

RECENT HOUSING MARKET TRENDS

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INTRODUCTION AND SUMMARY

Prices and turnover in the housing market have gone up over the last year. A general improvement of the housing market is a natural element of the current upswing, but also involves the risk of derailing. That will occur if the demand for housing is much higher than the supply, creating expectations among buyers that a substantial rate of price increase will continue for a long time.

The annual rate of house price increase for Denmark taken as one has gone up since the turn of the year, both for single family houses and owner-occupied flats. Prices are now rising in virtually all local government districts. In some parts of the country, prices began to increase only recently, so there are still large differences in the housing market across the country. The highest increases have occurred in the Copenhagen area and to a slightly lesser extent in other cities.

Price developments in some parts of the country are now so strong as to warrant closer monitoring. The low level of interest rates and an upswing that is forecast to gain strength provide the background for the increase in house prices. In the cities, however, there is a risk of price increases being self-reinforcing. This is reflected in home buyers' continued high expectations of future price increases, among other factors. The rise in interest rates in the spring seems to have dampened turnover a little, but although the prices of single family houses have flattened somewhat in recent months, price increases for owner-occupied homes remain high.

During previous upswings, the housing market has been a source of macroeconomic instability and overheating of the economy. This was particularly true during the upswing in the 2000s. A contributory factor was the absence of sufficient automatic stabilisers, including in the structure of housing taxes. There are large geographical differences in taxation, as the effective property value and land tax rates vary across the country. There is a need to establish as quickly as possible a system whereby the value of houses is taxed so that the tax payable increases when house prices rise and decreases when house prices fall, as was the case before the freeze on property value taxes in 2002.

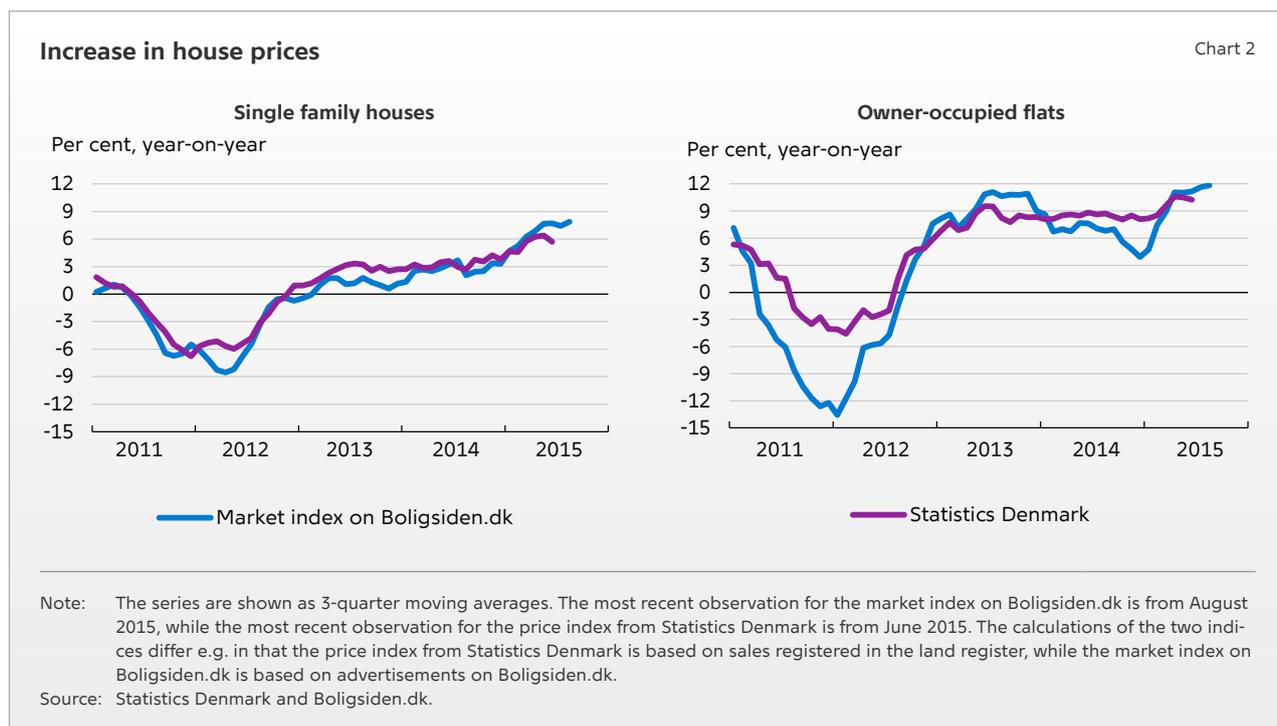
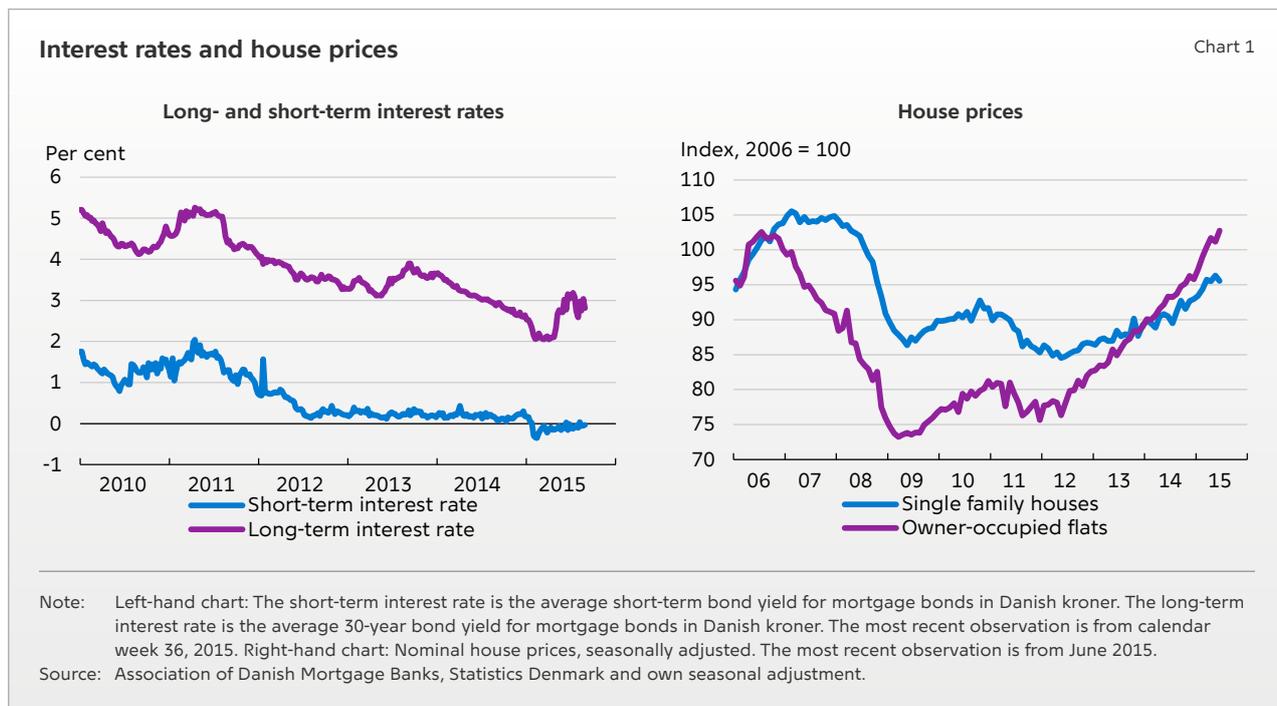
Other less efficient and more uncertain means may also be used to stabilise the housing market, including a statutory limit for households' access to deferred amortisation loans. Furthermore, restraint should be shown when granting housing loans. In many cases it would be prudent for the banks to require a considerably larger down payment than the 5 per cent of the purchase price that will be included in the rules on good practice for financial corporations from 1 November.

