

# Indicators for assessment of structural vulnerabilities

Attachment to Norges Bank's letter with advice on the systemic risk buffer 2024

The indicators in this attachment serve as a basis for Norges Bank's assessment of structural vulnerabilities in the financial system.

The assessment of structural vulnerabilities comprises three main elements:

- a) how shocks propagate and are amplified within the financial system, charts 1-6
- b) structural features of the banking sector, charts 7-14
- c) influence of the real economy on the banking sector, charts 15-28

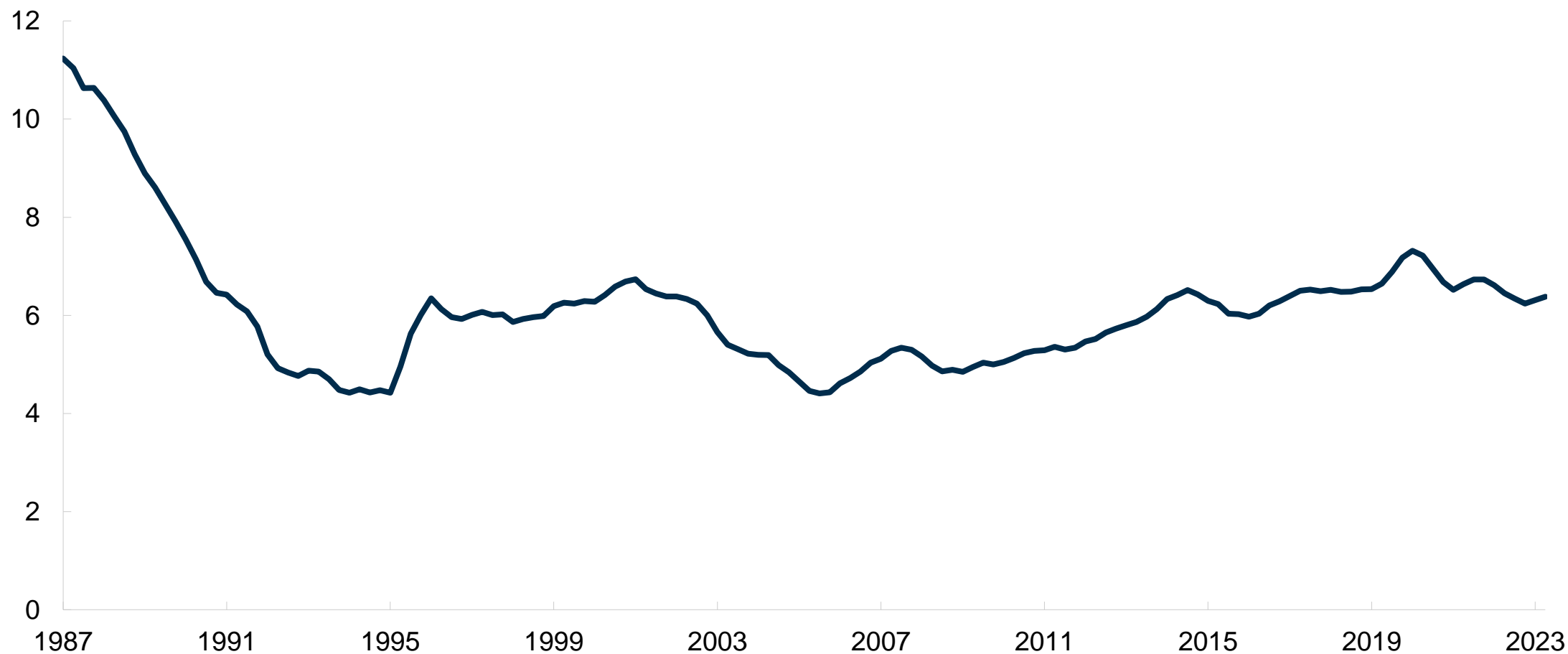
The indicators are elaborated in [Norges Bank Papers 5/2022 “A framework for advice on the systemic risk buffer”](#) with appendix.



## Chart 1: Interbank exposures

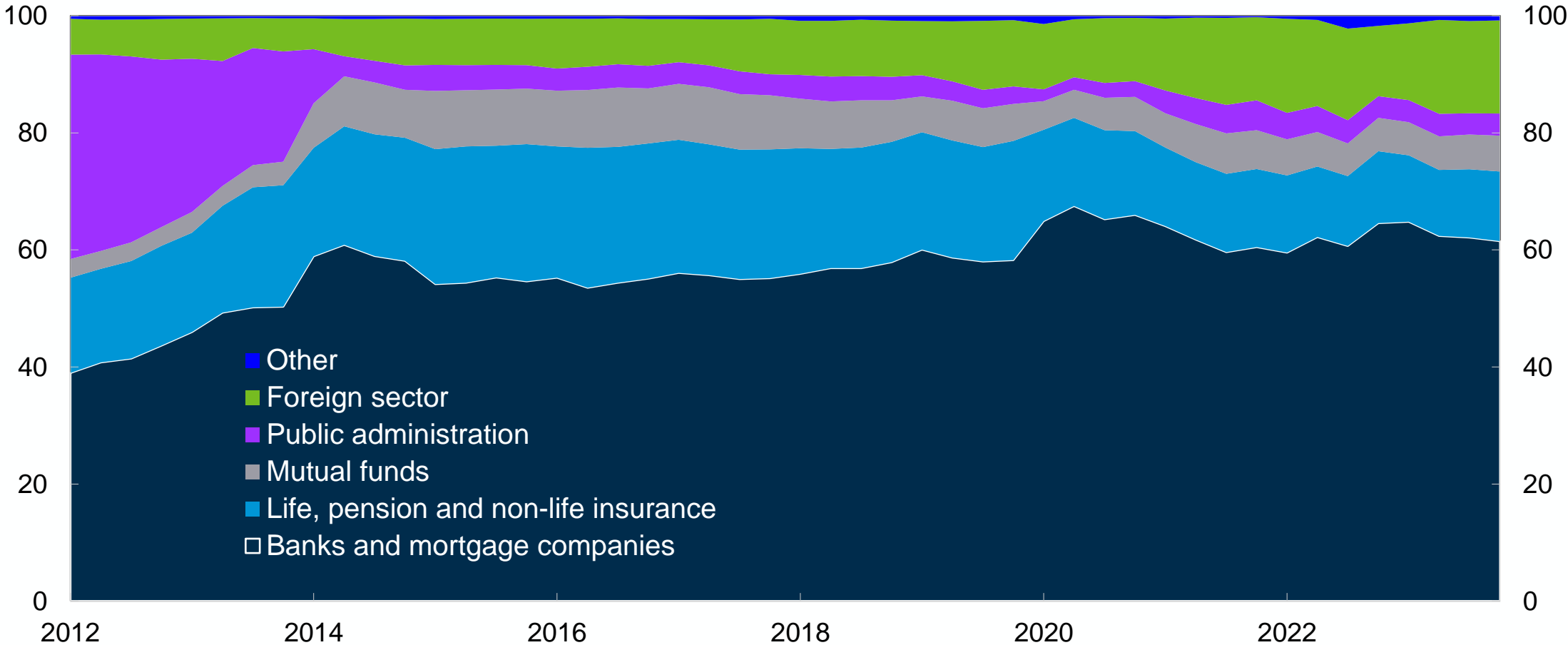
Sources: Statistics Norway  
and Norges Bank

Banks' exposures to one another and to other financial institutions as a share of banks' total assets. Four-quarter average. Percent. 1987 Q4 – 2024 Q1



# Chart 2: Holders of covered bonds

Issued in NOK by mortgage companies. Percent. 2012 Q1 – 2023 Q4

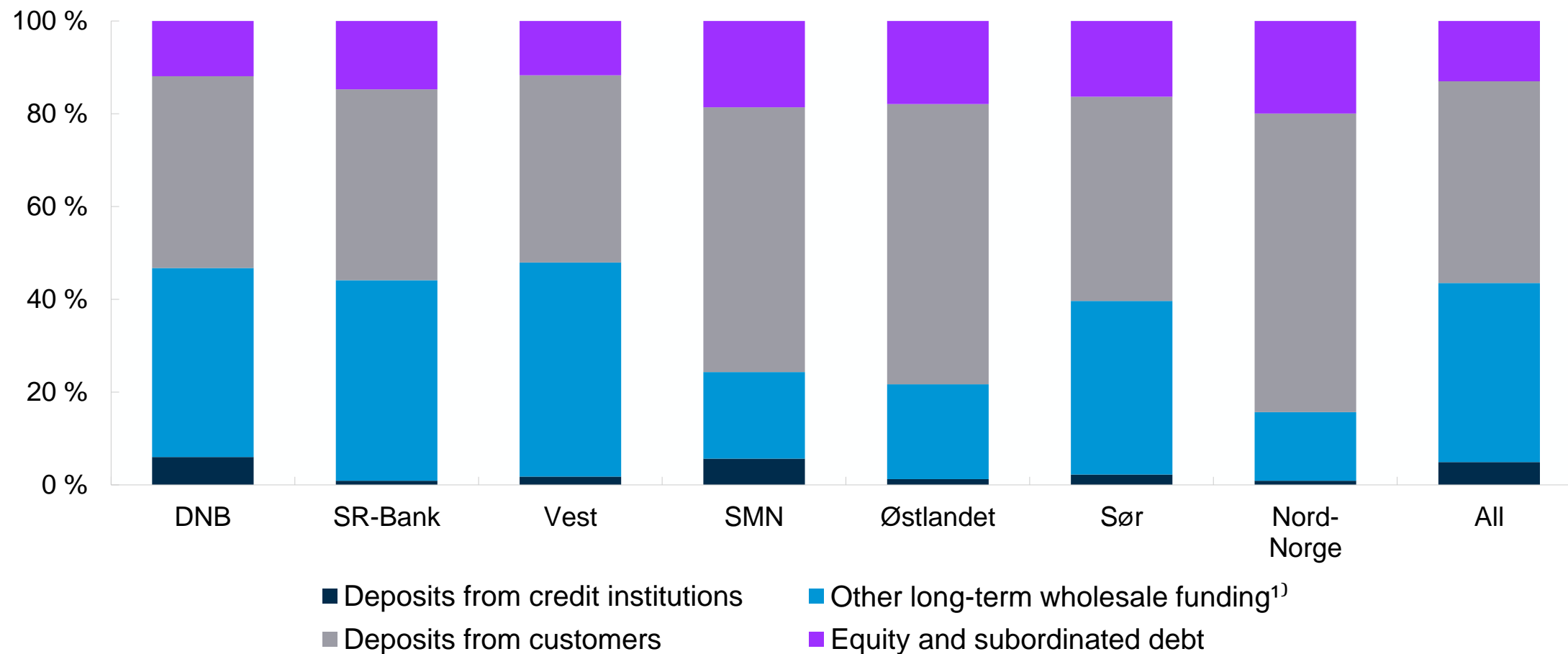


## Chart 3: Bank funding by source

The seven largest Norwegian banks. Percent. At the end of 2023

1) For DNB, this includes commitments related to the group insurance business (the subsidiary DNB Livsforsikring AS).

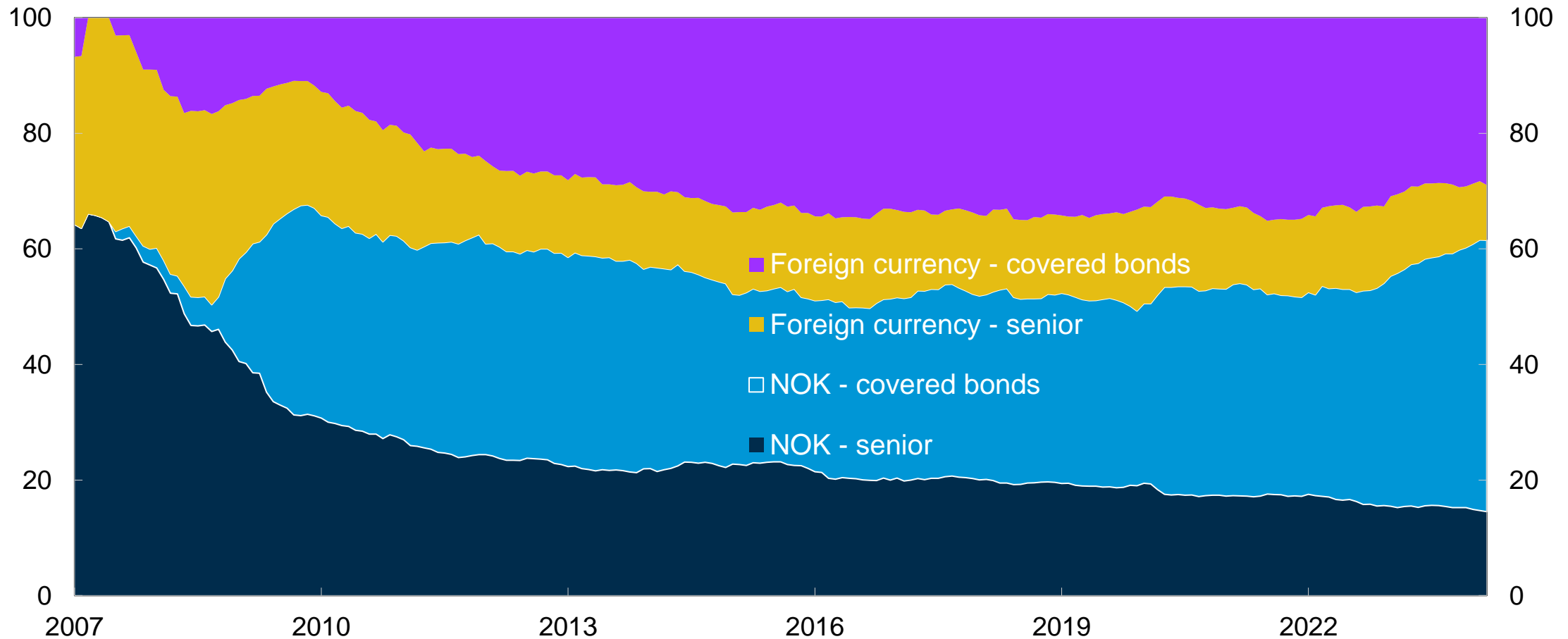
Sources: S&P Capital IQ and Norges Bank



# Chart 4: Banks' wholesale funding in foreign currency

Sources: Bloomberg, Stamdata and Norges Bank

Bonds outstanding. All Norwegian banks and covered bond mortgage companies. Percent. January 2007 – March 2024

