

Discussion of “International Medium of Exchange: Privilege and Duty” by Ryan Chahrour and Rosen Valchev

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The Contribution

- ▶ In the data, USD is a dominant currency in both trade invoicing and global finance:
 - ▶ USD invoices 5 times US world trade share (Gopinath, 2016) and 60% of international debt securities issued in USD (BIS)
- ▶ At the same time, US has a unique external position:
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- ▶ This paper propose a framework where both arises endogenously
 - ▶ Key mechanism: Feedback between HH's asset position and trading firms' choice of currency in the international transaction (USD has a medium of exchange role = collateral)
 - ▶ Failure of UIP
 - ▶ Currency mismatch is costly
 - ▶ Acquisition of USD collateral is "equally" and sufficiently easy in the US and foreign country

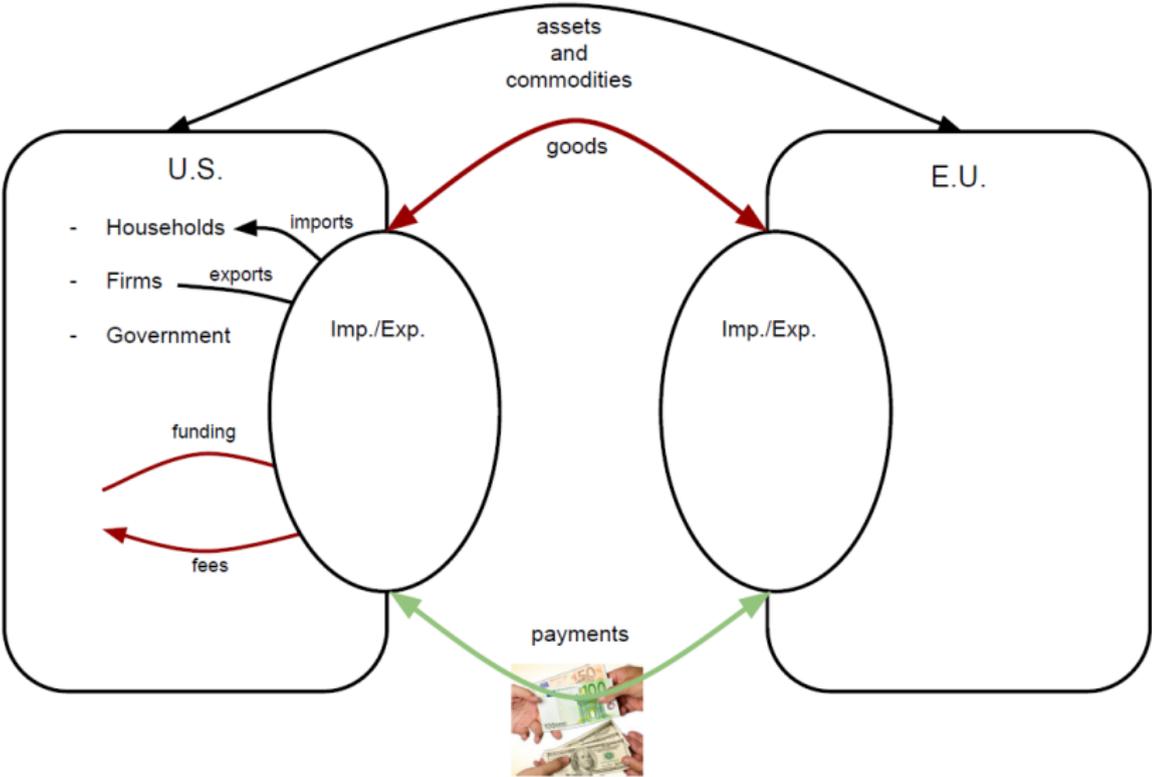
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- ▶ Unit of account/store of value role of USD - Gopinath and Stein (2017)

My Discussion

- ▶ Reviewing the main mechanism in the simple model
- ▶ Comments/suggestions on key assumption

