



Simple, Reliable Cover for Everyone in
Web3

Amulet Litepaper

Amulet Team Nov 2021

Version 0.1



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1. About this document

This document and any other document in association aims to outline the business concept and platform design for Amulet Protocol, a decentralized **risk protection protocol ("RPP")** designed for the Rust-based ecosystems starting with Solana.

The business proposal set out in this document is based on the prospect of the evolving digital era Amulet envisages, as well as certain assumptions and information currently available and deemed reliable to us, subject to updates. Due to the nascent nature of DeFi, the views stated in this document are solely representative of the business ideas of Amulet's team, and do not constitute any investment suggestion to any digital asset, or explanation of the policies or opinions of any government or authority. References to certain specific industry terms, company names, or platform trademarks, are for illustrative purposes only, and do not imply any affiliation with, or endorsement of any of those parties.

2. Executive Summary

Amulet Protocol is a decentralized risk protection protocol built for the Rust-based ecosystem, starting with the Solana blockchain. Amulet has designed an innovative and open risk protection model, which not only effectively addresses the common challenges of existing decentralized RPPs, but also creates a new paradigm shift for the whole risk management sector.

Risk underwriting and claims lie at the core of any risk protection business. However, all existing decentralized finance (DeFi) RPPs have been facing a critical sustainability challenge for risk underwriting and claims.

Amulet is creating the risk protection industry's first **Protocol-Controlled Reserves (PCR)** approach in which Amulet will build up reserves and introduce a claim structure involving a unique **Yield Backed Claim ("YBC")** method. This is a significant change from the incumbent model of simply drawing directly on the underwriters' capital to make claim payouts.

Amulet's vision is to offer simple, reliable cover for everyone in Web3. With the addition of Amulet, users in the entire Rust-based ecosystem will gain access to a new way to hedge various risks with cover product offerings.



3. Introduction

3.1. The Opportunity

DeFi has experienced exponential growth since the summer of 2020 with the influx of hundreds of billions in capital and the emergence of multi-billion dollar protocols in just a little over two years. Riding this wave of explosive growth is a rapidly increasing demand for protection against blockchain risks.

Crypto users often suffer losses from various threats, such as smart contract hacks, stablecoin de-pegs, market volatility, etc. In 2021 alone, \$3B were lost to smart contract hacks. Among all available risk hedging tools, protection by way of cover has become the most prominent and effective approach to managing these risks.

Although Amulet has seen increased demand for cover products, less than 2% of overall DeFi TVL is currently covered. There is still a large void to be filled by RPPs.

Despite Ethereum and its affiliated EVM (Ethereum Virtual Machine) ecosystems' dominance in DeFi, other Rust-based public chains are rapidly maturing, spearheaded in particular by Solana. According to Amulet's research, TVL on Solana is growing 5x faster than Ethereum, and this growth is expected to be stronger given the distinctive strengths of Solana centered around its lower cost and higher throughput.

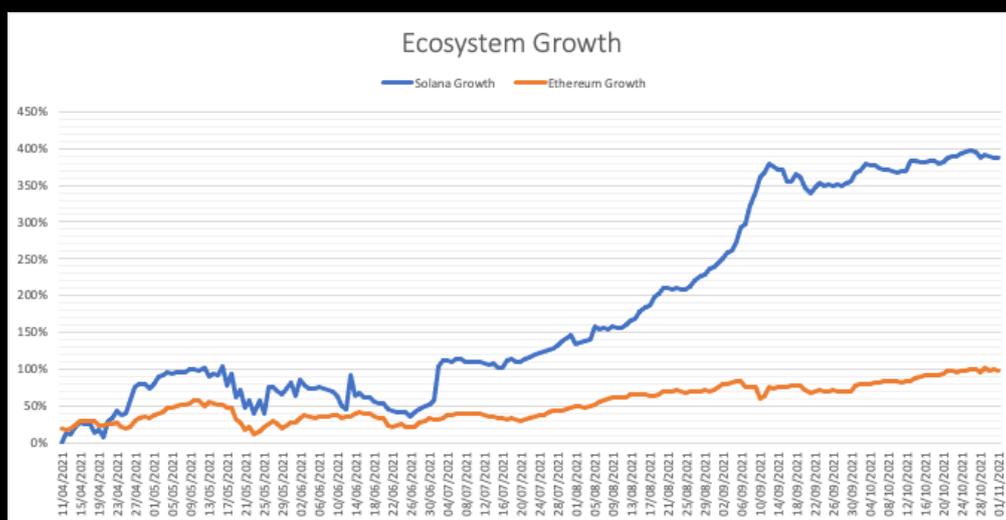


Figure 1 Ecosystem TVL Growth

Solana's rise as a major layer 1 solution promises an alternative realm of possibilities. The broader Rust-based ecosystem is now \$30B large. While there has been tremendous ecosystem growth and a large influx of top-tier talent into the space, this growth also invites more risk of attacks and bad actors.

