ARTICLE – Commercial properties and financial stability

The commercial property sector, both in Sweden and abroad, has often played a significant role in larger financial crises. This is due both to the sector being large and sensitive to business cycles and to the companies in the sector having a large proportion of borrowed capital, which makes them important for the financial system. The major Swedish banks have significant lending to commercial property companies and a large proportion of it has commercial property as collateral. In other words, the banks are affected by developments both among property companies and on the commercial property market. The strong economic development in recent years and low interest rates have helped to push up prices on the Swedish commercial property market. As property prices have risen, property companies have also increased their liabilities both via bank loans and wholesale funding. Price developments can largely be explained by fundamental factors, but the assessment is that there may be risks as these factors can change rapidly.

Why is commercial property important for financial stability?

Commercial property, both in Sweden and abroad, has often played a significant role in larger financial crises.[86] During the crisis in Sweden in the 1990s, problems in the commercial property sector contributed to major loan credit losses and difficulties for the Swedish banking system. There are also international examples of how problems associated with the commercial property market exacerbated the financial crisis of 2007–2008.[87] This was not the case in Sweden, however.

The commercial property sector is large; the value of Swedish commercial property amounts to about SEK 1,765 billion,[88] about 40 per cent of Sweden's GDP. At the same time, it is a capital-intensive industry, the companies often have a large proportion of borrowed capital, both bank loans and wholesale funding. This means that they are exposed to interest rate and refinancing risks and thus potentially sensitive to rising interest rates. Altogether, this makes the sector important for the Swedish financial system.

The major Swedish banks have significant lending directly to commercial property companies and thereby considerable exposure to the sector. In a situation with plunging rents and property prices, there will be a risk that property companies cannot repay their loans. This involves a credit risk for the banks. Lending for commercial property differs in this respect from lending to, for example, households for housing purposes as households are personally liable for their loans, whereas as a rule commercial property companies in the form of limited liability companies borrow for commercial property purposes. If the property company cannot pay, the bank therefore risks not being able to recuperate the money it has lent as the company may be declared bankrupt.

Wholesale funding is also linked to financial stability. In a situation where property prices fall, it may become more expensive and more difficult to obtain funding on the market, which would have a direct impact on property companies. If securities issued by commercial property companies make up a major part of the total outstanding volumes of the certificates and bonds issued by non-financial corporations, there is also a risk that companies in other sectors may encounter funding problems.

If both property prices and property companies' debt-servicing ability were to fall, it may also affect bank lending in general and hence macroeconomic development. If, for example, banks were to have a large number of problem loans on their balance sheets, it could lead to them being more restrictive in their lending to others, which could have knock-on effects on macroeconomic development. This could exacerbate an economic downturn.

Below follows a review of the latest developments in the Swedish commercial property sector and the risks linked to it.

High level of activity on the commercial property market

Growth in the commercial property market is currently strong. Activity, measured in terms of transaction volumes, is high. The economic terms and conditions on the market are good and are contributing to the high level of activity. The development has, for example, helped to

[86] See, for example, *The Riksbank's inquiry into risks on the Swedish housing market*, April 2011. Sveriges Riksbank, and *The State was dealt a bad hand – a report on housing finance in 1985–1993*, Ds 2002:9.
[87] See for instance *Report on commercial real estate and financial stability in the EU*, December 2011. European Systemic Risk Board.
[88] This is based on Fastighetsvärlden's list of the 100 largest commercial property companies in its 2016 Property Indicator. The calculation only includes corporate ownership in Sweden. The majority of properties for own use, such as Ikea's and Volvo's properties, are excluded. Part-owned property companies are reported as independent units if the holding is less than 50 per cent.

push down vacancy rates[89] and push up rents. It also means that property companies have good profitability and debt-servicing ability. At the same time, the low interest rates have led to lower funding costs and direct yield requirements (see chart A:3). [90]

