TokenInsight

Stablecoin 2023
Current Status and Outlook

Currency and Its Functions

After the emergence blockchain technology, a new form of currency emerged: stablecoins

Currency, also known as money, is a concept that is familiar to everyone. Generally speaking, currency can be seen as a standard carrier used for exchanging goods and services in economic activities. Currency typically has three functions and can be understood in the following ways:

- Medium of exchange: Used as a medium of exchange during the buying and selling of goods/services.

- Store of value: Has relatively small purchasing power fluctuations and can maintain value stability over a long period of time.

- Unit of account: Able to measure the value of different goods or services.

It is worth noting that the form of currency is not fixed, but rather evolves over time. The earliest form of currency was seashells, followed by precious metals, and now the vast majority of currency is credit currency issued by national sovereign credit.

After the emergence of the internet and blockchain technology, a new form of currency emerged: digital currency.

In the field of Crypto, a new form of currency has also emerged: Crypto stablecoins.

We will focus on the crypto stablecoins in this report, especially decentralized stablecoins.

HOW STABLE ARE THESE STABLECOINS?

Crypto Stablecoins

A paradigm shift in currency's medium of exchange.

Crypto stablecoins are similar to traditional fiat currencies with respect to their functionality as store of value and unit of account, because crypto stablecoins are usually pegged to the US dollar.

However, crypto stablecoins are superior to fiat currencies in two ways as a medium of exchange.

First, crypto stablecoins enable 24/7/365 trading without relying on non-DLT payment systems or custodial holdings of fiat currency balances. It also allows international money transfers to be near-instantaneous with little to no fees.

Second, crypto stablecoins are programmable and composable, creating immense opportunities in what is known as Decentralized Finance (DeFi). DeFi protocols built on public blockchains allow users to use stablecoins to directly and transparently participate in a variety of cryptocurrency-related markets and services, such as market-making, collateralized lending, derivatives, and asset management, without traditional intermediaries.
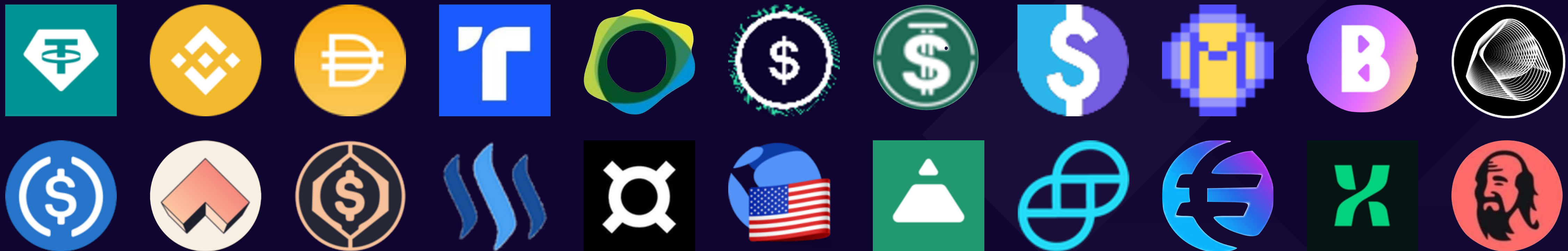
Three Types of Stablecoins

Reserve-backed Stablecoins vs. Over-collateralized Stablecoins vs. Algorithmic Stablecoins

Centralized Stablecoins

Reserve-backed stablecoins are backed by cash and cash-equivalent reserves such as bank deposits, Treasury bills, and commercial paper.

They are issued by intermediaries (centralized entities) who serve as custodians of reserve assets and offer 1:1 redemption of stablecoin liabilities for fiat currencies.

Decentralized Stablecoins

Over-collateralized stablecoins are backed by Collateralized Debt Positions (CDP), where a user deposits a volatile asset, such as Ether, and receives a stablecoin loan against the collateral at a >100% collateralization ratio.

They are issued via smart contracts on blockchains. If the value of the collateral falls below a certain threshold, the stablecoin loan is automatically liquidated.

**Algorithmic stablecoins** are backed by associated algorithm and governance tokens.

They are issued via smart contracts on blockchains. Automated smart contracts buy or sell the stablecoins against their governance tokens to maintain the peg.

Some Decentralized stablecoins use a blend of mechanisms to improve robustness.

For example, DAI is now backed by a mix of CDPs and reserve assets like USDC.

TokenInsight 3

Stablecoin Market Share

Centralized stablecoins dominance increased following the collapse of Terra.

Legend:
- Total Market Cap of Decentralized Stablecoins
- Total Market Cap of Centralized Stablecoins
- — Centralized Stablecoin %
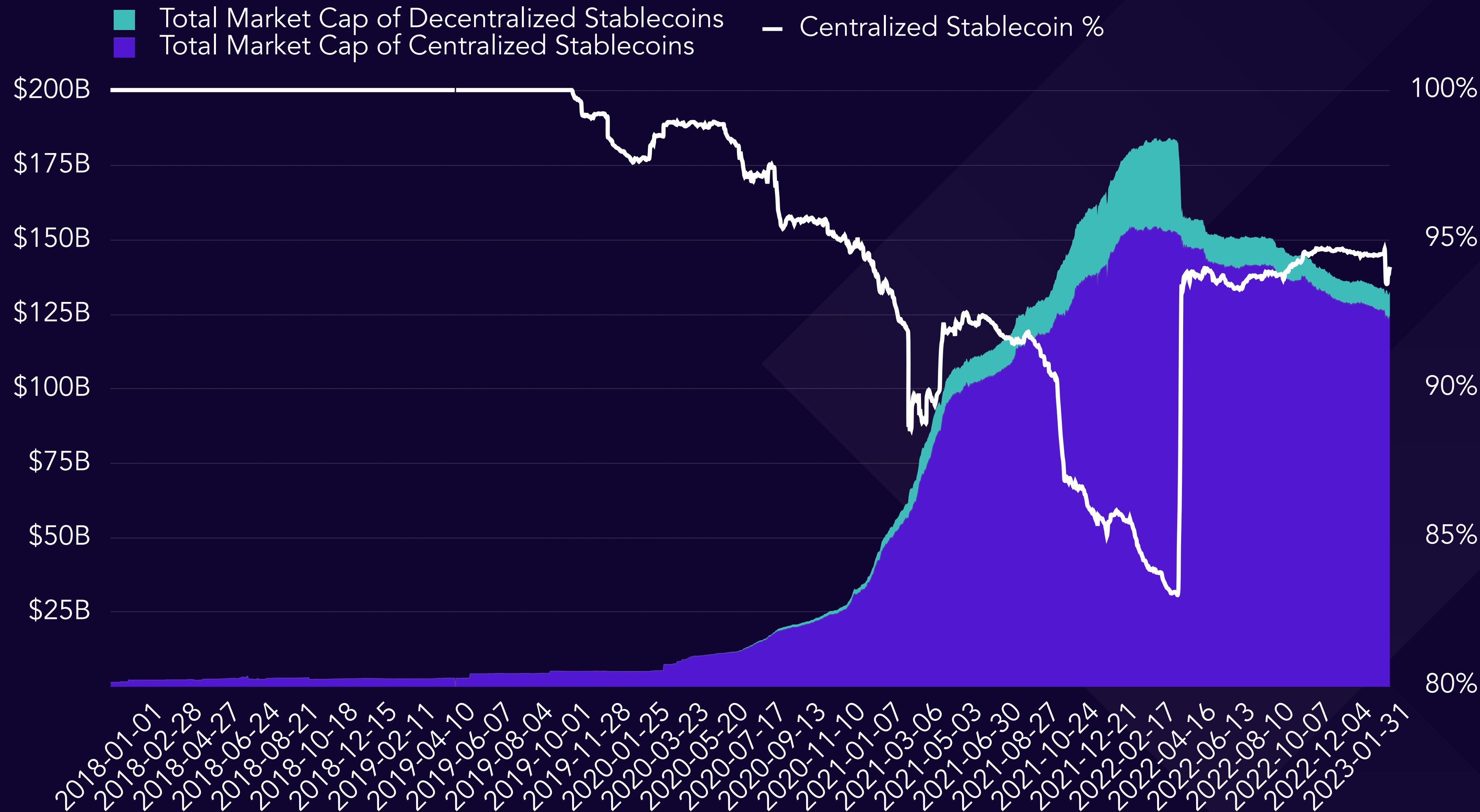
As of March 2023, centralized stablecoins represent 94% of the total market cap, while decentralized stablecoins account for only 6%.

Decentralized stablecoins were gaining market share between 2019 and 2022, reaching the ATH at 17% in May 2022, when the collapse of Terra destroyed the market's confidence in decentrazlied stablecoins.

Source: tokeninsight.com

TokenInsight 4

Centralized Stablecoins

There are six major centralized stablecoins with >500 million market cap.

