


# **Financial Stability Report 2015:2**

Appendix - Charts


NOVEMBER 25, 2015





The following charts in the appendix are also included in the "Financial Stability Report 2015: 2".

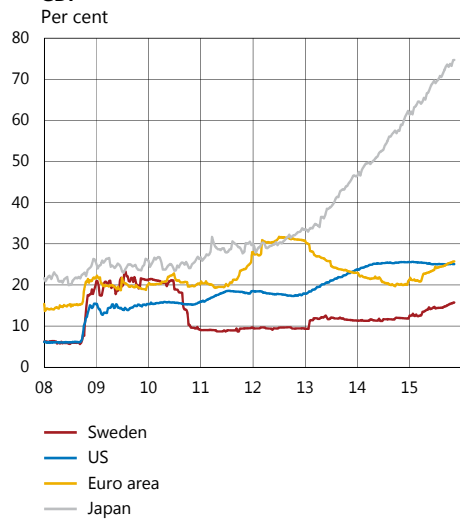
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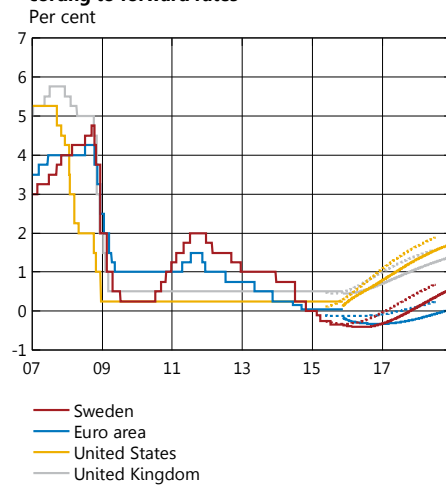
# Financial markets

**Chart A1. Central banks' balance sheet in relation to GDP**



Sources: Macrobond

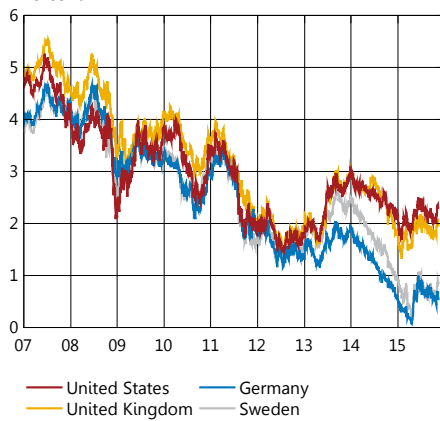
**Chart A2. Policy rates and rate expectations according to forward rates**



Note. Forward rates describe the expected overnight rates which does not always correspond to the official policy rate. Lines are for the latest estimate, dotted lines are for information stop for FSR 2015:1 (2015-05-25)

Sources: Macrobond and the Riksbank

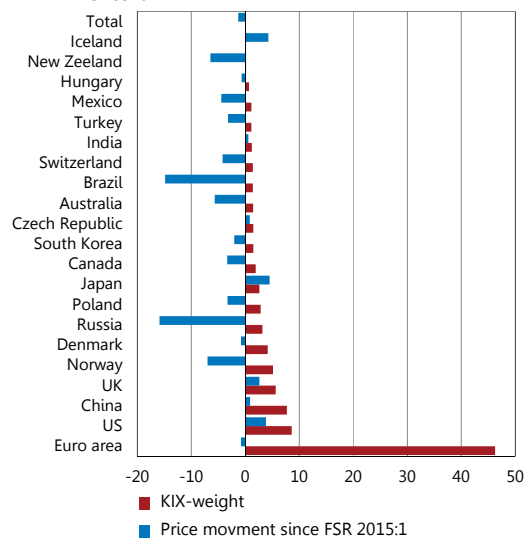
**Chart A3. Ten year government bond rates**



Note. Benchmark bonds. The maturity could therefore potentially be different.

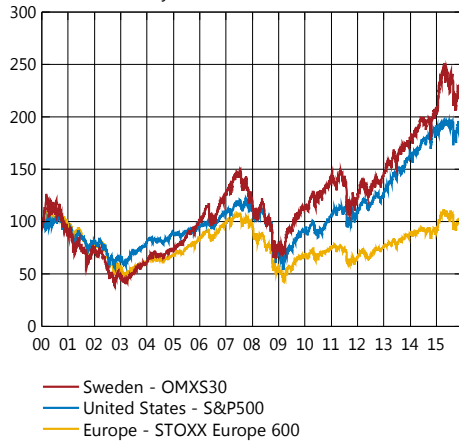
Source: Macrobond

**Chart A4. FX-rate movements for the Swedish krona**



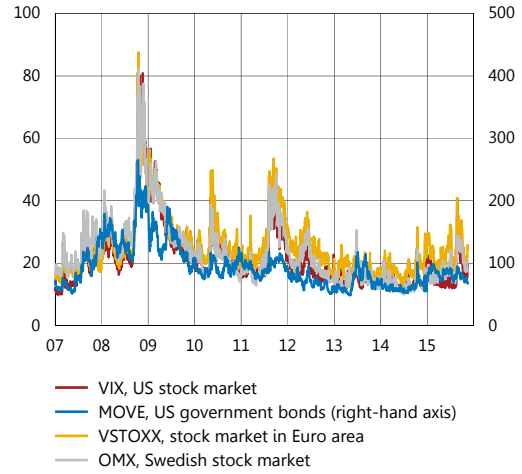
Sources: Macrobond and the Riksbank

**Chart A5. Stock indices**  
Index, 1 January 2000 = 100



Sources: Bloomberg and the Riksbank

**Chart A6. Expected volatility on the bond and stock markets**  
Index



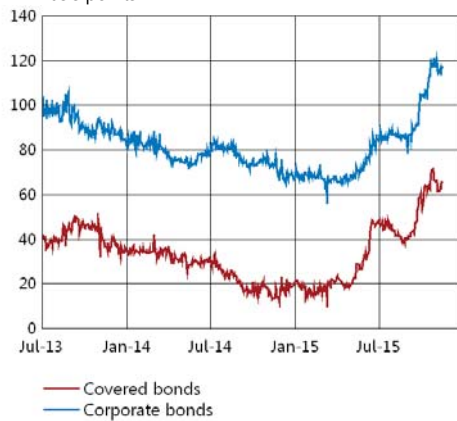
Source: Bloomberg

**Chart A7. Difference in yield between corporate bonds with higher and lower credit worthiness**  
Basis points



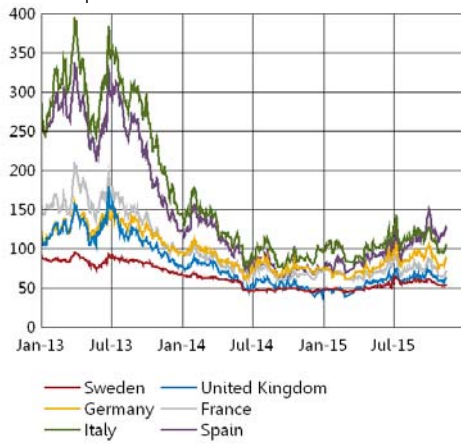
Note. The series shows the spread between corporate bonds with different credit worthiness issued in different currencies. The dashed lines show the mean of the series since January 2010.  
Source: Bloomberg

