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Swedish Property Market Poses Risks to Banks' Fundamentals

Scope Ratings considers concentrated exposure to domestic real estate as a key risk factor for the rated Swedish banks. For predominantly domestic banks, this is a negative driver of the rating. Following a bull market lasting two decades, we believe the Swedish property market is overvalued by 20% to 30%. In recent years, several warnings have been issued (by the Riksbank and the IMF among others) but the market has kept rising and imbalances have continued to build up.

In this report, we identify and analyse the drivers of the real estate bull market and to what extent these are to be considered structural rather than cyclical. We also look at the Swedish banks' exposures to the sector and at the extent to which these represent a threat to the banks' fundamentals. Our analysis includes a severe stress test of the real estate related exposures of Handelsbanken and Swedbank, the two banks with the largest exposures to real estate-related assets.

Common real estate valuation metrics, such as the price-to-rent and price-to-disposable income ratios, point to an overvaluation of 20%-30% compared to historical standards We have identified several concurring factors that have led to the current levels of overvaluation. Among these, we highlight the following:

- The availability of mortgage credit on generous terms, boosted by a cost efficient and profitable banking system which also benefited from low capital charges for mortgages and cheap funding.
- A prolonged period of low and declining real interest rates boosting mortgage affordability (together with the growing prevalence of variable rate mortgage products).
- Limited amortization requirements.
- A tightly regulated rental market, with fair rent regulation limiting the supply of rental units.
- A tax environment that incentivises home ownership and reinvestment.

Our conclusion is that while some of these factors appear to be structural, the prolonged period of rising prices has pushed expectations regarding future price developments to all time highs, just at the point in time where authorities seem most determined to curb excesses. While a soft landing is plausible if loose monetary policy and macro-prudential tools are finely calibrated, we believe there are inherent downside risks to this scenario.

Among the Swedish banks we rate, Nordea (A+, stable outlook) has the lowest exposure to Swedish real estate due to the higher degree of business and geographic diversification, while the exposures of Handelsbanken (A, stable) and Swedbank (A-, stable) are more than 10 times larger than their capital bases. For these banks, we have stress-tested their exposures and found that profitability and asset quality would be materially impacted in a stressed environment. We also caution that given the reliance on market funds, the indirect effects of a loss of confidence in the bank's ability would be more unpredictable.

Given our analysis, we view favourably the Swedish FSA's drive to increase the capital cushions of the banks as well as the recent proposals to increase the mandatory amortisation of mortgages which are over 50% of the property value as they bolster the banking system's robustness to potential shocks.

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How exposed are Swedish banks?

The exposure of Swedish banks varies according to their degree of geographical diversification and business model, and according to our calculations ranges from 16% of total loans at Nordea to 69% of total loans at Swedbank. Handelsbanken's exposure is 55% of loans while SEB's exposure is at 46% of total loans, albeit with a higher prevalence of corporate debt and lower incidence of mortgages. The four banks' exposures are summarized in Table 1.

Table 1: Nordea lending exposure to Swedish Real estate (EUR bn, 2013)

Real estate lending exposure in Sweden	% Swedish Loan Book	% Group loan book	Multiple of Group CET1 (x)
Nordea	62%	16%	2.4x
SEB	64%	46%	6.1x
Swedbank	76%	69%	10.9x
Handelsbanken	85%	55%	10.0x
Average	**72%**	**46%**	**7.4x**

Source: Company Data, Scope Ratings Estimates

We regard this large risk concentration as a negative factor affecting the credit profile of the banks. Indeed, while real estate assets have so far performed well, exhibiting low level of credit losses and boosting the financial fundamentals of the sector, a sharp deterioration of real estate assets performance in Sweden could significantly impact banks' profitability, asset quality and, under more stressed assumptions, funding and capital.

How do we factor real estate exposure risk in our ratings?