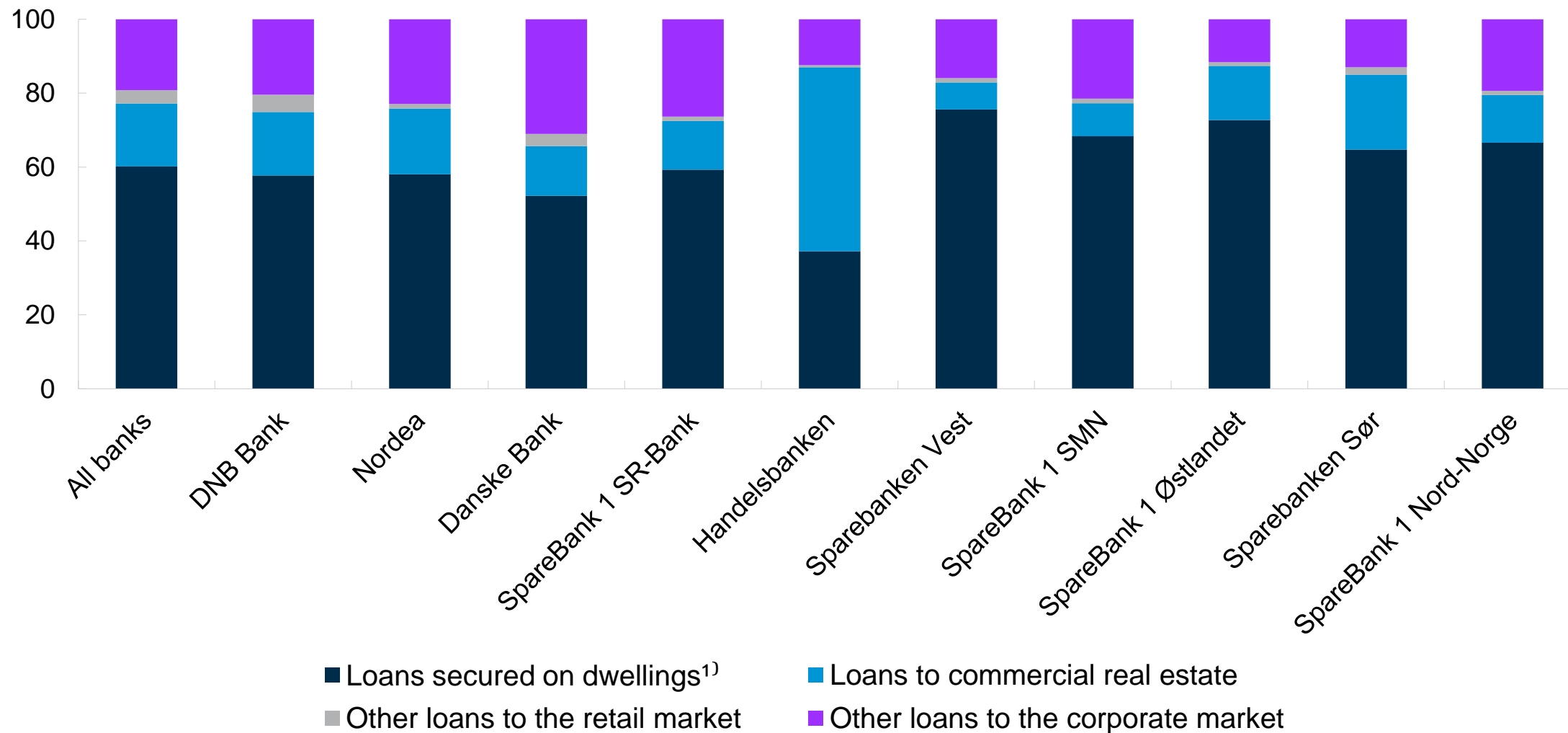


## Chart 5: Bank lending to selected segments in Norway

The ten largest and all banks and mortgage companies in Norway. Percent. At the end of 2023

1) Includes residential mortgage loans provided by covered bond mortgage companies.

Source: Norges Bank



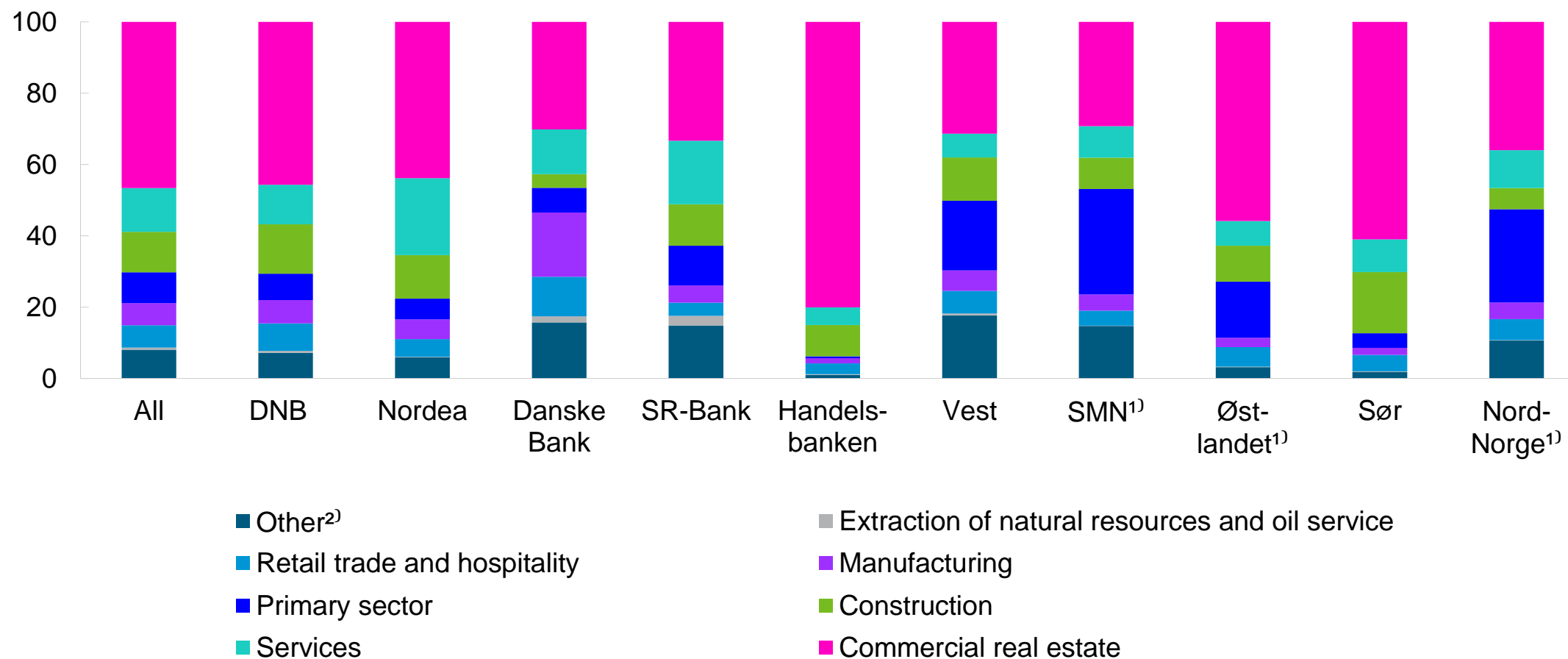
## Chart 6: Sector classification of bank lending to the corporate market in Norway

The ten largest banks and all banks and mortgage companies in Norway. Percent. At the end of 2023

1) Data for Sparebank 1 SMN, Sparebank 1 Østlandet and Sparebank 1 Nord-Norge do not include mortgage companies.

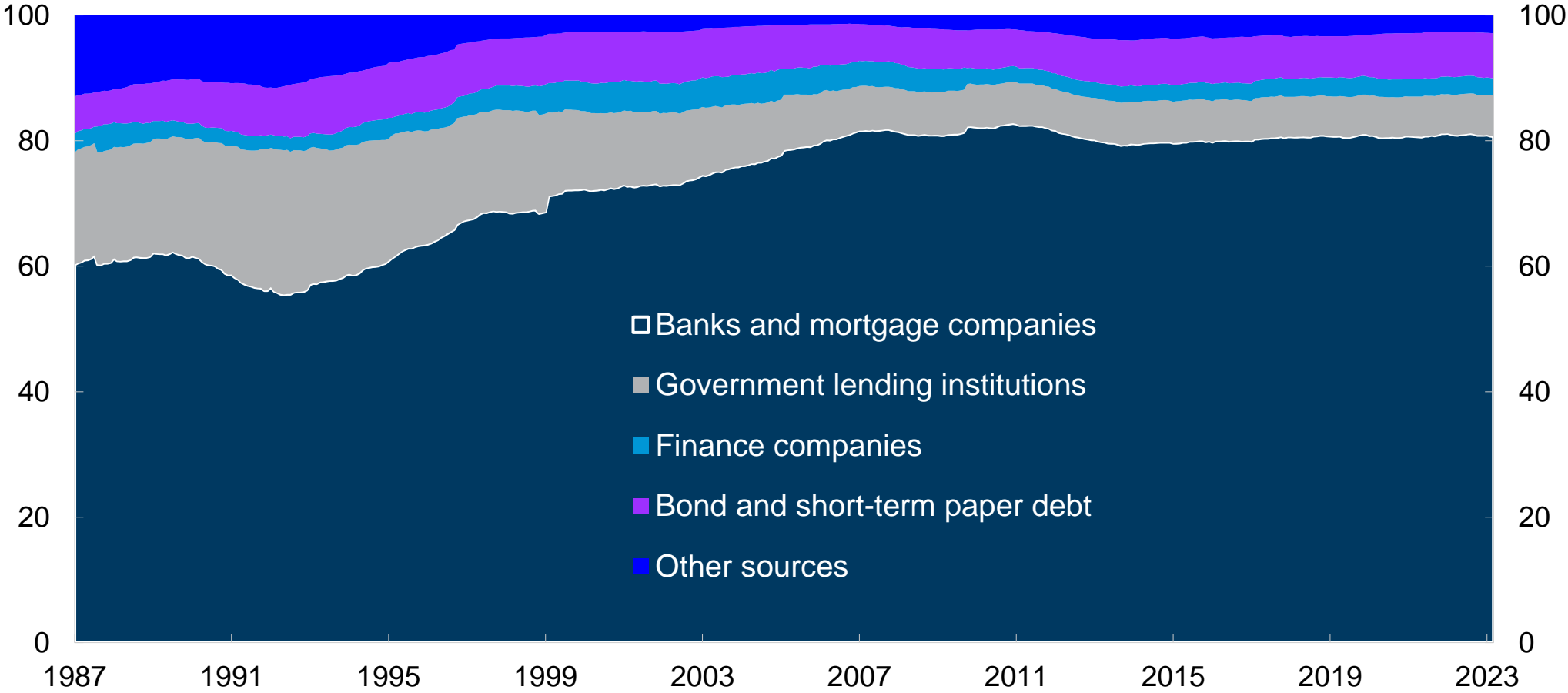
2) Other sectors include international shipping, other transport, retail trade and hospitality.

Source: Norges Bank



# Chart 7: Total lending by source

Gross lending by credit source. Share of total private lending. Percent. December 1987 – February 2024

