**GMX**

GMX is a decentralized spot and perpetual exchange that supports low swap fees and zero price impact trades.

Trading is supported by a unique multi-asset pool that earns liquidity providers fees from market making, swap fees and leverage trading.

Dynamic pricing is supported by [Chainlink Oracles](https://chain.link/) and an aggregate of prices from leading volume exchanges.

* For token holders: [Tokenomics](https://gmxio.gitbook.io/gmx/tokenomics) and [Rewards](https://gmxio.gitbook.io/gmx/rewards)​
* For liquidity providers: [GLP](https://gmxio.gitbook.io/gmx/glp)​
* For traders: [Trading](https://gmxio.gitbook.io/gmx/trading)

# Tokenomics

GMX is the platform's utility and governance token, holding the token unlocks a variety of benefits.

## Token Information

The GMX token address is [0xfc5A1A6EB076a2C7aD06eD22C90d7E710E35ad0a](https://arbiscan.io/token/0xfc5A1A6EB076a2C7aD06eD22C90d7E710E35ad0a) (Arbitrum), [0x62edc0692BD897D2295872a9FFCac5425011c661](https://snowtrace.io/address/0x62edc0692BD897D2295872a9FFCac5425011c661) (Avalanche).

Steps to purchase GMX can be found on the [Buy](https://gmx.io/buy) page.

After [staking GMX](https://gmxio.gitbook.io/gmx/tokenomics" \l "staking), you will receive a staked GMX token: [0xd2D1162512F927a7e282Ef43a362659E4F2a728F](https://arbiscan.io/token/0xd2D1162512F927a7e282Ef43a362659E4F2a728F) (Arbitrum), [0x4d268a7d4C16ceB5a606c173Bd974984343fea13](https://snowtrace.io/address/0x4d268a7d4C16ceB5a606c173Bd974984343fea13) (Avalanche). Note that the balance for this will return your total staked amount including any esGMX tokens and Multiplier Points.

GMX can be bridged between Arbitrum and Avalanche using [Synapse](https://synapseprotocol.com/).

## Staking

Staked GMX receives three types of rewards:

* Escrowed GMX
* Multiplier Points
* ETH / AVAX Rewards

For more info on Escrowed GMX and Multiplier Points, please see the [Rewards](https://app.gmx.io/#/earn) page.

30% of fees generated from swaps and leverage trading are converted to ETH / AVAX and distributed to staked GMX tokens. If you are staking on Arbitrum you would receive ETH, if you are staking on Avalanche then you would receive AVAX. Note that the fees distributed are based on the number after deducting [referral rewards](https://gmxio.gitbook.io/gmx/referrals) and the network costs of [keepers](https://gmx-io.notion.site/gmx-io/GMX-Technical-Overview-47fc5ed832e243afb9e97e8a4a036353), keeper costs are usually around 1% of the total fees.

To stake your GMX tokens: <https://app.gmx.io/#/earn>​

## Floor Price Fund

The GMX token has a floor price fund in ETH and GLP. It grows in two ways:

* GMX/ETH liquidity is provided and owned by the protocol, the fees from this trading pair will be converted to GLP and deposited into the floor price fund
* 50% of funds received through [Olympus bonds](https://pro.olympusdao.finance/#/partners/GMX) are sent to the floor price fund, the other 50% is used for marketing

The current floor price fund is viewable on the [Dashboard](https://app.gmx.io/#/dashboard).

The floor price fund helps to ensure liquidity in GLP and provide a reliable stream of ETH rewards for all staked GMX.

As the floor price fund grows, it can also be used to buyback and burn GMX if the (Floor Price Fund) / (Total Supply of GMX) is less than the market price, this would lead to a minimum price for GMX in terms of ETH and GLP.

