FI Analysis No. 45

High risks in small and mid-sized commercial real estate firms

Author: **Ted Aranki and Tobias Cronbäck ***

Summary

Finansinspektionen's (FI) stress test shows that many commercial real estate (CRE) firms are vulnerable and that banks may experience tangible losses in a stressed scenario. The stress test also shows that the combination of a low interest coverage rate and a high loan-to-value rate is more common among smaller firms. Thus, small firms can be more vulnerable to disruptions than large firms. The stress test also shows that the unlisted CRE firms represent the majority of the banks' credit losses, while listed firms only represent a very small portion of the estimated credit losses. The listed firms thus appear to be better equipped. This is positive since listed firms are often the banks' single most important counterparties.

The conclusion that the smaller CRE firms pose the greatest credit risk to the banks is interesting. In general, analysts focus more on large, listed CRE firms than smaller firms, in part due to better access to the data in annual and interim reports. However, from a financial stability perspective, it is important to also monitor smaller CRE firms since they also pose a large risk to banks.

FI has been highlighting for a long time the commercial real estate sector as one of the largest threats to financial stability. In this FI Analysis, we investigate which CRE firms pose the greatest credit risk to banks with a special focus on differences between large and small firms. The large, listed CRE firms have large loans and can thus pose risks to the banks, even if they also utilise bond funding. However, most CRE firms with bank loans in Sweden are small, and they also tend to be dependent on banks for their financing. Even if the individual loan amounts are small, as a whole they represent a significant share of the banks' lending to the sector.

22 May 2024, FI Ref. 24-9432

* The authors would like to give special thanks to Johan Berg, Kristoffer Blomqvist, Maria Feldt, Lars Hörngren, Magnus Karlsson, Henrik Lennefeldt, Thomas Nielsen, Megan Owens and Stefan Palmqvist.

The FI Analysis series has been presented at an internal seminar at FI. The report has been approved for publication by an Editors' Board.

Which commercial real estate firms pose the greatest credit risks to banks?

Finansinspektionen (FI) has identified the commercial real estate (CRE) sector as one of the greatest vulnerabilities in financial stability. This sector is large, cyclical and closely linked to the financial system. Historically, the CRE sector has often played an important role in major financial crises both in Sweden and abroad. Swedish bank loans to CRE firms currently comprise a significant portion of banks' total lending to non-financial corporations. CRE firms thus represent a substantial share of banks' largest credit exposures.[1]

The altered economic situation following the rapid increase in interest rates has had a large impact on CRE firms, which have been increasing their debt over a long period of time particularly in relation to their earnings. Firms that have high debt, are highly sensitive to changes in the interest rate, and have a substantial need to continually refinance their debt are particularly vulnerable. Therefore, many firms need to reduce their debt (see Aranki and Cronbäck, 2023). FI's stress test shows that many CRE firms are vulnerable and banks may experience tangible losses in a stressed scenario (see Finansinspektionen, 2023a). However, CRE firms are not all alike. There are many different CRE firms, and they all differ in terms of their business model, ownership structure, financing, purpose of property ownership, and company size.

A large portion of the news reported in the media focuses on large listed CRE firms. These firms are important since they represent a large portion of the sector's total liabilities. Listed CRE firms have also increased their debt rapidly, primarily via increased borrowing on the capital market, but only a few CRE firms are listed.

The majority of CRE firms are relatively small. Together, they represent a substantial portion of the banks' lending to the sector. Small and mid-sized CRE firms as a rule are only dependent on bank loans, while large and listed CRE firms can also raise financing via the capital market. Smaller CRE firms are also to a greater extent concentrated to specific geographical locations or segments compared to larger firms, which leads to concentration risks in their business models. In addition, large and listed CRE firms in general have more transparency compared to smaller CRE firms since they regularly publish quarterly reports, which are monitored by credit rating agencies and other stakeholders. This means

[1] See also Finansinspektionen (2019) for a more detailed description of the Swedish CRE market and its link to financial stability.

that, depending on the type of CRE firm in question, the risks and vulnerabilities to shocks differ.

In this FI Analysis, we investigate whether the credit risk in banks' lending to CRE firms differs between CRE firms based on their size. In the analysis, we break CRE firms down into the following categories:

1. Listed
2. Large
3. Mid-sized
4. Small

The calculations are based on FI's survey of banks' credits to CRE firms as at 31 December 2022. We have matched this data with information from the firms' 2022 annual reports. The analysis of the firms is based on data from consolidated financial statements wherever such were available. If there were no consolidated financial statements for firms that belong to the same group, the firms' data was summarised to create so-called synthetic groups. This means that all firms in the analysis refer to groups of firms and not individual firms.

