USING SOCIAL MEDIA TO FORECAST FOOTBALL RESULTS: Evidence from Twitter and Betfair

The tone of Twitter posts – and the identity of the person who tweets – can predict when bets on football matches are mispriced on Betfair. Tweets are particularly informative in the aftermath of goals and red cards – and if they are by BBC journalists.

These are among the conclusions of research by Alasdair Brown and colleagues, to be presented at the annual congress of the European Economic Association in Geneva in August 2016.

The authors examine 13.8 million tweets during the 2013/14 English Premier League (EPL) season and contemporaneous in-play betting prices on Betfair. They find that if the aggregate tone of tweets in a given second during a match is positive – as measured by a micro-blogging dictionary – then the team is more likely to win than contemporaneous betting market prices imply.

What’s more, the mere presence of a tweet by BBC journalists suggests that the tagged team is undervalued in the betting market.

To quantify the degree of mispricing that social media predict, the authors construct a number of betting strategies. Using conservative estimates of the commission paid to Betfair, a bettor could earn an average return of 2.28% betting on a team when the aggregate Twitter tone for that team is positive, and an average return of 2.55% betting when a BBC journalist tweeted and tagged that team.

These are significant returns given the size of the Betfair betting market for EPL matches, the very short horizon (under 90 minutes) of the holding periods for most bets, and the fact that bets usually have negative expected returns.

To dig deeper, the authors examine whether tweets are particularly informative before a goal is scored, which would suggest that social media users break news faster than betting/prediction markets.

The authors find no evidence of this. In contrast, they find that tweets are particularly informative in the aftermath of goals and red cards. This suggests that social media content is particularly useful in assessing the implications and significance of new information.

These results fit in with recent evidence that social media content can be useful as a forecasting tool. For example, there is evidence that social media output – both on Twitter and on financial message boards – predicts future stock returns.

At first glance this may be surprising, as we might think that an individual in possession of valuable information would bet or trade first, and post later. But if we think that valuable information is dispersed among a number of individuals – the ‘wisdom of crowds’, to use a common phrase – then we might understand why social media content leads market prices, as it does in this study and elsewhere.

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