

Trade War and the Dollar Anchor

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Motivation

- ▶ Since “Liberation Day” tariffs, concerns about U.S. dollar’s global role as safe-haven and anchor currency.
- ▶ Is trade war eroding U.S. “exorbitant privilege”?

This paper

- ▶ Evaluate effects of trade war in a risk-based model of dollar’s role as safe-haven and anchor currency.

Standard Model of FX

- ▶ Two periods.
- ▶ Unit measure of households partitioned into N countries of measure θ^n , $n = us, eu, \dots$ U.S. largest economy.
- ▶ Households invest in $t = 1$, all consumption in $t = 2$

$$U(i) = \frac{1}{1-\gamma} \mathbb{E} \left[\left(\exp(-\chi^n) (C_T(i)^\alpha C_N(i)^{1-\alpha}) \right)^{1-\gamma} \right], \gamma > 1$$

- ▶ Each household owns a firm that produces local non-traded good.

$$Y_N(i) = K(i)^\nu$$

- ▶ Capital can be freely shipped at $t = 1$ only.
- ▶ Unit endowment of homogeneous traded good.
- ▶ Households and firms take prices as given, markets clear.

Dollar Safety

- ▶ All countries appreciate when domestic demand “outstrips” supply (high χ^n). Country n 's average log real exchange rate:

$$\bar{s}^n = \frac{(\gamma - 1)(1 - \alpha)}{(1 - \alpha) + \gamma\alpha} \chi^n.$$

- ▶ All countries absorb (demand) more traded goods per capita when their currencies appreciate.

$$c_T^n = \frac{\gamma - 1}{(1 - \alpha) + \gamma\alpha} (\chi^n - \bar{\chi}),$$

where $\bar{\chi}_N = \sum_n \theta^n \chi^n$.

- ▶ Shocks that appreciate large countries have an outsized impact on the world's price of traded goods (the SDF)

$$\lambda_T = (\gamma - 1) \sum_n \theta^n \chi^n.$$

⇒ US dollar appreciates when traded goods are expensive. Other currencies less so.

Dollar Safety \Rightarrow Exorbitant Privilege Hassan (2013)

- \Rightarrow **Fact 1:** Dollar Safety. U.S. dollar appreciates in times of global stress, safest currency in the world:

$$\text{cov}(\bar{s}^{us}, \lambda_T) > \text{cov}(\bar{s}^n, \lambda_T), \quad \forall n \neq US$$

- \Rightarrow **Fact 2:** Large economies have lower interest rates — U.S. exorbitant privilege:

$$r^n + \Delta \mathbb{E} s^{n,us} - r^{us} = \text{cov}(\bar{s}^{us} - \bar{s}^n, \lambda_T), \quad (1)$$

- \Rightarrow **Fact 3:** U.S. firms have a lower cost of capital, are more valuable than foreign firms. Capital flows to the U.S. because U.S. firms are a safer investment than their foreign counterparts, accumulate more capital per capita.

Main Findings

1. Dollar safety and exorbitant privilege arise because US shocks have an outsized impact on demand for worlds' traded goods.
 - ▶ Low U.S. interest rates and currency returns.
 - ▶ Low cost of capital for U.S. firms.
 - ▶ US attracts disproportionate share of international investment.
2. Trade war dampens effect of US shocks on world market.
Undermines dollar safety, raises US rates, cost of capital, triggers capital outflows.
3. Dollar safety underpins dollar's anchor status.
 - ▶ All stabilizations optimally target the safest currency in the world.
 - ▶ Small countries choose hard pegs, larger countries softer stabilizations.
 - ▶ Fit structure of world monetary system quantitatively.
4. Trade war undermines benefits of stabilizing to the dollar. Tariffs exceeding 26% trigger phase-shift towards euro anchor.

Dollar Safety in a Trade War

- ▶ U.S. imposes tariff τ on imports, other countries retaliate.
- ▶ Trade war dampens effect of U.S. shocks on the world market, reduces U.S. “effective country size.”

⇒ Trade war weakens dollar safety, erodes exorbitant privilege!

