

Interest Only Expiry

July 2013



Regulation on Interest Only



Regulation requires residential borrowers to amortise within 30 years even if the loan to value ratio is below the regulatory maximum of 80 percent

Exemption to allow for interest only for 10 years was introduced in 2003

Exemption was expanded to allow for interest only for the full maturity of the loan provided a maximum loan to value of 70 percent in 2007

Mortgage banks are required by regulation to consider the long term market value of the pledged property in setting the amortisation profile

Mortgage banks are allowed to offer borrowers the possibility to refinance into a 30 year mortgage irrespective of loan to value

Refinancing a +80 percent loan to value mortgage into an interest only mortgage is in breach with requirement to consider the long term value of the pledged property, according to FSA ruling in 2013

Realkredit Danmark Underwriting Policy

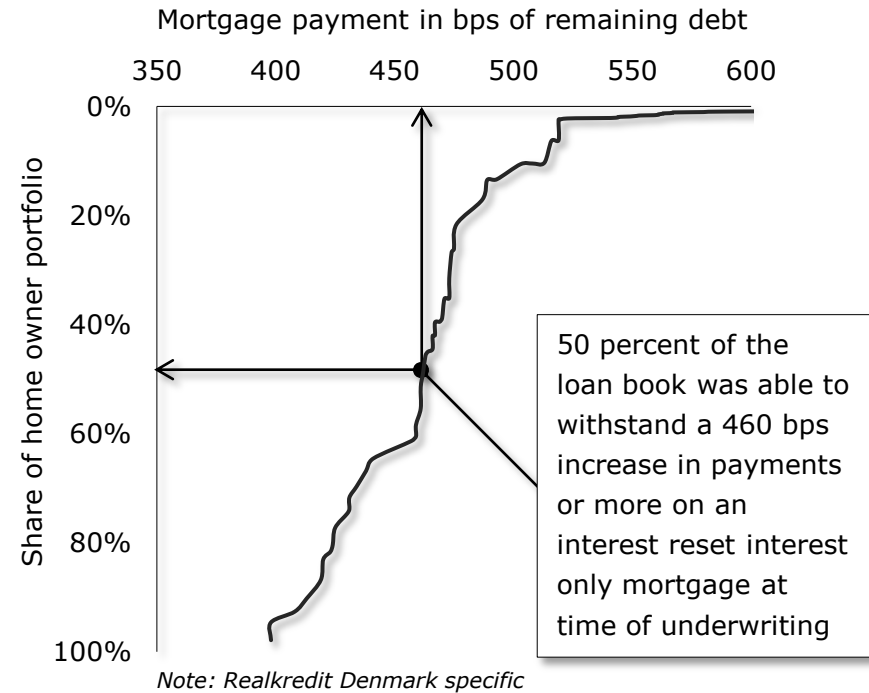
Standard underwriting policy for residential segments requires borrowers to be able to service a 30 year amortising fixed-rate mortgage

The ability to service a mortgage is established on the basis of documented income, expenses, assets and liabilities retrieved from tax authorities

