EverMarkets

A cheaper, fairer, and easier way to trade derivatives

First released: May 31 2017

Last modified: October 31 2017 (v 0.81)

info@evermarkets.com

Abstract

EverMarkets is a decentralized trading platform aimed at revolutionizing global derivatives markets. Evermarkets offers contracts which give exposure to assets as varied as crude oil, gold, stocks, or bitcoin.

We will dramatically lower the cost of trading, provide superior execution quality through microstructure innovations, and democratize access for participants globally. Through the use of decentralized blockchain technology, collateral is held securely and trades are recorded immutably, decreasing the need for many intermediaries and streamlining commerce.

Unlike other platforms, we have a detailed plan for building liquidity, notably by spinning off an independent liquidity provider to maximize executed volumes. Our team consists of industry leading quantitative traders, market makers, and developers.

The platform will begin with contracts similar to ones traded on established exchanges, but will rapidly allow for cryptocurrency derivatives and custom contracts which anyone can create.

Contents

1. Introduction

EverMarkets is the first decentralized platform aimed at reinventing the world's existing derivatives markets. We aim to revolutionize the entire trading experience by making it cheaper, easier, and fairer.

We intend to dramatically lower the cost of trading through the deployment of nascent blockchain technologies. By leveraging smart contracts and a shared ledger, our platform will reinvent the traditional roles of the broker, the clearing house, and the exchange into a more streamlined process. This will return billions of dollars back into traders' pockets and make it much easier for businesses around the world to plan future cash flows. Standardizing derivatives trading worldwide would also make payments, clearing, and settlement processes more efficient. The cost of financial operations would shrink significantly.

Our business model also improves the price discovery process and minimizes market impact costs. By utilizing periodic pro-rata call auctions in lieu of continuous limit order trading, we de-emphasize the importance of speed and reassert competition based on price. The recent rise of alternative liquidity pools in equities has shown that there is significant demand for fresh ideas in execution and the sourcing of liquidity; we aim to import many of these innovations into the derivatives arena.

Finally, an open derivatives market will give unencumbered and democratized access to a wide variety of futures products. Traders will no longer need to adapt to and be certified on multiple exchanges, as all contracts globally would exist on a single platform. Price discrimination by exchanges would be eliminated as all traders would be subject to the same fee structures and have access to the same data feeds. These freedoms would also allow for the seamless creation and marketing of new futures products, spurring a new wave of expansion in the industry.

2. Derivatives trading fundamentals

2.a. What are derivatives? What are futures?

Derivatives are financial products which depend, or derive, from the price of something else – called an underlying – such as a barrel of oil, a bushel of wheat, a stock, or a bitcoin.

Futures contracts are a standardized type of derivative. They are transactions between a buyer and a seller for a financial instrument at a predetermined price for delivery or cash settlement at a set time in the future, regardless of any price movements in between.

For example, if you buy a futures contract for a barrel of oil expiring in December 2017 for $50 today, then you are purchasing the December delivery of 1000 barrels of oil at that set price, regardless of oil's price movements from now until then. If the underlying's price rises to $60, the value of the futures contract will rise in value as well, and you can trade out of it for a profit even before expiry.

There are other products which fall under the umbrella of a derivative, such as options or contracts for differences (CFDs). Futures are arguably the simplest product of the lot, as they are well defined and regulated around the world (CFDs are not legal in the United States), so we will focus on futures for now.

2.b. Who trades futures?

Futures contracts are used by a myriad of parties. Their original purpose was for businesses to create more dependable cash flows and to manage risk by hedging, or protecting, against future price movements. For example, an oil producer may sell these contracts to lock in the price of future sales so they can still pay their workers in the event of a collapse in the price of oil. Conversely, an airline company may buy these contracts to lock in prices on a forward basis in order to mitigate a rise in the price of fuel.

Market makers and speculators are also involved in futures trading. Market makers will buy and sell with minimal directional inclination, and hope to profit from small differences between sell and purchase prices. Speculators, on the other hand, will make bets on which way an underlying will move, and will carry significant risk in doing so.

2.c. How do futures trade?

Futures trade on regulated exchanges, agencies which facilitate the matching of buyers and sellers. Participants place buy and sell orders at prices they'd be happy with, called limit orders. A buy limit order for $50 would buy at any price at or below $50. The collection of resting buy and sell limit orders are collectively referred to as a *central limit order book*. Participants are free to wait for incoming orders to match with—called trading passively—or cross with an existing order—called trading aggressively.

Once a trade is made, it is intermediated by a clearing house. The clearinghouse guarantees the financial performance of what was agreed upon, even if for some reason the seller is not able to deliver. In financial parlance, the clearing house takes on the counterparty risk of the trade.

Buyers and sellers interface with the clearing house through a broker, an entity which handles the collateral to back their trades, and in many cases, the routing of orders themselves.

2.d. Leverage in the futures market

The futures market is often characterized by the use of leverage. Leverage, or trading with margin, means that participants can place trades using borrowed money to amplify their gains or losses. Purchasing a $1 security that moves 1% each day will typically have a 1 cent daily gain or loss, but purchasing it on 50:1 margin means that you would expect to gain or lose 50 cents on the same $1 purchase instead. Your profit potential is much higher, but so is your risk; two bad days could wipe out your entire investment.

Since the clearing house is still responsible for the financial performance of the trade, it will ask the broker to ensure a certain level of collateral for leveraged trades, depending on factors such as the traders' financial situation, position sizes, or behavior. Once a losing trade breaches a collateral minimum, the broker will issue a margin call to the trader asking for more funding. If the margin call is not satisfied, the broker can liquidate the position to prevent further losses, as the broker would be responsible if the trader becomes insolvent.

3. The current landscape – ripe for innovation

3.a. Difficult and expensive to access

Futures trading is currently controlled by a handful of large exchanges around the world, such as the Chicago Mercantile Exchange (CME), the Intercontinental Exchange (ICE), and the Eurex Exchange. These entities are the result of dramatic consolidation in the sector.

The CME, for example, includes the former Chicago Board of Trade (CBOT), the New York Mercantile Exchange (NYMEX), and the Commodities Exchange (COMEX); all together, it trades everything from interest rate futures to hogs and gold futures contracts. The Economist describes it as "the biggest financial exchange you have never heard of"[1].

These large companies extract massive rent costs from their established markets. In the United States, legislation has effectively mandated the near entirety of global futures trading to take place within their walls. Even worse, with only a handful of exceptions, the products for one exchange have no counterpart in any others. For example, S&P 500 futures are only readily traded on CME, while cocoa futures reside solely on ICE. Liquidity, licensing agreements and strong network effects erect high barriers to entry. On a product by product basis, exchanges wield global monopoly power.

