GMX ($GMX)

MARKET CAP:
$153 MILLION

NETWORK:
ARBITRUM
AVALANCHE

LAUNCH DATE:
9/1/2021

FOUNDERS:
Fully Anonymous

SUPPLY:
8.403 MILLION (CURRENT)
13.25 MILLION (FULL DILUTION)

Name:	GMX ($GMX)
Market Cap:	$153,356,000
Fully Diluted Market Cap:	$265,000,000
Executive Summary:	GMX is a decentralized perpetual contract and spot trading platform, allowing users to trade on up to 50x leverage. Trading is supported via a multi-asset liquidity pool that generates rewards and fees back to liquidity providers. Launched in September 2021, there has since been steady growth in the user count and trading volume; a sharp increase this May further pumped adoption. Current tradable assets on GMX are $BTC, $ETH, $UNI, $AVAX, and $LINK.
Problem Solved:	The main issue when trying to create perpetual derivative products in crypto lies in liquidity. Thus far, options and other derivative protocols have struggled to attract deep, sticky liquidity within their platforms. GMX brings deep liquidity into its protocol via lucrative staking incentives in $GLP, an "index token" of blue-chip crypto assets. With a shared liquidity model, GMX can use price oracles via Chainlink and major exchanges to create a zero price-impact perpetual futures exchange. This liquidity model allows for much more accurate pricing with a lot less liquidity than traditional AMMs, and attracts liquidity by incentivizing LPs without inflationary token incentives.

Tokens:	**$GMX**: The governance token of the protocol, can be staked to earn 30% of protocol revenues in the form of $ETH or $AVAX. There is an additional APR in protocol native token rewards of: 1. Multiplier points 2. esGMX $GMX has a floor price equivalent to the value of the Floor Price Fund, which is denominated in $ETH and $GLP. **$GLP**: The GMX liquidity provider token $GLP represents a basket of cryptos. As the source of liquidity for traders, GLPs take the other side of open positions. When users mint $GLP, it is automatically "staked" and accruing rewards. **$esGMX**: "Escrowed GMX" tokens can be used in two ways: 1. Staked for additional $GMX rewards 2. Vested over 1-year to earn liquid $GMX token To vest the $esGMX, users are required to "reserve" the amount of $GLP or $GMX that was used to earn the $esGMX–you are perpetually incentivized to continue staking and not unlock.
Terminology	**Floor Price Fund:** Consists of the protocol owned liquidity (POL), in $ETH/$GMX. Fees generated through this are accrued into the fund. **Multiplier Points:** Rewards long-term $GMX stakers, offering 100% APR for the value of $GMX staked. Multiplier points can be
Founders	Anonymous team, but with a track record of two other successful protocol launches in XVIX and Gambit. The GMX team is also in the process of building a new AMM called X4.
Backing/ Funding	GMX has not received any VC Funding, although they funded their treasury reserve by selling some escrowed GMX tokens via Olympus Pro.

Risks:	The nature of the liquidity function on GMX is a two-way street in terms of interest: Liquidity providers need to have a desire to hold the underlying assets long term, while short term traders need to have a desire to earn on the short-term price fluctuations 100% of protocol fees are distributed to holders. This works well to attract liquidity and users, but taking a share could help build up their asset reserve. Perpetuals do not need to be traded on-chain. Platforms like FTX feature coin-margined perps, meaning you can trade perps with an asset supported on GMX as collateral. For GMX, the collateral use is limited.
Competitors:	As the size of derivatives markets are orders of magnitude greater than spot, competition is vast. There are already a handful of well-grounded competitors in the derivatives market space. • **Decentralized**: dYdX, Synthetix, Perpetual Protocol, Gains Network • **Centralized**: Deribit, Binance, and FTX
Whitepaper:	https://gmxio.gitbook.io/gmx/
Code Repository:	https://github.com/gmx-io
Site:	https://gmx.io/
Social Media:	• Medium: https://medium.com/@gmx.io Twitter: https://twitter.com/GMX_IO • Discord: https://discord.com/invite/cxjZYR4gQK • Telegram: https://t.me/GMX_IO

TABLE OF CONTENTS

PERPETUALS COMMAND THE DERIVATIVES SPACE:

We have made it clear to Crypto Pragmatist Pro subscribers that we are bullish on the derivatives space in DeFi.

We've discussed most types of derivatives in our previous Crypto Derivatives Narrative Report here. Today, our focus will be on the most popular derivative in crypto markets: **perpetual futures.**

Perpetual futures, also known as perpetuals or perps, were originally proposed by famed economist Robert Shiller in 1992, but have not seen widespread application until their adoption by cryptocurrency markets. Perpetuals differ in a couple ways from their traditional future counterparts. Instead of a specified settlement date, perpetuals can be held, in theory, forever.

The key distinctions of perps can be simplified to:

- Higher leverage maximums
- Funding rate applied as intermittent settlement
- Constant price traking of the underlying asset

Allowing users to trade on higher leverage is a dual-sided sword – leading to increased liquidations and losses for those who are not careful yet unlocking massive amounts of "free" capital for skilled traders. The 'funding rate' is paid on a fixed schedule, often every hour, from one side of position (the long) to the other (the short).

