

SUERF Webinar Discussion 2023

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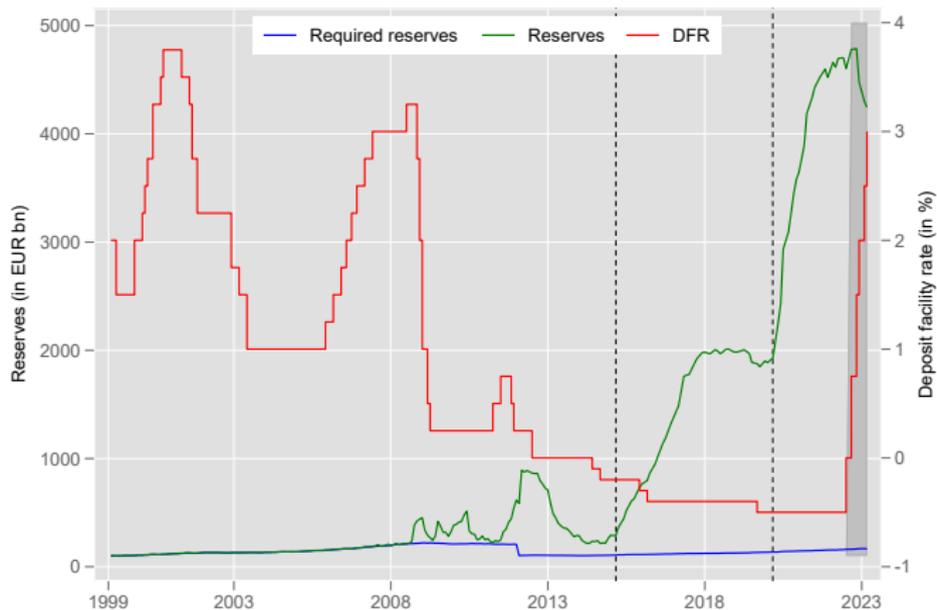


based on

Excess Reserves and Monetary Policy Tightening
(Fricke, Greppmair, Paludkiewicz)

The views presented in this paper do not necessarily reflect those of Deutsche Bundesbank or the Eurosystem.

Motivation: Abundant Reserves Meet Large Rate Hikes



Main Mechanism

- Bank balance-sheet channel (e.g. Bernanke, 2007):
 - Policy rate \uparrow \rightarrow market value assets \downarrow
 - ① \rightarrow net worth \downarrow
 - ② \rightarrow credit supply \downarrow
- Recent hiking cycle with large reserves:
 - Policy rate \uparrow \rightarrow market value non-reserve assets \downarrow
 - ① \rightarrow interest income \uparrow \rightarrow net worth \uparrow
 - ② \rightarrow credit supply \uparrow

Methodology

- **Main dataset used:** AnaCredit

- ▶ Loan-level data
 - ▶ Lender: Euro area banks
 - ▶ Borrower: Non-financial firms
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- **Sample:** January 2022 until February 2023

- ▶ 483 euro area banks (71% of total assets)
 - ▶ 3,315,611 firms
 - ▶ 43 mio bank-firm level observations
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- **Main Empirical Specification:**

$$\log(\text{Credit}_{b,f,t}) = \beta \times (RR_b) \times (DFR_t \geq 0) + \text{Controls} + FE + u_{b,f,t}$$

