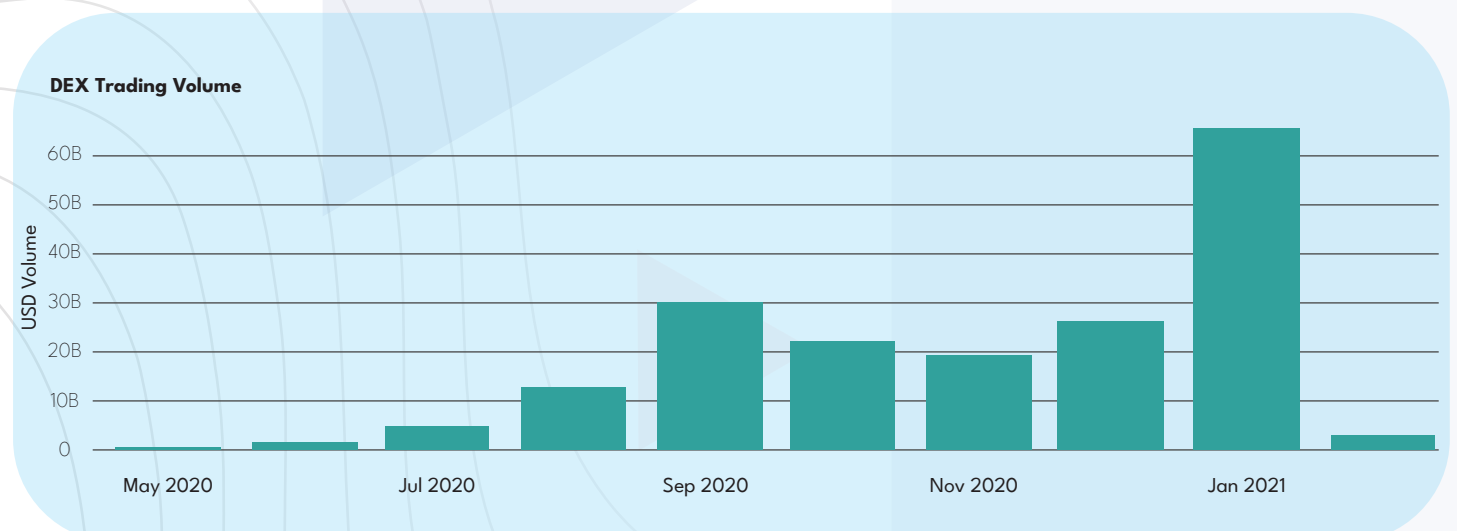# socialswap

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1.0 Introduction

Decentralized Finance or DeFi is the latest development in the blockchain industry and it is used to describe the cluster of applications offering financial services based on decentralization. The concept of decentralization stands in contrast with the traditional financial services that are generally centralized and controlled by financial oligarchs.

Decentralization of financial services is achieved through smart contracts where rules are embedded in a computer code and enforced automatically, and all the data about transactions is stored in a distributed ledger. This way, no actor has complete control over transactions, thus preventing censorship or corruption. As such, Decentralized Finance (DeFi) is the movement that leverages decentralized networks to transform old financial products into trust-less and transparent protocols that run without intermediaries.

With DeFi, core traditional financial use cases like staking, stablecoin issuance, lending/borrowing, synthetic assets, trading, peer-to-peer payments, and wealth management are managed on the blockchain via Decentralized Applications (DApps) or protocols. These create a peer-to-peer financial network, the majority of which are currently built on Ethereum.

According to Dune Analytics, the number of DeFi users in August 2020 is following an exponential trend and has surpassed 250, 000, which is a five-fold increase compared to a year ago. Staking represents a big share of the DeFi market to date and it is similar to interest savings account in a traditional bank. In DeFi, infrastructure service providers such as staking pools and Staking-as-a-Service providers play the role of the bank, running nodes for decentralized PoS protocols on behalf of investors.

Apart from this, the trading volume on decentralized exchanges soared to set an all-time high above $60 billion, eclipsing the previous record of $26 billion from September 2020 by a wide margin. This shows that there are still a lot of opportunities in the industry as more investors are open to the DeFi ecosystem and entrepreneurs and investors are on the lookout for feasible business models to make profitable returns.

