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Enhancement and Expansion of Japan's Flow of Funds Accounts in Response to International Recommendations after the Financial Crisis

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In response to the financial crisis in 2008, there are growing moves around the world to enhance statistics in order to identify the buildup of risks and financial and economic vulnerabilities that would not be captured through existing data. Accordingly, the Bank of Japan (BOJ) worked to enhance and expand Japan's Flow of Funds Accounts (J-FFA) and started to release three new data series (1."from-whom-to-whom" data of debt securities and loans, 2."Loans, Debt Securities, and Deposits by Maturity," and 3."Amounts Outstanding of Securitized Products") between 2011 and 2013. These data sets revealed recent notable trends such as: (1) an increase in cross-border transactions; (2) a shift of creditor from the public sector to the private sector; (3) differences in the maturity composition of fund investment and fund raising among economic entities; and (4) a downtrend in the amounts outstanding of securitized products.

Introduction

The BOJ has been compiling the J-FFA as statistics that comprehensively capture financial activities in Japan. The J-FFA is a matrix of data that shows changes in financial assets and liabilities of economic entities (sectors), such as households, corporations and financial institutions, with regard to each of the financial transaction items, such as deposits and loans. There are three notable features of the J-FFA as follows. First, the J-FFA captures both the amounts outstanding (stock data) of financial assets and liabilities, and the transaction amounts (flow data) in each sector. Second, as the J-FFA is compiled in accordance with the international standard for national accounts, it can be used to clarify financial activities in Japan and the country's financial structure in comparison with other countries. Third, the J-FFA is more detailed than similar statistics available in other major countries and regions in terms of classification of transaction items and sectors, so it captures the flow of funds in more detail.

In order to improve the preciseness of the J-FFA and make it more useful for users, it is essential to appropriately adapt it to the rapidly changing financial and economic environments exemplified by the advance of globalization. The BOJ has been making active efforts to enhance and expand the J-FFA in line with the evolution of financial transactions, for example by incorporating source data that have newly become available[1].

One recent typical example of such efforts is a series of initiatives carried out in response to a recommendation report titled "The Financial Crisis and Information Gaps," which includes a set of recommendations adopted at the meeting of the G-20 Finance Ministers and Central Bank Governors in November 2009.[2] The report calls for individual countries to enhance statistics so as to fill "information gaps" left by existing statistics based on the development and analysis of high quality statistics, which are important for financial supervision and policy responses. Specifically, based on the lessons of the global financial crisis that broke out in 2008, the report cites the following activities as priorities: (a) to better capture the build-up of risk in the financial sector, (b) to improve data on international financial network connections, and (c) to monitor the vulnerability of domestic economies to shocks. The report's recommendations cover a broad range of matters, including further enhancement of international balance of payments statistics, cross-border banking exposures and derivatives market statistics, government finance statistics, and the collection of supervisory data concerning individual financial institutions. In particular, it calls for flow of funds data to play a key role. In response, the BOJ is making various efforts to enhance and expand the J-FFA with the cooperation of relevant parties.[3]

This paper describes a series of initiatives conducted by the BOJ in relation to the J-FFA and its supplementary data. It first explains the direction of the revision of the J-FFA to enhance and expand it and then provides an overview of the enhancement of flow of funds accounts and its supplementary data in other countries. Next, the paper explains the three data series that the BOJ has introduced ((1) "from-whom-to-whom" data of debt securities and loans (2) "Loans, Debt Securities, and Deposits by Maturity" (3) "Amounts Outstanding of Securitized Products")[4] and describes recent trends identified through the data. Finally, the paper refers to future challenges.

Direction of the Revision

When enhancing and expanding the J-FFA and its supplementary data, the BOJ focuses its efforts mainly on filling the information gaps and more accurately capturing financial activities. More specifically, the BOJ is enhancing and expanding the J-FFA and its supplementary data from the following three perspectives in order to help to (a) better capture the build-up of risk in the financial sector, and (c) monitor the vulnerability of domestic economies to shocks, as recommended by G20.

The first perspective is developing from-whom-to-whom data. The J-FFA records the amounts outstanding of assets and liabilities and the transaction amounts of each economic entity in the form of a sector-by-transaction item matrix. While this format is suited to provide an overview of financial activities in an individual country, it is not sufficient to capture in detail trends in financial flows and potential risk distribution between sectors. For that purpose, it is necessary to enhance data that clarifies the creditor-debtor relationship between sectors in a sector-by-sector matrix with regard to each financial instrument—in other words, it is essential to develop data that clarifies from whom funds move to whom and how potential risks are distributed through financial instruments. In addition to the release of from-whom-to-whom data regarding domestic debt securities since September 2011, the BOJ started to release from-whom-to-whom of loans in December 2013.

