

Financial stability 2020:2

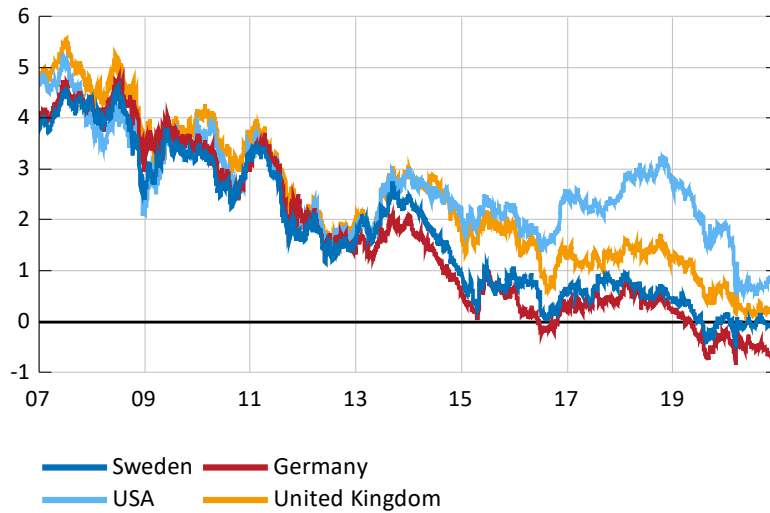
Appendix - charts

11 November 2020

Financial markets

Chart 1. Ten year government bond rates

Per cent

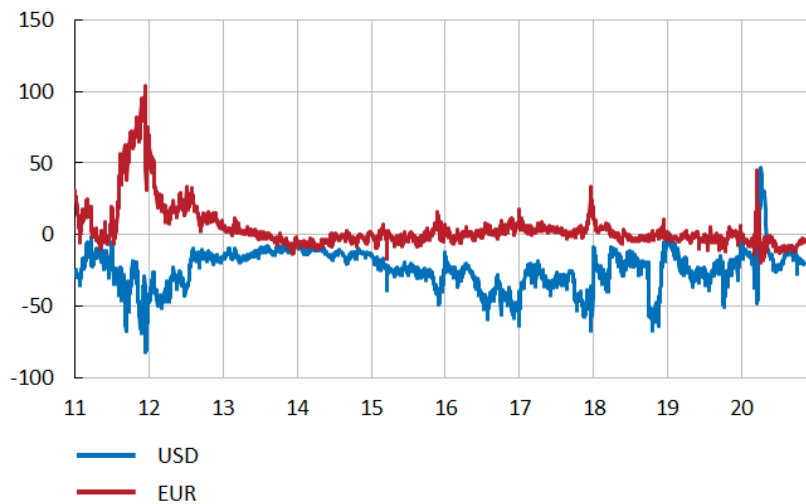


Note. Benchmark bonds. The maturity could therefore potentially vary.

Source: Macrobond.

Chart 2. Three month FX-swap rates

Basis points

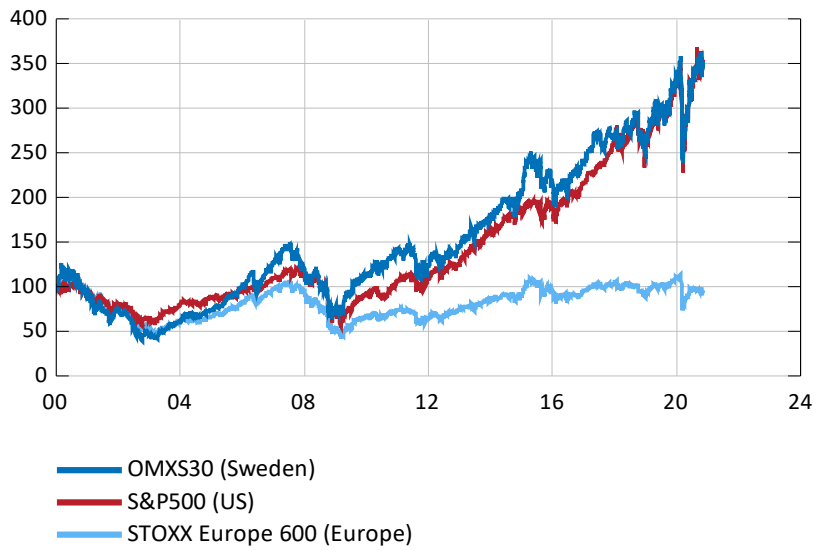


Note. Extra cost of borrowing through foreign currency and converting this into Swedish kronor compared to domestic borrowing cost. The calculations are based on interest rate parity condition between interbank rates.

Sources: Bloomberg and the Riksbank.

Chart 3. Stock indices

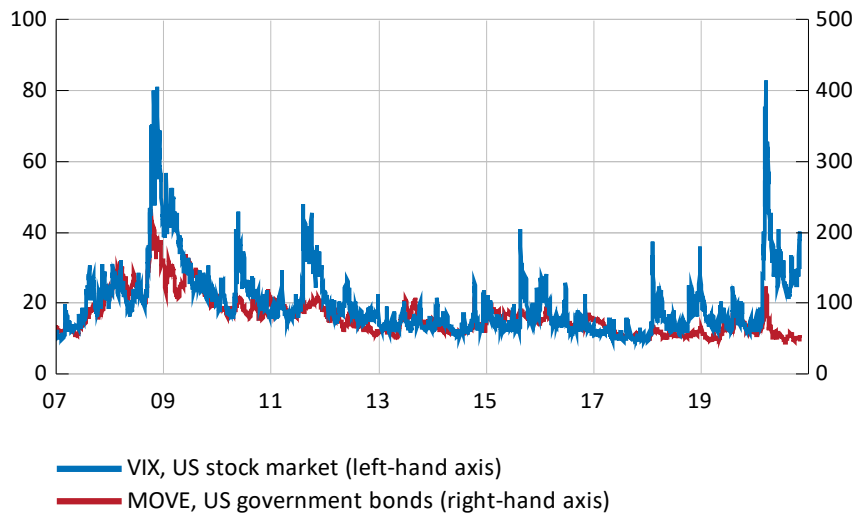
Index, 1 Jan 2000 = 100



Source: Macrobond.

Chart 4. Expected volatility on the bond and stock markets

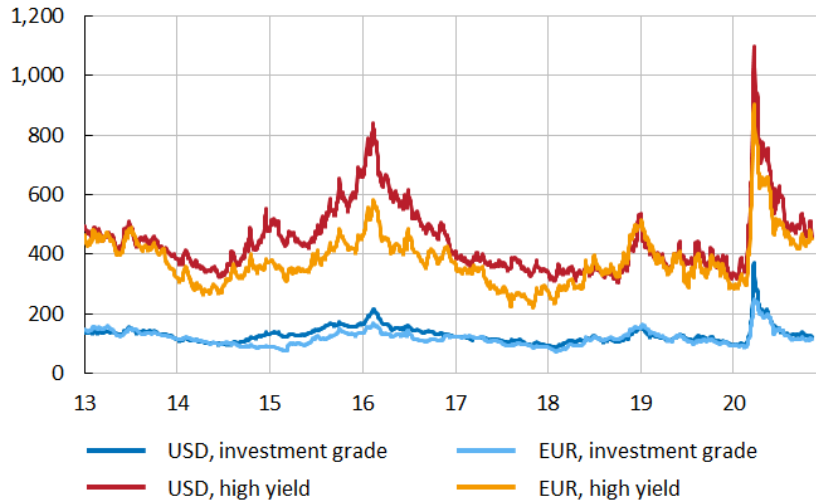
Index



Source: Thomson Reuters.

Chart 5. Risk premia on corporate bonds

Basis points

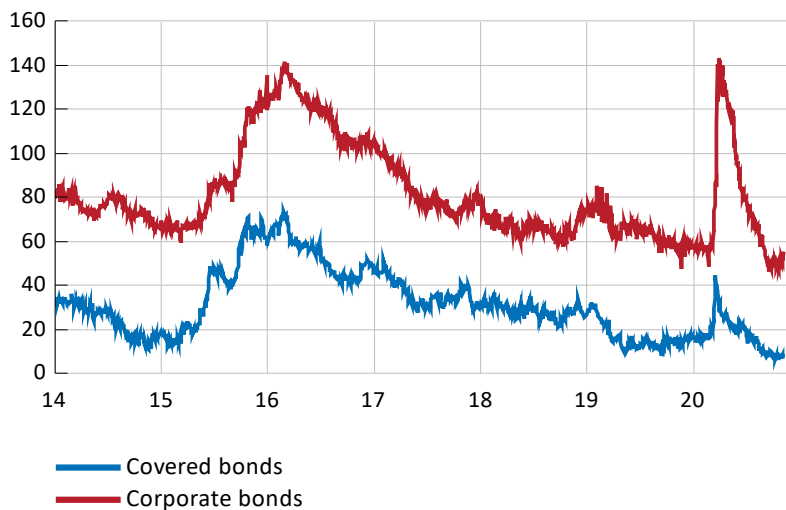


Note. The series shows the spread between corporate bonds with different credit ratings issued in different currencies and a corresponding swap rate.

Source: Bloomberg.

