BIS Working Papers
No 1270

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Monetary and Economic Department

May 2025

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This publication is available on the BIS website (www.bis.org).

ISSN 1020-0959 (print)
ISSN 1682-7678 (online)

Stablecoins and safe asset prices*

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Abstract

This paper examines the impact of dollar-backed stablecoin flows on short-term US Treasury yields using daily data from 2021 to 2025. Estimates from instrumented local projection regressions suggest that a 2-standard deviation inflow into stablecoins lowers 3-month Treasury yields by 2-2.5 basis points within 10 days, with limited to no spillover effects on longer tenors. We also find evidence of asymmetric effects: stablecoin outflows raise yields by two to three times as much as inflows lower them. Decomposing the yield impact by issuer shows that USDT (Tether) has the largest contribution followed by USDC (Circle), consistent with their relative size. Our results highlight stablecoins' growing footprint in safe asset markets, with implications for monetary policy transmission, stablecoin reserve transparency, and financial stability.

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1 Introduction

Dollar-backed stablecoins have seen remarkable growth and are poised to reshape financial markets. As of March 2025, the combined assets under management of these cryptocurrencies promising par convertibility to the US dollar and backed by dollar-denominated assets exceeded \$200 billion (B), surpassing the short-term US securities holdings of major foreign investors like China (Figure 1, left-panel). Stablecoin issuers, notably Tether (USDT) and Circle (USDC), back their tokens primarily with US Treasury bills (T-bills) and money market instruments, positioning them as significant players in short-term debt markets.[1] Indeed, dollar-backed stablecoins purchased nearly \$40B of US T-bills in 2024, similar to the largest US government money market funds and larger than most foreign purchases (Figure 1, right-panel). While prior research focuses on stablecoins' role in cryptocurrency volatility (Griffin and Shams, 2020), their impact on commercial paper markets (Barthelemy et al., 2023) or their systemic risks (Bullmann et al., 2019), their interaction with traditional safe asset markets remains underexplored.

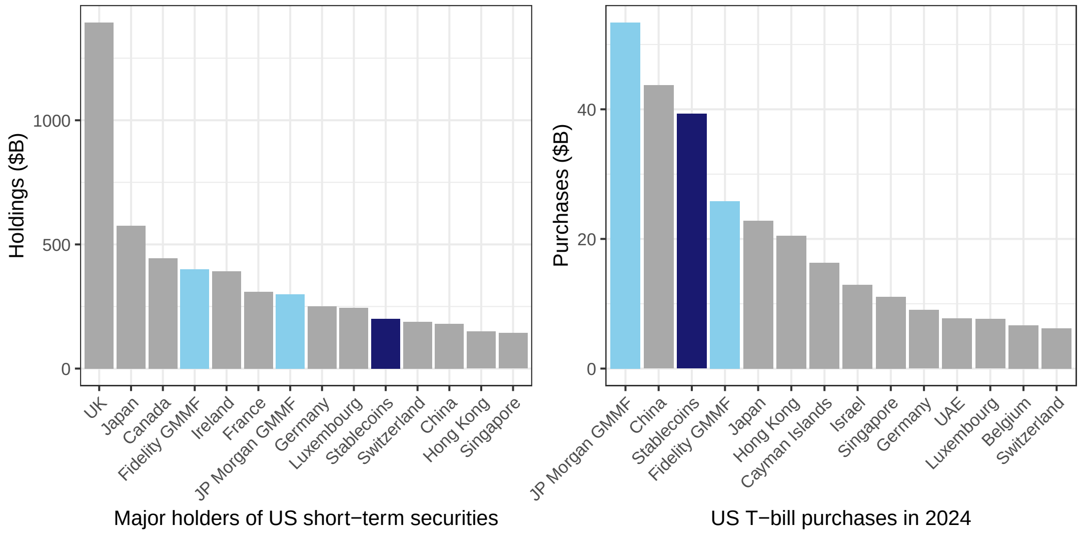
This paper investigates whether stablecoin flows exert measurable demand pressures on US Treasury yields. We document two key findings. First, stablecoin flows compress short-term T-bill yields, with effects comparable to that of small-scale quantitative easing on long-term yields.[2] In our most stringent specification, which aims to overcome endogeneity concerns by using a series of crypto shocks that affect stablecoin flows but not Treasury yields directly, we find that 5-day stablecoin inflows of \$3.5B, or 2 standard deviations, lower 3-month T-bill yields by about 2-2.5 basis points (bps) within 10 days. Second, we decompose yield impacts into issuer-specific contributions to find that USDT has the largest contribution to T-bill yield compression, followed by USDC. We discuss the policy implications of our findings for monetary policy transmission, stablecoin reserve transparency, and financial stability.

Our empirical analysis is based on daily data from January 2021 to March 2025. To construct a measure of stablecoin flows, we collect market capitalization data for the six largest dollar-backed stablecoins and aggregate them into

[1] According to their December 2024 reserve disclosures, Tether and Circle held about 65% and 44% of their reserves in US T-bills, respectively.

[2] See for example Krishnamurthy and Vissing-Jorgensen (2011) and D'Amico and King (2013).

Figure 1: Size and growth of stablecoin reserves relative to other large holders of US short-term securities



Note: Data are sourced from US Treasury TIC, OFR, CoinMarketCap, and USDT and USDC reserve reports. Left-panel: Short-term US securities include US T-bills, agency and bank debt, bank deposits, negotiable CDs, repurchase agreements, commercial paper, money market funds, and other short-term securities. Foreign country holdings are as of December 2024, Fidelity and JP Morgan government money market fund holdings are as of February 2025, and stablecoin holdings are as of March 2025. Stablecoin T-bill purchases is the sum of USDT and USDC T-bill position changes from December 2023 to December 2024.

a single number.[3] We then use 5-day changes in aggregate stablecoin market capitalization as our proxy for inflows into stablecoins. We collect data on the US Treasury yield curve, as well as data on cryptocurrency prices (Bitcoin and Ether). We choose the 3-month Treasury bill yield as our outcome variable of interest as the largest stablecoins have either disclosed or publicly stated this tenor as their preferred habitat.

A simple univariate local projection of changes in 3-month T-bill yields on 5-day stablecoin flows is likely subject to severe endogeneity bias. Indeed, estimates from this 'naïve' specification suggest that a $3.5B inflow into stablecoins is associated with 3-month T-bill yields declining by up to 25 bps within 30 days. The magnitude of this impact is implausibly large, as it suggests that a 2-standard deviation inflow into stablecoins has a similar impact on short-term interest rates as a Federal Reserve policy rate cut. We argue that these large estimates can be explained by the presence of endogeneity that biases the estimates downward (i.e., larger negative estimates relative to the true effect), due to both omitted variable bias (as potential confounders are

[3] In addition to USDT and USDC, this includes TrueUSD (TUSD), Binance USD (BUSD), First Digital USD (FDUSD), and PayPal USD (PYUSD).

not controlled for) and simultaneity bias (as Treasury yields may affect flows into stablecoins).