The second perspective is enhancing data concerning assets and liabilities by maturity. Data on the trend in each economic sector's holding of major financial instruments by maturity helps to capture changes in the risk-taking attitude, and interest rate and liquidity risks. Based on the recognition that the remarkable distortion of the maturity mixes of assets and liabilities was a cause of the financial crisis, the G-20 recommendation report calls for enhancement of data by maturity. In December 2013, the BOJ started to release "Loans, Debt Securities, and Deposits by Maturity," which shows a breakdown of loans, debt securities and deposits by remaining maturity and by original maturity.

The third perspective is enhancing statistics concerning securitized products, including securities collateralized by real assets, such as real estate, and trust beneficiary rights backed by various monetary claims. The enhancement of such statistics is positioned as part of an effort to enhance data related to shadow banking. Since the 2000s, securitized products have been widely issued and traded in the United States and Europe as a new means to transfer risks, including credit and interest rate risks, so there are growing needs to improve information concerning securitized products. Accordingly, in December 2011, the BOJ started to release "Amounts Outstanding of Securitized Products" with the main focus on capturing the actual state of the market for securitized products issued by special-purpose companies (SPCs) and trusts as well as those issued by other entities.

Initiatives by Other Countries

Regarding the status of enhancement of data in other countries (Chart 1), in Europe, the European Central Bank (ECB) releases, on a quarterly basis, the Euro Area Accounts, which are the flow of funds accounts for the euro area including from-whom-to-whom data of deposits and loans by flow and stock. As for data by maturity, the ECB compiles data of debt securities and loans by original maturity and data on loans by remaining maturity. In Australia, from-whom-to-whom data of major financial transaction items and data of both long- and short-term debt securities and loans by original maturity are released. Meanwhile, in the United States, neither from-whom-to-whom data nor data on amounts outstanding by maturity is released at present. Statistics concerning securitized products have still not been sufficiently developed in any country.

[Chart 1] Enhancement of data by country

	Euro Area	Australia	United States	Japan
From-Whom-to-Whom	? （Deposits・Loans）	? （Debt Securities・Loans・Others）	×	○ （Debt Securities・Loans）
Maturity Data	△ (Debt Securities・Loans) * Only Original Maturity for Debt Securities	△ (Debt Securities・Loans) * Only Original Maturity	×	△ * For Some Sectors and Transaction Itmes only * Original and Remaining Maturity
Securitized Products	△	△	△	○

(Note 1) Refer to the ECB's website for European data, to the FRB's Financial Accounts of the United States for U.S. data, and to the Australian Bureau of Statistics (ABS)'s National Accounts for Australian data.
(Note 2) Items in parentheses are transaction items.
(Note 3) Regarding the comparison of data on securitization, the ○ symbol indicates a publication of breakdown data for securitized products similar to the "Amounts Outstanding of Securitized Products," published by the BOJ and the △ symbol indicates a publication of the sectoral accounts alone.

As shown in chart 1, Japan has developed adequate data sets compared with other countries as a result of steady improvement efforts made in cooperation with relevant parties.

Compilation Method of Data and Recent Trends

From-whom-to-whom data

From-whom-to-whom data of debt securities and loans clarifies creditor-debtor relationships with regard to major financial instruments in the form of a sector-by-sector matrix, with the main focus on capturing from whom funds flow to whom. This data makes it possible to capture detailed financial flows and distribution of potential risks that would not be identified through the sectoral accounts, the J-FFA. Explained below are the data compilation method and recent trends regarding (1) debt securities and (2) loans respectively.

From-whom-to-whom data of debt securities

Compilation method

"From-whom-to-whom of domestic debt securities" is a matrix of data which shows the status of transactions between sectors with regard to debt securities issued in Japan by residents. This data is compiled by rearranging published figures of the J-FFA, which are expressed in the form of a sector-by-transaction item (financial instrument) matrix. Specifically, entities in the issuer sector are classified on the basis of the type of securities so as to correspond to the classification of transaction items in the J-FFA (Chart 2). On the other hand, entities in the holder sector are classified so as to correspond to the classification of sectors in the J-FFA. For example, the amount outstanding of debt securities issued by financial institutions and nonfinancial corporations and held by households corresponds to the total sum of the amounts of bank debentures and industrial securities recorded on the asset side of the household sector in the J-FFA.

