



## **Bridge Finance Whitepaper**

### **Equity Swaps in crypto and stock retail investing**

Cosmas. C, Andrew. G, Tinashe. M

## Abstract

Bridge Finance brings equity swaps to retail crypto and stock investing. Allowing you to simultaneously invest in both crypto and stock markets using the same capital or equity. In addition we specifically target the retail stock investing market to allow for securities based lending, something stocks bought through traditional stock brokers only, can currently do.

## Introduction

In our 19 page research paper titled *The potential of crypto currencies in the retail investing market, and the potential of Blockchain technology in reshaping it*. We took a look at the modern day retail investing market.

### TL;DR (Too Long; Didn't Read)

It is divided into two, stocks and crypto currencies investing. Both are largely traded by the same generation and drawing a lot of parallels in regards to investing patterns and culture. Retail investing is here to stay and will be the main driver for the new generation's participation in the equity markets. We identified some constraints that the retail investing market is facing, what it still lacks as a new market, in particular the inability to engage in Securities Based Lending. This is a constraint not faced by traditional stock investors who are issued with proof of stock ownership.

Secondly, in addition there is separation between the two markets; both have their own ecosystem of apps, wallets, exchanges, news outlets, analysts and influencers. Moving money between them directly is equally hard. Something that doesn't exist between stocks and commodities markets. As a result the two are extremely detached regardless of them both being equity markets.

Third, It's either your capital is locked in stocks or in crypto currencies, an either or scenario, never both at the same time using the same capital. If you unlock extra liquidity using your stocks as collateral it's likely that money stays in that market. The same for crypto currencies, if you use your crypto holdings as collateral to get a loan, that loan is only in crypto and stays in the crypto market as well. In both markets the loans unlocked from your equity/assets is extremely difficult to move out of the market and across to another market.

Bridge finance, as the name entails, allows you to synthetically bridge the divide between investments in stock markets and crypto currencies through the application of equity swaps.

Equity swaps are not new to be implemented with blockchain technology, but are currently implemented the same way they have always been, more of the same to the benefit of a few investment banks only. They have never been used for retail investors. Axoni and 15 large firms recently launched a distributed ledger network to manage equity swap transactions. We believe whilst it is progressive for banks to use blockchain technology like this, the application of equity swaps with the technology is being done with very limited scope. More can be done to actually break down barriers of entry between markets or systems, something that is the core purpose of any financial derivative by nature.

Bridge finance, founded in 2019 by former investment bankers and technology enthusiasts, shares the belief that both the stock and cryptocurrency markets will continue to thrive, more should be done to bring them closer together. We leverage our expertise and experience in corporate level traditional

investing, retail investing, relationship building and platform development; to unlock an audience with various industry stakeholders and deliver a solution that actually works. For investors this brings a plethora of investment opportunities in both markets.

As crypto currency investing prepares to go mainstream with crypto funds growing, large investment firms and hedge funds building up crypto portfolios the time is perfect now more than ever. Big investment firms like Goldman Sachs and JP Morgan, have recently been vocal towards encouraging people to invest in what the seasons calls for, moving between stocks, gold and crypto. Lately investment firms have seen an increase in requests from their clients for Crypto assets in their portfolios. In the article [As many as 36% of large investors own crypto assets, and bitcoin is the most popular](#) (Business Insider, 2020), "As many as 36% of institutional investors in the US and Europe own crypto assets, according to a survey of 774 firms released by Fidelity Investments. Institutional investors include pension funds, family offices, financial advisers, and hedge funds. In the US, 27% of investors said they hold crypto assets, up from 22% a year ago when Fidelity surveyed 441 American firms. In Europe, 45% of firms surveyed said they hold crypto assets".

This is just the beginning of mainstream adoption for Crypto investments.

## What are equity swaps?

They are a financial derivative contract, that allow a stock holder to exchange future gains in the stock with another party, for a said amount in dollars, for a fixed period, without actually changing ownership of the stock.

**Wikipedia:** An equity swap is a financial derivative contract (a swap) where a set of future cash flows are agreed to be exchanged between two counterparties at set dates in the future. The two cash flows are usually referred to as "legs" of the swap; one of these "legs" is usually pegged to a floating rate such as LIBOR. This leg is also commonly referred to as the "floating leg". The other leg of the swap is based on the performance of either a share of stock or a stock market index. This leg is commonly referred to as the "equity leg".

**CFI:** An equity swap contract is a derivative contract between two parties that involves the exchange of one stream (leg) of equity-based cash flows linked to the performance of a stock or an equity index with another stream (leg) of fixed-income cash flows.

**Simplified:** In essence you agree on the current value of the stock in USD value, agree to secure virtual rights to the stock at that value, agree to pay the fee to secure it upfront, and if the stock rises in USD value those gains belong to you, the stock owner will pay you those gains. But if the stock loses in value, going below the agreed price in USD, those losses belong to you as well, so you have to compensate the stock owner for those losses.

