

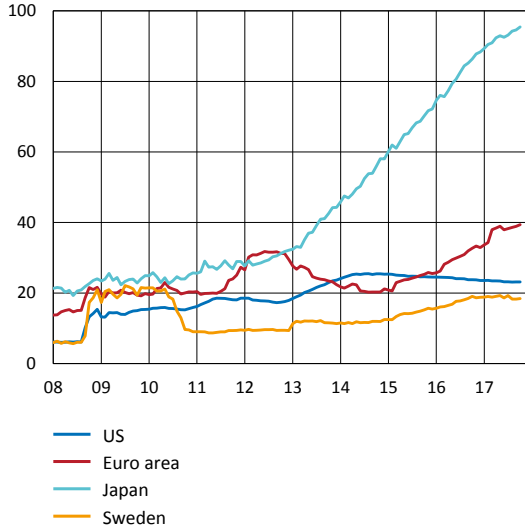
Financial Stability Report 2017:2

Appendix - Charts

22 Nov 2017

Financial markets

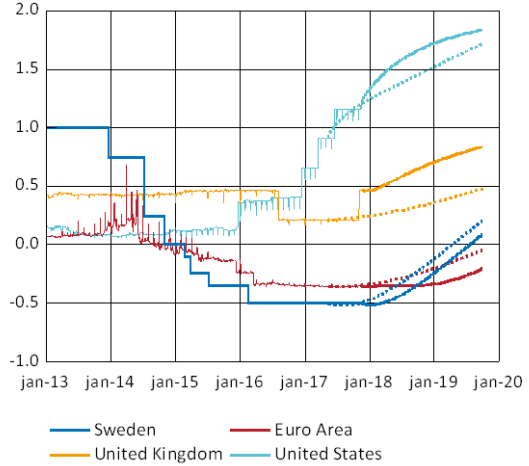
Chart A1. Central banks' balance sheet in relation to GDP
Per cent



Note. For Sweden, the Euro Area and Japan GDP outcome for the third quarter of 2017 is not available, the outcome for quarter two 2017 has therefore been used.

Source: Macrobond

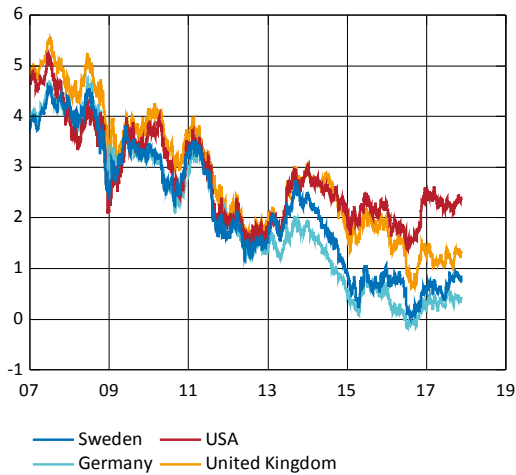
Chart A2. Policy rates and rate expectations according to forward rates
Per cent



Note. Forward rates describe the expected overnight rate, which does not always correspond to the policy rate. There is no published overnight rate in Sweden, but it normally follows the repo rate closely. Unbroken lines are estimated on 2017-11-10, broken lines on 2017-05-12.

Sources: Macrobond and the Riksbank

Chart A3. Ten year government bond rates
Per cent



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

Source: Macrobond

Chart A4. 3-month FX-swaps
Basis points



Note. Extra cost of borrowing through foreign currency and converting this into Swedish kronor compared to domestic borrowing cost. The calculations are based on interest rate parity condition between interbank rates.

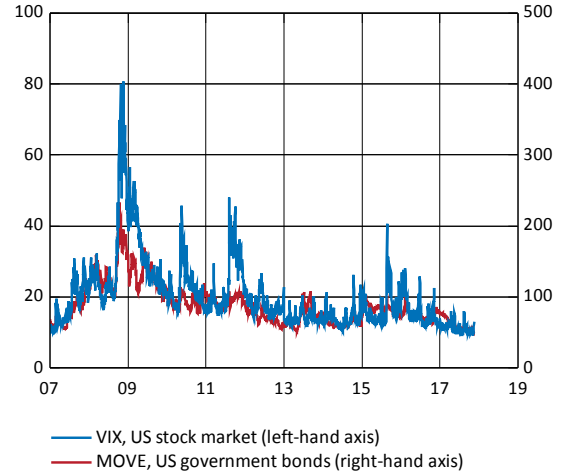
Sources: Bloomberg and the Riksbank

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



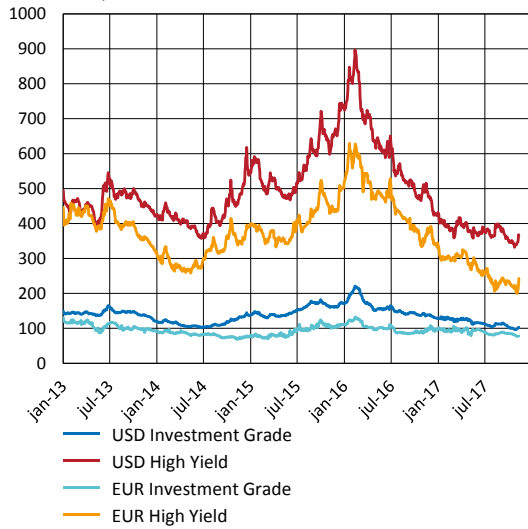
Source: Macrobond

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



Source: Thomson Reuters

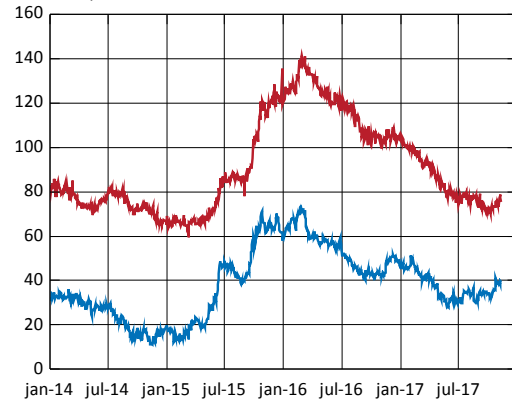
Chart A7. Yield on corporate bonds
Basis points



Note. The series shows the spread between corporate bonds with different credit worthiness issued in different currencies and a corresponding interest rate swap.

Source: Bloomberg

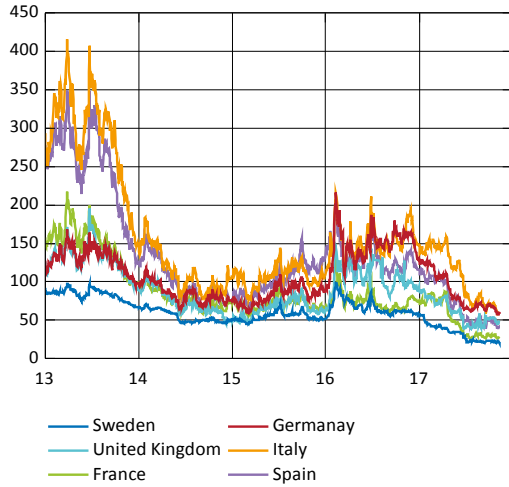
Chart A8. Five year risk premiums on the Swedish bond market
Basis points



Note. Difference between bond yields and swap rate.

Source: The Riksbank

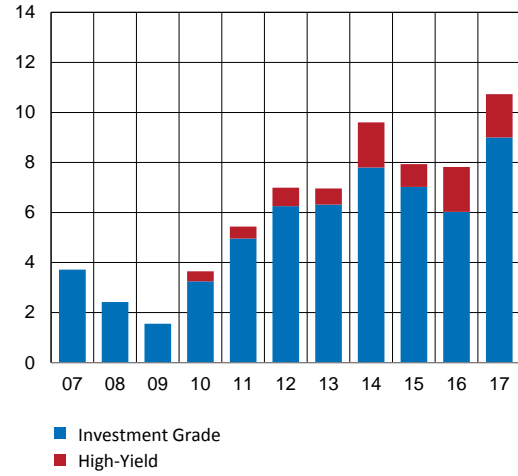
Chart A9. Five year CDS premiums for banks
Basis points



Note. Average of comparable major banks domiciled in each country respectively.

