2016-E-8

*Bank of Japan Review*

# Recent Trends in Japan's Balance of Payments

## --Findings from the New Balance of Payments Statistics--

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July 2016

Looking at long-term trends in the overall structure of Japan's international transactions shown in the balance of payments (BOP) statistics, the two following points related to Japanese firms are noteworthy. First, there has been a shift in exports from goods to services. And second, earnings on the accumulated stock of external assets are playing an increasingly important role as a result of an increase in Japan's outward direct investment in recent years. The new BOP statistics from 2014 onward including figures for direct investment income by region and industry as well as the external debt position (assets/liabilities) by currency make it possible to conduct more detailed analyses of the stock of external assets and liabilities. While Japanese firms make more profits from the stock of external assets, the rate of return on outward direct investment remains relatively low compared to the United States and United Kingdom, and depends heavily on the high rate of return in the manufacturing sector, particularly the transportation equipment industry in Asia.

## Introduction

The balance of payments (BOP), which are compiled and disseminated by the Ministry of Finance (MOF) and the Bank of Japan (BOJ), is a statistical statement of financial and economic transactions with the rest of the world. For the following reasons, the importance of BOP statistics that cover international transactions in a systematic and comprehensive manner has been raising. Firms are increasingly operating on a world-wide scale for the procurement, production, and sale of goods and services. Cross-border capital flows are growing substantially. Globalization of the economy has continued apace.

Japan's BOP statistics are compiled in accordance with the International Monetary Fund's (IMF) *Balance of Payments and International Investment Position Manual* (*BPM*). In 2008, the IMF released the sixth edition of the *BPM*.[1] In order to conform to *BPM*6, Japan revised its BOP statistics, with data from January 2014 onward being published on the basis of the new guidelines.[2] *BPM6* requires the dissemination of data, which make it possible, at least to a certain extent, to gain a more detailed understanding of cross-border financial and economic transactions. In this article, we provide an overview of trends in Japan's BOP and then examine changes in the structure of international transactions. We further present various findings revealed by the items newly available through the review of the BOP.

## Changes in the Structure of International Transactions

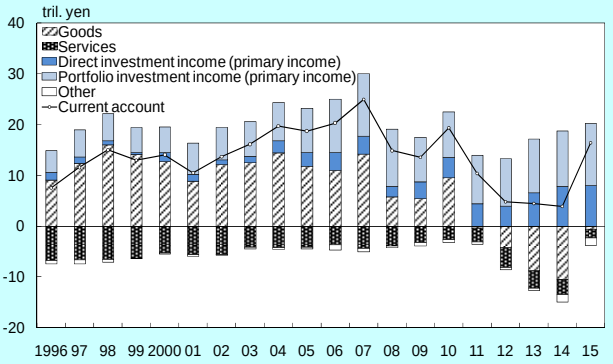
The BOP statistics have two fundamental components: the current account and the financial account. The current account measures the payments and receipts on goods and services (balance on goods and services), income from overseas investment (primary income), and so on for a specific time period. The financial account represents financial transactions with other countries over a specific time period. In addition to such flow data of financial transactions, stock data, referred to as the International Investment Position of Japan, are also disseminated. (Unless specified otherwise, references to the BOP statistics in this article include the International Investment Position of Japan.)

The BOP statistics thus provide a systematic and comprehensive overview of the types of transactions in which funds were received from abroad (current account), the types of investments made abroad (financial account), and the total stock of investments accumulated as a result (International Investment Position of Japan). The following is a brief overview

of trends in the structure of Japan's international transactions using the BOP statistics.

Japan for many decades has generally had a current account surplus. The nature of the surplus, however, changed around the mid-2000s (Chart 1). Until then, the main contributing factor for the overall surplus was the surplus in the balance on goods. However, an increase in the value of crude oil and natural gas imports led to a decrease in the surplus from the latter half of the 2000s, eventually causing a deficit on goods by 2011.

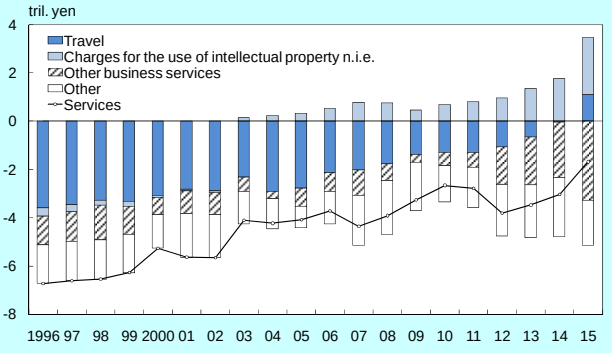
[Chart 1] Current Account




Notes: 1. Figures are based on *BPM6*.
2. "Other" is the sum of primary income other than direct investment and portfolio investment income, and secondary income.

