Analysis

Risks on the Swedish housing market also a cause for concern in other Nordic countries

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Helinä Laakkonen, Eero Tölö, Kimmo Koskinen, Hanna Putkuri

AUTHORS



Helinä Laakkonen
Head of Division



Eero Tölö



Kimmo Koskinen
Adviser



Hanna Putkuri
Adviser

Due to the interconnectedness of the Nordic real economies and financial systems, an extensive materialisation of risks on the Swedish housing market could also have notable effects in the other Nordic countries. The risk-bearing capacity of the Nordic financial system and public finances has remained good. The countries do, however, share some structural vulnerabilities, including a large and concentrated banking sector, considerable household indebtedness and the major role of housing loans in the financial system as well as banks' dependence on market funding.



Overheating of the Swedish real estate market as well as the high and rising level of household indebtedness have already for some time been a cause for concern in Sweden. Together with Finland and Denmark, Sweden was one of the eight countries to which the European Systemic Risk Board issued in November 2016 a warning on medium-term vulnerabilities in the residential real estate sector. In autumn 2017, the prolonged upward trend in house prices came to a halt and prices began to decline. This has given rise to heightened concerns about a stronger-than-expected downward correction in prices and its impact on Nordic financial stability.

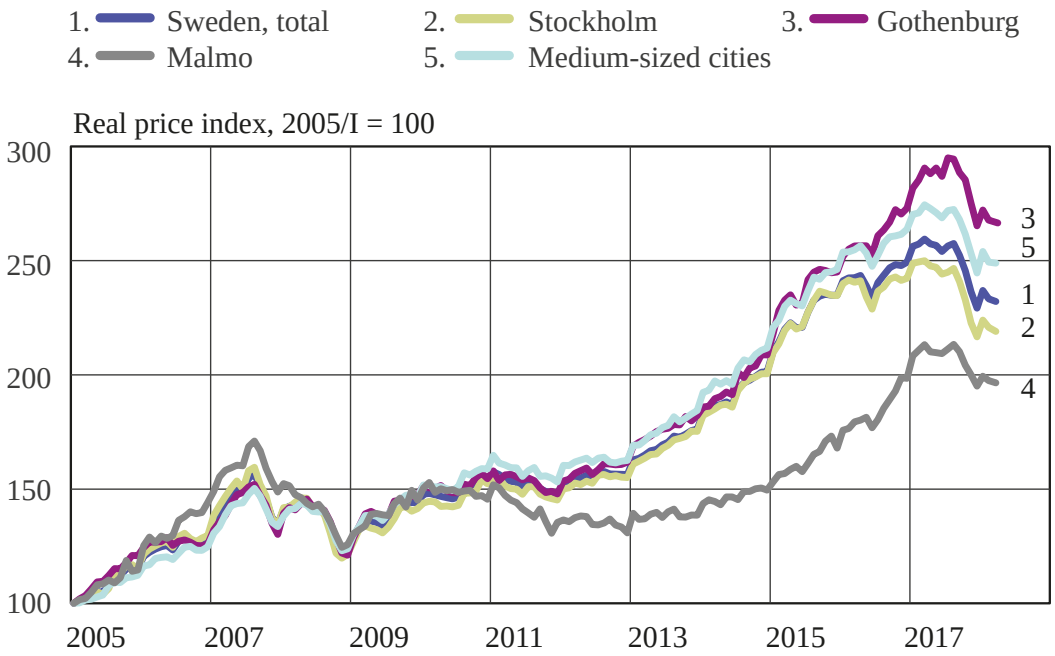
The Nordic countries are small economies, dependent on exports and with an integrated financial system. Even though Nordic governments, banks and insurance companies are solid by international comparison, the Nordic countries share the same vulnerabilities related to financial stability. These are a large and concentrated banking sector, household indebtedness, 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 exacerbated also by the strong interconnectedness of the banking and insurance sectors via both ownership structures and investments, and particularly covered bonds and share markets. Interdependences exist on both the national and the Nordic levels.

Possible shocks spread rapidly across the Nordic countries, via the links between the national real economies and financial systems (Chart 1). Sweden is an important foreign trade partner to the other Nordic countries, and a slowing of the Swedish economy would probably be reflected also in the other Nordic countries. Moreover, a tightening of financing conditions in Sweden caused by the materialisation of risks would probably also tighten financing conditions in the other Nordic countries as well, if Nordic banking groups were to curb lending and financial market risk premia

were to rise. The article examines risks on the Swedish housing market and the possible spread of these risks to the other Nordic countries via links between the real economies and banking sectors.

Chart 1.

House prices began to decline in Sweden in autumn 2017



Sources: Macrobond, Valueguard, European Central Bank and calculations by the Bank of Finland.

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Housing market vulnerabilities pose a risk to Swedish economy

