STATISTICAL HANDBOOK OF

JAPAN

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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 handbook 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 handbook on the website of the Statistics Bureau.

September 2023

IWASA Tetsuya
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 April 30, 2023.
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. Refer to Appendix 2 for conversion factors.
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:

   https://www.stat.go.jp/english/data/handbook/index.html

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 2023, Statistics Bureau, Ministry of Internal Affairs and Communications, Japan.

10. "Statistics Bureau, MIC" in the tables and figures is an abbreviation of "Statistics Bureau, Ministry of Internal Affairs and Communications, Japan".

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Chapter 1

Land and Climate

1. Land

Japan is an island country 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 land is located between approximately 20 to 45 degrees north latitude and between approximately 123 to 154 degrees east longitude. It consists of the main islands of Hokkaido, Honshu, Shikoku, Kyushu and Okinawa, and more than 14,000 smaller islands of various sizes. Its surface area totals 377,974 square kilometers.

Since the Japanese archipelago is located in the world's newest mobile belt, it is particularly prone to various geological 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 (2023)
(Square kilometers)

District	Area
Japan	377,974
Honshu	231,235
Hokkaido	83,424
Kyushu	42,230
Shikoku	18,803
Okinawa	2,282

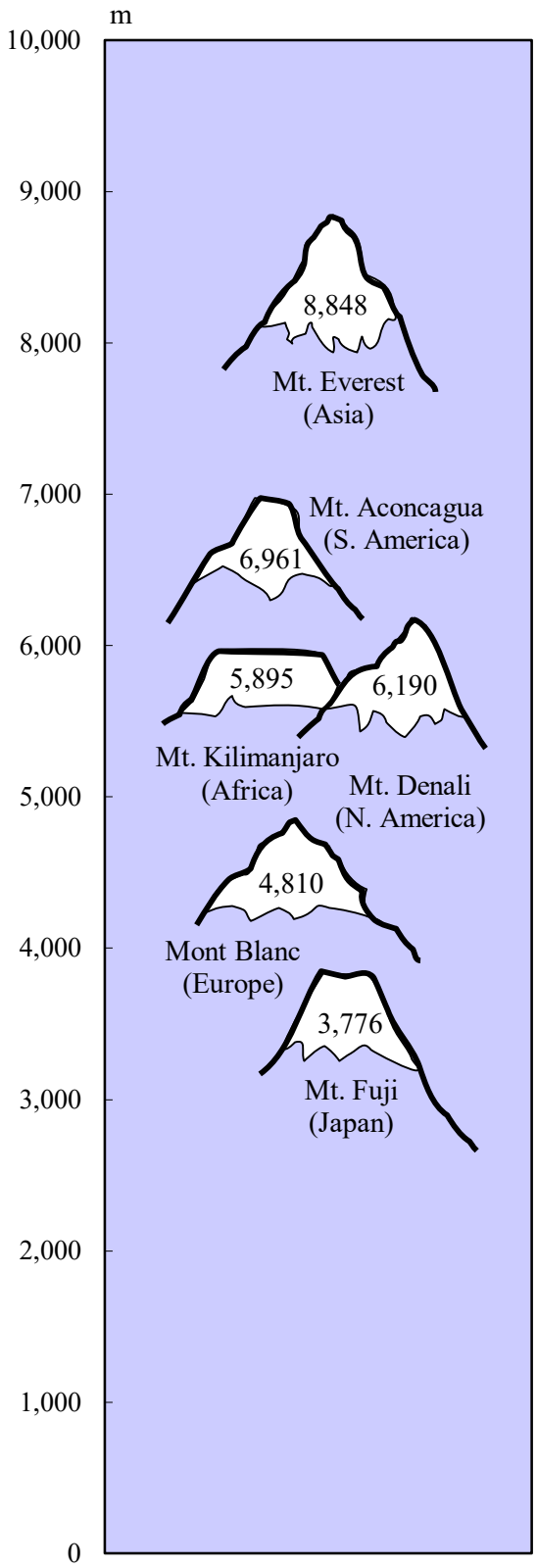
Source: Geospatial Information Authority of Japan.

Table 1.2
Top 10 Countries According to Surface Area (2021) [1)]
(1,000 square kilometers)

Country	Area
World [2)]	130,094
Russia	17,098
Canada	9,985
U.S.A.	9,834
China	9,600
Brazil	8,510
Australia	7,692
India	3,287
Argentina	2,796
Kazakhstan	2,725
Algeria	2,382

1) Comprising land area and inland waters. Excluding polar regions and uninhabited islands. 2) Land area only.
Source: United Nations.

Figure 1.1
Famous Mountains of the World



Source: National Astronomical Observatory of Japan.

Table 1.3
Mountains (As of February, 2022)

(Meters)

Name	Height
Mt. Fuji	3,776
Mt. Kitadake	3,193
Mt. Ainodake	3,190
Mt. Oku-Hotaka	3,190
Mt. Yarigatake	3,180
Mt. Higashidake	3,141
Mt. Akaishi	3,121
Mt. Karasawa	3,110
Mt. Kita-Hotaka	3,106
Mt. Obami	3,101

Source: Geospatial Information Authority of Japan.

Table 1.4
Rivers (As of April, 2022)

(Kilometers)

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

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

Table 1.5
Lakes (As of January, 2023)

(Square kilometers)

Name	Area
Lake Biwa	669.3
Lake Kasumigaura	168.2
Lake Saroma	151.6
Lake Inawashiro	103.2
Lake Nakaumi	85.7
Lake Kussharo	79.5
Lake Shinji	79.3
Lake Shikotsu	78.5
Lake Toya	70.7
Lake Hamana	64.9

Source: Geospatial Information Authority of Japan.

As of 2019, forestland and fields account for the largest portion of the nation's surface area. There are 25.38 million hectares of forestland and fields (which equates to 67.1 percent of the nation's surface area), followed by 4.40 million hectares of farmland (11.6 percent) combined. Together, forestland, fields and farmland thus cover approximately 80 percent of the nation. There are 1.97 million hectares of developed land (5.2 percent).

Table 1.6
Surface Area by Use

(million hectares)

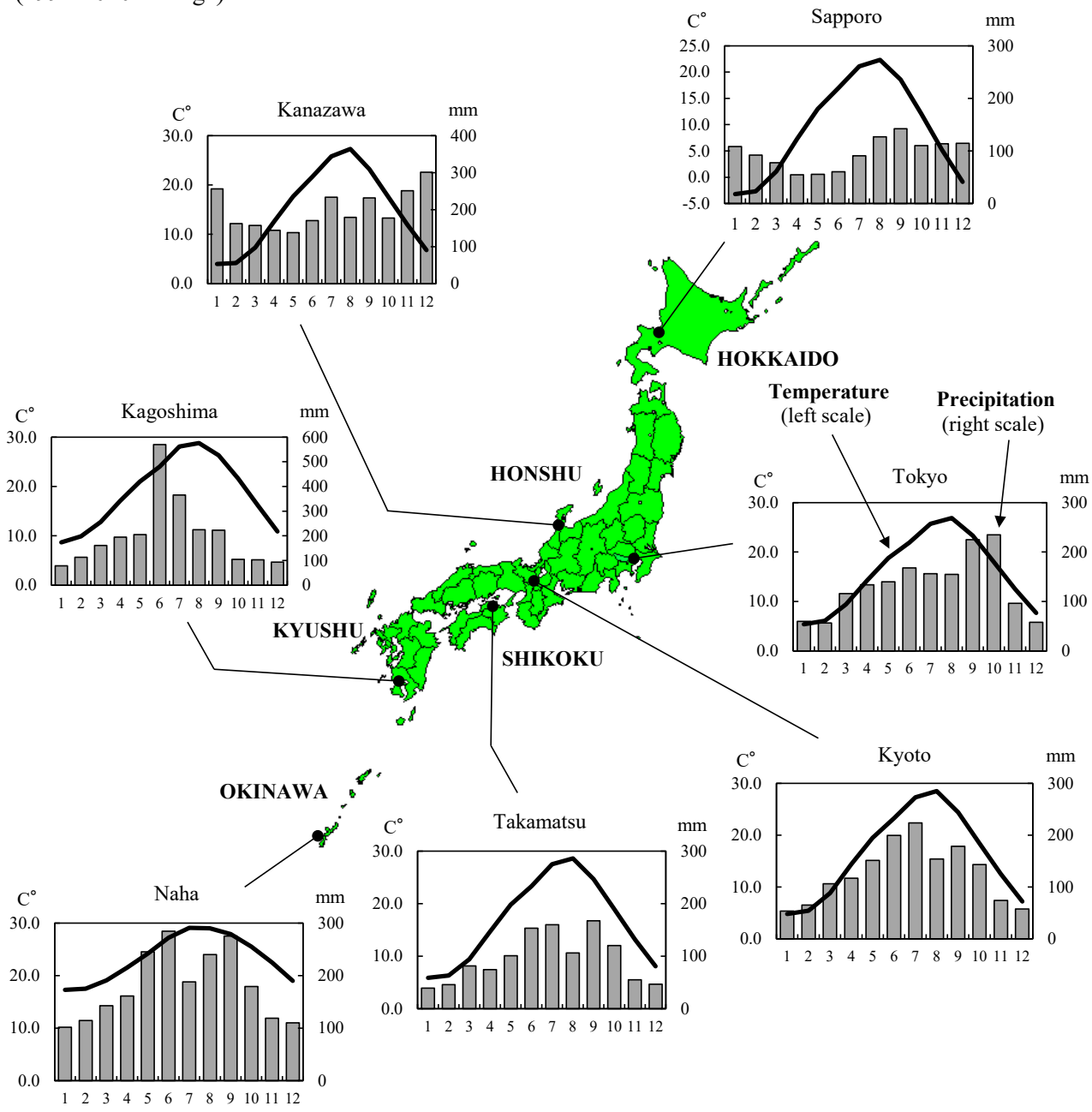
Year	Total	Forestland and fields	Farmland	Inland water	Roads [1)]	Developed land [2)]	Others
1980	37.77	25.68	5.59	1.31	0.99	1.39	2.81
1990	37.77	25.52	5.33	1.31	1.14	1.60	2.87
2000	37.79	25.38	4.91	1.35	1.27	1.79	3.09
2010	37.79	25.35	4.67	1.33	1.36	1.90	3.19
2019	37.80	# 25.38	# 4.40	1.35	1.41	# 1.97	3.30
Percentage distribution (%)							
2019	100.0	67.1	11.6	3.6	3.7	5.2	8.7

1) Including farm roads and forest roads, etc. 2) Such as residential and industrial land.
Source: Ministry of Land, Infrastructure, Transport and Tourism.

2. Climate

Although the Japanese archipelago has a temperate marine climate, it differs by region depending on the effects of seasonal winds and ocean currents. Due to the topography of Honshu featuring a series of mountain ranges running from north to south, 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 the summer, the southeast monsoon brings high temperatures and low rainfall on the Sea of Japan side, and high temperatures and high humidity on the Pacific Ocean side. 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. In recent years, intense torrential rains exceeding previous expectations have caused localized damage.

Figure 1.2
Temperature and Precipitation (Normal value)
(1991-2020 average)



Source: Japan Meteorological Agency.

Table 1.7
Temperature and Precipitation (Normal value) (1991-2020 average)

Temperature (℃) Precipitation (mm)

Observing station			Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Annual [1)]
Sapporo	Temp.	High	-0.4	0.4	4.5	11.7	17.9	21.8	25.4	26.4	22.8	16.4	8.7	2.0	13.1
		Low	-6.4	-6.2	-2.4	3.4	9.0	13.4	17.9	19.1	14.8	8.0	1.6	-4.0	5.7
	Prec.		108	92	78	55	56	60	91	127	142	110	114	115	1,146
Tokyo	Temp.	High	9.8	10.9	14.2	19.4	23.6	26.1	29.9	31.3	27.5	22.0	16.7	12.0	20.3
		Low	1.2	2.1	5.0	9.8	14.6	18.5	22.4	23.5	20.3	14.8	8.8	3.8	12.1
	Prec.		60	57	116	134	140	168	156	155	225	235	96	58	1,598
Kanazawa	Temp.	High	7.1	7.8	11.6	17.3	22.3	25.6	29.5	31.3	27.2	21.8	15.9	10.2	19.0
		Low	1.2	1.0	3.4	8.2	13.6	18.4	22.9	24.1	19.9	13.9	8.1	3.5	11.5
	Prec.		256	163	157	144	138	170	233	179	232	177	251	301	2,402
Kyoto	Temp.	High	9.1	10.0	14.1	20.1	25.1	28.1	32.0	33.7	29.2	23.4	17.3	11.6	21.1
		Low	1.5	1.6	4.3	9.2	14.5	19.2	23.6	24.7	20.7	14.4	8.4	3.5	12.1
	Prec.		53	65	106	117	151	200	224	154	179	143	74	57	1,523
Takamatsu	Temp.	High	9.7	10.5	14.1	19.8	24.8	27.5	31.7	33.0	28.8	23.2	17.5	12.1	21.1
		Low	2.1	2.2	5.0	9.9	15.1	19.8	24.1	25.1	21.2	15.1	9.1	4.3	12.8
	Prec.		39	46	81	75	101	153	160	106	167	120	55	47	1,150
Kagoshima	Temp.	High	13.1	14.6	17.5	21.8	25.5	27.5	31.9	32.7	30.2	25.8	20.6	15.3	23.1
		Low	4.9	5.8	8.7	12.9	17.3	21.3	25.3	26.0	23.2	18.0	12.2	6.9	15.2
	Prec.		78	113	161	195	205	570	365	224	223	105	103	93	2,435
Naha	Temp.	High	19.8	20.2	21.9	24.3	27.0	29.8	31.9	31.8	30.6	28.1	25.0	21.5	26.0
		Low	14.9	15.1	16.7	19.1	22.1	25.2	27.0	26.8	25.8	23.5	20.4	16.8	21.1
	Prec.		102	115	143	161	245	284	188	240	275	179	119	110	2,161

1) Annual average for temperature and annual total for precipitation.
Source: Japan Meteorological Agency.

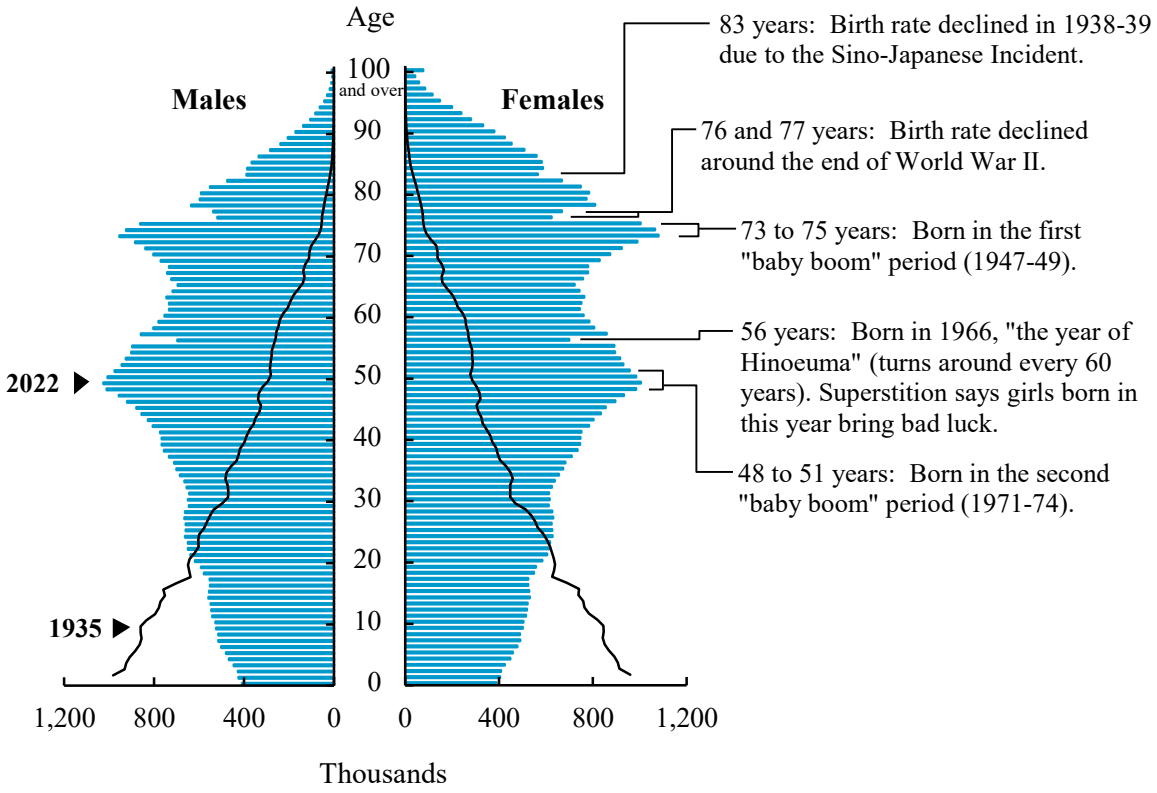
Chapter 2

Population

1. Total Population

Japan's total population in 2022 was 124.95 million. This ranked 11th in the world and made up 1.6 percent of the world's total. Japan's population density measured 338.2 persons per square kilometer in 2020, ranking 12th among countries or areas with a population of 10 million or more.

Figure 2.1
Population Pyramid



Source: Statistics Bureau, MIC.

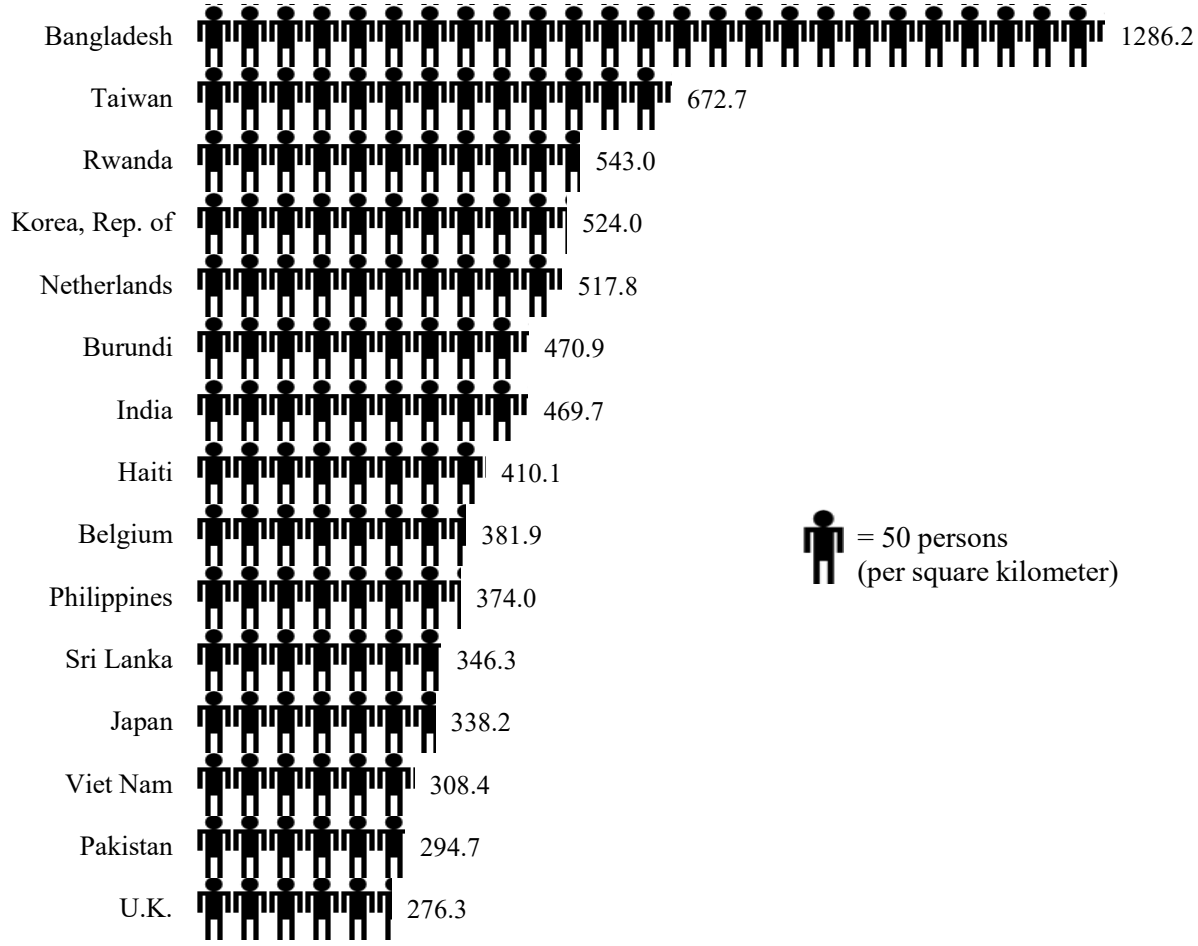
Table 2.1
Countries with a Large Population (2022)

(Millions)

Country	Population	Country	Population
World	7,975	Nigeria	219
China	1,426	Brazil	215
India	1,417	Bangladesh	171
U.S.A.	338	Russia	145
Indonesia	276	Mexico	128
Pakistan	236	Japan	125

Source: Statistics Bureau, MIC; United Nations.

Figure 2.2
Population Density by Country or Area [1] (2020)



1) Top 15 countries or areas with a population of 10 million or more.
Source: Statistics Bureau, MIC; United Nations.

From the 18th century through the first half of the 19th 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 1912, it reached 50 million, and in 1967, it surpassed the 100 million mark. However, Japan's population growth slowed afterward, with the rate of population change about 1 percent from the 1960s through the 1970s. Since the 1980s, it has declined sharply. Japan's total population was 126.15 million according to the Population Census in 2020. The Population Census in 2015 marked the first decline in Japan's total population since the initiation of the Census in 1920. The decline continued in the Population Census in 2020, with a decrease of 948.6 thousand people compared to the previous Census (2015). In 2022, it was 124.95 million, down by 0.56 million from the year before.

Table 2.2
Trends in Population (as of October 1)

Year	Population (1,000)	Age composition (%) [1]			Change rate of annual basis (%)	Population density (per km^2)
		0-14 years old	15-64	65 years old and over		
1872 [2]	34,806	...	...	...	...	91
1900 [2]	43,847	33.9	60.7	5.4	0.83	115
1910 [2]	49,184	36.0	58.8	5.2	1.16	129
1920	55,963	36.5	58.3	5.3	1.30	147
1930	64,450	36.6	58.7	4.8	1.42	169
1940	71,933	36.7	58.5	4.8	1.10	188
1950	84,115	35.4	59.6	4.9	1.58	226
1955	90,077	33.4	61.2	5.3	1.38	242
1960	94,302	30.2	64.1	5.7	0.92	253
1965	99,209	25.7	68.0	6.3	1.02	267
1970	104,665	24.0	68.9	7.1	1.08	281
1975	111,940	24.3	67.7	7.9	1.35	300
1980	117,060	23.5	67.4	9.1	0.90	314
1985	121,049	21.5	68.2	10.3	0.67	325
1990	123,611	18.2	69.7	12.1	0.42	332
1995	125,570	16.0	69.5	14.6	0.31	337
2000	126,926	14.6	68.1	17.4	0.21	340
2005	127,768	13.8	66.1	20.2	0.13	343
2010	128,057	13.2	63.8	23.0	0.05	343
2015	127,095	12.6	60.9	26.6	-0.15	341
2020	126,146	11.9	59.5	28.6	-0.15	338
2021	125,502	11.8	59.4	28.9	-0.51	336
2022	124,947	11.6	59.4	29.0	-0.44	335
(Projection, 2023)						
2030	120,116	10.3	58.9	30.8	-0.49	322
2040	112,837	10.1	55.1	34.8	-0.62	303
2050	104,686	9.9	52.9	37.1	-0.75	281
2060	96,148	9.3	52.8	37.9	-0.85	258
2070	86,996	9.2	52.1	38.7	-1.00	233

1) The ratios for 2015 and 2020 were calculated using imputation values for unknowns. The ratios for 2010 and earlier were calculated by excluding unknowns from the denominator. 2) As of January 1.
Source: Statistics Bureau, MIC; National Institute of Population and Social Security Research; Geospatial Information Authority of Japan.

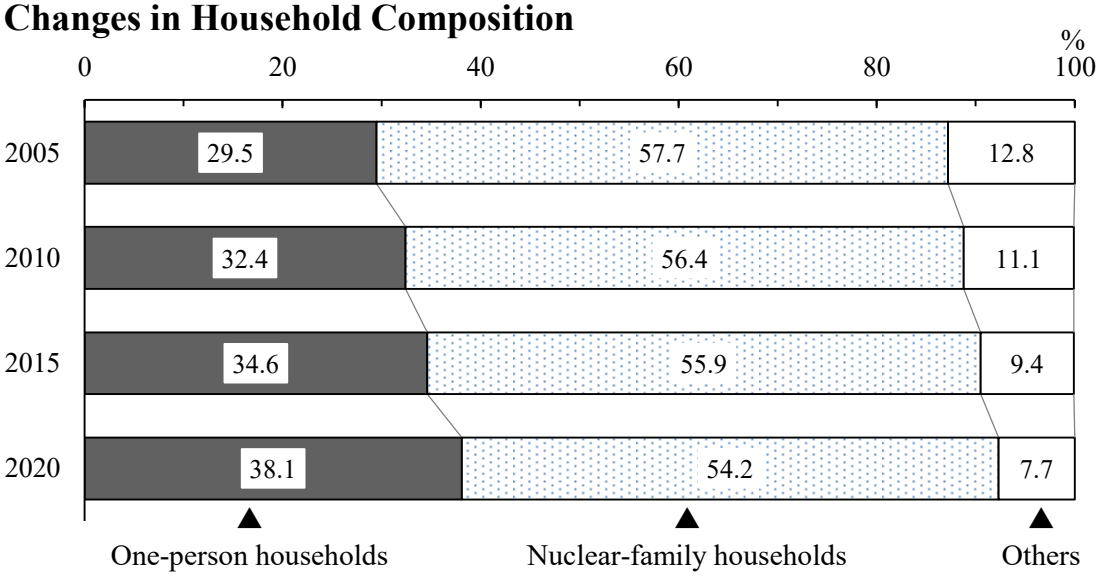
2. Households

(1) Household Size and Household Composition

The Population Census shows that Japan had 55.70 million private households (excluding "institutional households" such as students in school dormitories) in 2020. Of that total, 54.2 percent were

nuclear-family households, and 38.1 percent were one-person households.

Figure 2.3
Changes in Household Composition



Source: Statistics Bureau, MIC.

From the 1920s to the mid-1950s, the average number of household members remained about 5. However, due to the increase in one-person households and nuclear-family households 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 2.21 in 2020. Although the Japanese population shifted into the declining phase, the number of households is expected to continue to increase for some years to come, as the size of the average household will shrink at a slow pace. The number of households is projected to peak in 2023 and then decrease thereafter.

Table 2.3
Households and Household Members [1)]

Year	Private house-holds (1,000)	Rate of private households change (%) [2)]	Private household members (1,000)	Members per household	Population (1,000)	Rate of population change (%) [2)]
1960	22,539	…	93,419	4.14	94,302	4.7
1970	30,297	a) 15.9	103,351	3.41	104,665	5.5
1975	33,596	10.9	110,338	3.28	111,940	7.0
1980	35,824	6.6	115,451	3.22	117,060	4.6
1985	37,980	6.0	119,334	3.14	121,049	3.4
1990	40,670	7.1	121,545	2.99	123,611	2.1
1995	43,900	7.9	123,646	2.82	125,570	1.6
2000	46,782	6.6	124,725	2.67	126,926	1.1
2005	49,063	4.9	124,973	2.55	127,768	0.7
2010	51,842	5.7	125,546	2.42	128,057	0.2
2015	53,332	2.9	124,296	2.33	127,095	-0.8
2020	55,705	4.4	123,163	2.21	126,146	-0.7

1) In the 1965 Census, the definition of household differs, and it is not possible to recombine the survey subjects into private households.
2) Change over preceding Population Census.
a) The rate of change over 10 years is converted to a rate of change over 5 years.
Source: Statistics Bureau, MIC.

(2) Elderly Households

The number of elderly households (private households with household members aged 65 years old and over) in 2020 was 22.66 million. They accounted for 40.7 percent of the total private households. There were 6.72 million one-person elderly households. Among these, there were approximately two times as many females as males.

Table 2.4
Trends in Elderly Households

(Thousands)

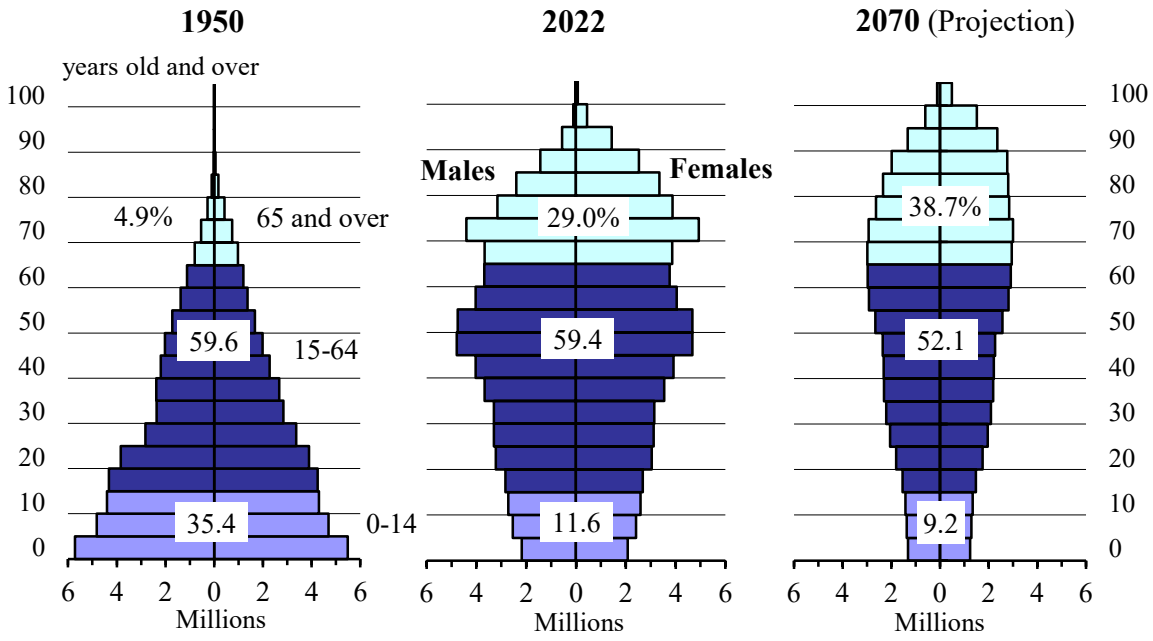
Type of households	2005	2010	2015	2020
Private households	49,063	51,842	53,332	55,705
Elderly households	17,220	19,338	21,713	22,655
(percentage)	35.1	37.3	40.7	40.7
One-person households	3,865	4,791	5,928	6,717
Males	1,051	1,386	1,924	2,308
Females	2,814	3,405	4,003	4,409
Nuclear-family households	8,398	10,011	11,740	12,528
Others	4,956	4,536	4,045	3,410

Source: Statistics Bureau, MIC.

3. Declining Birth Rate and Aging Population

The population pyramid of 1950 shows that Japan had a standard-shaped pyramid with a broad base. The shape, however, has changed dramatically as both the birth rate and death rate have declined. In 2022, the aged population (65 years old and over) was 36.24 million, constituting 29.0 percent of the total population and marking a record high.

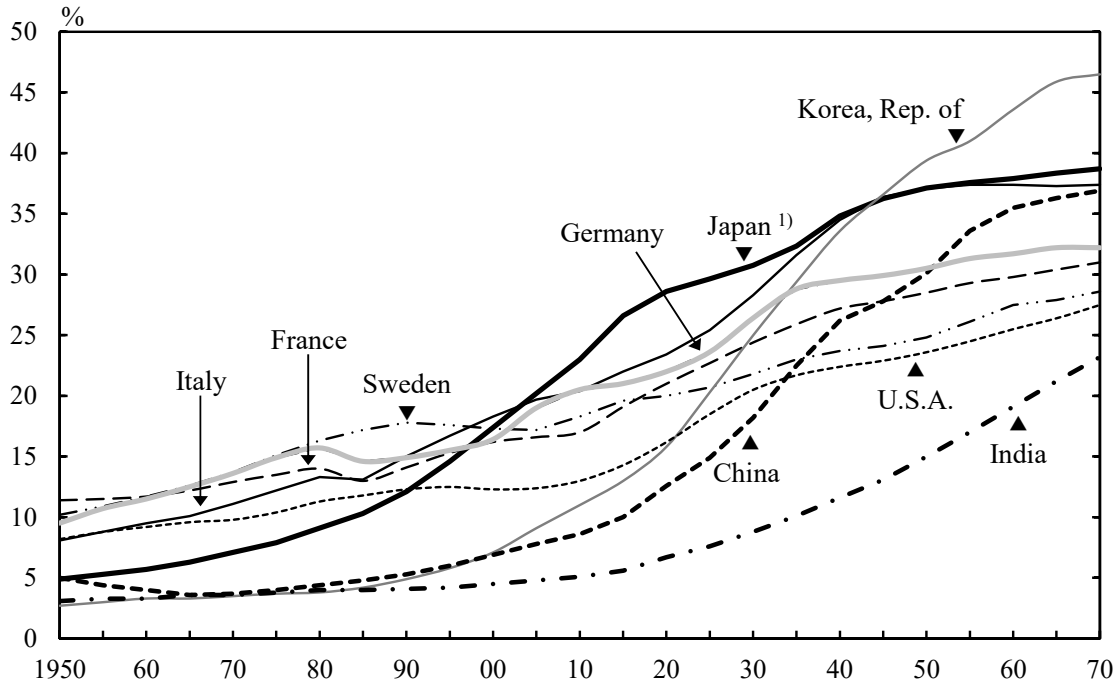
Figure 2.4
Changes in the Population Pyramid



Source: Statistics Bureau, MIC;
National Institute of Population and Social Security Research.

In Japan, the percentage of persons aged 65 years old and over exceeded 10 percent in 1985, but as of 1950, this percentage was already 11.4 percent in France and 10.2 percent in Sweden. The percentage exceeded 10 percent in 1955 in Germany, 1965 in Italy, and 1970 in the U.S.A., all earlier than in Japan. However, in 2020, the percentage of the population aged 65 years old and over in Japan was 28.6 percent, exceeding the U.S.A. (16.2 percent), Sweden (20.0 percent), France (21.0 percent), Germany (22.0 percent), and Italy (23.4 percent), indicating that the aging society in Japan is progressing quite rapidly as compared to the U.S.A. and European countries.

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



1) The ratios for 2015 and 2020 were calculated using imputation values for unknowns in the Population Census results. The ratios for 2010 and earlier were calculated by excluding unknowns from the denominator of Population Census results.

Source: Statistics Bureau, MIC; National Institute of Population and Social Security Research; United Nations.

Table 2.5
Age Structure of Population by Country

(%)

Country	2020			2070 (projection)		
	0-14 years old	15-64	65 years old and over	0-14 years old	15-64	65 years old and over
Korea, Rep. of	12.2	72.0	15.8	8.0	45.5	46.5
Japan 1)	11.9	59.5	28.6	9.2	52.1	38.7
Italy	12.9	63.8	23.4	10.9	51.8	37.4
China	18.0	69.4	12.6	9.6	53.5	36.9
Germany	13.8	64.3	22.0	13.0	54.8	32.2
France	17.6	61.4	21.0	14.4	54.7	31.0
Brazil	20.8	69.9	9.3	13.4	57.1	29.5
U.K.	17.8	63.5	18.7	13.5	57.0	29.5
Canada	15.9	66.1	18.0	13.4	57.4	29.2
Sweden	17.7	62.2	20.0	14.0	57.5	28.6
U.S.A.	18.5	65.3	16.2	14.6	57.9	27.5
Russia	17.7	67.0	15.3	14.4	59.6	26.0
India	26.1	67.2	6.7	15.6	61.2	23.2

1) The ratios for 2020 were calculated using imputation values for unknowns in the Population Census results.

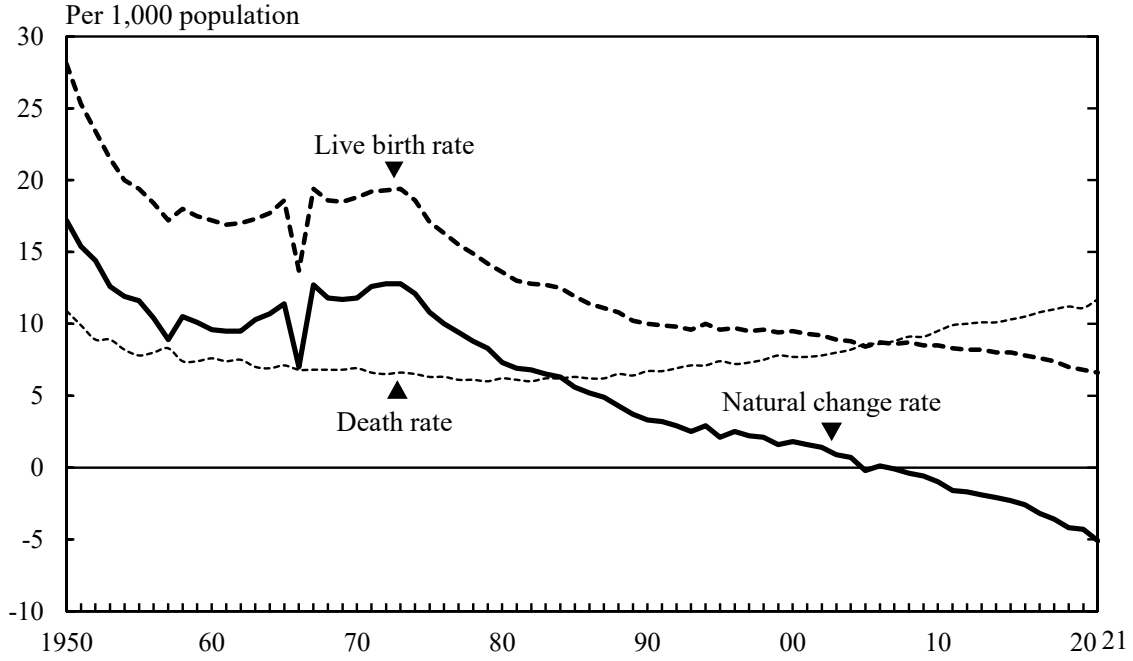
Source: Statistics Bureau, MIC; National Institute of Population and Social Security Research; United Nations.

On the other hand, in 2022, the child population (0-14 years old) in Japan amounted to 14.50 million, accounting for 11.6 percent of the total population, which was the lowest level on record. Since 1997, the aged population (65 years old and over) have surpassed the child population in their proportion of the total population. The working age population (15-64 years old) totaled 74.21 million, accounting for 59.4 percent of the entire population. This population is continuing to decline since 1993, and in 2022 was the same ratio as the previous year, which was the lowest in history. As a result, the dependency ratio (the sum of aged and child population divided by the working age population) was 68.4 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) became negative for the first time since 1899, when statistics were first collected in the current form, aside from the years 1944 and 1946 when statistics could not be obtained. It has been on a declining trend since then. In 2021, the natural change rate was -5.1 and decreased for the 15th consecutive year.

Figure 2.6
Natural Population Change



Source: Ministry of Health, Labour and Welfare.

During the second baby boom between 1971 and 1973, the live birth rate (per 1,000 population) was at a level of 19. Since the late 1970s, it has continued to fall. The rate for 2021 was 6.6. 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 30.9 in 2021.

The total fertility rate was on a downward trend after dipping below 2.00 in 1975, and reached a record low of 1.26 in 2005. The rate was on a path of recovery with an increase after that. However, the total fertility rate decreased for 6 consecutive years and dropped to 1.30 in 2021.

The death rate (per 1,000 population) was steady at 6.0 - 6.3 between 1975 and 1987, and has maintained an uptrend since 1988, reflecting the aging of the population. It reached 11.7 in 2021.

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	1.45	80.75	86.99
2020	6.8	11.1	1.8	-4.3	1.33	81.56	87.71
2021	6.6	11.7	1.7	-5.1	1.30	81.47	87.57

1) The infant mortality rate is per 1,000 live births.
2) The sum of the age-specific fertility rates from age 15 to 49 years old.
a) 1950-1952 period.
Source: Ministry of Health, Labour and Welfare.

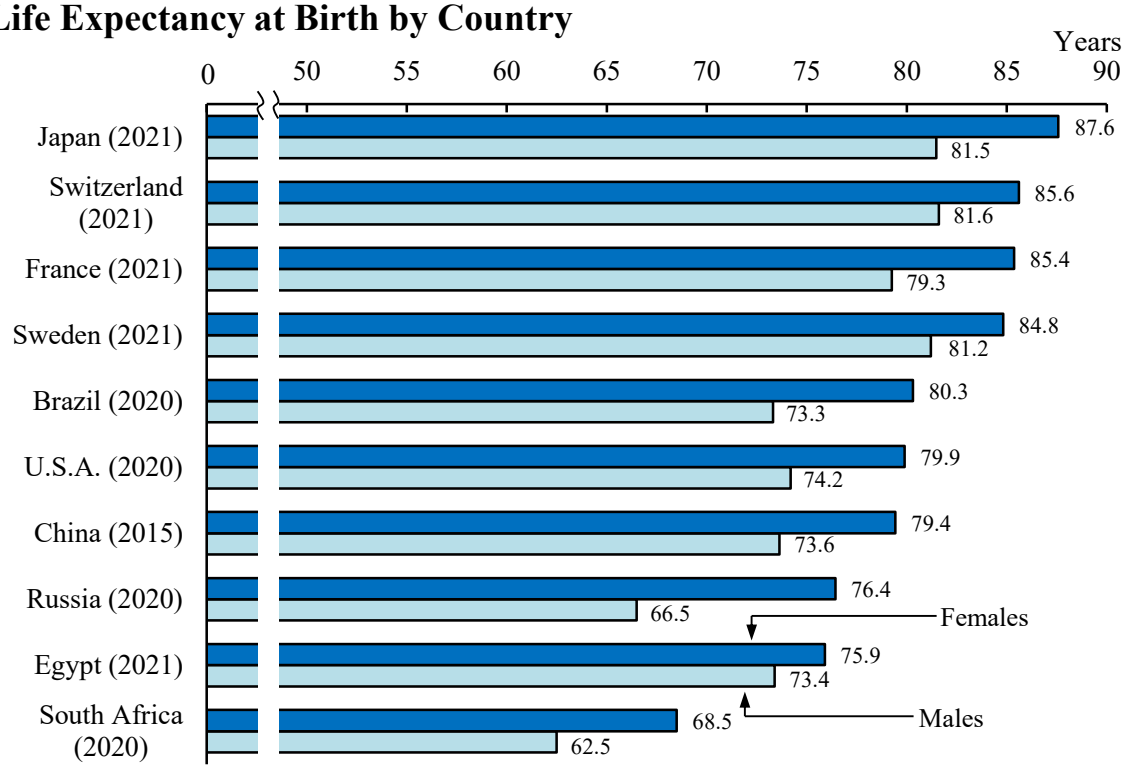
Table 2.7
Changes of Mothers' Age at Childbirth

Year	Number of births (1,000) [1]	Distribution of mothers' age (%) [2]						Mean age bearing first child
		Under 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
1980	1,577	0.9	18.8	51.4	24.7	3.7	0.5	26.4
1990	1,222	1.4	15.7	45.1	29.1	7.6	1.0	27.0
2000	1,191	1.7	13.6	39.5	33.3	10.6	1.3	28.0
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
2020	841	0.8	7.9	25.9	36.1	23.3	5.9	30.7
2021	812	0.7	7.4	25.9	36.0	23.8	6.2	30.9

1) Including mothers' ages that were not reported. 2) Percentage in relation to number of births, excluding those for which mothers' ages were not reported.
Source: Ministry of Health, Labour and Welfare.

Life expectancy at birth in Japan climbed sharply after World War II, and is today at quite a high level in the world. In 2021, it was 87.6 years for females and 81.5 years for males, down from the previous year for both genders.

Figure 2.7
Life Expectancy at Birth by Country



Source: Ministry of Health, Labour and Welfare.

5. Marriages and Divorces

It showed an apparent marriage boom in the early 1970s that the annual number of marriages in Japan exceeded 1 million couples coupled with the marriage rate (per 1,000 population) hovering over 10.0. However, both the number of couples and the marriage rate have been on a declining trend thereafter. In 2021, 501,138 couples married, and the marriage rate was 4.1.

The mean age of first marriage was 31.0 for grooms and 29.5 for brides in 2021. The mean age of first marriage for grooms rose by 2.0 years, while that of brides rose by 2.3 years over the past 20 years (in 2001: grooms, 29.0; brides, 27.2). In addition, there has been an increasing trend in the proportion of those who have never married until he or she turns the exact age 50, reaching 28.3 percent for males and 17.8 percent for females in 2020, the highest percentages ever. The declining marriage rate, rising marrying age and increased choice of unmarried life in recent years as described above could explain the dropping birth rate.

Table 2.8
Mean Age of First Marriage

Year	Grooms	Brides
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
2020	31.0	29.4
2021	31.0	29.5

Source: Ministry of Health, Labour and Welfare.

Table 2.9
Proportion of Never Married at Exact Age 50 by Sex [1)]

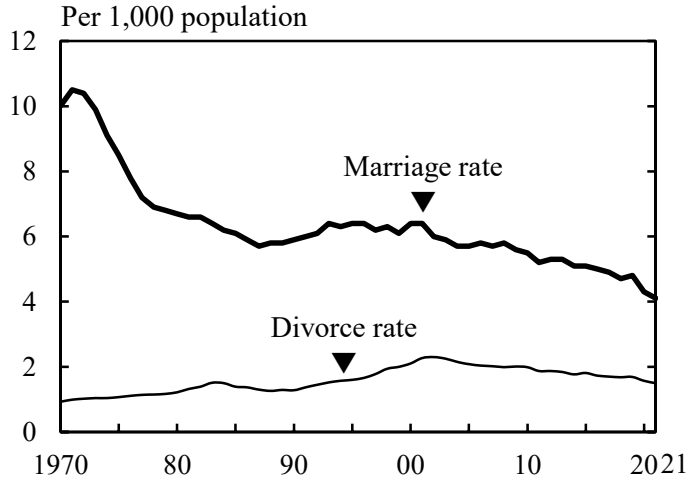
(%)

Year	Males	Females
1950	1.5	1.4
1960	1.3	1.9
1970	1.7	3.3
1980	2.6	4.5
1990	5.6	4.3
2000	12.6	5.8
2010	20.1	10.6
2015 [2)]	24.8	14.9
2020 [2)]	28.3	17.8

1) The proportion is computed as the mean value of the proportion remaining single at ages 45-49 and 50-54.
2) Based on results with imputation for persons of unknown marital status.
Source: National Institute of Population and Social Security Research.

In contrast, there was an upward trend about the divorces since the late 1960s, hitting a peak of 289,836 couples in 2002. Subsequently, both the number of divorces and the divorce rate have been declining since 2003. In 2021, the number of divorces totaled 184,384 couples, and the divorce rate (per 1,000 population) was 1.50.

Figure 2.8
Changes in Marriage Rate and Divorce Rate



Source: Ministry of Health, Labour and Welfare.

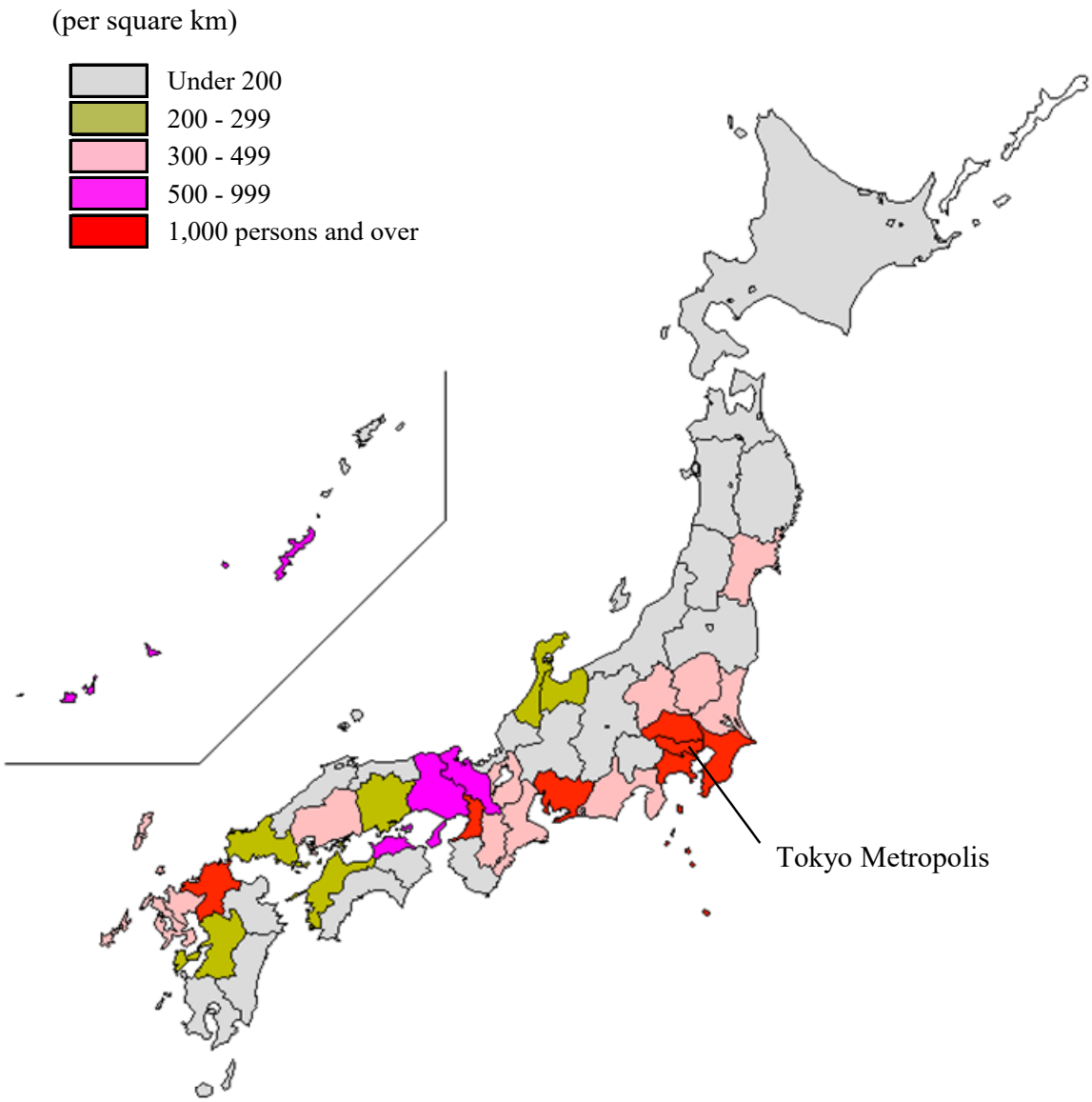
6. Population Density and Regional Distribution

(1) Population Density

In 2020, Tokyo Metropolis had the largest population of 14.05 million among Japan's 47 prefectures, followed in decreasing order by the prefectures of Kanagawa, Osaka, Aichi, Saitama, Chiba, Hyogo, and Hokkaido. The top 8 prefectures in terms of population had a total population of 63.98 million, and accounted for more than 50 percent (50.7 percent) of the total population.

In addition, the population density in Tokyo Metropolis was the highest among Japan's prefectures, at 6,402.6 persons per square kilometer. This was almost 19 times larger than the national average (338.2 persons per square kilometer).

Figure 2.9
Population Density by Prefecture (2020)



Source: Statistics Bureau, MIC.

In 2020, there were 12 cities in Japan with a population of 1 million or more. Their total population topped 30 million, a figure equivalent to 24.0 percent of the national total. The largest single city was the 23 Cities of Tokyo Metropolis, with 9.73 million citizens. It was followed in decreasing order by Yokohama City (3.78 million), Osaka City (2.75 million), and Nagoya City (2.33 million).

Table 2.10
Population of Major Cities

(Thousands)

Cities	Population		Cities	Population	
	2015	2020		2015	2020
Tokyo, 23 Cities	9,273	9,733	Kawasaki City	1,475	1,538
Yokohama City	3,725	3,777	Kobe City	1,537	1,525
Osaka City	2,691	2,752	Kyoto City	1,475	1,464
Nagoya City	2,296	2,332	Saitama City	1,264	1,324
Sapporo City	1,952	1,973	Hiroshima City	1,194	1,201
Fukuoka City	1,539	1,612	Sendai City	1,082	1,097

Source: Statistics Bureau, MIC.

