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Stablecoins

A stablecoin is a token on a blockchain designed to be worth exactly one dollar. Stablecoins are the money of the crypto economy: traders hold them between trades, lending protocols lend them, and people in countries with unstable currencies use them to hold dollars. By November 2026 their total supply was close to 290 billion dollars. This chapter explains how a stablecoin holds its peg, why it can lose it, and what the GENIUS Act of 2025 now requires of issuers in the United States.

Three designs

Backed by reserves. The issuer holds dollar assets, such as bank deposits and Treasury bills, and promises to redeem each coin for one dollar. Tether's USDT and Circle's USDC, the two largest stablecoins, work this way. The peg is only as good as the reserves and the promise to redeem.

Backed by crypto collateral. Users lock up crypto tokens worth more than the stablecoins they create, as in the lending protocols of the previous chapter, and the collateral is liquidated if its value falls too far. DAI is the best-known example. The reserves are visible on the blockchain, but their value moves with crypto prices.

Algorithmic. The protocol targets one dollar by expanding and contracting the supply of the stablecoin against a companion token, with little or no reserve behind it. TerraUSD, the largest such coin, collapsed in May 2022 when confidence in its companion token broke and the mechanism meant to defend the peg instead fed the fall. This chapter focuses on reserve-backed stablecoins, which dominate the market and are what the new law regulates.

How the peg holds

A reserve-backed stablecoin trades in two markets. In the *primary market*, approved customers create new coins by sending dollars to the issuer and redeem coins for

dollars. In the *secondary market*, everyone else buys and sells coins on exchanges, at whatever price clears. Arbitrage connects the two: when the secondary price falls below one dollar, an approved customer can buy coins cheaply and redeem them at par, and when it rises above one dollar, they can create coins and sell them.

How many customers can do this matters. Ma et al. (2026) find that "the largest issuer, Tether, allows only six agents in an average month to redeem stablecoins for cash." They explain why an issuer would limit arbitrage: "efficient arbitrage improves stablecoin price stability in secondary markets but amplifies run risks by reducing investors' price impact from selling stablecoins." Easy redemption keeps the price close to a dollar in normal times, but in a panic it also makes it easy for everyone to get out at once.

Runs

A stablecoin that promises par redemption on demand, backed by assets that cannot all be sold instantly at full value, is doing what a bank does with deposits. Gorton and Zhang (2023) draw the conclusion directly: "stablecoin issuers are unregulated banks." Like the private banknotes of the nineteenth century, circulating private money "is not always accepted at par and its issuers are vulnerable to destabilizing bank runs."

The logic of a run is the logic of a bank run. If holders fear that the reserves will not cover every coin, the first to redeem get a full dollar and the last may not. Each holder's best response to others redeeming is to redeem too, so fear of a run can cause one. Unlike a bank's depositors, stablecoin holders have no deposit insurance.

The USDC depeg of March 2023

On Friday, March 10, 2023, Silicon Valley Bank failed, and Circle disclosed that 3.3 billion dollars of USDC's reserves, about 8% of the total, were deposited there. Over the weekend USDC traded well below a dollar: its price on Bitstamp fell to about 0.81 at one point on Saturday. On Sunday, March 12, U.S. regulators announced that all depositors of Silicon Valley Bank would be made whole, and Circle stated that the 3.3 billion dollars "will be fully available when U.S. banks open tomorrow morning" (Circle 2023). By Monday the price was back near a dollar.

The episode fits both papers. The reserves were mostly Treasury bills, 77% according to Circle (Circle 2023), but the part at risk was large enough, and its fate uncertain enough, that holders sold at a deep discount rather than wait. With the banks closed for the weekend, the deposit could not be reached until Monday, so holders who wanted out had to sell to other investors, and the price had to fall far enough to find buyers. Once the government guaranteed the deposits, the reason to run disappeared. The notebook on the USDC depeg looks at the hourly prices and at how many coins holders redeemed in the following weeks.

