# Stablecoin Flows, Dollar Convenience Yields and Exchange Rates*

Shiyang Huang
Faculty of Business and Economics, University of Hong Kong

Dong Lou
Hong Kong University of Science and Technology and CEPR

Zhenghan Shao
School of Economics and Management, Tsinghua University

Tianyu Wang
School of Economics and Management, Tsinghua University

First Draft: August 2025
This Draft: January 2026

*We thank Xiang Fang, Junye Li, Dan Luo, Xintong Zhan, and seminar participants at Fudan University for helpful comments. Shiyang Huang is with the Faculty of Business and Economics, University of Hong Kong; E-mail: huangsy@hku.hk. Dong Lou is with the Hong Kong University of Science and Technology and CEPR; E-mail: dlou@ust.hk. Zhenghan Shao is with the School of Economics and Management, Tsinghua University; E-mail: shaozh24@mails.tsinghua.edu.cn. Tianyu Wang is with the School of Economics and Management, Tsinghua University; E-mail: wangty6@sem.tsinghua.edu.cn.

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**Abstract**

We examine the impact of stablecoins on the convenience yield of U.S. safe assets, the value of the U.S. dollar, and market stability. We find that a one–standard-deviation inflow into U.S. dollar–denominated stablecoins increases the U.S. Treasury convenience yield by 4 basis points and leads to a 0.9% appreciation of the U.S. dollar over the subsequent month. These effects are stronger with USDC (which uses Treasuries as its main reserve), when Treasury convenience yields are already elevated and stablecoin prices are more tightly pegged to $1. We further use the shock to the crypto market as an instrument for stablecoin flows to address the endogeneity issue. The results are consistent with a convenience-yield-based theory of exchange rates that incorporates a novel crypto-related demand channel for the U.S. dollar. Finally, we show that the dollar stablecoin market serves as a transmission channel through which volatility in crypto markets spills over into traditional financial markets.

**Keywords: Stablecoins, US Treasury, Convenience Yield, US Dollar, Market Stability**

# 1 Introduction

Dollar-backed stablecoins have experienced rapid growth and are increasingly positioned to reshape global financial markets. As of July 2025, the combined assets under management of stablecoins – promising par convertibility to the U.S. dollar and backed by dollar-denominated assets – exceeded $250 billion. Most major issuers – most notably Tether (USDT) and Circle (USDC) – back their tokens primarily with short-term, dollar-denominated debt instruments, including U.S. Treasury bills and other money market assets such as commercial paper, certificates of deposit, and repurchase agreements.[1] By acting as large, concentrated buyers and holders of these instruments, stablecoin issuers can influence their prices and yields, creating a direct channel through which stablecoin activity interacts with traditional financial markets. In addition, stablecoins have become a core component of the decentralized finance (DeFi) ecosystem, where dollar-backed tokens are widely used for trading, lending, and borrowing.

The rapid growth of stablecoins has sparked intense debate among policymakers and market participants.[2] Existing studies primarily examine the role of stablecoins within cryptocurrency markets (Griffin and Shams, 2020), the commercial paper market (Barthélémy et al., 2023), or short-term Treasury markets (Ahmed and Aldasoro, 2025). In contrast, their implications for U.S. dollar valuation and financial stability remain largely unexplored. Because most decentralized finance (DeFi) transactions are denominated in dollar-linked stablecoins, their widespread use effectively extends the reach of the U.S. dollar into the digital

[1] For example, dollar-backed stablecoins purchased nearly $40 billion of U.S. Treasury bills in 2024—an amount comparable to that of the largest U.S. government money market funds and exceeding purchases by most foreign investors.

[2] "They named it after me," joked President Donald Trump when signing the Guiding and Establishing National Innovation for U.S. Stablecoins (GENIUS) Act on July 18. While the U.S. administration and segments of the crypto industry have welcomed stablecoins as the beginning of a new era, other policymakers have expressed concerns. Andrew Bailey, Governor of the Bank of England, has cautioned commercial banks against issuing their own stablecoins, and Christine Lagarde, President of the European Central Bank, has warned that stablecoins could evolve into forms of private money that may eventually undermine central banks.

financial ecosystem, potentially reinforcing its role as the dominant global reserve currency.

Dollar-denominated stablecoins can affect the value of the U.S. dollar through various channels. First, stablecoins may operate through a direct dollar order-flow channel (Evans and Lyons, 2002): increased demand for dollar-backed stablecoins can raise demand for spot U.S. dollars, thereby affecting dollar exchange rates. Second, stablecoin issuers directly purchase short-term U.S. Treasury securities and other safe assets (e.g., repurchase agreements); changes in the demand for these assets influence their yields, which in turn affect exchange rates. A third mechanism operates through the convenience yield channel of exchange rate determination (Jiang et al., 2021). In this framework, an increase in the convenience yield of U.S. safe assets leads to an appreciation of the U.S. dollar. The convenience yield reflects the nonpecuniary benefits of holding safe assets – benefits for which investors are willing to forgo financial returns (Krishnamurthy and Vissing-Jorgensen, 2012). In equilibrium, foreign investors earn lower expected returns in their own currencies when holding U.S. safe assets than U.S. investors. These lower expected foreign currency returns reflect the dollar's appreciation in equilibrium.

We primarily focus on the convenience yield channel. U.S. Treasury securities and other safe assets provide nonpecuniary benefits, and short-term instruments in particular, command positive convenience yields (Du et al., 2018a). These benefits largely reflect the assets' safety and liquidity properties (Krishnamurthy and Vissing-Jorgensen, 2012). Because stablecoin reserves are invested almost exclusively in short-term U.S. safe assets, stablecoin issuance creates a direct link to the convenience yield of dollar-denominated assets.

Dollar-backed stablecoins inherit the underlying value of the U.S. dollar while adding layers of digital utility, including continuous availability, rapid cross-border settlement, interoperability with blockchain-based platforms (e.g., DeFi and crypto exchanges), and reduced reliance on traditional banking infrastructure. By expanding the set of services provided by dollar-denominated claims, stablecoins broaden the dollar's functional use in global dig-

ital transactions and may increase its overall convenience yield. In this sense, beyond the traditional attributes of safety and liquidity, stablecoins introduce a third convenience attribute—digital (crypto) utility—that attaches to U.S. Treasuries and, through this channel, influences U.S. dollar valuation.

Our analysis yields several key findings. First, stablecoin flows have a statistically and economically significant effect on the convenience yield of U.S. safe assets. To establish a direct link to exchange rates, we follow Du et al. (2018a) and measure convenience yields using deviations from covered interest parity (CIP) between U.S. Treasury yields and government bond yields in other developed countries. For each foreign country, a positive deviation implies that the convenience yield of U.S. Treasuries exceeds that of the corresponding foreign government bonds.We find that a one-standard-deviation inflow into U.S. dollar–denominated stablecoins increases the Treasury convenience yield by approximately 4 basis points over the subsequent month, with statistical significance at the 1% level.

Second, the effect is stronger for dollar-backed stablecoins that exhibit greater price stability. USDC is widely viewed as more transparent and more tightly regulated, whereas USDT, despite its dominant market share, has experienced occasional deviations from its one-to-one dollar peg during periods of market stress (e.g., March 2020 and the Terra collapse in 2022), reflecting concerns about reserve quality and liquidity. Consistent with this distinction, regressions that disaggregate stablecoin flows show larger and more statistically significant coefficients for USDC than for USDT. Moreover, when we directly measure stablecoin price deviations from $1 and interact this measure with stablecoin flows, the interaction term enters with a significantly negative coefficient, indicating that weaker pegs attenuate the convenience yield effect.[3]

Third, stablecoin inflows are associated with economically meaningful U.S. dollar appreciation. A one-standard-deviation inflow into dollar-denominated stablecoins leads to an

[3]We also conduct placebo tests based on EUR-based FX returns and find that the EUR-based FX returns are insignificantly associated with stablecoin flows, highlighting the unique role of U.S. dollar for the stablecoins.

appreciation of the U.S. dollar of approximately 0.9% over the subsequent month ($t$-statistic = -5.02). This magnitude is comparable to that documented in Jiang et al. (2021), who find that a one-standard-deviation increase in convenience yields generates roughly a 3% dollar appreciation over two quarters in a VAR framework. The results on convenience yield and U.S. dollar appreciation together rule out the second channel via short-term Treasury yields but strongly support the convenience yield channel.

We further examine the impact of stablecoin inflows on U.S. dollar appreciation over longer horizons. Horizon-specific effects allow us to test the FX order flow mechanism. Prior literature shows that flows can affect asset returns, particularly contemporaneously and at short horizons (e.g. Evans and Lyons, 2002; Coval and Stafford, 2007; Lou, 2012). However, such transitory price pressure should not alter expected returns,[4] consequently, if exchange rate movements are driven by temporary FX demand, they should reverse over longer horizons. Empirically, we find no evidence of short-term reversal in FX returns in our setting, suggesting that the observed exchange rate response is unlikely to be driven by transitory price pressure effect from FX flow.

Fourth, stablecoins act as a transmission channel through which shocks originating in crypto markets spill over into traditional financial markets. Rather than functioning solely as crypto-native instruments, stablecoins serve as key nodes linking the two financial ecosystems. We find that foreign exchange rate volatility and U.S. Treasury bond volatility are both positively and significantly related to the size of the stablecoin market. Moreover, as stablecoins grow in scale, their role as a conduit for risk transmission becomes markedly stronger. Measures of crypto market risk – such as Bitcoin return volatility or volatility in the Bloomberg Galaxy Crypto Index (BGCI) – exhibit significantly stronger comovement with FX and bond-market volatility when interacted with stablecoin market size.

A potential concern with our empirical approach – treating stablecoin flows as exogenous

[4]While some FX market activity may reflect informed trading (e.g. Czech et al., 2025), demand arising from stablecoin inflows is less likely to be driven by information about U.S. dollar valuation.

– is that stablecoin issuance and redemptions may respond endogenously to conditions in bond and foreign exchange markets or to other confounding factors. We address this concern using two complementary strategies: an instrumental variables (IV) approach and an event-study design.

For the IV strategy, we follow Aldasoro et al. (2025) and use exogenous shocks to crypto markets as instruments for stablecoin flows. Specifically, we construct the instrument as the residual component of the Bloomberg Galaxy Crypto Index (BGCI) after regressing it on a broad set of traditional market variables, including the U.S. 3-month Treasury yield, the logarithm of gold prices, the Citigroup Economic Surprise Index, the term spread, the logarithm of the VIX, oil prices, the U.S. dollar effective exchange rate, and the S&P 500 index. By construction, this residual captures variation in crypto markets orthogonal to conventional macro-financial factors, thereby supporting the exclusion restriction. The first-stage F-statistic is approximately 50, indicating strong instrument relevance. The second-stage estimates remain highly robust and confirm a statistically and economically significant effect of stablecoin flows on U.S. Treasury convenience yields.

