

BARNARD

BARNARD COLLEGE – COLUMBIA UNIVERSITY
ECONOMICS

3009 BROADWAY
NEW YORK, NY 10027
PHONE 212-854-3454
ECONOMICS.BARNARD.EDU

September 23, 2022

SUBMITTED VIA CFTC PORTAL

Secretary of the Commission
Office of the Secretariat
U.S. Commodity Futures Trading Commission
Three Lafayette Centre
1155 21st Street, N.W. Washington, D.C. 20581

Dear Chairman and Commissioners of the Commodity Futures Trading Commission:

I am writing in support of the Commodity Futures Trading Commission approving Kalshi's proposal for electoral prediction markets.

There are essentially two approaches to predicting the future. One is *model-based*, and relies on sound scientific understanding of the data generating process. The other is *crowd-sourced*, and relies on the aggregation of decentralized information and beliefs.

The first approach works well for predicting regularly occurring events that are well understood, such as solar eclipses. But it is much less useful for predicting rare events that have a complex set of determinants, such as global pandemics or financial crises.¹ For example, different research teams have produced widely varying forecasts of Covid-19 cases over the past two years, and even ensemble forecasts that average these predictions “have not reliably predicted rapid changes in the trends of reported cases, hospitalizations, and deaths” over time.² In this latter set of cases, decentralized approaches to forecasting that harness the wisdom of crowds can provide useful information.

Electoral outcomes lie somewhere between these two extremes. They arise with regularity, so that forecasting models can be developed and estimated.³ But they also depend on idiosyncratic factors that are unique to each cycle, such as candidate quality or recent court decisions. Ever since the launch of the pioneering Iowa Electronic Markets in 1998 (operating

¹ Danielle Allen, Rajiv Sethi, and Glen Weyl, “Prediction and policy in a complex system.” *Transmission T-007*, Santa Fe Institute, 2021.

²Centers for Disease Control and Prevention, [Covid-19 Forecasts: Cases](#), March 13, 2022.

³Merlin Heidemanns, Andrew Gelman, and G. Elliott Morris, “An updated dynamic Bayesian forecasting model for the US presidential election.” *Harvard Data Science Review*, 2020.

under a no-action letter by the CFTC), prediction markets have been part of the forecasting landscape for elections. The forecasting performance of such markets has matched that of poll aggregates, and is competitive with the best available models.⁴

Prediction market contracts are extremely simple—they have binary payoffs with a fixed resolution date. In addition, the set of traders is relatively stable over short periods of time, and activity is sufficiently frequent to allow researchers to identify trading strategies. As long as the (suitably anonymized) trading data is made available these markets can serve as experimental laboratories that help us understand precisely how information comes to be absorbed by financial market prices.⁵

Electoral prediction markets reference positive feedback events—beliefs about the success of a campaign can affect the actual probability of success by influencing donations, volunteer effort, turnout, and other factors. Campaigns routinely try to manage these beliefs, for example by selectively disclosing internal polls. Prediction market data can help uncover this process of attempted belief manipulation. For instance, in the process of examining trading strategies using prediction market data, David Rothschild and I found that a single trader had placed a sequence of several thousand orders over the course of two years leading up to the 2012 election, with non-negligible price effects, a finding that was covered by several media sources.⁶

We are living in an age that is characterized by both ideological and affective polarization—people in different political camps don't just disagree on issues, they despise each other and rarely communicate.⁷ Some of this can be attributed to online echo chambers and filter bubbles, although more traditional media such as cable television are also implicated.⁸ Under these conditions, prediction markets play an interesting role. They are among the very few online forums that create strong incentives for people who disagree fundamentally about statements of fact to interact with each other. A prediction market in which only one perspective is represented with attract people who disagree, since they will consider contracts to be mispriced and will see

⁴ Joyce Berg et al. "Results from a dozen years of election futures markets research." *Handbook of Experimental Economics Results*, 2008; Rajiv Sethi et al. "Models, Markets, and Prediction Performance." Available at SSRN: <https://ssrn.com/abstract=3767544>, 2022.

⁵ David Rothschild and Rajiv Sethi. "Trading strategies and market microstructure: Evidence from a prediction market." *Journal of Prediction Markets*, 2016.

⁶ Neil King, "One Big Trader Lost Millions Betting on Romney, Study Finds," *Wall Street Journal*, 2013; Lucy McCalmont, "Study: Bettor lost \$4M on Romney," *Politico*, 2013; Abby Ohlheiser, "Why One Trader May Have Bet Millions on a Romney," *The Atlantic*, 2013.

⁷ Iyengar, Shanto, and Sean J. Westwood. "Fear and loathing across party lines: New evidence on group polarization." *American Journal of Political Science*, 2015.

⁸ Flaxman, Seth, Sharad Goel, and Justin M. Rao. "Filter bubbles, echo chambers, and online news consumption." *Public Opinion Quarterly*, 2016; Boxell, Levi, Matthew Gentzkow, and Jesse M. Shapiro. "Greater Internet use is not associated with faster growth in political polarization among US demographic groups." *Proceedings of the National Academy of Sciences*, 2017.

a profitable trading opportunity.⁹ And trading losses can cause even the most stubborn individuals to reconsider their beliefs.

In order to leverage the power of prediction markets, however, the CFTC should allow for a large range of contracts, including those that reference individual races and not just national outcomes such as congressional control. This will allow people with very specific local knowledge to transmit their beliefs, even if they don't understand the broader implications of what they know. In addition, it is important to have competition—multiple exchanges that offer similar contracts so that fees can be kept low and the implications of differences in market design can be investigated.

Thank you for the opportunity to comment.

Sincerely,

A handwritten signature in black ink, appearing to read 'Rajiv Sethi', with a stylized flourish at the end.

Rajiv Sethi
Professor of Economics
Barnard College, Columbia University
& External Professor, Santa Fe Institute

⁹ Rajiv Sethi, "Prediction Markets in a Polarized Society." [Imperfect Information](#), 2020.