To overcome endogeneity concerns we first extend the local projection specification to control for the US Treasury yield curve along with cryptoasset prices. These controls enter as two sets. The first set includes forward changes (t to $t + h$) in US Treasury bill yields of maturities other than 3 months. We control for the forward evolution of the bill yield curve in order to isolate the impact of stablecoin flows on 3-month yields *conditional* on yield changes of proximate maturities over the same local projection horizon. The second set of control variables condition on 5-day changes ($t - 5$ to t) in Treasury bill and bond yields and cryptoasset prices to control for a variety of financial and macro conditions that may be correlated with stablecoin flows. After introducing these control variables, the local projections estimate a 2.5 to 5 bp decline in T-bill yields following a $3.5B inflow into stablecoins. These estimates are statistically significant yet almost an order of magnitude smaller than the 'naïve' estimates. The attenuation of the estimates is consistent with our expectations of the sign of the endogeneity bias.

In a third specification, we further sharpen identification with an instrumental variable (IV) strategy. Following Aldasoro et al. (2025), we instrument 5-day stablecoin flows with a series of crypto shocks constructed from the unforecastable component of cryptoasset returns, based on the Bloomberg Galaxy Crypto Index. We use the cumulative sum of the crypto shock series as our instrument to capture idiosyncratic but persistent crypto market booms and busts. First-stage regressions of 5-day stablecoin flows on cumulative crypto shocks satisfy the relevance condition, and show that stablecoins tend to receive significant inflows during crypto market booms. We argue that the exclusion restriction is satisfied because idiosyncratic crypto booms are sufficiently isolated as to not meaningfully impact Treasury market pricing – except through flows into stablecoins, that issuers use to purchase Treasuries.

Our IV estimates suggest that a $3.5B inflow into stablecoins lowers 3-month T-bill yields by 2-2.5 basis points. These results are robust to altering the set of controls by focusing on tenors that are less correlated with 3-month yields – if anything, results become quantitatively slightly stronger. In additional analyses, we find no evidence of spillovers of stablecoin purchases to longer tenors such as 2-year and 5-year, although we do find limited evidence of spillover effects in the 10-year tenor. In principle, the effect of inflows and outflows could be expected to be asymmetric, since the former allows issuers some discretion in timing their purchases whereas no such leeway exists under stressed market conditions. When we allow the estimates to differ between inflow and outflow conditions, we indeed find that outflows have a quantitatively larger impact on yields than inflows (+6-8 bps versus -3 bps respectively). Finally, based on our IV strategy and baseline specification, we also decompose the estimated yield impact of stablecoin flows into issuer-specific contributions. We find that USDT flows have the largest average contribution, of about 70%, while USDC flows contribute around 19% to the estimated yield impact. Other stablecoin issuers contribute the rest (around 11%). These contributions are qualitatively proportional to issuer size.[4]

Our findings have important implications for policy, not least if the stablecoin market continues to grow.[5] Concerning monetary policy, our yield impact estimates suggest that if the stablecoin sector continues to grow rapidly, it may eventually affect the pass-through of monetary policy to Treasury yields. Stablecoins' growing footprint in Treasury markets may also contribute to safe asset scarcity for non-bank financial institutions, potentially affecting the liquidity premium (D'Avernas and Vandeweyer, 2024). Concerning stablecoin regulation, our results highlight the importance of transparent reserve disclosures that allow for the effective monitoring of concentrated stablecoin reserve portfolios.

There are potential financial stability implications that arise when stablecoins become large investors in Treasury markets. For one, it exposes the market to potential fire sales in the event of a run on a major stablecoin. Indeed, our estimates suggest that such asymmetric effects are already measurable. The magnitude of our estimates is likely to be a lower bound of potential fire sale effects, as they are obtained from a sample largely based on a growing market and thus likely underestimate the potential for non-linear effects under severe stress. Moreover, part of the investments of stablecoins themselves for example through reverse repo agreements backed by Treasury collateral may facilitate arbitrage strategies such as the Treasury basis trade, a first or-

[4] As of March 2025, USDT is the largest stablecoin in circulation at \$140B, holding 64% of their reserves in T-bills. USDC has a market cap of about \$50B with 44% of their reserves in T-bills.

[5] A recent report by Citigroup for example estimates that the stablecoin market may grow to \$1.6 (\$3.7) trillion in a base (bull) case by 2030. The Treasury Borrowing Advisory Committee estimates a potential for \$2 trillion market capitalization by 2028.

der concern for regulators.[6] Equity and liquidity buffers may alleviate some of these financial stability risks (Goel et al., 2025; Liao et al., 2024).

Related literature. Our work relates to research on the demand for safe assets. Krishnamurthy and Vissing-Jorgensen (2012) show that demand for liquidity and safety suppresses Treasury yields. Lower short-term rates may in turn incentivize the issuance of risky short-term debt, potentially undermining financial stability (Greenwood et al., 2015). Doerr et al. (2023) present evidence that money market funds (MMFs) can influence the price of near-money assets such as repos and Treasuries. Foreign demand has also been shown to affect Treasury yields (Ahmed and Rebucci, 2024). Stablecoins, whose balance sheets look very similar to those of MMFs, may contribute to such effects, but their marginal impact remains unquantified despite their growing role in the market.

Moreover, we contribute to a growing body of work on stablecoins. Much of this literature studies stablecoin stability (Arner et al., 2020; d'Avernas et al., 2023; Lyons and Viswanath-Natraj, 2023; Kosse et al., 2023), adoption (Bertsch, 2023), runs (Ahmed et al., 2025; Gorton et al., 2022) and market structure (Ma et al., 2023), among others. Closer to our paper, Barthelemy et al. (2023) and Kim (2025a) study the effect of stablecoin investments in the commercial paper market. Our paper focuses instead on the reserve asset that has come to dominate major stablecoins' reserves, namely Treasury securities. In a contemporaneous paper, Kim (2025b) presents evidence of the effect of Tether minting on Treasury exchange-traded funds and use a macro-finance model to argue for a potential non-linear effect of stablecoins on the Treasury market if the former were to grow substantially.

Roadmap. The rest of the paper is structured as follows. Section 2 presents the data sources and methodology, and discusses the biases present in a simple estimation of the effect of stablecoin flows on Treasury yields. Section 3 discusses how to deal with these biases and presents our main results. Section 4 discusses magnitudes, mechanisms, policy implications, and limitations. Finally, Section 5 briefly concludes.

[6] This could materialize, for example, through money market funds managing stablecoins' cash reserves. Money market funds' cash lending in sponsored repo mirrors the short positions on Treasury futures by hedge funds (Aldasoro and Doerr, 2023, 2025), a tell-tale sign of the scope of such arbitrage strategies.

2 Data and methodology

2.1 Data sources

We base our analysis on data at the daily frequency from January 2021 to March 2025, from various sources. First, we collect market capitalization data from CoinMarketCap on six USD-backed stablecoins: USDT, USDC, TUSD, BUSD, FDUSD, PYUSD. We aggregate across these stablecoins to arrive at a measure of aggregate stablecoin market capitalization, and then compute its five-day change.[7] We collect daily prices for Bitcoin and Ether, the two largest cryptocurrencies, from Yahoo Finance. We source daily series of US market interest rates across the US Treasury yield curve from FRED. We consider the following maturities: 1-month, 3-month, 6-month, 1-year, 2-year, and 10-year. Table 1 reports summary statistics.[8]

As part of our identification strategy, we also use a daily version of the crypto shock series proposed in Aldasoro et al. (2025). Crypto shocks are computed as the unforecastable component of the Bloomberg Galaxy Crypto Index (BGCI), an index that captures broad crypto market developments (we provide more details on the crypto shocks below).

