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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 2016

Masato AIDA
Director-General
Statistics Bureau
Ministry of Internal Affairs
and Communications
Japan

Notes for Users

1. The present issue basically contains statistics that became available by May 31, 2016.

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. 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

7. Data relating to "China" generally exclude those for Hong Kong SAR, Macao SAR and Taiwan.

8. 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

9. 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:

   Source: Statistical Handbook of Japan 2016, Statistics Bureau, Ministry of Internal Affairs and Communications, Japan.

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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 physiographical phenomena. Therefore, the number of earthquakes in the country is quite high, 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 (2015)
(Square kilometers)

District	Area
Japan	377,971
Honshu	a) 241,298
Hokkaido	83,424
Kyushu	44,826
Shikoku	a) 18,803
Okinawa	2,281

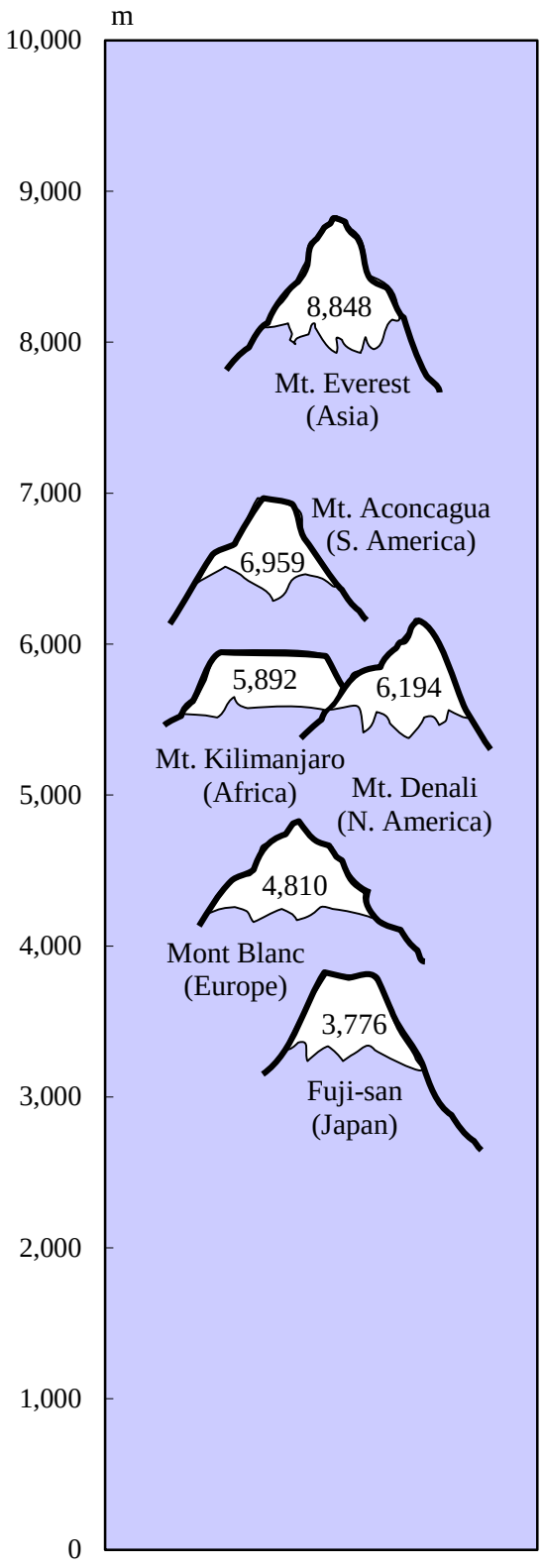
a) Excluding some areas of which boundaries are not yet fixed.
Source: Ministry of Land, Infrastructure, Transport and Tourism.

Table 1.2
Top 10 Countries According to Surface Area (2014) [1)]
(1,000 square kilometers)

Country	Area
World	136,162
Russia	17,098
Canada	9,985
U.S.A.	9,834
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 (2016)

(Meters)

Name	Height
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 (2014)

(Kilometers)

Name	Length
Shinano-gawa	367
Tone-gawa	322
Ishikari-gawa	268
Teshio-gawa	256
Kitakami-gawa	249
Abukuma-gawa	239
Kiso-gawa	229
Mogami-gawa	229
Tenryu-gawa	213
Agano-gawa	210

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

Table 1.5
Lakes (2015)

(Square kilometers)

Name	Area
Biwa-ko	669.2
Kasumi-ga-ura	168.2
Saroma-ko	151.6
Inawashiro-ko	103.2
Naka-umi	85.7
Kussharo-ko	79.5
Shinji-ko	79.3
Shikotsu-ko	78.5
Toya-ko	70.7
Hamana-ko	64.9

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 land for buildings (5 percent).

Table 1.6
Surface Area by Use

(1,000 square kilometers)

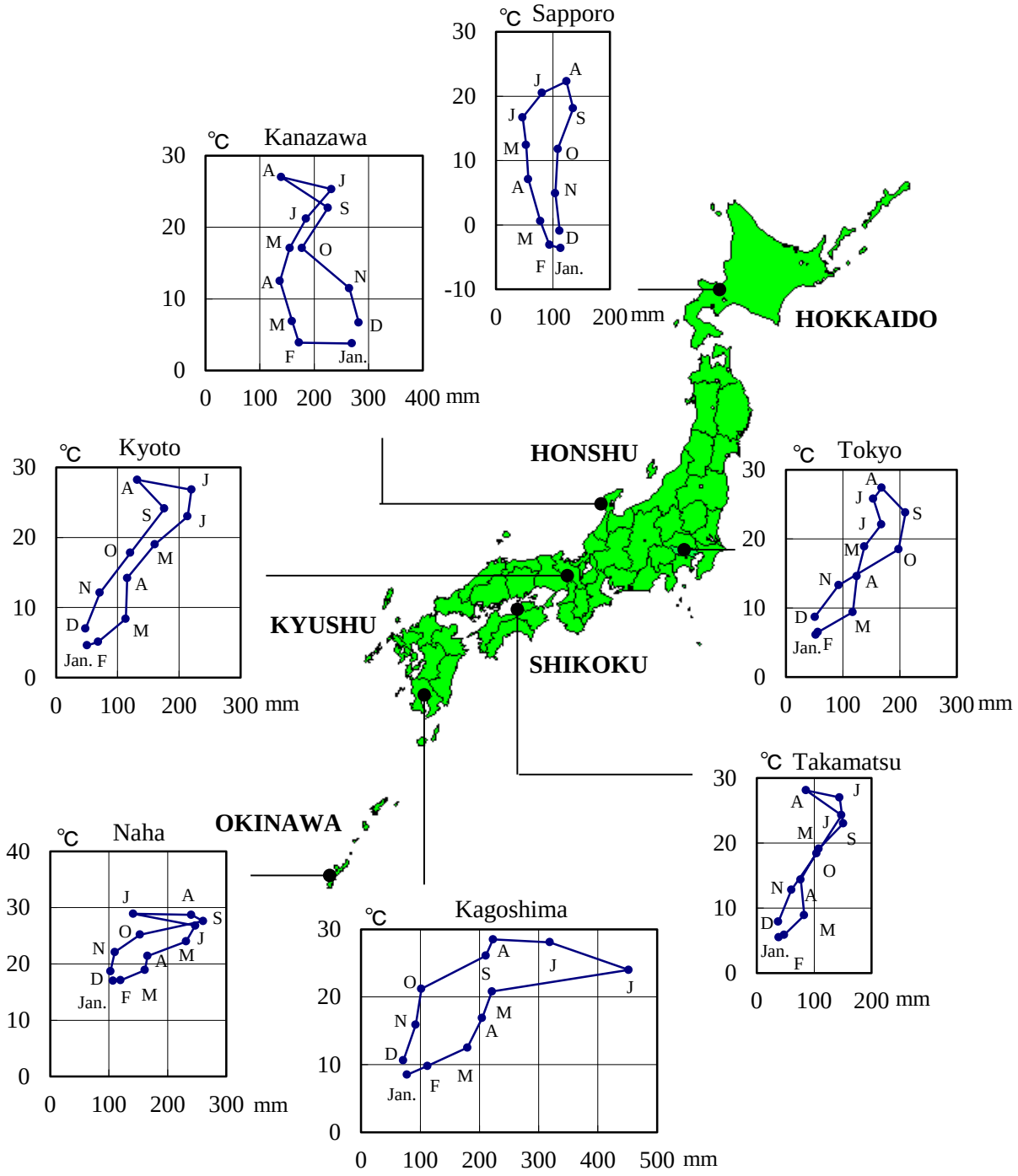
Year	Total	Forestland and fields	Agricultural land	Inland water	Roads [1)]	Building land [2)]	Others
1980	377.7	256.8	55.9	13.1	9.9	13.9	28.1
1990	377.7	255.2	53.3	13.1	11.4	16.0	28.7
2000	377.9	253.8	49.1	13.5	12.7	17.9	30.9
2010	377.9	253.5	46.7	13.3	13.6	19.0	31.9
Percentage distribution (%)							
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. Though they may differ depending on the effects of seasonal winds and ocean currents, the changes in the four seasons are distinct. 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 the Sea of Japan side of Honshu 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 the southeast monsoon begins to blow, and the other in autumn when the winds cease. From summer to autumn, tropical cyclones generated in the Pacific Ocean to the south 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)

Temperature (℃) Precipitation (mm)

Observing station			Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Annual [1)]
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.

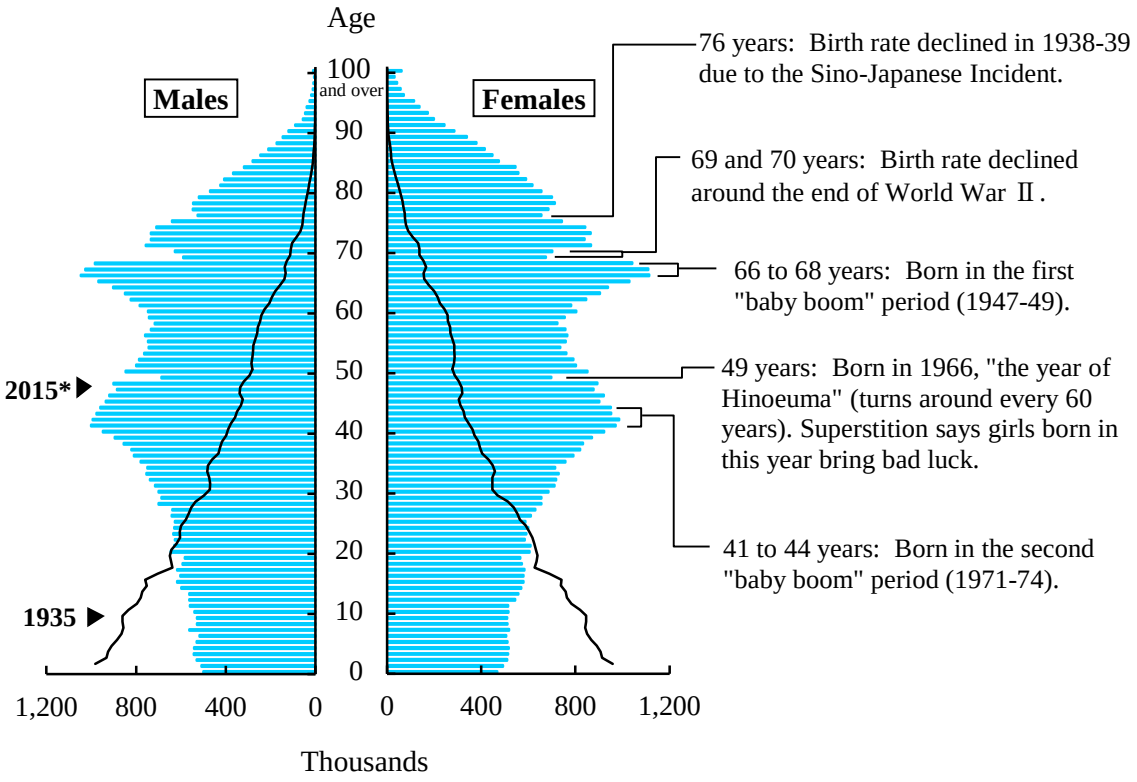
Chapter 2

Population

1. Total Population

Japan's total population in 2015 was 127.11 million. This ranked tenth in the world and made up 1.7 percent of the world's total. Japan's population density measured 340.8 persons per square kilometer in 2015, ranking ninth among countries with a population of 10 million or more.

Figure 2.1
Population Pyramid



Source: Statistics Bureau, MIC.

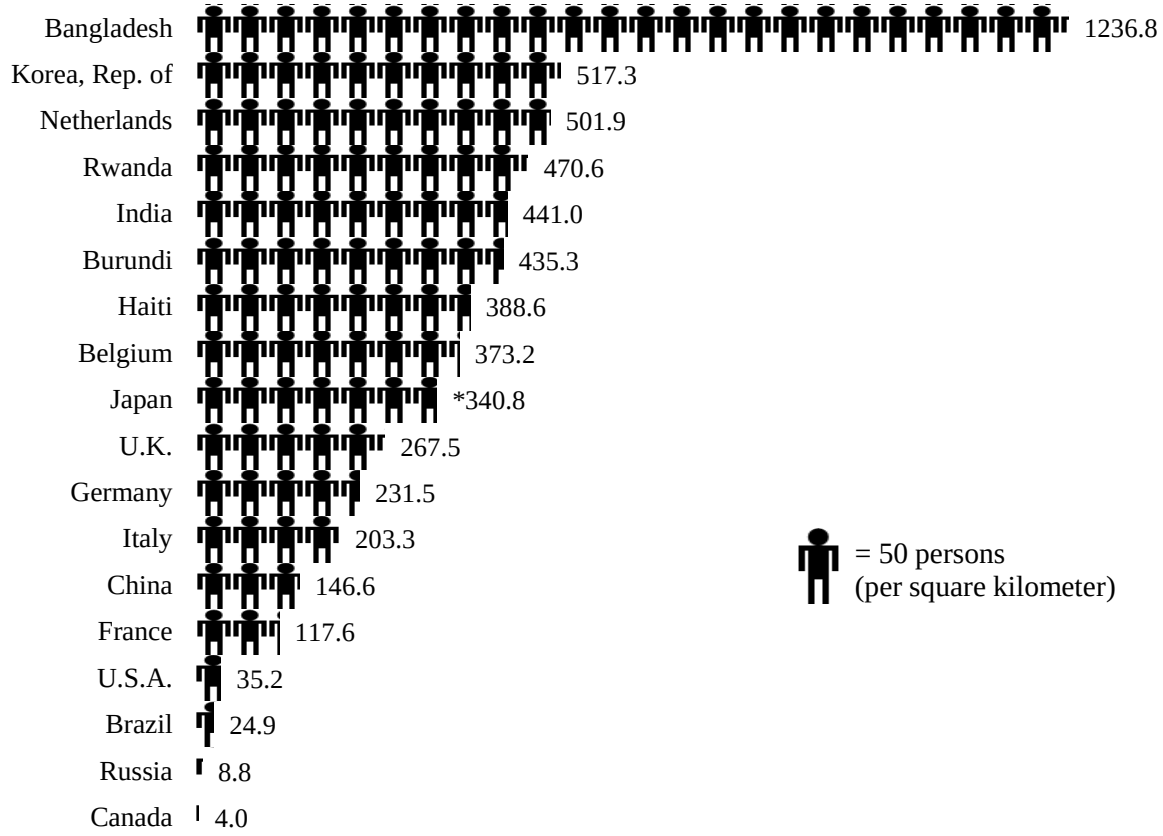
Table 2.1
Countries with a Large Population (2015)

(Millions)

Country	Population	Country	Population
World	7,349		
China	1,376	Pakistan	189
India	1,311	Nigeria	182
U.S.A.	322	Bangladesh	161
Indonesia	258	Russia	143
Brazil	208	Japan	* 127

Source: Statistics Bureau, MIC; United Nations.

Figure 2.2
Population Density by Country (2015)



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 rate of population change about one percent from the 1960s through the 1970s. Since the 1980s, it has declined sharply. Japan's total population was 127.11 million according to the Population Census in 2015. This was a decrease by 947,000 people as compared to the previous Census (2010), indicating the first population decline since the initiation of the Population Census in 1920.

Table 2.2
Trends in Population (as of October 1)

Year	Population (1,000)		Age composition (%)			Rate of population change (%)	Population density (per km^2)
		Males	0-14 years	15-64	65 and over		
1872 [1)]	34,806	17,666	...	...	...	...	91
1900 [1)]	43,847	22,051	33.9	60.7	5.4	0.83	115
1910 [1)]	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
2015*	127,110	61,829	12.7	60.6	26.7	-0.15	341
(Projection, January 2012)							
2020	124,100	60,146	11.7	59.2	29.1	-0.48	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

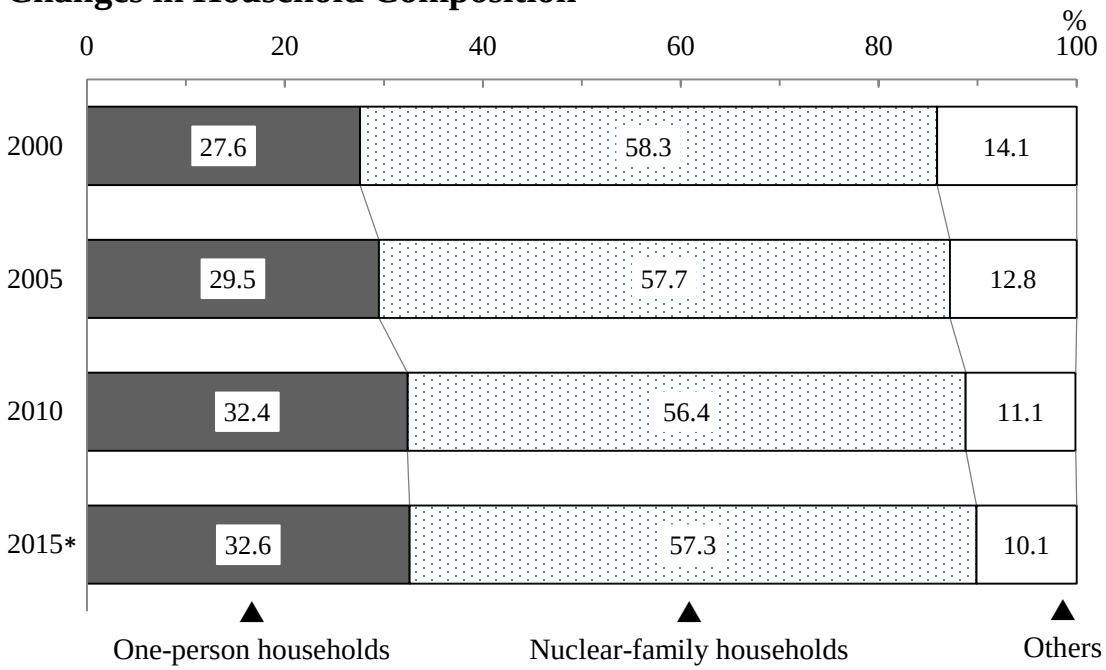
1) As of January 1.
Source: Statistics Bureau, MIC; Ministry of Health, Labour and Welfare; Ministry of Land, Infrastructure, Transport and Tourism.

2. Households

(1) Household Size and Household Composition

The Population Census shows that Japan had 51.88 million private households (excluding "institutional households" such as students in school dormitories) in 2015, showing a consistent increase since the initiation of the Census. Of that total, 57.3 percent were nuclear-family households, and 32.6 percent were one-person households.

Figure 2.3
Changes in Household Composition



Source: Statistics Bureau, MIC.

Table 2.3
Households and Household Members

Year	Private house-holds (1,000)	Rate of population change(%)	Private household members (1,000)	Members per household	Population (1,000)	Rate of population change(%)
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
2015*	51,877	0.01	124,105	2.39	127,110	-0.15

a) Rate of population change 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 the 1960s, the average size of households was down significantly in 1970, to 3.41 members. The number of household members has continued to decline, dropping to 2.39 in 2015. 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 2015 was 21.52 million. They accounted for 41.5 percent of private households. There were 5.63 million one-person elderly households. Among these, there were approximately 2 times as many women as men.

Table 2.4
Trends in Elderly Households

(Thousands)

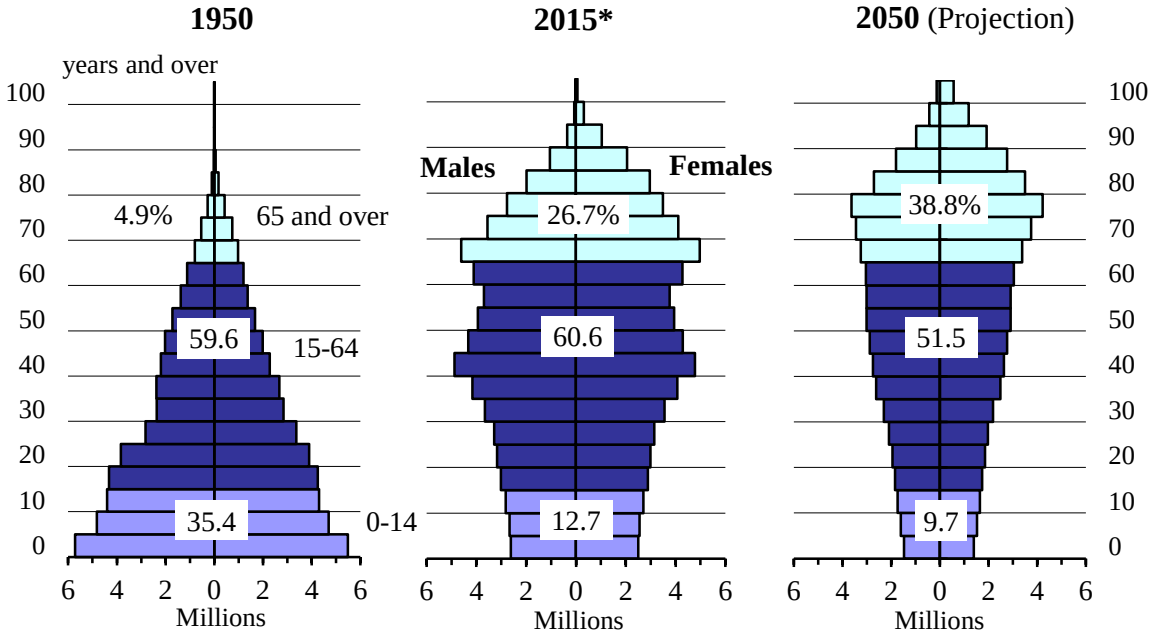
Type of households	1995	2000	2005	2010	2015*
Private households	43,900	46,782	49,063	51,842	51,877
Elderly households	12,790	15,057	17,220	19,338	21,521
(percentage)	29.1	32.2	35.1	37.3	41.5
One-person households	2,202	3,032	3,865	4,791	5,626
Males	460	742	1,051	1,386	1,797
Females	1,742	2,290	2,814	3,405	3,830
Aged-couple households [1)]	2,763	3,661	4,487	5,251	-

1) 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 2015, the aged population (65 years and over) was 33.42 million, constituting 26.7 percent of the total population (i.e., one in every four persons) and marking a record high.

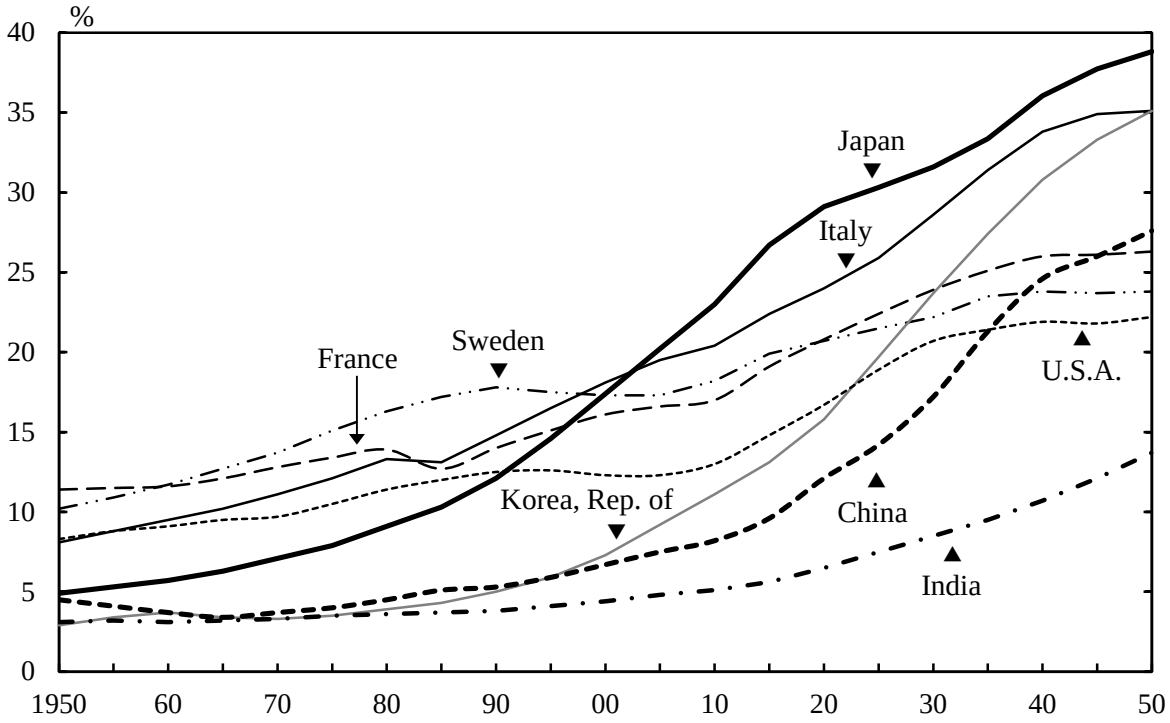
Figure 2.4
Changes in the Population Pyramid



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

In Japan, the period when the percentage of persons aged 65 and older exceeded 10% was 1985, but when looking at the U.S. and European countries, this occurred in 1940 in France, 1950 in Sweden, 1965 in Italy, and 1975 in the U.S., which are all earlier than in Japan. However, in 2015, the percentage of the population 65 and older in Japan was 26.7%, exceeding the U.S. (14.8%), France (19.1%), Sweden (19.9%), and Italy (22.4%), indicating that the aging society in Japan is progressing rapidly as compared to the U.S. and European countries.

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	2015			2050 (projection)		
	0-14 years	15-64	65 and over	0-14 years	15-64	65 and over
Japan	* 12.7	* 60.6	* 26.7	9.7	51.5	38.8
Italy	13.7	63.9	22.4	13.0	51.9	35.1
Korea, Rep. of	14.0	72.9	13.1	11.4	53.4	35.1
Germany	12.9	65.9	21.2	12.4	55.2	32.3
China	17.2	73.2	9.6	13.5	58.9	27.6
Canada	16.0	67.9	16.1	14.9	58.7	26.4
France	18.5	62.4	19.1	16.8	56.9	26.3
U.K.	17.8	64.5	17.8	16.6	58.7	24.7
Sweden	17.3	62.8	19.9	17.4	58.8	23.8
Brazil	23.0	69.1	7.8	15.0	62.2	22.8
U.S.A.	19.0	66.3	14.8	17.5	60.3	22.2
Russia	16.8	69.9	13.4	17.7	61.4	20.9
India	28.8	65.6	5.6	19.1	67.1	13.7

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

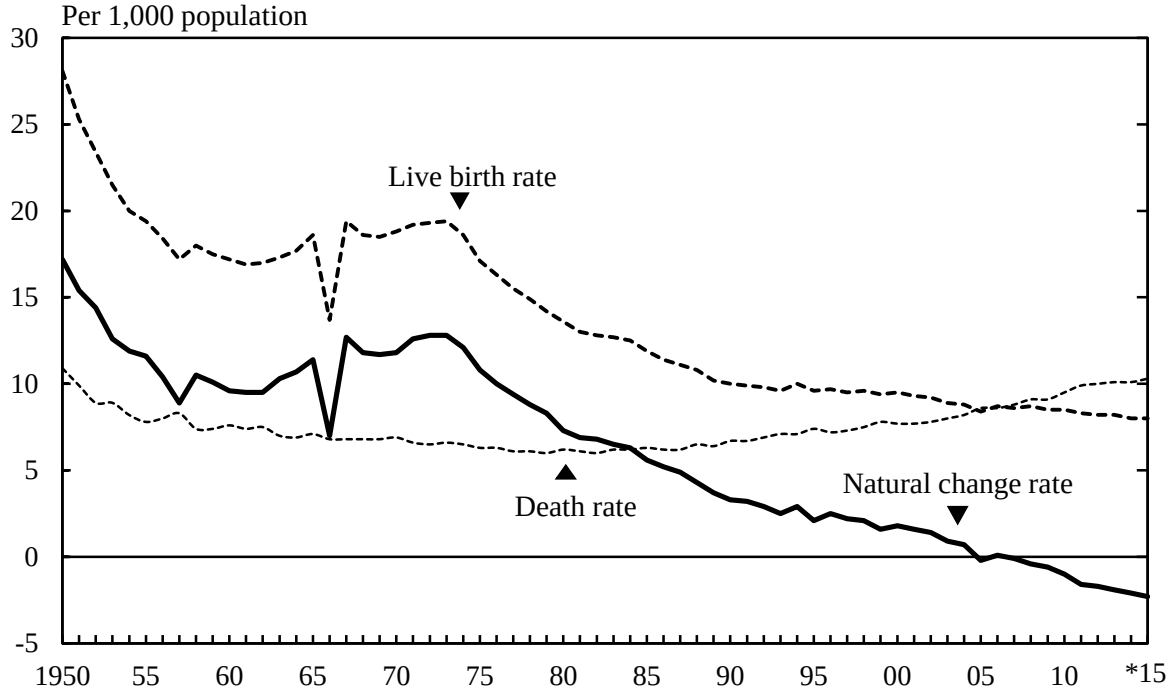
On the other hand, in 2015, the child population (0-14 years) in Japan amounted to 15.86 million, accounting for 12.7 percent of the total population, which was the lowest level on record. In terms of their proportion of the total population, the aged (65 years and over) have surpassed the child population since 1997. The productive-age population (15-64 years) totaled 75.92 million. In share terms, it accounted for 60.6percent 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 64.9 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 2015, the natural change rate was -2.3.

During the second baby boom, the live 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 2015 was 8.0.

Figure 2.6
Natural Population Change



Source: Ministry of Health, Labour and Welfare.

Table 2.6
Vital Statistics

Year	Rates per 1,000 population [1]				Total fertility rate [2]	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
2015*	8.0	10.3	1.9	-2.3	1.46	...	...

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 live 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 30.7 in 2015. 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 1.46 in 2015.

Table 2.7
Changes of Mothers' Age at Childbirth

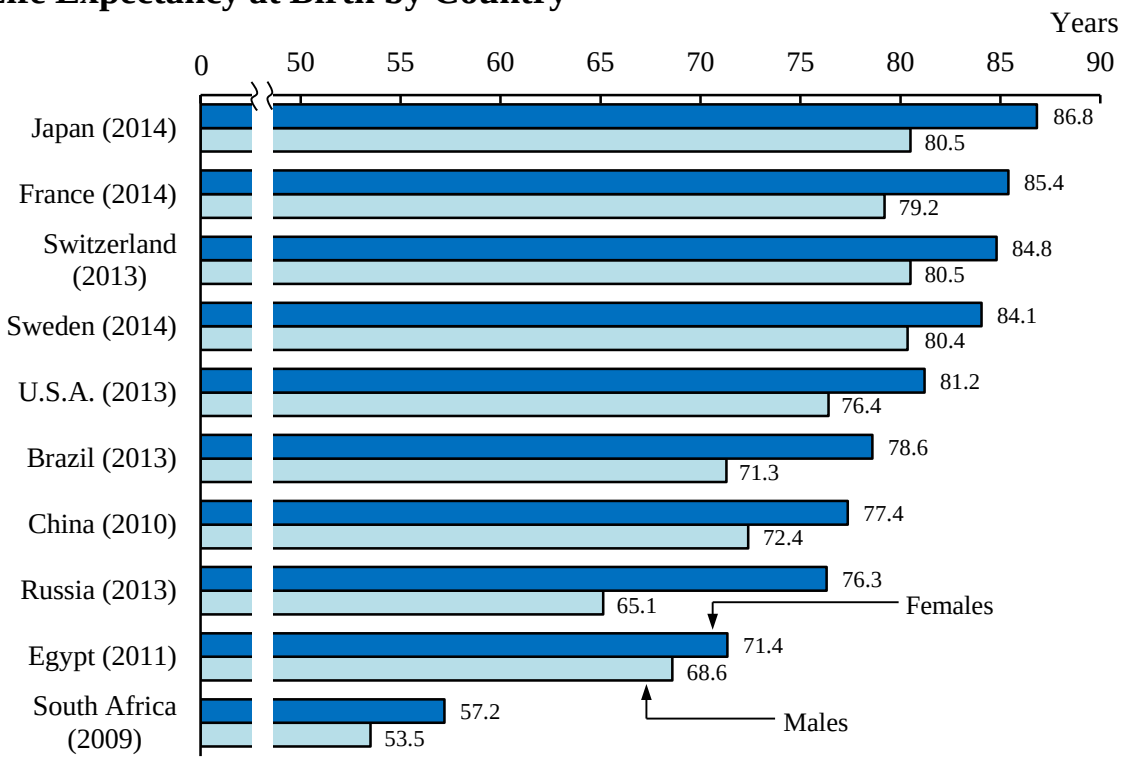
Year	Number of births (1,000)	Distribution of mothers' age (%)						Mean age bearing first child
		-19	20-24	25-29	30-34	35-39	40 and over	
1970	1,934	1.0	26.5	49.2	18.5	4.2	0.5	25.6
1975	1,901	0.8	25.2	53.4	16.8	3.3	0.5	25.7
1980	1,577	0.9	18.8	51.4	24.7	3.7	0.5	26.4
1985	1,432	1.2	17.3	47.7	26.6	6.5	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
2015*	1,006	1.2	8.4	26.1	36.3	22.7	5.4	30.7

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, and maintained an uptrend since 1988, reflecting the aging of the population. It reached 10.3 in 2015.

Average life expectancy in Japan climbed sharply after World War II, and is today at the highest level in the world. In 2014, the life expectancy at birth was 86.8 years for women and 80.5 years for men. Setting a new all-time record for both genders.

Figure 2.7
Life Expectancy at Birth by Country



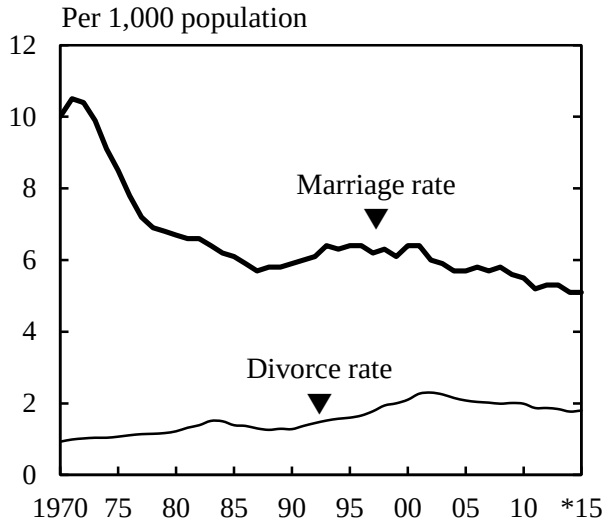
Source: Ministry of Health, Labour and Welfare.

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, but in recent years, they have been on a declining trend in general. In 2011, 662,000 couples married, marking the first time this number fell below 700,000 couples. In 2015, 635,000 couples married, and the marriage rate was 5.1.

The mean age of first marriage was 31.1 for men and 29.4 for women in 2015, a rise by 2.6 years and 3.1 years, respectively, over the past twenty years (in 1995: grooms, 28.5; brides, 26.3). 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
2015*	31.1	29.4

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 2015, the number of divorces totaled 226,000 couples, and the divorce rate (per 1,000 population) was 1.80.

6. Population Density and Regional Distribution

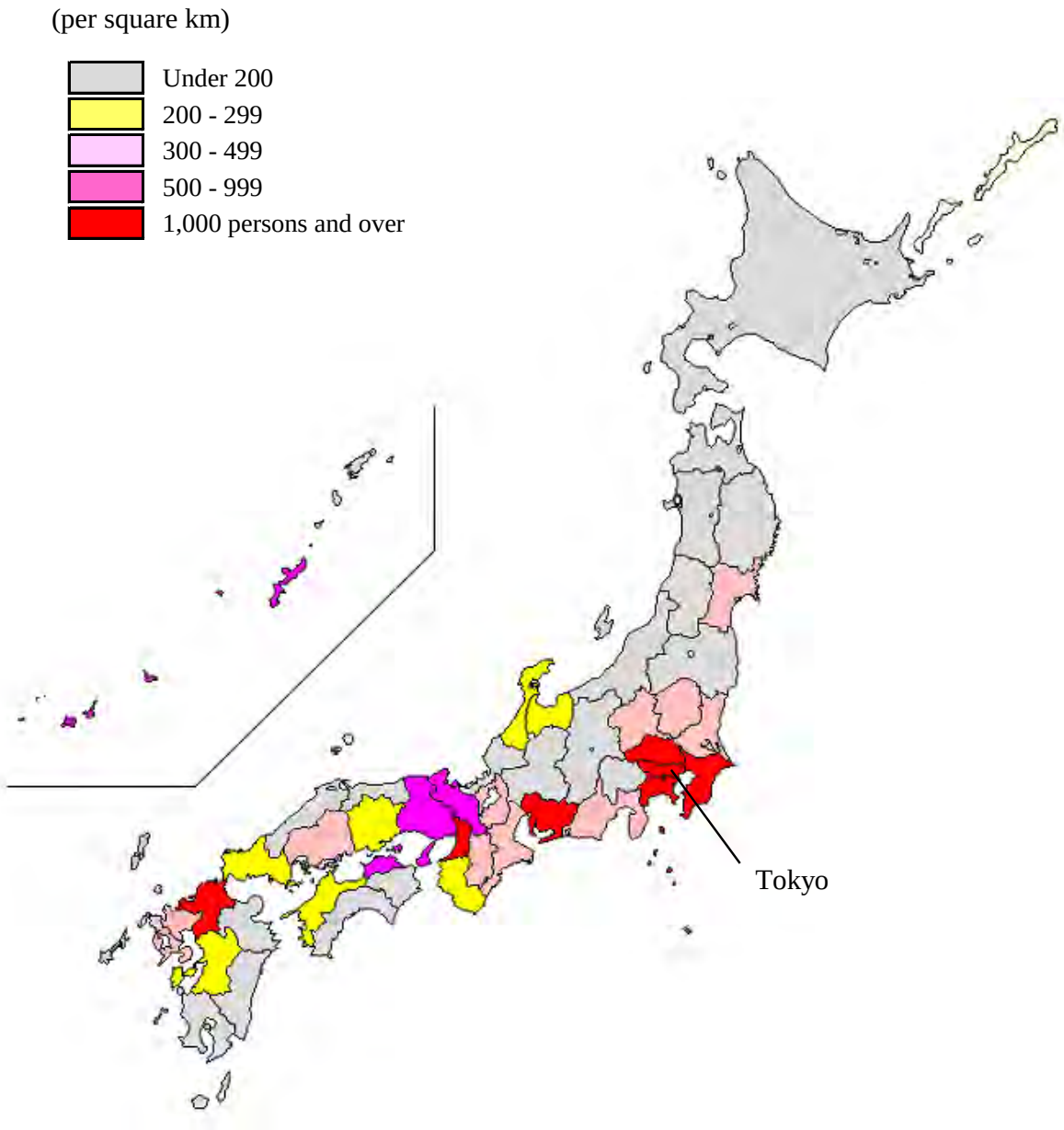
(1) Population Density

In 2015, Tokyo had the largest population of 13.51 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 36.4 percent of the total population.

In addition, the population density in Tokyo was the highest among Japan's prefectures, at 6,168 persons per square kilometer. This was almost 18 times the national average (341 persons per square kilometer).

In 2015, there were 12 cities in Japan with a population of one million or more. Their total population topped 29 million, a figure equivalent to 23.2 percent of the national total. The largest single city was the 23 wards (ku) of central Tokyo, with 9.27 million citizens. It was followed in decreasing order by Yokohama-shi (3.73 million), Osaka-shi (2.69 million), and Nagoya-shi (2.30 million).

Figure 2.9
Population Density by Prefecture (2015*)



Source: Statistics Bureau, MIC.

Table 2.9
Population of Major Cities

(Thousands)

Cities	Population		Cities	Population	
	2010	2015*		2010	2015*
Tokyo, 23 wards (ku)	8,946	9,273	Kobe-shi	1,544	1,538
Yokohama-shi	3,689	3,726	Kawasaki-shi	1,426	1,475
Osaka-shi	2,665	2,692	Kyoto-shi	1,474	1,475
Nagoya-shi	2,264	2,296	Saitama-shi	1,222	1,264
Sapporo-shi	1,914	1,954	Hiroshima-shi	1,174	1,195
Fukuoka-shi	1,464	1,539	Sendai-shi	1,046	1,082

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, Chukyo, and Kinki major metropolitan areas. 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 [1] (2010)

Areas	Population (1,000)	Percentage of the total (%)	Surface Area (km^2)	Population density (per km^2)
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.

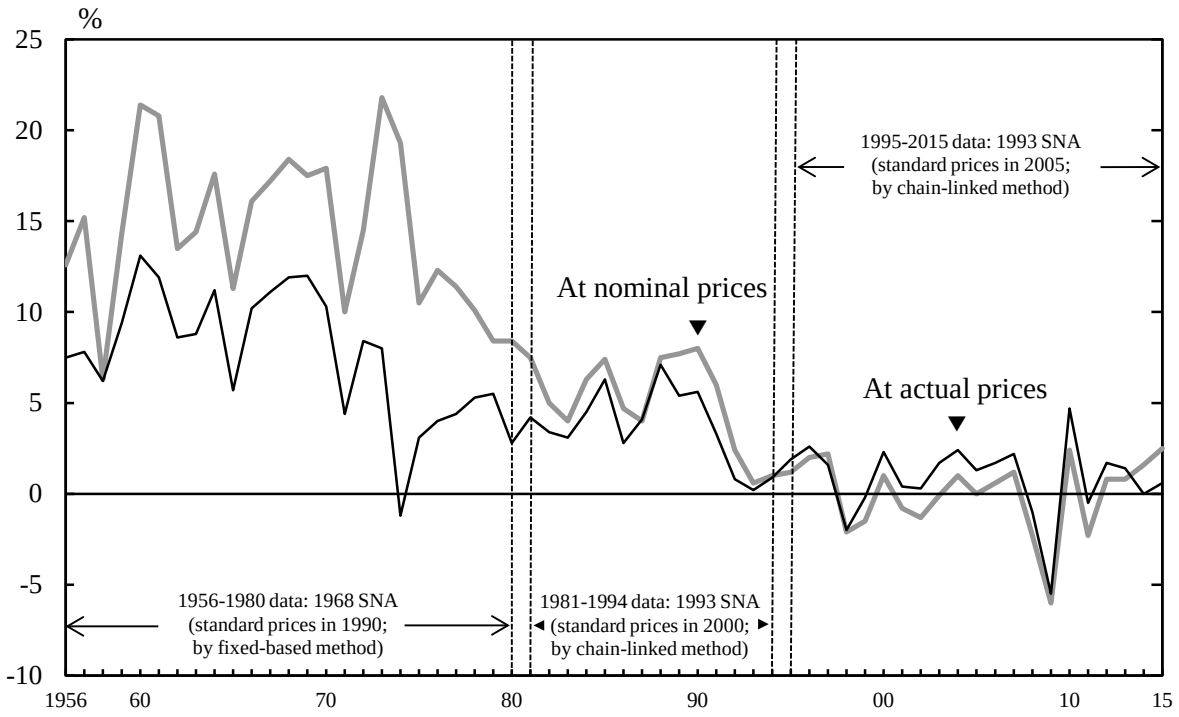
Chapter 3

Economy

1. Economic Development

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) the 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 [1)]



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

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.

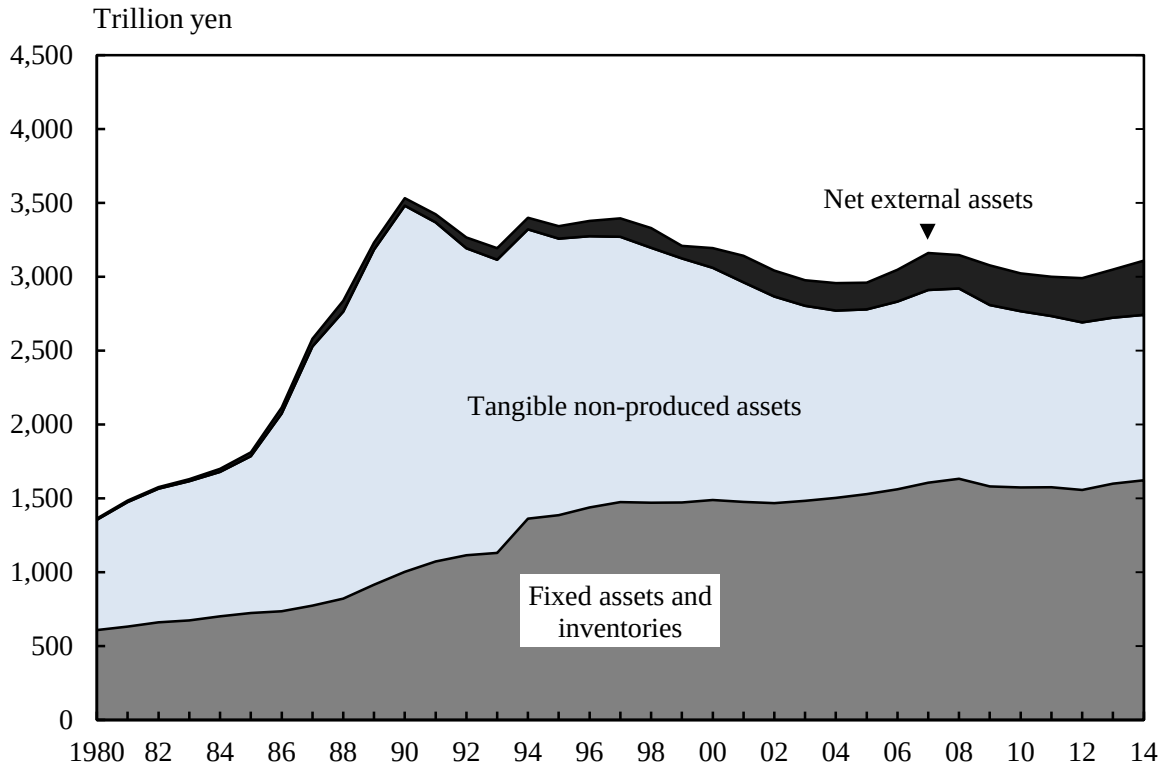
2. Bubble Economy and Its Collapse

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).

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. After that, although Japan's national wealth began to decrease due to the collapse of the bubble economy, at the end of 2014, it was 3,109 trillion yen, representing an increase for the second straight year.

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.