---

<sup>1</sup> PWC citation: <https://www.pwc.com/gx/en/financial-services/pdf/pwc-elwood-annual-crypto-hedge-fund-report-may-2020.pdf>

<sup>2</sup> Wikipedia citation - [https://en.wikipedia.org/wiki/Equity\\_swap](https://en.wikipedia.org/wiki/Equity_swap)

<sup>3</sup> CFI - <https://corporatefinanceinstitute.com/resources/knowledge/finance/equity-swap-contract/>

## **How Bridge Finance will apply equity swaps:**

Equity swaps allow you to achieve the same effect, of benefitting from an asset, even if you don't physically own it. This allows us to enable stock owners to; First - unlock liquidity from their stock portfolio (especially stocks bought through retail stock broking apps like Robinhood), Second - hedge their stocks to a fixed value in USD worth of crypto assets. Third – reap the profits of a portfolio of crypto currencies you hedged your stock with, even if you don't physically own those crypto currencies.

To crypto owners the application of equity swaps does not involve hedging, your crypto portfolio would not be guaranteed a fixed value in USD like in the case of stocks. The application will simply be to unlock stock market gains using your crypto assets as collateral (i.e. profit from stock gains without actually owning them, but through owning the rights only).

## **How Bridge Finance will achieve this:**

Bridge finance will develop a proprietary decentralized financial application that runs on the Ethereum blockchain. It uses what we call the Switch Protocol as its engine to allow users to create equity swap contracts on the platform, as well as to handle all the complex transactions that occur on the platform.

The native token for this protocol is the BFR token, which will be used to facilitate equity swap contract creation, settlement, and other services offered on the platform.

To trade on the platform a user needs to hold BFR tokens. Both crypto and stock traders. Crypto traders can bring their own BFR tokens from exchanges. Stock traders will get BFR tokens to use on the platform through their broker who we partner with to use our tokens to enable SBLs (securities based loans) for their clients.

Crypto traders can also bring their ERC20 tokens as collateral, unlock loans from lenders on our platform, and go on to find equity swap contracts to enter.

The stock owner through their broker, have to get BFR tokens equal to the value of the stock, then through a portal issued by their broker to our protocol, use them to create an equity swap deal for that stock.

Equity swap deals do not involve change of ownership or transfer of the physical stock, nor is the principal value of the stock transferred, just an exchange of future gains or cashflows.

Equity swaps involve Party A (crypto trader) and Party B (stock owner).

Party B seeks to lock in stock gains or hedge them to a fixed amount in USD, any gains or losses to be made during the period of the tenure of the equity swap contract are transferred to Party A. If the stock gains 10% those gains belong to Party A as they are above the underwritten (notional) value of the stock as per contract. In this case party B has to pay 10% (equity leg) to Party A on contract maturity. On the other hand if the stock losses 10% then those losses belong to Party A as well, and Party A (in addition to the floating interest rate fee he paid to buy/trigger the contract on Day zero) should pay that 10% equivalent to Party B, in order to bring the notional value back up to the agreed amount in USD in the contract.

For stock owner Party B, in order to create an equity swap contract for a \$500 stock, they need to hold BFR tokens worth \$500 as collateral in the switch protocol smart contract, to guarantee equity leg payment to Party A, as the stock's future gains cannot be pegged on day of trade commencement – no one knows how the stock will perform during the tenure of the contract.

Once the equivalent amount of BFR tokens needed as collateral to cover the stock value are deposited, Party B can lock them in by writing an equity swap contract of; 1) matching stock value as notional 2) real world LIBOR floating interest rate 3) fixed tenure.

Party A also needs to hold BFR tokens that match the full value of the stock he intends to trigger in an equity swap deal. That is the only way he can trigger Party B's contract offer. Since he is supposed to send tokens equivalent to the value of the floating leg immediately to Party B, he needs to have as collateral a total of Notional value plus Floating Leg, on the day of trade commencement. Settlement will be held in the future, for now his tokens are only locked in the smart contract alongside those of Party B the contract owner.

The equity swap contract will then run its course, all this is done and tracked by the Switch Protocol with the use of ethereum smart contracts.

On day of tenure expiry or contract maturity, the Switch Protocol will then calculate who owes who based on the performance of the stock, and settle the cash flows in BFR tokens.

Normally in traditional finance Clearing Houses are the trusted party to manage the contract and offset any risks for both parties. From structuring the contract to settlement, they act as the neutral trusted party or Escrow.

This is overcome in our blockchain Switch Protocol through the following ways:

1. Replace real world contracts with smart contracts.
2. Guarantee payment by requiring each party to stake/lock in BFR tokens equivalent to the predetermined notional as collateral in full.
3. Make the process automated from tracking the stock performance during contract duration through oracles to calculating and settling the cash flows instantly. Risk management is also, the contract can be expired immediately if the stock price moves so much that the collateral would not be sufficient for settlement beyond a certain price

### **Benefits:**

This allows the stock holder to enjoy gains in crypto without giving up their stocks. Through the broker, they simply put up a stock offer and enough BFR tokens as collateral for an equity swap contract. The broker will give their client a portal to our platform to access this service different from the one crypto traders will access.

