

COMMENTARY

MORALITY AND MARKETS: A COMMENT ON PREDICTING CRIME

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INTRODUCTION

In their article, *Predicting Crime*, Professors Henderson, Wolfers, and Zitzewitz propose an intriguing and futuristic series of market-based models surrounding the broad topic of crime prevention.¹ Harnessing widely dispersed knowledge among groups of people, including cops on the beat, criminologists, residents of neighborhoods, elected officials, snitches, and possibly even the criminals themselves, the authors posit that prediction markets will help to estimate crime statistics more accurately and therefore result in more efficient deployment of policing resources.² Further, they hypothesize that posing particular policy alternatives—for example, the option of eliminating the death penalty—to a widely dispersed market will result in a more transparent and open decision-making process.³ In addition to making important contributions to questions of prediction market design, their article explores and amplifies a discussion already underway⁴ that seeks to identify productive and socially beneficial uses for

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1. M. Todd Henderson, Justin Wolfers & Eric Zitzewitz, *Predicting Crime*, 52 ARIZ. L. REV. 15, 18 (2010).

2. *Id.* at 34–38.

3. *Id.* at 40–44.

4. Academics including the authors of *Predicting Crime*, Professors Robin Hanson, Michael Abramowicz, Cass Sunstein, Tom Bell, as well as many others have worked to introduce a dialogue about prediction markets into legal academic circles. *See, e.g.*, Justin Wolfers & Eric Zitzewitz, *Prediction Markets*, 18 J. ECON. PERSP. 107 (2004); CASS R. SUNSTEIN, INFOTOPIA: HOW MANY MINDS PRODUCE KNOWLEDGE (2006); MICHAEL ABRAMOWICZ, PREDICTOCRACY: MARKET MECHANISMS FOR PUBLIC AND PRIVATE DECISION MAKING (2007); Tom Bell, *Gambling for the Good, Trading for the Future: The Legality of*

prediction markets.⁵ Crime prevention would surely rank highly along any measure of important governmental functions, and the topic the authors have selected is therefore of particular significance.

Over the past decade, prediction markets have become both a more familiar and a more acceptable way to forecast a wide variety of future events. Prediction markets have recently proliferated because, among other reasons, technological barriers to entry are lower than they once were and numerous prediction market providers have entered the field.⁶ As a greater number of people learn about these markets and their potential for gathering and consolidating information, new uses and possibilities continue to be explored. Also, as a greater number of people learn that prediction markets can also be fun—certainly, winning provides a hedonic benefit—the lure to potential participants increases. Politically minded students have told me that they tracked prediction markets in the last election the same way that those in my age group check polls. The main difference is that while checking polls is largely a passive exercise, prediction markets, on the other hand, give their participants a stake in the outcome by allowing them to contribute information; thus, participants in prediction markets feel more engaged and involved as market participants.

As prediction markets are becoming more common, the legal regime surrounding “real” money markets has become chilly, due to the online gambling ban enacted in the United States.⁷ This legal development has meant that prediction markets have either been forced into using play money or moving offshore.⁸ Further, during the past two years, the worldwide financial crisis has made faith in the rationality of unregulated markets seem rather naive. Because of the financial crisis, many have questioned the assumptions underlying the workings of markets more generally (not just prediction markets). It is with this background that I turn from the more general subject of the growth and development in the areas of prediction markets to the matters raised in *Predicting Crime*.

As I agree with the authors’ goals and am convinced that adoption of prediction markets by policymakers would improve public safety and advance transparency in public policy, my major comment upon reading *Predicting Crime* is to offer some practical suggestions that would pave the way for public

Markets in Science Claims, 5 CHAPMAN L. REV. 159, 159 (2002). In his book *The Wisdom of Crowds*, author James Surowiecki popularized and publicized many of the key concepts surrounding prediction markets to a mass audience. See JAMES SUROWIECKI, *THE WISDOM OF CROWDS: WHY THE MANY ARE SMARTER THAN THE FEW AND HOW COLLECTIVE WISDOM SHAPES BUSINESS, ECONOMIES, SOCIETIES, AND NATIONS* (2004).

