

SOURCES AND METHOD

BANKING AND MORTGAGE LENDING, BALANCES



Financial Statistics
Money, Banking and National Accounts

Last revised:
23-06-2017

Banking and mortgage lending, balances

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0 ADMINISTRATIVE INFORMATION ABOUT THE STATISTICAL PRODUCT

0.1 Name

Banking and mortgage lending, interests.

0.2 Subject Area

Balance sheets and flows of the MFI sector
Money and credit market
Banks and mortgage-credit institutes.

0.3 Responsible Authority, Offices, Person, etc.

Danmarks Nationalbank, Statistics, Money, Banking and National Accounts Statistics

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0.4 Purpose and History

The purpose of the statistics is to analyse the development in interest rates of banks and mortgage banks for lending and deposits vis-à-vis Danish residents. Danish residents are persons domiciled in Denmark, as

well as business enterprises and institutions that are domiciled in Denmark.

Danmarks Nationalbank publishes data from January 2003 and onwards based on the European Central Bank's (ECB) regulation no. 63/2002 dated 20 December 2001 concerning statistics on interest rates applied by monetary financial institutions (MFIs) to deposits and lending vis-à-vis households, etc. and non-financial corporations (ECB/2001/18). As of January 2014, Danmarks Nationalbank publishes data based on the European Central Bank's (ECB) regulation no. 290/2009 concerning the changes to on the European Central Bank's (ECB) regulation no. 63/2002 (ECB/2001/18) concerning statistics on interest rates applied by monetary financial institutions (MFIs) to deposits and lending vis-à-vis households, etc. and non-financial corporations (ECB/2009/7). Furthermore, a number of data requirements from international organizations as well as domestic data requirements are met. Most of the additional data requirements in Regulation (EU) No 1072/2013 of the European Central Bank of 24 September 2013 concerning statistics on interest rates applied by monetary financial institutions (recast) (ECB/2013/34) are as of January 2014 likewise met.

Information on the interest rates of banks prior to 2002 is available in the Danish Financial Supervisory Authority's statistics on average interest rates. However, note that there are method differences between these statistics and the interest rate statistics by Danmarks Nationalbank, leading to a data break. The data break primarily concerns the sectoral delimitation.

0.5 Users and Application

The statistics are used to analyse the development in interest payments, the transmission of Danmarks Nationalbank's interest-rate policy, etc.

The users are banks and mortgage banks, ministries, professional and industrial bodies, Danmarks Nationalbank, the ECB, IMF, OECD, BIS, etc.

0.6 Sources

Information on interest-rates is collected from the full-reporting institutions in Danmarks Nationalbank's Statistics on balance sheets of banks and mortgage banks, comprising at least 96 per cent of the total MFI balance sheet. The reporting population comprises Danish banks and mortgage banks' principal activity in Denmark, as well as branches in Denmark of foreign banks and mortgage banks.

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

The response burden lies with the reporters to the statistics, which currently are around the 40 largest MFIs.

0.9 EU Regulation

Data for the statistics is collected on the basis of the European Central Bank's (ECB) regulation no. 290/2009 concerning the changes to on the European Central Bank's (ECB) regulation no. 63/2002 (ECB/2001/18) concerning statistics on interest rates applied by monetary financial institutions (MFIs) to deposits and lending vis-à-vis households, etc. and non-financial corporations (ECB/2009/7).

1 CONTENTS

1.1 Description of Contents

The statistics present information on interest rates of banks and mortgage banks for lending and deposits, as well as banks' interest-rate margin. The statistics include interest rates on existing lending and deposits (outstanding amounts) as well as new lending and new deposit agreements concluded in a given month (new business). In addition, the statistics present the interest payments to banks and mortgage banks, as well as ordinary repayments on mortgage lending (the latter only on a quarterly basis). Also, the statistics present information of business volume behind the individual interest rates and contribution rates for mortgage lending.

The interest rates applied by banks to new lending are sensitive to changes in the customer and product structure from one month to the next as banks have a wide range of products and customer relations, at varying interest rates. This also holds for total percentage cost for outstanding amounts. In the statistics on outstanding amounts interest rates

will show greater stability vis-à-vis changes in customer and product structures.

Interest rates for lending depend on the credit risk, which is determined particularly by the customer's credit standing, the maturity of the loan and the value of any collateral pledged. Variations in the interest rates of banks and mortgage banks must thus be viewed in the light of the fact that the banks' lending is not necessarily backed by collateral security. Differences in the banks' interest rates across sectors and purposes can likewise – besides historical loss risk – be due to differences in the underlying security. Finally, differing interest rates for loan products can also be attributed to differences in transaction scope (transaction costs).

On comparison of the interest payments to banks and mortgage banks it should be noted that the interest payments to banks are the actual accrued interest reported directly to the interest rate statistics, while the interest payments to mortgage banks are estimated.

