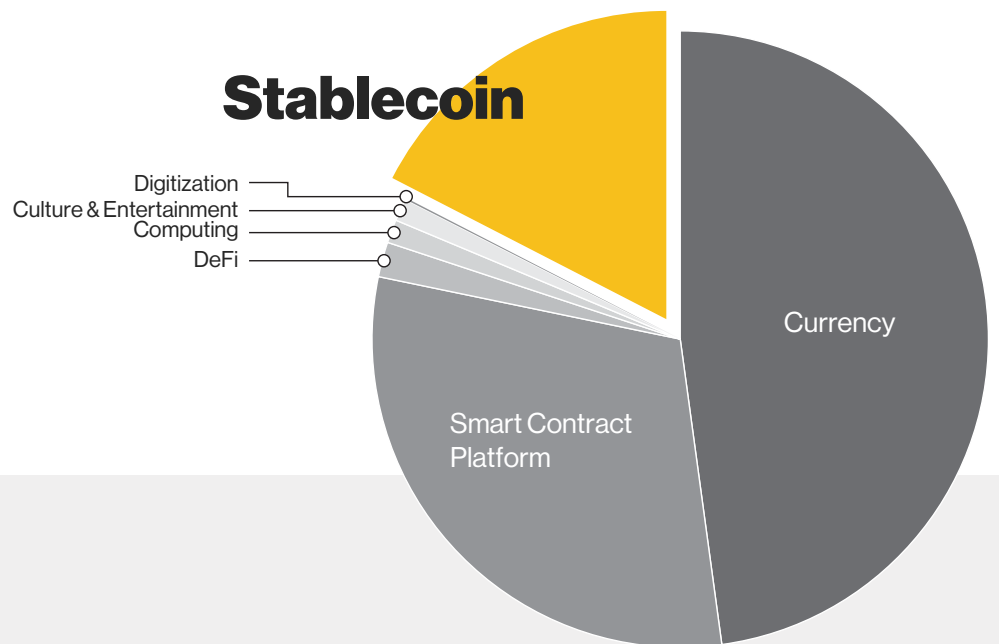


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Enabling Transactions to Stay On-Chain

A Primer on the Stablecoin Sector



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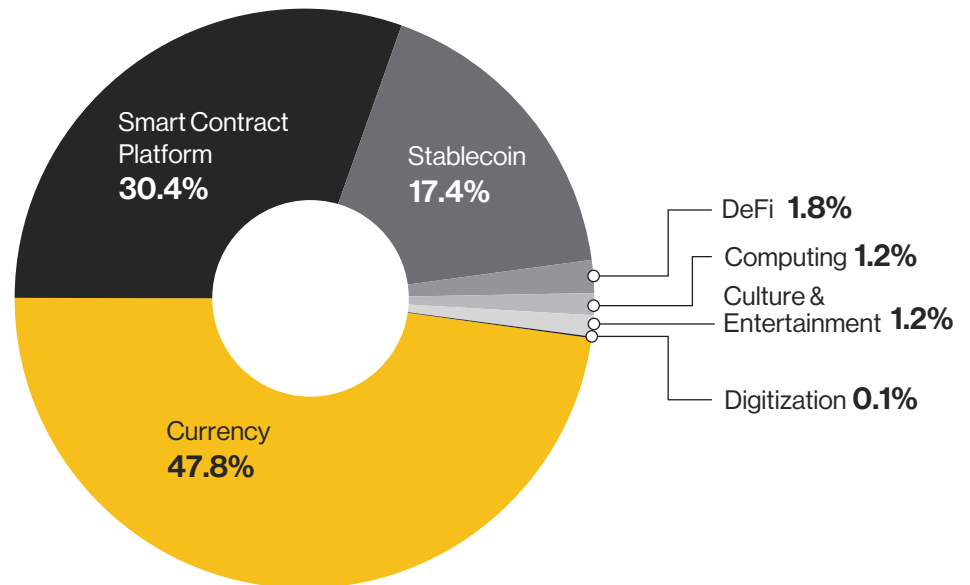
Introduction

In December 2021, CoinDesk Indices launched its [Digital Asset Classification Standard \(DACS\)](#) to set the standard for defining the industries of digital assets. Every one of the top 500 digital assets by market capitalization is assigned to an industry, defined by DACS, then at least one industry is assigned to an industry group, and finally, at least one industry group is assigned to a sector.