5. Miriam A. Cherry & Robert L. Rogers, *Markets for Markets: Origins and Subjects of Information Markets*, 58 RUTGERS L. REV. 339, 342 (2006) [hereinafter Cherry & Rogers, *Markets for Markets*]; Abramowicz, *supra* note 4, at xi.

6. See Cherry & Rogers, *Markets for Markets*, *supra* note 5, at 372.

7. Unlawful Internet Gambling Enforcement Act of 2006, 31 U.S.C. §§ 5361–5367 (2009); see Miriam A. Cherry & Robert L. Rogers, *Prediction Markets and the First Amendment*, 2008 U. ILL. L. REV. 833, 840–46 (2008) (analyzing the Act’s impact).

8. See Emile Servan-Schreiber et al., *Prediction Markets: Does Money Matter?*, 14 ELECTRONIC MARKETS 243 (2004).

acceptance of prediction markets in the area of crime and criminal law. As currently formulated, there is some risk that the authors' proposal will be difficult to implement because it will be viewed as controversial. First, allocating crime-fighting resources through a market mechanism that allows wide segments of the population to participate could allow those who are self-interested (including those who either have perpetrated crimes or could perpetrate crimes) to become part of the market. Second, proposing that matters as weighty as the death penalty be decided through a prediction market mechanism also seems destined for controversy.⁹ With that being said, I believe some of these (anticipated) problems could be averted with some minor—but directed—changes to the market design proposed by the authors.

I. THE DEVELOPMENT OF PREDICTION MARKETS IN CRIME

In their abstract, the authors begin by wondering why no one has considered the application of prediction markets to the problem of crime.¹⁰ Prediction markets in crime would undoubtedly be on the high end of the spectrum in terms of social utility. So why this seeming market failure? In a 2006 article, Robert Rogers and I attempted to answer the question of why prediction markets have developed in some areas and not others.¹¹ After surveying existing markets and interviewing founders of prediction markets, we found that the subject matter was often determined by the background of the founders and what areas they found interesting, based on their own educational and vocational training.¹² Potential profits to the founders were also significant, and the subject matter had to appeal to a large crowd because the business models employed depended on advertising revenue based on web traffic.¹³ While some of these factors seemed random, we did identify certain structural factors that could either encourage or impede the growth of prediction markets in particular areas, including barriers to entry and legal regulation of the markets.¹⁴ The singular challenge that seemed to present itself was how to best use this remarkable technology in a socially beneficial way, not relegating these markets to become mere entertainment devices.¹⁵

Returning to the question the authors pose, there may be several explanations for the failure of a prediction market to develop in the area of crime. First, there seems to be few private parties that are likely candidates to run prediction markets in crime.¹⁶ Therefore, inherent in their proposal is a reliance on some level of government—local, state, or federal—to create and maintain the

9. Henderson, Wolfers & Zitzewitz, *supra* note 1, at 39–47.

10. *Id.* at 15.

11. Cherry & Rogers, *Markets for Markets*, *supra* note 5, at 342.

12. *Id.* at 362–63.

13. *Id.* at 353–55.

14. *Id.* at 358–60.

15. *Id.* at 368.

16. Those who might have an extremely vested interest—for example, crime syndicates—could not be so brazen as to openly run such a prediction market.

market.¹⁷ More important than simply a forum or a hosting website, the authors' proposal also depends on the participation of government officials—the “experts” who would have a great deal of knowledge to contribute and who would assist in forming accurate predictions, shaping policy preferences, and then implementing those suggestions. It is a rather widely acknowledged truism, however, that government programs are only rarely known for their innovation or use of cutting-edge technology. But with such an important goal and so many politicians dedicated to a platform of “law and order” or increasing policing, it would seem that this market would have been attempted. I would posit that the explanation, then, has to be deeper than a slowness of government to capitalize on this tool. Looking at the (admittedly short) history of prediction markets, there is a similar idea that encountered serious political resistance and that could explain the hesitancy or caution in this area.

