



Danmarks  
Nationalbank

Stress Tests  
2nd Half

2012

D A N M A R K S  
N A T I O N A L  
B A N K 2 0 1 2



## Stress Tests, 2nd Half 2012

The small picture on the cover shows a characteristic section of Danmarks Nationalbank's building, Havnegade 5 in Copenhagen. The building, which was constructed in 1965-78, was designed by the architect Arne Jacobsen (1902-71).

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This publication is based on information available up to 12 October 2012.

Explanation of symbols:

- Magnitude nil
  - 0 Less than one half of unit employed
  - Category not applicable
  - na. Numbers not available
- Details may not add due to rounding.

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## Summary

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*Overall, the liquidity situation of the largest Danish banks is good. The access to raise loans in the market has improved, making it easier for the banks to refinance maturing debt.*

*Several small and medium-sized banks are preparing for the expiry of the individual government guarantees and have come far in adjusting their business models towards relying less on short-term funding.*

*Danmarks Nationalbank's stress test of the banks' capitalisation shows that the largest Danish banks are robust. The excess capital adequacy of the four banks included in the European Banking Authority's, EBA's, capital exercise via Danish credit groups remains positive in all Danmarks Nationalbank's stress test scenarios, and Common Equity Tier 1 capital remains higher than 9 per cent, which was the requirement in the EBA's capital exercise – even if government capital injections are not included.*

*Three of the small banks included in the stress test will need to strengthen their capitalisation in the baseline scenario of the stress test, and one bank is close to the threshold. The assessment is that any problems arising among the small banks can be solved via business adjustments or within the current framework for mergers and resolution without significantly influencing financial stability in Denmark.*

### **The analyses in the report**

Danmarks Nationalbank regularly assesses the resilience of the financial sector to shocks affecting liquidity and capital. The liquidity situation is assessed on the basis of data such as the banks' reporting to the Danish Financial Supervisory Authority and Danmarks Nationalbank, which is used to analyse the banks' resilience under various liquidity stress scenarios. Danmarks Nationalbank's stress test model provides the basis for a general assessment of Danish banks' capitalisation in various economic stress scenarios.

### **The banks' liquidity**

Overall, the liquidity of the largest Danish banks is good. Since July 2012, issuance activity has been resumed in the senior debt market, making it easier for the banks to refinance maturing debt. However, the markets continue to be affected by the sovereign debt crisis in the euro area in spite of the positive development, stressing the importance of maintain-

ing access to a variety of funding sources and avoiding that relatively large volumes of debt mature over short periods of time.

The rise in deposits and the decline in loans since the 2nd half of 2008 have gradually reduced the customer funding gap for small and medium-sized banks. More than half of this reduction reflects growth in deposits. The individual banks differ markedly, but by far the majority of the banks now have customer funding surpluses. For the small and medium-sized banks with limited market access, the reduction of the customer funding gap is positive and a step towards a long-term, sustainable business model.

Danmarks Nationalbank has introduced a series of measures to support liquidity, ensuring sufficient flexibility in the continued adjustment process. Moreover, Bank Rescue Packages 4 and 5 have improved the options for particularly challenged banks.

Stress tests of the banks' long-term senior debt show that all banks will maintain positive excess liquidity cover in a scenario where senior debt matures with no refinancing or balance-sheet reduction option until the end of 2014. Under this scenario, the largest banks maintain excess liquidity cover above 50 per cent, while two of the small and medium-sized banks end up with excess liquidity cover below 50 per cent.

### **Stress test of the banks' capitalisation**

Danmarks Nationalbank's stress test comprises 15 Danish banks together accounting for 91 per cent of the Danish banks' loans and guarantees.

The banks' capitalisation is assessed in four macroeconomic scenarios: a baseline scenario reflecting Danmarks Nationalbank's most recent forecast and three stress scenarios reflecting different types and strengths of adverse shocks to the economy.

Danmarks Nationalbank's stress test shows that the largest Danish banks are robust. Compared with the stress test's point of departure in *Financial stability, 2012*, the majority of the largest banks are better capitalised.

The excess capital adequacy of the four banks included in the EBA's capital exercise via Danish credit groups remains positive in all Danmarks Nationalbank's stress test scenarios, and Common Equity Tier 1 capital remains above 9 per cent, which was the requirement in the EBA's capital exercise – even if government capital injections are not included.

Three of the small banks included in the stress test will need to strengthen their capitalisation in the baseline scenario of the stress test, and one bank is close to the threshold. In the stress scenarios – which are based on considerably more negative macroeconomic developments than the one assumed to be most likely – one more small bank will need

to strengthen its capitalisation. The assessment is that any problems among the small banks can be solved within the current framework for mergers and resolution without significantly influencing financial stability in Denmark.

Moreover, banks under stress have various options for increasing their capital such as retaining dividends, raising capital, reducing balance sheets, minimising risks or improving cost efficiency. Subsidiary banks in financial groups also have the option of receiving a capital injection from the parent company. For some banks, a merger may also be an option.



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## The Banks' Liquidity

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*Overall, the liquidity situation of the largest Danish banks is good. The access to raise loans in the market has improved, making it easier for the banks to refinance maturing debt.*

*Several small and medium-sized banks are preparing for the expiry of the individual government guarantees and have come far in adjusting their business models towards relying less on short-term funding. Danmarks Nationalbank has introduced a series of measures to support liquidity, ensuring sufficient flexibility in the continued adjustment process. Moreover, Bank Rescue Package 4 has improved the options for particularly challenged banks by offering new individual government guarantees in connection with mergers. A special solution has been found for one of the large banks, FIH Erhvervsbank, cf. Bank Rescue Package 5.*

*Looking ahead, the banks will need to adapt to the coming pan-European liquidity regulation, which is part of the not yet adopted Capital Requirement Directive, CRD IV.*

### THE BANKS' FUNDING SOURCES

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The banks' lending is mainly financed through deposits and market funding. It is important that the composition of funding sources is tailored to the size and business model of the bank. It is easier for large banks to maintain access to raise loans in the market and thus to other sources of funding than deposits.

Long-term market funding is a stable source of funding since an immediate need for refinancing will not occur. Deposits, by contrast, can be withdrawn at short notice. This will be reflected in the coming pan-European liquidity regulation that forms part of the not yet adopted Capital Requirement Directive, CRD IV, which emphasises the stability of funding sources. Under CRD IV, long-term market funding is considered to be one of the most stable sources of funding, while deposits are grouped into stable and less stable deposits, depending on the customer's relationship with the bank.

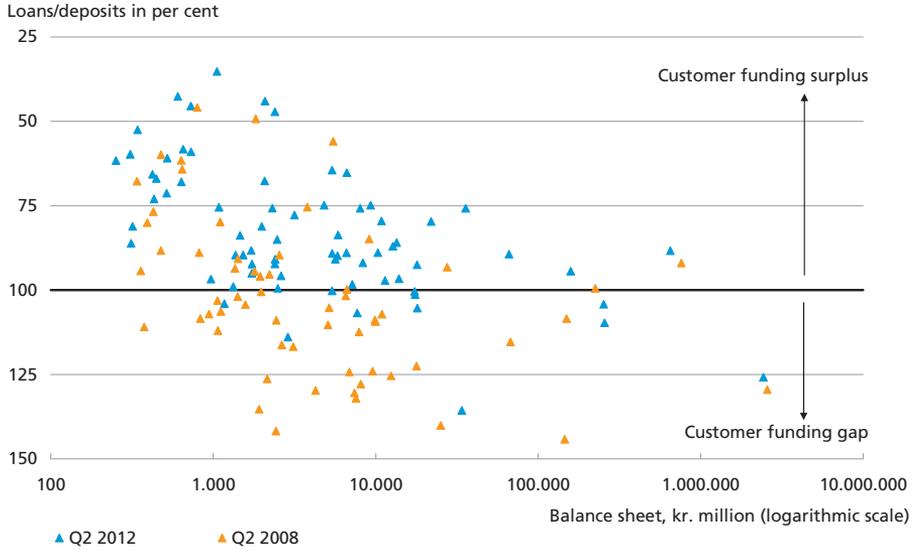
### DEPOSIT FUNDING

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Since large banks have better access to market funding than small banks, a positive relationship between a bank's balance sheet and its

LENDING RATE AND BALANCE-SHEET TOTAL

Chart 1

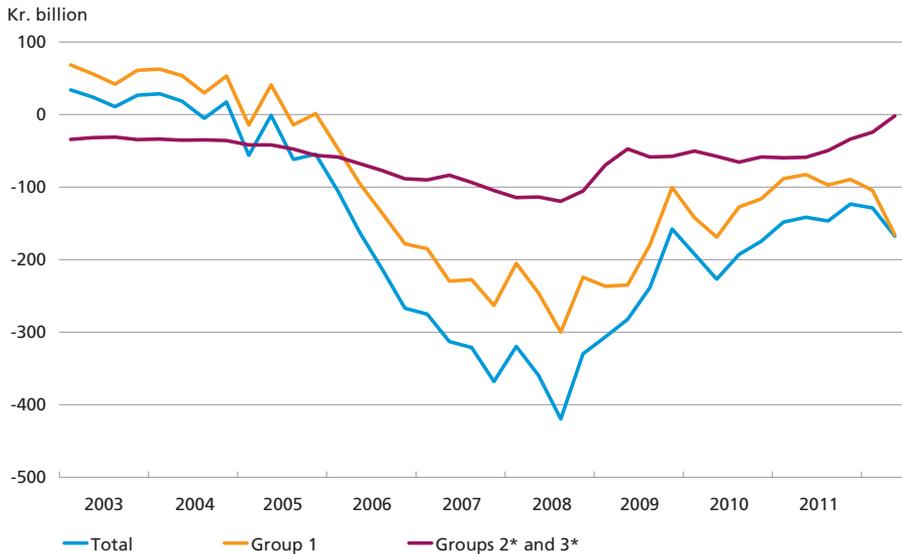


Note: Banks with limited or no deposits are not included in the chart. Comparative figures are not shown for the six group 3 banks belonging to group 4 at end-June 2008. The balance-sheet total of each bank is shown on the x axis. The customer funding surplus excludes repo transactions.

Source: Danmarks Nationalbank.

CUSTOMER FUNDING SURPLUS

Chart 2



Note: The customer funding surplus excludes repo transactions. The most recent observation is from the 2nd quarter of 2012.