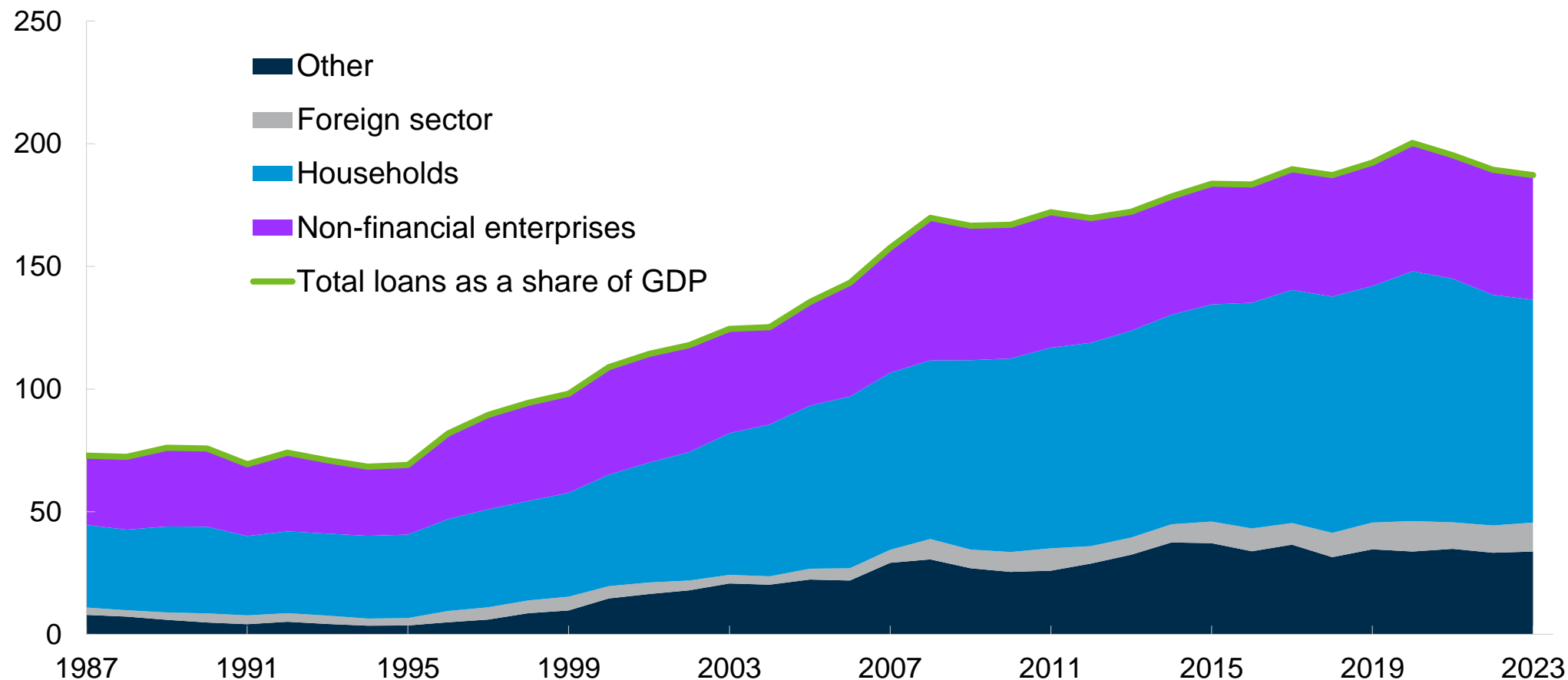




# Chart 8: Total banking sector lending

Share of mainland GDP. Decomposed. Percent. 1987 – 2023

Sources: Statistics Norway and Norges Bank

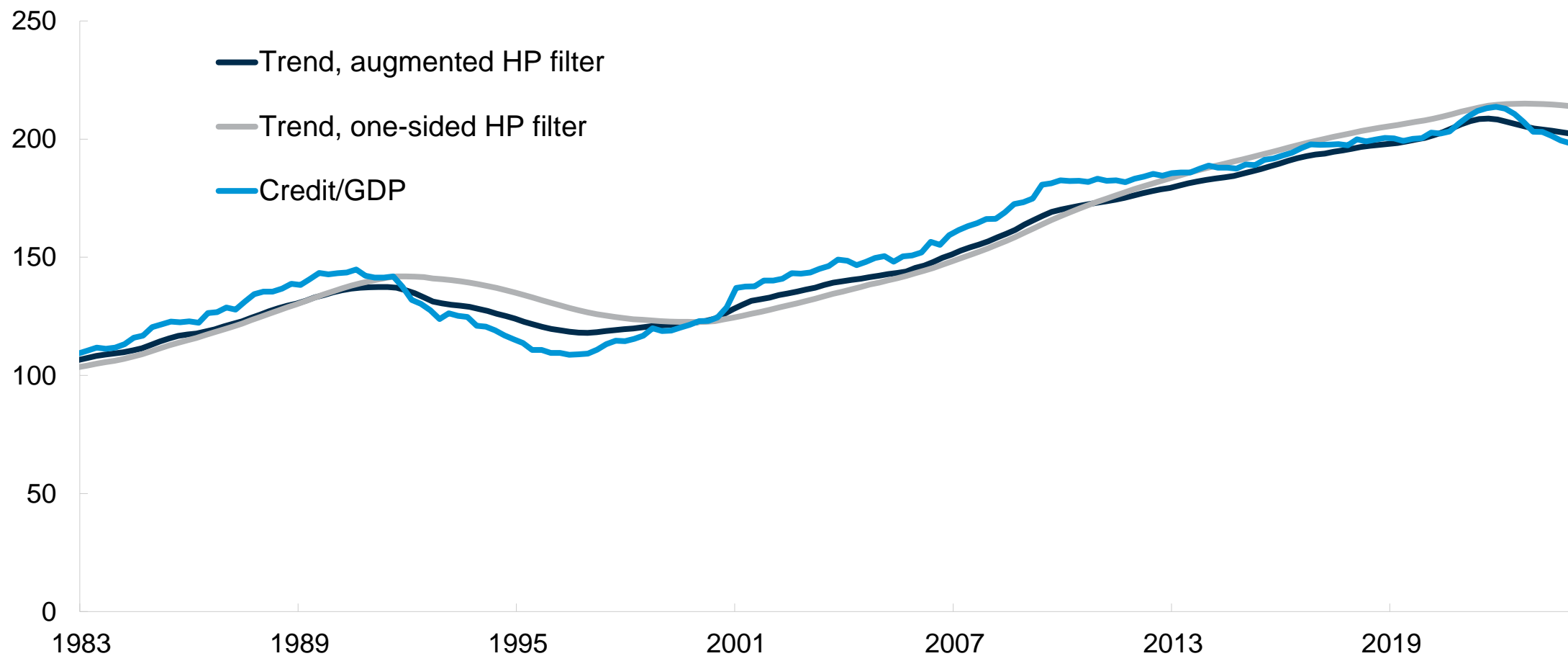


## Chart 9: Trend in total credit

Estimated trends<sup>1)</sup> for total credit as a share of mainland GDP. Percent. 1983 Q1 – 2024 Q1

1) One-sided Hodrick-Prescott filter with lambda = 400 000 and same filter estimated on data augmented with a simple projection..

Sources: IMF, Statistics Norway and Norges Bank

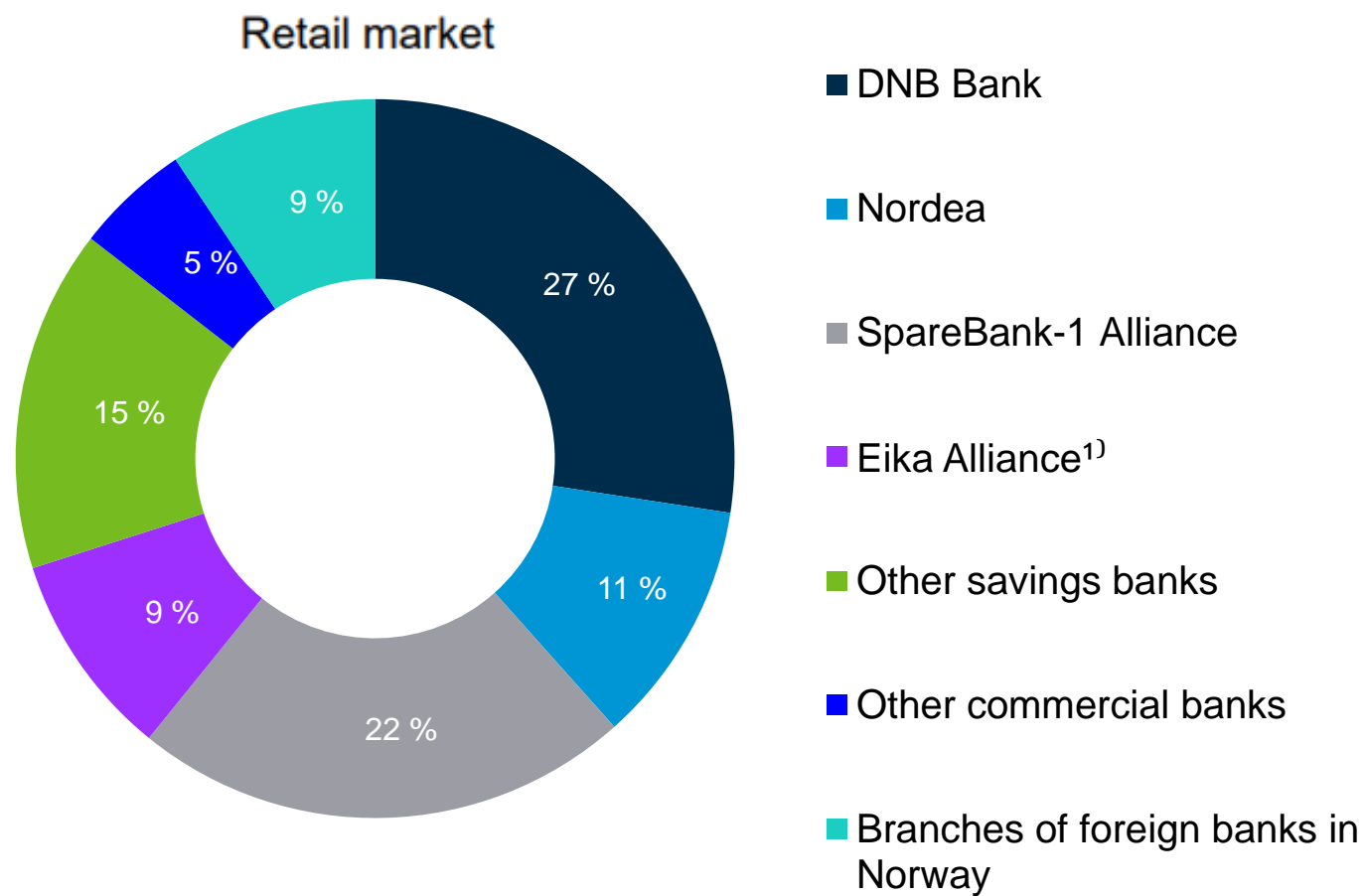


# Chart 10: Market shares of total lending

Percent. At 31 December 2023

1) The Eika Alliance comprises 51 independent banks, Eika Gruppen and Eika Boligkreditt. In addition, Eika Kredittdbank is included instead of the bank's parent company, Eika Gruppen, as well as SSB Boligkreditt and Totens Sparebank Boligkreditt.

Source: Norges Bank

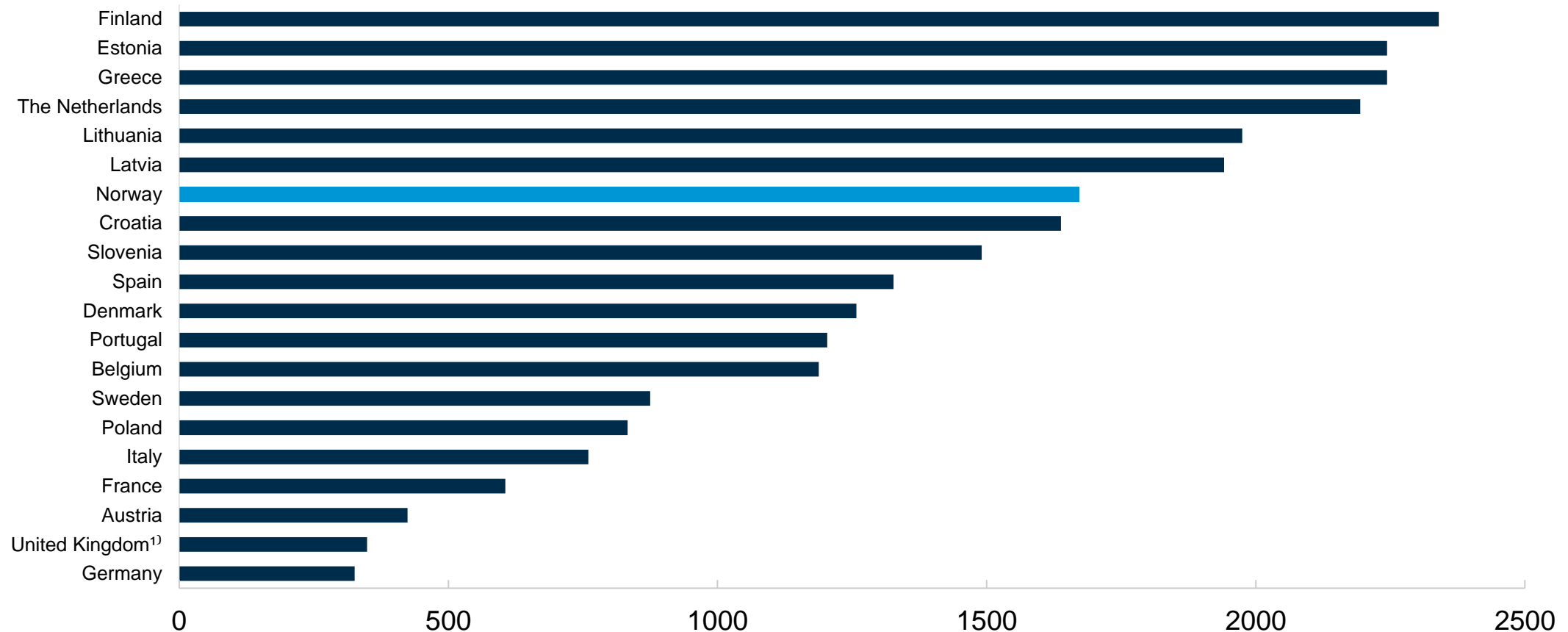


# Chart 11: Concentration index for banking markets in selected countries

Herfindahl index<sup>1)</sup>. Credit institutions. Based on total assets. 2022

1) The Herfindahl index is the sum of squared market shares of the banks in a country. The index will be 10 000 when a country only has one bank and close to zero when there are a larger number of small banks. UK data are from 2019.

