Discussion

Global and local drivers of Bitcoin trading vis-à-vis fiat currencies

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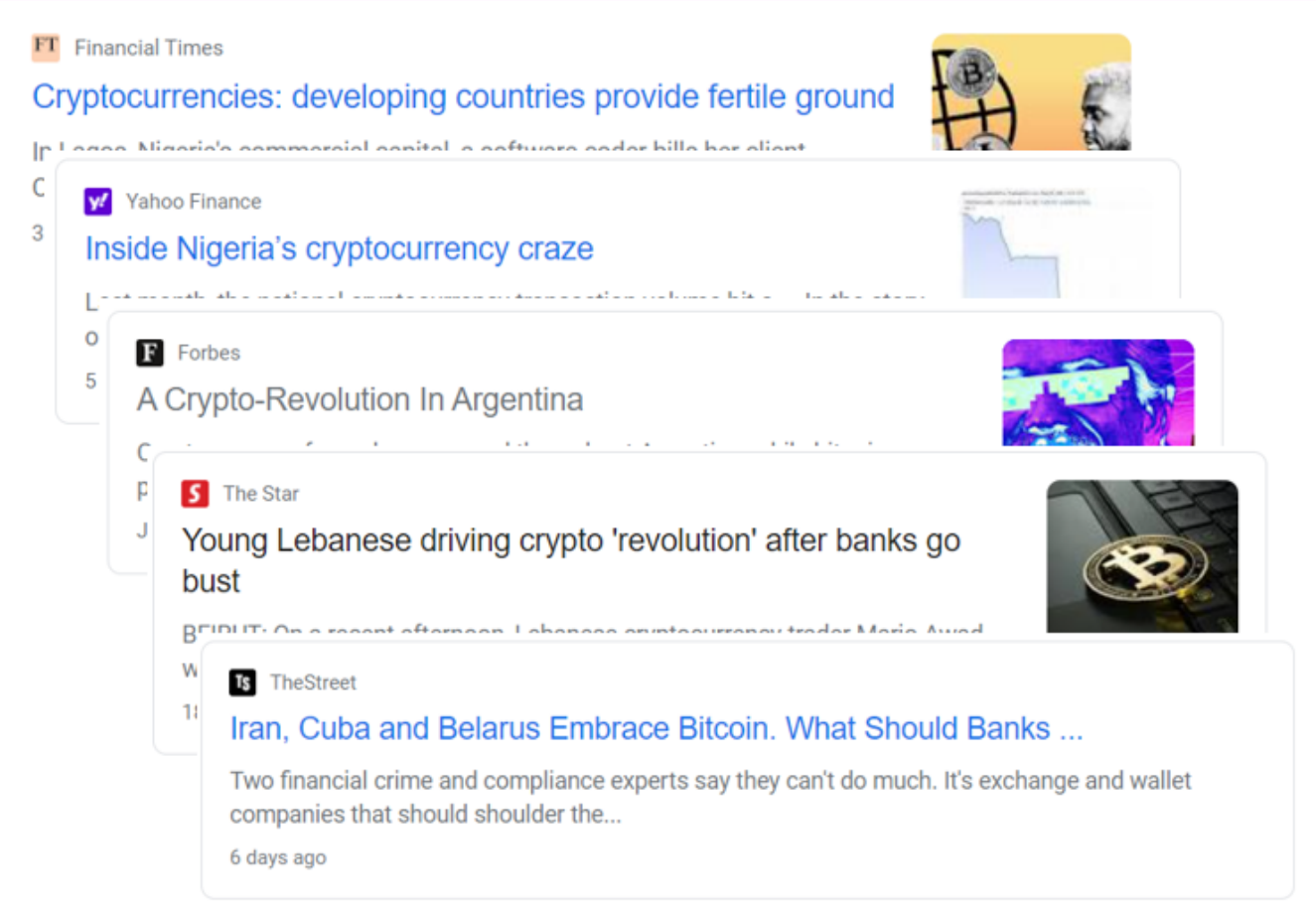
1. Why is this an important topic?
2. Short Summary
3. Suggestions to further improve the paper:
   - Muted Variance in Local Drivers
   - Supply factors
   - Stablecoins
   - Venezuela

The research question

What drives adoption of unbacked digital assets? Why are they so widely adopted in some; and virtually absent in other countries?