DEX Trading Volume

socialswap

In this paper, we introduce SocialSwap, a swap also referred to as a Decentralized Exchange and a Staking platform where users can provide liquidity to the DEX with our native token and get rewarded for doing so. The platform is created without the flaws of existing approaches, enabling proper money markets to function, and creating a safe positive-yield approach to the liquidity provided by platform members. Social swap aims to provide a comprehensive decentralized financial service – DEX (Swap), Staking and Liquidity pool using native currencies of the ecosystem – SocialSwapToken (SST), a Tron based token that governs the activities on the platform.

We understand that there is a need to put an end to the notoriously vague and abysmal trends in traditional finance and existing swap and DEX protocols. For instance, existing platforms charge high fees, transactions are slow because of the poor scalability of the blockchain they use and lots more. With us, consequently, there are no such things, everything is automated, fast and decentralized, thanks to the Tron Blockchain. Trades are carried out automatically and users can stake their idle funds in the liquidity pool to gain high return on their investment.

1.1 Mission

The mission of SocialSwap is to open up the vast potential within DeFi and maximize value for every DeFi user. We aim to create a DEX that enables users and other decentralized protocols to carry out seamless asset swapping (from one token to the other) as well as the provision of liquidity to ensure profit is maximized and inclusivity is created for everyone in the vast market that DeFi creates.

Our technology lets us unite major features in the industry and provide opportunity for previously isolated digital assets to be exchanged as desired. That's not all, with Tron blockchain, we are able to execute the swap or exchange of tokens like ETH and BTC (on TRC-20 basis). As such, transaction can be carried out with ease. We cater for more assets and allow investors to buy, sell, and trade more cryptocurrencies and increase their position size in the assets they desire.

The modus operandi of our platform is simple but unique, we use liquidity pool as a true decentralized finance ecosystem and liquidity providers can stake their assets and are rewarded accordingly. We understand that existing protocols do not offer an all-round solution for the DeFi industry. As such, we deemed it fit that a solution that will enable the amazing features and use cases of Decentralized Finance like swap and stake is created.

1.2 Vision

Our Vision is an ecosystem where fast, easy, and affordable decentralized financial products and services that meet an individual's needs are delivered in a timely, responsible, and sustainable way. Apart from this, we project a platform that will be the forerunner of all DeFi products and use cases in the nearest future and easily accessible assets with more use cases that will drive adoption, increase demand and value.

There is mining selling pressure on the currency of the current AMM exchange platforms, which cannot be used as value support, resulting in large price fluctuations and the embarrassment of currency holders making them unable to stabilize profits. In a nutshell we envision a project that will help alleviate these issues and take the DeFi ecosystem to the next level.

1.3 Why Tron

TRON is a decentralized virtual machine that was built to help users in the decentralized internet. With its similarly to Ethereum, TRON enables DApp developers to create and utilize complex protocols via smart contracts that live on its native blockchain. Today the platform is best known for its transaction speeds and low fees. The blockchain technology makes it possible for peer-to-peer transactions to be facilitated, such as the transfer of tokens between users.

The TRON network relies on a Delegated-Proof-of-Stake (DPoS) consensus mechanism to secure the block-chain, making it impossible to hack and serves as ground zero to deploy smart contracts and framework for developers. A DPoS is similar to a proof-of-stake consensus mechanism in that it allows users to earn passive income whenever they stake their holdings in a network wallet.

Most other existing blockchain platforms only function with a single layer, which leads to scalability issues and often causes network congestion, slows transactions and drives fees higher. Bitcoin and Ethereum 1.0 Block-chain have approximately 5 and 15 transactions per second (TPS). This small amount of TPS makes their network slow and congested within a short time.

High-Throughput

High throughput is achieved by improving the TPS in TRON, which has surpassed Bitcoin and Ethereum, to a daily-use practical degree.

High-Scalability

Applications are given a wider variety of ways to be deployed in TRON because of its scalability and highly effective smart contract. It can support enormous numbers of users.

High-Availability

More reliable network structure, user asset, intrinsic value and a higher degree of decentralization consensus come with an improved rewards distribution mechanism.

