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The Implementation of 2008SNA Recommendations in Japan's Flow of Funds Accounts

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1. Overview

The Flow of Funds Accounts (FFA) provide a record of the financial transactions and the consequent claim/debt in the separate economic agents within our economy, such as households, enterprises and the government. These accounts are suitably designed to give a comprehensive overview of Japan's financial structure and are widely used for purposes of economic and financial analyses. The FFA are compiled in accordance with the international standard for the System of National Accounts and are conducive to international comparisons of financial structures.

In 1999, the Bank of Japan revised its FFA in conjunction with the implementation of the 1993 System of National Accounts (1993SNA). With the view to enhancing its statistical quality, the periodical revisions bring the FFA into line with new developments in financial activities, new accounting standards as well as increased source data. The FFA will be revised once again in the first half of 2016 with the implementation of the new statistical standard (2008SNA).

The thinking behind the efforts towards an alignment with the recommendations of 2008SNA is as follows. Firstly, the 2008SNA is designed to enhance the accuracy of data in the non-bank financial sector, such as pension funds and investment funds, and will increase the effectiveness of FFA for purposes of broader economic and financial analyses. Secondly, conforming to the 2008SNA recommendations will help to improve the international comparability of the statistics. The benefit of conforming to the 2008SNA in this respect is evidenced by the fact that the G20 Finance Ministers and Central Bank Governors Meetings and the IMF have advocated the adoption of the 2008SNA when they set the international framework for statistics standardization. Thirdly, aligning the FFA with 2008SNA is desirable as a way to maintaining consistency with Japan's national accounts which will also be revised in accordance with 2008SNA recommendations at the time of the next benchmark-year revision around 2016.

Specific changes to the FFA are: a) a thorough application of the accrual basis in employment-related pensions accounts[1] and a review of the records relating to retained earnings

[1] As it stands, the accrual basis is applied to the listed companies whenever possible, but not to the unlisted companies.

and dividends which will help to increase the accuracy in the compilation methods of financial transactions; b) an introduction of new transaction items such as employee stock options and standardized guarantees; c) an introduction of 'captive financial institutions' as a new financial sector.

In October 2013, the Bank of Japan announced its revision programme and invited the public to participate in the reviewing process. The BOJ is deeply grateful for the 30 invaluable contributions received from a wide range of academics, economists and business groups. The revised FFA, reflecting these contributions, will be released during the first half of 2016, and the specific release date will be announced in due course. The new data will be available from 1Q, 2005 onward. The release of any data preceding this point will be a topic of further discussion. Going forward, the BOJ will continue its efforts to improve the FFA.

2. Main changes in detail

1) Main revisions[2]

Pension entitlements to employment-related pension schemes

The 2008SNA requires reporting separately the two types of employment-related pension schemes: a defined benefit scheme and a defined contribution scheme. Regarding a defined benefit scheme, the amount of claim that the households hold (pension entitlements) is to be recorded not as the amount of pension assets set aside in the pension funds, but recognized on an accrual basis, i.e., as the amount of pension commitments made by the employer to households.

In line with the 2008SNA recommendations, the methodology used to calculate pension entitlements in the FFA will be revised in three respects. Firstly, a defined benefit pension scheme and a defined contribution pension scheme will be recorded separately. Secondly, the amount outstanding of the pension entitlements to all employment-related pension schemes, including those of unlisted companies, will be recognized on an accrual basis. Specifically, the amount will be estimated based on three sets of available source data: a) the amount of retirement benefit obligations/liabilities owed by listed companies, multiplied by b) the ratio of the amount of pension assets held by all employment-related pension schemes to c) that of listed companies. Thirdly, the transaction flow of pension entitlements to defined benefit pensions will also be recorded on an accrual basis. The amount will be estimated as follows: The

2 For an assessment of the quantitative impact resulting from these revisions, see Chapter 3.

gross increase in pension entitlements to all employment-related pension scheme will be computed as service costs and interest costs (the unwinding of the discount) in pension accounting aggregated for all listed companies multiplied by the ratio of b) the amount of pension assets held by all employment-related pensions schemes to c) that of listed companies as used in estimating the outstanding amount. Then, the amount of paid benefits will be subtracted, which will be estimated by the information disclosed by the different types of pension funds.

