SOURCES AND METHOD

SECURITIES STATISTICS



Financial Statistics
Securities and External Statistics

Last revised: 15-03-2022

SECURITIES STATISTICS

- O Administrative Information about the Statistical Product
- 1 Contents
- 2 Time
- 3 Accuracy
- 4 Comparability
- 5 Accessibility
- 6 Supplementary Documentation

0 ADMINISTRATIVE INFORMATION ABOUT THE STATISTICAL PRODUCT

0.1 Name

Securities. The statistics comprise:

VP-registered securities by issuer and investor sector

VP-registered securities by issuer and investor industry

VP-registered securities, mortgage bonds

VP-registered securities, dividends.

0.2 Subject Area

Securities statistics.

Money and credit market.

0.3 Responsible Authority, Office, Person, etc.

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0.4 Purpose and History

The purpose of the statistics is to show the size of holdings, net transactions and revaluation adjustments broken down by paper type, issuer and owner of all VP-registered securities.

The statistics go back to December 1999. However, time series of capped bonds and the specific table on mortgage bonds only go back to January 2006.

0.5 Users and Application

Generally, the statistics are interesting for persons/organisations with an interest in the securities area. Among other things the statistics make it possible to follow the development in the owner distribution by sector or industry of different papers.

The statistics are also used as input to the European Securities Data Base (CSDB). Furthermore, the statistics are used as input to other statistics, e.g. the financial part of Denmark's balance of payments and the financial accounts of the national accounts for the whole economy.

0.6 Sources

The statistics are based on information from VP Securities (VP) and from directly reporting financial and non-financial companies. VP electronically registers a number of details concerning the securities (e.g. issuer, changes in outstanding amounts and currency) as well as the individual owners' holdings and fluctuations therein. The majority of the registered securities are quoted on Nasdaq OMX Copenhagen, but also unquoted securities are included in the statistics. The issuer may be a resident or a non-resident.

Since VP reports custody information, the direct reports from the largest Danish financial and non-financial companies supplement the statistics. These companies report all issuance as well as their total holdings, including VP-registered securities in safe custody accounts abroad and repos.

The Statistical Business Register is used for sector distribution and industrial classification.

Price information in general is based on information from VP and the European Securities Database (CSDB).

0.7 Legal Authority to Collect Data

Pursuant to section 14a of the National Bank of Denmark Act, inserted by Act no. 579 of 1 June 2010, Danmarks Nationalbank has separate authority to collect, compile and publish statistical information to perform its tasks. The collected information may be used for other purposes than compilation of statistics. This particularly applies in connection with oversight of financial stability and when laying down monetary and foreign exchange policies, as well as in relation to Danmarks Nationalbank's participation in the European cooperation in the financial area. See also "New statistics provision in the Danmarks Nationalbank Act".

0.8 Response Burden

The information on VP-registered securities is collected by VP. Furthermore, information on ultimate ownership from directly reporting financial and non-financial companies is reported via their existing reporting to e.g. "Statistics on balance sheets of banks and mortgage banks" and "Balance of payments - Financial account".

0.9 EU Regulation

No direct regulation. The statistics are – as mentioned before – used in the preparation of the financial accounts of the national accounts, which are in accordance with the EU national accounts regulation.

1 CONTENTS

1.1 Description of Contents

The statistics on VP-registered securities cover bonds, shares and investment fund shares registered in VP and contain information on holdings, net transactions and revaluation adjustments broken down by paper type, issuer and owner. Furthermore, information on dividends is available.

Cf. also the overview table to see details about the different sub-statistics.

1.2 Statistical Concepts

Population

The statistics cover all bonds, shares and investment fund shares registered with VP, whether quoted on Nasdaq OMX Copenhagen or unquoted, and issuer's place of residence (domestic or foreign). Dimensions

Some of the most important variables in the statistics are:

- Valuation (market value, nominal value)
- Data type (stock, net supply, revaluation adjustments, dividends)
- Issuer sector and industry
- Investor sector and industry
- Paper type
- For bonds also currency, coupon and maturity.

