Are low interest rates firing back? Interest rate risk in the banking book and bank lending in a rising interest rate environment

Discussion by
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Summary

- European banks' with higher duration gap (aka higher IRR) contract loan supply stronger than banks with no duration risk.
- Real consequences: less credit supply to SMSEs, cannot fully substitute negative effect
- Contribution: novel eurozone matched bank-level dataset for SIs allowing to compute duration gap using supervisory data
- Literature: So far only for specific countries (e.g. CH) or focused on deposit rate beta
- **Overall: important topic, novel approach, well written, nice paper!**

My understanding of the framework

Banks optimal loan pricing (stylized)

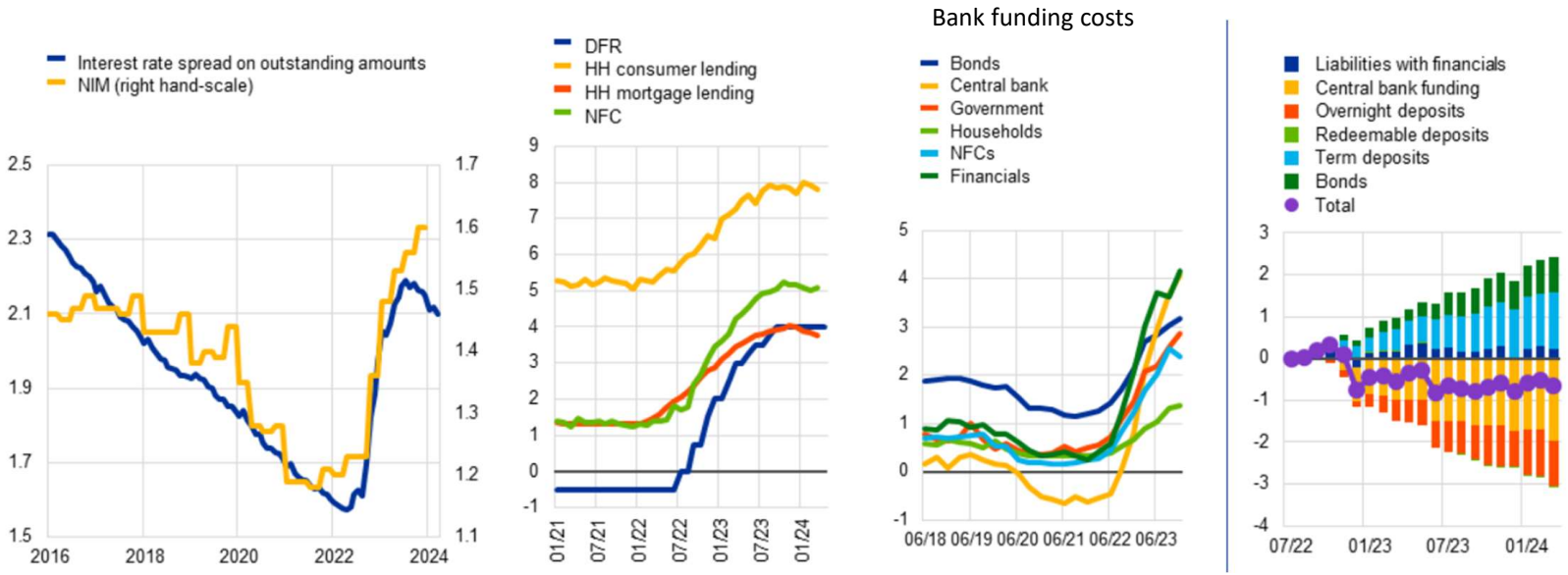
$$i_t^L = Markup_t \cdot \underbrace{E_t\left\{\frac{1}{\Pi_{t+1}}\right\}^{-1}}_{\text{Inflation expectations}} \cdot E_t\Bigg\{ \underbrace{\frac{(1+\psi_{t+1})}{\Pi_{t+1}}}_{\text{Exp. value of bank net worth}} (COR_{t+1} + OC_t$$

$$+ \underbrace{\underbrace{Markdown_t(Dur_t^D, Dur_{t+1}^D) \cdot i_t}_{\text{Bank funding cost = Markdown times policy rate}} + \underbrace{\lambda_{t+1}(Dur_t^L, DUR_{t+1}^L)\Delta i_{t+1}^L)}_{\text{maturity, exp. loan (market) value}}\Bigg\}}_{\text{Duration Gap proxies for this+deposit-}\beta\text{ (?)+changes in exp. value of loan portfolio (?)}}$$

$$+ \underbrace{\psi_t R_t^{min}(DURGAP_t)\omega_t(PD_t^L, E_t DUR_{t+1}^L)}_{\text{Shadow value of binding capital constraint}}$$

My understanding of events

- In July 2022 banks' loan interest rate surged (high inflation environment, geopolitical risk, increased markups),
- Bank funding costs initially moved little
- Bank net interest margin and profitability surged
- Maturity "shock" (Reshuffling to more IR sensitive liabilities) authors seems to have played out only later



source: ECB Financial Stability Review May 2024

Comment/question 1

Given this story, what are authors actually after?

- Is it really maturity mismatch (duration risk)?
- Or isn't the duration gap (at least on aggregate) a proxy for the shift towards more policy rate sensitive bank liabilities (higher deposit beta)
- I think the paper would greatly benefit from some structural equations (maybe 3-period model) to fix ideas what the duration gap is really measuring
- It would be of great value (to DG F) to identify the effect of higher deposit-betas on (aggregate) bank loan supply

Comment/Questions 2

Important to identify heterogeneous effects of duration risk, but... (from financial stability and monetary policy perspective)

- ...is this of first order importance for aggregate loan supply? Given the huge increase in loan interest rates, huge inflation, and geopolitical risk
- Suppose aggregate IR spread on new loans increased by 2pp, with 0 markup and semi-elasticity of loan demand of 3-8, would imply aggregate new loan issuance decreased c.p. by 6-16pp.
- Is it then really important if some banks with higher duration gap decrease higher duration loan supply by another 1pp?
- How important are those banks for aggregate loan supply?
- And is this offset on aggregate by lower maturity loans?

Comment/Questions 3

Interpretation of the results (from financial stability and monetary policy perspective)

- What exactly is the economic cost of having a positive duration risk?
- Supervisory scrutiny, higher capital requirements?
- However, those constraints did not seem to be binding in the considered period for the aggregate banking sector (see large profitability and large capital buffers)
- In good times, banks could charge just a higher interest rate for it and not worried about de-leveraging or asset fire sales
- Do the results suggest that micro-prudential rules are putting wrong incentives for how banks react to monetary policy shocks?

Further comments/questions

- Identification: can we really take interest rate hike as exogenous, both timing and size. I think one has to be careful!
    - Example: Micro- and Macro supervisors were all over interest rate risk (esp. in Germany). If would have deemed a severe problem by supervisors, governing council would probably have been briefed differently and altered decision
    - Is it really important whether the shock itself was exogenous, given that substitution to interest sensitive bank liabilities only happened after? Maybe can exploit this lag
- Is it possible to give descriptive statistics of net cash flows of banks' assets and liabilities by exposure type (sovereigns, financials, nfcs, mortgages, securities)? Or shouldn't one use only the maturity gap for nfc loans when running the regressions (maybe this is done?)?
- Is it possible to plot asset weighted and median duration and cross-sectional distribution around it over time?