Financial Sanctions and the Global Payments Network

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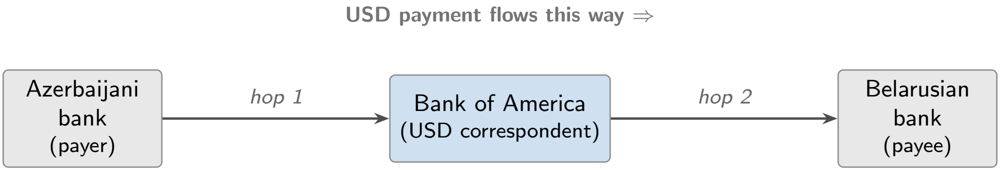
"The United States does gain one exorbitant privilege from the dollar's role — a privilege that is more about power than about economics. Because so much of world trade and finance runs on dollars, businesses and banks must make use of the U.S. banking system even for transactions that don't directly involve the United States. This means that U.S. officials have the power to observe and, in some cases, block these transactions."

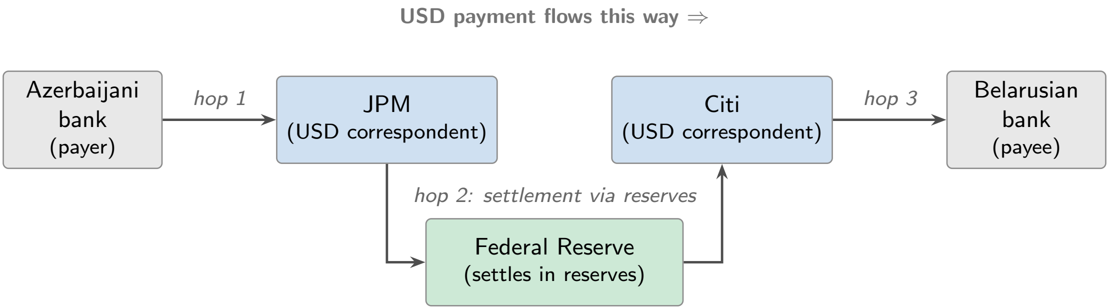
– Paul Krugman, April 12, 2026

How Correspondent Banking Works – Easiest Case



- Azerbaijani bank has USD account at Bank of America
- Belarusian bank has USD account at Bank of America
- Bank of America debits Azerbaijani account and credits Belarusian account

How Correspondent Banking Works – Realistic Case



- Each hop adds time, fees/compliance costs, and counterparty/settlement risks
- Equivalent chains in non-USD might be longer or might not connect
- Sanctions cut off or degrade links to this USD network

Questions + Answers

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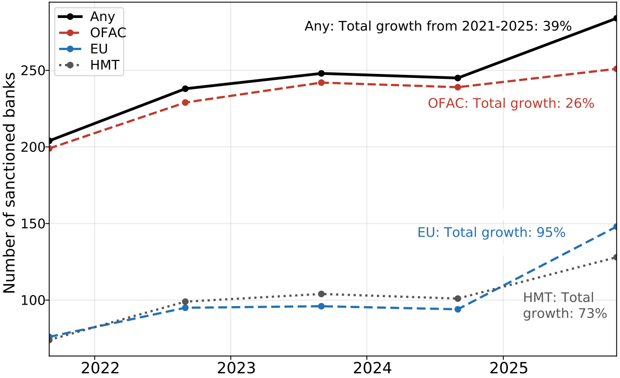
4. Is this shift part of global decline in role of USD?
   No. On average, not outside of heavily sanctioned countries

Data on Correspondent Banking Network and Sanctions

- Data from Lexis Nexis Risk Solutions; Map of correspondent network by currency
- Includes indicator (public+proprietary) of OFAC/EU/HMT sanctions
- 17,000 EMDE financial institutions, annual snapshots during 2021-2025



Finding 1: USD/EUR Networks Offer the Best Connectivity

- **Most correspondent relationships:** USD (90%), EUR (88%), CNY (34%)
- **Most direct relationships:** USD (68%), EUR (73%), CNY (17%)
- **More cross-border connections:** 5 times more with USD/EUR than CNY
- **Shorter routes on these connections:** USD (2.9 hops), EUR (3.2), CNY (3.7)
- **Key hubs:** Top-10 banks add most of PageRank, particularly on USD network

Superior connectivity offered by Western payment networks is why the threat to lose access is potentially powerful. This is what most financial sanctions do.

