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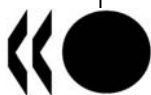
MEASURING SECURITIZATION IN THE FLOW OF FUNDS ACCOUNTS IN JAPAN

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ABSTRACT

Recent financial turmoil has led an increasing number of people to look into Flow of Funds Accounts (FFA) statistics. The statistics is primarily designed to describe a country's financial structure in rather a long-term perspective. But recent financial events set them to another task of providing information to narrow data gaps. In this sense, the paper intends to assess to what extent FFA captures the securitized market size under the current statistical treatment. First, it explains the way we compile "SPC and Trust" sector and points out that FFA has a good but incomplete coverage of the sector. Secondly, it shows that FFA correctly traces the turning point of the sector in 2007, but it still has room for improvement. Finally, it comments on the possible future approaches and concludes that co-operation between the related bodies (industry association, depository center, and statistical authorities) and international co-operation in data collection are important options.

Key words: Flow of funds accounts, data gaps

I. INTRODUCTION

Recent financial turmoil has led an increasing number of people to look into Flow of Funds Accounts (FFA) statistics. The statistics is primarily designed to describe a country's financial situation in rather a long-term perspective. But recent financial events set them to another task of providing information to narrow so called data gaps. In this sense, the paper intends to investigate to what extent Flow of Funds Accounts (FFA) is able to capture the securitized market size under the current statistical treatment.

This paper is organized as follows. Section II overviews the statistical treatment such as definition, compilation method including data sources, and scope, of the securitization in FFA. Based on the statistical treatment, Section III makes an assessment of the coverage. Section IV argues what we can learn from FFA data, and Section V considers possible future approach. Section VI concludes.

II. STATISTICAL TREATMENT

FFA is a comprehensive statistics which depicts financial conditions of all economic entities under the System of National Accounts (SNA) and Monetary and Financial Statistics Manual 2000. In order to capture the securitization activity, we have special sector and transaction item of "SPC and Trust" sector and "Structured-financing instruments" according to the 1993 SNA framework. The sector has a long series starting from 1980 to 2008 in a fiscal year basis and from the fourth quarter of 1997 to the second quarter of 2009 in a quarter basis.

1. *Definition of the "SPC and Trust" sector and "Structured-financing instruments"*

As a sub-sector of non-banks in our FFA statistics, "Structured-financing special purpose companies and trusts" (SPC and Trust) sector is established in order to describe the securitized market. It acquires monetary claims and issues securities backed by them to raise necessary funds. The sector covers SPC, including those established under the Law on Securitization of Specified Assets by Special Purpose Companies (former SPC Law), and certain monetary claims trust. It issues "Structured-financing instruments" as financial products.

The instruments contained in the "Structured-financing instruments" are (1) ABS, (2) ABCP, and (3) Monetary claim trust (MCT). ABS refers to "securities". More specifically, ABS consists of asset-backed domestic corporate bonds and asset-backed *samurai* bonds (yen denominated bonds which are issued by non-residents in domestic market). MCT, on the other hand, is a trust which is set upon the assets of "housing loans (residential mortgage loans)", "loans to companies and governments", "Installment credit (i.e. lease) or consumer credit", and "trade credits and foreign trade credits".

"Structured-financing instruments" does not cover CDS.

2. *Brief history of Japanese securitization*

Traditionally, "trust" is the most frequently used securitization vehicle in Japan. Before the SPC Law ("Law regarding regulation of business concerning specified claims") enacted in 1998, investors and originator had few choices for securitization except using trust or SPC registered abroad. Trust is favorable in terms of protecting originators' right on the fiduciary assets and of avoiding double taxation (Takahashi (2008)).

3. Description of compilation method

a. Feature

Trust still seems to be the most popular vehicle in securitization. MCT presents a dominant share of 80.8 % in the total amount of “Structured-financing instruments”, while those of ABS and ABCP are 5.1% and 14.1% respectively in FFA as of end March 2009. The players in securitization are illustrated in Chart 1, as “Originator”, “Investors”, “Trust”, and “SPC”. We assume that there are three cases, (1) Sales, (2) Trust, and (3) Trust plus SPC. If a securitization transaction involves SPC, it is highly likely that the transaction may involve also trust, whereby it falls into the case (3) Trust plus SPC. Since shaded area is what FFA concerns in compiling “SPC and Trust” sector, the sector covers as much range as what the statistics should be expected to cover.

b. Sources

MCT data are not publicly disclosed and we rely on direct reporting. 20 institutions consisting of 4 major trust banks, 11 trust subsidiaries of financial institutions, and 5 trust companies (non-financial institutions) are contributing in making MCT figures as of end June 2009. They provide us with the detailed figures classified by the underlying assets.

