STATISTICAL HANDBOOK OF

JAPAN

2023

Statistics Japan

Edited and Published by
Statistics Bureau
Ministry of Internal Affairs and Communications
Japan
19-1 Wakamatsu-cho, Shinjuku-ku
Tokyo 162-8668 Japan

Printed in Japan
ISSN 0081-4792

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

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".

Contents

Appendices

List of Tables

List of Figures

Photo Sources

Cover photo .....TSUCHIYA Yoshitaka; The Month of Photography, Tokyo 2018
Chapter 1.....Statistics Bureau, MIC
Chapter 2.....WATANABE Noburo; The Photographic Society of Japan
Chapter 3.....YAMADA Toshiya; The Month of Photography, Tokyo 2023
Chapter 4.....KAWANO Katsushige; The Photographic Society of Japan
Chapter 5.....KATO Masami; The Photographic Society of Japan
Chapter 6.....TAZAKI Ryuichi; The Photographic Society of Japan
Chapter 7.....SUZUKI Michio; The Month of Photography, Tokyo 2020
Chapter 8.....WATANABE Noburo; The Photographic Society of Japan
Chapter 9.....FUKUDA Kazuo; The Month of Photography, Tokyo 2020
Chapter 10.....SHOJI Seiichi; The Month of Photography, Tokyo 2023
Chapter 11.....Statistics Bureau, MIC
Chapter 12.....FUKUSHIMA Hidekazu; The Month of Photography, Tokyo 2023
Chapter 13 ..... KAMIKURA Tomoko; The Photographic Society of Japan
Chapter 14.....KASAHARA Toshikazu; The Month of Photography, Tokyo 2023
Chapter 15.....FUNAYAMA Toshihiro; The Month of Photography, Tokyo 2022
Chapter 16.....KOYAMA Chieko; The Month of Photography, Tokyo 2023
Chapter 17.....AIDA Katsuhito; The Month of Photography, Tokyo 2023

Cover photo: Mt. Fuji

Mt. Fuji covered with clouds like a hat. There is a saying, "When Mt. Fuji wears a hat, it will soon rain." Mt. Fuji is the highest peak in Japan, with an elevation of 3,776 meters. In June 2013, it was registered as a World Cultural Heritage Site, making it the 17th World Heritage Site in Japan.

Chapter 1

Land and Climate

Japan has four seasons, and beautiful natural scenes can be enjoyed in spring, summer, fall, and winter. Spring is a season of blossoms, with all sorts of flowers blooming here and there in each town. A typical example is the "cherry blossom." All over Japan, spots for cherry blossom viewing are crowded with sightseers.

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

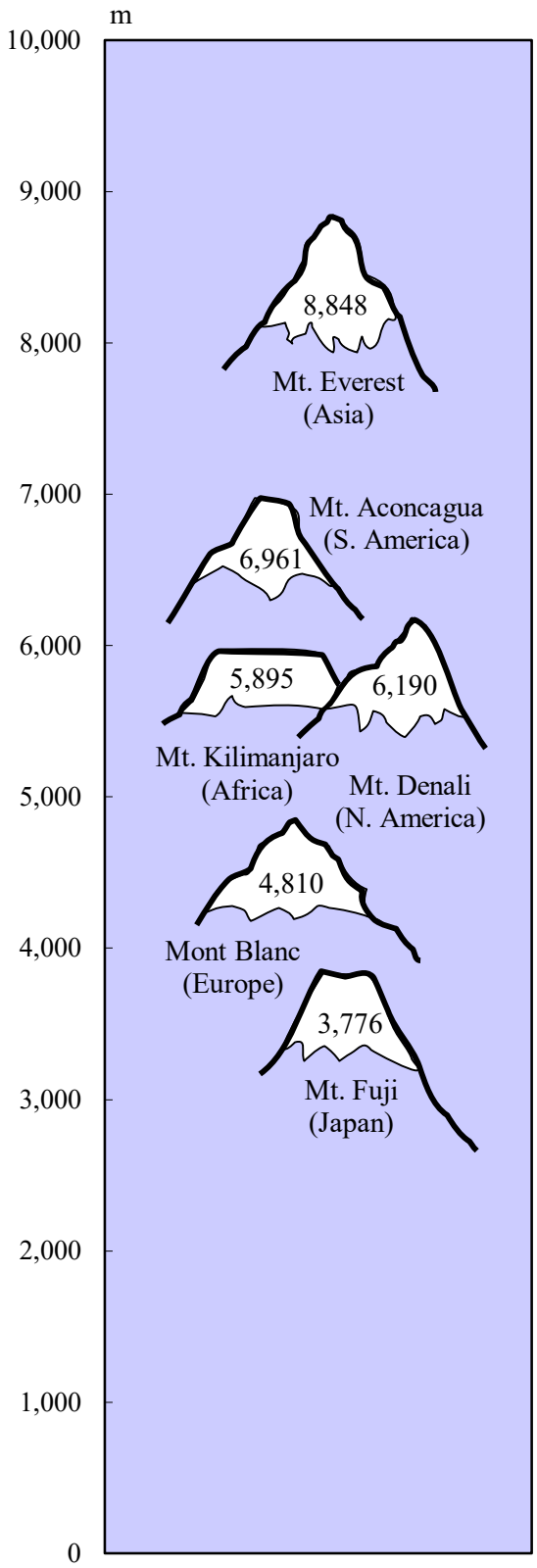
Source: Geospatial Information Authority of Japan.

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)

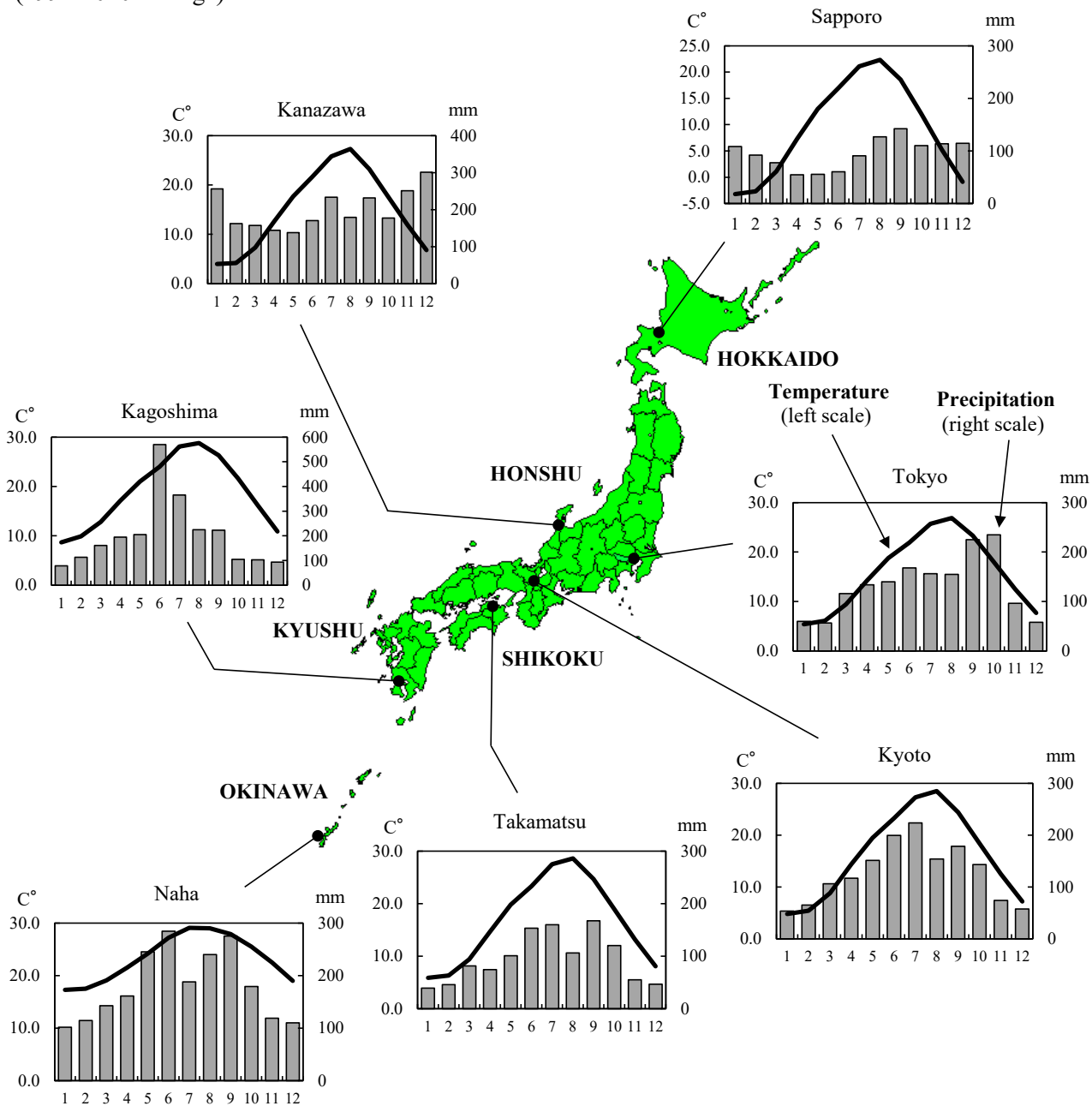
Year	Total	Forestland and fields	Farmland	Inland water	Roads [1)]	Developed land [2)]	Others
1980	37.77	25.68	5.59	1.31	0.99	1.39	2.81
1990	37.77	25.52	5.33	1.31	1.14	1.60	2.87
2000	37.79	25.38	4.91	1.35	1.27	1.79	3.09
2010	37.79	25.35	4.67	1.33	1.36	1.90	3.19
2019	37.80	# 25.38	# 4.40	1.35	1.41	# 1.97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

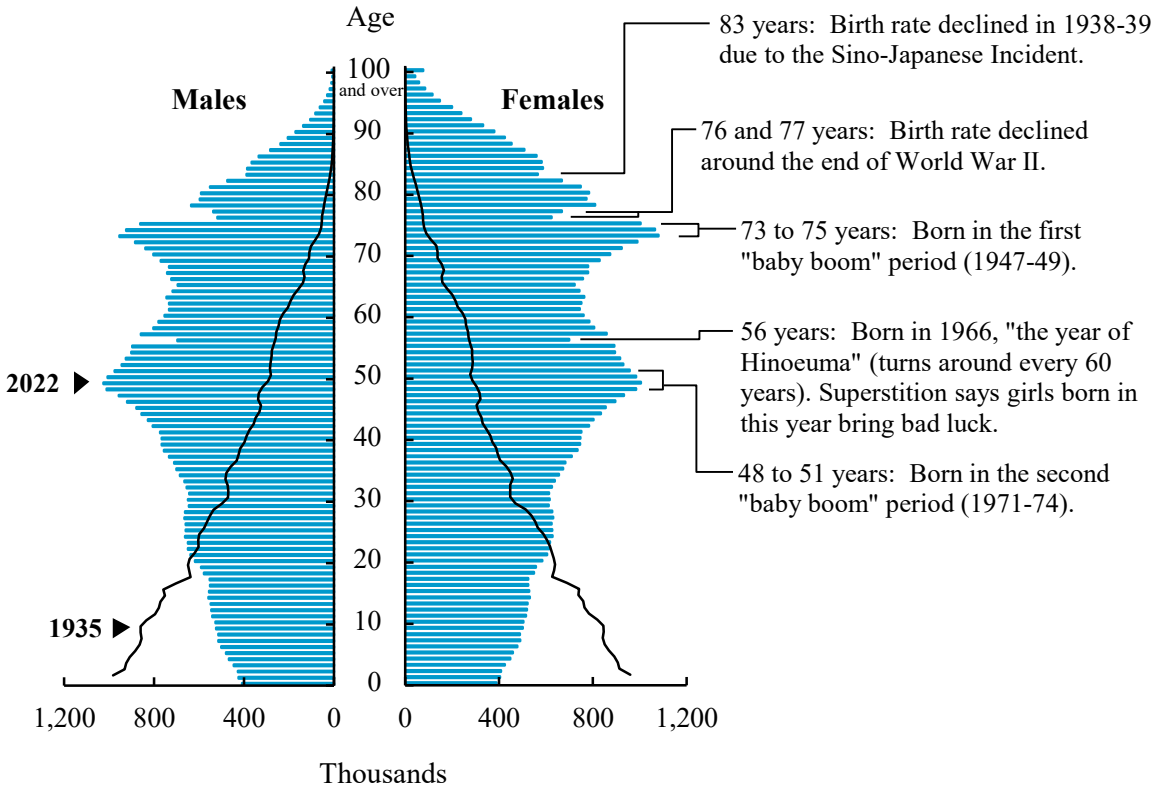
Population

People and carp streamers.
On Children's Day (May 5), there is a custom of flying carp streamers to wish for a good future for children.

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.

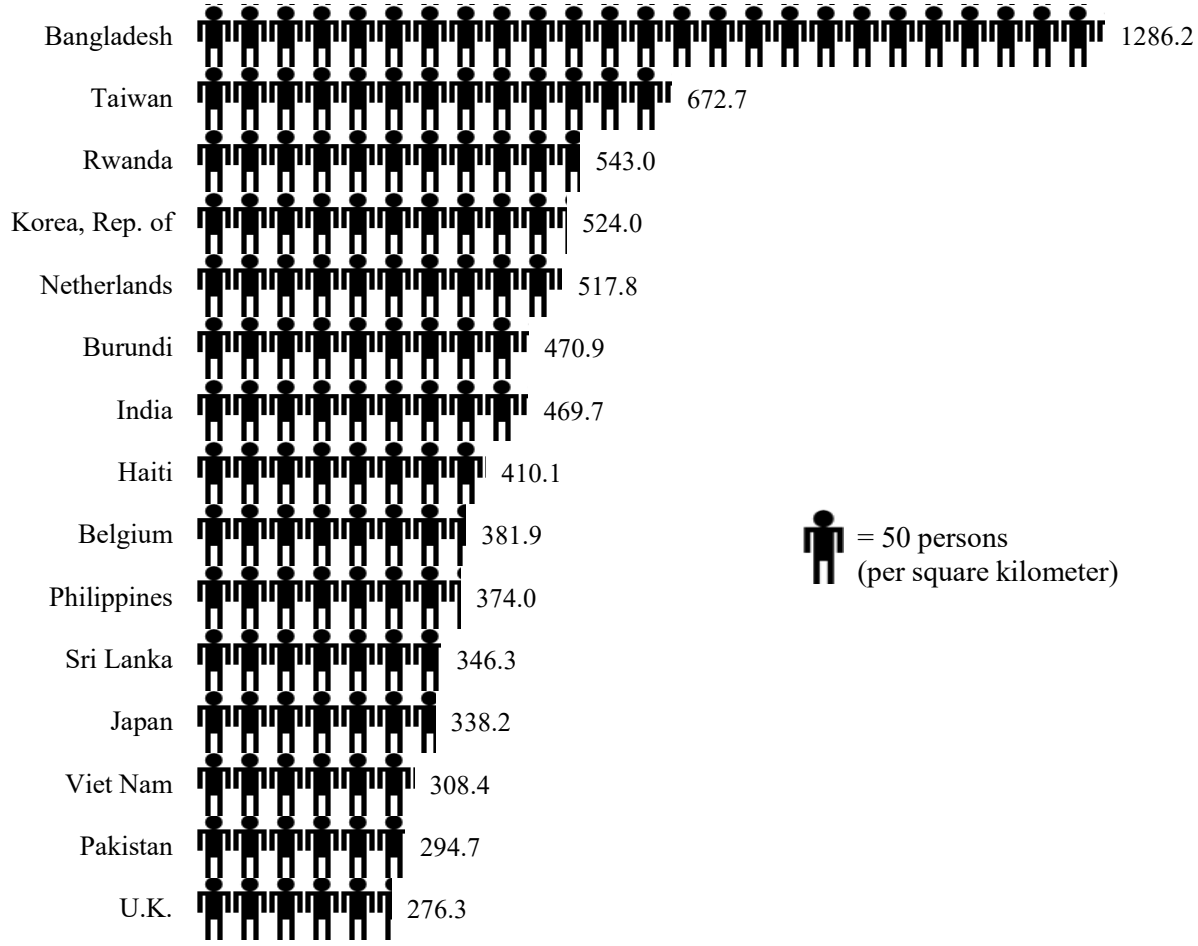
Table 2.1
Countries with a Large Population (2022)

(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.