Retained earnings and distribution of income by investment funds

The 2008SNA recommends that retained earnings of investment funds, i.e., investment income that funds receive and reinvest without distributing them to investors, should be treated as if they were distributed to and reinvested by investors. This is in line with the view that investment funds are a conduit through which income merely passes. The revised FFA will follow this recommendation to impute the retained earnings derived from the income obtained by investment funds as if they were distributed to and reinvested by investors, which are mainly households.

In addition, in the revised FFA, distributed income that is derived from capital gains or principals will be recorded as withdrawals of equity (the beneficiary certificates of investment funds) by investors (or repurchases by issuers). This change will be made as a consequence of regarding investment funds as a conduit even though such treatment is not explicitly discussed in the 2008SNA. The BOJ is of the view that the treatment of distributed income derived from capital gains and principals is relevant rather uniquely to Japan in light of the increasing number of investment funds that distribute to investors more than the investment income they receive in times of deteriorating investment performance. In Japan, while the outstanding amount of foreign-currency denominated investment funds has been increasing in recent years, there are a large number of funds among these that distribute a fixed amount of money per month regardless of investment performance.

With regard to the source information used for the estimate, the total amount of distributed income and the corresponding source of revenues of major investment funds, which in aggregate have a significant market share, are available for June 2012 and after. With these data, both retained earnings and distributed income from capital gains and principals will be estimated with considerable accuracy. For May 2012 and earlier, the amount of distributed income that was paid despite the net asset value having been lower than the purchase price of the funds, will be estimated for major investment funds that in aggregate have a significant market share and applied as an approximate figure of distributed income that derived from capital gains or principals.

Provisions for calls under standardized guarantees

The SNA has long treated guarantees as contingent liabilities and the standard practice has been not to record them as financial assets/liabilities, with only certain exceptions. While 2008SNA continues to maintain this principle, it recommends, as an exception, that granular and standardized guarantees (standardized guarantees) be reported as financial assets/liabilities because the probability of their being called may be estimated with a certain degree of accuracy if they are issued in large numbers, usually for fairly small amounts, along identical lines.

Standardized guarantees in Japan include loan guarantees given by financial institutions to individuals as well as public credit guarantees given to companies and the self-employed. However, there is no available source data on the outstanding amount of mortgage guarantees, which supposedly account for the majority of the loan guarantees to individuals. The amount of provisions for standardized guarantees related to mortgage guarantees will be estimated using information obtained through surveys conducted by the Bank of Japan on guarantee firms affiliated with banks and cooperative financial institutions. This estimated amount will be added to the amount of provisions for calls under standardized guarantees for public credit guarantees and the resulting amount will be recorded as provisions for calls under standardized guarantees.

Employee stock options

Employee stock options are granted by a company to its employees, giving them the right to purchase the shares of the company at a strike price which is determined on the grant date. Option holders are entitled to purchase the shares of their own companies at a strike price after a certain vesting period has elapsed and before the options expire. The 2008SNA recommends that the granted employee stock options be recorded as income and thus financial transactions as their treatments in corporate accounting have been clarified.

In Japan, there are currently no available aggregate data of employee stock options. However, the new FFA statistics will record figures for employee stock options as a new transaction item by estimating them based on the figures for subscription warrants in the ‘Financial Statements Statistics of Corporations by Industry’. The estimate will be divided into two in the ratio of the average vesting period to the average exercise period (these two averages will be produced based on the information obtained through interviews with market participants) and reported as others and financial derivatives, respectively. It is preferable to report the amount of employee stock options still in a vesting period separately from that of other financial derivatives because such options are subject to various constraints before they become exercisable (e.g., a requirement for continued employment until the exercise period begins.)

Captive financial institutions

The 2008SNA recommends that a new sub-sector, 'captive financial institutions' be introduced under the sector, 'financial institutions'. Captive financial institutions are defined as 'entities providing financial intermediary services, where most of either their assets or liabilities are not transacted on open financial markets. The purpose of introducing this new category is to classify units that perform a weaker function of financial intermediation in comparison with those of other financial institutions, while they are similar to each other in balance-sheet structure and other external appearances.

When this concept is applied to Japan's FFA statistics, some financial institutions that are currently classified as 'government financial institutions' would fall into the definition of captive financial institutions. Therefore, a new sub-sector of 'public captive financial institutions' will be introduced under the sector of 'financial institutions' and those institutions with a weaker function of financial intermediation that satisfy the 2008SNA definition of 'captive financial institutions' will be classified as 'public captive financial institutions'.