In contrast to MCT, we have not a specific reporting system directly from SPC. Instead of requiring directly from them or of obtaining related data from regulatory authorities, we use market statistics. For MBS and ABCP, major data source is the aggregate figure of “New Issue Volume and Value of Outstanding Bonds” which is publicly released by Japan Security Dealers Association (JSDA). We first take the relevant end-period outstanding amount in this statistics, then we classify the amount by each type of underlying asset, i.e., “housing loans”, “loans to companies and governments”, and “trade credits and foreign trade credits”. In the classification, we estimate shares of the type of the assets by accumulating each individual issue’s repayment schedule at the time of the issuance taken from another survey of JSDA. ABCP is estimated by assuming that it is a portion of “Structured-financing instruments”.

Our principal policy in compilation is to avoid additional reporting burden to financial institutions. In this context, to use publicly available data on ABS and ABCP and to supplement lacking information with estimation in a generally agreeable manner have been a practically reasonable approach.

c. Scope of the “SPC and Trust” sector

<Private or public issue> ABS includes privately placed issues as part of asset-backed domestic corporate bonds, but since the primary data source of JSDA has stopped collecting privately placed placement information on May 2008, we have shifted to conduct estimation since then. Asset-backed samurai bonds do not cover private placement.

<Residency> Domestic bonds issued by non-resident SPC are covered but limited to the publicly placed issues. Private issues of non-resident SPC are reflected under the different heading of transaction of either “Direct investment” or “Portfolio investments in securities”, which is compiled based on the Balance of Payment Statistics (BP) and International Investment Position statistics (IIP). Since they are aggregate figures, relevant transactions of non-resident SPC are inseparable.

d. Valuation

The amount outstanding of “Structured-financing instruments” is evaluated on a book value basis, while the transaction flow is recorded using term-on-term difference in that value. Book value is useful in

compiling flows and it may also avoid any heterogeneous treatment among countries in case of the entities registered in foreign country.

e. Information of holding sector

Information of holding sector is the most difficult part to know. In FFA, for holding sector, the holding amounts of financial institutions (asset side of their balance sheets) such as banks, insurance companies, and finance companies, and social security funds are based on the financial statement of these institutions. On the other hand, the holding amounts of non-residents are estimated by multiplying a certain ratio calculated from past questionnaire survey to securities companies. The residual with no specific holding entity is posted as the portion held by private non-financial institutions.

4. Treatment of securitization through Japan Housing Finance Agency (JHFA)

One thing to be noted is the treatment of Japan Housing Finance Agency (JHFA) in FFA. JHFA is a government financial institution and the largest issuer of mortgage backed securities in Japan. The outstanding amount of its MBS (including what the predecessor of Government Housing Loan Corporation had issued) reaches 8.9 trillion yen at end-March 2009. Most of the remaining MBS were to finance their “On-balance sheet” securitization in the past. It is still allowed to purchase residential loans from private financial institutions and issue MBS backed by those collaterals, although it basically has not been allowed to provide its own new residential loans. Under the treatment of SNA, on-balance sheet securitization is not recognized to be included in the “SPC and Trust” sector, instead it is added into the “Government financial institution” sector to which JHFA belongs.

Another note is that although MBS issued by JHFA is increasing, it does not necessarily means the securitization market is expanding at the same rate. JHFA is changing funding source from loans through Fiscal Investment and Loan Program (FILP) to the issuance of MBS based on the fundamental reform of FILP. The pace of expansion thus includes such refinancing needs.

III. ASSESSMET

FFA statistics has a good coverage to capture the size of the securitization market considering that 1) all major financial institutions are contributing to reporting MCT which are quite often to be used in Japan’s securitization transaction and 2) private placements and non-resident SPC are partly covered.

Nonetheless, they are not necessarily considered to have perfectly enough coverage to capture the entire size of the securitization market in that 3) primary data source of private placement of MBS is almost absent, 4) non-resident SPCs’ private placement is inseparable from the primary data source of BP and IIP statistics.