CURRENT DEVELOPMENTS IN THE HOUSING MARKET

Overall, the level of interest rates in Denmark and internationally has declined for many years, and in Denmark, after a further decline at the begin-

ning of the year, the long-term mortgage yield fell to 2 per cent in mid-February, cf. Chart 1 (left). It has subsequently increased slightly, but seen in a longer perspective, the current level is still very low. This applies even more so at the short end of the yield curve. The low level of interest rates has recently helped increase activity in Denmark and stimulated house prices.

Combined with the general improvement in the cyclical position, the further decline in interest rates at the beginning of the year contributed to accelerating house prices in the first months of the year. This applied to both single family houses and owner-occupied flats, cf. Chart 1 (right). Developments in the annual rates of price increase still show relatively large monthly fluctuations, howev-



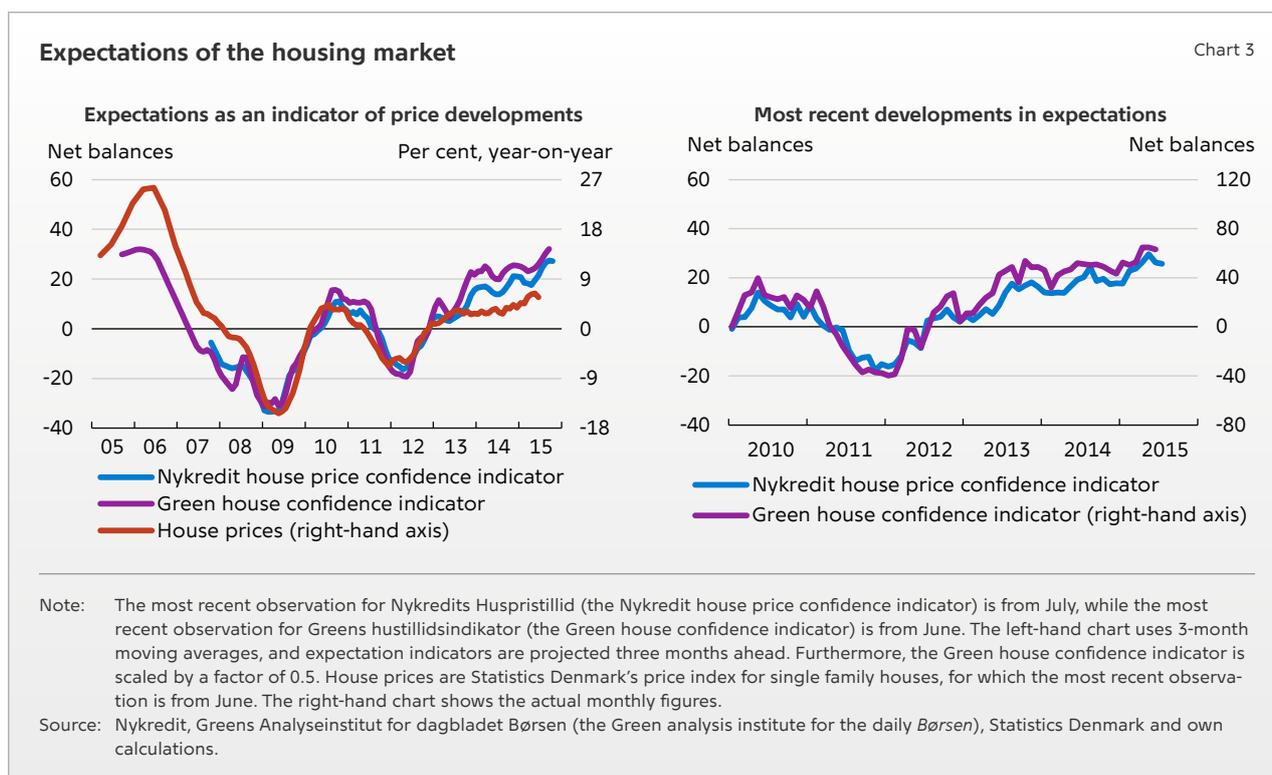
er, so it may be difficult to derive the most recent trend. If the price increases are smoothed out using 3-month moving averages, the annual rate of increase at the end of 2014 according to Statistics Denmark was just under 4 per cent for single family houses and 8 per cent for owner-occupied flats, cf. Chart 2. In June, the rate had risen to just under 6 per cent for single family houses and just over 10 per cent for owner-occupied flats.

