

What are the odds?

The ultimate guide to naïve sports gambling



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\$250bn

Sports Gambling is a massive industry with an estimated market capitalization of \$250 billion worldwide, with the Asia-Pacific (47%) being its largest market and the US being its fastest growing market (10% YoY growth).

NBA Historical Stats and Betting Data

***Like money? Great! Don't take our advice.**

How to read and interpret odds 101

Bet = \$90

Odds = -135

Win = \$156.67

= FAVORITE

Bet = \$250

Odds = +135

Win = \$587.50

= UNDERDOG

The B I G Question?



Can a Naïve Gambler make money?

We explored some questions that a naïve gambler would almost certainly ask.

- What if I always bet on the underdog? (Or the favorite?)
- What if I always bet on the home team?
- What if I always bet on the team with the higher win percentage?
- What's the difference in returns between betting on the money line versus the spread?
- What if I use different bookies?

Assumptions

For simplicity we enforced two rules for every strategy:

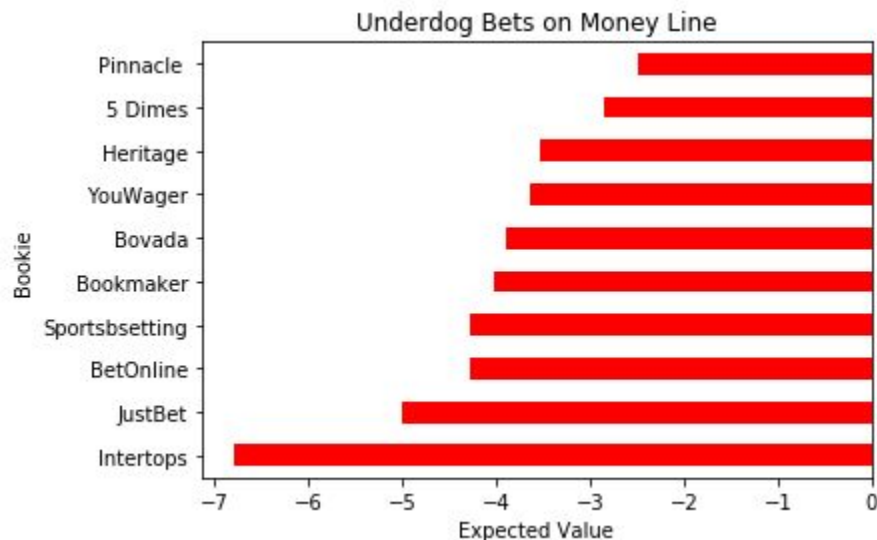
1. We **always** bet \$100 no matter what.
2. We **never** bet if the odds are even (i.e. no favorite or underdog).



The Underdog

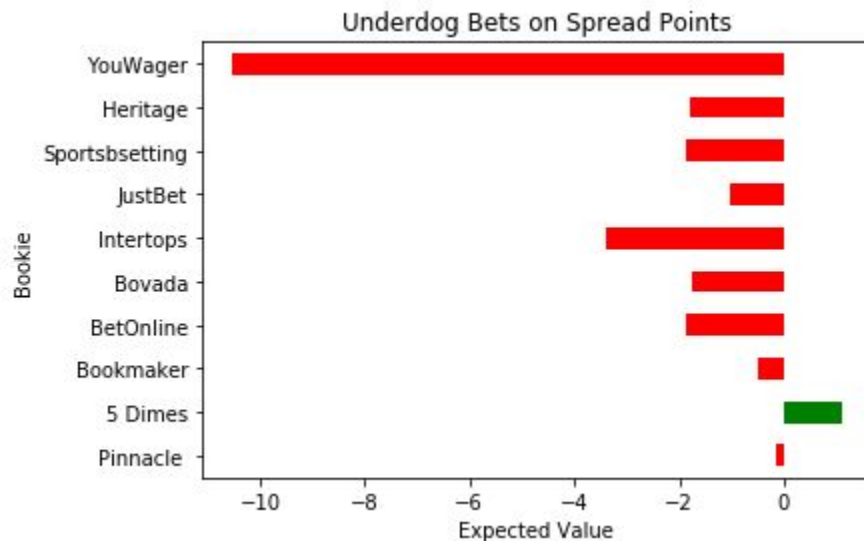
Betting the Moneyline on the Underdog

- Betting on the underdog has a higher return value if you win
- But, each bet is predicted to have a lower chance of winning
- Over time, you are expected to lose
- Thus, this is not a good strategy