Sources: Markit and the Riksbank

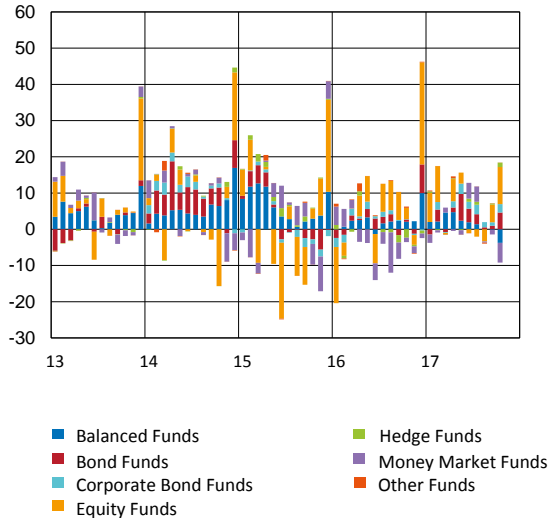
Chart A10. Bond issues in SEK on the Swedish corporate bond market
Average per month, SEK billion



Note. Includes medium term notes. 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

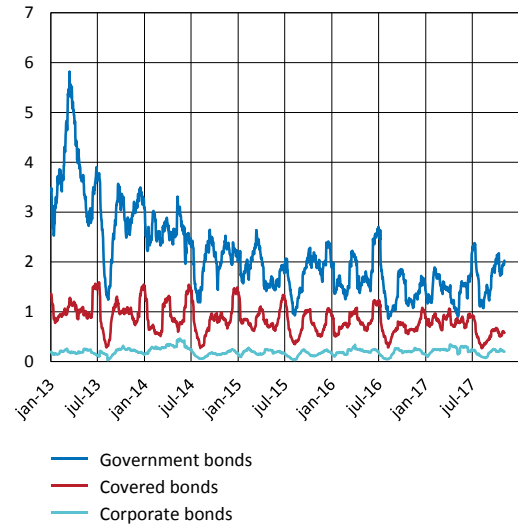
Chart A11. Swedish fund flows
Billion SEK



Note. Separate reporting for corporate bonds was introduced in 2014.

Sources: Swedish Investment Fund Association and Macrobond

Chart A12. Turnover on the Swedish bond market
Per cent

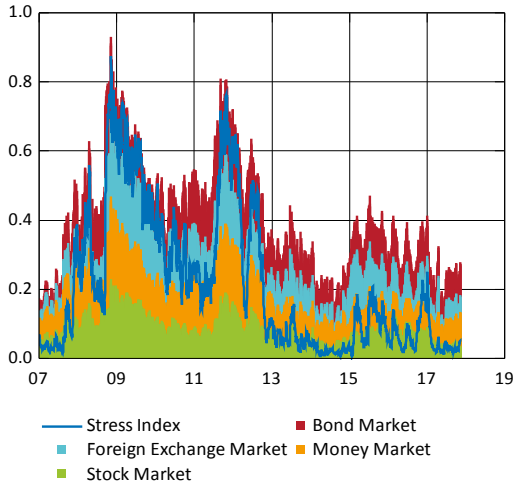


Note. Refers to monthly average of daily spot turnover in relation to outstanding volume.

Sources: Swedish National Debt Office, Statistics Sweden and the Riksbank

Chart A13. Swedish stress index

Ranking (0=low stress, 1=high stress)

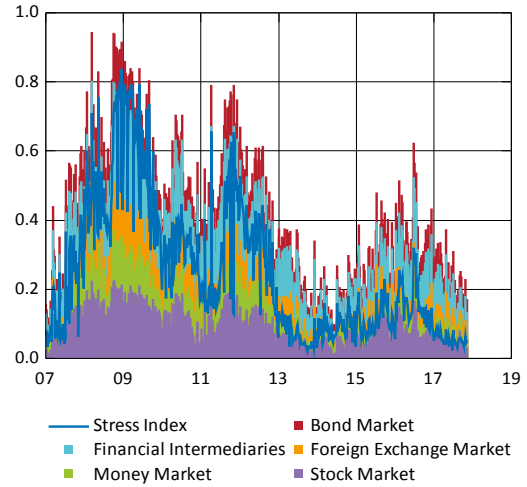


Note. The Swedish stress index has been produced by the Riksbank using a method similar to that used by the ECB for the European stress index. See Johansson and Bonthron (2013), Further development of the index for financial stress in Sweden, Sveriges Riksbank Economic Review 2013:1. Sveriges Riksbank.

Sources: Bloomberg and the Riksbank

Chart A14. European stress index

Ranking (0=low stress, 1=high stress)

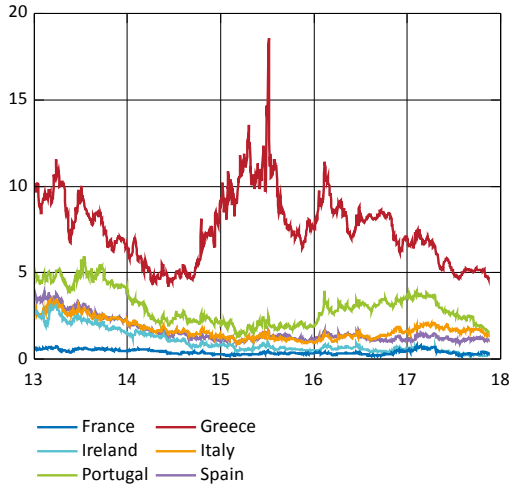


Note. The European stress index is published in the ESRB's Risk Dashboard and elsewhere. The stress level at a specific date is expressed as a value between zero and one, of which one signifies a historically high stress level and zero signifies a historically low stress level. See Holló et al., CISS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

Source: ECB

Chart A15. Ten year government bond yields, spread to Germany

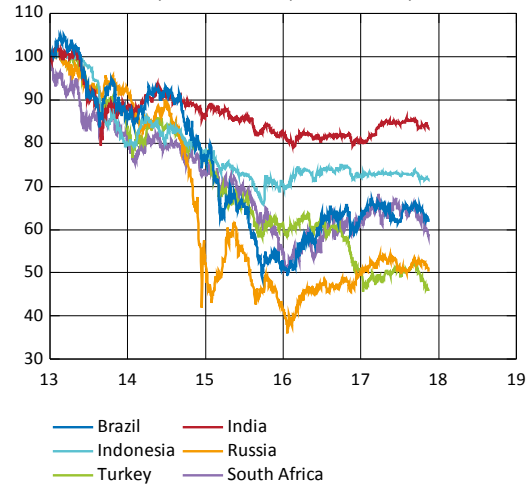
Per cent



Source: Macrobond

Chart A16. Emerging market currencies

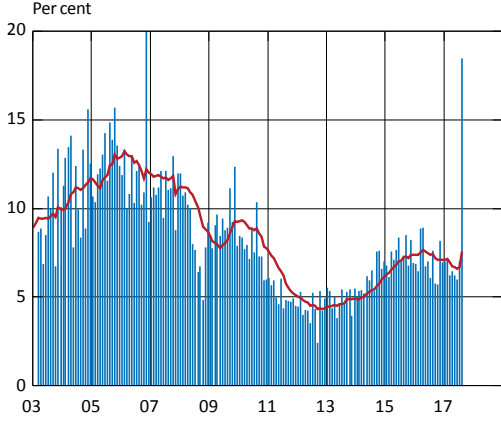
Index, 1 January 2013 = 100, USD per local currency



Source: Macrobond

The Swedish banking groups' borrowers

Chart A17. Loans to households in Sweden

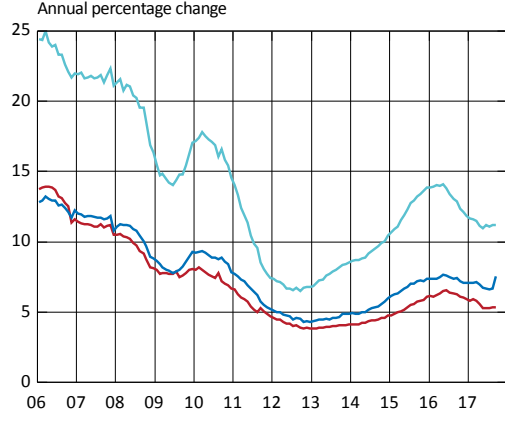


■ Monthly change, annualised rate
 — Annual percentage change

Note. Refers to loans from monetary financial institutions (MFI). The annual percentage change (red line) is not adjusted for reclassifications and traded loans, which is why it differs from the blue line in Chart 1:5 in the report.