This is a strong contrast to equity exchanges, in which liquidity is spread out and competition is rampant. To trade GM stock, you can source counterparties on NASDAQ, NYSE, or on any number of private dark pools maintained by banks or market makers. While these liquidity pools are required (in the United States) to protect investors from accidentally executing at worse prices through the establishment of the National Best Bid & Offer (NBBO) system, they are free to offer a variety of order types, pricing schemas, --and in the case of the upstart exchange IEX-- unique timing mechanisms to differentiate themselves. The market has largely embraced this fragmentation.

Since futures liquidity is so concentrated, it can be difficult for traders to access. If you're a speculator in Japan who wants to bet on crude markets in the US, you'll need to find a broker that can get your order to the CME. Likewise, if you're a manufacturer in China with customers in the Netherlands and want to hedge against a slowdown in the overall European economy, you'll need to route your order to Eurex.

[1] CME Group: The futures of capitalism, http://www.economist.com/news/finance-and-economics/21577387-biggest-financial-exchange-you-have-never-heard-futures-capitalism

Regulation can oftentimes be antiquated. Futures on onions, for example, are banned in the United States due to manipulative activities which took place back in the 1950s[2]. This has made onion prices more volatile than other similar products during the decades after.

3.b. Trading costs are high; fee schedules complex

With few exchange operators and strong barriers to entry, it is no surprise that futures exchanges are extremely profitable. In 2016, the CME had revenues of $3.6B and a net profit margin of 43%[3]. ICE enjoyed inlays of $4.5B and profits of 35% during the same year[4]. The overwhelming majority— eighty-five percent – of the CME's revenue originated from transaction and clearing fees, paid by both buyers and sellers on a per contract basis.

Exchange profits are directly correlated to volumes, and volumes have been growing[5]. Derivatives volumes in 2016 were the highest they have ever been, led by Asia at 36% of global volume. Looking at volumes over the last ten years, it is notable that futures volumes are not correlated to market bull / bear periods; they've grown during the recession of 2008 as well as recent periods of growth. Global appetite for futures has never been stronger.

Futures traders vary, from *high frequency trading* (HFT) firms who hold for seconds, to physical commodity traders who make bets measured in months or years. To maximize profit from these different segments, exchanges practice extreme price discrimination: participants can pay wildly different fees depending on their relationship with the exchange or the volumes that they trade. For trading the S&P 500 E-mini contract, one of the best barometers of the overall American economy, exchange fees per contract can range from $0.35 to $1.18[6]. The lowest fees are reserved for "member firms", which require the purchase of high priced membership seats. Volume discounts can lower these fees for member firms or market makers to an even lower $0.10 per contract. HFTs take full advantage of these discounts to make large volumes of low profit trades which other traders simply cannot afford to even compete with. This lack of parity makes the landscape amongst traders extremely uncompetitive.

In addition to exchange fees, retail clients also pay a myriad of brokerage fees. Two popular brokers in the US, Interactive Brokers and TD Ameritrade, charge $0.85 and $2.25, respectively, to trade the same

[2] Onion Futures Act, Wikipedia, https://en.wikipedia.org/wiki/Onion_Futures_Act

[3] CME Group annual report, 2016, http://investor.cmegroup.com/investor-relations/annuals.cfm

[4] Intercontinental Exchange annual report, 2016, http://ir.theice.com/annual-and-quarterly-reports/annual-reports

[5] MarketVoice, 2016 Annual Volume Survey, http://marketvoicemag.org/?q=content/2016-annual-volume-survey

[6] CME Fee Schedule as of April 17 2017, http://www.cmegroup.com/company/files/cme-fee-schedule-2017-04-17.pdf

S&P 500 future. Therefore, the total cost (exchange, brokerage and clearing fees) for trading one S&P futures contract for a retail trader in the US can be anywhere from $2.04 or $3.44 using these brokers – many multiples of the $0.10 many HFTs pay.

3.c. Structural challenges of centralized exchanges

The centralized nature of today's derivatives exchanges creates problems which can't be overcome by additional competitors competing on speed or on access.

One problem is inherent to its architecture: since centralized exchanges typically have a singular matching engine which processes orders in time-priority, traders are advantaged by being as physically proximate as possible. This has led to rampant *co-location*, or the practice of installing one's trading algorithm in the same building—or in some cases, even in the same networking equipment—as the exchange's matching engine, at significant cost. Trading firms also spend heavily for access to high-speed communication services, such as microwave lines, to funnel data from one matching engine to another as quickly as possible[7].

Firms employing these strategies recoup their investments by being able to make a large number of marginally profitable trades with high certainty. For example, when latency-sensitive traders sense that a large, slow buy order is starting to execute, they will begin buying, incrementally pushing the price up. By the time the large order is nearing completion, the latency sensitive firm will be able to liquidate by selling to the large order at a higher price. Since a co-located firm is able to be dart in and out of positions quickly, strategies like this can be very lucrative.

Firms which rely on speed will often have statistical models to predict when they should trade, but sometimes they have mechanical advantages as well. One publicized example is that the CME used to disseminate trade information to certain traders faster than it would broadcast it to the market as a whole[8]. Since liquidity for its contracts rests solely on the CME, this presents a huge advantage. As an example, if a trader has advance knowledge that the S&P 500 E-Mini is going to marginally tick up in price, they can send buy orders to purchase any related equity index on any number of other exchanges, risklessly profiting on the spread.

The notion of trading against a very aware counterparty is known as *toxicity*, and the cost of trading against these agents is known as *market impact*. Centralized venues which show both sets of buy and

[7] Time is money when it comes to microwaves, Financial Times, https://www.ft.com/content/2bf37898-b775-11e2-841e-00144feabdc0

[8] CME Upgrade Soothes Critics Who Viewed Prior System as Unfair, Bloomberg, https://www.bloomberg.com/news/articles/2016-05-23/cme-upgrade-soothes-critics-who-viewed-prior-system-as-unfair

sell orders publicly are known as *lit venues*, and are notorious as the most toxic places to trade, for all asset classes.

3.d. The rise of alternate liquidity venues in US equity trading

While futures traders are limited to singular lit exchanges, US equity markets have evolved into an entirely different model boasting an abundance of execution destinations. The fragmentation of liquidity in these venues is organized around the avoidance of toxicity: orders will generally be funneled into a pipeline which executes the least toxic orders first, and the most toxic orders last.

The initial destination for many orders is an over-the-counter market. Retail orders, for example, are matched relatively quickly by wholesale market makers like Citadel or Virtu (ex-Knight Capital), and often at better prices relative to lit exchanges. Since retail traders are the least toxic counterparties, market makers will even pay brokers to execute against them in an arrangement known as *payment-for-order-flow*[9]. Non-toxic institutional order flow will typically be matched over-the-counter as well on specialized dealer platforms.

