

International Currency Dominance

by Joseph Abadi, Jesús Fernández-Villaverde, Daniel Sanches

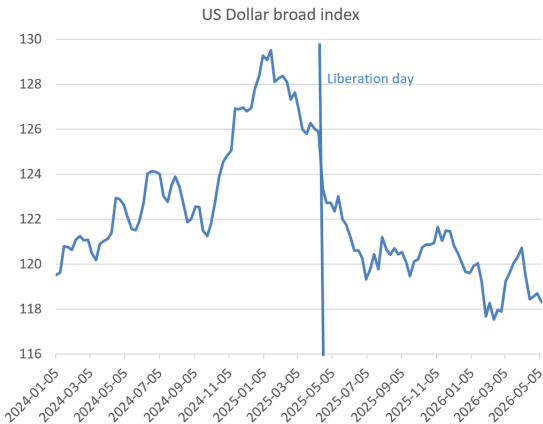
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Disclaimer: The views expressed herein are mine and not necessarily those of the Federal Reserve Bank of Minneapolis or the Federal Reserve System

Some context: is the dollar losing its dominance?



- ▶ After liberation day the USD has experienced a sizeable depreciation
- ▶ Standard trade theory would have predicted appreciation
- ▶ One explanation for the depreciation is that liberation day has signalled the start of a process of economic dis-integration which might endanger the role of the dollar as the dominant currency
- ▶ One goal of this paper is to assess this explanation in a model with endogenous currency dominance

Outline

- Quick overview of the paper
- The key insight: fundamentals v/s multiplicity
- Is it good to be dominant?

Summary

- ▷ When does an international currency emerge in a search framework?
- ▷ Seminal work: Kiyotaki, Matsui and Matsuyama (1993)
- ▷ **Key decision**: which currency to accept in international trade transactions
- ▷ AFS expands KMM along several important dimensions:
 - ▷ Updates the search framework from Kiyotaki Wright (1993) to Lagos Wright (2005)
 - ▷ Adds a more realistic trade/production/monetary policy block
 - ▷ Makes the acceptance decisions of foreign currency more sluggish (capital like)

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 - ▷ Adds a more realistic trade/production/monetary policy block
 - ▷ Makes the acceptance decisions of foreign currency more sluggish (capital like)
- ▷ **Key findings**:
 - ▷ In the long run the economy likely to converge to a dominant currency equilibrium where all countries accept a single dominant currency. A small initial advantage of the dominant currency (size, better returns) induces other countries to accept it. More acceptance, further reinforces the dominance, and since acceptance is sluggish, dominance persists
 - ▷ Shocks like liberation day, growth of China or growth of RoW not likely to dethrone the USD

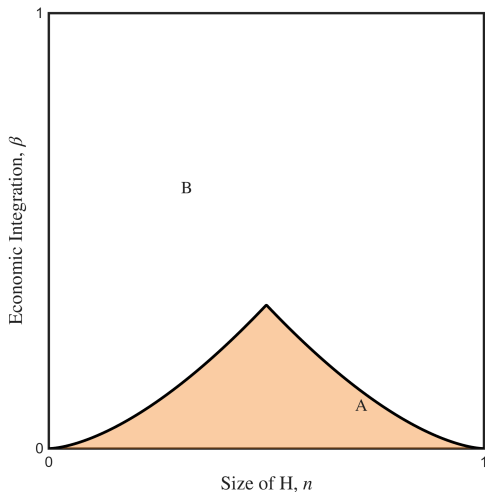
Key insight: Kiyotaki, Matsui and Matsuyama, 1993

- 2 countries, agents in both countries can only hold a good (sellers) or a unit of money (H or F, buyers)

