



STRUCTURE FINANCE

Decentralized blockchain platform for structured financial products

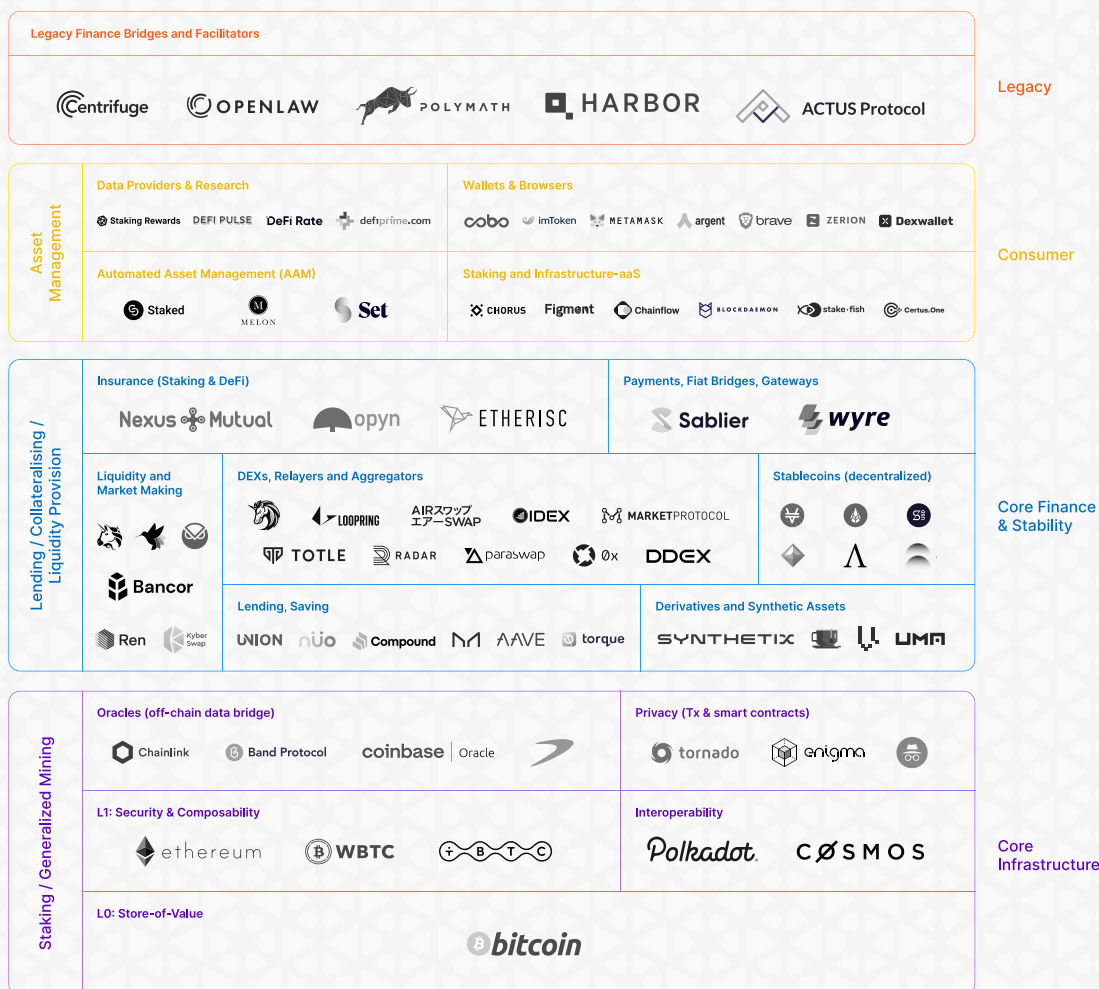
Decentralized finance (DeFi) has been the center of attention for blockchain applications since the summer of 2020. For the first time, cryptocurrency users could access services typically offered by traditional financial institutions like lending, borrowing, insurance, and more. Since all the product logic is recorded through a smart contract, there is no intermediary needed to verify personal information or transaction details.