Currently, there are seven sectors defined by DACS including Currency, Computing, DeFi (Decentralized Finance), Digitization, Entertainment, Smart Contract Platform, and Stablecoin. The Stablecoin sector is the third largest sector in DACS with 28 assets representing 17.4% of the digital asset market worth approximately \$139 billion in market capitalization as of 12/31/2022.

Exhibit 1

CoinDesk Indices DACS



Source: CoinDesk Indices, 1/13/2023. Market capitalization data is based on 12/31/2022

Defining the Stablecoin Sector

The CoinDesk DACS Stablecoin sector contains protocols that aim to mimic traditional fiat currencies on chain. In doing so, they allow for market participants to pivot their existing crypto holdings into lower-volatility assets without the need to settle into USD or other true fiats via a centralized exchange.

The [DACS Glossary](#) defines the Stablecoin sector as follows:

Stablecoins are a set of protocols whose native token is pegged to a fiat currency, most commonly the U.S. dollar. Stablecoin issuers may use one of several methods to maintain their peg such as 1:1 dollar-backed reserves, multi-asset treasuries, collateralized lending, or mint-and-burn mechanisms, etc. Stablecoins allow for frictionless transfer and exchange of dollar-pegged assets on the blockchain.

Industry Groups Inside the Stablecoin Sector

The industry groups in the Stablecoin sector depend on how the asset is backed. Different methods of backing roughly coincide with the implicit risk and volatility parameters that the asset may carry, although none of these categories can be considered totally risk-free. The industry groups in the Stablecoin sector include Fiat-Backed, Crypto-Backed, and Algorithmic. The CoinDesk DACS Glossary definitions for each of the above industries is as follows:

Fiat-Backed refers to stablecoins whose collateral typically consists of fiat currencies (e.g., U.S. dollar) or their equivalents (e.g., US Treasury Bills). The entities that issue stablecoins are often centralized organizations that operate primarily off-chain in order to manage their reserves. The reserve's primary function is to maintain the peg between the token and the target fiat currency, such as the U.S. dollar, euro, or other currencies.

Crypto-Backed refers to stablecoins in which the collateral is made up of other cryptocurrencies. This can include other types of stablecoins, bitcoin, ether, and

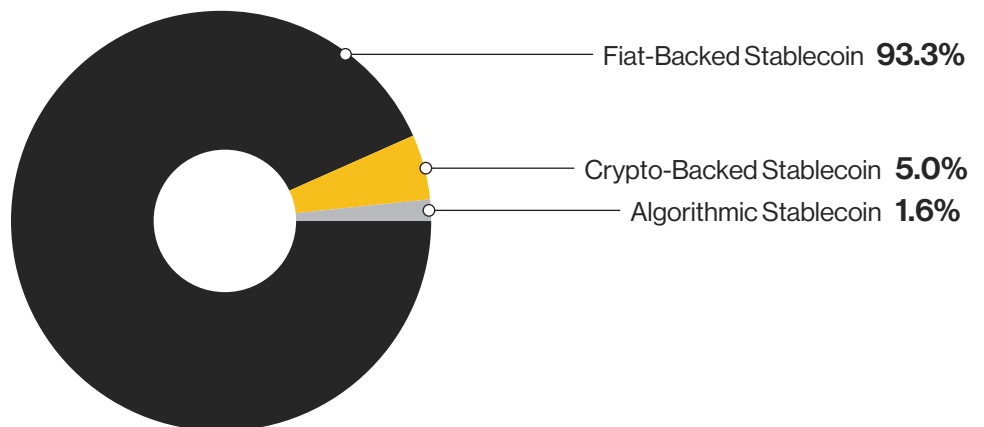
non-fungible tokens (NFTs). Crypto-backed stablecoins tend to operate on-chain, where their reserves can be transparently verified by anyone, and are typically over-collateralized in order to accommodate the greater volatility of their reserves..