The authors mention the DARPA Policy Analysis Market (PAM),¹⁸ which in the wake of September 11th, was proposed to predict acts of terrorism (as well as other current events, especially those touching on the Mideast region). Part of the market was to be composed of experts, and a second part of the market was to be open to the public. PAM did not have a happy future, and there are lessons to be learned from that experience. When PAM was proposed, prediction markets were not as widespread or as well understood as they are now. At that time, “markets” did not seem to go hand in hand with “preventing terrorism.” Before it could get off the ground, several U.S. senators criticized the project, the Defense Department pulled the funding, and the supervisor of the project resigned.¹⁹

While PAM's goal was the prediction of terrorism so that it could be prevented, overall, it was sadly misunderstood.²⁰ Part of the reason was that PAM directly touched on a subject matter that was fraught with raw emotion. For years after September 11th, many in the United States feared future terrorist attacks, even though they were statistically unlikely. This underlying irrationality surrounding the subject would perhaps skew the results from the part of the market that was open to the public.²¹

17. One could also imagine nonprofit agencies, including educational institutions—perhaps those with programs in criminal justice or criminology—becoming involved, perhaps applying for grants, just as the University of Iowa developed the Iowa Electronics Markets.

18. Henderson, Wolfers & Zitzewitz, *supra* note 1, at 25.

19. Cherry & Rogers, *Markets for Markets*, *supra* note 5, at 249.

20. See, e.g., Editorial, *Harebrained Scheme to Bet on Terrorism Deserved to Die*, DETROIT NEWS, Aug. 2, 2003, at D6; Carl Hulse & Thom Shanker, *Senators Want to Block Spending on Terrorist Initiatives*, N.Y. TIMES, Aug. 14, 2003, at A20; Tim Harford, *All Bets Are Off at the Pentagon*, FIN. TIMES, Sept. 2, 2003, at 14; Editorial, *You Bet Your Life: Futures Markets Won't Solve a Real Intelligence Problem*, FIN. TIMES, Aug. 4, 2003, at 10; Ken Guggenheim, *Pentagon Terrorism Market Riles Lawmakers*, CHI. TRIB., July 29, 2003, at 11.

21. I have some suspicions that in that climate of fear, at that particular period of time, obtaining accurate results from a terrorism market would have been difficult (but, of course, we will never know).

Further—and I believe that this is an important concern—the reasons politicians gave for scuttling the project have relevance for the authors’ proposed prediction markets in crime. Politicians noted that the idea of “betting” on terrorist attacks seemed problematic.²² Another noted the concern that PAM could result in terrorists profiting from their illegal activities.²³ After all, the idea was to draw out information and offer incentives for those with information to disclose it. Those with the most information were those people who would be close to terrorists. I would term these dual concerns not a question of the market’s “intent” or even a question about such a market’s accuracy. Instead, these are concerns about the morality of such a market, and I believe that many of the same questions that were raised in regard to PAM could also be raised in regard to the authors’ proposed markets in crime.

II. MORALITY AND MARKETS

In the past decades, scholarship in “commodification” or “taboo trades” has developed, attempting to reconcile collisions between markets and sales or exchanges that have not traditionally been monetized. Judge Richard Posner sparked widespread discussion (and in some instances outrage) when he began writing about markets for child adoption.²⁴ Proposals surrounding markets for human organs have also sparked debate.²⁵ Perhaps because some of these markets have gender implications, concern the body, or because women’s “traditional” roles were artificially removed from the labor markets and de-monetized, feminist theorists have been at the forefront of discussing these markets.²⁶ Although there are conflicting discussions and assumptions, my reading in this area leads me to classify two areas of concern that have been raised. First, there is a concern about (further) class stratification.²⁷ Second, there is a sense that markets in some areas could cheapen the innate value of human dignity.

Beyond these areas of reproduction and some of the commentary on gray markets, it is true that many markets currently exist that one could consider either immoral (or at least amoral). For example, there has been widespread trading in viatical settlements and life insurance policies. These “gambles” on matters of life and death seem somewhat grisly. Others could morally condemn an investor who chooses to invest only in companies that manufacture cigarettes, alcohol, and large gas-guzzling SUVs. One could also pass moral judgment upon those who were short-selling airline stocks after September 11th. Yet, none of these transactions

22. See Hulse & Shanker, *supra* note 20.

23. *Id.*

24. See, e.g., Elisabeth M. Landes & Richard A. Posner, *The Economics of the Baby Shortage*, 7 J. LEGAL STUD. 323 (1978); RICHARD A. POSNER, *SEX AND REASON* (1992). The secondary literature that has developed in response to this provocative argument has been extensive. See generally Kimberly D. Krawiec, *Altruism and Intermediation in the Market for Babies*, 66 WASH. & LEE L. REV. 203 (2009).