Scope's ratings are forward-looking. While the strong historical track record of Swedish banks and the best-in-class current profitability and asset quality metrics are important positive factors supporting our ratings, our negative assessment of the real estate sector generally impacts the ratings negatively.
For the purpose of our forecasts, we assume a managed stabilization of real estate prices in a prolonged period of very low interest rates, whereby macro-prudential tools are finely calibrated to produce the desired outcome of cooling down the real estate market without impacting economic growth or causing outright asset deflation. We factor this scenario in our analysis by forecasting muted loan growth, as well as a slight increase in NPLs and in the need for loan loss provisions going forward. However we also see inherent downside risks to this scenario.

In case of a sharper deterioration of the property and real estate sector in Sweden, we foresee at least three direct and several indirect impacts on fundamentals. Direct impacts are more readily identifiable and include:

- The increase in impaired assets;
- The decline in profitability due to large loan provisions need;
- The loss of interest income due to more customers stopping payments.

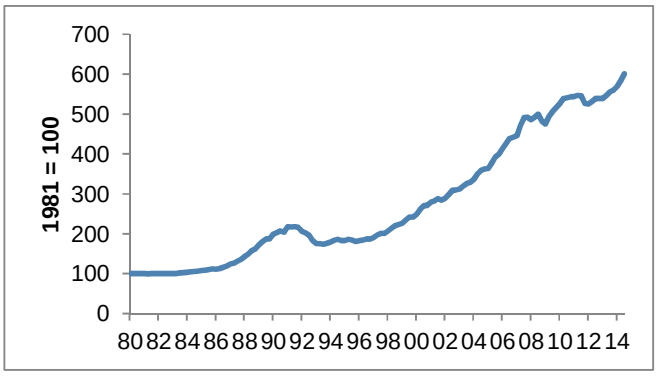
We have analysed the exposure of each bank and applied severe stress tests to the exposures. Our static stress tests reveal that even the more exposed banks can withstand significant deterioration in their asset quality with relatively limited impacts on their capital position, thanks to ample pre-provision profitability buffers. However, we believe that the indirect impacts are more unpredictable (and difficult to test for), and in the case of more significant deterioration of the profitability outlook we would expect funding costs to rise to reflect higher risk and underlying economic conditions to worsen. We would also expect an increase in the model-driven PD and LGD estimates for RWAs calculations and consequently a decline in the reported capital ratios.

Overall, while we believe that Swedish banks could withstand a soft landing of the real estate sector, their fundamentals may deteriorate more significantly under a more severe scenario. Consequently, we include a sharp real estate prices correction, a deterioration of asset quality and profitability or a worsening of access to funding markets as negative rating change drivers for the mostly domestic Swedish banks we rate.

Swedish real estate prices: a 20-year bull market has led prices ahead of fundamentals

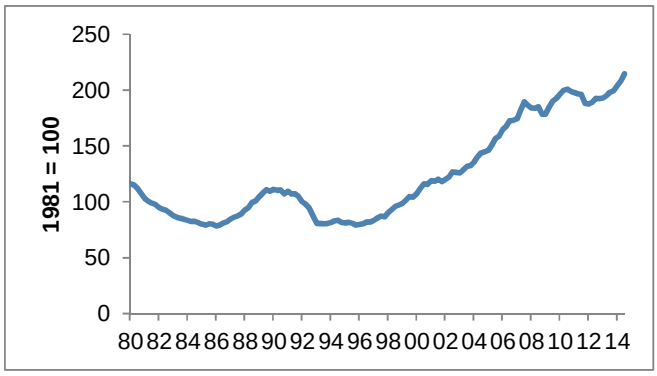
For several years, the Riksbank has been warning of the exuberance in the Swedish real estate market[1]. Since 1990, Swedish house prices have gone up 196% according to data from the Statistics Sweden. In real terms, prices have gone up by 96%.