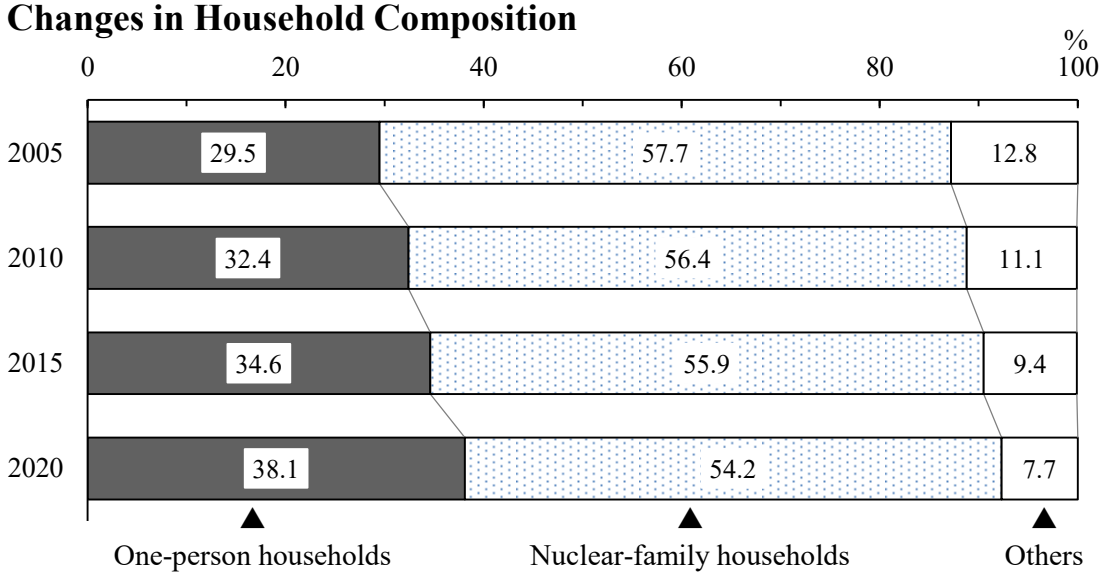
2. Households

(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 househods 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)

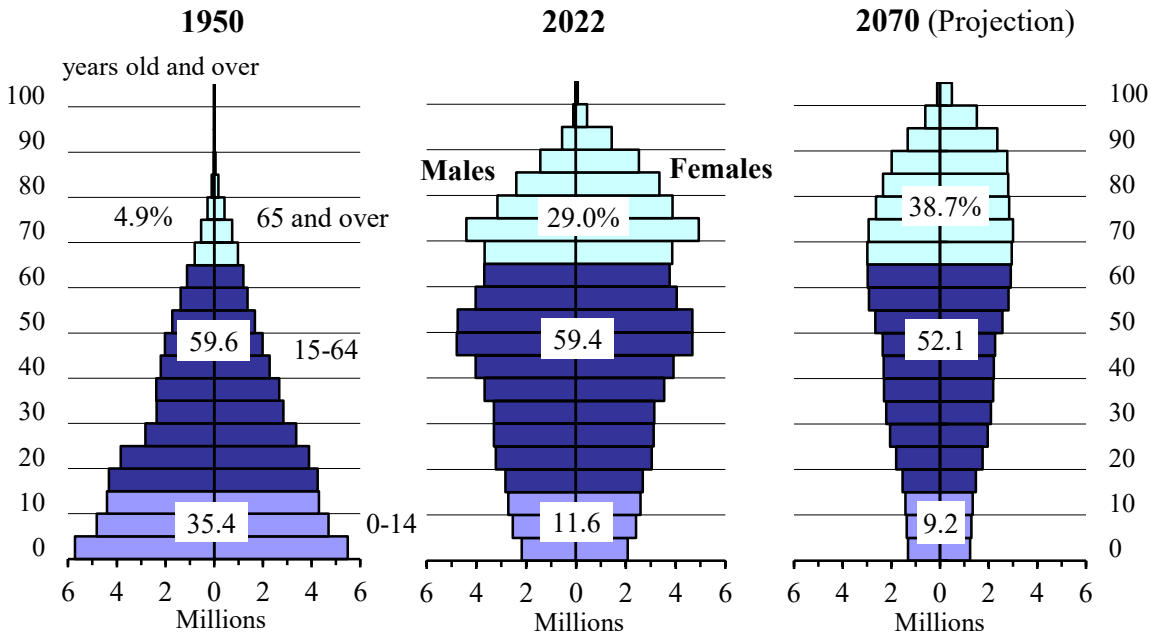
Type of households	2005	2010	2015	2020
Private households	49,063	51,842	53,332	55,705
Elderly households	17,220	19,338	21,713	22,655
(percentage)	35.1	37.3	40.7	40.7
One-person households	3,865	4,791	5,928	6,717
Males	1,051	1,386	1,924	2,308
Females	2,814	3,405	4,003	4,409
Nuclear-family households	8,398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

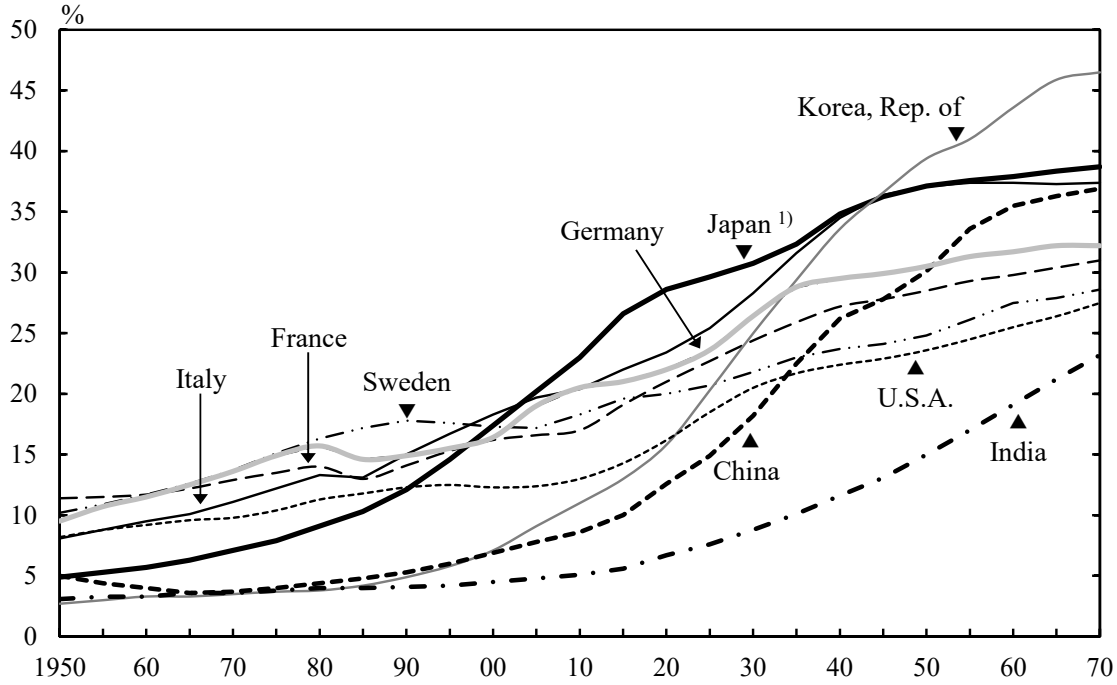
Figure 2.4
Changes in the Population Pyramid



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.

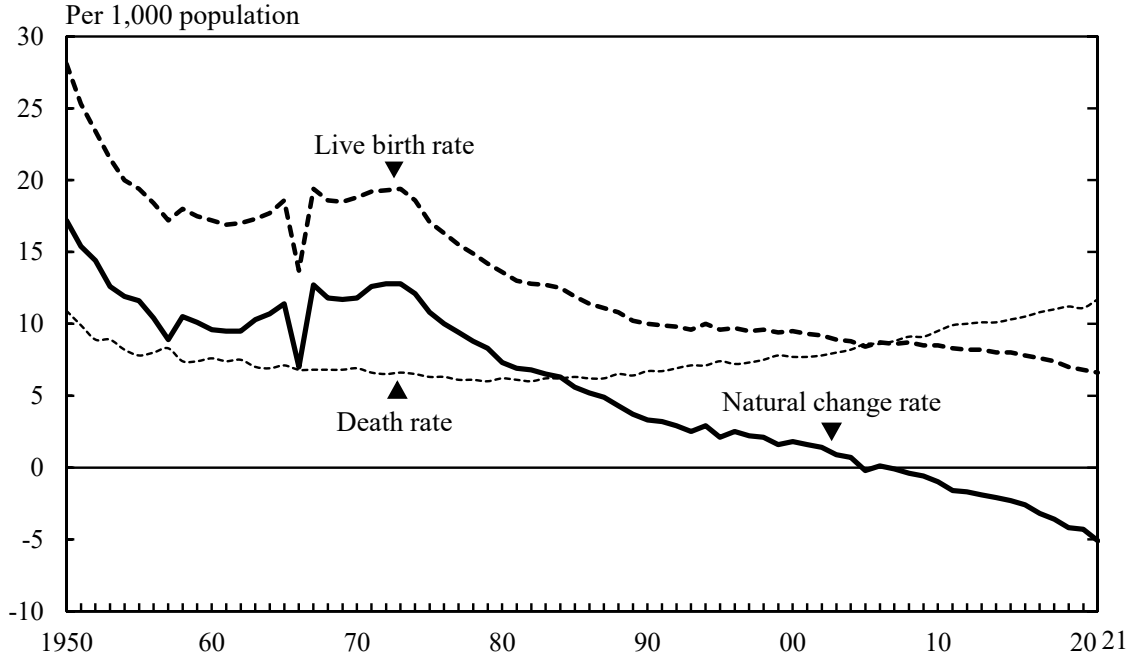
Source: Statistics Bureau, MIC; National Institute of Population and Social Security Research; United Nations.

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.

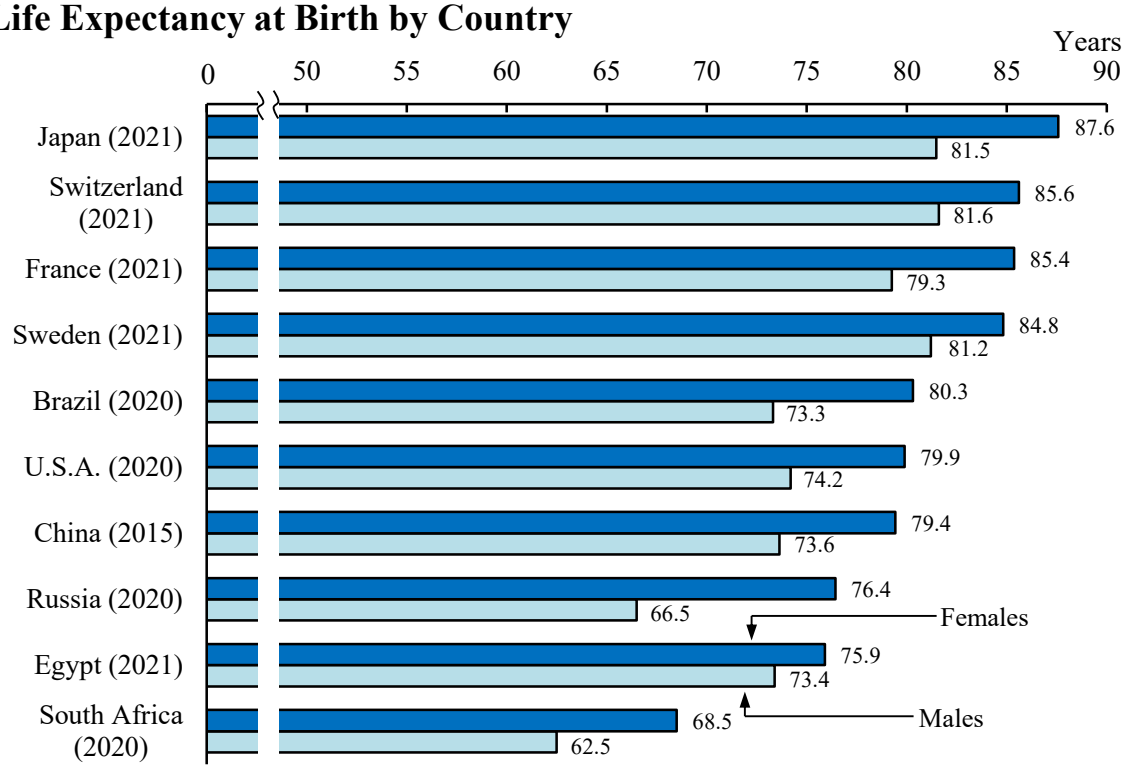
Table 2.7
Changes of Mothers' Age at Childbirth

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)]

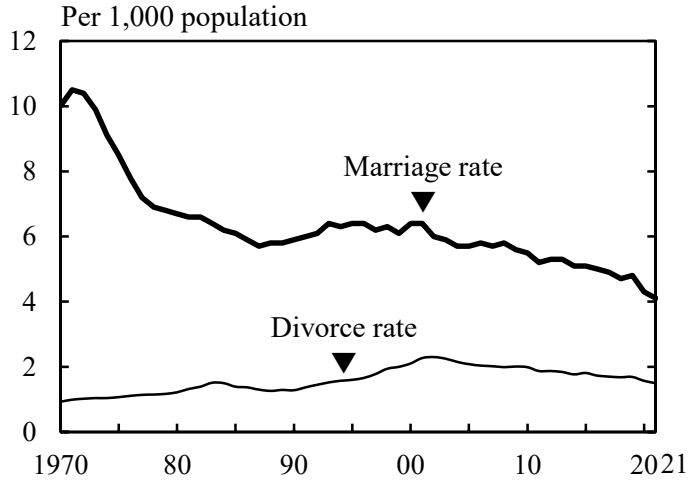
(%)

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.