Unmatched equity orders are next commonly routed to a specific form of off-exchange venue called a *dark pool*. Dark pools are owned by broker-dealers or market makers and behave very differently from lit exchanges as posted quotes are not publicly available. From an execution standpoint, the most important attribute of a dark pool is its ability to control its participants. More toxic traders are filtered out, ensuring that remaining orders are relatively benign. Dark pool traders are consequently more willing to execute large orders since there is less adverse selection, and market makers can be profitable quoting tighter spreads than they would otherwise. The net effect for all dark pool trades is that market impact is significantly lower than if they were executed on lit exchanges.

Off-exchange trading for equities is very popular, and continues to take market share away from lit exchanges. As of 2016, off-exchange trading in equities was nearly 40% of all volume in the United States[10]. Dark pools now account for 15% of total equities trading[11]. Researchers have even found that because dark pools concentrate informed traders, price discovery on the public exchanges is improved[12].

Last on the order flow pathway are lit exchanges. Despite differences in fee schedules and incentive

[9] Payment for Order Flow, Bloomberg, https://www.bloomberg.com/quicktake/payment-for-order-flow

[10] TABB Equities LiquidityMetrix June 2017, http://tabbforum.com/liquidity-matrix

[11] Increasing Transparency of Alternative Trading Systems, https://corpgov.law.harvard.edu/2015/11/24/increasing-transparency-of-alternative-trading-systems/

[12] Zhu, Haoxiang, Do Dark Pools Harm Price Discovery? (November 16, 2013). Forthcoming, Review of Financial Studies. SSRN: https://ssrn.com/abstract=1712173

structures, the market impact of trading on lit exchanges is generally much higher than that of an off-exchange venue.

Dark pools and other off-exchange venues largely do not exist in futures trading, as regulation forbids any off-exchange activities. These laws are unfortunate, as many futures contracts on centralized exchanges are thinly traded and can exhibit large price fluctuations when filling sizable orders.

3.e. Cost savings from distributed ledger technology

There is significant complexity in the back-office processes which facilitate derivatives transactions. Payments, clearing, and settlement processes are currently intermediated by a whole host of systems, depositories, and counterparties which differ across borders and across products. A standardization of global trade reporting and governance could be a noteworthy driver of cost savings in simplifying these workflows and increasing overall productivity.

A recent paper from the US Federal Reserve has illustrated this possibility, and even foresees larger changes on the horizon:[14]

> *[Distributed ledger technology] has the potential to provide new ways to transfer and record the ownership of digital assets; immutably store information … [potential use cases] could address operational and financial frictions around existing services.*
>
> *Finally, as a recent innovation, [distributed ledger technology] has the potential to also drive change to the financial market structure in ways that take advantage of the new technology.*

[14] Mills, David, Kathy Wang, Brendan Malone, Anjana Ravi, Jeff Marquardt, Clinton Chen, Anton Badev, Timothy Brezinski, Linda Fahy, Kimberley Liao, Vanessa Kargenian, Max Ellithorpe, Wendy Ng, and Maria Baird (2016). "Distributed ledger technology in payments, clearing, and settlement," Finance and Economics Discussion Series 2016-095. Washington: Board of Governors of the Federal Reserve System, https://doi.org/10.17016/FEDS.2016.095

4. Decentralized trading on the EverMarkets Platform

Our proposed system works through the issuance of the *EverMarkets token (EVR)* through the Ethereum platform. EVR is used for collateral, leverage, settlement of contracts, and the administration of our trading system.

EVR holders can choose to facilitate two important third-party "administrator" roles:

i. Acting as a matching engine – pairing buyers & sellers
ii. Providing margin

Buyers and sellers will pay a percentage of their transactions towards administrators to incentivize EVR holders to perform these roles.

The usage of an EVR token carries risk, even for an administrator, so it is imperative to understand how the ecosystem works. An EVR token can only be used for one role at any given time.

4.a. Creating contracts – the matching engine

EVR holders have the ability to act as administrators for derivative contracts by committing tokens to entities called *matching engines*. A matching engine is responsible for collectively pairing buyers and sellers for a single derivative contract and ensuring a stable and functioning marketplace. In return for providing this service, the matching engine receives transaction fees from participants in proportion to the number of tokens committed. Token holders administering a contract are called *backers*.

Derivative contracts in our system depend on the price of an external asset at a set time in the future. The majority of our contracts will be highly correlated with existing products on liquid exchanges. These external benchmarks will be internalized into our platform through the use of agents called *oracles*.

The mechanics behind order matching and settlement are further described in section 5.

4.b. Supplying leverage – the margin syndicate

Leverage is an important part of futures trading, and is emulated through the use of margin syndicates. These are groups of EVR holders who collectively take on counterparty risk, backing traders with their own staked currency. These individuals are called *lenders*.

Before making a transaction, traders will need to choose a margin syndicate to deposit collateral in. At the center of the margin syndicate is a smart contract which holds collateral according to the constraints set by its lender members.

Syndicates will vary by their margin requirements, and will collectively represent an open market for margin. Syndicates are paid by traders for the amount of time that a trade is unsettled, and syndicates are free to choose how high or low to set this cost. We envision that syndicates with low margin requirements will naturally charge traders more than syndicates with high requirements.

If a trader's loss grows past margin minimums, a margin call will be issued giving the trader a chance to post more collateral to meet requirements. If the margin call is not met, the margin syndicate will attempt to liquidate the trade. If this fails or if the loss exceeds the liquidation proceeds, the syndicate members' collateral will be used to compensate for the loss. This means that the lender's capital is at risk.

Section 6 discusses the margin syndicate in more detail.

4.c. How the blockchain fits in

We have decided to use Ethereum as the platform for our margin syndicate, the foundation for our token, and the ledger of our transactions. Ethereum is a strong candidate as it has significant adoption, ample development support, and a growing ecosystem of distributed applications like ours. We will be recording all trades on the public Ethereum blockchain once a cross occurs, and again on expiry to record gains and losses.

Non-trade related data-- encompassing order and crossing-related information-- will be distributed and recorded away from the main Ethereum ledger on a separate delegated proof of stake (DPoS) chain. This decision was made for speed and cost reasons: by maintaining orders on a separate chain, we would improve the bulk processing of orders and better subsidize per order costs.

This separate blockchain will be maintained by entities called *signatories*, and appropriately called the *signatory chain*. Signatories are elected by the community and are not attached to any particular contract or participant, but solely maintain the data infrastructure of the platform.

4.d. Fees, summarized

We have not yet finalized the fee structure for trading, but can give indications based on the necessary participants involved.

Fees on the platform include:

i. Fees paid to the margin syndicate in return for leverage. This is done by any trader who wishes to send an order, and will vary according to the amount of leverage desired.

ii. Fees paid to the matching engine in return for administering futures contracts. Contracts will have set per-contract trading fees; these fees are voted by the matching engine backers.

A low percentage of all fees would be taken for the EverMarkets platform for continued development and support. We envision this scaling with development costs, community wishes, and future expansion plans.

Other types of fee structures may be possible. For example, we may want to incentivize liquidity providers to reduce late stage auction imbalances by providing rebates to those who do.