		H	F
‣ Meeting technology	H	n	$\beta(1 - n)$
	F	βn	$(1 - n)$

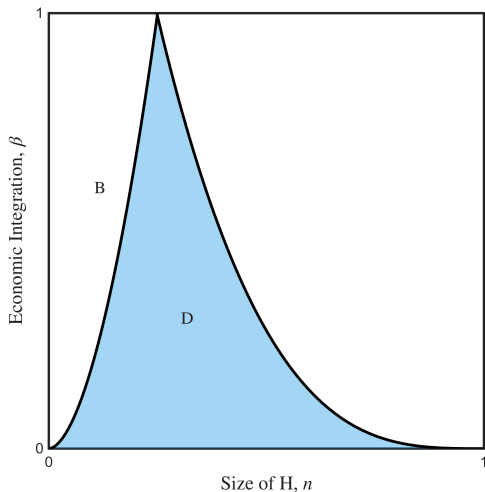
- $0 < \beta < 1$ measures economic integration
- $0 < n < 1$ measures size of home
- H and F sellers can accept any combination of H and F currency
- Equilibria: an acceptance strategy by H & F (i.e. H only accepts H currency and F only accepts F currency), that is optimal given that everybody else follows the same strategy
- How is the existence of a particular equilibrium affected by fundamentals?
- Are equilibria, given fundamentals, unique?

The Autarky equilibrium (A)



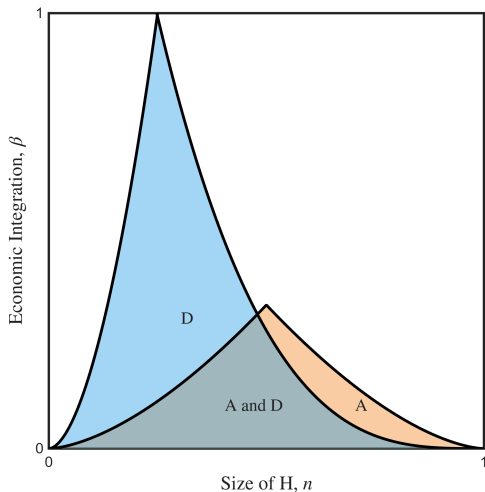
- In the autarky equilibrium H only accepts H currency and F only accepts F currency (no international trade)
- It is an equilibrium only if
 - Integration (β) is low enough
 - countries are sufficiently similar in size
- Why in point B autarky is not an equilibrium?
- Probability of H meeting F is sufficiently large that even if F only accept F and other H only accept H, it is profitable for a single agent to deviate and accept also F

The (foreign) dominant currency (D) equilibrium



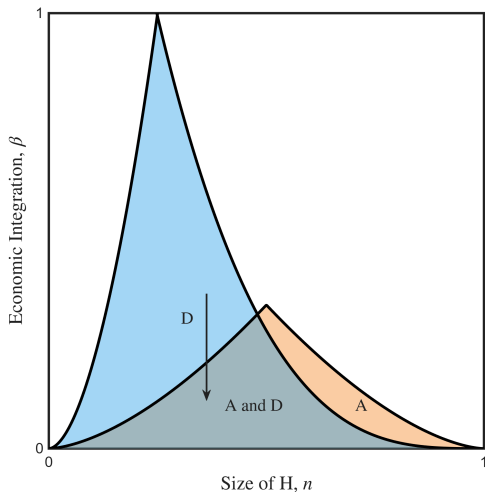
- In the dominant equilibrium H accepts both H and F, F only accepts F currency
- It is an equilibrium only if
 - Integration (β) is low enough
 - H country is large enough
- Why in point B, dominant is not an equilibrium?
- Probability of meeting another home agent is sufficiently low (relative to F) that even if all the other home agents accept H, it is profitable for a single agent to deviate and accept only F (and not H)

