Discussion: The Macroeconomic Effects of Bank Capital Regulation

Stijn Ferrari | Joint ECB & Banca d'Italia MPPG research workshop "Macroprudential policy: effectiveness, interactions and spillovers"

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Overview

	◆ What are the dynamic macro effects of higher capital requirements?
	
	  ◇ Theory is ambiguous
	
	  ◇ Empirical partial equilibrium studies not suitable to assess aggregate effects

	◆ Narrative-based identification of higher aggregate capital requirements in the US ◆ Local projections to assess dynamic macro effects ◇ Accounting for anticipation effects
	◆ Adverse macro effects of reduction in bank balance sheets and lending in response to higher capital requirements are temporary ◆ Positive effects on bank capital and risk are permanent

Overall appreciation

|	
👍	◆ Careful analysis of relevant research question ◇ Clear discussion of identifying assumptions ◇ Economic narrative of results ◇ Extensive robustness checks ◇ Public and easily accessible data
	◆ Are the analysis and results convincing? ◇ Some doubts after initial reading of data and methodology ◇ Many of which dealt with in robustness checks ◇ Main findings seem to survive some further tests ◇ Did not manage to fully replicate ◇ Some issues for consideration

Capital requirement indicator (CRI)
Relatively few and clustered (1981-1985 and 1990-1992) events

| Paper	Policy area	Events
Romer & Romer (2010)	Taxation	54
Fieldhouse et al. (2018)	Govt asset purchases	17
Richter et al. (2019)	Macroprudential (LTV)	89 (53)
This paper	Microprudential (capital)	6

◆ How robust are the results?

◆ How to control for all shocks in the entire sample period?

◆ Is the CRI truly unrelated to the business / financial cycle?

◆ How to disentangle dynamic effects of different events?

◇ Overlapping "event windows"

◇ Length of projection horizons?