CRE firms are highly leveraged

This analysis only includes CRE firms with Swedish bank loans.[2] At the end of 2022, almost 17,000 CRE firms (groups of firms) held a loan from a Swedish bank. These loans amounted to roughly SEK 1,000 billion, which is almost half of banks' lending to all non-financial corporations in Sweden.

Size of CRE firms varies significantly

There are numerous actors on the Swedish CRE market, and they do not constitute a homogeneous group. Size is a particularly key aspect when comparing firms, and the firms can be categorised in different ways. The European Commission defines micro, small and mid-sized enterprises (SME) based on the number of employees, turnover or balance sheet total (European Commission, 2003). The SME categorisation consists of firms that employ fewer than 250 employees and whose annual turnover does not exceed EUR 50 million or whose balance sheet total does not exceed EUR 43 million. When using the European Commission's definition, there is a risk that the categorisation of CRE firms in particular will be misleading since these firms seldom have many employees. The thresholds for turnover and the balance sheet total are also not adapted to CRE firms, particularly since it is

[2] FI's data includes all credit agreements between Swedish banks or bank branches in Sweden and CRE firms. Banks included are Danske Bank, Handelsbanken, Länsförsäkringar Bank, Nordea, SBAB, SEB and Swedbank. These banks together represent approximately 95 per cent of Swedish banks' lending to CRE firms.

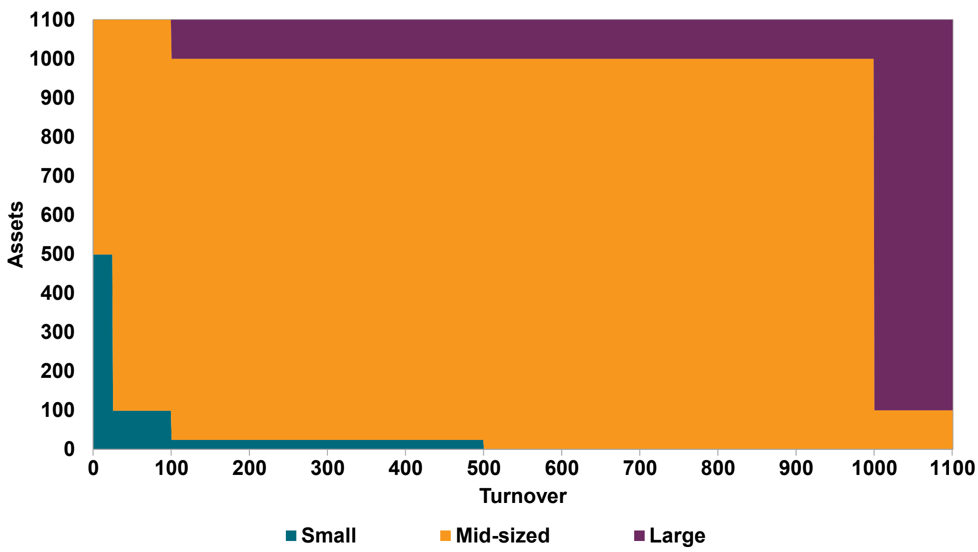
permissible to exceed one of these two criteria. This means that a CRE firm with a very large balance sheet total can be classified as a small or micro enterprise based on their turnover, which by nature among CRE firms is much lower than the balance sheet total.[3] Therefore, we have adjusted the definition and classify CRE firms according to the following (see Diagram 1):

- **Small**: Firms with total assets, or turnover, of less than SEK 100 million. Also firms with assets, or turnover, of less than SEK 500 million are considered small if their turnover, or assets, is less than SEK 25 million.
- **Mid-sized**: Firms with assets, or turnover, of up to SEK 1,000 million and that are not defined as small. Also firms with assets, or turnover, of more than SEK 1,000 million are considered mid-sized if their turnover, or assets, is less than or equal to SEK 100 million.
- **Large**: Firms with assets, or turnover, of more than SEK 1,000 million and with turnover, or assets, of more than SEK 100 million.

In addition to these groups, we also use in our analysis another category that consists of listed firms, which are primarily large firms.

1. Thresholds for classification of firm size

MSEK



Source: FI.

Note: The thresholds for defining small, mid-sized and large firms are based on the firms' turnover and total assets.

The majority, roughly 88 per cent, of all CRE firms with a bank loan in Sweden are classified using our definition as small enterprises (see Table 1).[4] These firms

[3] The average yield (net operating income/property value) for CRE firms in Sweden was approximately 5 per cent in 2023.

