



BANK OF FINLAND BULLETIN

BANK OF FINLAND ARTICLES ON THE ECONOMY

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Finland, the land of branches – the landscape of the Nordic banking sector

29 MAY 2017 3:00 PM • BANK OF FINLAND BULLETIN 2/2017 • FINANCIAL STABILITY •

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The Finnish, Swedish, Norwegian and Danish banking sectors have broadly similar strengths and weaknesses. Their profitability is strong, capital adequacy solid, and loan losses have been at historically low levels for a long time. On the other hand, the national banking sectors are large and concentrated and their systemic risks relate largely to lending to the residential and commercial real estate markets.



It is useful to examine the Nordic banking system as one entity, as the national banking sectors have similar vulnerabilities and banks operate in several countries in the area. At the start of 2017, Nordea, the largest bank in the Nordic countries, converted its subsidiary banks in Norway, Finland and Denmark into branches.^[1] Danske Bank has also announced that it is planning to convert to a branching arrangement in Finland. Even though these changes will be reflected only marginally in the everyday life of ordinary citizens, they will have a considerable impact on the supervision of banks by the authorities.

1. In October 2016, Nordea established in Finland a mortgage credit bank for the issuance of covered bonds.

Cross-border banking has a long tradition in the Nordic countries: Nordic banks have operated in Finland, too, for a fairly long period of time. The Finnish Merita Bank and Nordbanken from Sweden merged in 1997. The Group also acquired other Nordic banks, and its name was eventually changed to Nordea. The Swedish Handelsbanken has operated in Finland since 1985. The Danish Danske Bank, in turn, acquired all the operations of the Finnish bank Sampo Bank in 2006. In addition to these banks, a small number of other Nordic banks have operated or are still operating in Finland on a smaller scale, specialising in, for example corporate finance.

Due to the spread of the branch structure, it is even more important to examine the Finnish banking system as part of the Nordic banking sector for financial stability purposes. In the identification of possible threats to stability, it is not sufficient to look only within national borders, because the Nordic banking sectors are interconnected via their assets and funding.

In this article, we assess the risks to the Nordic banking system using the CAMELS rating system developed in the United States. This consists of the assessment of six components: *Capital adequacy, Asset quality, Management capability, Earnings, Liquidity and Sensitivity to market risk (hence CAMELS)*. The rating system is usually applied to individual banks. In this article, we apply the system to the banking sector on a country level, and therefore the assessment differs slightly from the traditional. For example, in connection with market risk, we also discuss systemic risks, in addition to the risks to individual banks.

Capital adequacy (C)

The capital adequacy of the Nordic banking sector has continued to strengthen (Chart 1). This is due to good profitability and the tighter capital requirements imposed by the authorities following the financial crisis, and also to the decrease in the average risk weights of assets. All the Nordic countries have imposed on systemically important banks a capital conservation buffer requirement of 2.5% as well as additional capital requirements. In addition, Norway and Sweden introduced in 2014 a countercyclical buffer requirement (as an EEA country, Norway is also largely within the scope of common EU legislation). The decrease in risk weights is due mainly to the use of banks' internal credit risk models in capital adequacy calculations (Chart 2). Norwegian and Swedish authorities have, however, raised the minimum risk weights on housing loans, and the Financial Supervisory Authority, the Finnish supervisor, also announced earlier in spring 2017 its aim to set a higher risk weight on residential mortgages. Sweden's supervisory authority has implemented the higher risk weights by tightening the Pillar II requirement, as a result of which they do not affect the capital ratios.

Chart 1.