More details on the methodologies are found below.

Valuation

The nominal stock and transactions are valued according to the following principles. The stock is compiled at market price as of month-end (closing price from Nasdaq OMX Copenhagen). In the absence of a month-end price the following applies:

- Bonds: the last registered price, prices from other sources or price 100.
- Quoted shares: the last registered market price or prices calculated/obtained from other sources.
- Investment fund shares: net book value as of month-end or prices from other sources.
- Unquoted shares: the last registered price or prices calculated/obtained from other sources.

Data type

Net supply is calculated as new issues less redemptions/drawn bonds. The market value of the net supply is estimated at market price on the transaction date (closing price from Nasdaq OMX Copenhagen). If this market price is not available the same procedure as for stock is used, cf. above.

All stock in currency is converted to Danish kroner at the exchange rates at month-end, while transactions are converted at the average exchange rates for the month in question.

The net supply is often different from the change in stock between two periods. The difference is revaluation adjustments which comprise price changes as well as exchange-rate adjustments. As from January 2016 the exchange-rate adjustments are calculated as the difference between the exchange rate at the end and the beginning of the month in relation to stock at the beginning of month plus net transactions during the month. At the same time price changes are calculated as the difference between the market value of the stock at the end and the beginning of the month minus the net transactions and exchange-rate adjustments of the month.

The change in calculation is implemented in order to provide a more correct distribution of revaluation adjustment on exchange-rate and price effects.

Dividend information (income for owners) is stated for the individual share or investment fund share.

Sector distribution

Sector distributions adhere to the guidelines of ESA95 (The European System of Accounts). The domestic sector distribution is based on information from The Statistical Business Register. Generally, the statistics are divided into the following sectors (the numbers in the brackets are the sector codes from ESA95):

- Non-financial corporations (S.11): Consist of institutional units
 whose distributional and financial transactions are separated from
 those of their owners. This means e.g. that sole proprietorships
 are not included in the sector. The principal activity of the units is
 the production of goods and non-financial services.
- MFIs (S.121-2): Consist of corporations which are principally engaged in financial intermediation and whose business is to receive deposits and/or close substitutes from the general public and other institutional units than the sector as such and to divert these in the form of loans and/or investments in securities for own account. The sector comprises banks, mortgage banks, other credit institutions, money market funds and Danmarks National-bank. On the issuer side the sector is subdivided into banks, mortgage banks and other credit institutions.
- Other financial intermediaries, etc. (S.123-4): Consist of financial intermediaries that do not fit into the other financial sectors. The sector comprises investment funds, financial holding companies, LD Pensions and the Special Pension Savings scheme (SP). It also includes investment trusts, venture and leasing companies as well as companies providing consumer credit (e.g. via charge cards). Furthermore the sector includes financial auxiliaries which i.e. comprise Nasdaq OMX Copenhagen, VP, stockbrokers and insurance brokers and Nets.
- Insurance corporations and pension funds (S.125): Consist of all
 insurance corporations and pension funds whose principal function is to act as financial intermediaries by pooling risks, excluding
 the public pension schemes LD and SP. Examples of units in the
 sector are non-life insurance corporations, life insurance

- corporations, pension funds and ATP (The Danish Labour Market Supplementary Pension).
- General government (S.13): Consist of authorities and institutions
 whose principal function is to supply non-market public services
 to the general public and/or to redistribute income and wealth.
 Non-market services are defined as services actively controlled by
 public authorities and supplied free of charge or at economically
 not significant prices. On the owner side this sector can be divided into three subsectors: general government, local government, and social security funds.
- Households, etc. (S.14-5): Consist of two sectors. The household sector (S.14) comprises consumers and sole proprietorships where the business activity is not segregated into independent legal entities.
- Non-profit institutions serving households (S.15) comprises nonprofit entities supplying goods and services to households, e.g. trade unions and charities.
- Rest of the world (S.2): In principle securities are regarded as owned/issued by non-residents if the fiscal status of the owner of an account or the issuer of a paper is that of a non-resident.

