

ECONOMIC COMMENTARIES

Banks' margins

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NORGES BANK

Banks' margins¹

The issue of the pricing of bank loans has recently been in focus. There are varying views on whether banks' margins are high and their development over time. This article seeks to clarify different margin concepts and shed light on historical developments.

Interest rate statistics

Norges Bank started producing interest rate statistics in 1979. Statistics Norway took over the task of producing and publishing the statistics in 2007. The statistics comprise lending and deposit rates and are published about two months after end-quarter.²

Clarification of concepts

By using Statistic Norway's interest rate statistics, different margins can be estimated:

Lending margin

The lending margin is the lending rate less the money market rate.

The term «margin» can be associated with earnings, but the lending margin must be understood as the difference between the lending rate and the money market rate at a given point in time. In the calculation, the lending rate and 3-month effective NIBOR³ from the last day in the relevant quarter are used.

¹ I would like to thank Jermund Molland, Børne Syversten, Sindre Weme and Hanna Winje for valuable and useful comments.

² For more information on interest rate statistics, see: <http://www.ssb.no/en/bank-og-finansmarked/statistikker/orbofrent/kvartal>

³ For more information on NIBOR, see: <http://www.fno.no/Hoved/Fakta/Verdipapirer-og-kapitalforvaltning/Faktaark-verdipapirer-og-kapitalforvaltning-A---A/Pengemarkedsrenter/NIBOR/>

The lending margin can be estimated based on the lending rate for different types of loans, for example, lines of credit and instalment loans secured on dwellings. Lending margins can also be estimated for different borrower sectors, such as households and non-financial private enterprises. The statistics also distinguish between different groups of lenders, such as banks, mortgage companies and state-owned lending institutions.

Deposit margin

The deposit margin is the money market rate less the deposit rate.

This «margin» is also the difference between two different interest rate variables and not a margin.

In Norway, banks are the only institutions that are permitted to receive deposits. This means that the deposit rates in the interest rate statistics are confined to banks. The deposit margin can be estimated for different types of deposit instruments and different depositor sectors.

Interest margin

The interest margin is the lending rate less the deposit rate.

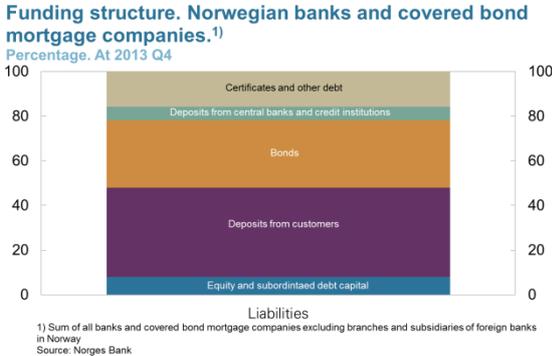
The interest margin expresses the price difference between different products offered by banks. The interest margin shows how much a bank earns on a loan before other operating expenses, if the loan is fully funded by deposits. Lending and deposit products make up a substantial share of Norwegian banks' business. At end-2013, loans to customers accounted for over 60 percent of total assets of Norwegian-owned banks and covered bond mortgage companies. Customer deposits are a form of bank funding and account for about 40 percent of the funding of Norwegian-owned banks and covered bond

mortgage companies⁴. The interest margin therefore reflects revenues and costs linked to a substantial share of Norwegian banking groups' activities, but nevertheless do not provide a complete picture of their profitability.

Overall funding

When assessing actual margins and profits on bank loans, factors other than lending margins, interest margins and deposits margins must be taken into account as banks also use other funding sources (see Chart 1).

Chart 1



Deposits rates are important determinants of banks' profits due to the fact that customer deposits accounts for 40 percent of Norwegian-owned banks' and covered bond mortgage companies' funding. This is reflected in the interest margin.

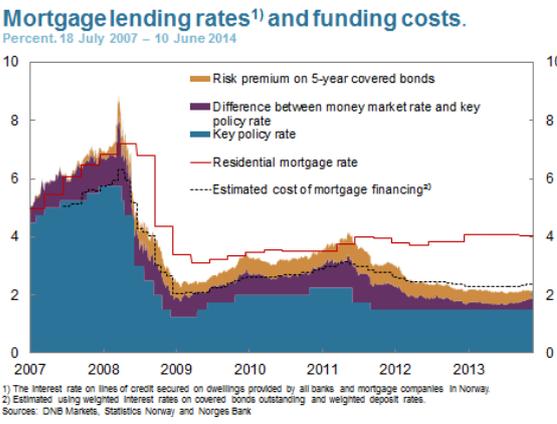
Wholesale funding, primarily bonds, also comprises a large share of total funding. About 30 percent of banking groups' total funding is in the form of bonds. The price banking groups have to pay for funding in the bond market is often linked to the money market rate, which is reflected in the lending margin, but the price is also determined by risk premiums on bonds. These premiums may

⁴ Mortgage companies cannot receive deposits, but in this article both banks and mortgage companies are examined.

vary widely over time and across banks.⁵ The price of converting funding in foreign currency into NOK also has a bearing.⁶ As a result, neither the interest margin nor the lending margin fully reflects the price of wholesale funding.

Norges Bank estimates a simplified funding cost as an approximation of bank profitability. A funding cost for loans secured on dwellings is estimated (see Chart 2), and a funding cost for corporate lending.