Why is this question (and thus the paper) important?

- Paper's answer: Currency Substitution and loss of seigniorage. Hinders capital flow measures.
- But also: Who uses Bitcoin and for what, determines how it could and should be regulated.
- If crypto was only used for illegal activities and gambling, a regulator can enforce a ban without any welfare costs.
- Closely relates to the literature:
  - There exist empirical evidence for use by criminals (Foley et al., 2019)
  - But also more legitimate purposes, such as remittances and capital flight (Graf von Luckner et al., 2023)
  - Models which rationalize a positive inherent value invariably base it on transactions use (Athey et al., 2016; Fernandez-Villaverde and Sanches, 2019; Schilling and Uhlig, 2019)

Summary

1. Regression analysis of off-chain P2P crypto volumes on range of global and country specific factors
   - P2P, global but not comprehensive
2. Findings
   - There exists a global crypto cycle
   - Global factors (Bitcoin price etc.) are main drivers
   - Local factors (fx devaluation etc.) also play a role in driving the adoption in EMDEs.

Suggestions for further improvement

Suggestion One

- Take into account parallel exchange rates
- There exists an extensive literature showing that parallel, black market exchange rates are typically the economically meaningful exchange rate (Reinhart and Rogoff, 2004).
- Muted variance in RHS variance by construction cannot explain LHS variable variance.