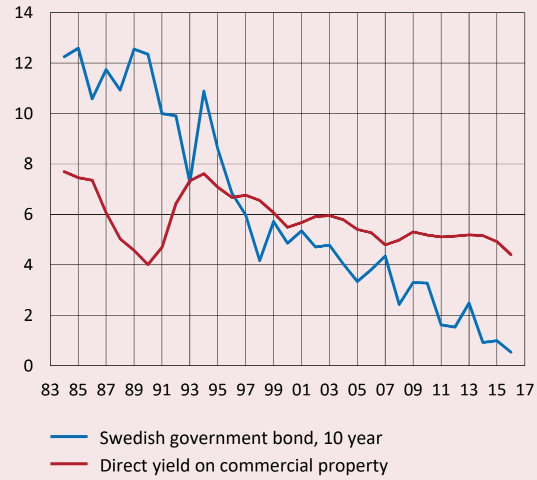
Together, these factors have contributed to rising commercial property prices, which are currently at levels similar to those in the run-up to the crisis of the 1990s. In real terms, i.e. excluding the direct effect of inflation, current price levels are not as high as then (see chart A:4). But they are on the same level as during the IT bubble around the turn of the millennium, and it is worth noting the development of clearly rising prices that has occurred recently. Over the last two years, property prices have grown by about 9 per cent a year and most of the market participants who took part in the Riksbank's risk surveys in 2016 [91] expressed unease about over-valuations on the Swedish commercial property market.

Direct yield on property investments is currently low at the same time as prices are rising, which historically has been an indicator of future price falls. The direct yield requirements of investors are affected by the risk-free interest rate, partly because it influences both how much compensation they want for investing in property, and the costs to investors of funding their investments. One explanation why direct yield requirements are currently low seen in a historical perspective is hence because the risk-free interest rate is also low. The difference between the direct yield requirements of investors on property and the risk-free interest rate, the so-called risk premium that investors want in order to invest in property instead of the risk-free alternative, is, on the other hand, high in a historical perspective (see chart A:3). This has not been the case in earlier periods of low direct yield followed by a price fall.

The strong economic development, together with the low interest rates, means that the currently rising commercial property prices can to a certain extent be justified based on fundamental factors such as high rent levels, low vacancy rates and low funding costs. It is important to remember, however, that such factors can change quickly. The ever-higher risk premium for investing in commercial property can, however, indicate that property companies are taking this into account to a certain extent.

Chart A:3 Risk-free interest rate and direct yield on commercial property

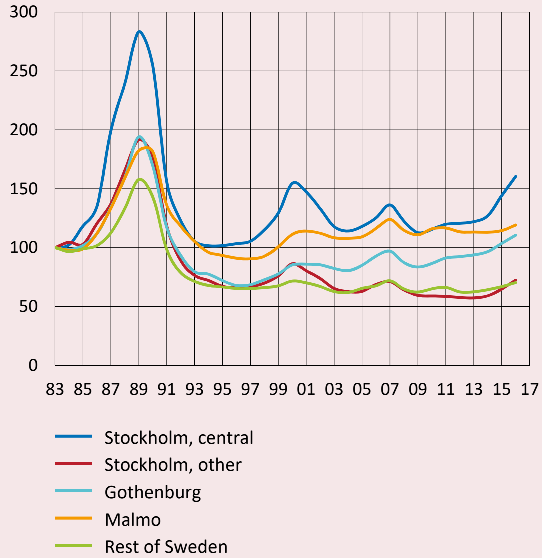
Per cent



Source: MSCI

Chart A:4 Real prices of office premises

Index, base year 1983



Note. The chart is based on a nominal price index which has been made real with the help of CPIF inflation.

Sources: Statistics Sweden and the Riksbank

Capital-intensive industry with a large proportion of borrowed capital

The commercial property sector is an industry in which a lot of capital is required in order to run a business. Expressed in simplified terms, property companies can fund their business with equity capital or borrowed capital.[92] They utilise borrowed capital to a large extent. For Swedish property companies listed on the stock ex-

[89] The vacancy rate is measured as the percentage of vacant premises in the property stock.

[90] The direct yield requirement is a measure of the returns that investors require from a property investment. For commercial property, the direct yield requirement is calculated as the difference between rental income and operating and maintenance costs for a property or property company, in relation to the price an investor has paid for the property.

[91] *Market participants' views on risks and the functioning of the Swedish fixed-income and foreign exchange markets*, spring 2016 and autumn 2016. Sveriges Riksbank. The issue of how participants view the commercial property market was not included in the spring 2017 risk survey.

[92] Commercial property companies with links to central government, municipalities and pension or life insurance companies are largely excluded from this analysis as their funding structure often differs from that of privately operated companies.

change[93], equity capital makes up just over 35 per cent of the funding while borrowed capital makes up 65 per cent. Other types of company listed on Nasdaq OMX generally have the converse ratio, i.e. 65 per cent equity capital and 35 per cent borrowed capital.