In practice, this means that if there are more long positions open than shorts, the funding rate will be positive (i.e., the longs pay the shorts). Supply and demand will lead to this rate fluctuating, but typically close to 0% on an hourly basis. Funding rates tell us if most traders are long or short, and incentivize traders to take the opposite leg of the trade.

DECENTRALIZED DERIVATIVES

So far, Binance has been able to capture the lion's-share of perpetual trading – facilitating over $24T in futures trading volume last year1. The issue with this? U.S citizens can't use Binance, let alone **any** centralized platform to trade perps. Thus, we see a ripe demand for on-chain exchanges. The benefit here is two-fold:

- No KYC
- Keeping assets on-chain and using crypto as collateral

This demand isn't necessarily restricted to U.S users, but anyone who wants the two benefits listed above. Because of this, there have been a handful of competitors that have entered the decentralized futures markets. While each of them is unique in their own way, our focus today will be on GMX.

WHAT IS GMX:

GMX is a perpetual exchange that lives on the Ethereum Layer 2, Arbitrum, and in the beginning of 2022 the exchange also launched on Avalanche. The protocol allows users to trade up to 50x leverage on a basket of crypto assets.

Rather than charge the aforementioned "funding rate", GMX utilizes something called a **borrow fee**. While similar in principle, this borrow fee is assessed every hour, rather than the typical 8-hour schedule for most centralized exchanges.

PROBLEM SOLVED

On centralized exchanges, and even some decentralized exchanges (dYdX), liquidity is achieved from a traditional order book model which is reliant on market makers. Order books are databases where all the open orders live for a given asset.

Let's say that you wanted to buy $BTC at $25,000. To do this, someone would have to be willing to sell at that price. Below is the visualization of an order book for $BTC/$USD trading pair:


ORDER BOOK BTC/USD

COUNT	AMOUNT	TOTAL	PRICE	PRICE	TOTAL	AMOUNT	COUNT
25	17.0	17.0	6,393	6,394	12.4	12.4	17
4	3.9	20.9	6,392	6,395	22.0	9.7	4
2	0.4	21.3	6,391	6,396	44.7	22.7	5
7	4.6	26.0	6,390	6,397	47.8	3.1	5
8	6.7	32.6	6,389	6,398	50.5	2.7	5
4	1.0	33.6	6,388	6,399	57.8	7.3	6
5	9.2	42.8	6,387	6,400	63.9	6.2	13
2	1.9	44.7	6,386	6,401	64.9	1.0	1
4	3.9	48.6	6,385	6,402	71.4	6.5	12
4	0.6	49.2	6,384	6,403	71.6	0.2	6
3	0.8	50.0	6,383	6,404	73.5	1.9	8
11	7.3	57.4	6,382	6,405	82.4	8.9	11
3	0.9	58.2	6,381	6,406	89.3	6.9	15
6	18.4	76.6	6,380	6,407	100.6	11.4	9
4	4.1	80.7	6,379	6,408	131.5	30.8	12
3	6.0	86.6	6,378	6,409	131.8	0.3	7
7	7.9	94.5	6,376	6,410	146.8	15.0	15
6	11.6	106.1	6,375	6,411	152.8	6.0	13
6	6.1	112.2	6,374	6,412	169.9	17.1	5
4	32.4	144.6	6,373	6,413	171.9	2.0	1
2	4.6	149.2	6,372	6,414	181.5	9.6	5
7	15.1	164.3	6,371	6,415	181.9	0.5	5
6	13.5	177.8	6,370	6,416	191.3	9.4	8
3	1.8	179.7	6,369	6,417	217.4	26.1	8

FULL BOOK | REAL-TIME

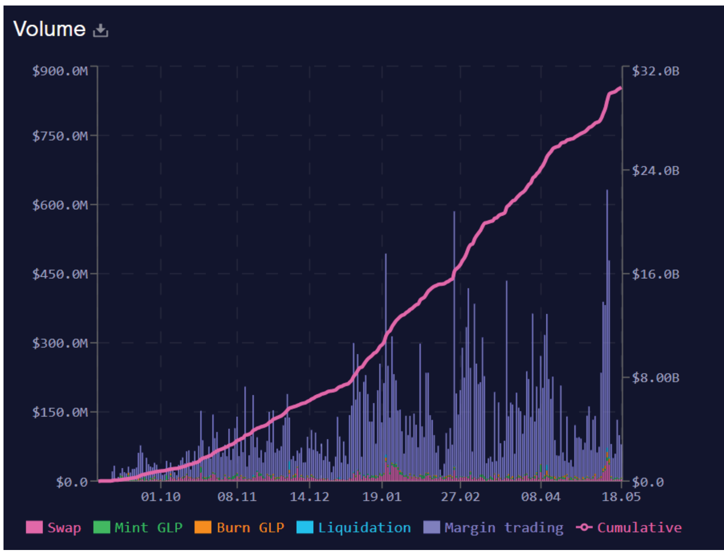
Order book models work great when there are enough buyers and sellers, but they have a lot of drawbacks, especially for crypto. They're expensive to run in crypto and require market makers, who also must be incentivized in some way.
These drawbacks brought in the AMM model, which uses a pool of liquidity that will always be a willing counterparty at a given price, as long as there is enough liquidity in the pool.