Chart 2



The estimated funding cost is a weighted cost comprising banks' interest expenses linked to deposit funding and wholesale funding⁷. The difference between the residential mortgage interest rate from Statistics Norway and the estimated funding cost provides our best estimate of banks' margins on residential mortgages. In addition to covering profits on residential mortgages, the margin is also used to cover operating expenses and expected loan losses.

Equity and other regulatory capital make up about 8 percent of the funding of Norwegian-owned banks and covered bond mortgage

⁵ See also *Economic Commentaries* 7/2012.
⁶ See also *Norges Banks Staff Memo* 2/2014.
⁷ Norges Bank estimates on a monthly basis interest expenses for banks' stock of bond funding.

companies. This capital is priced considerably higher than other forms of funding.

Certificates and other debt, in addition to deposits from other central banks and credit institutions, are assumed to finance assets other than loans to customers. Such assets may, for example, be liquidity buffers. This form of funding does not have a direct impact on lending margins, but statutory liquidity requirements affect the size and composition of liquidity buffers and hence banks' funding needs and profitability.

Historical developments

Historical developments provide an indication of whether banks' interest margins, lending margins and deposit margins are high. Data back to 1986⁸ provides a basis for comparing today's level with the historical average.

Chart 3

Lending margin.

All lending to the private and municipal sector. All banks and mortgage companies in Norway, 1986 Q1 – 2014 Q1. Percentage points

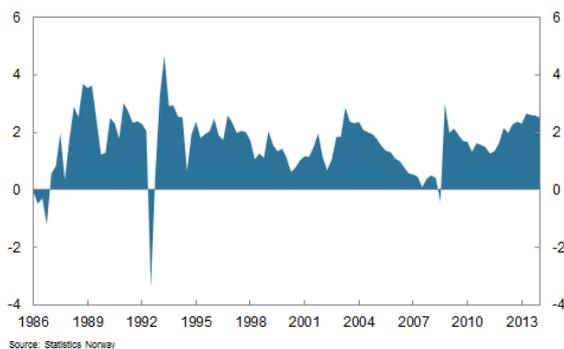


Chart 3 shows that the lending margin varies widely. Some of the extreme values reflect sharp movements in the money market rate during short periods, without an immediate response in banks' lending rates.⁹ The average

⁸ Data up to and including 2001 are only for banks, while data as from 2002 are a weighted average for banks and covered bond mortgage companies.

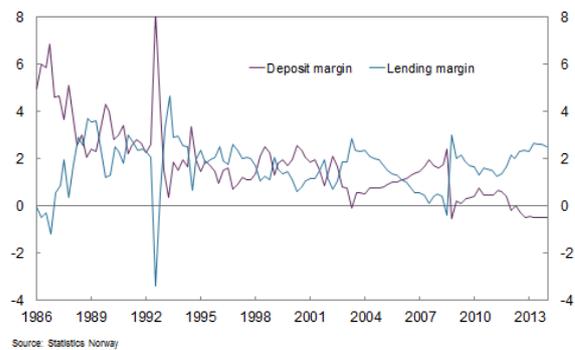
⁹ Banks provide notification of an increase in residential mortgage rates 6 weeks in advance. Banks also frequently provide advance notification

lending margin for the period is 1.68 percentage points, which is considerably lower than today's level of 2.52 percentage points.

Chart 4

Lending and deposit margins.

All lending and deposits to the private and municipal sector. All banks and mortgage companies in Norway, 1986 Q1 – 2014 Q1. Percentage points



When lending margins are reduced, deposit margins tend to increase and vice versa. Chart 4 shows the negative covariance between these two margins. The deposit margin is today at a historically low level, while the lending margin is at a high level, in line with historical developments.

Chart 5

Interest margin.

All lending and deposits from the private and municipal sector. All banks and mortgage companies in Norway, 1986 Q1 – 2014 Q1. Percentage points



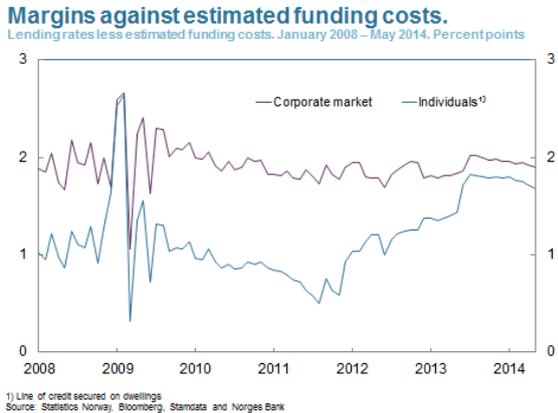
The interest margin is the sum of the lending margin and the deposit margin. Chart 5 shows that the interest margin is more stable than the lending margin and deposit margin.

of a reduction in rates. The lending margin may thus be very low or high in periods.

The interest margin has exhibited a downward trend, which is likely related to enhanced efficiency among Norwegian banks. The number of bank outlets has been substantially reduced, and customers perform their own banking services via electronic solutions to a greater extent than earlier. As a result, operating expenses have declined, which has provided increased room for lower interest margins.

The margin measured against estimated funding costs has been relatively stable for corporate credit since summer 2011, but has increased sharply for lending to individuals (see Chart 6). The increase in the margin on lending to individuals started from a low level, and is attributable to both lower funding costs and higher lending rates. This margin has recently edged down again.

Chart 6



Conclusion

Banks’ margins can be assessed using different measures and the measures depend on the funding costs applied. It is important to be aware of the limitations of the different measures. Estimates based on differences against the lending rate are simplified indicators of banks’ lending profitability. Accounts should therefore be the source for assessing bank profitability.