“Intermediation” sector for Goods



Steady-State Portfolios

- ▶ Bonds earn endogenous liquidity premium: $\Delta_j^{\$} = \frac{X_j}{B_j^{\$} + X_j} r$
- ▶ This gives rise to UIP deviations:

$$R^{\text{€}} - R^{\$} \frac{1 - \Delta^{\text{€}}}{1 - \Delta^{\$}} = 0 \quad (1)$$

- ▶ Therefore, HH's asset holdings are “determinate” and depend on firms funding choices:

$$B_j^{\$} = B \frac{X_j}{X_j + X'_j}, B_j^{\text{€}} = B \frac{1 - X_j}{1 - X_j + 1 - X'_j} \quad (2)$$

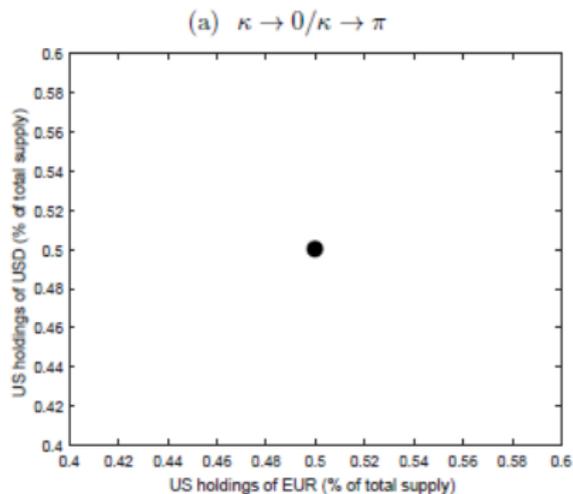
- ▶ This in turn feeds into the currency choice of trading firms:

$$V_{ij}^{\$} = \underbrace{\frac{B_j^{\$}}{B_j^{\$} + X_j}}_{\text{prob. finding\$}} [\pi - \kappa(1 - X'_j) - r] - \underbrace{\frac{B_j^{\text{€}}}{B_j^{\text{€}} + X_j}}_{\text{prob. finding€}} [\pi - \kappa X'_j - r] + \theta_i \quad (3)$$

Currency choice equilibrium incorporates (in the presence of strategic uncertainty)

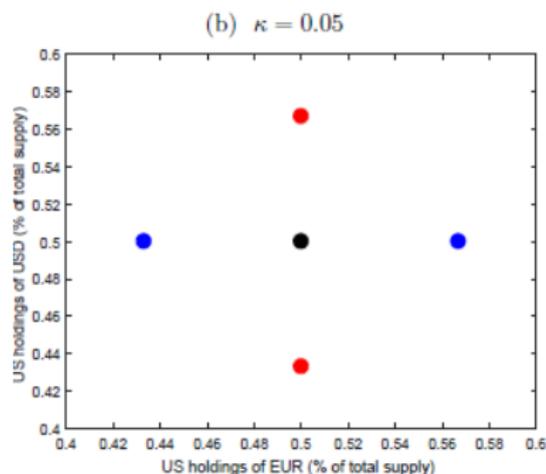
- ▶ Strategic complementarity: Trading firms in the US have an incentive to hold the same currency their counterparts hold in the EU
- ▶ Strategic substitutability: Firms choose to be funded with high-demand currency has a smaller probability of finding funding
- ▶ Relative availability of safe assets by households: all firms prefer holding a currency which is relatively more abundant

Solution without currency mismatch cost



- ▶ Perfectly symmetric one in which a non-coordinated equilibrium with asset holdings and currency choice equally distributed between euros and dollars.
- ▶ Strategic substitutability and relative availability of safe assets play role

Solution with currency mismatch cost



- ▶ Multiple equilibrium: USD emerges as a dominant currency
- ▶ Strategic complementarity: If euro funding relatively scarce in US, US firms tend to choose USD, but now because of currency mismatch, strategic complementarity give rise to coordination incentive in which EU firms follow – this feeds into US HHs asset choice
- ▶ US HH's portfolio concentrated in USD and European HHs happy to pick excess euro assets - self-sustaining.