The current floor price fund is held in multiple contracts, these will be gradually consolidated into a single contract:

* ​[0x0472F402EA8E301D7595545884Ad4C420E9865d6](https://bscscan.com/address/0x0472F402EA8E301D7595545884Ad4C420E9865d6)​
* ​[0x6D42dAf7C26Aa3780178b80FAa893b9B6d4cCb85](https://etherscan.io/address/0x6D42dAf7C26Aa3780178b80FAa893b9B6d4cCb85)​
* ​[0x2706AA4532721e6bCe2eA21c3Bb5bbb2146d1Ef1](https://etherscan.io/address/0x2706AA4532721e6bCe2eA21c3Bb5bbb2146d1Ef1)​

Contracts holding the Uniswap V3 NFT LP tokens for fees as well as GLP tokens:

* ​[0x50F22389C10FcC3bA9B1AB9BCDafE40448a357FB](https://arbiscan.io/address/0x50F22389C10FcC3bA9B1AB9BCDafE40448a357FB)​
* ​[0x4E29d2ee6973E5Bd093df40ef9d0B28BD56C9e4E](https://arbiscan.io/address/0x4E29d2ee6973E5Bd093df40ef9d0B28BD56C9e4E)​

If required, the floor price fund may be used to pay for [Bug Bounty](https://gmxio.gitbook.io/gmx/bug-bounty) submissions.

## Supply

The supply of GMX can be viewed on the [Dashboard](https://app.gmx.io/#/dashboard).

The increase in circulating supply will vary depending on the number of tokens that get vested, and the amount of tokens used for marketing / partnerships. The forecasted max supply is 13.25 million GMX tokens.

Minting beyond the max supply of 13.25 million is controlled by a 28 day timelock. This option will only be used if more products are launched and liquidity mining is required, a governance vote will be conducted before any changes.

* 6 million GMX from the [XVIX](https://xvix.medium.com/xvix-gmx-migration-now-live-9c241f23dcb2) and [Gambit](https://gambitprotocol.medium.com/gambit-gmx-migration-now-live-2ba999d208dd) migration.
* 2 million GMX paired with ETH for liquidity on [Uniswap](https://app.uniswap.org/#/swap?inputCurrency=ETH&outputCurrency=0xfc5A1A6EB076a2C7aD06eD22C90d7E710E35ad0a).
* 2 million GMX reserved for vesting from [Escrowed GMX](https://gmxio.gitbook.io/gmx/rewards) 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 contributors linearly over 2 years.

GMX liquidity on Uniswap is gradually added as the price of GMX increases, the Uniswap liquidity pool is at [0x80A9ae39310abf666A87C743d6ebBD0E8C42158E](https://arbiscan.io/address/0x80A9ae39310abf666A87C743d6ebBD0E8C42158E).

Liquidity is owned by the protocol and stored under the same [multi-sig signers](https://xvix.medium.com/xvix-gmx-migration-now-live-9c241f23dcb2) as the XVIX and Gambit migration. Multi-sig contracts:

* ​[0x50F22389C10FcC3bA9B1AB9BCDafE40448a357FB](https://arbiscan.io/address/0x50F22389C10FcC3bA9B1AB9BCDafE40448a357FB)​
* ​[0x4E29d2ee6973E5Bd093df40ef9d0B28BD56C9e4E](https://arbiscan.io/address/0x4E29d2ee6973E5Bd093df40ef9d0B28BD56C9e4E)​

## Bridging

GMX tokens can be bridged between Ethereum and Arbitrum, but you should not use this unless absolutely necessary. All features are on Arbitrum so there should be no strong reason to bridge tokens. If you bridge tokens from Arbitrum to Ethereum there will be a 7 day waiting period during which you will not have access to your tokens.

Instructions to bridge: <https://gist.github.com/xvi10/6125b5fbd73f12a2bfce9b729a52255a>​

For bridging between Arbitrum and Avalanche you can use [Synapse](https://synapseprotocol.com/).

**Updates**

Telegram: <https://t.me/GMX_Announcements>​

Discord: <https://discord.com/invite/ymN38YefH9>​

Substack: <https://gmxio.substack.com/>

# Rewards

GMX Rewards provide benefits for long term users of the protocol, these rewards come in the form of Escrowed GMX and Multiplier Points.

## Compounding vs Claiming

There are two options for rewards on <https://app.gmx.io/#/earn>: "Compound" and "Claim".

Compounding will stake your pending Multiplier Points and Escrowed GMX rewards, this will increase the amount of rewards you receive.

Claiming will transfer any pending Escrowed GMX rewards and ETH / AVAX rewards to your wallet.

If you compound or stake your Escrowed GMX tokens, you can unstake them for vesting at anytime later on.

