Amplify Protocol

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Abstract

This Whitepaper gives a brief overview of the technology behind Amplify Protocol and provides key information for understanding work principles and the benefits of its use. Borrowers and Lenders - the two main users of this decentralised finance protocol - are presented with all needed technical information: the most important functions and the methodologies for achieving desired liquidity. A unique contribution of the Amplify Protocol development team is the proposal of a novel *Interest Rate Model*, which is presented in detail, providing foundational mathematical apparatus and control logic of the model. Finally, $AMPT token topics are covered with special attention to the Governance of the protocol.

1. Introduction

Amplify Protocol represents a peer-to-peer system designed to address the supply chain finance challenge[1]. It aims to improve the traditional credit granting system by making it accessible and easy to use. Amplify Protocol is a decentralized financing application that enables borrowing against collateralized assets. It is designed to enable algorithmic lending from *Borrowing Pools* to serve supply chain financing through tokenized accounts receivable (AR)[2]. These pools allow users to borrow and lend crypto-assets featuring mechanisms to equilibrate the loan market. The protocol is implemented as a set of persistent, non-upgradable smart contracts. These contracts are designed to promote inclusivity, self-custody, and security. The priority is to provide technological infrastructure that enables participants to transact without any intermediaries who may selectively restrict access.

The benefits of using the proposed protocol in real-time business environments are significant and promise broad usage capabilities. For example, let's imagine a trucking

[1] Saavedra, Claudio. (2018). A B2B2C Challenge. When Industrial Companies Obtain Innovation Insights from Consumer Markets.

[2] https://www.investopedia.com/terms/a/accountsreceivable.asp

company that handles trucking for large corporations and, in return, gets payments 60 days after invoicing. Keeping in mind that invoicing can only be performed after the job completion, invoicing may be postponed by an extra 10-14 days. On the other hand, drivers should be paid regularly and independently from paperwork procedures. This requirement creates pressure on the cash flow for the trucking company to handle operating expenses and salaries optimally. Amplify Protocol can assist here by providing money in advance to the trucking company and enable it to fulfill daily operations and scale-up in accordance with its needs.

This Whitepaper aims to provide a high-level presentation of the mechanisms behind Amplify Protocol, its decentralized governance, and economy centered around the $AMPT governance token.

2. Amplify Protocol Actors

Amplify Protocol is built around two main actors: *Borrowers* and *Lenders*. Borrowers are parties that connect with protocol in order to request a loan, offering their collateral (an illiquid asset that represents a real-world financial instrument) for a specified loan amount. Borrowers can take back their offered collateral once the total loan is repaid but they cannot request new loans backed by the same collateral. On the other hand, Lenders are earning floating interest by providing liquidity to these Borrowers, which is a win-win situation.

2.1. Borrowers

Before requesting a loan, new Borrowers must apply to get white-listed by the *Governing Council (GC)*. At this point, any GC member can audit the Borrower's data (Know Your Business) and other documents related to the initial loan application. Once the initialization is finished, borrowers can create their own pools where they can lock the collateral. Still, borrowing will not be possible until there is enough liquidity in the pool. If Lenders are interested in the pool they will provide liquidity in the form of the pool's *base currency* (e.g. $DAI or any other).

2.1.1. Debt ceiling

Each borrower has a Debt Ceiling set up to decrease the risk of default of the pools. The borrowing will not be possible if the Debt Ceiling limit has been reached. The risk decreases by forcing borrowers to close (repay) already opened loans before opening new ones. If the Debt Ceiling limit has not been reached, the borrowing from the pool continues by locking new collaterals in a form of Non-Fungible Tokens (NFT)[3].

[3] Wang, Qin & Li, Rujia & Wang, Qi & Chen, Shiping. (2021). Non-Fungible Token (NFT): Overview, Evaluation, Opportunities and Challenges.

2.1.2. Credit rating

Credit Rating is given to each borrower individually. It's a score that describes the history of borrower's repayments or defaults. If the Credit Rating is too low, the borrower might be restricted from further borrowing or be given a higher interest rate.

2.2. Lenders

Lenders interact with the protocol by supplying their assets (liquidity) into the Borrowing Pools and earning floating interest without having to negotiate the terms directly with the Borrowers. They can supply liquidity multiple times or withdraw it anytime, as long as there is enough liquidity in the pool.

