

Stablecoins —

A Volatility Analysis Review

www.wavegp.com March 2022

Executive Summary

Stablecoins have experienced wide adoption as they've become an attractive asset and valuable component of yield generating strategies in Decentralized Finance (DeFi).

They're designed to remain soft or hard pegged to the price of another asset and have low price volatility. They're typically pegged to fiat money, other cryptocurrencies, or commodities. Wave composed an evaluation of nine stablecoins, focusing on those with high usage in DeFi, and the regulatory framework surrounding them. The evaluation also includes a Pricing Volatility Analysis to examine the risk profile of these assets.

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^{1. &}quot;Currencies with a soft peg are half way between those with a fixed or hard pegged exchange rate and those with a floating exchange rate. The main difference between soft and hard pegged currencies is that the soft peg systems provide a limited degree of monetary policy flexibility to allow governments and central banks to deal with economic shocks." Source: Kantox

Types & Examples

Stablecoins were thrust into the crypto environment in 2014 with the launch of Tether (USDT).

This innovative product opened up new possibilities for users and had a massive, and rapid, impact. There are three prominent types of stablecoins: fiat-backed, crypto-backed, and algorithmic. There are also hybrid variations of these that blend the categorical lines as developers aim to better optimize the decentralization, scalability, and security of these assets. There are inherent risks associated with holding stablecoins as they are sometimes highly leveraged, and there are potential regulatory risks. Similarly, their past performance is no guarantee of future results.

Name	Ticker	Type of Stablecoin
Tether	USDT	Fiat (USD) Collateralized
USD Coin	USDC	Fiat (USD) Collateralized
Binance USD	BUSD	Fiat (USD) Collateralized
Paxos	USDP	Fiat (USD) Collateralized
Dai	DAI	Crypto-collateralized
Magic Internet Money	MIM	Crypto-collateralized
Synthetix USD	SUSD	Algorithmic
TerraUSD	UST	Crypto-collateralized hybrid
Frax	FRAX	Fractional - Algorithmic

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^{2.} President's Working Group on Financial Markets, the FDIC, and the Office of the Comptroller of the Currency, "Report on Stablecoins"

Fiat-collateralized

Fiat-collateralized stablecoins maintain a fiat currency reserve as collateral for the issuance of their tokens. The reserves are maintained by independent custodians, and a number of these issuers have measures to complete regular audits. Most fiat-backed stablecoins use US dollar reserves, but there are others that use precious metals or commodities as collateral. Fiat backed stablecoins carry the largest single-point-of-failure risks due to their reliance on centralized entities.

Tether (USDT)

Tether helped develop the stablecoin model upon its launch in 2014, originally named Realcoin. Although it's faced heavy skepticism and been impacted by controversy, it remains one of the most traded stablecoins. USDT was developed to aid in the convertibility of fiat currencies and cryptocurrencies. USDT tokens may be issued on a variety of blockchains with varying capabilities depending on the protocol.³ The owners of Bitfinex, a popular cryptocurrency exchange, control Tether Limited which is the entity operating Tether's tokens. Tether's website states every USDT token is backed 100% in their reserves through fiat currency, cash equivalents, loan receivables, or "other assets." Over the course of Tether's existence the one-to-one collateralization claim has come under question. In our volatility analysis, with pricing from 2017 through the beginning of 2022, we found that USDT's max drawdown occurred on 11/26/2018. The heightened volatility of USDT at this time can be traced in part to an attestation letter from Deltec. The Bahamian bank issued a letter stating that the Tether account held roughly \$1.8 billion, enough to match the USDT in circulation at the time. The letter's signature was difficult to interpret and did not include a name.⁵ This led some to question the validity of the letter altogether. Unfortunately, this was not the only instance in which Tether's collateralization and reserves faced public scrutiny. However, Tether's Assurance Consolidated Reserves Report for December of 2021, completed by MHA Cayman's (an auditor of investment funds and digital assets), found Tether's reserves not only met but exceeded their liabilities at the close of the 2021 calendar year.⁶



Although it's faced heavy skepticism and been impacted by controversy, it remains one of the **most traded stablecoins**.

