



Financial Stability Report 2018:2

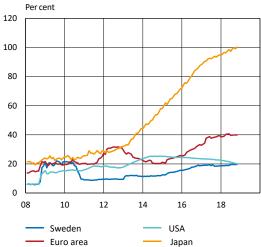
Appendix - Charts

21 November 2018¹

 $^{^{\}rm 1}$ The appendix takes into account developments up to and including 14 November 2018.

Financial markets

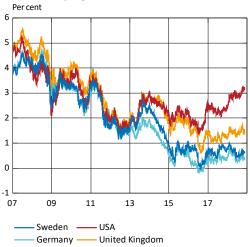
Chart A1. Central banks' balance sheet in relation to GDP



Note. For Sweden and the Euro Area GDP outcome for the third quarter 2018 is not available, whereupon the outcome for quarter two 2018 has been used instead.

Source: Macrobond

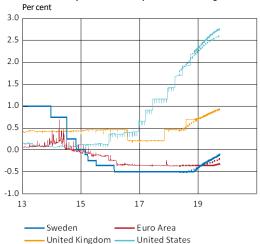
Chart A3. Ten year government bond rates



Note. Benchmark bonds. The maturity could therefore potentially be

Source: Macrobond

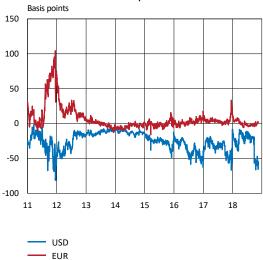
Chart A2. Policy rates and rate expectations according to forward rates



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 15th of November 2018, broken lines on 14th of May 2018

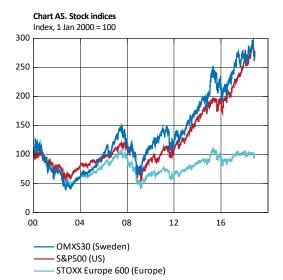
Source: Macrobond and the Riksbank

Chart A4. Three month FX-swaps

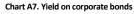


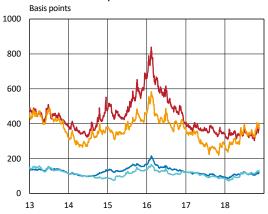
Note. Extra cost of borrowing through foreign currency and converting this into Swedish kronor compared to domestic borrowing cost. The calculations are based on interest rate parity condition between interbank rates.

Sources: Bloomberg and the Riksbank



Source: Macrobond



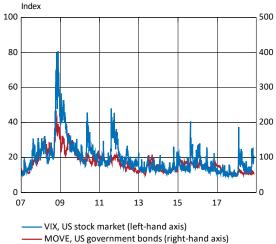


USD Investment grade
 USD High yield
 EUR Investment grade
 EUR High yield

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

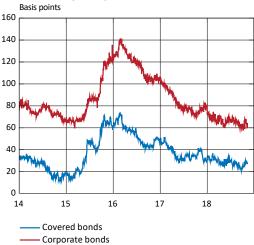
Source: Bloomberg

Chart A6. Expected volatility on the bond and stock markets

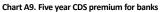


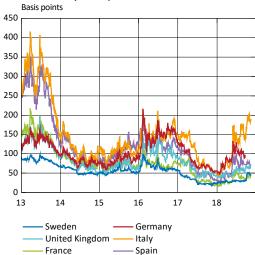
Source: Thomson Reuters

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



Note. Difference between bond yields and swap rate. \\

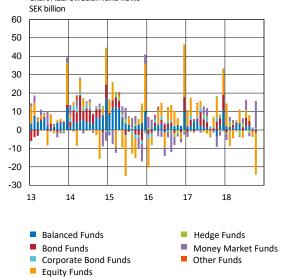




Note. Average of comparable major banks domiciled in each country respectively.

Sources: Markit and the Riksbank

Chart A11. Swedish fund flows



Note. Separate reporting for corporate bonds was introduced in 2014. Source: Swedish Investment Fund Association and Macrobond

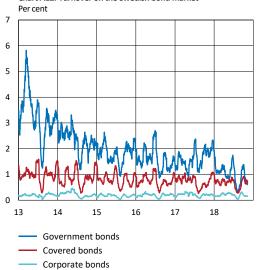
Chart A10. Bond issues in SEK on the Swedish market for non-financial corporate bonds $\,$



Note. Including medium term notes.