Source: Danmarks Nationalbank.

customer funding gap should be expected overall.<sup>1</sup> This is also the case for Danish banks, cf. Chart 1.<sup>2</sup>

The Danish banks' customer funding gap was accumulated in the period from 2005 to 2008 when liquidity in the market was ample. The large banks' customer funding gap has been reduced by kr. 134 billion since the 3rd quarter of 2008 when the gap peaked. The rise in deposits and the decline in loans since the 2nd half of 2008 have gradually reduced the small and medium-sized banks' customer funding gap, which now makes up a mere kr. 2 billion overall, cf. Chart 2. More than half of this reduction reflects growth in deposits. The individual banks differ markedly, but by far the majority of the banks now have customer funding surpluses. For the small and medium-sized banks with limited market access, the reduction of the customer funding gap is positive and a step towards a long-term, sustainable business model.

## MARKET FUNDING

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Market funding, comprising short-term and long-term debt issuance and loans from other credit institutions, is an alternative source of funding to deposits. The intensity of the financial market uncertainty has varied in recent years, and the access to issue senior debt in the market has only existed for brief periods of time.<sup>3</sup> The European banks used the positive effect of the ECB's allotment of 3-year liquidity in December 2011 and February 2012 to issue senior debt. The issuance by Danish banks in the 2nd quarter of 2012 largely comprised covered bonds, while issuance activity in the senior debt market has rebounded since July, cf. Chart 3. The markets continue to be affected by the sovereign debt crisis in the euro area in spite of the positive development, cf. Box 1, stressing the importance of maintaining access to a variety of funding sources and avoiding that relatively large volumes of debt mature over short periods of time.

Unlike the Danish mortgage banks, which operate with a particular business model, the Danish banks' issuance of SDOs (covered bonds) has been limited. Danske Bank is the only Danish bank so far to have a covered bond issuance programme, and although the issuance of covered bonds has been on the increase, covered bonds continue to account for a negligible share of the balance sheet, cf. Chart 4. In February 2012, BRFkredit entered into a partnership with Jyske Bank and Sydbank on the joint funding of the banks' new lending to private customers against

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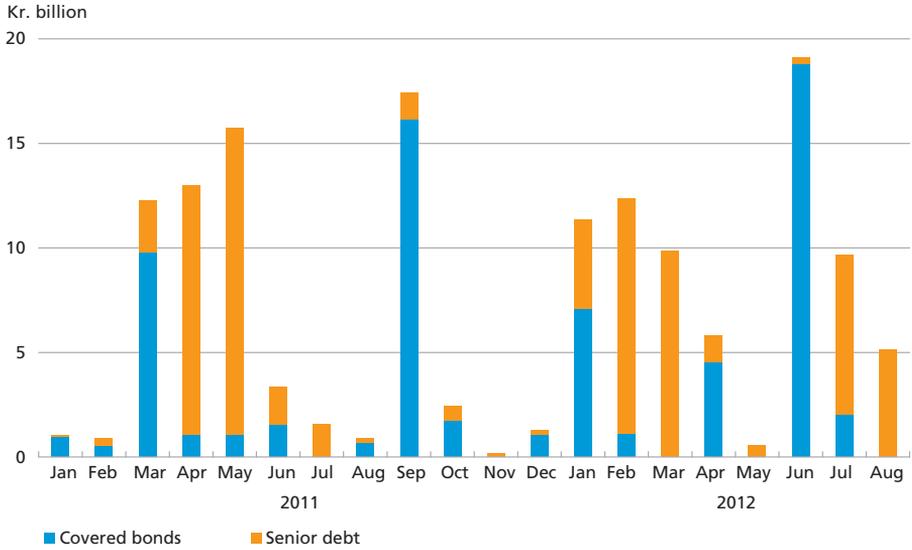
<sup>1</sup> The customer funding gap is calculated as the difference between deposits and loans.

<sup>2</sup> The population is described in detail in Appendix 1. The analysis of the banks' liquidity conditions comprises foreign branches.

<sup>3</sup> Senior debt is non-subordinate loan capital and ranks before subordinated claims in the event of compulsory liquidation.

ISSUANCE OF SENIOR DEBT AND COVERED BONDS BY DANISH BANKS

Chart 3

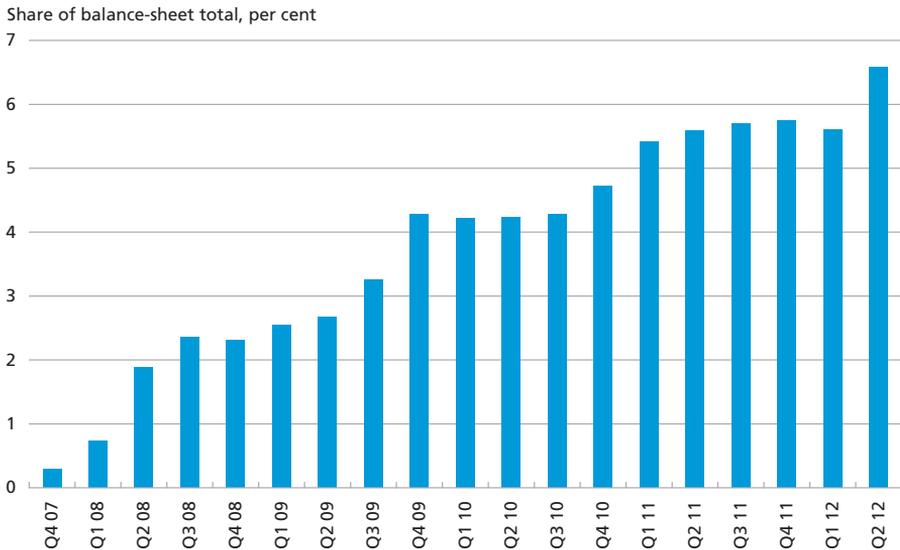


Note: The most recent observation is from August 2012.

Source: Liquidity reporting to the Danish Financial Supervisory Authority and Danmarks Nationalbank.

DANSKE BANK'S OUTSTANDING VOLUME OF COVERED BONDS, SDOs

Chart 4



Note: The balance-sheet total and issuance have been calculated at bank-specific level and, accordingly, do not include subsidiaries, including Realkredit Danmark. Issuance has been calculated at nominal value.

Source: Danish Financial Supervisory Authority and Danmarks Nationalbank.

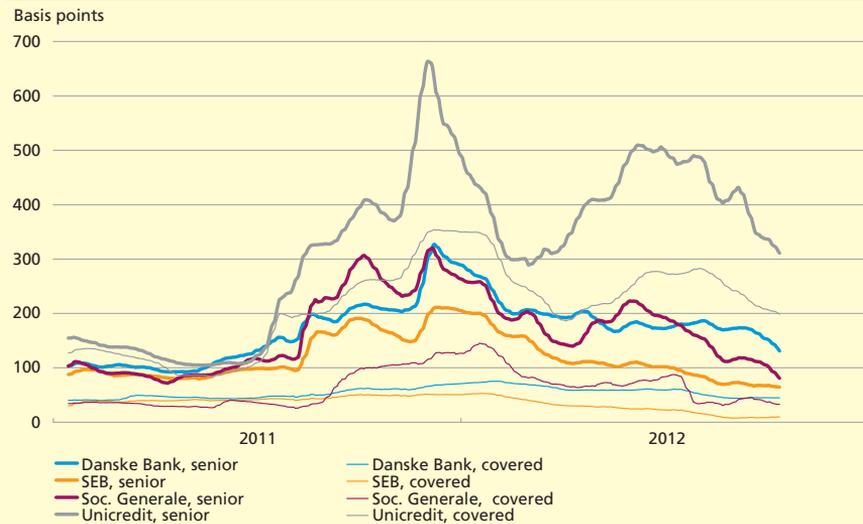
## THE EUROPEAN MARKETS FOR LONG-TERM DEBT ISSUANCE

Box 1

The European banks' access to raise long-term loans in the markets continues to be impacted by the sovereign debt crisis in the euro area. The issuance activity was very subdued over the summer of 2012 due to such factors as the economic situation in Southern Europe, which rekindled financial market uncertainty. However, the limited activity in the primary market not only reflects expensive and limited market access but also the usual low activity level during the summer period and the fact that many European banks covered a major share of this year's funding requirement through substantial issuance at the beginning of the year. Market conditions started to improve in the latter half of August and have continued to look up in the wake of an increasing number of banks gaining market access – including Southern European banks. The positive development is stressed by the fact that uncollateralised senior debt accounts for a growing share of the issuance.

The activity in the primary market largely reflects developments in the secondary markets. Credit spreads, in particular for uncollateralised senior debt, widened overall in April and May 2012, notably in parts of Southern Europe, cf. the Chart. At the end of June, the EU heads of state or government agreed to work for a single European supervisory mechanism under the European Central Bank, ECB, aiming to eliminate the negative interaction between exposed states and weak banks. In July, at the request of Spain, the EU finance ministers agreed to grant direct financial support to the recapitalisation of that country's banks. Finally, the ECB's announcement at the beginning of September concerning purchases of government securities on certain conditions boosted market confidence. Against the background of these initiatives, among other factors, credit spreads again showed a narrowing trend.

## CREDIT SPREADS FOR UNCOLLATERALISED SENIOR DEBT AND COVERED BONDS

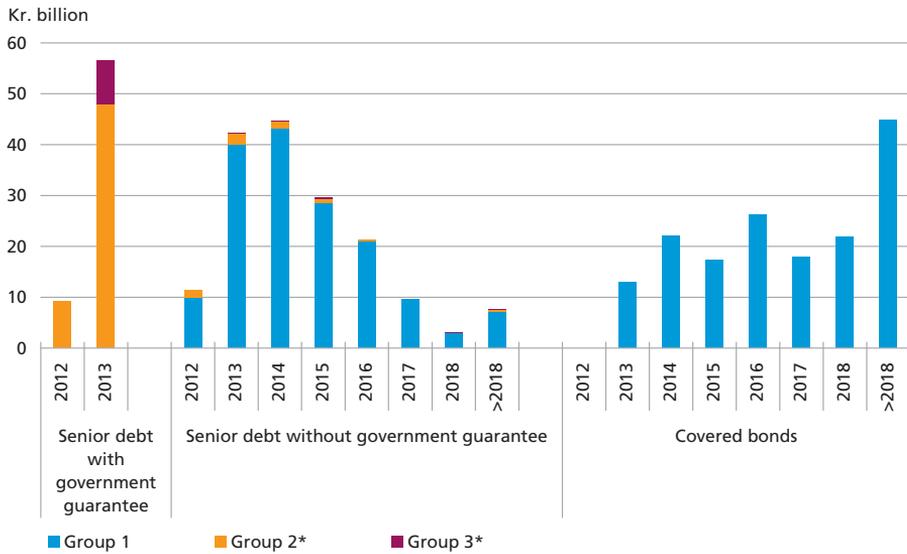


Note: The chart shows estimated asset-swap spreads for uncollateralised senior debt and covered bonds denominated in euro with a remaining term to maturity of five years. On conclusion of an asset swap, the holder of a bond makes payments corresponding to the bond's coupon payments and instalments and in return receives a variable interest rate based on Euribor and a spread. The estimates in the chart have been smoothed by a 10-day moving average. The most recent observations are from 12 October.