Sources: ECB and Norges Bank

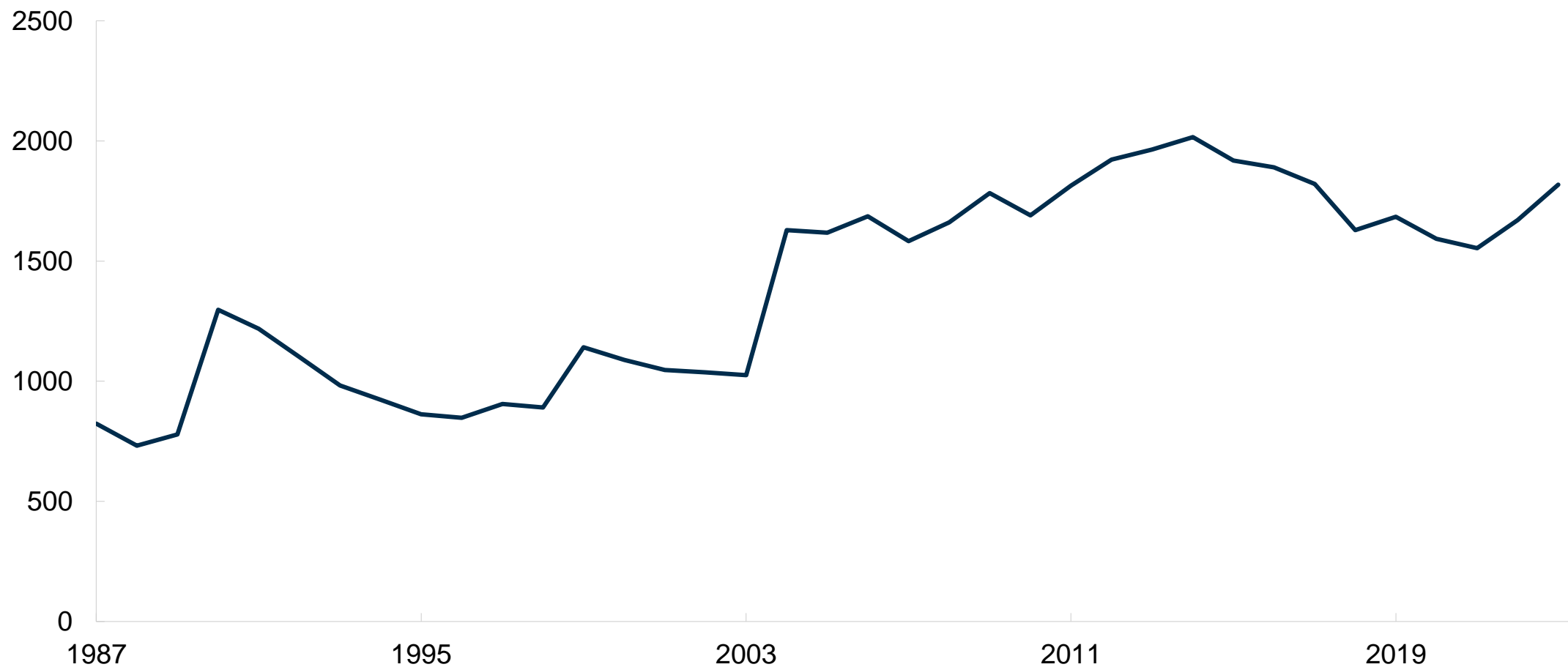


# Chart 12: Concentration index for the Norwegian banking market

Herfindahl index<sup>1)</sup>. Credit institutions. Based on total assets. 1987 – 2023

1) The Herfindahl index is the sum of squared market shares of the banks in a country. The index will be 10 000 when a country only has one bank and close to zero when there are a larger number of small banks.

Source: Norges Bank



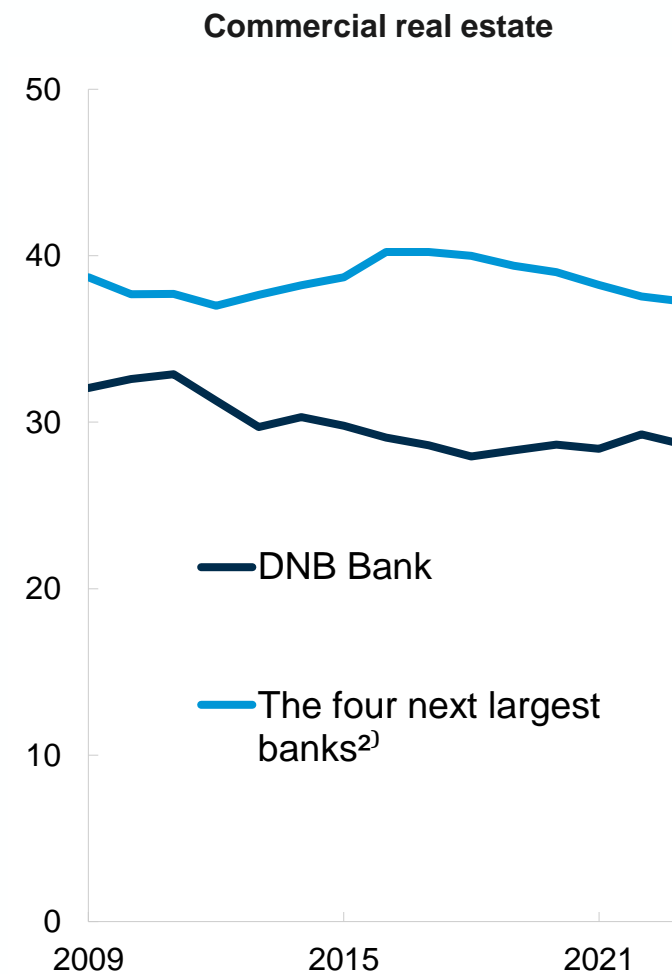
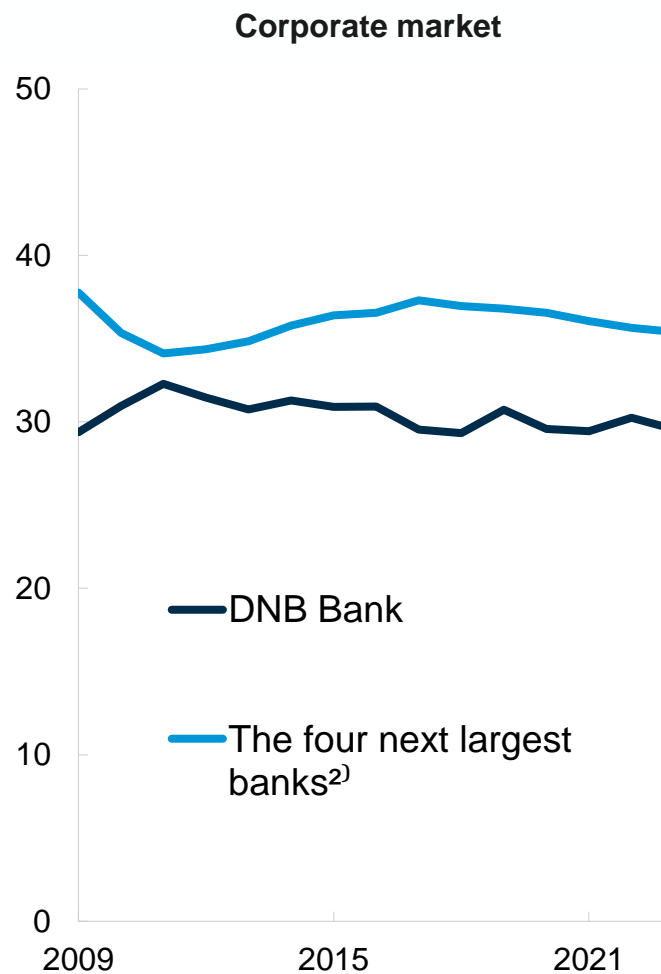
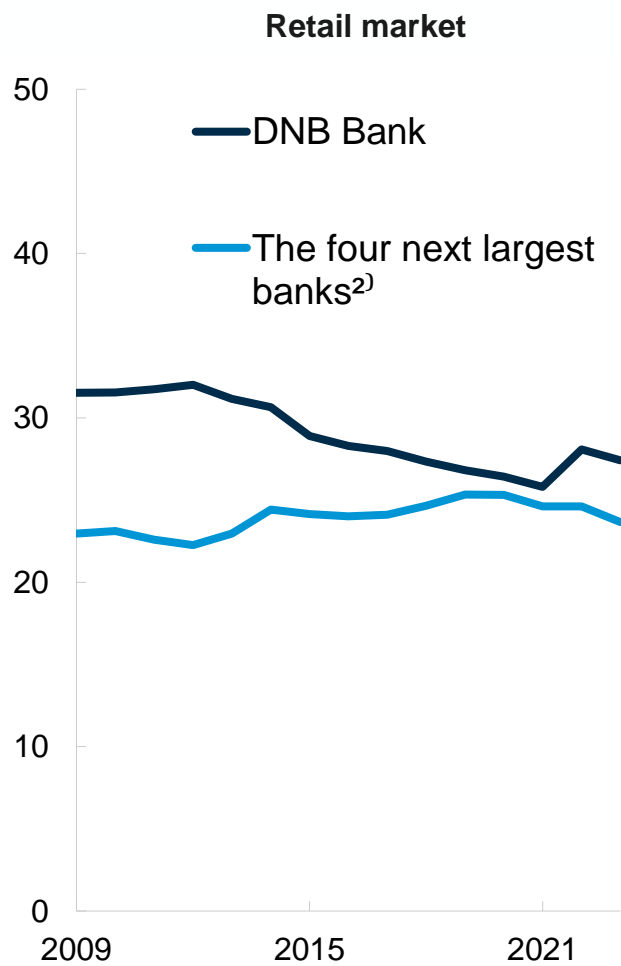
# Chart 13: The largest banks' lending to selected segments

Market shares<sup>1)</sup>. Percent. 2009 – 2023

1) Includes mortgage companies.

2) The four next largest banks are Nordea, Handelsbanken, Danske Bank and Sparebank 1 SR-Bank.

Source: Norges Bank

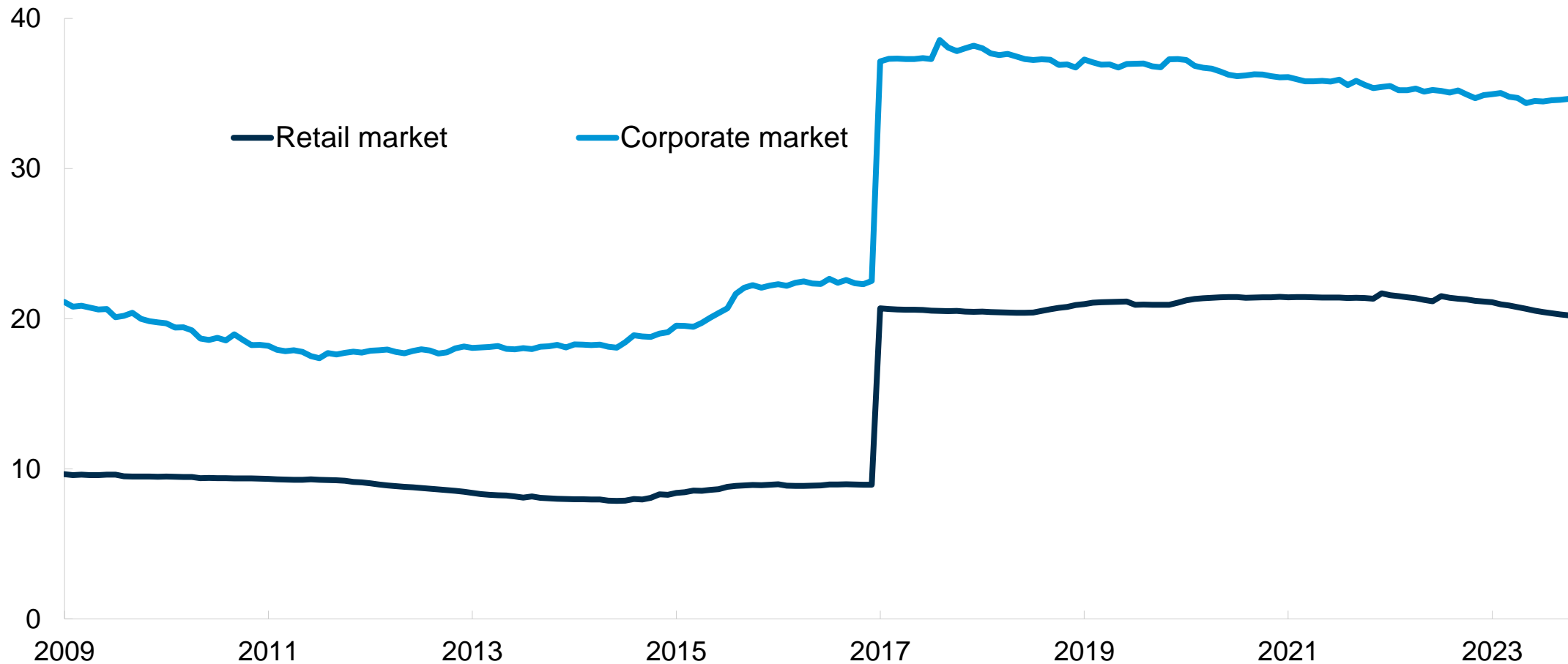


# Chart 14: Branches of foreign banks' market shares in Norway<sup>1)</sup>

As a share of gross retail and corporate lending. Percent. May 2009 – February 2024

1) Nordea is included from May 2017.