Comment 1: HH's asset holdings

- ▶ Assumption: $\pi - r$ positive, and there is not “default” or “stealing” on the side of trading firms → anytime the bond is used it earns a premium.
- ▶ HHs (and indirectly trading firms) face no “frictions” in their access to foreign bonds - USD collateral is equally easy to be acquired in every country
- ▶ US bonds are available to be used as a collateral whenever there is a demand for it (supply is not constrained).

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- ▶ US bonds are available to be used as a collateral whenever there is a demand for it (supply is not constrained).
- ▶ Is it true in the data that relative supply of safe assets is always enough to satisfy the demand globally? Is there any role for frictions?

Comment 2: Currency mismatch cost

- ▶ With κ zero, there is no “fundamental” reason to expect a coordinated equilibrium, and so the strategic uncertainty leads agents to pick an uncoordinated one
- ▶ When κ small but positive, then are fundamental reasons to have a coordination, and even with equilibrium selection, there are steady-states that lean dollar or euro overall – feedback effect important

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- ▶ As non-zero κ is crucial for the result, more empirical support for currency mismatch cost would be useful.

Comment 3: International Trade Finance Practices

- ▶ This paper: Contracts are imperfect and transactions need to be collateralized → letter of credit trade arrangement
- ▶ Antras and Foley (2015, JPE)
 - ▶ The most commonly used financing terms do not involve direct financial intermediation by banks. They are cash in advance terms and open account terms; these are used for 42.4 percent and 41.3 percent of the value of transactions, respectively
 - ▶ 5.5 percent of the value of transactions occur on letter of credit terms
 - ▶ 10.7 percent on documentary collection terms

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 - ▶ 10.7 percent on documentary collection terms
- ▶ How should we think about the financing arrangements in the paper?

Comment 4: Two Country Model

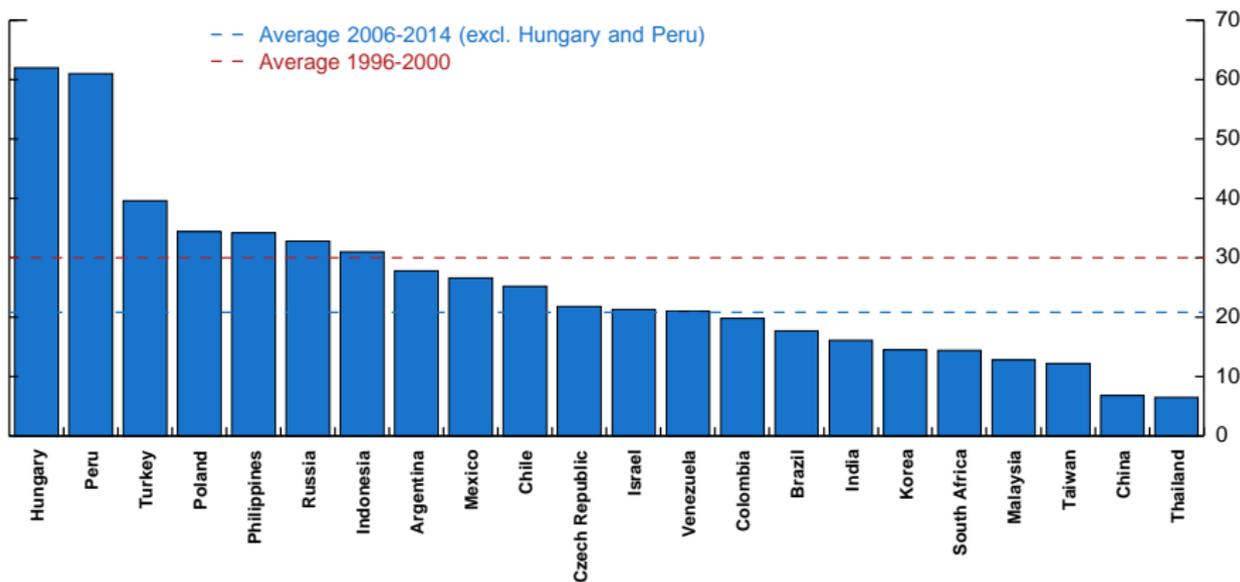
- ▶ The model economy has two large economies: US and Europe.
- ▶ Fact 1: Several small open economies (especially EMEs) use USD in trade invoicing and financial transactions.
 - ▶ Gopinath (2016): “Both Turkey and Japan invoice a small fraction of their imports in their home currency, 3% and 24% respectively. 60 % of Turkey's imports are invoiced in dollars even though imports from the U.S. comprise on average 6% of its total imports. Similarly, 71% of Japanese imports are invoiced in dollars, while the U.S. trade share of its imports is only on average 13%. Unlike Japan and Turkey, 93% of U.S. imports are invoiced in its home currency, dollars.”