Whereas the balance sheet items borrowed capital, equity capital and assets have increased proportionally in recent years, the ratios of equity capital and borrowed capital in relation to assets have been relatively constant (see chart A:5). One explanation for the increase in all balance sheet items is a rise in the number of listed companies on the stock market in Sweden, although there are several other reasons as well. The fact that assets have increased is due, for example, to the value of the other companies' assets having risen at pace with nominal commercial property prices.

The fact that equity capital has increased is partly due to profitability among commercial property companies, measured as return on equity, having risen in recent years to levels that are high in a historical perspective and that many companies have chosen not to distribute all the profit to shareholders. In addition, some companies have carried out new share issue aimed at increasing equity capital. Their borrowed capital has increased at the same time.

As regards borrowed capital, a review of the largest commercial property companies' annual reports performed by the Riksbank shows that it consists of both bank loans and wholesale funding to a varying degree.[94] On average, however, bank loans and wholesale funding are more or less equally common. In recent years, companies have both borrowed more from banks and increased their wholesale funding.

The fact that property companies have a larger share of borrowed capital than companies in many other sectors is not unusual since, when taking bank loans, property companies often leave property has collateral for the loan which reduces the risks for the bank compared to loans without collateral. The large proportion of borrowed capital, however, means that the commercial property sector is interconnected with the financial system and, from a financial stability perspective, it is therefore important to understand this interconnection and how it has developed. Therefore, a review of property companies' borrowed capital follows below.

Loans from banks increasing

In the autumn of 2016, the Riksbank conducted a survey aimed at obtaining more information about commercial property companies' bank loans. Questions were put to the four major Swedish banks. The survey showed that their lending to Swedish commercial property companies has increased by almost SEK 100 billion since 2010 and now amounts to SEK 456 billion (see chart A:6 and table A:3).[95] The rate of increase is approximately in line with the banks' total lending. This lending is hence responsible for just over a third of banks' lending to Swedish non-financial corporations.

In addition to actual lending, the banks also have pledged unutilised loan limits or loan commitments to commercial companies for an additional SEK 87 billion, which is almost 20 per cent of the existing lending to these companies. Furthermore, property companies often have unutilised credit and liquidity facilities at the banks that are earmarked for covering the funding of their outstanding certificates.

Property companies have also increased their wholesale funding

Since 2013, property companies have increased their wholesale funding by issuing more bonds and certificates, The outstanding volumes have more than doubled over the last four years, from SEK 112 billion in early 2013 to SEK 267 billion today, broken down into SEK 192 billion in bonds and SEK 75 billion in certificates (see table A:3). This is not only because the companies have increased their borrowing but also because the number of property companies that use this type of funding has also risen. But other non-financial corporations have not increased their use of this type of funding to the same extent. This has resulted in commercial companies' share of total outstanding volumes having increased: from 18 per cent in March 2013 to 31 per cent at the start of 2017.

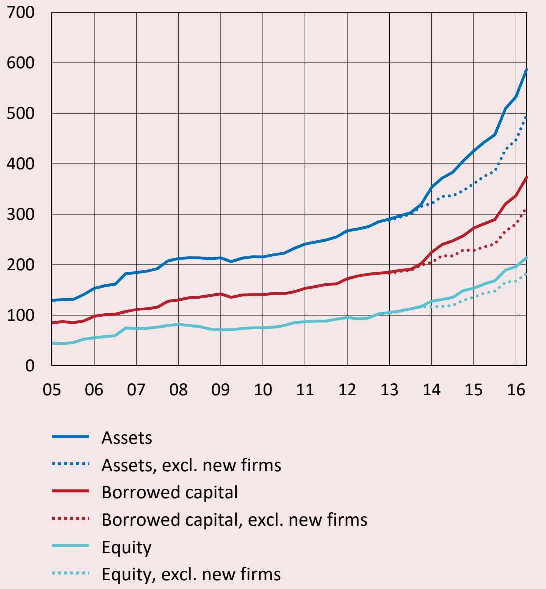
There are no specific statistics on which agents invest in the wholesale funding of property companies. Statistics Sweden does, however, compile statistics on which agents invest in the funding of non-financial corporations and because property companies are responsible for just over a third of the outstanding volumes within this category, the statistics can give a rough picture of who the investors in property companies are. The statistics show that just over half the investments come from abroad (52 per cent). Among Swedish investors, investment funds

[93] The listed companies in the sample have assets amounting to SEK 610 billion. This is equal to just over a third of the commercial property sector's total assets based on the 100 largest companies from the Fastighetsvärlden list in the 2016 Property Indicator.

