

STATISTICAL HANDBOOK OF

JAPAN

2021



Statistics Japan

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Preface

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

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

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

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

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

September 2021

INOUE Takashi
Director-General
Statistics Bureau
Ministry of Internal Affairs
and Communications
Japan

Notes for Users

1. The present issue basically contains statistics that became available by May 31, 2021.
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 2021, Statistics Bureau, Ministry of Internal Affairs and Communications, Japan.
10. "Statistics Bureau, MIC" in the tables and figures is an abbreviation of "Statistics Bureau, Ministry of Internal Affairs and Communications, Japan".

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Chapter 1

Land and Climate

1. Land

Japan is an island country situated off the eastern seaboard of the Eurasian continent in the northern hemisphere. The islands form a crescent-shaped archipelago stretching from northeast to southwest parallel to the continental coastline with the Sea of Japan in between. The land is located between approximately 20 to 45 degrees north latitude and between approximately 123 to 154 degrees east longitude. It consists of the main islands of Hokkaido, Honshu, Shikoku, Kyushu and Okinawa, and more than 6,800 smaller islands of various sizes. Its surface area totals 377,976 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 (2021)
(Square kilometers)

| District | Area |
|----------------|---------|
| Japan | 377,976 |
| Honshu | 231,235 |
| Hokkaido | 83,424 |
| Kyushu | 42,230 |
| Shikoku | 18,803 |
| Okinawa | 2,283 |

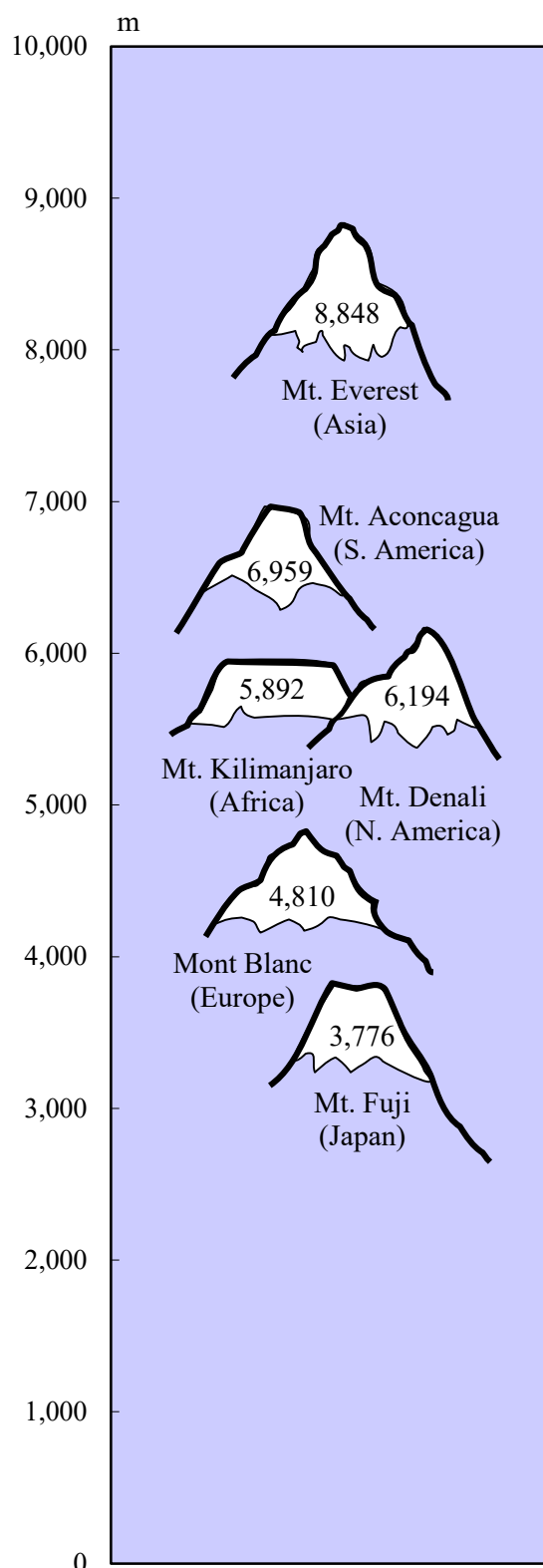
Source: Geospatial Information
Authority of Japan.

Table 1.2
Top 10 Countries According
to Surface Area (2019) 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 | 8,516 |
| 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 January, 2020)
(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, 2020)
(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, 2021)
(Square kilometers)

| Name | Area |
|------------------------|-------|
| Lake Biwa | 669.3 |
| Lake Kasumigaura | 168.1 |
| Lake Saroma | 151.6 |
| Lake Inawashiro | 103.2 |
| Lake Nakaumi | 85.7 |
| Lake Kussharo | 79.5 |
| Lake Shinji | 79.2 |
| Lake Shikotsu | 78.5 |
| Lake Toya | 70.7 |
| Lake Hamana | 64.9 |

Source: Geospatial Information Authority of Japan.

As of 2017, 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 67.2 percent of the nation's surface area), followed by 4.44 million hectares of farmland (11.8 percent) combined. Together, forestland, fields and farmland thus cover approximately 80 percent of the nation. There are 1.95 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 |
| 2017 | 37.80 | # 25.38 | # 4.44 | 1.35 | 1.40 | # 1.95 | 3.27 |
| Percentage distribution (%) | | | | | | | |
| 2017 | 100.0 | 67.2 | 11.8 | 3.6 | 3.7 | 5.2 | 8.7 |

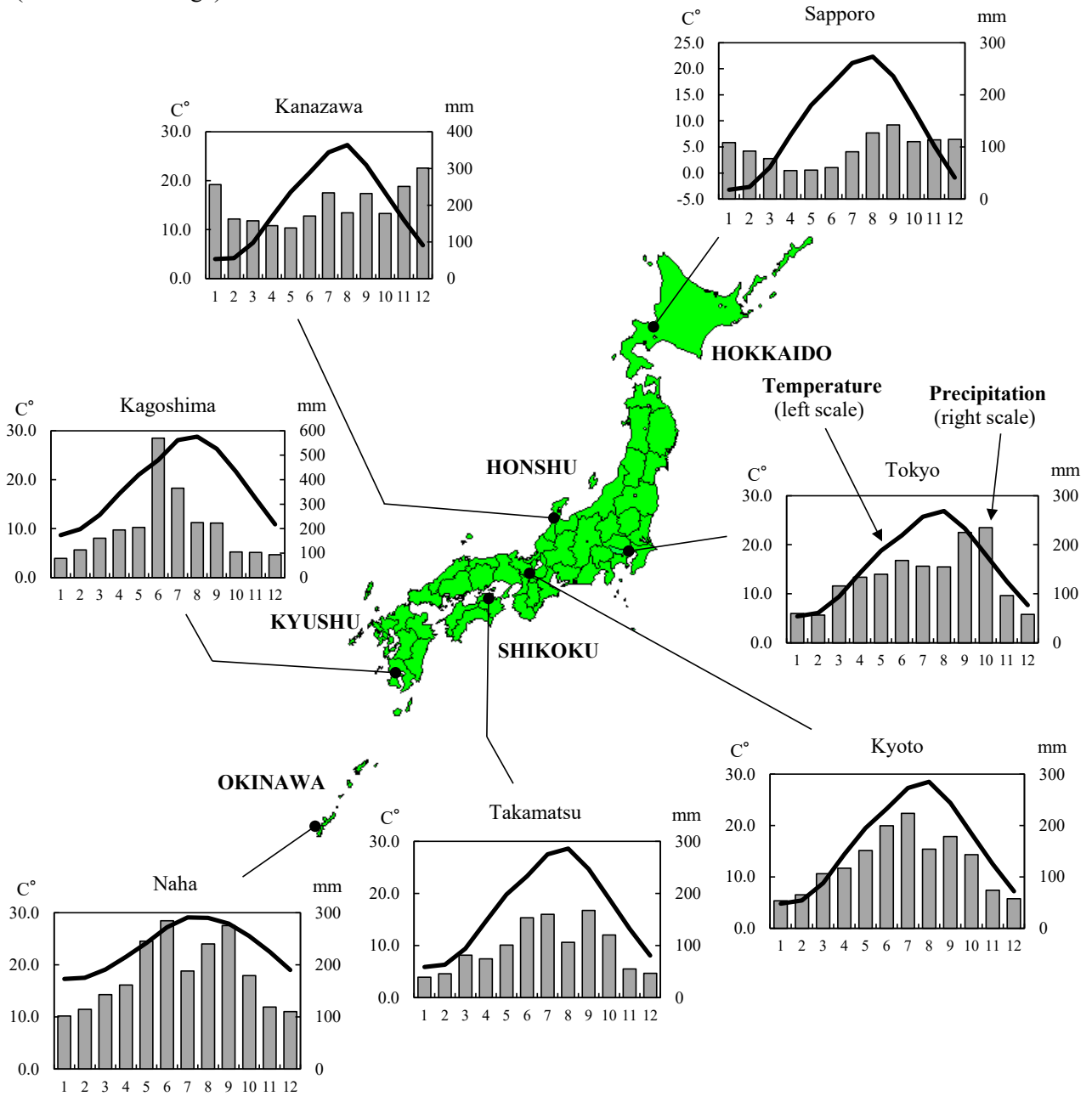
1) Including farm roads and forest roads, etc. 2) Such as residential and industrial land.

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.

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)

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

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

Source: Japan Meteorological Agency.

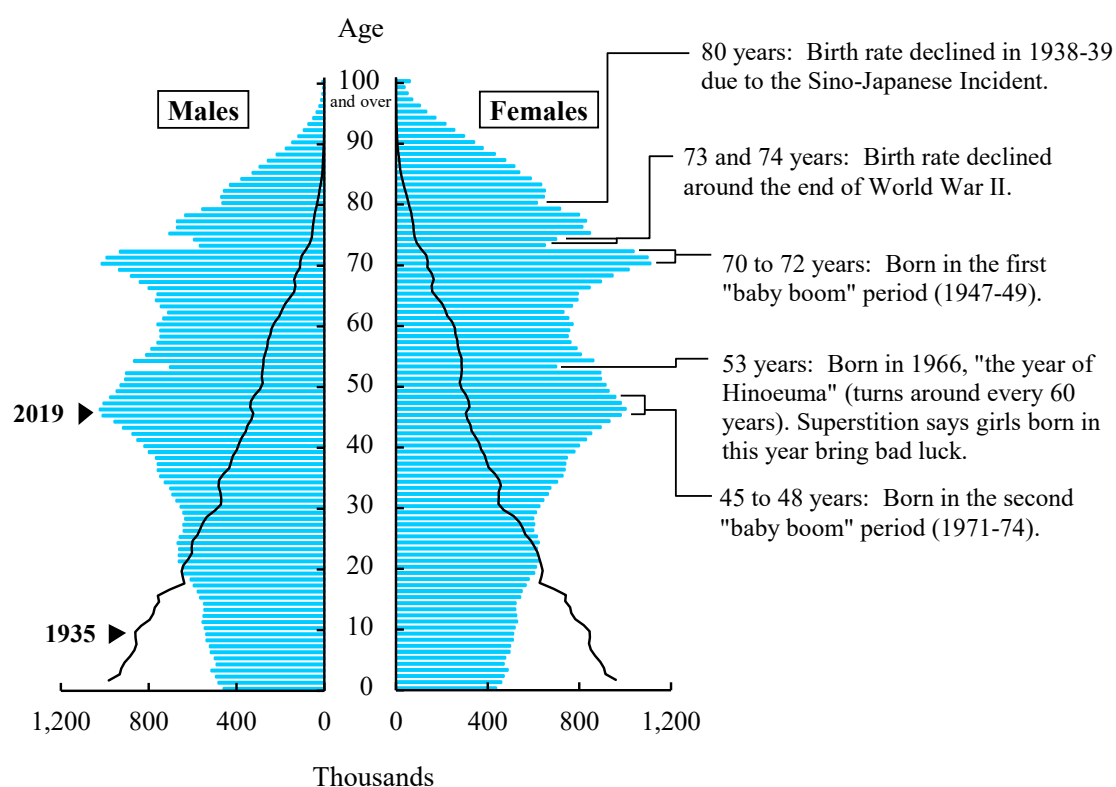
Chapter 2

Population

1. Total Population

Japan's total population in 2020 was 125.71 million. This ranked 11th in the world and made up 1.6 percent of the world's total. Japan's population density measured 340.8 persons per square kilometer in 2015, ranking 11th among countries or areas with a population of 10 million or more.

**Figure 2.1
Population Pyramid**

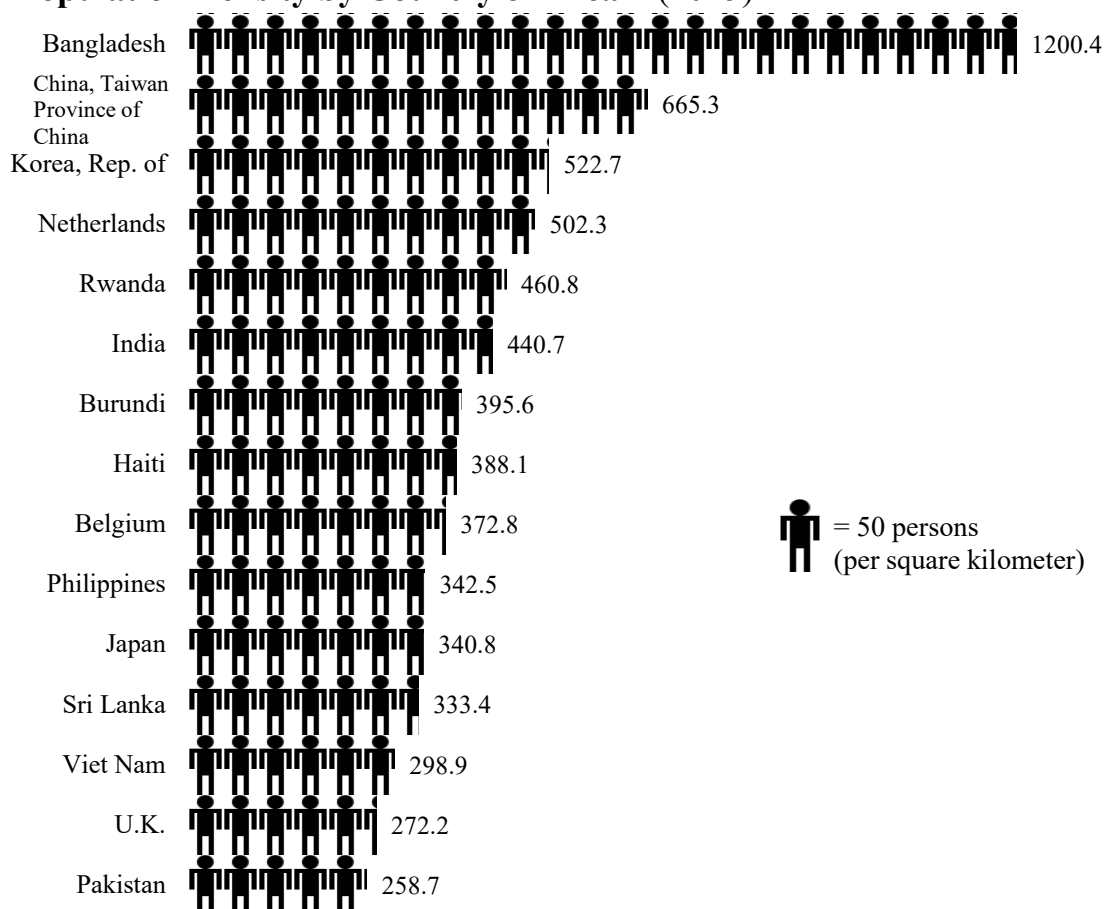


Source: Statistics Bureau, MIC.

**Table 2.1
Countries with a Large Population (2020)**

| | | (Millions) | |
|-----------------|------------|------------------|------------|
| Country | Population | Country | Population |
| World | 7,795 | Brazil | 213 |
| China | 1,439 | Nigeria | 206 |
| India | 1,380 | Bangladesh | 165 |
| U.S.A. | 331 | Russia | 146 |
| Indonesia | 274 | Mexico | 129 |
| Pakistan | 221 | Japan | * 126 |

Source: Statistics Bureau, MIC; United Nations.

Figure 2.2**Population Density by Country or Area ¹⁾ (2015)**

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 127.09 million according to the Population Census in 2015. This was a decrease by 962,607 people as compared to the previous Census (2010), indicating the first population decline since the initiation of the Census in 1920. In 2020, it was 125.71 million, down by 0.46 million from the year before.

POPULATION

Table 2.2
Trends in Population (as of October 1)

| Year | Population (1,000) | Age composition (%) | | | Rate of population change (%) | Population density (per km ²) |
|---------------------------|-----------------------|----------------------|-------|-----------------------------|--|---|
| | | 0-14 years old | 15-64 | 65 years old and over | | |
| 1872 ¹⁾ | 34,806 | ... | ... | ... | ... | 91 |
| 1900 ¹⁾ | 43,847 | 33.9 | 60.7 | 5.4 | 0.83 | 115 |
| 1910 ¹⁾ | 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 | 60.7 | 26.6 | -0.15 | 341 |
| 2016 | 126,933 | 12.4 | 60.3 | 27.3 | -0.13 | 340 |
| 2017 | 126,706 | 12.3 | 60.0 | 27.7 | -0.18 | 340 |
| 2018 | 126,443 | 12.2 | 59.7 | 28.1 | -0.21 | 339 |
| 2019 | 126,167 | 12.1 | 59.5 | 28.4 | -0.22 | 338 |
| 2020* | 125,708 | 12.0 | 59.3 | 28.8 | -0.36 | 337 |
| (Projection, 2017) | | | | | | |
| 2030 | 119,125 | 11.1 | 57.7 | 31.2 | -0.54 | 319 |
| 2040 | 110,919 | 10.8 | 53.9 | 35.4 | -0.71 | 297 |
| 2050 | 101,923 | 10.6 | 51.8 | 37.7 | -0.84 | 273 |
| 2060 | 92,840 | 10.2 | 51.6 | 38.1 | -0.93 | 249 |

1) As of January 1.

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

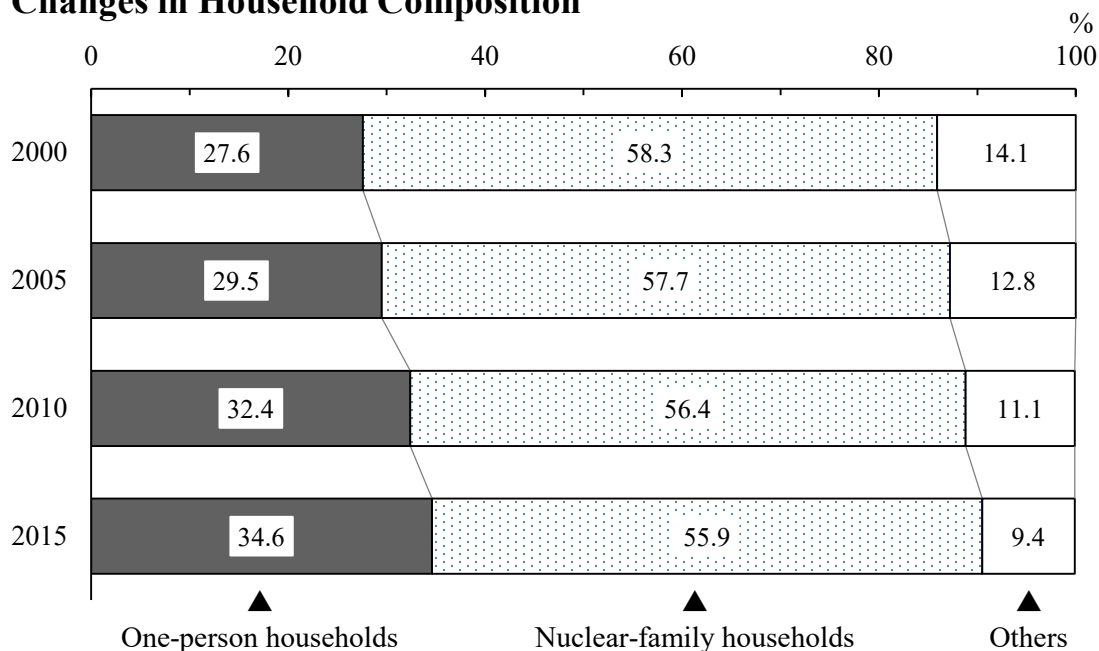
2. Households

(1) Household Size and Household Composition

The Population Census shows that Japan had 53.33 million private households (excluding "institutional households" such as students in school dormitories) in 2015, showing a consistent increase since the

initiation of the Census. Of that total, 55.9 percent were nuclear-family households, and 34.6 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 2.33 in 2015. 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.

POPULATION

Table 2.3
Households and Household Members¹⁾

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

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 2015 was 21.71 million. They accounted for 40.7 percent of the total private households. There were 5.93 million one-person elderly households. Among these, there were approximately two times as many females as males.

Table 2.4
Trends in Elderly Households

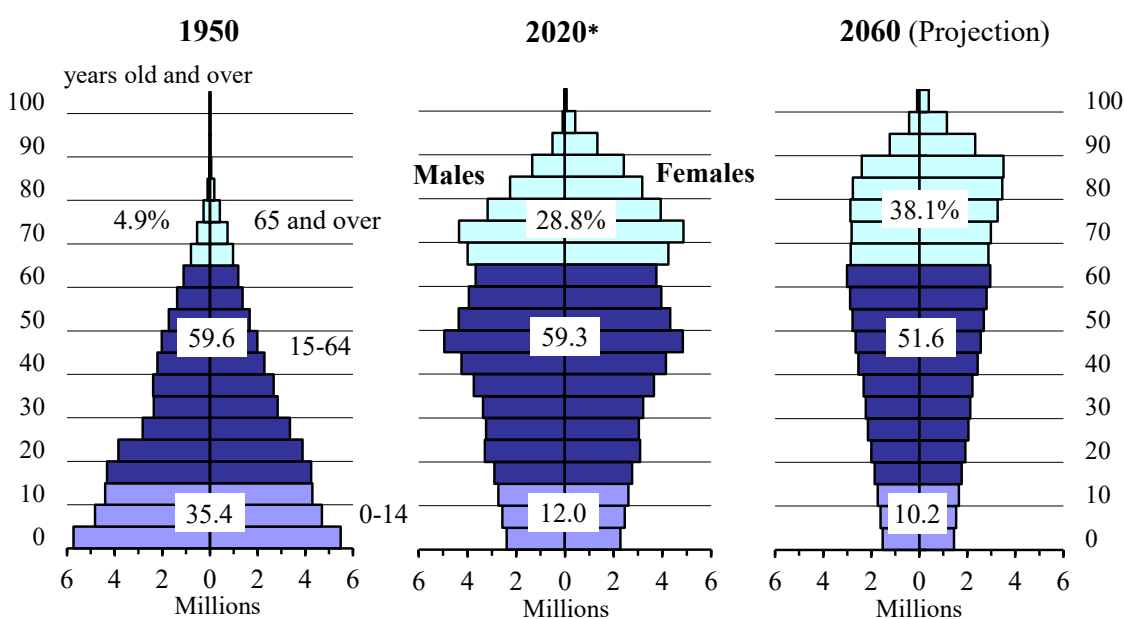
| Type of households | 1995 | 2000 | 2005 | 2010 | 2015 |
|---------------------------------|--------|--------|--------|--------|--------|
| Private households | 43,900 | 46,782 | 49,063 | 51,842 | 53,332 |
| Elderly households | 12,790 | 15,057 | 17,220 | 19,338 | 21,713 |
| (percentage) | 29.1 | 32.2 | 35.1 | 37.3 | 40.7 |
| One-person households | 2,202 | 3,032 | 3,865 | 4,791 | 5,928 |
| Males | 460 | 742 | 1,051 | 1,386 | 1,924 |
| Females | 1,742 | 2,290 | 2,814 | 3,405 | 4,003 |
| Nuclear-family households | 5,149 | 6,783 | 8,398 | 10,011 | 11,740 |
| Others | 5,439 | 5,241 | 4,956 | 4,536 | 4,045 |

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 2020, the aged population (65 years old and over) was 36.19 million, constituting 28.8 percent of the total population (i.e., 1 in every 4 persons).

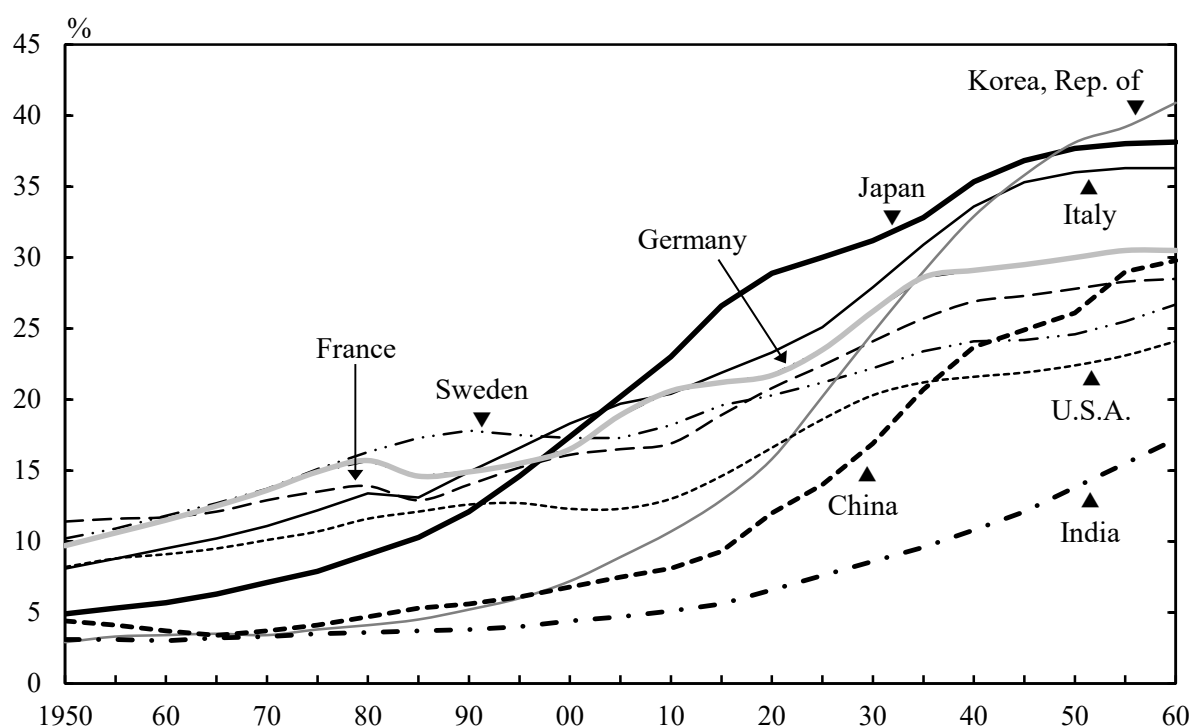
Figure 2.4
Changes in the Population Pyramid



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 2015, the percentage of the population aged 65 years old and over in Japan was 26.6 percent, exceeding the U.S.A. (14.6 percent), France (18.9 percent), Sweden (19.6 percent), Germany (21.2 percent), and Italy (21.9 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)



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

Table 2.5
Age Structure of Population by Country

| Country | 2015 | | | 2060 (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 | 13.8 | 73.4 | 12.9 | 10.0 | 49.2 | 40.9 |
| Japan | 12.6 | 60.7 | 26.6 | 10.2 | 51.6 | 38.1 |
| Italy | 13.7 | 64.3 | 21.9 | 11.4 | 52.3 | 36.3 |
| Germany | 13.2 | 65.6 | 21.2 | 14.2 | 55.3 | 30.5 |
| China | 18.1 | 72.6 | 9.3 | 14.0 | 56.2 | 29.8 |
| France | 18.4 | 62.8 | 18.9 | 15.3 | 56.3 | 28.5 |
| Brazil | 22.4 | 69.6 | 8.0 | 13.7 | 59.3 | 27.0 |
| U.K. | 17.6 | 64.5 | 18.0 | 15.4 | 57.6 | 27.0 |
| Sweden | 17.3 | 63.1 | 19.6 | 16.0 | 57.3 | 26.7 |
| Canada | 16.0 | 68.0 | 16.1 | 14.5 | 58.9 | 26.6 |
| Russia | 16.9 | 69.6 | 13.6 | 17.3 | 58.1 | 24.6 |
| U.S.A. | 19.2 | 66.1 | 14.6 | 16.2 | 59.7 | 24.1 |
| India | 28.4 | 65.9 | 5.6 | 17.1 | 65.8 | 17.2 |

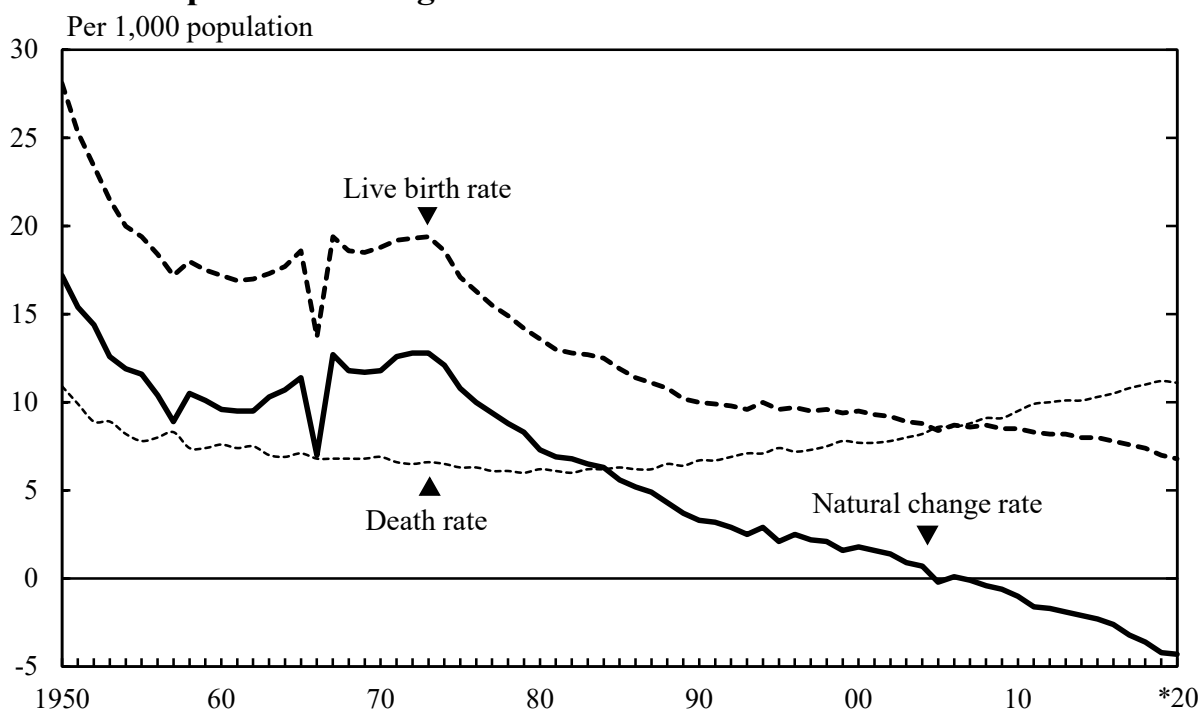
Source: Statistics Bureau, MIC; National Institute of Population and Social Security Research; United Nations.

On the other hand, in 2020, the child population (0-14 years old) in Japan amounted to 15.03 million, accounting for 12.0 percent of the total population. The productive-age population (15-64 years old) totaled 74.49 million, accounting for 59.3 percent of the entire population. As a result, the ratio of the dependent population (the sum of aged and child population divided by the productive-age population) was 68.8 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 minus for the first time since 1899, and has been on a declining trend since then. In 2020, the natural change rate was -4.3 and decreased for the 14th consecutive year.

Figure 2.6
Natural Population Change



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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 2020 was 6.8. The decline in the live birth rate may partly be attributable to the rising maternal age at childbirth. The average mothers' age at first childbirth rose from 25.6 in 1970 to 30.7 in 2020.

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 5 consecutive years and dropped to 1.34 in 2020.

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 11.1 in 2020.

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 |
| 2016 | 7.8 | 10.5 | 2.0 | -2.6 | 1.44 | 80.98 | 87.14 |
| 2017 | 7.6 | 10.8 | 1.9 | -3.2 | 1.43 | 81.09 | 87.26 |
| 2018 | 7.4 | 11.0 | 1.9 | -3.6 | 1.42 | 81.25 | 87.32 |
| 2019 | 7.0 | 11.2 | 1.9 | -4.2 | 1.36 | 81.41 | 87.45 |
| 2020* | 6.8 | 11.1 | 1.8 | -4.3 | 1.34 | ... | ... |

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

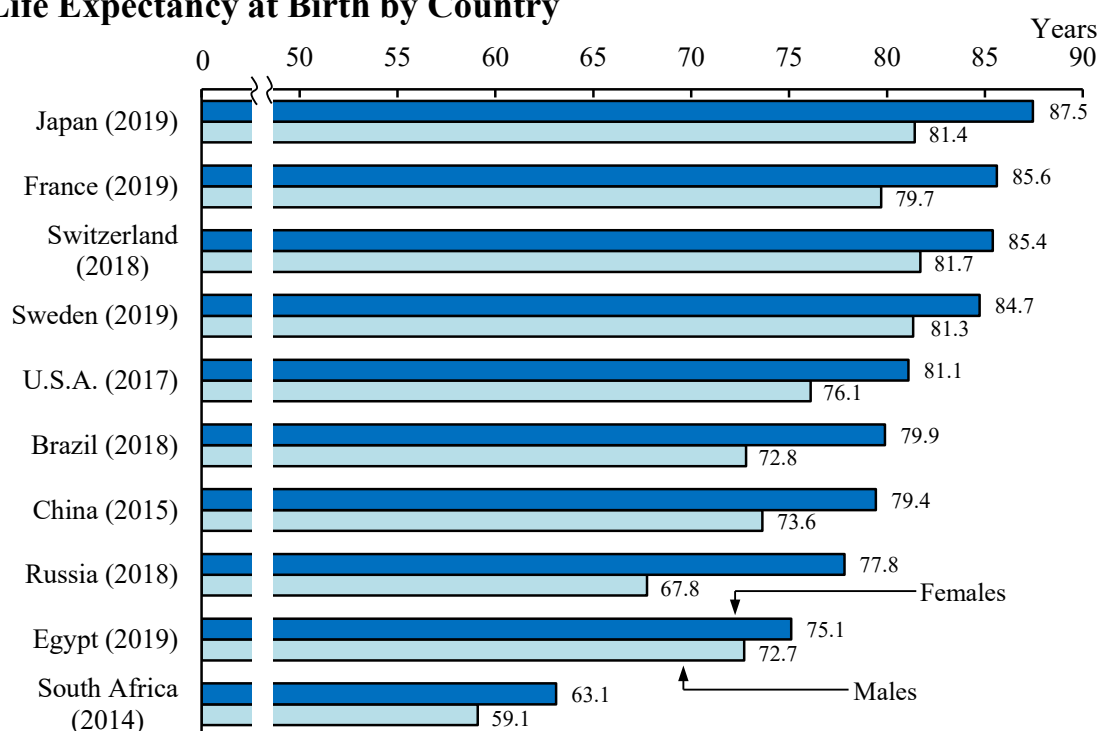
| Year | Number of births (1,000) ¹⁾ | Distribution of mothers' age (%) ²⁾ | | | | | | Mean age bearing first child |
|-------|--|--|-------|-------|-------|-------|-------------|------------------------------|
| | | Under 19 | 20-24 | 25-29 | 30-34 | 35-39 | 40 and over | |
| 1970 | 1,934 | 1.0 | 26.5 | 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 |

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.

Average life expectancy in Japan climbed sharply after World War II, and is today at quite high level in the world. In 2019, it was 87.5 years for females and 81.4 years for males, setting a new all-time record for both genders.

Figure 2.7
Life Expectancy at Birth by Country



Source: Ministry of Health, Labour and Welfare.

5. Marriages and Divorces

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 2020, 525,490 couples married, and the marriage rate was 4.3.

The mean age of first marriage was 31.0 for grooms and 29.4 for brides in 2020. The mean age of first marriage for grooms rose by 2.2 years, while that of brides rose by 2.4 years over the past 20 years (in 2000: grooms, 28.8; brides, 27.0). 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 23.4 percent for males and 14.1 percent for females in 2015, 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 |

Source: Ministry of Health, Labour and Welfare.

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

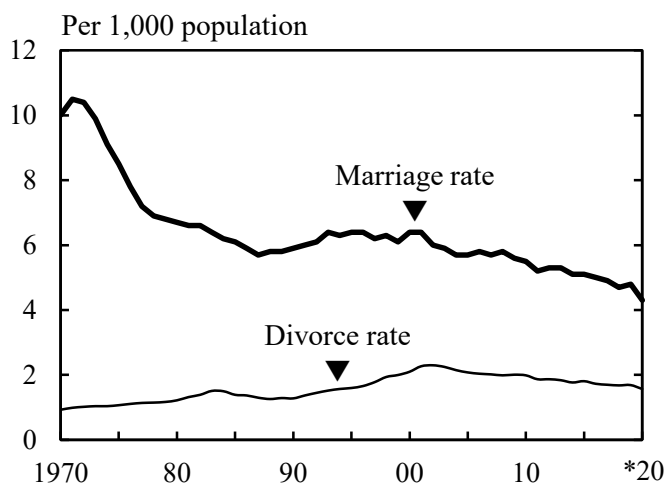
| Year | Proportion (%) | |
|------|----------------|---------|
| | Males | Females |
| 1950 | 1.5 | 1.4 |
| 1960 | 1.3 | 1.9 |
| 1970 | 1.7 | 3.3 |
| 1980 | 2.6 | 4.5 |
| 1990 | 5.6 | 4.3 |
| 2000 | 12.6 | 5.8 |
| 2005 | 16.0 | 7.3 |
| 2010 | 20.1 | 10.6 |
| 2015 | 23.4 | 14.1 |

1) The Proportion is computed as the mean value of the proportion remaining single at ages 45-49 and 50-54.

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 2020, the number of divorces totaled 193,251 couples, and the divorce rate (per 1,000 population) was 1.57.

Figure 2.8
Changes in Marriage Rate and Divorce Rate



Source: Ministry of Health, Labour and Welfare.

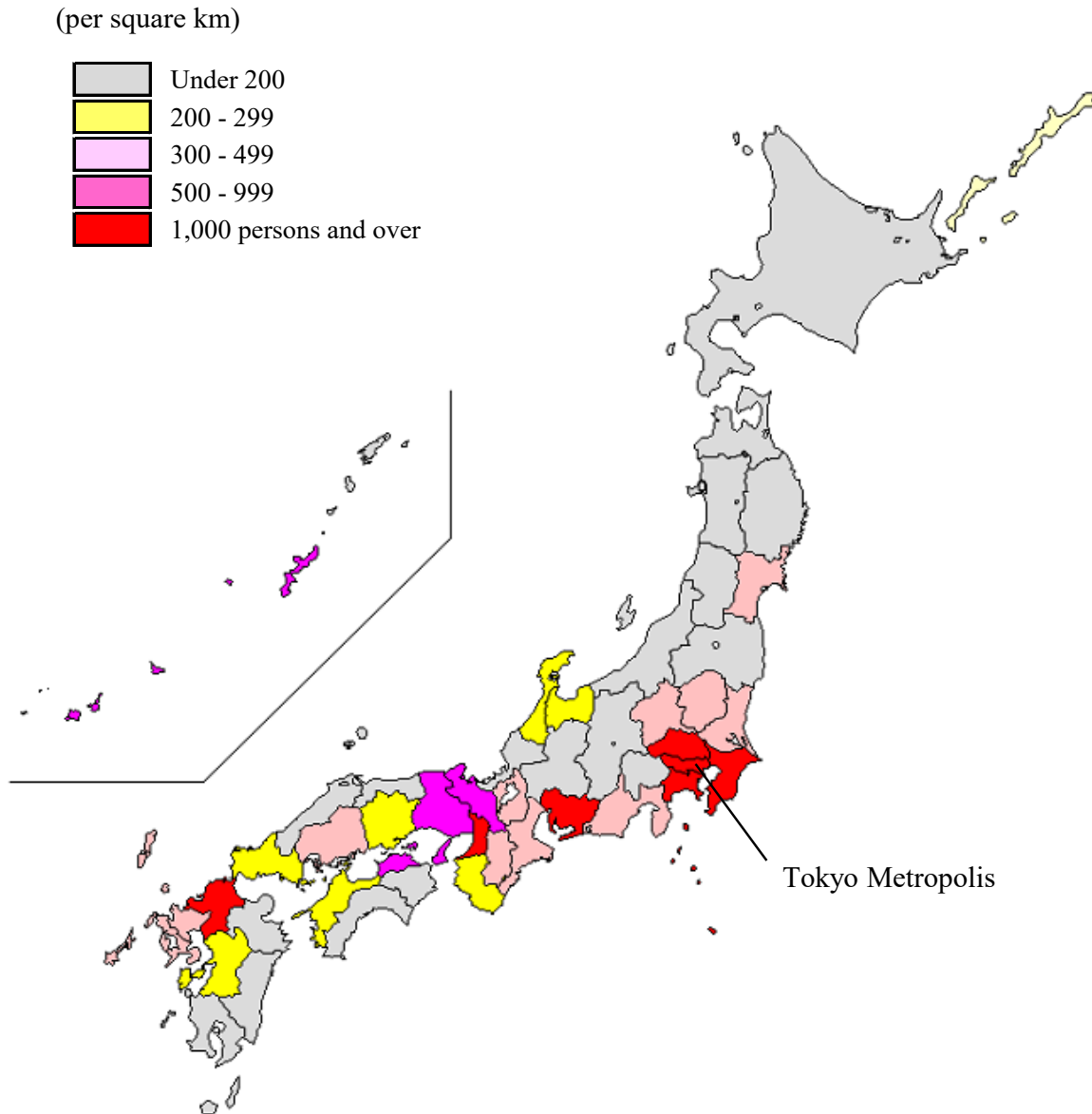
6. Population Density and Regional Distribution

(1) Population Density

In 2015, Tokyo Metropolis had the largest population of 13.52 million among Japan's 47 prefectures, followed in decreasing order by the prefectures of Kanagawa, Osaka, Aichi, and Saitama. These 5 prefectures each had a population of 7 million or more, and together accounted for 36.4 percent of the total population.

In addition, the population density in Tokyo Metropolis was the highest among Japan's prefectures, at 6,168.7 persons per square kilometer. This was almost 18.1 times larger than the national average (340.8 persons per square kilometer).

Figure 2.9
Population Density by Prefecture (2015)



Source: Statistics Bureau, MIC.

In 2015, there were 12 cities in Japan with a population of 1 million or more. Their total population topped 29 million, a figure equivalent to 23.2 percent of the national total. The largest single city was the 23 Cities of Tokyo Metropolis, with 9.27 million citizens. It was followed in decreasing order by Yokohama City (3.72 million), Osaka City (2.69 million), and Nagoya City (2.30 million).

Table 2.10
Population of Major Cities

| Cities | Population | | Cities | Population | |
|------------------------|------------|-------|----------------------|------------|-------|
| | | | | | |
| | 2010 | 2015 | | 2010 | 2015 |
| Tokyo, 23 Cities | 8,946 | 9,273 | Kobe City | 1,544 | 1,537 |
| Yokohama City | 3,689 | 3,725 | Kawasaki City | 1,426 | 1,475 |
| Osaka City | 2,665 | 2,691 | Kyoto City | 1,474 | 1,475 |
| Nagoya City | 2,264 | 2,296 | Saitama City | 1,222 | 1,264 |
| Sapporo City | 1,914 | 1,952 | Hiroshima City | 1,174 | 1,194 |
| Fukuoka City | 1,464 | 1,539 | Sendai City | 1,046 | 1,082 |

Source: Statistics Bureau, MIC.

(2) Population Distribution

The percentage of the urban population started increasing in the late 1950s. In 2015, 51.9 percent of the total population was concentrated in the 3 major metropolitan areas: the Kanto, Chukyo, and Kinki major metropolitan areas. Population density in the Kanto major metropolitan area was 2,771 persons per square kilometer. In the Chukyo major metropolitan area, it was 1,288 persons per square kilometer, and in the Kinki major metropolitan area, it was 1,459 persons per square kilometer.

Table 2.11
Population of 3 Major Metropolitan Areas ¹⁾ (2015)

| Areas | Population (1,000) | | Surface Area (km ²) | Population density (per km ²) |
|---|--------------------|-----------------------------|---------------------------------|---|
| | | Percentage of the total (%) | | |
| Kanto major metropolitan area | 37,274 | 29.3 | 13,452 | 2,771 |
| Chukyo major metropolitan area | 9,363 | 7.4 | 7,271 | 1,288 |
| Kinki major metropolitan area | 19,303 | 15.2 | 13,228 | 1,459 |
| Total of three major metropolitan areas | 65,940 | 51.9 | 33,951 | 1,942 |

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

Source: Statistics Bureau, MIC.

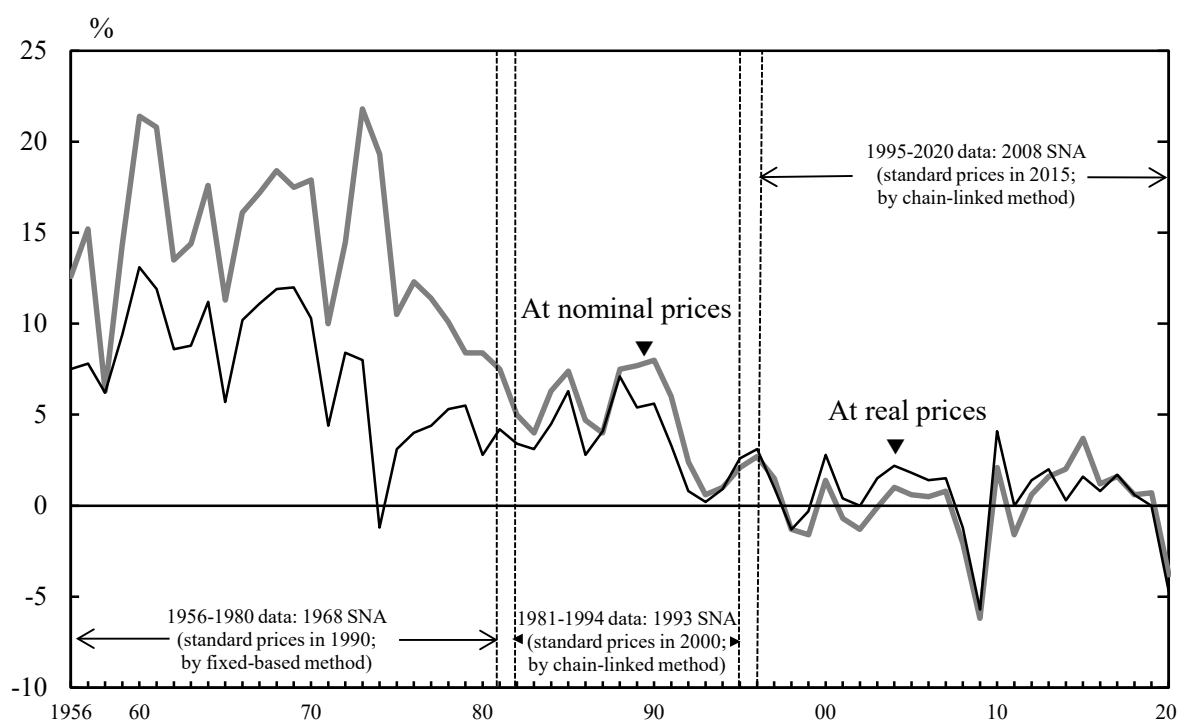
Chapter 3

Economy

1. Economic Development

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

Figure 3.1
Economic Growth Rates



Source: Economic and Social Research Institute, Cabinet Office.

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

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

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

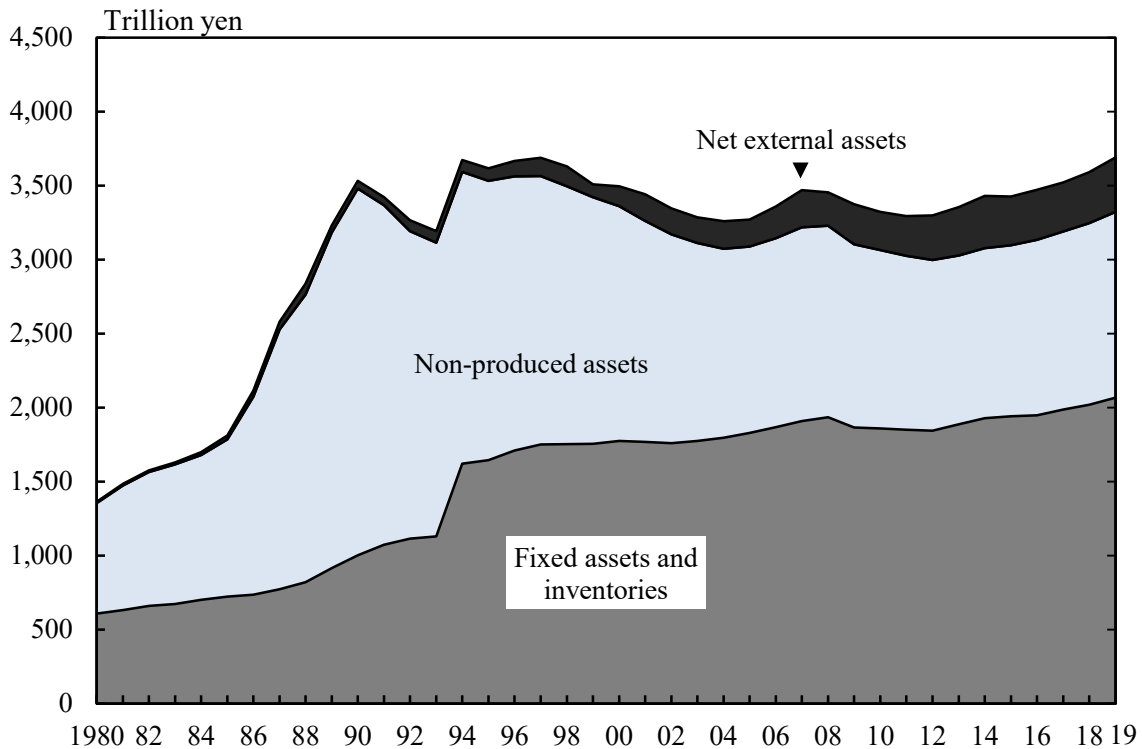
2. Bubble Economy and Its Collapse

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

At the end of 1980, Japan's net worth (national wealth) stood at 1,363 trillion yen, 5.6 times the GDP. It then increased, reaching 3,531 trillion yen, 8.0 times the GDP, at the end of 1990, owing to increasing land and stock prices. At the beginning of 1990, stock prices plummeted, followed by sharp declines in land prices. This marked the start of major economic recession (collapse of the bubble economy). Japan's financial and economic systems, which were excessively dependent on land, consequently approached collapse.

Due to the collapse of the bubble economy, the national wealth decreased, and while there were fluctuations, continued on a downward trend. Since 2012, it has been on an upward trend. At the end of 2019, it was 3,689 trillion yen.

Figure 3.2
National Wealth ¹⁾

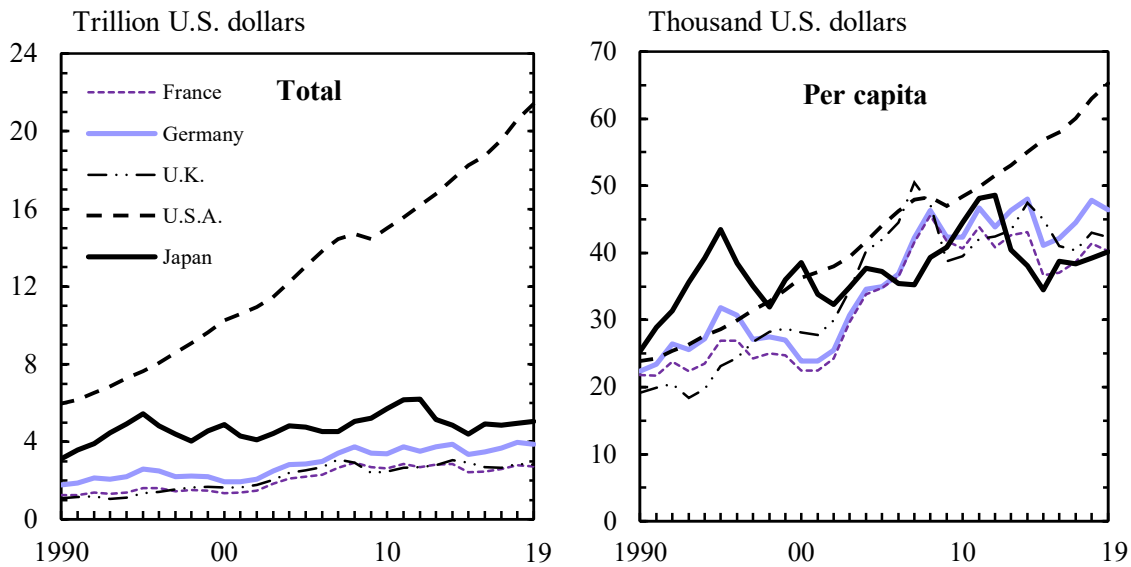


1) Data was estimated using a different method beginning in 1994.
 Source: Economic and Social Research Institute, Cabinet Office.

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. Recent Economic Trends

At the start of 2008, the Japanese economy was faced with a standstill in its path to recovery as private consumption and investments in plant and equipment fell flat and so did production. This occurred against the backdrop of soaring crude petroleum and raw material prices and repercussions from the American subprime mortgage loan problem that, since mid-2007, rapidly clouded future prospects for the world economy further. In addition, the bankruptcy of the major American securities firm Lehman Brothers in September 2008 led to a serious financial crisis in Europe and the U.S.A. Japan was also affected by the yen's rise and the sudden economic contraction in the U.S.A. and other countries. Declining exports contributed to a large drop in production and a sharp rise in unemployment.

