Discussion: Safe Assets in Emerging Market Economies

Author: Cristian Cuevas

Xiang Fang

The University of Hong Kong

March 8, 2024

Finance Down Under, University of Melbourne

The Safe Asset Literature

- Government bonds, in particular, the US Treasuries, have convenience yields, i.e., a lower yield than a comparable safe private asset
  - Satisfy the liquidity needs of investors
  - Serve as better collateral than private assets
  - ...
- Evidence extends to Euroarea sovereign bonds (Jiang et al, 2024)
- Not much is known about the "safe asset" property of EME bonds
  - Safe assets for domestic investors (banks, funds, etc) and maybe some foreign investors
  - Considered as risky assets, particularly by global investors, because of higher default risk
  - Tradeoff between yield, default risk, and **convenience service**

This Paper

- Measure convenience yields of LC EME bonds for domestic/foreign investors separately
- Study the properties of these convenience yields
  - Local debt supply reduces CY for domestic investors
  - US (Local) monetary tightening increases CY for foreign (domestic) investors
  - When VIX increases, CY for foreign investors decrease - opposite to AE debt
- Macro implication: an EM RBC model with safety shock and convenience yield dynamics
  - The effect of safety shock
  - Quantitatively, explain a moderate fraction of EM business cycle

Overall

- A valuable step toward understanding the "safe asset" property of EME LC bonds
  - Extend both the safe asset literature and EM bond literature
  - Especially valuable to measure convenience yields for domestic and foreign investors separately, since they have different objectives to hold EME LC bonds and may value the convenience differently
- Macro relevance makes understanding EME LC bonds' convenience yield more important

Convenience Yield of EME LC Bonds

- Domestic investors (assuming $l_t^P - l_t^T$)

$$y_t^P - y_t^T = \underbrace{(\lambda_t^{T,d} - \lambda_t^{P,d})}_{\text{CY}} + \underbrace{\cancel{(l_t^P - l_t^T)}}_{\text{default risk}}$$

- Foreign investors

$$\lambda_t^{T,f} - \lambda_t^{US,f} = y_t^{US} - \underbrace{(y_t^T - \rho_t)}_{\text{swapped return}} + \underbrace{(l_t^T - l_t^{US})}_{\text{default risk}} + \underbrace{k_t^T}_{\text{regulation}}$$

To get $l_t^T - l_t^{US}$ and k_t, the author uses FC bond as an auxiliary measure

$$y_t^T - \rho_t - y_t^{FC} = \underbrace{(\lambda_t^{FC,f} - \lambda_t^{T,f})}_{\tau_t, \text{CY diff}} + (l_t^T - l_t^{FC}) + (k_t^T - k_t^F)$$

- $y_t^P, \rho_t, y_t^{FC}, y_t^T$ directly from yields, $l_t^T - l_t^{US}$ CDS spread (FC)
- Assumption: $l_t^T = l_t^{FC}, k_t^{FC} = 0$
- τ_t: bid-ask spread of cross-currency swap (swap market friction)

Comment 1: Measurement

- $l_t^T = l_t^{FC}$ is a big assumption
  - Du and Schreger (2016): the credit spread of LC and FC have different means (LC<FC) and different correlations with global financial variables (though highly correlated)
  - They do not claim their "credit spread" only captures credit risks, but this assumption deserves more careful discussion
- The author interprets τ_t as swap market friction, assuming that CY of LC and FC bond differs only because of currency swap
  - Investors may hold LC and FC bonds for different reasons and obtain different convenience
  - The collateral quality can be different: LC bonds may be inflated away
- $k_t^{FC} = 0$ assumes FC bonds are not subject to regulation
  - Not all FC bonds are issued in the international market, e.g., dollarized countries (minor)

Comment 2: CY of Swapped LC Bond and Unswapped LC Bond

- The convenience yield of EME LC bonds and that of swapped EME LC bonds are not necessarily the same
  - Similar exercise in Jiang, Krishnamurthy and Lustig (2021)
  - They use different approaches to address this issue, finding that CY of US Treasury over a LC bond is 2 percent, but over a swapped LC bond is around 20 bps
  - They conclude that convenience mainly comes from USD, not "safe asset" per se
- If we take 10-times result, a swapped EME LC bond is slightly more convenienct than a US illiquid private asset, an unswapped LC bond will be much more inconvenient
- After all, in the macro model, the currency risks are not hedged
- Worth a further investigation

Comment 3: Two Roles of EME Sovereign Bonds

- (In)convenience yield

$$E_t(M_{t+1}R_{t+1}) = \exp(-\lambda_t)$$

  If $\lambda_t > (<)0$, the asset provides (in)convenience.

- One particular reason for $\lambda_t < 0$ is the frictions faced by financial intermediaries
- EME bonds have two roles as suggested by the evidence: constrained ($\lambda_t < 0$) during crisis (Moretti, Ottonello and Perez, 2021), but serve as a convenient asset ($\lambda_t > 0$) during normal times (this paper, new)
- Useful to disentangle these two roles separately in different "regimes"
- A more complete evaluation of the role of convenience yield should include the "crisis" regime when EME bonds are considered as risky assets, not as collateral

Comment 4: Macro Implications of Convenience Yield

- The model: a safety shock to US Treasury, directly leading to a higher CY of US Treasury
- What's more suitable for the author's purpose: a shock to the collateral quality of EME LC bonds, which directly changes its CY
- The transmission mechanism: essentially through exchange rate
  - US Treasury better quality $\rightarrow$ LC depreciates $\rightarrow$ labor demand and supply shift
  - Empirical analogue of IRFs in the data?

Minor Comment 1: Empirics

- The covariance terms between CY with variance terms are included in the measurement equation for CY
- For example, $\xi_t^{T,d} = cov_t[\lambda_t^{T,d}, \tilde{L}_{t+1}^T]/E_t[M_{t+1}] = 0$ because $\lambda_t^{T,d}$ is known at time t

Minor Comment 2: Model

- More information about the mechanism will help the readers understand the model better
  - Only one of US/EME households can borrow and has a borrowing constraint, who is borrowing and who is lending?
  - What makes one country a borrower and the other the lender?
  - The market clearing condition for the non-sovereign bonds should also be scaled by n (see the equation below (35))
  - A constant debt-to-GDP ratio and zero spending seems too stark assumptions of the government behavior for quantitative evaluation

Conclusion

- An interesting and valuable step toward measuring the CY of EME LC bonds and explore its determinants and macro implications
- Discuss more thoroughly the underlying assumptions required for the measurement and distinguish the swapped and unswapped LC bond
- Further analysis into the two distinct role of EME LC bonds
- A direct shock to EME LC bond safety and show empirical analogues