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More Than a Whitepaper

SMARTFI, AN OPEN LENDING PLATFORM WITH DECENTRALIZED CRYPTOCURRENCY MONETARY POLICY

Two Maximalist Cryptocurrencies with
No Transaction Fees and Guaranteed
Buy Back from SmartFi.

15 SEPTEMBER, 2021 V.1.1

FORWARD LOOKING STATEMENTS

The information contained in SmartFi's More Than a White Paper represents our best estimates of our tokens and products future performance, based upon assumptions believed to be reasonable. We make no representation or warranty, however, as to the accuracy or completeness of any of these assumptions, and nothing contained in this document should be relied upon as a promise or representation as to any future performance or events. SmartFi's ability to accomplish the objectives and whether SmartFi products will perform as designed is dependent upon numerous factors, each of which could have a material effect on the results obtained. Some of

these factors are within the discretion and control of SmartFi's management and others are beyond management's control. Management considers the assumptions and hypothesis used in preparing any forward-looking assessments of product performance contained in this document to be reasonable. However, we cannot assure that any projections or assessments contained in this document or otherwise made by management will be realized or achieved. This document is for information purposes only and does not constitute an offer to sell or a solicitation of an offer to buy any interest in SmartFi or any other securities.

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1. ABSTRACT

SmartFi is a unique cryptocurrency monetary system. It combines monetary policy with the freedoms of cryptocurrency to create self-sustaining open-lending platforms. Smartfi token holders become the beneficiaries of the wealth creation that would otherwise accrue to traditional lenders like banks and commodity producers. Token holders also participate in the monetary policy that manages the system. The SmartFi networks eliminate transaction fees.

SmartFi delivers advantages over both fiat currencies and traditional cryptocurrencies by combining the best components of each.

SmartFi is pioneering the use of two maximalist currencies, one for stability and one for speculation.

SmartFi's economic model of recycling capital places upward pressure on the price of the SmartFi token (SMTF) – holders of SMTF benefit from the increased prices.

SmartFi's other complementary economic model creates a minable stablecoin, SmartFi USD (SFUSD), by tying the value of the token to the values transacted on the network and the cost to run the network – producing a minable stablecoin in any fiat currency connecting the blockchain to the physical world.

The SmartFi ecosystem uses a 'hedge first –

price speculation second' approach which produces the balance of two maximalist tokens – one for hedging and the other for speculation.

With this hedge (safety) first balance design, SmartFi can offer a guarantee for those who buy SMTF directly from the token supply on the SmartPortal. Any SMTF token buyer on SmartTrade can return the token any time after one year, for any reason, for full refund of the purchase price in US dollars or SFUSD.

One token creates wealth – the other is a minable stablecoin that doesn't need a peg or burning minting protocols.

SmartFi innovated two processes that produce the price discovery and economic balance for complete markets. These markets are self-sustaining openlending platforms. One market is a centralized (CeFi) platform and the other is a decentralized (DeFi) platform.

The first balance process is within the decentralized platform and is accomplished via a novel SmartFi invention, the Commodity Layer Protocol (CLP). This set of algorithms and protocols (or set of rules) manages the market's needs. How does it work? Simply, the CLP collects data inputs from a series of auctions every 20 seconds that culminate in a block reward for miners.

The mining hashrate costs, lenders' rate of interest, and borrowers' rate of interest paid are the fundamentals data used in this algorithmic auction that produces a balanced block reward.

The SmartFi centralized open lending platform has a protocol called SmartCycle that recycles capital and creates wealth. This wealth accrues to SMTF. SmartCycle has a token issuance protocol that is part of the fundamentals that produces this speculative wealth creation recycling process. In traditional lending and trading markets this wealth creation would otherwise accrue to traditional banks, lenders, or forward markets of commodity producers. It now accrues to SMTF holders in the form of token price levels.

The SMTF token price fundamentals are directly linked to the demand for loans in the SmartCycle. As the demand for loans increases, more tokens are issued in scheduled fixed supply and price increases. This creates credit and assets like a loanable funds model used in private banking and lending. The tokens are then

in circulation, freely tradeable.

SFUSD is also tradeable and can be redeemed at the SmartExchange or SmartTrade for exactly one US dollar (at par) – no transaction fees on the SmartExchange SmartTrade or on-chain. When SFUSD is mined, it's produced with a value exactly correlated to USD. In addition, our SmartFi USD traditional treasury bank account balance is published via SFTP publicly, every hour on smartfi.com. This proves that the SFUSD coin is backed by US dollars and is in exact correlation to the SFUSD in public circulation. No audit needed.

The total circulating supply of SFUSD is 90 billion – viewable on the SmartFi blockchain. Whether SFUSD is purchased on the SmartExchange or mined, it's not going to change in value. SmartFi can deploy a USD stablecoin and mobile payment app system with no transaction fees ever! If they want to convert and withdraw to US dollars, a user's account is linked to their real bank account.

2. INTRODUCTION

The purpose of this paper is to sufficiently instruct the reader on the fundamental principles and unique inventions and approaches to the SmartFi Networks. There are many sources of information on valuation theories of cryptocurrencies, debates on what is money, technical features about fiat currencies, blockchains, and cryptocurrencies – including whether they are ‘good’ or ‘bad’. We’re going to assume you have your own opinions and concepts about that. In this paper, we focus on what our observations and years of cryptocurrency - backed lending experiences have shown to be useful, factual, and successful. We will provide information, references, and observations that we believe provide real value in the real world.

SmartFi originated from a company called Power Block Coin. Formed in 2017, Power Block Coin worked developing energy infrastructure for cryptocurrency mining companies and provided loans, investment hedges and innovative financial transactions for crypto-related businesses. The founders of SmartFi are specialists from the energy industry who saw many correlated opportunities in the crypto markets. Ultimately Power Block Coin’s market expertise and experience led to the ideation and creation of SmartFi’s self-sustaining open lending platforms and its novel innovations of CLP and SmartCycle protocols. Since its inception, SmartFi has continuously

evolved to solve a problem that has stymied crypto-related businesses and the crypto mining community – the funding of mining operations during crypto bear markets. Miners and other crypto-related business don’t want to sell their most valuable assets, cryptocurrencies, at the bottom of the market to fund operations. To address this, SmartFi developed a lending process and started lending capital to these companies. To date, SmartFi has completed over \$1 billion (USD) in transactions.

When Power Block Coin began in May 2017, Bitcoin’s price was approximately \$1,500.00. At the end of 2017 BTC was peaking near \$20,000.00. The cryptocurrency market collapsed shortly after this peak and BTC fell to \$3,500.00 within the next few months. Many miners had invested in overpriced mining equipment at the time and became unprofitable almost overnight. Crypto-related businesses were struggling to survive, let alone break even.

Since the SmartFi team had experienced similar ups and downs in the energy business, they were well-equipped to deal with volatility. Firstly, SmartFi started lending US dollars to pay for current costs of the mining operations and other cryptocurrency-related business. Those loans were backed by Bitcoin and Ethereum – essentially providing cash flow for expenses without the need to sell the cash flow needs, but didn’t resolve profitability risk. Miners were still subject to volatility risk requiring them to post more crypto collateral margin if the market price moved significantly lower.

From this experience, the SmartFi team started to reimagine better ways to build a cryptocurrency that used an open lending platform to algorithmically de-risk mining rewards, with a hedge first and speculation second approach.

From our experience of financing mining companies, we understood that there were several areas of volatility risk that were largely due to the inherent design flaws in cryptocurrency algorithms and protocols. These risks needed to be addressed to implement a fully complementary, decentralized, and centralized lending platform that would make SmartFi token holders equivalent to bank owners.

The first problem to address is the one-sided, speculation-only nature of the cryptocurrency networks. For cryptocurrencies to be a complete financial

solution, crypto networks need to provide a hedge or stability as a complement to the speculation.

Cryptocurrencies rely solely on speculation and lack fundamentals price discovery in their design which can lead to bear market volatility. One primary cause of this volatility occurs because other cryptocurrency systems don't equate the cost of their networks to the rewards given to the network operators. More specifically, the value of the cryptocurrency miners' work and/or the corresponding staking systems, are not factored into the cost of those blockchain networks.

Therefore, those systems must socialize block rewards and charge arbitrary transaction fees — two of the worst features copied from traditional payment and government welfare systems.

SmartFi spent the last four years successfully researching and testing with their own loan products and customers. SmartFi built their successful innovation into new protocols and algorithms from the ground up, with the goal to produce a minable, pegless stablecoin that can represent any fiat currency. This is a key element of the SmartFi system.

The SmartFi team also realized that a minable stablecoin will need a complementary speculative coin to achieve economic balance and create wealth like a loanable funds model — this is SMFT. the balance of these two coins (SMFT and SFUSD), in an on-chain combination, create a centralized and decentralized open finance platform network where participants can lend, borrow or earn on deposits.

2.1 THE PROBLEMS

2.1.1 Failed Fiat Monetary Systems

Since fiat currency inception, governments and their central banks' monetary policy have been a mechanism that transfers wealth to banks, other financial institutions and business that seek the favor of government officials at the expense of fiat currency users. Through central banks, currency is devalued by inflation. It has failed the average person.

It's not without some virtue. The ability to expand and contract money supply to respond to growing or shrinking GDP can stabilize prices. Governments have shown they cannot resist the temptation to use central banking for political purposes. In many countries the central banks are controlled by the political manipulations of governments.

They have also failed to incorporate innovations that would improve the execution of monetary policy. For decades, central banks and governments have been setting interest rates and making money-printing decisions based on 3-6 months' old macroeconomic data – being unable to collect microeconomic data in real time.

2.1.2 Free Floating Cryptocurrencies with No Fundamentals

The first digital currency on an electric network wasn't Bitcoin. Bitcoin pioneered the use of blockchain and cryptography in its payment system. Although the birth of the cryptocurrency has been commonly attributed to Bitcoin, the birth of digital currencies predates it. There have been digital currencies conceived and released in various papers, experiments¹, video games etc. These original digital currencies, and Bitcoin's values are subjective.

Cryptocurrencies are not currently rooted in any real-world commodities, natively on-chain or any blockchain layer.




A CURRENCY THAT DOESN'T TIE ITS VALUE BACK TO ANYTHING IS FREE FLOATING SPECULATION WITHOUT A HEDGE FOR SAFETY.

¹1991 A cryptographically secured chain of blocks is described for the first time by Stuart Haber and W Scott Stornetta, 1998, Computer scientist Nick Szabo works on 'bit gold', a decentralized digital currency, 2000 Stefan Konst publishes his theory of cryptographic secured chains, plus ideas for implementation.

Bitcoin and all other cryptocurrencies are digital currency without correlated hedges. Implementing a process in source code that replicates the scarcity of a commodity like gold is insufficient as a hedge. The network and the commodity have no direct physical correlation.

2.1.3 Cost of Token Production

To date, there hasn't been any cryptocurrency that's built the cost of token production in to its algorithms or protocols. If information about the cost of the network and the value of the network is not incorporated into cryptocurrency system design, this leads to unnecessary bear market volatility. The creators of most cryptocurrencies don't understand the foundational implications of not incorporating a cost structure in their blockchain design.



OTHER CRYPTOCURRENCY NETWORKS ONLY KNOW ABOUT THE REWARD OF A BLOCK, OR TRANSACTION FEES CHARGED IN THE BLOCK — NOT THE COST TO PRODUCE THE BLOCK. ONLY A MINER CAN POSTULATE A POTENTIAL ANSWER, BUT THAT WOULD STILL BE A GUESS. THIS IGNORANCE PLACES THE VALUE OF THEIR NETWORKS AT RISK AND RESULTS IN ONLY ONE ECONOMIC POSITION: SPECULATION RESULTING IN EVENTUAL BEAR MARKET PRICE VOLATILITY.

For a more detailed explanation see Section 4.2.1 'SmartFi Balance Coins'. Without tying the network and token value to history of objective value, it's not possible to accurately determine value which leads to massive volatility or boom bust cycles. This is an unfortunate aspect of cryptocurrency which prohibits mass user adoption.

2.2 SMARTFI'S SOLUTIONS

2.2.1 SmartFi's Decentralized Token Price Stability and Centralized Loanable Value Creation

DECENTRALIZED SMARTFI



Is designed for non-custodial transactions utilizing the advantage of decentralization. A user can take advantage of anonymity, exercise more trust in software and less trust in people when conducting transactions.

It has some disadvantages and requires a greater technical understanding. Right now, it's less convenient and has virtually no ties to the physical world for exact price stability. There are many characteristics we could expound on, but won't in this paper.

With its limitations being concentrated in lack of convenience and non-existent physical real-world utility, it was obvious the native token SmartFi blockchain token needed to answer these and other problems.

SmartFi designed and implemented a decentralized token, unlimited in supply and stable in price (90 billion is the initial supply because of a technical limitation on a single blockchain. When SmartFi's issuance exceed \$90 Billion in demand we will mint more with a hard fork). It incorporates near real-time data that includes the cost of token production. This is SFUSD.

SFUSD is distributed to lenders and network operators who receive part of the total interest charge in loans as payments for their roles in the decentralized lending function. With this stability, its main use is to serve as the medium of exchange for loans and everyday payments in our mobile payment app, replacing the need for other USD payment systems.

Decentralization will be explicitly relied on and at the same time, its users' knowledge of the role decentralization and the technology play in its existence and convenience is unnecessary. All a user needs to know is that it has no transaction fees ever and is always available to use — maximalist cryptocurrency mission accomplished!

This solution is only possible with SmartFi's recent technological innovation, the CLP, that uses near real-time data inputs from miners. Together, the sum of these parts enables the necessary checks and balances of the SmartFi ecosystem.

CENTRALIZED SMARTFI

Designed for custodial transactions utilizing the advantage of centralizations. A user can take advantage of regulatory compliance that makes its transaction more convenient and prices more stable. Also, less technical user knowledge is required. It requires more trust in people and less trust in software when making transactions. When transaction mistakes occur, they can easily be corrected.

