



# Nordic financial sector vulnerable to housing market risks

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Household indebtedness is high in the Nordic countries. Housing loans are a significant part of banks' business, and covered bonds are important for banks both as sources of funding and as investments. The large size of the Nordic banking sector, its high degree of concentration and its interconnectedness with insurance companies increase the importance of housing market-related risks for the financial system and the economy as a whole. The materialisation of threats would increase losses in lending and investment activities and the cost of funding.



## Nordic countries in different stages of the housing market cycle

The Nordic countries are relatively small economies that are dependent on exports, and therefore vulnerable to global business cycle fluctuations. The global economic downturn triggered by the financial crisis resulted in a deep recession in Finland, Sweden and Denmark in 2009, as well as serious problems in the Danish housing and banking markets.<sup>[1]</sup> Sweden and Norway recovered from the recession fairly rapidly, whereas in Finland and Denmark economic growth has remained subdued for a protracted period.

Unsynchronised economic growth is also evident in a divergence in housing market cycles. House prices in real terms have risen strongly in Sweden and Norway. Particularly in Sweden, the sharp upward trend in prices has also continued in the past year (Chart 1). In Denmark, the rapid upward trend in house prices in real terms continued until the first half of 2007. In the following five years, however, prices plunged by nearly 30%, and the subsequent rise in prices has been slower than before the crisis. In Finland, house prices have risen more moderately than in the other Nordic countries since the turn of the millennium.

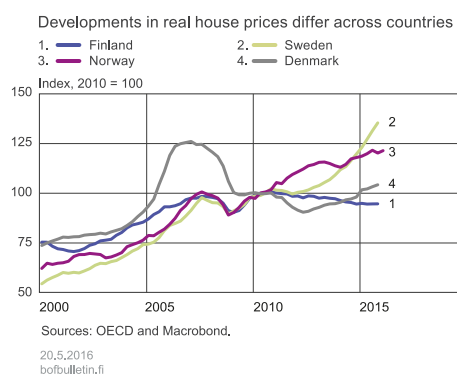


Chart 1

Nordic households' debt levels have risen throughout the 2000s, and debt ratios are considerable by international standards, e.g. relative to households' annual disposable income. The differences between countries are also considerable, however, and are due, among other things, to differences in housing loan repayment practices.

## Nordic banking sector large and concentrated

The profitability of Nordic banks has remained for the most part good in recent years, and significantly higher than in the European peer group. The only exception is Denmark, where some of the banks failed during the global financial crisis. The capital adequacy of the Nordic banking sector is solid by European standards, as measured by the equity-to-risk-weighted assets ratio. In contrast, the banking sector's equity-to-assets ratio is fairly low by European standards (Chart 2).

1. This article does not examine Iceland, whose interconnectedness with the Nordic financial system is currently lower than that of the other Nordic countries. Iceland's economy is in the process of recovering from the banking and economic crisis that started in 2008.

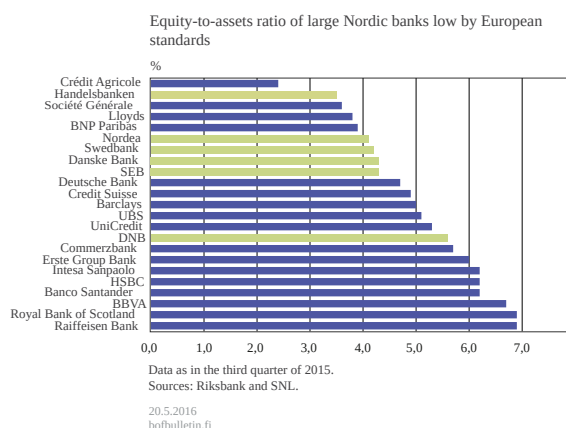


Chart 2

The state of the Nordic banking and financial system is currently good, but the system has also significant structural vulnerabilities. The materialisation of risks related to these vulnerabilities could also be a significant threat to financial stability in Finland. The vulnerabilities of the Nordic banking sector are its large size, degree of concentration, the major role of housing loans in the financial system as well as banks' dependence on market funding.