**Chart A8. Five year risk premias on the Swedish bonds**  
Basis points



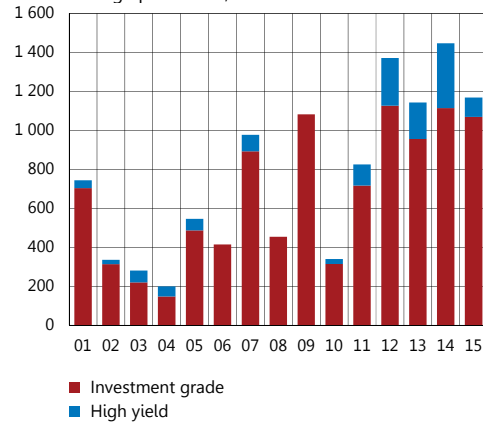
Note. The difference between bond yields and swap rate.  
Source: The Riksbank

**Chart A9. Five year CDS-spreads for banks**  
Basis points



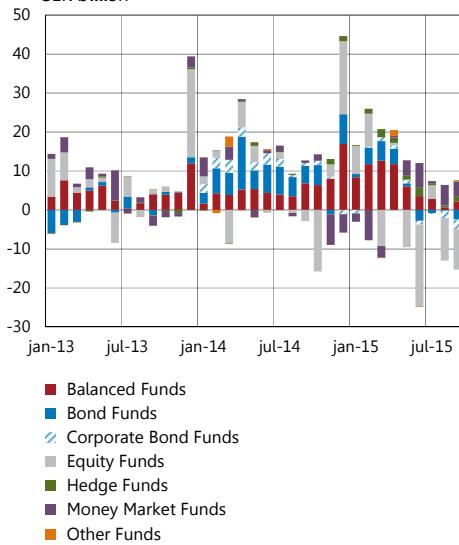
Note. Average of comparable large banks domiciled in the respective country.  
 Sources: Fitch and the Riksbank

**Chart A10. Issues on the Swedish market for corporate bonds**  
Average per month, EUR million



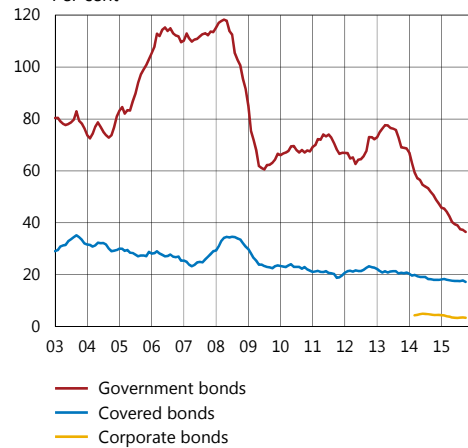
Note. Some bonds have no credit rating from a credit institution and for these bonds the allocation between Investment Grade and High Yield is based on the banks' credit assessments of the companies.  
 Source: Dealogic

**Chart A11. Swedish fund flows**  
SEK billion



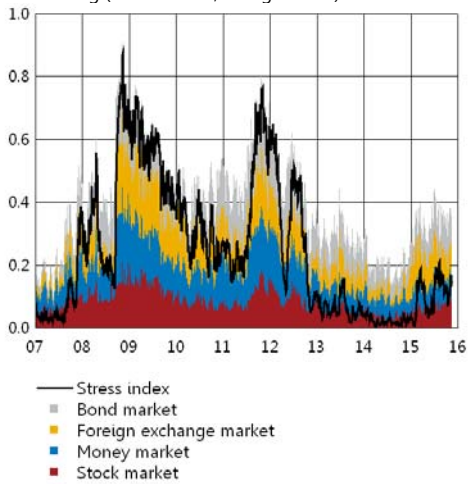
Note. Separate reporting of corporate bonds funds was introduced in 2014.  
 Source: Swedish Investment Fund Association

**Chart A12. Turnover on the Swedish bond market**  
Per cent



Note. Refers to 12-month average of monthly spot turnover in relation to outstanding volume.  
 Sources: Statistics Sweden and the Riksbank

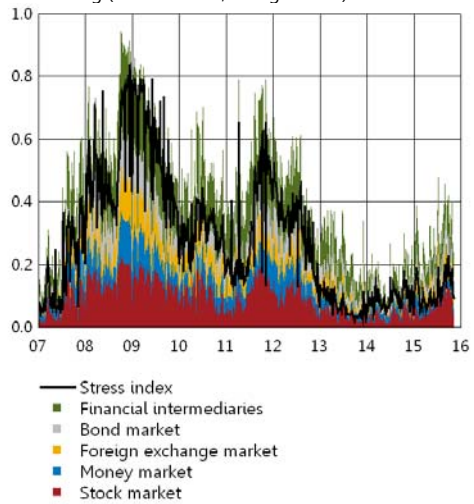
**Chart A13. Swedish stress index**  
Ranking (0=low stress, 1=high stress)



Note. The Swedish stress index has been produced by the Riksbank using a method similar to that used by the ECB for the European stress index. See Johansson, Tor and Bonthron, Fredrik (2013), Further development of the index for financial stress in Sweden, Sveriges Riksbank Economic Review 2013:1. Sveriges Riksbank.

Sources: Bloomberg and the Riksbank

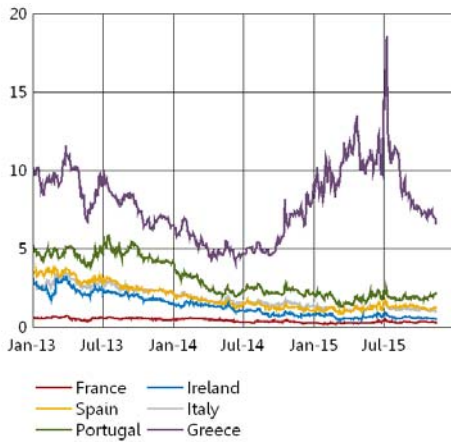
**Chart A14. European stress index**  
Ranking (0=low stress, 1=high stress)



Note. The European stress index is published in the ESRB's Risk Dashboard and elsewhere. The stress level at a specific date is expressed as a value between zero and one, of which one signifies a historically high stress level and zero signifies a historically low stress level. See Holló et al., CISS – A composite indicator of systemic stress in the financial system, Working Paper Series no. 1426, March 2012, ECB.

Source: European Central Bank (ECB)

**Chart A15. Ten year government bond rates, spread to Germany**  
Per cent



Source: Macrobond

**Chart A16. Emerging market currencies**  
Index 100 = Jan 2013, USD per local currency

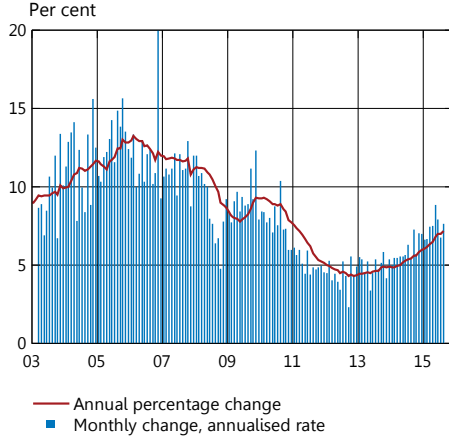


Source: Macrobond



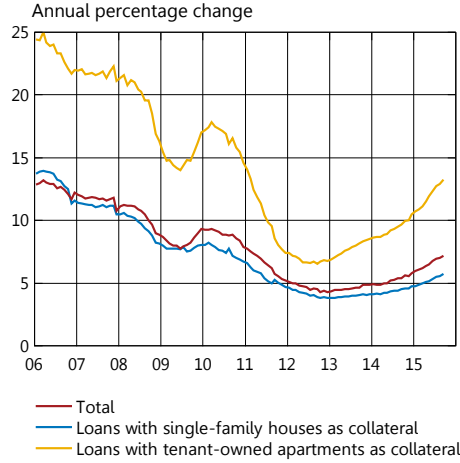
# The Swedish banking groups' borrowers

**Chart A17. Loans to households in Sweden**



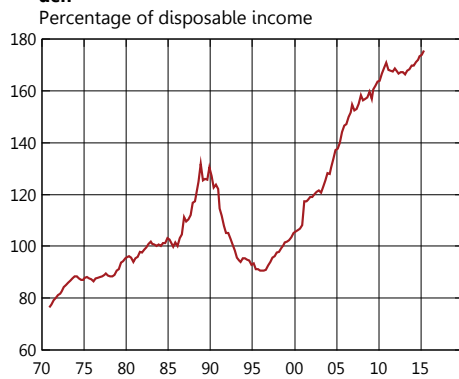
Note. Refers to loans from Monetary Financial Institutions (MFI).  
Sources: Statistics Sweden and the Riksbank

