Discussion on "Macroprudential policies, capital flows, and the structure of the banking sector", John Beirne (ECB) and Christian Friedrich (Bank of Canada)

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INTERNATIONAL AFFAIRS

OBJECTIVE OF THE PAPER

- **Research question:** Does the structure of the banking sector enhance the impact which capital flow management (MPP) measures have on cross-border interbank flows?

- **Hypothesis**: regulatory capital, profitability, banking concentration, make these measures more effective –ie, dampen flows. Second research question: spillovers of MMP accross asset classes and countries.

- This paper tests the hypothesis using an annual panel covering the period 1999-2012, and 66 economies (advanced and emerging).

- Finds strong support in favour of the hypothesis. Results are robust to a wide range of alternative specifications.

ECONOMETRIC MODEL

- **Econometric model:** dependent variable is a measure of bank inflows (to GDP); the focus lies on interactions between MPP and banking sector structure (X):

$$k_{i,t} = \alpha + \alpha_t + \delta DMPP_{i,t} + \beta X_{i,t-1} + \lambda DMPP_{i,t} \times X_{i,t-1} + \epsilon_{i,t} \qquad (1)$$

- The impact of MPP is conditional on X

$$\frac{\partial k_{i,t}}{\partial DMPP_{i,t}} = \delta + \lambda X_{i,t-1} \qquad (2)$$

- Data:
  - **k -interbank flows**: exchange-rate adjusted change in stocks from BIS Locational Banking Statistics (Table 6).
  - **MPP** -constructed using Ostry et al. (2012) data: financial sector capital controls and foreign-currency related measures.
  - **X**: regulatory capital, profitability, banking concentration

MAIN FINDINGS

- **Results underscore that marginal effect of MPP on bank inflows is conditional on banking system structure:** dampen (enhance) interbank inflows if cost-income is low (high). Same results for credit-deposits, regulatory index.
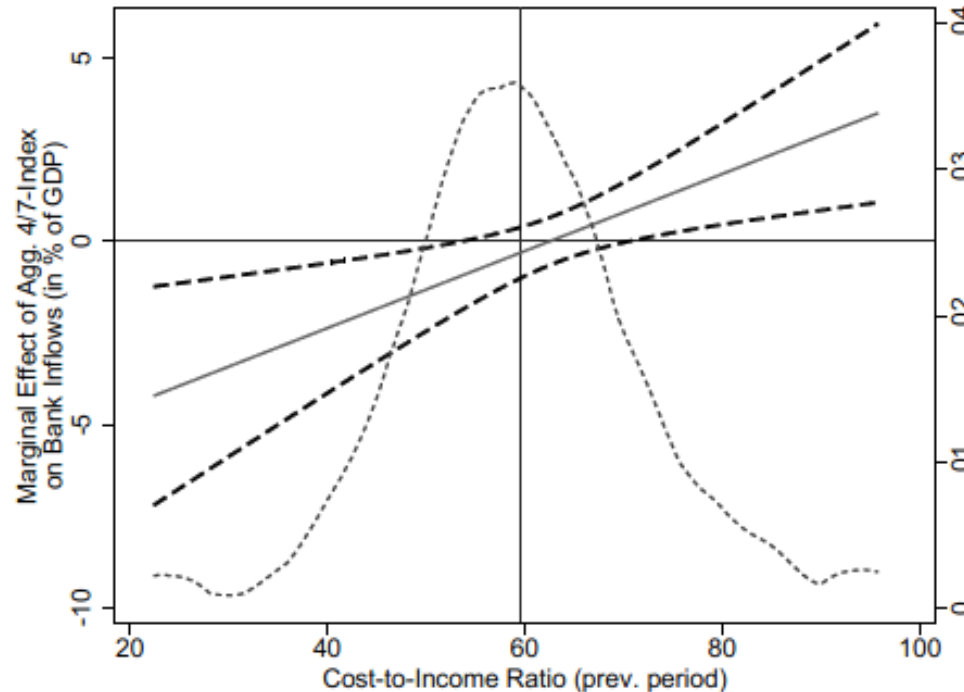
- Interactions are analyzed (1) plotting the marginal effect; (2) including confidence intervals; and (3) overlaying an histogram.

