Background summary:

GammaSwap is the first volatility DEX enabling people to short liquidity inside any AMM and any pool. This enables traders to long volatility or hedge their impermanent loss (IL) for any token. The long volatility positions can have payouts similar to a long straddle or synthetic call or put.

As an LP, if you provide liquidity inside of GammaSwap you can earn the fees from the underlying AMM plus the fees from those longing gamma. This should lead to better risk adjusted returns for LPs. One can imagine that even without hedging, in periods of higher impermanent loss (volatility) there will be more demand for gamma and the interest rate on loans will increase – meaning LPs are better compensated for the IL risk.

Our long term goal is to build an AMM that isn't fee incentivized by swaps, but rather from those taking the opposite side of the impermanent loss trade – similar to a normal options market. In Tradfi, you have individuals writing options (selling gamma) and others buying options (buying gamma). Since IV (Implied Volatility) has overstated HV (Historical Volatility) 83% of the days since 1990, the edge has generally been to volatility sellers.

Given the higher volatility in crypto, we believe that the GammaSwap model will enable retail LPs to remain passive while expecting to be positive EV on average, unlike in the current AMM model.

We plan on supporting Uniswap V3 & V2, Sushi, Balancer and eventually our own novel AMM.

Proposal:

1. Hedged IL Vaults in UniV3

A big problem for Liquidity Providers is Impermanent Loss, especially for volatile tokens. The first part of our proposal is to build vaults on UniV3 for the ETH/GMX 1% and 0.3% fee tiers to enable liquidity providers to automatically hedge their IL exposure. We will do this by building automated strategies that provide liquidity in these pools and also take out loans that are long gamma (turning IL into impermanent gains) with a small percentage of the yield. This should drastically reduce impermanent loss exposure for LPs, thereby attracting more liquidity to the pool, reducing slippage for traders and other negative externalities from low liquidity.

1. Higher Yield for GMX UniV3 LPs

Comparisons of similar MCAP tokens

-GMX UniV3 top pool TVL = 7.48M , DEX Volume = 7.6M

-CRV curve top pool TVL = 37M, DEX Volume = 2.4M

-Lido sushi top pool TVL = 8.75M, DEX Volume = 4.6M

As you can see, although GMX has one of the highest DEX volumes it has relatively low TVL in AMMs – most likely due to the opportunity cost of staking GMX, however, the negative externality is lower liquidity. In addition to the vaults, GammaSwap will enable significantly higher yield in UniV3 since LPs will also earn the fees from those longing volatility from the pool. Given the HV of GMX, we anticipate that the boosted yield from gamma on WETH/GMX will be significantly higher than other token pairs. Even without hedging, LPs will also be better compensated for the risk they are taking due to the dynamic interest rate employed by GammaSwap, similar to the Aave interest rate model.

1. Synthetic calls & puts

When combining a long straddle with a perpetual future, you can get return payoff curves that resemble a call or put. We can combine these long straddles from UniV3 with GMX assets on Arbitrum (ETH, BTC, Link, Uni) to create synthetic calls and puts.

Although GMX is releasing their own synthetic product soon, the GMX contributors do not see this as a competitive product. The heterogeneity of the instrument construction will yield radically different liquidity profiles for GammaSwap Synths and GMX synths. Since liquidity precedes utilization, it's highly unlikely the two platforms will be cannibalizing each other's user base. Rather, it will allow GMX traders exposure to a wider array of synthetics and drive more fees to esGMX holders. For example, this type of synthetic call and put will be less prone to liquidations as GammaSwap options do not have delta risk.

With these three product offerings, we propose a token swap of $100k in value at a $10M FDV for GammaSwap

Swap Terms:

-The value of esGMX will be taken as the 30-day average price of GMX in the 30 days prior to the approval of the governance proposal, using daily closes on coingecko.

-GammaSwap will lock the esGMX tokens permanently

-The proceeds from staking esGMX will be used to fund grant programs to build vaults or structured products leveraging GMX & GammaSwap, driving more fees to both platforms.

-GMX will receive 1% of the 16M total token supply of GS, which will be a part of the real yield narrative. The GMX DAO can vote on how to use the proceeds from GS in any way they see fit. These tokens will also be locked permanently

The swap is contingent on the successful audit of the GammaSwap platform by Halborn and integration into UniswapV3.

Disclosure: “It should be noted that, to the best of our knowledge, two GMX contributors, quat and coinflipcanada, have participated in the GammaSwap seed round. This information is being provided as a disclosure, and should not be interpreted as an endorsement.”