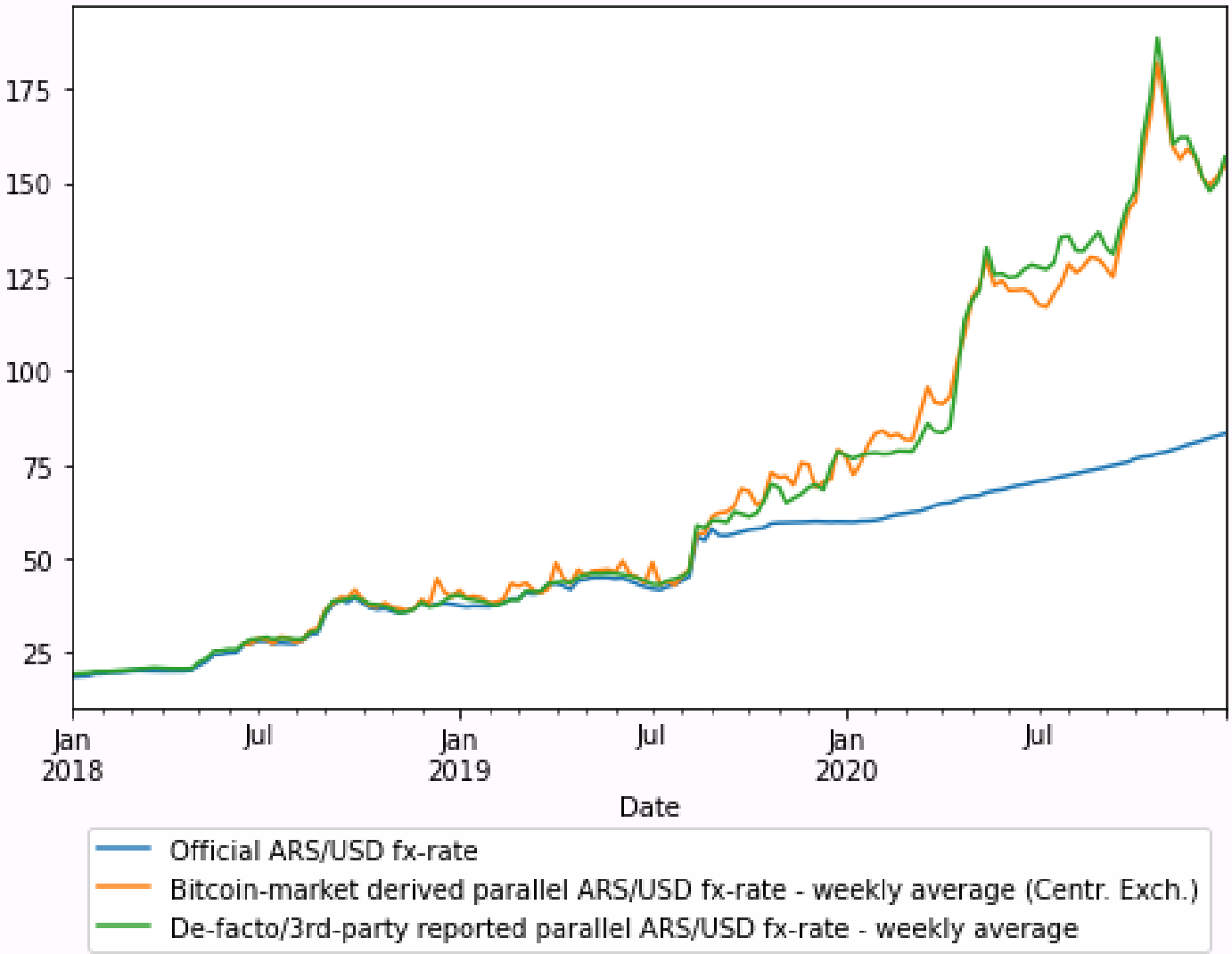
Suggestion One

- The dependent variable: "trading volume of Bitcoin vis-à-vis currency transactions in local currency".

$$Vol_{LCU_{i,t}} = Vol_{BTC_{i,t}} x \frac{LCU}{BTC}_{i,t}$$

- Cryptos trades at parallel rate, so change in parallel rate drives the price channel in TOT of crypto.