1. Net Worth

Net Worth (1/2): Stock Prices



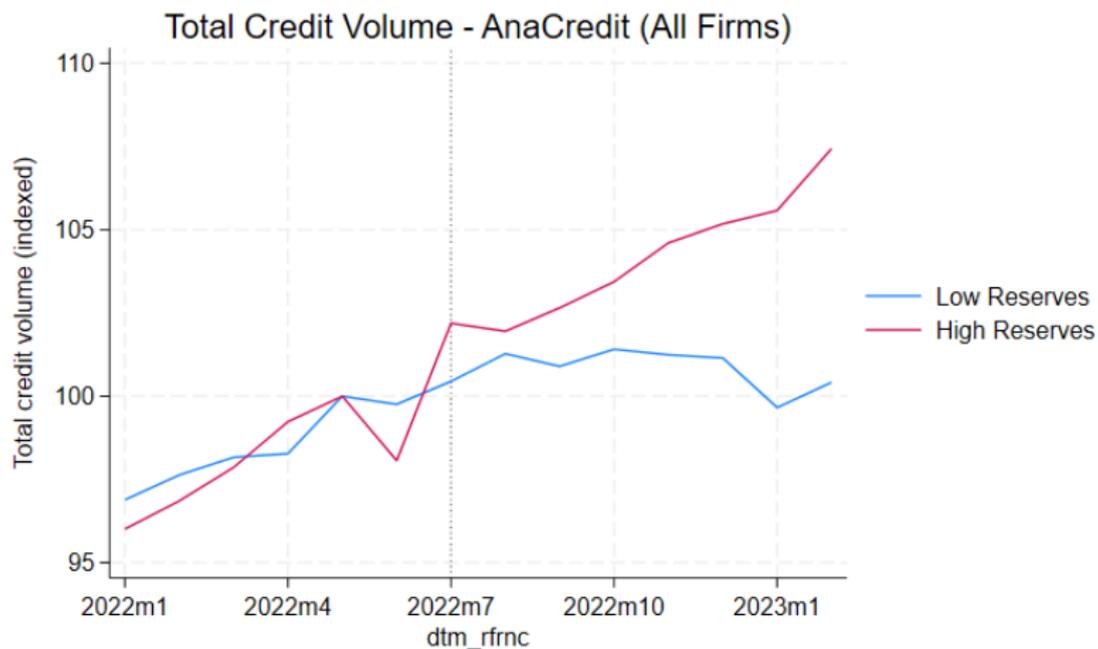
Net Worth (2/2): (Net) Interest Income and Profits

- Net interest income: ↑
- Bank profitability (ROA): ↑
- Bank equity: ↑

→ **Net worth of reserve-rich banks affected positively**

2. Credit Supply

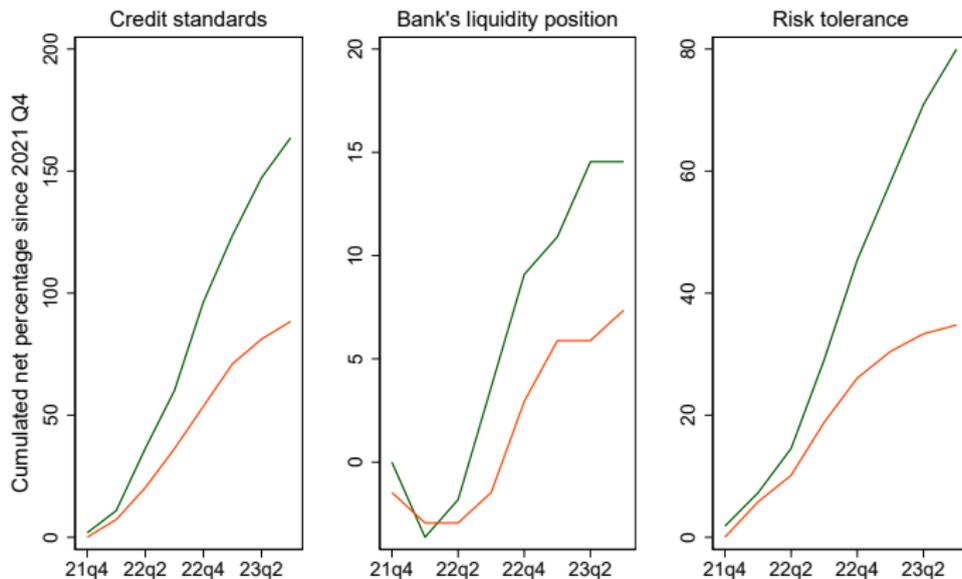
Aggregate Credit Volumes



→ Confirmed in regressions (controlling for i.a. credit demand)

Survey-Based Evidence

- Excess liquidity over assets up to 10%
- Excess liquidity over assets above 10%



Conclusion

- Main findings:
 - ▶ Reserve-rich banks' credit supply less sensitive to MP tightening
 - ▶ (Credit supply effect stronger for *small and worse capitalized* banks)
 - ▶ (Directed towards *smaller* firms with *higher credit quality*)
 - ▶ Indicative evidence that the transmission might be weakened
- Ongoing policy discussions on reserve remuneration:
 - ▶ ECB meeting July 2023: no MR remuneration
 - ▶ Shrink balance sheet (BoE)
 - ▶ Increase MRR: De Grauwe and Ji (2023)