2.2.1. Whitelist

Lenders might need to apply to get whitelisted with their wallet address, depending on the Borrowing Pool setting, by completing the following process. First, the Lender must express interest to get whitelisted by depositing funds in an intermediate escrow contract using the base currency. Then, the Borrower is in a position to whitelist the Lender by accepting his funds into the Borrowing Pool. The Lender can pull back his funds from the whitelisting escrow contract as long as the Borrower has not whitelisted him. Once the Lender is whitelisted, he can provide additional liquidity into Borrowing Pools and receives the right to claim yield plus $AMPT token rewards. The Lender can provide liquidity as long as he remains whitelisted. If the Lender is being blacklisted after providing liquidity, he can still withdraw his funds but can not deposit more funds inside the pool. If he does not want to withdraw, the Lender is allowed to earn interest because his assets are in the pool and could be potentially in use.

3. Borrowing Pools

Borrowing Pools carry the main business logic behind the Amplify Protocol. They are manually created by the protocol Borrowers in order to create a money market for both Lenders and Borrowers. Borrowing Pools are deployed with built-in algorithmically derived interest rates, based on supply and demand of the base currency. It is essential to highlight that multiple pools per Borrower are allowed, where pools will have different returns to attract various Lenders with different risk profiles. Oversubscription brings down the Annual Percentage Yield (APY)[4], while mitigation brings in more loans.

3.1.1. Deployment

Upon deployment of the pool, the Borrower must select a single and predefined base currency. That means supplying, borrowing, repaying or recovering loss will happen in the same base currency. Along with that, the pool must be labeled with a specified

[4] https://www.investopedia.com/terms/a/apy.asp

display name to provide uniqueness between all involved pools. And finally, a minimum deposit amount value should be set.

3.1.2. Supplying liquidity

Unlike platforms with centralised funds management, supplying liquidity to the Borrowing Pools, enables them to become a fungible resource for the loans right away. There is no more need to match offers or negotiate on loan terms.

Liquidity supplied to the Borrowing Pools is represented by an ERC-20 standard token (the *Liquidity Provider* or the *LP* token). As a pool accrues interest, the LP token can be converted into an increasing amount of the underlying assets. So holding an LP token enables Lender to earn APY.

3.1.3. Borrowing

Amplify Protocol offers a simple and frictionless borrowing process. Nonetheless, Borrowers must do the necessary preparations before they can proceed. Although they will receive liquidity instantly, a procedure is set in place to minimize the risks and obtain a fair evaluation of their collateral.

3.1.3.1. Asset tokenization

It starts with *Asset Tokenization* that includes: defining the *Collateral Value*, *Maturity Date* and taking into consideration the risk based on the *Risk Score Model (RSM)* which defines the interest rate. RSM is a protocol-wide and dynamic template that can be changed by the community of $AMPT token holders. As a result of tokenization, the Borrower will deploy an ERC-721 token (NFT) that reflects the collateral parameters.

3.1.3.2. NFT locking

To avoid a situation where collateral is being reused, the representing NFT must be locked. This is done to ensure the same collateral will not be used in different pools. The NFT is locked when it has been successfully transferred into the Borrowing Pool. If the NFT has not been used, it can be transferred back to the Borrower's wallet, otherwise, it will remain locked into the Pool until the loan is repaid. Once the NFT is locked, the created loan represents the agreement between the Borrower and his Lenders in the particular pool based on the collateral parameters.

3.1.3.3. Borrowing fees

Protocol Fees are included in every borrowing transaction. They are paid in base currency in the following way: 1.5% to Treasury Pool (for $AMPT token buy back from the secondary market) and 1% to Loss Provision Pool. These fees are subject to change by the governance.

3.1.3.4. Loan default

In the case when one of the Borrower's loans goes into default, the Borrower is stopped from further borrowing by having all his pools to be locked. The state of default happens when the Borrower has not paid the loan before a non-payment deadline (the maturity date plus ratification period). In addition, the Borrower's credit rating is adjusted downwards by the GC. Lenders who are affected by loan default, can receive a percentage of the original supplied amount (without interest) insured by the Loss Provision Pool.

3.1.4. Redeeming

On the Lender side, when liquidity is withdrawn, the protocol function converts a specific amount of LP tokens into the underlying base currency (principal plus earned interest) and returns them to the Lender's wallet. The withdrawal amount must be lower than the Lender's balance and the Borrowing Pool's available liquidity.

The following scenario is possible: 100% of liquidity is invested in loans; thus, there is no more liquidity for withdrawal. New withdrawal requests are subject to a new liquidity supplied into the pool by Lenders and repayments from Borrowers. Redeeming is prioritized among the Lenders where the cut-off date for a redeem is 24 hours (in blocks[5]). All redeeming requests need to be claimed after the cut-off date.

