

Cometa (CMT) Whitepaper

Abstract

This whitepaper introduces a digital lending platform, Cometa, with both a decentralized architecture and a decentralized governance process. Cometa is designed to develop into a self-governed digital lending ecosystem for users worldwide to easily access new financial opportunities, secured by blockchain technology. Using an innovative cross-chain application that simplifies user experience through “Off-Chain Agreement Matching with On-Chain Settlement”, Cometa provides a trustworthy platform for lending and borrowing digital assets without any intermediary interference. By providing 24/7 global accessibility with significantly lower than traditional lending costs, our platform offers crypto holders the unique ability to unlock instant value from their digital capital. Our Proof of Premium (POP) mining token economy is designed and introduced to help Cometa grow to be the first decentralized architecture and self-governed digital lending ecosystem. We intend to return the power of finance to the end user to promote financial inclusion and democratization.

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1 Introduction

1.1 Issues with Current Financial System

Historically, the financial infrastructure for payments, savings and lending is a closed, centralized and capital intense system. Capital movement and allocation between different systems is usually associated with high transaction cost and low efficiency, especially for across border and geographic movement (CGAP, 2008). This centralized system design makes financial institutions the ideal target for cyber-attacks and cyber risk has emerged as a key threat to financial stability, following recent attacks on financial institutions (Lagarde, 2018). More importantly, the capital-intensive nature creates high barriers to entry and power concentration, which result in huge systematic risks and “too big to fail” problems’ (“Too big to fail,” n.d.). This has also curtailed the accessibility of financial services, leaving billions of people underserved financially, especially people in remote areas (Demirguc-Kunt, Klapper, Singer, & Oudheusden, 2015). Also, the labor-intensive nature of post-transaction settlement and reconciliation means that many financial services cannot be provided during off working hours, such as weekends and holidays.

1.2 The Next Generation Decentralized Financial System

To solve these problems, we need an open, decentralized financial system that can perform financial transactions automatically without custodian involvement, and still ensure the security, integrity and trust. We believe the blockchain will be a catalyst for transforming traditional financial systems as it allows for a compelling alternative decentralized system with greater efficiency, security, transparency and accessibility, as well as much lower cost. A tremendous amount of work and progress has been done to create open, decentralized, trustless, peer to peer payment networks like Bitcoin, Monero, Lightning Network, etc. However, the innovation and exploration of an automatically decentralized lending network has lagged behind as it requires much higher complex decentralized infrastructure and technology. With the revolution of the second generation blockchain, such as Ethereum, Stellar, etc. the friction of developing and implementing smart contracts, decentralized applications and asset digitalization becomes much lower and cost effective. Therefore, a big opportunity lies in developing an open, automatically decentralized lending and investing network that achieves a low borrowing and lending transaction cost, improved service performance, security and promotes financial inclusion as

well as solves the power concentration and “too big to fail” (“Too big to fail,” n.d.) problem.

1.3 Cometa: Define the Future of Digital Lending

Cometa aims to develop a fully decentralized financial ecosystem to promote financial inclusion and efficiency with autonomous lending agreements secured through blockchain and smart contract technology. Using an innovative cross-chain decentralized application(DApp) that simplifies the user experience with “off-chain loan agreement matching with on-chain settlement”, the Cometa platform provides a trustworthy ecosystem for users worldwide to securely lend and borrow digital assets. Unlike conventional lending, the Cometa platform eliminates custodial risk and trusted intermediary interference by utilizing smart contracts to execute all lending agreements on a highly decentralized blockchain. The Cometa token(CMT) economy is introduced to recognize, reward and incentivize all participants within the Cometa ecosystem. Furthermore, all the value created through the Cometa ecosystem will be distributed back to the community.