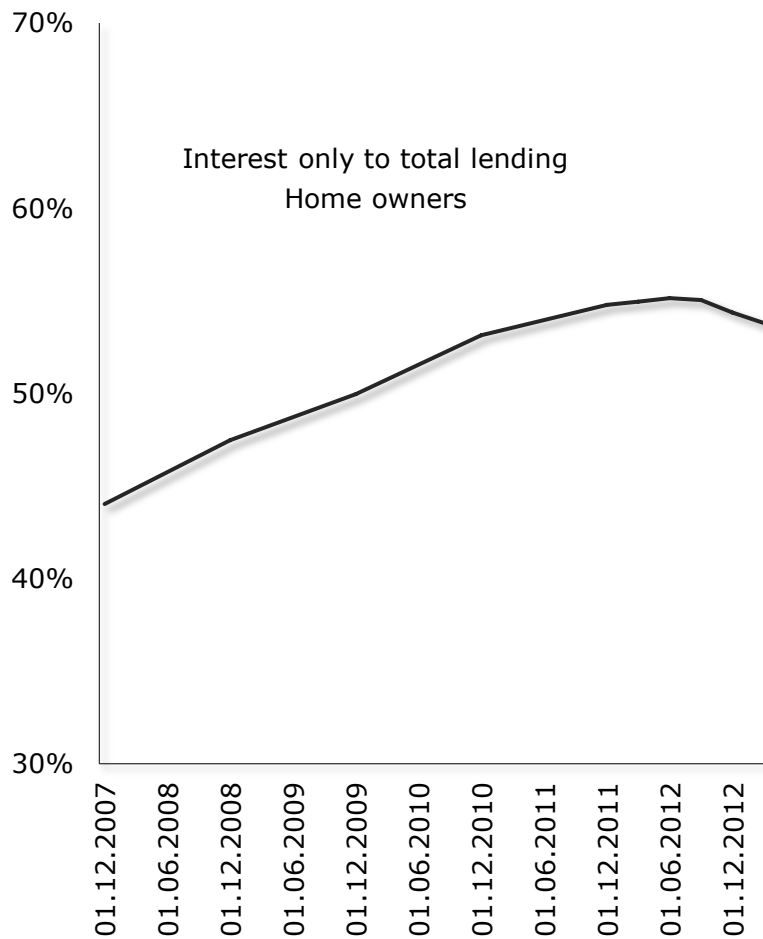
Once servicing ability is established borrowers are advised on all mortgage products including interest reset and interest only options

Borrowers are contacted at least six months before interest only expiry and advised on options with respect to refinancing

The chart plots the accumulated distribution of home owners ranked on their ability to afford an increase in mortgage payments over current payments on an interest only interest reset every year mortgage, based on underwriting



Interest Only Volumes



Note: Realkredit Denmark specific

Since 2003 the volume of interest only mortgages has grown rapidly and, today, 54 percent of home owner mortgages are interest only

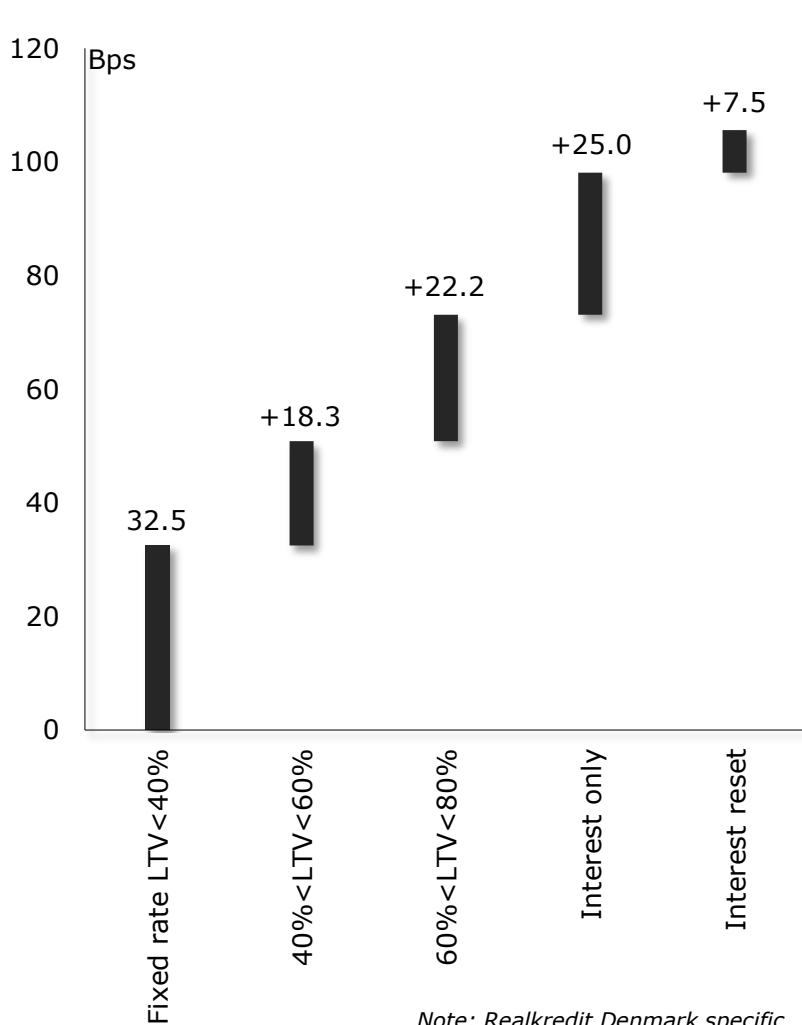
During the crisis years interest only mortgages, no doubt, softened the impact of the crisis on Danish home owners

