

Mortgage-credit institutions

# Market developments 2016

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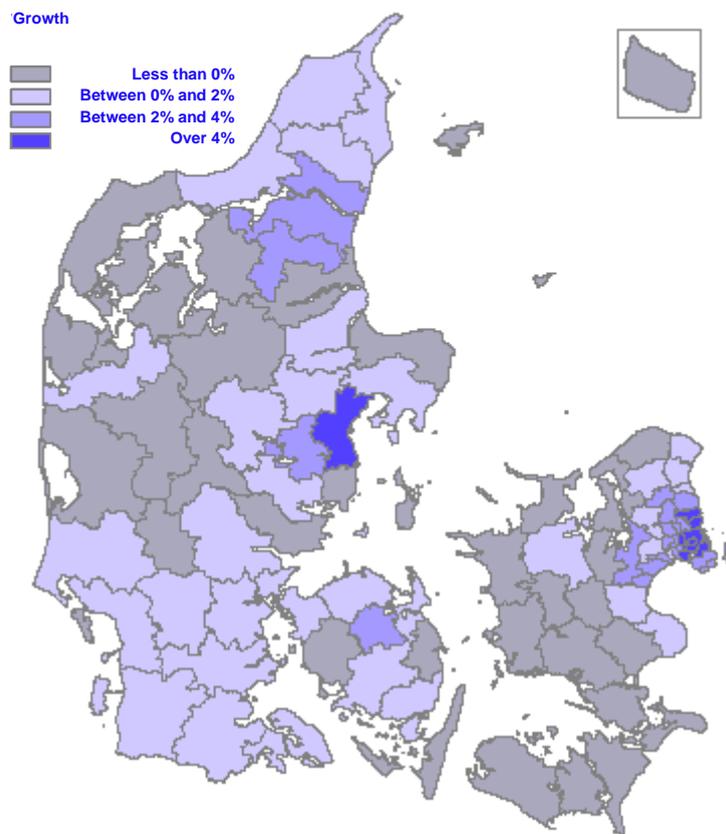
## Market developments in 2016 for mortgage-credit institutions

### 1. Summary

Loans for home purchases are the largest personal finance item for most homeowners. The Danish mortgage-credit system is a robust, central source of financing for homes and properties for both families and businesses. Low interest rates, high housing prices in some parts of the country and a general improvement in the economy have boosted demand for mortgage-credit loans. Lending rose and mortgage-credit institutions improved their earnings in 2016.

Mortgage-credit lending rose by 2.6% in 2016. The increase is therefore higher than the average rate of increase of 1% per annum over the past five years. Rising lending entails rising risks, for example if interest rates go up and/or housing prices go down. Lending generally increased most in 2016 in the areas in which housing prices also increased.

### Growth in lending focused on major towns and cities with rising housing prices



Note: The figure shows growth in lending from Q4 2015 to Q4 2016.  
Source: Own calculations based on reports to the Danish FSA.

Rising lending also results in rising income. Income covers day-to-day operations but can also be used as additional protection against unforeseen losses. Administration margins have increased in recent years and increased in 2016 as well.

In recent years, institutions have introduced different administration margin rates for different loan types in an attempt to divert borrowers from risky loans towards less risky loans, for

example loans with a fixed interest rate and fixed amortization. Diverting borrowers from risky loans with higher administration margin rates to loans with lower administration margin rates may result in lower administration margins for institutions in the long term.

Floating-rate loans continue to make up the majority of mortgage-credit institutions' total lending. 65% of loans were floating-rate loans in 2016. However, the trend is towards more fixed-rate loans, while the proportion of loans with repayments is increasing.

The changes in the proportions of loan types are following the intention behind the Danish FSA's supervisory diamond for mortgage-credit institutions, which was partly to limit interest-only loans and floating-rate loans in mortgage-credit institutions' portfolios. The supervisory diamond, which enters into force from 2018, aims to make borrowers and mortgage-credit institutions more robust.

The capital position of mortgage-credit institutions improved in 2016. At the end of 2016, the total capital ratio was 23.6%.

An expert committee published a report on transparency and mobility on the mortgage-credit market in September. The report has been reflected in a bill with two central elements, notice of price rises and the option to switch institutions if the loan-to-value limit has been exceeded.

The low interest rates that persisted in 2016 caused the mortgage-credit sector to specify loan terms and bond terms in such a way that the balance principle and the durability of the business model are safeguarded in the future in the event of negative interest rates.

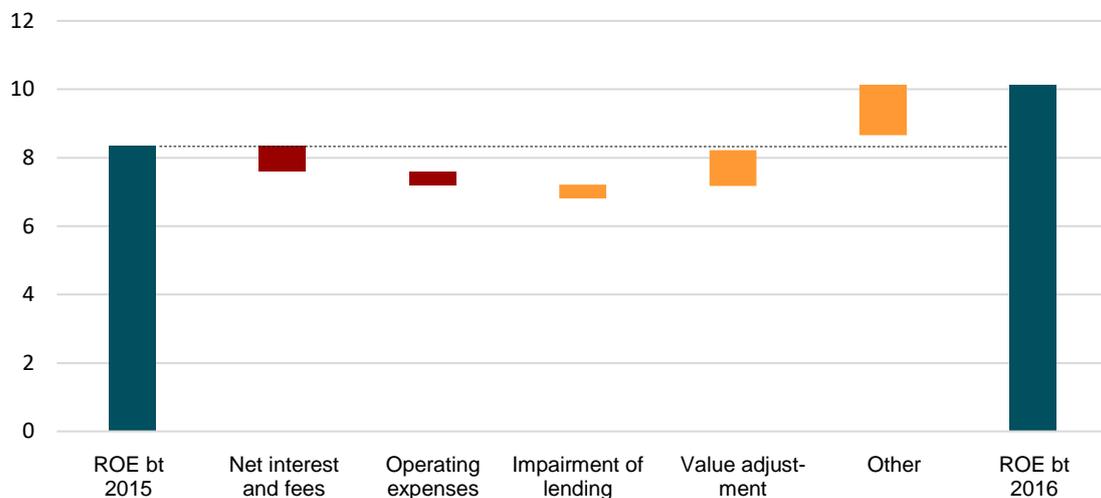
## 2. Main trends in the financial statements of mortgage-credit institutions

Mortgage-credit institution earnings increased in 2016. Improvements in business were driven in particular by value adjustment and lower impairment than in the previous year.

In 2016, mortgage-credit institutions generated profits before tax of DKK 18.9 bn. This is an increase of DKK 4.3 bn. compared with 2015, when the profit before tax was DKK 14.6 bn. The increase is due partly to a fall in impairment of intangible assets and property, plant and equipment in 2016. This item is not part of core business and is also attributable to just one institution. If the profit in 2016 is corrected for depreciation, amortisation and impairment of intangible assets and property, plant and equipment, the profit before tax is DKK 16.9 bn., an increase of DKK 2.3 bn.