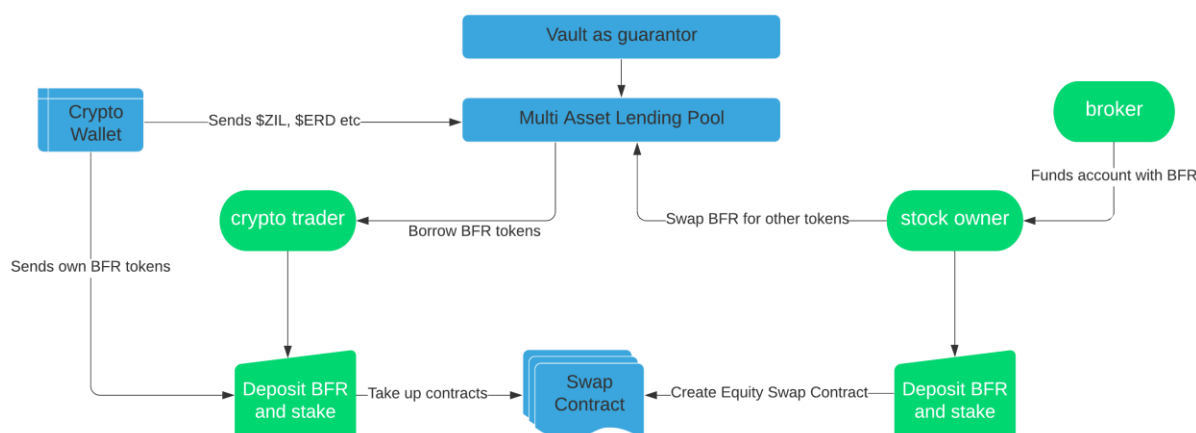
This allows stock traders to lock in value or hedge using crypto currencies as well, during a time stocks are consolidating or not performing well, but crypto currencies are on a rampant uptrend. Whilst also giving them the opportunity to switch back to stocks when crypto currencies are slowing down, but stocks have resumed to surge upwards.

This allows crypto traders/holders to enjoy gains in stock markets without actually owning the stock or missing out on gains on their tokens during a bull season. So for a crypto holder with interest in stock markets this could allow them to unlock higher rewards by compounding crypto and stock gains.

This overcomes the barriers to entry into the stock market or vice-versa as inherently imposed by geographical or political or other systematic regulations that govern these markets. Since there will be no physical ownership of stocks but only synthetic mechanisms in place to allow these contracts to benefit the same person who would have been denied access under normal circumstances. All this done without breaking any laws.

## How it works, Example:

To clarify how equity swaps work, here is an example. This is not an actual reflection of the technical processing flow in the protocol. But a logical representation to give perspective on the concept of how we will employ equity swaps.



Party A, crypto trader, wants to find equity swap contracts: *she is floating leg payer/equity leg receiver*. She noticed that Tesla stocks are surging in price and wants in on the action.

Party B, is a stock owner, he is interested in locking in his gains to a fixed amount of dollars in crypto assets: *he is floating leg receiver/equity leg payer*. He is fearful Tesla stocks might not sustain the surge and fall.

The ingredients: Tesla stock worth \$1000, money market LIBOR/ interest rate of 3% per annum, tenure 180 days, BFR tokens.

Party B has \$1000 worth of Tesla stock in an equity swap contract, secured by an equivalent amount of BFR tokens.

Party A see the contract: \$1000 TSLA notional @ 3% mm LIBOR p.a ~ 180 days.

It requires:  $3\% \times \$1000 \times 180/360 = \$15$  floating leg payment to activate the contract. Plus \$1000 worth of BFR in holdings as collateral. A total of \$1015 in BFR tokens is needed for Part A.

Party A has \$1015 of BFR in her wallet, she clicks on buy contract and sends the \$1015 worth of BFR as collateral to the smart contract, there by activating the equity swap contract with Party B. The current market price of 1 BFR is \$1, so she sent 1015 BFRs.

The tokens for both parties are locked away, the order books updated and the smart contracts tracked. The switch protocol handles this. Transaction records are stored offline as backup to decentralized ledgers. Both parties can come on the platform and access the contract to see progress in real time based on the performance of TSLA over the duration of the contract.

After 180 days TSLA rose by 10% but Party B was secured at \$1000 notional by Party A. Party B therefore owes Party A  $\$1100 - \$1000 = \$100$  in equity leg payment. The current BFR market price is \$1.17, therefore Party B sends  $\$100 \div \$1.17 = 85$  BFR tokens to Party A to settle the +ve flow owing and close the equity swap contract.

Party A made a profit of:  $\$100 - \$15$  (floating leg or contract cost) = \$85. Or in BFR tokens,  $85 \text{ BFR} - 15 \text{ BFR} = 70 \text{ BFR}$ .

Whilst Party B made a loss of potential revenue from his TSLA stock of  $\$1100 - \$1000 - \$15 = \$85$ . But this is the good part, Party B's BFR in the period grew by 17% in USD value:  $1000\text{BFR} + 15\text{BFR floating leg} \times \$1.17 = \$1187.55$

Net p/l =  $\$1187.55 - \$1000 - \$85 = \$102.55$  from date of contract commencement, despite having lost out on gains from his stock. Or in BFR tokens  $1015 \text{ BFR} - 854 \text{ BFR} - 72.65 \text{ BFR} = 88.35 \text{ BFRs}$  gained from date of contract commencement.

