Estimating the implied probabilities in the tennis betting market: A new normalization procedure

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Abstract

The prices offered by the fixed-odd bookmakers in the tennis betting market are biased because of the favourite-longshot phenomenon. How to derive unbiased implied probabilities underlying the published odds is the focus of this study. This paper proposes a new normalization procedure that yields unbiased probabilities, regardless of the presence of heavy underdogs. In-sample, the proposed normalization has a superior forecasting ability than the other methods. Moreover, it enables betting strategies which produce superior returns than those obtained from the Bradley-Terry type model.

Keywords: Betting markets; Favourite-Longshot Bias; Forecasting.

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