The rise in interest rates in the spring seems to have dampened turnover a little, but although the prices of single family houses have flattened somewhat in recent months, price increases for owner-occupied homes remain high. This is also the case for expectations of the housing market, cf. Chart 3.

Measured in real terms, the prices of single family houses in the 2nd quarter were approximately 20 per cent below the peak in 2007, while the real prices of owner-occupied flats were 15 per cent below the peak in 2006, cf. Chart 4 (left). Relative to household disposable income, the prices were around 30 per cent below the peak level in 2006-07, cf. Chart 4 (right). However, rather than reflecting an equilibrium level, the level in 2006-07 was the result of overheating in the housing market and consequently cannot be used as a benchmark for the ideal housing market trend.

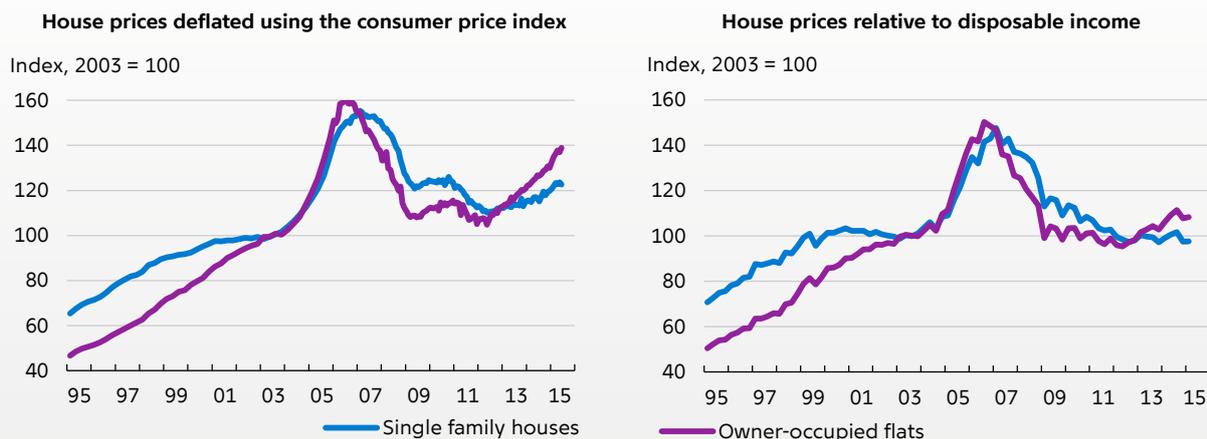
The housing burden, i.e. the financing costs related to purchasing a home as a ratio of average household disposable income, is well below its average for the last couple of decades. The low financing costs are due to the low interest rates, which have offset the house price increases. This is reflected e.g. in the fact that the estimated house price in Danmarks Nationalbank's house price relation is higher than the actual price. Notwithstanding the uncertainty of such a calculation, this indicates that the current low level of interest rates has not yet been fully factored into house prices.

The number of sales registered in the land register has gone up over the last couple of years, cf. Chart 5 (left) – boosted by the Capital Region of Denmark and, to a lesser degree, by Region Zealand. Most recently, turnover has also begun to rise in Denmark's other regions. Hence, there is wide regional variation. Calculated as a ratio of the housing stock, the number of sales registered in the land register amounted to 3.3 per cent in the 2nd quarter, compared to an average of 4.0 per cent since 1981. The increase in turnover in the past year has reduced the gap, but there is still some way to go before turnover for the country as a whole has reached the average level seen in a long-term perspective.