3.1.5. Repaying

Borrowing Pools are driven by the loans. Obviously, these loans have to be repaid by the Borrower in order to return liquidity to the pool. Since loans share the same maturity date as the collateral, the repayment is expected before the maturity date. In case of any delay, Amplify Protocol enables Borrowers to also do partial repayments. If the maturity date has passed while the loan is not closed yet, it still accrues interest until fully repaid. Fully repaid loan is removed from active loans and transferred into a separate storage for repaid loans.

3.1.5.1. Penalty

If the loan has not been repaid within the maturity date plus additional 30 days, it will start accruing penalty interest. So, in order to close the loan, the Borrower will have to pay both regular and penalty interest. Penalty interest though, is not being distributed to Lenders as interest. If and when repayment happens, the penalty fee will be transferred to the Loss Provision Pool, which is common to the entire Amplify Protocol.

[5] https://www.investopedia.com/terms/b/block-time-cryptocurrency.asp

4. Interest Rate Model (APR and APY calculations)

Amplify Protocol's borrowing pools are running on an Interest Rate Model and foundational mathematical apparatus beside the functionality described above. The Interest Rate Model calculates the historical data of the Borrowers accrued interest which is captured by an *Index* parameter, while simultaneously calculating the earned interest of the Lenders.

4.1. Borrowers

Borrowers are the drivers of the Interest Rate. Compared to other DeFi platforms, the Interest Rate of the Borrowers is not dynamically changed by the market's supply and demand. The rate is static and defined by the risk score of the collateral asset used for the loan. (Asset tokenization)

4.1.1. Interest accrual mechanics

The *Index* parameter is the accumulator of the accrued interest of the loan. Borrowers' Index is called **borrowerIndex**. Every loan has its own unique *Index* that accumulates the interest. Each time a *borrow* or *repay* transaction occurs, a checkpoint of the **borrowerIndex** is updated and saved into the smart contract storage. The *Index* calculates how much interest has accrued, beginning with the block when last time interest was applied, until the current block. The initial **borrowerIndex** is always `1` The rate at which it accumulates interest every block is the *Interest Rate* divided by the number of blocks per year. Blocks delta is the current block number subtracted by the block number saved in the checkpoint.

$$borrowerIndex_n = \left(\frac{loanInterestRate}{blocksPerYear} \times \Delta blocks \times borrowerIndex_{n-1}\right) + borrowerIndex_{n-1}$$

A Borrower's balance, including accrued interest, is calculated from dividing the current **borrowerIndex** to the index when the user's balance was last checkpointed and multiplying it by the **principal**.

$$borrowerBalance_n = \frac{borrowerIndex_n}{borrowerIndex_{n-1}} \times principal$$

Where **principal** represents the original borrowed amount without the interest or commission.

4.1.2. Penalty interest accrual

One more crucial part of the interest model is the penalty, whose purpose is to evaluate Borrowers' behavior during the loan maturity. The penalty is calculated based on the **principal** amount and the delta of blocks since the (Maturity Date + 30 days). We use the same logic as with **borrowerBalance** where we store an *Index* in order to obtain historical data about the penalty amount. *Index* checkpoint is updated upon repayment.

$$penaltyIndex_n = \left(\frac{penaltyRate}{blocksPerYear} \times \Delta blocks \times penaltyIndex_{n-1}\right) + penaltyIndex_{n-1}$$

And the penalty amount is calculated the following way:

$$totalPenalty_n = \frac{penaltyIndex_n}{penaltyIndex_{n-1}} \times principal_n$$

4.2. Borrowing pool dynamics

Amplify protocol uses a hybrid of market dynamics and fixed interest rate to provide better and stable interest to Lenders while maintaining a relatively low interest for the Borrowers. To be able to visualize the outcome of the hybrid within a single Borrowing pool ***b***, first we unify the supply and demand into a single variable **utilizationRatio**.

$$utilizationRatio_b = \frac{totalPrincipal_b}{Cash_b + totalPrincipal_b}$$

Where **Cash** is the total amount of underlying liquidity that has not been borrowed. From here we can visualize the potential APY that the pool Lenders will receive. Remember that this information is not guaranteed and risk-free.

$$APY_b = averageLoanInterestRate_b \times utilizationRatio_b$$

The pool's total borrowing outstanding is calculated by parsing and summing every **borrowerBalance** that is still active. It is implemented this way because the pool can support multiple loans while loans can have different interest rate terms.

$$totalBorrowBalance_{b,n} = borrowBalance_{a,n} + borrowBalance_{a+1,n}$$

4.2.1. Settlement period

Borrowing Pools functions operate within a defined settlement period of minimum 24 hours (in blocks). It means that the transactions like *supply*, *redeem* and *borrow* will be sent to a queue in order to achieve consensus between Lenders and Borrowers. Even if the transactions are being executed on the blockchain, they will not manifest changes until a new period starts. Lenders will have priority over the Borrowers in the queue. Let's have a look at how different transactions are being processed.