Legend: ■ USDT ■ USDC ■ BUSD ■ TUSD ■ USDP ■ GUSD
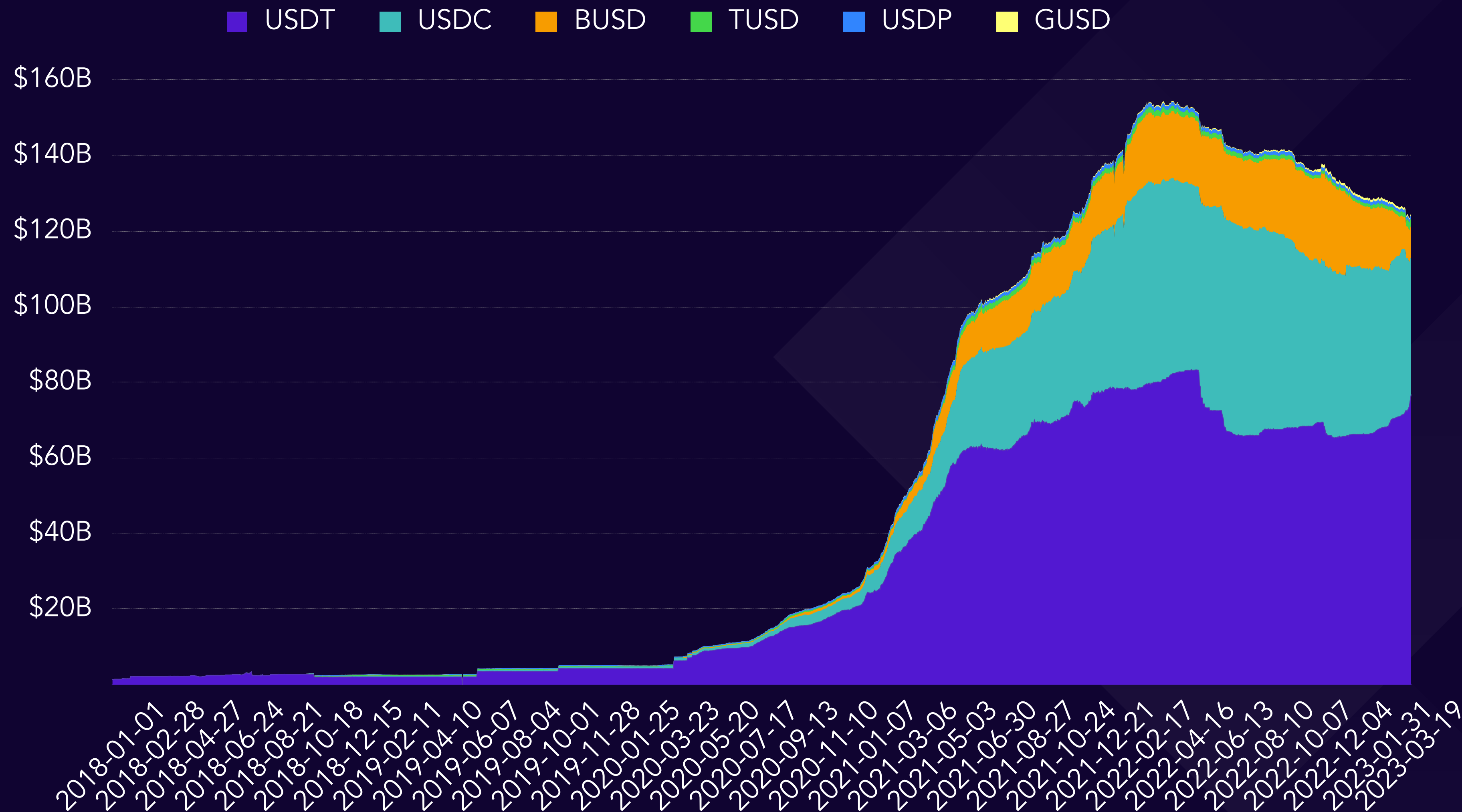
The most popular reserve-backed stablecoins are USDT, USDC, BUSD, TUSD, USDP, GUSD.

BUSD was gaining momentum but is discontinued as of Feb 13, 2023.

USDT and USDC are likely the two remaining giants that truly matter. USDT's market share is 62%, whereas USDC accounts for 29%. Excluding BUSD, the remaining centralized stablecoins represent less than 3%.

Source: tokeninsight.com

Decentralized Stablecoins

After the collapse of Terra, DAI's #1 spot is untouchable, for now.

Legend: DAI | FEI | LUSD | USDX | VAI | USDD | FRAX | USTC (UST)
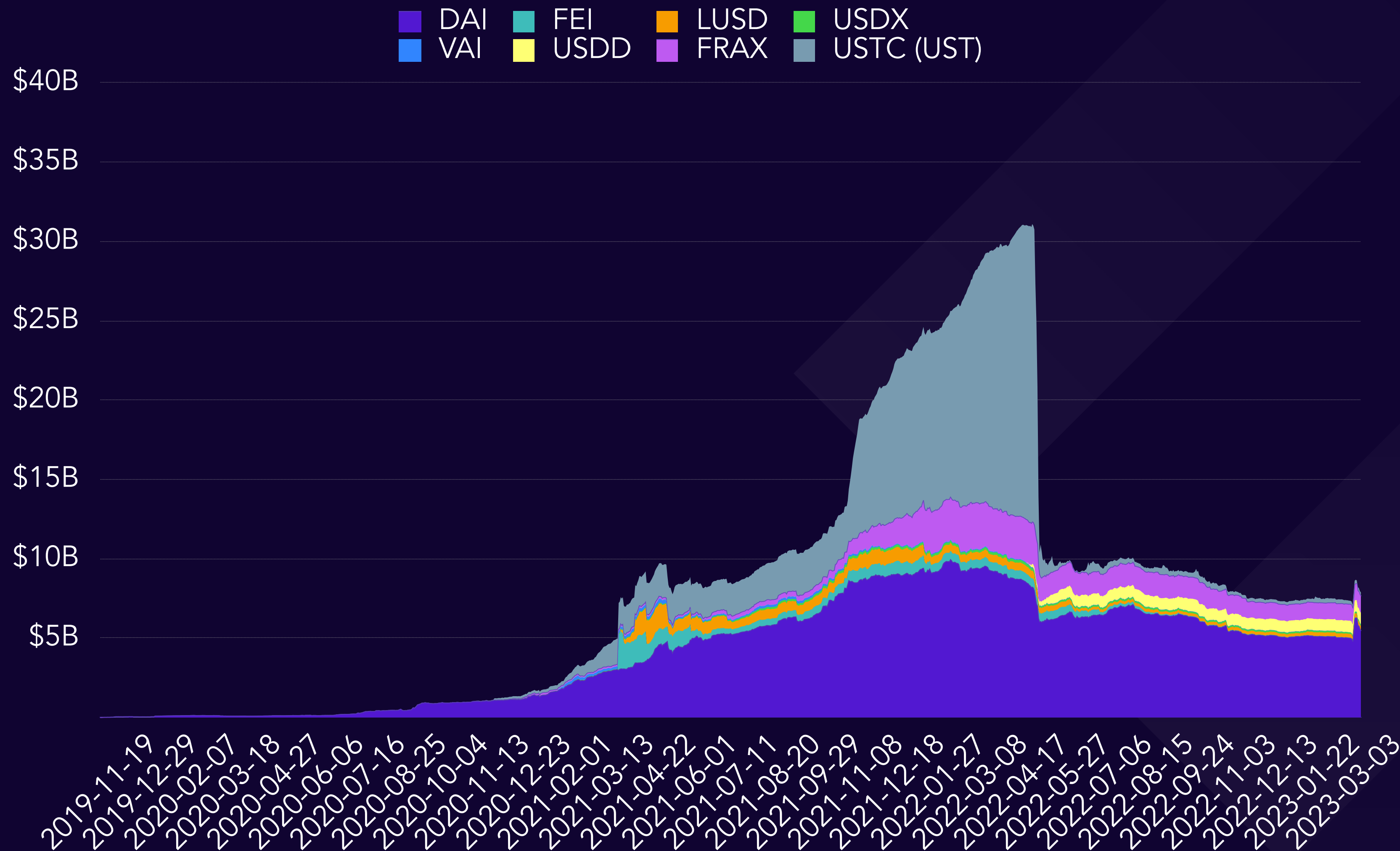
DAI with a market cap of over $5 billion is the clear #1 decentralized stablecoin.

FRAX is a distant #2 with a market cap of $1 billion.

Other remaining projects include USDD, LUSD, etc.

USDD is the only algorithmic stablecoin on the market. However, its model is similar to that of Terra. Hence its sustainability is questionable.

