Comments on "The Internationalization of Domestic Banks and the Bank-Lending Channel: An Empirical Assessment"

by Paola Morales, Daniel Osorio, and Juan Sebastián Lemus

Johanna L Francis

Department of Economics, Fordham University

BIS Conference September 2018, Mexico City

Overview

- Contribution to literature on internationally active banks (IABs)
- Details effect of bank specific features on the interaction between monetary policy and global banking
- Adds evidence to conjecture banks use internal capital markets to equalise ROE and to some degree insulate banks from shocks
- Validation of Cetorelli Goldberg (2012) results: loan supply is insulated by internal capital market from domestic monetary policy
- Validation of Kashyap and Stein (2000) results: smaller banks are more affected by movements in policy rate

Features of Global Banking

Figure 1. Growing share of local claims

Local claims as a share of foreign claims

By lending banking system, all reporting countries



Notes: The graph illustrates the share of local and international/cross-border claims in the total foreign claims of internationally active banks headquartered in BIS reporting countries. More detailed information about the data source is available at http://www.bis.org/statistics/about_banking_stats.htm.

Francis (Fordham)

< ロ > < 同 > < 回 > < 回 >

Putting their results in context

- This paper focuses on effect of specific bank characteristics on the monetary transmission mechanism particularly in light of globalisation
- Fits with large literature on how internationally active banks alter monetary transmission and what factors are important (e.g., Avdjiev, Aysun, and Hepp 2017)
- As well as emerging literature on risk taking channel (e.g., Jiménez, Peydró, Saurina 2014)

Focus on a few specific results: bonds portfolio

- Table 3, last regression (col 8 bonds ratio): banks with larger investment portfolio (to total assets) increase lending by less (not sig) but banks with larger bond ratios respond more counter-cyclically to MP than banks with smaller ratio: implications for funding diversification?
- Compare with table 6, col 7, banks with more bonds lend less but those with more bonds AND higher global exposure lend more: Implications?
- Table 6, col 7: banks with higher liquidity ratios increase credit by less but this effect is attenuated by larger shares of subordinate assets; for banks with low ratio global assets, liquidity has negative effect on change in credit, banks with high ratio it has positive effect
- unusual result? is there a regulatory reason for banks with larger global presence to have higher liquidity ratios?

< ロ > < 同 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ >

Focus on a few results: effect of subsiduaries

- Table 3, last 2 regressions (col 7 and 8, last 3 rows): 'global banks' increase lending by less as subsiduaries increase: indication of potential 'risk taking channel'? (through global lending rather than changes in domestic firm risk profile)
- but respond positively to changes in MP (e.g., banks with more global exposure increase lending more in response to contractionary policy and less in response to expansionary policy than banks with less exposure)
- Compare with regression using share of subordinate assets?

- 4 同 ト 4 目 ト 4 目 ト

Focus on a few results: bank lending channel indicators

- Table 7, bank capital ratio (double interaction): banks with higher cap increase lending more (in domestic market); effect of globalised portfolio is weakened for banks with higher cap: total effect: high share and high cap increase credit by less
- Table 7, bank liquidity ratio: banks with more liquid portfolio increase lending by less
- when interacted with globalness, more liquid portfolio results in weakened effect of globalness (pos coeff)

Focus on a few results: bank lending channel indicators

- Triple interaction: when policy rate increases, banks with high cap and more global presense decrease their lending by less than banks with high cap and lower share of subordinate assets (evidence of 'global banking' being consistent with weaker BL channel)
- Triple interaction: when policy rate increases, banks with higher liquidity ratio and more global presence, reduce their lending by less (weaker BL channel)
- How to make sense of the differing effects of bank liquidity (covers ST financing needs) and bank capital (buffers longer term financing needs)?
- Both however cause bank with global presence to react similarly to monetary policychanges
- Try to sort through the results and make consistent sense of them

< ロ > < 同 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < 回 > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ > < □ >

First issue to consider

- Endogeneity: fixed effects can account for unobserved heterogeneity
- Is reverse causality an issue, e.g., possible change in some bank characteristic not captured (e.g., political influence?) is reason banks can expand internationally and make them less sensitive to monetary policy
- Selection effects: the loan data-set has only applications that were successful; consider two-stage regression like Jiménez, Ongena, Peydró, and Saurina (2014)?