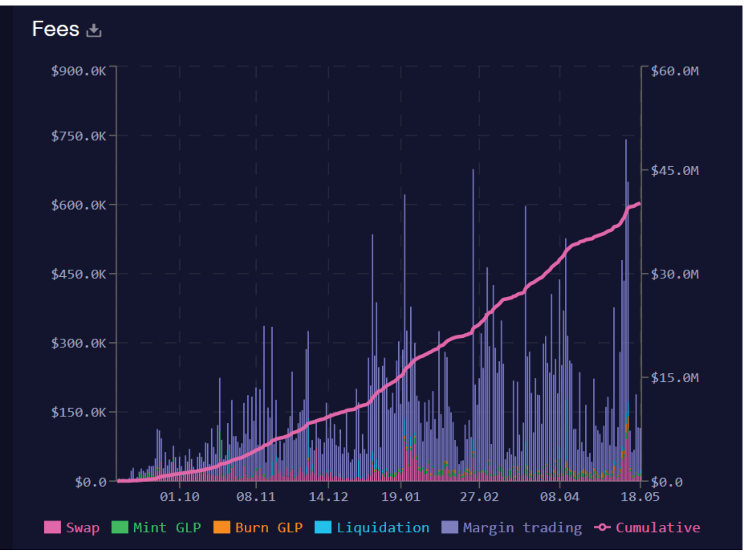
In the summer of 2021, Perpetual Protocol was the first protocol to bring the liquidity provider model to a perpetual trading platform. Now, perpetual exchanges could bring the creative tokenomic structures to increase available liquidity, and therefore adoption, to their platform.

Although Perpetual Protocol was innovative in the sense that they brought the AMM model to perpetual futures, there were two main reasons that it ended up flopping:

1. Staking contract on ETH mainnet (fees were too high)
2. Minimal liquidity on Optimism network (the second network they launched on)

Shortly after, there were new incumbents that came online in the form of GMX, Gains Network, and now Synthetix. Since launch (beginning September 2021), adoption has been plentiful for GMX, boasting a steady up and to the right increase in volume and trading fee revenue:





WHY GMX?

As stated, there are multiple competitors just within the DeFi space that also offer perpetual futures, and there is the looming threat of centralized exchanges that will always have a portion of market share.

We think GMX is positioned to be a leader in this product offering due to their unique value proposition based on two main points:

1. **Strong value accrual to token GMX holders and LPs, denominated in ETH**
2. **Non-inflationary tokenomic model**
    a. **GMX liquidity model (GLP) doesn't require inflationary (farm-and-dump style) token incentives**

Our main investment thesis for GMX is centered around these two points, which we will be detailing throughout this report.

DEMAND FOR GMX

The perpetual space is massive. In 2021, there were roughly $57 trillion perpetual swaps on the year, growing nearly 6x from the year prior.

So far, GMX has done well in volume growth and capturing a share of dYdX's volume. Since inception, there has been an average of $115m in perps traded daily on the platform, since 2022 the number is $160m. For comparison, on most days dYdX will clock in above $500m, and although it fluctuates drastically, can range between $1b-3b in trading volume.

Regulation in crypto, especially since the Luna collapse, leads us to a big question mark. This could drastically increase the demand for decentralized exchanges, and as it currently stands, GMX is well established as the runner-up to dYdX.

TOKENOMICS

$GLP

The backbone of GMX is the GLP token, which can be swapped for using any of the underlying assets, also known as the Index Composition. There is a target 50/50 split of crypto asset and stablecoin weighting within the index:

GLP Index Composition

TOKEN	PRICE	POOL	WEIGHT	UTILIZATION
Ethereum ETH	$1,955.10	$57,833,942	33.50% / 30.00%	42.78%
Bitcoin (WBTC) BTC	$28,921.00	$21,410,627	11.76% / 15.00%	50.54%
Chainlink LINK	$6.94	$2,801,939	2.34% / 3.00%	14.45%
Uniswap UNI	$4.94	$1,026,724	0.84% / 1.00%	5.80%
USD Coin USDC	$1.00	$67,084,252	29.91% / 40.00%	10.67%
Tether USDT	$1.00	$17,947,770	7.69% / 3.00%	0.92%
Dai DAI	$1.00	$25,177,630	10.93% / 5.00%	1.03%
Frax FRAX	$1.00	$6,986,141	2.99% / 2.00%	1.16%
Magic Internet Money MIM	$1.00	$0	0.00% / 1.00%	0.00%

Each asset in the index has a target weight, but the actual weight can vary greatly depending on trading activity in the protocol. GMX has dynamic trading fees and borrow fees to help automatically adjust the index weighting towards the target ratios.

GLP holders get exposure to all of these assets, as well as trading fees and some rewards in the form of $esGMX tokens.

$GLP REVENUES

Protocol revenue is split 70/30 between $GLP and the other protocol token, governance token $GMX. In addition to getting the larger share of protocol revenues, $GLP holders also get all the collateral when positions are liquidated, which over time leads to a fluctuating, but over-time increasing, inflow of revenue.