[4] Data based on FI's compilation of bank loans to CRE firms as per 31 December 2022.

represent approximately one-fifth of the bank loans. According to the European Commission's definition, a significantly larger share of the bank loans go to small firms since more firms are classified as small. There are only a few listed CRE firms in the banks' portfolios.[5] However, they represent a large portion of the bank loans – approximately 28 per cent. Listed and other large CRE firms amount to fewer than 3 per cent of the firms, but together they represent more than half of the bank loans. This means there are concentration risks in the banks' lending portfolios in the form of loans to individual large CRE firms (so-called name concentrations).[6]

Table 1. Commercial real estate firms with bank loans

	Our definition				**European Commission's definition**			
	Firm		Bank loan		Firm		Bank loan	
	Count	(%)	SEK billion	(%)	Count	(%)	SEK billion	(%)
Listed	63	(0.4)	294	(28.3)	63	(0.4)	294	(28.3)
Large	413	(2.4)	320	(30.8)	215	(1.3)	152	(14.6)
Mid-sized	1,492	(8.8)	217	(20.8)	643	(3.8)	203	(19.5)
Small	15,027	(88.4)	209	(20.1)	16,074	(94.6)	391	(37.6)
Total	16,995	(100.0)	1,040	(100.0)	16,995	(100.0)	1,040	(100.0)

Source: FI.
Note: The table shows CRE firms with a bank loan in Sweden broken down by size. All firms are categorised using their group affiliation, and the firm's size is calculated using the entire group. Data refers to 31 December 2022.

Bank loans are not CRE firms' only source of financing. This applies in particular to listed and other large CRE firms where borrowing other than bank loans constitutes a significant portion of the firms' total interest-bearing liabilities. Even if bank loans are still the largest source of financing for most CRE firms, borrowing via the capital market has become more important, particularly for listed CRE firms. Between 2012 and 2023, financing via the capital market increased from around 10 per cent to around 35 per cent of the loans of listed CRE firms.

Liabilities of listed firms have increased rapidly

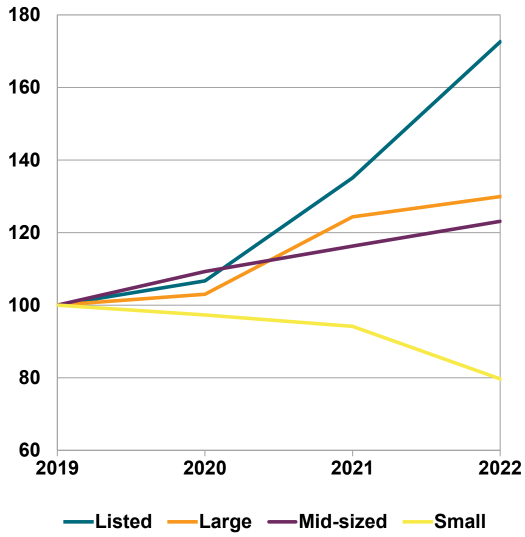
How firms choose to raise financing and the size of their liabilities differ widely (see Diagram 12 in the appendix). The listed firms' average interest-bearing liabilities have increased sharply, by almost 80 per cent, since 2019 (see Diagram

[5] Note that all firms are categorised using their group affiliation, and the firm's size is calculated using the entire group.
[6] Name concentrations in banks occur if one or a limited number of individual commitments is large in relation to total lending and equity (see Aranki, et al., 2021).

2). In 2022, the listed CRE firms' average interest-bearing liabilities was SEK 21 billion.[7] This is significantly more than the average liabilities of other large CRE firms, which amounted to just over SEK 2 billion. A large portion of the listed CRE firms' liabilities consists of bonds, whose average amount almost doubled between 2019 and 2022, although bank loans from Swedish banks have also increased sharply. This development has meant that listed CRE firms' share of Swedish banks' lending to CRE firms has increased from 20 per cent in 2019 to approximately 28 per cent in 2022 (see Diagram 3).

2. Interest-bearing liabilities

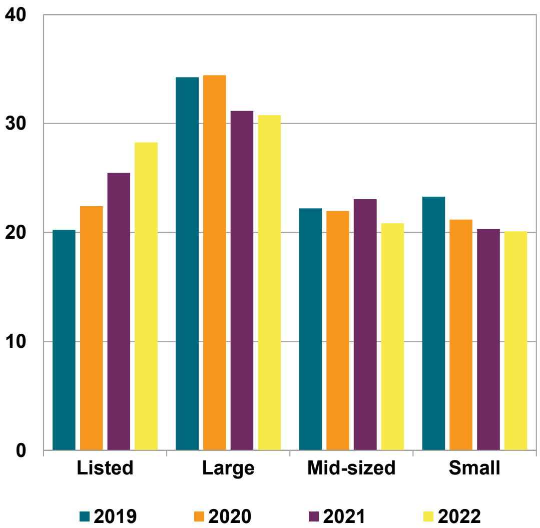
Index, 2019 = 100



Source: FI.
Note: The diagram shows the development in total interest-bearing liabilities for CRE firms broken down by firm category.

3. Share of banks' lending

Per cent



Source: FI.
Note: The diagram shows the development in Swedish banks' lending to CRE firms broken down by firm category.