Figure 3.2
National Wealth 1)

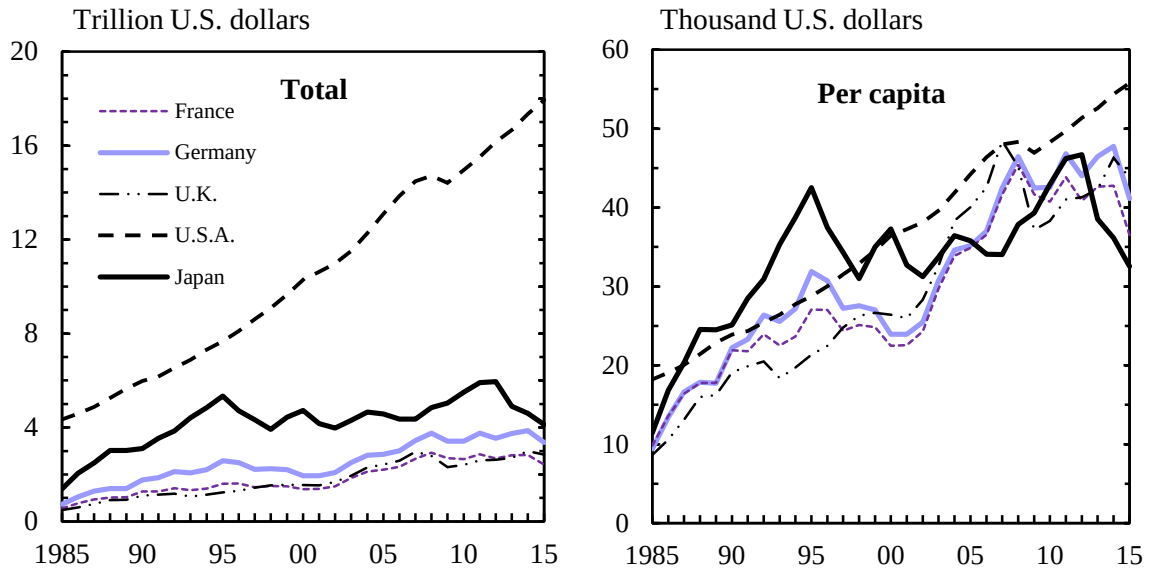


1) Data was estimated using a different method beginning in 1994.
Source: Cabinet Office.

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.

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.

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



Source: OECD.

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.

During the phase of Japan's economic recovery from the beginning of 2002, there was a common trend whereby 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 petroleum and raw material prices and repercussions from the American subprime mortgage loan problem 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 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.

Table 3.1

Gross Domestic Product [1] (Expenditure approach)

(Billion yen)

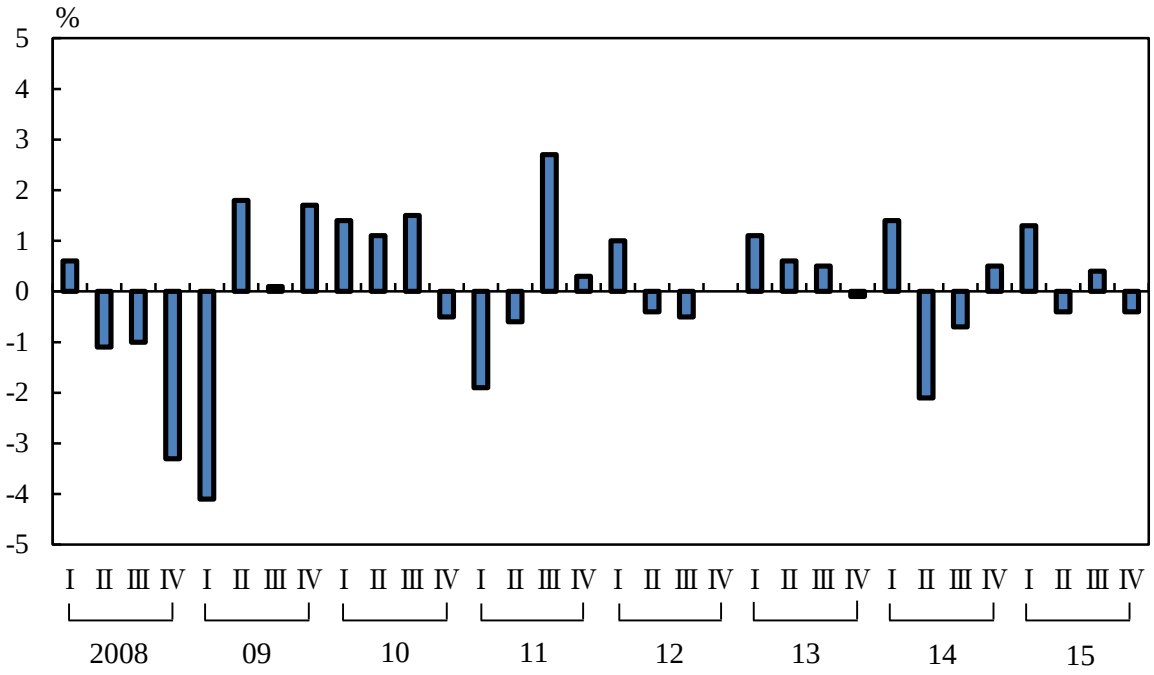
Item	2012	2013	2014	2015
Gross domestic product (GDP)	519,216.8	526,261.1	526,114.9	529,032.5
Domestic demand	509,637.1	518,099.8	518,121.6	518,735.0
Private demand	389,275.5	394,179.8	393,822.8	393,848.8
Private final consumption expenditure	308,072.2	313,204.1	310,476.9	306,723.8
Private Residential Investment	13,372.6	14,495.6	13,733.5	13,389.6
Private plant and equipment	69,160.9	68,833.8	71,001.0	72,068.7
Changes in inventories of private sectors	-831.3	-1,856.7	-940.5	1,859.5
Public demand	120,366.5	123,860.5	124,223.8	124,792.9
Government final consumption expenditure	100,179.9	102,044.8	102,162.3	103,424.8
Gross capital formation by public sectors	20,322.3	21,952.4	22,050.3	21,492.9
Changes in inventories of public sectors	4.7	-42.3	49.1	1.6
Net exports of goods and services	9,353.9	8,100.2	9,580.8	11,855.2
Exports of goods and services	82,201.0	83,196.9	90,116.1	92,638.3
(less) Imports of goods and services	72,847.2	75,096.7	80,535.4	80,783.1
(Reference)				
Trading gains/losses	-18,894.7	-20,863.4	-23,402.0	-16,444.1
Gross domestic income	500,322.1	505,397.8	502,713.0	512,588.4
Net income from the rest of the world	15,869.7	18,589.7	20,395.5	23,624.5
Incomes from the rest of the world	22,337.5	25,938.2	29,633.8	34,670.3
(less) Incomes to the rest of the world	6,467.8	7,348.5	9,238.3	11,045.9
Gross national income (GNI)	516,191.8	523,987.4	523,108.4	536,212.9

1) Standard 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.

Figure 3.4
Economic Growth Rates [1)] (Quarterly changes)



1) 1993 SNA (standard prices in 2005; by chain-linked method; seasonally adjusted series).
Source: Cabinet Office.

In order to achieve an early end to deflation and break free of economic stagnation, in January 2013, the government 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 the easing of regulations.

Based on this, there are expectations for sustained economic growth, together with recovery of the Japanese economy at a moderate pace.

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 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.

Table 3.2
Changes in Industrial Structure

(%)

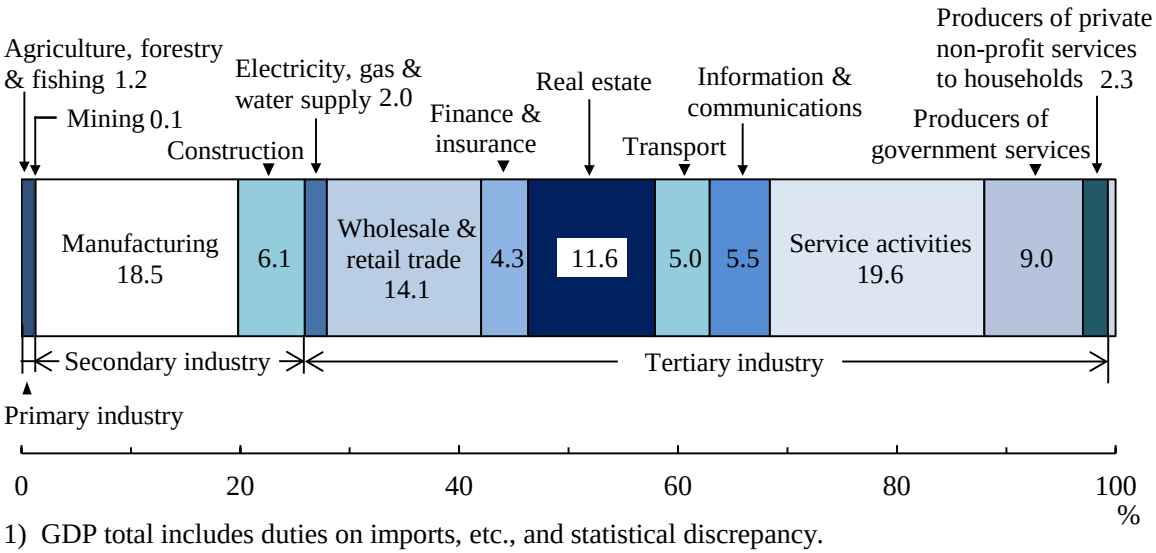
Year	Employed persons [1]			Gross domestic product (GDP) [2]		
	Primary industry	Secondary industry	Tertiary industry	Primary industry	Secondary industry	Tertiary industry
1950	48.6	21.8	29.7	-	-	-
1955	41.2	23.4	35.5	19.2	33.7	47.0
1960	32.7	29.1	38.2	12.8	40.8	46.4
1965	24.7	31.5	43.7	9.5	40.1	50.3
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.

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.

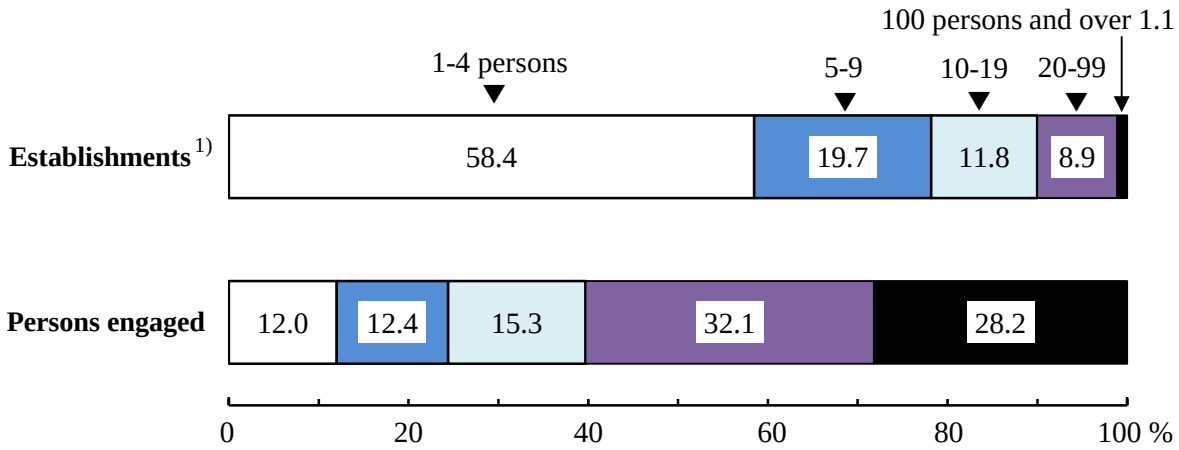
Figure 3.5
Gross Domestic Product by Type of Economic Activity [1] (2014)



1) GDP total includes duties on imports, etc., and statistical discrepancy.
Source: Cabinet Office.

According to the "2014 Economic Census for Business Frame," there were 5.54 million establishments (excluding businesses whose operational details are unknown, national government services, and local government services) in Japan, at which a total of 57.43 million persons were employed. The average number of persons engaged per establishment was 10.4 Establishments with less than 10 persons accounted for 78.2 percent of the total.

Figure 3.6
Shares of Establishments and Persons Engaged by Scale of Operation
(2014)



1) Excluding establishments consisting of only loaned or dispatched employees.
Source: Statistics Bureau, MIC.

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 12.03 million persons, followed by "manufacturing" and "medical, health care and welfare."

Table 3.3
Number of Establishments and Persons Engaged [1] (2014)

Item	Number of establishments	Number of persons engaged
Total	5,541,634	57,427,704
By industry		
Primary industry		
Agriculture, forestry and fisheries	32,822	354,455
Secondary industry		
Mining and quarrying of stone and gravel	1,980	19,894
Construction	515,079	3,791,583
Manufacturing	487,061	9,188,125
Tertiary industry		
Electricity, gas, heat supply and water	4,506	196,848
Information and communications	66,236	1,630,679
Transport and postal activities	134,118	3,248,284
Wholesale and retail trade	1,407,235	12,031,345
Finance and insurance	87,015	1,512,904
Real estate and goods rental and leasing	384,240	1,491,725
Scientific research, professional and technical services	228,411	1,786,708
Accommodations, eating and drinking services	725,090	5,489,571
Living-related and personal services and amusement services	486,006	2,508,495
Education, learning support	169,956	1,802,787
Medical, health care and welfare	418,640	7,191,248
Compound services	34,848	518,722
Services, n.e.c.	358,391	4,664,331
By type of legal organizations		
Individual proprietorships	2,117,446	5,989,172
Corporations	3,394,356	51,313,123
Companies	2,971,628	43,127,219
Organizations other than corporations	29,832	125,409

1) Excluding businesses whose operational details are unknown, national government services, and local government services.
Source: Statistics Bureau, MIC.

The domestic manufacturing industry has progressed in relocating production bases overseas, stemming from approaches to cutting back on production costs, production in consumption areas, and fluctuations in exchange rates.

According to the 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 10,592 companies at the end of fiscal 2014, and the overseas production ratio was 24.3 percent in actual performance in fiscal 2014, indicating a 1.4 percentage point increase as compared to the previous fiscal year, reaching the highest level ever.

Table 3.4
Trends of Overseas Affiliated Company (Manufacturing Industries)

Fiscal year	Number of overseas affiliates	Value of Sales (Million yen)	Overseas production ratio [1] (%)	Value of capital investment (Million yen)	Ratio of overseas capital investment [2] (%)
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
2013	10,545	116,997,649	22.9	4,646,055	29.4
2014	10,592	129,712,997	24.3	4,649,364	28.1

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 business. There are many companies that are planning on expanding their business to India, Indonesia, China, and Thailand.

Chapter 4

Finance

1. National and Local Government Finance

(1) National Government Finance

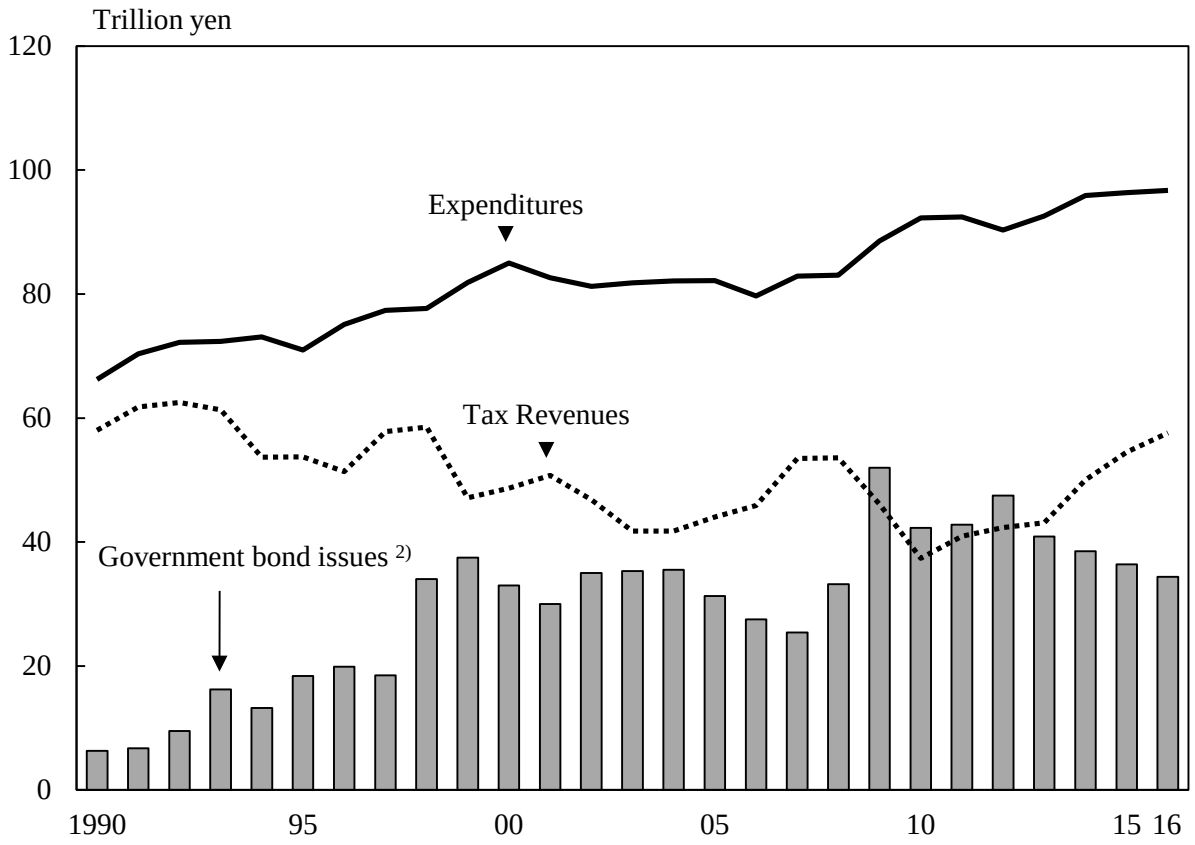
Japan's fiscal year starts in April, and ends in March of the following year. In setting the national budget, the government submits a proposed budget for the upcoming fiscal year to the Ordinary Session of the Diet, which begins in January. The proposal is then discussed, and an initial budget is approved 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 independently of the general account. The number and particulars of special accounts change from year to year; for fiscal 2016, a total of 14 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.

Figure 4.1
Trends in Revenues and Expenditures in the General Account [1)]



1) Based on settlements until FY2014, initial and supplementary budgets for FY2015, and draft budget for FY2016. 2) Excludes some special accounts.
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 revenue, contributing to an increasing gap between revenue and expenditure. Since fiscal 2009, bond issues have exceeded tax revenue in most years, but since fiscal 2013, tax revenue exceeded borrowing (on an initial budget basis).

The size of the general account budget for fiscal 2016 was 96.72 trillion yen, an increase of 0.38 trillion yen (0.4 percent) from the initial budget of fiscal 2015. This is equivalent to 18.6 percent of the fiscal 2016 GDP, forecasted by the government at 518.8 trillion yen.

Table 4.1
Expenditures of General Account

(Billion yen)

Fiscal year	Total (A)+(B)+(C)	General expenditures (A)	Social security	Education and science	Pensions	National defense	Public works
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
2013	100,189	61,342	29,232	6,161	504	4,792	7,975
2014	98,813	59,532	30,171	5,866	444	5,063	7,321
2015 1)	99,663	59,955	32,182	5,484	393	5,172	6,547
2016 2)	96,722	57,829	31,974	5,358	342	5,054	5,974

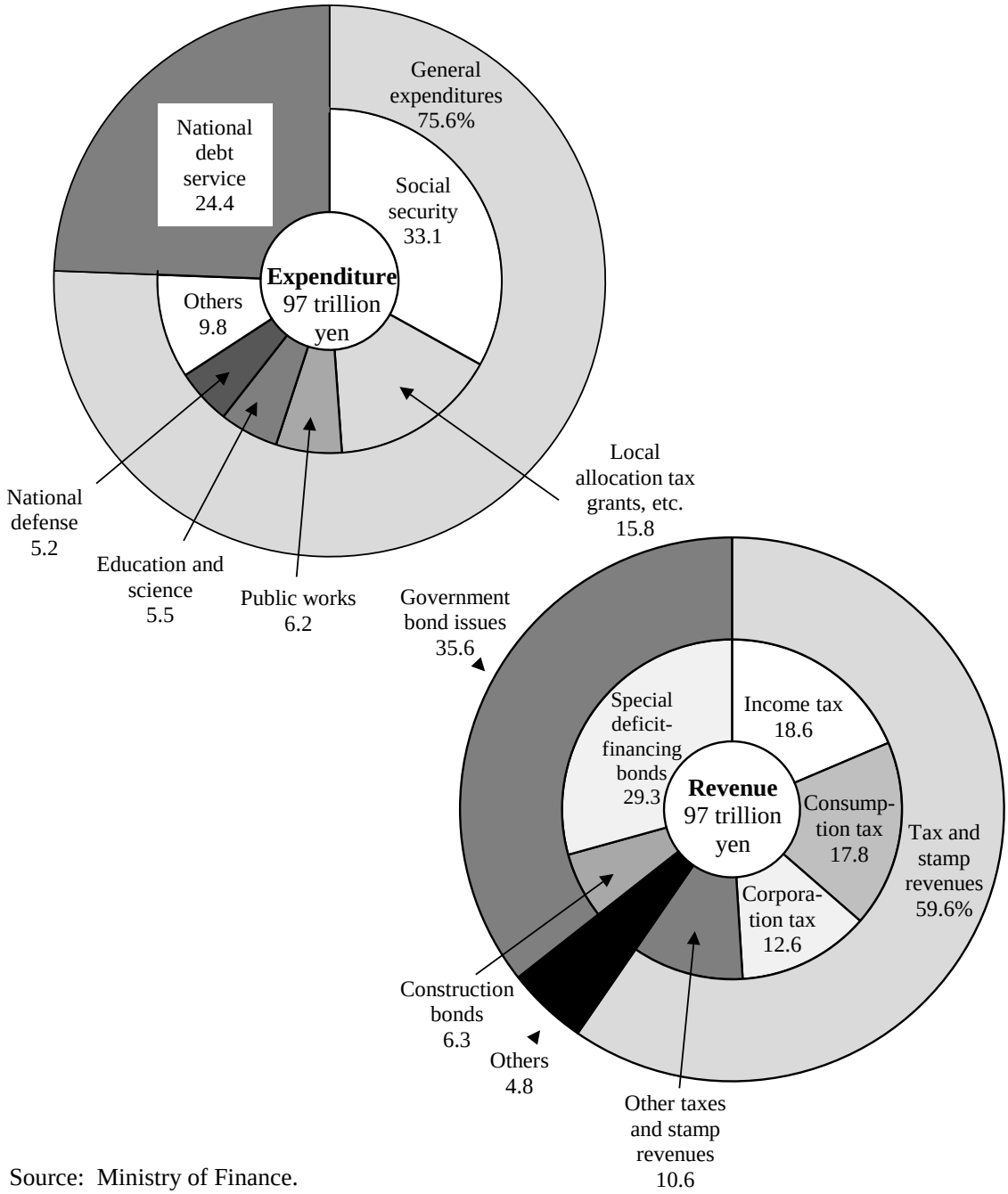
Fiscal year	Economic cooperation	Small- and medium-sized business promotion	Energy measures	Food stable supply	Others	National debt service (B)	Local allocation tax grants, etc. (C)
1995	1,034	623	708	269	7,751	12,820	12,302
2000	1,012	933	677	247	6,434	21,446	15,829
2005	784	237	493	657	6,536	18,736	17,441
2010	746	830	845	1,122	7,953	19,544	18,790
2013	651	504	963	1,172	9,387	21,294	17,554
2014	655	417	1,303	1,074	7,218	22,186	17,096
2015 1)	674	346	969	1,254	6,934	22,907	16,801
2016 2)	516	182	931	1,028	6,469	23,612	15,281

1) Revised budget. 2) Initial budget.
Source: Ministry of Finance.

In fiscal 2016, major expenditures from the initial general account budget include social security (33.1 percent), national debt service (24.4 percent), local allocation tax grants, etc. (15.8 percent), public works (6.2 percent), education and science (5.5 percent), and national defense (5.2 percent).

With regard to revenue sources for the fiscal 2016 initial general account budget, income tax, consumption tax and corporation tax account for 49.0 percent. Even with the addition of other taxes and stamp revenues, these revenue sources only amount to 59.6 percent of the total revenue.

Figure 4.2
Composition of Revenue and Expenditure of General Account Budget
(Initial budget, FY2016)



Source: Ministry of Finance.

(2) Local Government Finance

There are two budget categories in 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 2013 (net) revenues came from local taxes, accounting for 35.0 percent of the total. The second-largest source, 17.4 percent, was local allocation tax grants.

Table 4.2
Local Government Finance [1)] (Ordinary accounts)

(Million yen)

Item	FY2009	FY2010	FY2011	FY2012	FY2013
Revenues	98,365,695	97,511,501	100,069,646	99,842,882	101,099,835
Local taxes	35,182,954	34,316,330	34,171,416	34,460,760	35,374,285
Local transfer taxes	1,296,551	2,069,189	2,169,911	2,271,480	2,558,842
Special local grants, etc.	462,011	383,165	364,020	127,467	125,522
Local allocation tax	15,820,237	17,193,551	18,752,268	18,289,826	17,595,454
Treasury disbursements	16,732,772	14,201,018	15,927,963	15,425,766	16,412,481
Local government bonds	12,396,036	12,969,520	11,760,270	12,337,932	12,284,850
Expenditures	96,106,449	94,775,014	97,002,646	96,418,554	97,412,028
General administration	10,718,365	9,999,758	9,345,975	9,961,845	10,000,563
Public welfare	19,767,874	21,316,337	23,182,534	23,152,326	23,463,324
Labor	918,764	808,224	993,750	768,688	620,869
Sanitation	5,971,517	5,812,417	6,743,245	5,993,241	5,988,543
Agriculture, forestry and fishery	3,552,987	3,245,780	3,207,580	3,181,270	3,500,949
Commerce and industry	6,575,008	6,398,367	6,547,758	6,206,903	5,915,650
Civil engineering work	13,292,043	11,959,157	11,284,876	11,242,282	12,125,221
Education	16,438,041	16,446,685	16,176,813	16,147,943	16,087,778

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

Finance refers to revenue and expenditure of administrative services from national and local governments. In the initial budget for fiscal 2015, the gross total of national government expenditure was 502 trillion yen, the net total was 240 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 88 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 292 trillion yen.

Table 4.3
Expenditures of National and Local Governments (Initial budget)

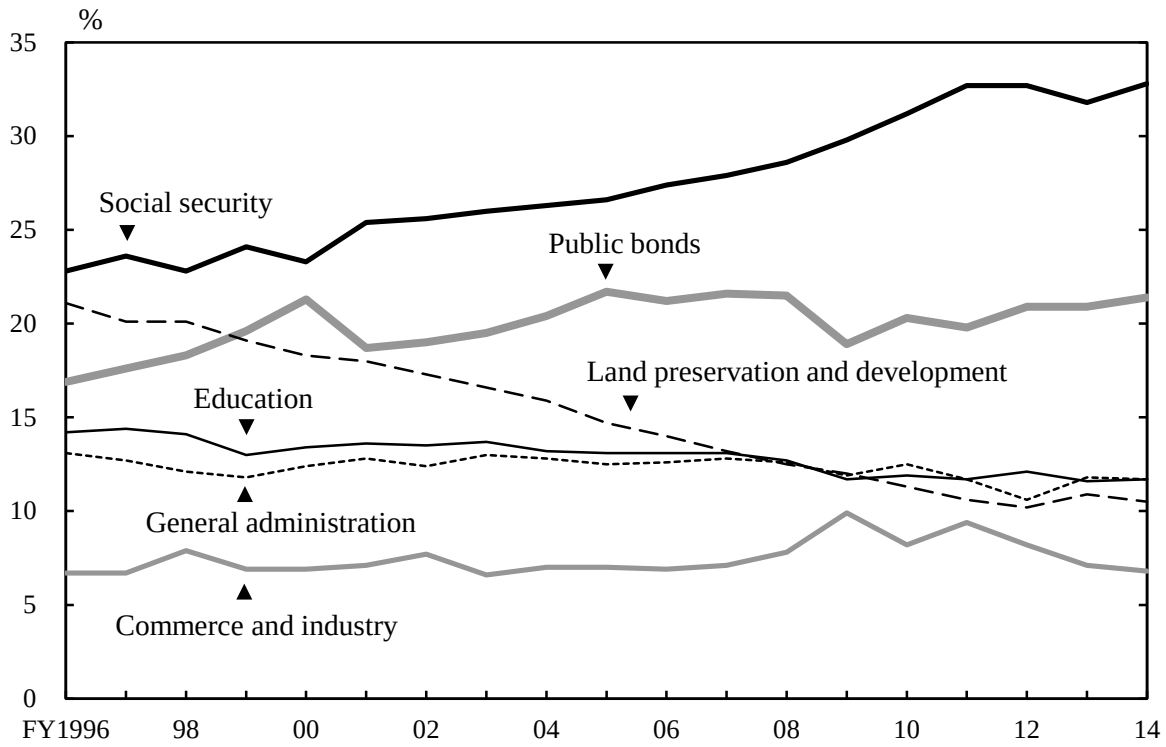
(Billion yen)

Item	Expenditures					
	FY1995	FY2000	FY2005	FY2010	FY2014	FY2015
General account	70,987	84,987	82,183	92,299	95,882	96,342
Special accounts	241,718	318,689	411,944	367,074	411,426	403,553
Government-affiliated agencies	8,086	7,661	4,678	3,135	2,337	2,216
Gross total (national)	320,792	411,337	498,805	462,508	509,645	502,111
Duplications	160,054	200,435	257,490	244,744	270,220	262,184
Net total (national)	160,738	210,902	241,316	217,764	239,426	239,927
Local public finance plan	82,509	88,930	83,769	82,127	85,575	87,768
Gross total (national + local)	243,247	299,832	325,084	299,891	325,000	327,694
Duplications	32,035	37,216	32,689	31,563	34,866	35,484
Net total (national + local)	211,213	262,616	292,395	268,328	290,134	292,211

Source: Ministry of Finance.

The settlement amount for fiscal 2014, the net total of national and local government expenditures was 168 trillion yen. The national government disbursed 42 percent of this amount, while the local governments disbursed 58 percent.

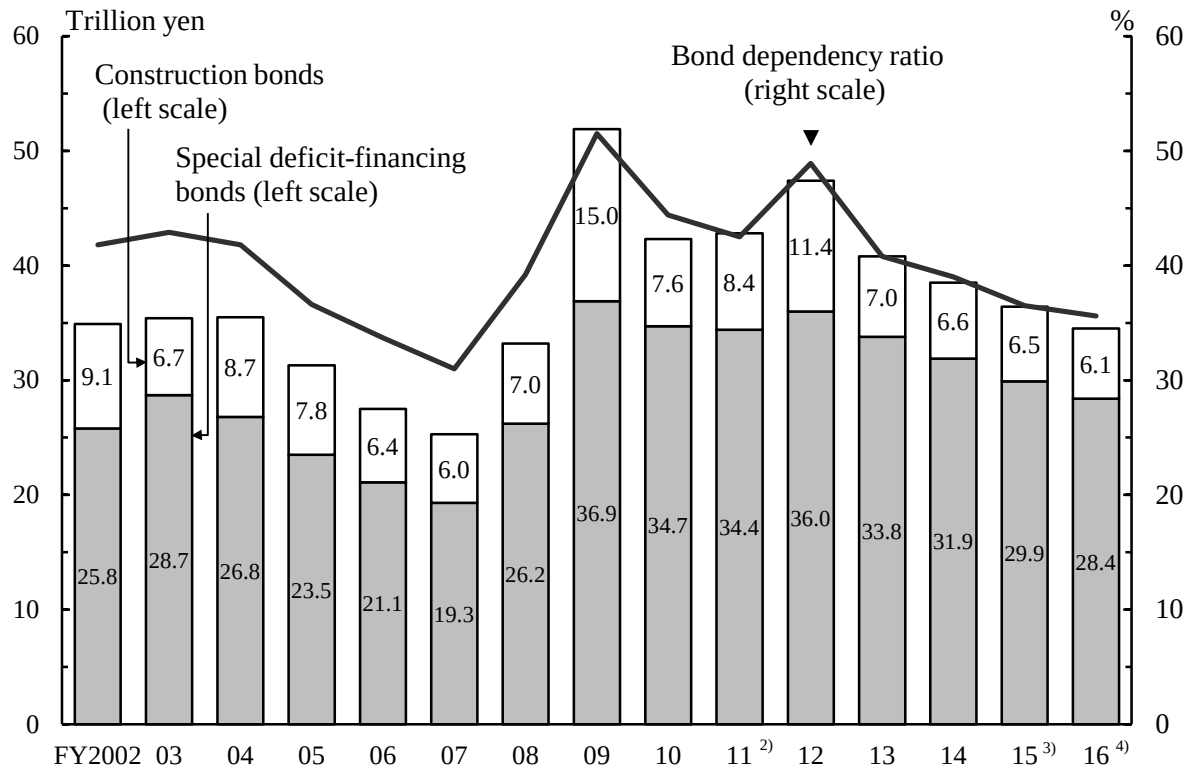
Figure 4.3
Trends in Ratio of Net Total National and Local Expenditures by Function



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 (32.8 percent), followed by public bonds (21.4 percent), general administration (11.7 percent), education (11.7 percent), and then land preservation and development (10.5 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 after the bubble economy ended at the beginning of 1990. A rising amount of public bond redemptions and an increase in social security expenditures associated with the progression of an aging society in recent years has resulted in public bonds and social security expenditures making up a high percentage of government expenditures net of overlaps. Issuance of government bonds increased after fiscal 2009 in comparison to years leading up to then, due to the effects of the bankruptcy of Lehman Brothers, but has decreased in recent years.

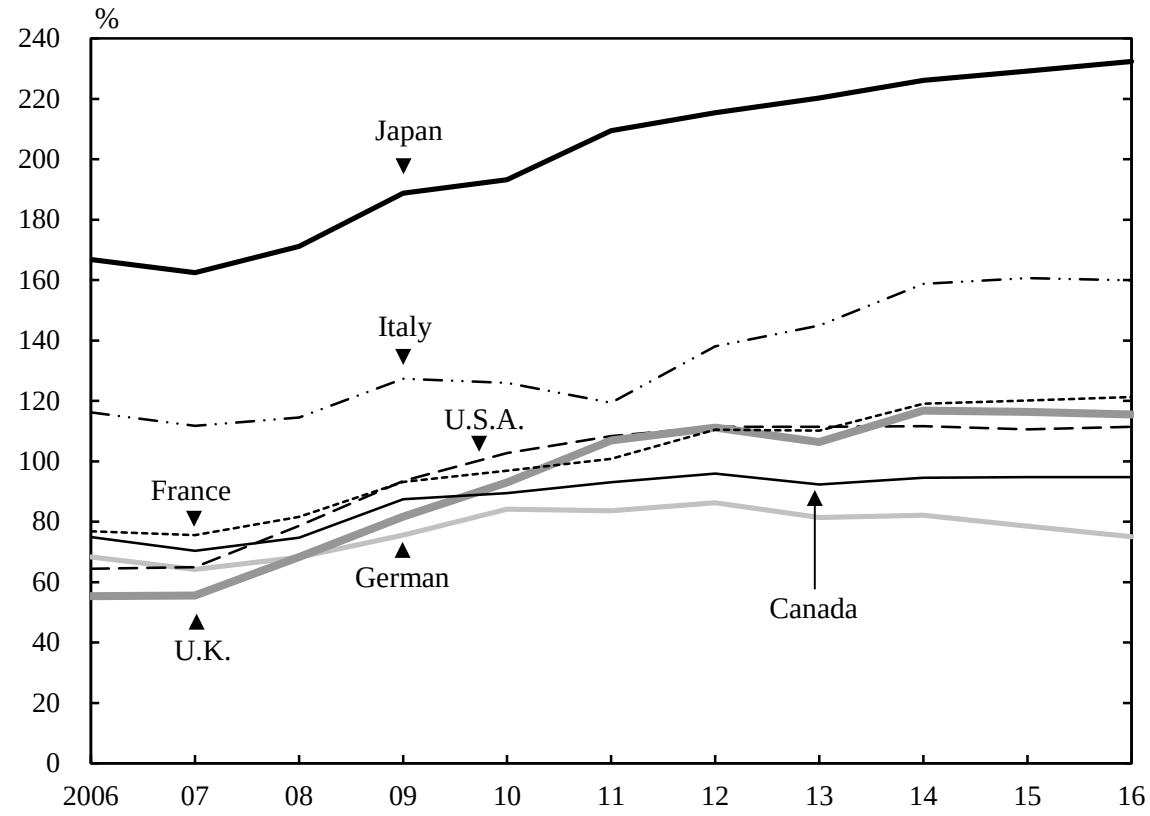
Figure 4.4
Trends in National Government Bond Issue 1)



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 reviced budget. 4) Based on the draft budget.
Source: Ministry of Finance.

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

Figure 4.5
Ratio of General Government Gross Debt to GDP

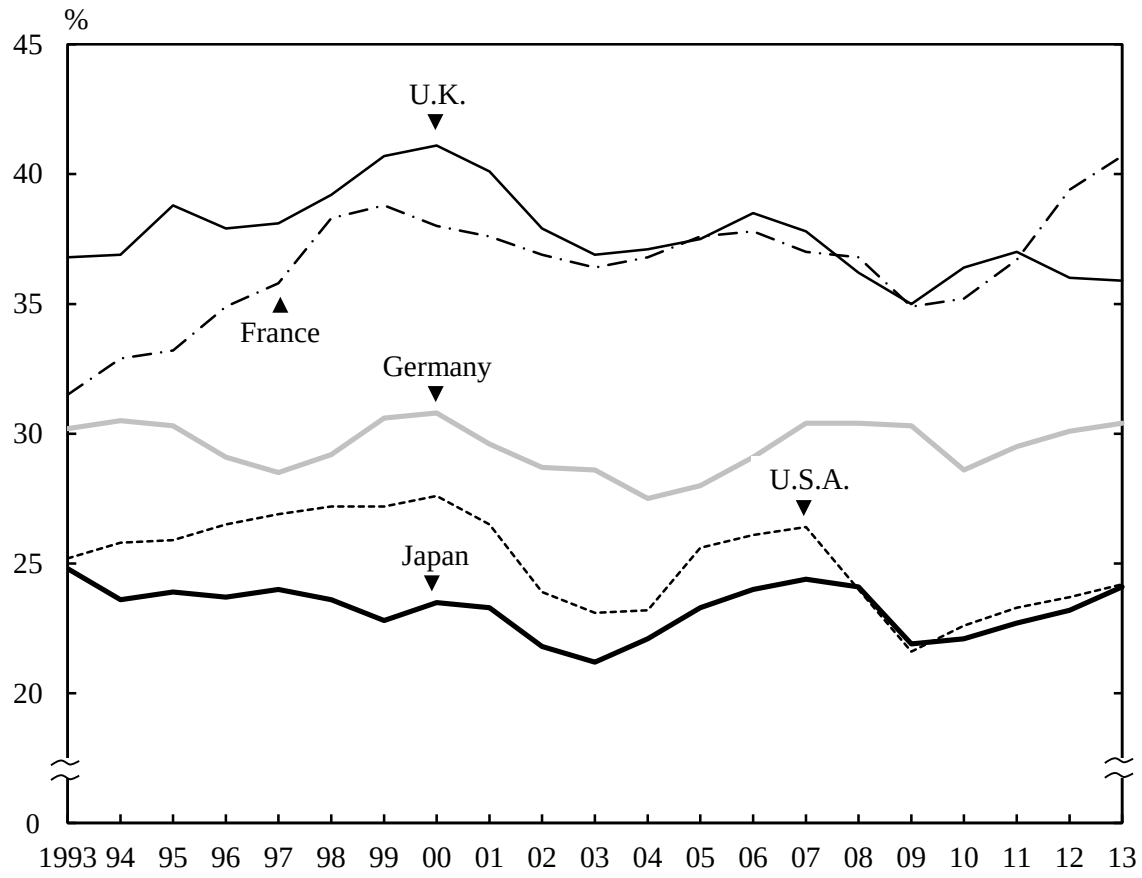


Source: Ministry of Finance.

(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 2016, it was 26.1 percent in terms of national and local taxes combined (15.9 percent for national tax and 10.3 percent for local tax). Japan's ratio is lower in comparison with other major industrial countries. However, the consumption tax rate was raised from 5 to 8 percent on April 1, 2014. This was the first increase in 17 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 4.6
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 provides 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 the sound development of the economy.

At the end of 2015, currency in circulation totaled 103.12 trillion yen (98.43 trillion yen in Bank of Japan notes and 4.69 trillion yen in coins), up 5.5 percent from the year before.

Table 4.4

Currency in Circulation (Outstanding at year-end)

(Billion yen)

Item	2011	2012	2013	2014	2015
Total	88,547	91,231	94,770	97,738	103,120
Bank of Japan notes	83,997	86,653	90,143	93,082	98,430
Coins	4,550	4,578	4,627	4,656	4,690

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 in 2015 was 617 trillion yen in M1 and 907 trillion yen in M2.

Table 4.5

Money Stock [1] (Average amounts outstanding)

(Billion yen)

Year	M2	M3	M1	Quasi-money	CDs	Broadly-defined liquidity
2011	796,610	1,098,857	515,781	552,348	30,728	1,441,037
2012	816,530	1,122,568	534,555	555,606	32,406	1,452,298
2013	845,971	1,155,364	560,311	561,426	33,627	1,498,859
2014	874,836	1,187,430	586,756	564,803	35,871	1,550,471
2015	907,134	1,223,262	617,082	568,924	37,257	1,613,857

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. The Bank of Japan first introduced Quantitative and Qualitative Monetary Easing (QQE) in April 2013, and subsequently introduced supplementary measures; in January 2016, it decided to introduce "QQE with a Negative Interest Rate."

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. The monetary base was 305.88 trillion yen as of the end of April 2015 (up 35.6 percent from the same month of the previous year), exceeding the 300 trillion yen mark for the first time.

Table 4.6
Financial Markets (Interest rates, etc.)

(% per annum)

End of year	Basic discount rate and basic loan rate	Call rates [1)]	Prime lending rates [2)]	Loan contract rates [3)]	10 years' newly issued Govt. bonds yields
2006	0.40	0.275	1.625	1.450	1.675
2007	0.75	0.459	1.875	1.673	1.500
2008	0.30	0.103	1.675	1.494	1.165
2009	0.30	0.094	1.475	1.256	1.285
2010	0.30	0.079	1.475	1.187	1.120
2011	0.30	0.075	1.475	1.102	0.980
2012	0.30	0.076	1.475	1.034	0.795
2013	0.30	0.068	1.475	0.880	0.740
2014	0.30	0.066	1.475	0.850	0.320
2015	0.30	0.038	1.475	0.778	0.265

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 24,126 offices. This was followed by domestically licensed banks, including city banks and regional banks, with a combined total of 13,721 offices and branches. Securities companies operated at 2,137 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 efforts to their expand operations bases through corporate mergers, but there have been no major mergers recently.

Table 4.7
Number of Financial Institutions

Institutions	Reference date	Total	Head offices	Branches	Overseas offices
Domestically licensed banks					
City banks	Sep. 2015	2,873	5	2,729	139
Regional banks	Sep. 2015	7,508	64	7,429	15
Regional banks II	Sep. 2015	3,063	41	3,021	1
Trust banks	Sep. 2015	277	4	263	10
Financial institutions for small business					
Credit depositories	Feb. 2016	7,381	265	7,116	-
Credit cooperatives	Feb. 2016	1,696	153	1,543	-
Securities companies [1)]	Feb. 2016	2,137	255	1,882	-
Agricultural cooperatives	Mar. 2015	8,164	-	-	-
Post offices	Mar. 2016	24,126	-	-	-

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.

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 7,028 trillion yen according to figures at the end of March 2015. Of these assets, those of the domestic nonfinancial sector were 3,505 trillion yen. The household sector (including the business funds of individual proprietorships) had assets of 1,716 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 4.8
Financial Assets and Liabilities of Japan

(Billion yen)

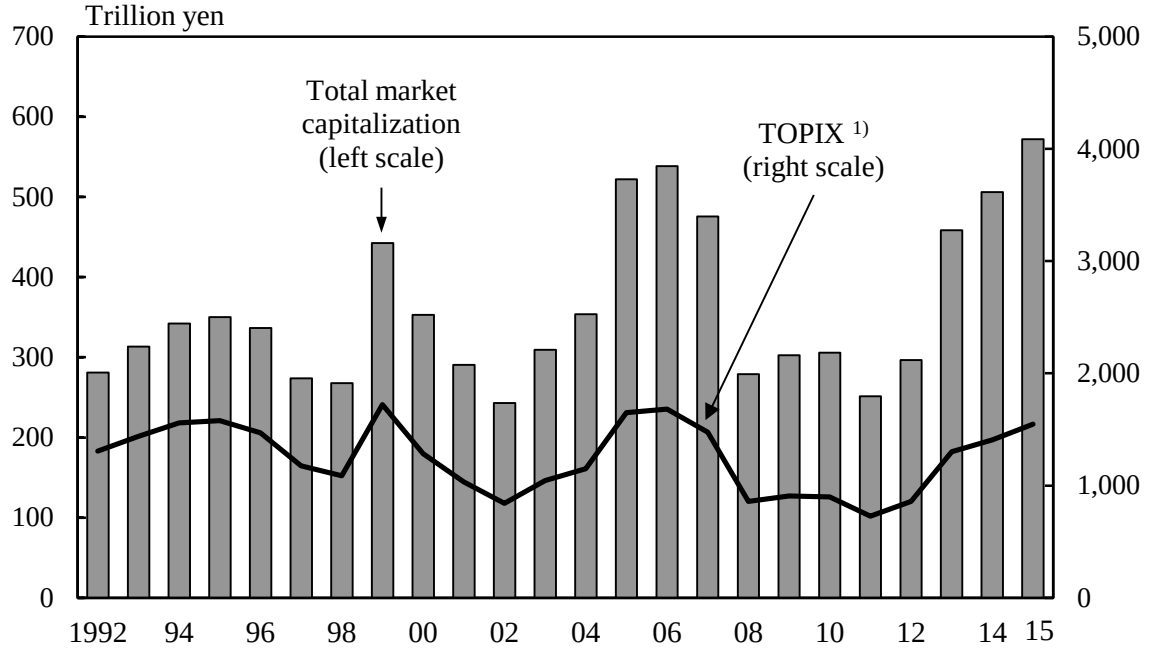
Sectors	March 2014	March 2015	Annual growth (%)
Financial assets			
Domestic sectors	6,489,536	7,028,022	8.3
Financial institutions	3,213,499	3,522,795	9.6
Domestic nonfinancial sector	3,276,038	3,505,227	7.0
Nonfinancial corporations	1,053,328	1,154,734	9.6
General government	534,856	579,993	8.4
Households (incl. individual proprietorships)	1,638,436	1,715,740	4.7
Private nonprofit institutions serving households	49,418	54,760	10.8
Overseas	474,506	593,645	25.1
Financial liabilities			
Domestic sectors	6,165,513	6,680,499	8.4
Financial institutions	3,147,341	3,419,138	8.6
Domestic nonfinancial sector	3,018,173	3,261,361	8.1
Nonfinancial corporations	1,467,165	1,651,051	12.5
General government	1,156,170	1,206,565	4.4
Households (incl. individual proprietorships)	367,355	375,729	2.3
Private nonprofit institutions serving households	27,483	28,016	1.9
Overseas	795,256	937,657	17.9

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 capitalization of the first section of the Tokyo Stock Exchange was 591 trillion yen, but only three years later, at the end of 1992, it had dropped by more than 50 percent to 281 trillion yen. Even after recovering to 442 trillion yen at the end of 1999, the stock market repeatedly fell and rose afterwards. The September 2008 the bankruptcy of Lehman Brothers led to a fall in total market capitalization, which amounted to 251 trillion yen at the end of 2011.

Figure 4.7
Trends in Stock Price Index and Total Market Capitalization
(Tokyo Stock Exchange, first section) (End of year)



1) Index of the total market capitalization of all stocks listed on the first section of the Tokyo Stock Exchange against a base value of 100 as of January 4, 1968. There is no continuity between figures through June 2013 and those from July 2013 due to the integration of cash equity markets between the Tokyo Stock Exchange and the Osaka.
Source: Tokyo Stock Exchange, Inc.

In 2012, the high yen in Japanese economy was corrected due to expectations toward anti-deflationary economic and fiscal policies by the new government, 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. In April 2015, the Nikkei Stock Average recovered to the 20,000 yen level for the first time in 15 years, and stood at 19,033.71 yen at the end of 2015, exceeding the previous year for the fourth consecutive year.