[94] The borrowed capital also consists to a certain extent of other types of funding such as internal loans, accounts payable and deferred tax liabilities. These have been excluded in the review. As regards tax liabilities, the Ministry of Finance is currently investigating certain issues in the property and stamp tax area. Depending on whether and how a change is made within these areas, it may affect property companies and possibly the commercial property market, see *Vissa frågor inom fastighets- och stämpelskatteområdet [Certain issues in the property and stamp duty area]*, SOU 2017:27. Swedish Government Official Reports.

[95] Refers to the banks' lending to commercial property companies excluding housing properties.

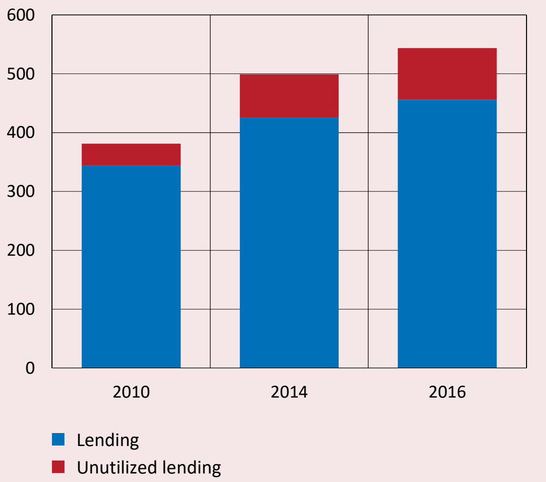
Chart A:5 Real balance sheet items for listed property companies
SEK billion



Note. The chart is based on a nominal data which has been made real with the help of CPIF inflation.

Sources: Bloomberg and the Riksbank

Chart A:6 Major Swedish banks' lending to commercial property companies in Sweden
SEK billion



Note. Refers to the banks' lending to commercial property companies excluding housing properties.

Source: The Riksbank's survey

constitute the single largest investor category (13 per cent) followed by pension and insurance companies (9 per cent).

No marked change in interest rate and refinancing risks...

As property companies have a significant share of bank loans and wholesale funding, they can be exposed to interest rate and refinancing risks.[96] However, it is unclear exactly how great these risks are. Normally, property companies borrow at variable interest rates. At the same time, they often enter into derivative agreements, which convert the variable interest expenditure to a fixed rate, in order to reduce the effects that changed market rates may have on their funding costs. This is also something that three out of the four banks in the survey require the companies to do to a certain extent in order to be able to borrow. The proportion of bonds issued at a variable interest rate has decreased in recent years, however, and the banks also say that they have noted that companies choose to take an increasingly large share of their funding at a fixed rate. This suggests that the interest rate risk on the liabilities has decreased slightly.

The average maturity for the companies' outstanding bonds is about four years and has not changed in recent years. Other non-financial corporations have had an average maturity of about six years in recent years. As regards bank loans, two out of four banks state that the maturity for property companies' loans has been decreasing since 2010, while the other two banks say it is un-changed. It is difficult to say anything about the refinancing risk with any certainty based only on this information, but it suggests that the risk has more or less remained unchanged in recent years.

... but companies' profitability is sensitive to interest rate changes

Even if the interest rate risk is deemed to have decreased slightly for property companies, their increased liabilities mean that they are still markedly exposed to rising interest rates. One way of studying companies' sensitivity to interest rates is to analyse their interest coverage ratios, which show how the revenue of large companies is in relation to their interest expenditure. For property companies, the average interest coverage ratio is currently around three, which means that their revenue is three times greater than their interest expenditure.

Such a low ratio as three can pose a risk as interest rates are currently at historically low levels. Unless some-thing else happens, the interest coverage ratio will fall when interest rates rise and vice versa. In a stress test, the Riksbank has studied how property companies can be affected by sharply rising interest rates. This could happen if, for example, confidence in the entire commercial property sector were to wane. This could also happen if the Swedish economy were to be hit by sharply rising inflation. In the test, it is assumed that the variable rates for commercial property companies funding rise from 1.7 to 5.0 per cent in the short term. In addition, various assumptions are made as to how much of the rate in-

[96] Interest rate risk is the risk of the value of financial assets and liabilities changing when market rates rise or fall. Refinancing risk is the risk of funding opportunities being restricted when loans are to be converted and of payment commitments not being fulfilled as a consequence of inadequate liquidity.

crease has an impact on the companies' funding costs and whether revenue is also affected and if so, to what extent (see table A:2).

