
A Financial Revolution in the Making: Mainstreaming Stablecoins

Elliot Hentov, Ph.D.

Head of Macro Policy Research

Jennifer Alé

Macro Policy Strategist

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Executive Summary

Since the release of bitcoin in 2009, the broader crypto market has undergone a massive boom and bust cycle, with the resultant effect that the market has matured and cryptocurrencies are no longer tagged as mere speculative investments. These developments are underpinned by an increased focus on new business models/technologies that offer a decentralized way of doing finance. In this evolutionary journey, a significant next milestone is likely to be the mainstreaming of stablecoins, which are blockchain-based cryptocurrencies that are pegged to other financial instruments. Against this evolving background, we expect stablecoins to be regulated, with a view toward facilitating regulatory standardization, managing systemic risk and ensuring investor protection. Here we explore the macro policy implications of the mainstreaming process of stablecoins, especially considering the regulatory impact of this process on the domestic and the global financial system.

Key Points

- First, the mainstreaming of blockchain-based finance will be disruptive despite its relative small size today.
- Second, the exact dislocations in bond markets are hard to forecast, but a structural demand boost for short-dated government paper is likely.
- Third, stablecoins will make it less onerous for emerging and frontier markets to access cryptos, adding a structural boost to dollarization in economies with weak governance or chronic imbalances.
- Finally, stablecoins and the broader crypto industry may help maintain the USD-centered global monetary order.

Stablecoins are digital assets that are predominantly designed to maintain a stable value relative to a fiat currency or other reference assets. Due to the fast adoption of cryptocurrencies and the rise of broader decentralized of finance, stablecoins have become:

- 1 an essential medium of exchange for trading crypto assets that are too volatile and therefore require a stable intermediary unit
- 2 a means of payment or a proxy for cash in digital asset markets
- 3 collateral used for crypto lending
- 4 a yield-generating investment instrument

Global stablecoin market cap currently stands at US\$153 bn, with an estimated +472% growth spurt over 2021.^{1,2} Like other cryptocurrencies, the attractiveness of stablecoins is partly due to their open-source design, which allows for integration with digital applications that are compatible with other systems. They can serve as cross-border payments and can be executed on a global scale, with low transaction fees and fast transfer times. Due to their reach, they have also helped businesses to send and receive money across the world.

Due to the rapid adoption of digital assets, regulators, including the Securities and Exchange Commission (SEC) and the Commodity Futures Trading Commission (CFTC), have started taking steps to address potential spill-over risks of adopting stablecoins. Policymakers believe that a regulated stablecoin could become the single largest private digital fiat currency and the first steps toward integrating stablecoin into the financial system include formalizing regulations and taking stablecoins mainstream.

Types of Stablecoins

While there are various types of stablecoins in circulation, we categorize them based on their collateral mechanism — i.e., whether they are decentralized or centralized (Figure 1).

Figure 1
Stablecoin
Categories



Note: For an elaboration on decentralized coins see Appendix 1. Source: State Street Global Advisors.

Centralized Stablecoins

Centralized stablecoins are typically collateralized via a basket of fiat currencies, currency pairs, commodities or other securities. In terms of mainstreaming stablecoins, we believe it is most effective when users are able to redeem one unit of stablecoin for one unit of fiat currency or other tradable assets, the goal being to bind the price of stablecoins to a redemption value.

This is akin to the governance of most fixed exchange rate regimes, where a currency is fully collateralized by the US dollar and maintains a fixed peg to it. For instance, since 1966, the Bahamian dollar has maintained a 1:1 value peg to the US dollar. However, this also means, during times of financial stress, a fixed exchange rate restricts the ability of a central bank from using monetary policy for stabilization — as such the Bahamas uses domestic fiscal policies to absorb the impact.

Decentralized Stablecoins

Decentralized stablecoins tend to rely on crypto assets in some form through two broad mechanisms. The first type resembles fiat-backed stablecoins but actually relies on crypto assets as collateral. Given the price volatility of crypto assets, these stablecoins require substantial overcollateralization to guard against crypto depreciation. The second type, algorithmic (algo) stablecoins, is not necessarily backed by collateral and aims to preserve value purely by controlling supply with the use of algorithms. We do not believe that algo stablecoins will fall under the purview of regulation in the foreseeable future.

This paper focuses on the mainstreaming of centralized stablecoins backed by established fiat currency assets. Unlike decentralized stablecoins such as UST, we believe fiat-backed (centralized) stablecoins have the operational maturity to be integrated into traditional finance.

For further elaborations on decentralized stablecoins and the mechanics behind fiat-backed stablecoins, please refer to Appendix 1 and 2, respectively.

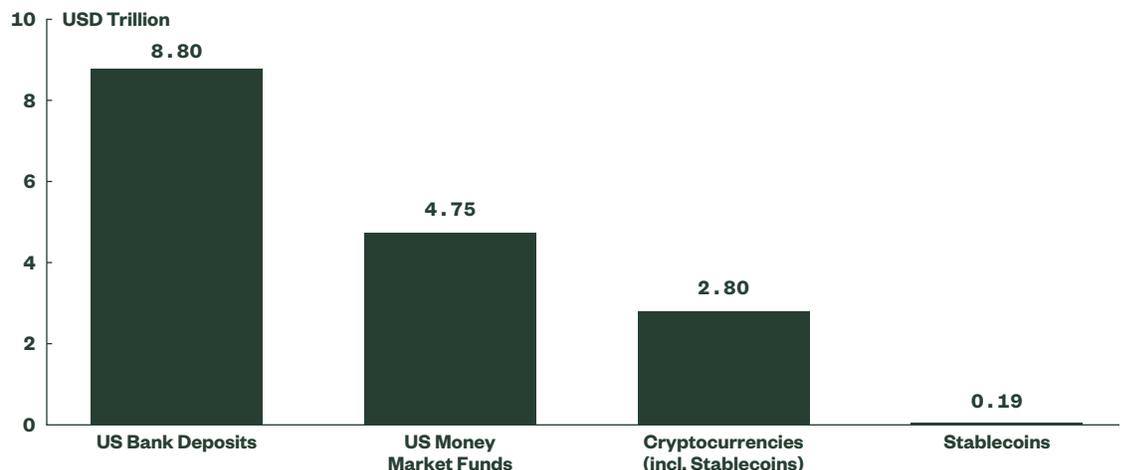
2 Macro Policy Implications of Mainstreaming Stablecoins

The rise in popularity of crypto assets and decentralized finance has challenged regulators and existing regulations. In terms of regulations, a crucial current development is an urgency toward bringing a “stable” digital asset into mainstream finance. Even though stablecoins only constitute about 8%–12% of the total crypto market cap, they serve a critical purpose and are the lifeblood of the industry (>75% of crypto transactions involve a stablecoin and all major trading pairs are denominated in stablecoins).^{3,4}

Although the primary allure for stablecoins lies in their role as a gateway to the crypto market, the coins should also assume the role of an additional payments channel in the medium term. Notably, stablecoins are the only decentralized assets that have consistently grown in market share over the past four years, independent of the crypto cycle. This means, any regulatory approval for a US-based stablecoin would represent a structural shift in demand for these tokens, as they become accepted for wider use among businesses and households.

