

# Discussion of “A Theory of Int’l Official Lending”

BY LIU, LIU, AND YUE

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César Sosa-Padilla

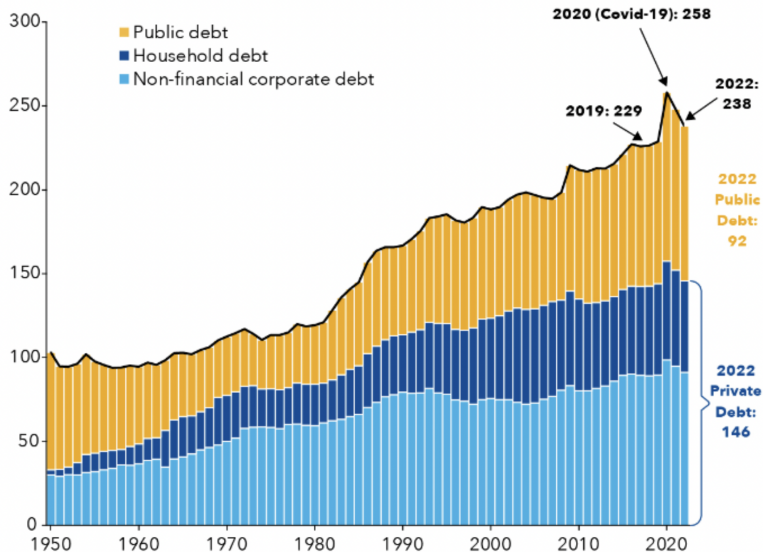
Notre Dame & NBER

October 24, 2025

## Big Picture

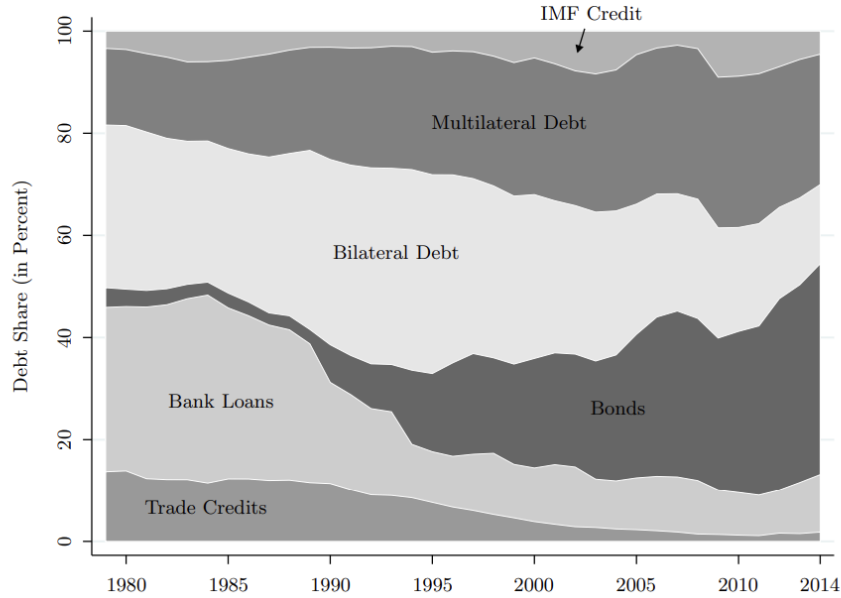
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# (Government) Debt is a Big Deal



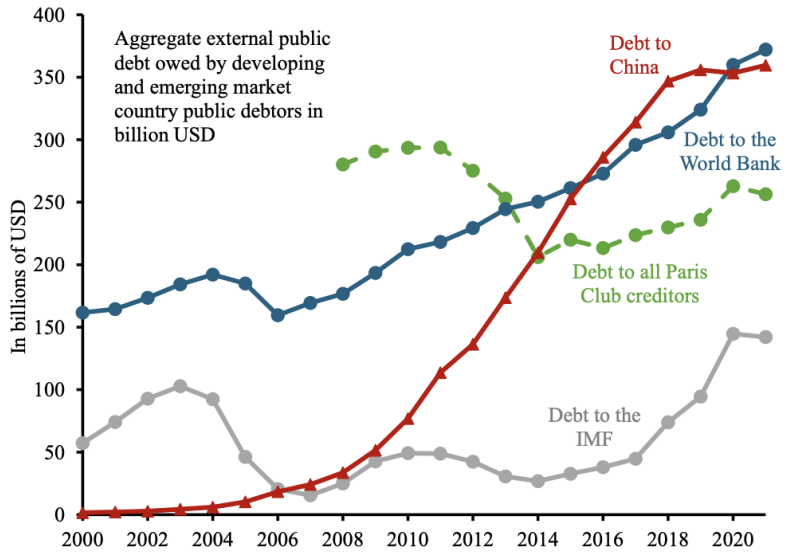
Source: IMF 2023 Global Debt Database, and IMF staff calculations.  
Notes: The estimated ratios of global debt to GDP are weighted by each country's GDP in US dollars.