Concerns has been raised that interest only has become too widespread in light of the indebtedness of home owners

Since mid 2012 interest only to total lending has dropped by 134 bps

Realkredit Danmark encourages borrowers to amortise but advice is given on paying off more expensive debt first

Margins Encourages Borrowers to Amortise



Note: Realkredit Denmark specific

Realkredit Danmark has adapted its' margin structure to encourage borrowers to amortise and to align earnings with inherent risks

Interest only triggers an additional margin of 25 bps and an indexed loan to value ratio in excess of 60 percent will trigger an additional margin of 22.2 bps

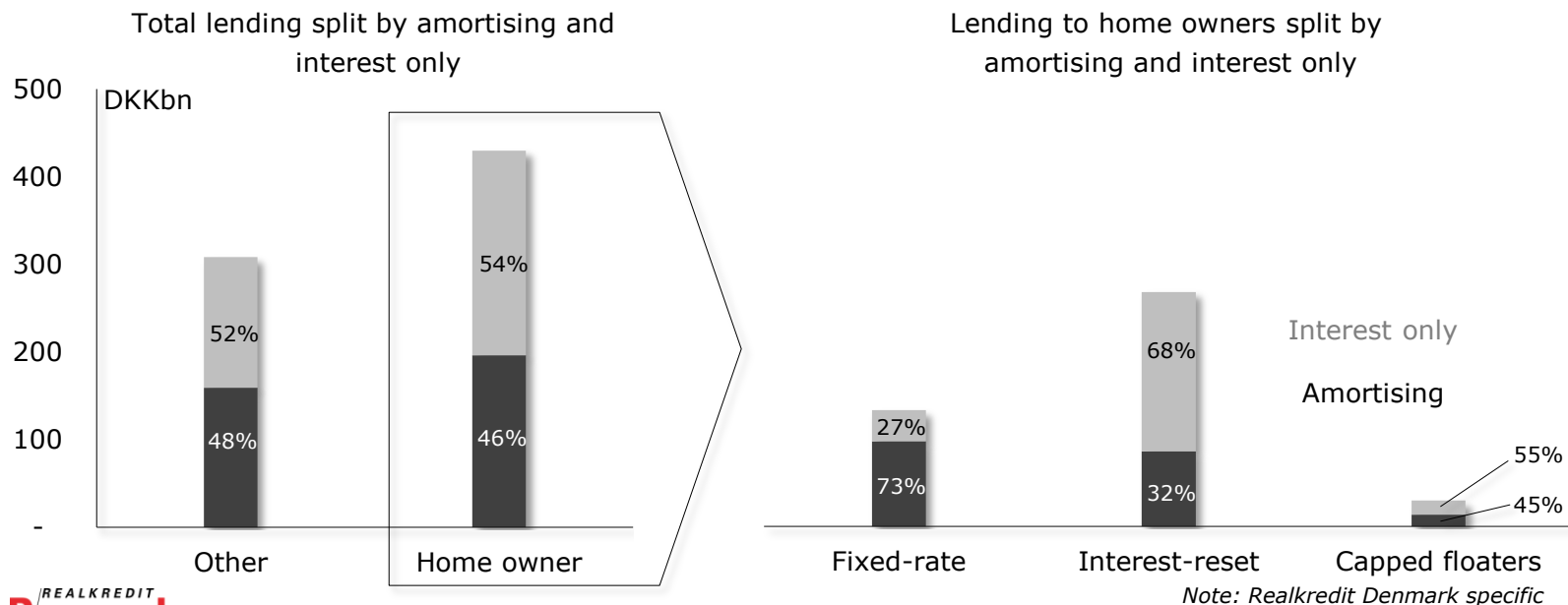
The margin structure is transparent to the borrower and margins are collected separately on top of interest payments