(2) Population Distribution

In 2020, population was 38.0 million in the Kanto major metropolitan area, 19.2 million in the Kinki major metropolitan area, and 9.2 million in the Chukyo major metropolitan area. Total population of these three major metropolitan areas reached 66.4 million, accounting for 52.6 percent of Japan's population. Population density in the Kanto major metropolitan area was 2,804.7 persons per square kilometer. In the Kinki major metropolitan area, it was 1,464.9 persons per square kilometer, and in the Chukyo major metropolitan area, it was 1,323.0 persons per square kilometer.

Table 2.11
Population of 3 Major Metropolitan Areas [1] (2020)

Areas	Population (1,000)	Percentage of the total (%)	Surface Area (km^2)	Population density (per km^2)
Kanto major metropolitan area	38,034	30.2	13,561	2,804.7
Chukyo major metropolitan area	9,192	7.3	6,948	1,323.0
Kinki major metropolitan area	19,176	15.2	13,091	1,464.9
Total of three major metropolitan areas	66,403	52.6	33,599	1,976.3

1) Major metropolitan areas consist of central cities (Kanto: 23 Cities of Tokyo Metropolis, Yokohama City, Kawasaki City, Sagamihara City, Saitama City, and Chiba City; Chukyo: Nagoya City; Kinki: Osaka City, Sakai City, Kyoto City, and Kobe City) and surrounding areas (cities, towns and villages).
Source: Statistics Bureau, MIC.

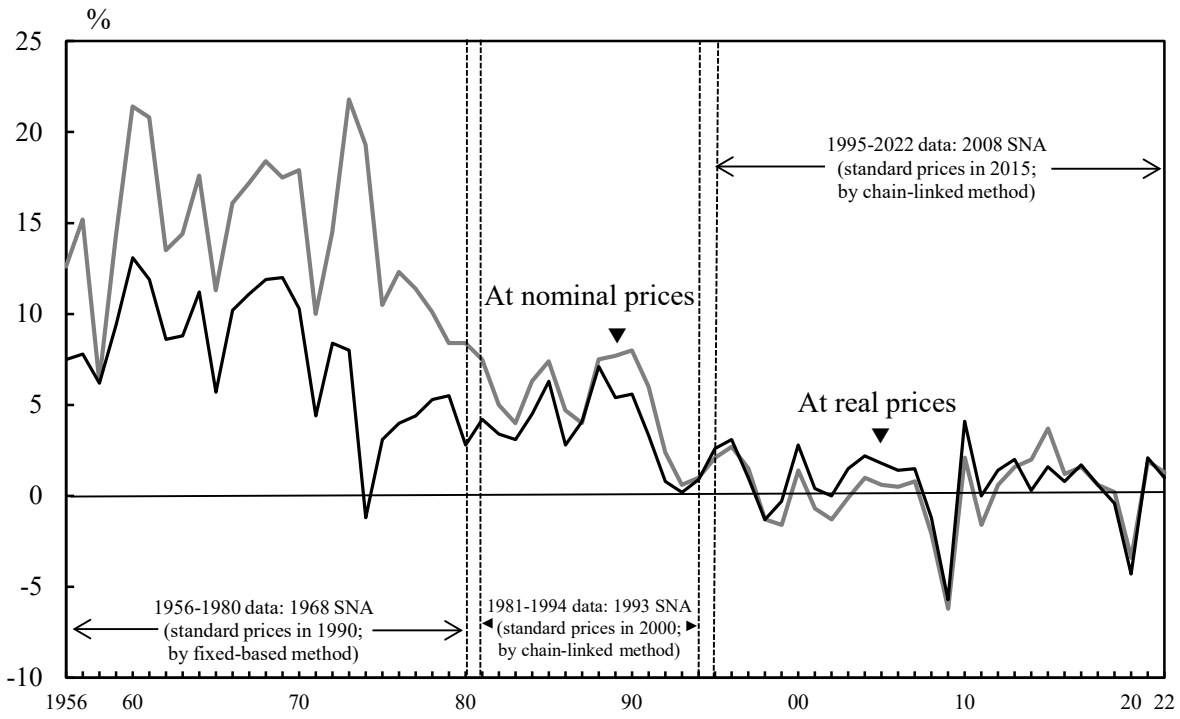
Chapter 3

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 labour 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



Source: Economic and Social Research Institute, 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.

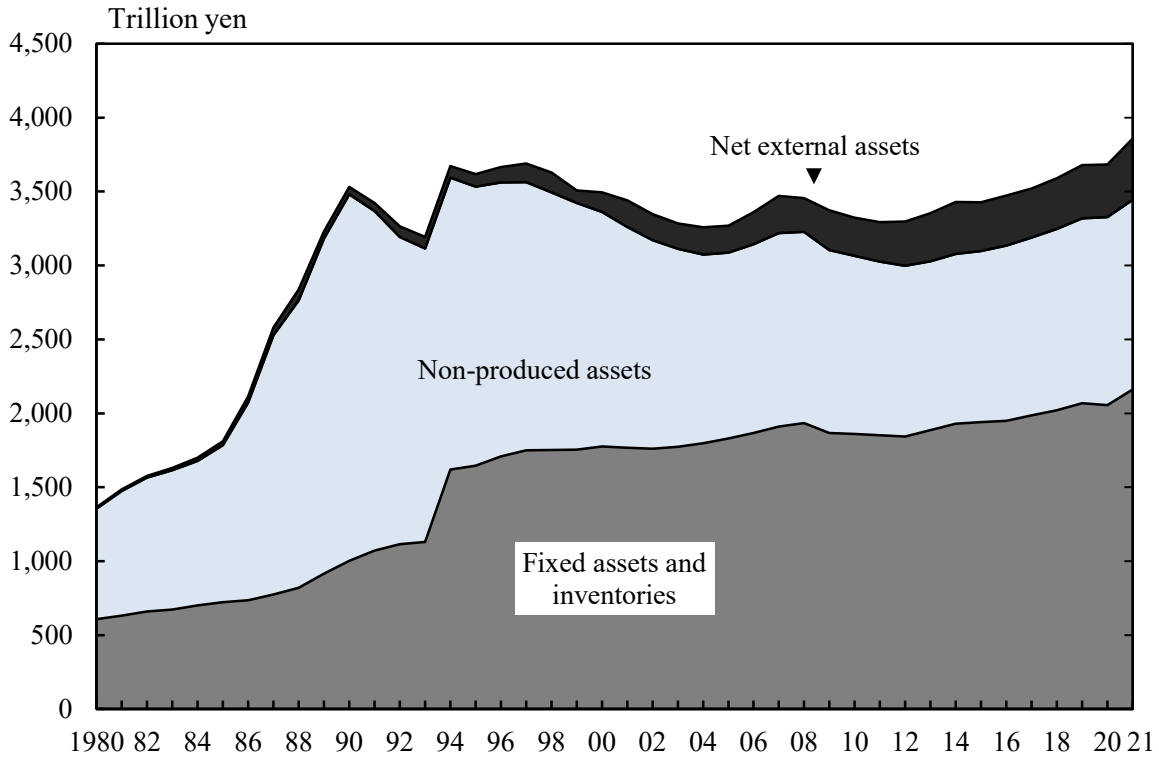
2. Bubble Economy and Its Collapse

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. 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.

Due to the collapse of the bubble economy, the national wealth decreased, and while there were fluctuations, continued on a downward trend. Since 2012, it has been in a gradual increasing trend. At the end of 2021, it was 3,859 trillion yen.

Figure 3.2
National Wealth [1)]

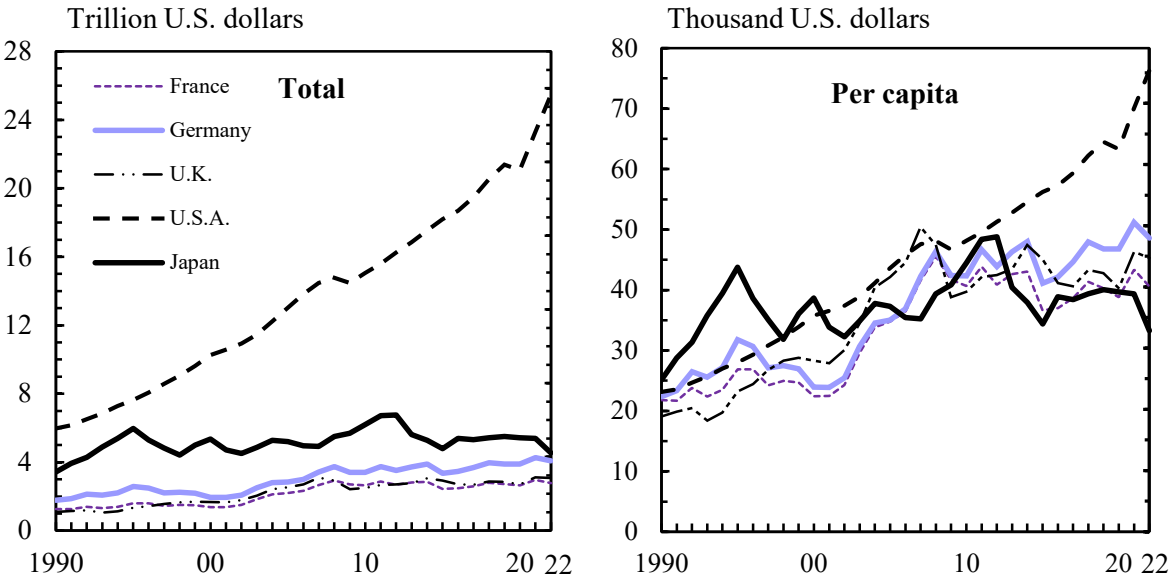


1) Data was estimated using a different method beginning in 1994.
Source: Economic and Social Research Institute, Cabinet Office.

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 recovery 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.

On the economic recovery phase starting at the beginning of 2002, the corporate sector, with export-related industries, as the central part, became favorable based on the steady recovery of the global economy, and shifted generally with a bullish tone up until mid-2007.

3. Economic Trends after Collapse of the Bubble Economy

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.

Table 3.1

Gross Domestic Product [1] (Expenditure approach)

(Billion yen)

Item	2019	2020	2021	2022
Gross domestic product (GDP)	552,535.4	528,894.6	540,237.0	545,794.0
Domestic demand	552,270.9	533,259.7	539,244.5	547,892.5
Private demand	413,763.3	391,170.9	393,835.4	402,841.8
Private final consumption expenditure	300,738.3	286,740.4	287,894.8	293,861.1
Private residential investment	20,649.5	19,012.4	18,796.8	17,924.4
Private plant and equipment	90,933.1	86,513.7	87,169.1	88,744.9
Changes in inventories of private sectors	1,476.1	-1,103.3	42.8	2,443.8
Public demand	138,508.6	142,087.0	145,416.7	145,038.4
Government final consumption expenditure	110,489.3	113,108.5	117,047.3	118,823.3
Gross capital formation by public sectors	28,105.9	29,070.1	28,531.7	26,530.8
Changes in inventories of public sectors	-57.0	-67.1	-83.7	-109.0
Net exports of goods and services	323.6	-4,732.2	1,134.3	-1,827.8
Exports of goods and services	103,927.0	91,877.0	102,619.5	107,660.0
(less) Imports of goods and services	103,603.5	96,609.2	101,485.1	109,487.8
(Reference)				
Trading gains/losses	-2,033.6	3,069.2	-3,942.5	-15,827.4
Gross domestic income (GDI)	550,501.9	531,963.8	536,294.5	529,966.6
Net income from the rest of the world	21,650.0	19,362.3	26,070.6	33,404.7
Incomes from the rest of the world	33,988.7	29,584.9	37,258.7	47,256.1
(less) Incomes to the rest of the world	12,338.7	10,222.6	11,188.1	13,851.5
Gross national income (GNI)	572,151.9	551,326.1	562,365.1	563,371.3

1) Quarterly estimates of GDP, 2008 SNA (standard prices in 2015; by chain-linked method).

Source: Economic and Social Research Institute, Cabinet Office.

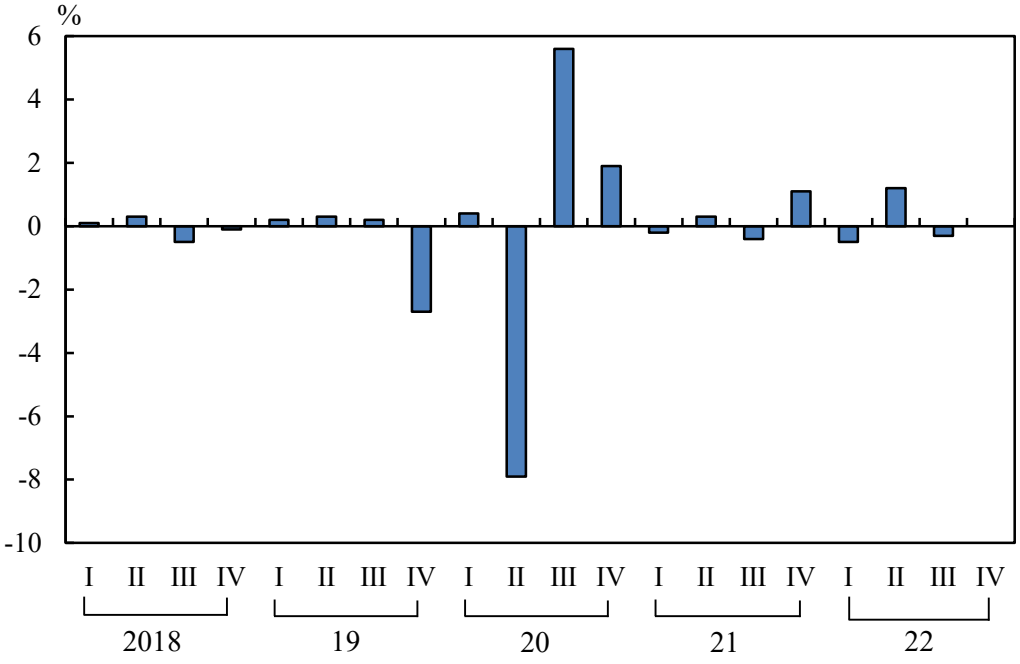
Subsequently, the Japanese economy recovered with foreign demand and economic measures after April 2009, and came to a standstill starting around October 2010. In early 2011, however, it began to rally. The Great East Japan Earthquake taking place on March 11, 2011, and the nuclear power plant accident caused by it weakened the economic recovery.

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").

After that the economy picked up, and signs indicated that the protracted deflation would reverse. There was some weakening due to the rebound from last-minute demand brought on by the consumption tax increase in April 2014, but as the moderate recovery continued and the real economy

improved, prices mildly increased, and the economy moved steadily toward overcoming deflation. In part due to factors like the impact of falling crude oil prices near the end of 2014, the economy continued its moderate recovery into 2015. From the latter half of 2016, a virtuous cycle developed, against a backdrop of moderate recovery in the overseas economy, starting from the corporate sector, e.g., with recovery in exports and production, and with the dramatic improvement in the employment situation, labor shortages intensified to level like that during the bubble era. The new "Reiwa" era began in 2019, and amid improvement in the employment/income environment and high corporate profits, a moderate recovery continued in areas such as increasing personal consumption and capital investment, the mainstays of domestic demand. However, in 2020 conditions abruptly worsened due to the effects of the COVID-19 pandemic. In 2021, improvement continued from the second half of the previous year, but suppression of economic activity aimed at preventing the spread of disease continued intermittently from the start of the year, and GDP did not manage to recover its level from before the crisis. After that, the invasion of Ukraine by Russia from February 2022 sparked a surge in raw material prices. Today, dealing with inflation has become a global issue.

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



1) Quarterly estimates of GDP, 2008 SNA (standard prices in 2015; by chain-linked method; seasonally adjusted).
Source: Economic and Social Research Institute, Cabinet Office.

4. Industrial Structure

Japan's industrial structure has undergone a major transformation 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 share of them have risen consistently.

Table 3.2
Changes in Industrial Structure

(%)

Year	Employed persons [1) 2)]			Gross domestic product (GDP) [3)]		
	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	# 1.7	# 31.5	# 66.9
2000	5.2	29.5	65.3	1.5	29.2	69.3
2005	4.9	26.4	68.6	1.1	26.8	72.1
2010	4.2	25.2	70.6	1.1	25.5	73.4
2015	3.7	24.6	71.7	1.0	25.9	73.1
2020	3.2	23.4	73.4	1.0	25.9	73.1

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) Ratios for 2015 and 2020 use imputation values for unknowns. 3) The data for 1955 to 1975 are based on the 1968 SNA, the data for 1980 to 1990 are based on the 1993 SNA, and the data for 1995 onwards are based on the 2008 SNA.
Source: Statistics Bureau, MIC; Economic and Social Research Institute, 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 2020, the corresponding shares of these three sectors were 3.2 percent, 23.4 percent and 73.4 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 2020, these figures were 1.0 percent, 25.9 percent and 73.1 percent, respectively.

Table 3.3
Gross Domestic Product by Type of Economic Activity

(%)

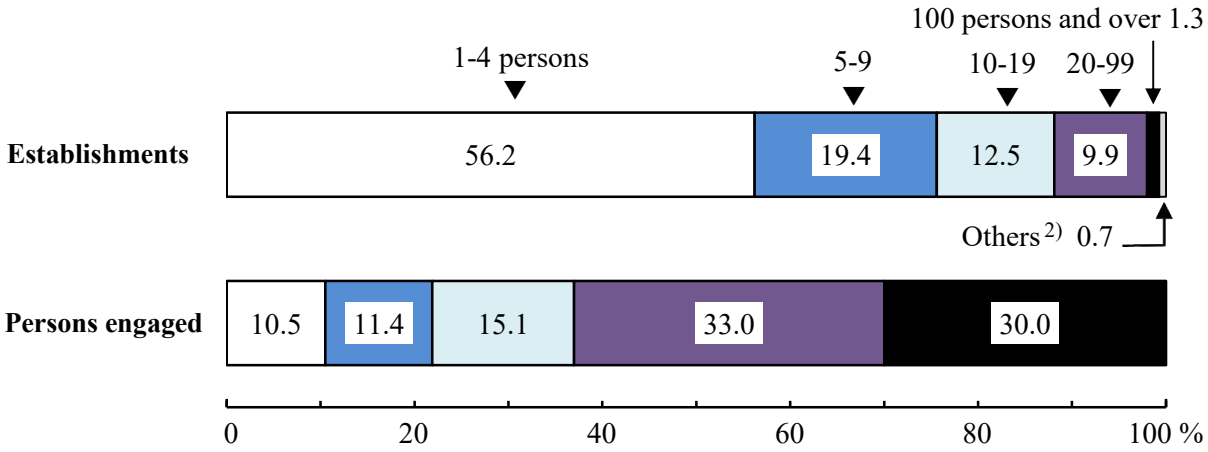
	1995	2000	2005	2010	2015	2020
Primary industry						
Agriculture, forestry and fishing	1.6	1.5	1.1	1.1	1.0	1.0
Secondary industry						
Mining	0.2	0.1	0.1	0.1	0.1	0.1
Manufacturing	23.5	22.5	21.4	20.8	20.5	20.0
Construction	7.6	6.7	5.4	4.6	5.2	5.7
Tertiary industry						
Electricity, gas and water supply and waste management service	3.1	3.3	3.0	2.9	2.9	3.2
Wholesale and retail trade	13.8	13.0	14.1	13.4	13.0	12.7
Transport and postal services	5.5	4.9	5.1	5.1	5.3	4.2
Accommodation and food service activities	3.0	3.1	2.7	2.6	2.4	1.7
Information and communications	3.3	4.7	5.0	5.0	4.9	5.1
Finance and insurance	5.1	5.0	6.1	4.8	4.3	4.2
Real estate	10.3	10.8	11.0	12.3	12.0	12.2
Professional, scientific and technical activities	4.5	5.5	6.2	7.2	7.8	8.7
Public administration	4.7	5.0	5.0	5.1	4.9	5.2
Education	3.6	3.6	3.6	3.7	3.5	3.5
Human health and social work activities	4.2	5.1	5.7	6.7	7.4	8.2
Other service activities	5.2	5.2	4.9	4.6	4.2	3.7

Source: Economic and Social Research Institute, Cabinet Office.

According to the "2021 Economic Census for Business Activity", there were 5.2 million establishments (excluding businesses whose operational details are unknown, national government services, and local government services) in Japan, at which a total of 57.9 million persons were employed.

The average number of persons engaged per establishment was 11.2 and establishments with less than 10 persons accounted for 75.6 percent of the total.

Figure 3.5
Shares of Establishments and Persons Engaged by Scale of Operation [1)]
(2021)



1) Excluding businesses whose operational details are unknown, national government services, and local government services. 2) Establishments consisting of only loaned or dispatched employees.
Source: Statistics Bureau, MIC; Ministry of Economy, Trade and Industry.

With regard to the number of establishments by the major groupings of the Japan Standard Industrial Classification, the most numerous category was the "wholesale and retail trade", numbering 1.2 million, followed by "accommodations, eating and drinking services" and "construction". In terms of the number of persons engaged, establishments in the "wholesale and retail trade" ranked first as they employed 11.6 million persons, followed by "manufacturing" and "medical, health care and welfare".

Table 3.4

Number of Establishments and Persons Engaged [1] (2021)

Item	Establishments	Persons engaged
Total	5,156,063	57,949,915
By industry		
Primary industry		
Agriculture, forestry and fisheries	42,458	453,703
Secondary industry		
Mining and quarrying of stone and gravel	1,865	19,697
Construction	485,135	3,737,415
Manufacturing	412,617	8,803,643
Tertiary industry		
Electricity, gas, heat supply and water	9,139	202,149
Information and communications	76,559	1,986,839
Transport and postal activities	128,224	3,264,734
Wholesale and retail trade	1,228,920	11,611,924
Finance and insurance	83,852	1,494,436
Real estate and goods rental and leasing	374,456	1,618,138
Scientific research, professional and technical services	252,340	2,118,920
Accommodations, eating and drinking services	599,058	4,678,739
Living-related and personal services and amusement services	434,209	2,176,139
Education, learning support	163,357	1,950,734
Medical, health care and welfare	462,531	8,162,398
Compound services	32,131	435,970
Services, n.e.c.	369,212	5,234,337
By type of legal organizations		
Individual proprietorships	1,640,810	4,573,854
Corporations	3,486,590	53,258,019
Companies	3,010,602	44,144,737
Organizations other than corporations	28,663	118,042

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

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

The domestic manufacturing industry has progressed in the relocation of production bases overseas, for the cutback on production costs, the production in consumption areas, and the evasion of fluctuations in exchange rates.

The number of overseas affiliates in the manufacturing industry was 10,902 companies at the end of fiscal 2021, and the overseas production ratio was 25.8 percent in actual performance in fiscal 2021.

Table 3.5
Trends of Overseas Affiliated Company (Manufacturing industries)

Fiscal year	Number of overseas affiliates [1)]	Value of Sales (Million yen)	Overseas production ratio [2)] (%)	Value of capital investment (Million yen)	Ratio of overseas capital investment [3)] (%)
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
2015	11,080	134,996,164	25.3	4,571,639	25.5
2016	10,919	123,636,074	23.8	3,766,446	20.7
2017	10,838	138,024,661	25.4	3,961,088	20.8
2018	11,344	138,584,467	25.1	4,384,020	21.5
2019	11,199	121,618,532	23.4	4,292,606	22.1
2020	11,070	112,790,400	23.6	3,219,364	19.4
2021	10,902	139,441,614	25.8	3,670,889	20.8

1) End of fiscal year. 2) Overseas production ratio = Sales of overseas affiliates/(Sales of overseas affiliates + Sales of domestic companies) × 100.
3) 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, China, the U.S.A., and Vietnam.

Chapter 4

Finance

1. National and Local Government Finance

(1) National Government Finance

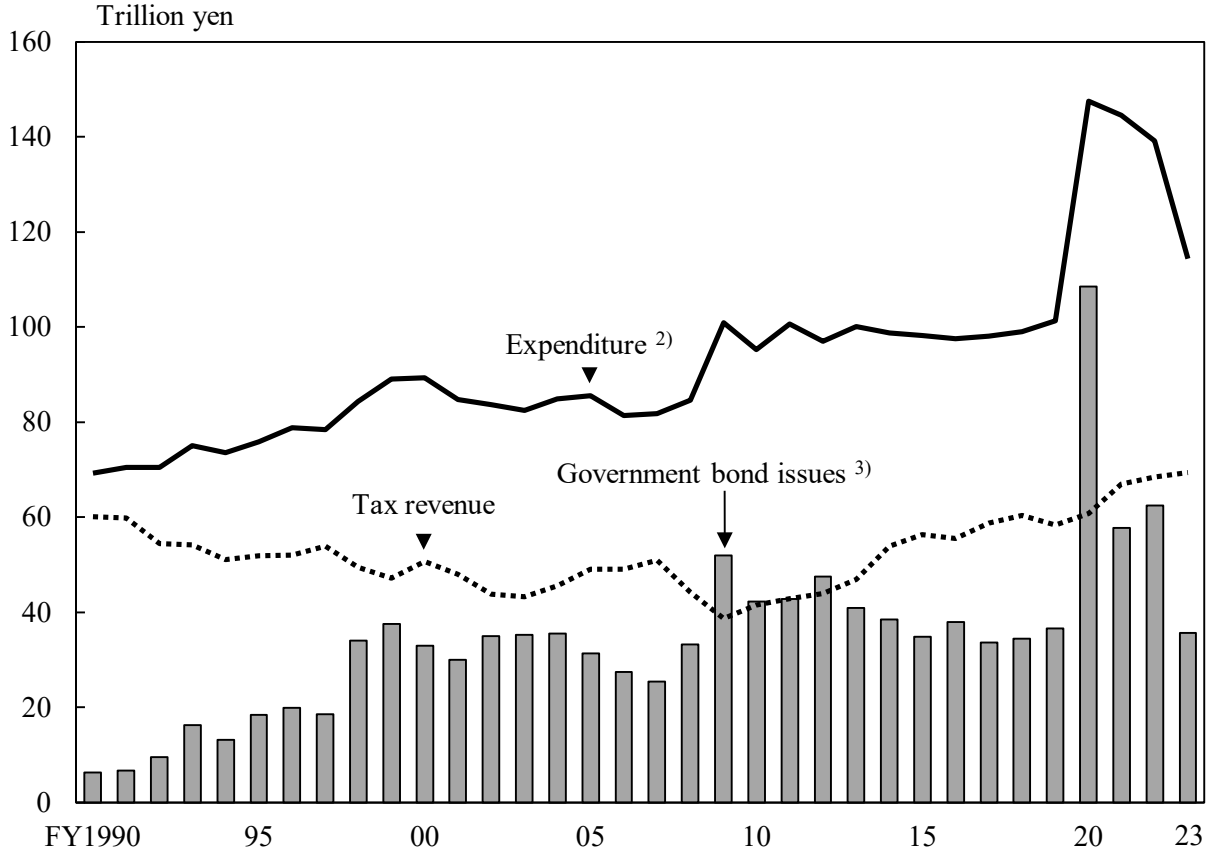
Japan's fiscal year starts in April, and ends in March of the following year. In setting the national budget, the government submits a proposed budget for the upcoming fiscal year to the Ordinary Session of the Diet, which begins in January. The proposal is then discussed, and approved usually before the fiscal year begins in April (initial budget). 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. In the initial budget for fiscal 2023, 4 trillion yen is budgeted as a contingency fund for COVID-19 and measures to address soaring crude oil and commodity prices, and 1 trillion yen as a contingency fund for economic emergency (including the impact from the Ukraine crisis).

Japan's national budget consists of the general account budget, special account budgets, and the budgets of government-affiliated agencies. Using revenues from general sources such as taxes, the general account covers core national expenditures such as social security, public works, education and science, and national defense.

Special accounts are accounts established for the national government to carry out projects with specific objectives, and their management and administration are independent of the general account. The number and particulars of special accounts change from year to year; for fiscal 2023, there are a total of 13 special accounts, including the National debt consolidation fund, the Local allocation tax and local transfer tax, and the Reconstruction from the Great East Japan Earthquake.

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 for International Cooperation, and the Japan International Cooperation Agency (Finance and Investment Account) are operated.

Figure 4.1
Revenue and Expenditure in the General Account [1)]



1) Based on settled figures until FY2021, supplementary budget for FY2022, and draft budget for FY2023. 2) Total expenditure of FY2023 includes the carry-over (3.4 trillion yen) from Defense Buildup Funds which is the resource for the national defense expenditure for FY2024 and years after. 3) Excludes some special accounts.

Source: Ministry of Finance.

In the 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. From fiscal 2009 to fiscal 2012, bond issues exceeded tax revenue in most years, but starting in fiscal 2013, tax revenue began to exceed borrowing. However, in fiscal 2020, the supplementary budget for the contingency fund for COVID-19 was covered solely by government bonds, leading to bond issues exceeding tax revenue.

The size of the general account budget for fiscal 2023 was 114 trillion yen, an increase of 6.8 trillion yen (6.3 percent) from the initial budget of fiscal 2022. This is equivalent to 20.0 percent of the fiscal 2023 GDP, forecasted by the government at 572 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
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
2015	98,230	58,966	31,398	5,574	387	5,130	6,378
2020	147,597	109,016	42,998	9,194	169	5,505	8,413
2021	144,650	100,503	50,161	7,956	140	6,014	8,600
2022 1)	139,220	97,635	40,939	8,813	122	5,810	8,053
2023 2)	114,381	72,732	36,889	5,416	97	10,169	6,060

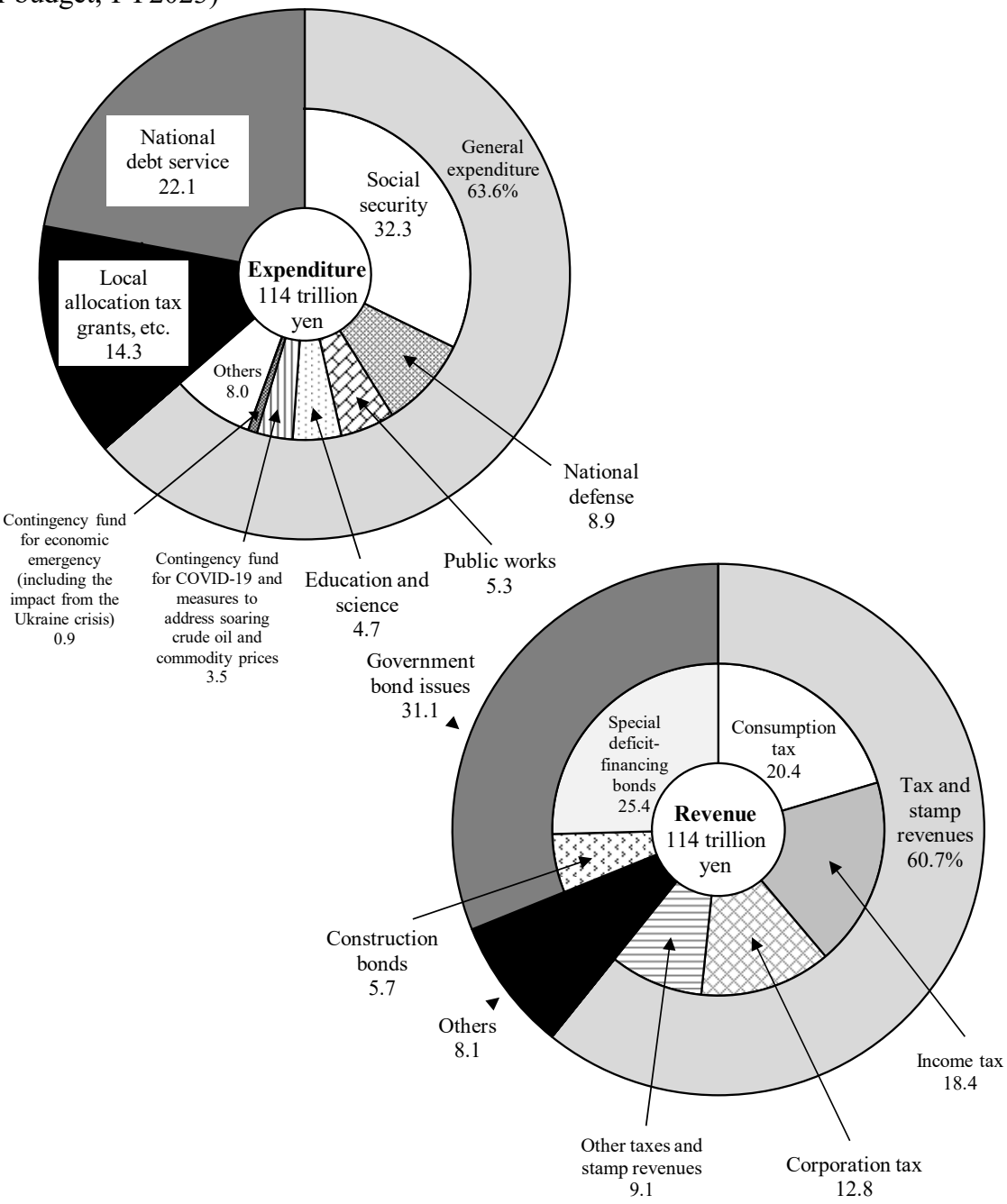
Fiscal year	Economic cooperation	Small and medium-sized business promotion	Energy measures	Food stable supply	Others	National debt service (B)	Local allocation tax grants, etc. (C)
2000	1,012	933	677	247	6,434	21,446	15,829
2005	784	237	493	657	6,536	18,736	17,441
2010	746	830	845	1,122	7,953	19,544	18,790
2015	661	340	968	1,276	6,854	22,464	16,801
2020	763	16,257	1,027	1,498	23,190	22,326	16,256
2021	669	9,944	1,267	1,772	13,980	24,589	19,558
2022 1)	847	1,419	2,197	1,761	27,674	24,072	17,513
2023 2)	511	170	854	1,265	11,300	25,250	16,399

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

In fiscal 2023, major expenditures from the initial general account budget include social security (32.3 percent), national debt service (22.1 percent), local allocation tax grants, etc. (14.3 percent), national defense (8.9 percent), public works (5.3 percent), and education and science (4.7 percent).

With regard to revenue sources for the fiscal 2023 initial general account budget, consumption tax, income tax and corporation tax account for 51.6 percent. Even with the addition of other taxes and stamp revenues, these revenue sources only amount to 60.7 percent of the total revenue.

Figure 4.2
Composition of Revenue and Expenditure of General Account Budget
(Initial budget, FY2023)



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 systems, hospitals, etc.), the national health insurance accounts, and the latter-stage

elderly medical care accounts.

While expenditures such as defense expenses are administered solely by the national government, a large portion of expenditures that directly relate to the people's daily lives are disbursed chiefly through local governments. In particular, a high proportion of the following expenditures are disbursed through local governments: sanitation expenses, which include areas such as medical service and garbage disposal; school education expenses; judicial, police, and fire service expenses; 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 2021 (net) revenues came from local taxes, accounting for 33.1 percent of the total. The second-largest source, 25.0 percent, was national treasury disbursements.

Table 4.2

Local Government Finance [1] (Ordinary accounts)

(Million yen)

Item	FY2017	FY2018	FY2019	FY2020	FY2021
Revenues	101,323,315	101,345,285	103,245,881	130,047,239	128,291,063
Local taxes	39,904,402	40,751,442	41,211,450	40,825,620	42,408,938
Local transfer tax	2,405,224	2,650,873	2,613,842	2,232,335	2,446,767
Special local grants	132,800	154,400	468,271	225,609	454,707
Local allocation tax	16,768,005	16,548,225	16,739,246	16,988,952	19,504,879
National treasury disbursements	15,520,357	14,885,189	15,834,380	37,455,724	32,071,593
Local bonds	10,644,892	10,508,424	10,870,548	12,260,718	11,745,371
Expenditures	97,998,369	98,020,611	99,702,189	125,458,842	123,367,701
General administration	9,121,944	9,285,987	9,670,029	22,534,636	12,431,790
Public welfare	25,983,397	25,665,947	26,533,656	28,694,223	31,312,993
Sanitation	6,262,562	6,236,691	6,353,956	9,120,199	11,375,080
Agriculture, forestry and fishery	3,299,187	3,251,691	3,319,243	3,410,589	3,304,462
Commerce and industry	4,901,049	4,760,301	4,782,097	11,533,589	14,980,239
Civil engineering work	11,919,457	11,880,636	12,127,421	12,690,157	12,685,803
Education	16,888,597	16,878,150	17,523,493	18,096,094	17,789,581

1) Settled figures of the net total of prefectural and municipal government accounts after deducting duplications. The breakdown consists of major items only.

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 2022, the gross total of national government expenditure was 577 trillion yen, the net total was 272 trillion yen after eliminating duplications between both accounts. 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 91 trillion yen. Therefore, after eliminating duplications between national and local accounts (37 trillion yen), the net total of both national and local government expenditures combined was 326 trillion yen.

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

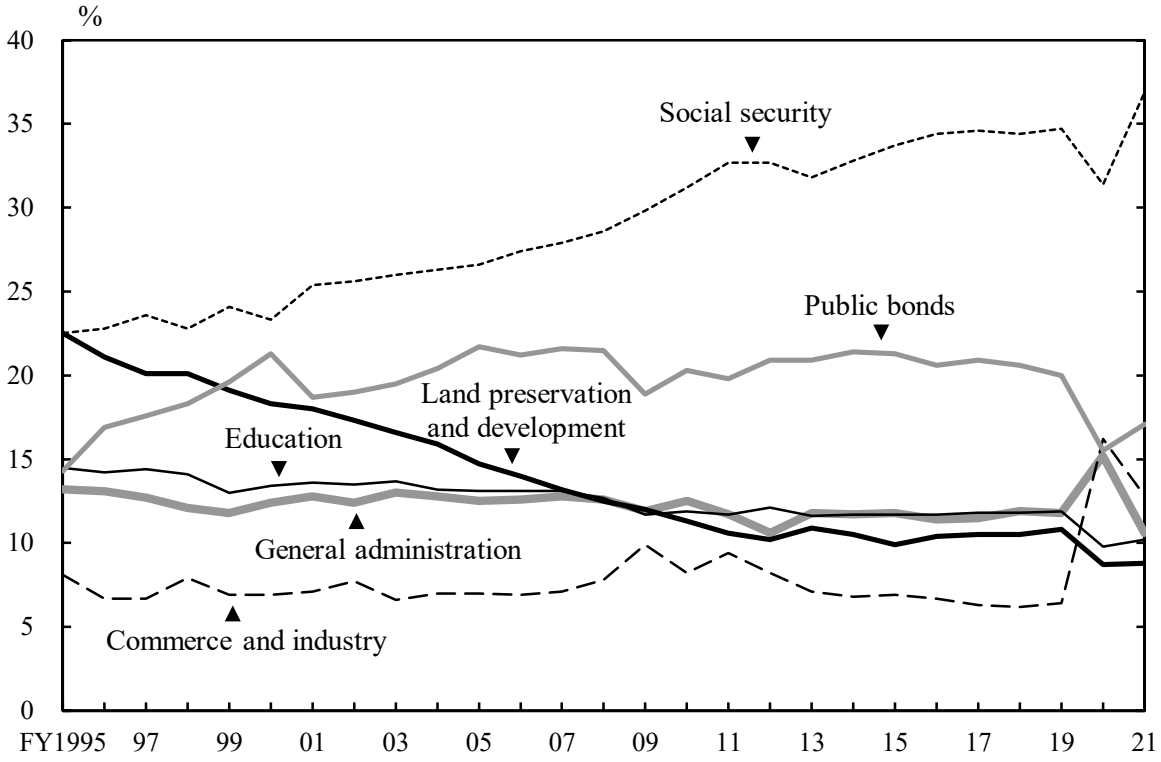
(Billion yen)

Item	FY2005	FY2010	FY2015	FY2020	FY2021	FY2022
General account	82,183	92,299	96,342	102,658	106,610	107,596
Special accounts	411,944	367,074	403,553	391,759	493,699	467,282
Government-affiliated agencies	4,678	3,135	2,216	1,722	3,234	2,519
Gross total (national)	498,805	462,508	502,111	496,139	603,542	577,398
Duplications	257,490	244,744	262,184	250,273	304,750	305,521
Net total (national)	241,316	217,764	239,927	245,867	298,792	271,877
Local public finance plan	83,769	82,127	87,768	91,747	90,248	90,993
Gross total (national + local)	325,084	299,891	327,694	337,614	389,040	362,870
Duplications	32,689	31,563	35,484	36,241	35,390	36,684
Net total (national + local)	292,395	268,328	292,211	301,373	353,650	326,185

Source: Policy Research Institute, Ministry of Finance.

The settlement amount for fiscal 2021, the net total of national and local government expenditures was 220 trillion yen. The national government disbursed 44.3 percent of this amount, while the local governments disbursed 55.7 percent.

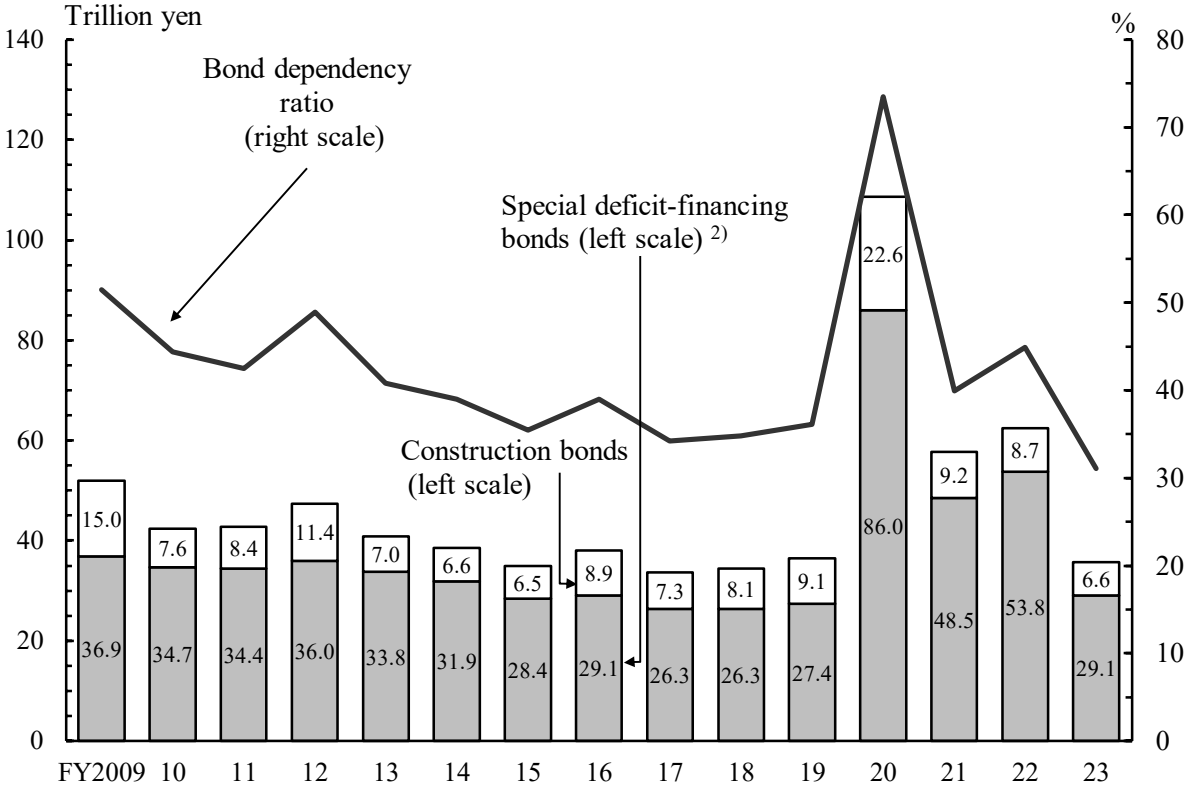
Figure 4.3
Ratio of Net Total National and Local Expenditures by Function



Source: Ministry of Internal Affairs and Communications.

A function-by-function breakdown of these expenditures showed that social security expenditure accounted for the largest portion (36.9 percent), followed by public bonds (17.1 percent), commerce and industry (12.8 percent), general administration (10.6 percent), education (10.2 percent), and then land preservation and development (8.8 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. The bankruptcy of the major American securities firm Lehman Brothers in 2008 and the Great East Japan Earthquake of 2011 led to a major economic downturn, and for 4 years from fiscal 2009, bond issues continued to exceed tax revenue, but from fiscal 2013 to 2019, tax revenue picked up and exceeded bond issues. However, the spread of COVID-19 in 2020 caused a sudden contraction of the economy, and a huge supplementary budget for fiscal 2020 was financed by an additional issue of government bonds.

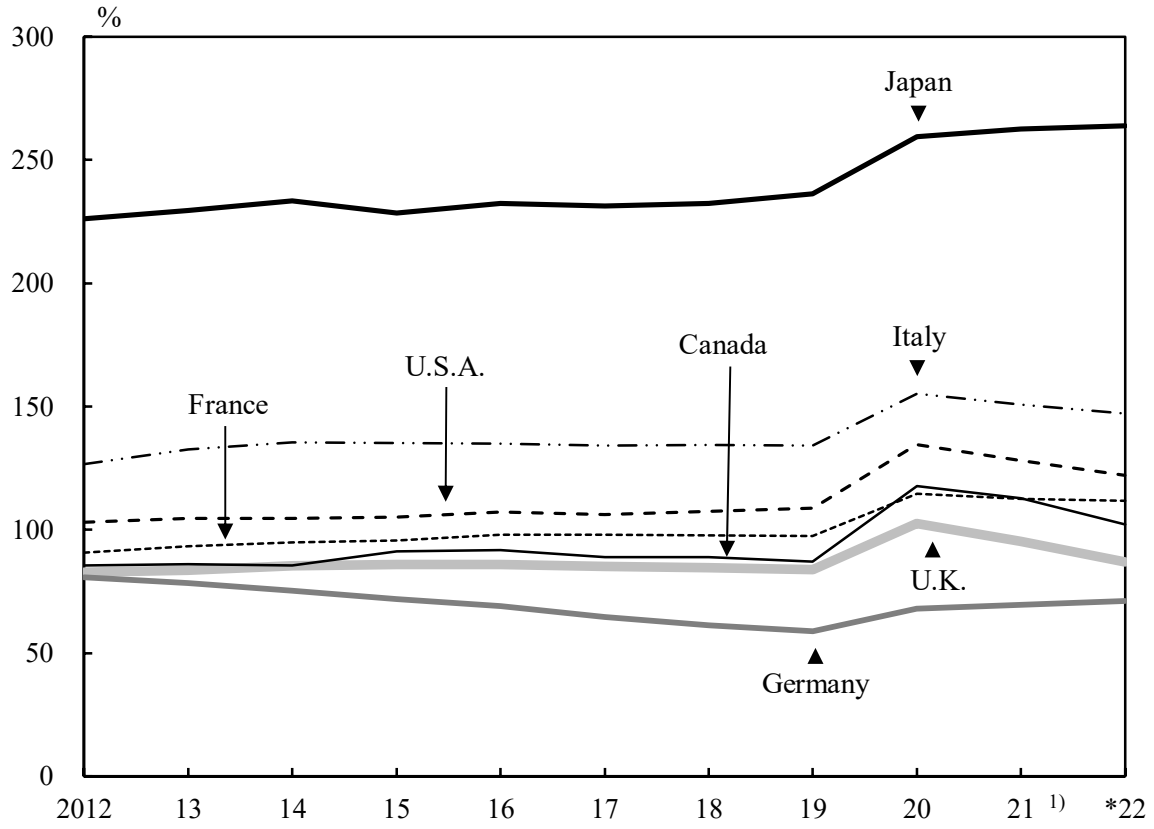
Figure 4.4
National Government Bond Issue and Bond Dependency Ratio [1)]



1) Based on settled figures until FY2021, supplementary budget for FY2022, and draft budget for FY2023. 2) Excludes some special accounts.
Source: Ministry of Finance.

Japan's ratio of outstanding general government debt to GDP, a stock measure in a fiscal context, is particularly high even compared to other major industrialized countries.

Figure 4.5
Ratio of General Government Gross Debt to GDP



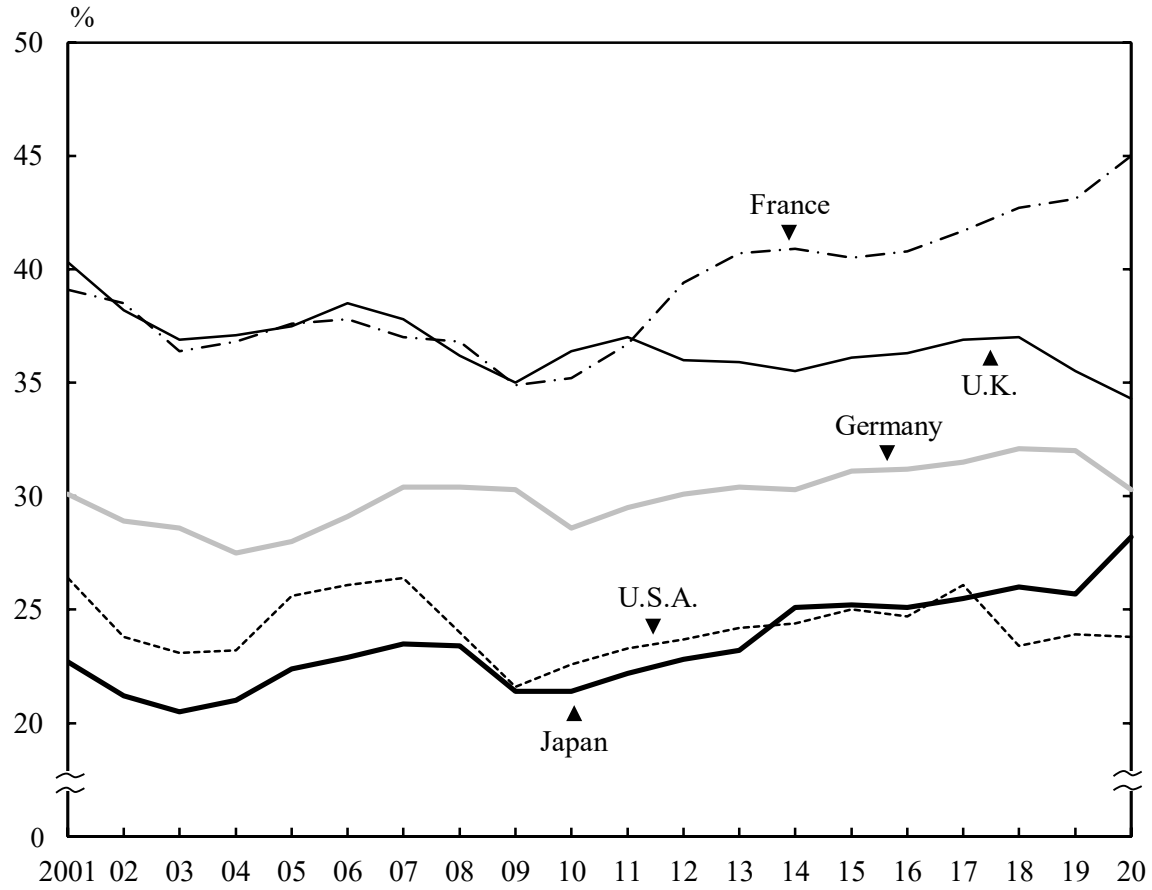
1) The data for Japan indicates estimated figure.
Source: Ministry of Finance.

(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 payer's 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 20.5 percent in fiscal 2003. In fiscal 2020, it was 28.2 percent in terms of national and local taxes combined (17.3 percent for national tax and 10.9 percent for local tax). Japan's ratio is

lower in comparison with other major industrial countries. However, the consumption tax rate was raised from 8 to 10 percent on October 1, 2019 due to the need to transition Japan's social security system, which is currently focused on benefits for the elderly, to an "all-generation type" usable by anyone, from children and youth to the elderly.

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 banknotes; (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 2022, currency in circulation totaled 129.9 trillion yen (125.1 trillion yen in banknotes and 4.9 trillion yen in coins), up 2.3 percent from the year before.

Table 4.4

Currency in Circulation (Outstanding at year-end)

(Billion yen)

Item	2018	2019	2020	2021	2022
Total	115,208	117,695	123,381	127,026	129,923
Banknotes	110,363	112,742	118,328	121,964	125,068
Coins	4,845	4,954	5,053	5,062	4,855

Source: Bank of Japan.

