and Population Density by Prefecture

Prefectures	Prefectural capital cities	Population (1,000)		Surface area (km <sup>2</sup> )		Population density (per km <sup>2</sup> )	
		2010 <sup>1)</sup>	2013 <sup>2)</sup>	Total area		Inhabitable	
				2013	2012	2012	2012
Japan .....		128,057	127,298	377,962	122,156	342	1,044
Hokkaido .....	Sapporo- <i>shi</i>	5,506	5,431	83,457	22,207	70	246
Aomori- <i>ken</i> .....	Aomori- <i>shi</i>	1,373	1,335	9,645	3,233	140	418
Iwate- <i>ken</i> .....	Morioka- <i>shi</i>	1,330	1,295	15,279	3,694	85	353
Miyagi- <i>ken</i> .....	Sendai- <i>shi</i>	2,348	2,328	7,286	3,145	319	739
Akita- <i>ken</i> .....	Akita- <i>shi</i>	1,086	1,050	11,636	3,194	91	333
Yamagata- <i>ken</i> ....	Yamagata- <i>shi</i>	1,169	1,141	9,323	2,855	124	404
Fukushima- <i>ken</i> ...	Fukushima- <i>shi</i>	2,029	1,946	13,783	4,229	142	464
Ibaraki- <i>ken</i> .....	Mito- <i>shi</i>	2,970	2,931	6,096	3,982	483	739
Tochigi- <i>ken</i> .....	Utsunomiya- <i>shi</i>	2,008	1,986	6,408	2,982	311	668
Gunma- <i>ken</i> .....	Maebashi- <i>shi</i>	2,008	1,984	6,362	2,301	313	866
Saitama- <i>ken</i> .....	Saitama- <i>shi</i>	7,195	7,222	3,798	2,574	1,899	2,802
Chiba- <i>ken</i> .....	Chiba- <i>shi</i>	6,216	6,192	5,157	3,532	1,201	1,754
Tokyo- <i>to</i> .....	Tokyo ( <i>ku</i> -area)	13,159	13,300	2,189	1,392	6,045	9,503
Kanagawa- <i>ken</i> ...	Yokohama- <i>shi</i>	9,048	9,079	2,416	1,467	3,753	6,180
Niigata- <i>ken</i> .....	Niigata- <i>shi</i>	2,374	2,330	12,584	4,504	187	521
Toyama- <i>ken</i> .....	Toyama- <i>shi</i>	1,093	1,076	4,248	1,853	255	584
Ishikawa- <i>ken</i> .....	Kanazawa- <i>shi</i>	1,170	1,159	4,186	1,389	278	837
Fukui- <i>ken</i> .....	Fukui- <i>shi</i>	806	795	4,190	1,074	191	744
Yamanashi- <i>ken</i> ..	Kofu- <i>shi</i>	863	847	4,465	952	191	895
Nagano- <i>ken</i> .....	Nagano- <i>shi</i>	2,152	2,122	13,562	3,314	157	643
Gifu- <i>ken</i> .....	Gifu- <i>shi</i>	2,081	2,051	10,621	2,200	194	937
Shizuoka- <i>ken</i> .....	Shizuoka- <i>shi</i>	3,765	3,723	7,781	2,754	480	1,357
Aichi- <i>ken</i> .....	Nagoya- <i>shi</i>	7,411	7,443	5,165	2,975	1,438	2,496
Mie- <i>ken</i> .....	Tsu- <i>shi</i>	1,855	1,833	5,777	2,044	319	900
Shiga- <i>ken</i> .....	Otsu- <i>shi</i>	1,411	1,416	4,017	1,297	352	1,091
Kyoto- <i>fu</i> .....	Kyoto- <i>shi</i>	2,636	2,617	4,613	1,177	569	2,230
Osaka- <i>fu</i> .....	Osaka- <i>shi</i>	8,865	8,849	1,901	1,320	4,658	6,707
Hyogo- <i>ken</i> .....	Kobe- <i>shi</i>	5,588	5,558	8,396	2,775	664	2,007
Nara- <i>ken</i> .....	Nara- <i>shi</i>	1,401	1,383	3,691	851	377	1,633
Wakayama- <i>ken</i> ..	Wakayama- <i>shi</i>	1,002	979	4,726	1,096	209	902
Tottori- <i>ken</i> .....	Tottori- <i>shi</i>	589	578	3,507	911	166	639
Shimane- <i>ken</i> .....	Matsue- <i>shi</i>	717	702	6,708	1,288	105	549
Okayama- <i>ken</i> .....	Okayama- <i>shi</i>	1,945	1,930	7,113	2,227	272	869
Hiroshima- <i>ken</i> ...	Hiroshima- <i>shi</i>	2,861	2,840	8,480	2,291	336	1,243
Yamaguchi- <i>ken</i> ..	Yamaguchi- <i>shi</i>	1,451	1,420	6,114	1,716	234	834
Tokushima- <i>ken</i> ..	Tokushima- <i>shi</i>	785	770	4,147	1,024	187	758
Kagawa- <i>ken</i> .....	Takamatsu- <i>shi</i>	996	985	1,877	1,003	527	986
Ehime- <i>ken</i> .....	Matsuyama- <i>shi</i>	1,431	1,405	5,679	1,667	249	849
Kochi- <i>ken</i> .....	Kochi- <i>shi</i>	764	745	7,105	1,161	106	648
Fukuoka- <i>ken</i> .....	Fukuoka- <i>shi</i>	5,072	5,090	4,979	2,776	1,021	1,832
Saga- <i>ken</i> .....	Saga- <i>shi</i>	850	840	2,440	1,333	346	632
Nagasaki- <i>ken</i> .....	Nagasaki- <i>shi</i>	1,427	1,397	4,106	1,634	343	862
Kumamoto- <i>ken</i> ..	Kumamoto- <i>shi</i>	1,817	1,801	7,405	2,732	244	661
Oita- <i>ken</i> .....	Oita- <i>shi</i>	1,197	1,178	6,340	1,746	187	679
Miyazaki- <i>ken</i> .....	Miyazaki- <i>shi</i>	1,135	1,120	7,736	1,846	146	610
Kagoshima- <i>ken</i> ..	Kagoshima- <i>shi</i>	1,706	1,680	9,189	3,271	184	517
Okinawa- <i>ken</i> .....	Naha- <i>shi</i>	1,393	1,415	2,277	1,168	619	1,206