Source: tokeninsight.com

USDT & USDC

Two biggest (reserve-backed)stablecoins

USDT and USDC are the two largest centralized stablecoins. Both are pegged to the US dollar at a value of 1 dollar and have reserves consisting of US dollars, Treasury bonds, or other commercial paper.

USDT was issued by iFinex in 2014, which also issued stablecoins for the euro, yen, and other currencies. USDT is currently the largest stablecoin on the market, with a market capitalization of over $76 billion.

USDT has been criticized for not having sufficient reserves, but even with these concerns, it maintains the largest market share and its price has remained around $1 for the vast majority of the time.

The most severe instance of USDT price deviation occurred on October 15, 2018 (when the price of Bitcoin was around $6,000). Due to market panic, the price of USDT dropped to a low of $0.88. However, since then, despite ongoing market rumors, the price of USDT has remained stable.

The primary use case for USDT is as a base currency for centralized exchange trading.

USDC, on the other hand, is a stablecoin issued jointly by Circle and Coinbase exchange. Based on its background, USDC seems to be a more legit and transparent stablecoin, and the market has always a had greater trust in USDC than USDT.

Source: Twitter @dgntec

Coinbase and DeFi protocols have always been much more friendly to USDC than to USDT, which is one of the reasons why USDC has expanded rapidly since 2021. However, due to the bankruptcy of Silicon Valley Bank, the reserve of USDC has been questioned, and the price of USDC dropped to around $0.8 on March 11th.

Currently, the market capitalization of USDC is approximately $36 billion, ranking second in the stablecoin market, about half the size of USDT. At its peak on July 1, 2022, the market capitalization of USDC exceeded $56 billion, approaching the level of $66 billion for USDT at that time.
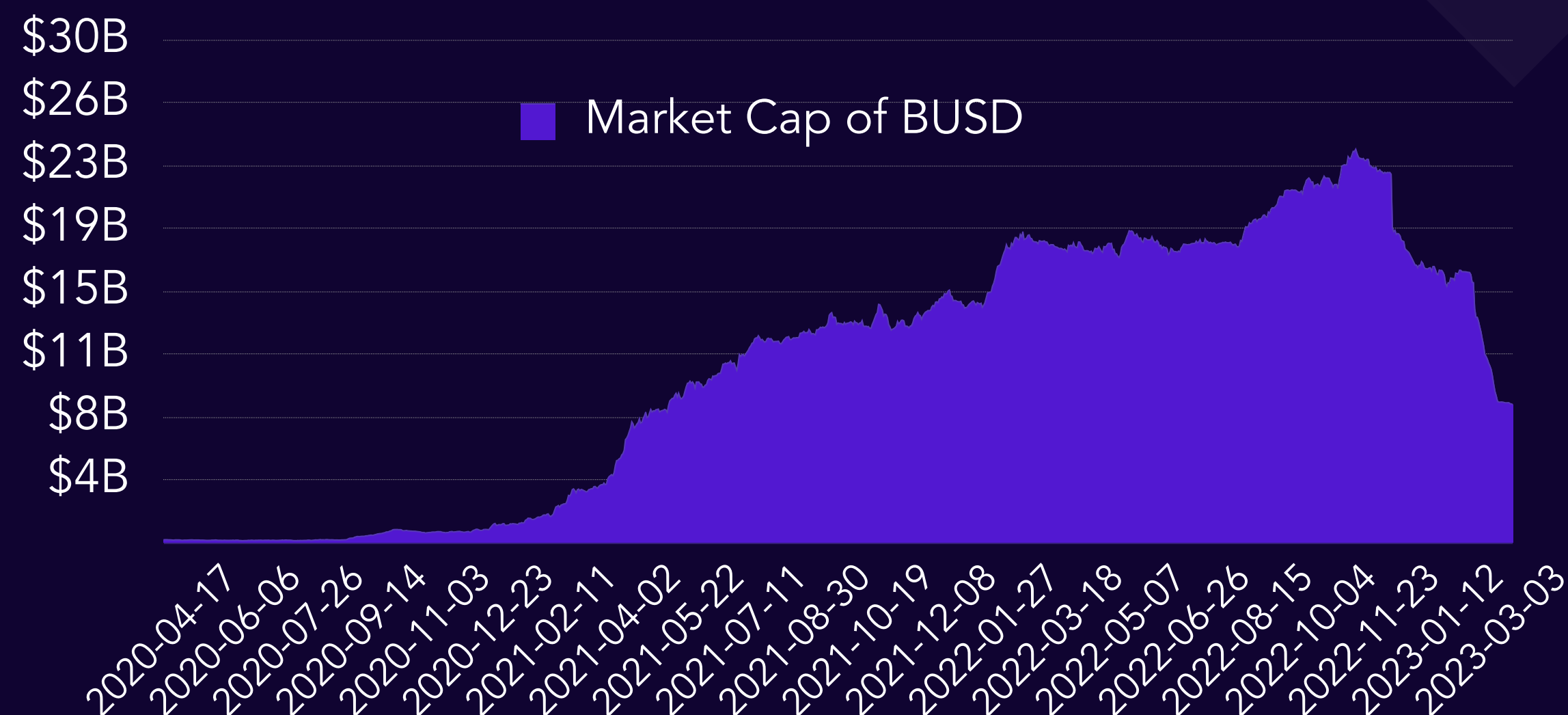
BUSD

A highly centralized stablecoin.

Why is BUSD considered more centralized? To fully understand BUSD, we need to first clarify that there are two types of BUSD in the market.

- The Paxos-issued BUSD on **Ethereum**, which is regulated by the New York Department of Financial Services (NYDFS)

- The Binance-Peg BUSD **issued by Binance on other chains** (such as the BNB chain). This category of BUSD is not subject to any regulation, and Binance issues its own Binance-Peg BUSD by holding Paxos-issued BUSD on Ethereum.

The development of BUSD has been *very good*, especially since the bull market in 2021 and the BNB chain (BSC) summer period.

Sep 2022, Binance announced to Auto-Convert $USDC, $USDP and $TUSD to $BUSD on September 29th. Circle CEO Said that it was a good thing.

In 2020. Circle has warned New York Regulator about Binance's mismanagement of reverses. In Jan, 2023, Binance Acknowledges Past Flaws in Management of Stablecoin's Reserves.

Feb 2023, BUSD issuer, Paxos was investigated by NYDFS and BUSD experenced outflows. SEC planed to sue Paxos, alleging that $BUSD issued by it is an unregistered security. on 13th, issuing new BUSD was not allowed anymore.

13th Feb, Binance CEO CZ tweeted that Binance might not use BUSD as the main pair for trading anymore.

28th Feb, Coinbase announced that it would suspend trading of BUSD from 13th, Mar. Later in March, AAVE DAO voted to remove BUSD from its lending platform.

UST

What a dream.

UST (now called USTC) was once the biggest decentralized stablecoin in marketcap. The rapid growth of UST was mainly based on the development of the LUNA / Terra Eco and the fixed income return of 20% APY on Anchor.

The de-pegging of UST began on May 10, 2022. When it began to de-peg, the price rapidly dropped to $0.6 within few hours, then rebounded to around $0.91. However, after this rebound, the price quickly fell again and was below $0.1 in just a few days.

As a result of UST, the price of LUNA (now called LUNC) also rapidly dropped from $90 to almost zero.