Algorithmic refers to stablecoins in which there is a dynamic change in supply to maintain the peg, either through a rebasing or seigniorage mechanism. Rebasing is a mint-and-burn mechanism that distributes the change in supply proportionally across all token holders. Seigniorage is a mint-and-burn mechanism where there is an alternative token used to maintain the peg. If the price is above or below its peg, tokens will be minted (burned). Stablecoins that are partially algorithmic are also classified as algorithmic stablecoins.

Within the Stablecoin sector, Fiat-Backed is the largest industry group, representing 93.3%, of the sector market cap. Crypto-Backed is the second largest, representing 5.0%, and Algorithmic is the smallest, representing 1.6%.

Exhibit 2

Stablecoin Sector breakdown by Industry Group



Source: CoinDesk Indices, 1/13/2023. Market capitalization data is based on 12/31/2022

Exhibit 3

Industry Groups under Stablecoin Sector

Industry Group	Market Cap (\$)	No. of Assets	% of Market Cap
Fiat-Backed Stablecoin	129,998,873,423	12	93.3%
Crypto-Backed Stablecoin	6,972,959,750	11	5.0%
Algorithmic Stablecoin	2,287,893,334	5	1.6%

Source: CoinDesk Indices, 1/13/2023. Market capitalization data is based on 12/31/2022

Industries Inside the Stablecoin Sector

Within the Stablecoin sector, each industry group currently consists of a single industry to which a digital asset is assigned. Therefore, the industry composition of the sector is the same as the industry group composition. However, as the sector grows, it is possible for additional industries to emerge.

Major Assets Inside the Stablecoin Sector

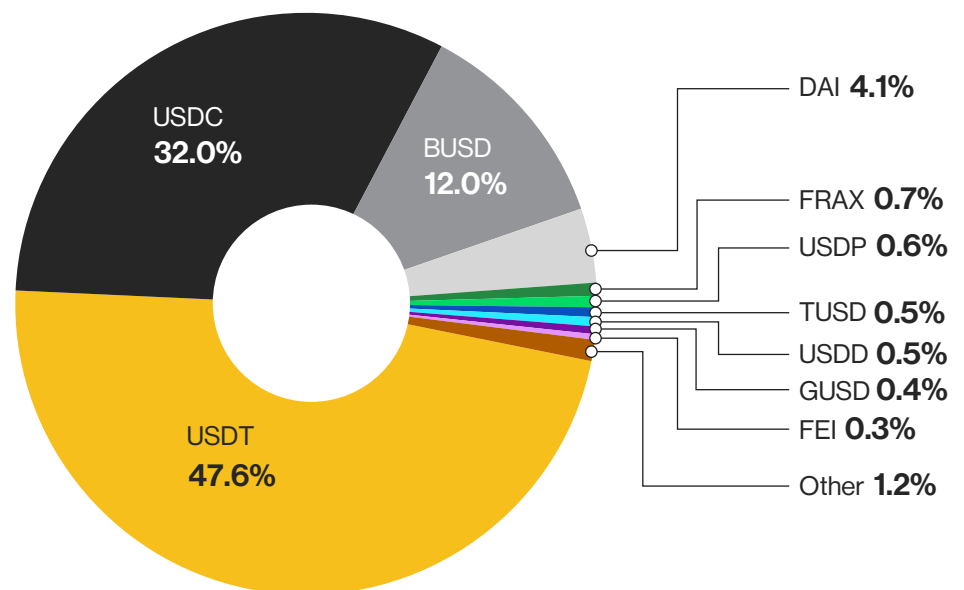
There are 28 digital assets inside the Stablecoin sector, with the top asset, USDT¹, representing 47.6% of the sector size, and the top 10 assets representing 98.8% of the total market cap. There are 12 assets in the Fiat-Backed Industry Group, totaling almost \$130 billion in market cap, with tether (USDT)¹ being the

largest. In the Crypto-Backed industry group, there are 11 assets totaling around \$7.0 billion in market cap, with dai (DAI)² being the largest. There are currently 5 assets in the Algorithmic industry group, totaling \$2.3 billion in market cap, with frax (FRAX)³ being the largest.

