

# Neutral rate – significance, limitations and assessment

Sveriges Riksbank  
26 November 2024

S V E R I G E S R I K S B A N K

Anna Seim

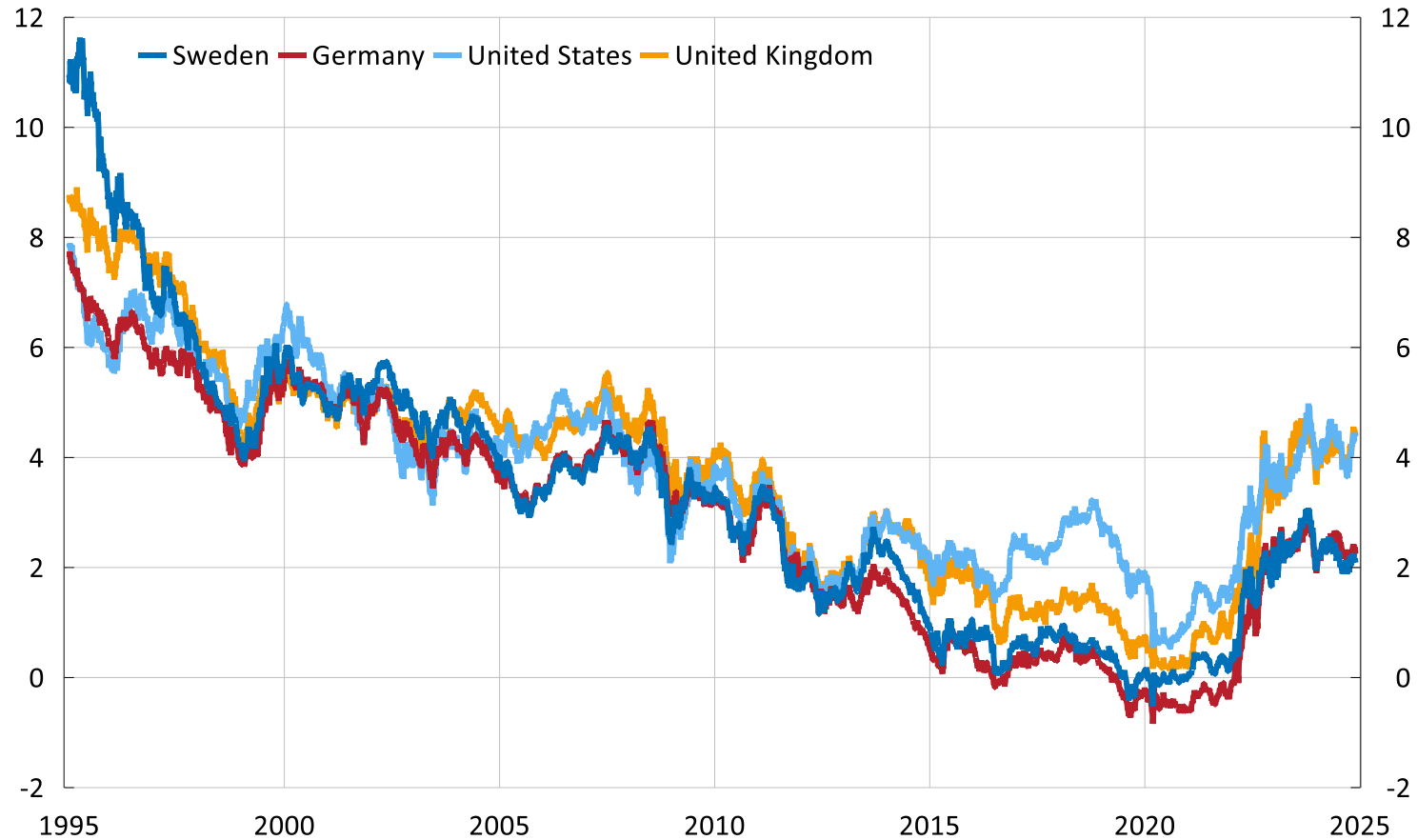
Deputy Governor of the Riksbank

# What is the neutral interest rate?

- The rate that neither stimulates nor tightens the economy
- Natural interest rate,  $r^*$  or r-star are often used synonymously
- Today, I refer to the *nominal* neutral interest rate
- In the long run, when the economy is in balance and inflation is on target, the policy rate and the neutral rate coincide