Source: Dealogic

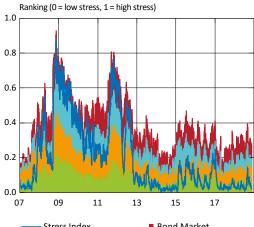
Chart A12. Turnover on the Swedish bond market



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



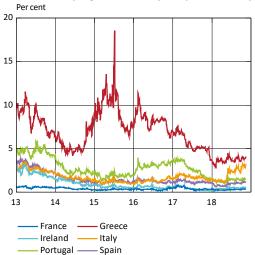
Stress Index
 Foreign Exchange Market
 Money Market

Stock Market

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.

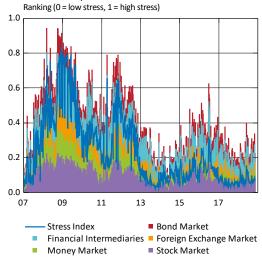
Sources: Bloomberg and the Riksbank

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



Source: Macrobond

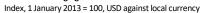
Chart A14. European stress index

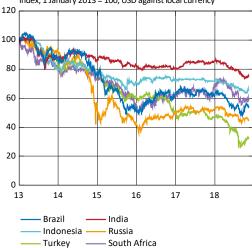


Note. The European stress index is published in the ESRB's Risk Dashboard and elsewhere. The stress level at a specific date is expressed as a value between zero and one, of which one signifies a historically high stress level and zero signifies a historically low stress level. See Holló et al., CISS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

Source: ECB

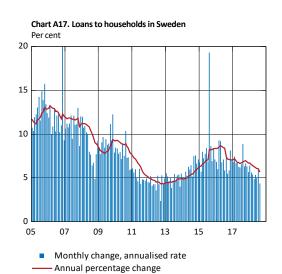
Chart A16. Emerging market currencies





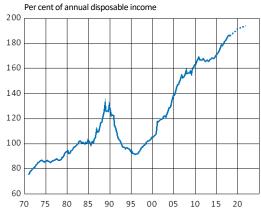
Source: Macrobond

The Swedish banking groups' borrowers



Note. Refers to loans from monetary financial institutions (MFI). Sources: Statistics Sweden and the Riksbank

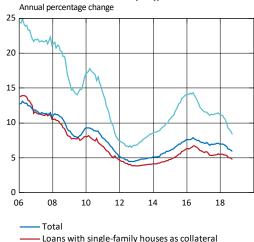
Chart A19. Household debt in Sweden



Note. Households' total debts as a share of their disposable income totalled over the past four quarters. The dashed line represents the Riksbank's forecast.

Sources: Statistics Sweden and the Riksbank

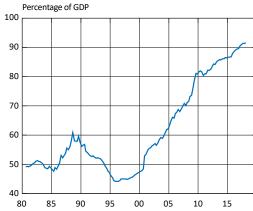
Chart A18. Loans to households per type of collateral in Sweden



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

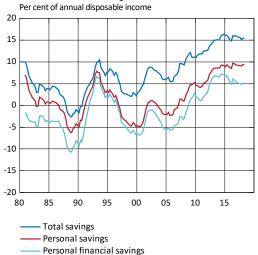
Note. Refers to loans from monetary financial institutions (MFI). Sources: Statistics Sweden and the Riksbank

Chart A20. Household debt in Sweden



Sources: Statistics Sweden and the Riksbank

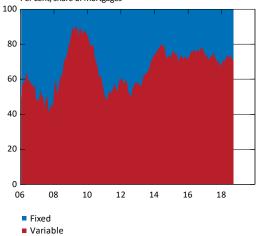
Chart A21. Household savings in Sweden



Note. Personal savings equals total savings excluding collective savings. Personal financial savings equals personals savings excluding net investment in housing.

Sources: Statistics Sweden and the Riksbank

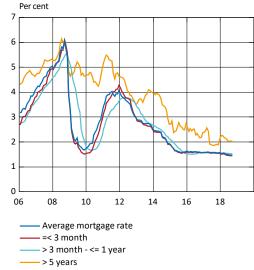
Chart A23. Rate fixation periods for new mortgage loans in Sweden Per cent, share of mortgages



Note. Loans from mortgage institutions. The share of mortgages in each category is volume-weighted. Variable rate refers to rate fixation periods up to 3 months. Fixed rate refers to rate fixation periods above 3 months.