On the other hand, the deficit on services has been decreasing since the latter half of the 1990s (Chart 2). This reflects an improvement in the balance on "travel" and "charges for the use of intellectual property n.i.e.," which outweighs the increase in the deficit on "other business services," which include expenses related to overseas research and development.

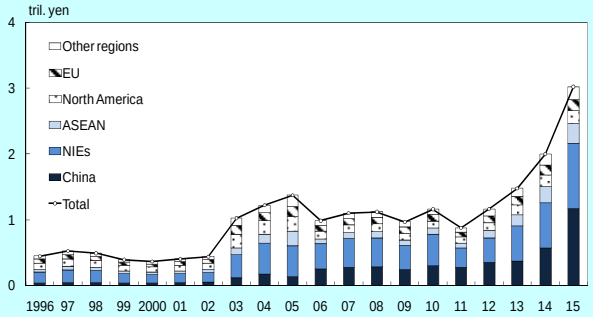
[Chart 2] Services




Notes: 1. Figures are based on *BPM6*.
2. "Other" represents services other than those included in travel, charges for the use of intellectual property n.i.e., and other business services.

The main reason for the improvement in the balance on "travel" is a rise in the number of tourists from Asia, particularly China, the Asian NIEs (newly industrializing economies), and ASEAN (Association of Southeast Asian Nations) countries (Chart 3), so that in 2015 the deficit turned into a surplus. The balance on "charges for the use of intellectual property n.i.e." turned into a surplus in the first half of the 2000s and since then has remained on an upward trajectory. The increase mainly reflects a rise in royalties on patents and know-how paid by overseas subsidiaries to their Japanese parent companies in line with the rise in overseas production in the automobile and other manufacturing industries.

[Chart 3] Travel (Credit) by Region



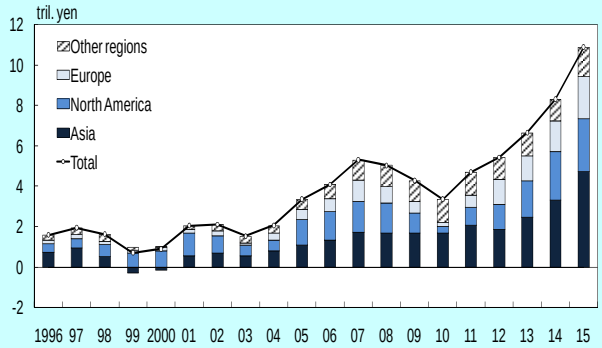

Notes: 1. Figures for the regional balance of payments through 2013 are based on *BPM5* as it is not possible to obtain figures based on *BPM6*. The same applies to Charts 4, 8, and 9. Figures for 2014 and after are based on *BPM6*.
2. Figures for 2015 were calculated by applying regions' shares in January-September to the total for January-December.
3. Figures for the NIEs are the total of South Korea, Taiwan, and Hong Kong. Figures for ASEAN are the total of Indonesia, Singapore, Thailand, the Philippines, Malaysia, Brunei, Vietnam, Laos, Myanmar, and Cambodia. "Other regions" consist of all other countries and regions than China, the NIEs, ASEAN, North America, and the EU.

Meanwhile, the primary income surplus has continued to expand and since the latter half of the 2000s has been the main factor underlying the current account surplus (Chart 1). A closer look shows that, since the 2000s, the surplus in both portfolio investment income, such as interest on bonds and dividends on equities, and direct investment income, such as dividend payments from overseas subsidiaries, has increased. In particular, direct investment income from Asia has increased since the 2010s (Chart 4), with the surplus currently reaching a similar level as that for portfolio investment.