Chart 1a: Nominal House Price Index



Source: Statistics Sweden, Scope Ratings

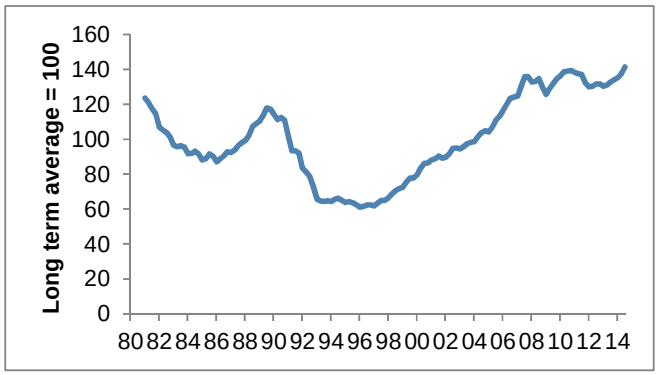
Chart 1b: Real House Price Chart



Source: Statistics Sweden, Scope Ratings

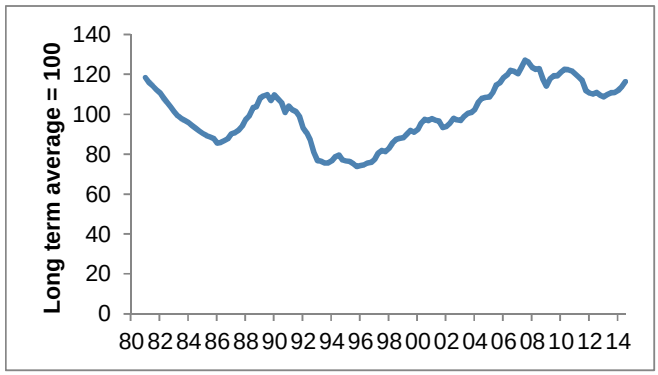
Common indicators of house price fundamentals are well above their historical norms, according to Scope calculations. For example, both the Price/Rent ratio and the Price/Disposable Income ratio are currently higher than at the peak of the previous cycle in 1990. These are calculated on the basis of national house prices, and there is widespread recognition of the overvaluation being even more severe in the major cities, where house price growth has been steeper in recent years.

Chart 2a: Price/Rent



Source: Statistics Sweden, Scope Ratings

Chart 2b: Price/Disposable Income



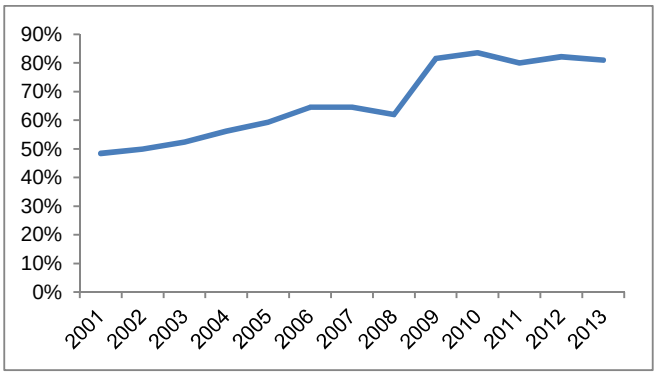
Source: Statistics Sweden, Scope Ratings

[1] For example, see "Swedish house prices in an international perspective" - Riksbank, 2011 and "From A to Z: the Swedish mortgage market and its role in the financial system". Riksbank, 2014.

Much of the house price increase was accompanied by growth in household debt…

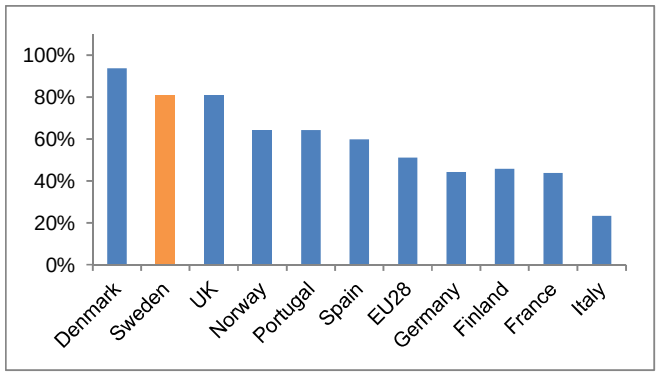
Between January 2002 and June 2014, total mortgage debt more than tripled from approximately SEK 725bn to over SEK 2.4 tn. The credit flow financed increasingly expensive housing, especially in the big cities. The increase in mortgage debt was a lot faster than credit growth in other lending segments and, crucially, a lot faster than economic growth, as shown in chart 3a. The proportion of mortgage debt to GDP rose from 48% to 81% in the period, one of the highest amongst developed economies.

