










Stablecoin Types




Stablecoin Types


Fiat-referenced, Crypto-backed (Over-collateralised), Crypto-backed (Risk-hedged), Algorithmic

	 Fiat-referenced	 Crypto-backed (Over-collateralised)	 Crypto-backed (Risk-hedged)	 Algorithmic
Reserve Composition				
Cash / Fiat Equivalent ¹	✓	-	-	-
Cryptoassets ²	-	✓	✓	-
Reserve Maintenance				
Over-collateralisation	-	✓	-	✗
Derivative Hedging	✗	✗	✓	✗
Pegging Mechanism				
Market Arbitrage	✓	✓	✓	✗
Algorithm	✗	✗	✗	✓
Issuer Intervention	-	-	-	-

 tether
  USD Coin

 DAI
  USDD
  Frax

 USDe
  USDB
  Frax

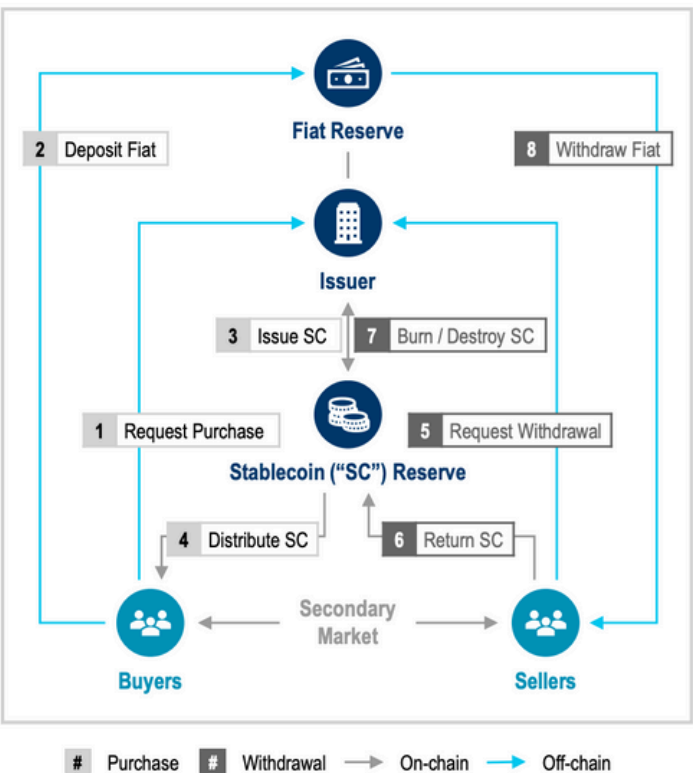
 Terra

✓ Applicable
- Dependent
✗ Not Applicable

Fiat-referenced stablecoins