Currently, the market for stablecoins is small and accounts for under 0.1% of the total financial system (Figure 2). As such, this relatively small share currently presents no risk to the world’s financial stability. Nevertheless, we explore the potential structural effects that the mainstreaming of stablecoins can have on the domestic and global financial systems.

Figure 2
**Market Capitalization
of Various Financial
Instruments**



Source: Coinmarketcap, US Federal Reserve, Statista, Investment Company Institute, State Street Global Advisors, as at Q4 2021.

The US Domestic Financial System

Centralized stablecoin issuers could be characterized as aggregators of their asset collateral, which means when one unit of a stablecoin token is purchased, an equivalent value of an asset is held in a collateral pool at an intermediary. Consequently, the *composition* of that collateral pool is key to determining the riskiness of the token. If we were to take the case of the US economy, in aggregate, its money supply should remain largely unchanged although the supply's composition and distribution may change. In this regard, it matters whether the collateral is tilted toward cash/cash-like instruments or other asset mixes dominate.

On the one hand, assuming that a stablecoin is fully collateralized using cash or cash-like instruments, once purchased, they will inherently substitute as a cash deposit in a bank and be held as collateral at an intermediary. This means the banking system's reserves position held at the central bank will remain unchanged. Overall, the effect on the banking system will be neutral because stablecoin issuers purchase cash equivalent securities for collateral, which are recycled back into the banking system as deposits. Under this condition, even an outward shift in the demand for stablecoins will have no resounding net effect on monetary conditions. This process is likely a prime attraction for regulators as it has the least market spill-over risk potential and would be the easiest to execute.

On the other, stablecoins that rely more heavily on a diverse asset mix (such as US Treasuries, T-Notes, money market funds and bonds of varying maturities) would have a different effect. In this particular case, a dollar deposit transfer from a bank to a stablecoin would substitute cash for an asset composed of varying liquidities and credit risks. Again, this should not change anything in the aggregate but would tilt individual balance sheets. In theory, a shift from bank deposits toward government bonds should result in smaller bank balance sheets and higher cash deposits by the Treasury (Figure 3).⁵

Figure 3
Stylized Balance Sheet
Showing Shift From
Deposits to Treasuries

Federal Reserve			
Assets		Liabilities	
Treasury Securities	—	Bank Reserves	∨
		TGA (Cash of DoT)	∧
		Overnight Reverse Repo	∧

Banking System			
Assets		Liabilities	
USTs	—	Deposits	∨
Reserves with Fed	∨	Other	—
Loans	—		

Non-Banks			
Assets		Liabilities	
USTs	∧	Investments Held by Public	∧
Overnight Reverse Repo	∧		
Other	—		

General Public			
Assets		Liabilities	
Deposits	∨	Bank Loans	—
Investment in Nonbanks	∧	Net Worth	—

Source: State Street Global Advisors.

If the magnitude of such a shift is high, it could affect the transmission of monetary policy in various ways. First, an increase in the adoption of stablecoin could result in a structurally smaller bank deposit base and more volatile loan market. Depending on bank business models, this could shrink net interest margins, weaken credit channels or make banks more exposed to market interest rates, resulting in a more volatile credit channel.

Second, the shift to stablecoins could affect liquidity conditions, with unforeseen disruptions for parts of the financial system. Previous episodes of enlarged Treasury General Account balances showed a weaker pass-through from the fed funds rate to the repo market. Therefore, a rapid increase in demand for stablecoins collateralized by a certain asset mix has the potential to dry up liquidity in off-chain markets and create real-world liquidity squeezes.

Third, large fluctuations in demand for highly liquid assets may also impair monetary policy more generally by decoupling off-chain short-term rates from the policy rate. The most likely impact of collateralized stablecoins is a downward pull on short-term rates if regulation mimics money market funds' governance.

Stablecoins currently represent only a small asset pool, but as this grows, monetary policy makers will seek regulation to ensure transmission channels are not disrupted. In this regard, it is critical to understand that stablecoins will not offer an ideal pass-through channel for interest rates. Their appeal is not only as a store of value but also as a collateral and a medium of exchange in the crypto-lending universe. This functional use case means there is a premium attached to stablecoins that offers higher interest than regular fiat cash equivalents.

There are various mechanisms for how this is performed in crypto markets.⁶ On average, decentralized finance (DeFi) savings account platforms were offering 13% annual percentage yield for holding stablecoins, an enormous premium due to the crypto bull market.⁷ Some small residual premium to traditional bank deposits should remain for some period post regulations as well, as the interest-bearing structure is not governed by traditional supply/demand dynamics but is a function of issuer (and smart-contract) operability.

Finally, although a more marginal phenomenon across developed markets, we highlight the possibility that stablecoin regulation could expand the bankable share of population. According to a 2019 report by the US Federal Reserve, 22% of US adults (63 million) are either unbanked or underbanked. With easier access to digital markets, the move to tokens as a means of payment or medium of exchange is likely. This could have a positive effect in terms of digitizing a larger part of the economy and making it more amenable to monetary policy changes.

The Global Financial System

Stablecoins are likely to prove to be a major source of support for the USD-centric monetary order. Their regulation should prove to be a seal of legitimacy and boost global trust in USD-denominated assets. The main implications of these developments would include changes in cross-border activities and a rise in dollarization pressure across emerging and frontier markets.

Implications for Emerging and Frontier Markets

One notable aspect of global crypto adoption is that the phenomenon is most prevalent among emerging economies (Figure 4). In emerging economies, the turn toward crypto assets is fueled by a desire to preserve savings in the face of currency devaluation, to send and receive remittances and to carry out business transactions, but in North America, Western Europe and Eastern Asia, the adoption is being powered largely by institutional investments.⁸