2.0 SocialSwap Overview

SocialSwap is redefining how DeFi works, combining the best of its features to create a bonded system. The SocialSwap protocol's implementation will bring significant and lasting change to the trading of financial products and staking. The platform is set to permanently address the numerous issues faced by existing DeFi users from the DeFi swap platform they use and facilitate a safe, fast, highly secure, and accessible solution at reduced fee. What is more, we also have a native currency SST with which access will be given to the liquidity pool on the decentralized exchange platform.

Extensive research on the users of current AMM trading platforms and users of decentralized exchanges and gateways has revealed that users are only managing the existing ones as they do not get maximum value are not truly satisfied with the services they get. This shows us that it is clearly time for a groundbreaking solution like ours to hit the industry and change the status quo.

Our team believes that financial process should be more democratic and accessible to the vast majority of people who want to trade their portfolio. As such, we have created a platform that is an embodiment of decentralized finance use cases - swap, staking and access to liquidity to flip profit.

2.1 Opportunities that SocialSwap offers

As a platform with the goal to bring true decentralization to exchange, SocialSwap offers some key advantages over it peers in the industry. Some of them include:

• Liquidity pool access

• Transparency in fund movements and the underlying smart contract

• Price efficiency as price is subject to market demand

• Much easier access for users

• Greater platform utility, speed, and flexibility

• Easy swap

• Staking

• Open governance option

3.0 Core Features of SocialSwap

3.1 SocialSwap

SocialSwap is the AMM-based Decentralized Exchange on the TRON network and it is designed to exchange one token for another directly, bypassing trading platforms and other intermediaries. To carry out exchange operations, the user does not need to create an account on the exchange, go through the KYC procedure and trust their funds to third parties. All the user needs to do is connecting the browser wallet (eg. Tronlink, Tron Wallet), select the exchange direction and make a transaction. Next, the smart contract will automatically send the corresponding amount of Tron or tokens to the user's account.

SocialSwap is an attempt to work around the performance restrictions of smart contract blockchains, especially Ethereum. Before AMMs came into prominence, decentralized exchanges attempted to use a classical order book mechanism. However, they suffered from liquidity issues, as placing each order required spending gas and waiting for block confirmation times. Ethereum's low throughput also meant that only a small number of transactions could be submitted before the blockchain would be completely swamped by these orders.

This was especially problematic for market makers, the liquidity providers on order book exchanges. "Making" a market typically requires constantly adjusting buy and sell orders to the latest price, even if they do not get filled.

When each submitted order costs money and time, they may lose more than they gain from the bid-ask spread, which is the difference between the highest offered buy price and lowest sell price.

It is important to note that there is no manual token listing on SocialSwap. Tokens are listed automatically in a decentralized fashion without the intervention of anyone.

Every information and transaction is recorded on-chain and is available for everyone to verify and use. SocialSwap is created to offer traders a simple way to buy and sell assets at the best price possible across all DEX liquidity sources.

3.2 Price Oracle and Slippage

SocialSwap makes providing liquidity cheaper and simpler through a completely automated one-time process and the price change is constantly updated by our price oracle. Users can then stake or pitch in with their liquidity and earn reward on it. The marginal price offered by SocialSwap (not including fees) at time T can be computed by dividing the reserves of asset A by the reserves of asset B:

$$P_t = r^a_t / r^b_t$$

SocialSwap improves this oracle functionality by measuring and recording the price before them first trade of each block (or equivalently, after the last trade of the previous one).

Slippage also come in at this point and it refers to the difference between the expected price of a trade and the price at which the trade is executed. Slippage can occur at any time but is most prevalent during periods of higher volatility.

In order to adequately implement the oracle mechanism, SocialSwap only support reserve balances of up to $2^{112} - 1$. This number is high enough to support 18-decimal-place tokens with a total Supply over 1 quadrillion. If either reserve balance does go above $2^{112} - 1$, any call to the swap function will begin to fail (due to a check in the _update() function). To bypass from this situation, any user can call the skim() function to remove excess assets from the liquidity pool.