Source: Bloomberg and own calculations.

MATURING OF DANISH BANKS' SENIOR DEBT AND COVERED BONDS

Chart 5



Note: Calculated at end-August 2012. In the chart, 2012 comprises maturities in the period September – December 2012.  
Source: Liquidity reporting to the Danish Financial Supervisory Authority and Danmarks Nationalbank.

registered mortgages in owner-occupied housing and summer cottages as collateral.<sup>1</sup> The partnership was extended in the 2nd quarter of 2012 to comprise a portion of the two banks' existing mortgage lending. As at 30 June 2012, BRFkredit had issued SDOs worth kr. 3.1 billion to finance these loans, but the potential is expected to be greater.<sup>2</sup> In July 2012, BRFkredit entered into a similar partnership with Arbejdernes Landsbank on the joint funding of new lending to private customers, and a partnership with Ringkjøbing Landbobank was announced at the beginning of October 2012, entailing that these four banks have obtained an additional source of funding.

At the end of August 2012, the group 1-3\* banks had total outstanding debt with a maturity of over 1 year of kr. 520 billion, of which 45 per cent was senior debt and 31 per cent covered bonds.<sup>3</sup> Covered bond issuance has longer maturities than senior debt issuance and has been easier to sell during periods of financial market turmoil because of the security of the bonds.

Group 1 banks tend to dominate Danish banks' long-term funding, cf. Chart 5, reflecting that the access to raise loans in the market basically relates to bank size. Visibility to the investors requires regular issuance

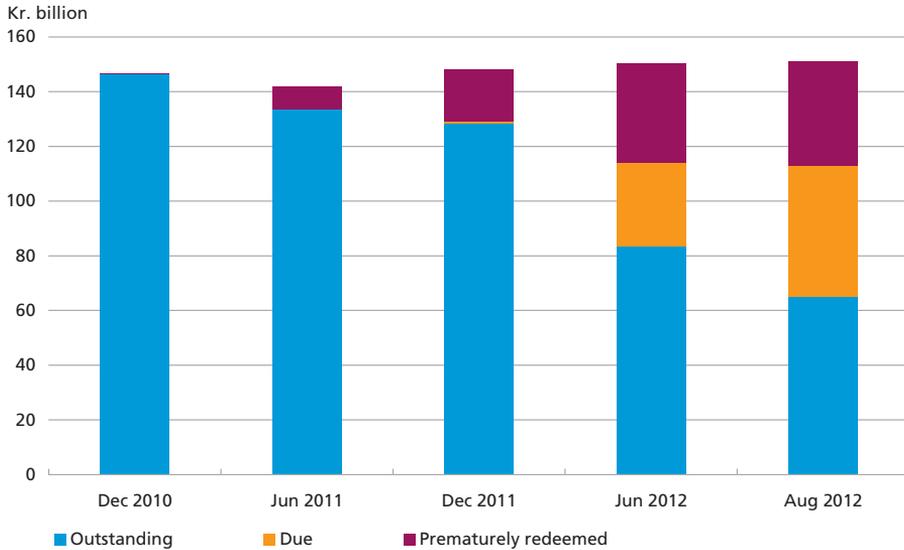
<sup>1</sup> BRFkredit's partnerships on joint funding are described in detail in Danmarks Nationalbank, *Financial stability*, 2012, Box 5.

<sup>2</sup> Cf. BRFkredit's Interim Report Q2 2012.

<sup>3</sup> In addition to senior debt and covered bonds, the banks' long-term debt (original maturity of more than 1 year) also comprises Additional Tier 1 capital and other subordinated capital.

THE BANKS' GOVERNMENT GUARANTEED SENIOR DEBT

Chart 6



Note: Amounts have been calculated based on exchange rates at the time of calculation. Changes in the height of total columns reflect exchange-rate fluctuations.

Source: Financial Stability Company.

activity in the market and, in many cases, a credit rating of the bank is also a must. The small and medium-sized banks gained temporary access to issue debt in the market in the run-up to the financial crisis when market liquidity was ample and in connection with the government guarantee under Bank Rescue Package 2. All government-guaranteed debt will have matured by the end of 2013.<sup>1</sup>

At the end of August 2012, the outstanding senior debt with a government guarantee in groups 1-3\* had been reduced from kr. 147 billion at end-2010 to kr. 65 billion, cf. Chart 6. Approximately 56 per cent of the reduction reflects debt maturing during the period, while the banks' premature redemptions account for the remainder. 28 banks still have outstanding government guarantees, against 38 banks at the end of 2010.

Danmarks Nationalbank has introduced a series of measures to support liquidity, ensuring sufficient flexibility in the continued adjustment process. Moreover, Bank Rescue Package 4 provides improved options for particularly challenged banks by offering a new individual government guarantee – or to renew an existing one – in connection with a merger if at least one of the merging banks is distressed or is expected to become

<sup>1</sup> However, Bank Rescue Package 4 provides an opportunity for extending individual government guarantees in connection with mergers.

distressed. A special solution has been found for one of the large banks, FIH Erhvervsbank, entailing transfer of part of the bank to a new company, cf. Bank Rescue Package 5.

### Short-term debt issuance

Short-term debt issuance offers a less costly supplement to longer-term funding and is a useful liquidity management instrument. However, on account of the shorter maturity, short-term debt carries a higher refinancing risk, which the banks must allow for in their risk management.

The banks can get access to short-term funding by issuing e.g. Commercial Paper, CP. The access to, notably, the US CP market has proven to be unstable throughout the crisis because investors have withdrawn from the European market during periods of greater uncertainty.

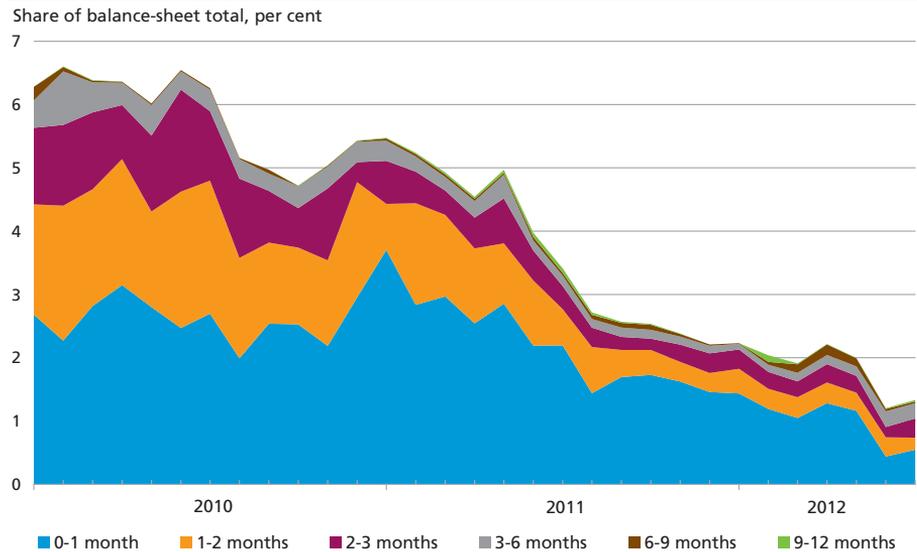
Only a limited number of Danish banks issue CP and other short-term debt instruments, and the use has been on a downward trend, reflecting, inter alia, the recent downgrades of a number of Danish banks. At the end of August 2012, short-term debt issuance accounted for 1.4 per cent of the total assets of the large banks, cf. Chart 7.

### Debt to credit institutions

Interbank credit forms part of a normal and efficient money market where banks with short-term surplus liquidity grant loans to banks with

OUTSTANDING SHORT-TERM DEBT, GROUP 1

Chart 7

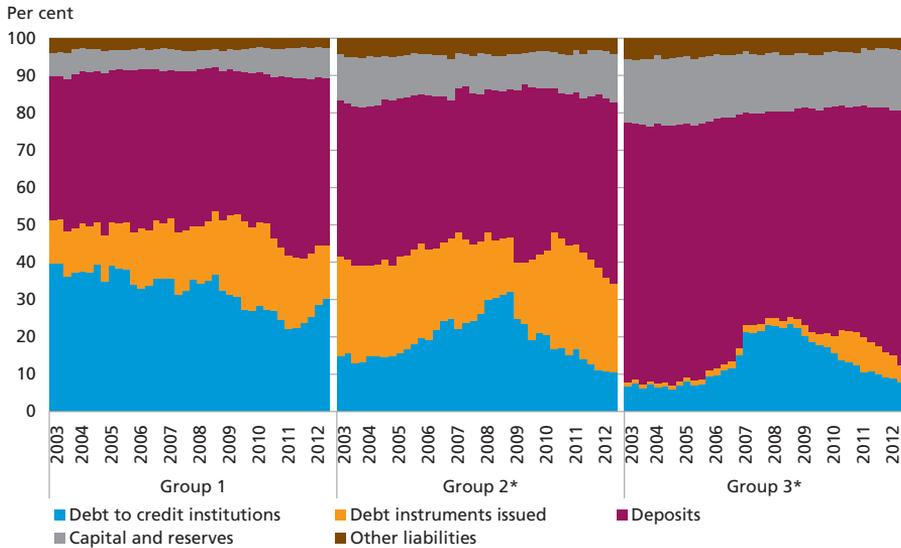


Note: The most recent observation is from August 2012.