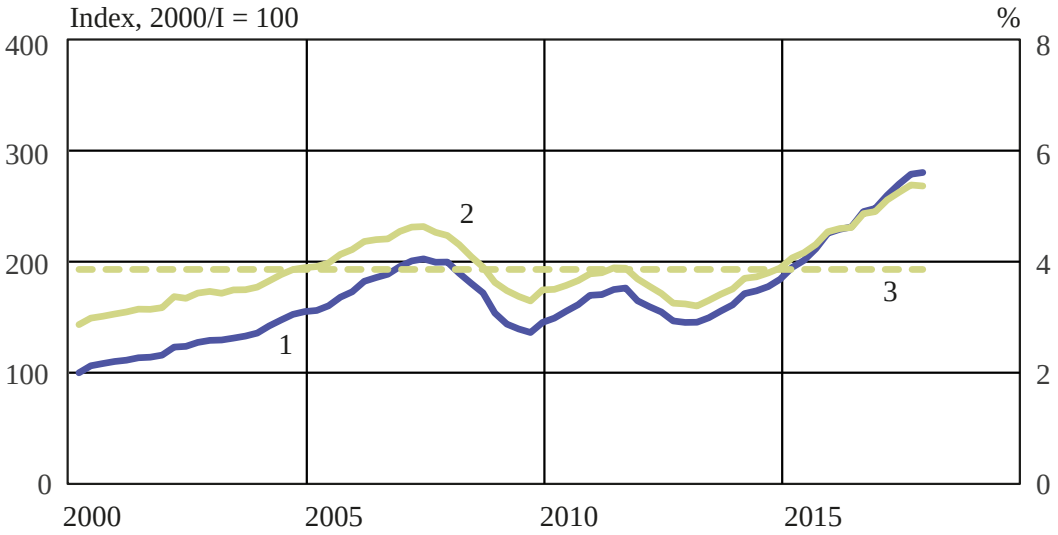
House prices began to decline in Sweden in autumn 2017 (Chart 2). Initially, the fall in prices was rapid and broadly based geographically. The pace of decline was, however, most pronounced for the prices of flats in Stockholm. According to the Valueguard HOX index, the real prices of flats in Stockholm were at the end of 2017 on average some 12% lower than at their all-time high in August 2017, while for the whole country, prices were 11% down.[1] In January–March 2018, the

decline levelled off compared with the situation in the immediately preceding months, but prices for the country as a whole were significantly lower than a year earlier.

Chart 2.

Housing construction vulnerable to the economic cycle

1. Housing construction investment, at 2010 prices (left-hand scale)
2. Housing construction investment, % of GDP (right-hand scale)
3. Average since 2000 (right-hand scale)

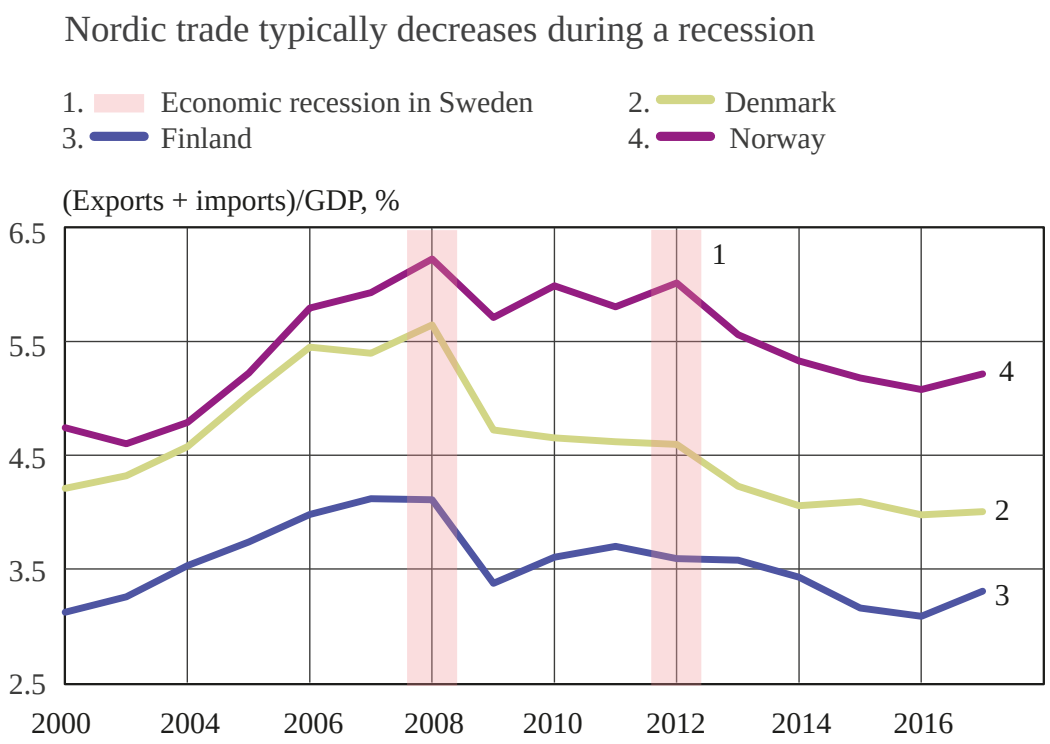


Sources: Macrobond and Eurostat.

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The uncertainty on the Swedish housing market remains more heightened than usual. Around the turn of the year, a larger proportion of Swedes (some 40%) expected house prices to fall in the next 12 months, whereas a smaller proportion (over 30%) expected prices to rise.[2] In February 2018, expectations turned more positive (Chart 3).

Chart 3.



Sources: Statistics Sweden and Macrobond.

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Before the start of the correction, house prices in Sweden rose for a prolonged period. The trend in prices had raised concerns over sustainability, particularly in the event of interest rates beginning to rise or the economy faltering. House prices are still high in historical terms, relative to for example household income and rents. A controlled, gradual levelling off in prices would be favourable for both financial stability and the economy in Sweden. Very pessimistic expectations of a decline in prices – as well as overly optimistic expectations of a renewed rise in prices – could, in the worst case, create a damaging self-reinforcing spiral. Another potential risk is a continued increase in vulnerabilities following a short-term correction.