Real house prices

Chart 4

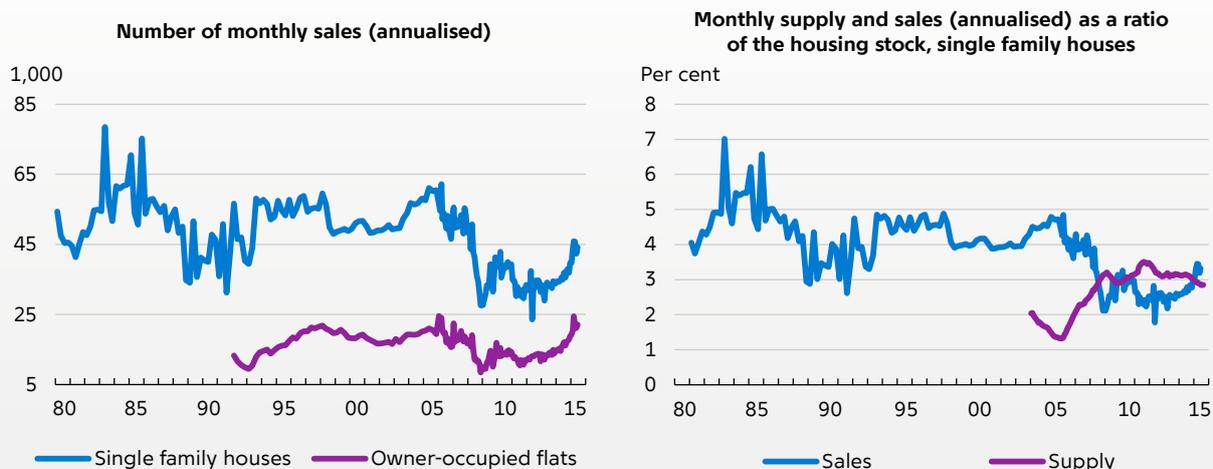


Note: Data is seasonally adjusted. For real house prices, quarterly observations are used up to and including 2005, after which observations are sampled at a monthly frequency. The most recent observation is from June 2015. House prices relative to disposable income are sampled at a quarterly frequency. The most recent observation is from the 1st quarter of 2015. Household disposable income has been adjusted for extraordinary tax payments in connection with the restructuring of capital pensions and funds from Lønmodtagernes Dyrtdidsfond, LD, in 2013-15.

Source: Statistics Denmark and Danmarks Nationalbank.

Sales registered in the land register and homes for sale

Chart 5



Note: Left-hand chart: The most recent observation is from June 2015. The number of sales has been adjusted upwards due to delays in the land register. Quarterly figures are used up to and including 2005, after which time the frequency is monthly. Right-hand chart: The most recent observation for sales is from June; for supply the most recent observation is from August. The supply of single family houses for sale and the number of sales of single family houses registered in the land register are shown relative to the number of single family houses, which for 2015 is based on forecasts. Data is seasonally adjusted.

Source: Association of Danish Mortgage Banks' Housing Market Statistics, Statistics Denmark and own calculations.

The number of homes for sale has fallen, but remains fairly high, cf. Chart 5 (right). A stock of houses has accumulated in many areas of the country, and as turnover is rising, these houses are now being put on the market. As long as this continues, it will dampen price increases in the

areas concerned. This is the situation in a number of areas outside the large towns and cities, in particular. Due to increasing turnover and falling supply, the average time on market for single family houses has fallen slightly over the last year, but at 282 days it remains fairly high.

The recovery in the housing market taken as one is an average masking large regional differences. Therefore, the national average does not necessarily provide a true and fair view of the situation across the country. Some of the geographical differences are of a structural nature with persistent rural to urban migration and increasing population in the cities. An improved economic situation will not address the challenges faced by the housing market due to demographic trends. Those challenges can be addressed by adjusting the housing supply, which is traditionally sluggish. Hence, the large regional differences may persist for quite some time to come.

Rising house prices may contribute to strengthening residential construction and private consumption. However, the house price increases may also soar out of control with potentially negative implications for the economy. Strong price increases give cause for concern, as they may become self-reinforcing and result in prices rising more than warranted by the underlying supply and demand factors and the fundamental value of the house. If demand is based on expectations of fast returns in the form of rising

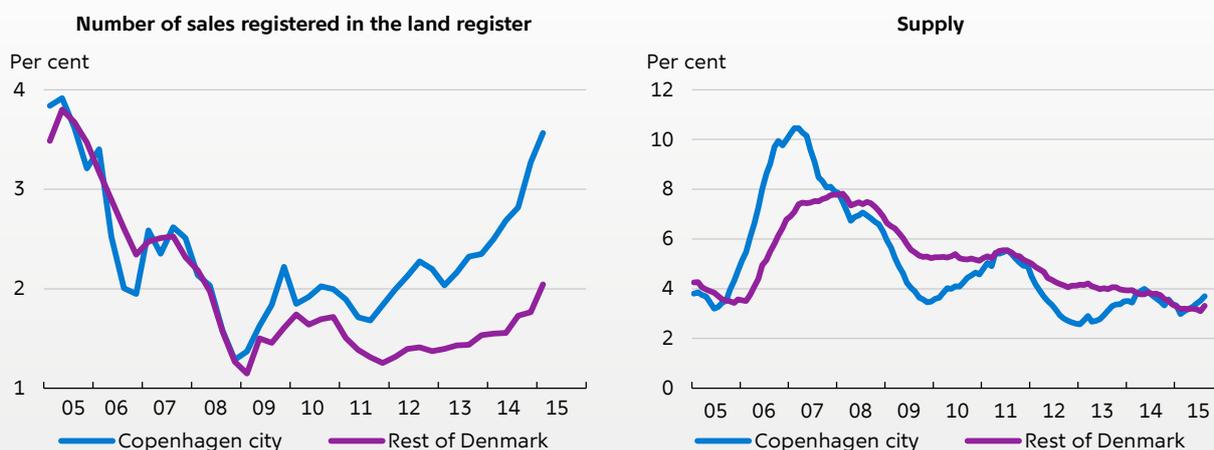
house prices, this may have a self-reinforcing effect on house prices. This phenomenon is characteristic of a house price bubble. It is assessed that there is no bubble in the Danish housing market, but with large price increases in parts of the market and expectations of continued price rises, there is reason to monitor developments very closely. Especially the rate of price increase for homes in certain parts of the Copenhagen area is unsustainable, and there is a risk of a local house price bubble.