Loan contracts on the Cometa platform are automatically created and executed: once they're deployed, the Cometa team neither has the ability to spend funds that are held in the smart contract, nor does the team control how to resolve, approve or reject loan offers or requests, nor can they undo, modify or cancel loan agreements etc. The only role of the Cometa platform is to facilitate users to reach loan agreements and publish loan smart contracts to the blockchain such as Ethereum, Stellar, etc. Cometa decentralized architecture will also effectively avoid the single point of failure problem, improve the reliability and accessibility of the network and significantly increase the difficulty of cyber-attacks. In order to return the authorization and power back to the community, the Cometa token holders will also perform the governance role automatically through a smart contract based voting mechanism. Cometa's smart lending ecosystem will offer digital assets holders the unique ability to unlock instant value from their digital assets with better performance in accessibility, speed, reliability and security, and all at a much lower cost.

1.4 Existing works and Issues with Current Decentralized Lending platforms

Existing Works of Decentralized Lending Platform

Decentralized lending platforms with Ethereum blockchain implementation have failed to generate significant volume because of design inefficiencies which impose high friction costs on borrowers and lenders. Particularly, these implementations ask users to create and market their loan offer or request records on the blockchain (ETHLend, 2018) (Libra Credit, 2018), which requires lenders and borrowers to spend gas each time they post, modify or cancel a loan. In most cases, lenders and borrowers cannot even modify, pause or cancel a loan before finding and reaching an agreement with counterparties. Modifying loan offers frequently in response to evolving market conditions is prohibitively expensive and time consuming. In addition to imposing high costs on borrowers and lenders, maintaining an on-chain loan ledger causes transactions that consume network bandwidth and bloat the blockchain without necessarily reaching a successful loan agreement.

Most decentralized lending platforms can only provide a lending marketplace for digital assets within 1 blockchain (ETHLend, 2018) (Libra Credit, 2018), the most popular blockchain being Ethereum. The lack of a cross-chain lending functionality limits the use cases and market size for their platforms. Some implementations tried providing a cross-chain digital asset lending service; however, they positioned themselves as a trusted custodian between the lenders and borrowers. This centralized approach fails to address the custodian risks and exposes user funds in a high-risk environment for theft or cyber-attacks.

Most decentralized lending platforms fail to return the power of the platform to the end users by not having a decentralized governance structure (Lendingblock, 2018) (ETHLend, 2018) (SALT Lending, 2017) (NEXO.io, 2017). Although blockchain technology is used as their backend service to generate and deploy loan smart contracts from a technical perspective, their governance structure and business model are no different than conventional centralized entities. Value distribution and critical parameters of the platform are controlled by the development team, which contradicts the core value of decentralization which is to release the seized profit and control from intermediaries to the end users to achieve democratization of finance. Therefore, those decentralized lending platforms failed to actively involve and incentivize end users to take the ownership and play a crucial role to help develop, promote and govern the lending ecosystem.

Cometa's Competitive Advantages

“Off-chain agreement matching with on-chain settlement” is a hybrid solution, which combines the efficiency of centralized communication channels for reaching loan agreements, with near instant settlement of on-chain loan agreement implementation. In this approach, loan offers and requests, are broadcasted through our off-chain platform. An interested counterparty may submit one or more of these similar counter offers off-chain and the loan requester can also modify, change, pause or cancel the loan request seamlessly. Once two parties agree on the loan contract terms, the settlement will happen on the blockchain instantly. Friction costs are minimized for loan requesters because they can signal intent off-chain and smart contract based transactions only occur when a loan agreement is finalized.

Cross-chain compatibility which allows integration with different blockchains through smart contract technology is another key competitive advantage of the Cometa platform. This is important because it provides us the ability to offer a more diverse range of crypto assets for lending (as opposed to only one cryptocurrency like Ethereum). Moreover, the Cometa platform will not be a custodian for users, their assets will be stored on the blockchain within a smart contract. This means no one has the authority to touch those assets until certain pre-agreed conditions are met, which lead to elimination of the custodian risks, avoidance of cyber-attacks and reduction in transaction costs.

