Privilege Lost? The Rise and Fall of a Dominant Global Currency

Discussion of Arvai and Coimbra (2023)

Simon Lloyd

Bank of England and Centre for Macroeconomics

November 2023

The views expressed here do not necessarily reflect the position of the Bank of England.

Simon Lloyd (BoE & CfM)

Discussion: Privilege Lost?

How does a country obtain safe-haven status with a dominant global currency?

Two-country model: governments (issue debt and choose default) and investors (lend, subject to matching, and earn returns)

How does a country obtain safe-haven status with a dominant global currency?

- Two-country model: governments (issue debt and choose default) and investors (lend, subject to matching, and earn returns)
- Assumption #1: larger countries face more diversified shocks
- \Rightarrow Res. #1: large ctries. face lower chance of default-inducing shock, so $\downarrow i$ and $\uparrow B/Y$

How does a country obtain safe-haven status with a dominant global currency?

- Two-country model: governments (issue debt and choose default) and investors (lend, subject to matching, and earn returns)
- Assumption #1: larger countries face more diversified shocks
- \Rightarrow Res. #1: large ctries. face lower chance of default-inducing shock, so $\downarrow i$ and $\uparrow B/Y$
 - Assumption #2: larger govt. bond issuance implies higher matching probability for investment (network externality)
- \Rightarrow Res. #2: larger countries provide more 'convenience'

How does a country obtain safe-haven status with a dominant global currency?

- Two-country model: governments (issue debt and choose default) and investors (lend, subject to matching, and earn returns)
- Assumption #1: larger countries face more diversified shocks
- \Rightarrow Res. #1: large ctries. face lower chance of default-inducing shock, so $\downarrow i$ and $\uparrow B/Y$
 - Assumption #2: larger govt. bond issuance implies higher matching probability for investment (network externality)
- \Rightarrow Res. #2: larger countries provide more 'convenience'

Size matters! If dominant-currency country grows less than the rest of the world, its status as a safe haven erodes and return differentials decline

Simon Lloyd (BoE & CfM)

My Comments

#1 Do I believe that 'size matters' for global currency dominance?

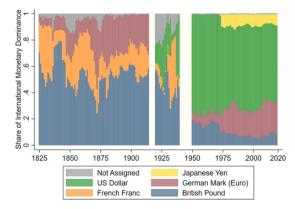
#2 How should I interpret 'size' in the model?

#3 Do larger countries necessarily face more diversified shocks? (Assumption #1)

#4 Do larger countries provide more 'convenience' in govt. bond markets? (Result #2)

#1. Does Size Really Matter?

What I remember from my British Economic History lectures? GBP had dominant role in intnl. fin. transactions until post-WWI, despite US growing larger than UK pre-WWI



Source: Vicquéry (2022), 'The Rise and Fall of Global Currencies over Two Centuries'

Simon Lloyd (BoE & CfM)

#1. Does Size Really Matter?

Quantities vs. Prices: focus here, in empirics and model, is on relative 'returns'

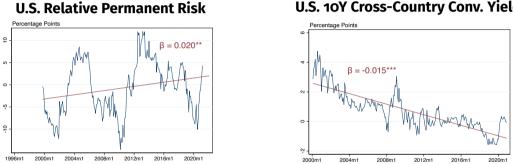
Spread rate	1870-1914	1915-2008	2009-2020
Real long rate	-1.81%	0.13%	-0.24%
Real total bond return	-1.59%	0.17%	0.16%
USD long rate	-1.34%	1.29%	-0.11%
USD total bond returns	-1.13%	1.33%	0.07%
Real USD long rate	-1.36%	1.27%	-0.10%
Real USD total bond returns	-1.13%	1.32%	0.11%

Source: Arvai and Coimbra (2023), Table 1

Suggestion: Clarify focus is really about 'privilege' (i.e., relative returns), and less about actual 'dominance' (i.e., relative quantities)

#1. Does Size Really Matter?

Is it 'size' per se that matters, or is it really 'risk' (for which size is one driving factor)?



Source: Corsetti, Lloyd, Ostry and Marin (2023), 'U.S. Risk and Treasury Convenience'

Suggestion: Do more to acknowledge that size is just one factor driving risk

Simon Llovd (BoE & CfM)

Discussion: Privilege Lost?