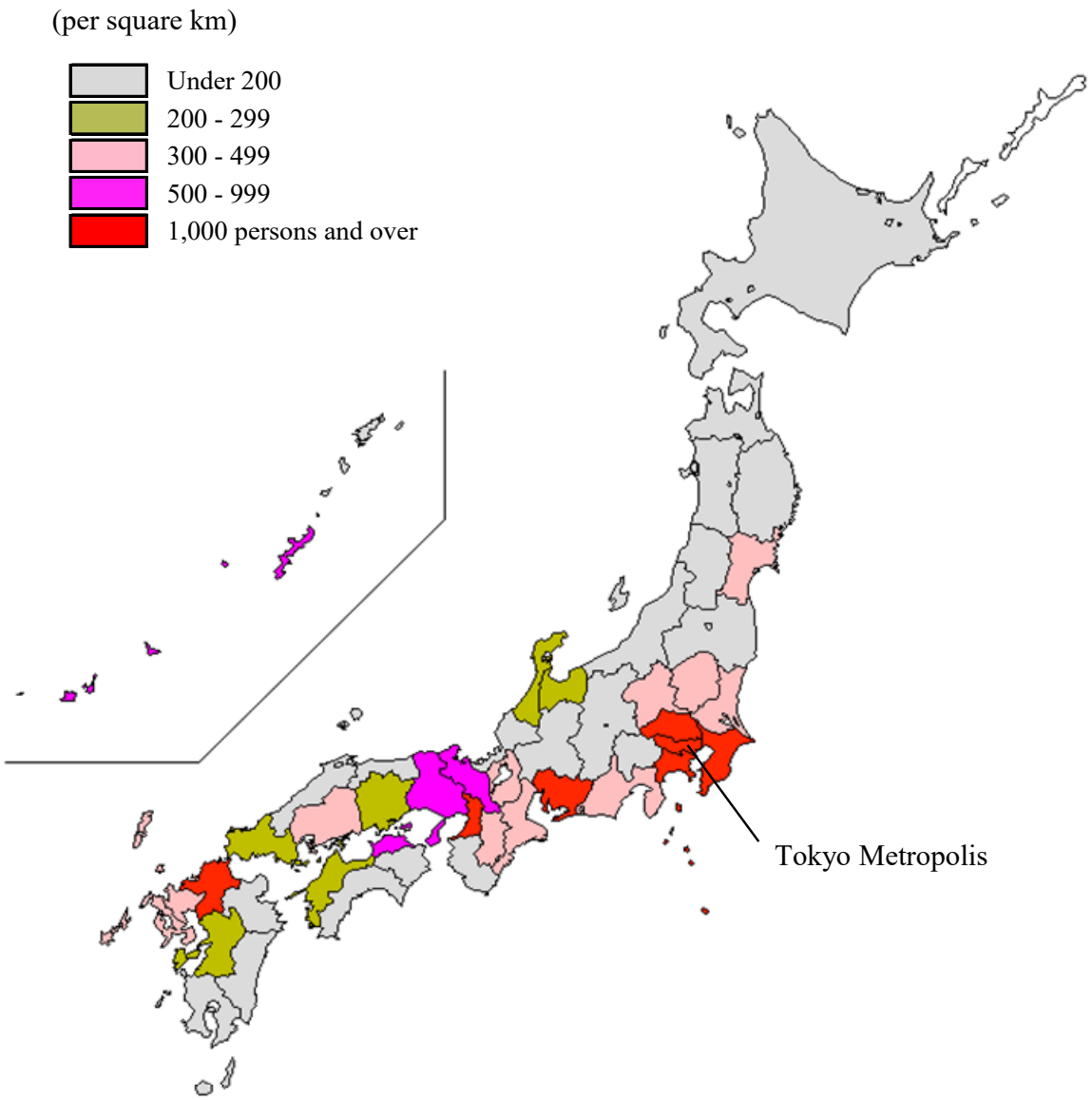
6. Population Density and Regional Distribution

(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

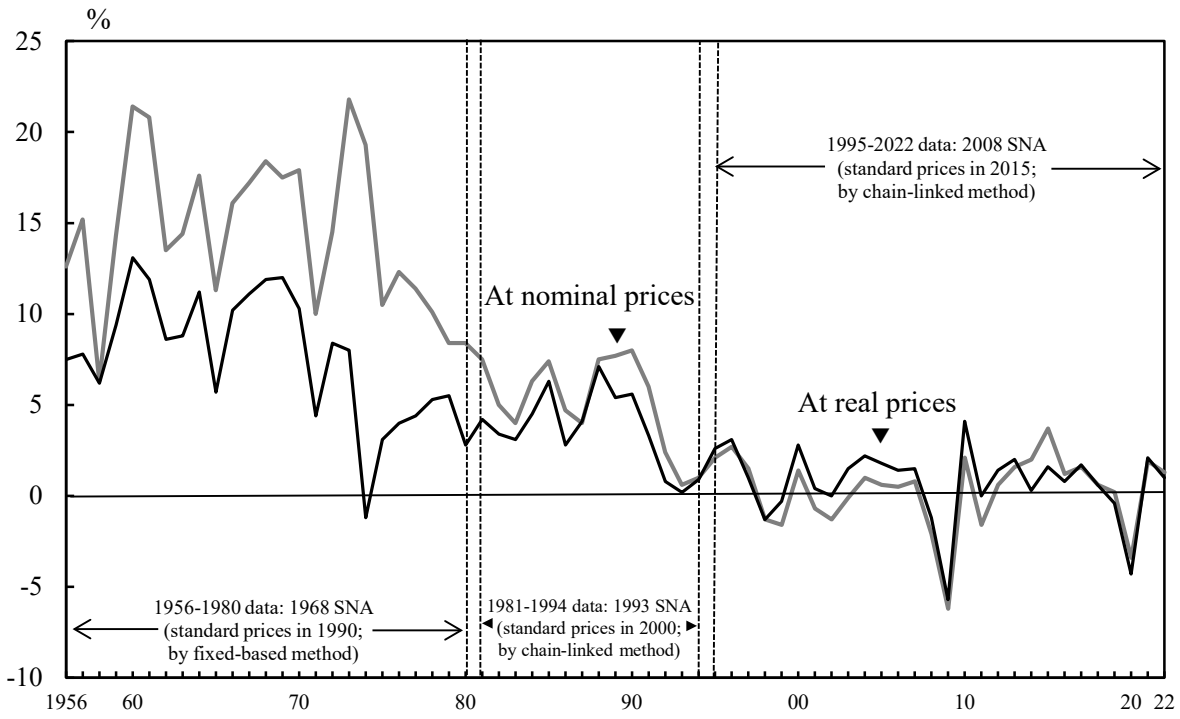
Economy

A night scene of the Sumidagawa-Ohashi Bridge in Tokyo is like a magic lamp dispelling COVID-19.
In October 2021, the New Capitalism Realization Headquarters was established within the Cabinet to realize a new form of capitalism based on the concept of a virtuous cycle of growth and distribution, and developing a new post-COVID-19 society.

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.

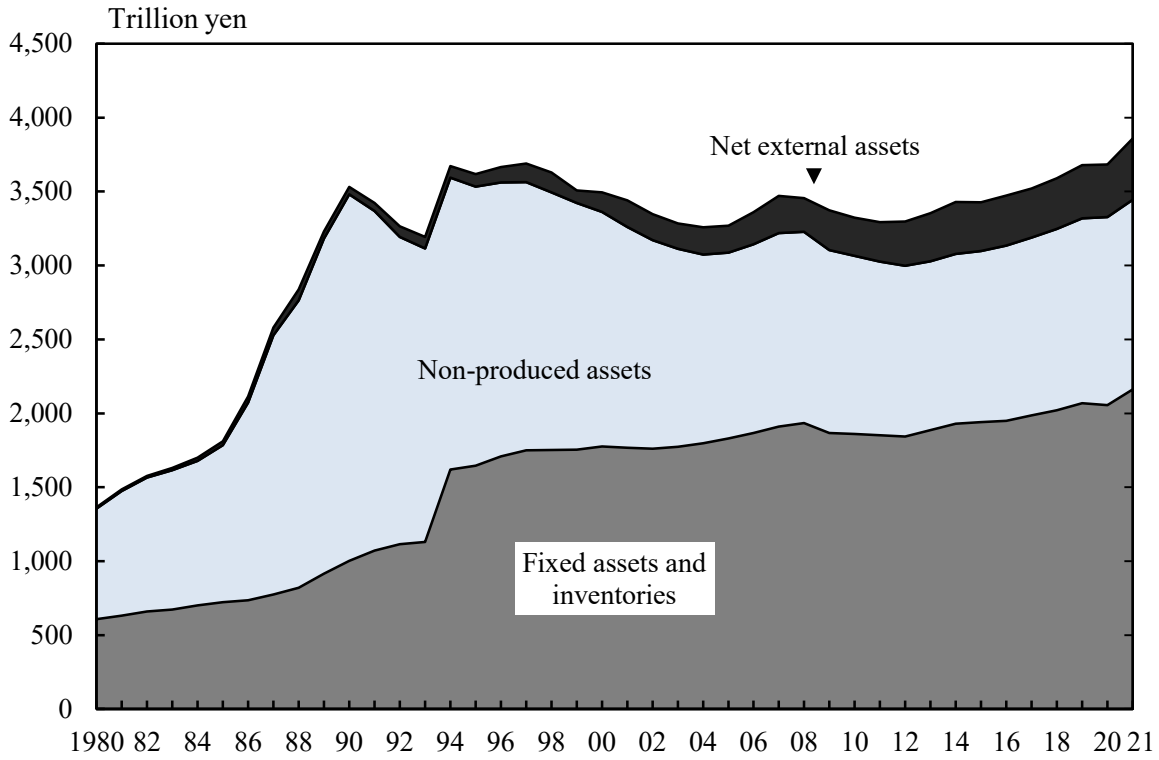
2. Bubble Economy and Its Collapse

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)]

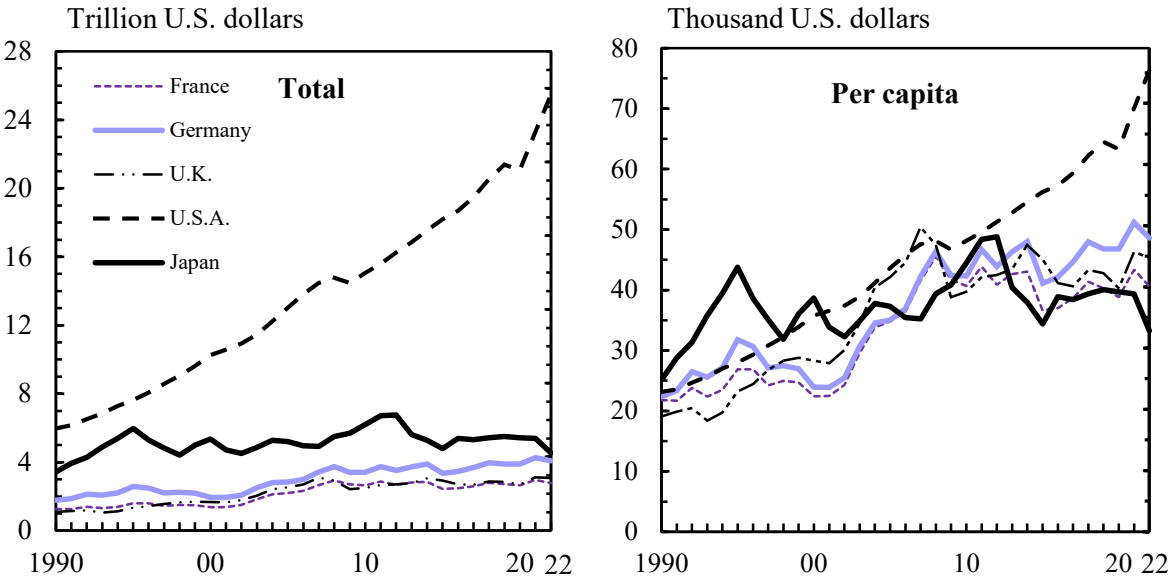


1) Data was estimated using a different method beginning in 1994.
Source: Economic and Social Research Institute, Cabinet Office.

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.