Sources: Statistics Sweden and the Riksbank

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

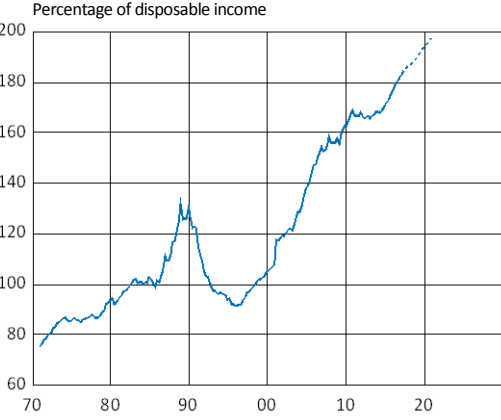


— Total
 — Loans with single-family houses as collateral
 — Loans with tenant-owned apartments as collateral

Note. Refers to loans from monetary financial institutions (MFI). The total lending (blue line) is not adjusted for reclassifications and traded loans, which is why it differs from the blue line in Chart 1:5 in the report.

Sources: Statistics Sweden and the Riksbank

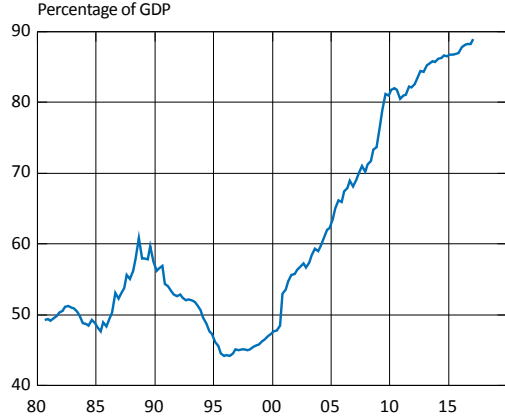
Chart A19. Household debt-to-income ratio in Sweden



Note. The dashed line represents the Riksbank's forecast.

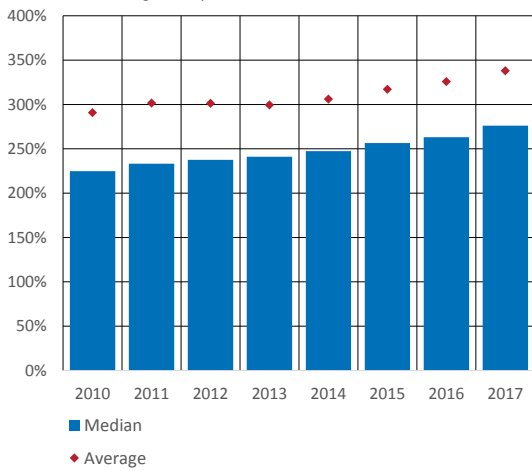
Sources: Statistics Sweden and the Riksbank

Chart A20. Household debt in Sweden



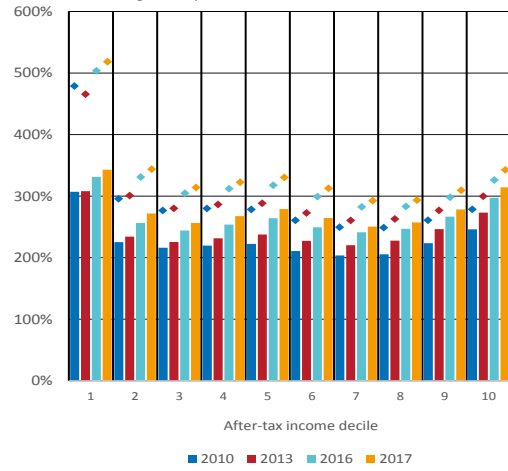
Sources: Statistics Sweden and the Riksbank

Chart A21. Debt to income ratios for households with mortgages over time
Percentage of disposable income



Source: The Riksbank

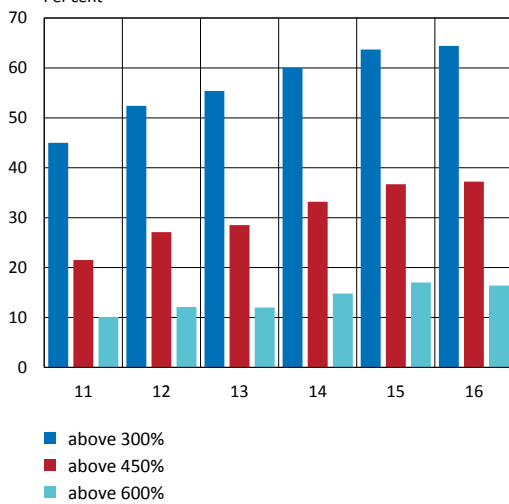
Chart A22. Debt to income ratios for households with mortgages by income decile and over time
Percentage of disposable income



Note. Stacks denote averages while diamonds denotes median. The results for the first income decile should be interpreted with caution, amongst other reasons as the Riksbank's data does not include tax-exempt income sources such as child and housing support, which probably represent a larger share of the income for low income households.

Source: The Riksbank

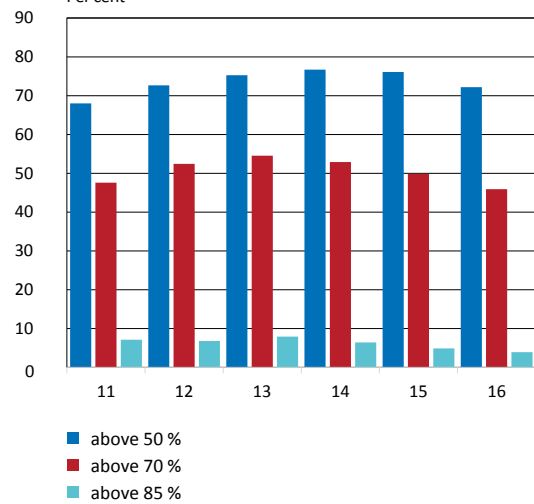
Chart A23. Proportion of new mortgage borrowers with a debt to income ratio above a certain level in Sweden
Per cent



Note. The vertical axis 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 2011, 2012, 2013, 2014, 2015 and 2016.

Source: Finansinspektionen and the Riksbank

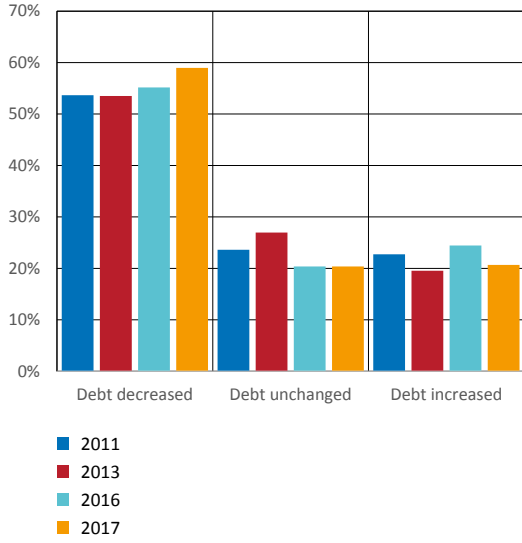
Chart A24. Proportion of new mortgage borrowers with a loan to value ratio above a certain level in Sweden
Per cent



Note. The vertical axis 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 2011, 2012, 2013, 2014, 2015 and 2016.

