

■ Commercial property and financial stability

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We have been commissioned and entrusted by the Riksbank to prepare a document intended to serve as a basis on which to develop the commercial property section in the Riksbank's Financial Stability Reports. As part of this work, we have analysed information, information structures and risks relating to the commercial property market from a partly new perspective. One conclusion is that the Riksbank and commercial property players have a common interest in improving access to as well as the quality of the information on which the strategic decisions made by the Riksbank and the market participants is based. Improved information will provide data for more advanced econometric models as well as opportunities to identify early signals of escalating risks in the rental, property, construction and credit markets.

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1 Introduction

BACKGROUND

Financial stability is an important social goal and a key priority in the work of the Riksbank. The reason is that the property sector and its funding can cause instability as well as significant damage to the national economy. Freshest in the memory is the property and banking crisis of 1990-1993 when defaults in the commercial property sector brought the Swedish banking system to the brink of collapse, necessitating bold government action to secure the functioning of the credit system. The most recent financial crisis, which began in the second half of 2008, has so far not led to any significant problems in Sweden's commercial property market. However, there are international examples of how problems linked to the commercial property market have created more negative effects in connection with the most recent financial crisis.

To promote financial stability, the Riksbank needs better data on which to base decisions, mainly in the form of elaborated information on the functioning of the commercial property sector, e.g. how property valuations are handled, and improved analysis models. Direct players in the property industry – primarily investors and lenders – have much to gain from better information about the functioning of the property sector.

PURPOSE

The purpose of this report is to

- provide a more detailed definition of the concept of commercial property
- present a conceptual model for the function of the commercial property sector that can be used as a basis for information gathering and analysis models
- illumine and analyse risks associated with the development of the commercial property market and its potential impact on financial stability
- briefly describe developments in Sweden's commercial property market, including the performance of property companies with regard to the market value of their underlying property assets and debt levels
- illumine how institutional factors can affect rents and property prices, thus having an impact on financial stability
- describe whether, in addition to the information currently used by the Riksbank, there exist information or indicators that are able to identify at an early stage risks which depend on funding structures, the refinancing of bank loans and debt levels related to price trends for property

- illumine institutional relationships and various measures that are applied internationally to prevent build-up of risks in the commercial property market
- evaluate the Riksbank's analysis of the commercial property market from the vantage point of the analysis made in the Financial Stability Reports (2009:1-2010:1) and to provide recommendations on which parts of the analysis should be deepened or performed differently

METHOD

In preparing this report, we have compiled existing literature, conducted interviews with key individuals and performed analyses based on our own experience of the market, valuations and financial analysis. Throughout, our work has focused on those circumstances in the Swedish commercial property sector which have the potential to affect financial stability.

Readers interested in a more general overview of the commercial property sector in Sweden can read *Kommersiella fastigheter i samhällsbyggandet*, Lind & Lundström (2009). Those looking for a direct discussion of risks to financial stability linked to commercial property can read Congressional Oversight Report, February 10, 2010: *Commercial Real Estate Losses and the Risk to Financial Stability*.

STRUCTURE OF THE REPORT

The report is divided into six chapters. After this introduction (Chapter 1) a conceptual model for the relationship between, on the one hand, growth and interest rates and, on the other, the rental market, property market and construction market is presented in Chapter 2.

Chapter 3 is devoted to the valuation of property, in particular the issue of how inadequate valuation data can create uncertainty about estimated values.

In Chapter 4 we discuss which risks are associated with the funding of property and how the commercial property sector can affect financial stability.

The fifth chapter addresses the issue of how various forms of institutional rules can affect financial stability.

The report is concluded in Chapter 6 with a set of conclusions and recommendations on how the data used in preparing the Riksbank's Financial Stability Reports could be improved.

THE CONCEPT OF COMMERCIAL PROPERTY

In this report we limit the concept of commercial property to properties that are not private homes in the form of single-family homes or apartments in tenant-owner's associations and that can normally be bought and sold in the property market. The meaning of the concept of commercial property can vary depending on the

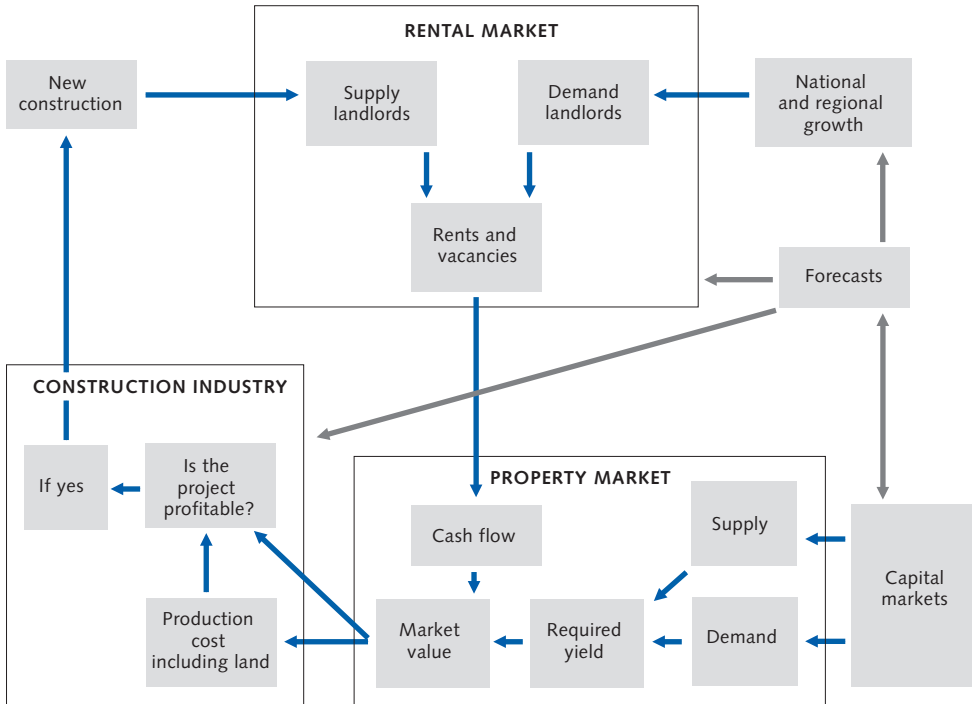
purpose of the analyses. Our purpose is to discuss how economic conditions tied to commercial property can have an impact on financial stability. We have therefore excluded private homes from the analysis.

2 Relationships among the different parts of the property market

A CONCEPTUAL MODEL

The purpose of the conceptual model is to create a framework for the information and analyses presented in the subsequent sections. The model is shown in figure 1, and is primarily associated with Geltner & Miller et al. (2007).

Figure 1. A model showing how growth and capital markets relate to the rental, property and construction markets.



The model mainly reflects the fact that the rental market, capital market, property market and construction market are linked to each other, and that the driving force is created by economic growth in combination with required yields in capital markets. The model shows that the rental market is affected by new construction, which in turn is affected by the construction industry. The construction industry makes decisions on new building projects based on information from the property

market and forecasts. The property market is affected by required yields in capital markets and rents and vacancy levels in the rental market. It is this interaction among growth, the capital market, the rental market, the property market and the construction market that gives rise to various business and financial risks.

THE DIVIDING-UP AND PROFESSIONALIZATION OF THE PROPERTY SECTOR

The first big growth phase in the Swedish commercial property sector took place in the 1970s and 1980s. The property market grew on the back of the rapid expansion of the service sector and a gradual shift in ownership. The most striking development was that the “builder-owner tradition”, where the builder would own, manage and in some cases also use a property, gradually weakened and gave way to a more financial view of ownership. This paved the way for a professional rental market and a more liquid property market. The interplay among the various parts of the property sector shown in the conceptual model was thus established at this time.

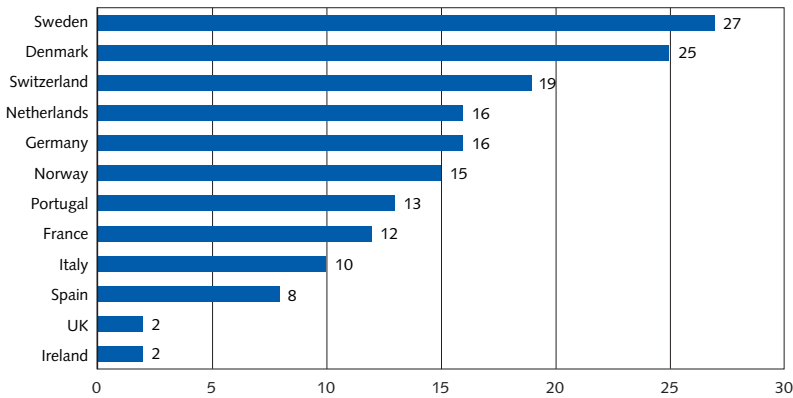
This process of restructuring continued into the 1990s, resulting in an increasing degree of separation of ownership, management, construction and use. In the 1990s this functional division and professionalization also gave rise to the emergence of a consultant industry with international links, reflecting the increasingly borderless nature of the commercial property market and its integration into global capital markets.

Property has gradually come to be regarded as a legitimate commodity, which has also strengthened the link to and impact of the capital market. In some respects the property sector has come to resemble other sectors in society. In the 1970s trading in commercial property was regarded as speculation. This can be seen in the Swedish Rental Property Acquisitions Act (1975:1132), which was repealed in 2010. The Act reflects a zeitgeist and a view of the property market which seem alien today.

THE RENTAL MARKET

The Swedish rental market differs from the European rental market in the sense that rental agreements are structured in a way that is in some respects unique to Sweden. In Swedish commercial rental agreements the rent is a total rent, which means that the property owner provides and receives payment for the operation and maintenance of the property. In principle, under a British rental agreement, the owner provides a capital while the tenant is responsible for operation and maintenance, see figure 2.

Figure 2. Operating and maintenance costs as a share of gross rents in 12 European countries in 2005.



Source: IPD.

The average term of a Swedish office rental agreement is 4-5 years while the average British rental agreement is twice as long. British rental agreements have become considerably shorter over the past 20 years. However, the British model has a set of integrated checkpoints, known as rent reviews, where rents are adjusted to prevailing market conditions during the term of the agreement.