Figure 2 shows USD-backed stablecoin market capitalization and US Treasury yields over the sample period. Since the second half of 2023 stablecoin market capitalization has been on the rise, with a notable increase in early and late 2024. The sector is very highly concentrated. The two largest stablecoins (USDT and USDC) account for over 95% of outstanding amounts. Treasury yields in our sample capture both the hiking cycle as well as the pause and subsequent easing period that began around mid-2024. The sample period also covers an episode of a clear curve inversion, as seen most notably through the dark blue line going from the bottom to the top of the yield complex.

[7] We also report the five-day change separately for USDC and USDT, as we also use them separately in parts of our analyses.

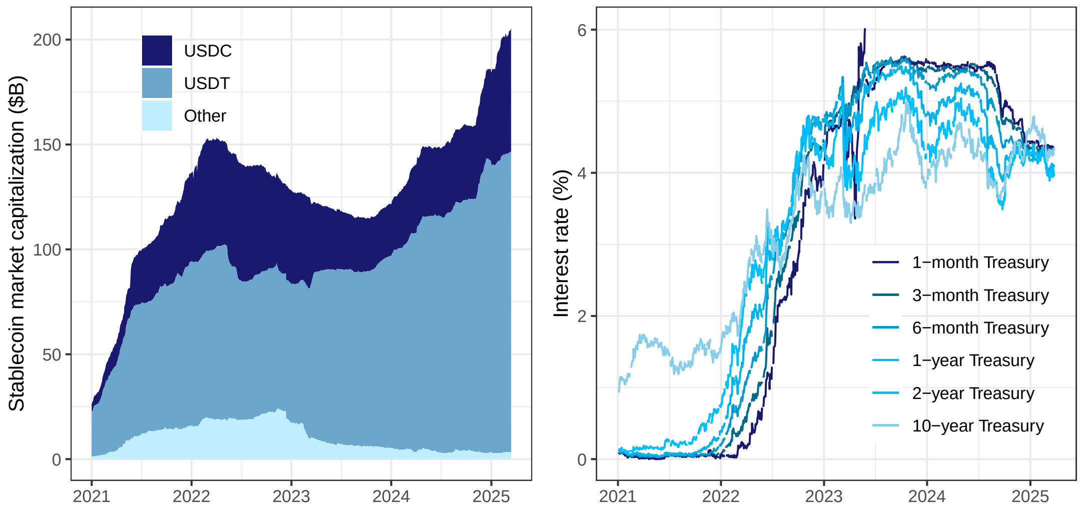
[8] We also collected additional data to compare the size and growth of stablecoins against other sectors (see Figure 1). Data on foreign holders and purchases of US money market securities, including T-bills, come from the Treasury International Capital (TIC) database. Data on US government money market funds are from the Office of Financial Research (OFR).

Table 1: Summary statistics

Variable	T	Mean	St. Dev.	Min	Max
5-day stablecoin flow ($B)	1,091	0.812	1.747	−4.019	11.539
5-day USDT flow ($B)	1,091	0.555	1.202	−8.684	5.308
5-day USDC flow ($B)	1,091	0.247	1.148	−6.533	7.716
1-month US yield (%)	1,046	3.105	2.343	0.000	6.020
3-month US yield (%)	1,046	3.214	2.302	0.010	5.630
6-month US yield (%)	1,046	3.276	2.218	0.020	5.610
1-year US yield (%)	1,046	3.224	2.061	0.040	5.490
2-year US yield (%)	1,046	3.115	1.800	0.090	5.190
10-year US yield (%)	1,046	3.212	1.176	1.040	4.980
Bitcoin price ($)	1,091	45,230.03	21,628.71	15,787.28	106,146.30
Ether price ($)	1,091	2,429.25	860.46	1,038.19	4,812.08

Note: Daily data ranging from January 8, 2021 to March 14, 2025. Cryptocurrency data feature a larger sample size because they are also observed over weekends. Stablecoin flows are the sum the flows from the following six dollar-backed stablecoins: USDT, USDC, TUSD, BUSD, FDUSD, and PYUSD. US yields refer to US Treasury securities. Flows are calculated as the 5-day change in stablecoin market capitalization.
Sources: CoinMarketCap, FRED, Yahoo Finance.

Figure 2: Stablecoin market capitalization and US Treasury yields



Note: The left-panel plots the daily market capitalization of six USD-backed stablecoins: USDT and USDC, with ‘Other’ containing the sum of TUSD, BUSD, FDUSD, and PYUSD. The right-panel plots daily US Treasury yields for several maturities.

2.2 Variable construction

We seek to estimate the effect of stablecoin flows on short-term Treasury yields. To this end, we use the market capitalization variable to compute a 5-day stablecoin flow measure as the difference in market capitalization, in order to capture weekly liquidity movements:

$$Flow(5d)_t = MC_t - MC_{t-5}, \tag{1}$$

where MC_t is stablecoin market capitalization on day t. Note that MC_t can be expressed as the product of the stablecoin price and outstanding supply: $P_t \times S_t$, where flows are inferred from changes in S_t. Therefore, Equation (1) makes the simplifying assumption that stablecoins maintain their peg of $P_t = \$1 \ \forall \ t$. Empirically, these USD-backed stablecoins have maintained relatively tight pegs over time, with a few exceptions of substantial peg deviations that have typically been short-lived (most notably the de-peg of USDC around the collapse of Silicon Valley Bank in March 2023).

Figure 3 plots $Flow(5d)_t$ over the sample period along with flow measures for USDT and USDC. Stablecoin flows are positive on average during the sample period, with average 5-day flows of \$0.82B. They are also highly volatile, with a standard deviation of \$1.747B. The right-panel of Figure 3 shows that the largest contributors to total stablecoin flows are USDT and USDC – the largest USD-backed stablecoins with a market capitalization exceeding \$140B and \$55B respectively as of March 2025.

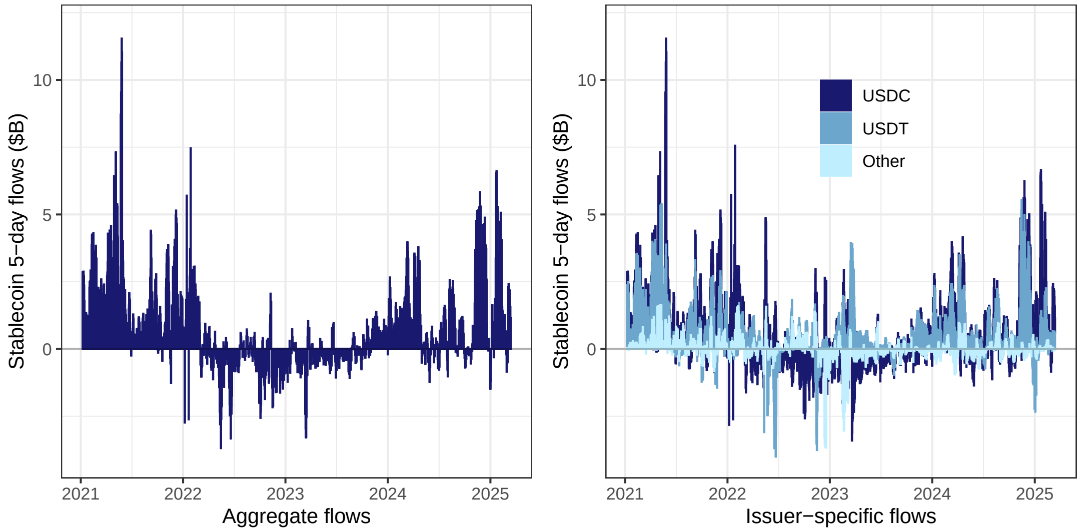
2.3 Stablecoin flows, T-bill yields and endogeneity

Our analysis investigates the relationship between stablecoin flows and US T-bill yields. As our benchmark outcome variable, we consider the 3-month T-bill yield for two reasons. First, this is likely to be the most representative tenor for the preferred habitat of stablecoin issuers.[9] Second, because this tenor is the most liquid and widely quoted among short-term Treasuries.