Sources: Statistics Norway and Norges Bank

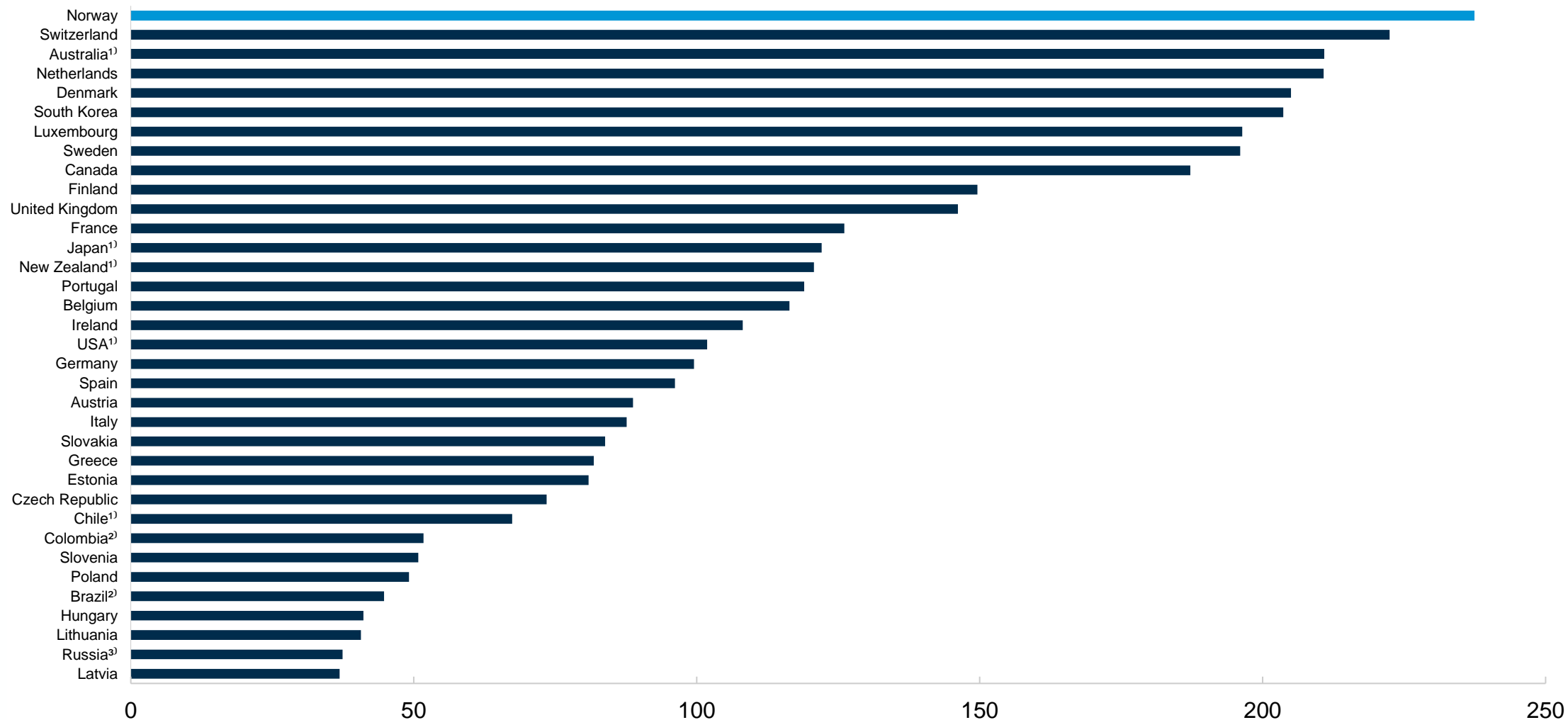


# Chart 15: Household debt in selected countries

Debt as a share of disposable income. Percent. 2022

1) 2021, 2) 2020, 3) 2019

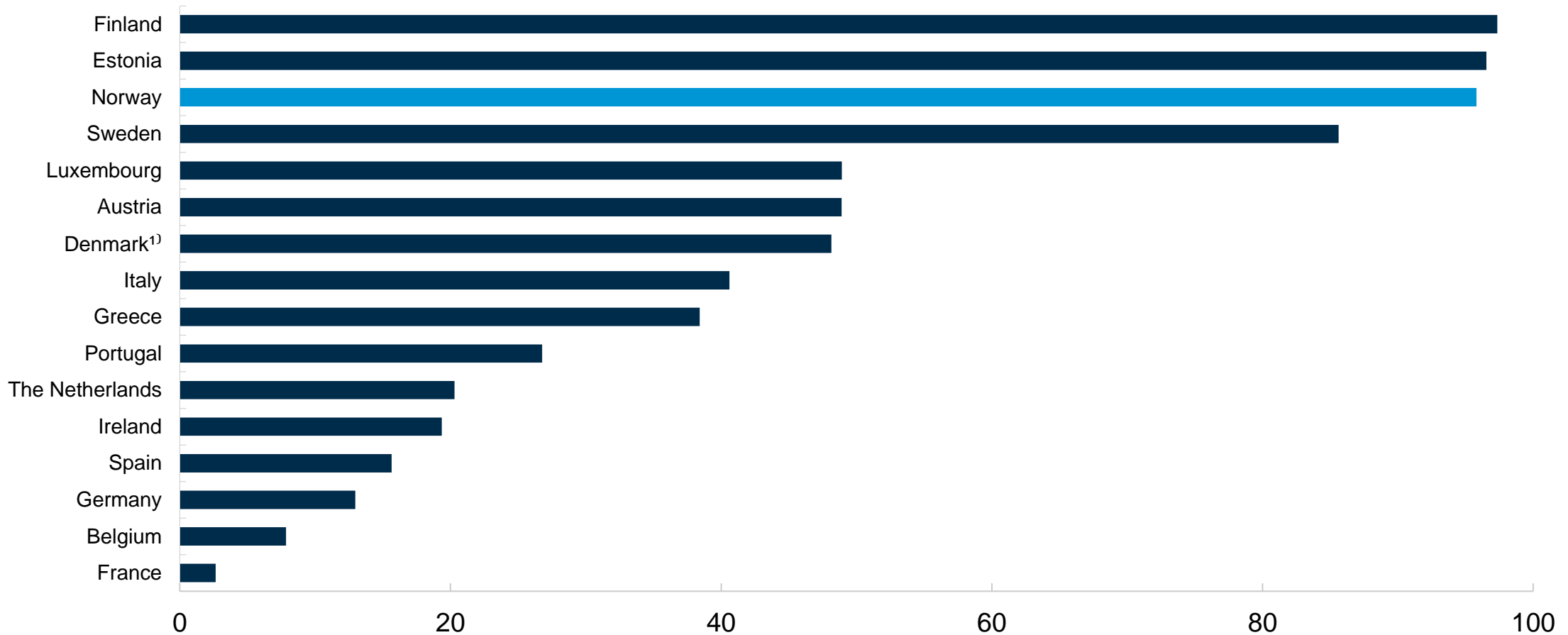
Sources: Danmarks Nationalbank, OECD and Norges Bank





# Chart 16: Households' variable-rate debt

Variable-rate loans as a share of total residential mortgage lending. Percent. December 2023



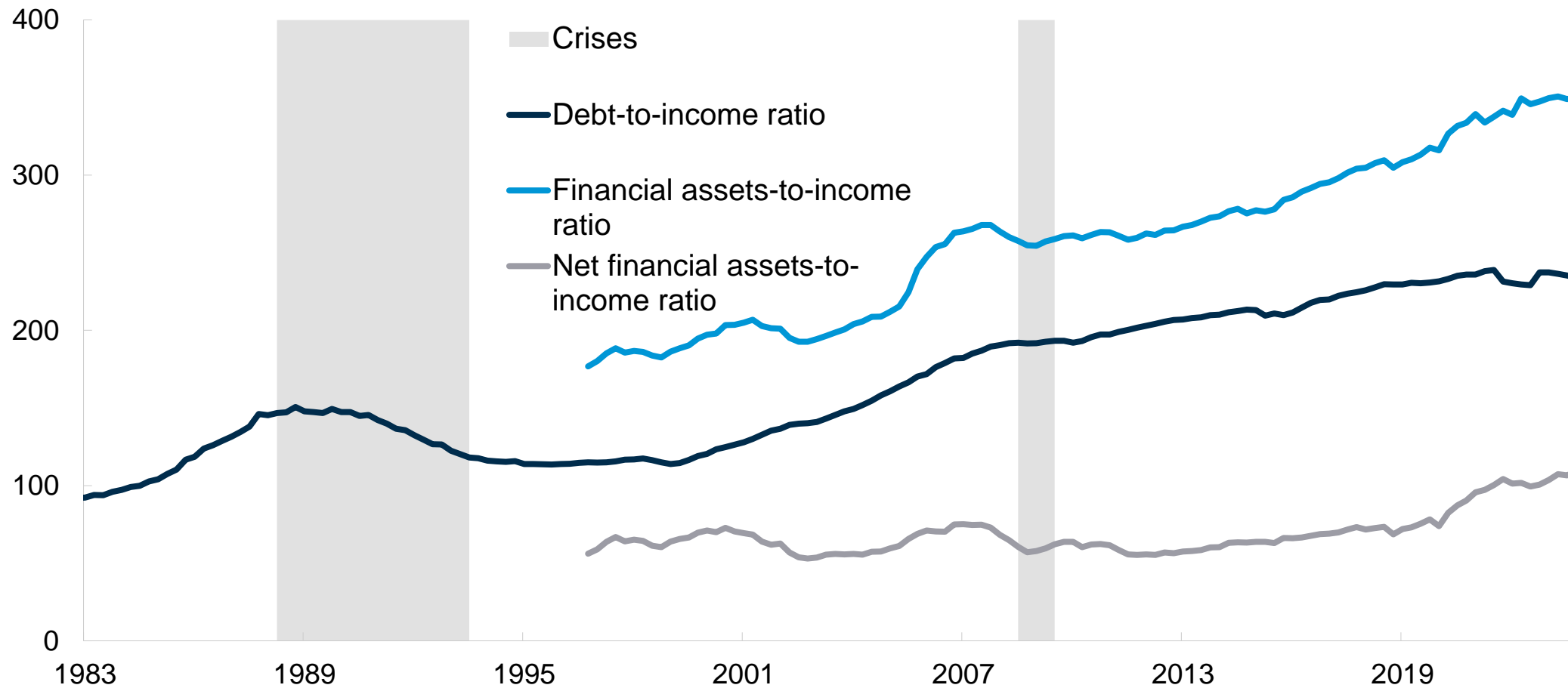
# Chart 17: Households debt-to-income ratio<sup>1)</sup>, financial assets-to-income ratio<sup>2)</sup>, and net financial assets-to-income ratio

Percent. 1983 Q1 – 2023 Q4

1) Loan debt as a share of disposable income.

2) Financial assets as a share of disposable income.

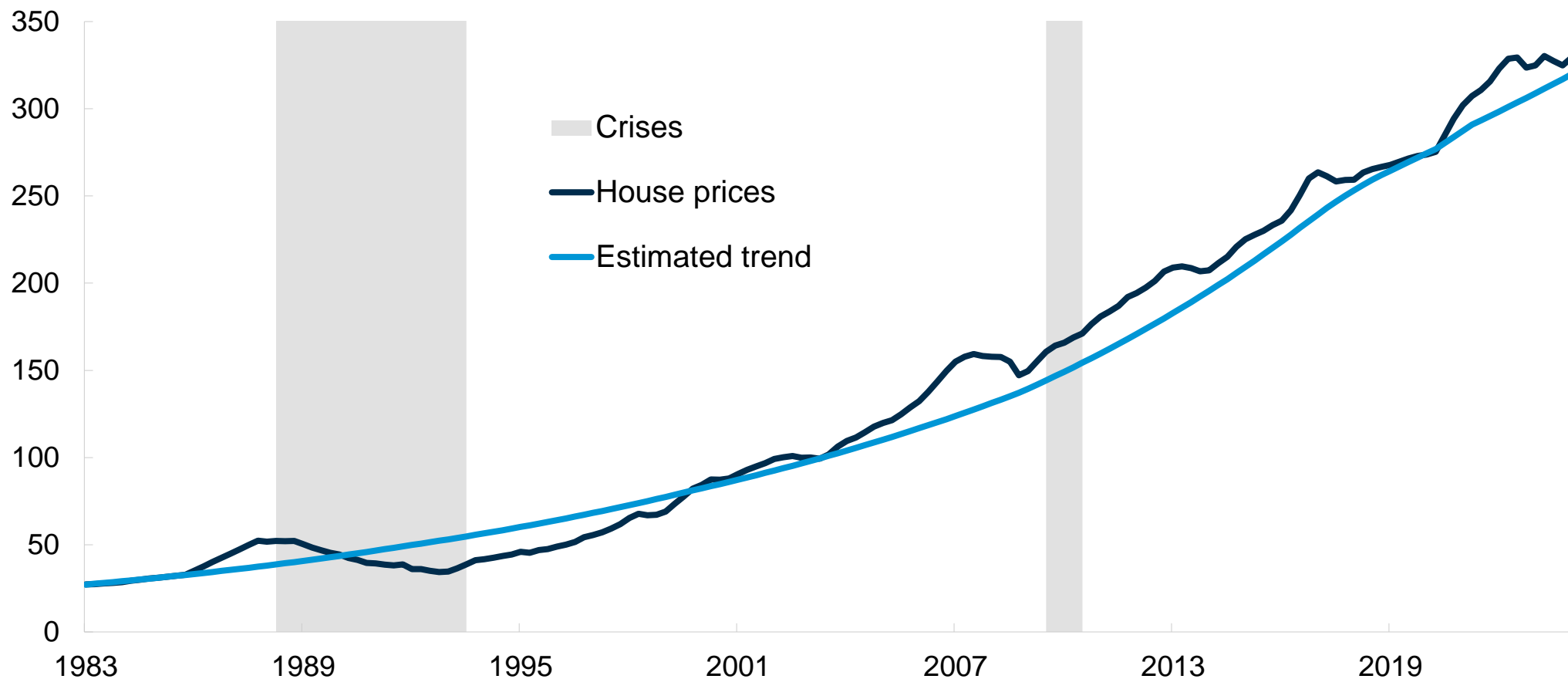
Sources: Statistics Norway and Norges Bank