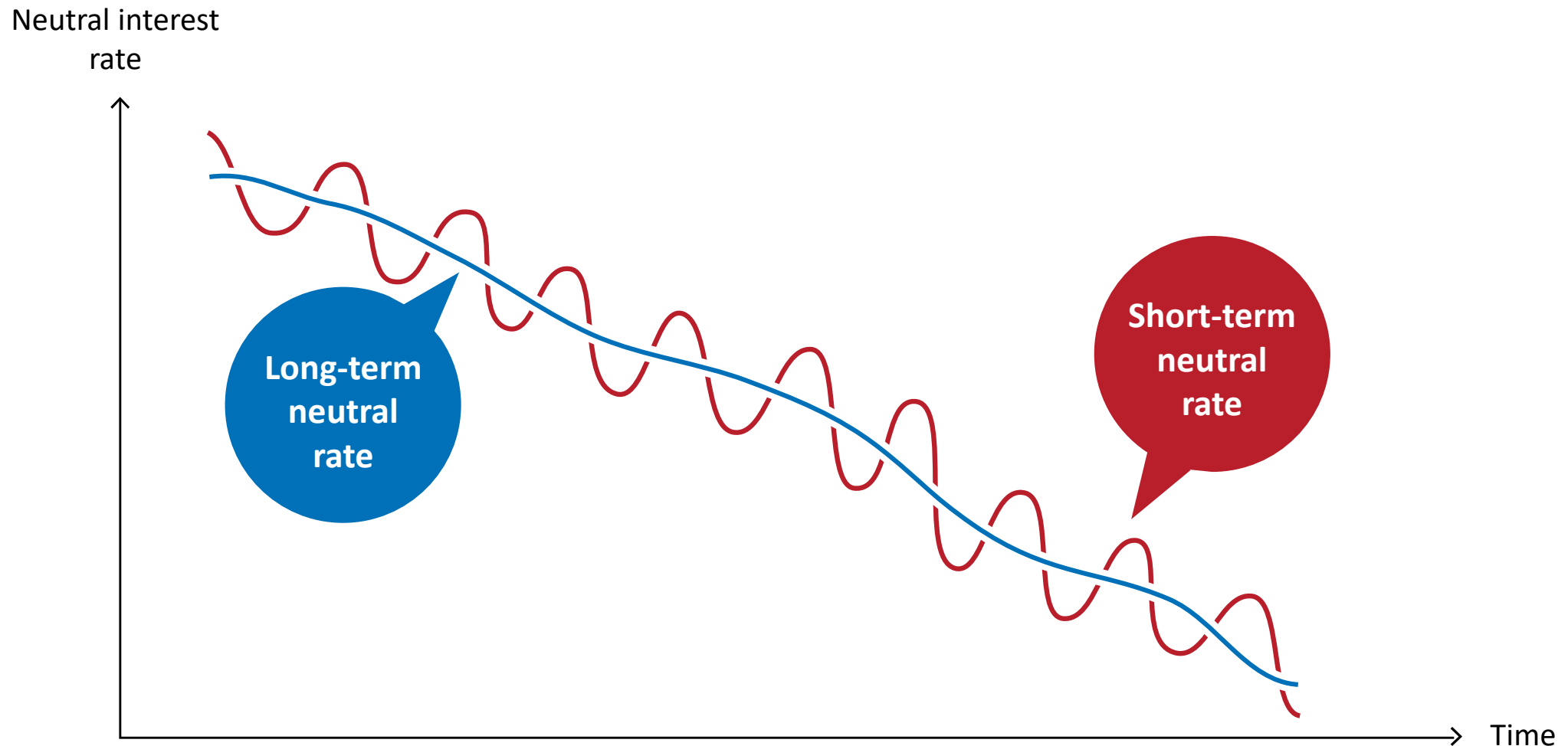
# Long-term decline in interest rates worldwide



Note. 10-year government bond yields for each country.

