

21 Keys to Stablecoin 101

Master the essentials of Stablecoin 101.

USD



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Algorithmic Stablecoin

A digital asset maintaining value through supply adjustments without direct collateral.

Algorithmic stablecoins, like Ampleforth (AMPL) or Frax (FRAX), maintain their peg (e.g., to USD) through programmed mechanisms that dynamically adjust token supply based on market demand, rather than relying on collateral like fiat or commodities. For example, Ethena's USDe uses crypto assets and automated hedging to stabilize value. While innovative, these stablecoins face risks, as seen in the 2022 TerraUSD (UST) collapse, due to challenges in maintaining long-term stability during market volatility.

CBDC

A central bank-issued digital currency designed to function as legal tender.

A Central Bank Digital Currency (CBDC) is a digital asset issued and backed by a central bank, functioning as a digital form of a country's fiat currency (e.g., digital USD or EUR). Unlike decentralized stablecoins, CBDCs are fully controlled by central authorities, ensuring stability and regulatory oversight. They aim to enhance payment efficiency, financial inclusion, and monetary policy implementation. Examples include China's e-CNY, with over 180 million wallets by mid-2024, and pilot projects in countries like the Bahamas and Nigeria.



Circle

The company behind USDC, focused on building transparent and compliant digital asset solutions.

Circle, a U.S.-based fintech company, issues USDC, a leading USD-pegged stablecoin. Founded in 2013, Circle emphasizes regulatory compliance and transparency, publishing weekly attestations to verify USDC's reserves, which consist of cash and U.S. Treasuries. Circle's infrastructure supports payments, DeFi, and cross-border transactions, positioning it as a key player in bridging traditional finance and digital assets. The company collaborates with regulators and law enforcement to ensure compliance with anti-money laundering (AML) and financial stability standards, enhancing trust in USDC's ecosystem.

Commodity-pegged Stablecoin

A digital asset tied to the value of physical commodities like gold or silver.

Commodity-pegged stablecoins are digital assets backed by tangible assets like gold or silver, offering stability and exposure to commodity markets without physical ownership. Examples include PAX Gold (PAXG) and Tether Gold (XAUT), where each token represents a specific quantity of gold (e.g., one troy ounce) stored in secure vaults. These stablecoins appeal to investors seeking a hedge against inflation or currency volatility, combining blockchain's transparency with the intrinsic value of commodities, and are used in trading and wealth preservation.

Cross-border Payments

Payments using digital assets to facilitate fast, low-cost international transactions.

Cross-border payments involve using digital assets, particularly stablecoins like USDT and USDC, to transfer value across international borders, bypassing traditional banking systems. Stablecoins enable faster and cheaper transactions compared to legacy systems, which often incur high fees and delays. Widely used for remittances and trade finance, cross-border payments with stablecoins are especially valuable in regions with limited banking infrastructure, offering businesses and individuals a transparent and efficient solution for global commerce.

Crypto-backed Stablecoin

A digital asset backed by other digital assets, often overcollateralized to ensure stability.

Crypto-backed stablecoins, like Dai (DAI) issued by MakerDAO, are digital assets pegged to a fiat currency (e.g., USD) but backed by other digital assets, such as ETH, rather than fiat reserves. To counter the volatility of underlying assets, these stablecoins use overcollateralization, where the value of collateral exceeds the stablecoin's pegged value. Managed by smart contracts, they offer decentralized stability, making them popular in DeFi for lending, borrowing, and liquidity provision, though they carry risks from collateral price fluctuations.

Cryptorails

A term referring to blockchain infrastructure enabling stablecoin transactions and financial applications.

Cryptorails is a conceptual term describing the blockchain-based infrastructure that supports the movement and utility of digital assets like stablecoins. It encompasses networks like Ethereum and Tron, which host stablecoins such as USDT and USDC, enabling fast, transparent, and cost-effective transactions for payments, DeFi, and remittances. Cryptorails facilitate interoperability between traditional finance and blockchain ecosystems, providing the backbone for global adoption of stablecoins in use cases like cross-border payments and liquidity management. The term highlights the technological rails powering the digital asset economy.

DAI/USDS

Stablecoins issued by MakerDAO/Sky, pegged to USD, backed by crypto or real-world assets.

DAI and USDS are USD-pegged stablecoins issued by MakerDAO (rebranded as Sky for USDS). DAI, a crypto-backed stablecoin, is created by overcollateralizing assets like ETH in MakerDAO's smart contracts, ensuring stability through decentralized governance. USDS, an evolution of DAI, may incorporate real-world assets (RWAs) for added stability and regulatory alignment. Both are widely used in DeFi for lending, borrowing, and liquidity provision, offering decentralized alternatives to centralized stablecoins like USDT and USDC.

e-CNY

China's digital yuan, a CBDC issued by the People's Bank of China.