Large CRE firms have shown the same trend as listed CRE firms, except in 2022 when the liabilities of listed CRE firms increased sharply. Mid-sized CRE firms, like the larger firms, also increased their average liabilities since 2019, although to less of an extent. However, unlike the larger firms, the liabilities of mid-sized CRE firms consist primarily of Swedish bank loans (see Diagram 12 in the appendix).

Small CRE firms have almost exclusively Swedish bank loans. Only the smallest CRE firms have decreased their average interest-bearing liabilities, particularly in 2022. This is most likely due to the increase in interest rates in 2022, which

[7] Diagram 12 in the appendix shows CRE firms' average liabilities broken down by type of liability and enterprise category.

resulted in small CRE firms increasing their amortisation payments and decreasing their interest-bearing liabilities to on average SEK 15 million.

Low interest coverage ratio and high loan-to-value ratio leads to vulnerability

CRE firms' interest coverage ratio (ICR) and loan-to-value (LTV) ratio are two key figures that are often used to assess how sensitive firms are to adverse economic events. FI uses them to identify vulnerable firms (see Aranki, et. al 2020). Both of these figures are also used as financial covenants in loan agreements and are commonly used by credit rating agencies in assessing a firm's creditworthiness.[8] The ICR is the ratio between a firm's earnings (before interest and tax)and its financial expenses and describes the firm's ability to pay interest on loans. If the ICR is lower than 1, this means that the firm cannot make its interest payment with income from its operating activities. The LTV ratio measures how much debt a CRE firm has in relation to the value of its property assets.

The median ICR in Swedish banks' lending portfolio for CRE firms is approximately 2.7 (see Diagram 4). However, there is considerable variation between firms. The ICR is lower for small and listed CRE firms, respectively, than for large and mid-sized firms. This indicates that the latter group of firms has a stronger financial position in general.

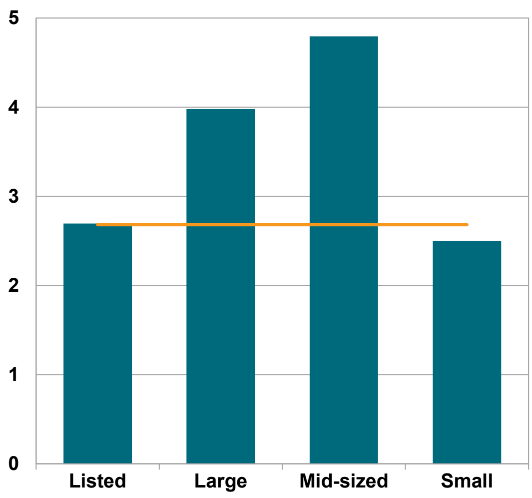
The variation in the LTV ratio is not as large between the different firms and falls between 50 and 60 per cent (see Diagram 5). Noteworthy is that firms with the weakest financial position (lowest ICR) have the lowest (median) LTV ratio, and vice versa. It is positive that firms with a low ICR also have a low LTV ratio. A firm with a low LTV ratio in general faces better possibilities for selling assets or raising new financing to manage a low ICR. Firms with a low ICR and a high LTV ratio are especially vulnerable to serious economic shocks or a more drawn-out economic downturn.

It is possible that large and mid-sized CRE firms have the highest LTV ratios because we underestimate the actual market value of these firms' property portfolios. We have compiled the value of the firms' property portfolios from the firms' annual reports. For listed firms, the valuation is reported at fair value – market value – since these firms follow the IFRS 13 reporting standard. However,

[8] Covenants are loan conditions where the borrower undertakes, for example, to maintain minimum financial key ratios in conjunction with a lender issuing a loan to a firm.

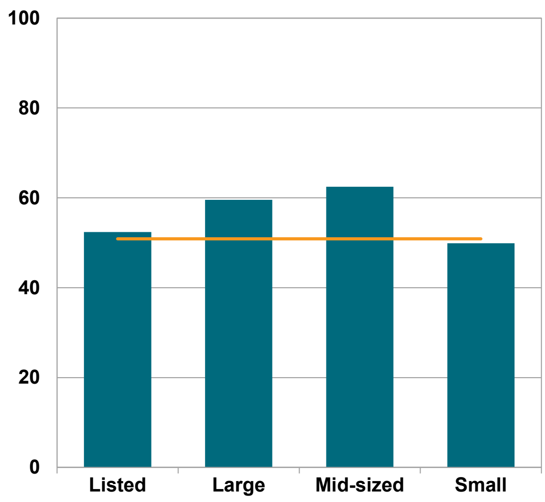
it is not clear to what extent other CRE firms recognise properties in their balance sheet at book value instead of actual market value. It is probable that the book values underestimate the actual values of the firms' property portfolios since property prices have increased sharply over a long period of time.[9] Given the uncertainty of the CRE firms' market values, it is reasonable to not only rely on LTV ratios. We use a combination of the ICR and the LTV ratio to identify vulnerable firms.