Before UST collapsed, Do Kwon, the founder of LUNA, had tweeted that there was no need to worry about UST de-pegging. In the midst of the crisis, Do Kwon also tried to seek $1 billion in financing to save LUNA and UST, but was unsuccessful.
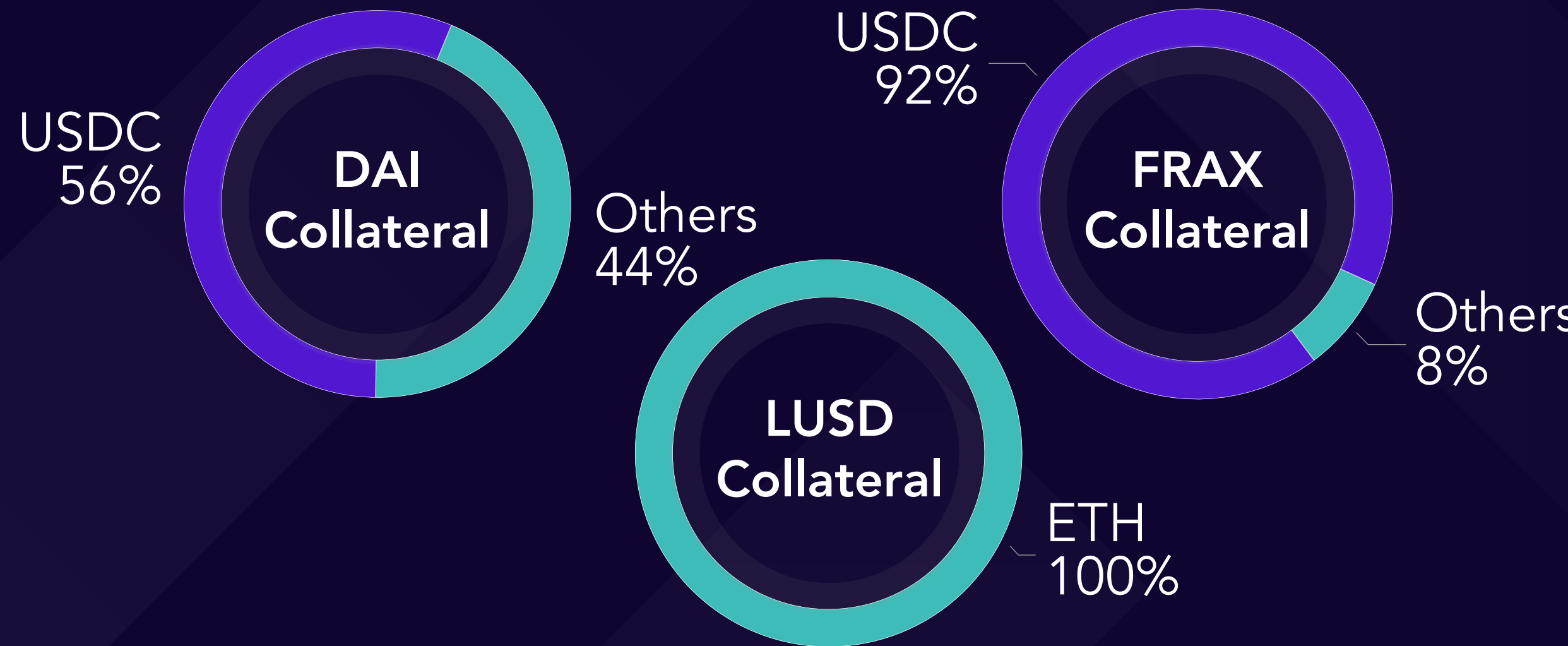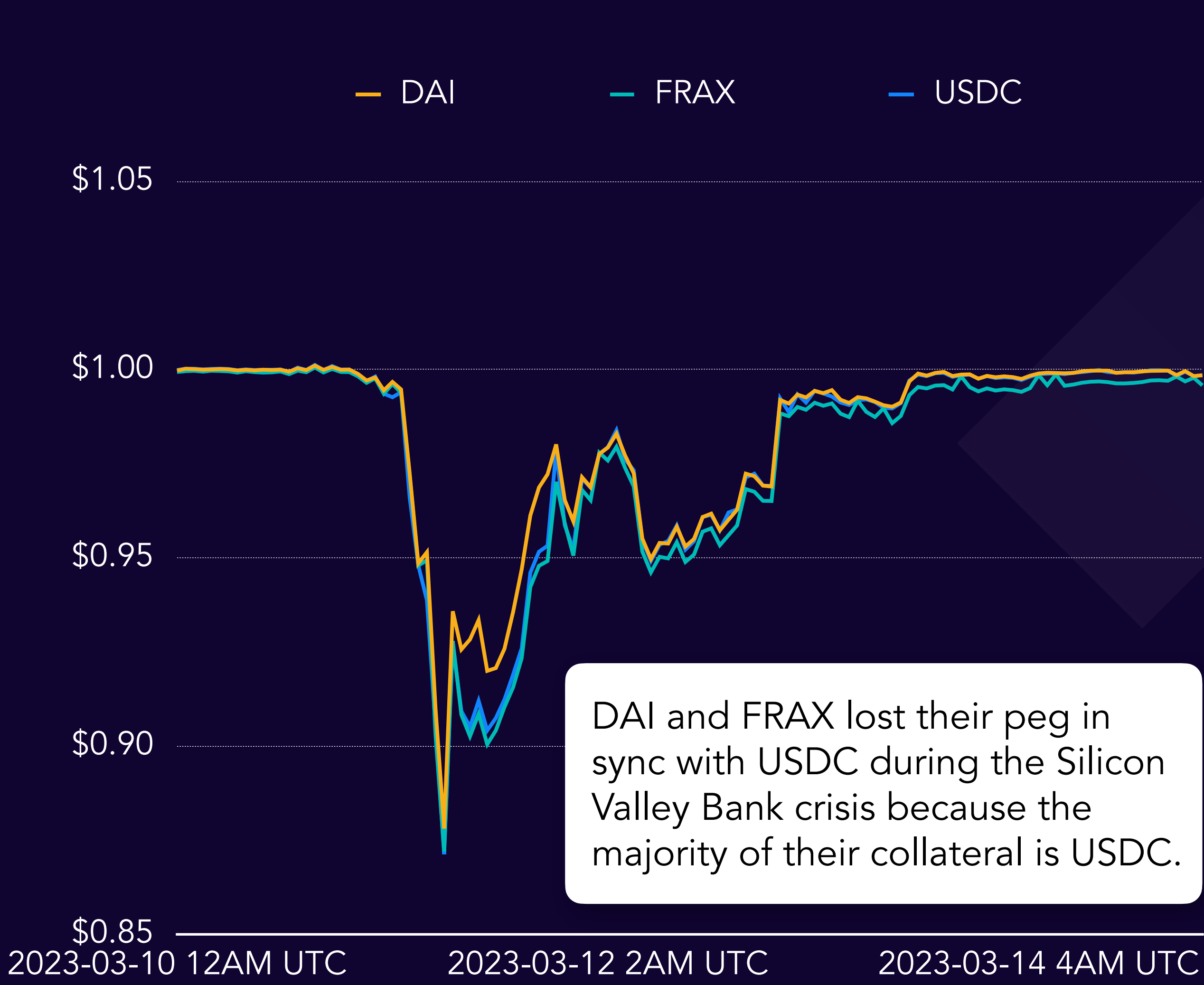
In hindsight, UST and LUNA were a very simple Ponzi scheme that used stable high returns to attract users to join the game. They happened to catch the bull market and Do Kwon was a very good storyteller.

Market Cap of USTC (UST Previously)
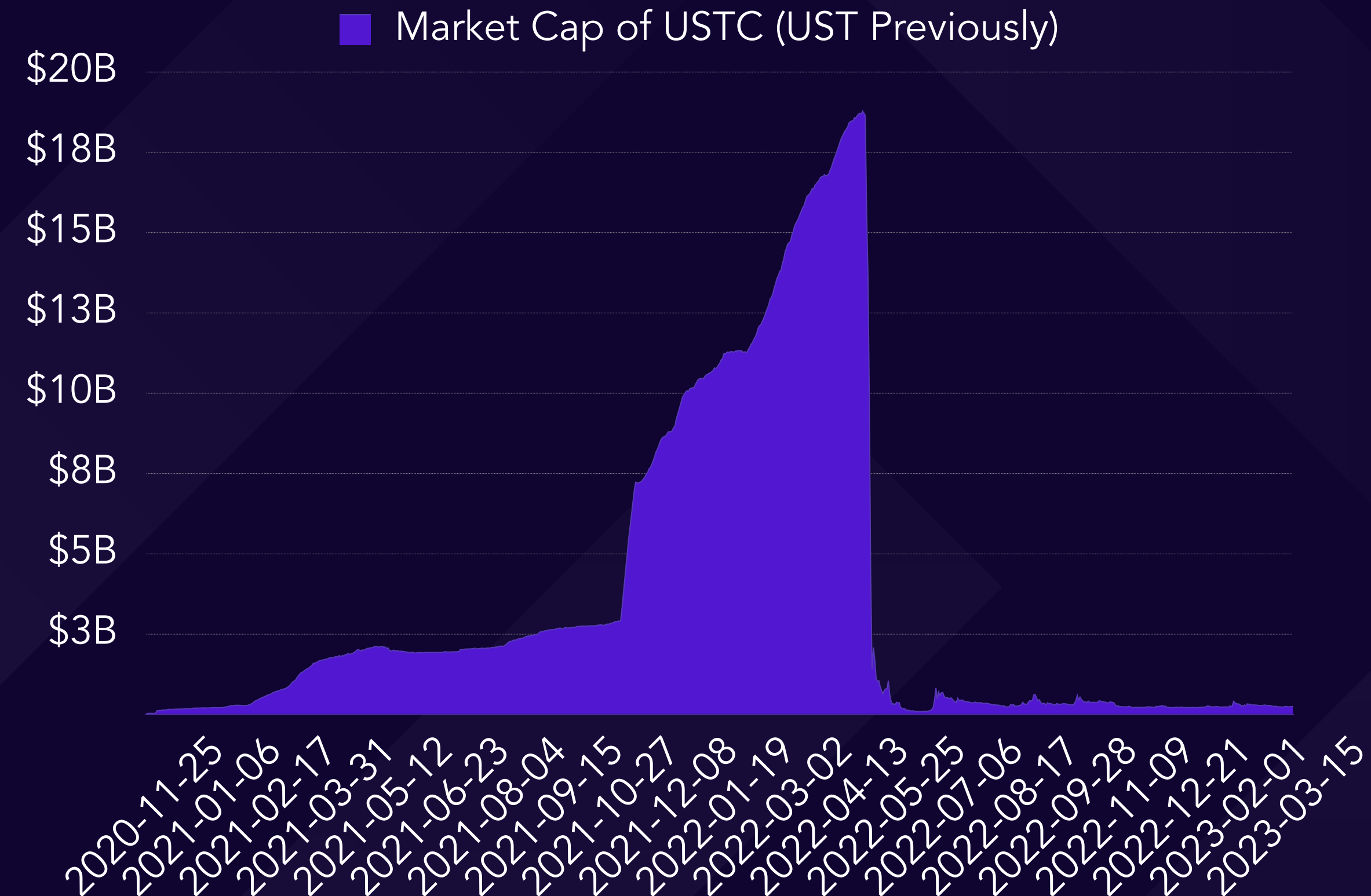
Interestingly, if you were to ask users in the crypto industry today if they would be willing to go through another LUNA/UST event, I believe that the vast majority of people would probably say yes. This is because many people may be thinking that as long as they get out before it collapses, they will be fine and they can make profit from it.

