Overview of sources for compiling securities issuance statistics

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Introduction

From the perspective of economic, monetary, and financial stability analysis, securities issuance statistics plays an important role. The focus of these statistics is on financing of the different sectors of a specific economy by means of securities (debt securities as well as equities). The depth of the capital market considered, the role of different currencies and the demand of different sectors on capital markets can be analysed.

A wide range of collection methods and of sources exists for compiling securities issuance statistics. The choice of sources depends heavily on the chosen collection method. This paper first describes the common output requirements on securities issuance statistics and briefly discusses existing standards and some open questions. Second, different collection methods and their impact on the choice of data sources are described. The main part of this paper deals with the strengths and shortcomings of different data sources; and the final section provides some recommendations for an optimal mix of sources.

Output requirements of securities issuance statistics

The collection of stocks, ie outstanding amounts at the end of a considered period, and flows, referring to new issues and redemptions in the considered period, are common requirements regarding securities issuance statistics. Stocks and flows can be collected at nominal and/or market value. This can depend on the instrument (straight bonds vs zero bonds or deep discounted papers; shares), and on the aim of the statistics.

According to the needs of analysts and researchers, stocks and flows can be further broken down by the following dimensions:

- Issuer-related attributes (eg issuer country,[3] sector, economic activity, rating information)
- Instrument-related attributes (instrument type, original and residual maturity, type of interest, nominal currency).

Existing standards can be used for most dimensions; the economic sector can be based on the National Systems of Accounts (NSA) or on the European System of Accounts (ESA); the economic activity can be based on the ISIC[4] or – in Europe – on the NACE[5] code. The instrument type as well as the original maturity could also be based on the classification of

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[3] In some cases, also the market, on which an issue is placed in, is of interest.

[4] International Standard Industrial Classification of all economic activities.

[5] Nomenclature statistique des activités économiques dans la Communauté européenne.

financial transactions in the NSA/ESA. However, this breakdown is insufficient for many analytical purposes; thus, a more detailed standardised breakdown of the type of instrument and of (original/residual) maturity is desirable. In future, the CFI code[6] will probably be able to address a number of problems that have concerned the financial community in recent years.

Collection systems and corresponding data sources

For other securities statistics, two different collection schemes can be applied to collect information on securities issues:

1. A security-by-security (sec-by-sec) scheme using identifiers (mostly the ISIN[7]) for securities
2. An aggregated basis scheme under which precompiled data is requested from respondents.

A security-by-security reporting system collects the required amounts (outstanding amounts, issues and redemptions) for each individual security. The compiler aggregates these data according to the required output dimensions (eg issuer sector and economic activity; maturity, interest rate information etc) by using a comprehensive securities database, which is linked to an issuer database. For the collection of outstanding amounts and the accordant flows as well as for the collection of issuer and instrument related attributes, in principle, all financial data management systems using a security identifier are possible data sources.

A reporting system on an aggregated basis defines the reporting form to be filled in by the respondents, asking for several breakdowns in line with the required output.

A mixture of both collection systems, security-by-security and aggregated, can also be applied. A sec-by-sec scheme might be used for available ISIN codes and/or for reporting agencies in the financial sector; aggregated schemes can be used for securities without an ISIN code and/or for reporting agencies in the non-financial sectors.

A further aspect to classify collection systems refers to the data sources (for instruments and issuer data) used.

- In a direct reporting system the information needed is collected from the issuer or lead manager, who has primary responsibility for organising bond issuance. Direct sources can be used for aggregated and sec-by-sec collection systems. In aggregated systems, available reporting forms originally developed for other statistics (such as statistics about monetary financial institutions) or balance sheet information can also be used (in an adapted form). In sec-by-sec systems, direct reports of issuers and/or lead managers could supplement or even completely replace indirect sources.
- In an indirect data collection system, the required data are all collected from institutions not directly involved in issuing the security. Different indirect data sources can be distinguished according to their role in the financial market:

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6 ISO 10962 Classification of Financial Instruments.

7 International Security Identification Number (ISO 6166).

– Numbering Agencies (ANNA,[8] National Numbering Agencies)

– Financial data providers (eg Bloomberg, Reuters, Financial Times Interactive Data)

– Market-supporting institutions (eg stock exchanges, clearing and settlement houses, centralised securities depositories)

– International organisations and statistical institutes (eg ECB, BIS, Eurostat, National Statistical Institutes).

Indirect sources are mainly applicable for security-by-security collection systems. In practice, a mixed sec-by-sec data collection system using direct and (a combination of) indirect sources is often applied.

Pros and cons of different data sources

The indirect data sources are manifold and have different strengths and shortcomings concerning the compilation of securities issuance statistics.

Numbering Agencies, maintaining registers of local issues, keep track of all issues in their area, independent of the residence of the issuer. They usually cover a high percentage of securities issued by residents. However, not fully covered by National Numbering Agencies are securities of residents issued abroad,[9] and issues where the issuer has not requested an identification number.[10] Usually the issuer contacts the Numbering Agency before issuing a security; a specific set of key data has to be delivered to receive an identification number for the security (mostly the ISIN and/or national codes like the CUSIP,[11] Valoren[12]). If the issuer does not inform the Numbering Agency about changes, the database will not be updated, with consequent adverse impacts for securities issuance statistics that rely on just this data source. The list of local issues can be completed by ANNA data by adding issues that were issued abroad and might therefore not be covered by the National Numbering Agency. The ANNA database contains a comprehensive list of issues that have an official identification number (probably ISIN), but with only a few key attributes. Whether this is complete and up to date depends on the National Numbering Agencies' policies. In any case, ANNA data alone are not sufficient for building up a comprehensive securities issuance statistics.

