Discussion of "DeFi-ying the Fed? Monetary Policy Transmission to Stablecoin rates"

Barbon, Barthélemy, Nguyen (2025)

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This paper

Motivation

- In traditional short term lending markets (interbank, repo, commercial paper), rates are usually tightly linked to risk free benchmarks (Fed funds, SOFR, T bills).
- Example: repo rates rarely deviate from Treasury-bill yields because arbitrage is strong and participants are large institutions.
- Arbitrage mechanism:
  - If repo rates are above T bills, dealers borrow in T bills and lend in repo.
  - If below, they reverse.
- Balance sheet constraints (capital and liquidity regulations) can weaken this link, but under normal conditions the mechanism is strong.
- In DeFi, by contrast, large and persistent spreads are observed between stablecoin lending rates and short-term yields (e.g. close to 400 bps in Jan 2025).

This paper

Scope of the paper

- Investigate why DeFi stablecoin rates do not track policy rates tightly.
- Identify the underlying sources of this disconnect.

Main results

- Monetary policy affects DeFi rates, but the pass through is partial and delayed.
- Unexpected result: Supply adjusts sluggishly (e.g., 1-week, 2-3 days)

Explanations in the paper

- (i) Gas fees as adjustment costs, (ii) concentration of liquidity providers, (iii) risk premia (de peg risk, protocol and security risk).

Issue 1: What the model does

- Borrowers demand stablecoins to lever up risky crypto positions.
- Liquidity providers supply stablecoins with outside option the risk free rate.
- Equilibrium DeFi rate is determined by the interaction of supply and demand.
- Two key mechanisms:
  - **Arbitrage channel (novel):** Investors arbitrage spread between DeFi and TradFi.
  - **Demand channel:** Borrowing demand reflects leverage appetite

Mechanism: Higher risk free rates raise the opportunity cost of lending, pushing up DeFi rates.

Suggestion: Detail the steps for the actual implementation of the arbitrage.

Issue 1: What the evidence say

- The model suggests strong arbitrage and a tight link to risk free rates.
- Empirically, the pass through is weak and delayed; Fed rates explain little of the variation.
- More supportive evidence for the demand channel, but the reasons for "slow" pass-through on supply not fully explored.

Candidate frictions (model extension)

- **Gas fees:** main friction emphasized in the paper.

Empirical limitations:

- (i) Ethereum Blockchain only; (ii) Aggregate at stablecoin-level not pool.
- Liquidity is fragmented across chains and CeFi venues.

Issue 1: What the evidence say?

Gas fees in practice

- Ethereum gas fees raise the cost of rebalancing supply.
- During SVB collapse gas fees spiked to ≈200 gwei ⇒ \$70–\$170 per Aave transaction.

Quantitative relevance

- Even at peak congestion, costs are in the hundreds of dollars.
- DeFi–TradFi spreads are often **200–300 bps** on multi-million trades
- ⇒ profits ≫ gas costs.
- Gas fees may only deter arbitrage in **low-spread periods**, but not when spreads are wide.

Suggestion

- Re-estimate heterogeneity tests by comparing high-spread (High arbitrage profits) vs. low-spread periods (Low arbitrage profits).

Issue 2: Who supplies liquidity

What the paper does

- Extends the model to imperfect competition among liquidity providers.
- Finds that higher concentration raises lending rates and affects pass through.

What could be added

- Underlying assumption: overlap of market participants in DeFi and TradFi.
- Go beyond concentration and focus on **heterogeneity of providers**.
- On chain evidence shows DAOs, crypto funds, and large whales dominate supply.
- Their benchmarks are staking yields and protocol rewards, not T-bills.

Implication

- With crypto native providers dominating the supply, the transmission from Fed policy remains weak.

Issue 2: Who supplies liquidity

Beyond gas fees: Cross-market arbitrage with TradFi faces **institutional barriers** that are likely more binding.