A Swedish rental agreement also has a few other particular characteristics. The most obvious is that a majority of agreements, with the exception of those for shopping centres and hotels, are formulated based on a standard template produced by the Swedish Property Federation. Rent adjustments in standard agreements are often tied to changes in consumer prices. The rationale behind this is partly to protect rents against inflation. However, in recent years there has been a tendency to link rent adjustments to short-term interest rates rather than consumer prices. The reason for this is the low level of inflation coupled with the fact that property owners use short-term funding. Another effect is that changes in rents have been tied more closely to the Riksbank's monetary policy decisions.

The rental market's impact on the property market

The rental market determines the development of the property market, as shown in figure 1. It is often said that "the rental market is the mother of the property market". Economic growth leads to higher rents and affects lease terms and conditions and vacancies, i.e. how large a portion of the space has not been let. As the model in figure 1 shows, the market value of property is determined essentially by cash flow expectations (rent flows) combined with a required yield.

The commercial rental market vs. the residential rental market

Residential property has over the past 20 years displayed greater stability in terms of rents, property prices and returns than offices, retail space, hotels, etc. The main reason for this is that residential rents are set through a collective bargaining system which in recent years has been influenced by a mix of cost and market thinking. This approach has created stability in the rental market, which has meant that nominal rent reductions have generally not been applied. The stability is also affected by the fact that residential property is a form of necessity good and that new construction has not led to increased vacancies, as in the 1980s.

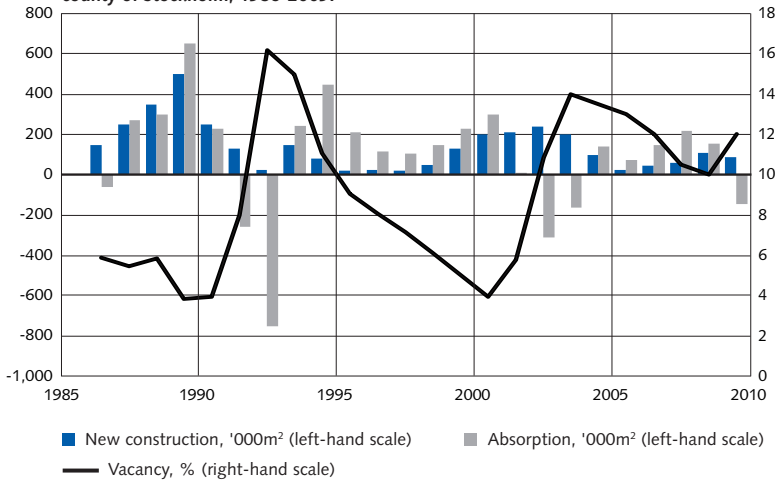
The fact that residential rents are increasing in fast-growing localities can be explained by the fact that rents in these areas were previously below market levels. In smaller localities with a declining population increases in rent are partially explained by the fact that property companies have taken various measures to reduce the supply of housing. Another factor is that the municipal housing companies have had a large market share and have been able to keep rents high through their leading role in setting rents.

The stability of rents has also, somewhat surprisingly perhaps, had the effect that total returns over the last 10 years have on average been higher for residential rental property than for other types of property in the investor market. This can be explained by the fact that rents in fast-growing localities have generally been deemed to be below market levels and that a large portion of the increase in property prices is due to the option of changing the form of tenure from tenancy to tenant-ownership.

THE CONSTRUCTION MARKET

For the construction market the chief criterion for determining whether to build a new property is that the market value of the property exceeds the cost of producing it. Another way of expressing this is that construction begins when the ratio of market value to production cost exceeds 1 (Tobin's $q > 1$). But the planning and building process is often protracted, which means that it can take several years from starting shot to turnkey building. Because of this, new builds often hit the market when growth rates and economic activity are falling, which in turn further increases vacancies and pushes down rents. This is illustrated in figure 3.

Figure 3. New construction and lets, net (m²) and vacancies (%), for offices in the county of Stockholm, 1986-2009.



Source: DTZ Sweden AB.

The figure shows, for instance, the significant volume of new construction in the late 1980s and how this volume was let out up to the year 1990. Two years after that about 800,000 square metres of office space was vacated in the county of Stockholm, pushing vacancy levels sharply higher. However, office premises started to be filled again as early as 1993, while new construction got going again only towards the end of the 1990s.

THE PROPERTY MARKET

A useful concept in this context is the investor market, which essentially comprises the markets for office, retail and hotel premises. Lind and Lundström (2009) also include some property owned by industry and by central and local government, primarily the municipal housing companies. However, they do not include farm properties and specialised properties used for electrical generation, for instance. According to Lind and Lundström, the investor market has a market value in the region of SEK 1,000 billion.

Investment properties are owned primarily by four different categories of owner, each of which holds roughly one quarter of the total. These are listed (public) property companies, private individuals and businesses, Swedish institutions and foreign investors.

The SEK 1,000 billion market value should be set against private residential property in the form of single-family homes and tenant-owner apartments, which have a market value of about SEK 5,000 billion. Another way of illuminating these figures is to look at banks' credit exposures to different types of borrower, such as

property companies. According to the Riksbank's Financial Stability Report 2010:2, lending to property companies accounts for about 16 per cent of the Swedish banking groups' total lending. It is also interesting to note that 50 per cent of the total value of commercial property in Sweden is located in the county of Stockholm while the counties of Skåne and Västra Götaland together account for about 25 per cent of the value. The investor market is thus essentially a metropolitan market.

Out of the total investor market value of SEK 1,000 billion an estimated 55 per cent refers to offices, 20 per cent to retail premises, 10 per cent to rental apartment buildings, 10 per cent to industrial properties and 5 per cent to hotels. The market for these property types follows certain common patterns but can also display significant differences in terms of commercial logic and cyclicity.

The property owners

Looking at the owners of all types of income-generating rental properties in Stockholm, it is immediately apparent that the public sector and institutional owners are by far the dominant players.¹ In descending order of owned floor space, the ownership structure is as follows: Svenska Bostäder, Stockholmshem, Familjebostäder, Vasakronan, Micasa, Fabege, Akademiska Hus, Stockholms Kooperativa Bostadsförening (SKB), AMF Pension and AFA Fastigheter.

One conclusion is that the largest owners in Stockholm can be regarded as financially stable. Four of the ten largest owners – Vasakronan, Fabege, AMF and AFA – operate in the investment market.

Malmö has a different ownership structure than Stockholm, with a stronger presence of privately owned firms. Stena fastigheter, ACTA, Akelius, Heimstaden and Ulla Åberg are privately owned. Three companies are listed: Wihlborgs, Dagon and Castellum. The largest is municipally owned MKB, and Vasakronan, which is owned by pension funds, also has a large holding. Gothenburg occupies a middle ground with three entirely dominant municipal housing companies.

The size of the market

Transaction volumes in the commercial property market have varied strongly over the past ten years, see figure 4 below.

1 Sources: DTZ Sweden AB and Byggnalys AB.

Figure 4. Transaction volumes in SEKbn in the Swedish commercial property market in 2000-2010 broken down by Swedish and international investors.



Source: DTZ Sweden AB.

The figure shows that transaction volumes doubled between 2003 and 2008 and then dropped sharply in 2009. The county of Stockholm dominates the market with approximately 50 per cent of the capital and turnover.

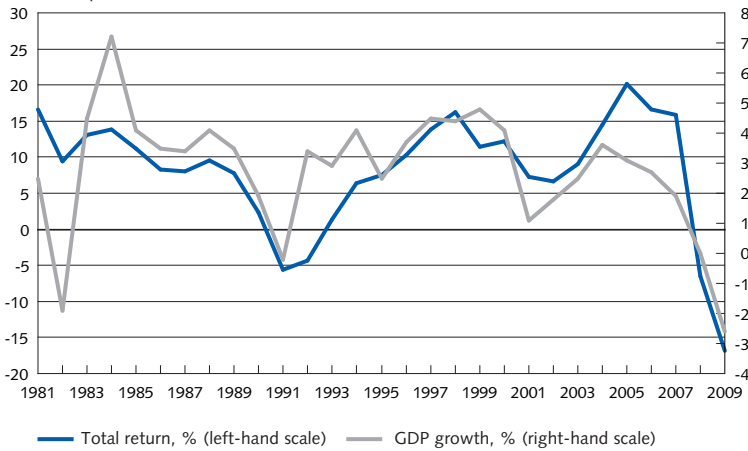
The average annual transaction volume in Sweden's commercial property market is about SEK 100 billion, representing a turnover of 10 per cent. Out of the total figure, the ten largest transactions account for a third. By comparison, the Swedish market for single-family homes and tenant-owner apartments has an annual turnover of about SEK 200 billion.

NATIONAL AND REGIONAL GROWTH

Economic growth is the single most important factor affecting trends in rents, property prices and construction activity. Empirical surveys of the commercial property market² show that most of the variation in total returns and capital appreciation, in some cases over 70 per cent, can be explained by variations in economic growth. The relationship between growth and return on total capital for commercial property in the US is illustrated by a longer series in figure 5. Similar relationships exist in most countries, including Sweden.

² Most surveys have been conducted by property consulting firms and show essentially the same level of correlation as in figure 5.

Figure 5. Changes in growth and return on total capital for commercial property in the US, 1981-2009.

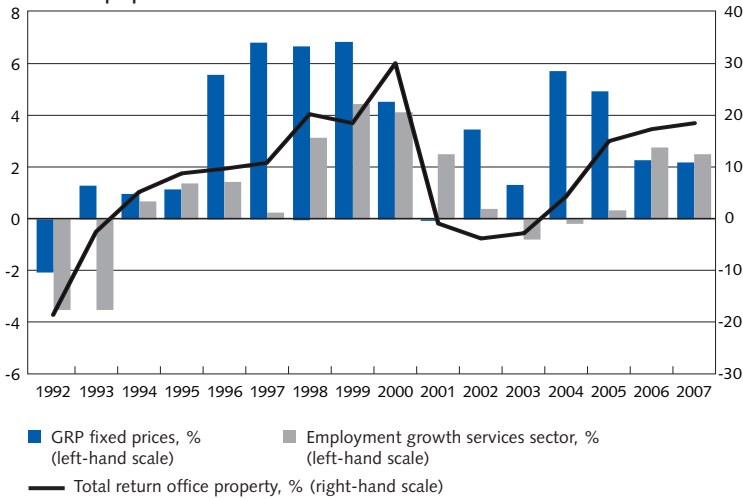


Source: IPD.