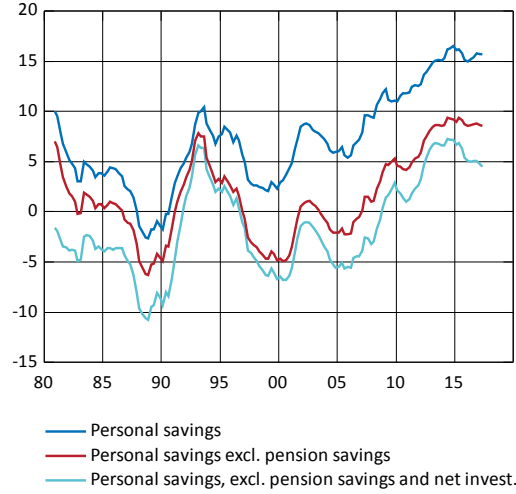
Source: Finansinspektionen and the Riksbank

Chart A25. Changes in mortgage debt over time
Per cent of households



Source: The Riksbank

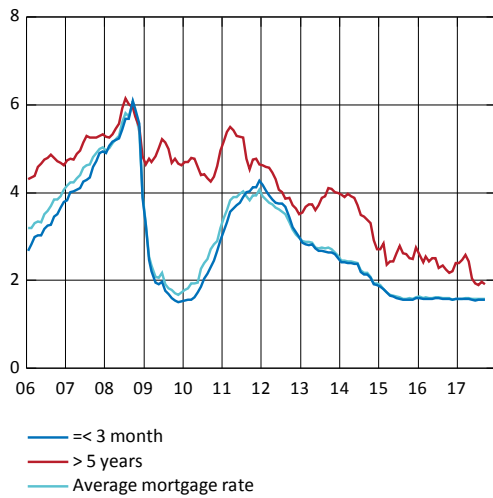
Chart A26. Household savings in Sweden
Percentage of disposable income



Note. Personal savings is the total saving excluding collective savings and net investment in housing.

Sources: Statistics Sweden and the Riksbank

Chart A27. Mortgage rates to households in Sweden
Per cent



Source: Statistics Sweden

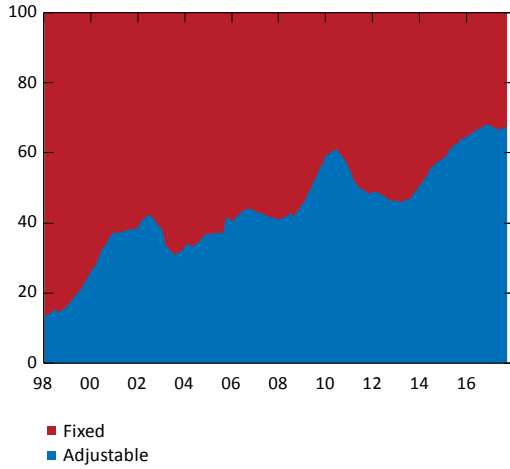
Chart A28. Rate fixation periods for new mortgage loans in Sweden
Per cent, share of mortgages



Note. The share of mortgages in each category is based on mortgage values.

Source: Statistics Sweden

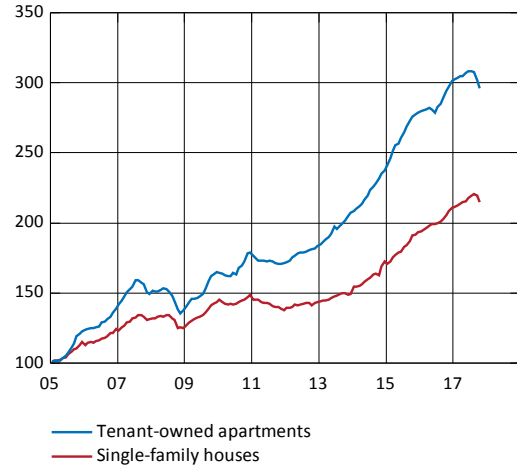
Chart A29. Rate fixation periods for the mortgage stock in Sweden
Per cent, share of mortgages



Note. The share of mortgages in each category is based on mortgage values. Adjustable rate refers to rate fixation periods up to 3 months. Fixed rate refers to rate fixation periods above 3 months.

Source: Statistics Sweden

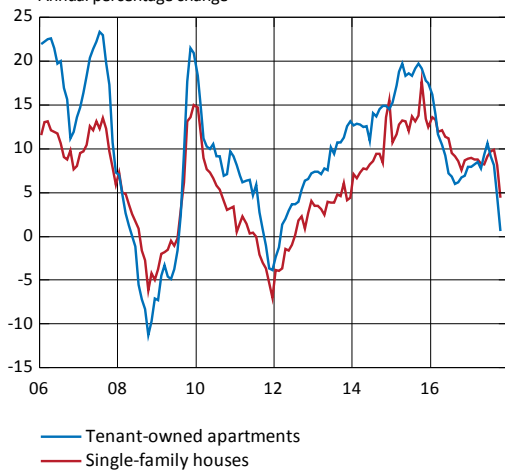
Chart A30. Housing prices in Sweden
Index, January 2005=100



Note. Seasonally-adjusted housing prices.

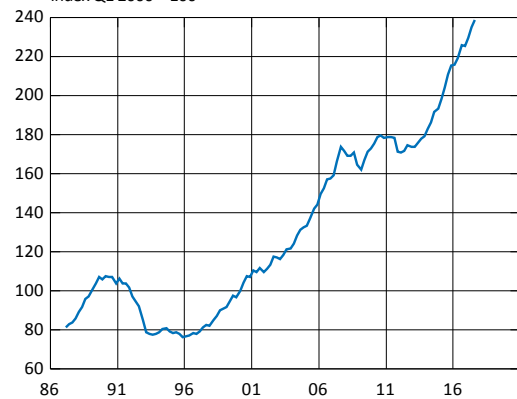
Sources: Valueguard and the Riksbank

Chart A31. Housing prices in Sweden
Annual percentage change



Source: Valueguard

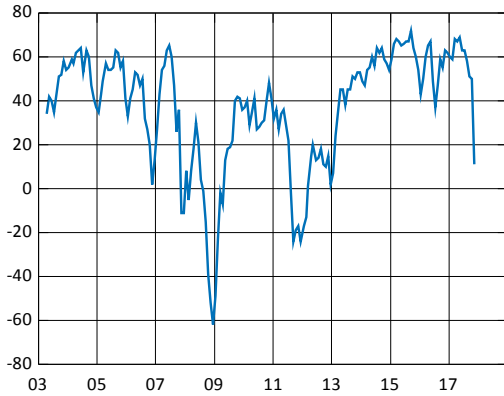
Chart A32. Real Residential Real Estate Index in Sweden
Index Q1 2000 = 100



Note. Deflated with CPIF. Refers to the increase in single-family houses.

Sources: Statistics Sweden and the Riksbank

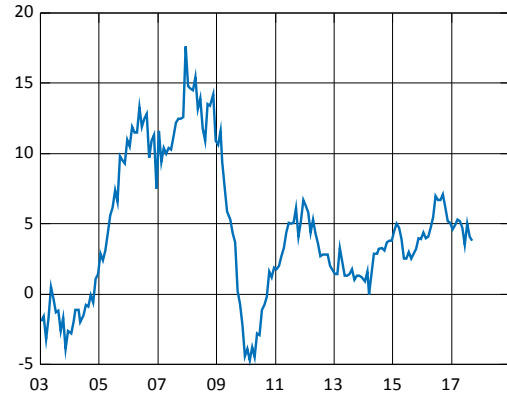
Chart A33. Households' expectations of housing prices in Sweden
Net total



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 that housing prices will fall.

Source: SEB

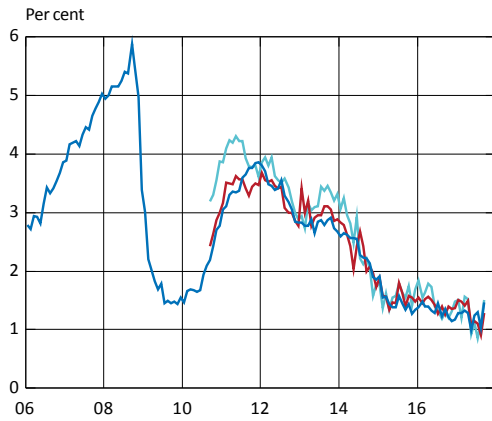
Chart A34. Loans to non-financial companies in Sweden
Annual percentage change



Note. Refers to loans from monetary financial institutions (MFI).

