Discussion of Bond Risk Premia and the Exchange Rate

by Boris Hofmann, Ilhyock Shim, and Hyun Song Shin

Steven Riddiough

University of Melbourne

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Yield Spreads and Exchange Rates

Two types of debt

Governments in emerging market economies (EMEs) can borrow by issuing either local currency (LC) or foreign currency (FC) bonds

- Traditionally EMEs borrow using FC bonds
  - Exposes EM borrowers to exchange rate risk
    - 'Original Sin' (Eichengreen and Hausmann, 1999)
  - Local depreciation increases default risk
- Recently LC bond market has grow in EMEs
  - Exposes foreign investors to exchange rate risk
    - 'Original Sin' redux (Carstens and Shin, 2019)
  - Creates a possible 'risk taking' channel

Main Findings and Contribution

The paper studies whether an exchange rate appreciation is expansionary or contractionary

- Contraction is via a standard trade channel
  - appreciation $\Longrightarrow$ lowers exports
- Expansion is via an investor risk-taking channel
  - appreciation $\Longrightarrow$ increases credit and investment growth

Main findings:

1. Yield spreads and exchange rates
   - FX shocks drive yield spread changes (and investment/output)
     - Local currency appreciation $\Longrightarrow$ narrower yield spreads
   - Applies to 5yr FC and LC yield spreads over U.S. treasuries
     - Relates to default risk component of the yield
2. The U.S. dollar bilateral exchange rate is key

Comment: Joint Determination

Default premia and currency risk are naturally close relatives

- "Cousin risks" (Garcia and Lowenkron, 2004)
  - driven by mix of domestic and global factors

Foreign exchange rate return vis-á-vis U.S. dollar could simply be capturing local macroeconomic conditions

- see e.g. Longstaff et al. (2011)
- local business cycle drives both exchange rate and yield
- alternative to the foreign investor spillover channel

Key questions

1. what is the theoretical channel?
2. can the empirical design disentangle the two?

Comment: Theory

The argument for a relationship between investor risk-taking and bond yields Current theoretical motivation takes two forms:

1. global investors hold LC bonds and face currency risk
    - But do not hedge their FC exposure?
2. LC bond price falls, investor could hit 'risk limit' and sell
3. selling of LC bonds *causes* FX depreciation
4. FX depreciation *causes* further selling of bond $\implies \uparrow$ yields

How closely does this argument relate to the theory presented?

Comment: Theory

- Expected to see a multi-period feedback model
  - ... instead two period portfolio choice model
  - ... prediction seems to capture only the yield spread predicting exchange rates
    - more consistent with Della Corte et al. (2018)

$$r_0' z = \left(e + \frac{\hat{e}}{\sqrt{\theta_1}} \right) G \tag{1}$$

r_0 is the LC bond yield observed at time-0
θ_1 is the exchange rate at time-1 (either expected or certain)
$\Longrightarrow$ if global investor expects the currency to depreciate tomorrow ($\theta \downarrow$), then $r \uparrow$ today

Comment: Empirics

Empirical analysis

- instrumental variable approach
- FX return equal zero on days without FED or ECB policy news

What does this assume?

- policy news impacts LC bond yields only through FX/risk-taking
- but... monetary policy shocks in global centers are one of the major determinants of both economic and financial conditions
    1. could impact future path of local EM economy
    2. as well as both local and global investor risk aversion
    3. could impact bond yields irrespective of foreign investors

Question: could we get closer to the foreign investor channel?

An Alternative Empirical Design

- Imagine two countries with LC sovereign bond markets
  - the first has *no* foreign investors
  - the second has *only* foreign investors

  How does exchange rate relate to bond yields?

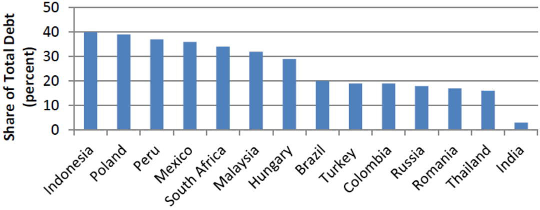
$$r_1' z = eG, \quad r_2' z = \left(\frac{\hat{e}}{\sqrt{\theta}}\right) G \tag{2}$$

$\implies$ FX shocks only work through global investor channel

It would be useful if there is cross-sectional heterogeneity in foreign bond holdings...

Suggestions

Figure 1. Foreign Ownership of EM Local Currency Debt 2015
(share of total local currency debt)



Source: Sovereign Investor Base Dataset for Emerging Markets, IMF. Data through June 2015.

- CS variation, India has virtually no foreign owned LC bonds
  - TS variation (see IMF's Sovereign Debt Investor dataset)

Question: do FX fluctuations still drive LC bond yields when there is no foreign investor participation in the bonds?

Takeaways

Important topic with wide-ranging consequences for policy

- Key point: exchange rate fluctuations proxy for foreign investor risk and determine EM bond yields spreads
- Why? global investors' portfolios affected by FX fluctuations (no currency hedging), which *affects* demand for LC bonds

Main difficulty is in pinning down the causal relationship

- both processes could be jointly driven by fluctuations in local economic conditions

Utilizing the heterogeneity in foreign investor behaviour

- could better speak to the theoretical argument...
- ... and provide an alternative empirical test of causation

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