COMMENTS

- **The authors address a timely question; the econometric analysis is sound; the paper is well-written, and quite finished.**

- **I have three suggestions:**

  I.Focus

  II.Data

  III.Interpretating the results

FOCUS (I).IDENTIFICATION REQUIRES DEFINING EFFICIENCY

- **Identification -what is efficiency?:** "we examine the effectiveness of macroprudential policies (MPPs) in managing cross-border bank flows" and "reducing systemic risk".

- **Make clear that you focus on effectiveness at "dampening cross-border interbank flows".** The focus on this specific type of capital flows is grounded on an underlying model (Bruno and Shin (2015)):
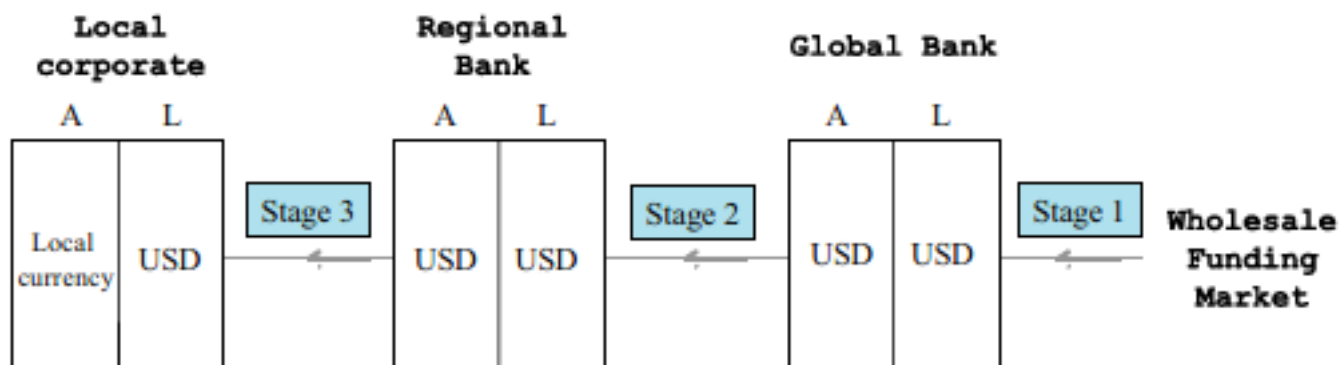

FIGURE 3

Cross-border bank lending in U.S. Dollars

- Consistency with the terminology would be helpful -in the first page up to 5 different terms appear to refer to cross-border interbank flows.

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FOCUS (II). CAPITAL CONTROLS, NOT MACROPRUDENTIAL POLICIES

- **Refer to (price-based) capital controls, not to macroprudential policies:**
  - Financial sector capital controls and foreign-currency related measures. These are "capital flows management measures", or just "price-based capital controls".

  - Macroprudential policies are: capital surchages (CCBs, C-GSIFs); or LTV, debt-to-income ratios, etc. All are left aside.

- Other papers analyze the impact of standard macroprudential policies on international bank flows
  - "International prudential policy spillovers: a global perspective" Avdjiev et al (2016), BIS WP 589
  - "The Shifting Drivers of International Capital Flows", Avdjiev et al. (2016) mimeo
- Alternative title: "Cross-border interbank flows, price-based capital controls, and the structure of the banking sector"

# DATA. CROSS-BORDER INTERBANK FLOWS AND MACROPRUDENTIAL POLICIES

- **Cross-border interbank flows defined as exchange-rate adjusted change in claims by BIS reporting banks on banks in a specific location (Table 6):**

  - **Robustness check 1, use banks' external liabilities (BIS IBS, Table 2):** reduces cross-section but includes liabilities vis-a-vis non reporting countries (China and Russia).

