

## Securities data for enhanced analysis of external debt - challenges due to non-ISIN securities

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Sweden enjoys large current account surpluses but is at the same time highly dependent on the international capital markets for the financing of private sector activities. Especially the banking sector relies on issuing securities in different currencies. The outbreak of the financial crisis distorted the capital markets which also affected the Swedish banks' financing operations. The Swedish central bank (the Riksbank), as a lender of last resort, lacked detailed data on market financing, such as maturity structure, collaterals, borrowing costs, etcetera. As a remedy for this problem the Riksbank initiated a new data collection on Swedish securities and increased its cooperation with the European Central Bank's Centralized Securities Data Base (CSDB). The new data, released for the first time in April 2013, is used for statistical purposes and for deeper analysis of primary market financing for entire sectors as well as for individual financial groups.<sup>1</sup> This multipurpose use of financial micro data is a necessary development given the dramatically increased demand for financial information in the wake of the financial crisis. Three major conclusions based on the Swedish experiences can be drawn so far. The first is that securities data should be based on micro data in order to capture the entire structure of securities debt. The second key result is that securities without ISIN-code can form a non-negligible part of total outstanding securities debt. Attention must be paid to all securities, including non-ISIN securities in order to enable proper statistical as well as individual analysis. The third conclusion is that issues from foreign branches and subsidiaries of financial groups are important when analysing the financial institutions and this data need to be shared with other countries through international cooperation and with the aid of international organisations.

**Key words:** micro data, borrowing structure, debt issues, security-by-security, non-ISIN.

### 1. Background

Swedish Monetary and Financial Institutes (MFI) are heavily dependent on capital market financing for their lending to companies and households. Since Swedish households to a large extent hold their savings in instruments like shares, funds, insurance schemes, etcetera, deposits from customers are not sufficient to finance lending. The Swedish banking system is also large compared to the size of the Swedish economy. The total assets of the four biggest Swedish banking groups equal four times the Swedish Gross Domestic Product (GDP).<sup>2</sup> Contributing to this is the widespread activity by the Swedish banking groups in neighbouring countries.

The Swedish MFIs rely on market financing on the Swedish domestic market but also on foreign markets<sup>3</sup>. Outstanding securities in foreign currency represent more than half of outstanding securities debt for the Swedish MFI sector<sup>4</sup>. Thus, well-functioning market financing is crucial for the banks access to liquidity. Also for Sveriges Riksbank well-functioning markets are of importance for stability in the financial system and for the transmission mechanism of monetary policy. Therefore, need for data on market developments in order to monitor market trends, financing conditions,

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<sup>1</sup> For access to the new securities data, see website of Statistics Sweden; , see Financial markets/Securities statistics

<sup>2</sup> Financial Stability Report 2012:2, Sveriges Riksbank

<sup>3</sup> Blomberg (2009), .

<sup>4</sup> Securities statistics at Statistics Sweden's website; [www.scb.se](http://www.scb.se)

cost of borrowing, refinancing need, etc. has grown rapidly in importance after the outbreak of the financial crisis in 2008. Lack of this kind of data emerged as a severe obstacle for the Riksbank, when the Swedish MFIs at a very short notice experienced restrictions when accessing market financing in the autumn of 2008.

Sveriges Riksbank therefore decided to produce data on market financing for the purpose of financial stability, monetary policy analysis and for production of statistics. Swift and detailed data was needed and the decision was that it should be built on the basis of micro data. This article presents the current experiences of the new database, and the future steps in expanding the database.

The task of establishing the database was given to Statistics Sweden (the national statistical institute), and in order to make possible for Sveriges Riksbank to use the securities data also for surveillance, legal amendments has proved necessary. Therefore, a new law is proposed establishing a “database for surveillance and supervision of financial markets” enabling Sveriges Riksbank to use securities data for financial stability and monetary policy purposes.

## **2. A securities database for financial stability purposes in two steps**

Establishing a securities database meeting the needs for financial stability analysis will be made in two steps. In a first step a database was established covering all securities debt issued by domestic entities. The Swedish Securities Data Base (SSDB) serves as a base for various statistics (securities statistics, financial accounts, Balance of Payments statistics etcetera) but will also be useful for analysis of financial markets.