4. Interest coverage ratio of CRE firms



Source: FI.
Note: The diagram shows the median of CRE firms' ICR broken down by size. The horizontal line shows the median for all.

5. Loan-to-value ratios of CRE firms



Source: FI.
Note: The diagram shows the median of CRE firms' LTV ratio broken down by size. The horizontal line shows the median for all.

The median ICR and LTV ratio broken down by size is interesting to gain an understanding of the most common values for each firm category. This can indicate whether there are differences between firms broken down by size. However, to understand which firms are more vulnerable, we need to supplement this by studying the distribution in each category.

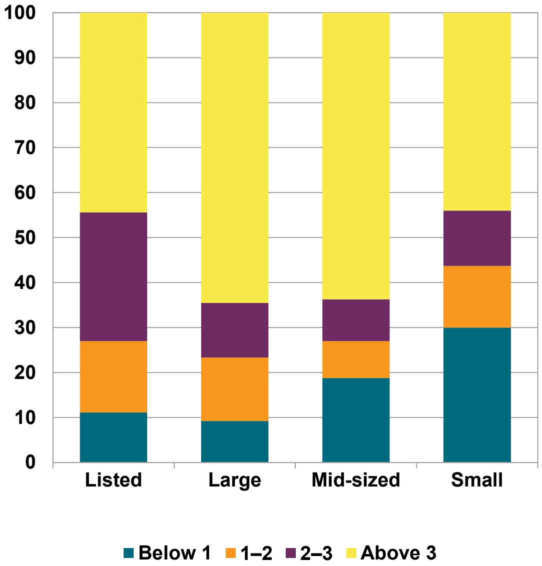
[9] We adjust to some extent the data if the book values in the annual reports are lower than the figure obtained from calculating the market value given the CRE firms' net operating income and yield requirements. Even if this adjustment reduces the underestimation bias, we have no information about what the actual market value is. The underestimation should be larger for large and mid-sized firms than for small firms. This is because small CRE firms probably have used a larger share of their property as collateral with the banks. For small, independent firms, i.e., firms that do not belong to a group, we use the banks' valuations in the calculations if they exceed the figures in the annual reports.

The share of firms with weak key ratios is higher among the small and mid-sized CRE firms (see Diagram 6). Close to one-third of the small firms have an ICR of less than one; the corresponding share for listed and large firms is 10 per cent. At the same time, more than 40 per cent of the small firms have an ICR of less than 2. The share of firms with a low ICR has increased in the past three years for small and mid-sized CRE firms.

Mid-sized CRE firms have the largest share of high LTV ratios (see Diagram 7). Approximately 20 per cent of mid-sized firms have an LTV ratio of more than 100 per cent, and more than 40 per cent have an LTV of more than 70 per cent. The share of firms with a high LTV ratio has been relatively stable or declining in recent years. This probably is related to a strong development in property prices during the same period.

6. Share of CRE firms with different interest coverage ratios

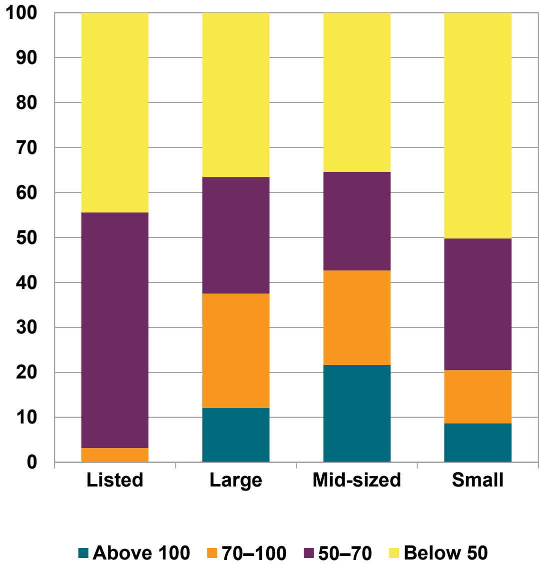
Per cent



Source: FI.
Note: The diagram shows the share of firms broken down by size whose ICR is in different intervals.

