Chapter 3 Japan's external economic relations and future challenges

Section 1 Foreign trade and investment

<u>1. Trends in trade in goods</u>

(1) Overview of trade in goods

In 2018, Japan's trade in goods expanded in terms of the value of both imports and exports, while the rate of growth in the value of imports (+9.7%) exceeded the rate of growth in the value of exports (+4.1%), recording a trade deficit for the first time in three years since 2015. The value of exports was 81,478.8 billion yen, the value of imports was 82,703.3 billion yen, and the trade balance was a deficit of 1,224.6 billion yen (Figure II-3-1-1).



Figure II-3-1-1 Changes in Japan's trade balance (by year)

Concerning shares of exports from Japan to the world by product item, transport equipment, including automobiles and auto parts, accounted for 23% of overall exports, followed by general machinery (20%) and electric appliances (17%) (Figure II-3-1-2).

Source: Trade Statistics of Japan (Ministry of Finance (MOF)).



Figure II-3-1-2 Shares of exports from Japan to the world by product item (by value)

Source: Trade Statistics of Japan (MOF).

Concerning changes in exports, Japan saw an increase of 4.1% in 2018. However, looking at monthly changes, Japan's exports remained positive year-on-year in the first half of 2018 and turned negative year-on-year in September and December, showing a slowdown in Japan's exports over the latter half of 2018. Looking at changes in exports by product item, the drop in the latter half of 2018 turned out to be due to a decrease especially in exports of general machinery and electric appliances (Figure II-3-1-3).



Figure II-3-1-3 Japan's exports by product item (breakdown of major products)

Source: Trade Statistics of Japan (MOF).

Concerning exports of general machinery and electric appliances by country/region, exports to Republic of Korea and Taiwan decreased from the beginning of the year (Figures II-3-1-4 and II-3-1-5). One of the backgrounds for this drop is attributed to a worldwide decline in demand for semiconductor-related products, triggered by the downturn phase of the economic cycle of semiconductor markets called "semiconductor cycle" (Figure II-3-1-6).





Source: Trade Statistics of Japan (MOF).



Figure II-3-1-5 Year-on-year exports of electric appliances from Japan to the world

Source: Trade Statistics of Japan (MOF).

Figure II-3-1-6 Semiconductor cycle



Source: Worldwide sales of semiconductors (Refinitiv), Global industrial production based on *World Trade Monitor* (Netherlands Bureau for Economic Policy Analysis).

Japan's exports in the first half of 2018 increased due to continued good performance in exports to China. However, from November 2018 onwards, the slowdown in the Chinese economy caused a drop in exports to China, with the result that the decline both in general machinery and electric appliances widened from a year earlier between November 2018 and January 2019.

Breaking down the changes in the value of imports in *Trade Statistics of Japan* into unit and quantum factors shows there were many months in 2018 when the quantum factor fell below that of a year earlier and had a slight increase of 0.6% throughout the year, while the unit factor kept on increasing constantly (Figure II-3-1-7).



Figure II-3-1-7 Breakdown of year-on-year changes in the value of imports to Japan by factor

Source: Trade Statistics of Japan (MOF).

Concerning shares of imports by product item, the largest was fossil fuels, which accounted for about one-fourth of overall imports, followed by electric appliances (15%), chemical products (10%), and general machinery (10%) (Figure II-3-1-8). As for monthly changes (year-on-year) in each product item, fossil fuels continued to make the largest contribution in 2018 as in 2017 (Figure II-3-1-9).



Figure II-3-1-8 Shares of imports from the world to Japan by product item (by value)



Figure II-3-1-9 Japan's imports by product item (year-on-year)

Source: Trade Statistics of Japan (MOF).

Breaking down fossil fuels, which were the main cause of the increase in Japan's imports, into unit and quantum factors by product item year-on-year, the year 2018 saw a decrease in the volume of imports of crude & raw oil and liquefied natural gas, and a rise in their prices. As a result, the import value of fossil fuels as a whole increased by more than 20% for two consecutive years from 2017, making a complete turn from the decreases in 2015 and 2016 (Figure II-3-1-10).