Chart 6. Five year risk premia on the Swedish bond market

Basis points

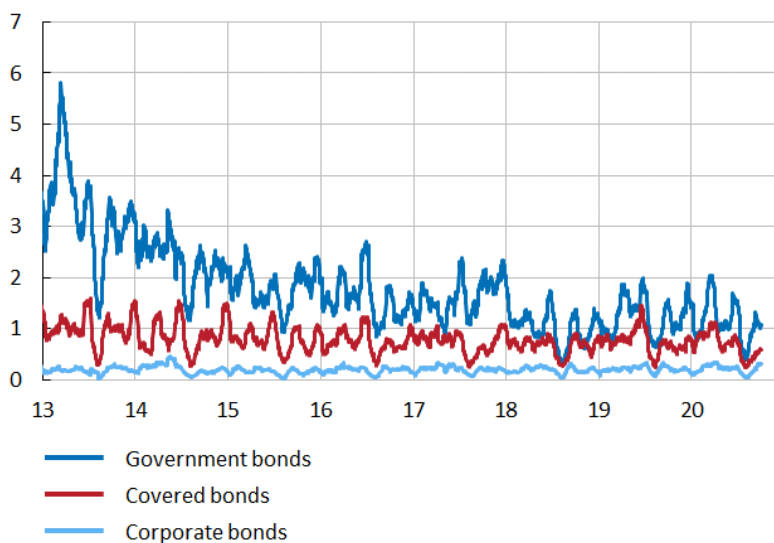


Note. Difference between bond yields and swap rate.

Source: The Riksbank.

Chart 7. Turnover on the Swedish bond market

Per cent

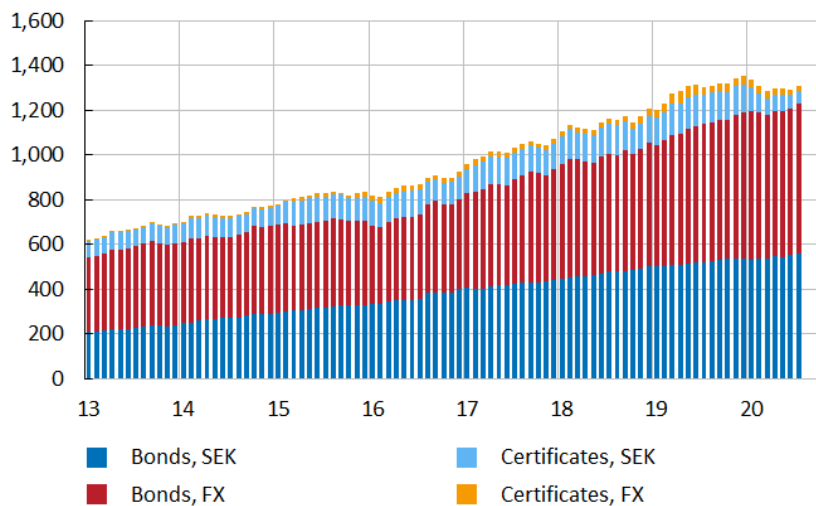


Note. Refers to monthly average of daily spot turnover in relation to outstanding volume.

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

Chart 8. Corporate bonds and certificates

SEK billion

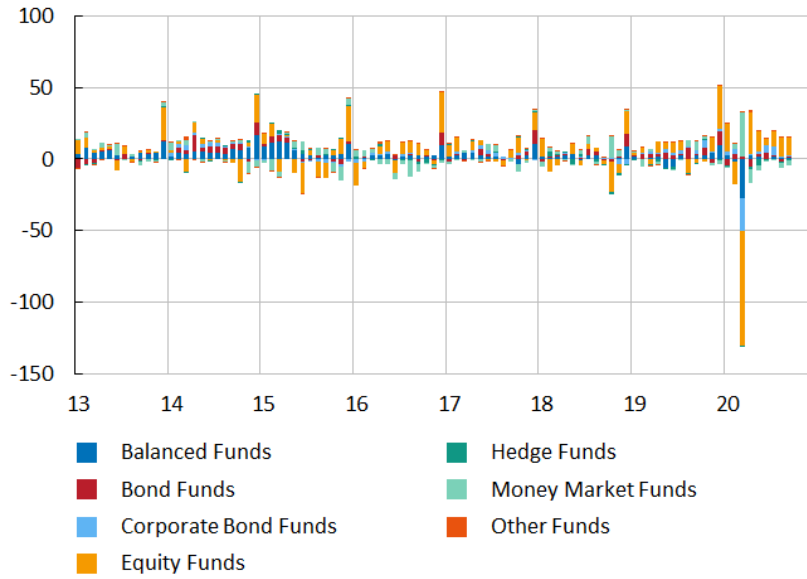


Note. Total notional amounts outstanding.

Source: Statistics Sweden.

Chart 9. Swedish fund flows

SEK billion

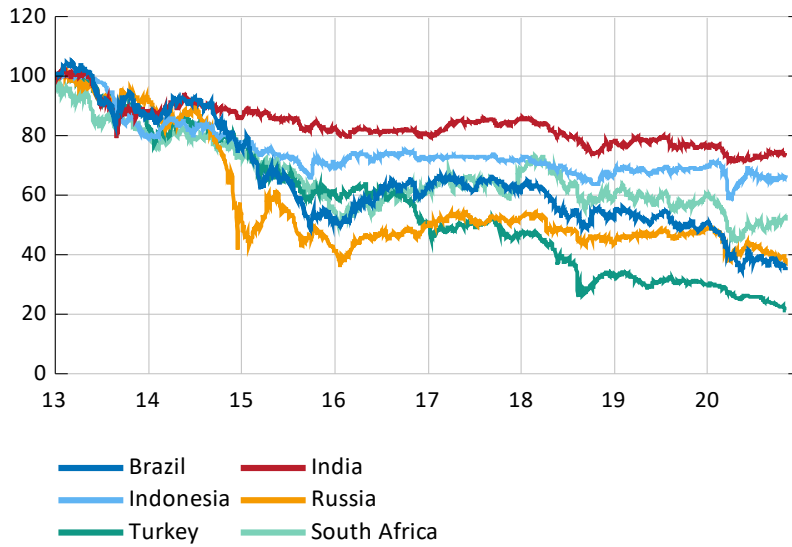


Note. Separate reporting for corporate bond funds was introduced in 2014.

Sources: Swedish Investment Fund Association and Macrobond.

Chart 10. Emerging market currencies

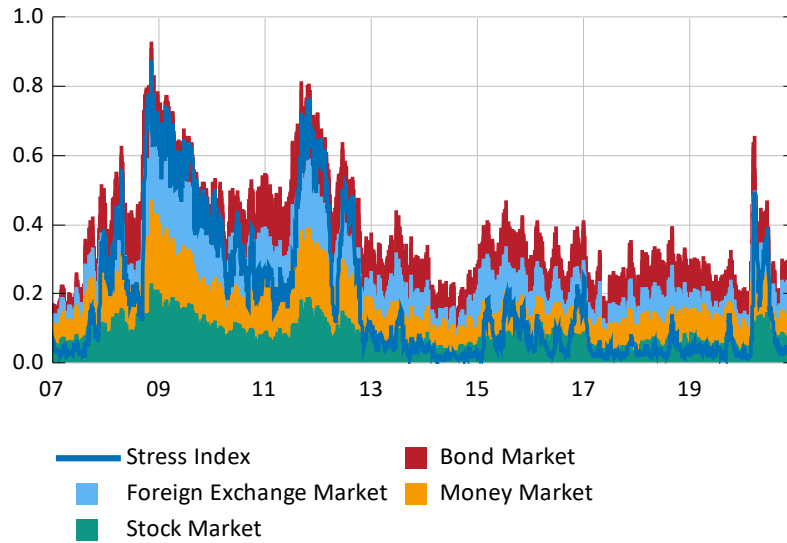
Index, 1 January 2013 = 100, USD against local currency



Source: Macrobond.

Chart 11. Swedish stress index

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

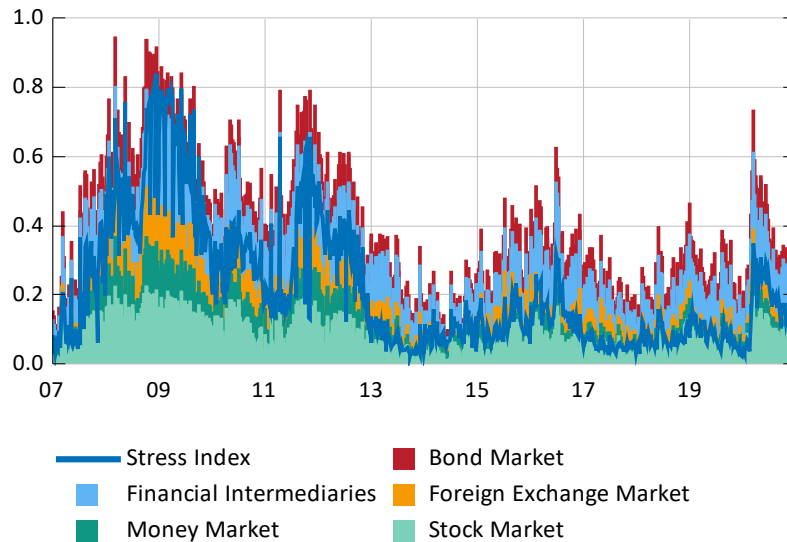


Note. The Swedish stress index has been produced by the Riksbank using a method similar to that used by the ECB for the European stress index. See Johansson and Bonthron (2013), Further development of the index for financial stress in Sweden, *Sveriges Riksbank Economic Review* 2013:1. Sveriges Riksbank.

Sources: Bloomberg and the Riksbank.

