



GAIN^{DAO}

HYBRID FINANCE

WHITEPAPER

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GAINDAO.IO

Introducing Hybrid Finance (HyFi)

Gain is an Ether-based pool, powered by machine learning optimized trading algorithms operating in traditional financial markets.

Gain serves as a bridge between centralized and decentralized financial systems, leveraging the strengths of each to provide an attractive alternative to current DeFi investment vehicles. As a GAIN token holder, one can benefit not only from the possible appreciation of the underlying base asset (Ether), but also from algorithmic trading strategies intended to grow the amount of Ether in the Gain Pool.

As a community driven project, GAIN tokens also serve as a governance mechanism for Gain, allowing the ecosystem to evolve through a community voting and grant issuing. This ensures that Gain is able to create additional pools, maintain alignment between management and token holders, while providing a path to further disintermediate traditional financial actors through the development of cross market infrastructure.





-  **Gain** is a Trust (BVI) tied to a decentralized organization (DAO).
-  The **Gain Pool** is powered by machine learning trading algorithms, with the objective of growing the amount of Ether present in the Pool.
-  A seed and decentralized exchange distribution will provide the initial Ether for the Gain Pool, in exchange for **GAIN**, an ERC20 token.
-  **GAIN** combines a non-inflationary base asset with proven trading algorithms to create a viable alternative to solely traditional or decentralized finance investments.

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Gain Thesis

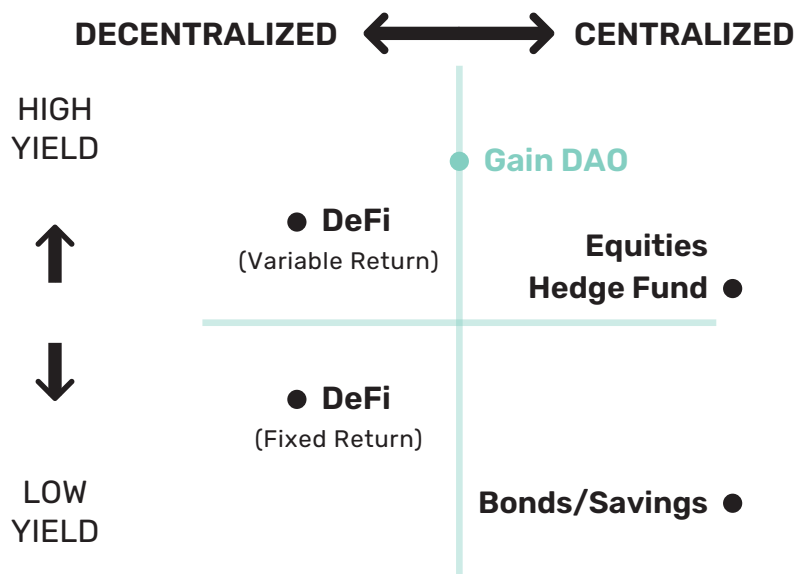
The blockchain ecosystem has started to deliver on its potential. Distributed ledgers fill in the gaps of the traditional financial systems. The 'Decentralized Finance' (DeFi) boom is a testament to a greater trend towards markets expanding to be borderless and open to all regardless of age, gender, ethnicity or socioeconomic background.

Many participants in the decentralized ecosystem do not measure their wealth in dollars or euros, but in terms of their crypto holdings. Many of these same people would like to receive a return on their crypto holdings. This desire has fueled the growth of DeFi, with assets such as Ether enabling interest bearing tokens such as Yearn or Compound. As the DeFi ecosystem matures, the return over investment for placing one's Ether in such interest bearing tokens will likely diminish as the interest markets become more efficient.

While the decentralized economy is growing substantially, there are still some places where the infrastructure and its scalability are lacking. Compared to cryptocurrency markets, fiat currency markets such as Forex offer greater stability and liquidity. This greater stability and liquidity can be leveraged by automated trading algorithms. The success of such algorithms are dependent upon high amounts of liquidity, competitive exchange rates, and high-quality historical data. As most cryptocurrency markets lack these features, algorithmic trading tends to be more successful in traditional currency markets.

Gain allows any user of Ethereum to be able to participate in a collective effort to trade fiat currency by algorithm.