DAI & FRAX

These decentralized stablecoins are just "wrapped USDC."

DAI and FRAX lost their peg in sync with USDC during the Silicon Valley Bank crisis because the majority of their collateral is USDC.

DAI Collateral — USDC 56%, Others 44%

FRAX Collateral — USDC 92%, Others 8%

LUSD Collateral — ETH 100%

DAI began with a CDP model where users deposited ETH to mint DAI, but USDC gradually became its main source of collateral.

FRAX started as a fractional-reserve stablecoin, being partially backed by collateral (FRAX and USDC) and partially stabilized algorithmically. It recently decided to become a fully-backed stablecoin

LUSD is the decentralized stablecoin that sticks to a clean CDP model.

Source: tokeninsight.com, FRAX's USDC collateral exist in the form of Algorithmic Market Operations Controllers (AMOs).

Pure vs. Application Stablecoins

Categorizing stablecoins by their purpose rather than by issuer provides another perspective.

	Stablecoin is the primary product of the project	Stablecoin has native use cases	Example (centralized)	Example (decentralized)	Upcoming
Pure Stablecoin	Yes	No	USDT, USDC	DAI, FRAX, LUSD, MIM	NUSD, HOPE
Application Stablecoin	No	Yes	BUSD	sUSD	crvUSD, GHO, dpxUSD

Pure stablecoins issuers focus on the minting and burning of stablecoins themselves. They rely on **third parties** to create applications for stablecoins.

For example, Circle takes care of the creation and redemption of USDC, but Uniswap is responsible for designing and maintaining a DEX where users trade USDC.

Application stablecoins issuers develop crypto applications and complement their primary products by releasing a native stablecoin. Such stablecoins have specific application scenarios. Hence they are less composable and are not widely adopted by third parties.

For example, Binance's primary products are a cryptocurrency exchange and the Binance Smart Chain. They introduce BUSD as a stablecoin alternative in their ecosystem. As a result, BUSD has limited use on other exchanges/chains.

Source: tokeninsight.com

NUSD

New pure stablecoin mechanisms continue to emerge.

Reserve-backed and over-collateralized are the two battle-tested methods for creating stablecoins. Most new decentralized stablecoins still rely on the over-collateralized model with small innovations elsewhere, such as USK by Kujira and DINERO by Redacted Cartel. However, there are other ideas.

One interesting idea is NUSD, short for NakaDollar, which is short for the Satoshi Nakamoto Dollar, proposed by Arthur Hayes. It is essentially a delta-neutral position on BTC. Most importantly, NUSD does not require over-collateralization.

1 NUSD = $1 of Bitcoin + Short 1 Bitcoin/USD Inverse Perpetual Swap

	Bitcoin Price	$1 of Bitcoin	1 BTC Short Perp	1 NUSD
At Minting	$100	0.01 BTC	$0	0.01 * $100 + $0 = $1
Scenario 1: BTC ⬆️	$110	0.01 BTC	-$0.1 (loss)	0.01 * $110 - $0.1 = $1
Scenario 2: BTC ⬇️	$90	0.01 BTC	+$0.1 (profit)	0.01 * $90 + $0.1 = $1

*The fact is that, before Arthur Hayes, there is already a similar project in this field called UXD
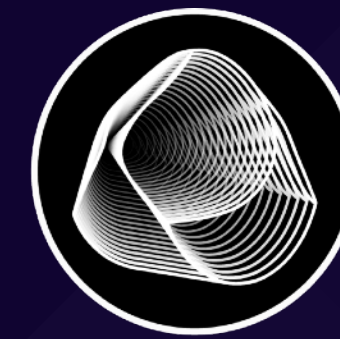
HOPE
A bold move in crypto stablecoins

HOPE is a stablecoin project that will be issued through crypto assets as reserves. Specifically, the launch of HOPE is divided into two phases.

- During the first phase, users can purchase $HOPE on HopeSwap at a starting price of $0.5 using BTC and ETH. As demand for HOPE increases and the price of reserve assets rises, the price of HOPE will gradually appreciate to $1.

- In the second phase, once the price of HOPE reaches $1, other assets will be accepted as reserves for exchanging HOPE.

If HOPE fails to reach its anchor price of $1 during this process, users who purchased HOPE in the first phase can exchange it back for BTC and ETH.

In addition to the stablecoin HOPE, the project also has a governance token called LT. Initially, LT can be obtained by staking HOPE. In addition to obtaining LT, staking HOPE can also generate other benefits in the future HOPE ecosystem, such as trading fees from HopeSwap.

It is worth noting that HOPE, as a stablecoin, heavily relies on its reserves, namely BTC and ETH, to reach its pegged price of $1.

Stake to get →

$HOPE, stablecoin
Can be purchased on HopeSwap
Relies on BTC & ETH price to go
up to reach $1 peg

$LT (Light Token)
HOPE Eco governance token

In other words, HOPE's success is contingent on the rise of the cryptocurrency market. If the prices of BTC and ETH do not show any improvement, it will be difficult for HOPE to reach its targeted price of $1.

The specific launch date of HOPE has not yet been determined, but it is expected to be in April. At that time, users can purchase $HOPE using BTC and ETH on HopeSwap at a starting price of $0.5.

The founder of the HOPE project is Flex Yang. Yang is also the founder of Babel, a cryptocurrency lending company, which he left in 2021.

According to Lianhe Zaobao, Babel encountered difficulties during the cryptocurrency market crash in 2022, and co-founder Wang Li's proprietary trading caused customers to lose $700 million.

Peg Stability

Centralized stablecoins maintain their peg better than decentralized stablecoins.