Figure II-3-1-10 Year-on-year changes and their breakdown of factors in the value of imports of fossil fuels

Source: Trade Statistics of Japan (MOF).

The value of the benchmark WTI crude oil futures prices during the same period shows that the value increased about twice in October 2018, compared with the beginning of 2016. It seems that the global rise in resource prices contributed to an increase in Japan's import value.

(2) Trends in trade by country/region

Concerning Japan's value of exports by country/region, the value of exports to China in 2018 was 15,897.7 billion yen, a record high, followed by exports to the United States amounting to 15,470.2 billion yen (Figure II-3-1-11).



Figure II-3-1-11 Changes in the value of exports from Japan to the world

Concerning Japan's imports, the value of imports from China was the largest, amounting to 19,193.7 billion yen, and accounting for 23.2% of Japan's overall imports from the world. The value of imports from ASEAN was the second largest, amounting to 12,399.1 billion yen (Figure II-3-1-12). As for the breakdown of imports from the Middle East, fossil fuels accounted for 95.6% in 2018. The value of imports from the region rises and falls significantly depending on the fluctuation of resource prices.

Source: Trade Statistics of Japan (MOF).



Figure II-3-1-12 Changes in the value of imports from the world

(1) Japan's trade with the United States

Here, we will examine the status of the trade with the United States and China, which accounts for about 40% of Japan's overall export volume, and about 34% of Japan's overall import volume.

The trade structure between Japan and the United States is a horizontal division structure characterized by the final goods trade in which finished vehicles, etc. are exported from Japan, while mineral resources (such as liquefied natural gas and liquefied petroleum gas), airplanes, pharmaceutical products, etc. are exported from the United States. In addition, a large volume of intermediate goods (such as auto parts) are exported from Japan to the factories of Japanese-affiliated companies in the United States. In recent years, against the backdrop of the shift from domestic production to overseas production, the volume of exports, especially video equipment and personal computers, has been decreasing (Figures II-3-1-13 and II-3-1-14).





Source: RIETI-TID.

Figure II-3-1-14 Trade structure (Japan's imports from the United States in 2016)



Source: RIETI TID.

Concerning changes in Japan's exports to the United States by product item in 2018, compared with the same month of 2017, when exports were strong, Japan's exports to the United States remained flat in each item and on the whole, increased by 2.3% (Figure II-3-1-15). Also in 2018, there were five months when Japan's imports from the United States by product item increased by more than 10% year-on-year, against the backdrop of surging prices of crude oil and coal (Figure II-3-1-16).



Figure II-3-1-15 Changes in Japan's exports to the United States (contribution by product item)

Source: Trade Statistics of Japan (MOF).



Figure II-3-1-16 Changes in Japan's imports from the United States (contribution by product item)

Source: Trade Statistics of Japan (MOF).

(2) Japan's trade with China

The structure of Japan's trade with China is a vertical production division structure in which intermediate goods are exported from Japan to China, where assembly is performed to export finished goods to consuming regions, such as Japan and the United States. Therefore, when the volume of China's exports to the United States and the EU decreases, that of Japan's exports of intermediate goods to China also decreases. In addition, Japan's exports to China for domestic demand have been expanding in recent years, along with growing markets in China, while the overall volume of Japan's exports to China is decreasing currently due to a decrease in domestic demand in China. As for Japan's imports from China, electric appliances and general machinery account for most of the overall imports. Smart phones and related parts have a large share in electric appliances, while personal computers and related peripherals have a large share in general machinery. This is because it has become possible to manufacture high-tech equipment at a low cost in China (Figures II-3-1-17 and II-3-1-18).



Figure II-3-1-17 Trade structure (Japan's exports to China in 2016)

Source: RIETI TID.

Figure II-3-1-18 Trade structure (Japan's imports from China in 2016)



Source: RIETI TID.