# Official Gov't Debt has always been Important



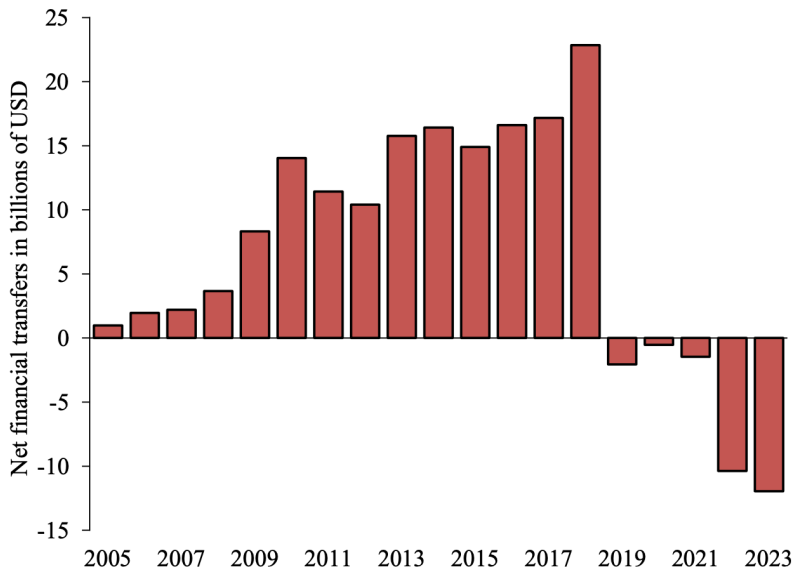
Source: Schlegl-Trebesch-Wright (2019)

# Official Debt has been Changing Recently...



Source: Horn-Reinhart-Trebesch (2025)

... and now it seems China is retrenching



Note: Official flows from CHN to EME govts. Source: Horn-Reinhart-Trebesch (2025)

# **This Paper**

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# What the paper does

**Goal:** develop theory of official lending in repeated game framework of sovereign debt with production

- Dynamic model of sovereign borrowing with two frictions at once:
  1. limited enforcement (the sovereign can walk away)
  2. moral hazard in how borrowed resources are used (lenders cannot fully observe whether funds go to productive exports or to domestic consumption).
- Noisy public signal about productivity partially reveals the state, so lenders can treat “bad luck” differently from “misbehavior.”
- Characterizes the constrained optimal allocation (COA) and shows it can be decentralized as sovereign debt game with three types of creditors: private, bilateral official, and multilateral official.



# Main elements

## Environment & timing

- SOE uses imported intermediates and labor to produce a NT consumption good and a T export good.
- Crucially, the sovereign chooses the consumption/production split *before* the productivity shock, creating moral hazard
- Afterward, a noisy signal arrives and helps lenders condition continuation utilities (“monitoring/conditionality”).

## First best vs. constrained optimum.

- With full information + enforcement: perfect insurance and inputs at the efficient level  $m^*$ .
- Under frictions, COA prescribes imperfect insurance and production below  $m^*$  because incentives must be provided dynamically.

# Key results

**#1 — “No autarky floor.”** Planner must keep sovereign’s continuation value **strictly above autarky**. This rationalizes rescue/official lending even when market borrowing is impaired and underpins the decentralization with official debt

**#2 — Roles of creditor types.**

- *Multilateral official debt* is non-defaultable → provides **commitment/discipline**.
- *Bilateral official debt* offers signal-contingent concessionality → provides **monitoring** and treats “excusable” shortfalls more leniently.
- *Private debt* is defaultable → supplies **state-contingency** via the default margin and price changes.