The e-CNY, or digital yuan, is a Central Bank Digital Currency (CBDC) issued by the People's Bank of China (PBOC), launched in pilot phases since 2020. Fully backed by the PBOC, it functions as legal tender in digital form, used for retail payments, cross-border transactions, and government services. By mid-2024, e-CNY had over 180 million personal wallets and facilitated billions in transactions, aiming to enhance financial inclusion and reduce reliance on private digital payment systems like Alipay.

Ethena USDe

A synthetic digital dollar stable asset on Ethereum, backed by hedged collateral to maintain a \$1 peg while generating yield for holders.

Ethena USDe is a crypto-native synthetic stable asset issued by the Ethena protocol on Ethereum, designed to provide a scalable, censorship-resistant alternative to traditional fiat-backed stablecoins like USDT or USDC. Launched in February 2024, USDe maintains its \$1 peg through a delta-neutral hedging strategy: it is backed by staked Ethereum (stETH), Bitcoin (BTC), and other digital assets collateralized at over 150% ratios, paired with short perpetual futures positions on centralized and decentralized exchanges to offset price volatility. This mechanism allows USDe to generate yield from staking rewards and funding rates, with an average APY of around 7.54% as of September 2025, distributed without reliance on banking infrastructure. Users can mint USDe by depositing approved collateral via the Ethena app or integrated DEXs, and redeem it for underlying assets at any time.

The protocol's staked variant, sUSDe, enables holders to earn the full yield on USDe reserves, which include over \$500 million in cumulative interest revenue generated since inception. As of September 21, 2025, USDe has a circulating supply exceeding \$13 billion, with a market cap of approximately \$13 billion, making it the third-largest USD-pegged digital asset behind USDT (\$164 billion) and USDC (\$63 billion). Ethena's total value locked (TVL) stands at \$14.209 billion, up from \$10 billion in August, driven by institutional integrations like custody with Anchorage Digital and trading support on Binance, which listed USDe against USDC and USDT on September 9, 2025. Recent backing from YZi Labs

(formerly Binance Labs) has accelerated adoption, with over \$30 million in rewards distributed in the past 30 days.

Despite its growth, USDe carries risks including basis risk from funding rate volatility (potentially leading to depegging during prolonged negative rates), smart contract vulnerabilities, and regulatory scrutiny—such as Germany's BaFin ordering Ethena GmbH to cease operations in April 2025 over MiCA compliance. Ethena mitigates these through third-party attestations, diversified collateral (now including BTC and major stablecoins), and a 2025 roadmap featuring iUSDe for TradFi with 20% APY targets and \$10 billion inflow goals via partnerships like FalconX.

Fiat-pegged Stablecoin

A digital asset tied 1:1 to a fiat currency, like USD or EUR, for price stability.

Fiat-pegged stablecoins are digital assets designed to maintain a 1:1 value with a fiat currency, such as the USD (e.g., USDT, USDC) or EUR (e.g., Stasis Euro). Backed by reserves of cash or cash-equivalent assets, these stablecoins ensure price stability, making them suitable for trading, payments, and DeFi applications. Their widespread adoption stems from their ability to combine blockchain's transparency and efficiency with the stability of traditional currencies, appealing to users in regions with volatile economies or limited banking access.

Genius Act

Genius Act 2025, an U.S. legislation to regulate stablecoins, focusing on reserves and compliance.

The Genius Act is a proposed U.S. legislative framework aimed at regulating stablecoins, introduced to establish clear rules for issuers regarding reserve management, transparency, and compliance with anti-money laundering (AML) standards. While not yet enacted as of September 2025, it seeks to address regulatory uncertainty in the U.S. stablecoin market, ensuring consumer protection and financial stability. The act targets stablecoins like USDT and USDC, aiming to foster innovation while mitigating risks associated with their widespread adoption.

Hong Kong Stablecoin Bill

Hong Kong Stablecoin Bill, an ordinance passed on May 21, 2025, establishing a licensing regime for issuers of fiat-referenced stablecoins in Hong Kong, which became the Stablecoins Ordinance effective August 1, 2025.

The Hong Kong Stablecoin Bill was passed by the Legislative Council of Hong Kong SAR, China on May 21, 2025, to regulate the issuance of fiat-referenced stablecoins (FRS), a type of digital asset designed to maintain a stable value pegged to fiat currencies like the Hong Kong dollar. Under this regime, administered by the Hong Kong Monetary Authority (HKMA), any entity issuing FRS in Hong Kong or claiming stability referenced to the Hong Kong dollar must obtain a license, with requirements including full backing by high-quality reserve assets, segregation of client funds, robust stabilization mechanisms, and redemption at par value within reasonable timelines. Licensees must also adhere to anti-money laundering (AML) and counter-terrorist financing (CFT) standards, risk management protocols, regular auditing, and fitness and propriety assessments for key personnel.