Banking sector average Core Tier 1 capital ratios by country

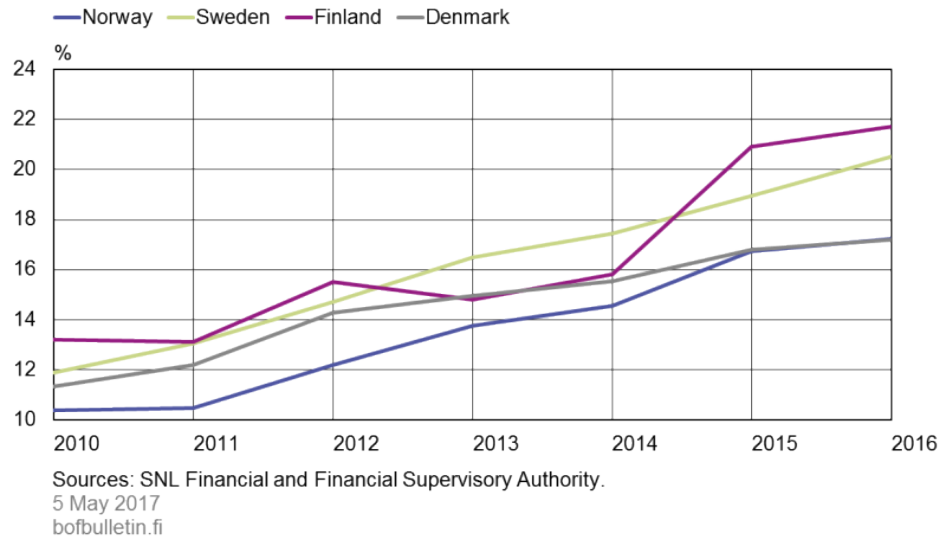
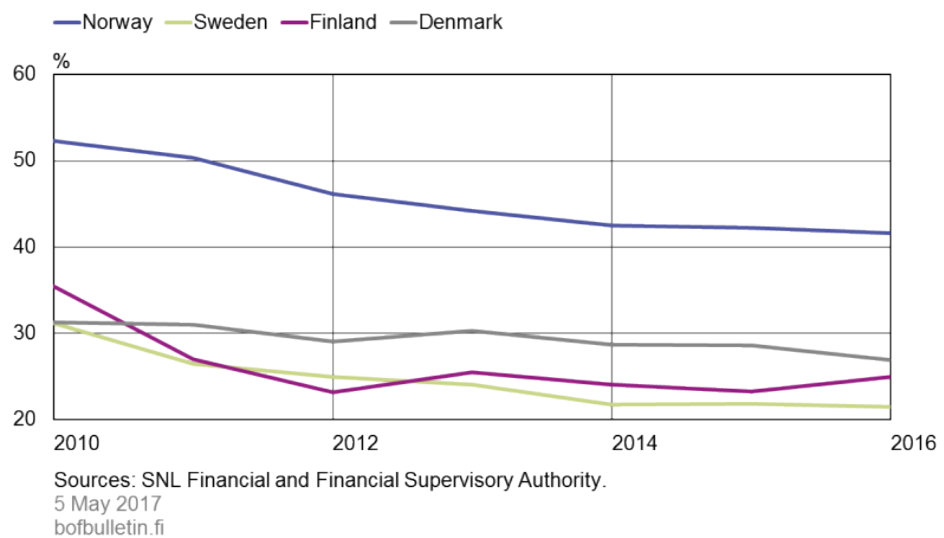


Chart 2.

Average risk weights of assets



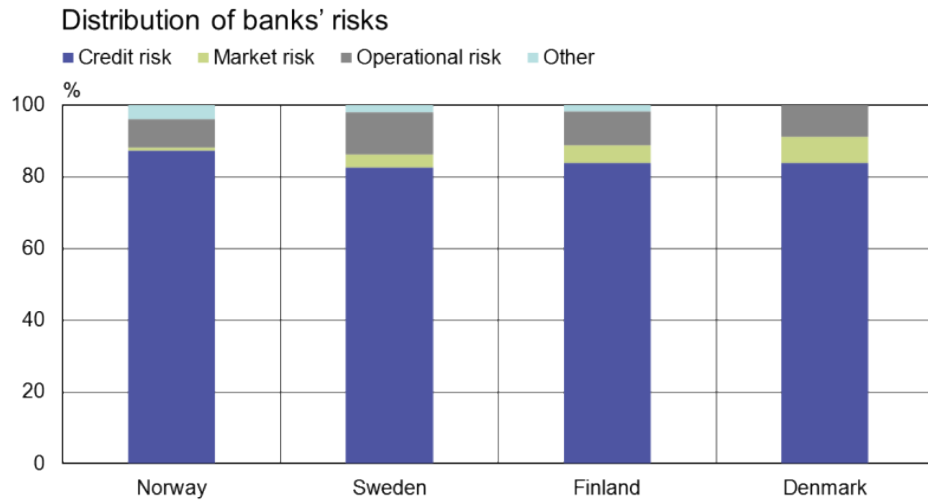
Asset quality (A)