Interest Only and Exposure to Interest Rates

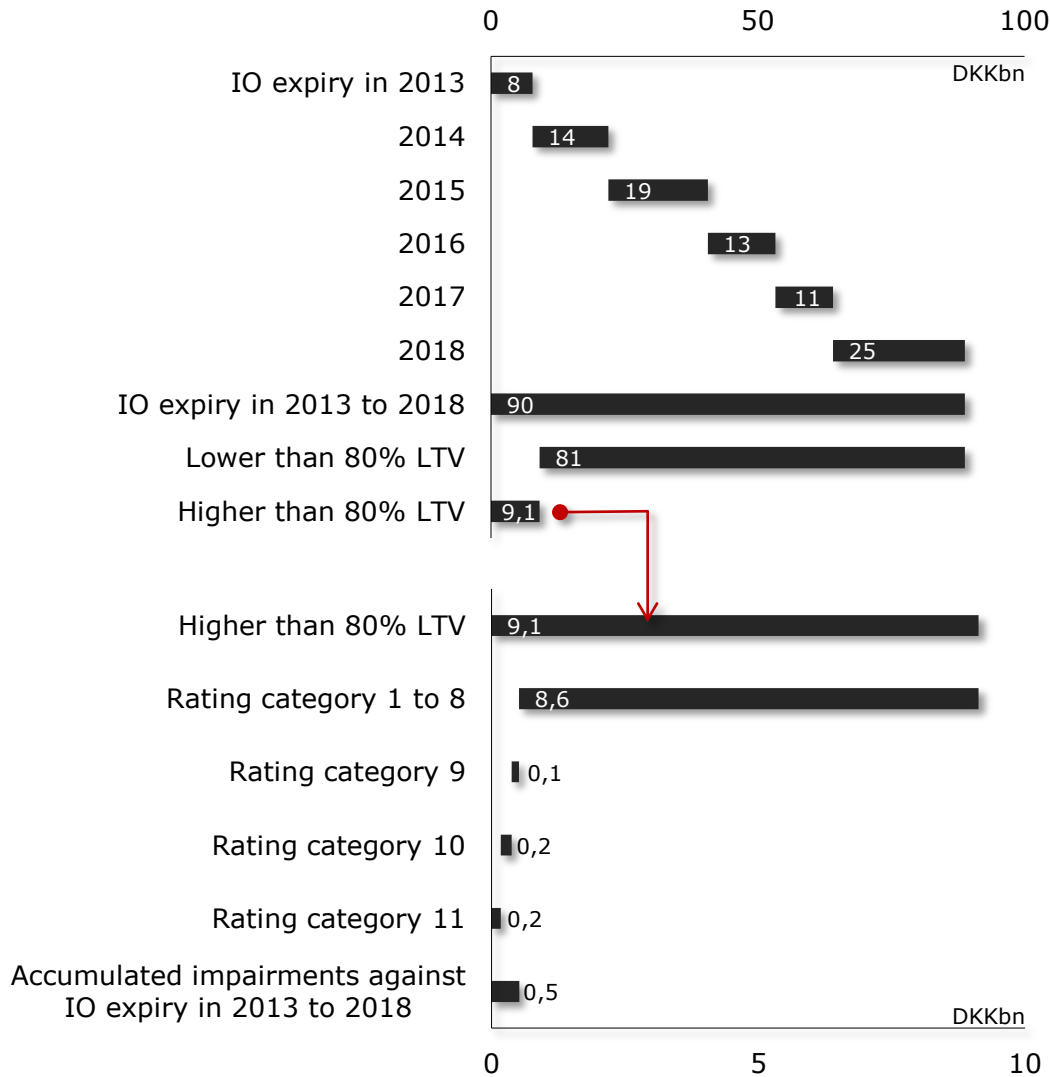
Interest only is more prevalent on interest-reset and capped floating-rate mortgages than on fixed-rate mortgages which reflects both borrower preferences and interest only funding costs

A double impact on borrower ability to service his mortgage would occur if interest only periods were to expire at the same time as interest rates were on the rise

In our analysis borrowers should be able to both amortise and pay higher interest rates, see p9



Interest Only Expiry Volumes



Ten year interest only periods will expire from 2013 onwards with expected peaks in 2015 and 2018

Mortgages in volume of DKK90bn are expected to see interest only expire during the period