7. Share of CRE firms with different loan-to-value ratios

Per cent



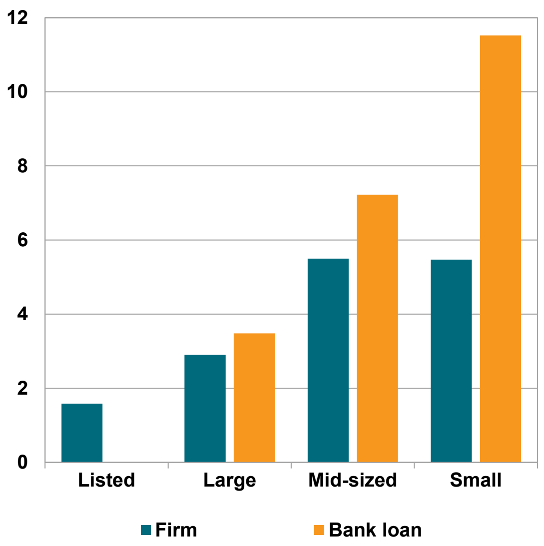
Source: FI.
Note: The diagram shows the share of firms broken down by size whose LTV ratios are in different intervals.

Smaller CRE firms are more vulnerable

There are reasons for why CRE firms report weakened key ratios in any given year. For example, a newly started firm might have high initial costs, operating and maintenance costs might increase temporarily, or investments might require a lot of capital. We therefore use a combination of the ICR and the LTV ratio and define CRE firms as vulnerable if they demonstrate an ICR ratio of less than 1 and an LTV ratio of more than 70 per cent.

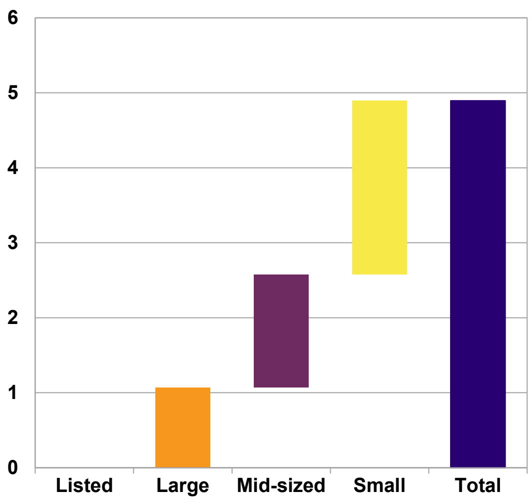
A larger share of small and mid-sized CRE firms are vulnerable, i.e., show both a low ICR and a high LTV ratio, compared to large or listed CRE firms (see Diagram 8). More than 5 per cent of small and mid-sized firms are defined as vulnerable, and they represent approximately 12 and 7 per cent of the banks' loans, respectively. In other words, these vulnerable small firms in particular have significantly larger loans than the small firms that are not as vulnerable. For listed firms, however, the reverse is true. Those that are vulnerable, which is less than 2 per cent of the listed firms, have almost no bank loans. Of the banks' total lending to vulnerable CRE firms, lending to vulnerable small CRE firms represents the largest share (see Diagram 9).

8. Share of vulnerable firms and bank loans broken down by firm category
Per cent



Source: FI.
Note: The diagram shows the share of firms and bank loans to vulnerable CRE firms defined as firms with an ICR of less than one and an LTV ratio of more than 70 per cent broken down into firm categories.

9. Bank loans to vulnerable CRE firms and contributions from different firm categories
Per cent



Source: FI.
Note: The diagram shows the banks' lending to vulnerable CRE firms in relation to their total real estate lending (total) and the contribution from each individual firm category.

Unlisted firms contribute most to credit losses in FI's stress test

FI conducts regular stress tests of CRE firms to analyse how vulnerable they are and how the vulnerabilities are changing over time, as well as how the banks, in turn, can be impacted by this development.[10] Finansinspektionen (2023a) estimates that just over a quarter of the CRE firms are vulnerable in a scenario where the firms experience both higher financing costs and lower earnings.[11] The firms that become vulnerable can cause credit losses of about 4.8 per cent of banks' total lending to CRE firms. This corresponds to around SEK 50 billion.[12]

The losses in SEK are distributed relatively evenly between large, mid-sized and small CRE firms (see Diagram 10). The losses are estimated to amount to SEK 15–17 billion each, unlike the listed firms that represent just over SEK 2 billion of the credit losses. Small and mid-sized CRE firms have the highest estimated losses in relation to the bank loans they have taken (loss rate). The loss rate for them exceeds 7 per cent. The loss rate for large firms and, in particular, listed firms is significantly lower. However, small, mid-sized and large CRE firms contribute approximately the same amount to the banks' credit losses in a stressed scenario (see Diagram 11). Listed firms represent only a very small share of the estimated losses and thus appear to be better equipped in stressed scenarios than the other CRE firms.

It is positive that most listed CRE firms are robust and do not become vulnerable in FI's stress test since many of them are the banks' most important individual counterparties and thus could cause significant credit losses in a stressed scenario. However, it is surprising that relatively many small and mid-sized CRE firms are vulnerable to shocks and contribute to more than half of the estimated credit losses in the stress tests.