Based on risk-weighted assets, the risk on a bank's balance sheets can be divided into credit risk, market risk, operational risk, and other risks. The majority of the risks on banks' balance sheets is lending-related credit risk (Chart 3). Market risk, in turn, is usually related to banks' securities holdings and trading, and at the end of 2016 its share was largest in Sweden, Finland and Denmark.

As to risks related to securities trading, the Nordic countries are characterised by the fact that many large banks act as market makers in the market for covered bonds. In

addition, as banks use covered bonds issued by other banks for liquidity management purposes, the volume of securities cross-holdings can be significant. For example, statistics from Sweden's Riksbank show that in Sweden securities cross-holdings amount to some 30% relative to banks' equity. In addition to the risks described above, banks are also assigned an operational risk category, based on the size of their business lines.

Chart 3.

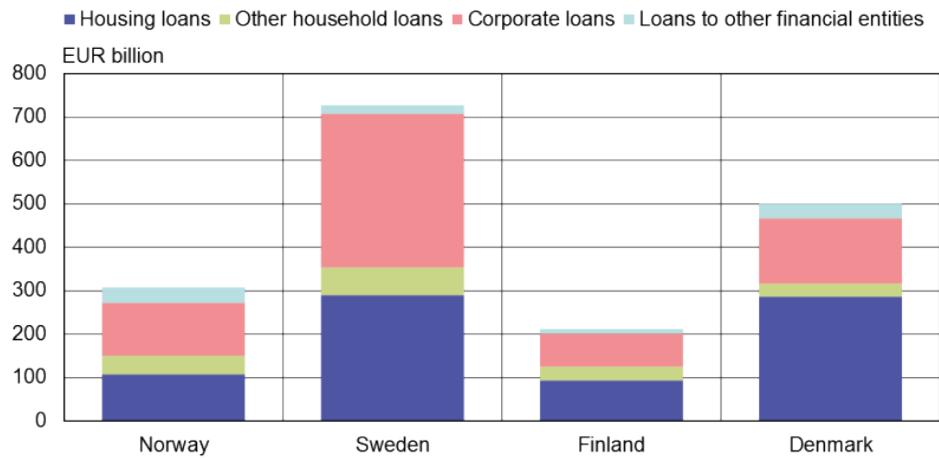


Sources: SNL and Financial Supervisory Authority.
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Banks grant loans to households and non-financial corporations (Chart 4). The majority of household loans are housing loans, and due to the real-estate collateral, they are lower-risk than most of the other loans granted by banks. The Nordic countries are characterised by a relatively high volume of housing loans both in absolute terms and in respect of their share of bank lending. In statistics, corporate loans usually refer to loans to non-financial corporations. Nordic banks also grant small volumes of credit to insurance companies, pension providers and other financial sector entities.

Chart 4.