These products have proven themselves to be in great demand by cryptocurrency users. As of February 2021, the total value locked (TVL) in DeFi has topped 40 billion US dollars – compared to less than 1 billion one year ago¹. Most of the assets are currently locked in lending protocols and decentralized exchanges (DEXes). The top 3 protocols in terms of TVL are in the lending sector, contributing more than 15 billion to the marketwide total. Apart from decentralized lending, DEXes are the other major sector where crypto users lock their assets.

The top 3 lending decentralized exchange protocols together account for more than 70% of the total value locked in all of DeFi.

Despite the vibrant ecosystem and exponential growth in the sector, DeFi is still not adopted by many mainstream crypto users, let alone traditional finance users. In comparison to the DeFi market, the traditional financial market offers a greater variety of products and options for both retail and institutional participants. With more people from traditional finance joining the crypto space and an increasing number of companies reporting Bitcoin holdings on their balance sheets, it is likely that in the future the crypto market will become more similar to traditional finance in terms of product offerings and trading patterns.

Decentralized Finance (DeFi) Stack: Product & Application View²



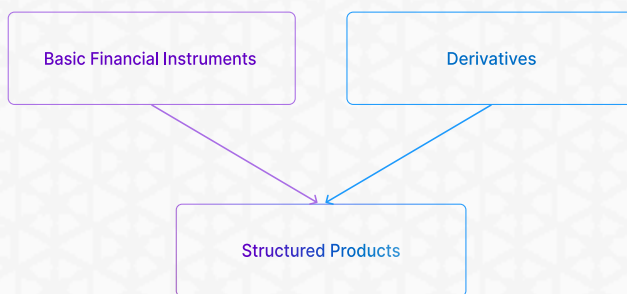
¹ <https://defipulse.com/>

² <https://twitter.com/StakingRewards/status/1256182438482640902>

1 Introducing Structure.finance

In the traditional financial industry, structured financial products are invented in order to offer a simplified user experience for retail investors. By packaging interest rate products together with derivatives, users are given an even greater variety of products to choose from based on their preference. After reviewing all options based on risk appetite and expectation for return, users can choose their preferred products and purchase them easily without concerning themselves with the backend.

Structure.finance is a platform that supports the orchestration of different structured financial products. Currently, creating products like these pose a high barrier of entry due to the technical skills and coding required to implement them. We believe there is massive potential for integration of these structured products across protocols. Our platform will serve as both a standalone solution but also one that can be added into other DeFi protocols seamlessly, bringing structured financial products to the entire market.



Structure.finance creates easy to use tools for creating structured financial products based on cryptocurrencies. Two options products are developed at this stage, providing users with new options for trading and hedging against volatility risk.

2 Products

2.1 Double No-Touch Option (DNT)

In this contract, instead of a single target price, a broker would offer two target levels, one above and one below the prevailing price. If the price of the underlying asset does not breach both the levels within the expiry time, then the trade would result in a profit.

If the price violates either of the target levels before expiry, then the trader would lose his investment. A double one touch or range bound binary option contract should be selected when a trader anticipates a decrease in implied volatility.

DOUBLE NO TOUCH (DNT) DEMO

1 DNT pays 200.00 USDT if BTC price stays between \$34,200 and \$35,400 in 46 minutes

Current Price: \$34,680 | 50 USDT
 Expiry Date: 15:15 | 0 DNT

[Buy DNT](#)

Portfolio

Start time	End time	Barriers	Balance	Payout	Actions
27.01.2020 15:00	27.01.2020 15:46	Barriers	\$9999	Payout	Actions
27.01.2020 15:00	27.01.2020 15:46	Barriers	\$9999	Payout	Actions
27.01.2020 15:00	27.01.2020 15:46	Barriers	\$9999	Payout	Actions

