S&P Global
Ratings

Stablecoin Stability Assessment

Tether (USDT)

Dec. 12, 2023

Summary

S&P Global Ratings assesses the ability of Tether (USDT) to maintain its peg to the U.S. dollar at 4 (constrained). Issued in 2014, USDT is the longest-standing stablecoin with the largest volume in circulation. Its price has remained relatively stable in recent years and particularly over the past 12 months.

Our asset assessment of 4 (constrained) reflects a lack of information on entities that are custodians, counterparties, or bank account providers of USDT's reserves. This is notwithstanding that a large share of USDT's reserves comprise short-term U.S. treasury bills and other U.S. dollar cash equivalents. There is also significant exposure to higher-risk assets with limited disclosure. Such assets could be subject to credit, market, interest rate, or foreign currency risks.

We have not adjusted after the asset assessment since weaknesses we have observed are in line with a stablecoin stability assessment of '4'. These weaknesses include limited transparency on reserve management and risk appetite, lack of a regulatory framework, no asset segregation to protect against the issuer's insolvency, and limitations to USDT's primary redeemability.

The stablecoin stability assessment could improve if there is increased disclosure and a shift to lower-risk assets. In particular, this relates to disclosure on the underlying assets and on the creditworthiness of the custodians, counterparties, and bank account providers. Regulation or supervision of USDT's issuance and management by an authoritative body could also support a stronger assessment. The stablecoin stability assessment could worsen if there is a shift to higher-risk assets, such as cryptocurrencies.

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For more on our approach and definition of price stability, see our Analytical Approach: Stablecoin Stability Assessments »

This report was not produced at the request of the stablecoin issuer or sponsor.

Asset assessment	Adjustment	Stablecoin stability assessment
1 | Very strong 2 | Strong 3 | Adequate **4 | Constrained** 5 | Weak	Neutral (0)	**4** Constrained

Assessed on a scale of 1-5, where 1 is very strong and 5 is weak.