**Chart A18. Loans to households per type of collateral in Sweden**



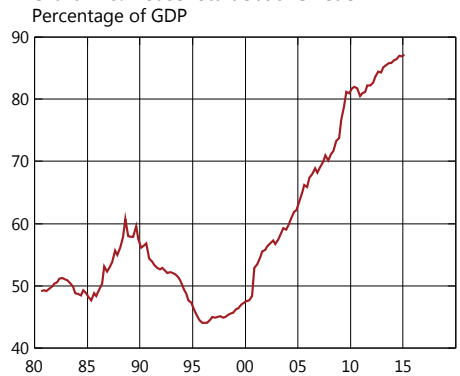
Note. Refers to loans from Monetary Financial Institutions (MFI).  
Sources: Statistics Sweden and the Riksbank

**Chart A19. Household debt-to-income ratio in Sweden**



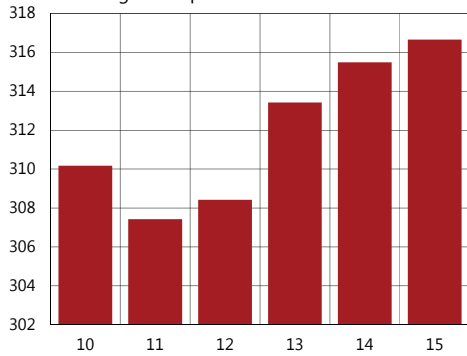
Note. The dashed line represents the Riksbank's forecast.  
Sources: Statistics Sweden and the Riksbank

**Chart A20. Household debt in Sweden**



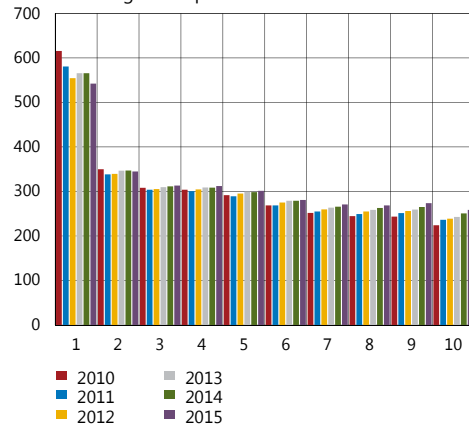
Sources: Statistics Sweden and the Riksbank

**Chart A21. Average debt ratio for households with mortgages in Sweden**  
Percentage of disposable income



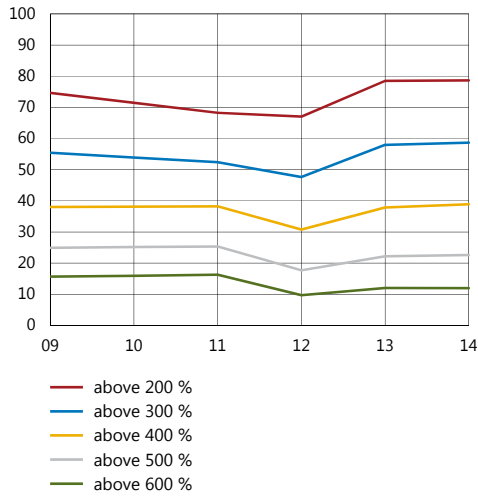
Note. Mean values for indebted households in July each year.  
Source: The Riksbank

**Chart A22. Swedish household debt ratios in different income groups, only mortgage borrowers**  
Percentage of disposable income



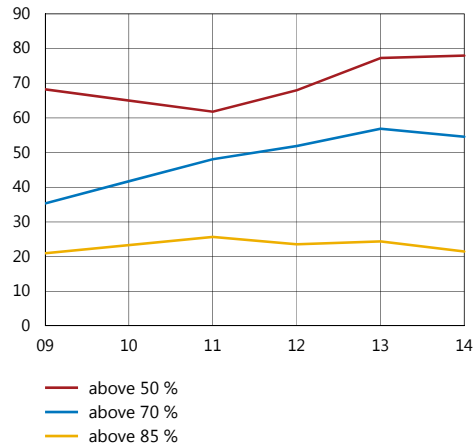
Note. The high debt ratio in the lowest income group should be interpreted with a certain amount of caution, as this group includes, among others, households with highly varied incomes such as households with negative income.  
Source: Riksbanken

**Chart A23. Proportion of new mortgage borrowers with a debt-to-income ratio above a certain level in Sweden**  
Per cent



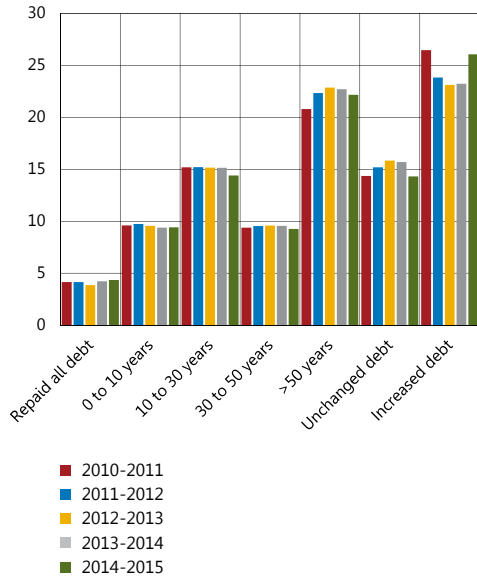
Note. The chart shows the proportion of new borrowers who are above the given debt-to-income ratio. The data is based on the survey on new mortgage borrowers from The Swedish Mortgage Market in 2009, 2011, 2012, 2013 and 2014. Values for 2010 are interpolated between 2009 and 2011.  
Sources: Finansinspektionen and the Riksbank

**Chart A24. Proportion of new mortgage borrowers with a Loan-to-value ratio above a certain level in Sweden**  
Per cent



Note. The chart shows the proportion of new borrowers who are above the given Loan-to-value ratio. The data is based on the survey on new mortgage borrowers from The Swedish Mortgage Market in 2009, 2011, 2012, 2013 and 2014. Values for 2010 are interpolated between 2009 and 2011. Loan-to-value ratios are winsoriserade at the 99th percentile for each year.  
Sources: Finansinspektionen and the Riksbank

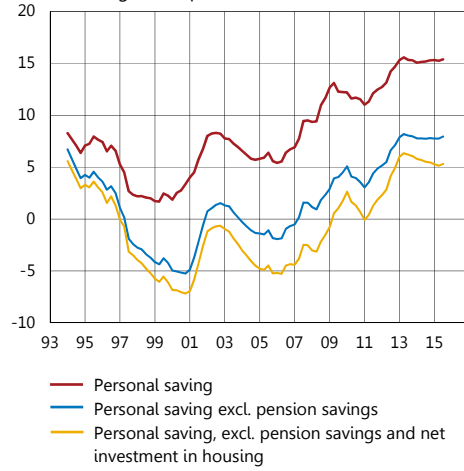
**Chart A25. Repayment periods for individuals with mortgages in Sweden**  
Per cent



Note. The repayment period refers to the time it would take for an individual to repay his or her loans, given the change in debt which is observed between the time periods.