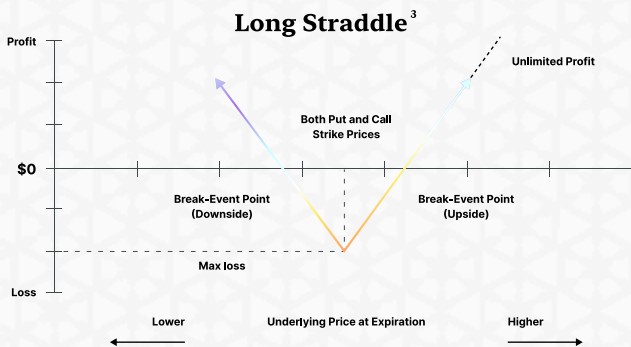
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In Structure.finance, the double no touch options support major cryptocurrencies. Users can purchase the DNT token, representing a wager against volatility. If either barrier price is touched, the token price will go to zero. If neither barrier price is touched by the expiry date, users then profit from the DNT. The validity of the DNT is only for a limited period of time and that when that time period ends, the DNT token price will be reset and a new cycle begins.

2.2 Straddle Options

By definition, a straddle is a neutral options strategy that involves simultaneously buying both a put option and a call option for the underlying security with the same strike price and the same expiration date.

A trader will profit from a long straddle when the price of the security rises or falls from the strike price by an amount more than the total cost of the premium paid. Profit potential is virtually unlimited, so long as the price of the underlying security moves very sharply. When a user buys a straddle option, they are wagering on a large price movement in either direction.



2.3 Structured Finance Orchestration Tools

The beauty of DeFi applications as compared to traditional finance is that all the protocols are permissionless and open source, enabling creation of financial products directly by users. As mentioned previously, designing and deploying these products currently requires advanced technical knowledge. By supporting major DeFi protocol APIs, Structure.finance will create an environment that allows users to compose structured financial products through a 'drag-and-drop' interface. Through the platform's decentralized governance structure, token holders will then be able to vote on which products should be supplied with liquidity.

3 Technical Design

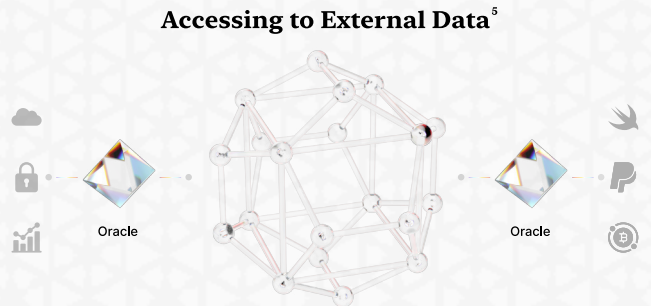
3.1 Peer to Pool Based Products

In order to facilitate high liquidity, Structure.finance will be designed to pool liquidity together from all network participants to create a favorable trading environment. Structure.finance will incentivize users to create different asset pools and reward users with tokens for providing liquidity in markets where the highest demand exists.

3.2 Peer to Pool Based Products

Because derivatives products require external data to execute the smart contracts, it is important to ensure the security and correctness of the data such that it is not tampered by malicious attackers. There are decentralized oracle solutions like Chainlink⁴ that could connect with

external price feed from centralized exchanges and data providers.



Moreover, as decentralized protocols become increasingly liquid and stable, they can also serve as a price feed. For instance, as Structure.finance could support Uniswap, the price feed from Uniswap could also be used as a source of information.

3.3 Layer 2 Scalability

Structure.finance is built on Ethereum and Binance Smart Chain as the layer 1 protocol. As the most vibrant ecosystems in the DeFi space, most of the users and value are accrued to these two base layer protocols. Therefore, in order to be interoperable with the mainstream DeFi applications, Structure.finance protocol is compatible with Ethereum Virtual Machine (EVM).

As there is limited bandwidth for Ethereum in terms of speed and cost, Structure.finance is also integrating with layer 2 protocols like Chromia to provide better user experience for trading on Structure.finance. For products that require frequent trading, a Layer 2 chain can provide sufficient throughput and cost efficiency.