Because $GLP holders take the other side of the trades made out of the platform they are essentially "renting out" their crypto exposure to traders in exchange for protocol fees and the potential losses by the trader. Thus, a metric that is especially pertinent to protocol liquidity providers is the profit and loss (PnL) of traders. Successful traders are paid out by the liquidity pool, bad ones pay out to liquidity providers.

Since inception, cumulative PnL for GMX traders is clearly in favor of the liquidity providers at a cumulative loss of nearly $14m. In fact, this is consistent across other perp exchanges, proving that a long-term inverse position to traders could be a profitable option, especially when factoring in other rewards (trading fees, liquidations) from traders.

The rewards earned for $GLP holders are distributed in $ETH and $esGMX, currently totaling ~40% APR, although the number varies.

- 28.82% in $ETH
- 13.8% in $esGMX

The $ETH denominated rewards alone are attractive, but the exposure to crypto assets during volatile market conditions raises some questions about the long-term efficacy of $GLP. Right now, GMX uses a shared liquidity model, where all liquidity providers are exposed to all underlying assets. By creating fragmented pools, users could decide on which assets they want to be exposed to depending on market conditions.

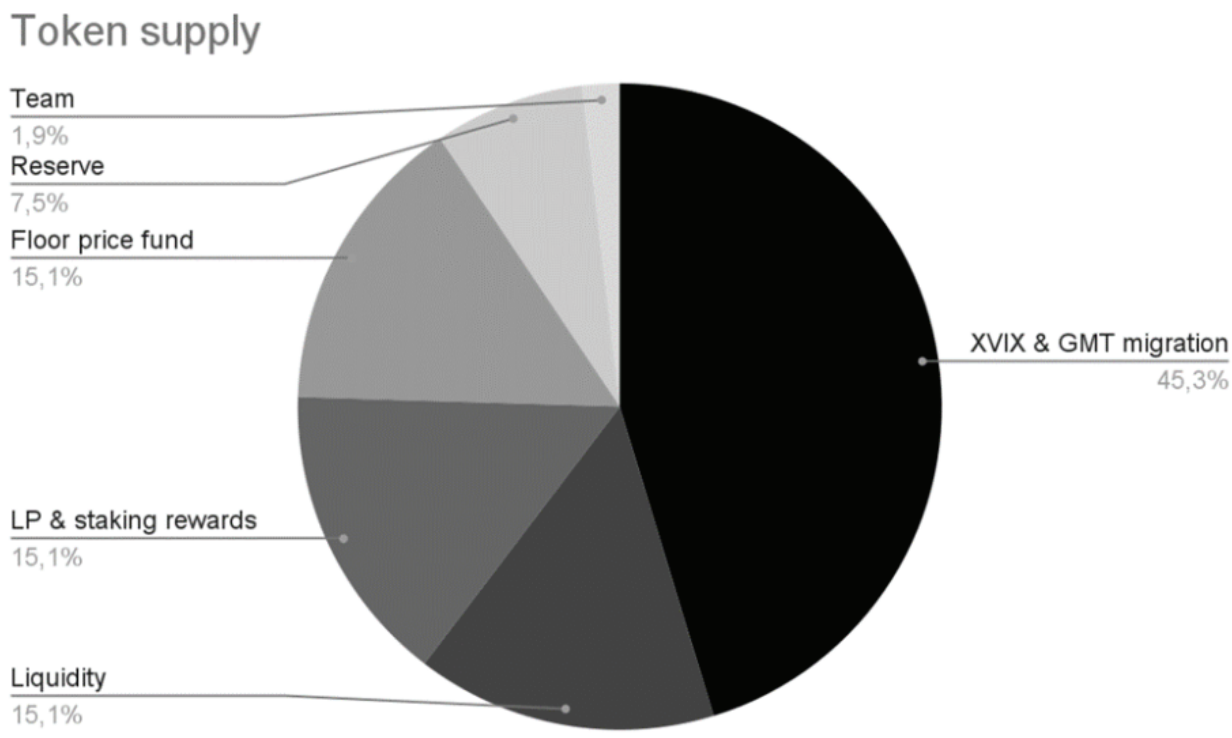
$GMX

As the protocol governance token, $GMX can be staked to earn roughly 32% APR in both $ETH and $esGMX:

- 17% in esGMX
- 15% in ETH

Circulating supply currently sits at 8,403,994 tokens. Right now, about 84% of the circulating $GMX token supply is staked on the protocol earning fees. Here is the following distribution, with a max supply of 13.25m tokens:

- **6 million GMX** from the XVIX and Gambit migration.
- **2 million GMX** paired with ETH for liquidity on Uniswap.
- **2 million GMX** reserved for vesting from Escrowed GMX rewards
- **2 million GMX** tokens to be managed by the floor price fund.
- **1 million GMX** tokens reserved for marketing, partnerships, and community developers.
- **250,000 GMX** tokens distributed to the team linearly over 2 years