Distribution of banking sector credit, 31 October 2016

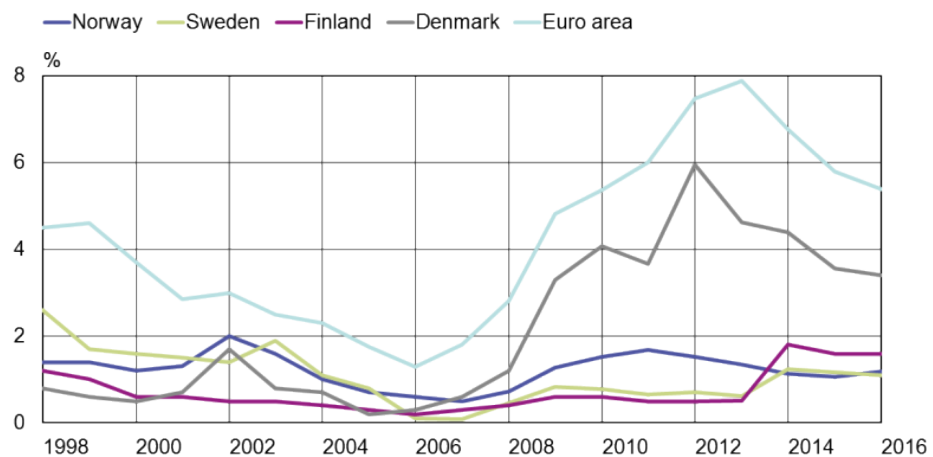


Sources: ECB and Statistics Norway.
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Non-performing loans and loan losses have for a long time been at low levels in nearly all the Nordic countries (Chart 5), which has supported banks' profitability. An exception to this is Denmark, where the financial crisis was followed by the bursting of the housing market bubble and a recession, as a result of which many companies, in particular, had difficulties in servicing their loans. This triggered a banking crisis, in which some 60 small banks typically involved in commercial real estate finance were wound down. The volume of non-performing loans has since started to decline and there have been reversals of loan losses, reflecting the strengthening of the Danish economy. In Finland and Sweden, a level-shift in the share of non-performing loans can be observed in 2014, reflecting the harmonisation of the definition of 'non-performing loan' at European level.

Chart 5.

Share of non-performing loans by country



Sources: IMF and Financial Supervisory Authority.
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Management capability (M)

The Nordic countries have banking groups with various organisational structures. Some are large international commercial banks and others are smaller banking groups usually operating in only one country. Moreover, in Finland and Denmark, a significant share of banking activity is in the form of cooperative banking, and all the Nordic countries have a large number of small savings banks.

In the examination of cross-border interdependencies in the Nordic countries, particular attention must be paid to Swedish and Danish banks that operate in several countries. These banks optimise their use of capital and lending at Group level. The lending activities of a multinational bank in one country are therefore dependent on its businesses activities in other countries. Studies show that in a financial crisis, multinational banks, and particularly their branches, are, in the event of a negative shock, more prone to reduce lending than banks operating in one country only.^[2]

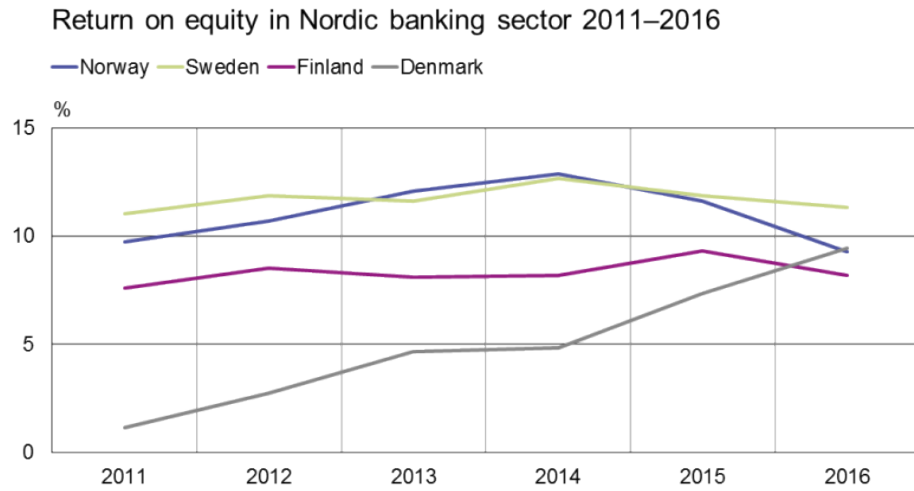
Earnings (E)

The historically low level of interest rates in recent years has burdened the Nordic banking sector's net interest income. Subdued growth in loans and deposits has provided only little support to net interest income. Developments in banking sector profitability have however, on aggregate, been fairly stable since 2013.

Measured in terms of return on equity, the highest profitability levels have been recorded in Norway and Sweden (Chart 6). The Danish banking sector has continued to improve its profitability since the banking crisis in 2008–2010, and in 2016 its profitability levels were higher than those of the Finnish banking sector.

2. De Haas – Van Lelyveld (2014) Multinational Banks and the Global Financial Crisis: Weathering the Perfect Storm? *Journal of Money, Credit and Banking*. Vol 46, 1, 333–364; Popov – Udell (2012) Cross-border banking, credit access, and the financial crisis. *Journal of International Economics*. Vol. 8, 1, 144–161; Bank of England (2015) On a tight leash: does bank organizational structure matter for macroprudential spillovers? Working Paper No. 524.