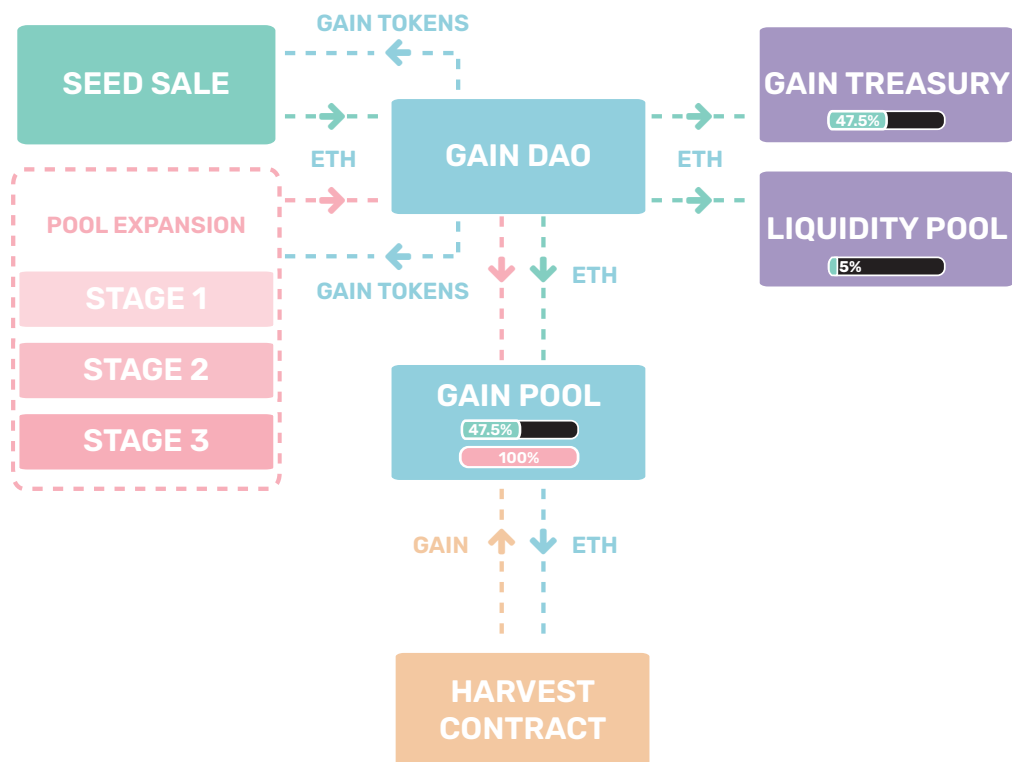
Hybrid Finance Value Proposition



Gain uniquely offers a hybrid asset, made possible through a combination of legal and smart contracts. Gain is able to access untapped potential markets, while still protecting its assets via insured legal entities and audited smart contracts.

	Centralized Finance	Decentralized Finance	Hybrid Finance
STABILITY	✓	✗	✓
LIQUIDITY	✓	✗	✓
INSURED	✓	✗	✓
AUDITABLE	✗	✓	✓
RAPIDLY EXPANDING SECTOR	✗	✓	✓
NON-INFLATIONARY	✗	✓	✓

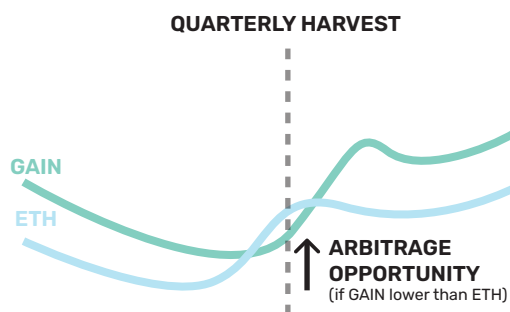
Gain DAO Model



1. GAIN tokens are exchanged for Ether during the Seed Round and subsequent Pool Expansions. See 'Token Parameters' section below.
2. 1,000 Ether (47%) from the Seed Round and 100% of the Ether from each of the Pool Expansions will be sent to the Brokers that Gain DAO is partnered with and credited to the Gain Pool.
3. The Gain Pool will begin trading no later than a month after the Seed Round concludes. The Gain Pool uses trading algorithms, and daily profits and losses will be recorded in Ether. Trade records will be verified by third-party auditor myfxbook and will be available in monthly statements provided by the Broker.
4. On a quarterly basis, Ether is withdrawn from the Gain Pool. This Ether is exchanged for GAIN tokens that have been sent to the Harvest Contract to establish a price floor.

Gain DAO

Harvest



The Harvest is a quarterly process that allows token holders to redeem their GAIN for Ether. The requests for Redemption are satisfied by a withdrawal of a portion of the Ether from the Gain Pool each quarter.

During each quarter, GAIN may be sent to a Registration Contract. Once the quarter closes, the DAO deploys a Harvest Contract and makes a request to the Broker to send a portion of the Gain Pool's Ether to the Harvest Contract.

This process establishes a price floor for GAIN by allowing it to be redeemed for Ether at the Spot Harvest Rate (SHR).

Spot Harvesting Rate (SHR):

The Spot Harvesting Rate is a variable that determines how many GAIN are needed to redeem 1 Eth in the Harvest. The SHR is the relationship between all redeemable GAIN tokens and the total amount of Ether present in the Gain Pool at the close of the financial quarter. Locked (vested) GAIN tokens are not considered as being in circulation for the purpose of this calculation. The quarterly SHR is calculated by:

Redeemable GAIN tokens / Total balance of Ether present in the Gain Pool

Example:

- There are 10,000,000 redeemable GAIN. (i.e., not locked in vesting contracts)
- 100,000 (1%) of all redeemable GAIN tokens are sent to the Harvest contract.
- The Gain Pool has a balance of 50,000 Ether at the close of the quarter.