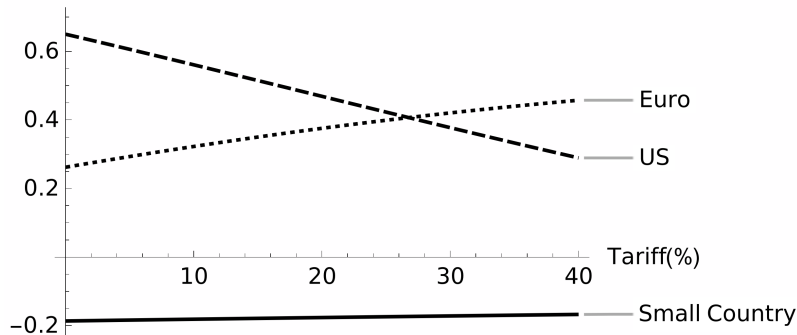
- ▶ Fit model to pre-2025 data on interest rates, currency returns, etc.
- ▶ On announcement of 17% average Tariffs, April 2025:

	Data	Model	
U.S. Interest Rate (USA-G10) (pp.)	↑	0.56	✓
U.S. Stock Prices (USA-G10) (pp.)	↓	-2.23	✓
U.S. dollar FX Vol. (%)	↑	3.05	✓

Comparative Statics: Dollar vs. Euro Safety

Correlation of each country's (broad) real exchange rate with λ_T

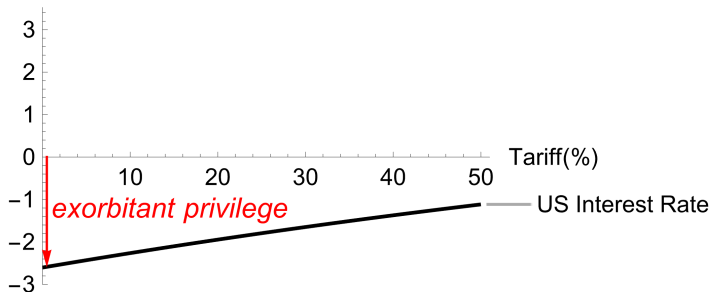
Correlation



- ▶ Euro becomes world's safest currency at tariffs exceeding 26%.

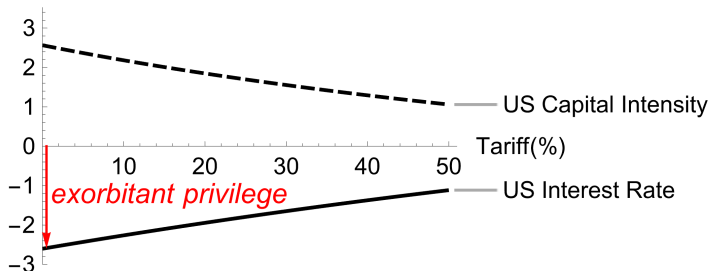
Comparative Statics: U.S. Interest Rates, Capital Intensity

Spread (US-Small,pp.)



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Main Findings

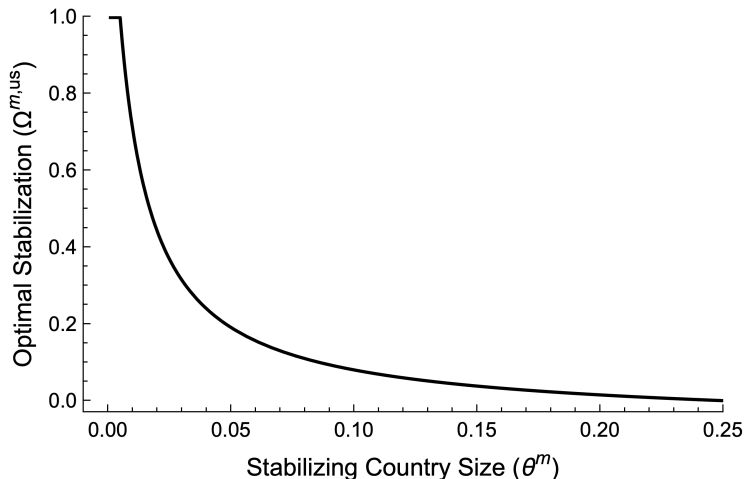
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Optimal Stabilizations (Hassan, Mertens, Zhang, 2022)

- ▶ Each country's central bank can decide to stabilize its real exchange rate relative to a chosen target currency (\mathcal{T}) by faction (Ω).
Maximize local households' welfare.
- ▶ Key insight: Small countries can inherit part of dollar's safety and financial privileges by stabilizing their real exchange rate relative to the U.S. dollar.
- ▶ Stabilizing to the US dollar lowers domestic interest rates, makes domestic firms more valuable (attracts investment), and thereby shifts a larger share of world wealth towards your country.
- ⇒ Structure of international monetary system arises endogenously: Small countries optimally stabilize their exchange rate to the US dollar in order to attract investment.
- ▶ Harder to do for large countries (price impact) → choose looser stabilizations, largest countries float.