It has some disadvantages. There is no anonymity and it requires a high level of intermediation by a third party to complete transactions, which means less user control. There are many characteristics we could expound on, but we won't here.

With its limitations being concentrated — less user control, lack of anonymity and less opportunity for speculation, it was obvious the native token SmartFi blockchain token needed to answer these and other problems.

SmartFi designed and implemented a speculative token, SMTF, issued through a centralized SmartCycle (defined in Section 5.2), with an increasing price based on an event that is deflationary by design, with a fixed supply of tokens. The process is designed to maintain a balance between the

market demand for loans and tokens traded in a predetermined tranche and price. This series of sequential events maintains an incremental price increase of the SmartFi token as the total number of loans issued on SmartLoan increases – creating credit and assets like a loanable funds model used in private banking.

2.2.2 SmartFi Balance Token Solutions Follow Successful Examples of Analogue Virtual Currencies

Successful modern ‘analogue’ virtual currencies are frequently the combinations of two complementary factors. These may be goods or services, or currencies that are used as a hedge in a trade or barter that results in a single reference or price point. This analogue virtual currency then creates credit which begins to show up on a balance sheet of the entities who trade in it. The analogue virtual currency is typically theoretical but represents real trade. It is not manifested physically but does embody real value because it is the result of an actual trade and a real price. The analogue virtual currency represents the price combination of one, or all, of a commodity currency, a derivative, or a fiat currency. It is governed by analogue protocol(s) and analogue algorithm(s) in contracts, or practices, formal and informal.



THE DESIGN OF SMARTFI HAS BEEN FORMED BY THIS PATTERN BY COMBINING THE USE OF A FIAT CURRENCY, A COMMODITY(IES) AND AN ON-CHAIN HEDGE (SEE SECTION 4.2.2).

This pattern is shown in the example of the Petrodollar which was created shortly after the United States became a net oil importer in the early 1970’s. This analogue virtual currency was based on an agreement that culminated in the United States–Saudi Arabian Joint Commission on Economic Cooperation which set forth the terms and conditions to transfer money and technology between the two countries. This agreement set up a construct to use US dollars in the trade between Saudi Arabia and anyone who wanted to buy its crude oil, basically pricing oil in US dollars worldwide.

The system has governance and processes that are calculated based on a contract. It is a closed system of trade that must be denominated in a specific currency, the US dollar, which was previously traded for a commodity (crude oil). These dollars are then used to invest outside of this commodity network. This represents a stable value in exchange (dollars for crude oil) and speculation in other sectors, such as technology, infrastructure, etc., in Saudi Arabia. This is effectively a speculation in contracts. With this system, an analogue virtual currency is created, bearing a name that represents the network value of two

bilateral trade partners. One partner produces a stable currency, the other a speculative commodity (crude oil to the rest of the world). This unified single price point resulted in almost all crude oil contracts worldwide being quoted in US Dollars, hence the name the Petrodollar. Notice the many parallels in protocols and algorithms controlled by contracts, the combination of a stable currency and a speculative asset that creates a single price point for the new virtual asset.

The combination of two price points, with a hedge, establishes the utility of this successful pattern and its ability to inform and impact virtually all financial and commodity markets. A maximalist currency must have this far-reaching economic impact to be successful.

The world has been engaging in contracts that act as a medium of exchange for thousands of years — some more successful than others. Today's derivatives markets are no different. Fiat currency-denominated contracts are used for exchanging value without the actual notional value of the currency being traded. Basically, these are settlement contracts that reduce the risk of an underlying asset (hedging) with the option for speculation for one or both counterparties. Once again, the trade is real and the majority of the settlement is virtual. Only a fraction of the real currency is exchanged.

In 2017 the derivatives market was notionally valued between \$550 trillion to \$1.2 quadrillion — more than 13.3 times the \$90 trillion broad money market value then. These analogue virtual currencies settlements, created by the derivatives market, affect virtually every aspect of commerce today. When combined with significant leveraged debt, the effects can be astounding.

The derivative market is closely tied to other financial markets, as demonstrated by the mortgage-backed securities crisis of 2007. At that time, mortgage-backed securities comprised 3% of the derivatives market. The collapse of this market due to overleverage, brought the fiat currency supply, the money market and banking industries to their knees while the rest of the derivatives market was relatively unaffected. The government responses to this liquidity crisis were the inspiration for the creation of the world's best known digital currency, Bitcoin.

Many analogue virtual currencies exist as a functional substitute for money. The limitation to widespread user adoption of analogue virtual currencies is the willingness of others to accept these instruments. There are other barriers like the technical ability to operate with other counterparties and certain regulatory requirements. The belief that an analogue virtual currency, in any form, will have value is buoyed by the length of its consistent history of traded value.

2.2.3 Correlated Hedges and Fundamentals for Wealth Creation

SmartFi has developed a unique combination of decentralized and centralized trading and lending platform solutions that work together with a precisely correlated hedge that creates the SFUSD stablecoin. It doesn't need a peg and doesn't charge a transaction fee. SMTF is the medium for wealth creation that is generated in the SmartFi lending process. The algorithms of today's cryptocurrencies are incomplete due to the lack of this basic price discovery function.

SmartFi presents a new algorithm comprising the Commodity Layer Protocol (CLP) and Treasurer reward algorithm in the decentralized platform and cryptocurrency monetary policy tools for the centralized platform. Both which provide the foundation required to mine a sound stablecoin of any fiat currency and create credit for a loanable funds model. This is the key to SmartFi's flexibility to create decentralized and centralized lending and borrowing solutions – a payment system that never charges a fee, stablecoins used for hedging with precise correlation, and a token used to create wealth through financial fundamentals designed with price appreciation characteristics.

3. MISSION AND VISION

SmartFi's ecosystem empowers individuals and entities worldwide to pursue the creation of wealth simply via the SmartFi Token loanable funds model and the safety of SmartFi stablecoins. SmartFi will securely protect the use and possession of our ecosystem's users' Balance Coins without charging transaction fees, ever.

SmartFi set out to create an ecosystem with two maximalist cryptocurrencies that's as simple as tying your shoes. SmartFi tools empower users with the opportunity for prosperity.

THE KEY VALUES AND IDEALS THAT LED TO THE SMARTFI INNOVATIONS ARE

- 1 EMPOWER CUSTOMERS TO CREATE WEALTH**
- 2 BE SAFE AND SECURE**
- 3 BE SIMPLE**

4. THE SMARTFI ECOSYSTEM


SmartFi is a unique cryptocurrency monetary ecosystem. It combines monetary policy with the freedoms of cryptocurrency to create a self-sustaining openlending platform which provides the holders of the SmartFi Token the opportunity to vote on the monetary policy in the management of the system (see Section 5) and to become beneficiaries of the wealth creation that would otherwise accrue to traditional banks.

The SmartFi ecosystem consists of centralized and decentralized platforms through which users can trade, lend, earn, and borrow cryptocurrency. It's different from other cryptocurrency platforms since users can enjoy a system where it is possible for speculation and hedging to exist side-by-side on-chain. SmartFi's centralized SmartPortal incorporates a custodial wallet

designed for simplicity with ease of use its main goal. SmartDex, the decentralized portal is designed for non-custodial wallet users who prefer to hold their private keys.

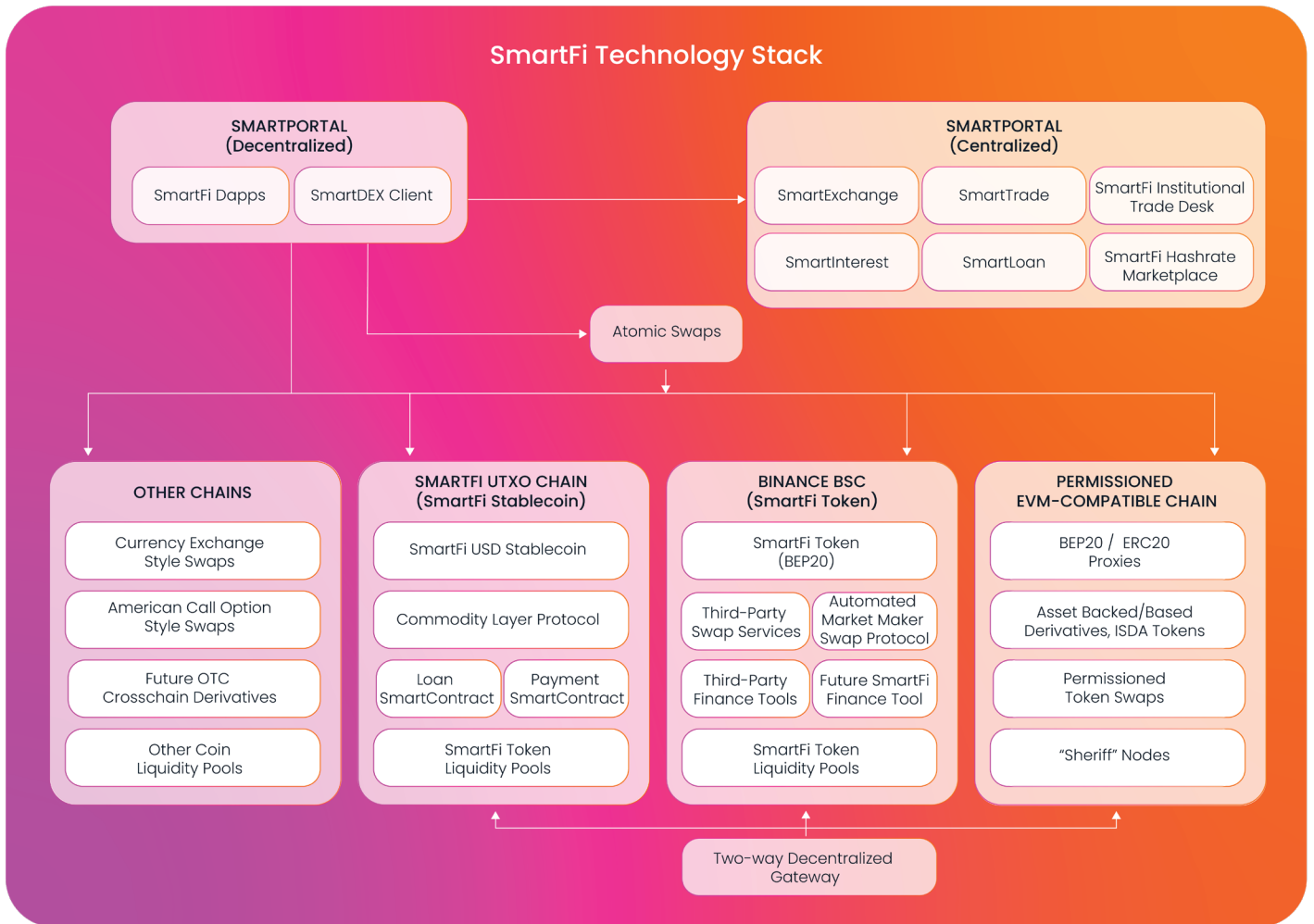
Since SmartFi Treasurers' and users' data are directly correlated to the rate of interest and token issuance, as well as notional value of the loan portfolio, the economic system within is rational and known.

Within this system, payment transaction fees are eliminated, and wealth creation speculation is accomplished by holding the SMTF. Safety is accomplished by holding SFUSD. Both are available within one ecosystem for advanced and novice users. This is a significant advantage.



**SMARTFI BELIEVES USING CRYPTOCURRENCY
SHOULD BE SIMPLE, USEFUL, RELIABLE AND
ABOVE ALL — FREE FROM TRANSACTION FEES.**

4.1 SMARTFI BLOCKCHAIN TECHNOLOGY OVERVIEW



4.2 UNPACKING THE SMARTFI TOKEN SYSTEM

To date, there isn't a single cryptocurrency ecosystem that incorporates the necessary fundamentals for a complete free market economy. Most cryptocurrencies possess the speculative component only, but none have an on-chain hedge or mechanism for economic safety, until now.

A hedge is an investment intended to reduce the risk of adverse price movements in a (speculative) asset. Here, we describe the rationale behind the SFUSD, an on-chain currency (stablecoin) that serves as a hedge to the speculative component of the system. Since a stablecoin needs to function as a currency, we first need to understand the requirements for a successful currency. Let's set the premises with an excerpt from Steven Hor-

witz's essay Monetary disequilibrium theory and Austrian macroeconomics²:



“Yeager’s (1968) understanding of the monetary disequilibrium tradition begins with the fundamental properties of money. **The most important of these properties is that money is the generally accepted medium of exchange. In an advanced economy, money is half of (virtually) every exchange.** Although we normally think in terms of money holders buying goods and goods holders selling goods, it is fruitful to remember that the money holders are also selling money and the goods holders are also buying money. The exchange of money for goods between two traders is also an exchange of money for goods or goods for money in the pockets of each trader.”

Two other features of money that Yeager emphasizes are that the demand for money is a demand to hold real money balances and that our acquisition of money has a ,routineness’ to it that distinguishes it from other goods.

The so-called ,cash balance’ approach to the demand for money dates back at least to Mises, but it is emphasized and made effective use of in Yeager’s monetary theory. **The demand for money is understood to be a demand to hold a certain quantity of purchasing power in one’s wallet, pocket, or bank account.** We demand money by allowing it to accumulate in our various money balances. When we spend money, we reduce our demand for it. Another way to look at this is that money is one form in which we might choose to store our wealth, thus the act of purchasing is, to the buyer, a trade of a monetary asset for some other kind of asset. The advantage of holding money rather than other assets is that money provides the service of being ‘available’ if one desires to make a purchase. This notion of ‘availability’ is equivalent to ‘liquidity’, and the liquidity of the medium of exchange is (near) absolute. No other asset can be **costlessly** used to make exchanges, thus the advantage that money has over other assets.

