Analytical Methodology

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Request for comment: Stablecoin Stability Assessment

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CCXAP publishes a Request for Comment (RFC) on the proposed assessment framework for the stability of stablecoins

Summary

A stablecoin is a type of cryptocurrency designed to maintain a stable value relative to certain assets, typically fiat currencies. In this report, we illustrate our assessment framework on the ability of a stablecoin to maintain its peg to the targeted fiat currency, and explain the scoring logic on a stablecoin's stability, with a scale of S1 (Unshakable) to S7 (Unstable). Stablecoin assessments are not ratings. They are a relative ranking about the forward-looking ability of stablecoins to maintain their peg.

Our assessment mainly applies to fiat-backed stablecoins which are pegged to the value of traditional fiat currencies (e.g. USD, EUR, RMB or HKD). Stablecoins whose stability primarily relies on the issuer's credit or are backed by algorithmic collateral are excluded from our consideration. Fiat-backed stablecoins are generally traded on exchanges and are redeemable from the issuer.

We believe that the risk of value deviation from a stablecoin versus its fiat currency peg comes two key elements: (1) the features of the reserve assets; and (2) the additional risk factors that affect stablecoin issuer's reliability and operations. We first begin the stability assessment ("SA") with reserve asset assessment ("RAA"), reviewing the quality of assets that have direct impact on the value of a stablecoin. Second, we take consideration of a set of adjustment factors to assess a stablecoin's expected stability, including legal and regulatory environment, basic strength, governance & controls, track record, and market liquidity.

Our stability assessment primarily relies on publicly available information. We may either form a limited assessment or refrain from assigning a stability assessment altogether, where data is insufficient or inconclusive.

This analytical methodology introduces the key factors we use to assess stablecoin stability, explains each factor in detail, and shows how we score in each factor. It also illustrates the scale and definition of stablecoin assessments.

Impact on Ratings

Stablecoin assessments are not credit ratings. In addition, CCXAP does not have any existing rated stablecoins that match the scope of application of this analytical methodology for Stablecoin Stability Assessment. The adoption of this methodology is not expected to result in any rating changes.

How to Submit Comments

In this request for comment, CCXAP invites interested market participants to submit written comments on the proposed methodology by 31 August 2025 on the "Request for Comment" page or by email to info@ccxap.com. CCXAP will review and take all received comments into account before publishing the methodology.
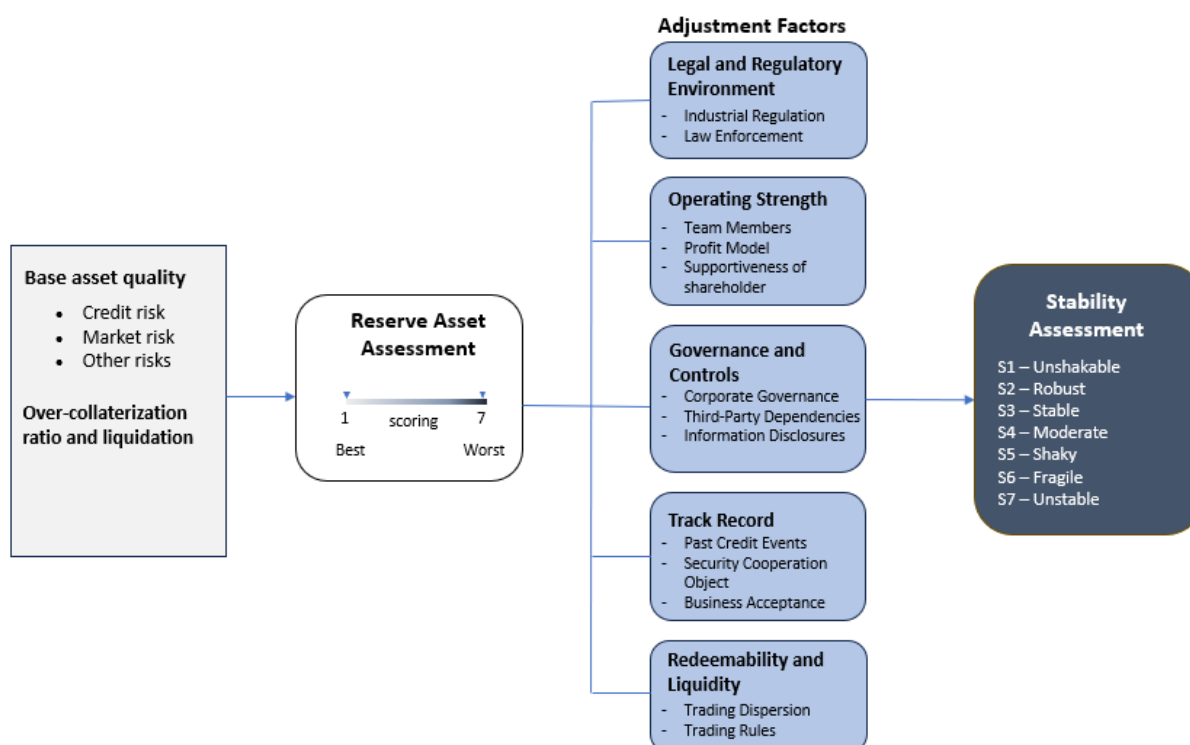
Definition of the stability of stablecoin