It is our strong desire to maintain that the net fee to traders will be significantly lower than existing costs.

5. Matching engine

5.a. Designing a decentralized order book

As explained in section 3, centralized exchanges encourage unfair pricing and execution for slow or less frequent traders. Any attempt in creating a more level playing field must then begin with having a distributed, or decentralized, order book.

This is not a straightforward problem to solve, and below we list a few major issues to be aware of[17]:

i. **A distributed set of nodes cannot agree on time**
A dispersed system will inherently be composed of different clocks, and accurately aligning them will be impossible. There is no central clock, they will all have different timing hardware, and any delays involved in communicating messages between nodes will have large variance. How can we set, for example, a cutoff time of 16:00:00 for the market when there is no central timestamp authority?

ii. **Order book nodes cannot be trusted**
There exists the possibility that nodes could try to manipulate orders and transactions for their own gain; the same actor could easily be both sending orders and executing orders on the order book. This issue is magnified by blockchains with anonymity, as we cannot verify, segregate, or punish identities.

iii. **The public blockchain can be slow and expensive**
Block inclusion times for on-chain activities on large networks like Ethereum are measured in tens of seconds, rather than microseconds like on prominent futures exchanges. Issuing orders on the public blockchain would also create significant transactions costs and change the paradigm, as most futures exchanges charge only per trade, not per order.

Due to these challenges, we have decided to forego the traditional limit order book and will instead utilize periodically settled pro-rata call auctions.

Since we cannot enforce price-time priority, we advocate price-size priority instead; orders are filled in proportion to their volume on a price level, or *pro rata*. An important benefit of this is that it de-emphasizes speed; you can still compete even if you aren't the fastest.

[17] On Decentralizing Prediction Markets and Order Books, http://www.econinfosec.org/archive/weis2014/papers/Clark-WEIS2014.pdf

5.b. Determining the crossing time

Mechanically, we have chosen to make our auctions very similar to the London Stock Exchange's open and closing cross mechanism[18]: all orders on the auction order book are publicly disseminated, but the crossing time is uniformly random within some window of time. This works well with a blockchain approach because of its transparency, incentivizes a more even distribution of orders in time, and makes it more difficult to manipulate the market with dishonest orders.

With a continuous flow of orders, we also need to decide at what point orders will be rejected for being too late. But if participants in a distributed system cannot even agree on what the current time is, how can they collectively decide when to end the auction?

Contract backers will be instrumental in finding a crossing time that everyone can agree upon, but no single participant can foretell. We accomplish this by having all of a contract's backers publish a hashed random offset before the auction ends. When the auction maximum cross window is complete, backers will publish their pre-hashed offsets, and a function of these offsets will reveal the historical stopping time using the timestamp on the order blocks.

For example, if the cross is at 9:30:00am with a random crossing window of five minutes, one node might generate an offset of 3912 seconds, another 59821, and a last 81914. We can combine these a few different ways; if we use a modulo function, the crossing time would be (3912 + 59821 + 81914) mod (5*60) = 147 seconds after 9:30:00am, or 09:32:27am.

To prevent matching engine backers from trying to manipulate the random cross system, we may implement specialized mechanics. For example, if backers fail to reveal their hashed offset, they may lose a percentage of their staked tokens.

5.c. The crossing algorithm

Before orders are entered into the order book, the matching engine will communicate with the margin syndicates of the individual orders to ensure that the originating trader is sufficiently liquid to execute that transaction.

Qualified orders will then be matched in a way that maximizes executable volume, with market orders matching first and limit orders matching conditional adequately priced liquidity on the other side.

[18] London Stock Exchange market enhancements, https://www.londonstockexchange.com/products-and-services/technical-library/technical-guidance-notes/technicalguidancenotesarchive/release.pdf

In another nod to the LSE crossing algorithm, auctions may have volume or price extensions in an effort to establish a stable price. For example, if the crossed volume is below a certain minimum or if the price is sufficiently far enough away from some previously established reference price, the auction will continue until those thresholds are satisfied for the better.

Afterwards, all transactions are recorded on the public Ethereum chain.

As payment for facilitating the auction, transaction participants are charged fees distributed to matching engine backers. To encourage a longer term focus, these fees are held in escrow until the successful expiry of a futures contract.

5.d. Benefits of periodic call auctions

There have been numerous studies on the efficacy of periodic call auctions over that of continuous limit order book trading[19][20][21]. The main arguments in their favor are:

i. **Frequent call auctions eliminate the speed advantage of the fastest liquidity taking traders.** By making liquidity providers less susceptive to order "sniping", the cost of liquidity provision would decrease and potentially lead to lower spreads and enhanced liquidity.

ii. **Call auctions are easier from an exchange implementation standpoint.** Matching engines will no longer be affected by the instability resulting from periods of surging market data.

iii. **Regulators and market observers can better survey markets.** By reducing the number of tradable time points, data will be simpler to visualize. With fewer speed-sensitive traders, liquidity providers will also cancel orders less frequently, decreasing the size of market data feeds.

iv. **Data dissemination will be fairer.** Market events which publicize earnings or economic reports will not cause as much volatility if participants are all given adequate time to digest them before the market resumes.

[19] Elaine Wah, Dylan Hurd, Michael Wellman; Strategic Market Choice: Frequent Call Markets vs Continuous Double Auctions for Fast and Slow Traders. http://financelawpolicy.umich.edu/wp-content/uploads/sites/26/2015/10/E.-Wah-Strategic-Market-Choice.pdf

[20] Eric Budish, Peter Cramton, John Shim; The High-Frequency Trading Arms Race: Frequent Batch Auctions as a Market Design Response . Q J Econ 2015; 130 (4): 1547-1621. doi: 10.1093/qje/qjv027 https://academic.oup.com/qje/article/130/4/1547/1916146/The-High-Frequency-Trading-Arms-Race-Frequent

[21] Nicholas Economides and Robert A. Schwartz; Electronic Call Market Trading: Let competition increase efficiency. The Journal of Portfolio Management 1995; 21 (3): 10-18 http://www.stern.nyu.edu/networks/Economides_Schwartz_Electronic_Call_Market_Trading.pdf

v. **Market stability will improve.** Since orders in a periodic call auction model are not transacted immediately, liquidity providers will be given more time to fill supply-demand imbalances. "Flash crash" type scenarios will occur less frequently as a result, and the "market impact" of a large order will be decrease.

Many traders have long enough time horizons that they do not want to pay a "cost" for immediacy. We believe that periodic call auctions would benefit these traders with fairer access based on price, greater liquidity, and improved execution.

5.e. Expiration and the use of oracles

All contracts on our platform will need at least one associated oracle to dictate expiry prices. This can be a single closing price, such as a contract already trading on an existing exchange; or a collection of prices which can be assembled to form a basket or an index.