The Bank of Japan compiles and publishes statistics on the following indices of money stock: (i) M1, or currency in circulation plus deposit money deposited at depository institutions; (ii) M2, or currency in circulation plus deposits deposited at domestically licensed banks, etc.; (iii) M3, or currency in circulation plus deposits deposited at depository institutions; and (iv) L, or M3 plus pecuniary trusts plus investment trusts plus bank debentures plus straight bonds issued by banks plus commercial paper issued by financial institutions plus government securities plus foreign bonds. The average amounts outstanding of money stock in 2022 was 1,023 trillion yen in M1 and 1,201 trillion yen in M2.

Table 4.5

Money Stock [1] (Average amounts outstanding)

(Billion yen)

Year	M2	M3	M1	Quasi-money	CDs	L (Broadly-defined liquidity)
2018	1,002,456	1,332,502	755,601	546,672	30,229	1,773,023
2019	1,026,199	1,359,455	795,672	534,908	28,875	1,802,558
2020	1,092,626	1,432,436	882,253	521,668	28,515	1,875,969
2021	1,162,693	1,511,682	968,976	508,400	34,307	1,980,161
2022	1,201,213	1,555,818	1,023,365	496,545	35,908	2,058,403

1) "Money stock" indicates the aggregate amount of money, including currency in circulation and deposit money, held by money holders such as non-financial corporations, individuals, and local governments.

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 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; in January 2016, it decided to introduce "QQE with a Negative Interest Rate". In September 2016, it was decided to introduce "QQE with Yield Curve Control" by strengthening these two policy frameworks, in order to achieve as early as possible the "price stability target" of a 2 percent year-on-year increase in consumer prices. It was decided to continue an expansionary policy regarding the monetary base until the actual year-on-year increase in the consumer price index (excluding fresh foods) stably exceeds 2 percent.

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 deposit in the Bank of Japan. It was 680.4 trillion yen as of the end of April 2023, down 0.01 percent from the same month of the previous year.

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)]	Average contract interest rates on loans and discounts [3)]	10 years' newly issued Govt. bond yields
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
2016	0.30	-0.058	1.475	0.623	0.040
2017	0.30	-0.062	1.475	0.584	0.045
2018	0.30	-0.055	1.475	0.597	-0.005
2019	0.30	-0.068	1.475	0.602	-0.025
2020	0.30	-0.033	1.475	0.481	0.020
2021	0.30	-0.018	1.475	0.475	0.070
2022	0.30	-0.022	1.475	0.440	0.410

1) Uncollateralized overnight. 2) Principal banks. Short-term loans.
3) Outstanding loans and bills discounted. Short-term loans and discounts. Figures are those of banking accounts of domestically licensed banks (excluding several banks) that conduct transactions with the Bank of Japan.
Source: Bank of Japan.

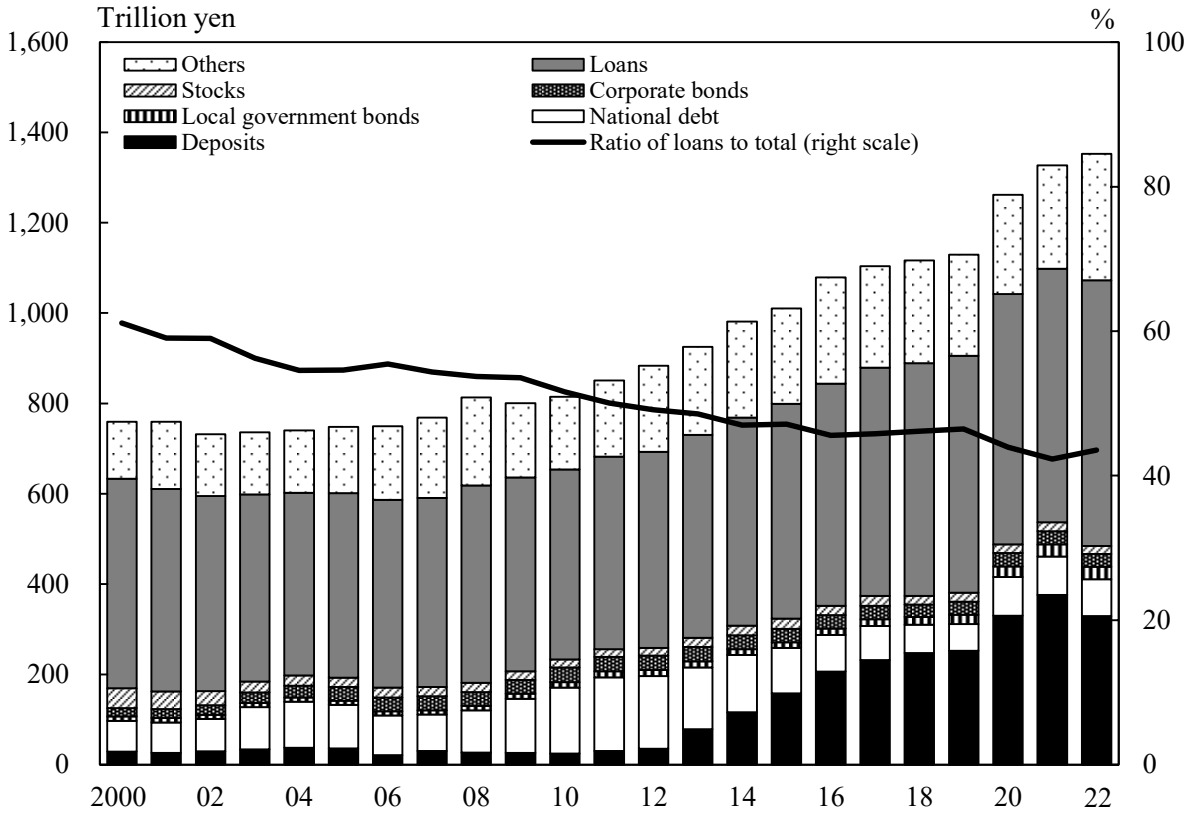
3. Financial Institutions

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.).

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. The number of regional banks and credit depositories has also declined significantly due to the progress of corporate mergers. As of the end of September 2022, in the number of offices operated domestically, including the branches of financial institutions, post offices had the largest network with 23,681 offices. Domestically licensed banks, including city banks and regional banks, had a combined total of 13,488 offices and branches.

The fundamental role of the bank sector is to adjust the surplus and deficiency of funds. The corporate sector has been in a fund surplus throughout the 2022 year, and thus the percentage of loans to bank assets has generally been on a downward trend.

Figure 4.7
Assets of Domestically Licensed Banks (Banking accounts, end of year)



Source: Bank of Japan.

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 8,977 trillion yen at the end of March 2022. Of these assets, those of the domestic nonfinancial sector were 4,112 trillion yen. Of this sector, the household sector (including the business funds of individual proprietorships) had assets of 2,004 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 and deposits.

Table 4.7
Financial Assets and Liabilities of Japan

(Billion yen)

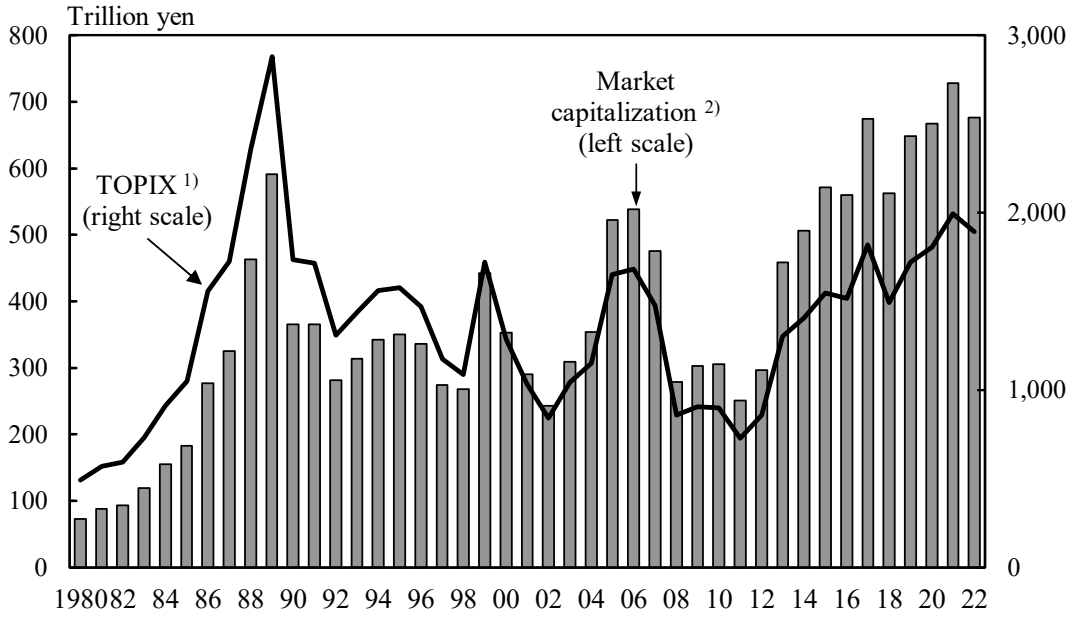
Sectors	March 2021	March 2022	Annual change (%)
Financial assets			
Domestic sectors	8,726,022	8,977,185	2.9
Financial institutions	4,738,669	4,864,840	2.7
Domestic nonfinancial sector	3,987,352	4,112,345	3.1
Nonfinancial corporations	1,263,747	1,314,573	4.0
General government	703,523	728,364	3.5
Households (incl. individual proprietorships)	1,958,522	2,004,459	2.3
Private nonprofit institutions serving households	61,561	64,949	5.5
Overseas	824,381	853,308	3.5
Financial liabilities			
Domestic sectors	8,352,537	8,552,795	2.4
Financial institutions	4,551,708	4,712,006	3.5
Domestic nonfinancial sector	3,800,829	3,840,789	1.1
Nonfinancial corporations	2,005,399	2,016,082	0.5
General government	1,400,284	1,421,460	1.5
Households (incl. individual proprietorships)	365,006	372,744	2.1
Private nonprofit institutions serving households	30,140	30,504	1.2
Overseas	1,192,773	1,271,272	6.6

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, it started to fall in 1990 ahead of land prices. The Tokyo Stock Price Index (TOPIX) rose sharply from the end of 1980 to the end of 1989, but suddenly dropped by the end of 1992. There was some subsequent rebound, but 1998 saw a further drop as a result of factors like financial worries due to the growth of non-performing assets at banks. After that, the index repeatedly fell and rose, but events such as the bankruptcy of the major American securities firm Lehman Brothers and the Great East Japan Earthquake had a major impact on corporate profits, and by the end of 2011, TOPIX had fallen to a level roughly one-fourth that at the end of 1989. Since 2012, there has been a major upturn as a result of the effects of various measures, including a comprehensive economic policy package called "Abenomics".

Figure 4.8
Stock Price Index and Market Capitalization
(Tokyo Stock Exchange, end of year)



1) A market benchmark with functionality as an investable index, covering an extensive proportion of the Japanese stock market. It is a free-float adjusted market capitalization-weighted index. It shows the measure of current market capitalization assuming that market capitalization as of the base date (January 4, 1968) is 100 points.
2) Until 2021, market capitalization indicates that of the First Section. For 2022, it indicates that of the Prime Market.
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. In April 2013, changes in policies of the Bank of Japan 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 that of the end of 2012 (10,395.18 yen) and the first significant gain in 8 years. Afterwards, the Nikkei Stock Average in April 2015 recovered to the 20,000 yen level for the first time in 15 years. The closing value at the end of 2022 was 26,094.50 yen, down 2,697.21 yen, or 9.4 percent for the year, the first decline in 4 years.

Table 4.8
Stock Prices (Tokyo Stock Exchange)

Year	Number of listed companies [1) 2)]	Market capitalization [1) 2)] (million yen)	Total trading value [2) 3)] (million yen)	TOPIX [1) 4)] Tokyo stock price index, average	Nikkei Stock Average (225 issues) [1)] (yen)
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	2,002	560,246,997	643,205,780	1,518.61	19,114.37
2017	2,062	674,199,186	683,218,254	1,817.56	22,764.94
2018	2,128	562,121,332	740,746,041	1,494.09	20,014.77
2019	2,160	648,224,522	598,213,662	1,721.36	23,656.62
2020	2,186	666,862,093	671,671,658	1,804.68	27,444.17
2021	2,182	728,424,514	765,249,832	1,992.33	28,791.71
2022	1,838	676,270,419	605,604,601	1,891.71	26,094.50

1) End of year. 2) Until 2021, they indicate that of the First Section. For 2022, they indicate that of the Prime Market. 3) The figure for 2022 excludes First Section trading value of 211,610,492 (million yen). 4) A market benchmark with functionality as an investable index, covering an extensive proportion of the Japanese stock market. It is a free-float adjusted market capitalization-weighted index. It shows the measure of current market capitalization assuming that market capitalization as of the base date (January 4, 1968) is 100 points.
Source: Tokyo Stock Exchange, Inc.; Nikkei Inc.

At the end of March 2022, 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 64.6 million. In terms of value, the ratio of stocks they possessed was 16.6 percent, down 0.2 percentage points from the previous fiscal year. The ratio of Japanese stocks held by foreign investors (non-Japanese corporations and individuals) was 30.4 percent in terms of value, up 0.2 percentage points from the previous fiscal year.

A survey conducted by the Japan Securities Dealers Association (JSDA) showed that 33.7 percent of 270 securities firms offered Internet trading at the end of September 2022. Internet trading thus accounted for 22.9 percent of the total value of stock brokerage transactions from April to September 2022.

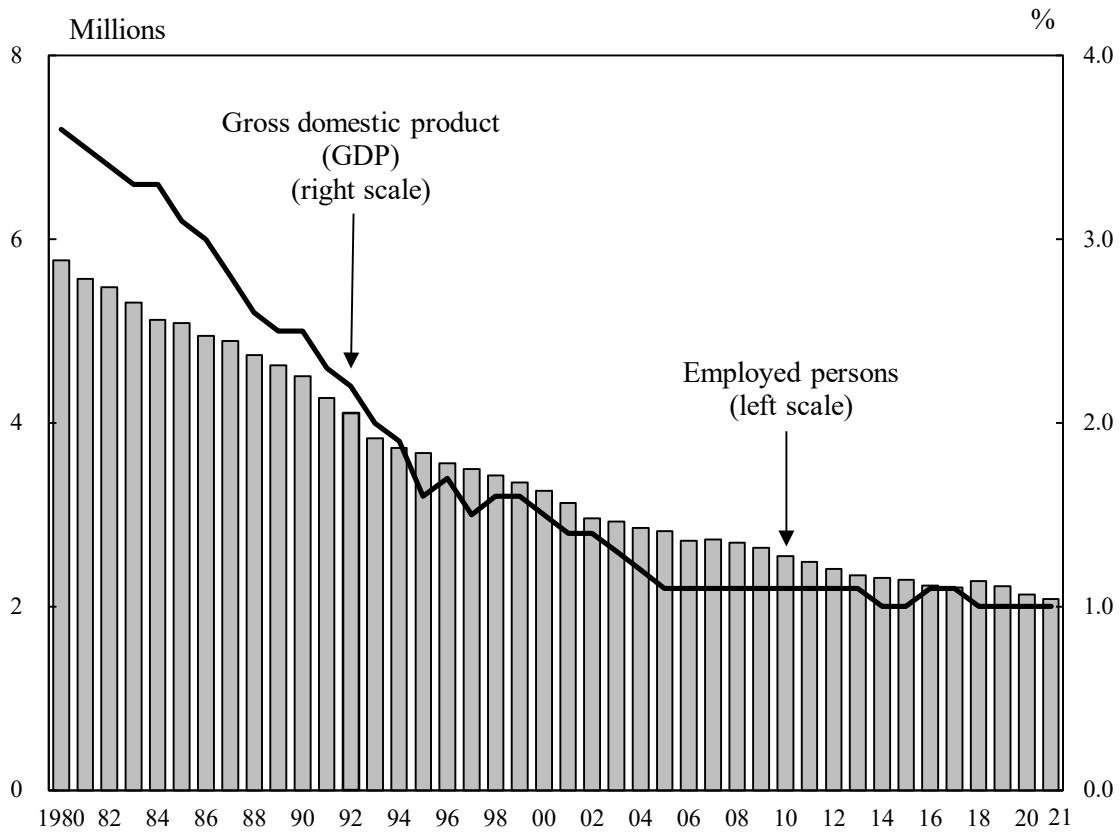
Chapter 5

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 have employed fewer and fewer workers every year, and their nominal GDP share has also dropped. The number of employed persons decreased from 5.77 million in 1980 (10.4 percent of the total employed persons) to 2.08 million in 2021 (3.1 percent), and the GDP share of the industries fell from 3.6 percent in 1980 to 1.0 percent in 2021.

Figure 5.1
Number of Employed Persons [1] **and Percentage of Gross Domestic Product** (Nominal prices) [2] **for Agriculture, Forestry, and Fisheries**



1) 1980-2001 data: The 10th revision of the Japan Standard Industrial Classification (JSIC). 2002-2021 data: The 12th and 13th revisions of JSIC. 2) 1980-1993 data: 1993 SNA, Benchmark year = 2000. 1994-2021 data: 2008 SNA, Benchmark year = 2015.
Source: Statistics Bureau, MIC; Economic and Social Research Institute, Cabinet Office.

2. Agriculture

(1) Agricultural Production

Japan's total agricultural output in 2021 was 8.84 trillion yen, down 1.1 percent from the previous year. Among this, crops yielded 5.38 trillion yen, down 4.9 percent from the previous year. Livestock yielded 3.40 trillion yen, up 5.2 percent from the previous year.

Table 5.1
Total Agricultural Output

(Billion yen)

Item	2017	2018	2019	2020	2021
Total	9,274	9,056	8,894	8,937	8,838
Crops	5,961	5,782	5,630	5,656	5,379
Rice	1,736	1,742	1,743	1,643	1,370
Vegetables	2,451	2,321	2,152	2,252	2,147
Fruits and nuts	845	841	840	874	916
Livestock and its products	3,252	3,213	3,211	3,237	3,405
Beef cattle	731	762	788	739	823
Dairy cattle	896	911	919	925	922
Pigs	649	606	606	662	636
Chickens	903	861	823	833	936

Source: Ministry of Agriculture, Forestry and Fisheries.

Table 5.2
Agricultural Harvest

(Thousand tons)

Products	2017	2018	2019	2020	2021
Cereal grains					
Rice	7,824	7,782	7,764	7,765	7,564
Wheat	907	765	1,037	949	1,097
Vegetables, sweet potatoes, and beans					
Potatoes	2,395	2,260	2,399	2,205	2,175
Sweet potatoes	807	797	749	688	672
Soybeans	253	211	218	219	247
Cucumbers	560	550	548	539	551
Tomatoes	737	724	721	706	725
Cabbages	1,428	1,467	1,472	1,434	1,485
Chinese cabbages	881	890	875	892	900
Onions	1,228	1,155	1,334	1,357	1,096
Lettuces	583	586	578	564	547
Japanese radishes	1,325	1,328	1,300	1,254	1,251
Carrots	597	575	595	586	636
Fruits					
Mandarins	741	774	747	766	749
Apples	735	756	702	763	662
Grapes	176	175	173	163	165
Japanese pears	245	232	210	171	185
Industrial crops					
Crude tea [1)]	82	86	82	70	78
Sugar beets [2)]	3,901	3,611	3,986	3,912	4,061

1) Production. 2) Area of Hokkaido prefecture.
Source: Ministry of Agriculture, Forestry and Fisheries.

(2) Agriculture Management Entity and Cultivated Land

In 2020, there were 1.076 million agriculture management entities (entities producing agricultural products, or performing contract agricultural work, where the area or number of animals involved in the production or work is as stipulated), a decrease of around 302,000 entities (21.9 percent) compared to 2015.

Among agriculture management entities, there were 1.037 million individual management entities (non-corporate family management entities), a decrease of around 303,000 entities (22.6 percent) compared to 2015. Group management entities (entities other than individual

management entities) increased by around 1,000 entities (2.8 percent) to around 38,000 entities.

Table 5.3
Number of Agriculture Management Entities

(Thousand entities)

Year	Agriculture management entities	Individual management entities	Group management entities	Corporated management entities
2010	1,679	1,644	36	22
2015	1,377	1,340	37	27
2020	1,076	1,037	38	31
Percent change (%)				
2015 / 2010	-18.0	-18.5	4.9	25.3
2020 / 2015	-21.9	-22.6	2.8	13.3

Source: Ministry of Agriculture, Forestry and Fisheries.

Average agriculture gross income for all farming types and all agriculture management entities (individual management entities and corporated management entities) in 2021 was 10.77 million yen, an increase of 8.5 percent compared to the previous year. On the other hand, agriculture expenditures increased 9.5 percent compared to the previous year to 9.52 million yen. As a result, agriculture income increased by 1.5 percent compared to the previous year to 1.25 million yen.

Japan's cultivated acreage shrank year after year from 6.09 million hectares in 1961 to 4.33 million hectares in 2022. After 1989, the cultivated acreage has continued to decrease due to diversion into residential land, ruined land continuously resulting from devastated land, etc.

3. Forestry

As of 2017, Japan's forest land area is 25.05 million hectares (approximately 70 percent of the entire surface area of the country). Among Japan's forests, natural forests account for 13.48 million hectares, while planted forests make up 10.20 million hectares.

Japan's forest growing stock is 5,242 million cubic meters as of 2017, 3,308 million cubic meters of which are from planted forests. The stock rose mainly with the increase of that from planted forests on deforested sites right after World War II and during the period of rapid economic growth. Such forests are in a period of full-scale use as resources. Use of lumber also contributes to the sustained manifestation of the diverse functions of forests, such as mitigation of global warming, and revitalization of regional economies. In recent years, efforts have been made to use lumber in diverse ways beyond the housing field, such as for structures and interiors/exteriors in the non-housing field, including both public and private sector buildings, and as woody biomass for energy.

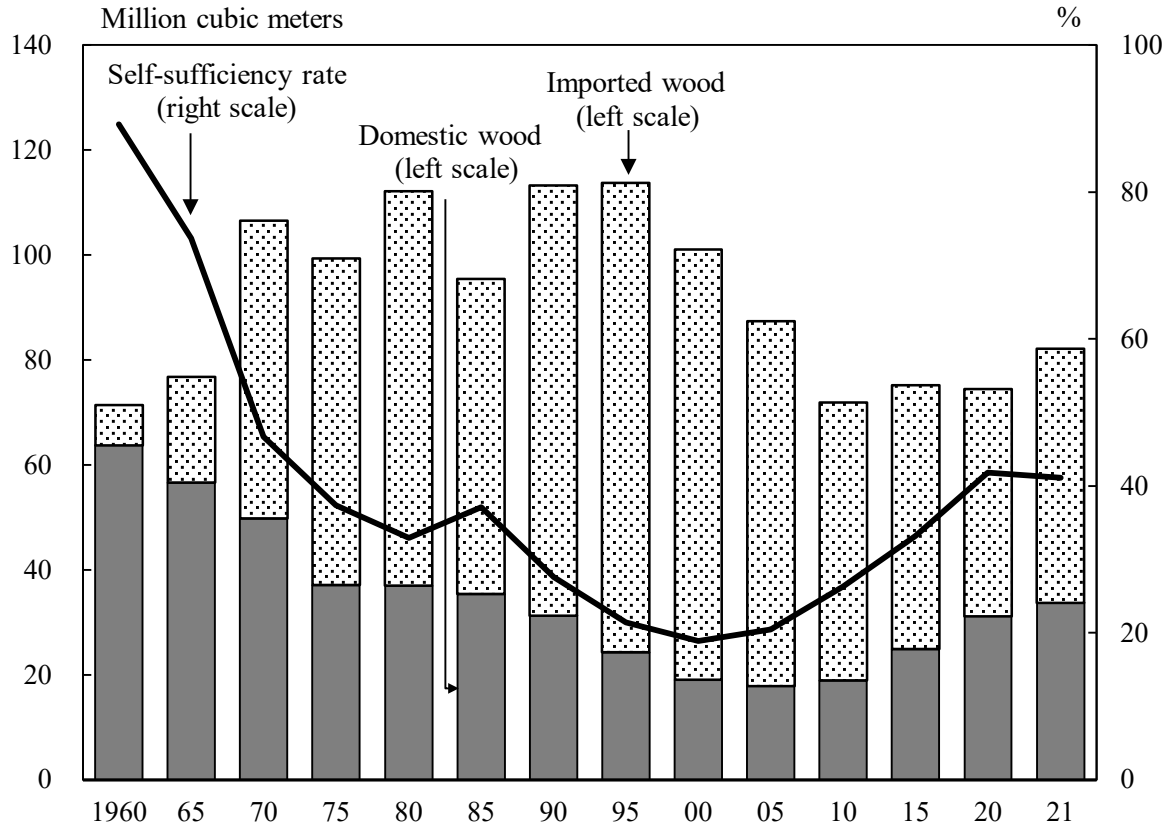
Table 5.4
Forest Land Area and Forest Resources (2017)

Item	Total	National forest	Non-national forest		
			Public	Private	Others
Forest land area (1,000 ha)	25,048	7,659	2,995	14,347	48
Forest growing stock (million m^3) ..	5,242	1,226	616	3,394	6
Planted forest					
Land area (1,000 ha)	10,204	2,288	1,334	6,569	13
Growing stock (million m^3)	3,308	513	397	2,396	3
Natural forest					
Land area (1,000 ha)	13,481	4,733	1,531	7,188	28
Growing stock (million m^3)	1,932	712	218	999	3

Source: Ministry of Agriculture, Forestry and Fisheries.

After reaching a low of 16.9 million cubic meters in 2002, domestic wood supply is on a rising trend, against the background of an enrichment of forest resources, increase in the use of domestic timber such as Japanese cedar for plywood material, increase in use of fuel timber in wood biomass power generation facilities, etc.

Figure 5.2
Wood Supply and Self-Sufficiency Rate [1)]



1) Wood supply refers to the sum of wood for industrial use, fuel wood and wood for mushroom production converted into a log equivalent.
Source: Ministry of Agriculture, Forestry and Fisheries.

Securing a forestry labor force will be vital not only for forestry, but also for creating employment based on local resources, and revitalizing mountain villages by promoting permanent residence. The number of workers engaged in forestry occupations such as stand tending and tree felling is in a declining trend over the long term, and decreased by around 7,000 workers from around 52,000 in 2005 to around 45,000 in 2015.

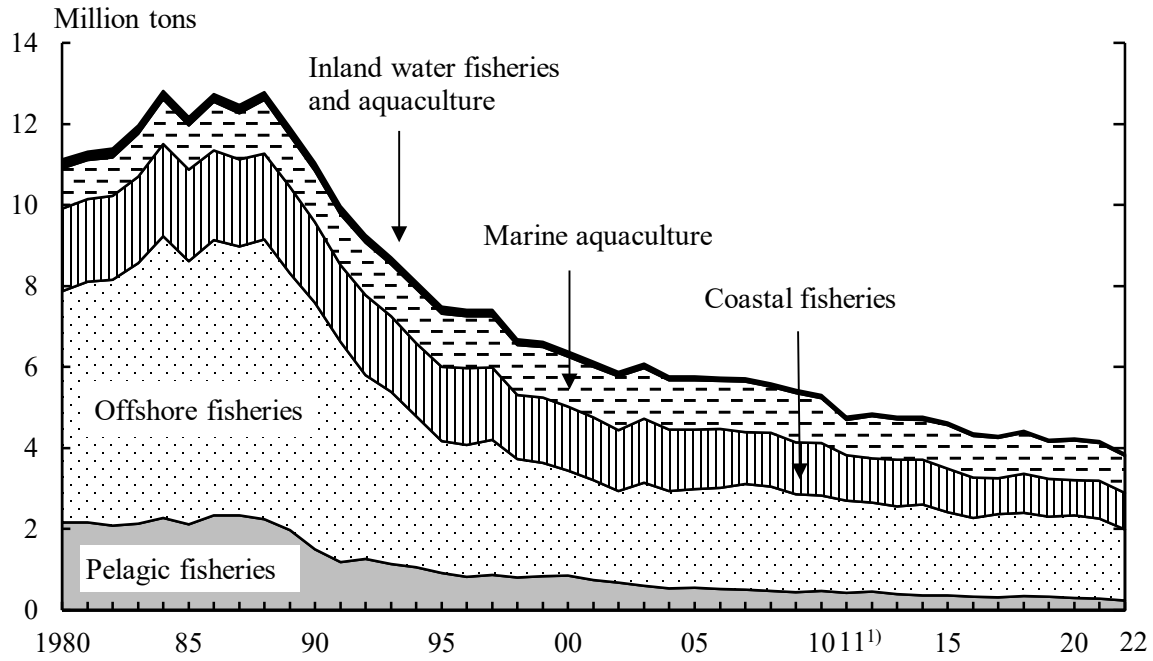
4. Fisheries

(1) Fishery Production

Japan is facing a problem in that its fishery production is in a declining trend over the long term. This is likely due to a variety of factors, such as changes in the marine environment and more intensive operations by foreign fishing boats in waters surrounding Japan. There are thought to be many fishery resources whose decline could have been prevented or mitigated with more appropriate resource management.

After peaking in 1984, Japan's fishery output decreased rapidly until around 1995, and has continued to decrease gradually afterwards. Its 2022 fishery production totaled 3.86 million tons.

Figure 5.3
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 5.5

Production by Fishery Type and Major Kinds of Fish

(Thousand tons)

Fishery type and species	2018	2019	2020	2021	2022*
Total	4,427	4,204	4,236	4,172	3,859
Marine fishery	3,366	3,235	3,215	3,194	2,894
Tunas	165	161	177	149	109
Skipjack, Frigate mackerel	260	237	196	252	182
Sardine	524	561	698	640	613
Mackerels	545	452	390	442	316
Shellfishes	350	386	382	389	373
Crabs	24	23	21	21	20
Squids	84	73	82	64	58
Marine aquaculture	1,005	915	970	927	911
Yellowtails	138	136	138	134	114
Oysters	177	162	159	159	165
Laver ("nori")	284	251	289	237	232
Seaweed ("wakame")	51	45	54	44	47
Pearl (tons)	21	19	16	13	13
Inland water fishery	27	#22	22	19	23
Salmons, trouts	8	#7	7	5	10
Sweet fish	2	#2	2	2	2
Shellfishes	13	#10	9	9	8
Inland water aquaculture	30	31	29	33	31
Eel	15	17	17	21	19
Trouts	7	7	6	6	6
Sweet fish	4	4	4	4	4

Source: Ministry of Agriculture, Forestry and Fisheries.

(2) Fishery Workers

The number of fishery workers (those aged 15 years old and over who have worked at sea for 30 days or more in the past year) continues to decline. In 2021, the number of such workers was 129,320 workers, down 4.7 percent.

Table 5.6
Enterprises and Workers Engaged in the Marine Fishery/ Aquaculture Industry

Year	Enterprises			Workers		
	Total	Individual households	Corporate entities	Total	Self-employed	Hired
2005	126,020	118,930	7,090	222,170	…	…
2010	103,740	98,300	5,440	202,880	128,270	74,610
2015	85,210	80,570	4,640	166,610	100,520	66,100
2020	69,560	65,310	4,250	135,660	75,810	59,850
2021	64,900	60,790	4,110	129,320	71,830	57,500

Source: Ministry of Agriculture, Forestry and Fisheries.

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

5. Self-Sufficiency in Food

Japan's food self-sufficiency ratio in terms of calories has shown a downward trend over the long term. It fell to 40 percent in fiscal 1998, and has fluctuated roughly around that level since. It was 38 percent in fiscal 2021. The major reasons behind the low food self-sufficiency ratio are a decline in consumption of rice, for which demand can be met with domestic production, a decline in calories supplied by domestic rice, and a decline in calories supplied through domestic production of other items such as marine products.

In fiscal 2021, the self-sufficiency ratio per item (on weight basis) was 98 percent for rice, 17 percent for wheat, 8 percent for beans, 79 percent for vegetables, 39 percent for fruits, 53 percent for meat, and 57 percent for seafood. While almost completely self-sufficient in rice, the staple food of its people, Japan rely almost entirely on imports for the supply of wheat and beans.

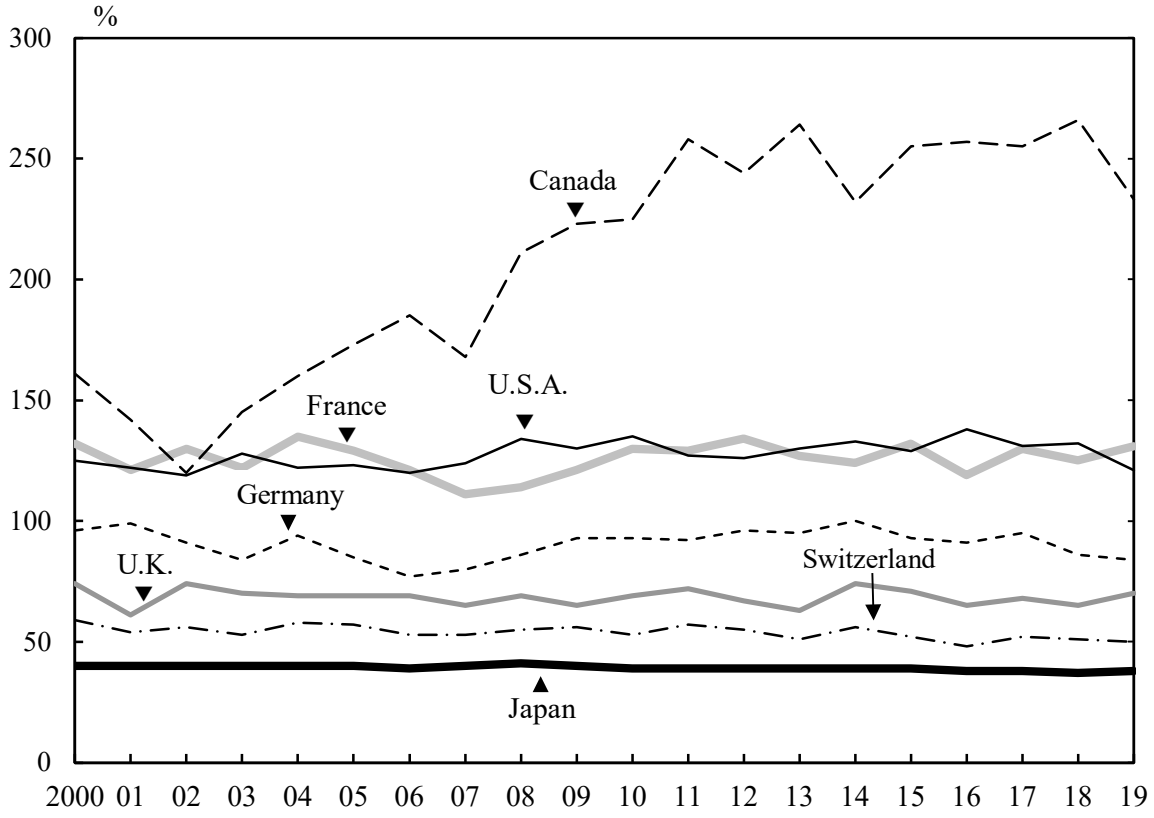
Table 5.7
Domestic Production, Supplies for Domestic Consumption, Food Self-Sufficiency Ratio, and Imports

Fiscal year	Domestic production (1,000 t)	Supplies for domestic consumption (1,000 t)	Food self-sufficiency Ratio (%)	Imports (1,000 t)
Rice				
2005	8,998	9,222	95	978
2010	8,554	9,018	97	831
2015	8,429	8,600	98	834
2020	8,145	7,855	97	814
2021*	8,226	8,195	98	878
Wheat				
2005	875	6,213	14	5,292
2010	571	6,384	9	5,473
2015	1,004	6,583	15	5,660
2020	949	6,412	15	5,521
2021*	1,097	6,421	17	5,375
Beans				
2005	352	4,790	7	4,482
2010	317	4,035	8	3,748
2015	346	3,789	9	3,511
2020	290	3,843	8	3,411
2021*	312	3,897	8	3,464
Vegetables				
2005	12,492	15,849	79	3,367
2010	11,730	14,508	81	2,783
2015	11,856	14,776	80	2,941
2020	11,440	14,367	80	2,987
2021*	11,015	13,887	79	2,895
Fruits				
2005	3,703	9,036	41	5,437
2010	2,960	7,719	38	4,756
2015	2,969	7,263	41	4,351
2020	2,674	7,104	38	4,504
2021*	2,599	6,660	39	4,157
Meat				
2005	3,045	5,649	54	2,703
2010	3,215	5,769	56	2,588
2015	3,268	6,035	54	2,769
2020	3,449	6,531	53	3,037
2021*	3,484	6,594	53	3,138
Seafood				
2005	5,152	10,201	51	5,782
2010	4,782	8,701	55	4,841
2015	4,194	7,663	55	4,263
2020	3,772	6,838	55	3,885
2021*	3,770	6,641	57	3,650

Source: Ministry of Agriculture, Forestry and Fisheries.

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

Figure 5.4
Trends in Food Self-Sufficiency Ratio of Major Countries 1)
(On calorie supply basis)



1) Estimates except for Japan.
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 years past, Japan's manufacturing industry has faced a variety of unforeseeable circumstances and drastic changes in the business environment. These include the Nixon Shock and two oil crises in the 1970s, the strong yen recession following the Plaza Accord in the 1980s, the bursting of the bubble economy and the Asian currency crisis in the 1990s, and the bankruptcy of the major American securities firm Lehman Brothers, the European debt crisis, and the Great East Japan Earthquake in the 21st century. Since 2020, the environment surrounding the manufacturing industry has continued to change due to factors such as the COVID-19 pandemic, increased risk of supply chain breakdowns brought on by instability in the international situation due to events like Russia's invasion of Ukraine, and the rising global trend toward decarbonization. Business models themselves have also changed in the manufacturing industry due to increasing utilization of digital technology and data at manufacturing sites, and there are still many issues that must be addressed for the Japanese manufacturing industry to maintain and strengthen its competitiveness.

In 2021, there were 176,858 establishments (with 4 or more persons engaged) in the manufacturing sector. By industry, "fabricated metal products" had the most, with 24,094 establishments (component ratio of 13.6 percent), followed by "food" with 21,624 establishments (12.2 percent) and "production machinery" with 18,138 establishments (10.3 percent).

In 2021, there were 7.47 million persons engaged, and by industry, "food" had the most, with 1.09 million persons engaged (component ratio of 14.7 percent), followed by "transportation equipment" with 1.02 million persons engaged (13.6 percent) and "production machinery" with 0.61 million persons engaged (8.1 percent).

The value of manufactured goods shipments in 2020 was 302.00 trillion yen, and by industry, "transportation equipment" had the most at 60.18 trillion yen (component ratio of 19.9 percent), followed by "food" at 29.61 trillion yen (9.8 percent) and "chemical and allied products" at 28.60

trillion yen (9.5 percent).

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

Industries	Number of establish-ments (2021)	Number of persons engaged (2021)	Value of manu-factured goods shipments (2020) (billion yen)
Manufacturing	176,858	7,465,556	302,003
Food	21,624	1,094,454	29,606
Beverages, tobacco and feed	4,093	102,880	9,276
Textile products	9,448	219,843	3,452
Lumber and wood products [2)]	4,546	86,067	2,738
Furniture and fixtures	4,241	86,078	2,000
Pulp, paper and paper products	5,043	179,189	7,096
Printing and allied industries	9,306	235,105	4,576
Chemical and allied products	4,978	377,971	28,603
Petroleum and coal products	979	28,027	11,114
Plastic products [3)]	11,680	440,660	12,574
Rubber products	2,009	111,724	2,982
Leather tanning, leather products and fur skins	863	16,903	264
Ceramic, stone and clay products	9,058	232,706	7,558
Iron and steel	4,213	218,553	15,072
Non-ferrous metals and products	2,533	141,077	9,424
Fabricated metal products	24,094	582,642	15,020
General-purpose machinery	6,555	318,401	11,424
Production machinery	18,138	606,843	19,554
Business oriented machinery	3,786	209,694	6,387
Electronic parts, devices and electronic circuits	3,841	412,146	14,593
Electrical machinery, equipment and supplies	8,191	480,830	17,819
Information and communication electronics equipment	1,135	112,986	6,417
Transportation equipment	9,718	1,017,610	60,178
Miscellaneous manufacturing industries	6,786	153,167	4,276

1) Establishments with 4 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: Statistics Bureau, MIC; Ministry of Economy, Trade and Industry.

With regard to the "Indices on Mining and Manufacturing" (2015 average=100), the production index for 2022 was 95.6, down 0.1 percent from the previous year, while shipments stood at 93.4, a decrease of 0.3 percent from the year before.

Table 6.2

Indices on Mining and Manufacturing (2022)

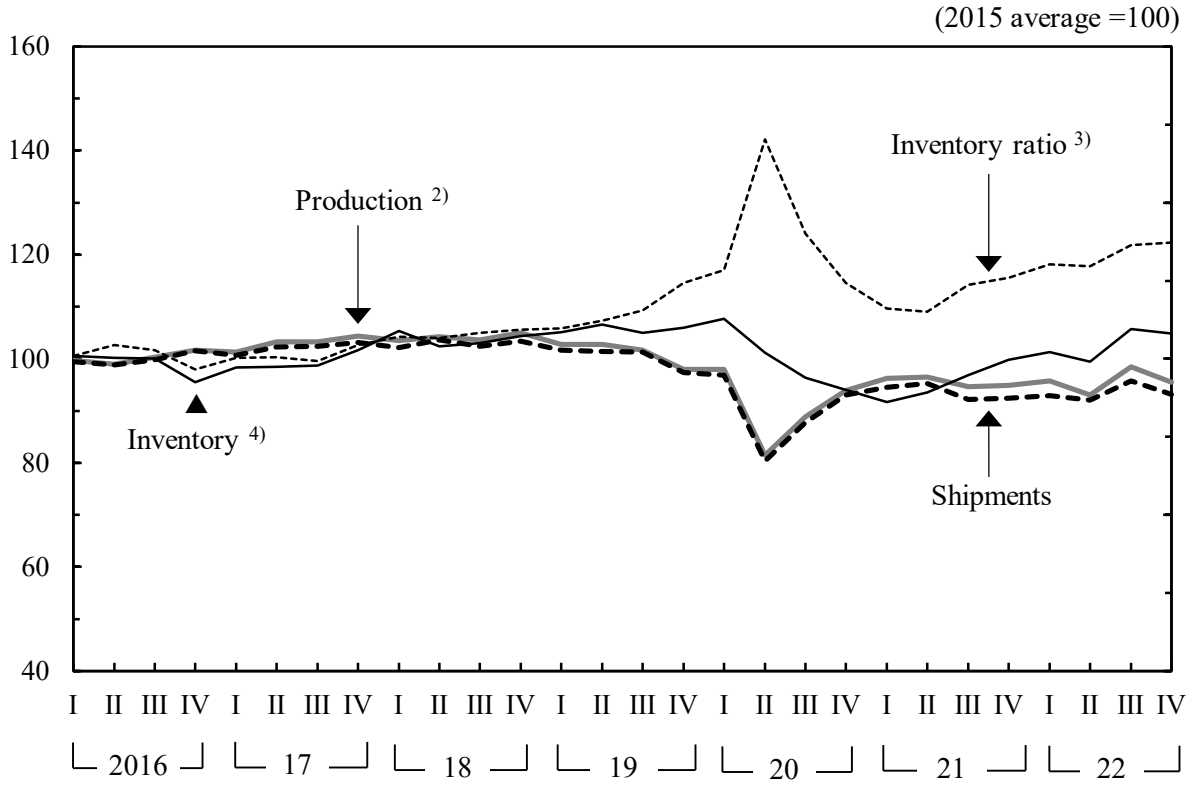
(2015 average =100)

Industries	Production [1]		Shipments		Inventory [2]		Inventory Ratio [3]	
		Annual growth (%)		Annual growth (%)		Annual growth (%)		Annual growth (%)
Mining and manufacturing	95.6	-0.1	93.4	-0.3	101.0	3.3	120.2	7.1
Manufacturing	95.7	0.0	93.4	-0.3	101.0	3.3	120.1	7.0
Iron, steel and non-ferrous metals	89.6	-4.8	90.2	-4.0	102.4	-1.7	121.2	12.5
Iron and steel	86.5	-6.7	86.5	-6.0	99.0	-4.7	123.8	12.9
Fabricated metals	89.2	-0.9	88.8	-1.2	100.0	16.0	114.7	9.1
Production machinery	125.8	8.5	127.5	9.2	85.6	-2.3	92.2	-4.1
General-purpose and business oriented machinery	103.1	3.3	101.2	3.1	138.8	9.5	161.2	11.4
General-purpose machinery	103.5	2.8	104.8	2.4	125.7	1.9	120.8	9.0
Electronic parts and devices	107.4	-2.7	105.0	2.1	80.9	12.0	90.9	28.9
Electrical machinery, and information and communication electronics equipment	93.0	-1.3	92.5	-3.3	114.1	19.4	148.1	19.0
Electrical machinery	101.6	1.3	100.3	-0.3	124.7	18.2	146.6	15.9
Information and communication electronics equipment	72.0	-9.0	73.1	-12.1	75.2	27.9	152.8	29.3
Transport equipment	85.1	-0.8	85.3	-1.3	83.5	3.9	104.4	8.5
Ceramics, stone and clay products	88.1	-5.4	89.0	-5.1	100.2	3.8	123.3	9.4
Chemicals	101.1	1.4	96.1	-2.1	113.8	6.3	123.0	10.2
Petroleum and coal products	84.1	6.9	82.7	3.8	92.0	1.3	107.9	-7.2
Plastic products	98.6	-2.0	97.9	-2.8	120.9	9.2	122.6	12.1
Pulp, paper and paper products	90.5	-1.0	88.3	-0.3	89.8	-5.0	112.3	-2.7
Foods and tobacco	95.7	-1.2	93.5	-0.8	82.7	-13.9	135.6	-6.1
Other manufacturing	84.6	-0.9	84.4	-1.2	97.6	0.8	111.1	0.9
Mining	82.9	-4.3	93.4	-2.7	106.5	1.0	124.1	-1.1
(Reference) Electricity, gas, heat supply and water	100.5	1.9	100.7	1.9	-	-	-	-

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) Inventory ratio = Inventory quantity / Shipments quantity. 4) End of the quarter.
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 "2021 Economic Census for Business Activity (with 4 or more persons engaged)", and (b) is described by the "Indices on Mining and Manufacturing" (2015 average = 100).

(1) Machinery Industry

(A) Transport Equipment Industry

(a) In 2021, a total of 9,718 establishments employed 1,017,610 persons, and shipped 60.2 trillion yen worth of products in 2020.

(b) In 2022, production and shipments decreased by 0.8 percent and 1.3

percent, respectively, from the previous year, representing their fourth consecutive year of decrease. These decreases (in both production and shipments) were due to a decrease in "passenger cars", "car body and automobile parts", etc.

(B) Production Machinery Industry

(a) In 2021, a total of 18,138 establishments employed 606,843 persons, and shipped 19.6 trillion yen worth of products in 2020.

(b) In 2022, production and shipments increased by 8.5 percent and 9.2 percent, respectively, from the previous year, representing their second consecutive year of increase. These increases (in both production and shipments) were due to an increase in "semiconductor and flat-panel display", "construction and mining machinery", etc.

(C) Electrical Machinery Industry

(a) In 2021, a total of 8,191 establishments employed 480,830 persons, and shipped 17.8 trillion yen worth of products in 2020.

(b) In 2022, production increased by 1.3 percent and shipments decreased by 0.3 percent from the previous year. This marked the second consecutive year of increase in production, and the first decrease in 2 years in shipments. The increase in production was due to an increase in "electrical rotating machinery", "air conditioning and housing related equipment", etc. The decrease in shipments was due to a decrease in "batteries", "wiring instruments, electric lamps and lighting fixtures", etc.

(D) Electronic Parts and Devices Industry

(a) In 2021, a total of 3,841 establishments employed 412,146 persons, and shipped 14.6 trillion yen worth of products in 2020.

(b) In 2022, production decreased by 2.7 percent and shipments increased by 2.1 percent from the previous year. This marked the first decrease in 2 years in production and the second consecutive year of increase in shipments. The decrease in production was due to a decrease in "electronic

devices" and "electronic parts". The increase in shipments was due to an increase in "integrated circuits", "electronic circuit", etc.

(E) General-Purpose Machinery Industry

(a) In 2021, a total of 6,555 establishments employed 318,401 persons, and shipped 11.4 trillion yen worth of products in 2020.

(b) In 2022, production and shipments increased by 2.8 percent and 2.4 percent, respectively, from the previous year, representing their second consecutive years of increase. These increases (in both production and shipments) were due to an increase in "pumps and compressors", "boilers and power units", etc.

(F) Information and Communication Electronics Equipment Industry

(a) In 2021, a total of 1,135 establishments employed 112,986 persons, and shipped 6.4 trillion yen worth of products in 2020.

(b) In 2022, production and shipments decreased by 9.0 percent and 12.1 percent, respectively, from the previous year, representing their first decrease in 2 years. These decreases (in both production and shipments) were due to a decrease in "consumer electronics", "radio communication equipment", etc.

(2) Chemical Industry

(a) In 2021, a total of 4,978 establishments employed 377,971 persons, and shipped 28.6 trillion yen worth of products in 2020.

(b) In 2022, production increased by 1.4 percent and shipments decreased by 2.1 percent from the previous year. This marked the second consecutive year of increase in production, and the first decrease in 2 years in shipments. The increase in production was due to an increase in "cosmetics" and "detergents and surfactants". The decrease in shipments was due to a decrease in "plastic", "petrochemical base products", etc.

(3) Iron and Steel Industry

(a) In 2021, a total of 4,213 establishments employed 218,553 persons, and shipped 15.1 trillion yen worth of products in 2020.

(b) In 2022, production and shipments decreased by 6.7 percent and 6.0 percent, respectively, from the previous year, representing their first decrease in 2 years. The decrease in production was due to a decrease in "hot rolled steel", "iron and steel crude products", etc. The decrease in shipments was due to a decrease in "hot rolled steel", "cold finished steel", etc.

(4) Fabricated Metals Industry

(a) In 2021, a total of 24,094 establishments employed 582,642 persons, and shipped 15.0 trillion yen worth of products in 2020.

(b) In 2022, production and shipments decreased by 0.9 percent and 1.2 percent, respectively, from the previous year, representing their first decrease in 2 years. These decreases (in both production and shipments) were due to a decrease in "cans", "metal products of building", etc.

3. Construction

The construction industry is indispensable in supporting the development of social capital, and fulfills a large role in building a vibrant future for Japan, such as through urban regeneration and regional revitalization. It also plays an extremely important role as a "local guardian" in disaster recovery, disaster prevention/reduction, deterioration countermeasures, etc.

Construction investments at nominal prices was on a declining trend after reaching a peak of 84 trillion yen in fiscal 1992, and fell to about half of this peak (42 trillion yen) in fiscal 2010. Since then, they have been on a recovery trend due to such factors as the recovery from the Great East Japan Earthquake.

Construction investments in fiscal 2021 amounted to 66.6 trillion yen at nominal prices, up 1.9 percent compared to the previous fiscal year; they totaled 58.9 trillion yen at constant fiscal 2015 prices, down 2.7 percent from the previous fiscal year.

A breakdown of construction investment (nominal prices) shows that building construction totaled 42.6 trillion yen (up 5.1 percent from the previous fiscal year), while civil engineering works amounted to 24.0 trillion yen (down 3.3 percent).

In terms of public and private construction investment (nominal prices) in fiscal 2021, public investment amounted to 23.4 trillion yen (down 4.3 percent from the previous fiscal year), while private investment totaled 43.2 trillion yen (up 5.6 percent). Public investment accounted for 35.1 percent of total construction investment, while private investment accounted for 64.9 percent.

Table 6.3
Construction Investment (Nominal prices)

(Billion yen)

Item	FY2018	FY2019	FY2020*	FY2021*
Total	61,827	62,328	65,360	66,600
Building construction	40,486	40,182	40,530	42,580
Dwellings	17,258	16,748	15,680	16,470
Public sector	521	436	420	360
Private sector	16,737	16,312	15,260	16,110
Non-dwellings	15,399	15,538	14,530	14,820
Public sector	3,878	3,908	4,030	4,000
Private sector	11,522	11,631	10,500	10,820
Extension and renovation	7,828	7,896	10,320	11,290
Public sector	1,305	1,406	1,920	1,930
Private sector	6,523	6,489	8,400	9,360
Civil engineering works	21,342	22,146	24,830	24,020
Public sector	15,887	16,730	18,060	17,100
Private sector	5,455	5,416	6,770	6,920
Total				
Public investment	21,591	22,480	24,430	23,390
Private investment	40,236	39,848	40,930	43,210
Building construction				
Public investment	5,704	5,750	6,370	6,290
Private investment	34,782	34,432	34,160	36,290
Civil engineering works				
Public investment	15,887	16,730	18,060	17,100
Private investment	5,455	5,416	6,770	6,920

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

In 2022, the number of new construction starts for dwellings (in the case of apartment buildings, the number of apartment units) increased 0.4 percent from the previous year to 0.86 million units, representing an increase for the second consecutive year. In terms of owner-occupant relations, the number of occupier-owned housing units decreased, but this was due to increases in the number of housing units for rent and the number of housing units built for sale.