Looking at monthly changes in the value of exports by major product item from 2017, general machinery continued to drive the growth in exports to China until the latter half of 2018, while the year-on-year growth in exports of most product items, including general machinery and electric appliances, turned negative at the end of 2018 (Figure II-3-1-19). Looking at changes by product item, the year-on-year growth in exports of metal processing machinery and machine tools turned negative in the middle of 2018. These decreases can be attributed to a halt in temporary demand caused by equipment replacement. On the other hand, the year-on-year growth in exports of many major product items turned negative from November to December. This is probably because the effect of a slowdown in the Chinese economy at the end of 2018 contributed to a decrease in Japan's exports (Table II-3-1-20).



Figure II-3-1-19 Changes in Japan's exports to China (contribution by product item)

Source: Trade Statistics of Japan (MOF).

	2018 (year-on-year, %)													
	YoY (%)	Actual value (billion yen)	Jan	Feb	Mar	April	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Steel	1.8	561.6	20.8	-7.9	-6.5	-2.9	-8.9	1.9	3.7	13.8	-1.2	12.3	13.8	-8.7
General machinery	17.3	3,885.2	62.7	-9.6	32.0	36.5	30.5	22.9	27.8	28.5	12.1	9.9	-0.7	-12.7
Semiconductor manufacturing equipment	46.8	1,079.7	44.0	-2.2	72.4	114.8	90.7	79.2	135.1	152.6	50.8	8.8	-5.1	-34.3
Machine tools	11.4	263.7	240.4	113.4	89.1	63.2	38.7	-5.9	-9.3	-23.5	-11.0	-18.4	-35.4	-42.0
Electric appliances	0.7	3,399.6	27.4	-11.0	6.6	5.3	12.8	10.4	5.8	0.4	-14.6	4.9	-8.8	-14.8
Transportation equipment	10.2	1,538.0	25.4	4.8	7.1	1.4	6.9	8.8	17.0	16.8	16.8	25.6	5.6	-6.4
Automobiles	14.0	637.7	45.7	26.5	16.4	9.7	0.3	-2.5	30.3	25.9	16.4	30.5	-3.8	-6.5
Auto parts	7.1	868.9	11.8	-6.7	0.6	-3.8	11.5	14.3	8.6	10.5	17.9	19.4	12.4	-6.3
Total export value	6.8	15,897.7	30.8	-9.8	10.8	10.8	13.9	11.1	11.9	12.0	-1.7	9.0	0.3	-7.0

Table II-3-1-20Changes in the value of Japan' exports of major product items to China
(year-on-year)

Source: Trade Statistics of Japan (MOF). (%, billion yen)





Source: Trade Statistics of Japan (MOF).

2. Trends in Japan's current account balance

Japan's current account balance in 2018 registered a surplus of 19,222.2 billion yen, representing a year-on-year decline by 13.0%, the first decline in four years. The main reason for this decrease is

attributed to a significant decrease in the trade balance²⁴² surplus by 25% compared with the previous year.

Until 2010, a year before the Great East Japan Earthquake, both the trade balance and the primary income balance registered a current account surplus. From 2011 until 2015, the trade balance turned to deficit, while the current account surplus was achieved by the surplus in the primary income balance. Since 2016, the current account surplus has also been achieved mainly by the surplus in the primary income balance (Figure II-3-1-22).





Concerning the primary income balance, which accounts for most of Japan's current account balance, Japan's primary income balance in 2018 registered a surplus of 20,853.3 billion yen. At present, almost all of Japan's current account surplus is achieved by the surplus in the primary income balance (Figure II-3-1-23).

²⁴² In the trade balance in the Balance of Payments, the freight and insurance related to imports are recorded in the service balance, so the "import" value in the trade balance is represented as smaller in the "import" value in the trade balance in the Trade Statistics.



Figure II-3-1-23 Changes in Japan's primary income balance (by year)

Source: Balance of Payments (MOF).

Concerning the services account balance, Japan's services account balance in 2018 registered a deficit of 806.2 billion yen.