Chart 12. European stress index

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



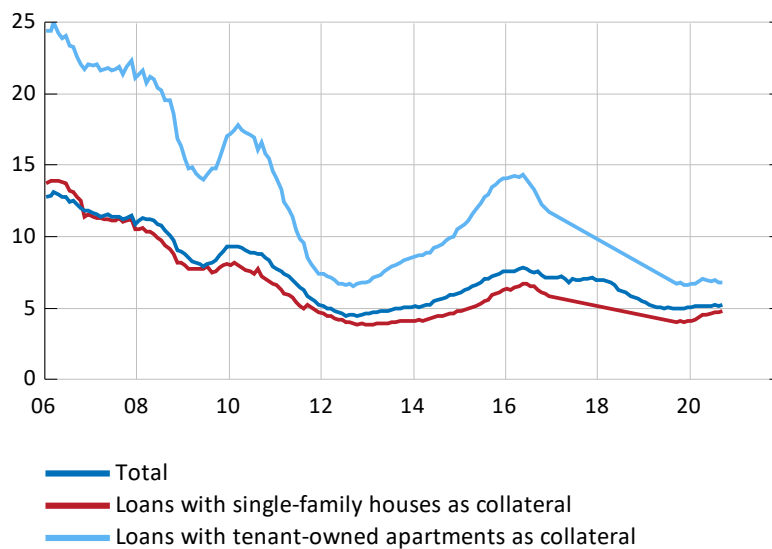
Note. The European stress index is published in the ESRB's Risk Dashboard and elsewhere. The stress level at a specific date is expressed as a value between zero and one, of which one signifies a historically high stress level and zero signifies a historically low stress level. See Holló et al., CISS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

Source: ECB.

The Swedish banking system's borrowers

Chart 13. Loans to households per type of collateral in Sweden

Annual percentage change



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

Sources: Statistics Sweden and the Riksbank.

Chart 14. Loans to households per type of loan

Annual percentage change

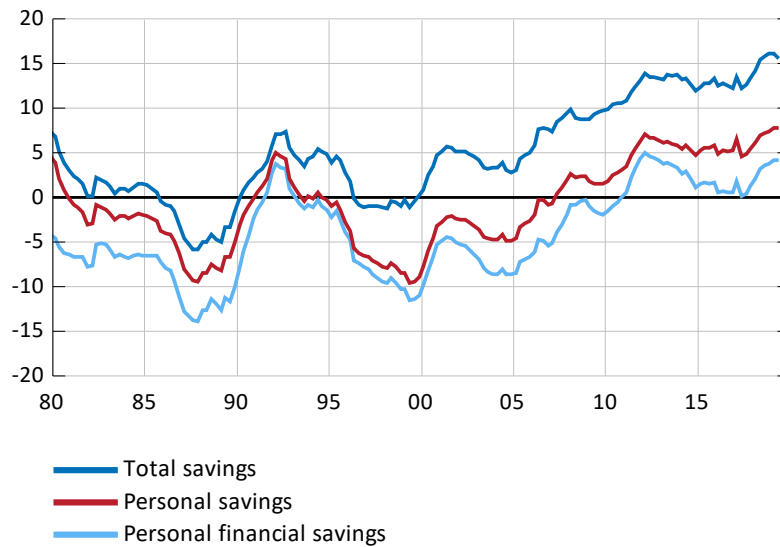


Note. Consumption loans refer to loans without collateral. Other loans refer to loans with collateral other than housing.

Source: Statistics Sweden.

Chart 15. Household savings in Sweden

Per cent of annual disposable income

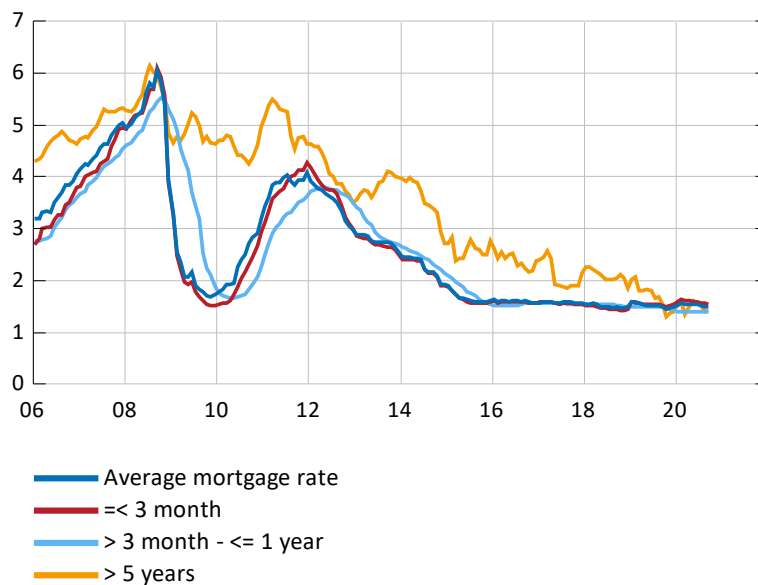


Note. Personal savings equals total savings excluding collective savings. Personal financial savings equals personal savings excluding net investment in housing.

Sources: Statistics Sweden and the Riksbank.

Chart 16. Mortgage rates to households in Sweden

Per cent

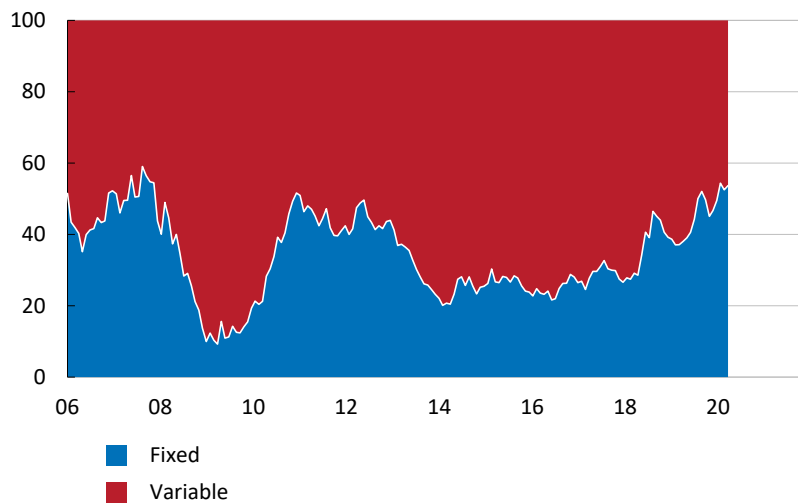


Note. Average mortgages rates by fixation period.

Source: Statistics Sweden.

Chart 17. Rate fixation periods for new mortgage loans in Sweden

Per cent, share of mortgages

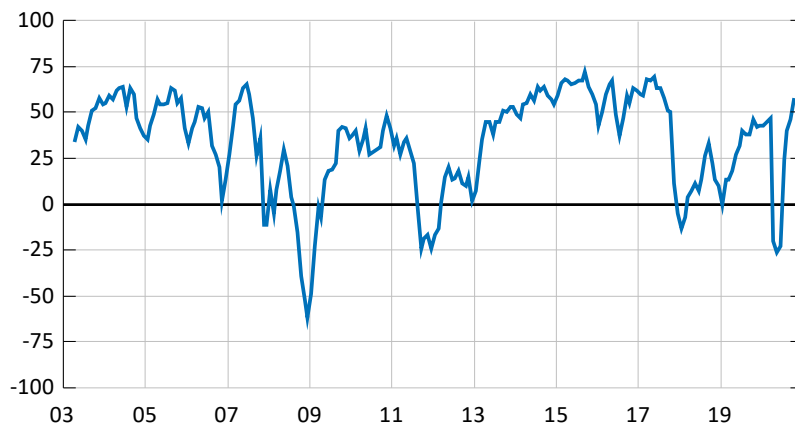


Note. Loans from mortgage institutions. The share of mortgages in each category is volume-weighted. Variable rate refers to rate fixation periods up to 3 months. Fixed rate refers to rate fixation periods above 3 months.

Source: Statistics Sweden.

Chart 18. Households' expectations of housing prices in Sweden

Net total

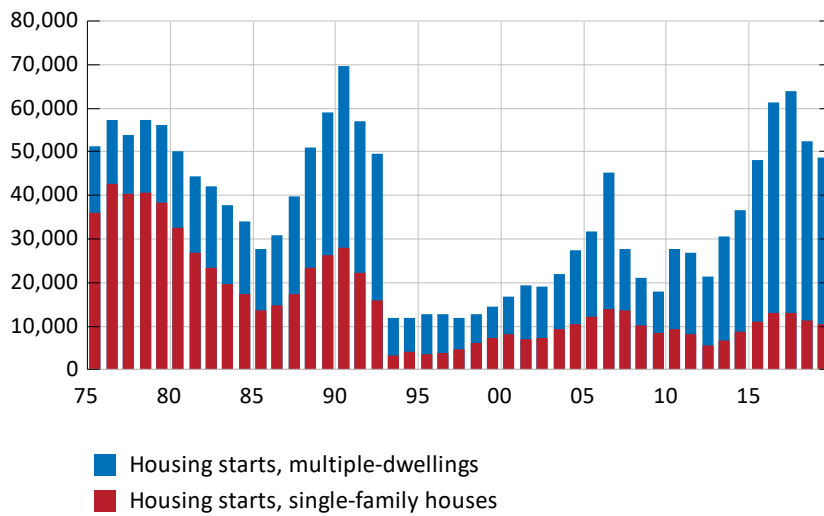


Note. Net total is defined as the difference between the share of households who believe that housing prices will rise and the share who believe that housing prices will fall.

Source: SEB.

Chart 19. Housing construction in Sweden

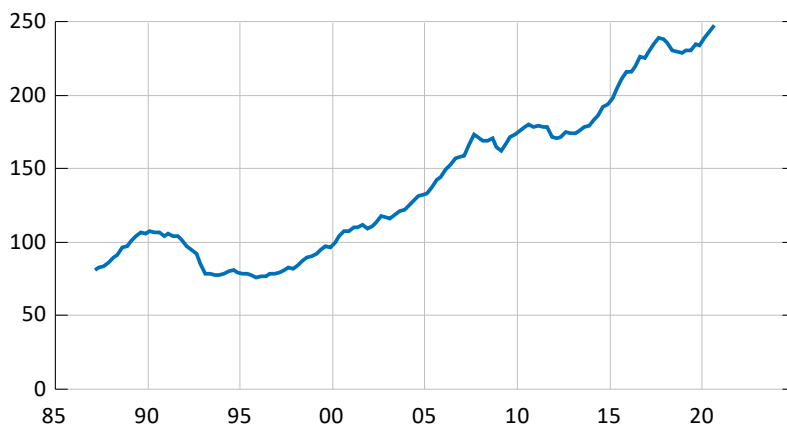
Number of housing starts per year



Sources: Statistics Sweden and the Riksbank.