Betting the Point Spread on the Underdog

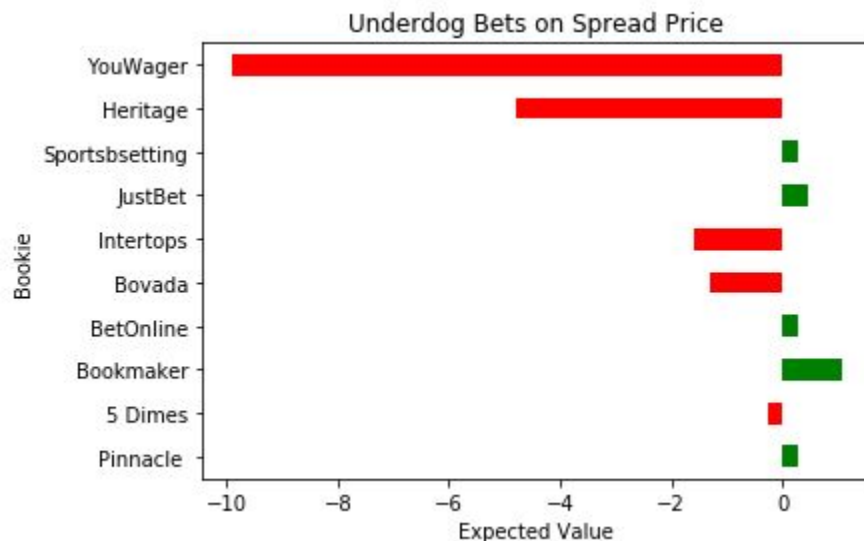
- Spreads are clearly harder to predict for bookies
- Although our underdog strategy had a positive expected value with 5 Dimes, but it is a negligible return— <1%



Betting on the Underdog Spread Price

Disregarding the actual spread itself and just focusing on the price :

- Betting on the underdog means that the favorite either didn't win or the favorite didn't cover their spread
- Going with this strategy we would choose Bookmaker as our bookie