**#3 — Cyclical composition of debt.** In downturns/defaults, official debt scales up and private debt retreats; spreads rise and imports/GDP fall, matching the data.

## Comments and Discussion

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**Suggestion:** have a dedicated (sub-)section comparing and contrasting the two papers.

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**Theoretical point.** Long-term defaultable debt is **essential** to implement the constrained efficient allocation → having dilution risk on the eqm path is key

- Authors' know this, but I think it's worth emphasizing more in the paper.
- In the theory you need  $\delta^M < 1$

## Comment 2: Long-term debt – accounting and beyond (cont'd)

**Accounting point.** One of the quant. takeaways was that (i) total debt increases in crisis, and (ii) the debt composition changes around crises/defaults.

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Start the period with market debt  $d^M$ . The LT liabilities are:

$$d^M \left( 1 + \frac{1 - \delta}{1 + \iota} + \left( \frac{1 - \delta}{1 + \iota} \right)^2 + \dots \right) = \frac{1 + \iota}{\iota + \delta} d^M$$

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- This is how statistics offices would typically report debt.
- General point: be **careful** if message is about total debt and its composition



## Comment 3: Official lending and geopolitics

- Paper shows official lending is useful in presence of moral hazard + limited commitment. It helps implement constrained efficient allocations, improving risk sharing.
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- Paper shows official lending is useful in presence of moral hazard + limited commitment. It helps implement constrained efficient allocations, improving risk sharing.
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- Is this a challenge to the paper's view of official lending as efficiency-enhancing?

## Comment 3 (cont'd) – Financial Fragmentation Index

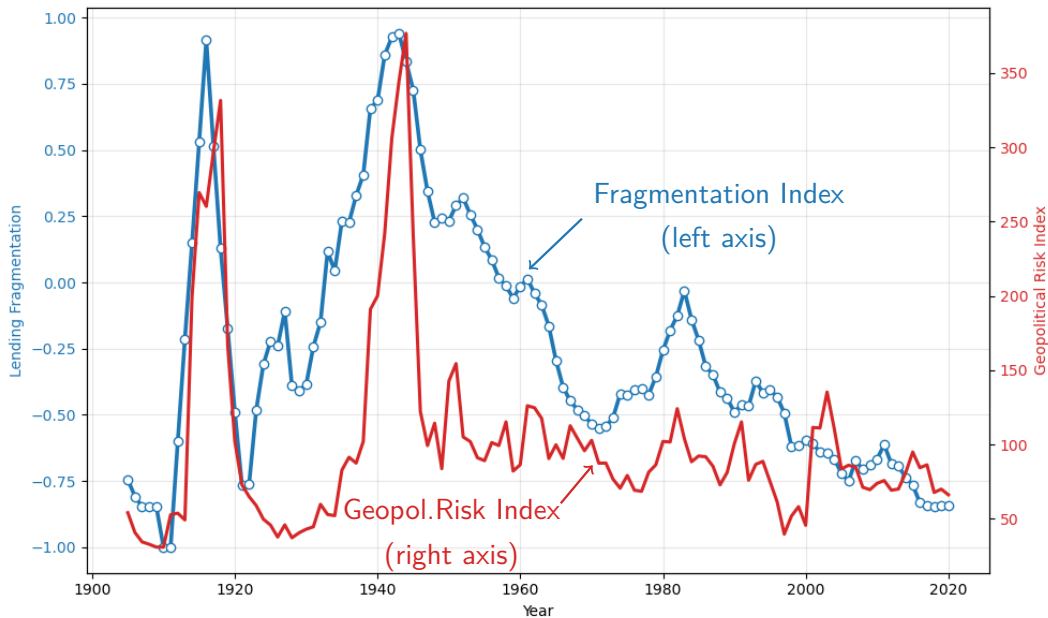
Bianchi, Horn, Rosso and Sosa-Padilla (2025): simple, non-parametric approach to measuring fragmentation

$$\text{Financial Fragmentation Index}_t = \frac{\text{Flows btw Allies}_t - \text{Flows btw Non-Allies}_t}{\text{Total flows}_t}$$