However if the stock losses by 17% Party B stands to gain even more as he receives compensation from Party A to cover the -ve flow as the stock price has gone below the notional value secured or guaranteed by Party A in the contract. So Party A owes Party B the equivalent of the 17% in BFR tokens as in above scenarios.

Note that it's the smart contract that actually sends the BFR tokens to the other party's wallet after being called by the switch protocol. The switch protocol using oracles feeds stock price data to the smart contract to initiate settlement. The protocol manages all this from contract creation to settlement.

The stock owner can then withdraw his BFR tokens and settle his dues with his broker, if the BFRs gained in value he stands to cover his broker's equity swap fee and pocket the difference. If the BFRs lost in value he has to cover the fee from his own pocket or stock as that is the essence of using his stock as collateral to get BFR as an SBL from the broker.

Notice how Party A, the crypto trader, stands to be cushioned too by gains in BFR. Suppose there was a -ve flow i.e. stock fell by 10% yet BFR tokens gained by 17% this offsets any losses in dollar terms. But the nightmare scenario is a 10% decline in stock value and a 17% decline in BFR market value, thats a net loss of 27% at least.

Fees are incurred by both parties, at a rate 0.1% + ETH network fees, on trade commencement when the tokens are locked away into a smart contract and on maturity when settlement is processed.

Brokerage firms will charge their own fees to their clients to offer the service. In addition half of the maker's fees will go to brokers as incentive. Whilst the other half of maker fees go to the vault. All taker fees go to the vault. The vault will be used for rewards for stakers, liquidity miners and incentives.

## Insurance and Contingencies:

To protect parties during a contract tenure, stop out contingencies are built into the system on all levels, this is to protect the funds of both parties, and insure that whoever stood to be paid from the collateral gets paid.

### A) Automatic Stop Outs

Switch protocol's job or programmed safe guards are to ensure that they automatically calculate the current value of the stock & collateral BFR tokens deposited, and ensure that there is always enough collateral to settle for each person.

It's supposed to always make sure the following condition is met for a deal to continue running:

Current BFR Collateral Value (CBCV) – (% change in stock \* Notional Amount) – (Libor \* Notional)  $\geq$  (Current BFR Collateral Value \* 10%)

Simplified: CBCV – (Current Stock Price – Notional) – (Libor \* Notional)  $\geq$  (CBCV \* 10%)

At any point in time where the above condition is not met i.e. the current amount needed for settlement being  $> 90\%$  of the collateral's value, the protocol automatically triggers a stop out and initiates settlement instantly whilst the current collateral is still enough to settle.

Here's a scenario;

- BFR falls in value by 50%
- \$500 collateral in BFR tokens is now worth \$250
- The stock also fell in value by 30%
- Stock owner has to pay \$150 equity leg to Party A, but his collateral is now worth \$250
- We have to emphasize that on entering a deal, the notional is agreed in USD, that's the peg
- So, stock owner will need to pay \$150 worth of BFR from his \$250 worth of BFR collateral.
- The protocol runs the above logical check or condition
- The current amount needed for settlement:  $\$150 - \$15 \text{ Libor} = \$135$ . But  $\text{CBCV} * 10\% = \$25$ . Hence condition is being met with  $\$135 - \$25 = \$110$  to spare as collateral.
- Deal continues running and is not stopped out automatically.

### B) Vault as guarantor

The platform will use its vaults BFR as the lender of last resort in case the stop out and settlement is not executed fast enough and falls slightly below the collateral value. This outcome is highly unlikely as 10% buffer should be more than enough, however, volatility is generally high in crypto currencies so this measure is put in place just in case.



## Security:

Security is a top priority in blockchain solutions, therefore we are not relying on running or developing everything in house as there are multiple solutions readily available with other blockchain companies to enhance security. The approach in designing the protocol factors in the use of these secure service providers:

- Offchain data oracles to track stock prices - Band Protocol (economical), Chain Link.
- Smart contract security solutions - Quantstamp.
- Decentralised database/ledgers - Bluzelle, Storj.

The platform/protocol's code will be audited twice before alpha version launch and again before the launch of the final product which is estimated to be 1 month after public token sales.

These audits are also inline with our commitment to institutional seed investors and future partners or collaborators, in assuring them that the platform is as robust as any other institutional trading platform, meeting the strictest of standards. The code is not open source, it is proprietary, to avoid giving away any potential point of attacks that would cost our investors, partners and their clients, millions.

Users will be allowed to sell their swap contract rights to other users, and forfeit any gains or losses. So inherently like any platform spammers will try take advantage. In regards to users spamming the interface with spammy fake orders, there are measures. For starters all trades go through the order book and you can only try sell your rights a limited number of times. The order is time locked to prevent bots from taking advantage. In addition, remember, to be in an es-contract you first have to have funds staked or locked in our smart contract. Any spamming and you risk losing those tokens. For the taker to buy a es-contract they also have to stake tokens, equivalent to the notional, in the smart contract. The same fate will befall you as the maker if you spam.