DKK81bn is secured by lower than 80 percent loan to value

Of the remaining DKK9.1bn with a loan to value higher than 80 percent DKK0.4bn fall into rating categories 10 or 11

This compares to accumulated impairments on interest only mortgages which will see interest only expire during 2013 to 2018 of DKK0.5bn, of which DKK0.1bn are collective impairments

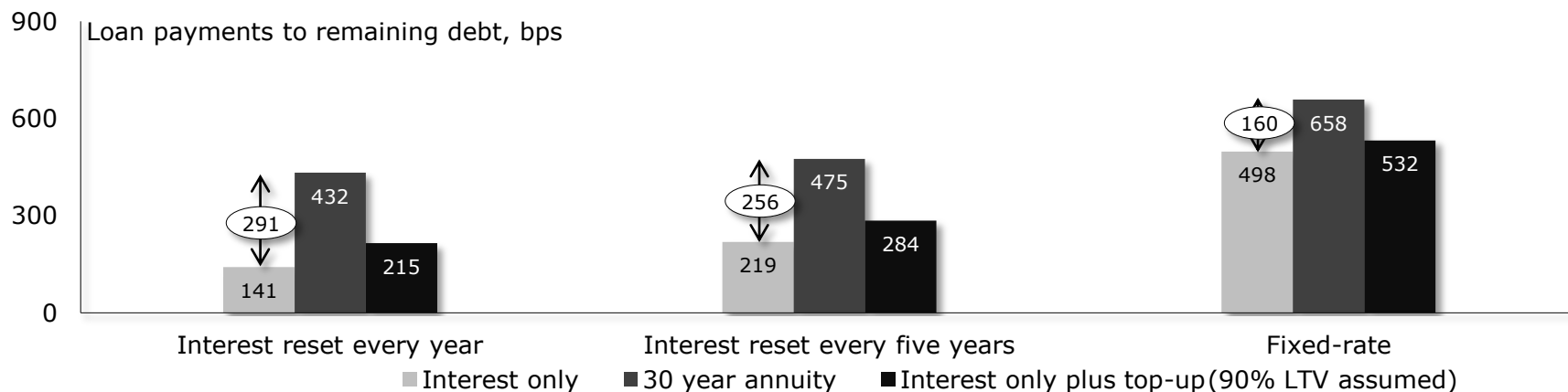
Interest Only Expiry Options

Borrowers face three options when interest only expires;

- Amortise as planned
- Refinance into a 30 year amortising mortgage
- Refinance remaining debt in the 0 to 80 percent loan to value range into new interest only mortgage plus top-up refinancing from universal bank (subject to credit approval)

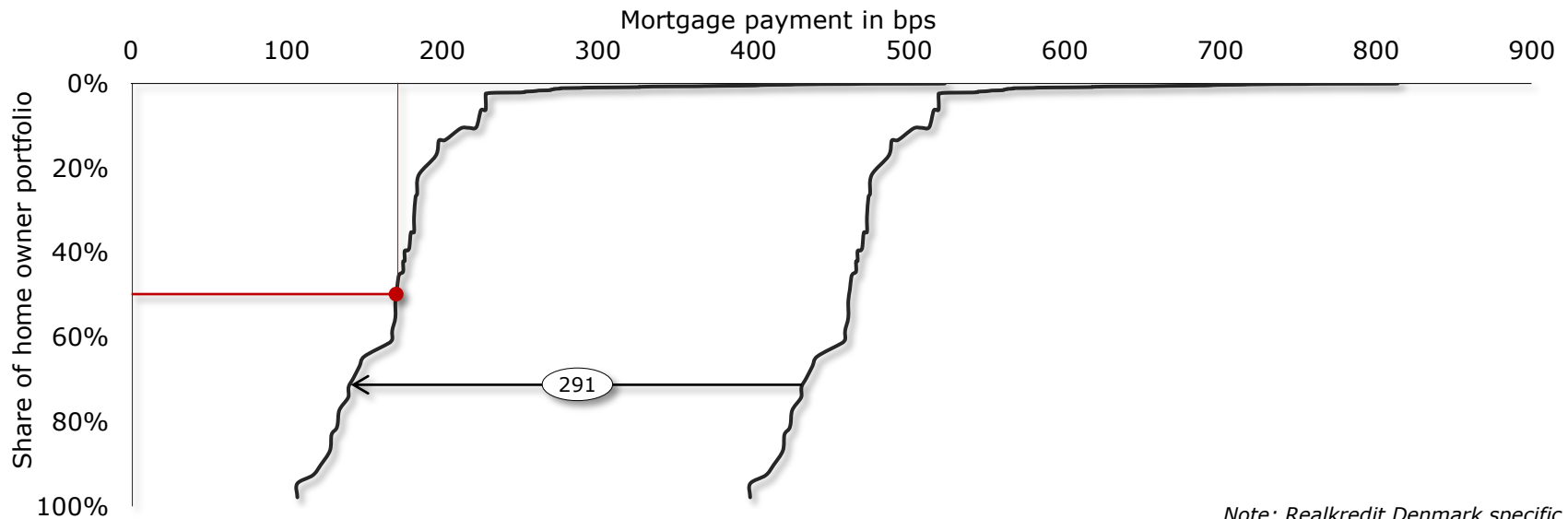
Refinancing into 30 year amortising mortgage will grow payments by 160 bps for a fixed-rate mortgage or 291 bps for an interest reset every year mortgage