The GENIUS Act

The Guiding and Establishing National Innovation for U.S. Stablecoins Act, signed on July 18, 2025, is the first federal law on stablecoins (U.S. Congress 2025). It takes effect on the earlier of 18 months after enactment, January 18, 2027, or 120 days after regulators issue final rules. Its main provisions:

- **Who may issue.** Only a *permitted payment stablecoin issuer* may issue a payment stablecoin in the United States: a subsidiary of an insured bank, an issuer approved by federal regulators, or an issuer qualified under a state regime. State regimes are available only to issuers with up to 10 billion dollars outstanding, unless a federal regulator grants a waiver.
- **Reserves.** Issuers must hold reserves "on an at least 1 to 1 basis," made up only of cash, balances at the Federal Reserve, deposits at insured banks, Treasury bills and other Treasuries with a remaining maturity of 93 days or less, overnight repurchase agreements backed by Treasuries (short-term loans secured by Treasury bills), government money market funds investing in these assets, the same assets in tokenized form, and other similarly liquid government assets that regulators approve. Except in limited cases, reserves may not be pledged or reused.
- **Disclosure.** Issuers must publish the composition of their reserves every month, have the report examined by a registered public accounting firm, and have the chief executive and chief financial officers certify it.
- **No interest.** Issuers may not pay holders "any form of interest or yield … solely in connection with the holding, use, or retention" of the stablecoin.

- **Priority in insolvency.** If an issuer fails, holders' claims on the reserves come ahead of all other claims.
- **Not securities.** Payment stablecoins issued by permitted issuers are neither securities nor commodities.

In terms of the options Gorton and Zhang (2023) discuss, the law requires something close to backing "one-for-one by short-term Treasuries or reserves at the central bank," which they compare to the national banknotes of the nineteenth century. The reserve rules limit how long and how risky the reserve assets can be. They do not remove the risk that broke the peg in March 2023: deposits at insured banks still count as reserves, so USDC's deposit at Silicon Valley Bank would have been eligible, and how much an issuer keeps at any one bank is left to the banks' own limits and supervision. The law gives holders priority in an issuer's failure, not insurance.

Practice Problems

These problems give you a chance to practice the concepts introduced in this chapter. Try to solve each one on your own before expanding the solution.

Solutions to all problems can be found at https://lorenzonaranjo.com/class-materials/fintech/.

Problem 1 (What Was the Price Telling Us?). A stablecoin has 40 billion coins outstanding, backed by 40 billion dollars of reserves, of which 3.2 billion are deposits at a bank that has just failed. Suppose holders expect to recover nothing from those deposits and everything else in full, and that the losses would be shared equally among all coins. What price per coin would be fair? Compare it with USDC's low of about 0.81 over the weekend of March 11, 2023. What else might explain the gap?

Problem 2 (Arbitrage Around the Peg). A stablecoin trades at 0.995 on an exchange. An approved customer can redeem with the issuer at 1.00 for a fee of 0.1%, and the dollars arrive the next business day. Is there a profitable trade? What would stop it from working during a run?

Problem 3 (The GENIUS Act). Select all statements that apply under the GENIUS Act.

a. An issuer may hold its reserves in newly issued 10-year Treasury notes, because they are issued by the U.S. government.
b. An issuer may not pay interest to holders for holding its stablecoin.
c. Holders' claims on the reserves come ahead of the issuer's other creditors if the issuer fails.
d. A large issuer with 50 billion dollars outstanding may choose to be supervised only under a state regime, without a waiver.

References

Circle. 2023. "$3.3 Billion of USDC Reserve Risk Removed, Dollar De-Peg Closes." March 13. https://www.circle.com/es/pressroom/3-3-billion-of-usdc-reserve-risk-removed-dollar-de-peg-closes.

Gorton, Gary B., and Jeffery Y. Zhang. 2023. "Taming Wildcat Stablecoins." *University of Chicago Law Review* 90 (3): 909–71. https://chicagounbound.uchicago.edu/uclrev/vol90/iss3/3.

Ma, Yiming, Yao Zeng, and Anthony Lee Zhang. 2026. "Stablecoin Runs and the Centralization of Arbitrage." *Review of Financial Studies*, hhag072. https://doi.org/10.1093/rfs/hhag072.

U.S. Congress. 2025. "Guiding and Establishing National Innovation for U.S. Stablecoins Act (GENIUS Act), Public Law 119-27, 139 Stat. 419." July 18. https://www.govinfo.gov/app/details/PLAW-119publ27.