Our price oracle accumulates price by keeping track of the total sum of prices at the beginning of each block in which someone interacts with the contract. The price is then measured by the amount of time that has passed since the last block in which it was updated, according to the block timestamp. This means that the accumulator value at any given time (after being updated) should be the sum of the spot price at each second in the history of the contract.

$$at = \sum_{i=1}^{t} Pi$$

To define the time-weighted average price from time t1 to t2, an external caller can checkpoint the accumulator's value at t1 and then again at t2, subtract the first value from the second, and divide by the number of seconds elapsed (Note that the contract itself does not store historical values for this accumulator - the caller has to call the contract at the beginning of the period to read and store this value).

$$P_{t1,t2} = \frac{\sum_{i=t1}^{t2} Pi}{t2-t1} = \frac{\sum_{i=t1}^{t2} Pi - \sum_{i=t1}^{t1} Pi}{t2-t1} = \frac{at2-at1}{t2-t1}$$

3.3 How Smart Contracts Automate Trading on Socialswap

When trading on SocialSwap, users interact with the liquidity pool. Under the hood, when the user instructs the smart contract to perform a trade, the contract sends their tokens, such as TRX, to the liquidity pool. A mathematical formula then decides how many tokens from the other side of the pair they should receive in return.

The simplest practical formula is X multiplied by Y equals K, where the X and Y represent the amount of each token in the pool and K is a predefined constant. This equation defines a hyperbola: a smooth geometric shape that approaches both infinity and zero at its extremes but never quite reaches them.

$$K = X \times Y$$
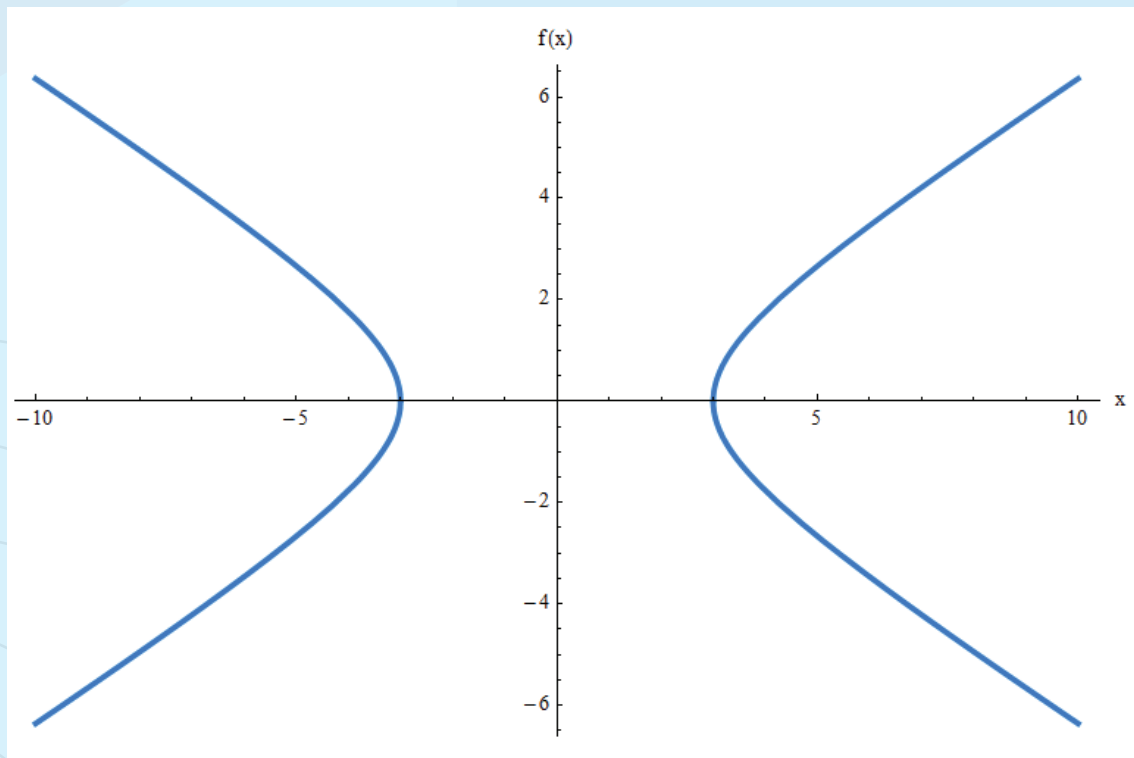
Each trade has some amount of slippage — how much the size of the order affects the ultimate price at which a token was bought or sold. The hyperbola shape means that slippage will be low with small orders, but with large orders, slippage rises exponentially.