The floor space (public and private) of the entire building whose construction started in 2022 was 119.47 million square meters, down 2.3 percent compared to the previous year.

Table 6.4
Building Construction Started by Types of Investor, Dwellings and Industries, and Structure

Types	Floor space (1,000 m^2)		Construction cost (billion yen)	
	2021	2022	2021	2022
Total	122,239	119,466	26,261	26,747
Investor				
Public	5,372	4,204	1,762	1,435
Private	116,866	115,263	24,499	25,312
Dwellings and Industries				
Dwelling	73,779	72,263	14,954	15,326
Non-dwelling	48,460	47,203	11,306	11,421
Structure				
Wooden	53,100	49,537	9,148	8,729
Non-wooden	69,138	69,930	17,112	18,018

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

Chapter 7

Energy

1. Supply and Demand

Japan is dependent on imports for 86.7 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 40.3 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, increased to 44.5 percent in fiscal 2012. However, it is once again on a declining trend as the switch to LNG power and renewable energy progresses.

In fiscal 2021, the domestic supply of primary energy in Japan was 18,670 petajoules, up 4.1 percent from the previous fiscal year. Its breakdown was: 36.0 percent in petroleum, 25.8 percent in coal, 21.4 percent in natural gas and city gas, 3.6 percent in hydro power, and 3.2 percent in nuclear power. Other sources were also used, including energy from waste, geothermal, and natural energy (photovoltaic, wind power, biomass energy, etc.).

Energy units

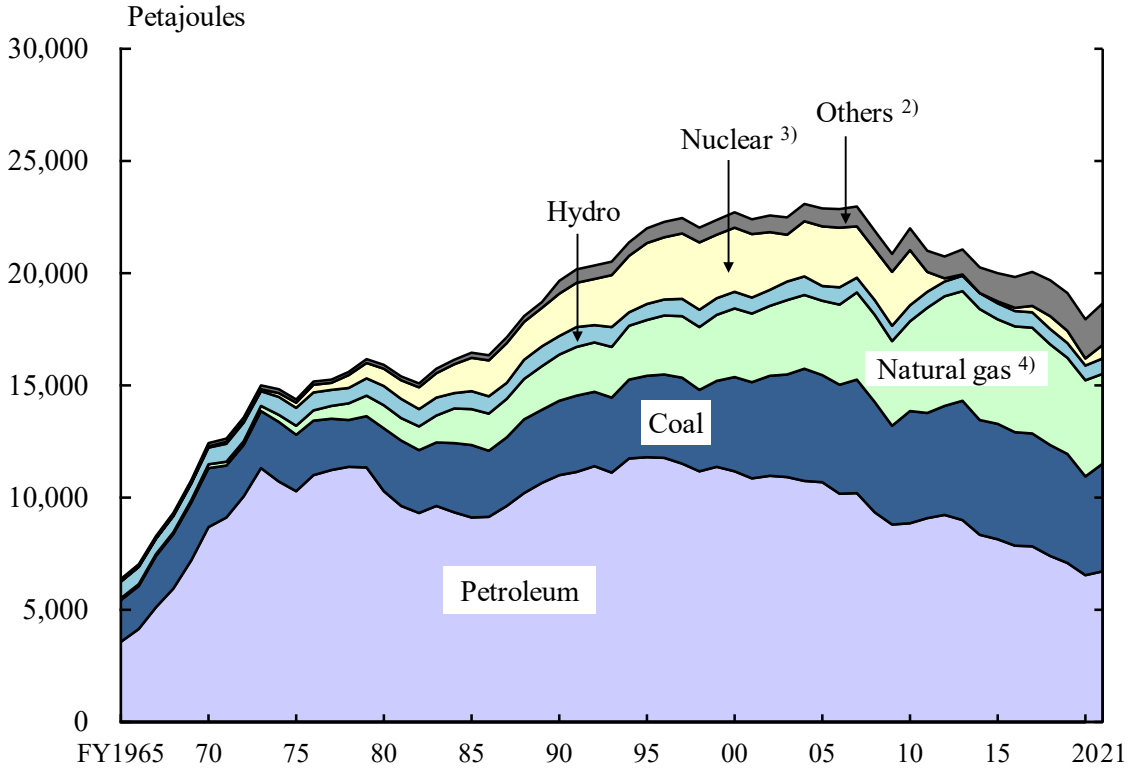
Joule (J) is employed as a common unit (International System of Units: SI) for energy across all energy sources in presenting international statistical information. The unit Petajoule (PJ: 10^{15} or quadrillion joules), etc. is used here to reduce the number of digits. The energy of one kiloliter of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

1 kiloliter of petroleum = 3.87×10^{10} joules
1 gigajoule = 10^{9} joules
1 petajoule = 10^{15} joules
1 exajoule = 10^{18} joules

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

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
Domestic Supply of Primary Energy by Energy Source [1)]



1) A different statistical method was used for the figures since FY1990. 2) Photovoltaic, wind power, geothermal energy, etc. 3) In fiscal 2014, the domestic supply of nuclear energy was zero due to the suspended operation of all nuclear power plants in Japan. 4) Natural gas and city gas.
Source: Agency for Natural Resources and Energy.

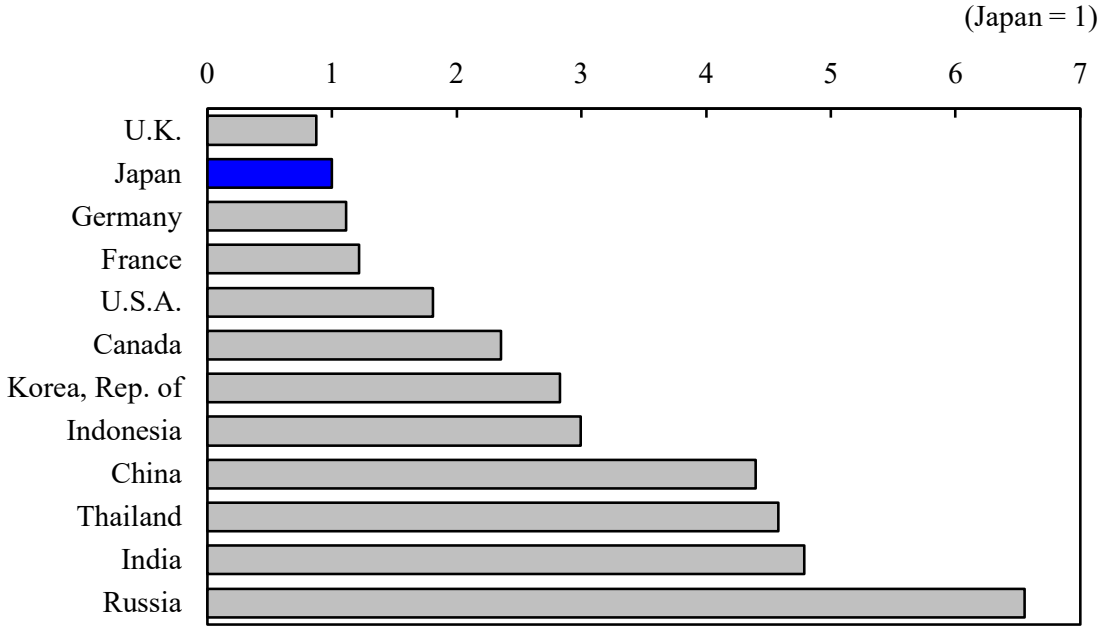
Table 7.1
Trends in Domestic Supply of Primary Energy and Percentage by Energy Source

(Petajoules)

Item	FY2005	FY2010	FY2015	FY2020	FY2021
Domestic supply of primary energy ..	22,905	21,995	20,016	17,942	18,670
Energy self-sufficiency (%) [1]	19.6	20.2	7.3	11.3	13.3
Petroleum	10,691	8,858	8,138	6,532	6,720
Coal	4,782	4,997	5,154	4,419	4,808
Natural gas and city gas	3,291	3,995	4,657	4,272	3,998
Hydro	671	716	726	663	673
Nuclear	2,660	2,462	79	326	605
Others [2]	809	966	1,262	1,729	1,866
Percentage					
Petroleum	46.7	40.3	40.7	36.4	36.0
Coal	20.9	22.7	25.8	24.6	25.8
Natural gas and city gas	14.4	18.2	23.3	23.8	21.4
Hydro	2.9	3.3	3.6	3.7	3.6
Nuclear	11.6	11.2	0.4	1.8	3.2
Others [2]	3.5	4.4	6.3	9.6	10.0

1) Domestic production of primary energy (including nuclear) / Domestic supply of primary energy × 100. 2) Photovoltaic, wind power, geothermal energy, etc.
Source: Agency for Natural Resources and Energy.

Figure 7.2
International Comparison of Energy Consumption/GDP [1] (2019)

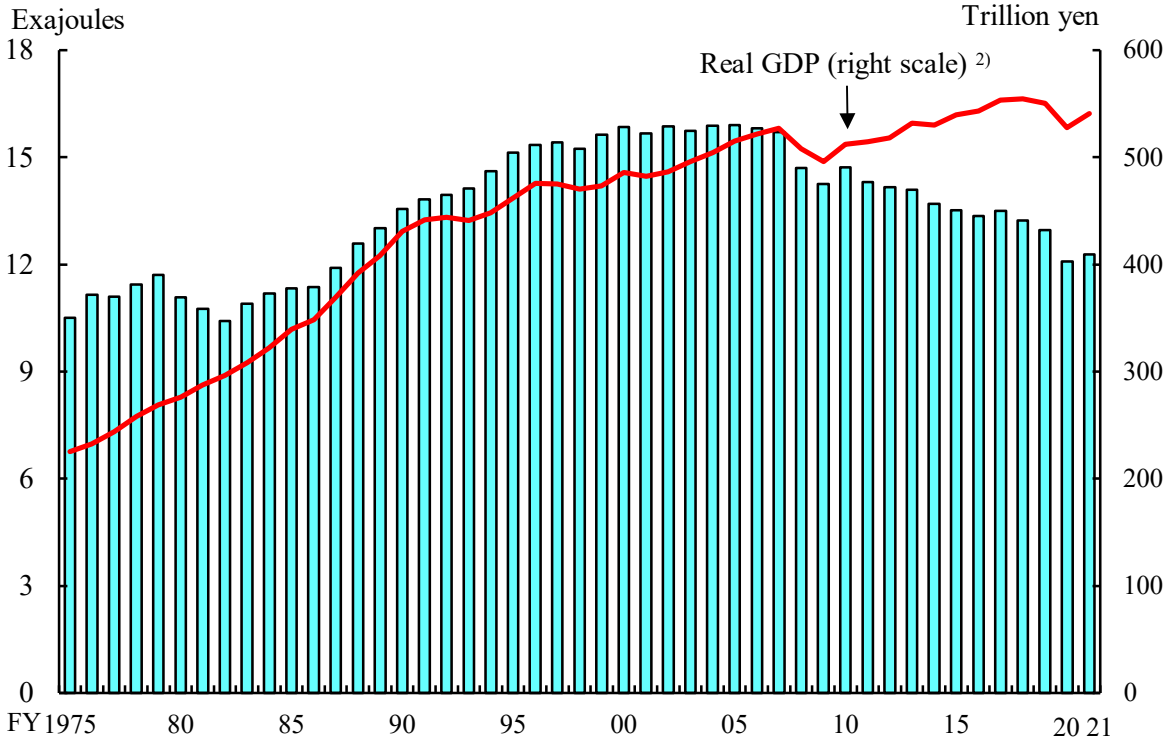


1) Primary energy consumption (tons of oil equivalent) / Real GDP (2010 U.S. dollars).
Source: Agency for Natural Resources and Energy.

Energy consumption 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.

Energy consumption in Japan was suppressed due to greater energy conservation brought on by two oil shocks in the 1970s. After that, consumption increased until the 1990s due to a decrease in crude oil prices. However, in the 2000s, as crude oil prices rose again, final energy consumption peaked in fiscal 2005, and then started decreasing. In fiscal 2021, real GDP increased by 2.6 percent while final energy consumption only increased by 1.6 percent, compared to the previous fiscal year.

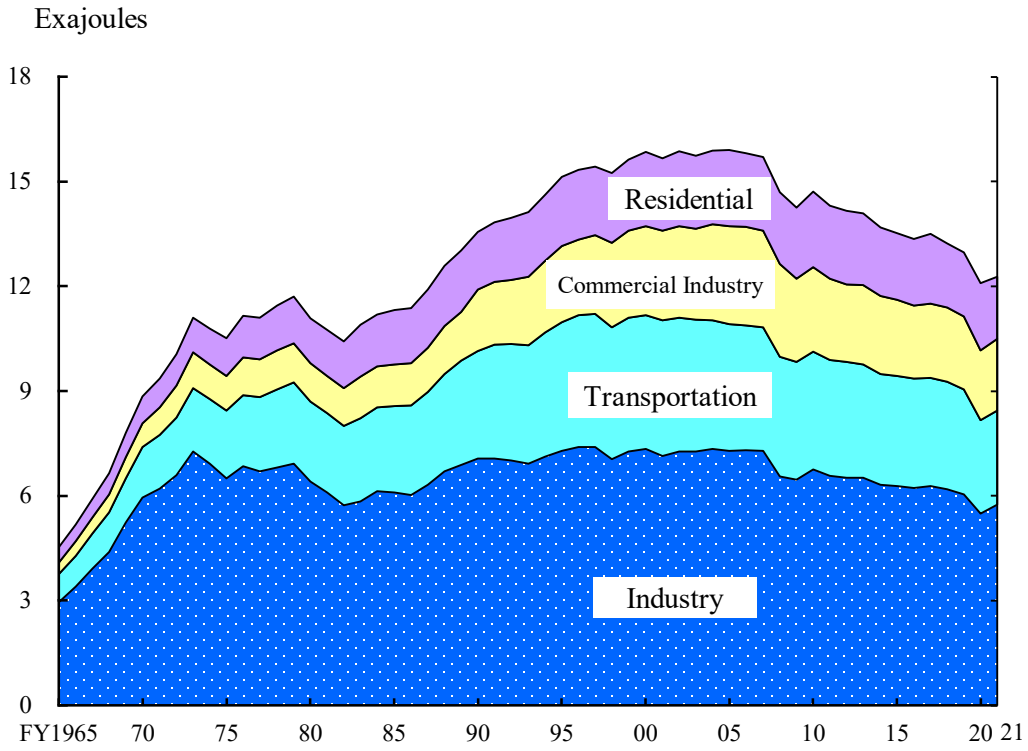
Figure 7.3
Trends in Final Energy Consumption and Real GDP [1)]



1) A different statistical method was used for the figures since FY1990. 2) Figures are based on 2015 standards.
Source: Cabinet Office; Agency for Natural Resources and Energy.

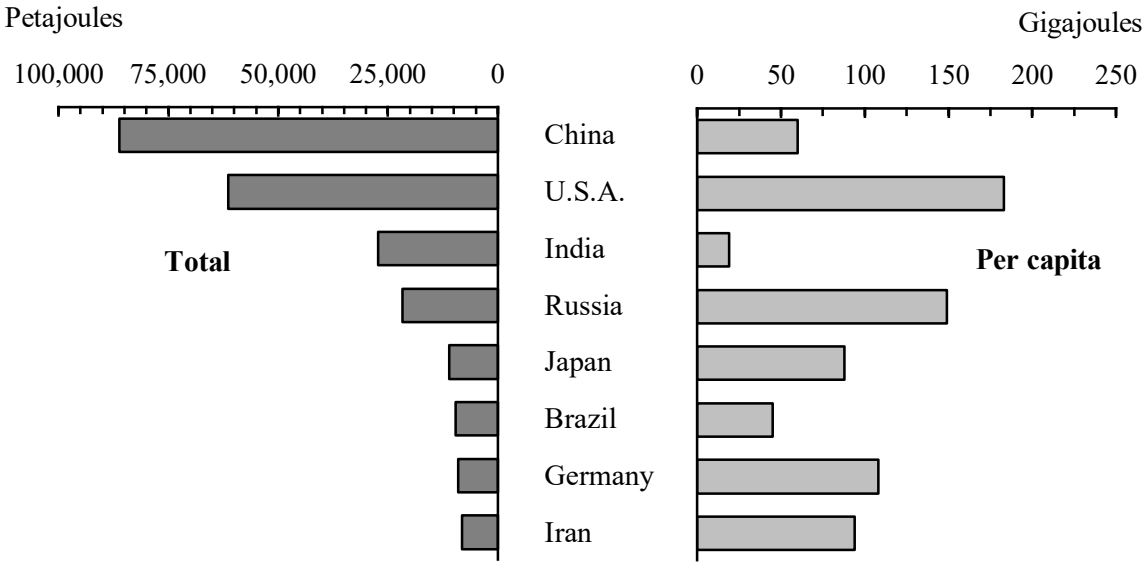
Final energy consumption in fiscal 2021 increased by 1.6 percent from the previous fiscal year. By sector, it increased in the industry sector, commercial industry sector, and transportation sector, while decreasing in the residential sector.

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



1) A different statistical method was used for the figures since FY1990.
Source: Agency for Natural Resources and Energy.

Figure 7.5
Final Energy Consumption by Country (2020)



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 970 billion kWh in fiscal 2021, up 2.2 percent from the previous fiscal year. Of this total, thermal power accounted for 80.0 percent; hydro power, 9.0 percent; nuclear power, 7.0 percent.

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

(Million kWh)

Item	FY2005	FY2010	FY2015	FY2020	FY2021
Electricity Output					
Total	1,157,926	1,156,888	1,024,179	948,979	970,249
Thermal	761,841	771,306	908,779	789,725	776,326
Hydro	86,350	90,681	91,383	86,310	87,632
Nuclear	304,755	288,230	9,437	37,011	67,767
Others [2)]	4,980	6,671	14,580	35,933	38,524
Percentage					
Total	100.0	100.0	100.0	100.0	100.0
Thermal	65.8	66.7	88.7	83.2	80.0
Hydro	7.5	7.8	8.9	9.1	9.0
Nuclear	26.3	24.9	0.9	3.9	7.0
Others [2)]	0.4	0.6	1.4	3.8	4.0
Electricity Power Consumption [3)]					
Total	1,043,800	1,056,441	955,345	935,491	956,666
Generated by electric power suppliers	918,265	931,059	841,542	863,159	881,516
Consumption of in-house generation	125,535	125,382	113,803	72,332	75,150

1) Including in-house generation. 2) Photovoltaic, wind power, geothermal energy, etc.
3) Changes were made to the categorization of Electricity Suppliers since FY2016.
Source: Agency for Natural Resources and Energy.

3. Gas

Gas production was 1,633 petajoules in fiscal 2021, up 3.7 percent from the previous fiscal year. Of this total, natural gas plus vaporized liquefied natural gas accounted for 95.8 percent; and the remaining 4.2 percent was made up of petroleum gases, such as vaporized liquefied petroleum gas and other petroleum-based gas. Gas purchases for fiscal 2021 totaled 702 petajoules.

Gas sales for fiscal 2021 totaled 1,723 petajoules, or a year-on-year growth of 4.1 percent. Of this total, 59.2 percent was sold to industry, 24.1 percent to residential use, and 9.0 percent to the commercial sector.

Table 7.3
Trends in Production and Purchases, and Sales of Gas [1) 2)]

(Petajoules)

Item	FY2010		FY2015		FY2020		FY2021	
Production and purchases [3)]	1,547		1,610		2,204		2,335	
Production	1,288	(100.0)	1,372	(100.0)	1,574	(100.0)	1,633	(100.0)
Petroleum gases [4)]	46	(3.6)	48	(3.5)	57	(3.6)	68	(4.2)
Natural gas and vaporized liquefied natural gas [5)]	1,241	(96.4)	1,324	(96.5)	1,517	(96.4)	1,565	(95.8)
Others	…	(…)	…	(…)	…	(…)	…	(…)
Purchases	259	(100.0)	238	(100.0)	630	(100.0)	702	(100.0)
Petroleum gases [6)]	6	(2.4)	3	(1.1)	…	(…)	…	(…)
Natural gas and vaporized liquefied natural gas	253	(97.6)	236	(98.9)	624	(99.1)	696	(99.2)
Others	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Sales	1,477	(100.0)	1,526	(100.0)	1,654	(100.0)	1,723	(100.0)
Residential	410	(27.7)	387	(25.3)	419	(25.4)	415	(24.1)
Commercial	198	(13.4)	177	(11.6)	153	(9.2)	155	(9.0)
Industrial	738	(50.0)	842	(55.2)	953	(57.6)	1,020	(59.2)
Others	131	(8.9)	120	(7.9)	129	(7.8)	132	(7.7)

1) Figures in parentheses indicate a percentage. 2) A different statistical method was used for the figures since 2017. 3) Since there are some concealed sources, the breakdown totals may not match the overall totals. 4) Figures up until FY2016 are a total of volatile oil gas, liquefied petroleum gas, and other petroleum-based gas. Starting FY2017, figures are a total of vaporized liquefied petroleum gas and other petroleum-based gas. 5) Figures up until FY2016 are a total of natural gas and liquefied natural gas. 6) Vaporized liquefied petroleum gas, other petroleum-based gas.

Source: The Japan Gas Association.

Chapter 8

Science and Technology/

Information and Communication

1. Science and Technology

(1) Researchers and R&D Expenditures

Japan's expenditures 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 2022 totaled 908,300. The total R&D expenditures in fiscal 2021 amounted to 19.7 trillion yen, an increase of 2.6 percent from the previous fiscal year. Relative to GDP, R&D expenditures was 3.59 percent, a 0.01 percentage point increase from the previous fiscal year.

Table 8.1
Trends in Researchers and Expenditures on R&D

Fiscal year	Number of Researchers [1) 2)]	Females (%)	R&D expenditures (billion yen)	GDP (billion yen)	Ratio of R&D expenditures to GDP (%)
2012	835,700	14.4	17,325	499,421	3.47
2013	841,600	14.6	18,134	512,678	3.54
2014	866,900	14.7	18,971	523,423	3.62
2015	847,100	15.3	18,939	540,741	3.50
2016	853,700	15.7	18,433	544,830	3.38
2017	867,000	16.2	19,050	555,713	3.43
2018	874,800	16.6	19,526	556,571	3.51
2019	881,000	16.9	19,576	556,836	3.52
2020	890,500	17.5	19,237	537,562	3.58
2021	908,300	17.8	19,741	550,530	3.59

1) As of the end of each fiscal year. 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 2022, the number of researchers amounted to 529,100 persons in business enterprises, 38,100 persons in non-profit institutions and public organizations, and 341,100 persons in universities and colleges. In terms of R&D expenditures in fiscal 2021, business enterprises spent 14.2 trillion yen (72.1 percent of total R&D expenditures), non-profit institutions and public organizations spent 1.7 trillion yen (8.8 percent), and universities and colleges spent 3.8 trillion yen (19.2 percent).

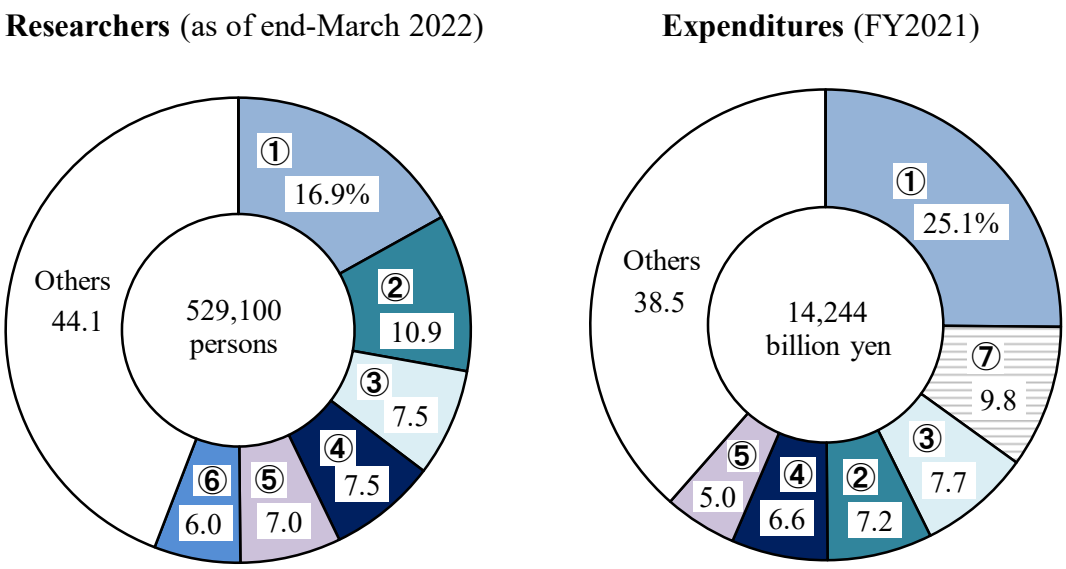
Universities and colleges spent more than 90 percent of their R&D expenditure on natural sciences and engineering for basic research and applied research, while business enterprises allocated over 70 percent for development purposes.

With regard to the portion in the R&D expenditures in fiscal 2021 by specific objective, 3.3 trillion yen went to the life sciences field (16.7 percent of total R&D expenditures), 2.8 trillion yen (14.0 percent) to the information technology field, 1.4 trillion yen (7.0 percent) to the environmental science and technology field and 1.1 trillion yen (5.3 percent) to the materials field, etc.

Approximately 84 percent of the 529,100 researchers at business enterprises at the end of March 2022, or 445,000 persons, were in the manufacturing industries; the largest number was in the motor vehicles, parts and accessories industry, followed by the information and communication electronics equipment industry, then by the electronic parts, devices and electronic circuits industry.

In terms of R&D expenditures in fiscal 2021, of 14.2 trillion yen spent by business enterprises, 12.2 trillion yen was spent by manufacturing industries. The motor vehicles, parts and accessories industry spent the most, followed by the medicines industry, then by the electronic parts, devices and electronic circuits industry.

Figure 8.1
Researchers and Expenditures by Industry (Business enterprises)



① Motor vehicles, parts and accessories ② Information and communication electronics equipment
③ Electronic parts, devices and electronic circuits ④ Chemical products
⑤ Business oriented machinery ⑥ Production machinery 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 2021, Japan earned 3,620.6 billion yen from technology exports, which was up 16.8 percent from the previous fiscal year. This was the first increase in 4 years. Of the total receipts, 70.8 percent was from overseas parent/subsidiary companies. Meanwhile, payments to technology imports stood at 620.1 billion yen, an increase of 10.8 percent compared with the previous fiscal year. It increased for 2 consecutive years. Of this figure, 38.7 percent was for payments to overseas parent/subsidiary companies.

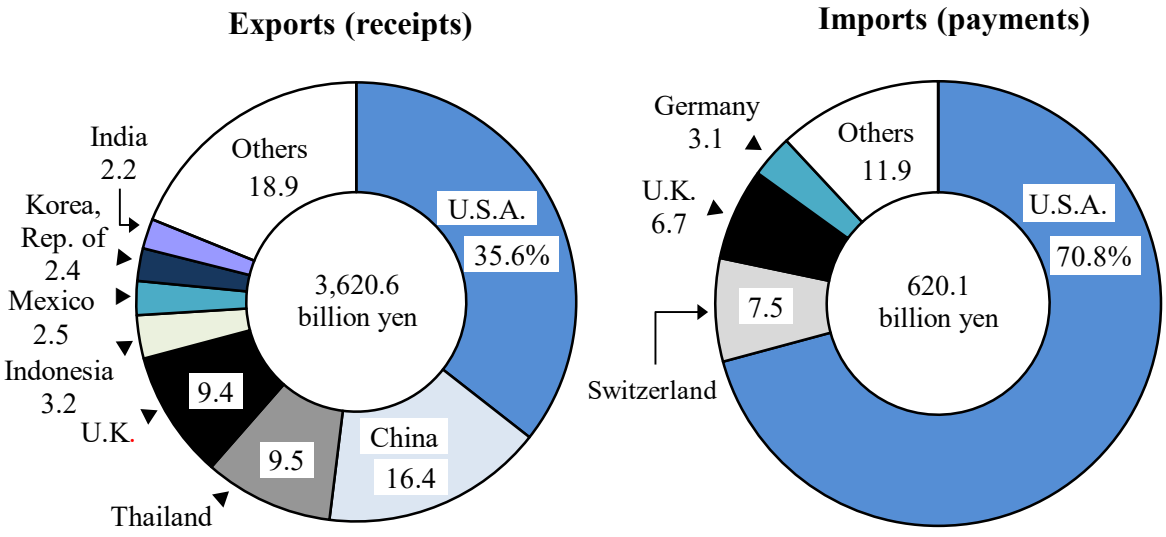
Table 8.2
Technology Trade by Business Enterprises

Fiscal year	Exports		Imports		Exports value / Imports value
	Value (billion yen)	Annual increase rate (%)	Value (billion yen)	Annual increase rate (%)	
2012	2,721.0	14.1	448.6	8.2	6.07
2013	3,395.2	24.8	577.7	28.8	5.88
2014	3,660.3	7.8	513.0	-11.2	7.13
2015	3,949.8	7.9	602.6	17.5	6.55
2016	3,571.9	-9.6	452.9	-24.8	7.89
2017	3,884.4	8.7	629.8	39.1	6.17
2018	3,871.1	-0.3	591.0	-6.2	6.55
2019	3,662.6	-5.4	543.6	-8.0	6.74
2020	3,101.0	-15.3	559.8	3.0	5.54
2021	3,620.6	16.8	620.1	10.8	5.84

Source: Statistics Bureau, MIC.

In fiscal 2021, Japan exported 3,620.6 billion yen of technologies; major export destinations were: the U.S.A. (1,288.9 billion yen, or 35.6 percent of total exports), followed by China (595.1 billion yen), Thailand (342.2 billion yen), and the U.K. (341.9 billion yen). On the other hand, Japan imported 620.1 billion yen of technologies, mainly from the U.S.A. (438.8 billion yen, or 70.8 percent of total imports), followed by Switzerland (46.6 billion yen), the U.K. (41.7 billion yen) and Germany (19.1 billion yen).

Figure 8.2
Composition of Technology Trade by Major Country (FY2021)



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. The level remained above 300,000 applications until 2019. The number of applications in 2021 was 289,200, up 0.25 percent from the previous year.

Table 8.3
Patents

(Cases)

Item	2005	2010	2015	2020	2021
Applications	427,078	344,598	318,721	288,472	289,200
Registrations	122,944	222,693	189,358	179,383	184,372
Existing vested rights	1,123,055	1,423,432	1,946,568	2,039,040	2,020,424

Source: Japan Patent Office.

Table 8.4
PCT International Applications by Country

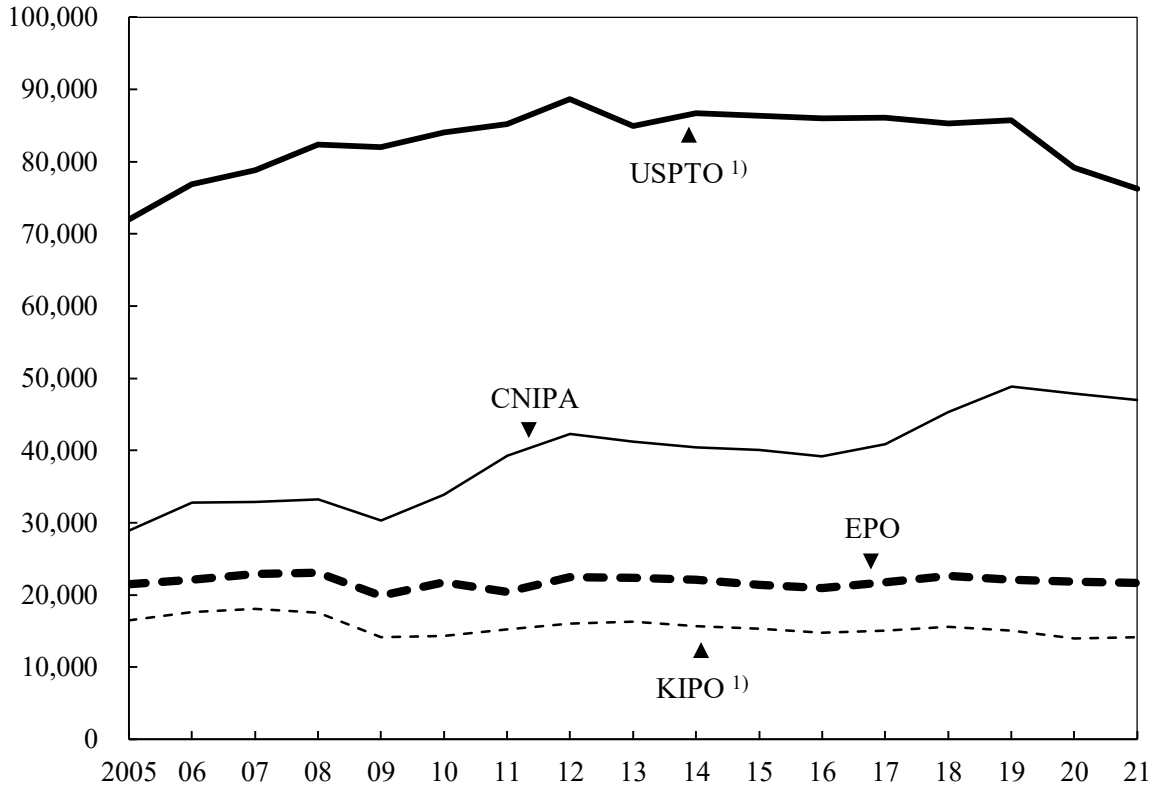
Country	2019	2020	2021*	Change from 2020 (%)
Total	265,383	274,889	277,500	0.9
China	59,187	68,923	69,540	0.9
U.S.A.	57,446	58,477	59,570	1.9
Japan	52,702	50,578	50,260	-0.6
Korea, Rep. of	19,074	20,045	20,678	3.2
Germany	19,347	18,499	17,322	-6.4
France	7,923	7,782	7,380	-5.2
U.K.	5,777	5,889	5,841	-0.8
Switzerland	4,651	5,119	5,386	5.2
Sweden	4,201	4,351	4,453	2.3
Netherlands	4,034	3,996	4,123	3.2

Source: World Intellectual Property Organization.

Over 150 countries, including Japan, have joined the international patent system of the World Intellectual Property Organization (WIPO) as of February 2023. In 2021, the number of international patent applications filed under the Patent Cooperation Treaty (PCT) was 277,500, of which 50,260 were from Japan, accounting for 18.1 percent.

The United States Patent and Trademark Office ranked first among major patent offices for applications filed by Japanese applicants in 2021, with 76,275 applications. The number of patent applications filed by Japanese applicants at the China National Intellectual Property Administration was 47,010.

Figure 8.3
Changes in Patent Applications with Major Offices by Japanese Applicants



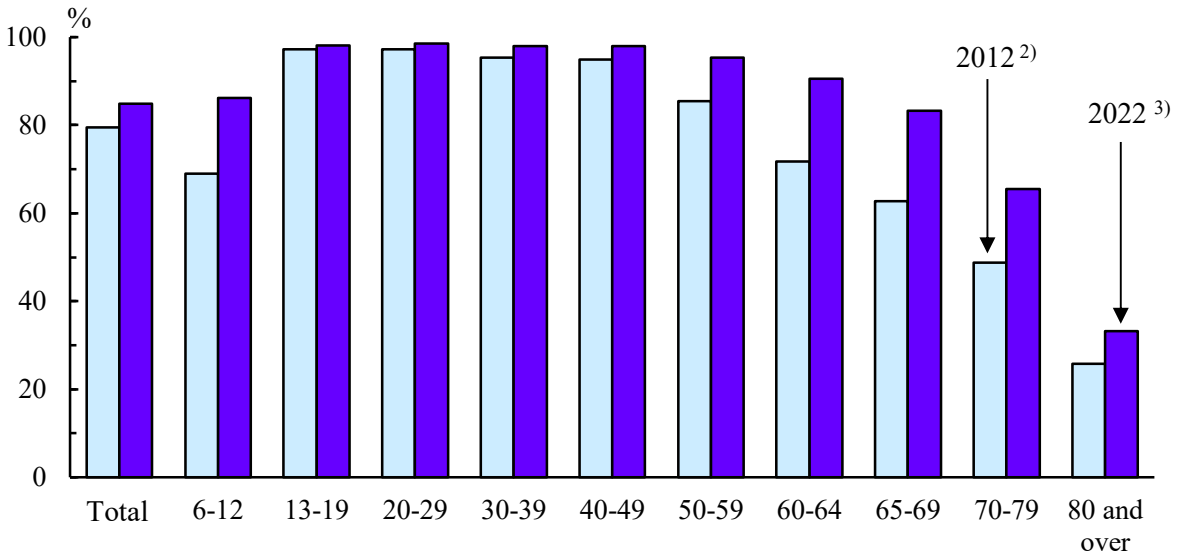
1) The USPTO and KIPO data for 2021 are provisional.
USPTO: United States Patent and Trademark Office; CNIPA: China National Intellectual Property Administration; EPO: European Patent Office; KIPO: Korean Intellectual Property Office.
Source: Japan Patent Office.

3. Information and Communication

(1) Diffusion of the Internet

The ratio of individuals using the Internet, of which commercial usage started in 1993, exceeded 80 percent in 2013. At the end of August 2022, the ratio of individuals who had used the Internet in the past year (individuals who are 6 years of age and older) was 84.9 percent. According to the individual Internet usage rate by age group, the usage rate exceeded 90 percent in each age group between 13 and 59 years old.

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



1) Ages 6 years and over. 2) End of 2012. 3) End of August 2022.
Source: Ministry of Internal Affairs and Communications.

According to the status of Internet use by device by age group as of the end of August 2022, the usage rate of smartphones was the highest (71.2 percent), followed by computers (48.5 percent). Figures for the rate of Internet use by device by age group show that more than 80 percent use smartphones in each age group between 13 and 59 years old.

Table 8.5
Status of Internet Use by Device by Age Group (2022)

(%)

Item	Usage rate	6-12 years	13-19	20-29	30-39	40-49	50-59	60-69	70-79	80 and over
Smartphones	71.2	42.6	83.5	88.9	90.7	89.0	86.7	73.7	46.9	17.3
Computers	48.5	28.5	47.1	63.0	60.5	62.1	60.8	51.3	32.7	10.9
Internet-enabled TV receivers	27.1	38.0	31.5	29.4	41.6	34.5	29.2	23.7	12.9	7.0
Mobile phones [1)]	10.3	6.6	8.2	11.4	10.8	11.6	11.1	10.8	10.1	8.5

1) Excluding smartphones.
Source: Ministry of Internal Affairs and Communications.

As of the end of August 2022, 51.7 percent of enterprises had introduced telework. This marked a decrease of 0.2 percentage points compared with the previous year. The most frequent telework pattern was working from home, 91.3 percent, followed by mobile work, 27.0 percent and working from a satellite office, 12.9 percent.

(2) Progress of Communication Technologies

As of the end of March 2022, those with subscriptions for 3.9-4G mobile phones (LTE) made up the largest segment of broadband (connection) subscribers, amounting to 139 million subscriptions. Those with BWA (Broadband Wireless Access) service (access service connecting to networks via broadband wireless access systems using the 2.5GHz band [WiMAX, etc.]) was the second highest, with 80 million subscribers.

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 2022, the total number of IP phone subscribers was 45 million.

Table 8.6
Subscribers to Telecommunications Services [1)]

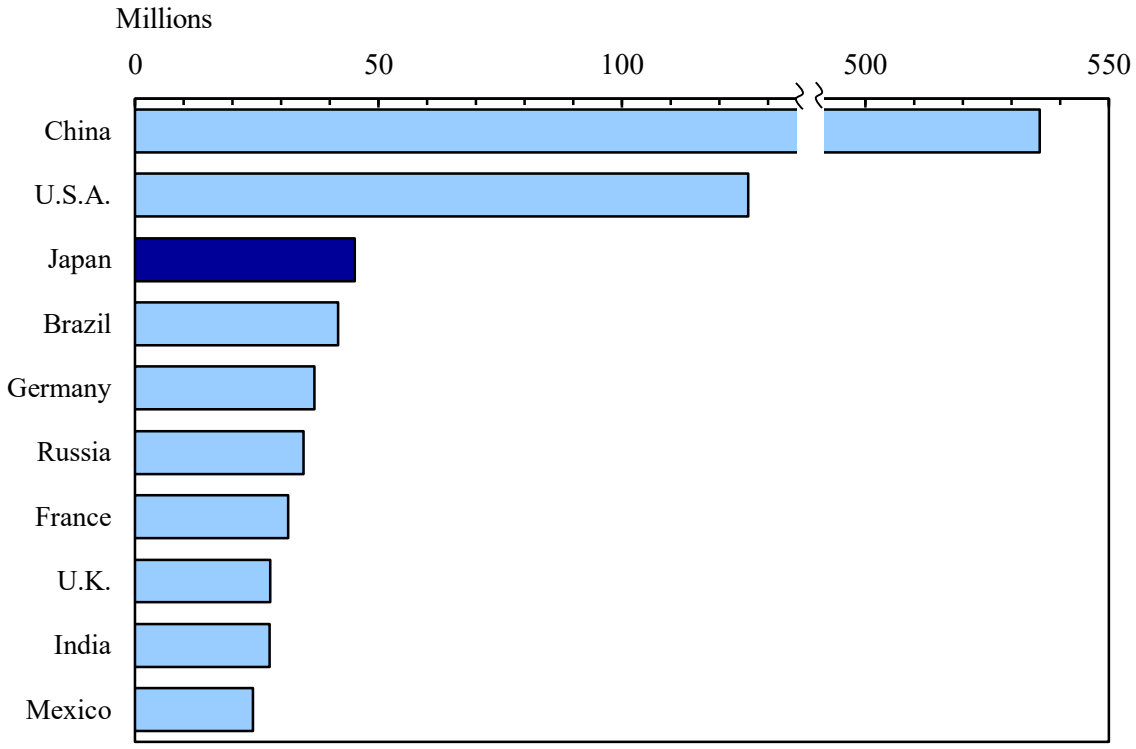
(Thousands)

Item	2018	2019	2020	2021	2022
Public phones (NTT [2)] only)	158	155	151	146	138
Fixed phone services	18,450	17,242	15,954	14,856	13,827
Mobile phones [3)]	172,790	179,873	186,514	195,055	203,335
IP phone	42,555	43,413	44,131	44,670	45,348
ISDN (Integrated Services Digital Network)	2,904	2,715	2,507	2,307	2,117
DSL (Digital Subscriber Line)	2,146	1,730	1,398	1,073	690
Cable Internet	6,880	6,837	6,675	6,535	6,405
FTTH (Fiber To The Home)	30,604	31,669	33,122	35,066	36,735
BWA (Broadband Wireless Access) ..	58,226	66,241	71,200	75,709	79,732
3.9-4G mobile phones (LTE)	120,727	136,642	152,623	154,366	139,055
5G mobile phones	-	-	24	14,186	45,018
International phone calls, sent and received	493,400	448,500	471,400	367,600	498,500

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 2021, the number of fixed-broadband subscribers in Japan was 45 million, the third-largest after China, 536 million and the U.S.A., 126 million.

Figure 8.5
International Comparison of Fixed-Broadband Subscribers (2021)

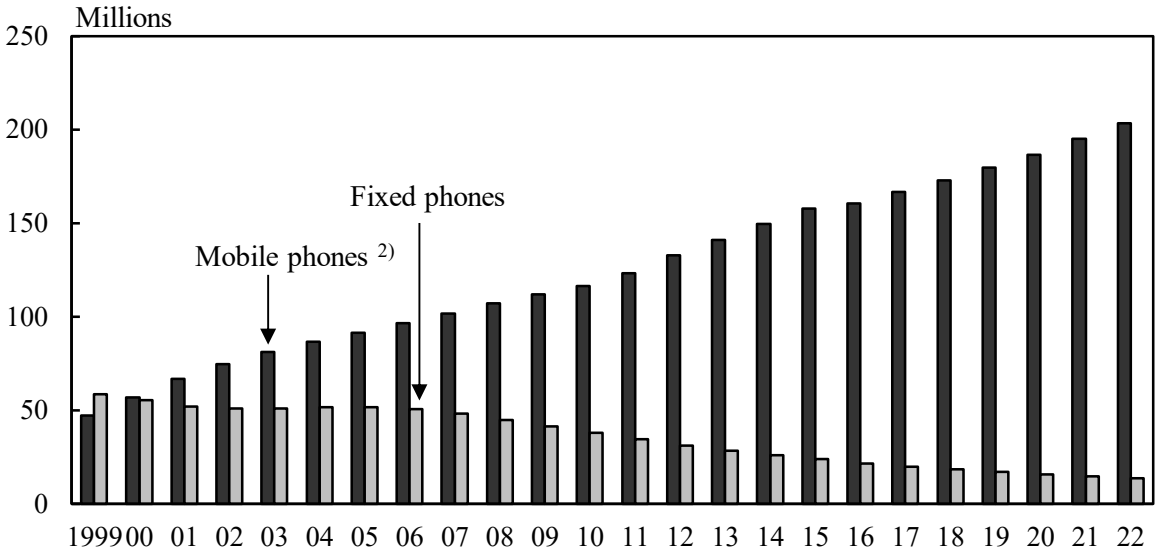


Source: International Telecommunication Union.

(3) Telephones

The number of fixed phone service subscription contracts has continued to decrease in recent years. As of the end of March 2022, the number of fixed phone subscribers was 14 million (down 6.9 percent from the previous year). Meanwhile, the number of mobile phone subscribers (cell phones and personal handyphone systems) totaled 195 million at the end of March 2021, marking a rise by 4.2 percent year-on-year to 203 million at the end of March 2022.

Figure 8.6
Telephone Service Subscribers [1)]



1) End of March. 2) 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 2023, Japan Post Co., Ltd. had 24,251 post offices nationwide. In fiscal 2022, post offices handled 18.5 billion items of domestic mail (including parcels), which was a 3.4 percent decrease from the previous fiscal year. Furthermore, the total quantity of international mail (letters, Express Mail Services [EMS], and parcels) sent in fiscal 2022 amounted to 21.9 million items, a decrease of 11.3 percent from the previous fiscal year.

Table 8.7
Postal Services

(Millions)

Item	FY2005	FY2010	FY2015	FY2020	FY2021	FY2022
Domestic						
Letters	22,666.1	19,757.9	17,981.0	15,221.0	14,833.1	14,423.2
Parcels	2,075.0	2,968.4	4,052.4	4,390.1	4,334.9	4,093.2
International						
Sent	77.5	54.2	48.9	23.0	24.7	21.9
Letters [1)]	76.1	52.8	44.1	20.6	21.9	19.9
Parcels	1.5	1.4	4.8	2.5	2.8	2.1

1) Including Express Mail Services (EMS).
Source: Japan Post Co., Ltd.

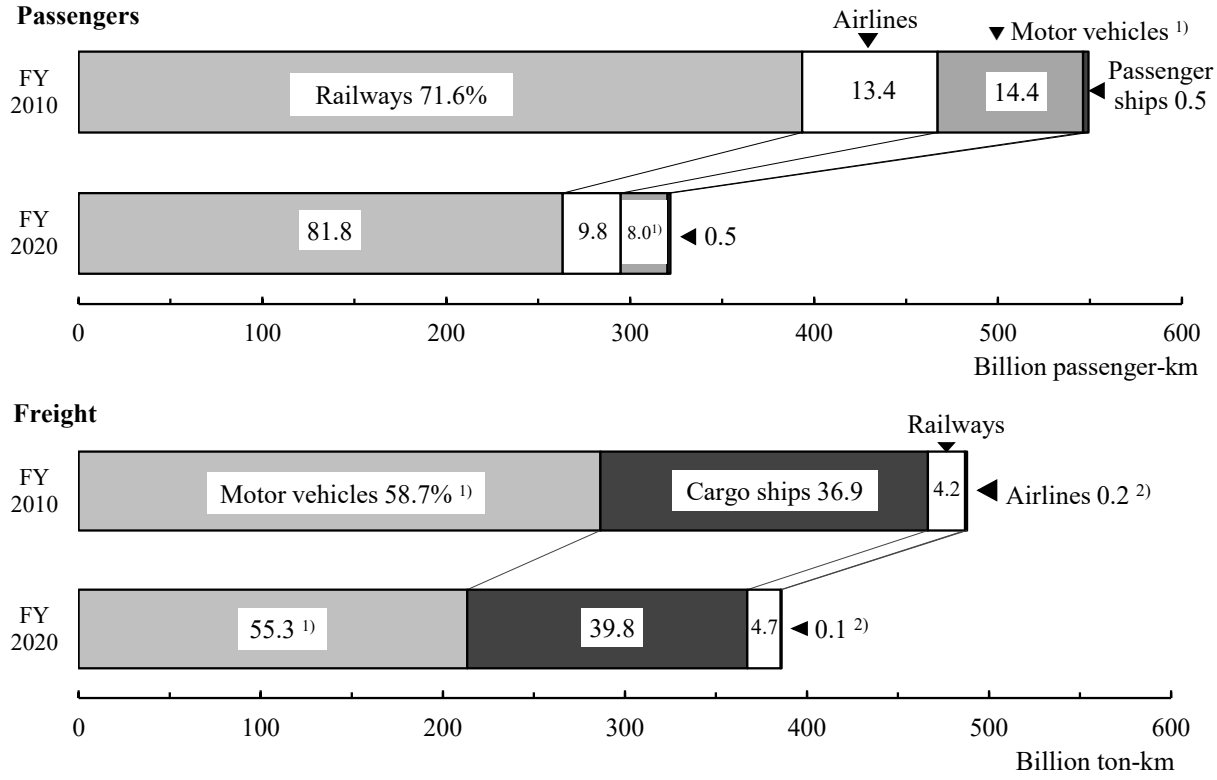
Chapter 9

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



1) Figures from FY2010 are estimates based on the survey method and aggregation method changed in FY2020.
2) Including overweight baggage and postal mail.
Source: Ministry of Land, Infrastructure, Transport and Tourism.

In fiscal 2010, railways accounted for 71.6 percent, motor vehicles for 14.4 percent, airlines for 13.4 percent, and passenger ships for 0.5 percent of domestic passenger transport volume (passenger-kilometers). In fiscal 2020, airlines dropped to 9.8 percent due to the effects of the COVID-19 pandemic, while railways, in contrast, rose to 81.8 percent, 10.2 points higher than fiscal 2010. In terms of domestic freight volume (ton-kilometers), on the other hand, motor vehicles accounted for 55.3 percent and cargo ships for 39.8 percent in fiscal 2020, together constituting about 95 percent of the total. Although ton kilometers decreased, the component ratio shows the same trend as 10 years before.

(1) Domestic Passenger Transport

In fiscal 2020, the number of domestic transport passengers was 21.75 billion (down 30.2 percent from the previous fiscal year). The total volume of passenger transport was 321.87 billion passenger-kilometers (down 45.8 percent).

Table 9.1
Domestic Passenger Transport

Item	Passengers carried (millions)		Passenger kilometers (millions)	
	FY2019	FY2020	FY2019	FY2020
Total transport volume	31,172	21,749	593,930	321,870
Railways	25,190	17,670	435,063	263,211
JR (Japan Railways)	9,503	6,707	271,936	152,084
Other than JR	15,687	10,963	163,126	111,127
Motor vehicles	5,800	4,000	61,301	25,593
Buses (Commercial use)	4,532	3,262	55,815	22,546
Taxis and limousine hires	1,268	738	5,486	3,047
Airlines	102	34	94,490	31,543
Passenger ships	80	45	3,076	1,523

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

In fiscal 2020, the Japan Railways (JR) group reported 6.71 billion passengers (down 29.4 percent from the previous fiscal year) and 152.08 billion passenger-kilometers (down 44.1 percent). Railways other than JR reported 10.96 billion passengers (down 30.1 percent) and 111.13 billion passenger-kilometers (down 31.9 percent).