3. Tether Website, "How it Works

4. Tether Website, "FAQ"

5. 11/1/2018 Deltec Tether Attestation Letter

6. Tether 12-31-21 Assurance Letter

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As of March 2, 2022, USDT had the largest market capitalization among stablecoins, according to CoinMarketCap. USDT also had the second largest Total Value Circulating (TVC) with \$39.86B, circulating through the Ethereum blockchain's DeFi ecosystem, according to DeFi Pulse. It was also recently announced that Tether, along with Bitcoin, would be considered legal tender in Lugano, Switzerland.⁷

USD Coin (USDC)

USD Coin (USDC) is another fiat-backed stablecoin that was launched in 2018 by the Centre consortium. Centre was founded by Coinbase and Circle to support governance and standards for the digital finance ecosystem. USDC is issued as ERC-20 tokens on the Ethereum blockchain, and 100% collateralized by reserves subject to regular public reporting standards. USDC was designed to ease the conversion from fiat to cryptocurrencies and vice versa through a price stabilized asset. In September 2015 the New York State Department of Financial Services (NYDFS) granted a Virtual Currency & Money Transmitter License to Circle. This aided the product's launch as the industry hungered for a stablecoin with greater transparency and stronger governance compared to Tether. The monthly public attestations found on Centre's website since inception, attested by Grant Thornton LLP, help support this sentiment.9 USDC has experienced massive adoption throughout the DeFi ecosystem and held the highest TVC with a 39.55% dominance, according to DeFi pulse on March 2nd, 2022.

As further background to the issuing entity, in February of 2022, Circle announced that it had renegotiated terms with Concord Acquisition Corp, a public special purpose acquisition company. The new agreement doubled Circle's valuation from \$4.5 billion in July of 2021 to \$9 billion in just seven months. The transaction is subject to additional approvals, but upon completion of the agreement the new entity would trade on the New York Stock Exchange (NYSE) under the ticker CRCL, potentially by the end of 2022.¹⁰

Binance (BUSD) & Paxos (UDSP)

Binance USD (BUSD) is also a fiat backed stablecoin ranked as a top three stablecoin by market cap.¹¹ Binance and Paxos together launched BUSD in Q3 2019. Each BUSD token is said to be collateralized, "100% backed by reserves held in either or both (i) fiat cash in dedicated omnibus accounts at insured U.S. banks and/or (ii) U.S. Treasury bills (including through repurchase agreements and/or money-market funds invested in U.S. Treasury bills). 12 BUSD's mission to enhance the digital asset ecosystem by providing an accessible and efficient asset echoes many other stablecoins. BUSD's growth is due to its increased adoption throughout the cryptocurrency ecosystem. Major wallets, platforms and services support BUSD, as well as many centralized exchanges. BUSD has also seen adoption within the DeFi ecosystem as a number of the leading Decentralized Exchanges (DEX's) support BUSD like PancakeSwap, Uniswap, Curve. Finance, and SushiSwap to name a few. BUSD holds the third largest TVC according to DeFi Pulse. 13

- CoinDesk, "Swiss City of Lugano to Make Bitcoin and Tether 'De Facto' Legal Tender"
 NYDFS; Virtual Currency: Regulated Entities
- 9. Centre Website, "USDC Transparency"
- 10. Fintechs, "Circle Announced New SPAC Deal To List On NYSE At \$9 Billion Valuation"
- 11. Messari.io, "Stablecoins"
- 12. Paxos Website, "BUSD"
- 13. As of March 2, 2022.

Page 5 www.waveap.com In September of 2018, Paxos launched the Pax Standard Token (PAX), later rebranded to USDP, to compete in the stablecoin market. USDP is another fiat backet stablecoin pegged to the US Dollar. Paxos states their reserves back USDP one to one, and publish monthly attestation statements with Withum to support that claim. At the time of writing USDP held the sixth most TVC on the Ethereum blockchain, and ranks as the eight largest stablecoin by Market Cap on Messari, as of March 15, 2022.14 USDP is supported by a number of Exchanges, Wallets, and other apps in the crypto ecosystem. 15

