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Economic Commentaries

The finances of housing cooperatives and financial stability

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This economic commentary investigates how financial stability is affected by the risks to which housing cooperatives and households are exposed, thereby making the connection between the indebtedness and interest-rate sensitivity of housing cooperatives and the risks associated with household indebtedness. The commentary also looks at the risks that may arise in connection with new housing construction, which may lead to severe economic consequences for individually affected households. The spillover risks to the rest of the economy are judged to be minor.

Swedish household indebtedness has been increasing for a long time and is now on a historically high level. This has made households more sensitive to changes that can affect their finances, such as rising interest rates and falling housing prices. The Riksbank and others have, for a long time, been pointing out the risks that high and rising household indebtedness poses to financial and macroeconomic stability in Sweden.[2]

As the indebtedness mainly consists of mortgages, it is closely connected to how housing prices develop. The prices of tenant-owned housing have tripled over the last ten years, and has contributed to the increase in household indebtedness. As tenant-owned housing is one of the most common forms of housing in Sweden, the finances of many households are also affected by the financial situation in their respective housing cooperatives. In other words, households who live in tenant-owned housing are exposed to several risks. In addition to bank loans for their own home, many households are indirectly indebted via the loans taken out by their housing cooperatives, whose interest expenses and amortisation are reflected in the cooperative's monthly fees. If, for example, the cooperative has to increase its fees to service its debt, the household may not only have to pay higher monthly fees to the cooperative but also have higher interest expenses for its own bank loan. This is particularly true for households living in newly formed housing cooperatives in newly constructed properties, as these cooperatives are generally more indebted than older cooperatives.

There are also risks associated with the new construction process for households with existing mortgages, who have committed themselves to buying a newly built tenant-owned home further ahead in time. For example, a household that already owns a home can find itself in a difficult financial situation if it buys a new tenant-owned home without first having sold the old home and if the housing market weakens before it is time to move to the new home. Such a scenario can also occur when buying and selling homes on the secondary market, but long lead times for new construction leave buyers exposed to changed conditions on the housing market for a longer period of time.

To gather more information about the bank loans of housing cooperatives and how banks manage loans to new construction projects, the Riksbank carried out two surveys during 2017. Questions were put to the four major Swedish banks[3] and SBAB. Via the independent property valuation company, UC Bostadsvärdering AB, the Riksbank has collected statistics on 17,000 of the approximately 26,000 active housing

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[2] The risks have also been highlighted by international actors, see for example IMF (2016), and European Commission (2017).

[3] Handelsbanken, Nordea, SEB and Swedbank.

cooperatives in Sweden. These cooperatives are mainly located in Sweden's three metropolitan regions. Based on the surveys and datasets, this economic commentary analyses financial stability risks associated with the indebtedness of housing cooperatives.

What is a housing cooperative?

Tenant-owned housing, where tenants co-own a housing cooperative, is one of the most common forms of housing in Sweden. A housing cooperative is a form of economic association that grants tenants a usufruct or right to live in homes within its property.[4] For the cooperative to be able to grant such rights, its board must draw up a financial plan. Included in this plan must be a description of the property and its buildings, information about expected running costs and, in a newly formed cooperative, the time at which the usufruct will be transferred to the tenant and when the tenant can move in. A housing cooperative operates according to the prime cost principle. The cooperative's monthly fees to its members shall cover its running costs including depreciation, amortisation and interest expenses.

The members of the cooperative do not actually own the apartments they live in. Instead, the cooperative grants each member a usufruct, i.e. the right to use the apartment as a home. However, as members of the cooperative, the residents or "tenant-owners" indirectly own the property in which they live. As a "legal person", a housing cooperative can enter into agreements, own assets and incur liabilities. But this also means that the members of the cooperative are not personally responsible for the cooperative's debt. The board bears the responsibility for the cooperative being able to pay its running costs. It shall also ensure that the cooperative has sufficient funds to be able to manage planned maintenance of the property.[5]

In a situation where the financial conditions for a housing cooperative deteriorate, for example due to rising interest rates, the cooperative may need to increase its fees to be able to service its bank loans. If the financial conditions deteriorate to such a degree that a housing cooperative goes bankrupt, it is liquidated and its assets sold off. The receiver, who takes over administration from the board of the housing cooperative, identifies assets, liabilities, costs and revenue and then liquidates the assets so that the funds can be distributed to creditors. In practice, this normally means finding a buyer for the property and using the funds to pay off the liabilities. Any mortgages taken out by cooperative members to fund the purchase of their home still remain, although the asset and the collateral in the form of the tenant-owned home no longer exist. When a housing cooperative property is sold as part of bankruptcy proceedings, it is common for it to be turned into a rental property, and the tenant-owned home becomes a regular tenancy. [6,7] In such a situation, the members then become tenants instead of tenant-owners and they normally lose any capital they have invested.