At the moment, risk management solutions are still relatively scarce or non-existent on Solana and the Rust-based space at large, presenting Amulet with an incredible and unique market opportunity. Amulet expects major demand for its cover products and other risk management solutions along with Solana's continued growth and adoption.



3.2 Existing Challenges

There are several notable impediments to existing decentralized RPPs growth and sustainability:

a. Capital and User Acquisition

RPPs are faced with a two-pronged problem of acquiring and retaining staked capital. There is inherent risk of losing principal while at the same time, intense competition for user capital across a high APY environment. Yield fluctuations alone can cause liquidity locusts to appear, causing many protocols to be at the mercy of stakers and forcing some to increase rewards just to retain staked capital. This does not appear to be a sustainable solution and could result in a debt spiral which becomes more and more difficult to get out of over time.

b. Network Building

Building up distribution channels to increase coverage and capacity while maintaining appropriate risk control is difficult. The importance of having strong networks cannot be stated strongly enough for RPPs. Their business and operating model is fundamentally that of a conduit for collective risk pooling and mutual aid. Oftentimes, having cover is an afterthought that occurs once a user or protocol has been rugged, hacked or somehow exploited even though these risks were known ahead of time. Investors and protocols that have cover can be liberated from some of these risks and delve deeper into their crypto journeys in a safe manner. Although it is an uphill battle, Amulet believes user education on proactive risk management to be a worthy endeavor.

c. Capital Management

In the event of catastrophic losses, underwriters might rush to withdraw funds to minimize the impact of such claims on their principal. While understandable from the underwriters' perspective, this creates a potential threat to the protocol's sustainability. Until the protocol reaches critical mass in funds (i.e. able to self-manage payments for incoming claims with cover payments and associated investment earnings), that threat will remain omnipresent. This problem is further exacerbated by the lack of an effective risk management framework which makes it difficult to understand whether risks have been priced appropriately. Without effective capital management, protocol's run the risk of not having the necessary capital structure and allocations in place to guard against a "bank-run" on the protocol.

d. Claims Processing

It is difficult to ensure an impartial and efficient claim process while trying to align the interests of many different parties at the same time. For example, underwriters are incentivized to minimize payouts since they are paid based on the protocol's overall profitability (cover payments received less claims paid). However, claimants want to minimize cover payments and increase their potential payout. Satisfying these two parties already poses several challenges on top investor, community, and partner concerns, as well as the reputational challenges faced by RPPs in general.



Apart from the common challenges listed above, the greatest challenge to existing DeFi RPPs lie in their underwriting and claim models. All existing RPPs have built their underwriting capacity by renting liquidity from underwriters and have been drawing claim payouts directly from them. This model of renting underwriting liquidity has several issues, chief of which is the question of the model's sustainability. Amulet intends to fix that.

4. Platform Design

4.1 Solution Overview

The design of an RPP normally entails balancing several core components including:

- Risk Underwriting: how to acquire assets to properly underwrite risks.
- Product Offering and Distribution: what types of risk are covered, how to define and price them, and how to distribute the products to users.
- Claims: how to decide on the claim result and handle claim payouts.
- Capital Management: how to manage capital on the platform to maintain sufficient reserves.
- Tokenomics: how to create and distribute value to token holders.

There are many other factors to consider in this design, which will be covered briefly in the following sections. Meanwhile, Amulet will use Solana as the ecosystem to illustrate its designs in this paper as the mechanics are transferrable to other Rust-based ecosystems.

At a high level, the core design for the above components is listed in the table below.

Component	Key Design
Risk Underwriting	<ol style="list-style-type: none">1. At the start of the platform, use staked assets from participants as the primary underwriting source in a conservative manner while building up the treasury pool to grow PCR. Eventually, PCR will be adopted as Amulet's primary underwriting source.2. Accept \$SOL as a staking asset, mint \$amtSOL to users as a yield bearing token (similar to \$mSOL and other staked assets in the ecosystem) and use Solana PoS staking as the base layer for yield generation.3. To keep the platform open, also accept other \$SOL derivatives widely used in Solana ecosystem such as \$mSOL (from Marinade project), \$stSOL (from Lido project), etc.