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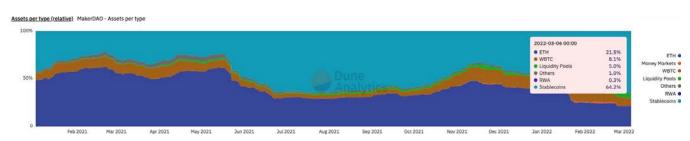
^{14. &}lt;u>Messari.io, "Stablecoins"</u> 15. <u>Paxos Website, "USDP Ecosystem"</u>

Crypto-collateralized

Proposals for crypto-backed stablecoins began to circulate at the same time as fiat-backed stablecoins began to hit the market in 2014, with the aim of increasing efficiency, decentralization, and scalability. Crypto-collateralized stablecoins aim to do that by using other cryptocurrencies as collateral. Often the reserve cryptocurrency is prone to high volatility, so these stablecoins maintain an over-collateralized reserve. While this limits their relative risks, it represents a hindrance in terms of efficiency. Crypto-backed stablecoins minting mechanisms do increase stablecoin supply as crypto assets are deposited to generate the stablecoins.

DAI

DAI, the fifth largest stablecoin by market capitalization, was launched by MakerDAO and Maker Protocol in 2017. As with other stablecoins it was created to offer a less volatile and price stabilized digital asset. The price of DAI is soft-pegged to the U.S. dollar. Each time a new DAI token is minted a combination of other crypto assets are deposited into a smart-contract vault, representing the DAI collateral. Each issuance and burning of a DAI token through a smart contract is recorded on the Ethereum blockchain, adding to its transparency. Another characteristic of DAI is that it's maintained by a Decentralized Autonomous Organization (DAO) called MakerDAO, and governed through direct voting by holders of MKR. This level of decentralization is much greater when compared to the centralized entities controlling USDT, USDC, or BUSD. This has led to substantial adoption in the DeFi ecosystem as DAI is ranked the fourth highest TVC on the ETH blockchain, according to DeFi Pulse. DAI's decentralization started to come into question however after MakerDAO implemented a price stability mechanism that increased DAI's collateralization by USDC, a centralized stablecoin.



Source: https://dune.xyz/queries/58495/116324

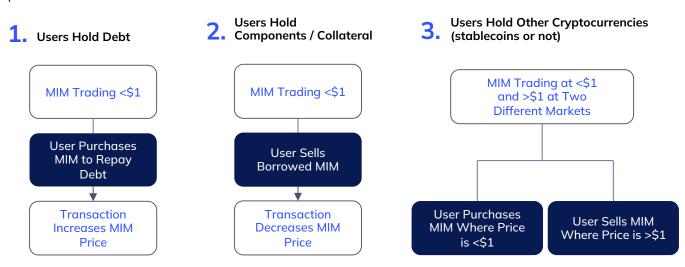
DAI's price stability mechanisms include Emergency Shutdown procedures and a DAI Target Price to be used in the case of a Shutdown. Emergency Shutdown shuts down the Maker Protocol and delivers the net value of assets based on the smart contract.

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which helps protect the protocol in an emergency situation like a malicious attack. It's also the method used to facilitate a system upgrade of the Maker Protocol. Separately, MKR voters are able to initiate an Emergency Shutdown by depositing MKR into the Emergency Shutdown Module (ESM), if enough voters believe it's necessary. The DAI Target price is used to determine the value of collateral DAI holders would receive in an Emergency Shutdown. The Target Price for DAI is \$1 which translates to a one to one USD soft peg.

Magic Internet Money (MIM)

Magic Internet Money (MIM) is a crypto-backed stablecoin launched by the DeFi lending platform Abracadabra. Abracadabra uses interest bearing crypto assets as collateral to mint MIM tokens. Abracadabra always considers MIM tokens to be worth \$1, and relies on arbitrage as the main method of price stabilization. ¹⁶



Illustrative explanation of the MIM Price Peg from https://docs.abracadabra.money/tokens/tokenomics

*Can also happen in reverse

These arbitrage opportunities are most often completed by automated bots that constantly monitor the markets to allow for quick corrections to the price.