Chart 20. Real Residential Real Estate Index in Sweden

Index, Q1 2000 = 100

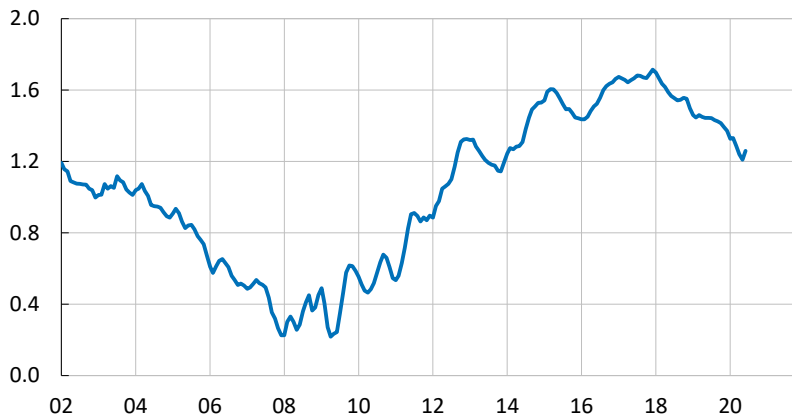


Note. Deflated with CPI. Refers to price developments for single-family houses.

Sources: Statistics Sweden and the Riksbank.

Chart 21. Banks' gross margin on mortgages

Percentage points



Note. The gross margin is calculated as the bank's actual lending rate minus their financing cost. Refers to housing loans with a fixation period of three months.

Source: Finansinspektionen.

Chart 22. Loans to non-financial companies in Sweden

Annual percentage change

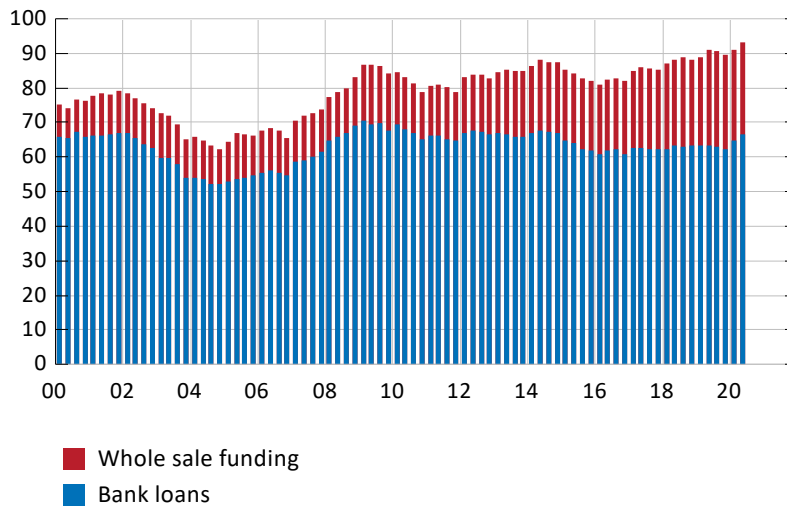


Note. Refers to loans from Monetary Financial Institutions (MFI).

Source: Statistics Sweden.

Chart 23. Financing of non-financial companies in Sweden

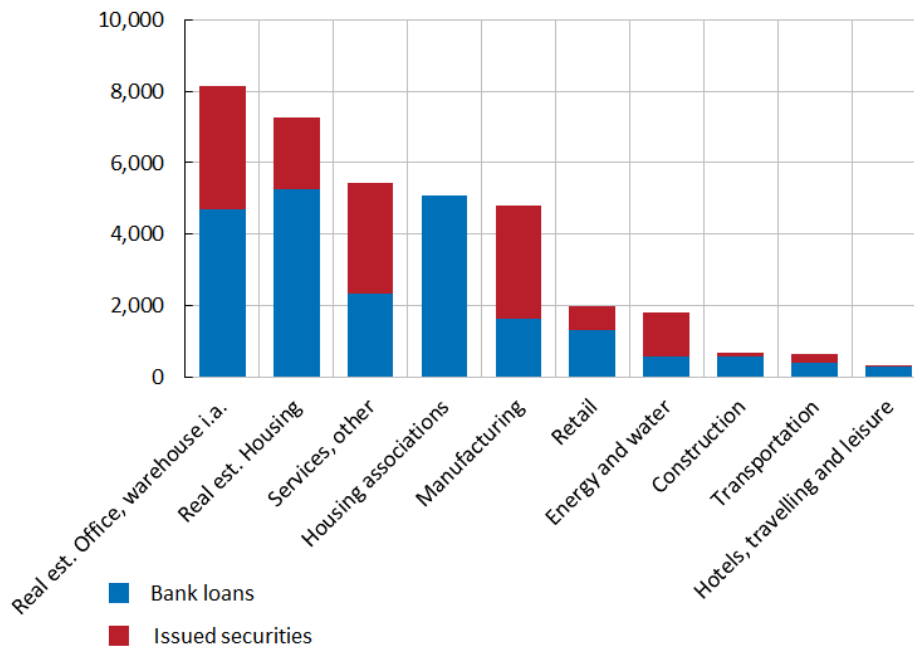
Per cent of GDP



Source: Statistics Sweden and the Riksbank.

Chart 24. Loans to non-financial companies in Sweden

SEK billion



Note. Refers to values in September 2020, in each sector.

Source: Statistics Sweden.

Chart 25. Interest rates on new loans to non-financial companies in Sweden

Per cent

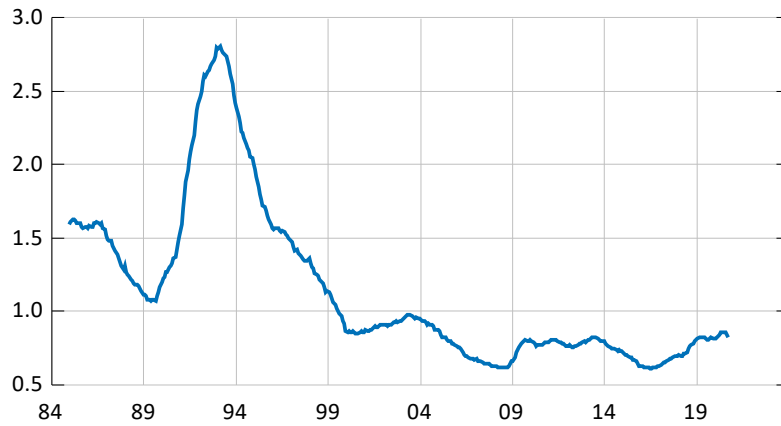


Note. Refers to loans from monetary financial institutions (MFI).

Source: Statistics Sweden.

Chart 26. Bankruptcy rate for non-financial companies in Sweden

Per cent

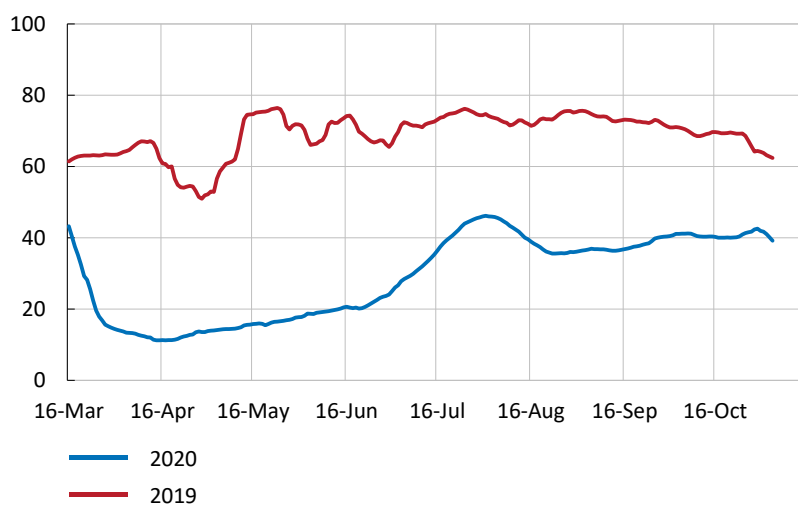


Note. Bankruptcy rate is defined as the number of bankruptcies divided by the number of companies.

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

Chart 27. Proportion of occupied hotel rooms in Sweden in 2020 and 2019

Per cent

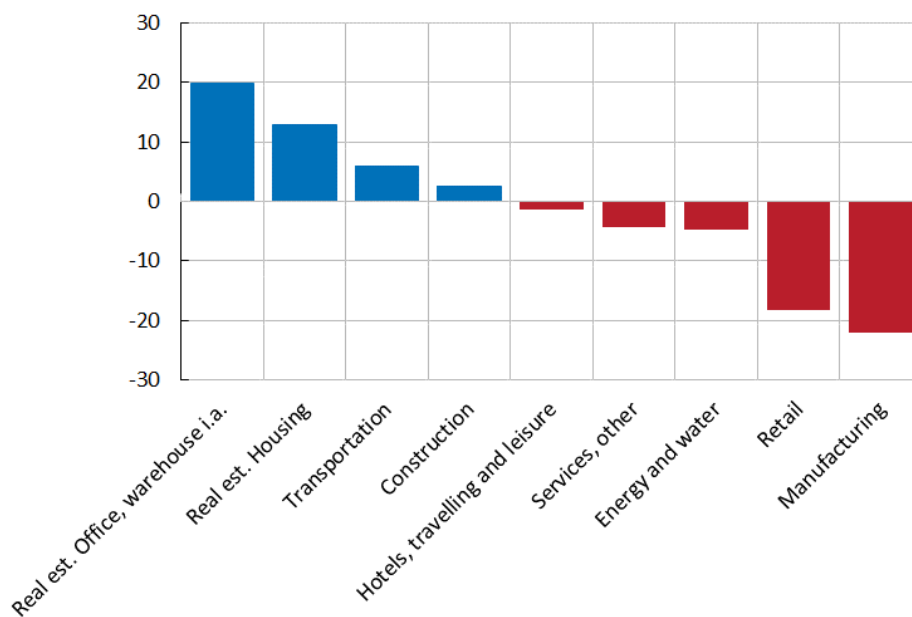


Note: Refers to a 14-day moving average.