The expansion in the primary income surplus is due to an increase in both the amount of external assets and the share of direct investment, which generates a higher rate of return. This can be seen by looking at developments in external assets in more detail. While movements in foreign exchange rates as well as stock and bond prices somewhat obscure overall trends, direct investment has grown faster than portfolio investment, so that its share in total external assets has increased (Chart 5). This increase helped to raise the overall return on external assets, since direct investment continues to generate a higher rate

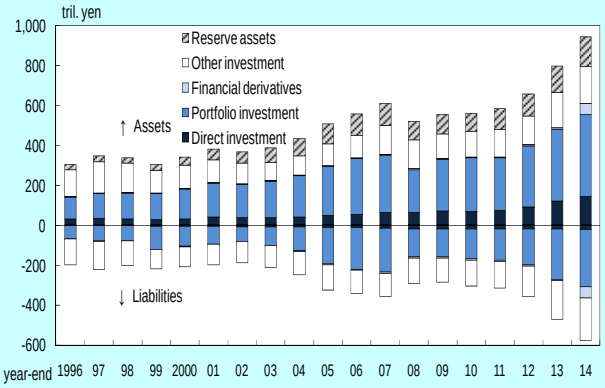
of return than portfolio investment (Chart 6).[3] Thus, the increase in the primary income surplus overall reflects the increase in outstanding external assets overall as well as the larger share of direct investment, which has a higher rate of return.

[Chart 4] Direct Investment Income (Credit) by Region



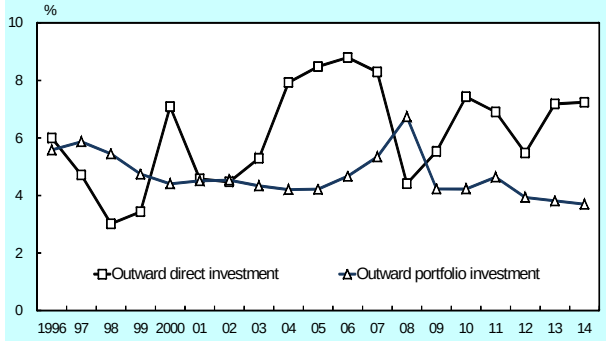

Notes: 1. Figures through 2013 are based on *BPM5*. Figures for 2014 and after are based on *BPM6*.
2. Figures for 2015 were calculated by applying regions' shares in January-September to the total for January-December.
3. "Other regions" consist of all other countries and regions than Asia, North America, and Europe.

[Chart 5] International Investment Position




Notes: 1. Figures are based on *BPM6*.
2. In this chart, liabilities are represented as negative values.

[Chart 6] Rate of Return on Assets




Notes: 1. Figures are based on *BPM6*.
2. The rate of return on assets is calculated by dividing the annual investment income (credit) by the amount of assets as of the end of the corresponding year.

This brief overview of developments in Japan's BOP statistics highlights two notable trends regarding the structure of Japan's international transactions. First, there has been a shift in exports from goods to services; and second, earnings on the accumulated stock of external assets are playing an increasingly important role.

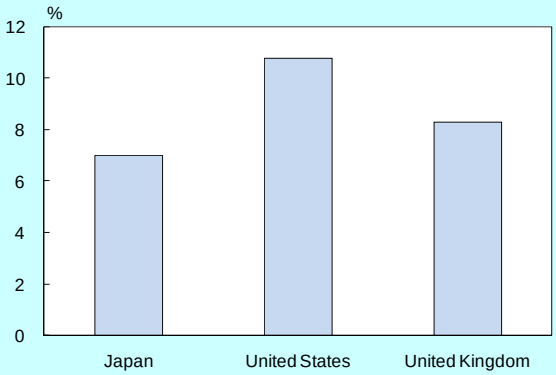
## Features of the Newly Available Items

With the switch to the new BOP statistics from January 2014 onward, data on (1) direct investment income by region and industry and (2) the external debt position (assets/liabilities) by currency have become available, providing insights into structural changes in and the future direction of international transactions.

### *1. Direct investment income by region and industry*

The increase in Japan's primary income surplus in recent years owes to the growing share of direct investment, which has a higher rate of return than portfolio investment, in total assets. An important challenge for the future is to further improve the rate of return on direct investment, given that Japan's average rate of return on direct investment from 2010 to 2014 compares unfavorably with that for the United States and United Kingdom (Chart 7).[4]

[Chart 7] Rate of Return on Outward Direct Investment in Japan, the United States and United Kingdom (average for 2010-2014)