The overheating and recent cooling of the Swedish housing market has been explained by a number of cyclical and structural factors. In the current decade, demand for owner-occupied housing and the rise in house prices have been supported by favourable economic developments, growth in household income, lower interest rates, long repayment periods for loans and interest-

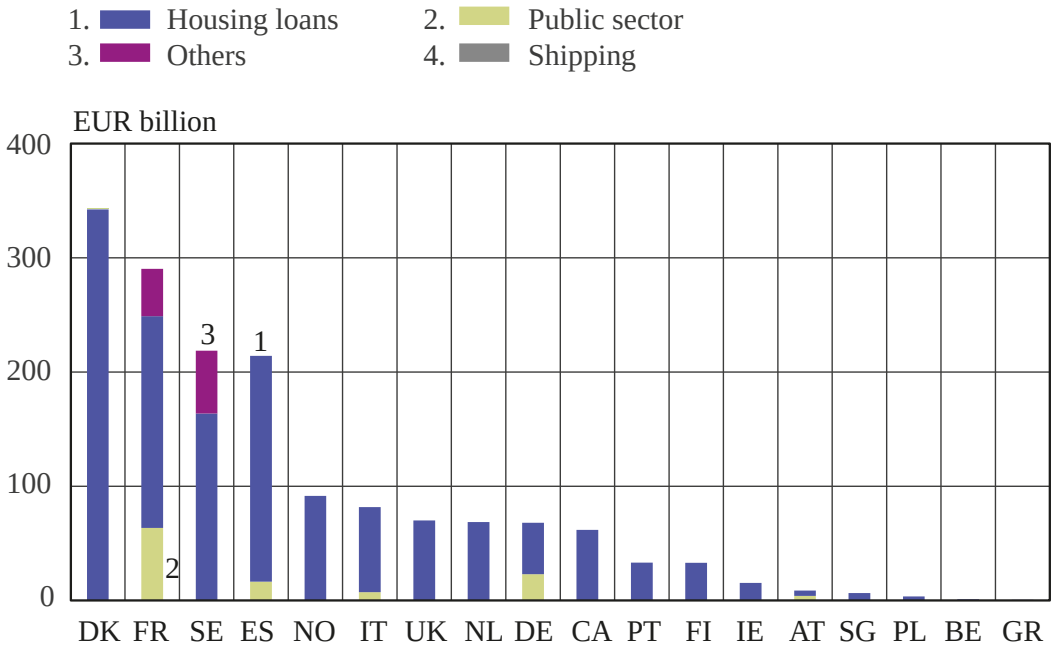
only periods, population growth, migration and urbanisation, shortage and regulation of rental housing as well as the low volume of housing construction relative to demand.

The recent cooling on the Swedish housing market has, in turn, been explained by the exceptionally robust growth in housing construction, regulatory measures that curb households' accumulation of housing debt, more cautious market sentiment, and the rise in interest rates that is on the horizon. It is difficult to assess the relative significance of the various factors, but the pick-up in housing construction seems to be the largest single change.

Housing investment has grown in Sweden since 2013, and its share of GDP is considerably larger than since 2000 on average (Chart 4). A strong increase in the supply of flats contributes to curbing the demand-driven upward pressure on prices of old flats, in particular. The shortage of flats in growth centres is, however, expected to continue. According to the Riksbank's forecast, housing starts reached a peak in 2017 and will decrease gradually in the next three years. Reduced housing investment will begin to restrain Swedish GDP growth in 2019 as the decrease in the amount of new housing construction projects dampens investment.[3]

Chart 4.

Nordic credit institutions have issued a large volume of covered bonds



Source: Covered Bond Label.

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Rising house prices and increasing household indebtedness have in the long run mutually reinforced each other. To curb indebtedness, Sweden introduced in 2010 a loan-to-value cap of 85% on new housing loans. In addition, the Swedish financial supervisory authority introduced in summer 2016 an amortisation requirement for mortgages with a high loan-to-value ratio. The amortisation requirement for new housing loans was tightened in March 2018 in cases where the size of the housing loan is large relative to the household's gross income. The purpose of the measures is to increase over time households' resilience to macroeconomic shocks and shocks to their own finances. Tighter amortisation requirements may also decrease demand for large housing loans, which is positive for financial stability.

The housing market is sensitive to changes in interest rates, and the increase in household indebtedness may also have increased this sensitivity. The majority of Swedish housing loans are variable-rate loans, and as a result the average interest rate on the stock of housing loans has in

recent years fallen to historically low levels. Consumer confidence in the economy has thus far remained strong, and the low level of interest rates has supported both the housing market and the sustainability of household debt. A rise in interest rates is, however, on the horizon, as the Riksbank forecasts that interest rate rises will commence in the second half of 2018.[4]

The materialisation of risks related to housing market imbalances and the high level of household indebtedness could have significant effects on the Swedish economy. In the short term, there is a risk of a stronger-than-expected and more protracted decline in house prices, which would have a more notable impact also on consumption and investment. In a possible economic downturn, or if debt-servicing expenses were to start to grow, there is a risk that households that are heavily indebted relative to their incomes and wealth would begin to cut down on consumption, as a result of higher expenses or lower net wealth. Lower consumption and weaker confidence could trigger a harmful chain reaction for the economy as a whole and thus materialise as losses to credit institutions and the economy, reflecting difficulties in the corporate sector.

