Working Party on Financial Statistics

USER NEEDS AND THE USES OF JAPAN'S FLOW OF FUNDS ACCOUNTS

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USER NEEDS AND THE USES OF JAPAN’S FLOW OF FUNDS ACCOUNTS

1. Introduction

This paper introduces user needs and the uses of Japan’s Flow of Funds Accounts (JFFA).

In the last seven years, statistics including flow of funds accounts (FFA, hereafter used the term representing financial accounts and financial balance sheets) around the world have been examined by both internal and external users whether they are relevant enough to close data gaps. In this context, statistical offices and central banks launched projects to make their FFA and related statistics more detailed with enhanced data, applying granular data to reveal interconnectedness among economic sectors, integrated, if possible, into the system of national accounts. These projects are successful. Many detailed statistics become available, some of them represented in from-whom-to-whom formats.

Based on the recognition, it will be worth looking on back and see what users expect for the FFA and what the statistics respond to the expectations. The process will also serve for reminding us of the important role of the FFA.

The remainder of the paper is organized as follows. The next section explains two approaches through which we think user needs are well recognized. Section 3 introduces several analyses with charts to describe the current financial conditions of economic sectors in Japan. Section 4 concludes the paper.

2. User needs for the JFFA

In order to recognize use needs for the JFFA, this paper employs two kinds of approaches.

First, user needs are considered to be reflected in Bank of Japan’s current form of regular release materials such as the “Basic Figures of the Flow of Funds” or “Overview of Japan, the United States, and the Euro area.” The materials are the sets of charts and graphs which are designed for users to easily overview the current financial conditions of each economic sector in Japan and to enable international comparisons at a glance. Basic Figures of the Flow of Funds is used on the release date to explain figures of the JFFA for the press. The current form of the material is considered to be the reflection of accumulated feedbacks from user needs.


Second, a record (log) of inquiries from inside and outside users is a support to know what users are interested in. Since 2006, we have recorded though not completely all but over 1,050 inquiries in the log. This paper checked the recent 186 inquiries in the last two and a half years and found a several categories on which users are frequently asked. The categories provide us with hints on what areas users are interested in and what they expect for our statistics.
Users are wide-ranged including the press, governmental agencies, academic researchers, analysts in financial institutions, researchers in hedge funds, research companies, data vendors, industry associations and individuals.

<table>
<thead>
<tr>
<th>Number of inquiries on the JFFA by topic</th>
<th>From January 1, 2014 to the end of July, 2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net lending/borrowing</td>
<td>13</td>
</tr>
<tr>
<td>Lendings to non-financial sectors (1)</td>
<td>20</td>
</tr>
<tr>
<td>Pension funds (2)</td>
<td>17</td>
</tr>
<tr>
<td>Government bonds and treasury bills</td>
<td>17</td>
</tr>
<tr>
<td>Holding of deposits or investment trust beneficiary certificates by household</td>
<td>9</td>
</tr>
<tr>
<td>Technical questions (3)</td>
<td>42</td>
</tr>
<tr>
<td>Other miscellaneous questions</td>
<td>68</td>
</tr>
<tr>
<td>Total</td>
<td>186</td>
</tr>
</tbody>
</table>

Each topic includes the following issues.
(1) Lendings provided by financial institutions to households, non-financial corporations, and overseas
(2) Pension funds, pension liabilities, claims of pension funds on pension managers, public pensions, social security funds
(3) Data availability, statistical classification, how to use BOJ Time-Series Data Search

There are four categories on top except for technical questions and other miscellaneous questions. First, net lending/borrowing is an important macroeconomic measure to show financial activities - financial investment and fund raising - of each economic sector, sometimes used as supporting evidence for savings compiled from income and capital accounts. Second, in the same context, lending to non-financial sectors is an appropriate measure for banks' intermediation and a factor affecting on net lending/borrowing. Third, pension funds, which require actuarial calculation for compiling liabilities to households and claims on pension managers, is one area which other relevant source data could not substitute for the JFFA. Fourth, holding amount of general government bonds and treasury bills is another area which attracts a lot of public attentions and is desirable to be recorded in one consistent framework.

3. Uses of the JFFA with brief analyses

In accordance with the four categories, we present in the following sections some examples of uses of the JFFA. Data are shown from 1980 to 2015 on a fiscal year basis. All data are obtainable from the BOJ Time-Series Data Search (http://www.stat-search.boj.or.jp/index_en.html). Note that although the time series data on a current basis (2008 SNA) is only compiled, in case of stocks from the first quarter of 2005 on a quarterly basis, and from 2004 on a fiscal year basis, we link, without modifications, the current time series data to the former time series data (1993 SNA). This treatment in the database is because there was a strong need from users for long time series. Users, however, should be careful for the existence of the breaks - fundamental changes in concept and definition in some sectors and transaction items - when using them for analyses.