We begin by providing a simple univariate local projection specification,

[9] USDC reserve disclosures provide securities positions at the CUSIP level and rarely report holdings with maturities beyond three months. While USDT's reserve disclosures are less transparent, Tether's CEO has publicly stated that the issuer focuses on T-bill investments maturing no later than 90 days; see for example the interview in the Odd Lots podcast.

Figure 3: 5-day aggregate and issuer-specific stablecoin flows



Note: The left-panel plots aggregate 5-day stablecoin flows ($Flow(5d)_t$) of six USD-backed stablecoins. The right-panel plots issuer-specific $Flow(5d)_t$ for USDT and USDC, with 'Other' containing the sum of TUSD, BUSD, FDUSD, and PYUSD flows.

to help illustrate the estimation biases that need to be considered:

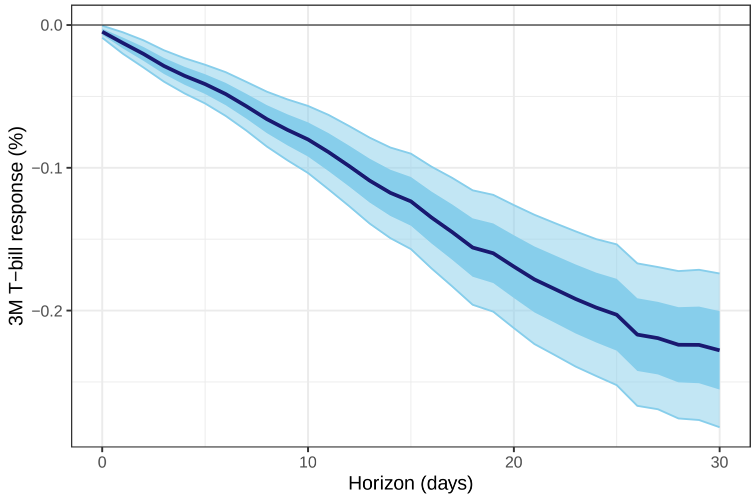
$$y^{3M}_{t+h} - y^{3M}_{t-1} = \alpha_h + \beta_h Flow(5d)_t + e_{t+h}, \qquad h = \{0, ..., 30\}, \tag{2}$$

which provides a sequence of β_h estimates that trace the raw impulse response function (IRF) of 5-day stablecoin flows, $Flow(5d)_t$, on h-day changes in 3-month T-bill yields, $y^{3M}_{t+h} - y^{3M}_{t-1}$, absent any controls. Figure 4 reports the IRF, with estimates scaled to a \$3.5B stablecoin inflow (approximately 2 standard deviations).

The local projection estimates suggest that a \$3.5B inflow into stablecoins is associated with 3-month T-bills compressing up to 25 bps over the following 30 days. These estimates are implausibly large, as they imply an impact on short-term yields similar to that of a Federal Reserve interest rate cut.

The large estimates are likely explained by the presence of endogeneity. Endogeneity from simultaneity, for example, may be at play. Because stablecoins pay zero interest, the opportunity cost of holding them increases with interest rates. As a result, it is possible for high interest rates to negatively impact stablecoin flows and for large stablecoin flows to negatively impact interest rates at the same time. Left unaddressed (as in Figure 4) and under simple

Figure 4: IRF of $3.5B stablecoin inflow on 3-month T-bill yields (no controls)



Note: IRF estimate produced from local projection specified in Equation (2). A $3.5B inflow is approximately a 2-standard deviation flow. Darker and lighter shaded regions correspond to 68% and 95% Newey-West confidence bands, respectively.

but plausible assumptions, such simultaneity biases the IRF estimates downward, making them larger and more negative than the true effect of flows on yields.[10] The lag structure of the local projection specification in Equation (2) may alleviate some simultaneity concerns, but it cannot eliminate it on its own because of the forward-looking nature of financial markets. Moreover, because stablecoin flows do not occur in a vacuum, it is possible that the IRF estimates in Figure 4 are also subject to endogeneity from omitted variable bias. For example, macroeconomic conditions can jointly impact the demand for cryptocurrencies and stablecoins while also impacting Treasury yields.[11]

3 The effect of stablecoin flows on Treasury yields

We next present our empirical strategy to address the sources of endogeneity discussed above. This helps us sharpen our estimates of the effect of stablecoin flows on T-bill yields.

[10] See Ahmed and Rebucci (2024) for an in-depth analysis of signing the bias when estimating the flow effect on Treasury yields.

[11] For evidence of how stablecoins react to monetary policy shocks, see Aldasoro et al. (2025). On the macroeconomic drivers of of cryptocurrency adoption, see Ahmed et al. (2024). For a discussion of how adoption of crypto and stablecoins depends on Bitcoin prices (and how retail investors chase past returns), see Auer et al. (2025).

3.1 Extended local projection regressions

First, we extend Equation (2) to a local projection specification with controls:

$$y_{t+h}^{3M} - y_{t-1}^{3M} = \alpha_h + \beta_h Flow(5d)_t + \sum_{k\in K} \gamma_h [y_{t+h}^k - y_{t-1}^k] + \sum_{p\in P} B_h^p X(5d)_{p,t} + e_{t+h}, \quad (3)$$

where

$$\sum_{p\in P} B_h^p X(5d)_{p,t} = \sum_{k'\in P} B_h^{k'} [y_t^{k'} - y_{t-5}^{k'}] + B_h^0 [\ln BTC_t - \ln BTC_{t-5}] + B_h^1 [\ln ETH_t - \ln ETH_{t-5}],$$

with $h = \{0, ..., 30\}$, $k = \{1M, 6M, 1Y\}$, and $k' = \{1M, 3M, 6M, 1Y, 2Y, 10Y\}$.

As specified, Equation (3) introduces two sets of control variables. The first controls for the forward evolution of money market yields aside from the 3-month yield. Specifically, we control for 1-month, 6-month and 1-year yields. Therefore, estimates of β_h would now be interpreted as the effect of stablecoin flows on 3-month T-bill yields in excess of changes to T-bill yields of proximate maturities.

The second set of control variables condition on 5-day changes in interest rates (including both T-bill and T-bond yields) and crypto asset prices. We do this to further isolate the plausibly exogenous component of 5-day stablecoin flows that are unrelated to changing macro-financial and crypto market conditions over the same 5-day period. We include a wide range of Treasury yields to control for macro-financial conditions, and we include Bitcoin and Ether prices to control for crypto market conditions. Macro-financial conditions can impact stablecoins directly, because interest rate changes affect the opportunity cost of holding stablecoins, and indirectly by affecting aggregate demand and risk appetite. Cryptocurrency booms and busts, which are functions of a host of endogenous factors, can influence demand for stablecoins because stablecoins facilitate crypto market activity.

