# International Credit Supply Shocks (A. Cesa-Bianchi, A. Ferrero & A. Rebucci)

A discussion by Aitor Erce (European Stability Mechanism)

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## **Timely and relevant**

[Fact] Prior to the Global Financial Crisis (GFC) capital flows were large

[Fact] ...key financial intermediaries leveraged massively

**[Fact]** ...and those countries receiving large capital inflows also saw significant increases in house prices and private sector credit

**[Fact]** The 2008 financial meltdown significantly disrupted the real economy

[Policy need] Can policy-makers isolate their economies from negative spirals motivated by external financing shocks? How?

## The paper in a slide

#### MTM housing collateral can amplify the expansionary effect of K inflows

Use event analysis to get stylised facts:

"[...] during a boom in capital inflows real exchange rates, house & equity prices appreciate; the current account deteriorates; and consumption & GDP expand"

Use a two-country two-period model of international intermediation with collateralized borrowing in domestic and foreign currencies:

house prices increases and exchange rate dynamics can amplify the expansionary effects that a positive shock to international credit has. More so when borrowing is larger and/or happens in foreign currency

Use changes in US brokers & dealers leverage as an exogenous shock within a panel VAR to assess whether the data validates the model's mechanism:

credit shocks lead to increases in house prices, consumption, output and CA deficits. These effects are dependent on country specific characteristics

#### Cross border credit: stocks and flows

- The story on the paper is one in which active changes in the amount of credit provided by international banks affect the macroeconomic dynamics of the economy
- BIS data is (partly) marked-to-market. This implies that part of the variation in cross-border credit may come simply from the fact that market prices move
  - Under/over estimates true flows?
  - Under/over estimate the effect of the flows?

#### Other cross-border flows

- Focus is on foreign bank credit (loans & bonds?) flows to the private sector
- Other investment flows (bank lending) need not be the bulk of flows
- From the event analysis is unclear whether other flows are large

- What role for other types of capital inflows?
  - Equity inflows to EMEs reduce volatility of output (Mizrae et al. 2016)
  - Foreign inflows into markets for public liabilities make fiscal actions more powerful (Broner et al. 2017)
- What role for domestic investors?
  - Whether capital inflows changes are destabilising depends also on resident investors' adjustment to portfolios following the shock

## **Event Analysis**

- How much heterogeneity in the sample?
  - Adding one s.d. bands around the dynamics may help readers understand the extent of it
  - Regression-based event analysis?
- Boom & busts in capital flows
  - Treatment of boom and bust is symmetric (3-year increases/decreases)
  - Mild long-lasting inflows as booms but short-lived wild jumps not?
  - Large literature (Calvo, Forbes/Warnock, Calderon...) on measuring capital flows surges (booms?) and flights (busts?) uses different approach (large deviations from mean behaviour). Robustness?

#### On the model

No doubt the model is already rich. Still it could be interesting to add other policy levers:

- Fiscal policy & crowding out
- Dynamic nominal exchange rates (monetary policy)

What is the role of the swap market?

How would the model perform if full currency risk hedging is only partial?

Larger balance sheets require more equity.

In the run-up to the GFC, larger banks were less capitalised

#### **Econometrics – exogenous shock and transmission channels**

- Exogeneity of the leverage shock to SOE: sounds logic (to my ears)
- Various potential sources for such shocks: regulatory changes, risk aversion changes or US monetary policy
- Is the source of the shock irrelevant for its effect?
  - If regulatory changes -> shock may be global, thus affecting domestic credit provisioning (which depresses activity on its own)
  - Similar concern regarding shock to risk aversion
  - If changes in US monetary policy -> Avdjiev & Hale (2017) show an asymmetric response of capital flows following changes in the FFR:
    - Drop in FFR leads to more inflows to Emerging markets
    - Drop in FFR leads to less inflows to Advanced economies

#### A bit more on the econometrics

- While the model does not feature domestic credit provisioning, it could be interesting to see how the pVAR performs in credit to the private sector is included
- Given the exogeneity of the shock, why not using local projections to get insights on the dynamics of other variables (all those assessed in the event analysis)?
- According to theory, binding constraints are very important in explaining outcomes after the shock:
  - How can one add such dimension to the empirical analysis?
  - Or is it that we can consider all sample countries to be at the constraint when the shocks hit them?

## Other low hanging fruits?

- Are the effects described in the paper asymmetric?
  - Does the fact that leverage build slowly but it falls suddenly have implications for subsequent macroeconomic dynamics?
  - GFC deleveraging versus 90s/00s leveraging
- Can we learn something about policy? (solving the dilemma/trilemma?)
  - How does the paper's mechanism interact with available policy tools?
  - Can fiscal/monetary policy counter these effects?
  - What role for the exchange rate regime?
- SOE vs. large debtors:
  - countries hosting systemic banks (DB's role in the US housing boom?)
- Can this analysis help us understanding the "original sin"?
  - Advanced versus emerging

### Wrap up...

Very nice paper: relevant, clear and to the point

Some (potential) interesting ways forward:

- What role for policy?
- What role for other types of capital flows?

## Thanks for your attention