[Chart 2] Type of debt securities by corresponding issuer sector

Issuer Sectors	Maturity	Type of Securities Issued by Each Sector
Financial institutions and Nonfinancial corporations	Short-term	Commercial paper
	Long-term	Bank debentures, Industrial securities
Central government and Fiscal Loan Fund	Short-term	Treasury discount bills
	Long-term	Central government securities and FILP bonds
Local governments	--	Local government securities
Government-affiliated agencies	--	Public corporation securities
Structured-financing special purpose companies and trusts	--	Structured-financing instruments

(Note) "Maturity" in the above chart is the original maturity.

Recent trends

As for trends from April 2013 to March 2014 (flow) (upper table in Chart 3), of the total net issue amount of domestic debt securities, which stood at 30 trillion yen (far right bottom), debt securities issued by the central government[5] and Fiscal Loan Fund (central government securities, FILP bonds, and treasury discount bills) accounted for 34 trillion yen (far right middle), indicating that most of the funds raised through domestic debt securities were raised through securities issued by those two entities. A look at holders of central government securities shows that the BOJ (central bank) made net purchases of 72 trillion yen, while financial institutions other than the BOJ made net sales of 42 trillion yen (30 − 72 = −42) This represents a significant change from the situation during the five years from the beginning of April 2008 to the end of March 2013, when the BOJ made net purchases of 58 trillion yen and financial institutions other than the BOJ made net purchases of 89 trillion yen (147 − 58 = 89) (lower table of Chart 3). As a result of an increase in the purchase amount of government securities by the BOJ under the "Quantitative and Qualitative Monetary Easing" introduced in April 2013,[6] the pace of growth in the amounts outstanding of government securities holdings increased significantly. On the other hand, financial institutions other than the BOJ, which previously increased their amounts outstanding of government securities holdings substantially, have recently shifted to the sell side.

[Chart 3] From-whom-to-whom data of debt securities (April 2013 to March 2014)

(trillion yen)

Issuer sector \ Holder sector	Financial institutions	Central bank	Nonfinancial corporations	General government: Central government	General government: Local governments	General government: Social security funds	Households	Private nonprofit institutions serving households	Overseas	Total
Financial institutions and Nonfinancial corporations	-4	1	1	0	0	-1	0	0	0	-4
Short-term	-2	1	1	0	0	0	0	0	0	-1
Long-term	-2	0	0	0	0	-1	0	0	0	-3
Central government and Fiscal Loan Fund	30	72	3	4	0	-2	-3	0	1	34
Short-term	-12	10	0	4	0	0	0	0	3	-5
Long-term	42	61	3	0	0	-2	-3	0	-2	38
Others	0	0	0	0	0	-1	0	1	0	0
Total	26	73	4	4	0	-3	-3	1	1	30

Five years from the beginning of April 2008 to the end of March 2013

(trillion yen)

Issuer sector \ Holder sector	Financial institutions	Central bank	Nonfinancial corporations	General government: Central government	General government: Local governments	General government: Social security funds	Households	Private nonprofit institutions serving households	Overseas	Total
Financial institutions and Nonfinancial corporations	-4	4	-5	0	0	-3	2	-1	0	-11
Short-term	0	1	-4	0	0	0	0	0	0	-4
Long-term	-4	3	-1	0	0	-3	2	-1	0	-7
Central government and Fiscal Loan Fund	147	58	3	-12	0	-12	-13	0	27	141
Short-term	38	29	0	-11	0	0	0	0	27	54
Long-term	109	28	4	-1	0	-12	-13	0	-1	87
Others	0	0	-1	0	0	2	0	1	-6	-4
Total	143	62	-2	-12	0	-13	-11	1	21	126

(Note) The sum of "Structured-financing special purpose companies and trusts," "Local governments," "Government-affiliated agencies" is represented by "Others" in the above chart.

(Source) "From-whom-to-whom of domestic debt securities," BOJ

In the meantime, whereas households and social security funds reduced their amounts outstanding of government securities holdings, overseas entities increased their amounts outstanding. There has been no significant change in this underlying trend.

From-whom-to-whom data of loans

Compilation method[7]

In "From-whom-to-whom of loans," the lender sector is broadly classified into "financial institutions" and "nonfinancial sector" and is further divided into sub-sectors. The borrower sector is divided into (1) financial institutions, (2) nonfinancial corporations, (3) general government, (4) households, (5) private nonprofit institutions serving households, and (6) overseas in accordance with the classification of sectors in the J-FFA, and the amount of borrowings in each sector is indicated.