Nothing in these first two properties of money would be strange to Austrian macroeconomists. The first coincides nicely with Menger’s (1892) work on the origin of money and Mises’s (1980 [1912]) extensions of it in *The Theory of Money*

² “Monetary Disequilibrium Theory and Austrian Macroeconomics: Further Thoughts on a Synthesis,” in *Money and Markets: Essays in Honor of Leland B. Yeager*, Roger Koppl, ed., Routledge, 2006, pp. 166–85.

and Credit. The second reflects a sound Austrian subjectivism, in recognizing that what money does is precisely what every other good or service does — provide a stream of subjectively evaluated use-services. The ‘return’ to money held is ultimately the subjectively evaluated utility that actors expect from those availability services. Just as the ‘return’ to an automobile is the subjectively evaluated utility of the various (including but not limited to transportation) services it provides.” [emphasis added]

A successful currency possesses these characteristics —

- Medium of Exchange: Generally accepted
- Store of Value: Holds a certain quantity of purchasing power
- Routineness: Unit of account, distinguishes it from other goods and services
- Absolute Liquidity: Constant demand
- Free transactions: no inherent cost to exchange for goods and services.


Following these principles, Bitcoin and most cryptocurrencies today are not currencies. Try calculating the cost of a meal you would commonly purchase in Bitcoin rather than USD, the cost changes second to second.

In the following sections, we will show how SmartFi abstracts the utility of mining hash rate, token issuances, lending, borrowing, hedging and speculation and reimagines their role as the fundamentals of maximalist currencies.

4.2.1 SmartFi Balance Coins

The tokens of the SmartFi network are designed to work in harmony and are termed the Balance Coins. The Balance is a combination of a speculative token (SMTF) and a stablecoin (SFUSD).

SMTF



The SmartFi speculative token or SMTF is issued through Smart- Cycle with an increasing price based on an event that is deflationary. The process is designed to maintain a balance between the market dem- and for loans and tokens traded, which maintains a continuing incremental price increase of the SmartFi Token. This creates credit and assets similar to a loanable funds model used in private banking.

Special Note for SMTF Tokens:

We have selected to temporarily issue the SmartFi speculative token (SMTF) on the Binance Smart Chain as a BEP20 token. We made a choice to issue the token now on a network that already had a significant smart contract library available. This would provide us with the ability to expand the products in our decentralized platform within six months. If we had programmed our smart contract libraries it would have taken more than a year. We are actively developing a new blockchain ecosystem for SMTF that will incorporate the CLP into this new network to eliminate the transaction fees for SMTF.

We anticipate that in about six months our new SMTF coin network will be available with no fees.

SFUSD

The SmartFi stablecoin (or SFUSD) can be produced in a decentralized mining process. This is achieved when the amount of currency issued through the Treasury rewards (mining) is equal to the cost of running the network. The cost of the network is always equal to a portion of the interest and revenue received from issuing credit and other speculative contracts. The revenue from issuing credit allows all rewards to be redeemed in the fiat currency that the Treasurers denominate their cost in. Because it is stable it can also be issued and purchased outside of the mining process with no limit on its supply. This minable stablecoin is a first of its kind.

Two tokens create a balance of the coins, the SmartFi stablecoin (SFUSD), and the speculative coin (SMTF). Together they create a highly accurate mechanism needed for a unified currency pair. The minable stablecoin is based on the Commodity Layer Protocol (CLP) which will be introduced in the next section. The speculative coin, SMTF has volatility based on the appreciation of value derived from network speculation in the form of loans, interest rates, and other future smart contract-based financial transactions. These coins combine the best of commodity and fiat currency characteristics.

4.2.2 SmartFi Balance Coins Include Movable Stablecoins

A commodity-backed cryptocurrency based on electricity and silicon semiconductors

Historical and current successful currencies have either been commodities or fiat based. SmartFi introduces a native token that is tied algorithmically to a majority combination of commodity values, that of electricity and silicon chip computation, derived from hashrate inputs. This solves the common problem that digital currencies have of being subject to unnecessary bear market volatility. Our stablecoin is correlated to market data input. We call this a Balance Coin. A speculative coin can also be classified as a Balance Coin by adding or changing data correlation in its issuance algorithm.


SFUSD and SMTF are Balance Coins. They are the native tokens of the SmartFi system, used for both speculating and hedging within the SmartFi platform and incorporate the use of the CLP described later in Section 4.3. In this section we will discuss what governs their value and how they work together to provide a payment system and bring balance to the SmartFi economy.

The SmartFi network Balance Coin production cost can be directly correlated to the majority value of underlying commodities of electricity and silicon semiconductor computation in its block reward protocol(s) and algorithm(s). These properties constitute the Balance Coins and create an on-chain hedge. The more direct correlation the costs are in the physical world, the more stable its price correlation, the better the hedge. Since it can now be priced effectively with a relatively long price history, it can provide significant confidence about the characteristics of its store of value.

The value proposition of SmartFi Balance Coins

The Mises regression theory can be applied to SmartFi Balance Coin³. A medium of exchange is only considered money if you can trace its origins back to the point where the commodity was used in a form of barter and then derive a value from its use. The value of SmartFi's Balance Coins can be tied back to the first uses of electricity, and silicon semiconductor computation. The majority commodity cost here is hashrate.

³The value of SmartFi's Balance Coins can be tied back to the 1880's with the first uses of electricity, since this is the majority commodity in SHA 256 hashrate that directly produces its native value when it is brought into circulation. Silicon computation will also be considered since the two commodities are an aggregate value story. Using a regression theorem, we can track the first use of the commodities to the point where they were first used as barter and had to be exchanged for a currency in a transaction.



IMPORTANT NOTE — ALTHOUGH OTHER CRYPTOCURRENCY NETWORKS USE PROOF OF WORK AND MINING ALGORITHMS, THEY CAN'T TIE THE VALUE OF THEIR NETWORK TO THE PHYSICAL WORLD BECAUSE THE ALGORITHMS THEY USE DON'T DIRECTLY RECOGNIZE THAT ANY COST DATA EXISTS. NO CURRENT CRYPTOCURRENCY NETWORK HAS INCORPORATED, BY ALGORITHM, THIS ABILITY TO LINK ITS VALUE (BY OBJECTIVE CALCULATION DIRECTLY, NOT BY SUBJECTIVITY) TO COMMODITIES, THUS LINKING ITS COMMODITIES VALUE HISTORY TO THE NETWORK BEFORE THE SAID NETWORK EXISTED.

4.3 COMMODITY LAYER PROTOCOL (CLP)

Virtually all cryptocurrency algorithms today use a socialized mechanism to subsidize cryptocurrency value and rewards. The designers of these new cryptocurrencies were unaware of the pitfalls of relying on transaction fees and socialized reward incentives patterned after the old banking and payment systems. How ironic that in the very creation of a new monetary system intended to liberate people from the old tyranny, the creators used some of the main features, socialized rewards, and transaction fees that helped create the tyranny it intended to supplant. The old tyranny has essentially been replaced by a new kind of crypto tyranny. Socialized monetary costs, in the form of block rewards and transaction fees, are not tied directly to the work that creates the network. This cost amounts to a tax levied to use property.

The ignorance and exclusion of correlating network cost structure data, relegates all crypto networks to a speculation-only model. A hedge or economic safety needs to be incorporated to create a two-sided balanced economy. The important key data needed to create a hedge is not considered, collected, or processed by any cryptocurrency network today. Even if it is recorded, there is no algorithm or protocol that has demonstrated the intention nor capability to incorporate the data in any meaningful manner. Repeatedly, this valuable data is lost forever at the same moment it's generated. This is a fundamental flaw in digital currencies.

SmartFi is unique in that it connects this data to an algorithm called the Commodity Layer Protocol (CLP). This protocol, along with its reward algorithm, provides the SmartFi Network with a balance and stability of its minable native protocol coins. In this section we will describe the Treasurer role, hash rate inputs and reward mechanism. The block reward is an auction allocation model. The highest ranked Treasurers' hash rate reported receives first allocation of block reward. The block rewards are generated from the Block Revenue

which is the interest paid on loans.

The CLP combines data from three sources to create the algorithmic lending platform:

- Treasurers' (self-reported) hash rate commodity cost,
- Total liquidity value (from lenders), and
- Total loan value (from borrowers).

Using the Treasurers' hash rate cost information, the CLP correlates the cost to run the network with the block rewards gained from the loan interests. This effectively hedges the Treasurers' rewards to the base currency (\$FUSD) of the hash rate costs.

The CLP embodies the foundational basis for the value of all cryptocurrencies. All virtual currencies or cryptocurrencies possess this element, but no system to date has been able to capture the price discovery needed to effectively govern this key element. In fact, there has not been a project that has demonstrated an understanding of the need for incorporating this component.

The importance of the CLP cannot be understated. The value of any blockchain's entire economy is jeopardized when the required input data on the costs of commodities are unclear or unknown. The resulting illiquidity will devalue the coins or tokens by stranding the network hashrate. This is one key underlying source of price uncertainty and one of the major triggers that can cause unnecessary bear market volatility in today's cryptocurrency market. It concentrates price discovery into one tool to arrive at the token value, total speculation.

For example, Bitcoin, which has been used as the template for virtually all alternative coins. The release of a newly minted virtual token, without regard to the cost of the network, creates the feast or famine phenomenon among miners or stakers as they compete for a share of the reward coins from each block. Bitcoin's block rewards today are 6.25 BTC. Since the value or cost to the network is ignored in this algorithm, the cost to produce is therefore unknown and a hedge cannot be found. SmartFi solves this problem in the CLP by using input from the Treasurers' hash rate cost data to produce a precise hedge to balance the network.

The only way other cryptocurrencies accommodate the risk of bear market volatility is to rely solely on speculative bull market volatility for deflation. Deflation can be achieved by reducing the rewards per block inducing scarcity. Introducing volatility into deflation entices the market to hold the Bitcoin balance with the prospect that it will be worth more in the future. In other words, the value of Bitcoin relative to goods and services will adjust over time, benefiting the holder with increased buying power. To be clear — this is the accumulation of power to a smaller group of people.

Without the ability to recycle the issuance of coin from the network in the form of new and ongoing mining rewards, the market is limited and will hit saturation (there's no such thing as unlimited market) and stagnate because of the inability to adjust to GDP growth in the physical world. This is the same problem that gold commodity currencies have had. The currency cannot accommodate growth because you cannot predictably extract enough gold out of the ground to keep up with rapidly industrializing economics to keep the currency expanding and keep prices stable.

What results is scarcity, deflation, and price disruptions. In the past, when gold backed currencies were used, many nations resorted to war to acquire gold and other commodities to resolve economic struggles-related currencies. Let's think about this function critically. We believe the creators of Bitcoin intended the concept to be virtuous. We also believe the design was shortsighted. Unfortunately, they did not understand or did not incorporate the foundational concept of hedging or risk reduction.



THIS IS APPARENT BECAUSE THE BITCOIN ECONOMY WAS DESIGNED WITH SPECULATION ONLY AND DID NOT INCLUDE A HEDGE. BOTH HEDGING AND SPECULATING ARE NEEDED FOR SUCCESSFUL FUNCTIONING MARKETS. THIS IS FUNDAMENTAL ECONOMICS — HALF OF EVERY MARKET TRANSACTION IS MONEY OR HEDGED PURCHASING POWER IN THE FORM OF STABLE MONEY.

SmartFi's design is the first cryptocurrency to incorporate algorithmic, protocol hedging tying the block reward back to the cost of the blockchain network costs creating an on-chain hedge.

SmartFi Commodity Layer Protocol (CLP)

CLP is a lending process that matches credit issuers with borrowers, and converts the process to payment of loan proceeds & loan interest payments between counterparties. Block rewards are distributed to three participants - treasurers, credit issuers and SmartFi.



SmartFi Commodity Layer Protocol (CLP)

The Dashboard, available on the SmartExplorer, will show key metrics such as:

- the current average interest rates charged for loans,
- whether the Hash Rate is sufficient for 20 second block times,
- the Lowest cost of hash rate, and
- available SFUSD for SmartLoans.

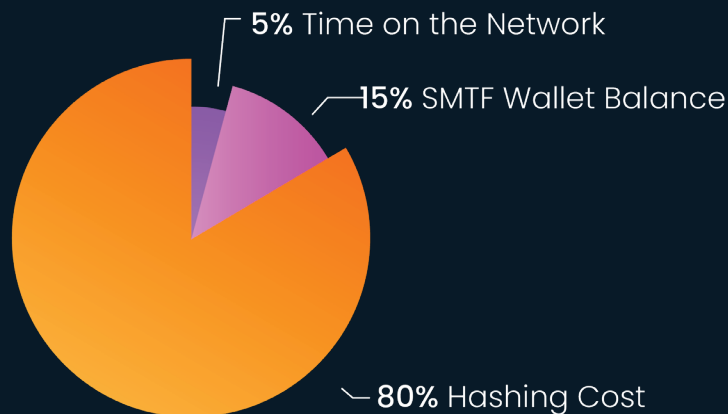
CLP Dashboard Key Metrics

Lowest Cost Hash Rate (\$/terahash/month)	\$2.92
Treasurer Ranked Hash Rate Selected (terahash/s)	416,522
20sec Block Hash Rate Level	416,522
Average Interest Rate (%)	10%
Available Liquidity (\$)	\$3,331,154,901

Treasurers are ranked based on a calculation that weights three factors.

Treasurer's Weighting

Treasurers are ranked based on a calculation that weights the following factors:



4.4 CLP TREASURERS, LENDERS AND BORROWERS

The future of blockchain infrastructure — Treasurers are essential

4.4.1 The Role of Treasurers

The SmartFi Network operators (miners) are known as Treasurers. They ensure transactions are recorded, speculate for block rewards, and help secure the network. SmartFi Treasurers not only receive speculative block rewards for processing loan transactions, but they can also use the balance of their wallets to borrow and lend credit.