Proof of Premium(POP) is introduced for the Cometa community as a reward and wealth redistribution mechanism. This is a competitive advantage of our platform to better incentivize and engage users to participate more in the Cometa ecosystem as they will be rewarded in native Cometa token/CMT based on the value of premium generated. CMT token holders will also be granted governance power to decide the key parameters for the lending network and wealth redistribution mechanism to cultivate the ownership culture of CMT token holders. The Cometa platform targets to be the first truly architectural and political decentralized lending platform and to make its own contribution to capital market automation achievement, to better serve the future digital economy.

2 Background of The Decentralized Financial System

2.1 Basics of First Generation Blockchains and Applications in the Financial Payment System

Introduction of Blockchain

The Blockchain, also called distributed ledger technology (DLT) is an open, distributed database that can record transactions among parties efficiently and in a verifiable and permanent way (Lansiti & Lakhani, 2017). Many studies (Nakamoto, 2009) (Schneider, et al., 2016) (Brainard, 2018) (Lansiti & Lakhani, 2017) (Bank of International Settlements, 2017) (Payments Canada, Bank of Canada & R3, 2017) prove that blockchain is a revolutionary technology with great potential to increase the transparency, efficiency, speed and security of a transaction as well as lower transaction costs by eliminating the traditional trusted custodian. The cost of mediation increases transaction costs, limiting the minimum practical transaction size and cutting off the possibility for small casual transactions, and there is a broader cost in the loss of ability to make non-reversible payments for nonreversible services (Nakamoto, 2009).

For example, a study (Schneider, et al., 2016) estimated by applying blockchain to the clearing and settlement of cash securities – specifically, equities, repo, and leveraged loans – the industry could save \$11 - \$12 billion in fees, OpEx, and capital charges globally by moving to a shorter, and potentially customized, settlement window. Blockchain could also potentially eliminate significant additional costs across FX, commodities, and OTC derivatives by shortening settlement times and reduce reconciliation costs. Despite the relatively low transaction costs for securities such as equities, up to 10% of trades are subject to various errors, leading to manual intervention and extending the time required to settle trades (Schneider, et al., 2016). The blockchain could help to drive greater efficiencies in the US cash equities market, primarily through streamlining the post-trade settlement and clearing processes (Schneider, et al., 2016).

Introduction of First Generation Blockchain

Bitcoin is the first widely adopted global distributed public transaction ledger. It is an electronic payment system based on cryptographic proof

instead of trust, allowing any two willing parties to transact directly with each other without the need for a trusted third party (Nakamoto, 2009). After the launch in 2009, Bitcoin proved its stability, reliability, efficiency, simplicity and security to keep ownership records and transfer ownership from one user to another directly.

The application of the blockchain is being explored, especially in payment, clearing and settlement activities because of potential efficiency gains arising from the technology, as in the case of cross-border payments. Other protocols like litecoin (Litecoin Foundation, 2012), Bitcoin Cash (Bitcoin Cash, 2017), Dash (Duffield & Diaz, 2018), Monero (GetMonero.org, 2014) etc. are trying to improve the functional scalability, speed and privacy. However, in order to gain scalability and improve transactions per seconds, the security level and decentralization have been sacrificed.

To have a blockchain based secure, decentralized, scalable payment system to better serve the economy, one blockchain protocol alone cannot really achieve this goal, but an ecosystem composed of different blockchains and sidechains can. Within the new blockchain based digital payment system, different blockchains and sidechains will have different scalability, decentralization and security levels and their own specialized features and functionality to meet the different demand of payments respectively for individuals and business. Different blockchains and sidechains need to interact with each other automatically or seamlessly without any human or trusted 3rd party involvement.

2.2 Basics of Second Generation Blockchains and Applications in the Financial Intermediation System

A distributed ledger network with built in functionality to support complex smart contracts that are written, deployed and executed is generally considered 2nd generation blockchains such as Ethereum (Buterin, 2015), NEO (NEO, 2016), ICON (ICON Foundation, 2017) etc. Typically, many different decentralized applications are built on top of the 2nd generation blockchain to form an ecosystem to provide better services like predicting, voting, lending etc. Smart contracts and decentralized applications are the two most distinct characteristics of a 2nd generation blockchain and the reason why the blockchain is such a revolutionary technology with great potential to transform and improve people's quality of life.

