

LongShot Sports Markets

a Solana dApp

LongShot Sports Markets is a sports betting platform that aims to have the lowest fees ('juice') in the industry by leveraging the power of decentralization.

Building a superior product for the new age.

Legacy companies are content with current fees as they have no incentive to lower them if every major book 'agrees' to offer similar juice, they have become complacent. I assume part of the reason for these fees is to pay for a larger overhead than we will have.

LongShot will disrupt the sports markets much like Robinhood did to the stock markets, forcing existing entities to lower fees.

Sport Betting Industry

"Sports betting estimates around \$150 billion per year. A conservative estimate if including offshore and local bookie betting. Roughly 45% of US residents live in a state that has legal sports betting in 2023. Expect this to jump when California, Texas, or Florida legalize their industry (www.legalsportsbetting.com)."

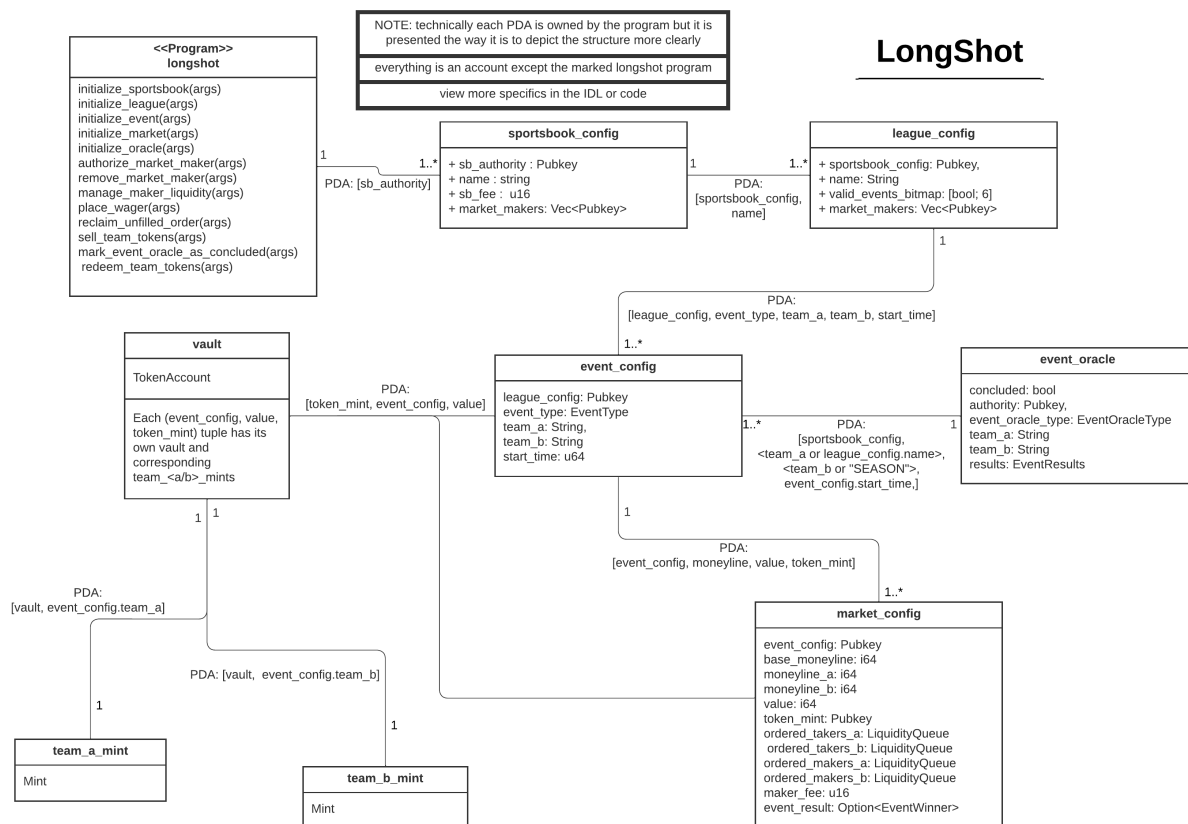
Pretty much what this means is that there is a minimum \$150 billion dollar market that will only be expanding for LongShot to tap into. If we assume LongShot can somehow capture 0.5% (yes, probably ambitious) market share that means \$750 million dollar will flowing through LongShot. What does this mean for sports book authorities, market makers, and oracle validators (with default fees) on LongShot? The SB authority would have annual revenue of \$75 million, market makers would share \$75 million annually, and oracle validators would also share \$75 million annually. All of this while the LS token gets stronger [all assuming future the fee structure, see below].

User Experience

Unlike a lot of dApps in the current decentralized ecosystem, we do not aim to market LongShot only as a dApp, we plan to appeal to the everyday bettor. A big problem with current dApps is the clunkiness and complications of a crypto

wallet. While we will allow users to use their own crypto wallet, users of LongShot will also be able to use traditional forms of payment on our platform (such as credit card, Apple Pay and PayPal). Throughout this paper we may refer to two different classes of users, “self-custody” for crypto wallet users and “LongShot-custody” for traditional users.

Program Structure



Sports Book

Sports book operators take a fee.

Partner with existing sports books? We get licenses, while they get into the blockchain/web3/crypto world. We may not have to though, since at some point we will out compete them for all users, not just crypto users since we will have the most better friendly odds.

Market Makers

Market makers provide liquidity in exchange for a fee. Market makers are essentially the same as a bettor except they receive the fee instead of paying it.

Oracles

[FUTURE] Decentralized Idea: Have oracle validators that validate events in exchange for LS tokens. LS tokens would come from a fee on every bet. The fee would at first be denominated in any token, and then we would swap it to LS on an AMM.