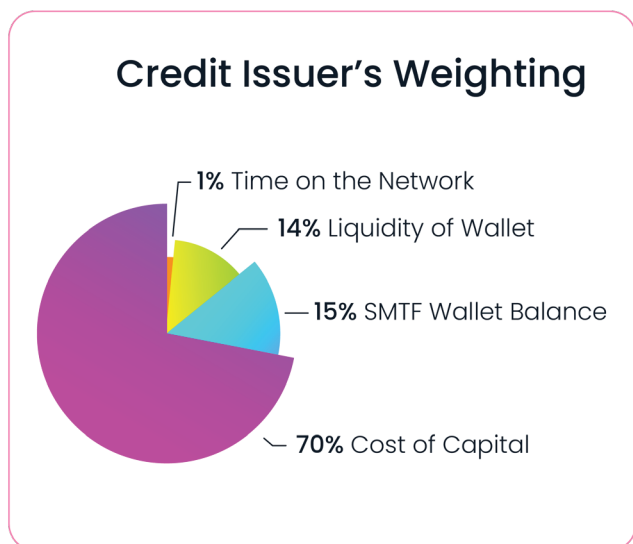
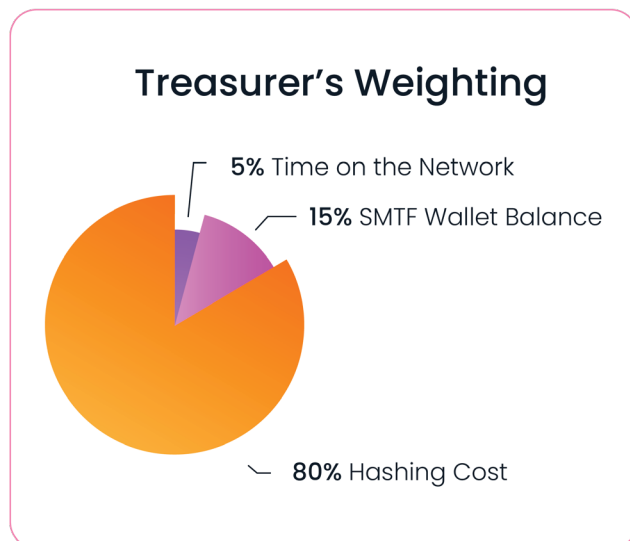
SmartFi Treasurers are incentivized to maintain block times at 20 seconds. When the block time target is achieved, Treasurers, (as selected by the CLP auction process) receive a block reward equal to their reported hash rate costs plus an additional 20%. The SmartFi network doesn't reward over or under investment of hash rate. When block times are less than 20 seconds, Treasurer's hash rate will be decreased by the software to produce a 20 second block time. When block times are longer than 20 seconds, Treasurers only receive a 15% reward. The remaining 5% is given to any excess hash rate to incentivize growth in hash rate to speed up the block times. In this manner, the hash rate will grow as the total revenue increases. Treasurers who are the most efficient, most consistent, and most loyal to the network will earn a consistent 15-20% block reward or profit margin.

4.4.2 Treasurer Reward System

In this section we describe the weighting factors of the CLP Treasurer's lending and borrowing algorithms (see table below). The algorithm weighting determines which Treasurer will successfully receive the block reward, which micro lender's liquidity will be used, and which micro borrower will be able to get a loan. The algorithm in all three cases is essentially an auction. Participants who have the best weighted bid will succeed in their respective process.

Treasurer's Weighting

Each Treasurer reports the cost of their hash rate, time on the network, and the balance of their SMTF wallet. These factors are weighted with hash rate cost, the most important at 80%. This is designed to make the network more cost efficient. SMTF wallet balance is weighted at 15%. This is designed to increase demand for SMTF. The length of time on the network at 5% promotes network loyalty.



Credit Issuer's Weighting

Each credit issuer reports the cost of their capital, time on the network, the balance of their SMTF wallet and the amount of their wallet balance that is available for lending. These factors are weighted with lowest cost of capital, the most important at 70%. Lower borrowing costs attract borrowers. Highest SMTF wallet balance weighted at 15%, increases demand for SMTF.

Higher percentage of wallet liquidity available for lending at 14%, makes more funds available to borrow. The length of time on the network is 1%, a tie breaker for longevity on the network. Credit issuers are then ranked by their score and the highest ranking (1 is the highest ranking) will receive the interest paid from the block revenue.

Borrower's Weighting

Each borrower reports the interest they are willing to pay for the loan, time on the network, and the balance of their SMTF wallet. These factors are weighted with rate of interest they are willing to pay (higher incentivizes more liquidity from lenders), the most important at 70%. SMTF wallet balance at 15%, increases demand for SMTF. The amount of credit being borrowed incentives scale at 14%. The time on the network is at 1% for loyalty on SmartFi.

Borrowers are ranked by their score and the highest receive the loan.

The combination of the credit issuers' weighting factors creates a mid-market rate like an exchange. The mid-market rate changes constantly which creates a spot market cost of capital for borrowers like exchange limit orders. The rate of interest is deducted from each borrowers' wallet, collected in each block (Block Revenue), and distributed to each participating credit issuer. Each Treasurer who successfully submits their hash rate is paid for a portion of the block reward as well. As all participants are competing for an auctionable right to a percentage of the lock rewards. Therefore, Treasurer mining, credit issuing and borrowing protocols and algorithms produce the most efficient market pricing.

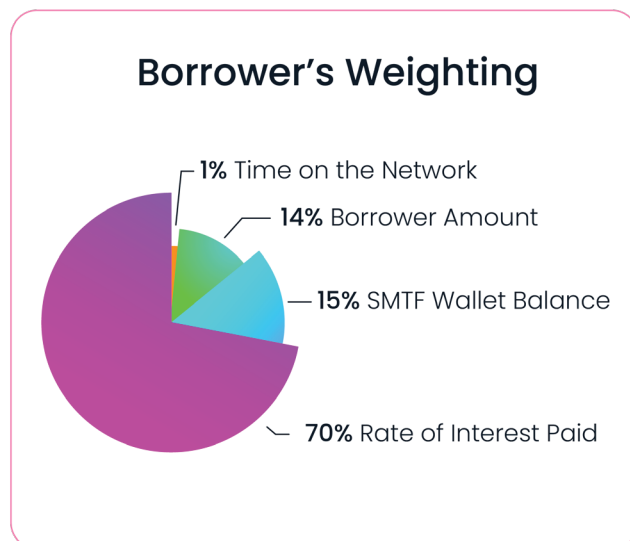
This protocol and algorithm are implemented at the block reward, mining layer and mining pool. With this new algorithm SmartFi can create a new minable stablecoin of any fiat currency.

The first minable stable coin is SmartFi USD (SFUSD). If a SmartFi EUR is needed, a EUR denominated Treasures Pool (SFEUR) can also be created. Any desired fiat currency stablecoin can be created.

Block Rewards Distribution

The block rewards distribution is linked to the lending algorithm included in the components of the CLP. As noted earlier, CLP uses the data from loan interest rates, block times, Treasurer's rewards, borrowers, and lender's weighting factors.

Reward fees are distributed to all Treasurers until rewards are exhausted. Reward distribution is made on a ranking scale where Treasurers are rewarded on a distribution priority by a weighting factor system. The three weighting factors are combined to rank Treasurers like an auction – most efficient to least. Treasurers will need to build programs that connect via API to the SmartFi Treasurers Pool to update their weighting factors data as a bid offer. This will enable them to actively participate in maintaining the network hash rate and be 'in the money' and eligible to receive the block rewards. Price conditions exists that may



cause Treasurers to be 'out of the money'. In this scenario, either the Treasurer's hash rate is too expensive, or they are waiting for total amount of rewards to increase. Block rewards will increase when additional SmartLoans and SmartInterest accounts are opened.

Treasurers are ranked according to their scores. Each Treasurer who is individually successful in the auction and, collectively with other miners, achieves block times under 20 seconds receives pro rata payment of the block reward equal to the reported cost of their hash rate plus 20%. If the block times are over 20 seconds, then the block reward is 15% over their reported cost of the hash rate. The subtracted 5% is used to pay for additional hash rate to speed up the block times.

Treasurer Reward Calculation

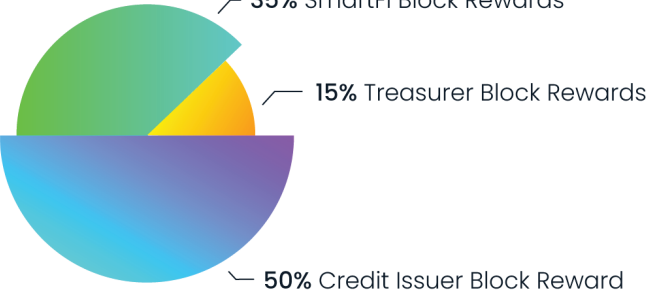
Treasurer rewards are awarded based on:

- Individual Block Time is less than, or equal to **20 sec: 20% reward**
- Individual Block Time is greater than **20 sec: 15% reward** and the other 5% pays to recruit additional hash rate to speed up block times

The total Block Revenue is distributed to Credit Issuer, Treasurer and SmartFi buy back fund as a percentage of the total interest charged to loans. A Credit Issuer, basically a lender, receives 50% of the Block Revenue. Treasurer receives 15% and SmartFi receives 35% for the SMTF buy back/reserves fund.

Block Revenue Calculation

Block Revenue is calculated based on the interest payments from current loans in the previous blocks.
The breakdown of Total Loan Interest Charge is the following:



Category	Percentage
Credit Issuer Block Reward	50%
SmartFi Block Rewards	35%
Treasurer Block Rewards	15%

This chart shows block revenue accrual of all active loans from previous blocks added to the current block. This creates the dollar denominated cashflow from interest collected from borrowers then distributed to Credit Issuers, Treasurers and SmartFi.

PREVIOUS 20 SEC BLOCK TRANSACTION ACCRUALS

Resulting Block Reward from Interest Payments

All Open SmartLoans in Previous Block	\$10,000,000,000.00	
Credit Issuer Block Reward	\$500,000,000.00	\$317.10
Treasurer Block Reward	\$150,000,000.00	\$95.13
SmartFi Buy Back Reserve	\$350,000,000.00	\$221.97

NEW SMARTLOANS COMBINED

Resulting Block Reward from Interest Payments

SmartLoans Most Recent Block	\$1189.00	
Credit Issuer Block Reward	\$0.000038	\$0.000038
Treasurer Block Reward	\$0.000011	\$0.000011
SmartFi Buy Back Reserve	\$0.000026	\$0.000026

ALL SMARTLOANS COMBINED

Resulting Block Reward from Interest Payments

Total SmartLoans Until Next Block	\$10,000,001,189.00	
Credit Issuer Block Reward	\$500,000,000.00	\$317.10
Treasurer Block Reward	\$150,000,000.00	\$95.13
SmartFi Buy Back Reserve	\$350,000,000.00	\$221.97

5. THE ECONOMICS OF SMARTFI

5.1 SMARTFI VS. CENTRAL BANKS

SmartFi's ecosystem uses some of the same types of tools as central banks to promote economic stability and growth. However, that is where the similarity stops. SmartFi incorporates decentralized decision making into its governance and is fundamentally different from central banks.

SmartFi: market based and free banking structure – SmartFi is completely market based and not attached to a government. SmartFi does not receive profits from the interest payments. It makes profits from making the SMTF token more valuable. Therefore, we are most concerned about making the SMTF token more valuable. The SMTF token holders have the right to enact the smartfi cryptocurrency monetary policy. SmartFi is a free banking type of model, utilizing a loanable funds credit creation structure.

Central Bank: Centralized Control Only, Social Engineering – central banks are created to serve governments. Government bodies change fiscal policies to conduct social economic engineering programs to promote favored status classes or business. Potentially, if you are not a supporter of the current political party in power or in the preferred class being promoted, you will find yourself on the losing end of the monetary redistribution of wealth to those who are the supporters of the party in power.

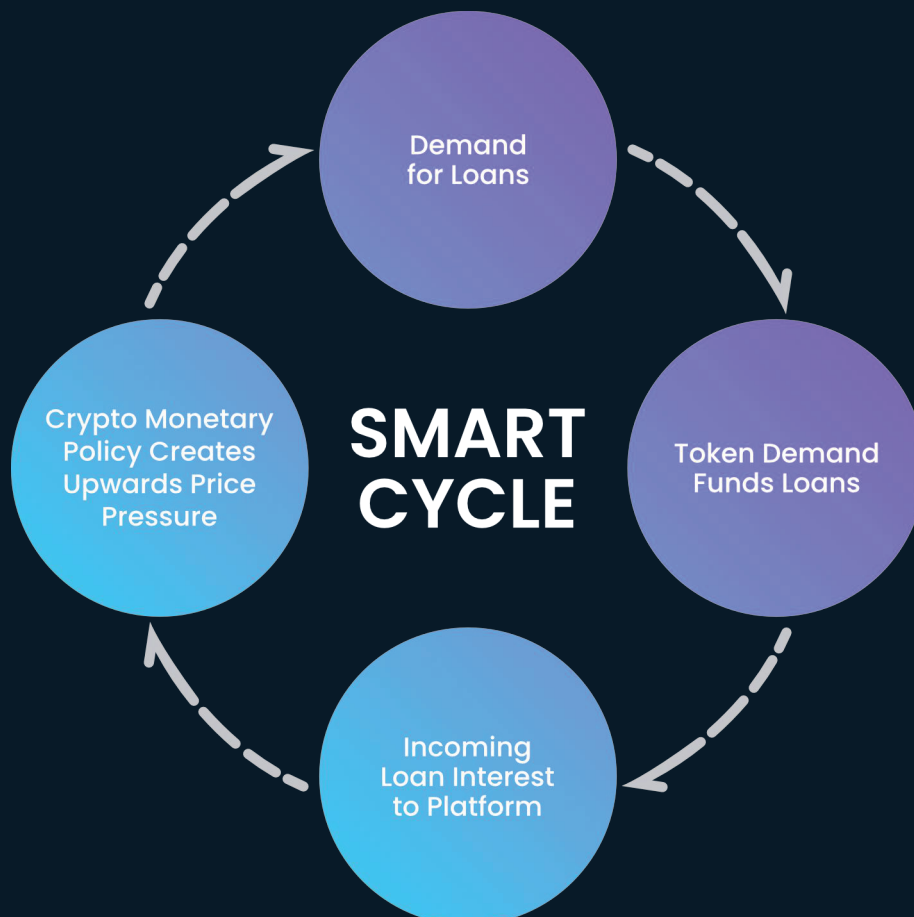
SmartFi: decentralized cryptocurrency monetary policy and empowerment of currency users – the SMTF balance holders a vote to use the cryptocurrency monetary policy tools and become the beneficiaries of the wealth creation that would otherwise accrue to traditional banks.