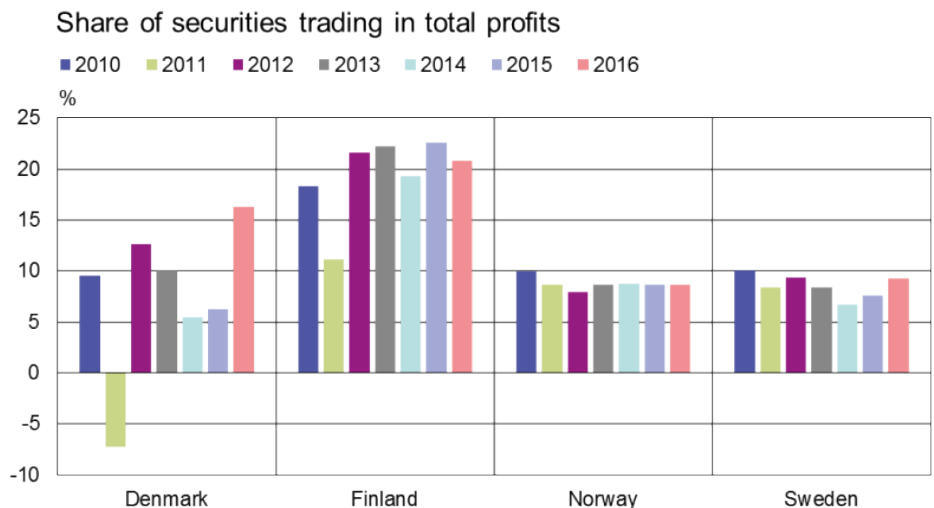
Chart 6.



Sources: SNL Financial and Financial Supervisory Authority.
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In terms of the cost-to-income ratio, the Norwegian banking sector has for a long time been the most efficient in the Nordic countries, but the Swedish banking sector is not far behind. In Nordic comparison, the Finnish banking sector is characterised by the high share of net income from trading and investment activities in total profits (Chart 7), and correspondingly, the decrease in the share of net interest income. The share of net interest income in total profits has been falling without a break since 2012, and in 2016 it accounted for only 40% of total profits. This may increase volatility in total profits, as the amount of net income from trading and investment activities may vary considerably from year to year, whereas net interest income has typically been more stable.

Chart 7.



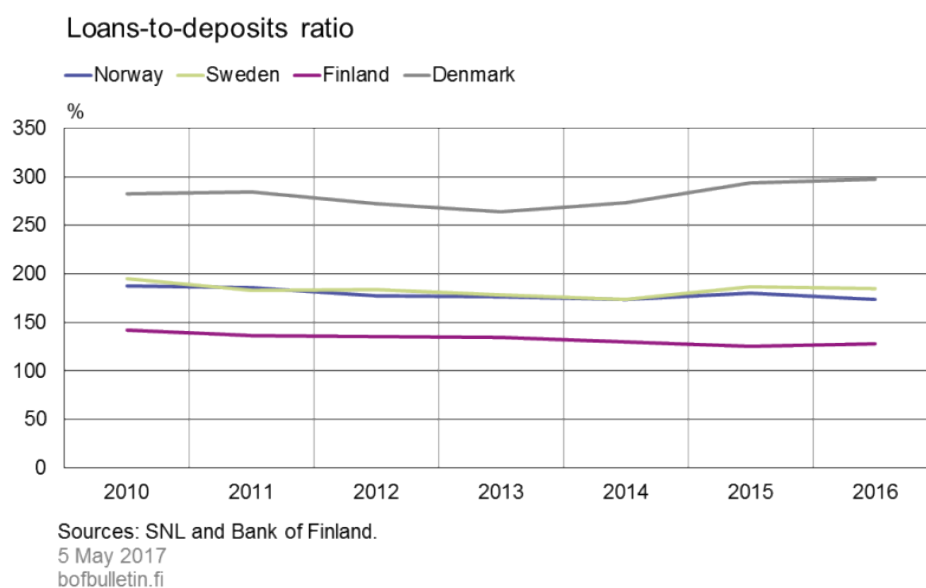
Sources: SNL Financial and Financial Supervisory Authority.
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In connection with the restructuring at the turn of the year, Nordea transferred its trading portfolio to Sweden, which may change the situation for the Finnish banking sector.