Supply. Supplied liquidity is not available right away to the Borrowers. Lenders still have time left to revert and redeem their liquidity if they changed their mind. They will not earn interest until the settlement is complete.

Redeem. If there will not be enough liquidity to cover all *redeem* transactions, the remaining liquidity will be distributed pro-rate between Lenders.

Borrow. Since Lenders are served first, Borrowers can only operate with the liquidity that has been processed and passed the settlement period.

To achieve this settlement period, we are using a **cashIndex**. It allows us to keep a historical track of the liquidity in the pool while auto-incrementing the *Index* only when pool *Cash* is updated. Initial **cashIndex** is set to `*1*`.

Whenever a transaction of *supply*, *redeem* occurs, it checks if:

- 24 hours have passed since the previous **cashIndex**. If true, the transaction will be placed in a new queue, until another transaction is triggered to settle them. **cashIndex** will be automatically incremented, and the previous transaction queue will be manifested.
- there is any liquidity already unlocked from the previous **cashIndex** (settlement period). If so, the transactions will use that liquidity to satisfy themselves.

Manually updating the **cashIndex** and settlement period is also possible through a dedicated transaction.

4.3. Lenders

Lenders' interest is distributed pro-rata between all participants based on the **utilizationRatio** of their liquidity. Less liquidity used in loans means less returns. The interest adjusts dynamically as the number of Lenders increases or decreases. More Lenders lead to pool oversubscription and lower interest rate.

4.3.1. Interest accrual mechanics

Each Borrowing Pool is integrated with an *LP* (liquidity provider) *token* contract which is an EIP-20 compliant representation of the balances supplied to the pool. By supplying to the Borrowing Pools, *LP tokens* are minted and transferred to the Lender wallet where simply by holding *LP tokens*, they will earn the interest. When *LP tokens* are redeemed, they are exchanged for a higher amount of underlying liquidity, thanks to the **exchangeRate** that increases and accrues interest over time with every block. This is the rate at which Lenders' *LP tokens* can be exchanged into underlying liquidity. To calculate the current exchange rate, we need to sum pool *Cash* with **totalBorrowBalance** and divide by the totalSupply of LP tokens in existence.

$$exchangeRate_{b,n} = \frac{\left(Cash_{b,n} + totalBorrowBalance_{b,n}\right)}{totalSupply_{b,n}}$$

where **totalSupply** is the default method of IERC-20[6] contracts and represents the total amount of LP tokens minted.

[6] OpenZeppelin, ERC20 interface methods

For Lenders, to know how much they earned until the current block, we need to know their **lenderBalance**. It includes both the liquidity that Lender has supplied and the interest accrued. **lenderBalance** is being updated automatically whenever a transaction of *supply* or *redeem* is called by the Lender. To identify it we take the current **exchangeRate** and multiply it by the amount of *LP tokens* held by the Lender:

$$lenderBalance_n = exchangeRate_n \times lpTokens_n$$

5. Interest Rate Model ($AMPT Rewards)

The users of the Amplify Protocol are rewarded for continuously contributing and using the protocol. Rewards are being distributed in the form of $AMPT tokens from *Amplify Liquidity Mining Pool*. $AMPT is represented by an ERC-20 asset. Users must contribute to the protocol by *supplying* or *borrowing-repaying* liquidity through the protocol to be eligible to earn rewards.

$AMPT tokens are distributed equally (50%/50%) between Borrowers and Lenders at an established **supplySpeed** defined for each Borrowing Pool ***b*** separately. The speed is updated through governance proposals.

5.1. Lenders

If the Borrowing Pool has enabled rewards, Lenders will start earning them immediately after supplying their liquidity. Earnings are calculated and distributed at pro-rata where every Lender receives their own share of the rewards based on protocol contribution. Rewards are not distributed automatically. Lenders will have to manually claim them.

