Bluechip

Evaluating Stablecoin Safety:

The SMIDGE Framework

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Evaluating Stablecoin Safety

Introduction

This paper provides an overview of the Safety Score and SMIDGE framework – tools designed to offer a holistic evaluation and ranking of stablecoins. The Safety Score provides information on various dimensions of stablecoins – Stability (S), Management (M), Implementation (I), Decentralization (D), Governance (G) and Externals (E).

A. The SMIDGE Framework

The SMIDGE framework constitutes the backbone of the Safety Score. It is organized into six key factors: Stability (S), Management (M), Implementation (I), Decentralization (D), Governance (G) and Externals (E). These factors can be further disaggregated into sub-factors and variables of influence.

1. Stability

1.1. Reserves

1.1.1. Collateralization % and Type of Collateral

A stablecoin backed by a large pile of safe assets is likely more stable than one backed by a small pile of volatile assets. Thus, if a stablecoin promises dollar for dollar repayment, and that coin is at least fully-collateralized either with dollars or with the safest dollar-denominated debt, then that coin would receive a high score on this metric. Coins backed by highly volatile assets, even if heavily overcollateralized, will receive lower scores, since the history of banking panics shows that bank depositors often start runs when they think the bank's assets might sometime in the future be worth less than the bank's deposits. Paul Krugman applied this lesson to exchange rate crises ("A Model of Balance-of-Payments Crises," 1979), and since the goal of a stablecoin is typically to keep a stable exchange rate against some other currency, Krugman's message is central to our view of stablecoin safety.

At this time, we treat liquid assets such as currencies and government bonds as the most resilient forms of collateralization. That said, even government bonds carry duration risk which can affect their realizable values. Stablecoins backed largely by collateralized loans, cryptocurrencies and real-world assets would need to be heavily overcollateralized to mitigate the effects of volatility and illiquidity, although that can change as data quality improves and as crises and panics provide tests of various stablecoin backing mechanisms.

1.1.2. Storage of Assets

We concern ourselves primarily about the risk of irrecoverable loss of control over assets. We look for signs of transparency, auditability and strong control mechanisms. Are reserve assets stored on-chain or off-chain? Are off-chain assets held by regulated entities or custodians auditable or verifiable? Are on-chain reserves held in smart contracts, multi-sig accounts, Externally-Owned-Accounts, or in other DeFi protocols?

1.1.3. Segregation of Assets

Are the stablecoin's reserves held in separate accounts, isolated from the issuer's own treasury, and free of any commingling? Further, are the reserves held in a trust or some other structure that protects stablecoins holders in the event of bankruptcy of the issuer or its related entities?

1.1.4. Financial Backstop

Does the stablecoin have a financial backstop that it is likely to draw upon during a run on the coin? One example would be a stablecoin run by a large, profitable financial entity whose reputation would be at risk if the stablecoin collapsed: The net worth of owners in this case can and probably would be used to back the coin to some degree in a panic, even if collateralized less than 100%. Deep pockets, when combined with an incentive to empty those pockets on behalf of the coin, provide greater confidence in the stability of a coin. In addition, financial pledges from other entities–such as standing lines of credit from credible parties–will also serve as a strong signal of stability in a panic.
(Not currently assessed)

1.2. Peg Performance

Past performance, especially for new coins, can only be of limited use when assessing a stablecoin's safety. But if an alleged "stablecoin" routinely trades far from its alleged target, that's a sign that the coin may be stable in name only. In other words, past stability is close to a necessary but far from a sufficient condition for future safety; while past instability is close to a sufficient condition but far from a necessary condition for future safety.

Because our indicators of other key SMIDGE metrics are unavoidably measured with noise, it is important to use every market-based indicator that can shed light on the stablecoin's possible future performance.

1.2.1. Frequency of Deviation Below Peg

The most important price deviations are price declines below the peg. This metric evaluates the number of days in the 180-day trailing period where the volume-weighted average price of the stablecoin deviates below the peg beyond an allowable margin.