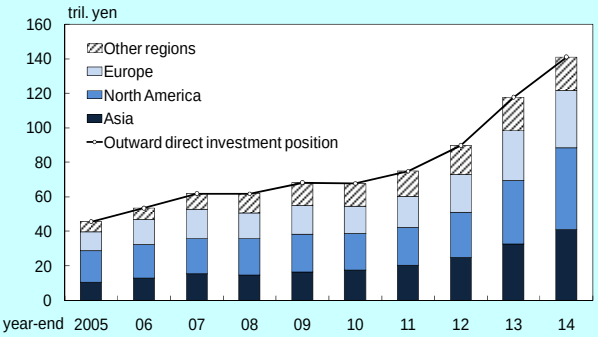



Sources: IMF, U.S. Bureau of Economic Analysis, Office for National Statistics.
Note: The rate of return on outward direct investment is calculated by dividing the annual direct investment income (credit) by the outward direct investment position as of the end of the corresponding year. Figures for the investment position are based on the "Direct Investment Position by Region and Industry." (The same applies to Charts 8 to 14.)

Looking at Japan's direct investment position in 2014 by major region, the United States accounted for 34 percent of the total, Asia for 29 percent, and Europe for 23 percent. The share of these three regions has remained largely unchanged over the past decade, although the direct investment position has grown sharply (Chart 8). As for the rate of return by region, Asia is constantly above other regions (Chart

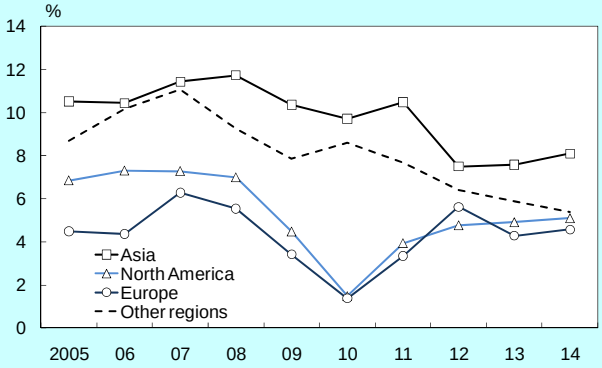
9).

## [Chart 8] Outward Direct Investment Position by Major Region




Notes: 1. Figures through year-end 2013 are based on *BPM5*. Figures for year-end 2014 are based on *BPM6*.
2. "Other regions" consist of all other countries and regions than Asia, North America, and Europe. (The same applies to Charts 9 and 11.)

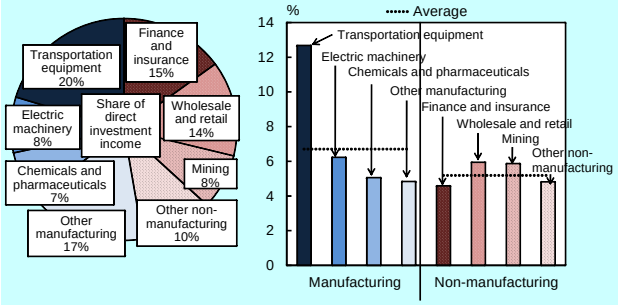
## [Chart 9] Rate of Return on Outward Direct Investment in Major Regions




Note: Figures through 2013 are based on *BPM5*. Figures for 2014 are based on *BPM6*.

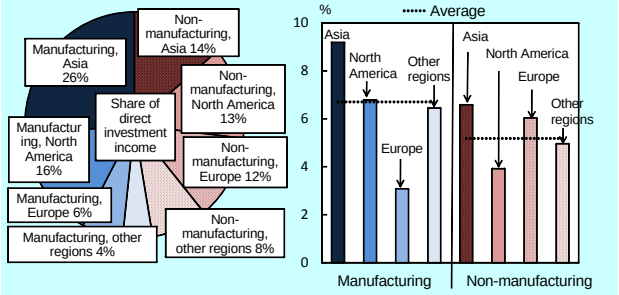
To gain a better understanding of the rate of return on direct investment, we take a look at direct investment income by region and industry for 2014, data for which have become newly available in the BOP statistics.[5] The following three points are noteworthy.[6] First, the manufacturing sector accounts for a larger share of total direct investment income than the non-manufacturing sector and has a higher rate of return, with both the share of and rate of return in "transportation equipment" in manufacturing, which includes automobiles, being high (Chart 10). Second, the share and the rate of return by major region and sector (manufacturing/non-manufacturing) show that the rates of return in manufacturing vary more by region than in non-manufacturing and that the share of and the rate of return in manufacturing especially in Asia are higher than in other regions (Chart 11). And third, comparing the rate of return by region across major manufacturing industries shows that while in the chemicals and pharmaceuticals industry there are no marked regional differences, in the transportation equipment and electrical machinery industries clear differences can be observed, with the rate of return being highest in Asia (Chart 12).