The history of rewards for each Borrowing Pool for each Lender is captured by the **amptSupplyIndex** which is updated every time a Lender supplies or redeems their liquidity. While **amptSupplyIndex** is common to the pool, the Lender also saves a checkpoint of the *Index* in **amptSupplierIndex**. Upon *Index* update, the checkpoint value is replaced with the new updated value.

$$amptSupplyIndex_{b,n} = \frac{amptSupplyIndex_{b,n-1} + \frac{supplySpeed_b}{2} \times \Delta blocks}{totalSupply}$$

The rewards accrued by a Lender is calculated by subtracting the **amptSupplierIndex** checkpoint from the current **amptSupplyIndex** and multiplying all that by the amount of *LP tokens* held by the Lender.

$$lenderAmptAccrued_n = \left(amptSupplyIndex_n - amptSupplierIndex_{n-1}\right) \times \ lpTokens_n$$

5.2. Borrowers

Similar to Lenders, the Borrowers will start earning rewards in $AMPT tokens as soon as a borrow transaction occurs. Rewards are also distributed pro-rata based on how much has been borrowed from the pool. Borrowers will be able to claim their rewards only after successfully loan repayment and only if it was done before the maturity date. Loans that are repaid after the maturity date will not be rewarded. The entitled $AMPT tokens will be transferred to the *Amplify Treasury Pool*.

The history of rewards for each Borrowing Pool for each Borrower is captured by the **amptBorrowIndex** which is updated every time a he borrows or repays. While **amptBorrowIndex** is common to the pool, the Borrower also saves a checkpoint of the *Index* in **amptBorrowerIndex**. Upon *Index* update, the checkpoint value is replaced with the new updated value.

$$amptBorrowIndex_{b,n} = \frac{amptBorrowIndex_{b,n-1} + \frac{supplySpeed_b}{2} \times \Delta blocks}{totalPrincipal}$$

where **totalPrincipal** is the sum of all loan principal together.

To view the rewards accrued by a Borrower we subtract the **amptBorrowerIndex** checkpoint from the current **amptBorrowIndex** and multiplying all that by borrow **principal**.

$$borrowerAmptAccrued_n = \left(amptBorrowIndex_n - amptBorrowerIndex_{n-1}\right) \times \ principal_n$$

6. $AMPT Token

Amplify Protocol exploits a governance token, $AMPT, to coordinate and align the interest of a varied group of stakeholders in the Protocol. $AMPT is enabled to reward participants in the governance of the Protocol, for example, those who lock their $AMPT to vote for upgrades, adjust the Protocol's parameters, or elect a new slate of multi-signature signers. It could further reward those who underwrite the Protocol's security against shortfall events from liquidations, hacking attacks, or other potential hazards that the Protocol faces to protect the deposits in the Amplify markets. Finally, it will incentivize all users to contribute actively to the development of Amplify Protocol and its ecosystem by providing them with grants.

6.1. Governance

Anybody who holds $AMPT tokens is eligible to participate in governance. Token holders can *delegate*, *propose* and *vote* on all changes to the protocol. A minimum of 1% of total supply is required to make a proposal, and a minimum of 3% of total supply must participate in voting to make a quorum for a proposal. To pass the proposal, more than 50% of the total supply is required to vote.

6.1.1. Governing Council

The first role of Governing Council (GC) is to whitelist new borrowers. Every GC member is elected by the community and holds a minimum of 1% of $AMPT's total supply. After verifying if an $AMPT token holder possesses a minimum of 1% of the total supply (which represents a stake), he can be elected by existing $AMPT token holders to become a GC member. Once a new CG member candidate is proposed, two conditions must be satisfied. First, the total final amount of GCs should be equal or less to the permitted maximum number of active GC members. Second, if there are more than the permitted number of active GC members, the new proposed candidate must replace one of the existing active GC members.

GC members manage all the pools and vote in the next cases: to unlock borrowers after default (for example unpaid invoices if unblocked are ignored), decide on the debt limit per pool in base currency, and distribute tokens from Contributors Mining Pool (multi-sig) in manual events.

6.1.2. Vote locking

As users and contributors get involved in Amplify through the different mechanisms supported by $AMPT, they are forming a decentralized autonomous organization (DAO). The utility of $AMPT is in facilitating the DAO formation through progressive and orderly increments of this Amplify Protocol DAO. Amplify Protocol has a vote-locking and revenue-sharing mechanism analogous to that of Curve's CRV → veCRV vote-locking with boosts[7]. In order to participate in protocol governance users must have voting power. Voting power is based on the balance of $veAMPT held, so all on-chain and off-chain governance shall be moved towards $veAMPT as the "voting token."