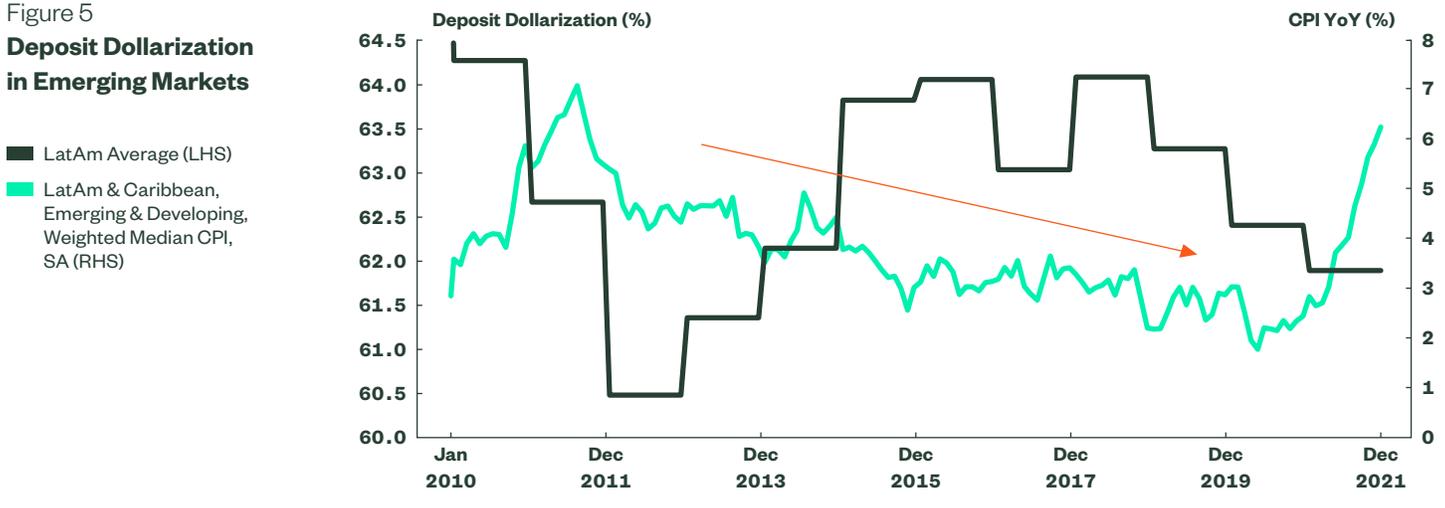
Figure 4
Global Crypto Adoption Index 2021 — Top-20 Countries

Country	Index Score	Overall Index Ranking	Ranking for Individual-Weighted Metrics Feeding into Global Crypto Adoption Index		
			On-Chain Value Received	On-Chain Retail Value Received	P2P Exchange Trade Volume
Vietnam	1.00	1	4	2	3
India	0.37	2	2	3	72
Pakistan	0.36	3	11	12	8
Ukraine	0.29	4	6	5	40
Kenya	0.28	5	41	28	1
Nigeria	0.26	6	15	10	18
Venezuela	0.25	7	29	22	6
United States	0.22	8	3	4	109
Togo	0.19	9	47	42	2
Argentina	0.19	10	14	17	33
Colombia	0.19	11	27	23	12
Thailand	0.17	12	7	11	76
China	0.16	13	1	1	155
Brazil	0.16	14	5	7	113
Philippines	0.16	15	10	9	80
South Africa	0.14	16	18	16	62
Ghana	0.14	17	32	37	10
Russian Federation	0.14	18	8	6	122
Tanzania	0.13	19	60	45	4
Afghanistan	0.13	20	53	38	7

Source: Chainalysis, as at 14 October 2021.

Arguably, barring the COVID-19 period, EM economies are characterized by decreasing structural inflation. With the deepening of local capital markets, the same economies experienced a decline in dollarization, too (Figure 5). In this context, one should view the emergence of USD stablecoins as a token-based digital alternative to account-based dollarization. Assuming technological interfaces improve over time, the barriers to access electronic US dollars will drop and pose a challenge to EM policymakers. Ultimately, domestic macro policy settings should govern the dollarization pressure.

Figure 5
Deposit Dollarization in Emerging Markets



Note: LatAm average series has n=6 countries, viz., Costa Rica, Argentina, Uruguay, Ecuador, El Salvador and Peru. Series has n=6 countries. Source: Macrobond, World Bank, Latin Macro Watch, State Street Global Advisors, as at 1 May 2022.

In countries with macroeconomic imbalances, poor governance structures or internal crises, we could expect a rapid uptick in stablecoin adoption. Russia-Ukraine War is a case in point — during the war, the Ukrainian government publicly used crypto to facilitate donations and cross-border funds. Ukraine ranks 4th globally for crypto adoption and it is estimated that 12.7% and 11.9% of the Ukrainian and Russian populations, respectively, own crypto.^{9,10} Prior to the war, an estimated 86% of all cryptocurrency sent from Russia-based and 87% sent from Ukraine-based addresses were also utilized for a cross-border transaction.¹¹

Similar is the case with countries where economic fundamentals are deteriorating slowly. For instance, in Turkey, markets saw a decade-long gradual transition to more stable currencies, which accelerated during the 2018 Turkish Lira crisis (Figure 6). This occurred in the context of high transaction costs and institutional limits to Turkish peoples' ability to maintain foreign currency accounts. A regulated USD stablecoin should lower barriers and accelerate such processes in the future.

Figure 6
Foreign Currency vs. Lira Denominated Turkish Resident Deposits

■ Foreign Currency
■ Turkish Lira



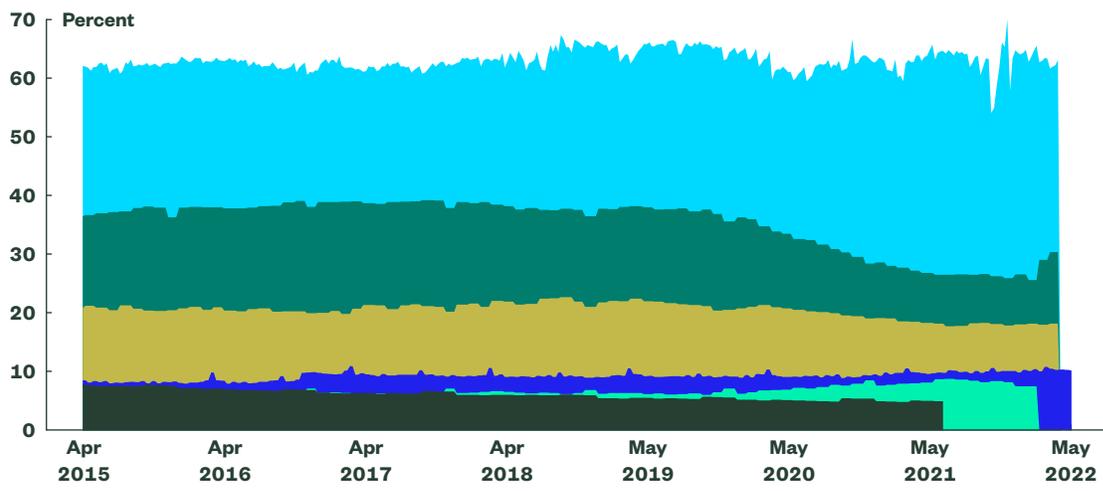
Source: Macrobond, Banking Regulation & Supervision Agency Turkey, State Street Global Advisors, as at 23 May 2022.