1.2.2. Max Deviation Below Peg

This metric looks at the magnitude of the biggest deviation of the price below the peg in the 180-day trailing period.

1.2.3. Volatility (daily)

This metric expresses the potential daily deviation of a stablecoin's price, whether above or below the peg.

1.2.4. Market Correlation in a Downturn

We look at price change behavior of the stablecoin during periods of market stress, expressed as the average deviation of a stablecoin's price during the 5 worst days in the preceding 180-day period for Bitcoin's price performance

This measure tells us how the market has perceived this coin in previous times of market stress, which offers insight into how the coin may perform in future times of stress.

Note: We recognize that some of these metrics may not be directly applicable to floating-rate stablecoins and may need modifications and alternative metrics.

1.3. Mechanism

1.3.1. Core Mechanism

All stablecoins have a core stability mechanism that helps maintain a peg by influencing demand and supply. From past experience, we know some are more effective than others, and some routinely fail. We draw upon these experiences to set expectations of future stability. The mechanisms can be broadly classified under six heads:

I. Arbitrage through unrestricted minting and reserve redemptions

   Differences between market price and the peg are arbitraged away by allowing anyone to create or redeem stablecoins and make an instant risk-free profit whenever the market price deviates from the pegged redemption price. This is the most effective of all mechanisms. At

our current state of knowledge of monetary economics, we believe this requires a large and credible pool of wealth to back the promised future redemptions: this is the heart of the Krugman case for exchange rate stability, and it applies straightforwardly to the case for stablecoin stability. It's relatively easy to devalue an overvalued stablecoin by printing more of it; it's far harder to raise the value of an undervalued stablecoin by convincing investors that your protocol will always have enough wealth to exchange the stablecoin for concrete buying power at the promised rate.

II. Borrower incentives

In loan-backed stablecoin systems such as Maker's DAI, downward price deviations from the peg can make a borrower's debt cheaper, incentivizing repayment. When the price is above the peg, borrowers can borrow more stablecoins and sell them at a premium in the market, hoping to benefit from cheaper repayment in the future when the price returns to the peg. This mechanism is less effective than arbitrage since the incentive of repaying cheaper loans may not outweigh the potential upside from crypto exposure (which is the primary reason for borrowing in the first place).

And doubts about the value of the loans can lead to runs on the coin – with a risk of both self-fulfilling prophecies of default and fundamentals-driven runs if the loans truly are too risk-laden to back the promise of future repayment. The lessons of Diamond and Dybvig (1983) about the potential for instability in any private banking system apply equally to loan-backed stablecoins.

III. Interest rates & fees

Stablecoin issuers may offer interest on deposits (staking), charge interest payments (borrowing) or fees to manipulate demand and supply levers. However, these mechanisms are less effective than arbitrage since they are subject to other market conditions/incentives which may negate and overcome incentives offered by the stablecoin issuer.

Conventional bank rating systems, such as CAMELS, remind us that interest on deposits are earnings heading out the door, wealth that cannot be used to back the credibility of the coin's peg. Accordingly, our ratings will factor sustainability (positive net interest margins) and source of interest. These have historically been signals of potential weakness, relevant to stablecoins and conventional banks alike.

IV. Open Market Operations

Much as central banks print money and acquire assets from the open market or sell assets to extinguish money, stablecoin issuers conduct open market operations too. They mint new stablecoins out of thin air to acquire other crypto assets for their reserves, or use reserves to acquire and extinguish stablecoins circulating in the market.

Note that (i) and (iv) substantially but incompletely overlap: in (i) investors can choose to redeem the stablecoin at the pegged price, while in (iv) the stablecoin issuer has discretion over when and perhaps even whether to do so.