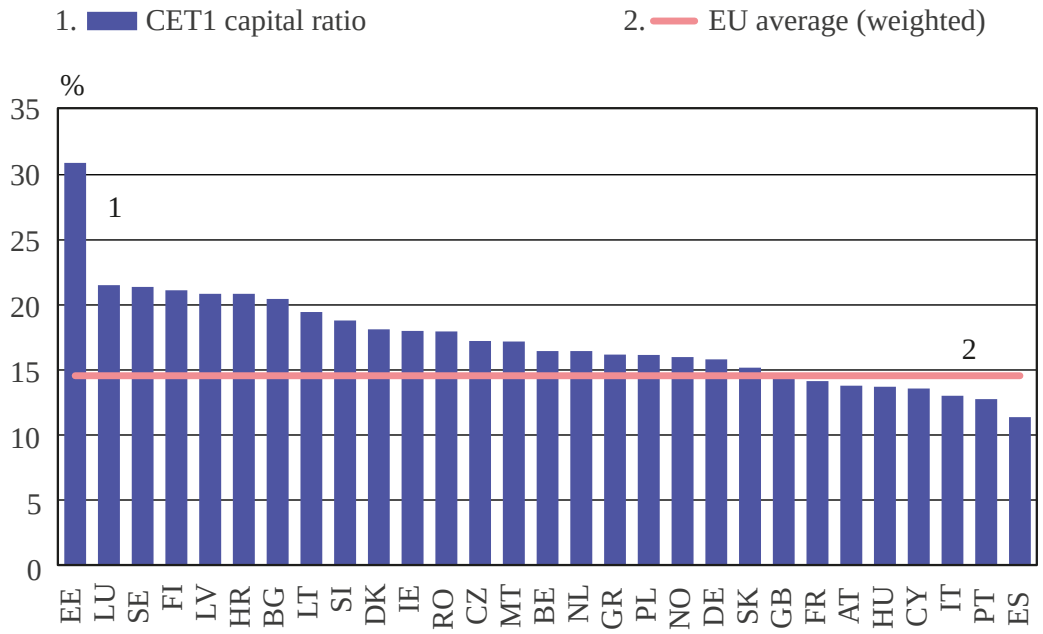
An extensive materialisation of risks in the economy and the financial system, stemming from the housing market, would increase Swedish banking groups' losses from lending and investment activities and also raise the cost of funding and weaken liquidity. This could reduce the provision of credit and tighten credit criteria. It might also have several second-round effects. Strong cyclical fluctuations in the availability of finance and situations in which weak availability of finance prevents companies from investing and employing would have an adverse effect on economic growth and financial stability.[5]

Materialisation of risks in Sweden would weaken the growth outlook for the other Nordic countries, too

All the Nordic countries are relatively small open economies in which international trade plays a significant role in terms of GDP. The Nordic countries are also important trading partners for each other (Chart 5). The GDP share of goods exports to other Nordic countries was in 2016 significantly higher in Sweden (6.5%) and Denmark (6.3%) than in Finland (3.7%) and Norway (2.8%). As the largest economy, Sweden is the most important Nordic trading partner of the other three. For the other three (Finland, Denmark, Norway), the shares of mutual trading are much smaller. Sweden's share of total goods exports was in 2016 as follows: Finland 10.7%; Denmark 11.8%; and Norway 6.4%. Sweden is also a major import country for all the Nordic countries. In 2016, of total goods imports to Finland, 11.2% came from Sweden, and the figures for Denmark and Norway were 12.1% and 11.9%, respectively.

Chart 5.

Banking sector’s Common Equity Tier 1 (CET1) ratio for European countries



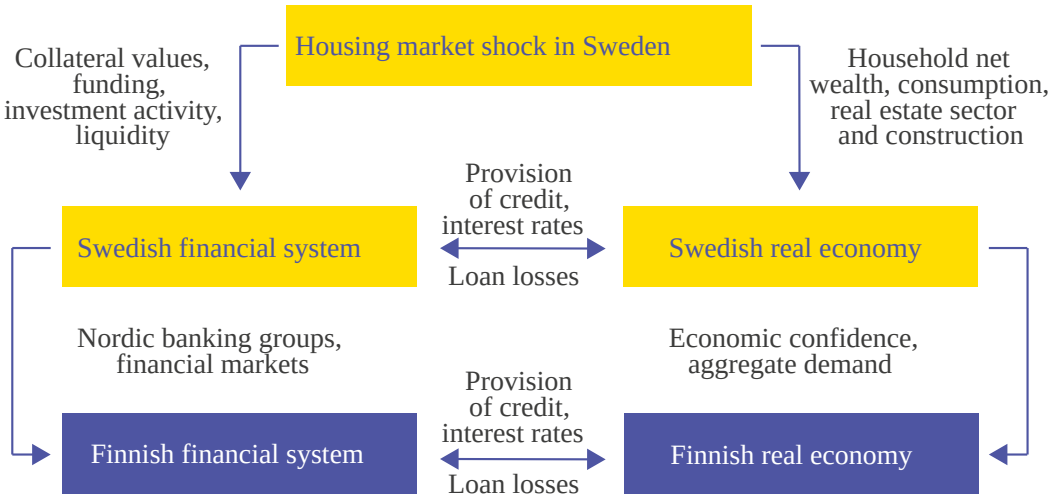
Source: European Banking Authority.

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The Nordic countries are sensitive to shocks to external demand and, due to their mutual trading links, to negative shocks in the other Nordic real economies. Possible problems in the Swedish real economy would thus be reflected negatively also in the real economies of the other Nordic countries. Sweden’s foreign trade with the Nordic countries has declined in times when an economic recession has hit several of the Nordic countries at the same time, as during the global financial crisis (Chart 6). The IMF has analysed the mutual impact of the Nordic economies, using a variety of scenarios on the real economy.[6] According to the IMF, the largest spillover effects due to interconnections between the real economy and the financial system are from Sweden to the other Nordic countries.