Yet even in countries where inflation is declining due to sound macroeconomic management and not because of global trends, stablecoins could have an impact. The reason is that stablecoins are likely to continue to offer a small yield premium over and above the prevailing USD rates in the initial period and is therefore likely to attract capital from outside the US. However, it should be noted that the yield premium will be greatly compressed from its 2018–2022 average of 6%–8% as the supply of stablecoin expands rapidly and liquidity becomes less scarce to support the wider crypto market.¹²

Among emerging economies, both the pace and the level of dollarization pressure matter — for instance, an estimated 92% of all cryptocurrencies sent from Turkish-based addresses were sent cross border.¹³ A rapid adoption of stablecoin would mean a disorderly depreciation for select EM currencies, equaling further pressure on capital outflows. EM policymakers would have to respond to such outflows like any other, including tolerating an increase in inflation via FX depreciation and raising local rates. In some extreme circumstances, specific EM banks could suffer disproportionate outflows and weaker balance sheets, possibly requiring policy support. All in all, the net effect is likely to be tighter local financial conditions, akin to a structural shock.

Figure 7
**EM Household Bank
 Deposit vs. Broader
 Money System**

- China
- Brazil
- India
- Mexico
- Russia
- Turkey



Source: Macrobond, Various National Sources, State Street Global Advisors, as at 1 May 2022.

Some countries may seek to erect capital controls, but institutional tools may not be sufficiently robust to prevent capital outflows. A digital wallet (full of stablecoins) may be regulated in terms of on/off boarding into the local financial system, but the experience of China and Russia shows that existing tools cannot prevent widespread adoption. Since stablecoins will greatly ease cross-border payments with enhanced flexibility and lower transaction fees, the gravitational pull toward the system will be strong. China and Russia rank first and sixth, respectively, for on-chain, i.e., transactions that occur on the blockchain, retail crypto value received among global peers (Figure 4).

Capital is likely to leave both the formal (i.e., the banking system) and informal systems as physical cash of the unbanked is deposited in stablecoins over time. For the unbanked across lower income countries, stablecoins could enter both as a store of value and as an accepted medium of exchange. For cross-border purposes, they have the potential to make payments faster, cheaper, safer and frictionless. With their open-source design, stablecoins will ultimately be integrated into digital applications that are cross-compatible with other systems, are ideal for cross-border payments and can be executed on a global scale.

The overall conclusion is the same: higher dollarization and by extension, weaker monetary flexibility. A structural shock to the rate environment and weaker transmission channels across EM are likely, taking us back to the early 2000s. The upside could be a renewed reform momentum as EM competitiveness becomes more closely tied to structural reforms and sound governance.

Implications for
 Rest of the World

Other developed economies could face similar issues, but at a smaller magnitude. The EU has drafted its first crypto regulation known as Markets in Crypto-Assets, which envisions stablecoins to operate similar to money market funds and prohibits non-euro stablecoins. The concern is both macro and micro in nature as large currency areas will need their own stablecoins to advance the local crypto industry without increasing systemic risks.

As far as the world economy is concerned, a broad-based FX weakening across EM, resulting from a stronger USD, could pose headwinds to global growth. Moreover, foreign capital inflows (i.e., conversions of local currency to USD stablecoins) could snowball into a version of the 'savings glut' effect of early 2000s. The absence of policy-driven FX depreciation and reserve accumulation makes this less likely, but stablecoin adoption could exert downward pressure on US rates during the initial years of adoption, which could have unsettling spill-over effects.

Blockchain-powered finance will be a disruptive force in financial markets as innovation gradually enables new business models. The ecosystem requires a medium of exchange, such as stablecoins, that is technologically compatible and equivalent to fiat currency. The regulation and mainstreaming of stablecoins will therefore deliver a large tailwind to the growth of decentralized finance, with macro policy implications.

We suggest that the structural impact could be looser financial conditions in the economy of the stablecoin issuer (say, the US) and tighter financial conditions across emerging and frontier markets. Domestically, in the US, this would be achieved by draining bank deposits in favor of an enlarged money market funds-equivalent market, delivering a structural boost to demand at the short-end of the rates curve. Internationally, regulatory supervision would remove credit and counterparty risk from stablecoins, which would ignite a round of dollarization in select emerging and frontier markets, leading to weaker currencies, higher domestic rates or capital controls. All of these developments are US dollar-positive in the long run.

Key Considerations for Stablecoin Regulation

The overarching question for regulators with regard to stablecoin regulation is whether to create a fresh set of regulations or to adapt existing banking or securities regulations. We expect policymakers to treat stablecoins under securities regulation, similar to that of money market funds. Specific rules will aim to ensure standardization, limit systemic risk, as well as heighten investor and household protection. Consequently, the following collateral considerations may be made for regulators:

- **Stablecoins will initially have to be fully collateralized.** Similar to the 99.5% NAV minimum for money market funds, there will be limited tolerance for fractional collateralization and diversified reserve assets. However, full reserve collateralization can make it hard for a stablecoin to scale, so additional measures to facilitate such growth may be required to ensure supply.
- From the demand side, extensive national and global adoption could deepen stablecoin liquidity at some point, **during which authorities may allow for fractional collateralization.** Overcollateralization could make stablecoins uneconomic from an issuer's perspective.

- **Centralization and dependency on legacy financial institutions will be a collateral and counterparty risk.** Allowing users to always redeem for collateral would mean storing large amounts of collateral at a physical central location, such as a bank or an intermediary. Some stablecoin issuers circumvent this problem by storing collateral at a network of banks. However, this method still relies on traditional financial infrastructure. And, as was the case with USDC, the inability to secure off-chain reserves in line with demand can lead to price overshoots. This is a milder problem for policymakers, but it reveals that the technological disjunction with off-chain markets remains unresolved.
- **Central Bank Digital Currency (CBDC) designs should build on stablecoin regulation.** Given all of the above, a wholesale CBDC would become the preferred collateral asset for stablecoins, whose ultimate purpose is to power decentralized finance, not displace cash for regular economic activity. Thus, technological interoperability will be key and could greatly simplify a CBDC's design and delivery.