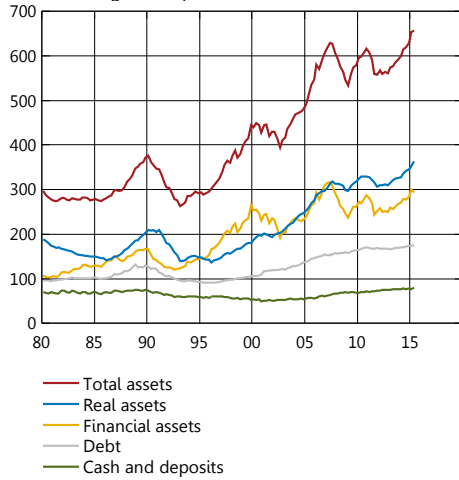
Source: The Riksbank

**Chart A26. Household saving in Sweden**  
Percentage of disposable income



Sources: Statistics Sweden and the Riksbank

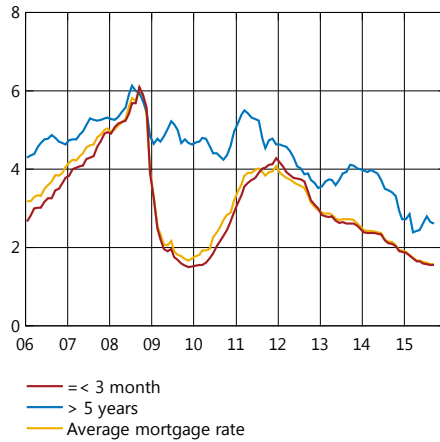
**Chart A27. Household assets and liabilities in Sweden**  
Percentage of disposable income



Note. Total assets exclude collective insurance. Financial assets refers mainly to cash, bank deposits, bonds, mutual funds and shares. Real assets refers to single-family houses, tenant-owned apartments and second homes.

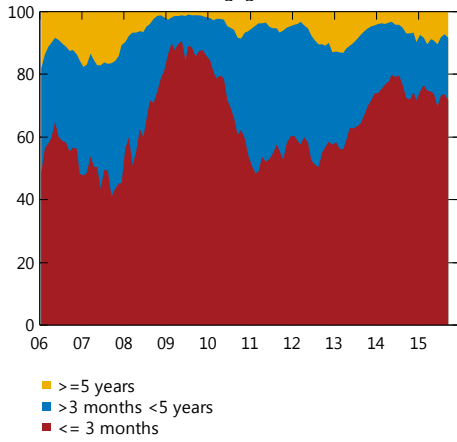
Sources: Statistics Sweden and the Riksbank

**Chart A28. Mortgage rates to households in Sweden**  
Per cent



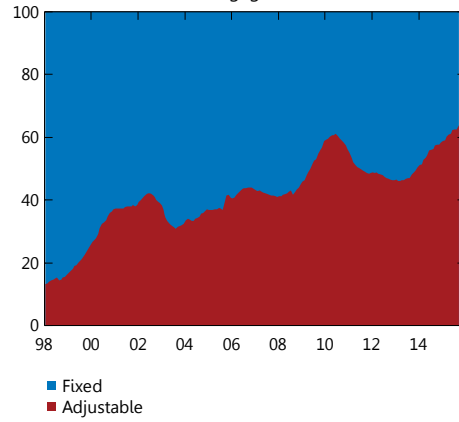
Source: Statistics Sweden

**Chart A29. Fixed rate periods for new mortgage loans in Sweden**  
Per cent, share of mortgages



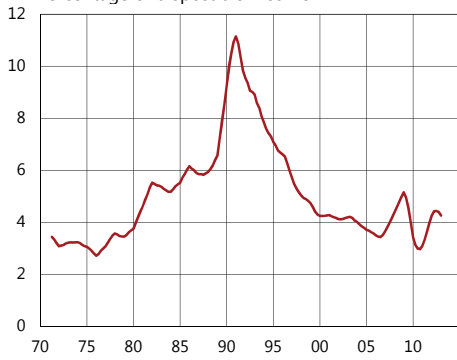
Source: Statistics Sweden

**Chart A30. Fixed rate periods in the mortgage stock in Sweden**  
Per cent, share of mortgages



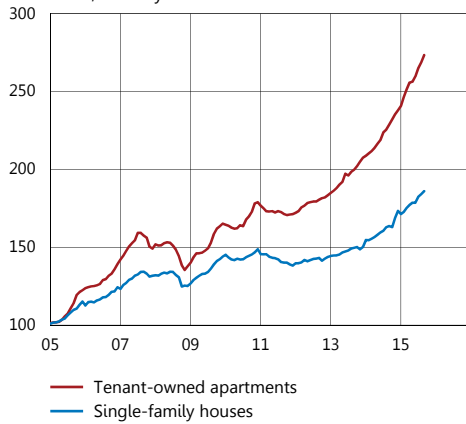
Source: Statistics Sweden

**Chart A31. Household interest expenditure in Sweden**  
Percentage of disposable income



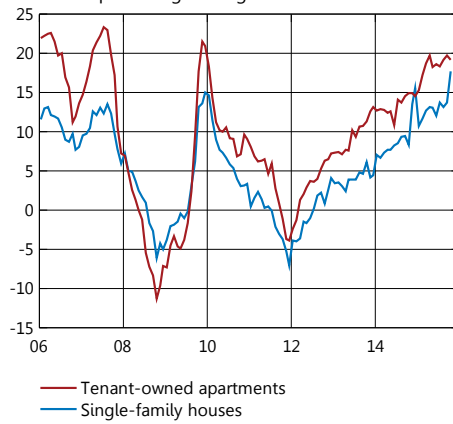
Note. Interest expenditure is after tax.  
Sources: Statistics Sweden and the Riksbank

**Chart A32. Housing prices in Sweden**  
Index, January 2005=100



Note. Seasonally-adjusted housing prices.  
Sources: Valueguard and the Riksbank

**Chart A33. Housing prices in Sweden**  
Annual percentage change



Source: Valueguard

**Chart A34. Real Residential Real Estate Index in Sweden**  
Index, Q1 2000=100



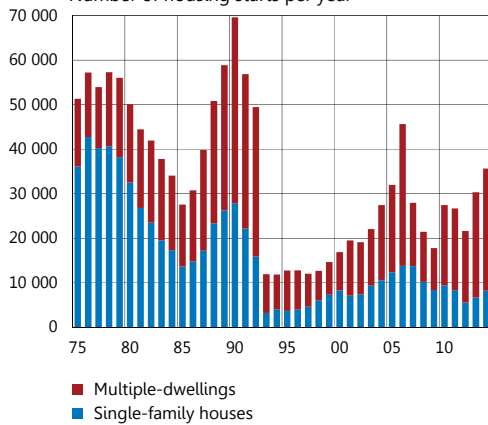
Note. Residential Real Estate Index is deflated with CPIF and refers to the increase in single-family houses.  
Sources: Statistics Sweden and the Riksbank

**Chart A35. Households' expectations of housing prices in Sweden**  
Net total



Note. Net total is defined as the difference between the percentage of households who believe that housing prices will rise and the percentage who believe housing prices will fall.  
Source: SEB

**Chart A36. Housing construction in Sweden**  
Number of housing starts per year



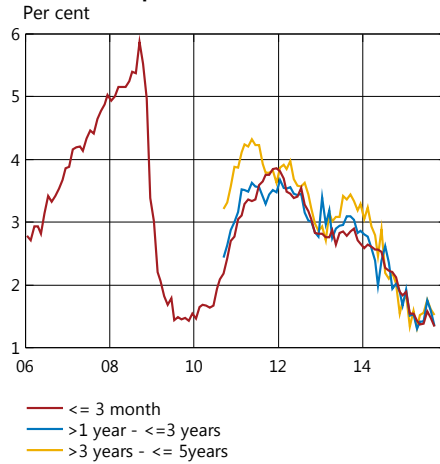
Sources: Statistics Sweden and the Riksbank