Source: Benchmarking Alliance.

Chart 28. Net change, total loans among non-financial companies in Sweden

SEK billion

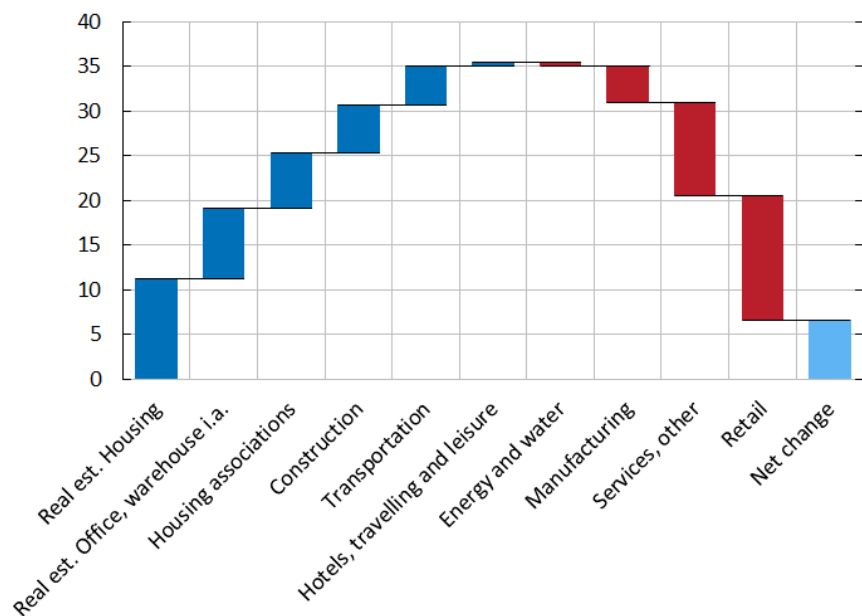


Anm: The net change refers to values in March compared to those in September 2020. Total loans refer to bank loans and issued securities.

Source: Statistics Sweden.

Chart 29. Net change in bank loans

SEK billion

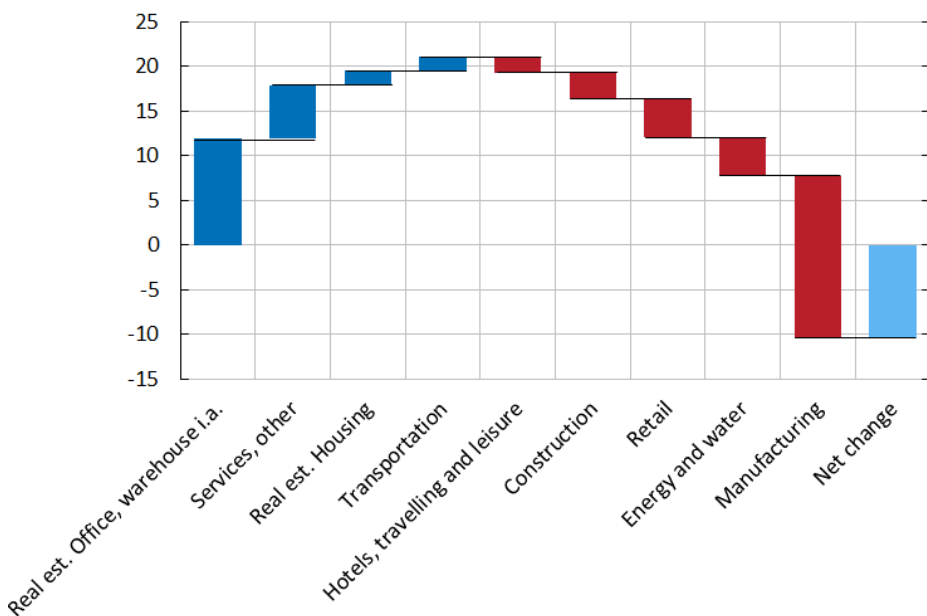


Note: The net change is illustrated in a waterfall chart where blue bars indicate an increase and red bars indicate a decrease in bank loans. The light blue bar refers to the total net change in bank loans between March and September 2020 in different industries.

Source: Statistics Sweden.

Chart 30. Net change in issued securities

SEK billion

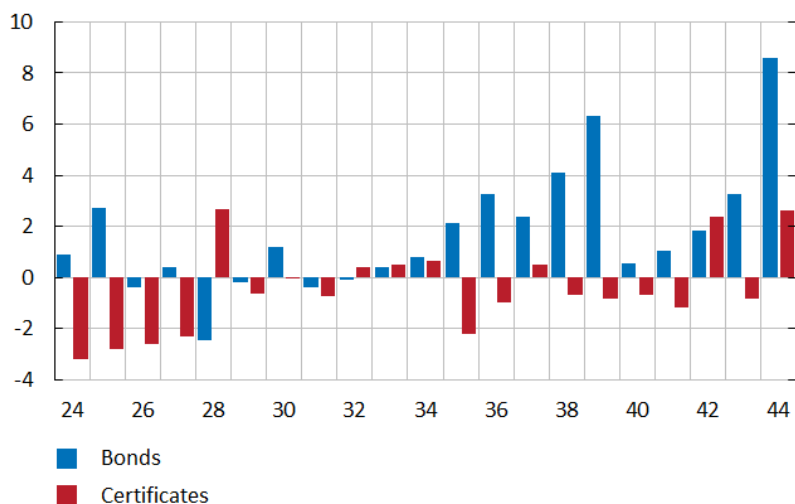


Note. The net change is illustrated in a waterfall chart where blue bars indicate an increase and red bars indicate a decrease in issued securities. The light blue bar refers to the total net change in issued securities between March and September 2020 in different industries.

Source: Statistics Sweden.

Chart 31. Net issues of bonds and certificates by Swedish non-financial companies

SEK billion

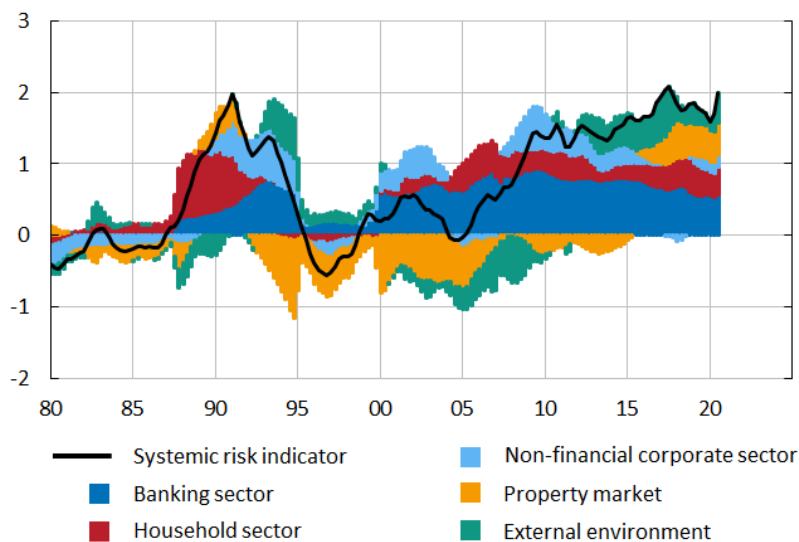


Note. The increase in issued bonds at the end of the time series is mainly due to the recapitalization program of SAS AB where convertible bonds were issued. The x-axis refers to week numbers.

Source: Statistics Sweden.

Chart 32. Indicator of vulnerabilities and risks in the Swedish financial system

Standard deviation

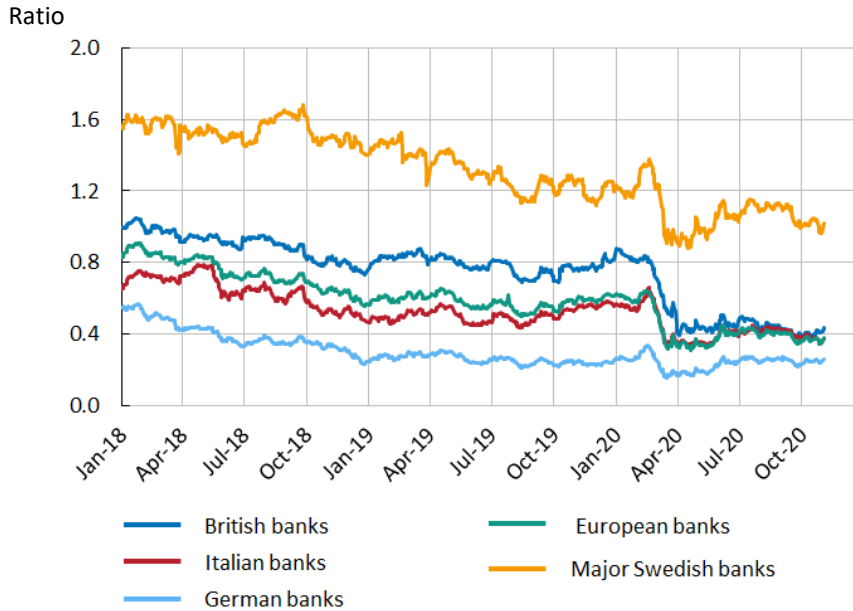


Note. A higher value means higher risks and vulnerabilities.

