

CAFRAL-World Bank Conference on “State Intervention in the Financial Sector”  
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## **Comments**

“State-Owned versus Private Banks in South Asia: Financial Resilience and Real Costs of Distress”  
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## Contributions

- Nice paper!
- Lot of useful summary statistics on banking in South Asia, comparison with other developing regions
- Bank distress in South Asia (India) – differences across state-owned versus private banks, large banks vs. small banks
- Considers banks' adjustment to distress on a range of parameters (capital, provision, lending, fixed assets, debt) for state-owned and other banks
- Implications of bank distress for firms' debt growth and investment – uses linked bank-firm data

## Suggestions

- Literature on bank ownership across other countries is covered well. There could be better coverage of earlier literature on bank ownership (private versus public banks) and bank-firm relationships *specifically for India*
  - Berger, Klapper, Peria & Zaidi (2008, JFI), Bhaumik, Dang & Kutan (2011, JBF), Srinivasan & Thampy (2017, JCF), others on bank-firm relationships (e.g., Pennathur & Vishwasrao, 2014 JBF, Gopalakrishnan 2017).
- In comparing the public and private sector banks, a test of whether the averages are statistically different (t-test of means for the two groups) could be provided in Tables 1 and 2
- *Marginal effects* could be reported for the logit regression in Table 4 (to understand increase in probability of distress for PSBs versus others. Current interpretation is change in log-odds ratio)
- Robustness can be conducted with an additional measure of banks' financial distress **Bank Z-score**, in addition to the "rule of thumb" measure of interest coverage ratio (ICR), supplemented by ROA and capital adequacy (CRAR)
  - Bank Z-score has been used in a number of studies (e.g., Laeven and Levine (2009), Ashraf & Shen (2019)); volatility of ROA

# Concerns with bank-level regression – Omitted variables

- Determinants of bank distress in baseline regression (Table 4) include bank-specific characteristics along with dummies for government ownership and share of government shareholding.
- Possibility of omitted variable(s) in the regression.
- Recent literature suggests that banks' debt distress can arise due to *debt distress of firms and households*:
  - Ashraf & Shen (2019) find an increase in bank loan pricing with higher Economic Policy Uncertainty. Conjecture that economic policy uncertainty boosts the default risk of both firms and households, which is then transmitted to banks.
  - Gopalakrishnan & Mohapatra (2019) find evidence that economic policy uncertainty is associated with higher default risk of firms (the effect is moderated by a stronger insolvency regime)
- Apart from omitted variable bias, current specification doesn't give insights into *how or why* banks' debt distress increases

## Concerns with bank-level regression

- Possibility of “reverse cherry-picking” by government-owned banks
  - Srinivasan & Thampy (2017) – Firms that maintain exclusive relationships with Government-owned banks have lower investment cash flow sensitivity (i.e., lower financing constraints).
  - But such firms are in *worse financial condition relative to other firms* – *with higher leverage, lower investment, lower profitability, worse growth prospects*
- Such “reverse cherry picking” can increase default risk of government-owned banks as they are lending to weaker firms

## Concerns with firm level regression

- Effects on firm financing (Table 6) includes bank distress as an explanatory variable.
- Issue of identifying *demand* for and *supply* of bank financing
  - Firm debt distress (potentially due to exogenous shocks) can result in *weaker demand* for credit. Lack of “animal spirits” among investors can also have a similar effect on demand for credit.
  - As discussed earlier, higher firms’ default risk (due to exogenous shocks) can translate into higher default risk of banks.
  - It is not clear if banks’ debt distress is resulting in *weaker supply* of credit – OR whether firms’ debt distress (or other factors) is resulting in lower *demand* for credit AND possibly higher debt distress of banks
- Sector-year fixed effects account for demand side factors to some extent but there could be firm-level factors (other than size) that are not part of the regression (e.g., existing leverage, planned capex, profitability etc.)
- Simply lagging the explanatory variables may not take care of the problem. Need some source of exogenous variation (RBI’s AQR?)