Source: Statistics Sweden

Chart A35. Interest rates on new loans to non-financial companies in Sweden
Per cent

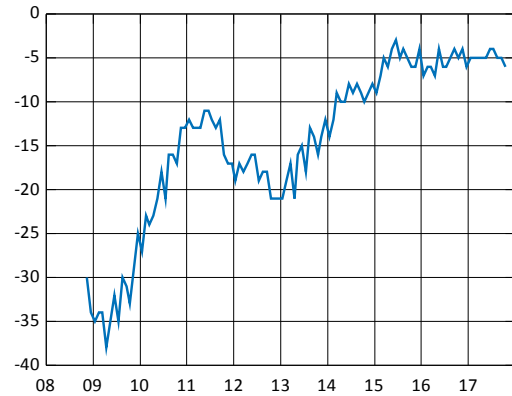


— <= 3 month
— >1 year - <=3 years
— >3 years - <= 5 years

Note. Refers to loans from monetary financial institutions (MFI).

Source: Statistics Sweden

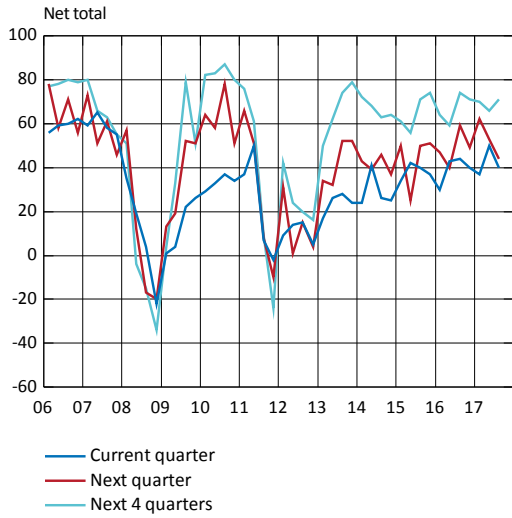
Chart A36. Lending standards for non-financial companies in Sweden
Net total



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.

Source: National Institute for Economic Research

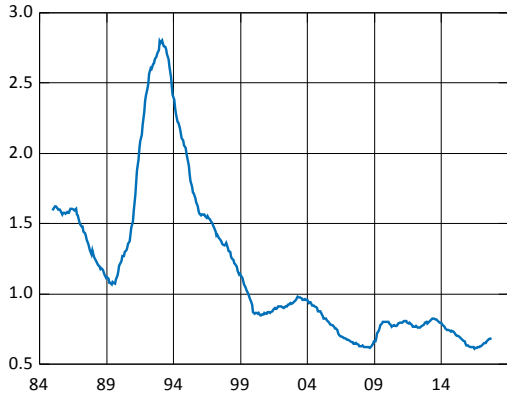
Chart A37. Banks' assessment of lending to non-financial companies in Sweden



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

Source: ALMI

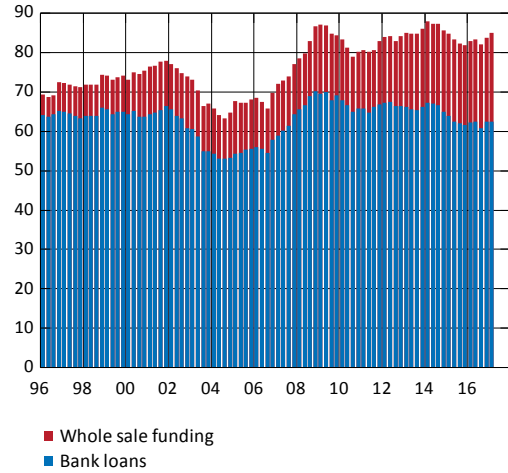
Chart A39. Bankruptcy rate for non-financial companies in Sweden



Note. Bankruptcy rate is defined as the number of bankruptcies divided by the number of companies.

Sources: Swedish Companies Registration Office, Statistics Sweden and the Riksbank

Chart A38. Non-financial companies' debt levels in Sweden

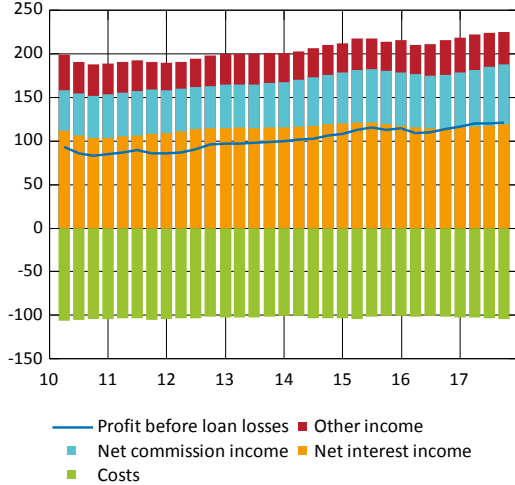


Note. Bank loans refer to loans in the short and long term. Whole sale funding refer to certificates and bonds.

Sources: Statistics Sweden and the Riksbank

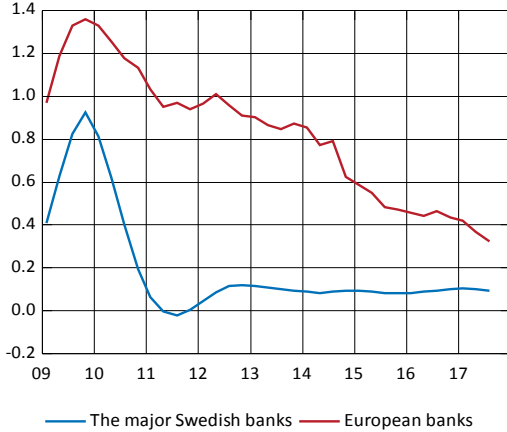
Developments in the Swedish banking groups

Chart A40. The major Swedish banks' income and costs
Rolling four quarters, SEK billion



Sources: Bank reports and the Riksbank

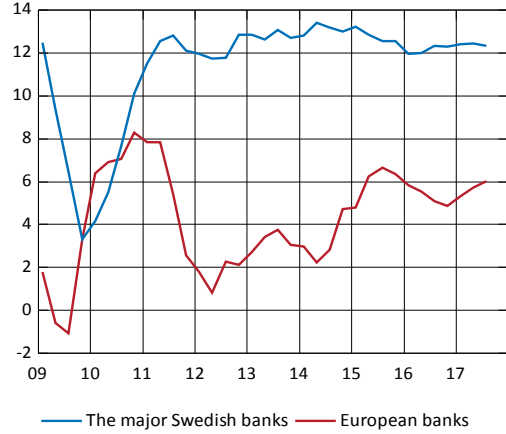
Chart A42. Loan losses in relation to lending to the public
Rolling four quarters, per cent



Note. Unweighted average. The red line represents a sample of other European banks, see footnote 2 in FSR 2016:2.

Sources: SNL Financial and the Riksbank

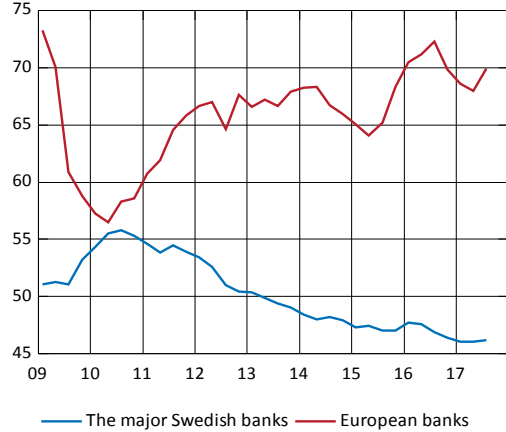
Chart A41. Return on equity
Rolling four quarters, per cent



Note. Unweighted average adjusted for nonrecurring items. The red line represents a sample of other European banks, see footnote 2 in FSR 2016:2.