Liquidity (L)

The Nordic banking sector's loans-to-deposits ratio is high by international standards (Chart 8). The banking sector must cover its funding gap by means of equity and also market funding, in which a key role is played by covered bonds, and in Sweden also by short-term dollar funding. The latter exposes the Swedish banking sector to funding risk, as long-term credit is financed with short-term funding. There may also be problems if the markets for currency swaps do not function.

Chart 8.

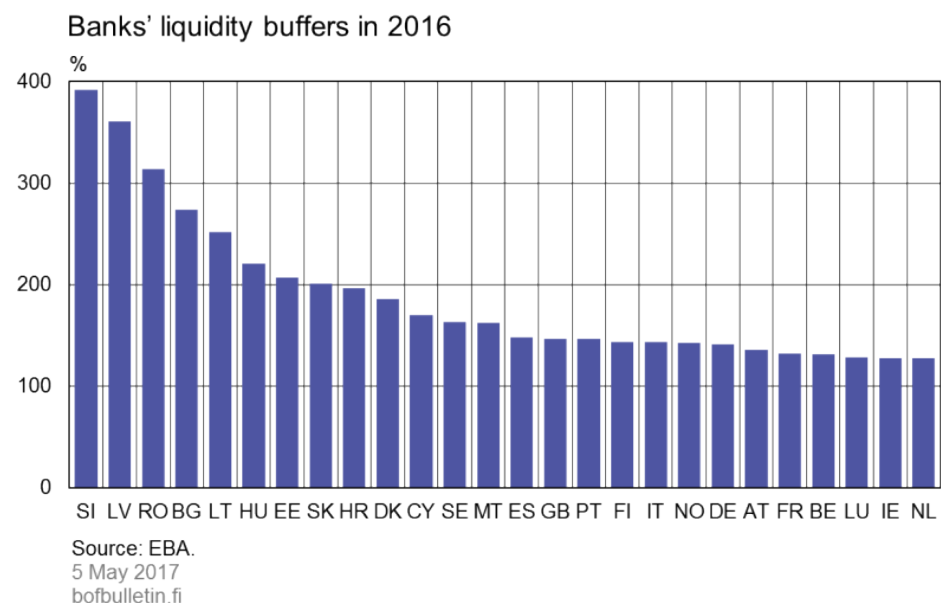


Covered bonds provide double security to investors: the bond is covered by collateral reserved mainly for it, typically a high-quality mortgage portfolio, and, if necessary, by the issuer's other assets. Despite their generally very good credit ratings, covered bonds may cause systemic risks. An adverse stress to the housing market may be reflected as a rise in the risk premia of covered bonds, which would increase the cost of funding. The rolling over of covered bonds that are maturing would be hampered in the event of an increase in the credit risk on the stock of housing loans. In addition, banks' liquidity buffers include a large amount of covered bonds, and a decline in their value would further hamper funding. In addition to financial stability, the maintenance of stability on the housing market is therefore important for banks' funding.

Due to the special Nordic features, it is important that banks prepare for funding risks. Nordic banks have prepared for disruptions in market funding by maintaining liquidity buffers that are larger than the current minimum requirement in the EU (80%; CRDIV). This is due to, for example, the fact that many Nordic countries already adhere to the

minimum liquidity coverage requirement of 100% that will enter into force in the European Union in 2018 (Chart 9).

Chart 9.



Sensitivity to market risk (S)

Market risks accounts for only a small share of the banking sector's total risk, i.e. risk-weighted-assets (Chart 3), the majority of market risk being interest rate risk. The materialisation of interest rate risk depends on the size of the interest-bearing items and changes in interest rates. In Finland, a general rise in interest rates would typically boost banking sector net interest income, as the interest rates on loans would rise more than deposit rates.