Additional Slides

Limited Deposit Passthrough

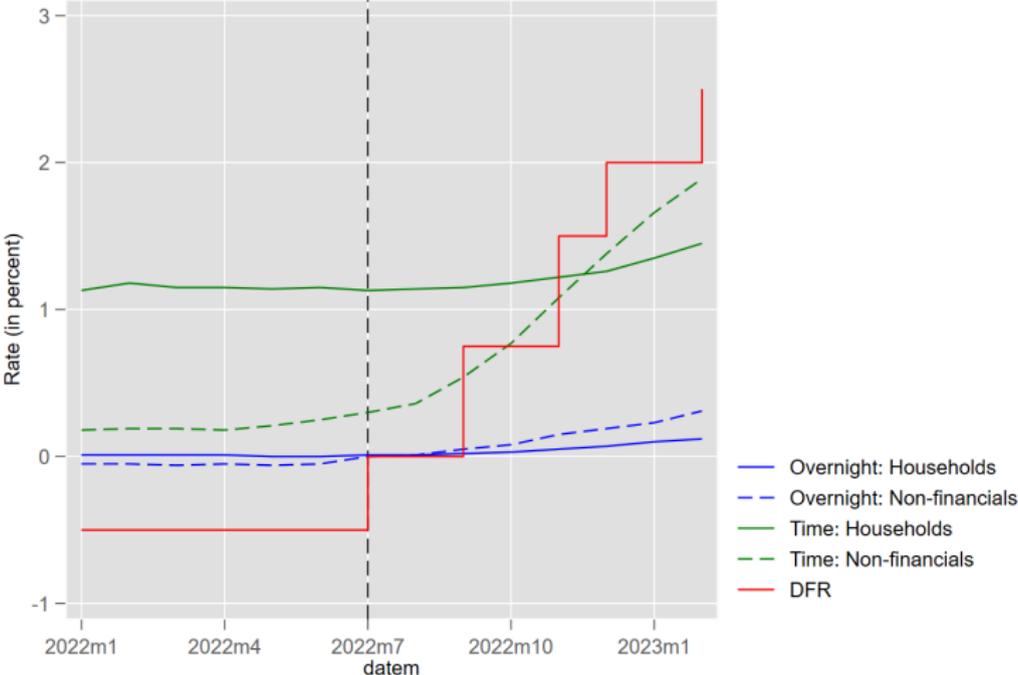
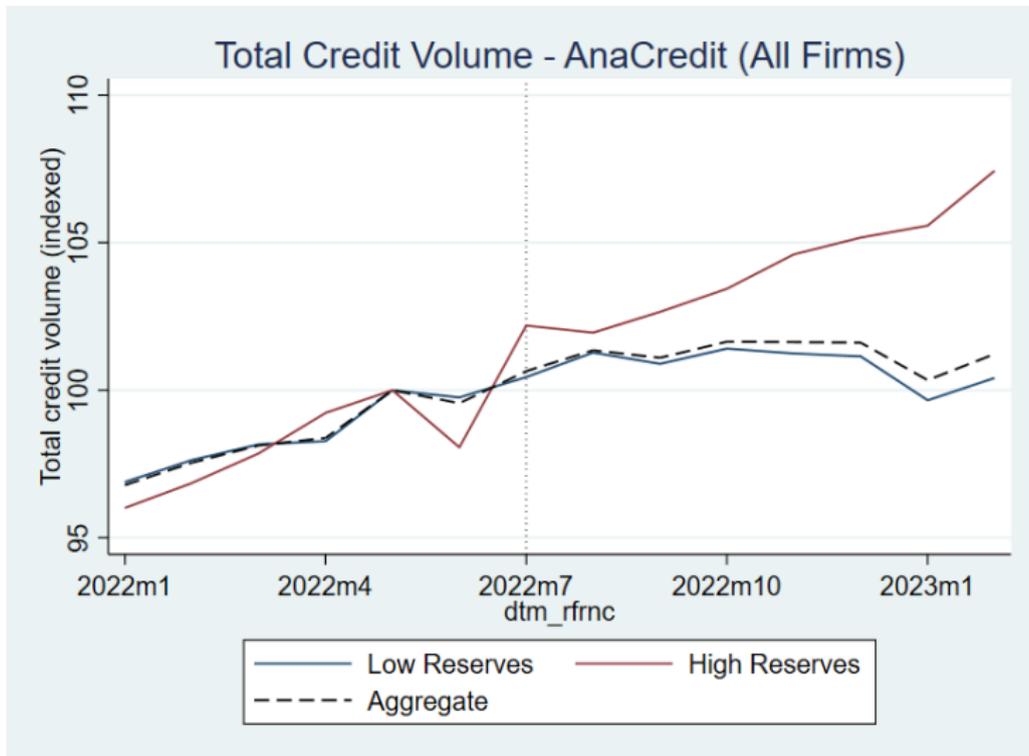
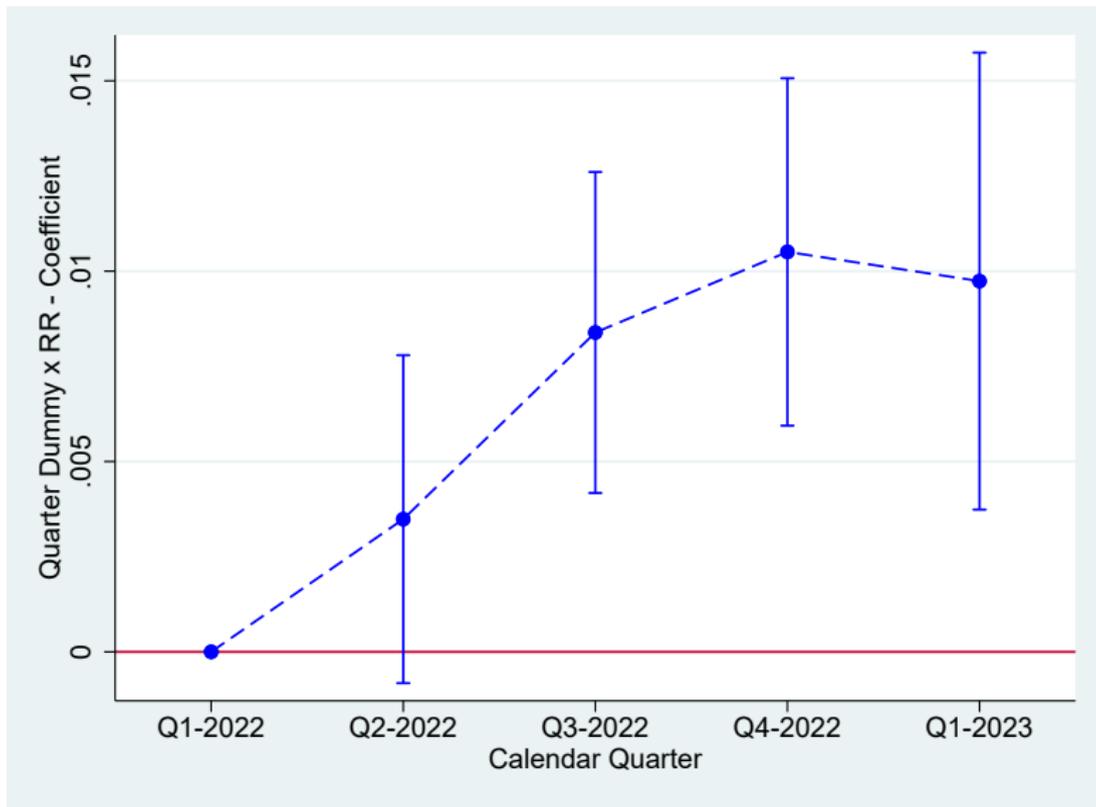


Figure 1: Aggregate Credit Volumes



Timing of Effect



Credit Supply: Main

$$\log(\text{Credit}_{b,f,t}) = \beta \times (RR_b) \times (DFR_t \geq 0) + \mathbf{X}'_{b,t} \gamma + \alpha_{f,t} + \alpha_{b,f} + \alpha_{c,t} + u_{b,f,t}$$

	(1)	(2)	(3)	(4)
	All firms		Multiple bank firms	
RR x ($DFR_t \geq 0$)	0.0049*** (5.01)	0.0050*** (5.29)	0.0079*** (5.05)	0.0084*** (5.67)
adj. R2	0.9772	0.9773	0.9744	0.9744
N	43,527,514	43,527,514	14,690,692	14,690,692
Controls	Yes	Yes	Yes	Yes
Country (bank)-Time FE	Yes	Yes	Yes	Yes
Country (firm)-Time FE	Yes	–	Yes	–
Bank-Firm Fixed Effects	Yes	Yes	Yes	Yes
Industry-Country-Size-Time FE	No	Yes	No	–
Firm-Time Fixed Effects	No	No	No	Yes

[Economic magnitude: 0.25% of 2022 euro area GDP.]