Table 4.9
Stock Prices (Tokyo Stock Exchange, first section)

Year		Number of listed companies [1)]	Total market capitalization [1)] (million yen)	Total trading value (million yen)	TOPIX [1) 2)] Tokyo stock price index, average	Nikkei Stock Average (225 issues) [1)] (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		1,858	505,897,342	576,525,070	1,407.51	17,450.77
2015		1,934	571,832,889	696,509,496	1,547.30	19,033.71
2016	Jan.	1,934	530,878,134	56,277,658	1,432.07	17,518.30
	Feb.	1,940	481,821,140	64,445,650	1,297.85	16,026.76
	Mar.	1,945	500,285,171	55,578,869	1,347.20	16,758.67

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: Tokyo Stock Exchange, Inc.; Bank of Japan; Nikkei Inc.

At the end of March 2015, 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 17.3 percent. The ratio of Japanese stocks held by foreign investors (total of corporations and individuals) was 31.7 percent in value terms, representing an increase for the third consecutive year, and setting a new record for the highest ratio. Records also show that Internet trading remained on a strong growth path.

A survey conducted of 248 securities firms by the Japan Securities Dealers Association (JSDA) showed that 24.6 percent of those companies offered Internet trading at the end of September 2015. Internet trading thus accounted for 23.1 percent of the total value of stock brokerage transactions from the period of April 2015 to September 2015.

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 13.40 million in 1960 (30.2 percent of the total workforce) to 2.30 million in 2014 (3.6 percent), and the GDP share of the industries fell from 12.8 percent in 1960 to 1.2 percent in 2014.

2. Agriculture

(1) Agricultural Production

Japan's total agricultural output in 2014 was 8.36 trillion yen, down 1.2 percent from the previous year. Crops yielded 5.37 trillion yen, down 6.0 percent from the previous year. This was due to the rice and vegetables output decreasing despite outputs of fruits and nuts increasing.

Table 5.1
Agricultural, Forestry and Fisheries Output

(Billion yen)

Item	2010	2011	2012	2013	2014
Total	10,026	10,082	10,335	10,331	10,321
Agriculture	8,121	8,246	8,525	8,467	8,364
Crops	5,513	5,639	5,879	5,703	5,363
Rice	1,552	1,850	2,029	1,781	1,434
Vegetables	2,249	2,134	2,190	2,253	2,242
Fruits and nuts	750	743	747	759	763
Livestock and its products	2,553	2,551	2,588	2,709	2,945
Beef cattle	464	463	503	519	594
Dairy cattle	773	751	775	778	805
Pigs	529	536	537	575	633
Chickens	735	753	724	784	853
Forestry	422	417	392	425	451
Fisheries	1,483	1,419	1,418	1,440	1,506

Source: Ministry of Agriculture, Forestry and Fisheries.

Table 5.2
Agricultural Production

(Thousand tons)

Products	2000	2005	2010	2013	2014
Cereal grains					
Rice	9,490	9,074	8,483	8,607	8,439
Wheat	688	875	571	812	852
Vegetables, potatoes and legumes					
Potatoes	2,898	2,752	2,290	2,408	2,456
Sweet potatoes	1,073	1,053	864	a) 942	887
Soybeans, dried	235	225	223	200	232
Cucumbers	767	675	588	574	549
Tomatoes	806	759	691	748	740
Cabbages	1,449	1,364	1,360	1,440	1,480
Chinese cabbages	1,036	924	889	906	914
Onions	1,247	1,087	1,042	1,068	1,169
Lettuces	537	552	538	579	578
Japanese radishes	1,876	1,627	1,496	1,457	1,452
Carrots	682	615	596	604	633
Fruits					
Mandarin oranges	1,143	1,132	786	896	875
Apples	800	819	787	742	816
Grapes	238	220	185	190	189
Japanese pears	393	362	259	267	271
Industrial crops					
Crude tea	a) 85	100	85	a) 85	84
Sugar beets [1)]	3,673	4,201	3,090	3,435	3,567

1), a) Figures are total of major producing prefectures.
Source: Ministry of Agriculture, Forestry and Fisheries.

Table 5.3
Production of Meat, Milk and Eggs

(Tons)

Products	2000	2005	2010	2013	2014
Pork	1,270,685	1,244,963	1,292,451	1,309,433	1,263,599
Beef	529,674	498,428	514,078	507,293	501,480
Veal	629	1,042	881	693	655
Horse meat	7,215	7,129	5,880	5,465	5,379
Broilers	1,551,101	1,702,001	1,835,091	1,905,255	1,946,449
Cow milk	8,497,278	8,285,215	7,720,456	7,508,261	7,334,264
Eggs	2,540,075	2,481,000	2,515,323	2,521,974	2,501,921

Source: Ministry of Agriculture, Forestry and Fisheries.

(2) Farmers and Farmland

In 2015, 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 or more) was 1.33 million. Of these commercial farm households, 33.3 percent were full-time farm households, 12.4 percent were part-time farm households with farming income exceeding non-farming income, and 54.3 percent were part-time farm households with non-farming income exceeding farming income.

Of the commercial farm household members, 2.10 million people were engaged in farming as their principal occupation (commercial farmers) in 2015, of whom 63.5 percent were aged 65 years and over.

In 2014, the total income per commercial farm household was 4.56 million yen, down 3.5 percent from the previous year. Of that amount, 1.19 million yen was from farming income, 1.46 million yen from non-farming income, and 1.91 million yen from pension benefits and other sources.

Table 5.4
Commercial Farm Households and Commercial Farmers

Year	Commercial farm households (1,000)				Commercial farmers	
	Total	Full-time	Part-time		(1,000)	Aged 65 years and over (%)
			Mainly farming	Mainly other job		
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
2015	1,330	443	165	722	2,097	63.5

Source: Ministry of Agriculture, Forestry and Fisheries.

Japan's cultivated acreage shrank year after year from 6.09 million hectares in 1961 to 4.50 million hectares in 2015. In the one-year period of 2015, there were 4,380 hectares of new cultivation but also a 25,900-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 the entire surface area of the country). 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.

Japan's forests, centering mainly on the planted forests that were developed after World War II, have entered their full-fledged utilization period. It is necessary to enable for forests to continuously exhibit their multi-faceted functions of soil conservation, prevention of global warming, etc. by cyclically following the cycle of planting, thinning and cutting forest resources.

Table 5.5
Forest Land Area and Forest Resources (2012)

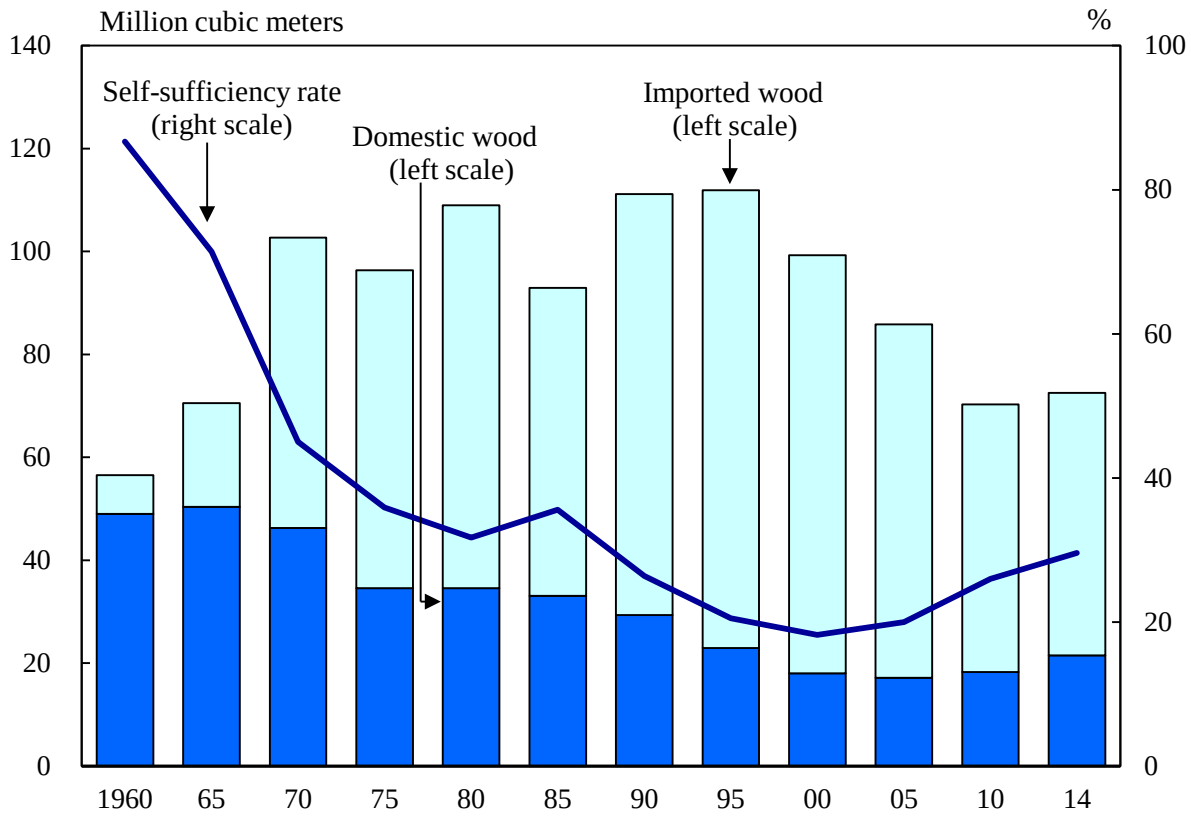
Item	Total	National forest	Non-national forest		
			Municipal	Private	Others
Forest land area (1,000 ha)	25,081	7,674	2,919	14,437	51
Forest growing stock (million m^3) ..	4,901	1,152	558	3,184	7
Planted forest					
Land area (1,000 ha)	10,289	2,327	1,287	6,662	14
Growing stock (million m^3)	3,042	467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

Source: Ministry of Agriculture, Forestry and Fisheries.

Domestic wood supply (log conversion) totaled 21.5 million cubic meters in 2014, which is equivalent to about 40 percent of the peak in 1967 (52.7 million cubic meters). In 2014, Japan's self-sufficiency rate for lumber was 29.6 percent. Currently, Japan depends mostly on imported lumber for pulp, woodchip, and plywood materials.

Although the number of workers engaged in forestry has declined due to a slowdown in domestic lumber production activities, the pace of decline has slackened in recent years, and there are indications that this decline is coming to an end. 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 1)



1) The volume in log equivalent.
Source: Ministry of Agriculture, Forestry and Fisheries.

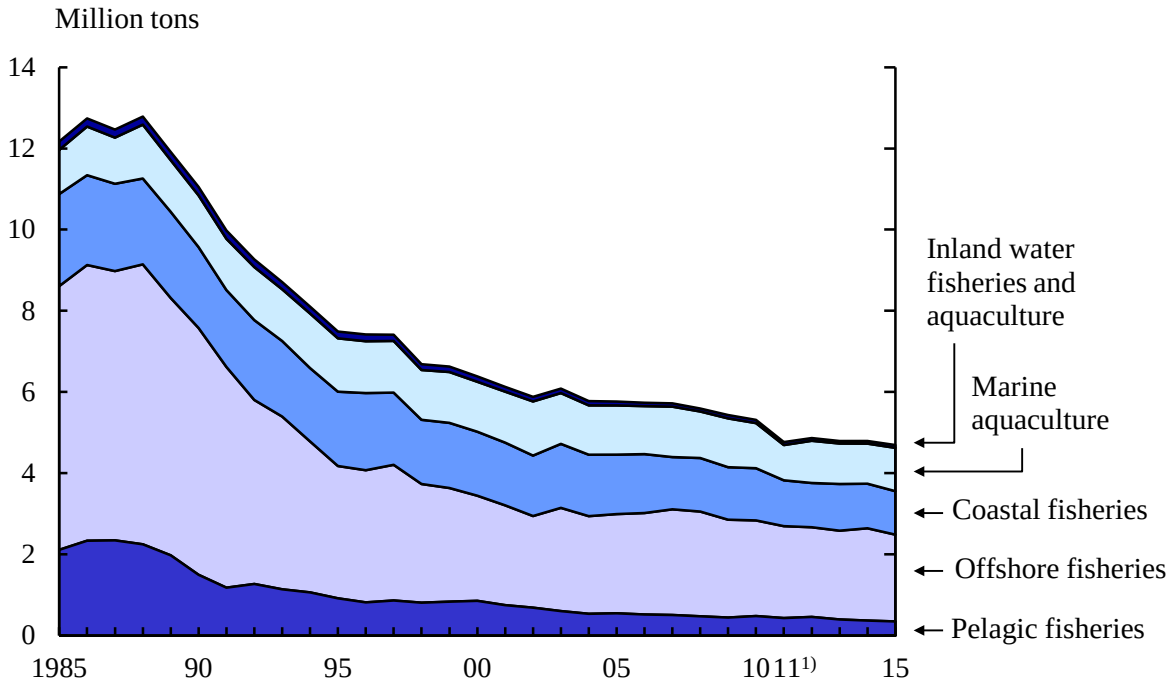
4. Fisheries

(1) Fishery Production

In Japan, a country surrounded by the ocean, the fishing industry has been developing since ancient times, and has contributed greatly to the lives of the Japanese, not only in economic terms, but also in promoting a food culture that is boasted to the world as Washoku. However, in recent years, the consumption of seafood has decreased due to changes in the environment surrounding food in Japan.

Japan's fishery output has been on the decline since 1989. Its 2015 fishery production totaled 4.69 million tons. Of this, marine fishery and aquaculture production amounted to 4.63 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

(Thousand tons)

Fishery type and species	2000	2005	2010	2014	2015*
Total	6,384	5,765	5,313	4,793	4,694
Marine fisheries	5,022	4,457	4,122	3,741	3,558
Tunas	286	239	208	190	182
Bonito	341	370	303	256	247
Sardine	150	28	70	202	349
Mackerels	346	620	492	501	580
Alaska pollack	300	194	251	195	180
Crabs	42	34	32	30	29
Squids	624	330	267	210	168
Marine aquaculture	1,231	1,212	1,111	988	1,067
Yellowtails	137	160	139	135	140
Oysters	221	219	200	184	164
Laver	392	387	329	276	298
Wakame Sea weed	67	63	52	45	49
Pearl (tons)	30	29	21	20	20
Inland water fisheries	71	# 54	# 40	# 31	# 33
Salmons and trouts	17	# 19	# 14	# 11	# 13
Sweetfish	11	# 7	# 3	# 2	# 2
Shellfishes	20	# 14	# 14	# 12	# 13
Inland water aquaculture	61	# 42	39	34	36
Eel	24	19	21	18	20
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 2015, there was a 3.7 percent decrease from the previous year, bringing the count to 167,000 workers. The number of workers in the fishery industry aged 15-24 years was 6,000, representing a 5.7 percent increase from the previous year.

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
2014	88,550	83,820	4,740	173,030	104,710	68,320
2015	85,210	80,570	4,640	166,610	100,520	66,100

Source: Ministry of Agriculture, Forestry and Fisheries.

As the aging of fishing vessels progresses and the fishery workers aging increases, fisheries have 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 1997. Whereas the ratio was 53 percent in fiscal 1980, the ratio was 39 percent in fiscal 2014. The principal cause for the drop in the food self-sufficiency rate is the decline in domestic production capacity due to a decrease in the number of workers engaged in agriculture, as well as the fact that the diet of the Japanese people changed significantly, leading to a lower consumption of rice, while there was an increase in the consumption amount of livestock products such as meats that domestic agricultural production alone cannot supply sufficiently.

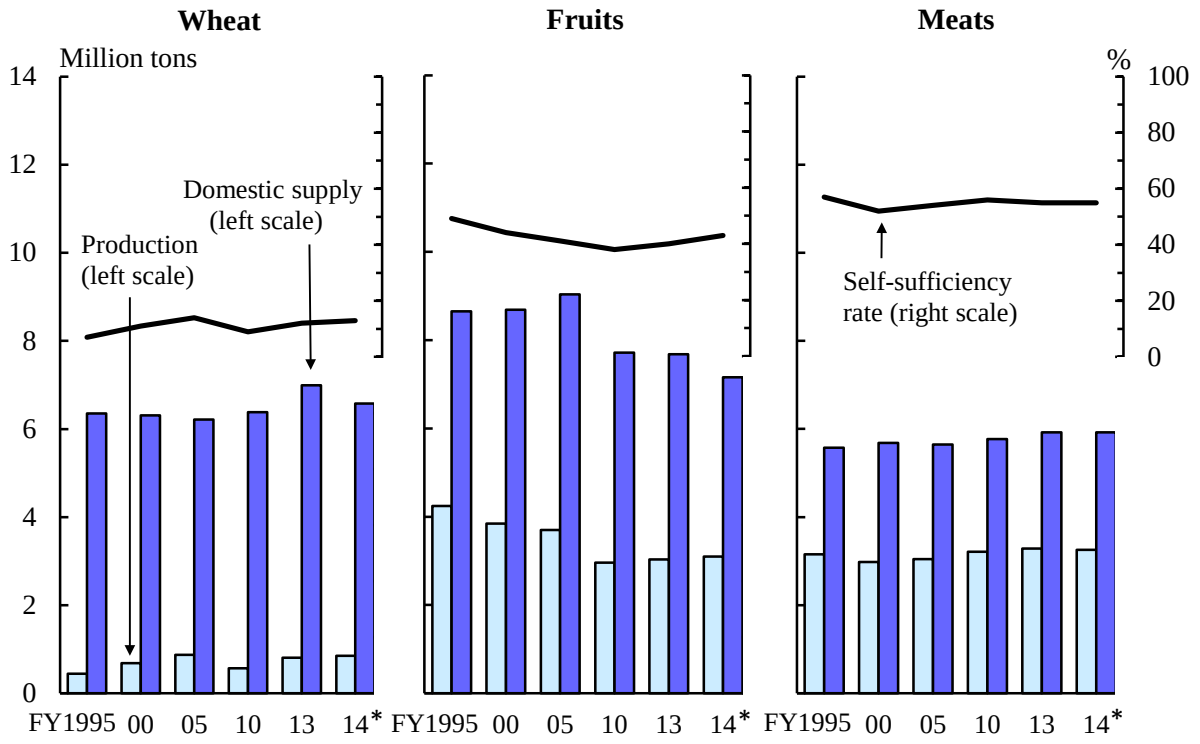
In fiscal 2014, the self-sufficiency rate (on an item-specific weight basis) was 100 percent for rice, 13 percent for wheat, 10 percent for beans, 80 percent for vegetables, 43 percent for fruits, 55 percent for meats, and 60 percent for seafood. Although completely self-sufficient in rice, the staple food of its people, Japan relied almost entirely on imports for the supply of wheat and beans.

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)
Rice					
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
2014*	1,575	8,628	5.48	856	8,792
Wheat					
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
2014*	213	852	4.01	6,016	6,579

Source: Ministry of Agriculture, Forestry and Fisheries.

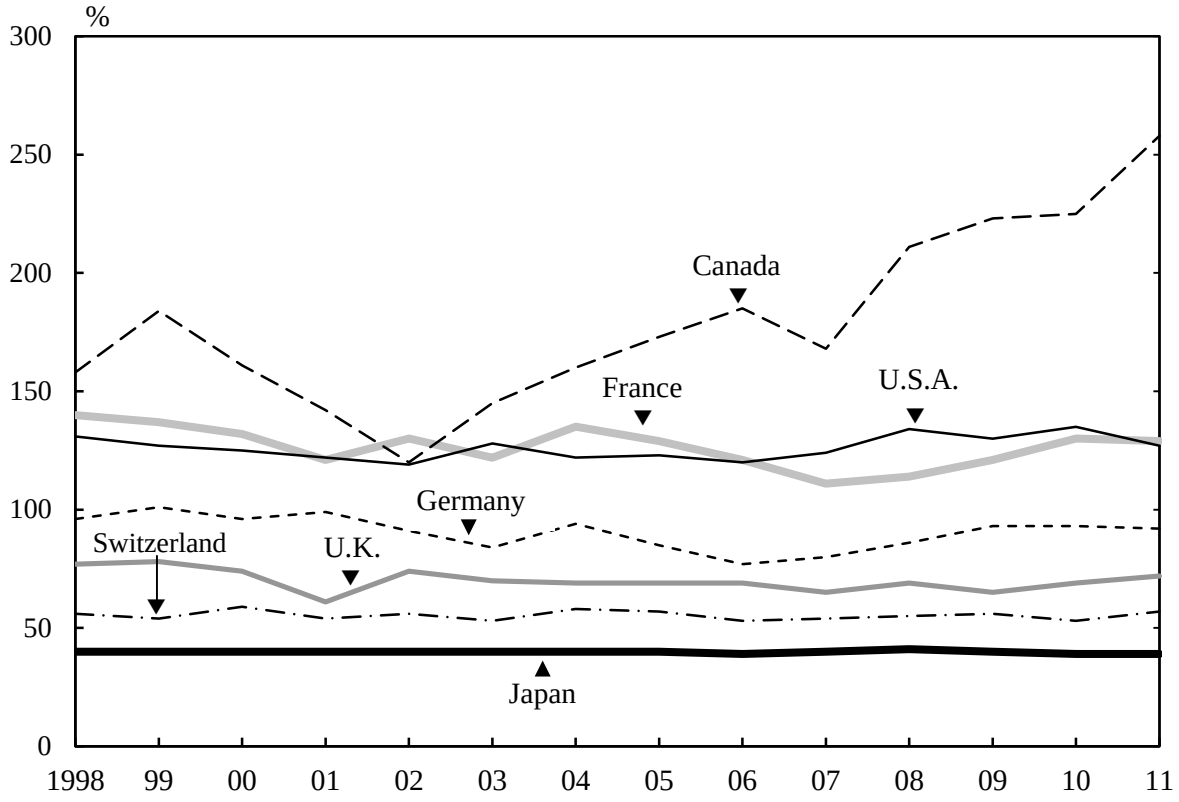
Figure 5.3
Self-Sufficiency Rates for Selected Categories of Agricultural Produce



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 1)
(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 been around 20 percent recently, and the sector has a large ripple effect on other sectors.

In Japan, the September 2008 Lehman Brothers Bankruptcy 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. Against such background, the Japanese government announced an economic policy ("Abenomics") in January 2013, resulting in the Japanese economy shifting to a recovery. Afterwards, in April 2014, there were impacts caused by a response to last-minute demand associated with the increase in consumption tax. However, the economy has continued a gradual upward momentum, and improvements in earnings can also be seen in enterprises in the manufacturing industry.

In 2014, there were 202,410 establishments (with four or more persons engaged) in the manufacturing sector. By industry, "food" had the most, with 27,115 establishments (component ratio of 13.4 percent), followed by "fabricated metal products" with 26,797 establishments (13.2 percent) and "production machinery" with 19,083 establishments (9.4 percent).

There were 7.40 million persons engaged, and by industry, "food" had the most, with 1.11 million persons engaged (component ratio of 15.0 percent), followed by "transportation equipment" with 0.98 million persons engaged (13.2 percent) and "fabricated metal products" with 0.58 million persons engaged (7.8 percent).

The value of manufactured goods shipments was 305.1 trillion yen, and by industry, "transportation equipment" had the most at 60.1 trillion yen (component ratio of 19.7 percent), followed by "chemical and related products" at 28.1 trillion yen (9.2 percent) and "food" at 25.9 trillion yen (8.5 percent).

Table 6.1
Number of Establishments, Persons Engaged and Value of Manufactured Goods Shipments of the Manufacturing Industry [1] (2014)

Industries	Number of establish-ments	Number of persons engaged	Value of manu-factured goods shipments (billion yen)
Manufacturing	202,410	7,403,269	305,140
Food	27,115	1,112,433	25,936
Beverages, tobacco and feed	4,128	99,451	9,597
Textile mill products	13,430	268,135	3,822
Lumber and wood products [2]	5,547	91,497	2,520
Furniture and fixtures	5,550	96,824	1,915
Pulp, paper and paper products	5,969	181,868	6,974
Printing and allied industries	11,664	268,880	5,416
Chemical and related products	4,669	343,416	28,123
Petroleum and coal products	931	24,830	18,659
Plastic products [3]	12,936	405,938	11,533
Rubber products	2,525	110,987	3,207
Leather tanning, leather products and fur skins	1,394	22,380	348
Ceramic, stone and clay products	9,974	237,733	7,332
Iron and steel	4,222	214,988	19,202
Non-ferrous metals and products	2,594	138,587	9,422
Fabricated metal products	26,797	576,707	13,933
General-purpose machinery	7,141	308,841	10,103
Production machinery	19,083	550,642	16,591
Business oriented machinery	4,159	204,404	7,034
Electronic parts, devices and electronic circuits	4,267	382,110	13,818
Electrical machinery, equipment and supplies	8,953	481,936	17,032
Information and communication electronics equipment	1,501	151,851	8,628
Transportation equipment	10,415	980,505	60,063
Miscellaneous manufacturing products, n.e.c.	7,446	148,326	3,933

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.

Based on the Indices on Mining and Manufacturing (2010 average=100), the production index for 2015 was 97.8, down 1.2 percent from the previous year, while shipments stood at 96.9, a decrease of 1.3 percent from the year before.

Table 6.2

Indices on Mining and Manufacturing (2015)

(2010 average=100)

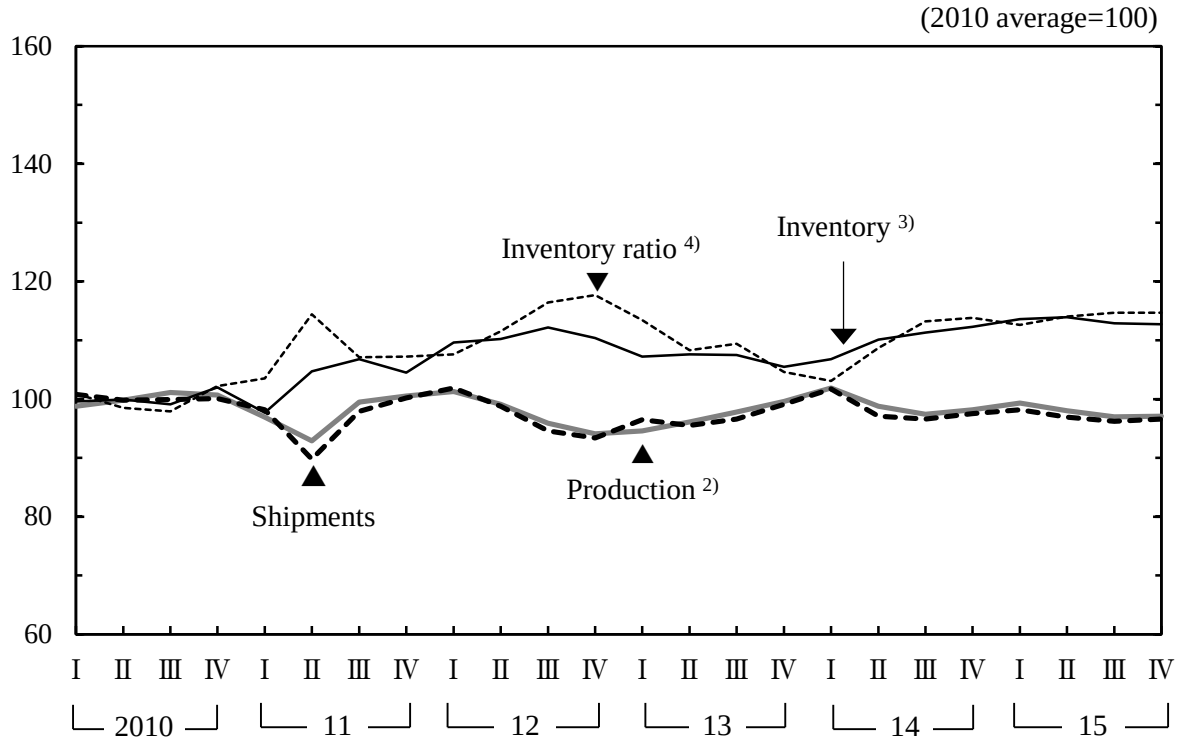
Industries	Production [1]		Shipments		Inventory [2]		Inventory Ratio [3]	
		Annual growth (%)		Annual growth (%)		Annual growth (%)		Annual growth (%)
Mining and manufacturing ..	97.8	-1.2	96.9	-1.3	112.3	0.0	114.2	4.0
Manufacturing	97.8	-1.2	96.9	-1.3	112.3	0.0	114.2	4.0
Foods and tobacco	96.5	-0.3	95.3	-0.3	81.8	-0.7	88.2	-7.1
Textiles	95.4	-1.9	94.4	-1.8	114.5	3.2	116.6	5.9
Pulp, paper and paper products	97.7	-0.5	96.3	-0.5	103.5	4.2	113.6	4.8
Chemicals	97.1	1.1	94.1	0.2	109.7	4.8	117.8	1.1
Chemicals (excl. Drugs)	95.0	1.7	92.1	0.3	109.7	4.8	117.8	1.1
Petroleum and coal products	91.1	-0.2	94.9	1.4	87.5	-3.0	92.5	-3.3
Plastic products	97.1	-1.5	95.3	-2.0	109.6	3.9	112.7	3.5
Ceramics, stone and clay products	99.2	-3.0	99.8	-2.3	107.9	-1.0	111.6	5.8
Iron and steel	93.3	-5.7	94.6	-6.2	115.6	-3.3	116.1	2.3
Non-ferrous metals	96.5	-1.6	95.3	-1.5	118.5	-0.7	121.5	6.1
Fabricated metals	95.0	-2.8	95.4	-2.7	111.9	-2.9	127.4	0.0
General-purpose machinery ..	101.5	-5.3	101.4	-4.1	116.2	-3.6	123.3	5.5
Production machinery	124.0	1.5	124.4	0.2	185.1	30.4	118.6	31.8
Business oriented machinery	101.2	1.5	104.3	1.1	128.0	24.0	131.0	19.9
Electronic parts and devices	102.9	6.6	116.3	9.2	110.2	-2.4	134.8	4.2
Electrical machinery	101.0	-2.1	98.2	-3.9	142.6	-5.6	133.8	6.2
Information and communication electronics equipment	54.9	-10.6	48.7	-9.3	75.8	-9.4	125.3	-14.8
Transport equipment	98.8	-2.8	96.8	-2.9	90.4	-23.7	102.3	3.1
Other manufacturing	93.7	-3.1	94.9	-3.6	96.9	-3.6	101.9	5.7
Mining	90.4	-4.2	88.7	-3.6	96.4	-5.4	109.4	5.2
(Reference) Electricity, gas, heat supply and water	90.6	-3.1	92.0	-2.6	-	-	-	-

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

3) Inventory ratio = Inventory quantity / Shipments quantity

Source: Ministry of Economy, Trade and Industry.

Figure 6.1
Trends in Indices on Mining and Manufacturing [1)]



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 2014 (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 2014, a total of 10,415 establishments, employed 980,505 persons, and shipped 60.1 trillion yen worth of products.

(b) In 2015, production and shipments decreased by 2.8 percent and 2.9 percent, respectively, from the previous year. Production decreased for the first time in two years, and shipments fell for a third consecutive year.

These decreases were due to a decrease in the production and shipments of passenger cars and motor vehicle parts, etc.

(B) Electrical Machinery, Equipment and Supplies Industry

(a) In 2014, a total of 8,953 establishments, employed 481,936 persons, and shipped 17.0 trillion yen worth of products.

(b) In 2015, production and shipments decreased year-on-year by 2.1 percent and 3.9 percent, respectively, from the previous year, representing their first decrease in two years. These decreases were due to a decrease in the production and shipments of household electrical machinery and electrical rotating machinery, etc.

(C) Production Machinery Industry

(a) In 2014, a total of 19,083 establishments, employed 550,642 persons, and shipped 16.6 trillion yen worth of products.

(b) In 2015, production and shipments increased year-on-year by 1.5 percent and 0.2 percent, respectively, from the previous year, representing their second consecutive year of increase. These increases were due to an increase in the production and shipments of semiconductor and flat-panel display manufacturing equipment and metal cutting machinery, etc.

(D) Electronic Parts and Devices Industry

(a) In 2014, a total of 4,267 establishments, employed 382,110 persons, and shipped 13.8 trillion yen worth of products.

(b) In 2015, production and shipments increased by 6.6 percent and 9.2 percent, respectively, from the previous year, representing their third consecutive year of increase. These increases were due to an increase in the production and shipments of electronic parts, integrated circuits, etc.

(E) Information and Communication Electronics Equipment Industry

(a) In 2014, a total of 1,501 establishments, employed 151,851 persons, and shipped 8.6 trillion yen worth of products.

(b) In 2015, production and shipments decreased by 10.6 percent and 9.3 percent, respectively, from the previous year, representing their fifth consecutive year of decrease. These decreases were due to a decrease in the production and shipments of household electronic machinery and electronic computers.

(2) Chemical Industry

(a) In 2014, a total of 4,669 establishments, employed 343,416 persons, and shipped 28.1 trillion yen worth of products.

(b) In 2015, production and shipments increased by 1.1 percent and 0.2 percent, respectively, from the previous year their first increase in two years. In 2015, production and shipments in the chemical industry (excluding drugs) increased by 1.7 percent and 0.3 percent, respectively, from the previous year, representing their first increase in two years. These increases were due to an increase in the production and shipments of cosmetics, etc.

(3) Iron and Steel Industry

(a) In 2014, a total of 4,222 establishments, employed 214,988 persons, and shipped 19.2 trillion yen worth of products.

(b) In 2015, production and shipments decreased year-on-year by 5.7 percent and 6.2 percent, respectively, their first decrease in four years. This was due to a decrease in the production and shipments of hot rolled steel, etc.

Table 6.3
Crude Steel Production in Selected Countries

(Thousand tons)

Country	2010	2012	2013	2014	2015*
China	638,743	731,040	822,000	822,750	803,825
Japan	109,599	107,232	110,595	110,666	105,150
India	68,976	77,264	81,299	87,292	89,582
U.S.A.	80,495	88,695	86,878	88,174	78,845
Russia	66,942	70,209	69,008	71,461	70,879
Korea, Rep. of	58,914	69,073	66,061	71,543	69,673
Germany	43,830	42,661	42,645	42,676	42,676
Brazil	32,948	34,524	34,163	33,897	32,712
Turkey	29,143	35,885	34,654	34,035	31,517
Ukraine	33,432	32,975	32,771	27,170	22,968

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

Table 6.4
Steel Production

(Thousand tons)

Products	2010	2011	2012	2013	2014
Pig iron	82,283	81,028	81,405	83,849	83,872
Ferroalloys	893	834	908	938	923
Crude steel	109,599	107,601	107,232	110,595	110,666
Semi-finished steel	106,960	104,594	104,571	107,991	107,856
Ordinary hot-rolled steel	77,260	74,492	74,911	77,006	76,968
Special hot-rolled steel	20,505	20,340	19,896	19,960	20,914

Source: Ministry of Economy, Trade and Industry.

(4) Fabricated Metal Products Industry

(a) In 2014, a total of 26,797 establishments, employed 576,707 persons, and shipped 13.9 trillion yen worth of products.

(b) In 2015, production and shipments decreased by 2.8 percent and 2.7 percent, respectively, from the previous year. Production decreased for the third consecutive year, while shipments recorded the first decrease in two years. These decreases were due to a decrease in the production and shipments of metal products of building, equipment for heating and kitchen, etc.

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 after 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 2014 amounted to 51.3 trillion yen at current prices, up 0.0 percent compared to the previous fiscal year; they totaled 46.7 trillion yen at constant fiscal 2005 prices, down 2.6 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 25.9 trillion yen (down 4.5 percent from the previous fiscal year), while civil engineering works amounted to 25.4 trillion yen (up 5.0 percent).

In terms of public and private construction investment in fiscal 2014, public investment amounted to 23.5 trillion yen (up 4.2 percent from the previous fiscal year), while private investment totaled 27.8 trillion yen (down 3.3 percent). Public investment accounted for 45.8 percent of total construction investment, while private investment accounted for 54.2 percent.

Table 6.5
Construction Investment (Current prices)

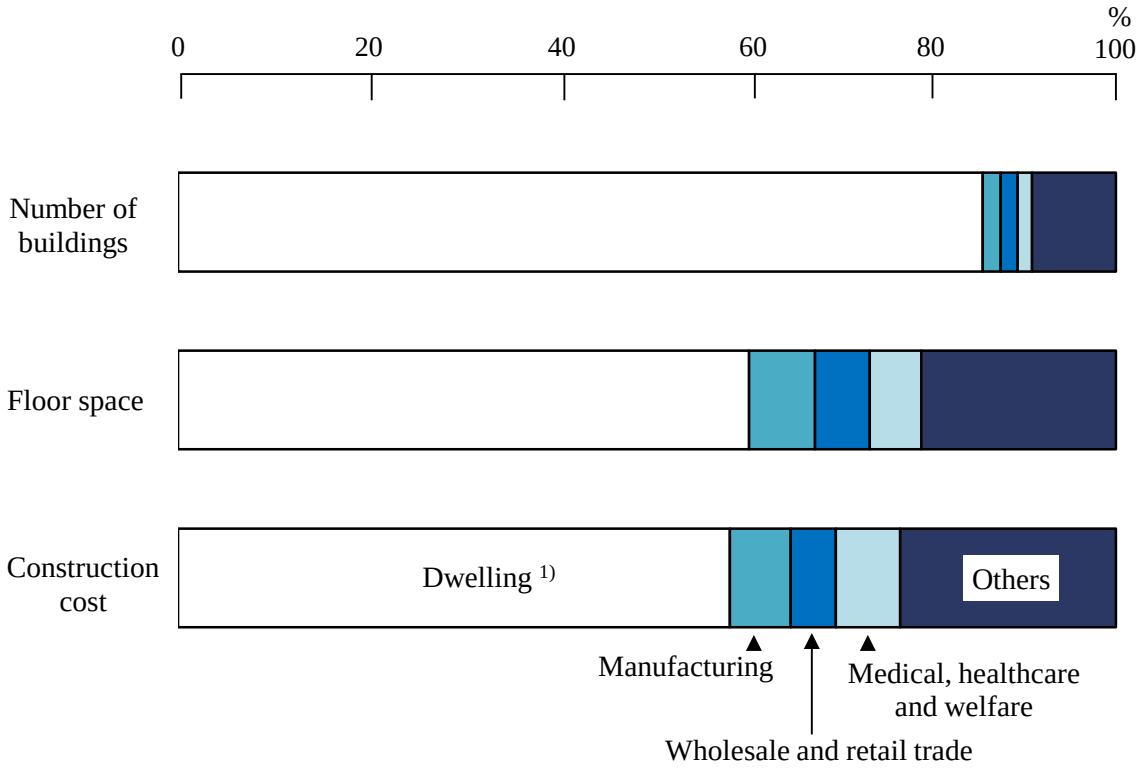
(Billion yen)

Item	FY2011	FY2012	FY2013*	FY2014*
Total	43,292	45,291	51,290	51,300
Building construction	22,480	23,513	27,070	25,860
Dwellings	13,840	14,577	16,460	15,200
Public sector	465	483	670	640
Private sector	13,375	14,094	15,790	14,560
Non-dwellings	8,640	8,936	10,610	10,660
Public sector	1,678	1,695	2,190	2,030
Private sector	6,962	7,240	8,420	8,630
Mining and manufacturing	1,155	1,249	…	…
Others	5,807	5,991	…	…
Civil engineering works	20,812	21,779	24,220	25,440
Public sector	16,468	17,539	19,690	20,830
Public works	13,854	14,966	17,070	18,250
Others	2,613	2,574	2,620	2,580
Private sector	4,345	4,240	4,530	4,610
Total				
Public investment	18,611	19,717	22,550	23,500
Private investment	24,682	25,574	28,740	27,800
Building construction				
Public investment	2,143	2,178	2,860	2,670
Private investment	20,337	21,335	24,210	23,190
Civil engineering works				
Public investment	16,468	17,539	19,690	20,830
Private investment	4,345	4,240	4,530	4,610

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

The 2015 total floor space of building starts was 129.62 million square meters, down 3.3 percent from the previous year. In particular, the floor space of buildings for medical, healthcare and welfare use decreased by 29.6 percent compared to the previous year, to 7.13 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 rented and built-for-sale units alike, totaling 0.91 million housing units. This was a 1.9 percent increase from the previous year, the first increase in two years.

Figure 6.2
Building Construction Started by Use Objective (2015)



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 91.5 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 such as nuclear power, natural gas, coal, etc., and secure a stable supply of petroleum through stockpiling and other measures. As a result, its dependence on petroleum declined from 75.5 percent in fiscal 1973 to 43.5 percent in fiscal 2010. However, since 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 47.2 percent in fiscal 2012.

In fiscal 2014, the total primary energy supply in Japan was 21,056 petajoules, down 4.2 percent from the previous fiscal year. Its breakdown was: 44.6 percent in petroleum, 24.4 percent in coal, 23.6 percent in natural gas, and 3.3 percent in hydro power. The domestic supply of nuclear energy in this year was zero due to the suspended operation of all nuclear power plants in Japan. Other sources were also used, though only in small quantities, including energy from waste, geothermal, and natural energy (photovoltaic, wind power, biomass energy, etc.).

Energy units

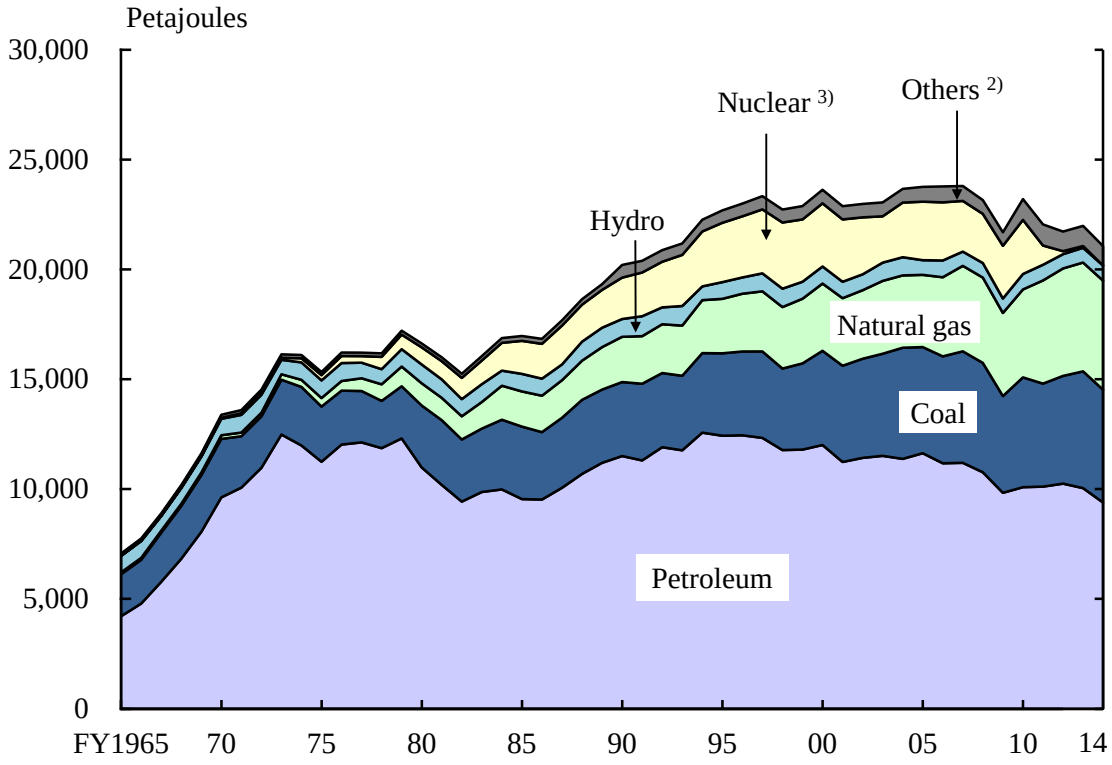
Joule (J) is employed as a common unit (International System of Units: SI) for energy across all energy sources in presenting international statistical information. The unit Petajoule (PJ: 10^{15} or quadrillion joules) is used here to reduce the number of digits. The energy of one kiloliter of petroleum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

1 kiloliter of petroleum = 3.87×10^{10} joules
1 petajoule = 10^{15} joules

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

As a result, the government has been working to construct a new energy supply-demand structure oriented toward stable supply of energy and lowering energy costs. In this process, energy-saving and renewable energy that takes global warming into consideration has been introduced, and aims are being made toward reducing dependency on nuclear power.

Figure 7.1
Total Primary Energy Supply [1)]



1) A different statistical method was used for the figures for FY1989 and prior. 2) Photovoltaic, wind power, geothermal energy, etc. 3) Between 2014 and 2015, the domestic suppy of nuclear energy was zero due to the suspended operation of all nuclear power plants in Japan.
Source: Ministry of Economy, Trade and Industry.

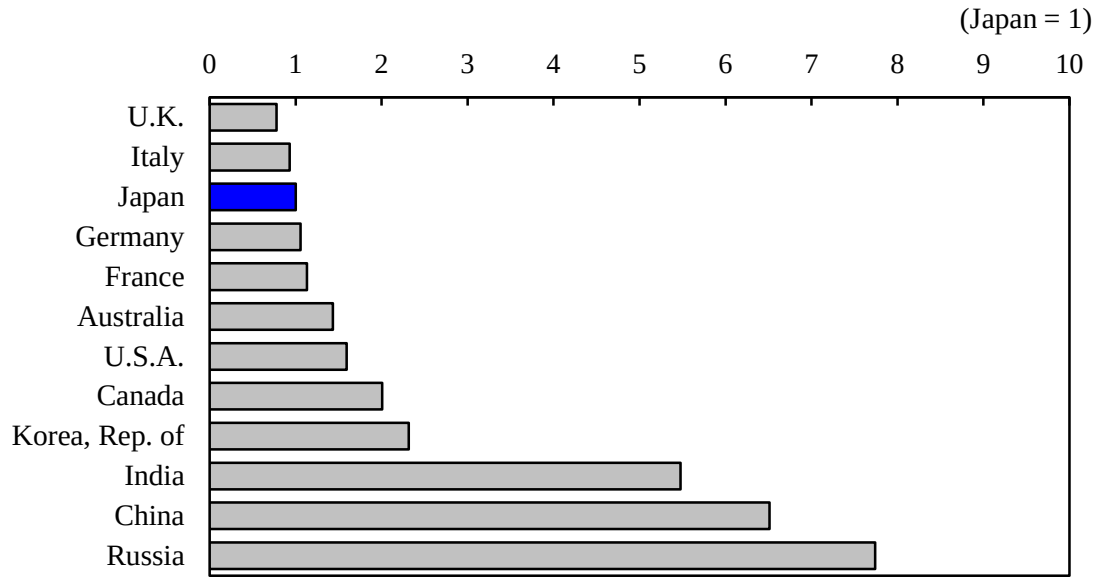
Table 7.1
Trends in Total Primary Energy Supply and Percentage by Energy Source

(Petajoules)

Item	FY2000	FY2005	FY2010	FY2013	FY2014
Total primary energy supply	23,622	23,755	# 23,200	21,980	21,056
Energy self-sufficiency (%) [1] ..	19.6	18.3	# 19.4	8.7	8.4
Petroleum	12,008	11,634	10,088	10,045	9,388
Coal	4,286	4,829	4,997	5,314	5,133
Natural gas	3,061	3,288	4,002	4,953	4,963
Hydro	778	668	703	671	691
Nuclear	2,873	2,662	2,465	80	a) 0
Others [2]	616	674	# 944	916	882
Percentage					
Petroleum	50.8	49.0	43.5	45.7	44.6
Coal	18.1	20.3	21.5	24.2	24.4
Natural gas	13.0	13.8	17.2	22.5	23.6
Hydro	3.3	2.8	3.0	3.1	3.3
Nuclear	12.2	11.2	10.6	0.4	0.0
Others [2]	2.6	2.8	4.1	4.2	4.2

1) Domestic production of primary energy (including nuclear)/Domestic supply of primary energy × 100 2) Photovoltaic, wind power, geothermal energy, etc.
a) Between 2014 and 2015, the domestic supply of nuclear energy was zero due to the suspended operation of all nuclear power plants in Japan.
Source: Ministry of Economy, Trade and Industry.