DEVELOPMENTS IN THE COPENHAGEN HOUSING MARKET

Over the past 18 months, the rate of price increase for houses in the Capital Region of Denmark has been in the range of 5-6 per cent p.a., while it has been lower in Denmark's other regions. However, in the market for owner-occupied flats, the cities stand out by virtue of high price increases. In Copenhagen city¹, the rate of price increase for owner-occupied flats has been around 10 per cent p.a. over the last couple of

Number of sales registered in the land register and supply of owner-occupied flats as a ratio of the housing stock, Copenhagen city and the rest of Denmark

Chart 6



Note: Data is seasonally adjusted. The most recent observation for the number of sales registered in the land register is from the 1st quarter of 2015, while the most recent observation for the supply is from August 2015. The number of sales registered in the land register and the supply of single family houses for sale are stated as a ratio of the number of single family houses in the part of Denmark concerned. The "Rest of Denmark" category consists of all parts of Denmark besides Copenhagen city.

Source: Association of Danish Mortgage Banks' Housing Market Statistics, Statistics Denmark and own calculations.

¹ Defined as the cities of Copenhagen and Frederiksberg and the municipalities of Tårnby and Dragør.

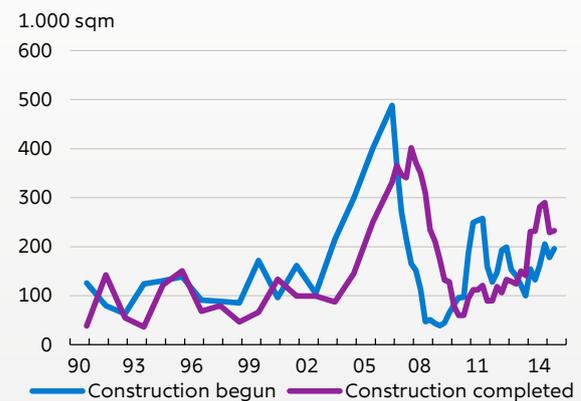
years. Seen in a longer perspective, price fluctuations in Copenhagen have generally been larger than in Denmark overall.

The difference between Copenhagen and the rest of Denmark is illustrated e.g. by turnover of owner-occupied flats in Copenhagen city being almost twice as high as in the rest of the country, cf. Chart 6 (left). As is the case in the rest of Denmark, the supply of owner-occupied flats is at a very low level, cf. Chart 6 (right). The high turnover and the low supply exert upward pressure on prices in Copenhagen city and push up the national average.

The rising prices of owner-occupied flats in Copenhagen city in recent years should be viewed in the light of growing population numbers. In the cities of Copenhagen and Frederiksberg, the population has thus increased by 10-12,000 persons p.a. since 2008. This is attributable to both net immigration and migration to these cities, but also to the fact that more young people choose to stay there longer after they have started families. In 2014, net migration from the rest of the country was almost zero, while population growth was underpinned by increasing immigration and a larger excess of births.

An opposing factor is new construction in Copenhagen, which helps boost the supply of owner-occupied flats, thereby dampening price increases. Over the last four quarters, completed

Residential construction in the cities of Copenhagen and Frederiksberg Chart 7



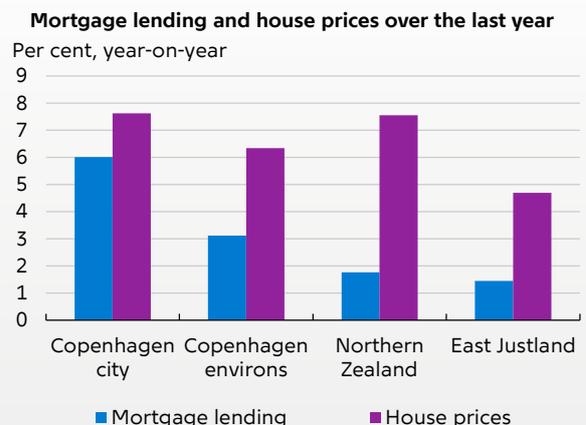
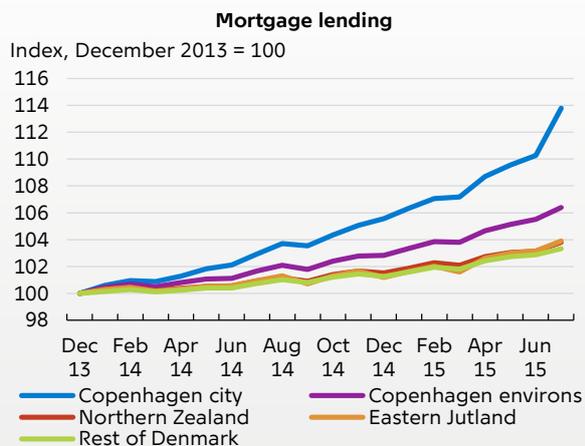
Note: Construction of single family houses, terraced, linked or semi-detached houses, multi-family buildings, student residences, residential institutions and other year-round residences. Activity has not been adjusted for delays. Data breaks occur for construction begun in 2006, so data prior to this time has been adjusted upwards. Up to and including 2006, data is sampled at an annual frequency, after which time data is sampled as 4-quarter moving sums. The most recent observation is from the 2nd quarter of 2015.