In a next step the scope of the SSDB will be widened to also cover all securities debt issued on a consolidated basis by domestic MFI. Thus, the SSDB will include all securities issues made by Swedish MFI-groups, including securities issued by branches and affiliates abroad. Below are the design and initial experiences from the first step of the database presented and thereafter the challenges and methodological issues when establishing the second step.

## **3. The first step: covering all issues by domestic entities**

The first step of the SSDB was launched in April 2013 with the release of new primary market data. The database aims at covering all financial instruments defined as securities and issued by Swedish residents. Both domestic issues and issues abroad are included. The definition of a security follows that of the Securities Handbook<sup>5</sup>. Thus the database covers instruments like bonds and notes, structured products, investment fund shares, shares etcetera. The measurement object in the database is the individual security. A number of attributes are attached to each security. In total the SSDB contains more than 65 attributes. The key variables can be seen in the box below. The nomenclature follows that of the Central Securities Database (CSDB) set up by the European Central Bank (ECB) and supported by the countries of the European Union. The database is updated monthly and historical series will be built up starting from January 2013.

The sources for the Swedish Securities Database are;

- Euroclear Sweden AB, a privately owned company serving as the Swedish numbering agency and Central securities depository. Information on all outstanding securities issued on the Swedish market is continuously retrieved from Euroclear databases.
- Direct reporting from around 50 issuers of securities report directly on all their outstanding debt securities, mainly in order to cover issues abroad and to adjust for some deficiencies in the reporting from Euroclear.

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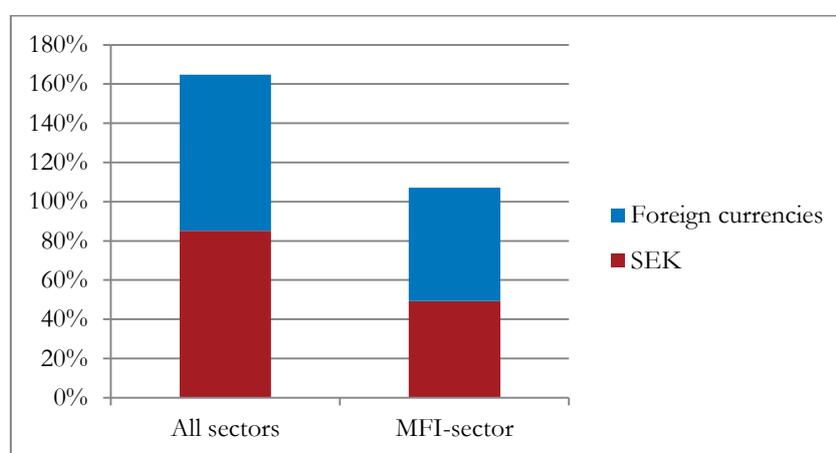
<sup>5</sup> Handbook on Securities Statistics, Part1, May 2009, BIS, ECB, IMF.

- Commercial Data Providers are used, e.g. data regarding Investment Fund Securities.

Data from CSDB is used for checking and complementary purposes. All relevant data in the SSDB is reported into CSDB, so that the two databases are consistent. All external reporting are submitted on the fourth working day of the month at the latest. Statistics referring to the previous month are available for analysis and publication on the 12 working day of the month. The data are collected and compiled by Statistics Sweden.

The first result from the new database show for example that the total amount measured of all Swedish debt securities amounted to more than 160 per cent of GDP. The MFI-sector is dominating with an outstanding stock of approximately the same size as GDP. Another observation is that roughly half of the stock consists of foreign currency issues.

**Chart 1. Outstanding Swedish debt securities, per cent of GDP**  
March 2013



### 3.1 Non-ISIN securities - a significant part of external financing

The unique identification of each single security is of outmost importance when constructing a securities database. In the Swedish securities database, the initial approach was to use the ISIN-code as identifier in the database, and to only include securities with ISIN. The CSDB is designed in this way and an analysis made by ECB proposed that only a very small part of outstanding securities lacked ISIN-codes. In the Euro Area non-ISIN securities represent around 2 per cent of outstanding amount of debt securities for all sectors, according to a survey made by the ECB in 2012.