Chart 6.

Housing market shocks may spread from one country to another



Source: Bank of Finland.

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Vulnerabilities and interconnectedness of the Nordic financial system pose a structural risk

Besides the trading linkages of the real economy, the Nordic countries are also strongly interconnected via the financial system. The Nordic banking sector is relatively large[7] and concentrated, and the largest Nordic banks operate in several countries in the region (Table). Many of the banks also have a significant position on the Baltic market. Of the four large banking groups operating in Finland, three are currently branches of a Nordic bank (Nordea,[8] Danske Bank and Handelsbanken). The capacity of branches and subsidiaries to provide financial services also depends on the situation of the parent company and the entire group. Because these entities hold a significant share of the Finnish market (at the end of 2016: approximately 43% of the stock of loans to the public), financial difficulties at these large Nordic banks in other Nordic countries could also be reflected in Finland as a decrease in the provision of credit.

Table.

Country breakdown of lending by selected banks

	Sweden	*Norway*	*Denmark*	*Finland*	*Other*	*Total*
Swedbank	*86.1*	*3.2*	*0.2*	*0.6*	*9.9*	*100.0*
SEB	*72.9*	*2.9*	*1.6*	*1.6*	*21.0*	*100.0*
SHB	*63.7*	*11.9*	*4.8*	*6.1*	*13.5*	*100.0*
Nordea	*35.2*	*17.5*	*25.3*	*19.6*	*2.4*	*100.0*
Danske	*15.5*	*12.0*	*60.6*	*10.6*	*1.2*	*100.0*

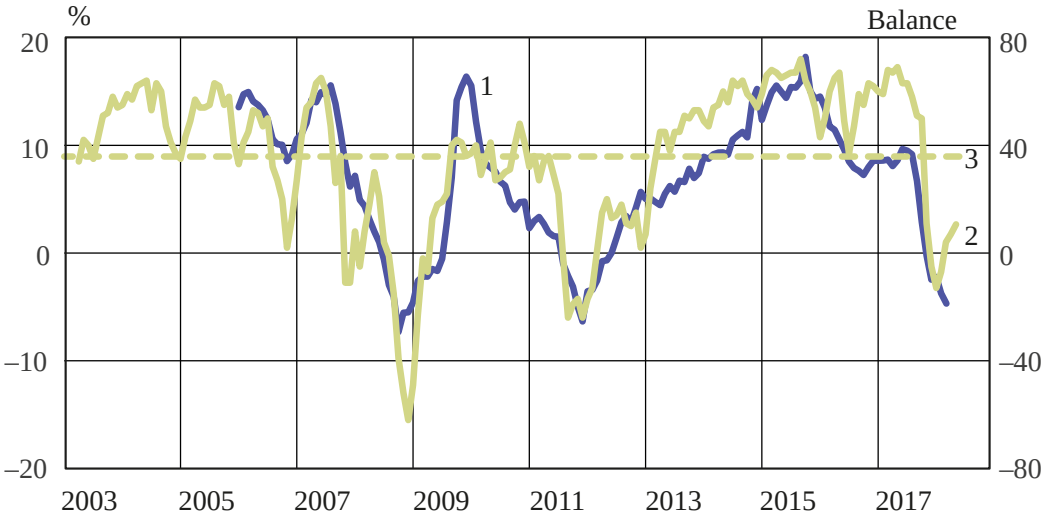
Source: Banks' financial statements.

In addition to the Nordic banking sector's large size, concentration and strong interconnectedness, the vulnerabilities also include the major role of housing loans in the financial system and banks' dependence on market funding (Chart 7). In the event of financial market disruptions, market funding is typically a more unstable funding form for banks than funding via deposits, and the dependence on market funding therefore exposes banks to changes in the risk sentiment of international investors. Market funding accounts for about 50% of the Nordic banks' total funding, compared with about 40% for European banks on average. The structural vulnerabilities of Swedish banks are also heightened by the large volume of short-term market funding denominated in foreign currency. For example, the Riksbank has repeatedly assessed that the Swedish banking system is subject to high liquidity risks.

Chart 7.

Swedish house price expectations deteriorated rapidly

1. Nominal house* prices, 12-month change (left-hand scale)
2. Consumer expectations on developments in house* prices in the following 12 months (right-hand scale)
3. Balance figure for expectations, average for the period (right-hand scale)



* Flats and detached homes.
Sources: Macrobond, Valueguard, SEB and calculations by the Bank of Finland.