The vulnerability of the Nordic financial sector is increased also by the strong interconnectedness of the banking and insurance sectors via both ownership structures and investments, and particularly share markets. Interdependences exist both on the national and the Nordic level.

Relative to the size of the economy, the Nordic banking sector can be considered large by international standards. In Sweden, the size of the banking sector is approximately 3.5 times the economy's GDP, and even in Denmark it is some three times GDP (Chart 3). The size of the Finnish banking sector is approximately 2.7 times GDP, including the subsidiaries and branches of foreign banks operating in Finland. The number of banks is also significant: in April 2016, the number of credit institutions operating in Denmark, Norway, Sweden and Finland totalled 754.<sup>[2]</sup>

2. EBA credit institution register (2016).

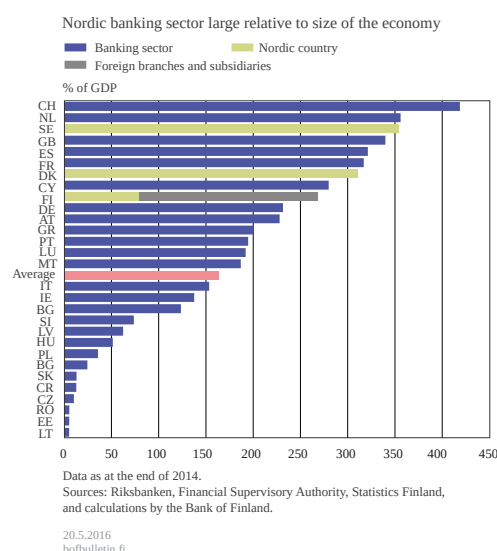


Chart 3

The Nordic banking sector, however, is strongly concentrated, because measured in terms of assets, the sector is dominated in practice by a handful of banks that are systemically important for the national financial systems. Danske Bank, Handelsbanken and Nordea have a significant market share in four Nordic countries (Table 1). The other large banks are DNB, OP Group, SEB, and Swedbank. Many of the banks also have a significant position in the Baltic market.

Table 1.

### Market shares of large Nordic banks, %

	Norway		Sweden		Finland		Denmark	
	Loans	Deposits	Loans	Deposits	Loans	Deposits	Loans	Deposits
Danske Bank	5.1	5.0	4.7	3.9	9.8	11.9	26.5	27.1
DNB	29.5	46.7	0.5	0.7	-	-	-	-
Handelsbanken	5.1	3.0	22.0	19.0	5.8	3.4	-	-
Nordea	13.5	12.5	13.6	14.6	28.8	28.7	17.6	31.2
OP Group	-	-	-	-	34.2	36.4	-	-
SEB	-	-	14.3	15.4	-	-	-	-
Swedbank	-	-	22.2	19.9	-	-	-	-
<b>Total</b>	<b>53.2</b>	<b>67.2</b>	<b>77.4</b>	<b>73.5</b>	<b>78.6</b>	<b>80.4</b>	<b>44.1</b>	<b>58.3</b>

Sources: The Federation of Finnish Financial Services (31 Dec 2014), Statistics Sweden (29 Feb 2016), Finans Norge (31 Dec 2014) and banks' financial statements.

## Covered bonds increase interconnectedness

A Nordic special characteristic can be considered the important role of mortgage credit institutions and covered bonds, particularly in the funding of housing loans, but also in bank funding in general (Chart 4). With the exception of the Danish mortgage credit bank Nykredit, all of the large mortgage credit banks are owned for the most part by commercial banks.

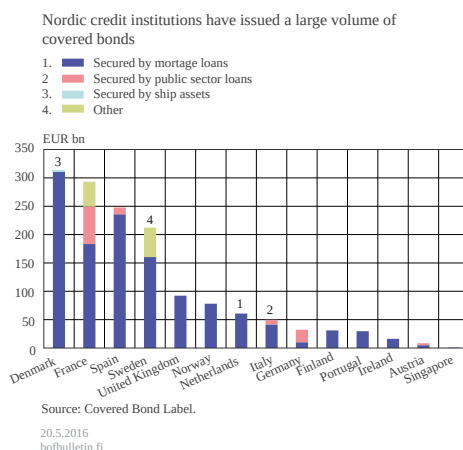


Chart 4

The strong growth in lending for house purchase, particularly in Denmark and Sweden, has boosted the balance sheets of mortgage credit banks in these countries. At the same time, the share of housing loans in banks' balance sheets has risen to very high levels by European standards. As the funding of mortgage credit institutions is based solely on market-based funding, the funding gap between loans granted and deposits received in the Danish and Swedish MFI sector is now at a record level.

