The Odds of Match Fixing

Facts & figures on the integrity risks of certain sports bets

Ben Van Rompuy
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1. Introduction
It is suggested that the following sports bets would increase the risk of match fixing occurring:

- **Side bets**
  
  “Encourages the Member States to consider a ban on all forms of spot fixing, such as gambling on corner kicks, free kicks, throw-ins and yellow cards, as these has proven to be very vulnerable to match-fixing”
  
  European Parliament, resolution of 10.09.2013 on online gambling in the internal market

- **Live betting**
  
  “Calls on Member States to ban all forms of live sports betting since these have proved to be very vulnerable to match-fixing and therefore pose a risk to the integrity of sport”
  
  European Parliament, resolution of 10.09.2013 on online gambling in the internal market

- **Betting on certain sports events**
  
  “... relevant measures to combat the manipulation of sports competitions in relation to sports betting, including, where appropriate ... the limitation of the supply of sports betting ... particularly excluding competitions that are designed for those under the age of 18 or where the organizational conditions and/or stakes in sporting terms are inadequate”
  
  Council of Europe Convention on the Manipulation of Sports Competitions
• Examine potential links between betting-related match fixing cases and specific types of sports bets on the basis of quantitative empirical evidence

• Main sources:
  
  • Sportradar’s Fraud Detection System (FDS) statistics
  
  • Historical data Betfair

http://data.betfair.com/
2. Regulatory experience in EU
• Exclusion of certain sports events from the betting offer

• List of sports events authorized for betting
  • France
  • Italy
  • Spain

• Prohibition of betting on events involving -18 players
  • France
  • Denmark
  • (Netherlands)
• Exclusion of certain types of sports bets from the betting offer
  
  • Bets contrary to public policy / ethical principles
    • Belgium
    • Czech Republic
    • Italy
  
  • Side bets
    • France
    • Germany
    • (Belgium, the Netherlands)
  
  • Live betting
    • Germany
    • Austria (Vorarlberg)
2. Market-demand perspective
Supply and demand for betting-related match fixing (from betting syndicates)

Demand depends on:

1. Size of the profit available
2. Risk of detection

highly liquid betting markets
• Liquidity of side bets markets?

• Dataset A: betting on all football matches (October 2014)

<table>
<thead>
<tr>
<th></th>
<th>Main</th>
<th>Main derivatives</th>
<th>Asian Handicap</th>
<th>Side bets</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-match</td>
<td>89,660,793</td>
<td>13,496,960</td>
<td>1,977,254</td>
<td>1,484,967</td>
</tr>
<tr>
<td>Live</td>
<td>289,029,315</td>
<td>22,112,876</td>
<td>1,356,526</td>
<td>211,601</td>
</tr>
<tr>
<td>Total (%)</td>
<td>378,690,108</td>
<td>35,609,836</td>
<td>3,333,780</td>
<td>1,696,568</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Goalscorer</th>
<th>Cards/Bookings</th>
<th>Corners</th>
<th>Penalty</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-match</td>
<td>943,260</td>
<td>269,037</td>
<td>188,768</td>
<td>83,902</td>
</tr>
<tr>
<td>Live</td>
<td>76,278</td>
<td>128,636</td>
<td>6,662</td>
<td>25</td>
</tr>
</tbody>
</table>
| Total side bets (%) | 1,019,638  | 397,673        | 196,430 | 83,927  | 4,9
Markets offered for total of 2611 fixtures

- Main: 2611 (100%)
- Main Derivatives: 2158 (83%)
- Handicap: 982 (38%)
- Cards/Bookings: 279 (11%)
- Penalty: 240 (9%)
- Goalscorer: 187 (7%)
- Corners: 60 (2%)
Market demand perspective (4)

- Dataset B: betting Premier League matches (January-April 2014)

<table>
<thead>
<tr>
<th>Market</th>
<th>Total</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Goalscorer</td>
<td>5,022,735</td>
<td>0.59%</td>
</tr>
<tr>
<td>(Player) To Score</td>
<td>2,175,212</td>
<td>0.25%</td>
</tr>
<tr>
<td>Sending Off?</td>
<td>1,927,341</td>
<td>0.23%</td>
</tr>
<tr>
<td>Corners Odds</td>
<td>743,232</td>
<td>0.09%</td>
</tr>
<tr>
<td>Hat-trick Scored?</td>
<td>716,123</td>
<td>0.08%</td>
</tr>
<tr>
<td>Corners Over/Under 10.5</td>
<td>564,113</td>
<td>0.07%</td>
</tr>
<tr>
<td>Corners Over/Under 5.5</td>
<td>452,245</td>
<td>0.05%</td>
</tr>
<tr>
<td>Bookings Odds</td>
<td>397,307</td>
<td>0.05%</td>
</tr>
<tr>
<td>Shown a Card?</td>
<td>347,639</td>
<td>0.04%</td>
</tr>
<tr>
<td>To Score 2 Goals or More</td>
<td>153,967</td>
<td>0.02%</td>
</tr>
</tbody>
</table>
3. Evidence-based risk assessment
May 2009-November 2014:

1625 football matches worldwide that likely have been targeted for match fixing

1) Breakdown by the level and type of competitions
2) Breakdown by the type of betting market

✓ Subset of 1468 football matches for which suspicious market data is available
1. **Level and type of competitions**

   - Overwhelming majority of likely manipulated matches related to domestic football matches
1. Level and type of competitions

- Domestic league football versus top-level international football
2. **Type of betting market**

   - Irregular betting patterns detected pre-match and/or live
2. Type of betting market

- Almost all suspicious betting patterns were observed in the following, highly liquid betting markets:

- Side betting markets: 0.4% (6 / 1468 matches)
2. **Type of betting market**

- Suspicious betting activity in only one market
2. **Type of betting market**

- For majority of likely manipulated matches: highly suspicious betting patterns across multiple betting markets

<table>
<thead>
<tr>
<th></th>
<th>Pre-match</th>
<th>Live</th>
<th>Pre-match and Live</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Match Odds + Asian Handicap + Total Goals</td>
<td>445</td>
<td>454</td>
<td>126</td>
<td>883</td>
</tr>
</tbody>
</table>

- = attempt to avoid risk of detection and minimize loss of profit
4. Conclusions
1. Betting-related match fixing predominantly relates to the final outcome of a match and in particular the number of goals (winning margin)

2. The claim that side bets pose significant match fixing risks lacks empirical support
3. The claim that live betting would pose a specific or greater match fixing risk in comparison to traditional pre-match betting lacks empirical support.

4. Domestic league football rather than top-level international is the main target of betting-related match fixing.
Questions?

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