

# The disciplining effect of supervisory scrutiny in the EU-wide stress test

Christoffer Kok<sup>a</sup>   Carola Müller<sup>bcd</sup>   Cosimo Pancaro<sup>a</sup>

<sup>a</sup>European Central Bank <sup>b</sup>CEMLA <sup>c</sup>Norges Bank <sup>d</sup>IWH

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*This paper looks behind the curtain of stress testing and sheds light on the effects of supervisory scrutiny*

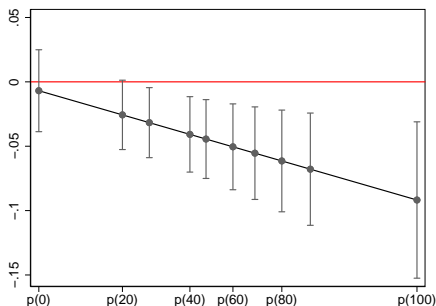
- ▶ Earlier work shows stress testing can affect bank risk  
[Acharya/Berger/Roman, 2018; Steri/Pierret, 2018, Cortés et al., 2020]
  - ? Does supervisory scrutiny play a role?
- ▶ A great deal of stress testing is confidential between supervisors and supervised banks, e.g. communications about best-practice and stress testing techniques
  - ? Do risk management capabilities built up for compliance purposes spill over into bank outcomes?
- ▶ Supervisory efforts can have a disciplining effect on banks  
[Hirtle/Kovner/Plosser, 2019; Kandrac/Schlusche, 2019]
  - ? Do they in stress testing?

## What we do in this paper

- ▶ **We investigate whether the supervisory scrutiny associated with the EU-wide stress tests has an effect on bank credit risk**

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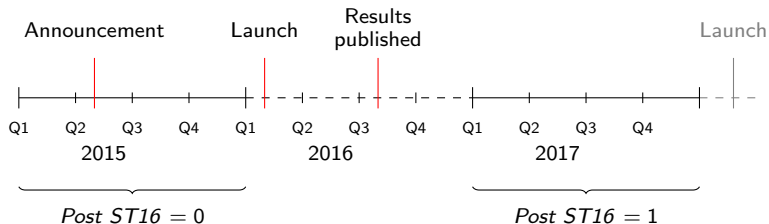
- ▶ **We investigate whether the supervisory scrutiny associated with the EU-wide stress tests has an effect on bank credit risk**
- **YES!** The more scrutiny banks receive during a stress test exercise, the more they reduce credit risk.



Marginal effects of supervisory scrutiny on credit risk.

## What we do in this paper

- ▶ We investigate whether the supervisory scrutiny associated with the EU-wide stress tests has an effect on bank credit risk
- ▶ We study the 2016 EU-wide stress test in a diff-in-diff setting



- 63 Tested SIs — 69 Non-tested LSIs

## What we do in this paper

- ▶ **We investigate whether the supervisory scrutiny associated with the EU-wide stress tests has an effect on bank credit risk**
- ▶ **We study the 2016 EU-wide stress test in a diff-in-diff setting**
- Risk is measured as risk weight density (RWD) for credit risk exposures

$$RWD_{i,t} = \frac{\text{Risk-Weighted Credit Risk Exposures}_{i,t}}{\text{Total Credit Risk Exposure}_{i,t}}$$

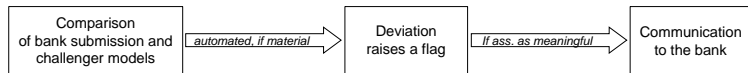
## What we do in this paper

- ▶ **We investigate whether the supervisory scrutiny associated with the EU-wide stress tests has an effect on bank credit risk**
- ▶ **We study the 2016 EU-wide stress test in a diff-in-diff setting**
- ▶ **We explore the role of supervisory scrutiny**
  - The European design allows us to highlight the effect of supervisory scrutiny in contrast to other channels
  - European stress test results do not necessarily lead to capital measures (profit distribution limits, capital requirements)
  - We construct three metrics of supervisory scrutiny in the EU stress test
    - ⇒ *Today I focus only on one metric*

## Stress test design and supervisory scrutiny metrics

The EU-wide stress test follows a Constrained Bottom-Up approach:

- ▶ Banks use their own models to generate stress test projections
- ▶ The ECB and banks interact during the **Quality Assurance (QA)** between launch and publication of the stress test results
- ▶ The ECB mainly use two challenger approaches to ensure the credibility of banks' projections



Simplified cycle of the ECB Quality Assurance process.

- ▶ **High QA Quantity:** Above-median number of communicated flags on credit risk



## Main Finding: Effect of supervisory scrutiny on credit risk

$$RWD_{i,t} = \beta_1(\text{Post } ST16_t \times \text{Tested}_i) + \beta_3 X_{i,t-1} + \alpha_i + \gamma_t + \delta_{t,j} + \epsilon_{i,t} \\ + \beta_2(\text{Post } ST16_t \times \text{Tested}_i \times \text{High Scrutiny}_i)$$

	Baseline	Supervisory Scrutiny	Capital Structure	Both
Post × Tested	-0.042** (0.019)	-0.014 (0.016)	-0.054** (0.021)	-0.008 (0.021)
Post × Tested × High QA Quantity		-0.056*** (0.020)		-0.055*** (0.020)
Post × Tested × High Capital Guidance			0.028 (0.023)	0.011 (0.020)
Observations	924	924	924	924
within-R2	0.132	0.155	0.127	0.152

- ▶ Banks with higher stress test intensity in form of high supervisory scrutiny reduce credit risk

# Conclusions

- ▶ We find that the 2016 European Stress Test exercise impacted SSM banks behaviour
- ▶ Higher supervisory scrutiny disciplines tested banks more
- ▶ Banks that had more interactions with the supervisor reduced their RWD more than banks that received less treatment.
- ✓ The scrutiny effect persists in a subsample of tested banks
- ✓ The scrutiny effect is independent of stress-test related capital effects
- ▶ Stress test design and stress test effects interact