The Journal of Prediction Markets (2009) **3**, *89-110*

PRIVATE PREDICTION MARKETS AND THE LAW

Tom W. Bell[1]

This paper analyses the legality of private prediction markets under U.S. law, describing both the legal risks they raise and how to manage those risks. As the label "private" suggests, such markets offer trading not to the public but rather only to members of a particular firm. The use of private prediction markets has grown in recent years because they can efficiently collect and quantify information that firms find useful in making management decisions. Along with that considerable benefit, however, comes a worrisome cost: the risk that running a private prediction market might violate U.S. state or federal laws. The ends and means of private prediction markets differ materially from those of futures, securities, or gambling markets. Laws written for those latter three institutions nonetheless threaten to limit or even outlaw private prediction markets. As the paper details, however, careful legal engineering can protect private prediction markets from violating U.S. laws or suffering crushing regulatory burdens. The paper concludes with a prediction about the likely form of potential CFTC regulations and a long-term strategy for ensuring the success of private prediction markets under U.S. law.

INTRODUCTION

This paper analyses the legality of private prediction markets under U.S. law, describing both the risks they pose and some potential cures. The use here of "private" (or, equivalently, "in-house") refers to markets open not to the public but rather only to members of a particular firm.[2] The Foresight Exchange[3] and the Iowa Electronic Markets,[4] because they generally welcome anyone to join in the trading they host, represent examples of *public* prediction markets. *Private* prediction markets, such as those run by Google,

---

[1] Professor, Chapman University School of Law. I thank Koleman Strumpf for encouraging my work on this topic, and participants at two events—the Conference on Corporate Applications of Prediction/Information Markets, held at the Kauffman Foundation Conference Center in Kansas City, Missouri, November 1, 2007, and the Collective Intelligence Foo Camp, held at the Googleplex in Mountain View, California, February 22-23, 2008—who commentated on presentations of some of the ideas expressed here. I take sole responsibility for this paper as submitted for publication, however.

[2] More specifically, by "members" I intend to include both common law employees of a firm and independent contractors who, because their access to confidential information of the firm burdens them with fiduciary obligations, qualify as common law agents of the firm. *See* Restatement (Second) of Agency (2d) § 2(3) (1958) (defining "independent contractor" as “a person who contracts with another to do something . . . . He may or may not be an agent.").

[3] *See* http://www.ideosphere.com/ (visited May 7, 2008).

[4] *See* http://www.biz.uiowa.edu/iem/ (visited May 7, 2008).

Best Buy, and a growing number of companies,[5] support trading only by each firm's members and only in support of a common business enterprise. In private prediction markets, traders do not trade solely for the sake of trading; they do so in the course of their employment.

A growing number of firms have in recent years begun running in-house prediction markets, using them to collect and quantify data useful for firm management. The actions of those firms say more about the benefits of prediction markets than my words ever could, so I will not belabor the point. Instead, I here focus on a cost: the risk that private prediction markets—especially those that offer real-money prizes[6]—might violate U.S. state or federal laws. I adopt this critical point of view not to condemn such markets, but rather to protect them. Only after a clear-eyed study of the legal risks threatening private prediction market can we formulate workable defenses.

Part I sketches the ends and means of prediction markets, demonstrating that they differ significantly from the ends and means of futures, securities, and gambling markets. The laws written for those sorts of markets thus do not fit prediction markets very well. Still worse do they suit *private* prediction markets. Part II explains why those laws nonetheless threaten private prediction markets. As Part II explains, however, prudent legal engineering can protect private prediction markets from violating the law or suffering crushing regulatory burdens. Part III describes the bright future of private prediction markets, the likely impact of potential regulations by the CFTC, and a strategy designed to ensure that all prediction markets—private and public, alike—might thrive and grow under U.S. law.

PART I: THE UNIQUE STATUS OF PRIVATE PREDICTION MARKETS UNDER U.S. LAW

The ends and means of prediction markets differ materially from the ends and means of futures, securities, and gambling markets. The policy reasons for regulating those sorts of markets thus do not fit prediction markets very well. Private prediction markets, in particular, have ends and means different from those of other, more conventional and heavily regulated markets. Rather

---

[5] *See* Steve Lohr, "Betting to Improve the Odds," *N.Y. Times*, April 9, 2008, at http://www.nytimes.com/2008/04/09/technology/techspecial/09predict.html?ei=5070&en=135eefaa8873036b&ex=1208404800&emc=eta1&pagewanted=print.