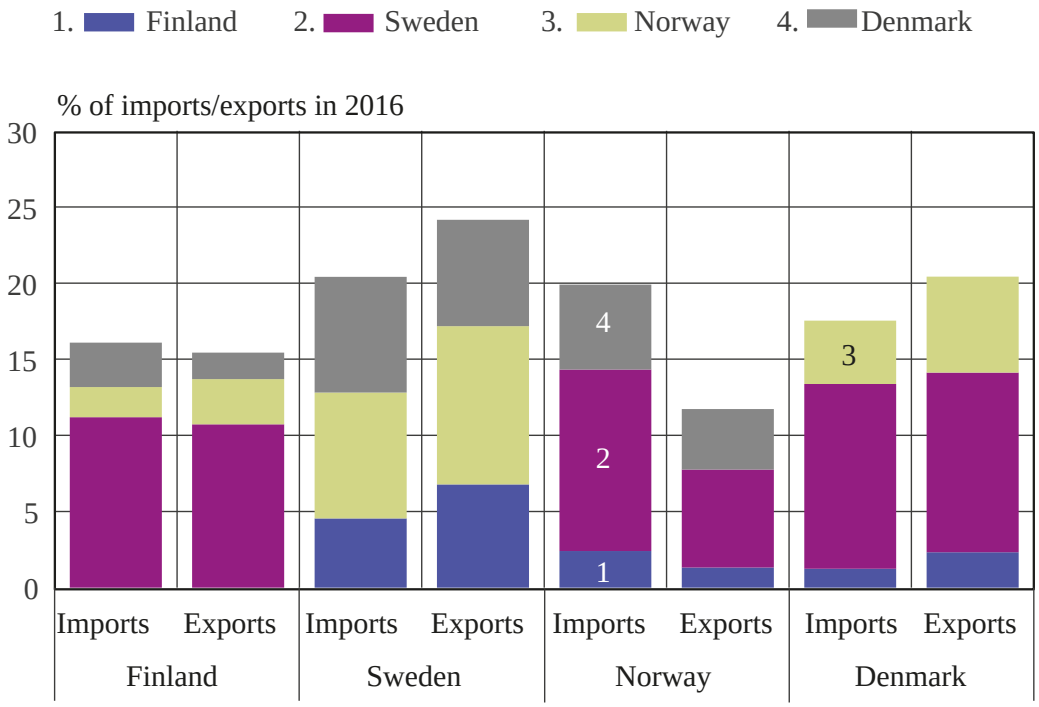
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Covered bonds secured by mortgage loans play an exceptionally important role for Nordic banks, especially in the funding of housing loans, but also in funding in general (Chart 8).[9] Nordic banks' covered bonds have historically provided banks with funding at a reasonable price, due to their high credit rating, high collateral quality and transparency. However, the substantial use of covered bonds amplifies the interconnectedness of the banking sector with housing markets and raises asset encumbrance.[10] In crisis situations, a high level of asset encumbrance increases the risks for investors who have invested in unsecured bank bonds. Namely, if a bank is put into resolution, secured liabilities (and hence also liabilities secured by mortgage loans) are excluded from the scope of the bail-in regime, meaning that the bail-in tool and debt security write-downs only apply to those who have invested in unsecured bonds. In addition, when the level of asset encumbrance rises, a smaller proportion of bank assets can be liquidated in the event of a crisis.

High asset encumbrance can, especially in stress situations, push up the yields on unsecured bank bonds. In the case of a serious disruption on the housing market, funding acquired by issuing covered bonds could also become more expensive and the demand for these could subsequently weaken. The higher cost of bond funding and weaker availability of these instruments, in turn, could in the worst case escalate into a bank liquidity crisis.

Chart 8.

Sweden is the most important Nordic trading partner for Finland, Norway and Denmark



Source: Macrobond.

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Nordic banks use covered bonds in liquidity buffers. High credit ratings enable the use of bonds as collateral in, for example, central banks' monetary policy operations and on the money markets.

Large Nordic banks also operate as market makers[11] on the secondary markets for covered bonds, which increases their exposure to contagion risks. Due to their position as market makers, banks are also active on the short-term money markets, such as the repo market. The repo market

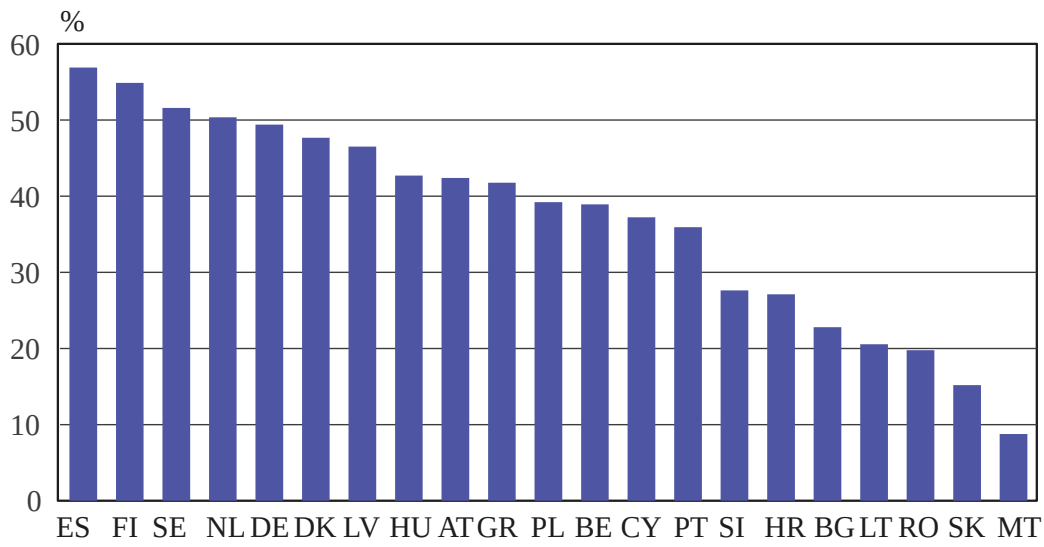
further increases the interconnectedness between banks and bank linkages with other financial market participants.

In addition to banks, other major investors in covered bonds are Nordic insurance companies and pension funds, which further increases the importance of covered bonds in the financial system. The Nordic covered bond market is exceptional in the sense that its investor base is, apart from Finland, strongly domestic. In Denmark and Sweden, for example, about 70–80% of investors in covered bonds are domestic (Chart 9). The majority of covered bonds are issued in domestic currency, which reflects the investor base.

Chart 9.