Appendix 1: Decentralized Stablecoins

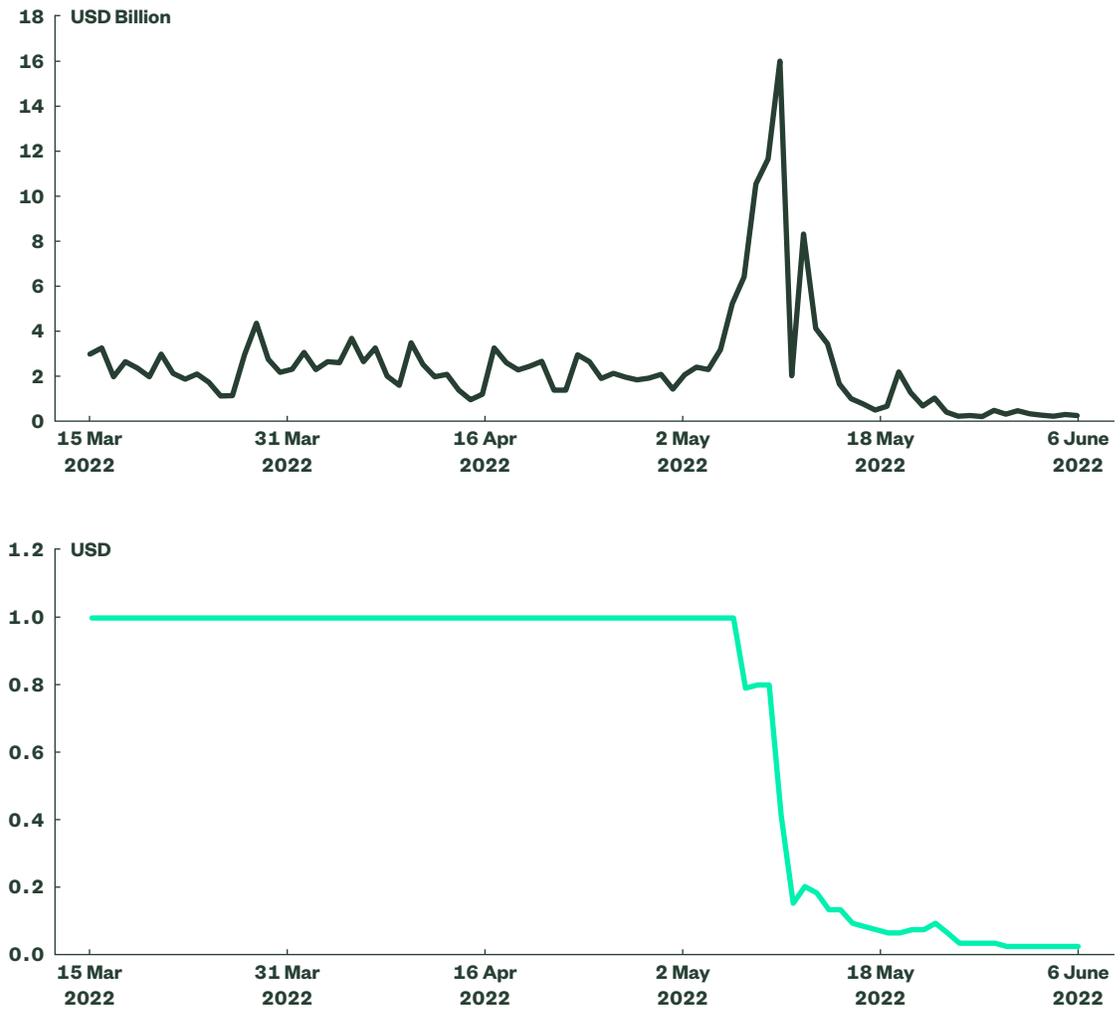
Decentralized stablecoins tend to rely on crypto assets in some form through two broad mechanisms. The first type resembles fiat-backed stablecoins but actually relies on crypto assets as collateral. Given the price volatility of crypto assets, these stablecoins require substantial overcollateralization, i.e., provisioning of collateral that is worth more than the face value of the stablecoins, to guard against crypto depreciation.¹⁴

The second type, algorithmic (algo) stablecoins, is not necessarily backed by collateral and aims to preserve value purely by controlling supply with the use of algorithms. We do not believe that algo stablecoins will fall under the purview of regulation in the foreseeable future.¹⁵ Algo stablecoins are deemed manipulable and the value of such currencies is perceived to stem from the reliability of the issuing mechanism and/or market beliefs. Once user expectations on the stability of such a currency change, whether due to a flaw in design or idiosyncratic changes in sentiment, there may be little to keep its price afloat.

A recent example in this regard is the crash of the algo stablecoin TerraUSD (UST) and its linked currency LUNA on 11 May 2022. The stablecoin UST and the free-floating LUNA were built on an underlying blockchain platform, which enabled smart contracts for facilitating exchanges between the currencies. Conceptually, UST's value was set at 1 US\$ against which LUNA could be exchanged or vice versa. This meant that while the amount of LUNA swapped for UST could vary, a holder of 1 US\$ worth of UST could always get back US\$1 in value. This also meant, any price dislocations created arbitrage opportunities related to maintaining the value of UST close to US\$1. However, due to multiple idiosyncratic reasons, market confidence tanked, UST decoupled from its US\$1 peg and demand eroded precipitously for both UST and LUNA. This resulted in a run on the currencies, triggering a so-called market death spiral in both currencies (Figure 8).

Figure 8
**Luna and UST
 Crash Due to a
 Market Death Spiral**

■ Terra (Luna), Turnover
 ■ TerraUSD (UST), Price



Source: Macrobond, Coinmarketcap, State Street Global Advisors, as at 6 June 2022.

Unlike decentralized stablecoins such as UST, we believe fiat-backed (centralized) stablecoins have the operational maturity to be integrated into traditional finance. In this context, it is important to understand the mechanics behind the design of fiat-backed stablecoins.

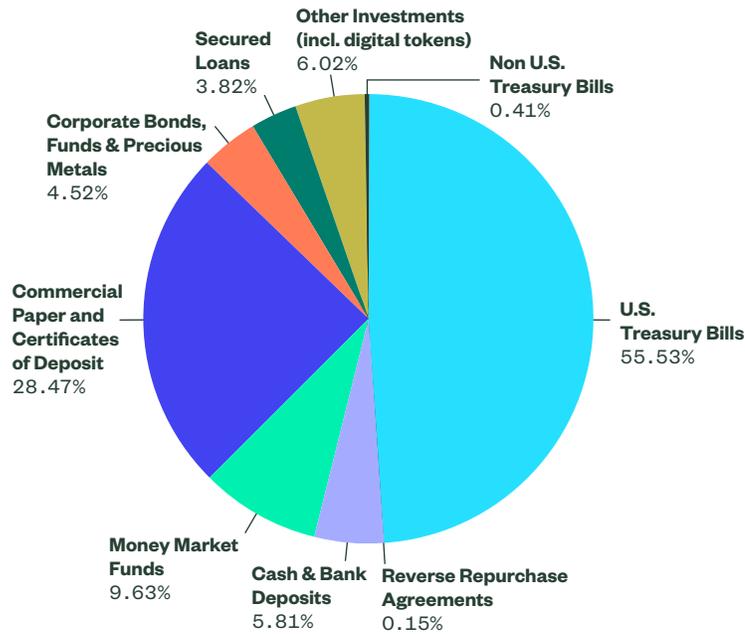
Appendix 2: Mechanics Behind Fiat-Backed Stablecoins

The first asset-backed stablecoin to use the design of a collateralized basket of fiat assets was Tether (USDT), brought to markets in 2014 on the crypto exchange Bitfinex via collateralized off-chain, i.e., outside the blockchain network, reserve assets. Tether’s asset mix is reliant on cash, money markets, Treasury bills and a sizable share of commercial paper. Notably, Tether’s reserves also include higher-risk assets in the form of corporate bonds, commodities and digital assets. On similar lines, in 2018, USD Coin (USDC) was conceived but with a narrower set of collateral options drawn exclusively from fixed income assets (Figure 9).

