

Developing database on securities holders information: the case of Japan

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1. Introduction

Identifying the exact holder or the holding sector of securities is always one of the most challenging tasks for statistical compilers.

In macroeconomic statistics such as the flow of funds accounts, a balance sheet provides useful information on the holding amount of securities, but aggregating balance sheets does not always provide a full picture of the economy. Balance sheets of non-financial corporations and some of other financial institutions, for example, are not always available, and households do not make balance sheets.

Under such constraints, some central banks and statistical authorities have started projects to build up securities databases to store information on securities holders. The ECB (2009) explains its intention to establish a single authoritative data source—the centralized securities database—to meet the needs of the ECB itself. The BIS, ECB, and IMF (2010) argue the holding side of securities statistics. This kind of movement is gaining ground especially after the recent financial crisis where securitized products incurred a considerable amount of financial losses to their holders, whereby risks are transmitted in the financial system. The Financial Stability Board (2009) advocates the importance of knowing where risks actually lie across institutions.

This paper introduces the Bank of Japan's recent exploration of the central securities depository (CSD) data as a statistical source of securities holders' information. This paper is organized as follows. Section 2 explains the features of the CSD in Japan. Section 3 introduces the recent achievement as a result of applying the CSD data to the flow of funds accounts statistics. Section 4 argues general challenges pertaining to CSD data as a statistical source to identify final holders of securities, sometimes referring to the result of the survey the Bank of Japan conducted for seven OECD countries in April and May 2010. Section 5 concludes.

2. Features of the CSD in Japan

CSD data in general are considered to have at least two advantages in data collection. One is the centralization of information, which is elaborated in this section, and the other is a wider universe than that of the administratively collected data. Administratively collected data are correct, powerful, and quick in order to see the conditions of a specific sector, but they are apparently weak in the sense that a data gap may exist outside the scope of authorities.

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The views expressed here are those of the author and do not necessarily represent the views of the Bank of Japan. The author is responsible for any errors and omissions.

2.A The one and only platform of book-entry transfers except for central government bonds

The book-entry transfer services of securities except for central government bonds are provided by one CSD in Japan, which is the Japan Securities Depository Center, Inc. (JASDEC). The book-entry transfer services of central government bonds are provided by the Bank of Japan. This paper discusses the former.

The JASDEC is a privately owned stock company licensed under the Act on Transfer of Bonds, Shares, etc (“the Law” hereafter). It operates the book-entry transfer system for general securities such as corporate bonds, stocks, commercial paper, investment trusts. Since the JASDEC is the one and only platform of book-entry transfers for those securities, the information is centralized to this system on a security-by-security basis, whereby it has the potential for collective gathering of securities holdings information.

The Law stipulates its book-entry transfer business but does not require data supply for statistics. So far there is no data exchange contract between the JASDEC and the central bank or statistical authorities.

The book-entry transfer system has been in operation since 2002. The rate of use of the system in CP transaction is almost 100%. That of other securities transactions is thought to be close to 100%.

2.B Chain of accounts

The JASDEC system takes a cascade structure of accounts. As illustrated in the attached Chart, an investor who wants to make a transaction opens a customer account at either a direct account management institution (DAMI) or at an indirect account management institution (IAMI). When there is a deal, the transactional information is transferred from the institution at which the investor holds an account to the institution keeping an account of the investor’s transactional counterparty. If the investor indicated as “Participant (i)” in the Chart sells securities to the investor indicated as “Participant G,” the information on the deal goes through institutions E, A, the JASDEC, and finally to C where sold securities are entered into the book at the customer account of G (Case 1). Similarly, if “Participant (i)” sells securities to “Participant (ii), the transactional information is processed within E. IAMI E transfers the transactional amount from Participant (i)’s account to Participant (ii)’s account, and the transaction is completed within E (Case 2).

The DAMI or IAMI—usually banks or securities companies—can also hold their own accounts. Those accounts are called self accounts which are separated from customer accounts in this system. As of May 2010, there are 89 DAMI and 407 IAMI in the book-entry transfer system for corporate bonds.

