Do NFL Bettors Act Like Sports Fans or Investors? A Comparison of the Influential Factors in Sports Betting

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Sports wagering is identified as a derived demand for sports, which means that another organization or service uses sporting events or leagues to make its products and attract consumers (Borland & Macdonald, 2003). The sports betting market has been growing larger and larger, and the legal and illegal total number of wagers in 1989 was $290 billion (Frey & Eitzen, 1991). As overall businesses related sports have been increasing their size in terms of money involved and total revenue, fan interest in sports are crucial to any related businesses due to the fact that their demand for sports would also increase the demand for related businesses. In this manner, as sports fans who identify with their teams sometimes purchase team products, it is probable that in sports wagering, bettors wager on a certain type of team based on their preference, regardless of the fairness of the sports betting market and the efficient market hypothesis. They might also like to wager on a team in a particular situation, such as a winning streak or a significant match with uncertainty that will determine a team’s promotion/relegation in the English Premier League. Such an important match would draw a larger betting volume if bettors behave like sport fans who like to attend or watch this kind of game (Borland & Macdonald, 2003). Also, as Kanazawa and Funk (2001) found that TV viewers more watched professional basketball games when more white players presented, bettors might also have racial discrimination.

The sports betting market is thought of as an efficient market where betting lines already contain all publicly available information (Borghesi, 2007; Snyder, 1978). Much research related to the sports wagering market has studied the efficient market hypothesis to see if there is a pattern that beats the market where pure investors and recreational bettors coexist, assuming that sport bookmakers try to balance wagers in order to guarantee their profits (Gray & Gray, 1997; Woodland & Woodland, 2000). Thus, if there is a winning/profitable pattern, the reason would be the movement of betting lines by the bookmakers, since they move betting lines against bettors’ preferred teams in order to balance wagers. For instance, if bettors lopsidedly wager on away favorites, bookmakers might move betting lines against away favorites and finally, the opponent (home underdogs) might tend to win the bet more often than expected.

However, Levitt (2004) found that balancing wagers was not the only role of the bookmakers. He found that some bookmakers did not always set unbiased betting lines. This implies that if the bookmakers know the bettors’ preferences, they are able to announce initial biased betting lines to maximize profits. Therefore, because of the two conflicting roles of the bookmakers, determining bettors’ wagering propensities or their preferences based on the movement of betting lines would not be optimal for studying determinants of demands for sports betting. With another approach, determinants of gambler demands for sports betting are needed to be studied to know bettors behavior, such as whether gamblers’ utilities from sport betting is to make a profit or to enjoy their consumption like sport fans.

Accordingly, this study will use the percentage of the number of bets on each team in a game of the National Football League (NFL) 2010 season as a proxy for gambling demand, in order to investigate of what factors increase bettors’ demands regardless of their understanding of the randomness of betting outcomes. Independent variables are the variables that increase sports fans’ interests, as noted by Borland and Macdonald (2003) and Tainsky and McEvoy (2011), and are related to the betting lines (Borghesi, 2007; Camerer, 1989; Gray & Gray, 1997; Woodland & Woodland, 2000): temperature, winning/losing streaks, team history, each team’s current/previous season winning percentage, each team’s average salary, the racial composition of each team, each head coach’s salary, margin of victory in the previous week, expected outcome (point spread), home/away, favorite/underdog, each week of the season, each team’s performance in previous week (win/lose a bet and win/lose a game). With those variables, we will use a binary logit model because of the nature of the dependent variable. From this statistical analysis, there are two possible characteristics of bettors. First, bettors might have similar characteristics to those of sports fans in terms of choosing a team. Sports bettors, like sports fans, would be interested in the presence of a
super star whose salary is much higher than that of others (e.g. Michael Jordan) and a team that has many talented players. Thus, they might wager more on such a team, with an expectation that the team performance would exceed market expectations. Paul and Weinbach (2010) actually studied the factors that draw wagers and concluded that there was no difference between bettor behavior and sports fan behavior for National Basketball Association (NBA) and National Hockey League (NHL). They also contended that bettors tended to consume sports gambling as a complement to watching or attending sporting events, instead of a way to make a profit. Thus, if bettors act like sports fans, we will conclude that there are large number of recreational bettors in the NFL betting market for their enjoyment, compared to the racetrack and Major League Baseball (MLB), which have more informed bettors (Asch et al., 1982; Woodland & Woodland, 2003), since NFL bettors' behavior is thought of as a consumption behavior, not an investment.

NFL bettors might also tend to show a unique betting preference which is dissimilar to that of sports fans. Some previous research found few unique characteristics of bettors in sports betting: a favorite-longshot bias in racetrack and a reverse favorite-longshot bias in NHL (Asch et al, 1982; Cain et al., 2003; Thaler & Ziemba, 1988; Woodland & Woodland, 2001). If NFL bettors show a unique wagering behavior regardless of the fairness of betting outcomes, their behavior can be characterized as a particular bias of NFL bettors. This implies that they do not act like recreational bettors who just enjoy their bet and prefer to bet on a team that sports fans also like. Rather, their purpose of betting would be thought of as an investment to make a profit like an investor in the stock market, since they might think that their unique betting strategy leads to positive returns. This gambler's misperception would be caused by a gambler's fallacy, so the result of this study could also help us understand NFL bettors' behavior in that this misperception would result in gambling addiction.

Furthermore, if wagers are much imbalanced and if a team drawing a larger number of bets (more than 50 percent) loses more than market expectations (50 percent), we would be able to conclude that the bookmakers' roles are not similar to those of market makers in the stock market, who balance sellers and buyers (supply and demand). In that case, this study will support Levitt's (2004) conclusion that some sport bookmakers tend to offer biased initial betting odds to increase their profits, and they are likely to make more profits than when they act like the market makers. Moreover, the bookmakers and the market makers will be different in that the bookmakers can be associated with the future outcomes, whereas it is impossible for the market makers to predict the future outcomes. This difference will further inform researchers who study the sports betting market using the efficient market hypothesis, since the studies are based on similarities between the betting market and stock market.