	<ol style="list-style-type: none">4. Mint \$aUWT as an intermediary underwriting token to unify \$SOL derivatives (\$amtSOL, \$mSOL, \$stSOL) to be used for underwriting cover products.5. Set up token trading pairs (e.g., \$amtSOL-\$SOL, \$amtSOL-\$mSOL) on Solana AMMs to enable trading and arbitrage
Product Offering and Distribution	<ol style="list-style-type: none">1. Offer a wide range of individual products to cover various risk types, such as smart contract hacking for DeFi protocols, stablecoin de-peg for fiat-backed stablecoins and algorithmic stablecoins, custodian risk for central exchanges and custodian entities, and expand to NFT, GameFi and Metaverse assets.2. Use dedicated pricing models for different products such as risk assessment-driven approach for smart contract cover and economic simulations for stablecoin de-peg cover.3. Bespoke solutions for institutional users with B2B cover and services.4. Build up product distribution network via partnerships, API integrations, referral programs, etc. <p>Overall, Amulet aims to offer attractive products with reasonable pricing and provide easy user access to them.</p>
Claims	<ol style="list-style-type: none">1. Build a hybrid claim process, with automatic claim process for parameterized products, and voting-based claim process for other products.2. On claim payout, use a tiered payout structure with the Yield Backed Claim Pool (YBCP) as the first tranche, followed by the claims reserve in the treasury pool before drawing down on the common underwriting pool.3. The YBCP aims to minimize loss to underwriting assets provided by end users, thus maintaining existing TVL to generate more yield and grow the PCR.
Capital Management	<ol style="list-style-type: none">1. Use Solvency Capital Requirement (SCR) to manage the minimum required reserve for potential claim payouts, and liquidity for user staking / unstaking.2. Build up the treasury pool from various sources (e.g. PoS staking, premium sharing, and other fees).3. With a treasury pool in place, use it to build PCR, conduct token buy backs, liquidity provisioning, etc.
Tokenomics	<ol style="list-style-type: none">1. Issue governance token identified as \$AMT token, which can be used for protocol governance activities.



	2. The tokenomics are designed to distribute value to longest-term \$AMT token holders and create desired alignment between protocol sustainability and token holder interests.
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Table 1 Core Design Thinking

Amulet is designed to provide a high level of protection against capital drawdowns while earning returns for its participants. The realization of this objective will be gradual, based on treasury growth alongside the buffers intended to support it. Here is an overview of Amulet's structure:

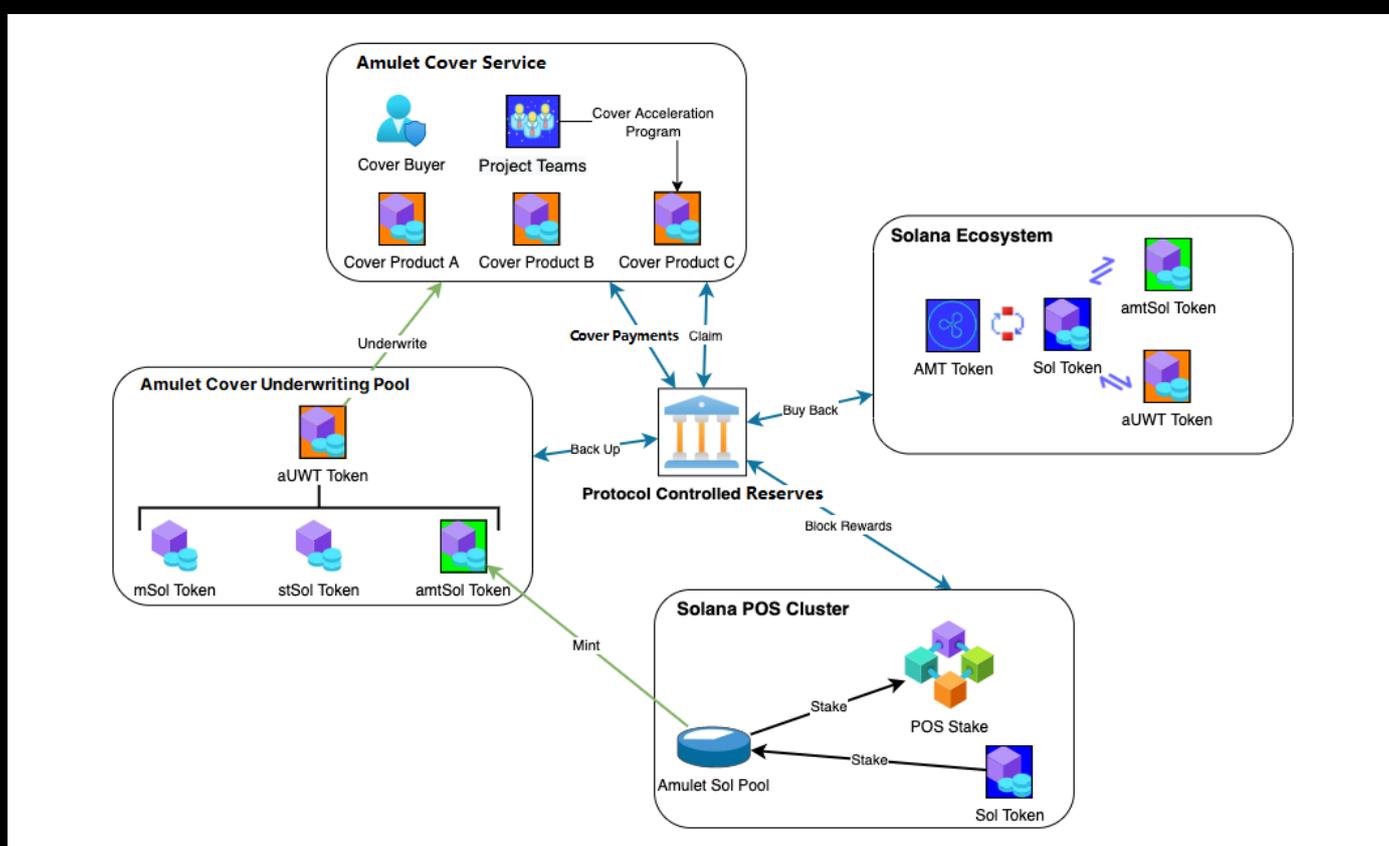


Figure 2 - Overall Platform Design

The core components of the overall platform design set out above in Figure 2 are Risk Underwriting, Product Offering and Distribution, Capital Management, Risk Management, and Claim Assessment.



4.2 Underwriting Tokens and Structure

4.2.1 Amulet \$SOL (\$amtSOL)

Within the Solana ecosystem, there are several \$SOL derivatives such as \$mSOL (from Marinade.finance) and \$stSOL (from Lido.finance). These liquid staking tokens are significant DeFi innovations since they allow users to stake their \$SOL on the network and still be able to participate and continue earning yield from Solana DeFi protocols.

Amulet intends to offer a separate \$SOL liquid staking solution to users in the form of \$amtSOL and build the ecosystem's protective layer backed by \$SOL and the Solana PoS cluster.

Like \$mSOL, \$amtSOL is a yield bearing token which accrues yield generated by PoS staking on Solana. Users have the option to stake \$amtSOL in underwriting pools to underwrite cover products and earn cover payments plus \$AMT rewards or stake their \$amtSOL in the \$amtSOL staking pool to earn \$AMT rewards. \$amtSOL can also be used to participate and earn additional yield from other protocols in the Solana ecosystem.

4.2.2 Underwriting Token (\$aUWT)

As an open DeFi RPP, Amulet also supports other \$SOL derivatives such as \$mSOL, \$stSOL, etc. for backing its synthetic underwriting token \$aUWT.

\$aUWT tokens are minted to unify the underwriting capabilities \$SOL derivatives staked in Amulet's underwriting pool. The \$SOL derivatives are exchanged for \$aUWT using Amulet's volume-weighted average algorithm.

Users can either swap in and out of the \$aUWT positions through trading pairs on external DEXs (e.g. Saber or Raydium) such as \$amtSOL-\$SOL, \$amtSOL-\$mSOL, \$amtSOL-\$stSOL, \$amtSOL-\$aUWT, \$mSOL-\$aUWT, and \$stSOL-\$aUWT, or redeem their \$aUWT directly from Amulet.

4.2.3 Underwriting Structure

Unlike some existing RPPs that use a combination of common underwriting pools and individual pools for cover products, Amulet will use individual pools for each product. That way, users can choose one or multiple pools to underwrite by staking their \$aUWT into specific product pools. An initial leverage factor of 1.5 will be applied to limit the underwriting capabilities of \$aUWT. Thereafter, the leverage factor can be adjusted according to governance.

In exchange for providing underwriting capital, users will be eligible for sharing in the cover payments generated by the individual underwriting pools they are in as well as \$AMT rewards. \$aUWT holders may also receive additional token rewards when staking their \$aUWT in the underwriting pool of a covered protocol who is participating in Amulet's Cover Acceleration Program.



4.3 Cover Products

4.3.1 Product Offerings

Amulet plans to start with providing cover for smart contract vulnerability, stablecoin de-peg risk, custodian risk, and eventually expand to a much wider spectrum of different risk types such as default risk on lending protocols, NFT asset risk, price volatility risk, etc.

In addition standalone cover products, Amulet will also customize cover bundles by wrapping two or more separate cover products or covered protocols in a single package deal, and provide portfolio-based coverage. This lowers costs, simplifies user experience, and broadens coverage for users.

To help users with their cover purchase decisions, Amulet will be providing cover recommendations. Users will also have the flexibility of cancelling, renewing, or extending their cover.

Amulet currently operates and builds on the Solana blockchain. In time and as its cover capacity and technologies develop, Amulet will extend its valuable suite of products and services to the growing userbase on other Rust-based blockchains (e.g. Cosmos).

4.3.2 Pricing Model

The risk protection business is an endeavor to hedge against uncertain future loss, in which the covered person trades risk with RPPs through payments for cover products. Product pricing is at the heart of any risk protection business and Amulet builds its pricing model based on proven practices and historical data.

The aim of product pricing is to find and charge a fair, affordable, and competitive price for users. It should reflect the risks undertaken by the protocol and be quick to adapt to fast-changing risk settings. Amulet's pricing models enable it to get a fair estimate on expected losses, reduce costs for users, and enhance the protocol's long term viability.