U.S. 10Y Cross-Country Conv. Yield

November 2023

#2. How Should I Interpret 'Size'?

Matters for how we interpret results and how seriously one should interrogate assumptions

Two key building blocks in the paper:

- Assumption #1: larger countries face more diversified shocks
- Size modelled via CES aggregator for govt. consumption

$$G_t = \left(\sum_{j}^{N} \omega_j^{\frac{1}{\theta}} g_{t,j}^{\frac{\theta-1}{\theta}}\right)^{\frac{\theta}{\theta-1}}$$

#2. How Should I Interpret 'Size'?

Different ways to think of size N, for example:

- Regions \Rightarrow acquire privilege by gaining territory
- Population \Rightarrow acquire privilege by making babies
- ► Economic size ⇒ acquire privilege by growing, but does growth not come with specialisation?
- ► Sectors ⇒ acquire privilege by expanding sectors, but could lose gains from specialisation?

Suggestion: Provide discussion to lead reader towards preferred interpretation of size

#3. Do Larger Countries Necessarily Face More Diversified Shocks?

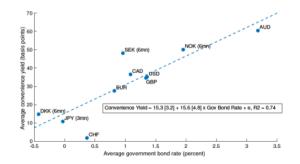
Not *a priori* obvious. In context of intnl. openness, potentially competing effects:

- Specialisation: growth/openness resulting from specialisation can result in greater volatility by limiting flexibility in the face of shocks [Newbery and Stiglitz, 1984]
- Diversification: growth/openness can allow diversification of supply and demand, so reduce volatility [Caselli et al., 2020] ...but at what cost to productivity?

(Cheap) Suggestion: Discuss role of shock correlation more in model results (I'd expect ρ to be more interesting than θ in experiments)
(Fancy) Suggestion: Consider building out a trade-off between diversification and specialisation in model

#4. Do Larger Countries Provide More Convenience?

For various reasons, model-based measure of convenience isn't easily mapped to the data...but not all measures imply that convenience is linked to size (or indeed inversely linked to interest rates)



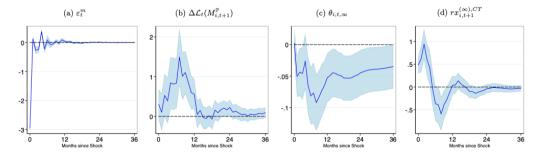
Source: Diamond and Van Tassel (2023), 'Risk-Free Rates and Convenience Yields around the World'

Simon Lloyd (BoE & CfM)

Discussion: Privilege Lost?

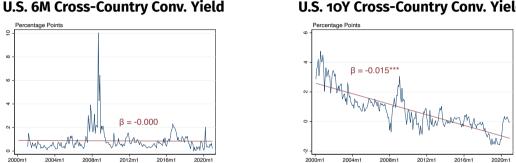
#4. Do Larger Countries Provide More Convenience?

Indeed, higher bond supply $\uparrow B/Y$ need not be associated with higher convenience... Here a monetary policy easing on relative US risk (panel b), long-run US convenience (panel c) and long-run carry-trade returns (panel d)



Source: Corsetti, Lloyd, Ostry and Marin (2023), 'U.S. Risk and Treasury Convenience'

#4. Do Larger Countries Provide More Convenience?



U.S. 10Y Cross-Country Conv. Yield

Source: Corsetti, Llovd, Ostry and Marin (2023). 'U.S. Risk and Treasury Convenience'

(Cheap) Suggestion: Include model-implied convenience yields in model results (Fancy) Suggestion: Consider which measure of convenience is most related to model

Simon Llovd (BoE & CfM)

Discussion: Privilege Lost?

My Answers

- #1 Do I believe that 'size matters' for global currency dominance?I'm convinced size plays a role in 'privilege' and returns
- #2 How should I interpret 'size' in the model?

I think I want to interpret 'size' as a measure of 'diversified' regions/sectors in economy, an admittedly challenging concept to conceptualise

- #3 Do larger countries necessarily face more diversified shocks? (Assumption #1)I'd love to see more sensitivity to different assumptions around diversification
- #4 Do larger countries provide more 'convenience' in govt. bond markets? (Result #2) Hard to tell at this stage, but this paper does provide a valuable new model of a specific source convenience, grounded in network externality-type story...its for future papers to disentangle competing explanations!