In this respect, it should be noted that the following examples contain breaks in 2004 for stocks and in 2005 for flows. The final conclusions of the analyses, however, do not change main conclusions.
3.1. Net lending/borrowing

Figure 1
Net lending/borrowing by sector

Household sector is a net lender through the entire period. The volume of net lending is somehow reduced from 1980s and 1990s. Japanese households have long been renowned for having high savings compared to other countries. The observation here is on one hand consistent with some studies arguing lower level of savings foreseen in the future, but on the other hand contradictory in that savings do not go negative even under the current aging society. Breaking down the components, households substantially shrunk the volume of investment and fundraising from 1990s, and they have started to invest again since mid-2000s. Since then, currency and deposits are increasing constantly. The investment in investment trusts which was not so popular in the past now becomes a major investment choice for households. On the fundraising side, households have started borrowing since 2012.
Private nonfinancial corporations sector has also been a net lender since 1998, which means that it invests less to capital formation than they earn, rather makes investments in financial assets. Breaking down the components in financial assets, outward direct investment and currency and deposits are outpacing borrowing loans. Outward direct investment increases as a result of aggressive cross-border M&A activities, which might contribute to investment to capital formation outside Japan. The accumulation of currency and deposits within private nonfinancial corporations and not spending much on capital investment were not prevalent in the past.
General government and overseas are the sectors absorbing funds supplied by households and private nonfinancial corporations.

3.2. Lending to non-financial sectors

This section looks at lending provided by private financial institutions with breakdown of borrowers.

Overall, lending to non-financial sectors has been increasing since 2011. Although major contributors are loans to overseas and to financial institutions, loans to private nonfinancial corporations and to households are also positive contributors. Loans to overseas are closely related to interoffice accounts, in which funds are lent or borrowed between head office of a home country and overseas branches within a single financial institution, reflecting different funding conditions abroad. For 2015, loans to financial institutions are affected by a temporary fund shift from trust account to banking account.
Regarding households, housing loans is the major contributor to the increase in loans to households. On one hand, interest rate is decreasing. On the other hand, because of changes in the inheritance tax law, individuals are inclined to borrow money and make investment to residential real estate properties for inheritance tax saving purposes. Consumer credit turns to be positive around 2013. It had long been on a decreasing trend, possibly due to changes in laws in 2006, fully enacted in 2010, on lowering maximum interest rates and putting limits on total lending volume.
3.3. Pension funds

As for pension funds, we are frequently asked on the three areas: underfunded pension obligations of DB schemes, pension entitlements and its recording basis, and public pensions. For underfunded pension obligations, there had been no comprehensive data showing the total amount owed by all companies, listed and unlisted, until the JFFA compiled them under the official statistical item of claims of pension funds on pension managers. Pension entitlement often receives inquiries on recording basis, now on an accrual basis. Public pension is also a popular subject. Questions about public pensions include whether the pension entitlement of public pensions and underfunded pension obligations of public pension are recorded. Since public pension in Japan is managed under pay-as-you-go scheme, neither entitlements nor underfunded pension obligations are recorded in the JFFA.
Figure 6
Pension liabilities of corporate DB pensions and underfunded pension obligations

![Graph showing pension liabilities, assets, and claims over time.](image)

Usually, stock data for the JFFA on a 2008 SNA basis are only available from fiscal year 2004. Exceptions are the three series of the corporate DB pension data: total pension assets, total pension liabilities, and claims of pension funds on pension managers which are available from 1993. Recognizing that there was a strong user need, we made research on methodologies and source data and compiled and published retroactive data for the three series as a special case.

Looking at the developments of the three series, total pension liabilities which peaked at 184 trillion yen in 2002 started declining with retirement of baby boomers. Meanwhile, with improved performance of financial markets causing an increase in total pension assets value, claims of pension funds on pension managers, derived by deducting pension assets from liabilities, peaked at 102 trillion yen in 2002 and turned to a decreasing trend, reaching to the level of 30 trillion yen in 2015.

3.4. **Holdings of government bonds and treasury bills**

As for government bonds and treasury bills, the JFFA data are often cited by the media as useful measures to compare holding amounts in different sectors. The data are comparable among sectors recorded in one consistent framework.
Holding amounts of government bonds and treasury bills by sector evolve dramatically in recent years. Depository corporations, continuously purchasing these securities in 2000s, are reducing their holding amount after 2012 to 242 trillion yen in 2015. In turn, central bank has been purchasing a large amount of the securities at a high pace, with the holding amount reaching to 364 trillion yen in 2015. Insurance corporations and pension funds keep investing in government bonds, matching to the long term maturity of their funding. The holding amount of insurance corporations and pension funds reaches 247 trillion yen in 2015, exceeding the amount held by depository corporations for the first time since the beginning of the statistics.

4. Conclusion

This paper introduces user needs for the JFFA and exhibits some examples of uses of the statistics.

In summary, the JFFA is expected to play an important role for providing a picture of the entire economy with all economic agents recorded in one consistent framework. Enhancing accounts with the inclusion of detailed data, linking micro data and macro aggregates, and revealing interconnectedness are very important. It is, however, equally important to recognize the FFA’s role that no other statistics can play. In line with this implication are the user needs for data of households and private nonfinancial corporations. FFA is expected to provide an accurate picture particularly for the two sectors.