The platform is also non custodial, you control your wallet keys, and only have to send to our smart contract. Same applies for the lending platform they will be in a smart contract not the platform account, and they can only be send back to sending address to pay back loans, then the balance to your wallet, this minimizes the risk of hackings. Also smart contract code is unchangeable.<sup>2</sup>

---

<sup>6</sup> <https://bandprotocol.com/>

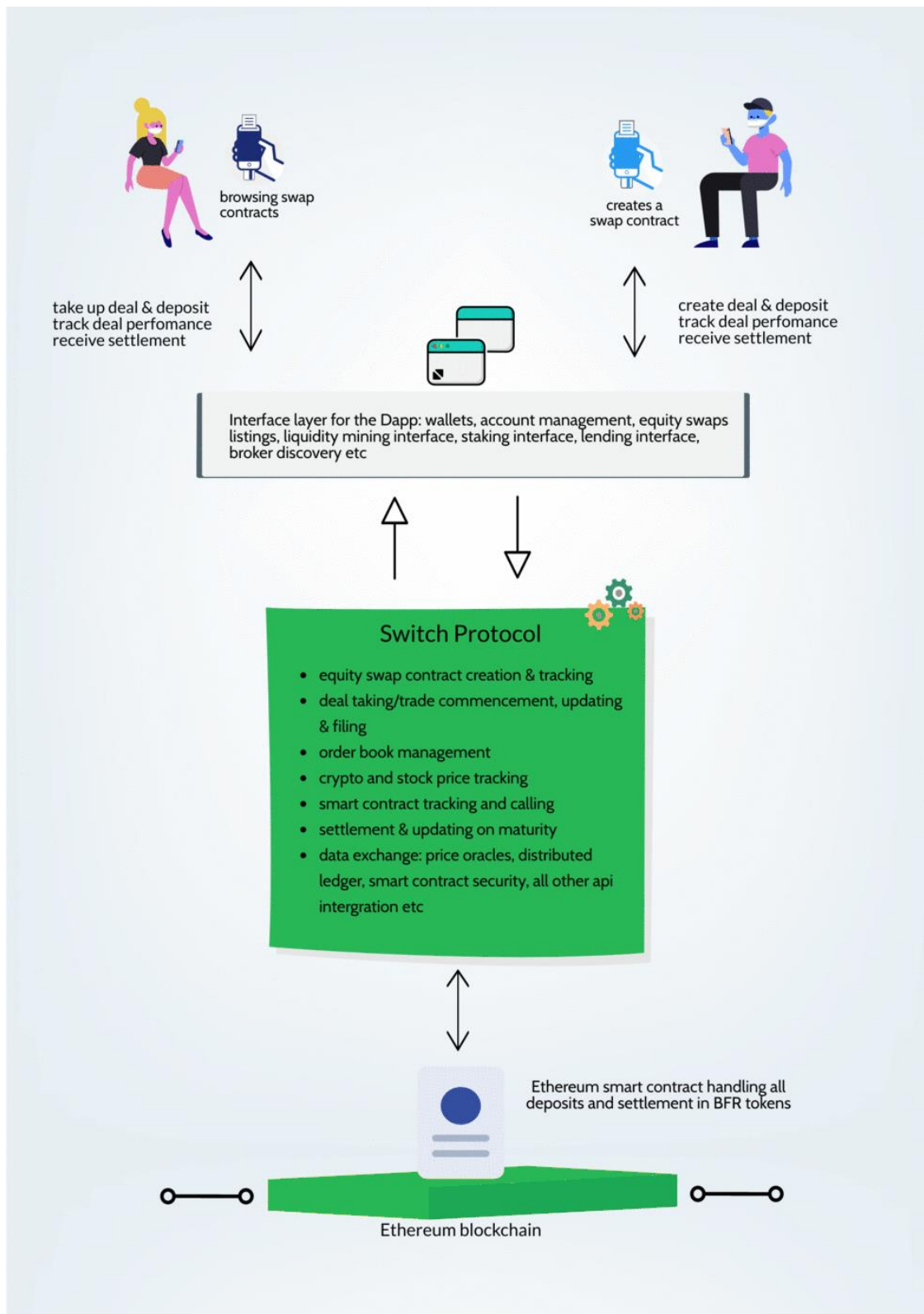
<sup>7</sup> <https://academy.binance.com/blockchain/blockchain-oracles-explained>

<sup>8</sup> [https://www.researchgate.net/publication/336446394\\_Smart\\_Contract\\_Security\\_A\\_Software\\_Lifecycle\\_Perspective/fulltext/5dc99e5d92851c8180469c0b/Smart-Contract-Security-A-Software-Lifecycle-Perspective.pdf](https://www.researchgate.net/publication/336446394_Smart_Contract_Security_A_Software_Lifecycle_Perspective/fulltext/5dc99e5d92851c8180469c0b/Smart-Contract-Security-A-Software-Lifecycle-Perspective.pdf)

<sup>9</sup> <https://cryptobriefing.com/decentralized-file-storage-five-projects/>

## Technical layout:

The platform is being designed in a layout as illustrated below



## What actually happens, processing flow:

\*es-contract means equity swap contract

There will be 2 main components;

a) Switch Protocol - which is the dApp running on top of the ETH platform. It Houses the user accounts and interface needed to interact with services or trade. This also organises all the data and stores or retrieve it from decentralised databases. It initiates the full process from contract creation to tracking to settlement and more.

b) The Ethereum Smart Contract - this is the base layer to which every transaction relies on. Tokens are deposited/ locked/staked to this address and on maturity settlements/withdrawals to wallet addresses are handled here. Specifics of the es-contract are also send here as parameters. As the brains it is programmed on how to receive, validate and process each settlement.