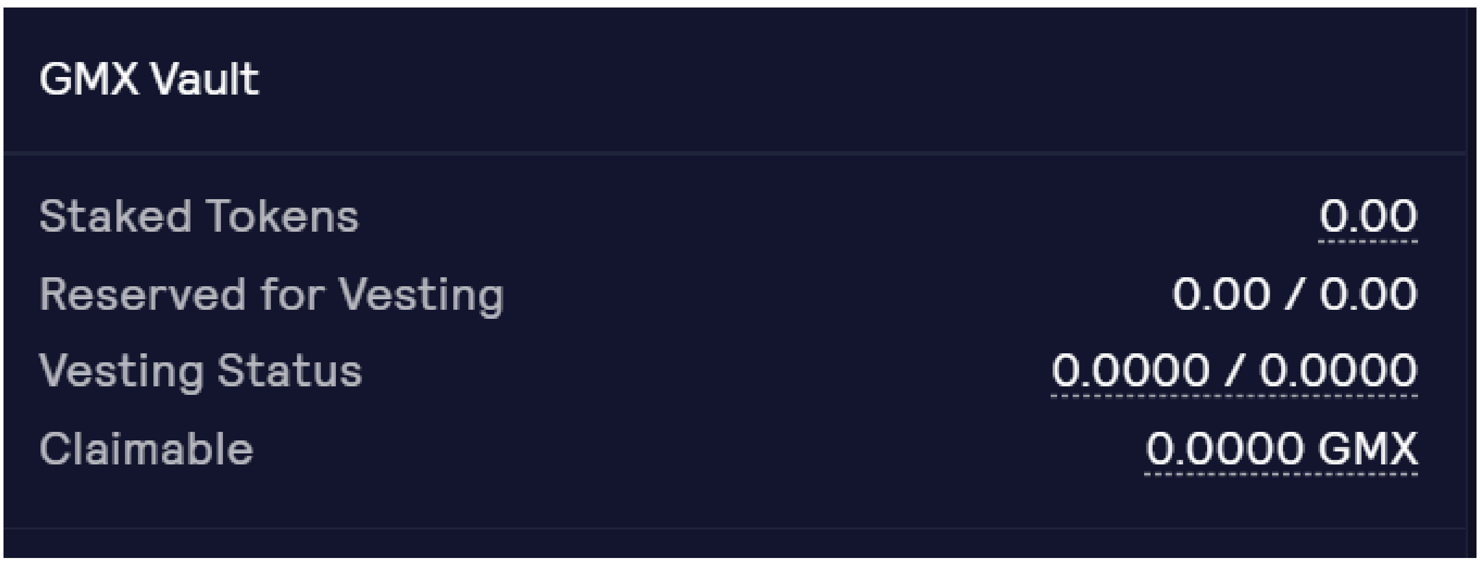
The supply cap can be increased with a DAO vote, but that won't be encountered until much farther down the road. Hopefully the ecosystem will be lucrative enough that, when all tokens are emitted, no token incentives will be necessary to incentivize staking, liquidity provision, and adoption.

ESCROWED GMX

$esGMX is one of the forms of rewards given $GMX stakers and $GLPs that provides two different options for holders:

1. Stake esGMX to earn rewards 1:1 with $GMX (17% $esGMX and 15% $ETH)
2. Vest into GMX over the course of 1 year

The vesting schedule of $esGMX helps ensure long-term use of the protocol and reduce the "farm token dump" incentives that are seen all too often when incentivizing liquidity providers. Let's say you earned $15 of $esGMX after staking $100 of $GMX over a year. In order to convert the $esGMX into $GMX, you must "reserve" the $100 of $GMX token.



This model helps reduce selling pressure in ranging markets as people would be less likely to sell their $GMX so they can realize the full yield of the $esGMX. In deep bear markets, however, people would be fine to leave $esGMX rewards on the table if they believe after the vesting period the return will be negligible.

$esGMX emissions just passed a vote to be reduced over the rest of 2022 to help ensure that there will be a longer runway of strong APRs. The vote can be viewed here.

MULTIPLIER POINTS

Multiplier points earn 100% APR on $GMX staked. These are in place to reward long-term users of the protocol as they can be subsequently staked to earn rewards on a 1:1 basis with $GMX

OVERALL TOKENOMICS

To put tokenomics in a nutshell:

- **$GLP** – Index token of crypto assets, takes the other side of trades on the platform, earns 70% protocol revenues

