Data sources for the compilation of the Norwegian securities statistics

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Preface

Statistics Norway is the official compiler and publisher of aggregate national securities statistics as from 1 January 2007, when the Statistics Division of the Central Bank of Norway was transferred to Statistics Norway. All the tasks were transferred; they comprise financial market statistics including securities statistics and financial accounts.

Legal framework

The legal basis for collecting securities statistics is the Statistics Act of 1989. This stipulates that Statistics Norway is the central body for preparation and dissemination of official statistics and that it is an independent institution in its field, including a comprehensive research activity.

Coverage, periodicity and timeliness

The securities statistics include on the whole statistics on securities registered with the Norwegian Central Securities Depository (VPS), mutual funds statistics, statistics on bonds and commercial papers, and statistics on Norwegian holdings of foreign securities. In the future the aim is to produce more general aggregate securities statistics, focusing on the financial instruments and not on the data sources, as is currently the case. In addition to the publication of aggregate national securities statistics, the statistics are an important input source for financial accounts, national accounts and balance of payments statistics.

Thus, on the whole, domestic securities are covered except for derivatives and a large part of shares in limited companies (which are not registered in the VPS). Norwegians' investments in foreign securities are also covered if the investments are held through domestic custodians.

The statistical information published comprises data on stocks by holding and issuing sectors, net flows by buying and selling sectors, and yield by issuing and receiving sectors for shares, primary capital certificates, bonds, commercial papers and mutual fund shares. Data are valued at market values and/or nominal values. In addition, information is published on issues of bonds and commercial papers by issuing sectors and location of the issues (domestic/foreign).

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| Statistics | Periodicity | | Timelinese |
|---|-----------------|-------------|--------------|
| | data collection | publication | Timeliness |
| Bonds and commercial papers (issues) | monthly | monthly | one month |
| Securities registered with the Norwegian Central Securities Depository | monthly | quarterly | nine weeks |
| Mutual funds | quarterly | quarterly | ten weeks |
| Annual accounts for mutual funds | yearly | yearly | eight months |
| Statistics on Norwegian holdings of foreign securities | monthly | - | three weeks |

Public access

An advance release calendar for coming statistics from Statistics Norway for the next four months is updated and released every day at 10:00 on the website. Each release of securities statistics contains text, tables and one or more diagrams, and is accessible via the main website. In addition, further data is or will be available in the StatBank Norway during 2008. StatBank Norway (also found under the main website) is a service where readers can select the scope and content of each table, and then export the result in various formats to their own PC. The only release on paper is a limited set of tables in the *Statistical Yearbook*.

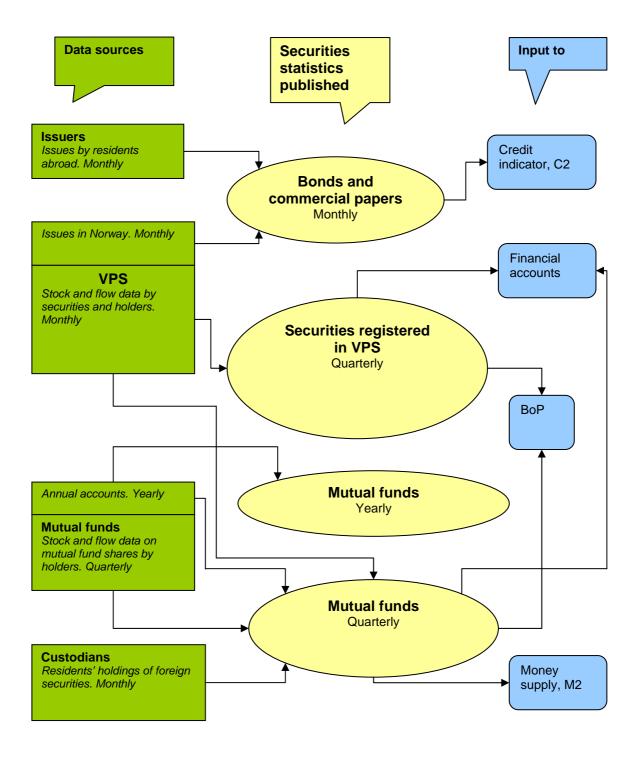
Data sources

General

The most important data sources for securities statistics are the Norwegian Central Securities Depository, domestic issuers of bonds and commercial papers abroad, Norwegian-registered mutual funds and custodians.