Example in support of Suggestion One



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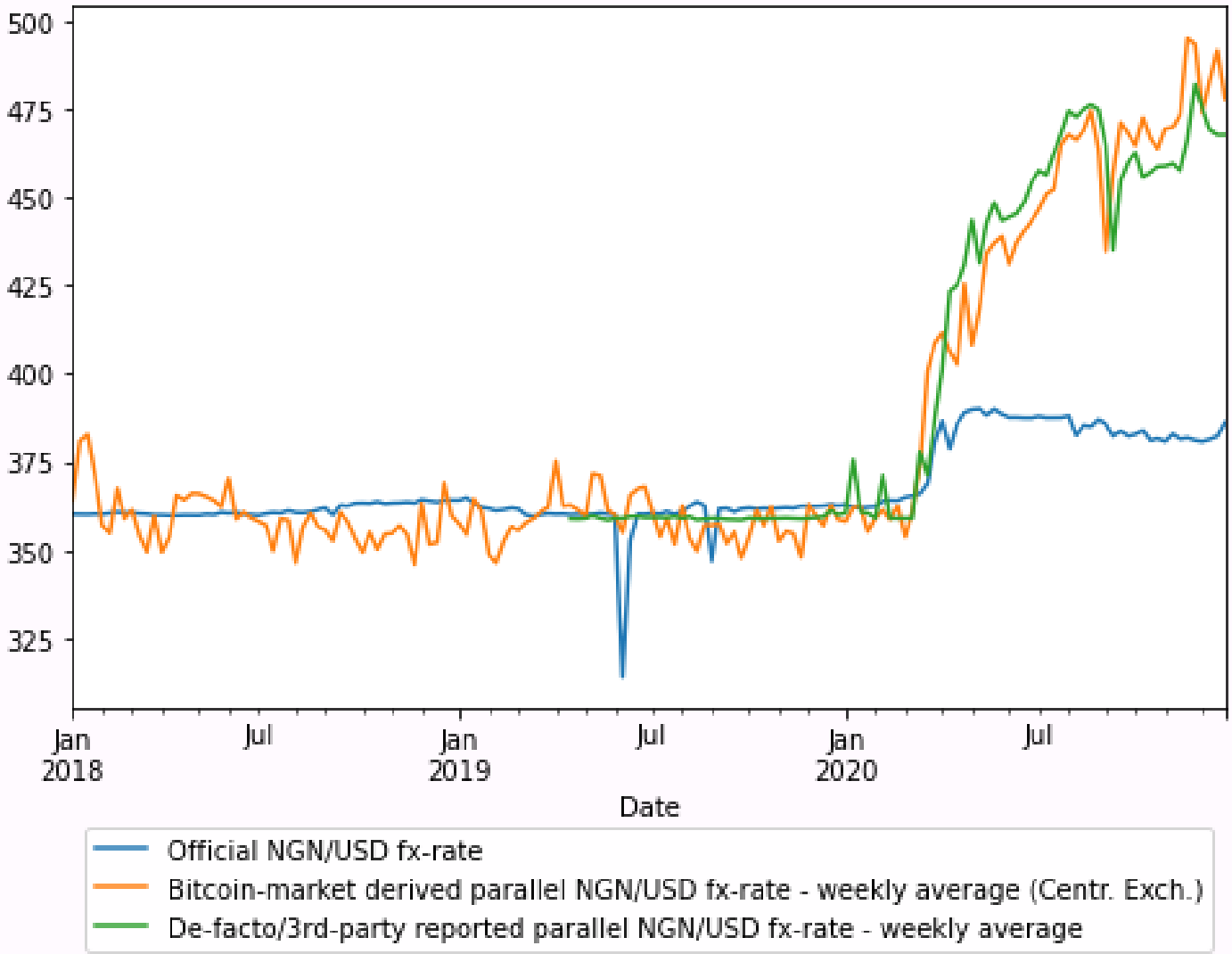
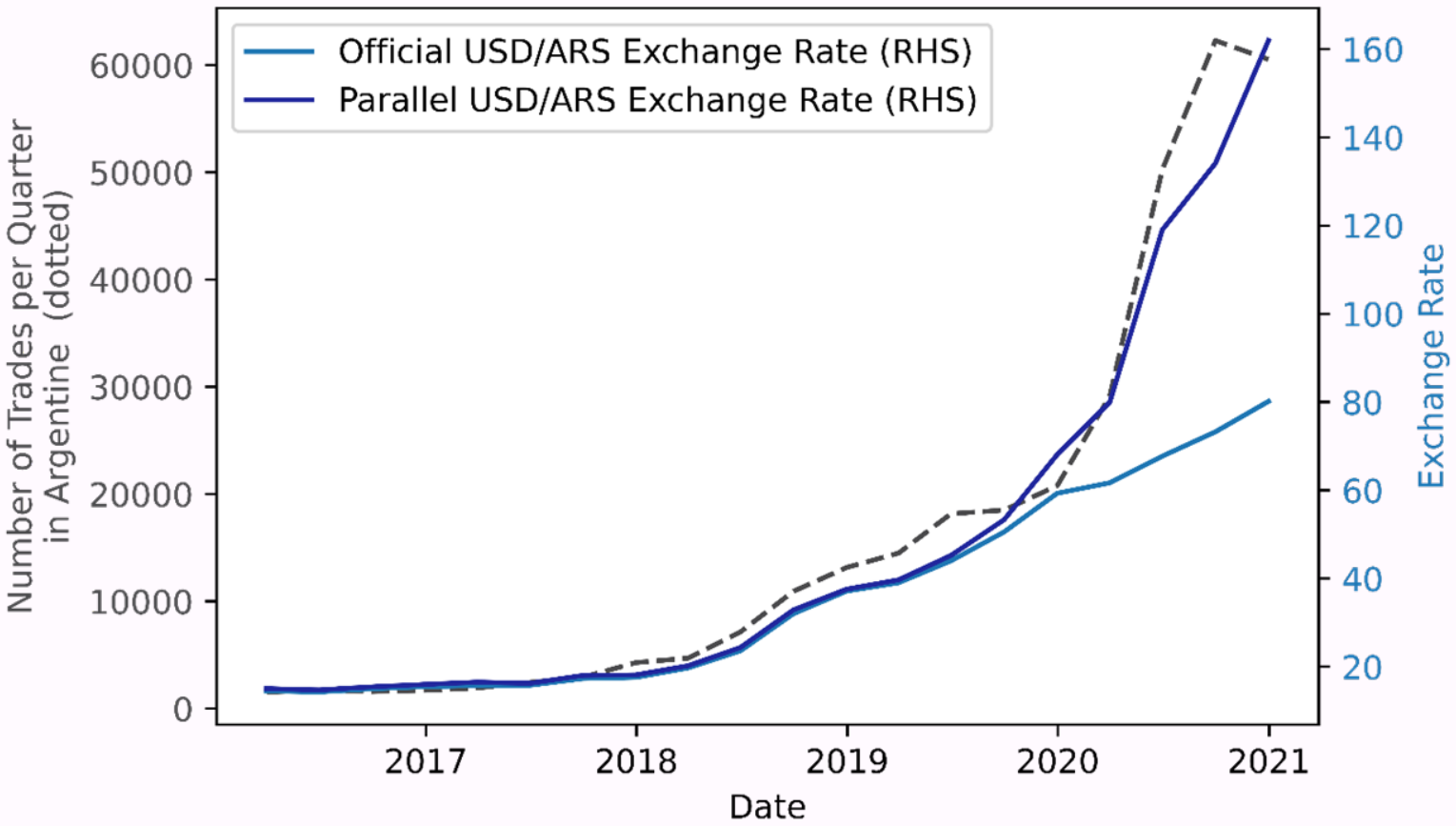