2.C Finality of ownership (direct system vs. indirect system)

One of the features which is different from the CSDs of some other countries is the finality of the ownership of securities. In the JASDEC system, neither DAMI nor IAMI takes over the ownership of transacted securities at customer accounts, even though the process itself occurs in chains of accounts held by such intermediate institutions. Kanda (2009) describes the system as the “direct system.” An account management institution just keeps an investor account and provides book-entry transfer services. The legal ownership of securities remains with the investor and does not move to any other institution.

As opposed to the direct system, there are some countries in which an account management institution legally holds assets and an investor keeps equitable interest to these assets, or a securities entitlement is moved from an investor to an account management institution. In this indirect system, it might be difficult to detect the final holder of securities.

2.D Security by security

All data are handled on an individual issue basis in the book-entry transfer system. Information available for each issue includes the name of issue, name of issuer, face value, maturity, etc. The current outstanding amount is also available. For example, with regard to corporate bonds whose data are required to be open to the public, one can obtain detailed information by searching the JASDEC website by using the name of the issue or the ISIN code as an identifier. This security by security nature will enable compilers to sort data in accordance with the System of National Accounts and it also has the potential to be used for multi-purpose securities databases.

3. Application of CSD data to flow of funds accounts

The Bank of Japan started discussing the possible use of data as a statistical source with the JASDEC in late 2009. This was primarily motivated by the need to secure a more accurate source data for the flow of funds accounts statistics. Some statistical improvements have been made to the data revision of the statistics in March 2010 thanks to efforts by the JASDEC to respond to the Bank of Japan's inquiry on data definition. Some of these improvements are summarized as follows.

3.A ABCP

Asset-backed commercial papers (ABCP), a part of structured-financing instruments, had no reliable data source before the revision. Figures for the ABCP used to be estimated by assuming that they were part of other structured-financing instruments (Sato [2009]). Through the aforementioned process of discussions on the data, we confirmed that some data released by the JASDEC were consistent with our ABCP definition and decided to use them as new source data. As a result, the market size of the ABCP was more accurately reflected in the flow of funds accounts statistics.

3.B Local government bonds

The information on the outstanding amount of local government bonds had not been centralized. Before the dematerialization started in 2006, the total outstanding amount had been estimated based on registered bonds. There were problems in the frequency of the data, which was once a year, and in the existence of non-registered bonds (held in certificate) of which the amount had not been deemed negligible.

As the dematerialization proceeded, a majority of local government bonds shifted from registered bonds to those in the book-entry transfer system. Since the system is open on the web everyday and the data are stored security by security, we are able to confirm whether each issue is within the definition of our statistics at any date. Further, we successfully found out that the amount of non-registered bonds still exists but not as significant as to make estimation impossible. By conducting a series of examinations, we then concluded that the CSD's aggregate data were the most centralized and reliable primary data source at present to describe the total market size of local government bonds.

3.C Privately placed asset-backed securities

Although we have improved the quality of the ABCP, the remaining part of structured-financing instruments such as privately placed asset-backed securities are still under examination. Classification of these issues by type of collateral (e.g. financial assets or real

estates) is required to decide the transaction item, either securitized products or another kind of corporate bonds.

We expect further improvement of the flow of funds accounts statistics by incorporating information about privately placed asset-backed securities from CSD in March 2011.

4. Challenges for statistical development of CSD data

While CSD data have a distinct advantage in data collection because of its electronically processed centralized system, there are things to overcome for the development of the data as a source of final holders.

In this section, we argue the general challenges pertaining to CSD data as a statistical source to identify final holders of securities. We sometimes refer to the result of the survey that the Bank of Japan conducted in April and May 2010 to ask central banks and statistical authorities whether they use CSD data for compiling financial statistics. Seven countries (the U.S., the U.K., Australia, Germany, Spain, Chile, and Canada) responded to the survey. The result of the survey is summarized in the Table.