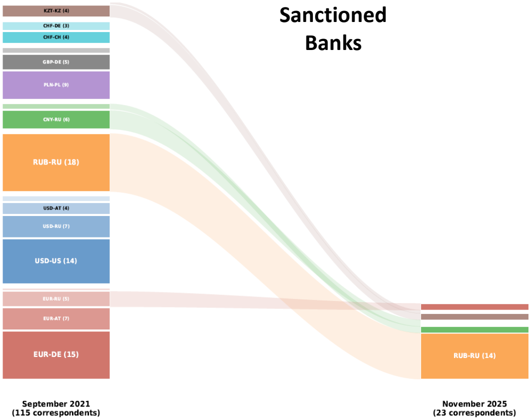
Finding 2: Sanctioned Banks Have Their Connectivity Degraded

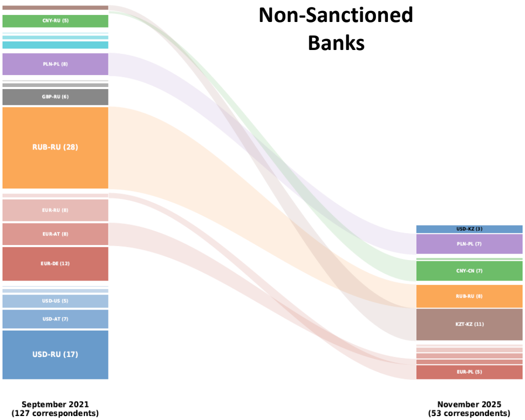
	% with Correspondents		Min. Dist. to Top-5 Trade Partners		PageRank of Correspondents	
	Pre	**Post**	**Pre**	**Post**	**Pre**	**Post**
USD	86.9	28.4	2.13	2.83	12.16	3.06
EUR	85.0	22.0	2.20	3.04	4.06	0.40
CNY	67.3	17.7	2.49	3.17	1.47	0.32

- Access collapses on designation, not just Western currencies
- Quality degrades too:
    - Sanctioned banks end up further away from key trade partners
    - Sanctioned banks end up connected to far less important hubs
- **Robustness:** matched difference-in-differences (same country $\times$ institution type)

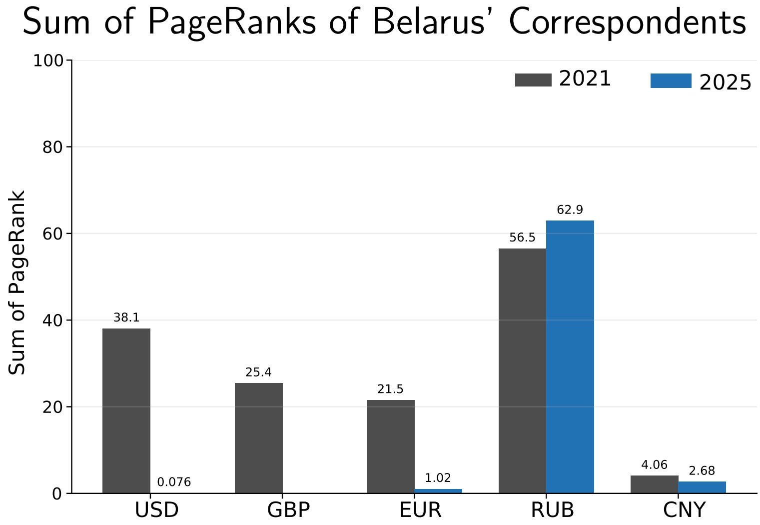
Finding 3: Non-Sanctioned Also Cut Off but Shift Toward Yuan

