Liquidity, Debt Denomination, and Currency Dominance

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Discussion by Felipe Saffie (Darden, UVA)

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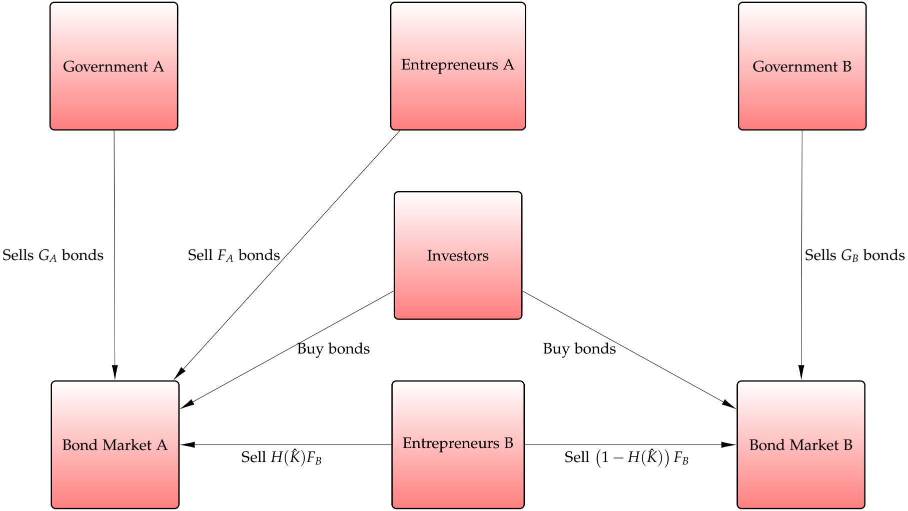
Mechanism/Result

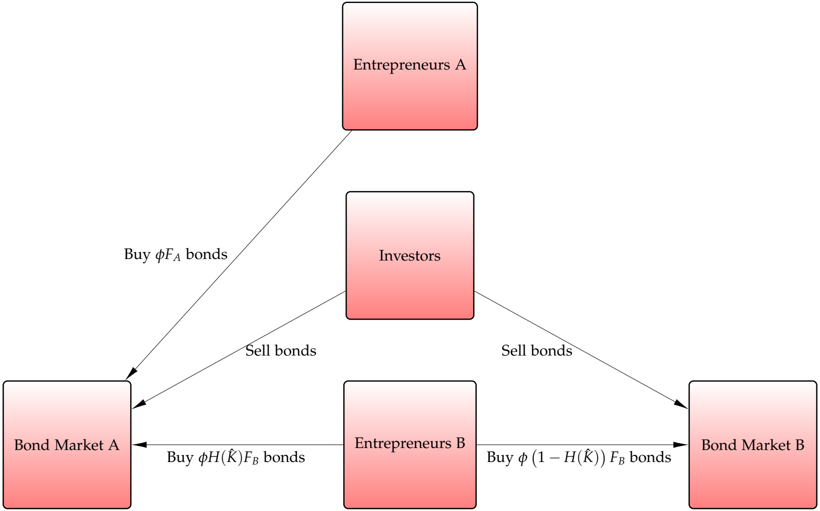
- When more investors hold safe bonds, it is less costly to get them in $t = 1$.
- Entrepreneurs denominate debt on the currency with higher supply of gov. bonds.

Model: First period ($t = 0$), BA-type Equilibrium



- Heterogeneous cost of using foreign currency denomination (with CDF $H(K)$).

Model: Second period ($t = 1$), BA-type Equilibria



- Matching function: $n_j = \lambda_j m_{F,j}^{\theta} m_{I,j}^{\theta}$; **Increasing returns to scale** $\theta > \frac{1}{2}$.

Indifference Condition

- Expected utility of a B entrepreneur with B-denominated debt:

$$u^F_{B,B}(i) = P_{0,B} - \beta^2 + \beta\phi\alpha_{F,B}\eta\left(1-\beta\right).$$

- Expected utility of a B entrepreneur with A-denominated debt:

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- The marginal entrepreneur in B is indifferent. After some algebra and simplifying assumptions we get:

$$\lambda_A\left[m_{F,A} + \phi m_{I,A}\right] - \hat{K} = \lambda_B\left[m_{F,B} + \phi m_{I,B}\right]$$

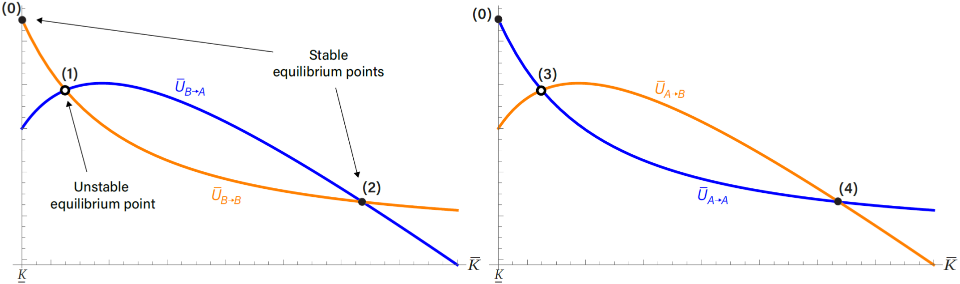
- Endogenous masses are determined by $\{G_j, F_j, \phi\}$.