"Basics of First Generation Blockchains and Applications in the Financial Payment System" discussed concepts of first generation blockchain and its use cases in financial transactions and payment. However, Due to the limited functionality of first generation blockchain technology (i.e. bitcoin), developers and users are demanding solutions capable of executing more complex transactions on the blockchain. This is necessary to further advance blockchain adoption, and examples include transactions supporting business contracts, future agreements and conditional agreements. The introduction of second generation blockchains now makes it possible to support these complex transaction types by utilizing an innovative feature called smart contracts.

Introduction of Smart Contract

A smart contract is a set of promises specified in digital that includes protocols within which the parties perform on these promises (Szabo, 1997). Blockchain technology allows smart contracts to be written, deployed and executed within a decentralized, secure, immutable and reliable computing system. In second generation blockchains, contract terms that were previously written using legal language can now be written in a computer language and subsequently deployed in a computing network to automatically execute actions through a distributed ledger system.

Ethereum is the first widely adopted second generation blockchain that supports smart contract functionality and it carries vastly more power than Bitcoin scripting (the first generation blockchain predecessor). This is due to the increased power from new enhancements, including Turing-completeness, value-awareness, blockchain-awareness and state (Buterin, 2015). The intent of Ethereum is to create an alternative protocol for building decentralized applications and to provide a different set of tradeoffs that create value for a large range of use cases. The key criteria when considering use cases involves situations where rapid development time is needed, and also the ability for different applications to efficiently and securely interact with each other (Buterin, 2015).

While adoption of the second generation blockchain is in its infancy, there are already scalability concerns that are driving further innovation towards a potential third generation blockchain in the coming years.

2.3 Basics of Crypto Digital Assets

Digital-assets is a class of programmable assets that exist in the form of electronic data to represent the ownership and value of underlying assets. With the development of the first and second generation blockchain, smart contracts and DApp, the friction of issuing and managing digital assets is reduced significantly. Crypto digital-assets is a sub category of digital-assets that is created, stored, exchanged, and managed in a decentralized computation network and free of intermediaries. The form of crypto digital-assets may be different from the traditional assets, but the heart of any crypto digital asset is no different than traditional assets which are entities used for capturing and storing value.

3 Cometa Lending

3.1 Cometa Business Ecosystem

Cometa Community

The Cometa community includes borrowers, lenders and CMT token holders all interacting through the Cometa platform. Lenders provide assets for lending. They give up the opportunity cost of their financial assets and give borrowers the access to crypto assets. Borrowers use the borrowed assets to fund their projects and get return in reward and contribute the premium to the platform. The Cometa platform facilitates the loan negotiation process to reach loan agreements, writes and deploys the loan smart contract on the blockchain. CMT token holders provide capital to support the development of the platform. They also will be the marketers and crucial parts of the Cometa community to help promote the Cometa platform. The blockchain provides the service as the digital infrastructure of trust to ensure the integrity of transactions and immutability for all involved parties.

Digital Assets

Digital assets are the “meat and potatoes” for the Cometa community. There are many blockchain startups working on the asset digitalization. Once the assets become digitalized, users can own, trade, transfer, borrow and lend their digital assets in a secure, instant and low-cost method without relying on any third party. The Cometa community provides an autonomous borrowing and lending solutions for digital assets, which will speed up digital assets adoption and revolution. Meanwhile, with the development of digital assets, the Cometa platform will provide a broader spectrum of services and make the platform much more valuable and accessible for all users.

Blockchain Credit Score Providers

Blockchain credit score providers present a decentralized and autonomous approach to credit risk assessment, which allows digital asset lenders to better understand the counterparty risks. This will help solve the information asymmetry problems in decentralized lending, reduce transaction cost and improve user experience at every layer of the credit issuance process. More importantly, a decentralized credit solution will strengthen user data privacy and security as well as increasing global

accessibility to credit scores. The Cometa community consumes the credit core service for risk assessment to ensure the borrowers get the appropriate interest rate and the optimal loan to collateral ratio by better understanding a borrowers' credibility. At the same time, loan history and transactions generated by the Cometa community will provide feedback to the decentralized credit score providers as their credit score data input.