- **Regulation and KYC/AML**: most institutions cannot interact directly with DeFi protocols.
- **Tax and accounting uncertainty**: unclear treatment of yields, difficulty of reporting on-chain activity.
- **Disclosure and compliance costs**: need to integrate wallets into audited systems.
- **Custody and smart contract risk**: operational risk, private key security, hacks.

Implication

- Institutional frictions, not gas fees, are the main reason arbitrage between DeFi and Treasuries is limited.

Issue 3: Why a delayed response?

- FOMC **rate announcements** and LPs to trace DeFi rate responses. The effects appear with a lag of 2–3 days, not immediately as in Treasuries (or other TradFi rates).
- **Breakdown by SCs:** effect may differ by stablecoin (see Ma et al. 2025) and no. of LPs.

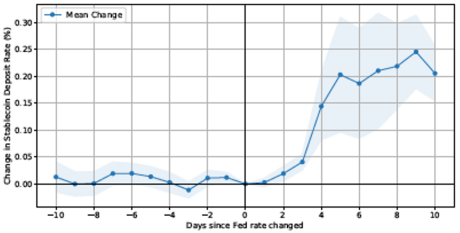
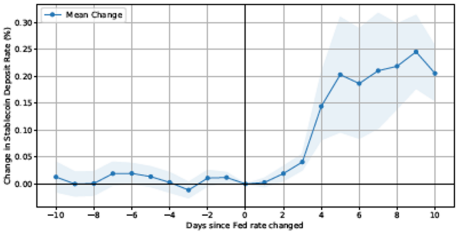


Figure 5: Event Study around FED Announcements The figure displays the daily evolution of average deposit rates around monetary policy announcements by the FED. The sample includes 11 hike announcements. We then take the average across announcements (blue line) and we report the 95% confidence interval (light-blue area).

Issue 3: Why a delayed response?

- **Asymmetry in responses:** check whether DeFi rates adjust faster after cuts vs hikes.
- **Crypto-specific dynamics:** compare with BTC/ETH funding rates. Is the delay unique to DeFi lending or common across crypto assets? Are borrowers reacting faster?
- **Gas fee interaction:** are fees systematically higher after rate moves (due to speculative flows), amplifying frictions?
- **Normal times:** Excl. Terra and SVB "spikes" to measure pass-through.



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Issue 3: Why a delayed response?

- The policy vs information decomposition is emphasized in:
  - Nakamura & Steinsson (2018, QJE) *High-Frequency Identification of Monetary Non-Neutrality: The Information Effect*.
  - Jarociński & Karadi (2020, AEJ: Macro) *Deconstructing Monetary Policy Surprises - The Role of Information Shocks*.
- These papers argue high-frequency Fed moves reflect both:
  - a **pure monetary policy shock** (unexpected change in stance), and
  - an **information shock** (Fed revealing news about fundamentals).

Suggestion

- Does DeFi's delayed response reflects slow arbitrage or sentiment-driven demand shifts?

Clarifying Contribution

What the paper says

- Positions itself as contributing to the literature on the risk-taking channel of monetary policy.
- Provides evidence on *price pass-through*, focusing on deposit rates, rather than on *risk reallocation* as in banks or other intermediaries.
- Offers no direct evidence that the *composition of borrower risk* changes.

Closing

- The Fed matters in DeFi, but only at the margin under current conditions.
- Future work should deepen the role of liquidity providers, explore breakdown and different components of monetary policy announcements.
- Looking ahead: if DeFi and stablecoin lending continue to grow, stablecoin issuers' Treasury holdings may themselves influence short term yields (Ahmed and Aldasoro 2025), creating a two way feedback loop between DeFi and monetary policy.

Best of luck!

References

Nakamura, Emi, and Jón Steinsson (2018) *High-Frequency Identification of Monetary Non-Neutrality: The Information Effect. Quarterly Journal of Economics*, 133(3): 1283–1330. https://doi.org/10.1093/qje/qjy004

Jarociński, Marek, and Peter Karadi (2020) *Deconstructing Monetary Policy Surprises—The Role of Information Shocks. American Economic Journal: Macroeconomics*, 12(2): 1–43.