In this case, the Spot Harvesting Rate would be:

$$200 = 10,000,000 \text{ GAIN} / 50,000 \text{ Ether}$$

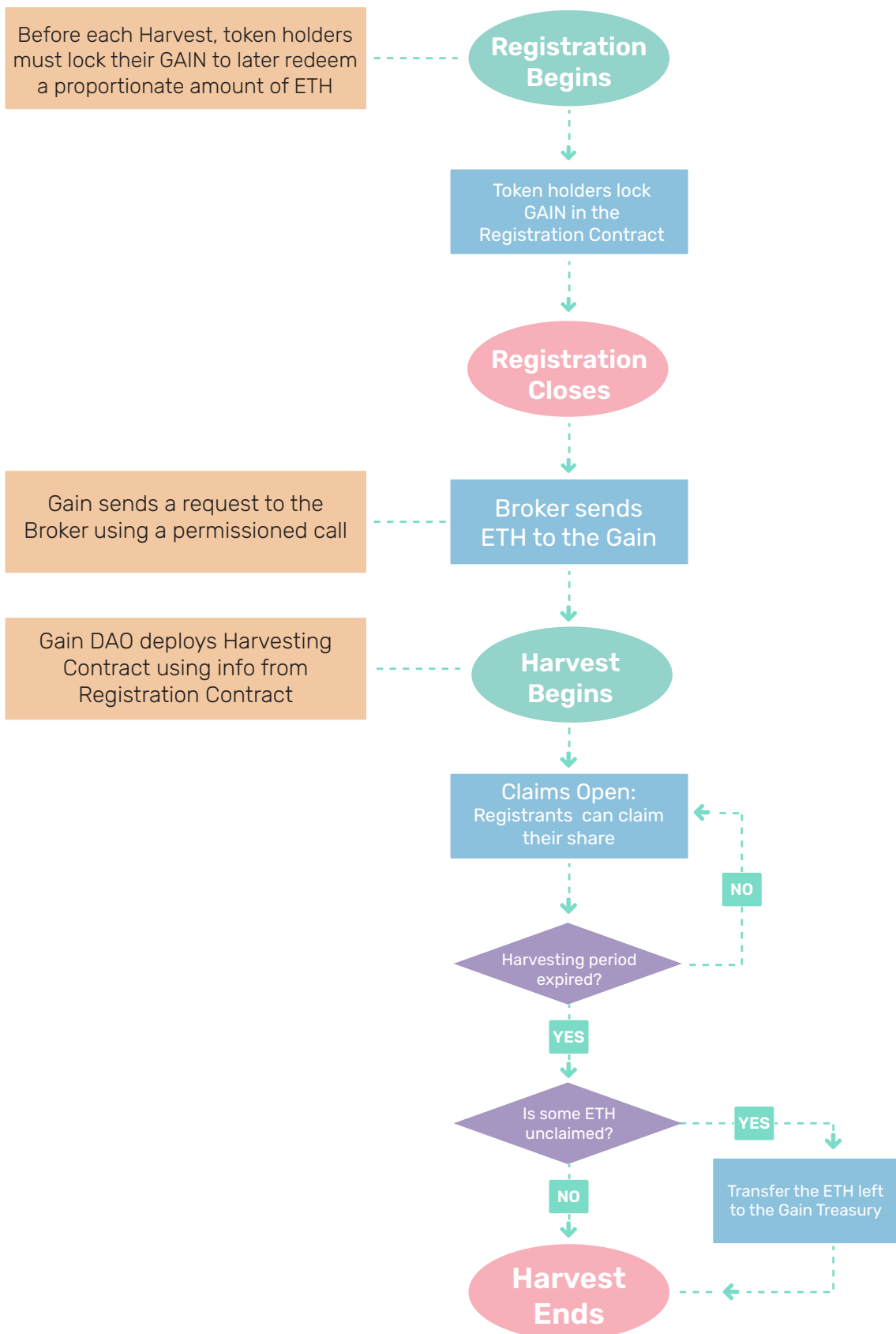
Meaning that for every 200 GAIN tokens sent to the Harvesting contract, 1 Ether will be exchanged. The Gain Pool will send a total of 500 Ether to the Harvest contract for this redemption process.

Disbursement:

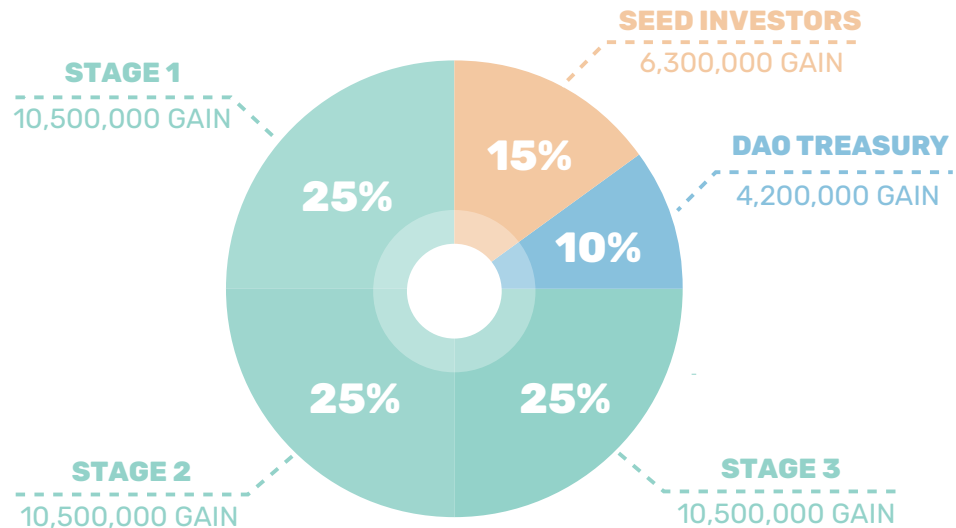
The DAO Manager will execute a withdrawal from the Broker to the Harvesting Contract within 10 calendar days of the quarterly close, at which point Harvest participants can redeem their share of the Ether. The GAIN tokens redeemed during a Harvest are then made available for exchange at the Spot Harvest Rate, allowing Ether to re-enter the Gain Pool.