IV. WHAT CAN WE LEARN FROM FFA DATA?

In this section, we look into the FFA statistics. Here we demonstrate that the statistics correctly reflects the turning point of the sector in 2007, but cross-border securitization is supposed to appear in different transaction items. We also point out that holdings of the “Structured-financial instruments” may describe the true figures in a certain degree, but it still may have a room for improvement.

1. Turning point

FFA seems to reflect the turning point correctly. There is outstanding of 30 trillion yen in Structured-financing instruments as of end June 2009 (Chart 2). The volume of structured financing instruments has been expanding during the first half of 2000s, but it has started to decline since mid 2007. That coincides

roughly with the starting period of the financial turmoil caused by BNP Paribas, Bear Stearns, followed by Lehman shocks.

When we look at the proportion of underlying assets, we notice that housing loans are the largest part of the assets if MBS issued by JHFA is included (usually excluded in the “SPC and Trust” sector but adjusted for comparison). It posts 40.5 % of the total underlying assets, followed by “loans to companies and governments” of 25.8% and “trade credits and foreign trade credits” of 19.0%. If such MBS are excluded, the share of housing loans will be 22.7% following “loans to companies and governments” of 33.5% and “trade credits and foreign trade credits” of 24.6% (Chart 3). In a longer perspective, housing loans (residential mortgage backed securities) has not been severely damaged at current period. Loans to companies and governments and trade credits and foreign trade credits have shrunk faster than housing loans at most recent period (Chart 4).

2. *Cross-border securitization*

Cross-border securitization appears in different transaction items. Looking at figures of “Direct investment” and “Portfolio investment in securities” in Chart 5, in which transactions between non-resident SPC and residents are supposed to exist, we realize that both increase toward the fourth quarter 2008 and decrease shortly after then. If we assume that a part of such increase should attribute to any private placements of non-resident SPC, and we might have been able to identify them, the figure would have behaved differently; it might have continued to increase until the end of 2008.

In this way, cross-border securitization appears also in the “Direct investment” or “Portfolio investment in securities”. However it must also be noted that the surge evidenced in the fourth quarter of 2008 is said to be related to banks’ recapitalization activity. The evidenced banks’ recapitalization activity at that period is not related to “securitization” activity where non-resident SPC issues preferred stock to domestic investors and the proceeds of them is used to finance back as subordinated loans to their parent company (banks) in order to building up capital (Chart 6).

3. *Holding sector of “Structured-financial instruments”*

Although we have weak base of the information on holding sector of “Structured-financial instruments”, the result does not much differ from the other comparable source figures. Chart 7 shows that depository corporations hold 12 trillion yen of these instruments, while they hold around 13 trillion yen of securitized products disclosed by the Financial Services Agency. Both statistics have their own grounds for their appropriateness; FFA is an estimated figure while that of the Financial Services Agency is a surveyed one.

Rest of the world (0.8 trillion yen) does not have a comparable figure outside of FFA. Still it may be possible that the amount should be overestimated; overseas investors may have little access to Japan’s securitization market.

V. POSSIBLE FUTURE APPROACH

FFA is not a survey statistics and needs various kinds of statistics or data as its source data. The quality of FFA, therefore, depends on the extent of quality of primary data. Understanding the point, our future approach of improving FFA statistics will be summarized in two-fold.

1. *Use of electronically registered data for statistical purpose instead of using survey data*

One of the promising approaches is to use the existing data for statistical purpose. Fortunately in Japan, there has been an electronically registered book-entry transfer system already in operation since

2002. It is operated by Japan Securities Depository Center (JASDEC) and it deals a wide range of securities. From its nature of recording the change of ownership in securities, it is supposed to contain minute security-by-security information well enough to be aggregated into sectoral categories in FFA.

Collective data source, hopefully, security-by-security data, is required for the statistical purpose in Euro area. There is an on-going project to construct security-by-security database for statistical purpose. Brunken (2009) explains ESCB's effort of constructing such database and Matos, et. al. (2009) introduces the case of the Bank of Portugal. Pêtre (2009) conducts an analysis by using BIS's International debt securities database which contains security-by-security information.

Usage of the existing data source is an efficient way. By aggregating according to the sectoral and transaction categories in FFA, it can keep confidentiality of investors and issuers. In doing so, it requires that the database should be admitted to be used for "social statistical purpose". In order to pursue this option, co-operation between the related bodies (industry association, depository center, and statistical authorities outside of central bank) should be prerequisite.