  - **Robustness check 2, use loans (BIS IBS, Table 7):** since valuation effects are less important –note ER adjusted changes in claims include valuation effects. Are there differences in results?

  - **Robustness check 3, compare with net interbank flows:** repo funding shows up in gross interbank flows. Can we learn something?

- **Macroprudential policies or price-based capital controls?:**

  - **MPP:** Cerruti, Correa, Fiorentino, and Segalla, "Changes in Prudential Policy Instruments—A New Cross-Country Database", IMF WP 16/110

  - **Capital controls:** Fernandez, Klein, Rebucci, Schindler, and Uribe, "Capital control measures –a new dataset" (2015) NBER 20970

- **Size:** In footnote 9 you interpret constituent terms as "direct effects"; actually they gauge the impact when the covariate is zero. But some covariates are never zero (cost-to-income), there the huge impact…

LHS: Bank Inflows (in % of GDP)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
DMPP$_{i,t}$	-0.292	0.100	4.262*	-6.571***					
	(0.413)	(0.749)	(0.069)	(0.005)					
DMPP$_{i,t}$ x RQ Index$_{i,t-1}$		-2.483***	-2.656***						
		(0.004)	(0.001)						
DMPP$_{i,t}$ x Cost-to-Income$_{i,t-1}$				0.105***					
				(0.004)					
DMPP$_{i,t}$t x Credit-to-Dep.$_{i,t-1}$									
RQ Index$_{i,t-1}$	0.747	2.268***	2.049***	0.838*					
	(0.120)	(0.003)	(0.008)	(0.060)					
Cost-to-Income$_{i,t-1}$	-0.065***	-0.068***	-0.065***	-0.096***					
	(0.004)	(0.003)	(0.002)	(0.001)					
Credit-to-Dep.$_{i,t-1}$	0.011*	0.010	0.012*	0.011*					
	(0.096)	(0.135)	(0.063)	(0.069)					
Time Fixed Effects	Yes	Yes	Yes	Yes					
Macro Variables Incl.	Yes	Yes	Yes	Yes					
Macro Variables Inter.	No	No	Yes	No					
Observations	862	862	862	862	862	862	862	862	862
R-squared	0.26	0.27	0.29	0.27	0.29	0.28	0.30	0.29	0.31
Countries	66	66	66	66	66	66	66	66	66
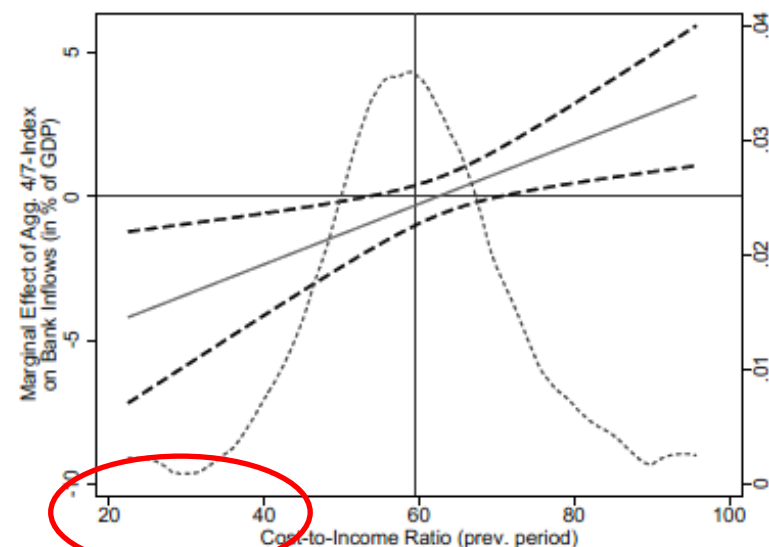
- **Inference/statistical significance:** "the coefficient on the interaction term is highly significant…". What matters are the confidence intervals of the partial effects, that you plot, and which depend on $cov(\hat{\delta}, \hat{\lambda})$.

THANK YOU

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