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:
  - World’s largest net debtor, but earning positive net investment income

Failure of UIP

Currency mismatch is costly

Acquisition of USD collateral is “equally” and sufficiently easy in the US and foreign country

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

- Reviewing the main mechanism in the simple model
- Comments/suggestions on key assumption
“Intermediation” sector for Goods

U.S.
- Households
- Firms
- Government

E.U.

Imp./Exp.

assets and commodities

goods

funding

fees

payments

exports

imports
Steady-State Portfolios

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

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

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

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

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

$$V_{ij}^\$ = \frac{B_j^\$}{B_j^\$ + X_j} \left[ \pi - \kappa (1 - X_j') - r \right] - \frac{B_j^\€}{B_j^\€ + X_j} \left[ \pi - \kappa X_j' - r \right] + \theta_i \quad (3)$$
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 $\rightarrow$ 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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- 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 $\kappa$ zero, there is no “fundamental” reason to expect a coordinated equilibrium, and so the strategic uncertainty leads agents to pick an uncoordinated one.

- When $\kappa$ 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 $\kappa$ 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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- 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

- Average 2006-2014 (excl. Hungary and Peru)
- Average 1996-2000

Source: Chui, Kuruc and Turner (2016)
EMEs versus AEs

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

Source: Niepmann and Schmidt-Eisenlohr (2017)
Comment 4: Two Country Model (Cont’d)

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- 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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How should we think about duty? Where do the duty and privilege come from?
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.
Comment 6: Historical episodes

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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.