## [Chart 10] Share of Direct Investment Income (Credit) and Rate of Return on Outward Direct Investment by Major Industry (as of 2014)

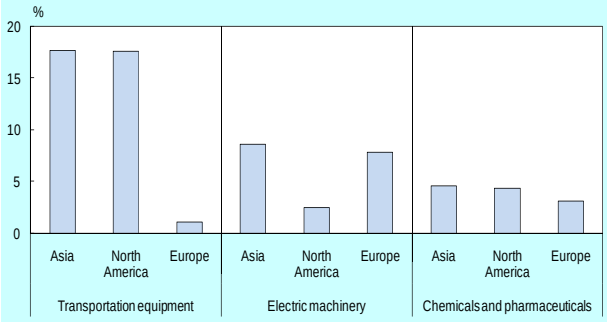



Note: "Other manufacturing" consists of all manufacturing industries other than transportation equipment, electric machinery, and chemicals and pharmaceuticals. "Other non-manufacturing" consists of all non-manufacturing industries other than finance and insurance, wholesale and retail, and mining.

## [Chart 11] Share of Direct Investment Income (Credit) and Rate of Return on Outward Direct Investment by Major Region and Sector (as of 2014)

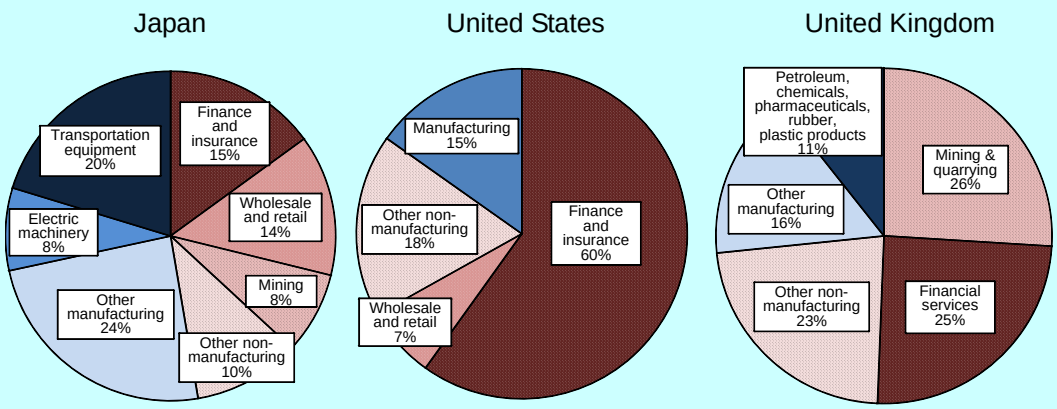



## [Chart 12] Rate of Return on Outward Direct Investment in Major Industries in Asia, North America, and Europe (as of 2014)




Note: The respective shares of transportation equipment, electric machinery, and chemicals and pharmaceuticals in Japan's outward direct investment position in each of the regions are as follows: (1) 13,11, and 8 percent in Asia; (2) 8, 7, and 10 percent in North America; and (3) 10, 8, and 10 percent in Europe.

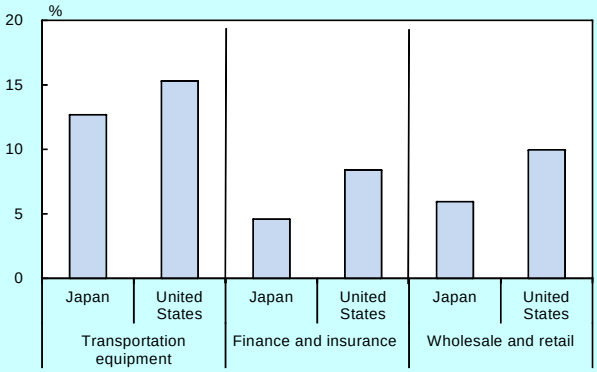
[Chart 13] Direct Investment Income (Credit) by Industry (for 2014)




Sources: OECD, Office for National Statistics.
Note: Industries in the United Kingdom that are not categorized are excluded from the total. The pie charts show the most important industries in descending order such that they together account for more than 60 percent of the total. (For the United States, industries are categorized in accordance with the broad classification of industries in OECD data. Industries with the largest shares are shown.) Other industries are classified into "other manufacturing" and "other non-manufacturing."