A second approach to mitigating endogeneity concerns relies on an event study analysis surrounding the 2024 U.S. presidential election.[5] Because the election outcome was widely viewed as uncertain ex ante, Donald Trump's victory can be interpreted as a largely unanticipated shock to the crypto – and, in particular, the stablecoin – market. Examining a three-month window surrounding the election date (November 5, 2024), we observe substantial inflows into dollar-denominated stablecoins accompanied by pronounced increases in both U.S. Treasury convenience yields and the value of the U.S. dollar. A potential concern is that contemporaneous macroeconomic developments may confound the interpretation of these patterns. For example, on November 7, the Federal Open Market Committee (FOMC)

[5]Donald Trump's stance toward cryptocurrencies evolved markedly over time. After publicly criticizing Bitcoin and other cryptocurrencies in 2019, he adopted a markedly more supportive position during the 2024 campaign, including explicit outreach to the crypto community and pledges to promote the United States as a global center for Bitcoin mining.

reduced its policy rate by 25 basis points, following a larger 50-basis-point cut in September. Standard monetary theory would predict that such interest rate reductions exert downward pressure on the U.S. dollar (the second channel mentioned above), rather than contributing to dollar appreciation. The fact that the dollar strengthened during this period therefore suggests that the observed exchange rate movements are unlikely to be driven solely by conventional monetary policy channels, reinforcing the interpretation of the election as a crypto-specific shock.

Taken together, our findings identify a novel channel through which the growth of dollar-backed stablecoins influences traditional financial markets. By expanding the functional uses of the U.S. dollar, stablecoins enhance its overall convenience yield and contribute to dollar appreciation. At the same time, stablecoins act as a conduit through which shocks originating in crypto markets propagate to bond and foreign exchange markets, with stablecoin market size significantly associated with volatility in both. These results suggest that effective regulation of stablecoins must go beyond reserve transparency and liquidity requirements. As stablecoins continue to scale, their capacity to transmit risk to the broader financial system increases, underscoring the need for robust and comprehensive regulatory oversight.

**Related Literature**

Our study therefore sheds light on how the role of the United States as the world's safe asset supplier, as analyzed by Gourinchas and Rey (2007), Caballero et al. (2008), Caballero and Krishnamurthy (2009), Maggiori (2017), He et al. (2019), and Gopinath and Stein (2018), has shaped the dynamics of the dollar exchange rate.

A separate literature considers the special role of the U.S. dollar and U.S. asset markets in the world economy. Gourinchas and Rey (2007), Gourinchas et al. (2011), and Maggiori (2017) focus on the "exorbitant privilege" of the United States that drives low rates of return on U.S. dollar assets. In their analysis, the United States provides insurance to the rest of

the world.

U.S. Treasury bonds are known to offer liquidity and safety services to investors, which result in lower equilibrium returns to investors from holding such bonds (see Krishnamurthy and Vissing-Jorgensen (2012), Greenwood et al. (2015)). Du et al. (2018a) find that the U.S. Treasury basis is negative for short-maturity bonds, suggesting that short-maturity bonds carry a convenience yield. Delving into the term structure of the basis, they note that the basis for long-maturity bonds has been positive recently.

Our study relates to an expanding literature on stablecoins. Existing work examines a range of issues, including stablecoin design and price stability (Arner et al. (2020); d'Avernas et al. (2023); Lyons and Viswanath-Natraj (2023); Kosse and Mattei (2023)). A separate strand studies stablecoin adoption (Bertsch, 2023), while other work focuses on runs and fragility (Ahmed et al. (2025); Gorton and Zhang (2022)) and market structure (Ma et al., 2025). Related studies by Barthélémy et al. (2023) and Kim (2025) examine the impact of stablecoin investments on the commercial paper market. Our paper instead focuses on how stablecoin flows affect U.S. safe-asset convenience yields and the associated movements in exchange rates and market volatility.

## 2 Data

We collect data from several sources. The sample period spans from 2021Q1 to 2025Q2. The sample starting point of 2021Q1 is motivated by the rapid expansion of the stablecoin market beginning in 2021. As illustrated in Figure 1, the total market capitalization of dollar-backed stablecoins increases sharply after 2021, marking the emergence of stablecoins as a quantitatively important segment of the financial system. Stablecoin data are obtained from CoinGecko and cover the major USD-backed stablecoins in our analysis. Daily price data for Bitcoin are also collected from CoinGecko. Exchange rate and Treasury yields data are from Bloomberg. We use Bloomberg to obtain FX rates for major developed-market currencies

(AUDUSD, EURUSD, GBPUSD, NZDUSD, USDJPY, USDCHF, USDCAD). Other data includes VIX index, dollar index, EUR-based exchange rate and implied volatility data are all from Bloomberg.

Similar to Du et al. (2018a) and Jiang et al. (2021), we measure the convenience yields of US dollar based on covered interest rate parity (CIP) from short-term government bond yields. It measures the difference between the US Treasury yield and other FX-hedged foreign government bond yields (also named as Treasury-based CIP basis or Treasury basis). As discussed in Du and Schreger (2016), in the context of developed markets and short-term government bonds, sovereign default risks are negligible and capital accounts are open. Therefore, CIP bases for these countries provide a clean measure of the convenience yield differential between U.S. and foreign government bonds.[6] Furthermore, stablecoin activity is less likely to influence CIP bases via other channels, such as default risks, intermediary constraint, or other institutional frictions. Both forward and spot exchange rates are defined as units of currency i per U.S. dollar. The CIP basis is defined as follows:

$$\Phi_{i,n,t} = y^{Govt}_{i,n,t} - \rho_{i,n,t} - y^{Govt}_{USD,n,t} \tag{1}$$

where $\rho_{i,n,t}$ is the n-year market-implied forward premium for hedging currency i against the U.S. dollar. We mainly use 3-month, 6-month and 12-month maturities forward rates, and the definition is as follows:

$$\rho_{i,n,t} = \frac{1}{n}\frac{F_{i,n,t} - S_{i,n,t}}{S_{i,n,t}} \tag{2}$$

To measure stablecoin flows, we exploit the fact that USD-backed stablecoins are designed to maintain a tight peg to the U.S. dollar. Changes in their market capitalization primarily

[6]There are some other measures for convenience yields, for instance, Corporate-Treasury spread, CP-bills spread as in Krishnamurthy and Vissing-Jorgensen (2012). Since our ultimate goal is to link exchange rate to convenience yields, The CIP basis—interpretable as the relative convenience yield between two countries—fits our setting closely.

reflect net issuance and redemption rather than price fluctuations. We therefore construct stablecoin flows as changes in the total market capitalization of USD-backed stablecoins.

Formally, daily stablecoin flows are defined as the change in aggregate market capitalization across all USD-backed stablecoins in our sample. For empirical analysis, we aggregate these daily flows over a one-month window and define $StableFlow_{t-21,t}$ as the cumulative change in total stablecoin market capitalization between day $t-21$ and day $t$. This measure captures net inflows into the dollar stablecoin market and serves as our baseline proxy for stablecoin demand.

In our empirical specifications, we include a set of control variables, such as changes in the interest rate differential, Bitcoin log returns, and changes in the VIX index. The interest rate differential is defined as $IRdiff_{i,t} \equiv y^{Govt}_{i,3M,t} - y^{Govt}_{USD,3M,t}$, where $y^{Govt}_{i,3M,t}$ is the 3-month government yield for currency $i$ and $y^{Govt}_{USD,3M,t}$ is the U.S. 3-month government yield. We then compute $\Delta IRdiff_{i,t-21,t} \equiv IRdiff_{i,t} - IRdiff_{i,t-21}$ over the same 21-trading-day window. This control captures movements in the short-term rate spread between country $i$ and the U.S.

## 3 Hypothesis Development

In this section, we develop hypotheses to guide our empirical tests. While dollar-denominated stablecoins can affect the value of Treasuries and the U.S. dollar through various channels, we primarily focus on the convenience yield channel.

US Treasuries and some other safety assets generally enjoy non-pecuniary benefits, especially short-term ones, which have positive convenience yields (Du et al., 2018a). Safety and liquidity are the main convenience properties of these safe assets (Krishnamurthy and Vissing-Jorgensen, 2012). As stablecoins' reserves are almost all in these short-term safe assets, this creates a direct link to the dollar asset's convenience yield. Dollar-stablecoins inherit the dollar's underlying value but add layers of digital utility—24/7 availability, instant

cross-border transfers, compatibility with blockchain-based platforms (e.g., DeFi, crypto exchanges), and reduced reliance on traditional banking infrastructure. This broadens the dollar's non-pecuniary benefits, potentially strengthening its overall convenience yield as it becomes more integral to global digital commerce. There the traditional attributes of convenience yield – namely, liquidity and safety – the stablecoin adds a third attribute – cryptocurrency value – to the US Treasury, thereby affecting U.S. dollar valuation. Thus, we formalize our first hypothesis as follows.

**Hypothesis 1:** Stablecoin inflows will increase the convenience yield of the U.S. dollar.

The impact of stablecoin inflows is naturally heterogeneous, depending on stablecoin attributes. Intuitively, the impact should be stronger when the dollar-backed stablecoin is more "stable". USDC is often viewed as the more transparent and regulated one, while USDT remains dominant due to its early market entry and widespread adoption. However, USDT has occasionally deviated from its 1:1 peg during market crises (e.g., March 2020, Terra collapse in 2022) due to concerns about reserve liquidity. In contrast, USDC has maintained its peg more consistently. Thus, we expect that USDC inflows have larger impacts on the coveniece yield than USDT. In a similar spirit, we expect that when the sablecoin is more closely pegged to $1, it has a larger impact on the coveniece yield. We formalize our second hypothesis as follows.

**Hypothesis 2:** The increase of convenience yield is stronger for USDC or when the stablecoin is more closely pegged to $1.

Stablecoin flows can potentially affect the value of the US dollar via different channels. The first channel is the direct **dollar demand channel** (Evans and Lyons, 2002). Demand for dollar-based stablecoins directly increase the demand for spot USD; thus, we should expect the US dollar to appreciate as well. In the literature on exchange rate, another

possible channel is the **interest rate channel** – the interest rate spread has significant explanatory power for FX changes. A decrease (increase) in the U.S. rate relative to the foreign rate will depreciate (appreciate) the dollar, as textbook models of exchange rate determination predict. The stablecoin flows push down the short-term Treasury yields, thus depreciating the U.S. dollar. The third channel is the **convenience yield channel** (Jiang et al., 2021), which predicts that an increase in convenience yield will lead to U.S. dollar appreciation simultaneously. The convenience yield is generally interpreted as investors forgo a sizeable return to own these assets (see Krishnamurthy and Vissing-Jorgensen (2012), for example). In equilibrium, foreign investors should receive a lower return in their own currencies on holding U.S. safe assets than U.S. investors. The lower expected returns on U.S. safe assets in foreign currency are reflected on the dollar appreciation today. We argue that the convenience yield channel is the main channel and we aim to test the third hypothesis as follows.

**Hypothesis 3:** Stablecoin inflow will appreciate U.S. dollar against other currencies.

In addition to the impact on the dollar value, the growing size of the stablecoin market also affects financial market stability. The dollar-backed stablecoin serves as a natural bridge between the decentralized finance and the traditional financial market. On one hand, the stablecoin market is not free of run risk (Ma et al., 2025). During periods of market stress, confidence in stablecoins may decrease, and their prices may depeg from the US dollar. If such events were to occur on a larger scale, they could precipitate a run on the bank, in which holders rush to redeem their stablecoins for US dollars. This mass redemption creates a sudden demand shock for stablecoin issuers, who must liquidate their reserve assets to meet withdrawals. On the other hand, stablecoins can act as a transmission channel, allowing uncertainty or risk in the DeFi market to spill over into established traditional financial systems. Cryptocurrencies, such as Bitcoin and Ethereum, are notoriously volatile, with prices often fluctuating by double-digit percentages in a single day. Stablecoins serve

as "digital safe havens" amid this volatility, allowing investors to quickly convert volatile crypto holdings into an asset with a stable value. As a result, the boom-and-bust cycle of decentralized financial assets induces large inflows and outflows in the stablecoin market, which spill over into traditional financial markets. Thus, we formalize the fourth hypothesis as follows.