V. Seigniorage Shares & Bonds

Shares are tokens which attempt to transfer price volatility from the stablecoin to the equity-like token. When the stablecoin price is above the peg, new coins are minted and given to share token holders who burn a portion of their share tokens. When the coin supply needs to decrease to push the price back up to peg, stablecoin holders who surrender/burn their stablecoins are compensated with freshly minted share tokens.

A variation of the original seigniorage shares model includes a bond token. When stablecoin supply needs to decrease, bond tokens are sold at a discount to face value in exchange for stablecoins, thereby reducing supply and pushing the stablecoin price up towards the peg. Bond tokens represent a promise to compensate bond holders in the future with more stablecoins during an expansion phase (i.e., when supply needs to increase). When the price of the stablecoin exceeds the peg, new stablecoins are issued to bond holders.

Seigniorage-based stablecoins have repeatedly demonstrated that they are the least resilient with the highest risk of loss to holders. The seigniorage shares model does not rely on any new advance in cryptography for its case: it's merely printing new shares of stock in order to raise money to pay off debt. If this worked reliably, private banks would have figured it out centuries ago and there would be few if any runs on private banks. The seigniorage shares model thus runs afoul of the Modigliani-Miller theorem of corporate finance: the size of the financial pie, to a first approximation, does not rely on how it is sliced, and printing shares does not, to a first approximation, increase the wealth of a firm. Equity-funded debt buybacks have a role in corporate finance and banking – indeed, they played a role in deleveraging firms after the global financial crisis–but that role is extremely limited, and it is unlikely to be a credible model for safe stablecoins.

1.3.2. Primary Liquidity Access (Redeemability)

Stablecoin designs which permit redemption of stablecoins for underlying reserves provide a higher degree of safety to holders. In the event the market value falls below the backing value, holders are guaranteed a safe exit. Without the option to redeem, holders are forced to either sell in the open market at a loss or hold on indefinitely with the expectation of the peg being reclaimed in the future.

1.3.3. Secondary Liquidity Depth

Stablecoins which have deep liquidity pools on-chain offer users more options to exit to other stablecoins or crypto assets. (This is not currently assessed.)

2. Management

The assessment of the team behind a stablecoin project is one of the most critical and subjective aspects of our framework. Good financial ratings systems have a long history of evaluating the management teams and management methods of the organization they are evaluating. Evaluation of intangible factors such as integrity, motivation, and talent is more art than science. Developing a framework that takes into account these factors will require learning through iterations, evolving industry norms and collection of adequate and relevant information over a period of time. Keeping this in mind, our initial assessment will prioritize past indicators and preventive controls that are more likely to provide high quality, actionable signals.

2.1. Restrictions

2.1.1. Known Core Teams

Trustworthiness is central to banking. The absence of regulations and near-complete anonymity and privacy that blockchains provide have attracted a significant number of malicious agents who attempt to exploit or defraud other participants without any legal repercussions. Teams responsible for issuance of stablecoins and / or storage of user assets are uniquely positioned to be able to misappropriate these assets or manipulate the stablecoins to the detriment of holders, should they choose to do so. We believe that teams who have made public their real-world identities are significantly less likely to engage in malicious acts for fear of legal ramifications. Thus, identification imposes accountability and enhances stablecoin safety.

2.1.2. Jurisdiction in top legal systems

Accountability of team members through identification exposes the team to potential legal action in case of malicious acts. This disincentivizes bad behavior, provided the rule of law prevalent in nations where team members live and projects are domiciled are robust. Proxies for legal quality will include but not be limited to well-known indices such as the World Justice Project's Rule of Law index and the World Bank's World Governance Indicators.

2.2. Track Record

2.2.1. Team's Background

Past experience of team leaders will matter, with particular emphasis on financial mismanagement, involvement in criminal activities, scams and such.