It is also becoming increasingly clear that growth varies regionally and locally. In Sweden this means that the metropolitan areas offer significantly higher returns as well as greater variations in returns than county towns and local centres. The variation over time in the metropolitan areas is a consequence of high economic activity coupled with large gaps in time between decisions in the rental, property and construction markets. After the developers have made their decisions it can take a few years before the new commercial premises are ready to be let in the rental market due to the protracted planning and building process. The decision to build may have been made during an economic upswing while the new premises will reach the market during a downturn, which increases variations in returns on property investments.

The impact of economic growth on returns from commercial property is illustrated in figure 6. Here growth is expressed as gross regional product (GRP, "local GDP") and employment growth in the service sector in Stockholm. The return is measured for office properties.

Figure 6. Changes in gross regional product (GRP) in 1992-2007 for Stockholm, service sector growth for the same area and time in relation to annual total return for office properties.



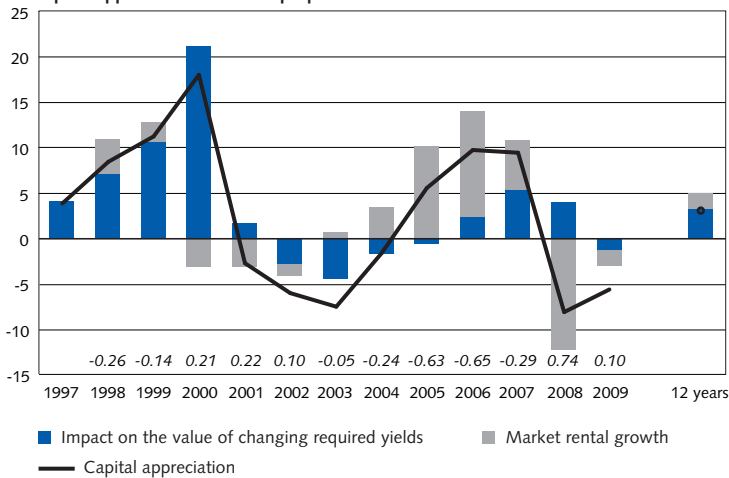
Source: DTZ Sweden AB.

The figure shows that the sharp acceleration of growth and employment up to 2000 resulted in a significant increase in returns. Likewise, the low growth rate after the IT boom in 2000 resulted in negative returns for offices, retail premises and hotels, but not for residential rental properties.

As shown above, returns in the commercial property market – capital appreciation and yield (net operating income levels) – are affected by local as well as regional and global economic growth. Conversely, the crisis in 1990-1993 shows that conditions in the property sector can affect the financial system as well as the real economy, and ultimately growth. A more recent example of this is the property and financial crisis in the Baltic States.

Changes in market value (capital appreciation) are generated mainly through the interaction between cash flow (rental growth) and a required yield, which is formulated in the capital market. The biggest impact on capital appreciation occurs when rents are expected to fall while required yields are increasing, see figure 7.

Figure 7. Impact of rental growth and changes in required yields ("yield shift") on capital appreciation for office properties in central Stockholm.



Note. Change in required yield, %, in italics.

Source: IPD Svenskt Fastighetsindex.

From 2000-2002 required yields increased while market rents fell. This resulted in negative capital growth from 2001 to 2004. Conversely, required yields declined from 2003 to 2007 while rents increased, resulting in rapid capital appreciation. This means that the value of property assets is positively affected both by a decline in required yields and by rising rents.³

3 Valuation of properties

The valuation of a portfolio of properties is based on the flow in the form of transactions. A recurring question in this context is how representative the properties in the flow are for the portfolio as a whole. The problem becomes particularly evident when turnover falls to extremely low levels, as in 2009. Other significant factors in this context are that each property is more or less unique and that the characteristics of the portfolio are not known in all details. In theory, different characteristics could be taken into account in an econometric model, but this assumes that several characteristics of the flow as well as the portfolio are known.

³ Chapter 3, under the heading "Calculating yield as part of the valuation", provides a more general discussion of required yields in the property market based on expectations of real interest rates, risks and net operating income.

CALCULATING THE VALUE OF RENTAL AGREEMENTS

The key parameter for a valuation is the rental agreement. Simply put, the value of a property could be defined as the “present value of the rental agreements”. However, there is no official source for the characteristics of rental agreements.

In an extreme case the dearth of information about these characteristics can result in an incorrect valuation for the entire portfolio. A more probable outcome of the lack of information, however, is that high-yield properties are undervalued while low-yield properties are overvalued.

There are also several uncertainties concerning how the value of rental agreements should be calculated. In the standard Swedish contract for commercial premises property tax is charged separately from rent. This means that the definition of market rent does not include property tax. In central Stockholm the annual property tax can be as high as SEK 400 per square metre. From the property owner’s perspective property tax is equivalent to value-added tax – the end customer pays. From the tenant’s perspective property tax is a very real cost. These differing perspectives can lead to misunderstandings about the effective rent for the premises.

The commercial rental market in the metropolitan areas, primarily Stockholm, is dominated by a number of large and very stable property owners. This creates resistance to any downward movement in rents. The incentives to lower rents in a downturn are small, as lower rents affect the whole market. By means of various discounts property owners can maintain an officially high rent level while holding down vacancies. For instance, many contracts contain clauses on rent-free months and graduated rents. These openly described clauses and any applicable real options are manageable when it comes to calculating the effective rent. What is more difficult to access and value are any ancillary agreements providing for the upgrading of premises or arrangements where the lease terms form part of a wider business deal. These types of hidden terms and conditions make it harder to assess the effective rent and also complicate the valuation and pricing of the properties. As it is difficult to observe certain fundamentally important parameters which form part of a property valuation, a degree of uncertainty can arise about whether market prices at any given time reflect rationally set equilibrium prices.

PROPERTY VALUATION METHODS

A property’s market value is defined at a certain point in time. The assessment is valid at the date of value but gives no explicit indication about future capital appreciation or the risk of a fall in value. Formally, almost 100 per cent of all valuations of commercial property are based on a procedure involving the discounting of estimated future cash flows. However, it is unclear which valuation

method is actually applied in this procedure.⁴ Forecasts for rents, operation, maintenance and reinvestment are to a large extent based on the use of flat-rate methods and follow a form of industry standard.

The valuers tend to smooth out sharp fluctuations in value in the market (“valuation smoothing”). They also tend to lag the market in their assessments of value (“lagging”). These two characteristics of property valuations create problems when investors, employing their own portfolio models, seek to determine how much portfolio capital should be allocated to different asset classes, including property, equities and bonds. A lot of research, e.g. Geltner (1991), has been conducted to eliminate the impact of the valuations on the yield figures used in the portfolio models.

BANK VALUATIONS FOR CREDIT ASSESSMENTS

When banks offer credit for properties and property companies they make a number of qualitative as well as quantitative assessments. The qualitative assessments often centre on the owners of the property company or those who control the company structure while the quantitative assessments focus chiefly on the borrower’s cash flow and ability to repay the loan. The assessment of the collateral is also important, of course, but it is secondary. The assessment of the borrower’s financial position is another key factor (loan-to-value ratios, solidity, etc.) This focus on cash flow suggests that it is the analyses of the rental market that are crucial to the assessments of financial stability.

The assessment of the collateral is based on the amount of the loan relative to the market value of the properties. Normally, the maximum loan-to-value ratio is 60-75 per cent. Higher ratios do occur, primarily for residential rental properties which experience suggests have more stable market values than offices, retail premises and hotels.

Property valuations for lending purposes are largely performed using internal valuation experts, i.e. employees of the banks, but external valuation consultants are also used. Internal valuers generally go through some form of internal certification process at the bank. The banks’ expertise in property finance and valuation is generally of a considerably higher standard today than at the end of the 1980s.

The banks’ valuation methods comprise both sales comparison methods (analysis of transactions in the market) as well as cash flow and yield estimates. The methods used can also vary from one bank to another. Banks commonly have access to contract information for rents and often make inspection-like reviews of the properties to assess their maintenance status and reinvestment needs. Assessments

⁴ See, for instance, the discussions in Lind & Nordlund, 2010.

of required yields are made using market systems like Datscha⁵ and Svefa as well as on the basis of the banks' own transaction analyses.

It is not common for banks to compare an estimated market value with other information sources, such as reference values or trends in implied⁶ values derived from listed property shares.

The lack of information in the property market leads to uncertainty. As it is unclear whether the property market can function effectively and in a fully rational manner, it is also somewhat debatable whether the prices obtained in transactions in the property market at any given time reflect rationally set equilibrium prices. This, in turn, creates uncertainty about whether those market prices which can be assessed on the basis of transaction market and other data are sufficient to enable the lender to assess the security for its loans. A risk that can arise in this context is that transaction prices, which in turn constitute essential input data for property valuations, will be too high in relation to what would be motivated over the long term if one had access to all relevant information.

In many cases assessments of future repayment ability are, as regards macro factors, based on the bank's own forecasts for inflation, interest rates, economic growth and other factors. For individual properties banks also adapt their scenarios for trends in rents and vacancies based on the type of property and its geographic location.

CALCULATING YIELDS AS PART OF THE VALUATION

Analyses based on material from the Swedish Property Index show that the required yield applied in property valuations generally exceeds the actual yield. This difference is due to the fact that valuers generally make optimistic assumptions about operation and maintenance costs as well as future vacancy levels. The result is that they overestimate net operating income, which in the valuation is offset by a relatively high required yield. This means that the end result – the market value – will be “correct”. For an outside observer – investor or lender – faith in the input data used in the estimates can involve a risk, however, especially when the interest coverage ratio turns out to be lower than expected.

Many aspects of the analyses used for various types of property transactions are based on the concepts of yield and required yield. In a formal sense, many of the analyses made in connection with acquisitions are based on detailed cash flow analyses, but for analyses at a general level a simpler model can be applied.

5 See also Chapter 6 – Conclusions, where we provide a brief description of Datscha.

6 Implied value is calculated, somewhat simplified, by adding the market capitalisation of a listed property company to the market value of the company's total liabilities in order to identify the equity and liabilities side of the balance sheet. An assessment is then made of the market value of all other assets that are not property assets. Finally, the property value is determined by balancing the assets side of the balance sheet with the equity and liabilities side.