**Figure 1: Return on equity improved in 2016**

Change in relation to equity in percentage points

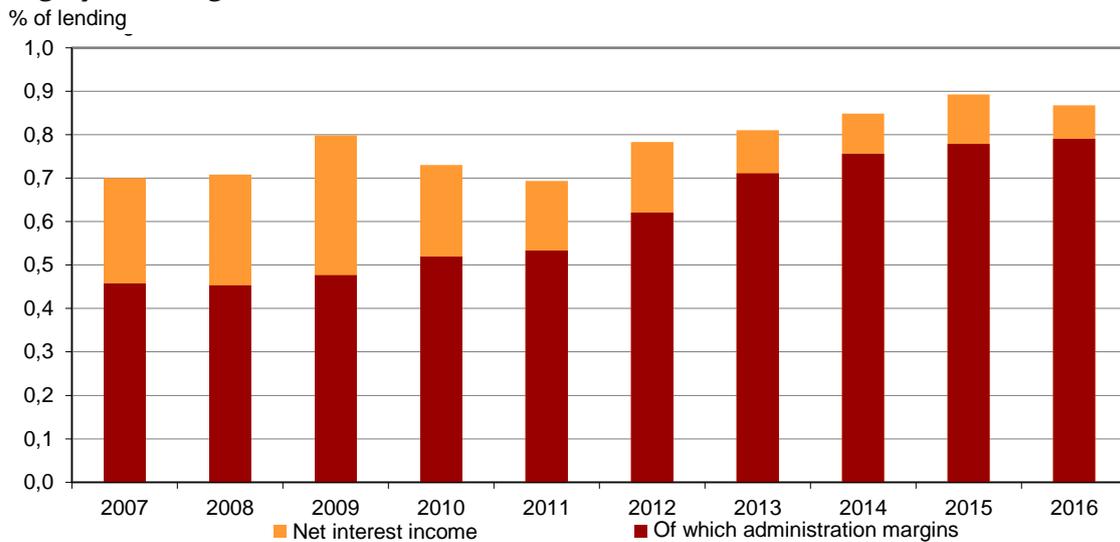


Note: The figure shows the return on equity before tax (ROE bt) and the factors that affected return on equity from 2015 to 2016. Red indicates a negative contribution and yellow a positive contribution. 'Other' includes impairment of intangible assets and property, plant and equipment.

Source: Own calculations based on reports to the Danish FSA.

Mortgage-credit institutions' primary source of income is administration margins, and this item is included in net interest income. Net interest income was largely unchanged from 2015 to 2016, bucking the rising trend. In relation to lending, total net interest income decreased as a result of increasing lending. In 2016, net interest income amounted to 0.87% of total lending, against 0.89% in 2015. Administration margins have accounted for an increasing proportion of net interest income since 2008 and this continued to rise in 2016, although the rate of increase fell, see figure 2.

**Figure 2: The proportion of net interest income from administration margins was largely unchanged in 2016**

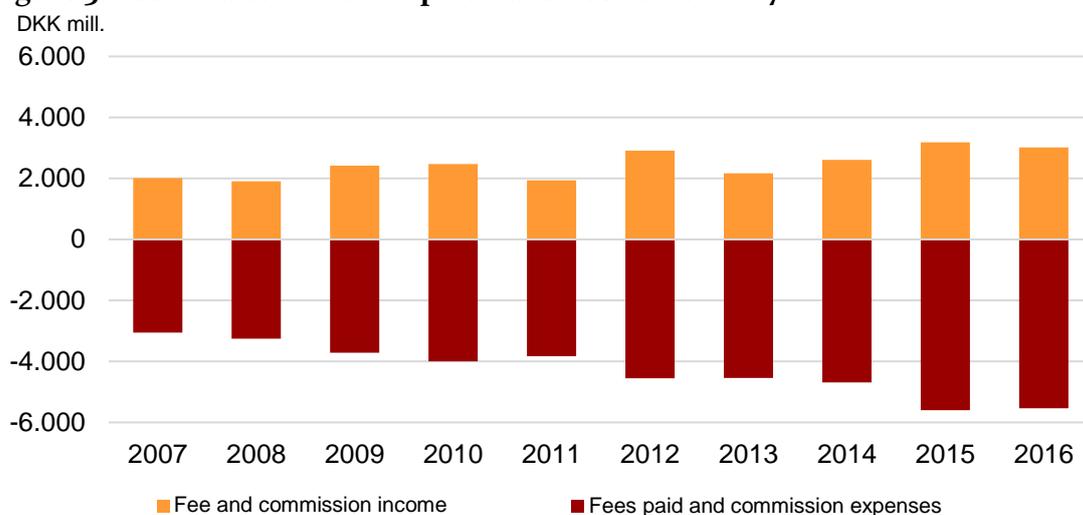


Note: Mortgage-credit institutions' net interest income is primarily attributable to securities activities as part of the investment of equity, and administration margins, which are a percentage of borrowers' outstanding debt.  
Source: Reports to the Danish FSA.

Recent years have seen administration margin rates vary according to loan types. This variation is based to a certain extent on an attempt to divert customers to less risky loans. Diverting customers from risky loans with higher administration margin rates to loans with lower administration margin rates may result in lower administration margins in the long term.

In addition to administration margins and interest, borrowers also pay commission when they take out a mortgage-credit loan. The commission when loans are taken out often accrues to banks because they act as brokers and undertake some administration for mortgage-credit institutions. The mortgage-credit institutions pay more in commission to banks than they receive. In 2016, mortgage-credit institutions had net fee expenses of DKK 2.5 bn., most of which was commission. This is an increase of 5%.

**Figure 3: Fees and commission paid have risen since 2007**



Source: Reports to the Danish FSA.

Fee and commission expenses paid have risen since 2007, while fee and commission income received has not risen accordingly. Consequently, mortgage-credit institutions have experienced rising net fee and commission expenses, see figure 3. However, the total items for fees and commission fell in 2016 despite rising lending.

Net interest income fell in 2016. Total net interest and fee income was DKK 21.2 bn. in 2016 against DKK 21.4 bn. in 2015. This equates to a fall of 0.8%.

The profits from subsidiaries (participating interests) and others made a positive contribution of DKK 3.2 bn. to profit in 2016. In principle, this concerns one institution in which the profit on the participating interest in the subsidiary makes a positive contribution. See Appendix 2 for institution-specific items.

Value adjustments resulted in a gain of DKK 0.8 bn. in 2016 against a loss of DKK 1.1 bn. in 2015. The positive contribution to value adjustments was derived primarily from the bond portfolio.

Mortgage-credit institutions' total lending rose to DKK 2,721 bn. in 2016, an increase of 2.6% on 2015. Lending to private individuals accounted for 61%, while corporate segments accounted for 39%.