DApp Interface

A DApp interface is a gateway designed for users to interact with decentralized applications that run on blockchain. It provides a user interface to hold digital assets, manage identities and sign blockchain transactions. DApp interfaces include digital asset wallets, web 3.0 browsers, centralized and decentralized digital asset exchanges, digital assets casinos etc. Lenders and borrowers can use any DApp interface to process and complete transactions on the Cometa platform to serve their needs for accessing the digital assets lending marketplace. Meanwhile, the Cometa community will increase the usability of the DApp interface and provide value added financial services.

Crypto Digital Insurance Marketplace

The crypto digital insurance marketplace is formed by digital insurance providers to buy and sell insurance products in a decentralized and autonomous approach, which allows lenders to mitigate the counterparty risks. Decentralized insurance marketplace will provide the digital assets insurance products in an open, transparent and low-cost marketplace. The Cometa community can purchase digital insurance to mitigate loan default risks in a very convenient and seamless manner. Meanwhile, loans generated through the Cometa community can be used to create insurance products sold on insurance marketplaces. Cometa community can also finance insurance brokers to support their favored insurance products.

Crypto Digital Secondary Loan Marketplace

The secondary loan marketplace for digital assets is formed by lending communities like the Cometa and digital asset investors such as those who manage digital pension funds, digital insurance and digital hedge funds. Loans produced by the various lending platforms and communities need to be standardized. In this way, newly originated loans can be packaged into digital asset backed securities (DABS) and resold on the secondary loan market to fixed income investors. This will increase the

liquidity of the digital loan market and enable serving the long term and high value loans like mortgage, auto loans and student loans. The Cometa community will be the loan originators for the secondary loan marketplace to continuously provide the individual loans for resell and loan aggregating. At the same time, the secondary loan market will enrich the loan service portfolio and increase the loan funding pool and liquidity for the Cometa community.

3.2 Introduction of the Cometa Platform

Off-Chain Loan Agreement Matching

The Cometa platform provides a pre-agreement service to help users to gather information, facilitate communication, find counter parties, negotiate and reach loan agreements. This is referred as Layer 2 “Off-Chain Loan Agreement Matching” The priority for layer 2 is to ensure the effectiveness of communication and match loan supply and demand. Therefore, Layer 2 will run on a centralized server at the beginning to provide a traditional web based service and keep a low cost before reaching loan agreement. With the development of the blockchain technology, layer 2 will be moved to more decentralized network without sacrificing service level and low cost.

Layer 2 has a modular design and is standardized to easily integrate with other entities like decentralized exchanges, forum, communities etc. In order to provide a liquid loan marketplace and a secondary loan marketplace in the future, it is necessary to have a public platform where all the digital loan providers can broadcast loan requests and offers. Also, building and operating a loan marketplace is costly and broadcasting loans can help solve this issue by allowing anyone to act as a loan market place and keep loan records, without building and maintaining the full function of a trust settlement layer. Other entities can build their customized layer 2 based on Cometa’s Layer 2 modular and standardized platform, easily plugging into the Cometa platform to integrate with their own platform. In this way, an entity can very easily create its own liquidity pools and provided value added service for its platform.

Lenders and borrowers may post loan requests and offers that are managed in Layer 2 of the Cometa platform and eventually executed and implemented on Cometa Layer 1 as loan agreements. Layer 2 merely facilitates interaction between market participants by hosting and propagating loan offers, counter offers and associated messages.

Therefore, Layer 2 can process information and provide communication service for all digital assets based on different blockchain. Layer 2 does not execute loan agreement on behalf of market participants and therefore this would not require market participants to trust this Layer.