This simple model, which involves a valuation by capitalisation in perpetuity (the Gordon model), has a widespread application for valuations of properties as well as businesses.

$$V = \frac{(H - D - U)_1}{p - g}; \quad p - g = \frac{(H - D - U)_1}{V}$$

V is the present value of a perpetual and exponentially growing income stream, in this case the net operating income ($H - D - U$, *rent minus operation and maintenance*), which is discounted to the present using the cost of capital, p per cent, less the expected growth rate for net operating income, g per cent. In this context the $p - g$ factor constitutes the required yield.

As shown above, the required yield could be said to consist of three main elements:

- an expected real rate of interest
- a risk premium – including business risk and liquidity risk
- an expectation for growth in net operating income – positive or negative⁷

Growth in net operating income could be said to consist of two factors: a component reflecting the aging of functions of the building and a change – generally growth – in the economic base. In a city like Stockholm the value of the land (the value of the development rights) can make up as much as 80 per cent of the total market value of a property. The value of the building represents the remaining 20 per cent. In smaller localities the value ratio can be the reverse. This creates different yield effects for capital appreciation and unmodernised premises, respectively.

The following is an attempt to conduct a more theoretical discussion on what constitutes a “normal” required yield for office and retail premises in central Stockholm:

We assume that the *ex ante* risk-free real interest rate is 2-3 per cent and that the business risk premium – mainly vacancy risks, technical risks and liquidity risks – in prime office locations is 2-3 per cent. This risk-adjusted yield is thus 4-6 per cent. For a property that is not subject to investments the expected growth in net operating income can be estimated at minus 2-3 per cent.⁸ The reason for the expected negative growth in net operating income is the aging of the building capital. Maintenance costs and vacancies will increase. The aging can be offset by growth in the economic base, which has a positive impact on rent levels and can in

⁷ See also the discussion in Baum, 1997, which describes how this aspect can be linked to the yield formula based on real price studies for office properties in London.

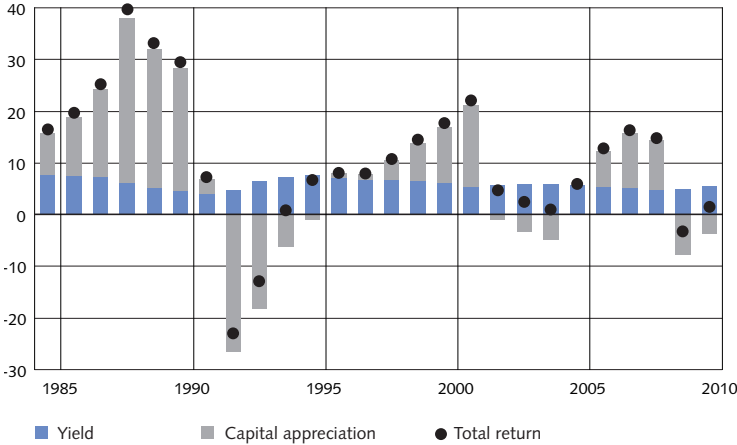
⁸ See, *inter alia*, Baum, 1997. See also the results relating to property and building depreciation described in Bejrums, 1995.

turn make it easier to achieve profitability on investments aimed at renewing the building capital, e.g. modernisation.

From the above discussion it is possible to draw a general conclusion concerning required yields for office buildings in prime office locations in Stockholm: Required yields that have fallen to 4-5 per cent are based on assumptions about future net operating income and risk levels that are often not sustainable over the long term.

In this context it is interesting to study how yields and capital appreciation (i.e. the total return) have varied over a longer period of time. This is shown in figure 8.

Figure 8. Return on total capital in 1984-2009 broken down by yield and capital appreciation.



Source: IPD Svenskt Fastighetsindex.

It is immediately evident that yields, with the exception of the period around 1990, have remained relatively stable while the halving of yields, from 8 to 4 per cent, between 1984 and 1990 was not sustainable over the long term. Total returns vary sharply due to sharp fluctuations in capital appreciation. This is typical for a market where there are long gaps between growth signals and the completion of new builds.

The figure also shows that the long-term yield accounts for two thirds of the total return. An average yield of 6 per cent thus implies a nominal total return of 9.8 per cent over 26 years. This means that it is important to pay attention to whether the increase in the total return is attributable only to the capital appreciation component of the total return, i.e. whether the market values of properties are increasing without a corresponding growth in underlying cash flows. In this case there is a risk that expectations of capital appreciation may not be realised, which can lead to future downward adjustments of property values.

In some cases it is thus difficult to “extract” the market’s required yields for specific properties. An undesired side-effect of excessively optimistic assumptions

in yield-based estimates can be that the valuations of certain properties will be too high. This, in turn, can result in “locking-in effects” due to the fact that the properties cannot be sold in the market at the prices estimated in the valuations.

Overall, these difficulties create uncertainty about the market values of properties that do not change hands in the market. This, in turn, creates uncertainty about property companies’ “real” financial positions when studying the market valuations of their properties in their balance sheets.

VARIATIONS IN MARKET VALUES IN METROPOLITAN AREAS

Figure 8 shows sharp variations in capital appreciation in 1984-2009 for the properties included in the Swedish Property Index. The sharp variation in capital appreciation shown is a phenomenon typical to metropolitan areas. An office property in the central areas of Stockholm, for instance, can be valued at SEK 80,000 per square metre. Out of these SEK 80,000, the value of the land (the value of the development rights) accounts for about SEK 60,000. The SEK 60,000 level is determined by the value of the land for the best alternative use, which may differ from the actual use. In a growing city like Stockholm centrally located development rights should increase in value over the long term. The value of development rights may be expected to fluctuate sharply depending on economic conditions, however, and in line with the property cycle illustrated in figure 8. In the above example the value of the building is SEK 20,000. This is because the building quickly becomes outdated in a growing city, and because of depreciation.

The conclusions for investors and lenders, as well as for the Riksbank, can be summarised as follows:

- Market values in the metropolitan areas (chiefly Stockholm) will vary significantly over time, requiring that investors have a strong equity position.
- The building capital ages rapidly, requiring that any second, unsecured mortgages be repaid quickly, especially in a low-inflation environment.

4 The impact of the property industry on financial stability

THE INTERACTION BETWEEN GROWTH AND MARKET VALUES

Figures 5-8 illustrate the cyclicity of the market for commercial property in the metropolitan areas, i.e. how various rents, vacancies, yields and other value drivers ultimately affect the market values of properties. The cyclical and protracted processes can be explained by the high transaction costs involved in adapting premises to changing tenant requirements, the complexity of the planning and building process and what are for most market players hard-to-assess risks linked to the construction and sale of properties. There are also underlying market risks,

which can affect the stability of the financial system. Other risks that need to be taken into account are risks relating to individual properties, especially those linked to market position and technical condition, i.e. the risk that the property owner will face an unforeseen need to pay for extensive maintenance or reinvestment measures. However, these specific risks are rarely systemic.

Often, changes in market values of properties are used as an indicator that financial stability may be affected. Yet market values could be seen as a product rather than an indicator. They are the product of a process where economic growth and required yields in capital markets drive a complex interaction among the rental, property and construction markets. It is therefore to these markets that we need to look to find early signals of risks to financial stability, coupled with analyses of growth and required yields.

The conceptual model in figure 1 is based on the assumption that there exist stable causal relationships in the interaction among macroeconomic factors (chiefly GDP and the cost of capital) and the various markets. However, the problem is that different factors affect growth at different times. This means that growth, in turn, affects the property sector in different ways. The latter circumstance can be illustrated by the fact that many believed the negative trend in GDP in 2008-2009 would affect the service sector in Stockholm, and that this would push up vacancies and depress rents in the office sector. With the benefit of hindsight, it is clear that there has been no marked effect of this type.

Another problem, and a core issue linked to financial stability, is that the “natural variations” in the model described above can shift and eventually “work in reverse”, i.e. that growth in the economy can be affected by conditions in the property market.

One further dimension, which is not addressed explicitly in the analysis model, concerns the effects of changed institutional regulations. It is clear that the property and banking crisis of 1990-1993 was to a large extent affected by a large number of institutional changes, each of which was logical in isolation but which jointly had an unexpectedly strong impact on the property market and financial system. The financial system was strongly affected by the deregulation of the currency and credit markets coupled with the radical overhaul of the tax system and the abolition of the previously generous interest subsidies for housing construction. No equivalent regulatory changes are being implemented in the Swedish market today. The commercial property sector is now more affected by global regulatory changes, including new accounting rules (IFRS) and capital adequacy rules (Basel III).

THE CAUSES AND PROGRESSION OF PROPERTY CRISES

Figures 5-8 illustrate that there exist empirical relationships between the markets and activities described in the conceptual model in figure 1. However, the

relationships are not unequivocal and they vary over time. Some sequences of events could be called normal while others, such as the train of events that took place in the early 1980s, paved the way for the financial crisis between 1990 and 1993. In this case, relationships within and between the banking and property sectors were strong driving factors. It may therefore be relevant to take a closer look at which particular developments lead to crises, and what role commercial property plays in the course of a crisis.

Retrospectively, the 1990s crisis can partly be put down to the fact that Swedish investors had in the late 1980s ventured into other parts of Europe to invest in property, along with Swedish banks and Swedish advisers and valuers. The consequences are well known: major economic losses and problems for the banks. Since the late 1990s the capital flows have turned, and in the first few years of the twenty-first century Sweden has been a popular country in which to invest, see figure 4. The attraction can be explained by a combination of factors, ranging from political and financial stability to comparatively high levels of transparency and low transaction costs.

However, the large inflow of capital from other countries gave rise to new problems as foreign investors and lenders quickly returned to their home countries after 2008, see figure 4. Property owners' difficulties in refinancing maturing loans now pose a significant risk.

If, like Kärrlander (2008)⁹, we look back at the major financial crises that have occurred since the eighteenth century we notice that certain patterns recur. There appears to exist an "anatomy of property crises". The crisis begins with an expansion of credit coupled with "aggressive" lending, often with property as underlying security. In the mature phase of a crisis there is often a widespread belief in the "new economy".

Lessons to be drawn from the crisis in 1990 and other crises include the following.