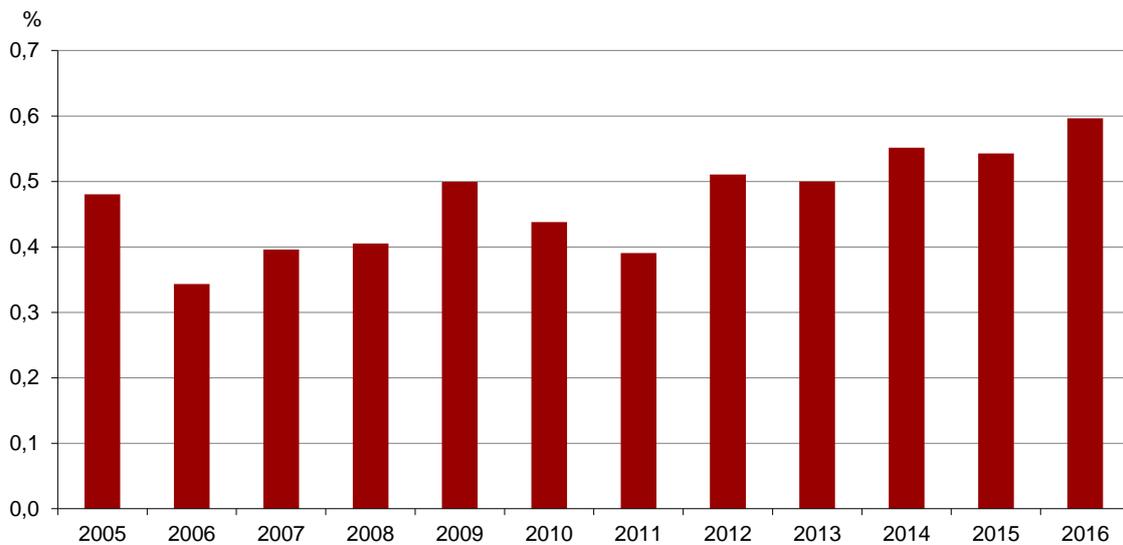
#### *Core earnings*

Core earnings in relation to lending were 0.60% in 2016 against 0.54% in 2015, see figure 4. Thus, in light of the historical losses of 0.06%, mortgage-credit institutions have a significant first buffer to counter credit losses.

Core earnings are mortgage-credit institutions' profits before impairment, value adjustments and profit on participating interests. Core earnings should be able to cover the expected losses on lending activities such that only large unexpected losses need to be absorbed by equity. Core earnings must also produce a return on equity.

Compared with banks, mortgage-credit institutions are generally characterised by having lower core earnings in relation to lending. This is partly due to the fact that credit losses in mortgage-credit institutions have been lower historically than the credit losses of banks. Over the past 20 years, impairments by mortgage-credit institutions have averaged 0.06% of total lending, against 0.6% for banks in the same period.

**Figure 4: Core earnings in relation to lending rose in 2016**



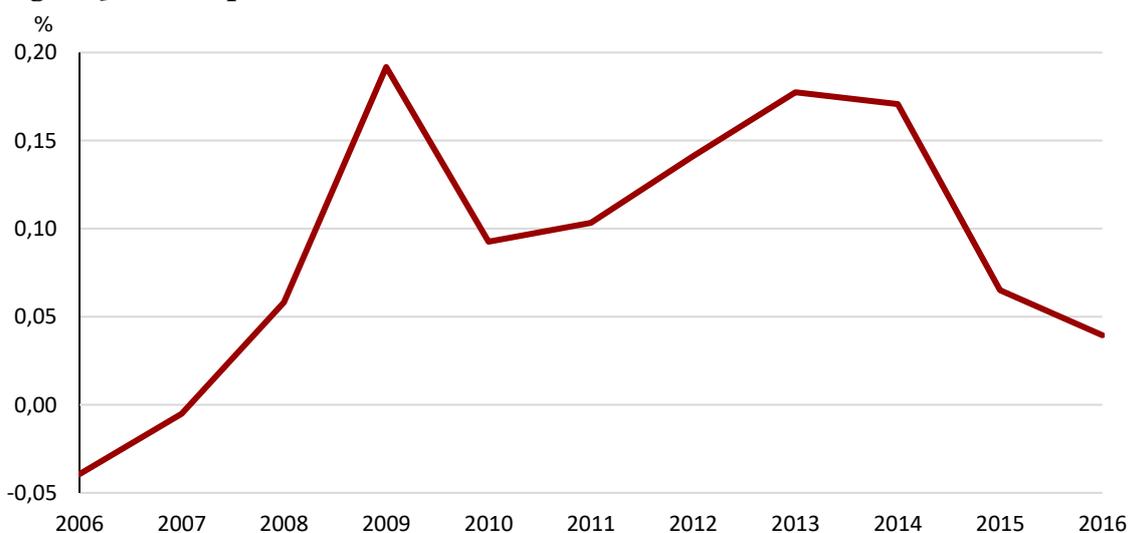
Note: The figure shows a weighted average of mortgage-credit institutions' core earnings measured against lending. Core earnings contain all income statement items apart from impairment of lending, value adjustments and profit on participating interests.

Source: Reports to the Danish FSA.

### *Impairment*

The impairment loss ratio has fallen. Impairment of lending by mortgage-credit institutions fell to DKK 1.2 bn. in 2016, a fall of DKK 0.7 bn. on 2015. The lower impairment is partly due to low interest rates and increasing housing prices. The increasing housing prices reduce the impairments because the institutions' security in the loans increases in value. The actual impairment loss ratio for the year is at the lowest level since 2007 and is 0.04%, see figure 5. The mortgage-credit institutions' impairment loss ratio is historically low. By way of comparison, the annual impairment loss ratio in the early 1990s was approximately 0.7%, when the level was historically very high.

**Figure 5: The impairment loss ratio continued to fall in 2016**



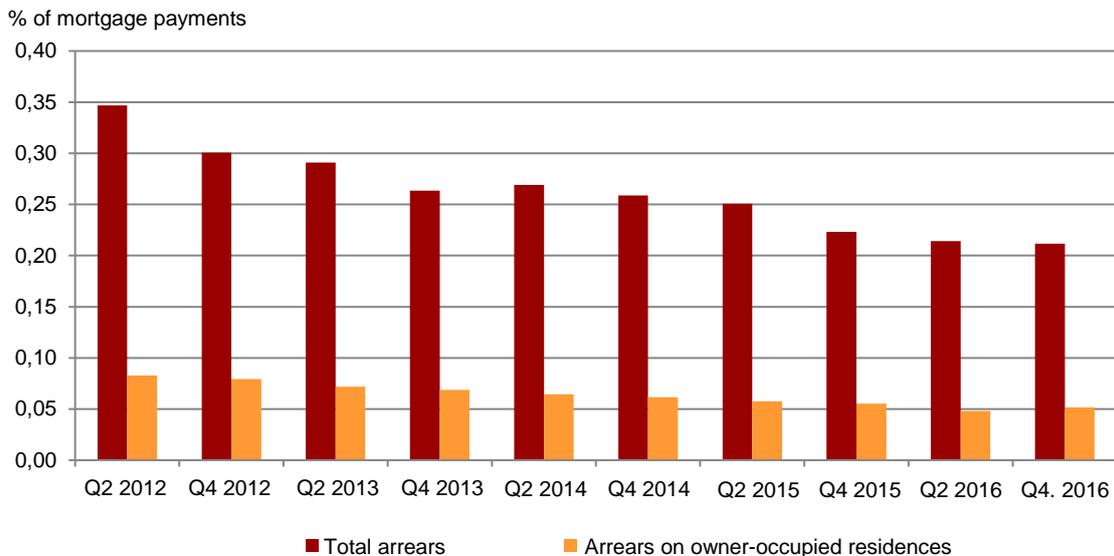
Note: The figure shows mortgage-credit institutions' annual impairment loss ratio as a weighted average.

Source: Annual reports and reports to the Danish FSA.

### Arrears

The extent of arrears (i.e. repayments not paid in due time) was 0.21% of all mortgage payments in Q4 2016. This is a continuation of the falling trend since 2012, see figure 6. The reason for the fall in arrears is partly that mortgage payments are low due to the low level of interest rates and a general improvement in the economy, enhancing the ability of borrowers to make payments.

**Figure 6: Arrears as a percentage of mortgage payments continue to fall**



Note: Arrears are calculated as the total of arrears after 3½ months, 6½ months and 12½ months.  
Source: Reports to the Danish FSA.