2. *International co-operation in data collection*

Statistics may not improve solely by compilers' domestic efforts. There should be international co-operation in data collection as well as the synchronized improvement of the related statistics. It is especially necessary for identifying the cross-border securitization transaction where non-resident SPC plays a major role thus domestic authority has no direct control of posing reporting obligation.

VI. CONCLUDING REMARK

FFA is a comprehensive statistics which depicts financial conditions of all economic entities under a system of national accounts (SNA). The strengths lie around the comprehensiveness or balancing process, where wanted figures can be estimated after taking all the other figures calculated in the matrix cells.

"Data gap" is a problem where no primary data exists in the world. The quality of the FFA statistics is restricted on the premise that there is no primary data. Therefore, in measuring securitization market more precisely needs enriching primary data source.

Another question is "what statistics or figures should play a substantial role in alerting the crisis". It can be discussed twofold. First, financial innovation is rapid and unable to be expected to happen beforehand. Data used in prudential policy appears to have more advantage in this area. Second, FFA describes financial structure, which in turn shows the allocation of funds among sectors and it will help to understand the contagion of crisis through time. Principal role of alerting the crisis itself should be borne by a snapshot type survey that reflects risks in financial system. Then FFA reflects the result of the survey in a comprehensive manner to serve for analyses.

Securitization process is so complex and still developing. In order to grasp it precisely, appropriate employment of various kinds of data is needed.

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Chart 1: Typical securitization scheme in Japan

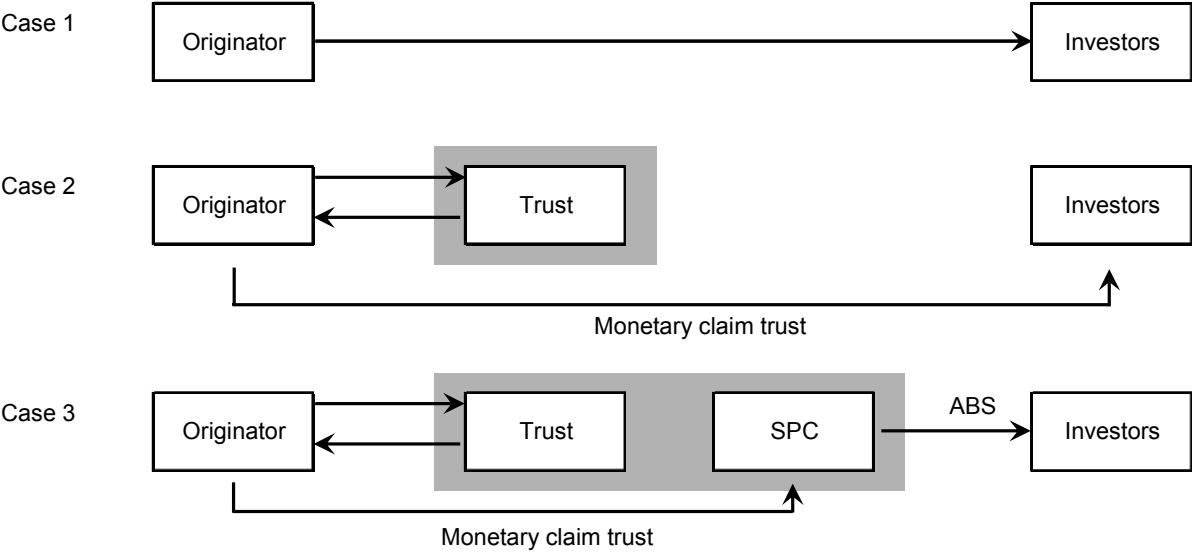
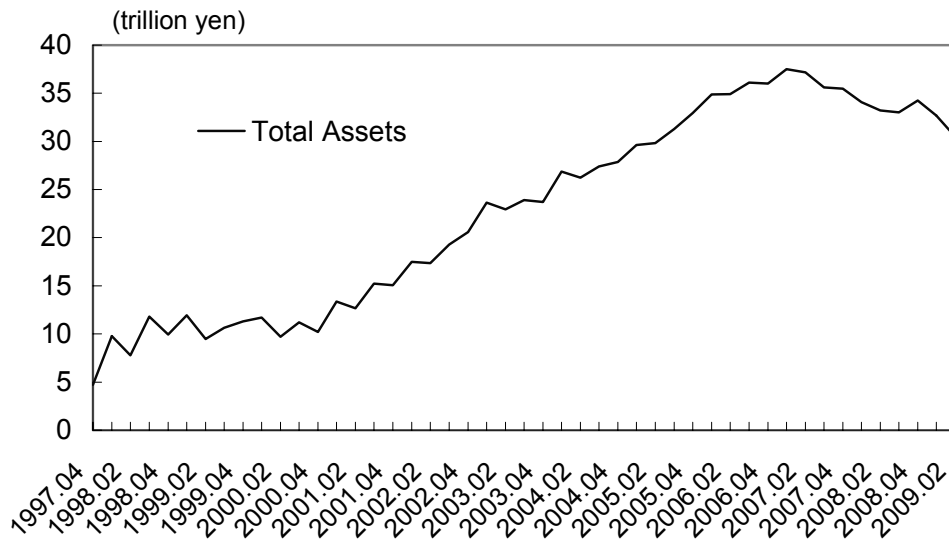