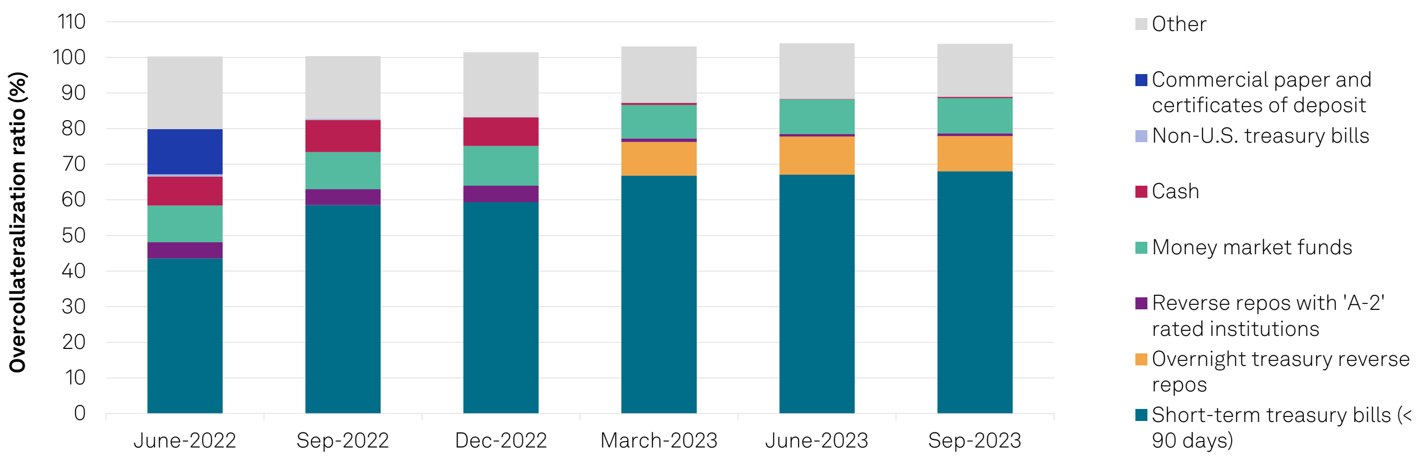
Asset assessment: 4 | Constrained

1 | Very strong	2 | Strong	3 | Adequate	**4 | Constrained**	5 | Weak

Issued in 2014, USDT is a fully reserved stablecoin. It is issued by Tether Ltd., which is incorporated in Hong Kong and wholly owned by British Virgin Islands-registered Tether Holdings Ltd. The reserves for USDT consist of a combination of (a) highly liquid and secure assets such as short-term U.S. treasury bills and similar cash equivalents, as well as (b) riskier assets such as precious metals, secured loans, and other investments with limited transparency on their composition.

Tether publishes a quarterly reserve report. Based on the most recent report, attested by BDO Italia, as of Sept. 30, 2023, reserves of $86.4 billion backed $83.2 billion of USDT in circulation (see chart). The overall collateralization ratio stood at 104%, consisting of short-term U.S. treasury bills with an average tenor of less than 90 days (68%), U.S. treasury-bill-backed overnight reverse repurchase agreements (repos; 10%), other reverse repos and non-U.S. treasury bills (1%), money market funds (10%), cash and bank deposits (less than 0.5%), and a combination of riskier assets (15%).

USDT--Asset composition



Source: Tether quarterly reserves report.

In our view, the short-term U.S. treasury bills and U.S. treasury-bill-backed overnight reverse repos (78% of the collateralization ratio) represent low-risk assets. That said, the reserve report does not disclose the entities that act as custodians, counterparties, or bank account providers of the assets in the reserve. There is, however, reference in the public domain to a U.S. financial institution as custodian of the U.S. treasury bills. Money market funds make up 10% of the collateralization ratio, but there is no publicly available information on those funds.

Assets can be subject to credit, market, interest rate, or foreign currency risks. The riskier assets making up 15% of the collateralization ratio comprise corporate bonds, precious metals, bitcoin, secured loans, and other investments. Given the type of assets and limited transparency on their composition, such as their denomination and the borrowers of the secured loans, there is potential exposure to credit, market, currency, and interest risks that cannot be quantified.

Limited transparency on counterparties and risky asset exposure informs our asset assessment. Due to a lack of information on the entities that act as custodians, counterparties, or bank account providers, limited transparency on the asset composition, and significant exposure to higher risk assets, we assess USDT's assets at 4 (constrained).

Adjustment: Neutral

Neutral	Negative

Overall adjustment

USDT is the largest and longest-standing stablecoin in circulation. It has maintained price stability, especially in recent years and over the past 12 months. We have not adjusted our asset assessment, despite certain weaknesses such as limited transparency on reserve management and risk appetite, lack of a regulatory framework, absence of asset segregation, and limitations to primary redeemability. This is because we consider these weaknesses commensurate with an asset assessment of 4 (constrained).

Governance: Opaque management

- There is no public disclosure about the type of assets eligible for inclusion in USDT's reserves or the action to be followed if the value of one of the underlying assets or asset classes were to drop significantly. We have nevertheless observed an improvement in USDT's reserve management practices over the past year with a shift toward lower-risk assets.
- USDT's assets are subject to quarterly reporting and third-party attestations by an independent auditor. We note that this reporting is less frequent than for other stablecoins, which are generally subject to monthly reporting and attestation. The most recent attestation was in September 2023, conducted by BDO Italia, an independent member firm of BDO International Ltd. The auditor reviews the issuer's assets at the end of the quarter.
- Tether also publishes the liabilities related to USDT in circulation, and the value of the assets in the reserve on a regular basis, on its website. However, these numbers are not reviewed by the auditor and there is no breakdown of the composition of the assets.