Sources: SNL Financial and the Riksbank

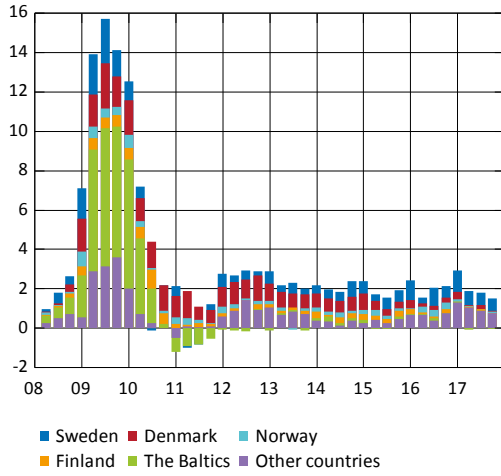
Chart A43. Costs-to-income ratio
Rolling four quarters, per cent



Note. Unweighted average. The red line represents a sample of other European banks, see footnote 2 in FSR 2016:2.

Sources: SNL Financial and the Riksbank

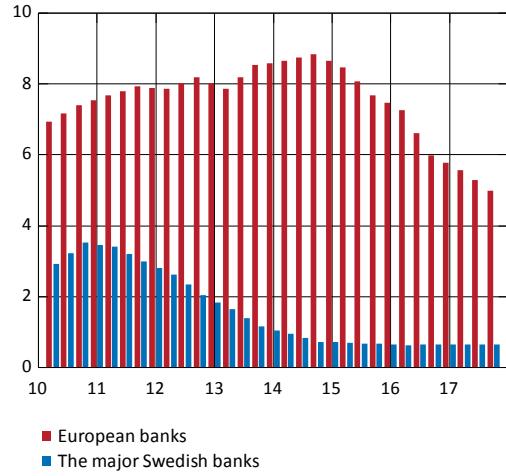
Chart A44. The major Swedish banks' loan losses
SEK billion



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

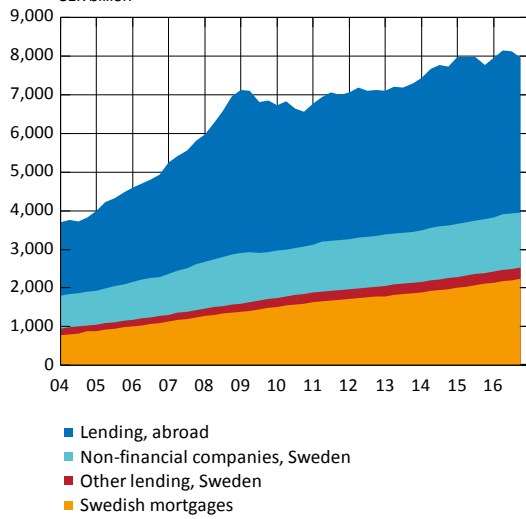
Chart A45. Non-performing loans relative to total lending
Rolling four quarters, per cent



Note. Unweighted average. The red bars represents a sample of other European banks, see footnote 2 in FSR 2016:2.

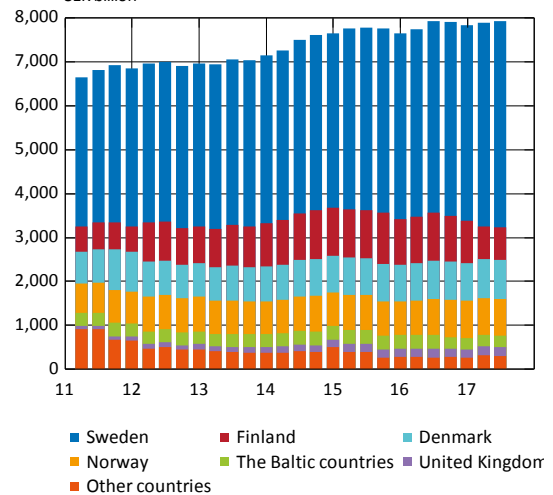
Source: SNL Financial

Chart A46. The major Swedish banks' lending to the public
SEK billion



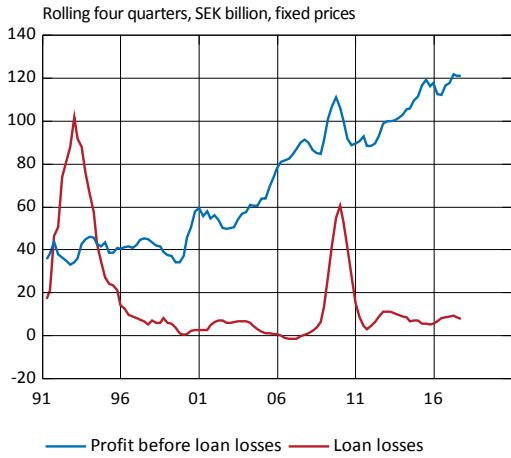
Source: Statistics Sweden

Chart A47. The major Swedish banks' lending by geography
SEK billion



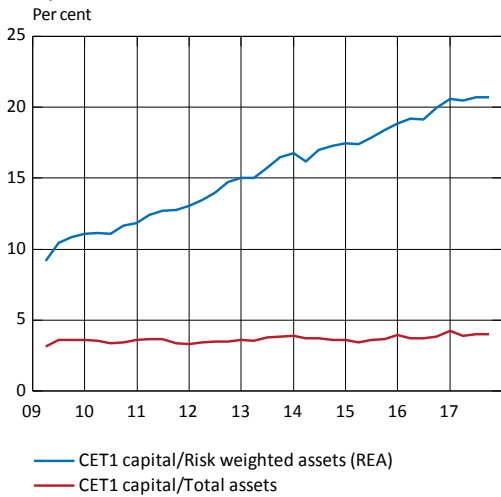
Sources: Bank reports and the Riksbank

Chart A48. The major Swedish banks' profit before loan losses and loan losses



Sources: Bank reports, Macrobond and The Riksbank

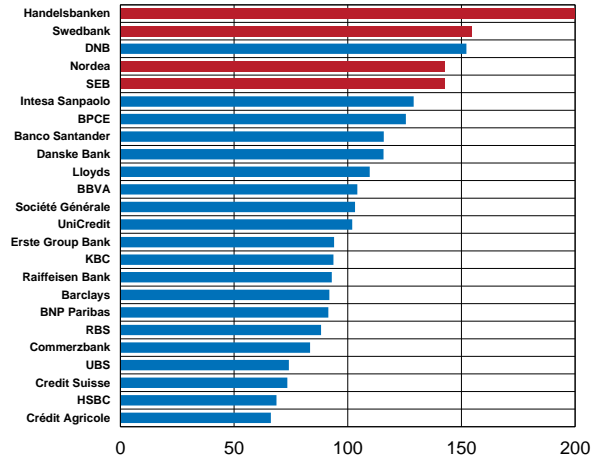
Chart A50. The major Swedish banks' CET1 capital ratios and CET 1 capital in relation to total assets



Note. Weighted average.

Sources: Bank reports and the Riksbank

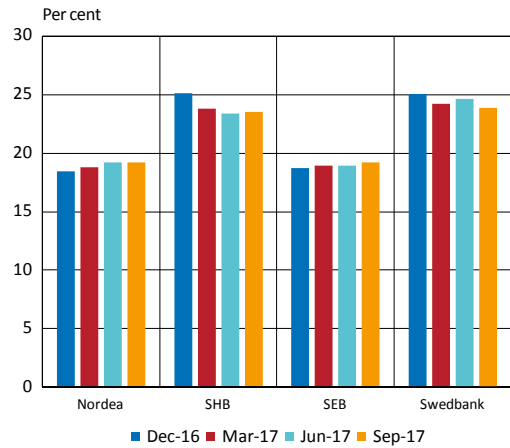
Chart A49. Loan-to-deposit ratio, European banks
June 2017, per cent



Note. An average over the last four quarters.