Example in support of Suggestion One

Suddenly imposed capital controls in response to sudden stop and capital flight lead to (A) the rise of parallel exchange rates; and (B) the rise of crypto adoption for capital control evasion.



Suggestion One

- How does this bias the estimates?

$$Y_{i,t} = \alpha_i + \sum_{j=1} \rho_j Y_{i,t-j} + \beta G_{t,t-1} + \gamma L_{i,t-1} + \nu EY_t + u_{i,t}$$

$$Y_{i,t} = \alpha_i + \sum_{j=1} \rho_j Y_{i,t-j} + \beta G_{t,t-1} + \gamma L_{i,t-1} + \nu EY_t + u_{i,t}$$

- Variance in $Y_{i,t}$ that is driven by variance in the country not included in $L_{i,t-1}$
- Relatively low R^2 indicates existence of unexplained variance in $Y_{i,t}$.
- Of course doesn't negate the overall finding about global cycle.
- But local factors might be higher. Indeed astonishing that paper finds exchange rate devaluation to be a significant driver, whilst a lot of the variance in local driver is muted.

Suggestion One

EMDEs affected, with parallel rates during period (potentially incomplete):

United Arab Emirates dirham (AED); Argentinian peso (ARS); Brazilian real (BRL); Chilean peso (CLP); Chinese yuan (CNY); Colombian peso (COP); Dominican peso (DOP); Egyptian pound (EGP); Hungarian forint (HUF); Indonesian rupiah (IND); Indian rupee (INR); Kenyan schilling (KES); Kazakhstani tenge (KZT); Moroccan dirham (MAD); Mexican peso (MXN); Malaysian ringgit (MYR); Nigerian naira (NGN); Peruvian sol (PEN); Philippine peso (PHP); Pakistani rupee (PKR); Polish zloty (PLN); Romanian leu (RON); Russian rouble (RUB); Saudi Arabian riyal (SAR); Thai baht (THD); Turkish lira (TRY); Tanzanian schilling (TZS); Ukrainian hryvnia (UAH); Vietnamese dong (VND); South African rand (ZAR).

Suggestion One

- Including parallel exchange rates would also fix another problem: Controlling for capital flow measures with a dataset that ends in 2016 seems inadequate.
- As is, the model mutes country-specific drivers.
- Alternative: Only assess volumes in Bitcoin
- However then price becomes structurally more important: Imagine hedgers moving constant share of income through Bitcoin abroad. Would be lower/higher depending on Bitcoin price.