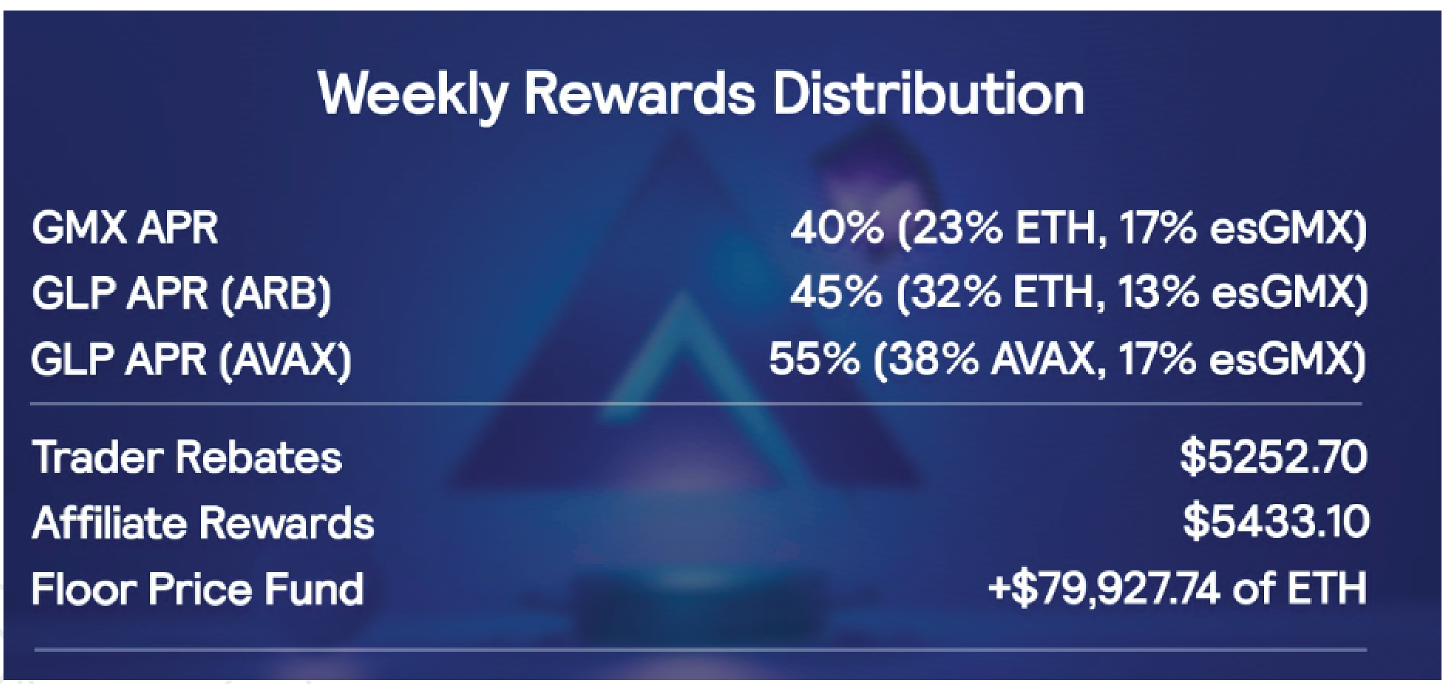
- **$GMX** – Governance token, 30% of protocol revenues

- **$esGMX** – Akin to a farm reward token, but with much better long-term incentive, can be turned into $GMX

- **Multiplier points** – Reward compounder for long-term incentive

Compounding rewards via $GMX is very easy with their tokenomic structure. Given that $GLP and $GMX earn high APR in $ETH, it can be a lucrative strategy to continue to accrue and compound all $esGMX and Multiplier points to earn more $ETH.

Here is a snapshot from the most recent weekly rewards:



USING GMX TO TRADE

Perp trading protocols have a big advantage when building on Ethereum scaling solutions. This means that, from a trading experience, many inconveniences can be abstracted away for consumers in the back end. For example, when opening a trade on GMX, users can deposit any asset as collateral and GMX will handle collateralization and margin for you.

The other important details of trading on GMX are as follows:

- Long profits - paid in the specific asset from the GLP asset base
- Short profits - paid in stablecoins from the GLP asset pool
- Traders pay a borrowing fee every hour for using the GLP

    (Assets borrowed) / (total assets in pool) * 0.01%

One of the biggest downsides with GMX is its limited asset pool for trading. Because of the liquidity provider model, the platform can only support tokens that GLPs would be willing to hold long term.

Currently, that list just comes out to $BTC, $ETH, $LINK, and $UNI. The team has continuously mentioned that they want to expand asset offerings in the future, and that could be done with the previously mentioned fragmented liquidity pools, where users could pick the assets they want to LP based on varying risk levels.

GMC - GMX BLUEBERRY CLUB

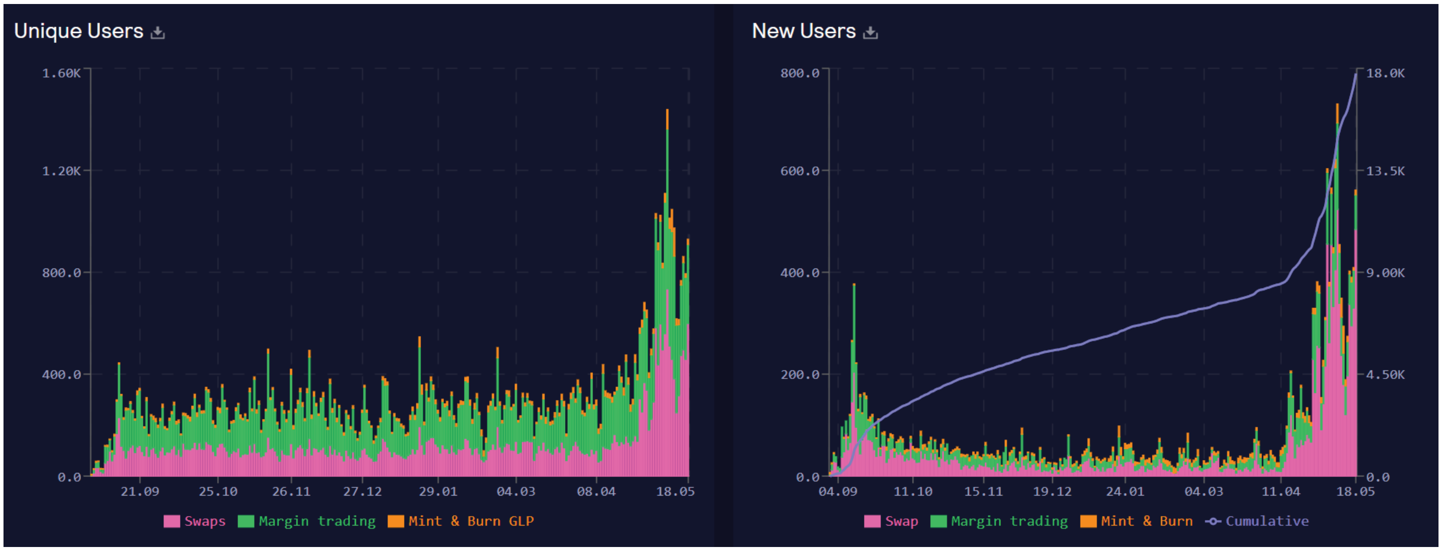
One of the more unique parts of GMX is their NFT project, GBC. The project creates yet another line of incentives for GMX users and stakers alike. There are snapshots taken throughout the month, and if a user holds the NFT, they receive an airdrop of funds proportional to their amount of $GMX staked. Additionally, GBC = 1 vote for governance decisions.