25. See, e.g., *RETHINKING COMMODIFICATION: CASES AND READINGS IN LAW AND CULTURE* (Martha M. Ertman & Joan C. Williams eds., 2005).

26. *See id.*

27. Cf. Carol Sanger, *(Baby) M Is for the Many Things: Why I Start with Baby M*, 44 ST. LOUIS U. L.J. 1443, 1461 (2000).

are legally banned, despite their perhaps unsavory moral dimensions for the individual investor.

Prediction markets are different than many of the markets that comprise “taboo trades,” such as the markets for human body parts. Those who participate in prediction markets are essentially trading in information, and the information itself has a particular value.²⁸ Prediction markets commodify information by putting a price on it. This concept is not novel—in many legal settings, from contract law²⁹ to insider trading,³⁰ it is obvious that knowledge and information is valuable. But the subject matter of the market—i.e., what kind of information the person or entity running the market wishes to trade—could come under scrutiny as potentially immoral. If the market’s subject matter predicts which movie will win “Best Picture” at the Academy Awards, the market looks like a lighthearted and fun way to let participants pit their knowledge against each other. If the market’s subject matter is when a terrorist attack will occur, the idea that some could profit from that information strikes some people as morally disconcerting.

III. DISTINGUISHING THE AUTHORS’ PROPOSALS FROM PAM

In some important ways, the outcome for markets in crime should be different than what happened to PAM. First, part of the problem may have already been solved because most “open market” prediction markets have used play money and been relatively innocuous and entertaining. These markets have therefore made the public more aware of what prediction markets do. And, although crime does tend to touch a nerve in American society—just ask anyone who has been a victim of crime—the reaction is likely to be somewhat less visceral than the response to a terrorist attack. In addition, people may feel more comfortable with the idea of predicting routine crimes than with the idea of predicting terrorist attacks, which while relatively rare can have catastrophic consequences.

Even with these distinctions, there is still the potential for controversy that could be avoided with small changes to market design. The most obvious way to head off controversy would be to limit participation to “experts” (however defined) or government employees. True, eliminating the everyday person could negatively impact the market by eliminating the “local” perspective from everyday people who live in the neighborhoods. Or, perhaps if those who are not particularly

28. In part, this sets up an interesting dichotomy because in the Internet and Information Age, the “open source” model seems to be the general view of information—sharing information for free and collaborating—rather than hoarding information. See, e.g., Yochai Benkler, *Coase’s Penguin, or, Linux and the Nature of the Firm*, 112 YALE L.J. 369 (2002) (describing Web 2.0 technologies as facilitating information sharing).

29. *Laidlaw v. Organ*, 15 U.S. (2 Wheat) 178 (1817).

30. *Sec. Exch. Comm’n v. Tex. Gulf Sulphur Co.*, 401 F.2d 833 (2d Cir. 1968).

savvy (the “sheep”) will be eliminated from the market, there will be less incentive for the experts to participate and profit.³¹

On the other hand, a great number of government employees and others make preventing crime the focus of their professional careers. If the everyday citizen (sheep or not) was eliminated entirely from the market, it would eliminate any concern that criminals would be profiting from their misdeeds. If the concern is that those involved in crime will exploit or increase their activities to make money from the market, their categorical exclusion would certainly seem to take care of the problem.

The more difficult question would be placing a divisive policy decision, such as the death penalty, in a market setting, even with only experts involved. The fact that money is involved—however tangentially—in incentivizing those who participate in the market only increases the potential for controversy. Perhaps there is a way to remove money from the equation entirely, and instead of calling this a “market,” to term it “prediction sharing technology.” Many of the same functions that money serves can be accomplished through reputational or other incentives. With these small changes, I predict that the markets in crime that the authors have proposed have a bright future.

31. Miriam A. Cherry & Robert L. Rogers, *Tiresias and the Justices: Using Information Markets to Predict Supreme Court Decisions*, 100 NW. U. L. REV 1141, 1169–81 (2006).