The compilation of the securities statistics has undergone several changes and improvements over the last three to four years. First, the compilation is now based on security-by-security and holder-by-holder reporting and thus information on the securities' ISIN and the IDs of both holders and issuers. Previously, aggregate information by financial instrument and holding and issuing sectors were reported or to some extent estimated. Second, compilation from domestic custodians has been established to cover residents' investments in foreign securities, ie mainly to cover such investments by small Norwegian private non-financial corporations and households. However, the coverage is not complete, as these investments also may be carried out directly abroad or through foreign intermediaries or custodians. There are also plans to establish reporting from other sources to make use of information we currently lack, including that covering domestic investments in foreign registered mutual funds.

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Issues

As shown in the diagram above, the main two data sources for securities issues in the bonds and commercial papers statistics are VPS and direct reports from domestic issuers. VPS covers information on issues of shares and primary capital certificates, in addition to bonds and commercial papers issued in Norway by residents and non-residents in both local and foreign currency. The direct reports cover residents' issues of bonds and commercial papers abroad in local and foreign currency. In other words, a combination of the "residency of issuers" and "location of issues" approaches is used. Data are compiled and published (ie issues of bonds and commercial papers) on a monthly basis.

The compilation is based on detailed data at the level of individual securities/ISINs. In addition to the amount of funds raised, amount outstanding at the beginning and end of the

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month, and the dates of issues and maturity, information on the name, issuer's ID, country of residence and market of issue, and issue price are reported, among other things.

Holder information

The main data sources for holder information on securities are VPS, the quarterly collection from the mutual funds and the monthly collection from custodians. VPS covers mainly domestic securities, while the custodians on the whole cover residents' investments in foreign securities. The compilation from all three sources is based on detailed data at the level of individual securities/ISINs and holder-by-holder reporting.

More about VPS as a data source

VPS was established by law as Norway's sole CSD in 1986 and is now a public company, established and authorised (licensed) through new legislation. The new legislation, in force as of 1 January 2003, allows other authorised depositories to perform the same services as VPS, but VPS is still the only authorised CSD.

VPS provides a full range of depository services to issuers and investors in the Norwegian securities market. It is a for-profit public company that in dematerialised form offers registration of ownership, clearing and settlement services, and corporate actions services for domestic and foreign financial instruments.

All shares and subscription rights issued by Norwegian public limited companies and Norwegian bearer bonds are required to be registered in an authorised CDS, ie VPS. In addition limited companies, mutual funds and other financial instruments may be registered.

Except where otherwise provided in or according to law, financial instruments may be registered either in individual accounts belonging to the individual investor, or in nominee accounts for two or more investors. In practice, however, all resident investors are registered on individual accounts, while the majority of foreign investors are registered on nominee accounts. The reason is twofold. According to law all resident holders of shares in both public limited and limited domestic companies are required to keep their shares in individual accounts. This was also the case for bonds until the new legislation for securities depositories was brought into force in 2003. Since then resident holders of Norwegian bonds have been permitted to register their holdings in nominee accounts. However, in practice nothing has changed yet. When it comes to foreign investors in domestic shares, bonds and other financial instruments, they have always had the choice of whether to register their holdings in an individual or nominee account.

Data from VPS were collected on an aggregate level by type of security and issuers' and holders' sectors on a quarterly basis until September 2006. Since then, data reported from VPS have been more or less a copy of detailed information from the register and, therefore, comprise several million records every month. The information reported is based on the date of settlement and includes the number of shares (nominal value for debt securities) that the investor holds at the end of the period, corresponding transaction data (every single one) and return data for the period in question. In addition, information about holder's ID, type of account (eg individual or nominee), holder's country of residence, nationality of holder, type of transaction, date of settlement, transaction price and/or transaction value, amount of return, type of return, ISIN, issuer's name and ID, CFI code (Classification of Financial Instruments), currency of issue, total number of outstanding shares (nominal value of bonds/debt securities) in the ISIN, and par value are reported, among other things.

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More about custodians as a data source

The collection of data from custodians was established in December 2004 and is currently based on a sample of 17 custodians, ie 7 custodian banks, 8 capital asset management enterprises and 2 brokers. The information reported is based on the date of settlement and include number of shares (nominal value for debt securities) that the investor holds at the end of the period and return data for the period in question. In addition, information about holder's ID, type of account (individual or nominee), holder's country of residence, nationality of holder, type of transaction, date of settlement, transaction price and/or transaction value, amount of return, type of return, ISIN, market place, currency of trade, name and type of security, issuer's ID, currency and country of issue are reported, among other things.

Definitions and methodology

Bonds and commercial papers

A distinction is made between debt securities with an original maturity of one year or less and those with more than a year. Debt securities with an original maturity of one year or less are defined as commercial papers, while debt securities with an original maturity of more than a year are defined as bonds.