Source: Liquidity reporting to the Danish Financial Supervisory Authority and Danmarks Nationalbank.

COMPOSITION OF THE BANKS' LIABILITIES SIDE

Chart 8



Note: Balance-sheet figures exclude derivatives. The most recent observation is from the 2nd quarter of 2012.  
Source: Danmarks Nationalbank.

a liquidity requirement. However, since uncollateralised debt to credit institutions is a short-lived source of funding, the dependence on this type of funding should be curtailed. This is reflected in CRD IV under which debt to credit institutions is considered to be among the least stable types of funding.

Since mid-2011, the large banks have financed a growing share of their activities by loans from other credit institutions, cf. Chart 8. In the same period, the share of issued debt instruments has been declining on the back of the difficult issuance conditions for long-term as well as short-term debt instruments in recent years. It is important that the large banks focus on the risks associated with substantial short-term debt to credit institutions. The small and medium-sized banks' debt to credit institutions has been significantly reduced since 2008 and makes up an increasingly smaller share of the balance sheet.

The financial crisis has sharpened the focus on credit risk. In the money market this is reflected by a shift away from the longer maturities to the very short-term maturities of uncollateralised loans as well as a shift away from uncollateralised loans to collateralised loans (repo transactions).

### DANMARKS NATIONALBANK'S MEASURES TO SUPPORT LIQUIDITY

Danmarks Nationalbank has launched a series of measures to support liquidity for the banks. The facilities have been made available to ensure

that the banks have the flexibility needed to adapt to a long-term, sustainable business model. The measures comprise e.g. an expansion of the collateral base to include the banks' own credit claims of good quality and the introduction of 6-month monetary policy loans offered once a month. So far, the facilities have only been used to a limited extent.

Moreover, Danmarks Nationalbank has offered 3-year loans on two occasions: at the end of March and at the end of September 2012. Following the second allotment on 28 September, the banks have borrowed a total of kr. 53.2 billion from Danmarks Nationalbank with a 3-year maturity.

## LIQUIDITY REQUIREMENTS AND STRESS TESTS

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In order to ensure adequate liquidity in the banks, the banks are subject to a quantitative minimum requirement for their excess liquidity cover as defined in Section 152 of the Danish Financial Business Act. Pursuant to the Section 152 requirement, a bank should hold adequate liquid assets to cover at least 10 per cent of its total debt and guarantee exposures or 15 per cent of its short-term debt exposures. Moreover, as from the end of 2012, the banks must observe the limit values of the Supervisory Diamond of excess liquidity cover of 50 per cent and a measure for stable funding, known as the funding ratio.<sup>1</sup> The funding ratio reflects the relationship between lending on the one hand and working capital less bonds maturing within 1 year on the other. Looking ahead, the banks will need to observe the liquidity requirements of the pan-European liquidity regulation, which is part of the not yet adopted Capital Requirement Directive, CRD IV.<sup>2</sup>

At the end of August 2012, the excess liquidity cover of the individual banks was well above the Supervisory Diamond's limit value of 50 per cent. In addition, at the end of the 1st half of 2012, the majority of the banks had a funding ratio of less than 1 and, hence, in this respect met the limit value of the Supervisory Diamond. The few banks with a funding ratio in excess of 1 are primarily characterised by special business models with few or no deposits or by funding via their parent companies. From the end of 2012, non-observance of the limit value of the Supervisory Diamond may result in a supervisory response.

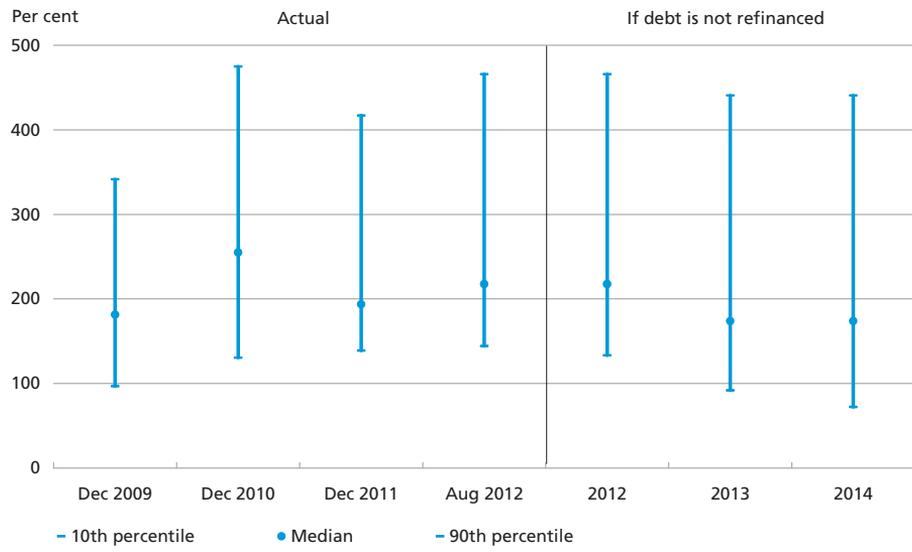
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<sup>1</sup> See Danmarks Nationalbank, *Financial stability, 2012*, Box 6, or Danmarks Nationalbank, *Stress Tests, 2nd Half 2011*, Box 1, for a more detailed description of the Section 152 liquidity requirement and the funding ratio.

<sup>2</sup> See Danmarks Nationalbank, *Financial stability, 2012*, Box 7, for a description of the coming liquidity requirements under CRD IV.

EXCESS LIQUIDITY COVER, ACTUAL AND IF SENIOR DEBT IS NOT REFINANCED UNTIL END-2014

Chart 9



Note: Maturity of senior debt covers the period September 2012 until December 2014. Individual government guarantees issued to Vestjysk Bank are assumed to be extended until 2016, cf. the merger provisions of Bank Rescue Package 4. Due to Bank Rescue Package 5 and the ongoing adjustment of the bank's business model, FIH Erhvervsbank is not included in the analysis.

Source: Liquidity reporting to the Danish Financial Supervisory Authority and Danmarks Nationalbank and own calculations.

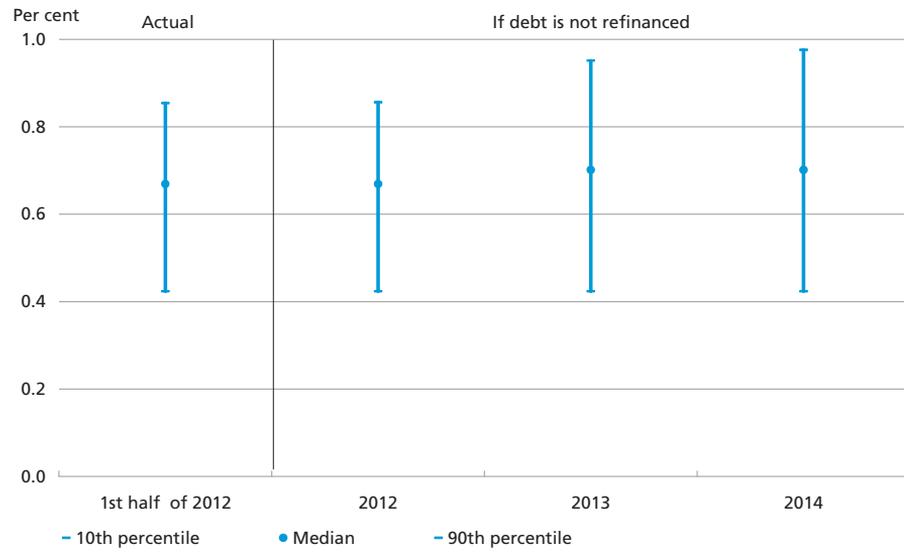
### Stress test of the banks' liquidity; maturing long-term debt

In order to assess the sustainability of the banks' liquidity situation, the development in the Section 152 requirement and the funding ratio is analysed in a scenario of maturing long-term senior debt (original maturity of more than 1 year) with no refinancing or balance sheet reduction option until the end of 2014. Other sources of funding such as deposits and short-term debt are assumed to be unchanged. In this scenario, the excess liquidity cover for the median bank will decline from 218 per cent at end-August 2012 to 174 per cent at end-2014, cf. Chart 9. All banks will maintain positive excess liquidity cover and the large banks will maintain excess liquidity cover above 50 per cent. Among the small and medium-sized banks, two banks will have excess liquidity cover below 50 per cent. The funding ratio of the median bank increases from 0.67 to 0.70, cf. Chart 10, while one bank will no longer meet the limit value for the funding ratio of 1. The scenario reflects that 70 per cent of the long-term senior debt in groups 1-3\* matures without refinancing. Compared with a similar calculation from March 2012, the banks' liquidity situation has improved.<sup>1</sup>

<sup>1</sup> Cf. Danmarks Nationalbank, *Financial stability*, 2012, Chapter 3.

FUNDING RATIO, ACTUAL AND IF SENIOR DEBT IS NOT REFINANCED UNTIL  
END-2014

Chart 10



Note: The funding ratio has been calculated based on data from the 1st half of 2012, while maturity of senior debt covers the period from September 2012 until December 2014. Individual government guarantees issued to Vestjysk Bank are assumed to be extended until 2016, cf. the merger provisions of Bank Rescue Package 4. Due to Bank Rescue Package 5 and the ongoing adjustment of the bank's business model, FIH Erhvervsbank is not included in the analysis.

Source: Danish Financial Supervisory Authority, liquidity reporting to the Danish Financial Supervisory Authority and Danmarks Nationalbank own calculations.

### Results of the banks' own liquidity stress tests

Besides the maturing of long-term debt, the banks' observation of the liquidity requirement depends on other factors such as the access to raise short-term loans and the development in deposits.