Source: Statistics Denmark and own calculations.

construction was almost four times higher than at the most recent trough in the wake of the financial crisis in the 2nd quarter of 2010, cf. Chart 7. The number of newly built flats by no means matches

Mortgage lending to households and house prices

Chart 8



Note: Outstanding volume of mortgage lending to households secured on owner-occupied homes and holiday homes at end-2013 projected by gross new lending less prepayments. Ordinary repayments have not been deducted. Right-hand chart: Increase from the 1st quarter of 2014 to the 1st quarter of 2015. House prices are for single family houses.

Source: Statistics Denmark, Danmarks Nationalbank and own calculations.

current population growth, however. New construction includes large projects at the old Carlsberg site and in Nordhavn, where most homes will not be ready for occupation for a number of years to come. Hence, these projects will not ease the pressure on the market for owner-occupied housing in Copenhagen in the near term.

It is uncertain how much and how fast the recovery in Copenhagen city may spread to the surrounding areas. Such spreading may curb price increases in Copenhagen when inhabitants move away from the city. Historically, there has been a high degree of covariation between developments in Copenhagen and the surround-

Project sales¹

Box 1

Project sales have several special characteristics that distinguish them from ordinary housing transactions. When a property is traded, for which an address has not previously been registered in the national register, the property is sold without an occupancy requirement. This is naturally the case with new construction, opening the market to buyer segments that may include Danish expatriates and other well funded foreigners who want a secondary home in Copenhagen.

Another difference is that the purchase agreement is often entered into before the home is ready for occupation. The transaction consequently involves speculation on the buyer's part, as the price is bound when the purchase agreement is signed. There may be several reasons for the buyer's willingness to sign an agreement before the home is ready for occupation. Expectations that prices will increase or at least not decrease may cause the buyer to go ahead with the purchase. The supply of homes for sale also changes over time, and a purchase today may be necessary to obtain a home with the right qualities, including location.

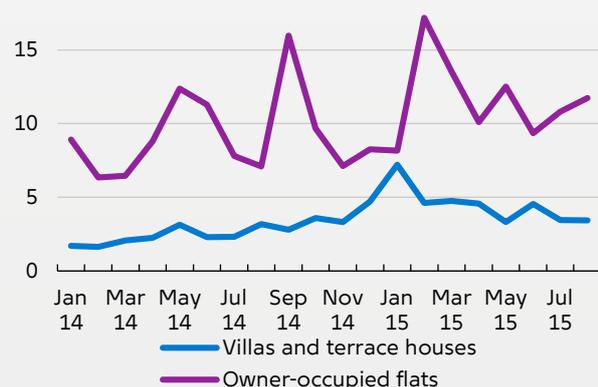
According to figures from Boligsiden.dk, 5,144 transactions have been completed as project sales since January

2014. Owner-occupied flats accounted for 56 per cent, terraced houses for 30 per cent, villas for 13 per cent and holiday homes for 1 per cent. Project sales as a ratio of total sales seem to follow an upward trend during the period. This applies to both villas and terraced houses as well as owner-occupied flats, cf. the chart. Project sales accounted for around 10 per cent of owner-occupied flats traded in the 2nd quarter of 2015, while the share for villas and terraced houses was somewhat lower at approximately 4 per cent. Over the last 18 months, about half of the owner-occupied flats sold as project sales were located in the City of Copenhagen, while the City of Aarhus accounted only for some 10 per cent. The remaining share is evenly distributed among the other Danish regions. Project sales as a ratio of total transactions in Copenhagen city are largely the same as for Denmark overall.²

Prices per square metre for new construction are usually higher than for existing homes. Consequently, a larger proportion of new construction will, all else equal, exert upward pressure on the average prices per square metre.

Project sales as a ratio of total sales in Denmark

Per cent



Source: Boligsiden.dk and own calculations.

1. Project sales are first sales of homes where the seller, who is a professional (firm), puts three properties or more on the market at the same time. Project sales almost always involve new construction – either completed or under construction. Exceptions may be a number of older rental flats that are converted and sold as owner-occupied flats.
2. According to the estate agent chain 'home' and Danske Bank, project sales accounted for one third of total sales in the 2nd quarter of 2015. The difference between the figures from 'home' and Boligsiden.dk reflects that Boligsiden.dk includes all transactions concluded by estate agents and lawyers specialising in real estate in their calculation, while 'home' uses transactions by its own chain.

ing regions. This is not just a spillover effect, but is also due to the fact that the housing market across Denmark is affected by the same underlying factors, including general economic developments. However, experience shows that if the spread between prices per square metre becomes sufficiently wide, many people will move out of Copenhagen to areas within easy commuter reach.

Although price developments in Copenhagen can to some extent be explained by the development in interest rates, incomes and high population growth, the soaring price increases seen in recent years are unsustainable and give cause for concern. There is a risk that prices will increasingly be driven by speculative purchases based on expectations of higher prices rather than by the underlying supply and demand factors. Project sales constitute a larger proportion of transactions today, compared to previously, cf. Box 1. This is one way in which the housing supply may adjust to the growing demand in the Copenhagen housing market. Project sales are also a way of financing new construction that involves less risk for the developer.

