

# NEWS FROM NATIONALBANKEN

## HIGHER INDEBTEDNESS OF HOMEOWNERS IN MAJOR CITIES

Many new housing loans in Copenhagen and Aarhus are granted to borrowers with loan-to-income, LTI, ratios of more than 4. An analysis by Danmarks Nationalbank shows that the homeowners' level of indebtedness in Denmark's two largest cities is approaching the level prior to the financial crisis.

The share of new loans in Copenhagen and Aarhus with an LTI ratio of more than 4 rose

substantially from 2004 to 2006, but then fell back from 2007 to 2013. Households with large variable rate loans relative to income are more vulnerable to changes in interest rates.

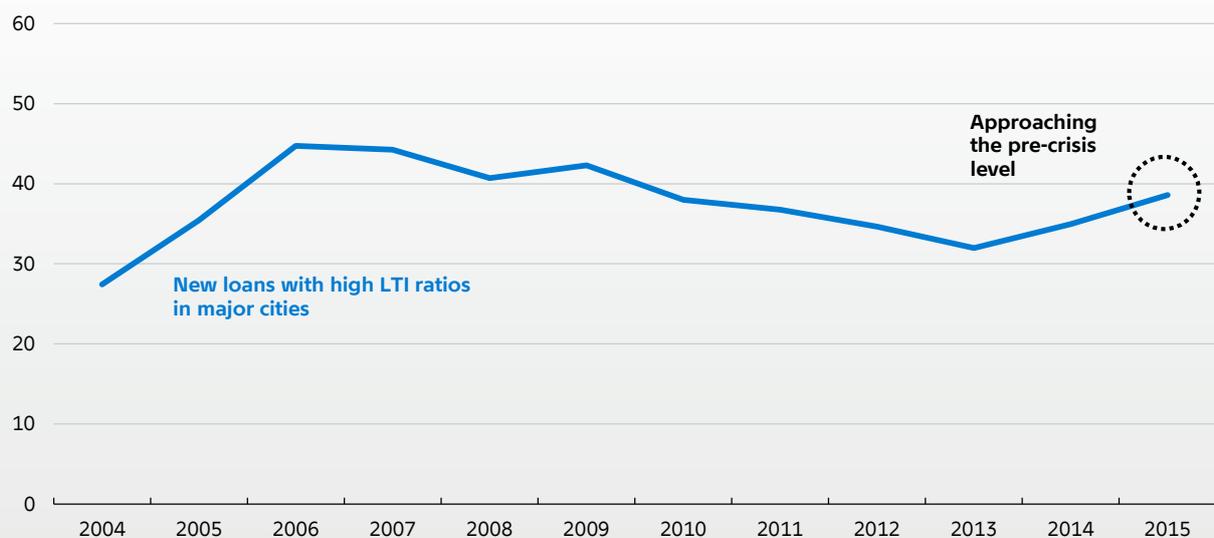
### A high level of indebtedness may impact financial stability

If some borrowers become unable to service their debt, this may entail losses for credit institutions,

Relatively more borrowers in the cities raise loans with high LTI ratios

Chart 1

Share of new loans with an LTI ratio of more than four, per cent.



Note: New loans are defined as loans for home purchase as well as additional loans raised against the family's home equity in a given year. Remortgaging where no extra loans are raised is not included. Data estimates for 2015.

Source: Statistics Denmark, Danish mortgage banks and own calculations.

thereby affecting financial stability. A high level of indebtedness may also prompt borrowers to reduce their consumption relatively more in an economic downturn than borrowers who is less indebted. Hence, a high level of indebtedness may also have an impact on macroeconomic stability.

The share of new loans granted to borrowers with an LTI ratio of more than 4 was high in 2015, but debt servicing is currently less expensive for borrowers than it was in the years up to the financial crisis, when the level of interest rates was substantially higher.

If house prices continue to soar in Copenhagen and Aarhus, it is important that credit institutions do not ease their credit standards. Otherwise, some of their customers would be so financially strained that they would not be able to meet an increase in interest rates from the current low level.

How the share of borrowers with high LTI ratios develops in the coming years will depend on whether credit institutions observe the guidelines laid down by the Danish Financial Supervisory Authority, but also on developments in house prices and in homeowners' incomes.

### **Risk that more homeowners will become heavily indebted**

Danmarks Nationalbank has constructed two scenarios for developments in house prices and household income towards 2018. A baseline scenario reflecting Danmarks Nationalbank's latest projection of the economy, and a scenario with continued strong house price increases.

In the baseline scenario with moderate growth in house prices and incomes, up to 40 per cent of all new loans in Copenhagen and Aarhus will have high LTI ratios in 2018. But a combination of continued strong house price increases in Copenhagen and Aarhus and easing of credit standards by institutions could mean that up to 55 per cent of new loans will be granted to heavily indebted households.

In other words, there is a risk that the share of heavily indebted homeowners could rise to a considerably higher level than previously seen.

**For further information, see 'Development and trends' in Financial stability, 2nd half 2016**

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## RISK OF PRICE FALLS FOR OWNER-OCCUPIED FLATS IN COPENHAGEN

Prices for owner-occupied flats in Copenhagen have reached a high level relative to incomes and interest rates. Hence, there is a considerable risk that if the real price rises seen in recent years continue, they will be followed by falls of the same magnitude.

That is the conclusion in a new analysis by Danmarks Nationalbank.