Belarus

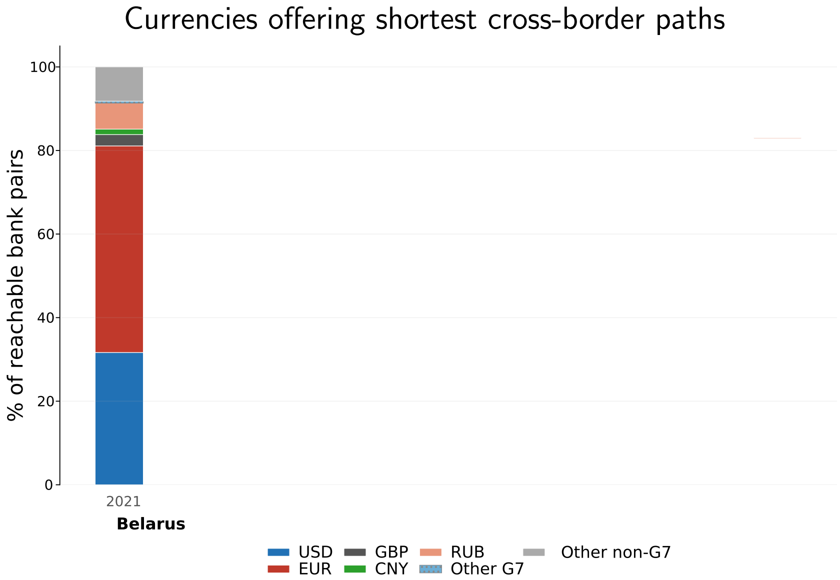




Finding 3: Country Loses Access to All Key Hubs Except in Yuan



Finding 3: Shift Toward Yuan in Heavily Sanctioned Economies



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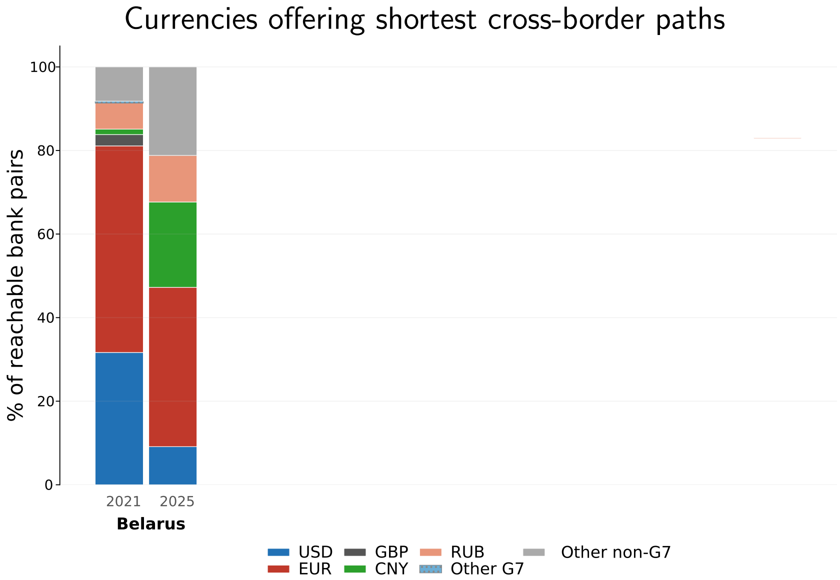