Some figures in this sector-by-sector matrix are compiled by rearranging the data based on the amounts outstanding of loans provided by private and public financial institutions that are published in the "Detailed Data of Flow of Funds Accounts,"[8] while other figures are estimated based on detailed interim figures which become available during the process of compiling the J-FFA.

Consequently, the compilation method and source data of the figures obtained differ from sector to sector. For example, the amounts of borrowings of financial institutions and public nonfinancial corporations are partly calculated based on precise source data, such as "Loans and Bills Discounts by Sector" and financial statements, while the calculation of the amounts of borrowings of private nonfinancial corporations depends on estimates due to data limitations. Therefore, it should be noted that there is a variance in preciseness among data.

Recent trends

As for changes in the amounts outstanding from the end of March 2013 to the end of March 2014, (upper table of Chart 4), around half, 18 trillion yen, of the total net increase of loans, which stood at 35 trillion yen (far right bottom), were loans provided by financial institutions (far right top), of which loans to overseas increased by 12 trillion yen. Loans provided to households and nonfinancial corporations also steadily increased. Meanwhile, an increase in loans to financial institutions accounted for most of the net increase (lower right; +13 trillion yen) in loans provided by overseas lenders to domestic borrowers. Although some of the increase can be attributed to the effects of the yen's depreciation, it is also presumed that the increase reflects Japanese financial institutions' move to raise dollar funds abroad in line with an increase in foreign currency-based loans. Furthermore, a continuous increase in cross-border financial transactions can be observed in that borrowings by financial institutions from abroad and loans from financial institutions lenders to overseas borrowers have been increasing since 2008 (lower table of Chart 4).

[Chart 4] From-whom-to-whom data of loans

(Changes in the amount outstanding from the end of March 2013 to the end of March 2014)

(trillion yen)

Lender sector \ Borrower sector	Financial institutions	Nonfinancial corporations	General government	Households	Private nonprofit institutions serving households	Overseas	Total
Financial institutions	1	2	-1	4	0	12	18
Depository corporations	2	3	2	7	0	11	25
Insurance and pension funds	0	0	-2	0	0	0	-2
Other financial intermediaries	-3	-1	-1	-3	0	1	-6
Public financial institutions	-3	-1	-1	-1	0	1	-4
Others	1	0		0			1
Nonfinancial sector	11	2	0	0	0	3	17
Nonfinancial corporations	0	0	0	0		3	3
Overseas	10	3					13
Others	1	0	0	0	0	0	1
Total	12	4	-1	4	0	16	35

(Changes in the amount outstanding from the end of March 2009 to the end of March 2013)

(trillion yen)

Lender sector \ Borrower sector	Financial institutions	Nonfinancial corporations	General government	Households	Private nonprofit institutions serving households	Overseas	Total
Financial institutions	-48	-15	-6	-15	0	11	-73
Depository corporations	-6	-8	11	5	1	10	13
Insurance and pension funds	-3	-4	-4	-2	0	0	-12
Other financial intermediaries	-27	-4	-14	-18	0	2	-61
Public financial institutions	-22	1	-14	-6	0	2	-39
Others	-12	0		0			-12
Nonfinancial sector	17	-1	-1	1	0	1	17
Nonfinancial corporations	-3	3	0	0		1	1
Overseas	16	-3					13
Others	4	0	-1	1	0	0	4
Total	-31	-16	-7	-14	0	12	-55

(Note1) The sum of "Central bank" and "Financial auxiliaries" is represented by "Others" within the "Financial institutions" in the above chart. The sum of "Households," "Private Nonprofit Institutions Serving Households," and "General Government" is represented by "Others" within the "Nonfinancial sector" in the above chart.
(Note2) "0" and a blank space indicate a case where it is difficult to estimate a figure due to data limitations or other reasons as well as a case where there was not any transaction or any amount outstanding.
(Source) "From-whom-to-whom of loans," BOJ

It should be noted that between the end of March 2009 and the end of March 2013, the total amount of loans provided decreased by approximately 55 trillion yen. By the lender sector, the total amounts of loans provided by depository corporations and overseas lenders increased by approximately 26 trillion yen, while the amount of loans provided by other financial intermediaries decreased by approximately 61 trillion yen. In particular, the presence of public financial institutions (including the "Fiscal Loan Fund" sector), which constitute the "other financial intermediaries" sector, declined (loans provided by public financial institutions decreased by 39 trillion yen), reflecting the impact of the FILP project review due to the FILP reform.[9] From the end of March 2013 to the end of March 2014, there was no change in trend of the shift of creditor from the public sector to the private sector.