On-Chain Loan Agreement Settlement

All the reached loan agreement will be translated to smart contract, deployed and implemented on blockchain. This is referred as Layer 1 “On-Chain Loan Agreement Settlement”. Layer 1 is the trust layer to ensure the loan contract is written and executed on the decentralized public ledger network correctly. The priority of Layer 1 is trust. The foundation of the Layer 1 is a Decentralized Trust Virtual Machine (DTVM) ,which is a loan smart contract generator and will create and deploy loan smart contracts on the blockchain after getting input from matched off chain loan agreements on Layer 2.

There are many DTVMs within Layer 1. One DTVM is designed to generate smart contracts on one blockchain. The first DTVM is built on top of Ethereum blockchain, as Ethereum has an established decentralized smart contract platform and ecosystem as well as high market capital. In order to provide cross chain lending service for full spectrum of digital assets, the Cometa platform will also build DTVMs on other blockchain like Bitcoin, EOS, Stellar, Hyper ledger etc.

The Cometa platform offers a local HTTP proxy API that Apps or command line tools can use to interact with Cometa Layer 1 smart contract creator. Some modules like messaging are only available through RPC-JSON API. The foundation servers are offering public gateways, which serve to easily demonstrate functionality and allow free access so that people can write loan agreement smart contract without even running their own smart contract generator.

4 Applications

While the Cometa platform is foundationally a lending platform, it serves as the bedrock for a much broader financial ecosystem that allows users to execute a bigger investment strategy and financial planning and of course, the Cometa platform provides a passive income for user through lending their digital assets.

4.1 Trading Enabler

A decentralized exchange (DEX) is an important progression from the ecosystem of centralized exchanges for a few key reasons: decentralized exchanges can provide stronger security guarantees to end users since there is no longer a central party which can be hacked, run away with customer funds or be subjected to government regulations (Warren & Bandeali, 2017). More importantly, it avoids the power centralization and abuse and demonstrates the value of blockchain which is to build a more democratized and stable society through decentralization. We believe DEX is the future of the crypto-digital financial system. For decentralized exchanges to compete with the traditional exchanges, DEX must have margin trading functionality. The Cometa platform is the funding vehicle that enables trading on DEX and allows it to compete with the traditional, centralized exchanges.

4.2 Digital Assets Debt Marketplace to Finance

With the Cometa lending marketplace, cryptocurrency miners, cryptocurrency capital, and individuals can use their digital assets as collateral to finance their favorite projects.

Miners must pay electric and maintenance expenses by mining cryptocurrencies. In many cases during a down trend in the market, they are somewhat forced to sell their mined digital assets to cover their expenses. Now with the Cometa lending platform, miners can use their digital assets as collateral to finance and pay their expenses, without liquidating their crypto digital assets.

Blockchain startups raise funds in the medium of crypto digital assets like Bitcoin and Ethereum. However, nowadays, in many situations, they need to cover their development expenses in terms of fiat currency. In

some bear market conditions, they are forced to liquidate their digital assets at a lower than intrinsic value price. Moreover, this worsens the bear market condition and enforces the downturn, and causes panic in the market. With the Cometa lending platform, blockchain startups can use their digital assets as collateral to finance and cover their expenses, without being forced to liquidate their crypto digital assets in a bear market.

More importantly in the long term, when traditional financial assets like equities, fixed income, real estate, commodities, etc. are being digitalized, the Cometa lending platform will play a crucial role as the credit and debt market in an automated, self-governed fashion without any trusted 3rd parties. By that time, the Cometa platform will provide auto loans, mortgages, money market accounts, fixed income investments, credit cards, and a full spectrum debit and credit related products and services.

4.3 Earning Passive Income with Digital Assets

The Cometa lending platform provides a secure way to earn interest on crypto digital assets by providing funding to entities like miners, traders, crypto startups, and crypto capital and funds.

Currently users who hold crypto digital assets, can only put it away in their personal digital wallet, isolated from others. There is no available and secure debt market available for users to lend out their assets to earn passive incomes. With the help of the Cometa platform, users can offer funding across a wide range of currencies and assets, secured and self-operated through blockchain technology.