To promote the use of buses, approaches to improve punctuality and speed using bus lanes and to make buses more convenient, such as by introducing a bus location system that provides locational information of buses as well as an IC card system that enables smooth bus rides, are being carried out. Commercial buses transported 3.26 billion passengers (down 28.0 percent from the previous fiscal year) and 22.55 billion passenger-kilometers (down 59.6 percent); both figures of passengers and passenger-kilometers declined in fiscal 2020.

Domestic airline passengers increased until around fiscal 2002, and after that the trend was roughly flat until fiscal 2007. However, a declining trend continued after the bankruptcy of the major American securities firm Lehman Brothers in 2008, and although there was a recovery after fiscal 2011, domestic air transport fell into a major slump due to the COVID-19 pandemic which occurred in 2020. Fiscal 2020 air transport records show that there were 34 million passengers (down 66.9 percent from the previous fiscal year), and passenger-kilometers amounted to 31.54 billion (down 66.6 percent).

In fiscal 2020, passenger ships reported 45 million passengers (down 43.5 percent from the previous fiscal year) and 1.52 billion passenger-kilometers (down 50.5 percent).

(2) Domestic Freight Transport

In the area of domestic freight, a total of 4.13 billion metric tons (down 12.3 percent from the previous fiscal year) of freight was transported for a total of 386.11 billion ton-kilometers (down 8.2 percent) in fiscal 2020. As for transport tonnage volume in fiscal 2020, 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)	
	FY2019	FY2020	FY2019	FY2020
Total transport volume	4,502,384	4,132,688	442,075	386,111
Railways	42,660	39,124	19,993	18,340
Motor vehicles	4,117,399	3,786,998	251,471	213,419
Commercial use	2,842,033	2,550,515	224,012	186,999
Non-commercial use	1,275,366	1,236,483	27,459	26,421
Cargo ships	341,450	306,076	169,680	153,824
Airlines [1)]	875	490	931	528

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

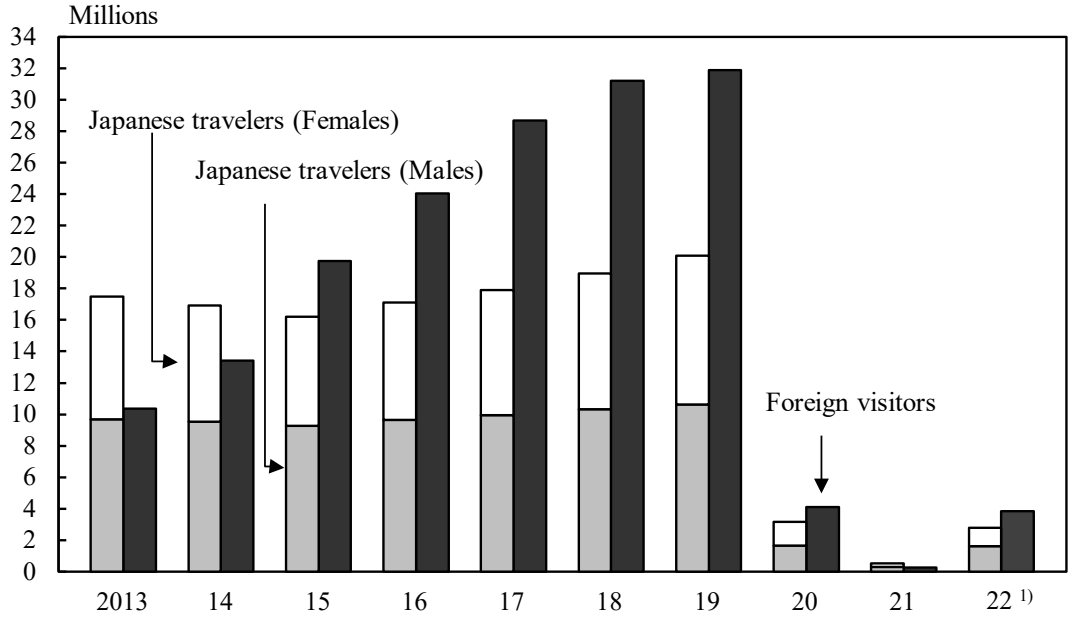
2. International Transport

(1) International Passenger Transport

The global economic downturn after September 2008, the spread of a new influenza in early 2009, and the effects of the Great East Japan Earthquake in 2011 reduced international air passenger transport on Japanese airlines. In 2012, this trend reversed to an increase, and the increase continued for 8 consecutive years until 2019. However, due to the effects of the COVID-19 pandemic, Japanese airlines transported 1.39 million passengers (down 68.1 percent from the previous year) and registered 9.32 billion passenger kilometers (down 58.7 percent) in 2021, declining for the second consecutive year.

The number of Japanese overseas travelers in 2022 was 2.77 million, down 86.2 percent from 2019, prior to the effects of the COVID-19 pandemic. The number of foreign visitor arrivals was 3.83 million, indicating a marked recovery since October 2022 when full-fledged acceptance of foreign visitors was resumed, but still only about 10 percent of the 2019 level.

Figure 9.2
Japanese Overseas Travelers and Foreign Visitor Arrivals



1) The Foreign visitors data for 2022 is provisional.
Source: Immigration Services Agency of Japan; Japan National Tourism Organization.

According to reports on arrivals by tourist offices in countries around the world, the U.S.A. and the Republic of Korea had many Japanese visitors in 2020.

Table 9.3
Japanese Overseas Travelers by Destination

Country or area of destination	2018		2019		2020	
	Number of arrivals	Annual change (%)	Number of arrivals	Annual change (%)	Number of arrivals	Annual change (%)
U.S.A. [1) 2)]	3,493,313	-2.8	3,752,980	7.4	696,727	-81.4
Korea, Rep. of [3)]	2,948,527	27.6	3,271,706	11.0	430,742	-86.8
China [3)]	2,689,662	0.4	2,676,334	-0.5	…	…
Thailand [4)]	1,655,996	7.2	1,806,438	9.1	320,331	-82.3
Taiwan [5)]	1,969,151	3.7	2,167,952	10.1	269,659	-87.6
Viet Nam [5)]	826,674	3.6	951,962	15.2	200,346	-79.0
Philippines [2)]	631,821	8.2	682,788	8.1	136,664	-80.0
Singapore [5)]	829,676	4.6	884,308	6.6	125,879	-85.8

1) Including territories and dependencies (Northern Mariana Islands, Guam, American Samoa, Puerto Rico and United States Virgin Islands, etc.). 2) Arrivals of non-resident tourists at national borders, by country of residence. 3) Arrivals of non-resident visitors at national borders, by nationality. 4) Arrivals of non-resident tourists at national borders, by nationality. 5) Arrivals of non-resident visitors at national borders, by country of residence.
Source: Japan National Tourism Organization.

Among foreign visitors to Japan in 2022 by country/region, visitors from Asian countries were the highest, totaling 3.00 million. Among Asian countries, the number of visitors from the Republic of Korea was highest, amounting to 1.01 million, and the figure accounted for 26.4 percent of the total number of foreign visitors to Japan.

Strategic efforts are being made to achieve recovery and reexpansion of inbound tourism, focusing on areas such as further increasing tourist expenditures, attracting more visitors to rural areas, promoting sustainable tourism, responding to post-COVID travel needs, and strengthening marketing based on data analysis.

Table 9.4
Foreign Visitors

Region, country or area of origin	2020		2021		2022*	
	Number of arrivals	Percentage distribution	Number of arrivals	Percentage distribution	Number of arrivals	Percentage distribution
Total arrivals [1]	4,115,828	100.0	245,862	100.0	3,832,110	100.0
Asia	3,403,547	82.7	150,427	61.2	3,001,292	78.3
Korea, Rep. of	487,939	11.9	18,947	7.7	1,012,751	26.4
Taiwan	694,476	16.9	5,016	2.0	331,097	8.6
Viet Nam	152,559	3.7	26,586	10.8	284,113	7.4
Hong Kong, SAR	346,020	8.4	1,252	0.5	269,285	7.0
Thailand	219,830	5.3	2,758	1.1	198,037	5.2
China	1,069,256	26.0	42,239	17.2	189,125	4.9
Europe	240,897	5.9	52,238	21.2	304,505	7.9
U.K.	51,024	1.2	7,294	3.0	57,496	1.5
Africa	7,840	0.2	6,769	2.8	14,613	0.4
North America	284,829	6.9	26,238	10.7	392,009	10.2
U.S.A.	219,307	5.3	20,026	8.1	323,513	8.4
Canada	53,365	1.3	3,536	1.4	55,877	1.5
South America	18,222	0.4	5,204	2.1	17,652	0.5
Oceania	160,386	3.9	4,953	2.0	101,921	2.7
Australia	143,508	3.5	3,265	1.3	88,648	2.3

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

In 2022, of the total number of foreign visitors to Japan, tourists numbered 2.49 million people, or 64.9 percent of total foreign visitors. The highest number of tourists came from the Republic of Korea, with 0.86 million travelers, followed by Taiwan, with 0.29 million travelers.

(2) International Freight Transport

The volume of seaborne foreign transport in 2021 was 883 million tons, down 0.7 percent over the previous year. Of this figure, total exports increased by 29.9 percent to 76 million tons, and total imports increased by 0.8 percent to 438 million tons.

Table 9.5
Seaborne Foreign Transport

(Thousand tons)

Year	Total	Exports	Imports	Cross Transport
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
2015	1,056,144	60,802	544,702	450,639
2020	889,365	58,411	435,019	395,935
2021*	883,042	75,897	438,283	368,863

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

Air-shipped international freight in 2021 totaled 1.77 million tons in terms of volume (up 37.9 percent from the previous year) and 10.36 billion tons in terms of ton-kilometers (up 42.4 percent).

Chapter 10

Commerce

1. Wholesale and Retail

The "2021 Economic Census for Business Activity" showed that 1.23 million wholesale and retail establishments were in operation in Japan. The number of persons engaged at such establishments became 11.61 million. Sales in the wholesale and retail industries amounted to 480.17 trillion yen, accounting for 28.4 percent of the total of all industries.

(1) Wholesale Trade

The number of wholesale establishments in operation was 348,889 in 2021. Observed by size of operation in terms of persons engaged, establishments with less than 20 persons accounted for 88.0 percent of the total. By type of corporate form, 91.5 percent of them were corporations, while 8.4 percent were individual proprietorships.

Table 10.1
Establishments and Persons Engaged in the Wholesale and Retail Sector (2021)

Item	Total	Wholesale	Retail
Number of Establishments	1,228,920	348,889	880,031
Size of operation (persons engaged)			
1-4 persons	662,206	171,120	491,086
5-9	265,776	85,100	180,676
10-19	173,105	50,733	122,372
20-29	56,551	16,437	40,114
30-49	33,078	12,023	21,055
50-99	19,287	6,651	12,636
100 and over	10,167	3,765	6,402
Loaned or dispatched employees only	8,750	3,060	5,690
Persons engaged	11,611,924	3,900,979	7,710,945
Regular employees	10,174,880	3,453,375	6,721,505
Indefinite duration employees	6,790,299	2,951,492	3,838,807
Limited duration employees	3,384,581	501,883	2,882,698
Temporary employees	214,794	44,194	170,600
Loaned or dispatched employees from the separately operated establishments	279,040	146,446	132,594
Loaned or dispatched employees to the separately operated establishments	97,377	75,678	21,699

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

The number of persons engaged in the wholesale sector was 3.9 million in 2021, 546,077 of whom were limited duration employees and temporary employees, making up 14.0 percent of the total.

(2) Retail Trade

The number of retail establishments in operation totaled 880,031 in 2021. Observed by size of operation in terms of persons engaged, establishments with less than 10 persons accounted for 76.3 percent of the total. By type of corporate form, 65.7 percent of them were corporations, while 34.2 percent were individual proprietorships. The proportion of individual proprietorships was higher than that in the wholesale sector.

The number of persons engaged in retail was 7.71 million in 2021, 3.05 million of whom were limited duration employees and temporary employees, comprising 39.6 percent of the total.

2. Eating and Drinking Places

There were 499,176 eating and drinking places establishments in operation and 3.49 million persons engaged at them in 2021.

Table 10.2
Eating and Drinking Places (2021)

Size of operation (persons engaged)	Establishments		Persons engaged	
	Number	Ratio (%)	Number	Ratio (%)
Total	499,176	100.0	3,489,039	100.0
1-4 persons	308,208	61.7	649,085	18.6
5-9	92,798	18.6	608,955	17.5
10-19	55,144	11.0	746,796	21.4
20-29	25,036	5.0	596,470	17.1
30 and over	17,094	3.4	887,733	25.4
Loaned or dispatched employees only	896	0.2	-	-

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

Chapter 11

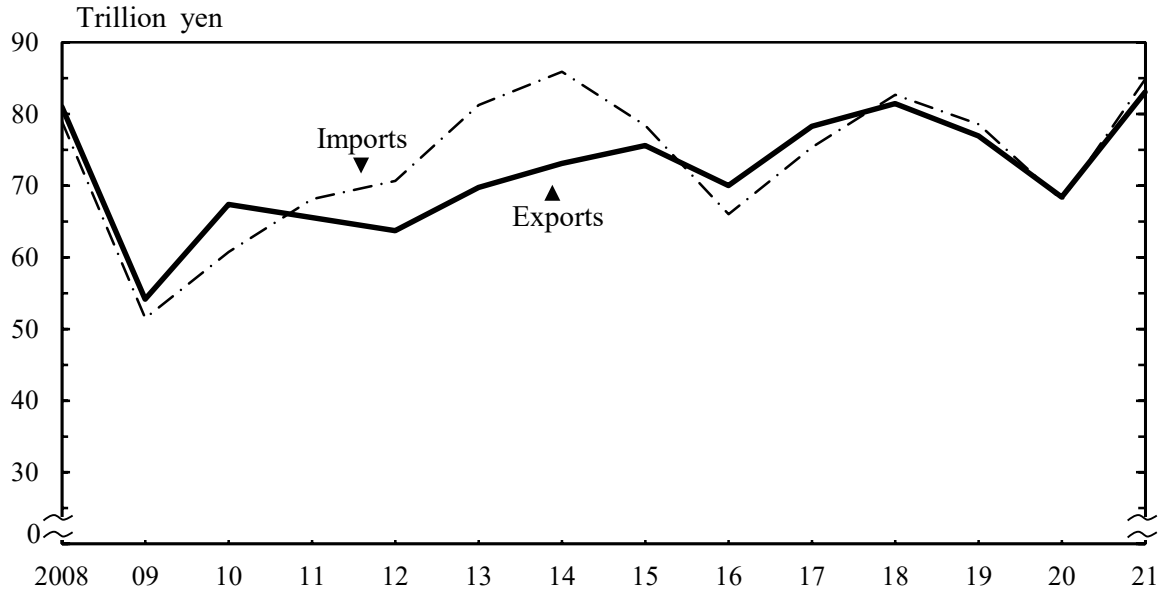
Trade, International Balance of Payments, and International Cooperation

1. Trade

(1) Overview of Trade

In 2021, Japan's international trade on a customs clearance basis increased, both exports and imports. Exports (in FOB value) amounted to 83.1 trillion yen, which was a 21.5 percent increase as compared to the previous year, and an increase for the first time in 3 years. Imports (in CIF value) amounted to 84.9 trillion yen, which was a 24.8 percent increase as compared to the previous year, and an increase for the first time in 3 years. Trade balance totaled -1.8 trillion yen. This was the red figure for the first time in 2 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 (2015=100)					
				Exports			Imports		
	Exports (FOB)	Imports (CIF)	Balance	Value index	Quantum index 1)	Unit value index	Value index	Quantum index 1)	Unit value index
2012	63,748	70,689	-6,941	84.3	102.0	82.7	90.2	102.0	88.4
2013	69,774	81,243	-11,468	92.3	100.5	91.8	103.6	102.3	101.3
2014	73,093	85,909	-12,816	96.7	101.1	95.7	109.6	102.9	106.5
2015	75,614	78,406	-2,792	100.0	100.0	100.0	100.0	100.0	100.0
2016	70,036	66,042	3,994	92.6	100.5	92.2	84.2	98.8	85.3
2017	78,286	75,379	2,907	103.5	105.9	97.8	96.1	102.9	93.4
2018	81,479	82,703	-1,225	107.8	107.7	100.1	105.5	105.8	99.7
2019	76,932	78,600	-1,668	101.7	103.0	98.8	100.2	104.6	95.9
2020	68,399	68,011	388	90.5	91.0	99.4	86.7	97.9	88.6
2021	83,091	84,875	-1,784	109.9	101.9	107.8	108.3	102.8	105.3

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

With regard to unit value index, Japan's 2021 exports increased by 8.5 percent from the previous year (an increase for the second consecutive year), and quantum index increased by 12.0 percent from the previous year (the first increase in 2 years).

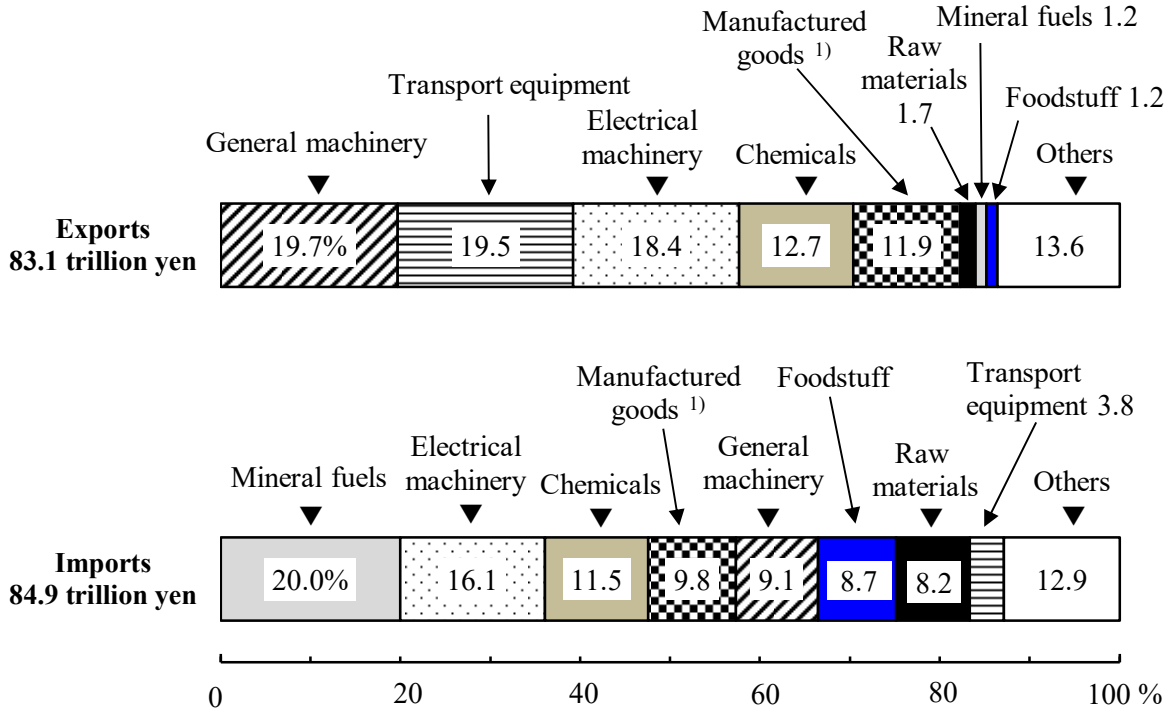
With regard to Japan's imports in 2021, the unit value index and quantum index increased by 18.8 percent and 5.0 percent respectively compared to the previous year; both indices recorded their first increase in 2 years.

(2) Trade by Commodity

As for Japan's exports in 2021 by commodity, general machinery accounted for the largest portion of the total export value, 19.7 percent, followed by transport equipment and electrical machinery, making up 19.5 percent and 18.4 percent, respectively. Motor vehicles, which are in the transport equipment category, constituted 12.9 percent of the total export value, up 4.7 percent in quantity and up 11.9 percent in value from the previous year. One characteristic of Japan's exports is the large proportion of high value-added products manufactured with advanced technology, such as motor vehicles, iron and steel products, and semiconductors, etc.

The leading import item category was mineral fuels, which represented 20.0 percent of the total value imported, followed by electrical machinery and chemicals, at 16.1 percent and 11.5 percent, respectively. Petroleum, in the mineral fuels category, constituted 8.2 percent of the total import value, down 1.2 percent in quantity and up 49.1 percent in value from the previous year.

Figure 11.2
Component Ratios of Foreign Trade by Commodity (2021)



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

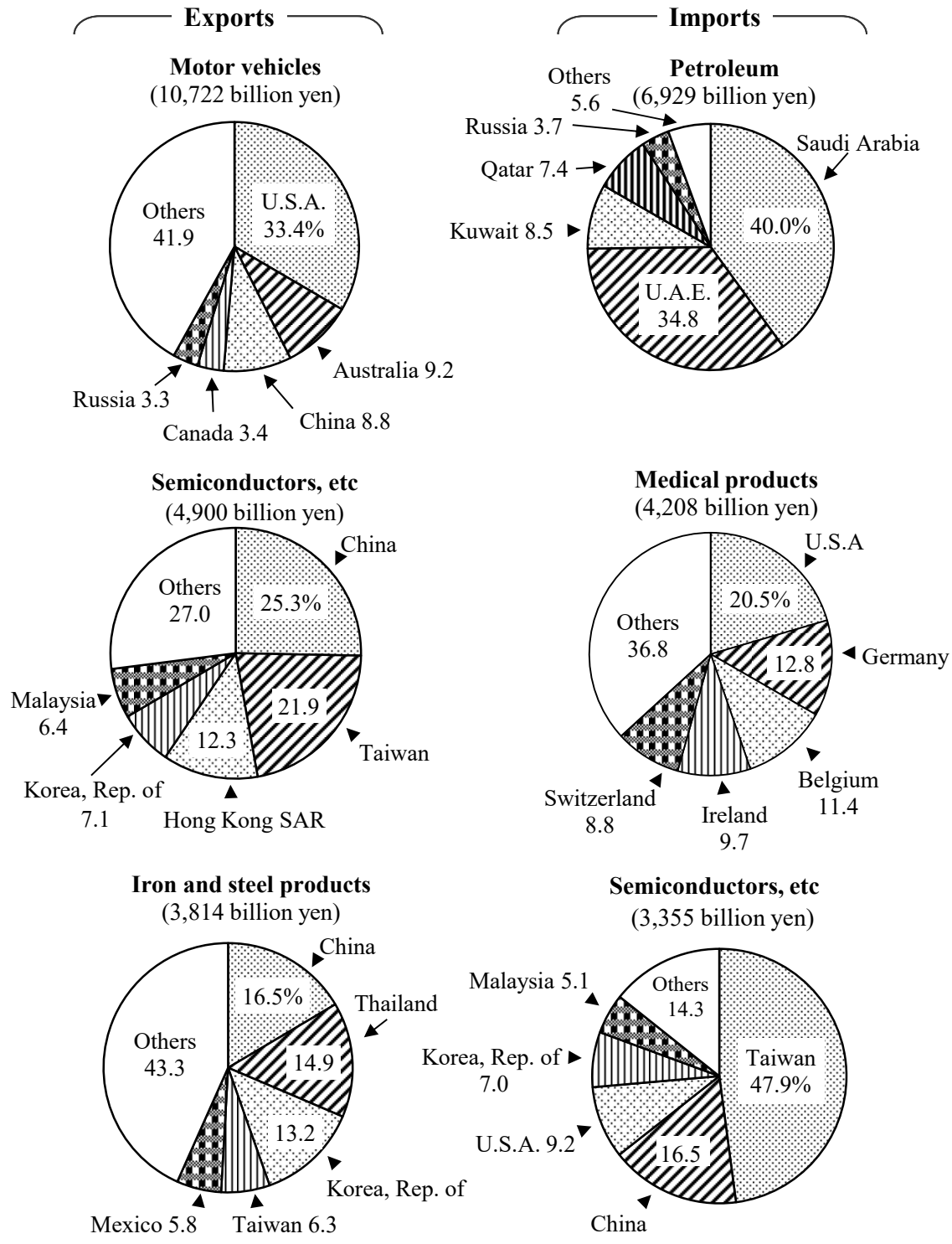
Table 11.2
Value of Exports and Imports by Principal Commodity

(Billion yen)

Item	2019	2020	2021	Annual growth (%)
Exports, total	76,932	68,399	83,091	21.5
Foodstuff	754	790	992	25.6
Raw materials	1,034	1,020	1,439	41.1
Mineral fuels	1,383	723	993	37.4
Chemicals	8,739	8,534	10,552	23.7
Plastic materials	2,430	2,420	2,976	23.0
Manufactured goods [1)]	8,407	7,504	9,928	32.3
Iron and steel products	3,074	2,574	3,814	48.2
General machinery	15,122	13,140	16,382	24.7
Semicon machinery, etc.	2,467	2,517	3,353	33.2
Electrical machinery	13,208	12,898	15,309	18.7
Semiconductors, etc.	4,006	4,155	4,900	17.9
Transport equipment	18,118	14,456	16,192	12.0
Motor vehicles	11,971	9,580	10,722	11.9
Others	10,167	9,334	11,302	21.1
Scientific, optical inst	2,130	1,968	2,322	18.0
Imports, total	78,600	68,011	84,875	24.8
Foodstuff	7,192	6,679	7,383	10.5
Meat and meat preparation	1,540	1,431	1,557	8.8
Raw materials	4,861	4,682	6,936	48.2
Ore of nonferrous	1,378	1,505	2,007	33.4
Mineral fuels	16,951	11,254	17,007	51.1
Petroleum	7,969	4,646	6,929	49.1
Chemicals	8,163	7,859	9,769	24.3
Medical products	3,092	3,197	4,208	31.6
Manufactured goods [1)]	7,068	6,564	8,277	26.1
Nonferrous metals	1,750	1,723	2,836	64.6
General machinery	7,583	7,043	7,682	9.1
Computers and units	2,211	2,406	2,392	-0.6
Electrical machinery	11,992	11,354	13,648	20.2
Semiconductors, etc.	2,581	2,506	3,355	33.9
Transport equipment	3,561	2,600	3,244	24.8
Motor vehicles	1,408	1,165	1,372	17.7
Others	11,229	9,977	10,930	9.5
Clothing and accessories	3,205	2,724	2,835	4.1

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

Figure 11.3
Component Ratios of the Value of Major Export and Import Commodities by Country/Region (2021)



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 Value of Exports and Imports by Country/Region

(Billion yen)

Year	Total	Asia	China	Korea, Rep. of	Taiwan	U.S.A.	EU [1)]	Middle East	Oceania
Exports from Japan									
2017	78,286	42,920	14,890	5,975	4,558	15,113	8,657	2,350	2,301
2018	81,479	44,736	15,898	5,793	4,679	15,470	9,209	2,434	2,402
2019	76,932	41,327	14,682	5,044	4,689	15,255	8,955	2,356	2,053
2020	68,399	39,220	15,082	4,767	4,739	12,611	6,460	1,809	1,688
2021	83,091	48,158	17,984	5,770	5,988	14,832	7,668	2,052	2,194
Imports to Japan									
2017	75,379	37,026	18,459	3,153	2,848	8,090	8,757	8,243	4,969
2018	82,703	39,218	19,194	3,550	2,998	9,015	9,718	10,375	5,659
2019	78,600	37,413	18,454	3,227	2,928	8,640	9,722	8,852	5,587
2020	68,011	34,678	17,508	2,842	2,863	7,454	7,832	5,558	4,359
2021	84,875	41,094	20,382	3,521	3,678	8,916	9,453	8,471	6,434

1) 28 countries: from July 2013 to Jan. 2020, 27 countries: from Feb. 2020 onward.
Source: Ministry of Finance.

(A) Trade with Asia

Japan's 2021 trade balance with Asia resulted in a 7.1 trillion yen in surplus, an increase for the second consecutive year (up 55.5 percent from the previous year). Exports (in FOB value) totaled 48.2 trillion yen (up 22.8 percent), an increase for the first time in 3 years; this was mainly due to the contributions for the increase in manufactured goods and general machinery. Imports (in CIF value) amounted to 41.1 trillion yen (up 18.5 percent), an increase for the first time in 3 years; this was mainly contributed to the increase in electrical machinery and manufactured goods.

In 2021, Japan's trade with China amounted to 18.0 trillion yen in exports and 20.4 trillion yen in imports. The percentage of the total amount of Japan's imports and exports that is accounted for by imports and exports between Japan and China is approximately 20 percent, signifying that China is Japan's largest trading counterpart.

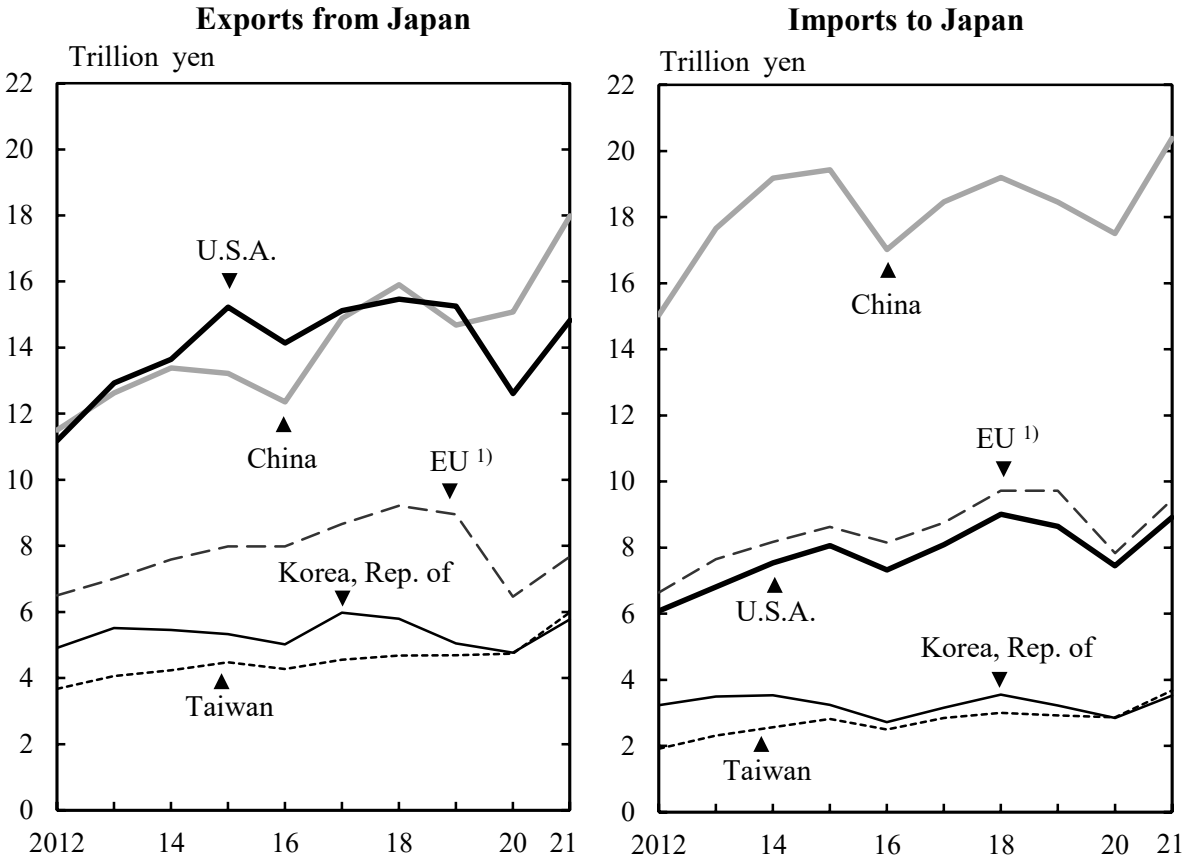
(B) Trade with U.S.A.

Japan's 2021 trade balance with the U.S.A. showed a surplus of 5.9 trillion yen (up 14.7 percent from the previous year), an increase for the first time in 2 years. Exports (in FOB value) totaled 14.8 trillion yen (up 17.6 percent), an increase for the first time in 3 years. The growth was due mainly to the contributions of general machinery and electrical machinery. Imports (in CIF value) totaled 8.9 trillion yen (up 19.6 percent), an increase for the first time in 3 years. The growth was due mainly to the contributions of mineral fuels and chemicals.

(C) Trade with EU

Japan's 2021 trade balance with the EU (27 countries) registered a deficit of 1.8 trillion yen. Exports (in FOB value) to the EU (27 countries) increased by 21.4 percent year-on-year, to 7.7 trillion yen. Commodities such as general machinery and electrical machinery contributed to the growth in exports. Imports (in CIF value) from the EU (27 countries) totaled 9.5 trillion yen, up 21.8 percent from the previous year. Commodities such as chemicals and transport equipment contributed to the growth in imports.

Figure 11.4
Trends in Value of Exports and Imports by Country/Region



1) 27 countries: from Jan. 2007 to June 2013, 28 countries: from July 2013 to Jan. 2020, 27 countries: from Feb. 2020 onward.
Source: Ministry of Finance.

2. International Balance of Payments

The current account in 2022 totaled 11.5 trillion yen, and its surplus shrank for the first time in 2 years, due to the trade balance switching to a deficit, etc. Breaking down the current account, goods and services fell by 18.7 trillion yen from the previous year to -21.2 trillion yen, recording a deficit for the fourth consecutive year. Primary income amounted to 35.2 trillion yen, which was a 33.4 percent increase in its surplus from the previous year.

The financial account amounted to 6.5 trillion yen in 2022, due to factors such as an increase in net assets for direct investment, etc.

Table 11.4
International Balance of Payments

(Billion yen)

Item	2019	2020	2021	2022
Current account	19,251.3	15,991.7	21,536.3	11,546.6
Goods and services	-931.8	-877.3	-2,483.4	-21,163.8
Goods	150.3	2,777.9	1,762.3	-15,743.6
Exports	75,775.3	67,262.9	82,352.6	98,768.8
Imports	75,625.0	64,485.1	80,590.3	114,512.4
Services	-1,082.1	-3,655.2	-4,245.7	-5,420.2
Primary income	21,553.1	19,438.7	26,378.8	35,185.7
Secondary income	-1,370.0	-2,569.7	-2,359.1	-2,475.3
Capital account	-413.1	-207.2	-423.2	-114.4
Financial account [1)]	24,862.4	14,125.1	16,837.6	6,492.2
Direct investment	23,859.1	9,389.8	19,242.8	16,958.2
Portfolio investment	9,366.6	4,391.6	-21,917.5	-19,256.5
Financial derivatives (other than reserves)	370.0	799.9	2,168.5	5,136.2
Other investment	-11,537.2	-1,654.1	10,453.9	10,711.4
Reserve assets	2,803.9	1,198.0	6,889.9	-7,057.1
Net errors and omissions	6,024.2	-1,659.4	-4,275.5	-4,940.0

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

Source: Ministry of Finance.

Japan's external assets (overseas assets held by residents in Japan) as of the end of 2022 amounted to 1,338.2 trillion yen, while its external liabilities (assets held in Japan by nonresidents) were 919.6 trillion yen. As a result, Japan's net international investment position (external assets minus external liabilities) were 418.6 trillion yen.

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

(Billion yen)

Item	2018	2019	2020	2021	2022
Assets	1,018,047	1,090,549	1,149,589	1,257,141	1,338,236
Liabilities	676,597	733,534	789,597	839,232	919,608
Net assets	341,450	357,015	359,992	417,908	418,629

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

Japan's reserve assets remained at around 220 billion U.S. dollars during the period from 1996 to 1998. Beginning in 1999, reserve assets increased continuously. A downward trend started at the end of 2012, but at the end of 2017, assets began to increase again, and increased to the end of 2021. They amounted to 1,227.6 billion U.S. dollars (down 12.7 percent from the previous year) at the end of 2022, marking a decrease for the first time in 6 years.

Table 11.6
Reserve Assets

(Million U.S. dollars)

End of year	Total	Foreign currency reserves [1)]	IMF reserve position	SDRs	Gold [2)]	Other reserve assets [3)]
2018	1,270,975	1,208,958	11,464	18,484	31,531	538
2019	1,323,750	1,255,322	11,202	19,176	37,469	581
2020	1,394,680	1,312,160	15,147	20,215	46,526	632
2021	1,405,750	1,278,925	10,643	62,330	49,505	4,347
2022	1,227,576	1,103,907	10,817	59,275	49,295	4,282

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

The yen began appreciating sharply in late 2008. From 2011 into 2012, the exchange rate of yen to the U.S. dollar 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 (QQME) to put an end to deflation. Based on this, the exchange rate shifted towards yen depreciation. Subsequently, the yen strengthened from early to mid 2016, followed by a leveling off phase from 2017. However, from March 2022, factors such as trends in the interest rate difference between the U.S.A. and Japan have led, with some fluctuations, to a weakening yen-dollar exchange rate. As of April 2023, the exchange rate was 135.7 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 non-profit organizations, assistance activities by NGOs and volunteer citizen groups, etc. With regard to ODA, there are various forms, including bilateral assistance, which assists developing countries and regions directly, and multilateral assistance, which contributes to international organizations.

Table 11.7
Financial Flows to Developing Countries

(Million U.S. dollars)

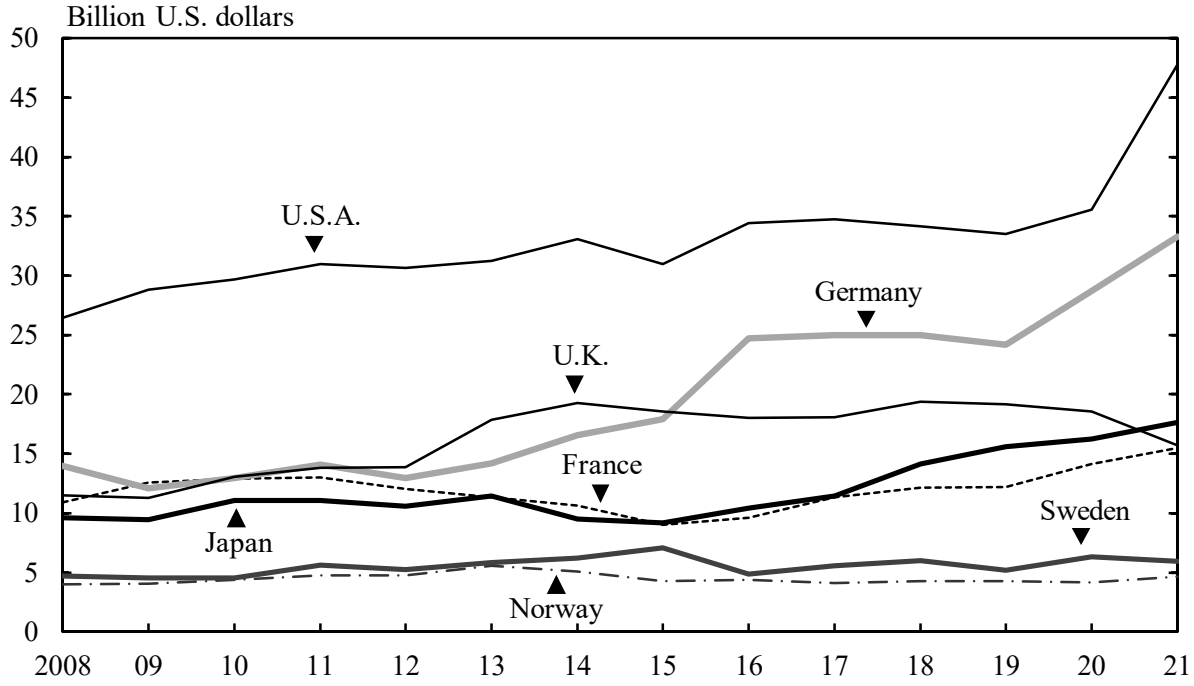
Item	Net disbursements [1]		Grant equivalent [2]	
	2020	2021	2020	2021
Total value	32,472	38,494	…	…
Official flows	18,558	16,356	…	…
Official Development Assistance (ODA)	13,660	15,765	16,260	17,634
Bilateral official development assistance [3]	10,243	11,621	13,181	13,716
Grants [3]	5,470	5,680	5,470	5,680
Grant assistance [3]	3,068	3,257	3,068	3,257
Technical assistance	2,401	2,423	2,401	2,423
Loans	4,774	5,940	7,712	8,036
Contributions to multilateral institutions	3,417	4,145	3,079	3,918
Other Official Flows (OOF)	4,898	591	…	…
Export credits (over 1 year)	3	-286	…	…
Direct investment and others	4,895	876	…	…
Contributions to multilateral institutions	-	-	-	-
Private Flows (PF)	13,309	21,502	…	…
Export credits (over 1 year)	-5,414	-570	…	…
Direct investment	25,031	26,702	…	…
Other bilateral securities and claims	-4,213	-5,911	…	…
Contributions to multilateral institutions	-2,095	1,280	…	…
Grants by private non-profit organizations	606	636	…	…
ODA as percentage of GNI (%)	0.26	0.31	0.31	0.34
ODA as percentage of GNI (DAC average) (%)	…	…	0.33	0.33

1) Net disbursements at current prices and exchange rate designated by DAC. Negative figures (-) indicate that loan repayments, etc., exceeded the disbursed amount. 2) Grant equivalent at current prices and exchange rate designated by DAC. 3) Including bilateral grants through multilateral institutions.
Source: Ministry of Foreign Affairs; Ministry of Finance; OECD.

In the ODA framework, Japan's spending (on a grant equivalent basis at current prices) in 2021 was increased by 8.4 percent over the previous year to 17.6 billion U.S. dollars. Japan contributed to the growth of developing countries as the world's number-one ODA donor for 10 consecutive years up until 2000, but recently Japan's ODA budget has declined to about half its peak level.

With regard to the comparison of the ODA grant equivalents in 2021 of the member countries of the Development Assistance Committee (DAC) of the OECD, Japan was the third-largest contributor behind the U.S.A. and Germany. The ratio of Japan's ODA grant equivalent to Gross National Income (GNI) was 0.34 percent, or an increase of 0.03 percentage points compared with that of the previous year.

Figure 11.6
Trends in ODA by Country [1)]



1) 2008-2017 data: Net disbursement at current prices and exchange rate designated by DAC.
2018-2021 data: Grant equivalent at current prices and exchange rate designated by DAC.
Source: OECD.

Of the 17.6 billion U.S. dollars in ODA grant equivalent provided by Japan in 2021, 13.7 billion was bilateral ODA (up 4.1 percent year-on-year), and 3.9 billion was ODA contributed through multilateral institutions (up 27.2 percent).

Bilateral ODA (grant equivalent at current prices) provided in 2021 consisted of 3.3 billion U.S. dollars of grant assistance, 2.4 billion of technical assistance, and 8.0 billion of loans.

By region, bilateral ODA (net disbursement at current prices, including assistance to designated countries in developing regions) was distributed as follows: Asia, 5,413 million U.S. dollars; Sub-Saharan Africa, 1,630 million U.S. dollars; Middle East and North Africa, 1,211 million U.S. dollars; Oceania, 619 million U.S. dollars; Latin America and the Caribbean, 480 million U.S. dollars; and Europe, 51 million U.S. dollars.

Table 11.8

Regional Distribution of Bilateral ODA [1] (2021)

(Million U.S. dollars)

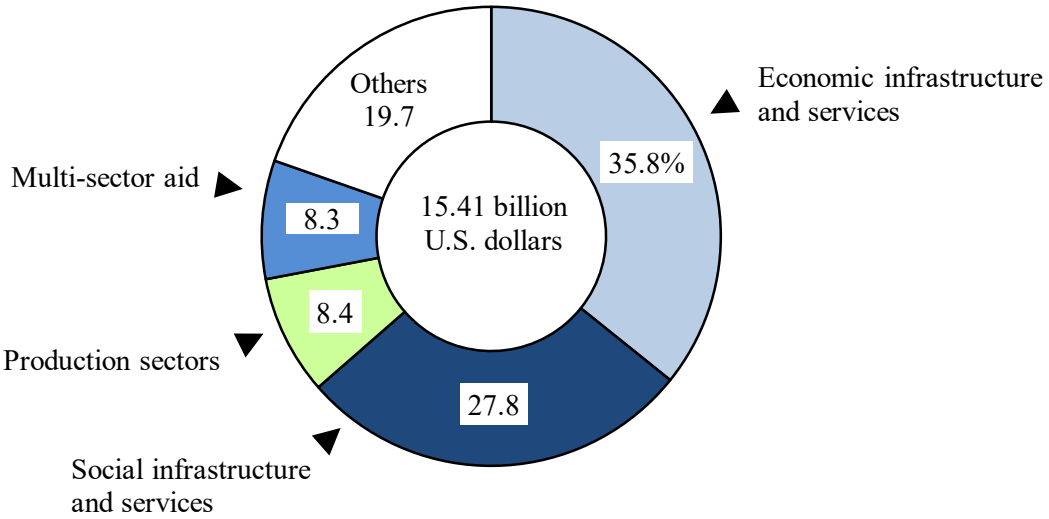
Region	Net disbursements
Total	11,625
Asia	5,413
ASEAN	1,036
Middle East and North Africa	1,211
Sub-Saharan Africa	1,630
Latin America and the Caribbean	480
Oceania	619
Europe	51
Multiple regions, etc.	2,221

1) Net disbursement at current prices and exchange rate designated by DAC. Including assistance to designated countries in developing regions. The negative figure (-) indicates that repayments of loans, etc. exceeded the disbursed amount.

Source: Ministry of Foreign Affairs.

Bilateral ODA in 2021 (including assistance to designated countries in developing regions) was broken down by purpose (on a commitments basis) as follows: 35.8 percent for improving "economic infrastructure and services" (including transport, storage and energy), followed in descending order by "social infrastructure and services", at 27.8 percent.

Figure 11.7
Distribution of Bilateral ODA by Sector [1] (2021)



1) Commitments basis. Including assistance to designated countries in developing regions.
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 through its ODA activities, both of which are vital to the growth of developing countries.

Table 11.9
Number of Persons Involved in Technical Cooperation by Type [1)]

Type of cooperation	FY2021
Total	26,665
Trainees received	21,735
Dispatched	
Experts	2,583
Research team	1,992
Japan Overseas Cooperation Volunteers	312
Other volunteers	43

1) Numbers of persons newly received/dispatched in the aforementioned fiscal year.
Source: Japan International Cooperation Agency.

Chapter 12

Labour

1. Labour Force

After the population in Japan aged 15 years old and over peaked at 111.18 million people in 2017, it has been broadly flat since 2018. In 2022, this population reached 110.38 million people.

In the 2000s, the labour force (among the population aged 15 years old and over, the total of employed persons and unemployed persons) had been on a downward trend due to the aging of the population, but began to increase in 2013 and continued to increase until 2019. In 2020, there was a decrease due to the effects of COVID-19, but in 2021, the figure increased. In 2022, it was 69.02 million, a decrease of 0.05 million (0.1 percent) from the previous year and the first decrease in 2 years.

The labour force participation rate (the rate of the labour force to the population aged 15 years old and over) was 62.5 percent in 2022 (up 0.4 percentage points from the previous year). Observed by gender, the rate was 71.4 percent for males (up 0.1 percentage points) and 54.2 percent for females (up 0.7 percentage points).

Table 12.1
Population by Labour Force Status

(Thousands)

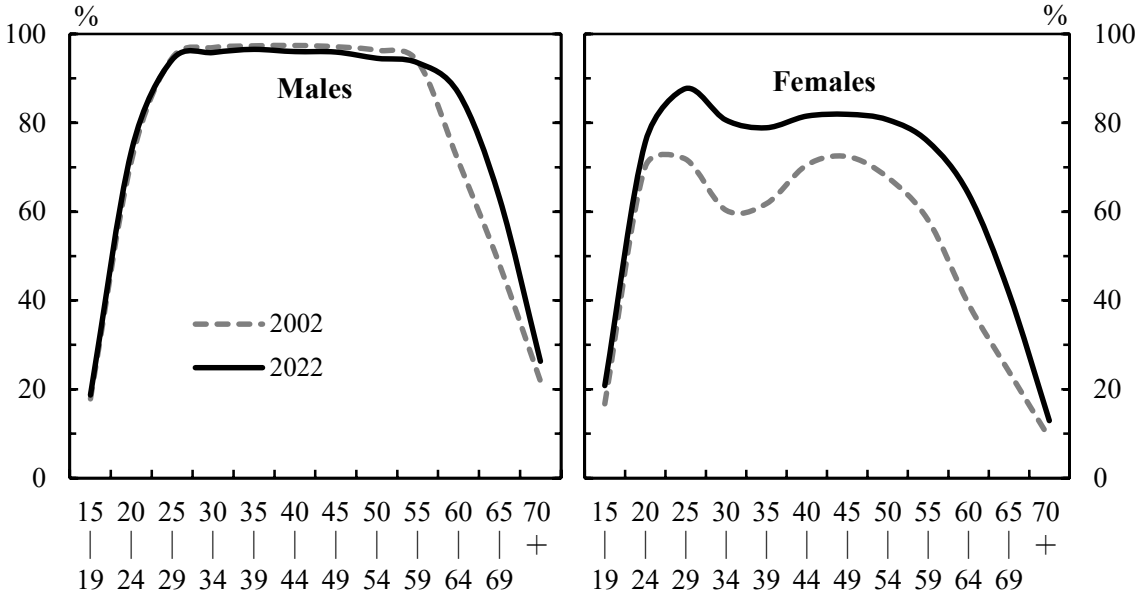
Year	Population aged 15 years old and over	Labour force			Not in labour force	Unemployment rate (%)
		Total	Employed	Unemployed		
Total						
2005	110,080	66,510	63,560	2,940	43,460	4.4
2010	111,110	66,320	62,980	3,340	44,730	5.1
2015	111,100	66,250	64,020	2,220	44,790	3.4
2019	111,120	69,120	67,500	1,620	41,910	2.4
2020	111,080	69,020	67,100	1,920	41,970	2.8
2021	110,870	69,070	67,130	1,950	41,710	2.8
2022	110,380	69,020	67,230	1,790	41,280	2.6
Males						
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
2015	53,650	37,730	36,390	1,350	15,880	3.6
2019	53,660	38,410	37,440	960	15,200	2.5
2020	53,640	38,400	37,240	1,150	15,200	3.0
2021	53,510	38,270	37,110	1,170	15,200	3.1
2022	53,280	38,050	36,990	1,070	15,180	2.8
Females						
2005	56,850	27,500	26,330	1,160	29,300	4.2
2010	57,460	27,830	26,560	1,280	29,600	4.6
2015	57,460	28,520	27,640	890	28,910	3.1
2019	57,470	30,720	30,050	660	26,700	2.2
2020	57,440	30,630	29,860	760	26,770	2.5
2021	57,350	30,800	30,020	780	26,510	2.5
2022	57,110	30,960	30,240	730	26,100	2.4

Source: Statistics Bureau, MIC.

The female labour force participation rate by age group is in an M-shaped curve, which implies that females leave the labour force when they get married or give birth and then rejoin the labour force after their child has grown. However, the shape of the M-shaped curve has been changing in recent years. A comparison with the data from 20 years ago (2002) shows that, in 2022, the 35-39 age group replaced the 30-34 age group to form the bottom of the M-shaped curve. The participation rate rose by 20.3

percentage points in the 30-34 age group and by 17.1 percentage points in the 35-39 age group, making the bottom of the M-shaped curve flatter and more gradual. While this is thought to be greatly affected by the progression of enhancement of the legal system to balance work and childcare, and the improvement of work environment of companies, there are also effects from the trend of getting married and having children later in life.

Figure 12.1
Labour Force Participation Rate by Gender and Age Group



Source: Statistics Bureau, MIC.