Gain DAO

Harvest Process



Gain DAO Token Parameters



-  A maximum of 42,000,000 GAIN tokens will ever be minted.
-  After the Seed Sale concludes, a soft cap of 10.5M will be set for GAIN tokens until a DAO vote approves the first Expansion Stage.
-  15% of total supply will be distributed during the Seed Sale.
-  75% of total supply will be distributed in three Expansion Stages, with 10.5M GAIN tokens being released per stage.
-  The Gain DAO will allocate 10% of the total supply to the Gain Trust's multi-signature wallet. These tokens are for compensating project members, funding marketing efforts, and providing liquidity for the GAIN/ETH trading pair on Uniswap.
-  Only 15% (630,000) of the Trust's GAIN tokens will be liquid prior to the Seed Round. The remaining 85% (3,570,000) GAIN tokens will be placed on the same release schedule as the Seed Investors.
-  Seed investors have a six month cliff. Following this period, GAIN tokens are released linearly over 12 months.

Decentralized Components






Gain facilitates both instant and time locked methods for exchange

GAIN Token: An ERC20 token used to access the Gain ecosystem and vote in the Gain DAO.

Gain DAO: An Ethereum-based voting platform that allows token holders to direct the policies and development of Gain, and the management of its Pools.

Liquidity Pool: A portion of the Seed Sale's Ether will base a Uniswap v3 Liquidity Pool to provide instant exchange with some price stability.

Community Voting Rights:

-  Elect or Replace the DAO Manager or a pool's Technology Provider.
-  Change parameters of Uniswap Liquidity Pool and Harvest.
-  Distribute GAIN for new pools, developments, or marketing.

Gain Treasury: A multi-signature wallet for both Ether and GAIN. Responsible for setting the liquidity pool on Uniswap and covering the project's initial development and marketing expenses. Intended to be replaced by disbursements from the DAO as Gain decentralizes.

Harvesting Contract: GAIN may be redeemed for Ether using the Harvest Contract. The Harvesting Contract executes on a quarterly basis, fulfilling Harvest orders at the Spot Harvesting Rate (SHR). All GAIN redeemed by the Harvest contract will be under the DAO's control.

Legal Components & Partners

Gain Pool: A collection of Ether-based accounts held with regulated currency exchange brokers. All Ether collected from the Public Sale and 1000 Ether collected in the Seed Sale will be sent to the Gain Pool to be actively managed by the Technology Provider. The Ether held in the Gain Pool will be compound on a daily basis as operations from the algorithms are opened and closed. Ether will only exit the Gain Pool during the quarterly harvesting, or in the event that the DAO decides to wind up the Pool.

Gain Enterprises (GE): This Corporation issues the GAIN token, and resides in the Grand Cayman.

Gain Trust (GT): This Trust partners with other legal entities to form the Gain Pool. It resides in the British Virgin Isles (BVI), and controls Gain Enterprises. Its Articles of Incorporation restrict the way in which funds can be drawn from it, while outlining the responsibilities of the directors of the entity. This gives legal and technological constraints for the management of the assets of the fund.

DAO Manager: Elected by the DAO, the manager signs agreements to create Pools that have been approved by the DAO. The manager has very limited authority to spend to support the project through fiat trading accounts that hedge against ETH volatility.