During the realization of the database it emerged that outstanding debt of non-ISIN securities was not at all negligible in Sweden. Excluding them from the new database was not an option. Absence of non-ISIN securities would have severely distorted the information in the database on the maturity structure and funding abroad of the MFI-sector and would make the database useless for securities statistics. Therefore, the new database incorporates also non-ISIN securities. The temporary solution has been to attach a fictive code (which can be thought of as a fictive ISIN-code) to each non-ISIN security.

In total, around 300 Swedish securities have been assigned fictive ISIN-codes in March 2013, representing a total value of around 220 billion SEK. These securities are issued abroad by Swedish MFIs and are mainly short term.

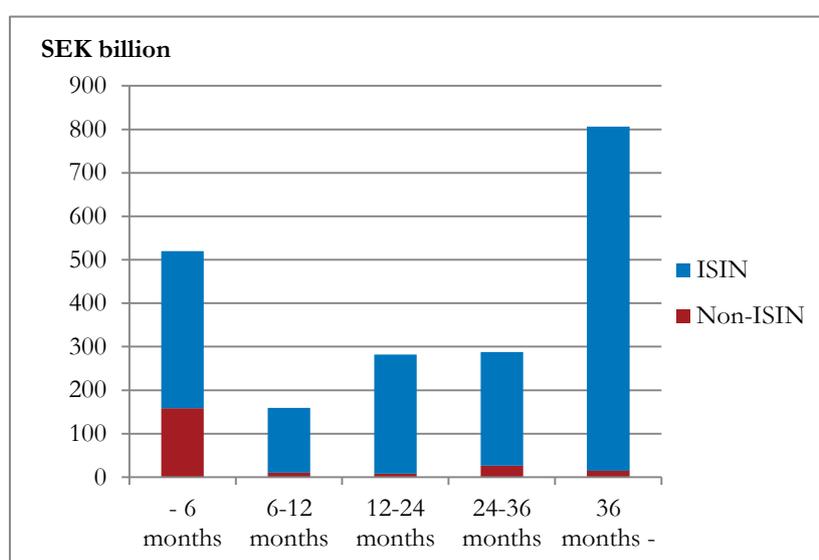
The majority of non-ISIN securities, in terms of outstanding amount, are typically issued under so called Global Commercial Paper programs. These issues are short-term and aimed mainly at large institutional investors holding them to maturity. Secondary

trade is deemed to be negligible and the securities are not listed on any stock exchange. They are held in bearer form, negotiable and are generally unsecured and unsubordinated. US and Euro-market are the main targets for these programs.

Of the short term funding of MFIs in foreign currencies, non-ISIN securities represent around 38 per cent of outstanding stock. On the other hand, it appears that non-ISIN securities are not important for long term funding in foreign currency.

Data also show that the maturity structure of Swedish MFI-securities would be substantially affected if non-ISIN securities were omitted in the SSDB. Chart 2 shows that around 500 billion SEK (in foreign currency) fall due within 6 months. About 25 per cent of those 500 billion consists of non-ISIN securities. This reveals new information on the structure of financing behaviour of the Swedish MFIs in foreign currency.

**Chart 2. The maturity structure of MFI-sector issues with and without ISIN**



Note: Foreign currency issues only

#### 4. The second step: extending the database for group issues

Statistics covering issues by all domestic entities is of course useful for financial stability purposes, but there is also an interest for the structure of debt securities of individual financial groups. In this case it is therefore not sufficient to analyse only what has been reported by the domestic MFI. Many of the large international banking groups launch securities programs abroad with the aid of their foreign branches and subsidiaries. The problem is how to collect information on the group level. In principle, the domestic financial group could report all the issues made by the branches and subsidiaries security-by-security, but in practice there could be legal impediments that restrict central banks from asking groups to report the activities of foreign entities.

Table 1 shows the different respondents, types of securities and the statistical sources of the securities for a financial group with foreign branches and subsidiaries. In Sweden, the problem arises with the reporting of the foreign subsidiaries. To overcome this problem, which may also be relevant for other countries, other sources must be used. In the case of securities with an ISIN, such information is in principle available in the CSDB, and also available from different commercial data providers. The quality of information from commercial data providers is sometimes dubious and the degree of harmonisation for important reporting items may vary between providers, thus making the data difficult to use in practice.