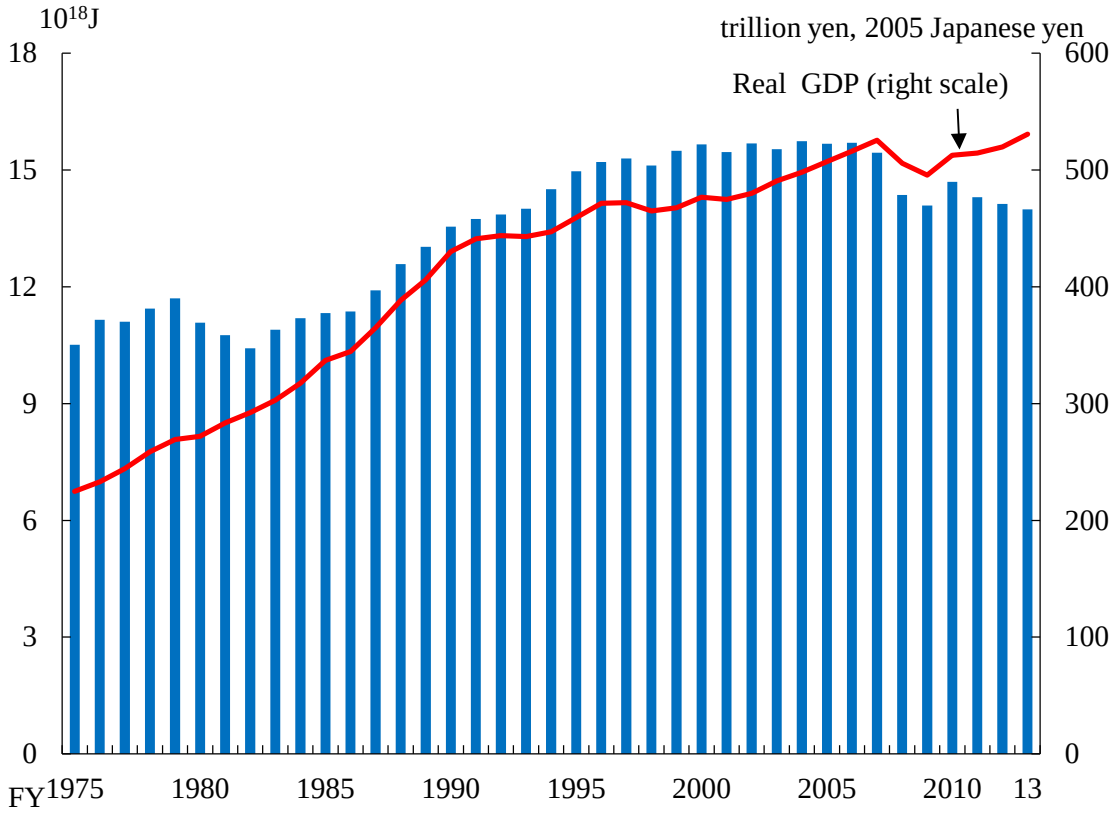
Figure 7.2
International Comparison of Energy/GDP Ratio [1] (2013)



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

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 7.3
Trends in Final Energy Consumption and Real GDP [1)]

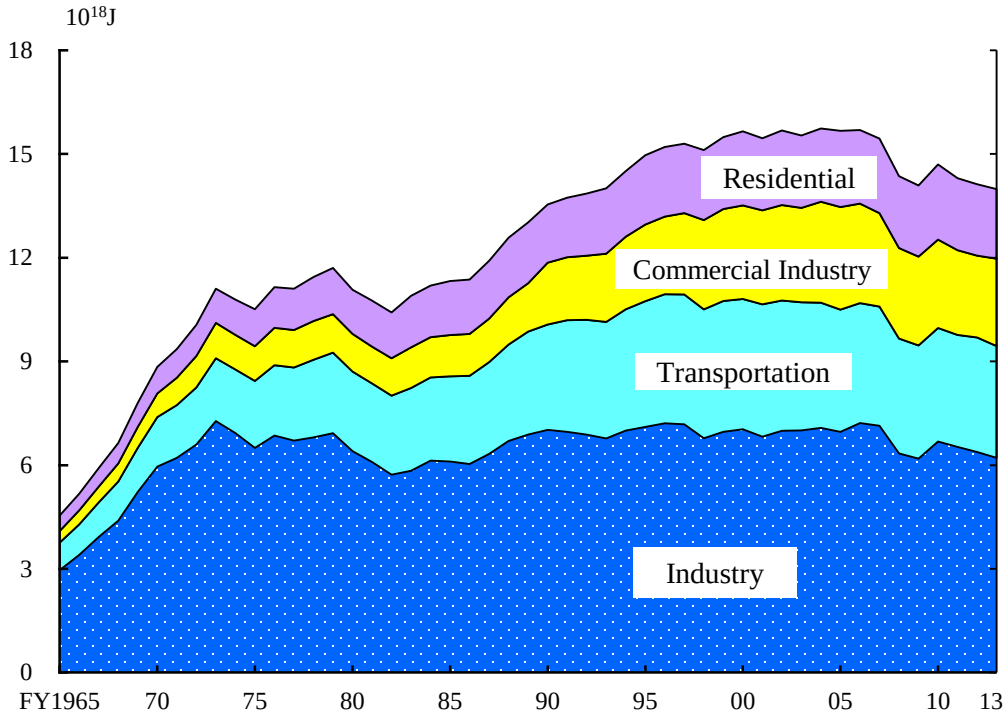


1) A different statistical method was used for the figures for FY1989 and prior.
Source: Cabinet Office, Ministry of Economy, Trade and Industry.

Energy consumption in Japan increased from the 1970s to 1990s, during which there were two oil shocks and a decrease in crude oil prices. However, in the 2000s, as crude oil prices rose again, energy consumption peaked in fiscal 2004, and then started decreasing. In fiscal 2013, real GDP reached the highest level ever, but final energy consumption decreased.

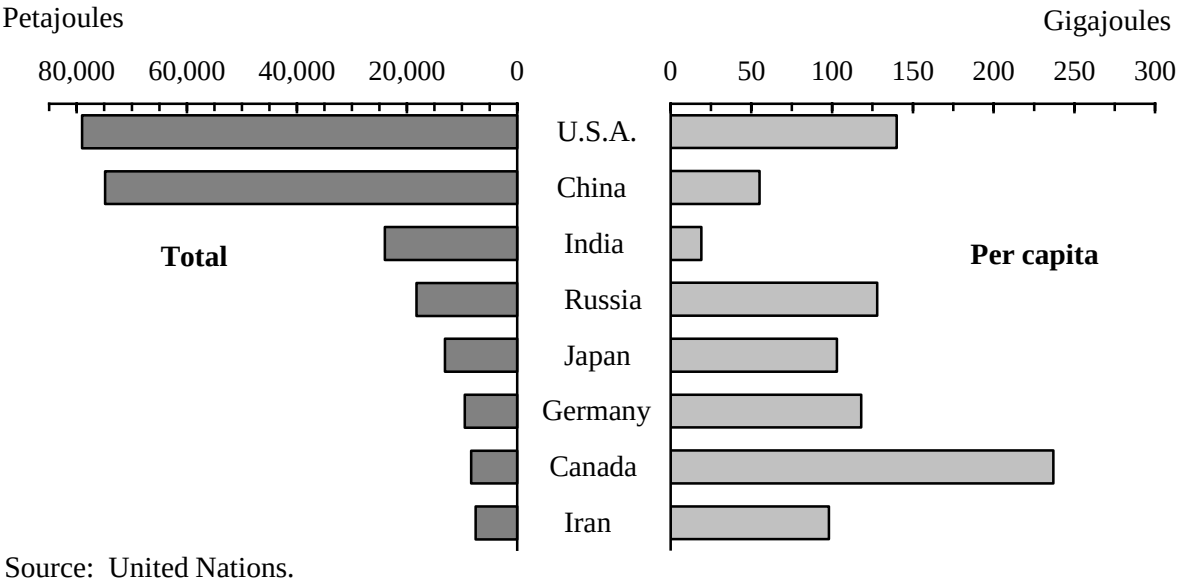
Final energy consumption in fiscal 2013 decreased 1.0 percent from the previous fiscal year, and even by sector, it has decreased in the industry sector, residential sector, and transportation sector.

Figure 7.4
Trends in Final Energy Consumption by Sector [1)]



1) A different statistical method was used for figures of FY1989 and prior.
Source: Ministry of Economy, Trade and Industry.

Figure 7.5
Total Final Energy Consumption by Country (2013)



Source: United Nations.

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 1,054 billion kWh in fiscal 2014, down 3.4 percent from the previous fiscal year. Of this total, thermal power accounted for 90.7 percent; hydro power 8.3 percent.

Table 7.2
Trends in Electricity Output and Power Consumption [1)]

(Million kWh)

Item	FY2000	FY2005	FY2010	FY2013	FY2014
Electricity Output					
Total	1,091,500	1,157,926	1,156,888	1,090,482	1,053,717
Thermal	669,177	761,841	771,306	987,345	955,352
Hydro	96,817	86,350	90,681	84,885	86,942
Nuclear	322,050	304,755	288,230	9,303	-
Others [2)]	3,456	4,980	6,671	8,949	11,423
Percentage					
Total	100.0	100.0	100.0	100.0	100.0
Thermal	61.3	65.8	66.7	90.5	90.7
Hydro	8.9	7.5	7.8	7.8	8.3
Nuclear	29.5	26.3	24.9	0.9	-
Others [2)]	0.3	0.4	0.6	0.8	1.1
Power Consumption					
Total	982,066	1,043,800	1,056,441	992,627	969,430
Generated by electric power suppliers	858,078	918,265	931,059	876,032	855,353
Consumption of in-house generation	123,988	125,535	125,382	116,595	114,078

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

3. Gas

Gas production was 1,382 petajoules in fiscal 2014, up 2.2 percent from the previous fiscal year. Of this total, natural gas plus liquefied natural gas (LNG) accounted for 95.8 percent; and the remaining 4.2 percent was made up of petroleum gases, such as volatile oil and liquefied petroleum gas. Gas purchases for fiscal 2014 totaled 252 petajoules.

Gas sales for fiscal 2014 totaled 1,553 petajoules, or year-on-year growth of 1.1 percent. Of this total, 54.6 percent was sold to industry, 25.8 percent to residential use, and 11.6 percent to the commercial sector.

Table 7.3
Trends in Production and Purchases, and Sales of Gas [1)]

(Petajoules)

Item	FY2005		FY2010		FY2013		FY2014	
Production and purchases	1,394		1,547		1,610		1,634	
Production	1,235	(100.0)	1,288	(100.0)	1,352	(100.0)	1,382	(100.0)
Petroleum gases [2)]	67	(5.4)	46	(3.6)	55	(4.0)	58	(4.2)
Natural gas and LNG	1,168	(94.6)	1,241	(96.4)	1,297	(96.0)	1,324	(95.8)
Others	-	(-)	-	(-)	-	(-)	-	(-)
Purchases	159	(100.0)	259	(100.0)	258	(100.0)	252	(100.0)
Coal gases	2	(1.3)	-	(-)	-	(-)	-	(-)
Petroleum gases [3)]	10	(6.4)	6	(2.4)	5	(1.8)	4	(1.5)
Natural gas and LNG [4)]	147	(92.3)	253	(97.6)	253	(98.2)	248	(98.4)
Others	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Sales	1,359	(100.0)	1,477	(100.0)	1,536	(100.0)	1,553	(100.0)
Residential	416	(30.6)	410	(27.7)	400	(26.0)	401	(25.8)
Commercial	205	(15.1)	198	(13.4)	187	(12.2)	181	(11.6)
Industrial	619	(45.5)	738	(50.0)	822	(53.5)	848	(54.6)
Others [5)]	120	(8.8)	131	(8.9)	127	(8.3)	123	(7.9)

1) Figures in parentheses indicate a 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 at 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 2015 totaled 866,900. The total R&D spending in fiscal 2014 amounted to 19.0 trillion yen, an increase of 4.6 percent from the previous fiscal year. Relative to GDP, R&D spending was 3.87 percent, a 0.12 point percent increase from the previous fiscal year.

Table 8.1
Trends in Research and Development

Year [1)]	Number of Researchers [2)]	Fiscal year	R&D expenditures (billion yen)	GDP (billion yen)	Ratio of R&D expenditures to GDP (%)
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	473,996	3.64
2011	842,900	2010	17,110	480,528	3.56
2012	844,400	2011	17,379	474,171	3.67
2013	835,700	2012	17,325	474,404	3.65
2014	841,600	2013	18,134	482,430	3.76
2015	866,900	2014	18,971	489,623	3.87

1) As of the end of March. 2) Business enterprises, non-profit institutions and public organizations: Prorated by the percentage of time that researchers are actually engaged in R&D activities. Universities and colleges: headcount.

Source: Statistics Bureau, MIC.

As of the end of March 2015, the number of researchers amounted to 506,100 persons in business enterprises, 39,200 persons in non-profit institutions and public organizations, and 321,600 persons in universities and colleges. In terms of R&D expenditures in fiscal 2014, business enterprises spent 13.6 trillion yen (71.6 percent of total R&D expenditures), non-profit institutions and public organizations spent 1.7 trillion yen (8.9 percent), and universities and colleges spent 3.7 trillion yen (19.5 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, which was promulgated and enforced in 1995, the Japanese government has formulated a Basic Plan since fiscal 1996, and has promoted science and technology policies.

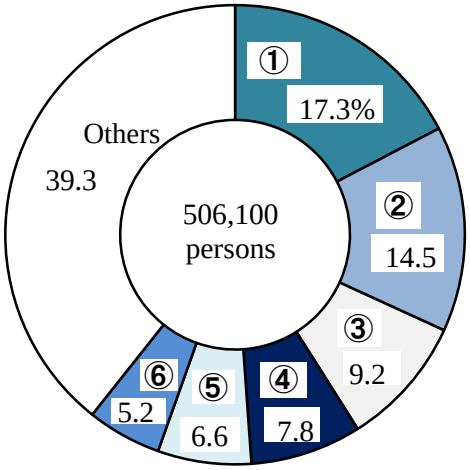
Currently, the Fourth Science and Technology Basic Plan (fiscal 2011 to fiscal 2015), which orients the recovery and reconstruction from the Great East Japan Earthquake as one of its main pillars, is being initiated. Within R&D spending in fiscal 2014, the amount of expenses used for the three fields the government should address as priority issues set in the Fourth Science and Technology Basic Plan consisted of 944.7 billion yen towards "Promotion of Life Innovation," 594.8 billion yen towards "Promotion of Green Innovation" and 83.3 billion yen towards "Recovery and Reconstruction from the Great East Japan Earthquake."

Approximately 90 percent of the 506,100 researchers at business enterprises at the end of March 2015, or 443,100 persons, were in the manufacturing industries; the largest number was in the information and communication electronics equipment industry, followed by the motor vehicles, parts and accessories industry, then by the business oriented machinery industry.

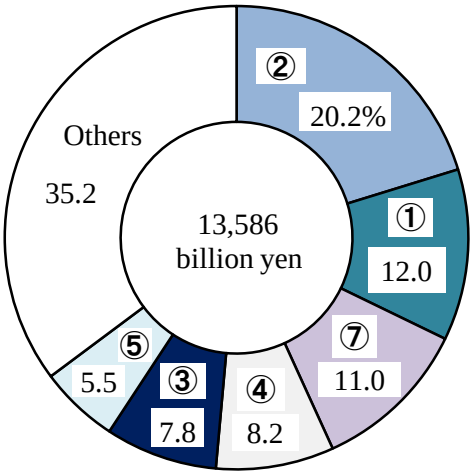
In terms of R&D expenditures in fiscal 2014, of 13.6 trillion yen spent by business enterprises, 11.8 trillion yen was spent by manufacturing industries. The motor vehicles, parts and accessories industry spent the most, followed by the information and communication electronics equipment industry, then by the medicines industry.

Figure 8.1
Researchers and Expenditures by Industry (Business enterprises)

Researchers (as of end-March 2015)



Expenditures (FY2014)



① Information and communication electronics equipment ② Motor vehicles, parts and accessories ③ Business oriented machinery ④ Electrical machinery, equipment and supplies ⑤ Chemical products ⑥Electronic parts, devices and electronic circuits ⑦ Medicines
Source: Statistics Bureau, MIC.

(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 2014, Japan earned 3,660.3 billion yen from technology exports, which was up 7.8 percent from the previous fiscal year. This was the third consecutive increase. Of the total receipts, 74.8 percent was from overseas parent/subsidiary companies. Meanwhile, payments from technology imports stood at 513.0 billion yen, a decrease of 11.2 percent compared with the previous fiscal year. It decreased for the first time in three years. Of this figure, 23.0 percent was for payments to overseas parent/subsidiary companies.

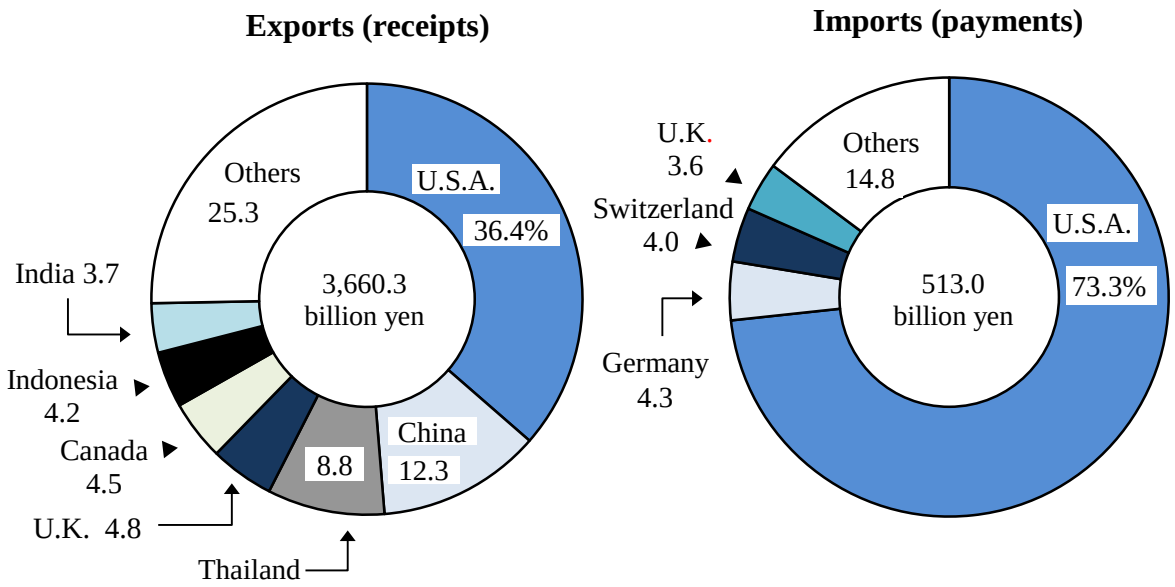
Table 8.2
Technology Trade by Business Enterprises [1)]

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
2013	3,395.2	24.8	577.7	28.8	5.88
2014	3,660.3	7.8	513.0	-11.2	7.13

1) The survey coverage was expanded in FY1996 and FY2001.
Source: Statistics Bureau, MIC.

In fiscal 2014, Japan exported 3,660.3 billion yen of technologies; major export destinations were: the U.S.A. (1,333 billion yen, or 36.4 percent of total exports), followed by China (451.2 billion yen), Thailand (320.4 billion yen), and the U.K. (175 billion yen). On the other hand, Japan imported 513.0 billion yen of technologies, mainly from the U.S.A. (375.9 billion yen, or 73.3 percent of total imports), followed by Germany (22.1 billion yen), Switzerland (20.7 billion yen), and the U.K. (18.6 billion yen).

Figure 8.2
Composition of Technology Trade by Major Country/Region
(FY2014)



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 2014, there were 325,989 applications (down 0.7 percent from the previous year).

Table 8.3
Patents

(Cases)

Item	1995	2000	2005	2010	2014
Applications	369,215	436,865	427,078	344,598	325,989
Registrations	109,100	125,880	122,944	222,693	227,142
Existing vested rights	681,459	1,040,607	1,123,055	1,423,432	1,920,490

Source: Japan Patent Office.

Table 8.4
PCT International Applications by Country of Origin

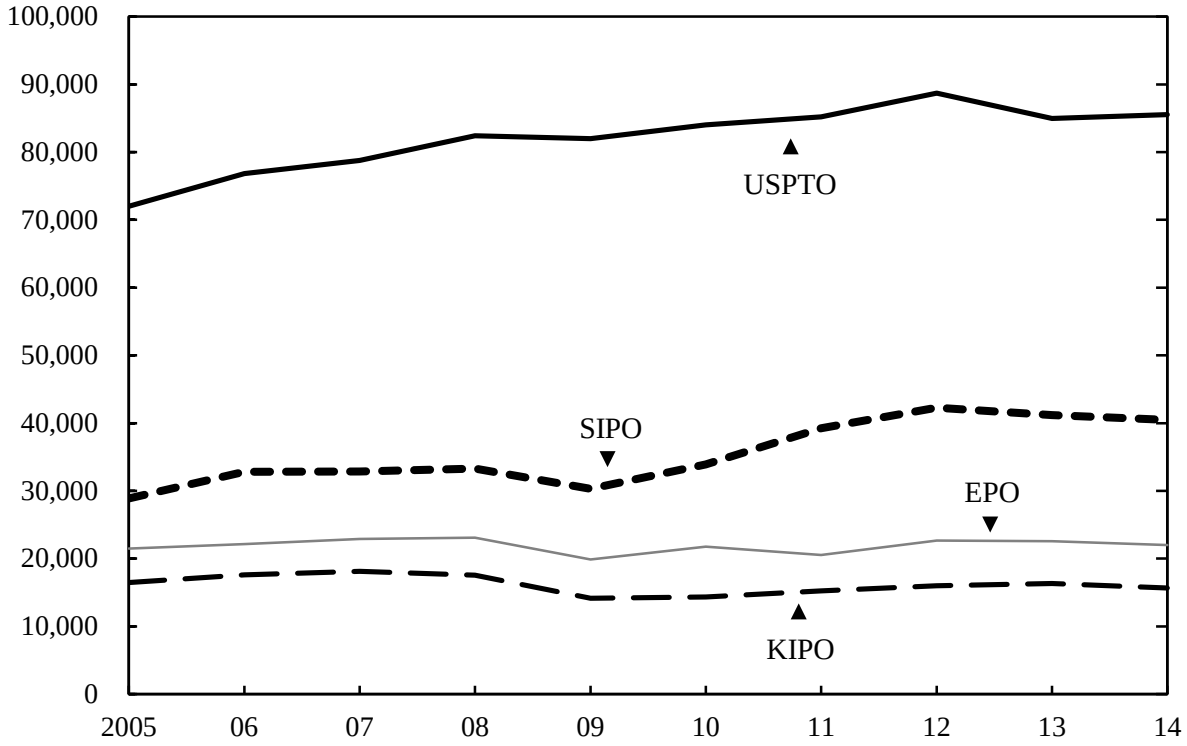
Country	2010	2011	2012	2013	2014	Change from 2013 (%)
Total	164,341	182,437	195,334	205,272	214,500	4.5
U.S.A.	45,090	49,210	51,859	57,441	61,492	7.1
Japan	32,216	38,864	43,523	43,771	42,459	-3.0
China	12,300	16,398	18,620	21,514	25,539	18.7
Germany	17,559	18,847	18,750	17,913	18,008	0.5
Korea, Rep. of	9,604	10,357	11,787	12,381	13,151	6.2
France	7,231	7,406	7,802	7,905	8,319	5.2
U.K.	4,892	4,875	4,917	4,847	5,282	9.0
Netherlands	4,011	3,511	4,077	4,188	4,218	0.7
Switzerland	3,761	4,045	4,222	4,372	4,115	-5.9
Sweden	3,303	3,476	3,600	3,946	3,925	-0.5

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 June 2015. In 2014, the number of international patent applications filed under the Patent Cooperation Treaty (PCT) was 214,500, of which 42,459 were from Japan, accounting for 19.8 percent.

The United States Patent and Trademark Office ranked first among major patent offices for applications filed by Japanese applicants in 2014, with 85,540 applications. The number of patent applications filed by Japanese applicants at the State Intellectual Property Office of the People's Republic of China was 40,460.

Figure 8.3
Changes in Patent Applications 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.

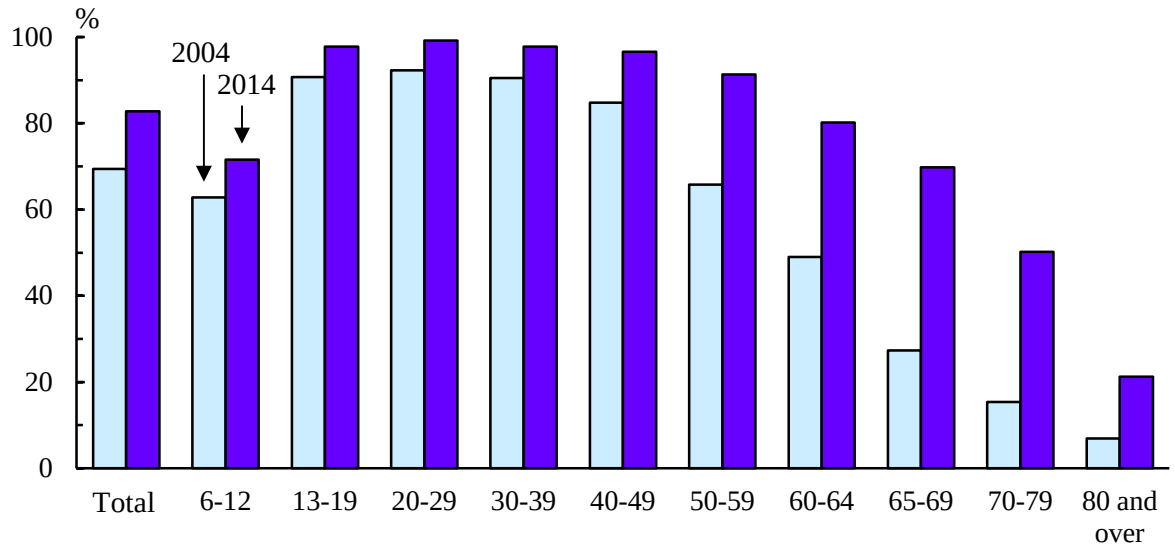
3. Information and Communication

(1) Diffusion of the Internet

The population of Internet users, the commercial use of which began in 1993, continues to increase. In continuation of the end of 2013, the number of people who used the Internet over the past year as of the end of 2014 (individuals who are 6 years of age and older; Internet connected equipment includes any and all types of Internet connection devices, including PCs, cell phones, PHS (personal handyphone systems), smartphones, tablets and game consoles) exceeded 100 million people. According to the individual Internet usage rate by age group, the usage rate exceeded 90 percent in the age group of 13 to 59 year olds, and there

is also a trend of expansion of usage by the age group of 60 to 79 year olds.

Figure 8.4
Trends in Internet Usage Rate by Age Group 1)



1) Ages 6 years and over.
Source: Ministry of Internal Affairs and Communications.

According to the status of Internet use by terminal by age group as of the end of 2014, the usage rate of home PCs was the highest (53.5 percent), followed by smartphones (47.1 percent), and PCs outside the home (21.8 percent). Figures for the rate of Internet use by terminal by age group show that over 60 percent of people in each age group of between 13 and 59 use home PCs. In the 13-39 age groups, usage of smartphones surpassed that of home PCs.

Table 8.5
Status of Internet Use by Terminal by Age Group (2014)

%

Item	Usage rate	6-12 years	13-19	20-29	30-39	40-49	50-59	60 and over
Home PCs	53.5	36.9	63.3	67.3	65.4	67.1	61.5	32.4
PCs Outside Home	21.8	7.7	14.6	29.3	33.0	32.3	31.4	8.1
Mobile phones	17.8	6.2	8.1	11.8	15.3	20.8	26.2	20.8
Smartphones	47.1	20.0	71.3	87.5	78.0	63.8	41.8	9.5
Tablet Terminals	14.8	22.6	20.1	15.4	21.1	19.5	15.6	5.5

Source: Ministry of Internal Affairs and Communications.

As of the end of 2014, 11.5 percent of enterprises had introduced teleworking. The most frequent teleworking pattern was mobile work (66.8 percent), followed by working from home (24.2 percent) and working from a satellite office (15.8 percent).

(2) Progress of Communication Technologies

The number of broadband (connection) subscribers as of the end of March 2015 was 124.05 million. Among the number of broadband subscribers, those with subscriptions for 3.9G mobile phones (LTE) were the highest, amounting to 67.78 million subscriptions and accounting for 54.6 percent of the total. Those with FTTH (Fiber To The Home: enables ultra-high-speed Internet access of several dozen to a maximum of 1Gbps) using optical fiber was the second highest, with 26.61 million subscribers, making up 21.5 percent of the total.

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 2015, the total number of IP phone subscribers was 35.64 million.

Table 8.6
Subscribers to Telecommunications Services [1)]

(Thousands)

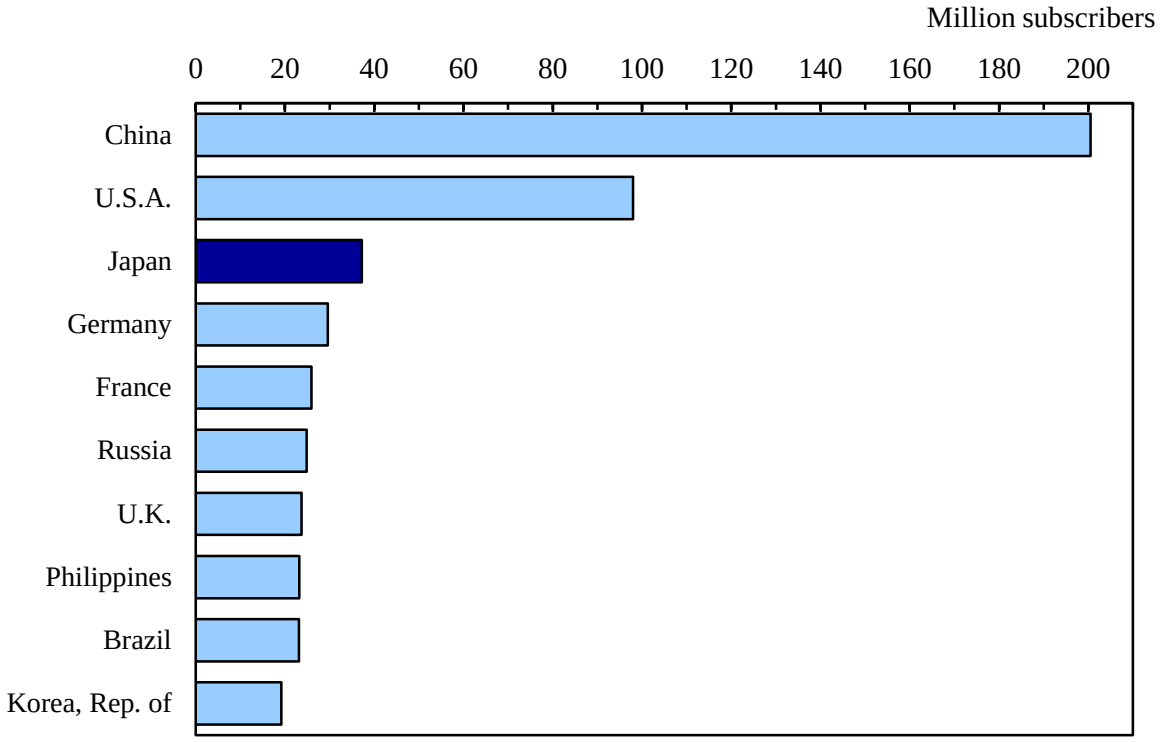
Item	1995	2000	2005	2010	2014	2015
Public phones (NTT [2)] only)	801	736	442	283	196	184
Fixed phone services	59,936	55,547	51,626	37,918	26,094	24,081
Mobile phone [3)]	4,331	56,846	91,474	116,295	149,561	157,857
IP phone	-	-	8,305	23,172	33,781	35,641
ISDN (Integrated Services Digital Network)	344	6,683	7,981	5,421	3,949	3,652
DSL (Digital Subscriber Line)	-	0	13,676	9,735	4,470	3,753
Cable Internet	-	216	2,961	5,314	6,225	6,430
FTTH (Fiber To The Home)	-	-	2,890	17,802	25,311	26,609
BWA (Broadband Wireless Access) ..	-	-	-	153	7,461	19,466
International phone calls, sent and received	599,400	801,200	# 1,103,700	1,101,600	704,200	599,300

1) End of March. 2) Nippon Telegraph and Telephone Corporation.
3) Cell phones and PHS (Personal Handyphone System).
Source: Ministry of Internal Affairs and Communications.

In addition, 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 2.5GHz band [WiMAX, etc.]) has been increasing. As of the end of March 2015, the number of BWA subscribers was 19.47 million, up 161 percent as compared to the previous year.

In 2014, the number of fixed broadband subscribers in Japan was 37.22 million, the third-largest after China (200.48 million) and the U.S.A. (97.98 million).

Figure 8.5
International Comparison of Broadband Subscribers [1)] (2014)

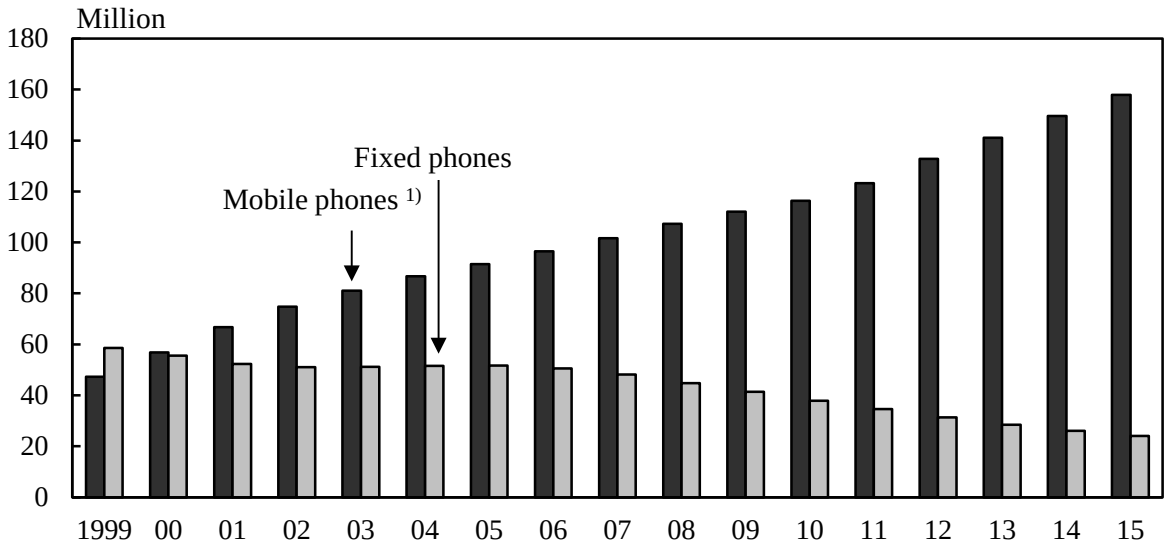


1) Fixed broadband.
Source: International Telecommunication Union.

(3) Telephones

The number of fixed phone service subscription contracts has continued to decrease in recent years. As of the end of March 2015, the number of fixed phone subscribers was 24.08 million (down 7.7 percent from the previous year). Meanwhile, the number of mobile phone subscribers (cell phones and personal handyphone systems) totaled 149.56 million at the end of March 2014, marking a rise by 5.5 percent year-on-year to 157.86 million at the end of March 2015.

Figure 8.6
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 2016, Japan Post Co., Ltd. had 24,452 post offices nationwide. In fiscal 2015, post offices handled 22.03 billion items of domestic mail (including parcels), which was a 0.2 percent increase from the previous fiscal year. Furthermore, the total quantity of international mail (letters, express mail services [EMS], and parcels) sent in fiscal 2015 amounted to 48.86 million items (an increase of 4.9 percent from the previous fiscal year).

Table 8.7
Postal Services

(Millions)

Item	FY1995	FY2000	FY2005	FY2010	FY2014	FY2015
Domestic						
Letters	24,262.9	26,114.4	22,666.1	19,757.9	18,142.0	17,981.0
Parcels	400.2	310.5	2,075.0	2,968.4	3,847.0	4,052.4
International						
Sent	122.8	106.0	77.5	54.2	46.6	48.9
Letters [1)]	119.9	104.3	76.1	52.8	43.6	44.1
Parcels	2.9	1.7	1.5	1.4	3.0	4.8

1) Including express mail services (EMS).
Source: Japan Post Co., Ltd.

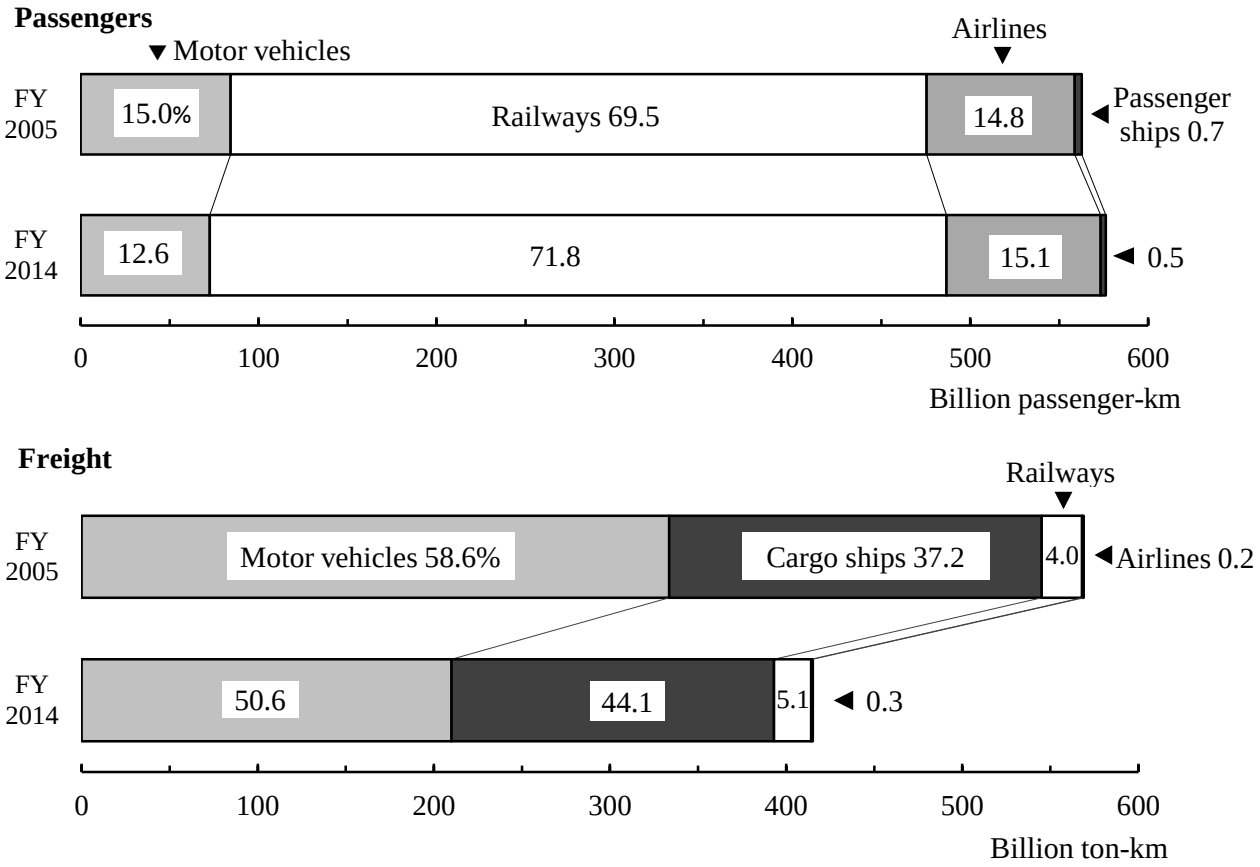
Chapter 9

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.

Figure 9.1
Composition of Domestic Transport



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

(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, along with promotion of the development and distribution of environment-friendly vehicles and measures for traffic flow improvement. Therefore, in addition to the 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 2014, the number of domestic transport passengers was 29.84 billion (down 0.3 percent from the previous fiscal year). The total volume of passenger transport was 576.2 billion passenger-kilometers (down 0.0 percent).

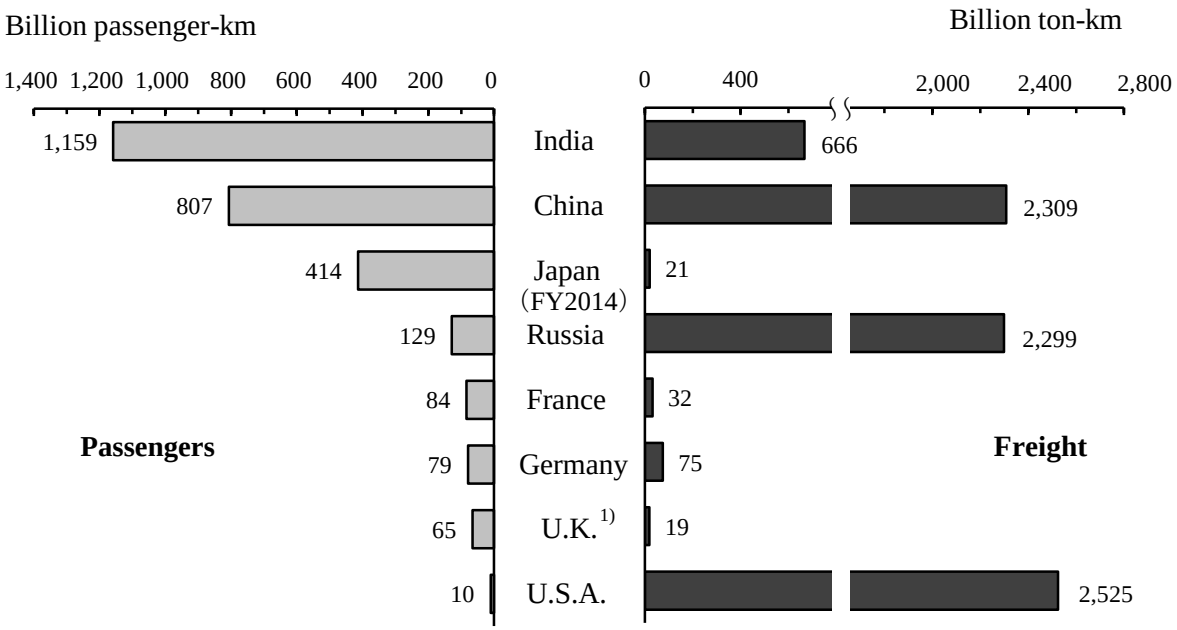
Table 9.1
Domestic Passenger Transport [1)]

Item	Passengers carried (thousands)		Passenger kilometers (millions)	
	FY2013	FY2014	FY2013	FY2014
Total transport volume	29,939,987	29,838,333	576,367	576,235
Railways	23,606,410	23,599,851	414,387	413,970
JR (Japan Railways)	9,146,991	9,088,121	260,013	260,097
Other than JR	14,459,419	14,511,730	154,374	153,873
Motor vehicles	6,152,915	6,057,426	74,571	72,579
Buses (Commercial use)	4,505,190	4,500,163	67,527	65,649
Taxis and limousine hires	1,647,725	1,557,263	7,044	6,930
Airlines	92,643	95,197	84,144	86,763
Passenger ships	88,018	85,859	3,265	2,923

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

In fiscal 2014, the Japan Railways (JR) group reported 9.09 billion passengers (down 0.6 percent from the previous fiscal year) and 260.10 billion passenger-kilometers (up 0.0 percent). Railways other than JR reported 14.51 billion passengers (up 0.4 percent) and 153.87 billion passenger-kilometers (down 0.3 percent).

Figure 9.2
Rail Transport by Country (2014)



1) The data for freight of U.K. is 2011.
Source: Ministry of Land, Infrastructure, Transport and Tourism; The World Bank.

On a global Basis, the freight transport in Japan was low as compared to the passenger transport.

Commercial buses transported 4.50 billion passengers (down 0.1 percent from the previous fiscal year) and achieved 65.65 billion passenger-kilometers (down 2.8 percent); both figures increased in fiscal 2014.

In recent years, in order to beef up Japan's competitiveness in the global arenas of business and tourism, development of aviation networks has been carried out, such as through enhancements to the functions of the metropolitan airports, promotion of entry of LCCs that could create new demand for aviation through the expansion of domestic tourism, etc. Fiscal 2014 air transport records show that there were 95.20 million passengers (up 2.8 percent from the previous fiscal year), and passenger-kilometers amounted to 86.76 billion (up 3.1 percent).

In fiscal 2014, passenger ships reported 85.86 million passengers (down 2.5 percent from the previous fiscal year) and 2.92 billion passenger-kilometers (down 10.5 percent).

(2) Domestic Freight Transport

In the area of domestic freight, a total of 4.73 billion metric tons (down 0.8 percent from the previous fiscal year) of freight was transported for a total of 415.21 billion ton-kilometers (down 1.4 percent) in fiscal 2014. As for transport tonnage volume in fiscal 2014, motor vehicle transport accounted for more than 90 percent of the total.

Table 9.2
Domestic Freight Transport

Item	Freight tonnage (thousands)		Ton kilometers (millions)	
	FY2013	FY2014	FY2013	FY2014
Total transport volume	4,769,204	4,729,581	421,072	415,207
Railways	44,101	43,424	21,071	21,029
Motor vehicles	4,345,753	4,315,836	214,092	210,008
Commercial use	2,989,496	2,934,361	184,840	181,160
Non-commercial use	1,356,256	1,381,475	29,252	28,848
Cargo ships	378,334	369,302	184,860	183,120
Airlines [1)]	1,016	1,019	1,049	1,050

1) Including overweight baggage and postal mail.
Source: Ministry of Land, Infrastructure, Transport and Tourism.

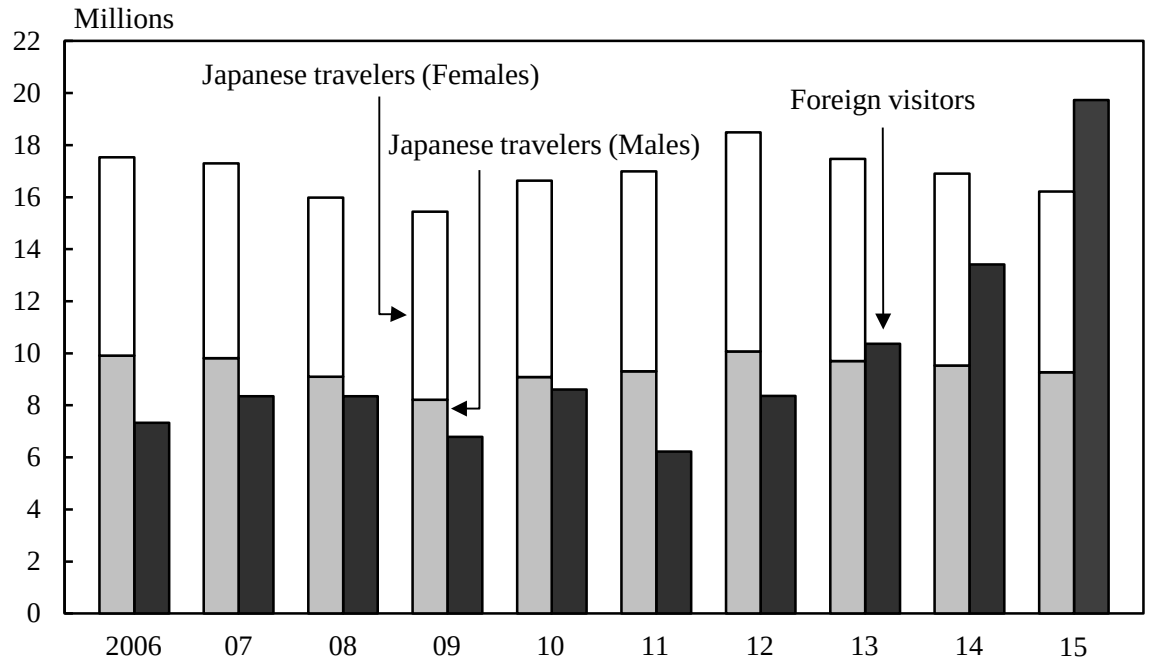
2. International Transport

(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 2012, this trend reversed to an increase, and in 2014, Japanese airlines transported 16.04 million passengers (up 8.0 percent from the previous year) on international flights, and registered 71.95 billion passenger-kilometers (up 9.7 percent). Both recorded their third consecutive year of increase.