Indicators of a house price bubble include strong credit growth, inflated private consumption and residential investment, just as it is often accompanied by excessive wage increases in the construction sector. Currently, no such indicators are present. Private consumption increases by just under 2 per cent p.a., wage rises in the construction sector are among the highest in the private sector, but not high in a longer perspective, and the level of new construction is low. As regards credit growth, a rise can be detected in the areas with the highest level of activity in the housing market. Over the last 18 months or so, mortgage lending growth has been driven by an increase in loans in the Copenhagen area and, to a lesser degree, in eastern Jutland, cf. Chart 8 (left). Lending growth remains lower than the increase in house prices, however, cf. Chart 8 (right). There may be a lagging effect as newly emerged home equity will in practice only be eligible as collateral with a certain lag. But low lending growth is not in itself a guarantee against the build-up of a house price bubble.

Conversely, a shortage of credit facilities may contribute to curbing price increases. This is the case in some parts of the country outside the

large towns and cities. Normally, it is possible to raise mortgage loans against up to 80 per cent of the property value, but this is not an inherent right. Loans against real property as collateral are at the core of the Danish mortgage credit system. If there is insufficient collateral, loans cannot be granted. Basically, the challenge of migration from some areas is not solved by more credit.

GEOGRAPHICAL DISTRIBUTION OF THE HOUSING STOCK

At present, there is strong focus on developments in the housing market in Copenhagen and environs, because these are the areas in which the risk of overheating of the market is currently the highest after a prolonged period of considerably stronger price increases than in the rest of the country.

In view of the geographical variations in price developments across the country, it is relevant to look at the geographical distribution of the housing stock to assess whether the large regional price increases pose a risk to the general economy. The distribution of the housing stock depends on whether it is calculated according to the number of homes or according to their value. Since prices per square metre are generally higher in towns and cities, the housing stock accounts for a larger proportion there when calculated in terms of value rather than number, cf. Table 1.

In value terms, 40 per cent of the total owner-occupied housing stock is found in the Capital Region of Denmark, with Copenhagen city accounting for 12 per cent. As for owner-occupied flats, they are concentrated in the larger towns and cities. 32 per cent of all owner-occupied flats are located in Copenhagen city, accounting for around half of the value of all owner-occupied flats in Denmark and 7 per cent of the value of the total Danish housing stock.

Homes in the Capital Region of Denmark thus account for a considerable share of the housing stock, particularly in terms of value, while the share is somewhat smaller as far as Copenhagen city is concerned. Therefore, the strong price increases in Copenhagen city will presumably have to spread to the rest of the region and spill over to the rest of the country in order to really have an appreciable effect on the overall economy.

Housing stock, single family houses and owner-occupied flats

Table 1

Shares in per cent	Total	Owner-occupied flats			Houses		
	Value of owner-occupied flats and houses	Number of owner-occupied flats	Value of owner-occupied flats	Value of owner-occupied flats and houses	Number of houses	Value of houses	Value of owner-occupied flats and houses
All Denmark	100	100	100	15	100	100	85
Capital Region of Denmark	40	56	69	10	20	34	30
Copenhagen city	12	32	46	7	3	6	5
Region Zealand	13	8	5	1	18	15	12
Region Southern Denmark	17	11	7	1	25	19	16
Region Central Denmark	22	18	15	2	24	23	20
Region North Denmark	8	7	5	1	12	9	7

Note: Preliminary data for 2014. Houses are single family houses.
Source: Statistics Denmark.

HOUSING TAXATION AND STABILISATION OF THE HOUSING MARKET

House prices have risen more than housing taxes over the last 20 years. Since the early 1990s, this has resulted in a halving of the effective property value tax rate, measured as the property value tax paid relative to the market value of the home, cf. Chart 9 (left). Different price developments across

the country have led to regional variations in the effective property value tax rate. While the effective property value tax rate has dropped to one third in the Copenhagen area, it has been reduced by half for Denmark overall. Taxation of capital income was lowered during the 1990s, so naturally property value taxes were also reduced, cf. Box 2. After 2002, the tax freeze combined with rising house prices caused a decline in the effective tax rate, with negative implications for the ability of

Neutral housing taxation

Box 2

The purchase of a home is an investment. An investor with a sum of money can choose whether to invest in a home or live in a rented home and place the money in e.g. bonds. In this respect, the tax system should preferably be neutral so as not to affect the outcome of such a decision. This means that taxation of returns on different types of investment must be identical.

If the investor chooses to invest in an owner-occupied home, the return consists of a housing service, which is the value of living in the home, and a potential tax-free capital gain. In principle, the value of living in one's own home should be calculated as the cost of renting an equivalent home. In this case, the pecuniary value of the housing service is valued. However, there is no deep market for this in Denmark, so the calculation is based on a typical capital return instead, e.g. the nominal yield on a mortgage bond. At the current yields, the return on an owner-occupied home can therefore be set at 3 per cent p.a.

Based on a neutrality principle, the housing service must be taxed in line with other capital income. At a capital income tax rate of 33 per cent, the neutral property value tax rate will be 3×0.33 , corresponding to 1 per cent of the current market value of the home. As a result of the tax freeze, the current average effective property value tax rate is only about half of that and decreasing. Property value taxation below a neutral level means that owner-occupied homes are tax subsidised.

In contrast to rental value taxation, the home owner can deduct any interest from capital income at a tax value of 33 per cent. As part of the tax reform of 2012, the capital income tax rate is being reduced to 25 per cent over a number of years, but not for the first kr. 50,000 in interest expenses. This affects relatively few home owners, so the effect is expected to be limited.

In addition to property value tax, housing taxation in Denmark also includes land tax, meaning that socially created land appreciation is subject to taxation.

taxation to stabilise the housing market. The revenue from land tax has to a larger extent mirrored the rise in land values.

