

## Japan's approach to capturing the household sector

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In Japan, flow and stock data of the household sector are provided by the flow of funds accounts on a quarterly basis. The Bank of Japan has compiled the accounts since 1954 and a historical revision was made in 2000 to introduce the recommendations of the 1993SNA.

In many countries, the breakdown of the domestic non-financial non-governmental units (ie, non-financial domestic sector excluding the general government sector) into the household, non-financial corporations, and non-profit institutions serving household sectors appears to be a challenging task for flow of funds compilers. The household sector is determined by allocating a certain portion of residual amounts of financial assets and liabilities after allocating them to the financial, general government, and rest of the world sectors. Therefore, the household sector depends on various financial data, rather than its own balance sheet data.

In the case of Japan, the household sector data are based on various sources, such as financial statements of financial institutions, statistics on deposits by sectors, statistics on loans by sector and industry, and the custody and financial market data on securities.

The key is that source data for the household sectors include the breakdown of holding sectors. In Japan, for the historical revision of 2000, the breakdown of the non-profit institutions serving household sector was created in those financial statistics, in addition to the household, private non-financial corporations, and other sectors. This made possible the separation of the non-profit institutions serving household from the household sector.

Looking at each financial instrument category, allocating insurance and pension reserves is relatively straightforward. Their total amount is based on the financial statements of insurance companies and pension funds and the data on the investment contract of corporate pensions. Such amounts are entirely allocated to the household sector. In conformity with the 93SNA, public pension funds are not treated as financial assets of the household sector.

Allocating the holding of currency to the household and private non-financial corporations sectors is generally a difficult task. In Japan, such allocation was made by using a fixed ratio on an assumption that 90 percent of residual amount is held by the household sector and 10 percent of that is held by the private non-financial corporations sector. This ratio is based on a study conducted by the Bank of Japan on the holding sectors of currency. However, given that such a study had not been updated, the reliability of the ratio was questioned.

Thus, the estimation method was revised in 2000. Specifically, the total amount of outstanding transferable deposits and time and savings deposits held by households, which is obtained from the statistics of deposits by sector, is multiplied by a currency-deposit ratio to obtain the holdings of currency by households. The currency-deposit ratio is calculated based on the data such as Public Opinion Surveys on Household Savings and Consumption conducted by the Bank of Japan. It is to be noted that the both old and revised estimation methods are based on fixed ratios, but using a fixed ratio vertically (ie, multiplying the data of other financial instrument in the same sector by a fixed ratio) was considered more reliable

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than using a fixed ratio horizontally (ie, multiplying the data of the same financial instrument in the other sector by a fixed ratio).

Deposits and loans can generally be allocated to the household sector using statistics on deposits and loans by sector. If the statistics for loans are only disaggregated by industry, as is the case of Japan, it is necessary to convert the industry breakdown into the sectoral breakdown. In Japan, ratios of sole proprietorships are estimated for each industry breakdown, and the amount of loans to each industry is multiplied by its own sole proprietorship ratio.

In contrast, loans to individuals in Japan are the sum of housing loans and consumer credits, which derive from statistics of loans to individuals and other data sources, including the financial statements of non-bank financial institutions. Given the significant weight of consumer credits extended by the non-bank financial institutions in Japan, the Bank of Japan decided, in the 2000 revision, to collect balance sheet data from major non-bank financial institutions for statistics purposes.

Estimation of trade credits is also a challenging task, as the household sector includes sole proprietorships. In the case of Japan, trade credits of the household sector are the residual after deducting the total assets from the total liabilities of other sectors. The total is obtained by using the financial statements statistics of corporations by industry and the balance of payments statistics. This is based on the assumption that the difference between trade credit assets and trade credit liabilities is assets or liabilities of sole proprietorships. If financial statistics on the sole proprietorships are developed, the sophistication of the estimation method could be explored.

Securities holdings of the household sector are generally based on the custody and financial market data, as well as balance of payments and international investment positions statistics for foreign securities. Given the limitation of the availability of source data, there are generally some difficulties in allocating some categories of securities to the household sector.