There is a treasury fund accruing value from all the royalty fees earned on GBC sales which is approaching $1m that is deployed into various investments. The team is working on allowing for more trading benefits for GBC holders over time, which we think is a huge need and will help increase trader growth on the platform.

CATALYSTS

Aside from everything that has been said above, we find GMX to have a plethora of unique propositions that position it well for continued growth, even through a stretched-out bear market.

User growth has been flying, more than doubling since April. This is encouraging given the asset offering is very limited right now, and it can be reasonably inferred that when more are available for trading, the growth will continue to shoot up.



CHALLENGES

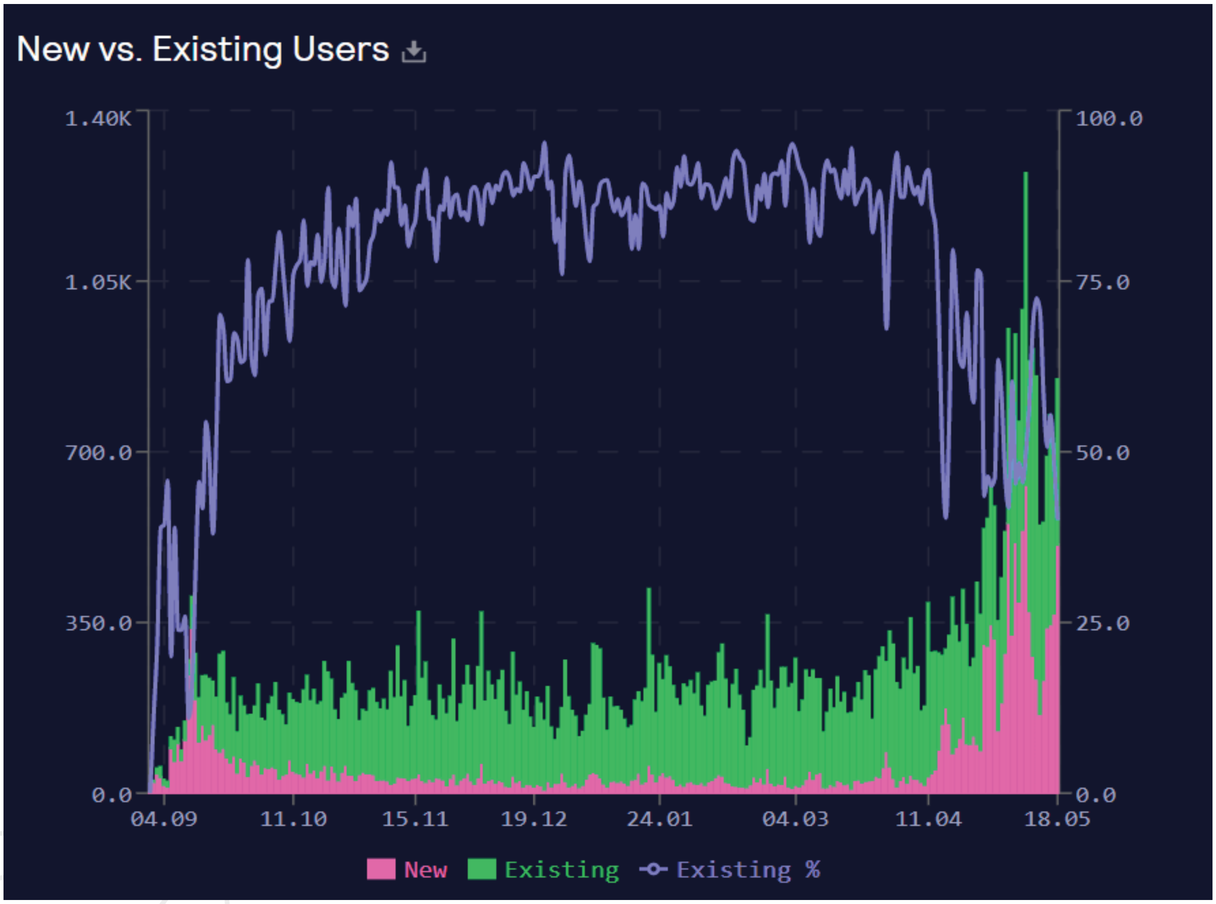
Currently, open interest (OI) and the volume that comes from it are huge drivers of protocol revenues–people placing and clearing orders is the main way the project makes money. As stated preciously, funding rates (called borrow fees for GMX) go 70% to GLP holders and 30% to GMX stakers. Nonetheless, the volume and OI that produces revenue are the only way the token can thrive.