Furthermore, comparing the composition of direct investment income by industry for 2014 shows that while manufacturing makes up a higher share in Japan than in the United States and United Kingdom, Japan's direct investment income is spread more evenly across industries, including in the non-manufacturing sector (Chart 13). In the United States, finance and insurance account for 60 percent of direct investment income, while in the United Kingdom two sectors, mining and quarrying as well as financial services, account for more than 50 percent. As for the rate of return by major industry, Japan is behind the United States in transportation equipment, finance and insurance, and wholesale and retail (Chart 14).

[Chart 14] Rate of Return on Outward Direct Investment in Major Industries in Japan and the United States (as of 2014)




Source: OECD

These results are based on data for a single year. Therefore, it is difficult to draw firm conclusions at this point in time, given that they may reflect circumstances in a particular year such as the economic situation or firms' dividend policy. As data spanning a longer period become available, it will be possible to conduct more detailed region- and industry-level analyses of Japan's direct investment.

## *2. External debt position (assets/liabilities) by currency*

As mentioned earlier, the current account surplus partly reflects an increase in Japan's external assets. At the same time, external liabilities, as shown in Chart 5, have also risen. This means that in order to examine trends in primary income and potential vulnerabilities arising from capital flows, and exchange rate fluctuations, it is increasingly important to obtain more detailed information on the composition of external assets and liabilities of economic entities.

The importance of compiling and publishing data on the external debt position (assets/liabilities) with a breakdown by currency has been discussed in the IMF's *BPM* and the Data Gaps Initiative launched by the G20 Ministers of Finance and Central Bank Governors.[7] This reflects the experience of financial crises in the past. For instance, during the Asian financial crisis in the latter half of the 1990s, progressive increases in foreign-currency denominated liabilities exacerbated the impact of the crisis as depreciation increased the domestic-currency value of those liabilities. Moreover, during the most recent financial crisis, the increase in precautionary demand for liquidity caused a plunge in financial market liquidity, making it difficult for financial institutions, especially European ones, which had increasingly transacted in U.S. dollars, to raise U.S. dollar funding.

Reflecting such international discussions, Japan started to release data on the currency composition of its external debt position (assets/liabilities) as of the

end of 2014. Japan is the first country providing a currency breakdown of both assets and liabilities.[8] The debt position is presented in two forms: (1) broken down into foreign currency and Japanese yen; and (2) divided into specific major foreign currencies and Japanese yen. [9]

To be specific, the MOF and the BOJ release the debt positions of individual institutional sectors (five sectors, consisting of the central bank; deposit-taking corporations, except the central bank; general government; other financial corporations; and others) and for each of these sectors provide a breakdown of assets and liabilities (for example, debt securities, currency and deposits, and loans) in yen and foreign currency.[10, 11] Furthermore, in separate data, the assets and liabilities of three institutional sectors (deposit-taking corporations, except the central bank; other financial corporations; and others) are provided with a breakdown by major foreign currency (U.S. dollars, euro, and other).

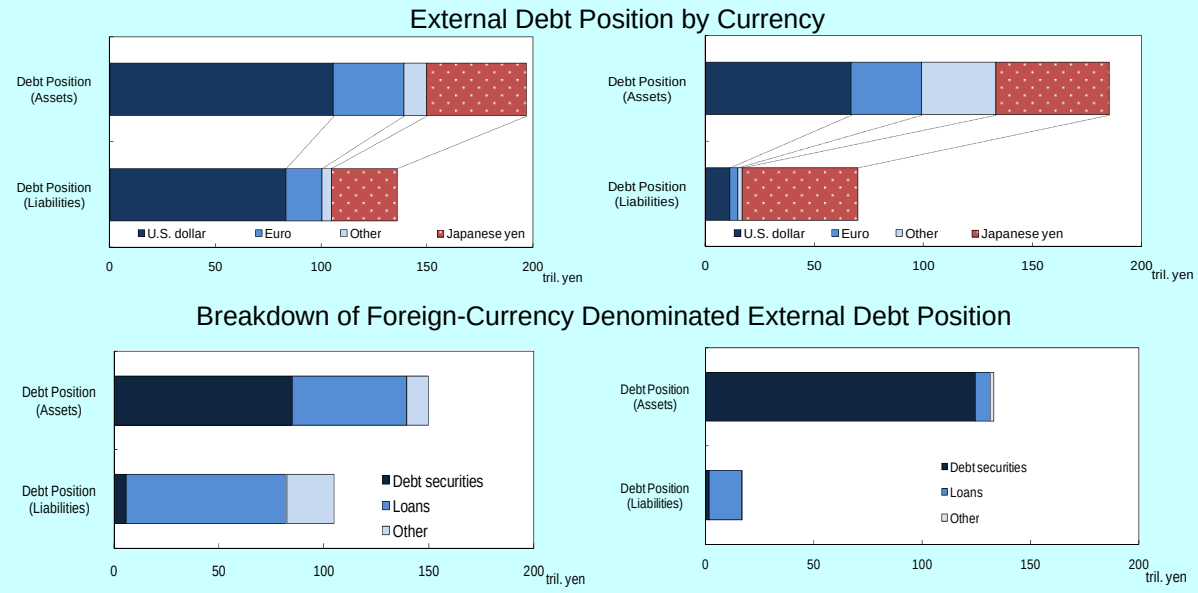
The features of the foreign-currency denominated debt positions (assets/liabilities), which are newly available from the end of 2014, of the two sectors that account for the largest share of total holdings -- "deposit-taking corporations, except the central bank" and "other financial corporations" -- are as follows (Chart 15).[12]