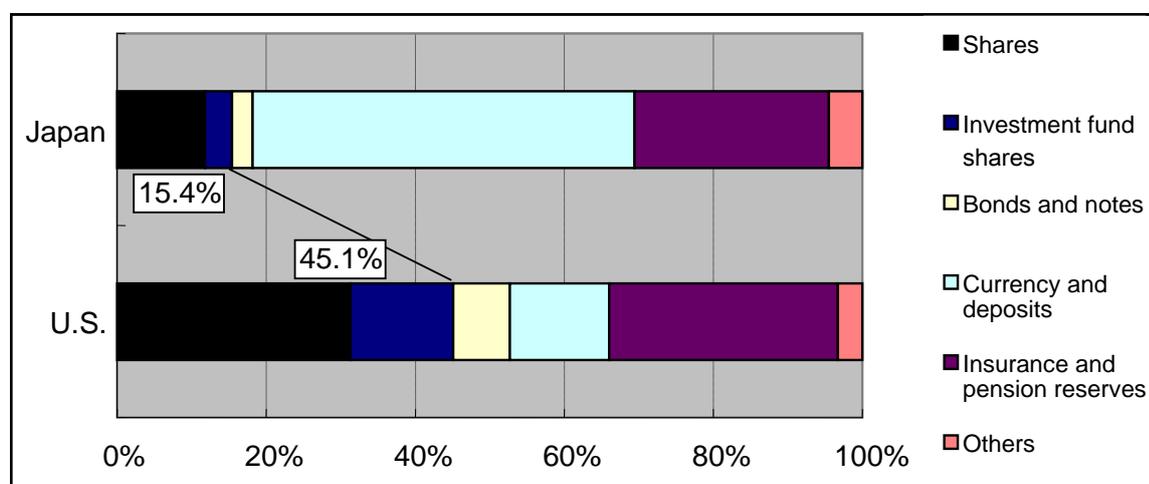
In Japan, household holdings of shares are estimated using the data on the distribution of shareholders, which derive from the statistics such as the Share ownership Surveys. The amount under "individuals" in the surveys is allocated to the household sector. Unlisted shares are allocated to the household sector proportionally with the private non-financial corporations sector by using the ratio calculated from the above-mentioned surveys.

Investment fund shares are based on the data on total net assets published by the Investment Trusts Association, which is broken down by type of investment funds. The outstanding amount of each type of investment funds is obtained. Holdings of household are estimated for each type of instrument funds by using fixed ratios of household holdings.

In Japan, investments in shares, including investment funds shares, by households are increasing and such investments are drawing considerable attention on the part of financial markets. Japanese households were not keen on such investments due to their risks. When compared with the United States, for example, the Japanese ratio of shares in the total household assets represents one-third of that of the United States (see Chart 1).

Chart 1  
**Financial assets held by households**

End of March 2006



Source: Japan's flow of funds accounts, U.S. flow of funds accounts.

Given the considerable interest in the data on shares held by households, a further improvement of the accuracy of those data is desirable. Estimation of the unlisted shares is a major challenge as the source data for the holding sectors and the market-equivalent value of those shares are limited.

For securities other than shares, custody data are used for securities traded in Japan. Household holdings of central government bonds are based on the data of registered government bonds by sector. Household holdings of local government bonds are estimated by deducting registered government bonds from the issue total, on the assumption that unregistered bonds are held by households. All discount bank debentures sold through over-the-counter of bond-issuing institutions and those sold through securities companies, as well as interest-bearing bank debentures sold to households are allocated to the household sector, taking account of the fact that they are infrequency traded in the secondary market.