Table 3.1
Gross Domestic Product ¹⁾ (Expenditure approach)

| | (Billion yen) | | | |
|---|---------------|-----------|-----------|-----------|
| Item | 2017 | 2018 | 2019 | 2020 |
| Gross domestic product (GDP) | 551,220.0 | 554,300.5 | 554,374.1 | 528,523.8 |
| Domestic demand | 548,569.5 | 551,551.1 | 554,095.8 | 532,502.9 |
| Private demand | 413,840.6 | 415,581.9 | 415,778.1 | 390,128.9 |
| Private final consumption expenditure | 301,929.0 | 302,750.1 | 301,860.8 | 283,903.0 |
| Private Residential Investment | 21,194.4 | 19,829.9 | 20,597.8 | 19,139.8 |
| Private plant and equipment | 89,500.5 | 90,993.9 | 91,051.4 | 85,592.4 |
| Changes in inventories of private sectors | 1,241.0 | 2,062.1 | 2,306.8 | 1,521.0 |
| Public demand | 134,730.8 | 135,970.4 | 138,318.6 | 142,373.7 |
| Government final consumption expenditure ... | 107,345.3 | 108,435.0 | 110,475.0 | 113,454.5 |
| Gross capital formation by public sectors | 27,407.7 | 27,567.6 | 27,934.0 | 28,942.8 |
| Changes in inventories of public sectors | -2.5 | -11.2 | -58.3 | -5.0 |
| Net exports of goods and services | 2,822.8 | 2,875.6 | 325.0 | -4,332.1 |
| Exports of goods and services | 101,643.8 | 105,465.2 | 103,927.4 | 91,720.8 |
| (less) Imports of goods and services | 98,821.0 | 102,589.6 | 103,602.4 | 96,052.9 |
| (Reference) | | | | |
| Trading gains/losses | 1,604.6 | -2,727.8 | -2,034.8 | 2,805.2 |
| Gross domestic income (GDI) | 552,824.6 | 551,572.7 | 552,339.3 | 531,329.0 |
| Net income from the rest of the world | 20,518.9 | 21,170.1 | 21,668.7 | 20,955.1 |
| Incomes from the rest of the world | 31,163.4 | 33,154.0 | 34,003.2 | 31,475.4 |
| (less) Incomes to the rest of the world | 10,644.5 | 11,983.9 | 12,334.5 | 10,520.3 |
| Gross national income (GNI) | 573,343.5 | 572,742.8 | 574,008.0 | 552,284.1 |

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.

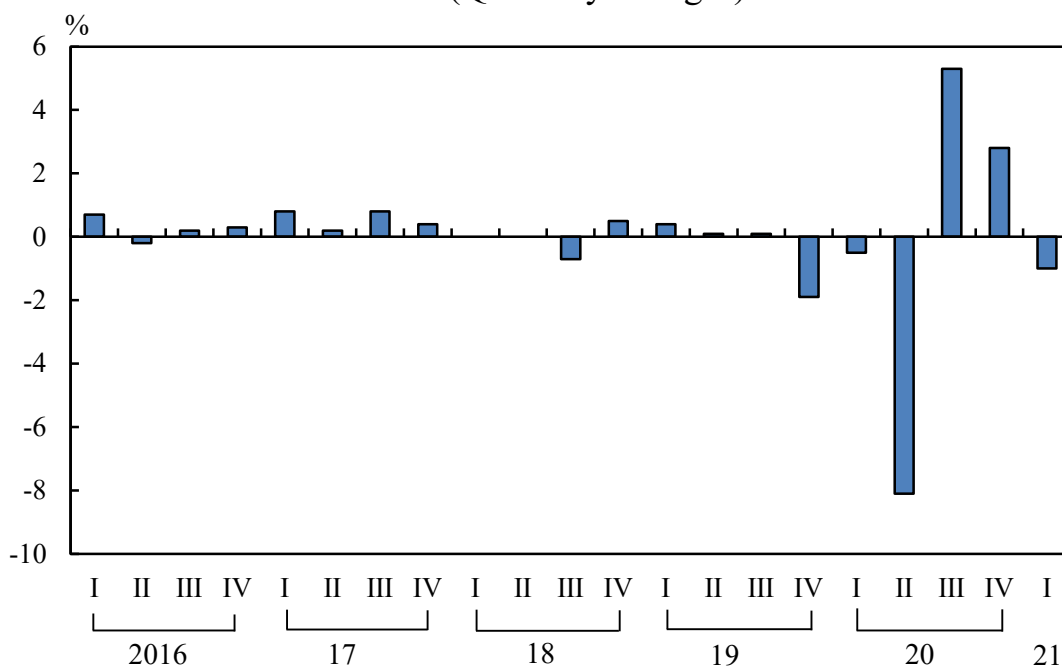
In order to achieve an early end to deflation and break free of economic stagnation, in January 2013, the government set forth its "three-arrows" strategy (also known as "Abenomics").

The first "arrow" is "aggressive monetary policy". The Bank of Japan (BOJ) made it clear that it would set two percent annual growth rate of consumer price index as a "price stabilization target". The BOJ also introduced "quantitative and qualitative monetary easing" to double the monetary base over two years.

The second "arrow" is "flexible fiscal policy". An emergency economic stimulus package with a scale of approximately 10 trillion yen was developed.

The third "arrow" is "growth strategy that promotes private investment". Efforts are being made in growth strategies such as encouraging investments by private corporations based on the easing of regulations.

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.

Amidst these initiatives, the Japanese economy has continued to show signs of moderate recovery, with profits of companies at high levels. However, due to factors like the slowdown in the Chinese economy, and a lull in global demand for information-related goods, weakness has been evident in some areas of export and production since the second half of 2018. On the other hand, the increasing trend in domestic demand has been maintained, supported by factors like improvement in the employment and income environment, and high company profits. In the year 2020, Japan's economy was hit by an unprecedented economic slowdown due to the global COVID-19 pandemic. Although Japan is working to resume and expand its economic activities while putting in place measures to combat infection, there is still a great deal of concern about disease at home and abroad, and the future remains extremely uncertain.

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⁾ | | | Gross domestic product (GDP) ²⁾ | | |
| | Primary industry | Secondary industry | Tertiary industry | Primary industry | Secondary industry | Tertiary industry |
| 1950 | 48.6 | 21.8 | 29.7 | ... | ... | ... |
| 1955 | 41.2 | 23.4 | 35.5 | 19.2 | 33.7 | 47.0 |
| 1960 | 32.7 | 29.1 | 38.2 | 12.8 | 40.8 | 46.4 |
| 1965 | 24.7 | 31.5 | 43.7 | 9.5 | 40.1 | 50.3 |
| 1970 | 19.3 | 34.1 | 46.6 | 5.9 | 43.1 | 50.9 |
| 1975 | 13.9 | 34.2 | 52.0 | 5.3 | 38.8 | 55.9 |
| 1980 | 10.9 | 33.6 | 55.4 | # 3.5 | # 36.2 | # 60.3 |
| 1985 | 9.3 | 33.2 | 57.5 | 3.0 | 34.9 | 62.0 |
| 1990 | 7.2 | 33.5 | 59.4 | 2.4 | 35.4 | 62.2 |
| 1995 | # 6.0 | # 31.3 | # 62.7 | # 1.7 | # 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 | 4.0 | 25.0 | 71.0 | 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) 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 2015, the corresponding shares of these three sectors were 4.0 percent, 25.0 percent and 71.0 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 2015, these figures were 1.0 percent, 25.9 percent and 73.1 percent, respectively.

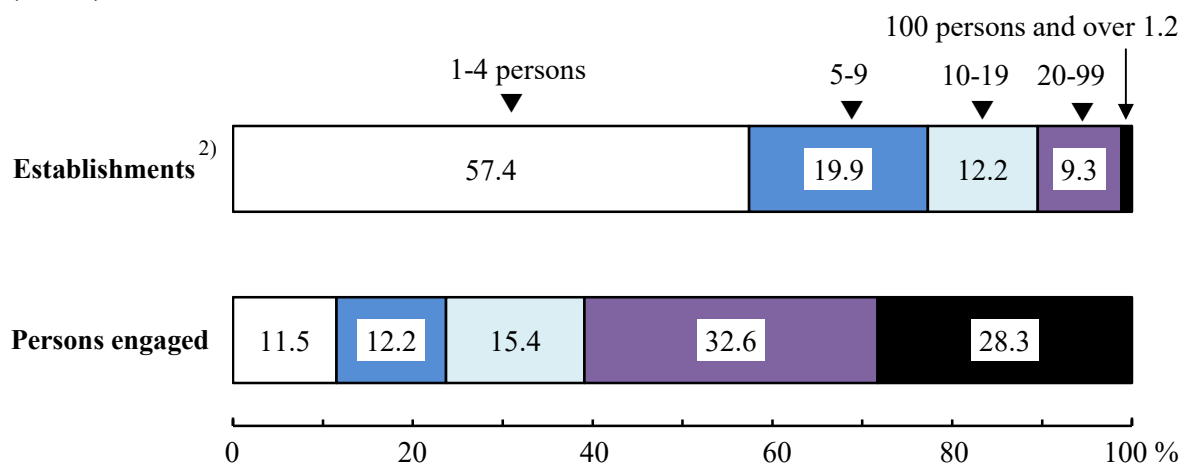
Table 3.3
Gross Domestic Product by Type of Economic Activity

| | (%) | | | | | |
|---|------|------|------|------|------|------|
| | 1995 | 2000 | 2005 | 2010 | 2015 | 2019 |
| 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 | 20.3 |
| Construction | 7.6 | 6.7 | 5.4 | 4.6 | 5.2 | 5.3 |
| Tertiary industry | | | | | | |
| Electricity, gas and water supply and waste management service | 3.1 | 3.3 | 3.0 | 2.9 | 2.9 | 3.0 |
| Wholesale and retail trade | 13.8 | 13.0 | 14.1 | 13.4 | 13.0 | 12.5 |
| Transport and postal services | 5.5 | 4.9 | 5.1 | 5.1 | 5.3 | 5.3 |
| Accommodation and food service activities | 3.0 | 3.1 | 2.7 | 2.6 | 2.4 | 2.4 |
| Information and communications | 3.3 | 4.7 | 5.0 | 5.0 | 4.9 | 4.9 |
| Finance and insurance | 5.1 | 5.0 | 6.1 | 4.8 | 4.3 | 4.1 |
| Real estate | 10.3 | 10.8 | 11.0 | 12.3 | 12.0 | 11.7 |
| Professional, scientific and technical activities | 4.5 | 5.5 | 6.2 | 7.2 | 7.8 | 8.1 |
| Public administration | 4.7 | 5.0 | 5.0 | 5.1 | 4.9 | 5.0 |
| Education | 3.6 | 3.6 | 3.6 | 3.7 | 3.5 | 3.4 |
| Human health and social work activities | 4.2 | 5.1 | 5.7 | 6.7 | 7.4 | 7.9 |
| Other service activities | 5.2 | 5.2 | 4.9 | 4.6 | 4.2 | 4.0 |

Source: Economic and Social Research Institute, Cabinet Office.

According to the "2016 Economic Census for Business Activity", there were 5.3 million establishments (excluding businesses whose operational details are unknown, national government services, and local government services) in Japan, at which a total of 56.9 million persons were employed. The average number of persons engaged per establishment was 10.6 and establishments with less than 10 persons accounted for 77.3 percent of the total.

Figure 3.5
Shares of Establishments and Persons Engaged by Scale of Operation ¹⁾
 (2016)



1) Excluding businesses whose operational details are unknown, national government services, and local government services. 2) Excluding 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 1.4 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 11.8 million persons, followed by "manufacturing" and "medical, health care and welfare".

Table 3.4
Number of Establishments and Persons Engaged ¹⁾ (2016)

| Item | Establishments | Persons engaged |
|---|----------------|-----------------|
| Total | 5,340,783 | 56,872,826 |
| By industry | | |
| Primary industry | | |
| Agriculture, forestry and fisheries | 32,676 | 363,024 |
| Secondary industry | | |
| Mining and quarrying of stone and gravel | 1,851 | 19,467 |
| Construction | 492,734 | 3,690,740 |
| Manufacturing | 454,800 | 8,864,253 |
| Tertiary industry | | |
| Electricity, gas, heat supply and water | 4,654 | 187,818 |
| Information and communications | 63,574 | 1,642,042 |
| Transport and postal activities | 130,459 | 3,197,231 |
| Wholesale and retail trade | 1,355,060 | 11,843,869 |
| Finance and insurance | 84,041 | 1,530,002 |
| Real estate and goods rental and leasing | 353,155 | 1,462,395 |
| Scientific research, professional and technical services | 223,439 | 1,842,795 |
| Accommodations, eating and drinking services | 696,396 | 5,362,088 |
| Living-related and personal services and amusement services ... | 470,713 | 2,420,557 |
| Education, learning support | 167,662 | 1,827,596 |
| Medical, health care and welfare | 429,173 | 7,374,844 |
| Compound services | 33,780 | 484,260 |
| Services, n.e.c. | 346,616 | 4,759,845 |
| By type of legal organizations | | |
| Individual proprietorships | 2,006,773 | 5,719,403 |
| Corporations | 3,305,188 | 51,032,017 |
| Companies | 2,882,491 | 42,716,541 |
| Organizations other than corporations | 28,822 | 121,406 |

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 11,344 companies at the end of fiscal 2018, and the overseas production ratio was 25.1 percent in actual performance in fiscal 2018. This was on the same level as the previous fiscal year, when the ratio was the highest ever recorded.

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⁾ (%) |
|-------------|---|---------------------------------|--|--|---|
| 2009 | 8,399 | 78,305,761 | 17.0 | 2,058,685 | 15.9 |
| 2010 | 8,412 | 89,327,934 | 18.1 | 2,325,418 | 17.1 |
| 2011 | 8,684 | 88,289,996 | 18.0 | 3,082,273 | 21.5 |
| 2012 | 10,425 | 98,384,657 | 20.3 | 3,815,707 | 25.8 |
| 2013 | 10,545 | 116,997,649 | 22.9 | 4,646,055 | 29.4 |
| 2014 | 10,592 | 129,712,997 | 24.3 | 4,649,364 | 28.1 |
| 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 |

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 China, India, Vietnam and Thailand.

Chapter 4

Finance

1. National and Local Government Finance

(1) National Government Finance

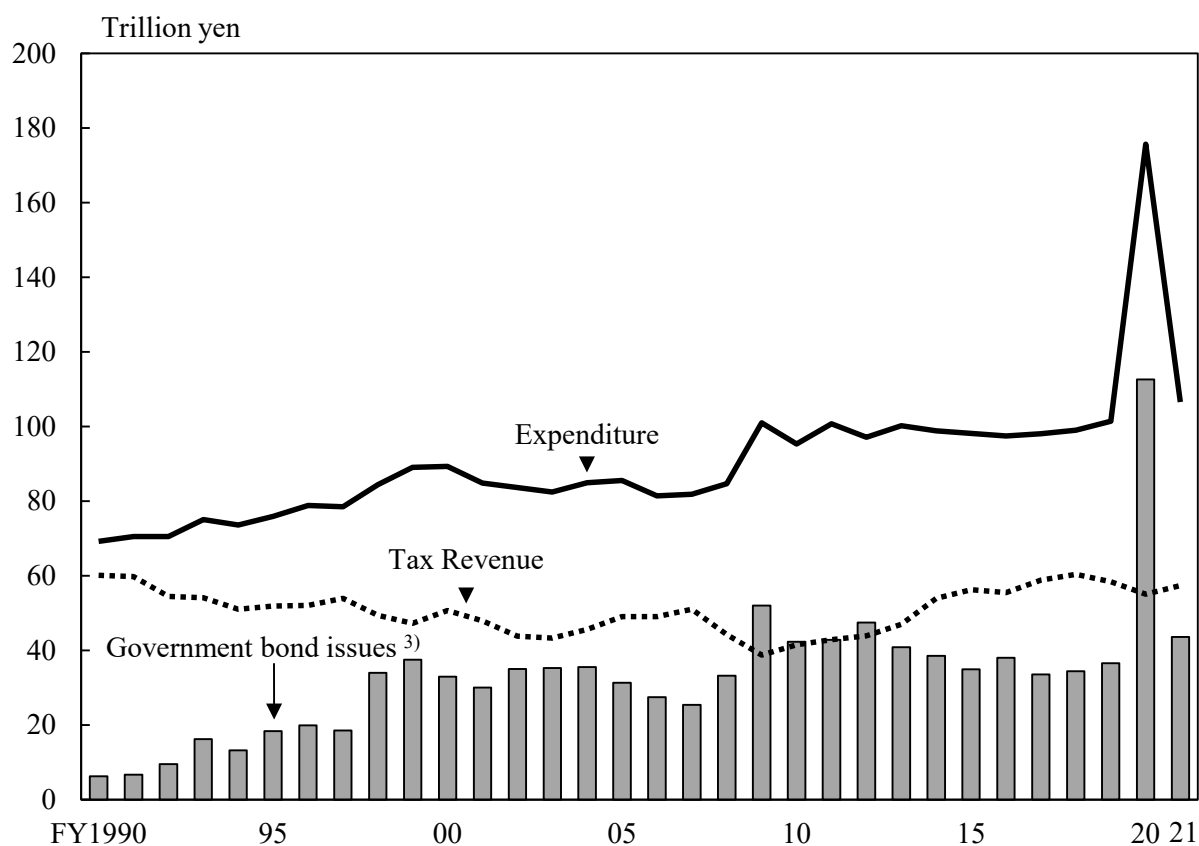
Japan's fiscal year starts in April, and ends in March of the following year. In setting the national budget, the government submits a proposed budget for the upcoming fiscal year to the Ordinary Session of the Diet, which begins in January. The proposal is then discussed, and approved usually before 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. As with the fiscal 2020 supplementary budget, the initial budget for fiscal 2021 also includes a contingency fund for COVID-19.

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 2021, 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) 2)}



1) Based on settled figures until FY2019, draft supplementary budget for FY2020, and draft budget for FY2021. 2) A figure in FY2019 and FY2020 includes the bond issued for the temporal and special measures. 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 2021 was 107 trillion yen, an increase of 5.7 trillion yen (5.7 percent) from the initial budget of fiscal 2020. This is equivalent to 19.1 percent of the fiscal 2021 GDP, forecasted by the government at 560 trillion yen.

Table 4.1
Expenditures of General Account

(Billion yen)

| Fiscal year | Total (A)+(B)+(C) | General expenditures (A) | | | | | | National debt service (B) | Local allocation tax grants, etc. (C) |
|-----------------------|----------------------|-----------------------------|-----------------|-----------------------|----------|------------------|--------------|------------------------------|--|
| | | | Social security | Education and science | Pensions | National defense | Public works | | |
| 2000 | 89,321 | 52,046 | 17,636 | 6,872 | 1,418 | 4,907 | 21,446 | 15,829 | |
| 2005 | 85,520 | 49,343 | 20,603 | 5,701 | 1,065 | 4,878 | 18,736 | 17,441 | |
| 2010 | 95,312 | 56,978 | 28,249 | 6,051 | 709 | 4,670 | 19,544 | 18,790 | |
| 2015 | 98,230 | 58,966 | 31,398 | 5,574 | 387 | 5,130 | 22,464 | 16,801 | |
| 2018 | 98,975 | 60,420 | 32,569 | 5,748 | 241 | 5,475 | 22,529 | 16,026 | |
| 2019 ¹⁾ | 104,652 | 66,113 | 34,062 | 6,318 | 209 | 5,675 | 22,506 | 16,032 | |
| 2020 ^{1) 2)} | 173,923 | 134,642 | 44,010 | 9,263 | 175 | 5,625 | 23,025 | 16,256 | |
| 2021 ³⁾ | 106,610 | 66,902 | 35,842 | 5,397 | 145 | 5,324 | 23,759 | 15,949 | |

1) Revised budget. 2) Excluding the temporal and special measures.

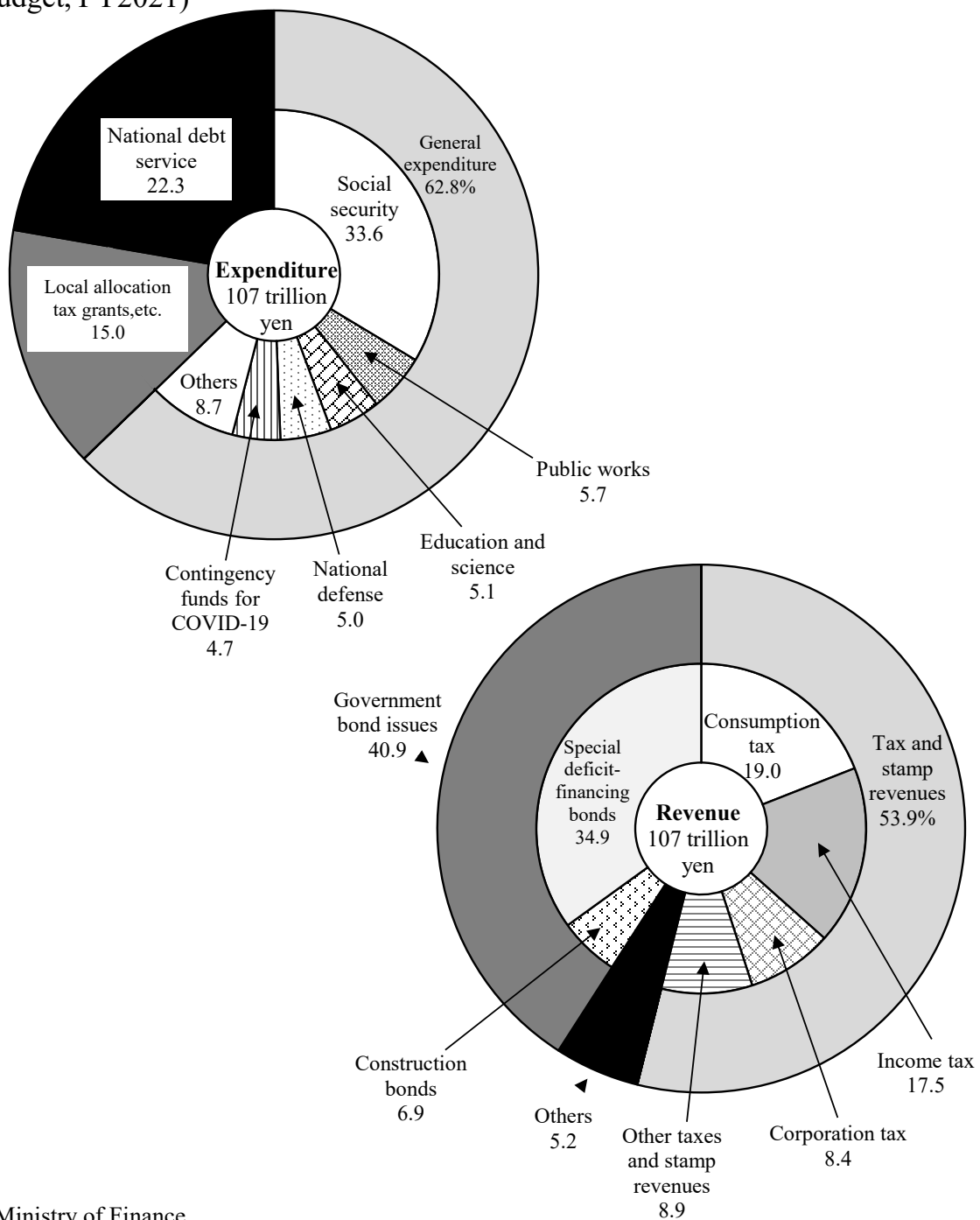
3) Initial budget.

Source: Ministry of Finance.

In fiscal 2021, major expenditures from the initial general account budget include social security (33.6 percent), national debt service (22.3 percent), local allocation tax grants, etc. (15.0 percent), public works (5.7 percent), education and science (5.1 percent), and national defense (5.0 percent).

With regard to revenue sources for the fiscal 2021 initial general account budget, consumption tax, income tax and corporation tax account for 44.9 percent. Even with the addition of other taxes and stamp revenues, these revenue sources only amount to 53.9 percent of the total revenue.

Figure 4.2
Composition of Revenue and Expenditure of General Account Budget
 (Initial budget, FY2021)



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 2019 (net) revenues came from local taxes, accounting for 39.9 percent of the total. The second-largest source, 16.2 percent, was local allocation tax.

Table 4.2

Local Government Finance¹⁾ (Ordinary accounts)

| Item | (Million yen) | | | | |
|---------------------------------------|---------------|-------------|-------------|-------------|-------------|
| | FY2015 | FY2016 | FY2017 | FY2018 | FY2019 |
| Revenues | 101,917,496 | 101,459,848 | 101,323,315 | 101,345,285 | 103,245,881 |
| Local taxes | 39,098,563 | 39,392,391 | 39,904,402 | 40,751,442 | 41,211,450 |
| Local transfer tax | 2,679,246 | 2,340,232 | 2,405,224 | 2,650,873 | 2,613,842 |
| Special local grants | 118,868 | 123,300 | 132,800 | 154,400 | 468,271 |
| Local allocation tax | 17,390,640 | 17,239,008 | 16,768,005 | 16,548,225 | 16,739,246 |
| National treasury disbursements ... | 15,282,155 | 15,687,149 | 15,520,357 | 14,885,189 | 15,834,380 |
| Local bonds | 10,688,010 | 10,387,277 | 10,644,892 | 10,508,424 | 10,870,548 |
| Expenditures | 98,405,225 | 98,141,464 | 97,998,369 | 98,020,611 | 99,702,189 |
| General administration | 9,608,827 | 8,901,591 | 9,121,944 | 9,285,987 | 9,670,029 |
| Public welfare | 25,254,815 | 26,340,756 | 25,983,397 | 25,665,947 | 26,533,656 |
| Sanitation | 6,301,793 | 6,258,413 | 6,262,562 | 6,236,691 | 6,353,956 |
| Agriculture, forestry and fishery ... | 3,218,216 | 3,171,208 | 3,299,187 | 3,251,691 | 3,319,243 |
| Commerce and industry | 5,516,105 | 5,195,146 | 4,901,049 | 4,760,301 | 4,782,097 |
| Civil engineering work | 11,707,165 | 12,018,244 | 11,919,457 | 11,880,636 | 12,127,421 |
| Education | 16,795,536 | 16,745,847 | 16,888,597 | 16,878,150 | 17,523,493 |

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 2020, the gross total of national government expenditure was 496 trillion yen, the net total was 246 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 92 trillion yen. Therefore, after eliminating duplications between national and local accounts (36 trillion yen), the net total of both national and local government expenditures combined was 301 trillion yen.

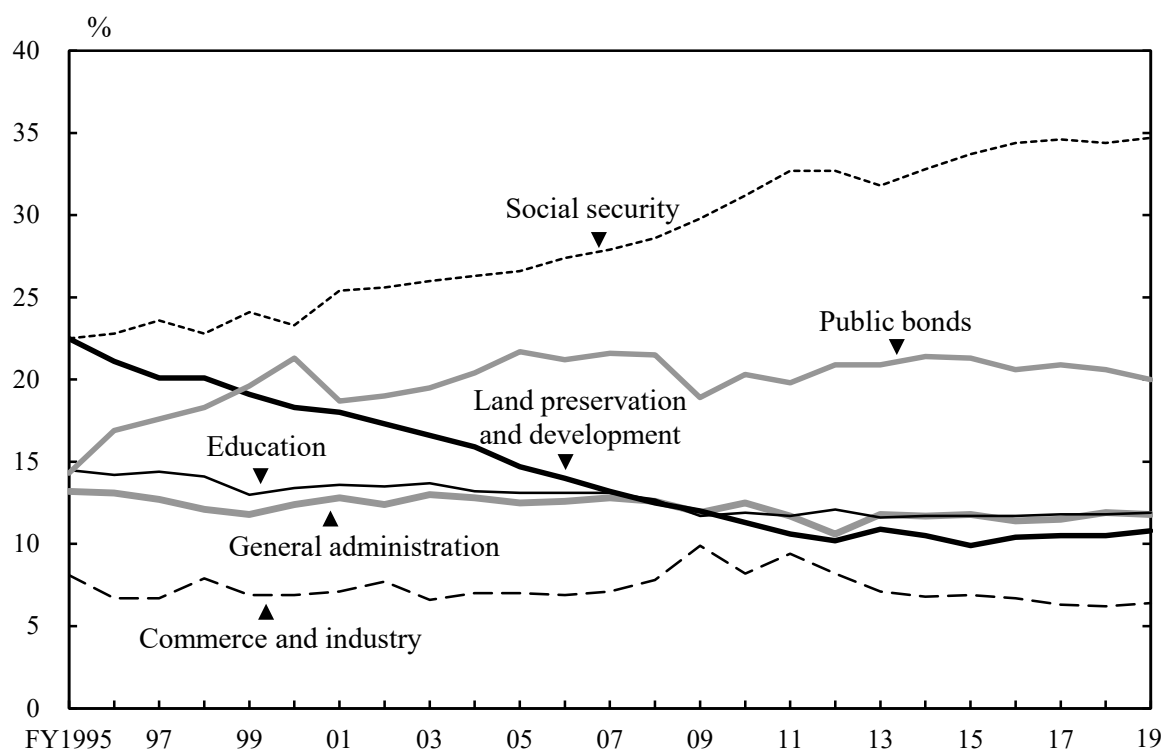
Table 4.3
Expenditures of National and Local Governments (Initial budget)

| (Billion yen) | | | | | | |
|---|----------------|----------------|----------------|----------------|----------------|----------------|
| Item | FY2000 | FY2005 | FY2010 | FY2015 | FY2019 | FY2020 |
| General account | 84,987 | 82,183 | 92,299 | 96,342 | 101,457 | 102,658 |
| Special accounts | 318,689 | 411,944 | 367,074 | 403,553 | 389,457 | 391,759 |
| Government-affiliated agencies | 7,661 | 4,678 | 3,135 | 2,216 | 1,817 | 1,722 |
| Gross total (national) | 411,337 | 498,805 | 462,508 | 502,111 | 492,731 | 496,139 |
| Duplications | 200,435 | 257,490 | 244,744 | 262,184 | 247,909 | 250,273 |
| Net total (national) | 210,902 | 241,316 | 217,764 | 239,927 | 244,822 | 245,867 |
| Local public finance plan | 88,930 | 83,769 | 82,127 | 87,768 | 90,798 | 91,747 |
| Gross total (national + local) | 299,832 | 325,084 | 299,891 | 327,694 | 335,619 | 337,614 |
| Duplications | 37,216 | 32,689 | 31,563 | 35,484 | 35,829 | 36,241 |
| Net total (national + local) | 262,616 | 292,395 | 268,328 | 292,211 | 299,791 | 301,373 |

Source: Policy Research Institute, Ministry of Finance.

The settlement amount for fiscal 2019, the net total of national and local government expenditures was 172 trillion yen. The national government disbursed 42.6 percent of this amount, while the local governments disbursed 57.4 percent.

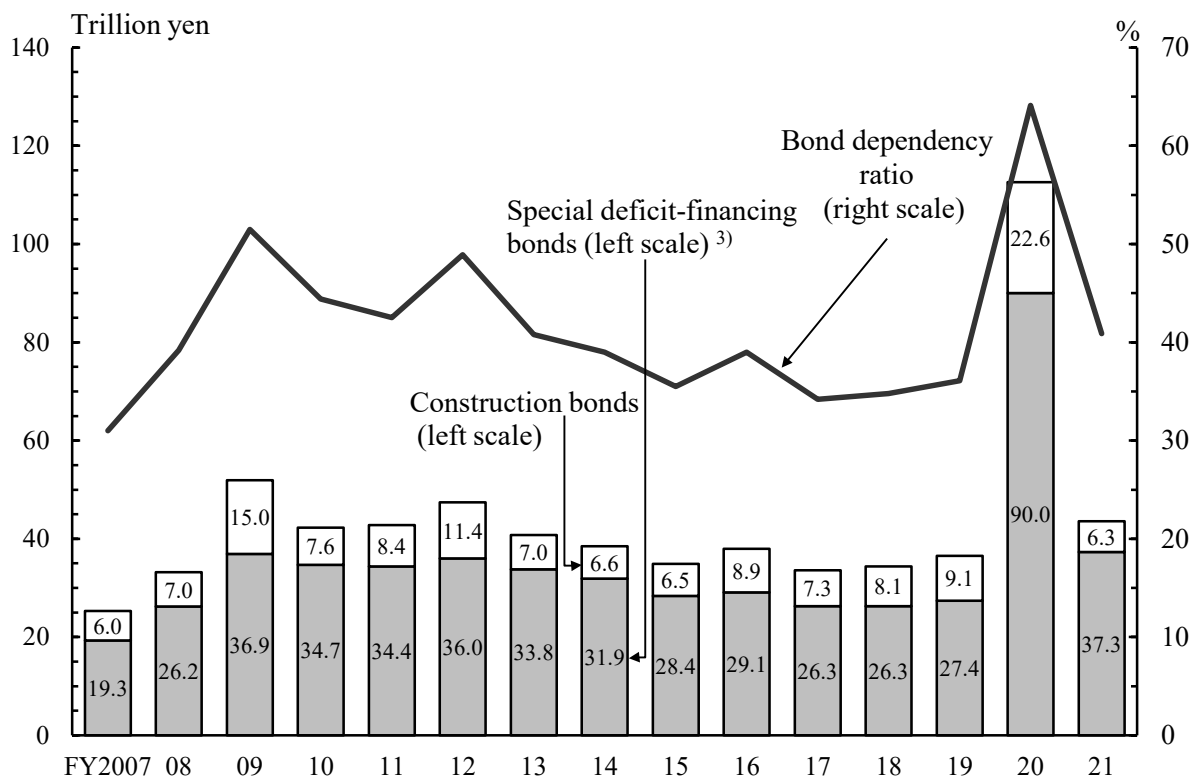
Figure 4.3
Ratio of Net Total National and Local Expenditures by Function



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 (34.7 percent), followed by public bonds (20.0 percent), education (11.9 percent), general administration (11.8 percent), and then land preservation and development (10.8 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) 2)}

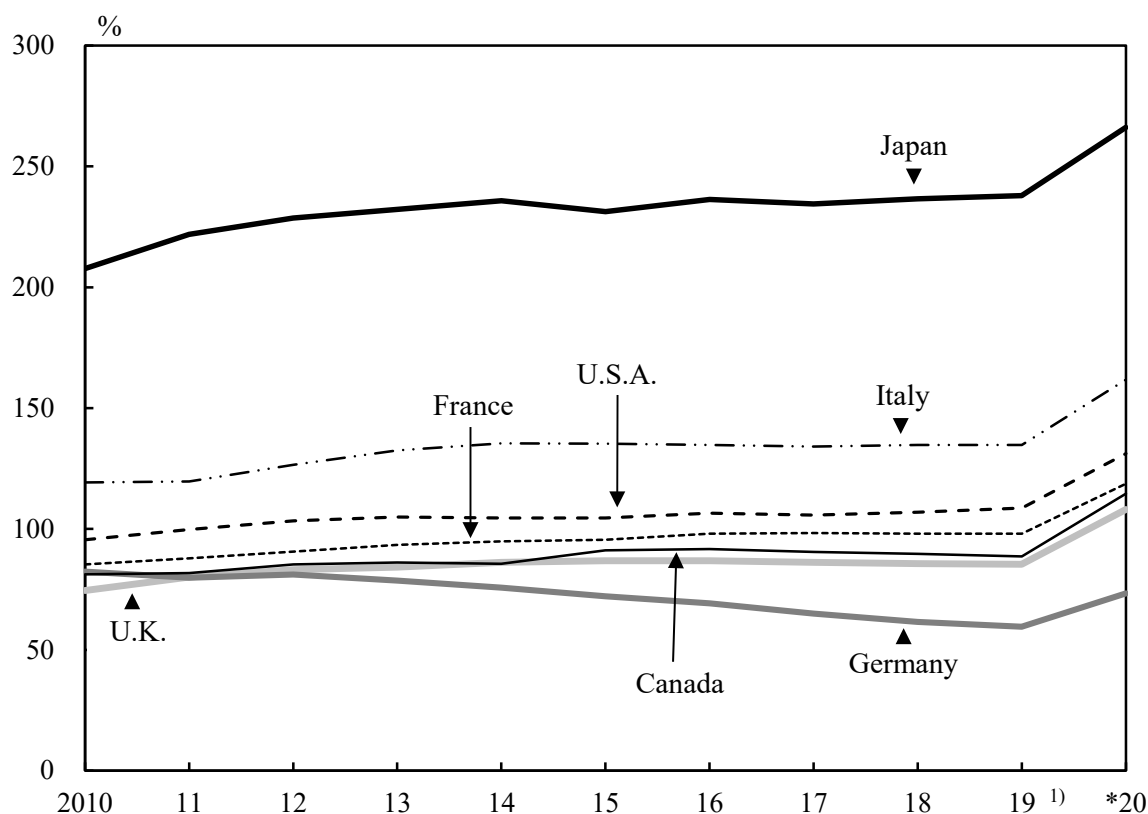


1) Based on settled figures until FY2019, draft supplementary budget for FY2020, and draft budget for FY2021. 2) A figure in FY2019 and FY2020 includes the bond issued for the temporal and special measures. 3) Excludes some special accounts.

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.

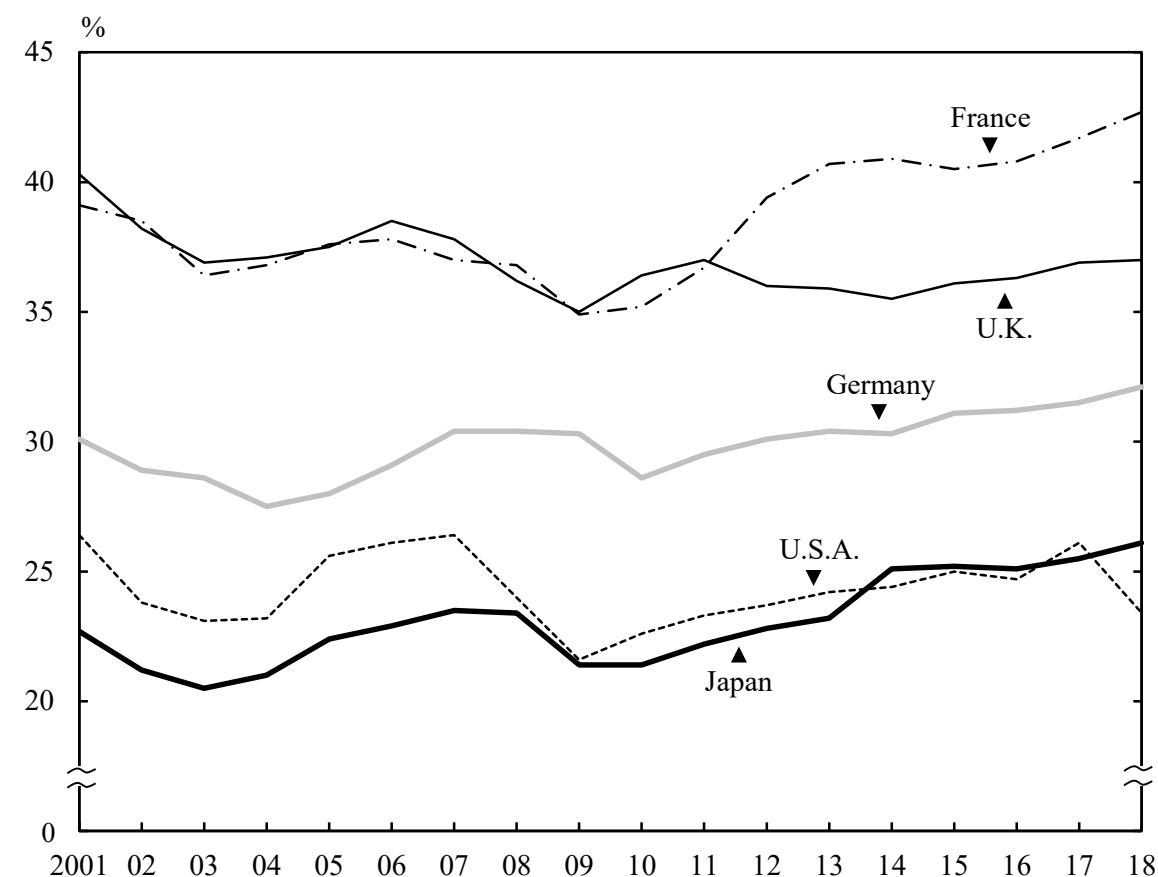
Source: Ministry of Finance.

(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 2018, it was 26.1 percent in terms of national and local taxes combined (16.0 percent for national tax and 10.1 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 2020, currency in circulation totaled 123.4 trillion yen (118.3 trillion yen in banknotes and 5.1 trillion yen in coins), up 4.8 percent from the year before.

Table 4.4**Currency in Circulation** (Outstanding at year-end)

| (Billion yen) | | | | | |
|-----------------|---------|---------|---------|---------|---------|
| Item | 2016 | 2017 | 2018 | 2019 | 2020 |
| Total | 107,203 | 111,508 | 115,208 | 117,695 | 123,381 |
| Banknotes | 102,461 | 106,717 | 110,363 | 112,742 | 118,328 |
| Coins | 4,742 | 4,792 | 4,845 | 4,954 | 5,053 |

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 2020 was 883 trillion yen in M1 and 1,094 trillion yen in M2.

Table 4.5**Money Stock**¹⁾ (Average amounts outstanding)

| (Billion yen) | | | | | | |
|---------------|-----------|-----------|---------|-------------|--------|-----------------------------|
| Year | M2 | M3 | | | | L |
| | | | M1 | Quasi-money | CDs | (Broadly-defined liquidity) |
| 2016 | 936,870 | 1,257,340 | 659,804 | 564,753 | 32,782 | 1,685,519 |
| 2017 | 973,993 | 1,299,628 | 711,885 | 556,268 | 31,475 | 1,736,553 |
| 2018 | 1,002,453 | 1,332,498 | 755,601 | 546,668 | 30,229 | 1,773,279 |
| 2019 | 1,026,992 | 1,360,247 | 796,074 | 535,066 | 29,108 | 1,807,511 |
| 2020 | 1,093,628 | 1,433,438 | 882,841 | 521,869 | 28,727 | 1,882,252 |

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. In April 2020, the Bank of Japan decided to further intensify monetary easing in response to the economic downturn caused by COVID-19.

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 655.5 trillion yen as of the end of April 2021, up 23.9 percent from the same month of the previous year, and setting a new record high.

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. bonds yields |
|-------------|---|--------------------------|-----------------------------------|--|---|
| 2011 | 0.30 | 0.075 | 1.475 | 1.102 | 0.980 |
| 2012 | 0.30 | 0.076 | 1.475 | 1.034 | 0.795 |
| 2013 | 0.30 | 0.068 | 1.475 | 0.880 | 0.740 |
| 2014 | 0.30 | 0.066 | 1.475 | 0.850 | 0.320 |
| 2015 | 0.30 | 0.038 | 1.475 | 0.778 | 0.265 |
| 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 |

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.

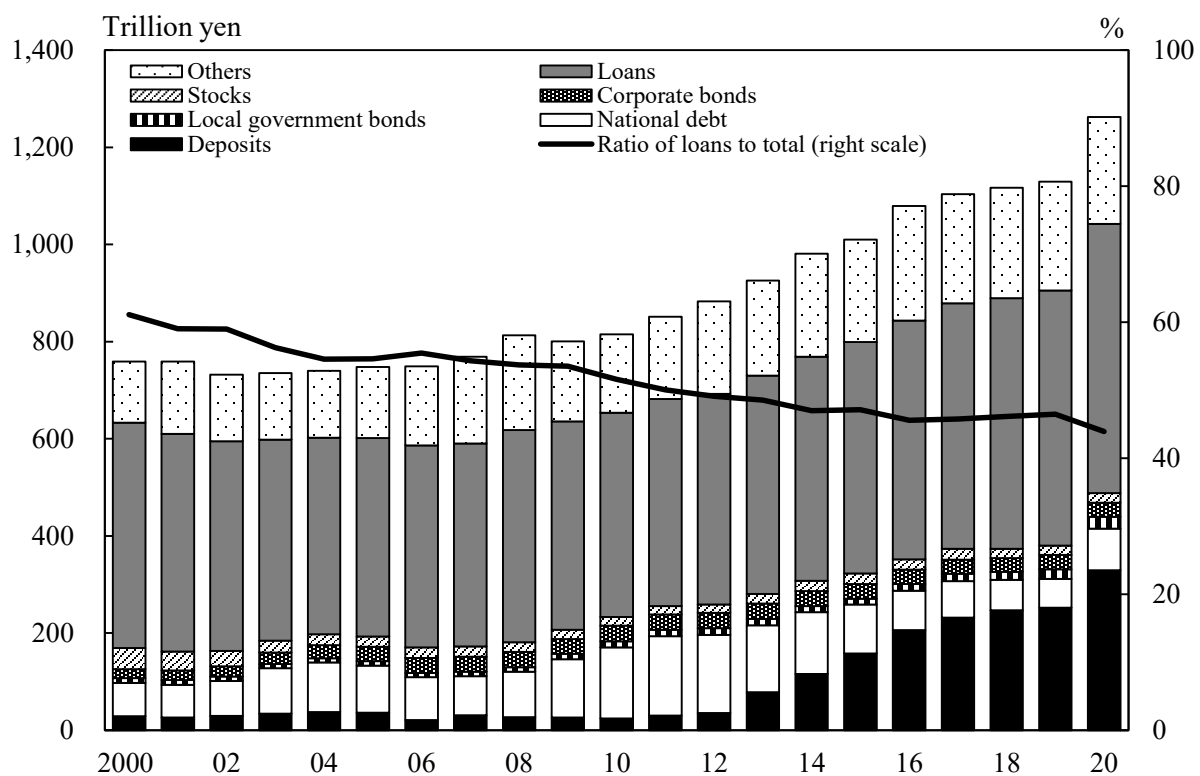
3. Financial Institutions

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. This number is expected to decline further in the future. As of the end of September 2020, in the number of offices operated domestically, including the branches of financial institutions, post offices had the largest network with 23,827 offices. Domestically licensed banks, including city banks and regional banks, had a combined total of 13,589 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 2020 year, and thus the percentage of loans to bank assets has generally been on a consistent 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 7,945 trillion yen at the end of March 2020. Of these assets, those of the domestic nonfinancial sector were 3,691 trillion yen. Of this sector, the household sector (including the business funds of individual proprietorships) had assets of 1,828 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

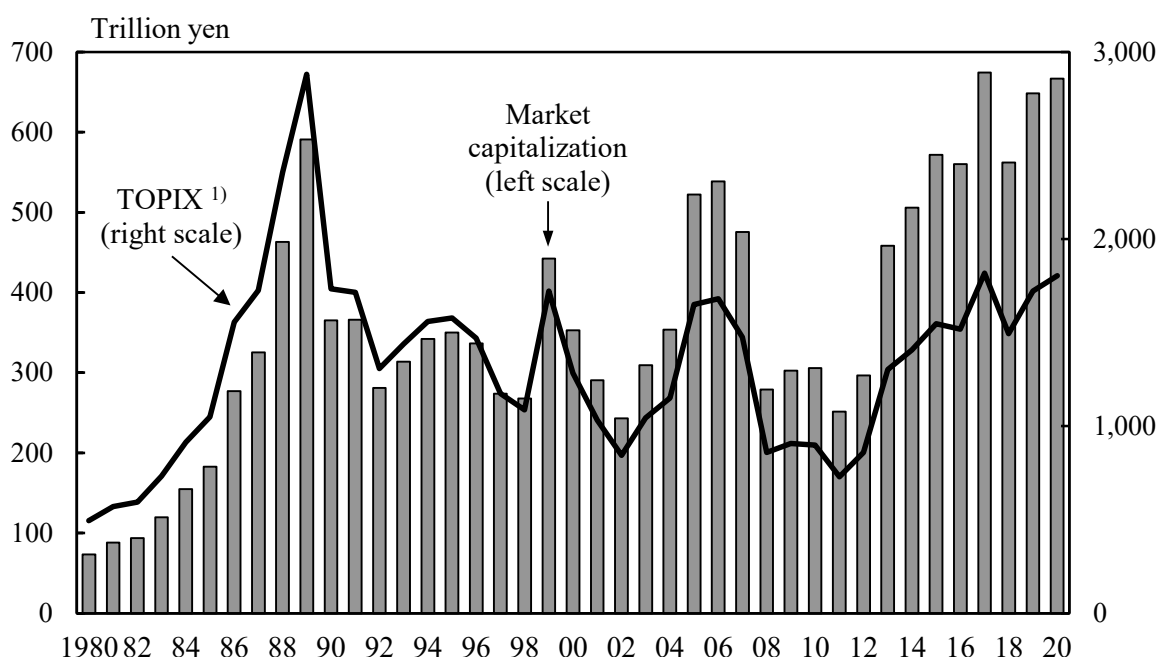
| (Billion yen) | | | |
|--|---------------|---------------|-------------------------|
| Sectors | March 2019 | March 2020 | Annual change (%) |
| Financial assets | | | |
| Domestic sectors | 7,866,845 | 7,945,484 | 1.0 |
| Financial institutions | 4,135,010 | 4,254,936 | 2.9 |
| Domestic nonfinancial sector | 3,731,835 | 3,690,547 | -1.1 |
| Nonfinancial corporations | 1,206,779 | 1,188,780 | -1.5 |
| General government | 623,071 | 614,296 | -1.4 |
| Households (incl. individual proprietorships) | 1,842,722 | 1,828,058 | -0.8 |
| Private nonprofit institutions serving households .. | 59,263 | 59,414 | 0.3 |
| Overseas | 702,517 | 732,273 | 4.2 |
| Financial liabilities | | | |
| Domestic sectors | 7,506,733 | 7,568,221 | 0.8 |
| Financial institutions | 3,973,910 | 4,116,991 | 3.6 |
| Domestic nonfinancial sector | 3,532,823 | 3,451,230 | -2.3 |
| Nonfinancial corporations | 1,851,286 | 1,754,258 | -5.2 |
| General government | 1,317,693 | 1,323,598 | 0.4 |
| Households (incl. individual proprietorships) | 333,958 | 343,158 | 2.8 |
| Private nonprofit institutions serving households .. | 29,886 | 30,216 | 1.1 |
| Overseas | 1,059,099 | 1,105,244 | 4.4 |

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. At the end of 1989, the total market capitalization in the Tokyo Stock Exchange First Section was 591 trillion yen, but only 3 years later, it had dropped by more than 50 percent to 281 trillion yen. Even after recovering to 442 trillion yen at the end of 1999, the stock market repeatedly fell and rose afterwards. The bankruptcy of the major American securities firm Lehman Brothers in September 2008 led to a fall in total market capitalization, which amounted to 251 trillion yen at the end of 2011. From 2012 to 2020, there has been 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 First Section, end of year)



1) A free-float adjusted market capitalization-weighted index that is calculated based on all the domestic common stocks listed on the Tokyo Stock Exchange First Section. 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.

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 2020 was 27,444.17 yen, up 3,787.55 yen, or 16.0 percent for the year, exceeding the previous year for the second consecutive year.

Table 4.8
Stock Prices (Tokyo Stock Exchange First Section)

| Year | Number of listed companies ¹⁾ | Market capitalization ¹⁾ (million yen) | Total trading value (million yen) | TOPIX ¹⁾²⁾ Tokyo stock price index, average | Nikkei Stock Average (225 issues) ¹⁾ (yen) |
|-----------|--|---|-----------------------------------|--|---|
| 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 Jan. | 2,190 | 669,933,134 | 60,511,899 | 1,808.78 | 27,663.39 |
| Feb. | 2,193 | 690,641,075 | 60,114,799 | 1,864.49 | 28,966.01 |
| Mar. | 2,185 | 722,630,442 | 79,781,368 | 1,954.00 | 29,178.80 |
| Apr. | 2,190 | 702,360,781 | 56,758,731 | 1,898.24 | 28,812.63 |

1) End of year or month. 2) A free-float adjusted market capitalization-weighted index that is calculated based on all the domestic common stocks listed on the Tokyo Stock Exchange First Section. 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 2020, 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 56.7 million. In terms of value, the ratio of stocks they possessed was 16.5 percent, down 0.7 percentage points from the previous fiscal year. The ratio of Japanese stocks held by foreign investors (total of corporations and individuals) was 29.6 percent in terms of value, up 0.5 percentage points from the previous fiscal year.

A survey conducted by the Japan Securities Dealers Association (JSDA) showed that 33.3 percent of 264 securities firms offered Internet trading at the end of September 2020. Internet trading thus accounted for 24.5 percent of the total value of stock brokerage transactions from April to September 2020.

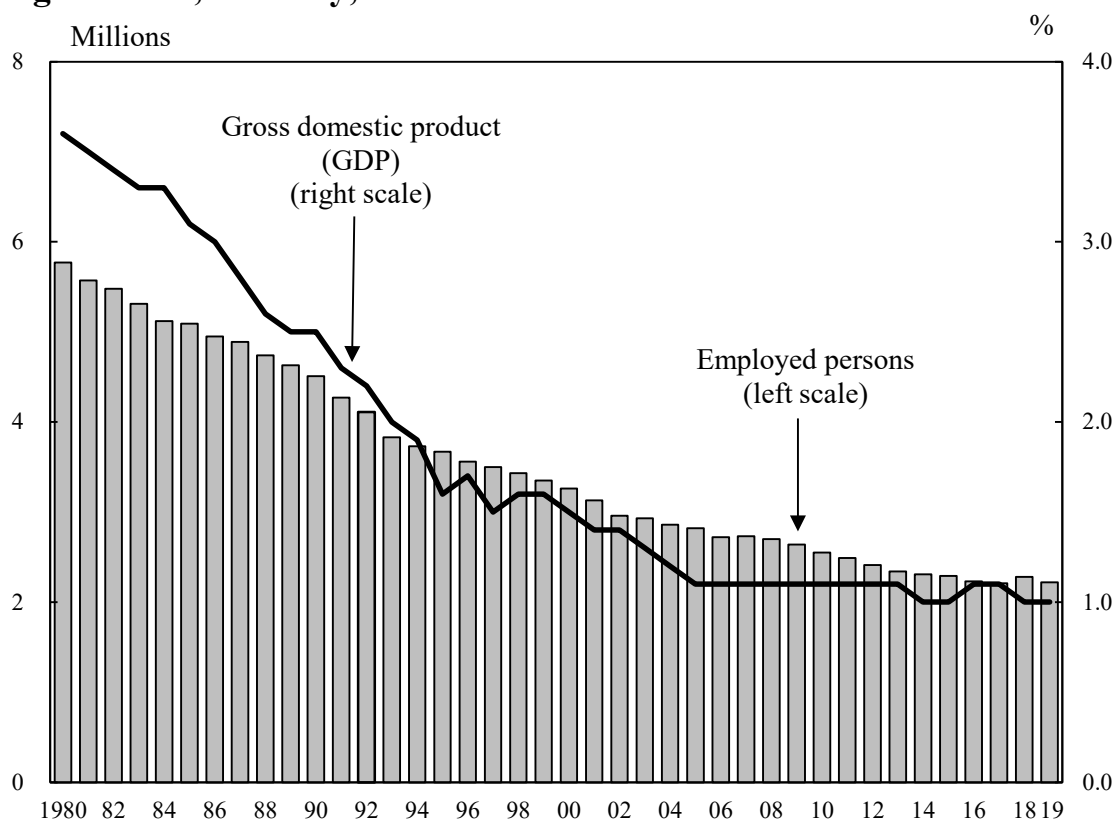
Chapter 5

Agriculture, Forestry, and Fisheries

1. Overview of Agriculture, Forestry, and Fisheries

Over the course of Japan's economic growth, its agricultural, forestry and fishing industries have employed fewer and fewer workers every year, and their nominal GDP share has also dropped. The number of employed persons decreased from 5.77 million in 1980 (10.4 percent of the total employed persons) to 2.22 million in 2019 (3.3 percent), and the GDP share of the industries fell from 3.6 percent in 1980 to 1.0 percent in 2019.

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).
 2002-2019 data: The 12th and 13th revisions of JSIC. 2) 1980-1993 data: 1993 SNA,
 Benchmark year = 2000. 1994-2018 data: 2008 SNA, Benchmark year = 2011.
 2019 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 2019 was 8.89 trillion yen, down 1.8 percent from the previous year. Among this, crops yielded 5.63 trillion yen, down 2.6 percent from the previous year. Livestock yielded 3.21 trillion yen, down 0.1 percent from the previous year.