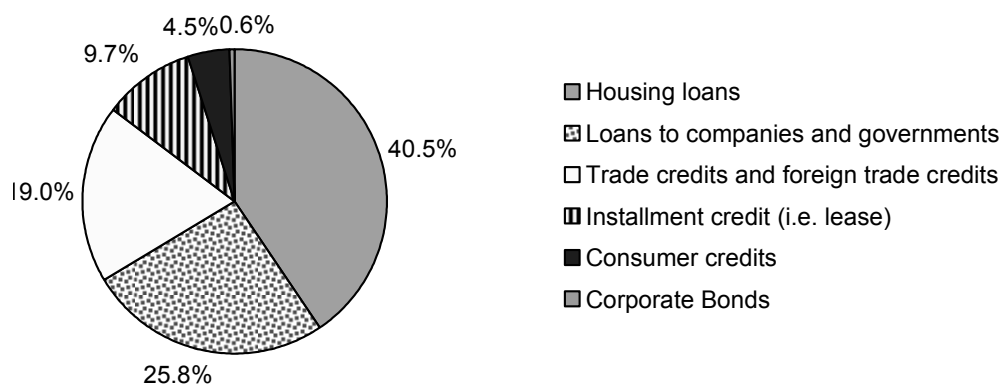
Chart 2: Total assets of the SPC and Trusts sector



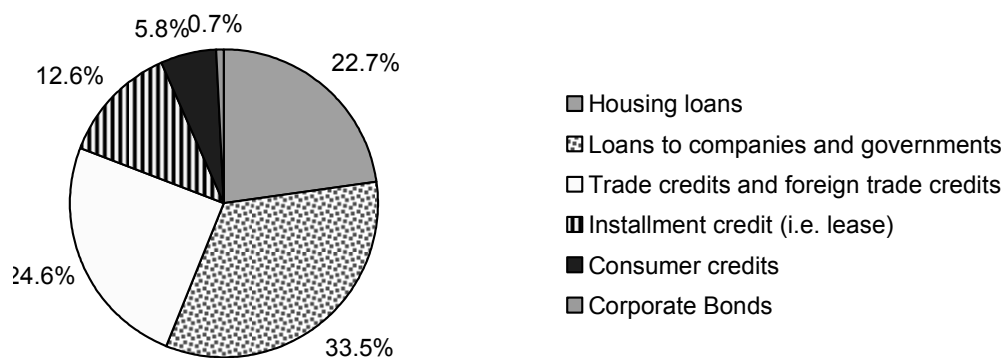
Sources: Bank of Japan, "Flow of Funds Accounts"

Chart 3: Proportion of underlying assets (end of March 2009)

"Housing loans" includes MBS issued by Japan Housing Finance Agency.

