SESSION 1-2-5: RISK, RATIONALITY & INVESTMENT

Sports As An Alternative Asset Class: Gambling As An Investment

The 15th International Conference on Gambling & Risk Taking

Caesars Palace, Las Vegas
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“The world’s premier sports hedge fund”
SPRONS AS AN ALTERNATIVE ASSET CLASS: AGENDA

- Priomha Capital Pty Ltd
  - The genesis of the idea
  - Incorporation of the World’s Premier Sports Hedge Fund
  - What we do?

- Trading Global Sports Markets
  - The opportunity
  - The need to develop an automated trading platform

- A Case Study: The English Premier League

- CLONEY Fund Performance
  - Gross return: January 2010 to April 2013
  - Comparative performance against other asset classes

- The Future
  - The growth in overall global sports investment market
  - The opportunity for Sports Hedge Funds

- Questions, Answers & Investment Drive!
Genesis of the idea came in 2007 in NYC when studying at Columbia. The trading of sports utilising strategies and other traditional financial market practices was identified as a burgeoning opportunity.

Towards the end of 2007 a private Fund with owner’s capital was started.

Global Financial Crisis in 2008 – all asset classes lost value. Diversification did not work. The Olympics, the Superbowl, the World Series and all the Grand Slam tennis and golf tournaments went ahead unaffected.

Priotmha Capital Sports Hedge Fund Founded in 2010
- Global HQ – Melbourne

Priomha Capital is a boutique funds management firm whose investment universe centres on sports and events. It was created with a view to offer investors an alternative product to shares, bonds, property and other “traditional” investment vehicles and asset classes. Flagship CLONEY Multi-sport Investment Fund is our first fund and has an open mandate to invest in any global sport or event.
SPORTS AS AN ALTERNATIVE ASSET CLASS: TRADING GLOBAL MARKETS

The Global Opportunity
- The size and growth of the global sports markets and the dearth of competing Sports Hedge Funds meant there was a clear opportunity within the market place. In terms of size, within a few years the on-line and sports investing industry will far exceed $US500 billion per annum.

The Need for an Automated Trading Platform
- The sheer volume of data and the opportunity represented by trading on the global sports markets necessitated the development of an automated trading platform.
- In order to develop and maintain an edge in the market.
- To take advantage of the inefficiencies in pre-game and in-play markets.

INPUTS
- Explicit (Objective Data)
- Implicit (Subjective Data)

OUTPUTS
- Database & Model
- Implied Probability & Price

INVESTMENT DECISION
- Exchanges
- Bookmakers
- Parimutuel
- VALUE Trade/No trade
SPORTS AS AN ALTERNATIVE ASSET CLASS: CASE STUDY - EPL

Why the EPL?

- **Transparency in information** – the EPL has a global following and is omnipresent in the media. The transparency of information is far greater than one can obtain on the majority of other asset classes including stocks, bonds and property.

- **Passionate following** – the level of passion involved in the sport promulgates itself by way of value in the various markets (both buying and selling)

- **90 minute duration** – provides time for profit taking and risk mitigation

- **Multiple different markets** – as per the duration, this allows for hedging and risk mitigation strategies to be employed.

- **High volume and significant liquidity** – the EPL is the most popular global domestic sporting competition with over $US50 billion wagered annually. Consequently the high volumes and liquidity make it the most viable wagering market within which to trade.

THESE FACTORS ARE COMMON TO MANY SPORTS: THE OPPORTUNITY EXISTS TO TRADE THESE
The output of the algorithm, objectively ascertains the probabilities of outcomes of certain events, be it for an entire season, match or any 15-minute interval within any of the 722 games that constitute a regular EPL season.

<table>
<thead>
<tr>
<th>Selected Event or Outcome to be Determined</th>
<th>Top Ranked Team</th>
<th>Outcome*</th>
</tr>
</thead>
<tbody>
<tr>
<td>What team wins the most matches?</td>
<td>Manchester United</td>
<td>67.20% (1.49)</td>
</tr>
<tr>
<td>What team is most likely to score first?</td>
<td>Manchester United</td>
<td>67.72% (1.48)</td>
</tr>
<tr>
<td>What team is most likely to win after scoring first?</td>
<td>Manchester United</td>
<td>87.50% (1.14)</td>
</tr>
<tr>
<td>What team outperforms its average in wet conditions?</td>
<td>Newcastle United</td>
<td>+5.75%</td>
</tr>
</tbody>
</table>

* The number in parenthesis represents the equivalent decimal odds for the implied probability calculated.