4 Token economics

4.1 Token Utility

The platform supports STF as the native token to support platform incentives and decentralized governance. First and foremost, STF is the default currency in the Structure.finance platforms. Users could use STF for transaction fees and also for purchasing option products. The transaction fees will be collected and contributed to the reserve, and further on allocated through decentralized governance. Secondly, it is important for the platform to have initial liquidity to enable the option products to have more accurate pricing and better profitability. To encourage users to deposit assets and incentivize a positive feedback loop, there will be token incentives given in STF. Lastly, the token holders collectively decide on the platform

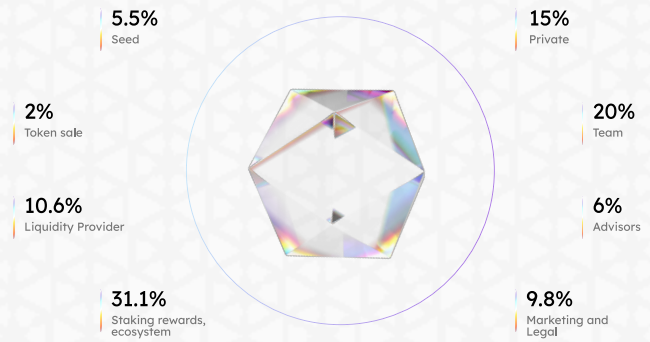
³ <https://seekingalpha.com/article/4209154-options-to-rescue-of-risk-sensitive-investors-how-i-use-long-straddles-to-profit-from>

⁴ <https://chain.link/>

⁵ https://medium.com/@chrisblom_79718/chainlink-decentralized-oracle-ef4597b6afc0

governance. Holders will be able to influence several factors such as fee structures, collateral ratios, and guiding decisions on protocol and blockchain integrations.

4.2 Token Distribution



Token Release Plan

	Seed	Private	Prime	Staking Rewards, Ecosystem	Liquidity Provider	Marketing and Legal	Advisors	Team
	5,5 %	15 %	2 %	31,1 %	10,6 %	9,8 %	6 %	20 %
Month 0	0,495 %	1,800 %	2,000 %	1,244 %	1,060 %	0,490 %	0,420 %	0,000 %
Month 1	0,495 %	1,800 %	2,000 %	2,073 %	1,855 %	0,878 %	0,575 %	0,000 %
Month 2	0,495 %	1,800 %	2,000 %	2,903 %	2,650 %	1,266 %	0,730 %	0,000 %
Month 3	0,495 %	1,800 %	2,000 %	3,732 %	3,445 %	1,654 %	0,885 %	0,000 %
Month 4	1,051 %	3,267 %	2,000 %	4,561 %	4,240 %	2,042 %	1,040 %	0,000 %
Month 5	1,607 %	4,733 %	2,000 %	5,391 %	5,035 %	2,430 %	1,195 %	0,000 %
Month 6	2,163 %	6,200 %	2,000 %	6,220 %	5,830 %	2,818 %	1,350 %	0,000 %
Month 7	2,719 %	7,667 %	2,000 %	7,049 %	6,625 %	3,205 %	1,505 %	0,000 %
Month 8	3,276 %	9,133 %	2,000 %	7,879 %	7,420 %	3,593 %	1,660 %	0,000 %
Month 9	3,832 %	10,600 %	2,000 %	8,708 %	8,215 %	3,981 %	1,815 %	0,000 %
Month 10	4,388 %	12,067 %	2,000 %	9,537 %	9,010 %	4,369 %	1,970 %	0,000 %
Month 11	4,944 %	13,533 %	2,000 %	10,367 %	9,805 %	4,757 %	2,125 %	0,000 %
Month 12	5,500 %	15,000 %	2,000 %	11,196 %	10,600 %	5,145 %	2,280 %	0,000 %
Month 13	5,500 %	15,000 %	2,000 %	12,025 %	10,600 %	5,533 %	2,435 %	0,000 %
Month 14	5,500 %	15,000 %	2,000 %	12,855 %	10,600 %	5,921 %	2,590 %	0,000 %
Month 15	5,500 %	15,000 %	2,000 %	13,684 %	10,600 %	6,309 %	2,745 %	0,000 %
Month 16	5,500 %	15,000 %	2,000 %	14,513 %	10,600 %	6,697 %	2,900 %	0,000 %
Month 17	5,500 %	15,000 %	2,000 %	15,343 %	10,600 %	7,085 %	3,055 %	0,000 %
Month 18	5,500 %	15,000 %	2,000 %	16,172 %	10,600 %	7,473 %	3,210 %	0,000 %
Month 19	5,500 %	15,000 %	2,000 %	17,001 %	10,600 %	7,860 %	3,365 %	0,000 %
Month 20	5,500 %	15,000 %	2,000 %	17,831 %	10,600 %	8,248 %	3,520 %	0,000 %
Month 21	5,500 %	15,000 %	2,000 %	18,660 %	10,600 %	8,636 %	3,675 %	0,000 %
Month 22	5,500 %	15,000 %	2,000 %	19,489 %	10,600 %	9,024 %	3,830 %	0,000 %
Month 23	5,500 %	15,000 %	2,000 %	20,319 %	10,600 %	9,412 %	3,985 %	0,000 %