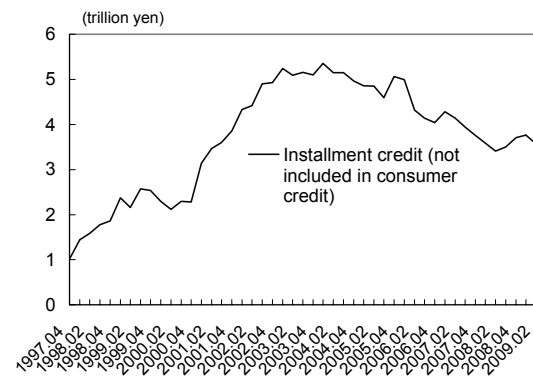
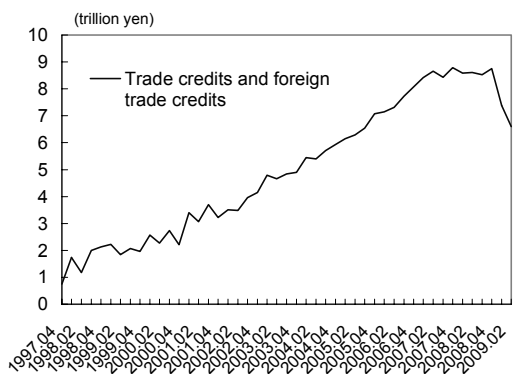
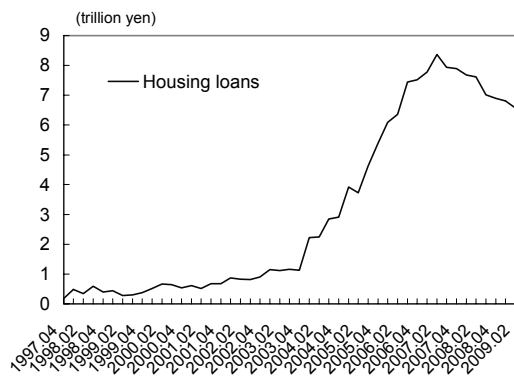
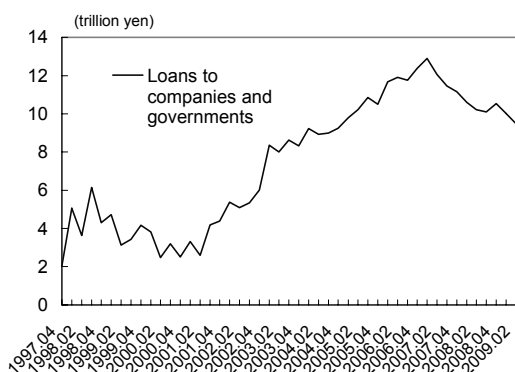


"Housing loans" excludes MBS issued by Japan Housing Finance Agency.



Sources: Bank of Japan, "Flow of Funds Accounts"
 Japan Housing Finance Agency, *Disclosure 2008*

Chart 4: SPC and Trust sector classified by type of underlying assets

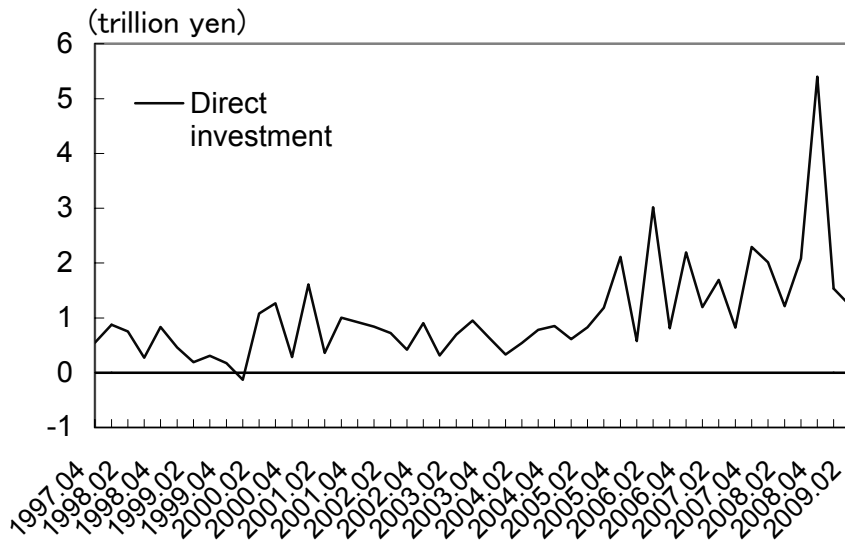


Note: "Housing loans" excludes MBS issued by Japan Housing Finance Agency.