If a housing cooperative goes bankrupt, the banks with a right of pledge in the cooperative's property are guaranteed payment from the sales revenue before other creditors. Problems could, however, arise if the receiver does not find a buyer, or if the housing prices were simultaneously to fall so sharply that the bank would make a loss on any sale of the bankruptcy estate. Moreover, individual households might, in such as situation, encounter problems in paying their own mortgage and thereby run the risk of becoming insolvent themselves. In short, banks could suffer some form of capital loss if there were many bankruptcies coinciding with a fall in housing prices. It is unusual for a housing cooperative to go bankrupt, however. More often than not, the lender and borrower, i.e. the bank and the cooperative, try to agree on a long-term solution, for example by taking in new capital from cooperative members.

[4] Lundén and Bokelund Svensson (2013).
[5] Grauers (2014).
[6] Boendesociala beredningen [Housing welfare enquiry] (1999).
[7] Bengtsson et al (2013).

The cooperative's board is also responsible for entering into hypothecation agreements, with the tenant-owned homes pledged as collateral. This normally happens in connection with new cooperative members borrowing money from a bank to fund the purchase of the tenant-owned home. There is currently no central register of pledged tenant-owned homes as is the case with properties, which means that the estate agent and banks must contact the cooperative's board or administrator to find out whether a tenant-owned home has been pledged or not. Sector organisations and government enquiries have repeatedly identified the lack of a central register as a potential problem.[8] For example, there is a risk that housing cooperatives have inadequate hypothecation management routines. This can eventually lead to households finding themselves in a situation where their tenant-owned home is seized due to a previous owner not fulfilling their repayment commitments to the bank that has the right of pledge on the home. Against the backdrop of price rises in tenant-owned housing in recent years and hence increased collateral values, it is also important from a consumer protection perspective that the hypothecation of tenant-owned housing is done on secure and stable grounds.

Many new cooperatives have high debts

There are currently more than 32,000 registered housing cooperatives in Sweden, of which about 26,000 are active. Despite the addition of more tenant-owned homes than regular tenancies over a long period of time, as a result of both new housing construction and the conversion of tenancies into housing cooperatives, tenancies constitute 59 per cent (just over 1.4 million homes) of the total housing stock in multi-dwelling buildings and tenant-owned homes constitute 41 per cent (just over 990,000 homes).[9] The number of housing cooperatives has increased steadily since the mid-1990s (Chart 1).

Statistics on active housing cooperatives indicate that almost all of them have taken out some form of bank loan. Among older cooperatives, this may occur in connection with a refurbishment project, some of which, for one reason or another, cannot be funded by the cooperatives savings. A newly formed cooperative may be indebted because the capital injected by members does not fully cover the property's construction costs.

Bank lending to housing cooperatives has increased since the beginning of the 2000s. This is probably due to the number of housing cooperatives increasing over the same time period, and to newly formed cooperatives generally being more indebted than older cooperatives.

The four major banks and SBAB are responsible for more than 90 per cent of all lending to housing cooperatives in Sweden. In total, loans taken out by housing cooperatives amount to just over SEK 450 billion (Chart 2). The aggregate debt-to-income ratio (household debt in relation to their disposable income) for the entire household sector is currently over 180 per cent. The aggregate debt-to-income ratio for households including loans to housing cooperatives amounts to just over 200 per cent (Chart 3). Newly formed housing cooperatives[10] generally have higher debt per square metre than older housing cooperatives (Chart 4). On average, a newly formed housing cooperative had approximately SEK 10,000 of debt per square metre in 2015.[11] The regional differences in indebtedness per square metre among newly formed housing cooperatives are marginal, but housing cooperatives in Stockholm and Gothenburg have on average higher debt per square metre than in Malmö and

[8] Utredningen om stärkt konsumentskydd på bostadsrättsmarknaden [Government enquiry into stronger consumer protection on the tenant-owner's market] (2017).

[9] The condominium also exists as a form of tenure in Sweden. The stock is small, however, and this form of housing has not been analysed in this economic commentary.

[10] A cooperative is defined here as newly formed if it was formed a maximum of 8 years prior to the observation year and if a building was erected a maximum of 2-4 years prior to the observation year. This means that for 2008, a newly formed cooperative is defined as a cooperative formed in 2000 or later where a building was erected or added between 2004 and 2006.

[11] 2015 has been chosen as the reference year as the collected statistics, based on cooperatives' annual reports, lag behind slightly.

the rest of the country. Indebtedness has, however, increased in all regions. The average debt per square metre in the country as a whole was nearly SEK 6 000 in 2015 (Chart 5). There is major variation in indebtedness among individual cooperatives, however, and in relation to the market value of tenant-owned housing, the loan-to-value ratios are generally lower, especially in the metropolitan regions.

Cooperatives' interest expenses increase when interest rates rise

The Riksbank's survey shows that cooperatives on average have a relatively even mix of different interest-rate fixation periods for their loans. The distribution varies among banks, but the majority of loans are fixed for more than 12 months. This is confirmed by SBAB, who published a report in January 2018 on new interest-rate fixation periods concluded by cooperatives with loans at SBAB. The statistics show that just over a third of loans have been taken out with fixation periods under 12 months, just under a third with fixation periods of 1-4 years, and the rest with fixation periods of 5 years or more.[12]

In a situation where the interest rate rises rapidly, housing cooperatives' costs would be affected to a varying degree and at a varying rate, depending on the loans' fixation period. This can be compared with households where the proportion of variable-rate mortgages amounts to about 70 per cent. The expenses for households' private loans would therefore by affected more rapidly than housing cooperatives' expenses for bank loans.

