Convergence Finance
Litepaper v1

The decentralized interchangeable asset protocol.
Converge legacy finance with DeFi.

1st March, 2021

Abstract

The relationship between traditional finance and DeFi is getting closer. Security tokens benefit from digitized real world asset exposure and recognised legal ownership rights; DeFi and utility tokens benefit from high liquidity, radical innovation, and creative composability. The Convergence Protocol will enable seamless interchange between wrapped security tokens and utility tokens to converge real world assets with DeFi liquidity.

Introduction

Ethereum brought decentralized trading, lending, and yield earning to anyone with an internet connection. Not only this, but it did that while ensuring transparency, interoperability, and immutability through the blockchain. Over the last several years, blockchain technology and cryptography have enabled a decentralized ecosystem with multiple digital assets types - Security Tokens (STs), Utility Tokens (UTs) and Non-Fungible Tokens (NFTs). Until now, these tokens remain in their own siloed systems; UTs have been restricted to trustless decentralized crypto-native financial protocols, while STs appeal to financial institutions with a focus on private capital market innovation, equity crowdfunding, and an emphasis on ownership.

However, these digital assets are converging towards each other. As the digital asset space matures, native protocols are integrating exposure to real world assets such as tokenized stocks. In addition, DeFi protocols are starting to experiment with NFT financialisation. Digital asset exchanges are also receiving green lights to increase exposure for institutional investment.

Clearly, the digital asset economy is converging and bringing traditional financial players and crypto-native investors together. Automated trustless protocols are reshaping the landscape of the decentralized financial economy with ‘code as law’ governance, smart contracts, tokenomics and DAOs. The convergence of traditional finance and DeFi will unlock new synergies and financial technology innovations.

The Problem Statement

1) Traditional Finance and Security Tokens

The tokenization market is expected to grow at a CAGR of 22.1% by 2023, with increased institutionalisation of the digital assets ecosystem.[1] For asset owners, security token offerings (STOs) are a means of crowdfunding from professional and accredited investors. As a fundraising mechanism it enables greater exposure from a wider range of investors as assets can be fractionalised, lowering the minimum ticket size and democratising investment. Ownership can be immutably and instantly recorded on a digital Record of Members (RoM), reducing the settlement time compared to traditional processes. In addition, issuance and post issuance activities benefit from greater operational efficiencies such as dividend payouts and drag along activities. *All sounds ideal - however, what are the issues?*

[1] lcx.com/sto-market-size-the-state-of-the-industry-of-tokenization-and-security-token-offerings/

a. Issuers' Perspective

Non-scalable Distribution

ST issuers are unable to fundraise more effectively than before, primarily because investors' demand is weak (more on this later). In addition, the complex legal structures required specifically for STOs presents a high barrier of entry for issuers to tokenize their assets, let alone to distribute them.

Unrealized Access and Liquidity Premium

Democratization to investments is also still limited on the issuance side as STOs are traditionally only open for accredited investors. The widely discussed potential increase in asset prices driven by liquidity and access premium are unrealized.

b. Investors' Perspective

Lack of Liquidity

There is limited liquidity for STs. The liquidity of STs remains much lower on secondary markets compared to UTs. Meanwhile, ST liquidity lags behind UT liquidity on DeFi DEXes as measured by trading volume.

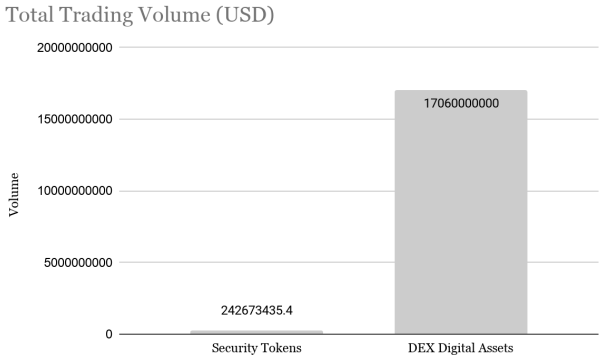

Figure 1. Graph comparing total trading volume of all security tokens (USD) against all digital assets on DeFi DEXes for Nov 2020.

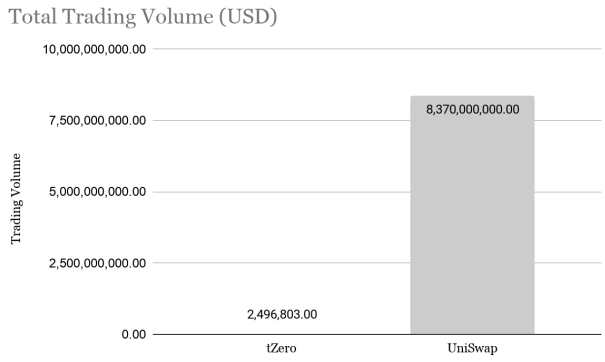

Figure 2. Graph comparing trading volume (USD) of biggest security token exchange by market share (79.80%) with biggest DeFi DEX (38.04%) for Nov 2020.

Ownership is not Needed

STs appeal to some institutional investors because they are backed by real world assets and their ownership is legally recognised. ST investors have legally enforceable rights associated with ownership and benefit from a faster, more transparent and automated ownership system on the blockchain. Despite this, legal ownership does not sound appealing enough to the broader investor community for them to

sacrifice liquidity. Economic exposure has to be the primary driver of investment for the majority of crypto investors.

