

Climate

Participating in a Climate Prediction Market Increases Concern About Global Warming

Key Takeaways

- When people participate in a climate prediction market – where they bet on future climate-related outcomes and earn money when they are correct – they become more concerned about climate issues, supportive of climate action, and knowledgeable about climate change.
- Climate prediction markets can also act as a polling mechanism, helping scientists, activists, and politicians to accurately aggregate public opinion about trends, policy preferences, risks, and future scientific predictions at any point in time.
- Climate prediction markets offer a way to infuse private money into climate efforts – where money earned through betting can be used to subsidize important policies that help combat climate change.
- Beyond climate, prediction markets can be used to influence knowledge and understanding of other controversial topics, allowing people to reflect their views, anonymously, through market economics rather than publicly stated opinions.

The paper “Participating in a Climate Prediction Market Increases Concern About Global Warming,” published in June 2023 in the journal *Nature Climate Change*, explores how individual participation in climate prediction markets influences attitudes and knowledge about climate change. The study was co-authored by Moran Cerf and Sandra C. Matz of Columbia Business School and Malcolm A. MacIver of Northwestern University.

Globally, there is a massive gap between concern for climate change and the support needed to address these concerns, including to meet important sustainability goals. Participation in a climate prediction market—where individuals forecast future climate outcomes and have the opportunity to place bets and earn money along the way—shows promise as a way to change attitudes, knowledge, and behavior related to climate change.

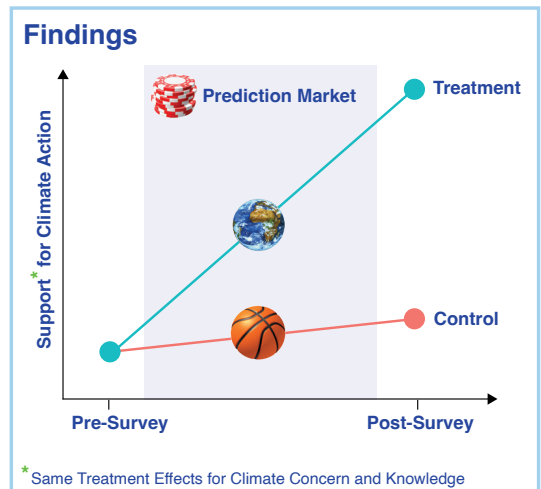
Research

Climate change is one of the most pressing issues of our time. However, modifying individual and collective attitudes and behaviors related to climate change is extremely challenging in a world where the subject is increasingly politicized. Many previous attempts have achieved only limited success. One of the challenges in comprehending the potential magnitude of climate change has to do with a limitation of the human brain: We often find it difficult to contemplate events that may occur in the distant future. Further, for many people, there is no immediate cost to rejecting climate change’s existence.

This research explores whether participation in a climate prediction market can shift people’s attitudes on climate change. The market encourages individuals to make bets on future climate-related events, effectively putting their money where their mouth is with respect to their views about climate change.

Climate Prediction Market and Public Support

Participation in a climate prediction market (left) increases support for action (right), concern, and knowledge about climate change. Participants in the treatment group engaged in a climate prediction market, and participants in the control group engaged in a sports and entertainment prediction market.



Research (continued)

Across two studies, research participants bet on the outcomes of various climate events that dominated the news, such as the magnitude of the California wildfires, as well as lesser known topics like changes in the Air Quality Index (AQI). The researchers surveyed participants' views on climate change before and after their engagement with the climate market to see how the betting experience influenced their views and knowledge.

Results

The research demonstrates that engaging in a climate prediction increases:

- Concern about the consequences of climate change
- Support for direct and indirect climate action
- Knowledge about climate change

While the effects were dependent on the extent to which people were successful in their betting in the smaller pilot study, they equally applied to all participants – irrespective of earnings – in the larger, more robust study.

Notably, the effects not only held true regardless of participants' success in the market, but also regardless of their political ideology or initial stance on climate change.

Conclusion

In the United States, more than a third of the population believe climate change is exaggerated, and more than half do not believe that climate change is caused by humans. This persistent skepticism makes it challenging to garner support for climate action and policies.

The research offers empirical evidence that participating in climate prediction markets may change people's attitudes about climate change. The research can be used by policy-makers, scientists, and activists as a practical and accurate tool for assessing public opinion on climate issues, to test potential policies, and to inject private money into climate solutions. Further, as the authors suggest in the paper, the prediction market can be used as a mechanism to infuse private money into a financial instrument that rewards accuracy and allows those whose beliefs align with reality to use the earned income towards improving civilization, at the expense of those who perpetuate falsehoods.

Columbia Business School Faculty and Staff



Sandra C. Matz [✉](#)
David W. Zalaznick Associate Professor
of Business
Management Division



Moran Cerf [✉](#)
Academic Director
in Executive Education

Connect with Columbia Business School

[✉](#) Email
communications@gsb.columbia.edu

[➔](#) CBS Insights
leading.business.columbia.edu

[in](#) Search "Columbia Business School" on [LinkedIn](#)