Based on data on housing cooperatives' indebtedness, an example can be given of how much interest expenses could rise for a cooperative if interest rates rise and the cooperative only has variable-rate loans. Table 1 shows the annual interest expenses for a housing cooperative with an average living space of 3,121 square metres in Sweden. The example is based on an interest rate of 2 per cent. Based on this assumption, the cooperative's interest expenses per square metre amount to SEK 128. If the debt is held constant, a rate rise of 1 percentage point leads to an increase in interest expenses of SEK 64 per square metre. In a scenarios with an interest rate rise of five percentage points, the interest expenses per square metre would increase by just over SEK 320. For an apartment of 74 square metres, this would mean an increase in monthly fees of just over SEK 1,860, if the loan is variable-rate and the cooperative passes the increase in costs directly on to its members.

Table 1. Interest expenses for an average cooperative
SEK per year

Cooperative	**Average cooperative, country as a whole**
Debt	19,992,064
Interest rate	2 per cent
Interest expenses, total	399,841
Interest expenses, per square metre	128
Scenario	
Change in interest expenses (+1%)	199,920
Change in interest expenses per square metre (+1%)	64
Change in interest expenses (+5 %)	999,603
Change in interest expenses per square metre (+5 %)	320

Source: The Riksbank

Chart 6 shows the share of indebted housing cooperatives that would have unchanged or up to SEK 200 higher interest expenses per square metre if interest rates increased by one percentage point, based on their debt. The figure shows that if the interest rate increases by one percentage point, interest expenses per square metre rise by at least SEK 50 per year for almost half the indebted housing cooperatives. For a tenant-owned apartment of 70 square

[12] SBAB (2018).

metres, this means that annual fees would rise by SEK 3,500 per year, just over SEK 300 a month, if the interest rate on the bank loan was completely variable and if the cooperative were to increase the monthly fee by the corresponding amount to compensate for the increased borrowing costs. For about 12 per cent of indebted cooperatives (just over 1,880 cooperatives in the Riksbank's data-set), interest expenses per square metre would increase by at least SEK 100, which for the apartment given as an example above would mean an increase in annual fees of SEK 7,000 or nearly SEK 600 per month given the same assumptions.

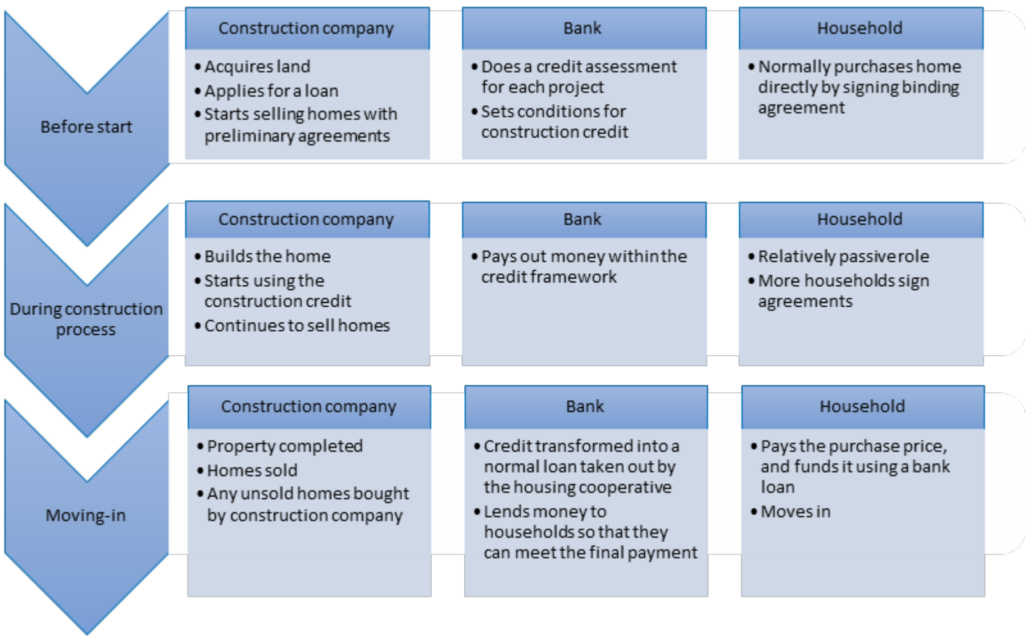
It is primarily highly indebted households and cooperatives that are exposed to greater risks when interest expenses rise rapidly. It may require households to reduce their consumption in order to cope with the higher expenses. For most cooperatives, minor rate rises would not have any major effect on their interest expenses. Larger rate rises may, however, have a more noticeable effect on cooperatives' interest expenses, which, together with higher costs for households' own mortgages, may reduce household consumption.