2.3. Incentives

A clear alignment of incentives between stakeholders (governance token holders, stablecoin holders) and the management team may not conclusively improve the odds of success and stability, but a lack thereof may have a detrimental impact. Understanding the incentive structures of each stablecoin project helps us assess the long-term orientation of the teams.
We focus on alignment of interest across time horizons, rather than the quantum or adequacy of incentives.
(This is currently not assessed.)

2.3.1. Compensation Mix (Fixed, Variable and Equity)

Getting team financial incentives right is a blend of art and science, but good practice will tend to avoid get-rich-quick mechanisms and will instead offer a blend of fixed, deferred and equity-like compensation.

2.3.2. Equity / Token Vesting

A good indicator of a team's commitment to long-term success of the stablecoin is the vesting terms of equity and tokens. Industry norms like vesting cliffs and graded vesting serve as guidance.

3. Implementation

For issuers / protocols which primarily rely on on-chain activities for the issuance, redemption and stabilization of stablecoins, we aim to assess risks arising from technical implementations – i.e, smart contract code and oracles.

Note: Evaluation of Implementation risk is not part of Bluechip's scope at launch.

3.1. Smart Contracts

3.1.1. Audits

- Have smart contracts been audited by reputed auditors?
- What was the process undertaken for the audit?
- What was the scope of such audits?
- Does the audit report list and describe issues in detail? Has the team mitigated these issues through changes or provided responses
- Are there any changes to code which have not been audited?
- Does the protocol incentivize independent code reviews through bug bounty programs?

3.1.2. Testing

- Has the team tested the deployed code?
- What was the extent of code coverage?
- What were the results of the tests?

3.1.3. Admin Controls

- Who has access to admin controls? What checks are in place to prevent misuse (Eg. Timelocks)?
- What special actions can be taken by administrators (Eg, pausing system, modifying user balances, upgrading all or part of the system, whitelisting/blacklisting of users etc)

3.1.4. Vulnerability / Exploit History

- Does the project have a history of being hacked or exploited? Has it happened more than once?
- What were the monetary losses incurred as a consequence?
- Have victims been compensated for losses?

3.2. Oracles

An inherent requirement in many stablecoin projects is the use of asset price information in their stability mechanisms (issuance & redemption, liquidations etc). Oracles provide this price information to smart contracts. Oracles tend to be the weakest links in DeFi protocols and the number of oracle-induced exploits till date reinforce this.

Since the value at stake in stablecoin reserves are worth several billion dollars in aggregate, price oracles used by projects need to be well-designed and manipulation resistant. Some factors we look to incorporate are:

I. Freshness

Information provided by oracles needs to be available in real-time. Using stale information can have serious consequences, increasing risks of insolvency / under-collateralization

II. Accuracy

Oracles serve as the single source of truth, so they need to be accurate. Accuracy can be improved by incorporating multiple data sources (centralized and decentralized exchanges), data aggregators, aggregation and consistency checks.

III. Market Coverage

Price information is derived from trades that occur across different exchanges. Since liquidity is fragmented across exchanges, price information can often be manipulated by whales with significant financial resources. By incorporating data from multiple sources, the impact of liquidity on price changes is smoothened out. The higher the market coverage, the higher the cost of attacks (due to liquidity concentration).

IV. Redundancy

Oracles with single points of failure pose significantly higher risks relative to decentralized oracles. Incorporating multiple nodes, multiple aggregators and multiple data sources ensures the oracle's reliability.

V. Incentives

In pursuit of authenticity and integrity of the data fed to oracles, well-designed incentive mechanisms help drive good behavior. For example, stake-based and reputation-based incentives penalize the provision of bad data, or consequences arising therefrom, through slashing and exclusion from service-provision.

4. Decentralization (not key objective of fiat/asset-backed stablecoins)

Stablecoins have the potential to become what Bitcoin set out to achieve – a decentralized, censorship resistant money. Recent events such as the OFAC sanction on Tornado Cash and the consequent blacklisting of stablecoins by centralized issuing authorities further highlight the need for such a form of money. However, decentralization extends beyond censorship-resistance and takes into account control of the issuing entity or protocol, democratic governance by users, how and where assets backing the stablecoin are stored. More generally, it is about stablecoin holders' ability to transact and control their assets without needing to trust a counterparty or intermediary.