Regulatory framework: Lack of regulation and information about asset segregation

- USDT is registered with the Financial Crimes Enforcement Network, a bureau of the U.S. Department of the Treasury. This means the issuer, Tether Ltd., is required to comply with anti-money-laundering and know-your-customer requirements.
- However, unlike some other issuers of stablecoins, Tether Ltd. which is incorporated in Hong Kong and wholly owned by British Virgin Islands-registered Tether Holdings Ltd., is not subject to regulation or supervision of an authoritative body. This contrasts with some stablecoin issuers that are subject to regulatory oversight by an authority, such as the New York State Department of Financial Services (NYDFS), and are required to follow rules set by the NYDFS' stablecoin guidance. We see the lack of regulation and/or supervision of USDT as a weakness.
- In addition, there is no publicly available information on the segregation of USDT's assets and the extent of their insulation from a bankruptcy of the issuer.

Liquidity and redeemability: Lack of primary redeemability is partly mitigated by strong secondary market liquidity

- USDT can be redeemed directly on Tether's website but subject to certain conditions. Redemption is restricted to USDT holders with a verified account, for which they are required to pay a $150 verification fee. The verification process is subject to know-your-customer, anti-money-laundering, and counter-terrorism-financing requirements. Direct redemption is also subject to a minimal liquidation threshold of $100,000 and a fee of 0.1% or $1,000, whichever is higher.

- USDT holders that do not meet these requirements have to go through the secondary market. Considering the size of USDT's market capitalization, and its wide market reach, liquidity on the secondary market is generally strong on centralized and decentralized exchanges.
- The availability of parties that can support redemption payments 24 hours a day, seven days a week, remains limited. Therefore, the redemption of USDT is constrained by the banking system's operating hours.

Technology and third-party dependencies: No high risks cited in the previous audit but the smart contract is not open source

- USDT is available on 14 blockchains. The top three blockchains account for 99.8% of USDT in circulation: Tron (52.9%), Ethereum (44.9%), and Solana (2.1%).
- The smart contract was audited by OpenZeppelin in January 2018, and again by Callisto Network in July 2019. OpenZeppelin’ s audit revealed no critical or high-severity concerns. The audit report recommended several best practices to address possible vulnerabilities, most of which were subsequently incorporated into the smart contract. Similarly, the Callisto Network audit did not uncover any critical problems, with none of the findings deemed high or medium in severity. However, the auditors identified three issues of low severity and noted risks related to owner privileges: pausing of transfer, blacklisting, burning of blacklisted assets, and application of a transaction fee. Tether runs a bug bounty program that offers incentives to identify and report vulnerabilities, but this does not cover security vulnerabilities related to the smart contract.
- USDT's smart contract source code is not open source, unlike that of most other stablecoins. It has, however, been verified and is written in industry-standard programming language, such as Solidity. There is no dependence on an oracle to connect to external market data and information.
- Since almost all the reserves are held and managed off the blockchain, there is less reliance on that technology. Therefore, a major disruption of a blockchain network is likely to have a limited impact on the stability of the stablecoin.

Track record: A good recent track record of stability

- USDT launched in October 2014, and is the longest-standing stablecoin, with the largest volume in circulation.
- USDT has maintained a notable level of price stability, especially in recent years and over the past 12 months. During the period of significant market volatility following the Terra Luna failure in May 2022 and FTX collapse in November the same year, USDT's price exhibited minor fluctuations but subsequently regained its usual stability.
- In March 2023, during the Silicon Valley Bank (SVB) failure, USDT maintained its price stability relative to the U.S. dollar. During that period, some other stablecoins deviated from their peg either as a direct impact of having their reserves at SVB or indirectly from the general market sentiment. This situation may have increased the demand for USDT as market participants sought alternative stablecoins.

- USDT's market capitalization has recovered since March 2023. It reached $87 billion in November 2023, after declining to a low of $65 billion in December 2022 from $83 billion in April 2022 following the Terra Luna crash and FTX collapse. USDT's dominance has also increased, with its market capitalization nearly 3.5x that of the next largest stablecoin USDC, compared to 1.7x before the Terra Luna failure.