Chart 3a: Mortgage Debt/GDP, historical evolution Sweden



Source: European Mortgage Federation, Scope Ratings

Chart 3b: Mortgage Debt/GDP, international comparison (2013)



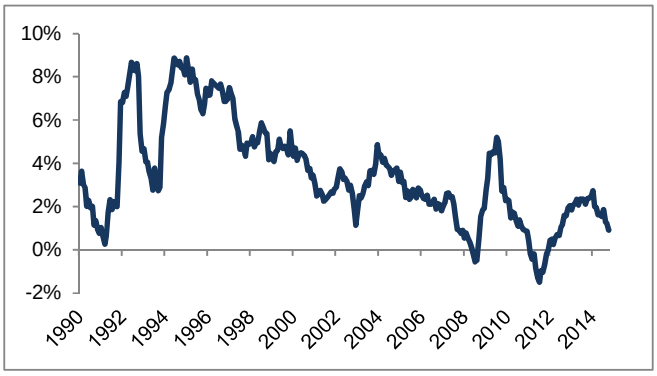
Source: European Mortgage Federation, Scope Ratings

This increase reflects several demand side factors (explained in more detail below), such as declining interest rates, expectations of further house price increases, a tightly regulated rental market and a favourable tax environment for home ownership, amongst others. It also reflects, in our view, supply factors, including the strong and increasing profitability of the mortgage product for banks, due to low and declining capital charges and advantageous funding conditions in the period.

…as long term real interest rates have declined for many years

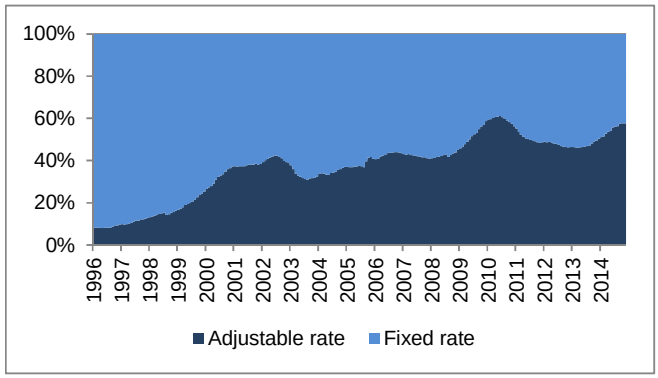
The secular decline in interest rates during the past decade has likely contributed to increase the affordability of large mortgages in Sweden. Interest rates have fallen much faster than inflation, as shown in chart 4a. Moreover, the decline has contributed to increasingly steer mortgage borrowers towards variable rates products (Chart 4b).

Chart 4a: Real Interest rate, Sweden



Source: Statistics Sweden, Bloomberg, Scope Ratings.
Note: Yield on 10Y government bonds net of CPI inflation

Chart 4b: Proportion of variable interest rates in Sweden



Source: Riksbanken, Scope Ratings

With interest rates now at zero, it is likely that any upwards adjustment will hurt borrowers' servicing ability. With such high levels of household debt, a monetary induced reduction in disposable incomes could have severe impacts on household consumption and overall economic activity.

Low loan-to-value ratios, but this is not due to amortisation

The low reported average loan-to-values (LTV) are rarely the result of amortization, but rather due to the continued increases in house prices. In fact, a vast majority of mortgages in Sweden are interest-only and until very recently only the excess of 70% of LTV was amortised. The Swedish FSA estimates that in 2012 the average amortisation period was close to 148 years. In fact, loan to value ratios have been increasing up until 2010, when a hard 85% cap was introduced. Currently, the average loan to value at origination is just below 70%.