Source: The Riksbank, for all series included, see D. Krygier and P. van Santen, A new indicator of risks and vulnerabilities in the Swedish financial system, Staff memo, 2020. Sveriges Riksbank.

Developments in the Swedish banking system

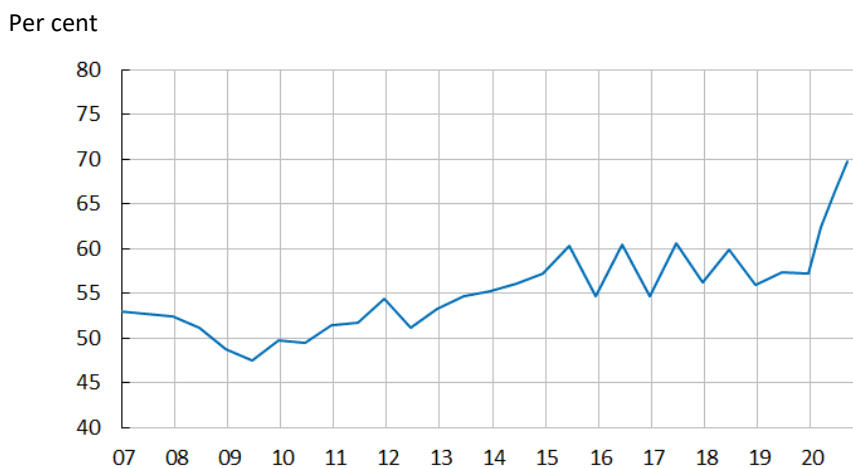
Chart 33. Price-to-book



Note. Average for banks in several countries. Major Swedish banks consists of Handelsbanken, SEB and Swedbank. Price-to-book refers to market cap in relation to book value of the banks' equity.

Source: Bloomberg.

Chart 34. Deposits-to-loans – the major banks in Sweden

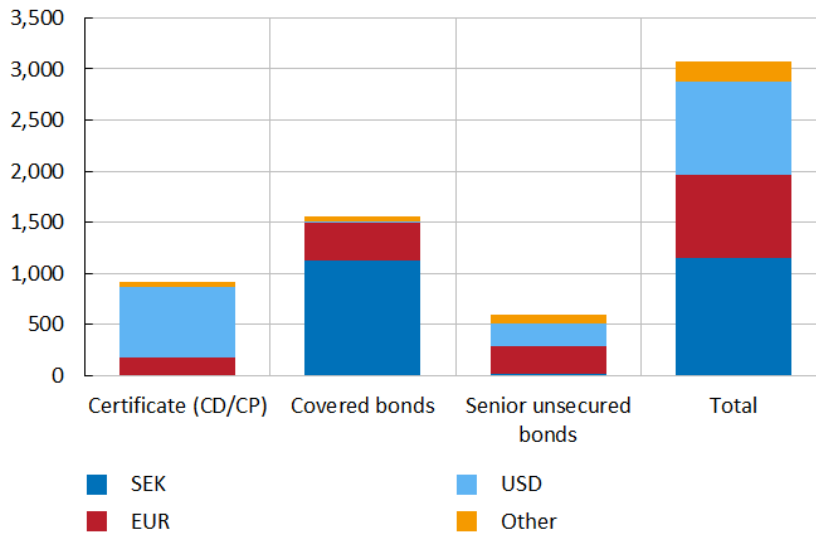


Note. Unweighted average. Major banks in Sweden consists of Danske Bank, Handelsbanken, Nordea, SEB and Swedbank.

Sources: Liquidatum and the Riksbank.

Chart 35. Wholesale funding – the major Swedish banks

SEK billion

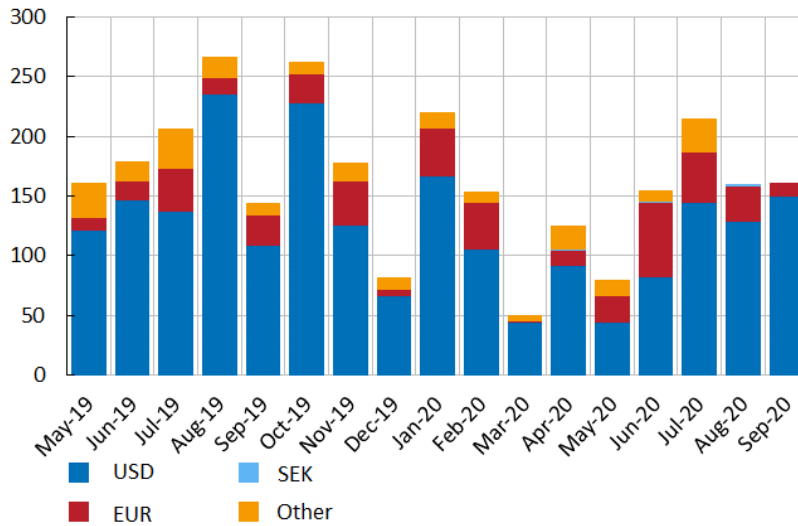


Note. Data from September 2020.

Source: The Riksbank.

Chart 36. Issued CD/CP by currency – the major Swedish banks

SEK billion

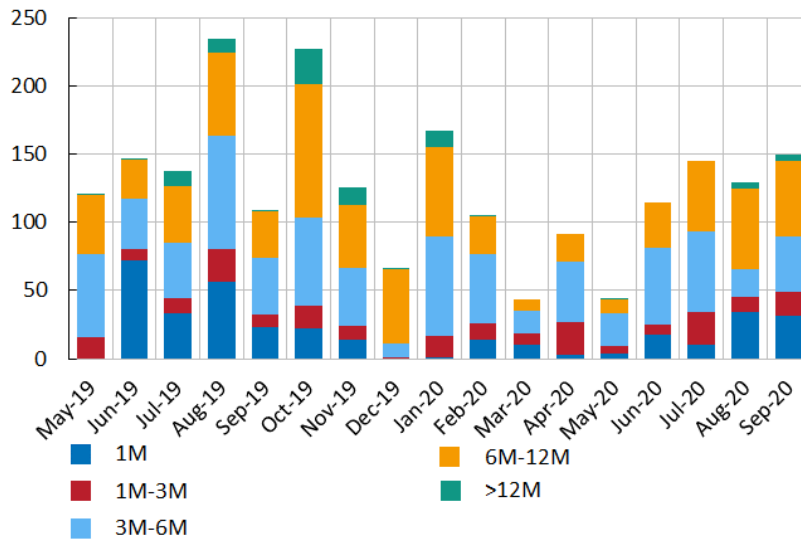


Note. Issued volumes of commercial papers and certificates of deposit for the major Swedish banks.

Source: The Riksbank.

Chart 37. Issued CD/CP in USD by maturity – the major Swedish banks

SEK billion



Note. Issued volumes of commercial papers and certificates of deposit for the major Swedish banks in USD.

Source: The Riksbank.

Chart 38. Covered bonds in SEK

Five-year bond, basis points

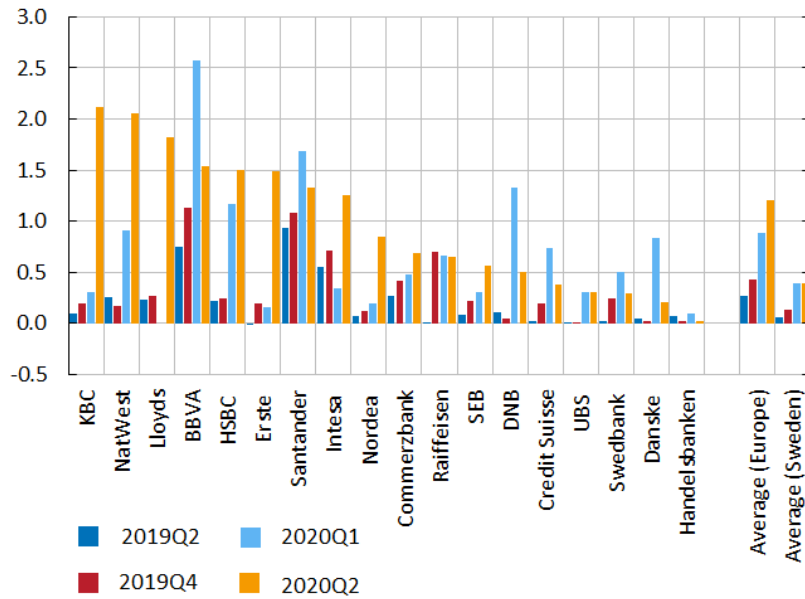


Note. Spread over corresponding swap rate.

Sources: Macrobond and the Riksbank.

Chart 39. Loan loss provisions - Swedish and European banks

Per cent of total lending

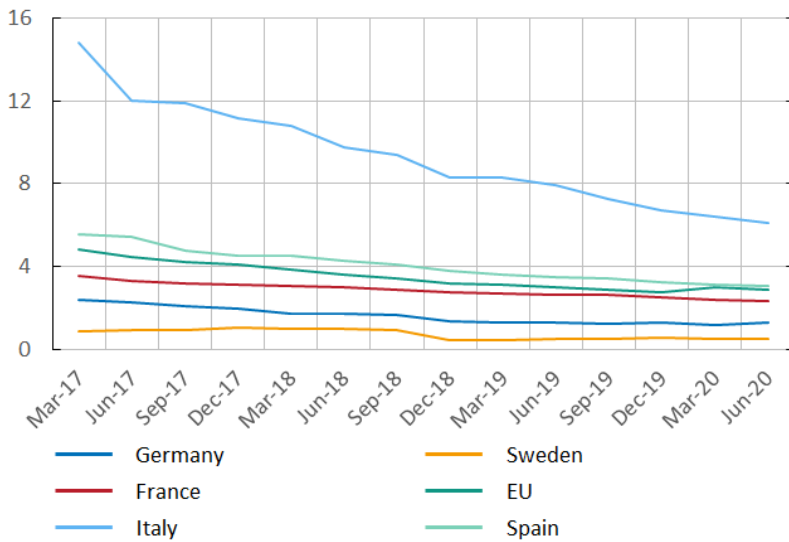


Note. Average (Sweden) consists of Danske bank, Handelsbanken, Nordea, SEB and Swedbank.