Loans, debt securities, and deposits by maturity

This data series are estimated figures of loans, debt securities, and deposits by original/remaining maturity and by economic sector in accordance with the G-20 recommendation. The common template based on the recommendation (Chart 5) requires or recommends

[Chart 5] List of transaction items in the common template

List of Transation Items
Monetary gold and SDRs
Monetary gold
SDRs
Currency and deposits
Of which: Domestic currency
Currency
Transferable deposits
Interbank positions
Other transferable deposits
Other deposits
Debt securities
Of which: Domestic currency
Short-term
Long-term
With remaining maturity of one year and less
With remaining maturity of more than a year
Loans
Of which: Domestic currency
Short-term
Long-term
With remaining maturity of one year and less
With remaining maturity of more than a year
Equity and investment fund shares
Equity
Listed shares
Unlisted shares
Other equity
Investment fund shares/units
Money market fund shares/units
Non MMF investment fund shares/units
Insurance, pension and standardized guarantee schemes
Non-life insurance technical reserves
Life insurance and annuity entitlements
Retirement entitlements (1+2+3)
1. Entitlements to non-pension benefits
2. Pension entitlements
3. Claim of pension fund on pension managers
Provisions for calls under standarized guarantees
Financial derivatives and employee stock options
Financial derivatives
Options
Forwards
Employee stock options
Other accounts receivable/payable
Of which: Domestic currency
Trade credits and advances
Other accounts receivable/payable

= Requirement = Recommendation

the disclosure of data regarding debt securities and loans by original maturity and remaining maturity. This data makes it possible to capture maturity mismatches by sector, so the compiled data is expected to be used in analyses of changes in the risk-taking attitude at the macro level as well as in identification of risks concerning interest rate and fund availability. Described below is an overview of notable features (framework and compilation method) of the "Loans, Debt Securities, and Deposits by Maturity" data series and its recent trends.

Framework

The BOJ compiles data of deposits by maturity in addition to such data of loans and debt securities that is required by the common template. The BOJ is seeking to enhance maturity data on its own initiative because compiling such data of deposits, which is depository corporations' main fund-raising means, is presumed to contribute to capturing a mismatch related to availability and interest rate risks.

The common template requires the enhancement of maturity data of loans and debt securities for all sectors. However, because of data limitations, it is difficult to compile such data with regard to some transaction items. Maturity data of deposits are compiled with regard to the "depository corporations" sector and some of its sub-sectors.

Compilation method

The amounts outstanding of loans, debt securities, and deposits by remaining maturity are calculated by multiplying the stock figures of each transaction item in the J-FFA by the composition ratio between long-term and short-term transaction items. The composition ratio is calculated based on the data obtained from banks, life insurance companies, etc. through the survey of loans, debt securities and deposits by remaining maturity. Since the J-FFA does not record foreign securities as an individual transaction item, the data of foreign securities by remaining maturity for the domestically licensed banks and insurance sectors are compiled based on the survey of loans, debt securities and deposits by remaining maturity.

Regarding the compilation method of original maturity, the debt securities are classified by type of debt securities. The loans by original maturity are calculated by multiplying the amounts outstanding of loans in the J-FFA by the composition ratio between long-term and short-term transaction items ("one year and less" and "more than one year") based on source data of loans by original maturity.

Recent trends

The "Loans, Debt Securities, and Deposits by Maturity" data series is useful for comparing the maturities of assets and liabilities between sectors and analyzing maturity mismatches by sector.

For example, as of the end of September 2013, debt securities with remaining maturity of more than one year accounted for a large proportion in the debt securities holdings of life insurance companies compared with their proportion in the debt securities holdings of depository corporations such as domestically licensed banks (Chart 6). The situation was similar with regard to outstanding loans by maturity. Loans with remaining maturity of more than one year accounted for a large proportion in the loan holdings of life insurance companies compared with their proportion in the loans holdings of domestically licensed banks. By interest rate type, fixed interest rates accounted for a large proportion in the loan holdings of life insurance companies compared to their proportion in the loan holdings of domestically licensed banks (Chart 7).