Suggestion Two

- Paper considers demand factors: Incentives to trade crypto.
- What about structural supply? Are crypto currencies legal? How strict is the enforcement? See Tunisia example.
- A crypto regulation dummy alone is unlikely to be a great idea, if capital controls aren't controlled for more accurately.

Suggestion Two - Crypto Bans and Capital Controls

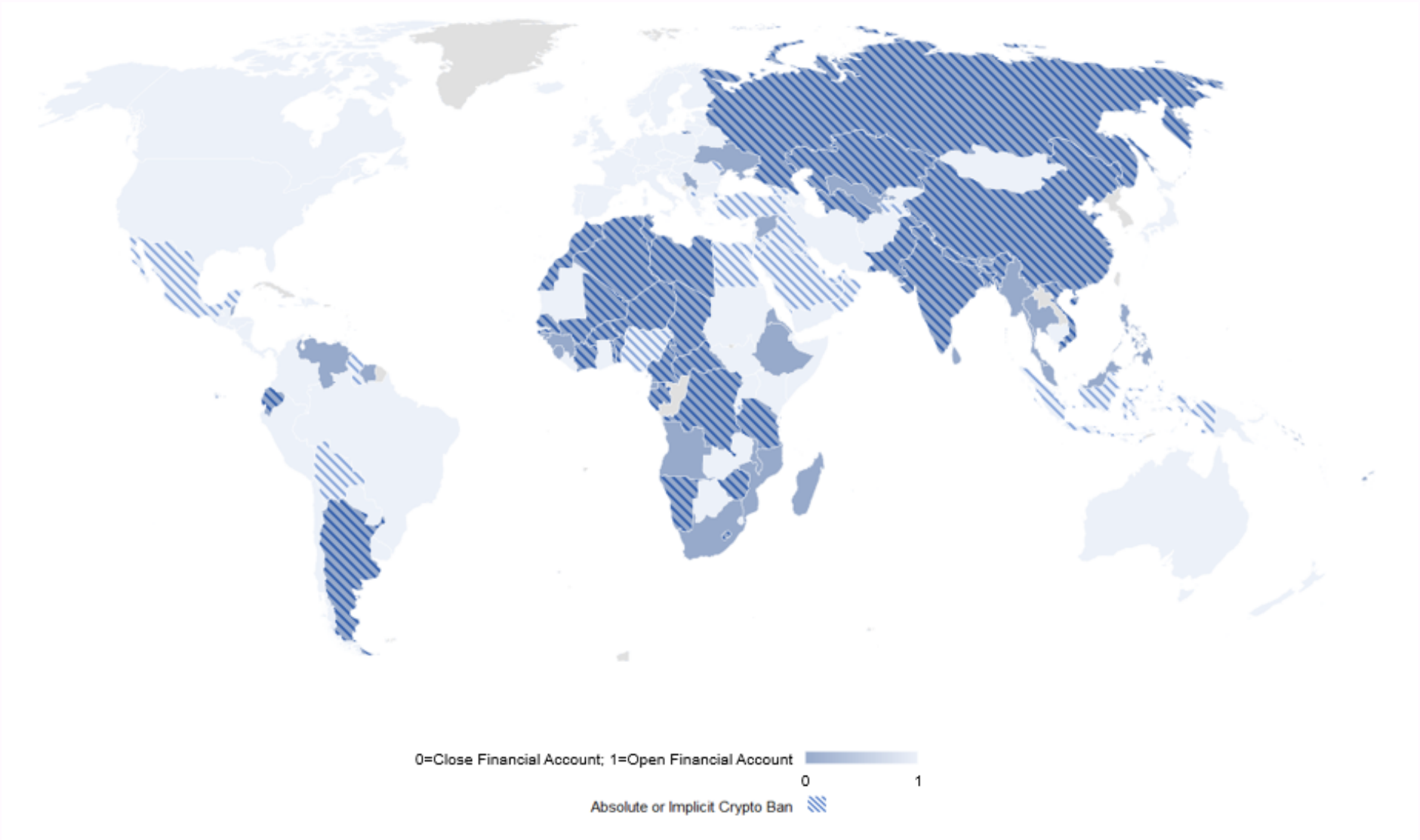


Figure: Graf von Luckner, Koepke and Sgherri, 2023

Suggestion Three

- The time period analysed overlaps with the sudden rise of stable coins - maybe it would be interesting to control for that?
- Especially, because stable coins' arrival has heterogeneous impact on different use cases:
  - Great alternative for one use case (transactional)
