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Beyond Basel III!

The impact of significantly higher equity capital requirements on bank risk and liquidity creation: Quasi-experimental evidence from Zambia

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Motivation, gap, objectives and empirical approach

- **Motivation and gap:**

- Ongoing debate among academics and policymakers on the effectiveness of the leverage ratio versus risk-based capital requirements, particularly in light of the 2023 regional banking crisis (e.g., failure of Basel III-compliant Credit Suisse).

- **Research objectives:**

- Assess the dual effects of a significant increase in the leverage ratio and the requirement for banks to raise additional equity capital.
- Address the gap in understanding the trade-off between enhanced financial stability and maintaining banks' liquidity-creating capabilities under this novel regulatory approach.

- **Data and research approach:**

- Using Zambia's 2012 New Capital Adequacy Framework (NCF) as a quasi-natural experiment with a difference-in-differences (DID) identification strategy.

The model and regression frameworks

- **Model setup:** Investigate the treatment effect using a TWFE DID regression:

$$Y_{i,t} = \alpha_i + \alpha_t + \beta \cdot NCFBank_i \times Post_t + \gamma \cdot \Sigma X_{i,t-1} + \varepsilon_{it}$$

- **Key variables:**
 - *Dependent variable* ($Y_{i,t}$): Bank risk or liquidity creation.
 - $NCFBank_i$: Dummy for foreign-owned banks with higher capital requirements.
 - $Post_t$: Binary for post-policy period (Feb 2012–Feb 2019).
 - *Bank specific controls*: $X_{i,t-1}$
- **Fixed Effects:** Bank (α_i); Year-month (α_t).
- **DID interaction term** ($NCFBank_i \times Post_t$): Captures the policy effect on foreign vs. locally-owned banks' risk and liquidity creation.

Results and Conclusion

	Overall risk	Liquidity creation
Dependent Variable:	log(Inv. Zscore)	TLQC
NCFBank x Post	-0.490** (-2.20)	-0.047** (-2.12)
<i>Controls included</i>	YES	YES
<i>Bank Fixed Effects</i>	YES	YES
<i>Time Fixed Effects</i>	YES	YES
<i>Observations</i>	1,674	2,508
<i>Adj R-squared</i>	0.773	0.759
<i>F-test (p-value)</i>	0.000	0.000

Robust t-statistics in parentheses

*** p<0.01, ** p<0.05, * p<0.1