Bank capital ratio
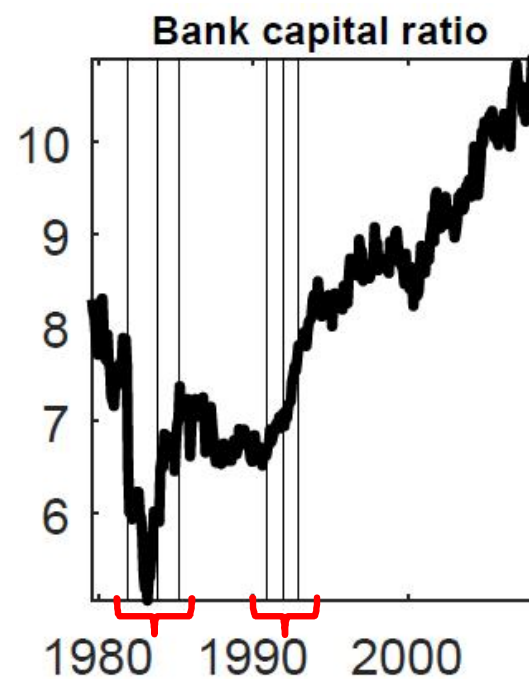
How robust are the results?
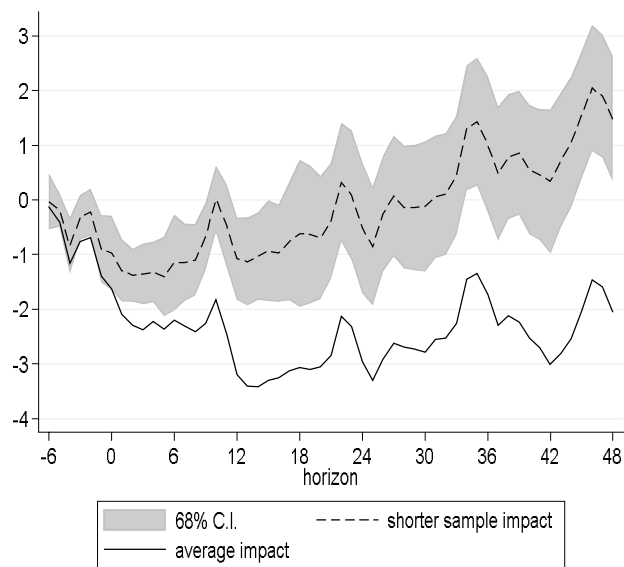## Additional robustness checks on event dates
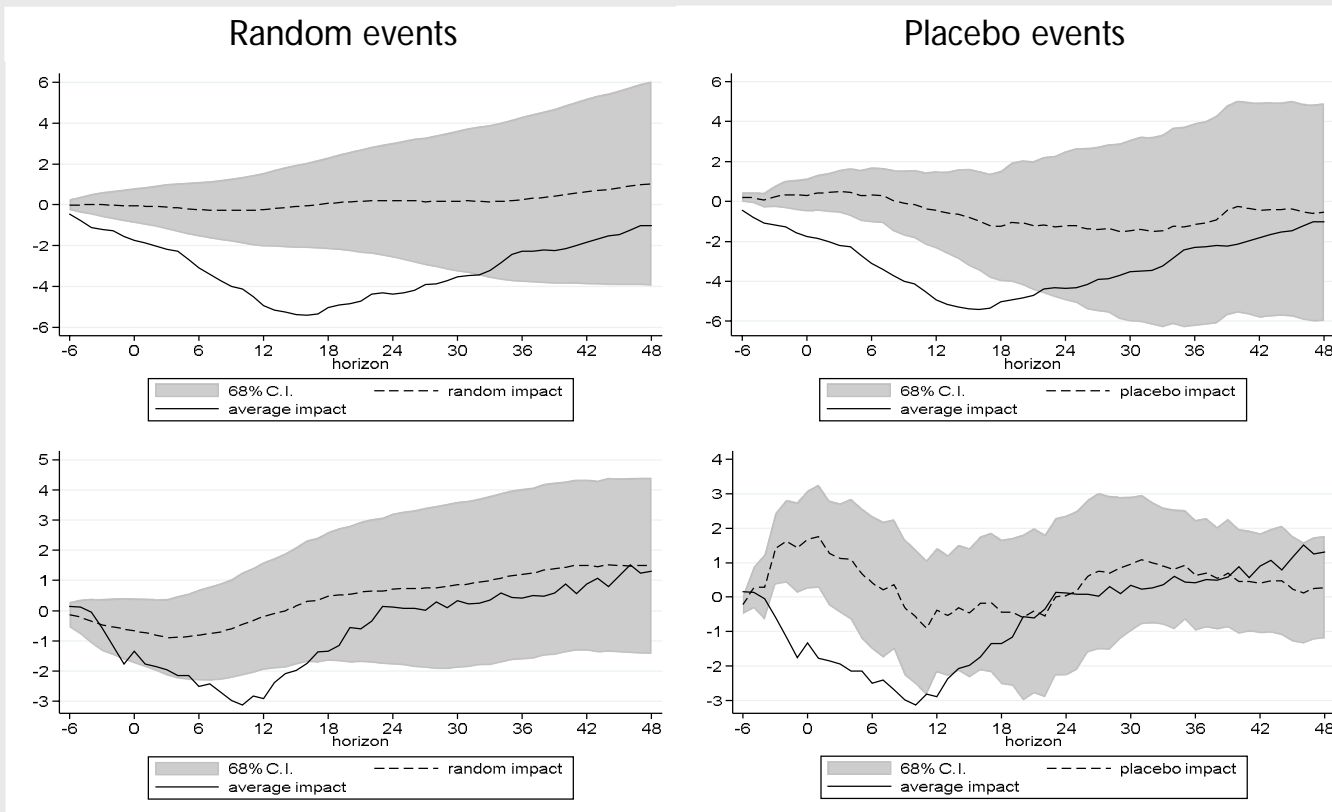
Notes:

Random events results based on 25 draws of six random events in the period 1979M8-1998M12.

Placebo events were defined as the dates 12 months before the proposal dates.

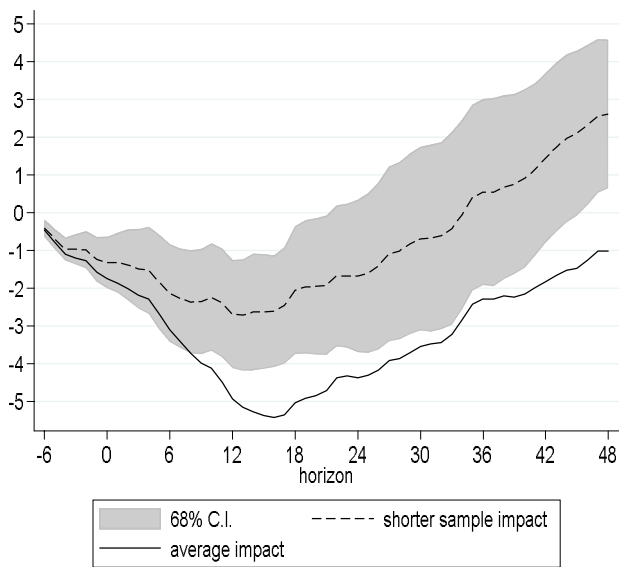# How to control for all shocks in the entire sample period?
Additional robustness checks on sample period