**Chart A37. Loans to non-financial companies in Sweden**



Note. Refers to loans from Monetary Financial Institutions (MFI).  
Source: Statistics Sweden

**Chart A38. Interest rates on new loans to non-financial companies in Sweden**



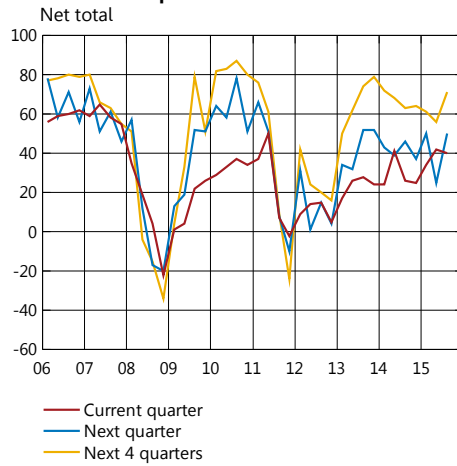
Note. Refers to loans from Monetary Financial Institutions (MFI).  
Source: Statistics Sweden

**Chart A39. Lending standards for non-financial companies in Sweden**



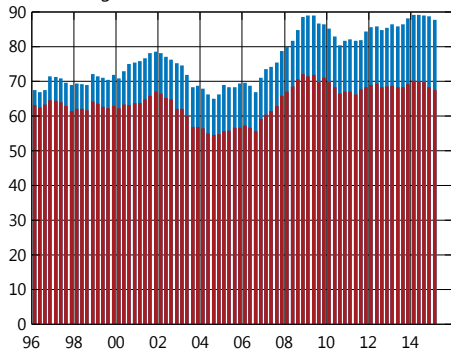
Note. Net total is defined as the difference between the percentage of companies that estimate that lending standards are better or much better than normal, and the percentage who believes that lending standards are worse or much worse than normal.  
Sources: National Institute for Economic Research

**Chart A40. Banks' assessment of lending to non-financial companies in Sweden**



Note. Net total is defined as the difference between the proportion of bank executives who believes that lending will increase or increase very much in the coming period, and the proportion who believes that lending will be less or considerably less in the coming period.  
Source: ALMI

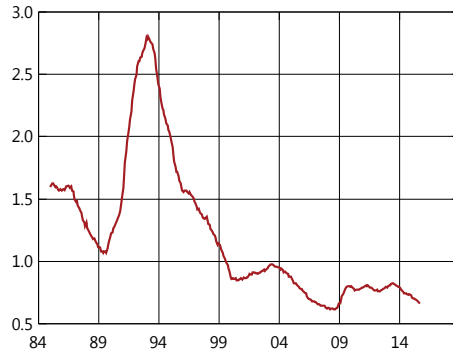
**Chart A41. Non-financial companies debt levels in Sweden**  
Percentage of GDP



■ Whole sale funding  
■ Bank loans

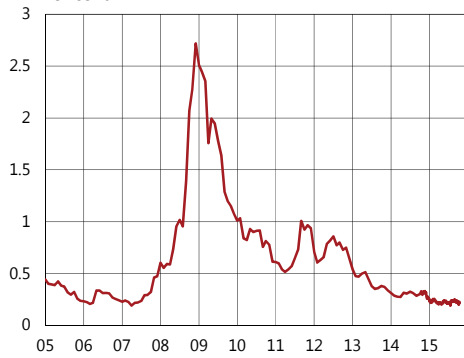
Note. Bank loans refers to loans in the short and long term. Whole sale funding refers to certificates and bonds.  
Sources: Statistics Sweden and the Riksbank

**Chart A42. Bankruptcy rate for non-financial companies in Sweden**  
Per cent



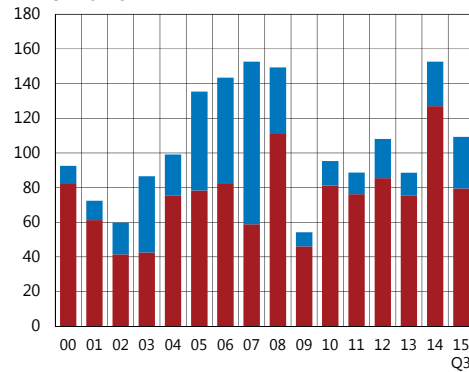
Note. Bankruptcy rate is defined as number of bankruptcies divided by number of companies.  
Sources: Swedish Companies Registration Office, Statistics Sweden and the Riksbank

**Chart A43. Expected default frequencies for listed non-financial companies in Sweden**  
Per cent



Note. Expected default frequencies are calculated on the basis of a representative portfolio of listed non-financial companies.  
Source: Moody's KMV

**Chart A44. Transaction volumes on the commercial property market in Sweden**  
SEK billion



■ Swedish investors  
■ Foreign investors

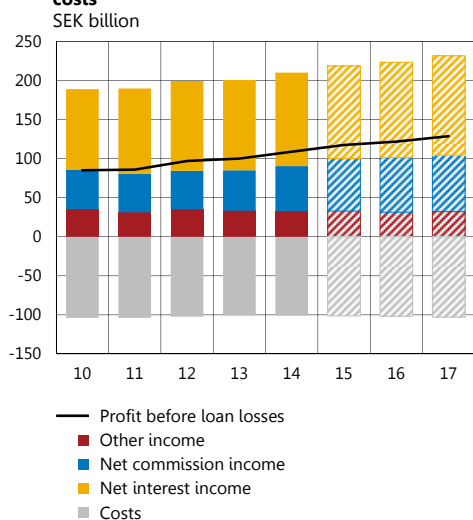
Source: Pangea Property Research





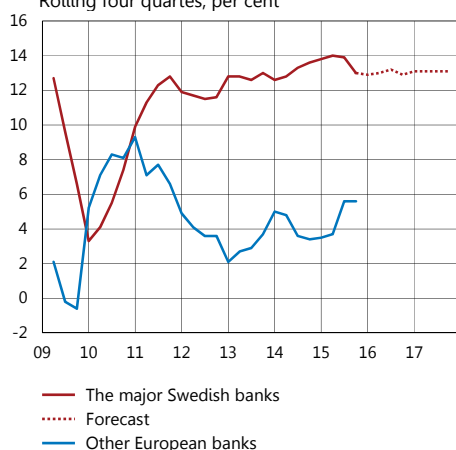
# Developments in the Swedish banking groups

**Chart A45. The major Swedish banks' income and costs**



Note. The shaded bars show the Riksbank's forecast.  
 Sources: Bank reports, SME Direkt and the Riksbank

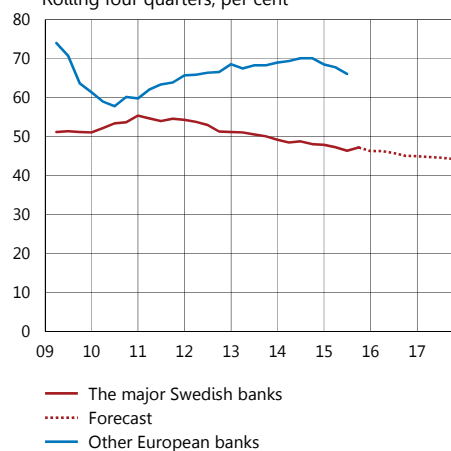
**Chart A47. Return on equity**  
 Rolling four quarters, per cent



Note. Unweighted average. The blue line represents a sample of European banks, see footnote 109 in Financial Stability Report 2014:1. The forecast is based on lending continuing to grow at the same rate as in the last two years.

