

# SOURCES AND METHODS

## DANMARK'S INTERNATIONAL INVESTMENT POSITION

Financial Statistics  
Securities and External Statistics

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### **DENMARK'S INTERNATIONAL INVESTMENT POSITION**

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### **0 ADMINISTRATIVE INFORMATION ABOUT THE STATISTICAL PRODUCT**

#### **0.1 Name**

Denmark's international investment position.

#### **0.2 Subject Area**

Balance of payments – financial account and external assets and liabilities  
National accounts and balance of payments.

#### **0.3 Responsible Authority, Office, Person, etc.**

Danmarks Nationalbank, Statistics, Securities and External Statistics

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#### **0.4 Purpose and History**

The purpose of the statistics is to show Denmark's international investment position, Danish residents' external financial assets and liabilities. The international investment position is calculated in accordance with the

IMF's "Balance of Payments Manual" from 2008 (BPM6). This means that as a main rule assets and liabilities are stated at market value.

The statistics have been published by Danmarks Nationalbank since 1991 and before that by Statistics Denmark.

### **0.5 Users and Application**

The statistics are used to assess Denmark's international investment position. The users are financial institutions, mortgage banks, Danmarks Nationalbank, ministries, interest organisations, the ECB, IMF, OECD, BIS among others.

### **0.6 Sources**

As of end-2004, the system for collecting information on Denmark's international investment position and financial account of the balance of payments is based on the following main sources:

- Statistics on balance sheets and flows of the MFI sector, cf. the Sources and method of the statistics
- General-government statistics
- Securities statistics, cf. the Sources and method of the statistics
- Reporting by enterprises
- Investment funds, cf. the Sources and method of the statistics
- Information from the Danish tax authorities on holiday residence.

These are described in further detail in section 1.2.

### **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.

### **0.8 Response Burden**

There is a direct response burden for a sample of non-financial corporations, insurance corporations and pension funds. Data from the other sources is collected from other registers or by others.

### **0.9 EU Regulation**

The collection of data is based on Guideline of the ECB of 9 December 2011 on the statistical reporting requirements of the ECB in the field of

balance of payments and international investment position statistics (ECB/2011/23) amended in ECB/2013/25.

## **1 CONTENTS**

### **1.1 Description of Contents**

The statistics include stock data for assets and liabilities, as well as balances, calculated at the end of each quarter broken down by instrument and sector, cf. section 1.2.

### **1.2 Statistical Concepts**

Information on the international investment position is based on the six main sources mentioned in section 0.6. The collection of data is for each source based on the following identity:

stock, beginning of period  
+ transactions during the period  
+ valuation changes, etc. during the period  
= stock, end of period,

where stock data corresponds to the international investment position and transaction data to the financial account of the balance of payments, cf. Danmarks Nationalbank's statistics Balance of Payments – Financial account. Valuation changes, etc. comprise not only changes in exchange rates and prices, but also other changes resulting from e.g. reclassification between sectors or instruments. For instance, a portfolio investment is reclassified as a direct investment when an investor increases the ownership from less than 10 per cent to more than 10 per cent of the equity capital in an enterprise. In Danmarks Nationalbank's Statistics on balance sheets of banks and mortgage banks and in most of the reporting by enterprises all the elements of the identity are reported. Thus the reported figures can be reconciled.

When published, data is reconciled with the quarter's errors and omissions calculated in the balance of payments statistic. Errors and omissions are calculated as the difference between the recorded transactions in the financial account of the balance of payments and transactions in the current account of the balance of payments plus capital transfers. A consequence of errors and omissions is that recorded stocks are incorrect. The reconciliation ensures that stocks are adjusted either upward or downward in order that the recorded stocks are in line with the underlying transactions.

The reconciliation is exclusive of Danmarks Nationalbank (the central bank) and the sector General government. For Danmarks Nationalbank errors and omissions are by definition zero and for General government reconciliation is already conducted by Statistics Denmark.

For all other sectors transactions are either increased or reduced with the quarter's errors and omissions distributed by the following dimensions: balance, instrument, sector, country, currency and original maturity. The distribution key is calculated according to the stocks (excl. Danmarks Nationalbank and General government) broken down by instrument, sector, country, currency and original maturity.

For the sector Other MFIs stocks are unchanged since the reconciled transactions are neutralized by valuation changes with opposite sign.

For other sectors stocks are changed with the reconciled transactions.

A detailed description of the reconciliation method can be found in the documentation: "Reconciliation of Denmark's external assets and liabilities".

Virtually all reporting, irrespective of source, takes place on a monthly basis. In addition, enterprises with small transactions, but relatively large external holdings, report on an annual basis.

In the following, the individual sources are described in relation to sectors.

#### ***Statistics on balance sheets of banks and mortgage banks (MFI statistics)***

The MFI statistics comprise Danmarks Nationalbank, banks and mortgage banks, and other credit institutions. MFI statistics are prepared in accordance with the guidelines issued by the ECB. In general, these guidelines correspond to those of BPM6. In a few cases it has been necessary to perform estimation where breakdowns are not available.