## Escrowed GMX

Escrowed GMX (esGMX) can be used in two ways:

1. 1.

Staked for rewards similar to regular GMX tokens

1. 2.

Vested to become actual GMX tokens over a period of one year

Each staked Escrowed GMX token will earn the same amount of Escrowed GMX and ETH / AVAX rewards as a regular GMX token.

Note that Escrowed GMX (esGMX) is not meant to be transferrable unless you are doing a [full account transfer](https://app.gmx.io/#/begin_account_transfer). The amount of GMX or GLP required to vest esGMX is unique per account and capped to the rewards received by that account. Please do not buy esGMX off the market or OTC as you will not be able to vest them.

## Vesting

Escrowed GMX (esGMX) tokens can be converted into GMX tokens through vesting, this can be accessed on the [Earn](https://app.gmx.io/" \l "/earn) page.

When vesting is initiated, the average amount of GMX or GLP tokens that was used to earn the esGMX rewards will be reserved.

For example, if you staked 1000 GMX and earned 100 esGMX tokens, then to vest 100 esGMX tokens, 1000 GMX tokens will be reserved. To vest 50 esGMX, 500 GMX tokens will be reserved. Note that this is an example and the actual ratio depends on the average staked amount and rewards earned for your account.

esGMX tokens that have been unstaked and deposited for vesting will not earn rewards. Staked tokens that are reserved for vesting will continue to earn rewards.

After initiating vesting, the esGMX tokens will be converted into GMX every second and will fully vest over 365 days. esGMX tokens that have been converted into GMX are claimable at anytime.

If a user sells GMX or GLP tokens and would like to vest their esGMX rewards later on, they would need to re-buy the GMX or GLP tokens. GMX, esGMX and Multiplier Points can be used interchangeably for the required reserve amount.

Depositing into the vesting vault while existing vesting is ongoing is supported.

Tokens that are reserved for vesting cannot be unstaked or sold. To unreserve the tokens, use the "Withdraw" button on the [Earn](https://app.gmx.io/#/earn) page. Partial withdrawals are not supported, so withdrawing will withdraw and unreserve all tokens as well as pause vesting. All esGMX tokens that had been vested into GMX will remain as GMX tokens.

## Multiplier Points

Multiplier Points reward long term holders without inflation.

When you stake GMX, you receive Multiplier Points every second at a fixed rate of 100% APR. 1000 GMX staked for one year would earn 1000 Multiplier Points.

Multiplier points can be staked for fee rewards by pressing the "Compound" button on the [Earn](https://gmx.financial/earn) page, each multiplier point will boost ETH / AVAX APRs at the same rate as a regular GMX token.

When GMX or Escrowed GMX tokens are unstaked, the proportional amount of Multiplier Points are burnt. For example, if 1000 GMX is staked and 500 Multiplier Points have been earned so far, then unstaking 300 GMX would burn 150 (300 / 1000 \* 500) Multiplier Points. The burn will apply to the total amount of Multiplier Points which includes both staked and unstaked Multiplier Points.