**Hypothesis 4:** The market size of dollar-backed stablecoin is positively correlated with exchange rate and bond markets volatilities.

# 4 Stablecoin and US Convenience Yields

In this section, we examine how stablecoins affect the convenience yields of U.S. Treasuries. Section 4.1 establishes our baseline results by showing how stablecoin inflows predict subsequent changes in convenience yields using the panel regressions. Section 4.2 conducts cross-section analysis by comparing the impacts of USDT versus USDC flows and showing how the effects vary with stablecoin price stability, the level of convenience yields (and market uncertainty), and Section 4.3 addresses endogeneity concerns using two complementary strategies: an instrumental variables (IV) approach and an event study design surrounding the 2024 U.S. presidential election.

## 4.1 Stablecoin flows and US Convenience Yields

We first examine the stablecoin flows and their impacts on future convenience yields that measure the difference between the US Treasury yield and other FX-hedged foreign government bond yields (Treasury-based CIP basis or Treasury basis). For the main analysis, we focus on the 3-month maturity, which is based on the most liquid tenor and has significant positive convenience yields (Du et al., 2018a). In the robustness section, we extend our analysis to other tenors (6-month and 12-month), this is important as most reserve assets for stablecoins with maturities shorter than 6 months.

There are arguments that Treasury bases are broad equilibrium outcomes driven by (1) default risk differentials between U.S. and foreign government bonds; (2) convenience yield differentials between U.S. and foreign government bonds; and (3) market segmentation and other financial frictions. As discussed in Du and Schreger (2016), in the context of developed markets and short-term maturity bonds in our sample, sovereign default risks are negligible and capital accounts are open. Therefore, Treasury-based CIP bases for these countries provide a clean measure of the convenience yield differential between U.S. and foreign government bonds. Furthermore, stablecoin activity is less likely to influence CIP bases via other channels, such as default risks, intermediary constraint, or other institutional frictions.

To examine the impact of stablecoin flows on the convenience yields, we run the following regression.

$$\Delta\Phi_{i,t+1,t+21} = a + b * StableFlow_{t-21,t} + c * Controls_{t-21,t} + \epsilon_t, \tag{3}$$

where the main dependent variable is the monthly change of convenience yields $\Delta\Phi_{t+1,t+21}$, and the main independent variable is $StableFlow$, which measures the stablecoin flow between day t-21 and t. Control variables include lagged changes of convenience yields $\Delta\Phi_{i,t-21,t}$, changes of interest rate differential between country $i$ and the US, Bitcoin price changes, and financial market uncertainty measure – VIX index changes over the same time window. We also include currency fixed effects. Standard errors are clustered at the time level.[7]

Table 2 reports our baseline results that the stablecoin flows increase the convenience yields. Across specifications, the coefficient on $StableFlow$ is positive and statistically significant at the 1% level, indicating that net inflows are followed by an increase in convenience yields in the subsequent month. This relationship remains robust when we include control variables. For example, column (2) shows that the results are robust to controlling for lagged

[7]In Appendix Table A1, we show that our results are robust if using bootstrap standard errors.

changes in convenience yields, thereby alleviating concerns that our estimates simply capture mean reversion or persistence. Column (3) further includes changes in interest rate differentials, Bitcoin returns, and changes in the VIX; the estimate on $StableFlow$ remains virtually unchanged and highly significant.

The effect of $StableFlow$ is not only statistically significant, but it is also economically important. That is, the estimates imply that a one-standard-deviation stablecoin inflow (i.e., USD 5.87 billion) is associated with an increase of 1.3 bps in convenience yields over the next month. By comparison, the mean of monthly change in convenience yields in our sample is 0.1 bps (see Table 1). Given that stablecoin reserves are primarily invested in short-term U.S. safe assets and that dollar-backed stablecoins extend the dollar's digital benefits, these baseline patterns point to a direct link between stablecoin activity and convenience yields, supporting **Hypothesis 1**.

### 4.2 Cross-Sectional Analysis and Further Studies

In this section, we conduct cross-sectional analysis by comparing the impacts of USDT versus USDC flows and by studying how the effects vary with stablecoin price stability, the level of convenience yields, and market uncertainty. These cross-sectional analyses can help strengthen our argument.

#### 4.2.1 USDT vs USDC

USDC and USDT are two of the most popular dollar-backed stablecoins, but they differ significantly in several key aspects, including their issuers, transparency, reserve management, and regulatory compliance. USDC is often regarded as the most transparent and regulated one, while USDT remains dominant due to its early market entry and widespread adoption. In fact, USDT has occasionally deviated from its 1:1 peg during market crises (e.g., March 2020 and the Terra collapse in 2022) due to concerns about reserve liquidity. In contrast,

USDC has maintained its peg more consistently, even during market volatility, owing to its highly liquid reserves (cash and T-bills), which can be quickly converted into dollars to meet redemption demands.

We take advantage of the heterogeneity between USDC and USDT and conduct cross-sectional studies. To this end, we decompose total stablecoin flows into issuer-specific flows for USDT and USDC. Table 3 reports the results from the same regression framework as Table 2, but replaces aggregate $StableFlow$ with $USDTFlow$ and $USDCFlow$. Following the baseline specification, we standardize both issuer-level flow measures by the standard deviation of total stablecoin flows (USD 5.87 billion) to facilitate comparison across coefficients. Columns (1)–(2) report specifications without additional controls, Columns (3)–(4) add the lagged dependent variable, and Columns (5)–(6) further include the full set of controls as in Table 2.

Table 3 clearly shows that USDC flows have a stronger effect on the convenience yields. That is, the coefficient on $USDCFlow$ is positive and statistically significant, while the coefficient on $USDTFlow$ is smaller and generally less significant. This pattern is consistent with **Hypothesis 2**, which emphasizes that the convenience yield effect is more pronounced for USDC rather than USDT.

### 4.2.2 Stablecoin Price Stability

**Hypothesis 2** further predicts that the convenience yield effect should be stronger when dollar-backed stablecoins are more closely pegged to $1. Intuitively, tighter pegs increase the credibility and usability of stablecoins as dollar-like claims in digital transactions, whereas larger price deviations raise concerns about reserve quality and liquidity and may weaken the convenience yield effect.

We construct a daily measure of price dispersion, defined as the market-capitalization-weighted average of absolute deviations from $1 for USDT and USDC. Table 4 examines how

the relationship between stablecoin flows and convenience yields varies with price dispersion. Specifically, columns (1) and (2) split the sample into high and low price-dispersion periods based on the median value of the dispersion measure. Column (3) includes all samples but interacts $StableFlow$ with an indicator $PDHigh$ that equals one when price dispersion is above the median.

The results show that the effect of stablecoin flows on convenience yields is stronger when stablecoin prices are closer to their pegs. In particular, the coefficient on $StableFlow$ is larger and more statistically significant during low-dispersion periods than during high-dispersion periods. Consistent with this pattern, the interaction term has a significantly negative coefficient, indicating that greater price dispersion attenuates the effect of stablecoin flows on the convenience yield. These findings support **Hypothesis 2**: stablecoin flows have larger effects on the convenience yield when stablecoins are more credible and tightly pegged to $1.

### 4.2.3 Level of Convenience Yield

We next examine whether the effect of stablecoin on convenience yields varies with market conditions. A natural conjecture is that the convenience yield mechanism is stronger when the demand for safe and liquid assets is already high. To test this argument, we conduct cross-sectional studies of heterogeneity along two dimensions: the level of the CIP-implied convenience yield and overall market uncertainty, proxied by the VIX index.

Table 5 reports the results. In Columns (1)–(3), we split the sample by the level of the convenience yield. The indicator variable, $\Phi High$, equals one when the contemporaneous convenience yield exceeds its median value. Columns (1) and (2) present regressions estimated separately for high and low convenience yield subsamples, while Column (3) considers an interaction term between stablecoin flows and $\Phi High$. In Columns (4)–(6), we perform an analogous analysis using an indicator $VIXHigh$, which is equal to one when the VIX index is above its median.

Table 5 shows that when the convenience yield is already high, stablecoin inflows are followed by a significantly larger increase in the convenience yield. This pattern is evident both in the subsample regressions and in the full-sample regression with the interaction term, where the coefficient on the interaction term is positive and highly significant. We have similar observations when conditioning on market uncertainty: stablecoin flows have a stronger association with subsequent changes in convenience yields during high-VIX periods.

### 4.3 Identification Strategy

While the above results are consistent with the convenience yield channel, a potential concern with our empirical approach – treating stablecoin flows as exogenous – is that stablecoin issuance and redemptions may respond endogenously to conditions in bond and foreign exchange markets or to other confounding factors. To address this concern, we implement two complementary strategies: an instrumental variables (IV) approach and an event study design.

#### 4.3.1 An Instrumental Variable Approach

We first implement an instrumental variables (IV) approach. This strategy relies on the instrument variable, which is constructed based on the crypto shock series from Aldasoro et al. (2025). Crypto shocks are computed as the unexpected component of the Bloomberg Galaxy Crypto Index (BGCI), an index that captures broad crypto market developments. Specifically, the shock variable is the residual component in the regression of the BGCI index on a series of economic variables, including the change in the U.S. 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 U.S. dollar nominal effective exchange rate (NEER), the (log) of the S&P 500 and the term spread. To allow for irregular and potential lead-lag correlations between crypto shocks and stablecoin flows (Ahmed and Aldasoro, 2025), we use lagged

shocks as the instrument for stablecoin flows.

These crypto shocks serve as a useful instrument for stablecoin flows because they satisfy both instrument relevance and exclusion restrictions. First, in a first-stage regression of stablecoin flows on crypto shocks reported in Table 6, we find that crypto shocks are significantly and positively correlated with stablecoin flows, and the F-statistic is generally large (well above 40),thus satisfying the relevance condition. Second, the exclusion restriction is valid, as the unpredictable component of cryptocurrency prices is unlikely to affect the Treasury and FX markets.

In the IV specifications, all other regression settings are the same as in the baseline analysis. Specifically, we include the same set of control variables, currency fixed effects, and calculate standard errors as in Table 2. The second stage of the IV specification shows that the effect of stablecoin flows is not only statistically significant but also economically meaningful. That is, the estimated coefficient implies that a one-standard-deviation increase in stablecoin inflows is associated with an increase of about four basis points in convenience yields.

Overall, the IV results reinforce the baseline results by isolating a plausibly exogenous component of stablecoin flows and show that increases in stablecoin flows are followed by economically significant increases in convenience yields, supporting **Hypothesis 1**.