3.2 Exploiting variation in cryptoasset booms and busts

While carefully selected controls may help reduce endogeneity bias in β_h, it's unlikely that they fully eliminate it. Therefore, in addition to introducing controls, we consider an instrumental variable (IV) for $Flows(5d)_t$ in Equation (3) using a measure of plausibly exogenous variation in cryptocurrency prices.

We construct a daily version of the crypto shocks in Aldasoro et al. (2025). This shocks series is constructed as the unforecastable component of the Bloomberg Galaxy Crypto Index (BCGI).[12] Concretely, we purge financial market developments from the BGCI through the elastic net, a simple supervised learning algorithm. We estimate the following model:

$$\min_{\beta_0,\beta} \left[\frac{1}{2N} \sum_{t=1}^{N} \left(S_t - \beta_0 - X_t^T \beta \right)^2 + \lambda P_\alpha (\beta) \right], \tag{4}$$

with the penalization function:

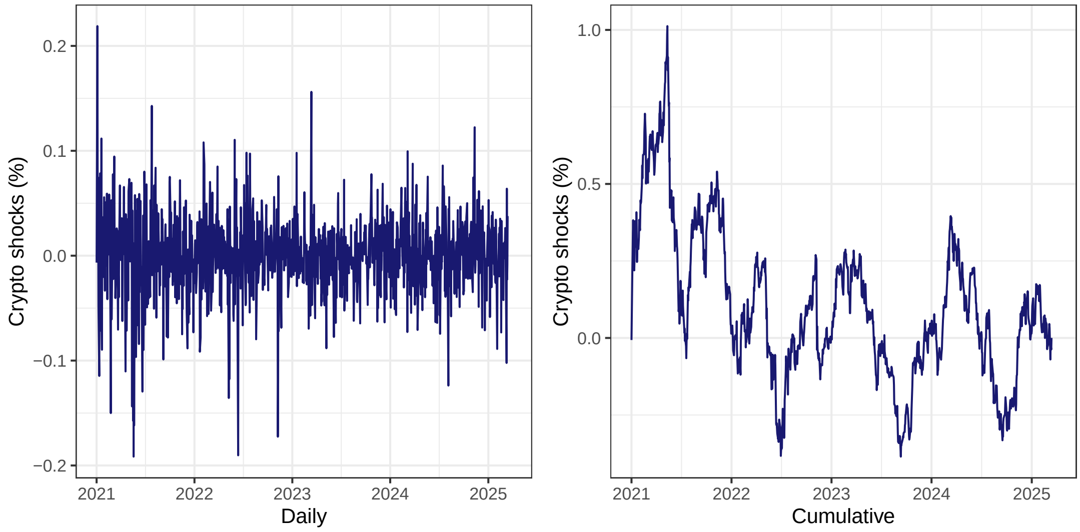
$$P_\alpha (\beta) = \frac{(1-\alpha)}{2} ||\beta||^2 + \alpha ||\beta||. \tag{5}$$

in Equation (4), S_t is the (log) change in the index at week t and X a matrix of candidate controls including the contemporaneous and lagged values of: the change in the US 3-month yield, the (log) gold price, the Citigroup economic surprise index, the (log) of the VIX, the (log) of the oil price, the (log) of the US dollar nominal effective exchange rate (NEER), the (log) of the S&P 500 and the term spread. We also include the lag of the (log) change in the BGCI. β_0 is the loading of the constant and β is a vector of loadings for each variable in X, whereas α and λ are scaling parameters that govern the size of the penalty for including more regressors. We estimate Equation (4) following Zou and Hastie (2005) and Hastie et al. (2009). For further details, see Aldasoro et al. (2025).

Figure 5 presents the crypto shock series. The left-hand panel presents the daily series. As discussed in Aldasoro et al. (2025) (Appendix A), this series captures relevant events in crypto markets. The daily series, however, are inadequate for our purposes. The series is rather volatile, with little or no

[12] Importantly, the BGCI does not include stablecoins among its constituents. See the documentation page and the Bloomberg Galaxy Crypto Index factsheet for more information on the BCGI.

Figure 5: Daily and cumulative idiosyncratic cryptocurrency price shocks



Note: the left panel presents our raw crypto shock series, whereas the right panel presents the cumulative sum of the crypto shocks.

autocorrelation. These features suggest that the shocks are plausibly exogenous. But, if used in their raw form, they may not adequately reflect periods of persistent crypto booms and busts that are typically associated with large changes in the demand for cryptocurrencies and hence stablecoins (Adams et al., 2024). Moreover, lead-lag correlations between crypto shocks and stablecoin flows may be irregular and change over time. Therefore, it may be difficult to capture correlations between crypto shocks and stablecoin flows using the crypto shocks in raw form. The right-hand panel Figure 5 presents in turn a cumulative summed version of the crypto shocks.[13] The cumulative series does not exhibit trending behavior, while persistent booms and busts are clearly present.

These cumulative crypto shocks serve as a useful instrument for stablecoin flows because they satisfy both instrument relevance and exogeneity conditions. With regards to relevance, crypto shocks should be positively correlated with stablecoin flows. We show this through a first-stage regression of stablecoin flows on cumulative crypto shocks, reported in Table 2. Column 1 reports the first stage regression using aggregate stablecoin flows, while columns 2 and 3 show that crypto shocks are significantly associated with issuer-specific

[13]We choose to take the cumulative sum of crypto shocks due to the additive properties of log returns over multiple periods.

flows of USDC and USDT, respectively. Overall, cumulative crypto shocks are significantly and positively correlated with stablecoin flows. The reported robust F statistics are generally large, indicating that the risk of a weak instrument is low. Notably, the sensitivity of USDT flows to crypto shocks is stronger than that of USDC flows (2.28 vs 0.61 and 0.365, respectively), consistent with the size difference between the stablecoin issuers. That said, the positive coefficients suggest that crypto shocks encourage inflows across stablecoin issuers, rather than merely reallocating flows between them. These results are consistent with cryptocurrency booms generating demand for stablecoins, as stablecoins facilitate cryptocurrency activities.

Table 2: First stage IV regressions of stablecoin flows on crypto shocks

	Dependent variable:			
	Aggregate $Flow(5d)_t$	USDC $Flow(5d)_t$	USDT $Flow(5d)_t$	Other $Flow(5d)_t$
	(1)	(2)	(3)	(4)
Intercept	0.479*** (0.063)	0.185*** (0.043)	0.322*** (0.050)	−0.028 (0.022)
Cumulative crypto shocks	3.261*** (0.254)	0.611*** (0.176)	2.286*** (0.167)	0.365*** (0.087)
Observations	1,091	1,091	1,091	1,091
Adjusted R^2	0.207	0.016	0.215	0.025
F Statistic	164.710***	11.962***	187.07***	17.337***

Note: Daily data. Aggregate stablecoin flows are the sum the flows from the following six dollar-backed stablecoins: USDT, USDC, TUSD, BUSD, FDUSD, and PYUSD. The series of crypto shocks are constructed as in Aldasoro et al. (2025). Newey-West standard errors with '*', '**', '***' referring to significance at the 10%, 5%, and 1% level, respectively. F-statistics are adjusted for heteroskedasticity and autocorrelation.