The stablecoin stability assessment reflects CCXAP's view on a stablecoin's ability of retaining a peg to a fiat currency. The stability can be defined by (1) the level of deviation between a stablecoin market price and its pegged fiat currency and (2) the persistence of such deviation. In this way, we tend to worsen a stablecoin's assessment if we observe that there is a large and continuous price gap from the currency peg, which signals weak stability in valuation preservation.

The price deviation between a stablecoin and its currency peg comes from many reasons, such as, deteriorating quality of the reserve assets, losing confidence on the issuer's reliability, liquidity stress, or concern over the safety of IT infrastructure. In the following context, we will illustrate our assessment framework and explain the key factors that are important when considering the stability of a stablecoin. We will also explain our scoring logics for those factors.

Framework for assessing the stability of stablecoin

We believe that the risk of value deviation from a stablecoin versus its fiat currency peg comes from two key elements: (1) the features of the reserve assets and (2) the factors that affect the stablecoin issuer's reliability and operations. Thus, we begin our analysis with the RAA to evaluate the ability of a stablecoin to preserve intrinsic value sufficiently to the peg, taking into account its quality of the backed assets, overcollateralization, and asset liquidation. After that, we will consider a set of factors that affect a stablecoin issuer's reliability and operations in a qualitative way, including legal and regulatory environment, operating strength, governance and controls, track record, and redeemability & liquidity. These factors may be positive, neutral, or negative to the stablecoin stability assessment, resulting in upward or downward movement after the RAA. However, upward adjustment is under a stricter requirement than downward adjustment.

Exhibit 1. CCXAP's framework for assessing the stability of stablecoin

Our assessment evaluates the stability of stablecoins on a scale of S1 (Unshakable) to S7 (Unstable). We would first assign a RAA score scaling 1 to 7, and then assign a final stability assessment result after the consideration of adjustment factors. For example, the stability assessment result of S1 means that a stablecoin is expected to maintain a very strong peg to the fiat currency, and any price deviation will be quickly corrected. Contrarily, the assessment result of S7 indicates that a stablecoin is expected to sustain a large deviation from its pegged currency, and such deviation is very unlikely to be fixed.

Reserve Asset Assessment

1. Base asset quality

The focus in this part is the asset quality risk of a stablecoin's reserve asset. When assessing the quality of the reserve assets, we will consider the following aspects:

- Credit risk

- Market risk

- Other risks (such as custodian risk and foreign exchange risk)

A stablecoin's value is supported by its reserve assets. Loss of funds or impairment of the reverse asset is likely to result in an undercollateralized position and make price deviation to its peg. The credit risk and market risk can be captured by the nature of assets or referencing the ratings of debt instruments, issuer, counterparties, or etc. Assets that are classified as near to risk-free assets, such as short-term sovereign bonds rated at least "AA_g/A_g-1" or above, are expected to obtain the best score of 1. Assets that are highly volatile in prices such as commodities or crypto assets tends to have the worst score of 7. We will assign a score of 1 to 7 as a result of the weighted average score of a stablecoin's reserve assets. Adjustment may be made to reflect our expectation of the future change of the reserve assets.