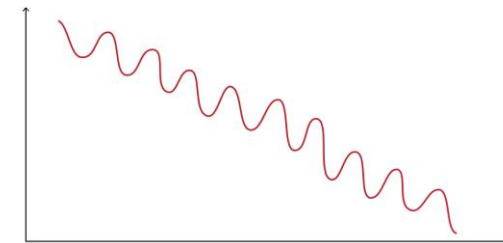
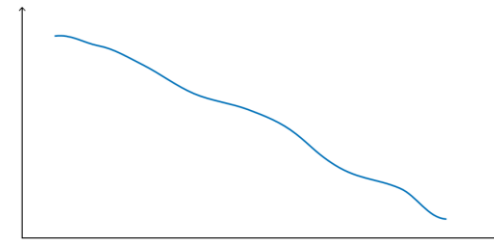
Source: Macrobond Financial AB.

# Short and long term component



# The short- and long-term neutral interest rate

- Hypotheses on the long-term decline
  - High global savings to investment ratio
  - Demographic changes
  - Increasing income inequality
  - Weak productivity growth
  - Increased preference for safe assets
- Hypotheses on short-term deviations from trend
  - Country-specific factors
  - Temporary fiscal policy measures
  - Temporary changes in productivity



# The significance of the neutral interest rate for monetary policy

- Conceptually important as a reference for monetary policy
- If the policy rate is higher than the neutral rate: tightening policy
- If the policy rate is lower than the neutral rate: expansionary policy
- Changes also have significance



# Neutral rate - limitations

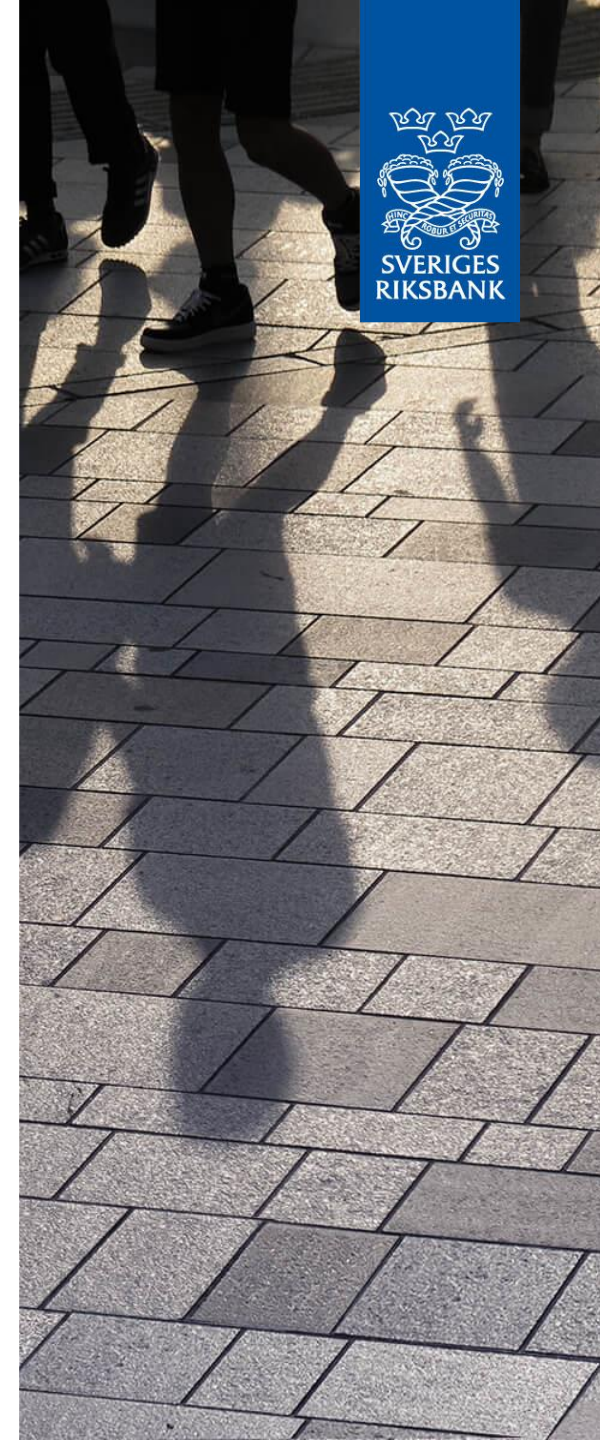
- Non-observable and difficult to estimate
- Difficult to use in practical policy
- Important to continuously monitor effects on the economy