The ordinance prohibits unlicensed FRS offerings to retail investors and restricts advertisements to only those from licensed issuers, including during a six-month transitional non-contravention period starting August 1, 2025. Pre-existing issuers had until October 31, 2025, to apply for licenses, with the HKMA confirming 36 applications received by the end of September 2025, and initial approvals anticipated in early 2026. This framework aligns with the "same activity, same risks, same regulation" principle, enhancing investor protection and



supporting Hong Kong's digital asset ecosystem while preventing fraud and maintaining financial stability.

As part of broader digital asset regulations, the ordinance complements existing rules for trading platforms and sets the stage for further consultations on over-the-counter trading, custodian services, and a second policy statement on digital assets, fostering sustainable industry growth in Hong Kong.

MakerDAO (Sky Lending)

A decentralized lending protocol on Ethereum that enables users to lock digital assets as collateral to mint the USDS stablecoin, now operating as the Sky ecosystem with upgraded governance and yield features.

MakerDAO, launched in 2014 on Ethereum, pioneered decentralized lending by allowing users to create collateralized debt positions (CDPs), now called Vaults, where they deposit digital assets like ETH or WBTC to mint the overcollateralized USDS stablecoin (upgraded from DAI at a 1:1 ratio) against them, typically at 110-150% collateralization ratios. Borrowers pay stability fees of 0.5-5% annually, while the protocol auctions excess collateral during liquidations if ratios drop below thresholds. As of September 21, 2025, the Sky protocol's total value locked (TVL) exceeds \$17.35 billion across 20+ collateral types, including \$1.2 billion in real-world assets (RWAs) like U.S. Treasuries, with USDS circulating supply at approximately \$8.4 billion and over 634,797 active users.

Rebranded to Sky in September 2024 as part of the "Endgame" plan by co-founder Rune Christensen, the protocol introduced SKY as the upgraded governance token (1 MKR swaps for 24,000 SKY) and restructured into "Sky Stars"—independent subDAOs like SparkLend, which offers 6% yield on USDS deposits and 7% borrow rates on \$2.5 billion TVL. Legacy DAI and MKR remain functional but lack new features like the Sky Savings Rate (SSR) at 4.75% APY for USDS holders and Sky Token Rewards distributing SKY emissions. Governance occurs via the Sky DAO, where SKY holders vote on parameters like fee adjustments, with \$842 million staked in the Staking Engine for amplified voting power up to 2.5x based on lock duration.

Sky differentiates through non-custodial access via the sky.money app, supporting multi-chain deployments on Base and Optimism, and integrations with DEXs for seamless USDS swaps against USDC, ETH, and USDT. Despite a 2020 "Black Thursday" liquidation loss of \$8.3 million from oracle failures, security has improved with Chainlink feeds and 25+ audits, though risks like basis volatility in RWAs persist, mitigated by a \$50 million surplus buffer and diversified collateral. The rebrand faced community backlash, with only 10.7% MKR conversion initially, but a November 2024 vote upheld it with 80% approval from four major entities.

MiCA

EU regulation governing digital assets, including stablecoins, for market integrity and consumer protection.

The Markets in Crypto-Assets Regulation (MiCA) is a comprehensive EU framework, effective for stablecoins since June 30, 2024, and for crypto-asset service providers from December 20, 2024. It categorizes stablecoins as asset-referenced tokens (ARTs) or e-money tokens (EMTs), imposing strict rules on licensing, reserve management, and transparency. MiCA aims to enhance consumer protection and financial stability across the EU's 27 member states, potentially setting a global standard, though challenges remain in national implementation.

Stablecoin

Stablecoin is designed to maintain stable value by pegging to fiat currencies, commodities, or algorithms to minimize volatility.

A stablecoin is designed to maintain a stable value by pegging to assets like fiat currency (e.g., USD) or commodities (e.g., gold), to minimize volatility for payments, decentralized finance (DeFi), and cross-border transfers. Stablecoin types include fiat-backed (e.g., USDT and USDC, supported by reserves), crypto-backed (over-collateralized), and algorithmic.

In 2025, in the U.S., the GENIUS Act (Guiding Effective Non-Fiat Innovation and Utility for Stablecoins) was passed to establish a tailored regulatory framework for stablecoins. It emphasizes consumer protection, reserve transparency, and financial stability to foster innovation while mitigating risks like de-pegging.