Central Bank: Inflationary Policy and Crony Capitalism – Historically, central banks have maintained a monetary policy of currency devaluation. By changing lending rates, central banks have been able to create wealth for banks who act as gate keepers for wealth

creation. This wealth creation isn't bad – it is part of the necessary system to create liquidity for growing markets. It is the centralized control and favoritism that manipulates which markets are 30 beneficiaries of monetary and fiscal policy that is unequal treatment among currency users. These policies push liquidity to selected 'winners', instead of supporting the free markets.

5.2 SMARTFI TOKEN SUPPLY AND SMARTCYCLE

The SMTF Token is issued through SmartCycle, in initial tranches of 100,000 tokens. This event can occur once or multiple times per day as the market makes demands for loans and the market meets those demands with new capital. The purpose of this process is very different from other cryptocurrency projects. It's purpose is to consistently fund loan demand from the SmartFi ecosystem and, over time, release the SMTF token to the market. If the demand for loans exceeds the supply for funding, the market may respond by trading more SMTF tokens. As much trading as is needed on the SmartCycle can be conducted on the same day or as many as are needed to fund the demand for loans. There are several benefits to this structure, mainly that it is in balance with the market supply and demand for capital. It has a limited supply of one billion.



Initially the SmartExchange is where this SmartCycle is processed. SmartFi enters a series of sell limit orders according to a sequentially increasing price schedule. As the new and existing loan demand increases and exceeds the available SFUSD supply to fill loans, it signals to the market that the supply of SMTF will increase.

As the market buys SMTF tokens from the limit orders, the resulting SFUSD is used to fill the new loan demand. SMTF can be purchased with USD, SFUSD or with a variety of cryptocurrencies which are liquidated and converted to SFUSD that is then used to fund the loans. The price of the SMTF tokens is increased by SmartFi cryptocurrency monetary policy. The price increase will be published on the SmartFi website and adjusted according to the market responses.

SmartCycle Sequence

Demand for Loans	Price of SMTF Token	Amount of token released in the SmartCycle	Interest Payments Received from Borrowers	Cumulative Value of Collateral (with 60% LTV)
\$4,900,000	\$0.70	8,000,000	\$1,534	\$11,200,000
\$14,600,000	\$1.29	7,000,000	\$4,000	\$29,200,000
\$20,171,429	\$4.14	100,000	\$5,526	\$40,342,857
\$30,757,143	\$6.86	100,000	\$8,427	\$61,514,286
\$69,900,000	\$12.57	100,000	\$19,151	\$139,800,000

Advantages of SmartCycle

1. The price of SMTF in the SmartCycle is always linked to loan demand.
2. The price of SMTF on SmartCycle will be higher as a result of the pre-determined index of token price to notional amount of loans in the loan portfolio.
3. The price of SMTF will always be higher in the next sale if capital is needed to fund loans.
4. When loans are paid off and SmartFi has excess loan capital there is no need to raise capital, therefore no new SMTF will be sold until there is excess demand for new loan capital at a higher price.
5. There is real utility and value underpinning the token price.
6. This structure creates a balance supporting the financial model.
7. The monetary tools can be used effectively to support the economic goals.
8. Over time SmartFi model continuously buys the SMTF – supporting the pricing and recycling the issuance of the token supply.

5.3 SMARTFI CRYPTOCURRENCY MONETARY POLICY

SmartFi cryptocurrency monetary policy is a primary feature of the SmartFi ecosystem that creates resistance to bear market volatility and, therefore, is a key benefit to owning SMTF. Expanding and contracting the supply of SMTF or SFUSD by interest rate adjustments or repurchase of SMTF are the two primary tools of SmartFi economic balance.

If SmartFi has excess SFUSD, because loans have been paid off or interest rates are too high, SmartFi and the SMTF holders can simply vote to reduce the interest rates to entice borrowers to borrow more SFUSD. Because the USD in the SFUSD Treasury (backing the SFUSD value) does not require capital repayment or interest payments, SmartFi can be very competitive with its lending interest rates. This new increase in loan demand supports the price of newly issued SMTF which is linked to the total value of SmartLoans.

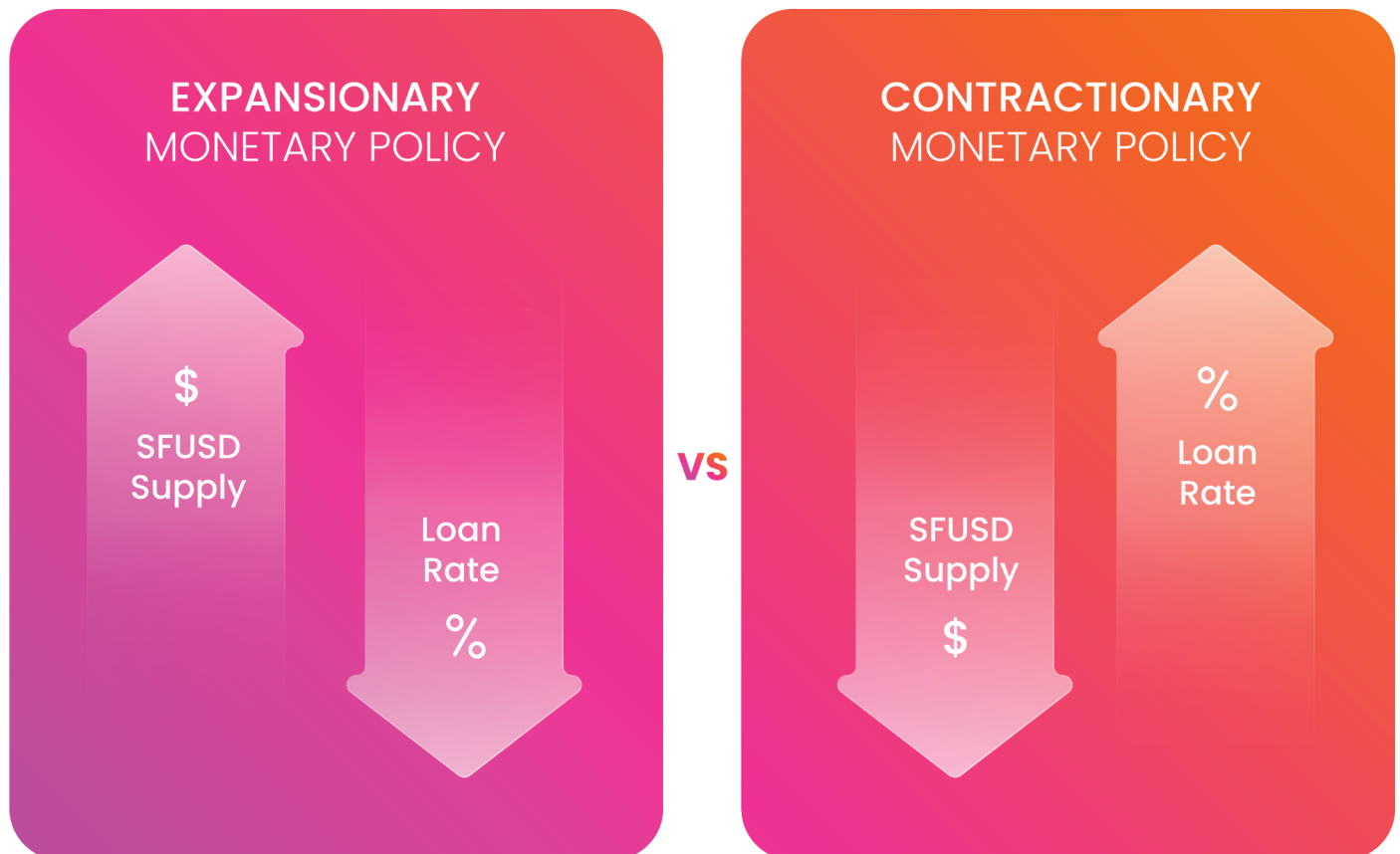
Or, SmartFi can contract the SMTF public supply by buying back SMTF in the secondary market if the price is low and recycle SMTF if SmartFi and the holders of SMTF believe there will be new loan demand without decreasing the interest rates.

THE CASE FOR THE BALANCE OF TWO COINS, SEPARATE BUT WITH ONE PURPOSE — THE BALANCE OF MONEY FUNCTIONS.

SMTF, as a value protocol, is correlated to the lending portfolio of the SmartFi ecosystem, so its initial value and issuance is directly correlated to the demand for loans in the SmartFi ecosystem. SFUSD is the combination of a protocol and algorithm directly correlated to the commodity cost of the SmartFi Network. Both are Balance Coins.

INTRINSICALLY SMTF AND SFUSD ARE THE YIN AND YANG, EXACT OPPOSITE VALUE PROPOSITIONS THAT MAKE UP A COMPOSITE PURPOSE.

One is the opposite of the other, both inextricably linked in the lending protocol but derive their values from opposite value propositions of the same economic process. SFUSD derives its value from the US dollar denominated fully hedged transaction like the reported cost of Treasurers' mining commodities. SMTF derives its value from the speculative capital deployment of the lending market ecosystem.



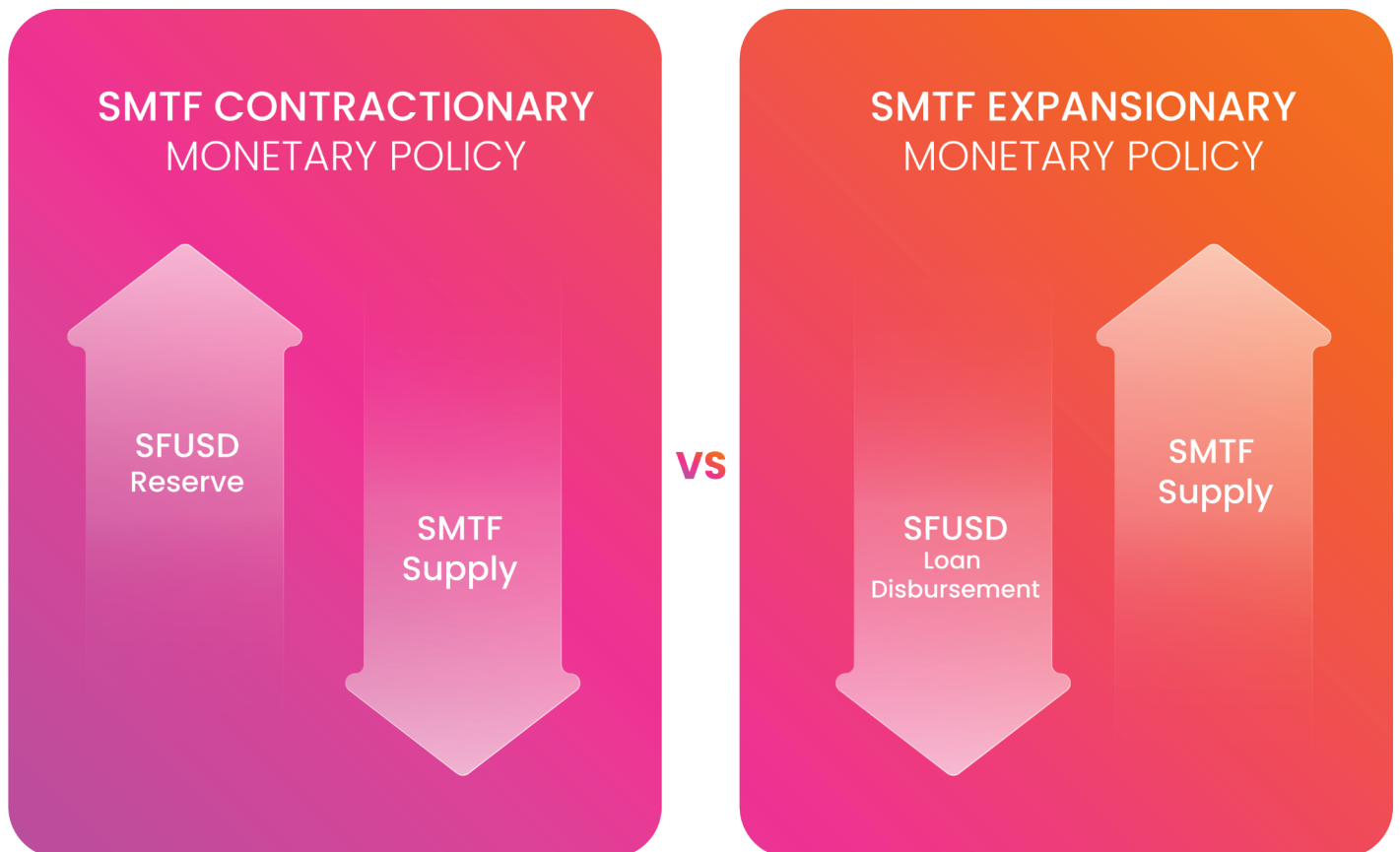
HOLDING BALANCES OF SMTF FOR SPECULATIVE WEALTH CREATION IS THE OPPOSITE OF HOLDING SFUSD WHICH IS A COMPLETELY STABLE USD DOLLAR HEDGE, NO SPECULATION JUST STABLE SAFETY.