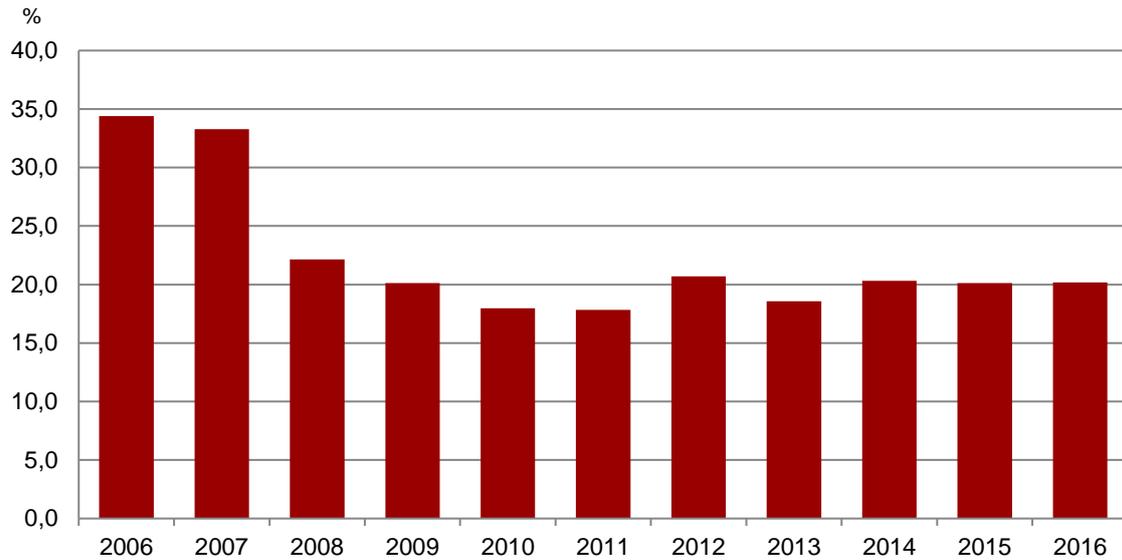
### Coverage ratio

At the end of 2016, mortgage-credit institutions had a coverage ratio of 20.2%. Coverage ratio is a measurement of the size of impairment losses on bad loans. The level has been largely unchanged since 2014, see figure 7. By way of comparison, the coverage ratio for banks was 51.1% at the end of 2016. The coverage ratio is low for mortgage-credit institutions compared with banks, for example. The reason is that the security provided for mortgage-credit loans is real property.

The higher the coverage in the form of impairment, the higher the coverage ratio. The coverage ratio is an indicator of the extent to which the institution has taken total potential losses into account<sup>1</sup>. The security for the loan should also be considered in the same evaluation. If the security is of high quality and has a high value in relation to the loan, there may not be a need for a high coverage ratio.

<sup>1</sup> For example, if an institution impairs DKK 1 million of a DKK 4 million loan and impairs DKK 2 million of a DKK 6 million loan, the coverage ratio  $(1+2) / (4+6) = 30\%$ .

**Figure 7: Coverage ratio has been largely unchanged since 2014**

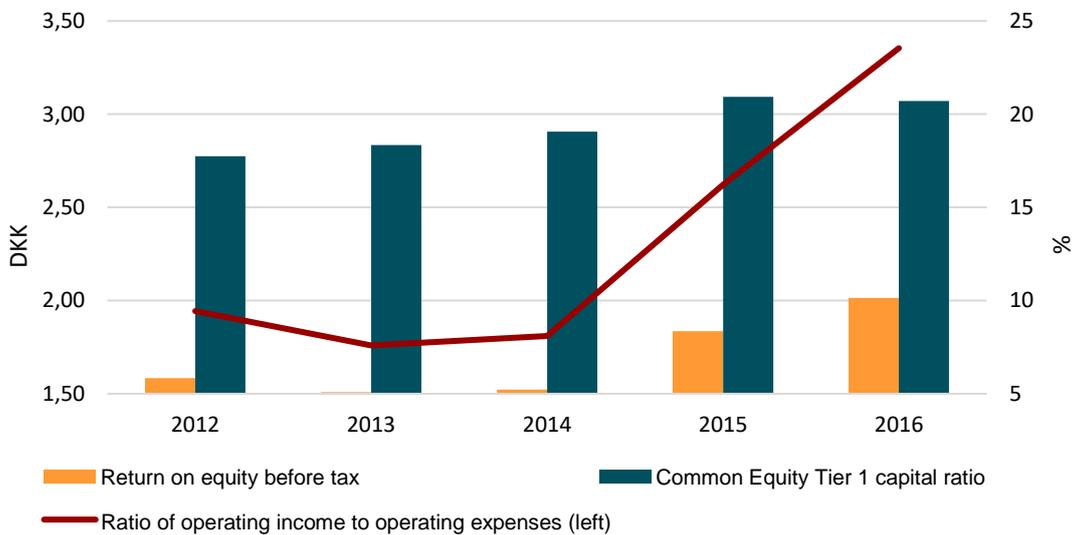


Note: Coverage ratio is calculated as accumulated impairment of lending in relation to the total lending to which individual impairment has been applied.  
Source: Reports to the Danish FSA.

*Selected financial ratios*

The ratio of operating income to operating expenses for mortgage-credit institutions (i.e. total DKK earned for each DKK spent) increased to 3.35 in 2016 from 2.62 in 2015, see figure 8. By way of comparison, this ratio was 1.30 in 2008 and has risen sharply since.

**Figure 8: Return on equity, earnings and capital ratio are rising**



Note: Return on equity before tax, capital ratio and Common Equity Tier 1 capital ratio are stated in an appendix.  
Source: Reports to the Danish FSA.

Mortgage-credit institutions' capital ratios remained at a high level in 2016. See figure 8 and appendix 3. Own funds increased in percentage terms more than lending in the period 2012-2016, while the total risk exposure decreased (see also appendix 3). The decrease in total risk exposure should be seen in the light of the fact that the underlying factors driving risk

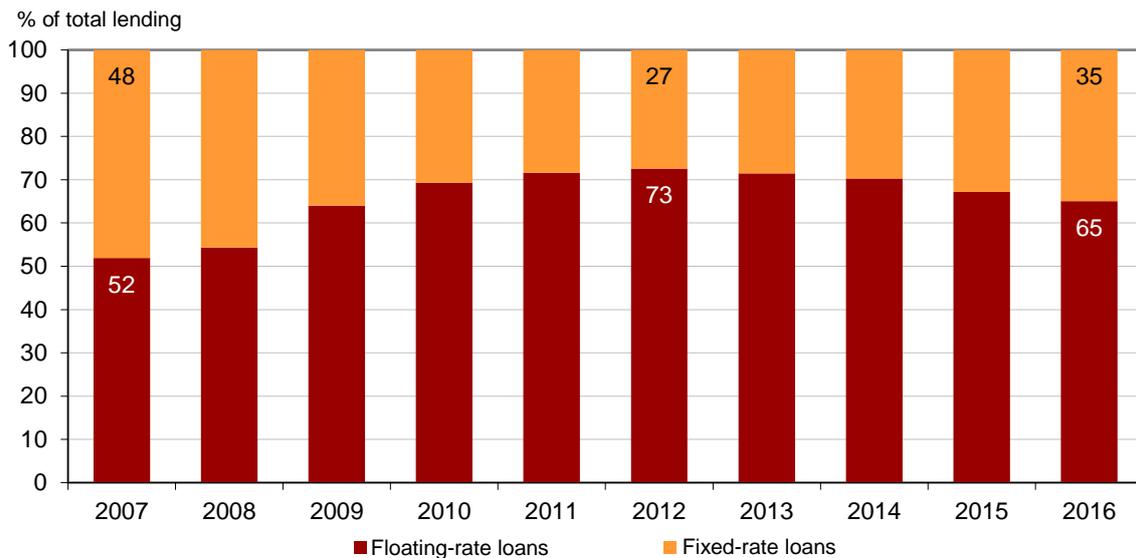
exposure improved. Rising housing prices and the resulting falling loans in relation to the value of the properties have helped reduce the risk weightings.