Nordic banks' dependence on market funding above average

Share of wholesale funding in banks' total funding



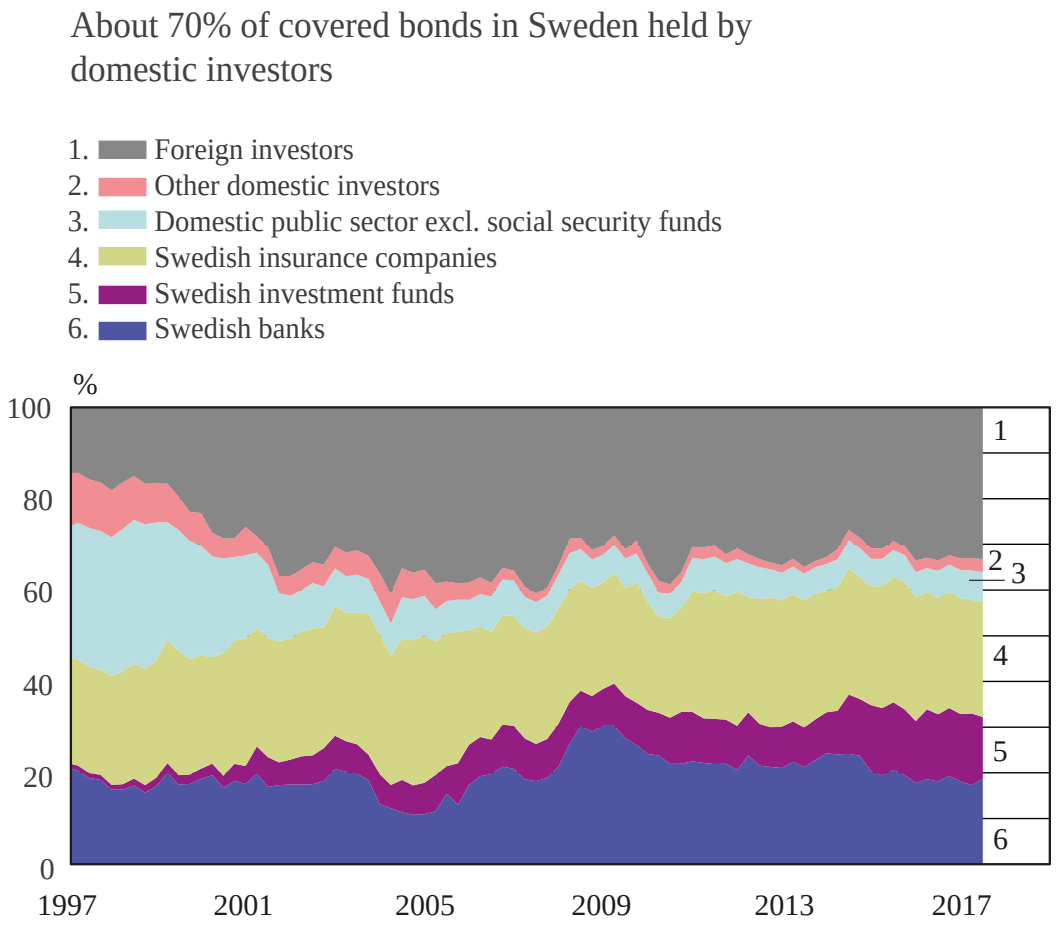
Source: European Central Bank.

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Despite the vulnerabilities, risk resilience in the Nordic countries is strong

The vulnerabilities are counterbalanced by the strong risk resilience of the Nordic financial system. The capital adequacy of the Nordic banking sector is solid by European standards, as measured by the ratio of own funds to risk-weighted assets. The banking sector capital adequacy ratios are well above the European average especially in Sweden and Finland (Chart 10). In the case of the Common Equity Tier 1 (CET1) ratio, all the major Nordic banks exceed the European average (14.3%).

Chart 10.



Sources: Riksbank and Statistics Sweden.

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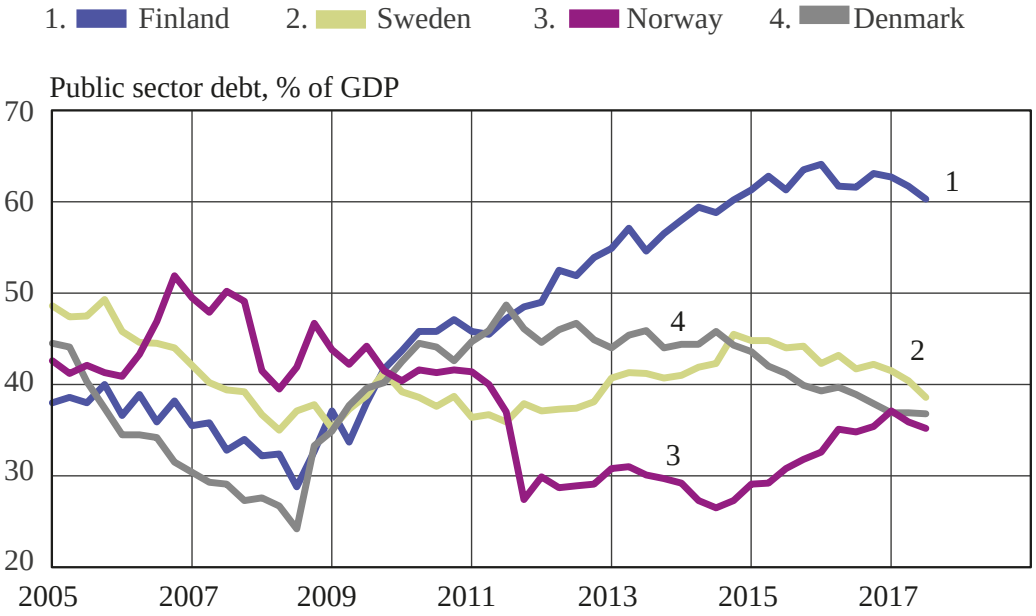
In terms of their leverage ratio, however, the Nordic banks do not perform as well. The average leverage ratio is higher than the European average (5.4%) for the Finnish and the Norwegian banking sector (about 7%), but lower for the Swedish and the Danish banking sector (about 4.6%). Nordic banks typically have high volumes of low-risk-weighted housing loans on their balance sheets, which boosts their capital adequacy ratios. On the other hand, these items also explain why the Nordic banks have relatively low volumes of own funds in relation to their balance sheets.