Amulet's pricing models take a multi-faceted approach when determining risk. For example, its Smart Contract Cover uses audit reports, operational history, team info, etc. to generate a base rating for a protocol. The base rating, along with protocol APY and supply-demand factors, will be used to determine a cover product's price. Supply and demand is typically measured via a bonding curve between price and cover capacity. Basically the more capacity available, the lower the cover product's price and vice-versa.

Stablecoin De-peg Cover rely on economic simulations of historical data to test and identify the initial limits of the cover product, followed by further refinement through the incorporation of data from current market indicators and forward-looking assumptions. Amulet will carefully select and define these limits at the start, then constantly refine the product as it receives new information.

As more and more data becomes available, Amulet will be able to develop and fine tune increasingly sophisticated data-driven pricing models with the help of Machine Learning technology.



4.3.3 Cover Acceleration Program

In order to bootstrap underwriting capacity for certain products and generate higher returns for underwriters, Amulet's Cover Acceleration Program (CAP) will engage with covered protocols' teams to accelerate cover adoption.

For example, when smart contract cover is launched for Protocol A, its initial price may be high due to limited capacity as underwriters may not have as strong an incentive to back the risk versus older cover products. Protocol A can incentivize underwriters with its native tokens or other rewards and additionally \$AMT rewards jointly sponsored with Amulet. This helps to increase Amulet's cover capacity and reduce costs for cover purchaser while underwriters earn more rewards. Additionally, pool rewards allocated by Protocol A may serve as an additional buffer against claim payouts.

The CAP will initially apply to Smart Contract Cover before expanding to other cover products on Amulet. As Amulet sees it, everyone stands to benefit from the CAP. Users have access to more options for risk protection, protocols are able to attract more users, underwriters safely earn rewards on their principal, and Amulet is able to extend and expand its product offerings to more users.

4.4 Capital and Risk Management

4.4.1 Capital Model

Although Amulet is not an insurer, neither is it in the business of providing insurance, arranging insurance contracts, nor is it acting as an insurance agent, it is nonetheless appropriate and indeed desirable for Amulet to adopt the highest possible capital management standards available to manage its capital pools in the interest of the Amulet community. Amulet's capital model will refer to EIOPA's Solvency II regulations, a regulatory framework set out for insurance and reinsurance operators in the EU. The requirements set out by Solvency II are designed to ensure adequate protection of policyholders and beneficiaries.

Solvency II is an economic risk-based approach that assesses the "overall solvency" of insurance and reinsurance undertakings through quantitative and qualitative measures. Under Solvency II, the capital requirements are determined based on risk profiles and how such risks are managed, providing the right incentives for sound risk management practices, and securing enhanced transparency.

There are different tiers of capital requirements under Solvency II, of which the Solvency Capital Requirement (SCR) and Minimum Capital Requirement (MCR) are critical criteria. The SCR is capital required to ensure that the company would be able to meet its obligations over the next 12 months with a probability of at least 99.5%, while MCR represents the threshold to correspond to an 85% probability of adequacy over 12 months and is bound between 25% and 45% of the SCR. For supervisory purposes, the SCR and MCR can be regarded as "soft" and "hard" floors.