- Longer periods of credit expansion and rising property prices which diverge significantly from growth rates in the economy as a whole provide a seedbed for property and financial crises.
- Extensive leverage-related financial arrangements, such as property investments with a high loan-to-value ratio, create big financial risks.
- Longer periods of rising property prices create a situation where investors from other sectors of the economy are drawn to property. These investors do not always use the prevailing forecasting models or ways of thinking. This may be because investors from other industries have insufficient experience from the property industry and poor knowledge of the longer-term industry logic for cash flows, market values and other factors. Generally speaking, when

⁹ See also Reinhart & Rogoff, 2009.

required yields fall below a certain level some long-term investors tend to withdraw from the market.

- Complex financial instruments pave the way for crises, and these instruments are largely employed by individuals who do not understand the basic mechanisms of the instruments. An example of this is the crisis in the United States triggered by lending to households with little ability to pay (the sub-prime crisis).

To the above we can add that extensive institutional changes, such as in Sweden around 1990, create a partially new playing field which affects decision-making processes for market players. The deregulation of credit markets coupled with extensive housing subsidies and a radical overhaul of the tax system helped to shape a to some extent entirely new environment for property investments.

In the above we indicate that there certain sequences of events which are common to most crises. These should be studied more closely from a historical perspective to enable us to identify various types of risk at an earlier stage.

FROM PROPERTY CRISIS TO BANKING CRISIS

If we combine our conceptual model with the description of the course of property crises above a number of relationships emerge which illumine how the commercial property sector can affect the financial system and financial stability.

Firstly, fluctuations in yields and capital appreciation are significantly greater in the commercial property sector than in the residential sector. In the property sector empty commercial premises appear as soon as unemployment rises while the residential sector is more stable, as housing has more the character of a necessity good.

Secondly, property prices fall already when there are expectations of rising vacancies. Falling property prices can trigger renegotiations of loan terms based on specific covenants in the loan agreements. Experience from Sweden suggests, however, that banks are reluctant to impose tougher loan terms, as this can lead to further declines in value and realised losses.

Thirdly, banks place a strong premium on maintaining a positive cash flow. As long as the cash flow is positive and is expected to remain so, any negative equity can be overlooked if it is expected to remain negative only temporarily.

Cash flow is the key factor for determining when a property crisis turns into a banking crisis. Cash flow is essentially determined by rents, loan-to-value ratios and nominal interest rates. Nominal interest rates can be influenced by the Riksbank through active monetary policy. The loan-to-value ratio is a product of risk assessments in the financial system. The lease terms are formulated by the parties in the rental market.

GENERAL RISKS ARISING FROM THE USE OF LOAN FUNDING

The basic criterion for a risk assessment concerning commercial property is the real economy and how it is reflected in vacancies, lease terms, the construction of new premises, etc. When loan funding is used a financial risk is added.

There are two main risks associated with loan funding. The first lies in the ratio of market value to loan amount. When prices fall sharply, as in 1990-1993, loans with poor collateral may lack cover while equity is wiped out. This is brought to a head when the loans need to be renewed at maturity but it can also influence banks' policies and handling during the term of the loans due to the existing loan and credit terms, or covenants. The expected variation in loan-to-value ratios and property prices thus constitutes a key parameter in credit assessments.

Right now, in autumn 2010, the issue of most immediate concern is how that part of the property sector which has been funded with capital from other countries will be refinanced after a number of foreign banks decided to withdraw to their home countries. Loans involving foreign banks that will need to be refinanced, mainly in 2010-2013, are estimated at SEK 100-150 billion.

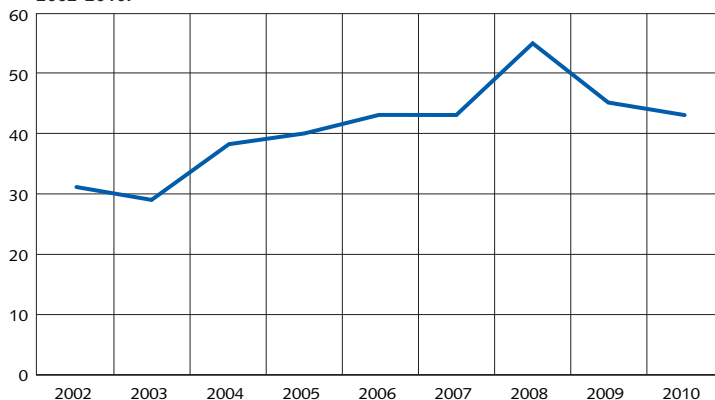
The second risk is that in the short and long term the yield or yield potential (net operating income less investments) for property will not be sufficient to cover the interest and principal on the loans while also generating a return on equity. The outcome, in other words, is a negative cash flow. There may be several reasons for this negative cash flow. Firstly, that vacancies are rising while rents are falling and, secondly, that the loan terms have been changed. The risk in this respect is linked to the durations, maturity structure and other terms and conditions of the loans.

RISKS ARISING FROM HIGH LOAN-TO-VALUE RATIOS AND SHORT FIXED-RATE PERIODS

By international standards, Sweden's listed property companies have relatively high loan-to-value ratios (low solidity¹⁰) defined as borrowed capital relative to market value. All else equal, this makes them more sensitive to changes in financial and commercial conditions. Figure 9 shows the trend in average loan-to-value ratios for European listed property companies.

10 Solidity is defined as equity divided by total assets – Equity/assets ratio.

Figure 9. Average loan-to-value ratios for European property companies in 2002-2010.



Source: EPRA Research 2010b.¹¹

The figure shows that the loan-to-value ratio increased from around 30 per cent at the beginning of the twenty-first century to as high as 55 per cent in 2008. It has then fallen back to just over 40 per cent. It is likely that the rising trend in LTV ratios is due to the relatively low interest rates during the period concerned. Another explanation behind the peak in 2008 is the significant downward adjustment of market values of European property companies that occurred in connection with the financial crisis in 2008-2009, as discussed below. To put it differently, if debts remain constant the LTV ratio will increase in line with downward adjustments to market value.

It is also important to note that the choice of population for this type of survey can produce very different outcomes. Sweden's listed property companies currently have loan-to-value ratios of around 60-65 per cent and the figure has varied within this range since 2000. Property companies in the UK and Continental Europe, which thus have loan-to-value ratios of around 40 per cent, wrote down the value of their properties much more aggressively than their Swedish peers during the crisis years of 2008 and 2009. To what extent Sweden's relatively high LTV ratios are offset by institutional factors and better transparency¹² is hard to say. In the UK market values were trimmed by 30-40 per cent during these years. The corresponding writedowns on the Continent were 10-15 per cent on average, although figures vary significantly among individual companies and countries¹³. In Sweden market

¹¹ See also the results in Ooi, 2003, which indicate that international property companies have lower LTV ratios than Swedish listed property companies.

¹² Jones Lang LaSalle, 2010, measures and places Sweden's property market in an international perspective in terms of transparency.

¹³ Based on analyses of listed property companies in Europe. The group includes those property companies which had the largest market capitalisations at the beginning of 2006, excluding those Swedish companies that were included in this group.

values were written down by 5 per cent on average while the estimated fall in value reported in the Swedish Property Index was 11 per cent between 2008 and 2009.

Here we would also like to mention the fact that a small number of players have the ability to control the large listed property companies, or different groups of such companies. This can constitute a risk, if these owners have higher LTV ratios than the industry as a whole. It is harder to analyse the solidity of such groups of owners than for listed companies or municipal housing companies, for instance. A small number of highly leveraged players can pose a risk to financial stability. This can be illustrated by the sub-prime market in the United States. Although many analysts believed there were risks in this lending, they dismissed the notion that there could be systemic risks, as the volumes involved were relatively small. Despite this, a financial crisis ensued, due to the lenders' poor solvency.

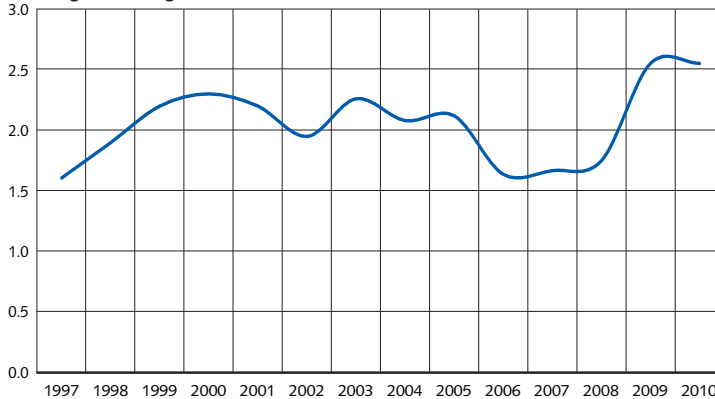
Another example of where high levels of borrowing can trigger a financial crisis is the collapse of Nyckeln, a Swedish financial firm, in the early 1990s. Nyckeln's failure brought to light what would today be called a systemic issue. It was revealed that a large number of major property companies were operating with negative cash flow. Their funding was based on money which had been borrowed on the basis that market values would continue to increase.

Sweden's municipal housing companies are often dominant in local markets for rented housing, and they are behaving in an increasingly commercial manner. Their solidity has also strengthened. From 1992 to 2009 their loan-to-value ratios based on market values fell from around 70-75 per cent to 50-60 per cent. This applies mainly to large companies in major cities.

When property companies have high LTV ratios fixed-interest periods become a risk factor, primarily for the individual companies but also for financial stability. Short fixed-rate periods coupled with high LTV ratios can create problems for companies if interest rates go up. If the whole group of property companies were to have a loan structure with very short fixed-rate terms any unforeseen sharp increases in interest expenses could lead to a situation where all these companies experience problems simultaneously. This, in turn, could trigger chain reactions, and such chain reactions can have a negative impact on financial stability. Fixed-rate periods in the listed property companies have varied from 1.5 to 2.5 years over a longer period of time (1997-2010), as shown in figure 10. The figures are based on the companies' published fixed-rate periods and take account of any swap agreements.

Figure 10. Average fixed-rate period (years) for listed property companies in Sweden 1997-2010.

Weighted average.



Source: Leimdörfer.