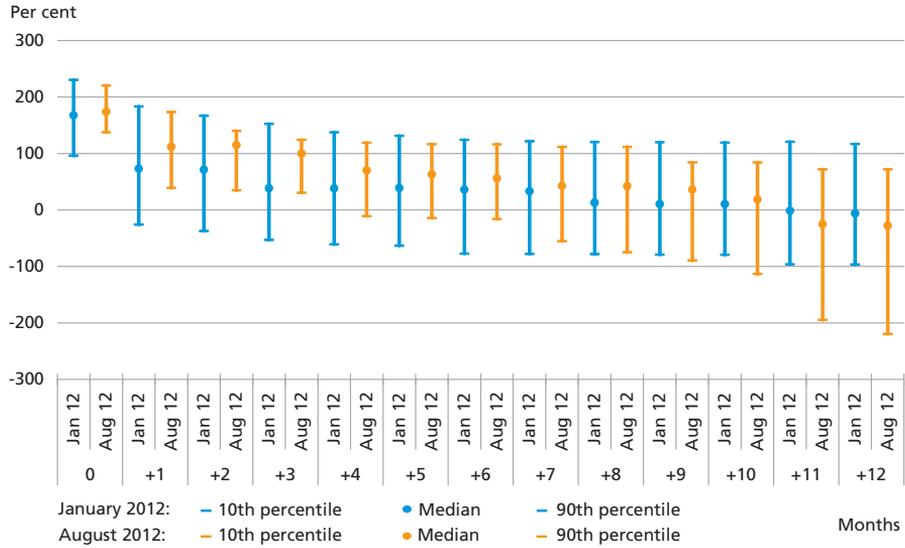
The banks report the results of the liquidity stress tests to the Danish Financial Supervisory Authority and Danmarks Nationalbank every month. The stress tests show the development in the excess liquidity cover for the coming 12 months under a number of hard assumptions regarding the run-off of various sources of funding.<sup>1</sup>

The results from August 2012 for the large and medium-sized banks show that the median bank maintains positive excess liquidity cover in the first 10 months of the stress test, cf. Chart 11, corresponding to the results for the median bank in the stress test conducted in January 2012. Relative to the stress test conducted in January 2012, the excess liquidity cover of the median bank improved overall during the first months of the stress test and the spread has narrowed, reflecting higher excess liquidity cover initially. However, the results of the median bank in the

<sup>1</sup> Different assumptions are used for the stress tests of large and medium-sized banks and of small banks. See Danmarks Nationalbank, *Financial stability*, 2012, Box 8, for an overview of these assumptions.

EXCESS LIQUIDITY COVER IN STRESS TESTS, GROUPS 1 AND 2\*

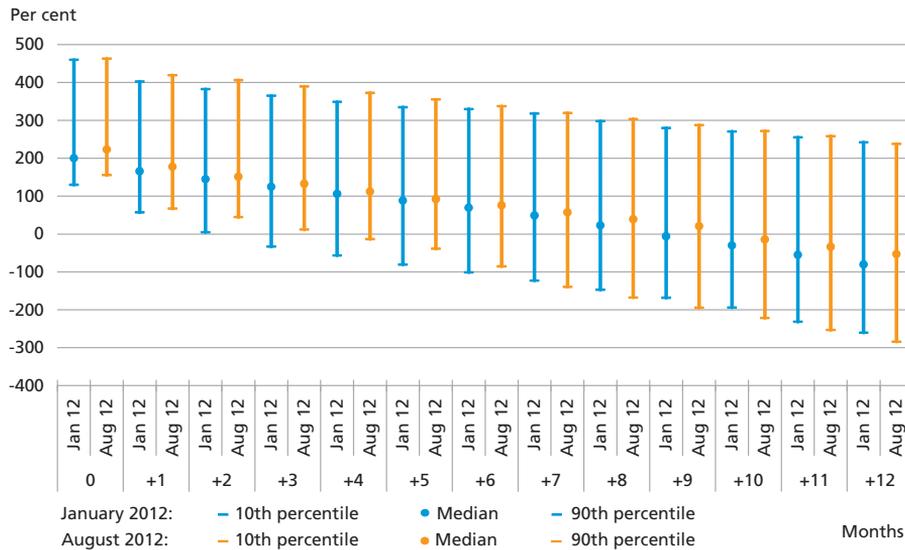
Chart 11



Note: Based on results of the Danish Financial Supervisory Authority's and Danmarks Nationalbank's liquidity stress tests.  
 Source: Liquidity reporting to the Danish Financial Supervisory Authority and Danmarks Nationalbank.

EXCESS LIQUIDITY COVER IN STRESS TESTS, GROUP 3\*

Chart 12



Note: Based on results of the Danish Financial Supervisory Authority's and Danmarks Nationalbank's liquidity stress tests.  
 Source: Liquidity reporting to the Danish Financial Supervisory Authority and Danmarks Nationalbank.

last months of the stress test have deteriorated and the spread has widened relative to the stress test conducted in January 2012. This primarily reflects that government-guaranteed debt maturing in the period from February to July 2013 affects the results of the latest stress test while these maturities were outside the stress test period in January 2012.

The results of the majority of the small banks have improved marginally relative to the stress test conducted in January 2012 as the excess liquidity cover of the median bank becomes negative after 10 months versus 9 months in the stress test conducted in January 2012, cf. Chart 12. However, maturing government-guaranteed debt also has a negative impact on the small banks. In the stress test conducted in August 2012, this results, in the last months of the test, in lower excess liquidity cover for the banks with the lowest excess liquidity cover.

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## Stress Test of the Banks' Capitalisation

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*Danmarks Nationalbank's stress test shows that the largest Danish banks are robust. Compared with the stress test's point of departure in Financial stability, 2012, the majority of the largest banks are better capitalised.*

*For the four banks that participated in the capital exercise conducted by the European Banking Authority, EBA, via Danish credit groups, excess capital adequacy remains positive in all Danmarks Nationalbank's stress test scenarios, and Common Equity Tier 1 capital remains above 9 per cent, which was the requirement in the EBA's capital exercise – even if government capital injections are not included.*

*Three of the small banks included in the stress test will need to strengthen their capitalisation in the baseline scenario of the stress test, and one bank is close to the threshold. The assessment is that any problems among small banks can be solved via business adjustments or within the existing framework for mergers and resolution without significantly influencing financial stability in Denmark.*

*In the stress scenarios – which are based on considerably more negative macroeconomic developments than the one assumed to be most likely – one more small bank will need to strengthen its capitalisation. Add to this that the future capital adequacy rules will gradually tighten the requirements for the banks' capitalisation towards 2019. The capital markets may expect the new tighter capital requirements to be fulfilled earlier than stipulated by the transitional provisions.*

### BACKGROUND

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Danmarks Nationalbank's stress test model provides the basis for a general assessment of the resilience of Danish banks in terms of capitalisation in various scenarios.<sup>1</sup> The stress test comprises banks in groups 1 and 2\*, excluding FIH Erhvervsbank.<sup>2</sup> The five largest banks account for 83 per cent of the lending and guarantees of Danish banks. If the other 10

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<sup>1</sup> For a description of Danmarks Nationalbank's stress test model, see Danmarks Nationalbank, *Financial stability*, 2008.

<sup>2</sup> The stress test is based on the banks' financial statements for the 1st half of 2012. FIH Erhvervsbank has been excluded from the stress test, since the transaction in connection with the bank's sale of property exposures to the Financial Stability Company did not take place until 2 July 2012, entailing that the Property Finance business area remains on FIH Erhvervsbank's balance sheet in the financial statements for the 1st half of 2012. On 18 September 2012, the Boards of Sparbank and Spar Nord Bank entered into an agreement on recommending to the shareholders of the two banks that the two banks merge. The two banks are not expected to hold extraordinary general meetings until early November 2012. Consequently, Sparbank and Spar Nord Bank are included in the stress test as independent banks.

SCENARIOS, SELECTED MACROECONOMIC VARIABLES

Table 1

	Scenario 0	Scenario 1	Scenario 2	Scenario 3
<b>2012</b>				
GDP, per cent year-on-year .....	0.3			
Private consumption, per cent year-on-year .....	0.6			
Export market growth, per cent year-on-year .....	2.4			
Unemployment rate .....	4.2			
House prices, per cent year-on-year .....	-3.6			
Bond yield, per cent per annum .....	1.7			
<b>2013</b>				
GDP, per cent year-on-year .....	1.6	-0.2	-1.2	-3.5
Private consumption, per cent year-on-year .....	1.5	-1.3	-1.4	-3.8
Export market growth, per cent year-on-year .....	4.3	4.3	-1.5	-9.7
Unemployment rate .....	4.4	4.9	5.2	5.8
House prices, per cent year-on-year .....	3.2	-2.4	-6.0	-10.5
Bond yield, per cent per annum .....	1.9	1.9	1.9	1.9
<b>2014</b>				
GDP, per cent year-on-year .....	1.7	1.0	0.0	-1.2
Private consumption, per cent year-on-year .....	1.7	0.8	0.9	-0.5
Export market growth, per cent year-on-year .....	6.0	6.0	3.1	1.8
Unemployment rate .....	4.3	5.4	6.5	8.3
House prices, per cent year-on-year .....	2.8	-0.8	-3.3	-7.8
Bond yield, per cent per annum .....	2.3	2.3	2.3	2.3

Note: Annual averages. The unemployment rate is the number of unemployed as a percentage of the labour force. The number of unemployed comprises net unemployed, defined as the number of individuals who receive unemployment benefits or cash benefits, are not in active labour market programmes and are considered ready for the labour market. In the three stress scenarios, the negative shocks to the economy do not occur until 2013. Thus economic developments in the stress scenarios follow scenario 0 in 2012.

Source: Danmarks Nationalbank and own calculations.

banks comprised by the stress test are included, the 15 banks account for 91 per cent of the loans and guarantees of Danish banks.