Abracadabra launched in May 2021, and as the platform grew in popularity MIM followed suit. As of March 6, 2022, MIM's ~\$2.78 billion market capitalization ranks at seventh among stablecoins. In late January 2022 it was revealed that Michael Patryn was a team member of Wonderland, a related defi application on the Avalanche network. Mr. Patryn is a co-founder of QuadrigaCX, a Canadian exchange responsible for a massive fraud scandal. Daniele Sestagalliis founder of both Wonderland and Abracadabra. His connection to Mr. Patryn led MIM to lose its peg and fall to \$0.93 before rebounding to \$0.98 all within a single day. Although the controversy caused MIM to lose its peg, the stablecoin's ability to quickly rebound displays the resilience of the price stability mechanisms in place.

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^{16.} Abracadrabra Documentation, "Tokenomics"

^{17.} CoinDesk, "Terra's LUNA Dumps After Wonderland Controversy

Algorithmic

Algorithmic Stablecoins represent the last of the three main stablecoin categories. They use a working mechanism, smart contracts, to maintain a stabilized price and operate on public blockchains.



Synthetic USD (sUSD)

In the summer of 2018 the Synthetix protocol launched sUSD. sUSD has experienced wide adoption throughout the DeFi ecosystem and is recognized as one of the more liquid stablecoins. 18 sUSD tokens can be minted by staking SNX tokens, at which point each sUSD acts as a debt obligation and represents a delegated share of the debt pool in which all synthetic assets are minted. This ties the demand to issue sUSD to the demand for all the synthetic assets on the Synthetix platform. 19 The value of all synthetic assets are determined by oracles pushing price feeds onchain by Chainlinks independent node operations and Synthetix.²⁰ The oracle uses an algorithm to source data and create an aggregate value for each asset. sUSD is able to track the price of USD through this process, and also uses arbitrage to help stabilize its price. When the price of sUSD is less than \$1 on a secondary market, users can buy more sUSD with less USD, and redeem the sUSD tokens for other synthetic assets on Synthetix. This can also happen in reverse if sUSD is greater than \$1. As of March 2nd, 2022, sUSD holds the 12 largest TVC despite having the 15th largest market capitalization among stablecoins according to Messari and DeFi pulse.

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^{18. &}lt;u>CoinMarketCap.com, "SUSD"</u> 19. Binance Research, "SUSD"

^{20.} Sythentix Documentation, "Synth Pegging Mechanism"

Hybrids

As developers continue to innovate new stablecoins, attributes from each category have been combined to enhance the stability, efficiency, and decentralization of new projects.

TerraUSD (UST)

TerraUSD (UST) is a crypto-collateralized hybrid stablecoin pegged to the US dollar and native to the Terra blockchain. It was launched in September of 2020 in collaboration with Bittrex Global and has experienced rapid adoption since. UST aims to deliver a high level of scalability, interest rate accuracy, and interchain usage. UST's price stabilization mechanism is established through the protocol's algorithmic market module, which incentivises the addition or subtraction of LUNA through arbitrage. Users can burn LUNA to mint UST, or burn UST to mint LUNA to correct the UST price in the following market conditions. 22

Expansion

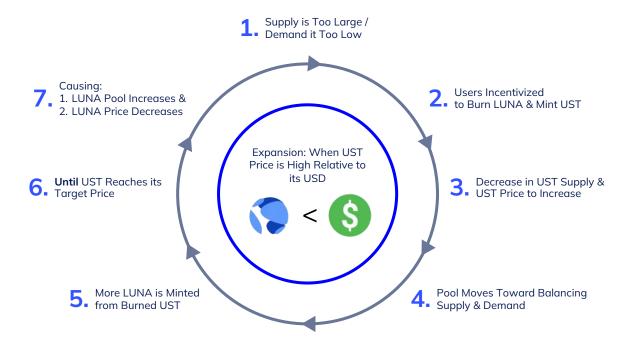


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^{21.} Techstory, "Everything You Need to Know About TerraUSD"

^{22.} İllustration depicted from explanation of the UST Price Stabilization Mechanism. Source: Terra Documentation