2) Other changes and further review

With regard to **holding companies**, those that have a headquarter function and have been classified as 'domestically licensed banks' or 'securities companies' according to the main business of their own subsidiaries, will be reclassified as 'financial auxiliaries'. With regard to listed and unlisted 'shares and other equities', the current transaction item of 'shares' will be renamed as '**listed shares**', and shares issued by non-listed companies will be reported as '**unlisted shares**'. Further, equities in partnerships (unlimited partnerships, limited partnerships and limited liability companies) and other companies, whose transfers are subject to restrictions, will be reported as '**other equity**'. With regard to **interbank positions**, the amount of deposits held by financial institutions plus the amount of call money will be recorded as the equivalent of interbank positions. The figures for interbank positions will be reported only on the liability side as a reference, not in the main table of the FFA.

With regard to **index-linked bonds**, the 2008SNA requires classifying bonds by the nature of the index to which each bond is linked. In particular, when a broad-based indexation is used (for example a consumer price index), the 2008SNA recommends that changes in principal due to changes in index be recorded as transaction flows, while the current FFA record these changes as reconciliation amounts. The current method of classification will remain in place as a reasonable degree of accuracy in the statistics may not be achievable with the recommended method due to considerable constraints on data availability. With regard to **non-performing loans**, the current method used to compile the amount of loans on a real value (fair value) basis, deducting write-offs of non-performing loans, is more in line with the principles of SNA, and will continue to be applied to the main accounts. The amount of loans on a nominal value basis, which is more convenient for international comparisons, will continue to be reported as a reference item.

With regard to **bills purchased and sold**, the current item of ‘bills purchased and sold’ will be abolished and integrated into ‘call loans and bills’. In addition, mortgage securities will also be abolished and integrated into ‘structured-financing instruments’.

3. Preliminary assessment of quantitative impact

As a result of these revisions above, the number of institutional sectors in the FFA will increase from the current 45 to 50, and the number of transaction items will be 57, up from the current 51 (see chart 1 and 2). The preliminary assessment of the quantitative impact on the statistics based on the data available from the fiscal year 2004 to 2012 is as follows (chart 3).

Firstly, the amount outstanding of financial assets for ‘public captive financial institutions’, when recorded separately from ‘public financial institutions’, is estimated to be around 60 trillion yen between fiscal year 2004 and fiscal year 2012. The amount outstanding for ‘public financial institutions’ after separating ‘captive financial institutions’ will be just short of 140 trillion yen at the end of fiscal year 2004, and is set to decline gradually to approximately 120 trillion yen by the end of fiscal year 2012.

Secondly, regarding employment-related pensions, the amount outstanding of defined benefit pension entitlements (retirement benefit obligations/liabilities) is estimated to be 130 trillion yen at the end of fiscal year 2004, gradually decreasing to 110 trillion yen toward the end of the fiscal year 2012. When compared to the current FFA, the mounts outstanding are estimated to increase by 20 trillion yen at the end of fiscal year 2004, and by 10 trillion yen at the end of fiscal year 2012. (Financial assets of households holding pension entitlements will also increase by 20 trillion yen and 10 trillion yen, respectively). As such, the revision is likely to reveal that the more retroactively the retirement benefit obligations/liabilities are revised, the greater the amounts outstanding are. This reflects the impacts of the changes in demography in Japan on employment-related pension schemes, i.e., while withdrawal of pension entitlements has increased as a large group of post-war baby-boomers have started retiring since the late-2000s, new contributions from current employees have decreased. As a result, the amount of transaction flow in pension entitlements is likely to be revised down by an annual average of a few trillion yen. The surplus in the household sector is also set to be revised down by an annual average of a few trillion yen.

Thirdly, with regard to investment funds, the revised methods will not affect the outstanding amounts but will have a certain impact on the figures of the transaction flow[3]. Distributed income that is derived from capital gains or principals is expected to amount to an annual withdrawal from investment funds in the range of 1 to 5 trillion yen in 2006 and onward. For example, in fiscal year 2012, the annual withdrawal from funds by investors, which are mainly households, is estimated to be slightly below 5 trillion yen. This would lead to a net annual reduction of the surplus of households by approximately 4 trillion yen, even after recording reinvestment of retained earnings which amounts to several hundred billion yen annually.

As such, the revisions in the compilation method of employment-related pensions and investment trusts will have a certain degree of quantitative impact on the household sector, resulting in a decline in the surplus of a few trillion yen per year at most between fiscal year 2005 and fiscal year 2012.