Sources: SNL Financial, SME Direkt and the Riksbank

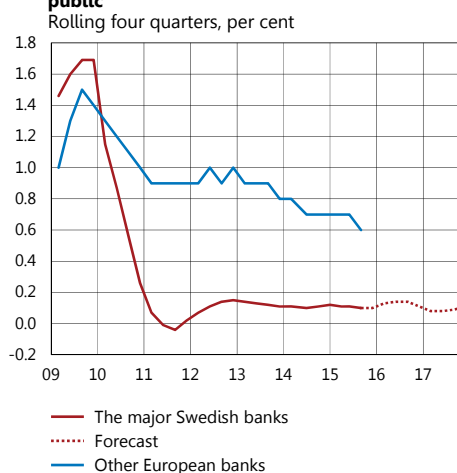
**Chart A46. Cost-to-income ratio**  
 Rolling four quarters, per cent



Note. Unweighted average. The blue line represents a sample of European banks, see footnote 109 in Financial Stability Report 2014:1.

Sources: SNL Financial, SME Direkt and the Riksbank

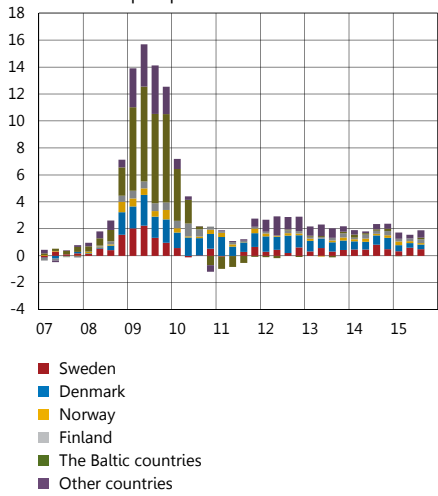
**Chart A48. Loan losses in relation to lending to the public**  
 Rolling four quarters, per cent



Note. Unweighted average. The blue line represents a sample of European banks, see footnote 109 in Financial Stability Report 2014:1. The forecast is based on lending continuing to grow at the same rate as in the last two years.

Sources: SNL Financial, SME Direkt and the Riksbank

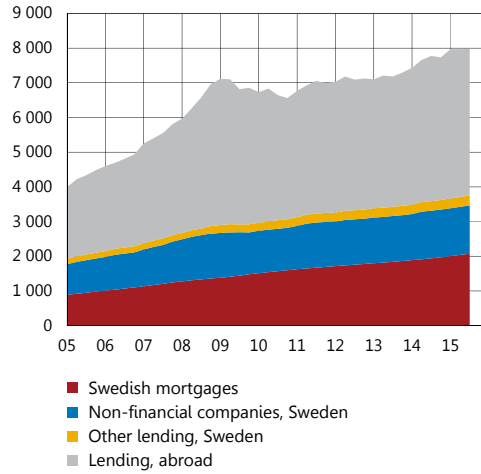
**Chart A49. The major Swedish banks' loan losses**  
SEK billion per quarter



Note. The category "Other countries" refers to loan losses in the other countries in which the banks have operations as well as loan losses that are not allocated to a specific country in the banks' public reporting.

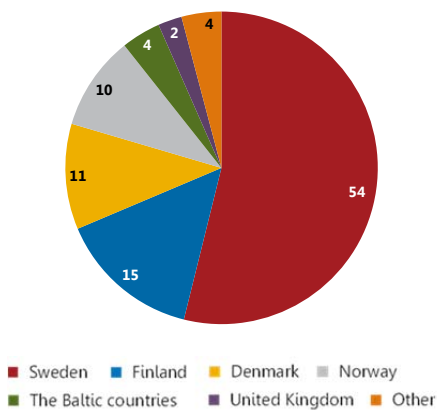
Sources: Bank reports and the Riksbank

**Chart A50. The major Swedish banks' lending to the general public**  
SEK billion



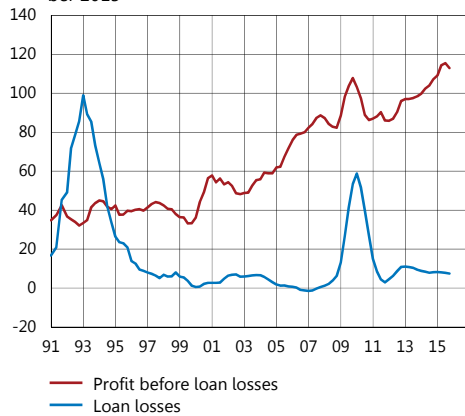
Sources: Statistics Sweden, bank reports and the Riksbank

**Chart A51. The major Swedish banks' lending by geography**  
September 2015, per cent



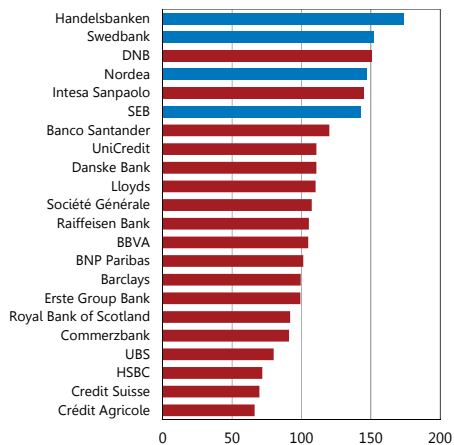
Sources: Bank reports and the Riksbank

**Chart A52. Profits before loan losses and loan losses in the major Swedish banks**  
Rolling four quarters, SEK billion, fixed prices, September 2015



Sources: Bank reports and the Riksbank

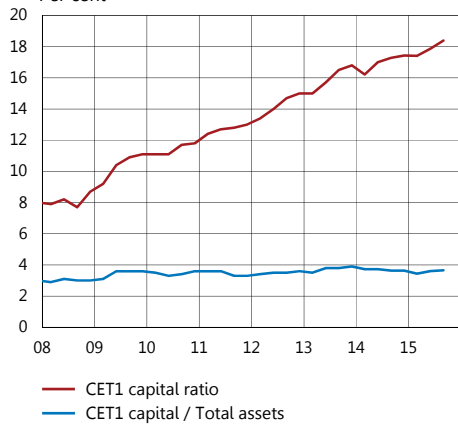
**Chart A53. Loan-to-deposit ratio**  
December 2014, per cent



Note. An average over the last four quarters.

Sources: SNL financial and the Riksbank

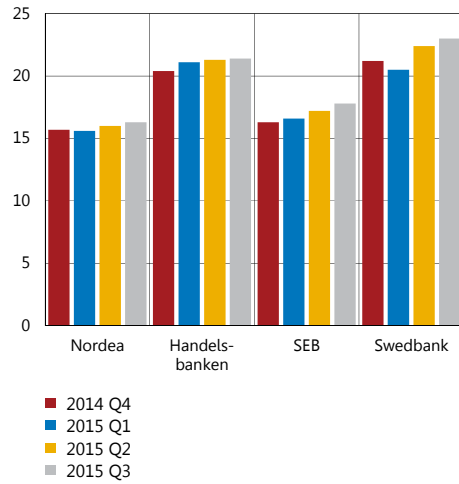
**Chart A54. The major Swedish banks' CET1 capital ratios and CET 1 capital in relation to total assets**  
Per cent



Note. Weighted average.

