High-Profile Contests and Betting Market Efficiency in College Basketball

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For decades, social scientists have analyzed wagering markets in order to better understand human decision making since these “simple financial markets” (Sauer, 1998) offer a unique setting to study market pricing and consumer choice under uncertainty. Moreover, understanding the dynamics of wagering markets is important because consumer interest in betting market outcomes directly impact television viewership in college basketball (Kang et al., 2018). This implies betting market interest and television consumption are complement activities for many individuals.

This study contributes to a growing line of sports betting literature testing the efficient market hypothesis (EMH; Fama, 1970). In point spread betting, it represents how markets immediately and fully incorporate available information into the betting line (Feddersen, 2017). Numerous studies have tested EMH in professional sport (e.g., Gray & Gray, 1997; Brown & Sauer, 1993) and college sport (e.g., Berkowitz et al., 2015; Paul & Weinbach, 2005). Previous studies have identified explicit behavioral biases such as favorite-longshot bias (e.g., Feddersen, 2017) and sentiment bias (e.g., Feddersen et al., 2016) which result in betting market inefficiencies.

We empirically test the relationship between absolute contest quality and market efficiency. Paul and Weinbach, (2011) illustrate that betting volume increases along with matchup quality. This is important because games with larger betting volumes represent outcomes of greater financial magnitude for bookmakers and bettors. In this scenario, one may hypothesize that oddsmakers aim to ensure that they set a more accurate line for high-profile contests given the financial magnitude associated with the outcome. Likewise, if pre-game market perception of the contest is accurate, the market may move the betting line farther towards the true outcome. Alternatively, if the market is systematically inaccurate with respect to forecasting outcomes for high-profile games, the difference between the closing point spread and actual contest outcome would be larger.

Betting data were collected from sportsinsights.com and include all regular season and postseason contests in NCAA Division I men’s college basketball during the 2014-15 season (4,002 contest-level observations). The general form of the regression equation follows:

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\text{Abs}(\text{Actual Outcome - Closing Spread}) = f(\text{Team Quality, Outcome Uncertainty, Momentum, Schedule, Rest, Temporal Factors}),
\]

where the absolute value of difference between the expected and final point differential is a function of team quality (e.g., Pomeroy ratings), anticipated outcome uncertainty (e.g., closing line point spread), momentum (e.g., winning/losing streak), strength of schedule (e.g., power ratings of the previous opponents), rest (e.g., days of rest), and temporal factors (e.g., day of week and month of season). Our independent variable of interest is the combined pre-game Ken Pomeroy power rating of the competing teams – capturing the degree of absolute contest quality.

This study is nearing data collection completion and full results will be presented. If results indicate no statistically significant difference in the market prediction of outcomes based on the absolute quality of the contest, then support for the EMH would exist, and vice versa. If evidence of market inefficiency is found, we will simulate a simple betting strategy to assess whether exploiting the inefficiency is profitable following the payment of bookmaker fees.