1) Population census. 2) Population estimates.

Source: Statistics Bureau, MIC; Ministry of Land, Infrastructure, Transport and Tourism.

## Appendix 2

### Main Economic Indicators of Selected Countries

Item	Year	Japan	Argentina	Australia	Brazil	Canada
Population (thousands)	2011	127,799	40,729	22,741	196,935	34,487
	2012	127,515	41,087	23,050	198,656	34,838
	2013	127,298	41,446	23,343	200,362	35,182
	Projection (medium variant)	2050	97,076	51,024	33,735	231,120
Employed persons (1,000)	2012	a 63,110	b 15,702	11,515	94,713	17,508
Unemployed persons (1,000)	2012	a 2,650	b 1,242	636	6,266	1,368
Unemployment rates (%)	2012	a 4.0	b 7.3	5.2	6.2	7.2
Hours of work per week (manufacturing)	2012	a 41.7	b 43.0	37.6	c 43.6	37.2
Industrial production index (2010=100)	2012	97.7	...	d 106.5	...	104.8
	2013	96.9	...	...	...	106.1
Gross domestic product (US\$ billion)	2011	5,913	448	1,521	2,477	1,779
	2012	5,936	477	1,564	2,254	1,821
Wholesale price index (2005=100)	2012	ae 101.9	f 221.6	g 119.4	147.9	h 111.2
Consumer price index (2010=100)	2012	99.7	d 185.9	105.2	112.4	104.5
	2013	100.0	...	107.8	119.4	105.5
Broad money Percent changes from the previous year (%)	End of 2012	2.2	34.8	7.2	15.9	...
Imports, CIF (US\$ billion)	2012	885.6	68.5	260.9	228.4	469.6
Exports, FOB (US\$ billion)	2012	798.6	75.2	256.7	242.6	461.8
Gold and foreign exchange reserves (US\$ million)	End of 2012	1,228,471	40,028	45,081	369,682	68,371
Foreign exchange rates (national currency per US\$)		Yen	Pesos	Australian dollars	Reais	Canadian dollars
End of year	2012	86.32	4.8980	0.9611	2.0429	0.9952
Period average	2012	79.81	4.5369	0.9658	1.9528	0.9952

a) 2013. b) Urban areas only. c) 2007. d) 2005=100. e) 2010=100. f) Producer prices. g) Manufacturing output. h) Industry selling.