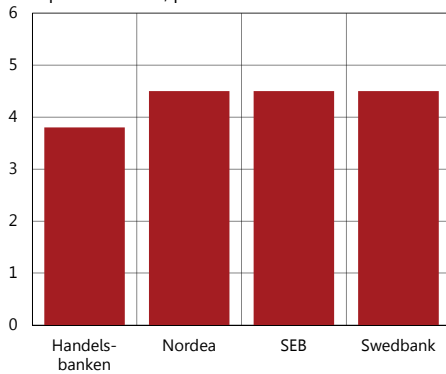
Sources: Bank reports and the Riksbank

**Chart A55. CET1 capital ratios according to Basel III**  
Per cent



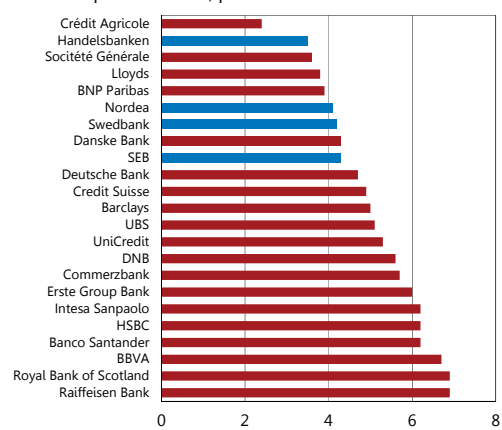
Source: Bank reports

**Chart A56. Reported Leverage ratio**  
September 2015, per cent



Source: Banks reports

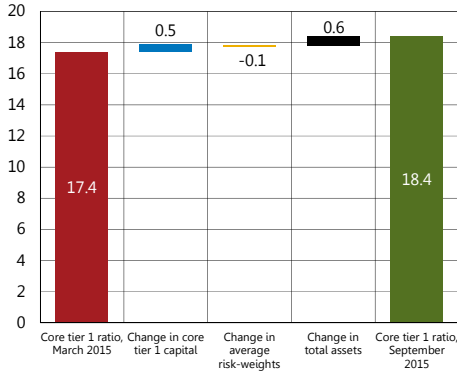
**Chart A57. Capital in relation to total assets**  
September 2015, per cent



Note. The metric is calculated by SNL as an approximation of the Leverage ratio and refers to Tier 1 common capital as a percent of total assets less derivatives. Data from some banks is from Q4 2014.

Sources: SNL Financial and the Riksbanks

**Chart A58. Development of the major Swedish banks' CET1 capital ratios, Basel III**  
Per cent



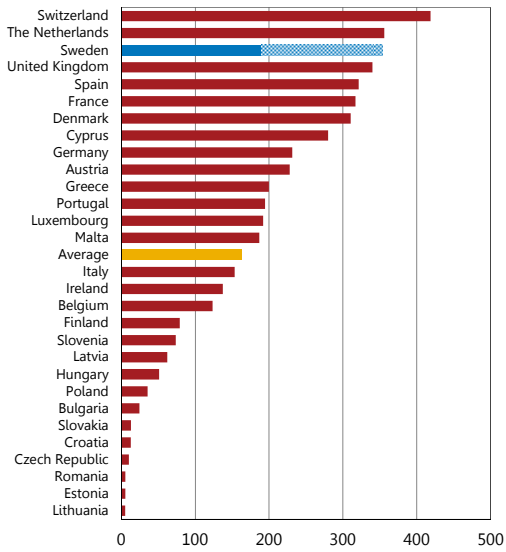
Source: Bank reports and the Riksbank

**Chart A59. Equity in relation to total assets, Swedish banks**  
Per cent



Sources: Hortlund, Do Inflation and High Taxes Increase Bank Leverage?, SSE/EFI Working Paper Series in Economics and Finance, No 6122005, November 2005 and the Riksbank

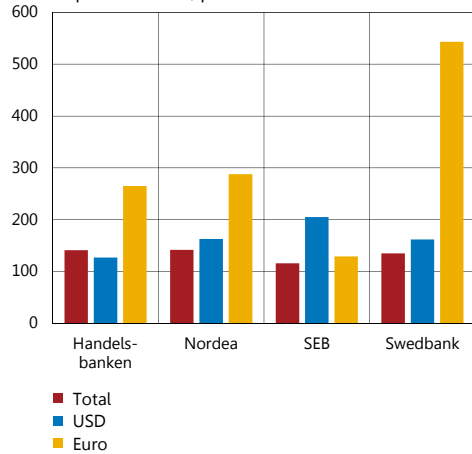
**Chart A60. The banks' total assets in relation to GDP**  
December 2014, per cent



In banking assets are included all of the assets of the national banking groups, that is both foreign and domestic assets. The shadowed part of the blue bar shows the four major banks' assets abroad in relation to Sweden's GDP.

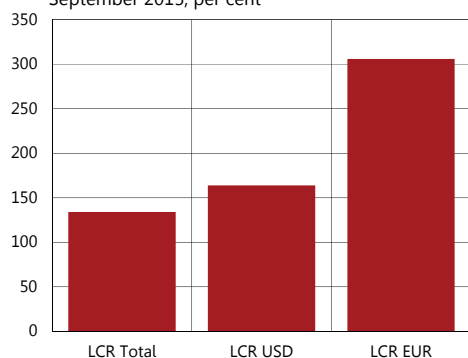
Sources: The ECB, the Swiss Bankers Association, the Swiss Statistics, bank reports and the Riksbank

**Chart A61. The major Swedish banks LCR**  
September 2015, per cent



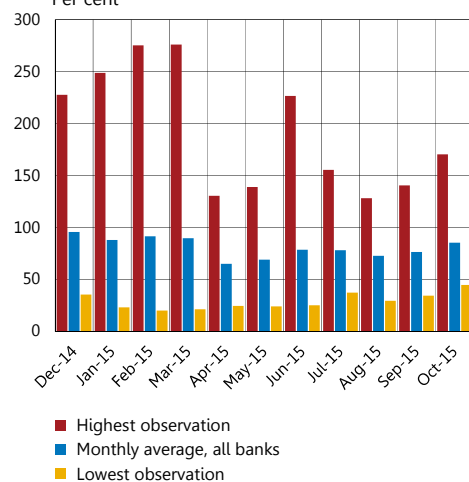
Source: Bank reports

**Chart A62. The major Swedish banks' average LCR by currency**  
September 2015, per cent



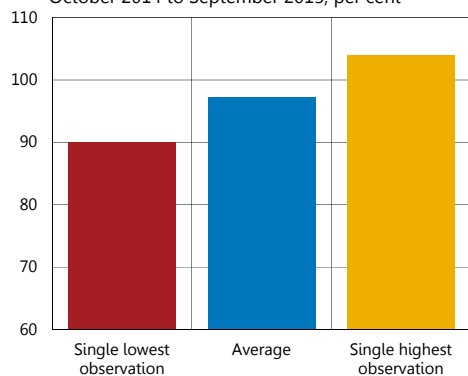
Sources: Bankernas resultatrapporter and the Riksbank

**Chart A63. The major Swedish banks daily LCR in kronor**  
Per cent



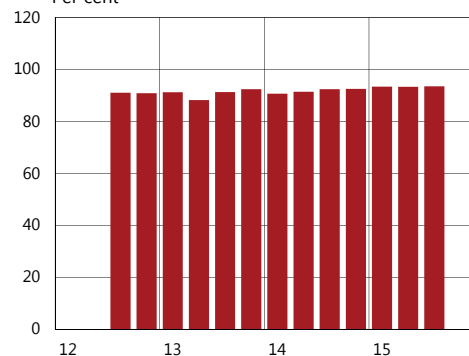
Note. The major banks' average daily LCR in SEK per month, and the highest and lowest individual observation each month.  
Source: The Riksbank

**Chart A64. The major Swedish banks' lowest, average and highest monthly NSFR**  
October 2014 to September 2015, per cent