I. Regulatory Oversight

Users holding stablecoins that are subject to regulatory oversight run the risk of having their stablecoins seized or blacklisted.

II. Custodian Risk

Stablecoin reserves can either be held off-chain in banks and third-party custodians, or on-chain in smart contracts or wallets. The method of asset custody determines the extent of control exercised by users, management teams and other custodians, and the associated risks of loss.

III. Type of Collateral

Fiat currencies and off-chain assets backing stablecoins are less decentralized in comparison to cryptocurrencies.

IV. Decision Making & Voting Power

In DAO-controlled stablecoin protocols, a more diversified ownership structure reduces the risk of governance attacks and management misappropriation.

V. User Blacklisting

Stablecoins issuers/protocols which have the ability to blacklist some or all stablecoin holders at their own discretion are less decentralized than those which enable permissionless usage.

5. Governance

Stablecoin projects will take a variety of organizational forms – some will be centralized and independent, akin to a traditional bank directly owned by a small or large group of shareholders, some will be subsidiaries of other financial projects, akin to a subsidiary of an investment bank, and some will be de facto co-ops, akin to mutual savings banks and credit unions.

In existing financial markets, a variety of governance mechanisms have succeeded, and our ratings approach will take this ecumenical approach to evaluating particular organizational forms. Throughout, our overwhelming focus will be on whether the stablecoin project's form of governance is likely to increase the probability of long-term coin price stability and prevent governance actions that can compromise the core objective. Other factors – profitability, compensation practices, environmental impact, and so on – will only shape our ratings if there is a reasonable chance that those factors are likely to influence stability.

Most credible stablecoin projects will likely hold substantial reserves, whether on-chain, in a traditional financial institution, or in some form of trust. Such a large tempting store of value, potentially subject to capture and predation by governance token holders, by a subset of stablecoin holders, by project managers and staff, or by outside parties, will make reserve governance a top priority, and our ratings will take this into account.

In projects where governance token holders have control over stablecoin reserves, principal-agent problems will dominate, and we will look for both traditional and innovative solutions to such agency problems. Do governance token holders or other key officials have control rights over stablecoin reserves, overwhelmingly independent of the choices of stablecoin holders? And if so, are there incentives for such parties to focus on the long-term stability of the coin's value – such as sizable future grants of the coin to key holders of the governance token? Are officials with governance rights prevented – either by software code, statute, or a regulatory supervisor – from steering stablecoin reserves away from the project, and from creating other projects that would tend to draw away value from the stablecoin? And just as insiders engaged in asset tunneling during post-Soviet economic restructuring, selling off business assets to friends and getting kickbacks in return, one concern will be that ostensibly fair sales of stablecoin assets will shrink reserves and help project insiders at the expense of stablecoin holders. Governance token holders won't be the only potential source of asset drainage and diversion: stablecoin project staff, managers, and contractors will all be potential threats. Strong internal controls will thus be a signal of good governance.

But giving stablecoin holders governance rights themselves can lead to another set of problems, the problems of public choice, of potential failures in group decision-making. Any program to give

stablecoin holders themselves strong control rights can lead to risks of unequal treatment of holders (informally, a tyranny of the majority); of abusive agenda control over the voting process (exemplified by McKelvey's Chaos Theorem and Michel's Iron Law of Oligarchy) and of uninformed stablecoin holders making unwise decisions about governance (exemplified by rational ignorance and Caplan's Myth of the Rational Voter).

Thus, our ratings will pay attention to potential principal-agent problems and public choice problems that can place stablecoin holders at additional risk and we will pay particular attention to de facto constitutional solutions to such problems – such as code, law, or other legal frameworks that may tend to protect stablecoin value.