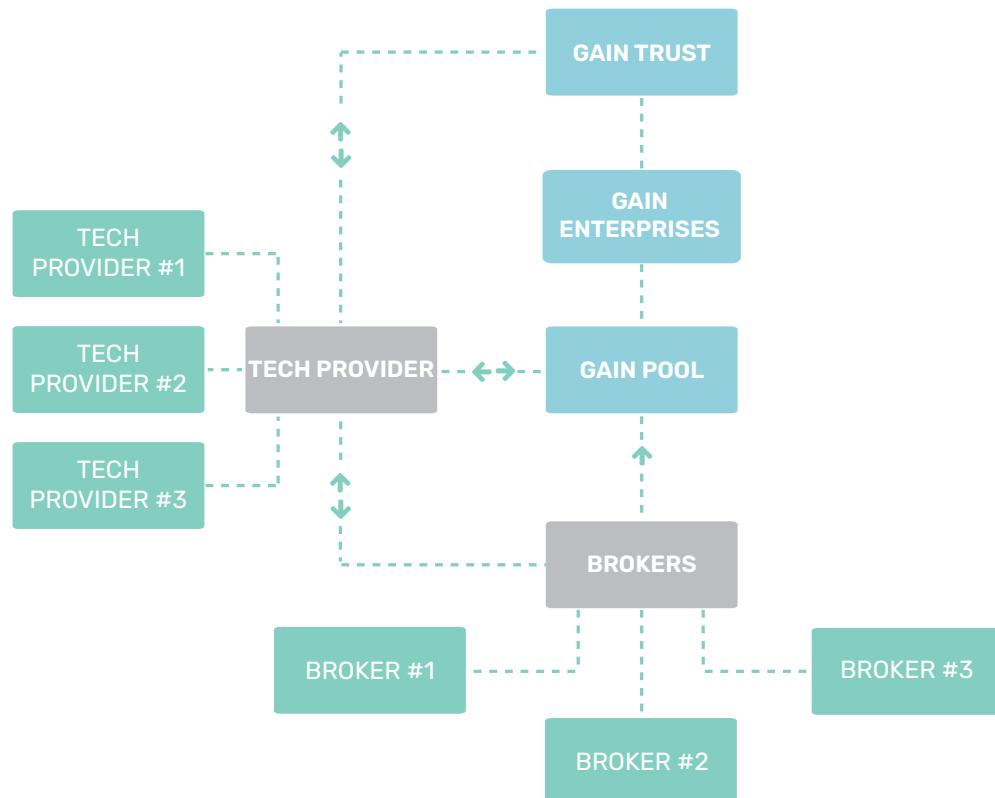
Partners

Technology Provider: Elected by the DAO to act as the “trader” for a Pool. Deploys algorithmic trading systems to compound the Pool. Compensated only if the month is profitable.

Brokers: Gain utilizes a number of partners for accessing financial markets.

Fiat Liquidity Provider: A liquidity provider by definition is a market broker or institution which behaves as a market maker in a chosen asset class.

Legal Entity Map



Gain's legal structure is designed to maximize participant protection while reducing third party risk and tax burdens. In this structure, operations made by the token-issuing entity, Gain Enterprises, are independent from the day to day operations of the Gain Trust.

This ensures that token owners' legal right to GE's resources in the event of dissolution will not be affected by agreements that GDT may undertake in the course of creating the Gain Pool.

Gain DAO

Technology Provider

The Technology Provider is elected by the Gain DAO to manage the Gain Pool; in turn powering the entire Gain project.

Technology Provider Objectives



Yield

Increase the amount of Ether in the Gain Pool by an average of 3-6% per month.



Expectancy

Maintain a trading expectancy of 3.0 or higher.



Profit Factor




Maintain a profit factor of 1.3 or higher.



Stability

Limit maximum drawdown to 20%.

Requisite to be elected as the Technology Provider:

-  Minimum of 1 year of audited live testing results.
-  Performance metrics achieved regarding Monthly Return, Profit Factor, Expectancy and Drawdown.
-  All trading strategies deployed demonstrating a minimum of 10 years stability using 99.9% modeling quality backtesting using variable spreads.

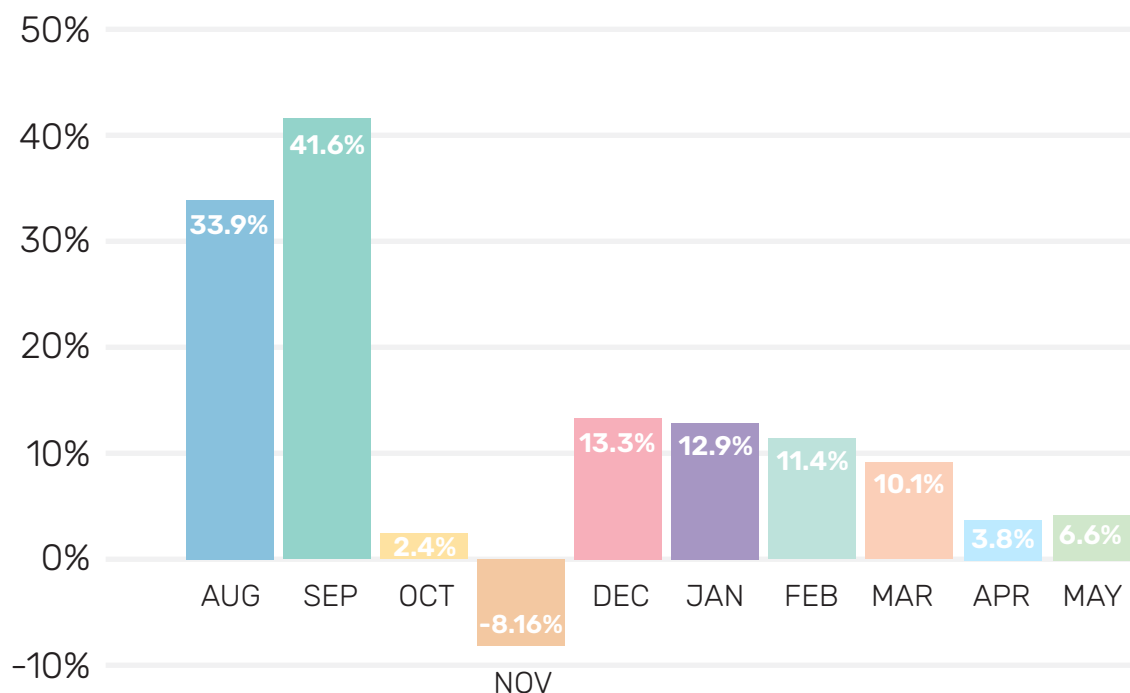
Compensation: The Technology Provider is given a 20% performance reward for growing the Ether in the Gain Pool. This is paid out directly by the Broker on a monthly basis. The performance reward is only given if new equity highs are achieved according to the High-Water Mark calculation method.