Fastighetsrapport (2010) makes the assessment that only a small number of Sweden’s listed property companies have a significant degree of interest rate sensitivity. This suggests that a change in interest expense levels of a few percentage points would not pose a major risk to these companies at present. The analysis in Fastighetsrapport suggests that interest expense levels of around 6 per cent would be needed before a significant number of these companies would encounter problems paying their interest. At the beginning of 2010 the average interest rate on loans owed by Sweden’s listed property companies was just under 3.5 per cent. At the end of the third quarter of 2010 this interest expense had risen to around 3.7 per cent¹⁴. The interest expense levels described include the effects of derivatives.

The property companies generate the funds for interest on borrowed capital and return on equity in the first hand through yields and in the second hand through capital appreciation. Sweden’s listed property companies reported an average yield of 6 per cent for 2009. This is a relatively stable long-term level, see figure 8. If we include capital appreciation the total return is a few percentage points higher. However, the rate of capital appreciation varies significantly over time, which means that investing and funding are a matter of being able to interpret early signals and get the timing right.

The actual yield potential is a recurring point of contention when the results from the Swedish Property Index are presented. The reports often show that actual yields are lower than those which are generally assumed in the industry. The optimism of investors and property valuers mainly takes the form of assumptions about low vacancies, operating and maintenance costs, and modernisation requirements. This

¹⁴ Figures from Leimdörfer.

optimism can fuel price increases in a rising market but can also provide a cushion for falling prices in a declining market.

EFFECTS OF INCREASED COLLABORATION BETWEEN THE PRIVATE AND PUBLIC SECTORS

Newell & Peng (2008) describe a trend where pension funds and other long-term investors look for alternatives and complements to property in the form of infrastructure projects such as roads, railroads, water and sewage installations, wind farms, telecom satellites, etc. Many of these investment projects take the form of partnerships between the public and private sectors and are based on long and secured contracts that are attractive to investors. Similar motives exist for private companies, such as Kungsleden AB, which purchases properties used for the provision of public services and then leases them to the seller. This means that the public sector is a party in what is known as a sale-leaseback transaction.

A common feature of all forms of public-private partnerships is that they involve long contracts with a specific party – public or private – which provides the funding. A typical example is the Karolinska Institute in Stockholm, where the investment in the building runs into several billion kronor and is covered by extensive appendices which specify what should happen to the property capital as activities in the premises change.

So far, the commercial operations described above are of relatively limited scope, but they are expected to grow. The deals are covered by long contracts, and it is difficult to predict how trading in the underlying contracts will evolve. It is also too early to comment on the extent to which this type of commercial operation will assume a character and scope with the potential to affect financial stability.

RISKS ASSOCIATED WITH PROPERTY INCLUDED IN FUNDS

Another example of the blurring of boundaries between industries is that a growing share of properties in the investment market is being packaged into funds, which are then not listed on an exchange. A part of the idea behind this concept is to expose the funds to various degrees of risk. This can lead to increased herd behaviour when a large part of the market operates on the basis of similar rationales.

LISTED PROPERTY COMPANIES

Several studies¹⁵ published in recent years indicate that public trading in property shares produce price movements which anticipate changes in the market for directly

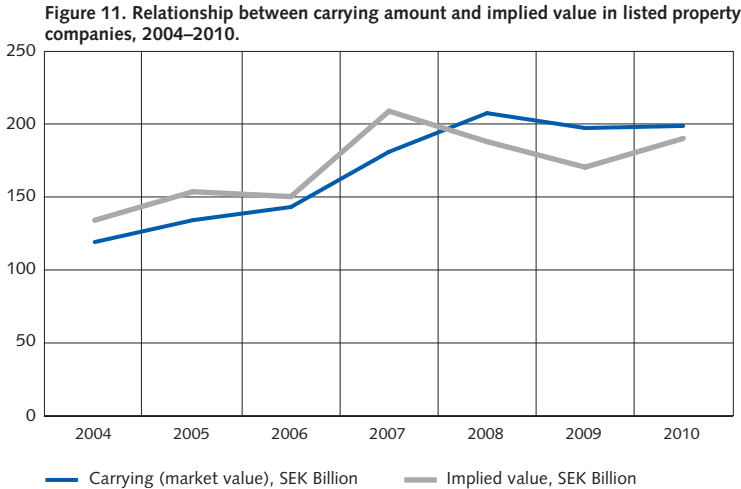
¹⁵ The following five sources exemplify the issue: 1) EPRA Research, 2010 2) Morgan Stanley research presented in EPRA News – March 2009 3) Deutsche Bank report RREEF Research – Global Real Estate Securities – January 2007 4) Cohen & Steers research presented in EPRA press release April 20, 2009 5) EPRA Research, 2009.

owned properties by a few months. One message in such studies, however, is that price movements, partly due to the use of leverage, tend to exaggerate price movements in the underlying property assets¹⁶.

The underlying reasons why the stock market has a signal value are to be found in the inertia that exists in the transaction process in the market for directly owned properties coupled with the fact that transparency in the stock market is in some respects much better than in the property market. However, there are concerns about the transparency of financial reporting,¹⁷ particularly in respect of the valuation methods applied, significant assumptions used in companies' property valuations and the relationship between estimated market values and transaction prices (market evidence).

The lack of adequate information in financial reports on the assumptions underlying the valuations limits investors' ability to make rational investment decisions. Several studies have pointed to wide margins of error in assessments of properties' market values. Different valuers can, in other words, arrive at different conclusions on what the market value of a property or property portfolio is. This, in turn, can have a material impact on how a user of financial reports assesses a certain company's financial strength.¹⁸

The correlation between the index for Swedish property companies and the value of the underlying property assets is illustrated in figure 11.



Source: Leimdörfer.

16 See, for instance, EPRA Research, 2010.

17 Compare the information contained in the annual reports of property companies with the need for information in this respect, as discussed in Nordlund, 2010.

18 See, for instance, the discussions in Nordlund, 2008.

The figure shows that the implied values of underlying properties vary over time around the carrying amounts (market values). The over- or undervaluation is about 15 per cent.

Note, however, that figure 11 only shows one observation per year. More frequent observations would show a greater variation in implied property values.

International studies have measured the correlation between the pricing of property shares and the underlying property assets over different periods of time. Some of these studies have pointed to a relatively strong correlation between the pricing of property shares and the value of the underlying property assets, especially when viewed over a period of a number of years. Another way of expressing this is that over the long term the price of property shares is driven by the value of or return on the underlying property assets¹⁹. In our view, this means that one cannot ignore trends in the prices of listed property shares when assessing the underlying property market.

5 Institutional factors and financial stability

In this section we discuss a number of institutional factors which can affect financial stability both positively and negatively. In this context institutional factors refer to formal regulations in the commercial property sector, coupled with procedures and cultures. Generally speaking, however, it is hard to assess what effects individual rules of an institutional character will have on financial stability.

HARMONISATION OF VALUATION PROCEDURES

Sweden has since 1994 had a voluntary authorisation scheme for property valuers. The effect has been that valuers of commercial property are to a large extent authorised today. Many of these valuers have university degrees in the area, and for new authorisations a university degree is a requirement. Swedish valuers can also be authorised under a British system run by the Royal Institute of Chartered Surveyors. As the property market becomes increasingly globalised the Swedish authorisation scheme may gradually diminish in importance, at least in situations where international players are involved.

Worldwide extensive efforts are underway to harmonise the conceptual apparatus as well as the actual process of valuing properties. This work is being driven by the valuers through organisations such as the International Valuation Standards Committee/Board (IVSC/IVSB), the Royal Institute of Chartered Surveyors (RICS), the Appraisal Institute (AI) and the European Group of Valuers Association (TeGoVA), as well as by organisations working in the field of accounting,

¹⁹ See, for example, EPRA Research, 2010, and EPRA Research, 2009.

such as the International Accounting Standards Board (IASB), and banking, such as the European Mortgage Federation (EMF).

It is clear that common concepts and procedures help to improve transparency but there is also a clear risk that a high degree of harmonisation will lead to herd behaviour if valuers in all regions have an increasingly similar education, read the same books, follow the same instructions and use the same analysis models. Herd behaviour in the commercial property market could in a worst-case scenario have an impact on financial stability.

CHANGES IN THE SWEDISH PROPERTY INDEX

A Swedish property index was established in 1997 at the initiative of the country's two major pension funds, AP and SPP. The Swedish Property Index (Svenskt Fastighetsindex) has played an important role in creating a common conceptual apparatus and promoting higher standards of professionalism. The index is updated annually based on actual reported net operating income figures and estimated market values at year-end. But the Swedish Property Index does not function as a problem-free signaller of circumstances that could endanger financial stability. The problems can be summarised as follows:

- The one-year update interval is too long. Monthly or quarterly updating would be desirable.
- From an international perspective the market coverage is relatively low – about 25 per cent. It would be good if more companies were included in the index.²⁰
- Capital changes in the yield index are assessed through property valuations, which means that the valuation figures are both smoothed out and lag the market.

An alternative to Sweden's valuation-based index is a transaction-based index. In the United States there exists such an index for commercial property, which is based on repeat sales. The index is administered by MIT and covers the whole of the United States. The transaction-based index generally displays a higher degree of volatility than the valuation-based index. However, the index needs to cover large markets in order to provide relevant data for the information provided. A valuation-based index in the United States is administered by NCREIF (National Council of Real Estate Investment Fiduciaries).

²⁰ The index is currently dominated by institutional investors such as Vasakronan and Diligentia. No listed company is included in the data on which the index is based.

NEW ACCOUNTING RULES AFFECTING THE PROPERTY INDUSTRY – IFRS

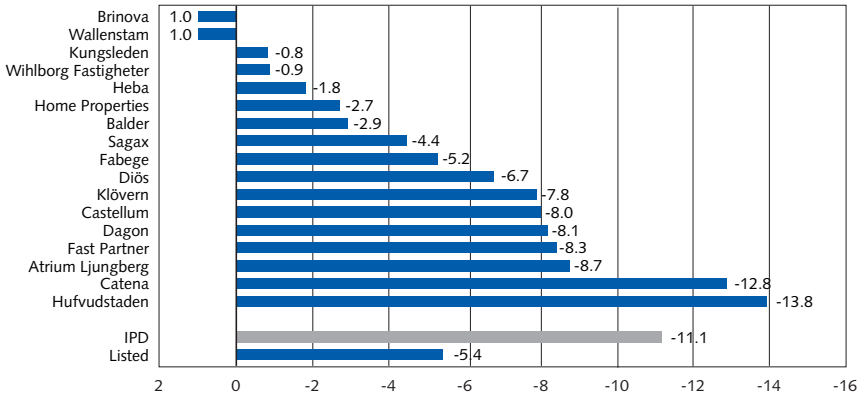
The new International Financial Reporting Standards (IFRS) were introduced in Sweden in 2005. The aim was to improve the transparency of financial reporting and thus provide a better basis for decision-making for users of the reports. At present the primary users are venture capital investors, however other stakeholders mentioned are banks and other groups. They would obtain better data on which to base decisions if different asset classes, properties in listed companies for instance, were valued at market value in financial reports.