Exhibit 2. Example of scoring on different types of reserve assets

Asset Types	Examples	Scoring
Near to risk-free assets	• Sovereign bonds rated at least "AA_g/A_g-1"category , with maturity less than 180 days; • Cash deposits on"AA_g/A_g-1"rated institutions • High quality cash equivalents (such as high-quality money market funds rated at $mfAAA_g$, overnight repos backed by sovereign bonds with AA_g/A_g-1"category, or equivalent institutions)	1
High-quality assets	• Sovereign bonds rated at least "A_g/A_g-2", with maturity less than 180 days; • Cash deposits on"A_g/A_g-2"rated institutions • Cash equivalents (such as repos backed by sovereign bonds with "A_g/A_g-2"category, or equivalent institutions)	3
Risky assets	• Long-term corporate bonds, high yield or non-rated bonds	5
Other high-risk assets	• Commodities, Crypto currencies, crypto assets or other illiquid assets	7

Other risks, such as custodian risk and foreign exchange risk, are also accountable. The creditworthiness of custodians or the nature of the custody agreement can adversely affect the security of assets held, leading to logistical challenges or market confidence. In addition, a stablecoin value may be subject to foreign exchange risk when the base asset currency is different from the currency of the peg. We could lower the base asset quality assessment if we observe weaknesses in the creditworthiness of custodians or material exposure to

foreign currency risk. For issuers that are unable to disclose their asset custodians, the score will be adjusted downward.

2. Over-collateralization and Liquidation Mechanism

If a stablecoin is overcollateralized or includes a reliable liquidation mechanism, it would be helpful to lower its asset quality risk. Overcollateralization can provide an additional buffer to the ups and downs of the base asset value and also offer liquidity when facing redemptions from coin holders. Some stablecoins may set liquidation thresholds or mechanics to maintain sufficient liquidity in stressed conditions. A good liquidation mechanism can liquidate its high liquid assets in a short time (like 24 hours) and without material losses. CCXAP will assess the level of overcollateralization and the effectiveness of the liquidation mechanism. We tend to improve the RAA when a stablecoin has material overcollateralization and a good liquidation mechanism. However, if we anticipate that the value of the stablecoin's reserve asset is volatile, failing to fulfill overcollateralization requirement may face downward adjustment.

Adjustments Factors

After evaluating the base asset quality, we then adjust the RAA with 5 additional factors:

- **Legal and Regulatory Environment**: understand the regulatory and legal framework in the jurisdiction and evaluate the legislative process, rigor and enforcement practices of regional regulations.

- **Operating Strength:** assess the capability of the operating company, including its team members, profit model and shareholder support, to ensure that the company has sufficient management experience, professional capabilities and excellent capital structure to manage the daily processes of stablecoin minting, issuance, and circulation.

- **Governance and Controls:** appraise the internal governance and controls of the stablecoin's operating companies to ensure that both internal controls (including AML regulations, management frameworks, and confidentiality mechanisms) and external relations (such as third-party verification and significant news disclosure procedures) meet reasonable standards.

- **Track Record:** consider the company's external relations and historical events related to security. For example, such as the company's performance under credit events, existing security partners, and the market recognition of the company. These factors will support the company's safety factor and also enhance its resilience to address security-related challenges.

- **Redeemability and Liquidity:** The liquidity of the stablecoin of an operating company is different from the liquidity of the base assets of the stablecoin. It focuses on the transaction concentration and trading rules of the stablecoin itself.

We will conduct a comprehensive assessment of the above five factors, and evaluate them as positive, neutral, or negative (in most cases, neutral/negative only) to aggregate an adjustment score. Then, we will adjust the final stability assessment result based on the adjusted RAA result. In other words, CCXAP's assessment logic is a combination of base assets plus adjustment factors as a whole. The adjustment factors compose of 5 major factors and 13 sub-factors as shown below.

1. Legal and Regulatory Environment

Legal and regulatory environment mainly measures a country or region's that has introduced a stable and mature regulatory plan as well as the effectiveness of its legal system. A good regional compliance legal system and regulatory environment may have a positive impact on the assessment results.