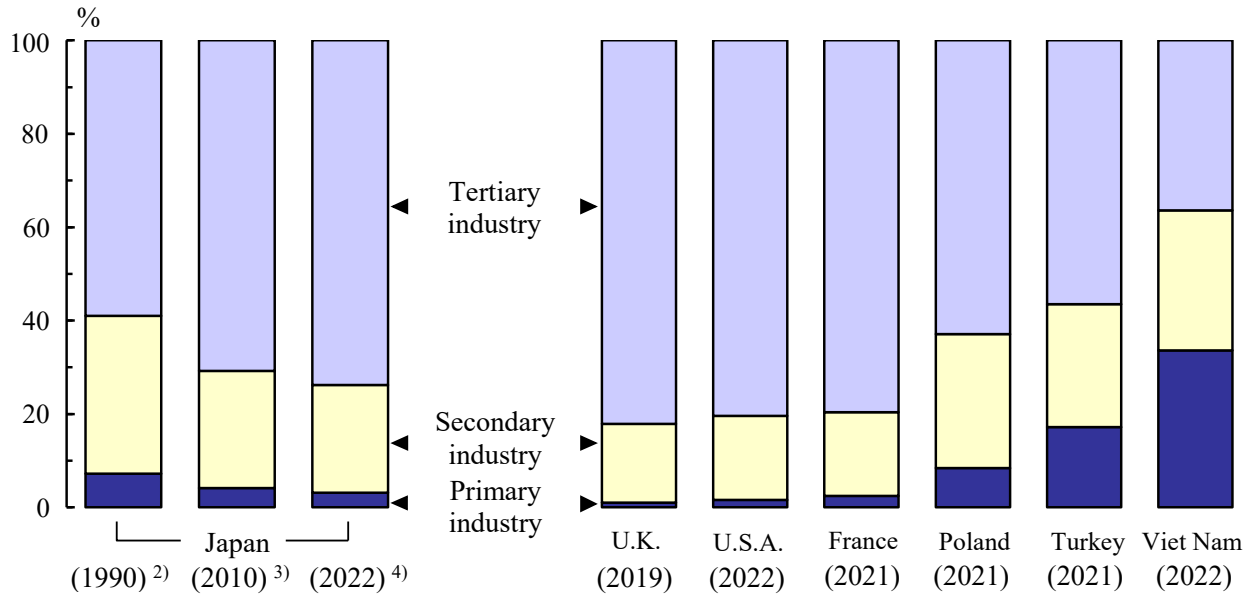
2. Employment

The number of employed persons declined between 2008 and 2012, before increasing between 2013 and 2019. Although there was a decrease for the first time in 8 years in 2020, the number began increasing in 2021, and the increase amounted to 0.1 million in 2022, from 67.13 million (60.4 percent of the population aged 15 years old and over) in the previous year to 67.23 million (60.9 percent).

(1) Employment by Industry

In 2022, the primary industry accounted for 3.1 percent of the total of employed persons; the secondary industry, 23.1 percent; and the tertiary industry, 73.8 percent.

Figure 12.2
Structure of Employment by Country 1)



1) As to the countries other than Japan, the industrial classification is the International Standard Industrial Classification of All Economic Activities, Revision 4 (ISIC Rev.4).
2) The industrial classification is the 10th revision of the Japan Standard Industrial Classification (JSIC).
3) The industrial classification is the 12th revision of the JSIC.
4) The industrial classification is the 13th revision of the JSIC.
Source: Statistics Bureau, MIC; International Labour Organization.

Over the long term, the percentage of persons employed in the primary industry and in the secondary industry have been continually falling, while the percentage of persons employed in the tertiary industry has been continually rising. Within the tertiary industry, the number of those in "medical, health care and welfare" has been increasing.

Depending on the industrial sector, a difference was seen in the employment tendency between males and females. In 2022, the percentage of male employment was highest in "mining and quarrying of stone and gravel", followed by "fisheries" and "construction". The percentage of female employment was highest in "medical, health care and welfare", followed by "accommodations, eating and drinking services" and "living-related and personal services and amusement services".

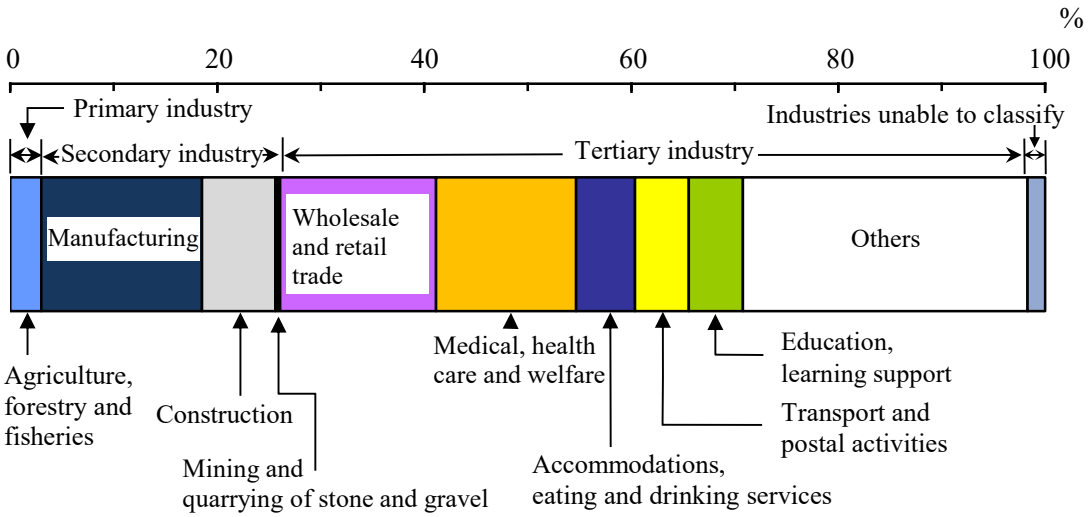
Table 12.2
Employment by Industry

(Thousands)

Industries	2019	2020	2021	2022	Percentage [1]	
					Males	Females
Total [2]	67,500	67,100	67,130	67,230	55.0	45.0
Primary industry	**2,220**	**2,130**	**2,080**	**2,050**	**62.7**	**37.3**
Agriculture and forestry	2,070	2,000	1,950	1,920	61.5	38.5
Fisheries	150	130	130	130	83.3	16.7
Secondary industry	**15,700**	**15,470**	**15,330**	**15,250**	**74.0**	**26.0**
Mining and quarrying of stone and gravel	20	20	30	20	100.0	0.0
Construction	5,000	4,940	4,850	4,790	82.3	17.7
Manufacturing	10,680	10,510	10,450	10,440	70.1	29.9
Tertiary industry	**48,080**	**48,260**	**48,660**	**48,810**	**48.9**	**51.1**
Electricity, gas, heat supply and water	280	320	340	320	81.3	18.8
Information and communications	2,300	2,410	2,580	2,720	71.7	28.3
Transport and postal activities	3,480	3,490	3,520	3,510	78.1	21.9
Wholesale and retail trade	10,640	10,620	10,690	10,440	47.6	52.4
Finance and insurance	1,670	1,670	1,680	1,600	45.6	54.4
Real estate and goods rental and leasing	1,300	1,400	1,420	1,410	58.9	41.1
Scientific research, professional and technical services	2,410	2,450	2,540	2,540	62.2	37.8
Accommodations, eating and drinking services	4,210	3,920	3,710	3,810	38.1	61.9
Living-related and personal services and amusement services	2,420	2,360	2,270	2,250	39.6	60.4
Education, learning support	3,360	3,410	3,480	3,490	41.5	58.5
Medical, health care and welfare	8,470	8,670	8,910	9,080	25.0	75.0
Compound services	540	510	500	500	58.0	42.0
Services, N.E.C.	4,570	4,540	4,520	4,630	59.0	41.0
Government [3]	2,430	2,490	2,500	2,510	67.9	32.1

1) Calculated from figures rounded to thousands.
2) Including "Industries unable to classify". 3) Excluding elsewhere classified.
Source: Statistics Bureau, MIC.

Figure 12.3
Distribution of Employment by Industry (2022)



Source: Statistics Bureau, MIC.

(2) Employment by Occupation

In terms of occupation, the "administrative and managerial workers" has been declining in recent years. The number was 1.24 million in 2022, down 3.9 percent from the previous year's 1.29 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 on welfare services. There is also a rising trend in the number of "professional and engineering workers". The number was 12.77 million in 2022, which accounted for approximately 19.0 percent of the total employed persons.

Table 12.3
Employment by Occupation

(Thousands)

Occupation	2019	2020	2021	2022	Percentage	
					Males	Females
Total [1]	67,500	67,100	67,130	67,230	55.0	45.0
Administrative and managerial workers	1,290	1,290	1,290	1,240	87.1	12.9
Professional and engineering workers	11,790	12,210	12,650	12,770	52.1	47.9
Clerical workers	13,260	13,600	13,890	14,010	39.5	60.5
Sales workers	8,590	8,520	8,480	8,260	55.0	45.0
Service workers	8,520	8,310	8,060	8,170	31.6	68.4
Security workers	1,330	1,330	1,300	1,290	93.0	7.0
Agricultural, forestry and fishery workers	2,170	2,090	2,030	1,990	64.8	35.2
Manufacturing process workers	9,110	8,730	8,650	8,700	70.2	29.8
Transport and machine operation workers	2,220	2,180	2,140	2,160	96.3	3.7
Construction and mining workers	2,940	2,930	2,840	2,760	97.5	2.5
Carrying, cleaning, packaging, and related workers	4,920	4,820	4,880	4,890	55.0	45.0

1) Including figures unclassifiable or not reported.
Source: Statistics Bureau, MIC.

In 2022, the percentages of male and female employed persons by occupation show that males were particularly prominent among "construction and mining workers" (97.5 percent) and "transport and machine operation workers" (96.3 percent). Females were prominent among "service workers" (68.4 percent) and "clerical workers" (60.5 percent).

(3) Employment by Employment Pattern

With regard to the trends in the number of employed persons by employment pattern, the number of non-regular staff members (such as part-time workers and agency-dispatched workers) has been increasing continuously for 10 consecutive years since 2010. However, in 2020, it decreased for the first time in 11 years, and in 2021 it decreased again for the second consecutive year. In 2022, the number began increasing again, for the first time in 3 years. The number of regular staff members was on a slight declining trend in the 2000s and the early 2010s, but began to rise in 2015 and has continued to rise for 8 years in a row.

In 2022, there were 56.89 million employees (excluding company

executives), 21.01 million of whom, or 36.9 percent, were non-regular staff members. The ratio of non-regular staff members among all male employees was 22.2 percent, while the corresponding ratio for females was 53.4 percent, revealing a large difference between the genders.

With regard to the percentage of non-regular staff members to the total of regular and non-regular staff members by gender and age group, for males, the percentages of young people aged 15 to 24 years old, and the elderly aged 65 years old and over were high. Among females, non-regular staff members accounted for more than 50 percent across all age groups, with the exception of females aged 25 to 34 and 35 to 44 years old.

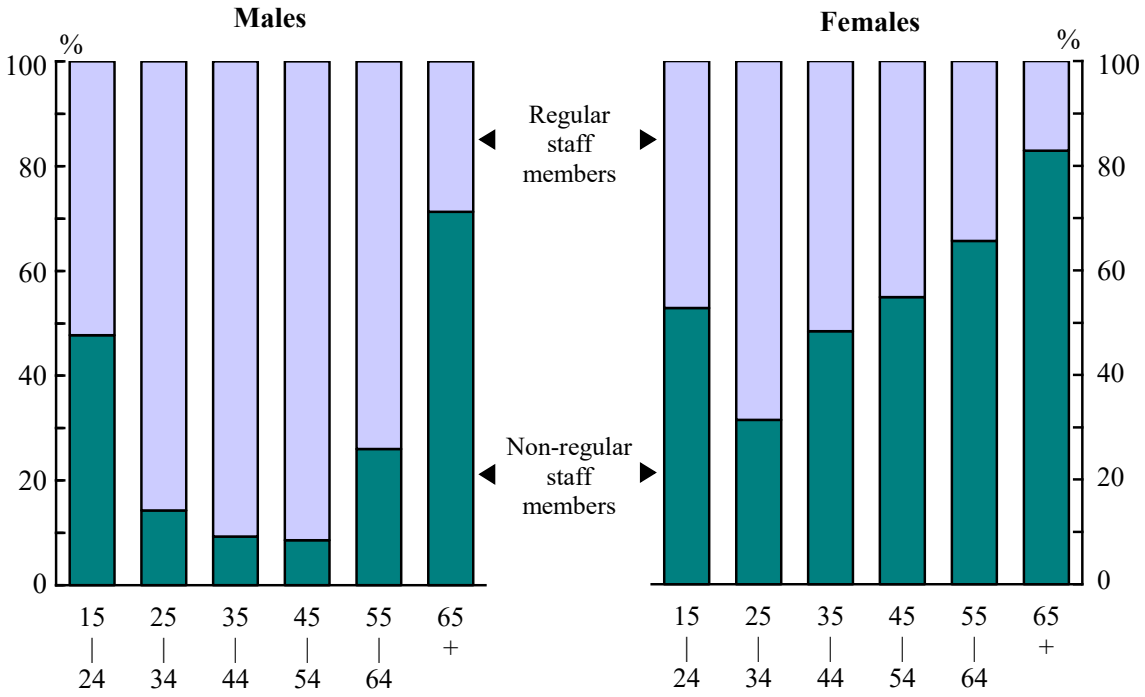
Table 12.4
Employment by Employment Pattern (2022)

(Thousands)

	Employees [1)]	Regular staff members	Percentage	Non-regular staff members	Percentage
Total	56,890	35,880	63.1	21,010	36.9
Males	30,080	23,390	77.8	6,690	22.2
Females	26,810	12,490	46.6	14,320	53.4

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

Figure 12.4
Employment Pattern by Gender and Age Group (2022)



Source: Statistics Bureau, MIC.

With regard to the main reasons for the current employment patterns of males and females who are non-regular staff members, for males, the reason "For working at convenient times" was the most popular, on average in 2022, with 1.99 million males (31.2 percent) choosing this reason, up 0.12 million people as compared to the previous year. The most popular reason among females was also "For working at convenient times", with 4.80 million females (34.5 percent) choosing this reason, up 0.10 million people.

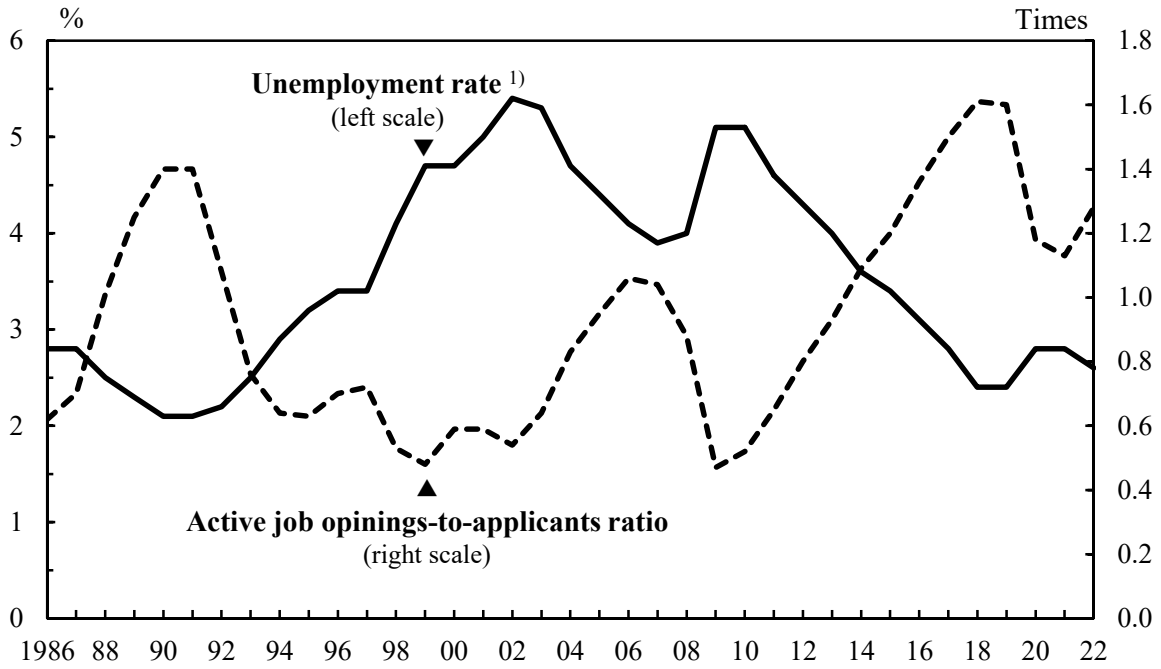
The employment rate of new graduates of high schools, universities, and other educational institutions declined at the time of the bankruptcy of the major American securities firm Lehman Brothers, and after that a generally increasing trend continued against a backdrop of issues like labour shortages and economic expansion. However, due to the effects of the COVID-19 pandemic, there was a decline in the employment rate of new graduates graduating in March 2021. After that, there was an increase in the employment rate of new graduates graduating in March 2023.

3. Unemployment

In 2022, the number of unemployed persons stood at 1.79 million people, down 8.2 percent from the previous year, recording the first decrease in 3 years. The unemployment rate was 2.6 percent, down 0.2 percentage points from the previous year, the first increase in 4 years.

The active job openings-to-applicants ratio had been on an upward trend from 2009 to 2019. However, as a result of the impact of COVID-19, the ratio declined in 2020 and 2021, but in 2022 it stood at 1.28 times, up 0.15 points from the previous year.

Figure 12.5
Unemployment Rate and Active Job Openings-to-Applicants Ratio

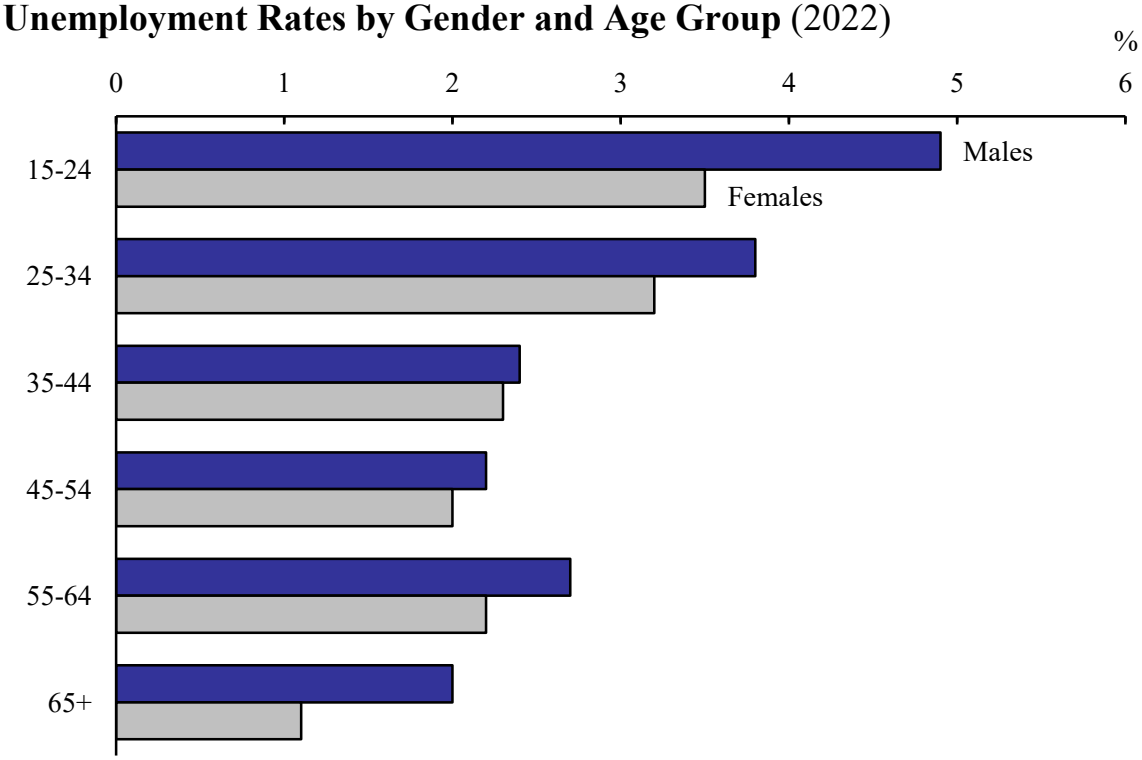


1) The data for 2011 indicates supplementary estimated figure.
Source: Statistics Bureau, MIC; Ministry of Health, Labour and Welfare.

The breakdown by gender shows that the unemployment rate in 2022 was 2.8 percent among males, and 2.4 percent among females. The unemployment rate among males has been higher since 1998.

The unemployment rate was higher in younger age groups than in other age groups, in males and females alike.

Figure 12.6
Unemployment Rates by Gender and Age Group (2022)

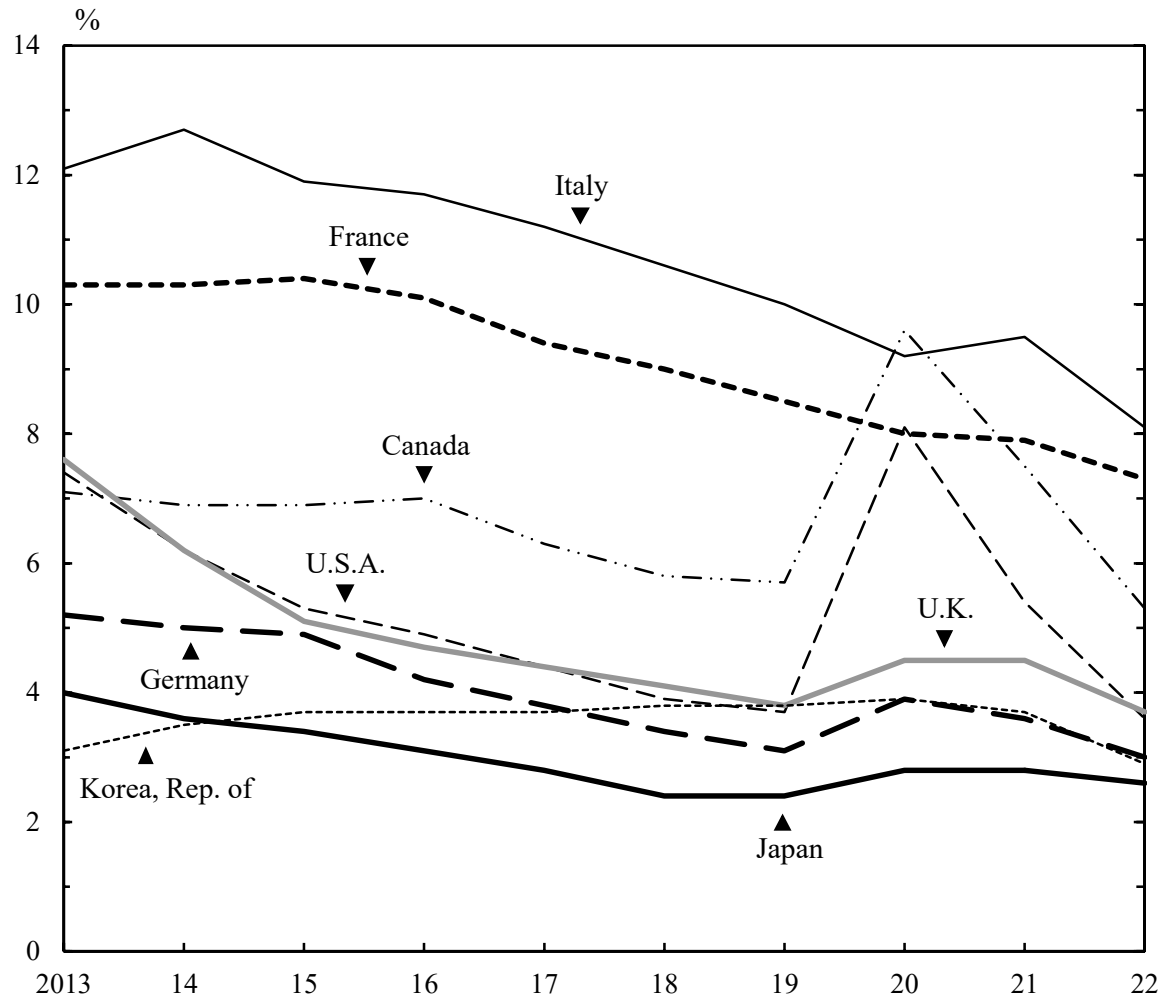


Source: Statistics Bureau, MIC.

With regard to the total number of unemployed persons in 2022, by reason for job-seeking, the major reasons were: (i) involuntary separation due to corporate or business circumstances, or reaching retirement age limit, 0.46 million persons; (ii) voluntary separation for personal or family reasons, 0.72 million persons; (iii) new job seekers due to the necessity to earn income, 0.24 million; and (iv) new job seekers just graduated from school, 0.07 million.

In terms of the duration of unemployment, the largest was unemployed for "1 year or more" (0.64 million persons), followed by "less than 3 months" (0.62 million persons).

Figure 12.7
Unemployment Rates by Country



Source: Statistics Bureau, MIC; Cabinet Office.

4. Hours Worked and Cash Earnings

In 2022, the monthly average of total hours worked was 136.1 per regular employee (in establishments with 5 or more regular employees), up 0.1 percent from the previous year, and an annual average was 1,633 hours.

Of the total monthly hours worked per regular employee, 126.0 were scheduled hours worked, representing a decrease of 0.3 percent from the previous year. Non-scheduled hours worked such as overtime work were 10.1 hours, representing an increase of 4.6 percent from the previous year. Monthly days worked per regular employee were 17.6 days in 2022.

In 2022, the monthly average of total cash earnings per regular employee (in establishments with 5 or more regular employees) was 325,817 yen. This total amount consists of 267,461 yen in "contractual cash earnings" (total for "scheduled cash earnings" and "non-scheduled cash earnings" for working overtime, on holidays and late at night, as well as other allowances), and 58,356 yen in "special cash earnings" (which include summer and year-end bonuses, payments to celebrate employees' marriages, etc.).

Table 12.5

Hours Worked and Cash Earnings [1] (Monthly average)

Year	Days worked	Hours Worked			Cash Earnings (1,000 yen)				
		Total	Scheduled	Non-scheduled	Total	Contractual	Scheduled	Non-scheduled	Special [2]
2018	18.4	142.2	131.4	10.8	324	265	245	20	59
2019	18.0	139.1	128.5	10.6	323	264	244	20	58
2020	17.7	135.1	125.9	9.2	318	262	245	17	56
2021	17.7	136.1	126.4	9.7	319	264	246	18	56
2022	17.6	136.1	126.0	10.1	326	267	249	19	58
Indices (2020 average = 100)									
2018	-	105.2	104.4	117.5	101.6	100.9	99.9	-	-
2019	-	102.9	102.0	115.1	101.2	100.7	99.8	-	-
2020	-	100.0	100.0	100.0	100.0	100.0	100.0	-	-
2021	-	100.7	100.4	105.2	100.3	100.5	100.3	-	-
2022	-	100.8	100.1	110.0	102.3	101.9	101.4	-	-

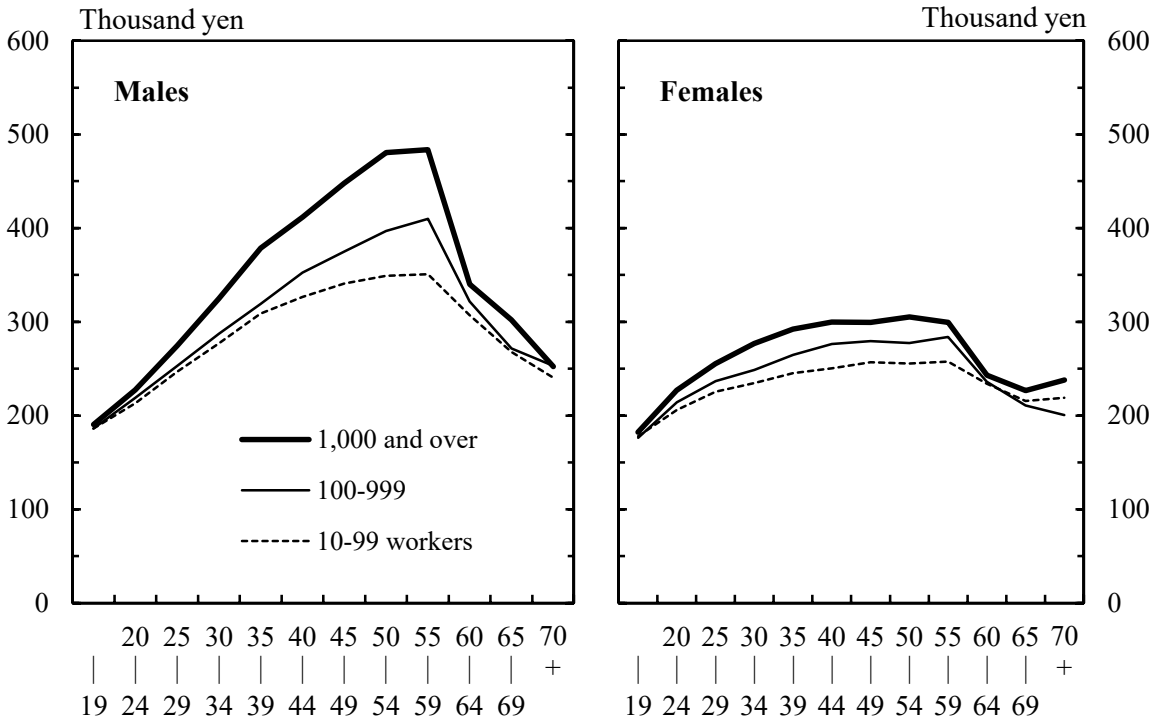
1) Establishments with 5 or more regular employees.

2) Bonuses and other special allowances.

Source: Ministry of Health, Labour and Welfare.

The average earnings (scheduled cash earnings) in Japan go up with age until roughly the 40s to mid-50s and then decline. In revising salaries, about 40 percent of all companies emphasize "corporate performance", but in the context of worsening labour shortages, a rising percentage of companies in recent years have been placing the greatest emphasis on "securing and retaining their labour force".

Figure 12.8
Monthly Scheduled Cash Earnings by Size of Enterprise, Gender, and Age Group (2022)



Source: Ministry of Health, Labour and Welfare.

Chapter 13

Family Budgets and Prices

1. Family Budgets

In 2020, there were approximately 56 million private households in Japan, of which about 62 percent are two-or-more-person households and about 38 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 2022 results of the "Family Income and Expenditure Survey".

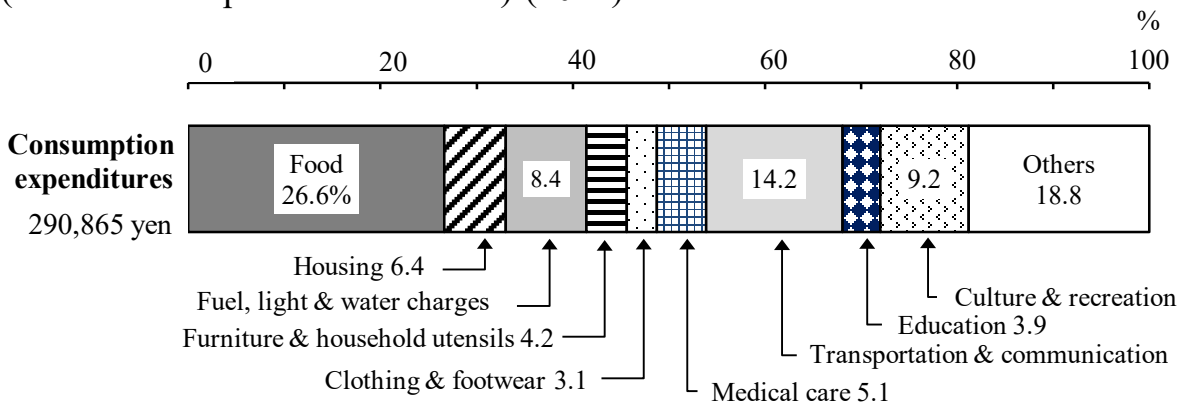
(1) Income and Expenditure

(A) Two-or-more-person Households

The 2022 average monthly consumption expenditures per two-or-more-person household (the average number of household members being 2.91 and the average age of the household head being 60.1 years) were 290,865 yen. Compared to the previous year, it increased by 4.2 percent in nominal terms and increased by 1.2 percent in real terms. The share of food expenses to total consumption expenditures (Engel's coefficient) was 26.6 percent.

Results for 2022 marked an increase, for the second consecutive year, in the real annual change rate in consumption expenditures.

Figure 13.1
Average Monthly Consumption Expenditures per Household 1)
(Two-or-more-person households) (2022)



1) Use Classification.
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 3.24 and the average age of the household head being 50.4 years) was 617,654 yen in 2022. With regard to the breakdown of income, regular income by the household head makes up the majority. The ratio of income by spouses has been increasing little by little, however.

Table 13.1

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

(Thousand yen)

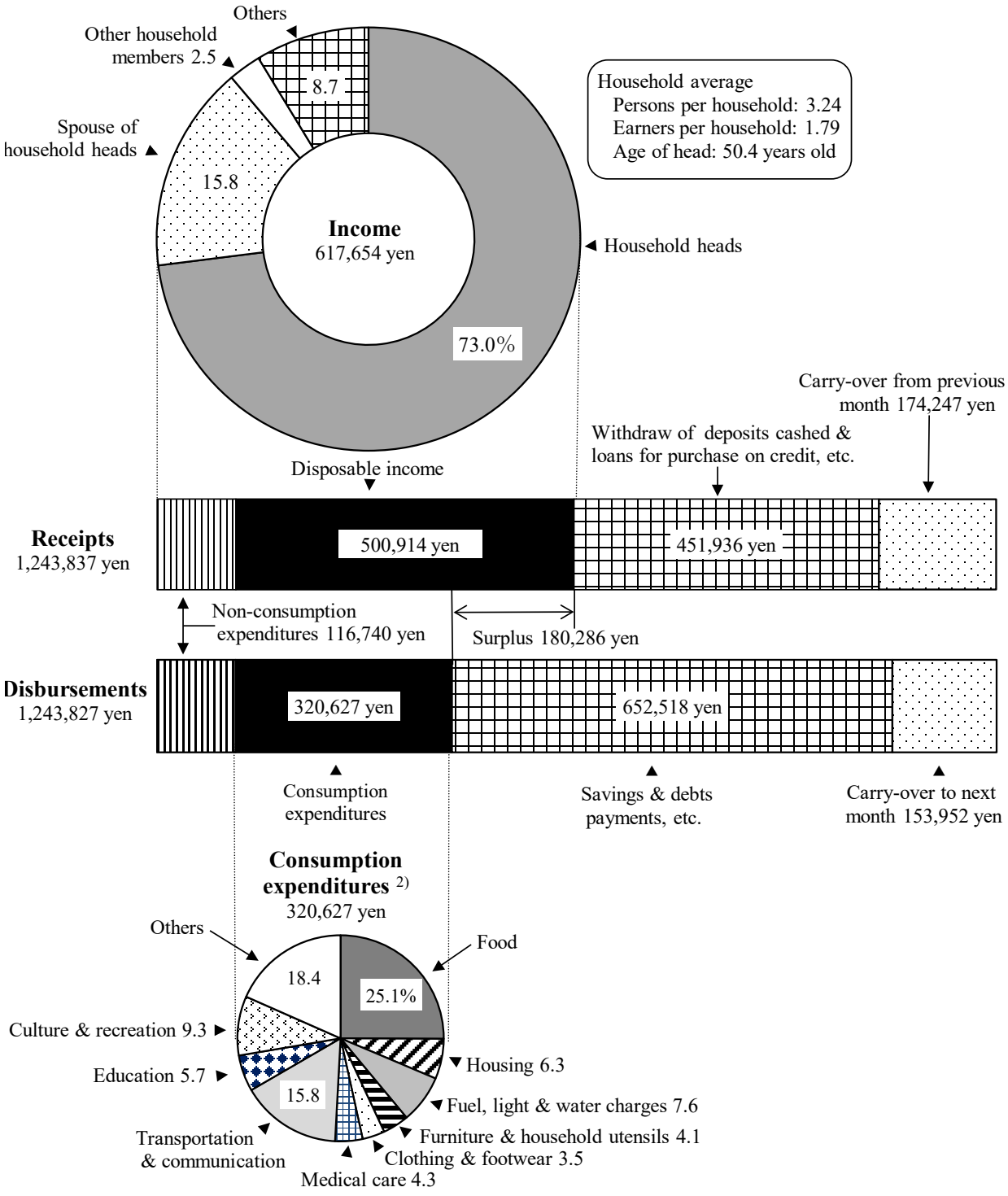
Item	2018	2019	2020	2021	2022
Income (A)	558.7	586.1	609.5	605.3	617.7
Wages and salaries	512.6	536.3	536.9	551.0	564.0
Others	46.1	49.8	72.7	54.3	53.6
Disposable income (A-C)	455.1	476.6	498.6	492.7	500.9
Expenditures	418.9	433.4	416.7	422.1	437.4
Consumption expenditures (B)	315.3	323.9	305.8	309.5	320.6
Non-consumption expenditures (C) [2]	103.6	109.5	110.9	112.6	116.7
Surplus ((A-C)-B)	139.8	152.8	192.8	183.2	180.3
Net increase in deposits and insurance	121.1	149.7	175.5	168.7	168.2
Average propensity to consume (%) [3]	69.3	67.9	61.3	62.8	64.0
Ratio of net increase in deposits and insurance (%) [4]	26.6	31.4	35.2	34.2	33.6
Engel's coefficient (%)	24.1	23.9	26.0	25.4	25.1
Annual change (%) (real terms)					
Disposable income	3.6	4.1	4.6	-0.9	-1.3
Consumption expenditures	-0.5	2.1	-5.6	1.5	0.6

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 500,914 yen. Of this disposable income, 320,627 yen was used for living expenses (consumption expenditures), such as food and housing expenses, while the remainder (surplus), totaling 180,286 yen, was applied to savings, life insurance premiums and repaying debts such as housing loans.

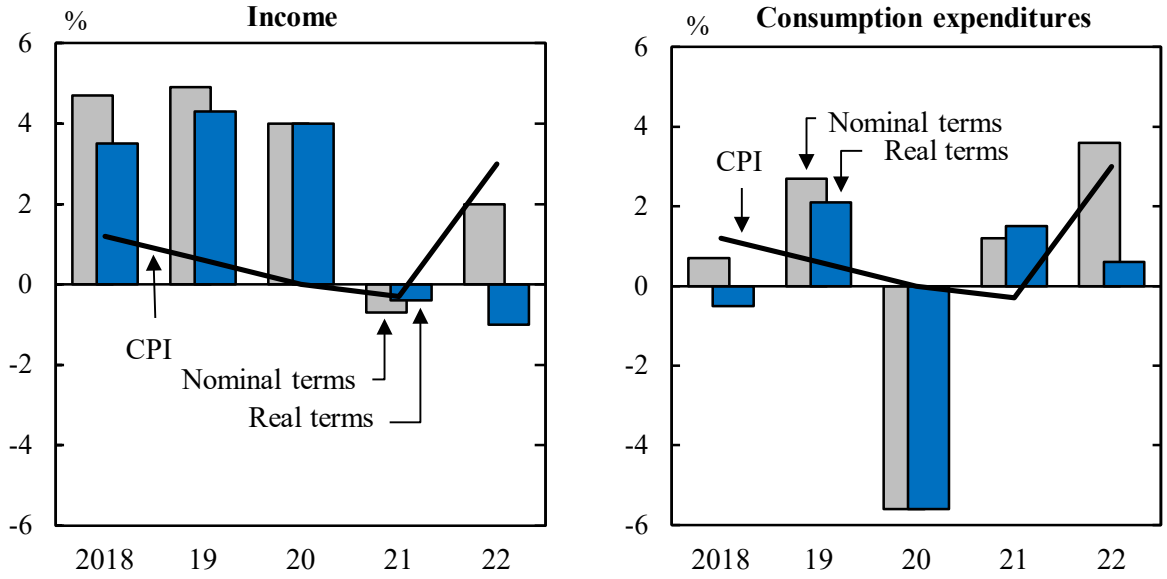
Figure 13.2
Balance of Income and Expenditures
(Monthly average per household, workers' households [1]) (2022)



1) Two-or-more-person households. 2) Use Classification.
Source: Statistics Bureau, MIC.

A comparison of consumption expenditures by category showed that spending on "culture and recreation" and "transportation and communication", etc. increased from the previous year in real terms, while spending on "education" and "food", etc. decreased in real terms.

Figure 13.3
Year-on-Year Change in Average Monthly Income and Consumption Expenditures per Household (Workers' households [1])

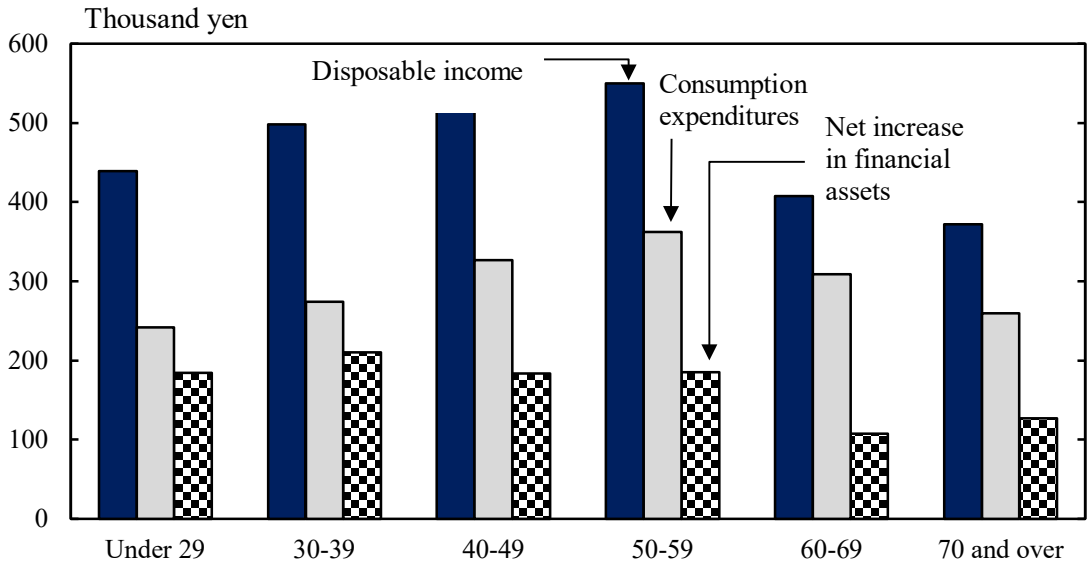


1) Two-or-more-person households.
Source: Statistics Bureau, MIC.

Family budgets differ among households according to their stages in life. Observed by age group of the household head, the 2022 average monthly disposable income of workers' households was the highest in households in the 50s group (550,095 yen), followed by those in the 40s group (534,558 yen) and the 30s group (498,393 yen).

The 2022 average propensity to consume (the ratio of consumption expenditures to disposable income) was the lowest in households in the under 29 group and the 30s group (55.0 percent). The figure was 61.1 percent in the 40s group, 65.9 percent in the 50s group, 75.8 percent in the 60s group, and 69.9 percent in the 70 and over group. The percentage tends to be higher as the age goes up, except for 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 50s group.

Figure 13.4
Average Monthly Family Income and Consumption Expenditures per Household by Age Group of Household Head
(Workers' households [1]) (2022)



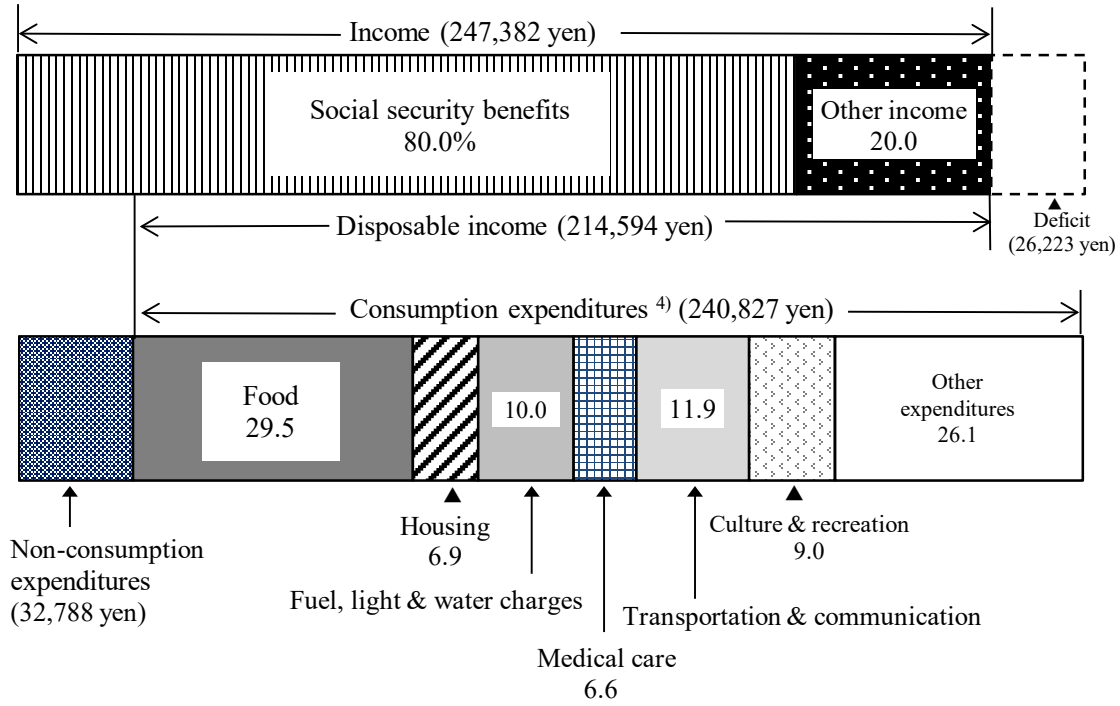
1) Two-or-more-person households.
Source: Statistics Bureau, MIC.

(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 247,382 yen in 2022. Social security benefits amounted to 198,017 yen, thus accounting for 80.0 percent of income.

Disposable income averaged 214,594 yen, while consumption expenditures averaged 240,827 yen. The average propensity to consume in non-working elderly households was 112.2 percent, which means consumption expenditures exceeded disposable income. The deficit of disposable income to consumption expenditures (26,233 yen) increased from that of the previous year (16,903 yen). This deficit was financed by withdrawing financial assets such as deposits, etc.

Figure 13.5
Average Monthly Income and Expenditures per Household [1) 2)]
(Non-working elderly households [3)]) (2022)



1) The percentage of "Social security benefits" and "Other income" in the graph is in proportion to the income. 2) The percentage from "Food" to "Other expenditures" in the graph is in proportion to the consumption expenditures. 3) Two-or-more-person households.
4) Use Classification.
Source: Statistics Bureau, MIC.

(B) One-person Households

The average monthly consumption expenditures of one-person households in 2022 were 161,753 yen, up 4.3 percent in nominal terms and up 1.3 percent in real terms from the previous year. By age group, the average monthly consumption expenditures were 158,198 yen for the under 34 group, 186,503 yen for the 35-59 group, and 150,409 yen for the 60 and over group. Spending on categories such as "fuel, light and water charges", "medical care" and "furniture and household utensils" tended to be larger in older age groups. On the other hand, expenditures on "housing", "clothing and footwear" and "culture and recreation" decreased in each successively older age groups.

Table 13.2
Average Monthly Consumption Expenditures per Household by Age Group
(One-person households) (2022)

(Yen)

Item	Average		Under 34		35-59		60 and over	
	Actual figures	ratio (%)	Actual figures	ratio (%)	Actual figures	ratio (%)	Actual figures	ratio (%)
Consumption expenditures [1] ...	161,753	100.0	158,198	100.0	186,503	100.0	150,409	100.0
Food	39,069	24.2	34,385	21.7	42,899	23.0	38,913	25.9
Housing	23,300	14.4	36,676	23.2	30,966	16.6	14,196	9.4
Fuel, light and water charges	13,098	8.1	9,272	5.9	12,352	6.6	14,959	9.9
Furniture and household utensils	5,487	3.4	3,577	2.3	5,359	2.9	6,291	4.2
Clothing and footwear	5,047	3.1	7,643	4.8	5,722	3.1	3,697	2.5
Medical care	7,384	4.6	5,348	3.4	7,150	3.8	8,285	5.5
Transportation and communication	19,303	11.9	20,084	12.7	24,621	13.2	16,269	10.8
Education	0	0.0	0	0.0	0	0.0	0	0.0
Culture and recreation	17,993	11.1	21,908	13.8	19,790	10.6	15,558	10.3
Others	31,071	19.2	19,306	12.2	37,644	20.2	32,240	21.4
Annual change (%) (real terms)								
Consumption expenditures	1.3		…		…		…	

1) Use Classification.
Source: Statistics Bureau, MIC.

(2) Savings and Debts

Two-or-more-person households in 2022 showed that the average amount of savings per workers' household was 15.08 million yen, resulting in a ratio to yearly income (7.68 million yen) of 196.4 percent. The median value of household savings (the current household savings of the household exactly in the middle when all households, excluding those with 0 savings, are listed in order from lowest to highest amount of savings) was 9.28 million yen. On the other hand, the average amount of debts per household was 8.79 million yen, which was 114.5 percent relative to yearly income. The median value of households holding debts (the current household debts of the household exactly in the middle when all households, excluding those with 0 debts, are listed in order from lowest to highest amount of debts) was 14.90 million yen. The portion of household debts accounted for by "housing and/or land" averaged 8.13 million yen. A total of 43.3 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 (%)
2018	7,290	13,200	181.1	8,210	7,610	112.6	54.6
2019	7,360	13,760	187.0	8,550	7,980	116.2	55.3
2020	7,400	13,780	186.2	8,510	7,910	115.0	54.3
2021	7,490	14,540	194.1	8,560	7,910	114.3	53.4
2022	7,680	15,080	196.4	8,790	8,130	114.5	53.2

1) Two-or-more-person households.

Source: Statistics Bureau, MIC.

By age group of household head, the average amount of savings was found to be the highest in the 70s and over group, while debts were the highest in the 30s group.

Table 13.4

Amount of Savings and Debts by Age Group of Household Head

(Workers' households [1]) (2022)

(Million yen)

Item	Average	Under 29	30-39	40-49	50-59	60-69	70 and over
Yearly income	7.68	5.75	6.96	7.93	8.74	6.80	6.05
Savings	15.08	4.38	8.64	11.56	18.00	21.80	21.91
Financial institutions	14.56	4.14	8.33	11.09	17.06	21.57	21.89
Demand deposits	5.56	2.58	4.38	5.10	5.69	7.26	6.91
Time deposits	3.84	0.32	1.47	2.31	4.58	6.96	7.68
Life insurance and non-life insurance	3.21	0.35	1.39	2.50	4.34	4.63	2.90
Securities	1.94	0.88	1.09	1.18	2.45	2.72	4.40
Non-financial institutions	0.52	0.24	0.31	0.46	0.94	0.24	0.03
Debts	8.79	7.41	15.75	12.46	6.08	2.49	1.73
Housing and/or land	8.13	6.90	14.96	11.75	5.41	2.00	1.21
Other than housing and/or land	0.45	0.35	0.58	0.51	0.42	0.31	0.43
Monthly and yearly installments	0.21	0.16	0.21	0.20	0.25	0.17	0.90

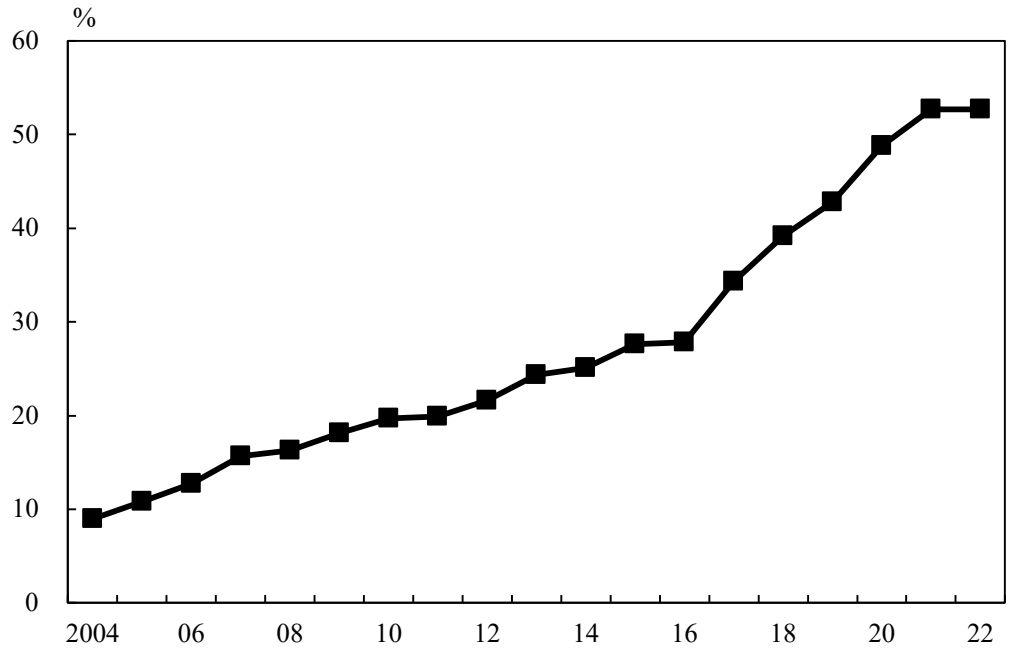
1) Two-or-more-person households.

Source: Statistics Bureau, MIC.

(3) Internet Shopping by Households

Due to popularization of computers, smartphones, etc., the use of Internet shopping has been increasing. 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 52.7 percent in 2022. Total monthly expenditures used on Internet shopping amounted to an average of 20,810 yen per household.