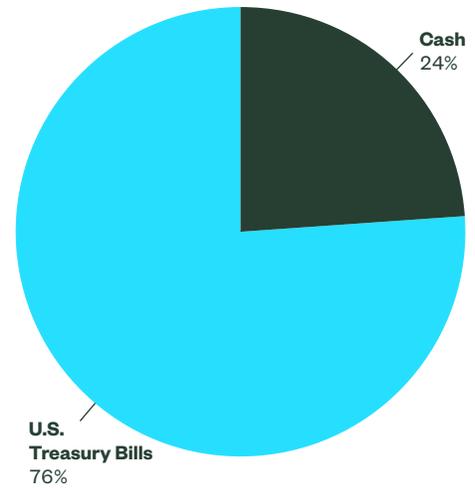
Figure 9

Reserve Composition of Tether and USDC

Tether Reserves (March 2022)



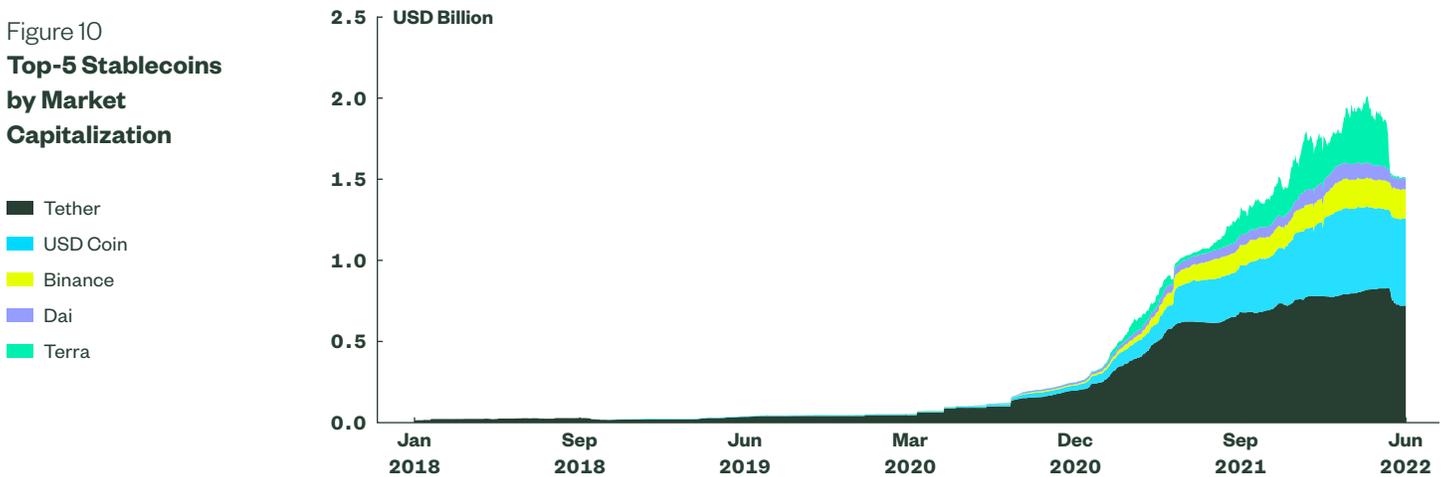
USD Coin Reserves (June 2022)



Source: Circle.com, Tether, State Street Global Advisors.

In 2019, Binance USD (BUSD) was launched but with an independent monthly auditor verifying whether the entire market cap of BUSD was fully backed by fiat assets of equal value. Tether, USDC and BUSD are among the top-5 stablecoins in the world in terms of market capitalization (Figure 10).

Figure 10
Top-5 Stablecoins by Market Capitalization



Source: Macrobond, Coinmarketcap, State Street Global Advisors, as at 6 June 2022.

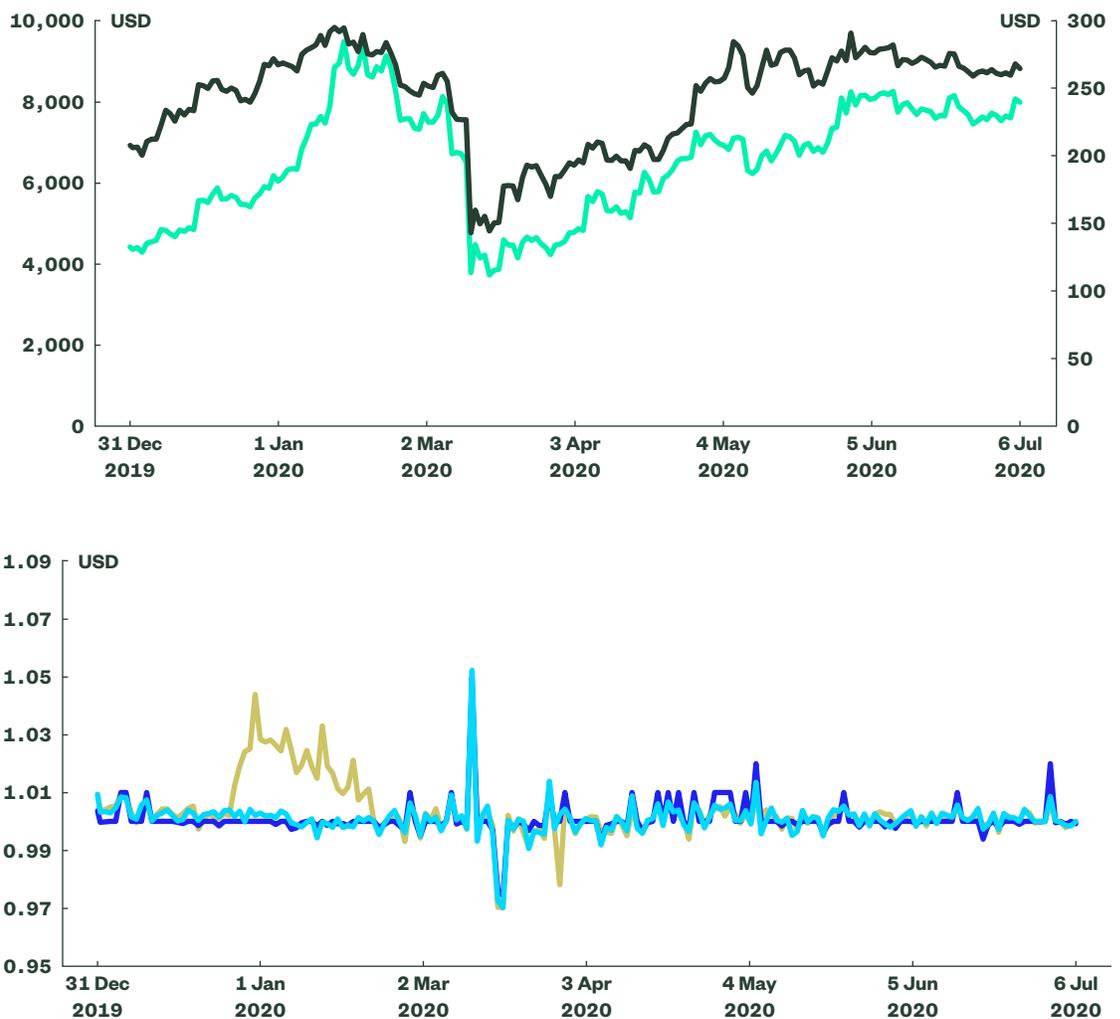
These evolutions suggest that market demand has been rising for fiat-based stablecoins that provide credible peg options, transparent reserves and a collateral profile that is relatively less risky. In addition to the credibility of reserve assets, a stablecoin should also be able to provide liquidity to users. This means, outstanding reserves should be large and liquid enough to allow the issuer to buyback tokens at a pegged price sufficiently fast.