Japan's deficits in the services account balance expanded, compared with 2017, but shrank significantly, compared with the level before 2016. Two items, travel, and royalties, license fees, etc. for intellectual property rights, contributed to a reduction in the services account balance deficit. In 2018, Japan's balance related to travel recorded a surplus of 2,416.1 billion yen and Japan's balance related to royalties, license fees, etc. for intellectual property rights recorded a surplus of 2,622 billion yen, both hitting record highs (Figure II-3-1-24). Royalties, license fees, etc. for intellectual property rights and those for copyright. The former include royalties, license fees, etc. for trademark and technical information, while the latter include royalties, license fees, etc. for copyright in case of reproducing software, music, videos, etc. Japan's surplus in royalties, license fees, etc. for intellectual property rights came from a surplus related to royalties, license fees, etc. for industrial property rights came from a surplus related to royalties, license fees, etc. for industrial property rights came from a surplus related to royalties, license fees, etc. for industrial property rights came from a surplus related to royalties, license fees, etc. for industrial property rights came from a surplus related to royalties, license fees, etc. for industrial property rights. On the other hand, royalties, license fees, etc. for copyright.



Figure II-3-1-24 Trends in services account balance in Japan

Figure II-3-1-25 Changes in the breakdown of the balance related to royalties, license fees, etc. for intellectual property rights



Source: Balance of Payments (MOF).

3. Trends in financial account balance

Japan's financial account balance in 2018 registered 20,004.9 billion yen. The financial account balance can be divided into "direct investment," "portfolio investment," "financial derivatives," "other investment," and "foreign currency reserves." "Direct investment" refers to investments in building factories in foreign countries, M&A (merger and acquisition) deals, etc.

The direct investment (net) in 2018 registered 14,719.8 billion yen, the third highest ever. The portfolio investment registered 9,976.5 billion yen (Figure II-3-1-26).





4. Trends in investments

The balance of outward foreign direct investments by Japan at the end of 2017 was 174,699 billion yen, marking an increase by 10.0% from the previous year and marking the seventh straight year of annual growth. According to UNCTAD data, the balance of outward foreign direct investments by Japan had a share of 4.9% in the total global balance of outward foreign direct investments. With a slight decline of 0.5 percentage points from 2016, Japan is the third largest investor, after the United States and the EU (Figure II-3-1-27).



Figure II-3-1-27 Shares of balance of direct investments by economy and region worldwide (as of the end of 2017)

Notes: These figures are somewhat different from those in Japan, due to foreign exchange rates and other factors.Source: *FDI/MNE Database* (UNCTAD).

In 2008, the balance of investments by the non-manufacturing industry exceeded the balance of investments by the manufacturing industry. As of the end of 2017, the balance of investments by the manufacturing industry was 70,146.9 billion yen, while the balance of investments by the non-manufacturing industry was 98,599 billion yen (Figure II-3-1-28). The United States was the largest recipient of outward foreign direct investments by Japan, marking 54,259.5 billion yen, followed by the United Kingdom with 17,019.7 billion yen. As for investments in the United States, the financial and insurance industry had a large share, recording 12,451.7 billion yen. As for investments in the United Kingdom, the service industry's share was larger than that in other major countries, and the manufacturing industry's share was small. On the other hand, as for investments in China and Germany, the manufacturing industry's share was relatively large. As for investments in France, the wholesale and retail trade industry's share was remarkably large (Figure II-3-1-29).

Figure II-3-1-28 Changes in balance of outward foreign investments by Japan (as of the end of 2017)



Figure II-3-1-29 Balance of outward foreign direct investments by Japan and shares of thereof by industry in major economies



Source: Balance of Payments (MOF).

Looking at the OECD Statistics for inward foreign direct investments in the United States and the United Kingdom, countries which have large balances of outward foreign direct investments by Japan; that is, countries which have a lot of inward foreign direct investments from Japan, Japan is the second biggest investor in the United States and the sixth biggest investor in the United Kingdom in terms of inward foreign direct investments (Figures II-3-1-30 and II-3-1-31).

Figure II-3-1-30 Rankings of inward foreign direct investments in the United States (as of the end of 2017, in terms of stock and net worth)



Source: OECD Stat.





Source: OECD Stat.