Table 5.1
Total Agricultural Output

| | (Billion yen) | | | | |
|----------------------------------|---------------|-------|-------|-------|-------|
| Item | 2015 | 2016 | 2017 | 2018 | 2019 |
| Total | 8,798 | 9,203 | 9,274 | 9,056 | 8,894 |
| Crops | 5,625 | 5,980 | 5,961 | 5,782 | 5,630 |
| Rice | 1,499 | 1,655 | 1,736 | 1,742 | 1,743 |
| Vegetables | 2,392 | 2,557 | 2,451 | 2,321 | 2,152 |
| Fruits and nuts | 784 | 833 | 845 | 841 | 840 |
| Livestock and its products | 3,118 | 3,163 | 3,252 | 3,213 | 3,211 |
| Beef cattle | 689 | 739 | 731 | 762 | 788 |
| Dairy cattle | 840 | 870 | 896 | 911 | 919 |
| Pigs | 621 | 612 | 649 | 606 | 606 |
| Chickens | 905 | 875 | 903 | 861 | 823 |

Source: Ministry of Agriculture, Forestry and Fisheries.

Table 5.2
Agricultural Harvest

| Products | (Thousand tons) | | | | |
|---------------------------------------|-----------------|-------|-------|-------|-------|
| | 2015 | 2016 | 2017 | 2018 | 2019 |
| Cereal grains | | | | | |
| Rice | 7,989 | 8,044 | 7,824 | 7,782 | 7,764 |
| Wheat | 1,004 | 791 | 907 | 765 | 1,037 |
| Vegetables, sweet potatoes, and beans | | | | | |
| Potatoes | 2,406 | 2,199 | 2,395 | 2,260 | 2,399 |
| Sweet potatoes | 814 | 861 | 807 | 797 | 749 |
| Soybeans | 243 | 238 | 253 | 211 | 218 |
| Cucumbers | 550 | 550 | 560 | 550 | 548 |
| Tomatoes | 727 | 743 | 737 | 724 | 721 |
| Cabbages | 1,469 | 1,446 | 1,428 | 1,467 | 1,472 |
| Chinese cabbages | 895 | 889 | 881 | 890 | 848 |
| Onions | 1,265 | 1,243 | 1,228 | 1,155 | 1,334 |
| Lettuces | 568 | 586 | 583 | 586 | 578 |
| Japanese radishes | 1,434 | 1,362 | 1,325 | 1,328 | 1,300 |
| Carrots | 633 | 567 | 597 | 575 | 595 |
| Fruits | | | | | |
| Mandarins | 778 | 805 | 741 | 774 | 747 |
| Apples | 812 | 765 | 735 | 756 | 702 |
| Grapes | 181 | 179 | 176 | 175 | 173 |
| Japanese pears | 247 | 247 | 245 | 232 | 210 |
| Industrial crops | | | | | |
| Crude tea ¹⁾ | 80 | 80 | 82 | 86 | 82 |
| Sugar beets ²⁾ | 3,925 | 3,189 | 3,901 | 3,611 | 3,986 |

1) Production. 2) Area of Hokkaido prefecture.

Source: Ministry of Agriculture, Forestry and Fisheries.

(2) Farmers and Farmland

In 2015, the number of farm households engaged in commercial farming (which refers to households with of cultivated land under management 0.3 hectares and over, or with annual sales of agricultural products amounting to 500,000 yen or more) was 1.33 million. Of these commercial farm households, 33.3 percent were full-time farm households, 12.4 percent were part-time farm households with farming income exceeding non-farming income, and 54.3 percent were part-time farm households with non-farming income exceeding farming income.

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

Table 5.3
Commercial Farm Households and Commercial Farmers

| Year | Commercial farm households (1,000) | | | | Commercial farmers | |
|------|------------------------------------|-----------|----------------|------------------|--------------------|----------------------------|
| | Total | Full-time | Part-time | | (1,000) | Aged 65 years and over (%) |
| | | | Mainly farming | Mainly other job | | |
| 1995 | 2,651 | 428 | 498 | 1,725 | 4,140 | 43.5 |
| 2000 | 2,337 | 426 | 350 | 1,561 | 3,891 | 52.9 |
| 2005 | 1,963 | 443 | 308 | 1,212 | 3,353 | 58.2 |
| 2010 | 1,631 | 451 | 225 | 955 | 2,606 | 61.6 |
| 2015 | 1,330 | 443 | 165 | 722 | 2,097 | 63.5 |

Source: Ministry of Agriculture, Forestry and Fisheries.

In 2018, agricultural gross income per management unit was 6.26 million yen, up 0.4 percent from the previous year. On the other hand, agricultural expenditures increased 4.4 percent to 4.52 million yen. As a result, agricultural income declined by 8.7 percent to 1.74 million yen.

Japan's cultivated acreage shrank year after year from 6.09 million hectares in 1961 to 4.37 million hectares in 2020. 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, most of which are conifer plantations, 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. There is a need to further promote use of domestic timber as lumber in housing, public buildings, etc., and as biomass, for reasons such as effective use of forest resources, proper management and manifestation of the diverse functions of forests, and development of the forestry industry and mountainous areas.

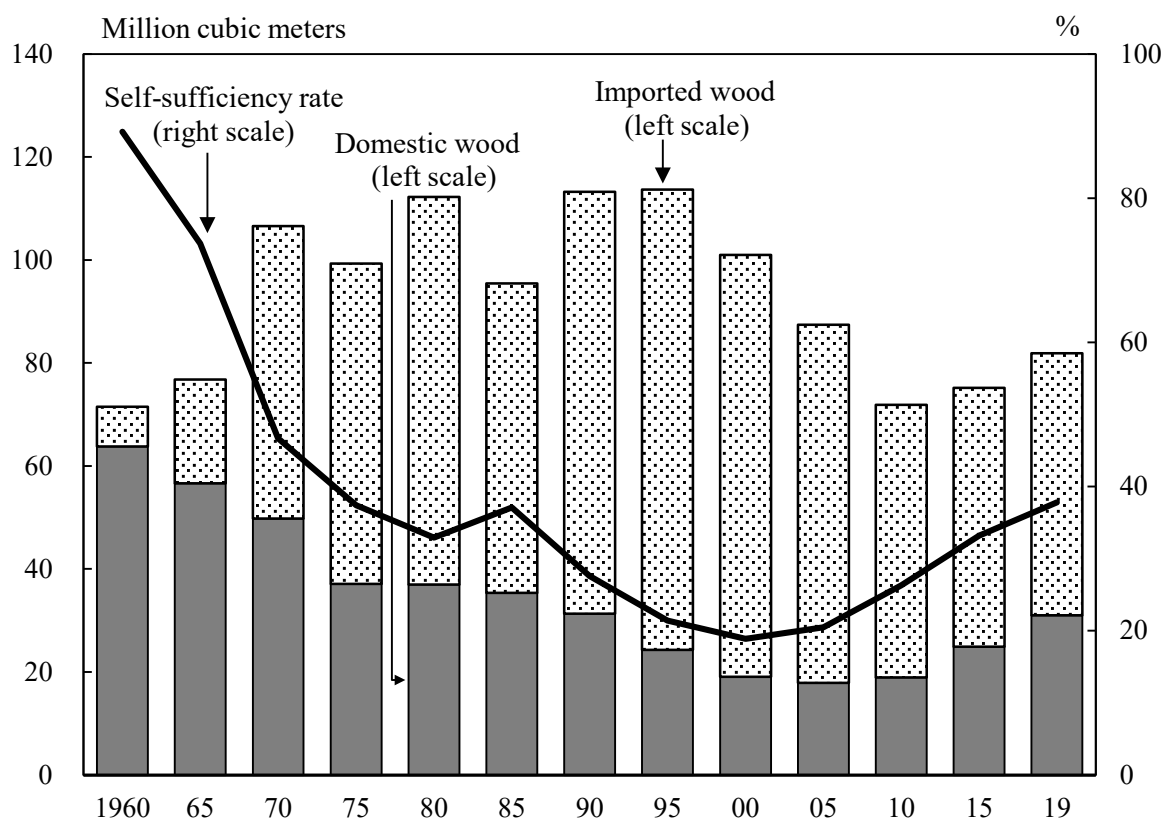
Table 5.4
Forest Land Area and Forest Resources (2017)

| 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 domestic 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.

Although the number of workers engaged in forestry is declining due to a slowdown in domestic lumber production activities, the pace of decline has slackened in recent years. In 2015, there were 63,663 workers engaged in forestry, approximately one out of five workers was aged 65 and over.

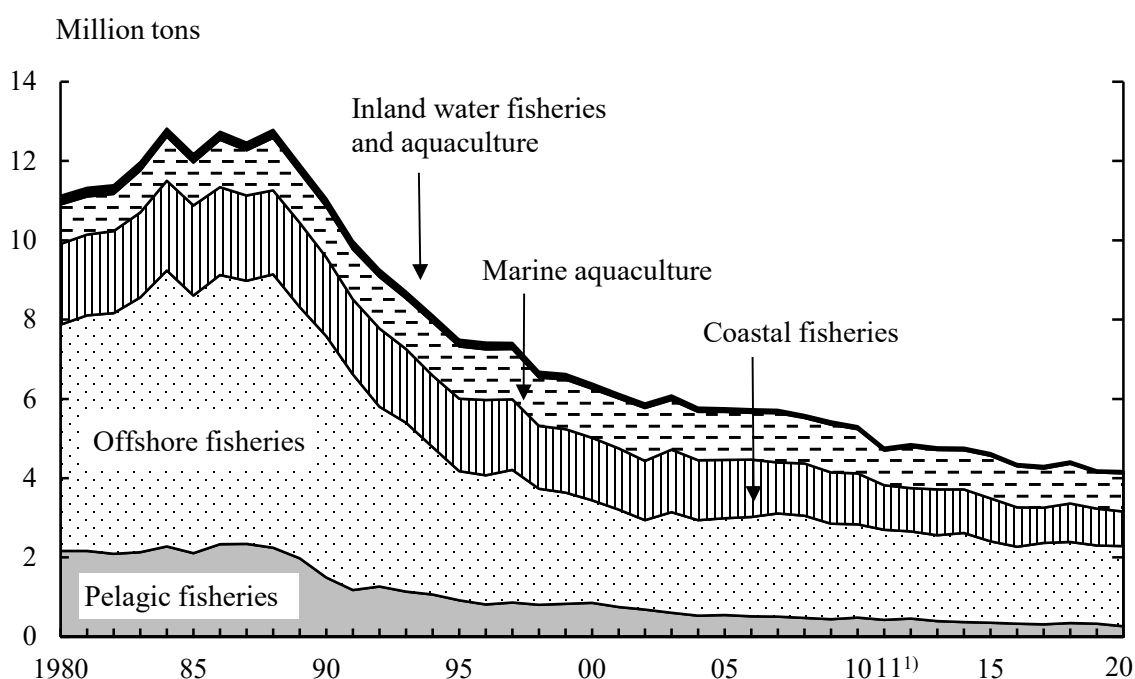
4. Fisheries

(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 2020 fishery production totaled 4.18 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 | 2016 | 2017 | 2018 | 2019 | 2020* |
| Total | 4,359 | 4,306 | 4,421 | 4,196 | 4,175 |
| Marine fishery | 3,264 | 3,258 | 3,359 | 3,228 | 3,157 |
| Tunas | 168 | 169 | 165 | 161 | 173 |
| Skipjack, Frigate mackerel | 240 | 227 | 260 | 237 | 170 |
| Sardine | 378 | 500 | 522 | 556 | 701 |
| Mackerels | 503 | 518 | 542 | 450 | 377 |
| Shellfishes | 266 | 284 | 350 | 386 | 382 |
| Crabs | 28 | 26 | 24 | 23 | 20 |
| Squids | 110 | 103 | 84 | 73 | 80 |
| Marine aquaculture | 1,033 | 986 | 1,005 | 915 | 967 |
| Yellowtails | 141 | 139 | 138 | 136 | 137 |
| Oysters | 159 | 174 | 177 | 162 | 159 |
| Laver ("nori") | 301 | 304 | 284 | 251 | 289 |
| Seaweed ("wakame") | 48 | 51 | 51 | 45 | 53 |
| Pearl (tons) | 20 | 20 | 21 | 19 | 16 |
| Inland water fishery | 28 | 25 | 27 | #22 | 22 |
| Salmons, trouts | 8 | 6 | 8 | #7 | 7 |
| Sweet fish | 2 | 2 | 2 | #2 | 2 |
| Shellfishes | 12 | 13 | 13 | #10 | 9 |
| Inland water aquaculture | 35 | 37 | 30 | 31 | 29 |
| Eel | 19 | 21 | 15 | 17 | 17 |
| Trouts | 8 | 8 | 7 | 7 | 6 |
| Sweet fish | 5 | 5 | 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 2019, the number of such workers was 144,740 workers, down 4.6 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 |
| 2018 | 79,067 | 74,526 | 4,541 | 151,701 | 86,943 | 64,758 |
| 2019 | 73,270 | 68,900 | 4,370 | 144,740 | 80,290 | 64,450 |

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

With regard to Japan's food self-sufficiency ratio on a calorie supply basis, although there is a downward trend over the long term, it has been fluctuating at a level of around 40 percent since fiscal 1996. Whereas the ratio was 53 percent in fiscal 1980, it was 38 percent in fiscal 2019. The major reason behind the decrease in the food self-sufficiency ratio is that while declining in consumption of rice, for which demand can be met with domestic production, diversification of the Japanese dietary life has led to increased consumption of livestock products and oils and fats, for which overseas dependence for feed and raw materials is inevitable.

In fiscal 2019, the self-sufficiency ratio per item (on weight basis) was 97 percent for rice, 16 percent for wheat, 7 percent for beans, 79 percent for vegetables, 38 percent for fruits, 52 percent for meat, and 52 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.

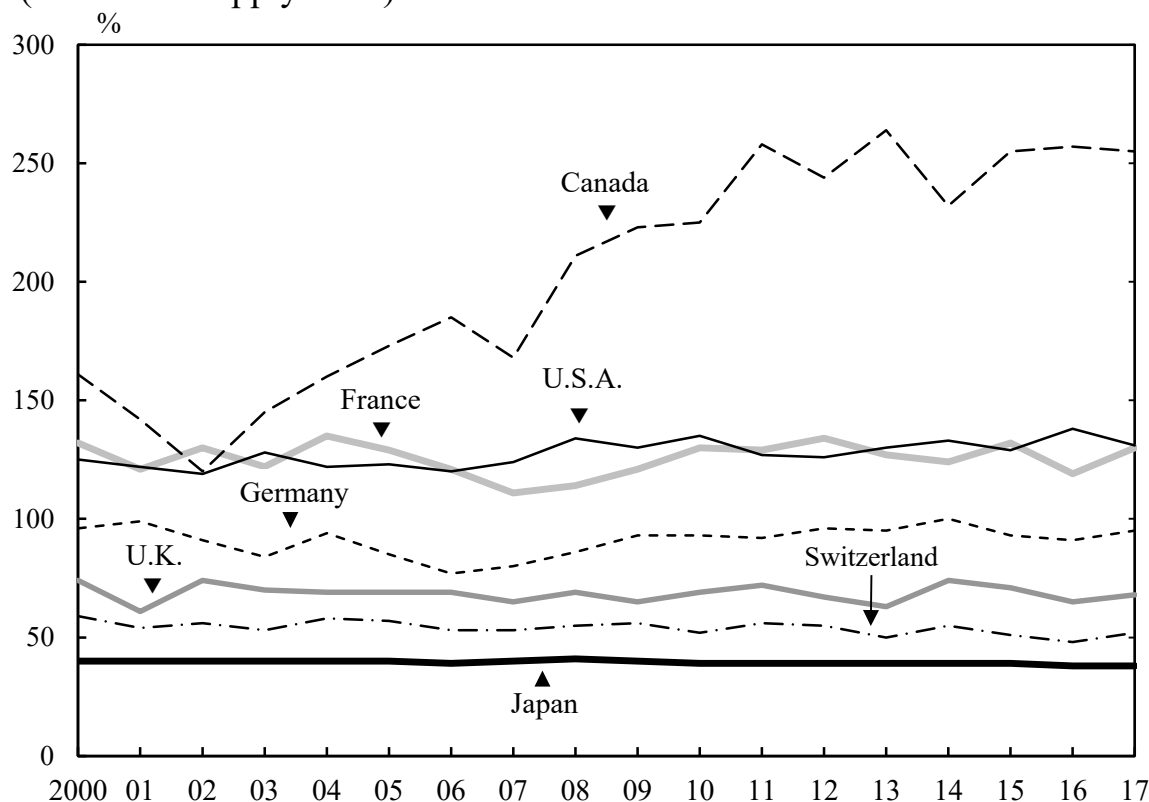
Table 5.7
Domestic Production, Supplies for Domestic Consumption,
Food Self-Sufficiency Ratio, and Imports

| Fiscal year | Domestic production (1,000 t) | Supplies for domestic consumption (1,000 t) | Food self-sufficiency Ratio (%) | Imports (1,000 t) |
|-------------------|----------------------------------|--|------------------------------------|----------------------|
| Rice | | | | |
| 2000 | 9,490 | 9,790 | 95 | 879 |
| 2005 | 8,998 | 9,222 | 95 | 978 |
| 2010 | 8,554 | 9,018 | 97 | 831 |
| 2015 | 8,429 | 8,600 | 98 | 834 |
| 2019* | 8,154 | 8,281 | 97 | 870 |
| Wheat | | | | |
| 2000 | 688 | 6,311 | 11 | 5,688 |
| 2005 | 875 | 6,213 | 14 | 5,292 |
| 2010 | 571 | 6,384 | 9 | 5,473 |
| 2015 | 1,004 | 6,583 | 15 | 5,660 |
| 2019* | 1,037 | 6,323 | 16 | 5,312 |
| Beans | | | | |
| 2000 | 366 | 5,425 | 7 | 5,165 |
| 2005 | 352 | 4,790 | 7 | 4,482 |
| 2010 | 317 | 4,035 | 8 | 3,748 |
| 2015 | 346 | 3,789 | 9 | 3,511 |
| 2019* | 303 | 4,043 | 7 | 3,645 |
| Vegetables | | | | |
| 2000 | 13,704 | 16,826 | 81 | 3,124 |
| 2005 | 12,492 | 15,849 | 79 | 3,367 |
| 2010 | 11,730 | 14,508 | 81 | 2,783 |
| 2015 | 11,856 | 14,776 | 80 | 2,941 |
| 2019* | 11,660 | 14,675 | 79 | 3,035 |
| Fruits | | | | |
| 2000 | 3,847 | 8,691 | 44 | 4,843 |
| 2005 | 3,703 | 9,036 | 41 | 5,437 |
| 2010 | 2,960 | 7,719 | 38 | 4,756 |
| 2015 | 2,969 | 7,263 | 41 | 4,351 |
| 2019* | 2,701 | 7,099 | 38 | 4,466 |
| Meat | | | | |
| 2000 | 2,982 | 5,683 | 52 | 2,755 |
| 2005 | 3,045 | 5,649 | 54 | 2,703 |
| 2010 | 3,215 | 5,769 | 56 | 2,588 |
| 2015 | 3,268 | 6,035 | 54 | 2,769 |
| 2019* | 3,400 | 6,553 | 52 | 3,251 |
| Seafood | | | | |
| 2000 | 5,736 | 10,812 | 53 | 5,883 |
| 2005 | 5,152 | 10,201 | 51 | 5,782 |
| 2010 | 4,782 | 8,701 | 55 | 4,841 |
| 2015 | 4,194 | 7,663 | 55 | 4,263 |
| 2019* | 3,750 | 7,237 | 52 | 4,210 |

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 net importer of agricultural products.

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



1) Estimates except for Japan.
 Source: Ministry of Agriculture, Forestry and Fisheries.

Chapter 6

Manufacturing and Construction

1. Overview of the Manufacturing Sector

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

In years past, Japan's manufacturing industry has faced a variety of unforeseeable circumstances and drastic changes in the business environment. These include the Nixon Shock and two oil crises in the 1970s, the strong yen recession following the Plaza Accord in the 1980s, the bursting of the bubble economy and the Asian currency crisis in the 1990s, and the bankruptcy of the major American securities firm Lehman Brothers, the European debt crisis, and the Great East Japan Earthquake in the 21st century. Each time that Japan's manufacturing industry has faced these kinds of unforeseeable circumstances and drastic changes in the business environment, it has been able to overcome them and evolve. However, to overcome the recent crisis caused by COVID-19 will require even more substantial reforms than before.

In 2019, there were 185,116 establishments (with 4 or more persons engaged) in the manufacturing sector. By industry, "fabricated metal products" had the most, with 25,213 establishments (component ratio of 13.6 percent), followed by "food" with 24,440 establishments (13.2 percent) and "production machinery" with 18,446 establishments (10.0 percent).

In 2019, there were 7.78 million persons engaged, and by industry, "food" had the most, with 1.15 million persons engaged (component ratio of 14.7 percent), followed by "transportation equipment" with 1.09 million persons engaged (14.1 percent) and "production machinery" with 0.62 million persons engaged (8.0 percent).

The value of manufactured goods shipments in 2018 was 331.81 trillion yen, and by industry, "transportation equipment" had the most at 70.09 trillion yen (component ratio of 21.1 percent), followed by "chemical and allied products" at 29.79 trillion yen (9.0 percent) and "food" at 29.78 trillion yen (9.0 percent).

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

| Industries | Number of establishments (2019) | Number of persons engaged (2019) | Value of manufactured goods shipments (2018) (billion yen) |
|---|------------------------------------|-------------------------------------|--|
| Manufacturing | 185,116 | 7,778,124 | 331,809 |
| Food | 24,440 | 1,145,915 | 29,782 |
| Beverages, tobacco and feed | 3,967 | 103,561 | 9,781 |
| Textile products | 11,087 | 247,591 | 3,782 |
| Lumber and wood products ²⁾ | 4,825 | 89,358 | 2,756 |
| Furniture and fixtures | 4,717 | 93,045 | 1,943 |
| Pulp, paper and paper products | 5,365 | 187,035 | 7,548 |
| Printing and allied industries | 9,888 | 253,665 | 4,828 |
| Chemical and allied products | 4,613 | 374,699 | 29,788 |
| Petroleum and coal products | 912 | 26,116 | 15,016 |
| Plastic products ³⁾ | 12,201 | 450,072 | 12,986 |
| Rubber products | 2,294 | 119,643 | 3,333 |
| Leather tanning, leather products and fur skins | 1,146 | 20,560 | 332 |
| Ceramic, stone and clay products | 9,197 | 239,975 | 7,816 |
| Iron and steel | 4,048 | 223,717 | 18,652 |
| Non-ferrous metals and products | 2,476 | 139,831 | 10,229 |
| Fabricated metal products | 25,213 | 612,442 | 15,822 |
| General-purpose machinery | 6,644 | 330,182 | 12,345 |
| Production machinery | 18,446 | 622,124 | 22,048 |
| Business oriented machinery | 3,775 | 208,683 | 6,887 |
| Electronic parts, devices and electronic circuits | 3,861 | 414,153 | 16,143 |
| Electrical machinery, equipment and supplies ... | 8,356 | 503,300 | 18,790 |
| Information and communication electronics equipment | 1,205 | 125,998 | 6,910 |
| Transportation equipment | 9,728 | 1,093,367 | 70,091 |
| Miscellaneous manufacturing industries | 6,712 | 153,092 | 4,202 |

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: Ministry of Economy, Trade and Industry.

With regard to the "Indices on Mining and Manufacturing" (2015 average=100), the production index for 2020 was 90.6, down 10.4 percent from the previous year, while shipments stood at 89.6, a decrease of 10.6 percent from the year before.

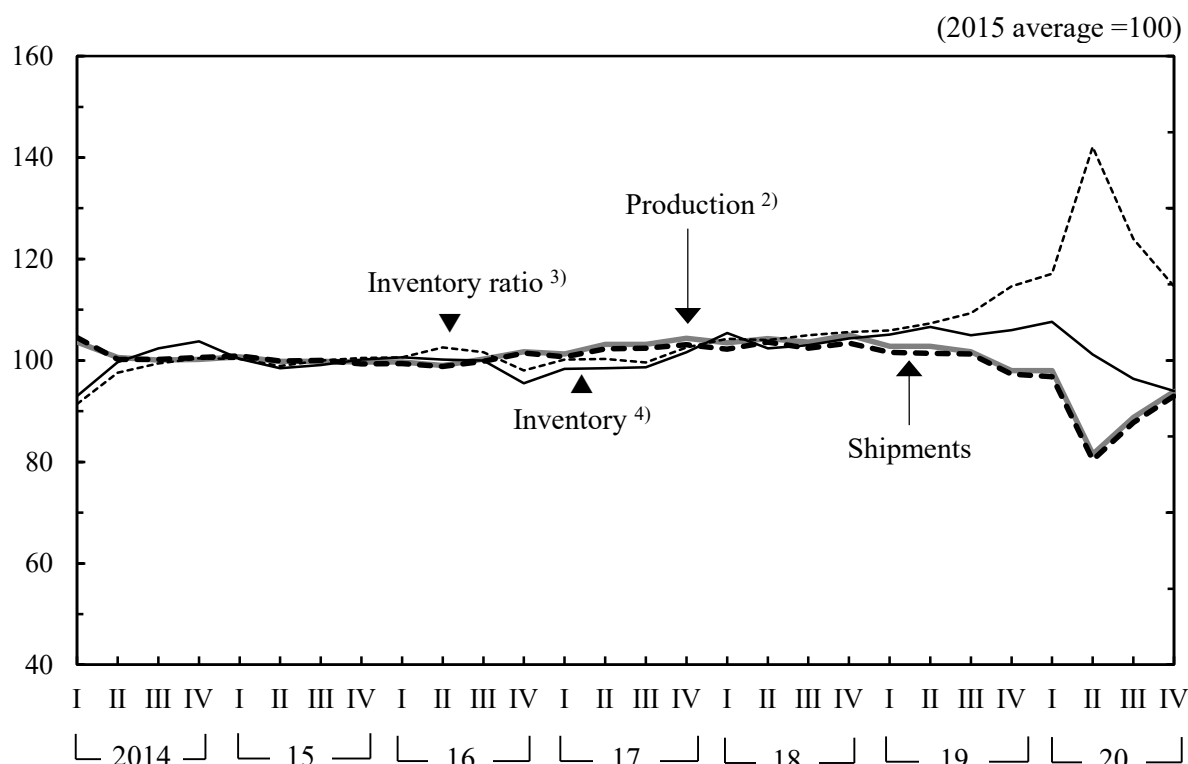
Table 6.2
Indices on Mining and Manufacturing (2020)

| Industries | (2015 average =100) | | | | | | | |
|---|--------------------------|-------------------|-------------------|-------------------|-------------------------|-------------------|-------------------------------|------|
| | Production ¹⁾ | | Shipments | | Inventory ²⁾ | | Inventory Ratio ³⁾ | |
| | Annual growth (%) | Annual growth (%) | Annual growth (%) | Annual growth (%) | Annual growth (%) | Annual growth (%) | Annual growth (%) | |
| Mining and manufacturing | 90.6 | -10.4 | 89.6 | -10.4 | 93.2 | -8.4 | 124.8 | 13.9 |
| Manufacturing | 90.7 | -10.3 | 89.6 | -10.6 | 93.2 | -8.4 | 124.8 | 13.9 |
| Iron, steel and non-ferrous metals | 83.3 | -14.6 | 85.1 | -12.9 | 89.5 | -14.9 | 123.4 | 12.0 |
| Iron and steel | 80.1 | -16.9 | 80.9 | -16.1 | 88.5 | -16.3 | 127.3 | 13.1 |
| Fabricated metals | 86.5 | -11.5 | 87.8 | -10.6 | 89.4 | -9.7 | 116.1 | 11.0 |
| Production machinery | 95.3 | -10.3 | 96.5 | -9.6 | 77.1 | -12.3 | 118.7 | 24.0 |
| General-purpose and business oriented machinery | 90.0 | -12.1 | 88.2 | -12.5 | 115.3 | 3.4 | 162.3 | 36.4 |
| General-purpose machinery | 89.8 | -12.1 | 90.2 | -12.2 | 106.3 | -3.8 | 126.0 | 16.5 |
| Electronic parts and devices | 96.4 | 1.5 | 91.2 | -0.8 | 57.6 | -13.1 | 89.5 | -0.8 |
| Electrical machinery, and information and communication electronics equipment | 88.7 | -9.7 | 89.6 | -8.8 | 90.1 | -6.9 | 130.5 | 7.1 |
| Electrical machinery | 93.1 | -7.8 | 92.8 | -7.1 | 97.6 | -3.7 | 132.4 | 8.3 |
| Information and communication electronics equipment | 77.8 | -14.9 | 81.4 | -13.4 | 62.5 | -21.5 | 124.8 | 3.6 |
| Transport equipment | 86.5 | -17.5 | 87.2 | -18.4 | 84.8 | 7.6 | 101.8 | 19.6 |
| Ceramics, stone and clay products | 89.6 | -8.5 | 90.2 | -8.0 | 93.4 | -6.7 | 121.2 | 12.1 |
| Chemicals | 96.3 | -9.6 | 95.5 | -7.9 | 109.1 | -11.0 | 133.8 | 16.0 |
| Petroleum and coal products | 78.5 | -15.6 | 80.5 | -12.4 | 88.1 | -1.0 | 117.7 | 17.5 |
| Plastic products | 97.6 | -6.3 | 98.2 | -6.3 | 104.6 | -3.5 | 111.3 | 2.7 |
| Pulp, paper and paper products | 88.7 | -9.7 | 86.6 | -9.1 | 92.0 | -10.6 | 128.3 | 16.4 |
| Foods and tobacco | 97.6 | -3.0 | 95.6 | -2.9 | 93.4 | -13.7 | 145.3 | 6.4 |
| Other manufacturing | 81.5 | -13.2 | 82.2 | -12.3 | 98.7 | -4.2 | 123.5 | 15.2 |
| Mining | 87.2 | -5.9 | 92.9 | -6.4 | 115.6 | 17.1 | 137.5 | 30.0 |
| (Reference) | | | | | | | | |
| Electricity, gas, heat supply and water | 96.9 | -2.5 | 97.2 | -2.5 | - | - | - | - |

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 "Census of Manufacture 2019 (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 2019, a total of 9,728 establishments employed 1,093,367 persons, and shipped 70.1 trillion yen worth of products in 2018.

(b) In 2020, production and shipments decreased by 17.5 percent and 18.4 percent, respectively, from the previous year, representing their second

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 2019, a total of 18,446 establishments employed 622,124 persons, and shipped 22.0 trillion yen worth of products in 2018.

(b) In 2020, production and shipments decreased by 10.3 percent and 9.6 percent, respectively, from the previous year, representing their second consecutive year of decrease. These decreases (in both production and shipments) were due to a decrease in "metal forming machinery", "construction and mining machinery", etc.

(C) Electrical Machinery Industry

(a) In 2019, a total of 8,356 establishments employed 503,300 persons, and shipped 18.8 trillion yen worth of products in 2018.

(b) In 2020, production and shipments decreased by 7.8 percent and 7.1 percent, respectively, from the previous year, representing their second consecutive year of decrease. These decreases (in both production and shipments) were due to a decrease in "switching devices", "electrical rotating machinery", etc.

(D) Electronic Parts and Devices Industry

(a) In 2019, a total of 3,861 establishments employed 414,153 persons, and shipped 16.1 trillion yen worth of products in 2018.

(b) In 2020, production increased by 1.5 percent and shipments decreased by 0.8 percent from the previous year. This marked the first increase in production in 2 years, and the second consecutive year of decrease in shipments. The increase in production was due to an increase in "integrated circuits", "electronic parts", etc. The decrease in shipments was due to a decrease in "electronic devices", etc.

(E) General-Purpose Machinery Industry

(a) In 2019, a total of 6,644 establishments employed 330,182 persons, and shipped 12.3 trillion yen worth of products in 2018.

(b) In 2020, production and shipments decreased by 12.1 percent and 12.2 percent, respectively, from the previous year, representing their second consecutive year of decrease. These decreases (in both production and shipments) were due to a decrease in "parts of general-purpose machinery", "pumps and compressors", etc.

(F) Information and Communication Electronics Equipment

(a) In 2019, a total of 1,205 establishments employed 125,998 persons, and shipped 6.9 trillion yen worth of products in 2018.

(b) In 2020, production and shipments decreased by 14.9 percent and 13.4 percent, respectively, from the previous year. This marked the second consecutive year of decrease in production, and the third consecutive year of decrease in shipments. The decrease in production was due to a decrease in "consumer electronics", "information terminal device", etc. The decrease in shipments was due to a decrease in "consumer electronics", "radio communication equipment", etc.

(2) Chemical Industry

(a) In 2019, a total of 4,613 establishments employed 374,699 persons, and shipped 29.8 trillion yen worth of products in 2018.

(b) In 2020, production and shipments decreased by 9.6 percent and 7.9 percent, respectively, from the previous year. This marked the second consecutive year of decrease in production, and the third consecutive year of decrease in shipments. The decrease in production was due to a decrease in "cosmetics" and "plastic", etc. The decrease in shipments was due to a decrease in "plastic", "petrochemical base products", etc.

(3) Iron and Steel Industry

(a) In 2019, a total of 4,048 establishments employed 223,717 persons, and shipped 18.7 trillion yen worth of products in 2018.

(b) In 2020, production and shipments decreased by 16.9 percent and 16.1 percent, respectively, from the previous year, representing their second consecutive year of decrease. 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 2019, a total of 25,213 establishments employed 612,442 persons, and shipped 15.8 trillion yen worth of products in 2018.

(b) In 2020, production and shipments decreased by 11.5 percent and 10.6 percent, respectively, from the previous year, representing their second consecutive year of decrease. 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 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 2019 amounted to 65.4 trillion yen at nominal prices, up 3.1 percent compared to the previous fiscal year; they totaled 57.3 trillion yen at constant fiscal 2011 prices, up 0.9 percent from the previous fiscal year.

A breakdown of construction investment (nominal prices) shows that building construction totaled 40.8 trillion yen (up 0.2 percent from the previous fiscal year), while civil engineering works amounted to 24.6 trillion yen (up 8.3 percent).

In terms of public and private construction investment (nominal prices) in fiscal 2019, public investment amounted to 24.9 trillion yen (up 7.8 percent from the previous fiscal year), while private investment totaled 40.5 trillion yen (up 0.5 percent). Public investment accounted for 38.0 percent of total construction investment, while private investment accounted for 62.0 percent.

Table 6.3
Construction Investment (Nominal prices)

| (Billion yen) | | | | |
|--------------------------------|--------|--------|---------|---------|
| Item | FY2016 | FY2017 | FY2018* | FY2019* |
| Total | 58,740 | 61,325 | 63,380 | 65,370 |
| Building construction | 38,306 | 40,859 | 40,690 | 40,790 |
| Dwellings | 17,221 | 17,563 | 17,360 | 16,990 |
| Public sector | 758 | 621 | 640 | 650 |
| Private sector | 16,463 | 16,942 | 16,720 | 16,340 |
| Non-dwellings | 13,722 | 15,686 | 15,510 | 15,750 |
| Public sector | 3,480 | 4,233 | 3,880 | 4,060 |
| Private sector | 10,243 | 11,453 | 11,630 | 11,690 |
| Extension and renovation | 7,363 | 7,610 | 7,820 | 8,050 |
| Public sector | 1,343 | 1,320 | 1,300 | 1,390 |
| Private sector | 6,020 | 6,291 | 6,520 | 6,660 |
| Civil engineering works | 20,434 | 20,466 | 22,690 | 24,580 |
| Public sector | 15,405 | 15,606 | 17,240 | 18,760 |
| Private sector | 5,029 | 4,860 | 5,450 | 5,820 |
| <hr/> | | | | |
| Total | | | | |
| Public investment | 20,986 | 21,780 | 23,060 | 24,860 |
| Private investment | 37,754 | 39,545 | 40,320 | 40,510 |
| Building construction | | | | |
| Public investment | 5,581 | 6,174 | 5,820 | 6,100 |
| Private investment | 32,725 | 34,686 | 34,870 | 34,690 |
| Civil engineering works | | | | |
| Public investment | 15,405 | 15,606 | 17,240 | 18,760 |
| Private investment | 5,029 | 4,860 | 5,450 | 5,820 |

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

In 2020, the number of new construction starts for dwelling (in the case of apartment buildings, the number of apartment units) declined 9.9 percent from the previous year to 0.82 million units, the fourth consecutive year of decline, as occupier-owned housing units, housing units for rent, and housing units built for sale all declined.

The floor space (public and private) of the entire building whose construction started in 2020 was 113.74 million square meters, down 10.8 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) | |
|--------------------------|--|---------|------------------------------------|--------|
| | 2019 | 2020 | 2019 | 2020 |
| Total | 127,555 | 113,744 | 27,281 | 24,307 |
| Investor | | | | |
| Public | 5,938 | 5,381 | 1,977 | 1,771 |
| Private | 121,617 | 108,363 | 25,304 | 22,535 |
| Dwellings and Industries | | | | |
| Dwelling | 78,868 | 69,508 | 15,930 | 14,047 |
| Non-dwelling | 48,687 | 44,236 | 11,351 | 10,259 |
| Structure | | | | |
| Wooden | 55,718 | 49,756 | 9,479 | 8,560 |
| Non-wooden | 71,837 | 63,987 | 17,802 | 15,746 |

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

Chapter 7

Energy

1. Supply and Demand

Japan is dependent on imports for 87.9 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 2019, the domestic supply of primary energy in Japan was 19,124 petajoules, down 3.0 percent from the previous fiscal year. Its breakdown was: 37.1 percent in petroleum, 25.3 percent in coal, 22.4 percent in natural gas and city gas, 3.5 percent in hydro power, and 2.8 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:

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

$$1 \text{ gigajoule} = 10^9 \text{ joules}$$

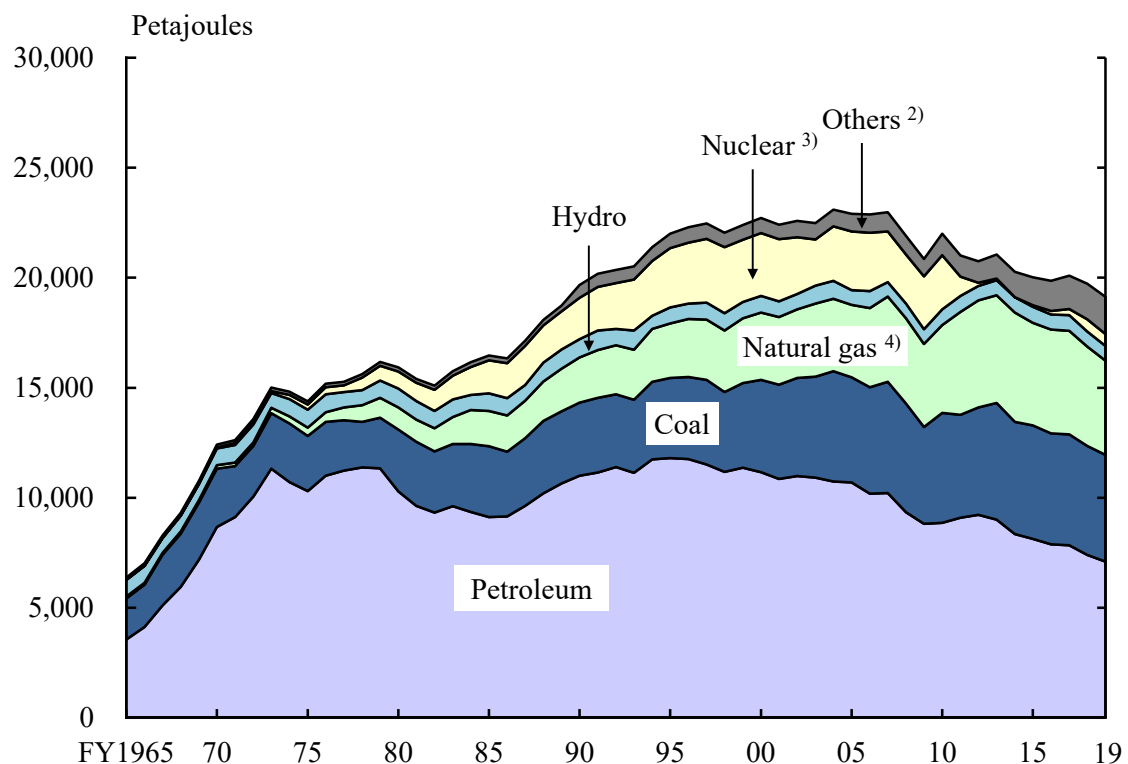
$$1 \text{ petajoule} = 10^{15} \text{ joules}$$

$$1 \text{ exajoule} = 10^{18} \text{ joules}$$

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: Ministry of Economy, Trade and Industry.

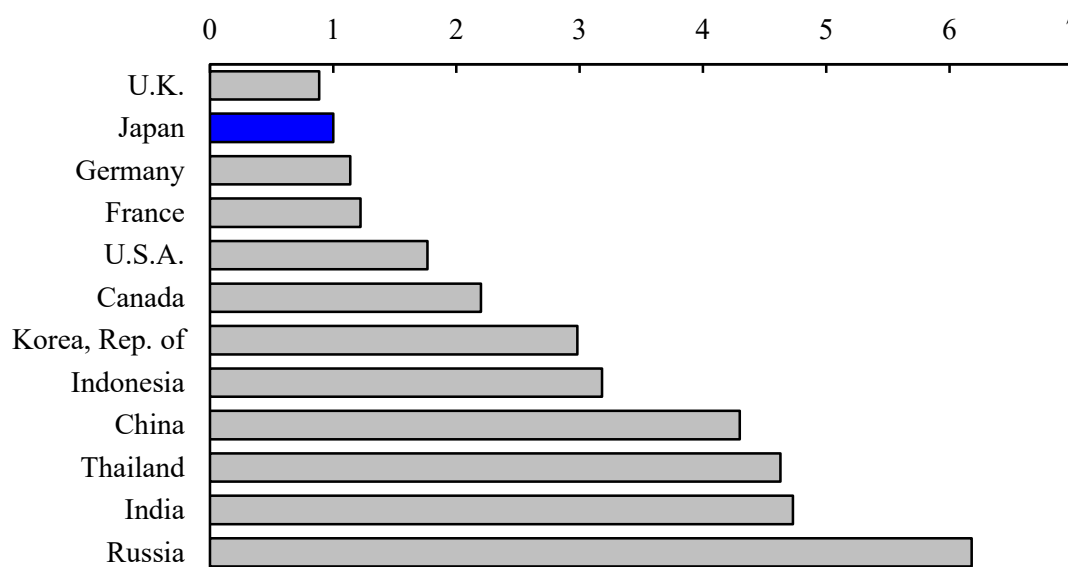
Table 7.1
Trends in Domestic Supply of Primary Energy and Percentage
by Energy Source

| | (Petajoules) | | | | |
|---|--------------|--------|--------|--------|--------|
| Item | FY2005 | FY2010 | FY2015 | FY2018 | FY2019 |
| Domestic supply of primary energy .. | 22,905 | 21,995 | 20,019 | 19,724 | 19,124 |
| Energy self-sufficiency (%) ¹⁾ | 19.6 | 20.2 | 7.3 | 11.7 | 12.1 |
| Petroleum | 10,691 | 8,858 | 8,138 | 7,409 | 7,100 |
| Coal | 4,782 | 4,997 | 5,154 | 4,948 | 4,848 |
| Natural gas and city gas | 3,291 | 3,995 | 4,657 | 4,510 | 4,281 |
| Hydro | 671 | 716 | 726 | 690 | 673 |
| Nuclear | 2,660 | 2,462 | 79 | 553 | 537 |
| Others ²⁾ | 809 | 967 | 1,266 | 1,614 | 1,685 |
| Percentage | | | | | |
| Petroleum | 46.7 | 40.3 | 40.6 | 37.6 | 37.1 |
| Coal | 20.9 | 22.7 | 25.7 | 25.1 | 25.3 |
| Natural gas and city gas | 14.4 | 18.2 | 23.3 | 22.9 | 22.4 |
| Hydro | 2.9 | 3.3 | 3.6 | 3.5 | 3.5 |
| Nuclear | 11.6 | 11.2 | 0.4 | 2.8 | 2.8 |
| Others ²⁾ | 3.5 | 4.4 | 6.3 | 8.2 | 8.8 |

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

Source: Ministry of Economy, Trade and Industry.

Figure 7.2
International Comparison of Energy Consumption/GDP ¹⁾ (2017)
 (Japan = 1)

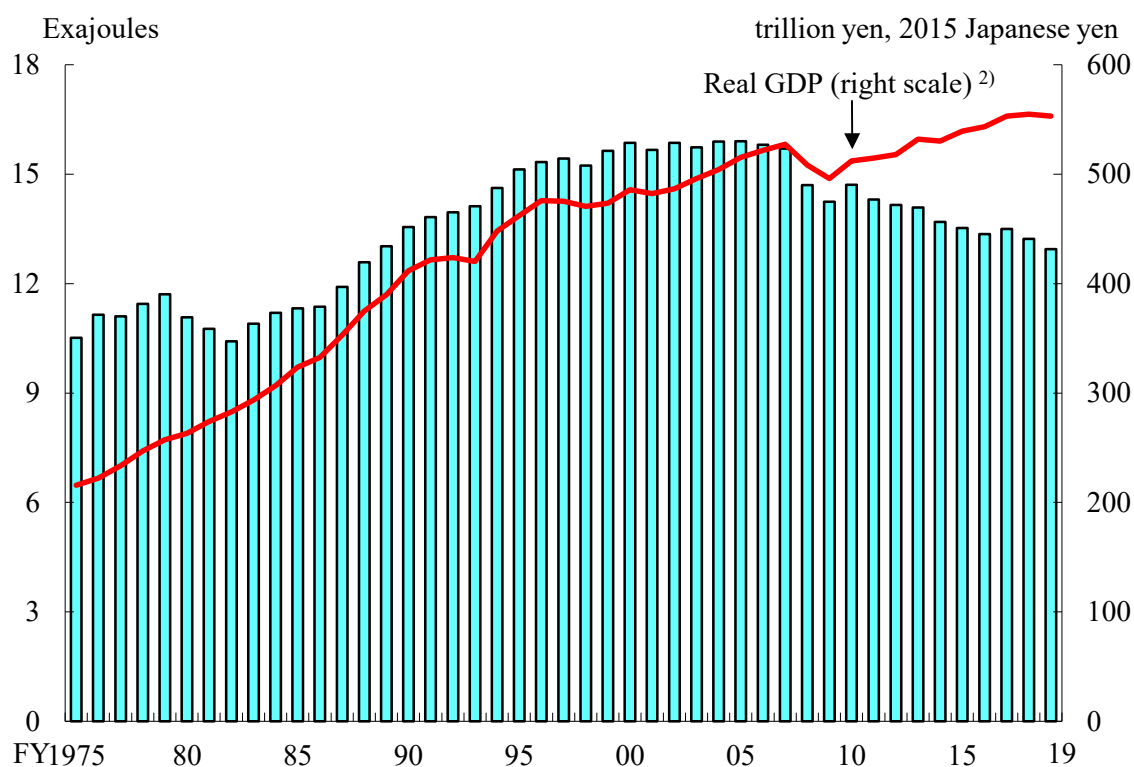


1) Primary energy consumption (tons of oil equivalent) / Real GDP (2010 U.S. dollars).
 Source: Ministry of Economy, Trade and Industry.

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 2019, real GDP was lower than in fiscal 2018, which added to a decrease in final energy consumption.

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

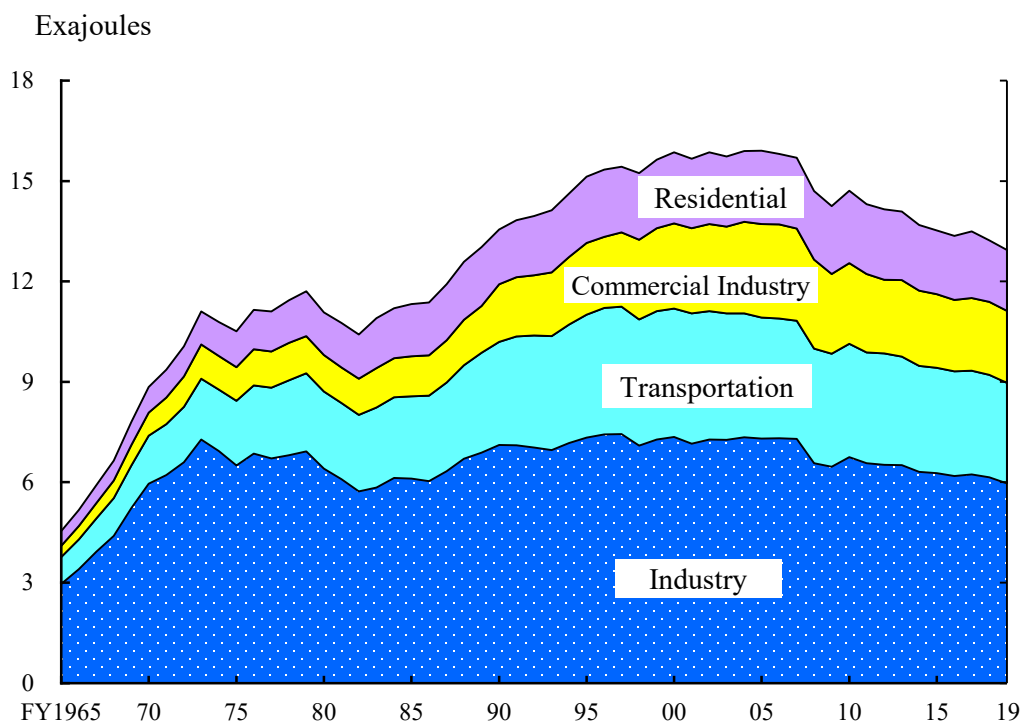


1) A different statistical method was used for the figures since FY1990. 2) The figures for fiscal 1975 to 1993 are based on 2011 standards.

Source: Cabinet Office; Ministry of Economy, Trade and Industry.

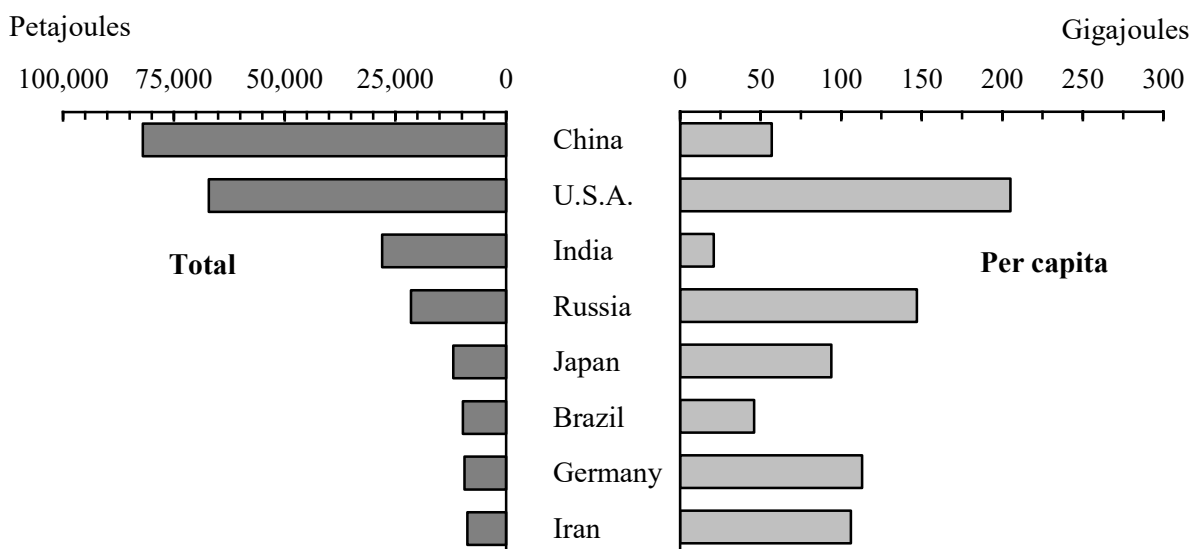
Final energy consumption in fiscal 2019 decreased 2.1 percent from the previous fiscal year, and even by sector, it has decreased in the industry sector, commercial industry sector, residential sector, and transportation sector.

Figure 7.4
Trends in Final Energy Consumption by Sector ¹⁾



1) A different statistical method was used for the figures since FY1990.
 Source: Ministry of Economy, Trade and Industry.

Figure 7.5
Final Energy Consumption by Country (2018)



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 971 billion kWh in fiscal 2019, down 3.0 percent from the previous fiscal year. Of this total, thermal power accounted for 81.7 percent; hydro power, 8.9 percent; nuclear power, 6.3 percent.

Table 7.2
Trends in Electricity Output and Power Consumption ¹⁾

| | (Million kWh) | | | | |
|--|---------------|-----------|-----------|-----------|---------|
| Item | FY2005 | FY2010 | FY2015 | FY2018 | FY2019 |
| Electricity Output | | | | | |
| Total | 1,157,926 | 1,156,888 | 1,024,179 | 1,000,409 | 970,771 |
| Thermal | 761,841 | 771,306 | 908,779 | 823,589 | 792,810 |
| Hydro | 86,350 | 90,681 | 91,383 | 87,398 | 86,314 |
| Nuclear | 304,755 | 288,230 | 9,437 | 62,109 | 61,035 |
| Others ²⁾ | 4,980 | 6,671 | 14,580 | 27,313 | 30,612 |
| Percentage | | | | | |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Thermal | 65.8 | 66.7 | 88.7 | 82.3 | 81.7 |
| Hydro | 7.5 | 7.8 | 8.9 | 8.7 | 8.9 |
| Nuclear | 26.3 | 24.9 | 0.9 | 6.2 | 6.3 |
| Others ²⁾ | 0.4 | 0.6 | 1.4 | 2.7 | 3.2 |
| Electricity Power Consumption ³⁾ | | | | | |
| Total | 1,043,800 | 1,056,441 | 955,345 | 973,376 | 952,745 |
| Generated by electric power suppliers .. | 918,265 | 931,059 | 841,542 | 896,199 | 877,133 |
| Consumption of in-house generation | 125,535 | 125,382 | 113,803 | 77,177 | 75,612 |

1) Including in-house generation. 2) Photovoltaic, wind power, geothermal energy, etc.

3) Changes were made to the categorization of Electricity Suppliers since FY2018.

Source: Ministry of Economy, Trade and Industry.

3. Gas

Gas production was 1,625 petajoules in fiscal 2019, down 3.7 percent from the previous fiscal year. Of this total, natural gas plus vaporized liquefied natural gas accounted for 96.5 percent; and the remaining 3.5 percent was made up of petroleum gases, such as vaporized liquefied petroleum gas and other petroleum-based gas. Gas purchases for fiscal 2019 totaled 622 petajoules.

Gas sales for fiscal 2019 totaled 1,691 petajoules, or a year-on-year drop of 2.8 percent. Of this total, 58.9 percent was sold to industry, 23.2 percent to residential use, and 10.3 percent to the commercial sector.