This balance of coins is one of the keys features that creates the second tool in our contractionary and expansionary SmartFi Monetary Policy.

THE FIRST SMARTFI MONETARY POLICY TOOL IS TO CHANGE THE LENDING INTEREST RATE. THIS IS VOTED ON BY THE SMTF BALANCE HOLDERS.

If there is more demand for loans than available SFUSD, then that should mean that the SMTF coin price should start to appreciate, triggering the market to buy SMTF which then provides the necessary SFUSD to fill the loan demand.

If there is lower demand for loans and an excess of SFUSD then the holders of SMTF can vote to decrease the interest rate charged for loans which would have the effect of increasing demand for loans of excess SFUSD. When the SFUSD is in short supply and demand for loans increases, the SMTF coin price will start to appreciate, starting the cycle over again.



THE SECOND SMARTFI MONETARY POLICY TOOL IS SMARTPORTAL BUY BACK OF THE SMTF TOKEN WITH SFUSD RESERVE COINS TO CONTRACT THE AVAILABLE SUPPLY OF SMTF.

We will restate one of the key justifications for the SmartFi design.

The only way other cryptocurrencies e.g. Bitcoin, can mitigate the risk of bear market volatility is to factor speculative bull market volatility into deflation. Deflation can be achieved by reducing the rewards per block or inducing scarcity. Introducing volatility into deflation entices the market to hold the Bitcoin balance with the prospect that it will be worth more in the future.

In other words, the value of Bitcoin relative to goods and services will adjust over time, benefiting the holder with increased buying power because of scarcity.

Without the ability to recycle the issuance of a token, from coinbase, to holder, to the network and back to a new holder in the form of mining rewards, that cryptocurrency is limited and will hit a limit in divisibility. Total bitcoin supply can never accommodate any trade outside of the broad money market. It's already too small.

Remember half of every transaction is money. The derivatives market on a notional basis is already thirteen times larger than the currency market. This is why derivatives are used in place of currency in these transactions. There is not enough currency in circulation to be half of the derivatives transaction.

This is the largest market in the world in notional terms. Very small amounts of currency are actually used. Contracts are used in the place of currency. The point is that all efficiently functioning markets need a currency that can scale with growing markets and adjust to growth in the physical world.

When the derivatives market has a sneeze, the broad money market has a heart attack. The modern comparison is the mortgage back securities crisis of 2007. Mortgage back securities comprised 3% of the derivatives market. The collapse of this market due to overleverage brought the currency market to its knees. The rest of the derivatives market functioned relatively normally. This crisis was the inspiration for the creation of Bitcoin, the world's best known digital currency. Bitcoin was not designed to solve this problem — SmartFi is.

SmartFi will use the interest payments from the loans to buy back SMTF tokens from the market when market conditions suggest it is undervalued or there is an excess of SFUSD in reserves.

The ability to buy back SMTF tokens and recycle the issuance at a higher price, then issue loans at the higher valuations, is key to a maximalist currency. Its supply is limited to 1 billion but recycling SMTF through a buy back allows it to grow with GDP and be issued at a higher price. If the SMTF hits \$1 Million per token it could account for \$1 Quadrillion in transactions in circulation. That is about 70% of the notional value of derivatives market that could be represented in smart contracts on the SmartFi blockchains and equal to about ten times the total money supply right now – maximalist cryptocurrency mission accomplished!

Anyone at any time can hold the SMTF and be the beneficiary of the wealth creation even 100 years from now. Because of its divisibility and recycling, it can continually account for growth in the markets without minting more coins and without concentrating wealth in a small group of users.

SmartFi monetary policy is controlled by the decentralized holders of SMTF, not by a centralized software or a board of directors. SMTF holders will be reassured knowing that their financial well-being, as it relates to SMTF coin, is tied to the health of the SmartFi network. So they are incentivized to act in good faith to ensure the prosperity of the network.

The key metrics SMTF holders should monitor to assess the state of the network and take the necessary response are:

- SmartLoan Interest Rates
- SmartInterest Interest Rates
- Total value of SmartLoans
- Total value of SmartInterest accounts
- Price of SMTF
- Total trade volume SMTF
- Total SMTF wallet balances
- SFUSD in circulation.

5.4 SMARTFI EMPOWERED CHOICE

The idea that banking is best run by governments who exercise control over monetary policy is best discussed with a series of key points on the principles of balancing freedom and governmental regulation.

Monetary Policy voting by SMTF holders



“The importance of the natural rate for monetary policy is intrinsically tied to the objectives of policy. Under the current mandates of central banks to achieve price stability and output gap stabilization, the natural rate is, in principle, one of the key benchmark indicators for monetary policy³.”

A central bank’s purpose is to promote economic stability through monetary policy. Central banks have used monetary policy to influence economic behavior of the masses regardless of the long-term effects on individuals so long as the overall economy is considered growing in their opinion.

Unlike a government that charges seigniorage and devalues the currency by inflation of a single currency, SmartFi employs two cryptocurrencies for monetary policy. SmartFi can buy back the SMTF coin with a portion of the revenues generated from loans and transactions. This strategy, and the SMTF limited supply, places upward pressure on the value of SMTF, creating a virtuous cycle that produces a savings interest or wealth/credit creation rate for balance holders normally benefitting the bank that issues the currency.

Along with a second cryptocurrency that is stable, SmartFi presents the user with the choice to buy and hold any combination of SmartFi stablecoins and SMTF. Each user has the freedom to determine which market to be in. Holding SMTF allows the user to receive or speculate in credit creation. On the other hand, holding SmartFi stablecoins allows the user to speculate in investing in other markets such as a business, real estate, or other goods and services. Each actor may need a different kind of money service in the same market condition – one to speculate and the other to hold hedged money balances.

⁴ BIS Working Papers No 171 The role of the natural rate of interest in monetary policy by Jeffery D Amato Monetary and Economic Department March 2005

Regardless of the decision, these coins are the private property of each user and they are free to use them as they wish for speculating or hedging.

Bitcoin, Ethereum and virtually all other cryptocurrencies today are examples of an exclusive system that requires the payment of fees (sometimes exorbitantly) for using these exclusive systems. This is essentially unequal taxation on digital property. This is tyranny and subjugation.

SmartFi provides a great currency with near absolute choice which creates effective markets. With SmartFi you have the freedom to hedge and speculate. Users are empowered with self-governance and freed from the tyranny of fees. Using your own property without being charged a transaction fee is economic freedom.

5.5 THE LOANABLE FUNDS MODEL AND THE NATURAL RATE OF INTEREST

Central to the concept of SmartFi is the idea that microeconomic activity (individual actors and individual transactions) is the only source of real-time data to understand the condition of an economy at every moment. Only this data can provide the necessary information as it relates to the natural rate of interest and other price discovery. Previously the natural rate of interest has been theoretical or unobservable. We now know that it's possible to discover and observe and isn't theoretical. With blockchain technology it's even more transparent. This superior data can be made anonymously available on the SmartFi blockchain network explorer. Implementing economic category assignments to each transaction will allow SMTF holders to enact cryptocurrency monetary policy more effectively. SmartFi will be implementing a set of economic codes for price signal adjustments and market segment transactions with its cryptocurrency products.

Combining the data from the natural rate of interest with a loanable funds model is extremely powerful.

A brief explanation of the Loanable Funds model:



“The loanable funds doctrine extends the classical theory, which determined the interest rate solely by saving and investment, in that it adds bank credit. The total amount of credit available in an economy can exceed private saving because the bank system is in a position to create credit out of thin air. Hence, the equilibrium (or market) interest rate is not only influenced by the propensities to save and invest, but also by the creation or destruction of fiat money and credit.

If the bank system enhances credit, it will at least temporarily diminish the market interest rate below the natural rate. Wicksell had defined the natural rate as that interest rate which is compatible with a stable price level. Credit creation and credit destruction induce changes in the price level and in the level of economic activity. This is referred to as ‘Wicksell’s cumulative process’.

According to Ohlin, one cannot say “that the rate of interest equalizes planned savings and planned investment, for it obviously does not do that. How, then, is the height of the interest rate determined? The answer is that the rate of interest is simply the price of credit, and that it is therefore governed by the supply of and demand for credit. The banking system – through its ability to give credit – can influence, and to some extent does affect, the interest level.” [emphasis added]

In formal terms, the loanable funds doctrine determines the market interest rate through the following equilibrium condition:

$$PS + \Delta B = PI$$

Where P, S, I denote the price level, real saving, and real investment, respectively, while ΔB denotes changes in bank credit. Saving and investment are multiplied by the price level to obtain monetary variables, because credit comes also in monetary terms⁵.”

Under the Loanable Funds doctrine many economists rightly state that the price level of savings was not observable in the market.

⁵ https://en.wikipedia.org/wiki/Loanable_funds

A loanable funds doctrine, by contrast, does not equate saving and investment, both understood in an ex-ante sense, but integrates bank credit creation into this equilibrium condition. According to Ohlin: "There is a credit market ... but there is no such market for savings and no price of savings." An extension of bank credit reduces the interest rate in the same way as an increase in saving.

Here is another statement from Steven Horwitz⁶ illustrating the Loanable Funds concept:

"Since Wicksell, the natural rate of interest has been understood to be the rate that directly reflects actors' underlying time preferences, i.e., the degree to which they discount the future. Up until now, the natural rate of interest has been a theoretical construct and unobservable in the market. It can be thought of as the direct 'price of time' because we cannot exchange time directly, financial intermediaries such as banks have evolved to trade time in the form of money. The supply and demand for loanable funds correspond, respectively, to a desire to part with time by pushing consumption to the future and a desire to acquire time by pushing consumption into the present."

This statement describes savings, or 'hodling' in cryptocurrency slang, which is essentially a demand to hold a balance. Since these balances can now be obtained from the blockchain every 20 seconds, we are able to establish the total net savings in the network. So when we combine the total savings, the CLP, the balance of SMTF and SFUSD, and the new economic codes for price signal adjustments, we can generate the data needed for price discovery of the natural rate of savings and spending.

⁶ "Monetary Disequilibrium Theory and Austrian Macroeconomics: Further Thoughts on a Synthesis," in *Money and Markets: Essays in Honor of Leland B. Yeager*, Roger Koppl, ed., Routledge, 2006, pp. 166-85.

5.6 STAKING (SAVINGS)

All cryptocurrencies, regardless of consensus algorithms, need basic commodities, such as electricity, servers, or computation. Even in proof of stake, the commodity costs (coins staked) that go into consensus algorithms need to be calculated and shared. If basic commodities are not factored in, regardless of technical innovation, the cryptocurrency will be plagued with the same issues mentioned earlier. Staking alone is also a one-sided speculation without a hedge. Without a correlated on-chain hedge, and the balance needed to address inflation and deflation, staking algorithms cannot overcome the design flaw of speculation-only source code.

Staking is not inherently flawed. In fact, a similar type of model is a Balance Coins fundamental in the SmartCycle of SMTF. However, it is not used for consensus but for speculating in the future time value of money or savings. Proof of Work (PoW) and delayed Proof of Work (dPoW) is used for consensus in the SFUSD blockchain which ties the coin to objective discernable value derived from the past cost of commodities.

SMTF balances are a type of staking that ties the value of the coins to the future through rates of savings. Using both PoW and staking, the microeconomic activity of the hedgers and speculators of both coins work to create a balance of past, present and future, when all of the individual actors adjust prices and balances according to their needs. Though each coin functions independently, both may cooperatively hedge and speculate their respective assets in the SmartFi economy as needed.

5.7 SMARTFI FOREGOES INTEREST RATE PROFITS AND HOLDS SMTF

As an entity, SmartFi does not receive profit from interest revenues – its financial profits come from the value increase of its SMTF holdings. SmartFi, as a company, will receive 200 million SMTF to hold in lieu of profits. This incentivizes SmartFi and its employees to work towards increasing the value of SMTF. SmartFi does collect the interest payments from the SmartLoans and has the option to use up to 80% of this cash flow to pay for operating expenses or pay those expenses from its SMTF holdings. SmartFi's financial motivations are to make SMTF as valuable as possible and will inform SmartFi's options to best meet that objective. SmartFi has a trade desk that manages all liquidity for the SmartFi products and its mandate is to maximize trading opportunities and the value of SMTF.