**Appendix 2****Main Economic Indicators of Selected Countries (Continued)**

Item	Year	China	Euro Area	France	Germany	India
Population (thousands)	2011	1,368,440	331,004	63,582	82,893	1,221,156
	2012	1,377,065	# 330,300	63,937	82,800	1,236,687
	2013	1,385,567	# 331,090	64,291	82,727	1,252,140
	Projection (medium variant)	2050	1,384,977	...	73,212	72,566
Employed persons (1,000)	2012	767,040	...	25,798	40,062	a 368,966
Unemployed persons (1,000)	2012	b 9,170	...	2,824	2,316	c 39,112
Unemployment rates (%)	2012	bc 4.2	...	9.9	5.5	...
Hours of work per week (manufacturing)	2012	bc 47.9	...	37.0	37.7	d 46.9
Industrial production index (2010=100)	2012	...	...	99.5	106.7	105.5
	2013	...	...	98.7	107.7	106.1
Gross domestic product (US\$ billion)	2011	7,314	...	2,782	3,628	1,923
	2012	8,358	...	2,611	3,426	1,875
Wholesale price index (2005=100)	2012	...	e 122.1	e 115.5	e 118.3	157.5
Consumer price index (2010=100)	2012	...	f 115.7	104.1	104.1	119.0
	2013	...	...	105.0	105.7	132.0
Broad money Percent changes from the previous year (%)	End of 2012	14.4	3.4	...	...	11.0
Imports, CIF (US\$ billion)	2012	1,817.8	2,014.8	663.5	1,168.7	488.8
Exports, FOB (US\$ billion)	2012	2,048.9	2,075.5	556.7	1,410.4	296.8
Gold and foreign exchange reserves (US\$ million)	End of 2012	3,332,943	g 351,189	58,443	73,288	271,551
Foreign exchange rates (national currency per US\$)		Yuan	Euros	Euros	Euros	Rupees
End of year	2012	6.2896	0.7579	0.7579	0.7579	54.777
Period average	2012	6.3123	0.7783	0.7783	0.7783	53.437

a) 2000. b) Urban areas. c) 2008. d) 2006. e) Producer prices. f) Harmonized CPI. g) Including European Central Bank.

## Appendix 2

### Main Economic Indicators of Selected Countries (Continued)

Item	Year	Indonesia	Italy	Korea, Rep. of	Mexico	Russia
Population (thousands)	2011	243,802	60,729	48,733	119,361	143,438
	2012	246,864	60,885	49,003	120,847	143,170
	2013	249,866	60,990	49,263	122,332	142,834
	Projection (medium variant)	2050	321,377	60,015	51,034	156,102
Employed persons (1,000)	2012	110,808	22,899	24,681	49,003	71,545
Unemployed persons (1,000)	2012	7,245	2,744	820	2,474	4,131
Unemployment rates (%)	2012	6.1	10.7	3.2	4.8	5.5
Hours of work per week (manufacturing)	2012	a 47.8	38.2	b 43.7	46.0	a 39.0
Industrial production index (2010=100)	2012	c 122.6	94.2	106.8	106.2	108.5
	2013	...	91.4	107.8	105.5	109.0
Gross domestic product (US\$ billion)	2011	846	2,197	1,114	1,170	1,899
	2012	878	2,013	1,130	1,184	2,030
Wholesale price index (2005=100)	2012	192.2	d 121.9	d 123.7	143.2	...
Consumer price index (2010=100)	2012	109.9	105.9	106.3	107.7	113.9
	2013	116.9	107.2	107.7	111.8	121.6
Broad money Percent changes from the previous year (%)	End of 2012	14.9	...	4.8	10.2	12.1
Imports, CIF (US\$ billion)	2012	191.0	487.2	461.8	389.3	369.0
Exports, FOB (US\$ billion)	2012	188.5	501.0	547.9	370.9	529.3
Gold and foreign exchange reserves (US\$ million)	End of 2012	108,966	54,739	323,353	160,628	488,233
Foreign exchange rates (national currency per US\$)		Rupiah	Euros	Won	Pesos	Rubles
End of year	2012	9,670.0	0.7579	1,070.6	13.010	30.373
Period average	2012	9,386.6	0.7783	1,126.5	13.169	30.840

a) 2010. b) 2008. c) 2005=100. Manufacturing production. d) Producer prices.