Centralized Idea: Have the sports book operator control their own oracles.

Bettors

Bettors get the best odds with the least juice. We will start with getting our self-custody side of the site running as this will be the rails of the LongShot-custody protocol and allowing LongShot-custody users may require additional registration/regulation/licenses on top of the registration/regulation/licenses for self-custody.

Fees

4 fee types:

sports book fee (default: 1%)- goes to sport book authority.

market maker fee (default: 1%)- goes to market makers in market denomination.

[FUTURE] protocol fee (default: 1%)- converted to USDC then goes to USDC/LS liquidity pool.

[FUTURE] oracle fee (default: 1%)- converted to LS token and then goes to oracle validators

If we use default fees (including future fees) we will still be below the average juice. That being said, work will need to be done to dial in these fees to correct levels.

Bettors win about \$92.75 per \$100 bet at legal US sports books (www.legalsportsbetting.com). This is equal to about a 7.25% fee.

Real World Example:

09/14/23- Vikings v.s. Eagles money line: Eagles -260, Vikings +214

Translation: If you bet on Eagles winning, you bet \$260 to win \$100

“ Vikings “ bet \$100 to win \$214

Where does this missing \$46 dollars go? Answer: to the sport book.

Implied probability: Eagles= $260 / (260 + 100) = 0.7222$

Vikings= $100 / (214 + 100) = 0.318$

Combined = 1.042

Juice = 4.2%

No juice at all example:

In a world without sports book fees the odds would something look like this:

09/14/23- Vikings v.s. Eagles money line: Eagles -235, Vikings +235

Translation: If you bet on Eagles winning, you bet \$235 to win \$100

“ Vikings “ bet \$100 to win \$235

No missing money.

Implied probability: Eagles= $235 / (235 + 100) = 0.7015$

Vikings= $100 / (235 + 100) = 0.2985$

Combined = 1.00

Juice = 0.0%

LongShot example:

There will never be a sports book without fees, but to reduce fees we need to increase the amount of people given the opportunity to create the market. That's where LongShot comes in. Our proposed fees are: 1% sport book fee, and 1% market maker fee (other fees not implemented yet), here's what that looks like with base money line -235:

09/14/23- Vikings v.s. Eagles money line: Eagles -251.5215, Vikings +228.4313

Translation: If you bet on Eagles winning, you bet \$239.70 to win \$100

“ Vikings “ bet \$100 to win \$230.39

\$9.31 to the sports book/market makers.

Implied probability: Eagles= $251.5 / (251.5 + 100) = 0.7155$

Vikings= $100 / (228.43 + 100) = 0.3044$

Combined = 1.02

Juice = 2.00%

So we have some wiggle room to do a couple things:

Increase market maker fee to attract more market makers.

Add an oracle fee to make the protocol stronger and implement decentralized oracles as described above.

Add a protocol fee to make LS token stronger.

LS Token [FUTURE]

Launch a locked liquidity pool with X USDC and 21,000,000 LS (because BTC). EVERY SINGLE token that will ever exist will originate from this original 21,000,000 in the liquidity pool. No premine, no monkey business.

Tokenomics- no mint ability, LP token burned (liquidity is locked). There will be a protocol fee to add USDC to the liquidity pool. LS denominated markets will not have to pay protocol fee. Oracle validators have to stake X LS to be an oracle validator. Market makers have to lock X LS to be market maker.

Features of LS that will make it a strong token:

- No mint ability: supply cannot be increased.
- Locked liquidity: impossible to rug the liquidity.
- LS utility: no fees on LS denominated bets = bettors have incentive to buy LS.
- Protocol fee: USDC added to liquidity pool while the amount of LS stays the same = price per LS goes up.
- Oracle fee: All fees paid to oracle validators will get swapped to LS = buying pressure.

Summary of Future Plans

- Make frontend way better
- Test Solana program rigorously
- Get people to use/test LongShot on devnet.
- ??Do we need licenses/other legal stuff to launch on main??
- Launch LongShot on Solana mainnet.
- Build out traditional payment systems/get licenses ASAP (partner with traditional sports book?).

- Launch a daily sports YouTube show to market LongShot. Post clips on TikTok/Instagram.
- Launch LS token (above) at some point early after going live on mainnet.
- Make the protocol decentralized with these steps:
 - Implement decentralized oracles with oracle validators.
 - Implement decentralized market_maker approval (Ideas: must provide X liquidity per day, staking LS, combination of both).
 - Add player props (season/daily) feature.
 - Add daily fantasy sports feature.
 - Add season long fantasy sports feature.
 - Add parlay functionality
- Allow others to operate their own sports book with their own fees built on our protocol.
- Create 'ETFs' for teams and players backed by different season long and single game bets.

Potential Hurdles

- Regulatory/license issues.
- Seamless user experience. No clunky crypto wallets if the user isn't familiar. Need to offer traditional forms of payment.
- Not enough willing market makers at our fee level. Also, market makers themselves need a license?
- Marketing isn't working/can't reach enough users.

To Investors

First decentralized protocol to my knowledge that will outcompete its direct traditional competition due to decentralization. This will be groundbreaking for Solana and blockchain technology.

As much as gambling may be viewed as a 'bad' thing, it is going to happen no matter what. Let's do some good for the world and keep more money in the average person's pockets, have more fair sports markets, and distribute the smaller fees that we do have to multiple parties including back to LS token holders, not just big businesses.

Benefits to the Solana Ecosystem

- Brings users to Solana.
- Even if the users opt to use traditional forms of payment (i.e not a crypto wallet) the money will still be flowing to the ecosystem.