Matching engine backers collectively decide what oracle to use and how values from it are applied to all contracts at expiry. Expiry values will be circulated on the signatory chain, and backers will direct margin syndicates to settle payments.

Constructing the technology behind a trusted oracle is not a simple task, and one that we will likely export to existing third parties. We are currently evaluating the usage of Town Crier[22] and other similar services which provide authentication for external data feeds.

We plan to take on the task of setting up and running oracles for established exchanges at the start of the platform, as there may be significant licensing or legal issues involved which would benefit from a coordinated and centralized effort.

5.f. Arbitration

There may be situations in which oracles disseminate an incorrect final settlement price[23] or fail to do so on time. We address this by giving traders the ability to challenge settlements and establishing a network of *arbitrators* to resolve disputes.

Arbitrators on our platform are publicly known entities that are able to perform oracle duties manually. Matching engines are required to choose a odd-numbered set of them to arbitrate any futures contract

[22] Town Crier, an Authenticated Data Feed for Smart Contracts, http://www.town-crier.org/
[23] Nasdaq Stocks Show Wild Swings; Exchange Cites Third Parties; https://www.bloomberg.com/news/articles/2017-07-04/nasdaq-stocks-show-exaggerated-movements-in-after-hours-trading

(pending acceptance by the arbitrator, of course).

Arbitrators may be technology or financial companies, volunteer traders, or the EverMarkets company. We even foresee the possibility of government agencies being involved, especially from smaller nations. Since traders are free to place trades in the matching engines of their choice, we are also implicitly creating a market for arbitration and governance: contracts with more trusted arbitrators will earn liquidity at the expense of contracts with less reputable ones.

We envision a process similar to the following:

1. After the final settlement price is published by the oracle, collateral remains untouched in the smart contracts for a certain amount of time. Traders have until the end of a predetermined challenge period to stake tokens in disputing the settlement price. If enough tokens are staked – the amount of which is delineated in advance per contract by a minimum percentage of traders or tokens – the dispute escalates to arbitration.

2. As arbitration begins, a small set of arbitrators is randomly picked from the listed field – say, three. Each arbitrator stakes some of their own tokens and publishes their view of the settlement price. If consensus is reached, staked tokens are returned, and the consensus price is the final settlement price. If arbitrators disagree, staked arbitration tokens are pushed to another round of arbitration.

3. Subsequent rounds of arbitration would be similar to the first, but with a larger set of arbitrators involved in each round.

4. If consensus cannot be reached, the final round of arbitration would involve all arbitrators for that contract and would consist of a voting system which picks a single price from a set of dissenting parties. We have yet to determine the exact system for this, but it will likely be some type of plurality or majoritarian system[24].

5. Arbitrators on the correct side will receive compensation from the stakes of previous rounds. If the arbitrated price agrees with the pre-contested price, stakes from the contesting traders will be paid to arbitrators. If the arbitrated price disagrees with the pre-contested price, then arbitrators will be paid by matching engine stakes.

[24] Electroral System, Wikipedia, https://en.wikipedia.org/wiki/Electoral_system#Types_of_electoral_systems

5.g. Maintaining market stability

Matching engine backers are tasked with maintaining market stability and integrity. They will earn profits from backing futures contracts with their EVR tokens, but will put those tokens at risk if things go awry. We will let the market decide on how much EVR a matching engine is required to stake, but our vision is that engines with high token reserves will attract the most liquidity, ensuring a robust and well capitalized marketplace.

EVR holders who pledge to a matching engine as backers will have multiple tools at their disposal for ensuring that the contract matching process is fair and functioning correctly. Contract backers will collectively decide, through a voting process, an assortment of per contract variables, from the random cross duration and stop loss constraints, to volume and price extensions.

Backers will also set margin constraints per contract, as underlyings will vary in their volatility and may need customized requirements. This is important as they are the last and final line of defense for counterparty risk. If a margin call fails and a margin syndicate becomes insolvent, the backers' tokens will be at risk.

We envision that the collection of matching engines will function as a market themselves, as traders migrate liquidity to matching engines which represent stable marketplaces. Contracts with unfair terms and manipulative backers will naturally be ignored and forgotten.

While our system is decentralized, it does not have to be anonymous. In fact, we may encourage contract backers to reveal their real world identities and be culpable for their contracts in the public court of law, just like the CME is responsible for what happens under their watch. We expect that entities who accept real world consequences for their contracts may be rewarded with orders from traders who may otherwise shirk from trading on contracts backed by anonymous capital alone.

6. Margin syndicate

Margin syndicates provide leverage to individual traders and are the primary line of defense against counterparty risk. Traders are required to post adequate levels of collateral for their trades. Like the matching engine backers, margin syndicate lenders are required to stake their EVR tokens to ensure that there is capital backing the syndicate.

6.a. Choosing a margin syndicate as a lender or trader

Margin syndicates compete for business from traders with margin requirements, collateral minimums, and other parameters.

Requirements can be customized for different risk profiles. One syndicate may require a $50K USD initial deposit for a trade of a certain notional, but will charge a flat annualized rate of 1% EVR. Another may require only a $20K USD deposit for the same trade, but charges a higher 3% EVR for overnight risk and a lower .5% for intraday risk.

Traders are free to choose the pool which best serves their trading style. Traders who hold positions for large periods of time may need the buffer of a larger margin and will choose to deposit more EVR while paying less in fees. A trader who trades in and out but is usually flat at the end of the day may choose to deposit less margin and pay a higher fee since it's only in effect when a position is held.

Traders will need to consider what they are trading as well, as matching engines may impose their own leverage maximums on a contract-by-contract basis. Since this may be complex, we plan on spending a significant amount of effort designing and testing a GUI that makes it easy to deploy risk capital across a variety of matching engine and margin syndicate requirements.

6.b. Trading against margin

Upon receiving collateral from a trader, a margin syndicate will allow that trader to make trades up to a certain leveraged amount.

During the crossing procedure, the matching engine will query margin syndicates involved in the trade to ensure that all traders have an adequate amount of backed capital. The matching engine will notify the margin syndicates again once the trade is finalized so that a margin syndicate does not leverage the same amount of collateral more than once.

To prevent traders from withdrawing collateral while their orders are in flight but not fully executed, there will be limitations on how quickly a trader can withdraw collateral from any syndicate pool. There will also be a protocol to synchronize margin use amongst contemporaneous trades in different matching engines.

Token lenders will have withdrawal limitations as well, to prevent a withdrawal of staked capital during times of volatility. These limitations are still being finalized, but will likely be a combination of having both withdrawals and margin payments take place gradually over time.

Payments to the margin lenders are made in proportion to their participation in the margin pool. A token holder who stakes 80% of the pool will receive 80% of payments, but is also responsible for 80% of the loss for that pool. As a lender, joining a large lending pool may be relatively safe, but the profit potential may be greater in a pool that is not as well subscribed.