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- ▶ Fact 2: EMEs are still subject to “currency mismatch” in their balance sheets.

Currency mismatches

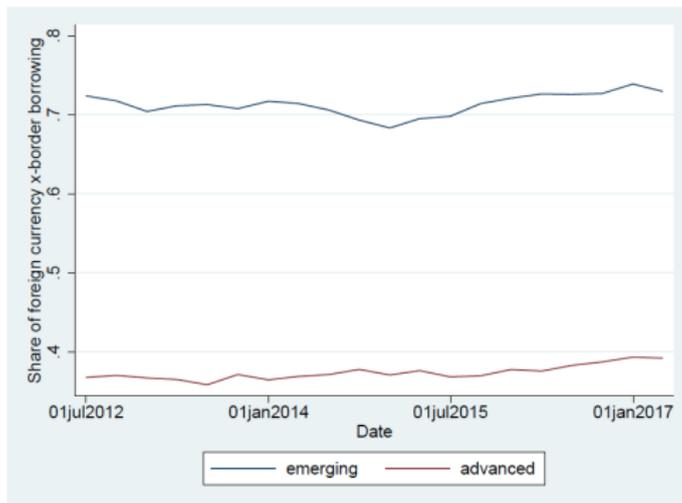
Foreign currency debt as a percentage of total debt, non-government sectors



Source: Chui, Kuruc and Turner (2016)

EMEs versus AEs

Figure: Share of foreign currency debt in countries' cross-border borrowing



Comment 4: Two Country Model (Cont'd)

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- ▶ Relevant question: Why the USD emerges as a dominant currency among these small open economies while Euro could equally be used accordingly?
- ▶ My suggestion would be to have a model economy where there is two large economies, US and Europe, and a continuum of other small economies who most likely will act as a follower in the coordination game.

Comment 5: Privilege versus Duty

- ▶ Gourinchas, Rey and Govillot (2017): Insurance is particularly relevant in times of global stress (exorbitant duty) where the US transfers wealth to the rest of the world.

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- ▶ Gourinchas, Rey and Govillot (2017): Insurance is particularly relevant in times of global stress (exorbitant duty) where the US transfers wealth to the rest of the world.
- ▶ How should we think about duty? Where do the duty and privilege come from?

Comment 6: Historical episodes

- ▶ The pound used to be the world's reserve currency up until the 1920s (with over 60% of world trade invoiced and financed in pounds) but lost this position to the dollar following its devaluation in 1931. Today, its role in the international monetary system is marginal.

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- ▶ It'd be interesting to use model's dynamic implications to understand what had happened to Britain and the pound.

Conclusion

- ▶ Excellent paper!
- ▶ Model has a very clear feedback channel between HH's asset holdings and trading firms' currency choice for invoicing.
- ▶ Without the rest of the world part, the picture is not complete yet in terms of why EMEs or some other DEs choose to use dollar instead of euro as a dominant currency in trade and in financial transactions.
- ▶ Using the model to shed more light on historical episodes will help us to better understand the role of dollar in the present situation.