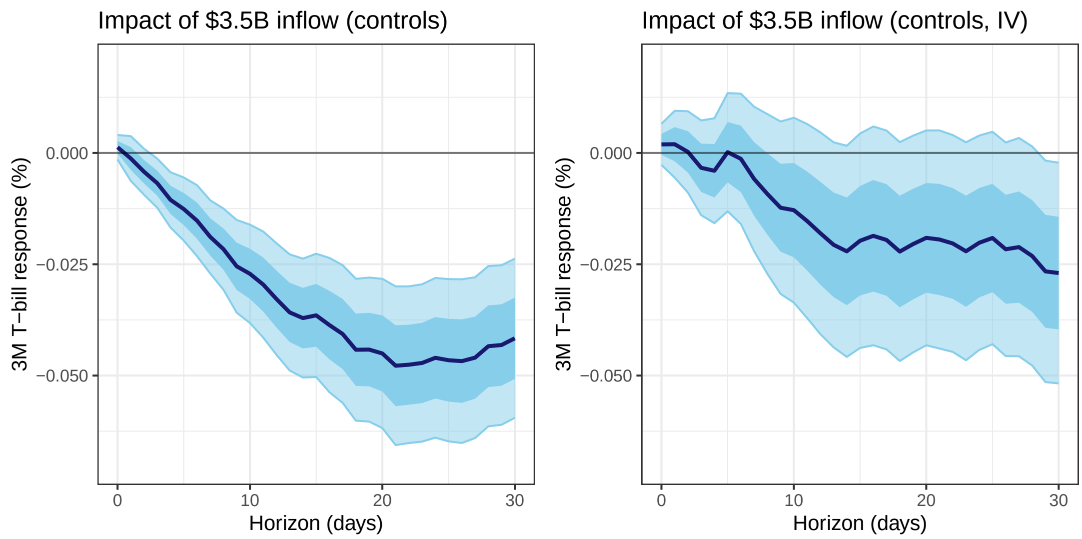
We argue that crypto shocks also satisfy the exogeneity condition. While the crypto market has grown to roughly \$3 trillion as of 2024, it is still dwarfed by traditional financial markets, suggesting that shocks in cryptocurrency markets are unlikely to have a systemic impact in the market for US Treasuries, which stands at roughly \$35 trillion. To further support the exogeneity condition, it is worth noting that these crypto shocks are constructed from the unforecastable component of cryptocurrency prices. Therefore, it is unlikely for these shocks to have any meaningful causal impact on Treasury bill pricing, *except* through the stablecoin demand channel.

3.3 Results

Figure 6 presents local projection IRFs after including controls (left-panel) and incorporating cumulative cryptocurrency price shocks as an IV (right-panel).

After including controls, we estimate that a \$3.5B aggregate stablecoin inflow compresses 3-month T-bill yields by about 2.5 bps within 10 days, and up to 5 bps within 20 days. The IV estimate suggests an impact of about 2-2.5 bps within 10 days and thereafter.

Figure 6: IRF of \$3.5B stablecoin inflow on 3-month T-bill yields



Note: IRF estimate produced from local projection specified in Equation (3). A \$3.5B inflow is approximately a 2-standard deviation flow. Darker and lighter shaded regions correspond to 68% and 95% Newey-West confidence bands, respectively. The right-panel instruments 5-day stablecoin flows in the local projection with a measure of idiosyncratic crypto price shocks.

Overall, the results point to substantially smaller effects when endogeneity concerns are addressed. Compared to Figure 4, the effect size is considerably attenuated after including controls, and it is further (if only slightly) attenuated after including the IV. This is consistent with our previous predictions on the sign of the bias when estimating β_h without controls or proper identification.

Additional analyses. One potential concern regarding our results is that the T-bill tenors we use as controls in Equation (3) are highly correlated with the dependent variable. We use an alternative specification where we only include the longer tenors as controls (2 and 10-year yields), i.e. $k = k' = \{2Y, 10Y\}$. Figure 8 in Appendix A presents the results for both non-instrumented and instrumented versions of this local projection. The IRFs are qualitatively similar in terms of direction, while the estimated coefficient size is stronger, i.e. more negative.

A second issue relates to whether effects on yields are limited to the tenor associated with stablecoin issuers' preferred habitat. We test the effects of stablecoin flows on longer-term yields by replacing the 3-month yield as dependent variable in Equation (3) with longer-term Treasury yields. Figure 9 reports instrumented IRFs using 2-year, 5-year, and 10-year yields following a \$3.5B stablecoin inflow. There is little impact of stablecoin flows on 2-year and 5-year yields, nor do we find any meaningful effect on 10-year yields over the first 10 to 15 days. These results are consistent with the impact of stablecoin flows being concentrated among T-bills, the securities that stablecoins directly purchase. However, our estimates do point to some impact on the 10-year yield after about 15 days, suggesting the possibility of some indirect spillover effects to select maturities.

Our baseline analysis does not account for the possibility that the effect of stablecoin flows on Treasury yields may be asymmetric. Stablecoin issuers can invest inflows into Treasuries at their discretion, i.e. there is some leeway in the timing of purchases following an inflow. But outflows caused by redemptions may require forced sales of reserves to provide sufficient and timely liquidity to stablecoin holders, i.e. there is likely no such scope for discretionary timing of sales under stress. As a result, it is not unreasonable to assume that sales occur in a less price sensitive environment than reserve purchases, and therefore have a larger market impact on Treasury bill yields. We test this hypothesis by extending the local projection from Equation (3) to allow stablecoin inflows and outflows to have different effects on T-bill yields:

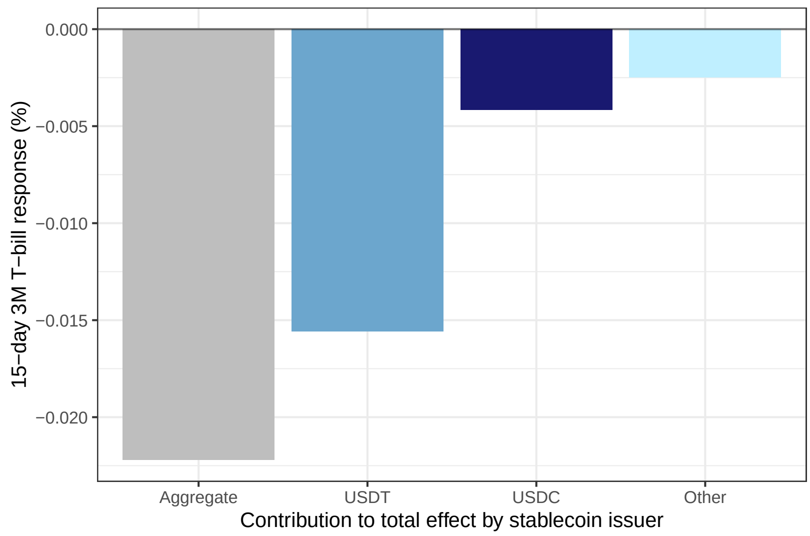
$$y^{3M}_{t+h} - y^{3M}_{t-1} = \alpha_h + \beta_{1h} IV_t + \beta_{2h} IV_t \mathbf{1}_{[Flow(5d)_t<0]} + \sum_{k\in K} \gamma_h [y^k_{t+h} - y^k_{t-1}] + \sum_{p\in P} B^p_h X(5d)_{p,t} + e_{t+h}. \quad (6)$$

Equation (6) is the second-stage local projection regression, where as before IV_t is the 5-day stablecoin flows instrumented with cumulative crypto shocks. This specification allows stablecoin inflows to impact h-horizon T-bill yields by β_{1h} while outflows impact h-horizon T-bill yields by $\beta_{1h} + \beta_{2h}$. The left and right panels in Figure 10 plot the IRF of 3-month T-bill yields following a \$3.5 billion inflow and outflow, respectively. After allowing for asymmetry, the effect of inflows strengthens modestly to about 3 bps after 10 days, and is statistically significant over most horizons. In turn, an outflow of the same magnitude raises T-bill yields by 6-8 bps. These outflow effects, however, are less precisely estimated, as can be seen by their marginal (in)significance at the 95% level. This evidence points to the existence of asymmetric effects, which may become more prominent (and more precisely estimated) if the market continues to grow.