Miners own a lot of digital assets because of their mining efforts, however, they can only hold their digital assets in their digital wallet as a value storage medium, and cannot fully utilize their digital assets. Assets sitting there that are not “put to work”, are assets declining in value, have lost their opportunity cost. Blockchain startups who raised digital assets to develop their projects, also can only hold their digital assets for the future to use to cover their expenses, but in fact by doing so, they earn nothing from their digital assets.

A similar situation exists with crypto funds, capital and individual investors; they own a wealth of digital assets through investment and expect appreciation of their assets. Because of limited choices, they tend to put their digital assets in their private vault without fully exploiting the value of those assets. In traditional financial systems, people who own assets

earn passive income by lending it out to others who really need it. However, in the world of digital assets, there is no such secure, low cost, easy to use existing solution to meet this demand. This is the issue that the Cometa will solve, to fully unlock the potential value of digital assets. With the Cometa lending platform, people who hold digital assets can lend it out to finance people who really need it. In this way, digital assets holders will earn passive income, meanwhile people who need the assets for their projects can also get the digital assets.

5 Cometa Token (CMT) Economy

The Cometa token economy is designed as a simple concept: every participant's meaningful contribution to the Cometa platform should be recognized for the value it adds. When people are recognized for their meaningful contributions, they continue contributing to the platform and the ecosystem grows. There are 4 categories of contributors in the Cometa ecosystem: CMT token holders, Proof of Premium (POP) Miners (the Lenders and Borrowers), the Cometa Organization, and the Distributed Ledger Network.

5.1 Cometa Token (CMT)

CMT Introduction

The Cometa token CMT is both the native currency and a self-governance mechanism of the Cometa platform. CMT, a total of 10 million tokens, allows users to access the platform to create their loan smart contract agreement. It also represents management rights, expressed through proposals and voting rights to guide the evolution of the Cometa platform. Management rights include voting for Cometa platform parameter changes, protocol change and so on. Furthermore, CMT holders will share the value created by the platform and be rewarded periodically with CMT which is collected as the smart contract creation fees.

CMT token holders

CMT token holders provide capital to support the development of the platform. They will be the marketers and crucial part of the Cometa community to help promote the platform. In return, they will be rewarded by the appreciation of CMT as more and more people use the Cometa platform. Moreover, 100% of the transaction fees collected by the Cometa platform to generate loan smart contract will be distributed proportionally to the CMT holders periodically. Furthermore, as CMT token holders, they will be granted the voting rights to manage and govern the platform through voting.

Sharing the profit of Lending

Cometa redistributes the transaction fees collected back to the CMT holders. CMT token holders are 100% entitled to the contract creation fees collected on the platform. Collected CMT will be distributed proportionally in

accordance with the CMT holding ratio, recorded in the corresponding addresses. The more CMT a holder owns, the more fees they will earn. There are 2 options for distributing collected fees back to CMT token holders; distributed proportionally to CMT holders.

Medium of Value Storage

CMT is a crypto currency based on a peer to peer system for electronic transactions without relying on trust. This makes it accessible, easy to transport, securely held, fast payment transaction, as well as the ease of forming it into different denominations. More importantly, without the 3rd party custodian, no one else can touch the value you have but yourself. Whereas in the traditional financial services market, custodians generate billions in profit from their customer's money. Since CMT is backed by its lending service, it will provide a relatively stable value with less volatility. More importantly, the fixed supply and low inflation rate make it a perfect medium of value storage to help token holders to keep their saving in as safe and secure way, and to guard against inflation.

Like other crypto digital assets, CMT also entitles the holder the right to lend out their assets to generate cash flow as well as to be used as collateral for financing. As mentioned before, holding CMT will automatically earn passive income generated by the Cometa platform. Therefore, CMT is a great medium for value storing for the future use and investment.

Governance and Voting Rights

When individuals join a community, they buy into a particular set of beliefs and can vote to reinforce the community values or purpose. One of the most important value of Cometa is to put community first. CMT token holders are the owner and manager, who are managing the Cometa platform and community via voting.