# Further development of the neutral interest rate

- Historically low in the early 2020s
- Still a debate on the drivers of the *downturn*
- Ongoing international debate on future developments
  - Depressing drivers persist
  - But major investment needs globally (climate, defence)
- Not likely with *strongly* rising neutral rate





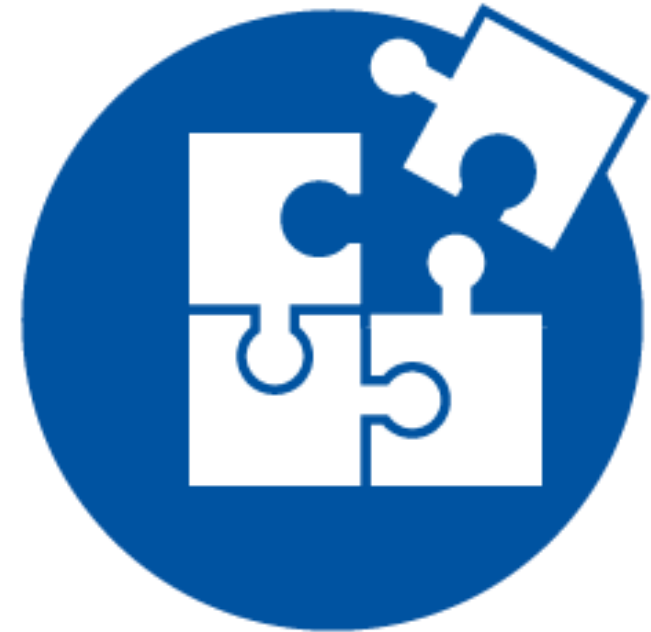
# The Riksbank's earlier assessments of the long-term neutral interest rate

- Assessment 2017: 2.5 – 4 per cent
- Assessment in 2019 and 2022: "At the lower end of, or slightly below, the range from 2017"