6.c. Maintenance margin

Margin requirements are calculated on an ongoing manner. After posting an initial margin, traders will need to make sure their balance stays above a watermark called the maintenance margin. Dipping below this level would cause margin calls and liquidation.

The main cause of margin calls would be a decline in the value of a purchased security. After an initial transaction occurs, all involved margin syndicates will notate that a trade was done and will be able to monitor the price of that futures contract in subsequent auctions.

6.d. Settlement

Margin syndicates hold deposits from the traders as collateral, and use the same accounts to settle trades at expiry.

When a contract settles, the margin syndicates involved in the trade will work together so that the winning trader is compensated with proceeds from the losing trader's collateral account. This process will also finalize the trade and free up capital for new trades.

All proceeds from gains will be delivered to the winning trader's original wallet and not kept in a margin syndicate. The winning trader will need to explicitly redeposit these gains as collateral if he wants to trade again.

6.e. Stake and collateral considerations

While the current plan is to use the EVR token as the basis for both staking and collateral in margin syndicates, we are prepared to support additions or substitutions.

There are a few reasons why we would implement a change:

i. **The combined market cap of circulating EVR tokens is insufficient.**
A small market cap in EVR tokens would significantly hamper trading and liquidity provision. If this is a problem, we would consider making available established token, such as ETH, to boost capital available for trading.

ii. **The price volatility of EVR tokens on the secondary market is unsuitably high.**
If price volatility is a factor, we would evaluate supporting coins which are more stable in price. For example, there are initiatives to create coins backed by fiat[25] or precious metals like gold[26]. Central banks are also considering the issuance of their own coins[27]. We are keeping a close eye on these projects.

iii. **Certain contracts may benefit from having an alternative stake or collateral token.**
Contracts based on illiquid, hard-to-value assets may naturally lend themselves to posted capital in a token more closely related to the asset in question. We also envision contracts with asymmetrical collateral requirements for buyers and sellers.

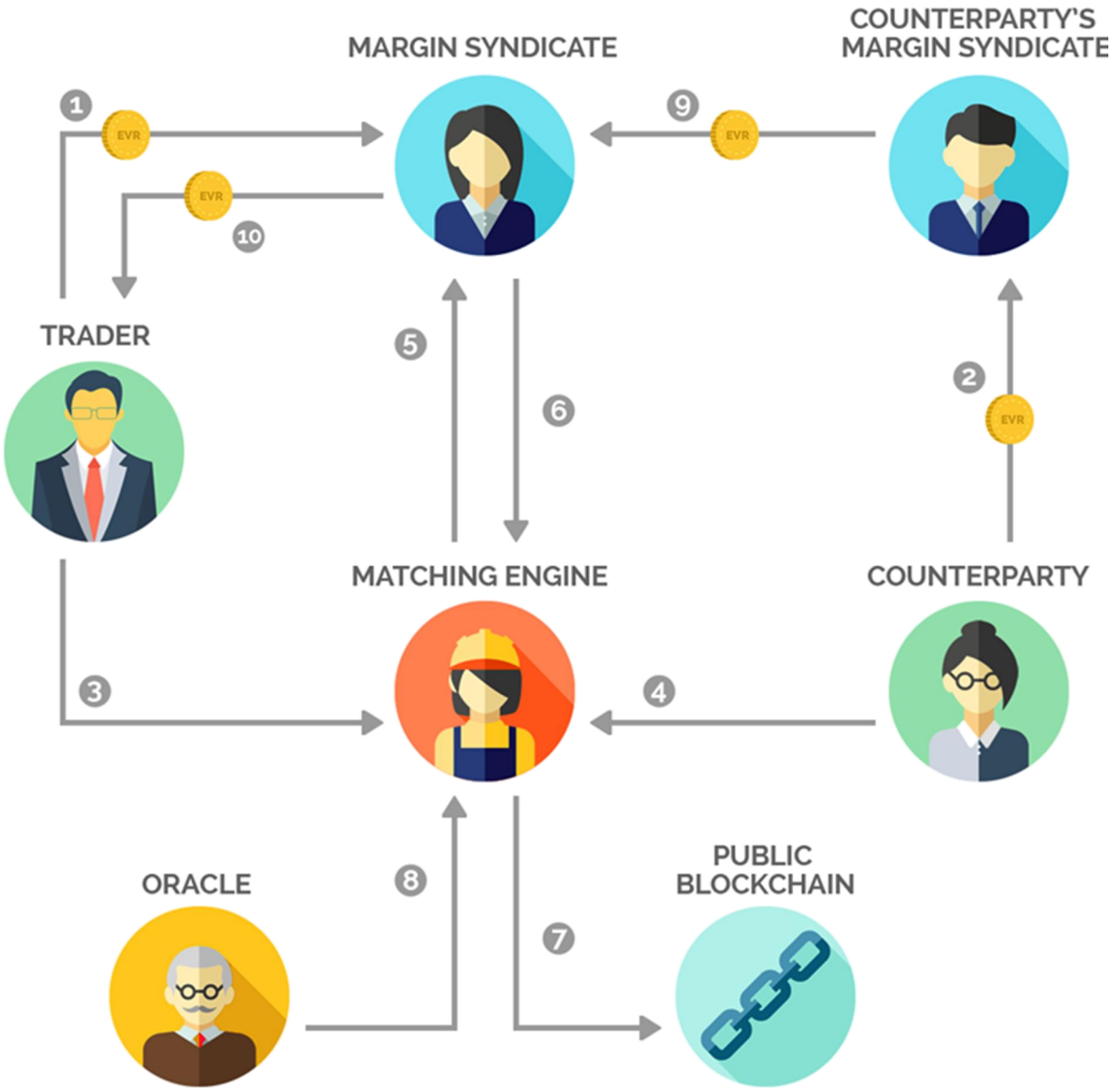
While other tokens may be allowed, EVR remains an important part of margin syndicate administration. EVR is the only token which allows holders to set parameters and participate on the platform. We may require either a minimum amount of EVR staked, or a minimum staked ratio against any other token.

An important point to stress is that is increasingly prudent to commit to adaptability rather than specialization. In the face of today's financial markets, when economic events are increasingly long tailed, the best laid plans are often those that are ready to change when necessary. The margin syndicate is built with these tenets in mind.

[25] Top 3 Stable Cryptocurrencies Based on USD Value, https://themerkle.com/top-3-stable-cryptocurrencies-based-on-usd-value/
[26] OneGram & Dubai Trading Platform In $500M 'Gold-Backed' Cryptocurrency Venture, https://www.forbes.com/sites/rogeraitken/2017/05/02/dubai-trading-platform-onegram-in-500m-gold-backed-crypto-venture-sharia-compliant/#6223f393bf56
[27] IMF Explores ICOs and Central Bank Coins in New Blockchain Note, https://www.coindesk.com/imf-explores-icos-central-bank-coins-new-blockchain-note/

7. Illustrating the entire process

For further clarification, let's walk through the entire process step-by-step.