3.4 Staking and Liquidity Pool Explained

Staking serves a couple of crucial purposes. For one, it allows users to earn passive income. Mainly, it keeps the network safe. In the SocialSwap ecosystem, users stake their TRX at a 1:1 ratio. The more they stake in the Swap, the more earn. Below are the staking details:

The platform charges a 3% staking fee for all paired pools and 1% staking fee for single pool, reward (SST) which is claimable anytime.

Whenever liquidity is deposited into a pool, special tokens known as liquidity tokens are minted to the provider's address in proportion to how much liquidity they contributed to the pool. These tokens are a representation of a liquidity provider's contribution to a pool. Whenever a trade occurs, the fee which is levied is distributed pro-rata to all LPs in the pool at the moment of the trade. To receive the underlying liquidity back, plus any fees that were accrued while their liquidity was locked, LPs must burn their liquidity tokens.

Explained in clearer terms, when a user supplies an asset – provides liquidity to the pool, it automatically becomes a fungible resource. The token deposited in the liquidity pool is denoted with a value or derivative. This gives the supplier ownership rights of the reward paid on the total amount supplied. The assigned derivative is thus defined as an increasing percentage ownership claim of a portion of the liquidity pool supplied to the smart contract on the Tron blockchain. With this, getting by supplying liquidity to the pool is equal to having a derivative which represents the suppliers contribution in the liquidity pool.

Liquidity providers can then choose to sell, transfer, or otherwise use their liquidity tokens in any way they see fit on the platform.

Below is the Liquidity Pool details:
• Pools renew every 10 days
• Standard Pairings: BTC/SST, ETH/SST, TRX/SST, USDT/SST

4.0 SocialSwapToken

As earlier mentioned, the platform has a native token which transactions and governance of the platform will be carried out. The success of major DeFi protocols depends on how valuable the features they offer are and how much users are attracted to the liquidity of their protocols. The native tokens of DeFi protocols have shown tremendous potential for upside price appreciation and our token is modelled to appreciate in value in both long and short terms.

Summarily, SST is a TRC token and it will allow holders to:
• Participate in liquidity pools (to earn yield on their money)
• Partake in platform governance
• Carry out trade

5.0 Marketing strategy

In order to market SocialSwap in a targeted manner, a digital marketing strategy is used above all. On social media, mainly the channels Instagram, Facebook and YouTube are used from the beginning and the specific target group is addressed in the best possible way through appropriate posts and story contributions.

The primary aim is to communicate clear information and insights in order to address people who have little or no experience with the topics addressed (blockchains, crypto currencies, DeFi) by SocialSwap.
In the long term, various other channels such as LinkedIn will also be integrated into the digital strategy in order to better address business partners and investors on social media.

In order to achieve a certain reach, both an organic and a paid growth strategy will be used (including targeted hashtag use and paid ads).

In addition, the company cooperates with selected influencers and bloggers on platforms such as Twitter and Reddit to communicate information about SocialSwap and to reach the target group on these platforms as well. Additional content marketing strategies are also being planned on platforms such as Medium and Quora. What is more, we will also provide competitions, videos and information on our social media platforms such as Twitter and Telegram as part of the strategy and introduce a recommendation system.

Below is a summary of our proposed marketing activities:
• Social media/ influencer marketing
• SEO (news portals, PR, listing websites and blogs)
• Content marketing (YouTube, Steemit, Medium, Telegram, Bitcoin talk, Reddit, Hacker noon, and other platforms that serve as an executive tool and medium).
• Referral programme
• Industry events/ exhibitions
• Brand partnerships
• Referrals - Anyone who has a wallet connected to the DApp wallet can get a reflink. When someone joins a pool, the referring person receives 10% of the claimed tokens directly into the wallet.