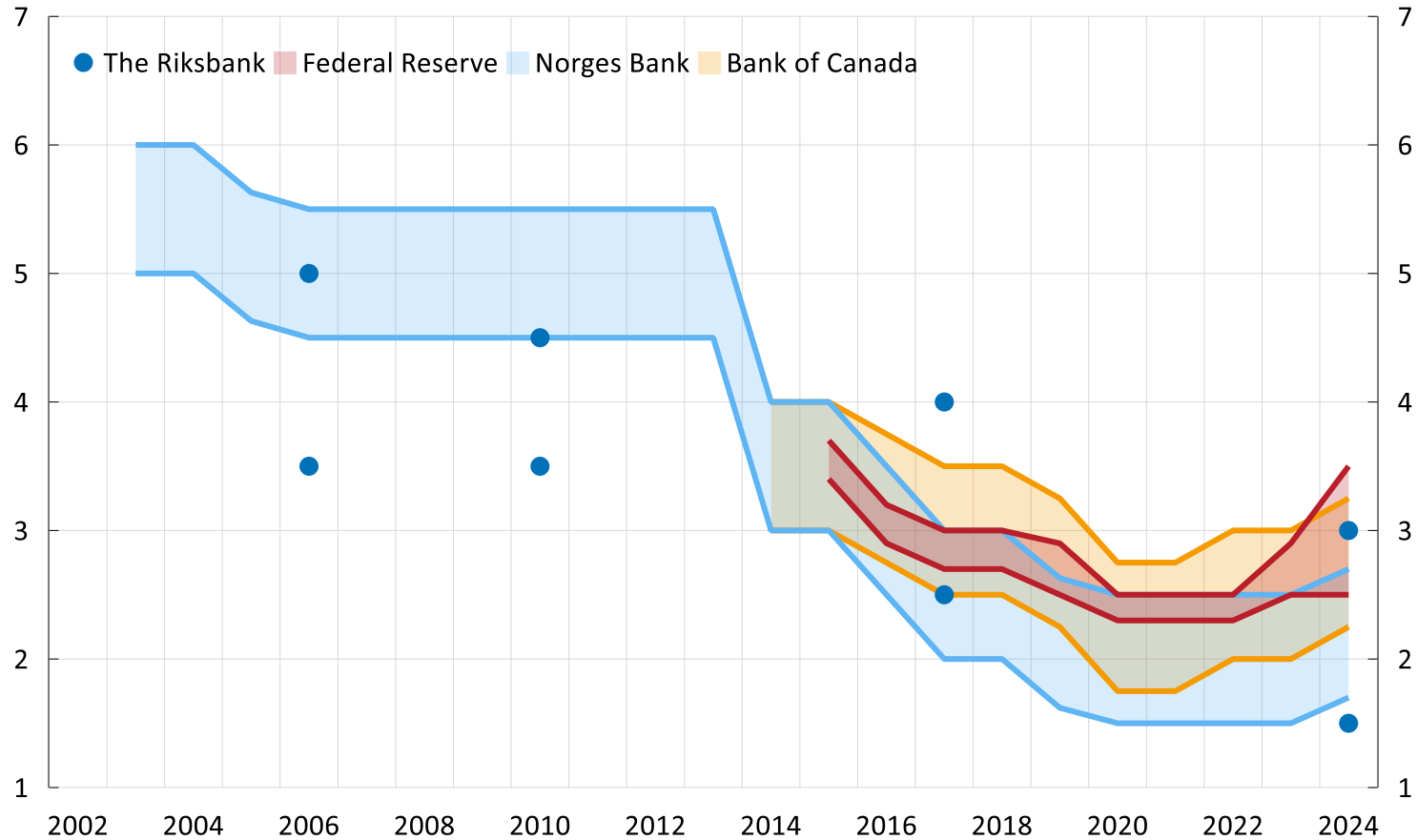


# The Riksbank's current assessment

- New assessment: 1.5 – 3 per cent
- Based on
  - Estimates of models on Swedish data
  - International studies
  - Other central banks
  - Information from financial markets