For the interest rates applied by mortgage banks solely the administration fee may be customer-specific.

There is also some seasonal variation in the data for the quarterly payments on mortgage lending of households and non-financial corporations, since the largest instalments on loans to e.g. the agricultural and business sectors fall due in June and December (as some loans have only one or two settlement periods).

1.2 Statistical Concepts

Information on interest-rates is collected from the largest banks and all mortgage banks in Denmark that are full-reporting institutions in Denmark's Nationalbank's Statistics on balance sheets and flows of the MFI sector.

New business/outstanding amounts

The statistics contain information on both new business and outstanding amounts.

New business comprises loans and deposit agreements concluded during a given month. The concept reflects newly established accounts, as well as existing accounts for which the terms in force so far are amended by agreement with the customer. An interest-rate adjustment for a loan or

deposit at a floating interest rate is not new business if the adjustment is in accordance with the original agreement.

The definition of new business can be applied directly to the banks' activities where increases in gross balances and extensions to existing loans and deposits are also defined as new business. For mortgage banks an interest-rate adjustment in connection with the refinancing of adjustable-rate loans is not new business. Newly established loan agreements, restructuring of existing loans to new coupon rates, maturities or currencies, restructuring between fixed-rate loans and floating-rate loans, and changes in interest-rate adjustment profile – i.e. the frequency of interest-rate adjustment and the proportion of the loan subject to interest-rate adjustment – are, on the other hand, defined as new business.

Outstanding amounts comprise all existing loans and deposit agreements that are outstanding at the time of compilation. For banks, outstanding amounts are compiled as a day-to-day average of the balance during the month. Mortgage banks' outstanding amounts are compiled as the balance at month-end, while other types of loan are compiled as a day-to-day average of the balance during the month.

Interest-rate margin

The interest-rate margin is calculated on the basis of the effective interest rates for banks' outstanding amounts and is given as the spread between the interest rates for respectively loans and deposits. Unless otherwise stated, the concept of interest rate is the effective rate of interest per annum, taking account of the number of times that interest is accrued per annum.

Concept of interest rate applied

Unless otherwise stated, the concept of interest rate is the effective rate of interest per annum, taking account of the number of times that interest is accrued per annum.

Effective rates of interests

For banks, the effective rates of interest are calculated according to the principle of average interest rates, i.e. as the month's income from interest (expenditure) in per cent per annum of the month's average lending (deposits). The calculation is based on the actual number of days in the current month (calendar days). When compiled on a monthly basis the

average interest rate for lending is calculated as follows, assuming that interest on lending is accrued on a quarterly basis:

$$r_u = \left[\left(1 + \frac{q}{m} \cdot \frac{R_u}{U} \right)^{365/q} - 1 \right] \cdot 100$$

where $r_u(m)$ is the month's average interest rate for lending, $R_u(m)$ is the month's income from interest on lending, $U(m)$ is the month's day-to-day average outstanding lending, $N(m)$ is lending at zero interest at month-end, m is the number of days in the month, and q is the number of days in the quarter.

The month's average interest rate for deposits is calculated as follows, assuming that interest on deposits is accrued on an annual basis:

$$r_i = \left(\frac{R_i}{I} \right) \cdot \frac{365}{m} \cdot 100$$

where $r_i(m)$ is the month's average interest rate for deposits, $R_i(m)$ is the month's interest expenditure on deposits, $I(m)$ is the month's day-to-day average of outstanding deposits, and m is the number of days in the month.

Interest rates for lending regarding outstanding amounts are compiled including overdraft facilities, while interest rates for lending regarding new business are compiled excluding overdraft facilities. Interest rates for deposits regarding both outstanding amounts and new business are compiled excluding pool schemes, where the deposit is placed in securities.

For mortgage banks the effective rate of interest covers the interest rate on the cash value of the loan and the administration fee. The interest rate on the cash value of the loan comprises coupon interest and the capital loss (capital gain) on issue of the underlying bonds. The calculation is based on the assumption that the loan is held until maturity, and thus does not take account of the conversion right.

Annual percentage rate of charge

Both banks and mortgage banks report a measure of the borrower's total percentage lending costs. The starting point is the annual costs in percent, where the costs are already calculated in accordance with current legislation. For other business, where the borrowing costs in connection with establishment of the loan are assumed to be limited, the effective rate of interest is used.

Interest payments

The interest payments to banks are reported directly to the statistics. However, since the population solely comprises the largest banks, an adjustment factor is used to calculate the total interest payments to the banks and the factor is updated on an ongoing basis as the full-reporting banks' share of the total lending changes.

In respect of mortgage banks, the interest payments are calculated on the basis of the outstanding amounts at month-end (outstanding value of the bonds) and the effective interest rates (interest rate on the cash value of the loan). Since mortgage bonds are typically issued below par, this method will tend to overestimate the interest actually paid since the capital loss is included in the effective interest rate, but is not deducted from the outstanding value of the bonds.