Table A:2 Stress test of property companies' interest coverage ratios

Scenario	Impact from rate rise	Change revenue	Interest coverage ratio
Current situation	-	-	3.33
Scenario 1	50%	-	1.89
Scenario 2	50%	-25%	1.42
Scenario 3	100%	-	1.32
Scenario 4	100%	-25%	0.99

Note. The calculations in the stress test are based on data for Swedish commercial property companies listed on the stock exchange.

Sources: Bloomberg and the Riksbank

The results of the stress test show that the interest coverage ratio falls towards a value of one in all scenarios, albeit to a varying extent. This implies that the size of the companies' revenues approaches the size of their interest expenditure, which, all other factors being equal, means that their profitability gradually deteriorates. In scenario 4, it is assumed that the entire rate increase has an impact on all the property companies' funding and that revenues fall by 25 per cent at the same time. In this scenario, the interest coverage ratio falls below one, which means that interest expenditure exceeds revenue. This means that the companies make a loss, unless property values increase to exceed the deficit that arises as a result of interest expenditure being greater than revenue. If property companies start to make a loss, it may also affect banks' and investors' willingness to lend money to them, both in the form of equity capital and debt financing.

The stress test is based on the assumption that the variable interest rate for the commercial property companies' funding rises sharply in the near term. If the corresponding rate rise were instead to occur gradually over a number of years, the effect on property companies' interest coverage ratios might be entirely different. This may happen if the economy strengthens gradually. The impact from the rate rise on property companies' funding costs will then gradually increase as they have to renew the outstanding debt that matures with new funding at a higher interest rate, and the rate rise would gradually have a full impact on the companies' funding costs.

At the same time, it is reasonable to assume that the rental income of the property companies would also gradually increase in this scenario. The interest coverage ratio will thereby be less affected. Furthermore, their scope for obtaining new loans should not be affected to any great extent.

Problems in the property sector may have tangible effects on banks

As described earlier, Swedish banks are exposed to commercial property companies in different ways. The main exposure comes from the considerable amount of money banks lend to them. Most of this lending is secured and for the majority of it property mortgage deeds have been submitted as collateral.

In the Riksbank's survey, the banks state that they changed their credit policies in the wake of the crisis in the 1990s and started focusing on cashflows and direct yield requirement instead of the market value of the property, which was the case previously. By doing this, they consider themselves less vulnerable to changes in the market value of the loan collateral, i.e. the properties. The value of the property is still an important factor when it comes to lending, however; the most common so-called "covenant", a type of condition that is to be fulfilled during the loan's maturity, is, for example, a maximum loan-to-value ratio that sets the loan in relation to the value of the property.

As previously mentioned, bank lending to property companies amounts to SEK 456 billion. This can be put in relation to banks' Common Equity Tier 1 capital[97] of SEK 555 billion and shows that lending to property companies amounts to 82 per cent of the banks' capital. It is true that banks often have collateral for the loans, but the size of their exposure to property companies nevertheless indicates that they may be very negatively affected in the event of extensive losses on loans to commercial property companies.

Table A:3 Commercial property companies' funding

Commercial property company	SEK billion
Bank loans	455.9
(Unutilised loan limits)	*(87.5)*
Certificates outstanding	74.9
Bonds outstanding	191.9
Maturing certificates 1 month	18.9
Maturing certificates 3 month	58.0

Note. Any loans that Swedish commercial property companies have from foreign banks are not included in the statistics.

Sources: Macrobond, the Riksbank's bank survey, Statistics Sweden and the Riksbank.

In a situation where, for example, commercial property prices fall, it may be difficult for the banks to reduce their exposure to the sector, on the contrary, they may instead risk being even more exposed. If the property companies start to contravene the banks' covenants, or if the banks suspect that they are about to do so, they can take various measures depending on the circumstances. The measures can be anything from the banks demanding the terms of the loans be renegotiated or demanding

[97] Common Equity Tier 1 is Tier 1 capital with a deduction for capital contributions and reserves that may be included in the capital base as Tier 1 capital in accordance with chapter 3, section 4 of the *Capital Adequacy and Large Exposures Act* (2006:1371).

additional collateral, to them requesting the loan be repaid prematurely.