Industry distribution

The industry distribution follows the Danish Industrial Classification of all Economic Activities 2007. Until December 2008, however, the distribution follows the Danish Industrial Classification of all Economic Activities 2003. The statistics are divided into 55 industries within the following main industries:

- Agriculture, forestry and fishing
- Manufacturing, mining and guarrying, and utility services
- Construction
- Trade and transport, etc.
- Information and communication
- Financial and insurance
- Real estate
- Other business services
- Public administration, education and health
- Arts, entertainment and other services.

Please note on the issuer side that in some cases a couple of industries have been summed up because of confidentiality (too few issuers in the industries).

Adjustment of owner sector and industry

The ownership distribution in the statistics is compiled according to the principles in the national accounts regarding repurchase transactions and holdings held in safe custody abroad. Thus Danmarks Nationalbank adjusts the ownership distribution of securities from VP.

Repurchase agreements and securities lending are considered as lending transactions and thus should not affect the ownership distribution. However, the paper is moved from the seller's/lender's VP account to the buyer's/borrower's account as the legal ownership of the security is transferred temporarily to the buyer/borrower. Thus, data from VP is adjusted for repurchase transactions, securities lending, and transactions.

The purpose of buying/borrowing securities in repurchase agree-ments/securities lending will often be to resell the paper in the market. When the buyer has resold the security the repurchase adjustment can result in the fact that the buyer's holding in the respective security becomes negative. This is quite in accordance with the accounting practice for repurchase agreements and resale. Consequently, on Danmarks Nationalbank's publication of ownership distribution negative holdings for one or more sectors may appear.

Until end-December 2004 adjustments have been made only for transactions between the MFI sector (the banks) and non-residents. As from January 2005 adjustments are also made for transactions between non-MFIs and non-residents as well as between resident sectors.

In principle a paper owned by a resident will be registered as owned by a non-resident, if it has been registered in a safe custody account abroad, e.g. Euroclear. The non-resident ownership will therefore in principle be overvalued without any corrections.

Therefore, Danmarks Nationalbank collects information from Danish banks and large non-financial companies and pension funds via their reporting on holdings of securities held in safe custody accounts abroad.

Paper type

The statistics cover bonds, shares and investment fund shares. Cf. below for details on the paper types.

The distribution on bond types is by issuer. The following distribution is applied to resident issuers:

- Government bonds, Treasury notes and Treasury bills issued by the central government.
- Mortgage issues, incl. RO, SDRO and SDO (special covered bonds), issued by mortgage banks. Comprise all types of bonds issued by mortgage banks.
- Others (domestic issues) comprise bonds issued by non-financial corporations, banks, other credit institutions (Danish Ship Finance,
- Kommunekredit, the Fisheries Bank) and other financial intermediaries. These are primarily SDOs, corporate bonds and bonds issued by Danish Ship Finance and Kommunekredit.

Moreover, the statistics specify:

- Index-linked bonds issued by mortgage banks, Danish Ship Finance and Kommunekredit. Index-linked bonds are compiled at indexed value.
- Bonds issued by non-residents stated as a separate item.
- Currency and coupon distribution, and remaining maturity of respectively government bonds and mortgage bonds.

Shares are divided into quoted and unquoted shares. Furthermore, the quoted shares issued by residents are distributed according to the issuer sector, see Sector distribution. Unquoted shares registered with VP comprise only a fraction of all unquoted Danish shares.

Investment fund shares comprise solely share-issuing investment funds. The statistics therefore do not correspond to Danmarks Nationalbank's statistics Investment funds, which also comprise account-holding funds. It is possible to isolate quoted investment fund shares. Reference is made to these statistics for further information and data on investment funds.

2 TIME

2.1 Reference Period

The statistics are compiled at month-end.

2.2 Date of Publication

The statistics are published on the 20th banking day of the month comprising figures by the end of the previous month.