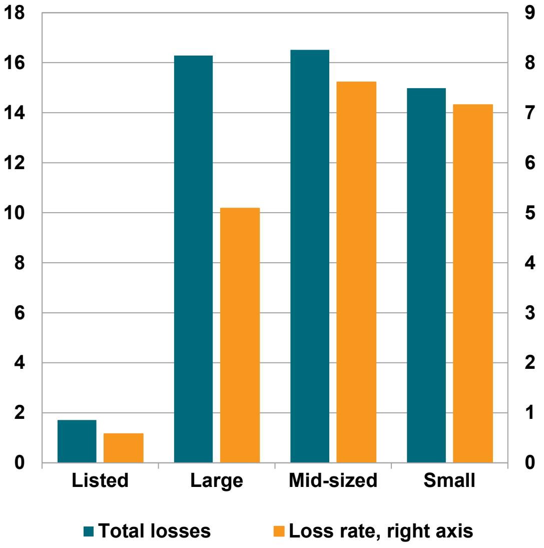
The listed firms may be more robust to shocks in part because they are also more scrutinised than smaller companies and they continuously publish quarterly reports. Investors and other analysts probably also conduct more rigorous analyses of these firms. Larger firms also often have access to more diversified financing, with several bank relationships and in some cases also financing via the capital market.

[10] The method FI uses to stress test banks' lending to CRE firms is described in more detail in Aranki et al. (2020).
[11] Stress refers to a scenario in which the CRE firms' interest increases by 3.5 percentage points and GDP drops by 5 per cent.
[12] Banks are capable of carrying these losses. FI has introduced a risk weight floor to ensure that banks have sufficient capital to cover the loss risk in their lending to commercial properties in particular (see Finansinspektionen, 2020, and Finansinspektionen, 2023b). See also Aranki et al. (2022) for an early evaluation of how FI's risk weight floor has impacted banks' corporate lending.

Banks also regularly impose financial conditions on loans to listed firms, so-called covenants. [13] This is also done on other large firms to a fairly large extent. However, it is unusual for banks to apply covenants to smaller firms.

10. Credit losses in FI's stress test broken down by firm category

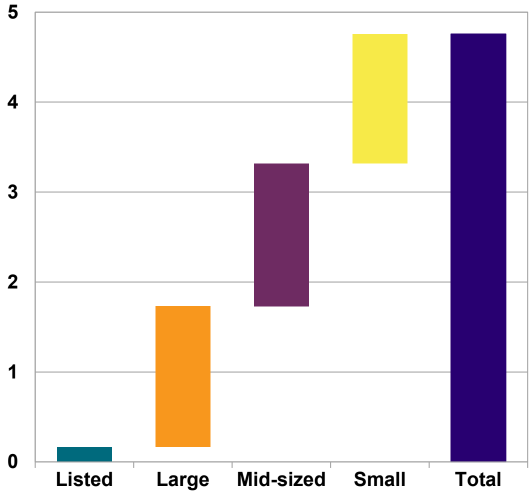
SEK billion and per cent



Source: FI.
Note: Total losses on the left axis refer to estimated credit losses in SEK billion from each category of firms. Loss rate on the right axis measures total losses per category divided by the total bank lending per category.

11. Credit losses in FI's stress test and contributions from different firm categories

Per cent of lending to CRE firms



Source: FI.
Note: The loss contribution refers to losses from each firm category in relation to the banks' total lending to CRE firms.

[13] The most common financial conditions that banks apply in their agreements with CRE firms are LTV ratios, ICRs and equity ratios.

References

Aranki, T., C. Lönnbark and V. Thell (2020). Stress test of bank lending to commercial real estate firms, *FI Analysis 24*, Finansinspektionen.

Aranki, T., N. Olsén Ingefeldt and M. Thor (2021). Non-financial firms and financial stability: a description of vulnerabilities, *FI Analysis 27*, Finansinspektionen.

Aranki, T., K. Blomqvist, A. Kvist and O. Netzell (2022). Has FI's risk weight floor had an impact on banks' CRE lending?, *FI Analysis 36*, Finansinspektionen.

Aranki, T., and T. Cronbäck (2023). Commercial real estate firms may need to reduce their debt, *FI Analysis 41*, Finansinspektionen.

European Commission (2003) European Commission recommendation of 6 May 2003 concerning the definition of micro, small and medium-sized enterprises (2003/361/EG), *Official Journal of the European Union*.

Finansinspektionen (2019). The Commercial Real Estate Market and Financial Stability, May 2019, *Reports*, FI Ref. 18-20931.

Finansinspektionen (2020). Ökade kapitalkrav för banklån till kommersiella fastigheter, *Memorandum*, 2020-01-28, FI Ref. 19-14171.

Finansinspektionen (2023a). Stability in the Financial System, November 2023, *Stability Report*, FI Ref. 23-3156.