#### 4.3.2 Event Study Analysis: U.S. Presidential Election

As a complementary approach to address endogeneity concerns, we conduct an event study analysis around the 2024 U.S. presidential election. The election outcome was widely viewed as uncertain ex ante, and the resulting changes in crypto market conditions provide a plausibly exogenous shock to stablecoin demand. We focus on a three-month window surrounding the election date (November 5, 2024) and estimate a simple time-series specification with an indicator variable, $Trump$, that equals one for days on or after the election date. We

calculate Newey-West standard errors to account for serial correlation and heteroskedasticity.

Table 7 summarizes the event study evidence using three outcome variables. Column (2) examines daily stablecoin inflows (scaled by $100 million), Column (2) uses the convenience yield as the dependent variable, and Column (3) considers the U.S. dollar index (DXY). Following Donald Trump's election victory, all three outcomes move sharply and in the same direction. That is, stablecoin inflows increase significantly, indicating a surge in demand for dollar-backed stablecoins. At the same time, the convenience yield rises and the U.S. dollar appreciates over the same window.

An important concern is that other contemporaneous macroeconomic developments may confound the interpretation. For example, the Federal Open Market Committee reduced its policy rate shortly after the election. However, conventional interest rate channels would predict that such rate cuts would put downward pressure on the dollar rather than contribute to its appreciation. The fact that we observe increases in both the convenience yield and the dollar index during this period suggests that the election-driven crypto shock provides variation that is distinct from standard monetary policy channels. Overall, the event study evidence complements the IV results and is consistent with hypotheses that stablecoin inflows are associated with higher convenience yields and dollar exchange rate appreciation.

## 5 Stablecoin and U.S. Dollar

Having established that stablecoin inflows raise convenience yields, we move to examine two broader implications of stablecoin activity for asset prices and risk transmission: the valuation of the U.S. dollar and the volatility of FX and Treasury markets. Section 5.1 examines the effect of stablecoin inflows on subsequent exchange rate changes, a key prediction from the convenience yield model (Jiang et al., 2021), and discusses the implications for the interest rate, convenience yield, and dollar demand channels. Section 5.2 then examines how the size of the dollar-backed stablecoin market is associated with FX and Treasury volatility

and studies whether stablecoins amplify spillovers from crypto market risk.

Dollar-denominated stablecoins can affect the value of the U.S. dollar through various channels. First, stablecoins may operate through a direct dollar order-flow channel (Evans and Lyons, 2002): increased demand for dollar-backed stablecoins can raise demand for spot U.S. dollars, thereby inducing dollar to appreciate. Second, stablecoin issuers directly purchase short-term U.S. Treasury securities and other safe assets (e.g., repurchase agreements); changes in the demand for these assets influence their yields, which in turn affect exchange rates. That is, as predicted by the textbook models, the decrease in the U.S. rate relative to the foreign rate will depreciate the dollar. Thus, with the short-term Treasury yields decreasing, the U.S. dollar should depreciate. A third mechanism operates through the convenience-yield channel of exchange rate determination (Jiang et al., 2021). In this framework, an increase in the convenience yield of U.S. safe assets leads to an appreciation of the U.S. dollar. The convenience yield reflects the nonpecuniary benefits of holding safe assets – benefits for which investors are willing to forgo financial returns (Krishnamurthy and Vissing-Jorgensen, 2012). In equilibrium, foreign investors earn lower expected returns in their own currencies when holding U.S. safe assets than U.S. investors. These lower expected foreign currency returns reflect the dollar's appreciation in equilibrium.

### 5.1 Dollar Stablecoin Flow and Dollar Valuation

To test the link between stablecoin flow and the U.S. dollar value, we run the following regression:

$$FXRet_{i,t+1,t+h} = a + b * StableFlow_{t-21,t} + c * Controls_{t-21,t} + \epsilon_t \tag{4}$$

where $FXRet_{i,t+1,t+h}$ denotes the cumulative return on currency $i$ over horizon $h$ trading days, and $StableFlow_{t-21,t}$ is the net inflow into USD-backed stablecoins over the preceding month, defined in the same way as in Section 4. The dependent variables are currency

returns denominated in US dollars (USD per unit of foreign currency), so a negative return implies U.S. dollar appreciation. The control variables follow the baseline set and include Bitcoin returns, changes in interest rate differentials, and changes in the VIX over the same one-month window, together with currency fixed effects. To further account for short-run exchange rate dynamics, we control for lagged FX returns measured over the same horizon length as the dependent variable (e.g., $FXRet_{t-5,t}$ for the $h = 5$ regression, and analogously for $h = 10, 15, 21$).

To address potential endogeneity in stablecoin flows, we implement an instrumental variable approach that parallels Section 4 and use lagged crypto shocks as instruments for $StableFlow_{t-21,t}$. Table 8 reports the results. Across horizons, the coefficients on $StableFlow$ are negative and statistically significant, indicating that exogenous increases in stablecoin inflows are followed by an appreciation of the U.S. dollar against foreign currencies.

The magnitude of the estimated effects is economically meaningfu: a one-standard-deviation increase in stablecoin inflows is associated with a 0.9% appreciation of the U.S. dollar over the subsequent month. Moreover, the estimated effect increases with the holding horizon, suggesting that the exchange rate response builds gradually without reversal rather than reflecting a temporary price movement.

To visualize the effect of stablecoin flows on the U.S. dollar value, Figure 2 plots the IV coefficient estimates for horizons from 1 to 21 trading days, together with the corresponding confidence bands. Consistent with Table 8, the estimated response becomes progressively more negative as the horizon lengthens, illustrating a gradual and persistent appreciation of the U.S. dollar following stablecoin inflows. Note that we find no evidence of short-term reversal in Figure 2, suggesting that the exchange rate response is unlikely to be driven by transitory price pressure from the temporary spot FX market dollar demand. In addition, the negative coefficient on $StableFlow$ rules out the interest rate channel. Stablecoin inflows are associated with purchases of short-term Treasuries that compress yields (Ahmed and Al-

dasoro, 2025), which under standard textbook mechanisms would predict dollar depreciation rather than appreciation.

In sum, the results in this section are consistent with the effect on the convenience yield documented in previous section, where stablecoin inflows are followed by increases in the nonpecuniary value of holding U.S. safe assets, and are therefore consistent with **Hypothesis 3**.

### 5.2 Stablecoin and Market Stability

The dollar stablecoin serves as a natural bridge between decentralized finance and traditional financial markets and has the potential to reinforce the U.S. dollar's status in the global financial system, however, it is not without risks. First, the stablecoin market is not free from run risk (Ma et al., 2025). During periods of market stress, confidence in stablecoins may decline. This led to a significant depegging of the stablecoin's price from the U.S. dollar. If such events were to occur on a larger scale and affect multiple stablecoins, they could precipitate a run on the bank, in which holders rush to redeem them for U.S. dollars. This mass redemption creates a sudden pressure on stablecoin issuers to liquidate their reserve assets to meet withdrawals. Secondly, stablecoins can act as a transmission vehicle, allowing uncertainty or risk in the DeFi market to spill over into established traditional financial systems. Cryptocurrencies such as Bitcoin and Ethereum are notoriously volatile, with prices often fluctuating by double-digit percentages in a single day. Stablecoins act as "digital safe havens" within this volatility, allowing investors to quickly convert volatile crypto holdings into an asset with a stable value. The boom-and-bust cycle of decentralized financial assets induces large inflows and outflows in the stablecoin market. To study the effect of stablecoins on market stability, we run the following regression:

$$AssetVol_{t+1,t+21} = a + b * StableMarketSize_t + c * Controls_{t-21,t} + \epsilon_t, \tag{5}$$

where $AssetVol$ is a generic metric for asset volatility, including Treasury volatility and volatility for U.S. dollar exchange rate. $StableMarketSize$ is measured by total stablecoin market capitalization over outstanding value of total (short-term) US Treasury.

Table 9 reports the results. Column (1) uses realized exchange rate volatility over the subsequent 21 trading days as the dependent variable. Column (2) considers foreign exchange implied volatility, while Column (3) focuses on treasury market volatility across currencies measured over the same horizon. All coefficients on stablecoin market size are positive and statistically significant. In other words, the results in Table 9 suggest that a larger dollar stablecoin market is associated with higher volatility in both bond and foreign exchange markets, suggesting a potential risk channel accompanying the expansion of stablecoins, as posited in **Hypothesis 4**.

To further examine whether the stablecoin market acts as a transmission channel for risk originating in crypto markets, we extend the specification in Table 9 by interacting the stablecoin market size with two alternative measures of crypto market risk: Bitcoin return volatility and volatility of the Bloomberg Galaxy Crypto Index (BGCI). The interaction terms clearly show how crypto market fluctuations contribute to FX and Treasury market volatility. Columns (1)–(3) examine volatility spillovers from crypto markets using Bitcoin return volatility as the source of crypto market risk, Columns (4)–(6) replace Bitcoin volatility with volatility of the Bloomberg Galaxy Crypto Index (BGCI), which captures broader conditions in the crypto market. Across all specifications, the interaction terms are positive and statistically significant, indicating a spillover effect from the crypto market to foreign exchange markets and treasury markets.

Overall, the results highlight the important role of stablecoins in transmitting crypto market risk to traditional financial markets, posing significant challenges to market stability.

# 6 Robustness Checks

This section presents a series of robustness checks. We proceed as follows. Section 6.1 conducts a placebo test using EUR-based exchange rate returns. Section 6.2 replaces dollar-denominated stablecoin flows with a flow ratio scaled by the outstanding stock of short-term U.S. government debt. Section 6.3 re-estimates the FX return regressions separately for each currency. Finally, Section 6.4 examines robustness to alternative instrument constructions and to convenience-yield measures based on longer maturities.

## 6.1 Placebo Test: EUR-based Currency Pairs

A natural concern is that the exchange rate results may be attributable to broad crypto-related shocks or global financial conditions that affect major currencies more generally, rather than to a mechanism specific to the U.S. dollar. To address this concern, we conduct a placebo test using EUR currency pairs. The intuition is straightforward: if dollar-backed stablecoin flows operate primarily through channels linked to the unique role of U.S. safe assets and the dollar's convenience yield, then replacing the U.S. dollar with another major currency – such as the euro – should not produce comparable exchange rate responses.

To implement this placebo test, we re-estimate the exchange rate regressions by replacing the USD-based exchange rate returns used in Table 8 with EUR-based exchange rate returns (EUR per unit of foreign currency), redefining the dependent variable as the cumulative return on the euro against other major currencies(AUD, CAD, CHF, GBP, JPY, and NZD).

Table 11 reports the results. As we can see, stablecoin flows exhibit no statistically or economically significant association with the EUR exchange rate movements. This suggests that the previous findings are unlikely to be driven by common shocks affecting all major currencies. Instead, the evidence in Section 4 supports the interpretation that the exchange rate responses documented in the main analysis are specific to the U.S. dollar and closely

linked to channels operating through dollar-denominated safe assets.

### 6.2 Alternative Definitions of Stablecoin Flows

Our baseline analysis measures stablecoin flows using net issuance denominated in U.S. dollars. A potential concern is that this measure may mechanically scale with the overall size of the U.S. Treasury market, rather than reflect economically meaningful variation in stablecoin demand. To address this concern, we construct an alternative flow measure that normalizes stablecoin issuance by the size of the short-term U.S. Treasury market.