# Chart 18: House price trend

Index. January 2003 = 100. 1983 Q1 – 2024 Q1

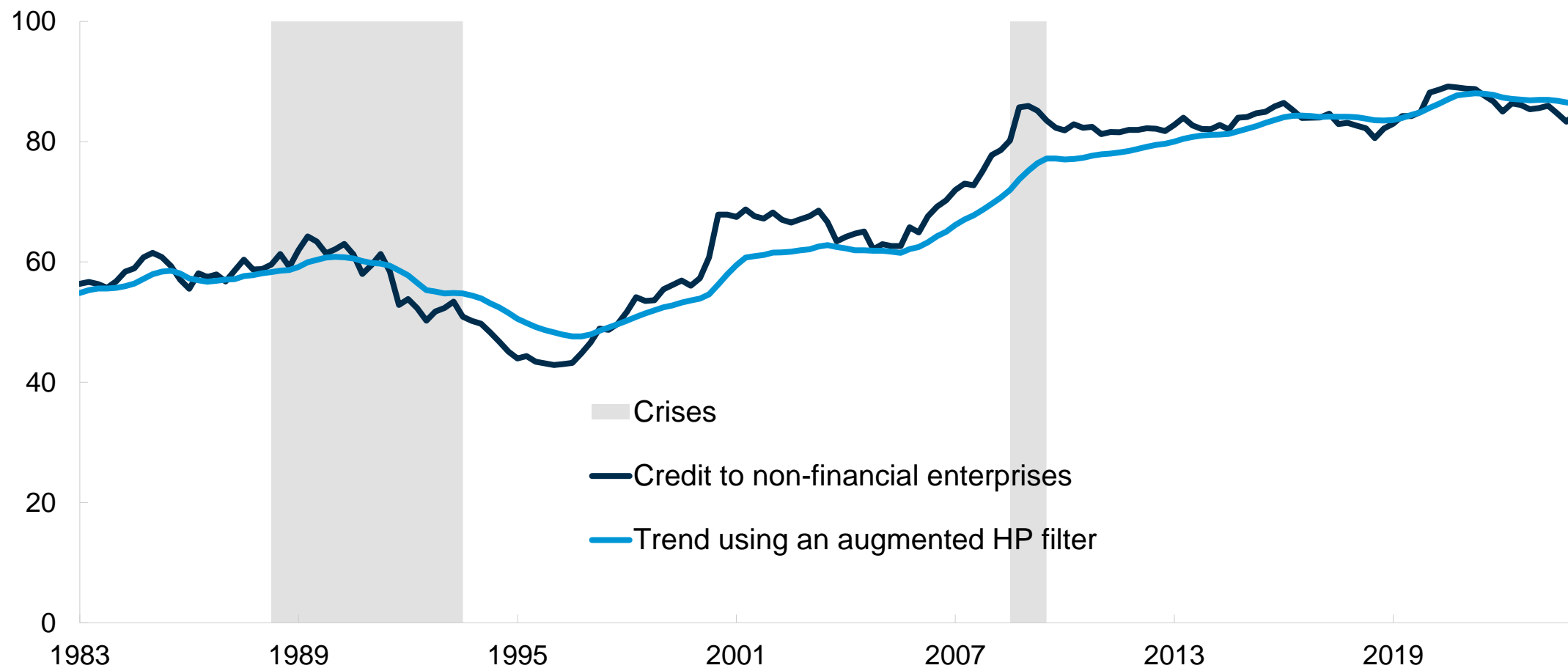
Sources: Eiendomsverdi, Finn.no, Norwegian Association of Real Estate Agents (NEF), Real Estate Norway, Statistics Norway and Norges Bank



# Chart 19: Trend in credit to non-financial enterprises

Sources: Statistics Norway and Norges Bank

Total corporate credit as a share of GDP for mainland Norway. Percent. 1983 Q1 – 2024 Q1



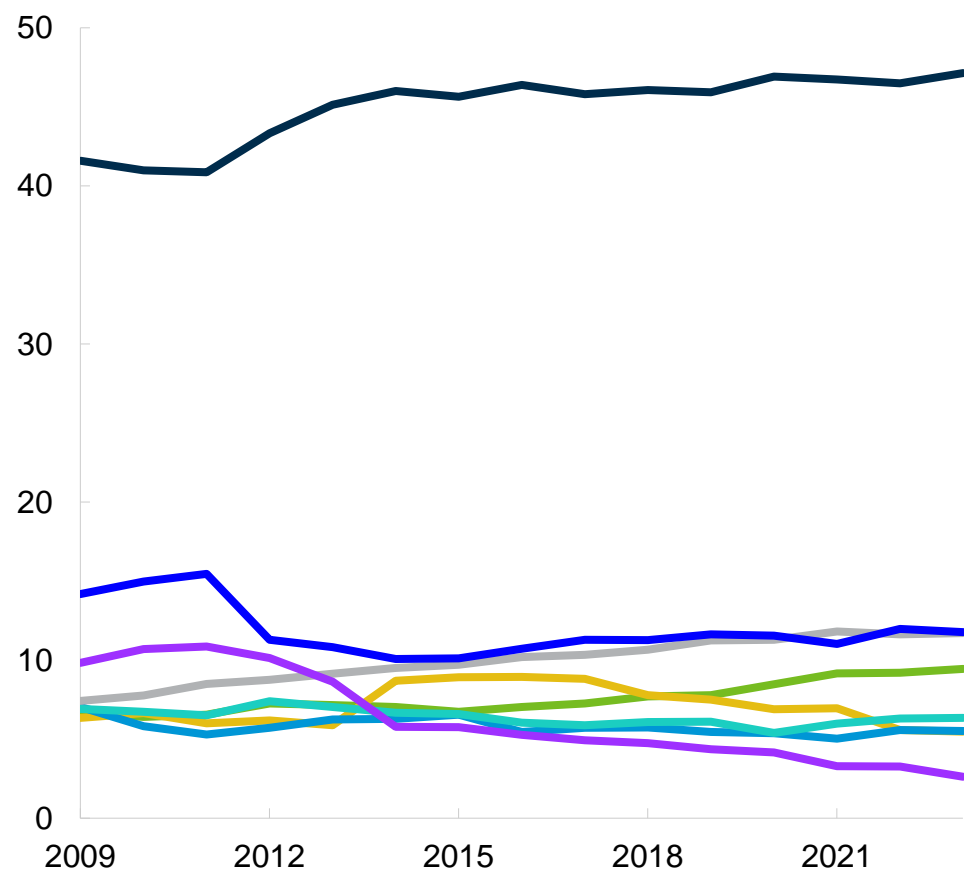
# Chart 20: Bank lending to non-financial enterprises

All Norwegian banks and mortgage companies. Percent

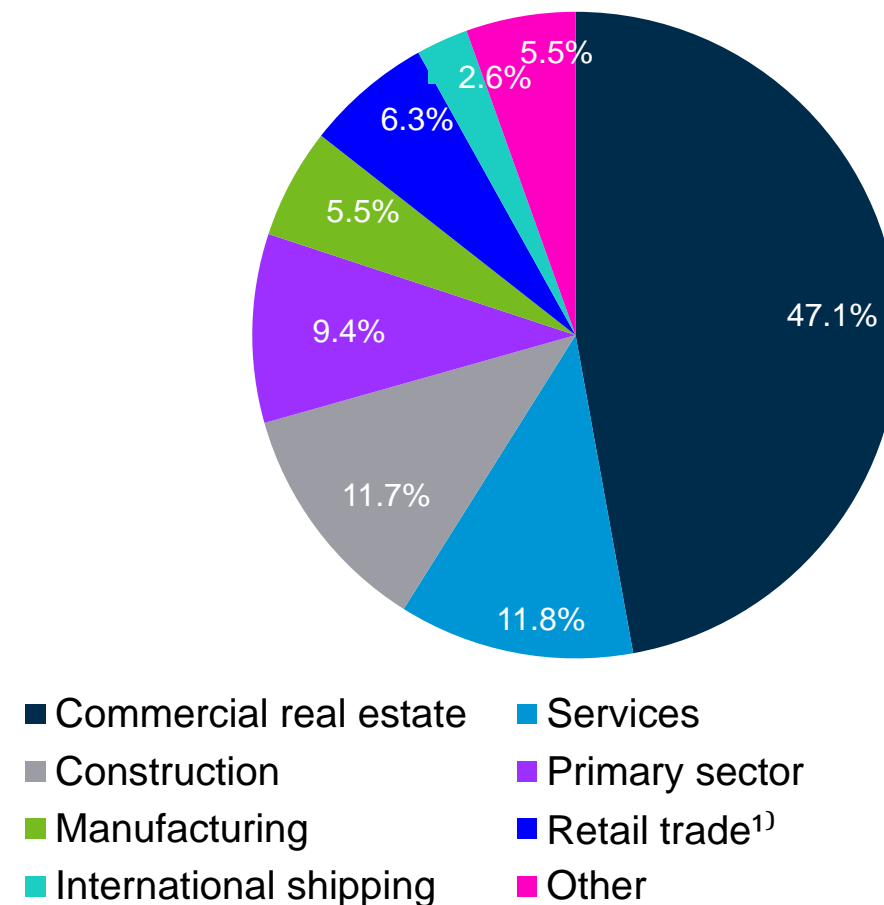
1) Retail trade also include hospitality.

Source: Norges Bank

2009 – 2023



At 31 Dec 2023

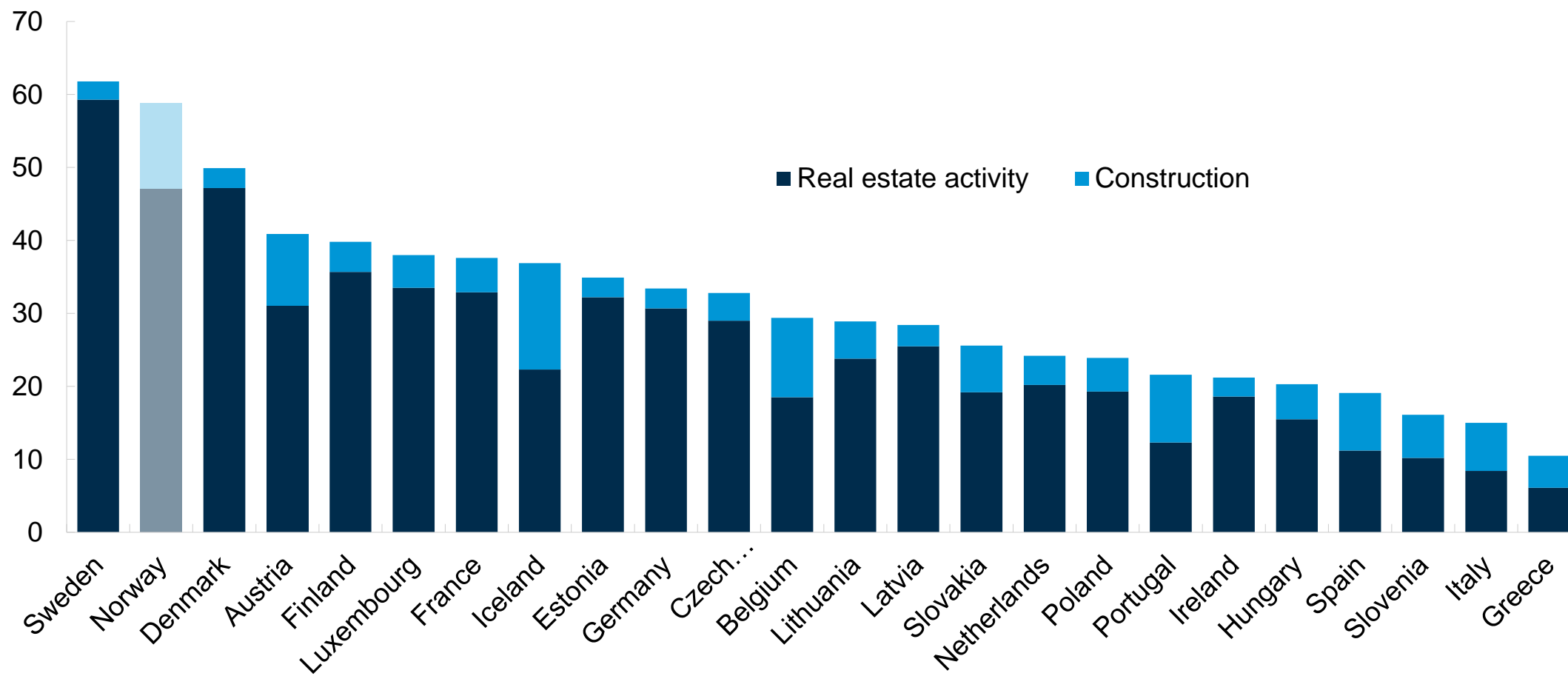


# Chart 21: Banks' <sup>1)</sup> commercial real estate and construction exposures

As a share of total exposures to non-financial enterprises. Percent. At the end of 2023 Q4

1) Sample of 183 European banks. Norway data are from December 2023.