Considerations	Neutral	Negative
Industrial regulations	The region has established proper regulatory policies for stablecoins, while the strictness, effectiveness and feasibility of its specifications need to be further verified and improved.	The region has no regulatory framework at all, no regulatory plan for stablecoins, and the legality of stablecoins cannot be judged in the future
Law enforcement	The region's expected law enforcement is strong, holding clear legislative process, supervision methods, handling methods and cases, etc.	The region has poor law enforcement on the industry

2. Operating strength

Operating strength measures the overall capability of the stablecoin company to operate its business effectively. The evaluation includes factors related to the team members, profit model and supportiveness of the shareholder.

Considerations	Neutral	Negative
Team Members	The core members of the team of the coin issuing institution have worked in various financial institutions, have more experience in promoting and innovating financial products in the past, have sufficient experience in communicating with regulatory authorities, and have achieved excellent results	The core team members of the coin issuing institution have lacked experience in promoting and innovating financial products in the past, lacked experience in communicating with regulatory authorities, or have extremely poor performance in the past product promotion process
Profit Model	The profit model of the coin issuance institution has been established and is effective, and it has also created profit space for the coin issuance institution and market participants in the actual transaction process	The profit model of the coin issuance institution has not been established, or the theoretical framework has not been implemented in the actual transaction process after establishment, and the coin issuance institution and market participants lack profit space
Supportiveness of Shareholder	The shareholders of the stablecoin issuing company have a clear willingness and sufficient ability to cover the company's operating expenses and contingent liabilities under stress	The shareholders of the stablecoin issuing company have failed to make clear their attitude of continuing to support the company's development and maintaining the company's daily life under stress scenarios, or the company's shareholders are not capable enough to support the operation and maintenance of the issuing company under some stressful situations

3. Governance and Controls

Internal operations focus on the internal control of the company and some of the external partnership quality. Key considerations include its corporate governance process, disclosure process, and the third-party verification.

Considerations	Neutral	Negative
Corporate Governance	The corporate governance system of the coin issuing institution is well established and complete. During the actual transaction process, the corporate governance system can also respond to and handle risk events in a timely manner	The corporate governance system of the coin issuance institution has not been established or just recently formed and immature. In the actual transaction process, the corporate governance system cannot cope with and handle risk events

	The company is well cooperating with several robust third parties to do the notarization and external audits for the firm	The company has poor experience of applying third parties when disclosing to the external parties
Third-party Verification		
Information Disclosure	Information disclosure is timely and comprehensive, and can provide most of the information needed by external agencies for decision-making	Lack of information disclosure, or information disclosure but of extremely low quality, lack of timeliness and decision-making assistance

4. Track Record

Track Record considers whether the company can survive through safety issues, including its past records, its cooperations with others and its business acceptance, which can provide supportiveness when facing safety challenges.

Considerations	Neutral	Negative
Past Credit Events	The stablecoin has a large transaction volume, but no credit events have occurred in the past transaction history, and the safety index is extremely high	The stablecoin has had very serious credit events in its past transaction history, and was unable to take timely response measures after the occurrence, and its safety index is extremely low
Security Cooperations Object	The stablecoin has cooperated with a well-known external third-party security agency, and the security index is extremely high	The stablecoin has not cooperated with well-known external security agencies, and the security index is extremely low
Business Acceptance	The company has a certain reputation in the industry, and the stablecoins issued have stable and clear application scenarios	The company is less well-known in the industry, and the application scenarios of the stablecoins issued are not clear

5. Redeemability and Liquidity

The redeemability and liquidity of a stablecoin is focusing on the keepers of the stablecoins and the expected trading rules. If the stablecoins are owned by a few players, then the company is facing a potentially huge "bank run risk".

Considerations	Neutral	Negative
Trading Dispersion	The two largest owners own less than 30% of the total outstanding supply, the proportion of the largest two potentially transactions are extremely low, and the overall liquidity is good	More than 30% of the coins are owned by two largest owners, the proportion of the two largest potential transactions is high, and the overall liquidity is poor
Trading Rules	Investors can redeem all their investment in stablecoins within one working day, and the overall liquidity and redeemability are excellent	Investors cannot redeem their investment in stablecoins, and the overall liquidity and redeemability are extremely poor

Stablecoin Assessment Scale

Stablecoin stability assessments are not credit ratings. Instead, they are a relative ranking about the forward-looking ability of stablecoins to maintain their peg.