We define a flow ratio that scales stablecoin net issuance by the outstanding stock of short-term U.S. government debt, capturing stablecoin demand relative to the supply of reserve assets backing these instruments. Appendix Table A2 reports results from re-estimating the baseline convenience yield regressions using this alternative flow measure. The estimated coefficient on the stablecoin flow ratio remains positive and statistically significant, with a magnitude comparable to that obtained using dollar-denominated flows.

We further examine the exchange rate implications using the same alternative flow measure. Appendix Table A3 reports the results from the IV approach. Consistent with the results in Table 8, increases in the stablecoin flow ratio are followed by statistically significant appreciation of the U.S. dollar, with effects that accumulate over longer horizons.

These results, based on flow ratios, confirm that our main findings are robust to the use of dollar-denominated metrics.

### 6.3 Individual Currency Analysis

The analysis of exchange rates in Section 5.1 considers multiple currencies by exploiting panel variation. While this approach improves statistical power, it may mask heterogeneity in individual currencies' responses to stablecoin flows. To assess whether the documented

U.S. dollar appreciation is driven by a small subset of currencies or reflects a broader pattern, we further decompose the analysis at the currency level. To this end, we re-estimate the effect of stablecoin flows on exchange rates in the IV regressions separately for each currency, following the same specification as in Table 8. The dependent variable is the cumulative exchange rate return (USD per unit of foreign currency) against the U.S. dollar over a 21-trading-day horizon, and stablecoin flows are instrumented using lagged crypto shocks. Appendix Table A4 reports the results. The estimates show a broadly consistent pattern across currencies.

### 6.4 Alternative Instruments and Convenience Yield Measures

We conduct additional robustness checks by varying both the construction of the instrumental variable and the measurement of convenience yields.

First, we modify the instrumental variable strategy by aggregating cryptocurrency shocks over a longer, two-month window, rather than the one-month window used in the main IV analysis. All other aspects of the empirical specification remain the same. The results, reported in Appendix Table A5, show that the first-stage relationship between crypto shocks and stablecoin flows remains strong. In the second stage, the effect of stablecoin inflows on the CIP-implied convenience yield is still positive and statistically significant, with magnitudes comparable to those in the main IV specification.

Second, we show that our results are robust to alternative measures of convenience yields by using CIP deviations constructed from longer maturities. Appendix Table A6 reports results based on 6-month and 1-year convenience yield measures. Both OLS and IV estimates indicate that stablecoin inflows are followed by increases in convenience yields at these maturities as well. Using alternative maturity-based measures of convenience yields, the estimated coefficients on stablecoin inflows remain positive and statistically significant in both OLS and IV specifications.

# 7 Conclusion

We study how stablecoin flows affect the convenience yield of U.S. safe assets, the value of the U.S. dollar, and market stability. We first find that a one–standard-deviation inflow into U.S. dollar–denominated stablecoins increases the U.S. Treasury convenience yield by 4 basis points and leads to a 0.9% appreciation of the U.S. dollar over the subsequent month. These effects are stronger with USDC (which uses Treasuries as its main reserve), when Treasury convenience yields are already elevated, and stablecoin prices are more tightly pegged to $1. We also confirm that the impact on the U.S. dollar's appreciation does not revert, therefore, our findings are not driven by the direct price pressure effect from the spot dollar order-flow. Meanwhile, these joint effects on the convenience yields and the value of the U.S. dollar rule out the mechanical effect of the Treasury yields on the dollar but strongly support the convenience yield channel.

Stablecoins broaden the dollar's functional use in global digital transactions and may increase its overall convenience yield. In this sense, beyond the traditional attributes of safety and liquidity, stablecoins introduce a third convenience attribute – digital (crypto) utility – that attaches to U.S. Treasuries and, through this channel, influences U.S. dollar valuation.

We implement two complementary strategies to address the endogeneity issue: (1) using the shock to the crypto market as an instrumental variable for stablecoin flows; (2) conducting an event-study surrounding the 2024 U.S. presidential election. Both strategies not only confirm the robustness of our results but also help to pin down the causal impact of stablecoins on the convenience yield of U.S. safe assets and the value of the U.S. dollar.

Lastly, we examine how stablecoins transmit shocks originating in crypto markets into traditional financial markets. Specifically, we find that foreign exchange rate volatility and U.S. Treasury bond volatility are both positively and significantly related to the size of the

stablecoin market.

Taken together, our study identifies a novel channel through which the growth of dollar-backed stablecoins influences traditional financial markets. By expanding the functional uses of the U.S. dollar, stablecoins enhance its overall convenience yield and contribute to dollar appreciation. At the same time, stablecoins act as a conduit through which shocks originating in crypto markets propagate to bond and foreign exchange markets, with stablecoin market size significantly associated with the stability in both markets. Our study has broad policy implications and suggests that effective regulation of stablecoins must go beyond reserve transparency and liquidity requirements. As stablecoins continue to scale, their role of transmitting risk to the traditional financial system increases, underscoring the need for robust and comprehensive regulatory oversight.

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Table 1: **Summary Statistics**

This table reports the summary statistics for our sample. The sample period spans from 2021Q1 to 2025Q2. Panel A presents panel data at the currency-day level. Panel B displays time-series data at daily frequency. Panel C shows EUR-based currency FX returns and changes in interest rate differentials.

| VARIABLES | N | mean | sd | p10 | p90 |
|---|---|---|---|---|---|
| | | Panel A: Panel Data | | | |
| $\Delta\Phi$ | 7,606 | 0.103 | 15.927 | -17.478 | 18.095 |
| $FXRet(\%)$ | 7,606 | -0.173 | 2.532 | -3.178 | 2.949 |
| $\Delta IVol$ | 7,606 | 0.027 | 1.334 | -1.380 | 1.523 |
| $Vol$ | 7,606 | 0.543 | 0.201 | 0.322 | 0.802 |
| $BondVol$ | 7,606 | 0.063 | 0.056 | 0.009 | 0.141 |
| $\Delta IRdiff$ | 7,606 | -0.034 | 0.214 | -0.277 | 0.200 |
| | | Panel B: Time Series Data | | | |
| $StableFlow$(\$B) | 1,097 | 3.597 | 5.875 | -2.890 | 11.233 |
| $USDTFlow$(\$B) | 1,097 | 2.451 | 3.828 | -0.609 | 6.909 |
| $USDCFlow$(\$B) | 1,097 | 1.109 | 3.219 | -2.354 | 4.933 |
| $CapRatio(\%)$ | 1,097 | 0.530 | 0.118 | 0.445 | 0.658 |
| $BitRet$ | 1,097 | 2.848 | 18.750 | -19.371 | 27.336 |
| $\Delta VIX$ | 1,097 | 0.056 | 5.202 | -5.970 | 5.880 |
| $BitVol$ | 1,097 | 2.968 | 1.018 | 1.771 | 4.444 |
| $BGCIVol$ | 1,097 | 3.960 | 1.266 | 2.651 | 5.631 |
| $CryptoShock$ | 1,097 | 0.002 | 0.175 | -0.224 | 0.225 |
| $DI$ | 1,097 | 101.331 | 5.721 | 92.049 | 107.189 |
| | | Panel C: EUR Data | | | |
| $EURRet(\%)$ | 6,594 | -0.076 | 1.876 | -2.377 | 2.143 |
| $\Delta EURIRdiff$ | 6,594 | -0.006 | 0.234 | -0.263 | 0.248 |

Table 2: **Stablecoin Flows and Convenience Yield**

This table presents the panel regression results for the relation between stablecoin flows and convenience yield. The dependent variable is the change of convenience yield ($\Delta\Phi$), constructed similar to Jiang et al. (2021), and Du et al. (2018b). The key independent variable is stablecoin flows ($StableFlow$), calculated as the change in the total market capitalization of stablecoins over the previous month. The flow measure is scaled by one standard deviation of $5.87 billion. Column (2) includes controls for the lagged dependent variable. Column (3) additionally controls for changes in the interest rate differential ($\Delta IRdiff$), the return of Bitcoin ($BitRet$), and the change in the VIX index ($\Delta VIX$) over the previous month. We also control for currency fixed effects. Standard errors clustered at time are reported in parentheses. ***, **, and * indicate significance at the 1%, 5%, and 10% level, respectively.

| VARIABLES | (1) $\Delta\Phi_{i,t+1,t+21}$ | (2) $\Delta\Phi_{i,t+1,t+21}$ | (3) $\Delta\Phi_{i,t+1,t+21}$ |
|---|---|---|---|
| $StableFlow_{t-21,t}$ | 1.252*** | 1.085*** | 1.276*** |
| | (0.290) | (0.289) | (0.298) |
| $\Delta\Phi_{i,t-21,t}$ | | -0.210*** | -0.187*** |
| | | (0.019) | (0.023) |
| $\Delta IRdiff_{t-21,t}$ | | | -4.637*** |
| | | | (1.650) |
| $BitRet_{t-21,t}$ | | | -2.302 |
| | | | (1.491) |
| $\Delta VIX_{t-21,t}$ | | | 0.066 |
| | | | (0.064) |
| # of Obs | 7,606 | 7,606 | 7,606 |
| R-squared | 0.006 | 0.052 | 0.057 |
| Currency FE | Yes | Yes | Yes |

Table 3: **USDT or USDC Flows and Convenience Yield**

This table uses the same regression specifications as Table 2, but decomposes total stablecoin flows by issuer (USDT vs USDC). The key independent variables are stablecoin flows ($USDTFlow$ and $USDCFlow$), calculated as the one month change in market capitalization for each respective stablecoin. These flow measures are scaled by total stablecoin flows' standard deviation of $5.87 billion. Columns (3)-(4) include controls for the lagged dependent variable. Columns (5)-(6) additionally control for changes in the interest rate differential ($\Delta IRdiff$), the return of Bitcoin ($BitRet$) , and the change in the VIX index ($\Delta VIX$) over the previous month. We also control for currency fixed effects. Standard errors clustered at time are reported in parentheses. ***, **, and * indicate significance at the 1%, 5%, and 10% level, respectively.

| | (1) | (2) | (3) | (4) | (5) | (6) |
|---|---|---|---|---|---|---|
| VARIABLES | $\Delta\Phi_{i,t+1,t+21}$ | $\Delta\Phi_{i,t+1,t+21}$ | $\Delta\Phi_{i,t+1,t+21}$ | $\Delta\Phi_{i,t+1,t+21}$ | $\Delta\Phi_{i,t+1,t+21}$ | $\Delta\Phi_{i,t+1,t+21}$ |
| $USDTFlow_{t-21,t}$ | 0.428 | | 0.285 | | 0.858* | |
| | (0.447) | | (0.454) | | (0.448) | |
| $USDCFlow_{t-21,t}$ | | 1.834*** | | 1.389** | | 1.427** |
| | | (0.682) | | (0.676) | | (0.710) |
| $\Delta\Phi_{i,t-21,t}$ | | | -0.213*** | -0.210*** | -0.195*** | -0.190*** |
| | | | (0.019) | (0.019) | (0.023) | (0.023) |
| $\Delta IRdiff_{t-21,t}$ | | | | | -3.910** | -4.128** |
| | | | | | (1.664) | (1.661) |
| $BitRet_{t-21,t}$ | | | | | -2.840** | -1.021 |
| | | | | | (1.397) | (1.611) |
| $\Delta VIX_{t-21,t}$ | | | | | 0.078 | 0.069 |
| | | | | | (0.064) | (0.065) |
| # of Obs | 7,606 | 7,606 | 7,606 | 7,606 | 7,606 | 7,606 |
| R-squared | 0.000 | 0.004 | 0.047 | 0.049 | 0.052 | 0.053 |
| Currency FE | Yes | Yes | Yes | Yes | Yes | Yes |