Market value

Stocks of securities are valued on basis of available market prices. For quoted domestic securities, these prices are quoted from the Oslo Stock Exchange (OSE). For unquoted domestic securities, either available purchase prices from VPS are used or, if such purchase prices do not exist, estimated market rates derived from annual assessment rates for tax purposes. If neither is available, the valuation is based on the par value.

Transaction value

Transactions in securities are valued at transaction values. For securities registered in VPS, ie largely domestic securities, this mean the observed value of the transaction, eg new shares are recorded at issue value and shares in circulation are recorded at the value at which they were traded. If observed transaction prices/values are not available from VPS, the quote price from OSE is used for the individual trading dates in order to estimate a trade value for transactions in the secondary market for quoted securities. On the other hand, estimated market rates derived from annual assessment rates for tax purposes are used for transactions in unquoted securities. If these assessment rates are not available, the valuation is based on the par value, as for the valuation of the stocks for unquoted securities.

Breakdown of institutional sectors and business enterprise sectors

The ID for a legal entity is a unique nine-digit organisation number allocated by the authorities to identify a legal entity, and making it easier for the authorities to collaborate in information exchange. The organisation number, among other data, is used to identify the entities in The Central Coordinating Register for Legal Entities (ER). This register contains basic data about entities that are under reporting obligations to various authorities, and was established to ensure that all the information is collected in one place, thus keeping the burden of reporting as low as possible. Among the basic data included in ER are the institutional and the business enterprise sectors. As Statistics Norway is the main contributor to determining the classification of the entities according to both of these variables, correct

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and uniform classification is ensured. Therefore, by collecting the issuers' ID and linking it to ER, the sector breakdown obtained is more accurate and uniform, compared to collecting the sector information directly from the data sources. Similarly to the issuer side, data are compiled on the holders' ID, ie the organisation number for domestic legal entities and a fixed fictive number (for reasons of anonymity) for all holders with a personal identification number. Thus, ER is used to set the institutional sector of domestic issuers as well as of domestic legal holders of securities.

Distinct methodological approaches regarding compilation of data from custodians

In contrast to VPS, observed transactions are not reported from custodians. Hence, transactions are derived directly from stock data at the beginning and end of the period and information on market prices for every single security and exchange rate in question. The approach used for the derivation of transactions is based on the so-called "Austrian model" for derivation of transactions from stocks in the area of portfolio investment, of supplementary documents to the ECB's "Task Force on Portfolio Investment Collection System. Final report" of June 2002. In addition to deriving transactions directly from stocks, price adjustments (based on the stocks and derived transactions) are calculated in this model. This is necessary in order to achieve a complete reconciliation of flows and stocks with all their analytical values.

Except for information on exchange rates, the compilation of data from the custodians is largely based on information collected from them. No third-party data sources, like Reuters or Bloomberg, have so far been used to collect information beyond what we gather from the custodians. However, this is something we will consider. Most of these securities are foreign securities held by Norwegians, and in many cases we receive information on the same security from several custodians, ie information that might differ in some way or other. The market price at the end of the period is one example. Another is the classification of the security. One custodian may say the security/ISIN is a share, and another that it is a mutual fund share. Or one custodian might be able to specify that the ISIN is an unquoted share, while another just specifies that it is a share. Therefore, a third-party data source for information on all the securities/ISINs reported through the custodians would be useful. But as long as such a third-party data source is not used, the compilation of these statistics has to take account of cases with differing information.

More specifically, when it comes to the market prices, we have chosen to trust one custodian more than the others. Therefore, we rely on the market prices for all the ISINs from this custodian when calculating market values of all the holdings in the same ISINs reported by other custodians. However, there are quality controls in the system that make it possible to check whether this assumption is plausible or not and, possibly, to make corrections for the ISIN in question.

A database consisting of an "original" and variants of each security/ ISIN has been established for basic information on an ISIN, including the classification of the security and except for the market price. Whenever a new ISIN is reported, an "original" will be defined. However, if at some point in the future a custodian reports this ISIN and some of the basic information differs from the "original", the system will identify it automatically. As the ISIN is unique and thus no differing occurrences of the ISIN should exist in the database, the compiler has to decide how to treat this particular occurrence. The easiest way is to link this occurrence to the "original" as a variant, meaning that the "original" overrules the metadata on the variant. Each time occurrences corresponding to the variant are reported in the future they will automatically be accepted and linked to the "original". However, if the information in the variant turns out to be more accurate than the information in the "original", it is easy to switch their roles in the database, ie let the variant become a new "original" and let the previous "original" become a variant.

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