With regard to provisions for calls under standardized guarantees, the aggregate of mortgage guarantees and credit guarantee schemes is expected to be approximately 3 to 4 trillion yen. The amount outstanding of employee stock options as an aggregate of ‘others’ and ‘financial derivatives’ is likely to be around 0.3 trillion yen as of the fiscal year end 2012.

[3] The figures in this paper are calculated based on investment reports of the largest 10 investment funds in terms of their net asset value.

(Chart 1)

Current sectors

45 sectors

- Nonfinancial corporations
  - Public nonfinancial corporations
  - Private nonfinancial corporations
- Financial institutions
  - Central bank
  - Depository corporations
    - Banks
      - Domestically licensed banks
      - Foreign banks in Japan
      - Financial institutions for agriculture, forestry, and fisheries
      - Financial institutions for small businesses
    - Collectively managed trusts
  - Insurance and pension funds
    - Insurance
      - Life insurance
      - Nonlife insurance
        - Of which: private nonlife insurance companies
      - Mutual aid insurance
    - Pension funds
      - Corporate pensions
      - Other pensions
  - Other financial intermediaries
    - Securities investment trusts
      - Bond investment trusts
        - Of which: money management funds and money reserve funds
      - Stock investment trusts
    - Nonbanks
      - Finance companies
      - Structured-financing special purpose companies and trusts
    - Public financial institutions
      - Fiscal Loan Fund
      - Government financial institutions
    - Financial dealers and brokers
      - Of which: securities companies
  - Financial auxiliaries (financial institutions other than intermediaries)
- General government
  - Central government
  - Local governments
  - Social security funds
    - Of which: public pensions
- Households
- Private nonprofit institutions serving households
- Overseas

- Domestic nonfinancial sector
- Pension total

Sectors after revision

50 sectors

- Nonfinancial corporations
  - Public nonfinancial corporations
  - Private nonfinancial corporations
- Financial institutions
  - Central bank
  - Depository corporations
    - Banks
      - Domestically licensed banks
      - Foreign banks in Japan
      - Financial institutions for agriculture, forestry, and fisheries
      - Financial institutions for small businesses
    - Collectively managed trusts
  - Securities investment trusts
    - Bond investment trusts
      - Of which: MMF and MRF
    - Stock investment trusts
  - Insurance and pension funds
    - Insurance
      - Life insurance
      - Nonlife insurance
        - Of which: private nonlife insurance companies
        - Of which: standardized guarantee institutions — New sector
      - Mutual aid insurance
    - Pension funds
      - Corporate pensions
        - Of which: defined benefit schemes — New sector
        - Of which: defined contribution schemes — New sector
      - Other pensions
  - Other financial intermediaries
    - Nonbanks
      - Finance companies
      - Structured-financing special purpose companies and trusts
    - Public financial institutions
      - Fiscal Loan Fund
      - Government financial institutions
    - Financial dealers and brokers
      - Of which: securities companies
  - Financial auxiliaries (financial institutions other than intermediaries)
    - Of which: financial holding companies — New sector
  - Public captive financial institutions — New sector
- General government
  - Central government
  - Local governments
  - Social security funds
    - Of which: public pensions
- Households
- Private nonprofit institutions serving households
- Overseas

- Domestic nonfinancial sector
- Pension total

(Chart 2)

Current transaction items

51 items

Currency and deposits		
	Currency	
	Deposits with the Bank of Japan	
	Government deposits	
	Transferable deposits	
	Time and savings deposits	
	Certificates of deposit	
	Foreign currency deposits	
Deposits with the Fiscal Loan Fund		
Loans		
	Bank of Japan loans	
	Call loans and money	
	Bills purchased and sold	
	Loans by private financial institutions	
		Housing loans
		Consumer credit
		Loans to companies and governments
	Loans by public financial institutions	
		Of which: housing loans
	Loans by the nonfinancial sector	
	Installment credit (not included in consumer credit)	
	Repurchase agreements and securities lending transactions	
Securities other than shares		
	Treasury discount bills	
	Central government securities and FILP bonds	
	Local government securities	
	Public corporation securities	
	Bank debentures	
	Industrial securities	
	External securities issued by residents	
	Commercial paper	
	Investment trust beneficiary certificates	
	Trust beneficiary rights	
	Structured-financing instruments	
	Mortgage securities	
Shares and other equities		
	Of which: shares	
Financial derivatives		
	Forward-type instruments	
	Option-type instruments	
Insurance and pension reserves		
	Insurance reserves	
	Pension reserves	
Deposits money		
Trade credits and foreign trade credits		
Accounts receivable/payable		
Outward direct investment		
Outward investment in securities		
Other external claims and debts		
	Of which: gold and SDRs etc.	
Others		
Financial surplus or deficit (Transactions)		
Difference between financial assets and liabilities (Assets and Liabilities)		
Reconciliation between Flows and Stocks		
Total		