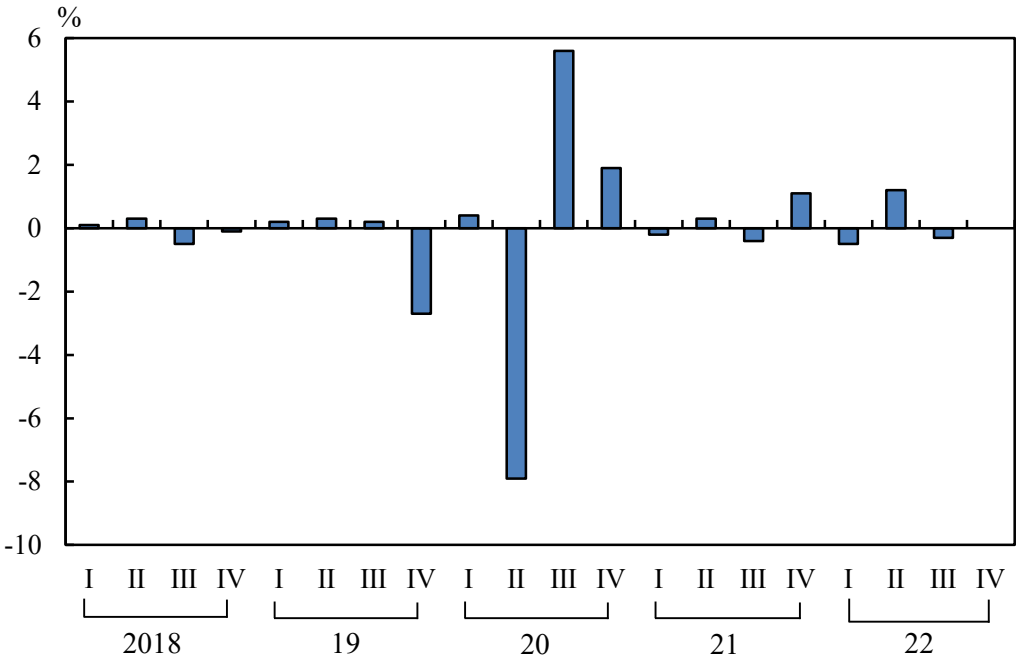
Subsequently, the Japanese economy recovered with foreign demand and economic measures after April 2009, and came to a standstill starting around October 2010. In early 2011, however, it began to rally. The Great East Japan Earthquake taking place on March 11, 2011, and the nuclear power plant accident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

(%)

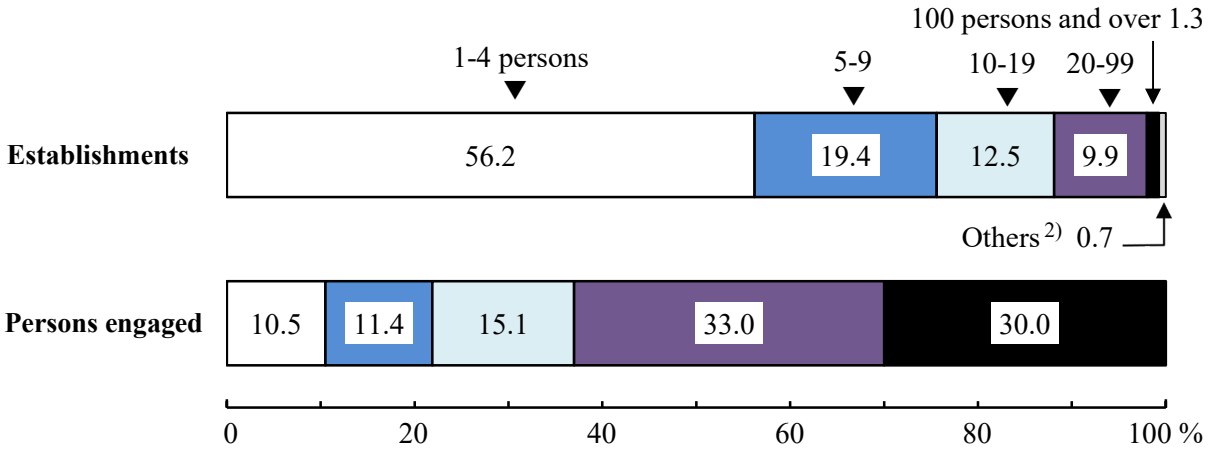
	1995	2000	2005	2010	2015	2020
Primary industry						
Agriculture, forestry and fishing	1.6	1.5	1.1	1.1	1.0	1.0
Secondary industry						
Mining	0.2	0.1	0.1	0.1	0.1	0.1
Manufacturing	23.5	22.5	21.4	20.8	20.5	20.0
Construction	7.6	6.7	5.4	4.6	5.2	5.7
Tertiary industry						
Electricity, gas and water supply 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 1.3 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

New Years in Asakusa.
Hatsumode is a traditional event in Japan, the first temple or shrine visit of the New Year. Visitors pray for good fortune in the coming year, toss coins into offering boxes, buy written oracles called *omikuji*, and purchase *omamori* charms. Income of religious corporations is basically tax-free.

1. National and Local Government Finance

(1) National Government Finance

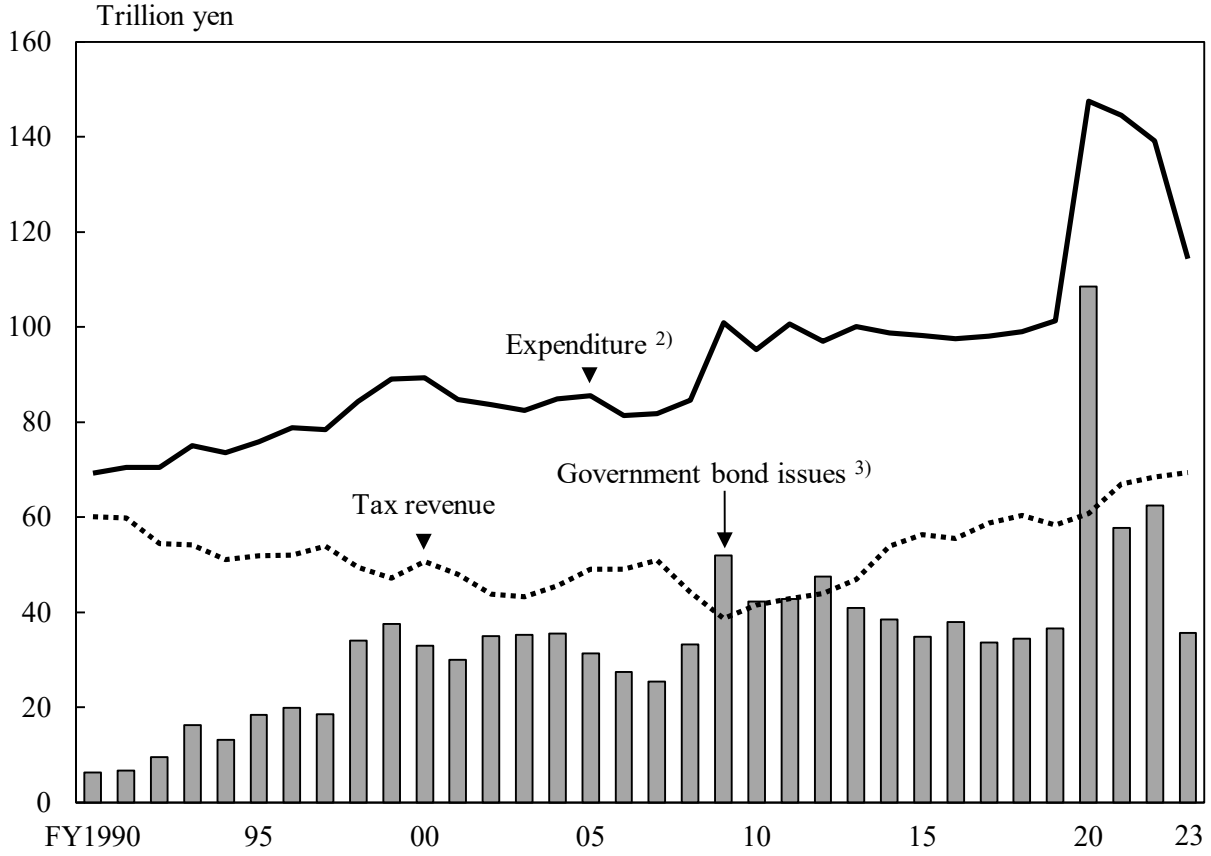
Japan's fiscal year starts in April, and ends in March of the following year. In setting the national budget, the government submits a proposed budget for the upcoming fiscal year to the Ordinary Session of the Diet, which begins in January. The proposal is then discussed, and approved usually before 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

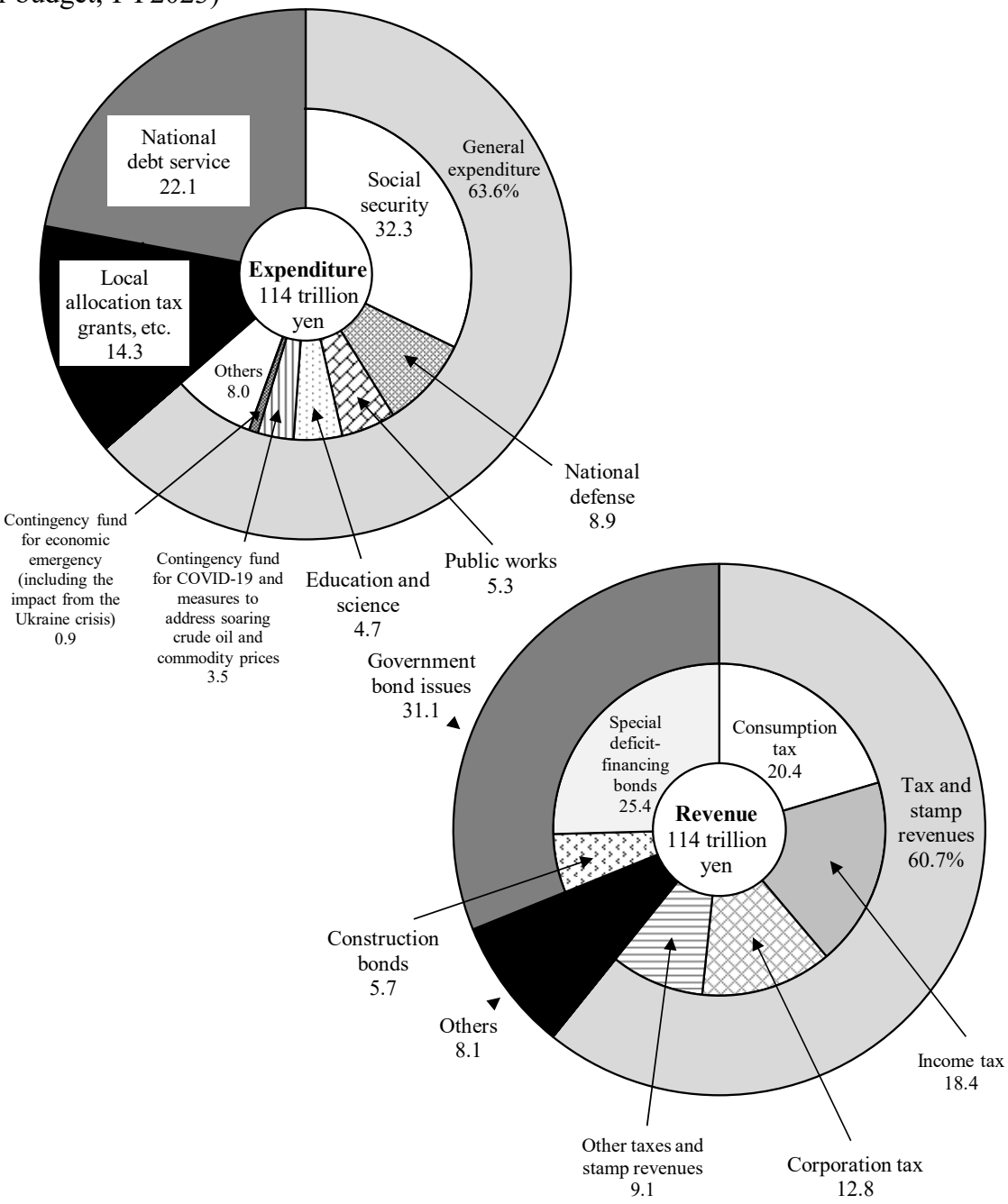
Fiscal year	Economic cooperation	Small and medium-sized business promotion	Energy measures	Food stable supply	Others	National debt service (B)	Local allocation tax grants, etc. (C)
2000	1,012	933	677	247	6,434	21,446	15,829
2005	784	237	493	657	6,536	18,736	17,441
2010	746	830	845	1,122	7,953	19,544	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)

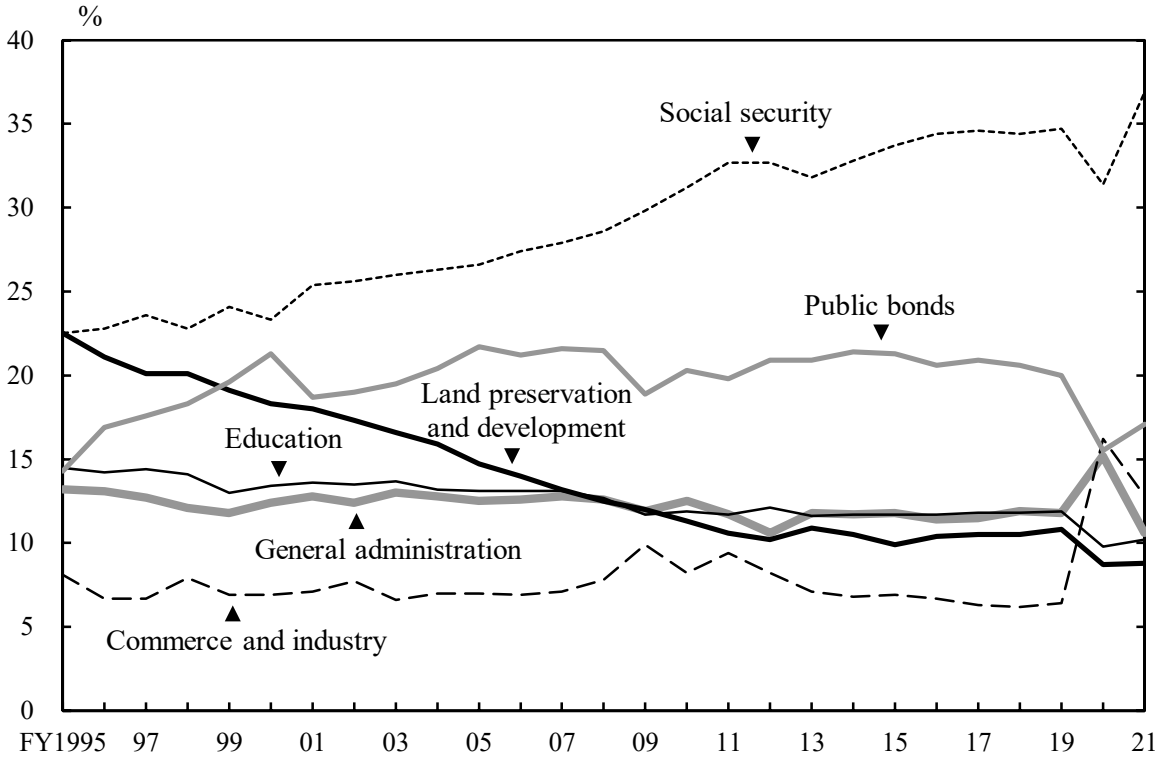
(Billion yen)

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.