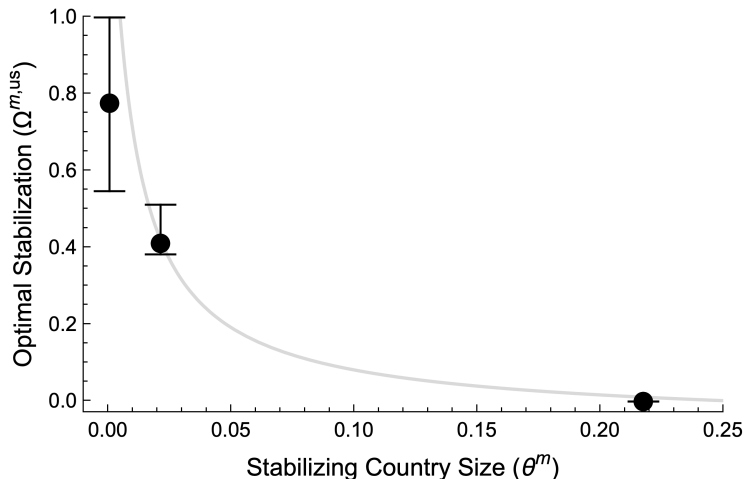
Stabilization to the US Dollar: Model

- ▶ Predicts 100% of stabilizations target the U.S. dollar ($\mathcal{T} = us$)
- ▶ Optimal Ω decreases in country size.



Stabilization to the US Dollar: Data

- ▶ In fact, 70+ % of stabilizations target the U.S. dollar ($\mathcal{T} = us$)
- ▶ Fits the structure of the world's monetary system surprisingly well!

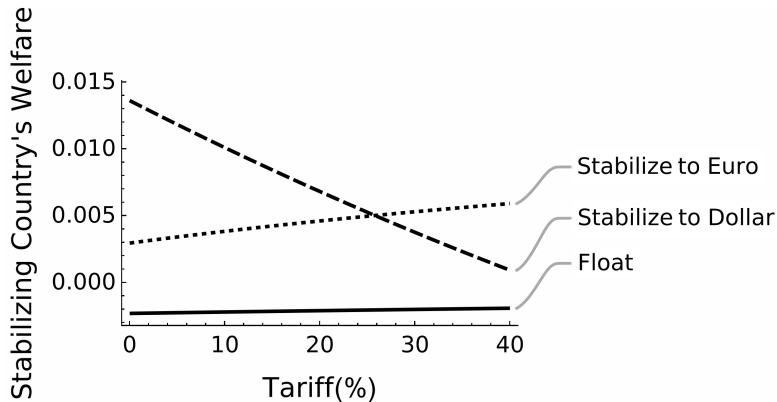


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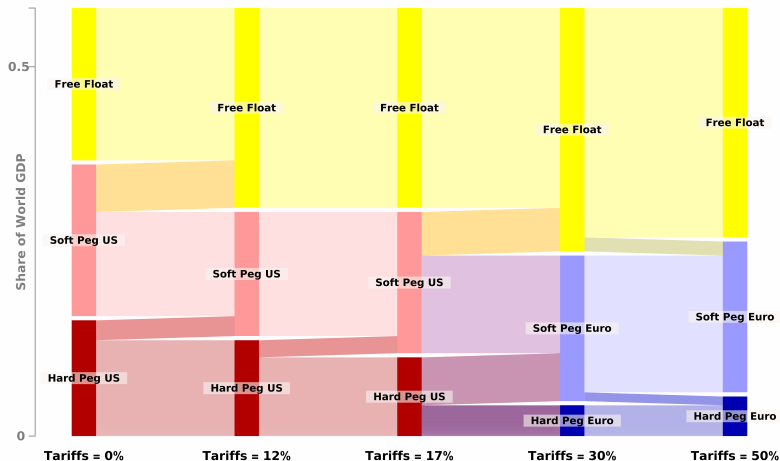
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Trade War and the Euro Anchor

- ▶ With rising tariffs, the US dollar becomes less attractive as an anchor.
- ▶ Euro becomes the optimal anchor currency in the world at tariffs exceeding 26%.



Predicted Effect on the International Monetary System



- Phase shift to Euro anchor at average tariffs exceeding 26%

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Conclusion

- ▶ Introduced model where dollar safety and its role as anchor currency arise endogenously.
- ▶ U.S. dollar emerges as safest currency because shocks that affect the U.S. move a large share of global demand.
- ▶ This safe-haven feature is the key force that underpins U.S. exorbitant privilege, makes it anchor of global monetary system.
- ▶ Isolating U.S. from world's goods markets erodes dollar safety, and with it key financial privileges.
- ▶ Average tariff of 17% raises U.S. rates by 0.5pp, depreciates U.S. stocks relative to the rest of the world, and loosens the dollar block.
- ▶ Predict average tariffs exceeding 26% precipitate phase shift towards euro-centric world monetary system.