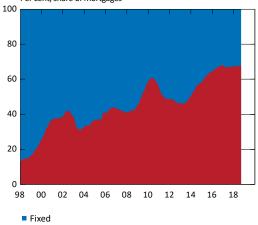
Source: Statistics Sweden

Chart A22. Mortgage rates to households in Sweden



Source: Statistics Sweden

Chart A24. Rate fixation periods for the mortgage stock in Sweden Per cent, share of mortgages

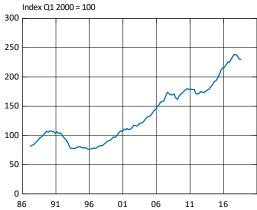


Note. Loans from mortgage institutions. The share of mortgages in each category is volume-weighted. Variable rate refers to rate fixation periods up to 3 months. Fixed rate refers to rate fixation periods above 3 months.

Source: Statistics Sweden

Variable

Chart A25. Real Residential Real Estate Index in Sweden



Note. Deflated with CPIF. Refers to price developments for single-family houses

Sources: Statistics Sweden and the Riksbank

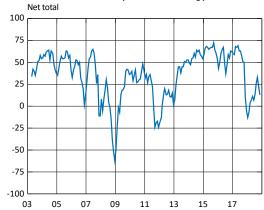
Chart A27. Loans to non-financial companies in Sweden



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

Source: Statistics Sweden

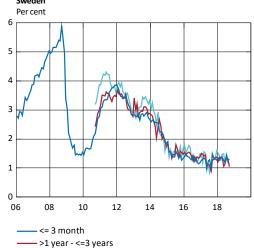
Chart A26. Households' expectations of housing prices in Sweden



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

Source: SEB

Chart A28. Interest rates on new loans to non-financial companies in Sweden

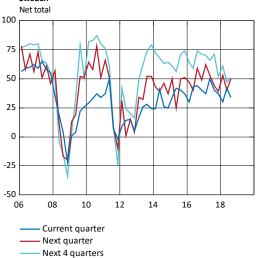


Note. Refers to loans from monetary financial institutions (MFI).

Source: Statistics Sweden

->3 years - <= 5years</p>

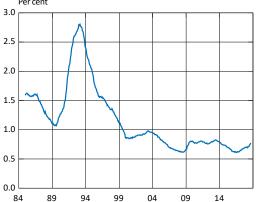
Chart A29. Banks' assessment of lending to non-financial companies in Sweden



Note. Net total is defined as the difference between the share of bank executives who believe that lending will increase or increase very much in the coming period, and the share who believes that lending will decrease or decrease much in the coming period.

Source: ALMI

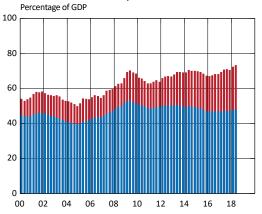
Chart A31. Bankruptcy rate for non-financial companies in Sweden Per cent



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

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

Chart A30. Non-financial companies' bank loans and wholesale funding

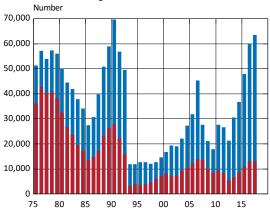


- Wholesale funding
- Funding from monetary financial institutions (MFI).

Note. Wholesale funding refers to certificates and bonds. Bank loans refers to loans from Monetary financial institutions (MFI:s).

Sources: Statistics Sweden and the Riksbank

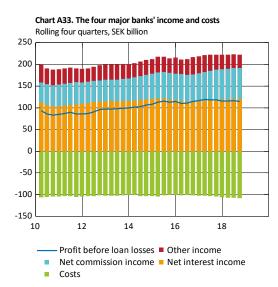
Chart A32. Housing construction in Sweden



- Housing starts, multiple-dwellings
- Housing starts, single-family houses

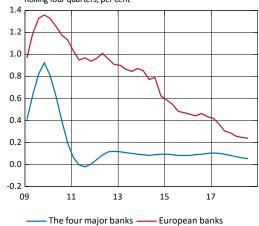
Source: Statistics Sweden and The Riksbank

Developments in the Swedish banking groups



Sources: Bank reports and the Riksbank

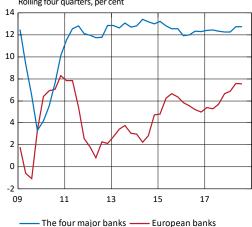
Chart A35. Loan losses in relation to lending to the public Rolling four quarters, per cent



Note. Unweighted average. The red line represents a sample of other European banks, see note in Chart 14 in FSR 2018:2.

Sources: SNL Financial and the Riksbank

Chart A34. Return on equity Rolling four quarters, per cent

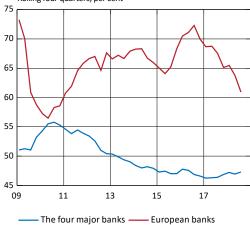


Note. Unweighted average adjusted for nonrecurring items. The red line represents a sample of other European banks, see note in Chart 14 in FSR 2018:2.