The MFI statistics are now the source of Danmarks Nationalbank's external holdings of reserve assets. Previously, the data for the foreign-exchange reserve, which is published in Danmarks Nationalbank's press release "Foreign exchange and liquidity", was used as an approximation. The two compilations deviate from each other. Unlike the compilation of the foreign-exchange reserve, reserve assets comprise all external holdings, i.e. including Danmarks Nationalbank's foreign shares, accrued interest receivable/payable, unsettled derivatives and krone-denominated accounts with banks in the Faroe Islands and Greenland. In addition, holdings are stated at market value in the reserve assets, unlike the foreign-exchange reserve, which is stated at book value (accumulated transactions) over the year.

The households' loans and deposits abroad are compiled on the basis of data from the foreign branches and subsidiaries of Danish MFIs.

#### ***Statistics on investment funds***

The statistics are based on reports from Danish investment funds or their management companies. The statistics show, on a monthly basis, the asset and liability stocks of Danish investment funds and, for specific instruments, the movements. In addition the statistics also include a compartmentalization of investors of investment fund shares and investments of investment funds. The statistics are compiled in accordance with the guidelines of the ECB.

#### ***Danish tax authorities***

Private holiday residences are classified as equity. Data are as of end-2006 and based on information from the Danish tax authorities. Until end-2004 Danish residents' holiday residences abroad were estimated on the basis of the Payments statistics in which non-residents' holiday residences in Denmark, as well as those of residents who had moved abroad, were not registered. Data until end-2005 are therefore 0. Data as of end-2005 and through 2006 are estimated on the basis of the Danish tax authorities' end-2006 data.

#### ***General-government statistics***

The sources of information on government bonds owned by non-residents are Danmarks Nationalbank, Banking and Markets, which manages central government borrowing, and Danmarks Nationalbank's Securities statistics. Other external financial assets and liabilities relating to the general government are reported by Statistics Denmark.

#### ***Securities statistics***

For Danish securities issued in Denmark and held by non-residents, the primary source is VP Securities (VP). Danish securities issued abroad are reported separately to Danmarks Nationalbank. For foreign securities held by Danish residents, the primary source of information is custodian banks in Denmark. If enterprises deposit such securities abroad, the information is included in the reports by the enterprises to Danmarks Nationalbank. It is assumed that the households primarily deposit foreign securities with custodian banks in Denmark. Information is no longer obtained directly from the households. The Securities statistics are based on information on individual securities. Information on the individual issues are based on VP for Danish securities and the ECB's centralised securities database (CSDB) for foreign securities. Information on foreign owners of Danish securities results in substantial uncertainty since only the first place of custody is registered with VP. International investors' marked use of custodian banks in countries such as Belgium and Luxembourg entail that the published distribution by country does not reflect the

ultimate home country of buyers of Danish securities. Via master data for the individual securities, Danmarks Nationalbank can use the securities' identification numbers (ISIN codes) and the owner's holding to derive valuation changes and sector of issuer/owner for the compilation of Denmark's international investment position. The transactions for the financial account of the balance of payments are calculated residually.

#### *Reporting by enterprises*

The population for the reporting enterprises is divided into:

- approximately 500 enterprises that report on a monthly basis,
- approximately 250 enterprises that report on an annual basis.

Enterprise reports are submitted by non-financial corporations, other financial intermediaries, etc., as well as insurance corporations and pension funds. Reporting mainly comprises direct investments, derivatives and other investments, e.g. loans and deposits.

Reporting takes place via various forms that generally correspond to the financial items of an enterprise's accounts. On most forms, all elements of the identity are reported, cf. above. For trade credits, however, only stock data is reported. Where stock data can not be reported on a monthly basis the holdings are projected over the year by adding transactions and exchange-rate changes to the holdings at the beginning of the year. In such cases stock data is reported on an annual basis and used to revise the projected data.

#### **Valuation**

As a main rule, holdings are stated at market value including accrued interest receivable/payable or reinvested earnings, cf. below. Holdings in foreign currency are translated into Danish kroner at the exchange rate applying on the compilation date.

For listed shares, including shares that are direct investments, the value is calculated on the basis of the market price. The value of equity capital in unlisted corporations is stated using the equity method (possibly after translation from cost price if the enterprise applies this accounting principle). Unlisted portfolio securities are reported at the estimated market value.

Loans and deposits are predominantly stated at nominal value.

Accrued interest receivable/payable or reinvested earnings are added to the value of holdings as calculated above, cf. below. Accrued interest receivable/payable is interest receivable from the beginning of the interest payment period to the compilation date.

In Denmark's Nationalbank's Statistics on balance sheets of banks and mortgage banks, reported or calculated accrued interest receivable/payable is added for all holdings.

Reinvested earnings relate to direct investments and comprise the part of an enterprise's profits that are not distributed. Reinvested earnings are projected on the basis of an aggregated estimate for the profit of the enterprise, as well as current information on distributed dividend. Data are not reported until up to 22 months after the end of the reference period. Data are published in October the year after the end of the reference period. Until then monthly data are based on estimated figures and therefore is subject to more uncertainty than reported figures. Reinvested earnings are added to the most recently reported stock data for equity capital and reserves.