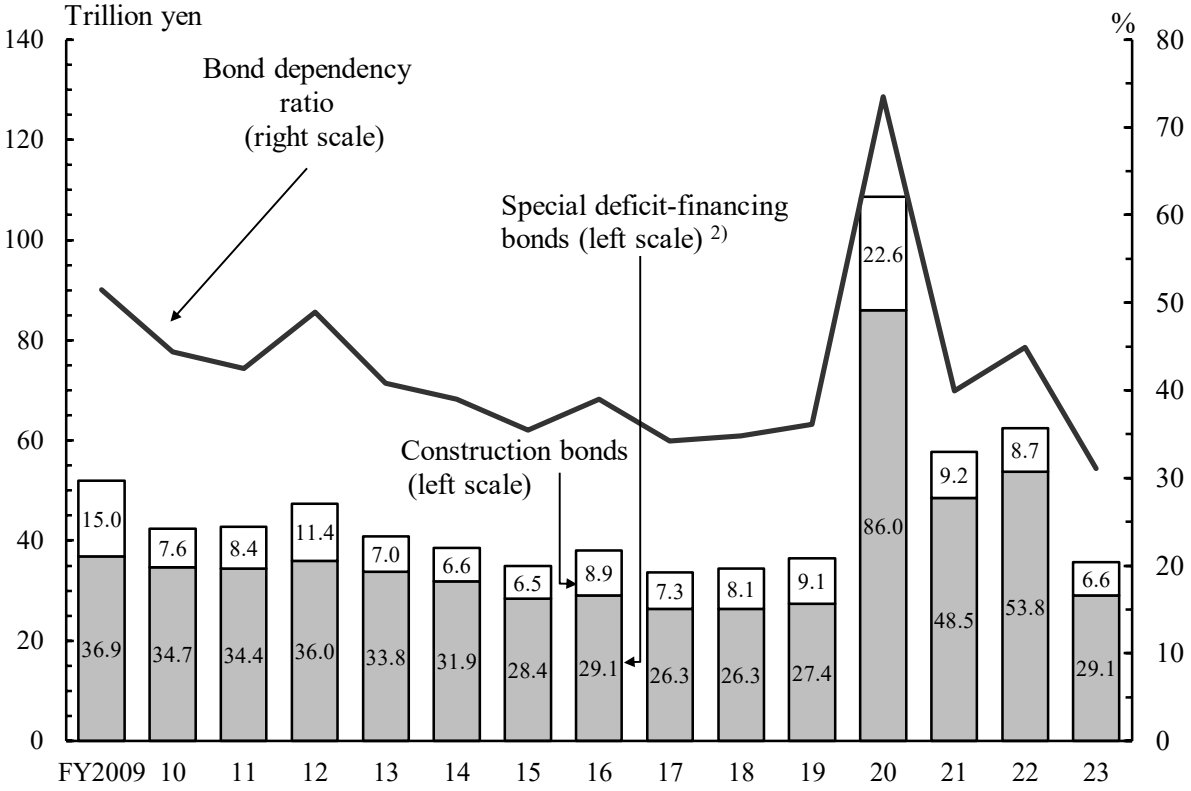
Figure 4.3
Ratio of Net Total National and Local Expenditures by Function



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.

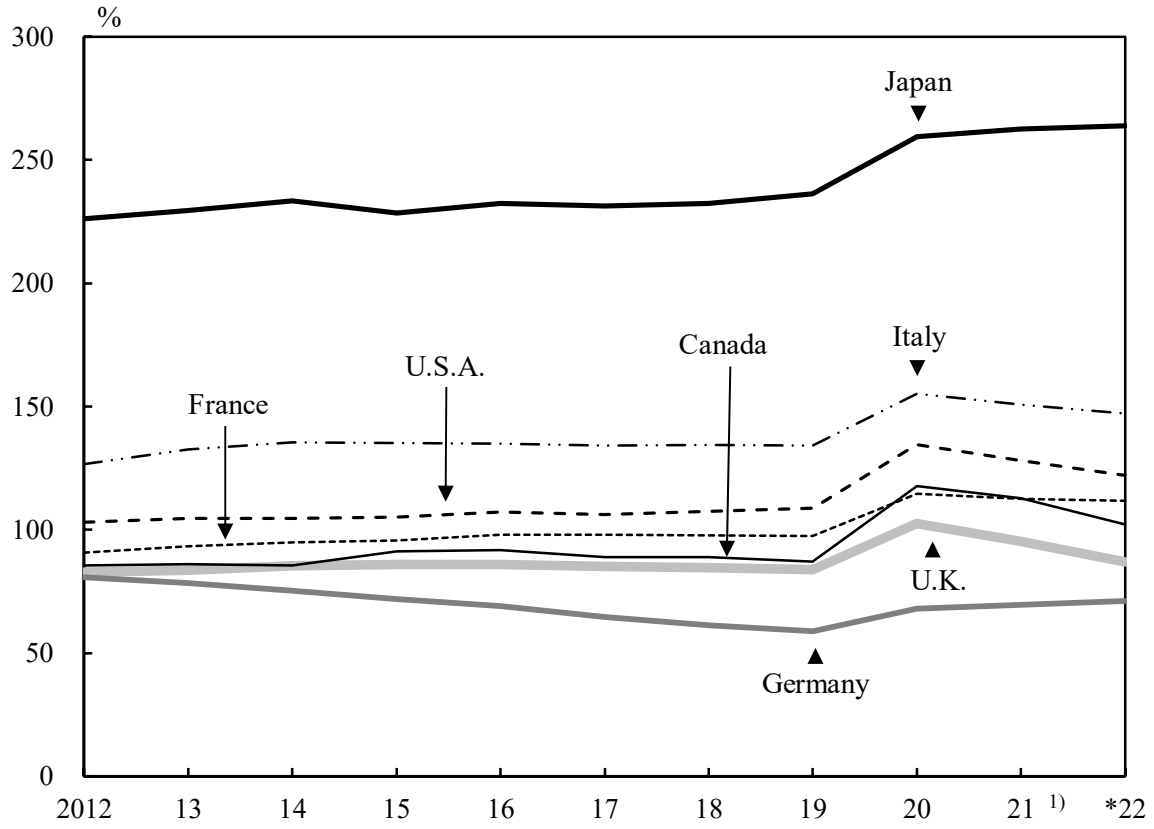
Figure 4.4
National Government Bond Issue and Bond Dependency Ratio [1)]



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



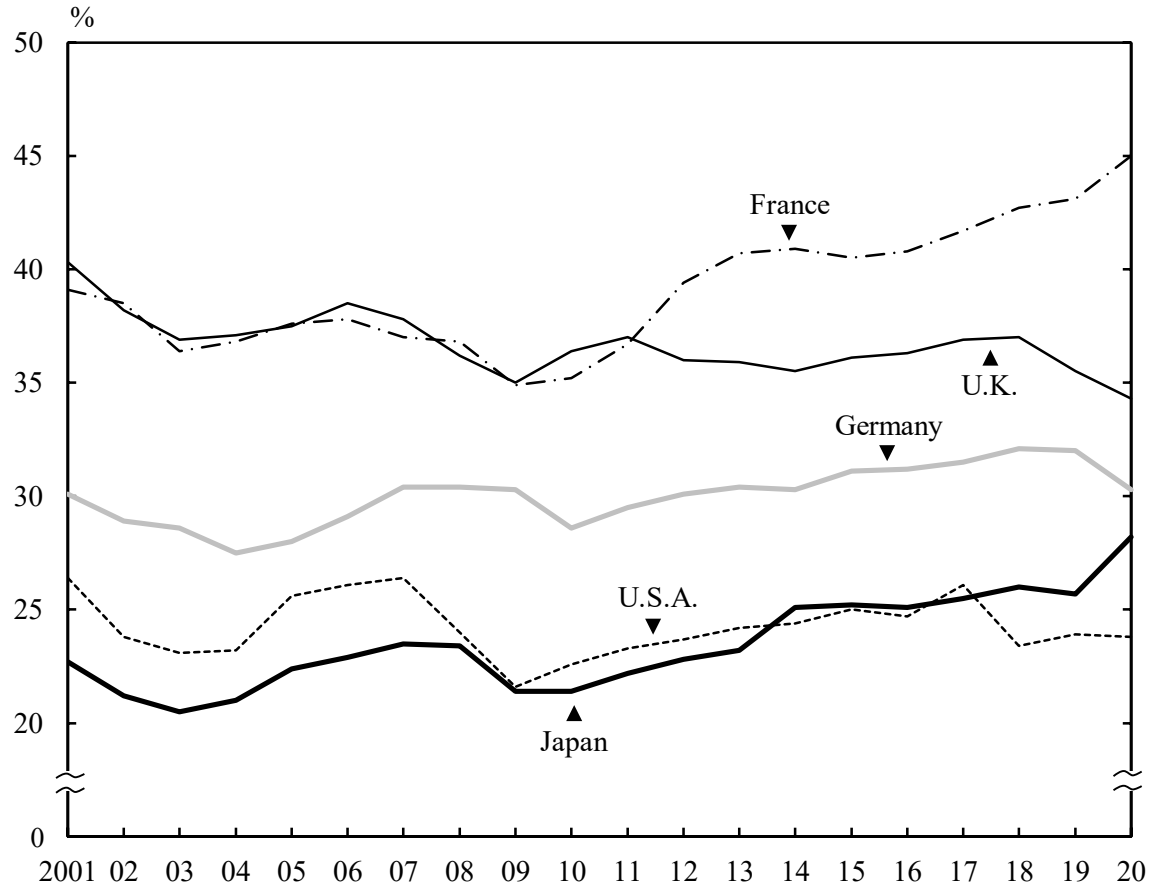
1) The data for Japan indicates estimated figure.
Source: Ministry of Finance.

(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.

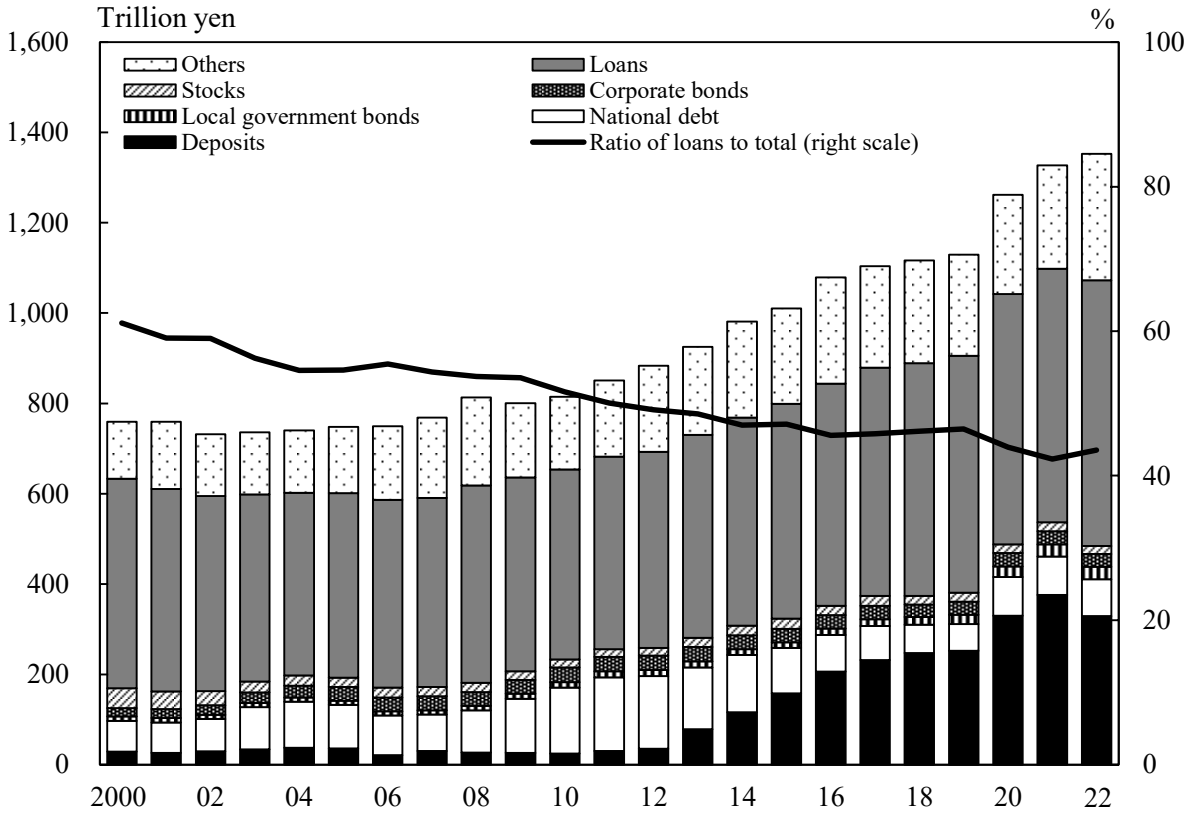
3. Financial Institutions

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)

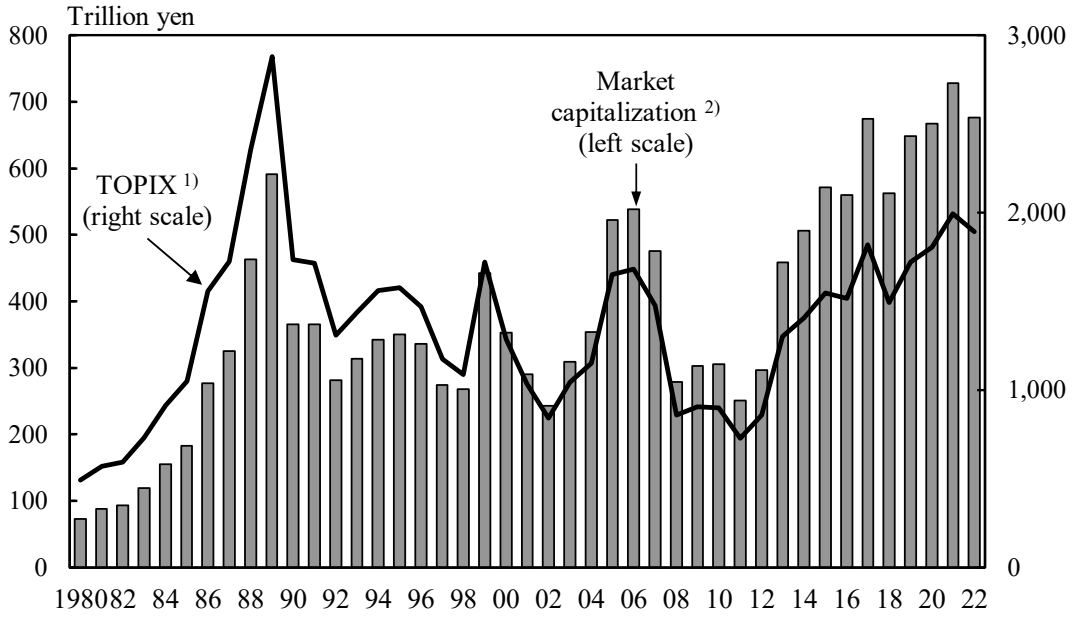
Sectors	March 2021	March 2022	Annual change (%)
Financial assets			
Domestic sectors	8,726,022	8,977,185	2.9
Financial institutions	4,738,669	4,864,840	2.7
Domestic nonfinancial sector	3,987,352	4,112,345	3.1
Nonfinancial corporations	1,263,747	1,314,573	4.0
General government	703,523	728,364	3.5
Households (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