The foreign-currency denominated assets of "deposit-taking corporations, except the central bank" and "other financial corporations" both exceed their foreign-currency denominated liabilities. This is shown both in data on the foreign-currency denominated total debt position and in data providing a breakdown by major foreign currency (U.S. dollar, euro, and other).[13] Thus, regarding foreign-currency denominated debt, Japan's liabilities do not exceed its assets.[14]

Next, looking at the composition of foreign-currency denominated assets and liabilities by individual institutional sector indicates that for "deposit-taking corporations, except the central bank," loans make up a large share of foreign-currency denominated liabilities, while debt securities and loans make up a large share of foreign-currency denominated assets. These figures reflect that Japanese banks, in addition to investing in foreign bonds, have recently stepped up efforts to extend loans overseas in order to increase their business overseas. The data indicate that such activities are funded through deposits and other funds raised by their overseas branches or in the capital market, as well as domestic yen deposits. The data further imply that these overseas funds are first transferred to Japanese headquarters and then put to use overseas.

Turning to "other financial corporations," their foreign-currency denominated liabilities are substantially smaller than their foreign-currency denominated assets. Moreover, the bulk of

[Chart 15] External Debt Position by Currency and Foreign-Currency Denominated External Debt Position for Selected Sectors (year-end 2014)




Notes: 1. "Other" in the external debt position by currency refers to currencies other than the U.S. dollar, euro, and Japanese yen.
2. "Other" in the breakdown of the foreign-currency denominated external debt position refers to external debt other than debt securities and loans (e.g., currency and deposits).

foreign-currency denominated assets are held in the form of debt securities. This pattern reflects the fact that, amid the decline in domestic interest rates, life insurance companies, pension funds, and investment trust management companies invest yen funds earned or procured in Japan (through for example, insurance premiums, pension premiums, and investment funds of individuals) in foreign bonds.

Such investment in foreign bonds using yen funds takes one of the two following forms. The first, in which the currency risk is unhedged, consists of the conversion of yen funds into foreign currency in the spot market to buy foreign bonds, while the second, in which the currency risk is hedged, involves foreign currency swaps to buy foreign bonds. Investment by "other financial corporations" in foreign bonds is based on domestic yen funding at hand, giving rise to the difference between foreign-currency denominated assets and liabilities shown in Chart 15. Furthermore, in the BOP statistics, derivative transactions involving the purchase of foreign bonds with the currency risk hedged are recorded in the stock data in terms of the value of a derivative contract at market prices, not in terms of the notional amount of the principal involved. This is the reason for the difference between the assets and liabilities positions.[15]

As these considerations show, the newly released data help to examine differences in the composition of the foreign currency procurement and investment of "deposit-taking corporations, except the central bank" and "other financial corporations." At present, data on the currency composition of the external debt position (assets/liabilities) are available only for the end of 2014, but the accumulation of more such data over time will make possible the analysis of time-series variations in the composition of procurement and investment of foreign currency funds.

## Conclusion

The structure of Japan's international transactions is ever changing. In order to obtain an accurate grasp of the changes to enable precise analyses and devise appropriate policies, the BOP statistics have been revised to reflect the changing environment. As statisticians, we hope that the new BOP statistics will be used by a wider range of economists, policymakers, and other users.

We will continue to endeavor -- keeping developments in international discussions in mind -- to compile and disseminate informative statistics that enhance existing data while minimizing the reporting burden.