The effects on Sweden's listed property companies have been mixed. During the years 2005-2007 property valuation was a little discussed subject, as market values were rising by double digits and because the capital appreciation could be recognised in the income statement under the new IFRS rules.

In autumn 2008 Sweden's commercial property market ground to a halt, with almost no properties changing hands. This meant that only a small number of price observations could be made, which sparked a discussion about how properties should be valued in the absence of a sufficient number of price observations in the direct property market for comparison. One issue was whether it was possible to draw any conclusions from trading in the shares of listed companies, i.e. whether the calculated implied values could provide guidance for assessing the underlying market values of the property assets. During a period share prices pointed to a decline in value of 20 to 25 per cent for property, but many representatives for the property companies asserted that the stock market and property market were two separate things.

The listed property companies wrote down the fair value of their properties by about 5-6 per cent in 2008-2009, although the figures varied widely among different companies. Figure 12 below shows a comparison of adjustments to market values in 2008 and 2009 for Sweden's listed property companies and companies included in the Swedish Property Index.

Figure 12. Swedish listed property companies' adjustments to market values of properties in 2008–2009 compared with the Swedish Property Index.



Source: IPD Svenskt Fastighetsindex.

In the prevailing situation the application of IFRS had the effect of replacing objective market assessments with subjective views of values. However, the assessments did not lead to any transactions. The banks were not lending and the buyers were unable to obtain funding for many proposed deals. One may ask, therefore, what the “actual market values” were. One conclusion, however, is that IFRS did not improve transparency.

Benefits and drawbacks of reporting market values in financial reports

Financial reports often contain general information about the assumptions on which the companies' valuations are based. This makes it difficult for users to assess the reliability of the stated market values. One of the benefits of stating the fair value (market value) directly in the income statement and balance sheet is that you immediately see the current property value. The alternative is to state the historical cost, which in many cases cannot be used as a basis for economic analyses. This becomes particularly evident in cases where the properties were acquired a long time ago. A drawback of reporting market values may be that the sharp fluctuations in these could encourage behaviour which exaggerates upward as well as downward price movements in the property market.

The estimated market value of an individual property is always uncertain. This uncertainty is not reduced by the use of improved methods of estimating values. A good way to illumine the uncertainty is to provide additional information on the methods applied and the assumptions used in preparing financial reports.²¹

21 See the discussions in Nordlund, 2008.

In their consolidated financial statements the listed property companies apply current valuations, which are recognised directly in the income statement and balance sheet. Another common practice among the big municipal housing companies is to report market values in the additional disclosures section of the annual report. Under a draft set of new accounting rules for large companies produced by the Swedish Accounting Standards Board, these will in future be required to disclose information on the market value of investment properties in their annual reports.²²

IMPROVED TRANSPARENCY IN PROPERTY TRANSACTIONS

For tax reasons the great majority of commercial property transactions in Sweden currently take the form of the sale of a company. Shares and interests change hands. As a result, price information is rarely published. The information remains with the parties to the transaction and the consultants taking part in the deal. Transparency is reduced compared with a situation where the buyer applies for registration of title based on a purchase document. In property transactions taking the form of the sale of a company there is often no information on assessments of underlying property values, actual or estimated net operating income or valuations of deferred tax. This makes it difficult to perform an external analysis of the underlying property values. Often, there is also no information about the existence of “soft loans”²³ and rent guarantees and about how these “special terms” have affected the price. This lack of information can have the result that analysts’ information about transactions becomes hard to assess, creating a risk of misinterpretations. If the price of an underlying property asset has been affected by preferential loan terms or rent guarantees, for instance, the price achieved should be adjusted accordingly²⁴ before it is used for comparison in property valuations. If such adjustments of “comparison purchases” are not made there is a risk that these transactions will create a consensus in the market that the market prices of sold properties are higher than they are in reality. Another risk, if negotiations on terms become common, is that the negotiated prices as well as the valuations will eventually have no basis in sustainable fundamentals.

22 Investment properties are properties which are held for the purpose of generating rental income and/or capital gains. See the draft rules of the Swedish Accounting Standards Board for companies defined as large companies under the Swedish Annual Accounts Act.

23 Loans where the terms deviate from normal market terms in respect of repayment terms and/or interest levels. Such financing could for instance be provided by sellers in transactions.

24 See, for instance, the rules contained in the international accounting standard IAS 40 Investment Property, which states that the fair value of an investment property excludes estimated prices that have been affected by certain types of non-market-based situations and terms. Similar formulations are contained in the Swedish accounting recommendation RR 24 – Investment Property.

REITS AS INSTRUMENTS FOR PROMOTING STABILITY

In the United States public property funds called real estate investment trusts (REITs) were set up in the 1960s with the aim of creating a transparent form of ownership where risks and returns are in various ways locked in for the benefit of private individuals as well as professional investors. A basic idea was also to create an institutional framework which favours equity funding. A relatively high equity/assets ratio would create stable financial conditions.

A special and crucial rule for REITs in the US is that profits are taxed only once. Companies do not pay any tax if they pay out at least 90 per cent of their profits to shareholders. There are also rules designed to ensure that the fund does not acquire dominant owners whose shares are not traded as well as rules limiting opportunities for risky expansion. The regulations governing the activities of REITs are designed to guarantee low transaction costs, good transparency and high liquidity. The goal is to ensure that REIT investors gain a risk exposure and return in which certain influencing factors have been neutralised. REITs also encourage the use of equity funding. A transition from debt to equity capital for funding of property assets also reduces the risk of insolvency in the sector²⁵.

About 30 countries, including Australia, Canada, the UK, France, Belgium, Italy, Germany, the Netherlands and Finland, have introduced or are in the process of introducing regulations similar to those governing REITs in the United States. It is hard to draw any conclusions about the extent to which these variants of REITs have helped to promote financial stability, as they have existed in the market for a relatively short time. In the US REITs have a longer history but still account for only a small share of the market compared with direct ownership. What is clear, whatever, is that the ready accessibility of information about REITs, through research and development, has significantly increased knowledge about property as an investment.

AN ALTERNATIVE MORTGAGEABLE VALUE

Some European countries have introduced a specific mortgageable value called mortgage lending value as an alternative to market value for the mortgaging of property. Mortgage lending value is defined as:²⁶

Mortgage Lending Value shall mean the value of the property as determined by a valuer making a prudent assessment of the future marketability of the property by taking into account the long term sustainable aspects of the property, the normal and local market conditions, as well as the current use and alternative possible uses of the property. Speculative elements should not be taken into account in

²⁵ See also the discussion in Jaffee, 1994.

²⁶ European Mortgage Federation, 2009.

the assessment of Mortgage Lending Value. Mortgage Lending Value should be documented in a clear and transparent way.

According to the definition, the MLV should thus be determined by reference to long-term market trends and indicate a realisable value for a property at a future date with a high degree of certainty.²⁷ The idea behind MLV appears to be to identify a long-term sustainable value of a property to be mortgaged and ensure that the MLV never exceeds the property's market value.

MLV is used as lending value in Germany and Spain, among other countries.²⁸ Germany has applied MLV since a very long time and also has legislation regulating how the value should be calculated. Opinions differ, however, on whether the application of MLV would have a positive impact on risks arising from secured lending for property investments²⁹. An obvious problem in this context is to predict where the lower limit for the market value lies in a longer-term perspective³⁰, and there is also a significant risk that the calculated MLV will be seen as more "certain" than an estimated market value even though, in practice, the calculation of MLV may involve significant problems as well as providing ample leeway for arbitrary assessments³¹.

In Sweden MLV is not applied as a basis for mortgaging, at least not by Swedish banks. Our assessment is that the introduction of MLV in Sweden would probably not make a significant contribution to improving financial stability.

6 Conclusions

In this section we describe the key conclusions about which aspects of Sweden's commercial property market could have an impact on financial stability. Finally, we offer a number of direct recommendations on which actions the Riksbank should take in order to provide better information and analysis models in its Financial Stability Reports.

CHARACTERISTICS OF SWEDEN'S COMMERCIAL PROPERTY SECTOR

Sweden's commercial property sector is largely concentrated to the country's metropolitan areas. The Stockholm region accounts for 50 per cent of the market's capital value and turnover. If the Gothenburg and Malmö regions are included the share rises to 75 per cent. Analyses of risks and financial stability can therefore be concentrated to Stockholm, Gothenburg and Malmö.

27 Champness, 1999.

28 European Mortgage Federation, 2009.

29 See, for instance, the discussions in Crosby, French & Oughton, 2000 and Bienert & Brunauer, 2007.

30 See, for example, the discussions in Lind & Persson, 1998, concerning the problems relating to different types of values from long-term perspectives.

31 See, for instance, the discussions in Persson, 2008.

The property cycle, with links among the capital market, rental market, property market and construction market, is driven chiefly by economic growth. Access to macro statistics is also good. What could be improved is the information on growth and growth drivers, especially at the regional and local levels.

From an international perspective, Sweden occupies a somewhat unique situation in that the rent for the majority of residential and commercial premises is the total rent. Compared with countries where rent is defined as the net rent, i.e. the rent exclusive of heating and water costs, one would therefore expect greater volatility in net operating incomes and market values in Sweden.

Over the past 30 years Sweden's commercial properties have gradually acquired the character of financial investments. The old builder-owner idea, where the developer would also manage the property and use a large share of equity funding, has gradually been replaced by a division into separate functions where capital is more mobile and where short-term players have increased their share of ownership. Fluctuations in property prices can thus be expected to increase.

In terms of capital value the commercial property sector is about one fifth the size of the residential sector (single-family detached homes and tenant-owner apartments). Variations in rents and capital values may, however, be expected to be considerably larger in the commercial sector compared with the private housing sector.