6.1.2.1. Locking mechanics

Once $AMPT is locked into a voting escrow, $veAMPT (voting escrow $AMPT) is received by the user. $veAMPT is non-tradeable (non-ERC20), and its value decreases linearly as the lock approaches expiry. One $AMPT that is vote-locked for approximately four years (208 weeks) equals 1 $veAMPT. If one $AMPT is vote-locked for less than four years, it will receive a direct proportional amount of $veAMPT. The minimum locking period is one week, and only increments in weeks are possible (1 week, 2 weeks, 3 weeks, etc.)

Unlocking the tokens back or decreasing the lock period is not possible before the expiration date. Finally, users can extend their current lock period or lock in even more $AMPT tokens to receive more $veAMPT tokens, therefore more power.

6.1.2.2. Boost & rewards

Users who have locked their $AMPT tokens into voting escrow are eligible for additional $AMPT rewards. Every week, a percentage of protocol fees, determined by the

[7] https://resources.curve.fi/faq/vote-locking-boost

governance, shall be sent to the vote-locking contract (as $AMPT rewards) to be claimed by $veAMPT holders.

In addition, the holders benefit from the liquidity mining rewards boost where they can earn up to x2.5 times more $AMPT when supplying or borrowing from pools. The relative balance of $veAMPT which the user holds determines if the user should get a boosted reward.

6.2. Use cases

Governance enables the community to propose updates that improve the protocol or vote on important decisions:

- Borrowing Pools **supplySpeed.** Governance can decide on the allocation speed of the liquidity mining rewards of the Borrowing Pools;
- *Loss Provision Pool* funds distribution. If the funds were not being used for a long period, the community can vote on how to manually distribute them or send to a different pool;
- Decide on the protocol fees that Borrowers are being charged of;
- Reward external developers or community contributors that brought value to the protocol;
- Decide for a minimum percentage of tokens required for becoming a GC member;
- Change the minimum rate of total supply required for a voting quorum;
- Update the maximum number of active GC members;

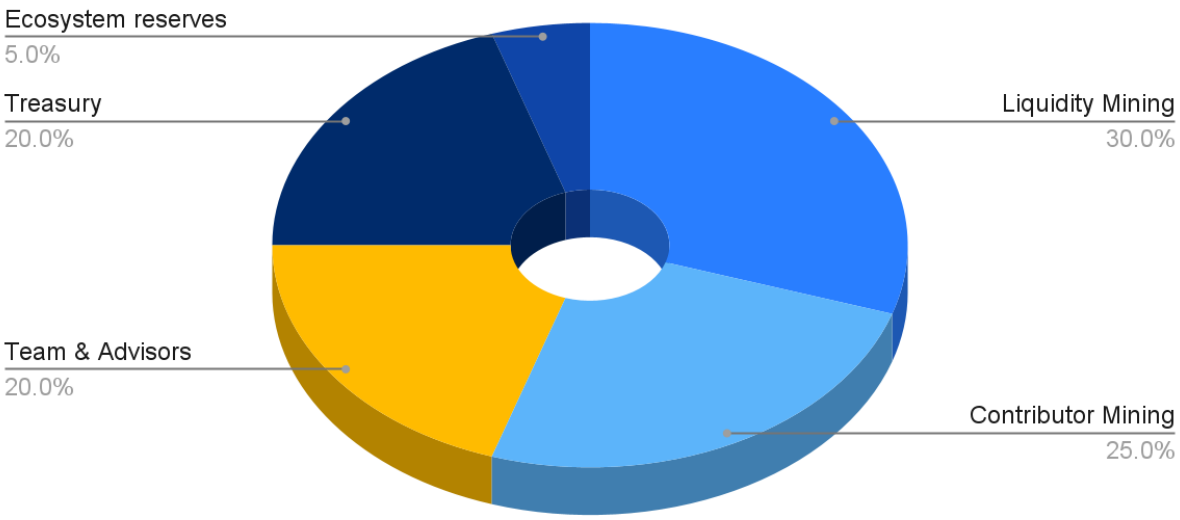
The protocol will have a buyback scheme for the Borrowers. Minimal $AMPT protocol is 1000 $AMPT tokens at any time. The redemption price is the average 24 hours price of the $AMPT price maintained by the governing council.

6.3. Token Issuance

Initially, $AMPT will be distributed in a **Genesis Distribution** of 100,000,000 (one hundred million) $AMPT tokens for the period of 4 years. Genesis $AMPT distribution will be used for fulfilling the needs for *Liquidity Mining*, *Contributor Mining*, *Team and Advisors*, *Treasury and Ecosystem Reserve* (Fig. 1). In the case of Liquidity Mining, 30,000,000 $AMPT (30%) will be distributed throughout four years to the Borrowing Pools that have $AMPT rewards enabled. Other streamed incentives like *security incentives* or *governance incentives* shall come from the Liquidity Mining budget when decided by

governance.