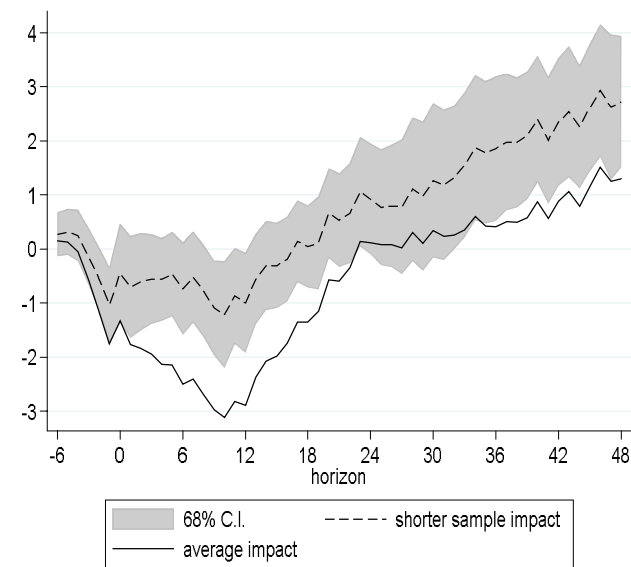Note: Shorter sample covering period from 1979M8 to 1998M12 instead of 2008M8.

# Is the CRI truly unrelated to the business / financial cycle?

◆ *"Policy changes captured by our CRI were not motivated by cyclical consideration but are unrelated to the current business cycle and financial cycle."*

◆ *"the regulations cannot be forecast using macro and financial data and thus do not appear to react to the state of the business cycle and the financial cycle."*
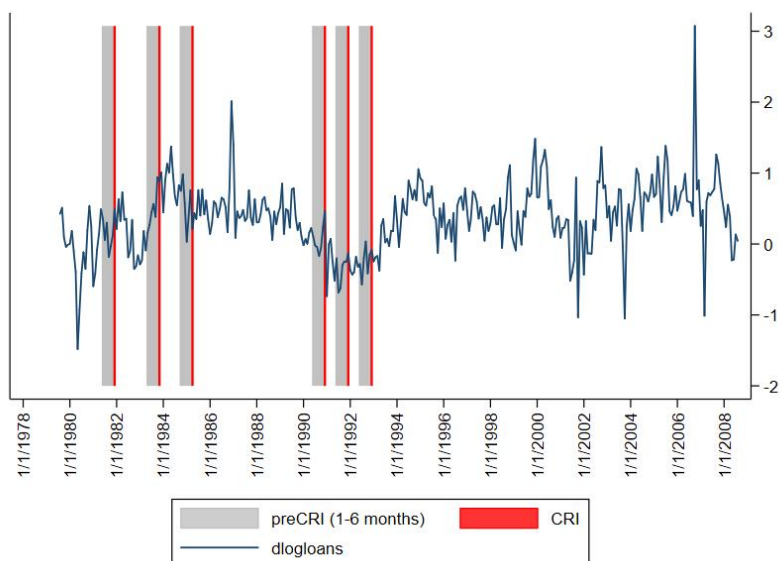
	pre-CRI (1 month)	pre-CRI (1-2 months)	pre-CRI (1-4 months)	pre-CRI (1-6 months)	pre-CRI (7-12 months)	pre-CRI (13-24 months)
dlogloans	-0.15	-0.46	-0.67***	-0.75***	-0.79***	-0.76***
	(0.35)	(0.28)	(0.23)	(0.20)	(0.20)	(0.17)
N	349	349	349	349	349	349