### The process:

1) To create an es-contract, Equity leg payer/stock owner/maker/Party B, facilitated by the switch protocol, has to send collateral BRF tokens equivalent to the notional or value of stock he wants in the deal, to the smart contract address on the ETH platform. Once he sends/deposits they are locked in by the smart contract. The transaction confirmation is then taken by the Switch Protocol, and combined with the deal specifications or es-contract parameters; stock name, notional, floating leg needed, owner address, maturity date. Other things are added to it to secure it e.g. unique hash identifier. It is saved in the ledgers but a deal card is then created and the deal listed on the order books or market.

2) The Equity leg receiver/taker/Party A then comes scrolling and sees the deal. When she clicks buy or take up, the switch protocol facilitates for her to send BFR tokens equivalent to notional amount, to the smart contract address on the ETH network as collateral. They are locked in as well. The switch protocol then updates in the ledgers or database, the es-contract's details; floating leg amount agreed, signed data with wallet address, transaction confirmation, etc.

3) In the future updates of the platform and protocol, if either Party chooses to sell their rights in the deal to another party, this deal card can be retrieved, and ownership details updated. The Switch Protocol can track the progress of the deal for the two parties using oracles to get live stock prices. Either party will be presented with a live infographic of how investments are performing as a whole. If the equity gains or loses get to 90% of the notional the Switch Protocol can automatically notify both parties and terminate the deal before maturity. This is a safe guard against being insolvent to cover your flow amount.

4) On es-contract maturity or trade end, the deal card is pulled by the Switch Protocol, which checks the floating leg and equity leg flows depending on stock performance data provided by a trusted oracle. With that information, the contract is called, with input parameters for settlement processing passed on to it, alongside other security parameters to verify intent before it can execute. It then verifies that the request is valid i.e. signatures validated, possible replay attack check, wallets retrieved from signed data, etc. If the checks pass, the processing flow continues with the standard approve method. In other words goes on to settle or transfer the BFR tokens appropriately.

5) Borrowers from our lending platform will have the tokens sent to their platform account instead, and cannot move them off the platform. They have to settle their dues with lenders first. But for users who bring their own BFR tokens in their ERC-20 wallets they will receive them directly into their wallets, the sending wallet address is also receiving wallet address by default, no other.

### **Full features of mainnet:**

The system will add the following after mainnet launch

- The stock owner at first will only have the ability to hedge their stocks with BFR tokens, but that's not the true value of bridging the divide from stocks to crypto, later after the launch of our multi asset collateral pool service, BFR tokens can also be used to get loans of any other ERC20 token available in the pool, BTC, etc. So stock owners through their broker can get BFR tokens then instead of using them to create contracts only they can just go to the lending platform and get a loan of BTC, EOS, ADA, LINK etc.
- Multi asset collateral pools by lenders; purpose is two way. Pools where you can bring BFR tokens and get loans of other crypto assets as stated above for stock owners. Primary purpose however is that crypto traders should be able to bring any token or coin onto the platform and use it as collateral to get BFR tokens. Stakers of BFR can then accept these tokens/coins and unlock loans in the form of BFR tokens to the trader. Lenders will earn incentives for lending. The platform will use its vaulted BFR as the lender of last resort in case the borrower defaults. The BFR tokens obtained from the lending platform, will not be sent to the borrowers wallet, but will be in the platform's user account, custodial, where as Party A or crypto trader you can take up or buy equity swap contracts, like normal. On settlement they are sent back to your account and you can not move them off the platform or withdraw to your Eth wallet until you have paid outstanding dues to your lenders.
- Liquidity mining for users; to further reward token holders, to go to market cheaply, to bring down prices on order books. Users can participate in liquidity mining. You first have to stake BFR tokens to participate. Through liquidity pools they can add liquidity to the order books, be the system's market makers. Their pool will run parallel to the system's 50% liquidity token pool which is meant to start the mining in the initial stages of the platform, but will always prioritise stakers liquidity mining pools once they kick in. The goal is for maximum liquidity such that prices for es-contracts are very low. Our partnerships with brokers will also aim to add to this liquidity. You will need to stake a large amount of tokens to participate and unlock higher rewards. For liquidity miners the rewards are two fold: staking rewards and liquidity mining rewards. The system's liquidity mining pool of 50% of total tokens will also mint tokens daily rewarding our liquidity miners once they fill their liquidity mining pools and begin mining.
- A social trading hub. Thotbox and Leaderboard are the two modules of this hub. Not all crypto traders are sound when picking stocks to invest in, so it will be a place where people can share their analysis or trade hypotheses, as well as their current contracts or trades to showcase how they are performing.

The alpha version to be released first to live test with BFR tokens will not have the above future features. It will have the core functionality only.

### **Who will this service be offered to?**

This service or platform will be offered to all crypto traders and stock traders. The initial target audience is retail investors, but the same service can also be used by regular investors as long as their broker is partnered.

It will be offered to retail stock investing apps like Robinhood, Charles Schwab, Square, Sofi, Stash, E-Trade, Stake(Australian), Vested(Indian) etc. Their users can benefit from being able to unlock liquidity from their stocks and bridge to crypto currencies.