■ 1Y Peg Stability   ■ 1Y Low
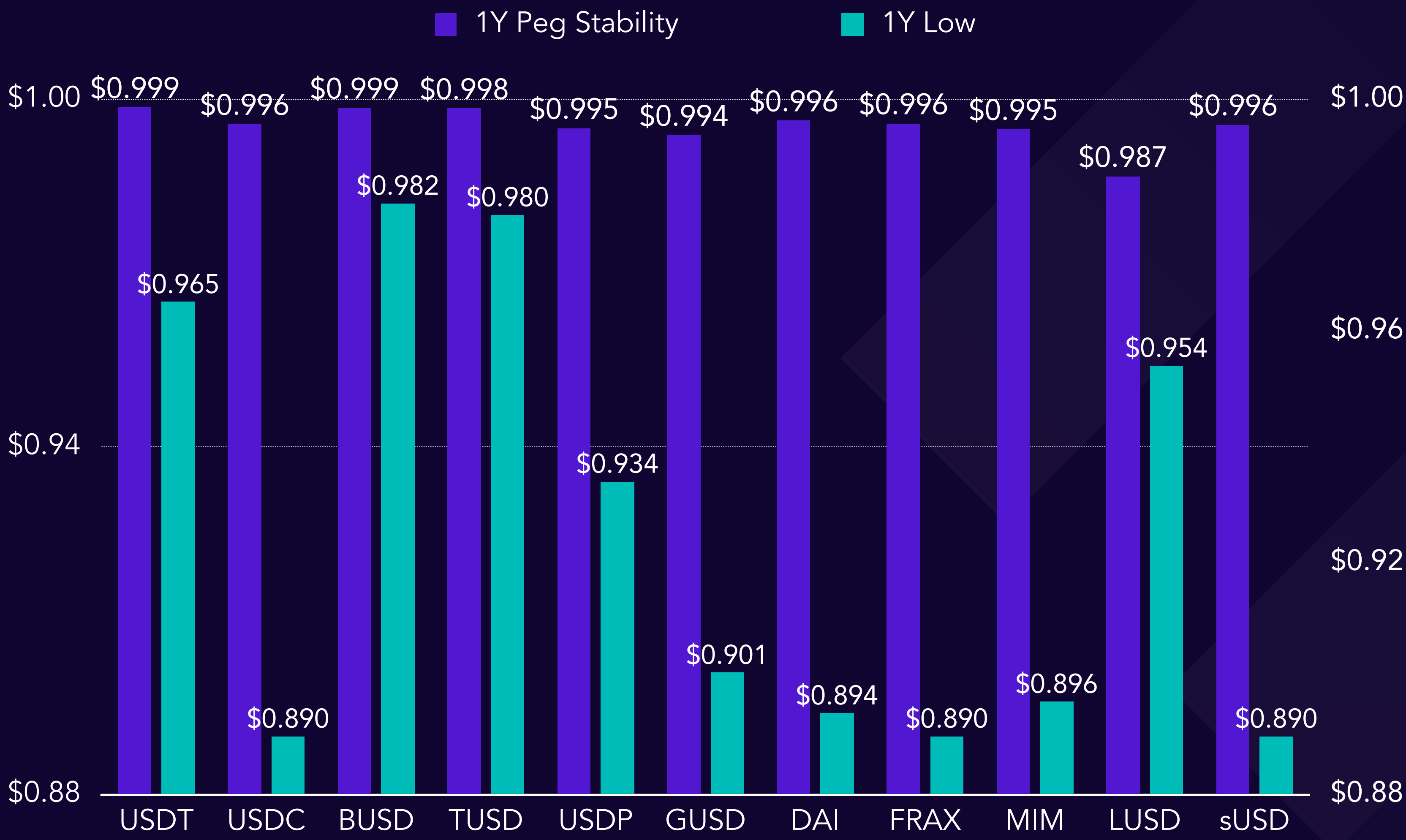
	1Y Peg	1Y Low
Centralized	**$0.997**	**$0.994**
Decentralized	$0.942	$0.905

Supply and demand imbalances in secondary markets affect the peg stability of stablecoins.

For the past year, centralized stablecoins better maintained the peg than their decentralized counterparts.

As a result, centralized stablecoins are better medium of exchange and store of value.

Source: tokeninsight.com, Peg Stability = $1 - price standard deviation from $1.

TokenInsight 14

Stablecoin Growth 2021-2022

USDC and BUSD growth significantly outperformed USDT and DAI.

■ 2021-2022 Market Cap Growth

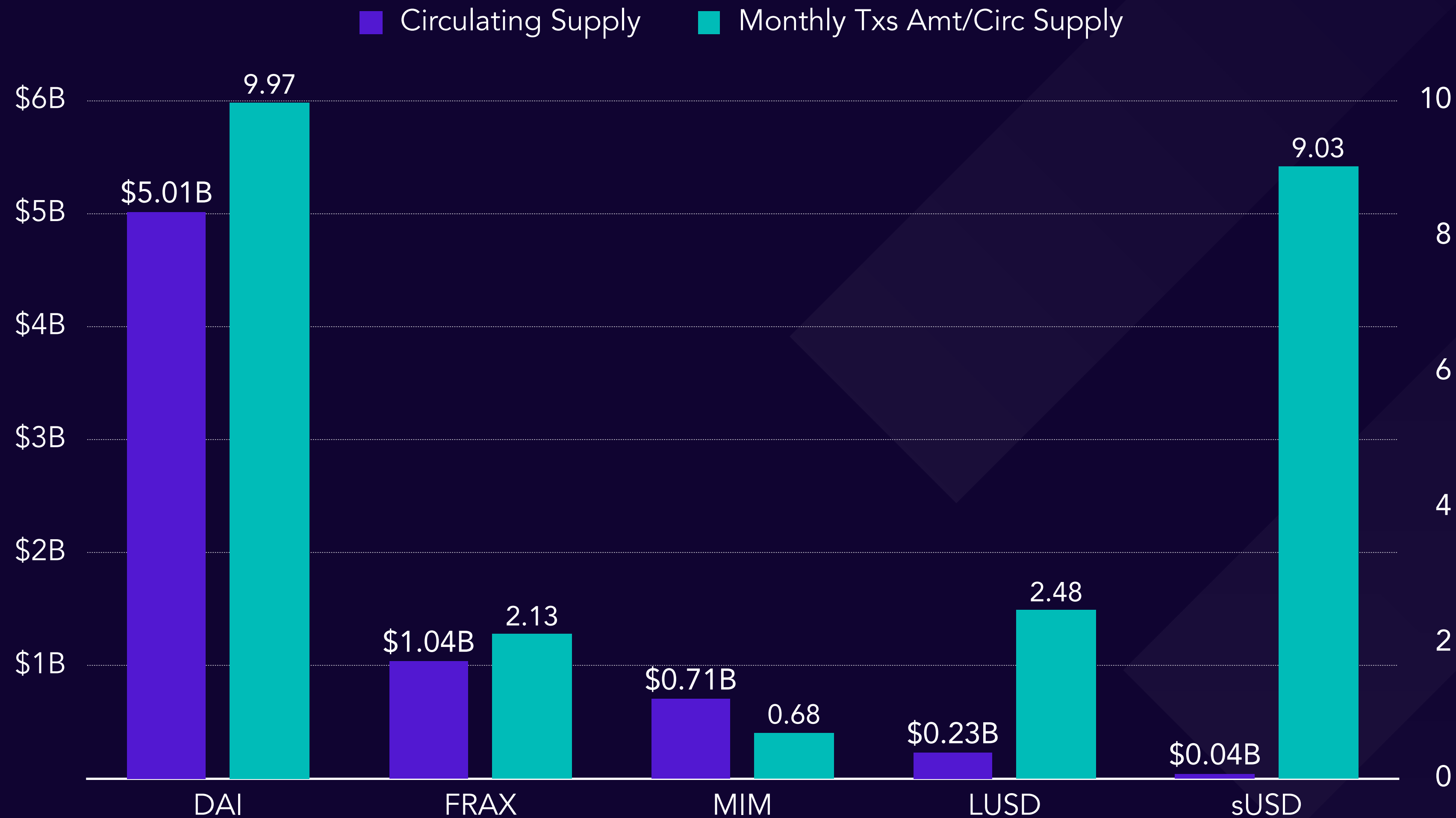| Stablecoin	Growth
USDT	2.17x
USDC	10.34x
BUSD	15.96x
DAI	3.33x

BUSD grew almost 16x between 2021 and 2022, and USDC grew 10x. On the other hand, USDT and DAI only increased 2x and 3x, respectively.

Regulatory compliance was probably the biggest reason. But BUSD's growth also benefitted heavily from Binance creating use cases for it, mostly by listing BUSD trading pairs on the world's #1 exchange.

This shows that creating a stablecoin is not good enough. The issuer must also create use cases to ensure adoption and organic growth.

Source: tokeninsight.com

TokenInsight 15

Decentralized Stablecoins Transaction Amounts

DAI and sUSD are more capital-efficient than others.

Legend: ■ Circulating Supply ■ Monthly Txs Amt/Circ Supply

DAI: $5.01B, 9.97
FRAX: $1.04B, 2.13
MIM: $0.71B, 0.68
LUSD: $0.23B, 2.48
sUSD: $0.04B, 9.03

Decentralized Stablecoins such as FRAX, MIM, and LUSD lack use cases. As a result, their monthly transaction amount/ circulating supply is much lower than DAI and sUSD. The created stablecoins are not utilized enough in transactions.

DAI and sUSD growth will outpace their counterparts.

Application Stablecoins

Who's next after BUSD?