This leaves borrowers with ample room to shoulder higher interest rates based on underwriting policy, see chart in p9



Note: Realkredit Denmark specific
p8

Borrower Affordability Post Interest Only Expiry



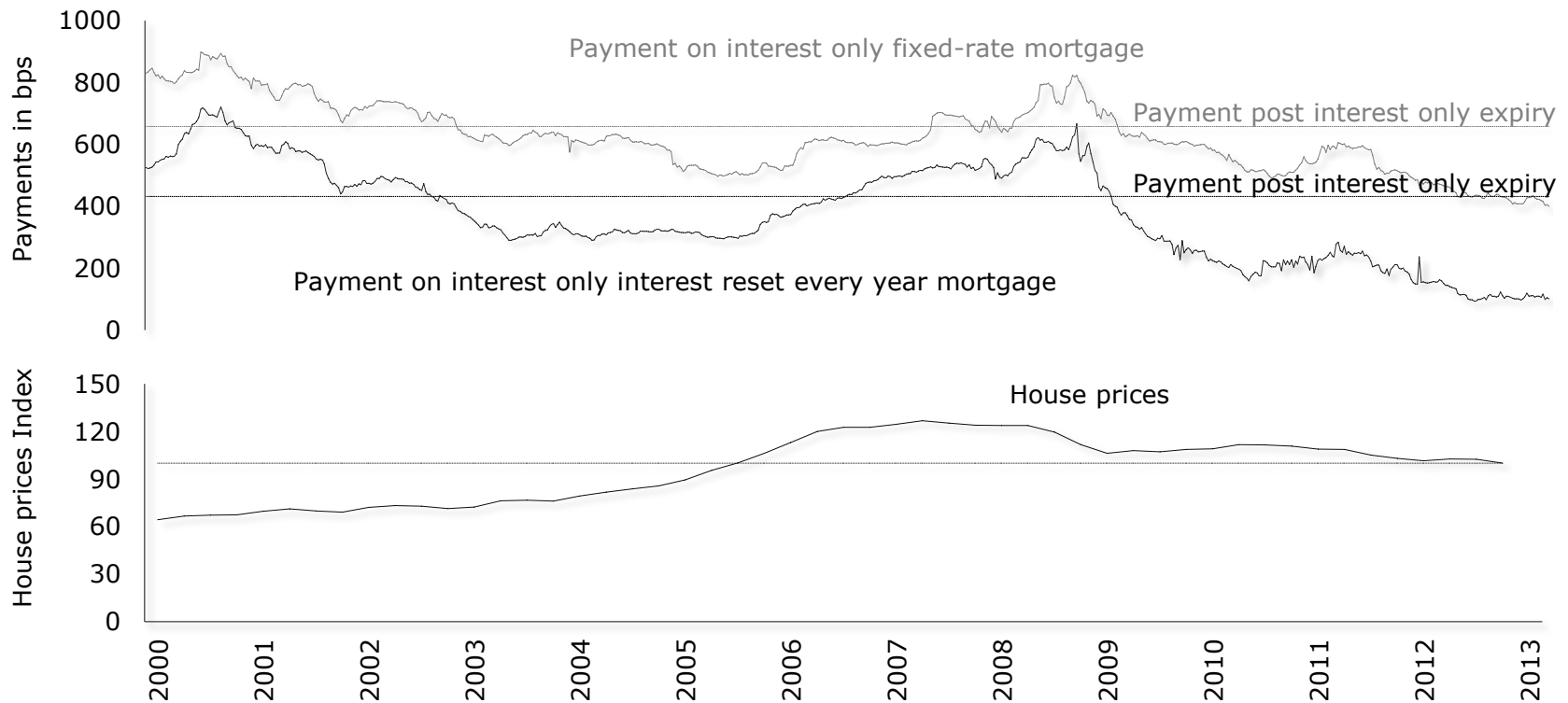
Interest only expiry will trigger a 291 bps in payments on interest reset every year mortgages, see chart in p8