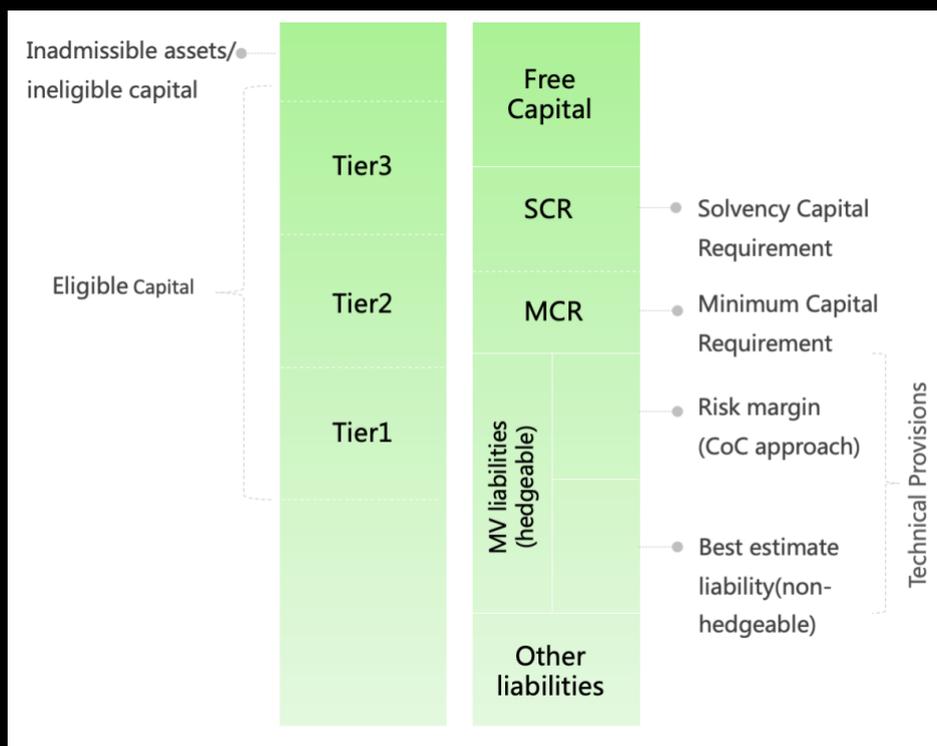


Figure 3 SCR Explained

The SCR calculation runs on a regular basis, and all data are calculated on-chain and shown on Amulet's website. As Amulet becomes more decentralized, governance token holders will have a say in the required capital requirements to adjust to current risks. When the SCR reaches its limit, the whole underwriting pool will be locked to avoid liquidity risk, ensuring a minimum of required capital is maintained in the underwriting pool.

4.4.2 Risk Management

Risk management in Amulet can be broken down into several key functions:

- **Capital adequacy and management**

Adhering with Solvency II requirements creates a desirable level of safety when underwriting risk. It builds a protective moat around Amulet's capital base and ensures there is sufficient reserves for making claim payouts.

- **Layered risk controls**

Several layers of risk controls have been built into Amulet to ensure funds are safe and that the business remains sound:

- Technical checks to ensure base level protocol safety, including code auditing, bug bounty program, and continuous testing.
- Careful selection of protocols to be covered through rigorous risk assessment.
- Identifying over-concentration of risk from the chain level down to individual product level and risk types in order to avoid catastrophic drawdowns by certain covers.
- Mechanisms such as an emergency kill-switch to suspend all or some business



activities to head-off suspicious transactions.

- Clear cover terms and conditions properly detailing the scope of coverage and claims process amongst other particulars.

- **On-chain risk alerts**

On-chain data monitoring, analysis, and alerts serve as timely and valuable signals for Amulet to respond rapidly, such as notifications of covered protocols' security status, cover product price adjustments, or the occurrence of a risk event. Amulet has adopted many best practices in this area and continues to work with several other projects to enhance its risk monitoring capabilities.

4.5 Claim Process

Amulet intends to use a hybrid claims process to simplify its procedure and ensure fairness for its users. This hybrid process will consist of a programmatic claims process for parametric cover products, and a voting-based claim process for non-parametric products.

4.4.1 Programmatic Claims

This approach is suitable for parameterized cover products, such as stablecoin de-peg cover. Its trigger criteria are clear and simple enough to be programmed and automatically executed when the necessary conditions are met (e.g. stablecoin falls a certain predefined amount below its peg). Users will be able to enjoy a much faster claims process and greatly reduced burden to supply proof of loss. At the same time, Amulet will be able focus more on protocol development and bringing industry-leading products to market.

4.4.2 Vote-based Claims

For non-parameterized cover products such as smart contract risk or custodian risk where risk events or exploits are not yet easily verified, a vote-based claims process is required.

Generally, after a Claimant submits a valid claim along with the necessary evidence within a specified time period, a Claim Committee will investigate the claim and evidence then vote to approve, partially approve, or reject a payout. There will also be an appeal process where Claimants can appeal to the Claim Committee to reconsider its decision based on new and different evidence. A deposit fee is charged for claim submission and appeal. More up-to-date details will be set out on Amulet's website.

Therefore, Amulet will be balancing speed with fairness through its automated and manual claims processes.



5 Protocol Controlled Reserves

Existing DeFi RPPs rely on external underwriters to provide capital for claim payouts and cover capacity. This is effectively the same as renting liquidity from stakers. While renting underwriting capital is effective in the short to medium-term, it does raise some serious issues that may greatly impact the scalability and sustainability of RPPs. For example:

- In the face of outsized claims, underwriters may race to withdraw their capital, leading to insufficient claim payouts and subsequently reduced TVL and future underwriting capacity for the RPP as underwriters look to mitigate and recoup their losses.
- Due to concerns over losing underwriting capital, many underwriters are unwilling to participate in RPPs.
- RPPs lockup or impose other restrictions on underwriting capital in their capital pools when claims are submitted in order to protect the functioning of the claims process. This method reduces user experience and hinders participation in the space.
- Yield generated from RPPs are generally not as competitive when compared to other DeFi protocols, hence users do not have a strong incentive to stake with RPPs. Some protocols use their token emissions to supplement their APY, but this is obviously not sustainable and puts downward price pressure on their governance tokens.

Hence, RPPs usually have smaller TVL compared to AMM, lending, and other DeFi protocols. The value of their governance tokens is also difficult to estimate given the uncertain risk of claim payouts weighing on RPPs' prospects.

5.1 Key Design Considerations

The solution that Amulet proposes for these challenges is a combination of Underwriting Mining and Protocol-Controlled Reserves ("**PCR**"). PCR is aimed at building reserves to protect the underwriters' principal when making claim payouts. Amulet believes this new model has the potential to scale sustainably.