Mechanism

Illustrative

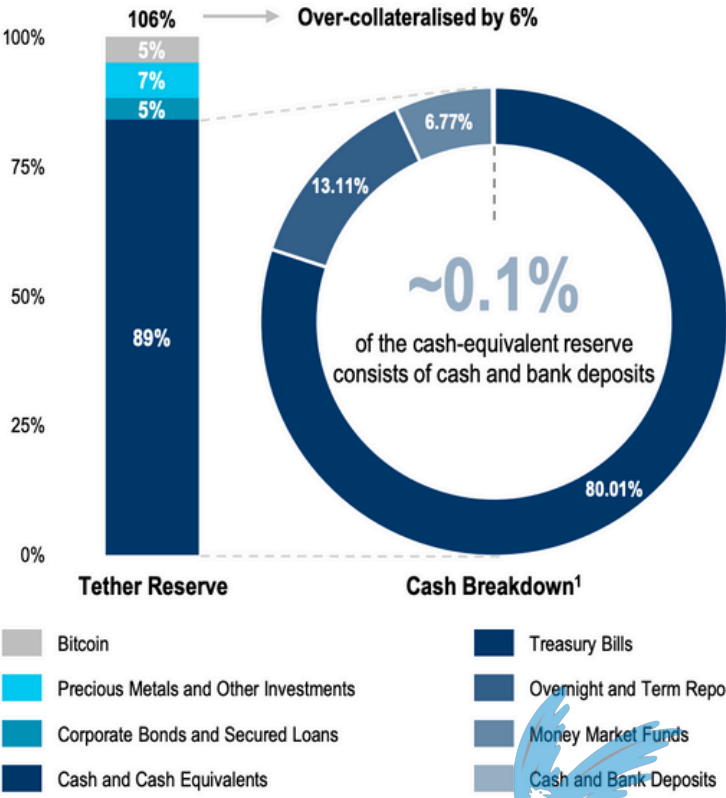


¹Including cash equivalents

Source: Medium, Coinbase, CoinMarketCap, Tether, Quinlan & Associates analysis

Tether USDT Reserve

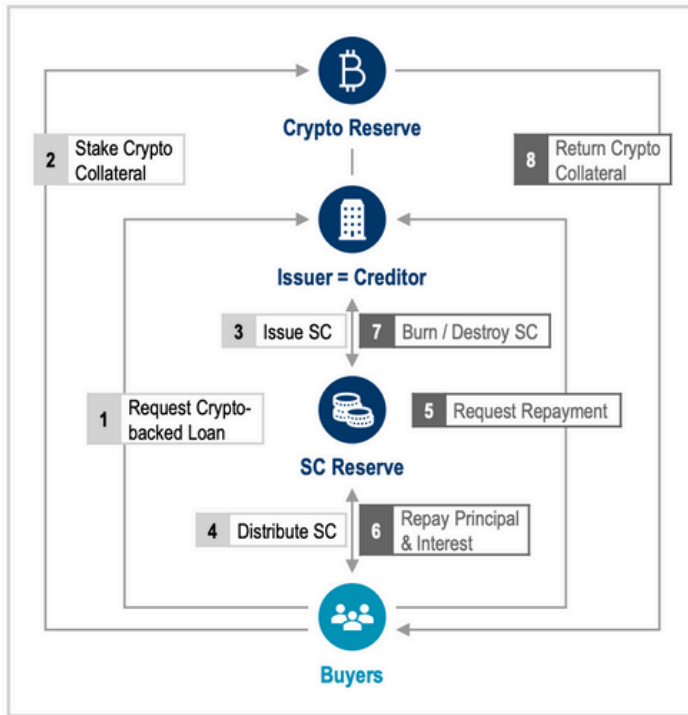
% of Circulating Stablecoin, March 31, 2024



Crypto-backed stablecoins (over-collateralised)

Mechanism

Illustrative



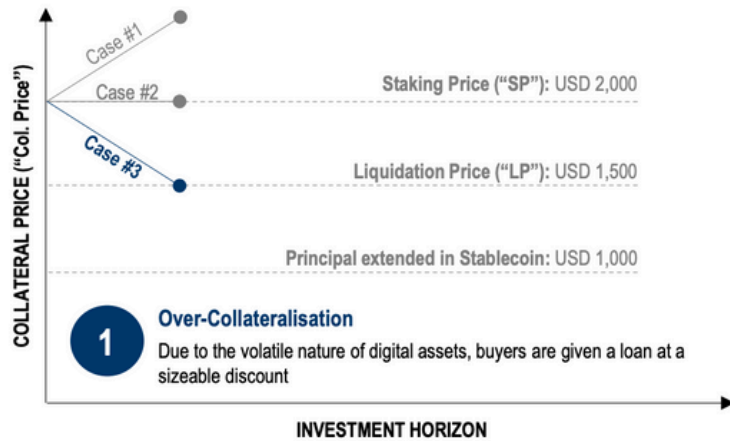
Credit Extension # Repayment → On-chain

¹Figures in parenthesis indicate losses

Source: MakerDAO, Quinlan & Associates analysis

Mechanism

Mechanism



1 Over-Collateralisation

Due to the volatile nature of digital assets, buyers are given a loan at a sizeable discount