[Chart 6] Proportions of debt securities holdings by remaining maturity

(%)

	Holding sectors							
	Depository corporations				Insurance			
		Domestically licensed banks	Financial institutions for small businesses	Financial institutions for agriculture, forestry, and fisheries		Life insurance	Nonlife insurance	Mutual aid insurance
Total	100	100	100	100	100	100	100	100
1 year and less	20	24	19	9	7	7	16	5
Government bonds and treasury bills	16	18	15	5	4	4	10	1
More than 1 year	80	76	81	91	93	93	84	95
Central government securities and FILP bonds	58	53	60	71	73	74	56	72

(Note) As of the end of September 2013
(Source) "Loans, Debt Securities, and Deposits by Maturity," BOJ

[Chart 7] Proportions of loans by remaining maturity

(%)

	Depository corporations			Insurance			Public financial institutions
		Domestically licensed banks	Financial institutions for small businesses		Life insurance	Nonlife insurance	
Total	100	100	100	100	100	100	100
1 year and less	27	23	27	11	10	13	11
More than 1 year	73	77	73	89	90	87	89

(Proportions by interest rate type)

(%)

		Domestically licensed banks	Life insurance	Nonlife insurance
1 year and less	Fixed interest		96	73
	Variable interest		4	27
More than 1 year	Fixed interest	34	95	69
	Variable interest	66	5	31

(Note) As of the end of September 2013
(Source) "Loans, Debt Securities, and deposits by Maturity" BOJ

The differences between economic entities are presumed to stem from differences in their asset investment policies due to their respective liability structures. At life insurance companies, nearly 90%[10] of their overall liabilities are made up of insurance and pension reserves accumulated in preparation for future payments of insurance and pension benefits based on insurance premiums paid by policyholders, and as a result, the duration of liabilities is long compared with the duration of assets. This liability structure presumably gives life insurance companies a strong incentive to invest in financial instruments with longer maturity such as long-term government bonds in order to avoid the asset-liability duration mismatch.[11]

Amounts outstanding of securitized products

In general, securitized products are defined as financial products backed by specific assets (loans, lease, real estate, etc.) belonging to financial institutions and companies, etc. Of such assets, (1) asset-backed bonds (ABB), (2) asset-backed commercial papers (ABCP), and (3) trust beneficiary rights are covered by the "Amounts Outstanding of Securitized Products" in the J-FFA, which has been released since December 2011. The previous J-FFA covered only securities issued by SPCs and trusts (structured-financing instruments). However, the "Amounts Outstanding of Securitized Products" extends the coverage to securities issued by entities other than SPCs and trusts (including mortgage-backed securities (MBS) issued by Japan Housing Finance Agency (JHFA) and ABB backed by real estate properties) and provides breakdown data by type of security. As a result, this data series is expected to be useful for capturing movements in the securities market which was not able to be identified through existing data alone. Described below is an overview of the framework of this data series and its recent trends.

Framework

First, regarding ABB, data concerning three sub-items—MBS issued by JHFA (former Government Housing Loan Corporation), privately placed ABB backed by real estate properties, and other ABB are published.

ABCP is short-term commercial paper issued by SPCs with monetary claims, such as accounts receivable, as collateral. Data on ABCP is compiled based on "Outstanding amounts of CP by issuers' category," published by Japan Securities Depository Center.

Trust beneficiary rights are rights to receive economic profits that arise from entrusted assets such as loans and monetary claims through trust banks, etc. Trust beneficiary rights are divided into four categories—(1) trust beneficiary rights backed by housing loans, (2) trust beneficiary rights backed by loans to companies and governments, (3) trust beneficiary rights backed by accounts receivable, and (4) trust beneficiary rights backed by lease and consumer credits—and data are published with regard to each of these categories. Data on trust beneficiary rights are estimated based on source data such as the entrusted assets outstanding based on the survey of financial institutions conducted by the BOJ as well as financial data by type of trust assets held by trust companies.

Recent trends

Of the amount outstanding of securitized products in Japan (33 trillion yen as of the end of March 2014), trust beneficiary rights and ABB accounted for around 50% (18 trillion yen) and 40% (14 trillion yen), respectively, with ABCP making up slightly under 10% (2 trillion yen) (Chart 8). A further breakdown shows that MBS issued by JHFA (11 trillion yen) accounted for most of the ABB, while the proportions of ABB backed by real estate properties and other ABB were small. Of the assets that underlie trust beneficiary rights, housing loans, at 8 trillion yen, accounted for the largest proportion, followed by accounts receivable and lease and consumer credits.