Sources: SNL Financial and the Riksbank

Chart A36. Costs-to-income ratio

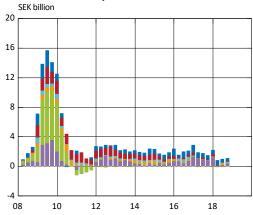
Rolling four quarters, per cent



Note. Unweighted average. The red line represents a sample of other European banks, see note in Chart 14 in FSR 2018:2.

Sources: SNL Financial and the Riksbank

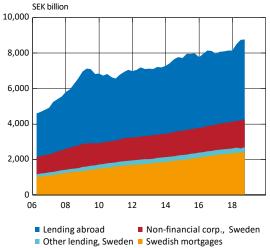
Chart A37. The four major banks' loan losses



■ Sweden ■ Denmark ■ Norway ■ Finland ■ The Baltics ■ Other countries

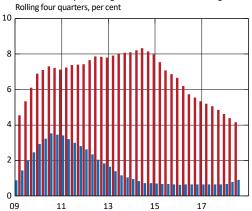
Note. The category "Other countries" refers to loan losses in the other countries in which the banks have operations as well as loan losses that are not allocated to a specific country in the banks' public reporting. Sources: Bank reports and the Riksbank

Chart A39. The four major banks' lending to the public



Source: Statistics Sweden

Chart A38. Non-performing loans relative to total lending

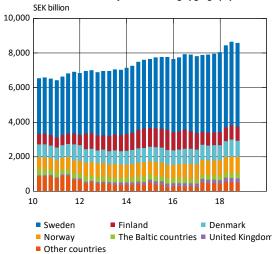


European banksThe four major banks

Note. Unweighted average. The red bars represents a sample of other European banks, see note in Chart 14 in FSR 2018:2.

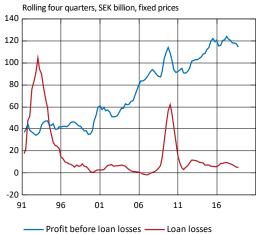
Source: SNL Financial

Chart A40. The four major banks' lending by geography



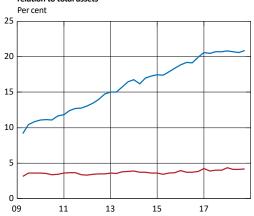
Sources: Bank reports and the Riksbank

Chart A41. The four major banks' profit before loan losses and loan



Sources: Bank reports and The Riksbank

Chart A43. The four major banks' CET1 capital ratios and CET1 capital in relation to total assets



CET1 capital/Risk weighted assets (REA)

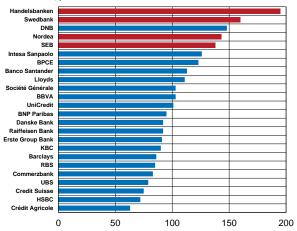
- CET1 capital/Total assets

Note. Weighted average.

Sources: Bank reports and the Riksbank

Chart A42. Loan-to-deposit ratio, European banks

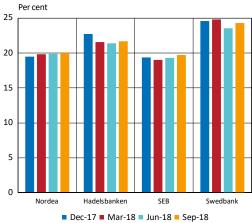
June 2018, per cent



Note. Average over the last four quarters.

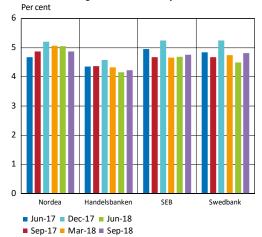
Sources: SNL Financial och Riksbanken

Chart A44. The four major banks' CET1 capital ratios according to Basel



Source: Bank reports

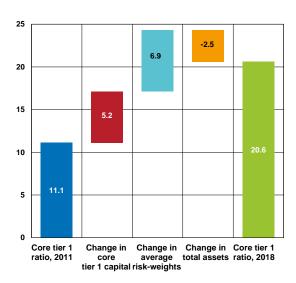
Chart A45. Leverage ratio for the four major banks



Source: Bank reports

Chart A47. Development of the four major banks' core Tier 1 capital ratios, Basel III

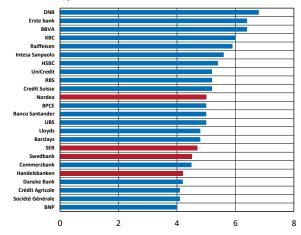
Per cent



Sources: Bank reports and the Riksbank

Chart A46. Leverage ratio, European banks

June 2018, per cent



Note. Calculated according to the Basel III framework.