## Appendix 2

### Main Economic Indicators of Selected Countries (Continued)

Item	Year	Saudi Arabia	South Africa	Turkey	U.K.	U.S.A.
Population (thousands)	2011	27,762	51,949	73,059	62,427	314,912
	2012	28,288	52,386	73,997	62,783	317,505
	2013	28,829	52,776	74,933	63,136	320,051
	Projection (medium variant)	2050	40,388	63,405	94,606	73,131
Employed persons (1,000)	2012	10,390	13,523	24,819	29,428	142,469
Unemployed persons (1,000)	2012	608	4,541	2,202	2,511	12,506
Unemployment rates (%)	2012	5.5	25.1	8.2	7.9	8.1
Hours of work per week (manufacturing)	2012	54.4	43.2	51.9	39.7	a 40.8
Industrial production index (2010=100)	2012	...	...	112.8	96.4	107.3
	2013	...	...	116.3	96.0	110.4
Gross domestic product (US\$ billion)	2011	670	402	775	2,462	15,534
	2012	711	384	788	2,472	16,245
Wholesale price index (2005=100)	2012	125.9	166.6	b 160.5	c 128.0	d 128.4
Consumer price index (2010=100)	2012	108.9	111.0	115.9	107.4	105.3
	2013	112.7	117.3	124.6	110.2	106.8
Broad money Percent changes from the previous year (%)	End of 2012	16.5	5.2	10.4	0.8	4.8
Imports, CIF (US\$ billion)	2012	155.6	124.2	236.5	642.7	2,334.9
Exports, FOB (US\$ billion)	2012	386.0	87.4	152.5	474.6	1,546.8
Gold and foreign exchange reserves (US\$ million)	End of 2012	657,023	44,213	100,565	89,132	153,200
Foreign exchange rates (national currency per US\$)		Riyals	Rand	Liras	Pounds	U.S. dollars
End of year	2012	3.7500	8.5012	1.7819	0.6337	1.0000
Period average	2012	3.7500	8.2100	1.7960	0.6308	1.0000

a) 2008. b) 2011. c) Manufacturing output. d) Producer prices.

Source: Statistics Bureau, MIC; Cabinet Office; Ministry of Health, Labour and Welfare; Bank of Japan; United Nations; International Labour Organization; International Monetary Fund; EUROSTAT.

### Appendix 3 Foreign Exchange Rates <sup>1)</sup>

(Yen per U.S. dollar)

Year	Average	End of year
1995	94.06	102.91
1996	108.79	115.98
1997	121.00	129.92
1998	130.90	115.20
1999	113.91	102.08
2000	107.77	114.90
2001	121.53	131.47
2002	125.31	119.37
2003	115.93	106.97
2004	108.18	103.78
2005	110.16	117.48
2006	116.31	118.92
2007	117.76	113.12
2008	103.37	90.28
2009	93.54	92.13
2010	87.78	81.51
2011	79.81	77.57
2012	79.81	86.32
2013	97.63	105.37

1) Midpoint rate in the interbank foreign exchange market in Tokyo.

Source: Bank of Japan.

### Appendix 4 Conversion Factors

	Metric units	British Imperial and U.S. equivalents
Length:	1 centimeter (cm) .....	0.3937008 inches
	1 meter (m) .....	{ 3.280840 feet
	1 kilometer (km) .....	{ 1.093613 yards
Area:	1 square meter (m <sup>2</sup> ) .....	{ 10.763910 square feet
	1 square kilometer (km <sup>2</sup> ) .....	{ 1.195990 square yards
	1 hectare (ha)	} ..... 2.471054 acres
	10,000 square meters (m <sup>2</sup> )	
Volume:	1 cubic meter (m <sup>3</sup> ) .....	{ 35.31467 cubic feet
		{ 1.307951 cubic yards
Weight:	1 kilogram (kg) .....	{ 35.27396 ounces
		{ 2.204623 pounds
	1 ton (t) .....	{ 0.9842065 long tons
Capacity:		{ 1.1023113 short tons
	1 liter (ℓ) .....	{ 0.8798766 imp. quarts
Temperature:	centigrade ( ) .....	{ 1.056688 U.S. liq. quarts
		5/9 (Fahrenheit-32)