Lack of Composability

STs are unlike UTs, which can be seamlessly transferred across centralised and decentralized digital asset protocols and exchanges. The lynchpin of this is the ability for users to seamlessly swap tokens in automated liquidity pools without a need for a counterparty in decentralized exchanges. The adoption of the ERC-20 standard allows for interoperability between protocols and high levels of liquidity in both centralised and decentralized exchanges. Unfortunately STs behave like stocks and are traded on centralized exchanges.

2) DeFi and Utility Tokens

DeFi protocols are trustless, disintermediated platforms that provide financial services via their crypto-economic incentive designs, smart contract functionalities and DAO governance. These protocols offer 24/7 services and have almost instantaneous settlements. They enable their users to access a global market beyond sovereign borders, open 24/7. These protocols are composable: users and developers can stack these protocols with other protocols in the DeFi system to enable new and exciting combinations and services.

a. Decentralized Protocols

Lack of Real World Exposure

Over 95% of TVL in DeFi is driven by native cryptos. Synthetic asset exchanges are pioneers to offer stock and index exposure. However, if a crypto user wants to buy pre-IPO, round-A startup, private equity funds or even real estate exposure, currently no venue can offer these opportunities and most importantly, liquidity.

Missing Off-chain Connection with Asset Issuers

It's fairly easy for various DeFi protocols to claim the inclusion of real world illiquid assets as collaterals (e.g. lending and borrowing protocol), but whether this is the case remains to be scrutinized. Notwithstanding a maximalist position in the future of a decentralized economy, the reality is that when a protocol interacts with real world assets, off-chain interactions with asset issuers are still required to make sure corporate actions such as liquidations and transfer of economic interests are effectively executed.

3) Synergistic Opportunity

Both traditional and decentralized finance have their respective advantages and disadvantages. In order to harness their synergies, they must converge. The coming decade will see an increase in demand for utility and security tokens, alongside more crypto-native companies entering the 'real' world by listing publicly.

The ability for UT holders to benefit from capital gains and access to real asset exposure will become essential.

Convergence Protocol: The Decentralized Interchangeable Asset Protocol

The Convergence protocol will be the first to make real world asset exposure interchangeable in the DeFi space by connecting Wrapped Security Tokens (WSTs) with UTs on a single interface that is easy to use, adopt and composable with other DeFi protocols.

1) Wrapped Security Tokens

Unforeseen Liquidity

WSTs is the new type of token that will be traded across the Convergence ecosystem: the Convergence AMM and other liquidity venues.

Tied-in Economic Exposure

We have designed a proprietary token wrapping module that ensures both from an on-chain and off-chain perspective, economic benefits will be transferred to WST holders subject to token holders' views via DAO. For example, the assurance for WST holders that they can monetize from the the proceeds of a company's (e.g.SpaceX) IPO.

Composability

WSTs are not limited just for trading and liquidity purposes. By working with different types of DeFi protocols, WSTs will flow around the DeFi supply chain with increased types of utilities. We will soon see stablecoins supported by WSTs, and lending & borrowing protocols with WSTs as collaterals.

2) Convergence Protocol

The Convergence Protocol consists of the token wrapping module, Convergence AMM infrastructure, Convergence pools and ConvergenceDAO.

Token Wrapping Module

This is Convergence Protocol's secret sauce and proprietary asset. Think about BTC <> WBTC. This is the token wrapping layer for creating WSTs with features mentioned above. WSTs will be injected into Convergence AMM.

Convergence AMM Infrastructure

Built on Ethereum and being EVM-compatible with other chains (ie. Binance Smart Chain, Moonbeam and more), Convergence AMM enables trading WSTs 24/7 and real asset price discovery. The feature intelligently finds the best order routing from aggregated liquidity sources to give traders the best prices. It eliminates complexities and allows ease of access for retail investors, fund managers, and digital-native investors around the world to freely provide liquidity and trade amongst the pools.

Convergence Pools

Convergence gives asset owners the flexibility to easily create and manage their own market making strategies through Convergence Pools. By creating their own pools, asset owners can perform initial WSTs alongside providing liquidity for further trading for DeFi users. It eliminates complexities and allows ease of access for retail investors, fund managers, and digital-native investors around the world to freely provide liquidity and trade amongst the pools.

ConvergenceDAO

The purpose of setting up the ConvergenceDAO is to provide greater transparency and decentralization to the Convergence protocol. CONV tokens holders will have governance rights to vote on various proposals. For example, the types of WSTs to be included in Convergence AMM and utility tokens that can be used to swap certain WSTs. Users are the decision makers on whether DOGE <> SpaceX can happen.

3) Native Token (CONV)

The Convergence native token serves several functions:

Governance Rights

The CONV token and its holders form a self-governed community that reflects the needs of its members. Holders of the token may vote on governance matters such as new assets, listing on exchanges and any liquidity thresholds to be maintained.

Split of Transaction Fee

Liquidity providers will receive a split of transaction fee in the form of CONV tokens.

Privileged Access

Holders of the token may also receive exclusive participation access to new initial WST offerings and pre-sale events.

Conclusion

Convergence Finance will revolutionise the way people trade real-world and crypto-native exposure by providing greater liquidity, transparency and inclusion for all investors. By combining the advantages of ST with the liquidity, automation and transparency features of DeFi, the Convergence protocol synthesizes the worlds of traditional finance and DeFi.