In our view, relying on continuing price appreciation to increase mortgage equity entails significant systemic dangers, especially in a low inflation environment, as the real estate investment process turns into price speculation. Indeed, in a housing market downturn, all of the mechanisms that have boosted reported loan to value ratios would reverse with lower prices putting pressure on LTV and borrowers' equity.

More recently, there has been debate over whether to force amortisation to a greater extent, and in November 2014 the Swedish FSA introduced new regulations on mandatory amortisation, including a requirement to repay 2% of the loan annually for mortgages with an LTV of over 70% and 1% for LTV ratios between 50% and 70%. We see this as a positive development as it would on the one hand limit further lending growth in this already overheated segment and on the other hand force the build-up of equity in the households' balance sheets, hence reinforcing systemic stability.

Beneficial tax treatment supporting house purchases and turnover through a favourable capital gains regime

The fiscal framework favours housing investment and ownership in Sweden. While it is beyond the purpose of this report to go into the details of Sweden's tax system[2], we highlight the following key points:

- There is a 30% mortgage interest deduction that contributes to improve affordability of large mortgages, reduce incentive to pay down principal and skews the own/rent decision in favour of the former.
- Real estate ownership taxation has become more favourable in recent years: In particular, the property tax has been replaced by a municipal property fee which is capped at relatively low levels, while the inheritance tax and wealth tax were abolished in 2004 and 2007 respectively.
- There is a flat capital gain rate of 22%, only due at realization (lowering the effective tax rate). Moreover*:* the share of the capital gain reinvested in the acquisition of a new house is deducted as a tax credit, which is in fact a strong incentive for households to buy more expensive houses.

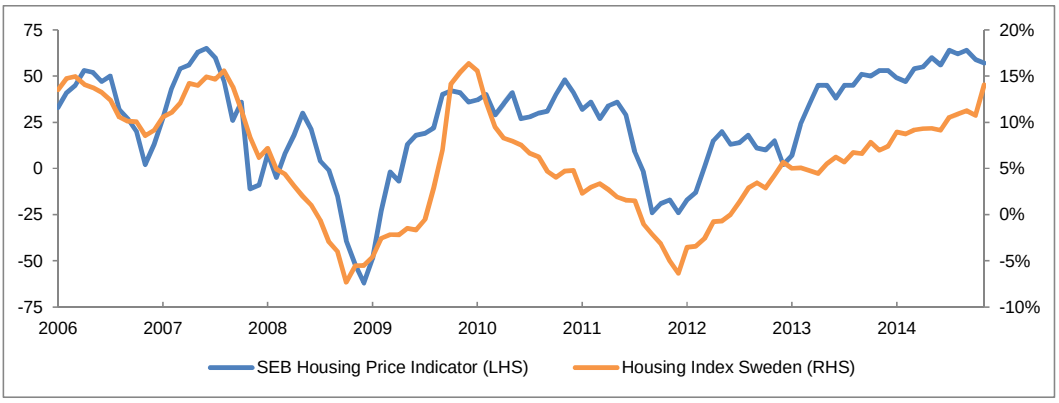
The favourable fiscal environment in our view creates some distortion in a market that together with low interest rates, a tightly regulated rental market and self feeding expectations of rising prices, may have led to speculation and excesses. In a more normalised market, there would be no advantage to reinvest related to the tax credit, which may contribute to depress demand.

Household expectations on future house prices are at all time highs

The SEB survey (January 2015) shows that 69% of households expect house price appreciation in the next year, while only 10% expect a decline in prices. We also note the indicator is near all time highs, possibly signalling an overheating of expectations regarding house price development, just when house prices may actually be facing headwinds.