Instalments

The instalments on the mortgage lending are calculated in Danmarks Nationalbank's statistics Banking and mortgage lending, balances, at nominal value. For instalments for cash loans, the cash loan instalments are compiled.

Sector distribution

The distribution by sector is based on the sector classification set out in accordance with the European System of Accounts (ESA2010). For accounts with Danish residents the distribution by sector and industry is based on the Statistics Denmark's Central Business Register (CVR), and the data registered therein concerning the companies' industries and sectors. Self-employed individuals are included as an individual sub-sector of the household sector.

Distribution of instruments

For outstanding amounts deposits are broken down by transferable deposits (e.g. demand deposits), non-transferable overnight deposits, electronic money, deposits with agreed maturity, deposits redeemable at notice and repos. Transferable deposits comprise all deposits that are not subject to fixed maturity, notice of termination or similar. Deposits at notice comprise deposits where the savings/accumulated capital can only be withdrawn with a fixed term of notice, e.g. 3 months or on a fixed annual date. Time deposits comprise all deposits subject to fixed maturity on their establishment, and special types of deposit, e.g. profit savings.

For new business, deposits comprise deposits with agreed maturity and repos only.

For outstanding amounts loans are broken down by the following instruments: Demand deposits with central banks, Revolving loans and overdrafts, Credit card credit, Repos, Bond-based loans (mortgage loans) and Other loans.

For new business, loans are disseminated in total and broken down by Repos and Bond-based loans (mortgage loans).

Distribution by purpose

Interest rates on loans to households are distributed by the following categories of purpose: Loans for house purchase, Loans for consumption and Other loans. Loans for house purchase comprise lending for purchase of or improvements to real property, regardless of the nature of the pledged collateral. Lending to non-profit institutions is not part of the household sector and thus is not included in the purpose categories.

Bond-based loans are by definition loans for house purchase, as they are always backed by real-estate collateral.

Distribution by size of loans

New business loans to non-financial corporations are broken down by the following categories of size: Up to and including 2 DKK million, over 2 DKK million and up to and including 7.5 DKK million, and over 7.5 DKK million.

Maturity distribution

For outstanding amounts both lending and deposits are distributed by original maturity. The original maturity of a financial instrument is defined as the time from establishment until the agreed maturity date. For lending the period runs from the time that the loan is raised until it has been repaid. For new business interest rates for lending are distributed by fixed-interest period, while interest rates for deposits (time deposits) are distributed by original maturity. The fixed-interest period is defined as the period after the loan agreement is established during which the interest rate is fixed.

2 TIME

2.1 Reference Period

The statistics are prepared on a monthly basis.

2.2 Date of Publication

The statistics are published every month on the 19th banking day after the end of the reference period.

2.3 Punctuality

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

2.4 Frequency

New data is published every month.

3 ACCURACY

3.1 Overall Accuracy

Information on interest-rates is collected from the full-reporting institutions in Danmarks Nationalbank's Statistics on balance sheets of banks and mortgage banks, covering at least 96 per cent of the total MFI balance sheet. An adjustment factor is used to calculate the total interest payments to the banks and the factor is updated on an ongoing basis as the full-reporting banks' share of the total lending changes. The accuracy of the statistics is dependent on the accuracy of the reports delivered by the institutions, and especially the quality of the reports delivered by the largest institutions is crucial. With a contribution margin of 100 per cent for December, after annual revisions in April, and more than 96 per cent in the remaining months, the overall accuracy of the statistics is considered to be high.

3.2 Sources of Inaccuracy

Danmarks Nationalbank sets out guidelines for the MFIs' reporting to the statistics, but there is a risk that the guidance is interpreted differently by the institutes and therefore may lead to non-consistent reporting. However, a large number of quality checks are performed on the individual reports as well as across all reports, in order to minimise errors made by the individual reporter and differences in interpretation among MFIs.

During the control and publishing phases several manual procedures are conducted which involve risks of errors.

3.3 Measures of Accuracy

The statistical uncertainty is not calculated.

4 COMPARABILITY

4.1 Comparability over Time

The amount of detail in the statistics is increased regularly. There have been no actual data breaks since the beginning of the statistics in 2003.

4.2 Comparability with other Statistics

The Danish Financial Supervisory Authority's statistics on average interest rates before 2003.

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 [Danmarks Nationalbank's revision policy for financial statistics](#) and the appurtenant [revision cycle](#).

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

The Sources and method do not comprise data which are stored.

5.3 Documentation

The reporting guidelines are available at Danmarks Nationalbank's website.

5.4 Other Information

No further information is available.

6 SUPPLEMENTARY DOCUMENTATION

None.

Last revised: 23/06/2017