1. The trader chooses a margin syndicate and deposits collateral. Margin syndicates collectively operate a market for leverage, and the trader is free to choose which syndicate best fits his style of trading.
2. A counterparty chooses a margin syndicate of her own, and also deposits collateral with it. This syndicate can be the same or different from the original trader's.
3. The trader chooses a matching engine for a specific contract, and sends an order to it.
4. The counterparty sends an order as well.
5. Before the order is added to the order book, the matching engine asks the trader's margin syndicate for information that the order is adequately capitalized.
6. The margin syndicate replies with the information needed. Afterwards, the matching engine completes the cross, and matches the order of the trader and that of the counterparty.
7. The trade is recorded on the public blockchain.
8. At expiry an oracle is used to report the expiration price.
9. In this scenario, the trader is on the profitable side of the trade, and his counterparty is on the losing side. The margin syndicates for both parties settle payments using our token. In this case, the counterparty's margin syndicate sends tokens to the trader's.
10. The trader's margin syndicate completes delivery of the trade's proceeds back to the trader's wallet. His collateral is marked as being available for a new trade.

8. Sourcing liquidity: how do we get people to use this?

The biggest hurdle in establishing a new futures platform is liquidity. When contracts are illiquid, price discovery is more difficult, impact costs are higher, and the market is less attractive to all parties.

Over the past few months, we have spent a significant amount of time talking with prominent futures traders, exploring the weaknesses of existing platforms, and assembling a team with the technology and financial know-how capable of building an attractive alternative to today's exchanges. We believe we are in a phenomenal position to execute on liquidity.

Among similar distributed applications (DApps), we believe we are unique in this commitment. Many DApps have devised amazing technology, but have failed to gain traction. Throughout our mission, we are devoting a considerable amount of our time, recruitment effort, and budget to making liquidity a prime objective.

We highlight a few of our key strategies for this below.

8.a. Construction of a dedicated liquidity provision spinoff

We aim to spinoff a committed *liquidity provision team* for futures contracts on our platform. This will be an independent company utilizing capital and resources from the EverMarkets parent company. Its aim will be to maximize crossed volumes (i.e. minimize auction imbalances) instead of profits for at least two years.

Though this company will be staffed with bright minds from technology and machine learning backgrounds, it will operate and trade with the same market data, capabilities, and limitations of any other trader. This company will be allowed to stake tokens as matching engines or margin syndicates as well, and will be audited regularly to ensure that their successes are beneficial to the community at-large.

Developers and strategists working on this entity will be compensated according to volume first and profitability second, at least until the platform reaches a critical mass.

As liquidity provision inherently takes on positions which are less popular, this effort may take some time to get going. Nevertheless, we do expect this initiative to be profitable in the long term. While research and production code for this entity will not be made public, monthly profit and volume performance will be displayed when possible.

A dedicated volume-first "market making" strategy like this is common in many large equity agency dark pools. These volume-oriented teams work to backstop many different metrics of execution quality, such as price improvement or fill percentage.

8.b. Heavy stress testing and rules for abnormal conditions

One of the keys to cultivating liquidity is having a system which is reliable during high volume and high volatility periods.

Financial markets are characterized by extreme "bursty-ness". Though the majority of time is spent in relatively calm waters, the minority of volatile periods is several magnitudes higher in every metric—volume, variance, skew, etc. This is true at every time horizon, whether you are looking at markets on a minute-by-minute basis, or on a day-to-day scale.

Additionally, plotting the returns of any time horizon on a frequency basis (such as on a histogram), will show that markets have very long left-handed tails—also called negative skew. In other words, when markets rise, they tend to rise slowly over time; when they fall, they fall violently and quickly.

What this all means is that our system needs to be able to operate well during tail events. While many individual traders may switch to our platform because of the appeal of lower transaction fees alone, established players will know that fortunes are made or lost during times of extreme market dislocation.

We intend to attack this problem with a multi-pronged approach:

i. Regular stress tests. We will simulate the order profiles of volatile periods in the past and measure our system throughput and performance during those times.

ii. Suspension and halt conditions. Contracts will have built-in stop conditions similar to that of existing exchanges, which impose maximum limitations on price fluctuations against some reference price. As mentioned before, these are collectively decided on by token backers, but minimums may be mandated by the platform.

8.c. Achieving legitimacy

An important part of this endeavor is establishing a legal method of trading futures on a blockchain. As we expound upon in Section 9, our intention is to create an unambiguously legal approach for all parties -- our company, EVR holders, traders, and administrators.

We believe that there are clear exemptions which permit the type of trading we want to do, but nevertheless expect an uphill battle from entrenched parties. We will need considerable legal counsel for markets worldwide, and a large part of our budget is devoted to this.

Regulators are an important part of building public trust and safeguarding markets, and we intend on building strong relationships with them. We believe that bringing down cost and complexity barriers can be done without sacrificing market stability, and that our proposed platform will not just "do no harm" but will improve and innovate. In fact, we see eye-to-eye with regulators like the CFTC in a shared mission of fostering "open, transparent, competitive, and financially sound" markets[28].

8.d. Marketing efforts

Another significant differentiator of our platform is that we are investing a considerable amount of resources into enticing professional traders, institutional investors, and external liquidity providers onto our platform. This endeavor is not one we can solve with developers alone: we will need business development professionals, salespeople, marketers, and lawyers.

While our liquidity provision team will certainly help at the start, for our platform to succeed in the long term, we will need to entice institutional and professional order flow to participate. Some members of our team have had experience starting equity dark pools, and believe that building the platform, in many ways, is the easy part: obtaining reliable flow and keeping it is the lion's share of the challenge.

Enticing order flow from established traders is still very much a relationships game. Our plan is to hire mid- to senior- level sales talent from established dark pools and exchanges to help us build and retain these relationships.

The cultivation of these relationships is actually made easier by the fact that we plan on launching a dedicated liquidity provision spinoff. Our sales people may work together with this market maker to guarantee certain levels of execution quality. This cooperation will make it easier for our salespeople to entice institutions to trade on our nascent platform.

[28] CFTC Mission Statement, http://www.cftc.gov/About/MissionResponsibilities/index.htm

8.e. External liquidity provider program

We also keep a large percentage of our tokens in reserve for the purpose of fostering our *external liquidity provider program*. This is a program to incentivize external liquidity providers to quote on our platform, and will be done in conjunction with our sales and marketing efforts.

The liquidity provider program will loan reserve tokens to selected providers with the requirement that these tokens are used to fulfill late-stage auction imbalances. Our hope is that this program will encourage liquidity providers to trade during the platform's early days while minimizing their risk and initial cash outlay.

8.f. Ability to hedge cryptocurrency risk

One common reservation for many potential traders we've spoken with is that crypto-currencies can be too volatile to hold. Given the price variance of BTC and ETH in recent years, it is very possible that any potential futures trade priced in a crypto-token, particularly one with a longer-term and directional focus, will be dominated by the token's price change rather than anything else.