Crypto currency trading apps, wallets and exchanges can also connect to our protocol and use it to offer their clients more flexibility on the markets.

Traditional investment firms or hedge funds who also want to give their clients crypto exposure will be given access, foregoing the risk to actually hold the tokens but just benefit from them synthetically as they did with Bitcoin futures but this time have a wider range of tokens for their clients.

### **BFR Token Utility**

BFR will be an ERC20 token, with a maximum supply of 100 million tokens.

BFR will be the native token on the platform, primarily facilitating exchange of value in equity swap: floating leg and equity leg payments or settlement. In addition to the retail stock brokers or app providers, they issue their clients securities based loans (SBLs) in the form of BFR tokens at that day's rate. Here the token is acting as just that a token that stores value for the retail stock trader. This allows the stock trader to now be liquid with crypto currencies which they can enter an equity swap contract or even swap the BFR for any other crypto currency token of their liking. It will also allow the stock trader to settle broker fees and charges if they made a profit without taking any value from their stocks.

On the platform, any party participating in an equity swap deal needs to stake the BFR tokens equivalent to the notional as collateral. Without staking them they cannot create or take up a contract.

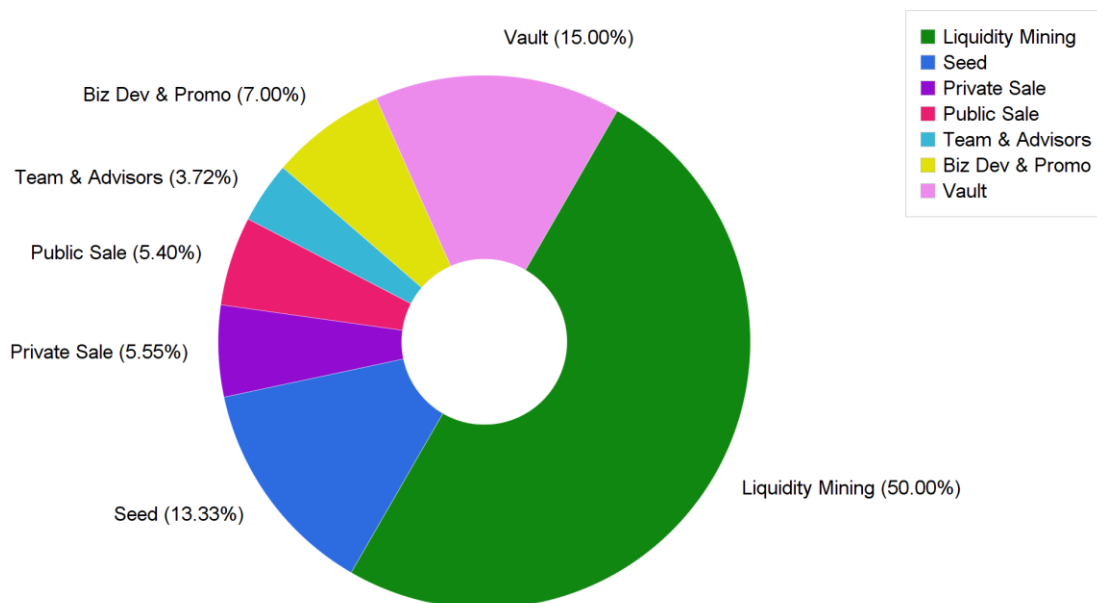
To the crypto traders on the lending platform they will use the BFR tokens as a medium of exchange to unlock liquidity. They can loan out in BFR and well as give BFR in exchange for other tokens. Rewards incentives for lenders will be paid in BFR as well.

Staking rewards for all project believers who own BFR tokens and are staking will be paid in BFR tokens as well. In order to participate in liquidity mining users need to stake BFR tokens without it they cannot participate. Liquidity mining rewards will be distributed in BFR.

All fees on the platform are charged in BFR for all transactions. Incentives to brokers and stock owners to bring a variety of stocks on the platform will be in BFR tokens which they can redeem for USDT or BTC.

## BFR Token metrics:

Token Allocation - BFR (100 million supply total)



Allocation	Tokens	Price	Lock
Liquidity Pool	50,000,000	--	Locked
Seed Investors	13,330,000	\$0.075	Locked 18 months, 10% vesting
Private Sale	5,550,000	\$0.09	50% Unlock monthly
Public Sale	5,400,000	TBA	Fully Unlocked
Team and Advisors	3,720,000	--	Locked 18 months, 10% vesting
Promo, Biz Dev	7,000,000	--	Fully Unlocked
Vault	15,000,000	--	Locked

## Rewards, Liquidity mining, Staking.

To add incentive in holding BFR tokens, we will have liquidity mining for users and staking rewards for those locking up their BFR in the system. As highlighted before this is a win win as the system will have more liquidity and cheaper prices, whilst also like any protocol a cheap way to go to market/operate unlike traditional approaches of money makers. For liquidity miners the rewards are two fold: staking rewards and liquidity mining rewards. You first have to stake in order to participate in liquidity mining. Staking rewards will be taken from the vault. Most of the BFR in settlement fees 0.1% will go to the vault. All taker fees will go to the vault whilst half of maker fees will go to brokers as incentive, and the other half to vault.