The table above left summarises some of the obvious and more obscure statistics elucidated by the models. The chart above shows the volatility in price movements for a recent EPL match between Arsenal and Liverpool. Priomha profitably traded this event based on the output of the algorithms as well as through taking advantage of the market overreaction to events.
SPORTS AS AN ALTERNATIVE ASSET CLASS: CASE STUDY - EPL

The following two slides summarise the way Priomha traded the EPL fixture between Arsenal and Liverpool in January 2013.

<table>
<thead>
<tr>
<th>PRIOMHA MARKET</th>
<th>ARSENAL $1.92</th>
<th>LIVERPOOL $4.35</th>
<th>DRAW $4.00</th>
</tr>
</thead>
<tbody>
<tr>
<td>GLOBAL MARKETS (ave.)</td>
<td>ARSENAL $2.44</td>
<td>LIVERPOOL $3.15</td>
<td>DRAW $3.60</td>
</tr>
</tbody>
</table>

**PRE-MATCH (markets open)**

Trade 1: **Lay** Liverpool for a stake of $1000 @$3.15

**PRE-MATCH (10 minutes to kick-off)**

Trade 2: **Back** Liverpool for a stake of $818 @$3.85

**POSITION BEFORE MATCH**

- Arsenal WIN: +$182.00
- Liverpool WIN: +$181.30
- DRAW: +$182.00

At this point a profit is guaranteed and no further trades are necessary. Once the game starts and the in-play markets are active the available prices are monitored and positions are taken ONLY if value is clearly available.

*NOTE: the amounts actually staked are not as shown. The amounts shown are for simplicity and illustrative purposes.*
IN-PLAY
@ 10 minutes
Trade 3: Lay Liverpool 1-0 in the correct score market for a stake of $1000 @$8.50 (implied probability 11.8%, model output 5.3%)
60 minutes: Liverpool scores: 2-0
Trade 3 is profitable.

@ 62 minutes
Trade 4: Lay Liverpool for a stake of $2000 @$1.17
64 minutes: Arsenal scores: Liverpool 2-1
67 minutes: Arsenal Scores: 2-2

@ 72 minutes
Trade 5: Back Liverpool for a stake of $300 @$5.40

TRADING SUMMARY: Combining Trades 1 through 5

ARSENAL WIN: +$182 (T1/T2) + $1000 (T3) + $2000 (T4) - $300 (T5) = $2882.00
LIVERPOOL WIN: +$181.30 (T1/T2) + $1000 (T3) - $340 (T4) + $1320 (T5) = $2161.30
DRAW: +$182 (T1/T2) + $1000 (T3) + $2000 (T4) - $300 (T5) = $2882.00
Since 2010 Priomha Capital’s CLONEY Multi-sport Investment Fund has returned +129.32%. It has clearly outperformed its two benchmark indices, the HFRX Global Hedge Fund Index and the ASX200. Importantly, the Fund has achieved this return with a significantly lower risk profile, posting fewer losing months than the benchmark indices.
The Future

- The global wagering in sport will continue to grow over the next decade. By 2015 alone it is anticipated that over $US500 billion will be wagered per annum. An estimated $A18 billion of this figure is from Australian bettors.
- The advent of handheld and mobile communication devices will continue to catalyse this growth. On-line wagering is growing at around 13% per annum.
- In Australia alone Deloitte have estimated that on-line sports wagering will reach $A1.8 billion by 2017 with the global figure being $US45 billion per annum.
- The potential loosening of sports wagering laws in the USA has the potential to catalyse growth further.
- Their will be a myriad of opportunities within the wagering market, specifically for those who can develop a means to take advantage of the inefficiencies within the markets.
- The global economic environment will continue to ensure volatility in returns from traditional investments such as stocks, bonds and property.
- The attraction of a non-correlated investment class will always be highly attractive.

IT IS INEVITABLE THAT THE LEGITIMACY OF SPORTS AS A VIABLE ASSET CLASS GROWS
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