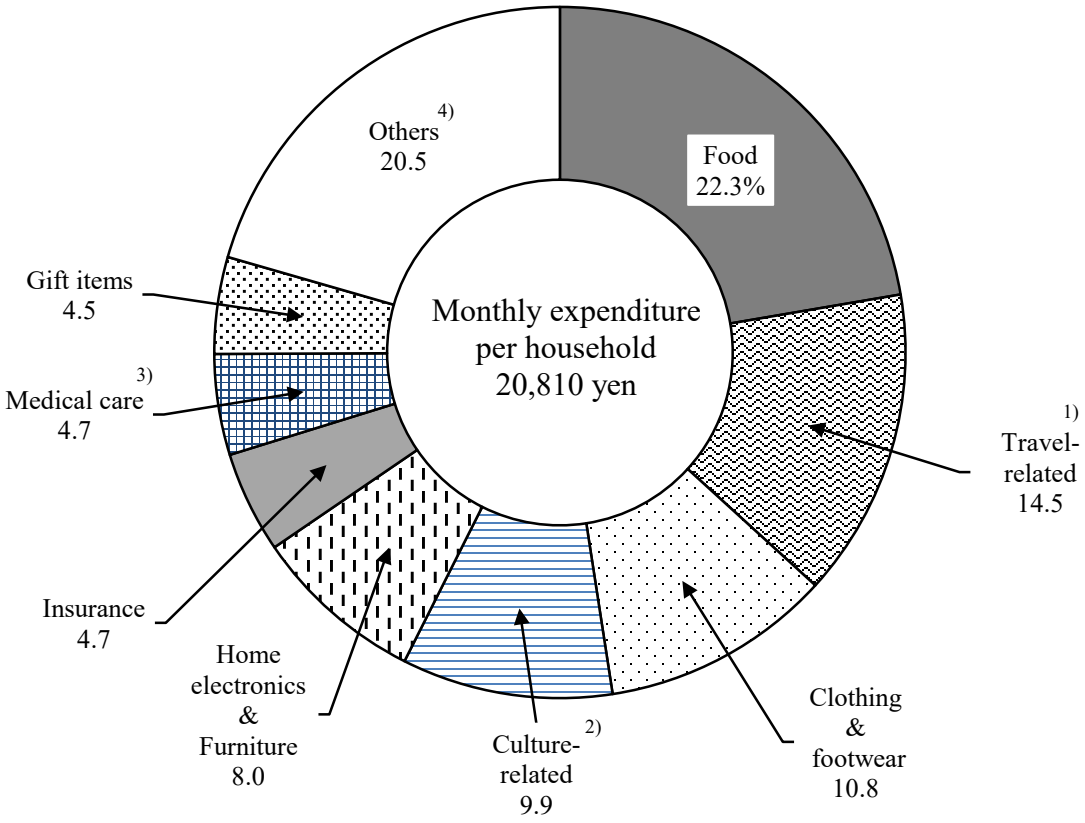
Figure 13.6
Proportion of Households Ordered over the Internet
(Two-or-more-person households)



Source: Statistics Bureau, MIC.

Looking at the breakdown of total expenditures per two-or-more-person households spent on Internet shopping, "food" was the highest at 22.3 percent, followed by "travel-related" at 14.5 percent, "clothing and footwear" at 10.8 percent, "culture-related" (such as books and music software) at 9.9 percent, and "home electronics and furniture" at 8.0 percent, etc.

Figure 13.7
Ratio of Expenditure on Goods and Services Ordered over the Internet
(Two-or-more-person households) (2022)

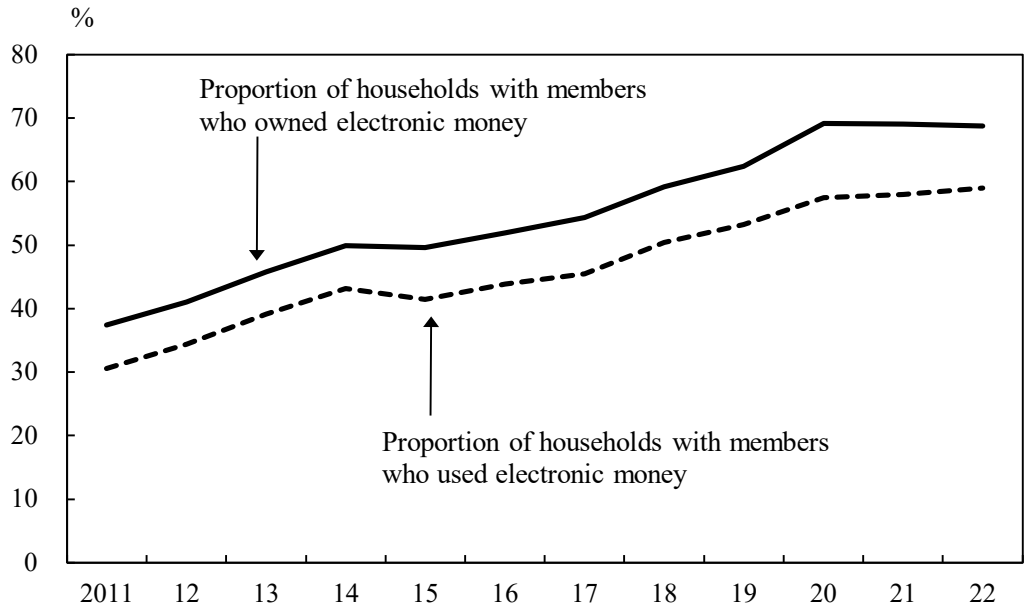


1) Total of accommodation services, fares and package tours. 2) Total of books and other reading materials, software (music, video, personal computer, TV game), digital books, download music, video, applications and tickets. 3) Total of medicines and health foods.
4) Total of cosmetics, private transportation, 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 owned electronic money and the percentage of households with members who used electronic money have been on an increasing trend starting in 2008. In 2022, the percentage of households with members who owned electronic money was 68.8 percent, and the percentage of households with members who used electronic money was 59.0 percent.

Figure 13.8
Trends in Ownership and Utilization of Electronic Money
(Two-or-more-person households)



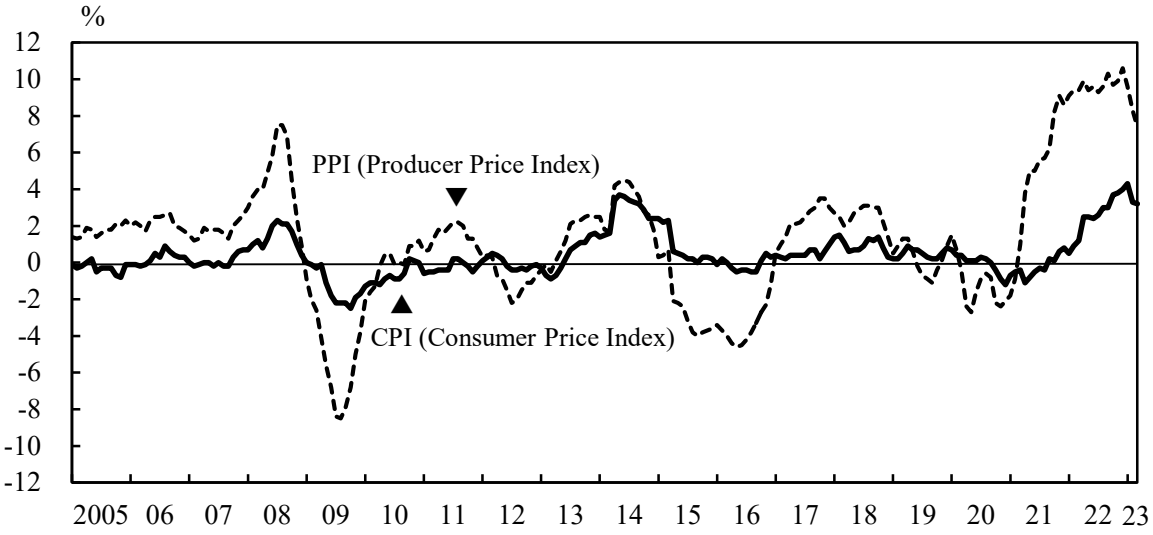
Source: Statistics Bureau, MIC.

2. Prices

Producer prices fell in 2009 due to the bankruptcy of the major American securities firm Lehman Brothers. From 2010 to 2013, prices fluctuated in the range of plus or minus 3 percent, then rose in 2014 due to depreciation of the yen, and fell from 2015 to 2016 due to the decline in international commodity prices and a stronger yen. From 2018 to 2019, there was a drop in global resource prices due to a worldwide economic slowdown brought on by trade friction between the U.S.A. and China, and thus the size of the increase in producer prices contracted. In 2020, producer prices declined with global resource prices due to the COVID-19 pandemic. In 2021, global resource prices increased due to worldwide economic recovery, sparking an increase in producer prices. There was a further increase in 2022 due to a weaker yen, and a rise in global crude oil and natural gas prices brought on by Russia's invasion of Ukraine.

Consumer prices began a rising trend in 2008 due to sharp increases in imported raw material prices, but began to fall in 2009 as a result of falling imported raw material prices due to the bankruptcy of the major American securities firm Lehman Brothers, and the trend was generally downwards until 2013. Consumer prices rose due to the increase in the consumption tax to 8 percent in April 2014, but the stimulative effects of the tax increase subsided by the first half of 2015. From the fourth quarter of 2016, the upward trend continued, due to global resource prices (such as crude oil) and exchange rates, but from 2018, trade friction between the U.S.A. and China had a major impact. The consumption tax rate was raised to 10 percent in October 2019, but the increase in consumer prices was less than 1 percent, due to factors such as elimination of fees for preschool education and daycare, lower resource prices, and lower communications charges. From 2020 to 2021, consumer behavior was constrained by the COVID-19 pandemic and domestic demand fell, resulting in a declining trend in consumer prices, but in 2022 these prices rose due to higher energy and food 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 2020 = 100) was 102.3 in 2022, up 2.5 percent from the previous year.

Table 13.5
CPI for Major Categories of Goods and Services

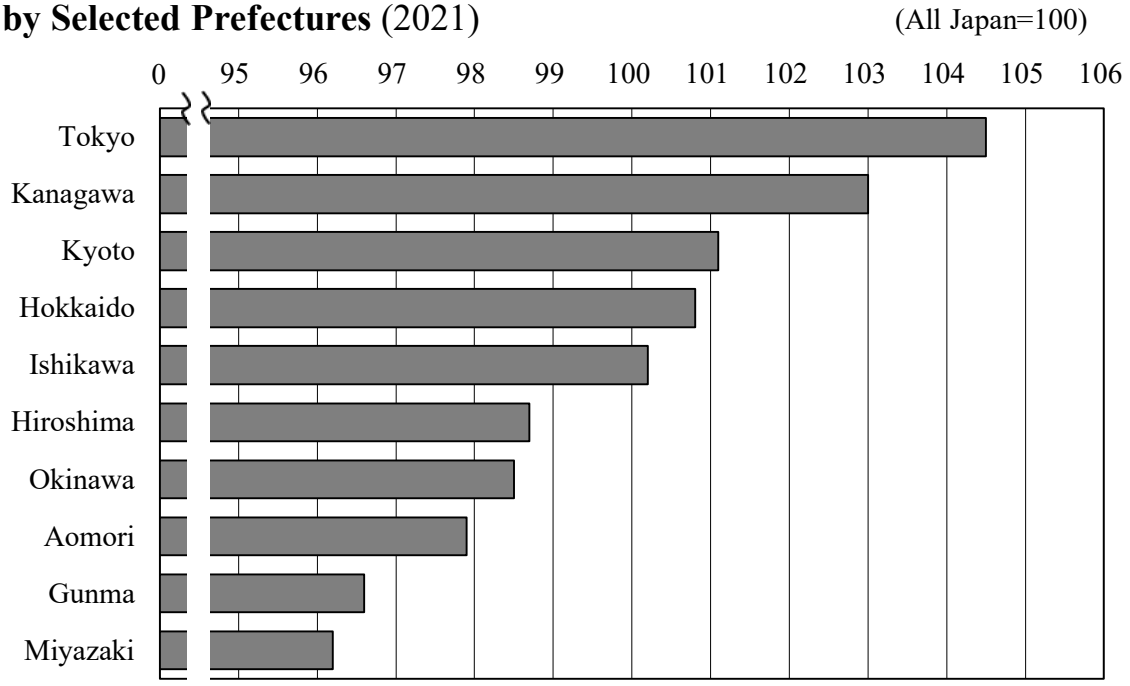
(CY2020=100)

Item	Weight	2005	2010	2015	2021	2022
All items	10000	95.2	94.8	98.2	99.8	102.3
All items, less imputed rent	8420	93.8	93.5	97.8	99.7	102.7
Food	2626	85.9	88.7	94.6	100.0	104.5
Housing	2149	101.1	100.5	99.6	100.6	101.3
Fuel, light and water charges	693	82.2	87.1	101.2	101.3	116.3
Furniture and household utensils	387	115.2	103.2	97.6	101.7	105.5
Clothing and footwear	353	92.4	92.3	96.4	100.4	102.0
Medical care	477	97.1	96.0	95.8	99.6	99.3
Transportation and communication	1493	99.3	97.7	101.2	95.0	93.5
Education	304	112.7	104.9	107.3	100.0	100.9
Culture and recreation	911	105.8	98.1	97.0	101.6	102.7
Miscellaneous	607	89.1	91.8	100.7	101.1	102.2
Goods	5046	92.5	92.4	96.8	100.8	106.3
Services	4954	98.0	97.3	99.6	98.7	98.2

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 had the highest score in 2021, with a figure of 104.5 against the national average set at 100, followed by Kanagawa, with 103.0. On the other hand, Miyazaki registered the lowest score, with 96.2, followed by Gunma with 96.6.

Figure 13.10
Regional Difference Index of Consumer Prices by Selected Prefectures (2021)



Source: Statistics Bureau, MIC.

(2) Corporate Goods and Services Producer 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 2022, the Producer Price Index (CY2020 as the base year = 100) was 114.7, up 9.7 percent from the previous year.

In 2022, the Export Price Index increased to 110.6 on a contract currency basis (up 4.5 percent from the previous year), and to 125.8 on a yen basis (up 16.2 percent from the previous year). Furthermore, the Import Price

Index rose to 143.9 on a contract currency basis (up 21.2 percent from the previous year) and to 169.0 on a yen basis (up 39.0 percent from the previous year).

The Services Producer Price Index measures price movements of services traded between companies. In 2022, the Services Producer Price Index (CY2015 as the base year = 100) was 106.9, up 1.7 percent from the previous year.

Table 13.6
Corporate Goods and Services Producer Price Indices

Item	Weight	2018	2019	2020	2021	2022
Corporate Goods Price Index (CY2020=100)						
Producer Price Index	1000.0	101.0	101.2	100.0	104.6	114.7
Manufacturing industry products	892.3	100.7	100.8	100.0	104.7	113.6
Export Price Index (yen basis)	1000.0	107.4	103.3	100.0	108.3	125.8
Import Price Index (yen basis)	1000.0	117.8	111.5	100.0	121.6	169.0
Services Producer Price Index (CY2015=100)						
All items	1000.0	102.2	103.3	104.2	105.1	106.9
Information and communications	228.3	100.9	101.3	102.5	102.7	102.5
Transportation and postal activities	158.0	102.7	104.4	105.6	107.0	110.9
Real estate services	94.5	103.6	104.9	105.6	107.3	108.9
Leasing and rental	79.2	99.2	99.5	100.4	100.2	103.8

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 2021, Japan's total emission of greenhouse gases, which are a major cause of global warming, amounted to 1.2 billion tons (calculated after their conversion into carbon dioxide), representing an increase of 2.0 percent from the previous fiscal year. Carbon dioxide accounted for 90.9 percent of these greenhouse gases, with an emission volume of 1.1 billion tons. A breakdown of carbon dioxide emissions by sector revealed that emissions from the industrial sector accounted for 35.1 percent of the total, followed in order by emissions from the the commercial industry sector (office buildings, etc.), the transport sector, the residential sector, and the energy transformation sector (electric power plants, etc.).

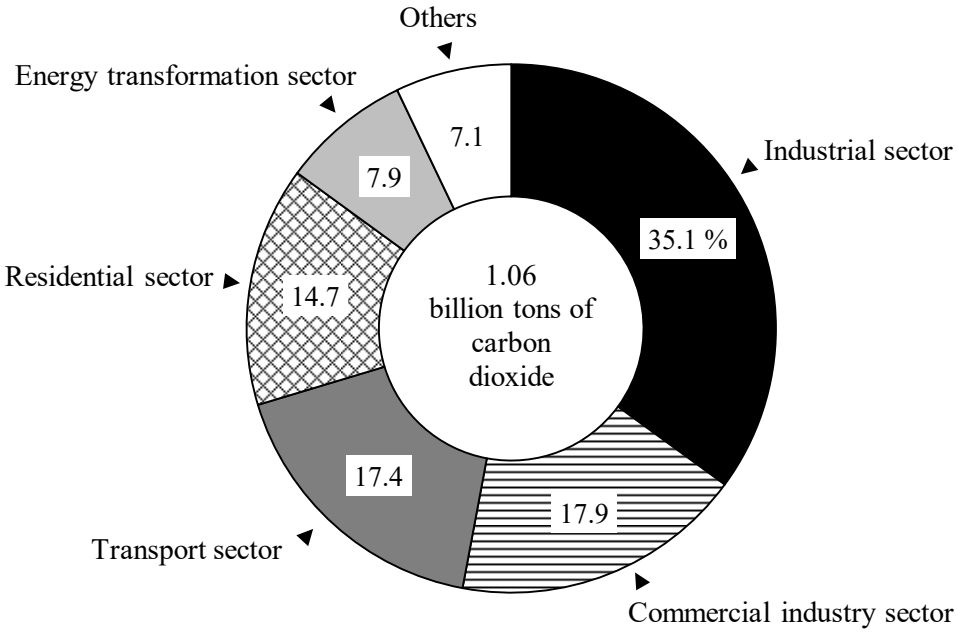
Table 14.1
Breakdown of Carbon Dioxide Emissions [1) 2)]

(Million tons)

Category	FY1990	FY2005	FY2010	FY2015	FY2020	FY2021
Total	1,163	1,293	1,217	1,225	1,042	1,064
Industrial sector	503	467	431	430	354	373
Transport sector	208	244	229	217	183	185
Commercial industry sector	131	220	200	218	184	190
Residential sector	129	171	178	187	167	156
Energy transformation sector	96	98	99	93	79	84
Industrial processes and product use	65	56	47	47	42	43
Waste (incineration, etc.)	24	32	29	30	30	30
Others	7	5	4	3	3	3

1) Volume of carbon dioxide after reallocation to the end-use sector. 2) Due to the revision of the Electricity Business Act (liberalization of electricity retail sales), the emission intensity of electricity used in each sector has changed since FY2016.
Source: Ministry of the Environment.

Figure 14.1
Sources of Carbon Dioxide Emissions [1] (FY2021)



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 serious 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 Act has established a legal framework to address issues such as waste disposal and recycling of automobile and electrical appliance. Furthermore, in Japan, the "3Rs" (reduce, reuse and recycle) in waste management including R&D on waste recycling technology and appropriate management of materials of hazards have been promoted, but recently, socio-economic systems have been developed to especially implement the "2Rs" (reduce and reuse) from among the "3Rs".

Of various types of waste generated as a result of business activities, 20 of them, including sludge, waste oil, soot and dust, and imported waste, are designated as "industrial waste". The fiscal 2020 nationwide industrial waste generation totaled 374 million tons. Sludge, animal excreta, and debris, which account for approximately 80 percent of the total industrial waste, are now increasingly recycled into construction materials, fertilizers, and other materials. Thanks to this development, the volume of final disposal (to be put into landfills) fell from 89 million tons in fiscal 1990 to 9 million tons in fiscal 2020.

Meanwhile, a total of 42 million tons of "nonindustrial waste" (household waste and also shop, office, and restaurant waste) was generated in fiscal 2020. This translates to 901 grams per person per day. The total volume of processed nonindustrial waste was 40 million tons in fiscal 2020. The total volume of recycled waste was 8 million tons, with the recycling rate at 20.0 percent.

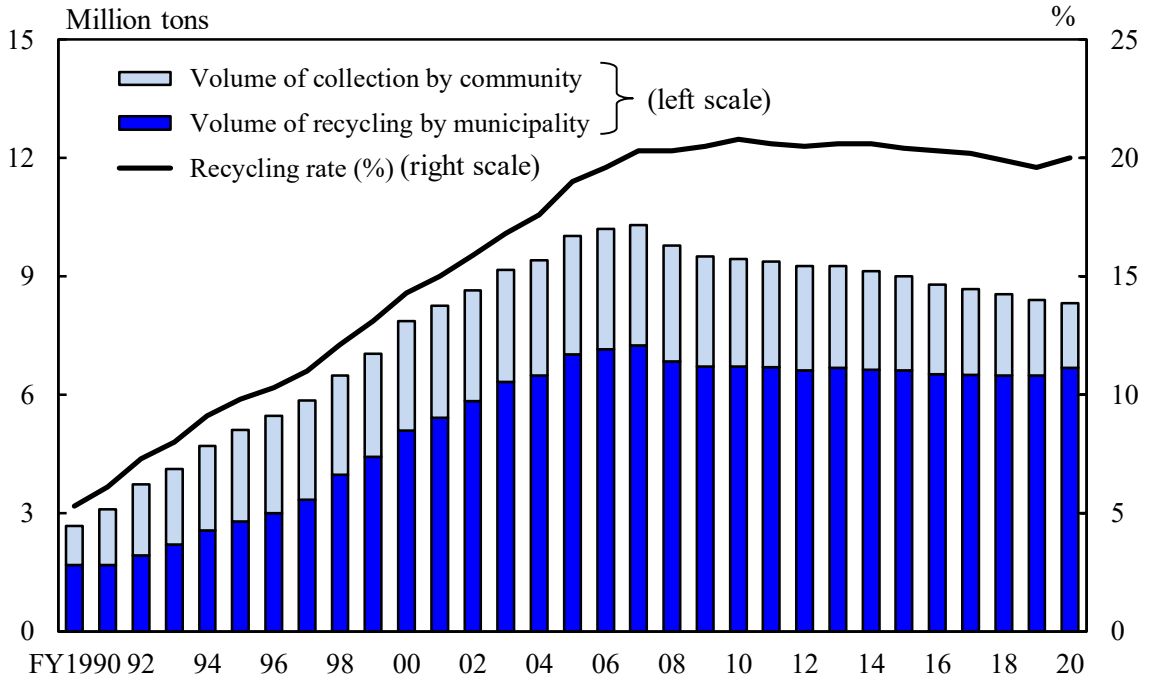
Table 14.2
Waste Generation and Disposal

(Thousand tons)

Item	FY1990	FY2000	FY2005	FY2010	FY2020
Industrial waste					
Total volume of waste generation	394,736	406,037	421,677	385,988	373,818
Recycling	150,568	184,237	218,888	204,733	199,022
Treatment for waste reduction	154,443	176,933	178,560	167,000	165,708
Final disposal	89,725	44,868	24,229	14,255	9,089
Nonindustrial waste [1]					
Total volume of waste generation	50,257	54,834	52,720	45,359	41,669
Municipally scheduled and collected	42,495	46,695	44,633	38,827	36,160
Directly brought to waste treatment facilities	6,776	5,373	5,090	3,803	3,866
Recyclable waste collected by community	986	2,765	2,996	2,729	1,643
Waste generated daily per person (in grams)	1,115	1,185	1,131	976	901
Total volume of processed waste	49,282	52,090	49,754	42,791	40,085
Direct incineration	36,192	40,304	38,486	33,799	31,872
Intermediate treatment for recycling, etc.	3,300	6,479	7,283	6,161	5,923
Direct recycling		2,224	2,541	2,170	1,923
Direct final disposal	9,790	3,084	1,444	662	367

1) Due to the Great East Japan Earthquake, figures for FY2010 exclude those for Minamisanriku Town, Miyagi Prefecture. Figures for FY2020 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 Town, Miyagi Prefecture. Figures after FY2011 exclude disaster waste.

Source: Ministry of the Environment.

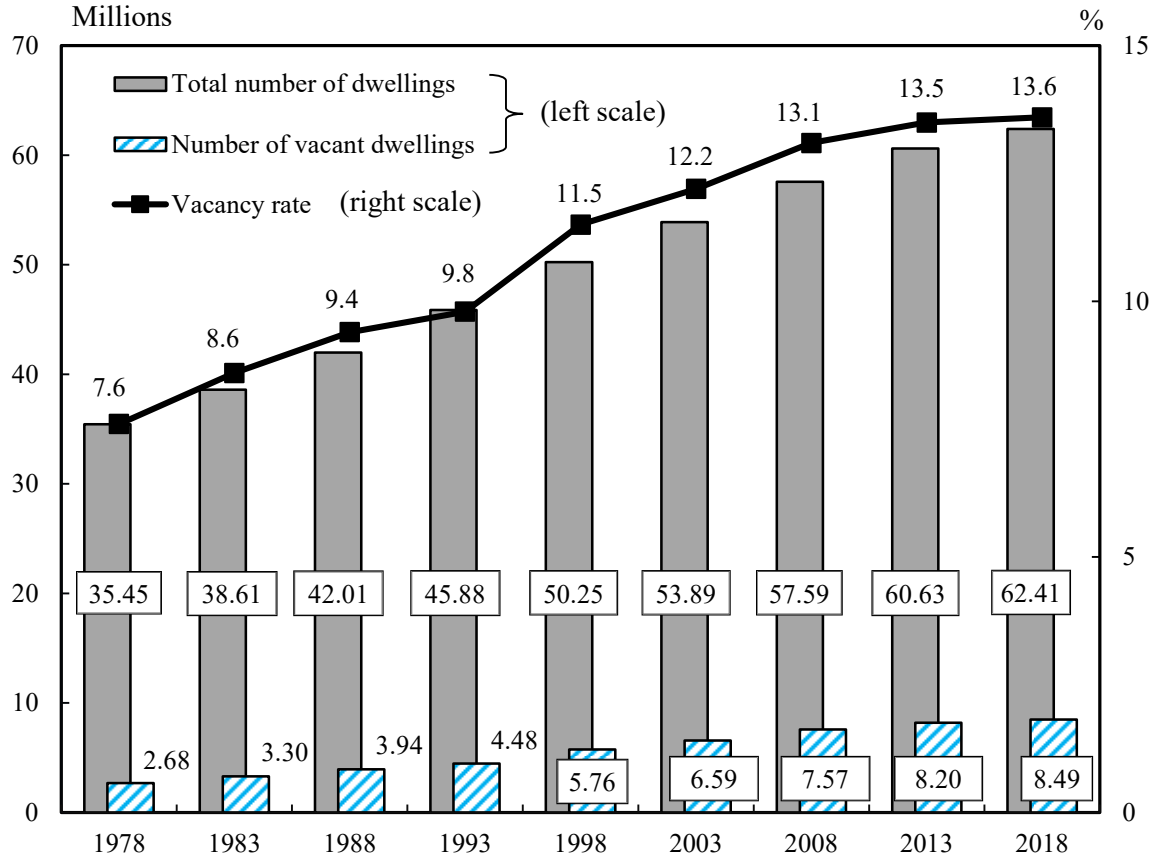
2. Housing

The total number of dwellings (the number of individual units in the case of apartment buildings) in Japan was 62 million in 2018, up by 2 million, 2.9 percent from 2013. The number of households was 54 million, representing the excess in number of dwellings over households by 8 million.

In 2018, the number of occupied dwellings (where people usually live) amounted to 54 million, accounting for 85.9 percent of the total number of dwellings. Of these, the number of dwellings used exclusively for living totaled 53 million, accounting for 98.2 percent of the occupied dwellings. Meanwhile, the number of vacant dwellings increased by 0.3 million, 3.6 percent from 2013, to 8 million. That vacancy rate represented 13.6 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 category of ownership showed that owned houses totaled 33 million, accounting for 61.2 percent of the total, which represented a decrease of 0.5 percentage points from the figure of 61.7 percent in 2013. Rented houses, on the other hand, numbered 19 million, accounting for 35.6 percent of the total.

Table 14.3
Housing Conditions

(Thousands)

Year	Total households	Total number of dwellings [1]	Occupied dwellings [2]	Ownership		Dwellings used exclusively for living	Floor space per dwelling (m^2) [2]
				Owned	Rented		
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
2018	54,001	62,407	53,616	32,802	19,065	52,642	92.1

1) Including dwellings without occupying households.
2) Including ownership 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
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
2018	53,616	28,759	1,369	23,353	136

Source: Statistics Bureau, MIC.

Occupied dwellings by building type showed that 29 million or 53.6 percent were detached houses, and 23 million or 43.6 percent were apartments. The proportion of apartments has consistently increased in recent years.

In terms of construction materials, 27 million or 92.6 percent of the detached houses were wood-frame houses (including fire-resistant ones). On the other hand, 17 million or 72.3 percent of the apartments were steel-framed concrete structures.

The number of principal households with household members aged 65 years old and over was 22.53 million. Of these households, there were 9.56 million households living in houses that are handrail-equipped at 2 or more locations or have a step-free interior (constant barrier-free houses), accounting for 42.4 percent of households with elderly members. This marked an increase of 1.2 percentage points compared to 2013.

Table 14.5
Ratio of Barrier-Free Houses with Elderly Members

Year	Principal households [1] with household members aged 65 years old and over					
	Number (1,000)			Ratio (%)		
	Total	Constant barrier-free houses [2]	High barrier-free houses [3]	Total	Constant barrier-free houses [2]	High barrier-free houses [3]
2013	20,844	8,584	1,775	100.0	41.2	8.5
2018	22,534	9,556	1,988	100.0	42.4	8.8

1) When a single household lives in 1 house, it is called a "principal household", and if 2 or more households live in 1 house, then the main household from among the multiple households is regarded as the "principal household". 2) Houses that are handrail-equipped at 2 or more locations, or have step-free interiors, as equipment for the elderly etc.
3) Houses that are handrail-equipped at 2 or more locations, and have step-free interiors and wheelchair-accessible hallways, as equipment for the elderly etc.
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 Basic Act on Traffic Safety Measures in the same year. Based on this, the government has promoted traffic safety measures in a comprehensive and systematic manner. As a result, the number of traffic accident fatalities was 2,636 in 2021, which is the lowest number since 1948 when the current traffic accident statistics were adopted, and this represented approximately one-sixth of the number in 1970.

In 2021, the number of traffic accident fatalities per 100,000 population was 2.1 persons, while that per 10,000 motor vehicles owned was 0.3 persons.

Table 14.6
Traffic Accidents and Casualties

Year	Traffic accidents	Injuries	Fatalities [1)]	per 10,000 motor vehicles owned	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	725,924	896,297	4,948	0.6	3.9
2020	309,178	369,476	2,839	0.3	2.3
2021	305,196	362,131	2,636	0.3	2.1

1) Death within 24 hours of the traffic accident.
Source: Cabinet Office.

4. Crime

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, 2022, the prefectural police operated police headquarters, police academies, 1,149 police stations, 6,250 police boxes and 6,105 police substations in 47 prefectures.

Community 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.

In 2022, the reported number of penal code offenses was 601,331, an increase of 33,227, or 5.8 percent compared to the previous year. The proportion of thefts was the highest, accounting for 67.8 percent, or 407,911 cases (up 6.8 percent from the previous year).

The number of persons arrested for penal code offenses was 169,409 in 2022, a decrease of 5,632, or 3.2 percent compared to the previous year, marking a decline for the 18th consecutive year.

The ratio of arrests to reported number of offenses marked 19.8 percent in 2001, the lowest since World War II. From 2002 to 2007, this ratio increased, and levelled off afterwards. From 2014 it exhibited a rising

trend, but in 2022, it was 41.6 percent, a decrease of 5.0 percentage points from the previous year.

Table 14.7
Trends in Crime (Penal code offenses)

Year	Reported offenses	Resultant arrests	Persons arrested	Arrest rate [1] (%)	Crime rate per 100,000 population
1980	1,357,461	811,189	392,113	59.8	1,159.6
1985	1,607,697	1,032,879	432,250	64.2	1,328.1
1990	1,636,628	692,593	293,264	42.3	1,324.0
1995	1,782,944	753,174	293,252	42.2	1,419.5
2000	2,443,470	576,771	309,649	23.6	1,925.5
2005	2,269,293	649,503	386,955	28.6	1,775.7
2010	1,604,019	497,356	322,620	31.0	1,252.6
2015	1,098,969	357,484	239,355	32.5	864.7
2020	614,231	279,185	182,582	45.5	486.6
2021	568,104	264,485	175,041	46.6	452.7
2022	601,331	250,350	169,409	41.6	481.3

1) The ratio of arrests to reported number of offenses.
Source: National Police Agency; Ministry of Justice.

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 creation of unauthorized commands for electromagnetic records, etc.) in 2022 was 12,369, up 1.3 percent from the previous year. This represented about a fourteenfold increase from the 913 cases registered in 2000.

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. Meanwhile, its social security system is required to address various changes in the socioeconomic environment.

The long-term care insurance system, established in April 2000 to ensure that society as a whole supports care for the elderly, marked its 23rd year in 2022. When the system was first established, there were 2.18 million people certified as needing care or needing support. This number grew by approximately 3.2-fold, to 6.91 million people as of April 2022, and the long-term care insurance system has become anchored in society. Today, there are approaches aimed at enhancing services for promoting "the Community-based Integrated Care System" (system where medical care, nursing care, preventive care, and livelihood support are provided integrally in regions where one is used to living), as well as realizing a local, inclusive society.

The number of monthly users of long-term care insurance services totaled, on average, 5.75 million per month in fiscal 2020, and increased by approximately 3.1-fold over 20 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 2020 (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 11.5 trillion yen.

Table 15.1

Trends in Social Security Benefit Expenditures by Functional Category 1) 2) 3) 4) 5)

(Billion yen)

Item	FY2000	FY2005	FY2010	FY2015	FY2019	FY2020
Total	78,408	88,854	105,366	116,814	123,924	132,221
Old age	36,688	# 44,102	51,335	# 55,339	57,833	58,921
Survivors	5,958	# 6,459	6,795	# 6,670	6,450	6,410
Invalidity benefits	2,151	# 2,397	3,398	# 4,283	4,900	5,225
Employment injury	1,058	984	943	# 919	930	905
Sickness and health	25,578	# 27,491	32,214	# 36,891	39,083	41,144
Family benefits	2,365	# 3,232	5,009	# 7,142	9,191	10,267
Unemployment	2,647	1,453	2,250	1,442	1,463	5,024
Housing	201	# 429	513	617	603	605
Other social policy areas	1,761	# 2,307	2,910	# 3,510	3,470	3,720

1) This table is calculated in accordance with the standards of the ILO's "The Cost of Social Security 19th International Inquiry."

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

3) Since FY2011, Employees' Accident Compensation has been added for special national public servants in the House of Representatives, House of Councillors, National Diet Library, courts, Ministry of Foreign Affairs, and Ministry of Defense.

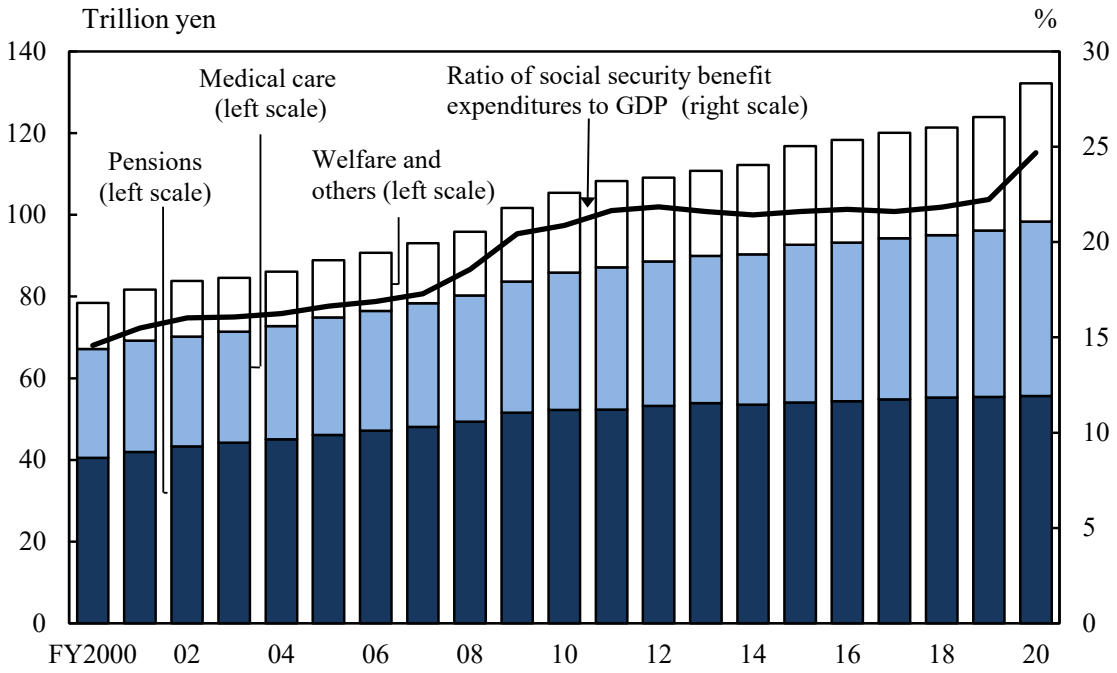
4) In addition to expenses for early childhood care services, expenses for early childhood education are included in total social security benefit expenditures from FY2015.

5) There is a gap between FY2014 and FY2015 because of the change in the scope of the services operated independently by local public entities that were targeted for tabulation in FY2015.

Source: National Institute of Population and Social Security Research.

In fiscal 2020, social security benefit expenditures totaled 132.2 trillion yen (up 6.7 percent from the previous fiscal year), a figure which amounted to 1.05 million yen per person. The ratio of Japan's social security benefit expenditures to GDP registered 24.7 percent. Benefits for the aged accounted for 62.9 percent of total social security benefit expenditures.

Figure 15.1
Trends in Social Security Benefit Expenditures by Sector 1) 2) 3) 4)



1) Because of retrospective tabulation up to FY2005 of expenditure items data that were added in FY2011, a gap has occurred with FY2004 data.
2) Since FY2011, Employees' Accident Compensation has been added for special national public servants in the House of Representatives, House of Councillors, National Diet Library, courts, Ministry of Foreign Affairs, and Ministry of Defense.
3) In addition to expenses for early childhood care services, expenses for early childhood education are included in total social security benefit expenditures from FY2015.
4) There is a gap between FY2014 and FY2015 because of the change in the scope of the services operated independently by local public entities that were targeted for tabulation in FY2015.
Source: National Institute of Population and Social Security Research.

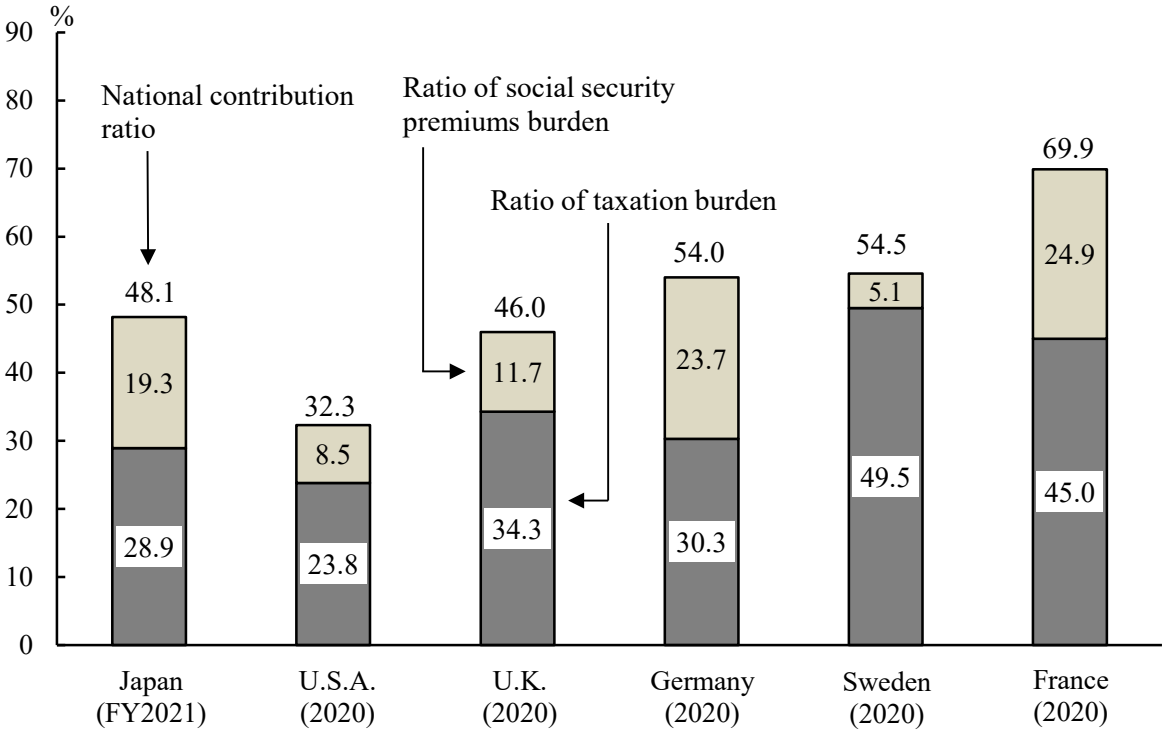
In fiscal 2020, pensions accounted for 42.1 percent of total social security benefit expenditures, while medical care accounted for 32.3 percent, and social welfare and others for 25.6 percent. Social security benefit expenditures are forecasted to continue growing.

The government has established "Social Security for All Generations", in which all generations support each other fairly, and is examining sustainable reforms. Total funding for social security in fiscal 2020 was 184.8 trillion yen, an increase of 39.6 percent compared to the previous fiscal year. This can be broken down into 73.5 trillion yen in social insurance contributions (39.8 percent of the total), 59.0 trillion yen in public contributions (31.9 percent of the total), and 52.3 trillion yen in other revenue (28.3 percent of the total). The increase in funding was

due to increased asset revenue in the other revenue category, and increased state contributions in the public contributions category due primarily to expenditures relating to COVID-19 countermeasures.

The national contribution ratio (the combined ratios of taxes and social security costs to national income) was 48.1 percent in fiscal 2021 (taxation burden: 28.9 percent; social security premiums: 19.3 percent), up 0.2 percentage points from 47.9 percent in fiscal 2020 (taxation burden: 28.2 percent; social security premiums: 19.8 percent). The national contribution ratio in 2020 was 32.3 percent in the U.S.A., 46.0 percent in the U.K., and 69.9 percent in France. While the ratio in Japan was higher than that of the U.S.A., it is trending lower than European countries.

Figure 15.2
National Contribution Ratio by Country



Source: Ministry of Finance.

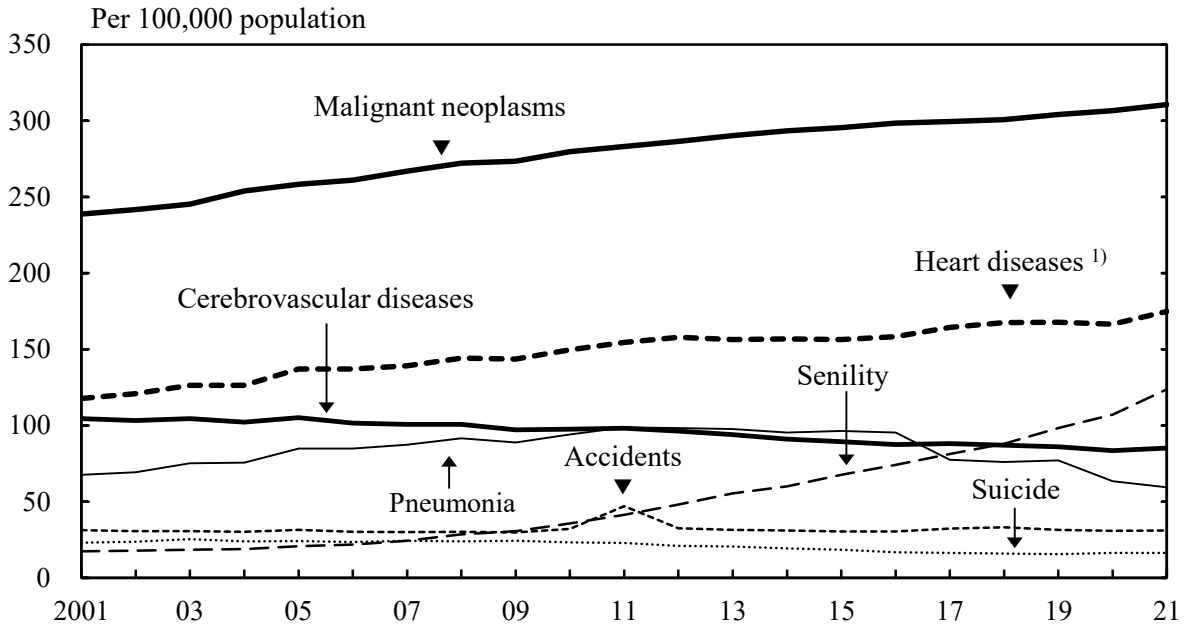
2. Health Care and Public Hygiene

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, national health insurance or the latter-stage elderly's medical insurance.

Under the universal health insurance regime, Japan's life expectancy at birth and healthcare standards are at the highest level in the world. However, reform will be needed with an eye toward future Japanese society, in 2025 when the baby boom generation will all be 75 years old or older, and 2040 when second-generation baby boomers reach old age.

Life expectancy at birth was 87.6 years for women and 81.5 years for men in 2021. Japan's life expectancy at birth remains at a high level in the world. Even with regard to healthy life expectancy, which is the "average period without being restricted in daily life", Japan was among the world's highest as of 2019, with 75.4 years for women and 72.7 years for men. Japan's infant mortality rate was 1.7 per 1,000 births in 2021.

Figure 15.3
Death Rates by Major Cause



1) Excluding hypertensive diseases.
Source: Ministry of Health, Labour and Welfare.

The death rate was 1,172.7 per 100,000 population in 2021. The leading cause of death was malignant neoplasms (310.7 per 100,000 population), followed by lifestyle diseases such as heart diseases (174.9; excluding hypertensive diseases), in which people's daily diet and behavior are significant factors, and senility (123.8). Malignant neoplasms became the leading cause of death in 1981. The death rate by malignant neoplasms has continued to increase since, reaching 26.5 percent of all deaths in 2021.

The number of deaths caused by suicide in Japan hovered at around 30,000 annually in 1998 and onwards. In recent years, the number has remained steady at around 20,000. The number of suicides in 2021 was 20,291. In 2021, suicide was the leading cause of deaths for people aged between 10 and 39.

In the past, human beings have 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. In 2018, the number of patients with rubella increased. In 2020, the outbreak of COVID-19 developed into a pandemic, resulting in increasing numbers of infections and verified deaths. In Japan, measures have been taken to counter infectious diseases, such as vaccination to prevent the outbreak and spread of infectious diseases, but in November 2021, it was decided, as preparation against infectious diseases, to further strengthen vaccination, testing, prevention with therapeutic drugs, and the process from discovery to early treatment, and to strengthen the medical system, promote vaccination, and secure therapeutic drugs.

In terms of healthcare provision, Japan had 336,882 physicians engaged in medical care, or 267.0 physicians per 100,000 population, in 2020. 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
Medical Personnel at Work

Personnel	2012	2014	2016	2018	2020
Number					
Physicians	300,664	308,651	317,162	324,737	336,822
Dentists	101,110	102,534	103,127	103,418	105,798
Pharmacists	262,520	271,364	284,069	294,430	302,504
Nurses and Assistant nurses	1,373,521	1,426,932	1,472,508	1,523,085	1,565,500
Rates per 100,000 population					
Physicians	235.6	242.6	249.7	256.2	267.0
Dentists	79.2	80.6	81.2	81.6	83.9
Pharmacists	205.7	213.3	223.6	232.3	239.8
Nurses and Assistant nurses	1,076.5	1,121.5	1,159.1	1,201.7	1,241.0

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

As of October 1, 2021, the number of hospitals in Japan (excluding medical clinics and dental clinics) totaled 8,205. The number of hospital beds amounted to 1,500,057 (1,195.2 per 100,000 population).

Table 15.3
Medical Care Institutions and Beds

Type of Institution	2011	2014	2017	2020	2021
Institutions					
Total	176,308	177,546	178,492	178,724	180,396
Hospitals	8,605	8,493	8,412	8,238	8,205
Medical clinics	99,547	100,461	101,471	102,612	104,292
Dental clinics	68,156	68,592	68,609	67,874	67,899
Rates per 100,000 population					
Total	138.0	139.7	140.9	141.7	143.7
Hospitals	6.7	6.7	6.6	6.5	6.5
Medical clinics	77.9	79.1	80.1	81.3	83.1
Dental clinics	53.3	54.0	54.1	53.8	54.1
Beds					
Total	1,712,539	1,680,712	1,653,303	1,593,633	1,583,783
Hospitals	1,583,073	1,568,261	1,554,879	1,507,526	1,500,057
Medical clinics	129,366	112,364	98,355	86,046	83,668
Dental clinics	100	87	69	61	58
Rates per 100,000 population					
Total	1,340.0	1,322.5	1,304.8	1,263.3	1,262.0
Hospitals	1,238.7	1,234.0	1,227.2	1,195.1	1,195.2
Medical clinics	101.2	88.4	77.6	68.2	66.7
Dental clinics	0.1	0.1	0.1	0.0	0.0

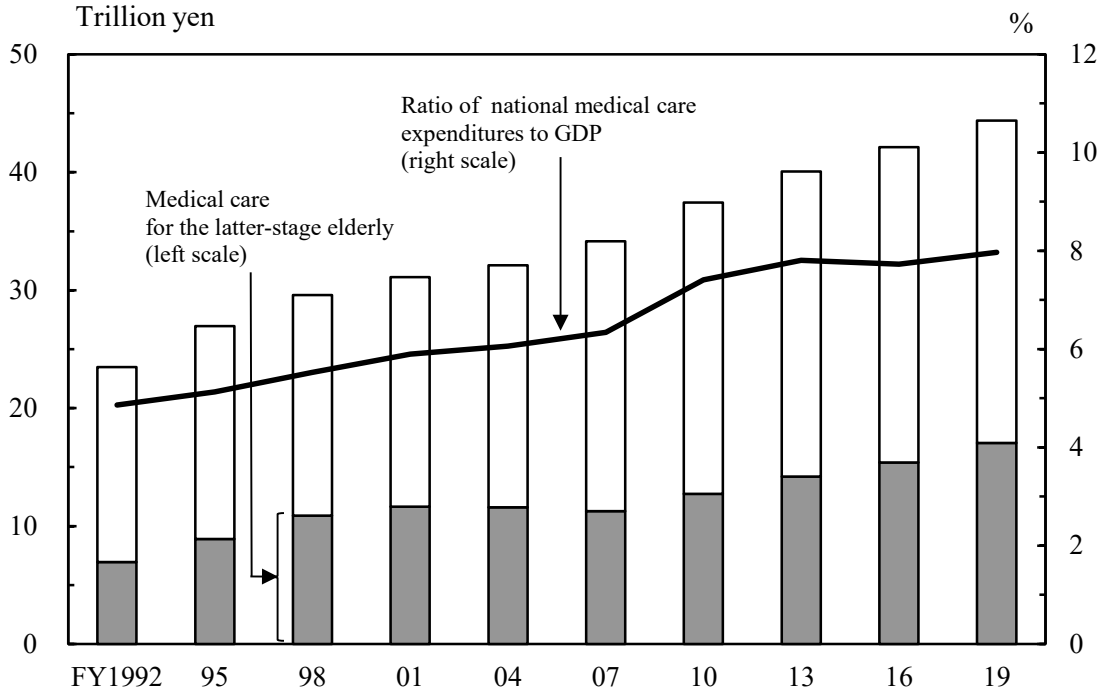
Source: Ministry of Health, Labour and Welfare.

In fiscal 2020, national medical care expenditures totaled 43.0 trillion yen or 8.02 percent of Japan's GDP. The cost of medical care per person averaged 340,600 yen in fiscal 2020.

To ensure that society as a whole supports medical care for the elderly, Japan has established a medical insurance system which divides the elderly into two categories: 65 to 74 years old (early-stage elderly) and 75 years old and older (latter-stage elderly). Medical costs for treating the latter-stage elderly in fiscal 2019 were 17.1 trillion yen, or 38.4 percent of national medical care expenditure, and accounted for 3.06 percent of GDP.