The system's liquidity mining pool of 50% of total tokens will also mint tokens daily rewarding our stakers/liquidity miners once they fill their liquidity mining pools and begin mining.

Their pool will run parallel to the system's 50% liquidity token pool which is meant to start the mining in the initial stages of the platform, until stakers' liquidity mining pools kick in, and possibly re-designate its tokens towards rewards and incentives. Possibly use them to give more rewards to liquidity miners or add them to the vault. The goal is for maximum liquidity such that prices are very low. Our partnerships with brokers will also aim to add to this liquidity.

Annual percentage rates (APR) will be released closer to the launch of liquidity mining pools for users soon after mainnet launch. As well as more details regarding the pool sizes and rewards distribution and vesting of rewards if any.

For staking the reward details will be released closer to Alpha version launch.

## Timeline:

Timeline since inception in 2019, as of June 2020. Prone to delays/subject to change





## Common Questions:

*Why deposit the full value of the stock in BFR tokens?* There is no way of telling how much the stock will gain or lose in the future and factor it in the contract on the day of trade commencement. So to provide cover it is wise to have the full value of the stock locked in as tokens in a smart contract.

*Is it custodial?* Non custodial, you connect your wallet, then lock in the tokens (yours or given by broker) to a smart contract which holds them until day of settlement, the protocol then settles cashflows and if you don't have any dues they are released back to your wallet.

*Who pays the Broker?* We give them 50% of maker fee as incentive. Whilst the stock owner pays a charge determined by the offering of the broker if any.

*Volumes possible?* The protocol is being designed to handle large corporate volumes, that is to say brokerage firms or investment firms hedging their own stock portfolios as well, not just those of their retail traders.

*Why do I need a broker?* Equity swaps require you only risk your gains and not lose it or if its value below notional, they are a form of hedging, without a broker you would simply be not hedging but actually losing capital. We are exploring the legalities of allowing people to directly access these synthetic derivatives that track stock prices whilst risking their capital, it could be made available.

*Competition?* Bridge finance will have the first mover advantage, there are currently no competitors offering automated equity swaps. Other hedging solutions are inadequate and offer limited cover, i.e. covering only the equivalent of the cost of the contract, whilst the asset being covered itself is allowed to lose value below the cover or trigger price. Equity swaps unlock the full value and meaning of hedging to asset owners, by fixing the price to an agreed notional. For crypto traders the reward is also higher as you would be using your holdings which you know are doing well long term without having to cashout and convert them to USDT.

*Rewards?* Bridge Finance will adopt the Yield Farming or Liquidity mining incentive approach. We will launch staking and liquidity mining pools for our users after the alpha system is launched, to work in collaboration with our internal locked liquidity pool, but as soon as enough users fill the liquidity mining pools our system's default liquidity mining pool will take a back seat. Rewards will be for both staking and yield farming/liquidity mining. They will obviously be proportional to the amount of tokens staked, with higher rewards for more staked tokens. Rewards will come from the vault. Liquidity mining helps the system work in an economical way. For the multi asset collateral lending, the lenders will also get incentives as BFR tokens for participating in lending, in addition to the fees they charge borrowers. All this will come from the vault. APR reward details to be announced later closer to launch. Staking rewards too.

*Settlement fees?* Maker fee 0.1% of underlying or notional per trade, same for taker of the es-contract when buying or taking up contract. If es-contract is not taken up or bought and expires, you don't need to pay again, you can create new es-contract with the same collateral no extra fee. And since this is in the protocol there are no ETH fees up until the es-contract is bought or taken up to be recorded in a smart contract. ETH fees will be predictable and fixed to the low end on the platform.

*Bots, Spamming?* The fees are designed to make sure that bots lose money instead, when they write and buy their own es-contracts. Also you have to stack the equivalent of the notional or underlying for you to write or take up a es-contract, hence you will need bigger stake for a bigger contract/trade.

*ETH network speed?* On es-contract creation the maker creates a smart contract. On maturity the smart contract simply receives input from the switch protocol as to which wallet will get what tokens and transfer them, settlement on ETH base layer. Those are the only times speed on the ETH network will be an issue. Outside of that there is no effect on speed on the other interactions within the switch protocol by users, you can create and buy at will.

*Why not Chromia?* Well we started developing the concept of the protocol a while ago before chromia came along. We have already invested and progressed a lot in development, its very expensive and late to be double minded now. It would have been beneficial if we were starting developement now as we would receive development resources, know-how, and other support from the Chromia team. For other new upcoming projects we advise them to take up Chromia as it is just so much more efficient to use when developing DeFi products. It is a relational database wrapped in a blockchain, which means you get all the benefits of transparency and immutability, while you still can develop complex financial products as they are developed in traditional markets on relational databases.

*Stock variety?* To encourage stock variety instead of a limited range of stocks, we will incentivize contract creators who bring stocks that are new or scarce to the platform. For instance if the platform is flooded with TSLA stocks but not AAPL or TWTR stocks, we will offer a higher incentive to those who create AAPL equity swap contracts than TSLA. Brokers will also get incentives or rewards for their traffic, in addition to the fees they charge their users for the service (if any).