A rising population, low interest rates, higher incomes and sluggish adaptation of the housing stock are all driving up prices, but the question is whether these factors can explain current developments. A new model of the price level for owner-occupied flats in Copenhagen offers an answer. The model shows that the current

price level cannot be fully explained by historical relations.

### **Copenhagen is more vulnerable**

The analysis also shows that interest rate sensitivity is higher among homeowners in Copenhagen than in the rest of Denmark. As a result, the Copenhagen housing market is more vulnerable to sudden interest rate rises. The combination of high interest rate sensitivity and housing prices that are high relative to e.g. incomes and interest rates increases the risk that even a small increase in interest rates could trigger price falls.

Since the upswing began to gain momentum in 2012, price increases have exceeded 10 per

cent p.a. for owner-occupied flats in Copenhagen, while they have been a little smaller for houses. At the same time, sales activity have been high.

There is every reason to keep an extra eye on developments in the Copenhagen housing market, as it tends to set the course for the rest of Denmark.

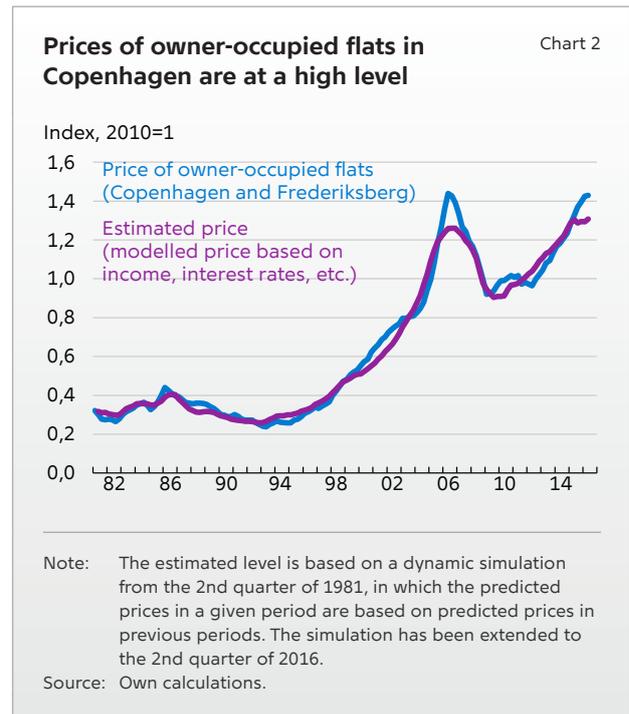
### Lagged ripple effect on the rest of Denmark

Whereas prices for homes in Copenhagen environs more or less mirror those in the City of Copenhagen, there is a lagged pass-through of price changes of around one year to e.g. Southern Denmark.

The further away from the cities a home is located, the longer the lag and the smaller the impact.

With a population of 1.8 million, the Capital Region is the largest of Denmark's five regions. Over the last seven years, the population of Copenhagen has grown by approximately 1,000 per month, mainly because of an excess of births and because many foreigners choose to live in Copenhagen.

Migration towards the cities has been going on for many years, but this is not the only reason why house prices are rising more rapidly in Copenhagen than in the rest of Denmark. Owner-occupied dwellings make up only a very limited share of the total housing stock in the municipalities of Copenhagen and Frederiksberg. In other words, only a small share of the total number of homes can be sold freely in the market, and these are the homes that determine the price level. The possibilities of meeting the increased demand for housing in other ways are limited due to factors such as ex-



tensive public regulation of e.g. cooperative and rental housing. This is reflected in the prices of owner-occupied dwellings, which are pushed up further when there is strong demand for housing in the capital – and vice versa when demand is low. For this reason alone, price fluctuations are greater than in the rest of Denmark.

**For further information, see 'Regional aspects of the housing market' in Monetary Review, 4th Quarter 2016.**

## PROSPERITY GROWTH IN DENMARK IS AMONG THE HIGHEST

Prosperity in Denmark has risen more markedly than previously assumed, and growth over the last 15 years is now stronger than in both the USA and the UK. That is the result of new calculations made by Danmarks Nationalbank in continuation

of Statistics Denmark's extraordinary revision of the national accounts this autumn.

The measure used for prosperity is gross national income (GNI) per capita for the population, adjusted for terms of trade. The difference

between this measure of prosperity and GDP is, basically, that the former provides information about the purchasing power of the income, while the latter provides information about the goods and services produced in Denmark (less inputs).

Both GNI and GDP have been adjusted substantially upwards in the revised figures from Statistics Denmark. The revision primarily reflects a revision of the balance of payments figures, in which calculation of exports is based on a change of ownership principle so that goods which do not cross the Danish border are also included.

In the revised accounts, such transactions have been incorporated more fully than previously, and consequently exports in 2015 have been revised upwards by almost kr. 60 billion, while imports have been lifted by approximately kr. 30 billion.

The revised national accounts also show that real growth in GDP has been somewhat stronger than previously assumed since the financial crisis in 2008-09. Average annual GDP growth now stands at 1.5 per cent for the period 2010-15, up from 0.8 per cent before the revision. The new figures are more in line with the recovery in the labour market seen since the 1st half of 2013, during which period private sector employment has risen by 125,000 persons.

The revision of GDP growth underscores that it is not enough simply to look at GDP figures when taking the temperature of the Danish economy.

**For further information, see 'Current economic and monetary trends' in Monetary Review, 4th Quarter 2016.**