Similar to traditional financial exchanges, the use of collaterals ensures that the circulating currency has redemption value. Upon redemption, tokens are immediately removed from circulation and exist only when corresponding dollars are in custody. This provides a lower bound on the price, thereby partially mitigating the risk of holding, transacting and denominating debt in the currency.

Issuers should also be able to intervene to limit exchange rate fluctuations, requiring a minimum of cash and cash-like liquidity to be able to undertake these interventions. The fraction of highly liquid assets may have to be sufficiently high to prevent redemption difficulties. If a stablecoin enjoys sufficient market confidence, interventions may not be necessary as market arbitrageurs should take advantage of any price mismatch, restoring price levels in the process. This appears indeed to be working, even during crisis periods (Figure 11a,b,c).

Figure 11a
**Public Stablecoin
 Prices During Crypto
 Market Distress**
 March 2020

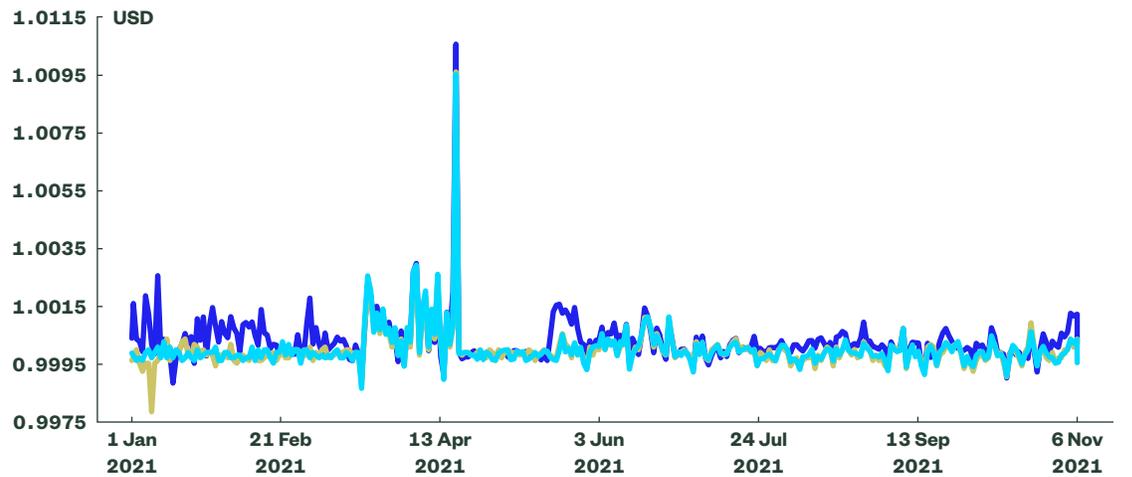
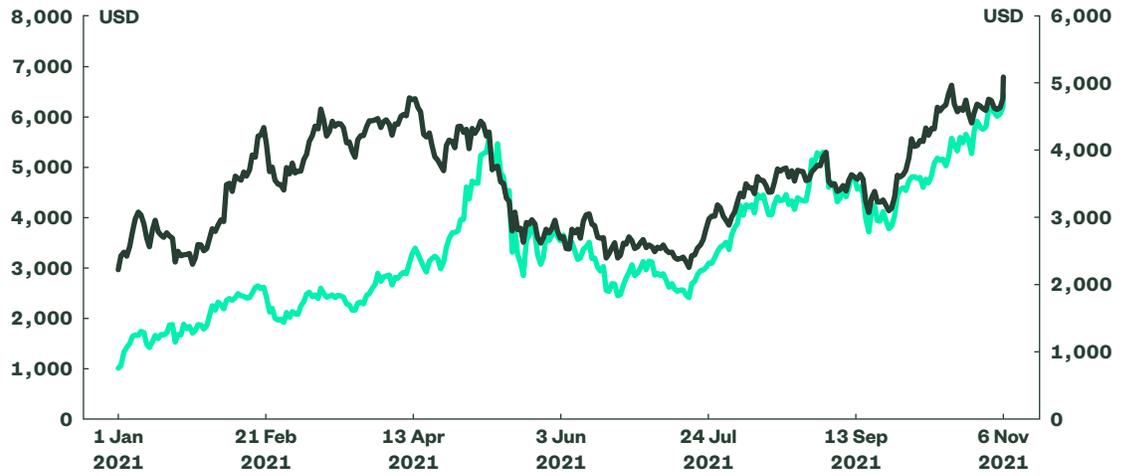
- Bitcoin (LHS)
- Ethereum (RHS)
- Tether
- USD Coin
- Binance



Source: Macrobond, Coinmarketcap, State Street Global Advisors, as at 6 June 2022.

Figure 11b
**Public Stablecoin
 Prices During Crypto
 Market Distress**
 May 2021