5.2 Rewarding Mechanism and Medium of Exchange for Other Participants

Miners (Lenders and Borrowers)

Lenders and borrowers are miners for Cometa platform. Lenders provide assets for lending, they give up the opportunity cost of their financial assets and give borrowers the access to crypto assets. In return,

lenders will get paid by the premium from the loan(s), and earn passive income as well. Furthermore, they will also get CMT tokens from the POP mechanism as an incentive to discount certain transaction fees in the future.

Borrowers use the borrowed assets to fund their projects and get reward in return, and they contribute the premium to the platform. In return, borrowers get the access to the digital assets and fund their projects. Furthermore, they will also get the CMT token from the POP mechanism as an incentive to discount certain transaction fees in the future.

Blockchain, DLT Book Keeping, Transactions fees, and Gas

Distributed public ledger network like Ethereum, Stellar, Hyperledger, EOS etc. will provide book keeping service for Cometa lending platform to ensure all loan contracts are executed in a transparent way as agreed. In return they will be rewarded with a gas fees.

Cometa organization

The Cometa organization is a non-profit entity, whose mission is to develop, support, promote and grow the Cometa lending platform and community to bring decentralized lending solutions and tools to the world, and together build a more globally accessible, more affordable and more trustworthy financial internet. The Cometa organization accepts donations from the community to cover the expenses for maintaining the operation of the platform.

“Off-Chain Loan Agreement Matching” is the pre-agreement layer 2 and serves as the communication channel and facilitates the formation of loan agreements. It will not directly charge any fees from the platform. All the database and server operations and related expenses will be covered by the Cometa organization. Eventually, as the blockchain technology develops and can economically support more traditional application servicing, Layer 2 will migrate to a decentralized platform to run in a self-operated model.

“On-Chain Loan Agreement Settlement Layer” is the smart contract and agreement enforcement layer 1 to ensure the loan contract is written and executed on a distributed public ledger network correctly. Every time a smart contract is created or generated, users need to pay by CMT to generate the smart loan contract. Early on, to provide an incentive for user adoption of the platform, the transaction fees may not be charged or

charged in other crypto digital assets. No matter what form of transaction fees are collected at beginning, the fees will all be exchanged to CMT token to ensure all the transaction fees be paid in medium of CMT.

5.3 CMT Issuance and Supply Mechanism

Earlier purchasers will benefit from larger discounts. The ETH received from the sale will be used entirely to pay salaries and bounties to developers and invested into various for-profit and non-profit projects in the Cometa lending and crypto financial ecosystem.

5.4 CMT Demand Mechanism

Demand of CMT will come from 3 perspectives: paying the contract creation fees to generate loan contract, voting to influence the development and parameters of the platform, and finally from obtaining CMT as a savings and investments instrument.

Distribution of collected CMT: to CMT holders or to POP Pool

Major demand of CMT will come from the transaction fee needed to create a loan smart contract. This is driven by usage of the platform and the total loan amount the platform generates per day. The more people that use the platform the more CMT that is needed to pay the transaction fees, and the more the demand of CMT increases.

CMT holders are 100% entitled to all CMT collected as transaction fees. There are 2 ways to distribute these to CMT holders: Option 1 is to distribute back to CMT holders proportionally based on the CMT amount held in each users' wallet address; Option 2 is to return CMT back to the POP pool reserved for the future release. Either option will accomplish the same purpose, which is to return the transaction fee value back to CMT holders.

Voting Rights

All CMT holders will have equal voting rights to decide the future of the platform. This will also drive up the demand of CMT, as people try to gain more influence on the development of the platform.

Savings and Investment Instrument

Furthermore, as CMT tokens are backed by its service value and with all advantages of as a crypto digital asset, this will motivate people to use CMT as a saving and investment instrument. This will also drive the speculation behavior. Eventually, all these factors will drive up the demand of CMT. This demand portion is hard to estimate and would change based on economic conditions.