

Decentralized Sports Betting using Smart Contracts

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The Plan:

To remove as much Juice* from sports betting as much as possible by facilitating direct person to person betting on an a smart contract exchange built with ethereum.

*juice is what bettors call the 10% fee that is charged to bettors in the form of offering house benefiting odds; (-110 on a 50/50 outcome)

Status Quo in the industry:

The economics of sports gambling is constructed so that the *house* or *sportsbooks* typically require players to wager at least 1.10x to win x. Put another way, most bookmakers give 10 to 11 odds — forcing the gambler to risk \$11 to win \$10 contingent on the outcome.

Sports gamblers must *win* or *cover* bets over *at least 52.4%* of the time is an inevitable hurdle all sports gamblers must clear to be profitable.

Riskless Profit

Casinos consistently balance the total money wagered so that regardless of outcome, they will take their 10%. Sportsbook typically only have skin in the game in less than 20% of NFL games per year.

The bets that make up “riskless” profit for simply transferring money between bettors is the target group of bets. A 10% fee for holding money for a few hours and then distributing it is outrageous for a process that can be done nearly for free without the help of the middleman with the blockchain and other financial service advancements.

Person 2 Person betting

- If you and a friend are both planning on betting \$100 on the opposite side of a game, it makes much more sense to bet with each other, rather than each betting 110\$ on a sportsbook.
- Sportsbooks, most of the time, essentially take 10% to be the middleman for the betting community.
- It's pretty unlikely that I would have a friend who is willing to take a juicless bet against for every bet I want to place. Also, who wants to bet against their friends?

Application of Smart Contracts

Picture a market structure very similar to the options market of the stock market.

Say you want to 100\$ bet on a pick-em game:

- You would write a contract and stake it with \$100 of a TBD erc20 coin.
- If someone in the community wants to accept the bet, they can accept the contract and stake \$100.
- When the game is over, the smart contract will execute and the tokens will be awarded to the winner without any action being necessary.

Is there a market for P2P betting?

Since the ecosystem itself can never take on any risk, the market will not produce juiceless betting opportunities for betting against the public money.

Let's look at two examples for the upcoming NFL week 1 money lines.

According to Actionnetwork, the total money for spread bets on LA Chargers-Washington Football Team are split 49/51, meaning 49% of the money is on the LAC and 51% is on WFT to win. In this scenario, the market should naturally produce enough juiceless bets for 98% of all moneyline bets looking to be placed on the game.

Let's look at another example on the next slide

Limits of the Exchange:

The public will not always be perfectly split. So far the Chiefs have taken 66% of the money on the spread for their week 1 matchup with the browns, who are backed by 34% of the money.

In this scenario that ecosystem will only provide around 68% of the market with juiceless bets.

The rest of the bettors (chiefs bettors in our scenario) can still wager at typical sportsbooks where they can tolerate risk.

Additional market analysis is necessary to determine the impact on juice and odds

Using Smart Contracts to Remove the Middle Man

What Is a Smart Contract?

A smart contract is a self-executing contract with the terms of the agreement between buyer and seller being directly written into lines of code. The code and the agreements contained therein exist across a distributed, decentralized blockchain network. The code controls the execution, and transactions are trackable and irreversible.

Smart contracts permit trusted transactions and agreements to be carried out among disparate, anonymous parties without the need for a central authority, legal system, or external enforcement mechanism.

How our platform would work

Users will have two options::

- Writing Contracts
- Accepting Contracts

Writing Contracts

Writing a contract will be similar to placing a bet on a regular Sportsbook, although for your bet to be active, someone in the market will have to “agree” to it.

After specifying event, desired outcome, amount staked and the odds you would like to offer and receive, the smart contract will be written and sent to the marketplace for perspective bettors to possibly accept.

The staking will either be done in Ether, an ethereum stable coin or possibly a platform specific alt coin.

Accepting contracts

All active contracts will be in the marketplace.

In order to accept the contract, the user simply needs to stake the amount dictated by the smart contract.

Additionally, if you attempt to write a contract that is a direct compliment to a contract that is already written, then the platform will alert you before you create it and encourage you to accept the already active contract.

Cons

- The ecosystem will not produce enough juiceless bets when there public is concentrated on one side of a game.
- The platform may be affected by “gas” prices.(although these will inevitably fall)

Pros of a Blockchain “Sportsbook”

- No juice!!!!!!!!!!
- Transparency
- Flexible Value Transfers: users can fund their account and receive payouts using a cryptocurrency wallet instead of providing sensitive banking information like a credit card number online. Digital tokens can also facilitate rapid payouts with near-instantaneous settlement periods. The use of digital currencies facilitates access to crypto markets worldwide, ignoring national boundaries.
- Accessibility
- User Anonymity (maybe..., legal issues may prevent this)
- Worldwide accessibility

Possible Revenue

This project doubles as a “free the people” decentralize type movement that “beats Vegas” by circumventing them when possible.

It also presents the opportunities to generate revenue through selling ads

It also offers the intriguing opportunity of releasing a site specific altcoin that can be bought and used by the community.

Goals

- Build a dApp platform that fosters the growth of a betting market that organically removes juice for a large portion of sports bets because of direct P2P transactions. .

Marketing

Platform will appeal to people that lose to Vegas.

Money : you have to bet less money to make the same amount.

First steps

Skills we may need:

Java, Python and Solidity proficiency

Someone with experience coding over the blockchain

Economist?

Components

- Contract writing and accepting
- Connecting wallet
- Grading of wagers
- Web design
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