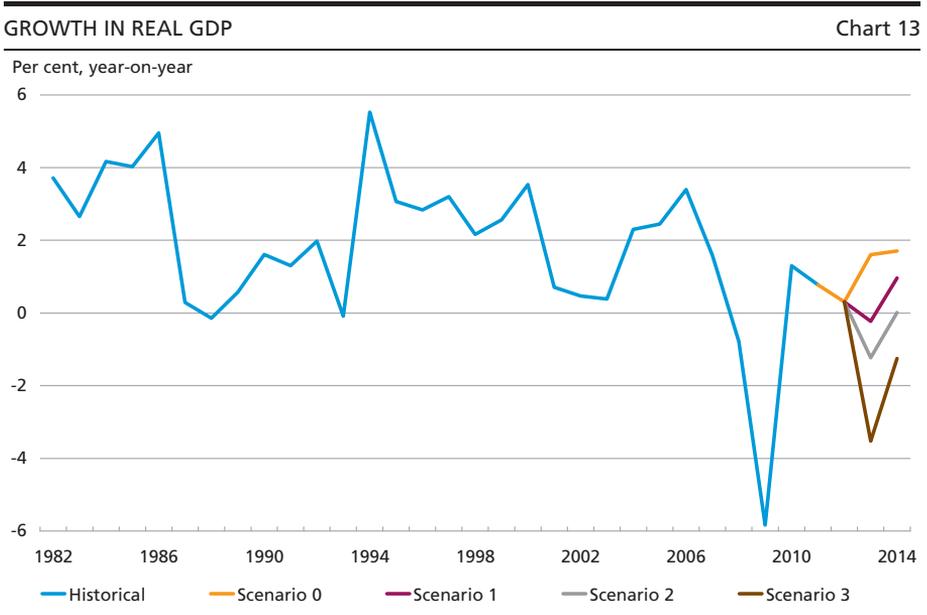
The stress in the model does not stem exclusively from macroeconomic stress scenarios, but also from a number of assumptions in the projection of the banks' capitalisation.<sup>1</sup> Therefore, the results in the baseline scenario do not constitute a forecast of developments in the banks' capitalisation.

The model does not take into account the banks' liquidity risks, which are analysed in detail in Chapter 1. The banks are assumed to be able to refinance senior debt maturing in the stress test period.

## SCENARIOS

The capitalisation of the banks is assessed in four macroeconomic scenarios: A baseline scenario reflecting Danmarks Nationalbank's most recent forecast and three stress scenarios reflecting various types and strengths of negative shocks to the economy, cf. Table 1. In the three

<sup>1</sup> For a description of the stress test assumptions, see Danmarks Nationalbank, *Financial stability*, 2012, Box 11.



stress scenarios, the negative shocks to the economy do not occur until 2013. Thus, economic developments in the stress scenarios follow the baseline scenario in 2012. The stress scenarios have been prepared in collaboration with the Danish Financial Supervisory Authority. Developments in the four scenarios are specified in Appendix 2.

### Scenario 0 (baseline scenario)

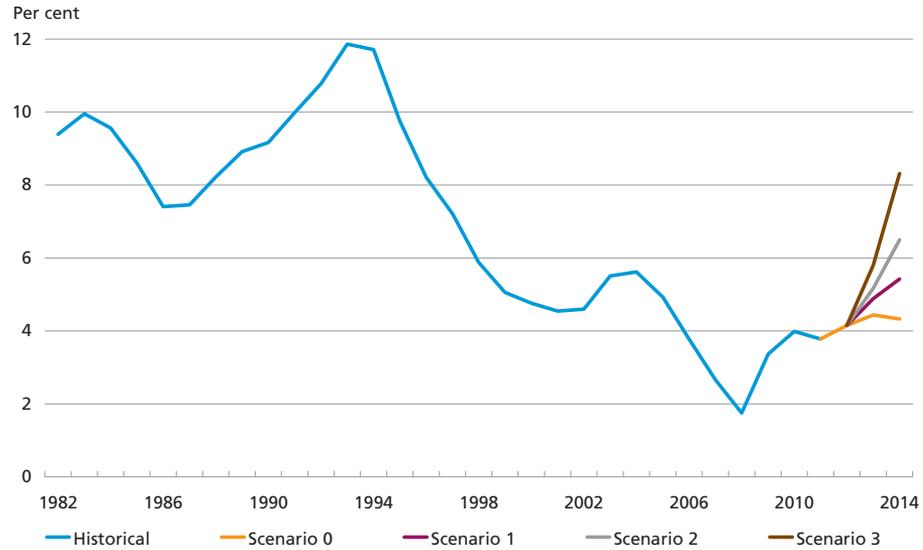
This scenario is based on Denmark's Nationalbank's most recent forecast for the Danish economy, see *Monetary Review*, 3rd Quarter 2012. For the full year 2012, growth is estimated to be weak, cf. Chart 13. Compared with the baseline scenario in *Financial stability, 2012*, this is a significantly lower growth estimate for 2012, reflecting deterioration in international and domestic demand. In 2013 and 2014, GDP growth is expected to rise to 1.6 and 1.7 per cent, respectively, which is unchanged from the forecast constituting the baseline scenario in *Financial stability, 2012*. Net unemployment is expected to edge up slightly in 2013, followed by a small decline in 2014, cf. Chart 14.

### Scenario 1 (temporary domestic recession)

The Danish economy is hit by a negative shock to private consumption, private investment and house prices. Since developments abroad are assumed to follow the baseline scenario, export market growth is not affected. Danish interest rates remain at a low level during the stress

UNEMPLOYMENT RATE

Chart 14



Note: Annual averages. The unemployment rate is the number of unemployed as a percentage of the labour force. The number of unemployed comprises net unemployed, defined as the number of individuals who receive unemployment benefits or cash benefits, are not in active labour market programmes and are considered ready for the labour market.

Source: Statistics Denmark and own calculations.

test period (unchanged compared with the baseline scenario). Viewed over the period, accumulated GDP growth is 2.5 percentage points lower than in the baseline scenario.

### Scenario 2 (European crisis)

A worsening of the euro area debt crisis negatively affects economic activity in Denmark through exports. Thus, the scenario implies that export market growth is reduced by 5.8 percentage points relative to the baseline scenario and by 2.9 percentage points in 2013 and 2014, respectively. The escalation of the debt crisis in the euro area will also spill over to the Danish economy in the form of an erosion of confidence, leading to negative shocks to private consumption, private investment and house prices. Danish interest rates will remain at a low level (unchanged compared with the baseline scenario). Accumulated GDP growth over the period is 4.5 percentage points lower than in the baseline scenario.

### Scenario 3 (global crisis)

The scenario implies a strong global shock to business and consumer confidence, leading to a sharp decline in export market growth in 2013, which is reduced by 14.0 percentage points relative to the baseline scenario. Furthermore, it is assumed that consumer and business confidence in Denmark also weakens sharply, reflected in a negative shock to pri-

vate consumption, private investment and house prices. Danish interest rates will remain at a low level (unchanged compared with the baseline scenario). Viewed over the period, accumulated GDP growth is 8.0 percentage points lower than in the baseline scenario.

## RESULTS

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The analysis is based on the banks' financial statements for the 1st half of 2012. The stress test model projects income statements and balance sheets in the scenarios, thus providing a basis for assessing the development in the banks' capitalisation. The model applies relations for historical links between macroeconomic developments in Denmark, on the one hand, and the banks' earnings and loan impairment charges, on the other.<sup>1</sup>

### Earnings

The banks' earnings before loan impairment charges and tax rose in the 1st half of 2012 compared with the same period of 2011. Due to rising interest rates, earnings before loan impairment charges and tax increase in all scenarios during the stress test period. This should be seen in the context that the banks hold more interest-bearing assets than liabilities. Higher earnings mean that the banks are able to absorb larger loan impairment charges without drawing on their capital bases.

### Loan impairment charges

In 2009, the sector's loan impairment charges reached their highest level since the early 1990s. Since then, loan impairment charges have fallen. In scenario 0, loan impairment charges are expected to decline further over the coming years, cf. Chart 15. The sum of the annual loan impairment charge ratios for the years 2012-14 is 2.4 per cent in scenario 0, equivalent to an average annual loan impairment charge ratio of 0.8 per cent.

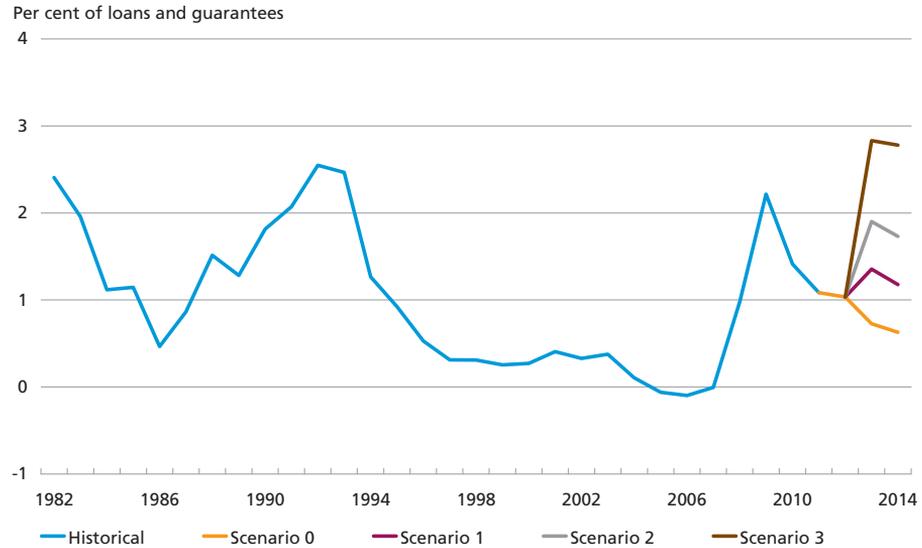
In scenarios 1 and 2, the sum of the annual loan impairment charge ratios during the stress test period is expected to rise to 3.6 and 4.7 per cent, respectively, equivalent to average annual loan impairment charge ratios of 1.2 and 1.6 per cent, respectively. The increase is driven by lower growth, house prices and employment, while, viewed in isolation, the low interest rates will help reduce the loan impairment charges. In scenario 3, the sum of loan impairment charge ratios during the stress test period increases to 6.6 per cent, equivalent to an average annual loan impairment charge ratio of 2.2 per cent due to a severe macroeconomic shock.

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<sup>1</sup> For a description of the estimation method for the calculation of the banks' loan impairment charge ratios, see Danmarks Nationalbank, *Financial stability*, 2012, Chapter 8.

ANNUAL LOAN IMPAIRMENT CHARGE RATIOS

Chart 15



Note: Loan impairment charges have been calculated as per cent of loans and guarantees before loan impairment charges. The historical series until 2011 is based on banks in the Danish Financial Supervisory Authority's groups 1-3. Estimated loan impairment charge ratios in 2012 to 2014 have been calculated as weighted averages of the 15 banks in the stress test. Bank-specific loan impairment charge ratios have been used in the calculations, cf. Danmarks Nationalbank, *Financial stability*, 2012, Chapter 8.

Source: Cato Baldvinsson, Torben Bender, Kim Busch-Nielsen and Flemming Nytoft Rasmussen, *Danish Banks*, 5th edition, Forlaget Thomson, 2005, Danish Financial Supervisory Authority and own calculations.