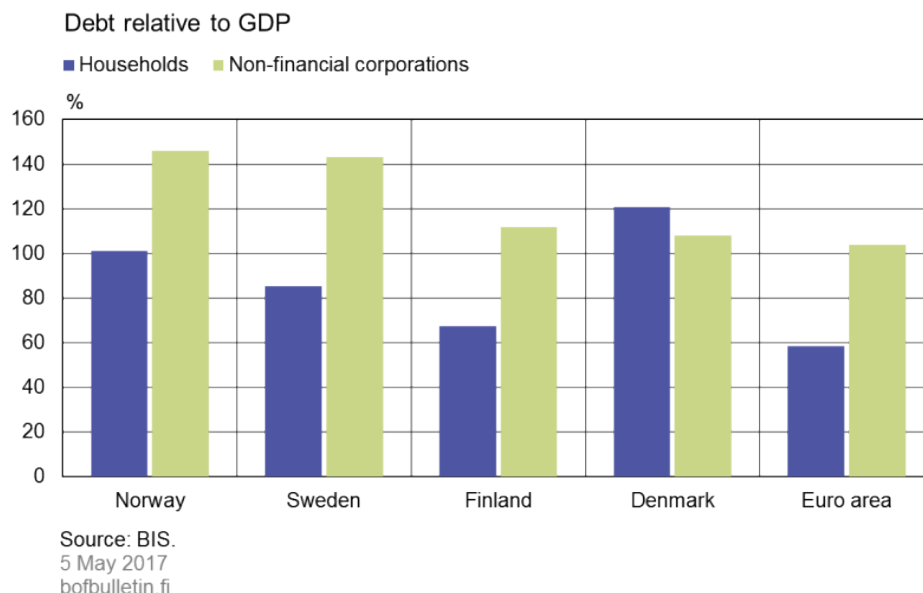
The materialisation of interest-rate risk could also have macroprudential effects. Market interest rates reached extremely high levels in Finland during the 1990s recession, and Helibor-tied interest rates on loans increased the interest expenses for households. Reflecting the large interest expenses and high unemployment, loan losses on household loans increased, but at a significantly slower pace than loan losses on corporate loans.

Households adjusted to the difficult situation by reducing consumption, to at least be able to service their housing loan. The reduction in consumption, however, put a further strain on the macroeconomic situation. Borrowers should therefore have adequate buffers for servicing their loan, in particular since the interest rate risk for households is nowadays higher. The share of Euribor-linked housing loans has risen to 90%.

Household indebtedness is high in all the Nordic countries (Chart 10). Economic research shows that there is a strong link between household debt accumulation and financial crises.^[3] To prevent systemic risks, Nordic countries should in the long term seek to curb the rise in the already high levels of household debt.

What would be an appropriate level of debt? There is no ultimate truth to this, but, for example, a BIS Working Paper^[4] published in January 2017 suggests that the negative long-run effects of household debt on consumption tend to intensify as the household debt-to-GDP ratio moves above 60%.

Chart 10.



Banking sector is sound, but continued vigilance is required

Overall, the Nordic banking sector's capital adequacy is extremely strong, due partly to the low risk weights in the internal credit risk models, and partly to the banks' good profitability and provisioning. Despite the shrinkage of net interest income, the sector's profitability has remained good, supported by the low level of loan losses as well as income from trading and net fee income.

However, the Nordic countries must not get lulled into a sense of complacency as regards the low level of loan losses, because pronounced vulnerabilities can be identified in the financial system. The high levels of household debt, the strong rise in house prices in some countries, and economic growth that is largely dependent on domestic demand expose the Nordic banking sector to medium-term risks. The spreading of possible financial shocks depends in the Nordic countries typically on, for example, the large size of the banking sector, the degree of concentration, branches and interconnectedness caused by covered bonds. It is therefore necessary to focus attention on these features.

3. Jordá – Schularick – Taylor (2015) Leveraged bubbles. *Journal of Monetary Economics*, 76, Supplement, pp. S1–S20. Detken et al. (2014) Operationalising the countercyclical capital buffer: indicator selection, threshold identification and calibration options. ERSB Occasional Paper Series No. 5 / June 2014.

4. BIS Working Paper (2017) The real effects of household debt in the short and long run.

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