The number of Japanese overseas travelers in 2015 was 16.21 million (down 4.1 percent from the previous year). The number of foreign visitors to Japan in 2015 was 19.74 million, representing an increase of 47.1 percent from the previous year. Both the number of people and annual growth were the highest ever since statistics came to be recorded in 1964.

Figure 9.3
Japanese Overseas Travelers and Foreign Visitor Arrivals



Source: Ministry of Justice; Japan National Tourism Organization.

Table 9.3
Japanese Travelers

Country or area of destination	2012		2013		2014	
	Number of arrivals	Annual growth (%)	Number of arrivals	Annual growth (%)	Number of arrivals	Annual growth (%)
U.S.A. [1]	3,698,073	13.8	3,730,287	0.9	3,579,363	-4.0
China	3,518,153	-3.8	2,877,533	-18.2	2,717,600	-5.6
Korea, Rep. of	3,518,792	7.0	2,747,750	-21.9	2,280,434	-17.0
Taiwan	1,392,557	12.1	1,381,142	-0.8	1,634,790	18.4
Thailand	1,341,063	21.6	1,515,718	13.0	1,265,307	-16.5
Hong Kong SAR	1,254,602	-2.3	1,057,033	-15.7	1,078,766	2.1
Germany [2]	734,475	14.3	711,529	-3.1	…	…
France	731,369	19.5	682,384	-6.7	…	…

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 in 2015 broken down by country/region, the number of visitors from Asian countries was highest, totaling 16.65 million (up 53.9 percent from the previous year). Among Asian countries, the number of visitors from China was highest, amounting to 4.99 million, a figure that accounted for 25.3 percent of the total number of foreign visitors to Japan.

This increase is attributed to expanding aviation networks, an increase in demand for visits to Japan by foreigners through continuous promotion of tourism, an entrenched sense of low travel costs due to the weak yen, visa alleviation measures for various Southeast Asian countries, etc.

Table 9.4
Foreign Visitors

Region, country or area of origin	2013		2014		2015*	
	Number of arrivals	Percentage distribution	Number of arrivals	Percentage distribution	Number of arrivals	Percentage distribution
Total arrivals [1]	10,363,904	100.0	13,413,467	100.0	19,737,409	100.0
Asia	8,115,789	78.3	10,819,211	80.7	16,645,843	84.3
China	1,314,437	12.7	2,409,158	18.0	4,993,689	25.3
Korea, Rep. of	2,456,165	23.7	2,755,313	20.5	4,002,095	20.3
Taiwan	2,210,821	21.3	2,829,821	21.1	3,677,075	18.6
Hong Kong SAR .	745,881	7.2	925,975	6.9	1,524,292	7.7
Thailand	453,642	4.4	657,570	4.9	796,731	4.0
Singapore	189,280	1.8	227,962	1.7	308,783	1.6
Europe.....	904,132	8.7	1,048,731	7.8	1,244,970	6.3
U.K.	191,798	1.9	220,060	1.6	258,488	1.3
Africa.....	26,697	0.3	28,336	0.2	31,918	0.2
North America	981,981	9.5	1,112,317	8.3	1,310,606	6.6
U.S.A.	799,280	7.7	891,668	6.6	1,033,258	5.2
Canada	152,766	1.5	182,865	1.4	231,390	1.2
South America	49,930	0.5	56,873	0.4	74,198	0.4
Oceania.....	284,886	2.7	347,339	2.6	429,026	2.2
Australia	244,569	2.4	302,656	2.3	376,075	1.9

1) Including stateless people, etc.
Source: Japan National Tourism Organization.

In 2015, of the total number of foreign visitors to Japan, tourists numbered 16.97 million people, or 86.0 percent of total foreign visitors. The highest number of tourists came from China, with 4.24 million travelers, followed by the Republic of Korea, with 3.52 million travelers.

(2) International Freight Transport

The volume of seaborne foreign transport in 2014 was 1,035.2 million tons, up 0.8 percent over the previous year. Of this figure, total exports increased by 12.4 percent to 58.4 million tons, and total imports decreased by 1.0 percent to 535.2 million tons.

Table 9.5
Seaborne Foreign Transport

(Thousand tons)

Year	Total	Exports	Imports	Cross Transport
1995	703,606	38,761	529,929	134,916
2000	739,377	34,960	538,875	165,542
2005	777,869	45,404	529,239	203,225
2010	819,075	44,758	465,898	308,419
2013	1,026,983	52,001	540,872	434,111
2014*	1,035,239	58,431	535,244	441,563

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

Air-shipped international freight in 2014 totaled 1.39 million tons in terms of volume (up 15.4 percent from the previous year) and 7.70 billion tons in terms of ton-kilometers (up 17.8 percent).

Chapter 10

Commerce

1. Wholesale and Retail

The "2014 Economic Census for Business Frame" showed that 1.41 million wholesale and retail establishments were in operation in Japan. The number of persons engaged at such establishments became 12.03 million. Sales in the wholesale and retail industries amounted to 425.69 trillion yen, accounting for 30.9 percent of the total of all industries.

(1) Wholesale Trade

The number of wholesale establishments was 382,000 in 2014. Observed by size of operation in terms of persons engaged, establishments with less than 20 persons accounted for 89.4 percent of the total. A total of 87.1 percent were corporations, while 12.8 percent were individual proprietorships.

Table 10.1
Establishments and Persons Engaged in the Wholesale and Retail Sector (2014)

Item	Total	Wholesale	Retail
Number of Establishments	1,407,235	382,354	1,024,881
Size of operation (persons engaged)			
1-4 persons	809,916	190,323	619,593
5-9	298,416	96,811	201,605
10-19	177,077	54,538	122,539
20-29	55,568	17,187	38,381
30-49	32,132	11,685	20,447
50-99	19,320	6,486	12,834
100 and over	9,141	3,366	5,775
Loaned or dispatched employees only	5,665	1,958	3,707
Persons engaged	12,031,345	4,009,494	8,021,851
Regular employees	10,152,342	3,485,161	6,667,181
Full-time employees	5,340,113	2,806,083	2,534,030
Other than full-time employees [1)]	4,812,229	679,078	4,133,151
Temporary employees	413,291	77,218	336,073
Loaned or dispatched employees from the separately operated establishments	322,235	128,786	193,449
Loaned or dispatched employees to the separately operated establishments	117,395	87,583	29,812

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.

The number of persons engaged in wholesale was 4.01 million in 2014, of which 756,000 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 18.9 percent of the total.

(2) Retail Trade

The number of retail establishments in operation totaled 1.02 million in 2014. Observed by size of operation in terms of persons engaged, establishments with less than 10 persons accounted for 80.1 percent of the total. By type of legal organization, 59.5 percent of retail establishments were corporations, while 40.3 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 8.02 million in 2014, of which 4.47 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 55.7 percent of the total.

2. Eating and Drinking Places

There were 620,000 eating and drinking places establishments in operation and 4.23 million persons engaged at them in 2014.

Table 10.2
Eating and Drinking Places (2014)

Size of operation (persons engaged)	Establishments		Persons engaged	
	Number	Ratio (%)	Number	Ratio (%)
Total	619,629	100.0	4,230,881	100.0
1-4 persons	382,051	61.7	820,526	19.4
5-9	119,600	19.3	777,767	18.4
10-19	69,025	11.1	938,339	22.2
20-29	27,491	4.4	649,378	15.3
30 and over	20,813	3.4	1,044,871	24.7
Loaned or dispatched employees only	649	0.1	-	-

Source: Statistics Bureau, MIC.

Chapter 11

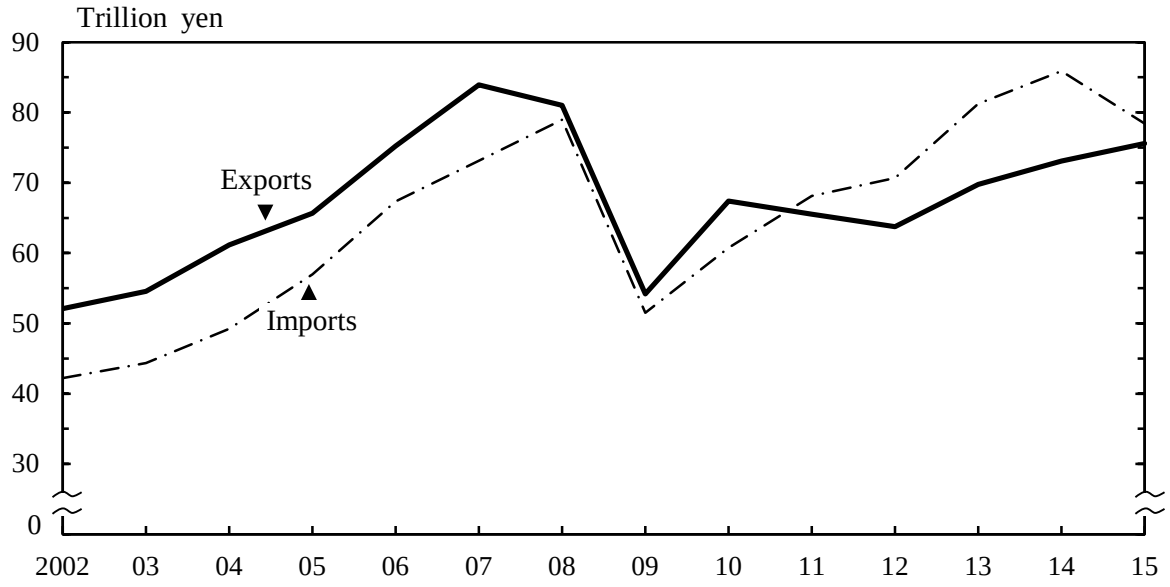
Trade, International Balance of Payments, and International Cooperation

1. Trade

(1) Overview of Trade

In 2015, 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 75.6 trillion yen, which was a 3.4 percent increase as compared to the previous year, and an increase for the third consecutive year. Imports (in CIF value) amounted to 78.4 trillion yen, which was an 8.7 percent decrease as compared to the previous year. It decreased for the first time in six years. Trade deficit totaled 2.8 trillion yen. This was the fifth consecutive year of red figures since 2011, when the trade deficit entered the red for the first time in 31 years.

Figure 11.1
Foreign Trade



Source: Ministry of Finance.

Table 11.1
Trends in Foreign Trade and Indices of Trade

Year	Value (billion yen) (Customs clearance basis)			Indices of trade (2010=100)					
				Exports			Imports		
	Exports (FOB)	Imports (CIF)	Balance	Value index	Quantum index [1)]	Unit value index	Value index	Quantum index [1)]	Unit value index
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
2014	73,093	85,909	-12,816	108.4	90.7	119.6	141.4	106.0	133.4
2015	75,614	78,406	-2,792	112.2	89.8	125.0	129.0	103.0	125.3

1) Quantum index = Value index / Unit value index × 100
Source: Ministry of Finance.

Japan's 2015 exports increased by 4.5 percent from the previous year in terms of unit value index (an increase for the sixth consecutive year), and decreased by 1.0 percent from the previous year in terms of quantum index (the first decrease in two years).

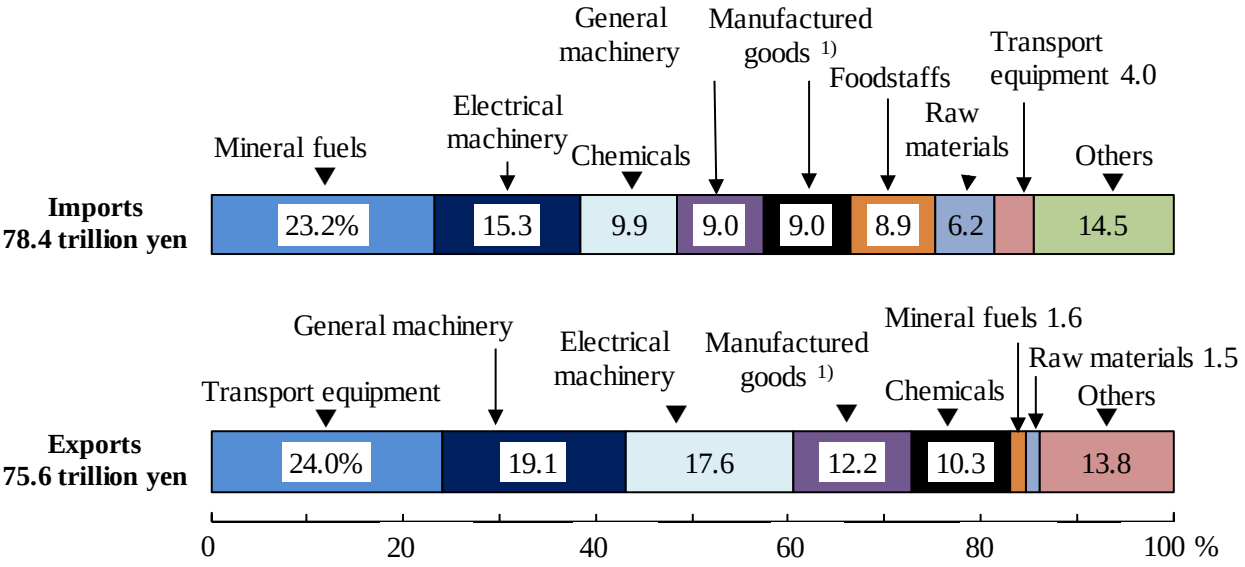
Japan's imports in 2015, unit value index and quantum index, decreased by 6.1 percent and 2.8 percent compared to the previous year; both indices recorded the first decrease in six years.

(2) Trade by Commodity

Japan's exports in 2015 consisted of transport equipment, which accounted for the largest portion of the total export value, 24.0 percent, followed by general machinery and electrical machinery, making up 19.1 percent and 17.6 percent, respectively. Motor vehicles, which are in the transport equipment category, constituted 15.9 percent of the total export value, up 1.8 percent in quantity and up 10.3 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 23.2 percent of the total value imported, followed by electrical machinery and chemicals, with 15.3 percent and 9.9 percent, respectively. Crude petroleum and partially refined petroleum, in the mineral fuels category, constituted 10.4 percent of the total import value, down 2.3 percent in quantity and down 41.0 percent in value from the previous year.

Figure 11.2
Component Ratios of Foreign Trade by Commodity (2015)



1) Consisting of iron and steel products, non-ferrous metals, textile yarn and fabrics, etc.
Source: Statistics Bureau, MIC; Ministry of Economy, Trade and Industry.

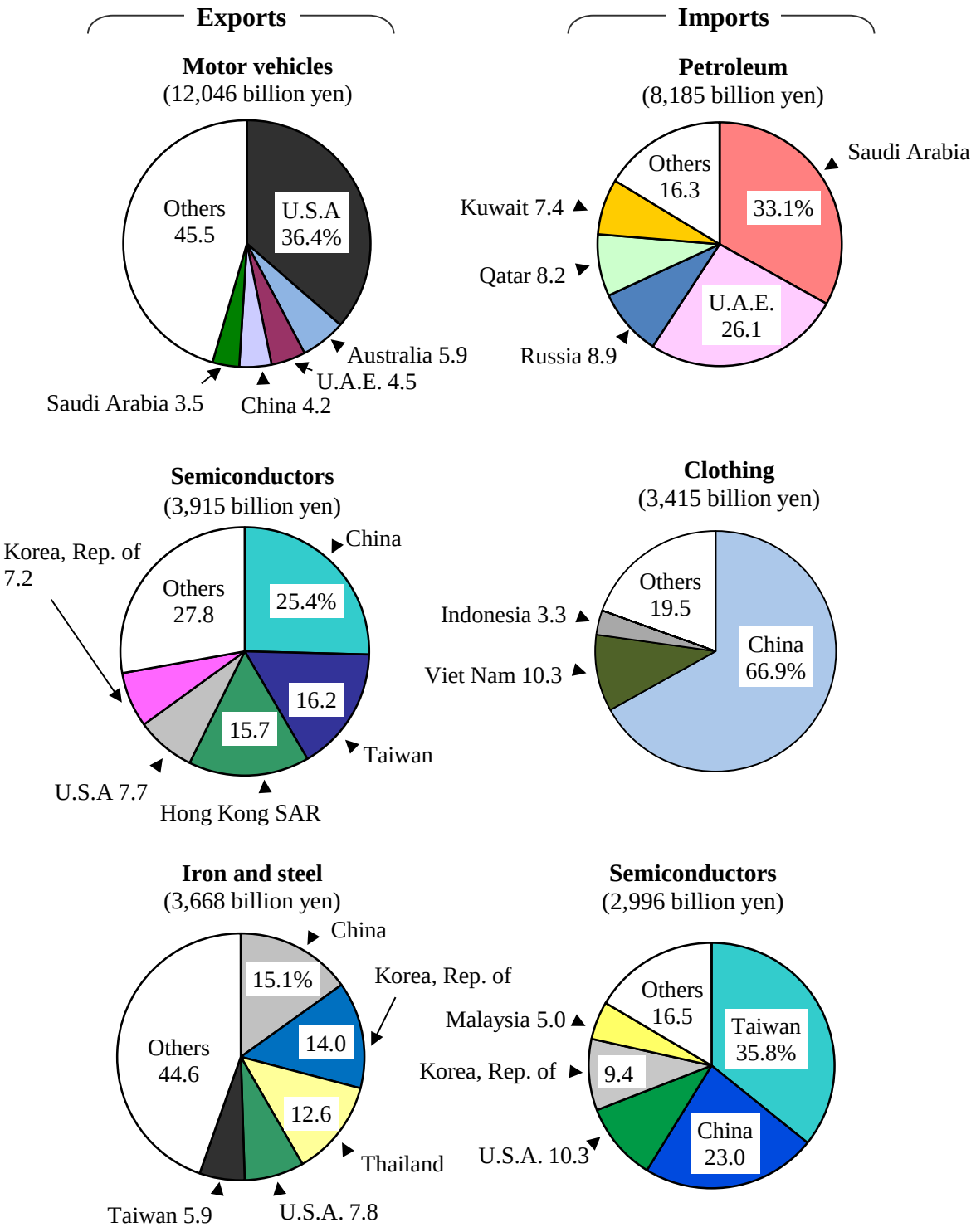
Table 11.2
Value of Exports and Imports, by Principal Commodity

(Billion yen)

Item	2012	2013	2014	2015	Annual growth (%)
Exports, total	63,748	69,774	73,093	75,614	3.4
Foodstuffs	355	436	482	599	24.3
Raw materials	1,060	1,206	1,194	1,137	-4.8
Mineral fuels	1,026	1,533	1,517	1,245	-17.9
Chemicals	6,365	7,507	7,818	7,759	-0.7
Plastic materials	2,043	2,259	2,413	2,444	1.3
Manufactured goods [1)]	8,442	9,177	9,464	9,220	-2.6
Iron and steel products	3,496	3,793	3,958	3,668	-7.3
General machinery	12,843	13,359	14,218	14,424	1.4
Power generating machinery	2,261	2,520	2,540	2,591	2.0
Electrical machinery	11,405	12,052	12,650	13,289	5.0
Semiconductors and other electronic parts	3,339	3,553	3,691	3,915	6.1
Transport equipment	14,995	16,332	16,907	18,141	7.3
Motor vehicles	9,225	10,413	10,919	12,046	10.3
Others	7,258	8,172	8,844	9,801	10.8
Scientific and optical instruments	2,084	2,223	2,436	2,376	-2.5
Imports, total	70,689	81,243	85,909	78,406	-8.7
Foodstuffs	5,852	6,473	6,732	7,002	4.0
Raw materials	4,768	5,358	5,590	4,853	-13.2
Mineral fuels	24,088	27,444	27,692	18,218	-34.2
Petroleum, crude and partially refined	12,247	14,245	13,873	8,185	-41.0
Chemicals	5,926	6,464	6,864	7,748	12.9
Medical and pharmaceutical products	1,941	2,138	2,214	2,924	32.1
Manufactured goods [1)]	5,508	6,245	6,994	7,039	0.6
Non-ferrous metals	1,370	1,541	1,692	1,683	-0.6
General machinery	5,004	5,969	6,761	7,068	4.5
Computers and units	1,648	1,928	2,122	1,973	-7.0
Electrical machinery	8,438	10,309	11,532	12,014	4.2
Semiconductors and other electronic parts	1,779	2,445	2,871	2,996	4.4
Transport equipment	2,312	2,788	3,056	3,126	2.3
Others	8,793	10,192	10,688	11,336	6.1
Clothing and clothing accessories	2,680	3,248	3,260	3,415	4.8

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 (2015)



Source: Ministry of Finance.

(3) Trade by Country/Region

Japan has maintained a trade surplus with Asia and the U.S.A., while having a continuous trade 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 [1)]	Middle East	Oceania
Exports from Japan									
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
2014	73,093	39,518	13,381	5,456	4,232	13,649	7,585	2,988	1,958
2015	75,614	40,329	13,223	5,327	4,473	15,225	7,985	3,167	2,099
Imports to Japan									
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
2014	85,909	38,618	19,176	3,531	2,568	7,543	8,169	15,826	5,706
2015	78,406	38,358	19,429	3,244	2,817	8,060	8,625	9,571	4,887

1) EU member countries were 27 countries, before July 2013.
Source: Ministry of Finance.

(A) Trade with Asia

Japan's 2015 trade balance with Asia resulted in a 2.0 trillion yen in surplus, an increase for the first time in five years (up 18.9 percent from the previous year). Exports (in FOB value) totaled 40.3 trillion yen (up 2.1 percent), an increase for the third consecutive year; this was mainly due to the contributions for the increase in electrical machinery and transport equipment. Imports (in CIF value) amounted to 38.4 trillion yen (down 0.7 percent), a decrease for the first time in six years; this was mainly attributed to the decrease in mineral fuels.

In 2015, Japan's trade with China amounted to 13.2 trillion yen in exports and 19.4 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.

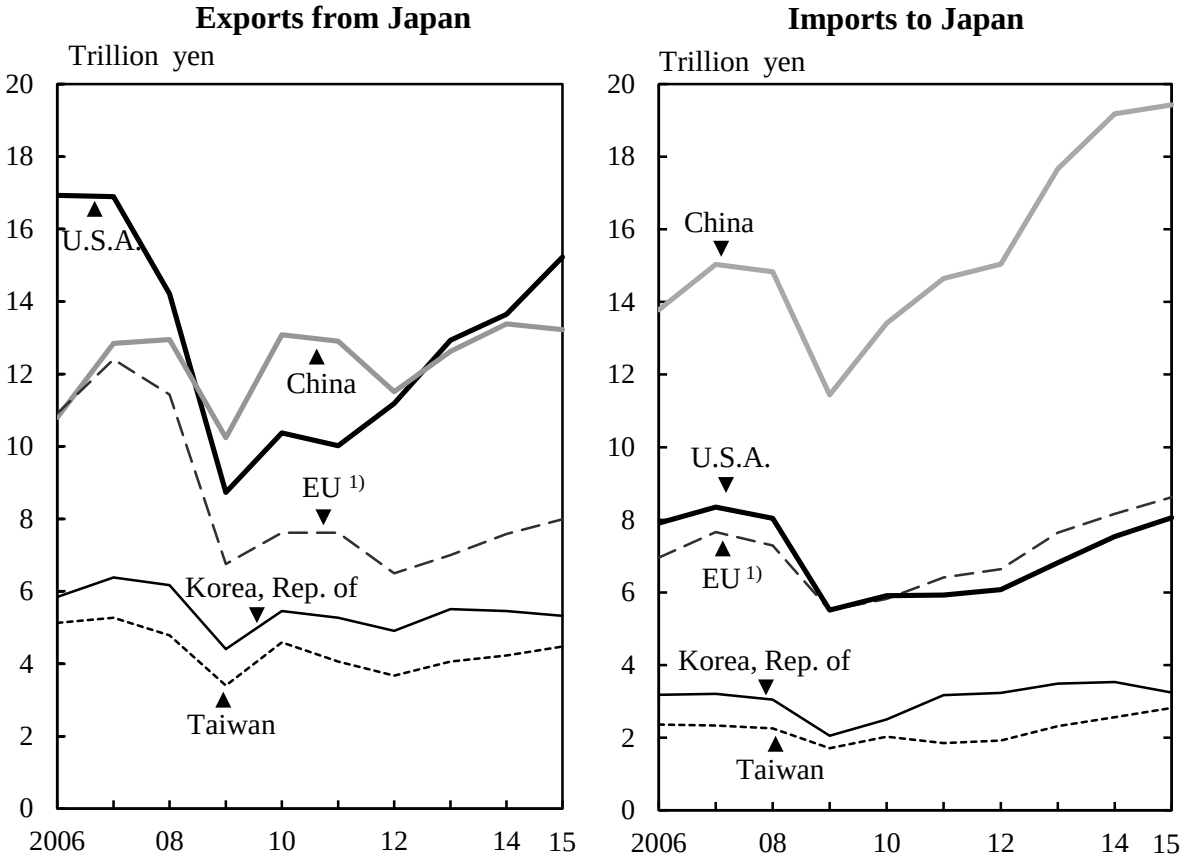
(B) Trade with U.S.A.

Japan's 2015 trade balance with the U.S.A. showed a surplus of 7.2 trillion yen (up 17.3 percent from the previous year), indicating that the trade surplus widened. Exports (in FOB value) totaled 15.2 trillion yen (up 11.5 percent), making Japan the biggest export counterpart for the third consecutive year. Transport equipment and general machinery made major contributions to the increase. Imports (in CIF value) totaled 8.1 trillion yen (up 6.9 percent), the sixth consecutive annual increase. The rise was due mainly to the contributions of general machinery and chemicals.

(C) Trade with EU

In July 2013, the EU was expanded from 27 to 28 member countries. In 2015, Japan's exports (FOB value) to the EU (28 countries) increased by 5.3 percent year-on-year to 8.0 trillion yen. Commodities such as transport equipment and manufactured goods contributed to the growth in exports. Imports (CIF value) from the EU (28 countries) totaled 8.6 trillion yen, up 5.6 percent from the previous year. Commodities such as chemicals and general machinery contributed to the growth in imports. As a result, Japan's trade balance with the EU (28 countries) registered a deficit of 639.8 billion yen.

Figure 11.4
Trends in Japan's Trade by Country/Region



1) 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 2015, goods and services rose by 11.2 trillion yen from the previous year to -2.3 trillion yen, indicating a smaller deficit. Primary income amounted to 20.7 trillion yen, which was a 6.6 percent increase from the previous year, indicating an increase in its surplus. As a result, the current account totaled 16.4 trillion yen, and its surplus bulged for the first time in five years.

Breaking down the financial account in 2015, since there was an increase in net assets both for direct investment and for portfolio investment, the financial account amounted to 21.1 trillion yen.

Table 11.4
International Balance of Payments

(Billion yen)

Item	2012	2013	2014	2015
Current account	4,764.0	4,456.6	3,880.5	16,412.7
Goods and services	-8,082.9	-12,252.1	-13,498.8	-2,307.2
Goods	-4,271.9	-8,773.4	-10,465.3	-628.8
Exports	61,956.8	67,829.0	74,074.7	75,265.3
Imports	66,228.7	76,602.4	84,540.0	75,894.1
Services	-3,811.0	-3,478.6	-3,033.5	-1,678.4
Primary income	13,991.4	17,697.8	19,373.8	20,652.6
Secondary income	-1,144.5	-989.2	-1,994.5	-1,932.7
Capital account	-80.4	-743.6	-208.9	-271.3
Financial account [1)]	4,192.5	-408.7	6,237.1	21,145.2
Direct investment	9,359.1	14,245.9	12,546.6	15,845.1
Portfolio investment	2,443.5	-26,565.2	-4,833.0	16,062.0
Financial derivatives (other than reserves)	590.3	5,551.6	3,764.4	2,142.4
Other investment	-5,149.0	2,508.5	-6,130.6	-13,529.3
Reserve assets	-3,051.5	3,850.4	889.8	625.1
Net errors and omissions	-491.1	-4,121.7	2,565.6	5,003.8

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 2015 amounted to 948.7 trillion yen, while its external liabilities (assets held in Japan by nonresidents) were 609.5 trillion yen. As a result, Japan's net external assets (external assets minus external liabilities) were 339.3 trillion yen.

Table 11.5
Trends in Japan's International Investment Position [1)]

(Billion yen)

Item	2011	2012	2013	2014	2015
Assets	583,100	658,927	797,686	942,381	948,729
Liabilities	317,359	359,625	471,955	578,971	609,466
Net assets	265,741	299,302	325,732	363,409	339,263

1) End of year.
Source: Ministry of Finance.

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 2015, they were amounted to 1,233.2 billion U.S. dollars (down 2.2 percent), marking a fourth consecutive annual decrease.

Table 11.6
Reserve Assets

(Million U.S. dollars)

End of year	Total	Foreign currency [1)]	Reserve position in IMF	SDRs	Gold [2)]	Other reserve assets [3)]
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
2014	1,260,548	1,199,651	11,993	18,895	29,504	505
2015	1,233,214	1,179,004	9,531	18,048	26,134	497

1) Including securities in market value. 2) Market value. 3) Including Asian Bond Fund.
Source: Ministry of Finance.

The yen was worth 83.19 yen to the U.S. dollar in May 1995. The trend subsequently shifted to a progressively weaker yen, which eventually reached 143.79 yen to the U.S. dollar 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 April 2016, the exchange rate was 108.4 yen per U.S. dollar.

Figure 11.5
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 [1)]

(Million U.S. dollars)

Item	2010	2011	2012	2013	2014
Total value	48,249	61,828	48,977	58,459	40,501
Official flows	14,720	13,736	15,998	12,868	8,367
Official development assistance (ODA)	11,058	10,831	10,605	11,582	9,266
Bilateral official development assistance [2)]	7,337	6,943	6,402	8,611	6,012
Grants [2)]	6,943	8,567	6,759	9,836	5,080
Grants-in-aid [2)]	3,464	5,033	3,117	7,032	2,450
Technical cooperation	3,478	3,534	3,641	2,804	2,630
Loans, etc.	395	-1,624	-356	-1,224	932
Contributions to multilateral institutions [3)]	3,720	3,888	4,202	2,970	3,255
Other official flows (OOF)	3,662	2,905	5,393	1,286	-899
Official export credits (over one year)	-1,039	-622	-623	-441	-56
Direct investment finance, etc.	4,217	3,889	6,829	1,946	-843
Concessional lending to multilateral institutions	485	-362	-813	-219	-
Private flows (PF)	32,837	47,594	32,494	45,133	31,667
Private export credits (over one year)	2,767	1,853	-3,951	3,271	-736
Direct investment	21,650	40,315	31,215	38,715	27,329
Bilateral investment in securities, etc.	7,428	5,844	6,470	4,859	6,254
Concessional lending to multilateral institutions	992	-419	-1,241	-1,712	-1,180
Grants by private nonprofit agencies	692	497	487	458	467
ODA as percentage of GNI (%)	0.20	0.18	0.17	0.23	0.19
ODA as percentage of GNI (DAC average) (%)	0.32	0.31	0.29	0.30	-

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.

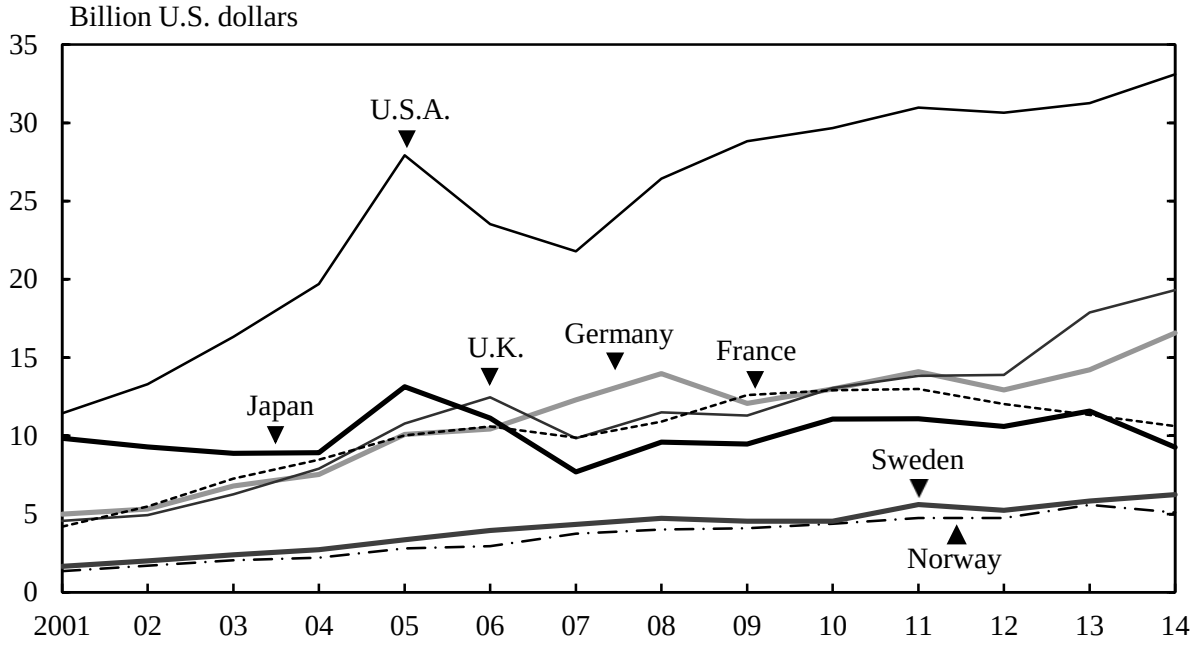
Source: Ministry of Foreign Affairs; Ministry of Finance; OECD.

In the ODA framework, Japan's spending (on the basis of net disbursement at current prices) in 2014 decreased by 20.0 percent over the previous year to 9.3 billion U.S. dollars. 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.

In the 2014 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

0.19 percent, or a decrease of 0.04 percentage points compared with that of the previous year.

Figure 11.6
Trends in ODA by Country 1)



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

Of the 9.3 billion U.S. dollars in ODA provided by Japan in 2014, 6.0 billion was bilateral ODA (down 30.2 percent year-on-year), and 3.3 billion was ODA contributed through multilateral institutions (up 9.6 percent).

Bilateral ODA provided in 2014 consisted of 2.4 billion U.S. dollars in grants-in-aid, 2.6 billion in technical cooperation, and -1.2 billion in loans, etc. (the negative value indicates a larger amount of repayment received in 2014 than the amount lent in the same year).

By region, bilateral ODA (including assistance to graduated countries) was distributed as follows: Asia, 33.1 percent; Sub-Saharan Africa, 26.1 percent; Middle East and North Africa, 13.6 percent; Oceania, 1.8 percent; Latin America and the Caribbean, 0.5 percent; and Europe, 2.2 percent.

Table 11.8

Regional Distribution of Bilateral ODA [1)]

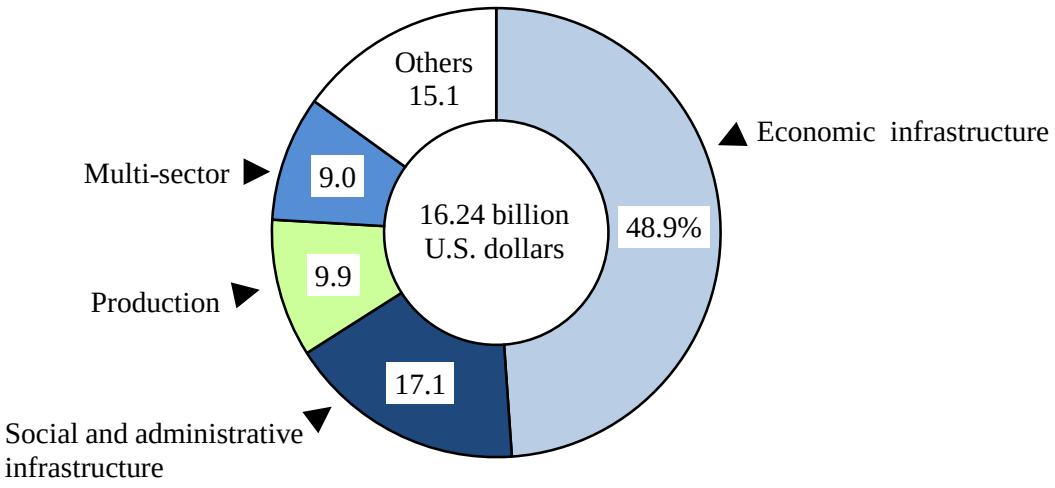
(Million U.S. dollars)

Region	1990	2000	2010	2013	2014
Total	6,940	9,640	7,428	8,524	5,968
Asia	4,117	5,284	2,529	3,449	1,977
ASEAN [2)]	2,299	# 3,126	902	2,477	807
Middle East and North Africa	666	727	1,592	1,539	810
Sub-Saharan Africa	831	970	1,733	2,137	1,557
Latin America and the Caribbean	561	800	-344	-34	30
Oceania	114	151	176	122	109
Europe	158	118	181	-3	132
Multiple regions, etc.	494	1,592	1,562	1,315	1,353

1) Net disbursement at current prices. Including assistance to 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 2014 (including assistance to graduated countries) was broken down by purpose (on a commitment basis) as follows: 48.9 percent for improving economic infrastructure, followed in descending order by social and administrative infrastructure (including education, water supply and sanitation), with 17.1 percent.

Figure 11.7
Distribution of Bilateral ODA by Sector [1)] (2014)



1) Commitment basis. Including assistance to 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 [1)]

Type of cooperation	FY2005	FY2010	FY2012	FY2013	FY2014
Total	37,291	41,212	45,704	42,632	43,660
Trainees received	24,504	23,978	26,081	22,240	24,101
Dispatched					
Experts	3,488	8,296	9,325	10,359	9,889
Research team	6,862	7,046	9,021	8,615	8,056
Japan Overseas Cooperation Volunteers	1,804	1,459	948	1,081	1,267
Other volunteers	633	433	329	337	347

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 which occurred in March 2011, the data on labor in 2011 (1. Labor Force - 3. Unemployment) are supplementary estimated figures.

1. Labor Force

In recent years, the population in Japan aged 15 years and over peaked at 111.11 million people in 2010, and started decreasing moderately in 2012.

On the other hand, the labor force (among the population aged 15 years and over, the total of persons who are employed and persons who are unemployed) was decreasing in the 2000s in association with aging of the population, but shifted to an increase in 2013. The labor force numbered 65.98 million people in Japan in 2015, up 110,000 (0.2 percent) for the third consecutive year of increase.

The 2015 labor force participation rate (rate of the labor force to the population aged 15 years and over) was 59.6 percent (up 0.2 percentage points from the previous year). Observed by gender, the rate was 70.3 percent for men (down 0.1 percentage points) and 49.6 percent for women (up 0.4 percentage points).

Table 12.1
Population by Labor Force Status

(Thousands)

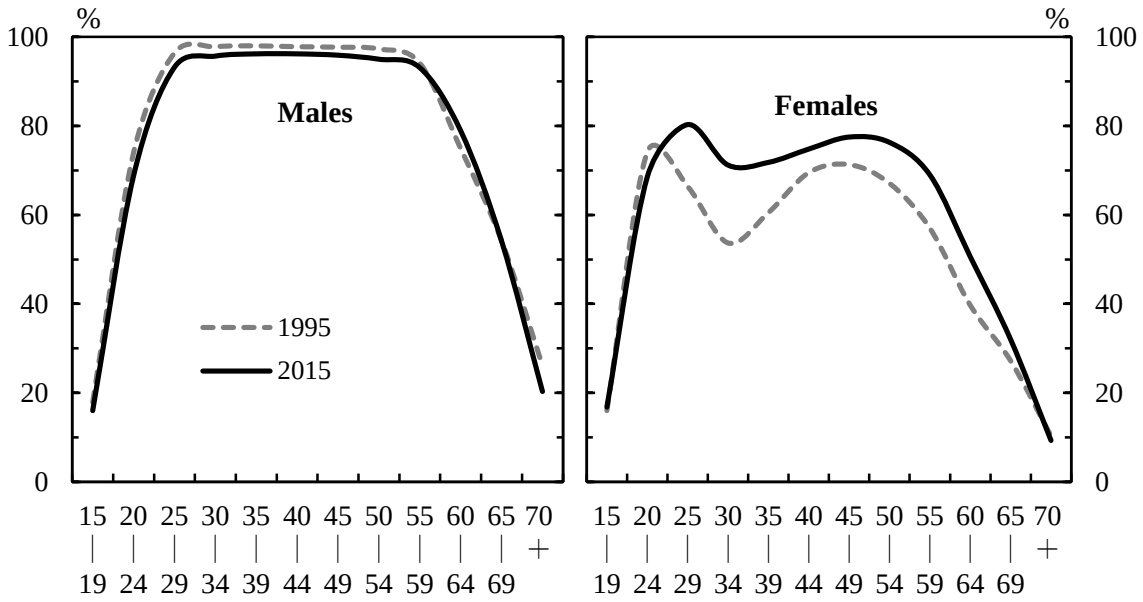
Year	Population aged 15 years and over	Labor force			Not in labor force	Unemployment rate (%)
		Total	Employed	Unemployed		
Total						
2000	108,360	67,660	64,460	3,200	40,570	4.7
2005	# 110,080	# 66,510	# 63,560	# 2,940	# 43,460	4.4
2010	111,110	66,320	62,980	3,340	44,730	5.1
2012	110,980	65,550	62,700	2,850	45,400	4.3
2013	110,880	65,770	63,110	2,650	45,060	4.0
2014	110,820	65,870	63,510	2,360	44,890	3.6
2015	110,770	65,980	63,760	2,220	44,730	3.4
Males						
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
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
2014	53,460	37,630	36,210	1,410	15,810	3.7
2015	53,440	37,560	36,220	1,340	15,850	3.6
Females						
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
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
2014	57,360	28,240	27,290	950	29,080	3.4
2015	57,330	28,420	27,540	880	28,880	3.1

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 and then rejoin the labor force after their child has grown and the burden of child-rearing is reduced. The bottom of the M-shaped curve in 2015 was the 30-34 age group, which is the same as twenty years ago (1995). However, the participation rate rose by 17.5 percentage points to 71.2 percent in the 30-34 age group in 2015 from the

53.7 percent twenty years ago (1995), resulting in the bottom of the M-shaped curve becoming flatter and more gradual. Although this is thought to be greatly affected by the progression of enhancement of the legal system with respect to establishing both work and child-rearing, and development of a work environment such as at companies, there are also effects from the trend of getting married and having children later in life.

Figure 12.1
Labor Force Participation Rate by Gender



Source: Statistics Bureau, MIC.

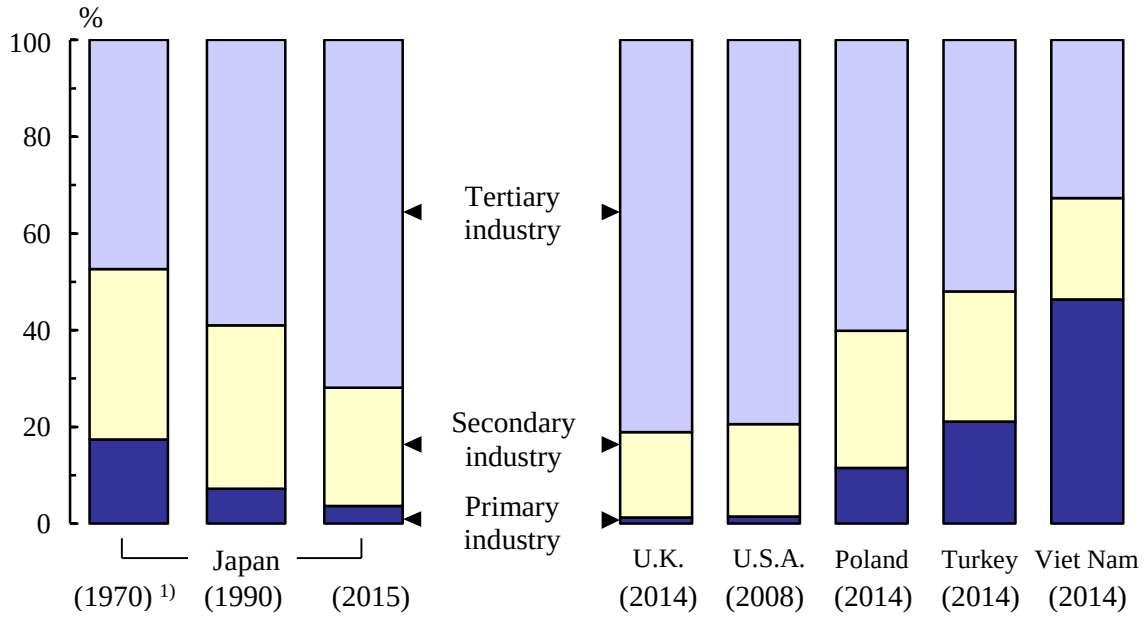
2. Employment

The number of employed persons continued to decline continuously since 1998, but began to rise in 2004 and continued rising for four years in a row. Although a downward trend set in once again in 2008, the number of employed persons increased again starting in 2013, which led to an increase of 250,000 in 2015, from 63.51 million (57.3 percent of the population aged 15 years and over) in the previous year to 63.76 million (57.6 percent).

(1) Employment by Industry

In 2015, the primary industry accounted for 3.6 percent of employment; the secondary industry, 24.5 percent; and the tertiary industry, 71.9 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 the primary industry has been continually falling, while the percentage employed in the tertiary industry has been continually rising. The percentage employed in the secondary industry has also been trending downward. By industry, the number of persons employed in the primary industries of agriculture and forestry has been on a downward trend.

Depending on the industrial sector, a difference was seen in the employment tendency between men and women. In 2015, of male employment was highest in "electricity, gas, heat supply and water" (86.2 percent), followed by "construction" (85.0 percent) and "transport and postal activities" (81.1 percent). The percentage of female employment was highest in "medical, health care and welfare" (75.3 percent), followed by "accommodations, eating and drinking services" (62.1 percent) and "living-related and personal services and amusement services" (59.1 percent).

Table 12.2
Employment by Industry

(Thousands)

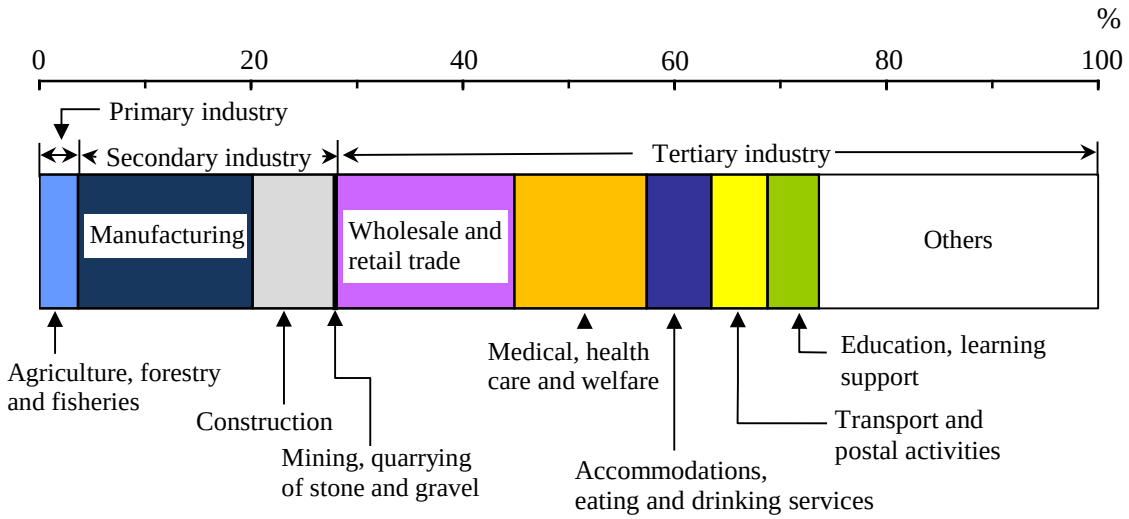
Industries	2012	2013 [1]	2014	2015	Percentage	
					Males	Females
Total [2]	62,700	63,110	63,510	63,760	56.8	43.2
Primary industry	**2,400**	**2,330**	**2,300**	**2,280**	**61.7**	**38.3**
Agriculture and forestry	2,240	2,170	2,090	2,080	60.6	39.4
Fisheries	160	160	210	200	73.7	26.3
Secondary industry	**15,380**	**15,410**	**15,480**	**15,380**	**74.7**	**25.3**
Mining and quarrying of stone and gravel	30	30	30	30	75.0	25.0
Construction	5,030	4,990	5,050	5,000	85.0	15.0
Manufacturing	10,320	10,390	10,400	10,350	69.8	30.2
Tertiary industry	**44,300**	**44,450**	**44,740**	**45,090**	**50.5**	**49.5**
Electricity, gas, heat supply and water	310	300	290	290	86.2	13.8
Information and communications	1,880	1,920	2,030	2,090	73.7	26.3
Transport and postal activities	3,400	3,400	3,360	3,340	81.1	18.9
Wholesale and retail trade	10,420	10,570	10,590	10,540	49.2	50.8
Finance and insurance	1,630	1,650	1,540	1,530	45.8	54.2
Real estate and goods rental and leasing	1,120	1,100	1,120	1,200	62.5	37.5
Scientific research, professional and technical services	2,050	2,070	2,120	2,140	66.8	33.2
Accommodations, eating and drinking services	3,760	3,840	3,850	3,830	37.9	62.1
Living-related and personal services and amusement services	2,390	2,420	2,380	2,300	40.9	59.1
Education, learning support	2,950	2,990	3,010	3,030	43.9	56.1
Medical, health care and welfare	7,060	7,350	7,570	7,840	24.7	75.3
Compound services	470	550	570	590	61.7	38.3
Services, n.e.c.	4,620	4,010	3,970	4,070	61.3	38.7
Government [3]	2,240	2,280	2,340	2,300	73.0	27.0

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

Source: Statistics Bureau, MIC.