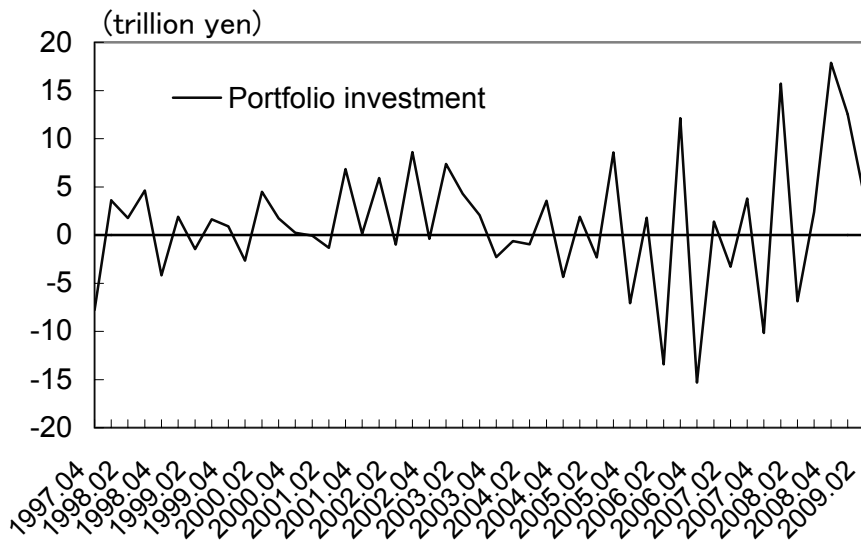
Sources: Bank of Japan, "Flow of Funds Accounts"

Chart 5: BP statistics

Direct investment



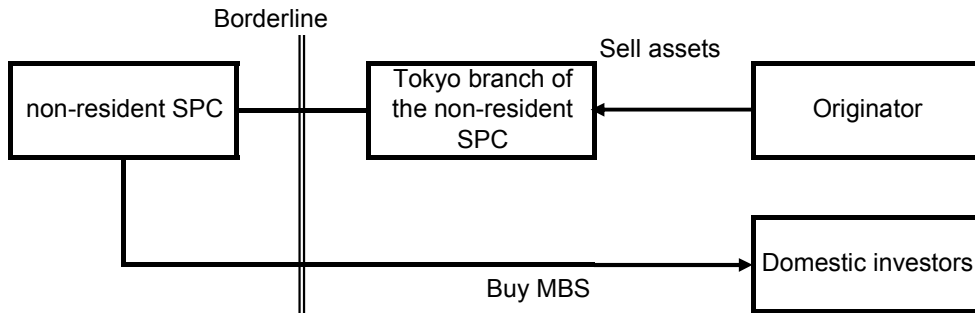
Portfolio investment in securities



Sources: Ministry of Finance and Bank of Japan, "Balance of Payment"

Chart 6: Cross-border transaction

Expected transactions to be captured



Transactions really happened

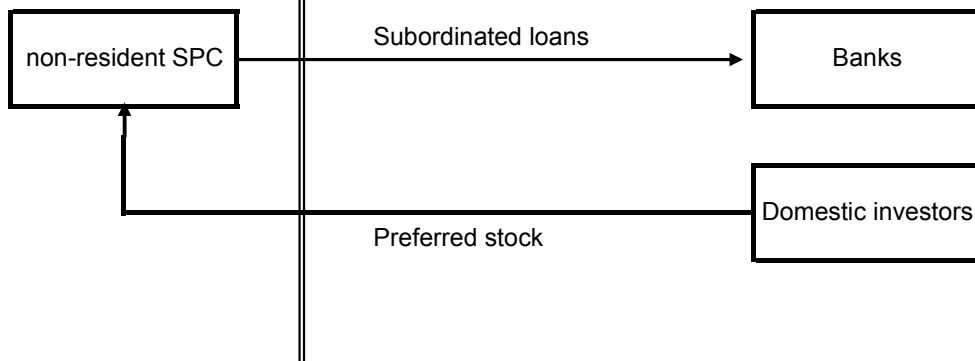


Chart 7: Holding sector of "Structured-financial instruments"

As of end June 2009

(trillion yen)

Total	Financial institutions				Non-financial corporations	General government	Rest of the world	
	Depository corporations	Insurance	Pension funds	Other financial institutions				
30.5	23.0	12.0	8.6	0.9	1.5	6.7	0.0	0.8

Sources: Bank of Japan, "Flow of Funds Accounts"