

Corridors of Power

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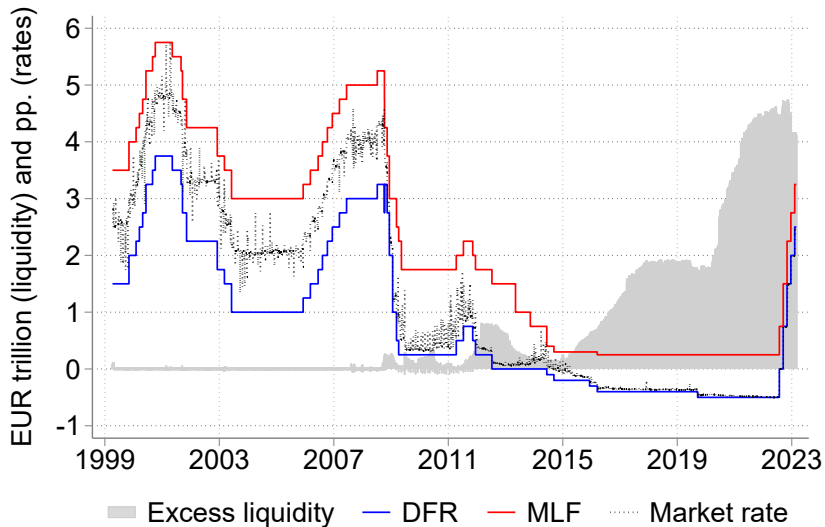
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*The views expressed in this paper reflect solely those of the authors and do not necessarily reflect the official viewpoint of the European Central Bank, the Oesterreichische Nationalbank or the Eurosystem.

The interest rate corridor



The power of corridor design

Δ Corridor width \equiv asymmetric change in policy rates

Theoretical literature

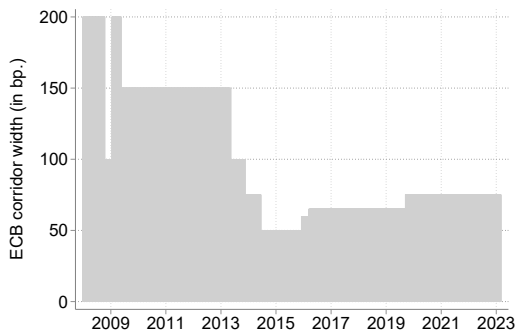
- Monetary stance (e.g. Berentsen and Monnet, 2008; Hoerova and Monnet, 2010)
- Market activity (e.g. Bindseil and Jablecki, 2011; Afonso and Lagos, 2015; Blasques et al., 2018)
- Volatility (e.g. Woodford, 2001; Whitesell, 2006; Lagos and Navarro, 2023)
- Fragmentation (e.g. Eisenschmidt et al., 2018; Vari, 2020)

Empirical literature

“[L]argely silent on the question as to why and how to set such a spread” (Arce et al., 2020)

This paper

ECB corridor design changes since 2008



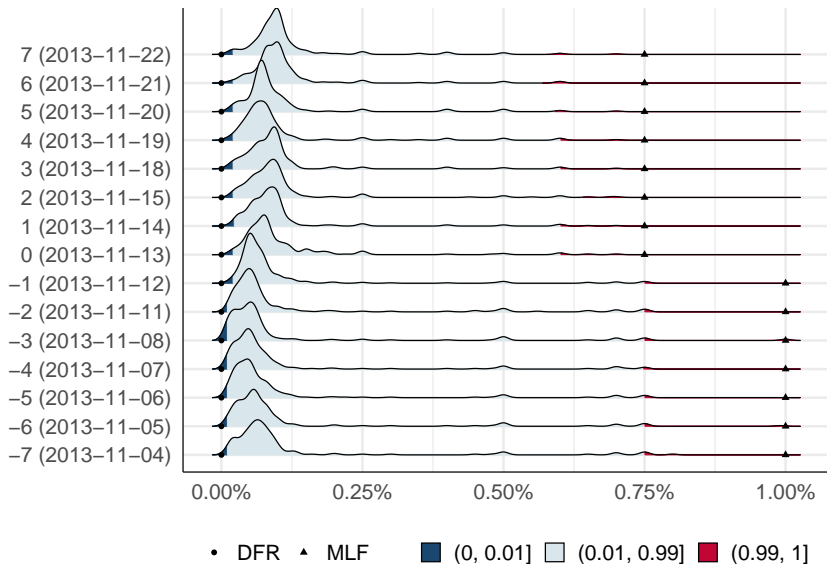
High-frequency event studies

- Transaction-level TARGET2 data (unsecured overnight loans)
- Event windows of $+/- 7$ days
- RDiT *cum* RIF design