Exhibit 3. CCXAP's scale for stablecoin stability assessment

Assessment	Definition
S1 (Unshakable)	"S1" indicates a stablecoin has extremely strong peg to its fiat currency.
S2 (Robust)	"S2" indicates a very strong peg to its fiat currency.
S3 (Stable)	"S3" indicates a relatively strong peg to its fiat currency.
S4 (Moderate)	"S4" indicates a moderate peg to its fiat currency.
S5 (Shaky)	"S5" indicates a relatively weak peg to its fiat currency.
S6 (Fragile)	"S6" indicates a weak peg to its fiat currency.
S7 (Unstable)	"S7" indicates a very weak peg to its fiat currency.

Assumptions and Limitations

Our stability assessment primarily relies on publicly available information. We may either form a limited assessment or refrain from assigning a stability assessment altogether, where data is insufficient or inconclusive. The final result is based on CCXAP's forward-looking opinion, which assumes that changes in the macro environment are in line with our expectations and therefore does not include any unexpected changes such as the outbreak of war and destructive natural disasters.

The CCXAP assessment includes reasonable forecasts of the future performance of stablecoin issuers, and these forecast data are mainly derived from historical information through our forward-looking models. In some cases, forecasts may be based on confidential information that cannot be disclosed. In addition, reference is often made to industry trends, competitor behavior and other factors. In any case, there is an inevitable risk of inaccuracy in our forecasts of the future. Therefore, in most cases, the level indicated by the model does not necessarily coincide with the final level of the stablecoin. The model also includes some qualitative assessment factors. Although CCXAP will conduct an assessment through an objective and prudent mechanism when implementing, there will inevitably be subjective judgment components in certain circumstances. Therefore, the weight of assessment considerations may vary.

At the same time, CCXAP assumes that the data used in the assessment is true, legal and does not contain misleading statements. The evaluation relies on public information and information provided by the stablecoin issuer or its affiliates, but CCXAP does not ensure the integrity and authenticity of the information. In certain circumstances, the asset quality of the stablecoin may not be reflected in a timely manner due to data delays.

Appendix: Hypothetical Example of Stability Assessment

XYZ coin – S5 (Shaky)

XYZ coin ("XYZ") is a cryptographic stablecoin pegged to the US dollar, launched by ABC Limited. Its core design concept is to achieve a value anchor of 1 coin ≈ 1 US dollar, making it a stable value storage and transaction medium in the volatile cryptocurrency market. The coin is an important bridge connecting traditional finance and the decentralized world, providing global users with an efficient and low-cost way of digital capital circulation, but its reserve transparency and regulatory compliance have also caused controversy. ABC Limited claims that each coin is backed by an equivalent asset and publishes reserve reports regularly, but some investors still have concern over its audit mechanism. This case aims to quantify the risk level of XYZ and provide feasible modification suggestions.

Reserve Asset Assessment – 4

First, when considering the reserve assets of XYZ, we disassembled its underlying assets. The company's reserve assets are relatively stable risk-free assets, accounting for more than 80%, and the weighted average score of the base assets is 2. Considering that XYZ has not disclosed its depository institution and rapid liquidation mechanism, and its over-collateralization ratio is significantly lower than the recommended over-collateralization ratio we measured, adjustment is necessary.

Adjustment – Negative (-1)

We will consider adjusting the risk assessment of XYZ. First, the United States has a relatively stable regulatory policy, but most of it is self-regulatory in nature, and the current stablecoin bill with legal force is still under preparation. In addition, we are concerned that XYZ's poor disclosure habits and disclosure system have damaged its transparency. There is also a problem of third-party verification, that is, most of its disclosed data are not verified by a third party and are less effective.

Stability Assessment – S5 (Shaky)

In summary, the company's adjustment score due to the above-mentioned risk points is -1, which means a downgrade of one score. Thus, XYZ's score is S5 (Shaky), after the consideration of the adjustment factors.

To improve XYZ's assessment, it is suggested that the company can: (1) strengthen the disclosure of company information, custody information and third-party cooperation; and (2) optimize the reserve asset structure and increase over-collateralization ratio.