From a macroeconomic stability perspective, however, it is more serious that the role of housing taxation as an automatic stabiliser has been reduced. The housing market and residential construction are generally areas that amplify fluctuations in the economy. This can be offset by appropriate housing taxation, where taxation acts as a stabiliser. This has not been the case since a freeze was put on property value tax in 2002, when the annual increase in property tax (land tax) was also capped.

Due to the structure of housing taxes, the effective property value tax rate falls when house prices increase, and vice versa. Thus, property value tax does not have a stabilising effect, as it amplifies fluctuations in an already cyclically sensitive housing market. This contributed to the formation of a house price bubble in the period

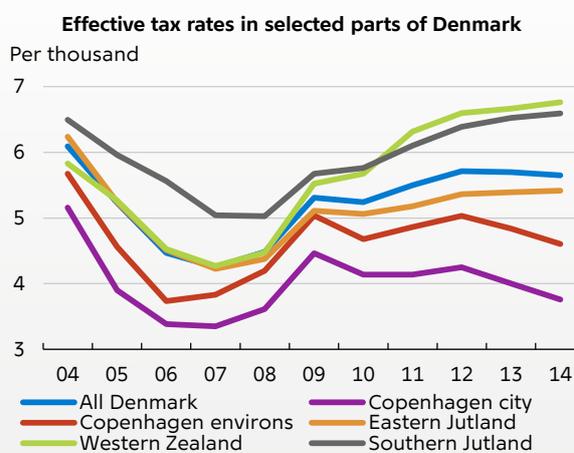
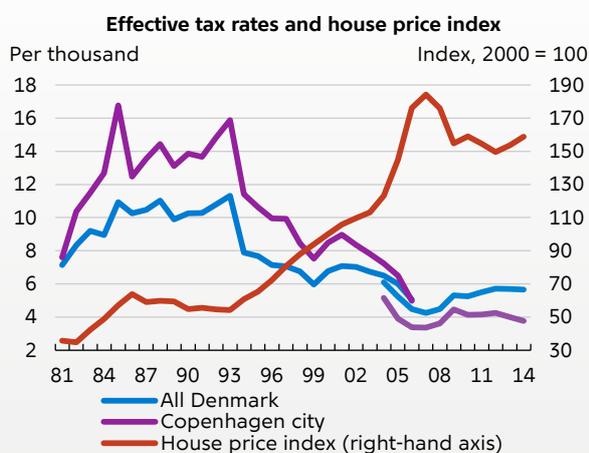
2005-07 and was one of the reasons why the subsequent downturn was stronger than necessary. For instance, this is reflected by the increase in the effective tax rate in the wake of the financial crisis, despite the substantial fall in house prices, cf. Chart 9 (right).

A breakdown of Denmark into different parts shows that while the effective property value taxes in areas with a weak housing market have been rising since 2007, the effective tax in the Copenhagen area has dived in recent years. Hence, the current rules for property value taxation contribute to amplifying regional differences across the country.

If the calculation is based on a single family house in Copenhagen and another in western and southern Zealand, which cost the same today, e.g. kr. 2 million, the owner in Copenhagen pays approximately kr. 11,500 in property value tax, while the owner in western and southern Zealand must pay almost kr. 17,500, i.e. 35 per cent more.²

Effective property value tax rates

Chart 9



Note: Left-hand chart: The effective property value tax rate is calculated as property value tax paid relative to the market value of homes in the form of single family and terraced houses in the area concerned. The break in the series of effective property tax rates is attributable to a different approach to calculating housing wealth, i.e. the fraction's denominator. The pre-2004 calculation is based on prices per square metre from the Association of Danish Mortgage Banks and is described in Jan Overgaard Olesen and Erik Haller Pedersen, Housing stock and housing tax in a regional perspective, Danmarks Nationalbank, *Monetary Review*, 3rd Quarter 2006. From 2004, Statistics Denmark's calculation of households' housing wealth is used. Up to 2006, Copenhagen city comprises the cities of Copenhagen and Frederiksberg, while Dragør and Tårnby are also included in the data from 2004 onwards. There is no full correspondence between the number of homes in the calculation of the numerator and denominator in the effective tax rates, so presumably the level is too low.

Source: Statistics Denmark and own calculations.

2 A property value tax rate of 1.0 per cent in 2002 is assumed. Since 2002, house prices have increased by 75 per cent in Copenhagen city compared to 14 per cent in western and southern Zealand.

Consequently, as a result of the freeze on property value tax, two houses with the same value, but in different locations and with different price developments, are taxed very differently.

Although land tax is not subject to the tax freeze, developments have matched the trend in property value tax, i.e. the effective land tax rate has fallen when house price increases have risen, and vice versa, cf. Chart 10. This is partly because the cap on the annual tax increase has been binding in many places and partly that land tax is collected with a considerable lag relative to developments in actual land prices. In urban areas, the plot typically accounts for a larger part of the property value than outside towns and cities. This is one reason that the effective land value rate is highest in the Copenhagen area and lowest in western Jutland. The cap on the annual increase in land tax is mainly binding in the Copenhagen area, and land taxes will therefore increase for shorter or longer periods in future, whereas this is not the case in many peripheral areas.

This means that there has been no or little consistency between price developments and tax payments, so, like property value tax, land tax has not had a stabilising effect on the housing market. When house prices were falling in the years before and after the financial crisis, land tax

payments went up, driving prices further down. Land tax currently has a small stabilising effect, however.

Overall, it can be said that housing taxation in Denmark is inappropriate from an economic stability perspective, including financial stability. Redressing this situation should be given priority and be a core element in the design of future housing taxation.