If the property company cannot pay, the bank therefore risks not being able to recuperate the money and may instead have to sell the property that has been left as collateral for the loan.

In the worst-case scenario, the value of the property is less than the loan amount, which leads to a credit loss for the bank. If, in such a situation, the bank forces properties on to the market for sale, it may create a negative spiral of further falling property prices and even larger loan credit losses. If the banks instead choose not to force-sell the property and instead take a different measure, they may be able to dampen the negative price development on the property market.

In addition to direct loans, banks are also exposed to property companies in that they provide them with so-called credit or liquidity facilities as a kind of guarantee in certain cases when the companies cannot renew their outstanding certificates on the market.[98] Currently, property companies have certificate funding that matures within one month to a value of SEK 19 billion and within three months to a value of SEK 58 billion (see table A:3).

The banks do say that the companies cannot borrow unconditionally via the credit and liquidity facilities, but depending on the reason why the property companies has difficulty renewing outstanding certificate funding, the facilities can nevertheless increase the banks' exposure to the property companies. Many property companies demand that the size of these facilities at any given time be equal to the size of their certificate funding, which has increased significantly in recent years.

In a situation where property companies themselves have problems, it is doubtful whether they fulfil the conditions that give them access to credit and liquidity facilities.

In conjunction with the financial crisis, both the Riksbank and the Federal Reserve took measures to improve liquidity on the certificates market for non-financial corporations. This was done because the companies were finding it difficult to renew outstanding certificate funding that matured.[99] It is not certain that property companies' credit and liquidity facilities are sufficient to enable them to avoid possible funding problems.

Even in a situation where the property companies may not utilise the credit facilities, despite them having difficulty renewing outstanding funding, the banks can be affected by indirect exposures. As previously mentioned, the property companies' total outstanding volume of wholesale funding amounts to SEK 267 billion. If the banks already have ordinary lending to property companies, they may have to choose between lending more to cover such wholesale funding which the companies cannot renew, or not doing so and instead risking loan credit losses on their existing lending. Depending on how the bank chooses to act in a stressed scenario, its exposure to the property companies can therefore increase.

Strong link between the commercial property sector and the financial system

Rising commercial property prices can increase the risks to financial stability in Sweden. The current price development seems to a large extent to be justified based on fundamental factors such as high rent levels, low vacancy rates and low funding costs. This suggests that the risks associated with the upturn in prices are lower than if they had been driven by speculation about further price increases. It is important to be aware that these factors can change, however.

To a certain extent, property companies seem to be allowing for this by not reducing direct yield requirements at par with the low risk-free interest rate. As the companies have also maintained a more or less unchanged share of equity capital as a proportion of total funding, they also have an unchanged capital buffer, which makes it possible for them to cope with a fall in commercial property prices to a certain extent.

At the same time, the property companies operate in a capital-intensive industry and are dependent to a high degree on borrowed capital. Even if the refinancing and interest rate risk for the companies does not seem to have increased in recent years, they are more sensitive than many other companies to rising interest rates and the link between the companies and the financial system is also stronger, due partly to the higher share of loan financing. A situation where property prices fall or interest expenditure rises sharply could therefore have an impact on financial stability in Sweden.

The banks' exposure to commercial property companies, compared with other lending, has not increased over the last six years, although their exposure has increased in terms of volume. Their lending to property companies is very extensive. It made up just over a third of their lending to non-financial corporations in Sweden, and amounts to 82 per cent of their Common Equity Tier 1 capital.

[98] As previously mentioned, property companies also have unutilised loan limits at banks totalling SEK 87 billion. In the Riksbank's survey, however, the banks state that these are, for a variety of reasons, difficult for the property companies to utilise in a stressed situation.

[99] The Riksbank offered loans to Swedish banks in exchange for them submitting non-financial corporation certificates as collateral for the loans. The Federal Reserve chose instead to lend money directly to the companies.

In addition to direct lending to property companies and the unutilised loan limits, banks also have indirect exposures via property companies' wholesale funding. This is not only because banks to a certain extent provide property companies with credit and liquidity facilities that are to cover their certificate funding, but also because they may have further additional exposure from property companies' other wholesale funding.

If problems were to arise on the commercial property market, the major Swedish banks risk being hit by widespread credit losses. In light of the development on the commercial property market and the market's importance for the financial system, it is therefore important to keep track of developments going forward in order to identify any changes that may increase the risks to financial stability.