Figure 1. $AMPT genesis distribution



Contributor Mining will include 25,000,000 $AMPT (25%) allocated to the fund whose purpose will be to attract talented contributors and the wider intellectual community to participate in the project and improve the Amplify Protocol. DeFi builders are a rare breed, but traditional investors often shortchange them. This is the chance for the Amplify project to exploit the $AMPT Contributor Mining fund to attract developers who can contribute to the project and all those experts from other areas like product and user experience design, data analytics, operations, and marketing. All realized contributor allocations should be vested for at least one year, where the multi-signature approach will be applied for allocating grants to individuals.

The Team and Advisors category will reserve 20,000,000 $AMPT (20%) to align long-term incentives, vested for 2 years, with a one-year cliff. This reserve is intended for the founding team, pre-launch hires, and advisors.

The Treasury reserve will also be funded with 20,000,000 $AMPT (20%) and be used for private sales to investors and in exchange for stable coins or reserve assets like $BTC and $ETH. The Treasure reserve will be additionally used for either a Liquidity Bootstrapping Pool (LBP) or a batch action, e.g. Gnosis Auction. Either of these mechanisms would act as a public sale. Another massive utilization of the Treasury reserves will be for funds that are neither used in the planned private or public sale and shall remain as $AMPT-in-Treasury (AIT). They will be sold over-the-counter (OTC) for future rounds of fundraising where the multi-signature approach will decide on accepting

fundraising offers. The $AMPT proposal shall approve some potential ad-hoc uses of this reserve.

Finally, the Ecosystem Reserve category is defined with 5,000,000 (5%) $AMPT to provide grants for other development teams to build on top of Amplify or to seal partnerships via cross-protocol LMs, farming incentives, cover/insurance incentives, etc.

6.3.1. Governance influence

From the perspective of GC influence on the designed pools, Team and Advisors Pool (20% of genesis) is designed in a way to enable GC to add/remove new people (wallets) in the cap table. Every added wallet is vested for two years with a one-year cliff, where $AMPT is released per block. The provided reserve is intended to the founding team, pre-launch hires, and advisors. Ecosystem Reserve Pool (5% genesis) provides grants to third-party teams managed by GC multi-signature. The next pool managed by GC is Contributor Mining Pool with Genesis of 25%, where GC's multi-sig wallet manages rewarding and granting contributors. GC also manages multi-signature procedures for Treasury Pool (29% Genesis) for private sales to investors and public sales. The final pool controlled by GC is Liquidity Mining Pool (30% genesis) which is designed to increase stability and participation.

7. References

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[10] https://compound.finance/docs/comptroller#refresh-comp-speeds

8. Legal Disclaimers and Notices

This Whitepaper does not constitute an offer of, or an invitation to purchase, the $AMPT Tokens in any jurisdiction in which such offer or sale would be unlawful. No regulatory authority in Singapore, including the MAS, has reviewed or approved or disapproved of the $AMPT Tokens or this Whitepaper. Whether taken as a whole or read in part, this Whitepaper is not, and should not be regarded as, any form of legal, financial, tax, or other professional advice. You should seek independent professional advice before making your own decision as to whether or not to receive any $AMPT Tokens. You are responsible for any and all evaluations, assessments, and decisions you make in relation to purchasing $AMPT Tokens. You may request for additional information from Amplify Protocol in relation to this offer of the $AMPT Tokens. Amplify Protocol may, but is not obliged to, disclose such information depending on whether: (i) it is legal to do so; and (ii) the requested information is reasonably necessary to verify the information contained in this Whitepaper.

The $AMPT Tokens are not securities as defined under Singapore's Securities and Futures Act (Cap. 289). Accordingly, the SFA does not apply to the issuance of the $AMPT Tokens. For the avoidance of doubt, the offering of $AMPT Tokens need not be accompanied by any prospectus or profile statement and no prospectus or profile statement needs to be lodged with the Monetary Authority of Singapore ("**MAS**").

Amplify Protocol is not responsible for compelling any person to accept $AMPT Tokens and disclaims, to the fullest extent permitted by law, all liability for any adverse consequences arising out of or in relation to such rejections of the $AMPT Tokens.

Upon receiving any $AMPT Token, you will be deemed to have reviewed this Whitepaper (and any information requested and obtained from Amplify Protocol) in full and to have agreed to the terms of this offering of the $AMPT Tokens, including to the fact that this offering does not fall within the scope of any securities laws in Singapore and is not regulated by the MAS. You further acknowledge and agree that the $AMPT Tokens are not securities and are not meant to generate any form of investment return.