Table 4: **Stablecoin Flows and Convenience Yield: The role of Price Dispersion**

This table maintains the same control variables as Table 2 Column (3). The table presents results for the relation between stablecoin flows and convenience yield with different stablecoin price dispersion. Price dispersion is calculated as the market-capitalization-weighted average of absolute deviations from $1 for both USDT and USDC prices. $PDHigh$ is an indicator variable that equals 1 when price dispersion exceeds the median value. The flow measure is scaled by one standard deviation of $5.87 billion. Columns (1)–(2) present results for the high and low price dispersion subgroups, respectively, while Column (3) introduces an interaction term. Standard errors clustered at time are reported in parentheses. ***, **, and * indicate significance at the 1%, 5%, and 10% level, respectively.

| | (1) | (2) | (3) |
|---|---|---|---|
| | High | Low | |
| VARIABLES | $\Delta\Phi_{i,t+1,t+21}$ | $\Delta\Phi_{i,t+1,t+21}$ | $\Delta\Phi_{i,t+1,t+21}$ |
| $StableFlow_{t-21,t}$ | 0.797** | 2.283*** | 2.308*** |
| | (0.353) | (0.510) | (0.505) |
| $PDHigh_t$ | | | -0.134 |
| | | | (0.837) |
| $StableFlow_{t-21,t} \times PDHigh_t$ | | | -1.546** |
| | | | (0.608) |
| $\Delta\Phi_{i,t-21,t}$ | -0.150*** | -0.216*** | -0.188*** |
| | (0.030) | (0.031) | (0.023) |
| $\Delta IRdiff_{t-21,t}$ | -5.212** | -4.278* | -4.551*** |
| | (2.430) | (2.188) | (1.633) |
| $BitRet_{t-21,t}$ | -2.228 | -2.668 | -2.502* |
| | (1.502) | (3.091) | (1.471) |
| $\Delta VIX_{t-21,t}$ | 0.145 | 0.015 | 0.069 |
| | (0.096) | (0.084) | (0.063) |
| # of Obs | 3,803 | 3,803 | 7,606 |
| R-squared | 0.048 | 0.077 | 0.060 |
| Currency FE | Yes | Yes | Yes |

Table 5: **Stablecoin Flows and Convenience Yield: level of Convenience Yield**

This table presents the panel regression results for the relation between stablecoin flows and convenience yield with different convenience yield and VIX index level. This table maintains the same structure as Table 4. $\Phi High$ and $VIXHigh$ are indicator variables that equals 1 when convenience yield and the VIX index, respectively, exceed their median values. The flow measure is scaled by one standard deviation of $5.87 billion. Columns (1)–(3) report results for convenience yield subgroups and interaction terms, while Columns (4)–(6) present analogous specifications for VIX index. Standard errors clustered at time are reported in parentheses. ***, **, and * indicate significance at the 1%, 5%, and 10% level, respectively.

| | (1) | (2) | (3) | (4) | (5) | (6) |
|---|---|---|---|---|---|---|
| | | CIP | | | VIX | |
| | High | Low | | High | Low | |
| VARIABLES | $\Delta\Phi_{i,t+1,t+21}$ | $\Delta\Phi_{i,t+1,t+21}$ | $\Delta\Phi_{i,t+1,t+21}$ | $\Delta\Phi_{i,t+1,t+21}$ | $\Delta\Phi_{i,t+1,t+21}$ | $\Delta\Phi_{i,t+1,t+21}$ |
| $StableFlow_{t-21,t}$ | 2.409*** | -0.327 | -0.255 | 2.918*** | -0.479 | -0.459 |
| | (0.361) | (0.287) | (0.278) | (0.493) | (0.350) | (0.324) |
| $\Phi High_{i,t}$ | | | -9.627*** | | | |
| | | | (0.640) | | | |
| $StableFlow_{t-21,t} \times \Phi High_{i,t}$ | | | 2.660*** | | | |
| | | | (0.362) | | | |
| $VIXHigh_t$ | | | | | | -3.164*** |
| | | | | | | (0.824) |
| $StableFlow_{t-21,t} \times VIXHigh_t$ | | | | | | 3.333*** |
| | | | | | | (0.604) |
| $\Delta\Phi_{i,t-21,t}$ | -0.095*** | -0.142*** | -0.117*** | -0.181*** | -0.173*** | -0.174*** |
| | (0.031) | (0.026) | (0.023) | (0.031) | (0.027) | (0.022) |
| $\Delta IRdiff_{t-21,t}$ | -11.033*** | -1.926 | -6.703*** | -11.675*** | 3.865* | -6.444*** |
| | (2.017) | (1.772) | (1.583) | (2.228) | (2.023) | (1.641) |
| $BitRet_{t-21,t}$ | 0.536 | -8.034*** | -3.632*** | 1.154 | -9.631*** | -3.583** |
| | (1.729) | (1.492) | (1.381) | (2.290) | (1.637) | (1.473) |
| $\Delta VIX_{t-21,t}$ | 0.033 | 0.083 | 0.049 | 0.090 | -0.016 | 0.030 |
| | (0.073) | (0.069) | (0.062) | (0.086) | (0.108) | (0.068) |
| # of Obs | 3,803 | 3,803 | 7,606 | 3,814 | 3,792 | 7,606 |
| R-squared | 0.079 | 0.067 | 0.105 | 0.097 | 0.053 | 0.068 |
| Currency FE | Yes | Yes | Yes | Yes | Yes | Yes |

Table 6: **Stablecoin Flows and Convenience Yield: Instrument Variable**

This table presents instrumental variable (IV) regression results using a two-stage approach, while maintaining the same controls as in Table 2 Column (3). Our instrument is the cryptocurrency shocks ($CryptoShock$) from the previous month that cannot be explained by economic fundamentals, constructed following the crypto shock series of Aldasoro et al. (2025). The flow measure is scaled by one standard deviation ($5.87 billion). Column (1) reports first-stage results with robust standard errors, while Column (2) presents second-stage estimates including currency fixed effects and time-clustered standard errors. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

| (1) | | (2) | |
|---|---|---|---|
| First Stage | | Second Stage | |
| VARIABLES | $StableFlow_{t-21,t}$ | VARIABLES | $\Delta\Phi_{i,t+1,t+21}$ |
| $CryptoShock_{t-42,t-21}$ | 1.564*** | $StableFlow_{t-21,t}$ | 4.149*** |
| | (0.154) | | (0.908) |
| $\Delta\Phi_{i,t-21,t}$ | -0.015*** | $\Delta\Phi_{i,t-21,t}$ | -0.161*** |
| | (0.003) | | (0.021) |
| $\Delta IRdiff_{t-21,t}$ | 1.694*** | $\Delta IRdiff_{t-21,t}$ | -7.332*** |
| | (0.174) | | (1.657) |
| $BitRet_{t-21,t}$ | -0.099 | $BitRet_{t-21,t}$ | -3.217** |
| | (0.190) | | (1.516) |
| $\Delta VIX_{t-21,t}$ | 0.011** | $\Delta VIX_{t-21,t}$ | 0.035 |
| | (0.005) | | (0.064) |
| Constant | 0.666*** | | |
| | (0.032) | | |
| # of Obs | 1,097 | # of Obs | 7,606 |
| R-squared | 0.144 | R-squared | 0.057 |
| F-value | 49.74 | Currency FE | Yes |

Table 7: **Event Study: Trump Election**

This table presents regression results examining the impact of U.S. election on convenience yield, stablecoin flows, and the U.S. dollar index. The analysis sample covers a three-month window surrounding the election date. Column (1) examines one-day stablecoin inflows which are scaled by $100 million Column (2) uses convenience yield ($\Phi$) as the dependent variable, and Column (3) analyzes the dollar index (DXY). The key independent variable is an indicator variable that equals to one for periods on or after November 5, 2024 (election date). All specifications report Newey-West standard errors to account for autocorrelation and heteroskedasticity, with ***, **, and * indicating significance at the 1%, 5%, and 10% level, respectively.

| VARIABLES | *StableFlow* | *Convenience Yield* | *Dollar Index* |
|---|---|---|---|
| *Trump* | 5.016*** | 6.604** | 5.216*** |
| | (1.430) | (2.582) | (0.492) |
| # of Obs | 125 | 125 | 125 |
| R-squared | 0.026 | 0.000 | 0.060 |

Table 8: **Stablecoin Flows and FX return**

This table presents instrumental variable (IV) regression results examining the relationship between stablecoin flows and FX returns, while maintaining specifications consistent with Table 6. The flow measure is scaled by one standard deviation ($5.87 billion). The dependent variables are currency returns denominated in US dollars (USD per unit of foreign currency). Columns (1)-(4) use cumulative currency returns over 5-, 10-, 15-, and 21-trading-day horizons, respectively, as the dependent variables. Standard errors clustered at time are reported in parentheses. ***, **, and * indicate significance at the 1%, 5%, and 10% level, respectively.

| VARIABLES | (1) $FXRet_{t+1,t+5}$ | (2) $FXRet_{t+1,t+10}$ | (3) $FXRet_{t+1,t+15}$ | (4) $FXRet_{t+1,t+21}$ |
|---|---|---|---|---|
| $StableFlow_{t-21,t}$ | -0.327*** | -0.513*** | -0.623*** | -0.868*** |
| | (0.093) | (0.131) | (0.151) | (0.173) |
| $BitRet_{t-21,t}$ | 0.053 | -0.102 | -0.296 | -0.547* |
| | (0.150) | (0.216) | (0.260) | (0.309) |
| $\Delta IRdiff_{t-21,t}$ | 0.181 | 0.058 | -0.174 | -0.524** |
| | (0.131) | (0.184) | (0.229) | (0.264) |
| $\Delta VIX_{t-21,t}$ | 0.013* | 0.019* | 0.031*** | 0.058*** |
| | (0.008) | (0.010) | (0.012) | (0.014) |
| $FXRet_{t-5,t}$ | 0.000 | | | |
| | (0.023) | | | |
| $FXRet_{t-10,t}$ | | 0.010 | | |
| | | (0.021) | | |
| $FXRet_{t-15,t}$ | | | 0.013 | |
| | | | (0.022) | |
| $FXRet_{t-21,t}$ | | | | 0.022 |
| | | | | (0.023) |
| # of Obs | 7,606 | 7,606 | 7,606 | 7,606 |
| R-squared | 0.011 | 0.017 | 0.026 | 0.047 |
| Currency FE | Yes | Yes | Yes | Yes |

Table 9: **Stablecoin Market Size and FX/Treasury Volatility**

This table presents regression results examining the relationship between stablecoin market size and three volatility measures. Column (1) uses the standard deviation of daily USD-based currency FX return over a 21-trading-day horizon as the dependent variable. Column (2) employs the change in 21-day foreign exchange implied volatility. Column (3) employs the standard deviation of risk-free interest rates across currencies over 21 trading days. The key independent variable is the ratio of total stablecoin market capitalization to U.S. government short-term debt outstanding ($CapRatio$). Standard errors clustered at time are reported in parentheses. ***, **, and * indicate significance at the 1%, 5%, and 10% level, respectively.