6.0 SocialSwap Tokenomics
• Total supply: 1 Billion
• Type: TRC-20 with governance features
• Working Mechanism: DEX, Staking and liquidity pool
• Staking rewards: Rewards will be based on time duration of staking the SocialSwapToken
• Many pools high yield farming with a great APY will be added after SocialSwapToken sale
• Token price on DEX: 0.1 USDT

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Token Allocation

1%
DEX launch

4%
Early investors

5%
Hold-Back Pool

90%
Liquidity pool and St...
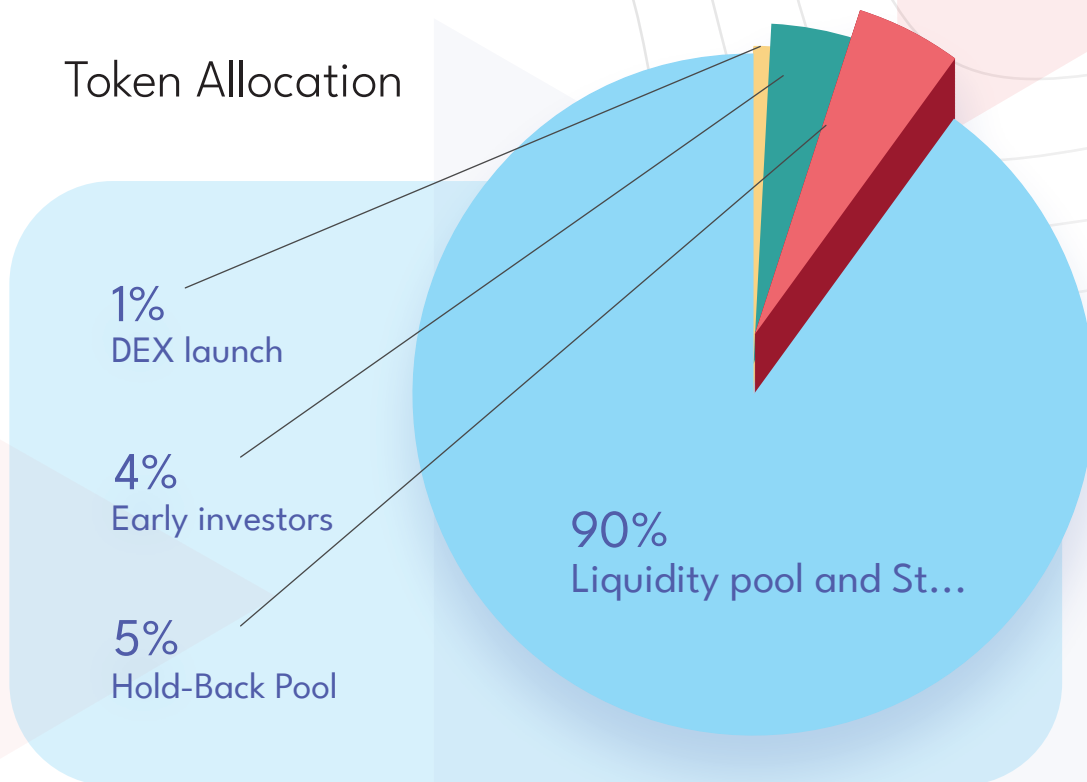
7.0 Buy-Back and Hold-Back Pools

As we want to guarantee a stable, healthy and long-term growth of SST, market price pumps and dumps should be reduced to a bare minimum. Therefore, we got Buy-Back and Hold-Back Pools to either Buy back SST to increase the price of sell SST to decrease the price.

7.1 Buy-Back

In order to minimize price drops of SST, major parts of Early Investors Funds (>1 Million Dollars) will be used to buy back SST if the price drops for a set percentage.

7.2 Hold-Back

5 Million SST will be stored separately and sold to counteract massive price pumps, especially in the first weeks after the launch of SST.

8.0 Roadmap

Conception of Idea – January 2021

Founding of Team – February 2021

Whitepaper and Documentation – February 2021

Launch DEX, SST and liquidity pools - late March 2021

Launch of Community Pools - early April 2021

9.0 Social Media Channels

Website: https://socialswap.io

Telegram: https://t.me/@socialswapdefi

Instagram: https://www.instagram.com/socialswap.io