Initial Technology Provider: Upon confirmation from the DAO, Cornerstone Investment Group will be the initial Technology Provider for the Gain Pool. Cornerstone is a Panamanian company founded by Robert P McDonell in 2013. Cornerstone specializes in developing trading algorithms that are deployed in the traditional financial markets, such as Currencies, Commodities, Equities and Indexes. Cornerstone has a legal agreement with the Gain Trust, as well as the Brokers that provide access to financial components.



Gain Pool Performance

Cornerstone: The Technology Provider



Past performances does not indicate future returns.

Pool Statistics

TOTAL GROWTH	MONTHLY	PROFIT FACTOR	MAX DRAWDOWN	TRADE EXPECTANCY
211%	12.5%	1.90	20.5%	274 PIPS

Gain DAO (beta) in operation since August 2020.

Externally audited Gain DAO beta account:

myfxbook.com/members/Cornerstone1/gain-dao-beta/7670587

Gain DAO

Algorithmic Strategies

Algorithmic Strategies deployed by Cornerstone

Rey - Low volatility scalping strategy

Zen - Mean reversion strategy

Neo - Momentum strategy

Rey

Scalping

Rey trades on the GBP/CAD pair after the US trading session concludes. Volatility is rather low during this period, which is favorable for scalping. Typically, Rey places 10-25 trades per week (depending on market volatility). Trades are usually closed within a few hours to minimize risk and maximize the effectiveness of the strategy. Rey offers two modes of operation:

MODE 1 Avoids taking balance losses. It does sustain periods of drawdown, however the amount of open drawdown is strictly limited, which prevents open positions from getting out of hand and causing a margin call. The trading frequency is not very high, but the system is relatively stable and spread resistant, and will be a steady performer going into the future.

MODE 2 An active daily trader and places. It consistently makes returns and rarely has a losing month. It is spread dependent (usually 3 pips or less is ideal) and does require some common sense to avoid trading days that are unusually volatile. Overall, this system takes losses when needed while maintaining an excellent return.

Gain DAO

Algorithmic Strategies

Zen

Mean Reversion

Zen exclusively trades on the AUDNZD AUDCAD and NZDCAD currency pairs.

These currencies share similarities as their economies depend heavily on demand for the commodities they produce. Commodities generally move together as a sector, which leads to a positive correlation between each of these currencies. When this positive correlation is temporarily out of balance, this algorithm places orders in the direction of the mean. This tendency gives Zen a trading edge and allows this algorithm to consistently generate a monthly profit regardless of market conditions.

Once a currency pair becomes overbought or oversold, Zen will begin to scale into a position. The size of the trade depends on the significance of the inefficiency. The larger the imbalance, the higher the probability for a retracement to the mean. All operations that are opened on a particular currency pair are treated by Zen as one large trade and will close together once the target profit is achieved.

Neo

Momentum

Neo is a momentum strategy, aiming to profit on large directional movements trading on a wide variety of assets, which include:

AUDJPY, AUDUSD, CADJPY, EURAUD, EURGBP, EURJPY, EURNZD, EURUSD, GBPCHF, GBPJPY, GBPUSD, USDJPY, ETHUSD and gold (XAUUSD)

Neo exploits the economic and political differences between these currency pairs, in order to catch large macroeconomic movements in the market. Neo accomplishes this by scouting for patterns that usually present themselves in the early stages of a trend, as well as patterns that present a good opportunity by riding an existing trend. Neo performs exceptionally well when markets are in a state of panic or euphoria. Both of these conditions present excellent opportunities to bank large profits from exaggerated price movements.

Gain DAO

Proof of Concept Period

Three phases of testing were performed using the algorithms above under live market conditions. For these tests, IC Markets was used as the Broker.

The outcome of the tests are available on myfxbook.com.

Phase 1:

Period: Approximately 1 month.

Objective: To stress test all three strategies working together with a very low balance. The low balance stress test was designed to see if the strategies could maintain profitability and at the same time limit drawdown to less than 20% despite being severely undercapitalized. The lack of capital forces the systems to adapt their risk parameters to compensate for being undercapitalized.

Observations: Neo did not place any trades during Phase 1 due to the capital restrictions. Zen only managed to place one trade with the AUDCAD pair. The rest of the trades were denied due to lack of available margin. Rey was able to place trades which resulted in a 87.83% gain during phase 1.

Conclusion: PASS

The portfolio adjusted to the reduced capital by restricting the use of Neo and Zen and nearly exclusively traded Rey. The end result was an 87.83% return during phase 1 while staying under the 20% drawdown threshold. While the returns were impressive, the risk of operating under such conditions does not fall in line with the risk profile for the Gain DAO Fund.

Phase 2:

Period: Approximately 6 months

Objective: To observe all three trading systems operate while properly capitalized. 20% drawdown limit will be maintained.