In the tertiary industry, which accounted for approximately 70 percent of all industry, employment increased from the previous year by 270,000 and 80,000 in the "medical, health care and welfare" and "real estate and goods rental and leasing" sectors, respectively. Meanwhile, employment in "living-related and personal services and amusement services" decreased by 80,000.

Figure 12.3
Distribution of Employment by Industry (2015)



Source: Statistics Bureau, MIC.

(2) Employment by Occupation

In terms of occupation, employment in the "agricultural, forestry and fishery workers", "sales workers" and "manufacturing process workers" categories has been declining in recent years. The number of "manufacturing process workers" was 8.83 million in 2015, down 2.0 percent from the previous year's 9.01 million. In contrast, "service workers" such as home-care workers have been on a rising trend over the past few years due to a trend toward a service-oriented economy, the aging population, and improvements to welfare services. There is also a rising trend in the number of "professional and engineering workers."

Table 12.3
Employment by Occupation

(Thousands)

Occupation	2012	2013	2014	2015	Percentage	
					Males	Females
Total [1)]	62,700	63,100	63,510	63,760	56.8	43.2
Administrative and managerial workers	1,530	1,430	1,420	1,440	87.6	12.4
Professional and engineering workers	10,100	10,040	10,240	10,540	53.1	46.9
Clerical workers	12,140	12,350	12,440	12,560	40.3	59.7
Sales workers	8,750	8,600	8,540	8,530	56.7	43.3
Service workers	7,580	7,800	7,890	7,870	32.4	67.6
Security workers	1,220	1,250	1,260	1,250	93.7	6.3
Agricultural, forestry and fishery workers	2,370	2,290	2,240	2,220	64.0	36.0
Manufacturing process workers	9,020	9,000	9,010	8,830	71.3	28.7
Transport and machine operation workers	2,220	2,240	2,220	2,170	97.2	2.8
Construction and mining workers	3,020	3,020	3,050	2,980	98.3	1.7
Carrying, cleaning, packaging, and related workers	4,140	4,270	4,310	4,450	55.5	44.5

1) Including "Labor force status not reported."
Source: Statistics Bureau, MIC.

In 2015, the percentages of male and female employed persons by occupation show that men were particularly prominent among "construction and mining workers" (98.3 percent) and "transport and machine operation workers" (97.2 percent). Women were prominent among "service workers" (67.6 percent) and "clerical workers" (59.7 percent).

(3) Employment by Employment Pattern

When looking at the trends in the number of employed persons by employment pattern, regular staff members have been on a slight declining trend since the early 2000s, but increased for the first time in eight years in 2015. Recently, the number of non-regular staff members, such as part-time workers and agency-dispatched workers, has also been increasing continuously for the sixth consecutive year.

In 2015, there were 52.84 million employees (excluding company executives), of whom 19.80 million, or 37.5 percent, were non-regular staff members. The ratio of non-regular staff members among all male employees was 21.9 percent, while the corresponding ratio for females was 56.3 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 non-regular staff ratio is high across a wide range of generations.

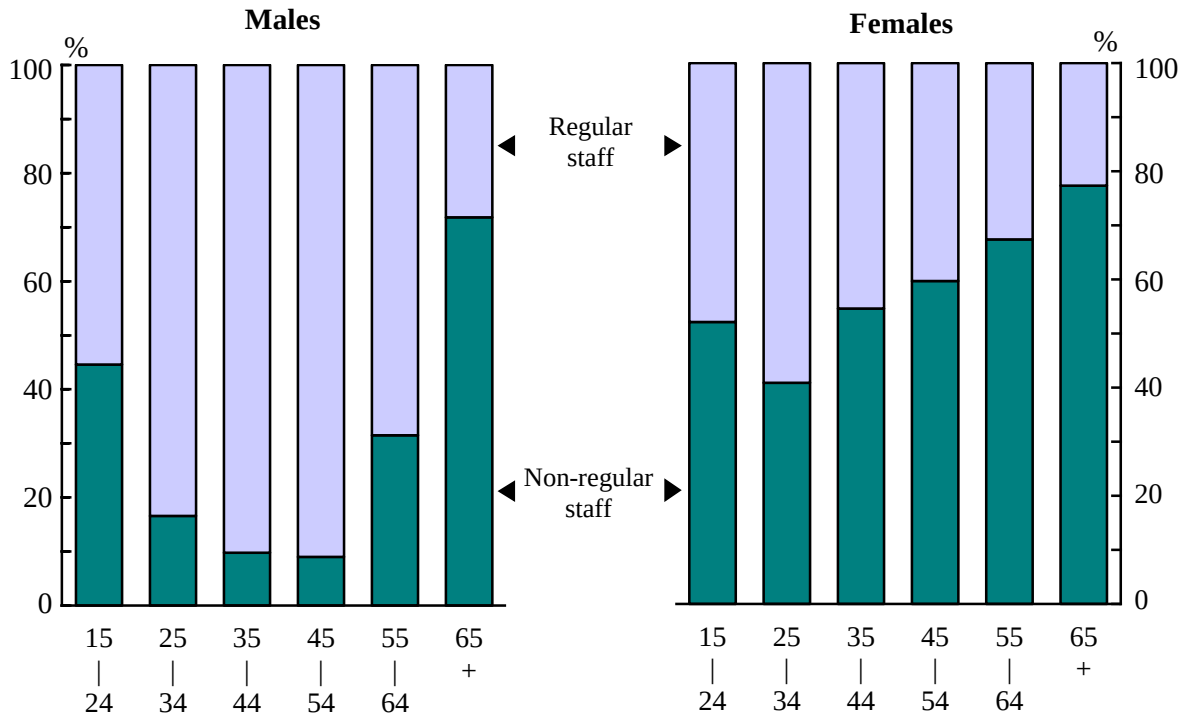
Table 12.4
Employment by Employment Pattern (2015)

(Thousands)

	Employees[1)]	Regular staff	Percentage	Non-regular staff	Percentage
Total	52,840	33,040	62.5	19,800	37.5
Males	28,960	22,610	78.1	6,340	21.9
Females	23,880	10,420	43.7	13,450	56.3

1) Excluding company executives.
Source: Statistics Bureau, MIC.

Figure 12.4
Employment Pattern by Gender and Age (2015)



Source: Statistics Bureau, MIC.

Factors behind the rise in non-regular staff members include diversification of use of human resources such as due to progression of technological innovation, and saturation of a work style that is suited to the individual characteristics and circumstances of laborers. As a result, with respect to employment patterns, there has been an increase in non-regular staff members, particularly women and the elderly.

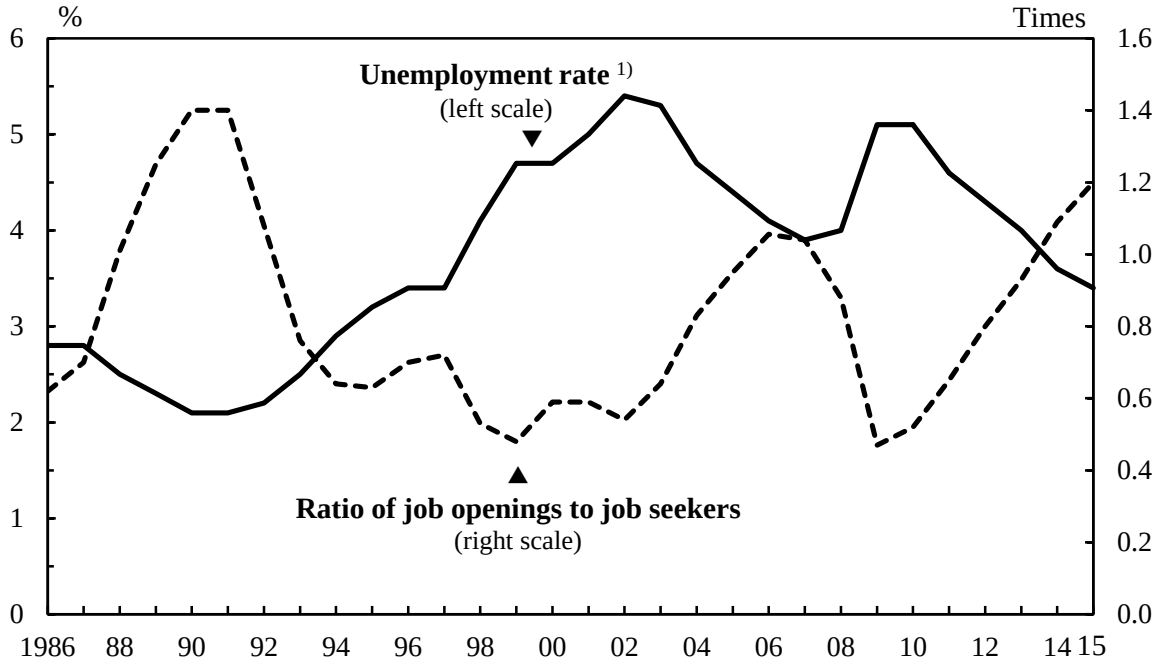
The employment rate of new graduates had been worsening as a result of the economic slowdown since 2008, but in recent years, their employment situation has been improving continuously.

3. Unemployment

In 2015 the unemployed numbered 2.22 million people, down 5.9 percent from the previous year and representing a decline for the sixth consecutive year. The unemployment rate was 3.4 percent, down 0.2 percentage points from the previous year.

After the ratio of job openings to job seekers peaked in 2006, it has been on a falling trend in recent years. Since 2009, the ratio has been increasing. The ratio of job openings to job seekers in 2015 exceeded that of 1992.

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

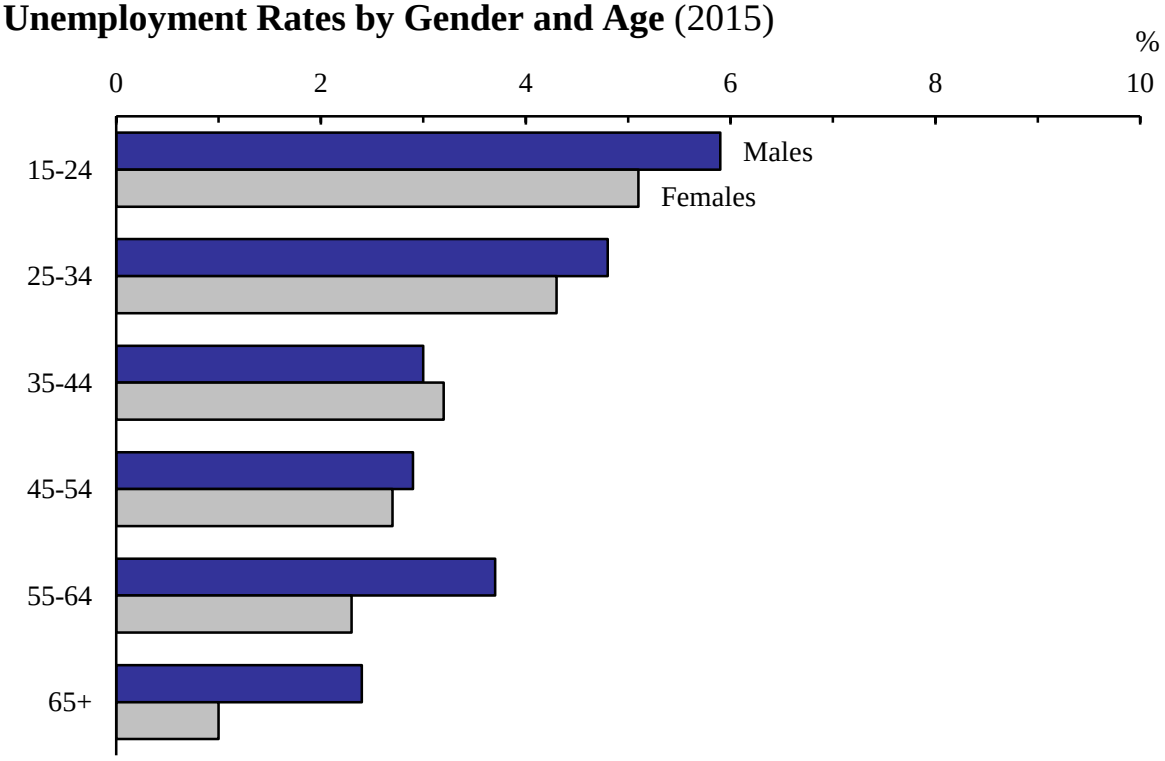


1) The data for 2011 indicates supplementary estimated figure.
Source: Statistics Bureau, MIC; Ministry of Health, Labour and Welfare.

A breakdown by gender shows that the unemployment rate in 2015 was 3.6 percent among men, and 3.1 percent among women. The unemployment rate has been higher among men for the eighteenth consecutive year 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 (2015)



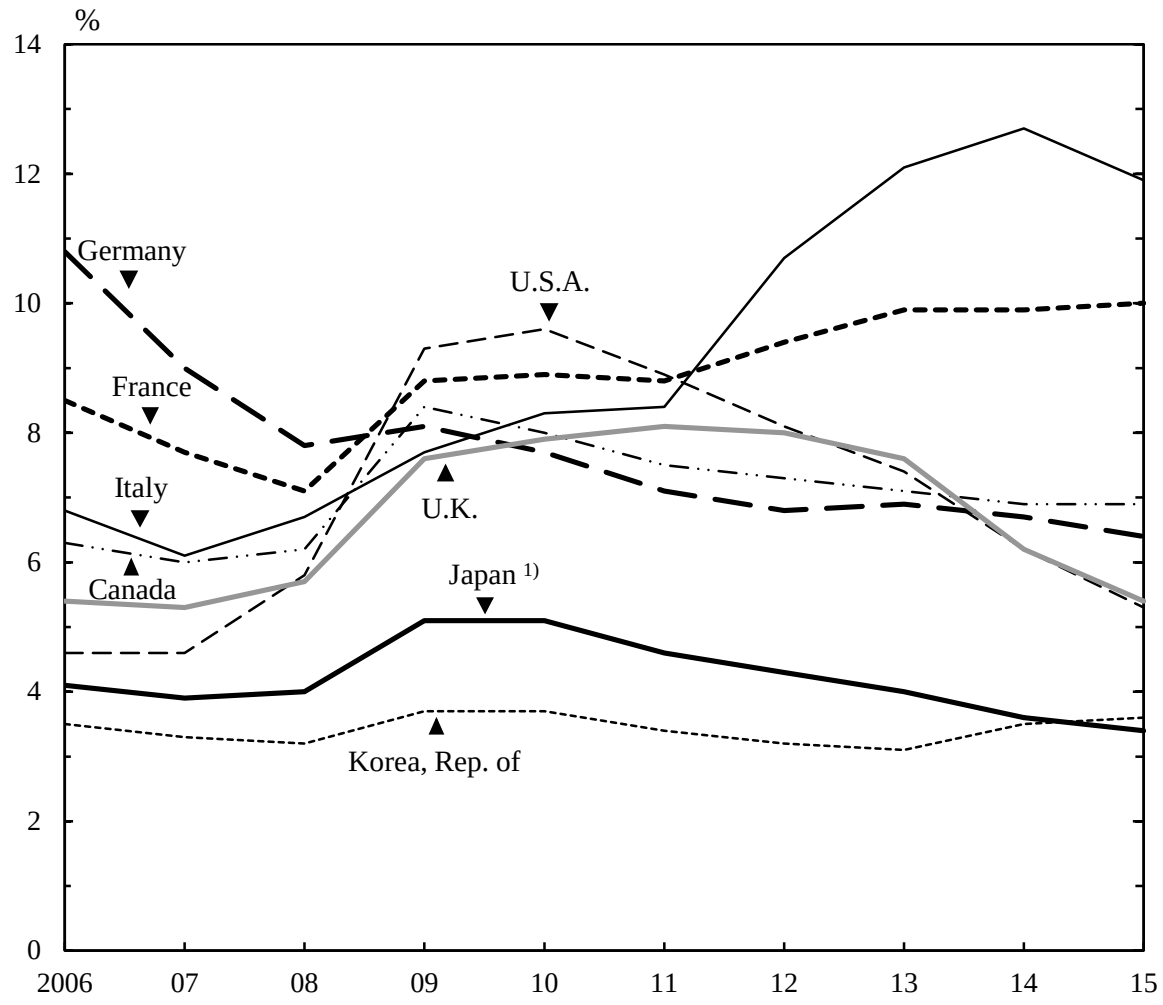
Source: Statistics Bureau, MIC.

Analyzing the total number of unemployed in 2015 (2.22 million people), by reason for job-seeking, the major reasons were: (i) involuntarily dismissed due to corporate or business circumstances, or reaching retirement age limit, 0.65 million persons; (ii) voluntarily left a job for personal or family reasons, 0.89 million persons; (iii) new job seekers due to the necessity to earn income, 0.32 million; and (iv) new job seekers just graduated from school, 0.10 million.

In terms of the duration of unemployment, most were unemployed for "1 year or more" (0.77 million persons), followed by "less than 3 months" (0.73 million persons). Among younger job seekers, the percentage of a

short job-seeking period is high, and among the elderly, the percentage of a long job-seeking period is high.

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 2015, the monthly average of total hours worked was 144.5 per regular employee (in establishments with five or more regular employees), down 0.3 percent from the previous year, and an annual average of 1,734 hours.

Of the total monthly hours worked, 133.5 were scheduled working hours, representing a decrease of 0.3 percent from the previous year. Non-scheduled work such as overtime work averaged 11.0 hours per month, representing a decrease of 1.0 percent from the previous year. Working days averaged 18.7 days per month in 2015.

In 2015, 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 259,000 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 55,000 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 [1] (Monthly average)

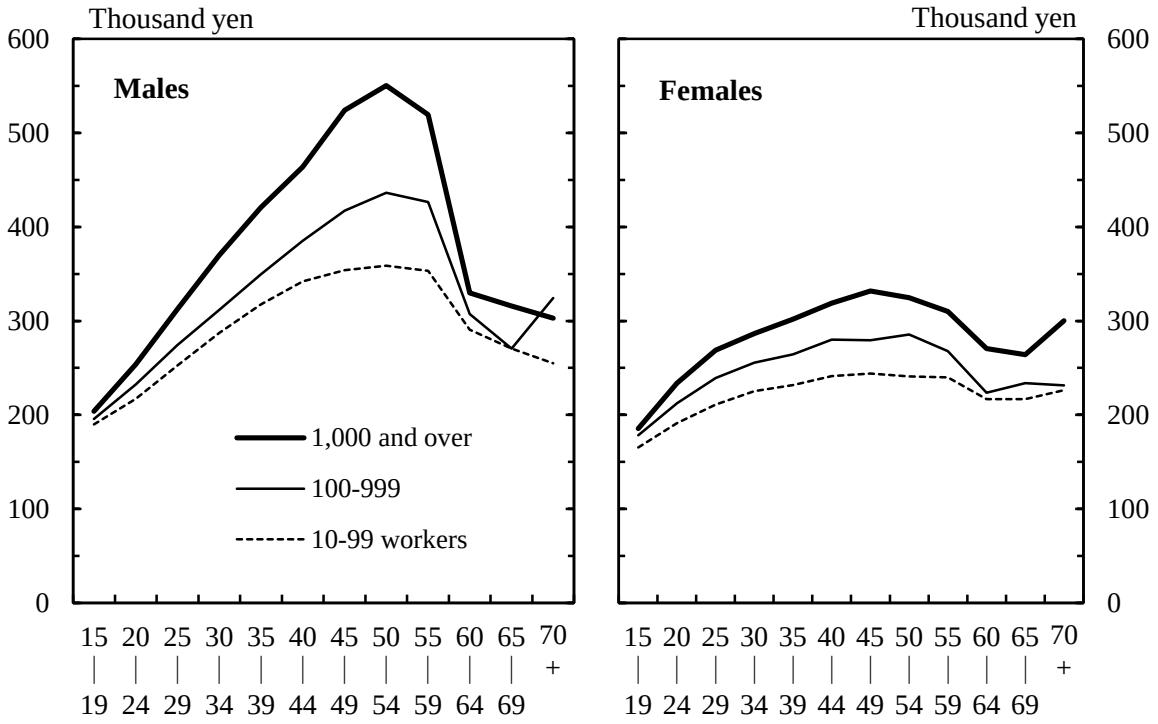
Year	Days worked	Hours of Work			Wages (1,000 yen)				
		Total	Scheduled	Non-scheduled	Total	Contractual	Scheduled	Non-scheduled	Special [2]
2000	20.0	154.4	144.6	9.8	355	284	265	19	72
2005	19.5	150.2	139.8	10.4	335	273	253	19	62
2010	19.0	146.2	136.2	10.0	317	263	245	18	54
2013	18.9	145.5	134.9	10.6	314	260	241	19	54
2014	18.8	145.1	134.1	11.0	317	261	241	20	56
2015	18.7	144.5	133.5	11.0	314	259	240	20	55
Indices (2010 average = 100) [3]									
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	-	-
2013	-	99.3	98.8	104.4	98.5	98.5	98.1	-	-
2014	-	98.9	98.2	108.6	98.9	98.4	97.7	-	-
2015	-	98.6	97.9	107.5	99.0	98.6	98.0	-	-

1) Establishments with five 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 decline. Into the 1990s, an increasing number of enterprises reviewed their salary system, resulting in a more widespread introduction of a merit-based pay system placing emphasis on performance. In recent years, many companies have also adopted wage determination based on job performance skills with consistency.

Figure 12.8
Monthly Contractual Cash Earnings by Size of Enterprise (2015)



Source: Ministry of Health, Labour and Welfare.

Chapter 13

Family Budgets and Prices

1. Family Budgets

In 2015, 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 2015 results of the Family Income and Expenditure Survey.

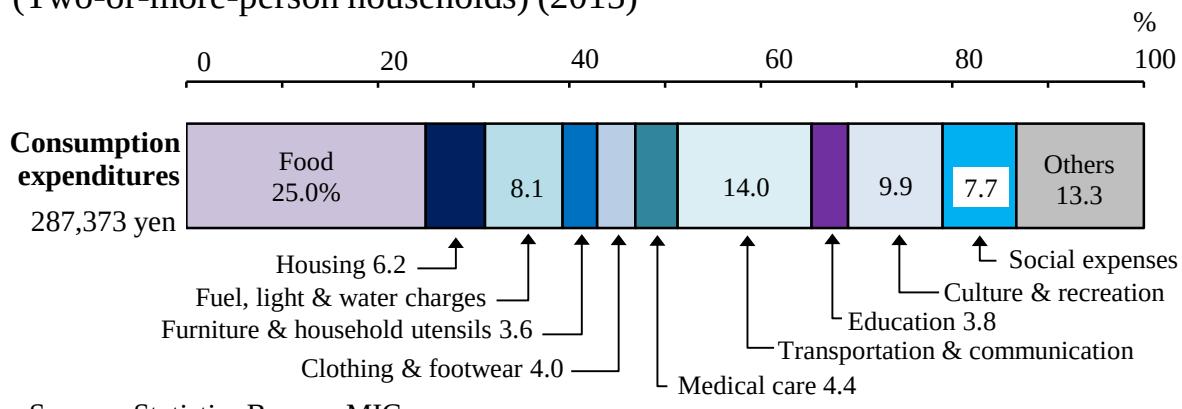
(1) Income and Expenditure

(A) Two-or-more-person Households

The 2015 average monthly consumption expenditures per two-or-more-person household (the average number of household members being 3.02 and the average age of the household head being 58.8 years) was 287,373 yen. Compared to the previous year, it decreased by 1.3 percent in nominal terms and decreased by 2.3 percent in real terms. The share of food expenses to total consumption expenditures (Engel's coefficient) was 25.0 percent.

When looking at the real annual change in consumption expenditures, although the width of decrease shrank in 2015, there was a decrease in real terms for the second consecutive year.

Figure 13.1
Average Monthly Consumption Expenditures
(Two-or-more-person households) (2015)



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 3.39 and the average age of the household head being 48.8 years) was 525,669 yen in 2015, of which about 80 percent came from the household head's income.

Table 13.1

Average Monthly Income and Expenditures (Workers' households [1])

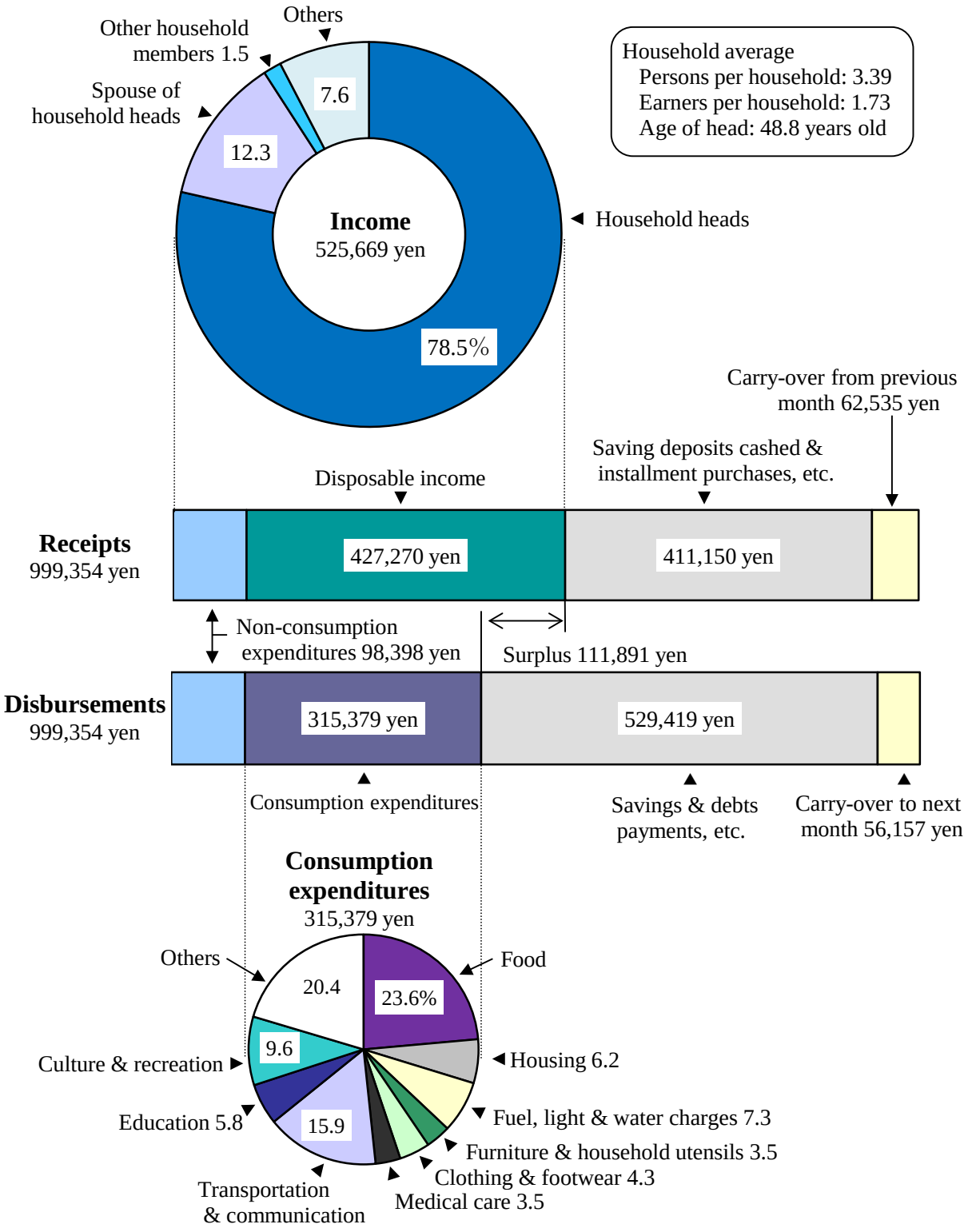
(Thousand yen)

Item	2011	2012	2013	2014	2015
Income (A)	510.1	518.5	523.6	519.8	525.7
Wages and salaries	473.1	479.6	486.6	483.3	485.6
Others	37.0	38.9	37.0	36.5	40.1
Disposable income (A-C)	420.5	425.0	426.1	423.5	427.3
Expenditures	398.4	407.4	416.6	415.0	413.8
Consumption expenditures (B)	308.8	313.9	319.2	318.8	315.4
Non-consumption expenditures (C) [2]	89.6	93.5	97.5	96.2	98.4
Surplus ((A-C)-B)	111.7	111.1	107.0	104.8	111.9
Net increase in deposits and insurance	76.8	77.8	74.3	77.1	84.4
Average propensity to consume (%) [3]	73.4	73.9	74.9	75.3	73.8
Ratio of net increase in deposits and insurance (%) [4]	18.3	18.3	17.4	18.2	19.8
Engel's coefficient (%)	22.2	22.1	22.1	22.3	23.6
Annual change (%) (real terms)					
Disposable income	-1.9	1.1	-0.2	-3.8	-0.1
Consumption expenditures	-2.7	1.6	1.2	-3.3	-2.1

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 427,270 yen. Of this disposable income, 315,379 yen was used for living expenses (consumption expenditures), such as food and housing expenses, while the remainder (surplus), totaling 111,891 yen, was applied to savings, life insurance premiums and repaying debt such as housing loans.

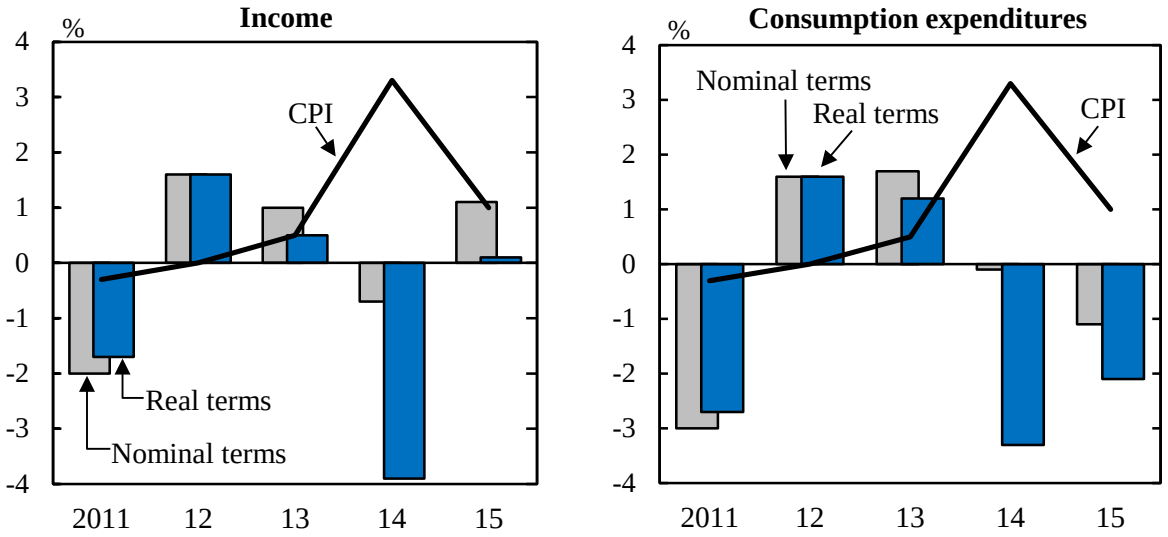
Figure 13.2
Balance of Income and Expenditures
(Monthly average, workers' households [1]) (2015)



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

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

Figure 13.3
Annual Change in Household Income and Expenditures
(Workers' households [1])

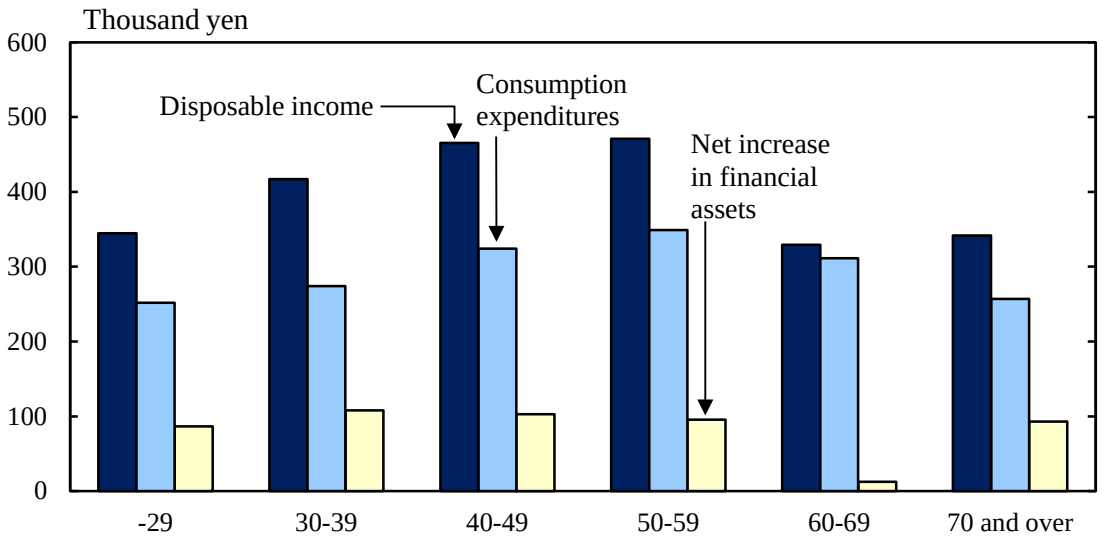


1) Two-or-more-person households.
Source: Statistics Bureau, MIC.

Family budgets differ among households according to their stages in life. Observed by age group of the household head, the 2015 average monthly disposable income of workers' households was the highest in households in the 50s group (471,065 yen), followed by those in the 40s group (465,465 yen) and the 30s group (416,975 yen).

The 2015 average propensity to consume (the ratio of consumption expenditures to disposable income) was the lowest in households in the 30s group (65.7 percent). The figure was 69.7 percent for households in the 40s group, 74.1 percent in the 50s group, 94.5 percent in the 60s group, and 75.3 percent in the 70-and-over group. The percentage tends to be higher as the age goes up, except for the under-30 group (73.0 percent) and the 70-and-over group. 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 [1)]) (2015)



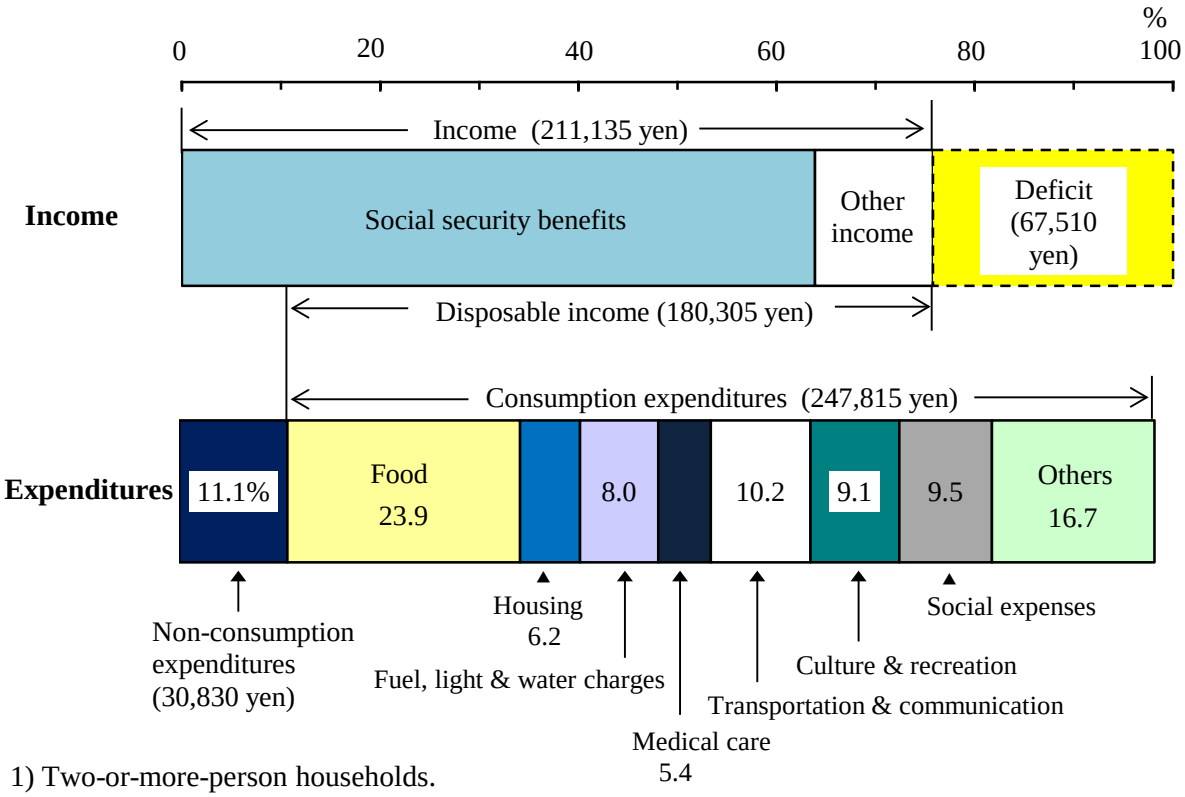
1) Two-or-more-person households.
Source: Statistics Bureau, MIC.

(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 211,135 yen in 2015. Social security benefits amounted to 177,970 yen, thus accounting for 84.3 percent of income.

Disposable income averaged 180,305 yen, while consumption expenditures averaged 247,815 yen. The average propensity to consume in non-working elderly households was 137.4 percent, which means consumption expenditures exceeded disposable income. The deficit of disposable income to consumption expenditures (67,510 yen) decreased from that of the previous year (70,869 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 [1]) (2015)



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

(B) One-person Households

The average monthly consumption expenditures of one-person households in 2015 was 160,057 yen, down 1.2 percent in nominal terms and down 2.2 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 0.6 percent for the under 35-year-old group, down 3.6 percent in the 35-59 age group, and down 2.2 percent in the 60-and-over group. 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 by Age Group
(One-person households)(2015)

(Yen)

Item	Average		Under 35 years		35-59		60 and over	
	Actual figures	ratio (%)	Actual figures	ratio (%)	Actual figures	ratio (%)	Actual figures	ratio (%)
Consumption expenditures	160,057	100.0	168,351	100.0	177,085	100.0	148,890	100.0
Food	40,202	25.1	45,345	26.9	44,550	25.2	36,378	24.4
Housing	20,349	12.7	28,954	17.2	26,587	15.0	14,467	9.7
Fuel, light and water charges	11,667	7.3	7,248	4.3	11,186	6.3	13,327	9.0
Furniture and household utensils	4,413	2.8	3,141	1.9	3,537	2.0	5,263	3.5
Clothing and footwear	6,512	4.1	11,651	6.9	6,705	3.8	4,756	3.2
Medical care	7,107	4.4	3,341	2.0	7,068	4.0	8,344	5.6
Transportation and communication	18,717	11.7	26,036	15.5	24,380	13.8	13,537	9.1
Culture and recreation	17,771	11.1	20,504	12.2	18,266	10.3	16,643	11.2
Others	33,318	20.8	22,130	13.1	34,804	19.7	36,175	24.3
Annual change (real terms) (%)								
Consumption expenditures	-2.2		0.6		-3.6		-2.2	

Source: Statistics Bureau, MIC.

(2) Savings and Debts

Two-or-more-person households in 2015 showed that the average amount of savings per workers' household was 13.09 million yen, resulting in a ratio to yearly income (7.09 million yen) of 184.6 percent. The median value of household savings (the value of household savings 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 7.61 million yen. On the other hand, the average amount of debt per household was 7.55 million yen, which was 106.5 percent relative to yearly income. The median value of households holding liabilities was 11.95 million yen. The portion of household debt accounted for by "housing and/or land" averaged 6.98 million yen. A total of 41.5 percent of workers' households held "debts for housing and/or land."

Table 13.3

Average Amount of Savings and Debts (Workers' households [1])

(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 (%)
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
2014	7,020	12,900	183.8	7,560	7,100	107.7	52.9
2015	7,090	13,090	184.6	7,550	6,980	106.5	53.8

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 40s group.

Table 13.4

Amount of Savings and Debts by Age Group of Household Head

(Workers' households [1]) (2015)

(Million yen)

Item	Average	-29	30-39	40-49	50-59	60-69	70 and over
Yearly income	7.09	4.87	6.18	7.44	8.24	6.32	5.67
Savings	13.09	2.65	6.70	10.26	16.39	21.33	21.00
Financial institutions	12.50	2.49	6.40	9.65	15.39	20.91	20.84
Demand deposits	3.24	1.39	2.61	2.83	3.54	4.48	4.25
Time deposits	4.70	0.74	1.94	3.39	5.69	8.97	8.23
Life insurance, etc.	3.10	0.29	1.25	2.58	4.33	4.69	3.62
Securities	1.46	0.08	0.60	0.86	1.84	2.77	4.74
Non-financial institutions	0.59	0.15	0.30	0.61	1.00	0.42	0.16
Debts	7.55	5.11	10.46	10.84	6.00	1.98	0.92
Housing and/or land	6.98	4.70	10.04	10.22	5.24	1.62	0.58
Other than housing and/or land	0.36	0.16	0.24	0.39	0.51	0.25	0.28
Monthly and yearly installments	0.20	0.24	0.18	0.24	0.26	0.11	0.07

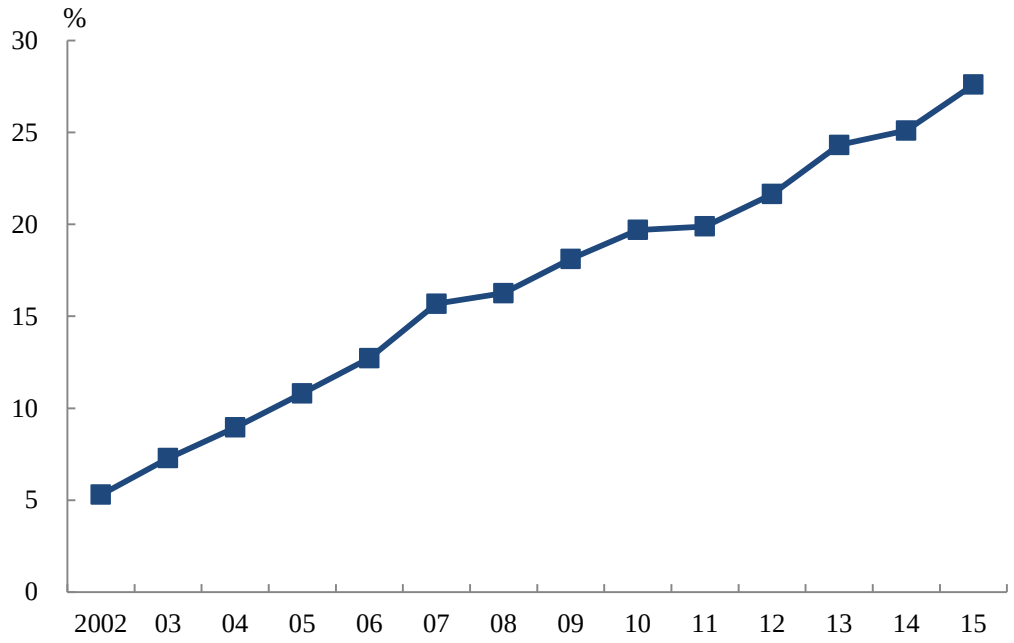
1) Two-or-more-person households.

Source: Statistics Bureau, MIC.

(3) Internet Shopping by Households

Due to popularization of computers, smartphones, etc., the use of Internet shopping has been increasing in recent years. According to the Survey of Household Economy, the percentage of two-or-more-person households that utilize Internet shopping has continued to increase since 2002, reaching 27.6 percent in 2015. Total expenditures used on Internet shopping in one year amounted to an average of 103,716 yen per household.

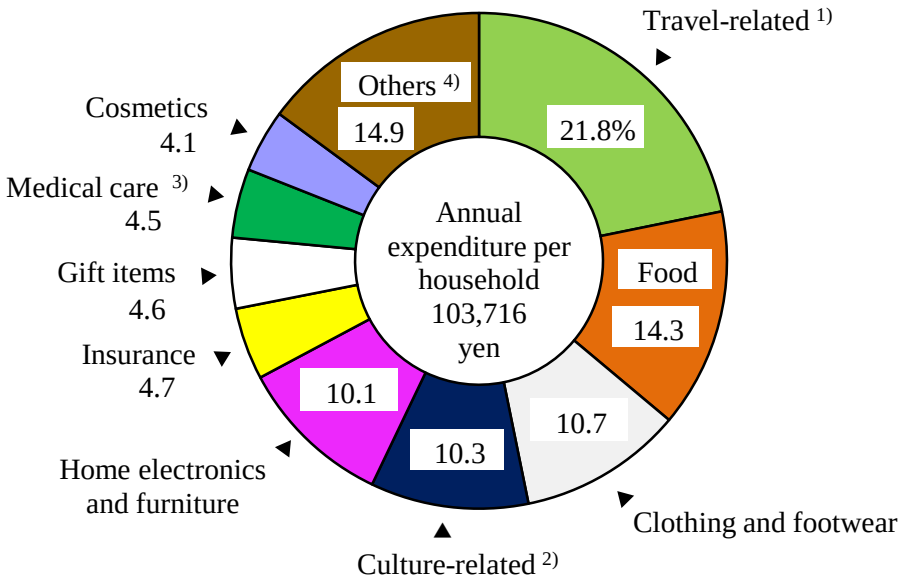
Figure 13.6
Proportion of Households Ordered Over the Internet
(Two-or-more-person households)



Source: Statistics Bureau, MIC.

Looking at the breakdown of total expenditures per two-or-more-person households spent on Internet shopping, "travel-related" expenditures were the highest at 21.8 percent, followed by "food" at 14.3 percent, "clothing and footwear" at 10.7 percent, "culture-related" expenditures (such as books and music software) at 10.3 percent, and "home electronics and furniture" at 10.1 percent.