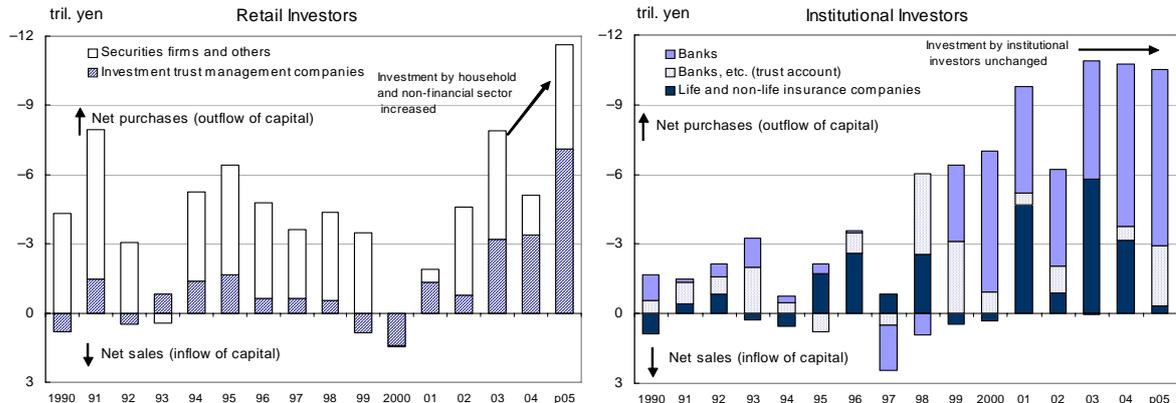
In Japan, investments in foreign securities (ie, securities issued by non-residents) by other sectors in the balance of payments and the international investment positions statistics are partly allocated to the household sector, using a fixed ratio. Such a ratio is based on an informal survey of securities companies.

The allocation of foreign securities to the household sector could be more accurate if more detailed data on the balance of payments and international investment positions were to be gathered. At present, balance of payments statistics, as per Balance of Payments Manual 5th edition do not contain the breakdowns into the household and non-financial private corporations sectors. Japan's balance of payments statistics follow this. This has tended to limit the use of balance of payments data in the flow of funds accounts.

For example, Japanese retail investors, ie, investors other than institutional ones (banks and insurance companies) and governments, invested actively in foreign securities, such as global sovereign bonds, emerging market bonds, and structured bonds, while investment in foreign securities by institutional investors remained relatively stable (see charts 2 and 3). It is considered that investments by household account for a major portion of the purchases of global sovereign bonds and equities of emerging economies. However, in the absence of separate data for household investments in foreign securities, the scope for a precise analysis is limited.

Chart 2

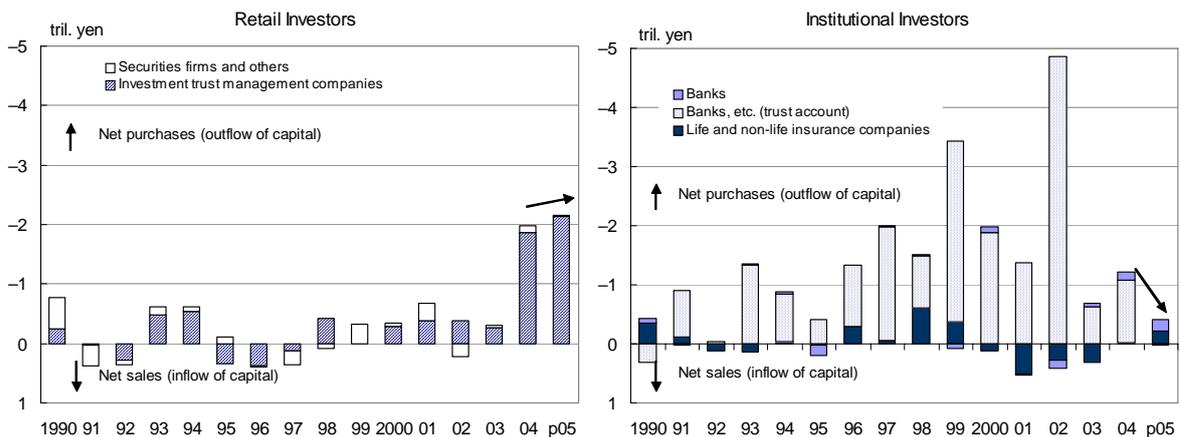
**Investments in foreign bonds and notes by retail and institutional investors**



Source: Japan's balance of payments statistics.

Chart 3

**Investments in foreign shares by retail and institutional investors**



Source: Japan's balance of payments statistics.

In conclusion, the flow of funds accounts provide useful information on the household sector. In the absence of balance sheet data for the household sector, the estimation of that sector tends to be complex. Flow of funds compilers need to explore the use of various statistics to improve the accuracy of data. For the international transactions and positions of the household sector, cooperation with the compilers of balance of payments and international investment positions statistics is very important.