Unfortunately, OI and volume are both extremely reactionary to market conditions, specifically in bear markets it tends to die off which will hurt revenues in mid-term and long-term. Couple this with the small amounts of trading pairs compared to other trading platforms seems like a bit of an existential threat to the protocol given a long-term drawdown or recession.

The GLP token is typically relatively profitable to hold, but also relies on trading activity on the platform: no trading means no funding and no fees–another non-bear-market resistant component of the protocol. If we look at Binance's historical trading volume, we see a steady trend downwards with some quite brutal bottoms for trading volume (look at last week, for example).

There’s no reason that GMX couldn’t see a similar drawdown, and the token trades based on potential future growth and current revenues–if you take those both away, what’s left?

Market conditions mean that new traders aren’t coming in at the same rate as before. Will this trend continue? It seems likely.



We also see some other challenges:

- Shared liquidity as a counterparty for perpetual contract platforms is a very new model, and could cause a net loss on LP positions over time. A Black Swan could wipe out LPs entirely and mean that traders have no liquidity to trade against.
- There are no token incentives for traders at the moment, perhaps it might be an interesting (although inflationary) strategy to incentivize trading with token rewards. esGMX will begin to unlock in September and will begin to provide inflationary pressures on the token supply–will we see continued demand for the token or will unlocked supply be farmed out?
- Runway for the protocol hovers around just a year, meaning they may not be particularly resistant to a long-term bear market. In the past, they've raised by selling esGMX (GMX to be unlocked after a period of time), and could likely raise more if necessary, but it will come at a cost to holders.
- Limited collateral options (the index list from above) means that the platform has a disadvantage over platforms like FTX that offer coin-margined perps.

Finally, we think that by creating a protocol treasury and keeping a small portion of revenues, the DAO could be favorably situated for long-term downturns and build out a stronger runway for adverse market conditions or to take on new protocol developments.

INVESTING IN $GMX

GMX converges around a few theses for us at Crypto Pragmatist, all of which make us quite bullish on the protocol in the short and long term. A leading leverage perp protocol has not yet been established, and the token performing well despite a gnarly bull market has done wonders for adoption and community.

Strong revenue sharing, a liquidity pool model, and a fast-shipping team is all exciting to us. There's plenty to be bullish on, especially if the market kicks off again, retail traders come back, and volumes increase. It's good to own the casino, especially in boom times.

In the midterm, however, September token unlocks are worrisome to us. In crypto bear markets, tokens will depreciate over time unless there's some type of structural demand pressure. GMX has likely performed well thanks to a phenomenal value accrual method (fees directed to stakers) but the inflationary pressure is simply postponed as rewards begin to unlock.

We're also somewhat worried about the team's runway. As of date, they've got about a year of expenses, but would likely raise if necessary by selling locked tokens over-the-counter. That would come at cost to token holders in the short/mid-term, although the move would hopefully pay off in the long term.

$GMX's price has held up relatively well through the most recent downturn and is still up from its launch price.

$GMX's price has held up relatively well through the most recent downturn and is still up from its launch price. It's outperformed about as well as Bitcoin and Ethereum over the last frew months, something few cryptos can say.

As for $GLP, keep in mind that, if you're reflecting on how to make money with $GLP, you're looking at four components:

1. Trading fees accumulated by GLP holders
2. Taking 'the other side' of trades
3. GMX vested token distributions
4. Underlying price action of assets held in GLP

The first three are almost universally price-positive for GLP holders, while the fourth can create impermanent loss for holders as they fluctuate in price relative to each other. For both tokens, those who don't stake are effectively losing a potential 30%+ yearly–staking is a key part of tokenomics here and necessary for those looking to extract maximum value.

It's hard to pick strong DeFi protocols when most holdings are down considerably from their all time high and macro conditions are markedly adverse–nonetheless, GMX seems like a strong contender in a strong niche with some tailwinds around tokenomics and value accrual.

A NOTE OF ADVICE:

Should you choose to take a position in $GMX, $GLP, or in any altcoin, only invest what you can afford to lose.

When we purchase a given asset, we use given price targets for entry and exit to limit personal risk and understand when to exit a position. With this particular asset, we plan to take profits as the price increases to limit exposure and lock in profits.

Understanding that cryptocurrencies in general have an incredibly high chance of going to zero compared to other investment classes, we've put a percentage of my net worth that we're completely comfortable losing.

Although anything contained in this report is not investment advice, anyone who invests in this asset and cryptocurrencies in general should understand that this asset could become valueless at any point in time.