TVL Market Cap
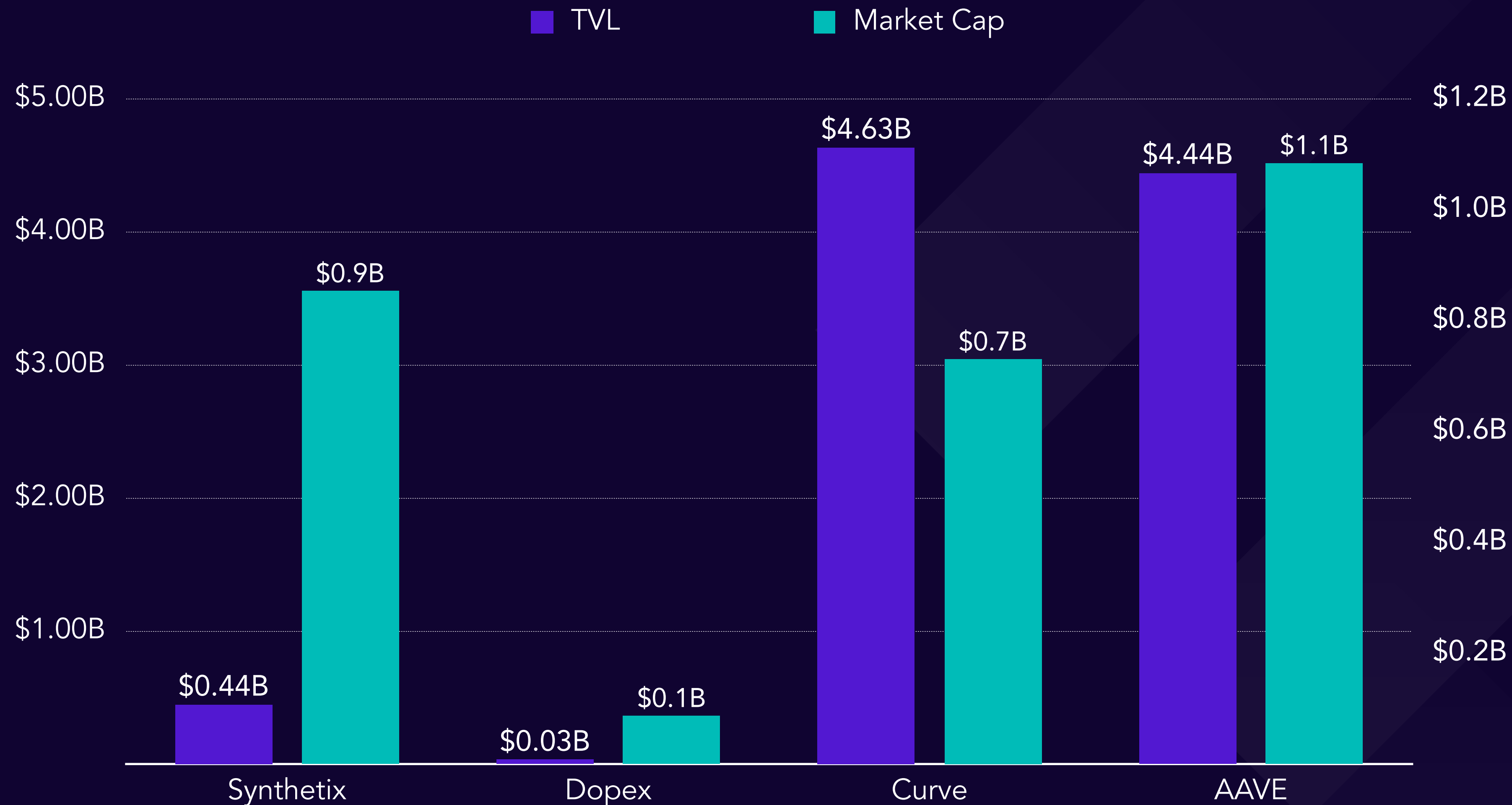
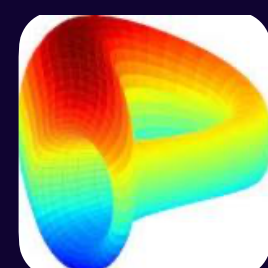sUSD by Synthetix has existed for a long time and once captured significant market share.

Dopex also teased about releasing dpxUSD.

But crvUSD (Curve) and GHO (AAVE) are the two giants that will change the landscape.

Source: DefiLlama, TokenInsight

TokenInsight 17

crvUSD & GHO

Two upcoming application stablecoins that will change the landscape.

|	**Curve**	**Aave**
Protocol	Curve is the largest decentralized exchange for stablecoin trading.	Aave is the largest decentralized liquidity market where users can participate as lenders or borrowers.
Stablecoin	**crvUSD**	**GHO**
Base Model	CDP	CDP
Key Innovation	Lending-Liquidating AMM Algorithm (LLAMMA) which enables continuous liquidation instead of traditional one-time liquidation	Collateral can be multiple assets and can earn interest from Aave.
Significance	The existing product and ecosystem provide ready-to-use application scenarios.	

ETH-Alt vs. Stable-Alt Pairs

ETH-Alt pairs generate significantly more volume on Uniswap across chains.

■ ETH-Alt   ■ Stable-Alt
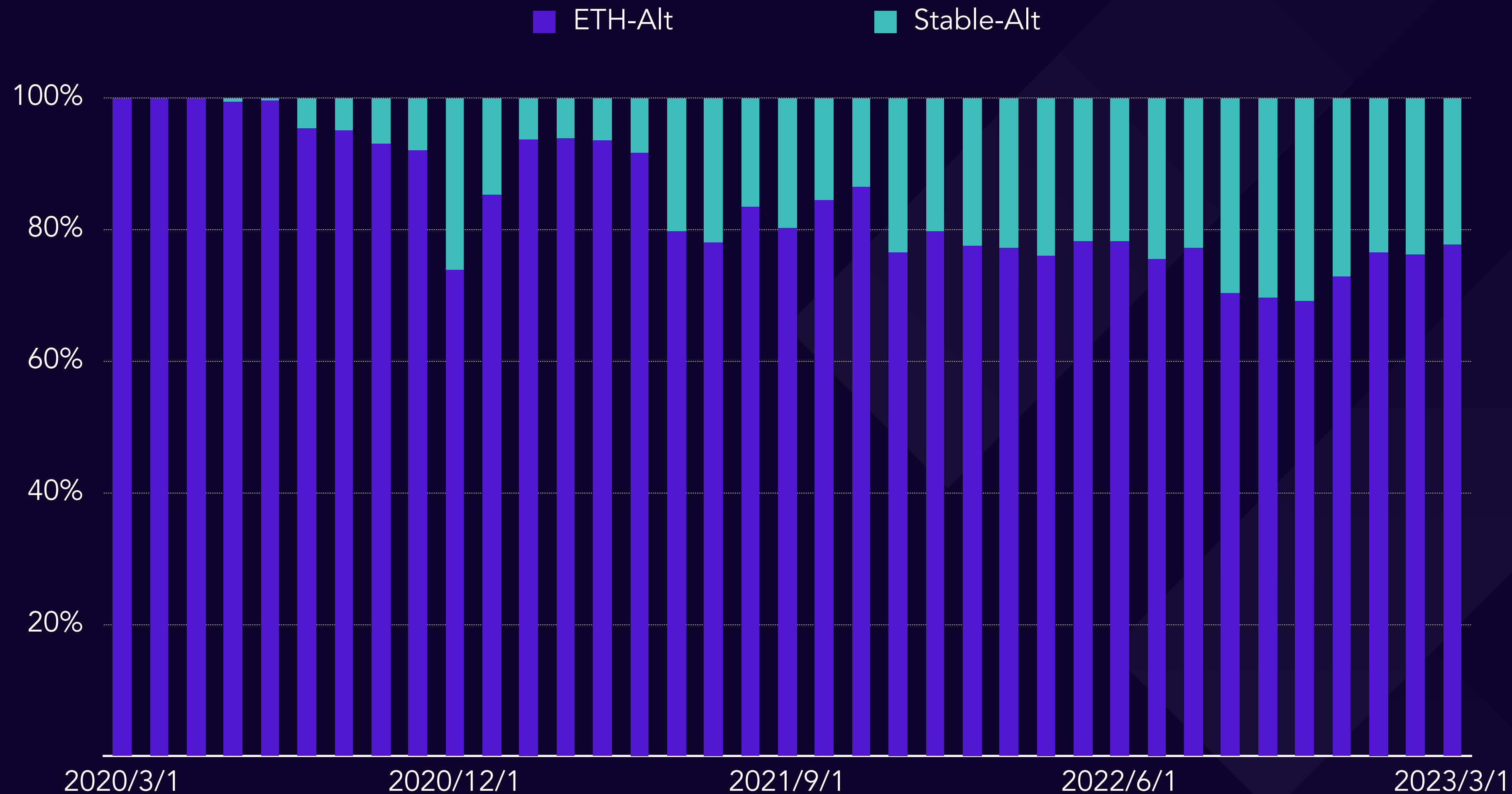
~75% of traders use Ether when buying and selling altcoins on Uniswap.

Ether is widely used as a currency in EVM chains. Alt coins are marked against ETH rather than USD.

Stablecoins on EVM chains not only compete with each other as the medium of exchange and store of value, but they also face competition from Ether, the native currency.

Ether's natural advantage is that gas fees must be paid in ETH.

100%
80%
60%
40%
20%

2020/3/1   2020/12/1   2021/9/1   2022/6/1   2023/3/1

Source: TokenInsight (data from Uniswap on Ethereum, BSC, Avalanche, Polygon, Arbitrum, and Optimism)

Stablecoin Summary

Who is the KING?