The holdings are grouped by instrument and sector, cf. below.

### ***Instruments***

The breakdown by instrument is based on BPM6. The key instruments, some of which are broken down further, are:

- *Direct investments*, i.e. shares and other equity instruments where an investor holds at least 10 per cent of the equity capital or voting rights in an enterprise. Direct investments also include loans and credits between directly or indirectly affiliated enterprises (e.g. sister enterprises) (referred to as intercompany debt, etc.). Direct investments include pass-through investments. Pass-through investments are direct investments from abroad in a holding company in Denmark which reinvests the funds abroad. Another characteristic of pass-through investments is that the holding company does not have any (significant) activities in Denmark and normally does not own companies in Denmark. In Denmark's Nationalbank's statistics Direct investments - quarterly transactions, direct investments are shown respectively exclusive of pass-through investments and pass-through investments separately.
- *Portfolio investments*, i.e. transactions in shares and other equity instruments that are not direct investments, and in bonds (also known as debt instruments).
- *Financial derivatives*.
- *Other investments*, comprising trade credits, loans, deposits and other outstandings.

### ***Sectors***

The breakdown by sectors is in accordance with the European System of Accounts (ESA95). The following sectors apply:

- *Non-financial corporations.*
- *Danmarks Nationalbank*, including specification of its reserve assets by instrument.
- *Banks.*
- *Mortgage banks.*
- *Investment funds.*
- *Holding companies etc.*, including holding companies that own financial corporations and non-financial corporations.
- *Insurance corporations and pension funds*, including ATP.
- *Other financial corporations*, including financial auxiliaries.
- *General government*, including Central government.
- *Households, etc.*, including charities, etc. that supply goods and services to households.

## **2 TIME**

### **2.1 Reference Period**

The statistics are compiled at end-quarter.

### **2.2 Date of Publication**

The statistics are published 3 months after the end of the quarter; i.e. the last banking day in March, June, September and December.

### **2.3 Punctuality**

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

### **2.4 Frequency**

The statistics are published every quarter.

## **3 ACCURACY**

### **3.1 Overall Accuracy**

The statistics are based on reports from approximately 750 enterprises. The overall accuracy is therefore dependent on the accuracy of the reports from each of the enterprises. The accuracy of the other sources is stated in the Sources and method for these statistics.

### **3.2 Sources of Inaccuracy**



### **Population and grossing-up**

The reporting forms are sent to a sample of enterprises. Enterprises are selected with a view to ensuring that the various subsegments, e.g. instrument and sector, are adequately represented.

Enterprises with the largest financial transactions with abroad report transactions on a monthly basis including supplementary information on an annual basis.

Enterprises with small transactions, but relatively large holdings report on an annual basis. During the year, stock data is adjusted for exchange-rate changes. In addition, the equity capital is adjusted for reinvested earnings. Subsequently, the projected data is revised on the basis of the actual reported holdings.

Jointly, the two samples cover around 95 per cent of the historical external financial payments, depending on the instrument and sector. The data reported (holdings, transactions and valuation changes) is grossed up by an average of 5 per cent, varying between 0 and 15 per cent.

For the other sources, the coverage is above 90 per cent. This data is not grossed up. Concerning specific uncertainties in relation to the other sources, reference is made to Sources and methods for these sources, mentioned in section 0.6.

### **3.3 Measures on Accuracy**

The statistical uncertainty is not calculated.

## **4 COMPARABILITY**

### **4.1 Comparability over Time**

At the turn of the year 2004/05 Danmarks Nationalbank implemented a different system for collecting information on Denmark's international investment position and the financial account of the balance of payments. This means that data from before 2005 was gathered in a different way. Before the turn of the year 2004/05 the compilation of the financial account of the balance of payments was based on Danmarks Nationalbank's Payments statistics which included all payments. The present system is based on a sample which is grossed up. Furthermore the statistics include more information in terms of reinvested earnings, commercial credits, accrued interest and imputed interest. This information was not contained in Danmarks Nationalbank's Payments statistics.

### **4.2 Comparability with other Statistics**

There are no comparable statistics.

### 4.3 Coherence between Provisional and Final Statistics

The statistics are normally revised 1 reference periods back when the present quarter is published, cf. also Danmarks Nationalbank's revision policy for financial statistics and the appurtenant revision cycle.

## 5 ACCESSIBILITY

### 5.1 Forms of Dissemination

Published quarterly via:

[www.nationalbanken.dk](http://www.nationalbanken.dk)  
<http://nationalbanken.statbank.dk>  
[www.statbank.dk](http://www.statbank.dk)

### 5.2 Basic Material: Storage and Usability

The Sources and method does not comprise data which is stored.

### 5.3 Documentation

The new statistics are described in detail in Jens Hald, Denmark's balance of payments and international investment position, Danmarks Nationalbank, 2007.

### 5.4 Other Information

No further information is available.

## 6 SUPPLEMENTARY DOCUMENTATION

None.