

BANK CAPITAL AND BALANCE SHEET MANAGEMENT DURING TIMES OF DISTRESS: INTERNATIONAL EVIDENCE

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MPPG WORKSHOP

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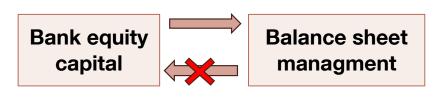
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Do banks actively manage their equity capital and balance sheets in the short run?



Some of the previous models

This paper

- Bank capital is **exogenous** in the short run
- Bank capital is **endogenous** in the short run
- Active forward-looking role of bank management

- Empirical analysis: Two exercises
 - 1. Partial adjustment model:
 - 1. Estimation of each bank's target capital asset ratio \Longrightarrow (\hat{Z}
 - 2. Simultaneous equations: $\Delta ln(Balance Sheet)$ and \hat{Z}
 - 2. Endogeneity of Management Action on Capital (MAC)
 - 1. Single-equation model: MAC = $f(distress, \hat{Z}_{t-1}...)$
 - 2. Simultaneous equations system: △In(RWA) and MAC
- Advances in modeling: Applicable to stress testing within a dynamic approach

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· On the models

$$\hat{Z}_{b,c,t} = 100 \times \left[\begin{pmatrix} k_{b,c,t} \\ \hat{k}_{b,c,t}^* \end{pmatrix} - 1 \right].$$

- \hat{Z} is a crucial variable, but few explanatory variables are significant in the model for the reported CET1
 - Should the model be revised? Consider dropping non-significant variables
- Is it feasible to use <u>reported</u> target capital asset ratios [Couaillier (2021)] instead of <u>estimated</u> ratios?
- Are bank <u>fixed effects</u> truly necessary? If included, interpret with caution: avoid cross-sectional comparisons
- The baseline model addresses Nickell bias (GMM estimates)...but not the rest
 - Also with lagged dependent variable and fixed effects

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On the research design:

- Dataset: 172 banks, 26 countries. Further characterize and explore the sample
 - Banks' size (Group 1/ Group 2)
 - Listed vs. non listed banks
 - Cross-country differences
- The Covid period is deliberately excluded, which limits the coverage of times of distress
 - Why not expand the sample to include data from 2020 onward?

On the distress definition

- Based on large unexpected loses (=negative profits). Potential limitations of this measure
- Other forms of distress are not captured
 - (e.g.: market volatility)

On the database

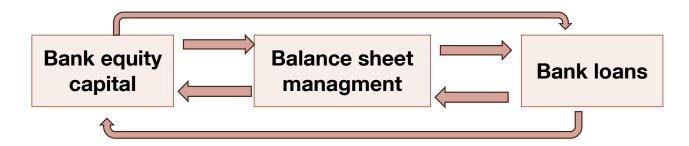
QIS maintained on an anonymous basis. Difficult to match with external datasets. Is it a limiting factor?

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- Further motivation for the definition of Management Action on Capital (MAC)
 - MAC_3: △CET1 adjusted by the passive component of retained earnings...rationale behind?
 - Additional mechanisms of capital adjustment
 - Dividend policies, equity issuance, asset sales (de-risking portfolios)
- There is no link to lending...ls an extension of the analysis in this direction feasible?
 - The paper focused on the link between △In(RWA) and MAC
 - How capital management decisions affect loan growth and credit availability?



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THANKS FOR YOUR ATTENTION!

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