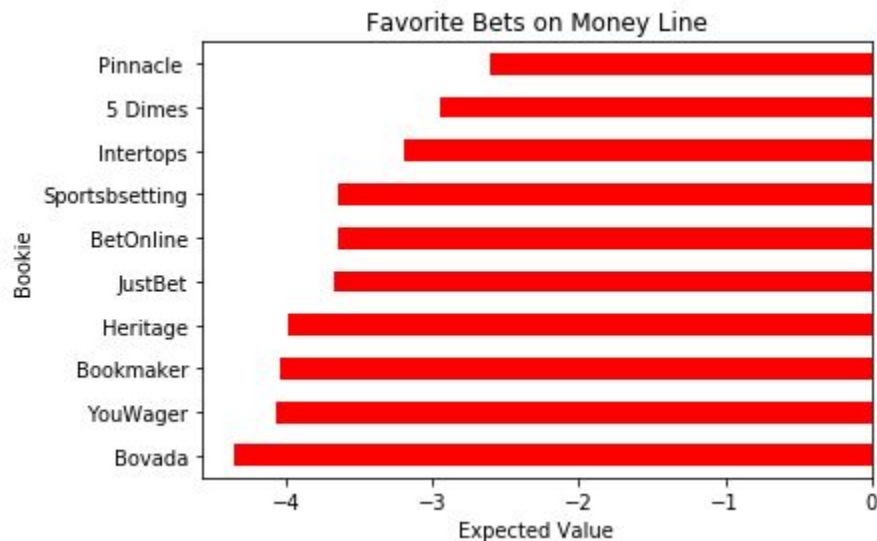




The Favorite

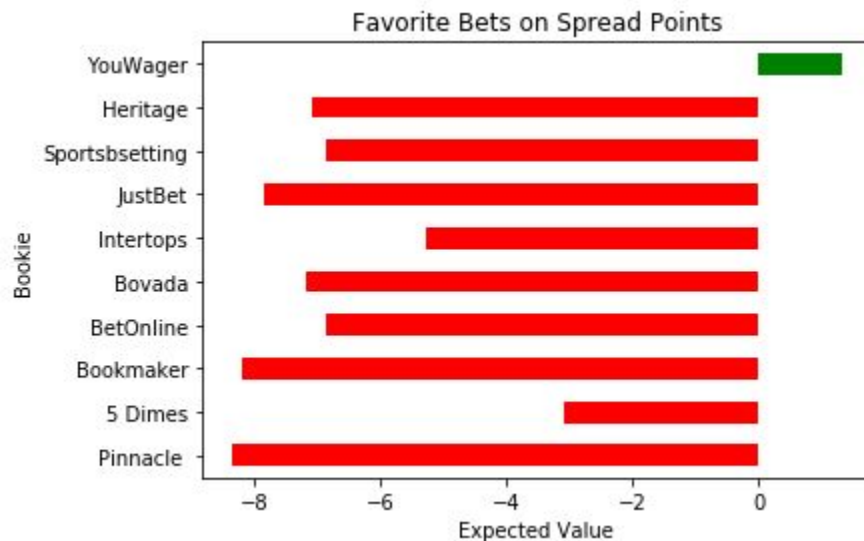
Betting the Moneyline on the Favorite

- Never choose a strategy that bets all out on the favorite to win every time
- If it were this easy we could all drop out of MSBA and become millionaires



Betting the Point Spread on the Favorite

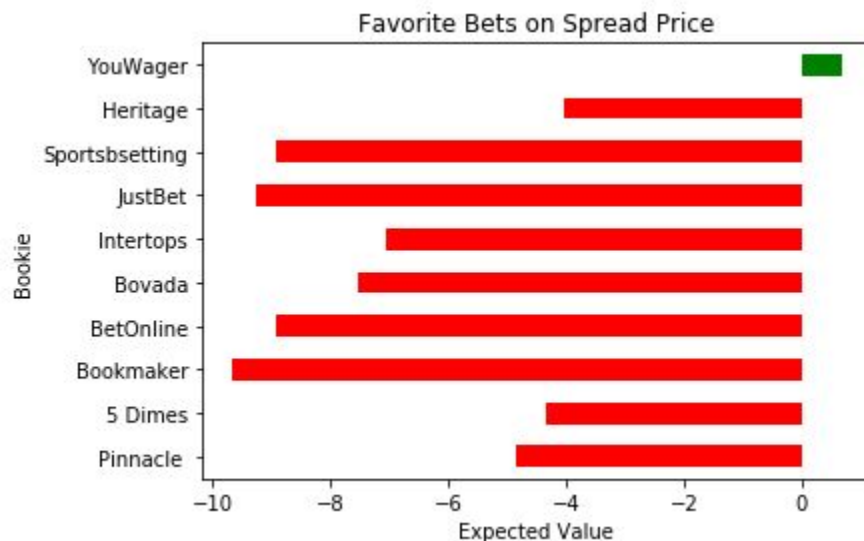
- Unless it's YouWager, then you might realize less than 1% returns
- In fact, after putting up around \$1M in capital investment, you could come out on top with **a total of \$16.98 over 12 years**



Betting on the Favorite Spread Price

This is a similar story to the previous slide...
maybe YouWager would be a good bookie
to play against after developing a predictive
model...

In fact, betting \$100 per game on the
favorite with YouWager would return you a
total of \$8.70 over 12 years!





The Home Team Advantage

59.66%

The home team wins about 3 games out of every 5.

Betting the Moneyline on the Home Team

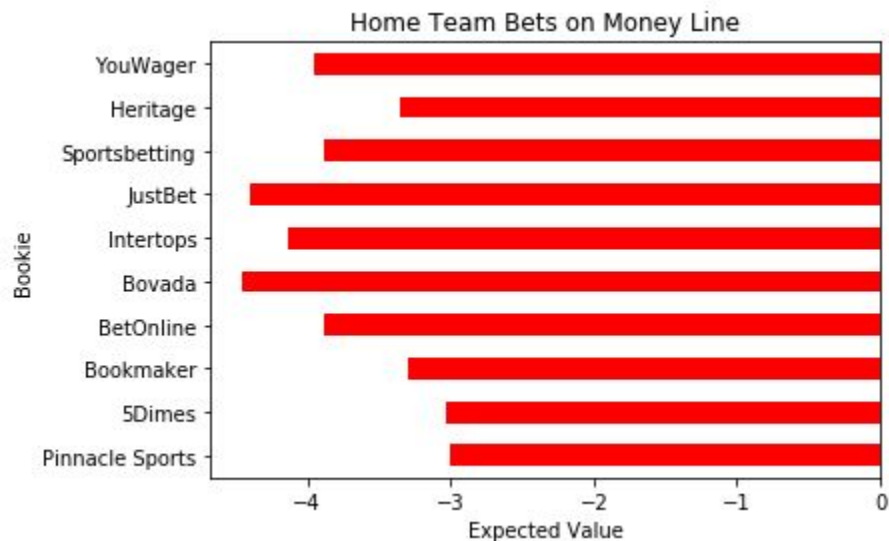
Testing this strategy with all bookies combined:

Wins: 59.14% of the time on average

In aggregate, would “win”: -\$450,460.52 total

Would require a capital investment of:
\$12,157,300 total

Expected value: -\$3.74 per \$100 gambled



Betting the Spread on the Home Team

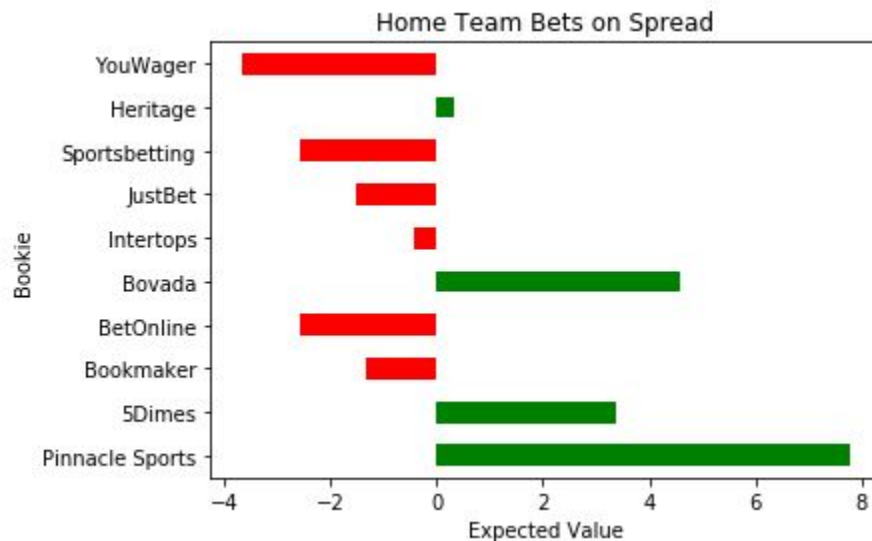
Testing this strategy with all bookies combined:

Wins: 52.29% of the time on average

In aggregate, would win: \$68,739.03 total

Would require a capital investment of:
\$12,157,300 total

Expected value: \$0.39 per \$100 gambled





The Winner

Betting the Moneyline on the Team with the Highest Winning %

Testing this strategy with all bookies combined:

Wins: 71.52% of the time on average

In aggregate, would win: \$1,495,471 total

Would require a capital investment of:
\$12,157,300 total

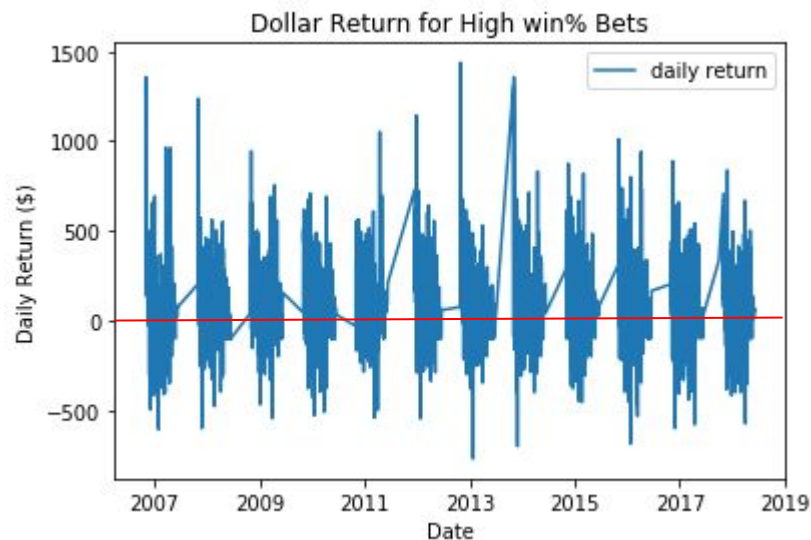
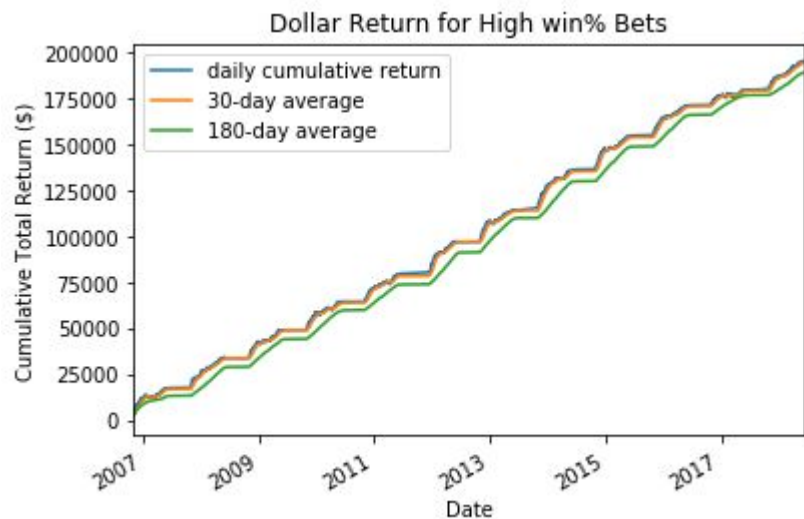
Expected value: \$12.27 per \$100 gambled