Post interest only expiry median borrowers will be able to afford an additional increase in payments of 170 bps (indicated by the red lines) → This is equivalent to a **280 bps** increase in interest rates from current levels since the effect on payments from higher interest rates is partly offset by lower redemptions

The 'worst off' borrowers will be able to afford an additional increase in payments of 107 bps → This is equivalent to a **185 bps** increase in interest rates from current levels

Proven Record of Borrower Affordability

- Payments on interest only mortgages exceeded payments post interest only expiry on interest reset every year mortgages from 2006 to 2009 and on fixed-rate mortgages from 2007 to 2009 → Borrower affordability well proven
- The 2006 to 2009 period coincides with the peak in property prices → Majority of current high loan to value mortgages were underwritten when payments were higher than payments post interest only expiry



Ministry of Business and Growth Analysis based on Current Income

Debt expenses in households with expiry of interest-only and high ratio of loan-to-value

In the period from 2013 an increasing number of households must begin repayment of their mortgage debt or convert their existing interest-only loan to a new interest-only loan. A conversion of the entire mortgage debt into a new interest-only loan requires, that the total mortgage debt represents a maximum of 80 percent or less of the property value. The purpose of this analysis is to examine the group of households whose interest-only expire either on all or part of their mortgage loans, and having a mortgage debt representing more than 80 percent of their property value - i.e. the group of households, who cannot convert their entire mortgage debt into a new interest-only loan.

The results indicate that the vast majority of this group of households will be able to begin repayment of their mortgage debt. Overall, in the period from 2013 to 2019, 80 percent of these households will continue to spend less than half their after-tax income on servicing their total mortgage debt even if repayment begins.

In 2013, there will be about 300 households who are going to spend more than half their disposable income on servicing their total mortgage debt if they start paying installments on their mortgages. In 2019, assuming that property prices remain unchanged, the number of households increases with almost 7,000. These 7,000 households represent a total mortgage debt of approximately 15 billion DKK equivalent to 1.1 percent of mortgage debt in owner-occupied homes and holiday homes.