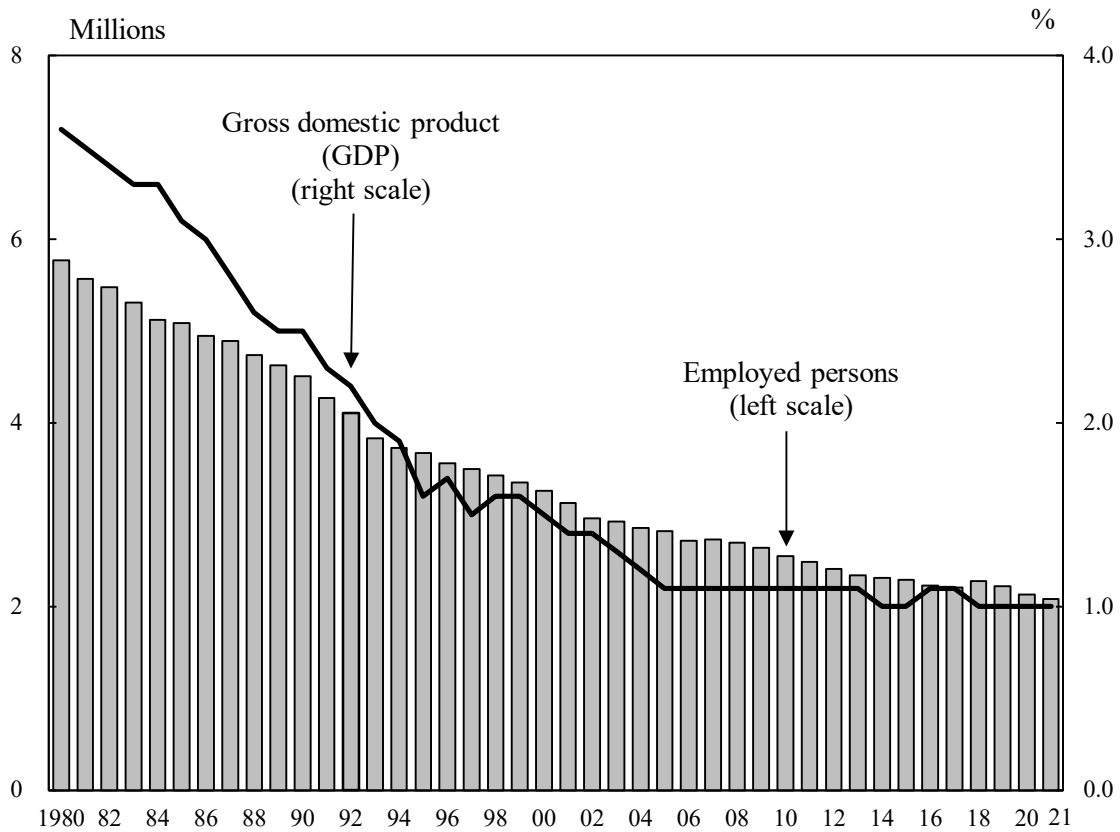
Agriculture, Forestry, and Fisheries

Rice field art.
Rice field art uses paddy fields as a canvas and rice plants of different colors to create a huge picture. Seedlings such as ancient rice, whose leaves and ears are green, purple, and yellow, are planted in a designed arrangement, and when the seedlings grow, giant patterns and letters emerge on the paddy fields.

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.

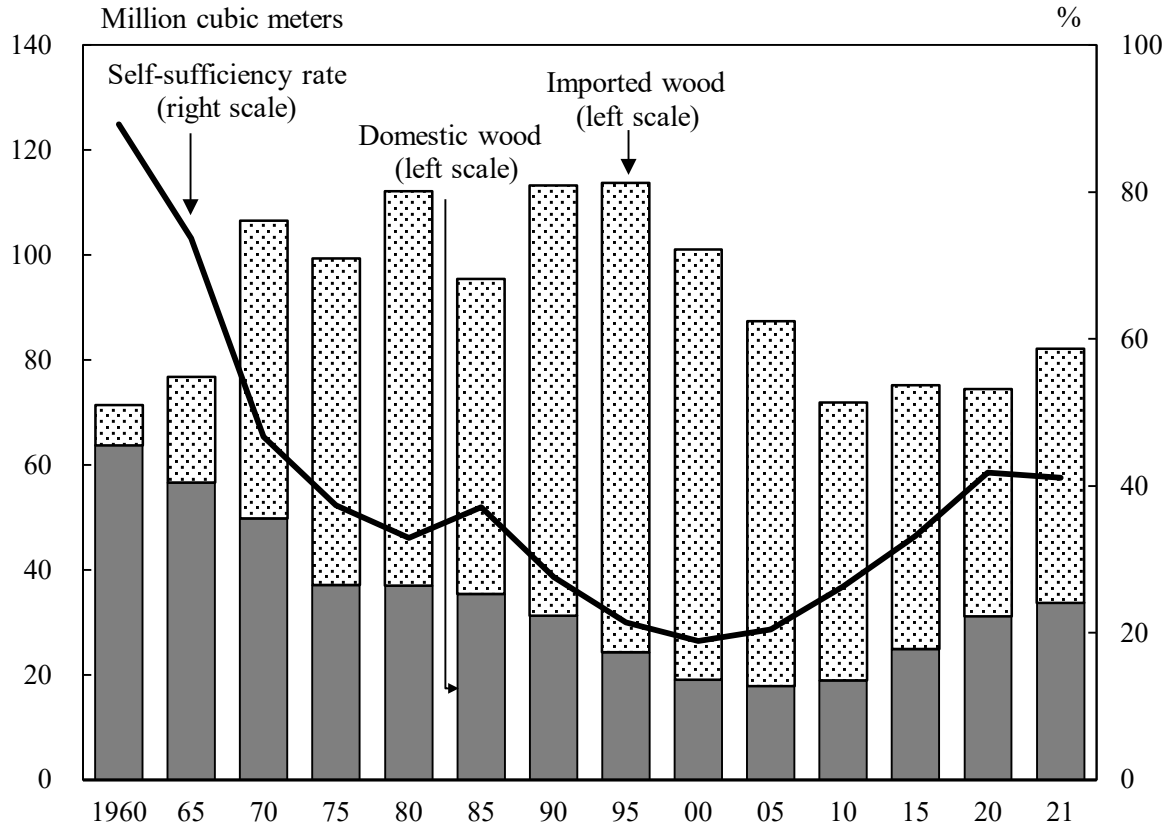
Table 5.4
Forest Land Area and Forest Resources (2017)

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.

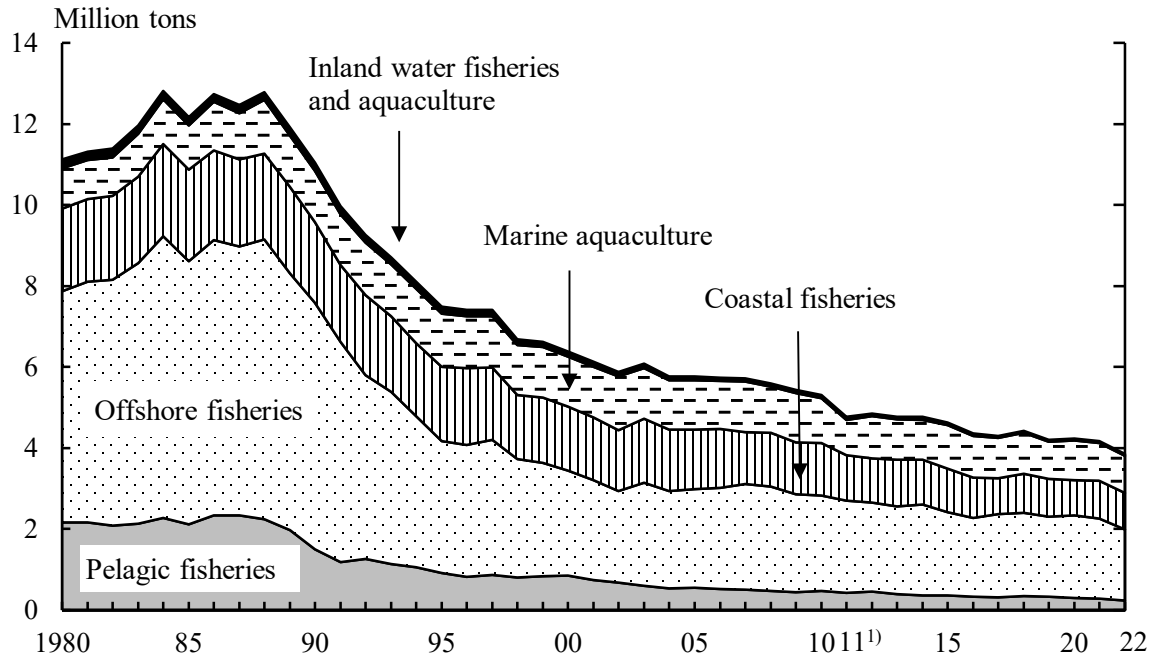
4. Fisheries

(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.

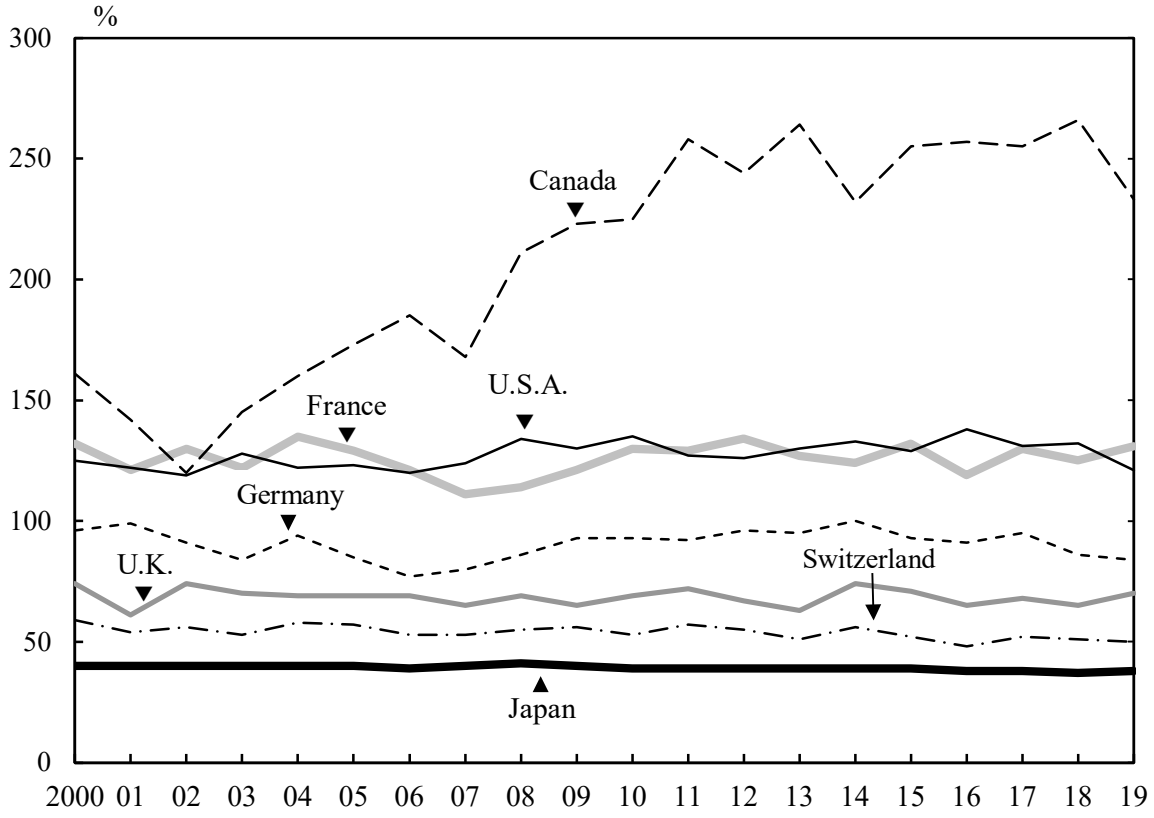
Table 5.7
Domestic Production, Supplies for Domestic Consumption, Food Self-Sufficiency Ratio, and Imports

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

Yokohama Bay Bridge.
"Yokohama Bay Bridge" is the common name for the Yokohama Port Crossing Bridge. It connects Daikoku Pier, an artificial island at the port entrance, and a jetty of Honmoku Pier. The total length is 860 meters. It opened in 1989.

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)

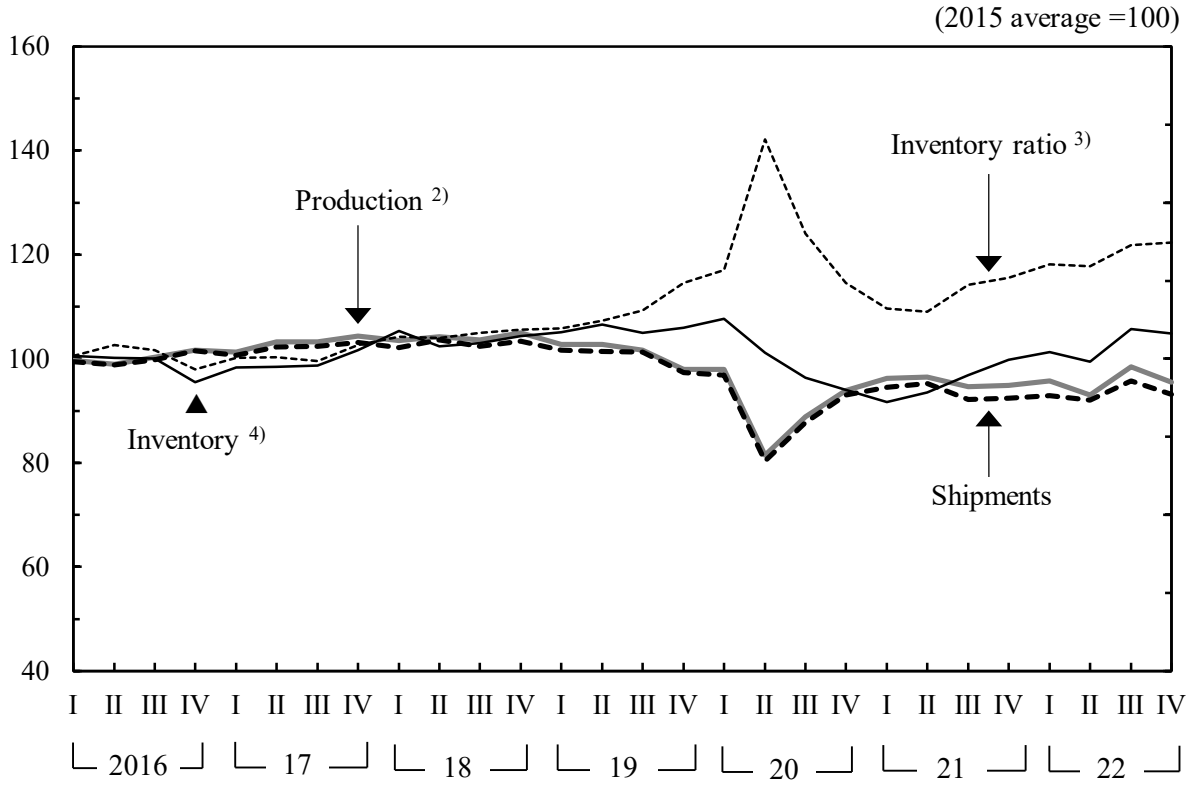
(2015 average =100)

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

Cosmos flowers blooming under the 138-meter high observation tower of Kiso Sansen Park. Since ancient times, the Kiso, Nagara, and Ibi Rivers have been called the Kiso Sansen (Kiso Three Rivers), and their catchment area is 9,100 square kilometers. Due to modern hydroelectric dams, supply of post-war municipal and irrigation water, and other uses, the river has become a foundation of the development of industry, economics, and other spheres in the Chukyo area.