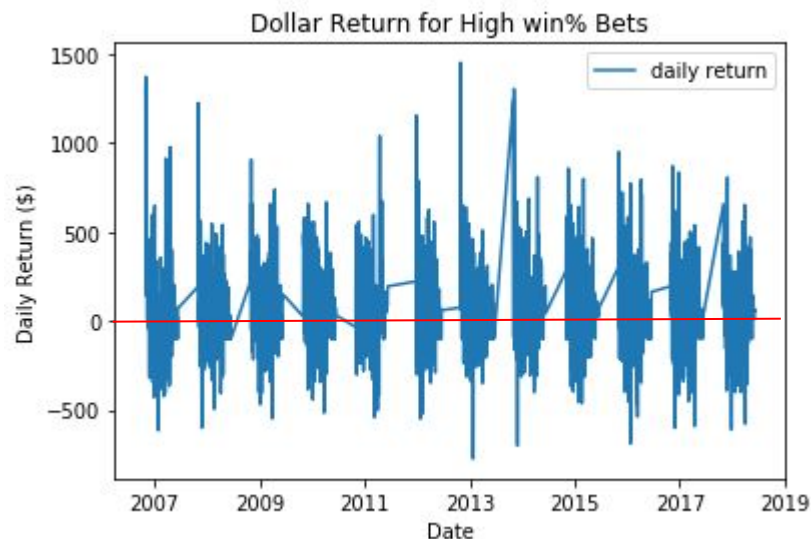
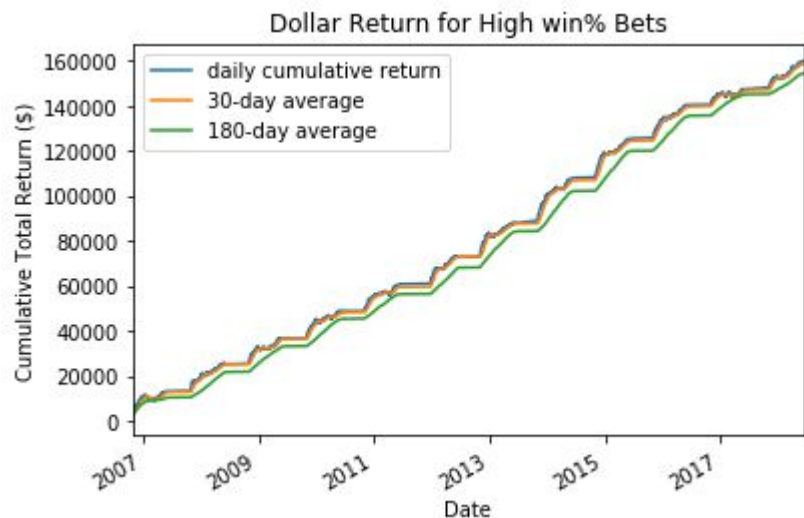


Finally, a winning strategy...?

Best Performer: Pinnacle Sports



Worst Performer: Bookmaker



Betting the Spread on the Team with the Highest Winning %

Testing this strategy with all bookies combined:

Wins: 54.72% of the time

In aggregate, would win: \$622,746.97

Would require a capital investment of:
\$12,157,300

Expected value: \$5.03 per \$100 gambled



Next Steps...

Create two types of models:

1. Classification to predict win or loss outright
 - a. Use this to start testing strategies that use your model to predict money lines

2. Linear Regression to predict points scored by home and away
 - a. Use this to start testing strategies that use your model to predict spreads

Questions?