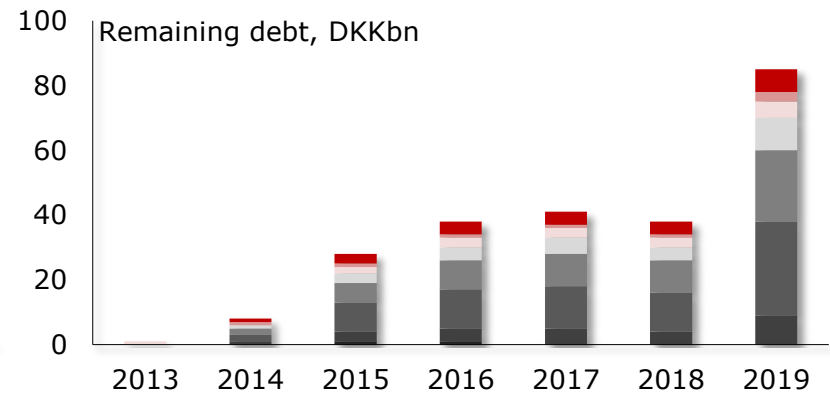
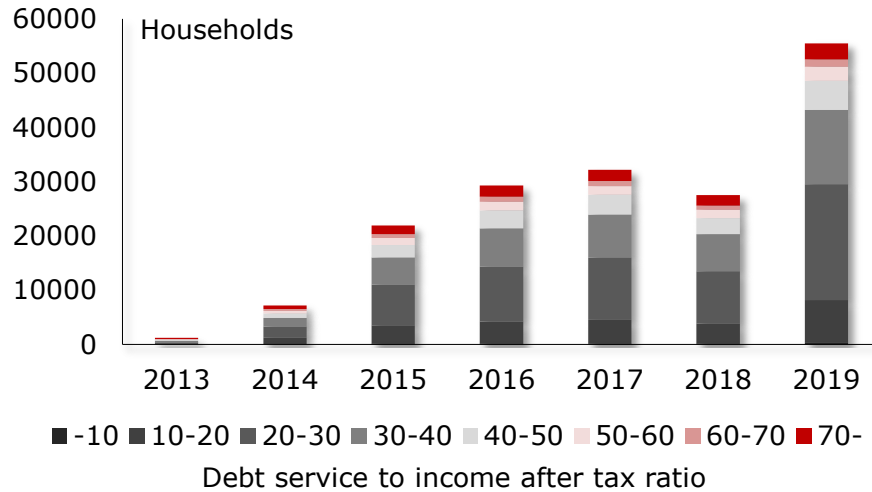
If in the period up to 2019 property prices were to increase by for example 1.5 percent per year, i.e. approximately in line with consumer prices, in 2019 there will be about 3,500 instead of 7,000 households, with a ratio of loan-to-value higher than 80 percent. These 3,500 households whose interest-only expire must spend half or more of their after-tax income on servicing their total mortgage debt, if they start paying installments.

Side 1 af 3

- Ministry of Business and Growth has analysed home owner affordability post interest only expiry
- The analysis compiles income tax data from 2010 with data on debt and interest expenses from all mortgage and universal banks from 2011
- Data are specific for each home owner in Denmark. The analysis comprise a total of 600,000 home owners with an interest only mortgage
- For each home owner a debt servicing expenses on housing debt to income after tax is calculated post interest only expiry
- The volume of debt with a loan to value ratio in excess of 80 percent and a debt servicing to income ratio in excess of 50 percent is calculated at **DKK48bn** which compares to total mortgage debt of DKK1,776bn, see p12
- A summary of the analysis is available on <http://www.evm.dk/~media/oem/pdf/2013/2013-publikationer/09-04-13-analyse-af-afdragsfrihed/afdragsfrihed-indledning-og-resume-uk-version.ashx>

Ministry of Business and Growth Analysis based on Current Income

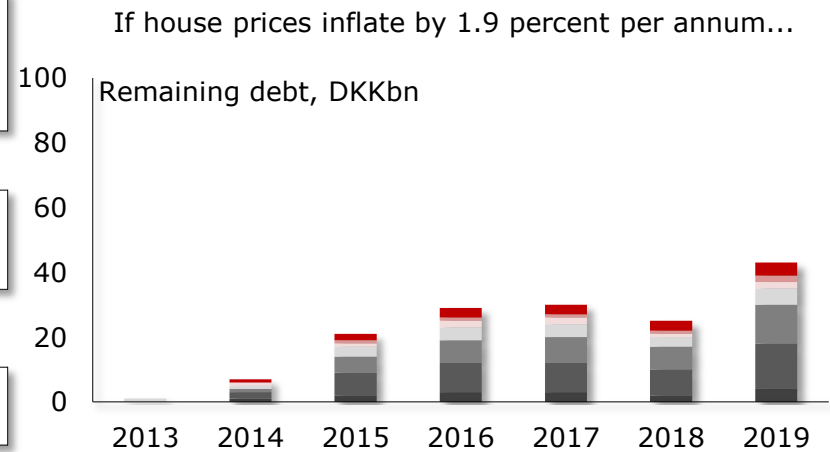
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Charts indicate housing debt servicing to income after tax ratios post interest only expiry for >80 percent loan to value mortgages assuming constant or inflating house prices

Based on its' analysis the Ministry finds the scenario of interest only expiry manageable for the property market

Charts include all mortgage banks



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