There are, however, circumstances that could mitigate the effects on households. For example, it is unlikely that housing cooperatives, in the short term, would need to increase their fees by the corresponding amount required by the interest rate rises. Housing cooperatives have a certain amount of equity that can act as a buffer, while their fees are probably slightly higher than they need to be, given current interest rates. The interest-rate fixation period of the loans also play an important role. The Riksbank's survey shows that a majority of housing cooperatives' loans have medium- or long-term fixation periods, which means that future rate rises will probably have a gradual impact on their interest expenses and ultimately on the fees paid by members.

Risks to individual companies and households in the new construction process

In addition to risks of indebtedness and rising interest rates, there may be uncertainty factors and risks involved when a construction company, or real estate developer, decides to erect a property with the intention of selling it on to a housing cooperative.

Figure 1 New construction of tenant-owned housing – a simplified description of the process



Source: The Riksbank

A housing cooperative can be formed in two different ways, either as the result of regular tenancies being converted into tenant-owned homes or as an entirely new cooperative. In the case of a conversion, the tenants in a rented apartment block form a cooperative with the intention of buying the property from the property owner. The most common way for an entirely new cooperative to be established is when a private construction company forms one and erects the property with the intention of selling tenant-owned homes to future members, who take over the cooperative at a later stage. New cooperatives can also be established when cooperative housing organisations such as SBC, HSB or Riksbyggen form them, construct the property and then sell it to members who have saved money within schemes provided by these organisations.[13] During the construction process, both construction companies and households are exposed to risks of different kinds, which, together with the role played by banks in the process, is illustrated in Figure 1.

Binding agreements are often signed long before households are given access to their new tenant-owned home

Construction companies get prospective home-buyers to commit at an early stage by signing binding preliminary agreements with them. Between 60 and 70 per cent of the homes are often sold before construction of the property has even begun. There are few legal options available to a household wishing to opt out of a preliminary contract. If the household is nevertheless unable to fulfil the agreement, it risks being liable to compensate the cooperative of the construction company for any damage caused by its breach of contract. It may be a question of making up for the difference if the tenant-owned home is subsequently sold at a lower price, paying the costs involved in marketing the home again, or footing the bill for unpaid annual fees and penalty interest on overdue down-payments. If it takes time for the housing cooperative to find another buyer, this cost may be substantial.[14]

By signing the preliminary agreement, the household has committed itself to paying the cooperative for the costs associated with the tenant-owned home in question. In attractive locations, this may be a question of millions of Swedish kronor. If, at the same time, the household still owns another mortgaged home as they wait to move into their new one, the risks associated with this financial commitment are significant for the individual household, as it may not be allowed to opt out of the agreement with the cooperative. If housing prices fall before the household has moved into their new home, they may only be able to afford a smaller down-payment due to them earning less profit on the sale of their existing home due to the price fall. In this situation, the bank may withdraw or reduce its pledged loan facility due to the change in circumstances. A pledged loan facility is often only valid for a limited time, normally up to six months.

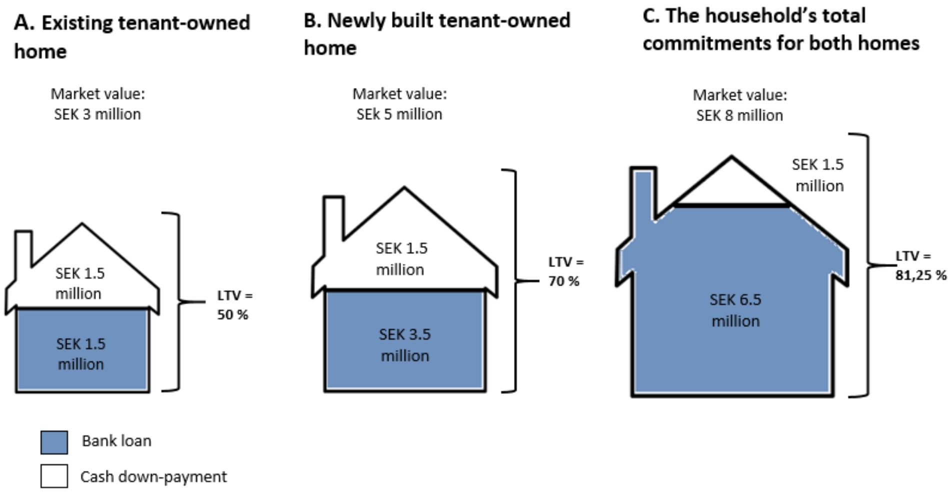
Figure 2 illustrates an example household's financial commitments when purchasing a newly constructed tenant-owned home, which they can move into in two years' time, while still having ownership of an existing tenant-owned home. In the example, the market value of the household's existing tenant-owned home (A in Figure 2) is SEK 3 million. The household has funded half of the tenant-owned home with a bank loan of SEK 1.5 million, giving it a loan-to-value ratio (LTV) of 50 per cent. The household intends to move and signs a preliminary contract on a newly constructed tenant-owned home (B), into which it can move in two years' time. The price of the new tenant-owned home is SEK 5 million. The household intends to fund the purchase with a bank loan of SEK 3.5 million while injecting SEK 1.5 million of its own equity released upon the sale of the existing tenant-owned home. The new home is therefore

[13] Lundén and Bokelund Svensson (2013).