The norms of open source software have helped to create effective monitoring and maintenance in parts of the cryptocurrency community, so one should ask whether these norms will be equally valuable in the stablecoin community. They certainly have a role – a well-informed community of advocates who appear to be giving good advice is obviously a positive signal. However, the unique problems of stablecoins – the large asset treasuries and the likely need for key players to have power to make first-order financial decisions in real time about liquidity provision, as well as about staffing and contracting, means that high-quality stablecoins will likely need governance mechanisms closer to modern banks and less like the open source-like methods common in other parts of the cryptocurrency community.

Together this means that effective governance will to a large degree be judged by the quality of the governors, and by whether the project is de facto led is a small group of governors who have both the incentives and the skills needed to maintain stability.

For now our evaluation will focus on the internal and external control mechanisms in place to prevent loss of value to stablecoin holders.

Governance of fiat and asset-backed stablecoins is evaluated on the following:

- Holder Protection - What rules, statutes or code exist to protect interests of stablecoin holders?
- Reserves Verification - What checks are done to ensure the existence of reserves?
- Redemptions - Do issuers have transparent and reasonable redemption terms?

Governance of on-chain native stablecoins is evaluated on the following:

- Voting Systems - Does the governance function have binding votes and automated on-chain execution of proposal outcomes?
- Anti-Governance Attack Measures - Are there appropriate preventive and reactive measures to counter governance attacks?

6. Externals

This factor seeks to incorporate external feedback mechanisms such as market and social sentiment into our internal ratings.

Market prices: Stablecoin Prediction Markets

Market prices can be powerful sources of information about the safety of any particular stablecoin, since market participants have to place their money where their mouth is. Our ratings will give weight to market prices as signals of safety and risk, and those weights will evolve over time as these de facto and de jure stablecoin prediction markets mature.

Three particular markets will offer potentially important information about the future stability of any particular coin. First: existing perpetual futures markets in individual stablecoins already offer one valuable market-based prediction of future stablecoin prices. Second: in the future, stablecoin prediction markets – auctions where the auctioned asset pays out a fixed amount in the event that a stablecoin substantially breaks its peg – may provide additional information. At present, one-year-ahead stablecoin prediction markets in the most-used stablecoins would be extremely useful, giving market observers unique information about the short-to-medium term safety of particular stablecoins in a rapidly-evolving market. And third: credit default swaps (CDS) – auctioned assets that pay off in the event of default, but pay off in proportion to the degree of default – are an example of a widely-traded asset that already serves as a prediction market for debt.

Secondary market prices in these assets will be important information sources to stablecoin users, and our dashboard will contain real-time data from such markets.

B. Safety Score

We estimate numerical scores for factors, sub-factors and variables of influence on a 0-to-1 scale for all stablecoins covered. The estimates are a combination of quantitative and qualitative inputs. Scores at the variable level are averaged and aggregated upwards at every higher level until a factor score is derived.

1. Grading Scale

The end result of our scoring efforts is an alphabetical grading scale based on a combination of (a) specific factor-level cut-off scores, (b) low risk scores across multiple factors, and (d) 'Red Flag' triggers.

Grade	Stability cut-off	Risk Criteria
A+	**0.97** **(Highly stable)**	**Fiat/asset-backed stablecoins:** "Very Low Risk" in Governance and Management factors. Additional Conditions: Reserves must be bankruptcy-remote. **On-chain stablecoins:** "Very Low Risk" in Governance, Management and Decentralization.
A	**0.9** **(Stable)**	**Fiat/asset-backed stablecoins:** "Very Low Risk" in Governance and Management factors. Additional Conditions: Reserves must be bankruptcy-remote. **On-chain stablecoins:** "Very Low Risk" in Governance. "Very Low Risk" in at least 2 factors in total.
A-	**0.8** **(Stable)**	**Fiat/asset-backed stablecoins:** "Very Low Risk" in Governance and Management factors. Additional Conditions: Reserves must be bankruptcy-remote. **On-chain stablecoins:** "Low Risk" (or better) in Governance. "Very Low Risk" in at least 2 factors in total.
B+	**0.75** **(Moderately stable)**	**Fiat/asset-backed stablecoins:** "Very Low Risk" and "Low Risk" (or better) in Governance and Management factors. **On-chain stablecoins:** "Low Risk" (or better) in Governance. "Very Low Risk" and "Low Risk" (or better) in at least 2 factors in total.