Contraction



A \$1B LUNA sale by the Luna Foundation Guard (LFG) to Jump Crypto, Three Arrows Capital, DeFiance Capital and other investors to backstop UST in the case of a destabilizing event also adds to its price stability. The LFG has announced plans to purchase another \$2B of BTC to back UST.²⁴

The Terra blockchain holds the second highest Total Value Locked (TVL) as of March 2, 2022 according to <u>DeFiLlama</u>. This growth has been paired with wide adoption of UST throughout the DeFi ecosystem as its algorithmic backing encapsulates the ethos that's missing from fiat backed stablecoins such as USDT or USDC. Also Anchor, a decentralized savings protocol on Terra's blockchain, has galvanized users into depositing UST on the platform for a yield consistently hovering around 20%. Anchor's fifth largest TVL of \$11.45 billion has helped fuel the growth of the Terra blockchain and adoption of UST.²⁵

FRAX

Frax is a "fractional-algorithmic" stablecoin protocol that launched at the end of 2020. Frax was designed to provide a scalable and decentralized algorithmic currency. The Frax protocol uses the protocol's native stablecoin, Frax (FRAX), and its governance token, Frax Shares (FXS), to stabilize its price. Frax is unique because it maintains its USD peg with a collateralized supply of reserves, currently 85.25% backed by USDC and an algorithmic price stabilization mechanism.

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^{24.} Luna Foundation Guard 3/15/22 Twitter Post

^{25.} https://defillama.com/protocol/anchor

Frax allows arbitrage opportunities to equate its supply and demand and stabilize its price in the open market. When in a 100% collateral phase it's a bit easier to understand, as depicted below.

FRAX in 100% Collateral Phase

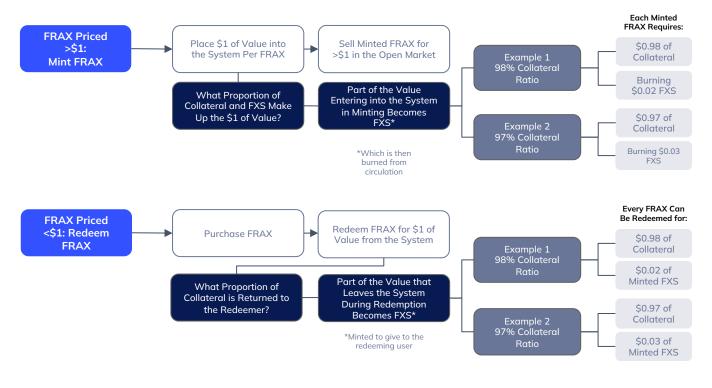
At All Times to Mint New FRAX Users Must Place \$1 Worth of Value Into the System



The Fractional Algorithmic Phase is more complex. To summarize, when FRAX is minted FXS is burned, and when FRAX is redeemed FXS is minted. The arbitrage opportunities are displayed in the graphic below.

FRAX in 100% Collateral Phase

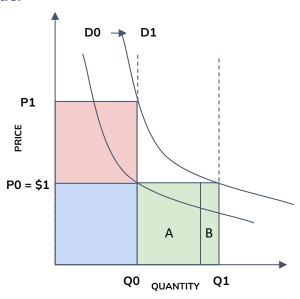
At All Times to Mint New FRAX Users Must Place \$1 Worth of Value Into the System



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The following simplified model depicts the effect of an increase in demand on the price of Frax (assuming supply is perfectly inelastic supply.) Should quantity remain constant this would increase the price above \$1. However, by minting FRAX the price is returned to its peg.

Increase in Demand Model



With the original demand curve (D0) the price of FRAX is \$1 and quantity of Q0. If demand were to shift to D1 the price increases from \$1 to P1 for the same quantity, Q0. In order for the FRAX price to recover it needs to be minted until Q1 is realized. The original market cap is represented by the blue square. Rectangle B represents the value of FXS that would need to be burned for the new quantity of FRAX to be minted (with a hypothetical collateral ratio of 66%.)

The FRAX protocol adjusts the collateral ratio depending on the direction of change in FRAX's supply. When FRAX is expanding, the protocol will lower the collateralization ratio (decollateralize) so that there is less collateral available and more FXS must be deposited to mint FRAX. This action lowers the collateral backing all FRAX tokens. During times of retraction in Frax supply, the protocol will increase the ratio (recollatelize). Increasing the collateralization ratio positively affects market confidence as users understand there is more collateral backing the asset.