Source: SNL Financial.

Chart 40. Non-performing loans

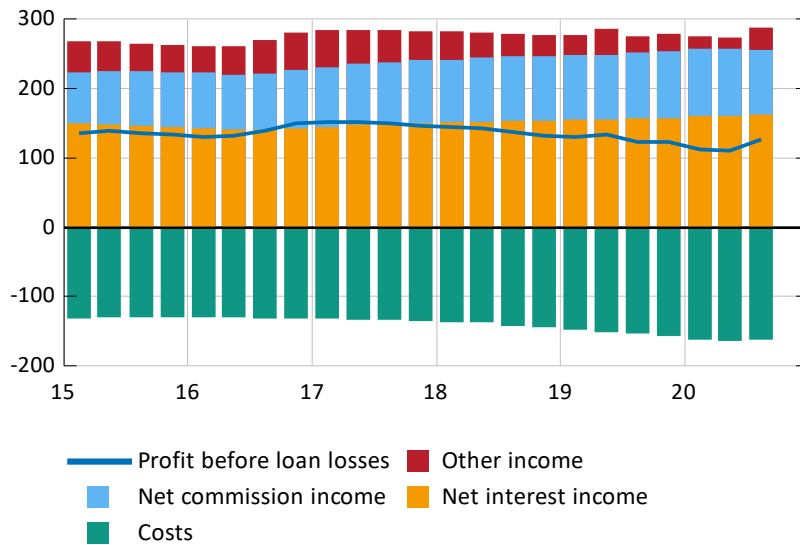
Per cent of total lending



Source: EBA.

Chart 41. Income and costs - the major banks in Sweden

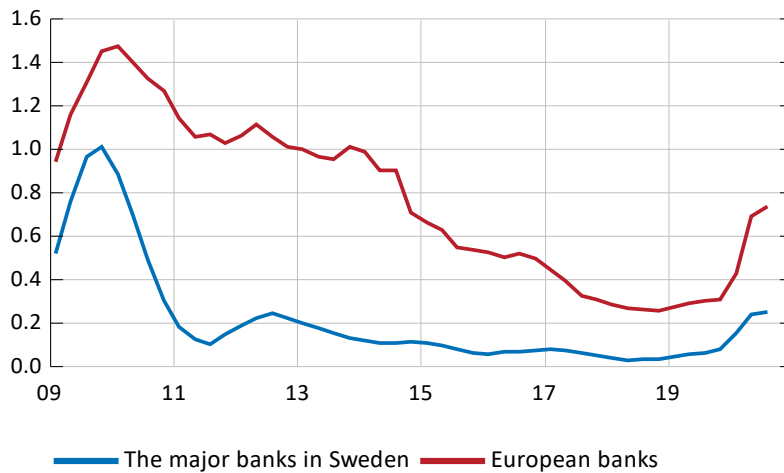
Rolling four quarters, SEK billion



Sources: Bank reports and the Riksbank.

Chart 42. Loan loss provisions in relation to lending to the public

Rolling four quarters, per cent

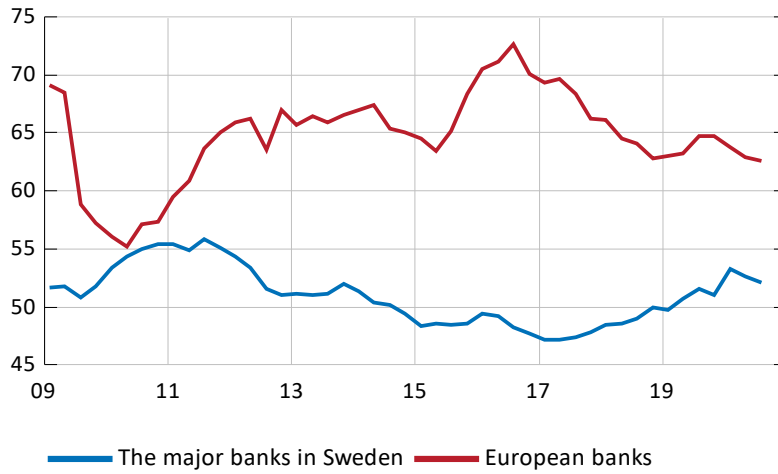


Note. Unweighted average. The red line represents a sample of other European banks, see footnote 38 in *Financial Stability 2020:1*.

Sources: SNL Financial and the Riksbank.

Chart 43. Cost-to-income

Rolling four quarters, per cent

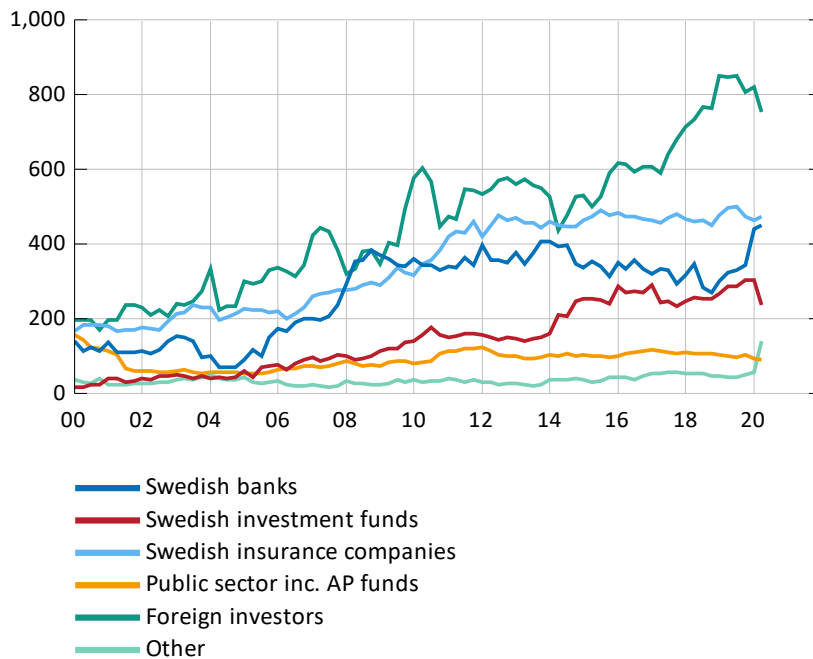


Note. Unweighted average. The red line represents a sample of other European banks, see footnote 38 in *Financial stability 2020:1*.

Sources: SNL Financial and the Riksbank.

Chart 44. Holders of Swedish covered bonds

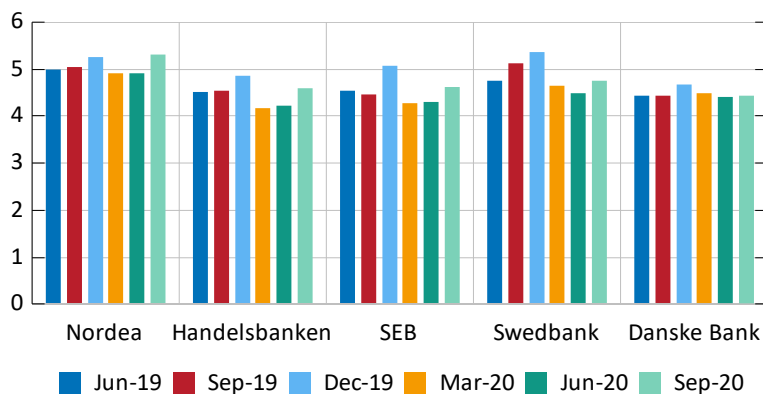
SEK billion



Sources: Statistics Sweden and the Riksbank.

Chart 45. Leverage ratio - the major banks in Sweden

Per cent

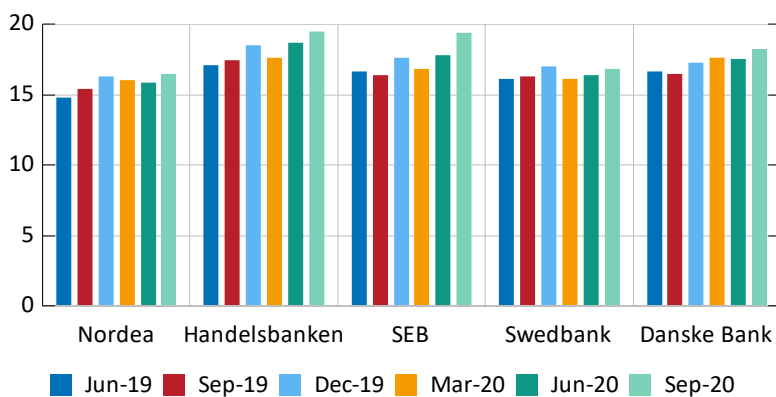


Note. On 17 September, the ECB announced that euro area banks under the direct supervision of the ECB may exclude certain central bank exposures from the leverage ratio. Banks may use this option until 27 June 2021. The increase for Nordea is mainly due to the rule change, which means that certain central bank exposures may be omitted from the calculation.

Sources: Bank reports.

Chart 46. CET1 ratios according to Basel III - the major banks in Sweden

Per cent



Sources: Bank reports.