[14] In recent years, however, many construction companies have sold housing rights at such an early stage that the date of disposal and occupation has not been secured with certainty in the agreements, but has instead been stated in time intervals. Often, the time of occupation have also been delayed, sometimes by as much as half a year, and is thus not consistent with what was originally stated in the agreement. This has resulted in a media discussion if it may be that many preliminary agreements that have been signed are invalid.

expected to have an LTV of 70 per cent. But the household's total financial commitment for both homes (C) for the two years left before they move is SEK 8 million, of which 1.5 million is the intended cash injection. Overall, the household has an implicit LTV of just over 81 per cent until the existing tenant-owned home has been sold.

Figure 2 An example of a household's financial commitments when purchasing a newly built tenant-owned home



Source: The Riksbank

When the household signs a preliminary agreement, the construction company often requires the household to have a pledged loan facility from the bank for the new home. When it is time to sign a leasing agreement with the cooperative before moving in, a new credit check is carried out. If the conditions on the housing market have changed in the meantime, for example if housing prices have started to fall after a period of price increases, households that have not accounted for such a scenario risk getting into financial difficulty. If, for example, housing prices have fallen by 15 per cent from the time when the preliminary agreement was signed up until it is time to move in, the household's cash down-payment has also decreased and the value of the new home has fallen to 4.25 million Swedish krona. In these circumstances, the household's loan-to-value ratio just for the new home would amount to 93 per cent, which exceeds the mortgage cap requirement. In such a situation, it is not certain that the bank would still grant the household a loan for the new home, and the household would then find itself in a financially difficult situation if neither of the homes can be sold at the prices that applied when the preliminary agreement was signed.[15]

Construction companies have commitments for unsold tenant-owned homes

Construction companies also take financial risks in connection with new construction projects. Preliminary purchasing agreements are often precisely the tool they use to reduce these risks. Several construction companies do, however, have some form of commitment as regards any homes that remain unsold after the intended handover date. Some undertake to purchase the homes from the cooperative,[16] with the intention of selling them on. The guaranteed amounts involved can be substantial if the company has several large-scale projects with many unsold homes.

[15]These risks are still apparent, of course, even if a household has bought a new home on the secondary market, without first having sold their existing tenant-owned home. However, the lead times for newly built homes are significantly longer, exposing households to changed circumstances for a longer time.

[16] Several construction companies have guarantee clauses in their contracts with new housing cooperatives, under which they undertake to either buy any unsold homes from the cooperative or pay the costs for them until they are sold.

If the construction company does not offer such guarantees, it is the newly formed housing cooperative that will find itself in a financially difficult situation if homes are not sold as planned and the financial plan does not add up. The housing cooperative's liabilities will thereby be higher than expected when revenue fails to materialise. Similarly, there will be fewer members in the cooperative, which means that fewer people have to share the higher costs.

The financial plan established by a construction company's interim board, which manages a newly formed housing cooperative until its members move in and assume control, is based on assumptions about future costs and revenue. These do not always tally with actual outcomes. The board may also underestimate the future maintenance need and set aside too little money for this via the fees. It has been common for new cooperatives to apply what is known as progressive depreciation in their financial plans, which in simple terms means that provisions for future maintenance are postponed into the future and not reflected in the fees currently paid by members. For many cooperatives, this method has led to sharp increases in fees a few years later, as the cooperative has saved too little and not been able to fund the costs for property maintenance with its own financial resources. For depreciation to reflect the actual saving requirement, it has been suggested that progressive depreciation in housing cooperatives be replaced by what is known as straight-line depreciation.[17] According to this method, the asset is depreciated by the same amount every year for a specific time period. Applying this method, fees would be higher in many cooperatives from the start, but saving and maintenance requirements would be more transparent and members would have greater insight into the cooperative's future costs.

High indebtedness creates double risks for households in tenant-owned homes

This economic commentary has highlighted the financial stability risks associated with high indebtedness in housing cooperatives and with the process for new construction of tenant-owned housing. Housing cooperatives' indebtedness has increased over time, and newly formed housing cooperatives are generally more indebted than older ones. Households living in tenant-owned homes therefore have an indirect debt as part of the housing cooperative's debt, which is greater in newly formed cooperatives. This means that indebted households are exposed to risks associated with living in a highly mortgaged housing cooperative.

The risk of a housing cooperative going bankrupt is indeed very small, but households are also exposed to other risks. Firstly, highly indebted households may need to reduce their saving and their consumption if interest rates rise. For households living in tenant-owned homes, this effect may be greater if changed financial conditions for the housing cooperative lead to increased fees for the tenant-owner. Together with increased expenses for a household's own mortgage, increased fees may result in individual households finding it difficult to meet their housing costs.

Secondly, there are risks in the new construction process. A household that already owns a home can find itself in a difficult financial situation if it buys a new tenant-owned home without first having sold the old home and if the housing market subsequently weakens. In the current situation, this is mainly a risk for households that have recently signed a contract for a new home. Households that signed for a new home further back in time, have since then probably seen the value of both their current and their future home rise. The buyer also has a funding risk as the loan pledge made by the bank, and upon which the agreement is based, is not binding for the bank.