The PCR approach incorporates several key design considerations:

- Minimize loss to underwriters' capital so as to continue to attract and maintain a large TVL as the foundation of the protocol.
- Generate yield with a stable and growing TVL to develop the treasury pool.
- Stake yields generated from the treasury pool into the underwriting pool to increase underwriting capital until it reaches critical mass for independent yield generation capabilities.



- Have the growing treasury pool and protocol's yield generation capabilities back new underwriting tokens (\$aUWT) as the first tranche for claim payouts, further minimizing potential losses to underwriters.

Based on the above design considerations, PCR is going to be made up of the following components:

- 1) **Yield Backed Claims Pool:** Collateralization of future revenues that Amulet is projected to generate in order to mint more \$aUWT for unexpected large claim payouts in order to reduce reliance on underwriters' capital as far as possible.
- 2) **Treasury Pool:** Measures the cumulative value of Amulet's operations. This includes PoS staking rewards, borrowing, and lending revenue on Amulet's underwriting capital and cover payment sharing.

Eventually, Amulet will be able to continuously grow its TVL with minimized potential loss to underwriters' capital, build up a large reserves, create stable returns for users and capture value for \$AMT token holders. This approach has the potential to build Amulet into a multi-billion-dollar protocol in the medium-term, scaling with DeFi's growth prospects over the long-term.

5.2 Treasury Pool

The Treasury Pool is a key element of PCR. Income expected to expand the Treasury Pool's size includes:

- A portion of PoS staking rewards generated by staked \$SOL.
- A portion of cover payments earned from cover sales.
- A portion of investment returns generated from staked assets, such as \$mSOL, \$stSOL, and \$aUWT.
- Other revenue and fees generated by Amulet (e.g. LP rewards, CAP rewards).

The treasury pool will be earmarked in the following manner:

- 1) Claims Reserve: x% reserved for large claims and to grow core funds through reinvestment in the underwriting pool.
- 2) Value Accrual Activities: y% to purchase and redistribute \$AMT tokens to long-term \$AMT holders (\$AMT buybacks and redistribution will be limited at first and eventually increased as Amulet builds up to a critical mass of funds or reserves).
- 3) Development Costs: z% to fund development.

x% / y% / z% will initially be set as 90% / 10% / 0% and subject to change in future governance decisions.



5.3 Yield Backed Claim Payout

In order to build up PCR and minimize drawdowns on underwriters' capital, a tranche is built into Amulet's claim payout structure. This tranche is backed by future revenues and therefore dubbed as Yield Backed Claim ("YBC"). What this means is that Amulet is collateralizing revenues that it is expected to earn in the near future in order to mint more \$aUWT for claim payouts so as to safeguard underwriters' capital against claims.

When a claim payout is approved, the necessary funds will be drawn from different payout tranches in the sequence outlined below:

1. Yield Backed Claim Pool.
2. Claims Reserve in the Treasury Pool.
3. Product Underwriting Pool (i.e., If there is a claim on Cover Product A, only the \$aUWT staked in Cover Product A's underwriting pool will be affected).

This way, underwriting capital contributed by underwriters will be least affected. Underwriters can be confident that their principal is SAFU while generating considerable earnings through the various yield generation opportunities available on Amulet.

The time period which Amulet uses to determine the amount of revenue to collateralize for YBC will shrink progressively as Amulet builds up the PCR. Under no circumstances will the said time period's duration extend beyond its initial parameters .

5.4 Phased Execution Path

With a solid PCR base serving as the protocol's foundation, Amulet can deploy assets in a number of ways. The primary function of PCR will be to protect underwriters' capital by underwriting protocol and individual user risks. However, so that the PCR does not remain idle, they will be invested with returns accruing to \$AMT holders and \$SOL stakers.

As Amulet grows and reaches its key milestones, the following initiatives will commence:

- 1) **Project Initiation** – Limited underwriting with greater emphasis on investments to bootstrap treasury pool assets. Cover products will be offered on a limited basis for specified protocols at this stage. This will continue until the Treasury Pool reaches critical mass and its income generating potential stabilizes. Early \$AMT lockers will receive special rewards.
- 2) **Treasury Pool Critical Mass** – Size of claims reserve and associated collateralized future revenues (i.e., YBCP) is sufficient to withstand economic shocks as defined by Solvency II standards. Accelerated distribution of investment and other treasury income will commence while rewards for locked \$AMT will begin to reduce.



- 3) **Growth Phase** – Projected and actual loss ratios monitored to track performance and execute on improvements so that the protocol can better withstand economic shocks. Emphasis on the continued acceleration of treasury income while \$AMT emissions are throttled. Leverage on underwriting capital can be increased to generate new business and underwrite larger covers.
- 4) **Hypergrowth And Beyond** – Defined as the point when cover purchasers and regular treasury income can withstand incoming claims without the need to draw on capital tranches. Treasury \$AMT buyback operations can help increase capital staked, thereby allowing for greater cover capacity, which in turn generates more cover payments and leads to further treasury growth and value accrual.

