The impact of Basel III implementation on bank lending in South Africa

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5 December 2023

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Motivation for the study

- We investigated the impact of the higher regulatory capital requirements of the implementation of the Basel III in South Africa between 2013 and 2019.
- Basel III capital requirements have been shown to reduce bank lending in other markets (for UK Aiyar *et al.* (2014))
- Limited work exists in this area in South Africa
- Focus on a small set of large banks has some advantages: business models of these banks are similar
- Our empirical specification follows previous studies of the impact of capital requirements on bank credit supply (for Peru Fang *et al.* (2020))

Balance sheet data is rich

- We collected data on the four major South African banks: Absa Bank, Standard Bank, First National Bank, and Nedbank
- Mainly utilised the BA900s (bank economic returns) and the BA930s (bank product lending rates)
- From the Prudential Authority, we also collected the controls data
- We focus on real economic activity lending in the BA900s is represented by lending to households and non-financial corporations.
- However, the BA900s only report granular lending categories to households and non-financial corporations. Therefore, some aggregation was necessary.
- This aggregation essentially limited our sample to the big four lenders
- Three major categories for households and non-financial corporations (secured, unsecured, and mortgages)

We used a panel model approach

Building on Fang *et al.* (2020):

- $\Delta LOAN^{i}_{t,t-s} = \beta \Delta KR^{i}_{t,t-1} + \lambda \Delta KS^{i}_{t,t-1} + \alpha \Delta Demand^{i}_{t,t-1} + \gamma' \mathbf{X}^{i}_{t-s} + \phi^{i} + \tau_{t} + \varepsilon^{i}_{t}.$
- Take into account the capital buffers
- Used lending rates as proxies for demand (novel approach)
- Controls from the Prudential Authority
- Take both time and bank effects into account
- Time-varying effects estimated using local projections (Jorda, 2005)

Results indicate little evidence of the impact

- While our set up is similar to Fang et al. (2020), we find very much weaker evidence of an impact of capital requirements on the supply of bank lending.
- Only in the case of secured credit for non-financial corporations do we obtain a statistically significant and economically sensible coefficient estimates and the coefficient is relatively small.
- Exploring alternative dynamic estimation similarly yields little evidence of any.
- This is not a surprising results given that these bank are well capitalised.
- However, there are data and methodological issues that could be further explored in future work.