B	**0.7** **(Moderately stable)**	**Fiat/asset-backed stablecoins:** “Low Risk” (or better) in Governance and Management factors. **On-chain stablecoins:** “Low Risk” (or better) in Governance. “Low Risk” (or better) in at least 2 factors in total.
B-	**0.65** **(Moderately stable)**	**Fiat/asset-backed stablecoins:** “Low Risk” and “Moderate Risk” (or better) in Governance and Management factors. **On-chain stablecoins:** “Low Risk” (or better) in Governance. “Low Risk” and “Moderate Risk” (or better) in at least 2 factors in total.
C	**0.6** **(Moderately stable)**	**Fiat/asset-backed stablecoins:** “Moderate Risk” (or better) in Governance and Management factors. **On-chain stablecoins:** “Low Risk” (or better) in Governance.
D (Unsafe)	**<0.6** **(Unstable)**	**Fiat/asset-backed stablecoins:** “High Risk” in Governance or Management factors. **On-chain stablecoins:** “Moderate Risk” or “High Risk” in Governance.
F (Fail)	**Any red flag triggered**	

Factor level cut-offs are currently based on the Stability factor as it represents our belief that a stablecoin’s reserves and mechanism design play an outsized role in overall safety.

2. Risk Grades

Factor	**Very Low Risk**	**Low Risk**	**Moderate Risk**	**High Risk**
Management	>0.83	0.66 – 0.83	0.33 – 0.66	<0.33
Decentralization				
Governance				

3. Red Flags

Red Flags are highly negative traits of a stablecoin, the existence of which automatically results in a failing grade ('F').

Examples:

- Stablecoins with zero or endogenous collateral
- Known issues pertaining to a stablecoin issuer's team, such as current/prior involvement in scams, rugs, theft or criminal activities
- Stablecoin reserves controlled by an Externally-Owned Accounts
- Collateral-drain functions in smart contracts which enable a person or a group of persons to transfer reserves to addresses not whitelisted by governance.
- Core smart contracts have not been audited by a reputed audit firm.

C. Conclusion

Through this paper, we offer a comprehensive overview of our approach to evaluating the safety of stablecoins. We recognize that stablecoins have several and significant use cases and our framework, therefore, has been developed keeping in mind the needs of diverse user groups.

As our framework evaluates stablecoins on multiple factors, trade-offs between factors are inherent. The implication is that there can be no single best stablecoin, but there are bests for specific use cases and user groups. While our grading scale will assign an A+ (highest in overall safety) to those stablecoins which have very low risk scores on multiple factors, thus prioritizing the 99% of stablecoin users, it is possible for other stablecoins to have spikes in only one or two factors and yet be the most appropriate for a particular user group. For example, a highly decentralized but reasonably stable stablecoin with a B+ grade would be more attractive to a decentralization/privacy focused user than the most stable fiat-backed stablecoin that held an A+ grade but was more centralized and had slightly weaker privacy protections. We expect our ratings to empower every user, advanced or otherwise, to make an informed choice based on their specific needs.

We also recognize that our framework will evolve over time as we incorporate feedback from the market, as new sources and forms of data become available and as new stablecoin models emerge. We hope that our framework will encourage stablecoin issuers to make more information available to the public, to make sound design choices and prudent operating decisions, and to embrace high standards of transparency and responsibility.