NBER WORKING PAPER SERIES

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NBER Working Paper No. 12083
March 2006
JEL No. C53, D8, G14

ABSTRACT

Prediction Markets, sometimes referred to as "information markets," "idea futures" or "event futures", are markets where participants trade contracts whose payoffs are tied to a future event, thereby yielding prices that can be interpreted as market-aggregated forecasts. This article summarizes the recent literature on prediction markets, highlighting both theoretical contributions that emphasize the possibility that these markets efficiently aggregate disperse information, and the lessons from empirical applications which show that market-generated forecasts typically outperform most moderately sophisticated benchmarks. Along the way, we highlight areas ripe for future research.

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Prediction Markets

Prediction Markets, sometimes referred to as "information markets," "idea futures" or "event futures", are markets where participants trade contracts whose payoffs are tied to a future event, thereby yielding prices that can be interpreted as market-aggregated forecasts. For instance, in the Iowa Electronic Market, traders buy and sell contracts that pay $1 if a given candidate wins the election. If a prediction market is efficient, then the prices of these contracts perfectly aggregate dispersed information about the probability of each candidate being elected. Markets designed specifically around this information aggregation and revelation motive are our focus in this article.

Types of Prediction Markets

The most famous prediction markets are the election forecasting markets run by the University of Iowa (Berg, Forsythe, Nelson and Rietz, 2001). Election forecasting provides a useful way to introduce a variety of different contract types, and Table 1, adapted from Wolfers and Zitzewitz (2004a), shows how different contracts can be designed to reveal various types of forecasts.

<Table 1 here>

The three main types of contracts link payoffs to the occurrence of a specific event (the incumbent wins the election), a continuous variable (the vote share of the incumbent), or to a combination of the two, such as in spread betting. In each case, the relevant contract will reveal the market's expectation of a specific parameter: a probability, mean, or median, respectively. More complex contract designs can also be used to elicit alternative parameters. For instance, a family of winner-take-all contracts—each linked to different states of nature—can reveal the full probability distribution.

Prediction markets have been used to forecast elections, movie revenues, corporate sales, project completion, economic indicators and Saddam Hussein's demise. New corporate applications have emerged as firms have looked to markets to predict