Chart 47. Short rates in USD (spread)

Basis points

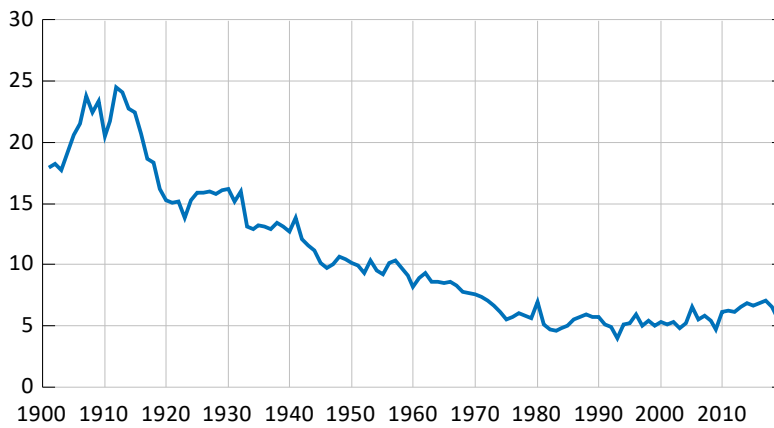


Note. The spread between 3 months USD Libor and overnight index swap (OIS).

Source: Bloomberg.

Chart 48. Equity in relation to total assets - Swedish banks

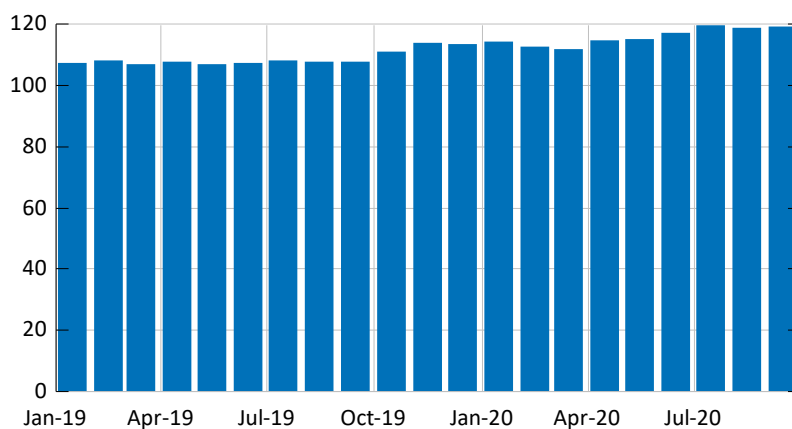
Per cent



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 49. NSFR - the major banks in Sweden

Average, per cent

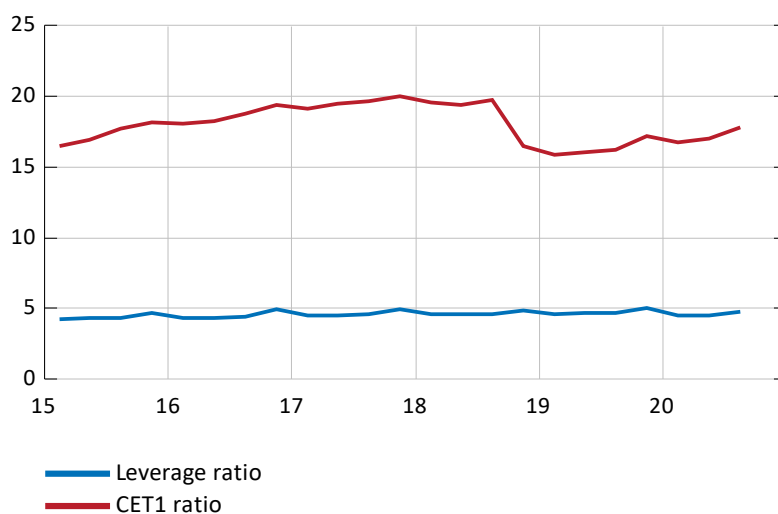


Note. The major banks are reporting their monthly NSFR to the Riksbank. Danske Bank is included from January 2019. The major banks' reporting of NSFR is not standardised but is instead done on the basis of two different definitions, CRR II and Basel III. All banks report according to the definition in CRR II from November 2019.

Source: The Riksbank.

Chart 50. Leverage ratio and CET1 ratio - the major banks in Sweden

Average, per cent

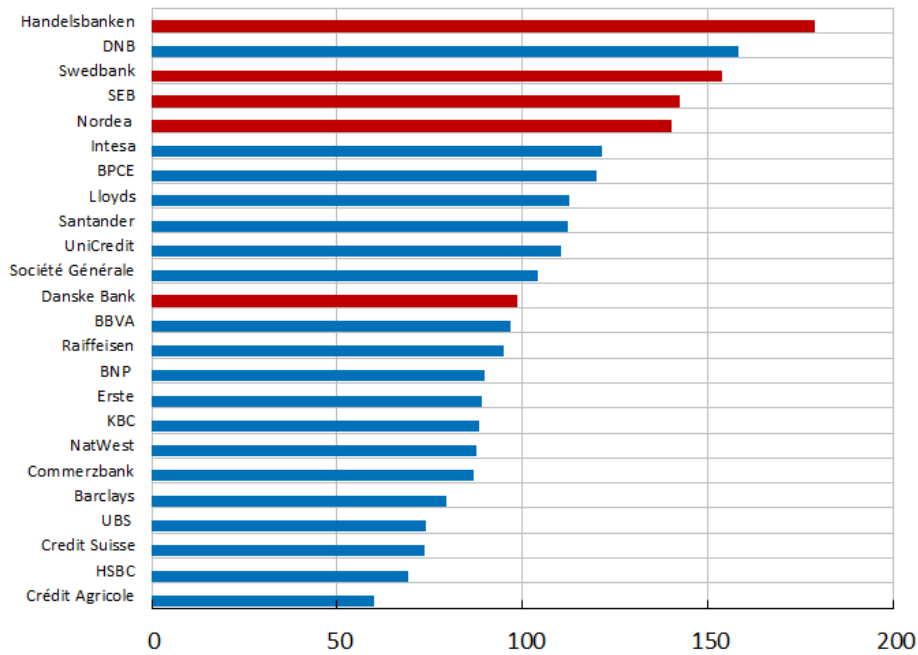


Note. Refers to a volume-weighted average. The large reduction in the CET 1 ratio in 2018 is due to the risk-weight floor for Swedish mortgages being moved from Pillar 2 to Pillar 1. See "Risk-weight floor for Swedish mortgages to become a Pillar 1 requirement", fact box in Financial Stability Report 2018:2. Sveriges Riksbank.

Sources: Bank reports.

Chart 51. Loan-to-deposit - European banks

September 2020, per cent

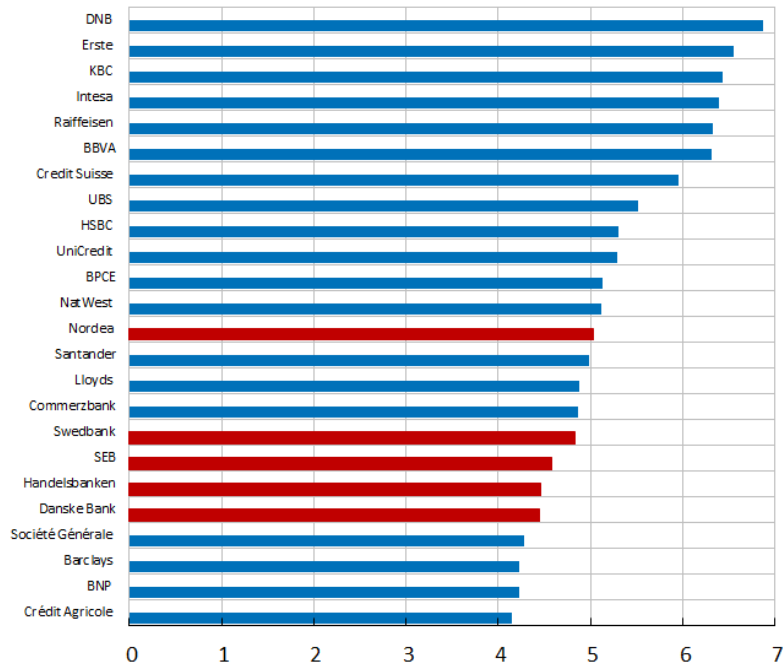


Note. An average over the last four quarters.

Sources: SNL Financial and the Riksbank.

Chart 52. Leverage ratio – European banks

September 2020, per cent



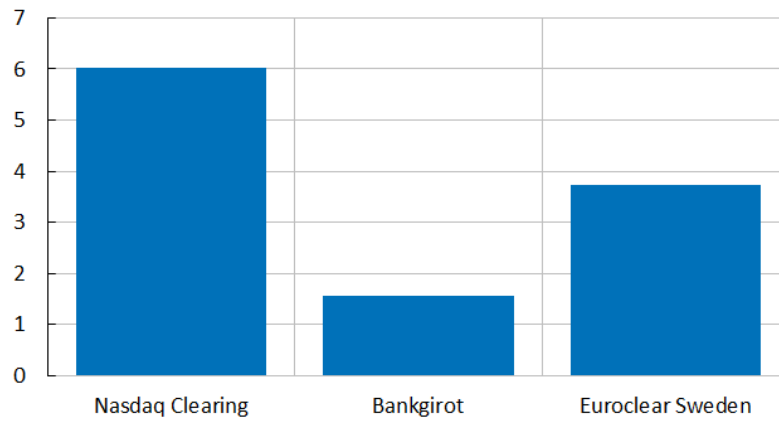
Note. Calculated as per Basel III framework. An average over the last four quarters.

Sources: SNL Financial and the Riksbank.

Financial infrastructure

Chart 53. OWD ratios for the infrastructure systems

Ratio



Note. The Orderly Wind Down (OWD) ratios correspond to the economic position of FMIs on 31 December 2019. The OWD ratio is calculated as the ratio between a company's net liquid assets and average half-year expenditure (operational expenditure including interest) for the last 3 years. An OWD ratio of 1 means that operations can continue for 6 months without income.

Sources: Bankgirot, Euroclear Sweden and Nasdaq Clearing.