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

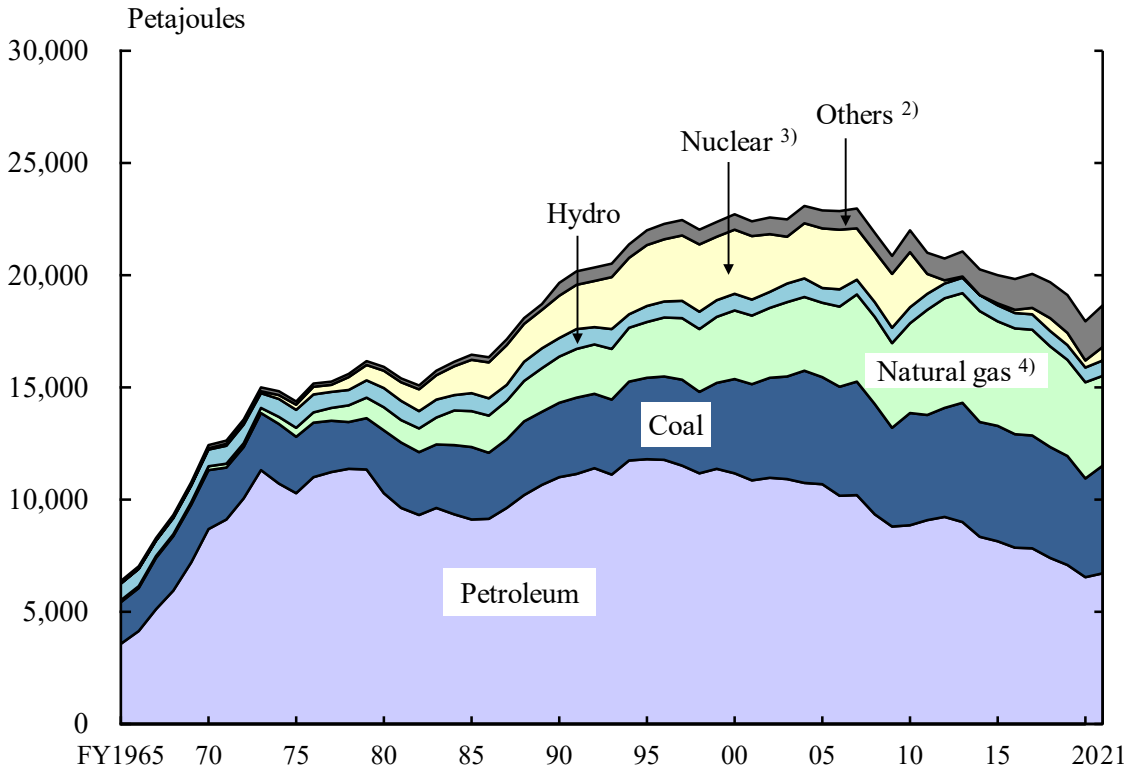
Joule (J) is employed as a common unit (International System of Units: SI) for energy across all energy sources in presenting international statistical information. The unit Petajoule (PJ: 10^{15} or quadrillion joules), etc. is used here to reduce the number of digits. The energy of one kiloliter of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

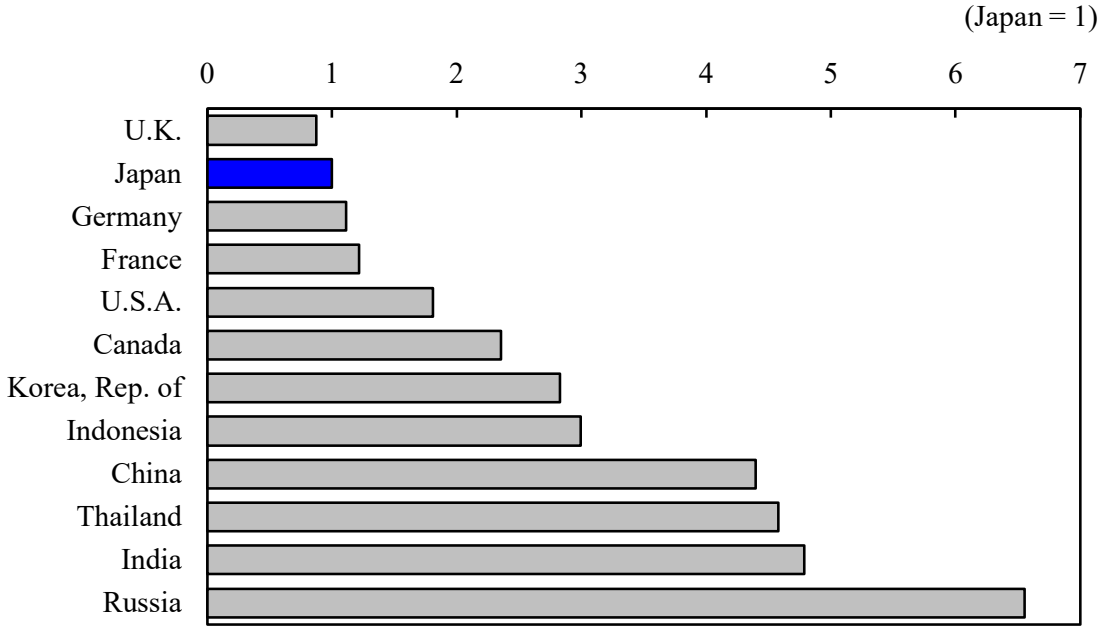
Table 7.1
Trends in Domestic Supply of Primary Energy and Percentage by Energy Source

(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)

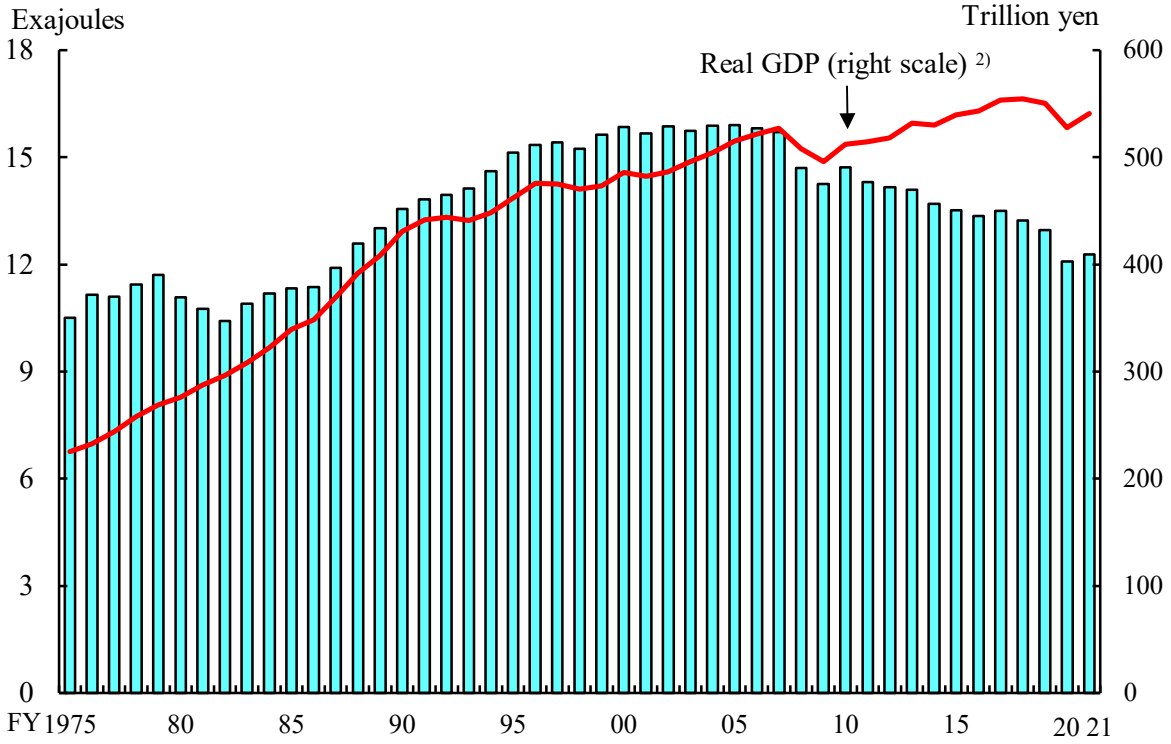


1) Primary energy consumption (tons of oil equivalent) / Real GDP (2010 U.S. dollars).
Source: Agency for Natural Resources and Energy.

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.

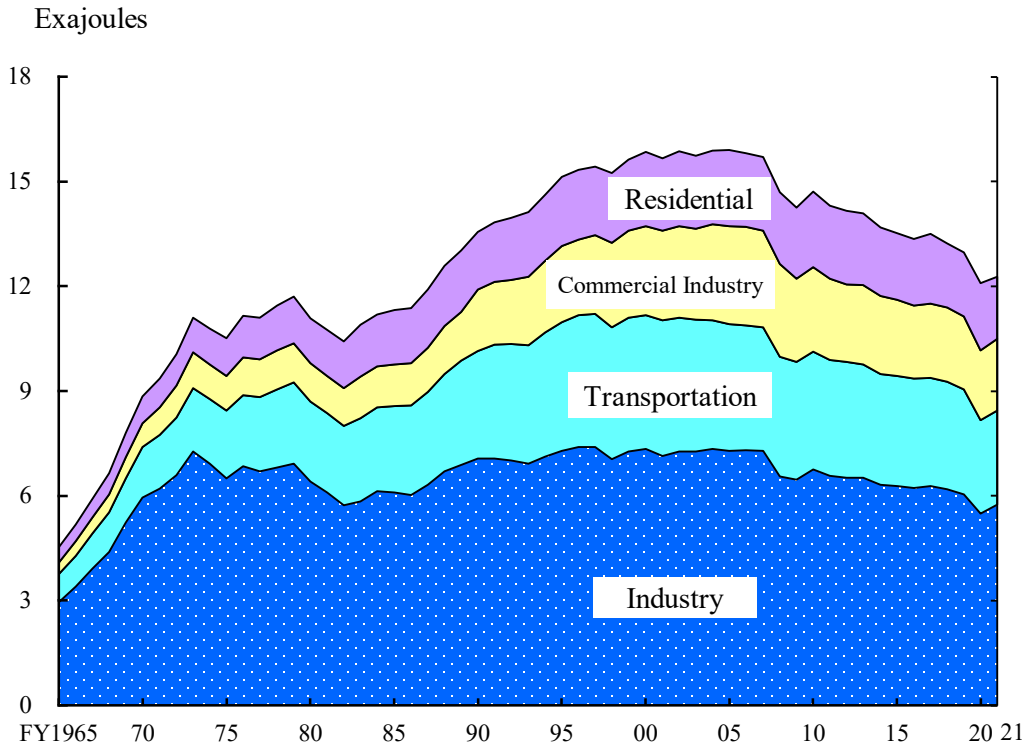
Figure 7.3
Trends in Final Energy Consumption and Real GDP [1)]



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.

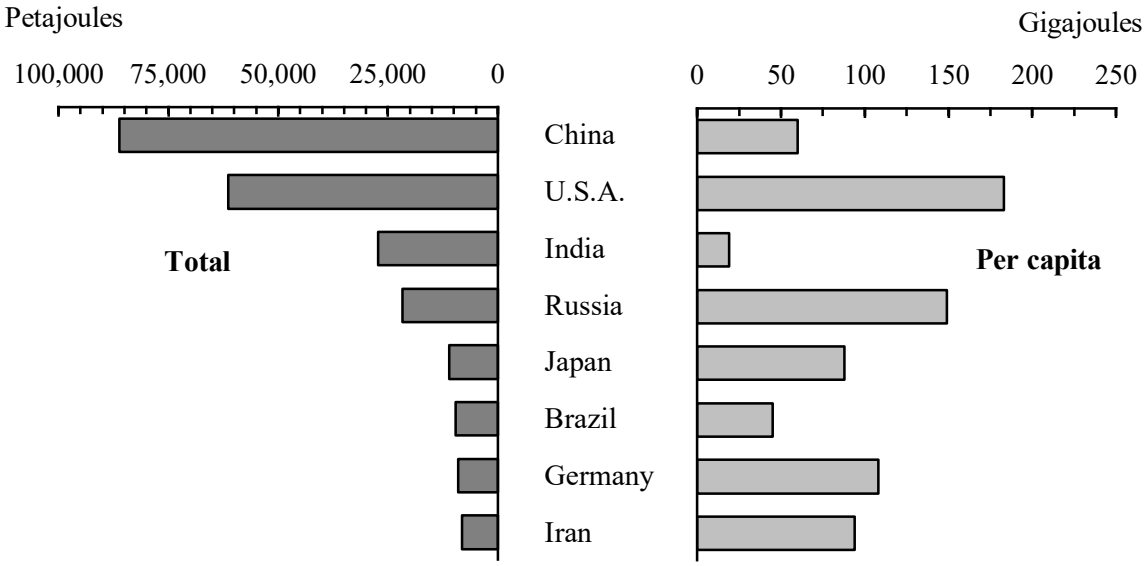
Final energy consumption in fiscal 2021 increased by 1.6 percent from the previous fiscal year. By sector, it increased in the industry sector, commercial industry sector, and transportation sector, while decreasing in the residential sector.

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

© WATANABE Noburo

The first mail collection boxes were installed in Japan in 1871, and as of the end of FY2021, 176,683 were installed. Red collection boxes are widely used, but various colors of mailboxes exist.

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).