Figure 13.7
Ratio of Expenditure on Goods and Services Ordered over the Internet
(Two-or-more-person Households) (2015)



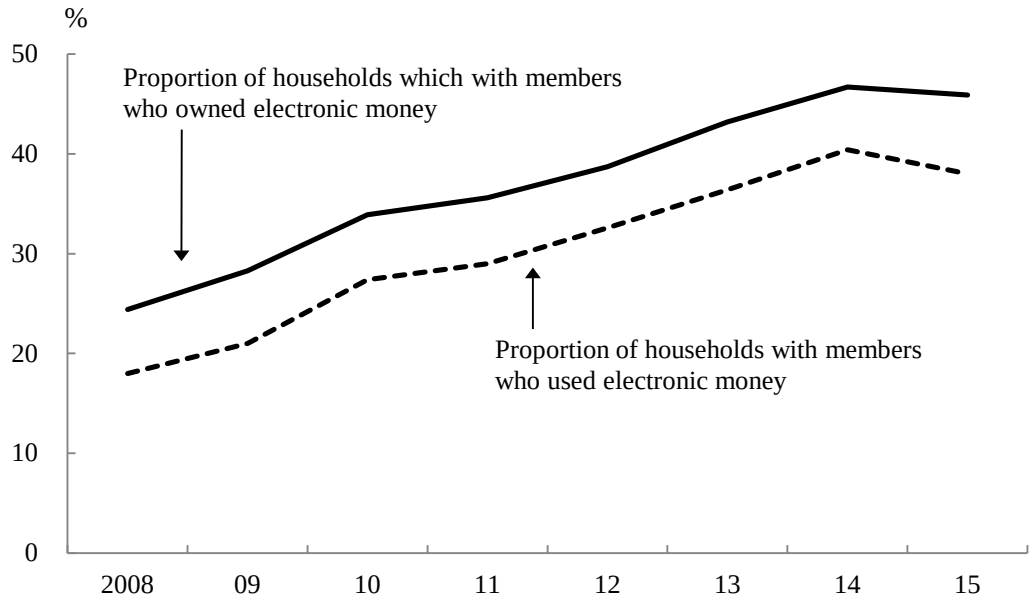
1) Total accommodation services, fares and package tours. 2) Total books and other reading materials, software (music, video, personal computer, TV game), digital books, download music, video, applications and tickets. 3) Total medicines and health foods. 4) Total private transportation, other goods and services.

Source: Statistics Bureau, MIC.

(4) Electronic Money

Use of electronic money has been increasing, as a means for settling accounts that can be easily used at transportation facilities, convenience stores, supermarkets, etc. Based on two-or-more-person households in the Survey of Household Economy, the percentage of households with members who have electronic money and the percentage of households with members who have used electronic money have been increasing every year starting in 2008. However, in 2015, the percentage of households with electronic money was 45.9 percent, and the percentage of households that have used electronic money was 38.0 percent, indicating decreases.

Figure 13.8
Trends in Ownership and Utilization of Electronic Money
(All households)



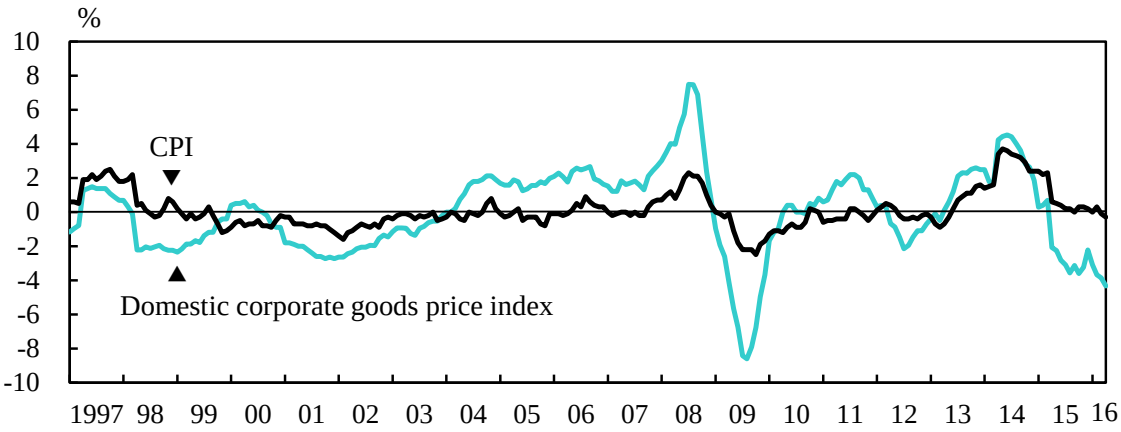
Source: Statistics Bureau, MIC.

2. Prices

Domestic corporate goods prices were on a downward trend starting in 1992, after the collapse of the bubble economy, and then turned upward in 2004. Domestic corporate goods prices are easily affected by changes in the price 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 advances and declines from 2008 to 2009 around the time of the bankruptcy of Lehman Brothers. Starting in 2010, domestic corporate goods prices fluctuated within a range of plus or minus 2 percent (as compared to the same month of the previous year), and started to increase in the second quarter of 2013. However, the index turned downward in April 2015.

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. Starting in the fourth quarter of 2007, prices were once again on an upward trend due to sharp increases in the price of imported 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 shifted mainly downwards, but turned upward starting in the third quarter of 2013 due to a weakening of the yen. However, in the second quarter of 2015, the width of increase shrank due to a cycle of the effects of the tax increase and a drop in energy prices.

Figure 13.9
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 103.6 in 2015, up 0.8 percent from the previous year.

Table 13.5
CPI for Major Categories of Goods and Services

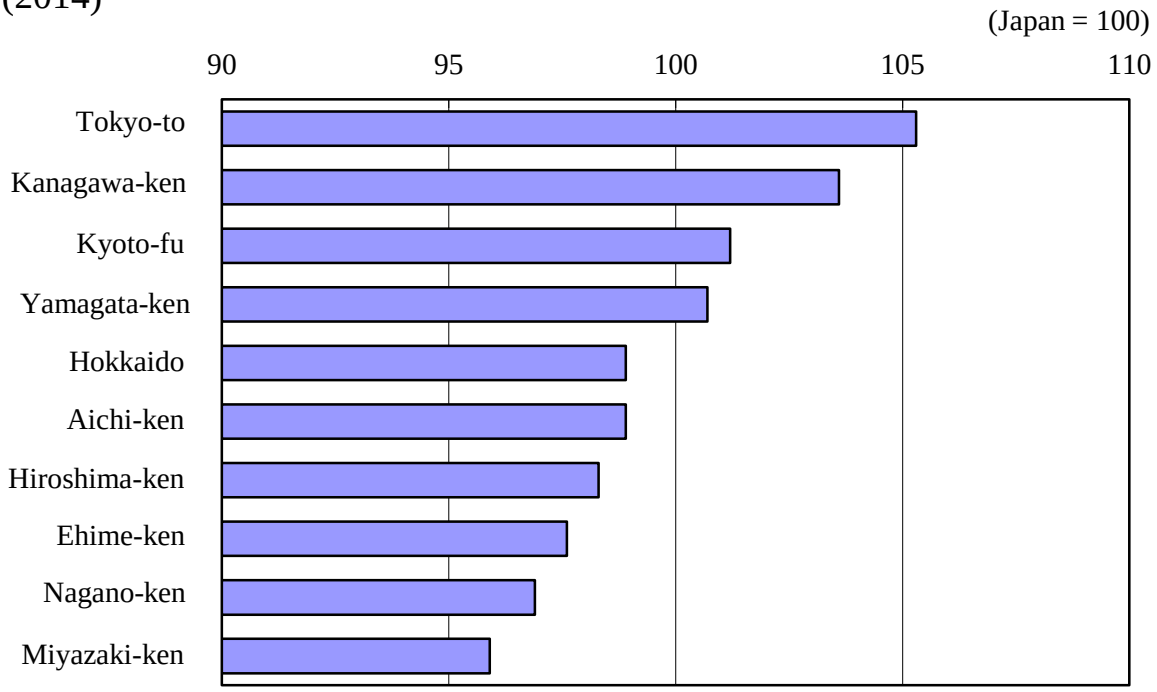
(CY2010=100)

Item	Weight	2000	2005	2013	2014	2015
All items	10000	102.7	100.4	100.0	102.8	103.6
All items, less imputed rent	8442	103.1	100.3	100.2	103.6	104.6
Food	2525	98.4	96.8	99.6	103.4	106.6
Housing	2122	100.9	100.6	99.1	99.1	99.1
Fuel, light and water charges	704	94.6	94.4	112.3	119.3	116.2
Furniture and household utensils	345	131.1	111.6	89.7	93.1	94.5
Clothing and footwear	405	106.3	100.2	100.1	102.2	104.5
Medical care	428	98.7	101.2	98.0	99.0	99.9
Transportation and communication	1421	103.0	101.6	102.9	105.6	103.6
Education	334	103.2	107.4	98.8	100.6	102.3
Culture and recreation	1145	118.0	107.9	93.6	97.0	98.9
Miscellaneous	569	95.4	97.1	104.8	108.6	109.7
Goods	4931	104.5	100.1	99.9	104.0	104.8
Services	5069	100.8	100.7	100.1	101.6	102.4

Source: Statistics Bureau, MIC.

According to the general index (all items, less imputed rent) in the regional difference index of consumer prices, which compares the difference in consumer price levels by prefecture, Tokyo-to had the highest score in 2014, with a figure of 105.3 against the national average set at 100, followed by Kanagawa-ken, with 103.6. On the other hand, Miyazaki-ken registered the lowest score, with 95.9. Comparing Tokyo-to and Miyazaki-ken, the price index for Tokyo-to was 9.8 percent higher than that of Miyazaki-ken.

Figure 13.10
Regional Difference Index of Consumer Prices by Selected Prefectures
(2014)



Source: Statistics Bureau, MIC.

(2) Corporate Goods and Services Price Indices

The corporate goods price index measures price changes of goods traded in the corporate sector. It is comprised of the producer price index (price index of domestically-produced and domestically-traded goods in the corporate sector), the export price index, and the import price index.

In 2015, the producer price index (2010 as the base year = 100) was 102.7, down 2.3 percent from the previous year.

In 2015, although the export price index decreased to 92.5 on a contract currency basis (down 5.5 percent from the previous year), measured on a yen basis, the index increased to 111.8 (up 1.3 percent). Meanwhile, the import price index fell to 90.8 on a contract currency basis (down 18.4 percent from the previous year) and decreased to 113.6 on a yen basis (down 11.2 percent).

The services producer price index measures price movements of services traded between companies. In 2015, the corporate services price index (CY2010 as the base year = 100) was 102.7, up 1.1 percent from the previous year.

Table 13.6
Corporate Goods and Services Price Indices

(CY2010=100)

Item	Weight	2005	2012	2013	2014	2015
Corporate goods price index						
Producer price index	1000.0	97.2	100.6	101.9	105.1	102.7
Manufacturing industry products	902.5	97.4	99.8	100.3	103.2	100.9
Export price index (yen basis)	1000.0	115.7	95.8	107.0	110.4	111.8
Import price index (yen basis)	1000.0	94.1	107.2	122.7	127.9	113.6
Services producer price index						
All items	1000.0	103.3	99.0	99.0	101.6	102.7
Information and communications	237.8	105.2	98.5	97.6	99.3	99.6
Transportation and postal activities	186.7	100.5	100.3	100.9	103.9	104.7
Real estate services	72.1	97.5	94.9	93.5	95.5	96.3
Advertising services	63.4	111.5	101.4	102.3	105.0	105.7

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 2014, Japan's total emission of greenhouse gases, which are a major cause of global warming, amounted to 1.36 billion tons (calculated after their conversion into carbon dioxide), representing a decrease of 3.1 percent from the previous fiscal year. Carbon dioxide accounted for 92.8 percent of these greenhouse gases, with an emission volume of 1.27 billion tons. A breakdown of carbon dioxide emissions by sector revealed that emissions from the industrial sector accounted for 33.7 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.).

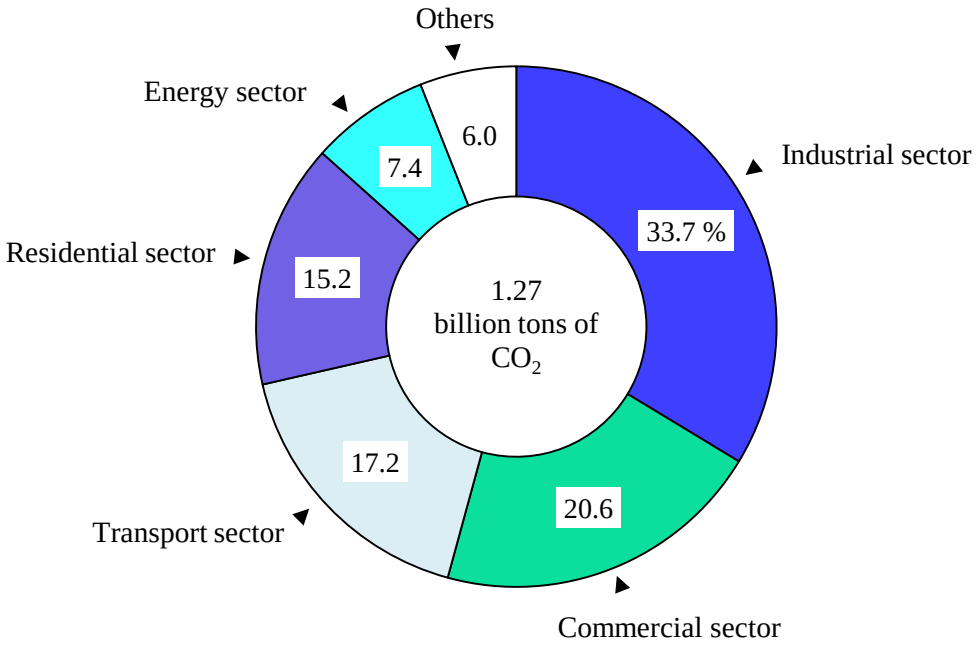
Table 14.1
Breakdown of Carbon Dioxide Emissions in Japan [1)]

(Million tons)

Item	FY1990	FY2000	FY2005	FY2010	FY2013	FY2014
Total	1,156	1,274	1,306	1,213	1,312	1,265
Industrial sector	502	466	457	414	432	426
Commercial sector	137	210	239	219	278	261
Transport sector	206	255	240	222	225	217
Residential sector	131	161	180	174	201	192
Energy sector	91	90	104	110	99	94
Industrial processes and product use.....	64	58	54	45	46	46
Waste (incineration, etc.)	24	33	32	28	29	29

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 [1)] (FY2014)



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 "3R" (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 dust, are designated as "industrial waste." The fiscal 2013 nationwide industrial waste generation totaled 384.70 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 11.72 million tons in fiscal 2013.

Meanwhile, a total of 44.87 million tons of "nonindustrial waste" (household waste and also shop, office and restaurant waste) was generated in fiscal 2013. This translates to 958 grams per person per day. In terms of nonindustrial waste disposal in fiscal 2013, the total volume processed was 42.37 million tons. The total volume of recycled waste was 9.27 million tons, with the recycling rate at 20.6 percent.

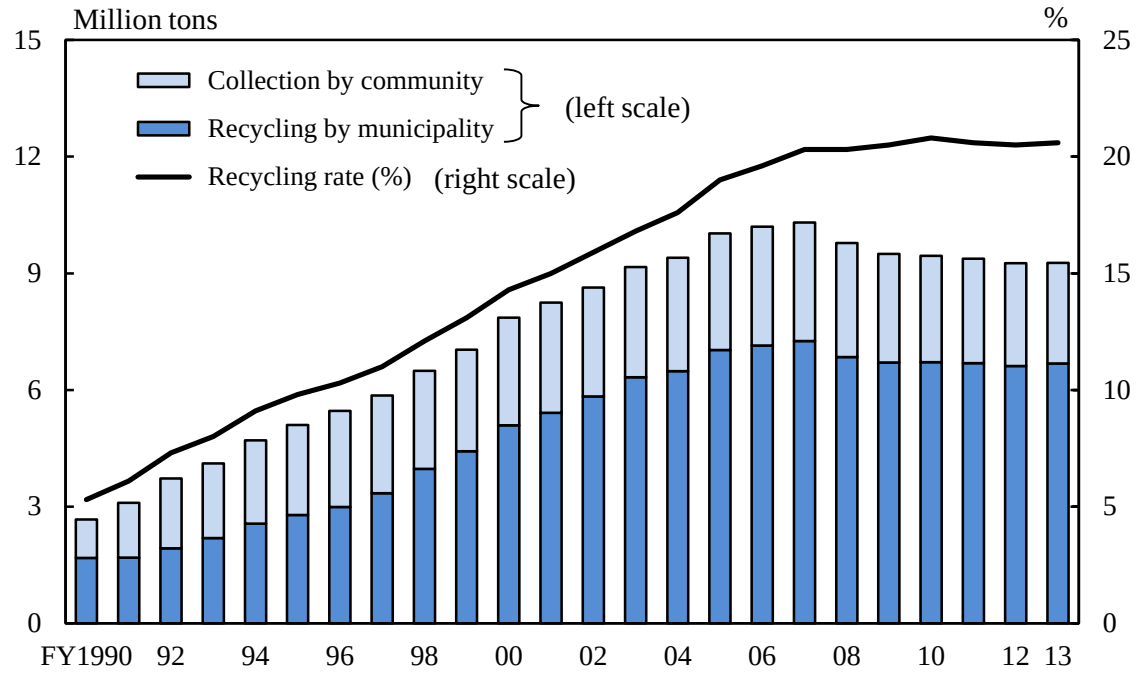
Table 14.2
Waste Generation and Disposal (Industrial and nonindustrial waste)

(Thousand tons)

Item	FY1990	FY2000	FY2005	FY2010	FY2013
Industrial waste					
Total volume of waste generation	394,736	406,037	421,677	385,988	384,696
Recycling	150,568	184,237	218,888	204,733	205,415
Treatment for waste reduction	154,443	176,933	178,560	167,000	167,560
Final disposal	89,725	44,868	24,229	14,255	11,721
Nonindustrial waste [1]					
Total volume of waste generation	50,257	54,834	52,720	45,359	44,874
Municipally scheduled and collected	42,495	46,695	44,633	38,827	38,546
Directly brought to waste treatment facilities	6,776	5,373	5,090	3,803	3,745
Recyclable waste collected by community	986	2,765	2,996	2,729	2,583
Waste generated daily per person (in grams)	1,120	1,185	1,131	976	958
Total volume of processed waste	49,282	52,090	49,754	42,791	42,372
Direct incineration	36,192	40,304	38,486	33,799	33,729
Intermediate treatment for recycling, etc.	3,300	6,479	7,283	6,161	5,948
Direct recycling		2,224	2,541	2,170	2,120
Direct final disposal	9,790	3,084	1,444	662	574

1) Due to the Great East Japan Earthquake, figures for FY2010 exclude those for Minamisanriku-cho (Miyagi Prefecture). Figures for FY 2013 exclude disaster waste.
Source: Ministry of the Environment.

Figure 14.2
Recycling of Nonindustrial Waste [1)]



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

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

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

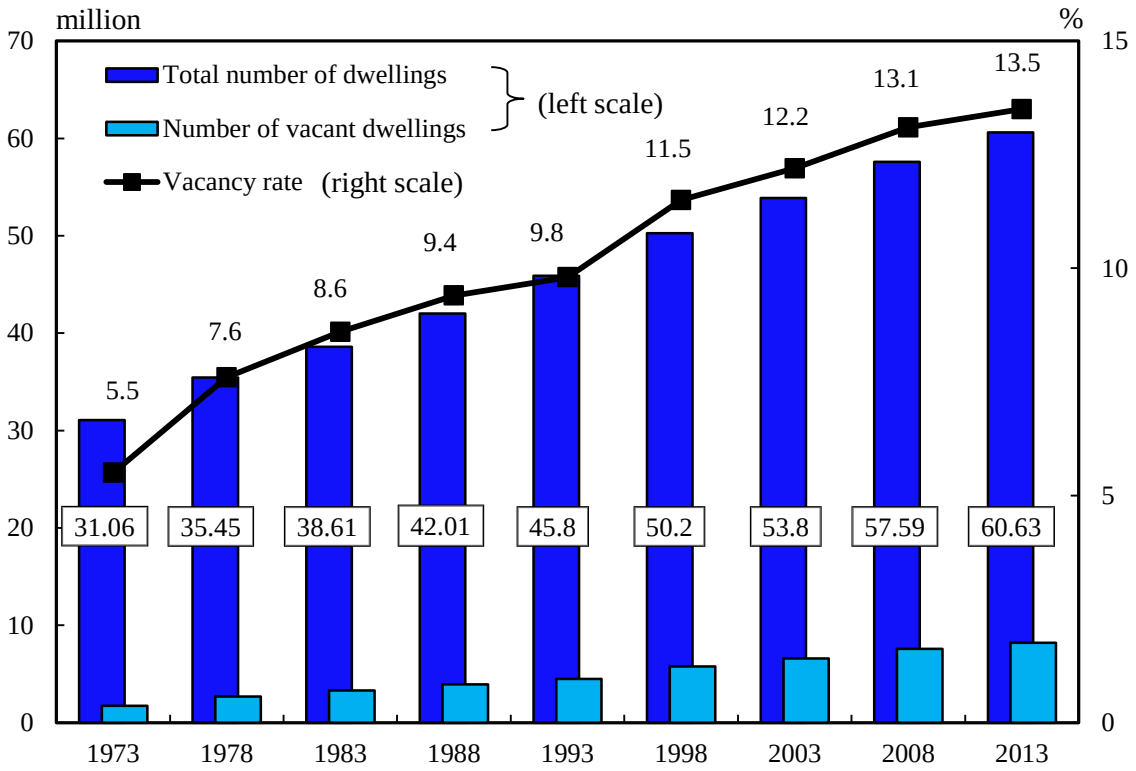
Source: Ministry of the Environment.

2. Housing

According to the "Housing and Land Survey" conducted in October 2013, the total number of dwellings (in the case of apartment buildings, counting the number of individual units) in Japan was 60.63 million, up by 3.04 million (5.3 percent) from 2008. The number of households was 52.45 million, representing the excess in number of dwellings over households by 8.18 million.

In 2013, the number of occupied dwellings (where people usually live) amounted to 52.10 million, accounting for 85.9 percent of the total number of dwellings. Of these, the number of dwellings used exclusively for living totaled 50.98 million, accounting for 97.8 percent of the occupied dwellings. Meanwhile, the number of vacant dwellings increased by 0.63 million (8.3 percent) from 2008, to 8.20 million. That vacancy rate represented 13.5 percent of the total number of dwellings, the highest-ever ratio.

Figure 14.3
Trends in Dwellings, Vacant Dwellings and Vacancy Rate



Source: Statistics Bureau, MIC.

A breakdown of occupied dwellings by class of ownership showed that owned houses totaled 32.17 million, accounting for 61.7 percent of the total, which represented an increase of 0.6 percentage points from the figure of 61.1 percent in 2008. Rented houses, on the other hand, numbered 18.52 million, accounting for 35.5 percent of the total.

Table 14.3
Housing Conditions

(Thousands)

Year	Total households	Total number of dwellings	Occupied dwellings 1)	Ownership		Dwellings exclusively for living	Floor space per dwelling (m^2)
				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
2013	52,453	60,629	52,102	32,166	18,519	50,982	93.0

1) Including tenure of dwelling "Not reported."
Source: Statistics Bureau, MIC.

Table 14.4
Occupied Dwellings by Type of Building

(Thousands)

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
2013	52,102	28,599	1,289	22,085	130

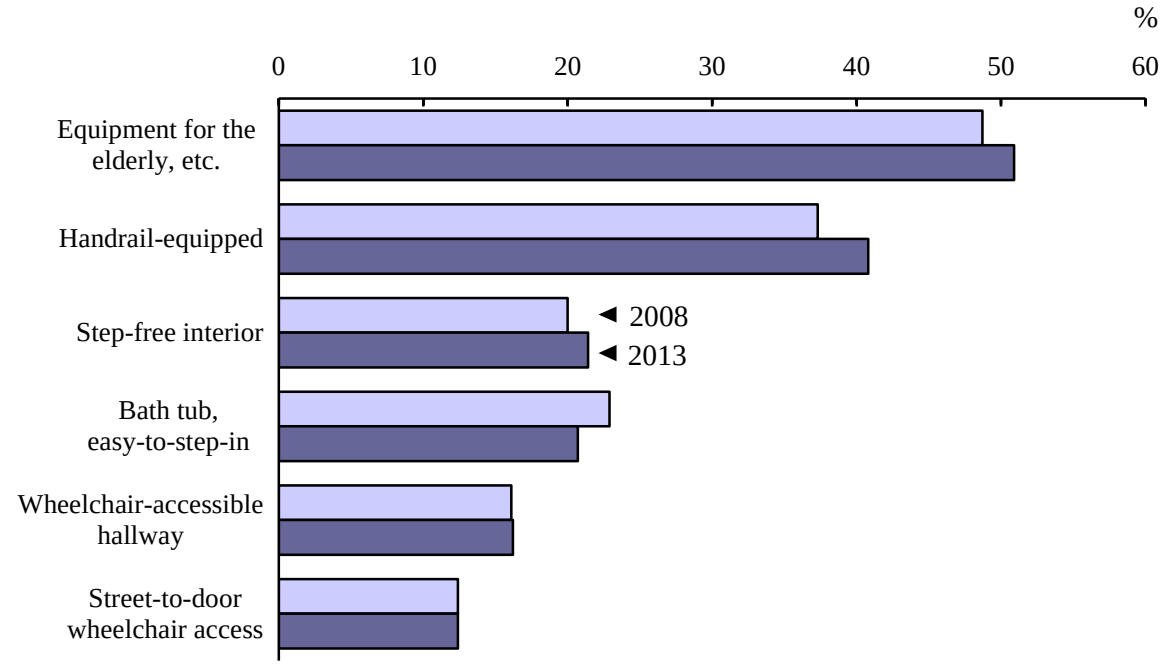
Source: Statistics Bureau, MIC.

Occupied dwellings by building type showed that 28.60 million or 54.9 percent were detached houses, and 22.09 million or 42.4 percent were apartments. The proportion of apartments has consistently increased in recent years.

In terms of construction materials, 26.37 million or 92.2 percent of the detached houses were wood-frame houses (including fire-resistant ones). On the other hand, 16.30 million or 73.8 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 26.54 million, or 50.9 percent of all housing, up 2.2 percentage points from 24.15 million (48.7 percent) in 2008. Housing "equipped with handrails" accounted for 40.8 percent of all housing, and housing with a "step-free interior" made up 21.4 percent. Figures increased from 2008 in all categories of equipment surveyed.

Figure 14.4
Ratio of Housing with Universal Design 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 Policies Basic Act 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 4,113 in 2014, marking a decline for the fourteenth consecutive year. This represented less than one-fourth of the number in 1970.

In 2014, traffic deaths per 100,000 population were 3.2 persons, while the number of persons killed per 10,000 motor vehicles was 0.5 persons.

Table 14.5
Traffic Accidents and Casualties

Year	Traffic accidents	Injuries	Traffic deaths [1)]	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
2013	629,021	781,494	4,373	0.5	3.4
2014	573,842	711,374	4,113	0.5	3.2

1) Death within 24 hours of the accident.
Source: National Police Agency.

4. Crime

In 2015, the reported number of penal code offenses (excluding cases related to traffic accidents) was 1.10 million, a decrease of 113,194 (9.3 percent) compared to the previous year. The proportion of thefts was the highest, accounting for 73.5 percent, or 807,560 cases (down 10.0 percent from the previous year).

The number of persons arrested for penal code offenses was 239,355 in 2015, a decrease of 11,760 (4.7 percent) compared to the previous year, marking a decline for the eleventh consecutive year.

The ratio of arrests to reported number of offenses marked a post-World War II low, at 19.8 percent, in 2001. From 2002 to 2007, this ratio increased, and levelled off afterwards. In 2015, it was 32.5 percent.

Table 14.6
Trends in Crime [1] (Penal code offenses)

Year	Reported offenses	Resultant arrests	Persons arrested	Arrest rate [2] (%)	Crime rate per 100,000 population
1980	1,357,461	811,189	392,113	59.8	1159.2
1985	1,607,697	1,032,879	432,250	64.2	1328.7
1990	1,636,628	692,593	293,264	42.3	1324.1
1995	1,782,944	753,174	293,252	42.2	1419.5
2000	2,443,470	576,771	309,649	23.6	1925.5
2005	2,269,293	649,503	386,955	28.6	1776.3
2010	1,604,019	497,356	322,620	31.0	1252.2
2014	1,212,163	370,568	251,115	30.6	953.8
2015	1,098,969	357,484	239,355	32.5	864.6

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 (violation of the Unauthorized Computer Access Act, offenses involving computers or electromagnetic records, offenses related to unauthorized commands for electromagnetic records, offenses using cyber networks) in 2015 was 8,096, up 2.4 percent from the previous year. This represented about a nine-fold 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, 2015, the prefectural police operated police headquarters, police academies, 1,167 police stations, 6,250 police boxes (Koban) and 6,474 police substations (Chuzaisho) 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 crime 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 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, measure are being taken toward 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 monthly users of long-term care insurance services totaled, on average, 4.82 million per month in fiscal 2013, and increased by approximately 2.6-fold over 13 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 2013 (including 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 9.2 trillion yen.

Table 15.1
Trends in Social Security Benefit Expenditures by Institutional Scheme

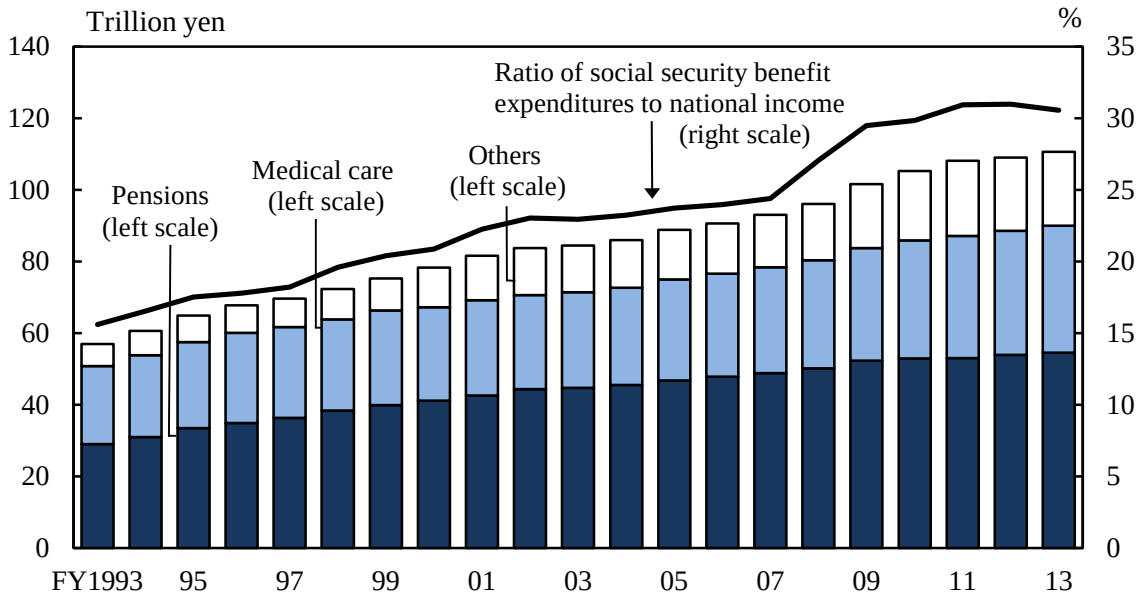
(Billion yen)

Item	FY2000	FY2005	FY2010	FY2012	FY2013
Total	78,342	88,797	105,228	109,001	110,657
Medical insurance	14,740	16,361	19,018	19,741	19,963
Health and medical services for the aged	10,447	10,754	11,718	12,680	13,135
Long-term care insurance	3,262	5,815	7,434	8,313	8,702
Pension benefits	39,173	45,214	51,755	52,911	53,610
Employment insurance [1)]	2,665	1,522	2,374	2,075	1,886
Workers' accident compensation insurance	1,054	990	952	952	938
Family allowance [2)]	712	1,158	3,042	2,928	2,898
Public assistance	1,939	2,594	3,330	3,603	3,629
Social welfare	2,186	2,635	3,398	3,890	4,050
Public health	555	548	1,388	1,234	1,242
Gratuities for retired public employees	1,420	1,059	702	564	498
Aid for war victims	188	146	116	109	106

1) Including unemployment benefits for Seamen's insurance. 2) Including income support for single parent families and families with challenged children.
Source: Ministry of Health, Labour and Welfare.

In fiscal 2013, social security benefit expenditures totaled 110.7 trillion yen (up 1.5 percent from the previous fiscal year), a figure which amounted to 869,300 yen per person. The ratio of Japan's social security benefit expenditures to national income registered 30.6 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[1)]



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.

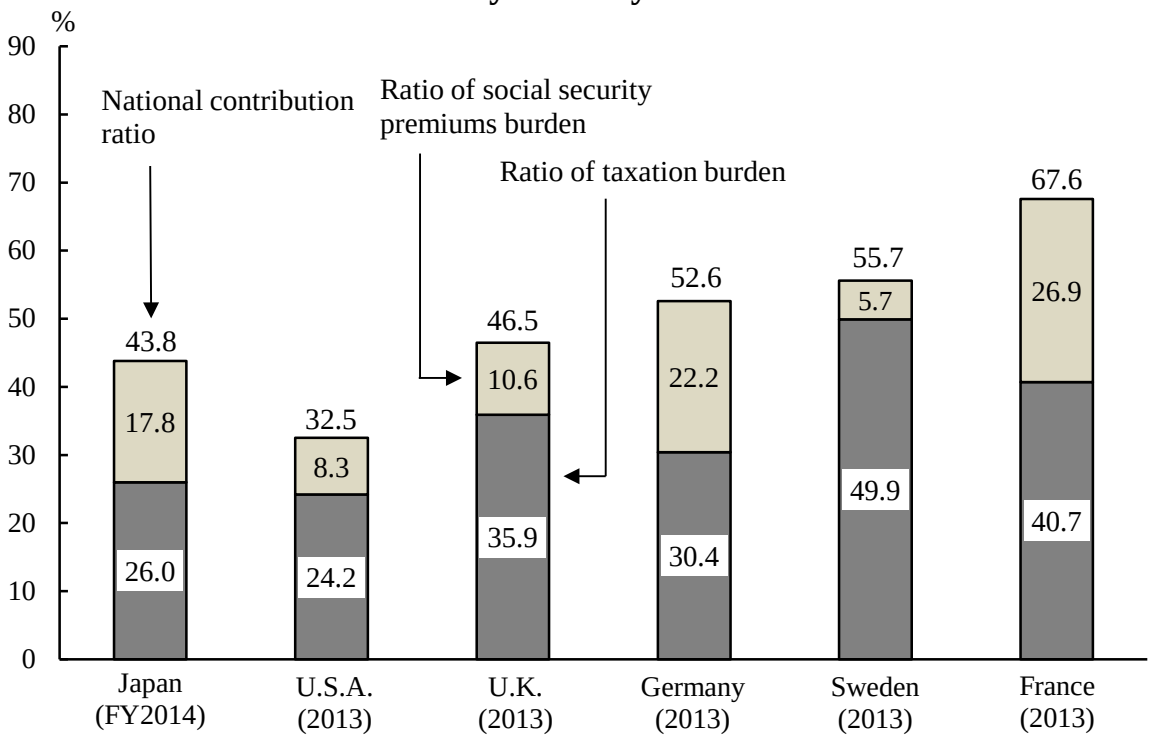
In fiscal 2013, pensions accounted for half (49.3 percent) of total social security benefit expenditures, while medical care accounted for 32.0 percent, and social welfare and others for 18.7 percent. Social security benefit expenditures are forecasted to continue growing, and are projected to reach 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 127.1 trillion yen in fiscal 2013. This was financed by 63.0 trillion yen from social insurance contributions, 43.0 trillion yen from taxes and 21.1 trillion yen from other sources. The government is making approaches toward 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 43.8 percent in fiscal 2014 (taxation burden: 26.0 percent; social security premiums: 17.8 percent), up 2.2 percentage points from 41.6 percent in fiscal 2013 (taxation burden: 24.1 percent; social security premiums: 17.5 percent). The national contribution

ratio in 2013 was 32.5 percent in the U.S.A., 46.5 percent in the U.K., and 67.6 percent in France. 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.

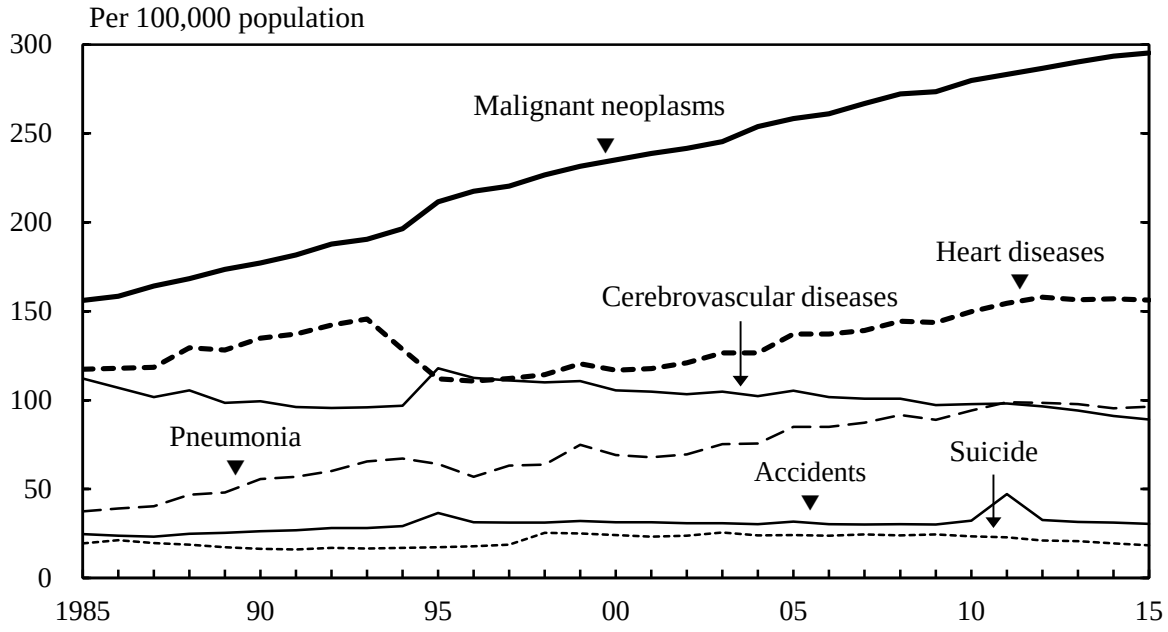
2. Health Care and Public Hygiene

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 86.8 years for women and 80.5 years for men in 2014. Japan's life expectancy remains the highest level in the world. Japan's infant mortality rate was 1.9 per 1,000 births in 2015.

Figure 15.3
Death Rates by Major Cause



Source: Ministry of Health, Labour and Welfare.

The death rate was 1,029.4 per 100,000 population in 2015. The leading cause of death was malignant neoplasms (295.2 per 100,000 population), followed by lifestyle diseases such as heart diseases (156.3; excluding hypertensive diseases), in which people's daily diet and behavior are significant factors, and pneumonia (96.4). Malignant neoplasms became the leading cause of death in 1981. The death rate by malignant neoplasms has continued to increase since, reaching 28.7 percent of all deaths in 2015.

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 had remained at the same level of around 30,000 a year since 1998, but decreased greatly in 2015, with 23,121 suicides. In 2015, suicide became the leading cause of deaths for people aged between 15 and 39.

In the past, humanity has faced the threat of various epidemic diseases, including new strains of influenza. In 2014, cases of infection from Dengue fever in Japan were confirmed for the first time in approximately 70 years. Currently, in Japan, infection control measures are being

advanced, such as through the implementation of vaccinations, with the objective of preventing the occurrence and spread of infectious diseases.

In terms of healthcare provision, Japan had 308,651 physicians engaged in medical care, or 242.9 physicians per 100,000 population, in 2014. 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 15.2
Number of Medical Personnel at Work

Personnel	2006	2008	2010	2012	2014
Number					
Physicians	275,127	283,915	292,338	300,664	308,651
Dentists	95,944	98,063	100,161	101,110	102,534
Pharmacists	234,429	249,251	258,713	262,520	271,364
Nurses and Assistant nurses	1,194,121	1,252,224	1,320,871	1,373,521	1,426,932
Rates per 100,000 population					
Physicians	215.1	221.7	228.3	235.8	242.9
Dentists	75.0	76.6	78.2	79.3	80.7
Pharmacists	183.3	194.6	202.0	205.9	213.5
Nurses and Assistant nurses	933.6	977.7	1,031.5	1,077.1	1,122.8

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

As of October 1, 2014, the number of hospitals in Japan (excluding medical clinics and dental clinics) totaled 8,493. The number of hospital beds amounted to 1,568,261 (1,234.0 per 100,000 population).

Table 15.3
Number of Medical Care Institutions and Beds

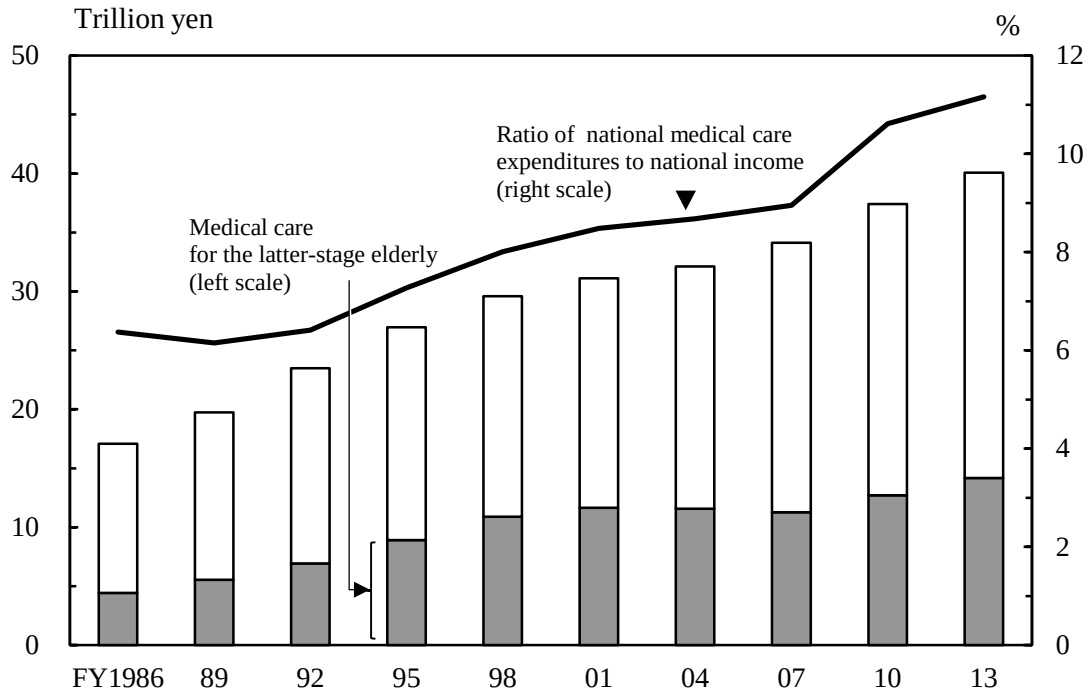
Type of Institution	2005	2008	2011	2013	2014
Institutions					
Total	173,200	175,656	176,308	177,769	177,546
Hospitals	9,026	8,794	8,605	8,540	8,493
Medical clinics	97,442	99,083	99,547	100,528	100,461
Dental clinics	66,732	67,779	68,156	68,701	68,592
Rates per 100,000 population					
Total	135.6	137.6	138.0	139.6	139.7
Hospitals	7.1	6.9	6.7	6.7	6.7
Medical clinics	76.3	77.6	77.9	79.0	79.1
Dental clinics	52.2	53.1	53.3	54.0	54.0
Beds					
Total	1,798,637	1,756,115	1,712,539	1,695,210	1,680,712
Hospitals	1,631,473	1,609,403	1,583,073	1,573,772	1,568,261
Medical clinics	167,000	146,568	129,366	121,342	112,364
Dental clinics	164	144	100	96	87
Rates per 100,000 population					
Total	1,407.7	1,375.3	1,340.0	1,331.7	1,322.5
Hospitals	1,276.9	1,260.4	1,238.7	1,236.3	1,234.0
Medical clinics	130.7	114.8	101.2	95.3	88.4
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 2013, the expenditures totaled 40.1 trillion yen or 11.06 percent of Japan's national income. The cost of medical care per person averaged 314,700 yen in fiscal 2013.

Medical costs for treating the latter-stage elderly in fiscal 2013 were 14.2 trillion yen, or about one-third of national medical care expenditure, and accounted for 3.95 percent of the national income. The per-capita cost of medical care for the latter-stage elderly averaged 929,573 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



Source: Ministry of Health, Labour and Welfare.

Chapter 16

Education and Culture

1. School-Based Education

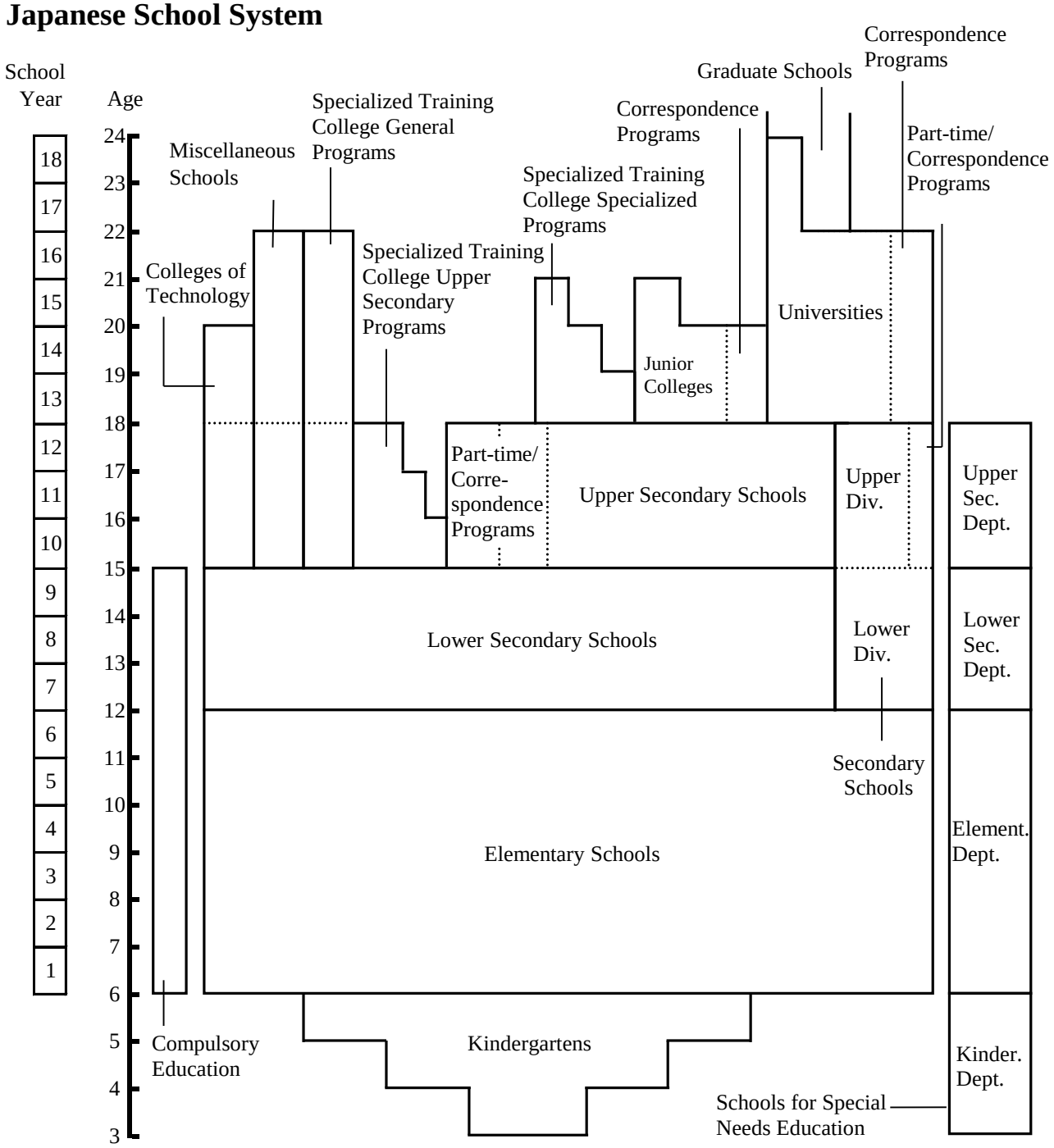
Japan's primary and secondary education is based on a 6-3-3 system: 6 years in elementary school, 3 years in lower secondary school, and 3 years in upper secondary school. The period of compulsory schooling is the 9 years at elementary and lower secondary schools. Higher education institutions are universities, 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. In order to promote diversity of the school education system, unified lower-upper secondary schooling began at some schools in 1999. Furthermore, in 2016, "compulsory education schools" where compulsory education for elementary schools to lower secondary schools is carried out consistently were established. On an additional note, the school year in Japan starts in April and ends in March of the following year.