Table 7.3

Trends in Production and Purchases, and Sales of Gas^{1) 2)}

| Item | (Petajoules) | | | | | | | |
|---|--------------|---------|--------|---------|--------|---------|--------|---------|
| | FY2010 | | FY2015 | | FY2018 | | FY2019 | |
| Production and purchases ³⁾ | 1,547 | | 1,610 | | 2,267 | | 2,247 | |
| Production | 1,288 | (100.0) | 1,372 | (100.0) | 1,688 | (100.0) | 1,625 | (100.0) |
| Petroleum gases ⁴⁾ | 46 | (3.6) | 48 | (3.5) | 59 | (3.5) | 58 | (3.5) |
| Natural gas and vaporized liquefied natural gas ⁵⁾ .. | 1,241 | (96.4) | 1,324 | (96.5) | 1,629 | (96.5) | 1,568 | (96.5) |
| Others | ... | (...) | ... | (...) | ... | (...) | ... | (...) |
| Purchases | 259 | (100.0) | 238 | (100.0) | 578 | (100.0) | 622 | (100.0) |
| Petroleum gases ⁶⁾ | 6 | (2.4) | 3 | (1.1) | ... | (...) | ... | (...) |
| Natural gas and vaporized liquefied natural gas | 253 | (97.6) | 236 | (98.9) | 575 | (99.4) | 617 | (99.1) |
| Others | 0 | (0.0) | 0 | (0.0) | 0 | (0.0) | 0 | (0.0) |
| Sales | 1,477 | (100.0) | 1,526 | (100.0) | 1,740 | (100.0) | 1,691 | (100.0) |
| Residential | 410 | (27.7) | 387 | (25.3) | 387 | (22.2) | 392 | (23.2) |
| Commercial | 198 | (13.4) | 177 | (11.6) | 178 | (10.2) | 174 | (10.3) |
| Industrial | 738 | (50.0) | 842 | (55.2) | 1,048 | (60.2) | 997 | (58.9) |
| Others | 131 | (8.9) | 120 | (7.9) | 127 | (7.3) | 128 | (7.6) |

1) Figures in parentheses indicate a percentage. 2) A different statistical method was used for the figures since FY2018. 3) Since there are some concealed sources, the breakdown totals may not match the overall totals.

4) Figures up until FY2015 are a total of volatile oil gas, liquefied petroleum gas, and other petroleum-based gas. Starting FY2018, figures are a total of vaporized liquefied petroleum gas and other petroleum-based gas.

5) Figures up until FY2015 are a total of natural gas and liquefied natural gas. 6) Vaporized liquefied petroleum gas, other petroleum-based gas.

Source: Ministry of Economy, Trade and Industry.

Chapter 8

Science and Technology/

Information and Communication

1. Science and Technology

(1) Researchers and R&D Expenditures

Japan's 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 2020 totaled 881,000. The total R&D expenditures in fiscal 2019 amounted to 19.6 trillion yen, an increase of 0.3 percent from the previous fiscal year. Relative to GDP, R&D expenditures was 3.50 percent, which decreased for the first time in 3 years.

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 (%) |
|-------------|---------------------------------------|-------------------|--------------------------------|-------------------|--------------------------------------|
| 2010 | 842,900 | 13.8 | 17,110 | 504,872 | 3.39 |
| 2011 | 844,400 | 14.0 | 17,379 | 500,041 | 3.48 |
| 2012 | 835,700 | 14.4 | 17,325 | 499,424 | 3.47 |
| 2013 | 841,600 | 14.6 | 18,134 | 512,686 | 3.54 |
| 2014 | 866,900 | 14.7 | 18,971 | 523,418 | 3.62 |
| 2015 | 847,100 | 15.3 | 18,939 | 540,739 | 3.50 |
| 2016 | 853,700 | 15.7 | 18,433 | 544,827 | 3.38 |
| 2017 | 867,000 | 16.2 | 19,050 | 555,687 | 3.43 |
| 2018 | 874,800 | 16.6 | 19,526 | 556,828 | 3.51 |
| 2019 | 881,000 | 16.9 | 19,576 | 559,699 | 3.50 |

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 2020, the number of researchers amounted to 507,500 persons in business enterprises, 38,800 persons in non-profit institutions and public organizations, and 334,600 persons in universities and colleges. In terms of R&D expenditures in fiscal 2019, business enterprises spent 14.2 trillion yen (72.6 percent of total R&D expenditures), non-profit institutions and public organizations spent 1.6 trillion yen (8.4 percent), and universities and colleges spent 3.7 trillion yen (19.0 percent).

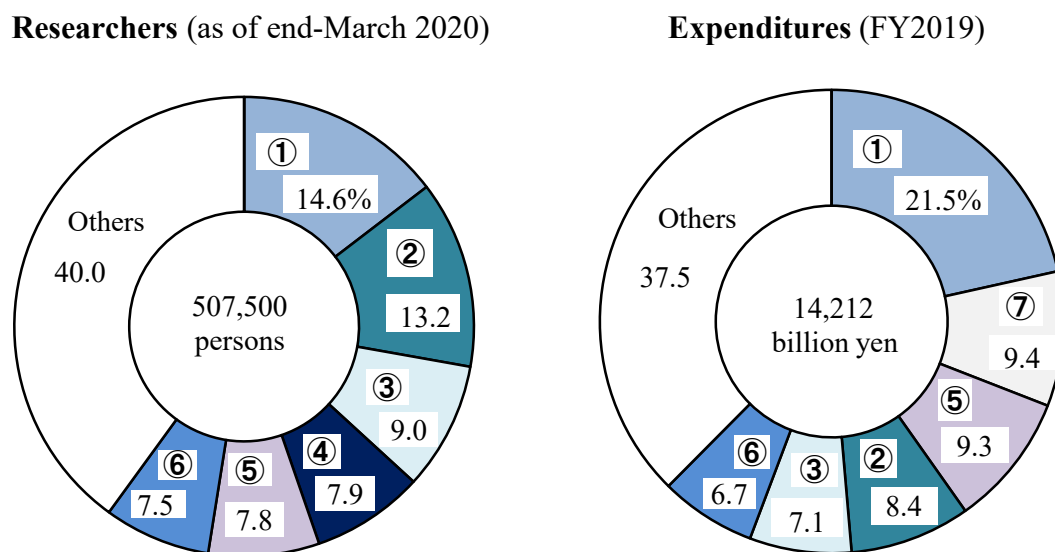
Universities and colleges spent more than 90 percent of their R&D expenditure on natural sciences and engineering for basic research and applied research, while business enterprises allocated over 70 percent for development purposes.

With regard to the portion in the R&D expenditures in fiscal 2019 by specific objective, 3.0 trillion yen went to the life sciences field (15.5 percent of total R&D expenditures), 2.4 trillion yen (12.1 percent) to the information technology field, 1.3 trillion yen (6.6 percent) to the environmental science and technology field and 1.2 trillion yen (6.0 percent) to the energy field, etc.

Approximately 87 percent of the 507,500 researchers at business enterprises at the end of March 2020, or 442,300 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 business oriented machinery industry.

In terms of R&D expenditures in fiscal 2019, of 14.2 trillion yen spent by business enterprises, 12.4 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 electrical machinery, equipment and supplies industry.

Figure 8.1
Researchers and Expenditures by Industry (Business enterprises)



① Motor vehicles, parts and accessories ② Information and communication electronics equipment
 ③ Business oriented machinery ④ Electronic parts, devices and electronic circuits
 ⑤ Electrical machinery, equipment and supplies ⑥ Chemical products 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 2019, Japan earned 3,662.6 billion yen from technology exports, which was down 5.4 percent from the previous fiscal year. This was the second consecutive decrease. Of the total receipts, 74.1 percent was from overseas parent/subsidiary companies. Meanwhile, payments to technology imports stood at 543.6 billion yen, a decrease of 0.8 percent compared with the previous fiscal year. It decreased for 2 consecutive years. Of this figure, 32.9 percent was for payments to overseas parent/subsidiary companies.

Table 8.2
Technology Trade by Business Enterprises¹⁾

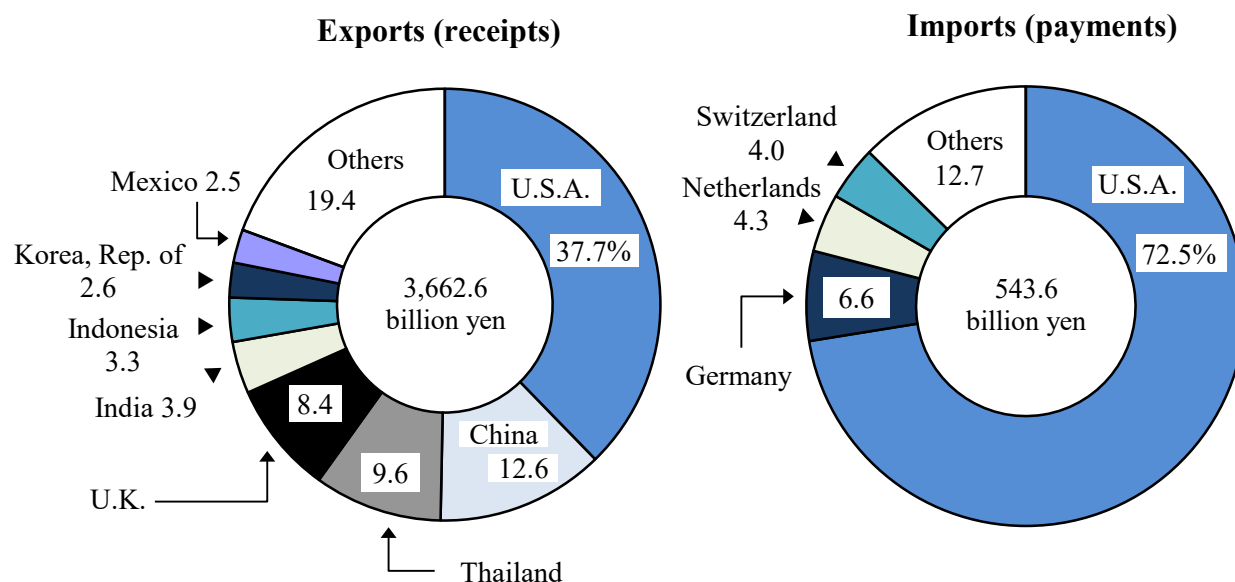
| Fiscal year | Exports | | Imports | | Exports value / Imports value |
|-------------|---------------------|--------------------------|---------------------|--------------------------|-------------------------------|
| | Value (billion yen) | Annual increase rate (%) | Value (billion yen) | Annual increase rate (%) | |
| 1990 | 339.4 | 3.0 | 371.9 | 12.7 | 0.91 |
| 1995 | 562.1 | 21.6 | 391.7 | 5.7 | 1.43 |
| 2000 | 1,057.9 | 10.1 | 443.3 | 8.0 | 2.39 |
| 2005 | 2,028.3 | 14.6 | 703.7 | 24.0 | 2.88 |
| 2010 | 2,436.6 | 20.9 | 530.1 | -0.9 | 4.60 |
| 2015 | 3,949.8 | 7.9 | 602.6 | 17.5 | 6.55 |
| 2018 | 3,871.1 | -0.3 | 591.0 | -6.2 | 6.55 |
| 2019 | 3,662.6 | -5.4 | 543.6 | -8.0 | 6.74 |

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

Source: Statistics Bureau, MIC.

In fiscal 2019, Japan exported 3,662.6 billion yen of technologies; major export destinations were: the U.S.A. (1,381.2 billion yen, or 37.7 percent of total exports), followed by China (461.5 billion yen), Thailand (351.5 billion yen), and the U.K. (308.5 billion yen). On the other hand, Japan imported 543.6 billion yen of technologies, mainly from the U.S.A. (394.0 billion yen, or 72.5 percent of total imports), followed by Germany (35.7 billion yen), the Netherlands (23.3 billion yen) and Switzerland (21.8 billion yen).

Figure 8.2
Composition of Technology Trade by Major Country (FY2019)



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. Applications fell significantly in 2009, and had remained at a flat level since 2015. However, the number of applications in 2019 was 307,969, down 1.79 percent from the previous year.

Table 8.3
Patents

| Item | (Cases) | | | | |
|------------------------------|-----------|-----------|-----------|-----------|-----------|
| | 2000 | 2005 | 2010 | 2015 | 2019 |
| Applications | 436,865 | 427,078 | 344,598 | 318,721 | 307,969 |
| Registrations | 125,880 | 122,944 | 222,693 | 189,358 | 179,910 |
| Existing vested rights | 1,040,607 | 1,123,055 | 1,423,432 | 1,946,568 | 2,053,879 |

Source: Japan Patent Office.

Table 8.4
PCT International Applications by Country

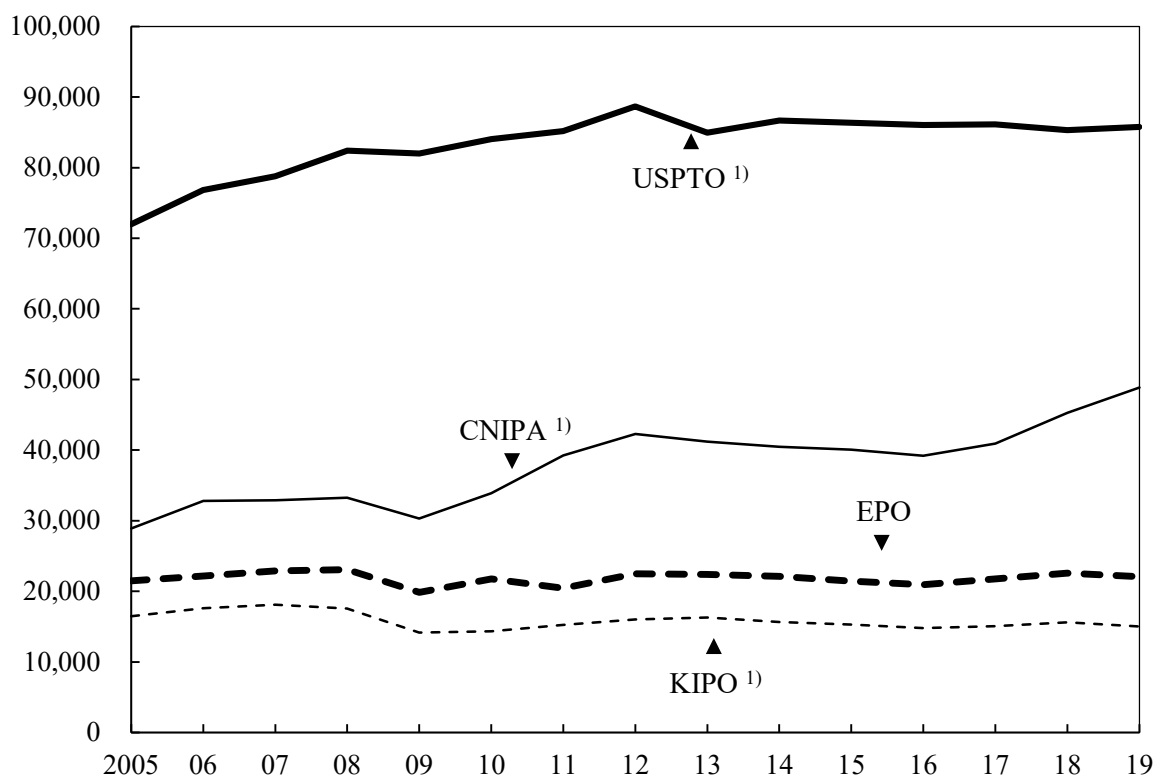
| Country | 2017 | 2018 | 2019* | Change from 2018 (%) |
|----------------------|---------|---------|---------|-------------------------|
| Total | 243,528 | 252,775 | 265,800 | 5.2 |
| China | 48,906 | 53,349 | 58,990 | 10.6 |
| U.S.A. | 56,687 | 56,252 | 57,840 | 2.8 |
| Japan | 48,204 | 49,706 | 52,660 | 5.9 |
| Germany | 18,951 | 19,742 | 19,353 | -2.0 |
| Korea, Rep. of | 15,751 | 16,917 | 19,085 | 12.8 |
| France | 8,014 | 7,918 | 7,934 | 0.2 |
| U.K. | 5,569 | 5,634 | 5,786 | 2.7 |
| Switzerland | 4,485 | 4,576 | 4,610 | 0.7 |
| Sweden | 3,975 | 4,168 | 4,185 | 0.4 |
| Netherlands | 4,430 | 4,134 | 4,011 | -3.0 |

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 2021. In 2019, the number of international patent applications filed under the Patent Cooperation Treaty (PCT) was 265,800, of which 52,660 were from Japan, accounting for 19.8 percent.

The United States Patent and Trademark Office ranked first among major patent offices for applications filed by Japanese applicants in 2019, with 85,748 applications. The number of patent applications filed by Japanese applicants at the China National Intellectual Property Administration was 48,867.

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



1) The USPTO, CNIPA and KIPO data for 2019 are provisional.

USPTO: United States Patent and Trademark Office; CNIPA: China National Intellectual Property Administration; EPO: European Patent Office; KIPO: Korean Intellectual Property Office.

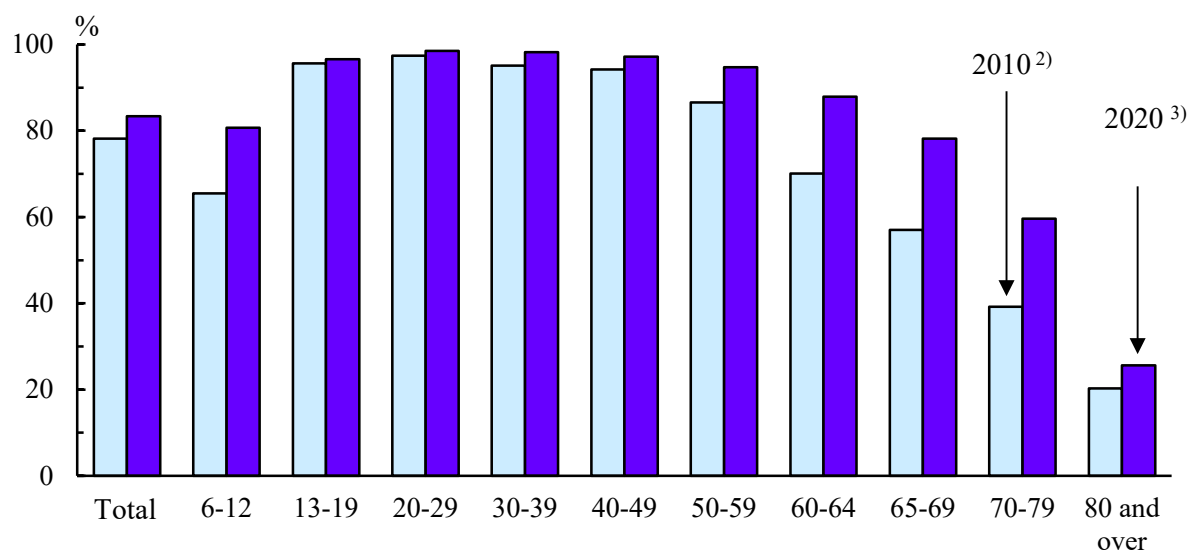
Source: Japan Patent Office.

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 2020, the ratio of individuals who had used the Internet in the past year (individuals who are 6 years of age and older) was 83.4 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 2010. 3) End of August 2020.

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 2020, the usage rate of smartphones was the highest (68.3 percent), followed by computers (50.4 percent). Figures for the rate of Internet use by device by age group show that more than 70 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 (2020)

| Item | Usage rate | (%) | | | | | | | | |
|-----------------------------------|------------|------------|-------|-------|-------|-------|-------|-------|-------|-------------|
| | | 6-12 years | 13-19 | 20-29 | 30-39 | 40-49 | 50-59 | 60-69 | 70-79 | 80 and over |
| Smartphones | 68.3 | 40.6 | 81.4 | 90.4 | 90.6 | 88.2 | 83.3 | 64.4 | 35.6 | 9.3 |
| Computers | 50.4 | 23.0 | 47.3 | 67.9 | 65.1 | 64.9 | 62.9 | 50.0 | 31.8 | 9.7 |
| Tablets | 24.1 | 39.9 | 31.4 | 29.2 | 33.0 | 29.5 | 26.8 | 18.5 | 9.3 | 3.1 |
| Mobile phones ¹⁾ | 10.1 | 7.3 | 6.3 | 9.1 | 10.2 | 10.7 | 11.3 | 11.1 | 13.1 | 7.6 |

1) Cell phones and PHS (Personal Handyphone System).

Source: Ministry of Internal Affairs and Communications.

As of the end of August 2020, 47.5 percent of enterprises introduced telework. This was more than double from 20.2 percent at the end of September 2019. The most frequent telework pattern was working from home, 87.4 percent, followed by mobile work, 33.4 percent and working from a satellite office, 10.7 percent.

(2) Progress of Communication Technologies

As of the end of March 2020, those with subscriptions for 3.9-4G mobile phones (LTE) made up the largest segment of broadband (connection) subscribers, amounting to 152 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 71 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 2020, the total number of IP phone subscribers was 44 million.

Table 8.6
Subscribers to Telecommunications Services ¹⁾

| Item | (Thousands) | | | | |
|---|-------------|---------|---------|---------|---------|
| | 2016 | 2017 | 2018 | 2019 | 2020 |
| Public phones (NTT ²⁾ only) | 171 | 161 | 158 | 155 | 151 |
| Fixed phone services | 21,703 | 19,868 | 18,450 | 17,242 | 15,954 |
| Mobile phones ³⁾ | 160,560 | 166,853 | 172,790 | 179,873 | 186,514 |
| IP phone | 38,467 | 40,985 | 42,555 | 43,413 | 44,131 |
| ISDN (Integrated Services | | | | | |
| Digital Network) | 3,374 | 3,116 | 2,904 | 2,715 | 2,507 |
| DSL (Digital Subscriber Line) | 3,203 | 2,512 | 2,146 | 1,730 | 1,398 |
| Cable Internet | 6,727 | 6,847 | 6,880 | 6,837 | 6,712 |
| FTTH (Fiber To The Home) | 27,975 | 29,460 | 30,608 | 31,672 | 33,088 |
| BWA (Broadband Wireless Access) .. | 35,137 | 47,888 | 58,226 | 66,241 | 71,206 |
| 3.9-4G mobile phones (LTE) | 87,472 | 102,942 | 120,727 | 136,642 | 152,623 |
| International phone calls, sent and received | 512,600 | 472,200 | 493,400 | 448,500 | 471,400 |

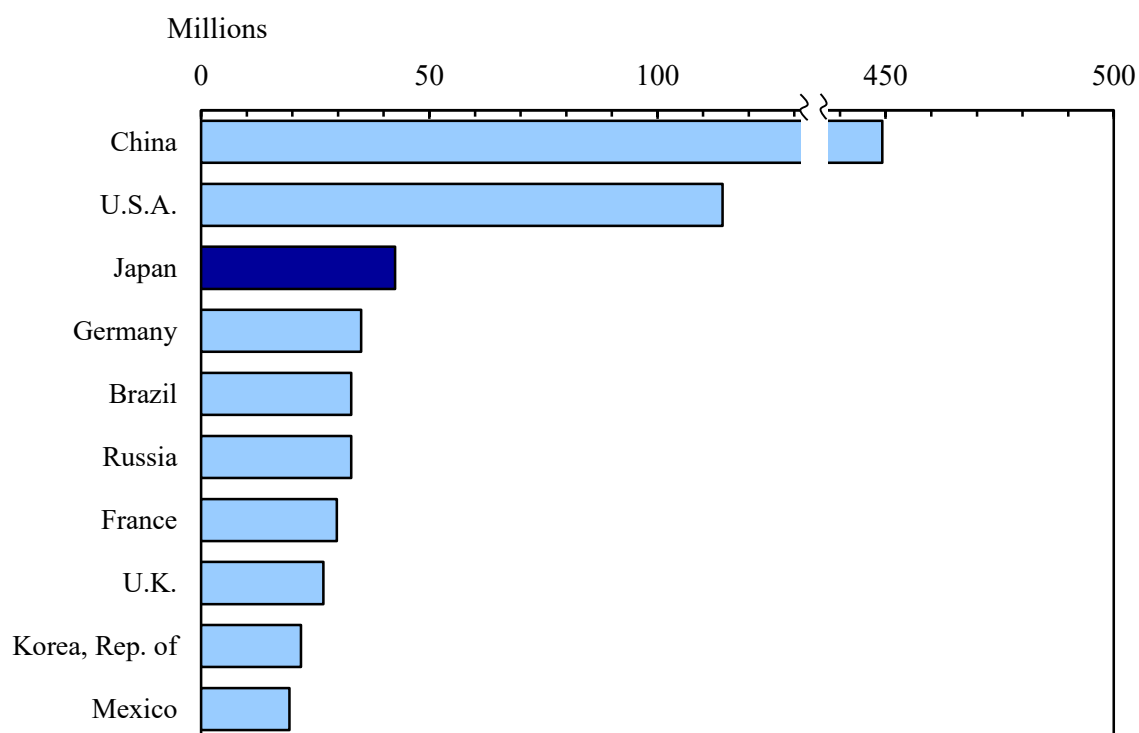
1) End of March. 2) Nippon Telegraph and Telephone Corporation.

3) Cell phones and PHS (Personal Handyphone System).

Source: Ministry of Internal Affairs and Communications.

In 2019, the number of fixed-broadband subscribers in Japan was 43 million, the third-largest after China, 449 million and the U.S.A., 114 million.

Figure 8.5
International Comparison of Fixed-Broadband Subscribers (2019)

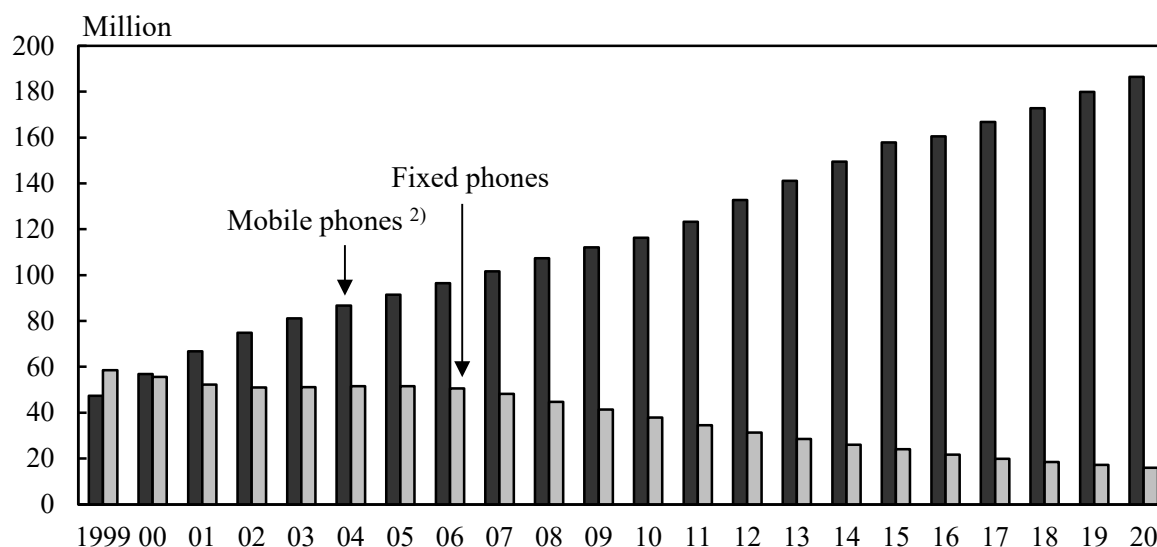


Source: International Telecommunication Union.

(3) Telephones

The number of fixed phone service subscription contracts has continued to decrease in recent years. As of the end of March 2020, the number of fixed phone subscribers was 16 million (down 7.5 percent from the previous year). Meanwhile, the number of mobile phone subscribers (cell phones and personal handyphone systems) totaled 180 million at the end of March 2019, marking a rise by 3.7 percent year-on-year to 187 million at the end of March 2020.

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 2021, Japan Post Co., Ltd. had 24,311 post offices nationwide. In fiscal 2020, post offices handled 19.6 billion items of domestic mail (including parcels), which was a 6.0 percent decrease from the previous fiscal year. Furthermore, the total quantity of international mail (letters, Express Mail Services [EMS], and parcels) sent in fiscal 2020 amounted to 23.0 million items, a decrease of 44.1 percent from the previous fiscal year.

Table 8.7
Postal Services

| Item | (Millions) | | | | | |
|-----------------------------|------------|----------|----------|----------|----------|----------|
| | FY2000 | FY2005 | FY2010 | FY2015 | FY2019 | FY2020 |
| Domestic | | | | | | |
| Letters | 26,114.4 | 22,666.1 | 19,757.9 | 17,981.0 | 16,308.9 | 15,221.0 |
| Parcels | 310.5 | 2,075.0 | 2,968.4 | 4,052.4 | 4,543.1 | 4,390.1 |
| International | | | | | | |
| Sent | 106.0 | 77.5 | 54.2 | 48.9 | 41.2 | 23.0 |
| Letters ¹⁾ | 104.3 | 76.1 | 52.8 | 44.1 | 38.4 | 20.6 |
| Parcels | 1.7 | 1.5 | 1.4 | 4.8 | 2.8 | 2.5 |

1) Including Express Mail Services (EMS).

Source: Japan Post Co., Ltd.

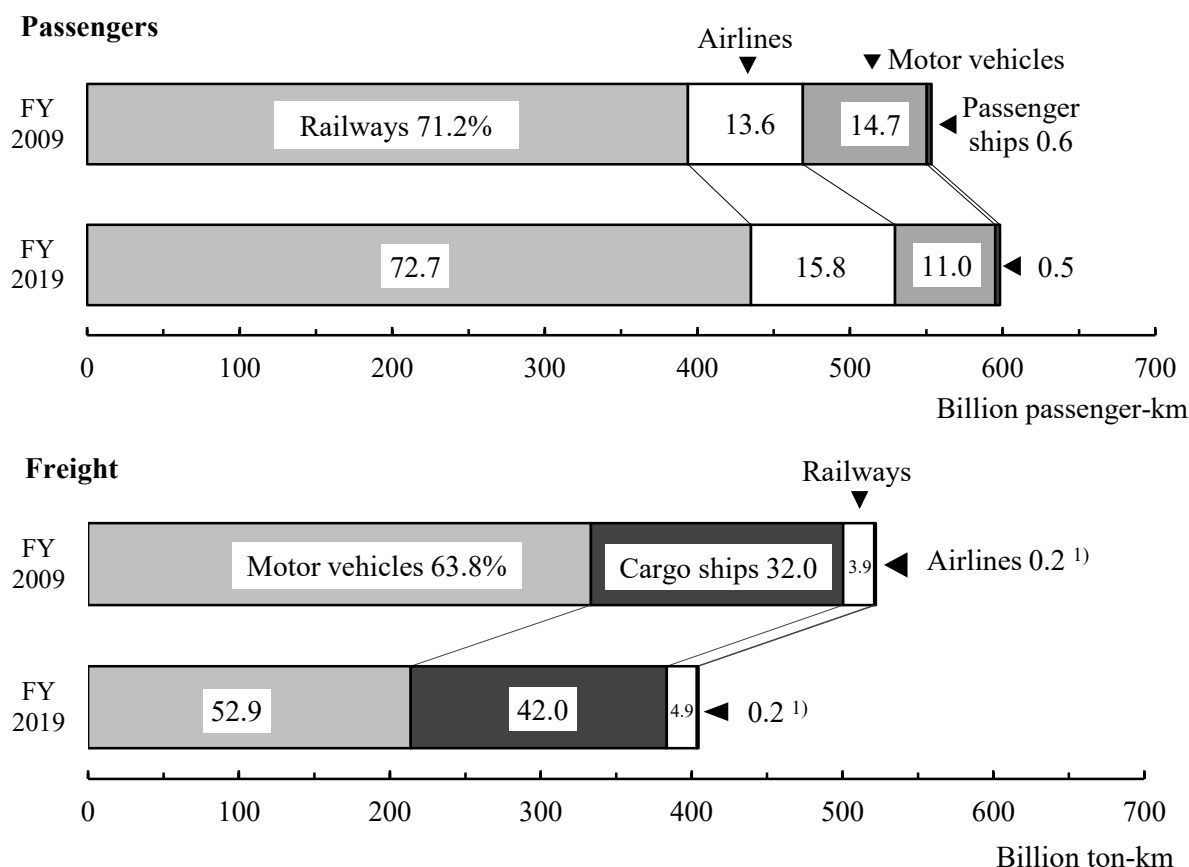
Chapter 9

Transport

1. Domestic Transport

Various modes of domestic transport are used in Japan; almost all passenger transport is by railway, while nearly all freight transport is by motor vehicle and cargo ship.

Figure 9.1
Composition of Domestic Transport



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

(1) Domestic Passenger Transport

No major changes have been observed in recent years in the volume of domestic passenger transport. Under these circumstances, a shift from private automobiles to public transportation should be promoted as a measure against global warming, along with promotion of the development and distribution of environment-friendly vehicles and measures for traffic flow improvement. Therefore, in addition to the promotion of

computerization, such as adoption of IC cards (multiple-use IC [integrated circuit] cards) and increased convenience in public transportation through the improvement of transfers, workplace "eco-commuting" measures have been promoted.

In fiscal 2019, the number of domestic transport passengers was 31.17 billion (down 1.0 percent from the previous fiscal year). The total volume of passenger transport was 598.18 billion passenger-kilometers (down 2.1 percent).

Table 9.1
Domestic Passenger Transport

| Item | Passengers carried (millions) | | Passenger kilometers (millions) | |
|--------------------------------|----------------------------------|--------|------------------------------------|---------|
| | FY2018 | FY2019 | FY2018 | FY2019 |
| Total transport volume | 31,498 | 31,172 | 611,250 | 598,183 |
| Railways | 25,269 | 25,190 | 441,614 | 435,063 |
| JR (Japan Railways) | 9,556 | 9,503 | 277,670 | 271,936 |
| Other than JR | 15,714 | 15,687 | 163,944 | 163,126 |
| Motor vehicles | 6,037 | 5,800 | 70,101 | 65,556 |
| Buses (Commercial use) | 4,646 | 4,532 | 64,108 | 60,070 |
| Taxis and limousine hires | 1,391 | 1,268 | 5,993 | 5,486 |
| Airlines | 104 | 102 | 96,171 | 94,488 |
| Passenger ships | 88 | 80 | 3,364 | 3,076 |

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

In fiscal 2019, the Japan Railways (JR) group reported 9.50 billion passengers (down 0.6 percent from the previous fiscal year) and 271.94 billion passenger-kilometers (down 2.1 percent). Railways other than JR reported 15.69 billion passengers (down 0.2 percent) and 163.13 billion passenger-kilometers (down 0.5 percent).

To promote the use of buses, approaches to improve punctuality and speed using bus lanes and to make buses more convenient, such as by introducing a bus location system that provides locational information of buses as well as an IC card system that enables smooth bus rides, are being carried out. Commercial buses transported 4.53 billion passengers (down 2.4 percent from the previous fiscal year) and 60.07 billion passenger-kilometers (down 6.3 percent); both figures of passengers and passenger-kilometers declined in fiscal 2019.

In recent years, the development of aviation networks has been underway, such as through enhancing the functions of metropolitan airports and promoting the entry of LCCs, in order to strengthen Japan's international competitiveness in both business and tourism. In promoting the entry of LCCs, there are expectations for creation of new demand, such as through the expansion of foreign tourists visiting Japan as well as of domestic tourism. Fiscal 2019 air transport records show that there were 102 million passengers (down 2.0 percent from the previous fiscal year), and passenger-kilometers amounted to 94.49 billion (down 1.7 percent).

In fiscal 2019, passenger ships reported 80 million passengers (down 8.5 percent from the previous fiscal year) and 3.08 billion passenger-kilometers (down 8.6 percent).

(2) Domestic Freight Transport

In the area of domestic freight, a total of 4.71 billion metric tons (down 0.3 percent from the previous fiscal year) of freight was transported for a total of 404.43 billion ton-kilometers (down 1.3 percent) in fiscal 2019. As for transport tonnage volume in fiscal 2019, motor vehicle transport accounted for more than 90 percent of the total.

Table 9.2
Domestic Freight Transport

| Item | Freight tonnage (thousands) | | Ton kilometers (millions) | |
|------------------------------|--------------------------------|-----------|------------------------------|---------|
| | FY2018 | FY2019 | FY2018 | FY2019 |
| Total transport volume | 4,727,467 | 4,714,113 | 409,902 | 404,434 |
| Railways | 42,321 | 42,660 | 19,369 | 19,993 |
| Motor vehicles | 4,329,784 | 4,329,132 | 210,467 | 213,836 |
| Commercial use | 3,018,819 | 3,053,766 | 182,490 | 186,377 |
| Non-commercial use | 1,310,965 | 1,275,366 | 27,977 | 27,459 |
| Cargo ships | 354,445 | 341,450 | 179,089 | 169,680 |
| Airlines ¹⁾ | 917 | 871 | 977 | 925 |

1) Including overweight baggage and postal mail.

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

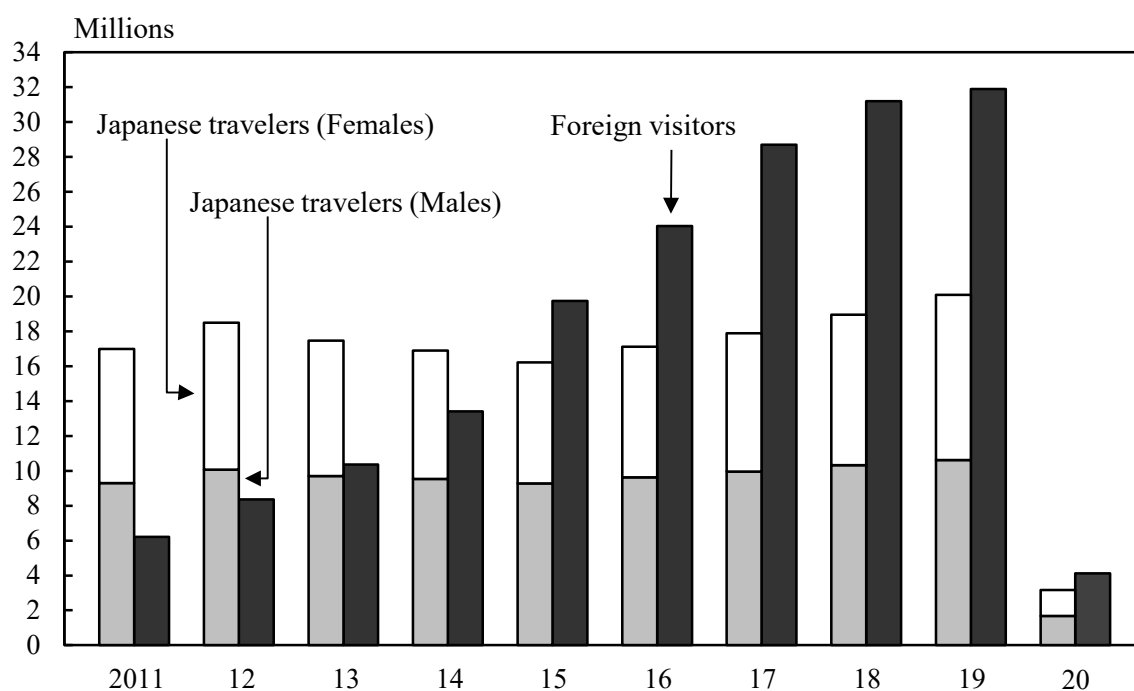
2. International Transport

(1) International Passenger Transport

The global economic downturn after September 2008, the spread of a new influenza in early 2009, and the effects of the Great East Japan Earthquake in 2011 reduced international air passenger transport on Japanese airlines. In 2012, this trend reversed to an increase, and in 2019, Japanese airlines transported 23.46 million passengers (up 0.7 percent from the previous year) on international flights, and registered 105.07 billion passenger-kilometers (up 2.6 percent). Both recorded their eighth consecutive year of increase.

The number of Japanese overseas travelers in 2020 was 3.17 million (down 84.2 percent from the previous year). The number of foreign visitors to Japan totaled 4.12 million (down 87.1 percent from the previous year), a sharp decline resulting from the outbreak of COVID-19.

Figure 9.2
Japanese Overseas Travelers and Foreign Visitor Arrivals



Source: Ministry of Justice; Japan National Tourism Organization.

According to reports on arrivals by tourist offices in countries around the world, the U.S.A. and the Republic of Korea had many Japanese visitors in 2019.

Table 9.3
Japanese Overseas Travelers by Destination

| Country or area of destination | 2017 | | 2018 | | 2019 | |
|------------------------------------|--------------------|-------------------|--------------------|-------------------|--------------------|-------------------|
| | Number of arrivals | Annual change (%) | Number of arrivals | Annual change (%) | Number of arrivals | Annual change (%) |
| U.S.A. ¹⁾²⁾ | 3,595,607 | -0.2 | 3,493,313 | -2.8 | 3,752,980 | 7.4 |
| Korea, Rep. of ³⁾ | 2,311,447 | 0.6 | 2,948,527 | 27.6 | 3,271,706 | 11.0 |
| China ³⁾ | 2,680,033 | 3.6 | 2,689,662 | 0.4 | ... | ... |
| Taiwan ⁴⁾ | 1,898,854 | 0.2 | 1,969,151 | 3.7 | 2,167,952 | 10.1 |
| Thailand ⁵⁾ | 1,544,442 | 7.3 | 1,655,996 | 7.2 | ... | ... |
| Hong Kong SAR ²⁾ .. | 813,207 | 17.4 | 852,192 | 4.8 | 660,883 | -22.4 |
| Germany ⁶⁾ | 584,871 | 7.3 | 613,248 | 4.9 | 614,638 | 0.2 |
| Spain ²⁾ | 444,518 | -4.1 | 547,182 | 23.1 | 677,659 | 23.8 |

1) Including territories and dependencies (Northern Mariana Islands, Guam, American Samoa, Puerto Rico and United States Virgin Islands, etc.). 2) Arrivals of non-resident tourists at national borders, by country of residence. 3) Arrivals of non-resident visitors at national borders, by nationality. 4) Arrivals of non-resident visitors at national borders, by country of residence. 5) Arrivals of non-resident tourists at national borders, by nationality. 6) Arrivals of non-resident tourists in all types of accommodation establishments, by country of residence.

Source: Japan National Tourism Organization.

The number of foreign visitors to Japan in 2020 broken down by country/region, the number of visitors from Asian countries was highest, totaling 3.40 million (down 87.3 percent from the previous year). Among Asian countries, the number of visitors from China was highest, amounting to 1.07 million. The figure accounted for 26.0 percent of the total number of foreign visitors to Japan.

As a result of the COVID-19 outbreak in late January 2020, border controls were progressively tightened from February onwards. This led to a sharp decline in the number of foreign visitors to Japan.

Table 9.4
Foreign Visitors

| Region, country or area of origin | 2018 | | 2019 | | 2020* | |
|------------------------------------|--------------------|-------------------------|--------------------|-------------------------|--------------------|-------------------------|
| | Number of arrivals | Percentage distribution | Number of arrivals | Percentage distribution | Number of arrivals | Percentage distribution |
| Total arrivals ¹⁾ | 31,191,856 | 100.0 | 31,882,049 | 100.0 | 4,115,828 | 100.0 |
| Asia | 26,757,918 | 85.8 | 26,819,278 | 84.1 | 3,403,547 | 82.7 |
| China | 8,380,034 | 26.9 | 9,594,394 | 30.1 | 1,069,256 | 26.0 |
| Taiwan | 4,757,258 | 15.3 | 4,890,602 | 15.3 | 694,476 | 16.9 |
| Korea, Rep. of | 7,538,952 | 24.2 | 5,584,597 | 17.5 | 487,939 | 11.9 |
| Hong Kong SAR ... | 2,207,804 | 7.1 | 2,290,792 | 7.2 | 346,020 | 8.4 |
| Thailand | 1,132,160 | 3.6 | 1,318,977 | 4.1 | 219,830 | 5.3 |
| Viet Nam | 389,005 | 1.2 | 495,051 | 1.6 | 152,559 | 3.7 |
| Europe | 1,720,064 | 5.5 | 1,986,529 | 6.2 | 240,897 | 5.9 |
| U.K. | 333,979 | 1.1 | 424,279 | 1.3 | 51,024 | 1.2 |
| Africa | 38,151 | 0.1 | 55,039 | 0.2 | 7,840 | 0.2 |
| North America | 1,939,719 | 6.2 | 2,187,557 | 6.9 | 284,829 | 6.9 |
| U.S.A. | 1,526,407 | 4.9 | 1,723,861 | 5.4 | 219,307 | 5.3 |
| Canada | 330,600 | 1.1 | 375,262 | 1.2 | 53,365 | 1.3 |
| South America | 104,804 | 0.3 | 111,200 | 0.3 | 18,222 | 0.4 |
| Oceania | 630,527 | 2.0 | 721,718 | 2.3 | 160,386 | 3.9 |
| Australia | 552,440 | 1.8 | 621,771 | 2.0 | 143,508 | 3.5 |

1) Including stateless people, etc.

Source: Japan National Tourism Organization.

In 2020, of the total number of foreign visitors to Japan, tourists numbered 3.31 million people, or 80.5 percent of total foreign visitors. The highest number of tourists came from China, with 0.87 million travelers, followed by Taiwan, with 0.65 million travelers.

(2) International Freight Transport

The volume of seaborne foreign transport in 2019 was 960 million tons, down 7.0 percent over the previous year. Of this figure, total exports decreased by 17.9 percent to 65 million tons, and total imports decreased by 6.4 percent to 502 million tons.

Table 9.5
Seaborne Foreign Transport

| (Thousand tons) | | | | |
|-----------------|-----------|---------|---------|-----------------|
| Year | Total | Exports | Imports | Cross Transport |
| 2000 | 739,377 | 34,960 | 538,875 | 165,542 |
| 2005 | 777,869 | 45,404 | 529,239 | 203,225 |
| 2010 | 819,075 | 44,758 | 465,898 | 308,419 |
| 2015 | 1,056,144 | 60,802 | 544,702 | 450,639 |
| 2018 | 1,032,337 | 78,717 | 536,171 | 417,449 |
| 2019* | 959,693 | 64,609 | 502,079 | 393,006 |

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

Air-shipped international freight in 2019 totaled 1.44 million tons in terms of volume (down 6.0 percent from the previous year) and 8.07 billion tons in terms of ton-kilometers (down 4.1 percent).

Chapter 10

Commerce

1. Wholesale and Retail

The "2016 Economic Census for Business Activity" showed that 1.36 million wholesale and retail establishments were in operation in Japan. The number of persons engaged at such establishments became 11.84 million. Sales in the wholesale and retail industries amounted to 500.79 trillion yen, accounting for 30.8 percent of the total of all industries.

(1) Wholesale Trade

The number of wholesale establishments in operation was 364,814 in 2016. Observed by size of operation in terms of persons engaged, establishments with less than 20 persons accounted for 88.6 percent of the total. By type of corporate form, 88.5 percent of them were corporations, while 11.4 percent were individual proprietorships.

Table 10.1

Establishments and Persons Engaged in the Wholesale and Retail Sector (2016)

| Item | Total | Wholesale | Retail |
|---|------------|-----------|-----------|
| Number of Establishments | 1,355,060 | 364,814 | 990,246 |
| Size of operation (persons engaged) | | | |
| 1-4 persons | 760,706 | 177,364 | 583,342 |
| 5-9 | 292,638 | 92,194 | 200,444 |
| 10-19 | 177,270 | 53,546 | 123,724 |
| 20-29 | 55,114 | 17,221 | 37,893 |
| 30-49 | 32,380 | 11,856 | 20,524 |
| 50-99 | 19,112 | 6,592 | 12,520 |
| 100 and over | 9,367 | 3,644 | 5,723 |
| Loaned or dispatched employees only | 8,473 | 2,397 | 6,076 |
| Persons engaged | 11,843,869 | 4,003,909 | 7,839,960 |
| Regular employees | 10,226,010 | 3,532,625 | 6,693,385 |
| Full-time employees | 5,375,398 | 2,891,265 | 2,484,133 |
| Other than full-time employees ¹⁾ | 4,850,612 | 641,360 | 4,209,252 |
| Temporary employees | 247,780 | 62,263 | 185,517 |
| Loaned or dispatched employees from the separately operated establishments | 366,511 | 144,921 | 221,590 |
| Loaned or dispatched employees to the separately operated establishments | 102,266 | 79,829 | 22,437 |

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

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

The number of persons engaged in the wholesale sector was 4 million in 2016, 703,623 of which were persons other than full-time employees (including those who are referred to as "contract employees", "non-regular members of staff", "part-timers", and similar appellations) and temporary employees, making up 17.6 percent of the total.

(2) Retail Trade

The number of retail establishments in operation totaled 990,246 in 2016. Observed by size of operation in terms of persons engaged, establishments with less than 10 persons accounted for 79.2 percent of the total. By type of corporate form, 60.6 percent of them were corporations, while 39.2 percent were individual proprietorships. The proportion of individual proprietorships was higher than that in the wholesale sector.

The number of persons engaged in retail was 7.84 million in 2016, 4.39 million of which were persons other than full-time employees (including those referred to as "contract employees", "non-regular members of staff", "part-timers", and similar appellations) and temporary employees, comprising 56.1 percent of the total.

2. Eating and Drinking Places

There were 590,847 eating and drinking places establishments in operation and 4.12 million persons engaged at them in 2016.

Table 10.2
Eating and Drinking Places (2016)

| Size of operation (persons engaged) | Establishments | | Persons engaged | |
|--|----------------|-----------|-----------------|-----------|
| | Number | Ratio (%) | Number | Ratio (%) |
| Total | 590,847 | 100.0 | 4,120,279 | 100.0 |
| 1-4 persons | 357,056 | 60.4 | 767,493 | 18.6 |
| 5-9 | 114,499 | 19.4 | 746,638 | 18.1 |
| 10-19 | 69,512 | 11.8 | 945,207 | 22.9 |
| 20-29 | 27,877 | 4.7 | 662,134 | 16.1 |
| 30 and over | 21,025 | 3.6 | 998,807 | 24.2 |
| Loaned or dispatched employees only .. | 878 | 0.1 | - | - |

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

Chapter 11

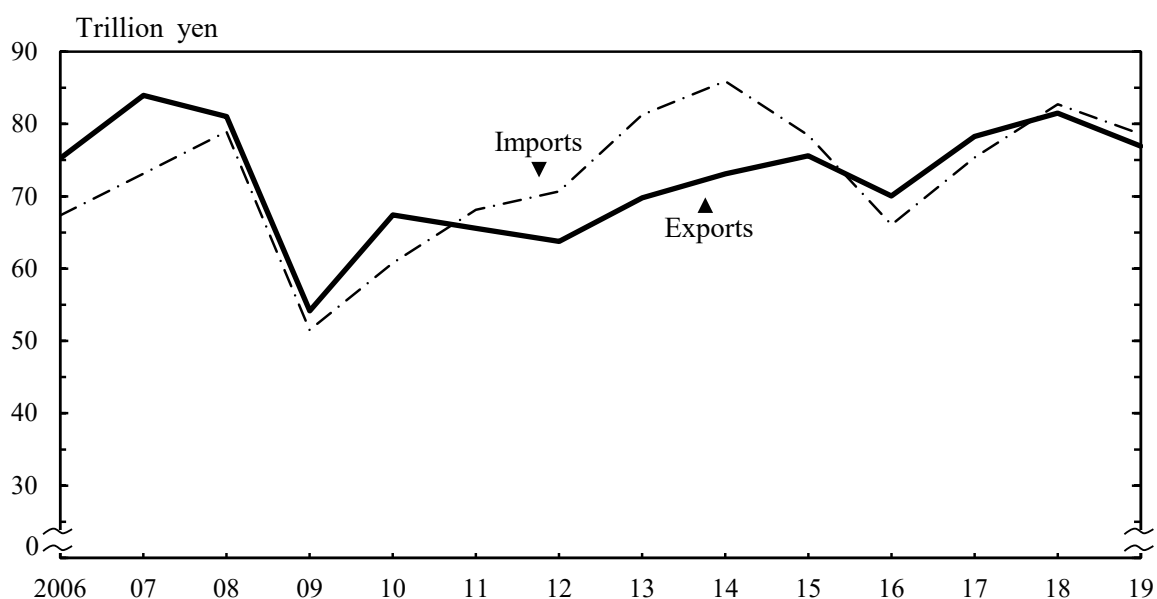
Trade, International Balance of Payments, and International Cooperation

1. Trade

(1) Overview of Trade

In 2019, Japan's international trade on a customs clearance basis decreased, together with exports and imports. Exports (in FOB value) amounted to 76.9 trillion yen, which was a 5.6 percent decrease as compared to the previous year, and a decrease for the first time in 3 years. Imports (in CIF value) amounted to 78.6 trillion yen, which was a 5.0 percent decrease as compared to the previous year, and a decrease for the first time in 3 years. Trade balance totaled -1.7 trillion yen. This was the red figure for the second consecutive year.

Figure 11.1
Foreign Trade



Source: Ministry of Finance.

Table 11.1
Trends in Foreign Trade and Indices of Trade

| Year | Value (billion yen) | | | Indices of trade (2015=100) | | | | | |
|------|---------------------------|------------------|---------|-----------------------------|--------------------------------|------------------------|----------------|--------------------------------|------------------------|
| | (Customs clearance basis) | | | Exports | | | Imports | | |
| | Exports (FOB) | Imports (CIF) | Balance | Value index | Quantum index ¹⁾ | Unit value index | Value index | Quantum index ¹⁾ | Unit value index |
| 2010 | 67,400 | 60,765 | 6,635 | 89.1 | 111.4 | 80.0 | 77.5 | 97.1 | 79.8 |
| 2011 | 65,546 | 68,111 | -2,565 | 86.7 | 107.2 | 80.9 | 86.9 | 99.6 | 87.2 |
| 2012 | 63,748 | 70,689 | -6,941 | 84.3 | 102.0 | 82.7 | 90.2 | 102.0 | 88.4 |
| 2013 | 69,774 | 81,243 | -11,468 | 92.3 | 100.5 | 91.8 | 103.6 | 102.3 | 101.3 |
| 2014 | 73,093 | 85,909 | -12,816 | 96.7 | 101.1 | 95.7 | 109.6 | 102.9 | 106.5 |
| 2015 | 75,614 | 78,406 | -2,792 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| 2016 | 70,036 | 66,042 | 3,994 | 92.6 | 100.5 | 92.2 | 84.2 | 98.8 | 85.3 |
| 2017 | 78,286 | 75,379 | 2,907 | 103.5 | 105.9 | 97.8 | 96.1 | 102.9 | 93.4 |
| 2018 | 81,479 | 82,703 | -1,225 | 107.8 | 107.7 | 100.1 | 105.5 | 105.8 | 99.7 |
| 2019 | 76,932 | 78,600 | -1,668 | 101.7 | 103.0 | 98.8 | 100.2 | 104.6 | 95.9 |

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

Source: Ministry of Finance.

With regard to unit value index, Japan's 2019 exports decreased by 1.3 percent from the previous year (the first decrease in 3 years), and quantum index also decreased by 4.4 percent from the previous year (the first decrease in 4 years).