Observations: Neo, Zen and Rey all traded with frequency due to the increased trading capital. Rey, which trades the GBPCAD was affected by excessive volatility caused by the United Kingdom exiting the European Union. This resulted in a 20% maximum drawdown limit to be triggered on November 10th, causing the portfolio to incur its first negative month. Due to these adverse conditions for the Rey strategy, we disabled this strategy for the majority of December. Neo on the other hand was able to capitalize on the increased volatility by producing some impressive gains in the month of December. All three trading strategies were then enabled for January forward.

Gain DAO

Proof of Concept Period

Conclusion: Pass

Despite one of the three strategies struggling the portfolio as a whole grew at a robust rate, which further demonstrates the importance of using a portfolio of trading strategies that excel in different conditions as opposed to only using one trading strategy. This smooths out the equity curve and leads to a better investor experience.

Phase 3:

Period: Live Trading with 1000 Ether

Objective: To test the scalability of the system when trading with larger amounts of capital using the base currency Ether.

Observations: The trading characteristics of the fund seem identical to Phase 2. Much of this is due to the liquidity providers ability to execute these larger orders and scale with the demands of higher volumes.

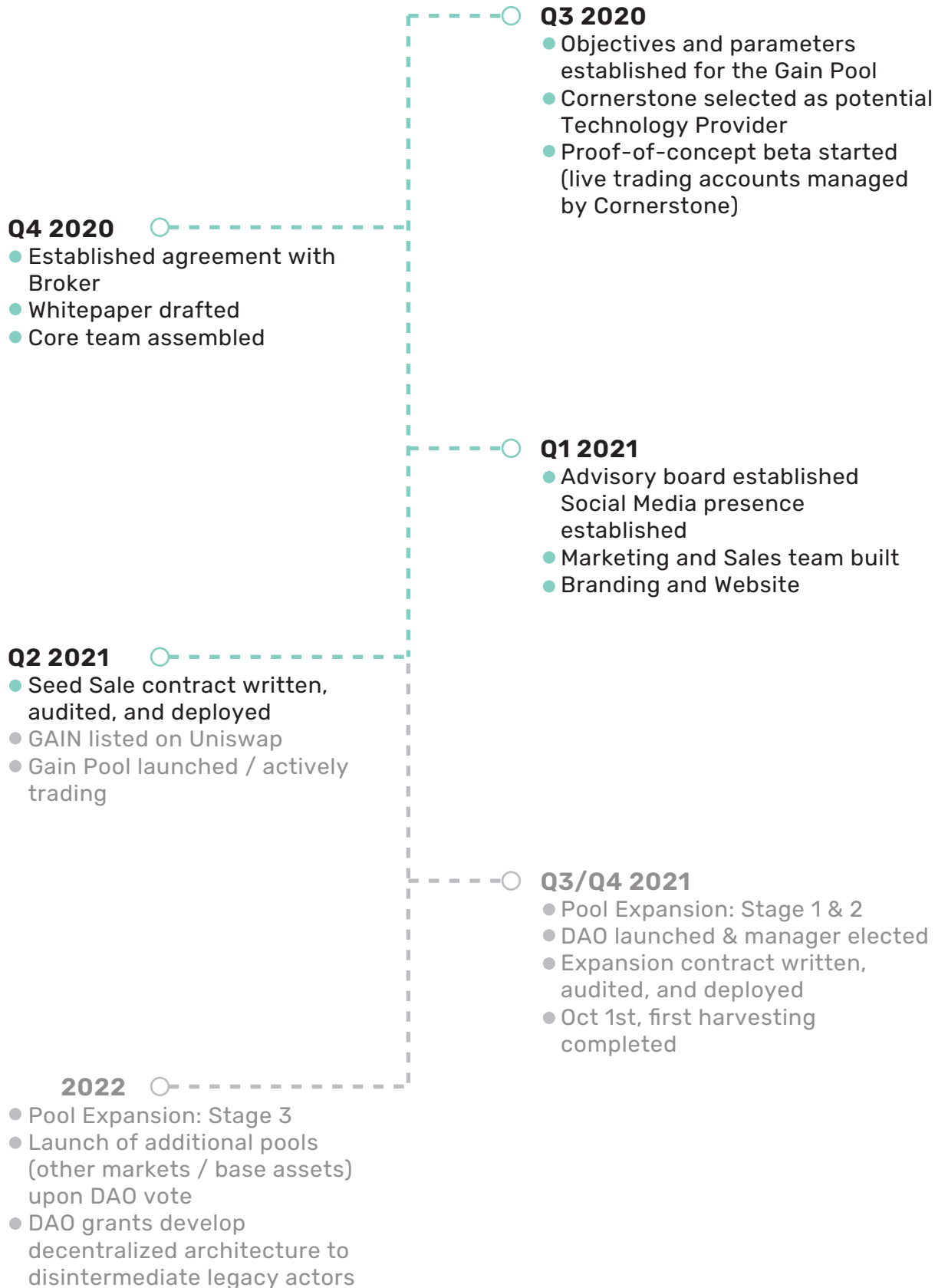
Conclusion: To be determined

To avoid poor order fills and other such downsides to trading with higher volumes we conclude it is only appropriate to trade with financial instruments that have sufficient liquidity to execute orders effectively. So trading will be limited to major currency pairs. This is not an issue for Rey or Zen, however Neo does trade some instruments with limited liquidity, so those instruments should be dropped.