Sources: EBA Risk Dashboard and Norges Bank

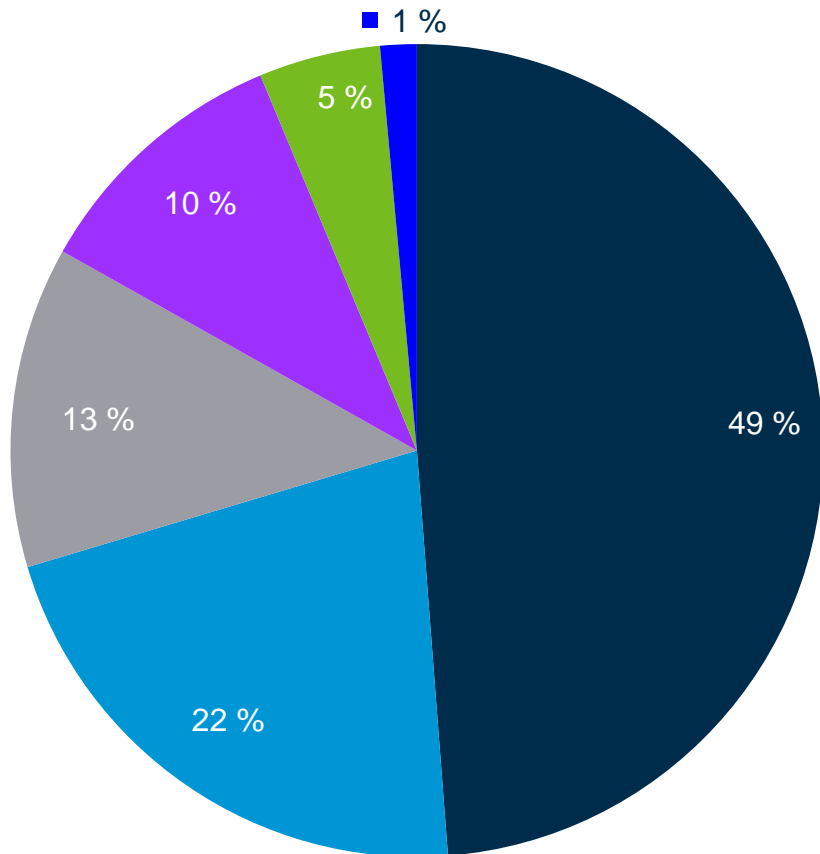


# Chart 22: Estimated market value of commercial buildings by segment

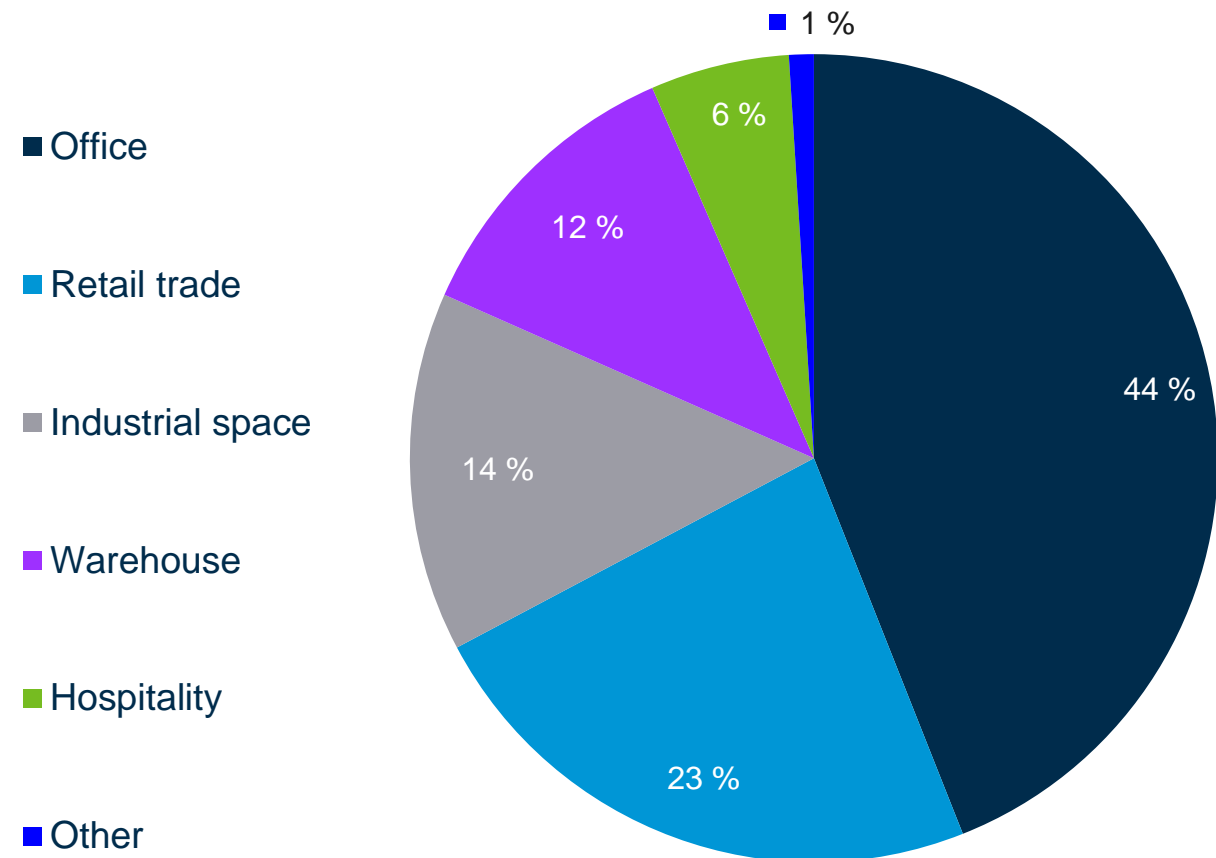
Percent. At 30 June 2022

Sources: Arealstatistikk, Newsec, Statistics Norway, Visma Property Solutions and Norges Bank

i) Estimated market value



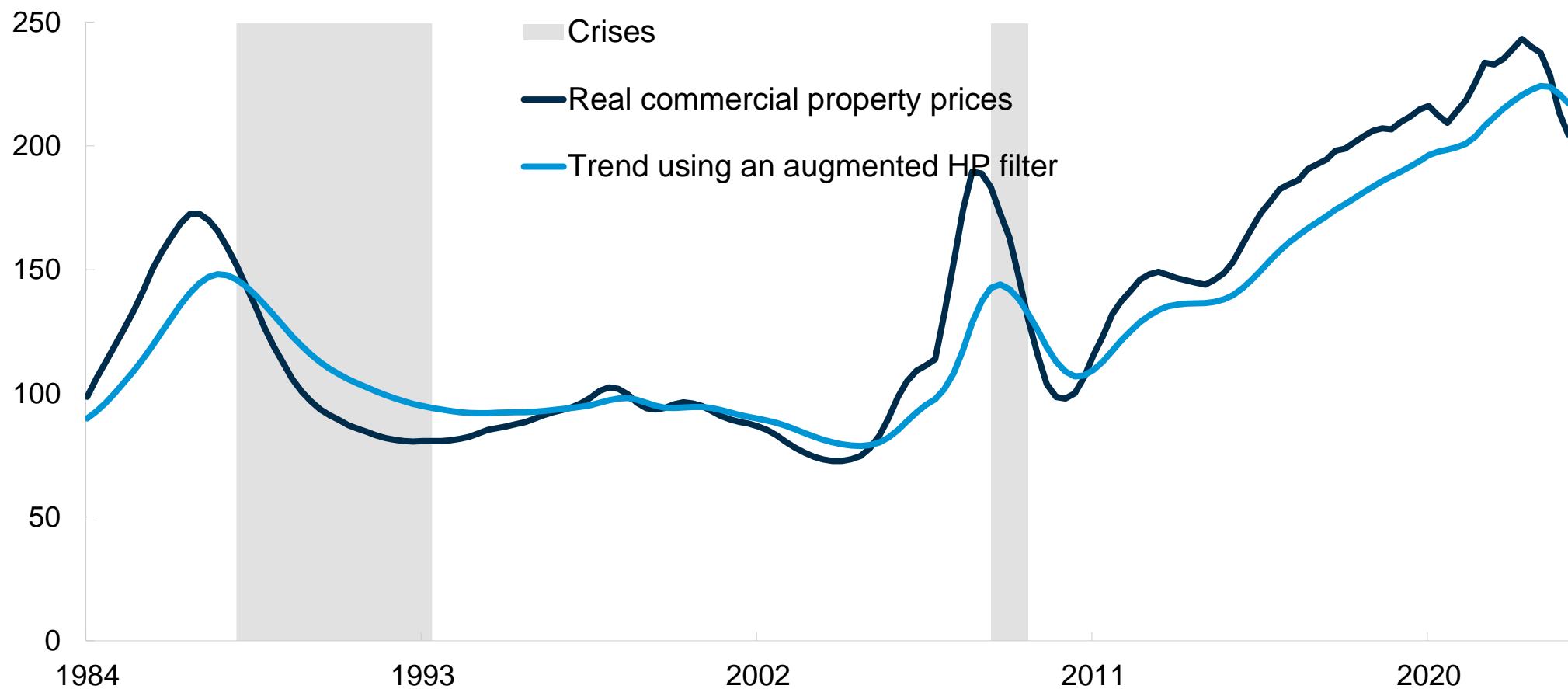
ii) Estimated market value of commercial buildings pledged to banks as collateral



## Chart 23: Real commercial property prices

Prime real estate in Oslo. Index. 1998 = 100. 1983 Q1 – 2023 Q4

Sources: Dagens Næringsliv,  
JLL, OPAK, Statistics Norway  
and Norges Bank

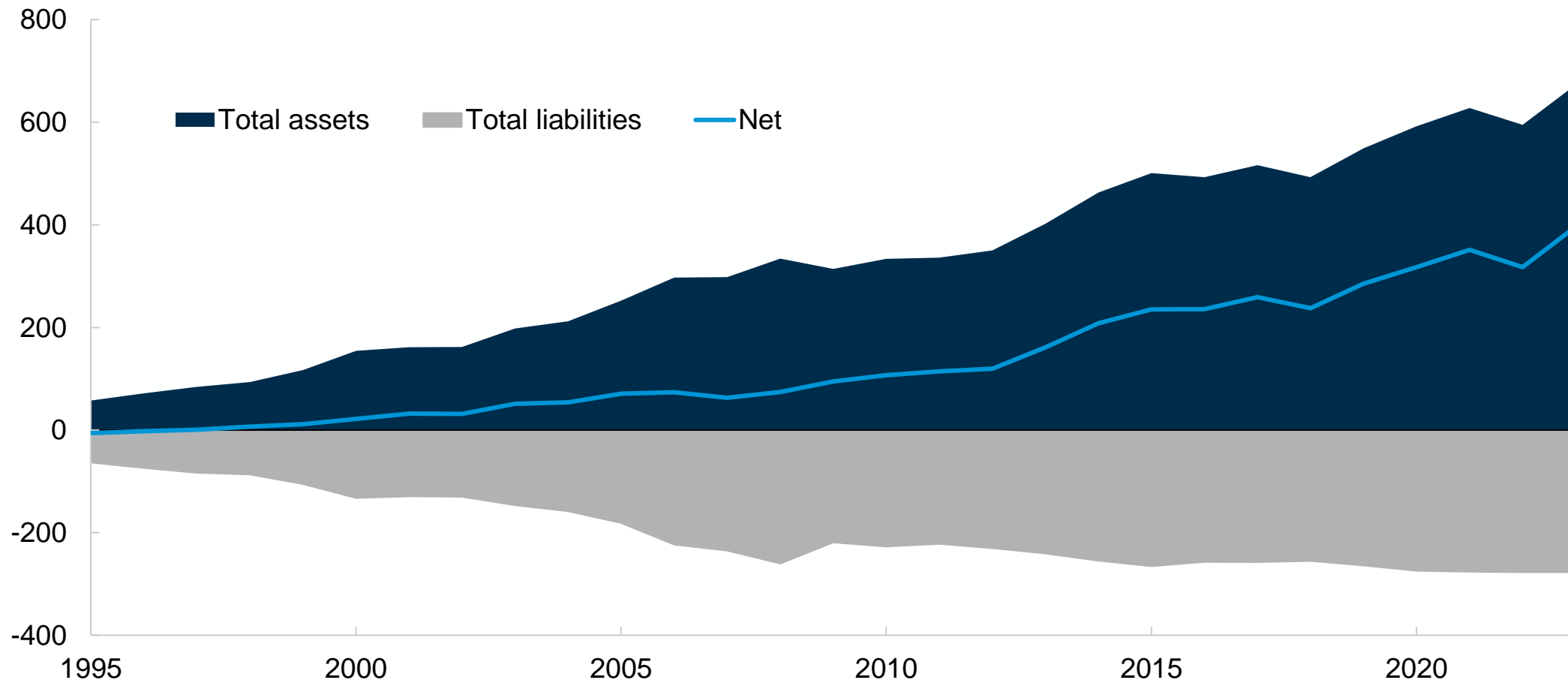




# Chart 24: External assets and liabilities

Source: Statistics Norway

As a share of GDP for mainland Norway. Percent. 1995 – 2023



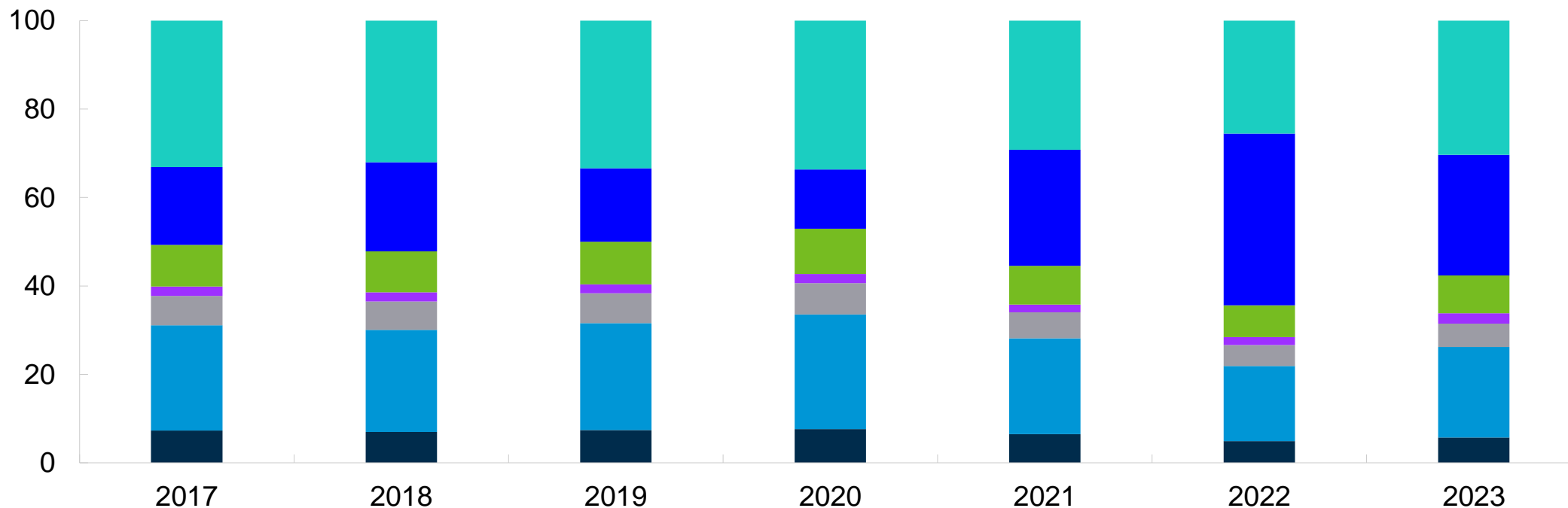
## Chart 25: Value added by sector

As a share of total value added. At basic prices. Percent. 2017 – 2023

1) Includes public administration and defence, nursing and care services, day care and after-school programmes, education, health services, and water supply, sewerage and waste.