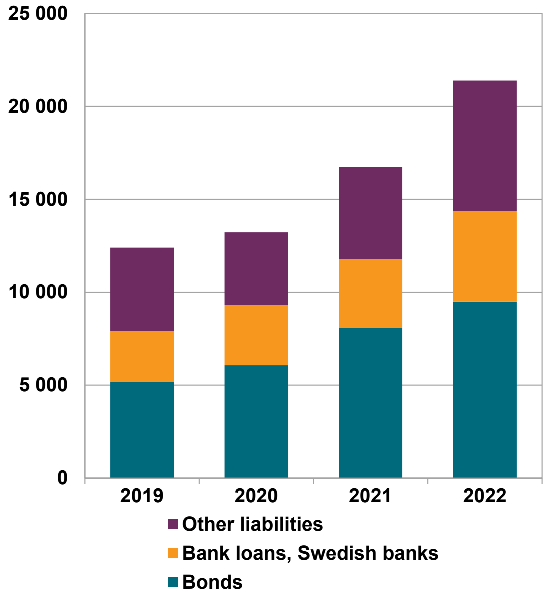
Finansinspektionen (2023b). Riskviktsgolv för exponeringar med säkerhet i kommersiella fastigheter, *Decision Memorandum*, 2023-09-12, FI Ref. 23-9476.

Appendix

12. Average interest-bearing liabilities, for different CRE firms

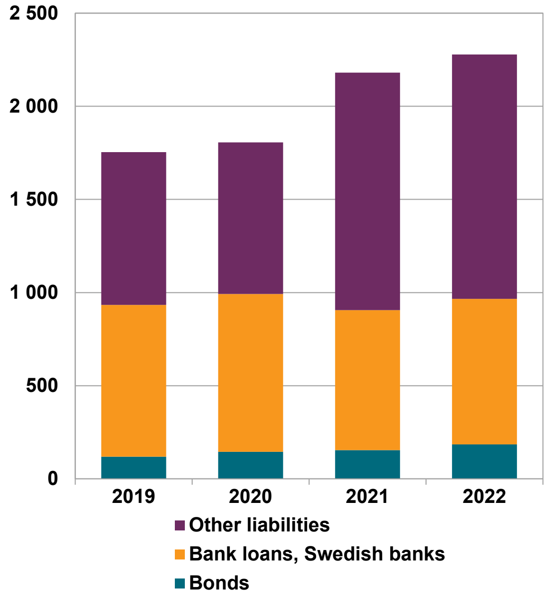
Listed CRE firms

MSEK



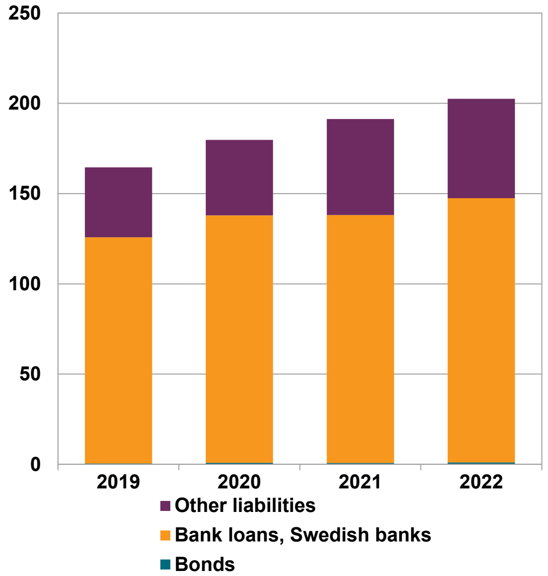
Large CRE firms

MSEK



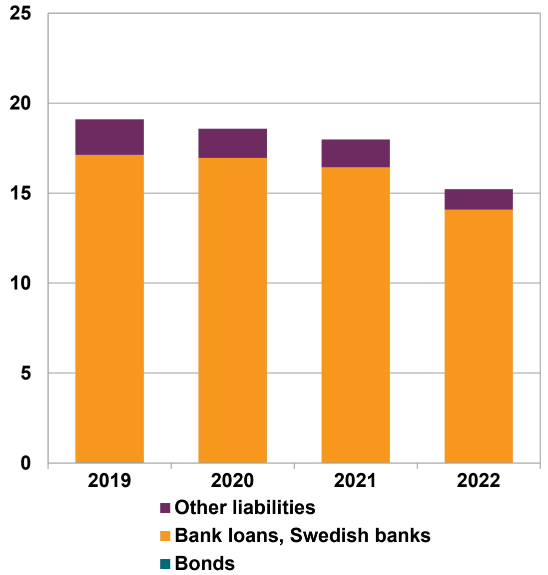
Mid-sized CRE firms

MSEK



Small CRE firms

MSEK



Source: FI.
Note: The diagrams show CRE firms' average interest-bearing liabilities broken down by type of liability and firm category. Other liabilities can include loans from credit institutions other than Swedish banks.