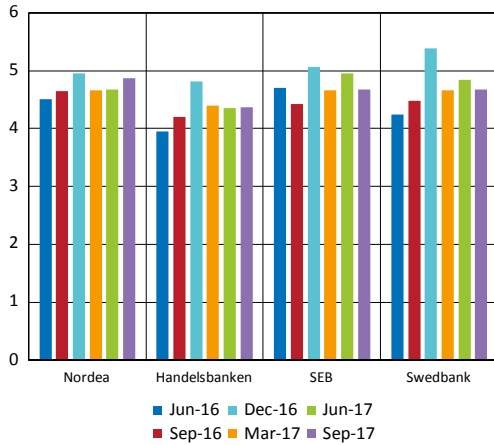
Källor: SNL Financial and The Riksbank

Chart A51. The major Swedish banks' CET1 capital ratios according to Basel III



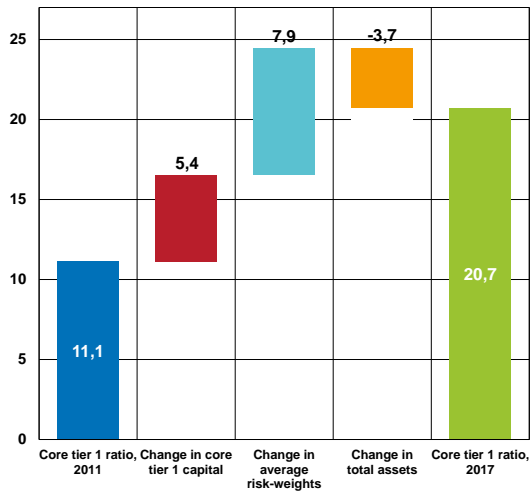
Source: Bank reports

Chart A52. Leverage ratio for the major Swedish banks
Per cent



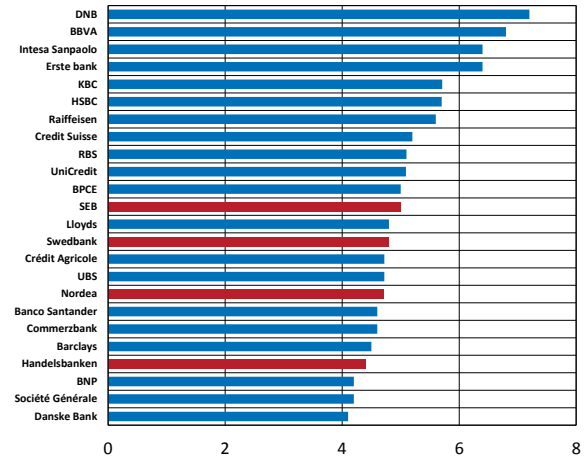
Source: Bank reports

Chart A54. Development of the major Swedish banks' core Tier 1 capital ratios, Basel III
Per cent



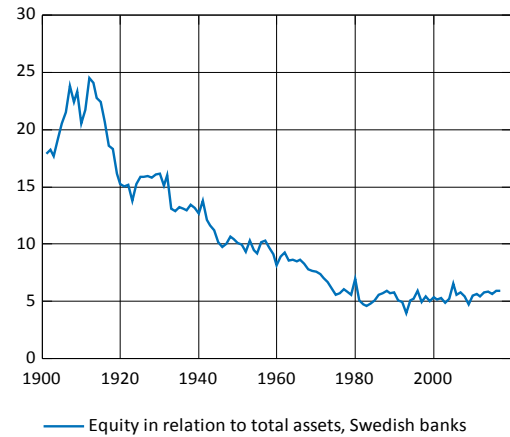
Sources: Bank reports and the Riksbank

Chart A53. Leverage ratio, European banks
June 2017, per cent



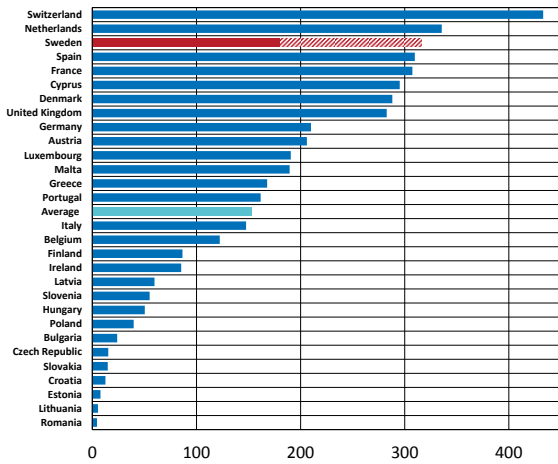
Note. Leverage ratio as reported by the banks.
Sources: SNL Financial and The Riksbank

Chart A55. 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, Statistics Sweden and the Riksbank

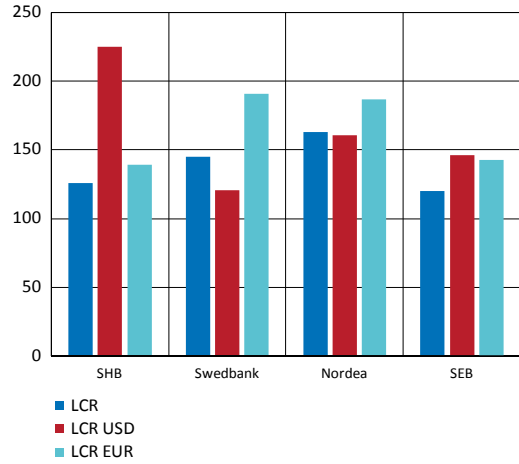
Chart A56. Bank assets in relation to GDP
December 2016, per cent



Note. Total bank assets for domestic banking groups and stand-alone banks. Foreign controlled banks are excluded. The shadowed part of the red bar shows the Swedish banks' assets abroad in relation to Swedish GDP.

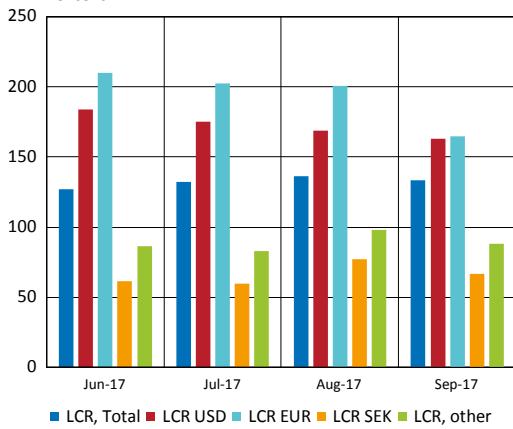
Sources: ECB, Eurostat, Swiss national bank, bank reports and the Riksbank

Chart A57. LCR by currency and bank
September 2017, per cent



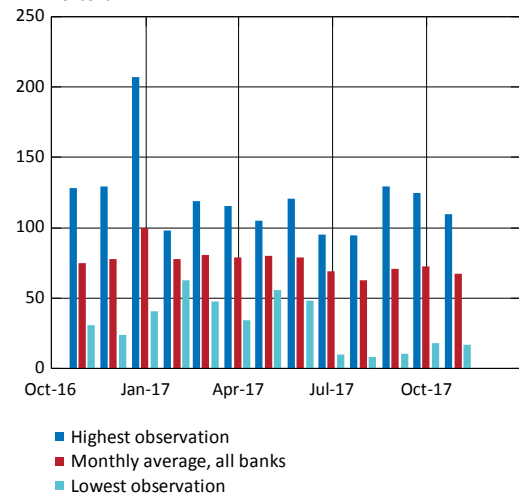
Source: Bank reports

Chart A58. The major Swedish banks' average LCR
Per cent

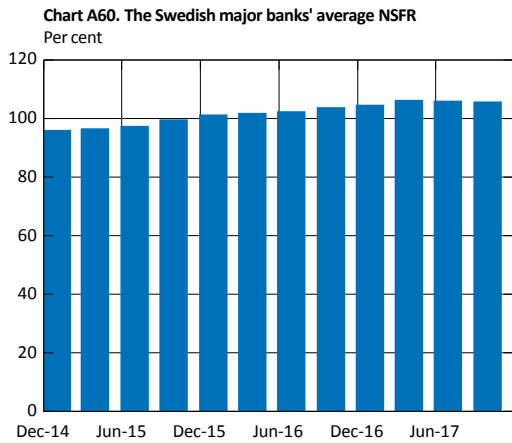


Sources: Finansinspektionen and the Riksbank

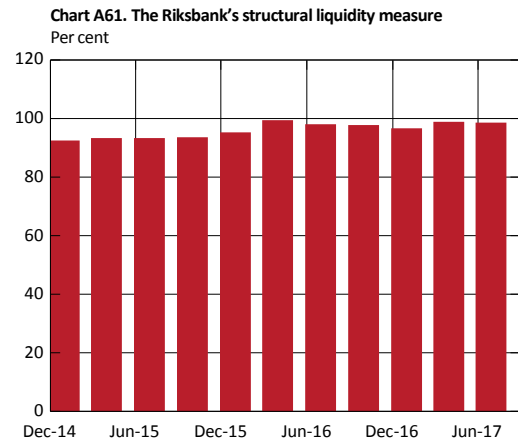
Chart A59. The major Swedish banks daily LCR in SEK
Per cent