The Nordic banking sector's risk resilience is also boosted by its good profitability. The profitability of Nordic banks has remained good in recent years, well above the average for European banks. It has partly been supported by the low level of non-performing assets and impairment losses, cost-efficiency and the capacity to expand the income base outside basic banking activities, especially to asset management. In the short term, however, profitability may be subject to pressures e.g. from increasing digitalisation projects. Increasing competition in payment services may also have a negative impact on income. In an environment of low interest rates and tighter interbank competition, it may be difficult to raise net interest income without stronger risk-taking.

The low level of public sector debt accumulation in the Nordic countries creates fiscal room to manoeuvre in times of weaker economic developments. Good economic developments and low unemployment levels have supported central government finances in recent years, especially in Sweden and Norway. In Finland and Denmark, economic developments remained subdued for a prolonged period after the financial crisis, but economic growth has subsequently accelerated in these countries, too. Economic growth has also curbed public sector debt accumulation, which is by international standards relatively low in the Nordic countries, except for Finland (Chart 11). As in the case of the banks, Nordic sovereigns also source their funding from the international financial markets, which makes them dependent on the investor risk sentiment on the global financial markets. Because sovereign credit ratings usually create a basis for the credit ratings of enterprises and banks, ensuring sovereign debt sustainability is also important for the funding costs of the financial sector. All the Nordic countries have the best possible credit ratings in terms of credit risk, which has kept the costs of market funding very low for these countries.

Chart 11.

Good financial position of the public sector leaves room for manoeuvre in times of weaker economic developments



Source: Bank of International Settlements.

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So far, the decline in house prices in Sweden has not markedly increased global investors' concerns, nor has it been reflected in, for example, higher funding costs for banks. It is of vital importance for financial stability that the Nordic countries remain safe to invest in also in the future.[12] Despite good capital adequacy, the Nordic financial system is vulnerable in many respects. High structural vulnerabilities mean that the systemic risks relating to the housing markets and private sector indebtedness must be addressed via macroprudential policy tools at a sufficiently early stage and that the risk resilience of the financial system and the public sector must remain strong.

Notes

1. In the same period, the downward trend in the real prices for single-family homes was slightly more moderate, some 9% for the country as a whole. ↑
2. The balance figure for expectations (difference between the share of consumers expecting ↑

a rise and the share of consumers expecting a fall in prices) was considerably smaller than the average for the past 15 years or so.

3. See https://www.riksbank.se/globalassets/media/rapporter/ppr/engelska/2018/180214/reduced-housing-construction-is-subduing-gdp-growth-article-in-monetary-policy-report-february-2018 ↑
4. See https://www.riksbank.se/globalassets/media/rapporter/ppr/engelska/2018/180214/monetary-policy-report-february-2018 ↑
5. For a more detailed assessment on the possible impact a stronger than expected decline in housing prices on the Swedish economy, see the article "The impact of the housing market on the Swedish economy", Bank of Finland Bulletin 1/2018. ↑
6. See e.g. Vitek, F. (2013) Spillovers to and from the Nordic Economies: A Macroeconometric Model Based Analysis. IMF working paper 13/225; and Mircheva, B. & Muir, D. (2015) Spillovers in the Nordic Countries. IMF working paper 15/70. ↑
7. In Sweden, the size of the banking sector is approximately 3.5 times GDP, and even in Denmark it is some three times GDP. The size of the Finnish banking sector is approximately 2.0 times GDP, including the subsidiaries and branches of foreign banks operating in Finland (the figure for Finland will increase markedly with the relocation of Nordea's headquarters to Finland). The number of banks is also significant: at the beginning of 2018, the number of credit institutions operating in Denmark, Norway, Sweden and Finland totalled 700. ↑
8. Nordea will switch its domicile from Sweden to Finland towards the end of 2018. ↑
9. Another Nordic special characteristic can be considered the important role of mortgage credit institutions. These institutions are primarily owned by commercial banks, and due to their operation model their funding is based purely on market funding. For more information on mortgage credit institutions, see the article Nordic financial sector vulnerable to housing market risks by Koskinen, Putkuri, Pylkkönen and Tölö in Bank of Finland Bulletin 2/2016. ↑
10. In Denmark, the volume of encumbered assets has typically been particularly high, due to the large size of the housing market. In the third quarter of 2017, the ratio of encumbered assets to total assets was 52% for Denmark, 25% for Sweden and 25% for Finland. The average ratio for EU was 19%. ↑
11. A market maker acts as a buyer and seller in securities markets to safeguard market liquidity and smooth out variation in securities quotations. ↑
12. Koskinen and Laakkonen assess that a sharp rise in global risk premia is currently one of the key risks to the stability of the international financial markets. Koskinen, K. – Laakkonen, H. (2018) Repricing of securities markets' risk premia still most significant threat to global financial stability. ↑

Keywords

financial stability, financial system, housing markets, Nordic countries, real economy