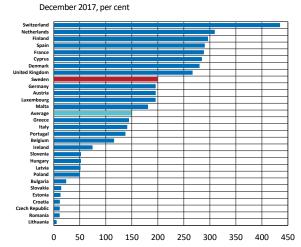
Sources: SNL Financial and the Riksbank

Chart A48. Equity in relation to total assets, Swedish banks



Source: 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.

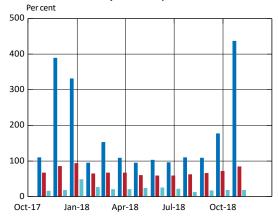
Chart A49. Bank assets in relation to GDP



Note. Total bank assets for domestic banking groups, foreign controlled bank branches and subsiduaries are exluded. The chart is taking into account the move of Nordeas' headquarters from Sweden to Finland, which was finalized in October 2018.

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

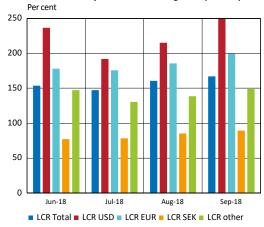
Chart A51. The four major banks' daily LCR in SEK



- Highest observation
- Monthly average, four major banks
- Lowest observation

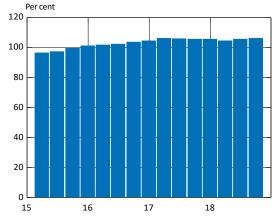
Source: The Riksbank

Chart A50. The majour four banks' average LCR by currency



Sources: Finansinspektionen and the Riksbank

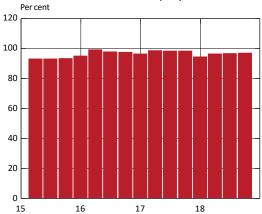
Chart A52. The four major banks' average NSFR



Note. The major four banks are reporting their monthly NSFR to the $\,$

Riksbank.

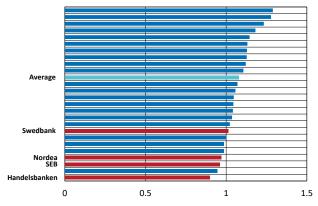
Chart A53. The Riksbank's structural liquidity measure



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 A55. The Riksbank's structural liquidity measure, European banks December 2017



Note. The blue bars represents a group of other European banks, see note in Chart 14 in FSR 2018:2.

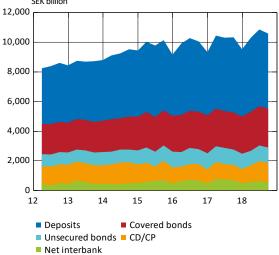
Sources: Liquidatum and the Riksbank

Chart A54. US Money Market Fund exposures towards Europe



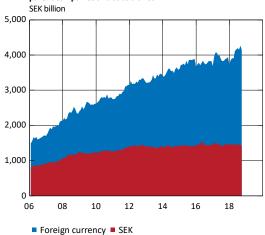
Note. The graph shows exposures for prime money market funds only. Sources: Investment Company Institute and the Riksbank

Chart A56. The four major banks' total funding per liability type SEK billion



Note. Refers to the four major banking groups' total funding. Sources: Bank reports and the Riksbank

Chart A57. The four major banks' wholesale funding via Swedish parent companies and subsidiaries



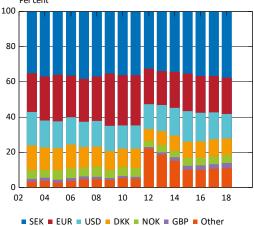
Note. Foreign subsidiaries not included. Sources: Statistics Sweden and the Riksbank

Chart A59. Holders of Swedish covered bonds



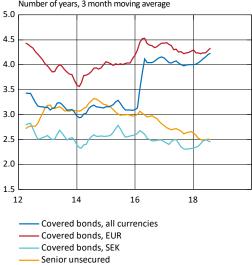
Sources: Statistics Sweden and the Riksbank

Chart A58. The four major banks' total funding by currency Per cent



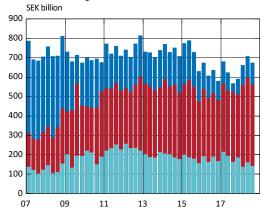
Note. Refers to the four major banking groups' total funding. Source: Bank reports

Chart A60. Average maturity of outstanding long term funding Number of years, 3 month moving average



Note. Refers to securities issued by the major four banks, volume weighted averages.

Chart A61. The four major banks' counterparty exposures through securities holdings



- Other counterparties
- The 15 largest counterparty exposures (excl. the four major banks)
- The four major banks

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