CAN PREDICTIONS MARKETS FORECAST ELECTIONS?

Good Bet

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In the last few years, a great deal of excitement has been generated by "prediction markets." In these markets, people bet on future events, such as the outcome of an election, the success of a movie, the capture of Osama bin Laden, the unemployment rate, the success of a product, or the likelihood that Iraq will be unified on January 1, 2009.

Prediction markets have been performing uncannily well, apparently because they successfully aggregate the knowledge of widely dispersed people. For example, the Iowa Electronic Markets have outperformed polls in forecasting the outcomes of presidential elections. The Hollywood Stock Exchange has taken some of the fun out of Oscar night, because it usually predicts the winners (and it does well in forecasting box office success as well). At high tech, pharmaceutical, and finance companies around the globe, prediction markets are giving accurate forecasts for product usage, dates of product availability, office openings, and much more.

It is true that prediction markets must be structured to comply with new legal restrictions on gambling and futures trading. But, with their remarkable track record, prediction markets seem to be exceptionally promising tools for predicting the performance of the economy, the stability of nations, changes in environmental quality, and much more. Many observers expected them to nail the outcomes of the midterm elections as well.

It didn't happen. Days before the election, most prediction markets put the probability of a Republican Senate at around 75 percent. Worse, the market on Donald Rumsfeld's departure was trading at $1.52 out of a maximum of $10.00 at TradeSports.com, an especially prominent prediction market. Someone anticipating Rumsfeld's departure the Monday a week before the election could have earned almost 600 percent in a day.

As a result, many critics are now doubting the predictive capacity of these new markets in the political domain and elsewhere. For example, *Reason*'s Katherine Mangu-Ward offered an apology to readers for championing the markets in her reporting. At *DailyKos*, Markos Moulitsas called the markets "b.s." and said they "blew this one." Atrios, too, weighed in, with scorn for those who think "there's something magical about market aggregated preferences."

But the doubts are unwarranted; they are based on serious confusion. Even for the latest elections, the performance of prediction markets has been truly impressive. On July 31, long before the pundits reached a consensus, the prices on the Iowa Electronic Markets suggested that the Democrats were likely to take the House of Representatives. The Republicans had a brief market surge on September 16, but the Democrats were seen as increasingly probable winners from October 9 until Election Day. Even better, in every single Senate race at TradeSports.com, the markets' overall favorite defeated his or her opponent.

Still, the predictions markets did forecast a Republican Senate. Should we dismiss them for getting that one so wrong?

If you think so, then you're probably forgetting the principles of probability. Prediction markets do not make absolute predictions about electoral outcomes, economic developments, product success, or anything else. Instead, their predictions are mere probabilities. That's one reason why the markets expected the Senate to stay in Republican hands, even though so many Democratic candidates were favored. Senator-elect Jim Webb had roughly a 60 percent probability of success, and Senator-elect Bob Casey Jr. had roughly a 70 percent chance of success; but these numbers do not suggest that both candidates were likely to win simultaneously.

Prediction markets cannot be judged by asking whether a single prediction turned out to be right. The real question is how their probability judgments compare with the actual outcomes. And on this count, prediction markets have a fantastic track record in many domains, including elections, company performance, and economic developments. If you look at the set of outcomes estimated to be 80 percent likely, about 80 percent of them happened; events estimated to be 70 percent likely happen about 70 percent of the time; and so on.

This is what it means to say that prediction markets supply accurate probabilities. No one thinks that all events whose probabilities are above 50 percent should come true. That's most unlikely.

It's too early to say whether and when prediction markets will perform poorly. For example, the markets said that John Roberts was unlikely to be nominated for the Supreme Court and that Karl Rove would probably be indicted--apparently because there was not a lot of dispersed information out there about the likely judgments of President Bush and Special Prosecutor Patrick Fitzgerald. But, for both the public and the private sector, prediction markets remain an exceedingly valuable tool. We're willing to bet on it.

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