	Type of Stablecoin	Market Cap (3/20/2022)
USDT	Fiat (USD) Collateralized	\$80,740,243,739
USDC	Fiat (USD) Collateralized	\$52,865,924,687
BUSD	Fiat (USD) Collateralized	\$17,793,390,072
UST	Crypto-collateralized hybrid	\$15,354,115,218
DAI	Crypto-collateralized	\$9,472,781,176
FRAX	Fractional - Algorithmic	\$2,809,256,924
MIM	Crypto-collateralized	\$2,780,632,732
USDP	Fiat (USD) Collateralized	\$190,220,979
SUSD	Algorithmic	\$103,298,756

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Supply

Historically, fiat stablecoins have represented a significant majority stablecoin supply, accounting for over 83% of the total stablecoin supply as of March 2, 2022.²⁶

However, they've been quickly losing market share to the crypto backed and algorithmic stablecoins. Crypto backed stablecoins had held roughly 5% of total stablecoin supply until Q4 of 2021, where they jumped to 9%.²⁷ Algorithmic stablecoins supply increased over 260% in Q4 of 2021. They now maintain roughly 8% of the total supply, greatly exceeding the previous quarter's 2.8% mark.²⁸ Much of the expansion in algorithmic stablecoin supply can be attributed to the growth of the Terra blockchain and spread of UST to other protocols.

As such, UST accounts for roughly 80% of the entire algorithmic category supply.²⁹ Fiat and crypto backed stablecoins have a more even distribution that follows close to a 2:1 ratio of the top to second-largest asset (USDT is twice as large as USDC, and DAI is nearly double MIM's supply.) Although DAI grew an impactful 44% during Q4 of 2021, much of the category's growth was due to the 415% growth rate of MIM.

Much of the expansion in algorithmic stablecoin supply can be attributed to the growth of the Terra blockchain and spread of UST to other protocols.

The supply of stablecoins can be a constraint to digital asset price appreciation and increasing Total Value Locked (TVL).³⁰ As prices and TVL increase, decentralized exchanges (DEXs) require more stablecoins to efficiently trade against crypto assets in a token-stable pool. A scarce supply of stablecoins has caused purchase demand to weaken and profit-taking to occur. This in turn has led to sharp price corrections throughout the market.

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^{26.} Messari.io, "Overview of Stablecoin Supply"

^{27.} Ibid

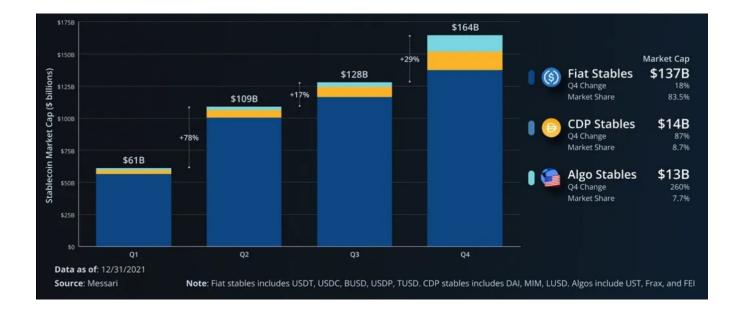
^{28.} Ibid

²⁹ Ibid

^{30.} Total Value Locked (TVL): The overall value of crypto assets deposited, or "locked" in a DeFi protocol.

2021 Quarterly Stablecoin Marketcaps by Category

Breakdown of Fiat, Collateral Debt Position (CDP), and Algo stablecoin supply



These circumstances existed during a number of price appreciation cycles leading up to Q4 of 2021. However, during this quarter, the increased supply of crypto backed and algorithmic stablecoins allowed for price and TVL to reach a higher relative ratio to stablecoin supply, due to the collateral of these tokens being measured in TVL. These changing conditions illustrate the wider impact of the stablecoin supply throughout the ecosystem.