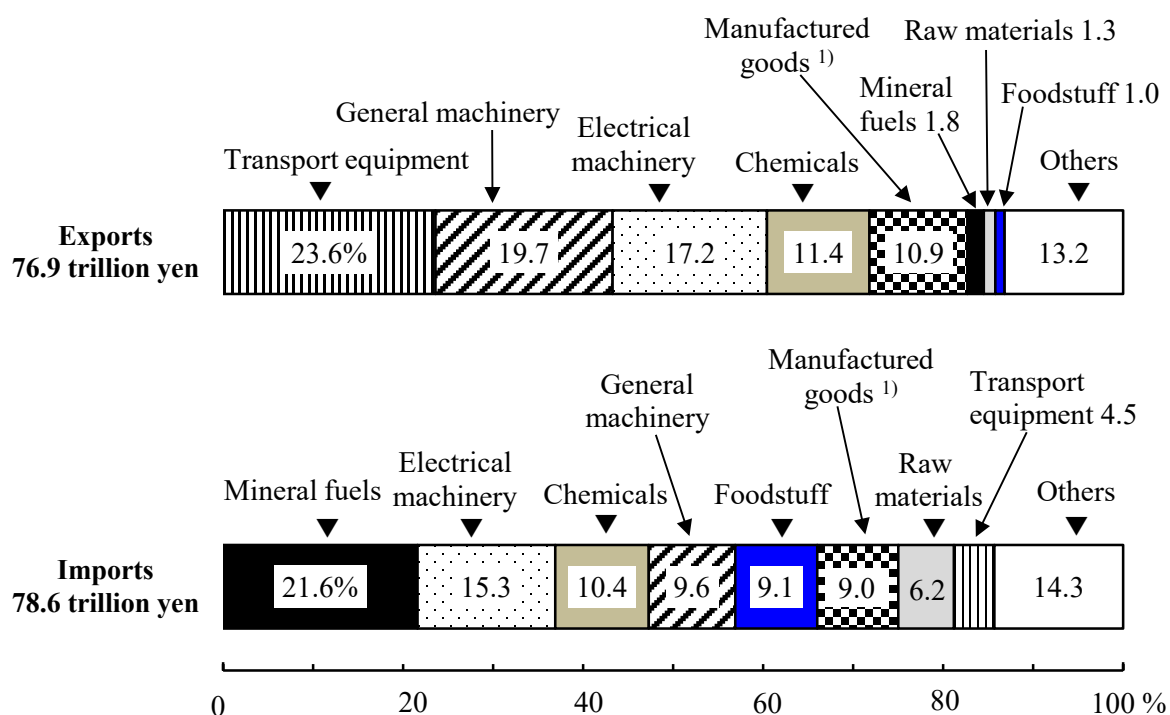
With regard to Japan's imports in 2019, unit value index and quantum index, decreased by 3.8 percent and 1.1 percent compared to the previous year; both indices recorded the first decrease in 3 years.

(2) Trade by Commodity

As for Japan's exports in 2019 by commodity, transport equipment accounted for the largest portion of the total export value, 23.6 percent, followed by general machinery and electrical machinery, making up 19.7 percent and 17.2 percent, respectively. Motor vehicles, which are in the transport equipment category, constituted 15.6 percent of the total export value, down 0.2 percent in quantity and down 2.7 percent in value from the previous year. One characteristic of Japan's exports is the large proportion of high value-added products manufactured with advanced technology, such as motor vehicles, iron and steel products, and semiconductors, etc.

The leading import item category was mineral fuels, which represented 21.6 percent of the total value imported, followed by electrical machinery and chemicals, with 15.3 percent and 10.4 percent, respectively. Petroleum, in the mineral fuels category, constituted 10.1 percent of the total import value, down 1.2 percent in quantity and down 10.5 percent in value from the previous year.

Figure 11.2
Component Ratios of Foreign Trade by Commodity (2019)



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

Source: Ministry of Finance.

TRADE, INTERNATIONAL BALANCE OF PAYMENTS, AND
INTERNATIONAL COOPERATION

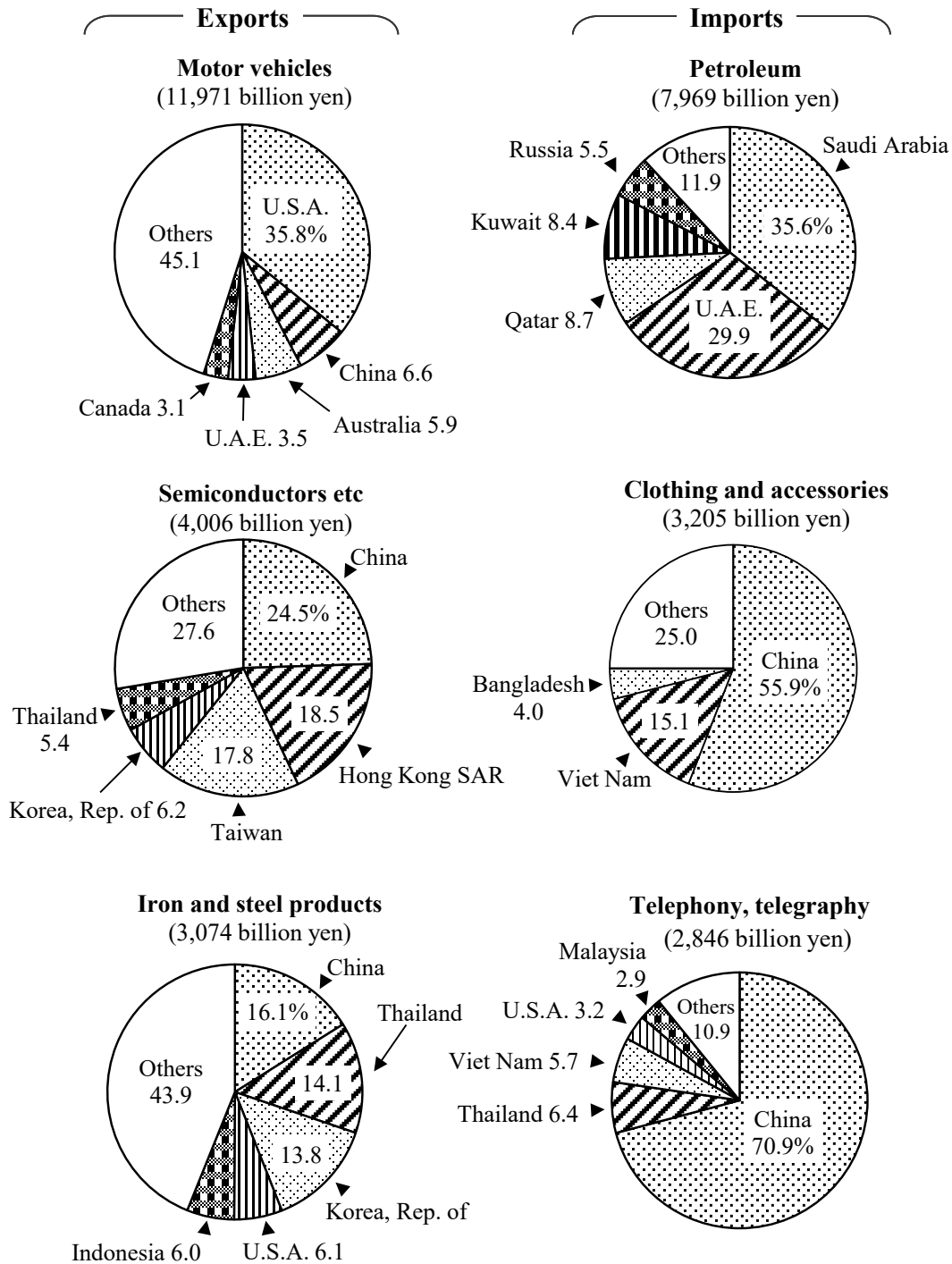
Table 11.2
Value of Exports and Imports by Principal Commodity

| Item | 2016 | 2017 | 2018 | 2019 | (Billion yen) |
|--|--------|--------|--------|--------|-------------------|
| | | | | | Annual growth (%) |
| Exports, total | 70,036 | 78,286 | 81,479 | 76,932 | -5.6 |
| Foodstuff | 607 | 645 | 741 | 754 | 1.8 |
| Raw materials | 947 | 1,127 | 1,156 | 1,034 | -10.6 |
| Mineral fuels | 898 | 1,117 | 1,304 | 1,383 | 6.0 |
| Chemicals | 7,123 | 8,192 | 8,922 | 8,739 | -2.0 |
| Plastic materials | 2,272 | 2,511 | 2,557 | 2,430 | -5.0 |
| Manufactured goods ¹⁾ | 7,847 | 8,686 | 9,136 | 8,407 | -8.0 |
| Iron and steel products | 2,843 | 3,284 | 3,441 | 3,074 | -10.7 |
| General machinery | 13,613 | 15,685 | 16,508 | 15,122 | -8.4 |
| Power generating machine | 2,416 | 2,745 | 2,949 | 2,728 | -7.5 |
| Electrical machinery | 12,322 | 13,695 | 14,142 | 13,208 | -6.6 |
| Semiconductors, etc. | 3,607 | 4,022 | 4,150 | 4,006 | -3.5 |
| Transport equipment | 17,338 | 18,232 | 18,877 | 18,118 | -4.0 |
| Motor vehicles | 11,333 | 11,825 | 12,307 | 11,971 | -2.7 |
| Others | 9,340 | 10,907 | 10,694 | 10,167 | -4.9 |
| Scientific, optical inst | 2,046 | 2,416 | 2,314 | 2,130 | -8.0 |
| Imports, total | 66,042 | 75,379 | 82,703 | 78,600 | -5.0 |
| Foodstuff | 6,363 | 7,018 | 7,247 | 7,192 | -0.8 |
| Fish and fish preparation | 1,480 | 1,649 | 1,663 | 1,609 | -3.2 |
| Raw materials | 4,012 | 4,725 | 4,992 | 4,861 | -2.6 |
| Ore of nonferrous | 1,183 | 1,380 | 1,563 | 1,378 | -11.8 |
| Mineral fuels | 12,052 | 15,840 | 19,294 | 16,951 | -12.1 |
| Petroleum | 5,532 | 7,155 | 8,906 | 7,969 | -10.5 |
| Chemicals | 7,111 | 7,567 | 8,550 | 8,163 | -4.5 |
| Medical products | 2,780 | 2,645 | 2,962 | 3,092 | 4.4 |
| Manufactured goods ¹⁾ | 6,068 | 6,849 | 7,459 | 7,068 | -5.2 |
| Nonferrous metals | 1,344 | 1,736 | 2,000 | 1,750 | -12.5 |
| General machinery | 6,357 | 7,214 | 7,950 | 7,583 | -4.6 |
| Computers and units | 1,724 | 1,966 | 2,029 | 2,211 | 9.0 |
| Electrical machinery | 10,792 | 12,048 | 12,338 | 11,992 | -2.8 |
| Telephony, telegraphy | 2,722 | 3,109 | 3,087 | 2,846 | -7.8 |
| Transport equipment | 3,094 | 3,170 | 3,490 | 3,561 | 2.0 |
| Motor vehicles | 1,178 | 1,307 | 1,428 | 1,408 | -1.4 |
| Others | 10,193 | 10,949 | 11,383 | 11,229 | -1.4 |
| Clothing and accessories | 2,998 | 3,109 | 3,307 | 3,205 | -3.1 |

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

Source: Ministry of Finance.

Figure 11.3
Component Ratios of the Value of Major Export and Import
Commodities by Country/Region (2019)



Source: Ministry of Finance.

(3) Trade by Country/Region

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

Table 11.3
Trends in Value of Exports and Imports by Country/Region (Billion yen)

| Year | Total | Asia | | | | U.S.A. | EU 28 | Middle East | Oceania |
|---------------------------|--------|--------|--------|----------------|--------|--------|-------|-------------|---------|
| | | | China | Korea, Rep. of | Taiwan | | | | |
| Exports from Japan | | | | | | | | | |
| 2015 | 75,614 | 40,329 | 13,223 | 5,327 | 4,473 | 15,225 | 7,985 | 3,167 | 2,099 |
| 2016 | 70,036 | 37,107 | 12,361 | 5,020 | 4,268 | 14,143 | 7,982 | 2,585 | 2,010 |
| 2017 | 78,286 | 42,920 | 14,890 | 5,975 | 4,558 | 15,113 | 8,657 | 2,350 | 2,301 |
| 2018 | 81,479 | 44,736 | 15,898 | 5,793 | 4,679 | 15,470 | 9,209 | 2,434 | 2,402 |
| 2019 | 76,932 | 41,327 | 14,682 | 5,044 | 4,689 | 15,255 | 8,955 | 2,356 | 2,053 |
| Imports to Japan | | | | | | | | | |
| 2015 | 78,406 | 38,358 | 19,429 | 3,244 | 2,817 | 8,060 | 8,625 | 9,571 | 4,887 |
| 2016 | 66,042 | 33,199 | 17,019 | 2,722 | 2,495 | 7,322 | 8,152 | 6,501 | 3,843 |
| 2017 | 75,379 | 37,026 | 18,459 | 3,153 | 2,848 | 8,090 | 8,757 | 8,243 | 4,969 |
| 2018 | 82,703 | 39,218 | 19,194 | 3,550 | 2,998 | 9,015 | 9,718 | 10,375 | 5,659 |
| 2019 | 78,600 | 37,413 | 18,454 | 3,227 | 2,928 | 8,640 | 9,722 | 8,852 | 5,587 |

Source: Ministry of Finance.

(A) Trade with Asia

Japan's 2019 trade balance with Asia resulted in a 3.9 trillion yen in surplus, a decrease for the second consecutive year (down 29.1 percent from the previous year). Exports (in FOB value) totaled 41.3 trillion yen (down 7.6 percent), a decrease for the first time in 3 years; this was mainly due to the contributions for the decrease in general machinery and electrical machinery. Imports (in CIF value) amounted to 37.4 trillion yen (down 4.6 percent), a decrease for the first time in 3 years; this was mainly contributed to the decrease in mineral fuels and electrical machinery.

In 2019, Japan's trade with China amounted to 14.7 trillion yen in exports and 18.5 trillion yen in imports. The percentage of the total amount of Japan's imports and exports that is accounted for by imports and exports between Japan and China is approximately 20 percent, signifying that China is Japan's largest trading counterpart.

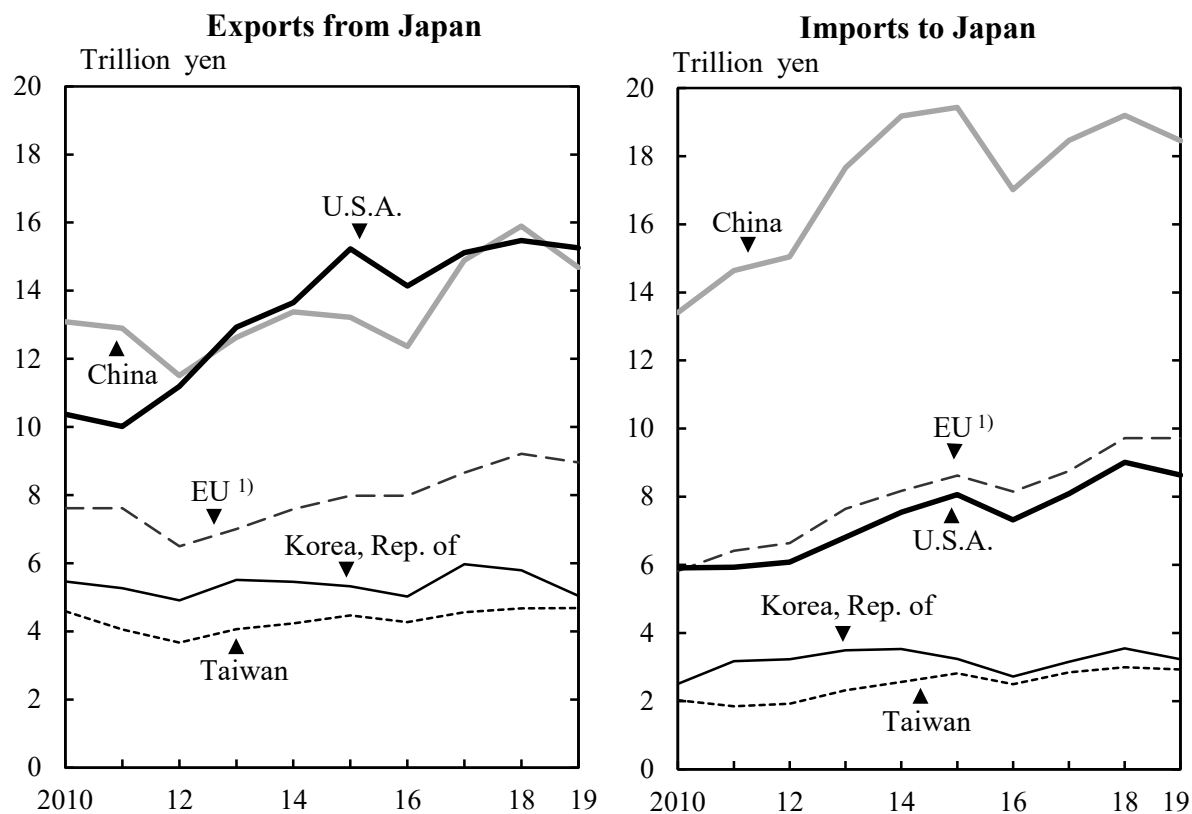
(B) Trade with U.S.A.

Japan's 2019 trade balance with the U.S.A. showed a surplus of 6.6 trillion yen (up 2.5 percent from the previous year), an increase for the first time in 2 years. The U.S.A. was the biggest export counterpart for Japan for the first time in 2 years. Exports (in FOB value) totaled 15.3 trillion yen (down 1.4 percent), a decrease for the first time in 3 years. The drop was due mainly to the contributions of transport equipment and electrical machinery. Imports (in CIF value) totaled 8.6 trillion yen (down 4.2 percent), a decrease for the first time in 3 years. The drop was due mainly to the contributions of general machinery and foodstuff.

(C) Trade with EU

Japan's 2019 trade balance with the EU (28 countries) registered a deficit of 0.8 trillion yen. Exports (in FOB value) to the EU (28 countries) decreased by 2.8 percent year-on-year, to 9.0 trillion yen. Commodities such as general machinery and electrical machinery contributed to the drop in exports. Imports (in CIF value) from the EU (28 countries) totaled 9.7 trillion yen, up 0.04 percent from the previous year. Commodities such as transport equipment and foodstuff contributed to the growth in imports.

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



1) 27 countries: from Jan. 2007 to June 2013, 28 countries: from July 2013 onward.

Source: Ministry of Finance.

2. International Balance of Payments

The current account in 2020 totaled 17.5 trillion yen, and its surplus shrank for the third consecutive year. Breaking down the current account, goods and services rose by 0.2 trillion yen from the previous year to -0.7 trillion yen, recording a deficit for the second consecutive year. Primary income amounted to 20.8 trillion yen, which was a 3.5 percent decrease in its surplus from the previous year.

The financial account amounted to 15.4 trillion yen in 2020, due to an increase in net assets both for direct investment and portfolio investment.

Table 11.4
International Balance of Payments

| | (Billion yen) | | | |
|--|---------------|----------|-----------|----------|
| Item | 2017 | 2018 | 2019 | 2020 |
| Current account | 22,777.9 | 19,504.7 | 19,273.2 | 17,534.7 |
| Goods and services | 4,220.6 | 105.2 | -931.8 | -725.0 |
| Goods | 4,911.3 | 1,126.5 | 150.3 | 3,010.6 |
| Exports | 77,253.5 | 81,226.3 | 75,775.3 | 67,370.1 |
| Imports | 72,342.2 | 80,099.8 | 75,625.0 | 64,359.5 |
| Services | -690.7 | -1,021.3 | -1,082.1 | -3,735.7 |
| Primary income | 20,684.3 | 21,402.6 | 21,574.9 | 20,809.0 |
| Secondary income | -2,127.1 | -2,003.1 | -1,370.0 | -2,549.2 |
| Capital account | -280.0 | -210.5 | -413.1 | -184.2 |
| Financial account ¹⁾ | 18,811.3 | 20,136.1 | 24,884.3 | 15,395.5 |
| Direct investment | 17,411.8 | 14,909.3 | 23,881.0 | 11,259.3 |
| Portfolio investment | -5,651.3 | 10,052.8 | 9,366.6 | 4,233.9 |
| Financial derivatives (other than reserves) .. | 3,452.3 | 123.9 | 370.0 | 866.2 |
| Other investment | 946.7 | -7,612.7 | -11,537.2 | -2,161.8 |
| Reserve assets | 2,651.8 | 2,662.8 | 2,803.9 | 1,198.0 |
| Net errors and omissions | -3,686.6 | 841.9 | 6,024.2 | -1,955.1 |

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

Source: Ministry of Finance.

Japan's external assets (overseas assets held by residents in Japan) as of the end of 2020 amounted to 1,146.1 trillion yen, while its external liabilities (assets held in Japan by nonresidents) were 789.2 trillion yen. As a result, Japan's net international investment position (external assets minus external liabilities) were 357.0 trillion yen.

Table 11.5

Trends in Japan's International Investment Position ¹⁾

| Item | (Billion yen) | | | | |
|-------------------|---------------|-----------|-----------|-----------|-----------|
| | 2016 | 2017 | 2018 | 2019 | 2020 |
| Assets | 986,289 | 1,013,364 | 1,018,047 | 1,090,549 | 1,146,126 |
| Liabilities | 649,982 | 684,062 | 676,597 | 733,534 | 789,156 |
| Net assets | 336,306 | 329,302 | 341,450 | 357,015 | 356,970 |

1) End of year.

Source: Ministry of Finance.

Japan's reserve assets remained at around 220 billion U.S. dollars during the period from 1996 to 1998. Beginning in 1999, reserve assets increased continuously. A downward trend started at the end of 2012, but the end of 2017, they began to increase again, and amounted to 1,394.7 billion U.S. dollars (up 5.4 percent) at the end of 2020, marking the fourth consecutive annual increase.

Table 11.6

Reserve Assets

| End of year | Total | (Million U.S. dollars) | | | | |
|-------------|-----------|---|-------------------------|--------|--------------------|--|
| | | Foreign currency reserves ¹⁾ | IMF reserve position | SDRs | Gold ²⁾ | Other reserve assets ³⁾ |
| 2016 | 1,216,903 | 1,157,790 | 12,019 | 18,087 | 28,516 | 491 |
| 2017 | 1,264,283 | 1,202,071 | 10,582 | 19,195 | 31,897 | 538 |
| 2018 | 1,270,975 | 1,208,958 | 11,464 | 18,484 | 31,531 | 538 |
| 2019 | 1,323,750 | 1,255,322 | 11,202 | 19,176 | 37,469 | 581 |
| 2020 | 1,394,680 | 1,312,160 | 15,147 | 20,215 | 46,526 | 632 |

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

Source: Ministry of Finance.

The yen began appreciating sharply in late 2008. From 2011 into 2012, the exchange rate of yen to the U.S. dollar stayed between the higher 70 yen range and the lower 80 yen range. In April 2013, the Bank of Japan introduced Quantitative and Qualitative Monetary Easing (QQME) to put an end to deflation. Based on this, the exchange rate shifted towards yen depreciation. Subsequently, the yen strengthened from early to mid 2016, followed by a weakening of the yen with recovery of the global economy and a leveling off phase from 2017. As of April 2021, the exchange rate was 108.9 yen per U.S. dollar.

Figure 11.5
Yen Exchange Rate against the U.S. Dollar



Source: Bank of Japan.

3. International Cooperation

In Japan, there are diverse international cooperation donors: Official Development Assistance (ODA) by the government, direct investments and export credits by private corporations, grants by private non-profit organizations, assistance activities by NGOs and volunteer citizen groups, etc. With regard to ODA, there are various forms, including bilateral assistance, which assists developing countries and regions directly, and multilateral assistance, which contributes to international organizations.

TRADE, INTERNATIONAL BALANCE OF PAYMENTS, AND
INTERNATIONAL COOPERATION

Table 11.7
Financial Flows to Developing Countries

(Million U.S. dollars)

| Item | Net disbursements ¹⁾ | | | | | Grant equivalent ²⁾ | |
|--|---------------------------------|--------|--------|--------|--------|--------------------------------|--------|
| | 2015 | 2016 | 2017 | 2018 | 2019 | 2018 | 2019 |
| Total value | 37,908 | 39,834 | 37,699 | 53,667 | 54,551 | ... | ... |
| Official flows | 8,148 | 8,655 | 9,051 | 11,444 | 12,033 | ... | ... |
| Official Development Assistance (ODA) | 9,203 | 10,417 | 11,463 | 10,064 | 11,720 | 14,164 | 15,588 |
| Bilateral official development assistance ³⁾ | 6,166 | 7,048 | 8,080 | 6,099 | 7,477 | 10,756 | 11,794 |
| Grants ³⁾ | 5,010 | 5,583 | 5,500 | 5,278 | 5,278 | 5,278 | 5,278 |
| Grant assistance ³⁾ | 2,641 | 2,807 | 2,617 | 2,631 | 2,556 | 2,631 | 2,556 |
| Technical assistance | 2,369 | 2,776 | 2,883 | 2,648 | 2,722 | 2,648 | 2,722 |
| Loans | 1,156 | 1,466 | 2,580 | 820 | 2,199 | 5,478 | 6,516 |
| Contributions to multilateral institutions | 3,037 | 3,368 | 3,382 | 3,965 | 4,243 | 3,407 | 3,794 |
| Other Official Flows (OOF) | -1,055 | -1,762 | -2,412 | 1,380 | 313 | ... | ... |
| Export credits (over 1 year) | -66 | 599 | 503 | 328 | 755 | ... | ... |
| Direct investment and others | -990 | -2,361 | -2,915 | 1,052 | -443 | ... | ... |
| Contributions to multilateral institutions | - | - | - | - | - | - | - |
| Private Flows (PF) | 29,262 | 30,814 | 28,173 | 41,701 | 41,945 | ... | ... |
| Export credits (over 1 year) | 2,694 | 1,358 | 1,040 | -1,002 | -2,112 | ... | ... |
| Direct investment | 25,800 | 29,588 | 23,935 | 30,916 | 39,067 | ... | ... |
| Other bilateral securities and claims | 576 | 354 | 4,111 | 11,546 | 5,770 | ... | ... |
| Contributions to multilateral institutions | 193 | -484 | -913 | 241 | -779 | ... | ... |
| Grants by private non-profit organizations | 498 | 365 | 475 | 522 | 574 | ... | ... |
| ODA as percentage of GNI (%) | 0.20 | 0.20 | 0.23 | 0.20 | 0.22 | 0.28 | 0.30 |
| ODA as percentage of GNI (DAC average) (%) .. | 0.30 | 0.32 | 0.31 | ... | ... | 0.31 | 0.30 |

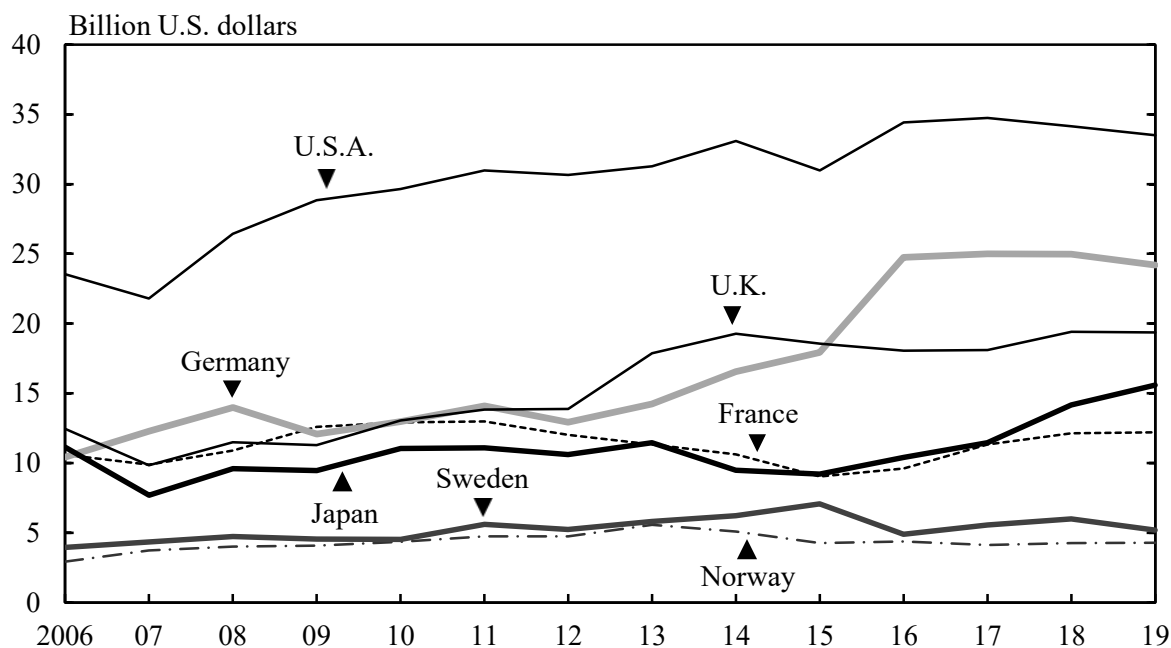
1) Net disbursements at current prices and exchange rate designated by DAC. Negative figures (-) indicate that loan repayments, etc., exceeded the disbursed amount. 2) Grant equivalent at current prices and exchange rate designated by DAC. 3) Including bilateral grants through multilateral institutions.

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

In the ODA framework, Japan's spending (on a grant equivalent basis at current prices) in 2019 was increased by 10.1 percent over the previous year to 15.6 billion U.S. dollars. Japan contributed to the growth of developing countries as the world's number-one ODA donor for 10 consecutive years up until 2000. Recently, Japan's ODA budget has been levelling off because of the country's severe fiscal situation.

With regard to the comparison of the ODA grant equivalents in 2019 of the member countries of the Development Assistance Committee (DAC) of the OECD, Japan was the fourth-largest contributor behind the U.S.A., Germany and the U.K. The ratio of Japan's ODA grant equivalent to Gross National Income (GNI) was 0.30 percent, or an increase of 0.02 percentage points compared with that of the previous year.

Figure 11.6
Trends in ODA by Country ¹⁾



1) 2006-2017 data: Net disbursement at current prices and exchange rate designated by DAC.
2018-2019 data: Grant equivalent at current prices and exchange rate designated by DAC.
Source: OECD.

Of the 15.6 billion U.S. dollars in ODA grant equivalent provided by Japan in 2019, 11.8 billion was bilateral ODA (up 9.6 percent year-on-year), and 3.8 billion was ODA contributed through multilateral institutions (up 11.3 percent).

Bilateral ODA (grant equivalent at current prices) provided in 2019 consisted of 2.6 billion U.S. dollars of grant assistance, 2.7 billion of technical assistance, and 6.5 billion of loans.

By region, bilateral ODA (net disbursement at current prices, including assistance to graduated countries) was distributed as follows: Asia, 2,982 million U.S. dollars; Sub-Saharan Africa, 1,366 million U.S. dollars; Middle East and North Africa, 781 million U.S. dollars; Oceania, 206 million U.S. dollars; Latin America and the Caribbean, 161 million U.S. dollars; and Europe, 4 million U.S. dollars.

Table 11.8

Regional Distribution of Bilateral ODA ¹⁾

(Million U.S. dollars)

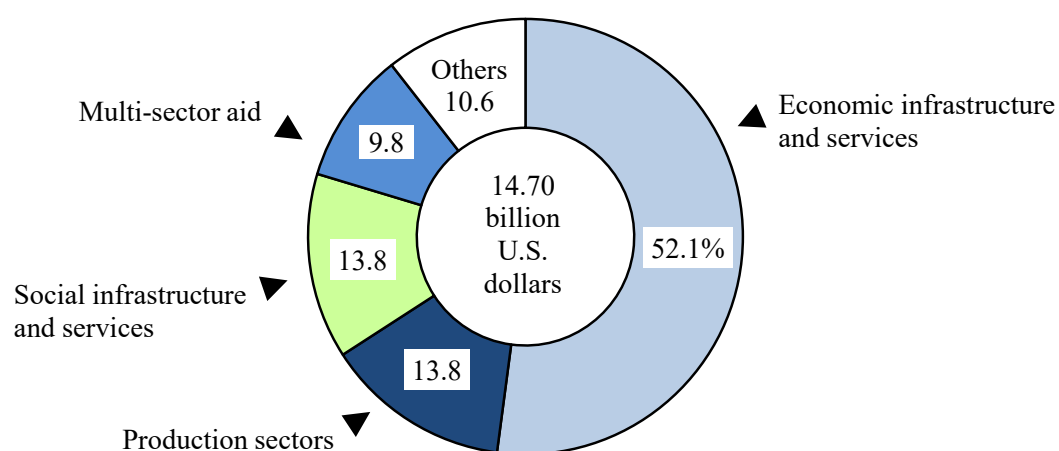
| Region | 1990 | 2000 | 2010 | 2015 | 2019 |
|------------------------------------|-------|---------|-------|-------|-------|
| Total | 6,940 | 9,640 | 7,428 | 6,134 | 7,434 |
| Asia | 4,117 | 5,284 | 2,529 | 1,626 | 2,982 |
| ASEAN ²⁾ | 2,299 | # 3,126 | 902 | 570 | 170 |
| Middle East and North Africa | 666 | 727 | 1,592 | 864 | 781 |
| Sub-Saharan Africa | 831 | 970 | 1,733 | 1,807 | 1,366 |
| Latin America and the Caribbean .. | 561 | 800 | -344 | -17 | 161 |
| Oceania | 114 | 151 | 176 | 112 | 206 |
| Europe | 158 | 118 | 181 | 48 | 4 |
| Multiple regions, etc. | 494 | 1,592 | 1,562 | 1,694 | 1,935 |

1) Net disbursement at current prices and exchange rate designated by DAC. Including assistance to graduated countries. The negative figure (-) indicates that repayments of loans, etc. exceeded the disbursed amount. 2) The data in 1990: 6 countries, the data from 2000: 10 countries.

Source: Ministry of Foreign Affairs.

Bilateral ODA in 2019 (including assistance to graduated countries) was broken down by purpose (on a commitments basis) as follows: 52.1 percent for improving "economic infrastructure and services" (including transport, storage and energy), followed in descending order by "production sectors" and "social infrastructure and services", at 13.8 percent.

Figure 11.7
Distribution of Bilateral ODA by Sector ¹⁾ (2019)



1) Commitments basis. Including assistance to graduated countries.

Source: Ministry of Foreign Affairs.

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

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

| Type of cooperation | FY2010 | FY2015 | FY2017 | FY2018 | FY2019 |
|------------------------------|--------|--------|--------|--------|--------|
| Total | 41,212 | 46,771 | 39,932 | 34,577 | 26,607 |
| Trainees received | 23,978 | 25,203 | 17,138 | 14,890 | 12,187 |
| Dispatched | | | | | |
| Experts | 8,296 | 11,134 | 11,098 | 9,874 | 8,012 |
| Research team | 7,046 | 8,914 | 10,228 | 8,584 | 5,257 |
| Japan Overseas | | | | | |
| Cooperation Volunteers | 1,459 | 1,198 | 1,171 | 1,029 | 999 |
| Other volunteers | 433 | 322 | 297 | 200 | 152 |

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

Source: Japan International Cooperation Agency.

Chapter 12

Labour

1. Labour Force

After the population in Japan aged 15 years old and over peaked at 111.17 million people in 2011, it has been broadly flat since 2012. In 2020, this population reached 110.80 million people.

In the 2000s, the labour force (among the population aged 15 years old and over, the total of employed persons and unemployed persons) had been on a downward trend due to the aging of the population, but began to increase in 2013 and continued to increase until 2019. However, in 2020, the figure was 68.68 million, a decrease of 0.18 million (0.3 percent) from the previous year and the first decrease in 8 years. The impact of COVID-19 can be seen in the employment situation.

The labour force participation rate (the rate of the labour force to the population aged 15 years old and over) was 62.0 percent in 2020 (down 0.1 percentage points from the previous year). Observed by gender, the rate was 71.4 percent for males (unchanged) and 53.2 percent for females (down 0.1 percentage points).

Table 12.1
Population by Labour Force Status

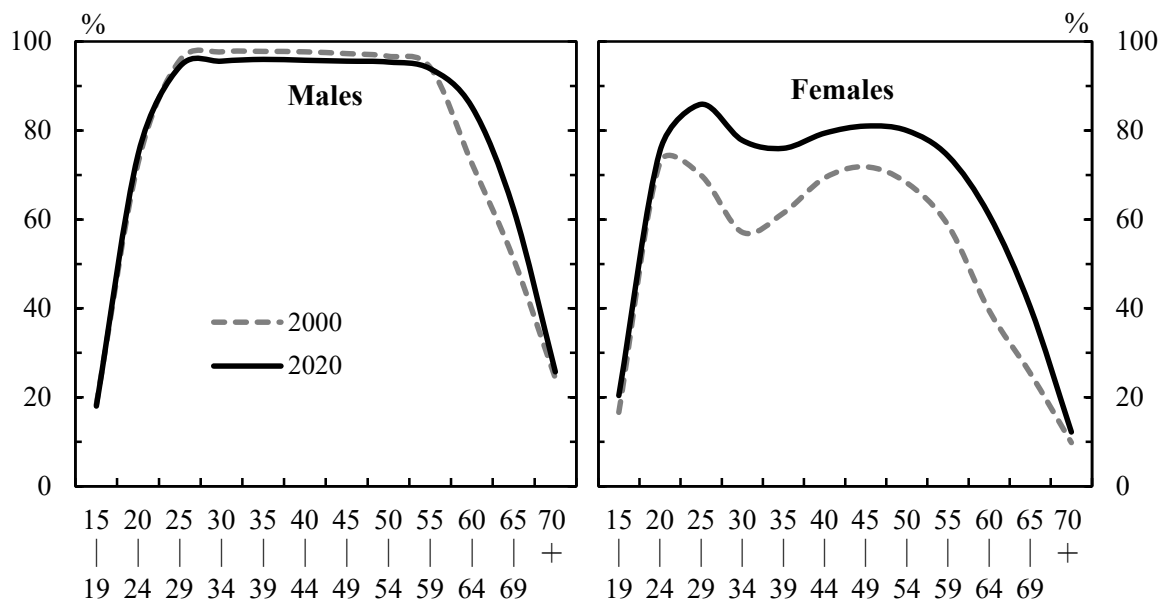
| Year | Population aged 15 years old and over | Labour force | | | Not in labour force | (Thousands) |
|----------------|---------------------------------------|--------------|----------|------------|---------------------|-----------------------|
| | | Total | Employed | Unemployed | | Unemployment rate (%) |
| Total | | | | | | |
| 2005 | 110,080 | 66,510 | 63,560 | 2,940 | 43,460 | 4.4 |
| 2010 | 111,110 | 66,320 | 62,980 | 3,340 | 44,730 | 5.1 |
| 2015 | 111,100 | 66,250 | 64,010 | 2,220 | 44,790 | 3.4 |
| 2017 | 111,080 | 67,200 | 65,300 | 1,900 | 43,820 | 2.8 |
| 2018 | 111,010 | 68,300 | 66,640 | 1,660 | 42,630 | 2.4 |
| 2019 | 110,920 | 68,860 | 67,240 | 1,620 | 41,970 | 2.4 |
| 2020 | 110,800 | 68,680 | 66,760 | 1,910 | 42,040 | 2.8 |
| Males | | | | | | |
| 2005 | 53,230 | 39,010 | 37,230 | 1,780 | 14,160 | 4.6 |
| 2010 | 53,650 | 38,500 | 36,430 | 2,070 | 15,130 | 5.4 |
| 2015 | 53,650 | 37,730 | 36,390 | 1,350 | 15,880 | 3.6 |
| 2017 | 53,650 | 37,840 | 36,720 | 1,120 | 15,780 | 3.0 |
| 2018 | 53,620 | 38,170 | 37,170 | 990 | 15,420 | 2.6 |
| 2019 | 53,590 | 38,280 | 37,330 | 960 | 15,260 | 2.5 |
| 2020 | 53,540 | 38,230 | 37,090 | 1,150 | 15,270 | 3.0 |
| Females | | | | | | |
| 2005 | 56,850 | 27,500 | 26,330 | 1,160 | 29,300 | 4.2 |
| 2010 | 57,460 | 27,830 | 26,560 | 1,280 | 29,600 | 4.6 |
| 2015 | 57,460 | 28,520 | 27,640 | 890 | 28,910 | 3.1 |
| 2017 | 57,430 | 29,370 | 28,590 | 780 | 28,030 | 2.7 |
| 2018 | 57,390 | 30,140 | 29,460 | 670 | 27,210 | 2.2 |
| 2019 | 57,330 | 30,580 | 29,920 | 660 | 26,700 | 2.2 |
| 2020 | 57,260 | 30,440 | 29,680 | 760 | 26,770 | 2.5 |

Source: Statistics Bureau, MIC.

The female labour force participation rate by age group is in an M-shaped curve, which implies that females leave the labour force when they get married or give birth and then rejoin the labour force after their child has grown. However, the shape of the M-shaped curve has been changing in recent years. A comparison with the data from 20 years ago (2000) shows that, in 2020, the 35-39 age group replaced the 30-34 age group to form

the bottom of the M-shaped curve. The participation rate rose by 20.7 percentage points in the 30-34 age group and by 14.6 percentage points in the 35-39 age group, making the bottom of the M-shaped curve flatter and more gradual. While this is thought to be greatly affected by the progression of enhancement of the legal system to balance work and childcare, and the improvement of work environment of companies, there are also effects from the trend of getting married and having children later in life.

Figure 12.1
Labour Force Participation Rate by Gender and Age Group



Source: Statistics Bureau, MIC.

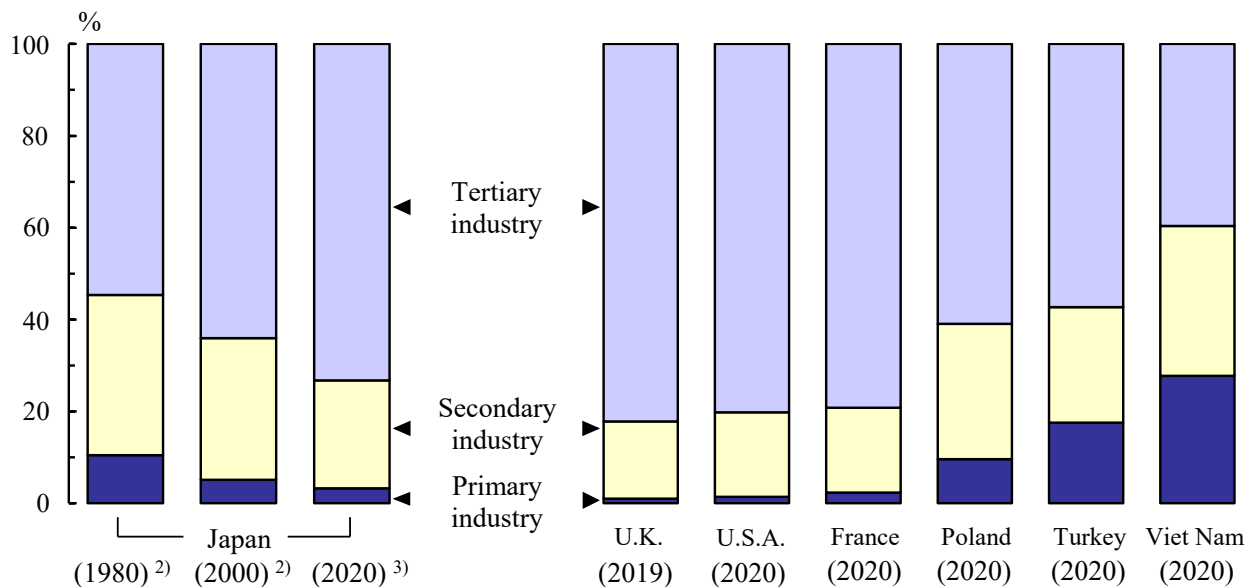
2. Employment

The number of employed persons declined between 2008 and 2012, before increasing between 2013 and 2019. However, in 2020, it fell from 67.24 million (60.6 percent of the population aged 15 years and over) in the previous year to 66.76 million (60.3 percent), marking the first drop in 8 years.

(1) Employment by Industry

In 2020, the primary industry accounted for 3.2 percent of the total of employed persons; the secondary industry, 23.5 percent; and the tertiary industry, 73.3 percent.

Figure 12.2
Structure of Employment by Country ¹⁾



1) As to the countries other than Japan, the industrial classification is the International Standard Industrial Classification of All Economic Activities, Revision 4 (ISIC Rev.4).

2) The industrial classification is the 10th revision of the Japan Standard Industrial Classification (JSIC).

3) The industrial classification is the 13th revision of the JSIC.

Source: Statistics Bureau, MIC; International Labour Organization.

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

Depending on the industrial sector, a difference was seen in the employment tendency between males and females. In 2020, the percentage of male employment was highest in "mining and quarrying of stone and gravel", followed by "electricity, gas, heat supply and water" and "construction". The percentage of female employment was highest in "medical, health care and welfare", followed by "accommodations, eating and drinking services" and "living-related and personal services and amusement services".

Table 12.2
Employment by Industry

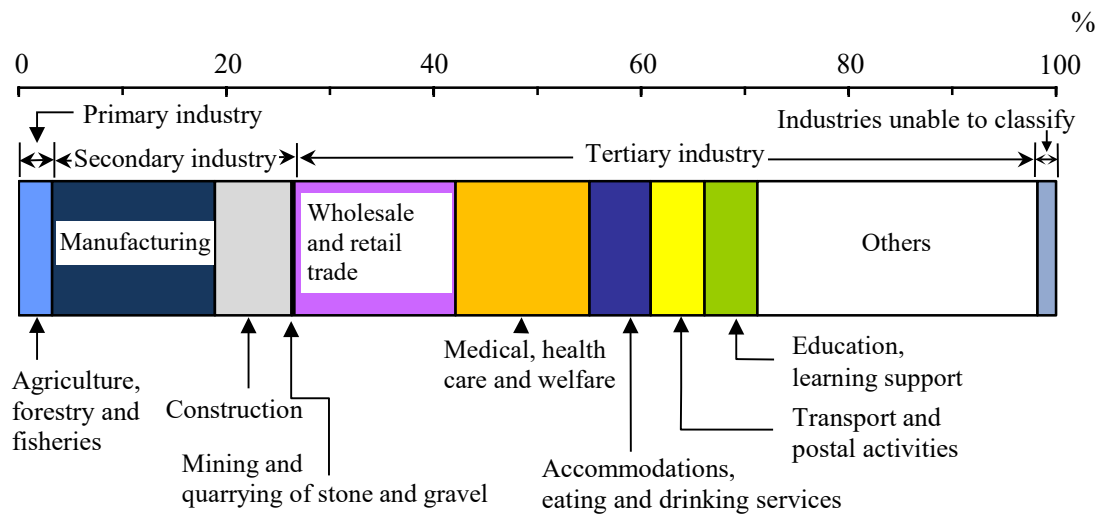
| Industries | 2017 | 2018 | 2019 | 2020 | (Thousands) | |
|--|---------------|---------------|---------------|---------------|--------------------------|-------------|
| | | | | | Percentage ¹⁾ | |
| | | | | | Males | Females |
| Total ²⁾ | 65,300 | 66,640 | 67,240 | 66,760 | 55.5 | 44.5 |
| Primary industry | 2,210 | 2,280 | 2,220 | 2,130 | 61.7 | 38.3 |
| Agriculture and forestry | 2,010 | 2,100 | 2,070 | 2,000 | 60.5 | 39.5 |
| Fisheries | 200 | 180 | 150 | 130 | 78.6 | 21.4 |
| Secondary industry | 15,530 | 15,660 | 15,640 | 15,390 | 74.4 | 25.6 |
| Mining and quarrying of stone and gravel | 30 | 30 | 20 | 20 | 100.0 | - |
| Construction | 4,980 | 5,030 | 4,990 | 4,920 | 83.3 | 16.7 |
| Manufacturing | 10,520 | 10,600 | 10,630 | 10,450 | 70.1 | 29.9 |
| Tertiary industry | 46,490 | 47,310 | 47,870 | 48,030 | 49.3 | 50.7 |
| Electricity, gas, heat supply and water | 290 | 280 | 280 | 320 | 84.4 | 15.6 |
| Information and communications .. | 2,130 | 2,200 | 2,290 | 2,400 | 71.7 | 28.3 |
| Transport and postal activities | 3,400 | 3,410 | 3,470 | 3,470 | 78.7 | 21.3 |
| Wholesale and retail trade | 10,750 | 10,720 | 10,590 | 10,570 | 47.9 | 52.1 |
| Finance and insurance | 1,680 | 1,630 | 1,660 | 1,660 | 45.2 | 54.8 |
| Real estate and goods rental and leasing | 1,250 | 1,300 | 1,290 | 1,400 | 60.0 | 40.0 |
| Scientific research, professional and technical services | 2,300 | 2,390 | 2,400 | 2,440 | 64.6 | 35.4 |
| Accommodations, eating and drinking services | 3,910 | 4,160 | 4,200 | 3,910 | 38.4 | 61.6 |
| Living-related and personal services and amusement services | 2,340 | 2,360 | 2,420 | 2,350 | 41.0 | 59.0 |
| Education, learning support | 3,150 | 3,210 | 3,340 | 3,390 | 42.5 | 57.5 |
| Medical, health care and welfare ... | 8,140 | 8,310 | 8,430 | 8,620 | 24.5 | 75.5 |
| Compound services | 570 | 570 | 540 | 510 | 60.0 | 40.0 |
| Services, N.E.C. | 4,290 | 4,450 | 4,550 | 4,520 | 59.7 | 40.3 |
| Government ³⁾ | 2,290 | 2,320 | 2,410 | 2,470 | 70.0 | 30.0 |

1) Calculated from figures rounded to thousands. "-" indicates figures where the numerator is "0", due to it being less than half of the given unit.

2) Including "Industries unable to classify". 3) Excluding elsewhere classified.

Source: Statistics Bureau, MIC.

Figure 12.3
Distribution of Employment by Industry (2020)



Source: Statistics Bureau, MIC.

(2) Employment by Occupation

In terms of occupation, the "administrative and managerial workers" has been declining in recent years. The number was 1.28 million in 2020, the same as the previous year. In contrast, "service workers" such as home-care workers have been on a rising trend over the past few years due to a trend toward a service-oriented economy, the aging population, and improvements on welfare services. There is also a rising trend in the number of "professional and engineering workers". The number was 12.14 million in 2020, which accounted for approximately 18.2 percent of the total employed persons.

Table 12.3
Employment by Occupation

| Occupation | (Thousands) | | | | | |
|---|-------------|--------|--------|--------|------------|---------|
| | 2017 | 2018 | 2019 | 2020 | Percentage | |
| | | | | | Males | Females |
| Total ¹⁾ | 65,300 | 66,640 | 67,240 | 66,760 | 55.5 | 44.5 |
| Administrative and managerial workers | 1,440 | 1,340 | 1,280 | 1,280 | 86.8 | 13.2 |
| Professional and engineering workers | 11,110 | 11,310 | 11,740 | 12,140 | 52.7 | 47.3 |
| Clerical workers | 12,950 | 13,110 | 13,190 | 13,510 | 39.8 | 60.2 |
| Sales workers | 8,620 | 8,640 | 8,560 | 8,480 | 55.6 | 44.4 |
| Service workers | 8,080 | 8,440 | 8,500 | 8,280 | 31.7 | 68.3 |
| Security workers | 1,240 | 1,310 | 1,320 | 1,330 | 92.5 | 7.5 |
| Agricultural, forestry and fishery workers ... | 2,170 | 2,220 | 2,170 | 2,090 | 64.1 | 35.9 |
| Manufacturing process workers | 8,890 | 9,120 | 9,070 | 8,680 | 70.8 | 29.2 |
| Transport and machine operation workers ... | 2,190 | 2,180 | 2,210 | 2,160 | 96.8 | 3.2 |
| Construction and mining workers | 3,020 | 2,980 | 2,930 | 2,920 | 97.6 | 2.4 |
| Carrying, cleaning, packaging, and related workers | 4,640 | 4,750 | 4,910 | 4,810 | 54.4 | 45.6 |

1) Including figures unclassifiable or not reported.

Source: Statistics Bureau, MIC.

In 2020, the percentages of male and female employed persons by occupation show that males were particularly prominent among "construction and mining workers" (97.6 percent) and "transport and machine operation workers" (96.8 percent). Females were prominent among "service workers" (68.3 percent) and "clerical workers" (60.2 percent).

(3) Employment by Employment Pattern

With regard to the trends in the number of employed persons by employment pattern, the number of non-regular staff members (such as part-time workers and agency-dispatched workers) has been increasing continuously for 10 consecutive years since 2010. However, in 2020, it decreased for the first time in 11 years. The number of regular staff members was on a slight declining trend in the 2000s and the early 2010s, but began to rise in 2015 and has continued to rise for 6 years in a row.

In 2020, there were 56.20 million employees (excluding company executives), 20.90 million of whom, or 37.2 percent, were non-regular staff members. The ratio of non-regular staff members among all male

employees was 22.2 percent, while the corresponding ratio for females was 54.4 percent, revealing a large difference between the genders.

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

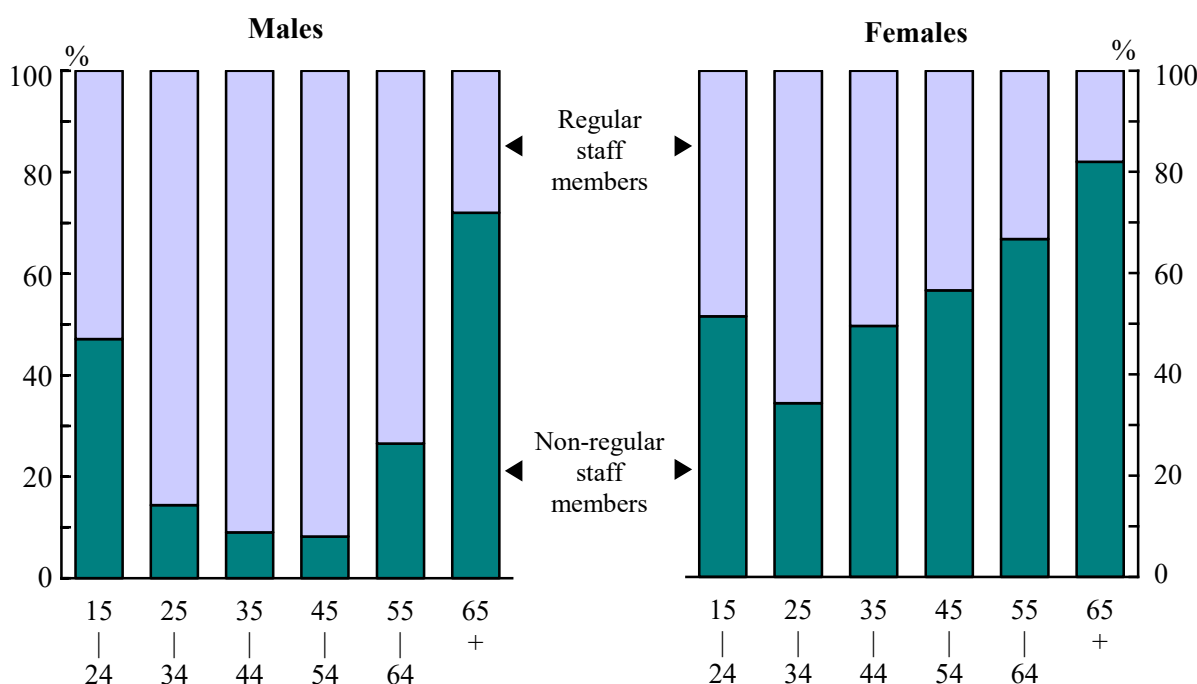
Table 12.4
Employment by Employment Pattern (2020)

| | Employees ¹⁾ | Regular staff members | | Non-regular staff members | |
|---------------|-------------------------|-----------------------|------------|---------------------------|------------|
| | | Percentage | Percentage | Percentage | Percentage |
| Total | 56,200 | 35,290 | 62.8 | 20,900 | 37.2 |
| Males | 30,010 | 23,360 | 77.8 | 6,650 | 22.2 |
| Females | 26,190 | 11,930 | 45.6 | 14,250 | 54.4 |

1) Excluding company executives.