2) Also includes auto repair.

Source: Statistics Norway



■ Sales and operation of real estate

■ Public services<sup>1)</sup>

■ Construction

■ Agriculture, forestry and fishing

■ Retail and hospitality<sup>2)</sup>

■ Mining and oil extraction

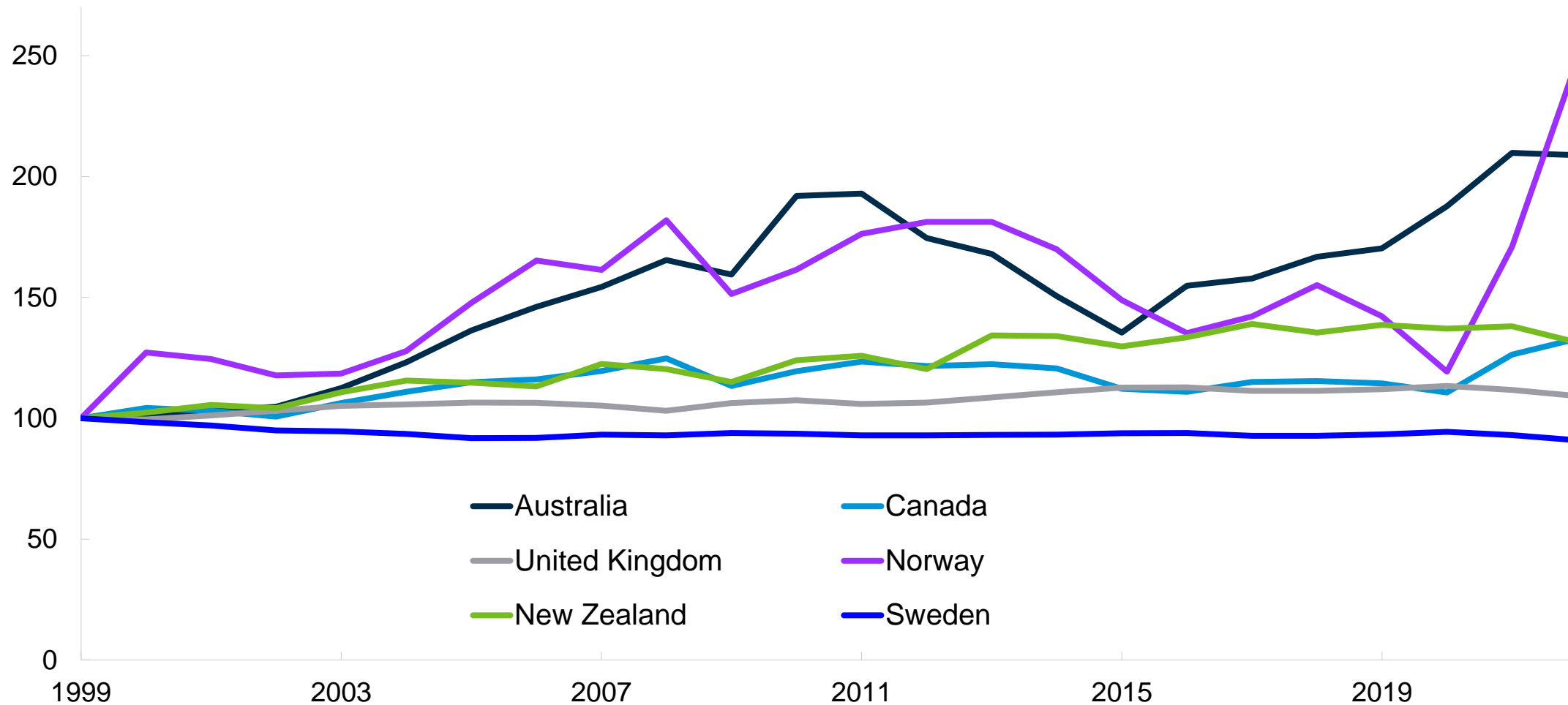
■ Other



# Chart 26: Terms of trade

Sources: OECD and Norges Bank

Ratio of export to import prices. Index. 1999 = 100. 1999 – 2022



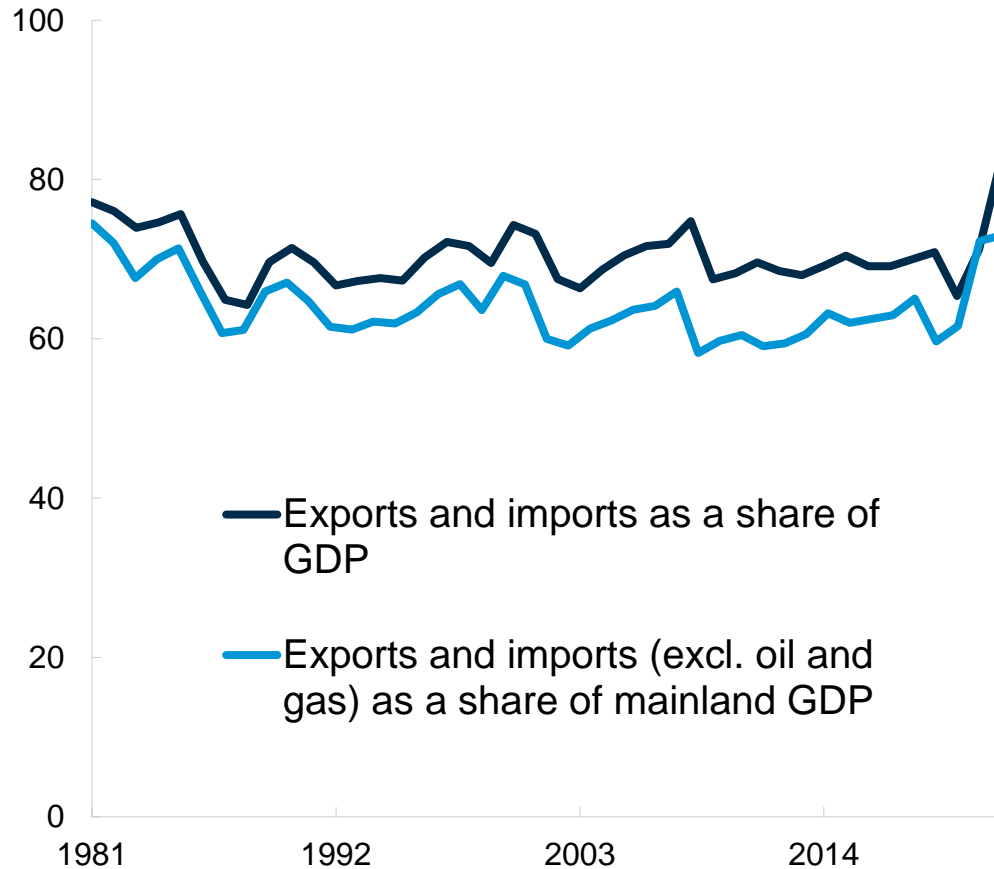
# Chart 27: Exports and imports as a share of GDP

Total exports and imports as a share of GDP. Percent. 1981 – 2023

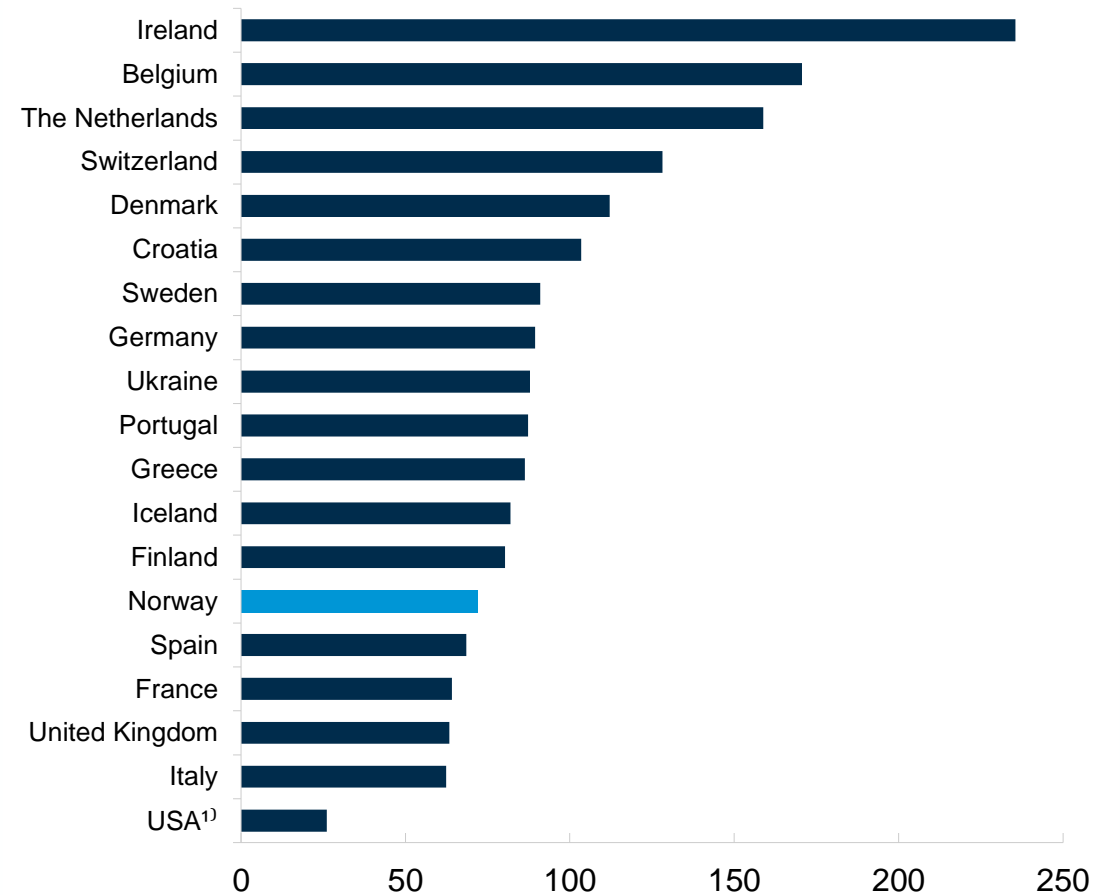
1) 2018-2022

Sources: Statistics Norway and The World Bank

## Norway



## Five-year average<sup>1)</sup>. Selected countries

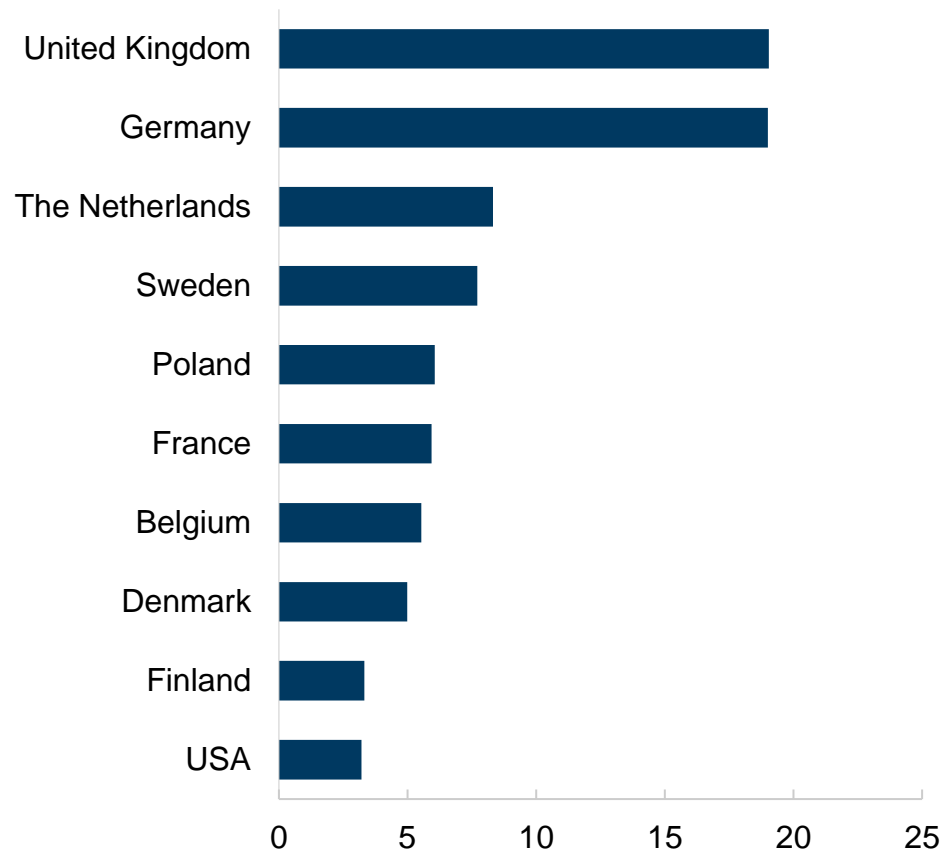


# Chart 28: Geographical distribution of exports

Market shares. Ten largest exporters. Percent. 2023

Source: Statistics Norway

### Total goods exports



### Traditional goods exports