[2] For more details, we refer to the Riksbank inquiry into the risks of the Swedish Housing Market and in particular to P. Englund *"Swedish House Prices in an international perspective".*

Chart 5: House price expectations are at all time highs, despite the already overvalued levels

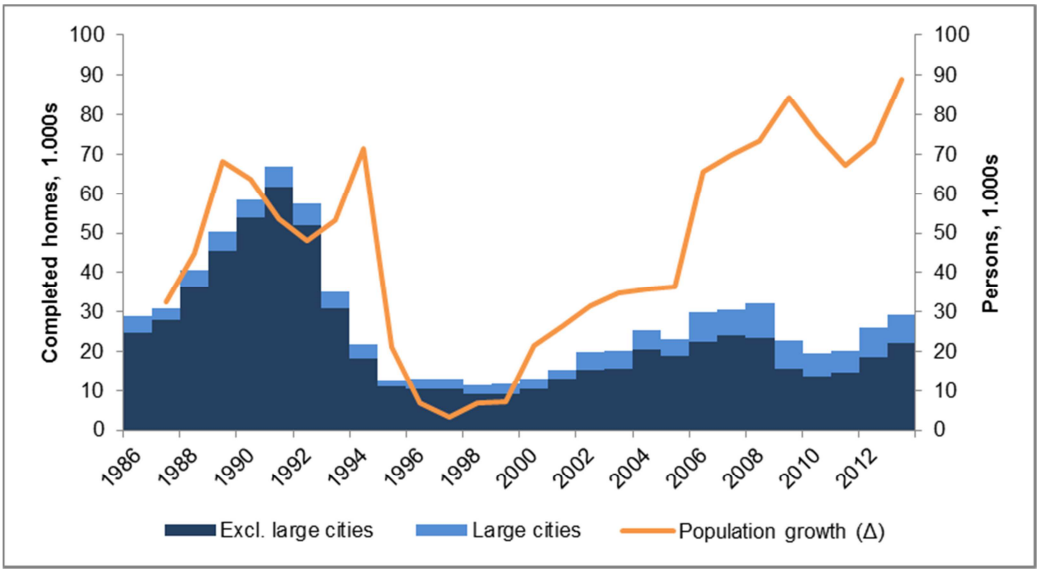


Source: Valueguard, SEB, Scope Ratings

There is a marked lack of new housing supply, especially in large cities

Supply has remained limited since the burst of the early 1990s banking crisis (as shown in chart 6). The housing shortage in most big cities is significant and has been increasing in the past decade, mostly driven by stringent regulations on construction, where ultimately the local municipalities decide on granting construction permits. While the limited construction activities offer some comfort as construction loans typically deteriorate faster at the end of a real estate cycle, the inelastic supply may have exacerbated price trends in the big cities.

Chart 6: Growth in new dwellings (LHS) vs population (RHS)



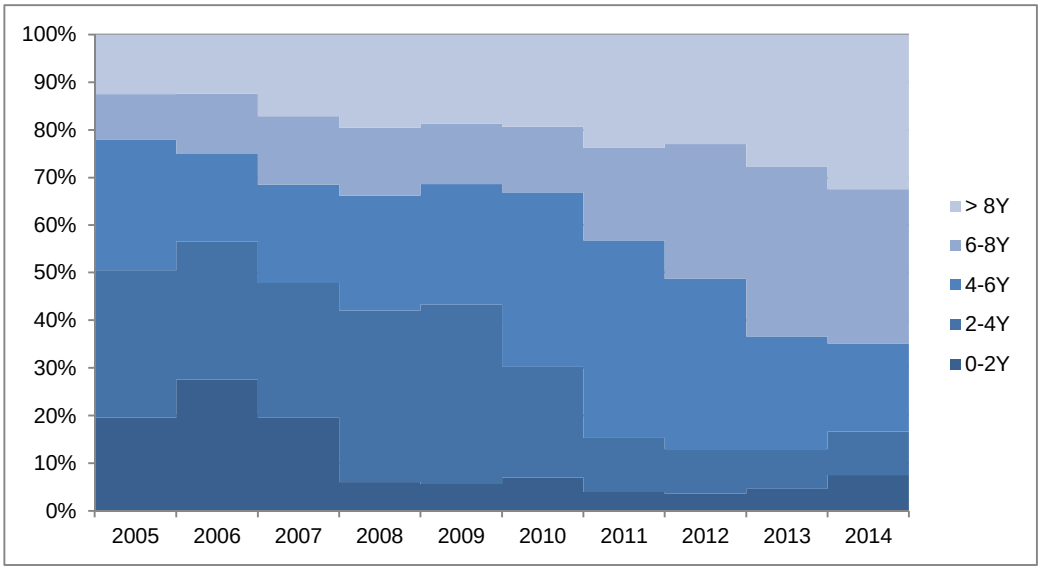
Source: National Institute of Economic Research Sweden