The above key milestones and protocol mechanics will drive Amulet's growth and leadership on a paradigm shift from renting underwriting capacity to PCR – ushering in a new generation of RPPs.

6. Cross-Chain Expansion

Amulet's initial deployment will be on Solana given its rapid growth and potential. Amulet also plans ambitions to expand to other Rust-based ecosystems such as Near and Cosmos, offering protection to user and protocols on other chains.

Amulet firmly believes that risk protection solutions should be made available to all users and protocols regardless of the chain they operate in. It aims to create the safety standard for users and the adoption of blockchain technologies.

7. Tokenomics

7.1 Governance

\$AMT is Amulet's governance token. It primarily gives \$AMT token holders the right to vote and participate through governance in the protocol's development and initiatives such as but limited to treasury utilization and rewards distribution, claim validity, target capital requirements, new products listing, treasury buyback thresholds, determining future protocol objectives, etc.

7.2 Value Accrual

Given the nature of Amulet's business, several features have been adopted from leading DeFi protocols in designing \$AMT to enable robust governance and attract patient capital to the protocol. Long-term holders will be able to enjoy certain features

and benefits such as:

- Boosted rewards through vote-escrowed \$AMT (\$veAMT).
- Revenue sharing.
- Eligibility for Amulet's membership and loyalty program.

More details on Amulet's \$veAMT mechanics:

- \$AMT holders are able to lock their \$AMT and receive \$veAMT for periods of e.g., 1 month, 6 months, 1 year, or a maximum of 4 years.
- "Points" will be allocated to \$veAMT holders in proportion to their staking periods. These points are used to determine the allocation of additional rewards on top of the usual base \$AMT rewards. The highest rewards will be distributed to the longest holding periods.
- Points allocated to \$veAMT holders will decrease linearly over time with the rewards adjusted accordingly.

To illustrate how the rewards system may work under \$veAMT, assume base rewards to be 100,000 \$AMT per day and \$veAMT rewards to be 200,000 \$AMT per day. Total \$AMT staked in the \$AMT pool is 40M, 50% of which is currently locked (20M). A new user adds and locks another 10M \$AMT in the \$AMT pool for 4 years (i.e. the maximum locking period). In this scenario, the rewards distribution will be:

Details	Results
Base Rewards = $10M / 50M * 100,000$ \$AMT	20,000 \$AMT
\$veAMT Rewards = $10M / 30M * 200,000$ \$AMT	66,667 \$AMT
Total Rewards	86,667 \$AMT
Rewards Per Day (% of Locked \$AMT)	8.7%

Users who lock their \$AMT tokens with Amulet potentially accumulate significantly higher rewards than if they had simply staked for base rewards. Amulet also plans to accrue more value back to \$AMT token holders and price by executing buyback operations, using treasury funds to purchase \$AMT on open markets and re-distribute them back to \$AMT stakers and lockers. Hence, with the value of \$AMT rewards being tied directly to the protocol's performance over time, long term members who hold the most \$AMT tokens benefit the most from Amulet's investments and core revenue stream.



7.3 Distribution Schedule

The initial total supply of \$AMT is set to 1,000,000,000. The majority of \$AMT's supply (68%) is reserved for business incentives and ecosystem growth, whereas the rest are for fundraising, liquidity bootstrapping, and team incentives. The distribution details are set out below:

Token Distribution	Distribution %	Vesting Period
Fundraising	10%	10% unlock upon token generation event (TGE), 6-month cliff then linear vesting per block over 3 years.
Team & Advisors	15%	5% unlock upon TGE, 6-month cliff then linear vesting per block over 3 years.
IDO	5%	Percentage is dependent on the IDO platform.
Initial Liquidity Bootstrap	2%	Percentage is dependent on listing schedules on DEX and CEX platform.
DAO Reserves	18%	Reserved for liquidity provision on exchange listing, strategic partnerships, and marketing.
Business Incentive Reserves	50%	Used for business development incentives such as liquidity mining, underwriting incentives, CAP rewards, airdrops, etc.

Table 2 Token Distribution Plan

8. Conclusion

The risk protection sector, although a seemingly niche area, is critical to the safe and robust development of DeFi, much like how insurance or other modes of financial protection has been responsible for the massive growth of commerce into the global behemoth that we have today. Knowing risk protection needs have been met and potential risks mitigated is key to unlocking DeFi's global userbase and develop safety-minded DeFi.



Amulet is extremely excited to bring security to its users by offering simple, reliable cover at scale, backed by sustainable investments and prudent capital management. In setting the standard for safety and proper risk management, Amulet will be a fundamental building block for protocol development on Solana, all Rust-based ecosystems, and the future of open finance. Whether you are a potential contributor, investor, or just here for the ride, Amulet welcomes and looks forward to having you in its community.