The per-capita cost of medical care for the latter-stage elderly averaged 954,369 yen for the year. The percentage of national medical care expenditures accounted for by medical care costs for the late-stage elderly decreased when the age of persons eligible to receive later-stage elderly medical care was raised in a phased manner over 5 years from 70 years to 75 years old in October 2002, but in recent years, there has been a slight uptrend.

Figure 15.4
Trends in Medical Care Expenditures



Source: Ministry of Health, Labour and Welfare.

Chapter 16

Education and Culture

1. School-Based Education

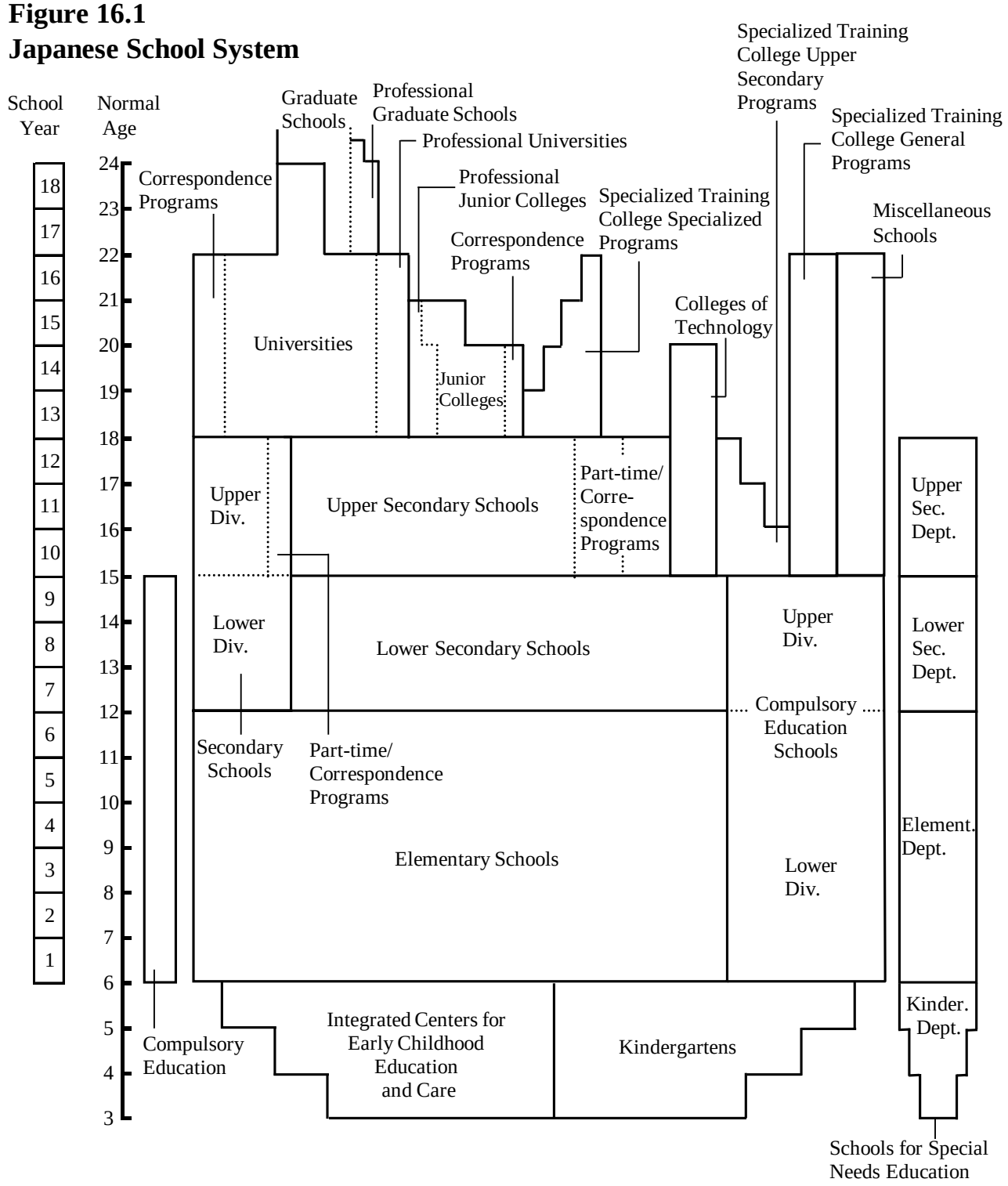
Japan's primary and secondary education is based on a 6-3-3 system: 6 years in elementary school, 3 years in lower secondary school, and 3 years in upper secondary school. The period of compulsory schooling is the 9 years at elementary and lower secondary schools. Higher education institutions are universities, junior colleges, and colleges of technology. Other education establishments include kindergartens and integrated centers for early childhood education and care, 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, 2022)

Type of institution	Schools				Full-time teachers (1,000)	Students (1,000)	
	Total	National	Public	Private		Males	Females
Kindergartens	9,111	49	2,910	6,152	88	466	457
Integrated centers for early childhood education and care	6,657	-	913	5,744	137	420	401
Elementary schools	19,161	67	18,851	243	423	3,145	3,006
Lower secondary schools	10,012	68	9,164	780	247	1,639	1,566
Compulsory education schools	178	5	172	1	6	35	33
Upper secondary schools	4,824	15	3,489	1,320	225	1,499	1,458
Secondary schools	57	4	35	18	3	16	17
Schools for special needs education [1)]	1,171	45	1,111	15	87	98	50
Colleges of technology	57	51	3	3	4	44	12
Junior colleges	309	-	14	295	7	12	83
Universities	807	86	101	620	191	1,627	1,304
Graduate schools	657	86	89	482	106	176	86
Specialized training colleges	3,051	8	183	2,860	40	277	359
Miscellaneous schools	1,046	-	5	1,041	8	55	47

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.

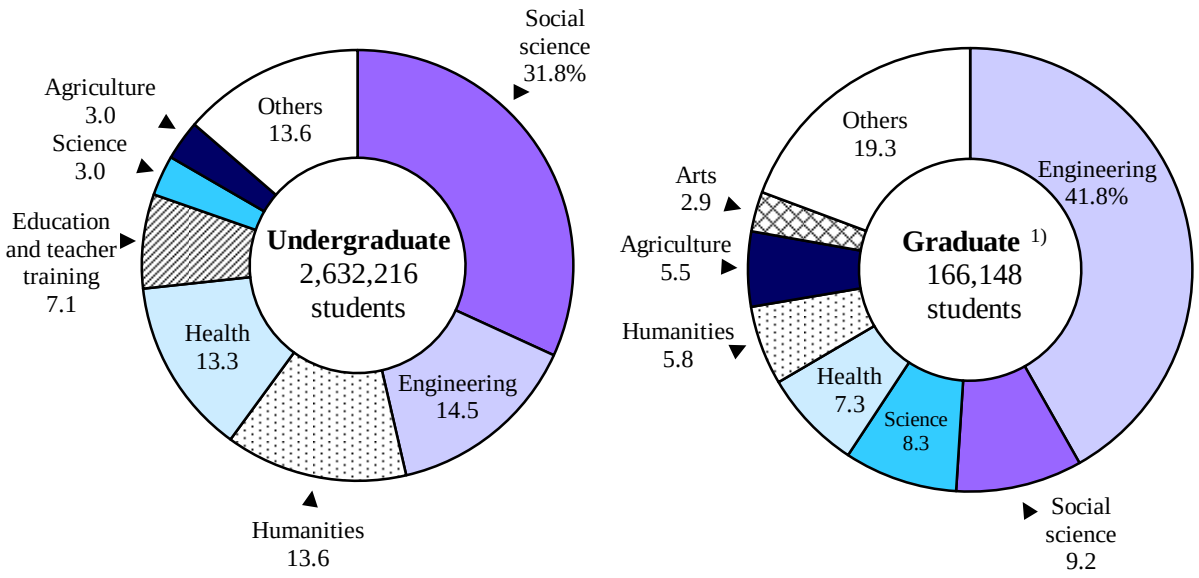
Of the March 2022 upper secondary school and upper division of secondary school graduates, 59.6 percent went straight on to enter a university, junior college, etc. The ratio of graduates of upper secondary school, etc. who entered a university or junior college in 2022 was 60.4 percent (60.6 percent of male and 60.1 percent of female graduates), including graduates from previous years.

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

	2010	2015	2020	2021	2022
Total	2,887,414	2,860,210	2,915,605	2,917,998	2,930,780
Undergraduate	2,559,191	2,556,062	2,623,572	2,625,688	2,632,216
Graduate schools	271,454	249,474	254,529	257,128	261,782
Others [1]	56,769	54,674	37,504	35,182	36,782
Females	1,185,580	1,231,868	1,294,320	1,297,056	1,303,975
Undergraduate	1,077,782	1,127,372	1,193,465	1,196,555	1,200,992
Graduate schools	82,133	77,831	82,982	84,017	85,580
Others [1]	25,665	26,665	17,873	16,484	17,403
National	625,048	610,802	598,881	597,450	596,195
Public	142,523	148,766	158,579	160,438	163,103
Private	2,119,843	2,100,642	2,158,145	2,160,110	2,171,482

1) Including advanced students, short-term students, non-degree students, auditing students and research students.
Source: Ministry of Education, Culture, Sports, Science and Technology.

Figure 16.2
University Students by Field of Study (as of May 1, 2022)

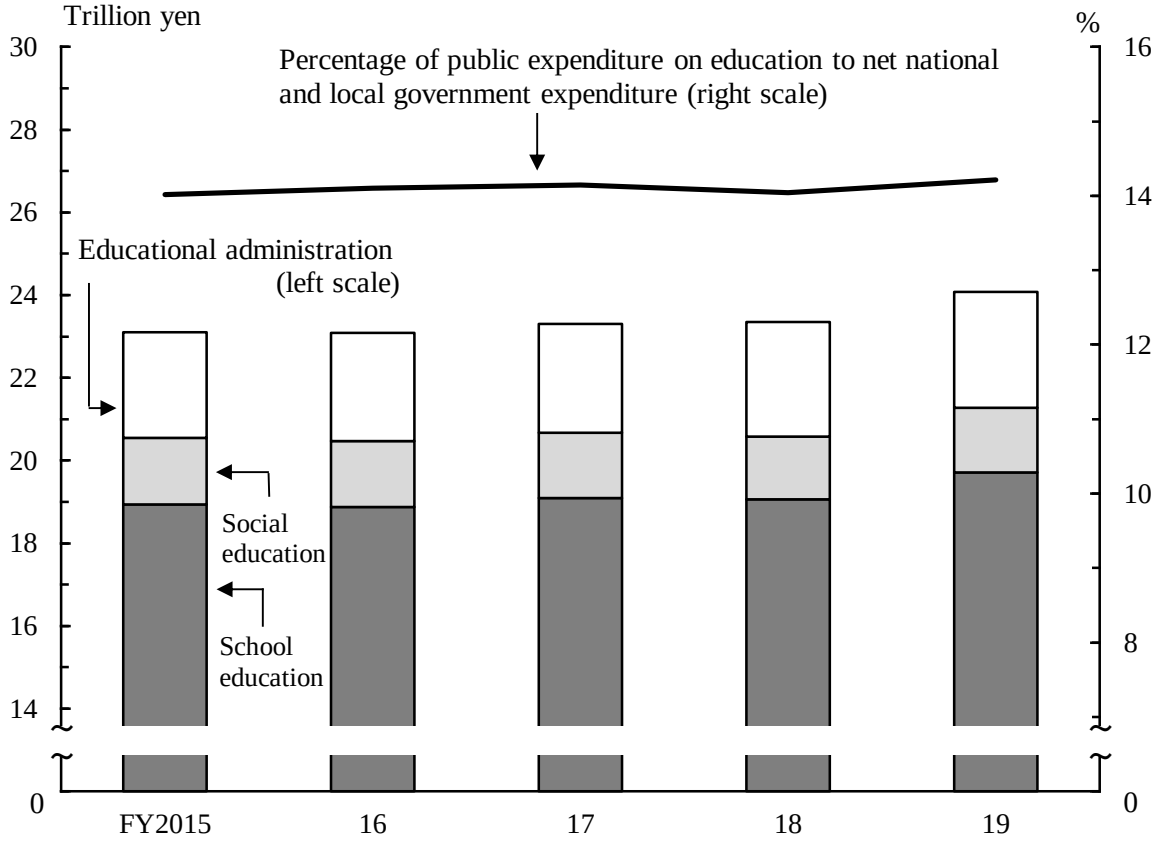


1) Master's course.
Source: Ministry of Education, Culture, Sports, Science and Technology.

As of May 1, 2021, a total of 128,805 foreign students were enrolled in Japanese junior colleges, universities, and graduate schools. Of the total foreign students, 93.8 percent were from Asia, including 76,734 from China, 11,833 from the Republic of Korea and 11,322 from Vietnam.

Fiscal 2019 public expenditure on education in Japan was 24 trillion yen, which is equivalent to 14.2 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 2021 school expenditure by households with children attending public school averaged 65,974 yen per elementary school pupil, 132,349 yen per lower-secondary school student and 309,261 yen per upper-secondary school student.

2. Lifelong Learning

As society approaches a major turning point in heading towards a "100-year-life", there is increasing importance in realizing a "Lifelong Learning Society" in which people are able to select learning opportunities whenever they want during their life, and their learning outcomes are evaluated appropriately.

Today, in order to develop a society where people can engage in learning any time they like throughout their lives, efforts are being made to provide 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 and social education facilities (citizens' public halls, libraries, museums, and sports facilities, etc.) play a vital role.

Table 16.3
Social Education Facilities and Users

Facilities	Number [1]		Users (1,000) [2]	
	2018	2021	2017	2020
Citizens' public halls [3]	14,281	13,798	183,513	110,203
Libraries [4]	3,360	3,394	177,899	142,490
Museums	1,286	1,305	142,456	65,047
General museums	154	157	9,349	3,736
Science museums	104	100	16,830	6,087
Historical museums	470	476	28,611	9,572
Art museums	453	457	39,811	17,038
Outdoor museums	16	18	2,157	560
Zoological gardens	34	36	19,396	11,191
Botanical gardens	11	11	1,117	1,162
Zoological and botanical gardens	6	7	4,538	3,147
Aquariums	38	43	20,646	12,553
Facilities similar to museums	4,452	4,466	160,613	74,657
Centers for children and youths	891	840	19,729	7,553
Women's education centers	358	358	11,310	4,302
Public sports facilities	46,981	45,658	526,725	280,631
Private sports facilities	16,397	#* 29,821	107,939	#* 179,328
Theaters, concert halls, etc.	1,827	1,832	…	…
Lifelong learning centers	478	496	27,290	11,698

1) As of October 1. 2) Total of fiscal year. 3) Including similar facilities.
4) Including the same type of facilities.
Source: Ministry of Education, Culture, Sports, Science and Technology.

3. Leisure Activities

The results of the "2021 Survey on Time Use and Leisure Activities" conducted on people living in this country, aged 10 years old and over, show that the amount of free time each person has spent was 6 hours and 16 minutes, which was the time remaining after activities that were physiologically necessary (sleeping, eating, etc.) and societally essential (work, housework, etc.).

Table 16.4
Major Leisure Activities by Sex (Aged 10 years old and over) (2021)

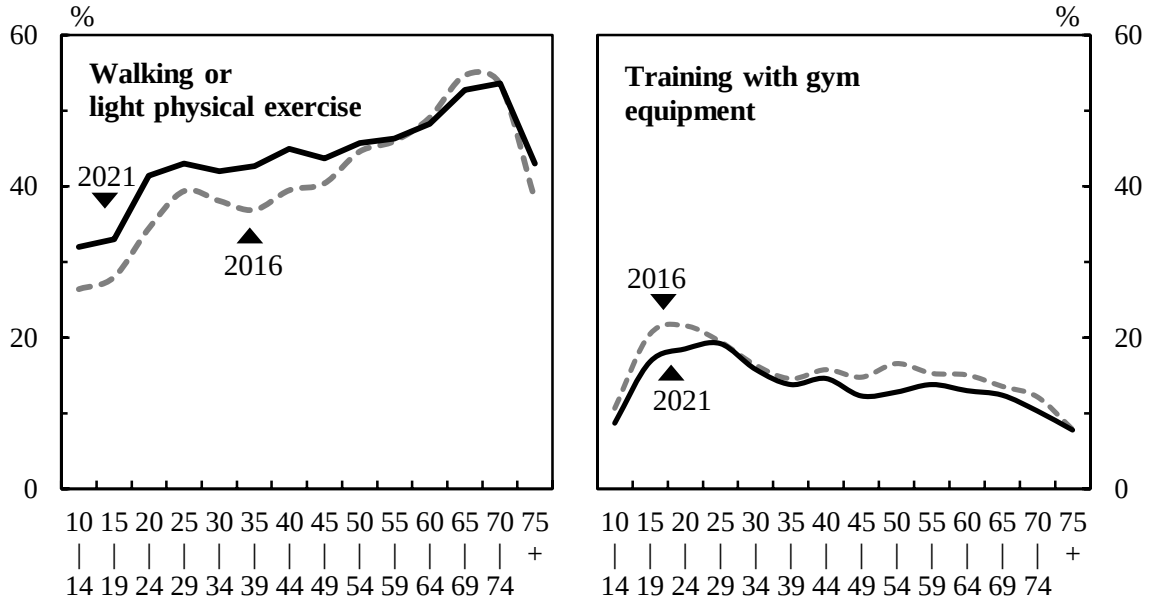
Leisure Activities	Total	Males	Females
Free time per day (hours. minutes)	6.16	6.34	6.00
Participation rate (%) [1]			
Hobbies and amusements	86.3	86.8	85.8
Sports [2] [3]	66.5	69.9	63.3
Travel and excursion	49.5	48.9	50.1
Learning, self-education, and training [2] [4]	39.6	39.8	39.5
Volunteer activities	17.8	18.2	17.5

1) Participants in the activity / Population × 100. 2) Including club activities at school. 3) Excluding sports performed by professional players as their job and by students in PE class. 4) Excluding worker training at the workplace, and study and research activities performed by children, pupils or students as schoolwork, such as study in class, preparation for class and review of lessons.
Source: Statistics Bureau, MIC.

The participation rate for "hobbies and amusements" was 86.3 percent (percentage of people (aged 10 years old and over) who engaged in the activity within the past 12 months), and by sex, the participation rate for males was 86.8 percent and that for females was 85.8 percent. In addition, for participation rates by type of activity, "listening to music by CDs, smartphone, etc." was the highest at 53.5 percent, followed by "watching movies other than movie theater" at 52.7 percent, "playing games on a smartphone, home video game consoles, etc." at 42.9 percent, and so on.

The participation rate for "sports" was 66.5 percent, and by sex, the participation rate for males was 69.9 percent and that for females was 63.3 percent. In addition, for participation rates by type of sport, "walking or light physical exercise" was the highest at 44.3 percent, followed by "training with gym equipment" at 12.9 percent, and so on.

Figure 16.4
Participation Rates for Major "Sports" by Age Group



Source: Statistics Bureau, MIC.

4. Publishing and Mass Media

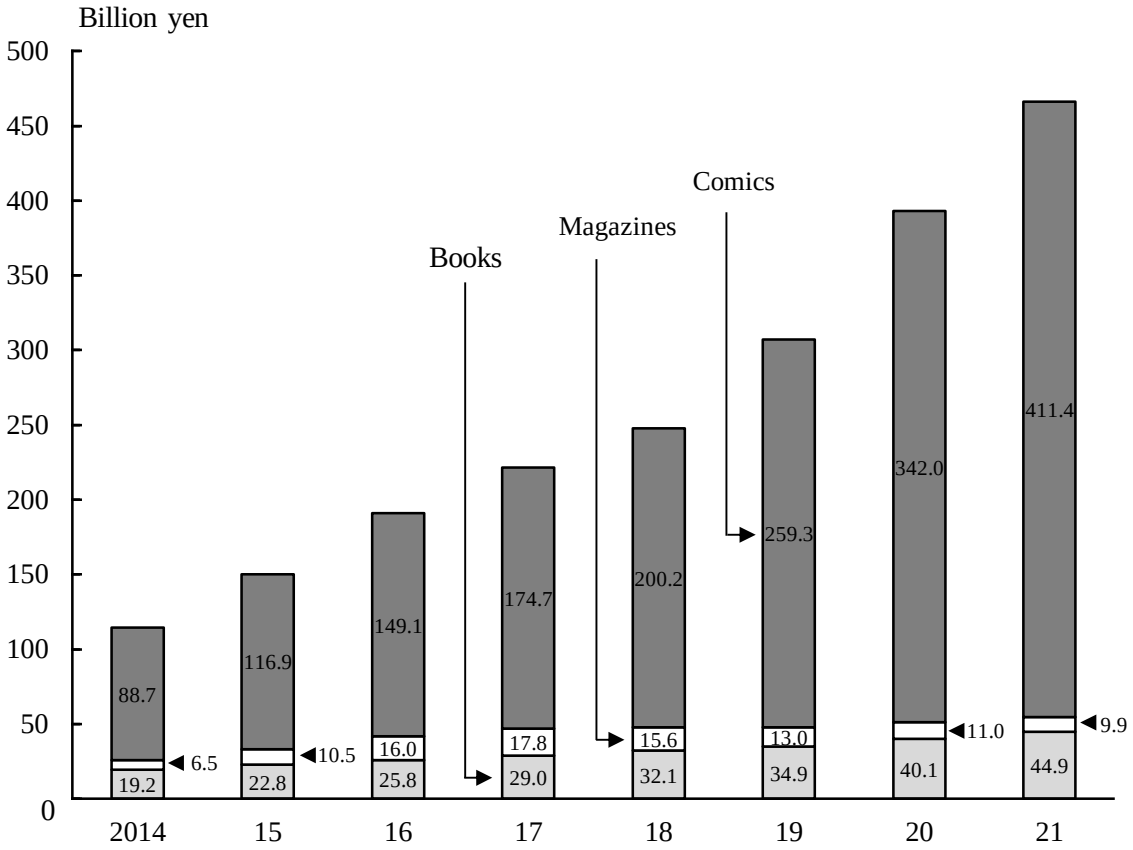
A total of 69,052 new book titles were released in 2021. The number of magazine titles published was 2,536 (including 2,454 monthlies and 82 weeklies). In recent years, a wider range of electronic book content has become available, leading to continuing growth of the electronic books market.

Table 16.5
Number of New Book Titles Published

Subject	2017	2018	2019	2020	2021
Total	73,057	71,661	71,903	68,608	69,052
General works	858	767	804	805	760
Philosophy	3,932	3,955	3,743	3,507	3,402
History and geology	3,404	3,530	3,890	3,927	3,902
Social sciences	15,422	15,220	15,482	14,068	14,159
Natural sciences	5,757	5,325	5,066	5,117	5,043
Engineering and technology ...	4,176	3,906	3,951	3,608	3,662
Industry and commerce	2,652	2,492	2,444	2,310	2,275
Arts and life	12,676	11,856	12,383	12,068	12,289
Language	1,628	1,535	1,473	1,329	1,332
Literature	13,327	13,048	12,979	12,104	12,071
Children's books	4,350	4,721	4,583	4,295	4,446
Reference books	4,875	5,306	5,105	5,470	5,711

Source: The Research Institute for Publications, The All Japan Magazine and Book Publisher's and Editor's Association.

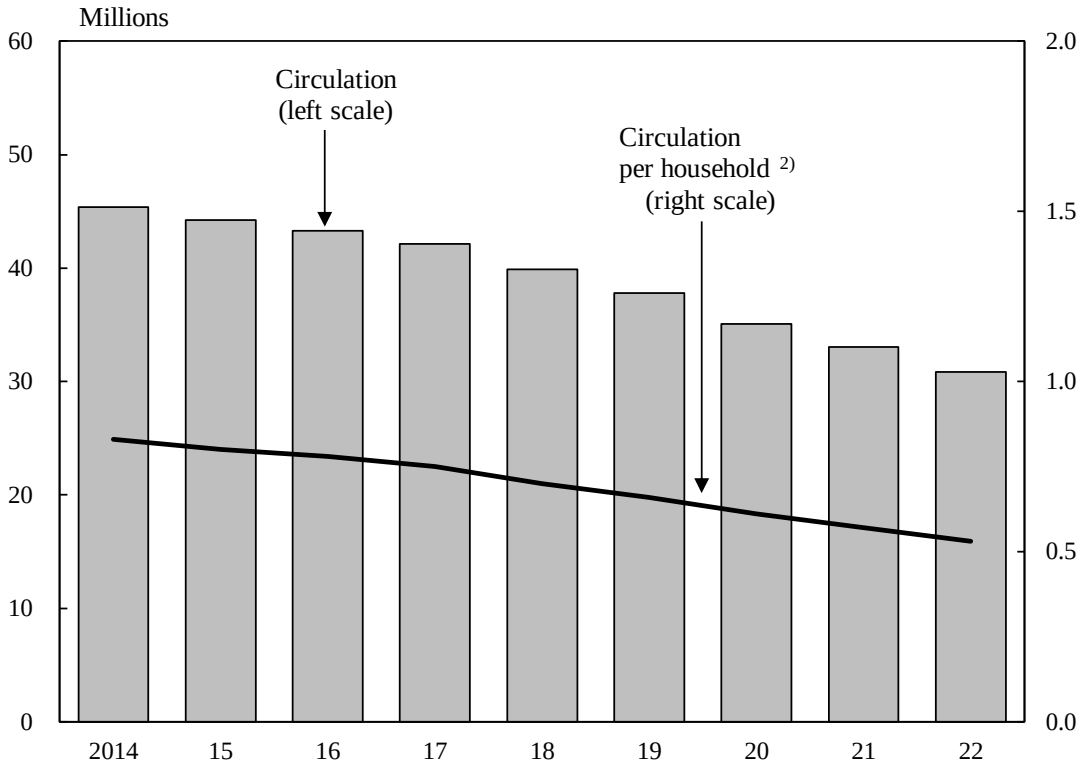
Figure 16.5
Trends in the Size of the Electronic Publication Market



Source: The Research Institute for Publications, The All Japan Magazine and Book Publisher's and Editor's Association.

A total of 112 daily newspapers were in circulation, and the penetration rate was 0.53 newspapers per household as of October 2022.

Figure 16.6
Trends in the Circulation of Newspaper (as of October) [1)]



1) Set paper counted as one copy. 2) Number of households used for calculation are derived from the Basic Resident Registration as of January 1 of the year.
Source: The Japan Newspaper Publishers and Editors Association.

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.

Television broadcasting in Japan became fully digital at the end of March 2012, and practices like broadcasting of video and data with high-definition image quality have become common. New 4K and 8K satellite broadcasting began in December 2018, and products such as televisions enabling viewing of 4K and 8K broadcasts have been disseminated. Efforts are being made to further improve the appeal of satellite broadcasting, such as improving and broadening 4K programs, and steps are being taken to disseminate and develop 4K and 8K broadcasting.

In 2022, advertising expenditures in the four major mass media types in Japan (newspapers, magazines, radio and television) totaled 2.4 trillion yen, down compared with the previous year. This accounted for 33.8 percent of total advertising expenditures, which were 7.1 trillion yen. Spending on Internet advertising reached 3.1 trillion yen (up 14.3 percent from the previous year). This amounted to 43.5 percent of the total advertising expenditures.

Table 16.6
Advertising Expenditures by Medium

Year	Total	News-papers	Maga-zines	Radio	Tele-vision [1)]	Satellite media-related	Internet	Promo-tional media
Advertising expenditures (billion yen)								
2010	5,842.7	639.6	273.3	129.9	1,732.1	78.4	774.7	2,214.7
2015	6,171.0	567.9	244.3	125.4	1,932.3	-	1,159.4	2,141.7
2020	6,159.4	368.8	122.3	106.6	1,655.9	-	# 2,229.0	# 1,676.8
2021	6,799.8	381.5	122.4	110.6	1,839.3	-	2,705.2	1,640.8
2022	7,102.1	369.7	114.0	112.9	1,801.9	-	3,091.2	1,612.4
Percentage distribution (%)								
2010	100.0	11.0	4.7	2.2	29.6	1.3	13.3	37.9
2015	100.0	9.2	4.0	2.0	31.3	-	18.8	34.7
2020	100.0	6.0	2.0	1.7	26.9	-	36.2	27.2
2021	100.0	5.6	1.8	1.6	27.1	-	39.8	24.1
2022	100.0	5.2	1.6	1.6	25.4	-	43.5	22.7

1) Including "satellite media-related advertising" after 2015.
Source: Dentsu Inc.

5. Cultural Assets

Throughout its 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 16.7
Cultural Properties Designated by the National Government
(as of April 1, 2023)

Type of cultural properties	Number	
Important cultural properties	13,377	a) 1,132
Fine arts and crafts	10,820	a) 902
Structures	2,557	a) 230
Historic sites, places of scenic beauty and natural monuments	3,353	b) 174
Historic sites	1,888	b) 63
Places of scenic beauty	427	b) 36
Natural monuments	1,038	b) 75
Important tangible folk cultural properties	226	
Important intangible folk cultural properties	329	
Important intangible cultural properties		
Individual recognition	70	
Performing arts	36	
Craft techniques	34	
Group recognition	30	
Performing arts	14	
Craft techniques	16	
Traditional building preservation areas	126	

a) National treasures only. b) Specially designated places only.
Source: Agency for Cultural Affairs.

As of April 1, 2023, 13,377 items were designated as important cultural properties, of which 1,132 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 accepted the UNESCO World Heritage Convention (the Convention Concerning the Protection of the World Cultural and Natural Heritage) in 1992.

In July 2021, two new sites were registered in the World Heritage List: Amami-Oshima Island, Tokunoshima Island, Northern part of Okinawa Island, and Iriomote Island; and Jomon Prehistoric Sites in Northern Japan.

Amami-Oshima Island, Tokunoshima Island, Northern part of Okinawa Island, and Iriomote Island are natural heritage. They have a mild, humid subtropical climate, and are regions inhabited by distinctive land animals, including many endemic species and endangered species.

The Jomon Prehistoric Sites in Northern Japan are cultural heritage consisting of 17 historic sites. These sites present the daily life and spiritual culture of people who lived in the region for more than 10,000 years through hunting, gathering, and fishing.

Table 16.8

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	Shirakami-Sanchi (mountains)	Aomori, Akita
	Natural	Yakushima (island)	Kagoshima
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	Cultural	Hiraizumi-Temples, Gardens and Archaeological Sites Representing the Buddhist Pure Land	Iwate
	Natural	Ogasawara Islands	Tokyo
2013	Cultural	Fujisan, Sacred Place and Source of Artistic Inspiration	Yamanashi, Shizuoka
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	Fukuoka, Saga, Nagasaki, Kumamoto, Kagoshima,Yamaguchi, Iwate, Shizuoka
2016	Cultural	The National Museum of Western Art - The Architectural Work of Le Corbusier, an Outstanding Contribution to the Modern Movement	Tokyo
2017	Cultural	Sacred Island of Okinoshima and Associated Sites in the Munakata Region	Fukuoka
2018	Cultural	Hidden Christian Sites in the Nagasaki Region	Nagasaki, Kumamoto
2019	Cultural	Mozu-Furuichi Kofun Group: Mounded Tombs of Ancient Japan	Osaka
2021	Natural	Amami-Oshima Island, Tokunoshima Island, Northern part of Okinawa Island, and Iriomote Island	Kagoshima, Okinawa
	Cultural	Jomon Prehistoric Sites in Northern Japan	Hokkaido, Aomori, Iwate, Akita

1) As of January, 2023.
Source: Agency for Cultural Affairs.

In 2006, the UNESCO Convention for the Safeguarding of the Intangible Cultural Heritage entered into force. As of January 2023, 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.

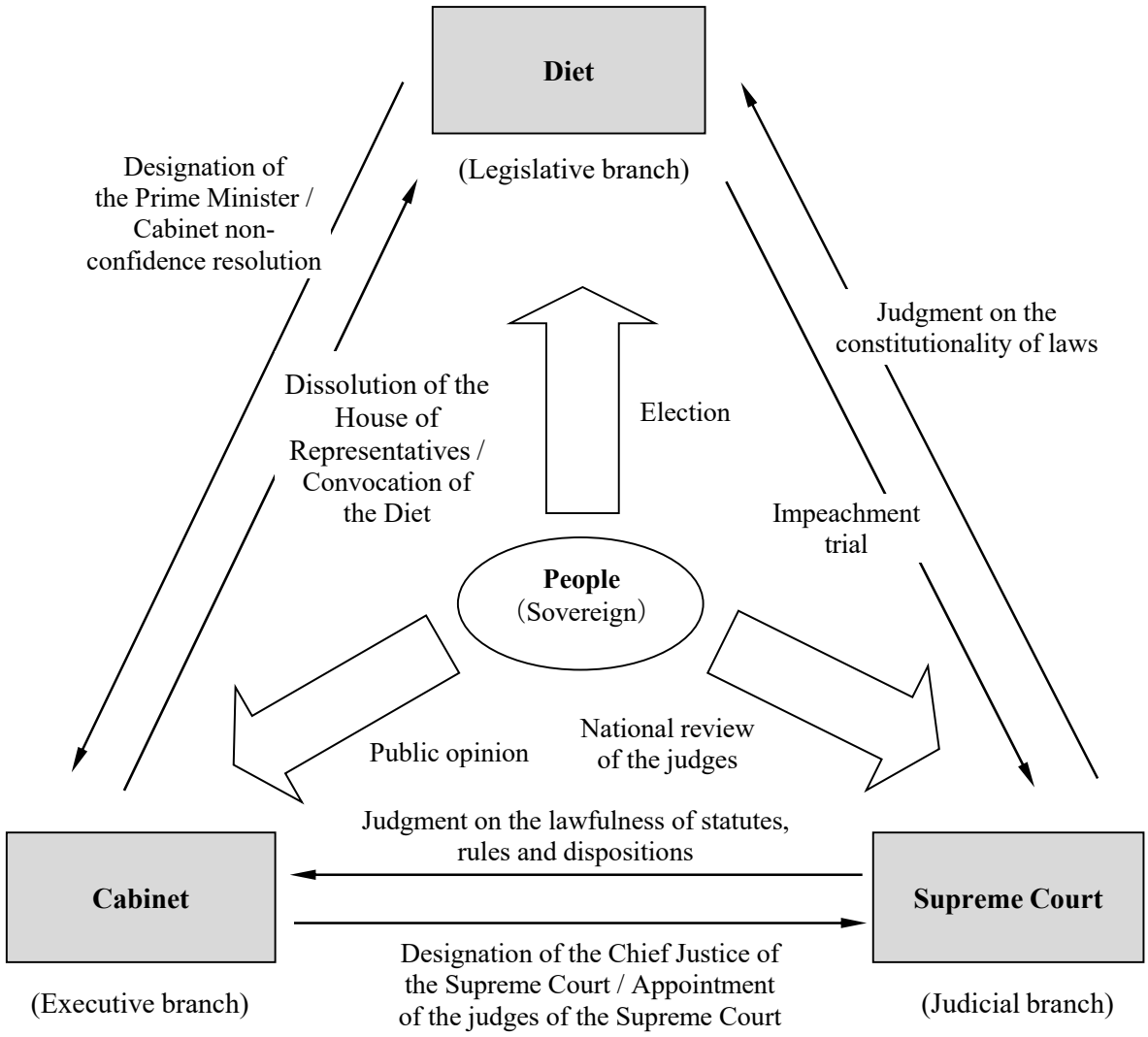
Chapter 17

Government System

1. Separation of Powers

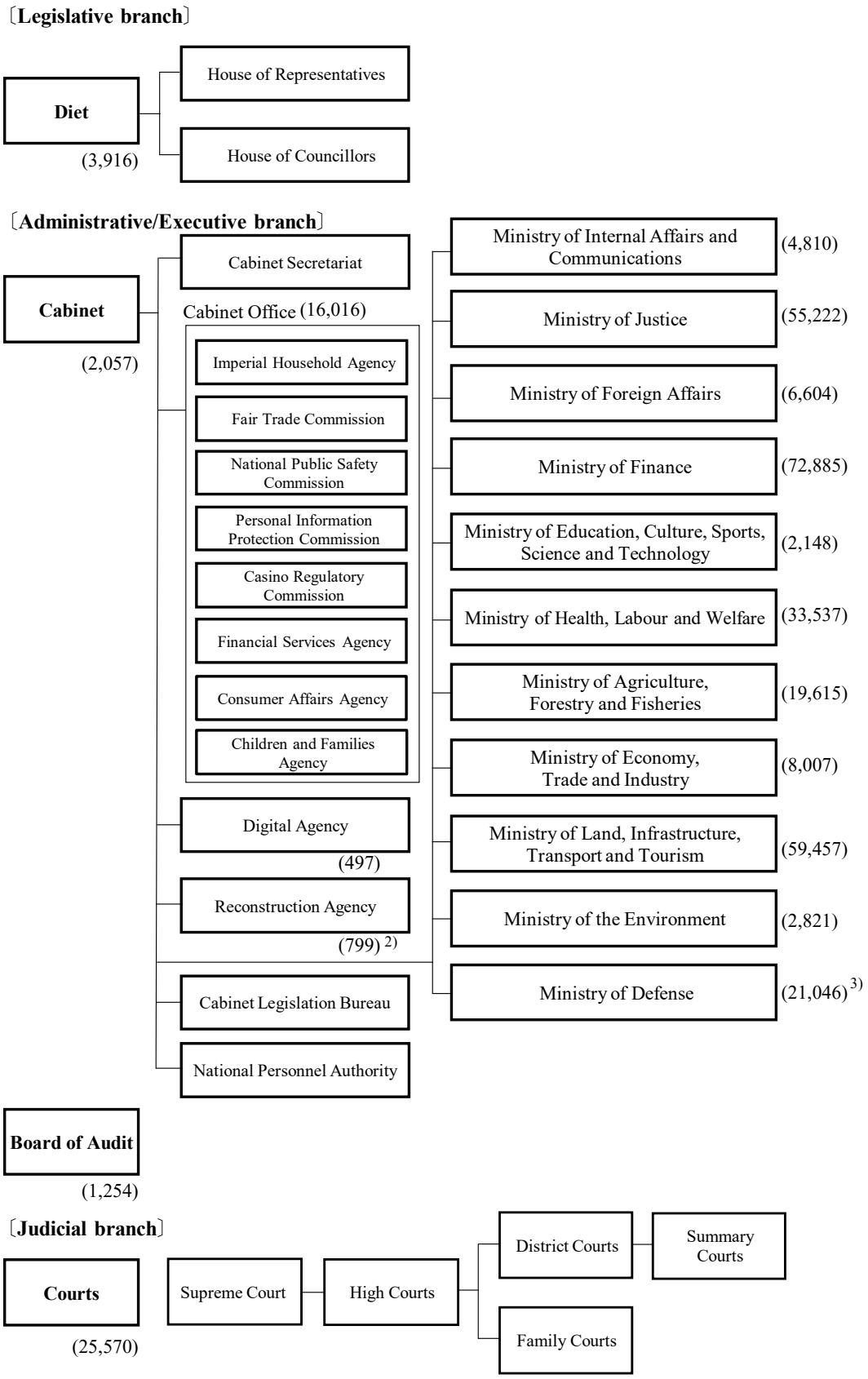
The Constitution of Japan, which went into effect on May 3, 1947, is based on three core principles: sovereignty of the people, respect for fundamental human rights and pacifism. To control governmental power effectively through checks and balances, governmental power is separated into three independent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

Figure 17.1
Separation of Powers under the Constitution of Japan



Source: Prime Minister of Japan and His Cabinet.

Figure 17.2
Government Organization [1] (FY2023)



1) Figures in parentheses refer to budgetary fixed number of national government employees.
2) Of the 799 employees, 221 are from the Reconstruction Agency and 578 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. 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 4-year term, while members of the House of Councillors, 6 years. Elections for the latter are held every 3 years, so that one half of the seats are contested in each election.

The House of Representatives has 465 members. Of these, 289 are elected under a single-seat constituency system, while 176 are elected under a proportional representation system in which the nation is divided into 11 regions. The last general election was held in October 2021. The House of Councillors has 248 members, of whom 100 are elected through proportional representation, and 148 are elected as representatives from 45 electoral districts of the nation, based upon prefectures. The last regular election was held in July 2022.

In June 2015, revisions to the Public Offices Election Law, which consist mainly of lowering the voting age from 20 to 18 years or older, were established and promulgated. The revisions were applied starting with the House of Councillors regular election, which was officially announced in June 2016. 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 25, 2023) Membership 465, Vacancies 0			House of Councillors (as of May 7, 2023) Membership 248, Vacancies 0		
Name	Males	Females	Name	Males	Females
Incumbents	417	48	Incumbents	182	66
Liberal Democratic Party	242	21	Liberal Democratic Party	95	24
The Constitutional Democratic Party of Japan and the Independent	84	13	The Constitutional Democratic Party of Japan and Social Democratic Party	20	20
Nippon Ishin (Japan Innovation Party)	36	5	Komeito	23	4
Komeito	28	4	Nippon Ishin (Japan Innovation Party)	17	4
Democratic Party For the People	9	1	Democratic Party For the People and The Shin-Ryokufukai	9	4
Japanese Communist Party	8	2	Japanese Communist Party	6	5
Yushi no Kai	5	0	REIWA SHINSENGUMI	4	1
REIWA SHINSENGUMI	1	2	Okinawa Whirlwind	2	0
			seijikajoshi48party	2	0
Independents	4	0	Independents	4	4

Source: The House of Representatives; The House of Councillors.

3. 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 Ministers of State are appointed by the Prime Minister, and the majority of them 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 designating 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
Oct. 4, 2021	KISHIDA Fumio	Sep. 26, 2007	FUKUDA Yasuo
Sep. 16, 2020	SUGA Yoshihide	Sep. 26, 2006	ABE Shinzo
Dec. 26, 2012	ABE Shinzo	Apr. 26, 2001	KOIZUMI Junichiro
Sep. 2, 2011	NODA Yoshihiko	Apr. 5, 2000	MORI Yoshiro
Jun. 8, 2010	KAN Naoto	Jul. 30, 1998	OBUCHI Keizo
Sep. 16, 2009	HATOYAMA Yukio	Jan. 11, 1996	HASHIMOTO Ryutaro
Sep. 24, 2008	ASO Taro	Jun. 30, 1994	MURAYAMA Tomiichi

1) Date of initial cabinet formation.
Source: Prime Minister of Japan and His Cabinet.

4. 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 4 lower-level courts (High Court, District Court, Family Court and Summary Court). At present, there are 8 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 thus allows a case to be heard and ruled on up to 3 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 courts.

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 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 15,089 people were tried in lay judge trials held between the start of the system and December 2022.

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
2005	2,713	2,827	576	1,568	1,572	47
2010	2,179	2,241	536	1,158	1,161	36
2015	1,432	1,425	409	1,033	1,030	34
2020	1,350	1,324	456	852	851	33
2021	1,374	1,400	430	845	847	31

Year	Domestic cases			Juvenile cases [1]		
	Commenced	Terminated	Pending	Commenced	Terminated	Pending
2005	718	713	99	237	238	32
2010	815	815	106	165	168	25
2015	970	959	133	95	98	13
2020	1,105	1,092	159	53	54	8
2021	1,150	1,156	154	47	48	7

1) The number of persons.
Source: Supreme Court of Japan.

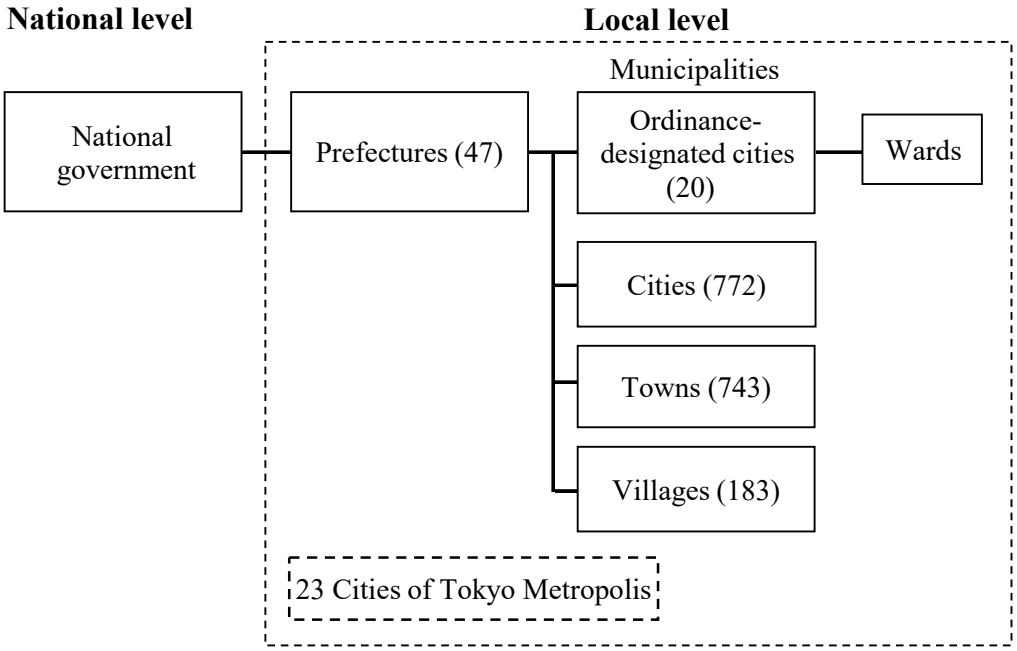
5. Local Governments

The affairs of local governments in Japan are conducted by ordinary local governments (prefectures and municipalities within each prefecture) and by special local governments, such as special wards. As of October 1, 2018, Japan has 47 prefectures, within which there are 1,718 municipalities, plus the 23 Cities of Tokyo metropolis. 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

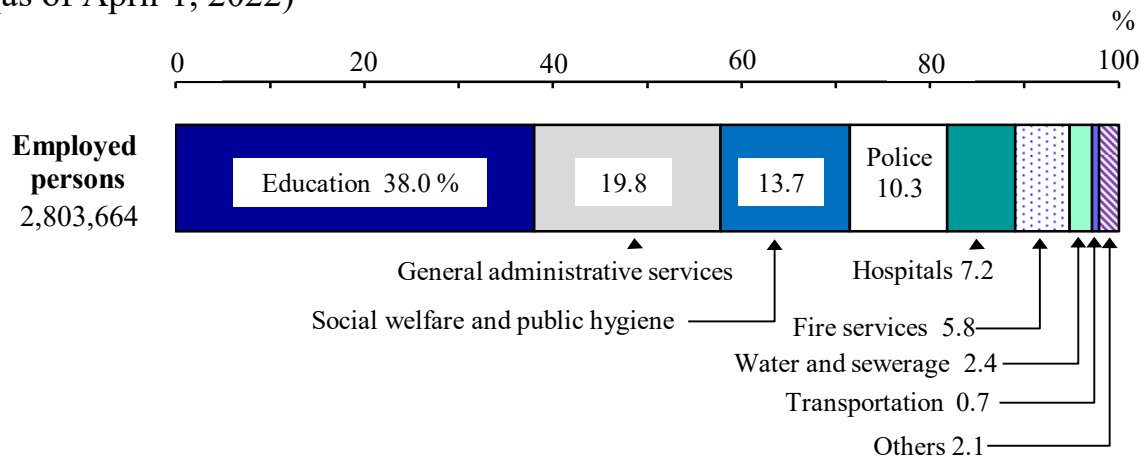
those of prefectures. With the addition of Kumamoto City in April 2012, there are presently 20 cities that have earned this designation. See the map on the inside back cover.

Figure 17.3
Government System by Level [1] (as of October 1, 2018)



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, 2022)



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
		2020 [1]	2022 [2]	2021	2021	2021	2021
Japan		126,146	124,947	377,975	122,956	337	1,021
Hokkaido	Sapporo City	5,225	5,140	83,424	22,699	66	228
Aomori	Aomori City	1,238	1,204	9,646	3,253	127	375
Iwate	Morioka City	1,211	1,181	15,275	3,751	78	319
Miyagi	Sendai City	2,302	2,280	7,282	3,186	315	719
Akita	Akita City	960	930	11,638	3,233	81	292
Yamagata	Yamagata City	1,068	1,041	9,323	2,873	113	367
Fukushima	Fukushima City	1,833	1,790	13,784	4,231	132	428
Ibaraki	Mito City	2,867	2,840	6,097	3,889	468	733
Tochigi	Utsunomiya City	1,933	1,909	6,408	3,005	300	639
Gunma	Maebashi City	1,939	1,913	6,362	2,269	303	849
Saitama	Saitama City	7,345	7,337	3,798	2,603	1,933	2,820
Chiba	Chiba City	6,284	6,266	5,157	3,534	1,217	1,776
Tokyo	23 Cities of Tokyo	14,048	14,038	2,194	1,423	6,386	9,847
Kanagawa	Yokohama City	9,237	9,232	2,416	1,474	3,823	6,267
Niigata	Niigata City	2,201	2,153	12,584	4,550	173	478
Toyama	Toyama City	1,035	1,017	4,248	1,842	241	556
Ishikawa	Kanazawa City	1,133	1,118	4,186	1,395	269	807
Fukui	Fukui City	767	753	4,191	1,077	181	706
Yamanashi	Kofu City	810	802	4,465	953	180	845
Nagano	Nagano City	2,048	2,020	13,562	3,249	150	626
Gifu	Gifu City	1,979	1,946	10,621	2,211	185	887
Shizuoka	Shizuoka City	3,633	3,582	7,777	2,775	464	1,300
Aichi	Nagoya City	7,542	7,495	5,173	2,996	1,453	2,509
Mie	Tsu City	1,770	1,742	5,774	2,064	304	851
Shiga	Otsu City	1,414	1,409	4,017	1,300	351	1,086
Kyoto	Kyoto City	2,578	2,550	4,612	1,177	555	2,175
Osaka	Osaka City	8,838	8,782	1,905	1,334	4,622	6,601
Hyogo	Kobe City	5,465	5,402	8,401	2,769	647	1,961
Nara	Nara City	1,324	1,306	3,691	854	356	1,540
Wakayama	Wakayama City	923	903	4,725	1,123	194	814
Tottori	Tottori City	553	544	3,507	904	157	607
Shimane	Matsue City	671	658	6,708	1,271	99	523
Okayama	Okayama City	1,888	1,862	7,114	2,228	264	842
Hiroshima	Hiroshima City	2,800	2,760	8,479	2,298	328	1,210
Yamaguchi	Yamaguchi City	1,342	1,313	6,113	1,715	217	774
Tokushima	Tokushima City	720	704	4,147	1,016	172	701
Kagawa	Takamatsu City	950	934	1,877	1,005	502	937
Ehime	Matsuyama City	1,335	1,306	5,676	1,666	233	793
Kochi	Kochi City	692	676	7,104	1,161	96	589
Fukuoka	Fukuoka City	5,135	5,116	4,987	2,764	1,028	1,854
Saga	Saga City	811	801	2,441	1,335	330	604
Nagasaki	Nagasaki City	1,312	1,283	4,131	1,668	314	778
Kumamoto	Kumamoto City	1,738	1,718	7,409	2,747	233	629
Oita	Oita City	1,124	1,107	6,341	1,795	176	621
Miyazaki	Miyazaki City	1,070	1,052	7,735	1,876	137	566
Kagoshima	Kagoshima City	1,588	1,563	9,186	3,287	172	479
Okinawa	Naha City	1,467	1,468	2,282	1,126	643	1,304

1) Population Census. 2) Population Estimates.

Source: Statistics Bureau, MIC; Geospatial Information Authority of Japan.

Appendix 2
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)	0.62137 miles
Area:	1 square meter (m^2)	10.7639 square feet
		1.19599 square yards
	1 square kilometer (km^2)	0.38610 square miles
	1 hectare (ha) = 10,000 square meters (m^2)	2.47105 acres
Volume:	1 cubic meter (m^3)	35.3147 cubic feet
		1.30795 cubic yards
Weight:	1 kilogram (kg)	35.2740 ounces
		2.20462 pounds
	1 ton (t)	0.98421 long tons
		1.10231 short tons
Capacity:	1 liter (L)	0.87988 imp. Quarts
		1.05669 U.S. liq. Quarts
Temperature: centigrade (℃)		5 / 9 ×(Fahrenheit - 32)

Appendix 3
Foreign Exchange Rates [1)]

(Yen per U.S. dollar)

Year	Average	End of year
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
2016	108.84	117.11
2017	112.16	112.65
2018	110.39	110.40
2019	109.01	109.15
2020	106.78	103.33
2021	109.80	115.12
2022	131.38	132.14

1) Midpoint rate in the interbank foreign exchange market in Tokyo.
Source: Bank of Japan.