Multiplicity regions



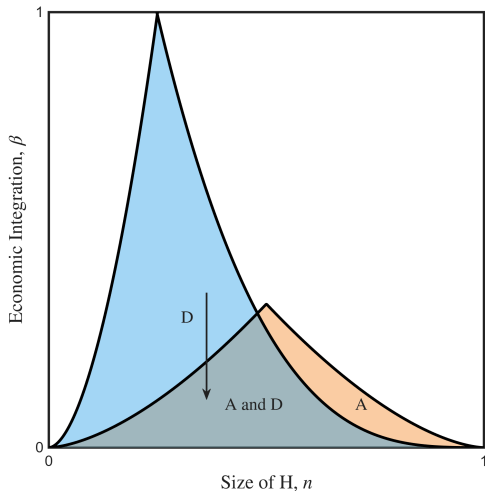
- ▷ In the green region both D and A are possible equilibria
- ▷ Why?
- ▷ Integration (β) is low enough and H country size is large enough so that the behavior of other H agents is pivotal for the decision of each H agent
- ▷ If all other H agents accept F, I want to accept it as well
- ▷ If all other don't, I do not want to
- ▷ Note: decision of accepting a currency always has an externality, but whether the externality is large enough to generate multiplicity is determined by parameters
- ▷ Very interesting feature of this class of models!

Liberation day in KMM



- ▷ One can think of liberation day as a reduction in economic integration β
- ▷ This might move the economy from the region where A is not an equilibrium, to the one where A is an equilibrium
- ▷ In the green region if all H (not US) decide not to accept dollars, I won't accept them either
- ▷ In the blue region that was not the case as high integration always make it profitable for non US to accept dollars
- ▷ Liberation day makes dollar more fragile!

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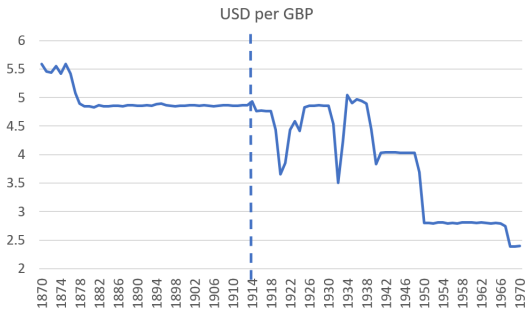
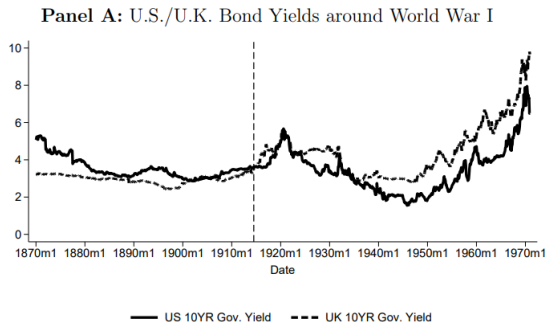


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- ▷ Liberation day makes dollar more fragile!
- ▷ However if acceptance decision are more sluggish (network, or evolutionary strategies) dominant equilibria might persist despite the change in parameters.

Some welfare considerations

- ▷ In this class of models typically the emergence of a dominant currency facilitates international trade, hence is desirable for the world as a whole
- ▷ *So much of barbarism, however, still remains in the transactions of most civilized nations, that almost all independent countries choose to assert their nationality by having, to their own inconvenience and that of their neighbours, a peculiar currency of their own.* (John Stuart Mill, 1848,)
- ▷ What about for the dominant country?

Lessons from the UK loss of dominance



- ▶ When the GBP lost its dominance, GBP rates increased (relative to USD) and GBP depreciated (relative to USD)
- ▶ Obviously these patterns might not be driven just by the loss of dominance, however if loss of dominance induces a fall in currency demand, loss of dominance is a contributing factor.
- ▶ Probably high rates undesirable, however depreciation might have some have some desirable consequences (See Miran, 2024)

Conclusions

- ▷ Topical and fascinating paper
- ▷ Develops a much richer (and quantifiable) theory of the rise and fall of dominant currencies

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- ▷ Topical and fascinating paper
- ▷ Develops a much richer (and quantifiable) theory of the rise and fall of dominant currencies
- ▷ Overall message: a dominant currency might emerge because of strategic complementarities, however once it is emerged, it is quite robust, don't sell your USD just yet!