| VARIABLES | (1) $Vol_{t+1,t+21}$ | (2) $\Delta IVol_{t+1,t+21}$ | (3) $BondVol_{t+1,t+21}$ |
|---|---|---|---|
| $CapRatio_t$ | 0.223*** | 2.037*** | 0.059*** |
| | (0.034) | (0.279) | (0.005) |
| $BitRet_{t-21,t}$ | -0.070*** | -0.083 | -0.026*** |
| | (0.014) | (0.162) | (0.004) |
| $\Delta IRdiff_{t-21,t}$ | -0.069*** | 0.785*** | -0.007** |
| | (0.016) | (0.119) | (0.003) |
| $\Delta VIX_{t-21,t}$ | -0.000 | 0.005 | -0.001*** |
| | (0.001) | (0.008) | (0.000) |
| $Vol_{t-21,t}$ | 0.439*** | | |
| | (0.017) | | |
| $\Delta IVol_{t-21,t}$ | | -0.326*** | |
| | | (0.027) | |
| $BondVol_{t-21,t}$ | | | 0.514*** |
| | | | (0.015) |
| # of Obs | 7,606 | 7,606 | 7,606 |
| R-squared | 0.461 | 0.125 | 0.477 |
| Currency FE | Yes | Yes | Yes |

Table 10: **Stablecoin Market Size and FX/Treasury Volatility: Spillover effect of Crypto Market Volatility**

This table extends the specifications in Table 9 by incorporating two cryptocurrency market volatility measures as interaction terms. Columns (1)-(3) include Bitcoin volatility ($BitVOl$), measured as the standard deviation of Bitcoin's daily log returns over 21 trading days. Columns (4)-(6) feature the Bloomberg Galaxy Crypto Index (BGCI) volatility ($BGCIVol$), calculated as the standard deviation of the index's daily returns. Standard errors clustered at time are reported in parentheses. ***, **, and * indicate significance at the 1%, 5%, and 10% level, respectively.

| | (1) | (2) | (3) | (4) | (5) | (6) |
|---|---|---|---|---|---|---|
| VARIABLES | $Vol_{t+1,t+21}$ | $\Delta IVol_{t+1,t+21}$ | $BondVol_{t+1,t+21}$ | $Vol_{t+1,t+21}$ | $\Delta IVol_{t+1,t+21}$ | $BondVol_{t+1,t+21}$ |
| $CapRatio_t$ | 0.121 | 0.546 | -0.007 | -0.380*** | -0.177 | -0.022 |
| | (0.081) | (0.837) | (0.016) | (0.089) | (1.122) | (0.024) |
| $BitVol_{t,t+21}$ | 0.006 | -0.048 | -0.008*** | | | |
| | (0.010) | (0.103) | (0.002) | | | |
| $CapRatio_t \times BitVol_{t,t+21}$ | 0.046** | 0.651*** | 0.020*** | | | |
| | (0.021) | (0.224) | (0.005) | | | |
| $BGCIVol_{t,t+21}$ | | | | -0.043*** | -0.126 | -0.008*** |
| | | | | (0.009) | (0.104) | (0.002) |
| $CapRatio_t \times BGCIVol_{t,t+21}$ | | | | 0.141*** | 0.545** | 0.018*** |
| | | | | (0.020) | (0.248) | (0.005) |
| $BitRet_{t-21,t}$ | -0.043*** | 0.157 | -0.021*** | -0.019 | 0.161 | -0.023*** |
| | (0.015) | (0.164) | (0.004) | (0.016) | (0.175) | (0.004) |
| $\Delta IRdiff_{t-21,t}$ | -0.042*** | 0.951*** | -0.006* | -0.041*** | 0.909*** | -0.006** |
| | (0.012) | (0.126) | (0.003) | (0.013) | (0.130) | (0.003) |
| $\Delta VIX_{t-21,t}$ | -0.001** | -0.004 | -0.001*** | -0.001 | 0.002 | -0.001*** |
| | (0.001) | (0.008) | (0.000) | (0.001) | (0.008) | (0.000) |
| $Vol_{t-21,t}$ | 0.446*** | | | 0.469*** | | |
| | (0.014) | | | (0.016) | | |
| $\Delta IVol_{t-21,t}$ | | -0.315*** | | | -0.319*** | |
| | | (0.026) | | | (0.027) | |
| $BondVol_{t-21,t}$ | | | 0.515*** | | | 0.512*** |
| | | | (0.016) | | | (0.016) |
| # of Obs | 7,606 | 7,606 | 7,606 | 7,606 | 7,606 | 7,606 |
| R-squared | 0.505 | 0.164 | 0.480 | 0.496 | 0.145 | 0.479 |
| Currency FE | Yes | Yes | Yes | Yes | Yes | Yes |

Table 11: **Placebo Test: Stablecoin Flow and EUR-based FX return**

This table presents instrumental variable (IV) regression results analyzing the relationship between stablecoin flows and EUR-denominated foreign exchange returns. The other controls contain : (i) lagged EUR-based FX return, and (ii) lead-lag terms of USD-based FX return. The flow measure is scaled by one standard deviation ($5.87 billion). The dependent variables represent cumulative currency returns expressed in EUR terms (EUR per unit of foreign currency). Columns (1)-(4) use cumulative currency returns over 5-, 10-, 15-, and 21-trading-day horizons, respectively, as the dependent variables. Standard errors clustered at time are reported in parentheses. ***, **, and * indicate significance at the 1%, 5%, and 10% level, respectively.

| | (1) | (2) | (3) | (4) |
|---|---|---|---|---|
| | EUR | | | |
| VARIABLES | $FXRet_{t+1,t+5}$ | $FXRet_{t+1,t+10}$ | $FXRet_{t+1,t+15}$ | $FXRet_{t+1,t+21}$ |
| $StableFlow_{t-21,t}$ | -0.012 | 0.004 | 0.004 | 0.071 |
| | (0.059) | (0.082) | (0.098) | (0.110) |
| $\Delta IRdiff_{t-21,t}$ | 0.175** | 0.277*** | 0.471*** | 0.563*** |
| | (0.076) | (0.093) | (0.116) | (0.140) |
| $BitRet_{t-21,t}$ | 0.142 | 0.144 | 0.245 | 0.254 |
| | (0.110) | (0.153) | (0.177) | (0.200) |
| $\Delta VIX_{t-21,t}$ | -0.015*** | -0.018*** | -0.017*** | -0.018** |
| | (0.004) | (0.005) | (0.006) | (0.007) |
| # of Obs | 6,594 | 6,594 | 6,594 | 6,594 |
| R-squared | 0.312 | 0.327 | 0.349 | 0.336 |
| Other Controls | Yes | Yes | Yes | Yes |
| Currency FE | Yes | Yes | Yes | Yes |

# Figures

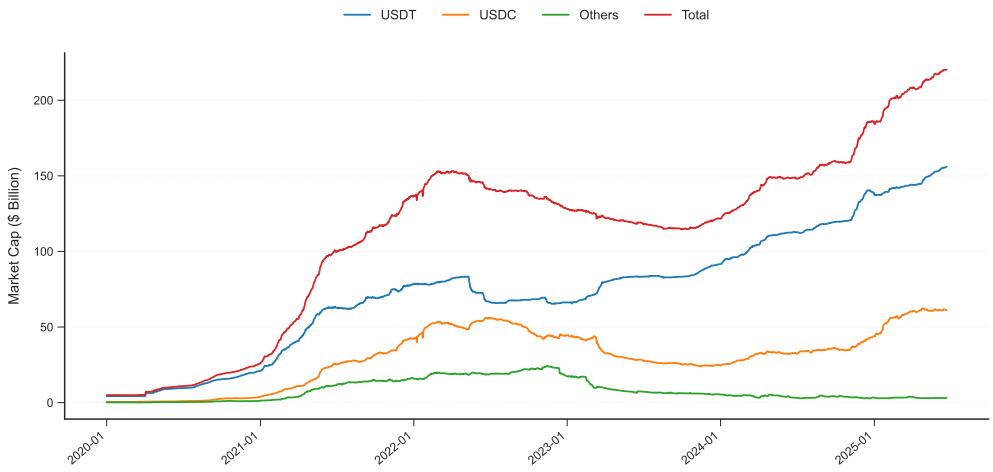



Figure 1: **Stablecoin Market Capitalization**

This figure presents the evolution of total market capitalization for six major stablecoins, and with separate time series shown for USDT, USDC, and an aggregated "Others" category. All values are denominated in billions of U.S. dollars.

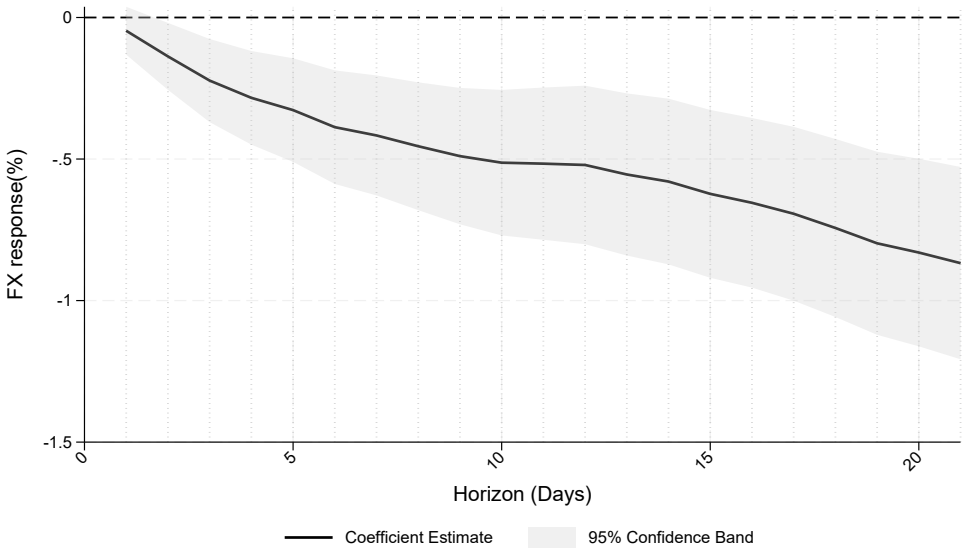



Figure 2: **Stablecoin Flows and FX returns (Instrumental Variable): Trading Days 1-21**

This figure presents instrumental variable (IV) regression results examining the impact of stablecoin flows on foreign exchange (FX) returns across 1- to 21-trading-day horizons. The specification follows Table 8's model framework. The solid line plots the point estimates for stablecoin flow coefficients, while the shaded area represents the 95% confidence interval based on standard errors clustered at time.

