FEDERAL RESERVE BANK of NEW YORK

International spillovers of monetary and prudential policies: evidence and implications

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May 2018 : Third Annual ECB Macroprudential and Research Conference (Frankfurt)

Sorting through the themes in the conference program

- Presentations focused on interplay of macro-pru and monetary policy
  - ✓ Lars Svensson on future prospects
  - ✓ Loretta Mester on limits and overlaps
  - ✓ Alejandro Van der Ghote on (domestic) coordination

- How large are *international* spillovers of policy?
  - ✓ Long history in international capital flows, asset price co-movements

- What consequences for domestic and international policy?
  - ✓ Monetary policy: theoretical arguments, but no international mandate
  - ✓ Macro-pru: mandate newer, so consider coordination / reciprocity?
  - ✓ What specific macro-pru policies might be candidates, given fact of international spillovers?

My remarks on international spillovers and implications

1. How large are international spillovers of policy?

- Evidence type 1. Size and importance of the global factor, with emphasis on US monetary policy as driver. Global liquidity, international capital flows and currency depreciation.

- Evidence type 2. Micro-banking data and the International Banking Research Network. Evidence of prudential and monetary spillovers through domestic and foreign bank lending, with roles for specific counterparty or currency exposures.

2. Implications for international policy coordination or response?

- Difficulty of designing reciprocity given mixed directional prudential policy spillovers.

- Positive international stability effects from structural prudential toolkit supporting resiliency and shock absorbing capacity of institutions and reduces amplitude of transmission.

1. How large are international spillovers of policy?

Evidence type 1. Size and importance of the global factor

IMPORTANT. Rey at Jackson Hole 2013. BIS, Borio and Shin.

- Risk sentiment (VIX), US MP; leverage and international credit channels.
- Largest for credit, asset prices, mortgage spreads, term premia.

MORE EPISODIC, LESS GENERALIZED. Avdjiev, Gambacorta, Goldberg, Schiaffi 2017. Goldberg and Krogstrup 2018. Cetorelli and Goldberg 2012.

- Time varying. Strongest US MP post crisis, role of synchronized policy cycle; composition and balance sheet condition of lenders.
- Differentiated. By country types, banking system characteristics, and across core versus periphery locations from perspective of global banks.

OVERSTATED. Cerutti, Claessens, Rose 2017. Obstfeld, Ostry, Qureshi 2017.

- "Low" explanatory power of global in international capital flows data: FDI, Portfolio Debt, Portfolio Equity, Credit; AEs, EMs; inflows, outflows.
- Broad insulating power of flexible exchange rates retained. Still, a potential role for capital flow management instruments and macroprudential policies.

Global factor: a significant but not dominant driver of capital flows

Cerutti, Claessens and Rose 2017 (CCR): generously defined, global factor accounts for < 25 % of quarterly variation in international capital flow data.

Goldberg and Krogstrup 2018: new Exchange Market Pressure index.

- "Super exchange rate" combines exchange rate and foreign exchange intervention into single measure in units of currency depreciation
- Cross-country panel, 48 countries, 2001m1-2017m10
- Control for domestic monetary policy, capture common global factor.
- Consider three sample country groupings: "Safe-havens" (US, Japan, Switzerland), Emerging Markets, and Other AEs.

✓ Global factor explains slightly more variation than CCR, still not dominant.

✓ Effect, in currency depreciation units, averages 5 X larger for EMs than AEs.

✓ Global factor strength is episodic (enhanced in stress periods).

US monetary policy and VIX: changes over time in consequences

Avdjiev, Gambacorta, Goldberg, Schiaffi 2017. Transmission into global liquidity statistically important, but changes over time in important ways.

Cross-border claims and international bond issuance, quarterly, 64 countries, 2000-2015. Post GFC, when attention on topic increased:

- Sensitivity to US MP rose sharply, peaked at 2013 Fed "taper tantrum", then reverted.
  - ✓ Peak when US MP signal of broader AE policies (synchronized cycle).
- Sensitivity to VIX declined and stayed low.
  - ✓ Shift in composition of lending banking systems, toward better capitalized and with more stable funding, reduces risk sensitivity of global liquidity.

Evidence type 2. Micro-banking analysis through the International Banking Research Network

Participating institutions

- jointly pose policy-relevant questions, construct common testing method
- compile data needed for common implementation
- independently analyze confidential bank-specific data, consider bank heterogeneity, and write own papers.

− *International Journal of Central Banking* March 2017. Special Issue. "International Prudential Policy Spillovers: Evidence from the International Banking Research Network" by Buch, Bussiere, and Goldberg.

- 15 country analyses, 2 cross-country. New database.

- *Journal of International Money and Finance*. Forthcoming. Special Issue. "International Transmission of Monetary Policy Via Banks: New Cross-Country Evidence from the International Banking Research Network" by Buch, Bussiere, Goldberg, Hills. April 2018. NBER 24454.

- 17 country analyses, 2 cross-country. Conventional, unconventional MP.

International spillovers of prudential instruments through banks

1. **Foreign changes in prudential instruments sometimes spill over through bank lending, influencing domestic credit conditions.**

2. **Not one-size-fits-all: Spillovers heterogeneous in size and direction**

   - By prudential instrument (capital requirements, SSCB, LTV cap, RR LC deposits)
   - By bank business models (global bank, branch, subsidiary).
   - Banks with stronger balance sheets tend to reduce international lending by less when regulations tighten.
   - No clear difference between AEs and EMs, or stage of business cycle
   - Pattern not clearly predicted by simple theoretical frameworks

3. **Market share repositioning occurs**

   - Banks with stronger balance sheets reduce lending by less when regulations tighten, may expand international and domestic roles.