(Reference)

Loans outstanding by private financial institutions (book value basis)

Transaction items after revision

57 items

Currency and deposits			
	Currency		
	Deposits with the Bank of Japan		
	Government deposits		
	Transferable deposits		
	Time and savings deposits		
	Certificates of deposit		
	Foreign currency deposits		
Deposits with the Fiscal Loan Fund			
Loans			
	Bank of Japan loans		
	Call loans and bills		Merged with "Bills purchased and sold"
	Loans by private financial institutions		
		Housing loans	
		Consumer credit	
		Loans to companies and governments	
	Loans by public financial institutions		
		Of which: housing loans	
	Loans by nonfinancial sectors		
	Installment credit (not included in consumer credit)		
	Repurchase agreements and securities lending transactions		
Debt securities			Renamed
	Treasury discount bills		
	Central government securities and FILP bonds		
	Local government securities		
	Public corporation securities		
	Bank debentures		
	Industrial securities		
	External securities issued by residents		
	Commercial paper		
	Trust beneficiary rights		
	Structured-financing instruments		Merged with "Mortgage securities"
Equity and investment fund shares			
	Equity		
		Listed shares	Reclassified in detail
		Unlisted shares	Reclassified in detail
		Other equity	Reclassified in detail
	Investment trust beneficiary certificates		
Insurance, pension and standardized guarantees			Renamed
	Non-life insurance technical reserves		Reclassified in detail
	Life insurance reserves		Reclassified in detail
	Annuity entitlements		Reclassified in detail
	Pension entitlements		Reclassified in detail
	Claims by pension funds on pension managers		Reclassified in detail
	Provisions for calls under standardized guarantees		New item
Financial derivatives and employee stock options			
	Forward-type instruments		
	Option-type instruments		
	Employee stock options		New item
Deposits money			
Trade credits and foreign trade credits			
Accounts receivable/payable			
Outward direct investment			
Outward investment in securities			
Other external claims and debts			
	Of which: gold and SDRs etc.		
Others			
Financial surplus or deficit (Transactions)			
Difference between financial assets and liabilities (Assets and Liabilities)			
Difference in reconciliation amounts			
Total			

(Reference)

Deposits by financial institutions and call loans	New item
Loans outstanding by private financial institutions (book value basis)	

(Chart3)

The quantitative impact of the revisions

Revisions	Quantitative impact
Public captive financial institutions	The 60 trillion yen of total financial assets will be reclassified and relocated from the existing 'Public financial institutions' sector to the 'Public captive financial institutions' sector, which leaves 120 trillion yen of the financial assets in the 'Public financial institutions' sector.
Pension entitlements to employment-related pension schemes	The amount outstanding of the pension entitlements (the stock of retirement benefit obligations/liabilities) under defined benefit schemes is estimated to be 110 to 130 trillion yen, increasing by 10 to 20 trillion yen from the current pension reserves. The transaction flows of the pension entitlements will be revised down by several trillion yen per year, reducing financial surplus of the household sector by the same amount.
Retained earnings and distribution of income by investment funds	Reflecting the recording of retained earnings, transaction flow of investment trust beneficiary certificates invested by the household sector will be revised upward by hundreds of billions of yen for FY2012, while it will be revised downward by 5 trillion yen or less due to a new method in which the distributions from capital gains will be recorded as withdrawals from investment funds. As a result of these revisions, the surplus of the household sector will be reduced by approximately 4 trillion yen for FY 2012.
Provisions for calls under standardized guarantees	Provisions for calls under standardized guarantees will total up to 3 to 4 trillion yen, including those for mortgage guarantees and for public credit guarantees given to companies and the self-employed.
Employee stock options	The amount outstanding of employee stock options in the exercise period, together with that represented as others in the vesting period, will be around hundreds of billions of yen for FY2012.