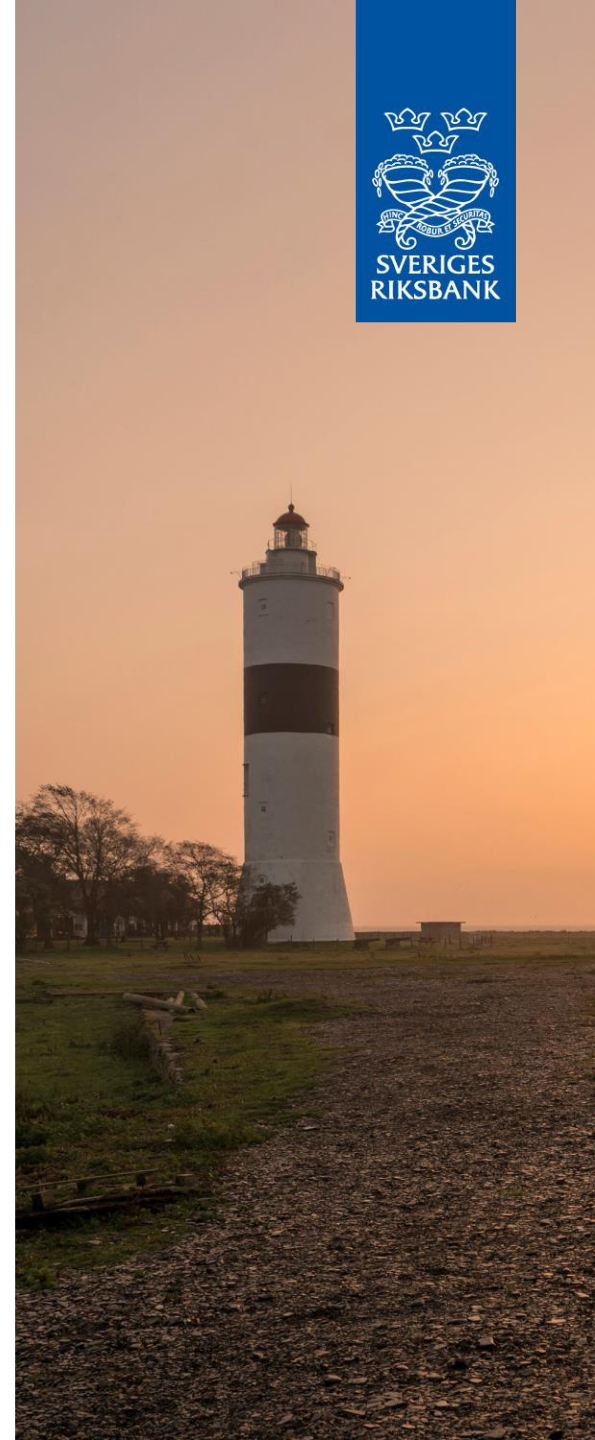
# The Riksbank's and other central banks' assessments of the neutral interest rate



Sources: The Riksbank and the respective central bank.

# Interest rates as low as before the rise in inflation?

- With a neutral interest rate in the range of 1.5 to 3 per cent, the policy rate could become zero or negative again
- Past dampening effects on inflation of globalisation and digitalisation
- Now:
  - Deglobalisation (reshoring, trade barriers)
  - Benefits of digitalisation largely already achieved?
- Higher underlying inflationary pressures ahead?
- Fewer and shorter periods of really low policy rates?