3.4 Issuer-specific contributions

Using the issuer-specific first stage IV estimates from Table 2, we decompose the average impact of aggregate flows on T-bill yields into the contribution of specific issuers: USDT, USDC, and others. We can do this because the first stage coefficient for aggregate flows (3.26) is approximately the sum of coefficients across the disaggregated flows reported in columns 2, 3 and 4. For example, we can estimate the contribution of USDT flows on T-bill yields by multiplying the total impact by the quotient of their first stage coefficient over the aggregate first stage coefficient ($\frac{2.286}{3.261}$).

Figure 7: IRF of \$3.5B stablecoin inflow on 3-month T-bill yields



Note: Aggregate bar is the 15-day cumulative impact of aggregate stablecoin inflows on 3-month T-bill yields from IRF estimates produced from the local projection specified in Equation (3) instrumenting 5-day stablecoin flows with crypto price shocks. A \$3.5B inflow is approximately a 2-standard deviation flow. Issuer-specific bars report estimated contributions by stablecoin issuer using coefficient estimates from Table 2.

Figure 7 considers the 15-day impact of aggregate stablecoin flows on 3-month yields, which is about -2.2bps per \$3.5 billion inflow (right-panel of

Figure 6). USDT's contribution stands at about -1.54bps or 70%, consistent with its size and relatively larger share of T-bills ($140 billion market cap with 64% of their December 2024 reserves in T-bills). USDC's contribution is also meaningful at about 19% ($50 billion market cap with 44% of their December 2024 reserves in T-bills). The 'Other' issuers have the smallest contribution on average, of about 11%, but this is still sizable relative to their current market capitalization.

4 Discussion and policy implications

Magnitude. The estimated -2 to -2.5 bp yield impact results from a $3.5 billion (or 2 standard deviation) stablecoin inflow for a sector that is roughly $200 billion in size as of end-2024. As the stablecoin sector continues to grow, it is not unreasonable to expect their footprint in Treasury markets to also increase. Suppose the stablecoin sector grows 10-fold to $2 trillion by 2028 (as suggested by the Treasury Borrowing Advisory Committee) and the variance of 5-day flows increases proportionally. Then, a 2-standard deviation flow would amount to roughly $11 billion, with an estimated impact of -6.28 to -7.85 bps on T-bill yields.[14] These estimates suggest that a growing stablecoin sector may eventually suppress short-term yields to an extent that meaningfully influences the transmission of Fed monetary policy to market-based yields.

Mechanisms. There are at least three channels through which stablecoin flows can impact Treasury market pricing. The first is through direct demand, as stablecoin purchases reduce available bill supply so long as the flows into stablecoins would not have otherwise made their way into T-bills. The second channel is indirect, as demand for Treasuries from stablecoins could relieve dealer balance sheet constraints. This, in turn, impacts asset prices, as it would reduce the quantity of Treasury supply that dealers need to absorb. The third channel is through signaling effects, as large inflows may serve as a

[14]The sample variance of 5-day stablecoin flows is about ($1.75 billion USD)^2 $= 3.06$. If multiplied by 10, this results in a standard deviation of flows of $30.6^{1/2} = 5.53$, or a 2-standard deviation flow of about $11 billion if we assume that the variance of flows increases 10-fold when the size of the stablecoin sector increases 10-fold. A similar calculation using Citigroup's prediction of $1.6 trillion by 2030 implies a yield impact of -5.7 to -7.15 bps following a 2-standard deviation inflow.

signal for institutional risk appetite or lack thereof, which investors then price into markets.

Policy implications. Policies around reserve transparency are set to interact with stablecoins' growing footprint in Treasury markets. For example, USDC's granular reserve disclosures enhance market predictability, whereas USDT's opacity complicates analysis. Regulatory mandates for standardized reporting could mitigate systemic risks arising from concentrated ownership of Treasury securities by making some of these flows more transparent and predictable. While the stablecoin market is still comparatively small, stablecoin issuers are already a meaningful player in Treasury markets, and our results point to some effect in yields already at this early stage.

Monetary policy is also set to interact with the role of stablecoins as Treasury investors. For example, in a scenario where stablecoins become very large, stablecoin-driven yield compression may weaken the Fed's control over short-term rates, potentially necessitating coordination among regulators for monetary policy to effectively influence financial conditions. This idea is not merely theoretical – 'Greenspan's Conundrum' of the early 2000's, for instance, rose out of the observation that the Fed's monetary policy was not transmitting as expected to long-term Treasury yields. At the time, it was largely attributed to outsized foreign investor demand for Treasury securities affecting Treasury market pricing.

Finally, there are clear financial stability implications that arise from stablecoins becoming large investors in Treasury markets. As discussed in the literature on stablecoins, they remain runnable, with their balance sheets subject to both liquidity and interest rate risk, as well as some credit risk exposures. As such, concentrated positions in T-bills, particularly those which are not set to immediately mature, may subject the market to fire sales if a major stablecoin were to face severe redemption stress, not least given the absence of discount window or lender-of-last-resort access. The evidence we present on asymmetric effects suggests that the impact of stablecoins on the Treasury market is likely to be larger in such environments characterized by large and sharp outflows. In this regard, the magnitudes suggested by our estimates are likely to be a lower bound since they are obtained based on a sample that includes mostly a growing market, where there is more leeway in the timing of purchases. The financial stability impact of such fire sales may not be significant while the stablecoin sector is small, but this may change as the stablecoin sector grows, contributing to growing concerns about the stability of the Treasury market.[15]

Limitations. Our analysis presents some of the first evidence of stablecoins' emerging footprint in Treasury markets. However, our results should be interpreted with caution. First, we face data constraints in our analysis, as the maturity disclosure of USDT's reserve portfolio is incomplete, thereby complicating identification. As a result, we must make assumptions about which T-bill tenor is most likely to be affected by stablecoin flows.

Second, we control for financial market volatility by including Bitcoin and Ether returns, along with yield changes for a variety of Treasury maturities. However, these variables may not fully capture risk sentiment and macroeconomic conditions that jointly affect stablecoin flows and T-bill yields. We try to address this issue with an IV strategy, but we are aware that our IV may itself be subject to limitations, including mis-specification in our local projection model.[16] Moreover, due to data limitations and the high concentration in the stablecoin sector, our estimates rely almost exclusively on time-series variation, as the cross-section is too limited to be exploited in any meaningful way.

5 Conclusion

Stablecoins have already established themselves as significant players in Treasury markets, with measurable and significant effects on short-term yields. Their growth blurs the lines between cryptocurrency and traditional finance, demanding regulatory attention to reserve practices, potential implication for monetary policy transmission and financial stability risks. Future research could explore cross-border spillovers and interactions with money market funds, particularly during liquidity crises.