Implications for macroprudential policy
Timing: boom vs bust

Bank assets

Bank loans

Industrial production
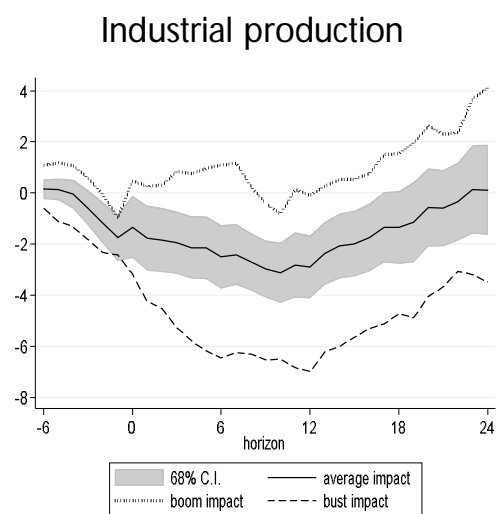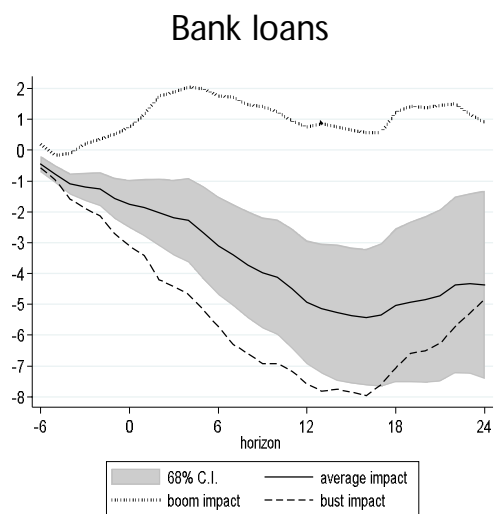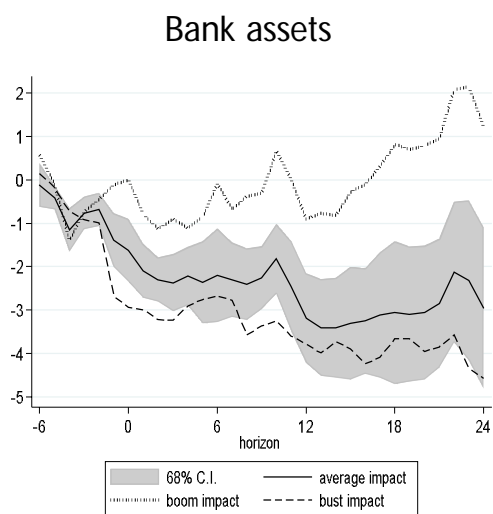
Note: Regressions with interactions of lagged CRI (with anticipation) and lagged values of loan growth and industrial production growth. Boom (bust) impulse response function conditional on loan growth and industrial production growth evaluated at 75th (25th) percentile.

◆ Interaction with monetary policy in boom vs. bust periods?

◆ Impact of phase-in periods?

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Implications for macroprudential policy
Some additional considerations

◆ Do banks react the same to risk-weighted capital requirements as to leverage requirements?

　◇ Shift to low risk weight exposures vs. increased risk-taking

　◇ *"C&I loans then start increasing again and return to their baseline value. (...) By contrast, the response of real estate loans is very persistent. (...) These results indicate a persistent shift in banks' asset composition towards safer assets following an increase in capital requirements."*
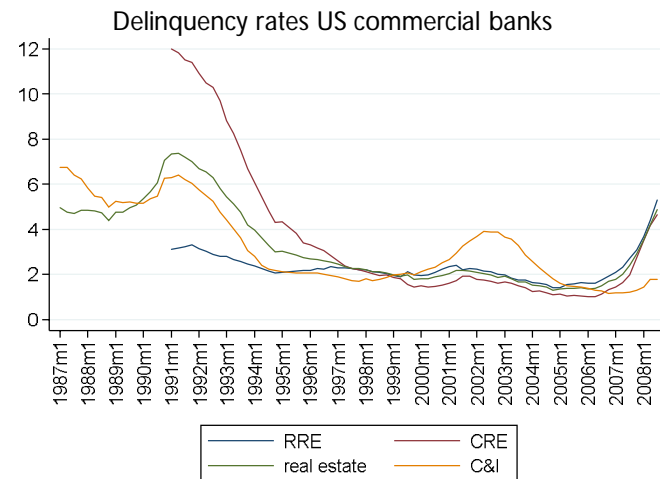
　◇ But real estate loans covers different types of loans

◆ Do banks react differently to (temporary) buffers relative to permanent minimum capital requirements?

◆ Are macro effects in the release the mirror image to those estimated during tightenings?

◆ How relevant are historical findings for current market conditions (e.g. increased importance of non-bank finance)?

　◇ *"We also show that corporate bonds do not substitute for the drop in bank lending suggesting that bank funding is not fully substitutable"?*

Delinquency rates US commercial banks

Source: FRED

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Implications for macroprudential policy
Key takeaways?

◆Importance of clear and to the point communication on risks and policy

◆We should not forget about the benefits of capital!