4.A Cascade structure of accounts

The most important reason why it is difficult to identify final holders from CSD data is a practical one that exists in a cascade structure of accounts. The transactional information is transferred from one institution to another as explained in 2-B. However, detailed information on an investor such as the sector in which it is statistically classified is held only by the account management institution at which the investor holds the account. In other words, detailed information on the investors is decentralized among account management institutions in the book-entry transfer system. Participants of the system know the name, characteristics and the amount of individual securities in the accounts they offer, but they do not have information about the ultimate owners of securities in case the account is a customer account. For instance, the CSD and DAMI, which are located upstream in the chain structure, do not know the change of ownership of the securities when a transaction is completed within the IAMI, as seen in Case 2 in section 2-B. Therefore, for statistical purposes, compilers should take another measure to obtain the entire market information.

Most countries have access to supplementary source data other than CSD in order to overcome the cascade account structure problem. In countries that appear to have an indirect system and it is deemed to be difficult to detect final holders, CSD data is either selectively used or not used for compilation at all. In the U.S., CSD data are used along with private vendor data for bonds and stocks issued by non-financial corporate businesses. The amount of asset-backed securities issued is measured as the assets removed from the balance sheet of originators. CSD data are used selectively for ABCP because they cover 100 percent of the market. Then the amount of ABCP is used to calculate the amount of asset-backed corporate bonds by deducting it from the total amount of asset-backed securities. In the UK, the CSD data are used as part of a quality assurance process but not for data compilation. Instead, data collected from London based issuing and paying agents are used for published securities issues statistics.

According to the results of the BOJ survey, which are shown in the table of CSD data usage in financial statistics, even in the countries that appear to have a direct system, data given by intermediate institutions are also used for financial statistics. In Spain, for Balance of Payments and International Investment Position, the CSD data are used for debt securities issued by residents and held by non-residents. The data incorporates the country of residency of the first-known counterpart but not the final holder. If there is a resident custodian between non-resident and CSD, it is the resident custodian who has the

information and CSD data do not cover the transaction. The information provided by the resident custodians is also used, on an aggregated basis, to identify the holdings of securities by non-financial corporations and by households. In Germany, the CSD is one of about 2,000 reporting agents.

In Chile, Banco Central de Chile does not currently use information given by CSD for the compilation of yearly financial accounts statistics. Nevertheless, it is working on a project related to quarterly financial accounts, where CSD data will be used intensively, including the securities holders' information.

In Japan, one of the challenges in using CSD data is to obtain supplementary information about customer accounts in the DAMI. At present, accounts of which the JASDEC manages the outstanding amount are basically limited to those set up within the JASDEC itself, as accounts for A, B, and C illustrated in the Chart. Ideally, the data should cover all the participants of the book-entry transfer system including both the DAMI and the IAMI. Most major financial institutions participate in the system as DAMIs. If the owners' information on securities in DAMIs' customer account becomes available with the cooperation of JASDEC and DAMIs, the information can be applied to the composition of customer accounts in the IAMI to estimate the amount of each type of securities held by each sector. The estimation could be conducted with certain accuracy because all DAMIs and IAMIs are registered at JASDEC and it is known that the chain structure does not extend to more than a few layers.

4.B Confidentiality of customer accounts

The other reason why it is difficult to get accurate information is the confidentiality of customer accounts. Even if the cascade account structure problem is technically solved, the confidentiality problem remains. There are self accounts and customer accounts as explained in 2-B. We can identify, in our direct system, relatively easily whether an account held by an account management institution is a customer account or a self account. But detailed information on a customer, which is necessary for compiling statistics, is usually hard to obtain. It is partly because custodians or account management institutions are commonly required to keep the accounts confidential under contracts with customers, which makes them reluctant to provide customer information.