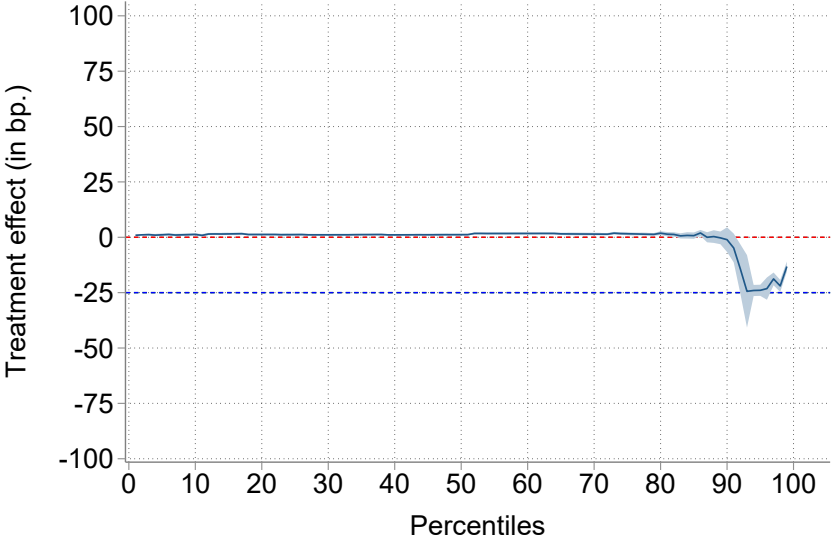
Study effects of Δ corridor width

- Impact on deal rate metrics
- Mechanism and heterogeneity
- Spill-overs and trade-offs

Step 1: eyeball econometrics (11/2013)



Step 2: quantile treatment effects (11/2013)



Step 3: RDiT *cum* RIF

For each case study, leverage full micro data to estimate:

$$i_{b,l,t}^{RIF} = \alpha + \beta I(post)_t + \Gamma \mathbf{X}_{b,l,t} + u_{b,l,t} \quad t \in [-7, 7]$$

i^{RIF} deal rate estimand (IQR, standard deviation)

$I(post)$ treatment indicator (1 if $t \geq 0$)

\mathbf{X} baseline controls (loan size, system liquidity, fine-tuning operations)

Identification assumption: $I(post)$ orthogonal to deal rate components in u

Case study findings

Estimand: IQR(1-99) of deal rates

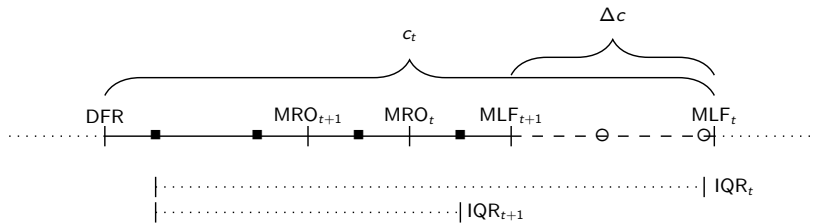
	Widenings				Contractions			
	01/2009	12/2015	03/2016	09/2019	05/2009	05/2013	11/2013	06/2014
β in bp	33.74*** (6.73)	7.80*** (2.21)	6.75*** (1.35)	4.61** (1.91)	-0.50 (6.12)	-20.86*** (0.88)	-14.14*** (1.12)	3.52 (5.48)
β in SD	0.71*** (0.14)	0.95*** (0.27)	0.68*** (0.14)	0.54** (0.22)	-0.02 (0.24)	-1.25*** (0.05)	-1.09*** (0.09)	0.21 (0.33)
Δc in bp	+100	+10	+5	+10	-50	-50	-25	-25
Observations	6,996	1,825	1,945	274	7,770	2,603	3,185	3,178
R-squared	0.01	0.07	0.06	0.04	0.01	0.21	0.18	0.00

Robust standard errors in parentheses. Statistical significance codes: ***: 0.01, **: 0.05, *: 0.1

Possible mechanisms: illustration for contractions

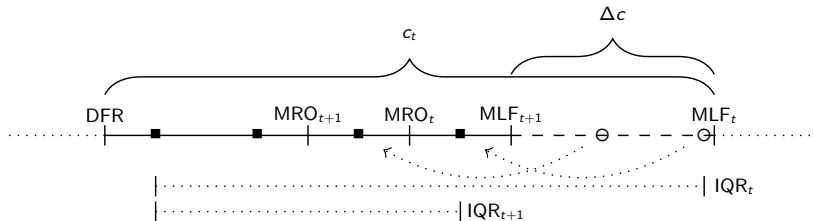
Scenario 1:

*exit into CB
balance sheet*

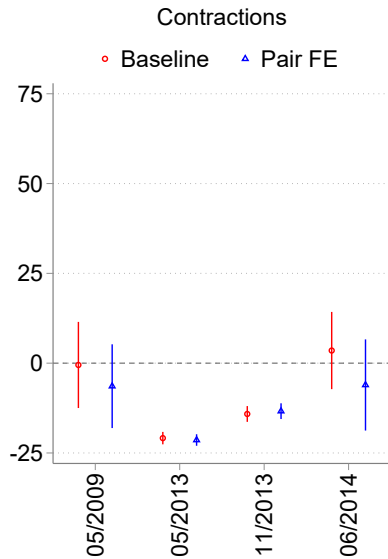
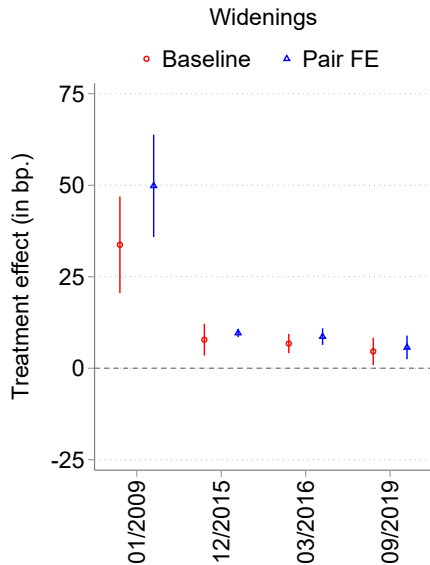


Scenario 2:

*endogenous deal
rate components*



Mechanism: empirical results favor scenario 2



Paper teaser

⇒ Deal rate dispersion

- ▶ Mechanism: shift in bargaining power for highest percentiles
- ▶ Treatment effect size sensitive to IQR definition

⇒ Heterogeneity over time: no simple story

⇒ Additional results

- ▶ Deal rate volatility, market activity/composition, placebos
- ▶ Are corridor width changes anticipated?

Policy relevance

1. Mechanism

- ▶ Central bank balance sheet
- ▶ Welfare implications

2. Heterogeneity

- ▶ Impact of $\Delta c \equiv$ empirical question
- ▶ How to communicate about the (expected) effects of Δc ?

*“This narrower spread [...] will **limit** the **potential scope** for **volatility** in short-term money market rates.”*

– ECB Governing Council on 13 Mar 2024

Appendix

References

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Policy-makers on corridor design

*“The main aim of this re-widening of the corridor is to push the banks as much as possible into returning to their own interbank transactions. [W]e are trying to help **revive the money market** spontaneously.”*

– ECB President J.-C. Trichet on 15 Jan 2009

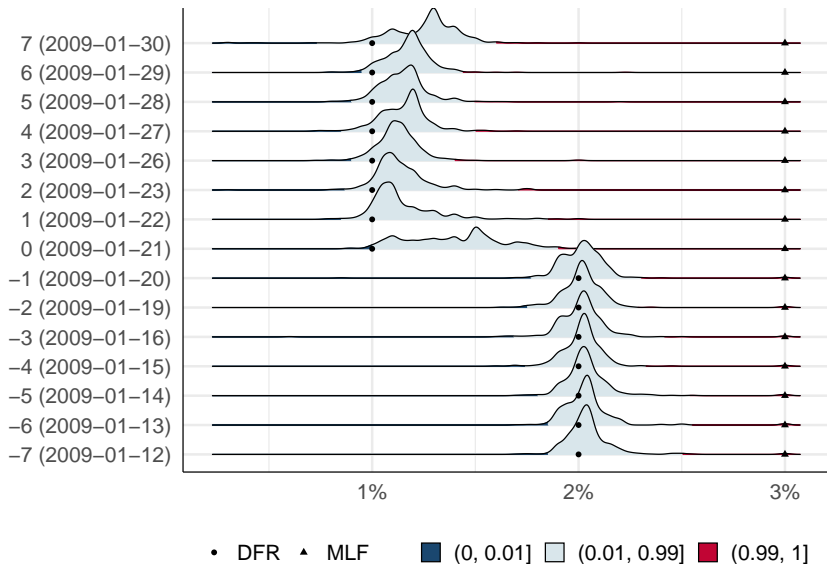
*[T]his change in interest rates [...] will help healthy banks that are located in stressed parts of the euro area to have an easier access to the interbank market. In this sense, it is an instrument for **reducing fragmentation**.”*