To address this, we have decided that even though trades will be settled in EVR, they will be initiated and tracked in fiat currencies.

How does this work? Let's say that on March 01 a trader enters into a single buy contract for a bushel of soybean with expiration on March 31 for $9.50 USD. EVR/USD is trading at 2.00 at the time, meaning that you can exchange 1 EVR for 2 USD. On March 31, the contract's price settles at $9.60. EVRUSD is now trading at 1.60. Though EVR has fallen in value against the dollar, this is unrelated to the trader's P&L. The difference in soybean price in USD is the only profit that the trader will book, or $0.10. He will receive the equivalent amount of 0.0625 EVR upon delivery based on current exchange rates.

9. Legality

We are well aware of the legal issues involved in an endeavor of this nature. Our team is working diligently with experienced legal professionals to ensure that our platform is within complete compliance of all regulatory and licensing requirements wherever we operate. We have no desire to conduct or condone unlawful activities, nor subject token purchasers or holders to prosecution.

Despite being a decentralized system, it is our intention to create an ecosystem which facilitates trading in a fair and orderly way. Our primary motivation is a reduction in cost and complexity for the benefit of all traders—without jeopardizing market integrity.

We address some of the main legality concerns below.

9.a. Off-exchange futures trading

In the USA, the Commodity Futures Trading Commission (CFTC) has classified cryptocurrencies as commodities[29], and as a result, the trades we propose above would fall under their jurisdiction. Off-exchange futures and options trading is illegal under the Commodities Exchange Act (CEA) and the CFTC has shown that they will act swiftly to shut any instances of this down. InTrade is perhaps one of the most well-known examples of this[30].

That said, we believe that there is legality in our approach of matching buyers and sellers.

While off-exchange futures trading is illegal, the Commodities Exchange Act has an exemption for transactions in commodities which result in the delivery of the commodity within 28 days.

Excerpts from a CFTC interpretation document of the exemption follow[31]:

> *New CEA section 2(c)(2)(D) accepts certain transactions from its application. In particular, new CEA section 2(c)(2)(D)(ii)(III)(aa) 10 accepts a contract of sale that results in actual delivery within 28 days or such other longer period as the Company mission may determine by rule or regulation based upon the typical commercial practice in cash or spot markets for the commodity involved.*

---

[29] Bitcoin as a Commodity: What the CFTC's Ruling Means, http://www.coindesk.com/bitcoin-as-a-commodity-what-the-cftcs-ruling-means/

[30] CFTC Charges Ireland-based "Prediction Market" Proprietors Intrade and TEN with Violating the CFTC's Off-Exchange Options Trading Ban and Filing False Forms with the CFTC, http://www.cftc.gov/PressRoom/PressReleases/pr6423-12

[31] Retail Commodity Transactions Under Commodity Exchange Act, Interpretation, http://www.cftc.gov/idc/groups/public/@lrfederalregister/documents/file/2013-20617a.pdf

The CFTC goes on to clarify what "within 28 days" means:

> *The Commission has determined that the most practical point at which to begin counting the 28 days is the date on which the agreement, contract, or transaction is entered into.*

While this limitation may create difficulty in replicating longer-lived contracts (many popular futures products have quarterly expiration cycles, for example), it is still possible to adhere to these regulations with shorter expiry schedules.

This exemption was tested in June of 2016 when the Bitcoin exchange BitFinex used it as a defense against an investigation by the CFTC[32]. Unfortunately, because they are a centralized exchange which holds the private keys to their traders' wallets, settling the trades internally was not found to be adequate as "delivery" by the commission.

Since we are a decentralized system, we do not hold any private keys. Smart contracts act as both as escrow and deliverer. We believe that we satisfy the delivery condition.

9.b. Futures commission merchants

Additionally, another concern is that token holders acting as administrators will need to register as a Futures Commission Merchant (FCM). FCMs are defined as individuals or groups who do both of the following[33]:

i. Solicits or accepts orders to buy or sell futures contracts, options on futures, retail off-exchange forex contracts* or swaps
ii. Accepts money or other assets from customers to support such orders.

Due to our decentralized architecture, there is no single entity that performs both of these tasks. Matching engine token holders accept orders, but not money; conversely, margin syndicates accept money, but not orders. We believe that token holders acting as administrators are exempt from FCM registration.

[32] CFTC Orders Bitcoin Exchange Bitfinex to Pay $75,000 for Offering Illegal Off-Exchange Financed Retail Commodity Transactions and Failing to Register as a Futures Commission Merchant, http://www.cftc.gov/PressRoom/PressReleases/pr7380-16
[33] Natural Futures Association, https://www.nfa.futures.org/nfa-registration/fcm/index.HTML

9.c. Legal risks to regulatory compliance

While we have reached out to the CFTC for further clarification and will seek clear legal permissibility before allowing any trading to occur, it is admittedly a possibility that our interpretations are incorrect and/or laws will be changed to our detriment. If that happens we will adjust our policies accordingly to be in full compliance with the law.

10. Disclaimers

This document is intended to introduce EverMarkets to the world, and is for informational purposes only. This document does not constitute an offer or a solicitation to sell shares or securities in any company. It is not a prospectus for investment.

This document has not been written towards the laws or regulations of any particular jurisdiction. While this document -- specifically Section 9-- may have references to or interpretations of laws in the United States, these interpretations are not legal advice and should not be used to make any legal or financial decisions. The general public should conduct their own “due diligence” regarding any statements or conclusions made, explicitly or implied.

This document does not constitute a promise of any kind. This project is constantly evolving and any information in this document is subject to change. Our project is an ambitious one, and though we believe that we are uniquely suited for the challenge, we cannot offer an assurance or a guarantee of success in any fashion.

If any statements in this document are forward looking, they constitute our best attempts at preparing for the future, but may not be accurate. Actual outcomes may deviate from our projections due to any number of risks.

10.a. Value of EVR token

The EverMarkets token is a tool to be used in trading on or administering the EverMarkets platform. The usage of these tokens in these roles carry risk: traders put their coins up as collateral for their trade, and administrators stake their coins as collateral for lending or for market stability.

The EverMarkets token should not be expected to gain value or have value outside of these two roles. A token is only used at the behest of the token owner, and any time it is used, there is a possibility that the token will lose value or be lost.

The EverMarkets token is not an investment in any way, shape, or form. Possessing the token does not grant the owner a share of any profits outside of any made through his own endeavors in the stated roles above. Passively holding the token has no expectation of profit or value.

The EverMarkets token is not a security. Possessing the token does not grant the owner any ownership, right, or interest in any company, enterprise, or undertaking.

If exchanged for or compared against any other asset, the value of the EverMarkets token may be volatile. EverMarkets makes no assurances regarding the value of an EVR token, and any fluctuations in its value are outside of our control.