### 3. Loan types

Mortgage-credit institutions offer various types of mortgage-credit loan. In recent years, the percentage of floating-rate loans and interest-only loans has been falling, though from a high level. Similarly, the percentage of floating-rate loans with a very short fixed-interest period has fallen. The fall in risky loans such as interest-only loans and/or variable-rate loans is following the intention behind the Danish FSA's adoption of limit values in the supervisory diamond for mortgage-credit institutions.

The percentage of fixed-rate loans has been increasing slowly since 2012. In 2016, fixed-rate loans accounted for 35% of total lending, see figure 9. This is an increase of 2 percentage points compared with the same time in the previous year. A floating-rate loan may be more risky than a fixed-interest loan because the floating rate entails a risk of considerable rate increases in connection with refinancing, which may increase the credit risk.

**Figure 9: The percentage of fixed-interest loans in relation to floating-rate loans has increased since 2012**



Note: The figure shows mortgage-credit institutions' percentages of floating-rate loans and fixed-rate loans in relation to total lending. Floating-rate loans here are variable-rate loans based on a reference rate (CITA/CIBOR) and variable-rate loans with an interest ceiling (not reached).  
Source: Danmarks Nationalbank, MFI statistics.

At the end of 2016, loans with a fixed-interest period of more than 1 year made up 42% of total variable-rate lending. See appendix 4. Floating-rate loans and other variable-rate loans for owner-occupied residences and holiday homes accounted for around 60% of total lending for owner-occupied residences and holiday homes at the end of 2016.

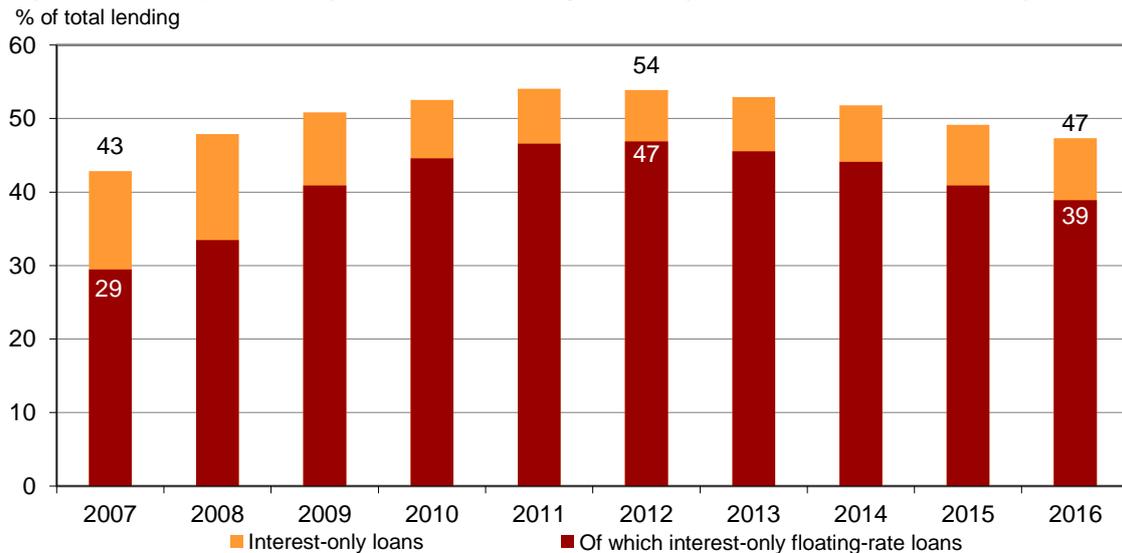
#### *Interest-only loans*

Since 2012, the percentage of interest-only loans has been slowly falling. At the end of 2016, interest-only loans amounted to 47% of total mortgage-credit lending. This is a fall of about

2 percentage points compared with the same time in the previous year, see figure 10. In the same period, the percentage of interest-only floating-rate loans has also fallen.

An average of just over three out of five floating-rate loans for owner-occupied residences and holiday homes were granted on an interest-only basis in 2016. Consequently, the proportion of loans for owner-occupied residences and holiday homes with both variable rates and interest-only was around 39% of total lending for owner-occupied residences and holiday homes at the end of 2016.

**Figure 10: The percentage of interest-only floating-rate loans is decreasing**



Note: The figure shows the total percentage of interest-only loans in relation to mortgage-credit institutions' total lending. The yellow column indicates the percentage of interest-only loans that also have floating rates.  
Source: Danmarks Nationalbank, MFI statistics.

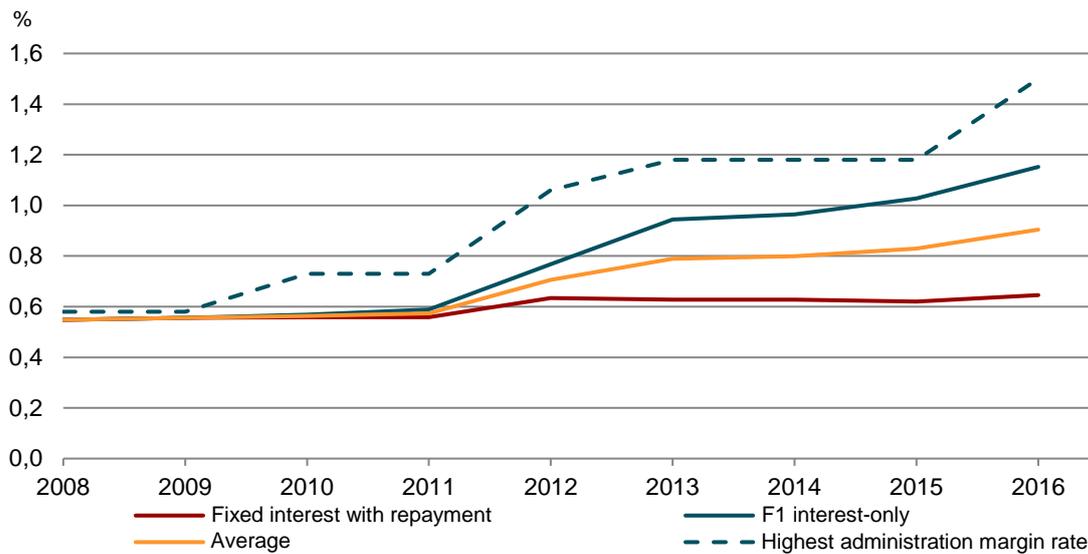
#### 4. Trends in administration margins

Administration margins from borrowers are mortgage-credit institutions' primary source of income from lending activities. In the corporate segment, administration margins are typically negotiated individually. In the private segment, the institutions fix the administration margin more systematically based on property value, loan-to-value (LTV) and loan type (repayment/interest-only, fixed-interest period, etc.).