[17] Utredningen om stärkt konsumentskydd på bostadsrättsmarknaden [Government enquiry into stronger consumer protection on the tenant-owner's market] (2017).

For individual households, therefore, there are several risks to be aware of when signing a preliminary agreement for a newly constructed home, or when buying a home in a highly mortgaged housing cooperative. Problems for a few households are unlikely to pose spillover risks to the rest of the economy, but may generate major financial losses for the households involved.

References

Bengtsson, Bertil, Richard Hager and Anders Victorin (2013), *Hyra och annan nyttjanderätt till fast egendom [Rent and other usufructs to real property]*. 8th edition Norstedts juridik AB, Stockholm.

European Commission (2017), *Country Report Sweden 2017.* European Commission.

Grauers, Folke (2007), *Fastighetsköp [Property purchase]*. Juristförlaget i Lund, Lund.

Grauers, Folke (2014), *Nyttjanderätt [Usufruct]. Hyra, bostadsrätt, arrende och tomträtt [Rent, tenant-owned home, leasehold and freehold]*. 14th edition Juristförlaget i Lund, Lund.

IMF (2016), *Sweden: Financial System Stability Assessment*, IMF Country Report No. 16/355.

Lundén, Björn and Ulf Svensson (2013), *Bostadsrätt [Tenant-owned home]. Ekonomi, skatt och juridik för föreningen och medlemmarna [Financial tax and legal issues for cooperatives and their members]* 15th edition Björn Lundén information AB, Näsviken.

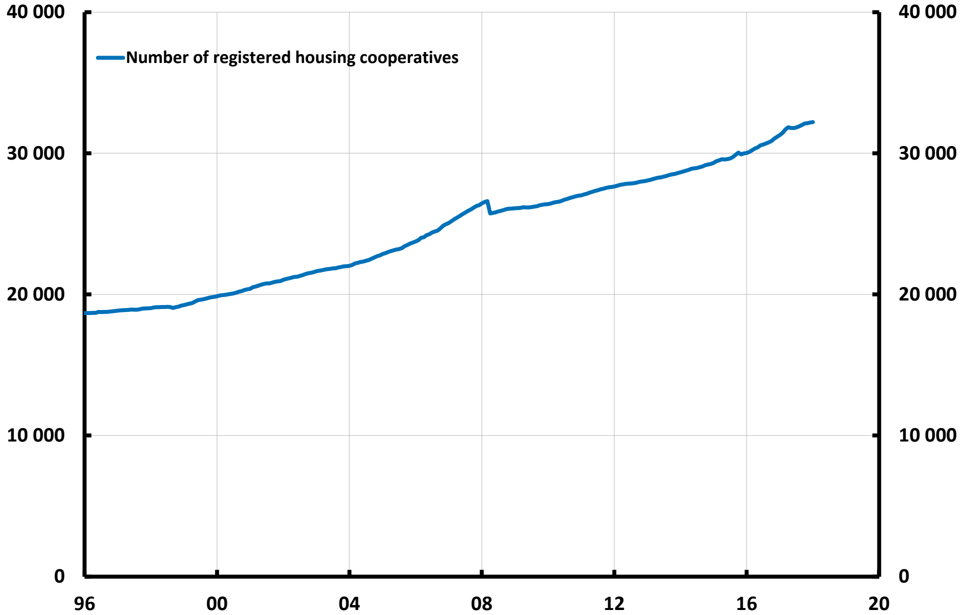
SBAB (2018), *Bostadsrättsföreningar väljer längre räntebindningstider på lån [housing cooperatives choosing longer interest-rate fixation periods for their loans],* press release January 2018*.*

Boendesociala beredningen [Housing welfare enquiry] (1999), *Boendesociala effekter av konkurser och rekonstruktioner [Housing welfare effects of bankrupcties and reconstructions]: interim report* (SOU 1999:72). Swedish Ministry of Health and Social Affairs, Stockholm

Utredningen om stärkt konsumentskydd på bostadsrättsmarknaden [Government enquiry into stronger consumer protection on the tenant-owner's market] (2017), *Stärkt konsumentskydd på bostadsrättsmarknaden [Stronger consumer protection on the tenant-owner's market]* (SOU 2017:31). Swedish Ministry of Justice. Stockholm.