## Some additional thoughts on bank-firm linkages

- Firms in relationship with government-owned banks have less diversified financing sources – tend to interact with a smaller number of banks, and less often diversify across ownership types (Berger et al. (2008). This may increase such firms' exposure to distress in public sector banks.
  - The authors may consider doing some robustness with *number of banking relationships* with state-owned and other banks in their estimation strategy.
- Extent of exposure of firms to banks not publicly available. Paper is careful on this aspect by including dummies for whether any bank or a majority of banks with relationship to the firm is/are in distress.
  - Nevertheless, the reported effects can be influenced by the extent of exposure of a firm to a distressed bank (and vice-versa), which can vary dramatically across banks, so should be treated with caution

## Some additional thoughts on bank-firm linkages

- Ordering of banks in firms' annual reports (Prowess data) does not provide any information on importance of a firm's banking relationship. As example of Reliance Industries shows, the ordering is alphabetical in many cases (although not in every instance) – i.e., the first bank cannot be considered *the lead bank or with most exposure*, so *one-to-one matching* is not feasible or advisable. The study is careful about this aspect.

coname	bank_order	bank_name	yearend
RELIANCE INDUSTRIES LTD.	0	ALLAHABAD BANK	31-03-2019
RELIANCE INDUSTRIES LTD.	1	ANDHRA BANK	31-03-2019
RELIANCE INDUSTRIES LTD.	2	BANK OF AMERICA N A	31-03-2019
RELIANCE INDUSTRIES LTD.	3	BANK OF BARODA	31-03-2019
RELIANCE INDUSTRIES LTD.	4	BANK OF INDIA	31-03-2019
RELIANCE INDUSTRIES LTD.	5	BANK OF MAHARASHTRA	31-03-2019
RELIANCE INDUSTRIES LTD.	6	CANARA BANK	31-03-2019
RELIANCE INDUSTRIES LTD.	7	CENTRAL BANK OF INDIA	31-03-2019
RELIANCE INDUSTRIES LTD.	8	CITIBANK N A	31-03-2019
RELIANCE INDUSTRIES LTD.	9	CREDIT AGRICOLE CORPORATE & INVST. BANK	31-03-2019
RELIANCE INDUSTRIES LTD.	10	CORPORATION BANK	31-03-2019
RELIANCE INDUSTRIES LTD.	11	DEUTSCHE BANK	31-03-2019
RELIANCE INDUSTRIES LTD.	12	HONGKONG & SHANGHAI BANKING CORPN. LTD.	31-03-2019
RELIANCE INDUSTRIES LTD.	13	H D F C BANK LTD.	31-03-2019
RELIANCE INDUSTRIES LTD.	14	I C I C I BANK LTD.	31-03-2019
RELIANCE INDUSTRIES LTD.	15	I D B I BANK LTD.	31-03-2019
RELIANCE INDUSTRIES LTD.	16	INDIAN BANK	31-03-2019
RELIANCE INDUSTRIES LTD.	17	INDIAN OVERSEAS BANK	31-03-2019
RELIANCE INDUSTRIES LTD.	18	ORIENTAL BANK OF COMMERCE	31-03-2019
RELIANCE INDUSTRIES LTD.	19	PUNJAB NATIONAL BANK	31-03-2019
RELIANCE INDUSTRIES LTD.	20	STANDARD CHARTERED BANK	31-03-2019
RELIANCE INDUSTRIES LTD.	21	STATE BANK OF INDIA	31-03-2019
RELIANCE INDUSTRIES LTD.	22	SYNDICATE BANK	31-03-2019
RELIANCE INDUSTRIES LTD.	23	UNION BANK OF INDIA	31-03-2019
RELIANCE INDUSTRIES LTD.	24	VIJAYA BANK [MERGED]	31-03-2019

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