[15] See e.g. Financial Times: How the Treasury market got hooked on hedge fund leverage.

[16] For example, our local projection specification assumes a constant relationship between stablecoin flows and T-bill yields over time, which may not necessarily be the case – especially if structural breaks arise in the relationship as stablecoins continue to grow. If this were to happen, however, estimated effects will likely be larger than we currently find. An additional potential issue is T-bill convexity effects – we do not think this is a concern in our analysis given the short maturity we focus on, which implies that the relationship between price and yield is nearly linear.

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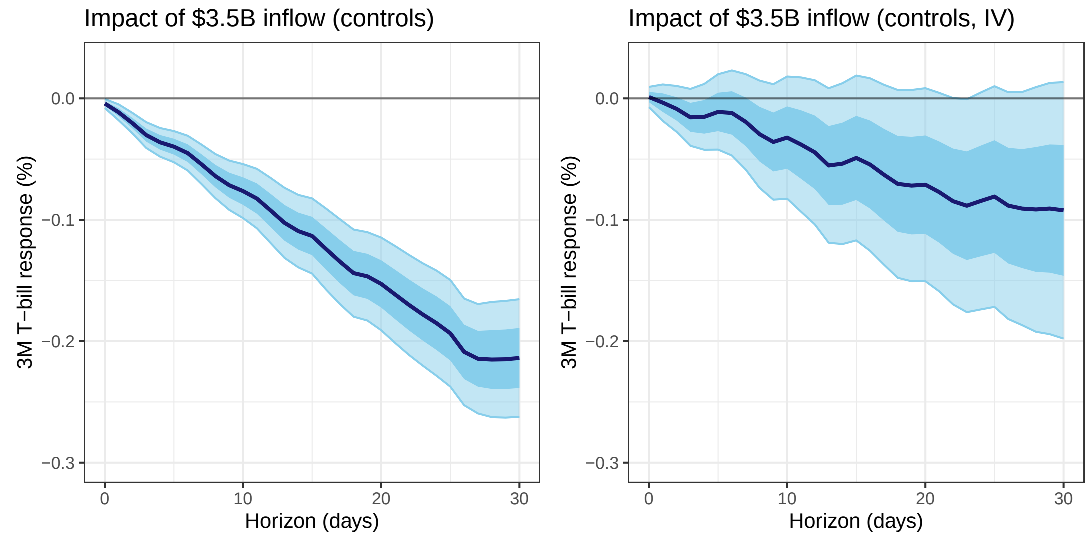
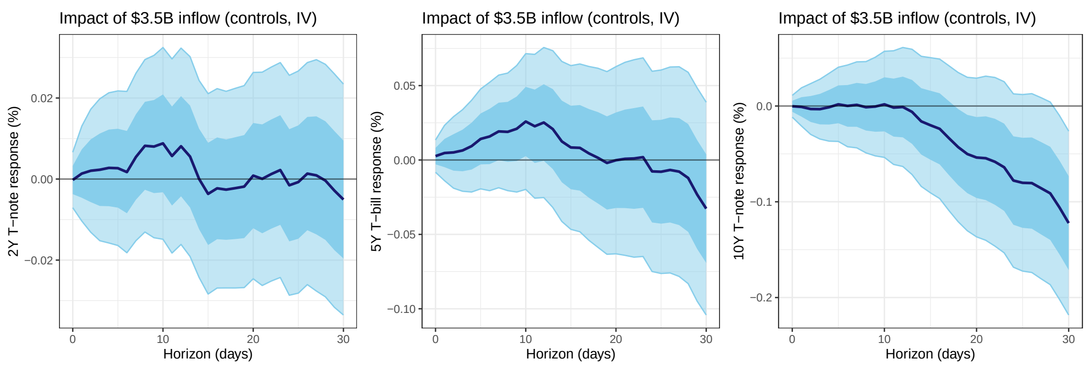
A Additional figures

Figure 8: IRF of \$3.5B stablecoin inflow on 3-month T-bill yields, excluding controls for proximate T-bill yields and including controls for long-term T-bond yields



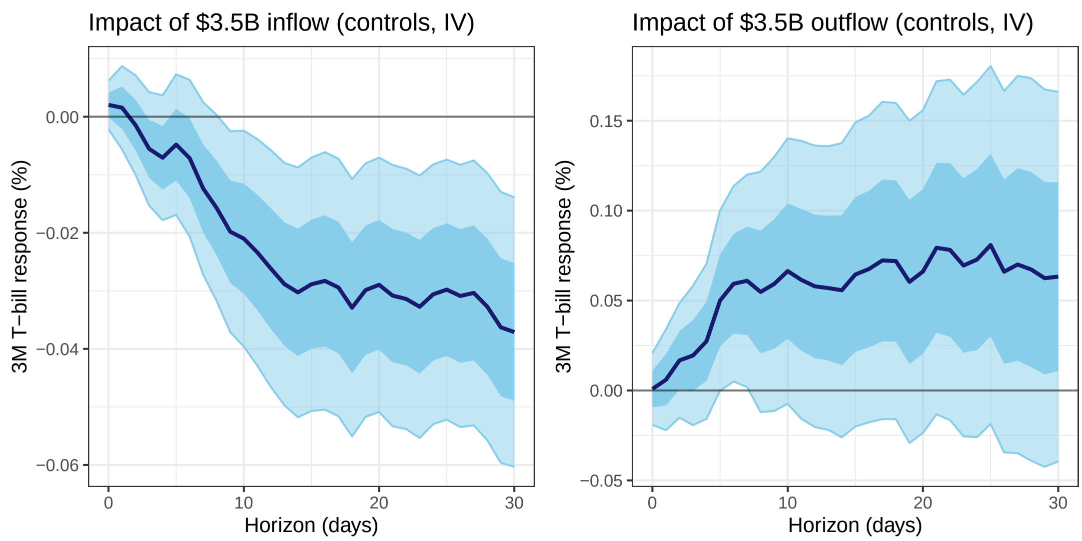
Note: IRF estimate produced from local projection specified in Equation (3), but with $k = k' = \{2Y, 10Y\}$. A \$3.5B inflow is approximately a 2-standard deviation flow. Darker and lighter shaded regions correspond to 68% and 95% Newey-West confidence bands, respectively. The right-panel instruments 5-day stablecoin flows in the local projection with a measure of idiosyncratic crypto price shocks.

Figure 9: Instrumented IRF of \$3.5B stablecoin inflow on 2-year, 5-year, and 10-year Treasury yields



Note: IRF estimate produced from local projection specified in Equation (3) instrumented with crypto price shocks, with 2-year, 5-year, and 10-year Treasury yields as dependent variables, respectively. A \$3.5B inflow is approximately a 2-standard deviation flow. Darker and lighter shaded regions correspond to 68% and 95% Newey-West confidence bands, respectively.

Figure 10: Instrumented IRF of $3.5B stablecoin inflow (left) and outflow (right) on 3-month T-bill yields from asymmetric local projection regressions



Note: IRF estimate produced from instrumented local projection specified in Equation (6). A $3.5B inflow is approximately a 2-standard deviation flow. Darker and lighter shaded regions correspond to 68% and 95% Newey-West confidence bands, respectively.

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