A tightly regulated rental market is also encouraging ownership

The Swedish rental market is not a liberal market system. Prices are not set according to the law of supply and demand, but instead according to rental regulations (*Hyresregulering*). Central association of landlords and tenants agree on fair rents, based on usability value (*bruksvärde*), which are aimed to keep renting affordable for the poorer parts of the population. As such, these agreed rental values are typically below economic values and limit supply in the market. One negative side-effect of the system is the long waiting times, often extending over several years, before a prospective tenant can actually rent an apartment. The

average waiting list for a one bedroom apartment in Sweden is 32 months according to the National Tenants Association (*Hyresgastforeningen*). In larger cities, waiting lists can last several years and have been getting longer (see Chart 7 for Stockholm average waiting times).

Chart 7: Evolution in the waiting period for a brokered rental flat in Stockholm



Source: Bostadsformedlingen (Stockholm Housing Service)

Analysing and stressing rated banks exposures

In this section we detail the rated banks exposure's to real estate-related lending as of year-end 2013.

Handelsbanken's total exposure amounts to SEK 934bn, an amount equivalent to 10 times the bank's capital base. A majority of this exposure is comprised of residential mortgages, which make up half of the Swedish loan book, while loans to commercial real estate management companies accounts for 14% of Swedish loans.

Table 2: Handelsbanken's lending exposure to Swedish real estate (SEK bn, 2013)

Real estate lending exposure in Sweden	SEK bn	% Swedish Loan Book	% Group loan book	Multiple of Group CET1 (x)
Household Mortgages	560	51%	33%	6.0x
Commercial Real Estate Management	151	14%	9%	1.6x
Residential Real Estate Management[1]	97	9%	6%	1.0x
Housing co-operative associations	120	11%	7%	1.3x
Construction	6	1%	0%	0.1x
Total Real Estate lending exposure	**934**	**85%**	**55%**	**10.0x**

Source: Company Data, Scope Ratings Estimates
1 Includes loans to State and Municipal Property Companies (SEK 23bn)

Swedbank's exposure is similar in absolute amounts (SEK 923bn), although its books are more skewed towards household mortgages. Commercial real estate management exposures are 10% of the Swedish loan book.

Table 3: Swedbank's lending exposure to Swedish real estate (SEK bn, 2013)

Real estate lending exposure in Sweden	SEK bn	% Swedish loan book	% Group loan book	Multiple of Group CET1 (x)
Household Mortgages	656	54%	49%	7.7x
Commercial Real Estate Management	119	10%	9%	1.4x
Residential Real Estate Management	46	4%	3%	0.5x
Housing co-operative associations	87	7%	6%	1.0x
Construction	15	1%	1%	0.2x
Total Real Estate lending exposure	**923**	**76%**	**69%**	**10.9x**

Source: Company Data, Scope Ratings Estimates

Due to its higher degree of business and geographic diversification at the consolidated level, Nordea's exposure to Swedish real estate assets is lower, at EUR 55bn, or 240% of the group's common equity. It mainly comprises household mortgages.