4. **International spillovers on loan growth have not been large.**

   - But potential for spillovers increase as tools are activated more.

International spillovers of monetary policy through banks (1)

- Broad-based evidence of international spillovers through bank lending.
  - **Inward transmission**: Significant transmission of foreign policy to domestic banks
  - **Outward transmission**: Transmission mainly through global banks

- Monetary policy matters during both conventional and unconventional policy periods.
  - Short rate/QE and shadow rate results similar in **conventional periods**.
  - **Shadow rate** shows more spillovers in **unconventional periods**.
  - Size of central bank's **balance sheet** misses consequences of forward guidance and balance sheet composition that work along the yield curve.

- The degree of spillovers differs between **source countries**.
  - US policy generates significant spillovers for almost all countries.
  - Evidence of transmission is more varied for other source countries.

International spillovers of monetary policy through banks (2)

- **Bank-specific characteristics matter, spillovers to lending are heterogeneous.**
  - **Cross-border gross and net liability** positions of banks matter most.
  - **Internal capital markets**: Banks have lower friction on shifting assets across countries or drawing on other funding sources. Significant role only during conventional monetary policy periods.
  - **Frictions** vary by currency, access to FX funding, monetary policy regime, country characteristics, or market structure.

  ➢ Frictions do ***not*** map exactly to bank lending and portfolio channels as in literature focused on frictions of large advanced economies with developed financial markets.

- **Domestic lending activity is more insulated than expected.**
  - "Global factor" story does not dominate domestic loan growth.
    - Despite substantial spillovers, there is **low explanatory power**.

2. Implications for prudential policy?

Main points from across these explorations

- Extensive international spillovers
  - magnitudes on average not very large. Episodic, stronger for EMs, for synchronized policy cycles, and with proxies for (high) risk sentiment.
  - strongest in interbank lending, weaker for nonbank borrowers. How much translates into real activity versus sectoral prices? Prudential instruments to target those most systemically concerning?
  - Consistent role of bank health and banking system characteristics. Reinforces role of prudential policies in structural stability of international creditors, to reduce amplitude of swings.
  - Nonbank creditors and oversight frameworks? Enhancing similarities with bank creditors, but also strengthening institutions?
- Reinforce the importance of international and domestic efforts to strengthen institutions, and to avoid crises that concentrate spillover effects.

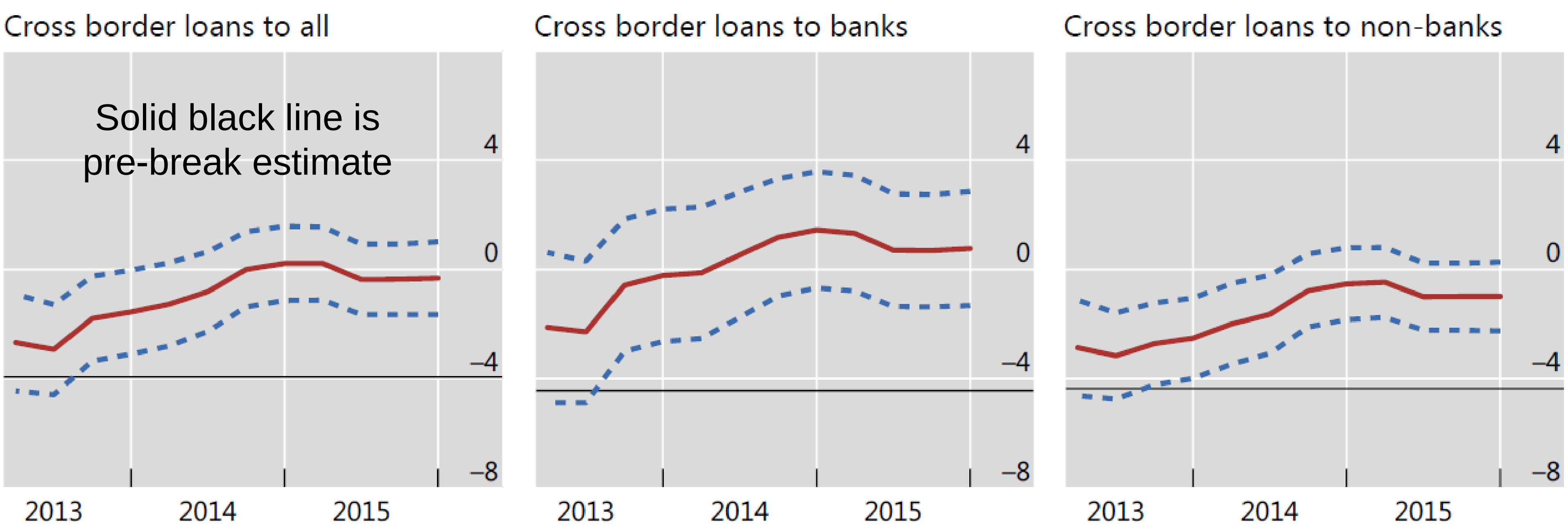
Reference slides

Homepage of the IBRN: http://www.newyorkfed.org/IBRN/index.html

Questions and suggestions are welcome!

Exhibit shows change in sensitivities to VIX, pre- vs. post-break. The responsiveness of international bank lending to global risk conditions declined considerably post-crisis. Sensitivity of cross-border lending became more similar to that of international debt securities.

Post-break sensitivities to global risk (β_2), evolution over time



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