Source: The Riksbank

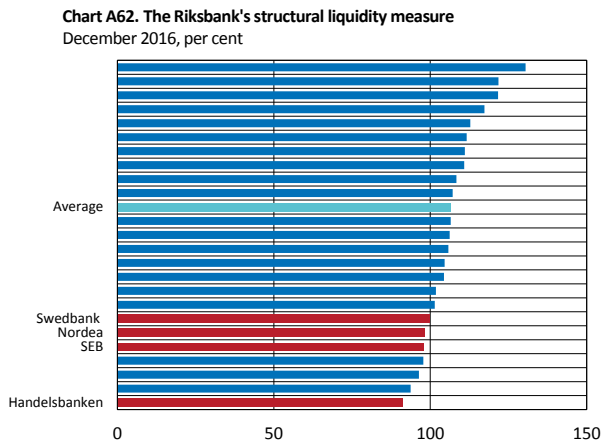


Source: The Riksbank



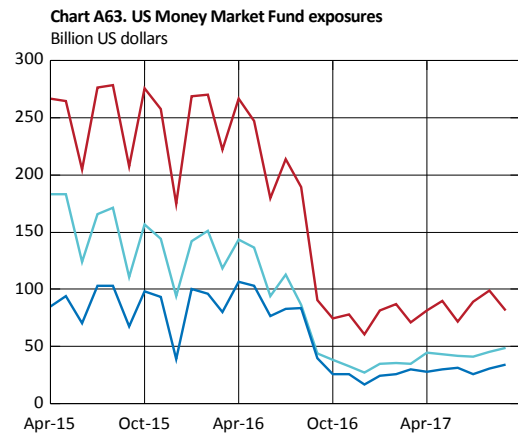
Note. The measure compares a bank's stable funding with its illiquid assets. The higher a bank's results in the measure, the lower its structural liquidity risks.

Source: The Riksbank



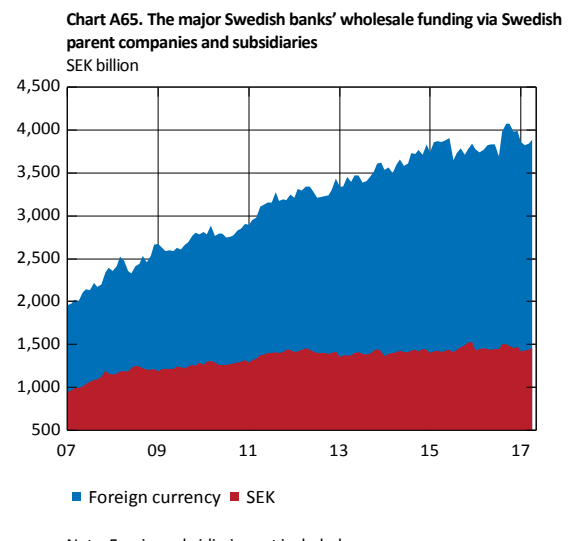
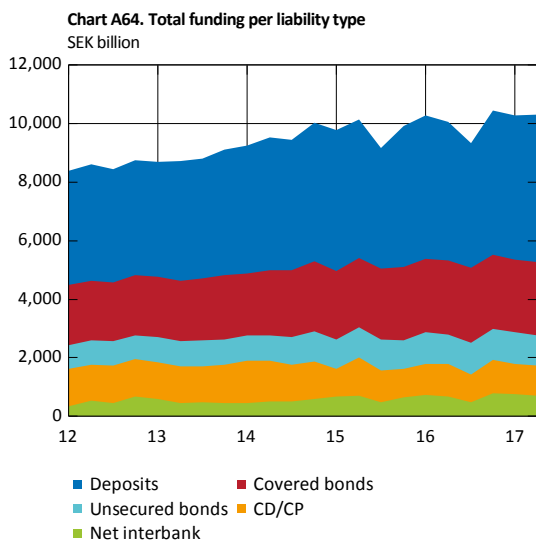
Note. The blue bars represents a group of other European banks.

Sources: Liquidatum and the Riksbank



Note. The graph shows exposures for prime money market funds only.

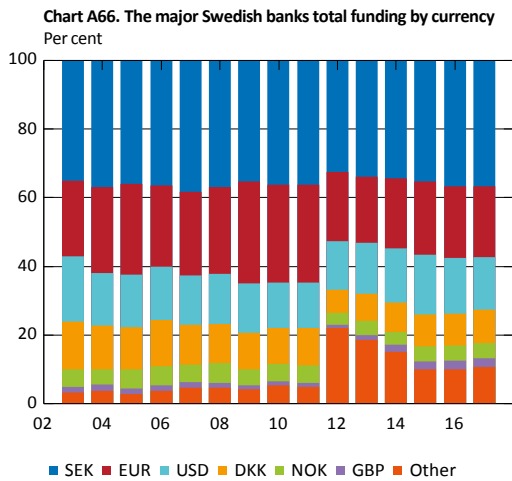
Sources: Investment Company Institute and the Riksbank



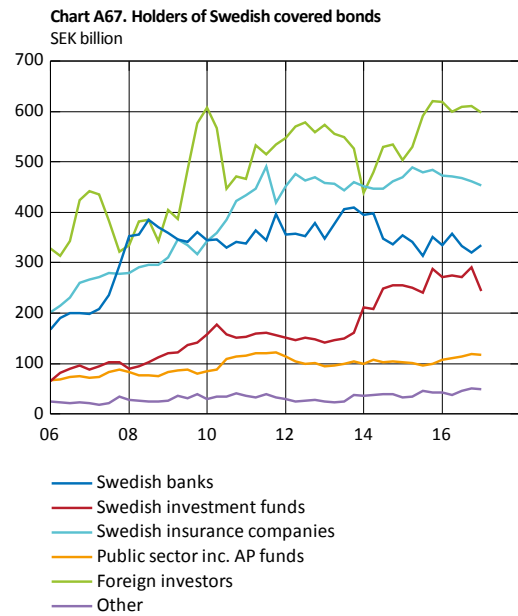
Note. Foreign subsidiaries not included.

Sources: Statistics Sweden and the Riksbank

Note. Refers to the major Swedish banking groups' total funding.
Source: Bank reports

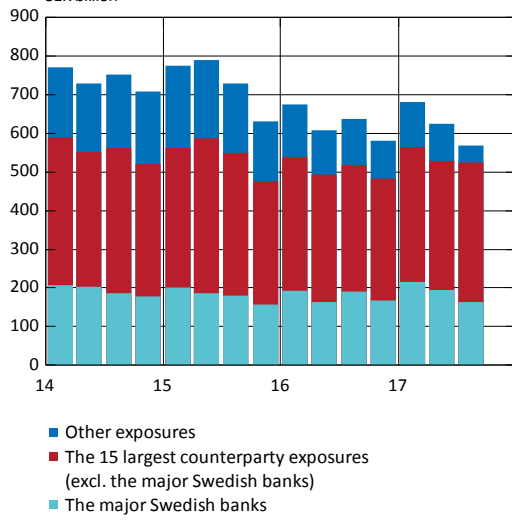


Note. Refers to the major Swedish banking groups' total funding.
Source: Bank reports



Sources: Statistics Sweden and the Riksbank

Chart A68. 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