In order to overcome the confidentiality problem, central banks or statistical authorities will need a contract with CSD or with custodians that states they will receive just aggregate data and will not share individual data. In the U.S., the Federal Reserve receives data from the CSD based on a contract with a confidentiality clause that says it cannot share data of individual firms. From a statistical point of view, compilers do not need firm level information. They just need aggregate data classified according to institutional categories of holders of securities. Such data will not need to be security by security as long as they are correctly reported.

4.C Cooperation with CSD and with securities-related industry

The third factor is the cooperation with CSD and with securities-related industry. According to our survey, all of the three countries using CSD data (the U.S., Australia, and Chile) are confirmed to have a contract or an agreement with CSD in obtaining data, implying that the securities-related industry agrees to using CSD data in principle. Germany and Spain go further; they have official central bank regulations that stipulate a mandatory data collection scheme. Therefore, it seems that there is a general understanding toward the statistical value of CSD data in the economy.

Also in Japan, it is understood that the development of financial and securities statistics is an important issue and will contribute to the growth of the securities market. Based on such an understanding, a conference was held in late 2009—the Japan Securities Dealers

Association was the organizer—with participants such as the members of securities-related industry; the Bank of Japan also participated as an observer. Participants argued that the availability of additional CSD data could increase the understanding on securities market.