Administration margins increased from approximately DKK 16 bn. in 2012 to approximately DKK 21.5 bn. in 2016. From 2015 to 2016, administration margins increased by approximately 4% and account for by far the greater part of net interest income.

The reason for the increase is that the mortgage-credit sector has increased administration margins in recent years, see figure 11. The increase in administration margins has not been identical for all loan types. Administration margins have been increased for interest-only loans and loans with short fixed-interest periods in particular. This has also contributed to changing the composition of loan types in the mortgage-credit sector. The proportion of F1 loans has fallen considerably in recent years. If the composition of loan types had been unchanged, the increase in administration margins would have been higher. There has also been a general growth in lending in the mortgage-credit sector. Lending has increased by around 5% since 2012.

**Figure 11: Administration margin rates for F1 interest-only loans have risen most since 2008**



Note: The figure shows average administration margin rates for mortgage-credit loans to private individuals with a loan-to-value of 80%. For 2016, for Totalkredit and Realkredit Danmark this involves the announced administration margins applicable from 1 July 2016 and 1 October 2016, respectively.

Source: Information from the mortgage-credit institutions.

Against the background of the rising administration margins, the then Minister for Industry, Business and Financial Affairs appointed an expert committee, the Expert Committee on Transparency and Mobility on the Mortgage-credit Market. The primary task of the committee was to analyse the background to the rising administration margins and make proposals for a possible change to the opportunities to increase administration margins during the life of a loan. The committee presented a number of proposals for this. These are included in a recently presented draft amendment to an act, see box 1 below.

### **Box 1: Recommendations by and follow-up of the expert committee**

In spring 2016, a number of mortgage-credit institutions gave notice of increases in administration margins on mortgage-credit loans. This intensified the debate on mortgage-credit institutions' opportunities to increase the prices of mortgage-credit loans that have already been granted, transparency in connection with such price rises and the opportunities for borrowers to switch mortgage-credit institutions. Against the background of the political debate on rising administration margins on mortgage credit, the then Minister for Industry, Business and Financial Affairs appointed the Expert Committee on Transparency and Mobility on the Mortgage-credit Market. The committee delivered its report on 16 September 2016.

In the report, the committee presented seven recommendations designed to enhance the mobility and transparency of the mortgage-credit market. The recommendations are included in the bill presented, which is expected to enter into force on 1 June 2017.

The bill contains two central components:

#### *Notice of price rises*

If the lending institution intends to increase the price of a home loan, the borrowers concerned must be notified of this at least six months in advance. In addition, the institution must explain the principal factors that have triggered the price rise. The bill also contains a ban on charging a redemption fee during the notice period.

#### *Change of institution if the loan-to-value limit has been exceeded*

The bill permits borrowers from mortgage-credit institutions to change institutions even if the loan-to-value limit on the customer's property has been exceeded. Current legislation does not permit mortgage-credit institutions to accept customers' mortgage-credit loans following a change from another mortgage-credit institution if the loan-to-value limit has been exceeded.

Both elements are designed to foster mobility on the mortgage-credit market and counteract any lock-in effects. The opportunity to adjust administration margins is an important safety valve in a system in which very long loans are granted with the inherent risk of expenses, losses or capital requirements changing. The counterpart to this must then be that the costs of changing provider are limited so that there are also limits on how much the administration margins can be increased.

## **5. New regulations on the way for mortgage credit**

Since the financial crisis in 2008/2009, the regulation of mortgage-credit institutions has been designed to make the financial system better and more robust. To this end, new regulations and specifications are regularly issued.

### *Covered bonds (SDO and SDRO)*

The European Banking Authority (EBA) has submitted a report to the European Commission recommending a common European definition of the asset class covered bonds. This also

includes Danish covered bonds (særligt dækkede obligationer (SDO) and særligt dækkede realkreditobligationer (SDRO)). Danish interests in relation to the implementation of such a definition principally involve ensuring that the Danish mortgage-credit system remains functional and robust. The current proposal for harmonisation is essentially in line with Danish interests. Based on the report and on consultation, the Commission will propose a new definition of covered bonds.

As part of the follow-up on the report from the Expert Committee on Transparency and Mobility on the Mortgage-credit Market, a bill has been presented based on the recommendations of the working party. Among other things, the bill permits borrowers to switch from one mortgage-credit institution to another even if they have exceeded the loan-to-value limit in the Act. This assumes that another mortgage-credit institution is interested in providing such a loan with the concomitant requirements for supplementary security. The bill will also impose a number of obligations on mortgage-credit institutions relating to increases in administration margins. For example customers must be given notice and there is a limit on charging fees during the notice period. See box 1.

The Danish Parliament has passed a bill to the effect that the loan-to-value limit for holiday homes be increased to 75% from 60%. The Act enters into force on 1 May. Lending for holiday homes represents just under 3% of total mortgage-credit lending. Lending for holiday homes is normally more risky than lending for residences inhabited throughout the year. However, given the extent, the change in the loan-to-value limit should not represent a material risk in itself. It is also important, including in relation to the discussion about new regulations, that Danish mortgage credit continue to be regarded internationally as a particularly stable and secure financing system.

However, in principle, an extension of the loan-to-value basis of mortgage credit with more risky lending will increase the credit risk for the underlying bonds and thus potentially cause mortgage-credit loans to become slightly more expensive for borrowers with less risky loans.

#### *Capital floors*

The Basel committee is in the process of negotiating a revised capital floor for mortgage-credit institutions that calculate capital requirements using internal models. A capital floor entails a certain minimum requirement for risk-weighted exposure. The precise design of the revised capital floors is not yet known. It is expected that the floor will be fixed at between 60% and 90% of the total risk exposure from the revised standard method. Although the Basel committee only makes recommendations, these often form the basis of binding EU regulations.

The floor requirements will probably not reflect the low loss history of Danish mortgage credit, depending on how they are actually designed. This will mean that the mortgage-credit institutions will be forced to retain more capital than the risk on mortgage-credit loans would indicate.

#### *Trading transparency on the market for mortgage bonds*

The EU wants to promote trading transparency on the financial markets in Europe but is also aware that a high level of transparency on some markets may have negative consequences

for liquidity. Against this background, the EU is introducing new common European requirements for both pre-trade and post-trade transparency for all financial instruments traded in organised trading venues. The regulation enters into force in 2018.

The Danish FSA has the option of granting exemptions from the transparency requirements if the exemptions contribute to a better functioning market for trade in mortgage bonds, for example by counteracting any negative consequences for liquidity. In this connection, the Danish FSA has prepared a discussion paper and held a seminar in order to balance opposing considerations in an attempt to find the optimum level of trading transparency.

## **6. Mortgage-credit institutions' management of negative interest rates**

In Q4 2016, the Danish FSA followed up on mortgage-credit institutions' management of negative interest rates. The study was implemented as follow-up on the Ministry of Industry, Business and Financial Affairs' working party of 2015 on negative interest rates on mortgage-credit loans.

### *What do negative interest rates mean for mortgage-credit institutions?*

Mortgage-credit activities are characterised by a borrower making a payment on their loan to the mortgage-credit institution. The mortgage-credit institution makes a payment to the investor that has purchased the bonds securing the loan and has therefore ultimately financed the loan. The borrower pays an administration margin as part of their total payment. However, otherwise, the mortgage-credit institution's incoming and outgoing payments in relation to the loan are essentially identical. This follows from the balance principle, which is designed to protect the mortgage-credit business against a number of risks, including liquidity risks.