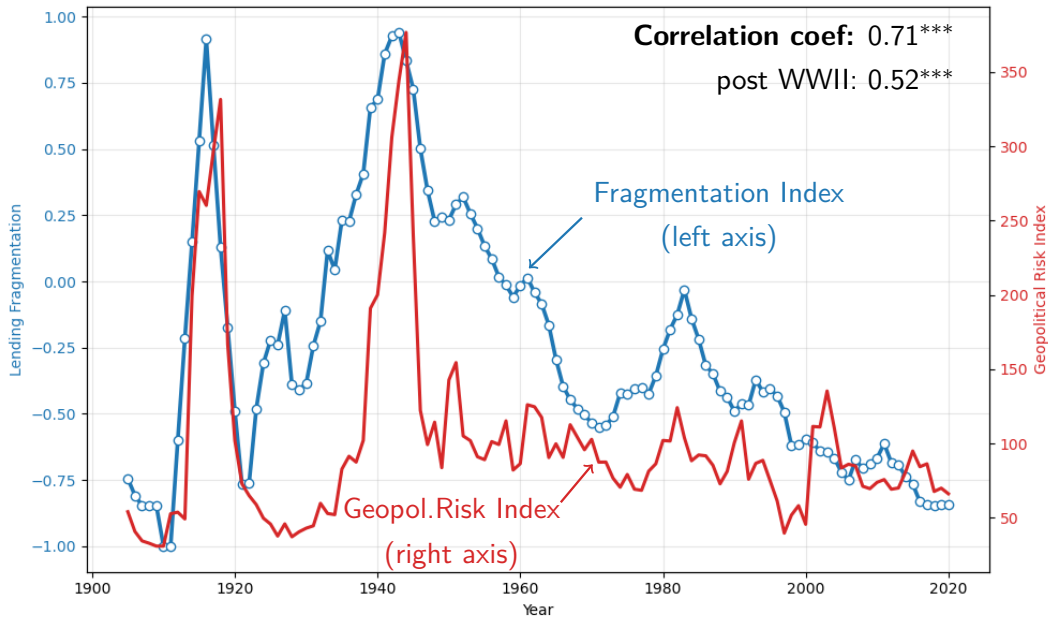
### Identifying Allies and Non-Allies:

Military alliances as coded by Correlates of War Project (Gibler and Sarkees 2004, Gibler 2009)

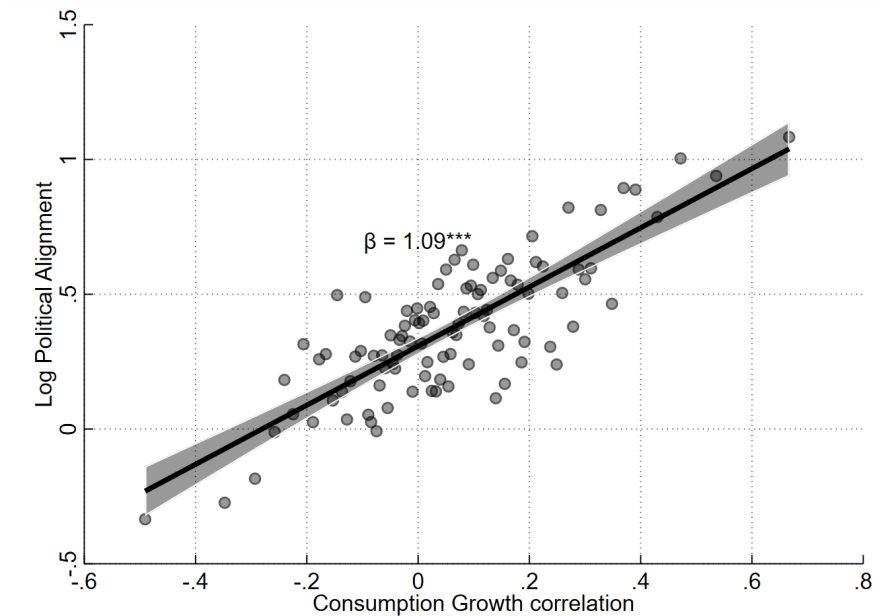
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## ... and Geopolitical Allies have Synchronized Business Cycles



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- Since business cycles of geopol. allies are more synchronized: fragmentation is bad for risk sharing.
- Back to the question: is this a challenge to the paper's view of official lending as efficiency-enhancing?
- Not necessarily: official lending is still countercyclical (opposite to private flows)... just **let's be mindful** about looming geopolitical tensions and fragmentation

## Conclusion

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**Thank you!**