The good performance of the Nordic economies, low unemployment and strong developments in the housing market over the longer term have provided mortgage credit banks an opportunity to acquire market funding at a very low cost. The Nordic mortgage credit system is also considered very transparent, liquid and conservative in terms of lending standards, which has boosted investors' confidence in the system.

The situation of mortgage credit banks remained relatively stable during the global financial and sovereign debt crisis. Despite the significant decline in house prices in Denmark, loan losses on housing loans remained low relative to banks' other loan losses. The low level of interest rates and long repayment periods of housing loans have thus far supported demand for housing loans and decreased the losses on these loans.

Even though the Nordic markets for covered bonds are considered to be safe and liquid, they also involve vulnerabilities and risks that, in the worst-case scenario, could be significant for the stability of the financial system.

Firstly, Nordic banks are very dependent on market funding. Currently, some 35–45% of Nordic banks' funding is market-based. The large importance of market funding exposes banks to changes in the risk sentiment of the global financial markets.

Secondly, the large Nordic banks also operate as market makers in the secondary market

for covered bonds, to safeguard the liquidity of markets. As a result, 20–30% of covered bonds are held by these banks.

Thirdly, the refinancing of bonds held by banks often takes place in the short-term money markets, such as the repo market<sup>[3]</sup>, which further increases the interconnectedness of the financial system and exposes banks to disruptions in these markets. The volume of covered bonds held by banks has decreased recently, however, which may at least be partly due to tighter regulation. In Denmark, this has raised concerns about the weakening of market liquidity.<sup>[4]</sup>

Fourthly, due to the large importance of covered bonds, other domestic entities are also strongly interconnected with these markets. In Denmark and Sweden, some 70–80% of investors in covered bonds are domestic. In addition to banks, other major investors in these instruments are insurance companies and pension funds, which further increases the systemic importance of covered bonds.

In Finland, domestic investors' holdings of covered bonds issued by Finnish banks are, in contrast, relatively small. For example, at the end of 2015, Finnish banks held approximately EUR 1 bn of covered bonds of domestic issuers, which accounted for only a few percentages of the volume outstanding of these bonds. Finnish banks have, however, invested in bonds issued by other Nordic banks and mortgage credit institutions.

A crisis in the Nordic housing markets and a collapse in collateral values could, in a worst-case scenario, lead to a simultaneous rise in credit and counterparty risks in the entire financial system and a weakening of bank funding and liquidity conditions. The probability of a significant crisis is, however, very small.

## Insurance sector dependent on stock market returns

Profitability in the Nordic insurance sector has in recent years been fairly strong, on average, and solvency has also remained strong overall, despite uncertainties in investment activities. Currently, the biggest challenges for insurance companies are the impact of the low level of interest rates on profitability and on the need to make changes in business models. Interest rates have remained low for a protracted period, but the impact of this on the return on investment will become increasingly evident as fixed-income investments with lower yields mature and assets are reinvested in instruments with a lower interest rate.

Nordic life-insurance companies have, on average, a large volume of guaranteed-return life and pension insurance policies, the guaranteed return on which is higher than long-term, low-risk market interest rates. The significance of guaranteed-return policies varies from country to country, however, and there are also considerable country- and

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3. Repo = repurchase agreement.

4. The subject is discussed in e.g. the financial stability publication of Danmarks Nationalbank (Financial Stability 2nd half 2015).

company-specific differences in the maturities of technical provisions and fixed-income investments.<sup>[5]</sup>

In Norway, guaranteed-return life insurance policies account for approximately 80% of life insurance companies' technical provisions, and in Sweden, too, the proportion of these insurance policies is still considerable. In Sweden, the impact of the decline in interest rates on the solvency of life insurance companies has been alleviated by a reform in 2014 that mitigates the impact of lower interest rates on technical provisions. In Finland, sales of new life insurance policies with a guaranteed return have already been very low for a number of years, and currently only one-third of life insurance savings are guaranteed-return.