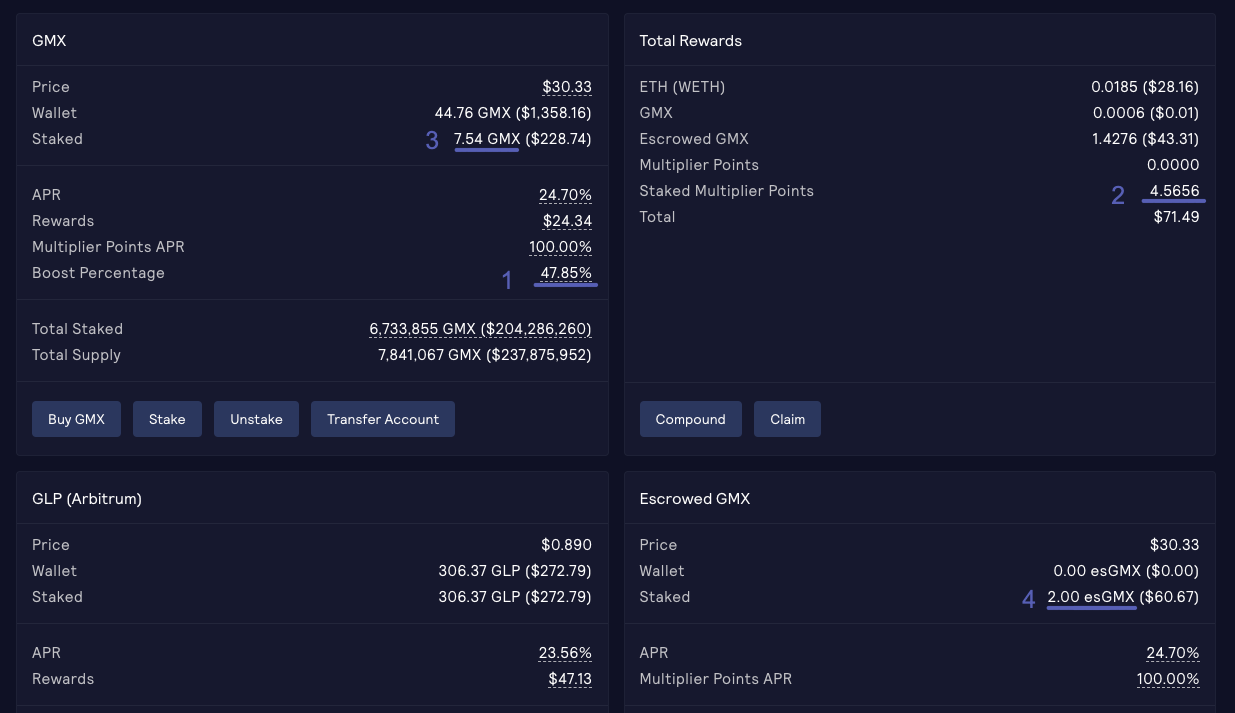
To transfer staked tokens without burning Multiplier Points, use the Transfer button on <https://app.gmx.io/#/earn>.

The "Boost Percentage" shown on the [Earn](https://app.gmx.io/#/earn) page shows your individual boost amount from Multiplier Points. For example, if the ETH APR is 10% and you have $10,000 worth of GMX and esGMX, then your rewards would be $1000 annualized, if you additionally have an amount of Multiplier Points equivalent to 20% of your total amount of GMX and Escrowed GMX, your "Boost Percentage" would display as 20%, and you would get an extra $200 of ETH rewards annualized. The “Boost Percentage” is calculated from the ratio of Multiplier Points to your total amount of staked GMX:

Boost Percentage = 100 \* (Staked Multiplier Points) / (Staked GMX + Staked esGMX)

An example:

100 \* (4.5656) / (7.54 + 2.00) = 47.85%



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## Distribution Rate

Escrowed GMX will be distributed to staked GMX and GLP according to the schedule in the latest [snapshot votes](https://snapshot.org/#/gmx.eth).

Rewards are distributed every second to staked tokens.

Reward rates will be evaluated each month and may be subjected to changes. Any modifications will be announced at least 7 days in advance before being implemented.

## Summary

A summary of rewards and mechanics:

* GMX: earns ETH / AVAX, esGMX, Multiplier Points when staked
* esGMX: earns ETH / AVAX, esGMX, Multiplier Points when staked
* Multiplier Points: boost ETH / AVAX APRs when staked
* GLP: earns ETH / AVAX, esGMX, automatically staked on mint

# GLP

GLP is the platform's liquidity provider token.

## Overview

GLP consists of an index of assets used for swaps and leverage trading. It can be minted using any index asset and burnt to redeem any index asset. The price for minting and redemption is calculated based on (total worth of assets in index including profits and losses of open positions) / (GLP supply).

For Arbitrum, holders of the GLP token earn [Escrowed GMX rewards](https://gmxio.gitbook.io/gmx/rewards) and 70% of platform fees distributed in ETH. For Avalanche, holders of the GLP token earn [Escrowed GMX rewards](https://gmxio.gitbook.io/gmx/rewards) and 70% of platform fees distributed in AVAX. Note that the fees distributed are based on the number after deducting [referral rewards](https://gmxio.gitbook.io/gmx/referrals) and the network costs of [keepers](https://gmx-io.notion.site/gmx-io/GMX-Technical-Overview-47fc5ed832e243afb9e97e8a4a036353), keeper costs are usually around 1% of the total fees.