Summary of Proof-of-Concept Period

The three strategies together are complementary and lead to a smooth equity curve. Scalability is not an issue as long as only major currency pairs are traded. The objective of 3-6% monthly return while maintaining a drawdown of under 20% is in line with our observations of the proof of concept period.

Gain DAO Road Map

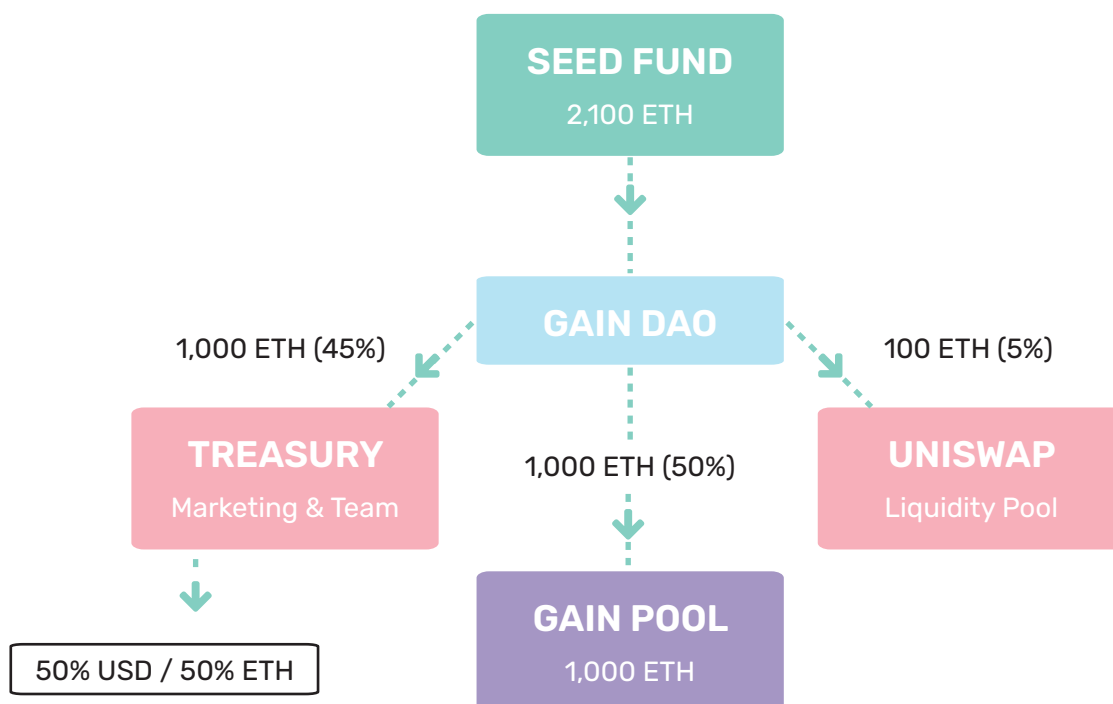


Gain DAO

Seed Sale

Seed investors have a six month cliff.

Following this period, GAIN tokens are released linearly over 12 months.



Fund Security

Funds held by Gain are protected by both legal and cryptographic means. Significant amounts of Ether held by Gain will always be in well tested and audited smart contracts (Gnosis & Aragon), fully insured, legally liable custodians, or the audited Harvest contract. Fund movements by Gain Trust are constrained by the Trust's operating agreement. The DAO's manager, and the multisig signatories, are liable as officers of the Trust.

In the event of a breach of funds held by the Broker/Custodian, the Harvest contract will be used to wind up the Gain Trust. Token holders will be able to redeem their GAIN for ETH using the Harvest contract following the insurer's payout.

Gain DAO

Terms

Team

Robert McDonell, Amin Rafiee, Robert De Groot, Elliott Teissonniere, Tristan Roberts, Jana Petkanic, Nolvía Serrano, Hector Torres, Luca Cotta, Dusan Ilic-Miloradovic, Hunter Douglas Rogers.

Disclaimers

This token sale may not be legal in your jurisdiction, and is not available to US or Chinese tax subjects. We recommend you consult with your legal and financial advisors before making significant investments.

Terms

British Virgin Isles (BVI): A legal jurisdiction many find favorable for minimizing tax exposure.

Decentralized Autonomous Organization (DAO): An organization running on a distributed ledger, such as Ethereum.

Decentralized Finance: a blockchain-based form of finance that does not rely on central financial intermediaries such as brokerages, exchanges, or banks to offer traditional financial instruments, and instead utilizes smart contracts on blockchains, the most common being Ethereum.

Ether (ETH): A distributed ledger capable of supporting complex financial use cases, in the form of “smart contracts” that operate on a network of machines.

ERC20: A standard for tokens on Ethereum. Promotes interoperability between exchanges.

Hybrid Finance (HyFi): A combination of ‘traditional’ or centralized finance, as well as ‘decentralized finance’. In Gain’s case, this is mediated by tying the Pool, which is a Forex account, to a crypto token, GAIN.

Spot Harvest Rate: Defined in the Harvest section above.