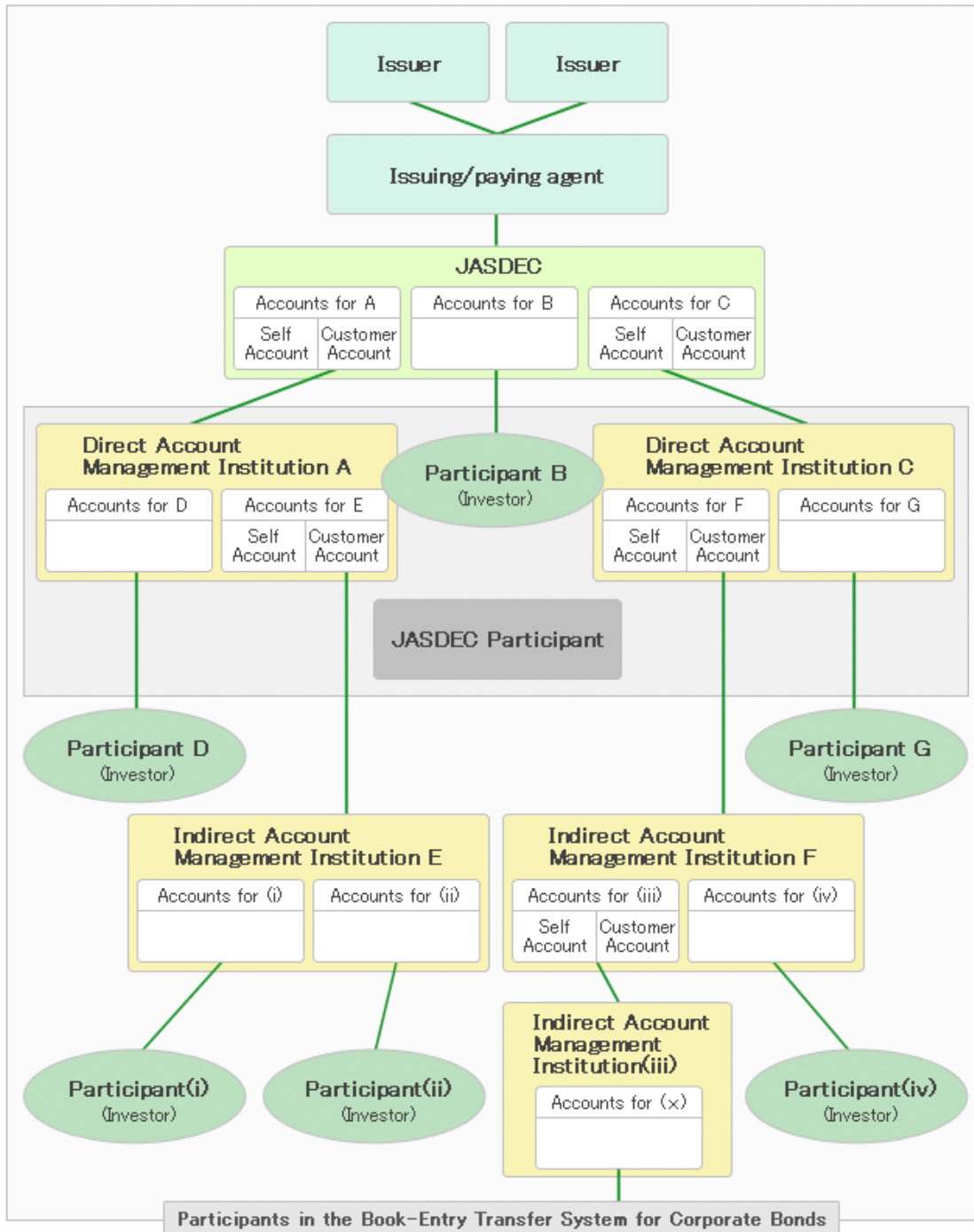
5. Concluding remark

This paper has introduced the Bank of Japan's recent exploration of the CSD data as a statistical source of securities holders' information. The CSD in Japan has several features suitable for data collection: the one and only platform for book-entry; finality of ownership; and the security by security nature. Through communication with the CSD, we have achieved statistical improvement in our flow of funds accounts statistics mainly for the market size—the ABCP and local government bonds—and we can expect further improvement by incorporating privately placed asset-backed securities to the CSD data next year.

While CSD data has a distinct advantage in data collection because of its electronically processed centralized system, there are things to overcome for the development of the data as a source of final holders. General challenges are: the cascade structure of accounts; confidentiality of customer accounts; cooperation with CSD and securities-related industry.

Approaches to data gaps considered upon the recent financial crisis should relate closely to the possibility of developing a wider and more reliable source of information. Although there are many challenges, CSD data will continue to be a strong candidate in shedding light on sectors such as households, non-financial corporations, or some other financial institutions.

Chart
Accounts structure of the JASDEC



Source: JASDEC

<http://www.jasdec.com/en/system/sb/outline/image/index.html>

Table. CSD data usage in financial statistics

	Respondent	CSD			Data used other than CSD (i.e. custodians)	
		Data usage	Holders' information	Coverage		Contract/agreement
U.S.	Federal Reserve	○ 1)	×	Low (ABS) High (ABCP)	○	
U.K.	Bank of England	×	-	-	-	○ (London based issuing and paying agents)
Australia	Australian Bureau of Statistics	○	×	Low (voluntary registration)	○	○
Canada	Statistics Canada	×	-	-	-	○
Germany	Deutsche Bundesbank	○	△ (Not in all cases final holders)	Low	○	○
Spain	Banco de España	○	△ (debt securities issued by residents and held by non-residents)	Low (If between the non-resident and the CSD there is a resident custodian, it is the latter who declares.)	○	○ (custodians, used to identify the holdings of securities by Non-financial corporations and by Households.)
Chile	Banco Central de Chile	×	○ → ○ 2)	-	- → ○	
Japan	Bank of Japan	○	×	High	×	×

Notes: 1) CSD data is used for bonds and stocks issued by non-financial corporate businesses along with other private vendor data. CSD data gives inadequate coverage for asset-backed bonds (probably less than 20 percent of the market), while CSD data on asset-backed CP is 100 percent of the market.

2) Currently, the Banco Central de Chile does not use the information given from the CSD for the compilation of yearly financial accounts statistics. Nevertheless, it is working in a project of quarterly financial accounts, where CSD data will be used intensively, including the securities holders' information.

3) It is identifiable by aggregating the amount of the tax exempt accounts which are specially allowed for non-residents.

Source: OECD Working Party on Financial Statistics - Workshop on Securitisation, 27-28 May 2010, Madrid Spain, updated by the author based on additional information obtained at the workshop

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