– ECB President M. Draghi on 7 Nov 2013

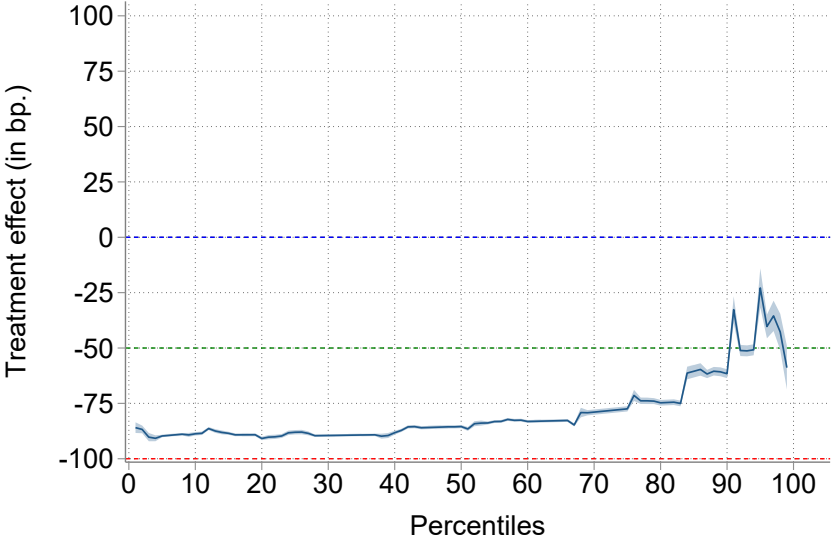
*“This narrower spread [...] is small enough to **contain volatility** but large enough to **preserve incentives for money market activity**.”*

– ECB Executive Board member I. Schnabel on 14 March 2024

Step 1: eyeball econometrics (01/2009)



Step 2: quantile treatment effects (01/2009)

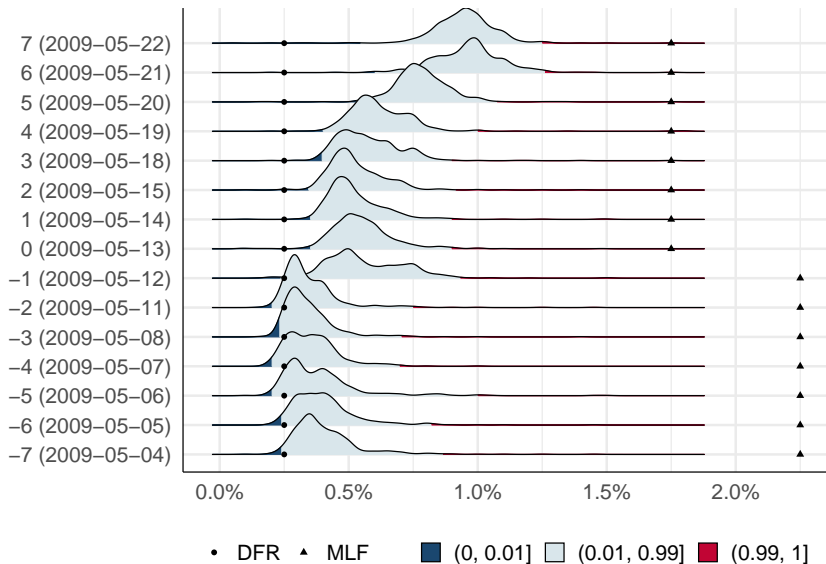


Estimand: standard deviation of deal rates

	Widenings				Contractions			
	01/2009	12/2015	03/2016	09/2019	05/2009	05/2013	11/2013	06/2014
β in bp	10.95*** (1.08)	2.93** (1.15)	-0.66 (1.25)	2.19** (1.03)	-4.07*** (0.97)	-4.46*** (1.34)	-3.36** (1.36)	-0.56 (0.88)
Δc in bp	+100	+10	+5	+10	-50	-50	-25	-25
Observations	6,996	1,825	1,945	274	7,770	2,603	3,185	3,178
R-squared	0.02	0.02	0.01	0.04	0.08	0.01	0.03	0.01

Robust standard errors in parentheses. Statistical significance codes: ***: 0.01, **: 0.05, *: 0.1

The case of 05/2009



The case of 06/2014