	Peg Stability	Market Cap	Scalability	Compliance	Use Case	Overall
USDT	★★★★★	★★★★★	★★★★☆	★★★☆☆	★★★★☆	★★★★☆
USDC	★★★★☆	★★★★☆	★★★★☆	★★★★★	★★★★★	★★★★☆
DAI	★★★☆☆	★★☆☆☆	★★★☆☆	★★★★☆	★★☆☆☆	★★★☆☆
FRAX	★★★☆☆	★★☆☆☆	★★☆☆☆	★★★★☆	★☆☆☆☆	★★☆☆☆
LUSD	★★★☆☆	★☆☆☆☆	★★★☆☆	★★★★☆	☆☆☆☆☆	★★☆☆☆
ETH	★★★★★	★★★★★	★★★★★	★★★★☆	★★★★★	★★★★★★★
	1 ETH = 1 ETH Forever	ETH has the highest MC	All other stablecoins are mainly built on ETH	You never know what SEC will do to ETH	It is everywhere	So obvious!

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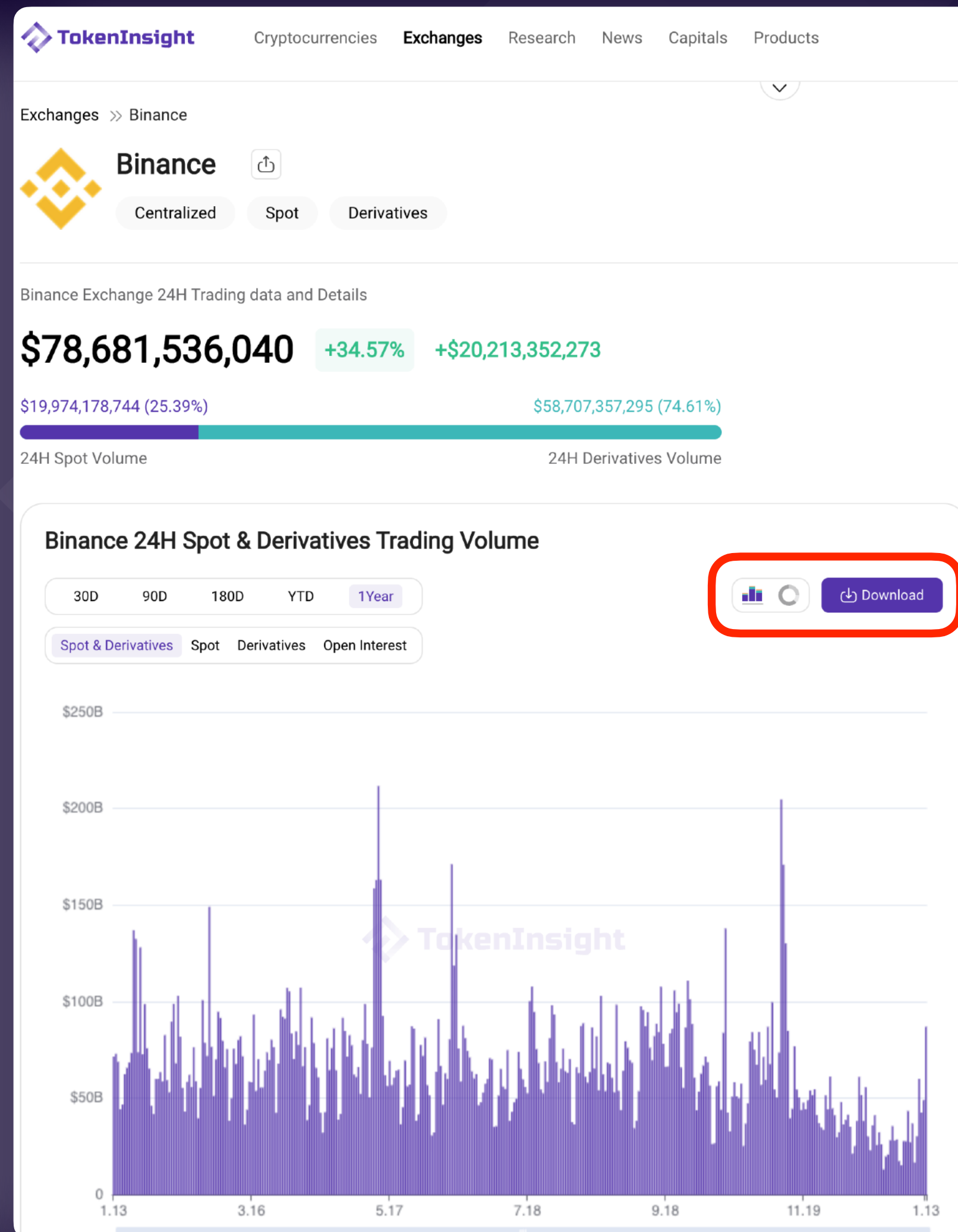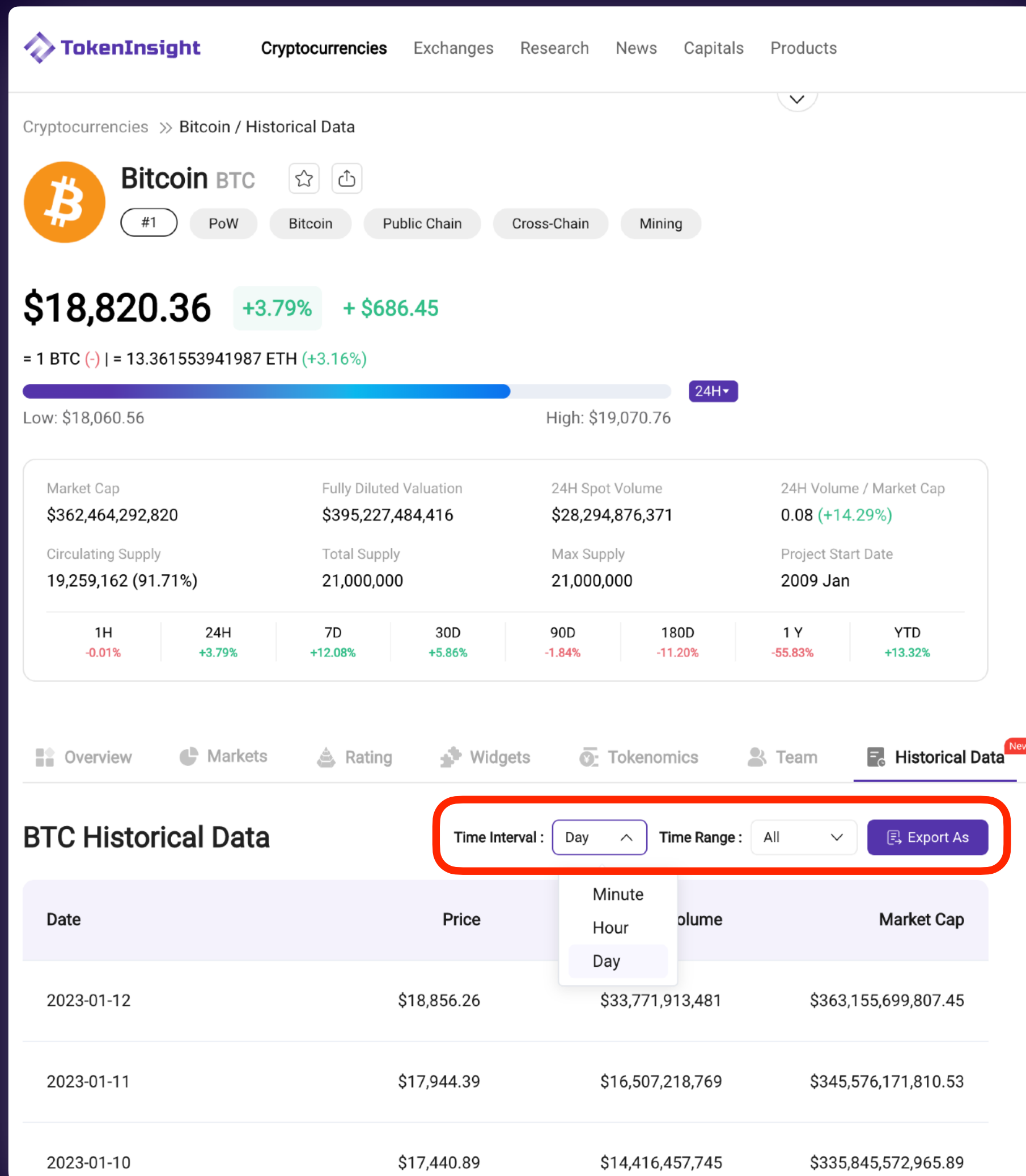
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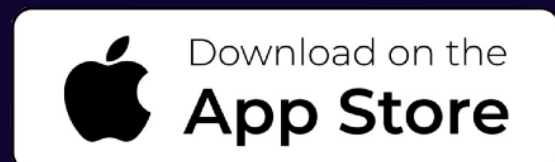
research@tokeninsight.com
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