THE WALL STREET JOURNAL. ONLINE

January 7, 2008

THE OUTLOOK

Small Band of Economists Trumpet Sports Betting for Insights

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January 7, 2008; Page A2

New Orleans

Academic economists got a clue that this year's meeting of the American Economic Association would be different when Louisiana State University's football team -- in town for today's championship game against Ohio State -- streamed through the lobby of the main conference hotel. As economists gathered Friday to discuss papers on business cycles, the evolution of checks and the factors that make for good schools, the LSU Tigers belted out "The Star-Spangled Banner" over breakfast nearby.

Sports and academia don't always mix. But a small band of economists are carefully examining sports and sports betting because of the unique opportunity it gives them to see how people respond to incentives: The games are straightforward, the participants are intimately familiar with the rules, and the desire to win is intense.

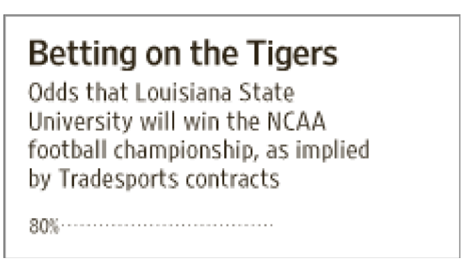
"We can use sports to answer this interesting economic question: Do people behave rationally?" says Christopher Adams, a Federal Trade Commission economist.

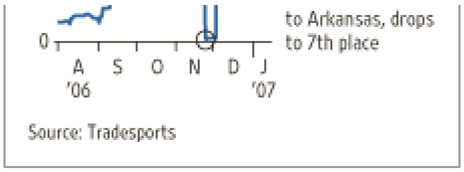
This weekend, Mr. Adams challenged a 2006 paper by David Romer of the University of California at Berkeley that had argued football coaches aren't always rational in deciding to punt on fourth down. (See more on Mr. Romer[1].)

Because a football team loses the ball if it can't advance it at least 10 yards in four plays, "or downs," a team that's short of yardage on fourth down must decide whether to risk trying to gain the missing ground. Most often, it pursues safer options such as punting the ball downfield, in hopes of leaving its opponents in a less favorable position, or kicking the ball for a field goal, which scores fewer points.

Since there are relatively few cases of a football team "going for it" on fourth down, Mr. Romer used third-down statistics to make his case. He assumed, for example, that a team's chances of moving the ball three yards on fourth down would be the same as they were on a third-down play.

With members of the Ohio State Marching Band sprawled outside the door, Mr. Adams argued that Mr. Romer's analysis might not have adequately captured differences between third- and fourth-down situations.





Source: Tradesports

Mr. Adams also relied on third-down data, but his model decreased the relative value of a pass vs. a running play for a fourth-down situation. That made going for it on fourth down seem less wise than Mr. Romer's study suggested and indicated that coaches might be acting rationally by seldom doing so. In truth, according to Mr. Adams, without more actual fourth-down data there's no way to know.

Other economists looked to sports wagering for insight into the age-old question of how effectively markets respond to new information. It's a difficult puzzle to solve by studying traditional financial markets, partly because it's hard to determine when new information enters the market. Some insiders, for example, might act on prior knowledge of an impending takeover, information other market participants don't have.

Using simulated markets -- with student volunteers as traders -- is also problematic. The payoff is too slim for the subjects to feel like they have any skin in the game, and they may not understand the market well enough to behave rationally.

But TradeSports, an online market where investors bet on the outcome of sporting and other events by buying and selling futures contracts, sidesteps some of these problems.

Ricard Gil, an economist at the University of California at Santa Cruz, and University of Chicago economist Steven Levitt, co-author of the best seller "Freakonomics," analyzed the price movement in TradeSports contracts on 2002 World Cup soccer matches to see how quickly prices reacted when goals were scored. Not only were there no insiders in this case, but the market participants probably were well-versed in the game and had money riding on the outcome.

The relative infrequency of goals in soccer also meant that each one was a major factor in deciding the match.

Messrs. Levitt and Gil found that the odds of a team winning jumped immediately after it scored a goal. But adjusting for other factors, those odds kept climbing for 10 to 15 minutes after the goal was scored -- a sign of market inefficiency. That might have been because TradeSports, which is based in Ireland, was new in 2002 and betting on the World Cup was thin.

Justin Wolfers, an economist at the University of Pennsylvania's Wharton school, looked at betting on the 2006 World Cup on Betfair, an online market with heavier trading and far more European participants, giving it a higher proportion of soccer fans. Trading responded more quickly to goals.

Messrs. Gil and Levitt also found that when underdogs scored a goal, market participants tended to underestimate their chances of eventually winning the match -- a sign that that bettors were biased toward favorites.

Mr. Wolfers raised hackles at the National Basketball Association last year when he and Joe Price, now at Brigham Young University, argued that National Basketball Association statistics showed that referees called fewer fouls on players of their own race. In a coming paper with BYU economist Tim Larsen, Mr. Price and Mr. Wolfers looked at historical betting spreads on NBA games and found that a betting strategy that exploited referees' same-race biases would have systematically made money for the 14 seasons from 1991 to 2005. (See the paper[2].)

That the spreads didn't adjust for a referee's bias toward his own race suggests that the betting market -- which is very good at factoring in intangibles like home-court advantage -- isn't entirely efficient.

As for today's game, TradeSports puts the odds of LSU beating Ohio State at about 60%. If the tendency of market participants to be biased toward the favorite in the World Cup favorites extends to American college football, those odds are too steep. Mr. Wolfers isn't betting, but said he was rooting for LSU. A cost-benefit analysis of what can happen when you cheer loudly for Ohio State in New Orleans suggests that's a rational thing to do.

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