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* Currently Secretariat of the Policy Board.

[1] The *Balance of Payments Manual* was first issued in 1948. It has since been revised to reflect changes in the economic and social environment by, for example, increasing the number of detailed components.

[2] For an overview of the revision, refer to "Revision of Balance of Payments Related Statistics in Japan" issued by the Bank's International Department in 2013 (http://www.boj.or.jp/en/research/brp/ron_2013/ron131008a.htm/ ).

[3] The rate of return on outward investment is calculated by dividing annual investment income (credit) by the outward investment position as of the end of the corresponding year. The reason is that data on the investment position based on *BPM6*, which is necessary for calculating the rate of return on outward direct investment by region and industry, is available only from the end of 2014.

[4] The figures here are based on the worldwide total for "direct investment position by region and industry" and therefore differ from the figures using the "International Investment Position of Japan" (Chart 6). Refer to the following page for differences in recording principles: http://www.boj.or.jp/en/statistics/br/bop_06/fdinote.htm/. Japan's rate of return exceeds that of the United Kingdom when using figures from the "International Investment Position of Japan."

[5] Data on direct investment income, positions, and flows by region and industry are published under the item "Direct Investment by Region and Industry."

[6] Although data for direct investment income for 2015 have been released, this article uses figures for 2014 to calculate the rate of return. The reason is that data necessary for the comparison between Japan, the United States, and the United Kingdom for 2015 are not yet available, since the direct investment position of Japan as of the end of 2015 and the direct investment income of the United States and United Kingdom for 2015 have yet to be released. The results obtained in this article are not substantially affected if we calculate Japan's rate of return by industry and region on the basis of investment income for 2015 and the investment position as of the end of 2014.

[7] In response to the 2007–2008 global financial crisis, the G20 meeting of Finance Ministers and Central Bank Governors in 2009 launched the Data Gaps Initiative to address major gaps in financial and economic information which cannot be filled using existing data. In April 2014, the G20 called on the IMF, the Financial Stability Board (FSB), and the Bank for International Settlements (BIS) to work to fill data gaps involving foreign currency exposure. Against this background, the IMF has placed emphasis on the compilation of external debt positions (assets/liabilities) by currency (Table A9-I in the *BPM6*). See IMF (2015), "Work on Foreign Currency Exposures Report to G-20 Economies, September 2015" for details.

[8] The fact that Japan was the first country to release data on the currency composition of the external debt position (assets /liabilities) was noted in IMF (2015), "Work on Foreign Currency Exposures Report to G-20 Economies, September 2015." Some countries release data on the currency composition of their liabilities in the "Gross External Debt Position," which are part of the BOP-related statistics.

[9] Specifically, the data are referred to as "Debt Position (Assets/Liabilities) by Currency (Foreign Currency/Japanese Yen)" and "Debt Position (Assets/Liabilities) by Currency."

[10] "Other financial institutions" include trust accounts of trust banks, securities firms, life and non-life insurance companies, and investment trust management companies. "Others" include nonfinancial corporations and households.

[11] Figures include debt instruments under portfolio investment and other investment, but exclude equity instruments.

[12] The shares of the institutional sectors in the total value of debt (assets) in the "Debt Position (Assets/Liabilities) by Currency (Foreign Currency/Japanese Yen)" are as follows: "deposit taking corporations, except the central bank" account for 45 percent, "other financial corporations" for 42 percent, "others" for 8 percent, "general government" for 5 percent, and the "central bank" for 0 percent.

[13] The "External Debt Position (Assets/Liabilities) by Currency" shows that, in addition to those denominated in foreign currencies, a certain share of assets and liabilities are denominated in yen. The yen-denominated assets and liabilities likely have arisen from the following transactions: (1) banks transfer yen funds to overseas branch offices to be converted into U.S. dollars; (2) securities companies require yen funds to conduct yen-based transactions with nonresident customers; and (3) yen funds are loaned to overseas branch offices and local subsidiaries of securities companies through repo transactions of Japanese government bonds.

[14] Even if on-balance-sheet assets and liabilities are in balance, from a liquidity perspective it is still necessary to pay close attention to a potential maturity mismatch of assets and liabilities and to off-balance sheet transactions such as currency and foreign exchange swaps used to procure foreign currency.

[15] Derivatives are excluded in both the "Debt Position (Assets/Liabilities) by Currency (Foreign Currency/Japanese Yen)" and the " Debt Position (Assets/Liabilities) by Currency."

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