Stablecoin (Decentralized)

A decentralized stablecoin is a digital asset on a blockchain, designed to maintain a stable value, typically pegged to a fiat currency like USD, without relying on a central issuer.

Decentralized stablecoins are blockchain-based tokens that aim to maintain a stable value, often pegged 1:1 to assets like the U.S. dollar, using smart contracts and over-collateralization rather than centralized custodians. Unlike centralized stablecoins like USDT (Tether) or USDC (Circle), which rely on fiat reserves held by companies, decentralized stablecoins are backed by on-chain assets like ETH, BTC, or other tokens, managed by protocols like MakerDAO or Liquity. Users lock collateral in smart contracts to mint these stablecoins, ensuring transparency and reducing counterparty risk.

The most prominent example is DAI, created by MakerDAO on Ethereum, which maintains its \$1 peg through over-collateralized loans (e.g., 150% ETH collateral for DAI minted). As of September 2025, DAI has a market cap of over \$5.4 billion, per CoinMarketCap, with \$9 billion in collateral locked, according to DeFiLlama. Other examples include LUSD (Liquity) on Ethereum, pegged to USD with 110% minimum collateral, and sUSD (Synthetix), backed by SNX tokens. These stablecoins rely on mechanisms like liquidation (selling collateral if it falls below a threshold) and arbitrage to maintain pegs. For instance, DAI's stability fee, a variable interest rate (currently 2-8%), incentivizes repayment or minting to balance supply.

Despite their resilience, decentralized stablecoins face risks like smart contract exploits—MakerDAO patched a \$500 million vulnerability in 2020—and depegging during market crashes, as seen with DAI briefly dropping to \$0.92 in March 2020. Their

adoption has surged, with DeFi protocols integrating them for lending, trading, and yield farming, handling \$100 billion in annual transaction volume in 2025. Innovations like cross-chain bridges (e.g., Wormhole for DAI) and real-world asset collateral (e.g., Centrifuge's tokenized invoices) are expanding utility, though regulatory uncertainty and oracle failures remain challenges.

Tether

The company issuing USDT, a leading USD-pegged stablecoin, focused on blockchain-based financial solutions.

Tether Limited, based in Hong Kong, is the issuer of USDT, the most widely used stablecoin in the digital asset ecosystem. Founded in 2014, Tether aims to bridge traditional finance and blockchain by offering digital assets like USDT, pegged 1:1 to the USD, and other tokens like Tether Gold (XAUT). The company has faced criticism over reserve transparency but collaborates with regulators and law enforcement to monitor transactions and combat illicit activity, leveraging tools like Chainalysis for real-time compliance. Tether's dominance stems from USDT's liquidity and widespread adoption across exchanges and DeFi platforms.

U.S. Treasury-backed Stablecoin

A digital asset backed by U.S. Treasury securities, offering yield and regulatory alignment.

U.S. Treasury-backed stablecoins, such as Ondo's USDY and Hashnote's USYC, are digital assets pegged to the USD and backed by U.S. Treasury securities or repurchase agreements, functioning as tokenized money market funds. Unlike fiat-pegged stablecoins backed by cash, these offer yield to holders, appealing to investors seeking stable returns with regulatory compliance. They are used for liquidity management and as a secure store of value, particularly in institutional settings, leveraging the safety of U.S. Treasuries.

USDC

A USD-pegged digital asset issued by Circle, known for transparency and regulatory compliance.

USDC, or USD Coin, is the second-largest stablecoin by market cap, issued by Circle and backed 1:1 by USD reserves, including cash and short-term U.S. Treasuries. Operating on blockchains like Ethereum, USDC is widely used in DeFi, payments, and cross-border transactions due to its stability and transparency, with weekly reserve attestations published by Circle. Its regulatory alignment, particularly in the U.S., makes it a preferred choice for institutional and retail users seeking a reliable digital asset for trading, remittances, and liquidity management.

USDT

USDT/Tether, a digital asset pegged 1:1 to the USD, issued by Tether Limited, widely used for trading and liquidity.

USDT, issued by Tether Limited, is the largest stablecoin by market capitalization, designed to maintain a 1:1 peg with the U.S. dollar. It operates on multiple blockchains, including Ethereum and Tron, providing liquidity for digital asset trading and decentralized finance (DeFi) applications. USDT's reserves, primarily held in U.S. Treasury bills and managed by firms like Cantor Fitzgerald, have faced scrutiny, but regular attestations aim to ensure transparency and stability. USDT is used globally for payments, remittances, and as a store of value, particularly in regions with volatile currencies.