6. SMARTFI PRODUCTS AND SERVICES

6.1 SMARTPORTAL CENTRALIZED CUSTOMER SOLUTIONS

- SmartTrade
- SmartLoan
- SmartInterest
- SmartExchange
- SmartWallet – Digital Currency Custodial Wallet
- Fiat Deposits/Disbursements – Fiat Bank Account Integration USD
- SmartStrategies – Cryptocurrency return optimization (H2 2021)
- SmartBusiness – Small business loans, not cryptocurrency collateralized
- SmartPay – A Person to Person and customer to merchant payment system. Replaces credit/debit card and other smartphone payment apps using the SmartFi minable stable coins.
- SmartSelf-IRA – Cryptocurrency self-directed IRA
- SmartAdvisor – US Registered Investment advisors manages your digital investments

6.2 SMARTFI DECENTRALIZED CUSTOMER SOLUTIONS

- SmartFi Coin (SMTF)
- SmartFi USD
- SmartRewards
- SmartDex – Digital Currency Wallet and Decentralized Exchange (browser and mobile) (H2 2021)
- SmartFi Decentralized Network Loans
- Decentralized Peer to Peer network for OTC Derivative Transactions
- ISDA Contract (smart contracts)
- SmartTreasury Pool – Implementation of Commodity Layer Protocol Block Rewards
- Equality Prices Discovery Risks Metrics and Economic Codes
- Sophisticated Accounting Integrations

6.3 SMTF REWARD MECHANISM OVERVIEW

SmartFi coin (SMTF) entitles holders to certain rewards on the SmartPortal and SmartDex. SMTF will be traded on the SmartPortal with no trading fees. Customers qualify for SMTF rewards based on their loyalty, known as SmartLevel. The SmartLevel loyalty system is based on the SMTF ratio calculated as follows:

$$\text{SMTF RATIO} = \frac{\text{Notional USD value (SFUSD) of SMTF holdings}}{\text{Notional USD value (SFUSD) of all customer SmartFi product balances}}$$

SMTF Reward Level Calculation

User Deposits:

- \$1,000 worth of **SMTF Coins**
- \$10,000 worth of **Bitcoin**
- \$5,000 worth of **Ethereum**
- \$1,000 worth of **USD**

$$\text{SMTF Ratio} = \frac{\$1,000}{\$10,000 + \$5,000} = \frac{\$1,000}{\$15,000} = 6.67\%$$



SMART LEVEL 1 - BRIGHT

Customers will attain a SmartLevel 1, 2, or 3 based on their SMTF Ratio above 5%. The SmartLevel will determine a users' eligibility for gaining interest on their SmartInterest deposits, discounts on their SmartLoan interest rate, and SmartExchange trading fee refunds. This table summarizes the rewards for each SmartLevel.

SmartFi Loyalty Levels				
	Base Level SMART 0-5%	Level 1 BRIGHT 5-15%	Level 2 BRILLIANT 15-25%	Level 3 GENIUS 25%+
SMTF TOKENS IN PORTFOLIO				
SMARTINTEREST				
Bitcoin	3.50%	4.00%	4.50%	5.00%
Ethereum	5.00%	5.25%	5.50%	6.00%
Stablecoins	8.00%	8.00%	8.00%	8.00%
Earn Interest in SMTF*	+2%			
SMARTLOAN				
Loan Interest Rate	12.00%	10.80%	9.60%	8.40%
SMARTEXCHANGE				
Trading Fee Rebate**	50% rebate of trading fees			

*Customers earn an additional 2% on all depts if they opt to earn interest in SMTF

**Customers holding 1% of their trading volume in SMTF Coin on their Coin Interest Account will be refunded 50% of their trading fees in SMTF

6.3.1 SmartInterest

Users will earn interest on their SMTF balance, to be paid in SMTF coins. Users will also earn interest on Bitcoin, Ethereum, or stablecoins deposited into the platform. The rate of interest is based on their SmartLevel, as explained earlier. Users can also receive a 2% bonus to their interest rate if they elect to receive *SMTF coins as interest instead of the deposited coin (e.g. Bitcoin, Ethereum, stablecoin) *Receiving SMTF as interest on other cryptocurrencies is not available for U.S. participants.

YOU'RE
SMART

SmartINTEREST CALCULATOR

SELECT CRYPTOCURRENCY

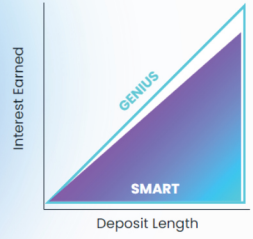
DEPOSIT AMOUNT

PROMO CODE

Earn Interest

SmartFi Level	Rate	Earned Daily
Smart	10.00%	\$0.000278
Bright	12.00%	\$0.000333
Brilliant	16.00%	\$0.000444
Genius	22.00%	\$0.000611

Start Earning



Outside the U.S.?
[Learn how to earn 2% More](#)

**SmartInterest Earning Comparison
 Level 3, Genius User Example**

Interest Paid in BTC

User will earn **5% APY** on 1 BTC deposit

$$\frac{1 \text{ BTC} \times 0.05}{365 \text{ days}} = 0.00013699 \text{ BTC / day (paid in BTC)}$$

Interest Paid in SMTF

User will earn **5%+2%=7% APY** on 1 BTC deposit

$$\frac{1 \text{ BTC} \times 0.07}{365 \text{ days}} = 0.00019178 \text{ BTC / day (paid in SMTF)}$$

In both cases **interest is accrued daily and paid out weekly**

6.3.2 SmartLoans

By posting cryptocurrencies as collateral, users are eligible to receive USD (SFUSD) loans. Users may receive discounts on their loan interest rates depending on their SmartLevel.

SMARTLOAN USES A FEATURE THAT HELPS DESIGN A LOAN BEST SUITED FOR WHAT IS MOST IMPORTANT TO YOU. WHAT'S MOST IMPORTANT MAY BE MINIMIZING INTEREST CHARGES, MAXIMIZING AVAILABLE CASH, OR NO PAYMENTS UNTIL THE END OF THE LOAN. YOU CHOOSE WHAT'S MOST IMPORTANT TO YOU AND SMARTLOAN PRESENTS YOU WITH DIFFERENT OPTIONS CUSTOMIZED TO YOUR NEEDS.

The screenshot displays the SMARTFI LOAN ESTIMATOR interface. The top navigation bar includes links for SMARTFI BETA, SmartSTRATEGIES, SmartEXCHANGE, SmartTRADE, SmartLOAN (highlighted), SmartINTEREST, SmartWALLET, HELP CENTER, and LOG OUT. The main content area is divided into two columns. The left column, titled 'SMARTFI LOAN ESTIMATOR', contains a disclaimer: 'This is an estimate of terms and is not a guarantee of a loan. Minimum SFUSD (USD) dispersed is \$1,000. Currently we accept BTC, ETH as collateral.' The right column is a form with the following sections: 'DESIRED AMOUNT' (input: 1,000.00), 'CRYPTOCURRENCY' (radio buttons for BTC and ETH, with BTC selected), 'WHAT'S MOST IMPORTANT TO YOU?' (radio buttons for 'Minimize Interest (The cost of the loan (Inter✓))' and 'Maximize Available Cash', with 'Minimize Interest' selected), 'TERM LENGTH (MONTHS)' (radio buttons for 1, 3, 6, and 12, with 1 selected), and 'LOAN TO VALUE' (radio buttons for 20%, 50%, 60%, and 70%, with 20% selected). To the right of the form is a summary box for a '\$1,000.00 LOAN AMOUNT WITH 1 MONTH TERM'. It shows 'MONTHLY INTEREST' with an Interest Rate of 1.00%, Collateral of 0.10359474 BTC, and Total Interest of \$0.83, with a 'Select' button below. It also shows 'TERM INTEREST' with the same Interest Rate, Collateral, and Total Interest, also with a 'Select' button below.

Bitcoin Collateralized Loan Estimate Summary (Monthly Interest Payment Example)

	CONTRACT TERMS
SFUSD (USD) Cash Disbursement to Customer (request)	\$100,000.00
SFUSD (USD) Price of Digital Asset	\$30,000.00
Interest Rate	10.50%
Term of Loan (in months)	12
Collateralized LTV %	50.00%
Notional Value / USD Value of Collateral	\$200,000.00
TOTAL CRYPTOCURRENCY REQUIRED FOR LOAN	6.67 BTC
Margin Collateral Held in Custody	\$100,000.00
Payment Frequency	Monthly
Total Interest for Term of Loan	\$105,250.00
Expected Monthly Interest Payment	\$10,500.00

Bitcoin Collateralized Loan Estimate Summary (Term Interest Payment Example)

	CONTRACT TERMS
SFUSD (USD) Cash Disbursement to Customer (request)	\$100,000.00
SFUSD (USD) Price of Digital Asset	\$30,000.00
Interest Rate	10.50%
Term of Loan (in months)	12
Collateralized LTV %	50.00%
Notional Value / USD Value of Collateral	\$210,500.00
TOTAL CRYPTOCURRENCY REQUIRED FOR LOAN	7.02 BTC
Margin Collateral Held in Custody	\$105,250.00
Total Interest Paid at End of Loan	\$11,051.25
Collateralized Disbursement	\$105,250.00
LOAN PROCEEDS DISBURSED TO CUSTOMER	\$100,000.00
Collateralized Interest Due at End of Term	\$5,250.00
Uncollateralized Interest Due at End of Term	\$6,001.25
PAYOFF VALUE AT END OF TERM	\$111,251.25

This loan maximizes available cash to customer by not requiring monthly interest payments.

Cryptocurrency Collateralized Loans

– Borrow up to 70% of the USD value of your cryptocurrency with no monthly payments for up to 12 months. Cryptocurrency Collateralized Loans allows customers to access the USD value of their collateral without having to sell their assets. If the collateral appreciates in value, the customer receives the benefit of appreciation.

Features of SmartLoan:

- Fiat currencies: USD
- Collateral Accepted: BTC, ETH, USDT, USDC
- Minimum Loan Value: 1,000 USD
- Maximum Loan Value: 10,000,000 USD
- KYC requirements: SmartFi Account Level 3 Verification
- Loan to Value: up to 70% of value of cryptocurrency
- Term Length: 1, 3, 6 or 12 months
- Interest Payment Options: Paid at Maturity Date or Monthly
- Competitive Interest Rates

SmartReward Loan Interest Calculation

Coin Interest Account: \$20,000 worth of Bitcoin

Loan Collateral: \$100,000 worth of Bitcoin

Loan Amount: \$70,000 USD

SMTF Balance: \$12,000 worth of SMTF Coin

$$\text{SMTF Ratio} = \frac{\text{SMTF Balance}}{\text{Coin Interest Account} + \text{Loan Collateral}} = \frac{\$12,000}{\$120,000} = 10\%$$



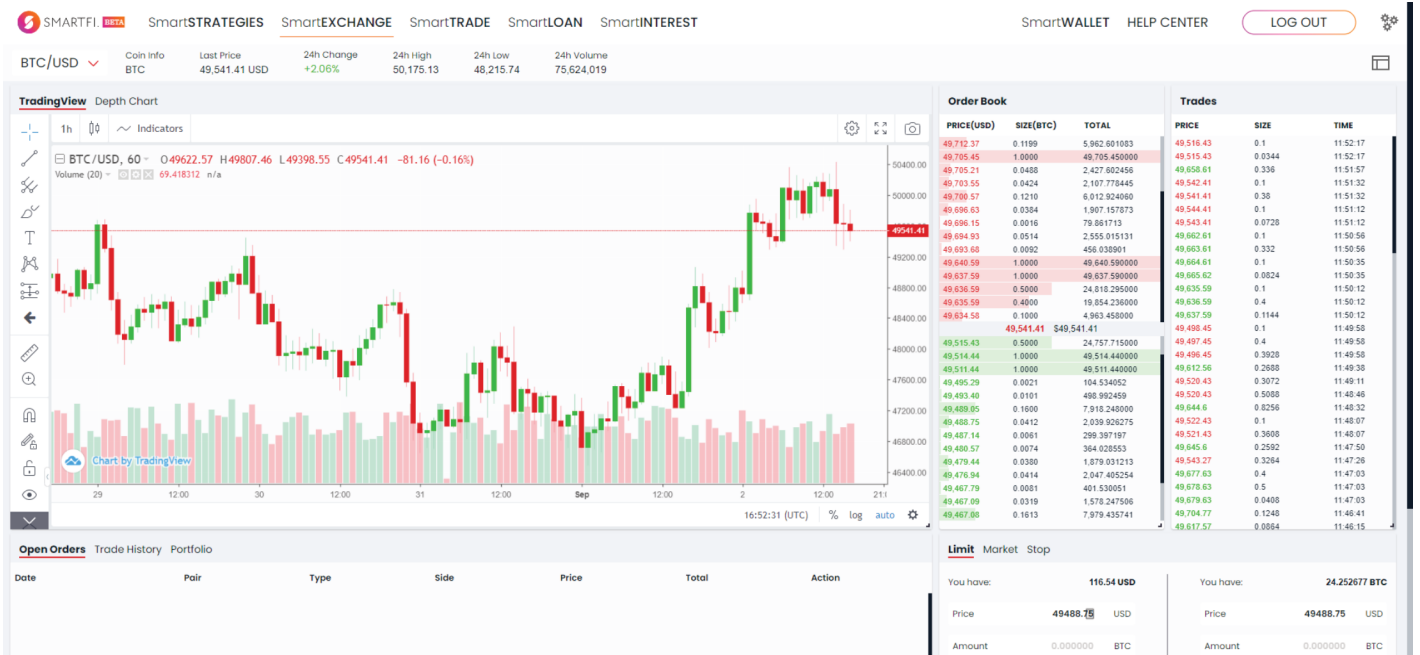
SMART LEVEL 1 - BRIGHT

BENEFIT: Smart Level 1 user receives 10% discount on loan interest rate

- user would pay 10.8% APY instead of 12% APY as long as their SMTF ratio remains above 5% throughout the duration of the loan
- if the SMTF ratio drops below 5%, the loan rate dynamically changes from 10.8% APY to the standard rate of 12% APY