**Table 1. Type of respondents, securities and sources in Sweden**

	ISIN	Non-ISIN
Domestic MFI	SSDB	SSDB (fictive)
Foreign branch	SSDB	SSDB (fictive)
Foreign subsidiary	International cooperation (CSDB)	International cooperation (?)

Note: SSDB stands for the Swedish Securities DataBase

The biggest challenge in the identification process is, however, for debt securities that do not have an ISIN. Although, the total amount of debt is known from the balance-sheet data on the group level, detailed information of the debt structure is typically not available. Since commercial data providers usually do not cover non-ISIN debt, one would ideally like to have some sort of a coordinated attempt by national and international authorities to fill those gaps. One solution would be, for each national central bank, to collect data on non-ISIN securities in the respective domestic market, assign a fictive ISIN to these and include them in an international database like the CSDB. An international organization could then store the reported debt securities in a database and make it available for participating countries. Each central bank can then search for securities in the international database, the way as is done currently with the CSDB for the European countries. The drawback of this method is that, in the absence of a common international identifier, identification of individual securities must be made in other ways, for instance by the issuer’s name. Such data work is, however, highly manual and prone to errors. Another option is to collect data security-by-security for the whole financial group in the home country and share the data with an international organisation. With this approach the national central bank has a complete picture of the debt structure for the domestic financial group and is also able to share this information with international organisations. The latter solution involves, however, some legal questions to be solved, but would be much more efficient and less costly.

Some other difficult questions also remain. It is essential to verify that securities without any identifying number at all should to be treated statistically as securities. The absence of an identifying number motivates a review of the properties of the instrument in order to confirm that it should be treated as a security. It is also important to make sure that securities without ISIN are not duplications of existing securities that do have identification numbers. In such cases there is a risk of exaggerating outstanding debt.

**5. Concluding remarks**

At least three conclusions can be drawn from the experiences of constructing and using a securities database for statistical and analytical purposes in Sweden. Firstly, securities statistics should be based on micro data in order to capture the whole structure of debt securities, e.g. maturity, interest paid, currency composition, etcetera. Secondly, non-ISIN securities may play a significant role for borrowing activities and should therefore be included in the reporting and construction of the statistics. Thirdly, the securities markets are global and to be able to completely analyse securities issuing by domestic groups, international cooperation among statisticians is necessary.

The need for information on global securities issuing has led to coordinated attempts by international organisations such as the BIS and, especially, the ECB to create security-by-security databases for statistical purposes. The BIS database on

international debt securities (IDS) has commercial data providers as primary sources, whereas the CSDB combines both commercial sources with national security-by-security reporting. International identification numbers serves as a convenient way to handle securities and produce national statistics on micro-level data.

Non-ISIN securities, however, pose a challenge for both statisticians and analysts. The Swedish experience shows that funding by non-numbered securities may in some cases be very important for whole sectors. It also shows that it is not necessary to have an international identification number to gain access to the global funding markets.

When it is certified that a non-ISIN security has to be added into a security database, the technique of assigning fictive identifiers have to be seriously considered. Many questions are raised when considering this. How should statisticians collaborate internationally when doing this? How organize a coordinated numbering in order to make sure that also fictive codes are globally unique in order to exchange securities information internationally?

There is also a need to analyse securities holding statistics, which even more underscores the benefit of a coordinated approach for the numbering of securities since data on holdings will rely on international securities databases as a reference. The urgent need for global identification standards is big. The first steps in identifying entities globally, endorsed by the FSB and the G-20 group on data gaps, is one step in the right direction.

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## Appendix 1; Summary of attributes of debt securities in the Swedish Securities Database

- ISIN-code and outstanding amount end of month, currency of denomination
- Issue data; date of issue, issue price, on tap issues
- Coupon data; coupon date, frequency, coupon type, rate, reference rate, margin, etc.
- Rate-base; interest rate convention for the security
- Type of security; e.g. Medium Term Notes, Commercial Paper, Certificate of deposit, convertible bond, structured product, etc.
- Collaterals; guarantees; senior unsecured, subordinated, covered bonds, Government guarantees, etc.
- Repos in own issued securities