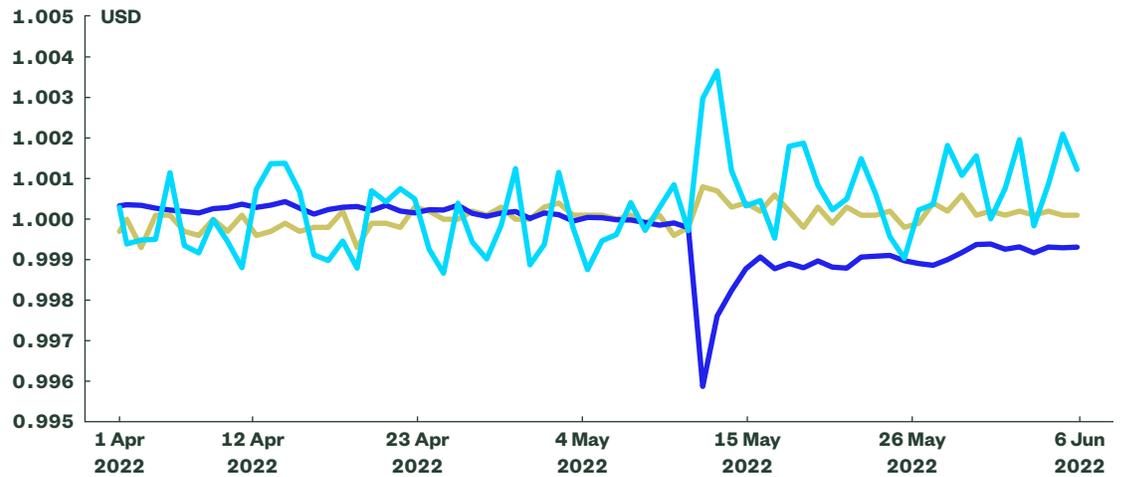
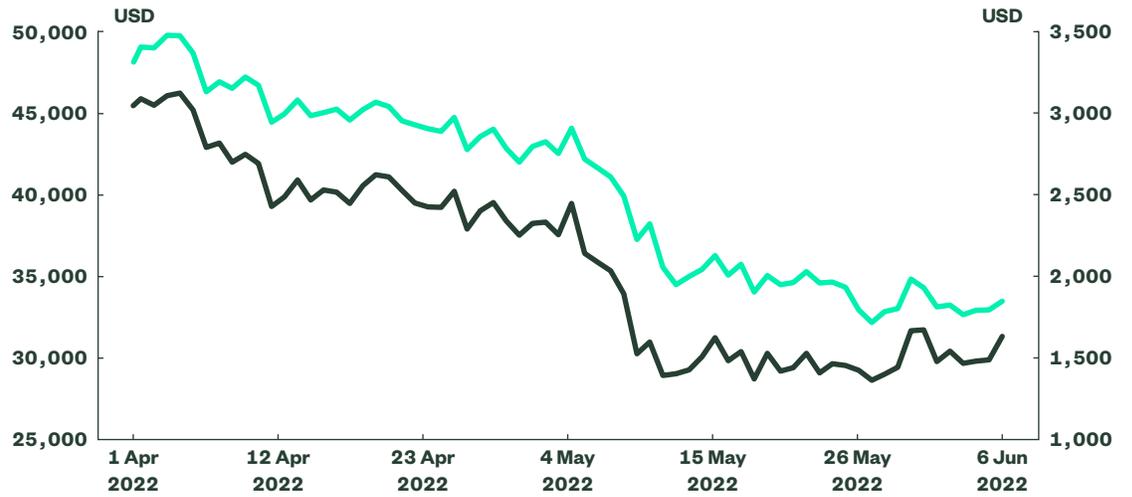
- Bitcoin (LHS)
- Ethereum (RHS)
- Tether
- USD Coin
- Binance



Source: Macrobond, Coinmarketcap, State Street Global Advisors, as at 6 June 2022.

Figure 11c
**Public Stablecoin
 Prices During Crypto
 Market Distress**
 May 2022

- Bitcoin (LHS)
- Ethereum (RHS)
- Tether
- USD Coin
- Binance



Source: Macrobond, Coinmarketcap, State Street Global Advisors, as at 6 June 2022.

Overall, regulating a fiat-backed stablecoin requires policy makers to consider rules around a token's peg design, collateral type and issuers' reserve levels.

Endnotes

- 1 Top Stablecoin Tokens by Market Capitalization. CoinMarketCap. <https://coinmarketcap.com/view/stablecoin>.
- 2 Global Stablecoin Dashboard: 4Q21. (2022, March 24). Fitch Ratings, Special Report.
- 3 Calculations made by State Street Global Advisors based on market capitalization data from CoinMarketCap. <https://coinmarketcap.com>.
- 4 Adachi, M., Born, A., Gschossmann, I., & Kraaij, A.V. (2021, November 17). The Expanding Uses and Functions of Stablecoins. European Central Bank.
- 5 In practice, this is subject to starting conditions and therefore a shift from bank deposits to higher T-bill/government bond demand would not necessarily simply end up one-for-one as higher Treasury cash balance (TGA) on the Fed balance sheet. This would be due to bond/noteholders using securities as collateral in the repo market through the newly created repo facility. Regarding commercial banks, we are currently in an environment where banks are “over-reserved” and therefore a decline in bank deposits would not result in a concomitant decline in the Fed’s balance sheet.
- 6 In some cases, platforms allow users to generate rewards primarily through staking the network. When investors purchase cryptocurrency tokens in the form of loans, there is an obligation to pay interest on these tokens. This interest is passed through to users who pledge their stablecoins to the protocol as collateral. In other cases, some issuers use collateral reinvestment returns to pass-through to the stablecoin holder (USD+).
- 7 Stablecoin Interest Rates. Coin Interest Rate. <https://coininterestrate.com/stablecoin-interest-rates>
- 8 The 2021 Global Crypto Adoption Index: Worldwide Adoption Jumps Over 880% With P2P Platforms Driving Cryptocurrency Usage in Emerging Markets. (2021, October 14). Chainalysis. <https://blog.chainalysis.com/reports/2021-global-crypto-adoption-index/>.
- 9 *ibid.*
- 10 Cryptocurrency Across the World. TripleA. <https://triple-a.io/crypto-ownership-data/>.
- 11 The 2021 Global Crypto Adoption Index: Worldwide Adoption Jumps Over 880% With P2P Platforms Driving Cryptocurrency Usage in Emerging Markets. (2021, October 14). Chainalysis. <https://blog.chainalysis.com/reports/2021-global-crypto-adoption-index>.
- 12 Estimates made by State Street Global Advisors based on historical data offered by Binance, Coinbase and Celsius platforms.
- 13 The 2021 Global Crypto Adoption Index: Worldwide Adoption Jumps Over 880% With P2P Platforms Driving Cryptocurrency Usage in Emerging Markets. (2021, October 14). Chainalysis. <https://blog.chainalysis.com/reports/2021-global-crypto-adoption-index/>.
- 14 Overcollateralized stablecoins could still potentially ‘break the buck’ much like money market funds in times of systemic stress, but this should remain a rare event.
- 15 The earliest stablecoins issued, BitUSD (2014) and NuBits (2014), were decentralized. BitUSD was collateralized with the issuers’ core token called BitShares, which was locked in a smart contract to act as collateral. However, by 2016 (and again in 2018), the coin lost its parity to the US dollar, triggering widespread skepticism. NuBits, which was governed by an algorithmic system, lost its parity to the US dollar and its value crashed to less than US\$0.30 over the course of 2 weeks in early 2018. Currently, the currency is trading for about 6 cents. The key lesson from these crashes is that existing designs make most decentralized stablecoins vulnerable to a loss of parity.

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- Build from breadth
- Invest as stewards
- Invent the future

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* Pensions & Investments Research Center, as of December 31, 2021.

[†] This figure is presented as June 30, 2022 and includes approximately \$66.43 billion of assets with respect to SPDR products for which State Street Global Advisors Funds Distributors, LLC (SSGA FD) acts solely as the marketing agent. SSGA FD and State Street Global Advisors are affiliated.

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