Exhibit 4

Top 10 Assets Inside the DACS Stablecoin Sector

CoinDesk Indices DACS Stablecoin Sector Top 10 Assets
January 2023



Source: CoinDesk Indices, 1/13/2023. Market capitalization data is based on 12/31/2022

Conclusion

The Stablecoin sector includes assets typically pegged to the U.S. dollar, and in some cases other fiat currencies. These assets use different mechanisms to maintain their peg, varying from time tested methods of 1:1 real fiat backing, to crypto-collateralized backing, to more complex algorithmic methods. In all cases, the primary purpose of these stablecoins is to serve as an “on-chain off-ramp” for digital asset holdings, providing a source

of risk-off stability in an otherwise volatile market. It should be noted, however, that stablecoins are not always “stable,” and the risk of de-pegging is ever present and can vary wildly from one stablecoin to the next. Nearly all stablecoins have experienced de-pegging to varying degrees, and in cases like ust, some have blown up almost completely and now trade for pennies on the dollar.

Relevant Indices

CoinDesk Market Plus Stablecoin Index ([CMIP](#))

CoinDesk Stablecoin Index ([CSC](#))

CoinDesk USD Stablecoin Equal Weight Index ([USCE](#))

References

- 1** Tether (USDT) is a Fiat-Backed Stablecoin issued by the centralized entity Tether Operations Limited. Being a Fiat-Backed Stablecoin, tether is expected to hold at minimum a 1:1 ratio of U.S. dollar or their equivalents in reserves to back all existing USDT. Tether was one of the first stablecoins to be deployed, and is currently the highest ranked stablecoin by market capitalization, with over \$65 billion existing across various smart contract platforms and centralized exchanges. Tether is issued by corporations and other entities that give cash or cash equivalents in exchange for USDT. Only entities that interact directly with Tether Operations Limited may redeem USDT for dollars currently.
- 2** Dai (DAI) is a Crypto-Backed Stablecoin issued by the decentralized entity MakerDAO. Widely considered to be one of the first decentralized stablecoins, DAI maintains its peg to the U.S. dollar by allowing users to mint DAI and take out loans with CDPs (Collateralized Debt Positions). These CDPs are overcollateralized, meaning that MakerDAO keeps more value in their reserves than the total value of DAI that exists. This helps MakerDAO maintain DAI’s peg to the U.S. dollar. Typically, users will deposit approved collateral tokens like wrapped bitcoin, ether, or other stablecoins such as usdc. Once the DAI has been repaid, users may reclaim the CDP.
- 3** Frax (FRAX) is a Algorithmic Stablecoin issued by the decentralized entity Frax Finance. Unlike other Algorithmic stablecoins, FRAX is partially algorithmic, meaning that its peg is maintained by a mix of real collateral, typically anywhere from 80% - 95% of total market cap, while whatever is left (the algorithmic portion) is maintained through the protocols governance token FXS. In order to mint FRAX, users must post \$1 worth of collateral (i.e., if FRAX collateralization rate is at 95% then a user will post \$.95 of collateral and burn \$.05 worth of FXS. Vice versa, if a user wants to redeem FRAX at a 95% collateralization ratio, then they will receive \$.95 worth of collateral and will mint \$.05 worth of FXS. Essentially FRAX uses a mix of real capital and a seigniorage mechanism to maintain its peg to the U.S. dollar.



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