Source: Statistics Bureau, MIC.

Figure 12.4
Employment Pattern by Gender and Age Group (2020)



Source: Statistics Bureau, MIC.

With regard to the main reasons for the current employment patterns of males and females who are non-regular staff members, for males, the reason "For working at convenient times" was the most popular, on average in 2020, with 1.86 million males (29.9 percent) choosing this reason, down 0.01 million people as compared to the previous year. The most popular reason among females was also "For working at convenient times", with 4.33 million females (31.5 percent) choosing this reason, down 0.05 million people.

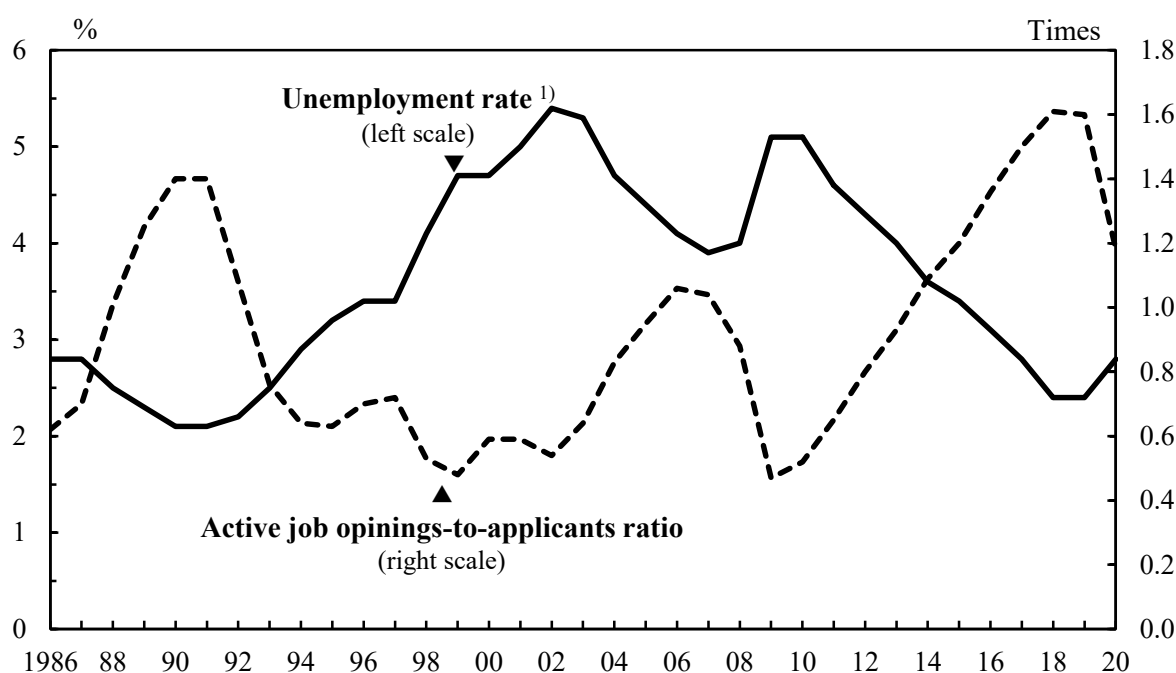
The employment rate of new graduates was not good as a result of the economic slowdown since 2008, but in recent years, their employment situation has been on an improving trend.

3. Unemployment

In 2020, the number of unemployed persons stood at 1.91 million people, up 17.9 percent from the previous year, recording the first increase in 11 years. The unemployment rate was 2.8 percent, up 0.4 percentage points from the previous year, also the first increase in 11 years.

The active job openings-to-applicants ratio had been on an upward trend from 2009 to 2019. However, in 2020, as a result of the impact of COVID-19, the figure stood at 1.18 times, down 0.42 points from the previous year.

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



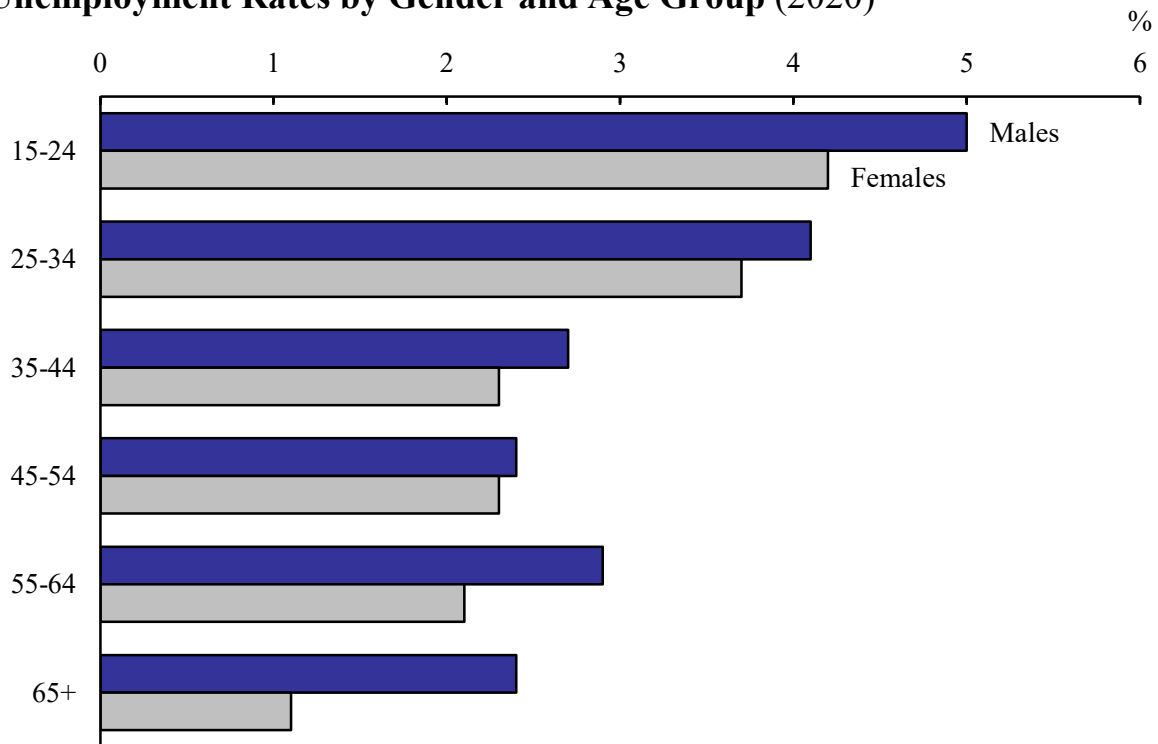
1) The data for 2011 indicates supplementary estimated figure.

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

The breakdown by gender shows that the unemployment rate in 2020 was 3.0 percent among males, and 2.5 percent among females. The unemployment rate among males has been higher since 1998.

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

Figure 12.6
Unemployment Rates by Gender and Age Group (2020)

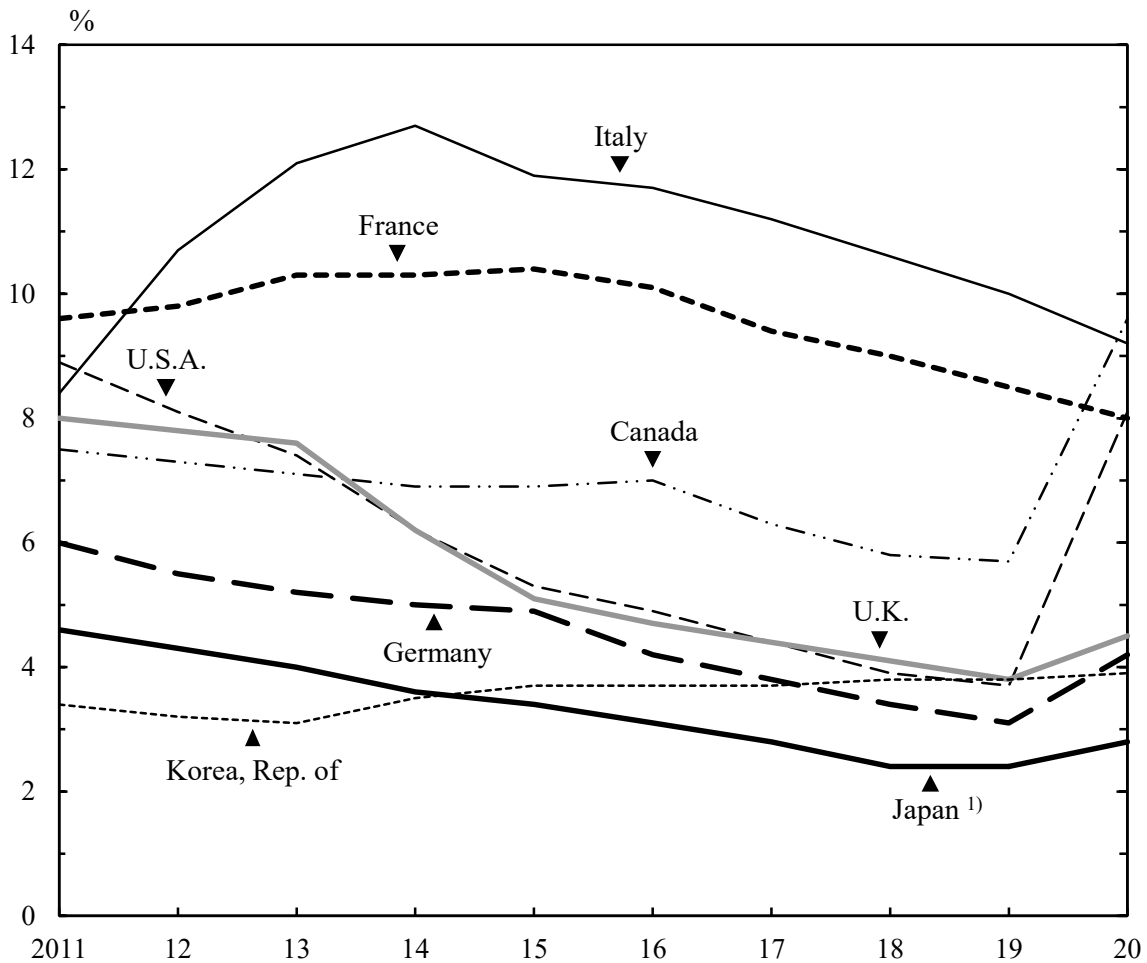


Source: Statistics Bureau, MIC.

With regard to the total number of unemployed persons in 2020, by reason for job-seeking, the major reasons were: (i) involuntary separation due to corporate or business circumstances, or reaching retirement age limit, 0.54 million persons; (ii) voluntary separation for personal or family reasons, 0.73 million persons; (iii) new job seekers due to the necessity to earn income, 0.24 million; and (iv) new job seekers just graduated from school, 0.07 million.

In terms of the duration of unemployment, the largest was unemployed for "less than 3 months" (0.70 million persons), followed by "1 year or more" (0.53 million persons).

Figure 12.7
Unemployment Rates by Country



1) The data for 2011 indicates supplementary estimated figure.
Source: Statistics Bureau, MIC; Cabinet Office.

4. Hours Worked and Cash Earnings

In 2020, the monthly average of total hours worked was 135.1 per regular employee (in establishments with 5 or more regular employees), down 2.8 percent from the previous year, and an annual average was 1,621 hours.

Of the total monthly hours worked per regular employee, 125.9 were scheduled hours worked, representing a decrease of 2.0 percent from the previous year. Non-scheduled hours worked such as overtime work were 9.2 hours, representing a decrease of 13.2 percent from the previous year. Monthly days worked per regular employee were 17.7 days in 2020.

In 2020, the monthly average of total cash earnings per regular employee (in establishments with 5 or more regular employees) was 318,405 yen. This total amount consists of 262,325 yen in "contractual cash earnings" (total for "scheduled cash earnings" and "non-scheduled cash earnings" for working overtime, on holidays and late at night, as well as other allowances), and 56,080 yen in "special cash earnings" (which include summer and year-end bonuses, payments to celebrate employees' marriages, etc.).

Table 12.5**Hours Worked and Cash Earnings** ¹⁾ (Monthly average)

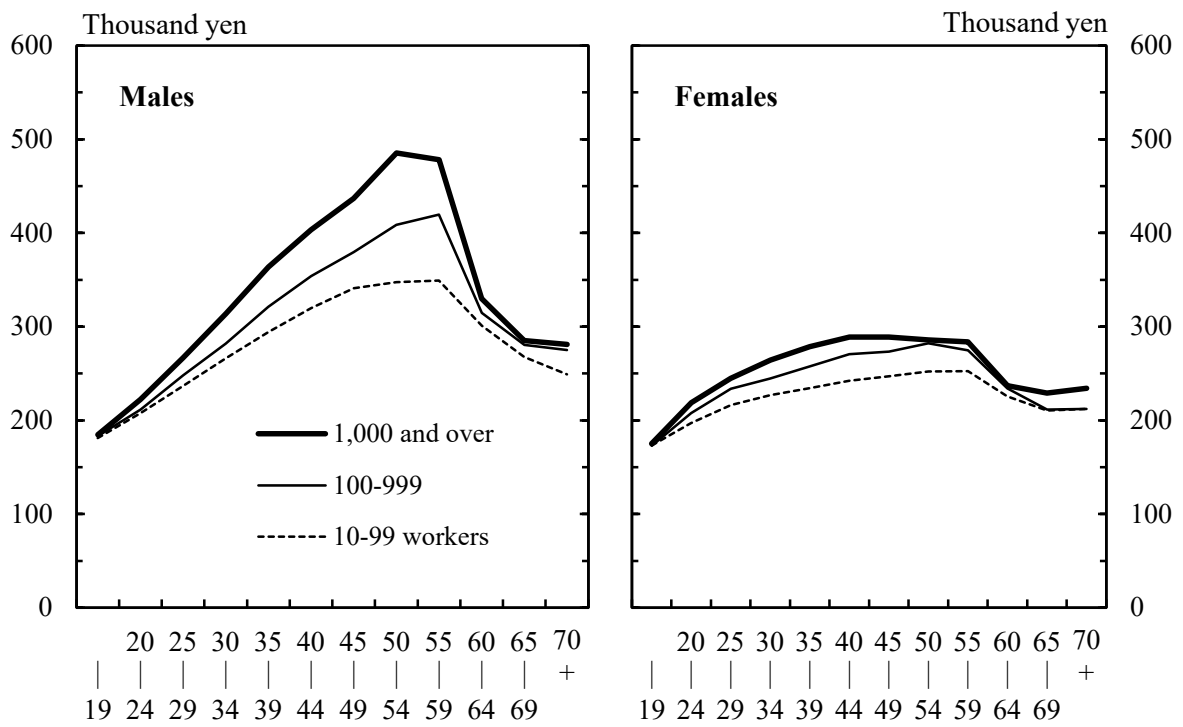
| Year | Days worked | Hours Worked | | | Cash Earnings (1,000 yen) | | | | |
|------------------------------|-------------|--------------|-----------|---------------|---------------------------|-------------|-----------|---------------|-----------------------|
| | | Total | Scheduled | Non-scheduled | Total | Contractual | Scheduled | Non-scheduled | Special ²⁾ |
| 2016 | 18.6 | 143.7 | 132.9 | 10.8 | 318 | 261 | 242 | 20 | 57 |
| 2017 | 18.5 | 143.3 | 132.4 | 10.9 | 319 | 262 | 243 | 20 | 57 |
| 2018 | 18.4 | 142.2 | 131.4 | 10.8 | 324 | 265 | 245 | 20 | 59 |
| 2019 | 18.0 | 139.1 | 128.5 | 10.6 | 323 | 264 | 244 | 20 | 58 |
| 2020 | 17.7 | 135.1 | 125.9 | 9.2 | 318 | 262 | 245 | 17 | 56 |
| Indices (2015 average = 100) | | | | | | | | | |
| 2016 | - | 99.5 | 99.6 | 98.5 | 100.7 | 100.2 | 100.3 | - | - |
| 2017 | - | 99.3 | 99.2 | 99.6 | 101.1 | 100.7 | 100.8 | - | - |
| 2018 | - | 98.5 | 98.4 | 98.1 | 102.5 | 101.6 | 101.6 | - | - |
| 2019 | - | 96.3 | 96.2 | 96.2 | 102.1 | 101.4 | 101.5 | - | - |
| 2020 | - | 93.6 | 94.3 | 83.5 | 100.9 | 100.7 | 101.7 | - | - |

1) Establishments with 5 or more regular employees. 2) Bonuses and other special allowances.

Source: Ministry of Health, Labour and Welfare.

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

Figure 12.8
Monthly Scheduled Cash Earnings by Size of Enterprise, Gender, and Age Group (2020)



Source: Ministry of Health, Labour and Welfare.

Chapter 13

Family Budgets and Prices

1. Family Budgets

In 2015, there were approximately 53 million private households in Japan, of which about 65 percent are two-or-more-person households and about 35 percent are one-person households. Family budgets vary significantly depending on the employment situation and ages of their members. In this section, family budgets in various types of households are described on the basis of the 2020 results of the "Family Income and Expenditure Survey".

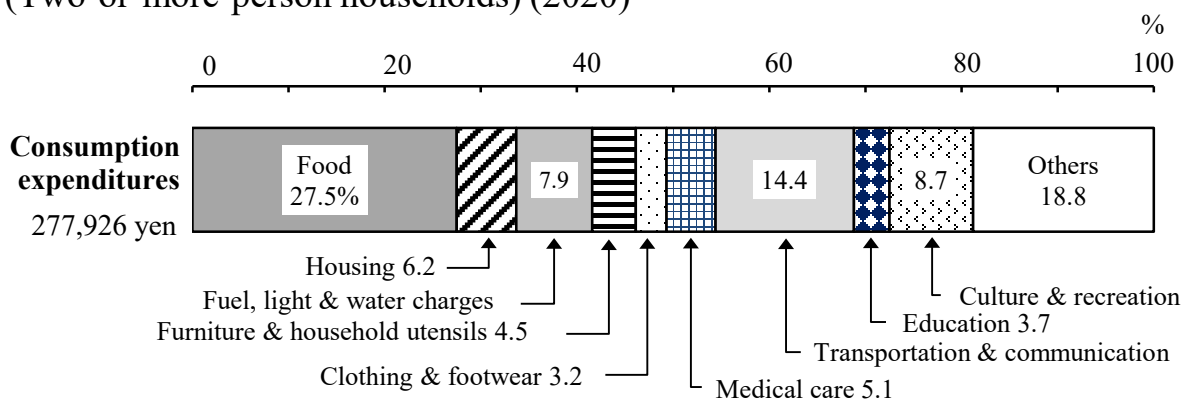
(1) Income and Expenditure

(A) Two-or-more-person Households

The 2020 average monthly consumption expenditures per two-or-more-person household (the average number of household members being 2.95 and the average age of the household head being 59.7 years) was 277,926 yen. Compared to the previous year, it decreased by 5.3 percent in nominal terms and decreased by 5.3 percent in real terms. The share of food expenses to total consumption expenditures (Engel's coefficient) was 27.5 percent.

Looking at the real year-on-year rate of change in consumption expenditures, 2020 saw the first real decrease in 2 years and the largest decrease since 2001, the earliest year for which comparisons can be made.

Figure 13.1
Average Monthly Consumption Expenditures per Household ¹⁾
 (Two-or-more-person households) (2020)



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

(a) Workers' Households

A workers' household means a household of which the head is employed by a company, public office, school, factory, store, etc. The average income of workers' households (the average number of household members being 3.31 and the average age of the household head being 49.8 years) was 609,535 yen in 2020. With regard to the breakdown of income, regular income by the household head makes up the majority. The ratio of income by spouses has been increasing little by little, however.

Table 13.1**Average Monthly Income and Expenditures per Household (Workers' households ¹⁾)**

(Thousand yen)

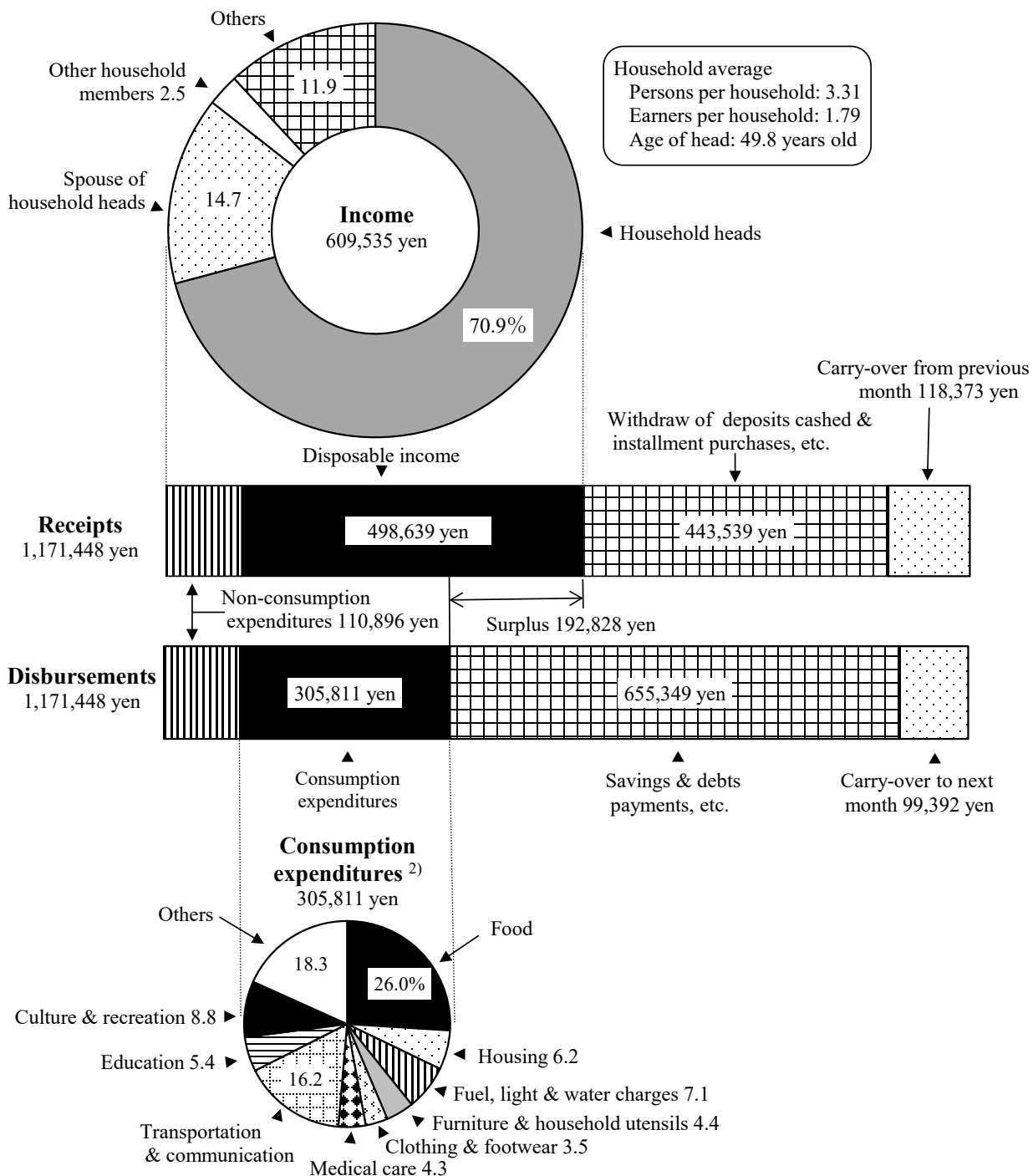
| Item | 2016 | 2017 | 2018 | 2019 | 2020 |
|---|-------|-------|-------|-------|-------|
| Income (A) | 527.0 | 533.8 | 558.7 | 586.1 | 609.5 |
| Wages and salaries | 487.9 | 493.8 | 512.6 | 536.3 | 536.9 |
| Others | 39.0 | 40.0 | 46.1 | 49.8 | 72.7 |
| Disposable income (A-C) | 428.7 | 434.4 | 455.1 | 476.6 | 498.6 |
| Expenditures | 407.9 | 412.5 | 418.9 | 433.4 | 416.7 |
| Consumption expenditures (B) | 309.6 | 313.1 | 315.3 | 323.9 | 305.8 |
| Non-consumption expenditures (C) ²⁾ | 98.3 | 99.4 | 103.6 | 109.5 | 110.9 |
| Surplus ((A-C)-B) | 119.1 | 121.4 | 139.8 | 152.8 | 192.8 |
| Net increase in deposits and insurance | 91.3 | 97.0 | 121.1 | 149.7 | 175.5 |
| Average propensity to consume (%) ³⁾ | 72.2 | 72.1 | 69.3 | 67.9 | 61.3 |
| Ratio of net increase in deposits and insurance (%) ⁴⁾ | 21.3 | 22.3 | 26.6 | 31.4 | 35.2 |
| Engel's coefficient (%) | 24.2 | 23.8 | 24.1 | 23.9 | 26.0 |
| Annual change (%) (real terms) | | | | | |
| Disposable income | 0.4 | 0.7 | 3.6 | 4.1 | 4.6 |
| Consumption expenditures | -1.7 | 0.5 | -0.5 | 2.1 | -5.6 |

1) Two-or-more-person households. 2) Direct taxes, social insurance contributions, etc. 3) Ratio of consumption expenditures to disposable income. 4) Ratio of net increase in deposits and insurance to disposable income.

Source: Statistics Bureau, MIC.

Disposable income, calculated as income minus non-consumption expenditures such as taxes and social insurance contributions, was 498,639 yen. Of this disposable income, 305,811 yen was used for living expenses (consumption expenditures), such as food and housing expenses, while the remainder (surplus), totaling 192,828 yen, was applied to savings, life insurance premiums and repaying debts such as housing loans.

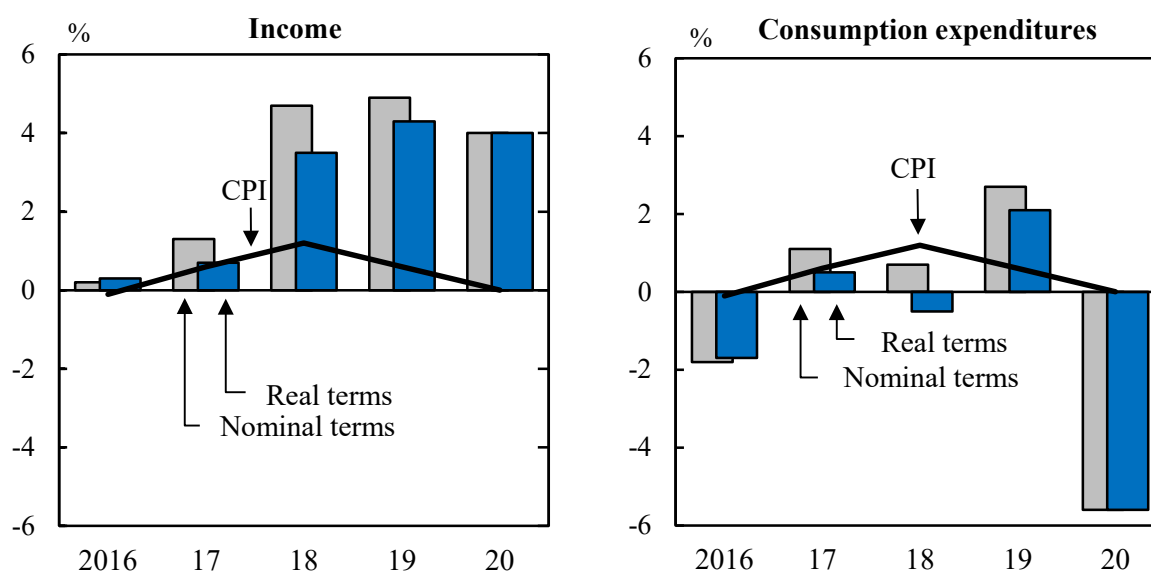
Figure 13.2
Balance of Income and Expenditures
 (Monthly average per household, workers' households ¹⁾) (2020)



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

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

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

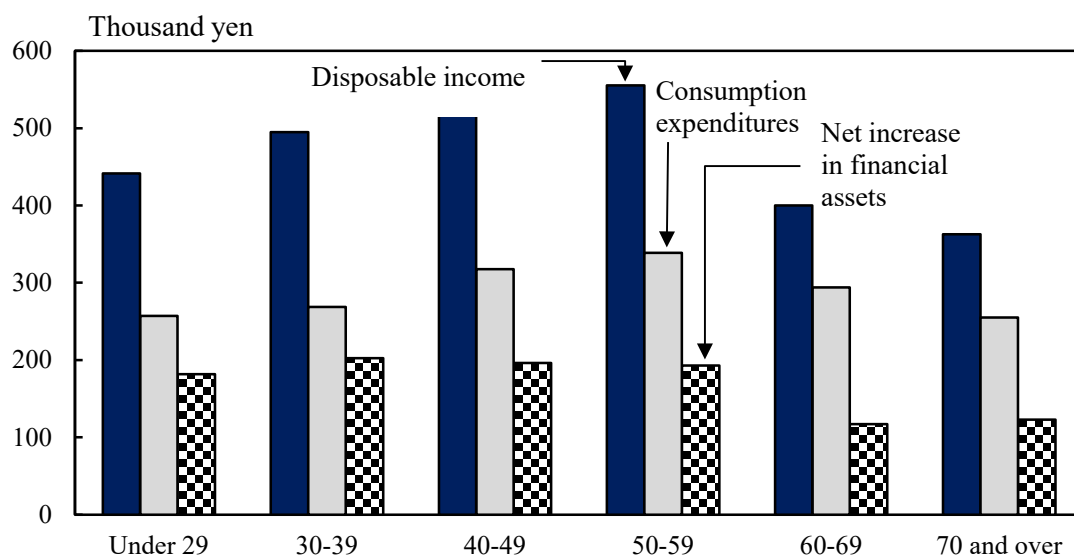


1) Two-or-more-person households.
 Source: Statistics Bureau, MIC.

Family budgets differ among households according to their stages in life. Observed by age group of the household head, the 2020 average monthly disposable income of workers' households was the highest in households in the 50s group (555,107 yen), followed by those in the 40s group (536,868 yen) and the 30s group (494,899 yen).

The 2020 average propensity to consume (the ratio of consumption expenditures to disposable income) was the lowest in households in the 30s group (54.3 percent). The figure was 58.2 percent for households in the under 29 group, 59.2 percent in the 40s group, 61.0 percent in the 50s group, 73.5 percent in the 60s group, and 70.3 percent in the 70 and over group. The percentage tends to be higher as the age goes up. Meanwhile, a net increase in financial assets (an amount added to savings) was the highest in households in the 30s group, followed by those in the 40s group.

Figure 13.4
Average Monthly Family Income and Consumption Expenditures
per Household by Age Group of Household Head
 (Workers' households ¹⁾) (2020)



1) Two-or-more-person households.

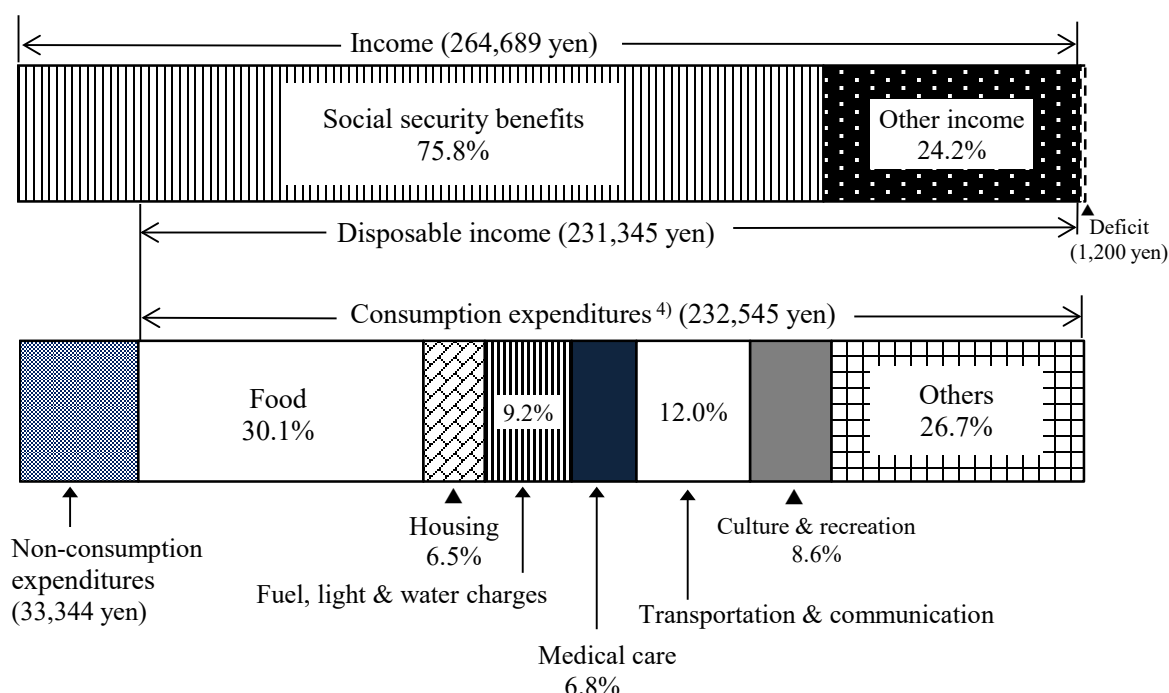
Source: Statistics Bureau, MIC.

(b) Non-working Elderly Households

According to an analysis of the average monthly income and expenditures of non-working elderly households (two-or-more-person households where the age of the household head is 60 and over), the average income was 264,689 yen in 2020. Social security benefits amounted to 200,667 yen, thus accounting for 75.8 percent of income.

Disposable income averaged 231,345 yen, while consumption expenditures averaged 232,545 yen. The average propensity to consume in non-working elderly households was 100.5 percent, which means consumption expenditures exceeded disposable income. The deficit of disposable income to consumption expenditures (1,200 yen) decreased from that of the previous year (32,979 yen). This deficit was financed by withdrawing financial assets such as deposits, etc.

Figure 13.5
Average Monthly Income and Expenditures per Household ^{1) 2)}
 (Non-working elderly households ³⁾) (2020)



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

Source: Statistics Bureau, MIC.

(B) One-person Households

The average monthly consumption expenditures of one-person households in 2020 was 150,506 yen, down 8.1 percent in nominal terms and down 8.1 percent in real terms from the previous year. By age group, the average monthly consumption expenditures was 149,605 yen for the under 34 group, 168,043 yen for the 35-59 age group, and 141,951 yen for the 60 and over group. Spending on categories such as "food" and "fuel, light and water charges" tended to be larger in older age groups. On the other hand, expenditures on "housing" decreased in each successively older age groups.

Table 13.2
Average Monthly Consumption Expenditures per Household by Age Group
 (One-person households) (2020)

(Yen)

| Item | Average | | Under 34 | | 35-59 | | 60 and over | |
|--|----------------|-----------|----------------|-----------|----------------|-----------|----------------|-----------|
| | Actual figures | ratio (%) | Actual figures | ratio (%) | Actual figures | ratio (%) | Actual figures | ratio (%) |
| Consumption expenditures ¹⁾ ... | 150,506 | 100.0 | 149,605 | 100.0 | 168,043 | 100.0 | 141,951 | 100.0 |
| Food | 38,257 | 25.4 | 35,563 | 23.8 | 41,052 | 24.4 | 37,825 | 26.6 |
| Housing | 20,948 | 13.9 | 37,863 | 25.3 | 24,810 | 14.8 | 12,838 | 9.0 |
| Fuel, light and water charges | 11,686 | 7.8 | 7,648 | 5.1 | 11,905 | 7.1 | 13,041 | 9.2 |
| Furniture and household utensils | 5,293 | 3.5 | 4,381 | 2.9 | 5,268 | 3.1 | 5,640 | 4.0 |
| Clothing and footwear | 4,692 | 3.1 | 5,338 | 3.6 | 6,681 | 4.0 | 3,449 | 2.4 |
| Medical care | 7,029 | 4.7 | 3,222 | 2.2 | 6,616 | 3.9 | 8,625 | 6.1 |
| Transportation and communication | 18,217 | 12.1 | 18,769 | 12.5 | 24,318 | 14.5 | 14,922 | 10.5 |
| Culture and recreation | 15,452 | 10.3 | 18,355 | 12.3 | 16,521 | 9.8 | 13,861 | 9.8 |
| Others | 28,932 | 19.2 | 18,466 | 12.3 | 30,873 | 18.4 | 31,751 | 22.4 |
| Annual change (%) (real terms) | | | | | | | | |
| Consumption expenditures | -8.1 | | ... | | ... | | ... | |

1) Use Classification.

Source: Statistics Bureau, MIC.

(2) Savings and Debts

Two-or-more-person households in 2020 showed that the average amount of savings per workers' household was 13.78 million yen, resulting in a ratio to yearly income (7.40 million yen) of 186.2 percent. The median value of household savings (the current household savings of the household exactly in the middle when all households, excluding those with 0 savings, are listed in order from lowest to highest amount of savings) was 8.26 million yen. On the other hand, the average amount of debts per household was 8.51 million yen, which was 115.0 percent relative to yearly income. The median value of households holding debts (the current household debts of the household exactly in the middle when all households, excluding those with 0 debts, are listed in order from lowest to highest amount of debts) was 14.66 million yen. The portion of household debts accounted for by "housing and/or land" averaged 7.91 million yen. A total of 43.7 percent of workers' households held "debts for housing and/or land".

Table 13.3**Average Amount of Savings and Debts (Workers' households ¹⁾)**

(Thousand yen)

| Year | Yearly income | Savings | Ratio of savings to yearly income (%) | Debts | Housing and/or land | Ratio of debts to yearly income (%) | Ratio of households holding debts (%) |
|------|---------------|---------|---------------------------------------|-------|---------------------|-------------------------------------|---------------------------------------|
| 2016 | 7,150 | 12,990 | 181.7 | 7,810 | 7,160 | 109.2 | 53.9 |
| 2017 | 7,220 | 13,270 | 183.8 | 7,940 | 7,390 | 110.0 | 54.1 |
| 2018 | 7,290 | 13,200 | 181.1 | 8,210 | 7,610 | 112.6 | 54.6 |
| 2019 | 7,360 | 13,760 | 187.0 | 8,550 | 7,980 | 116.2 | 55.3 |
| 2020 | 7,400 | 13,780 | 186.2 | 8,510 | 7,910 | 115.0 | 54.3 |

1) Two-or-more-person households.

Source: Statistics Bureau, MIC.

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

Table 13.4**Amount of Savings and Debts by Age Group of Household Head**(Workers' households ¹⁾) (2020)

(Million yen)

| Item | Average | Under 29 | 30-39 | 40-49 | 50-59 | 60-69 | 70 and over |
|------------------------------------|---------|----------|-------|-------|-------|-------|-------------|
| Yearly income | 7.40 | 5.65 | 6.74 | 7.81 | 8.73 | 6.31 | 5.30 |
| Savings | 13.78 | 3.77 | 7.50 | 10.71 | 16.81 | 20.94 | 19.62 |
| Financial institutions | 13.30 | 3.61 | 7.22 | 10.22 | 15.96 | 20.61 | 19.61 |
| Demand deposits | 4.72 | 2.30 | 3.70 | 4.23 | 5.03 | 5.98 | 6.80 |
| Time deposits | 3.93 | 0.54 | 1.60 | 2.57 | 4.85 | 7.19 | 6.06 |
| Life insurance, etc. | 3.05 | 0.54 | 1.34 | 2.43 | 3.93 | 4.60 | 4.25 |
| Securities | 1.59 | 0.23 | 0.58 | 0.99 | 2.14 | 2.85 | 2.49 |
| Non-financial institutions | 0.48 | 0.16 | 0.28 | 0.49 | 0.85 | 0.33 | 0.01 |
| Debts | 8.51 | 6.93 | 13.37 | 12.00 | 6.92 | 2.14 | 1.38 |
| Housing and/or land | 7.91 | 6.34 | 12.66 | 11.32 | 6.27 | 1.74 | 1.21 |
| Other than housing and/or land ... | 0.37 | 0.37 | 0.53 | 0.45 | 0.32 | 0.24 | 0.05 |
| Monthly and yearly installments .. | 0.23 | 0.22 | 0.18 | 0.24 | 0.33 | 0.16 | 0.12 |

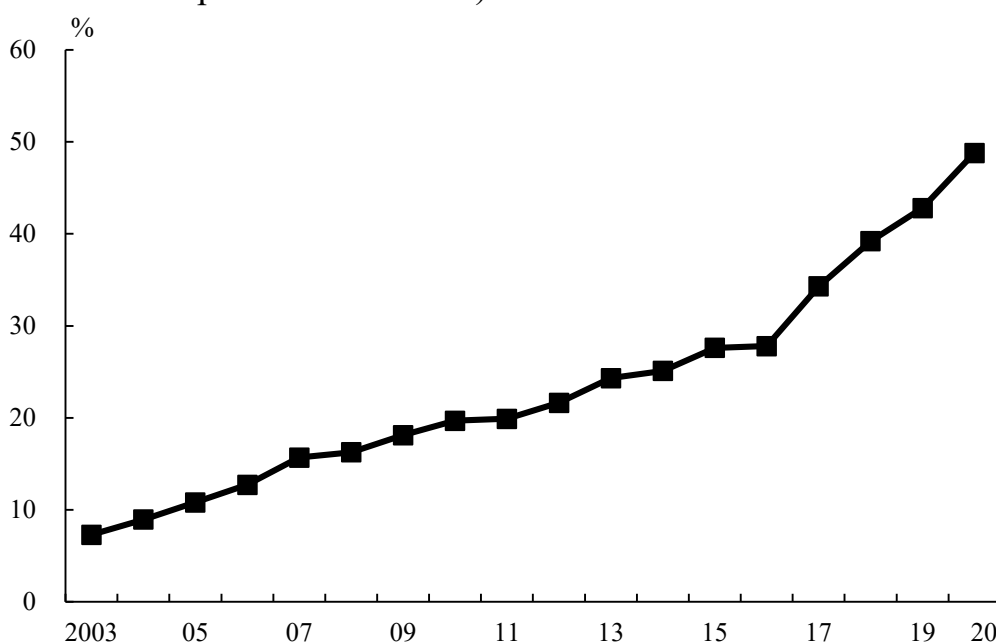
1) Two-or-more-person households.

Source: Statistics Bureau, MIC.

(3) Internet Shopping by Households

Due to popularization of computers, smartphones, etc., the use of Internet shopping has been increasing. According to the "Survey of Household Economy", the percentage of two-or-more-person households that utilize Internet shopping has continued to increase since 2002, reaching 48.8 percent in 2020. Total monthly expenditures used on Internet shopping amounted to an average of 16,339 yen per household.

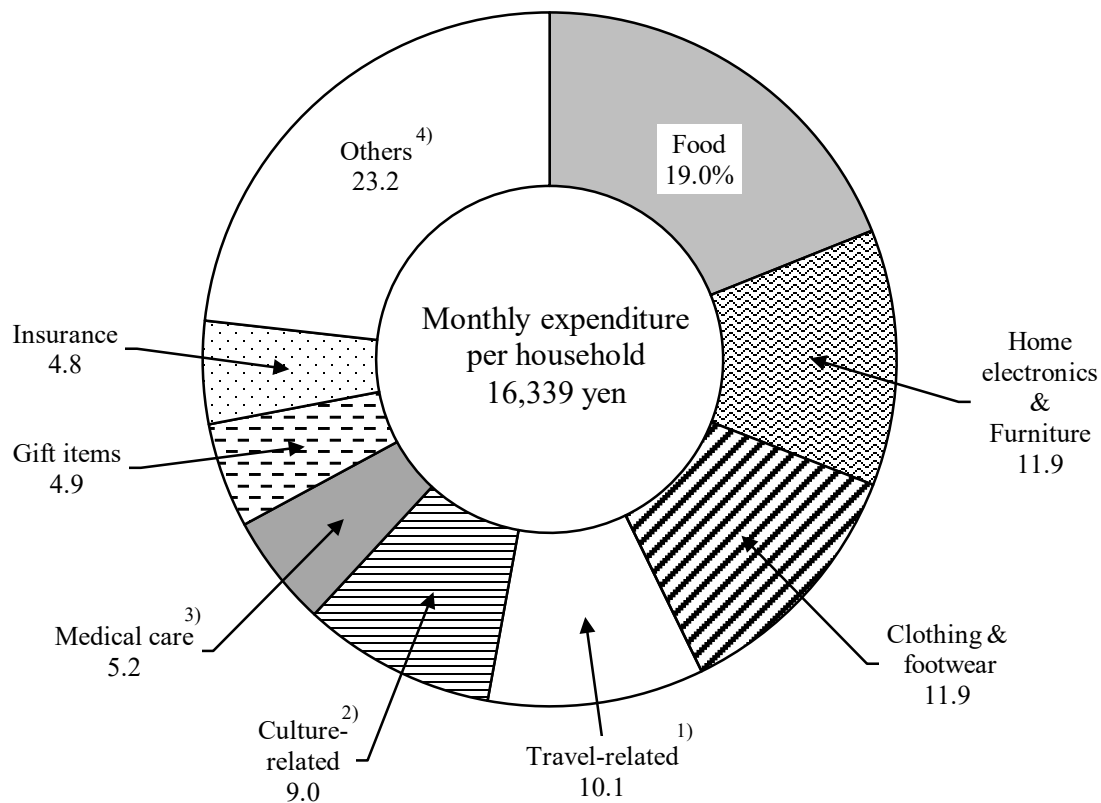
Figure 13.6
Proportion of Households Ordered over the Internet
 (Two-or-more-person households)



Source: Statistics Bureau, MIC.

Looking at the breakdown of total expenditures per two-or-more-person households spent on Internet shopping, "food" were the highest at 19.0 percent, followed by "home electronics and furniture" at 11.9 percent, "clothing and footwear" at 11.9 percent, "travel-related" at 10.1 percent, and "culture-related" (such as books and music software) at 9.0 percent, etc.

Figure 13.7
Ratio of Expenditure on Goods and Services Ordered over the Internet
 (Two-or-more-person households) (2020)

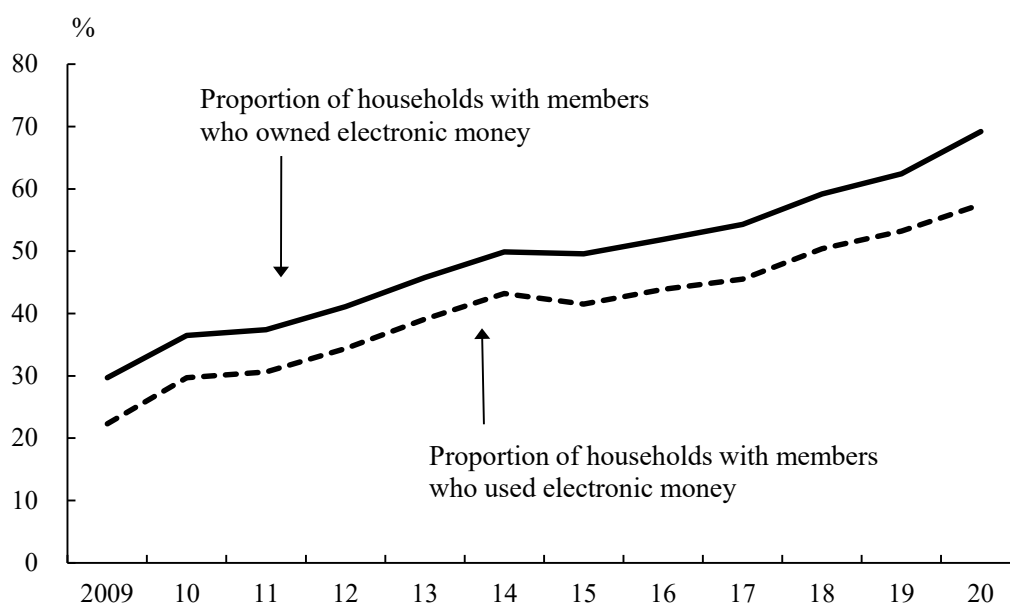


1) Total of accommodation services, fares and package tours. 2) Total of books and other reading materials, software (music, video, personal computer, TV game), digital books, download music, video, applications and tickets. 3) Total of medicines and health foods. 4) Total of cosmetics, private transportation,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

(4) Electronic Money

Use of electronic money has been increasing, as a means for settling accounts that can be easily used at transportation facilities, convenience stores, supermarkets, etc. Based on two-or-more-person households in the "Survey of Household Economy", the percentage of households with members who owned electronic money and the percentage of households with members who used electronic money have been on an increasing trend starting in 2008. In 2020, the percentage of households with members who owned electronic money was 69.2 percent, and the percentage of households with members who used electronic money was 57.5 percent, indicating increases as compared to the previous year.

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



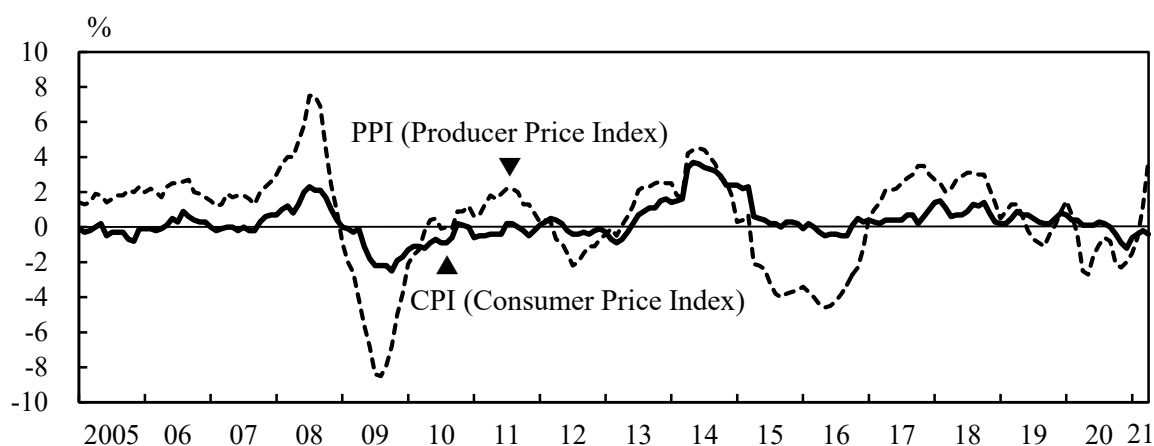
Source: Statistics Bureau, MIC.

2. Prices

From 2010 to the first quarter of 2013, producer prices fluctuated in the range of plus or minus 2 percent, and after that rose until the first quarter of 2015 due to depreciation of the yen. From the second quarter of 2015 to the fourth quarter of 2016, producer prices fell due to a decline of international commodity prices and a stronger yen, but from the second quarter of 2017 to the fourth quarter of 2018, they fluctuated around 2 to 3 percent compared to the previous year. Since 2018, global resource prices have declined due to a worldwide economic slowdown brought on by trade friction between the U.S.A. and China. As a result, the size of the increase contracted in 2019, and has been on a downward trend since the third quarter.

Consumer prices began a rising trend from the fourth quarter of 2007 due to sharp increases in imported raw material prices, but they began to fall from the first quarter of 2009 as a result of falling imported raw material prices after the bankruptcy of the major American securities firm Lehman Brothers in September 2008. Since 2010, the trend was generally downwards, but it turned upward starting in the third quarter of 2013 due to weakening of the yen. As a result of the increase in the consumption tax from 5 percent to 8 percent in April 2014, the size of the increase grew, but by the second quarter of 2015, the stimulative effects of the tax increase subsided. Since the fourth quarter of 2016, an upward trend has continued, due to global resource prices (such as crude oil) and exchange rates, but since 2018, trade friction between the U.S.A. and China has diminished the effect of rising resource prices, and increasing food prices have become a greater factor. The consumption tax rate was raised to 10 percent in October 2019, but the increase in consumer prices was less than 1 percent.

Figure 13.9
Price Trends (Percent change from previous year)



Source: Statistics Bureau, MIC; Bank of Japan.

(1) Consumer Price Index (CPI)

The all items index of consumer prices (with base year 2015 = 100) was 101.8 in 2020, the same level as the previous year.

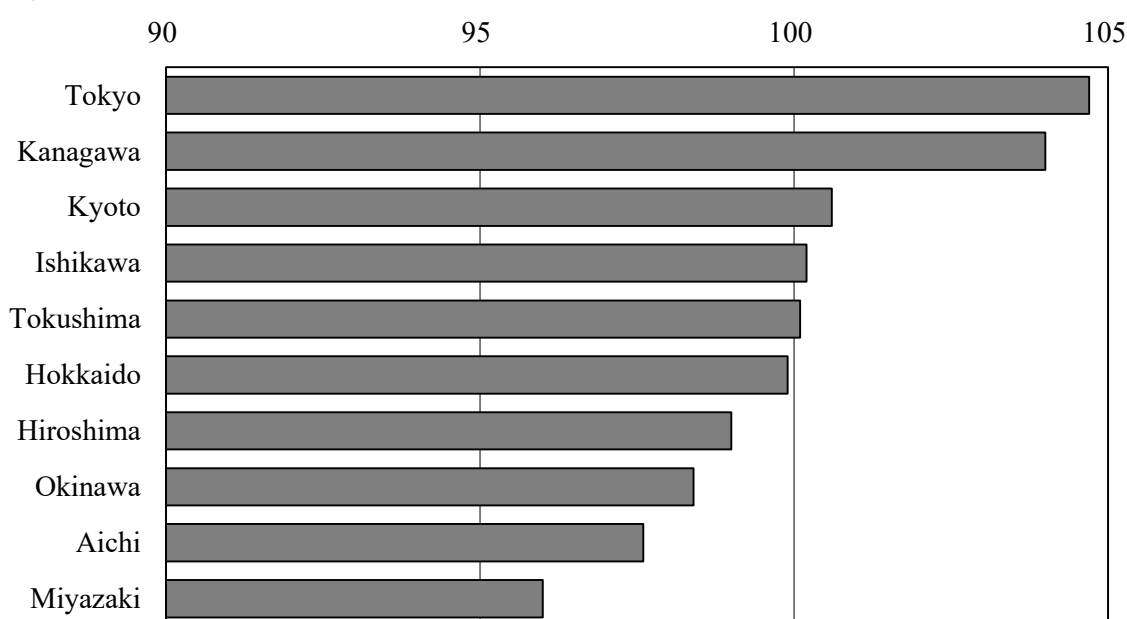
Table 13.5
CPI for Major Categories of Goods and Services

| Item | Weight | (CY2015=100) | | | | |
|--|--------|--------------|-------|-------|-------|-------|
| | | 2005 | 2010 | 2018 | 2019 | 2020 |
| All items | 10000 | 96.9 | 96.5 | 101.3 | 101.8 | 101.8 |
| All items, less imputed rent | 8501 | 95.9 | 95.6 | 101.7 | 102.3 | 102.3 |
| Food | 2623 | 90.9 | 93.9 | 103.9 | 104.3 | 105.8 |
| Housing | 2087 | 101.5 | 100.9 | 99.6 | 99.8 | 100.4 |
| Fuel, light and water charges | 745 | 81.3 | 86.0 | 99.0 | 101.3 | 98.8 |
| Furniture and household utensils | 348 | 118.1 | 105.8 | 98.0 | 100.2 | 102.5 |
| Clothing and footwear | 412 | 95.9 | 95.7 | 102.2 | 102.6 | 103.7 |
| Medical care | 430 | 101.3 | 100.1 | 103.3 | 104.0 | 104.3 |
| Transportation and communication ... | 1476 | 98.1 | 96.5 | 99.6 | 99.0 | 98.8 |
| Education | 316 | 105.0 | 97.8 | 102.7 | 101.1 | 93.2 |
| Culture and recreation | 989 | 109.1 | 101.1 | 102.1 | 103.8 | 103.1 |
| Miscellaneous | 574 | 88.5 | 91.1 | 101.4 | 101.4 | 99.3 |
| Goods | 4969 | 95.5 | 95.4 | 102.1 | 102.8 | 103.3 |
| Services | 5031 | 98.3 | 97.6 | 100.6 | 100.9 | 100.4 |

Source: Statistics Bureau, MIC.