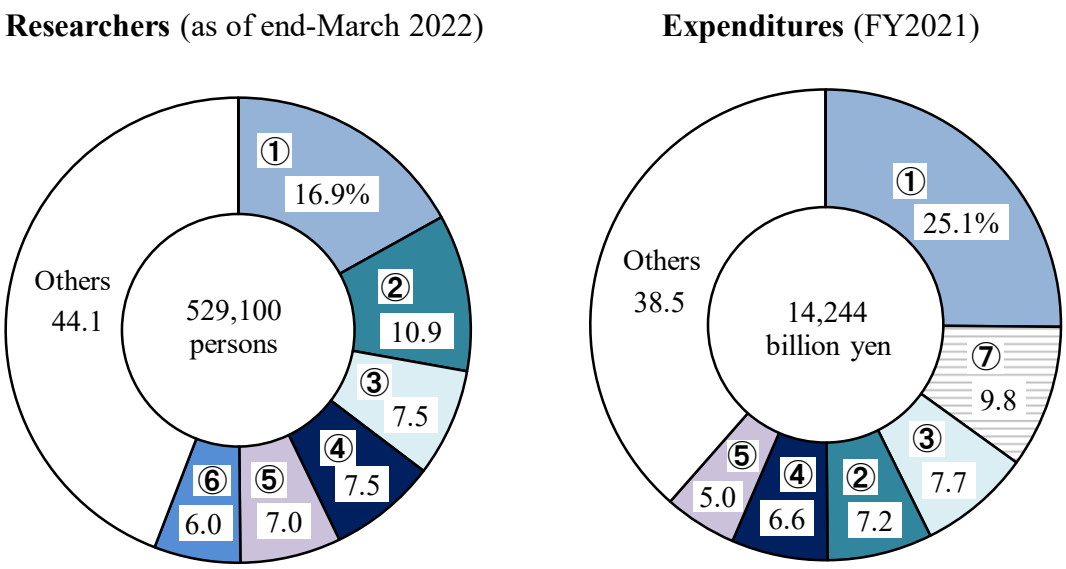
Universities and colleges spent more than 90 percent of their R&D expenditure on natural sciences and engineering for basic research and applied research, while business enterprises allocated over 70 percent for development purposes.

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.

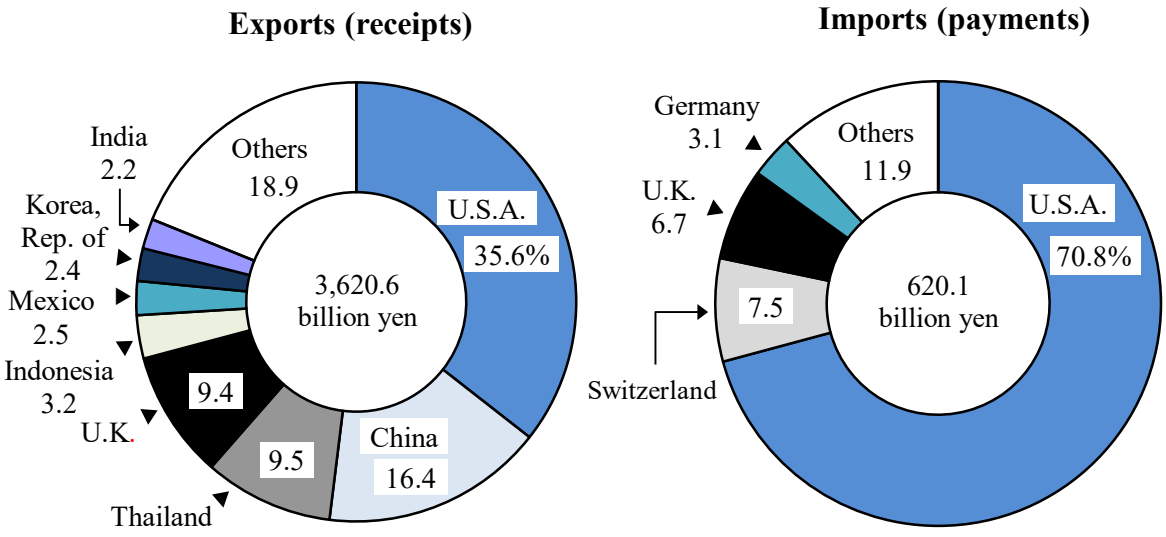
Table 8.2
Technology Trade by Business Enterprises

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

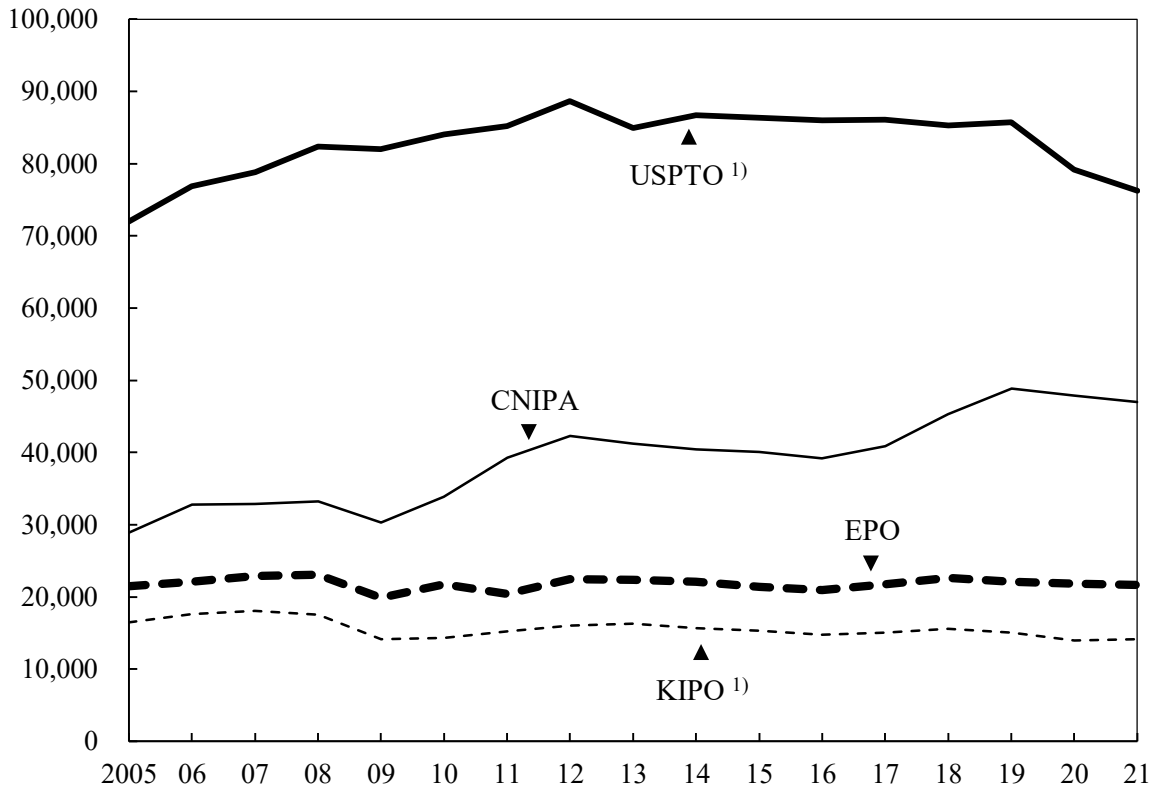
Country	2019	2020	2021*	Change from 2020 (%)
Total	265,383	274,889	277,500	0.9
China	59,187	68,923	69,540	0.9
U.S.A.	57,446	58,477	59,570	1.9
Japan	52,702	50,578	50,260	-0.6
Korea, Rep. of	19,074	20,045	20,678	3.2
Germany	19,347	18,499	17,322	-6.4
France	7,923	7,782	7,380	-5.2
U.K.	5,777	5,889	5,841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



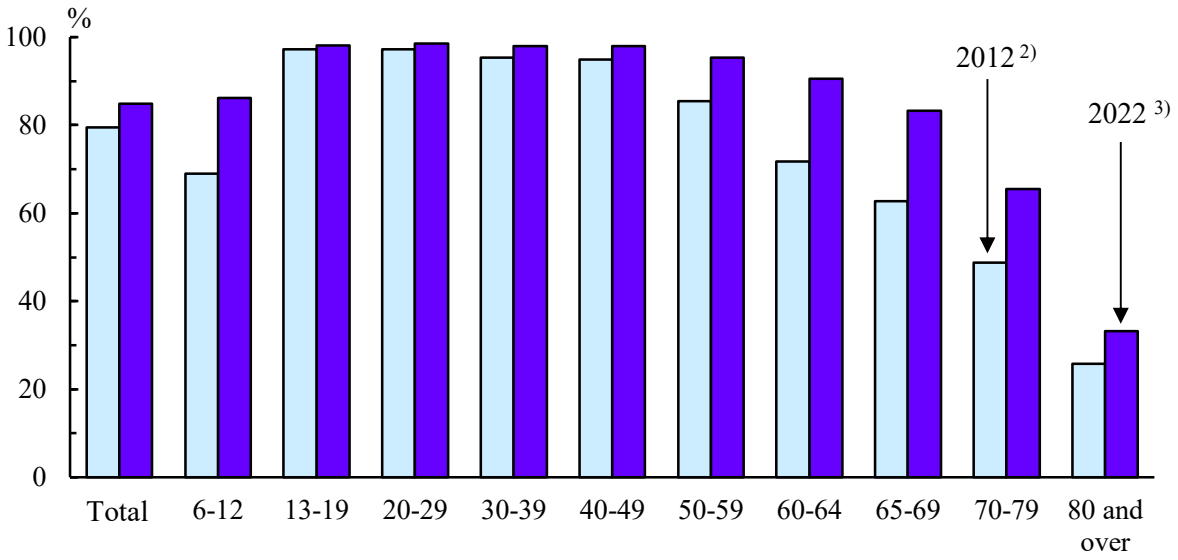
1) The USPTO and KIPO data for 2021 are provisional.
USPTO: United States Patent and Trademark Office; CNIPA: China National Intellectual Property Administration; EPO: European Patent Office; KIPO: Korean Intellectual Property Office.
Source: Japan Patent Office.

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)]

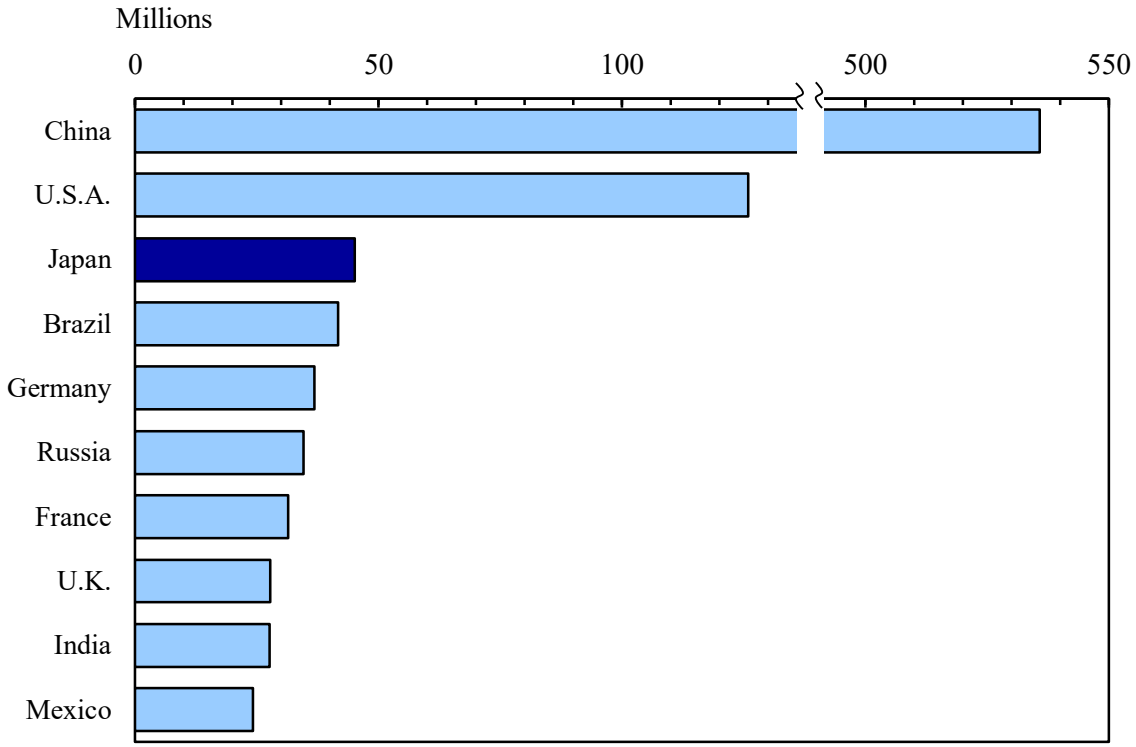
(Thousands)

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)

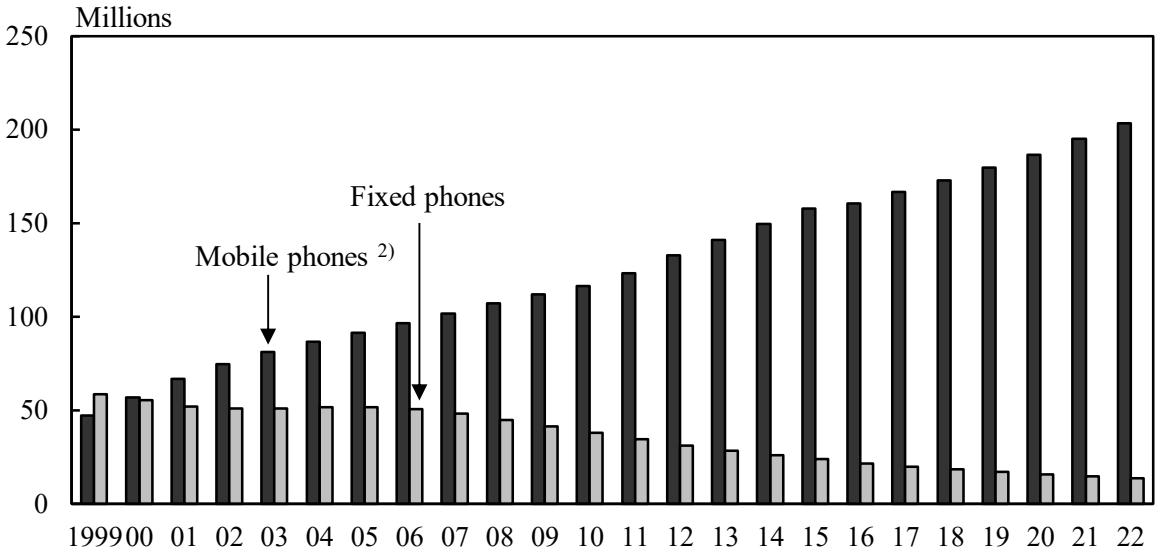


Source: International Telecommunication Union.

(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.