[Chart 8] Amounts Outstanding of Securitized Products

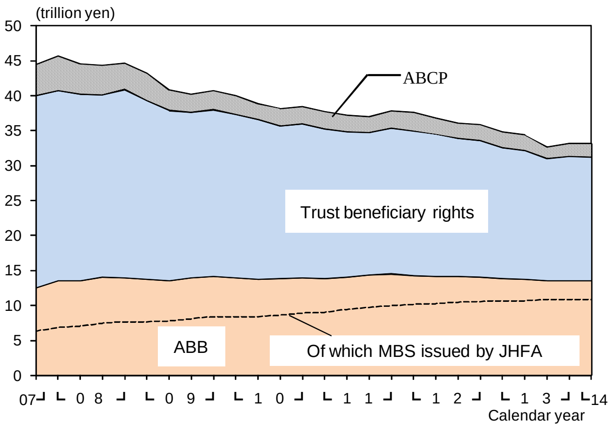
(trillion yen)

Total amount	Asset-Backed Bonds (ABB)				ABCP	Trust beneficiary rights				
		MBS issued by JHFA	ABB backed by real estate properties	Other ABB			Backed by housing loans	Backed by loans to companies and governments	Backed by accounts receivables	Backed by lease and consumer credits
33	14	11	2	1	2	18	8	2	4	3

(Note) As of the end of March 2014
(Source) "Amounts Outstanding of Securitized Products," BOJ

As for changes in the amount outstanding of securitized products, the amount has been trending down since the end of 2007, the earliest point in time when the statistics became available (Chart 9). Background factors of the downtrend include the economic stagnation since the financial crisis and the declining merit of securitized products, the creation of which requires cost in terms of fund raising. Another possible factor might be the weakened incentive for securitization due to changes in the regulatory environment. For example, the amount outstanding of trust beneficiary rights backed by housing loans, which accounts for the largest proportion in the trust beneficiary rights, has been trending down. Amid low interest rates and changes in the regulatory environment, major banks, which were the main originators of securitization, have become less active in securitizing housing loans, and this is probably one of the background factors of the downtrend in the amount outstanding of securitized products. Except for an increase in the issuance of MBS by JHFA, which is making a structural shift in fund-raising to the securitized product market as part of the FILP reform, the amount outstanding of other securitized products, including trust beneficiary rights backed by accounts receivable, has also been trending down. The downtrend in the amount outstanding of securitized products suggests that risk-transfers through the securitization market have been subsiding.

[Chart 9] Amounts outstanding of securitized products



(Source) "Amounts Outstanding of Securitized Products," BOJ

Future Challenges

In light of the initiatives carried out so far, the following two future challenges can be pointed out. The first challenge is to further improve the quality of the statistical data mentioned in this review. Due to data limitations, the existing "From-whom-to-whom of domestic debt securities" does not divide the issuer sector of "financial institutions and nonfinancial corporations" into two sectors. Therefore, to further break down the holder sector of securities statistics is the task for the future. Meanwhile, regarding the "Loans, Debt Securities, and Deposits by Maturity", another future task is to consider expanding the coverage of the holder sector and further breaking down the maturity category (more detailed classification of "more than one year" maturity).

The second challenge is enriching statistics related to shadow banking activities. The J-FFA already covers many elements of shadow banking activities, and the release of the "Amounts Outstanding of Securitized Products" has started, as was mentioned earlier. Moreover, under the "The Implementation of 2008SNA Recommendations in Japan's Flow of Funds Accounts,"[12] the BOJ presented the concept and the method of specific revisions intended to improve the preciseness of data on the non-banking sector, including corporate pension funds and investment trusts. The BOJ is scheduled to start releasing a new J-FFA revised along the lines of this proposal in the first half of 2016. However, coverage-related issues remain, such as insufficient coverage of investment funds other than investment trusts.[13] The BOJ intends to continue efforts including enhancing source data in order to improve the preciseness of statistics.

Conclusions

In order to accurately capture the financial and economic conditions amid the recent rapid changes in the financial and economic environments, it is necessary to steadily enhance and expand necessary statistics. However, when enhancing and expanding statistics, it is important to keep the right cost-benefit balance by listening to users' needs while paying attention to the burden on entities that provide source data. Indeed, while collecting detailed source data is essential in order to compile "precise data" that is useful for users, it imposes a cost in the form of an increased burden on data providers. The BOJ intends to continue to make resourceful efforts and improvements in order to make the J-FFA and other financial statistics more valuable and useful for more users in light of international developments while keeping in mind the cost-benefit balance.

[1] An overview of the J-FFA and previous initiatives to enhance data are summarized by Shuji Kobayakawa and Ryoichi Okuma, "Japan's Flow of Funds Accounts: Main Characteristics and Measures for Enhancement," Bank of Japan Review, No. 2012-E-4, April 2012. This paper may be characterized as a sequel to the review in that it explains the progress made since then in the initiatives to fill “information gaps” that were described in the review. Regarding the J-FFA, the BOJ compiles revised data reflecting newly available data and institutional revisions once a year in principle and publishes it on its website.