2.3 Punctuality

The statistics are usually published without delay in relation to the scheduled date.

2.4 Frequency

The statistics are published every month.

3 ACCURACY

3.1 Overall Accuracy

The statistics are based on legally valid registrations with VP. Therefore, the overall accuracy is considered high. All quoted securities are covered by the statistics, while there is a low coverage of unquoted securities. Furthermore, manual and automatic consistency checks are performed to ensure the accuracy of the data.

3.2 Sources of Inaccuracy

The statistical uncertainty relates almost exclusively to the classification of sectors and/or industries. This classification is based on information from the Statistical Business Register. Estimation of transactions and revaluation adjustments can also cause uncertainty.

3.3 Measures on Accuracy

The statistical uncertainty is not calculated.

4 COMPARABILITY

4.1 Comparability over Time

There is a high degree of comparability over time.

Data about capped bonds and the specific table on mortgage bonds are not available before January 2006.

Comparability over time as far as owners are concerned is only expedient if the corrected registrations in the Statistical Business Register give rise to revisions of data backwards in time. Normally, this will not be possible as carrying out revisions is a time-consuming task. Due to a reclassification of some units' sector and industry-grouping in data for 2nd quarter 2003 there may be problems with comparability back in time.

Until end-December 2004 adjustments concerning repo agreements have been made only for transactions between the MFI sector (the banks) and non-residents. As from January 2005 adjustments are also made for transactions between non-MFIs and non-residents as well as between resident sectors.

As from January 2009 there has been a shift from the Danish Industrial Classification of all Economic Activities 2003 to the Danish Industrial Classification of all Economic Activities 2007. This makes it difficult to compare industry-grouped holdings back in time.

As from January 2013 the statistics have been supplemented with direct sources from non-financial companies and insurance corporations and pension funds, respectively. This may to a limited extent give rise to data breaks in the transitional period if different sources differ concerning the reported balances.

Furthermore, as from October 2014 the statistics have been supplemented with the full reporting of securities from financial companies, e.g. banks and mortgage banks. This may also to a limited extent give rise to data breaks in the transitional period if different sources differ concerning the balances of the financial companies.

4.2 Comparability with other Statistics

The statistics are a central input in the preparation of for instance Danmarks Nationalbank's statistics "Balance of payments – Financial account" and "Financial accounts". Furthermore, there is some overlapping with for instance Danmarks Nationalbank's statistics "Investments funds" and "Banking and mortgage lending, balances" (the MFI statistics). Moreover the statistics "Securities" and the MFI statistics are interdependent as data from the MFI statistics are received and data is returned. These statistics, therefore, can in several respects be compared (or partly compared) to the statistics "Securities".

4.3 Coherence between Provisional and Final Statistics

The statistics are normally revised 2 reference periods back when the present month is published, cf. also <u>Danmarks Nationalbank's revision policy</u> for financial statistics and the appurtenant <u>revision cycle</u>.

5 ACCESSIBILITY

5.1 Forms of Dissemination

Published monthly via:
www.nationalbanken.dk
http://nationalbanken.statbank.dk
www.statbank.dk

5.2 Basic Material: Storage and Usability

Data is collected from VP electronically and is stored in local databases. Data is received continuously and electronically from the direct sources and also stored in local databases. The direct sources are non-financial companies, insurance corporations and pension funds as well as financial companies such as banks and mortgage banks. Data to StatBank Denmark are transmitted via the local databases.

The statistics can e.g. be used for:

- Analyses of developments in the stock or bond markets.
- Analyses of the portfolio of certain sectors or industries.

5.3 Documentation

See Jens Hald, <u>Denmark's balance of payments and international investment position</u>, Danmarks Nationalbank, 2007, Chapter 4: Sources – Securities Statistics.

5.4 Other Information

No further information is available.

6 SUPPLEMENTARY DOCUMENTATION

More information about the possibilities and limitations in extracting data on VP-registered securities