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Regulation

There is great anticipation and speculation as to how regulatory bodies will govern stablecoins. Their impact on the crypto market has been proven, and they remain an important component of the conversation surrounding the broader asset class.

At the launch of most stablecoins, there were no clear regulatory guidelines around these instruments. USDT and DAI were issued as unregulated utility tokens, along with UST, MIM, sUSD, and FRAX. USDC, BUSD, and USDP were issued through a NY Trust license, which designated their regulation under banking laws rather than securities laws, giving them exemption from being regulated by the SEC, both from an issuance and a distribution perspective. This is a viable model but comes with limitations as the banking regulators are not comfortable with considering crypto or other assets as backing for the stablecoins. As another example, it is Wave's understanding that a dividend paying stablecoin would not fit under this regime, and would fall under the SEC's regulatory oversight.

In November of 2021, the European Council stated its stance on the Markets in Crypto Assets (MiCA) framework after it was introduced in September 2020. This allowed the European Council and Parliament to negotiate before ratifying the framework into laws. The MiCA framework covered the cryptocurrency markets, but placed a stronger emphasis and more stringent regulation on stablecoins.

In the United States, the President's Working Group for Financial Markets issued a report that stated recommendations on how lawmakers should approach stablecoin regulation in early December 2021. One such recommendation was for Congress to place stablecoins under the jurisdiction of a federal prudential framework which would treat stablecoin issuers like insured depository institutions.³¹ Prior to a House Financial Services Committee on February 8, 2022 one committee member, Rep. Josh Gottheimer (D-N.J.), circulated a draft of a bill that proposed to enact some of the recommendations made from the Working Group's report.³² The draft included stipulations such as requiring any nonbank stablecoin issuers to fully back their reserves, some to maintain excess of 100% of their supply, and requiring the reserves to be held in US dollars or securities issued by the Federal Government, unless stated otherwise.

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^{31.} CoinDeck, "Stablecoin Regulation Takes Center Stage at House Hearing Today" 32. Politico, "Gottheimer drafts stablecoin bill as Congress plots crypto rule revamp"

The December 2021 report did not mention any specific reserve requirement; however, it did recommend legislation to develop a framework for federal oversight of stablecoin issuers, limited issuance, and transaction oversight. It's crucial for lawmakers to pass judgment on how they will define stablecoins for the purposes of legislation, and whether stablecoins or their reserves should receive protection by the FDIC.

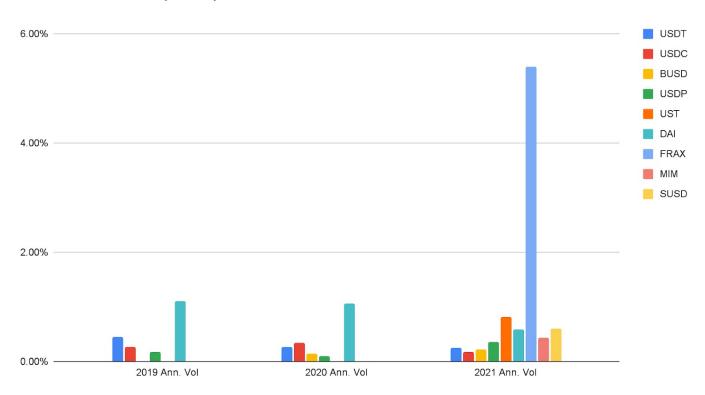
On Wednesday March 9, 2022, U.S. President Biden signed an executive order advising the federal government to examine the risks and benefits of digital assets.³³ The order focused on six key areas including consumer protection, financial stability, illicit activity, U.S. competitiveness, financial inclusion and responsible innovation.³⁴ The order also urged for further research and development of a U.S. Central Bank Digital Currency (CBDC). Notably, stablecoins were not specifically included in the White House's announcement.