According to the general index (all items, less imputed rent) in the regional difference index of consumer prices, which compares the difference in consumer price levels by prefecture, Tokyo had the highest score in 2019, with a figure of 104.7 against the national average set at 100, followed by Kanagawa, with 104.0. On the other hand, Miyazaki registered the lowest score, with 96.0. The index for Tokyo was 9.1 percent higher than that of Miyazaki.

Figure 13.10
Regional Difference Index of Consumer Prices
by Selected Prefectures (2019) (Japan = 100)



Source: Statistics Bureau, MIC.

(2) Corporate Goods and Services Producer Price Indices

The Corporate Goods Price Index measures price changes of goods traded in the corporate sector. It is comprised of the Producer Price Index (price index of domestically-produced and domestically-traded goods in the corporate sector), the Export Price Index, and the Import Price Index.

In 2020, the Producer Price Index (CY2015 as the base year = 100) was 100.3, down 1.2 percent from the previous year.

In 2020, the Export Price Index decreased to 97.5 on a contract currency basis (down 2.0 percent from the previous year), and to 90.2 on a yen basis

(down 3.1 percent from the previous year). Furthermore, the Import Price Index fell to 92.8 on a contract currency basis (down 9.2 percent from the previous year) and to 84.7 on a yen basis (down 10.3 percent from the previous year).

The Services Producer Price Index measures price movements of services traded between companies. In 2020, the Services Producer Price Index (CY2015 as the base year = 100) was 104.2, up 0.9 percent from the previous year.

Table 13.6
Corporate Goods and Services Producer Price Indices

| | | | | | | | (CY2015=100) |
|--|--------|-------|-------|-------|-------|-------|--------------|
| Item | Weight | 2016 | 2017 | 2018 | 2019 | 2020 | |
| Corporate Goods Price Index | | | | | | | |
| Producer Price Index | 1000.0 | 96.5 | 98.7 | 101.3 | 101.5 | 100.3 | |
| Manufacturing industry products | 888.3 | 97.0 | 98.9 | 101.1 | 101.2 | 100.4 | |
| Export Price Index (yen basis) | 1000.0 | 90.7 | 95.5 | 96.8 | 93.1 | 90.2 | |
| Import Price Index (yen basis) | 1000.0 | 83.6 | 92.7 | 99.7 | 94.4 | 84.7 | |
| Services Producer Price Index | | | | | | | |
| All items | 1000.0 | 100.3 | 101.0 | 102.2 | 103.3 | 104.2 | |
| Information and communications | 228.3 | 100.1 | 100.2 | 100.9 | 101.3 | 102.6 | |
| Transportation and postal activities | 158.0 | 98.8 | 100.2 | 102.7 | 104.4 | 105.6 | |
| Real estate services | 94.5 | 101.0 | 102.4 | 103.6 | 104.9 | 105.6 | |
| Leasing and rental | 79.2 | 99.5 | 99.1 | 99.2 | 99.5 | 100.3 | |

Source: Bank of Japan.

Chapter 14

Environment and Life

1. Environmental Issues

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

In fiscal 2019, Japan's total emission of greenhouse gases, which are a major cause of global warming, amounted to 1.2 billion tons (calculated after their conversion into carbon dioxide), representing a decrease of 2.9 percent from the previous fiscal year. Carbon dioxide accounted for 91.4 percent of these greenhouse gases, with an emission volume of 1.1 billion tons. A breakdown of carbon dioxide emissions by sector revealed that emissions from the industrial sector accounted for 34.7 percent of the total, followed in order by emissions from the transport sector, the commercial industry sector (office buildings, etc.), the residential sector, and the energy industry sector (electric power plants, etc.).

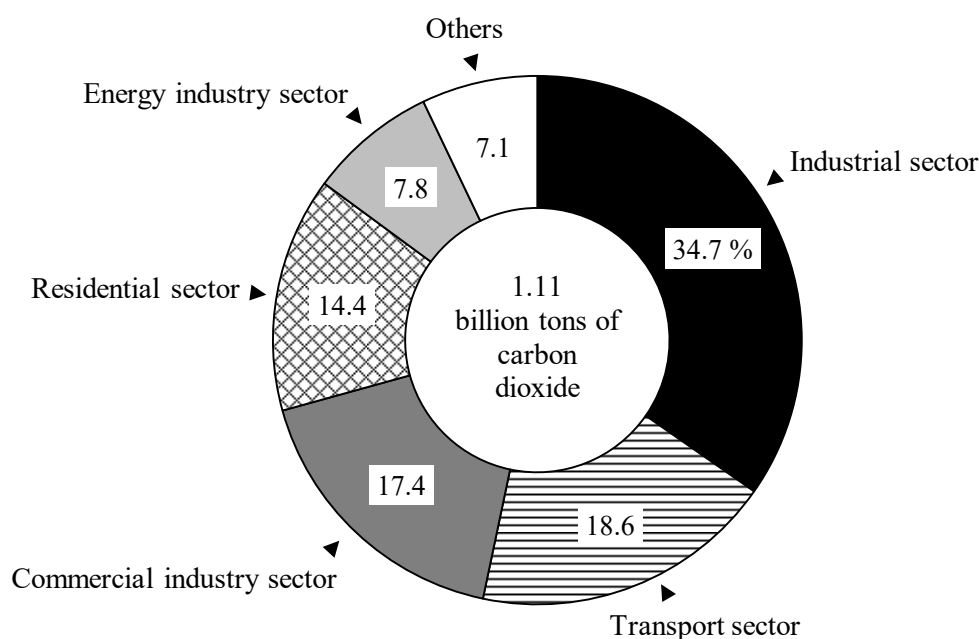
Table 14.1
Breakdown of Carbon Dioxide Emissions ^{1) 2)}

| Category | (Million tons) | | | | | |
|---|----------------|--------|--------|--------|--------|--------|
| | FY1990 | FY2005 | FY2010 | FY2015 | FY2018 | FY2019 |
| Total | 1,164 | 1,294 | 1,217 | 1,226 | 1,146 | 1,108 |
| Industrial sector | 503 | 467 | 430 | 429 | 400 | 384 |
| Transport sector | 208 | 244 | 229 | 217 | 210 | 206 |
| Commercial industry sector ... | 131 | 220 | 200 | 219 | 200 | 193 |
| Residential sector | 129 | 171 | 178 | 187 | 166 | 159 |
| Energy industry sector | 96 | 98 | 99 | 94 | 89 | 86 |
| Industrial processes and product use | 66 | 56 | 47 | 47 | 46 | 45 |
| Waste (incineration, etc.) | 24 | 32 | 29 | 30 | 31 | 31 |
| Others | 7 | 5 | 4 | 3 | 3 | 3 |

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

Source: Ministry of the Environment.

Figure 14.1
Sources of Carbon Dioxide Emissions ¹⁾ (FY2019)



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

The state of waste management in Japan had remained serious due to the shrinking remaining capacity of final disposal sites and increased illegal dumping. This led to the Basic Act on Establishing a Sound Material-Cycle Society (brought into force in January 2001), which defines basic principles for the creation of a sound material-cycle society. This Act has established a legal framework to address issues such as waste disposal and recycling of automobile and electrical appliance. Furthermore, in Japan, the "3Rs" (reduce, reuse and recycle) in waste management including R&D on waste recycling technology and appropriate management of materials of hazards have been promoted, but recently, socio-economic systems have been developed to especially implement the "2Rs" (reduce and reuse) from among the "3Rs".

Of various types of waste generated as a result of business activities, 20 of them, including sludge, waste oil, soot and dust, and imported waste, are designated as "industrial waste". The fiscal 2018 nationwide industrial waste generation totaled 379 million tons. Sludge, animal excreta, and debris, which account for approximately 80 percent of the total industrial waste, are now increasingly recycled into construction materials, fertilizers, and other materials. Thanks to this development, the volume of final disposal (to be put into landfills) fell from 89 million tons in fiscal 1990 to 9 million tons in fiscal 2018.

Meanwhile, a total of 43 million tons of "nonindustrial waste" (household waste and also shop, office, and restaurant waste) was generated in fiscal 2018. This translates to 918 grams per person per day. The total volume of processed nonindustrial waste was 41 million tons in fiscal 2018. The total volume of recycled waste was 9 million tons, with the recycling rate at 19.9 percent.

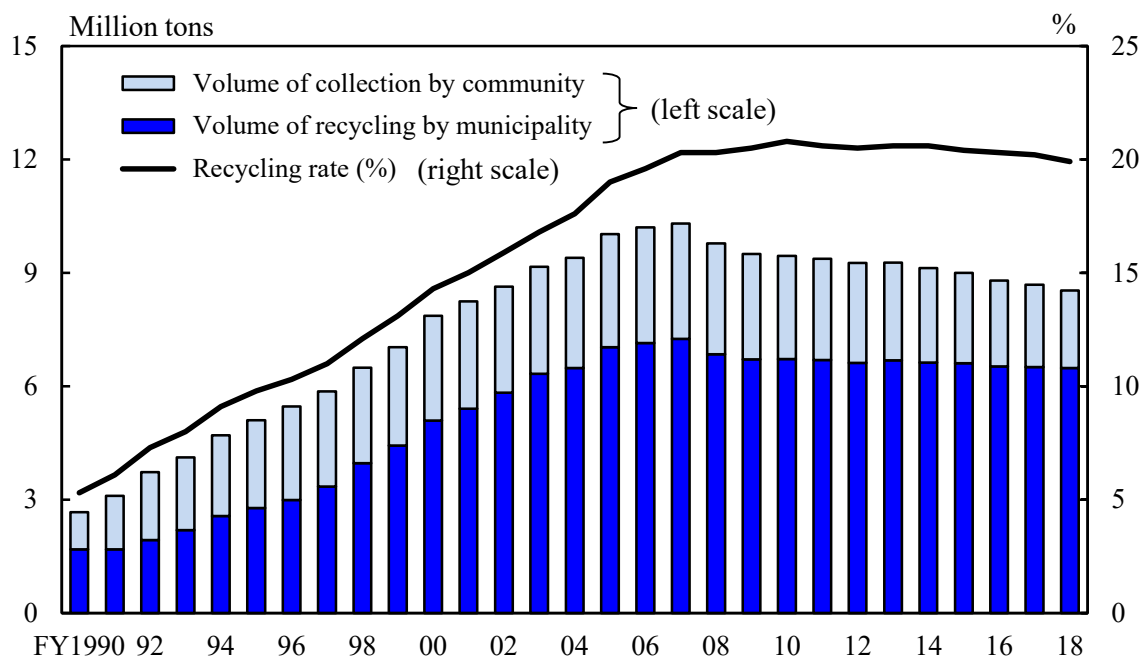
Table 14.2
Waste Generation and Disposal

| | (Thousand tons) | | | | |
|--|-----------------|---------|---------|---------|---------|
| Item | FY1990 | FY2000 | FY2005 | FY2010 | FY2018 |
| Industrial waste | | | | | |
| Total volume of waste generation | 394,736 | 406,037 | 421,677 | 385,988 | 378,832 |
| Recycling | 150,568 | 184,237 | 218,888 | 204,733 | 199,008 |
| Treatment for waste reduction | 154,443 | 176,933 | 178,560 | 167,000 | 170,698 |
| Final disposal | 89,725 | 44,868 | 24,229 | 14,255 | 9,126 |
| Nonindustrial waste ¹⁾ | | | | | |
| Total volume of waste generation | 50,257 | 54,834 | 52,720 | 45,359 | 42,716 |
| Municipally scheduled and collected | 42,495 | 46,695 | 44,633 | 38,827 | 36,929 |
| Directly brought to | | | | | |
| waste treatment facilities | 6,776 | 5,373 | 5,090 | 3,803 | 3,743 |
| Recyclable waste | | | | | |
| collected by community | 986 | 2,765 | 2,996 | 2,729 | 2,044 |
| Waste generated | | | | | |
| daily per person (in grams) | 1,115 | 1,185 | 1,131 | 976 | 918 |
| Total volume of processed waste | 49,282 | 52,090 | 49,754 | 42,791 | 40,743 |
| Direct incineration | 36,192 | 40,304 | 38,486 | 33,799 | 32,622 |
| Intermediate treatment for recycling, etc. ... | | 6,479 | 7,283 | 6,161 | 5,789 |
| Direct recycling | 3,300 | 2,224 | 2,541 | 2,170 | 1,892 |
| Direct final disposal | 9,790 | 3,084 | 1,444 | 662 | 439 |

1) Due to the Great East Japan Earthquake, figures for FY2010 exclude those for Minamisanriku Town, Miyagi Prefecture. Figures for FY 2018 exclude disaster waste.

Source: Ministry of the Environment.

Figure 14.2
Recycling of Nonindustrial Waste ¹⁾



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

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

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

Source: Ministry of the Environment.

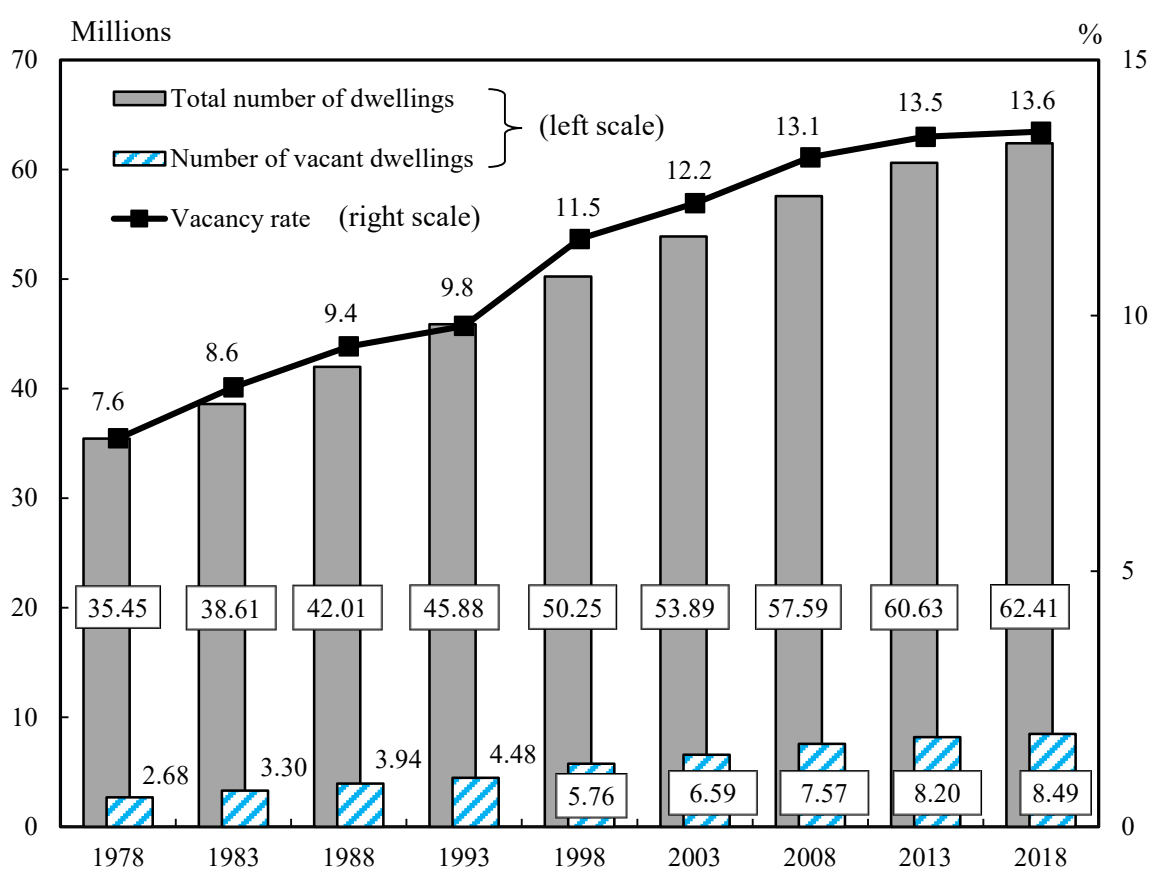
2. Housing

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

In 2018, the number of occupied dwellings (where people usually live) amounted to 54 million, accounting for 85.9 percent of the total number of dwellings. Of these, the number of dwellings used exclusively for living totaled 53 million, accounting for 98.2 percent of the occupied dwellings. Meanwhile, the number of vacant dwellings increased by 0.3 million, 3.6 percent from 2013, to 8 million. That vacancy rate represented 13.6 percent of the total number of dwellings, the highest-ever ratio.

Figure 14.3

Trends in Dwellings, Vacant Dwellings, and Vacancy Rate



Source: Statistics Bureau, MIC.

A breakdown of occupied dwellings by category of ownership showed that owned houses totaled 33 million, accounting for 61.2 percent of the total, which represented a decrease of 0.5 percentage points from the figure of 61.7 percent in 2013. Rented houses, on the other hand, numbered 19 million, accounting for 35.6 percent of the total.

Table 14.3
Housing Conditions

| Year | Total households | Total number of dwellings ¹⁾ | Occupied dwellings ²⁾ | Ownership | | Dwellings used exclusively for living | Floor space per dwelling (m ²) ²⁾ |
|------|------------------|---|----------------------------------|-----------|--------|---------------------------------------|--|
| | | | | Owned | Rented | | |
| | | | | 1988 | 37,812 | | |
| 1993 | 41,159 | 45,879 | 40,773 | 24,376 | 15,691 | 38,457 | 88.4 |
| 1998 | 44,360 | 50,246 | 43,922 | 26,468 | 16,730 | 41,744 | 89.6 |
| 2003 | 47,255 | 53,891 | 46,863 | 28,666 | 17,166 | 45,258 | 92.5 |
| 2008 | 49,973 | 57,586 | 49,598 | 30,316 | 17,770 | 48,281 | 92.4 |
| 2013 | 52,453 | 60,629 | 52,102 | 32,166 | 18,519 | 50,982 | 93.0 |
| 2018 | 54,001 | 62,407 | 53,616 | 32,802 | 19,065 | 52,642 | 92.1 |

1) Including dwellings without occupying households.

2) Including ownership of dwelling "Not reported".

Source: Statistics Bureau, MIC.

Table 14.4
Occupied Dwellings by Type of Building

| Year | Total | Detached houses | Tenement houses | Apartments | Others |
|------|--------|-----------------|-----------------|------------|--------|
| | | | | | |
| 1993 | 40,773 | 24,141 | 2,163 | 14,267 | 202 |
| 1998 | 43,922 | 25,269 | 1,828 | 16,601 | 224 |
| 2003 | 46,863 | 26,491 | 1,483 | 18,733 | 156 |
| 2008 | 49,598 | 27,450 | 1,330 | 20,684 | 134 |
| 2013 | 52,102 | 28,599 | 1,289 | 22,085 | 130 |
| 2018 | 53,616 | 28,759 | 1,369 | 23,353 | 136 |

Source: Statistics Bureau, MIC.

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

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

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

Table 14.5
Ratio of Barrier-Free Houses with Elderly Members

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

1) When a single household lives in 1 house, it is called a "principal household", and if 2 or more households live in 1 house, then the main household from among the multiple households is regarded as the "principal household". 2) Houses that are handrail-equipped at 2 or more locations, or have step-free interiors, as equipment for the elderly etc.

3) Houses that are handrail-equipped at 2 or more locations, and have step-free interiors and wheelchair-accessible hallways, as equipment for the elderly etc.

Source: Statistics Bureau, MIC.

3. Traffic Accidents

In 1970, the annual number of fatalities from traffic accidents hit a record high of 16,765, leading to the enactment of the Traffic Safety Measures Basic Acts in the same year. Based on this, the government has promoted traffic safety measures in a comprehensive and systematic manner. As a result, the number of traffic accident fatalities was 3,532 in 2018, which is the lowest number since 1948 when the current traffic accident statistics were adopted, and this represented approximately one-fifth of the number in 1970.

In 2018, the number of traffic accident fatalities per 100,000 population was 2.8 persons, while that per 10,000 motor vehicles was 0.4 persons.

Table 14.6
Traffic Accidents and Casualties

| Year | Traffic accidents | Injuries | Traffic accident fatalities ¹⁾ | | |
|------|-------------------|-----------|---|---------------------------|------------------------|
| | | | | per 10,000 motor vehicles | per 100,000 population |
| 1970 | 718,080 | 981,096 | 16,765 | 9.0 | 16.2 |
| 1980 | 476,677 | 598,719 | 8,760 | 2.2 | 7.5 |
| 1990 | 643,097 | 790,295 | 11,227 | 1.9 | 9.1 |
| 2000 | 931,950 | 1,155,707 | 9,073 | 1.2 | 7.1 |
| 2010 | 725,924 | 896,297 | 4,948 | 0.6 | 3.9 |
| 2017 | 472,165 | 580,850 | 3,694 | 0.5 | 2.9 |
| 2018 | 430,601 | 525,846 | 3,532 | 0.4 | 2.8 |

1) Death within 24 hours of the accident.

Source: National Police Agency.

4. Crime

The police organization consists of the National Public Safety Commission and the National Police Agency, both of which are state organizations, as well as the Prefectural Public Safety Commission and prefectural police, both of which are organizations under the authority of individual prefectures. As of April 1, 2020, the prefectural police operated police headquarters, police academies, 1,153 police stations, 6,264 police boxes and 6,241 police substations in 47 prefectures.

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

In 2020, the reported number of penal code offenses was 614,231, a decrease of 134,328, or 17.9 percent compared to the previous year. The proportion of thefts was the highest, accounting for 67.9 percent, or 417,291 cases (down 21.6 percent from the previous year).

The number of persons arrested for penal code offenses was 182,582 in 2020, a decrease of 10,025, or 5.2 percent compared to the previous year, marking a decline for the 16th consecutive year.

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

trend, and in 2020, it was 45.5 percent, an increase of 6.2 percentage points from the previous year.

Table 14.7
Trends in Crime (Penal code offenses)

| Year | Reported offenses | Resultant arrests | Persons arrested | Arrest rate ¹⁾ (%) | Crime rate per 100,000 population |
|------|-------------------|-------------------|------------------|-------------------------------|-----------------------------------|
| 1980 | 1,357,461 | 811,189 | 392,113 | 59.8 | 1,159.6 |
| 1985 | 1,607,697 | 1,032,879 | 432,250 | 64.2 | 1,328.1 |
| 1990 | 1,636,628 | 692,593 | 293,264 | 42.3 | 1,324.0 |
| 1995 | 1,782,944 | 753,174 | 293,252 | 42.2 | 1,419.5 |
| 2000 | 2,443,470 | 576,771 | 309,649 | 23.6 | 1,925.5 |
| 2005 | 2,269,293 | 649,503 | 386,955 | 28.6 | 1,775.7 |
| 2010 | 1,604,019 | 497,356 | 322,620 | 31.0 | 1,252.6 |
| 2015 | 1,098,969 | 357,484 | 239,355 | 32.5 | 864.7 |
| 2019 | 748,559 | 294,206 | 192,607 | 39.3 | 593.3 |
| 2020 | 614,231 | 279,185 | 182,582 | 45.5 | 488.6 |

1) The ratio of arrests to reported number of offenses.

Source: National Police Agency; Ministry of Justice.

Various kinds of computers and computer networks are currently playing an essential role as a social foundation. In line with this, crimes utilizing computer networks are becoming increasingly diversified. The number of arrests for cybercrime (violation of the Unauthorized Computer Access Act, offenses involving computers or electromagnetic records, offenses related to creation of unauthorized commands for electromagnetic records, etc.) in 2020 was 9,875, up 3.7 percent from the previous year. This represented about an elevenfold increase from the 913 cases registered in 2000.

Chapter 15

Social Security, Health Care, and Public Hygiene

1. Social Security

In Japan, the birth rate has been falling, while the number of elderly people has been growing. Meanwhile, its social security system is required to address various changes in the socioeconomic environment.

In April 2000, a long-term care insurance system was launched. When the system was first established, there were 2.18 million people certified as needing care or needing support. This number grew by approximately 3.0-fold, to 6.59 million people as of April 2019, and the long-term care insurance system has become anchored in society. Today, there are approaches aimed at enhancing services for promoting "the Community-based Integrated Care System" (system where medical care, nursing care, preventive care, and livelihood support are provided integrally in regions where one is used to living), as well as realizing a local, inclusive society.

The number of monthly users of long-term care insurance services totaled, on average, 5.54 million per month in fiscal 2018, and increased by approximately 3.0-fold over 18 years in comparison to the approximately 1.84 million users in fiscal 2000, when the system was initiated. In addition, the amount of nursing care costs in fiscal 2018 (including allowances for high-cost long-term care service, for high-cost medical care and long-term care service, and for long-term care service to a person admitted to a specified facility), totaled 10.4 trillion yen.

Table 15.1
Trends in Social Security Benefit Expenditures by Institutional Scheme

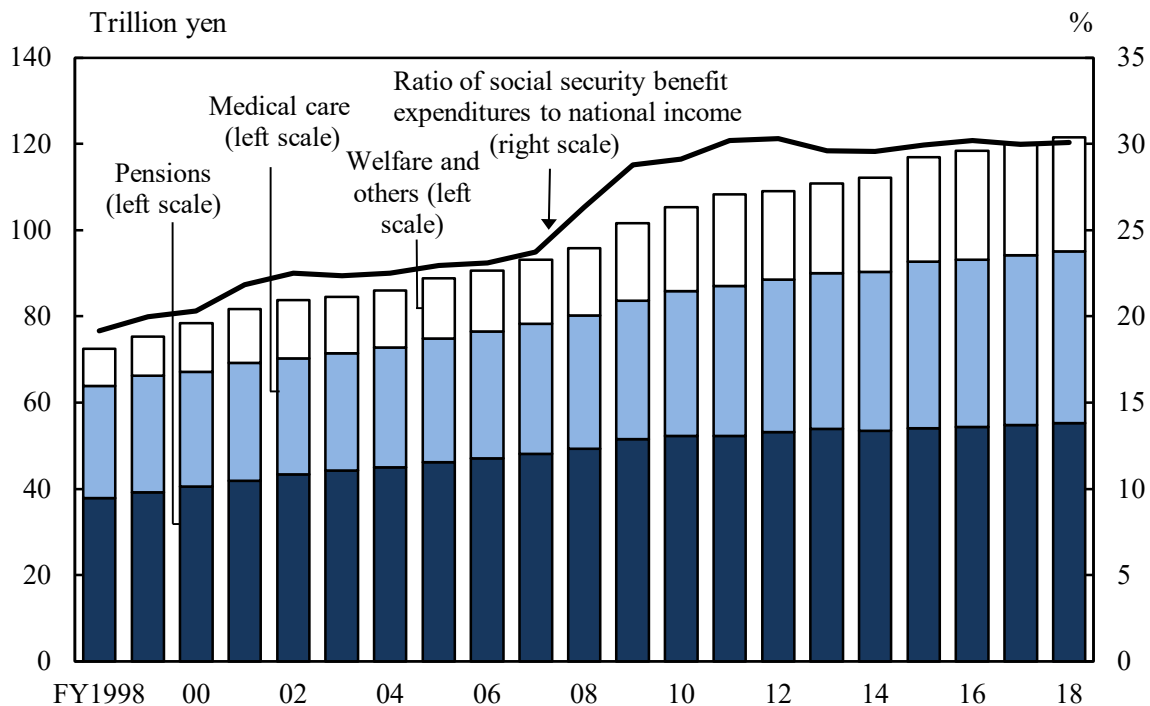
| Item | (Billion yen) | | | | | |
|--|---------------|--------|---------|---------|---------|---------|
| | FY2000 | FY2005 | FY2010 | FY2015 | FY2016 | FY2017 |
| Total | 78,399 | 88,853 | 105,365 | 116,840 | 118,409 | 120,244 |
| Medical insurance | 14,798 | 16,418 | 19,060 | 21,079 | 21,022 | 21,062 |
| Health and medical services for the aged | 10,447 | 10,754 | 11,718 | 14,047 | 14,261 | 14,841 |
| Long-term care insurance | 3,262 | 5,815 | 7,434 | 9,311 | 9,508 | 9,897 |
| Pension benefits | 39,172 | 45,124 | 51,674 | 53,939 | 54,130 | 54,620 |
| Employment insurance ¹⁾ | 2,665 | 1,522 | 2,461 | 1,843 | 1,858 | 1,870 |
| Workers' accident compensation insurance | 1,053 | 990 | 952 | 924 | 916 | 916 |
| Family allowance ²⁾ | 712 | 1,158 | 3,042 | 2,844 | 2,803 | 2,791 |
| Public assistance | 1,939 | 2,594 | 3,330 | 3,713 | 3,715 | 3,701 |
| Social welfare | 2,186 | 2,726 | 3,487 | 6,923 | 8,034 | 8,418 |
| Public health | 555 | 548 | 1,388 | 1,758 | 1,774 | 1,772 |
| Gratuities for retired public employees .. | 1,420 | 1,059 | 702 | 381 | 330 | 281 |
| Aid for war victims | 188 | 146 | 116 | 78 | 60 | 75 |

1) Including unemployment benefits for Seamen's insurance. 2) Including child allowance, income support for single parent families and for children with disabilities.

Source: National Institute of Population and Social Security Research.

In fiscal 2018, social security benefit expenditures totaled 121.5 trillion yen (up 1.1 percent from the previous fiscal year), a figure which amounted to 961,200 yen per person. The ratio of Japan's social security benefit expenditures to national income registered 30.1 percent. Benefits for the aged accounted for 66.5 percent of total social security benefit expenditures.

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



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

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

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

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

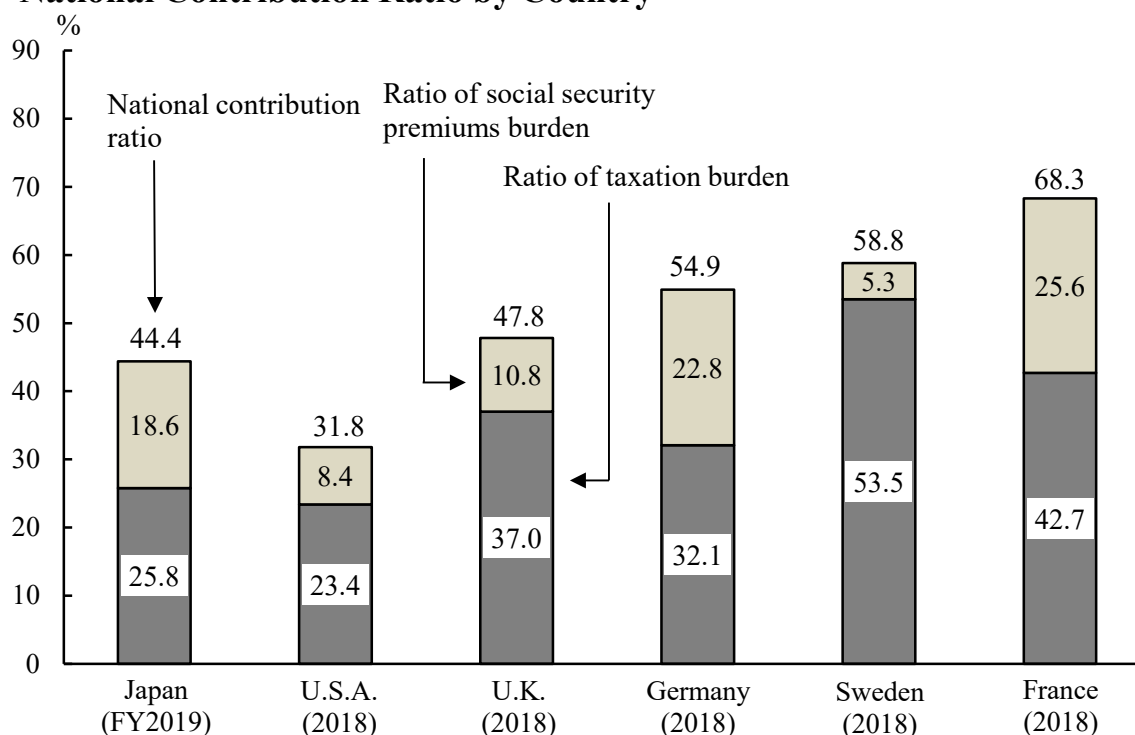
Source: National Institute of Population and Social Security Research.

In fiscal 2018, pensions accounted for 45.5 percent of total social security benefit expenditures, while medical care accounted for 32.7 percent, and social welfare and others for 21.8 percent. Social security benefit expenditures are forecasted to continue growing.

In accordance with the rise in social security benefit expenditures, the amount of social insurance contributions and taxes has also increased, reaching 132.6 trillion yen in fiscal 2018. This was financed by 72.6 trillion yen from social insurance contributions, 50.4 trillion yen from taxes and 9.6 trillion yen from other sources. The government is making approaches toward drastic reform of the tax system, including raising the consumption tax, as the first step towards simultaneously ensuring stable funding for social security and achieving sound public finance.

The national contribution ratio (the combined ratios of taxes and social security costs to national income) was 44.4 percent in fiscal 2019 (taxation burden: 25.8 percent; social security premiums: 18.6 percent), up 0.1 percentage points from 44.3 percent in fiscal 2018 (taxation burden: 26.1 percent; social security premiums: 18.2 percent). The national contribution ratio in 2018 was 31.8 percent in the U.S.A., 47.8 percent in the U.K., and 68.3 percent in France. While the ratio in Japan was higher than that of the U.S.A., it was lower than European countries.

Figure 15.2
National Contribution Ratio by Country



Source: Ministry of Finance.

2. Health Care and Public Hygiene

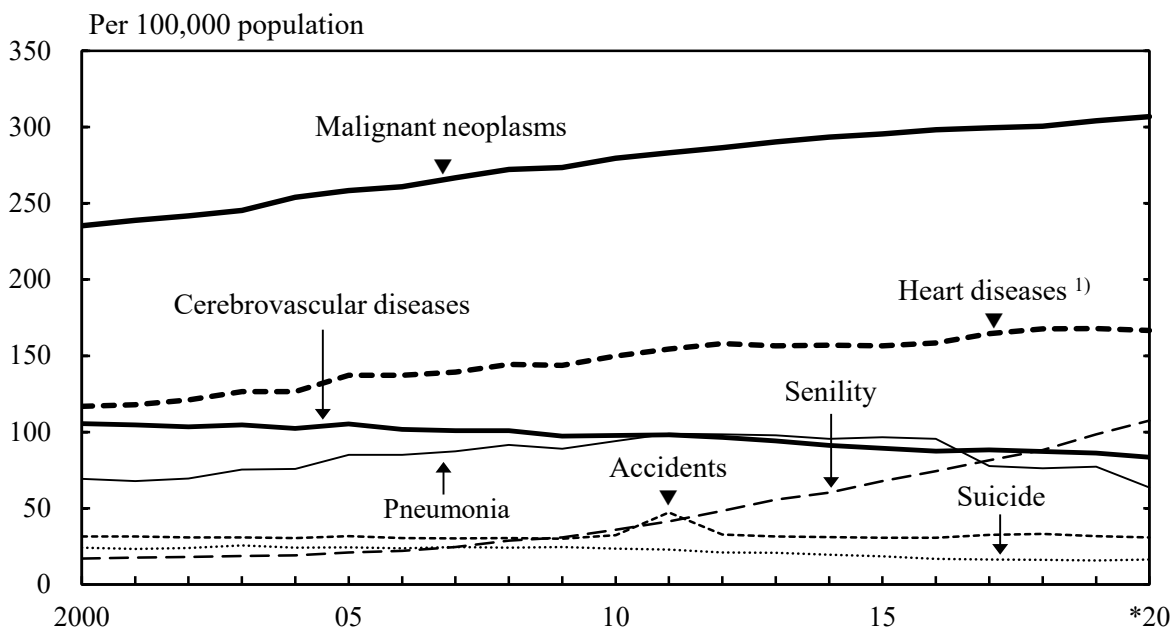
Japan has a universal health insurance regime to ensure that anyone can receive necessary medical treatment. Under this regime, every citizen enters a publicly regulated medical insurance system, such as employees' health insurance, national health insurance or the latter-stage elderly's medical insurance.

This medical care system has contributed to Japan's achieving the highest life expectancy in the world, as well as a high standard of healthcare along with improvements in the living environment and better nutrition.

Currently, reform of the whole system is being undertaken in order to preserve the stability of this medical insurance system in the future.

Life expectancy at birth was 87.5 years for women and 81.4 years for men in 2019. Japan's life expectancy remains at a high level in the world. Even with regard to healthy life expectancy, which is the "period during which one can lead a daily life without being restricted by health problems", Japan was among the world's highest as of 2016, with 74.8 years for women and 72.1 years for men. Japan's infant mortality rate was 1.8 per 1,000 births in 2020.

Figure 15.3
Death Rates by Major Cause



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

The death rate was 1,113.7 per 100,000 population in 2020. The leading cause of death was malignant neoplasms (307.0 per 100,000 population), followed by lifestyle diseases such as heart diseases (166.7; excluding hypertensive diseases), in which people's daily diet and behavior are significant factors, and senility (107.5). Malignant neoplasms became the leading cause of death in 1981. The death rate by malignant neoplasms has continued to increase since, reaching 27.6 percent of all deaths in 2020.

The number of deaths caused by suicide in Japan hovered at around 30,000 annually in 1998 and onwards. In recent years, the number has remained

steady at around 20,000. The number of suicides in 2020 was 20,222. In 2020, suicide was the leading cause of deaths for people aged between 10 and 39.

In the past, human beings have faced the threat of various epidemic diseases, including new strains of influenza. In 2014, cases of infection from Dengue fever in Japan were confirmed for the first time in approximately 70 years. In 2018, the number of patients with rubella increased. In 2020, the outbreak of COVID-19 developed into a pandemic, resulting in increasing numbers of infections and verified deaths. Currently, in Japan, infection control measures are being advanced, such as through the implementation of vaccinations, with the objective of preventing the occurrence and spread of infectious diseases.

In terms of healthcare provision, Japan had 324,737 physicians engaged in medical care, or 256.8 physicians per 100,000 population, in 2018. While the number of physicians providing healthcare is increasing nationwide, their uneven distribution has become a problem due to the lack of physicians specializing in certain areas of medicine and the lack of physicians operating in regional parts of the country.

Table 15.2
Medical Personnel at Work

| Personnel | 2010 | 2012 | 2014 | 2016 | 2018 |
|-------------------------------------|-----------|-----------|-----------|-----------|-----------|
| Number | | | | | |
| Physicians | 292,338 | 300,664 | 308,651 | 317,162 | 324,737 |
| Dentists | 100,161 | 101,110 | 102,534 | 103,127 | 103,418 |
| Pharmacists | 258,713 | 262,520 | 271,364 | 284,069 | 294,430 |
| Nurses and Assistant nurses | 1,320,871 | 1,373,521 | 1,426,932 | 1,472,508 | 1,523,085 |
| Rates per 100,000 population | | | | | |
| Physicians | 228.3 | 235.6 | 242.6 | 249.9 | 256.8 |
| Dentists | 78.2 | 79.2 | 80.6 | 81.2 | 81.8 |
| Pharmacists | 202.0 | 205.7 | 213.3 | 223.8 | 232.9 |
| Nurses and Assistant nurses | 1,031.5 | 1,076.5 | 1,121.5 | 1,160.1 | 1,204.6 |

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

As of October 1, 2019, the number of hospitals in Japan (excluding medical clinics and dental clinics) totaled 8,300. The number of hospital beds amounted to 1,529,215 (1,212.1 per 100,000 population).

Table 15.3
Medical Care Institutions and Beds

| Type of Institution | 2011 | 2014 | 2017 | 2018 | 2019 |
|-------------------------------------|-----------|-----------|-----------|-----------|-----------|
| Institutions | | | | | |
| Total | 176,308 | 177,546 | 178,492 | 179,090 | 179,416 |
| Hospitals | 8,605 | 8,493 | 8,412 | 8,372 | 8,300 |
| Medical clinics | 99,547 | 100,461 | 101,471 | 102,105 | 102,616 |
| Dental clinics | 68,156 | 68,592 | 68,609 | 68,613 | 68,500 |
| Rates per 100,000 population | | | | | |
| Total | 138.0 | 139.7 | 140.9 | 141.6 | 142.2 |
| Hospitals | 6.7 | 6.7 | 6.6 | 6.6 | 6.6 |
| Medical clinics | 77.9 | 79.1 | 80.1 | 80.8 | 81.3 |
| Dental clinics | 53.3 | 54.0 | 54.1 | 54.3 | 54.3 |
| Beds | | | | | |
| Total | 1,712,539 | 1,680,712 | 1,653,303 | 1,641,468 | 1,620,097 |
| Hospitals | 1,583,073 | 1,568,261 | 1,554,879 | 1,546,554 | 1,529,215 |
| Medical clinics | 129,366 | 112,364 | 98,355 | 94,853 | 90,825 |
| Dental clinics | 100 | 87 | 69 | 61 | 57 |
| Rates per 100,000 population | | | | | |
| Total | 1,340.0 | 1,322.5 | 1,304.8 | 1,298.2 | 1,284.1 |
| Hospitals | 1,238.7 | 1,234.0 | 1,227.2 | 1,223.1 | 1,212.1 |
| Medical clinics | 101.2 | 88.4 | 77.6 | 75.0 | 72.0 |
| Dental clinics | 0.1 | 0.1 | 0.1 | 0.0 | 0.0 |

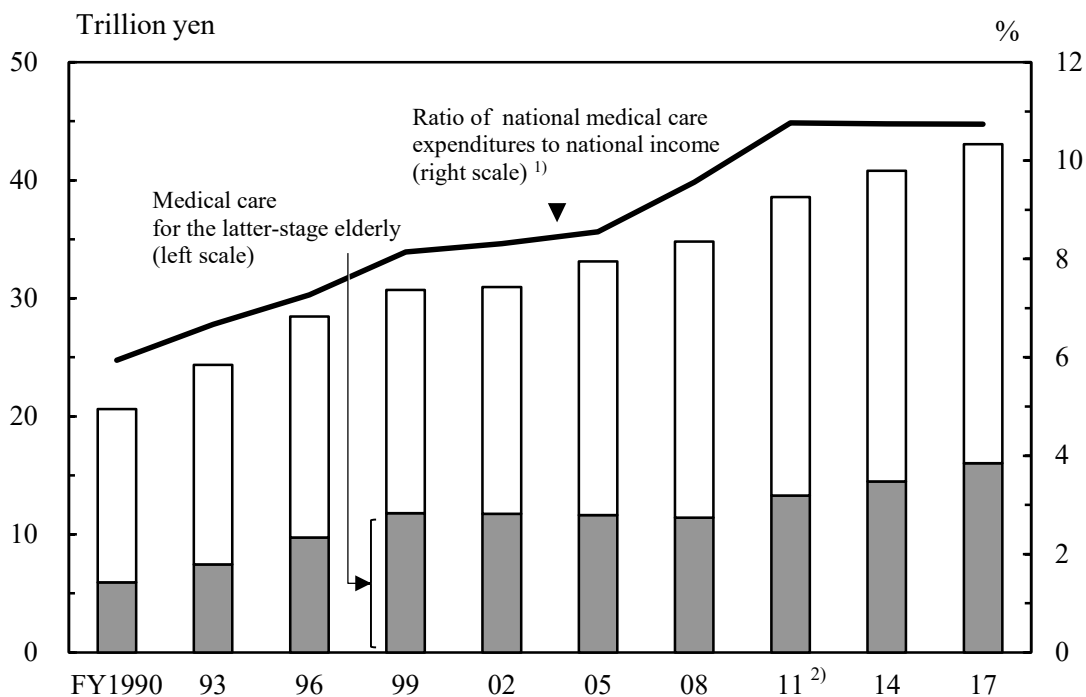
Source: Ministry of Health, Labour and Welfare.

In fiscal 2018, national medical care expenditures totaled 43.4 trillion yen or 10.73 percent of Japan's national income. The cost of medical care per person averaged 343,200 yen in fiscal 2018.

Medical costs for treating the latter-stage elderly in fiscal 2017 were 16.0 trillion yen, or 37.2 percent of national medical care expenditure, and accounted for 4.00 percent of the national income. The per-capita cost of medical care for the latter-stage elderly averaged 944,561 yen for the year. The percentage of national medical care expenditures accounted for by medical care costs for the late-stage elderly decreased when the age of

persons eligible to receive later-stage elderly medical care was raised in a phased manner over 5 years from 70 years to 75 years old in October 2002, but in recent years, there has been a slight uptrend.

Figure 15.4
Trends in Medical Care Expenditures



1) National income data between FY1996-2014 represents data before re-estimation.
 2) Excluding medical care expenditures pertaining to the Great East Japan Earthquake (4.5 billion yen in total, combining the payment for estimated billing and the medical care expenditures of unidentified insurers).
 Source: Ministry of Health, Labour and Welfare.

Chapter 16

Education and Culture

1. School-Based Education

Japan's primary and secondary education is based on a 6-3-3 system: 6 years in elementary school, 3 years in lower secondary school, and 3 years in upper secondary school. The period of compulsory schooling is the 9 years at elementary and lower secondary schools. Higher education institutions are universities, junior colleges, and colleges of technology. Other education establishments include kindergartens and integrated centers for early childhood education and care, which provide pre-school education, and schools for special needs education. There are also specialized training colleges and miscellaneous schools for a wide range of vocational and other practical skills learning. In order to promote diversity of the school education system, unified lower-upper secondary schooling began at some schools in 1999. Furthermore, in 2016, compulsory education schools, where compulsory education for elementary schools to lower secondary schools is carried out consistently, were established. On an additional note, the school year in Japan starts in April and ends in March of the following year.

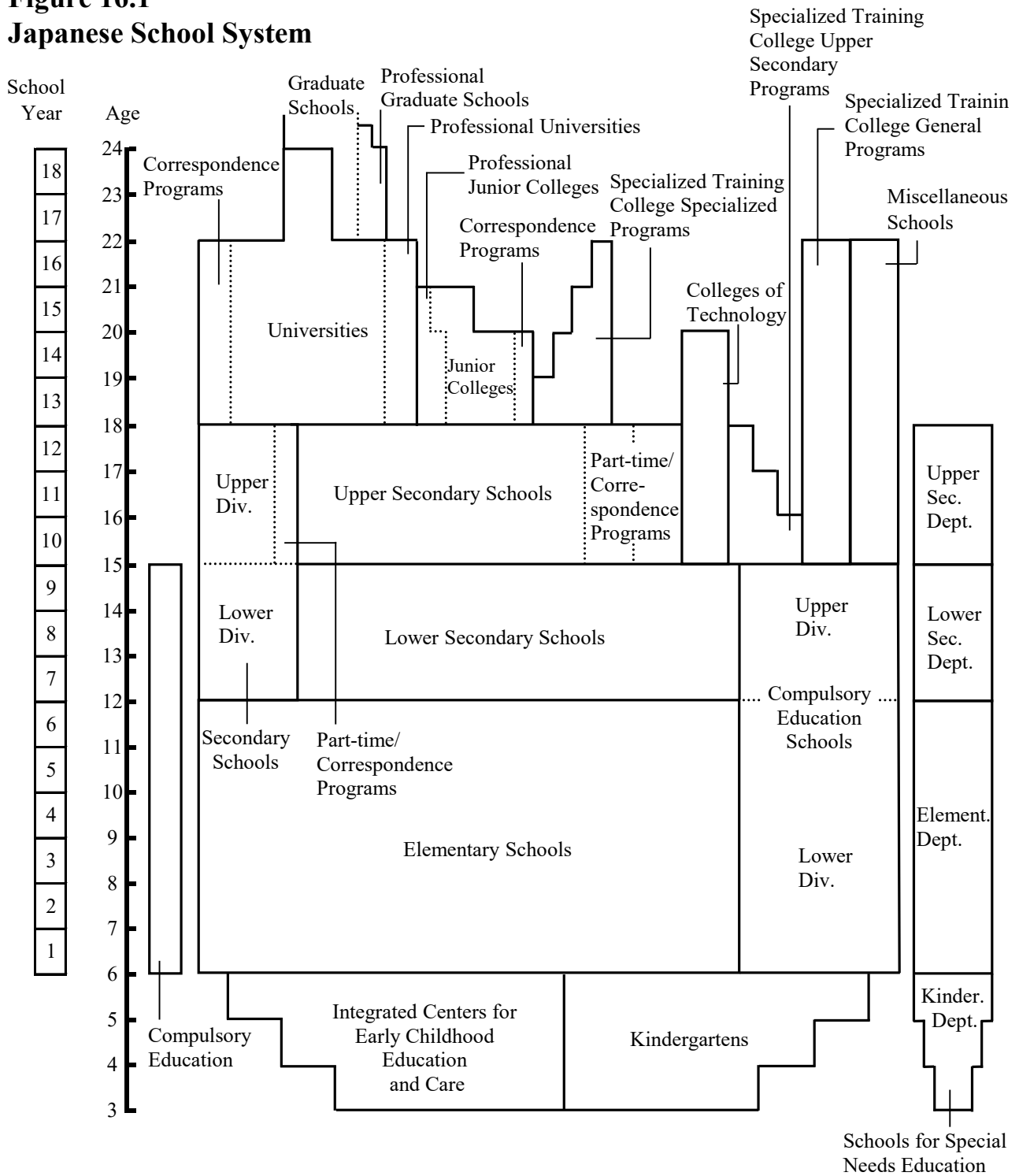
Table 16.1
Educational Institutions in Japan (as of May 1, 2020)

| Type of institution | Schools | | | | Full-time teachers (1,000) | Students (1,000) | |
|--|---------|----------|--------|---------|----------------------------|------------------|---------|
| | Total | National | Public | Private | | Males | Females |
| Kindergartens | 9,698 | 49 | 3,251 | 6,398 | 92 | 546 | 532 |
| Integrated centers for early childhood education and care | 5,847 | - | 834 | 5,013 | 121 | 389 | 370 |
| Elementary schools | 19,525 | 68 | 19,217 | 240 | 423 | 3,222 | 3,079 |
| Lower secondary schools | 10,142 | 69 | 9,291 | 782 | 247 | 1,643 | 1,568 |
| Compulsory education schools .. | 126 | 4 | 121 | 1 | 4 | 26 | 24 |
| Upper secondary schools | 4,874 | 15 | 3,537 | 1,322 | 229 | 1,563 | 1,529 |
| Secondary schools | 56 | 4 | 33 | 19 | 3 | 16 | 16 |
| Schools for special needs education ¹⁾ | 1,149 | 45 | 1,090 | 14 | 86 | 95 | 50 |
| Colleges of technology | 57 | 51 | 3 | 3 | 4 | 45 | 12 |
| Junior colleges | 323 | - | 17 | 306 | 7 | 13 | 95 |
| Universities | 795 | 86 | 94 | 615 | 190 | 1,621 | 1,294 |
| Graduate schools | 643 | 86 | 84 | 473 | 107 | 172 | 83 |
| Specialized training colleges | 3,115 | 9 | 187 | 2,919 | 41 | 293 | 368 |
| Miscellaneous schools | 1,102 | - | 6 | 1,096 | 9 | 56 | 49 |

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

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

Figure 16.1
Japanese School System



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

Of the March 2020 upper secondary school and upper division of secondary school graduates, 55.9 percent went straight on to enter a university, junior college, etc. The ratio of graduates of upper secondary school, etc. who entered a university or junior college in 2020 was 58.5 percent (58.1 percent of male and 59.1 percent of female graduates), including graduates from previous years.

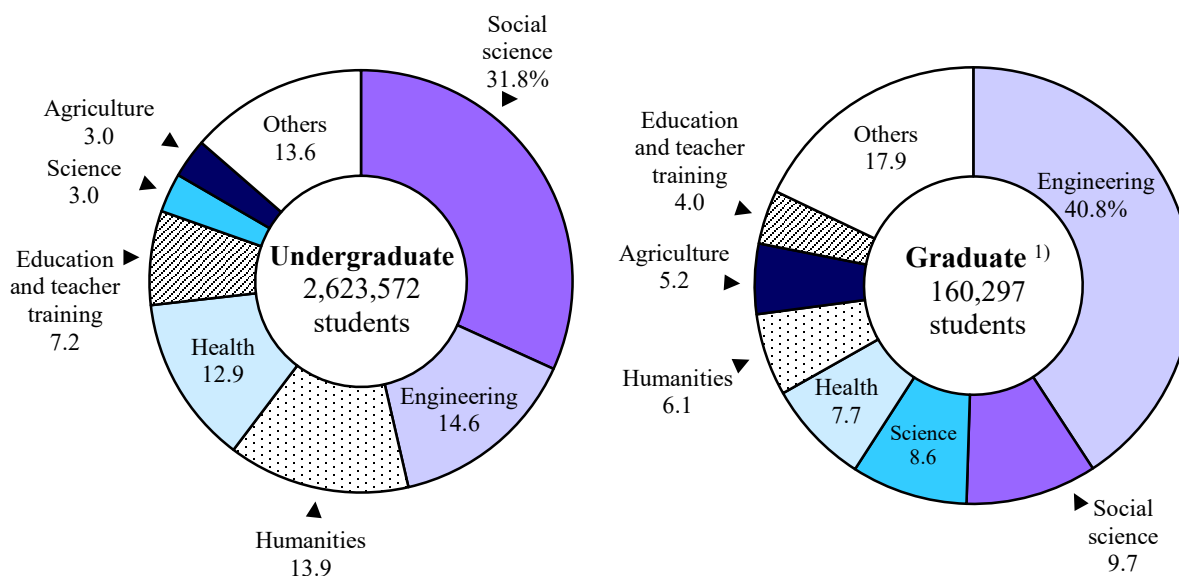
Table 16.2
Number of University Students (as of May 1)

| | 2010 | 2015 | 2018 | 2019 | 2020 |
|----------------------------|-----------|-----------|-----------|-----------|-----------|
| Total | 2,887,414 | 2,860,210 | 2,909,159 | 2,918,668 | 2,915,605 |
| Undergraduate | 2,559,191 | 2,556,062 | 2,599,684 | 2,609,148 | 2,623,572 |
| Graduate schools | 271,454 | 249,474 | 254,013 | 254,621 | 254,529 |
| Others ¹⁾ | 56,769 | 54,674 | 55,462 | 54,899 | 37,504 |
| Females | 1,185,580 | 1,231,868 | 1,280,406 | 1,293,095 | 1,294,320 |
| Undergraduate | 1,077,782 | 1,127,372 | 1,172,170 | 1,183,962 | 1,193,465 |
| Graduate schools | 82,133 | 77,831 | 81,464 | 82,427 | 82,982 |
| Others ¹⁾ | 25,665 | 26,665 | 26,772 | 26,706 | 17,873 |
| National | 625,048 | 610,802 | 608,969 | 606,449 | 598,881 |
| Public | 142,523 | 148,766 | 155,520 | 158,176 | 158,579 |
| Private | 2,119,843 | 2,100,642 | 2,144,670 | 2,154,043 | 2,158,145 |

1) "Others" include advanced students, short-term students, non-degree students, auditing students and research students.