Charts and tables

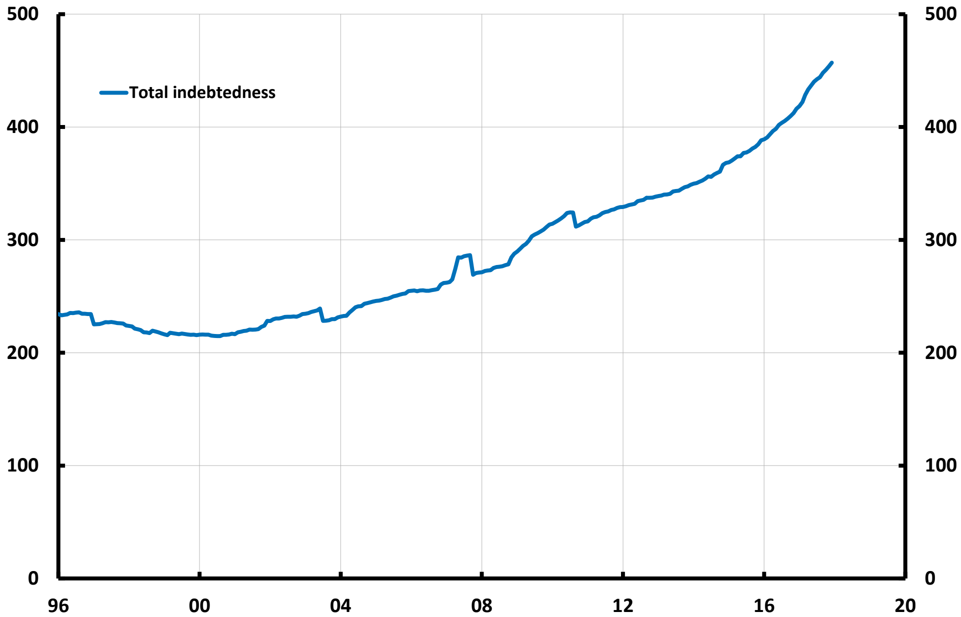
Chart 1. Number of registered housing cooperatives in Sweden



Note. The number of active cooperatives is lower

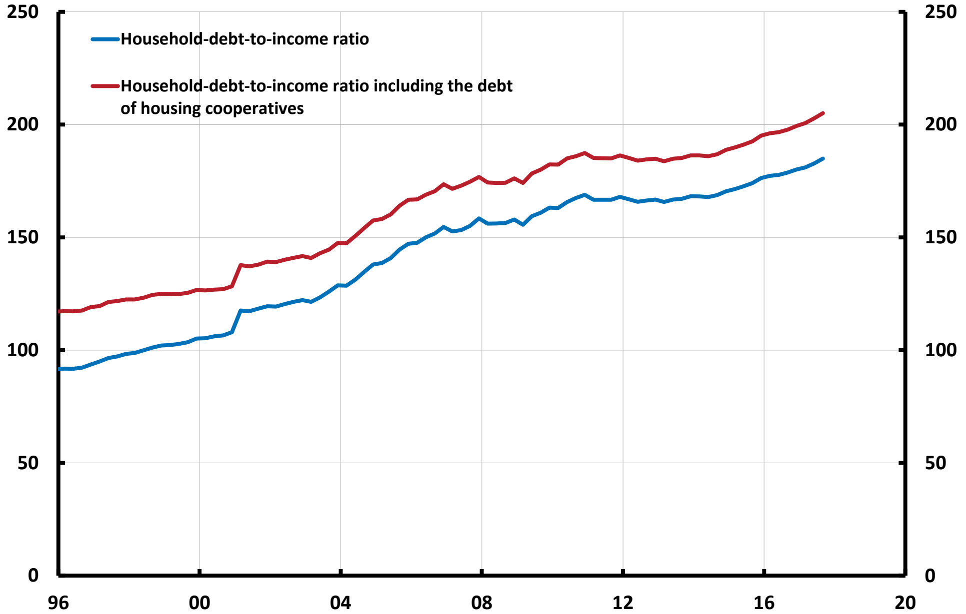
Source: Swedish Companies Registration Office

Chart 2. Housing cooperatives' indebtedness
SEK billions



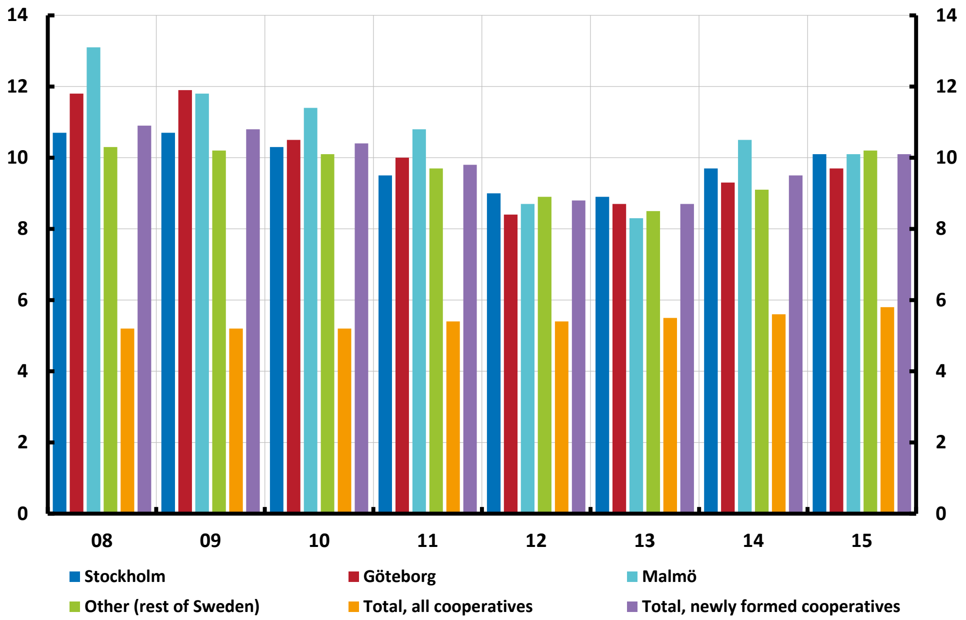
Source: Statistics Sweden

Chart 3. Household debt-to-income ratio in Sweden
Percentage of disposable income