  - Horrible for the other (speculation)
- Maybe worth an event study?
- Anecdotal evidence: LocalBitcoins shut down, because Stable Coins ruined their business

Suggestion Four

- Add Venezuela.
- Every time Venezuela changes its currency to take off a dozen zeros after a few years of hyperinflation, the crypto data compilers drop that data.
- But Venezuelans are key users of crypto for transaction purposes:

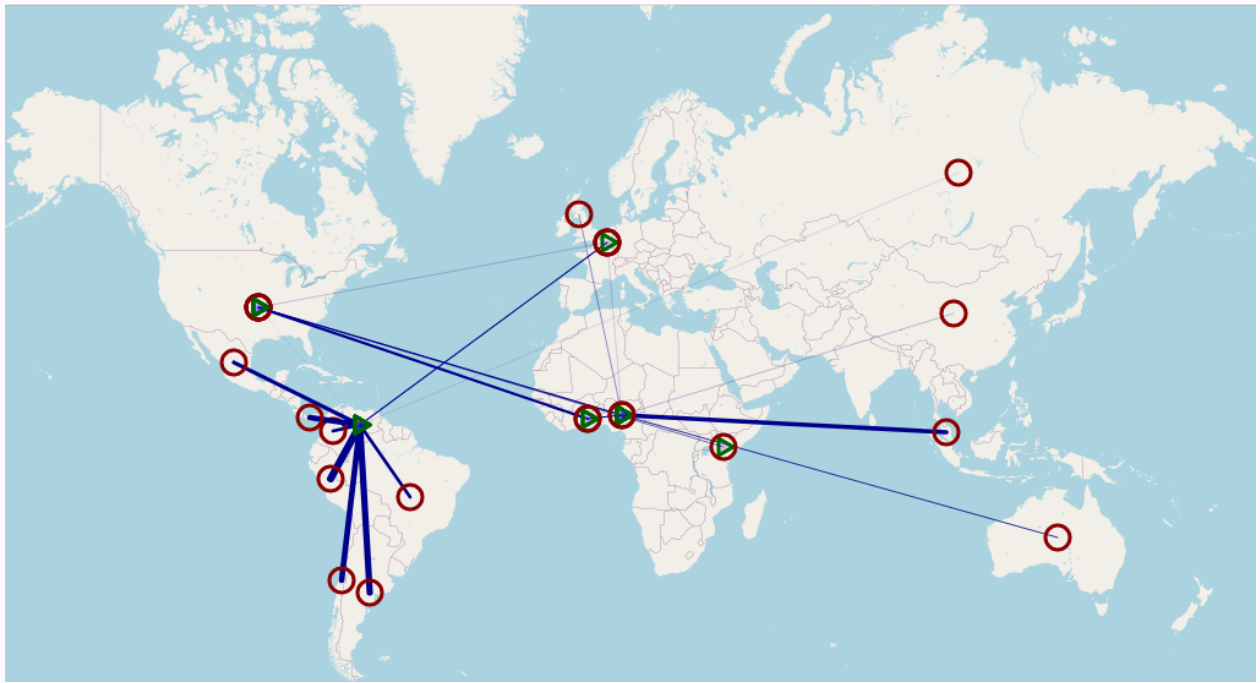


Figure: Graf von Luckner, Reinhart and Rogoff, 2023

Conclusion

- Congratulations - A great paper that will contribute to answering an important question: Why is Crypto used, where it is used. Whereas it is absent elsewhere.
- Analysis be made even stronger with a few tweaks
- (Happy to share a few more minor comments bilaterally.)