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

Figure 16.2
University Students by Field of Study (as of May 1, 2020)



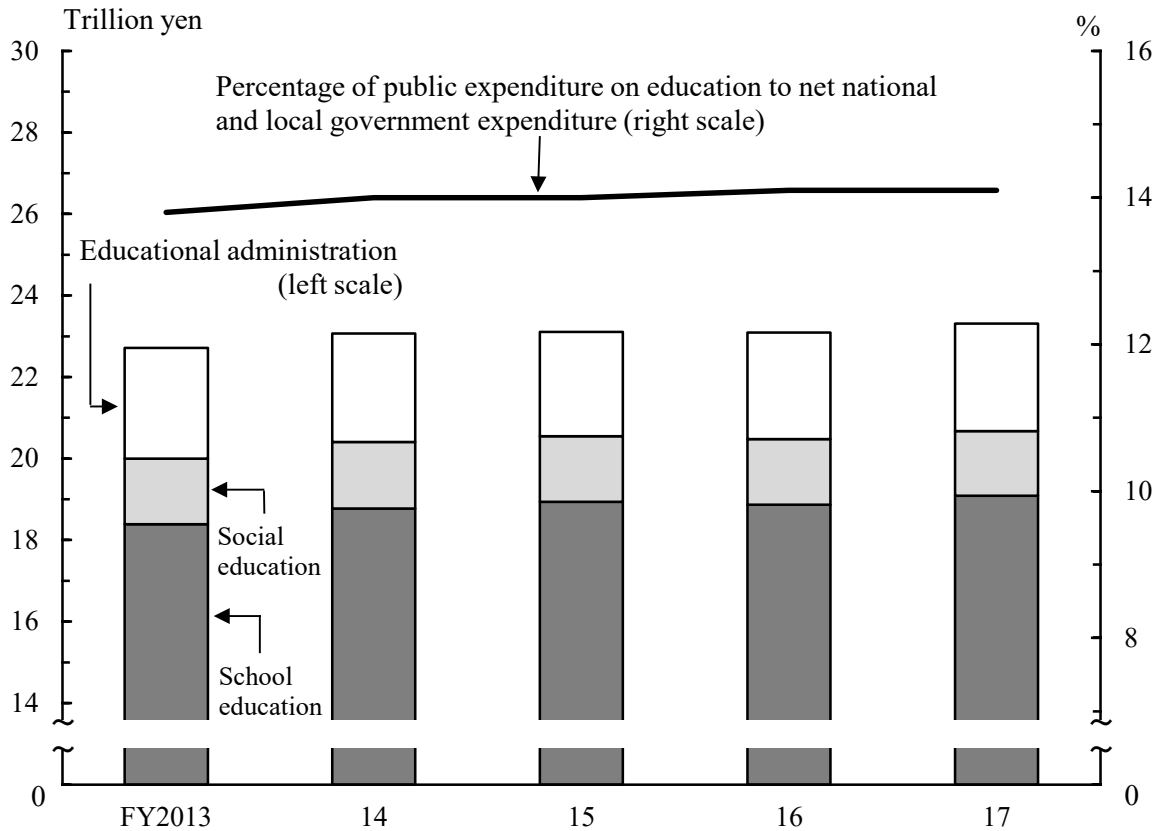
1) Master's course.

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

As of May 1, 2019, a total of 145,535 foreign students were enrolled in Japanese junior colleges, universities, and graduate schools. Of the total foreign students, 89.8 percent were from Asia, including 74,799 from China, 15,643 from Vietnam and 13,051 from the Republic of Korea.

Fiscal 2017 public expenditure on education in Japan was 23 trillion yen, which is equivalent to 14.1 percent of the net expenditure of national and local governments.

Figure 16.3
Public Expenditures on Education



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

Fiscal 2018 school expenditure by households with children attending public school averaged 63,102 yen per elementary school pupil, 138,961 yen per lower-secondary school student and 280,487 yen per upper-secondary school student.

2. Lifelong Learning

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

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

Table 16.3
Social Education Facilities and Users

| Facilities | Number ¹⁾ | | Users (1,000) ²⁾ | |
|--|----------------------|--------|-----------------------------|---------|
| | 2015 | 2018 | 2014 | 2017 |
| Citizens' public halls ³⁾ | 14,841 | 14,281 | 193,464 | 166,517 |
| Libraries ⁴⁾ | 3,331 | 3,360 | 181,364 | 177,899 |
| Museums | 1,256 | 1,286 | 129,579 | 142,456 |
| General museums | 152 | 154 | 8,499 | 9,349 |
| Science museums | 106 | 104 | 16,439 | 16,830 |
| Historical museums | 451 | 470 | 22,950 | 28,611 |
| Art museums | 441 | 453 | 30,724 | 39,811 |
| Outdoor museums | 16 | 16 | 2,601 | 2,157 |
| Zoological gardens | 35 | 34 | 20,631 | 19,396 |
| Botanical gardens | 10 | 11 | 860 | 1,117 |
| Zoological and botanical gardens | 7 | 6 | 4,498 | 4,538 |
| Aquariums | 38 | 38 | 22,377 | 20,646 |
| Facilities similar to museums | 4,434 | 4,452 | 150,417 | 160,613 |
| Centers for children and youths | 941 | 891 | 20,058 | 19,729 |
| Women's education centers | 367 | 358 | 9,716 | 11,310 |
| Public sports facilities | 47,536 | 46,981 | 501,557 | 526,725 |
| Private sports facilities | 14,987 | 16,397 | 123,630 | 107,939 |
| Theaters, concert halls, etc. | 1,851 | 1,827 | ... | ... |
| Lifelong learning centers | 449 | 478 | 26,218 | 27,290 |

1) As of October 1. 2) Total of fiscal year. 3) Including similar facilities.

4) Including the same type of facilities.

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

3. Leisure Activities

The results of the "2016 Survey on Time Use and Leisure Activities" conducted on people living in this country, aged 10 years old and over, show that the amount of free time each person has spent was 6 hours and 22 minutes, which was the time remaining after activities that were physiologically necessary (sleeping, eating, etc.) and societally essential (work, housework, etc.).

Table 16.4

Major Leisure Activities by Sex (Aged 10 years old and over) (2016)

| Leisure Activities | Total | Males | Females |
|---|-------|-------|---------|
| Free time per day (hours. minutes) | 6.22 | 6.36 | 6.09 |
| Participation rate (%) ¹⁾ | | | |
| Hobbies and amusements | 87.0 | 87.2 | 86.8 |
| Travel and excursion | 73.5 | 71.1 | 75.8 |
| Sports ^{2) 3)} | 68.8 | 73.5 | 64.4 |
| Learning, self-education, and training ^{2) 4)} | 36.9 | 36.5 | 37.4 |
| Volunteer activities | 26.0 | 25.0 | 26.9 |

1) Participants in the activity / Population × 100. 2) Including club activities at school.

3) Excluding sports performed by professional players as their job and by students in PE

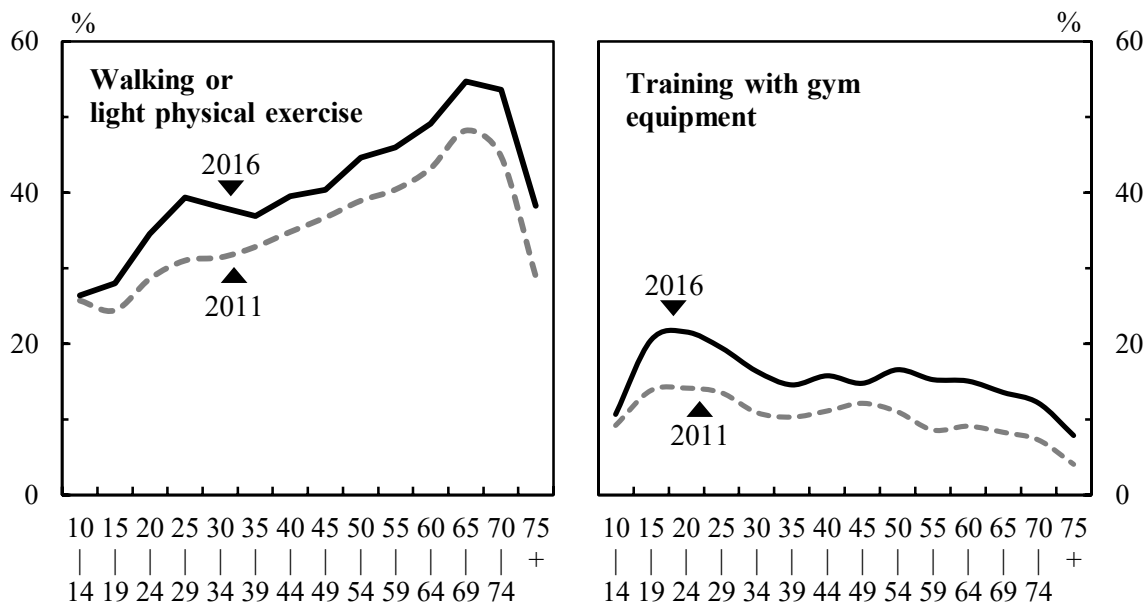
class. 4) Excluding worker training at the workplace, and study and research activities performed by children, pupils or students as schoolwork, such as study in class, preparation for class and review of lessons.

Source: Statistics Bureau, MIC.

The participation rate for "hobbies and amusements" was 87.0 percent (percentage of people (aged 10 years old and over) who engaged in the activity within the past 12 months), and by sex, the participation rate for males was 87.2 percent and that for females was 86.8 percent. In addition, for participation rates by type of activity, "watching movies other than movie theater" was the highest at 52.1 percent, followed by "listening to music by CD, smartphone, etc." at 49.0 percent, "watching movies in a movie theater" at 39.6 percent, and so on.

The participation rate for "sports" was 68.8 percent, and by sex, the participation rate for males was 73.5 percent and that for females was 64.4 percent. In addition, for participation rates by type of sport, "walking or light physical exercise" was the highest at 41.3 percent, followed by "training with gym equipment" at 14.7 percent, and so on.

Figure 16.4
Participation Rates for Major "Sports" that Showed Participation Rate Increase by Age Group



Source: Statistics Bureau, MIC.

4. Publishing and Mass Media

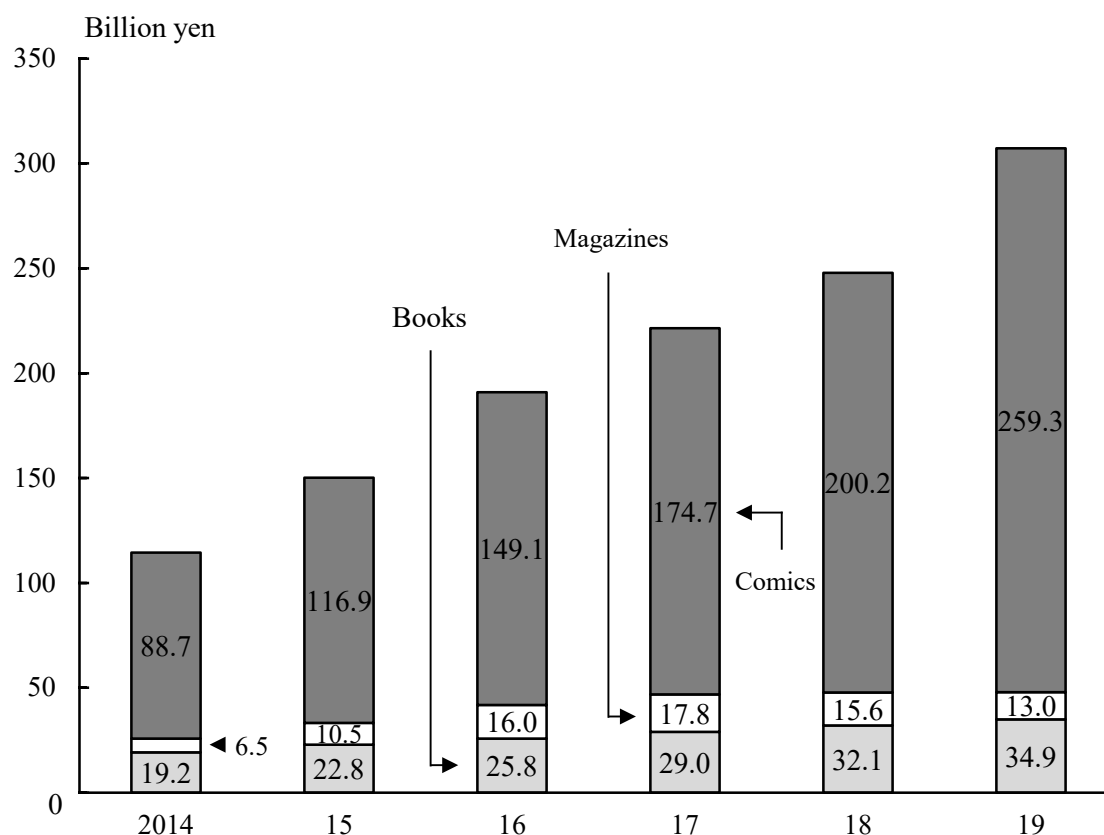
A total of 71,903 new book titles were released in 2019. The number of magazine titles published was 2,734 (including 2,652 monthlies and 82 weeklies). In recent years, the electronic books market has been growing.

Table 16.5
Number of New Book Titles Published

| Subject | 2015 | 2016 | 2017 | 2018 | 2019 |
|-------------------------------|--------|--------|--------|--------|--------|
| Total | 76,445 | 75,039 | 73,057 | 71,661 | 71,903 |
| General works | 828 | 763 | 858 | 767 | 804 |
| Philosophy | 4,199 | 4,176 | 3,932 | 3,955 | 3,743 |
| History and geology | 3,953 | 3,685 | 3,404 | 3,530 | 3,890 |
| Social sciences | 16,745 | 16,078 | 15,422 | 15,220 | 15,482 |
| Natural sciences | 6,044 | 5,639 | 5,757 | 5,325 | 5,066 |
| Technology and engineering .. | 4,327 | 4,391 | 4,176 | 3,906 | 3,951 |
| Industry and commerce | 2,565 | 2,625 | 2,652 | 2,492 | 2,444 |
| Art and life | 12,939 | 13,299 | 12,676 | 11,856 | 12,383 |
| Languages | 1,615 | 1,604 | 1,628 | 1,535 | 1,473 |
| Literature | 13,478 | 13,270 | 13,327 | 13,048 | 12,979 |
| Children's books | 4,305 | 4,319 | 4,350 | 4,721 | 4,583 |
| School textbooks | 5,447 | 5,190 | 4,875 | 5,306 | 5,105 |

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

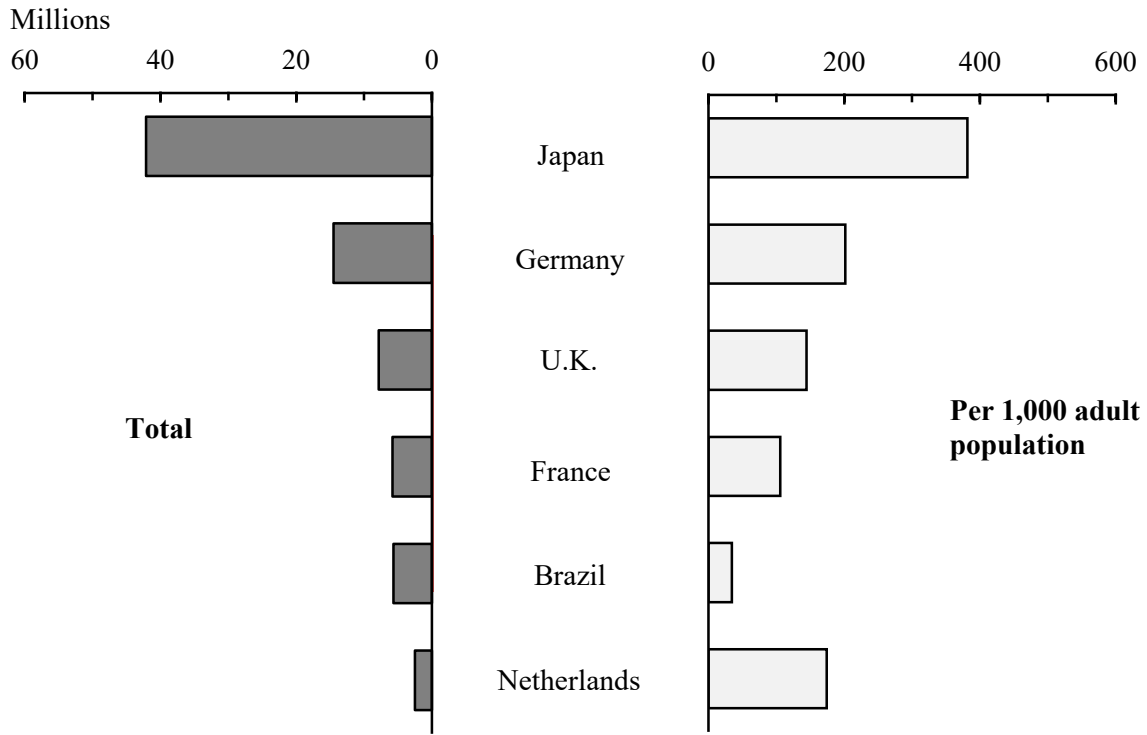
Figure 16.5
Trends in the Size of the Electronic Publication Market



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

A total of 116 daily newspapers were in circulation, and the penetration rate was 0.61 newspapers per household as of October 2020.

Figure 16.6
Newspaper Circulation by Country (2017)



Source: World Association of News Publishers.

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

Major broadcasting services can be divided roughly into 3 categories: terrestrial, satellite, and cable television. Terrestrial digital broadcasting was launched in some areas of the Kanto, Kinki and Chukyo regions in December 2003 and then also in other areas, including all prefectural capitals, in December 2006. By March 31, 2012, analog broadcasting ended and was completely replaced with terrestrial digital broadcasting in all parts of Japan. Currently, 4K and 8K broadcast services with 4 and 16 times the pixel number of existing full high definition are being promoted, and new 4K and 8K satellite broadcast services began in December 2018.

In 2020, advertising expenditures in the 4 major mass media types in Japan (newspapers, magazines, radio and television) totaled 2.3 trillion yen, down compared with the previous year. This accounted for 36.6 percent of total advertising expenditures, which were 6.2 trillion yen. Spending on Internet advertising reached 2.2 trillion yen (up 5.9 percent from the previous year). This amounted to 36.2 percent of the total advertising expenditures.

Table 16.6
Advertising Expenditures by Medium

| Year | Total | News- papers | Maga- zines | Radio | Tele- vision ¹⁾ | Satellite media- related | Internet | Promo- tional media |
|---|---------|-----------------|----------------|-------|-------------------------------|--------------------------------|-----------|---------------------------|
| Advertising expenditures (billion yen) | | | | | | | | |
| 2010 | 5,842.7 | 639.6 | 273.3 | 129.9 | 1,732.1 | 78.4 | 774.7 | 2,214.7 |
| 2015 | 6,171.0 | 567.9 | 244.3 | 125.4 | 1,932.3 | - | 1,159.4 | 2,141.7 |
| 2018 | 6,530.0 | 478.4 | 184.1 | 127.8 | 1,912.3 | - | 1,758.9 | 2,068.5 |
| 2019 | 6,938.1 | 454.7 | 167.5 | 126.0 | 1,861.2 | - | # 2,104.8 | # 2,223.9 |
| 2020 | 6,159.4 | 368.8 | 122.3 | 106.6 | 1,655.9 | - | 2,229.0 | 1,676.8 |
| Percentage distribution (%) | | | | | | | | |
| 2010 | 100.0 | 11.0 | 4.7 | 2.2 | 29.6 | 1.3 | 13.3 | 37.9 |
| 2015 | 100.0 | 9.2 | 4.0 | 2.0 | 31.3 | - | 18.8 | 34.7 |
| 2018 | 100.0 | 7.3 | 2.8 | 2.0 | 29.3 | - | 26.9 | 31.7 |
| 2019 | 100.0 | 6.6 | 2.4 | 1.8 | 26.8 | - | 30.3 | 32.1 |
| 2020 | 100.0 | 6.0 | 2.0 | 1.7 | 26.9 | - | 36.2 | 27.2 |

1) Television including Satellite media-related advertising after 2015.

Source: Dentsu Inc.

5. Cultural Assets

Throughout its long history, Japan has been endowed with an abundance of valuable cultural assets, including works of art, historic landmarks, and many natural monuments. To pass on this cultural heritage to future generations, the Japanese government has accorded many of the most important assets as national treasures, designated important cultural properties, historic sites, places of scenic beauty, or natural monuments, based on the Act on Protection of Cultural Properties. In addition to preserving cultural assets, measures to utilize such assets are being established, such as expansion of viewing opportunities through exhibitions.

Table 16.7
Cultural Properties Designated by the National Government
 (as of June 1, 2021)

| Type of cultural properties | Number | |
|---|--------|----------|
| Important cultural properties | 13,331 | a) 1,125 |
| Fine arts and crafts | 10,808 | a) 897 |
| Structures | 2,523 | a) 228 |
| Historic sites, places of scenic beauty and natural monuments | 3,318 | b) 174 |
| Historic sites | 1,859 | b) 63 |
| Places of scenic beauty | 425 | b) 36 |
| Natural monuments | 1,034 | b) 75 |
| Important tangible folk cultural properties | 224 | |
| Important intangible folk cultural properties | 323 | |
| Important intangible cultural properties | | |
| Individual recognition | 76 | |
| Performing arts | 37 | |
| Craft techniques | 39 | |
| Group recognition | 30 | |
| Performing arts | 14 | |
| Craft techniques | 16 | |
| Traditional building preservation areas | 123 | |

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

Source: Agency for Cultural Affairs.

As of June 1, 2021, 13,331 items were designated as important cultural properties, of which 1,125 were classified as national treasures. In addition, the government has provided support for such activities as theatrical performances, music, handicrafts, and other important intangible cultural properties. It also has worked to preserve important folk-cultural properties, such as annual cultural events and folk performing arts, as well as to train people to carry on such traditions.

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

In June 2018, sites connected to "Hidden Christian Sites in the Nagasaki Region" were inscribed on the World Heritage List as the 22nd World Heritage Site in Japan. It is a series of sites that testify the traditions of the hidden Christians in Nagasaki and Amakusa district who maintained their faith while co-existing with the extant society and religions, whose faith began from the 16th century when Christianity was introduced to Japan, a country of the Far East, and continued through the ban on religion during the Tokugawa shogunate.

Subsequently, in July 2019, "Mozu-Furuichi Kofun Group: Mounded Tombs of Ancient Japan" were inscribed on the World Heritage List as Japan's 23rd World Heritage Site. The Mozu-Furuichi Kofun Group, which was built during the peak of the Kofun Period from the latter half of the 4th century to the latter half of the 5th century, represents the terminus of the unique techniques used to build earthen buildings. The Group is remarkable material evidence that recounts the history of people on the Japanese archipelago, who symbolized authority through tombs.

Table 16.8

Heritage Sites Inscribed on the World Heritage List ¹⁾

| Year | Type of heritage | World heritage | Prefecture |
|------|------------------|---|--|
| 1993 | Cultural | Buddhist Monuments in the Horyu-ji Area | Nara |
| | Cultural | Himeji-jo (castle) | Hyogo |
| | Natural | Shirakami-Sanchi (mountains) | Aomori, Akita |
| | Natural | Yakushima (island) | Kagoshima |
| 1994 | Cultural | Historic Monuments of Ancient Kyoto | Kyoto, Shiga |
| 1995 | Cultural | Historic Villages of Shirakawa-go and Gokayama | Gifu, Toyama |
| 1996 | Cultural | Hiroshima Peace Memorial (Genbaku Dome) | Hiroshima |
| | Cultural | Itsukushima Shinto Shrine | Hiroshima |
| 1998 | Cultural | Historic Monuments of Ancient Nara | Nara |
| 1999 | Cultural | Shrines and Temples of Nikko | Tochigi |
| 2000 | Cultural | Gusuku Sites and Related Properties of the Kingdom of Ryukyu | Okinawa |
| 2004 | Cultural | Sacred Sites and Pilgrimage Routes in the Kii Mountain Range | Mie, Nara, Wakayama |
| 2005 | Natural | Shiretoko (peninsula) | Hokkaido |
| 2007 | Cultural | Iwami Ginzan Silver Mine and its Cultural Landscape | Shimane |
| 2011 | Cultural | Hiraizumi-Temples, Gardens and Archaeological Sites Representing the Buddhist Pure Land | Iwate |
| | Natural | Ogasawara Islands | Tokyo |
| 2013 | Cultural | Fujisan, Sacred Place and Source of Artistic Inspiration | Yamanashi, Shizuoka |
| 2014 | Cultural | Tomioka Silk Mill and Related Sites | Gunma |
| 2015 | Cultural | Sites of Japan's Meiji Industrial Revolution: Iron and Steel, Shipbuilding and Coal Mining | Fukuoka, Saga, Nagasaki, Kumamoto, Kagoshima, Yamaguchi, Iwate, Shizuoka |
| 2016 | Cultural | The National Museum of Western Art - The Architectural Work of Le Corbusier, an Outstanding Contribution to the Modern Movement | Tokyo |
| 2017 | Cultural | Sacred Island of Okinoshima and Associated Sites in the Munakata Region | Fukuoka |
| 2018 | Cultural | Hidden Christian Sites in the Nagasaki Region | Nagasaki, Kumamoto |
| 2019 | Cultural | Mozu-Furuichi Kofun Group: Mounded Tombs of Ancient Japan | Osaka |

1) As of July, 2019.

Source: Agency for Cultural Affairs.

In 2006, the UNESCO Convention for the Safeguarding of the Intangible Cultural Heritage entered into force. As of April 2021, Japan has 22 entries on its list, including: Nogaku Theater, Ningyo Johruri Bunraku Puppet Theater, Kabuki Theater (the kind of Kabuki performed using a traditional method of acting and directing), and Washoku, the traditional dietary culture of Japan.

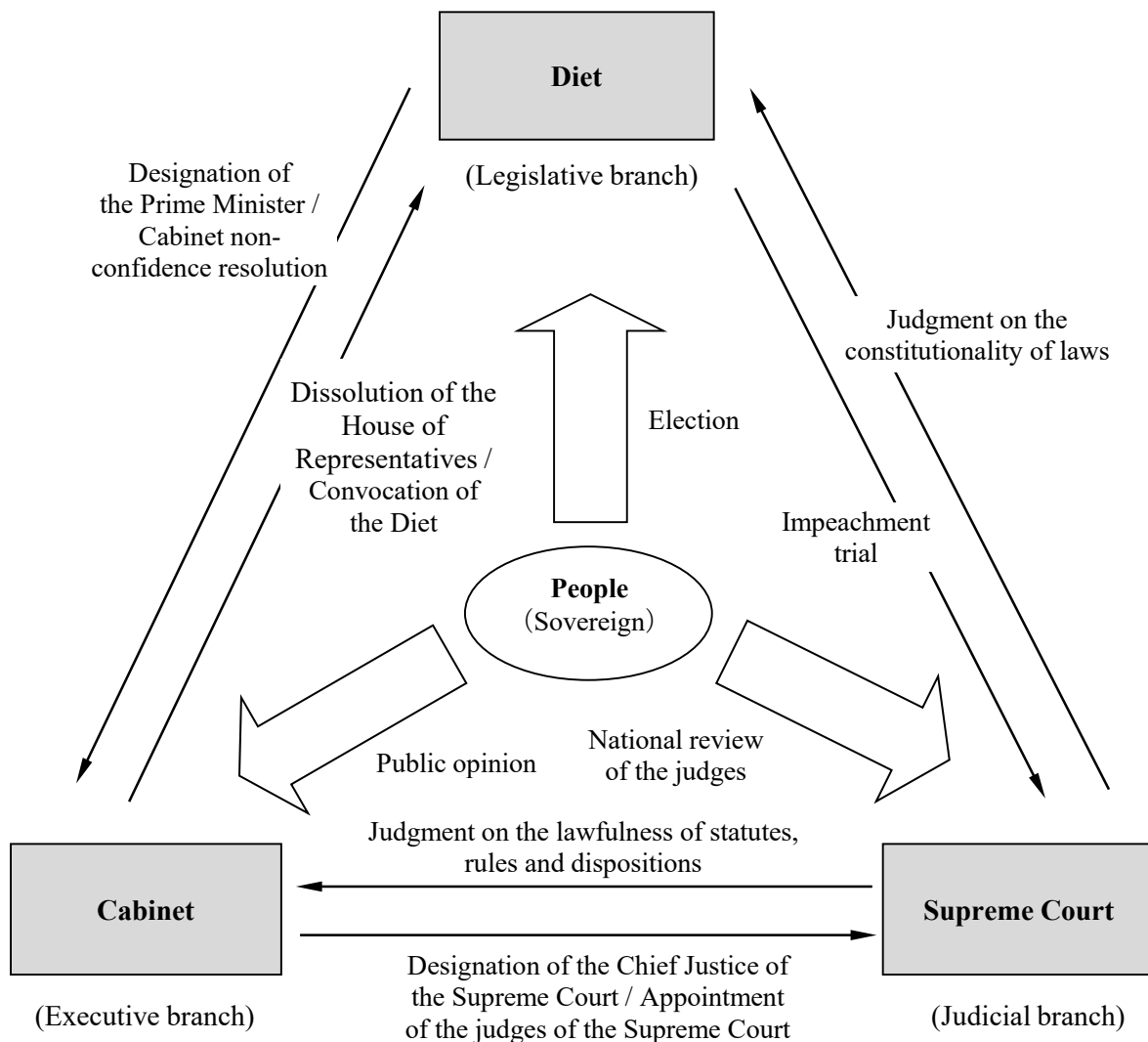
Chapter 17

Government System

1. Separation of Powers

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

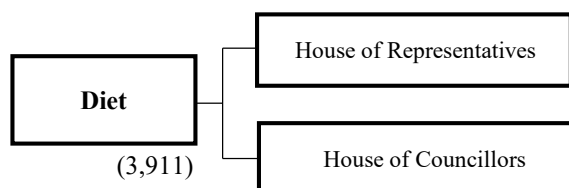
Figure 17.1
Separation of Powers under the Constitution of Japan



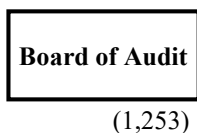
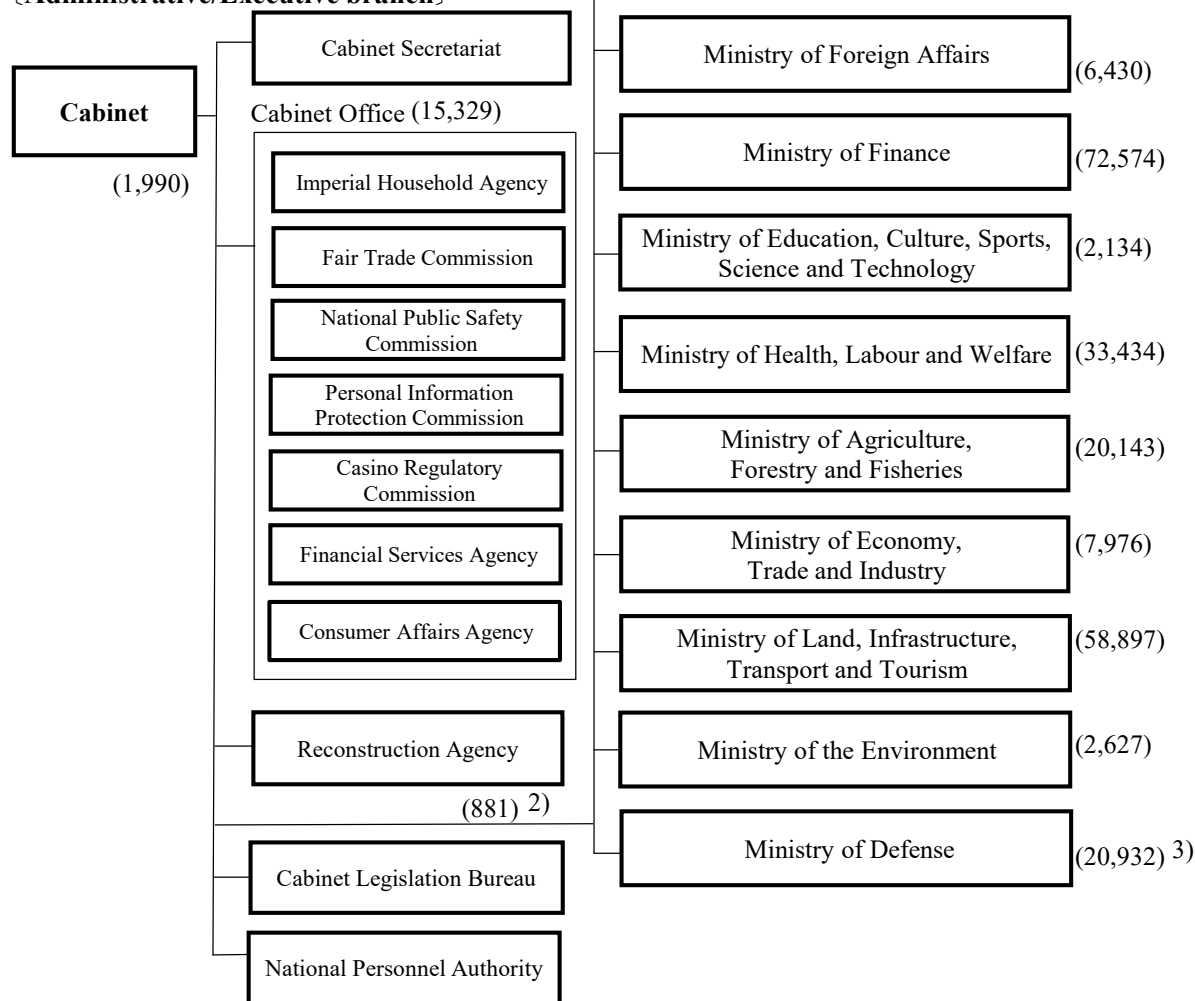
Source: Prime Minister of Japan and His Cabinet.

Figure 17.2
Government Organization ¹⁾ (FY2021)

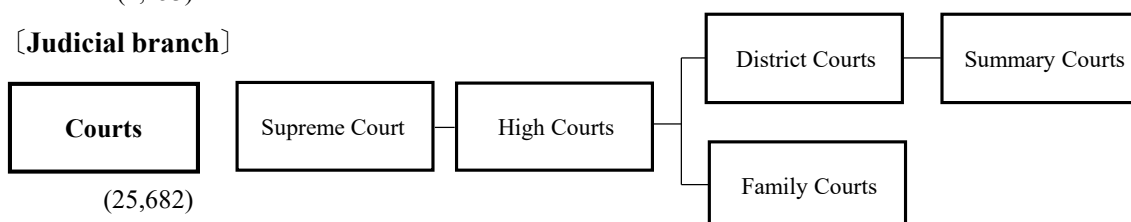
[Legislative branch]



[Administrative/Executive branch]



[Judicial branch]



1) Figures in parentheses refer to budgetary fixed number of national government employees.

2) Of the 881 employees, 211 are from the Reconstruction Agency and 670 are from other ministries.

3) Excluding the number of the personnel of the Self-Defense Forces.

Source: Cabinet Bureau of Personnel Affairs, Cabinet Secretariat; Ministry of Finance.

2. Legislative Branch

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

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

The term of office for Diet members is set by the Constitution. Members of the House of Representatives serve a 4-year term, while members of the House of Councillors, 6 years. Elections for the latter are held every 3 years, so that one half of the seats are contested in each election.

The House of Representatives has 465 members. Of these, 289 are elected under a single-seat constituency system, while 176 are elected under a proportional representation system in which the nation is divided into 11 regions. The last general election was held in October 2017. The House of Councillors has 248 members, of whom 100 are elected through proportional representation, and 148 are elected as representatives from 45 electoral districts of the nation, based upon prefectures. The last regular election was held in July 2019.

In June 2015, revisions to the Public Offices Election Law, which consist mainly of lowering the voting age from 20 to 18 years or older, were established and promulgated. The revisions were applied starting with the House of Councillors regular election, which was officially announced in June 2016. Both men and women above the qualifying age are eligible to run in elections. The qualifying age for members of the House of

Representatives is 25 years or older, while the qualifying age for members of the House of Councillors is 30 years or older.

Table 17.1
Diet Members by Political Group

| House of Representatives (as of April 27, 2021) | | | House of Councillors (as of May 31, 2021) | | |
|--|-------|---------|--|-------|---------|
| Membership 465, Vacancies 1 | | | Membership ¹⁾ 245, Vacancies 1 | | |
| Name | Males | Females | Name | Males | Females |
| Incumbents | 418 | 46 | Incumbents | 188 | 56 |
| Liberal Democratic Party | 257 | 21 | Liberal Democratic Party and Voice of The People | 95 | 17 |
| The Constitutional Democratic Party of Japan and the Independent | 99 | 15 | The Constitutional Democratic Party of Japan and Social Democratic Party | 30 | 15 |
| Komeito | 25 | 4 | Komeito | 23 | 5 |
| Japanese Communist Party | 9 | 3 | Nippon Ishin (Japan Innovation Party) | 13 | 3 |
| Nippon Ishin (Japan Innovation Party) | 10 | 1 | Democratic Party For the People and The Shin-Ryokufukai | 11 | 4 |
| Democratic Party For the People | 8 | 2 | Japanese Communist Party | 8 | 5 |
| | | | Okinawa Whirlwind | 2 | 0 |
| | | | REIWA SHINSENGUMI | 1 | 1 |
| | | | Hekisuikai | 0 | 2 |
| | | | Your Party | 2 | 0 |
| Independents | 10 | 0 | Independents | 3 | 4 |

1) Due to the revision of the Public Offices Election Law in July 2018, the constant number of seats increased from 242 to 248. In the July 2019 regular election, half of this number, or 124 seats, were re-elected.

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

3. Executive Branch

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

The Cabinet's powers include the following: (i) implementing laws; (ii) engaging in foreign diplomacy; (iii) signing treaties; (iv) overseeing the

operational affairs of public officers; (v) formulating a budget and submitting it to the Diet; (vi) enacting Cabinet orders; and (vii) deciding amnesty. In addition, the Cabinet powers also include designating the Chief Justice of the Supreme Court and appointing other judges. The Cabinet also gives advice and approval to the Emperor in matters of state, and bears the responsibility for this.

Table 17.2
Successive Prime Ministers

| Date ¹⁾ | Name | Date ¹⁾ | Name |
|--------------------|----------------|--------------------|-------------------|
| Sep. 16, 2020 | SUGA Yoshihide | Sep. 26, 2006 | ABE Shinzo |
| Dec. 26, 2012 | ABE Shinzo | Apr. 26, 2001 | KOIZUMI Junichiro |
| Sep. 2, 2011 | NODA Yoshihiko | Apr. 5, 2000 | MORI Yoshiro |
| Jun. 8, 2010 | KAN Naoto | Jul. 30, 1998 | OBUCHI Keizo |
| Sep. 16, 2009 | HATOYAMA Yukio | Jan. 11, 1996 | HASHIMOTO Ryutaro |
| Sep. 24, 2008 | ASO Taro | Jun. 30, 1994 | MURAYAMA Tomiichi |
| Sep. 26, 2007 | FUKUDA Yasuo | Apr. 28, 1994 | HATA Tsutomu |

1) Date of initial cabinet formation.

Source: Prime Minister of Japan and His Cabinet.

4. Judicial Branch

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

The Constitution provides for the establishment of the Supreme Court as the highest court with final judgment, while the Court Act provides for 4 lower-level courts (High Court, District Court, Family Court and Summary Court). At present, there are 8 High Courts, 50 District Courts, 50 Family Courts, and 438 Summary Courts throughout the nation.

To ensure fair judgments, Japan uses a three-tiered judicial system. The first courts in the court hierarchy are the District Courts, the second are the High Courts, and the highest court is the Supreme Court. The system thus allows a case to be heard and ruled on up to 3 times in principle, should a party involved in the case so desire. The Summary Courts and Family Courts handle simple cases, domestic relations and cases involving juveniles as first courts.

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

A lay judge system began in May 2009. This is a system under which citizens participate in criminal trials as judges to determine, together with professional judges, whether the defendant is guilty or not and, if found guilty, what sentence should apply. What is hoped for is that the public's participation in criminal trials will make citizens feel more involved in the justice process and make the trials easier to understand, thus leading to the public's greater trust in the justice system. A total of 13,447 people were tried in lay judge trials held between the start of the system and December 2020.

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

| Year | Civil and administrative cases | | | Criminal cases ¹⁾ | | |
|------|--------------------------------|------------|---------|------------------------------|------------|---------|
| | Commenced | Terminated | Pending | Commenced | Terminated | Pending |
| 2005 | 2,713 | 2,827 | 576 | 1,568 | 1,572 | 47 |
| 2010 | 2,179 | 2,241 | 536 | 1,158 | 1,161 | 36 |
| 2015 | 1,432 | 1,425 | 409 | 1,033 | 1,030 | 34 |
| 2018 | 1,553 | 1,537 | 416 | 937 | 936 | 31 |
| 2019 | 1,523 | 1,509 | 430 | 885 | 885 | 31 |

| Year | Domestic cases | | | Juvenile cases ¹⁾ | | |
|------|----------------|------------|---------|------------------------------|------------|---------|
| | Commenced | Terminated | Pending | Commenced | Terminated | Pending |
| 2005 | 718 | 713 | 99 | 237 | 238 | 32 |
| 2010 | 815 | 815 | 106 | 165 | 168 | 25 |
| 2015 | 970 | 959 | 133 | 95 | 98 | 13 |
| 2018 | 1,066 | 1,061 | 137 | 66 | 67 | 10 |
| 2019 | 1,092 | 1,082 | 146 | 58 | 58 | 9 |

1) The number of persons.

Source: Supreme Court of Japan.

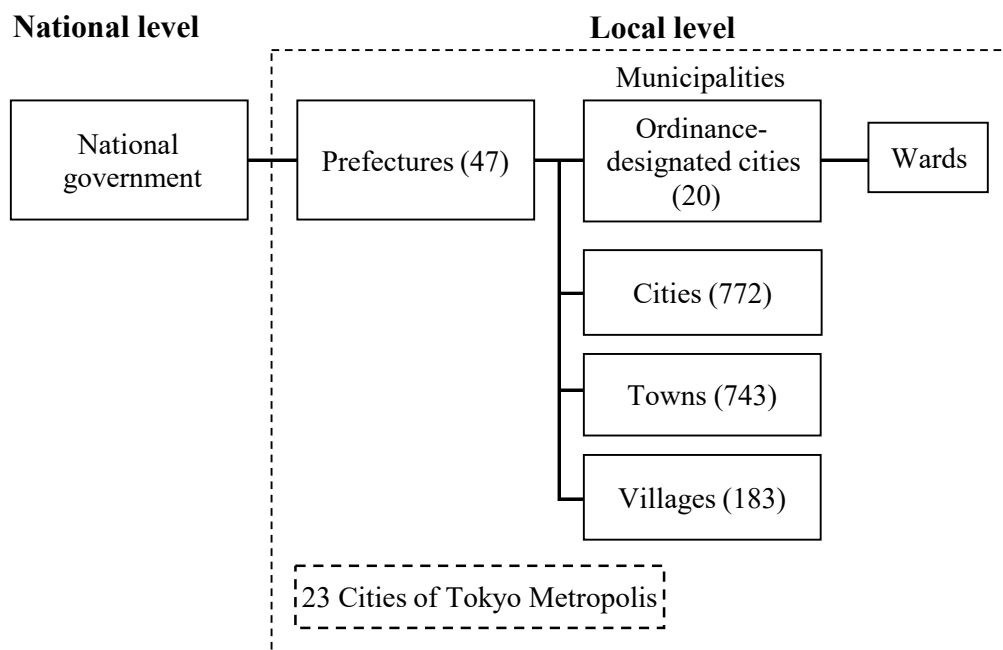
5. Local Governments

The affairs of local governments in Japan are conducted by ordinary local governments (prefectures and municipalities within each prefecture) and by special local governments, such as special wards. As of October 1, 2018, Japan has 47 prefectures, within which there are 1,718 municipalities, plus the 23 Cities of Tokyo metropolis. In order to strengthen the administrative and fiscal foundation of the municipalities, municipal mergers were promoted by law. Consequently, the number of municipalities was reduced by nearly half from the 3,232 existing at the end of March 1999.

Municipalities that satisfy certain population criteria (i.e., 500,000 people

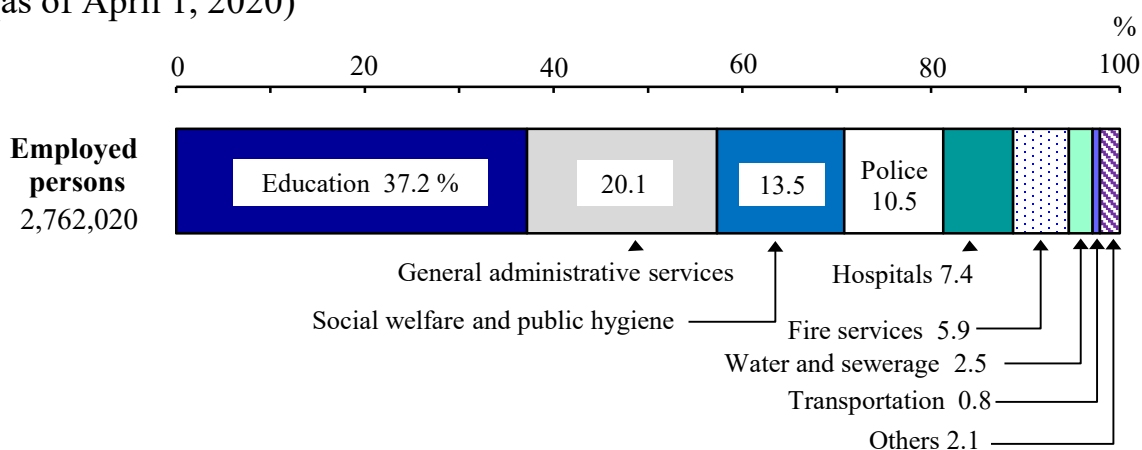
or more) are eligible for designation as "Ordinance-designated cities". This designation gives them administrative and fiscal authority equivalent to those of prefectures. With the addition of Kumamoto City in April 2012, there are presently 20 cities that have earned this designation. See the map on the inside back cover.

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



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

Figure 17.4
Local Government Employees by Type of Administrative Services
 (as of April 1, 2020)



Source: Ministry of Internal Affairs and Communications.

Appendix 1

Population, Surface Area, and Population Density by Prefecture

| Prefectures | Prefectural capital cities | Population (1,000) | | Surface area (km ²) | | Population density (per km ²) | |
|-----------------|----------------------------|--------------------|--------------------|---------------------------------|-------------|---|-------------|
| | | 2015 ¹⁾ | 2019 ²⁾ | Total area | Inhabitable | Total area | Inhabitable |
| | | | | 2019 | 2019 | 2019 | 2019 |
| Japan | | 127,095 | 126,167 | 377,975 | 122,635 | 338 | 1,029 |
| Hokkaido | Sapporo City | 5,382 | 5,250 | 83,424 | 22,373 | 67 | 235 |
| Aomori | Aomori City | 1,308 | 1,246 | 9,646 | 3,230 | 129 | 386 |
| Iwate | Morioka City | 1,280 | 1,227 | 15,275 | 3,714 | 80 | 330 |
| Miyagi | Sendai City | 2,334 | 2,306 | 7,282 | 3,155 | 317 | 731 |
| Akita | Akita City | 1,023 | 966 | 11,638 | 3,204 | 83 | 302 |
| Yamagata | Yamagata City | 1,124 | 1,078 | 9,323 | 2,885 | 116 | 374 |
| Fukushima | Fukushima City | 1,914 | 1,846 | 13,784 | 4,217 | 134 | 438 |
| Ibaraki | Mito City | 2,917 | 2,860 | 6,097 | 3,975 | 469 | 719 |
| Tochigi | Utsunomiya City | 1,974 | 1,934 | 6,408 | 2,983 | 302 | 648 |
| Gunma | Maebashi City | 1,973 | 1,942 | 6,362 | 2,279 | 305 | 852 |
| Saitama | Saitama City | 7,267 | 7,350 | 3,798 | 2,585 | 1,935 | 2,844 |
| Chiba | Chiba City | 6,223 | 6,259 | 5,158 | 3,554 | 1,214 | 1,761 |
| Tokyo | 23 Cities of Tokyo | 13,515 | 13,921 | 2,194 | 1,422 | 6,345 | 9,793 |
| Kanagawa | Yokohama City | 9,126 | 9,198 | 2,416 | 1,471 | 3,807 | 6,253 |
| Niigata | Niigata City | 2,304 | 2,223 | 12,584 | 4,535 | 177 | 490 |
| Toyama | Toyama City | 1,066 | 1,044 | 4,248 | 1,843 | 246 | 567 |
| Ishikawa | Kanazawa City | 1,154 | 1,138 | 4,186 | 1,392 | 272 | 818 |
| Fukui | Fukui City | 787 | 768 | 4,191 | 1,077 | 183 | 713 |
| Yamanashi | Kofu City | 835 | 811 | 4,465 | 954 | 182 | 850 |
| Nagano | Nagano City | 2,099 | 2,049 | 13,562 | 3,226 | 151 | 635 |
| Gifu | Gifu City | 2,032 | 1,987 | 10,621 | 2,211 | 187 | 899 |
| Shizuoka | Shizuoka City | 3,700 | 3,644 | 7,777 | 2,749 | 469 | 1,325 |
| Aichi | Nagoya City | 7,483 | 7,552 | 5,173 | 2,988 | 1,460 | 2,527 |
| Mie | Tsu City | 1,816 | 1,781 | 5,774 | 2,059 | 308 | 865 |
| Shiga | Otsu City | 1,413 | 1,414 | 4,017 | 1,307 | 352 | 1,082 |
| Kyoto | Kyoto City | 2,610 | 2,583 | 4,612 | 1,174 | 560 | 2,201 |
| Osaka | Osaka City | 8,839 | 8,809 | 1,905 | 1,331 | 4,623 | 6,620 |
| Hyogo | Kobe City | 5,535 | 5,466 | 8,401 | 2,783 | 651 | 1,964 |
| Nara | Nara City | 1,364 | 1,330 | 3,691 | 856 | 360 | 1,555 |
| Wakayama | Wakayama City | 964 | 925 | 4,725 | 1,115 | 196 | 830 |
| Tottori | Tottori City | 573 | 556 | 3,507 | 901 | 159 | 617 |
| Shimane | Matsue City | 694 | 674 | 6,708 | 1,299 | 101 | 519 |
| Okayama | Okayama City | 1,922 | 1,890 | 7,114 | 2,219 | 266 | 852 |
| Hiroshima | Hiroshima City | 2,844 | 2,804 | 8,480 | 2,311 | 331 | 1,213 |
| Yamaguchi | Yamaguchi City | 1,405 | 1,358 | 6,113 | 1,707 | 222 | 796 |
| Tokushima | Tokushima City | 756 | 728 | 4,147 | 1,010 | 176 | 721 |
| Kagawa | Takamatsu City | 976 | 956 | 1,877 | 1,006 | 509 | 951 |
| Ehime | Matsuyama City | 1,385 | 1,339 | 5,676 | 1,673 | 236 | 800 |
| Kochi | Kochi City | 728 | 698 | 7,104 | 1,163 | 98 | 600 |
| Fukuoka | Fukuoka City | 5,102 | 5,104 | 4,987 | 2,762 | 1,024 | 1,848 |
| Saga | Saga City | 833 | 815 | 2,441 | 1,336 | 334 | 610 |
| Nagasaki | Nagasaki City | 1,377 | 1,327 | 4,131 | 1,675 | 321 | 792 |
| Kumamoto | Kumamoto City | 1,786 | 1,748 | 7,409 | 2,796 | 236 | 625 |
| Oita | Oita City | 1,166 | 1,135 | 6,341 | 1,799 | 179 | 631 |
| Miyazaki | Miyazaki City | 1,104 | 1,073 | 7,735 | 1,850 | 139 | 580 |
| Kagoshima | Kagoshima City | 1,648 | 1,602 | 9,187 | 3,313 | 174 | 484 |
| Okinawa | Naha City | 1,434 | 1,453 | 2,281 | 1,169 | 637 | 1,243 |

1) Population census. 2) Population estimates.

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

Appendix 2

Conversion Factors

| | Metric units | British Imperial and U.S. equivalents |
|------------------------------------|---|--|
| Length: | 1 centimeter (cm) | 0.39370 inches |
| | 1 meter (m) | { 3.28084 feet 1.09361 yards |
| | 1 kilometer (km) | 0.62137 miles |
| Area: | 1 square meter (m ²) | { 10.76392 square feet 1.19599 square yards |
| | 1 square kilometer (km ²) | 0.38610 square miles |
| | 1 hectare (ha) | } 2.47105 acres |
| | 10,000 square meters (m ²) } | |
| Volume: | 1 cubic meter (m ³) | { 35.31472 cubic feet 1.30795 cubic yards |
| | Weight: | 1 kilogram (kg) |
| 1 ton (t) | | { 0.98421 long tons 1.10231 short tons |
| | | Capacity: |
| Temperature: centigrade (°C) | 5 / 9 × (Fahrenheit - 32) | |

Appendix 3

Foreign Exchange Rates ¹⁾

(Yen per U.S. dollar)

| Year | Average | End of year |
|------|---------|-------------|
| 2000 | 107.77 | 114.90 |
| 2001 | 121.53 | 131.47 |
| 2002 | 125.31 | 119.37 |
| 2003 | 115.93 | 106.97 |
| 2004 | 108.18 | 103.78 |
| 2005 | 110.16 | 117.48 |
| 2006 | 116.31 | 118.92 |
| 2007 | 117.76 | 113.12 |
| 2008 | 103.37 | 90.28 |
| 2009 | 93.54 | 92.13 |
| 2010 | 87.78 | 81.51 |
| 2011 | 79.81 | 77.57 |
| 2012 | 79.81 | 86.32 |
| 2013 | 97.63 | 105.37 |
| 2014 | 105.85 | 119.80 |
| 2015 | 121.03 | 120.42 |
| 2016 | 108.84 | 117.11 |
| 2017 | 112.16 | 112.65 |
| 2018 | 110.39 | 110.40 |
| 2019 | 109.01 | 109.15 |
| 2020 | 106.78 | 103.33 |

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

Source: Bank of Japan.