# Appendices

## A Appendix Tables

Table A1: **Stablecoin Flows and Convenience Yield: Bootstrap Standard Errors**

This table presents panel regression results examining the relationship between stablecoin flows and convenience yield, maintaining the same specification structure as Table 2. Bootstrap standard errors are reported. ***, **, and * indicate significance at the 1%, 5%, and 10% level, respectively.

| VARIABLES | (1) $\Delta\Phi_{i,t+1,t+21}$ | (2) $\Delta\Phi_{i,t+1,t+21}$ | (3) $\Delta\Phi_{i,t+1,t+21}$ |
|---|---|---|---|
| $StableFlow_{t-21,t}$ | 1.252*** | 1.085*** | 1.276*** |
| | (0.175) | (0.169) | (0.174) |
| $\Delta\Phi_{i,t-21,t}$ | | -0.210*** | -0.187*** |
| | | (0.015) | (0.017) |
| $\Delta IRdiff_{t-21,t}$ | | | -4.637*** |
| | | | (1.252) |
| $BitRet_{t-21,t}$ | | | -2.302*** |
| | | | (0.869) |
| $\Delta VIX_{t-21,t}$ | | | 0.066* |
| | | | (0.037) |
| # of Obs | 7,606 | 7,606 | 7,606 |
| R-squared | 0.006 | 0.052 | 0.057 |
| Currency FE | Yes | Yes | Yes |

Table A2: **Stablecoin Flow Ratio and Convenience Yield**

This table presents panel regression results examining the relationship between stablecoin flow ratio and convenience yield, maintaining the same specification structure as Table 2. The key independent variable, stablecoin flow ratio ($FlowRatio$), is constructed by scaling stablecoin flows by the outstanding amount of U.S. short-term government debt. Standard errors clustered at time are reported. ***, **, and * indicate significance at the 1%, 5%, and 10% level, respectively.

| VARIABLES | (1) $\Delta\Phi_{i,t+1,t+21}$ | (2) $\Delta\Phi_{i,t+1,t+21}$ | (3) $\Delta\Phi_{i,t+1,t+21}$ |
|---|---|---|---|
| $FlowRatio_{t-21,t}$ | 0.456*** | 0.389*** | 0.459*** |
| | (0.115) | (0.114) | (0.119) |
| $\Delta\Phi_{i,t-21,t}$ | | -0.211*** | -0.188*** |
| | | (0.019) | (0.023) |
| $\Delta IRdiff_{t-21,t}$ | | | -4.562*** |
| | | | (1.660) |
| $BitRet_{t-21,t}$ | | | -2.159 |
| | | | (1.498) |
| $\Delta VIX_{t-21,t}$ | | | 0.067 |
| | | | (0.064) |
| # of Obs | 7,606 | 7,606 | 7,606 |
| R-squared | 0.005 | 0.051 | 0.056 |
| Currency FE | Yes | Yes | Yes |

Table A3: **Stablecoin Flow Ratio and FX returns**

This table presents instrumental variable (IV) regression results examining the relationship between stablecoin flows and FX returns, maintaining the same specification structure as Table 8. The key independent variable, stablecoin flow ratio ($FlowRatio$), is constructed by scaling stablecoin flows by the outstanding amount of U.S. short-term government debt. Standard errors clustered at time are reported. ***, **, and * indicate significance at the 1%, 5%, and 10% level, respectively.

| VARIABLES | (1) $FXRet_{t+1,t+5}$ | (2) $FXRet_{t+1,t+10}$ | (3) $FXRet_{t+1,t+15}$ | (4) $FXRet_{t+1,t+21}$ |
|---|---|---|---|---|
| $FlowRatio_{t-21,t}$ | -0.124*** | -0.194*** | -0.235*** | -0.328*** |
| | (0.035) | (0.050) | (0.057) | (0.066) |
| $BitRet_{t-21,t}$ | 0.020 | -0.154 | -0.360 | -0.634** |
| | (0.149) | (0.214) | (0.257) | (0.303) |
| $\Delta IRdiff_{t-21,t}$ | 0.178 | 0.052 | -0.181 | -0.534** |
| | (0.131) | (0.184) | (0.230) | (0.265) |
| $\Delta VIX_{t-21,t}$ | 0.013* | 0.018* | 0.031*** | 0.058*** |
| | (0.008) | (0.010) | (0.012) | (0.014) |
| $FXRet_{t-5,t}$ | 0.001 | | | |
| | (0.023) | | | |
| $FXRet_{t-10,t}$ | | 0.010 | | |
| | | (0.021) | | |
| $FXRet_{t-15,t}$ | | | 0.013 | |
| | | | (0.022) | |
| $FXRet_{t-21,t}$ | | | | 0.022 |
| | | | | (0.023) |
| # of Obs | 7,606 | 7,606 | 7,606 | 7,606 |
| R-squared | 0.011 | 0.017 | 0.026 | 0.046 |
| Currency FE | Yes | Yes | Yes | Yes |

Table A4: **Stablecoin Flow and FX return: by Currency**

This table presents instrumental variable (IV) regression results analyzing the relationship between stablecoin flows and foreign exchange (FX) returns. While maintaining the same specification framework as Table 8, these results are derived from separate time-series regressions conducted for each individual currency. The dependent variables are currency returns denominated in US dollars (USD per unit of foreign currency). Bootstrap standard errors are reported in parentheses. ***, **, and * indicate significance at the 1%, 5%, and 10% level, respectively.

| | (1) AUD | (2) CAD | (3) CHF | (4) EUR | (5) GBP | (6) JPY | (7) NZD |
|---|---|---|---|---|---|---|---|
| VARIABLES | $FXRet_{t+1,t+21}$ | $FXRet_{t+1,t+21}$ | $FXRet_{t+1,t+21}$ | $FXRet_{t+1,t+21}$ | $FXRet_{t+1,t+21}$ | $FXRet_{t+1,t+21}$ | $FXRet_{t+1,t+21}$ |
| $StableFlow_{t-21,t}$ | -0.741*** | -0.064 | -1.370*** | -0.322 | -0.410* | -0.841*** | -1.433*** |
| | (0.267) | (0.178) | (0.244) | (0.210) | (0.212) | (0.323) | (0.279) |
| $FXRet_{t-21,t}$ | -0.063* | -0.132*** | -0.007 | 0.119*** | 0.119*** | 0.038 | -0.034 |
| | (0.033) | (0.035) | (0.029) | (0.032) | (0.037) | (0.037) | (0.035) |
| $BitRet_{t-21,t}$ | 0.243 | 0.188 | -1.783*** | -0.724** | 0.100 | -3.027*** | -0.106 |
| | (0.400) | (0.260) | (0.323) | (0.362) | (0.335) | (0.507) | (0.494) |
| $\Delta IRdiff_{t-21,t}$ | -1.433*** | -1.678*** | 0.709 | 0.047 | -1.907*** | 2.378** | -1.623*** |
| | (0.553) | (0.385) | (0.488) | (0.367) | (0.375) | (0.985) | (0.481) |
| $\Delta VIX_{t-21,t}$ | 0.107*** | 0.048*** | 0.019 | 0.053*** | 0.096*** | -0.048*** | 0.096*** |
| | (0.020) | (0.013) | (0.016) | (0.014) | (0.016) | (0.018) | (0.020) |
| # of Obs | 1,087 | 1,091 | 1,087 | 1,092 | 1,091 | 1,073 | 1,085 |
| R-squared | 0.075 | 0.076 | 0.068 | 0.034 | 0.085 | 0.033 | 0.075 |

Table A5: **Robustness Test: Alternative Instrumental Variable**

This table presents instrumental variable (IV) regression results using a two-stage approach, while maintaining the same structure as Table 6 but changing the instrument variable. While maintaining the same specification structure as Table 6, we modify the instrument by using cryptocurrency shocks aggregated over a two-month window (rather than the one-month window employed in Table 6). The flow measure is scaled by one standard deviation ($5.87 billion). Column (1) reports first-stage results with robust standard errors, while Column (2) presents second-stage estimates including currency fixed effects and time-clustered standard errors. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

| (1) | | (2) | |
|---|---|---|---|
| First Stage | | Second Stage | |
| VARIABLES | $StableFlow_{t-21,t}$ | VARIABLES | $\Delta\Phi_{i,t+1,t+21}$ |
| $CryptoShock_{t-63,t-21}$ | 1.122*** | $StableFlow_{t-21,t}$ | 2.259*** |
| | (0.080) | | (0.480) |
| $\Delta\Phi_{i,t-21,t}$ | -0.015*** | $\Delta\Phi_{i,t-21,t}$ | -0.178*** |
| | (0.003) | | (0.017) |
| $\Delta IRdiff_{t-21,t}$ | 1.579*** | $\Delta IRdiff_{t-21,t}$ | -5.553*** |
| | (0.187) | | (1.355) |
| $BitRet_{t-21,t}$ | 0.055 | $BitRet_{t-21,t}$ | -2.617*** |
| | (0.184) | | (0.897) |
| $\Delta VIX_{t-21,t}$ | 0.013** | $\Delta VIX_{t-21,t}$ | 0.056 |
| | (0.006) | | (0.035) |
| Constant | 0.643*** | | |
| | (0.030) | | |
| # of Obs | 1,097 | # of Obs | 7,606 |
| R-squared | 0.199 | R-squared | 0.053 |
| F-value | 65.68 | Currency FE | Yes |

Table A6: **Robustness Test: Convenience Yield Measures with Alternative Maturities**

This table presents the impact of stablecoin inflows on convenience yield measures with alternative maturities (6M, 1Y). Columns (1) and (2) report OLS regression results, while columns (3) and (4) present IV regression results. In addition to the baseline controls, the regressions include changes in the interest rate differential for the corresponding maturity ($\Delta IRdiff^{6M/1Y}$). The flow measure is scaled by one standard deviation ($5.87 billion). We also control for currency fixed effects. Standard errors clustered at time are reported in parentheses. ***, **, and * indicate significance at the 1%, 5%, and 10% level, respectively.

| | (1) | (2) | (3) | (4) |
|---|---|---|---|---|
| | OLS | | IV | |
| VARIABLES | $\Delta\Phi^{6M}_{i,t+1,t+21}$ | $\Delta\Phi^{1Y}_{i,t+1,t+21}$ | $\Delta\Phi^{6M}_{i,t+1,t+21}$ | $\Delta\Phi^{1Y}_{i,t+1,t+21}$ |
| $StableFlow_{t-21,t}$ | 0.784*** | 0.757*** | 1.859*** | 1.806*** |
| | (0.216) | (0.208) | (0.701) | (0.661) |
| $\Delta IRdiff_{t-21,t}$ | 1.077 | 1.105 | 0.177 | 0.246 |
| | (1.449) | (1.393) | (1.469) | (1.390) |
| $BitRet_{t-21,t}$ | 8.240*** | 7.531*** | 7.908*** | 7.207*** |
| | (1.177) | (1.142) | (1.245) | (1.201) |
| $\Delta VIX_{t-21,t}$ | 0.040 | 0.024 | 0.033 | 0.018 |
| | (0.044) | (0.040) | (0.045) | (0.042) |
| $\Delta\Phi^{6M}_{i,t-21,t}$ | 0.004 | | -0.001 | |
| | (0.020) | | (0.020) | |
| $\Delta IRdiff^{6M}_{t-21,t}$ | 1.060 | | 1.414 | |
| | (1.427) | | (1.454) | |
| $\Delta\Phi^{1Y}_{i,t-21,t}$ | | 0.010 | | 0.005 |
| | | (0.019) | | (0.019) |
| $\Delta IRdiff^{1Y}_{t-21,t}$ | | 1.341 | | 1.660 |
| | | (1.404) | | (1.429) |
| # of Obs | 7,427 | 7,463 | 7,427 | 7,463 |
| R-squared | 0.018 | 0.018 | 0.017 | 0.016 |
| Currency FE | Yes | Yes | Yes | Yes |