2 Price Fluctuation

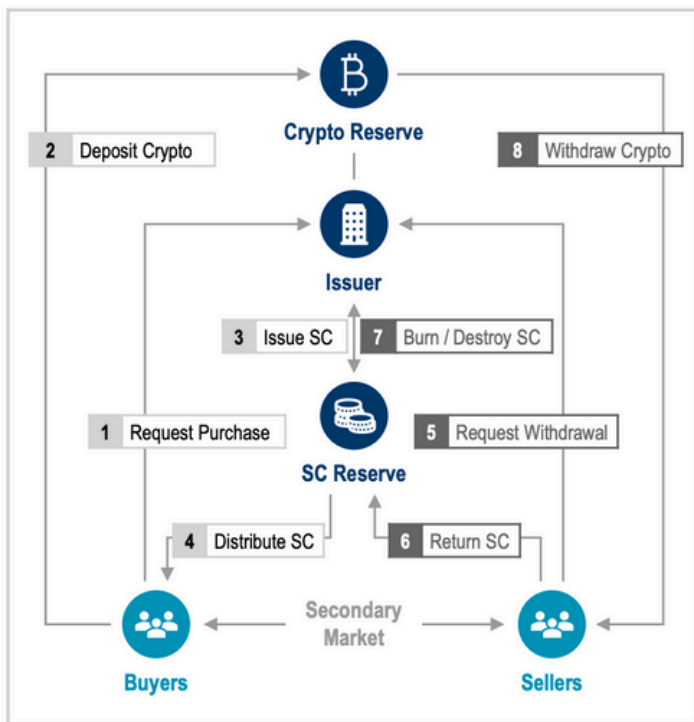
Depending on the price fluctuation of the collateral, the issuer may liquidate the collateral assets to maintain reserve value

Case	Col. Price	Description	Issuer Profit	Buyer Profit & Loss ¹
1	USD 2,100	Col. Price > SP	Interest	(Interest)
2	USD 2,000	LP ≤ Col. Price ≤ SP	Interest	(Interest)
3	USD 1,500	Col. Price < LP	USD 500 + Interest	(USD 500 + Interest)

Crypto-backed stablecoins (risk-hedged)

Mechanism

Illustrative



Credit Extension # Repayment → On-chain

¹Figures in parenthesis indicate losses

Source: Ethena Labs, Quinlan & Associates analysis

Mechanism

Mechanism



2 Delta Hedging

Ethena utilises financial instruments, such as shorting the future derivatives of its reserve, to peg the value of its reserves to fiat

3 Redemption

As USDe is one-to-one pegged to USD, buyers may receive a different amount of collateral depending on ETH price fluctuations

Case	Col. Price	Description	Redemption	Collateral Returned	Buyer P&L ¹
1	USD 2,500	Col. Price > SP	2000 USDe	0.8 ETH	(0.2 ETH)
2	USD 2,000	Col. Price = SP	2000 USDe	1 ETH	0 ETH
3	USD 1,500	Col. Price < SP	2000 USDe	1.33 ETH	0.33 ETH

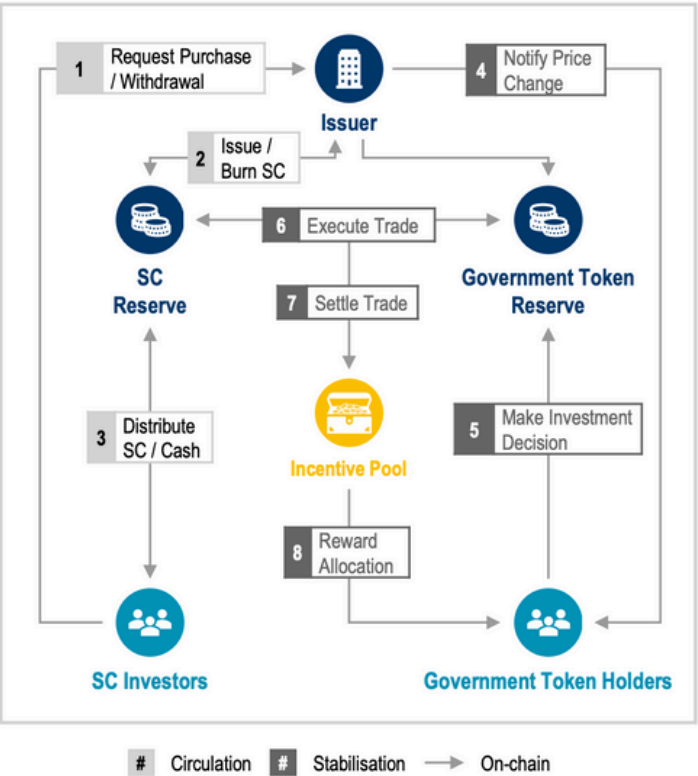


ABN ASIA

Algorithmic stablecoins

Mechanism

Illustrative



Source: Cointelegraph, Quinlan & Associates analysis

TerraUSD's De-Peg From USD

USD, March – May 2022