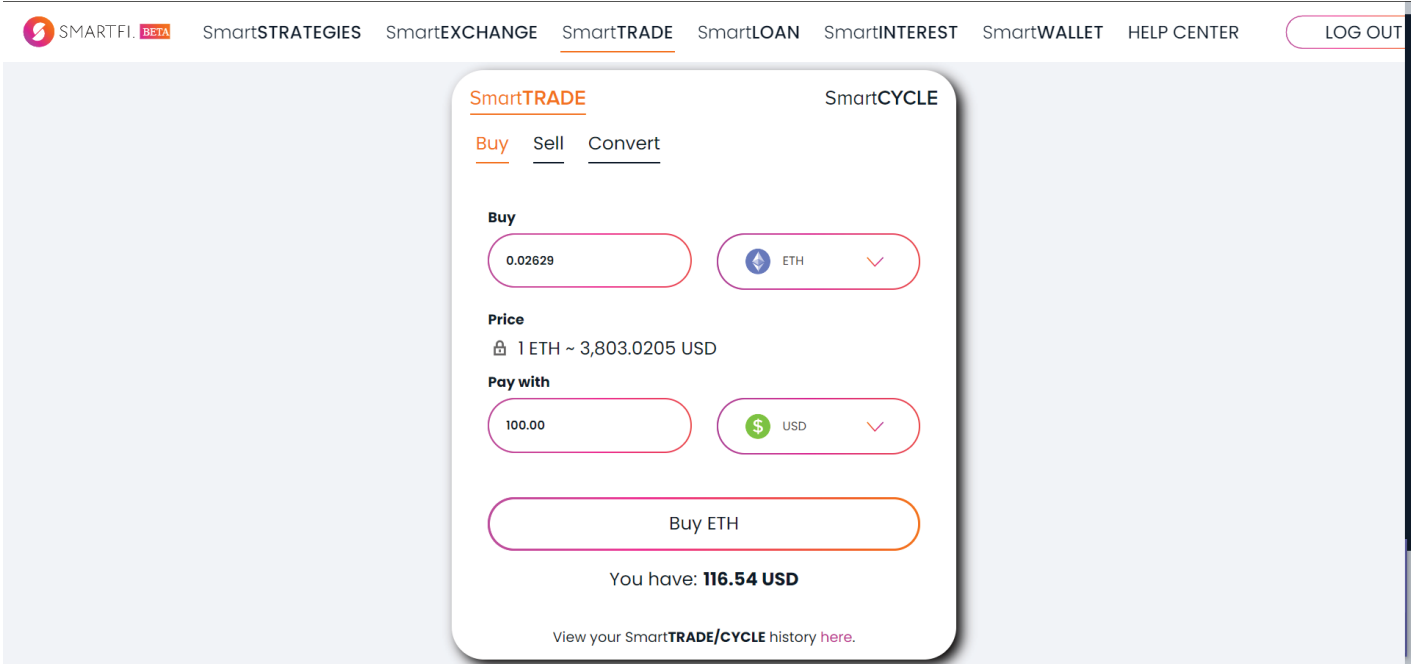
6.3.3 SmartExchange

SmartExchange is designed for experienced spot market cryptocurrency traders who trade for enhanced yield. SmartExchange traders who hold at least 1% of their monthly trading volume in SMTF coins on the platform are eligible to receive a partial refund of their trading fees. At the end of each month, the trader will receive SMTF equal to 50% of their total trading fees deposited into their SmartWallet.



6.3.4 SmartTrade

SmartTrade is designed for the less experienced user who simply wants to acquire or sell cryptocurrency without using more complicated trades. SmartTrade is a fast, secure way to buy, sell and convert cryptocurrencies. There are never trading fees added to these transactions. SmartTrade is also the only way to buy SMTF and get the Guaranteed Buy Back from SmartFi Network.



6.3.5 SmartReferral

Share your SmartFi referral link or code with friends to earn every time they complete a SmartLoan, earn on SmartInterest or trade on SmartExchange.

When your referrals invite other users to the platform, you will earn a percentage of those transactions as well. The SmartReferral earnings are paid in cryptocurrency and automatically deposited into your SmartWallet.

SmartFi Referral Tiers

SmartFi Users who share their referral link or code with friends will earn every time their friend completes a trade on SmartExchange, attains a loan on SmartLoan or makes a deposit on SmartInterest. When referrals invite their own friends to the platform, the user will earn a percentage of their trades, loans and deposits as well.

	Tier 1	Tier 2	Tier 3
SMARTEXCHANGE			
Fee Share	10%	5%	2.5%
SMARTLOAN			
Interest Share	0.07%	0.02%	0.01%
SMARTINTEREST			
Deposit Share	0.07%	0.02%	0.01%

7. SMARTFI BLOCKCHAIN MECHANICS

7.1 MINING

(Before reading this section it may be helpful to read the information contained in this link⁷ for a technical discussion of the core technology.)

The SmartFi ecosystem leverages merged mining of the SHA 256 mining algorithm to assure a base amount of Proof of Work (PoW) security as well as mitigation from difficulty stalling. SmartFi's SFUSD blockchain, which is based on a Namecoin fork, utilizes existing SHA 256 hash rate from other networks (primarily Bitcoin). This dual use of hash rate is designed to secure current and future SmartFi networks blockchains. Miners can mine multiple chains simultaneously optimizing; computation and energy use efficiency and profitability.

7.2 DELAYED PROOF OF WORK

An excerpt from the link above will illustrate the superior security, and resource efficiency of SmartFi's delayed Proof of Work (dPoW). We have worked closely with the team at UTXO, which is comprised of many of the Komodo Platform programmers, to implement this technology into the SmartFi blockchain.

SmartFi's consensus mechanism provides the same level of security as the Litecoin network and uses Litecoin network as a storage space for 'backups' of SmartFi transactions. By this method, in the event of an attempted attack on SmartFi's blockchain history, even a single surviving copy of the SmartFi main chain will allow the entire ecosystem to overwrite and overrule any of the attacker's attempted changes.

A key difference of SmartFi's dPoW consensus mechanism from regular PoW networks, is that the dPoW consensus mechanism does not recognize the Longest Chain Rule for any transactions that are older than the most recent 'backup' of the SmartFi blockchain. For conflicts that may arise, which refer to transactions that are older than the most recent 'backup', our consensus mechanism looks to the backups in the chosen dPoW blockchain Litecoin to find the accurate record.

Therefore, to destroy SmartFi blockchain with dPoW security, an attacker would have to destroy all existing copies of the SmartFi blockchain and the accompanying PoW security network into which the dPoW backups are inserted, i.e. Litecoin. This endows the SmartFi ecosystem with higher than Litecoin-level security, while avoiding the excessive financial

⁷ <https://developers.komodoplatform.com/basic-docs/start-here/core-technology-discussions/delayed-proof-of-work.html#the-financial-and-eco-unfriendly-problems-with-all-pow-networks>

and resource costs. The current SmartFi infrastructure, as of Saturday, February 13, 2021, consists of 67 p2p nodes - 64 of them are Notary Nodes and operate the dPoW-protected SmartFi blockchain on high fidelity servers in a distributed manner across the globe. SmartFi has a block explorer hosted under explorer.smartfi.com which counts as a full node. Other core infrastructure such as Simple Payment Verification (SPV) servers do not operate full nodes.

dPoW Operator Map – SmartFi Notary Node Network



7.3 SMARTFI NETWORK SCALABLE TRANSACTIONS PER SECOND (TPS)

SmartFi TPS are initially in the range of 133 – 100. The SmartFi network has a multichain architecture enabling it to scale linearly and link to the main chain when the TPS need to be increased due network congestion. At launch, SmartFi will already be 7x the TPS of Ethereum’s network. SmartFi will be able to scale dynamically based on demand, competing with any traditional or crypto payment system available today.

7.4 ZERO FEE TRANSACTIONS

The Tyranny of Network Transaction Fees and Fiat settlement.

Many large cryptocurrency networks encounter exorbitantly expensive network transaction fees. In 2021, congestion of the Ethereum network has led to transaction fees of up to \$500.00 USD. This condition inevitably leads to fee tyranny by third parties. Specifically, it is uneconomic to trade or move the native token from one wallet address to another because the transaction fee equates to a significant loss. When transaction fees make up a significant cost of an exchange, the parties may not be able to bear the loss and effectively their tokens are no longer available to use.



Citing our earlier quote, “The advantage of holding money rather than other assets is that money provides the service of being ‘available’ if one desires to make a purchase. This notion of ‘availability’ is equivalent to ‘liquidity’, and the liquidity of the medium of exchange is (near) absolute. No other asset can be used **without cost** to make exchanges – the advantage that money has over other assets.” [emphasis added]

Miners, as intermediaries, are incentivized to accept transactions from users who pay enough to be included in the block. This is exactly the type of unequal third-party transaction behavior Bitcoin and other cryptocurrencies were purportedly trying to eliminate when conceived⁸.

Fiat currency suffers from the same type of fee tyranny which comes from the intermediation of third parties that provide payment systems. Examples include bank fees, transac-

⁸ <https://decrypt.co/53095/ethereum-gas-fees-soar-as-price-peaks-at-1150>

tion fees on credit or debit card payments fees, bank transfers and withdrawal fees. Paying a transaction fee to use a cryptocurrency token is like paying a tax to a benevolent dictator who 'grants' you the privilege of eating the food you grew.

Stablecoins have been valuable for hedging, but they still bear a cost for use, namely the transaction fee. Virtually all exchanges or transactions will charge a fee to trade as well. The compounding effect of transaction fees on networks, like Ethereum, guarantee it will always cost the sender to use the stablecoin. Successful currencies are not associated with transaction fees.

The design of the current cryptocurrency networks relying on socialized block rewards, one-sided, speculation-only markets and fees creates volatility and makes the cryptocurrency impractical in daily life. These markets will tire and alternatives will be sought. The existence of other cryptocurrencies implies that there is already dissatisfaction in the marketplace. If the same reward protocols are used and reliance on a single economic tool of speculation persist, the products will eventually create virtual technocrat monarchies and software protocol tyrants.

SmartFi's value proposition is not one where some must pay for the privilege of using their own property. SmartFi provides a solution for other network's token holders and miners trapped in transaction fee-based models. By allowing merged mining for more rewards, creating lending opportunities and borrowing against other tokens and coins for a hedge, SmartFi provides an alternative balanced system for users.

SmartFi gives control to SMTF holders. They set the value of the Balance Coins. No transaction fees mean no manipulation – the network's success relies on what its participants do. They must provide credit and financial products to the market at a rate and quality that is in balance with the market expectations, and they must serve each other equitably.

8. CONCLUSION

Trustless and Trusted — SmartFi's Approach to Technology, Money, Behavior and Arbitrary Circumstance.

Money, like technology is neither good nor bad by itself, it only makes you more of what you are. It provides convenience and amplifies the consequences of actions. Neither money nor technology has a purpose without input from a person(s). Its usefulness in improving our circumstances is subjective by individual choice.

Some people want money in a system the purports to be more secure based on decentralized technology, with the appearance of trustlessness, while others want money based on the convenience of centralized technology with the appearance of trust in a personal, regulatory relationships system. Both are ironic because they are based on trust in a source of arbitrary truth. One source of truth is contained in protocols and algorithms in source code and or hardware the other truth is contained in people, laws, and relationships.

The virtue in cryptocurrency's decentralized technology is its proposition as an alternative to centralized finance and fiat currency. The virtue is not in the technology, it is in the alternative choice. However, this choice tends to be promoted as an either / or scenario which requires decisions by individuals to 'take the red pill or the blue pill'. This doesn't reflect reality.

With SmartFi you can create wealth by taking a purple pill, giving you the option to select a system that works best for you at different times. You don't have to commit to any one technology over another. Using SmartFi you can access both centralized and decentralized systems, depending on your understanding and your needs at that time...



THE ABILITY TO CHOOSE IS THE ULTIMATE TRUSTED AND TRUSTLESS ACCOUNTABILITY.

We all have days of reckoning to societies and their hired 'sheriffs'. At the end of the day, when using cryptocurrencies, we are actually hiring a sheriff to protect our

property. This sheriff is empowered by us to protect our property, and that sheriff now has varying degrees of control.

Sheriffs can be software technology or a board of people. It is important to ensure that you retain the ability to replace the sheriff. In the beginning, a sheriff may serve you well, however, the sheriff can become a tyrannical master through fees or taxes. The sheriff may get out-gunned by a superior technology and can no longer protect your property.


When making that decision about how to protect your property and freedom, you

will be best served when you retain the ability to hire and fire the sheriff.

SmartFi's ideology is to never give up the ability to choose to use another technology, platform, etc. We will always build our systems with choice in mind. When a newer, better technology comes along, we will adopt and innovate that technology to meet our ideology of choice and freedom – fire the old sheriff and hire a new one.

We are ending this paper the way we began. As we stated in the beginning:

“There are many sources of information on valuation theories of cryptocurrencies, debates on what is money, technical features about fiat currencies, blockchains, and cryptocurrencies, including whether they are ‘good’ or ‘bad’. We are going to assume you have your own opinions and concepts about that. In this paper, we focus on what our observations and years of cryptocurrency-backed lending experiences have shown to be useful, factual, and successful. We will provide information, references, and observations that we believe provide real value in the real world.”

A vertical bar on the left side of the text, transitioning from pink at the top to orange at the bottom.

AT SMARTFI WE WILL ALWAYS USE TECHNOLOGY THAT CAN ACCOUNT FOR HUMAN BEHAVIOR OF AGENCY. WE PLAN FOR CHANGES IN TECHNOLOGY SO THAT OUR CRYPTOCURRENCIES SYSTEMS WILL ADHERE TO TIME-TESTED PRINCIPLES, NOT TO THE FADS OR WHIMS OF CHANGES IN PEOPLE'S CURRENT BEHAVIOR, BUT IN THE PRINCIPLES OF CHOICE AND FREEDOM.

9. ABBREVIATIONS

- SMTF: SmartFi Coin
- SFUSD: SmartFi USD
- PoW: Proof of Work
- dPoW: Delayed Proof of Work
- CLP: Commodity Layer Protocol
- BTC: Bitcoin
- ETH: Ethereum
- USDT: Tether
- USDC: Circle
- TPS: Transactions Per Second
- USD: US Dollar
- Crypto: cryptocurrency
- GDP: Gross Domestic Product
- SHA 256: Cryptographic Hash Algorithm (Komodo Platform)
- EUR: Euro
- SFEUR: EUR denominated Treasures Pool
- IRA: Individual Retirement Account
- ISDA: International Swaps and Derivatives Association
- APY: Annual Percentage Yield
- p2p: peer to peer
- SPV: Simple Payment Verification
- BEP20: Token Standard on Binance Smart Chain
- H2 2021

MORE THAN A WHITEPAPER V.1.1



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