The return on the investment activities of Nordic life insurance companies has reached the level required for insurance policies with a guaranteed return. The vulnerability of the companies has increased, however, as a result of the decline in interest rates. New fixed-income investments will fulfil the yield requirements only if the risk level of the investments is raised considerably. If companies do not raise the yield and risk level for the fixed-income investments, they will be increasingly dependent on the return on equity investments. A considerable decline in share prices would probably cause serious solvency problems for several Nordic life insurance companies.

## Problems could spread from the other Nordic countries to Finland

In the unlikely scenario that the Nordic mortgage credit bank system would start to falter, the problems could easily spread from the other Nordic countries to Finland, via several channels. Possible channels of contagion would be the large Nordic banks operating in Finland, the partly common vulnerabilities related to wholesale funding and, as regards the real economy, foreign trade and a general weakening trend in economic confidence.

Of the four largest banking groups operating in Finland<sup>[6]</sup>, three are either branches or subsidiaries of a foreign Nordic bank (Table 2). As the capacity of branches and subsidiaries to provide financial services also depends on the situation of the entire group, and because these entities hold a significant share of the Finnish market (at the end of 2014: approximately 44% of loans to the public), financial difficulties of these large Nordic banks in other Nordic countries could be reflected in Finland as a decrease in the provision of credit.

Table 2.

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5. Results of the stress test carried out by the European Insurance and Occupational Pensions Authority (EIOPA) in 2014 show that the largest duration gap, caused by the differences in the maturities of technical provisions and fixed-income investments, are found in Sweden, where, together with Germany, the differences in maturities are the largest. In Finland and Denmark, the corresponding differences in maturities are considerably smaller than in Sweden or Germany.

6. OP Group, Nordea Bank Finland Plc Group, Danske Bank Plc and Handelsbanken Group. See banks' market shares of loans to the public <http://www.finanssiala.fi/en/statistics/FK-Tilasto-FinancialServicesStatistics2014.pdf>.

### Cross-country differences in the structure of large Nordic banks

	Finland	Sweden	Norway	Denmark	Baltic countries
Danske Bank	Subsidiary*	Branch	Branch	Parent company	Branch
DNB	Branch	Branch	Parent company	Branch	Subsidiary
Nordea	Subsidiary**	Parent company	Subsidiary**	Subsidiary**	Branch
SEB	Branch	Parent company	Branch	Branch	Subsidiary
Swedbank	Branch	Parent company	Branch	Branch	Subsidiary
Handelsbanken	Branch	Parent company	Branch	Branch	Branch

Situation as at the end of May 2016.

\*Also a branch.

\*\*Nordea has announced that it will convert its deposit banks operating in Finland, Norway and Denmark into branches.

Source: Banks.

As in Sweden and Denmark, in Finland, too, a large and increasing share of bonds issued by banks are covered bonds. Covered bonds have also provided Finnish banks with funding at a reasonable price, due to their high credit rating and eligibility as collateral.

The increased use of covered bonds is, however, reflected in higher asset encumbrance which may, particularly in a stress situation, push up the interest rates on unsecured bonds issued by the banks. In a serious stress situation, funding acquired by issuing covered bonds could also become more expensive and the demand for these could subsequently weaken.

The Nordic countries are important trading partners, and they would be adversely affected by each other's negative economic developments. Foreign trade statistics 2015 by Finnish Customs show that Norway, Sweden and Denmark account for a total of 18.6% (EUR 8 bn) of Finnish exports and for 21.3% (EUR 8.9 bn) of Finnish imports. The most significant items exported from Finland to the other Nordic countries are, e.g. machinery and transport equipment, raw materials and fuels.<sup>[7]</sup> The recovery of the Danish economy from the banking crisis has been facilitated by economic developments in its main trading partners, Germany and Sweden.

## Tags

financial stability, insurance companies, housing loans, Nordic countries, banks

7. See also Bank of Finland Bulletin article '[A brief history of Finnish foreign trade](#)'.