The next group of potential indirect sources are financial data providers such as Bloomberg, Reuters or Financial Times Data. Some of the Numbering Agencies also act as commercial data providers. The customers of commercial data providers are primarily players in international markets; financial data providers are therefore primarily interested in meeting the needs of these market participants. Statisticians and economists are not – at least at the moment – very important customers. Thus, from a compiler's point of view, the coverage of neither instruments nor attributes relevant for securities statistics (sector classification, stocks

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8 ANNA: Association of National Numbering Agencies.

9 In their role as Numbering Agency, these organisations are responsible for assigning an official identifier to securities issued in the home market. However, National Numbering Agencies often act as commercial data providers who have information about other securities as well.

10 In this case official identifiers are not available, and the necessary information has to be requested from issuers (or lead managers).

11 CUSIP: Committee on Uniform Security Identification Procedures; the CUSIP Services Bureau acts as the National Numbering Association (NNA) for North America.

12 National securities identifying number used in Switzerland.

and flows data etc) is satisfactory. This holds even more for smaller markets, but the datasets of commercial data providers can be very useful in supplementing National Numbering Agencies' data, eg with rating information.

Market-supporting institutions' data (such as those of the stock exchange) might also be useful for complementing a securities database and securities issues statistics.

In the European Union, the Centralised Securities Database (CSDB) of the ECB is becoming increasingly important for the compilation of securities issuance statistics (and other securities statistics). The CSDB is a securities database that aims to cover relevant information[13] about all issues of euro area residents, all issues denominated in euros as well as non-euro area issues in which euro area residents have invested.[14] The ECB collects this information from

- Commercial data providers,[15]
- National Central Banks (NCBs), and
- Internal data sources.[16]

The aim is to take into account, automatically, the best information available for each security. The result of this process is called the "golden copy". This model's great advantage is that the strengths of different commercial data providers as well as the knowledge and the available data of the NCBs are used to produce the golden copy. The data sent by the NCBs as well as those stored in the ECB-MFI list and OFI list are partially based on direct reports from issuers; thus, the CSDB tries to combine indirect and direct sources (via NCBs' data sources and internal sources). On the other hand, the challenge of this approach is the handling of contradictory information referring to the same attribute reported by different sources.

Information collected directly from the issuers is usually very precise and reliable. In practice, however, issuer information alone is often insufficient. Reports might not cover all issuers and/or all issues; issuers are often unable to report all the attributes required by a securities database, in particular, financial ratios or key capital market data. Furthermore, the reporting and updating of specific key data is burdensome. Table 1 gives an overview of sources for instrument information as well as related strengths and shortcomings.

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[13] Relevant means with respect to the required securities statistics like portfolio investments as part of external stocks and flows statistics, investment funds statistics and securities issuance statistics.

[14] More information about the CSDB is given in the paper by Stefan Brunken.

[15] At the moment these are Reuters, Telekurs, Wertpapier Mitteilungen and Financial Times Data.

[16] Eligible Assets database, list of Monetary Financial Institutions (MFI list), list of Other Financial Intermediaries (OFI list, to be published for investment funds as of December 2008).

Table 1

Overview of sources for instrument information

Source	Issuers' reports	Commercial data providers	Numbering Agencies
Strengths	• reliable and precise information about stocks and flows as well as about key characteristics of their issues	• reliable and precise information about a subset of attributes, especially for international issues	• almost complete register of issues of the home market (with official security identifier) • reliable and precise information about a subset of (mostly static) attributes
Shortcomings	• reporting burden • not all issuers • not all required attributes available	• not all issuers (and issues) necessary for statistical purposes • poor quality (or even non-availability) of certain attributes	• partially outdated information (mostly for dynamic attributes, amounts) • not all required securities/attributes available

Conclusions

The following conclusions can be drawn:

- The reports of issuers and lead managers are precise and reliable; they seem to be the best data source for flows and stocks data in particular. However, they do not usually cover all issuers or all attributes of an issue. For compilers it is a challenge to identify all issuers, especially in the group of non-financial corporations, without using any additional sources. Furthermore, these reports cause reporting burdens for the issuers or their lead managers. In the case of aggregated direct reporting the breakdown of available balance sheet information or other aggregated data is usually not detailed enough to support all the users' needs.
- National registers of the Numbering Agencies and the Statistical Institutes offer almost complete registers about issuers and local issues with a good quality of static attributes. However, National Numbering Agencies might not include international issues, and attributes that change over time might be outdated. In particular, flows and transactions data are often of insufficient quality.
- Financial data providers' data lack in the coverage of local markets. The data quality for statistical purposes is – at least partially – insufficient. The data can help to complete a database with information about international issues, and help to reduce the reporting burden for issuers.

From our point of view, there is no single optimal data source. In practice, a mixed security-by-security system of direct and indirect sources seems finally to be the best option. In such a system,

- Flows and stocks data should primarily be collected directly from issuers and supplemented by information from National Numbering Agencies or Financial Data Providers in order to improve the completeness of the data;
- Key characteristics of instruments can be collected
  - from National Numbering Agencies and/or – at least for international issues – from commercial data providers in the case of official securities identifiers, and
  - from issuers, lead managers or custodians in the case of non-official securities identifiers;
- Key characteristics of issuers should be maintained in an issuer register (preferably linked to the register of the institution responsible for allocating the economic sector and activity).

Such a system takes also advantage of all the strengths of security-by-security systems, such as flexibility, reduced reporting burden etc. To reduce the compilers' costs it is recommended to compile other securities statistics like portfolio investments as part of external stocks and flows statistics, investment funds statistics, government finance statistics, financial accounts etc, as well on the basis of such a securities (and issuer) database.

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