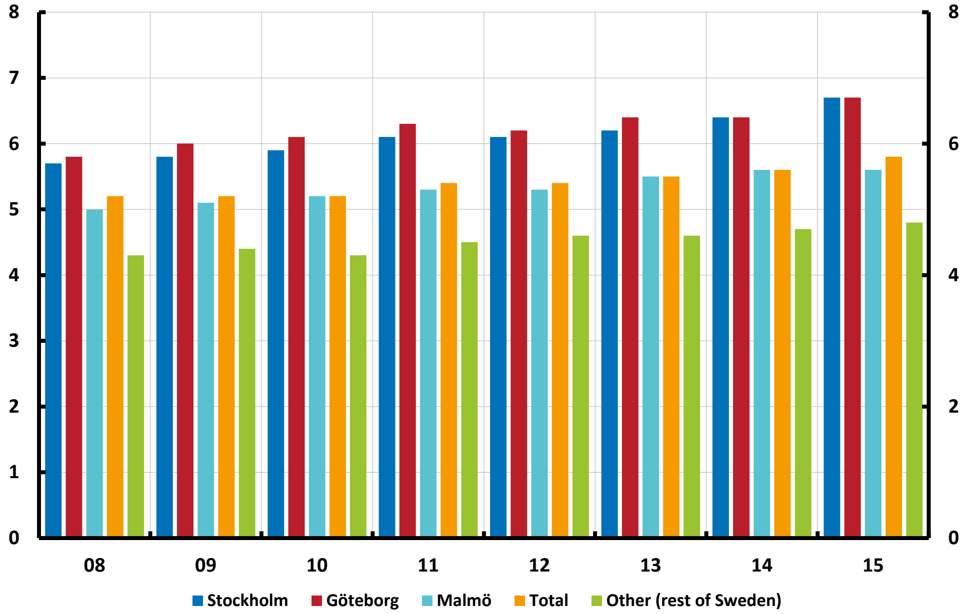
Source: Statistics Sweden and the Riksbank

Chart 4. Average cooperative debt per square metre, newly formed cooperatives
SEK thousands



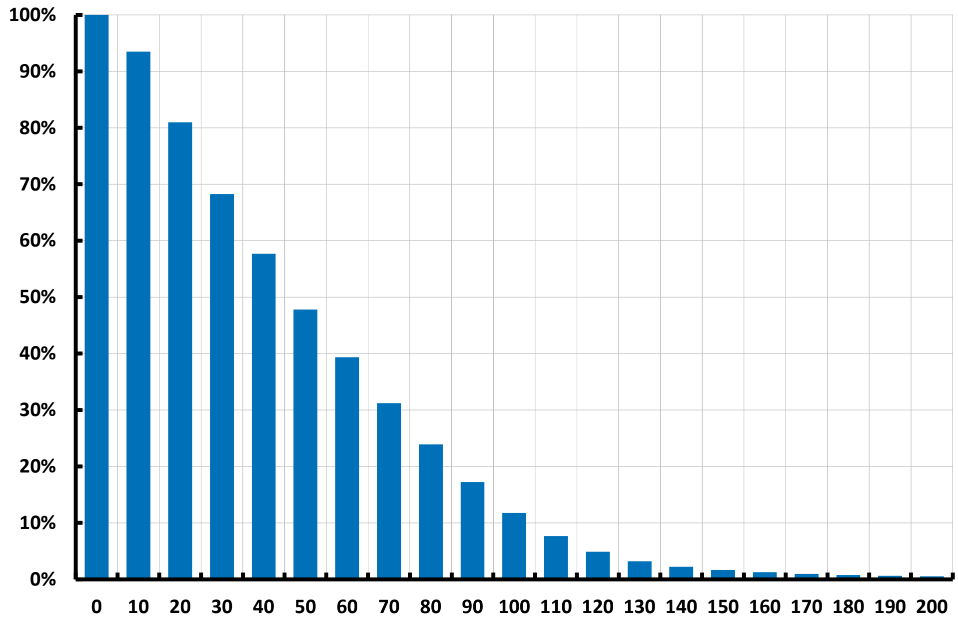
Source: UC Bostadsvärdering AB and the Riksbank

Chart 5. Average cooperative debt per square metre
SEK thousands



Source: UC Bostadsvärdering AB and the Riksbank

Chart 6. Additional interest expenses per square metre and year in the event of a one percentage point rise in the interest rate
Percentage of indebted housing cooperatives



Source: The Riksbank