The $AMPT Tokens and related services provided by Amplify Protocol are provided on an "as is" and "as available" basis. Amplify Protocol does not grant any warranties or make any representation, express or implied or otherwise, as to the accessibility, quality, suitability, accuracy, adequacy, or completeness of $AMPT Tokens or any related services provided by Amplify Protocol, and expressly disclaims any liability for errors, delays, or omissions in, or for any action taken in reliance on, the $AMPT Tokens and related services provided by Amplify Protocol. No warranty, including the warranties of non-infringement of third party rights, title, merchantability, satisfactory quality, or fitness for a particular purpose, is given in conjunction with the $AMPT Tokens and any related services provided by Amplify Protocol.

RISK DISCLOSURES

Regulatory risks

The applicable legal and regulatory framework may change subsequent to the date of issuance of this Whitepaper. Such change may be rapid and it is not possible to anticipate with any degree of certainty the nature of such regulatory evolution. Amplify Protocol does not, in any way, represent that the regulatory status of the $AMPT Tokens will remain unaffected by any regulatory changes that arise at any point in time before, during, and after this offering

No Regulatory Supervision

None of Amplify Protocol or its affiliates is currently regulated or subject to the supervision of any regulatory body. In particular, Amplify Protocol and its affiliates are not registered with MAS in Singapore as any type of regulated financial institution or financial advisor and are not subject to the standards imposed upon such persons under Singapore's Securities and Futures Act, Financial Advisors Act, and other related regulatory instruments. Such persons are required to comply with a variety of requirements and standards concerning disclosures, reporting, compliance, and conduct of their operations for purposes or maximising protection. Since Amplify Protocol is not subject to such requirements or standards, it will make decisions on those issues at its own discretion. While Amplify Protocol will have regard to best practices on these issues, holders of $AMPT Tokens may not necessarily enjoy the same extent and degree of protection as would be the case should they invest with regulated entities instead.

No Fiduciary Duties Owed

As Amplify Protocol is not a regulated financial institution, it does not owe subscribers or purchasers of $AMPT Tokens any fiduciary duties. This means that Amplify Protocol has no legal obligation to always act in good faith in the best interests of holders of $AMPT Tokens. While Amplify Protocol will have regard to the interests of holders of $AMPT Tokens, it is also permitted to consider the interests of other key stakeholders and to prefer these interests over the interests of $AMPT Token holders. This may mean that Amplify Protocol is permitted to make decisions that conflict with the interests of $AMPT Token holders. Not owing any fiduciary duties to holders of $AMPT Tokens also means that holders of $AMPT Tokens may have limited rights of recourse against Amplify Protocol and its affiliates in the event of disputes.

Tax risks

The tax characterization of $AMPT Tokens is unclear. Accordingly, the tax treatment to which they will be subject is uncertain. All persons who wish to receive $AMPT Tokens should seek independent tax advice prior to deciding whether to receive any $AMPT Tokens. Amplify Protocol does not make any representation as to whether any tax consequences may arise from purchasing or holding $AMPT Tokens.

Risks From Third Parties

The tokenized nature of $AMPT Tokens means that they are blockchain-based. The security, transferability, storage, and accessibility of blockchain assets depends on factors outside of Amplify Protocol's control, such as the security, stability, and suitability of the underlying blockchain, mining attacks, and who has access to the smart contract where the $AMPT Tokens are stored. Amplify Protocol is unable to assure that it can prevent such external factors from having any direct or indirect adverse impact on any of the $AMPT Tokens. Persons intending to receive the $AMPT Tokens should note that adverse events caused by such external factors may result in the loss of some or all of the $AMPT Tokens. Such loss may be irreversible. Amplify Protocol is not responsible for taking steps to retrieve $AMPT Tokens lost in this manner.

Risks in receiving the $AMPT Tokens

Amplify Protocol cannot and does not guarantee or otherwise assure that there are no risks in relation to the issuance of the $AMPT Tokens. The $AMPT Tokens may, depending on the manner in which the relevant issuance is effected, involve third parties or external platforms (e.g., wallets). The involvement of such parties or platforms may introduce risks that would not otherwise be present, such as misconduct or fraud by the third party, or your failure to receive the $AMPT Tokens upon duly making payment because of a third-party wallet's incompatibility with the $AMPT Tokens. Amplify Protocol is not responsible for any risks arising due to the involvement of third parties, including the risk of not receiving (or subsequently losing) any or all $AMPT Tokens issued to you.