International Spillovers and Local Credit Cycles

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Outline

- Objectives and contribution to the literature

- Main findings

- Comments

Objectives and contribution to the literature

- Recent country-level studies => global financial cycle in the behavior of K flows, credit and asset prices correlated with ↓ uncertainty and risk aversion and loose monetary policies in advanced economies (Rey, 2013, 2016)

- Sebnem and coauthors seek to provide micro-level evidence for the international transmission of the global cycle to local credit markets in Turkey

- In previous and very related paper, authors show that capital flows affect local lending by banks in Turkey and the impact depends on bank characteristics

- This paper:
  - Examines impact of K inflows on q and p of credit
  - Isolates exogenous component of inflows by instrumenting with VIX
  - Explores heterogenous bank and firm effects

Main findings

- Capital flows have an impact on local credit in Turkey
  - Quantity of credit ↑
  - Cost of credit ↓

- Instrumenting capital flows with VIX
  - Results for interest rate remain
  - $|\beta_r^{IV}| > |\beta_r^{OLS}|$ => evidence of supply-side shock

- Heterogeneity in response by banks and firms
  - Banks with higher non-core funding lower cost of credit more
  - For firms with lower net worth and collateral, q does not always increase but r drops
  - Results not due to exchange rate-driven balance sheet effects
  - Transmission is not via foreign banks

➔ Interest rate: main transmission channel of exogenous shock to capital flows

Comments

Overall: Well-executed paper with interesting data that offers micro evidence for a relevant macro question

Specific:
1. Conceptual framework and interpretation of results
2. Identification of demand vs supply effects from inflows
3. Interpretation of heterogenous firm effects
4. Ruling out the exchange rate channel
5. Intensive vs extensive margin
6. Loan quality and inflows
7. Other extensions
8. Policy implications

1. Conceptual framework and interpretation of results

- Conceptual framework:

    1. UIP does not hold due to existence of country premium => $r_{c,t} = r^*_t + \gamma_{c,t}$

    2. Country premium is a function of risk appetite => $\gamma_{c,t} \equiv \omega VIX_t + \alpha_{c,t}$

    3. When global risk appetite $\uparrow$ (or VIX $\downarrow$) => country premium $\downarrow$=> $r_{c,t} \downarrow$=> $r_{fbt} \downarrow$

- Main estimations=> $r_{f,b,t} = \beta(VIX_{t-1} \times Non Core Funding_b) + controls$

- Separate results show UIP residuals correlated with VIX and VIX with inflows

- Paper conclusions: "<u>We show that</u> *when monetary conditions in the advanced countries are loose and global risk appetite is high, emerging markets will receive inflows….These inflows substantially impact domestic credit conditions in these countries.* "

- Connection with monetary policy in AEs not shown directly=>caution warranted in interpretation

2. Identification of demand vs supply effects

Figure 3. Supply and Demand Shocks to Credit Market: Relative impacts

(a) Supply shock

(b) Supply and Demand shocks
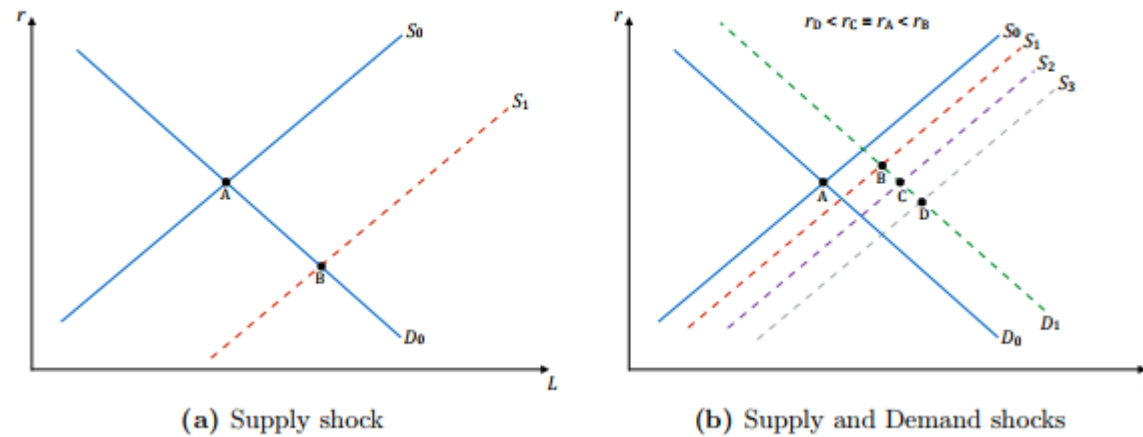
- Paper argues that if VIX => exogenous supply shock => then $|\beta_r^{IV}| > |\beta_r^{OLS}|$

- But wouldn't we also expect $|\beta_L^{IV}| < |\beta_L^{OLS}|$ since OLS captures demand and supply, while IV only considers supply?

- Yet results show that $|\beta_L^{IV}| = |\beta_L^{OLS}|$. What does this imply?

3. Interpretation of heterogenous firm effects

- Paper explores the interaction of VIX × Non-core funding$_b$ × Net worth$_f$

- What is the ex-ante rationale?

- Net worth can proxy for many factors

- Instead of interpreting firm net worth as a measure of financial constraint:

  - Would it be better to use it as a measure of firm risk?

  - Wouldn't a finding that the VIX has more of an impact on low net worth firms be a sign that capital flows stimulate lending to riskier firms (consistent with a decline in risk aversion)?

4. Ruling out the exchange rate channel

- Focus is on $\text{Leverage}_b \times \text{FXshare}_f \times \log(\text{VIX}_{q-1})$ and $\text{Leverage}_b \times \text{FXshare}_f \times \log(\text{XR}_{q-1})$

- Insignificant finding on these interactions => no evidence that capital flows produce an appreciation that leads to a relaxation of balance sheet constraints for highly levered banks and firms with high FX liabilities=> no evidence for exchange rate channel

- Why focus only on highly levered banks? Why not consider banks' exposure to XR shocks based on structure of assets, liabilities, revenues and expenses?

- Unlikely FXshare of loans fully captures the impact of an exchange rate change on firms: Need to consider impact on firms' assets, income and expenses

- Authors should not rush to rule out exchange rate channel

5. Intensive vs extensive margin

- Estimations show $\uparrow L$ and $\downarrow$ in r as a result of capital inflows

- What happens in the intensive margin? Are more firms able to obtain financing when risk aversion falls (i.e. VIX $\downarrow$)?

- What is the impact of capital inflows on the probability that a firm gets a loan?

6. Loan quality following inflows

- How we think about the impact of inflows on local credit depends on the aftermath. Some booms can go bad...

- Can the paper shed light on this? Is it possible to look at loan performance over time (e.g., looking at days past due or bank internal credit ratings?)

7. Other extensions

- Explore heterogenous effects over time. Are all results driven by post-crisis period as in previous paper that focuses only on quantities?

- Decompose inflows to determine whether bank flows drive the results as in previous paper

- Impact of inflows on loan maturity

8. Policy implications

- What are the conclusions from the paper in terms of policies?

- Given that the main transmission channel are banks with high non-core funding, should this type of financing be regulated if interested in containing a boom?

- What should be the role of macro-pru? Can macro-pru mitigate the impact of exogenous inflows?