[2] International Monetary Fund and Financial Stability Board (2009). Internationally, initiatives to fill such gaps, dubbed “data gap initiatives,” are underway.

[3] In response to this recommendation, not only the Research

and Statistics Department but also other departments of the BOJ are making efforts to meet international calls for enhancing statistics. For example, the International Department is involved in enhancing the balance of payments statistics, while the Financial System and Bank Examination Department is contributing to the improvement of financial soundness indicators (FSIs). The Financial Markets Department is improving cross-border data on banking exposures and derivatives market statistics.

[4] The "Loans, Debt Securities, and Deposits by Maturity" data series and the "Amounts Outstanding of Securitized Products" data series are published on the "Flow of Funds" section of the BOJ's website. From-whom-to-whom data for debt securities is available in the "Basic Figures of the Flow of Funds" posted on the "Flow of Funds" section of the BOJ's website. Time-series data can be downloaded from the "BOJ Time-Series Data Search" site. From-whom-to-whom data of loans is available in the "Basic Figures of the Flow of Funds" posted on the "Flow of Funds" section of the BOJ's website.

[5] Public corporation securities, which are issued by the "central government and Fiscal Loan Fund" sector and "financial institutions and nonfinancial corporations" sector in the J-FFA are classified as if they were issued by the "government-affiliated agencies" sector in the from-whom-to-whom data of domestic debt securities.

[6] The BOJ introduced "Quantitative and Qualitative Monetary Easing"(QQE) in April 2013 to achieve the price stability target of 2 percent in terms of the year-on-year rate of change in the CPI at the earliest possible time, with a time horizon of about two years. Under the QQE, the BOJ continues to pursue a new phase of monetary easing both in terms of quantity and quality. It will double the monetary base and the amounts outstanding of Japanese government bonds (JGBs) as well as exchange-traded funds (ETFs) in two years, and more than double the average remaining maturity of JGB purchases.

[7] For more detailed from-whom-to-whom data of loans and maturity data of loans, debt securities, and deposits, see "Release of 'Loans, Debt Securities, and Deposits by Maturity' and 'From-whom-to-whom of loans'" at the following site:

(http://www.boj.or.jp/en/statistics/sj/index.htm/)

[8] "Detailed Data of Flow of Funds Accounts" includes breakdown data that shows the direct relationship between economic entities. Specifically, published data includes (1) household savings outstanding by types of financial institutions, (2) financial institution loans outstanding by types of borrowers, (3) loans outstanding by private financial institutions (book value basis), (4) outstandings of shares and other equities by issuers (book value basis), (5) outstandings of securities other than shares by issuers (face value basis), (6) private nonfinancial corporations' financial liabilities (book value/face value basis), (7) from-whom-to-whom presentation of domestic debt securities by issuer sectors.

[9] The "FILP reform" refers to the fundamental reform of the Fiscal Investment and Loan Program (FILP), which was carried out in fiscal 2001. The main points of FILP reform include shifting in fund-raising for FILP from mandatory deposits of postal savings and pension reserves to the issuance of FILP bonds (government bonds).

[10] The ratio of insurance and pension reserves to the total amount of liabilities in the life insurance sector in the J-FFA.

[11] J-FFA data on trading in government securities in 2013 shows that while domestically licensed banks and financial institutions for small businesses made net sales, life insurance companies made net purchases (domestically licensed banks: −24 trillion yen; financial institutions for small businesses: −5 trillion yen; life insurance companies: +3 trillion yen). As for the balance sheet structure of Japanese life insurance companies and investments in government bonds, see Kazutoshi Kan, Yoshiyuki Kurachi, Yoshiyuki Fukuda, and Shinichi Nishioka, "Japanese Life Insurance Companies' Balance-Sheet Structure and Japanese Government Bond Investment," Bank of Japan Review, No. 2013-E-2, February 2013.

[12] Revisions of the J-FFA can broadly be classified into the following three categories: (1) revisions of sector classifications, including the introduction of the "captive financial institutions" as a new sector and reclassification of "holding companies," (2) the introduction of new transaction items such as employee stock options and standardized guarantees and the separation of "unlisted shares" from "shares," and (3) improvement of preciseness of the compilation methods of financial transactions, including thorough application of the accrual basis in employment-related pension accounts and a review of the records relating to retained earnings and dividends. For the details of the revisions, see the final draft at the following site: (http://www.boj.or.jp/en/research/brp/ron_2014/ron140718a.htm)

[13] Real estate investment trust (REIT) and privately placed real estate funds are already covered by the J-FFA.

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