Split sample

- Better way to deal with these endogeneity issues given complexity of interpreting coefficients: split sample of data into internationally active and domestic banks
- If results are driven by internationalisation, they should disappear if only a sample of domestic banks is used
- If globalness is irrelevant, banks in both groups (because they are large) should display similar insensitivity to monetary policy
- Kashyap and Stein (2000) result that the effectiveness of monetary policy is driven by small banks; large banks are insulated from monetary policy shocks
- Good example of this technique Dell'Ariccia, Laeven, Suarez 2017
- Might be difficult given small set of banks in Colombia

- 3

イロト イポト イヨト イヨト

Second Issue

- Several recent papers (e.g., Avdjiev, Aysun, and Hepp 2017) find evidence that local or 'pull' factors are as if not more important, statistically and economically, than global 'push' factors on bank lending activity
- Implication: Business cycle in foreign bank's country of operation is important determinant of lending activity
- How important are these factors here?

Third Issue

- Triple interaction: is there a need for this technique?
- Other papers that use it recently: Jiménez, Ongena, Peydró, and Saurina (2014), Aiyar, Calomiris, and Wiedladek 2016, Paligorova and Santos 2017
- These papers had a specific reason to use these interactions, either to truly identify a risk-taking channel, or a particular hypothesis about the transmission of monetary policy
- Explain what it provides the analysis beyond the two way interaction
- For example, do we think internationalisation of banks interacts with monetary policy only through some bank characteristic? I think it would be useful to at least have an interaction between monetary policy and the level of internationalisation (measured both ways)

Other issues to consider

- Structure of bank funding
- Cyclicality of banking costs (considering banks as firms with marginal costs of loan provision) & economies of scale from creation of internal capital markets
- Changes in traditional funding or bank lending profiles (consider role of other assets in bank portfolio)
- Role of securitisation
- Measurement of monetary policy: endogenous vs exogenous changes in policy
- Did some other type of shift coincide with observed increase in IAB in Colombia?
- What about issues to do with bank competition inside Colombia? (accounted for in time effects?)

Robustness tests

- Alternative measures of monetary policy (are there policy futures markets?, narrative measures you could construct like Romer & Romer?)
- Look at level of credit (In loans) to aid interpretation of results
- Discuss selection: How does risk profile of firms change over time? this is controlled for to certain extent by firm*time fixed effects
- Trend in another country without this phenomena
- Control for changes in bank technology (is securitisation important?)
- Does collateralisation of loans or maturity profile change over sample?
- Do banks hold government bonds? Is this a source of risk and reason for unusual bond ratio result?
- Is table 2 useful? It is primarily descriptive; might want to rethink research question and hypotheses and streamline regressions to focus the analysis on answering specific questions

Francis (Fordham)

Discussant

Minor points

- Why two lags of monetary policy? more traditional to use 4 or 8 if your data is quarterly
- The frequency of data is unclear, one of the data sets (international presence of Colombian banks) is annual
- And so is your measure of internationalisation (equation 3), c_t is annual
- But first paragraph, sec 4, claims that t is a quarterly observation

Minor points

- Dependent variable in table 2, which presents results from estimating specification (1), is log change of credit, not total credit
- Authors state "It is apparent that large and well capitalised banks tend to provide a larger supply of credit"
- So positive significant coefficient indicates larger well-cap banks increase their lending by more
- The result is a little unusual and worth considering: what does it say about volatility?
- Maybe equation (1) should have a monetary or fiscal policy shock included? or reconsidered in terms of what it adds to the analysis

< 日 > < 同 > < 三 > < 三 >

Better evidence to strengthen case

- Additional measures of monetary policy
- Why no monetary policy shocks?
- If theory is correct, what are the aggregate implications?
- Government controlled banks? (agri-bank, trusts, development finance corporations)

Ideas for future

- Mapping out relationships among firms and banks
- Can you determine if firm unsuccessful with one application whether it submits another?; substitution across banks/bonds-borrowing?
- Implication of foreign subsiduary lending risks: do source banks cut ties with failing subsiduaries or infuse capital?
- Global banking implications for macro-prudential policies
- Role of competition