BA-type Equilibria

Figure 2: **Characterizing equilibria in the heterogenous cost case**

(a) Class *BA* Equilibria: *B* Firms Switch to Currency *A*

(b) Class *AB* Equilibria: *A* Firms Switch to Currency *B*



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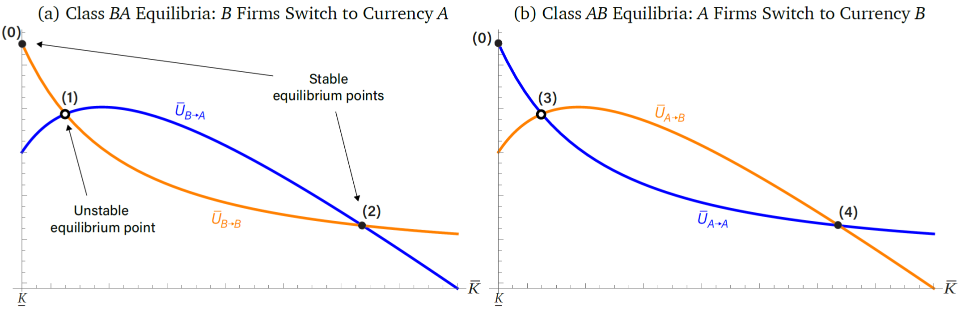

- Borrowing in foreign denomination: liquidity benefit vs. fixed cost. Pareto distribution gives non-monotonic pattern.
- More government safe-debt issuance, more likely to have a dominant currency.

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- Is this the less restrictive environment that we can think of to make the liquidity story work?
- A Chilean firm will borrow in dollars because,–in the event of an unexpected early revenue–it is easier to save in dollars. **Should we take the story literally?**

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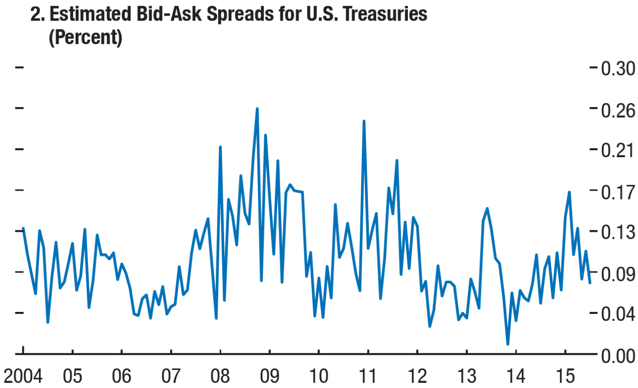
- Fiscal capacity (taxing **local** entrepreneurs to cover government repayment) and/or default risk can introduce a limit to government debt.
- This extension is particularly timely given the debt ceiling discussion in the U.S. How much debt is too much debt?

Empirical Support



Note: Bid-ask spread, as a percent of price, for on-the-run 10-year U.S. Treasury bonds, estimated using the high-low spread suggested by Corwin and Schultz (2012).

- How do measures of market liquidity in treasury bonds (bid-ask spreads, IMF) correlate with dollar value or dollar debt issuance in EM? At what maturity?

Other Comments

- **Increasing Returns in Matching:** This is a key assumption to get currency dominance. If potential buyers and sellers of bonds double, the number of transactions more than doubles. How do we understand this in reality? Would this imply that liquidity (e.g., bid ask spread) increases non-linearly in the number of transactions?

- **Strategic Interactions:** In a potentially bi-polar world, what is the best response function of each country on the G space? How could a challenger (China) substitute the incumbent (U.S.)? Fiscal capacity to insure that debt is risk free should be key.

Final Remarks

- Interesting and very elegant paper.
- Several extensions in the paper that I enjoyed reading.
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- Several extensions in the paper that I enjoyed reading.
- More connection with current financial markets and some empirical regularities on liquidity are desirable.
- Future work could include exchange rate risk. *Anecdotal evidence*, private equity firms in the US lend only in dollars to EM market firms because of ER risk.