### Total capital and excess capital adequacy

For the four banks that participated in the capital exercise conducted by the EBA via Danish credit groups, cf. Box 2, excess capital adequacy remains positive in all Danmarks Nationalbank's stress test scenarios, and Common Equity Tier 1 capital remains above 9 per cent, which was the requirement in the EBA's capital exercise – even if government capital injections are not included.

During the 1st half of 2012, most of the largest banks improved their capitalisation compared with the financial statements for 2011, which formed the basis for the stress test in *Financial stability*, 2012. For most of these banks, this is reflected in higher total capital.

The total capital must exceed the bank's individual capital need and must constitute at least 8 per cent of the risk-weighted assets. Excess capital adequacy is defined as the difference between the bank's total capital and the individual capital need. In the stress test, the individual capital need is assumed to be unchanged during the stress test period.

Most of the banks included in the stress test, including the five largest banks, meet the regulatory requirement for total capital (and Common Equity Tier 1, cf. the following section) in scenario 0. Three of the small banks included in the stress test will need to strengthen their capitalisa-

## CAPITAL EXERCISE CONDUCTED BY THE EUROPEAN BANKING AUTHORITY, EBA Box 2

The capital exercise conducted by the European Banking Authority, EBA, is part of a recapitalisation plan of European banking groups, agreed at the EU summit on 26 October 2011. Results based on data for the 3rd quarter of 2011 were published on 8 December 2011, while the final results, based on data for the 2nd quarter of 2012, were published on 3 October 2012.

The aim of the capital exercise and the recapitalisation plan was to shore up confidence in the EU banking sector, especially in terms of the banks' exposure to vulnerable sovereign debt. The requirement to be met by the banking groups included in the capital exercise was that, by July 2012 as a minimum, they were to hold Core Tier 1 capital equivalent to 9 per cent of their risk-weighted assets. In the capital exercise, government capital injections are included in Core Tier 1 capital. Moreover, the banks were to set aside exceptional capital buffers to cover sovereign risk exposures, calculated at market value at end-September 2011.

In December 2011, the EBA tested the banks' shortfall in meeting the 9 per cent requirement and the requirement in terms of the exceptional buffer against sovereign risk exposures. 71 banking groups were included in the capital exercise. The exercise showed that 37 banks failed to meet the requirement and had an aggregate recapitalisation need of 115 billion euro. The six Greek banks in the exercise accounted for 30 billion euro of the aggregate need, which is addressed through EU/IMF programmes. Of the remaining 31 banks, 28 submitted a recapitalisation plan to the EBA in January 2012. The remaining three banks, Dexia, Österreichische Volksbank AG and WestLB AG, Düsseldorf, are currently undergoing major restructuring, including closure of activities. Finally, Spanish Bankia, which initially submitted a recapitalisation plan, is also undergoing major restructuring and has therefore been excluded from the final results published on 3 October 2012. Initially, the recapitalisation need of the remaining 27 banks was 76 billion euro.

The final results showed that, overall, the 27 banking groups had recapitalised their balance sheets by 116 billion euro. 24 of the 27 banks met the requirements of the exercise. As initially agreed, the EU member states in which the remaining three banks are domiciled have agreed to inject capital into the banks. Overall, the banks included in the capital exercise have been recapitalised to the tune of more than 200 billion euro. Only one bank, which initially complied with the requirement, failed to meet the requirement in the final exercise: Nova Kreditna Banka Maribor D.D.

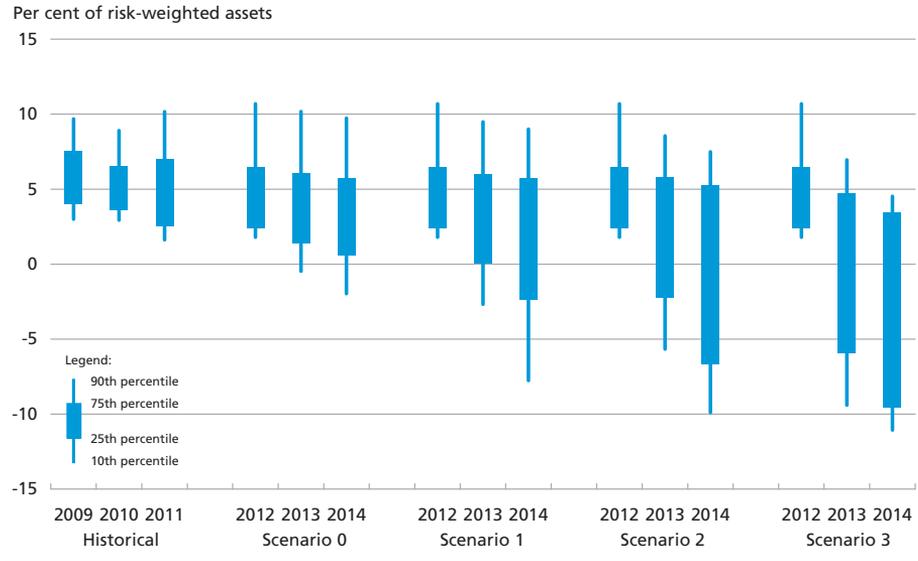
Four Danish banking groups were included in the exercise: Danske Bank, Jyske Bank, Nykredit and Sydbank. The four Danish banking groups met the requirement in December 2011. They also met the requirement in the exercise at end-June 2012. For the four Danish groups, the final report showed the following results of Core Tier 1 capital ratios at end-June 2012 – including government capital injections:

- Danske Bank: 14.3
- Jyske Bank 13.1
- Nykredit: 14.5
- Sydbank: 12.8

The report also showed that the Danish groups are still not exposed to vulnerable sovereign debt to any significant extent, either directly through government bonds or indirectly through hedging of sovereign exposures (e.g. CDS contracts).

EXCESS CAPITAL ADEQUACY

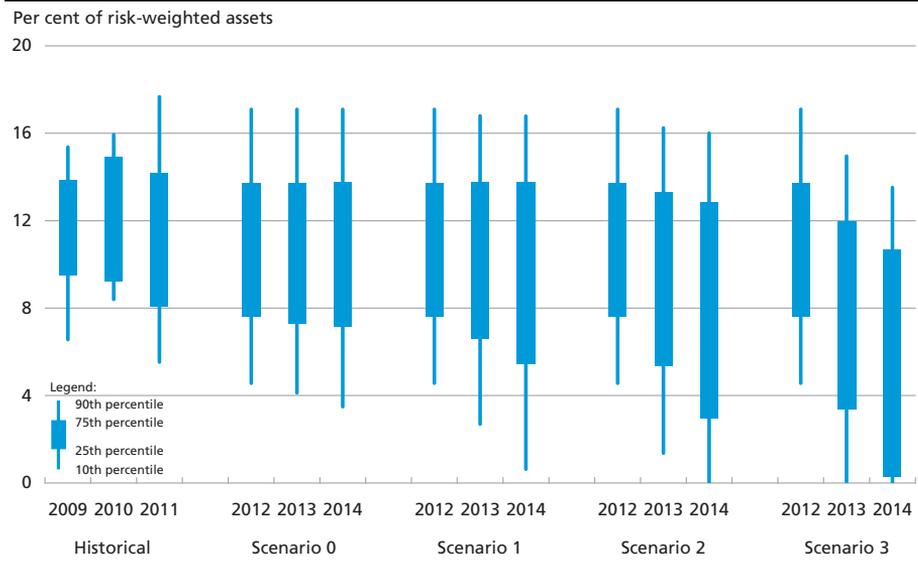
Chart 16



Source: Danish Financial Supervisory Authority and own calculations.

COMMON EQUITY TIER 1

Chart 17



Source: Danish Financial Supervisory Authority and own calculations.

tion, and one bank is close to the threshold. In the stress scenarios, most banks see sharp declines in total capital, and one more small bank will need to strengthen its capitalisation, cf. Chart 16.

The banks have various options for increasing their capital, e.g. by retaining profits, raising capital, reducing risks, or improving cost efficiency. Subsidiary banks in financial groups also have the option of receiving a capital injection from the parent company. For some banks, a merger may also be an option.

### **Common Equity Tier 1 capital**

The forthcoming capital-adequacy rules entail higher minimum requirements for the banks' Common Equity Tier 1 capital, i.e. 4 per cent of risk-weighted assets in 2014.<sup>1</sup> The banks generally have high Common Equity Tier 1 capital ratios relative to the requirement, cf. Chart 17.

The full phasing-in of the future capital-adequacy rules from 2019, at the latest, will involve a minimum Common Equity Tier 1 requirement of 7 per cent. The capital markets may expect the banks to meet the new requirements at an earlier stage.

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<sup>1</sup> Current and future capital requirements are described in Danmarks Nationalbank, *Stress Tests*, 2nd Half 2011, Box 3.

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## Appendix 1: Population in the Report

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The analyses in this report are based on the banks included in the Danish Financial Supervisory Authority's groups 1 through 3 in early 2012. Group 1 comprises banks with working capital of at least kr. 65 billion. Group 2\* comprises banks with working capital of between kr. 12 and 65 billion, and group 3\* comprises banks with working capital of between kr. 250 million and kr. 12 billion. Unlike in the Danish Financial Supervisory Authority's groups, these analyses exclude Saxo Bank A/S, Bank DNB, Skandinaviska Enskilda Banken A/S and Carnegie Bank A/S on account of these banks' exceptional business models. Banks acquired by the Financial Stability Company have not been included in the analyses either. Table 2 provides an overview of the groups.

The categorisation applies backwards in time. Banks merged and acquired as at 30 June are included in the group of the continuing company.

Several of the banks are parent companies of other financial enterprises and therefore prepare both separate and consolidated financial statements. To provide the best possible overview of the development in the banks' banking activities, the analyses have primarily been based on separate financial statements, i.e. unconsolidated data.