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^{33.} White House Fact Sheet: President Biden to Sign Executive Order on Ensuring Responsible Development of Digital Assets/ 34. CNBC, "Biden just put out an executive order on cryptocurrencies — here's everything that's in it"

Volatility Analysis

Stablecoin Volatility Analysis



In our volatility analysis, the Wave Financial team reviewed pricing data on each of the top 10 stablecoins by market cap (and included sUSD and MIM) to evaluate the annualized volatility and max drawdown of each asset. Prior to Frax's launch, Dai was the outlier in the group from 2019-2020, but has since lowered its annualized volatility to 0.584% in 2021. The analysis showed that in 2021, other than FRAX, each of these stablecoins had an annualized volatility of less than 1%. For comparison, in that same timeframe Bitcoin's annualized volatility was 79.80% and the S&P Total Return Index was 25.95%. The data also showed that generally as stablecoins matured their annualized vol decreased. FRAX was the outlier in terms of annualized volatility, however its lifespan is much shorter than the other stablecoins. In 2021, HUSD had the lowest Ann. Vol. of 0.05%. BUSD had the lowest max drawdown of only 2.7%. FRAX had the highest max drawdown of 72.67%, but the majority of tokens analyzed had max drawdowns of less than 10%.

36. Source: Yahoo Finance.

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^{35.} Top 10 ranked by market cap on 2/8/2022 by Messari.io

Other Risks

Stablecoins are susceptible to market risks that may cause fluctuations in their price. There are also smart contract risks that the underlying programming may be susceptible to not working properly, or being exploited by bad actors. Smart contracts are built on blockchain protocols and not all protocols are built to the same standard of security. Similarly, there are design and incentive risks inherent in blockchain technology. The underlying digital ledger technology, and added features such as scaling technologies, rely on complex game-theoretic incentive designs. Flaws in the incentive design can skew operational outcomes.

There are also certain governance risks. While DeFi projects strive for decentralization of governance and operations, founders often retain unilateral control over funds for an extended period of time as decentralization is established. As this is a relatively normal structure for any new project, unscrupulous founders can take advantage of it to abscond with funds early in a project lifecycle. Additionally, some stablecoins operate through a direct democracy of token holders, such as Dai, and are open to proposals that can change nearly anything, including core operational tenets of the application, risk metrics, or extending/ending promotional rewards. There are also potential Regulatory Risks as new legislation may impact these assets.

The past performance of stablecoins are no indication of future results. These are not meant to represent an exhaustive list of risks.

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Conclusion

The expanding stablecoin arena continues to hold a strong impact on the digital asset ecosystem.

The evolving supply dynamics and developing regulatory framework will both have an impact in where these assets fit into the portfolio construction of users and institutions. Although fiat-backed stablecoins maintain the majority of stablecoin supply, the rapidly growing crypto-backed and algorithmic stablecoin projects are quickly changing the overall crypto market relationship to stablecoin liquidity.

Our stablecoin price volatility analysis demonstrated that the majority of these assets have an annualized volatility of less than one percent, and the majority of projects experience lower volatility over time. Although there are risks, the potential value generated from the adoption and deployment of stablecoins is difficult to overlook.

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About Wave Financial

Wave Financial LLC (Wave) is a Los Angeles and London based investment management company that provides institutional digital asset fund products. Led by a team of highly experienced financial services professionals, Wave provides investable funds via their diverse investment strategies applied to digital assets and tokenized real assets. Wave also offers managed accounts for HNWIs and family offices seeking tailored digital asset exposure, bespoke treasury management services, and early-stage venture capital and strategic consultation to the digital asset ecosystem. Wave is regulated as a California Registered Investment Advisor (CRD#: 305726).

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President & Managing Partner

Ben's 20 years of trading & structured finance experience led him to senior leadership roles at Merrill Lynch and AllianceBernstein where he led business strategy and managed profitable distribution teams in Tokyo, Hong Kong, Singapore, Seoul, and Taipei. Ben looks after product development and trading for Wave Financial, also holding numerous security licenses.



Henry Elder

Head of Decentralized Finance (DeFi)

As the Head of DeFi at Wave Financial, Henry oversees all strategic initiatives and asset allocations involving DeFi. Formerly Head of Wealth and Treasury Management at Wave Financial, Henry was an early user of DeFi and developed frameworks that allowed Wave to allocate assets from the \$1+ billion wealth & treasury portfolio towards DeFi. Previously, Henry spent five years in real estate private equity before joining the blockchain industry to develop technologies for tokenizing real-world assets.



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