RISKS TO FINANCIAL STABILITY TODAY

The banking and financial crisis which flared up in 1990 was to a large extent due to conditions that were specific to Sweden. However, the biggest latent risk to the commercial property sector right now, in autumn 2010, lies outside Sweden in a global recession. A recession can lead to higher unemployment and thus rising vacancies, which in turn can exert downward pressure on rents and property prices. It is hard to say how likely such a scenario is, and what impact this would have on financial stability.

Right now there is a latent risk in the US commercial property market where prices have fallen by 40 per cent over a period of two years. There is a significant risk of major defaults, as a large portion of all outstanding loans will need to be rolled over in the next few years. In many cases the loans exceed the market values of the properties, wiping out the investors' equity. Based on current market values, lenders will be reporting capital losses, some of which will also need to be realised.

Sweden is a low-inflation economy, and in this perspective it is interesting to look at historical patterns in real-term prices. Between 1970 and 1981 rental property prices³² in Sweden declined by about 40-45 per cent in real terms. During the property crisis in the early 1990s the real-term decline in prices was also about 40

32 Rental property with residential and/or commercial premises.

per cent.³³ These historical patterns in real-term property prices in Sweden as well as the sharp downturn which has taken place in the US and UK should be set against equity/assets ratios in Sweden's listed property companies, which currently average 35-40 per cent. To put it differently, a decline in value of the same magnitude as before could create significant problems for property companies in Sweden with "normal" equity/assets ratios.

General latent risks can always be discussed with reference to the so-called property cycle based on the conceptual model shown in figure 1. The risks normally arise in the intervals in time and information gaps occurring between different activities, especially when large amounts of capital flow into the sector over a longer period of time. This pushes down required yields, raises rents and increases the degree of loan funding, which in turn results in property values which exceed long-term sustainable levels.

Over the long term, demographic factors probably have a relatively strong correlation with economic growth. Many large economies in the West have an aging population. Some studies show that an aging population normally has a long-term negative impact on economic growth, which in turn can have a negative impact on the market value of property³⁴.

DESIRABLE GUIDELINES FOR IMPROVED DECISION-MAKING DATA

At present it is hard to create indicators for how commercial property will affect financial stability. This is partly due to the lack of reliable and comparable data that can be used as a basis for decisions. An initial step would thus be to define a set of general criteria for how input data from property companies should be presented.

General quality requirements

To assure quality, such data should be (see, for example, Arthur (2005))

- updated frequently
- accessible and representative
- comparable and based on uniform definitions
- constant over time in order to create a long, unbroken series

Today structured information about commercial property is rarely up-to-date when it reaches the decision-makers. The information is not public, placing large consulting firms providing advisory, transaction and valuation services at an advantage in terms of access to information.

³³ Turner, 2000.

³⁴ See, for example, Lindh & Malmberg, 2000.

Nor is the information accessible to decision-makers to a sufficient degree, as it is of a private nature. The exception is the structured information provided by the Swedish Property Index and the processed information provided by large consulting firms in the form of market reports. Up-to-date, but unstructured, information on transactions and organisational changes is provided continuously by companies like Fastighetsnytt AB and Fastighetsvärlden AB.

To what extent the information provided is representative for the market as a whole is often unclear, as it is not known how large the flow is for each type of category of properties.

The comparability of the information has improved since the introduction of the Swedish Property Index, as this established a set of uniform definitions. How these are applied in practice may vary, however. This applies particularly to comparisons among countries, where we need to be aware that key concepts such as rent, vacancy and yield may have different meanings.

There are a few long and unbroken series of information, which have been reconstructed retrospectively. One example is the yield and total return data contained in the Swedish Property Index for a mixed portfolio starting in 1984, see figure 8.

Basic information structure

Sweden's commercial property sector does not in any respect have the same level of transparency as the residential sector in official statistics. There are no structured official statistics from the capital market, rental market, property market or construction market. The statistics should provide information on new construction – current and planned – and on owners, property prices, required yield, rents and vacancies as well as credit types and lenders. At present relevant information needs to be obtained from private organisations such as the Swedish Property Index and from consulting firms.³⁵ These consulting firms have generally retrieved the data from their own activities in advisory, transaction and valuation services.

It should be stressed that there is no detailed or general information on the commercial property sector's funding arrangements with regard to maturity structures, loan durations, loan-to-value ratios, interest rates, repayment terms and what proportion of the funding comes from which source.

Many Swedish property companies, banks and consultants now use the same source of information – Datscha³⁶ – as a basis for, for instance, the required yields

35 For example, diversified companies like CBRE, DTZ, JLL, Leimdörfer, NAI Svefa, NewSec, Savills and Pangea Property Partners or companies specialising in construction industry and property information such as Bygganalys AB.

36 Datscha is a tool that has been developed and is owned by the Stronghold Group, which also includes Newsec AB. Datscha is also a web-based platform for market information etc. provided by Newsec, Forum and DTZ.

applied in valuations. Datscha is a good tool which provides extensive access to various types of market information, but it is not clear how the information provided is quality-assured and to what extent use of this information has the effect of smoothing out property valuations. Nor do market information systems like Datscha provide a full description of the methods applied³⁷ to extract information from the market, such as required yields for various sub-markets.

It is also highly likely that the lack of public and quality-assured information influences those professional analysts who monitor the Swedish commercial property market. The market reports presented have similar content and it is apparently hard to deviate from the prevailing assessments.

INFORMATION THAT SHOULD BE PRIORITISED

A type of information which has the highest priority in analyses of financial stability is a transaction-based rental index for offices in Stockholm. If we assume that central Stockholm serves as a signal market, such an index could, if delivered on a monthly basis, have the character of an “early warning system”. Central Stockholm is in this context a sufficiently large and liquid market to provide reliable data for a rental index.

The Swedish Property Index is currently updated at one-year intervals. The signal value is therefore limited at the time of publication of the figures. A quarterly index or, ideally, a monthly index would increase the value of the information. A more frequent index can provide a basis for financial products, which in turn can be traded and increase the provision of information on the market values of the underlying properties.

Another fundamental problem is that for tax reasons “property”-transactions often take the form of the sale of a company. The effect of this is that information about prices and price drivers remain within a small group of closely affected players. This reduces transparency and increases the risk of incorrect information. Changes to existing tax laws could thus improve the quality of information in the commercial property market.

To be able to systematically and continuously monitor Sweden's listed property companies, the Riksbank as well as analysts working in the commercial property market need more detailed information on a set of well defined variables. This applies also to the monitoring of implied values of the underlying property assets. Such monitoring would provide early and therefore useful information on the underlying property market.

³⁷ For a further discussion of the valuation methods applied in property valuations, see, for example, Lind & Nordlund 2010.

Changes in vacancies for various segments of the property market generally serve as an early indicator of changes in the balance between demand and supply. However, the property consulting industry has developed different methods for measuring vacancies and therefore reports vacancy figures which differ for the same market segment. It is desirable to create common definitions and a common method of measuring so that vacancies can be used as an indicator.

Variations in rents and property prices are caused partly by inadequate knowledge about supply in the market and about future new builds. Improved knowledge about competing supply could give developers, investors, lenders and, not least, tenants a better basis on which to make decisions.

Updated reference values³⁸ in the form of longer series of data on yields and gross rent multipliers (property value/rent) would be very useful for the Riksbank. Such values provide the same type of information as P/E ratios in the stock market. When the yield, for instance, falls below a certain threshold for a certain market this could be an indication of instability.

Analyses of demand for premises are based on a view of the outlook for various industries, especially the performance of various service sectors – number of companies and workplaces, space requirements and payment ability. This type of information can provide early signals of trends in the rental, property and construction markets.

HOW THE FINANCIAL STABILITY REPORTS COULD BE DEVELOPED

The section on commercial property in the Riksbank's Financial Stability Reports could be developed by including the prioritised information described above. However, the information should to a greater extent be integrated into an improved analysis model, based, for instance, on the conceptual model shown in figure 1.

The use of a more model-based approach can also assist in early identification of stability-affecting factors. Partly, such a model-based approach concerns the links between macro and micro. This raises a general issue for the industry as a whole. What are the relationships between, on the one hand, macroeconomic variables such as growth and interest rates (real and nominal) and, on the other hand, rents, vacancies, property prices and new construction? How do changes in institutional factors, such as new accounting and capital adequacy rules, affect these relationships in different situations?

Trends in a number of index series covering several business cycles can provide valuable reference figures. The following types of new indexes should be prioritised:

³⁸ See the definition and the discussion on reference values in Nordlund, 2008.

- a rental index for offices in Stockholm
- vacancy indexes and vacancy levels for retail and commercial premises in metropolitan areas
- new construction indexes and new construction volumes for retail, office and hotel premises in metropolitan areas
- indexes for implied property values based on listed property companies

The funding of the commercial property sector is of particular interest. The stability reports should therefore provide a developed form of analyses of how rental agreements and fixed-rate periods and maturity structures change over time and of how loan maturity volumes relate to the properties' market values. This type of analyses provides information on how payment flows may change.

In-depth analyses of listed property companies can provide early signals of trend breaks in the commercial property market. Of primary interest is how share prices will perform relative to the underlying property values. The hypothesis is that share prices constitute an early indicator of changes in property values. This should therefore also be included in the stability reports.

Once the volume and quality of input data has been established, more advanced mathematical models can be applied to the property cycle, for instance how combinations of changes in growth rates and interest rates affect rents, property values and new construction.

To interpret and value all available information about the commercial property market, a group of experts could be appointed consisting of representatives from the research community as well as the financial and property industries. An important role for this group could be to seek to establish uniform definitions of key concepts.

A FINAL WORD

Previously, the issue of how to develop the Riksbank's Financial Stability Reports has been assessed based on an ideal situation where the Riksbank would use fully up-to-date information in a model with a high predictive ability. The basic problem, however, relates to the volume and quality of the information that the Riksbank has access to.

Our key message is that the Riksbank, working together with the commercial property sector, should seek to promote more frequent provision of high-quality information. This would create a basis for systems that could provide early signals of a build-up of risk.

The Financial Stability Reports we have analysed from 2009 and 2010 are carefully considered and well written based on the best available information, which

does not permit an enhanced model-based approach using econometric methods. The information from the rental market, property market and construction market is not quality-assured and is also provided at a high level of aggregation.

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