	Seed	Private	Prime	Staking Rewards, Ecosystem	Liquidity Provider	Marketing and Legal	Advisors	Team
Month 24	5,500 %	15,000 %	2,000 %	21,148 %	10,600 %	9,800 %	4,140 %	0,000 %
Month 25	5,500 %	15,000 %	2,000 %	21,977 %	10,600 %	9,800 %	4,295 %	0,833 %
Month 26	5,500 %	15,000 %	2,000 %	22,807 %	10,600 %	9,800 %	4,450 %	1,667 %
Month 27	5,500 %	15,000 %	2,000 %	23,636 %	10,600 %	9,800 %	4,605 %	2,500 %
Month 28	5,500 %	15,000 %	2,000 %	24,465 %	10,600 %	9,800 %	4,760 %	3,333 %
Month 29	5,500 %	15,000 %	2,000 %	25,295 %	10,600 %	9,800 %	4,915 %	4,167 %
Month 30	5,500 %	15,000 %	2,000 %	26,124 %	10,600 %	9,800 %	5,070 %	5,000 %
Month 31	5,500 %	15,000 %	2,000 %	26,953 %	10,600 %	9,800 %	5,225 %	5,833 %
Month 32	5,500 %	15,000 %	2,000 %	27,783 %	10,600 %	9,800 %	5,380 %	6,667 %
Month 33	5,500 %	15,000 %	2,000 %	28,612 %	10,600 %	9,800 %	5,535 %	7,500 %
Month 34	5,500 %	15,000 %	2,000 %	29,441 %	10,600 %	9,800 %	5,690 %	8,333 %
Month 35	5,500 %	15,000 %	2,000 %	30,271 %	10,600 %	9,800 %	5,845 %	9,167 %
Month 36	5,500 %	15,000 %	2,000 %	31,100 %	10,600 %	9,800 %	6,000 %	10,000 %
Month 37	5,500 %	15,000 %	2,000 %	31,100 %	10,600 %	9,800 %	6,000 %	10,833 %
Month 38	5,500 %	15,000 %	2,000 %	31,100 %	10,600 %	9,800 %	6,000 %	11,667 %
Month 39	5,500 %	15,000 %	2,000 %	31,100 %	10,600 %	9,800 %	6,000 %	12,500 %
Month 40	5,500 %	15,000 %	2,000 %	31,100 %	10,600 %	9,800 %	6,000 %	13,333 %
Month 41	5,500 %	15,000 %	2,000 %	31,100 %	10,600 %	9,800 %	6,000 %	14,167 %
Month 42	5,500 %	15,000 %	2,000 %	31,100 %	10,600 %	9,800 %	6,000 %	15,000 %
Month 43	5,500 %	15,000 %	2,000 %	31,100 %	10,600 %	9,800 %	6,000 %	15,833 %
Month 44	5,500 %	15,000 %	2,000 %	31,100 %	10,600 %	9,800 %	6,000 %	16,667 %
Month 45	5,500 %	15,000 %	2,000 %	31,100 %	10,600 %	9,800 %	6,000 %	17,500 %
Month 46	5,500 %	15,000 %	2,000 %	31,100 %	10,600 %	9,800 %	6,000 %	18,333 %
Month 47	5,500 %	15,000 %	2,000 %	31,100 %	10,600 %	9,800 %	6,000 %	19,167 %
Month 48	5,500 %	15,000 %	2,000 %	31,100 %	10,600 %	9,800 %	6,000 %	20,000 %