If the interest rate on a bond becomes negative, for example if it follows a money market rate, this arrangement may result in a situation in which the borrower has a negative interest rate on their loan. This means that the borrower receives an interest payment, and the institution receives interest payments from the bond investors. Consequently, the direction of payment flows is reversed for certain mortgage-credit products if the interest rates become negative.

Provided there is symmetry between the amount and direction of the payment flows, there is no technical problem in providing mortgage-credit loans with a negative interest rate. Problems arise only when there is no longer symmetry between the payments. For example, this may be the case if an institution assesses that the interest rate on a bond cannot become negative (i.e. the rate has a 0% floor), while the borrower can have a negative interest rate (i.e. the rate can be less than 0%). In this case, the institution will be only making payments and not receiving any. This is the primary risk for mortgage-credit institutions under negative interest rates.

### *The mortgage-credit sector has managed the risk of negative interest rates*

The mortgage-credit sector has introduced amendments and specifications of loan terms and bond terms in significant areas designed to ensure that individual institutions have the flexibility to manage situations with negative interest rates in future. These partly concern maintenance of the balance principle and the competitive durability of the business model for individual institutions, all institutions having embraced the option of operating with negative interest rates even if they have not fully exercised this option. In one case, a mortgage-credit institution had asymmetrical terms between loans and bonds. The asymmetry was fully covered by derivatives in relation to negative interest rates.

Overall, the situation was managed by the mortgage-credit institutions without the need for statutory amendments or the involvement of public authorities.

## **7. About the statistics**

This article on market developments has been based on financial statements, etc. submitted for mortgage-credit institutions in Denmark. Figures are at institution level, unless otherwise stated.

This article focuses on developments in selected accounts items and financial ratios at sector level and on the underlying developments in the individual mortgage-credit institutions. At a later stage, the Danish FSA will publish 'Statistical data for mortgage-credit institutions'. This publication will contain more data from mortgage-credit institutions' financial statements for 2016. Moreover, an update will follow of financial ratios in the five-year financial summary, analysed at individual institution level in the financial ratios database on the Danish FSA website.

All mortgage-credit institutions are covered by the statistics.

## 8. Appendices

### Appendix 1: Financial statements of mortgage-credit institutions 2012-2016

DKK mill.	2012	2013	2014	2015	2016	Change	
						2012-2016	2015-2016
<b>Income statement items (extract)</b>							
Net interest income	20.273	20.974	22.375	23.686	23.599	3,1%	-0,4%
Dividend from shares, etc.	115	240	74	134	173	8,6%	29,3%
Net fee and commission income	-1.636	-2.374	-2.086	-2.409	-2.529	-9,1%	-5,0%
Net interest and fee income	18.752	18.839	20.363	21.412	21.243	2,5%	-0,8%
Value adjustments	-952	-620	-746	-1.132	805	196,7%	171,1%
Staff and administrative expenses	4.860	5.008	4.780	4.828	5.876	3,9%	21,7%
Impairment of loans, etc.	3.922	4.811	4.707	1.868	1.209	-21,0%	-35,3%
Income from associates and group undertakings	668	685	-374	3.195	3.206	36,8%	*
Profit before tax	9.002	8.190	8.713	14.591	18.853	15,9%	29,2%
Tax	1.998	1.758	2.336	3.098	3.359	10,9%	8,5%
Net profit for the year	7.004	6.433	6.378	11.493	15.494	17,2%	34,8%
<b>Balance sheet items (extract)</b>							
Due from credit institutions	677.770	714.365	781.905	731.966	793.107	3,2%	8,4%
Lending	2.587.598	2.589.292	2.636.353	2.652.662	2.720.556	1,0%	2,6%
Bonds	177.186	195.020	234.826	199.649	204.058	2,9%	2,2%
Shares, etc.	4.120	3.831	4.379	5.021	5.630	6,4%	12,1%
Holdings in associated undertakings	31.363	32.146	31.562	36.251	39.303	4,6%	8,4%
Assets held temporarily	1.337	1.005	880	1.070	1.102	-3,8%	3,0%
Other assets	25.066	22.227	22.739	17.154	14.976	-9,8%	-12,7%
Total assets	3.512.976	3.565.792	3.717.482	3.647.170	3.781.081	1,5%	3,7%
Debt to credit institutions	660.380	669.549	698.974	665.453	676.904	0,5%	1,7%
Issued bonds	2.609.150	2.664.798	2.782.031	2.749.817	2.859.033	1,8%	4,0%
Other non-deriv. finan. liabs. at fair value	2.025	862	1.188	427	0	-100,0%	-100,0%
Current tax liabilities	43	25	169	99	334	50,6%	237,6%
Other liabilities	60.375	50.218	50.204	37.013	33.558	-11,1%	-9,3%
<b>Total debt</b>	<b>3.334.387</b>	<b>3.385.481</b>	<b>3.532.623</b>	<b>3.452.839</b>	<b>3.569.879</b>	<b>1,4%</b>	<b>3,4%</b>
<b>Total provisions</b>	<b>1.057</b>	<b>876</b>	<b>723</b>	<b>620</b>	<b>508</b>	<b>-13,6%</b>	<b>-18,0%</b>
<b>Subordinated debt</b>	<b>19.392</b>	<b>16.914</b>	<b>15.205</b>	<b>12.907</b>	<b>19.278</b>	<b>-0,1%</b>	<b>49,4%</b>
Share capital/cooperative capital/guarantee capital	5.388	5.324	6.324	6.324	6.324	3,3%	0,0%
Other reserves	109.316	99.043	99.808	103.120	116.174	1,2%	12,7%
Retained earnings or losses	42.397	57.974	62.595	71.147	67.393	9,7%	-5,3%
<b>Equity</b>	<b>158.140</b>	<b>162.521</b>	<b>168.931</b>	<b>180.804</b>	<b>191.416</b>	<b>3,9%</b>	<b>5,9%</b>
<b>Balance sheet total</b>	<b>3.512.976</b>	<b>3.565.792</b>	<b>3.717.482</b>	<b>3.647.170</b>	<b>3.781.081</b>	<b>1,5%</b>	<b>3,7%</b>

Note: In 2016, the mortgage-credit sector consists of Nykredit Realkredit, Realkredit Danmark, Totalkredit, BRFkredit, DLR Kredit, LR Realkredit and Nordea Kredit. Profit from participating interests and equity includes Totalkredit twice as it is part of the Nykredit Group. Profit from participating interests is primarily attributable to subsidiaries of Nykredit Realkredit: Totalkredit and Nykredit Bank. The net earnings of the subsidiaries are included. This means that the part of the profit attributable to Totalkredit includes both administration margins and expenses to banks in connection with brokerage and administration for the mortgage-credit institution. The net profit in Nykredit Bank is also affected by the mortgage-credit business and customer relations in it, for example value adjustments of interest swap agreements made to cover customers' interest rate risk.

Source: Reports to the Danish FSA.