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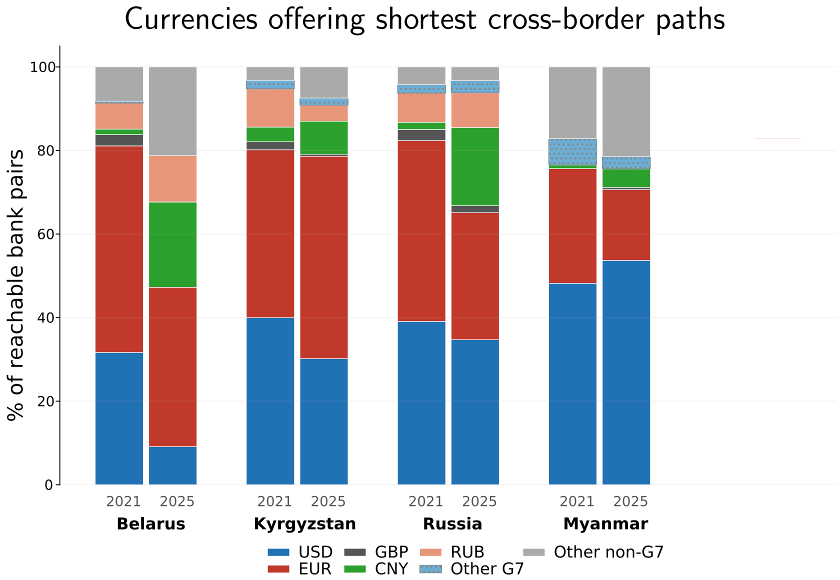
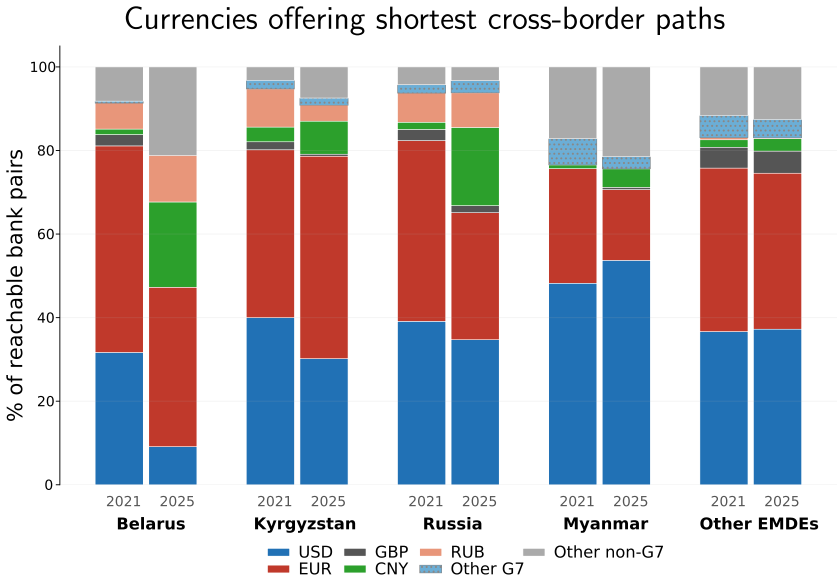
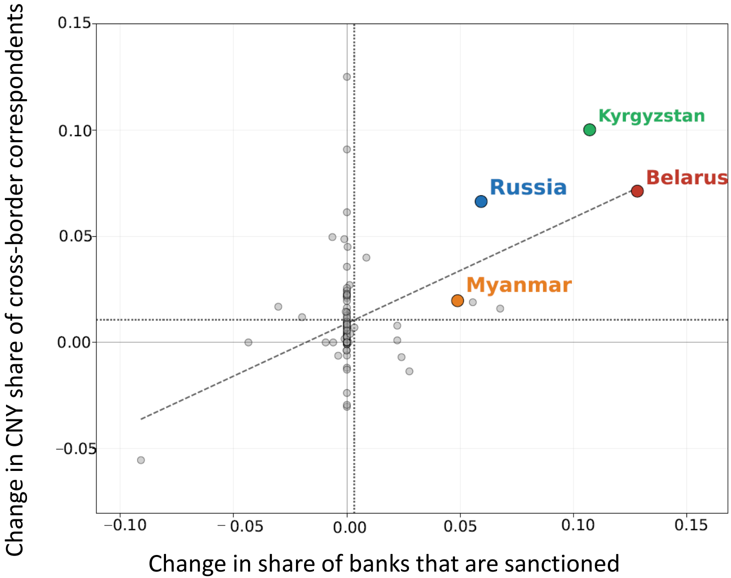


Finding 4: No Shift Outside of Heavily Sanctioned Economies

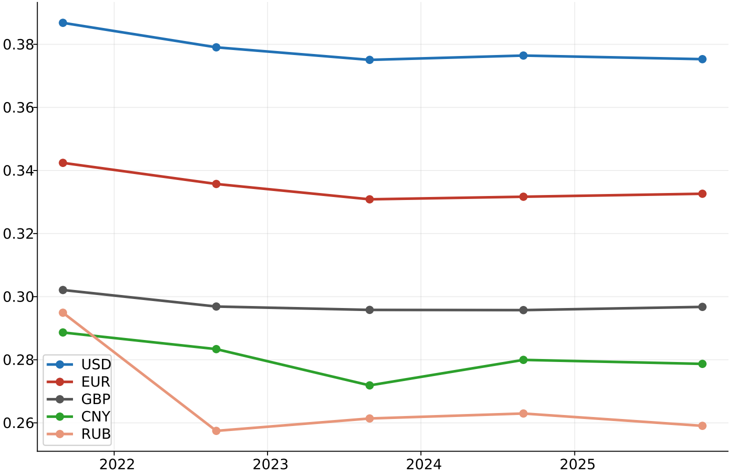


Finding 4: Shift in Heavily Sanctioned Economies Stands Out



Zooming Out: Evolution in Network Efficiencies

Global efficiency of network in currency $\mathcal{C} = \sum_{i,j} \text{hops}_{ij}^{\mathcal{C}}$



(Note: paper includes multiple weighting schemes...)

Conclusions

- **Global Payment Networks.** We measure how dollar (and euro) are best at connecting payors and payees. Operates through key hubs.
- **Sanctions.** Degrade banks' and whole country's access to these networks.
- **Targeted Countries.** Heavily sanctioned economies shift toward alternatives, particularly the yuan.
- **Global Role of USD.** But in other EMDEs, little aggregate shift.