Table 16.1
Educational Institutions in Japan (as of May 1, 2015)

Type of institution	Schools				Full-time teachers (1,000)	Students (1,000)	
	Total	National	Public	Private		Males	Females
Kindergartens	11,674	49	4,321	7,304	101	711	692
Elementary schools	20,601	72	20,302	227	417	3,347	3,196
Lower secondary schools	10,484	73	9,637	774	254	1,773	1,692
Upper secondary schools	4,939	15	3,604	1,320	235	1,671	1,648
Secondary schools	52	4	31	17	3	16	16
Schools for special needs education [1)]	1,114	45	1,056	13	81	90	48
Colleges of technology	57	51	3	3	4	48	10
Junior colleges	346	-	18	328	8	15	117
Universities	779	86	89	604	183	1,628	1,232
Graduate schools	627	86	78	463	106	172	78
Specialized training colleges	3,201	9	193	2,999	41	292	365
Miscellaneous schools	1,229	-	6	1,223	9	62	55

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.

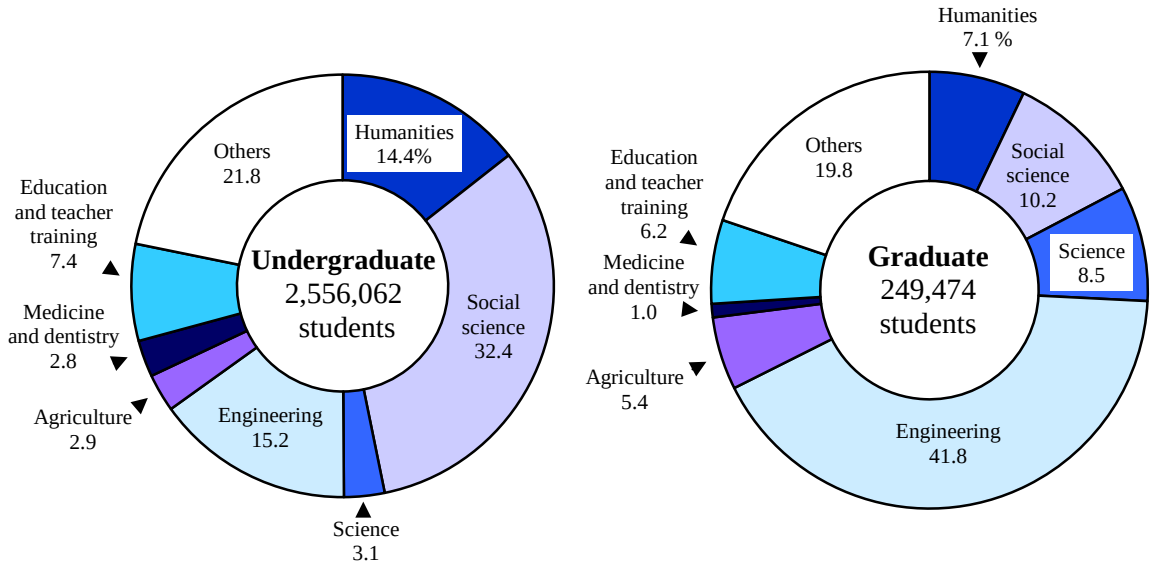
Of the March 2015 upper secondary school graduates, 54.6 percent went straight on to enter a university or junior college. The ratio of upper secondary school graduates who entered a university, junior college, etc. in 2015 was 56.5 percent (56.4 percent of male and 56.6 percent of female graduates), including graduates from previous years.

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

	2005	2010	2013	2014	2015
Total	2,865,051	2,887,414	2,868,872	2,855,529	2,860,210
Undergraduate	2,508,088	2,559,191	2,562,068	2,552,022	2,556,062
Graduate schools	254,480	271,454	255,386	251,013	249,474
Others [1)]	102,483	56,769	51,418	52,494	54,674
Females	1,124,900	1,185,580	1,216,012	1,220,091	1,231,868
Undergraduate	1,009,217	1,077,782	1,113,812	1,117,778	1,127,372
Graduate schools	75,734	82,133	78,400	77,645	77,831
Others [1)]	39,949	25,665	23,800	24,668	26,665
National	627,850	625,048	614,783	612,509	610,802
Public	124,910	142,523	146,160	148,042	148,766
Private	2,112,291	2,119,843	2,107,929	2,094,978	2,100,642

1) Auditing students, non-degree students, research students.
Source: Ministry of Education, Culture, Sports, Science and Technology.

Figure 16.2
University Students by Major Subject (as of May 1, 2015)

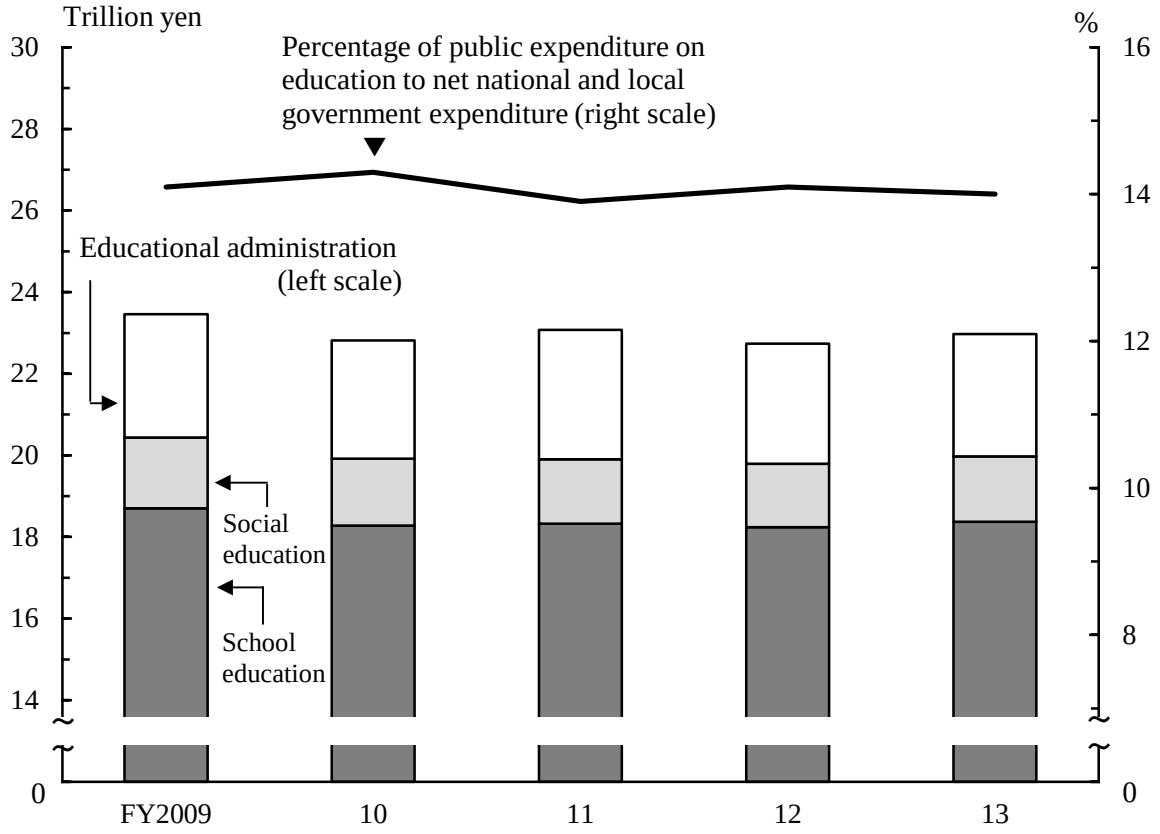


Source: Ministry of Education, Culture, Sports, Science and Technology.

As of May 1, 2014, a total of 107,277 foreign students were enrolled in Japanese junior colleges, universities, and graduate schools. Of the total foreign students, 89.9 percent were from Asia, including 63,842 from China, 11,988 from the Republic of Korea and 4,929 from Vietnam.

Fiscal 2013 public expenditure on education in Japan was 23.0 trillion yen, which is equivalent to 14.0 percent of the net expenditure of national and local governments.

Figure 16.3
Public Expenditures on Education



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

Fiscal 2014 school expenditure by households with children attending public school averaged 59,228 yen per elementary school pupil, 128,964 yen per lower-secondary school student and 242,692 yen per upper-secondary school student.

2. Lifelong Learning

In recent years, people's demand for learning has been 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
Judo and Kendo 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 was the time remaining after activities that were 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 (%) [1]			
Hobbies and amusements	84.8	84.8	84.9
Sports [2]	63.0	67.9	58.3
Learning, self-education and training [2]	35.2	34.3	36.1
Travel (domestic) [3]	57.9	57.2	58.6
Travel (abroad) [3]	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.

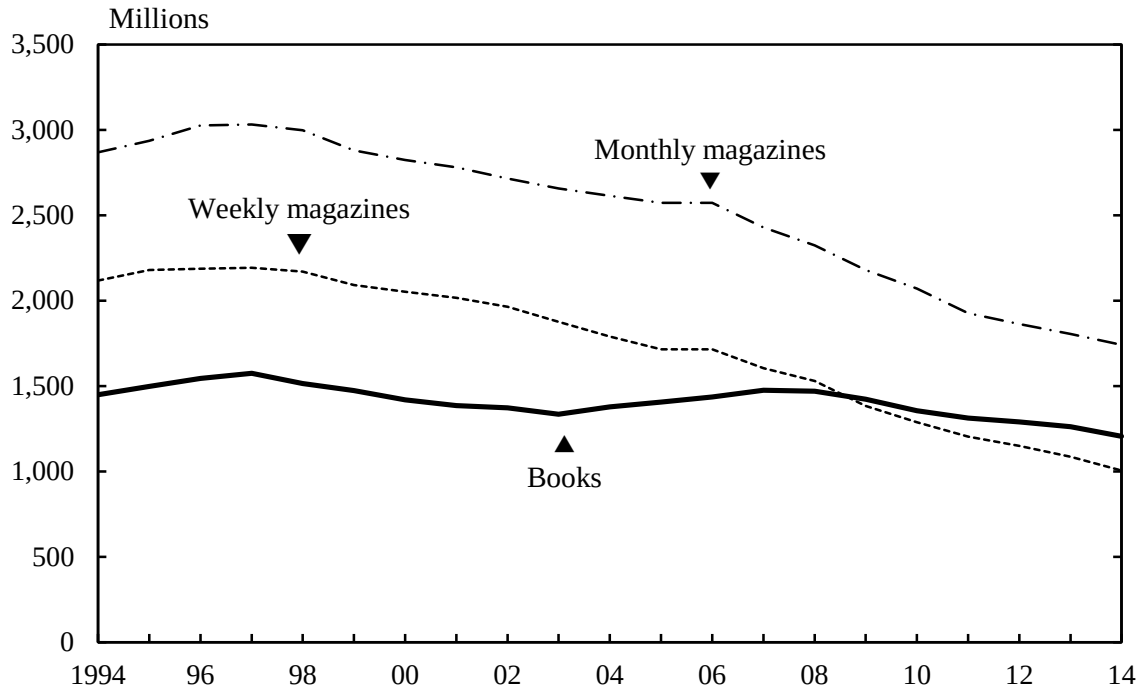
The participation rate for "sports" was 63.0 percent (percentage of people who engaged in the activity within the past 12 months). The most popular sport for both genders was "walking or light physical exercise" (men: 31.1 percent; women: 39.2 percent). Other popular sports for men were "bowling" (15.1 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).

4. Publishing and Mass Media

The total number of books and magazines published in Japan during 2014 was 1.21 billion and 2.75 billion, respectively. Of the latter, 1.74 billion were monthlies and 1.01 billion were weeklies.

A total of 80,954 new book titles were released in 2014. The number of magazine titles published was 3,761 (including 2,056 monthlies and 95 weeklies) as of the end of March 2015. In recent years, there has been an increasing trend in the popularization of the Internet and e-books.

Figure 16.4
Trends in Number of Publications



Source: Shuppan News Co., Ltd.

Table 16.6
Number of New Publications

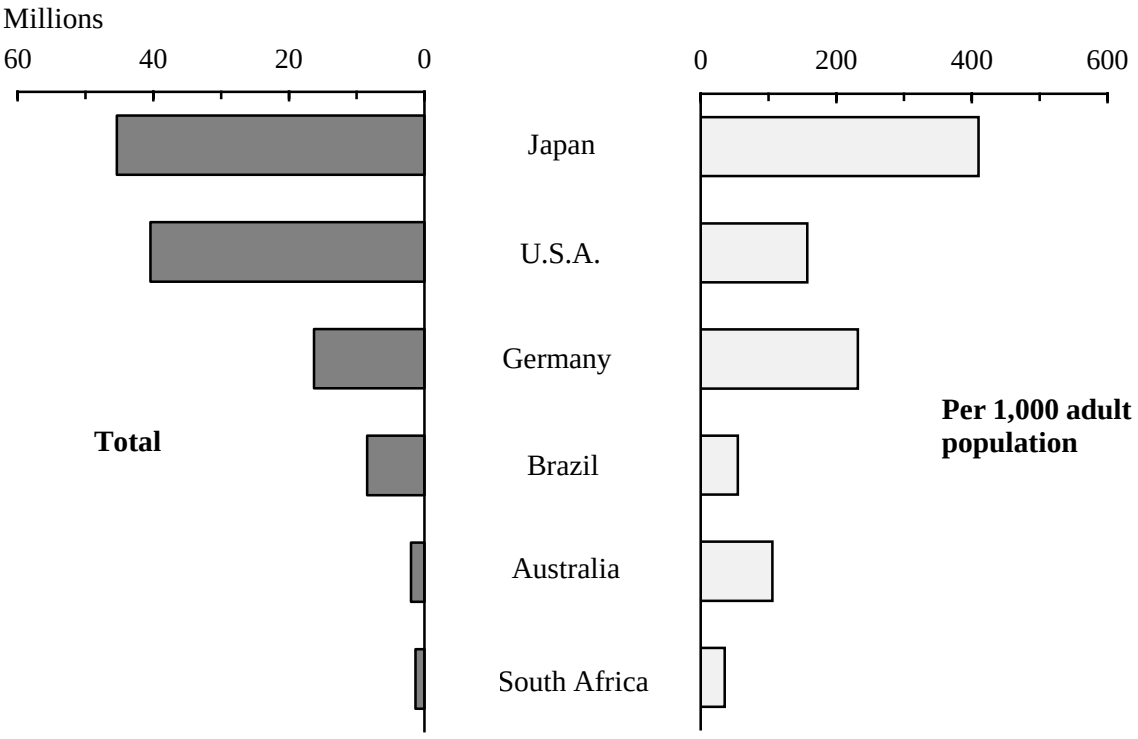
(Titles)

Subject	2000	2005	2010	2013	2014
Total	65,065	78,304	77,773	82,589	80,954
General works	2,587	2,551	2,080	2,135	1,924
Philosophy	2,997	3,763	4,381	4,289	4,255
General history	4,634	5,102	4,969	4,741	4,876
Social sciences	14,099	16,201	15,757	16,457	15,858
Natural sciences	5,218	6,226	6,780	7,140	7,007
Technology and engineering	6,105	8,104	8,499	9,067	8,736
Industry and commerce	3,000	3,337	3,478	3,505	3,427
Art	8,895	10,884	11,535	13,223	13,063
Languages	1,766	2,063	1,884	1,905	1,751
Literature	11,484	13,595	12,879	13,635	13,484
Children's books	3,334	5,064	4,675	5,013	5,160
School textbooks	946	1,414	856	1,479	1,413

Source: Shuppan News Co., Ltd.

A total of 117 daily newspapers were in circulation, and the penetration rate was 0.80 newspapers per household as of October 2015.

Figure 16.5
Newspaper Circulation by Country (2014)



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 is the pioneer broadcasting station in Japan, 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. By March 31, 2012, analog broadcasting ended and was completely replaced with terrestrial digital broadcasting in all parts of Japan.

In 2015, advertising expenditures in the four major mass media types in Japan (newspapers, magazines, radio and television) totaled 2.87 trillion yen, down compared with the previous year. This accounted for 46.5 percent of total advertising expenditures, which were 6.17 trillion yen. Spending on Internet advertising reached 1.16 trillion yen (up 10.2 percent from the previous year), maintaining a double-digit growth rate. This amounted to 18.8 percent of the total advertising expenditures.

Table 16.7
Advertising Expenditures by Medium

Year	Total	News-papers	Maga-zines	Radio	Tele-vision [a)]	Satellite media-related	Internet	Others
Advertising expenditures (billion yen)								
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
2013	5,976.2	617.0	249.9	124.3	1,902.3	-	938.1	2,144.6
2014	6,152.2	605.7	250.0	127.2	1,956.4	-	1,051.9	2,161.0
2015	6,171.0	567.9	244.3	125.4	1,932.3	-	1,159.4	2,141.7
Percentage distribution (%)								
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
2013	100.0	10.3	4.2	2.1	31.8	-	15.7	35.9
2014	100.0	9.8	4.1	2.1	31.8	-	17.1	35.1
2015	100.0	9.2	4.0	2.0	31.3	-	18.8	34.7

a) Television including Satellite Media-Related advertising after 2013.
Source: Dentsu Inc.

5. Cultural Assets

Throughout the 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. In addition to preserving cultural assets, measures to utilize such assets are being established, such as expansion of viewing opportunities through exhibitions.

Table 16.8
Cultural Properties Designated by the National Government
(as of April 1, 2016)

Type of cultural properties	Number	
Designated important cultural properties	13,057	a) 1,097
Fine arts and crasts	10,612	a) 874
Structures	2,445	a) 223
Historic sites, places of scenic beauty and natural monuments	3,179	b) 172
Historic sites	1,760	b) 61
Places of scenic beauty	398	b) 36
Natural monuments	1,021	b) 75
Important tangible folk cultural properties	217	
Important intangible folk cultural properties	296	
Important intangible cultural properties		
Recognized individuals	77	
Performing arts	37	
Craft techniques	40	
Recognized holding groups	27	
Performing arts	13	
Craft techniques	14	
Traditional building preservation areas	110	

a) National treasures only. b) Specially designated places only.
Source: Ministry of Education, Culture, Sports, Science and Technology.

As of April 1, 2016, 13,057 items were assigned as designated important cultural properties, of which 1,097 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 World Cultural and Natural Heritage) in 1992.

In July 2015, "Sites of Japan's Meiji Industrial Revolution: Iron and Steel, Shipbuilding and Coal Mining" that are scattered throughout Yamaguchi Prefecture, Fukuoka Prefecture, Saga Prefecture, Kumamoto Prefecture, Nagasaki Prefecture, Kagoshima Prefecture, Iwate Prefecture, and Shizuoka Prefecture were designated as Japan's 19th World Heritage Site. This series of industrial heritage sites demonstrate that the propagation of industrialization from the West to the non-Western country succeeded for the first time. It also reflects that from the mid-19th century to the beginning of the 20th century, rapid industrialization with foundations in iron and steel, shipbuilding, and coal mining was achieved in a short period of a little more than 50 years in Japan.

In July 2016, 17 assets located in the 7 countries of Japan, France, Germany, Argentina, Belgium, India, and Switzerland, including the National Museum of Western Art, were registered collectively as Japan's 20th world heritage as "architectural works of Le Corbusier." Main building of the National Museum of Western Art is the only building designed by Le Corbusier in Japan, and is considered as being a representative work that shows Le Corbusier's characteristic design elements. Such a world heritage that extends over different continents is the first of its kind.

Table 16.9

Heritage Sites Inscribed on the World Heritage List [1)]

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
2015	Cultural	Sites of Japan's Meiji Industrial Revolution: Iron and Steel, Shipbuilding and Coal Mining	Yamaguchi, Fukuoka, Saga, Kumamoto, Nagasaki, Kagoshima, Iwate, Shizuoka
2016	Cultural	Main building of the National Museum of Western Art - The Architectural Work of Le Corbusier	Tokyo

1) As of July, 2016.

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

In 2006, the UNESCO Convention for the safeguarding of intangible cultural heritage entered into force. As of June 2016, 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 Japan, notably for the celebration of the New Year.

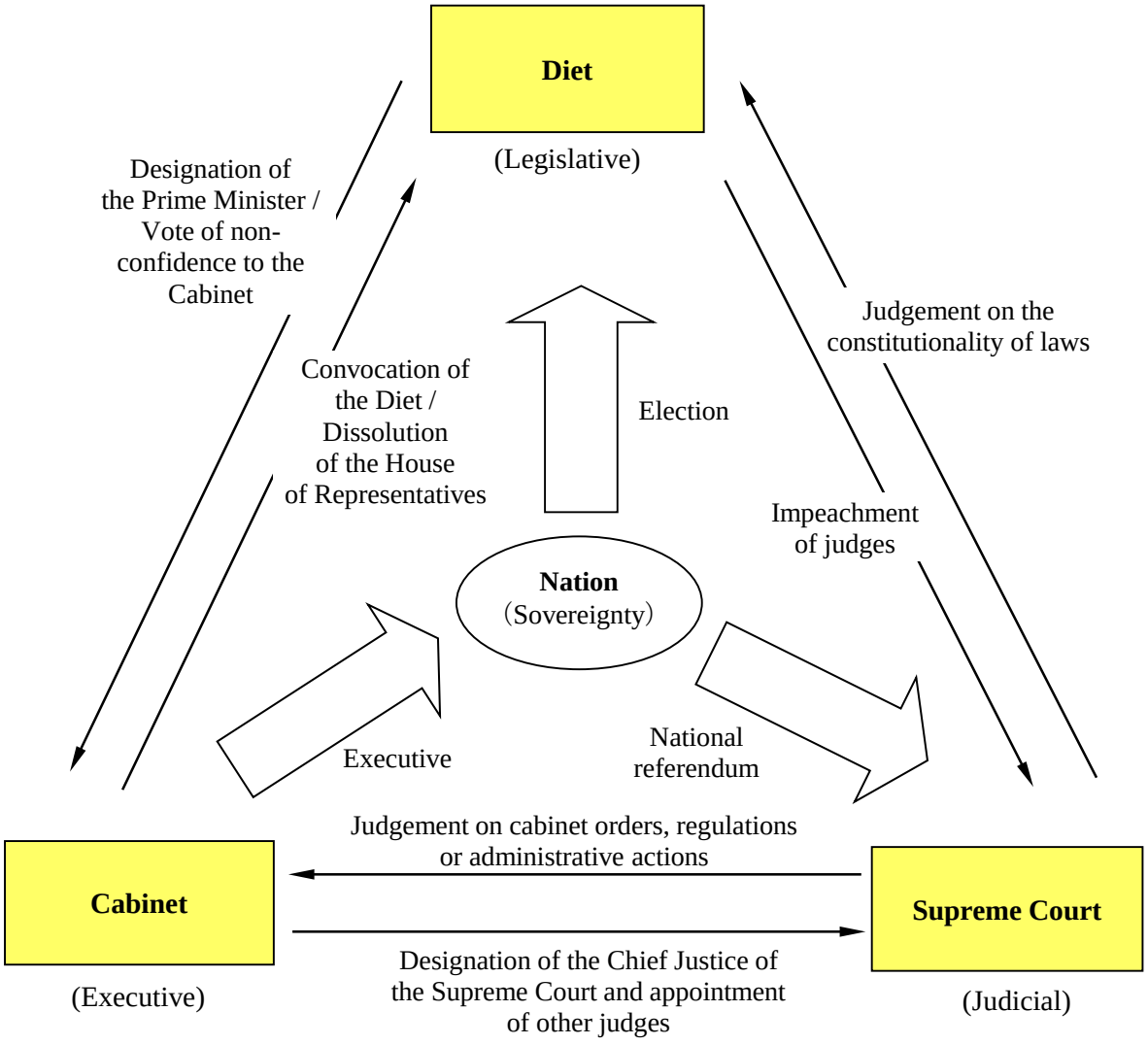
Chapter 17

Government System

1. Division of Powers

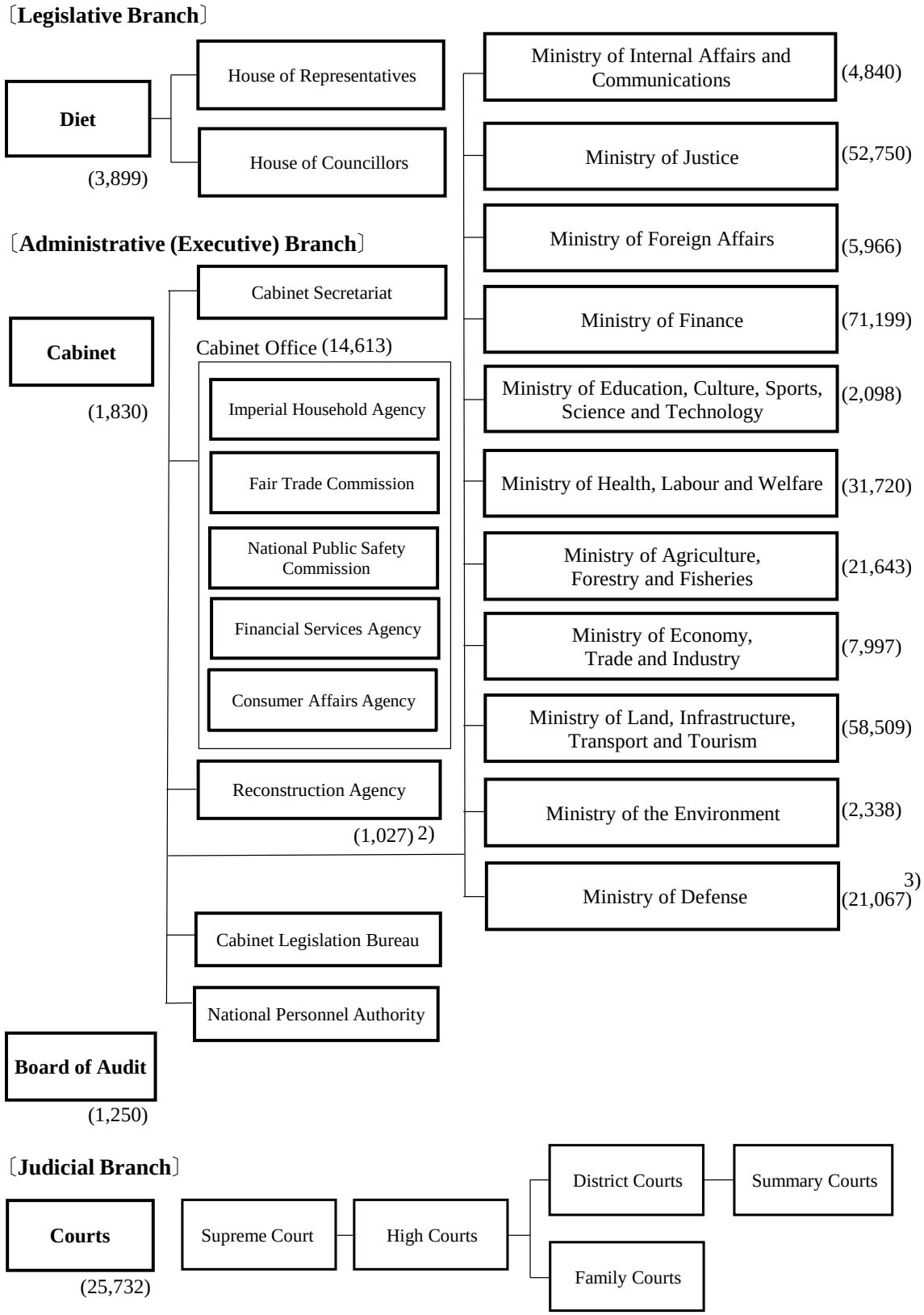
The Japanese Constitution, which went into effect on May 3, 1947, is based on three core principles: sovereignty of the people, respect for fundamental human rights and pacifism. To control governmental power effectively through checks and balances, governmental power is separated into three independent 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 [1] (FY2016)



1) Figures in parentheses refer to budgetary fixed number of national government employees.
2) Of the 1,027 employees, 200 are from the Reconstruction Agency and 827 are from other ministries.
3) Excluding the number of the personnel of the Self-Defense Forces.
Source: Cabinet Bureau of Personnel Affairs, Cabinet Secretariat; 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, the 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 475 members. Of these, 295 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 2014. 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.

Based on Revisions to the Public Offices Election Law in June 2015, all Japanese citizens, both men and women, aged 18 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
Diet Members by Political Group

House of Representatives (as of April 27, 2016) Membership 475, Vacancies 0			House of Councillors (as of May 31, 2016) Membership 242, Vacancies 0		
Name	Males	Females	Name	Males	Females
Incumbents	475	45	Incumbents	242	38
Liberal Democratic Party	291	25	Liberal Democratic Party	116	16
The Democratic Party and Club of Independents	96	9	The Democratic Party and The Shin-Ryokufukai	64	9
Komeito	35	3	Komeito	20	3
Japanese Communist Party	21	6	Japanese Communist Party	11	4
Initiatives from Osaka	14	0	Initiatives from Osaka	8	0
The People's Life Party & Taro Yamamoto and Friends	2	0	The Assembly to Energize Japan and The Independents	4	0
Social Democratic Party	2	0	The Party for Japanese Kokoro	3	1
			Social Democratic Party	3	1
			The People's Life Party & Taro Yamamoto and Friends	3	1
			Independents Club	2	1
			New Renaissance Party and Group of Independents	2	0
Independents	14	2	Independents	6	2

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 [1]	Name	Date [1]	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 are the High Courts, and the highest court is 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 8,444 people were tried in saiban-in trials held between the start of the system and December 2015.

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

(Thousands)

Year	Civil and administrative cases			Criminal cases [1)]		
	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
2013	1,524	1,544	412	1,051	1,051	32
2014	1,456	1,464	403	1,019	1,018	32
Year	Domestic cases			Juvenile cases [1)]		
	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
2013	916	905	122	123	124	19
2014	911	910	122	109	112	16

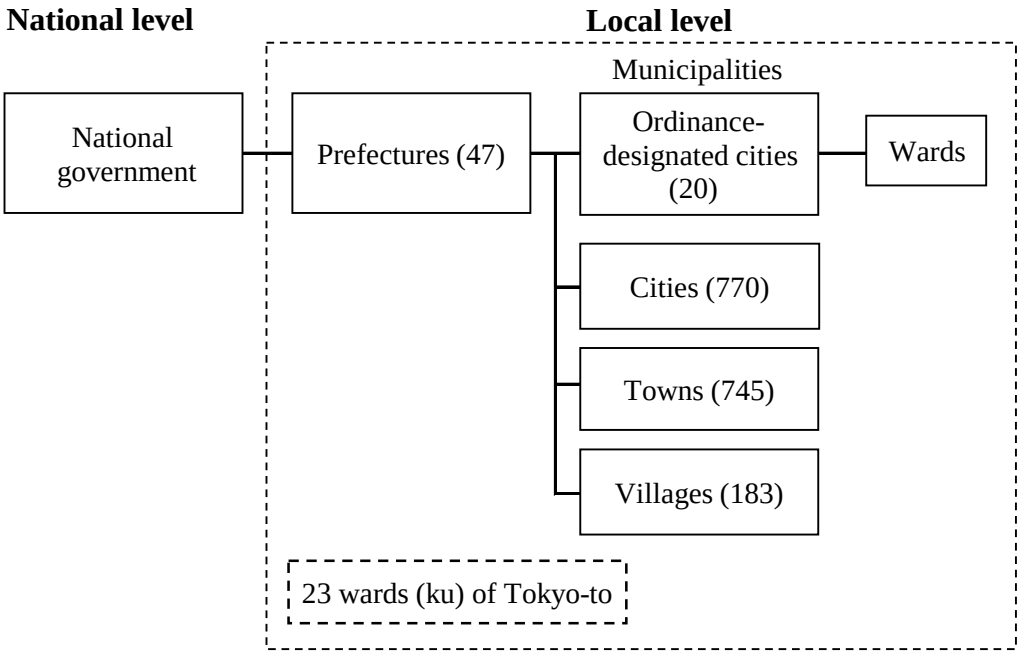
1) Persons involved.
Source: Supreme Court.

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 1, 2016, 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.

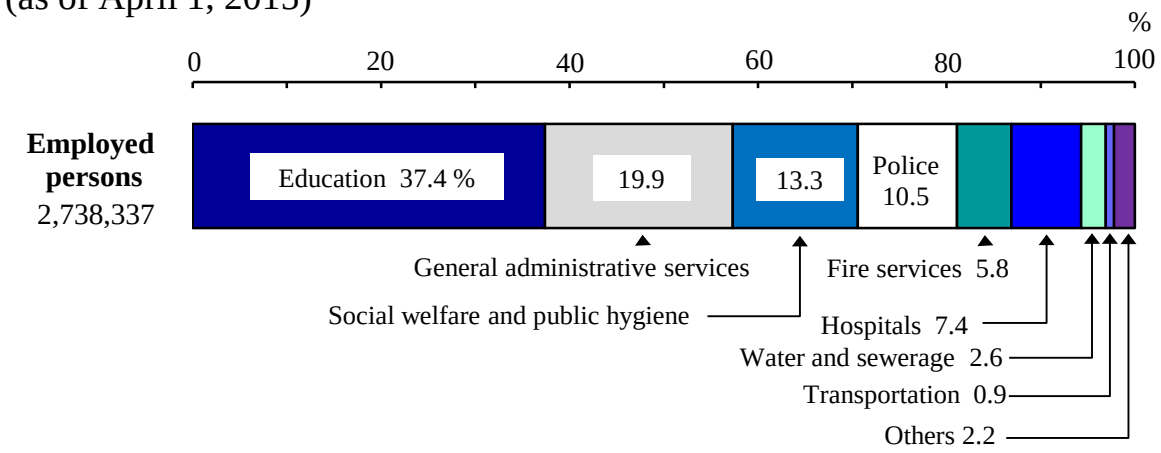
Municipalities that satisfy certain population criteria (i.e., 500,000 people or more) are eligible for designation as "Ordinance-designated cities." This designation gives them administrative and fiscal authority equivalent to those of prefectures. With the addition of Kumamoto-shi in April 2012, there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

Figure 17.3
Government System by Level [1] (as of April 1, 2016)



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, 2015)



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^2)		Population density (per km^2)	
				Total area	Inhabitable	Total area	Inhabitable
		2010 [1]	2015 [2]	2014	2014	2014	2014
Japan		128,057	127,110	377,972	122,204	341	1,040
Hokkaido	Sapporo-shi	5,506	5,384	83,424	22,209	69	243
Aomori-ken	Aomori-shi	1,373	1,309	9,645	3,235	137	408
Iwate-ken	Morioka-shi	1,330	1,280	15,275	3,690	84	348
Miyagi-ken	Sendai-shi	2,348	2,334	7,282	3,141	320	741
Akita-ken	Akita-shi	1,086	1,023	11,638	3,195	89	325
Yamagata-ken	Yamagata-shi	1,169	1,123	9,323	2,855	121	396
Fukushima-ken	Fukushima-shi	2,029	1,914	13,784	4,229	140	458
Ibaraki-ken	Mito-shi	2,970	2,918	6,097	3,982	479	733
Tochigi-ken	Utsunomiya-shi	2,008	1,975	6,408	2,981	309	664
Gunma-ken	Maebashi-shi	2,008	1,973	6,362	2,301	311	859
Saitama-ken	Saitama-shi	7,195	7,261	3,798	2,574	1,906	2,813
Chiba-ken	Chiba-shi	6,216	6,224	5,158	3,532	1,202	1,754
Tokyo-to	Tokyo (ku-area)	13,159	13,514	2,191	1,394	6,112	9,603
Kanagawa-ken	Yokohama-shi	9,048	9,127	2,416	1,467	3,765	6,201
Niigata-ken	Niigata-shi	2,374	2,305	12,584	4,504	184	514
Toyama-ken	Toyama-shi	1,093	1,067	4,248	1,853	252	578
Ishikawa-ken	Kanazawa-shi	1,170	1,154	4,186	1,389	276	833
Fukui-ken	Fukui-shi	806	787	4,190	1,075	189	735
Yamanashi-ken	Kofu-shi	863	835	4,465	952	188	883
Nagano-ken	Nagano-shi	2,152	2,100	13,562	3,313	156	637
Gifu-ken	Gifu-shi	2,081	2,033	10,621	2,200	192	928
Shizuoka-ken	Shizuoka-shi	3,765	3,701	7,779	2,752	476	1,346
Aichi-ken	Nagoya-shi	7,411	7,484	5,172	2,983	1,441	2,500
Mie-ken	Tsu-shi	1,855	1,816	5,774	2,041	316	894
Shiga-ken	Otsu-shi	1,411	1,413	4,017	1,298	353	1,091
Kyoto-fu	Kyoto-shi	2,636	2,610	4,612	1,176	566	2,219
Osaka-fu	Osaka-shi	8,865	8,839	1,905	1,324	4,638	6,674
Hyogo-ken	Kobe-shi	5,588	5,537	8,401	2,780	660	1,993
Nara-ken	Nara-shi	1,401	1,365	3,691	851	373	1,616
Wakayama-ken	Wakayama-shi	1,002	964	4,725	1,094	206	887
Tottori-ken	Tottori-shi	589	574	3,507	911	164	630
Shimane-ken	Matsue-shi	717	694	6,708	1,289	104	541
Okayama-ken	Okayama-shi	1,945	1,922	7,115	2,229	270	863
Hiroshima-ken	Hiroshima-shi	2,861	2,845	8,479	2,290	334	1,237
Yamaguchi-ken	Yamaguchi-shi	1,451	1,405	6,112	1,714	230	821
Tokushima-ken	Tokushima-shi	785	756	4,147	1,024	184	746
Kagawa-ken	Takamatsu-shi	996	977	1,877	1,003	523	978
Ehime-ken	Matsuyama-shi	1,431	1,386	5,676	1,665	246	838
Kochi-ken	Kochi-shi	764	728	7,104	1,159	104	637
Fukuoka-ken	Fukuoka-shi	5,072	5,103	4,986	2,783	1,021	1,829
Saga-ken	Saga-shi	850	833	2,441	1,334	342	626
Nagasaki-ken	Nagasaki-shi	1,427	1,378	4,132	1,661	335	835
Kumamoto-ken	Kumamoto-shi	1,817	1,787	7,409	2,737	242	656
Oita-ken	Oita-shi	1,197	1,167	6,341	1,747	185	670
Miyazaki-ken	Miyazaki-shi	1,135	1,104	7,735	1,845	144	604
Kagoshima-ken	Kagoshima-shi	1,706	1,649	9,188	3,270	182	510
Okinawa-ken	Naha-shi	1,393	1,434	2,281	1,172	623	1,212

1) Population census. 2) Population census (Preliminary tabulation).

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)	2013	127,298	42,538	23,270	204,259	35,231
	2014	127,083	42,980	23,622	206,078	35,588
	2015	* 127,110	43,417	23,969	207,848	35,940
Projection (medium variant)	2050	97,076	55,445	33,496	238,270	44,136
Employed persons (1,000)	2014	a 63,760	b 15,686	11,532	99,448	17,802
Unemployed persons (1,000)	2014	a 2,220	b 1,186	746	7,377	1,322
Unemployment rates (%)	2014	a 3.4	b 7.0	6.1	6.9	6.9
Hours of work per week (manufacturing)	2014	a 41.4	b 42.0	36.8	c 43.6	35.3
Industrial production index (2010=100)	2014	98.8	…	111.5	97.2	110.3
	2015	98.2	…	113.3	89.1	111.3
Gross domestic product (US$ billion)	2013	4,910	624	1,529	2,392	1,839
	2014	4,606	543	1,471	2,347	1,785
Producer Price index (2010=100)	2014	d 105.1	187.8	107.2	128.4	111.3
	2015	d 102.7	…	107.5	136.1	110.3
Consumer price index (2010=100)	2014	102.8	…	110.4	126.9	107.5
	2015	103.6	…	112.0	138.4	108.7
Broad money						
Percent changes from the previous year (%)	End of 2014	2.8	28.3	7.0	13.4	7.4
	End of 2015	...	37.3	6.2	11.2	9.1
Exports, FOB (US$ billion)	2015	624.8	59.7	188.4	191.1	409.0
Imports, CIF (US$ billion)	2015	648.3	59.8	208.4	178.8	436.3
Gold and foreign exchange reserves (US$ million)	End of 2015	1,208,212	23,513	46,664	354,280	79,697
Foreign exchange rates (national currency per US$)		Yen	Pesos	Australian dollars	Reais	Canadian dollars
End of year	2015	120.50	13.1000	1.3687	3.9042	1.3840
Period average	2015	121.04	9.2332	1.3311	3.3291	1.2791

a) 2015. b) Urban areas only. c) 2007. d) Corporate Goods Price Index.

Appendix 2
Main Economic Indicators of Selected Countries (Continued)

Item	Year	China	Euro Area	France	Germany	India
Population (thousands)	2013	1,362,514	336,049	63,845	80,566	1,279,499
	2014	1,369,436	337,473	64,121	80,646	1,295,292
	2015	1,376,049	338,471	64,395	80,689	1,311,051
Projection (medium variant)	2050	1,348,056	…	71,137	74,513	1,705,333
Employed persons (1,000)	2014	772,530	…	25,769	39,879	a 374,286
Unemployed persons (1,000)	2014	b 9,520	…	2,819	2,090	c 39,112
Unemployment rates (%)	2014	b 4.1	…	9.9	5.0	4.9
Hours of work per week (manufacturing)	2014	d 48.2	…	37.1	37.8	…
Industrial production index (2010=100)	2014	148.5	101.4	98.9	110.6	108.1
	2015	157.5	103.0	100.9	111.1	111.6
Gross domestic product (US$ billion)	2013	9,518	…	2,810	3,745	1,936
	2014	10,431	…	2,829	3,868	2,055
Producer Price index (2010=100)	2014	98.3	106.8	105.5	105.8	130.0
	2015	92.5	103.9	103.8	103.9	126.4
Consumer price index (2010=100)	2014	113.2	…	105.5	106.7	140.8
	2015	114.9	…	105.6	106.9	147.7
Broad money						
Percent changes from the previous year (%)	End of 2014	11.0	3.8	…	…	10.7
	End of 2015	13.3	4.7	…	…	10.7
Exports, FOB (US$ billion)	2015	2,284.5	2,266.4	493.8	1,326.4	267.4
Imports, CIF (US$ billion)	2015	1,680.8	1,994.1	562.7	1,051.8	392.0
Gold and foreign exchange reserves (US$ million)	End of 2015	3,347,942	350,696	58,991	63,778	335,180
Foreign exchange rates (national currency per US$)		Yuan	Euros	Euros	Euros	Rupees
End of year	2015	6.4915	0.9185	0.9185	0.9185	66.326
Period average	2015	6.2275	0.9017	0.9017	0.9017	64.152

a) 2010. b) Urban areas only. c) 2008. d) 2012.

Appendix 2
Main Economic Indicators of Selected Countries (Continued)

Item	Year	Indonesia	Italy	Korea, Rep. of	Mexico	Russia
Population (thousands)	2013	251,268	59,771	49,847	123,740	143,367
	2014	254,455	59,789	50,074	125,386	143,429
	2015	257,564	59,798	50,293	127,017	143,457
Projection (medium variant)	2050	322,237	56,513	50,593	163,754	128,599
Employed persons (1,000)	2014	116,400	22,279	25,599	47,373	71,539
Unemployed persons (1,000)	2014	7,245	3,236	937	2,623	3,889
Unemployment rates (%)	2014	5.9	12.7	3.5	5.2	5.2
Hours of work per week (manufacturing)	2014	a 38.0	38.5	b 47.5	43.7	39.0
Industrial production index (2010=100)	2014	…	91.6	108.4	108.0	110.8
	2015	…	92.3	107.8	109.4	107.2
Gross domestic product (US$ billion)	2013	910	2,134	1,306	1,259	2,079
	2014	889	2,141	1,410	1,295	1,850
Producer Price index (2010=100)	2014	130.8	105.7	105.2	114.6	137.8
	2015	…	102.9	101.0	117.9	154.8
Consumer price index (2010=100)	2014	124.4	107.4	109.0	116.2	131.2
	2015	132.3	107.5	109.8	119.4	151.5
Broad money						
Percent changes from the previous year (%)	End of 2014	11.9	…	8.1	10.9	15.5
	End of 2015	9.0	…	8.2	7.2	19.7
Exports, FOB (US$ billion)	2015	150.4	458.5	526.8	380.8	340.3
Imports, CIF (US$ billion)	2015	142.7	407.9	436.5	415.0	213.5
Gold and foreign exchange reserves (US$ million)	End of 2015	103,389	50,856	363,312	173,647	322,041
Foreign exchange rates (national currency per US$)		Rupiah	Euros	Won	Pesos	Rubles
End of year	2015	13,795.0	0.9185	1,172.5	17.207	72.883
Period average	2015	13,389.4	0.9017	1,131.2	15.848	60.938

a) 2013. b) 2010.

Appendix 2
Main Economic Indicators of Selected Countries (Continued)

Item	Year	Saudi Arabia	South Africa	Turkey	U.K.	U.S.A.
Population (thousands)	2013	30,201	53,417	76,224	63,956	317,136
	2014	30,887	53,969	77,524	64,331	319,449
	2015	31,540	54,490	78,666	64,716	321,774
Projection (medium variant)	2050	46,059	65,540	95,819	75,361	388,865
Employed persons (1,000)	2014	11,068	15,317	25,931	30,642	146,305
Unemployed persons (1,000)	2014	672	5,076	2,843	1,996	9,617
Unemployment rates (%)	2014	5.7	24.9	9.9	6.1	6.2
Hours of work per week (manufacturing)	2014	51.4	40.0	49.4	39.6	…
Industrial production index (2010=100)	2014	…	…	120.5	97.2	112.0
	2015	…	…	124.4	98.2	113.5
Gross domestic product (US$ billion)	2013	744	366	823	2,712	16,663
	2014	752	350	798	2,989	17,348
Producer Price index (2010=100)	2014	108.7	128.5	135.8	108.4	111.1
	2015	107.6	133.2	142.9	106.6	103.1
Consumer price index (2010=100)	2014	115.7	124.4	135.7	111.8	108.6
	2015	118.2	130.1	146.1	111.8	108.7
Broad money						
Percent changes from the previous year (%)	End of 2014	11.9	7.3	11.7	4.5	5.9
	End of 2015	2.6	10.3	16.2	4.0	5.8
Exports, FOB (US$ billion)	2015	202.2	81.7	144.0	a 477.6	1,504.6
Imports, CIF (US$ billion)	2015	170.0	90.4	207.2	a 663.3	2,307.9
Gold and foreign exchange reserves (US$ million)	End of 2015	616,489	41,814	95,212	119,510	119,223
Foreign exchange rates (national currency per US$)		Riyals	Rand	Liras	Pounds	U.S. dollars
End of year	2015	3.7500	15.5450	2.9102	0.6748	1.0000
Period average	2015	3.7500	12.7589	2.7200	0.6545	1.0000

a) 2014.

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 [1)]

(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
2014	105.85	119.80
2015	121.03	120.42

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)	0.39370	inches
	1 meter (m)	3.28084	feet
		1.09361	yards
	1 kilometer (km)	0.62139	miles
Area:	1 square meter (m^2)	10.76392	square feet
		1.19599	square yards
	1 square kilometer (km^2)	0.38610	square miles
	1 hectare (ha) = 10,000 square meters (m^2)	2.47103	acres
Volume:	1 cubic meter (m^3)	35.31073	cubic feet
		1.30795	cubic yards
Weight:	1 kilogram (kg)	35.27337	ounces
		2.20459	pounds
	1 ton (t)	0.98416	long tons
		1.10229	short tons
Capacity:	1 liter (L)	0.87951	imp. Quarts
		1.05669	U.S. liq. Quarts
Temperature:	centigrade (℃)	5 / 9 ×(Fahrenheit - 32)	