LIST OF BANKS WITH BALANCE-SHEET TOTAL AS AT 30 JUNE 2012,  
KR. MILLION

Table 2

	Amount		Amount
<b>Group 1</b>		<i>Continued</i>	
Danske Bank .....	2,30,061	Tønder Bank .....	2,884
Nordea Bank Danmark .....	650,491	Ekspres Bank .....	2,709
Jyske Bank .....	256,175	Dronninglund Sparekasse .....	2,619
Nykredit Bank .....	253,233	Totalbanken .....	2,502
Sydbank .....	158,422	Salling Bank .....	2,476
<i>Group 1, total</i>	<i>3,748,382</i>	Basisbank .....	2,410
		Sparekassen for Nr. Nebel og Omegn ...	2,400
<b>Group 2*</b>		Kreditbanken .....	2,399
FIH Erhvervsbank .....	83,301	Nordfyns Bank .....	2,311
Spar Nord Bank .....	66,135	Pen-Sam Bank .....	2,083
Arbejdernes Landsbank .....	35,773	Merkur Almen Andelskasse .....	2,074
Vestjysk Bank .....	33,864	Vestfyns Bank .....	1,990
Alm. Brand Bank .....	21,953	Møns Bank .....	1,789
Ringkjøbing Landbobank .....	18,033	Hvetbo Herreds Sparekasse .....	1,732
Sparekassen Kronjylland .....	17,953	Skals Sparekasse .....	1,728
Sparekassen Sjælland .....	17,461	Lollands Bank .....	1,712
Danske Andelskassers Bank .....	13,924	Broager Sparekasse .....	1,465
Sparbank .....	13,449	Vorbasse Hegns Sparekasse .....	1,375
Sparekassen Lolland .....	12,766	Banque Int. A Luxembourg	
<i>Group 2*, total</i>	<i>334,611</i>	Bank Danmark .....	1,335
		Vordingborg Bank .....	1,327
<b>Group 3*</b>		Bredebro Sparekasse .....	1,172
Den Jyske Sparekasse .....	17,376	Sparekassen Djursland .....	1,084
Sparekassen Vendsyssel .....	11,409	Dragsholm Sparekasse .....	1,054
Lån & Spar Bank .....	10,857	Hvidbjerg Bank .....	968
Sparekassen Himmerland .....	10,317	Frørup Andelskasse .....	730
Nørresundby Bank .....	9,316	Langå Sparekasse .....	728
Nordjyske Bank .....	8,340	Froslev-Møllerup Sparekasse .....	653
FIH Kapital Bank .....	8,184	Balling Sparekasse .....	637
BRFkredit Bank .....	8,026	Hals Sparekasse .....	605
Østjysk Bank .....	7,708	Vinderup Bank .....	522
Sparekassen Faaborg .....	7,163	Folkesparekassen .....	518
Lægernes Pensionsbank .....	6,640	Rise Sparekasse .....	447
Djurslands Bank .....	6,612	Andelskassen Fælleskassen .....	433
Middelfart Sparekasse .....	5,875	Fanø Sparekasse .....	423
Sparekassen Thy .....	5,815	Rønde og Omegns Sparekasse .....	343
Skjern Bank .....	5,642	Sønderhå-Hørsted Sparekasse .....	319
DiBa Bank .....	5,398	Slagelse Andelskasse J.A.K. ....	312
Sparekassen Hobro .....	5,393	Klim Sparekasse .....	309
Frøs Herreds Sparekasse .....	5,387	Cantobank .....	262
Grønlandsbanken .....	5,185	Kongsted Sparekasse .....	252
Saxo Privatbank .....	4,817	<i>Group 3*, total</i>	<i>211,722</i>
Svendborg Sparekasse .....	3,170		
<i>Continues on next column</i>		<b>Danish banks total</b>	<b>4,294,715</b>

Note: For banks that have merged in 2012, the balance-sheet total of the continuing bank is stated as the sum of the assets of the two banks at end-June 2012. The balance-sheet total is stated at bank-specific level.

Source: Danish Financial Supervisory Authority.

## Appendix 2: Stress test Scenarios

The Appendix provides a detailed description of the macroeconomic scenarios used in the stress test in chapter 2.

SPECIFICATION OF SCENARIOS FOR THE DANISH ECONOMY, 2012

Table 3

	Scenario 0	Scenario 1	Scenario 2	Scenario 3
<i>Real growth, per cent, year-on-year</i>				
GNP .....	0.3			
Private consumption .....	0.6			
Public consumption .....	0.7			
Housing investments .....	-7.5			
Business investments .....	6.5			
Public-sector investments .....	6.6			
Inventory investments (contribution to GDP growth) .....	-0.3			
Exports .....	1.9			
- of which industrial exports .....	2.0			
Imports .....	3.0			
Export market growth .....	2.4			
<i>Nominal growth, per cent, year-on-year</i>				
Private sector disposable income .....	3.9			
HICP .....	2.4			
Hourly wages (industry) .....	1.9			
House prices .....	-3.6			
<i>Average level for the year</i>				
Bond yield, per cent p.a. ....	1.7			
3-month money market rate, per cent p.a. ....	0.0			
Unemployment, thousands .....	120			
Total employment, thousands .....	2,760			
- of which private sector, thousands .....	1,756			
Labour force, thousands .....	2,879			
Unemployment rate, per cent .....	4.2			
Net borrowing/net lending, private sector,				
Kr. billion .....	191			
Government budget balance, kr. billion .....	-79			
B.o.p. current account, kr. billion .....	111			
Crude oil, dollar/barrel .....	113			

Note: Annual averages. The unemployment rate is the number of unemployed as a percentage of the labour force. The number of unemployed comprises net unemployed, defined as the number of individuals who receive unemployment benefits or cash benefits, are not in active labour market programmes and are considered ready for the labour market. In the three stress scenarios, the negative shocks to the economy do not occur until 2013. Thus economic developments in the stress scenarios follow scenario 0 in 2012.

Source: Danmarks Nationalbank and own calculations.

SPECIFICATION OF SCENARIOS FOR THE DANISH ECONOMY, 2013 Table 4

	Scenario 0	Scenario 1	Scenario 2	Scenario 3
<i>Real growth, per cent, year-on-year</i>				
GNP .....	1.6	-0.2	-1.2	-3.5
Private consumption .....	1.5	-1.3	-1.4	-3.8
Public consumption .....	0.8	0.8	0.8	0.8
Housing investments .....	4.2	-8.4	-12.6	-19.6
Business investments .....	7.9	-6.5	-9.2	-14.2
Public-sector investments .....	-10.2	-10.2	-10.2	-10.2
Inventory investments (contribution to GDP growth) .....	0.1	-0.0	-0.0	-0.2
Exports .....	3.2	3.3	0.3	-3.9
- of which industrial exports .....	4.9	5.1	0.7	-5.3
Imports .....	3.9	0.5	-1.8	-6.1
Export market growth .....	4.3	4.3	-1.5	-9.7
<i>Nominal growth, per cent, year-on-year</i>				
Private sector disposable income .....	2.6	1.1	0.1	-2.0
HICP .....	2.0	2.0	2.0	2.0
Hourly wages (industry) .....	2.1	2.0	2.0	1.9
House prices .....	3.2	-2.4	-6.0	-10.5
<i>Average level for the year</i>				
Bond yield, per cent p.a. ....	1.9	1.9	1.9	1.9
3-month money market rate, per cent p.a. ....	-0.2	-0.2	-0.2	-0.2
Unemployment, thousands .....	128	141	149	166
Total employment, thousands .....	2,760	2,740	2,727	2,699
- of which private sector, thousands .....	1,752	1,732	1,720	1,692
Labour force, thousands .....	2,888	2,881	2,876	2,866
Unemployment rate, per cent .....	4.4	4.9	5.2	5.8
<i>Net borrowing/net lending, private sector,</i>				
Kr. billion .....	151	200	197	211
Government budget balance, kr. billion .....	-48	-64	-69	-86
B.o.p. current account, kr. billion .....	103	136	127	124
Crude oil, dollar/barrel .....	110	110	110	110

Note: Annual averages. The unemployment rate is the number of unemployed as a percentage of the labour force. The number of unemployed comprises net unemployed, defined as the number of individuals who receive unemployment benefits or cash benefits, are not in active labour market programmes and are considered ready for the labour market.

Source: Danmarks Nationalbank and own calculations.

SPECIFICATION OF SCENARIOS FOR THE DANISH ECONOMY , 2014

Tabel 5

	Scenario 0	Scenario 1	Scenario 2	Scenario 3
<i>Real growth, per cent, year-on-year</i>				
GNP .....	1.7	1.0	0.0	-1.2
Private consumption .....	1.7	0.8	0.9	-0.5
Public consumption .....	0.8	0.8	0.8	0.8
Housing investments .....	3.9	-1.6	-1.9	-5.7
Business investments .....	2.3	-1.2	-0.1	-6.9
Public-sector investments .....	0.9	0.9	0.9	0.9
Inventory investments (contribution to GDP growth) .....	0.2	0.1	-0.3	-0.4
Exports .....	3.7	3.9	1.7	0.3
- of which industrial exports .....	6.1	6.5	5.3	5.7
Imports .....	4.0	3.6	2.6	0.4
Export market growth .....	6.0	6.0	3.1	1.8
<i>Nominal growth, per cent, year-on-year</i>				
Private sector disposable income .....	2.0	1.8	1.0	0.3
HICP .....	1.8	1.7	1.6	1.4
Hourly wages (industry) .....	2.4	1.8	1.4	0.6
House prices .....	2.8	-0.8	-3.3	-7.8
<i>Average level for the year</i>				
Bond yield, per cent p.a. ....	2.3	2.3	2.3	2.3
3-month money market rate, per cent p.a. ....	-0.0	-0.0	-0.0	-0.0
Unemployment, thousands .....	125	156	186	237
Total employment, thousands .....	2,771	2,727	2,683	2,609
- of which private sector, thousands .....	1,759	1,715	1,671	1,597
Labour force, thousands .....	2,897	2,883	2,869	2,845
Unemployment rate, per cent .....	4.3	5.4	6.5	8.3
<i>Net borrowing/net lending, private sector,</i>				
Kr. billion .....	147	216	208	246
Government budget balance, kr. billion .....	-44	-72	-88	-122
B.o.p. current account, kr. billion .....	102	143	120	123
Crude oil, dollar/barrel .....	104	104	104	104

Note: Annual averages. The unemployment rate is the number of unemployed as a percentage of the labour force. The number of unemployed comprises net unemployed, defined as the number of individuals who receive unemployment benefits or cash benefits, are not in active labour market programmes and are considered ready for the labour market.

Source: Danmarks Nationalbank and own calculations.