Table 4: Nordea's lending exposure to Swedish real estate (EUR bn 2013)

Real estate lending exposure in Sweden	EUR bn	% of Swedish loan book	% Group loan book	Multiple of Group CET1 (x)
Household Mortgages	39	45%	11%	1.7x
Residential and Commercial Real Estate Management	15	17%	4%	0.6x
Construction	1	1%	0%	0.0x
Total Real Estate lending exposure	**55**	**62%**	**16%**	**2.4x**

Source: Company Data, Scope Ratings Estimates

As part of our analysis of the banks' asset quality, we have assessed the banks' concentrated exposures to real estate and simulated a scenario in which the underlying loans' performance deteriorates well beyond our current expectations. Naturally, some impacts on banks performance are more straightforward and can actually be captured by simply assuming that borrowers suspend payments on their loans, with the predictable impacts on revenues and loan loss provisions in the income statement. However, we caution that there are other indirect impacts which are inherently more difficult to capture, primarily the funding risk associated with the potential loss of confidence that would likely accompany large real estate losses at the banks.

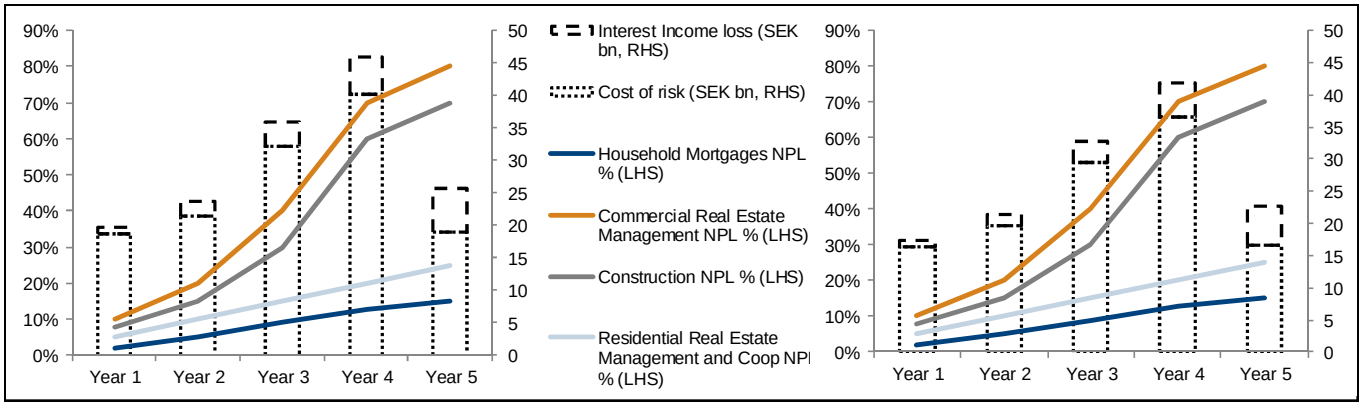
The assumptions we use for our stress test exercise are as follows:

- The correction plays out in five years. Balance sheet remains constant throughout the period.
- NPL coverage is maintained at 50% throughout the period
- NPL ratios for commercial property management reaches 80% in 5 years, NPL ratio for construction companies reaches 70%.
- NPL ratios for mortgages reaches 15% in year 5, while the NPL ratio for residential real estate management companies reaches 25%.

The time distribution of the increase in impaired loans is shown in Chart 8a and 8b, which also show the estimated pretax impact on Swedbank's and Handelsbanken's earnings under the assumptions used. This includes both the need for loan loss provisions needed to maintain 50% coverage and the loss of interest income associated with the souring loans. However it does not include any estimate of the likely increase in funding costs or any management actions which could be taken to mitigate the impacts.

Chart 8a: Handelsbanken provision needs under stressed assumptions

Chart 8b: Swedbank's provision needs under stressed assumptions



Source: Company data, Scope Ratings . *Source: Company data, Scope Ratings*

The above figures have to be seen in the context of the currently high profitability of Swedish banks (Swedbank had pretax profits of SEK 19.4bn in 2013 while Handelsbanken had pretax profits of SEK 18.1 bn). In other words, as long as the losses are spread over a reasonable time period, the banks could partly offset them against profits, with more limited impact on the capital base (although reported asset quality and profitability fundamentals would worsen significantly).

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