Staked GLP token address (Arbitrum): [0x1aDDD80E6039594eE970E5872D247bf0414C8903](https://arbiscan.io/token/0x1aDDD80E6039594eE970E5872D247bf0414C8903)​

Staked GLP token address (Avalanche): [0x9e295B5B976a184B14aD8cd72413aD846C299660](https://snowtrace.io/address/0x9e295B5B976a184B14aD8cd72413aD846C299660)​

Note that GLP is specific to the network you mint it on, it is not directly transferrable between networks and the price / rewards to the tokens will differ between networks.

As GLP holders provide liquidity for leverage trading, they will make a profit when leverage traders make a loss and vice versa. Past PnL data, GLP price chart and other stats can be viewed on [https://stats.gmx.io](https://stats.gmx.io/).

## Minting and Redeeming

### Minting GLP

* Bridge any of the GLP tokens to Arbitrum / Avalanche, a list of GLP tokens can be found on the [Dashboard](https://app.gmx.io/#/dashboard).
  + Fees will be lower for tokens that the pool has less of, check the "[Save on Fees](https://app.gmx.io/#/buy_glp)" section to get the lowest fees
  + You should buy the token with the lowest fees from Ethereum and then bridge that token directly as these tokens are likely more expensive to purchase on Arbitrum
* For Arbitrum, ensure that some ETH is bridged over as you need it to pay for the network fees
  + Bridging to Arbitrum: <https://arbitrum.io/bridge-tutorial/>​
* For Avalanche, ensure that you have some AVAX for network fees
  + ​<https://bridge.avax.network/>​
* Key in the amount of GLP you'd like to purchase on: [https://app.gmx.io/#/buy\_glp](https://app.gmx.io/" \l "/buy_glp)​

Fees for buying GLP will vary based on which assets the index has less or more of, the Buy GLP page will show which assets have the lowest fee.

After buying your tokens will automatically be staked and you will start earning Escrowed GMX and ETH / AVAX rewards, you can check your rewards at <https://app.gmx.io/#/earn>.

### Redeeming GLP

Key in the amount of GLP you'd like to redeem at <https://app.gmx.io/#/buy_glp#redeem>.

### Token Pricing

There may be a spread on some tokens, minting GLP will be based on the lower value of the token and redeeming GLP will be based on the higher value of the token.

For stablecoin tokens, the spread will be from the Chainlink price of the stablecoin to 1 USD.

The price of GLP will depend on the spread of the tokens in the pool as well.

## Rebalancing

The fees to mint GLP, burn GLP or to perform swaps will vary based on whether the action improves the balance of assets or reduces it. For example, if the index has a large percentage of ETH and a small percentage of USDC, actions which further increase the amount of ETH the index has will have a high fee while actions which reduces the amount of ETH the index has will have a low fee.

The token weights can be seen on the [Dashboard](https://app.gmx.io/#/dashboard).

Token weights are adjusted to help hedge GLP holders based on the open positions of traders. For example, if a lot of traders are long ETH, then ETH would have a higher token weight, if a lot of traders are short, then a higher token weight will be given to stablecoins.

If token prices are increasing, then the price of GLP will increase as well, even if a lot of traders have a long position on the platform. The portion reserved for long positions can be treated as stable in terms of its USD value since if prices increase the profits from that portion will be used to pay traders, and if prices decrease, the losses of traders will keep the USD value of the reserve portion the same.

If a lot of traders are short and larger weights are given to stablecoins, then GLP holders would have a synthetic exposure to the tokens being shorted, e.g. if ETH is being shorted then the price of GLP will decrease if the price of ETH decreases, if the price of ETH increases then the price of GLP will increase from the losses of the short positions.

## Risks

Caution should be exercised when interacting with any smart contract or blockchain application. While risks are attempted to be mitigated through testing, audits and bug bounties, there is always a risk of vulnerabilities in smart contract code.

For details of contract operation please read the [Contracts](https://gmxio.gitbook.io/gmx/contracts) section.

A non-exhaustive list of some risks:

* Smart contract risks
* Counterparty risks: The GLP pool is the counterparty to traders, if traders make a profit that comes from the value of the GLP pool
* Token risks: Bridged tokens may depend on the security of the bridge, pegged tokens have risks of depegging