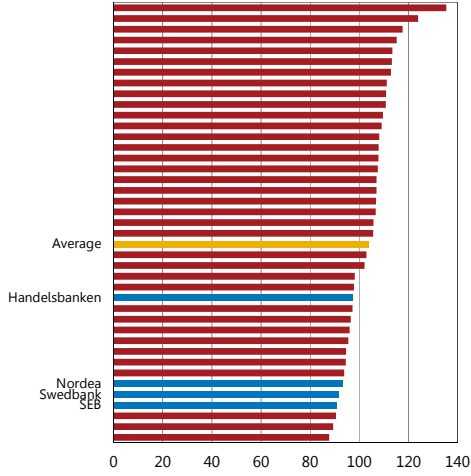
Note. Every month since November 2014, the Riksbank has collected the major banks' NSFRs in accordance with the Basel Committee's final definition. The chart shows the average since then for all of the banks, as well as the highest and lowest observations for a single month.  
Source: The Riksbank

**Chart A65. The Riksbank's structural liquidity measure**  
Per cent



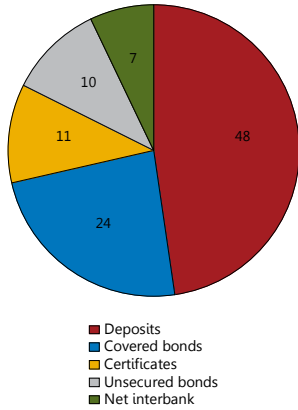
Note. The measure compares a bank's stable funding with its illiquid assets. The higher a bank's results in the measure, the lower its structural liquidity risks.  
Source: The Riksbank

**Chart A66. The Riksbank's structural liquidity measure**  
December 2014, per cent



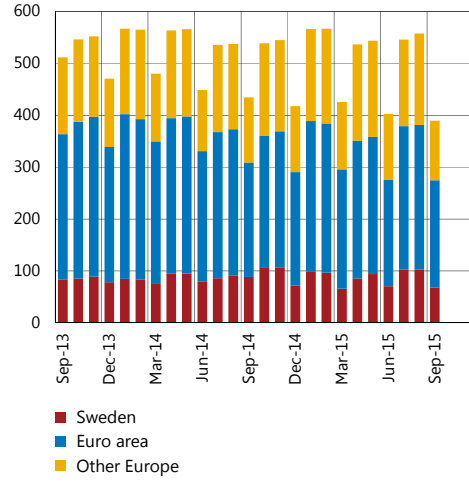
Note. The red bars illustrate a group of European banks.  
Sources: Liquidatum and the Riksbank

**Chart A68. The major Swedish banks' funding**  
September 2015, per cent



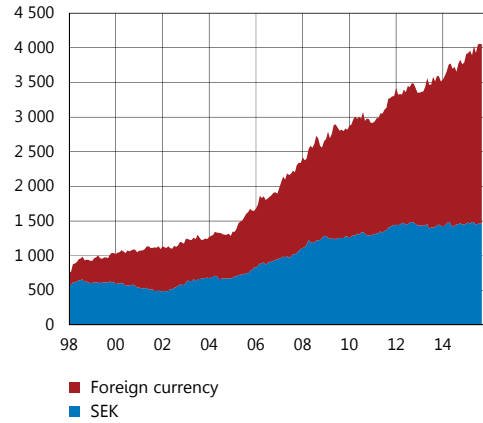
Sources: Bank reports and the Riksbank

**Chart A67. US Money Market Funds exposures**  
SEK billion



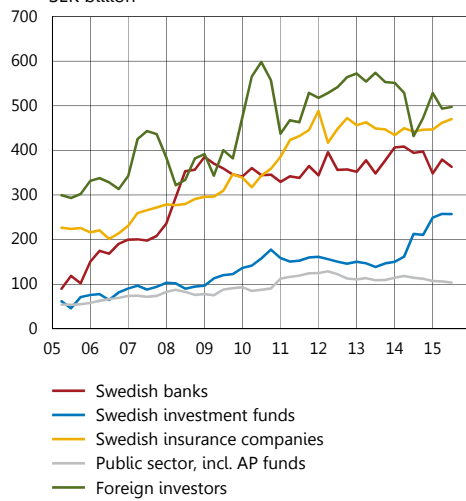
Sources: Investment Company Institute and the Riksbank

**Chart A69. The major Swedish banks' wholesale funding via Swedish parent companies and subsidiaries**  
SEK billion



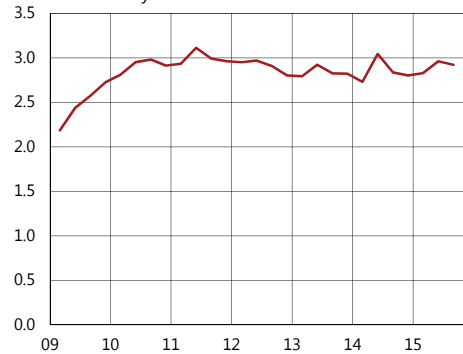
Sources: Statistics Sweden and the Riksbank

**Diagram A70. Owners of Swedish Covered Bonds**  
SEK billion



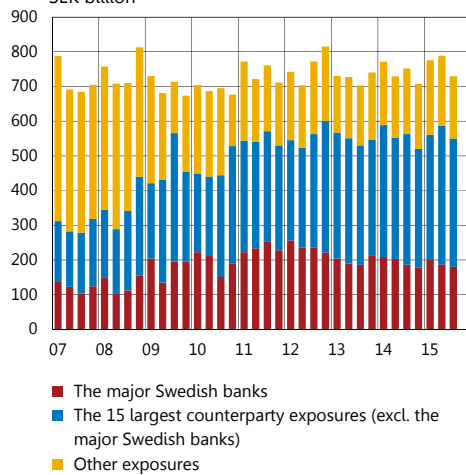
Sources: Statistics Sweden and the Riksbank

**Chart A71. Average maturity of outstanding Swedish covered bonds**  
Number of years



Source: The Association of Swedish Covered Bond Issuers

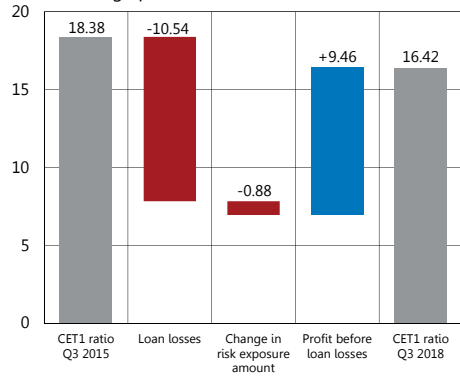
**Chart A72. The major Swedish banks' counterparty exposures through securities holdings**  
SEK billion



Note. The chart shows the breakdown of the major banks' total securities holdings on the basis of who issued the securities.

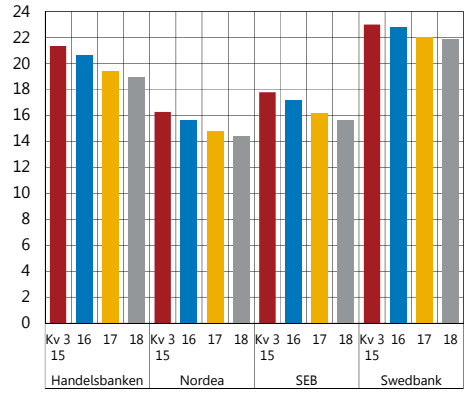
Source: The Riksbank

**Chart A73. Changes in the Swedish major banks' CET 1 capital ratios in the stress test**  
Percentage points



Sources: Bank reports and the Riksbank

**Chart A74. CET 1 capital ratios according to Basel III, initially and in the stress test**  
Per cent



Sources: Bank reports and the Riksbank







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