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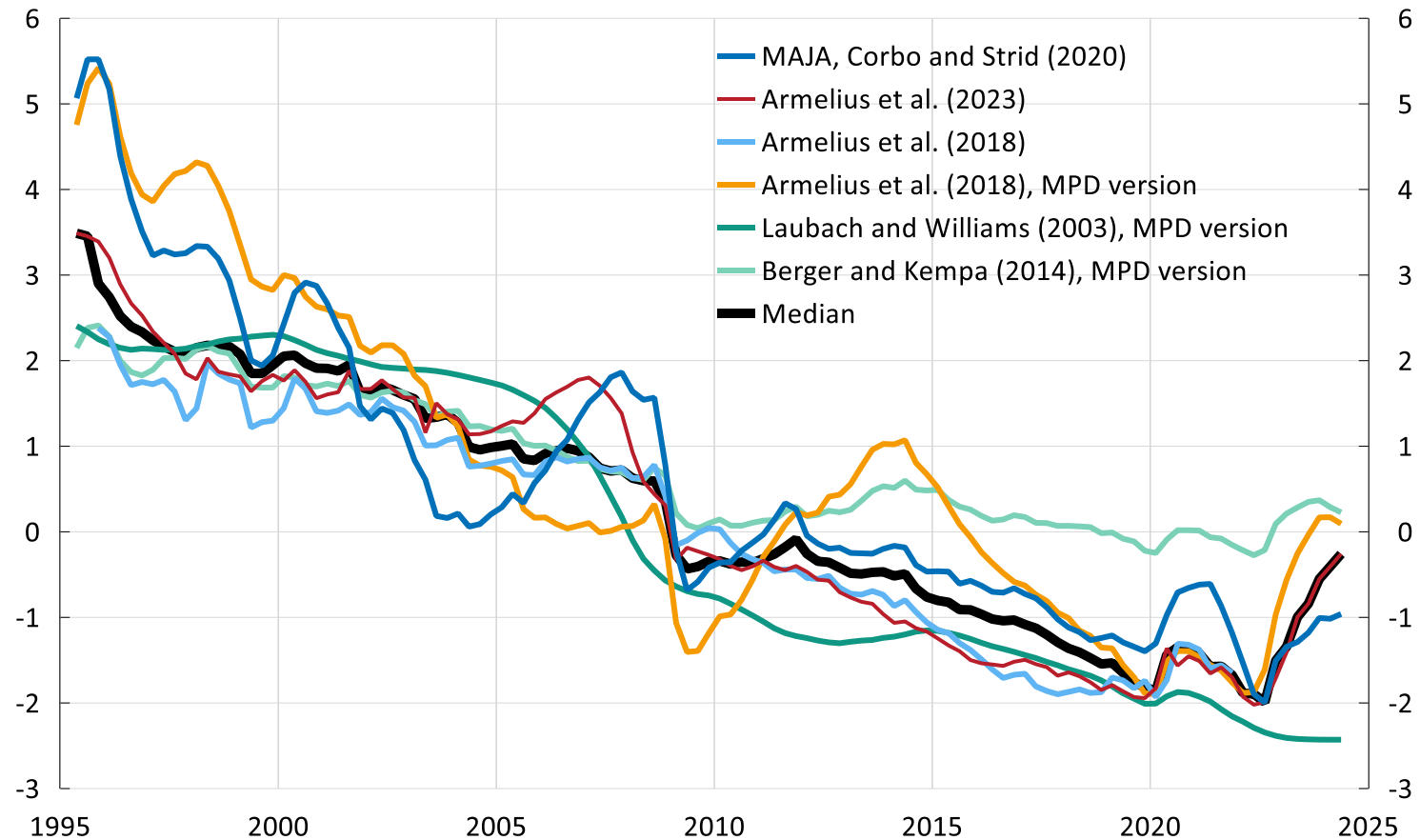
Anna Seim, Deputy Governor

# Estimating the trend level of the real neutral interest rate with semi-structural models

- Research literature following Laubach and Williams (2003)
  - Models:
    - Holston, Laubach and Williams (2003, 2017): IS and Phillips, closed economy
    - Berger and Kempa (2014): LW with an open economy element
    - Armelius et al. (2018): LW with an open economy element
    - Corbo and Strid (2020): MAJA, two-country general equilibrium model (DSGE)
    - Armelius et al. (2023): LW with an open economy element, more data
  - Estimates on Swedish data using Bayesian methods
  - Estimates for 2024 are roughly in the range -1.0 to 0.5
  - Significant uncertainty in the estimates (parameter, model, estimation method)
- More details in a forthcoming staff memo



# Estimating the trend level of the real neutral interest rate for Sweden



Note. Per cent. The period covered by the estimates is 1995Q2-2024Q2. The version of the Monetary Policy Department (MPD) differs from the original model in some respects.

Sources: Armelius et al. (2018), Armelius (2023), Laubach and Williams (2003), Berger and Kempa (2014), The Riksbank.