## Appendix 2: Financial statements for mortgage-credit institutions at institution level, end 2016

<i>DKK mill.</i>	Nykredit Realkredit 20001	Realkredit Danmark 20002	BRFKredit 20003	Totalkredit 20004	DLR Kredit 20007	LR Realkredit 20008	Nordea Kredit 20009	All
<b>Income statement items (extract)</b>								
Net interest income	4.591	6.859	1.913	5.396	1.701	146	2.992	23.599
Dividend from shares, etc.	96	0	8	0	0	69	0	173
Net fee and commission income	748	-611	207	-2.218	-234	-8	-414	-2.529
Net interest and fee income	5.435	6.248	2.128	3.178	1.468	208	2.578	21.243
Value adjustments	919	-61	-67	166	-88	-59	-4	805
Staff and administrative expenses	3.155	688	815	670	230	26	293	5.876
Impairment of loans, etc.	770	182	-32	47	110	-6	138	1.209
Income from associates and group undertakings	3.171	30	4	0	0	0	1	3.206
Profit before tax	6.260	5.348	1.299	2.628	1.039	127	2.152	18.853
Tax	599	1.168	284	579	228	28	473	3.359
Net profit for the year	5.660	4.181	1.015	2.048	811	99	1.679	15.494
<b>Balance sheet items (extract)</b>								
Cash in hand and demand deposits with central banks	101	206	75	0	48	48	375	853
Due from credit institutions and central banks	682.693	31.225	10.656	19.341	2.428	778	45.985	793.107
Lending	525.467	768.363	278.407	600.011	139.053	19.227	390.028	2.720.556
Bonds	44.026	59.562	16.096	69.364	13.625	1.384	0	204.058
Shares, etc.	4.316	0	211	0	58	1.046	0	5.630
Holdings in associated undertakings	127	18	0	0	0	0	15	161
Equity investments in group undertakings	38.836	134	333	0	0	0	0	39.303
Total land and buildings	14	0	412	0	98	0	0	523
Other property, plant and equipment	151	5	5	0	4	0	0	166
Current tax assets	122	0	0	35	0	1	0	157
Deferred tax assets	1	0	0	5	1	6	1	14
Assets held temporarily	274	149	481	10	159	0	28	1.102
Other assets	9.020	3.027	327	1.754	246	28	574	14.976
Accruals and deferred income	204	15	22	7	18	1	5	273
<b>Total assets</b>	<b>1.305.554</b>	<b>862.705</b>	<b>307.027</b>	<b>690.527</b>	<b>155.737</b>	<b>22.519</b>	<b>437.012</b>	<b>3.781.081</b>
Debt to credit institutions and central banks	18.054	6.355	907	647.073	0	0	4.515	676.904
Issued bonds	1.192.469	799.844	289.386	11.162	142.074	18.901	405.197	2.859.033
Other non-deriv. finan. liabs. at fair value	0	0	0	0	0	0	0	0
Current tax liabilities	0	21	282	0	18	0	13	334
Other liabilities	12.663	7.011	3.564	5.625	1.378	245	3.072	33.558
Accruals and deferred income	0	0	6	0	4	0	35	45
<b>Total debt</b>	<b>1.223.186</b>	<b>813.231</b>	<b>294.150</b>	<b>663.860</b>	<b>143.474</b>	<b>19.146</b>	<b>412.832</b>	<b>3.569.879</b>
<b>Total provisions</b>	<b>337</b>	<b>96</b>	<b>65</b>	<b>6</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>508</b>
<b>Subordinated debt</b>	<b>11.078</b>	<b>0</b>	<b>0</b>	<b>6.000</b>	<b>0</b>	<b>0</b>	<b>2.200</b>	<b>19.278</b>
Share capital/cooperative capital/guarantee capital	1.182	630	1.306	848	570	70	1.717	6.324
Share premium account	0	0	102	0	0	0	0	102
Accumulated value changes	0	31	49	0	43	0	0	123
Other reserves	49.916	48.717	10.339	1.646	2.338	3.203	16	116.174
Retained earnings or losses	19.856	0	1.015	18.167	8.008	99	20.247	67.393
<b>Equity</b>	<b>70.954</b>	<b>49.378</b>	<b>12.812</b>	<b>20.661</b>	<b>12.259</b>	<b>3.373</b>	<b>21.980</b>	<b>191.416</b>
<b>Balance sheet total</b>	<b>1.305.554</b>	<b>862.705</b>	<b>307.027</b>	<b>690.527</b>	<b>155.737</b>	<b>22.519</b>	<b>437.012</b>	<b>3.781.081</b>

Note.: Nykredit Realkredit issues bonds that finance lending in Totalkredit. This is included in the balance sheet as a receivable at credit institutions.

Source: Reports to the Danish FSA.

### Appendix 3: Selected financial ratios, 2012-2016

%	2012	2013	2014	2015	2016
Ratio of op. income to op. expenses (DKK)	1,94	1,76	1,81	2,62	3,35
Return on equity before tax	5,84	5,09	5,21	8,35	10,13
Capital ratio	19,37	19,56	20,80	23,09	23,57
Tier 1 capital ratio	18,94	19,13	19,98	21,47	21,74
Common Equity Tier 1 capital ratio	17,75	18,34	19,06	20,92	20,70

Source: Reports to the Danish FSA

### Appendix 4: Changes in capital and overall risk exposure, 2012-2016

<i>DKK mill.</i>	2012	2013	2014	2015	2016	Change	
						2012-2016	2015-2016
Tier 1 capital	162.188	163.959	169.177	175.004	187.770	3,0%	7,3%
Own funds	165.867	167.643	176.130	188.150	203.605	4,2%	8,2%
Total risk exposure amount	856.380	857.073	846.659	814.978	863.725	0,2%	6,0%
Balance sheet total	3.512.976	3.565.792	3.717.482	3.647.170	3.781.081	1,5%	3,7%

Source: Reports to the Danish FSA.

### Appendix 5: Loans with fixed-interest rates for up to 1 year and over 1 year, respectively, in relation to the portfolio of variable-rate lending, 2007-2016

%	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Term up to 1 year	76,2	76,5	75,8	73,1	71,7	69,9	65,4	62,8	57,7	57,9
Term over 1 year	23,8	23,5	24,2	26,9	28,3	30,1	34,6	37,2	42,3	42,1

Note: Variable-rate loans refers to standard floating-rate loans and variable-rate loans with an interest ceiling.

Source: Danmarks Nationalbank, MFI statistics.

### Appendix 6: Financial ratios of mortgage-credit institutions 2011-2016

%	2012	2013	2014	2015	2016
Solvency ratio	19,37	19,56	20,80	23,09	23,57
Tier 1 capital ratio	18,94	19,13	19,98	21,47	21,74
Common Equity Tier 1 capital ratio	17,75	18,34	19,06	20,92	20,70
Return on equity before tax	5,84	5,09	5,21	8,35	10,13
Return on equity after tax	4,53	4,01	3,80	6,57	8,32
Ratio of op. income to op. expenses	1,94	1,76	1,81	2,62	3,51
Currency position	1,68	1,19	0,91	0,94	0,96
Accumulated impairment loss ratio	0,30	0,38	0,48	0,44	0,43
Annual loss and impairment loss ratio	0,15	0,19	0,19	0,08	0,04
Growth in lending for the year	2,64	1,13	0,88	2,49	1,42
Lending in relation to equity	16,34	15,91	15,64	14,71	14,20

Note: Financial ratios are calculated on the basis of the mortgage-credit institutions which existed in the individual years. Growth in lending for the year is based on nominal values.

Source: Reports to the Danish FSA.