6/30/2020

**Sports Futures**

**Background**

I wanted to set up this project to combine two things that we all constantly talk about, finance and sports. Sports Futures will be a live market that will allow traders to compete on the prediction on sports teams end of season wins. To start I think Baseball is the best sport to start with because of the amount of games they play in the regular season. With 162 games there gives a wide verity of guesses a trader can make.

If you have not worked with futures markets before I highly recommend to sign up for a 30 day free trial with Trading Technologies to get a feel for what I am going for:

<https://www.tradingtechnologies.com/trading/tt-platform/>

This will allow you to trade off a 10 minute delay information and get a feel for how a futures ladder and a futures market works.

**Vision**

I envision a trading ladder that look like this:

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| CHC Futures Market | | | | | | | | |
|  |  | Buy Stops | Buy | Price | Sell | Sell Stops |  |
|  |  |  |  | **100** |  |  |  |
|  |  |  |  | **99.5** |  |  |  |
|  |  |  |  | **99** |  |  |  |
|  |  |  |  | **98.5** | 300 |  |  |
|  |  |  |  | **98** | 346 |  |  |
|  |  |  |  | **97.5** | 300 |  |  |
|  |  |  |  | **97** | 60 |  |  |
|  |  |  | 25 | **96.5** |  |  |  |
|  |  |  | 500 | **96** |  |  |  |
|  |  |  | 60 | **95.5** |  |  |  |
|  |  |  | 900 | **95** |  |  |  |
|  |  |  |  | **94.5** |  |  |  |
|  |  |  |  | **94** |  |  |  |
|  |  |  |  | **93.5** |  |  |  |

Here is the basic ladder for the Cubs where the price would go from .5 to 162. The ladder could be extended but for example purposes I am only showing the current market where futures are being traded.

Currently on the ladder you can see that there are 25 contracts where traders are willing to buy cubs season wins at 96.5. On the other side you can see there are 60 contracts where traders are willing to sell cubs season wins at 97.

I will walk through a mock trade.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| CHC Futures Market | | | | | | |
| Buy Stops |  | Buy | Price | Sell |  | Sell Stops |
|  |  |  | **100** |  |  |  |
|  |  |  | **99.5** |  |  |  |
|  |  |  | **99** |  |  |  |
|  |  |  | **98.5** | 300 |  |  |
|  |  |  | **98** | 346 |  |  |
|  |  |  | **97.5** | 300 |  |  |
|  |  |  | **97** | 60 |  |  |
|  |  | 25 | **96.5** |  |  |  |
|  |  | 500 | **96** |  |  |  |
|  |  | 60 | **95.5** |  |  |  |
|  |  | 900 | **95** |  |  |  |
|  |  |  | **94.5** |  |  |  |
|  |  |  | **94** |  |  |  |
|  |  |  | **93.5** |  |  |  |

In this example I think by the end of the season the Cubs will end up with 98 wins. This means I would want to by those 60 at 97 contracts as I believe that they are being under valued. I would place a BUY order for CHC to pay 97 for 100 contracts.

**Before**:

My order: BUY pay 97 for 100 CHC

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| CHC Futures Market | | | | | | |
| Buy Stops |  | Buy | Price | Sell |  | Sell Stops |
|  |  |  | **100** |  |  |  |
|  |  |  | **99.5** |  |  |  |
|  |  |  | **99** |  |  |  |
|  |  |  | **98.5** | 300 |  |  |
|  |  |  | **98** | 346 |  |  |
|  |  |  | **97.5** | 300 |  |  |
|  |  |  | **97** | 60 |  |  |
|  |  | 25 | **96.5** |  |  |  |
|  |  | 500 | **96** |  |  |  |
|  |  | 60 | **95.5** |  |  |  |
|  |  | 900 | **95** |  |  |  |
|  |  |  | **94.5** |  |  |  |
|  |  |  | **94** |  |  |  |
|  |  |  | **93.5** |  |  |  |

**My Position: None**

|  |  |  |
| --- | --- | --- |
| **Instrument** | **Quantity** | **Price** |
|  |  |  |
|  |  |  |

**My Orders**

|  |  |  |  |
| --- | --- | --- | --- |
| **Instrument** | **Quantity** | **Price** | **Side** |
| **CHC** | **100** | **97** | **Buy** |
|  |  |  |  |

**After:**

The quantity left that didn’t get filled from my 100 lot.

Highlighted that a quantity has been traded and which side “lifted” the execute the trade.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| CHC Futures Market | | | | | | |
| Buy Stops | Traded | Buy | Price | Sell | Traded | Sell Stops |
|  |  |  | **100** |  |  |  |
|  |  |  | **99.5** |  |  |  |
|  |  |  | **99** |  |  |  |
|  |  |  | **98.5** | 300 |  |  |
|  |  |  | **98** | 346 |  |  |
|  |  |  | **97.5** | 300 |  |  |
|  | 60 | 40 | **97** |  |  |  |
|  |  | 25 | **96.5** |  |  |  |
|  |  | 500 | **96** |  |  |  |
|  |  | 60 | **95.5** |  |  |  |
|  |  | 900 | **95** |  |  |  |
|  |  |  | **94.5** |  |  |  |
|  |  |  | **94** |  |  |  |
|  |  |  | **93.5** |  |  |  |

**My Position:**

|  |  |  |
| --- | --- | --- |
| **Instrument** | **Quantity** | **Price** |
| **CHC** | **60** | **97** |
|  |  |  |

**My Orders**

|  |  |  |  |
| --- | --- | --- | --- |
| **Instrument** | **Quantity** | **Price** | **Side** |
| **CHC** | **40** | **97** | **Buy** |
|  |  |  |  |

Looking above a trade has been executed. There was a willing seller and a willing buyer (me) at an agreed upon price of 97. Since I tried to buy 100 but there were only 60 contracts offered the rest of my contracts are still 97 bid for 40 on the ladder above.

You can also see that my position has been updated from none to I now own 40 contracts of CHC and paid 97.

There would be two ways a trader can make money in the Sports Futures platform.

**Expiration**:

Since I own these 60 contracts I can hold these till the end of the season. If we reach the end of the season with this position and the Cubs end up with 100 wins I have made 3 wins per contract. If we set a contract price to $100 we would have a positive P/L of $18,000.

This is done by (Final Price – Trade Price) \* No. of Contract \* Contract Value

(100-97) \* 60 \* 100 = 18,000

**Trade:**

The second way to make money would be to trade the contracts for more than I paid for during the season. Lets say mid-season the Cubs go on a massive run and traders are predicting that they are going to end up with 115 wins. The market is now:

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| CHC Futures Market | | | | | | |
| Buy Stops | Traded | Buy | Price | Sell | Traded | Sell Stops |
|  |  |  | **115** |  |  |  |
|  |  |  | **114.5** |  |  |  |
|  |  |  | **114** |  |  |  |
|  |  |  | **113.5** | 506 |  |  |
|  |  |  | **113** | 34 |  |  |
|  |  |  | **112.5** | 2 |  |  |
|  |  |  | **112** | 44 |  |  |
|  |  | 60 | **111.5** |  |  |  |
|  |  | 100 | **111** |  |  |  |
|  |  | 234 | **110.5** |  |  |  |
|  |  | 45 | **110** |  |  |  |

I can go in a execute a SELL order for the 60 contracts I own at a market price of 111.5. This would give me a positive P/L of 87,000:

(Final Price – Trade Price) \* No. of Contract \* Contract Value

(111.5-97) \* 60 \* 100 = 87,000

In this case the final price is the market price I traded since I am selling these contracts I own.