[6] Whatever their virtues, in-house prediction markets that offer only play-money payoffs do not raise face dire legal threats. I thus for the most part do not address them. It bears noting, however, that the threats that illegal insider trading laws pose to real-money private prediction markets pose an equal threat to play-money private markets.

than offering thousands of words explaining that claim, I here offer two illustrations of it, in figures 1 and 2, below.[7]

Purpose: / Type:	Express Prices	Promote Discovery	Entertain	Hedge Risks	Raise Capital
Prediction Market	primary	secondary	tertiary	tertiary?	N.A.
Futures Market	secondary[8]	tertiary?	N.A.	primary[9]	N.A.
Securities Market	secondary	tertiary?	N.A.	tertiary[10]	primary[11]
Gambling Market	N.A.	N.A.	primary	N.A.	N.A.[12]

Figure 1: Market Type v. Market End

Figure 1 illustrates that prediction markets exhibit a unique concern for expressing prices and promoting discovery. The goals most important to other markets—hedging risks, raising capital, and entertainment—matter

[7] For the details behind these policy portraits, see Tom W. Bell, "Prediction Markets for Promoting the Progress of Science and the Useful Arts," 14 *Geo. Mason L. Rev.* 37 (2006). This part's discussion of the tables derives in part from the discussion in that earlier paper.

[8] *See* Commodities Futures Trading Commission [hereinafter, "CFTC"], *The Economic Purpose of Futures Markets and How They Work*, http://www.cftc.gov/educationcenter/economicpurpose.html (last visited Oct. 29, 2008) (saying, "[P]rice discovery [] is considered an important economic purpose of futures markets.").

[9] CFTC, *supra* note 9 ("Futures markets are . . . designed as vehicles for hedging and risk management . . . .").

[10] Investing in securities may help an investor hedge against loss by dint simply of diversifying her portfolio.

[11] *See* U.S. Securities and Exchange Commission, *The Investor's Advocate: How the SEC Protects Investors, Maintains Market Integrity, and Facilitates Capital Formation*, http://www.sec.gov/about/whatwedo.shtml (last visited Feb. 27, 2006) ("The mission of the U.S. Securities and Exchange Commission is to protect investors, maintain fair, orderly, and efficient markets, and facilitate capital formation.").

[12] States sometimes justify their lotteries as a means for funding for education or other worthy ends. *See, e.g.*, California State Lottery, *Supporting Education*, http://www.calottery.com/Support/LotteryFunds/ (last visited Feb. 27, 2006), That does not mean lotteries "raise capital" for investment, however; it means simply that that lotteries substitute for tax revenues.

comparatively little to prediction markets as a class. The sort of prediction markets of particular interest here—those that limit trading to the agents of a common enterprise and about questions relevant to the enterprise's success—differ still more sharply from futures, securities, or gambling markets.

Prediction markets aim primarily to aggregate and reveal prices—positive externalities that offer accurate, timely, and quantified answers to important questions. Private prediction markets, in particular, aim at encouraging the discovery of truths about questions concerning some common enterprise, such as the likely shipping date of a new product or the effect of an ad campaign on sales. As a consequent and secondary matter, prediction markets can stimulate research by rewarding it.

Prediction markets do not typically aim solely or primarily at entertainment, though they might offer it. In particular, the sorts of claims generally traded on private prediction markets—claims about such dry but important questions as a supplier's reliability—do not look likely to offer much intrinsic entertainment value.[13] Private prediction markets in skill-based claims thus ought to escape the reach of gambling regulations. Still less would private prediction markets support the sort of hedging functions that justify the CFTC's regulation of futures markets.[14]

Prediction markets use means different from those of conventional markets. Table 2 summarizes the distinctions. It illustrates that prediction markets alone offer skill-based spot trading of conditional claims (rather than of underlying assets), usually on a zero-sum basis, and without exposing traders to losses greater than their investments. That collection of features distinguishes all types of prediction markets, pubic and private alike, from futures, securities, and gambling markets. The next Part details why those differences give private prediction markets a fair claim to escaping the reach of the CFTC, SEC, and state-level gambling laws.

---

[13] *See* Robin Hanson, "Could Gambling Save Science? Encouraging an Honest Consensus," *Soc. Epistemology*, Jan. 1995, at 3,16 *available at* http://hanson.gmu.edu/gamble.html ("[S]cience questions are generally too long term to be a problem [for compulsive gamblers], offering no more 'action' than long-term stock investments.").

[14] Granted, a thoughtful and risk-averse employee might perhaps use a private market to hedge against loss, such as by investing in claims that his company will not pay a year-end bonus. That seems unlikely to constitute a major function of a private prediction market or to account for more than a *de minimus* amount of trading.

Feature: / Type:	Skill-based Trading	Spot Trading	Zero-Sum Trading	Under-lying Assets	Risk of Loss Greater than Invest-ment
Prediction Market	yes	yes	usually	no	no
Futures Market	yes	no	yes	usually	yes
Securities Market	yes	usually	no	usually	some-times
Gambling Market	no	yes	yes	no	some-times

Figure 2: Market Type v. Market Means

PART II: LEGAL THREATS TO PRIVATE PREDICTION MARKETS AND SOME RESPONSES

As the prior Part explained, U.S. laws pertaining to futures, securities, or gambling markets do not fit private prediction markets very well. As this Part explains, however, those laws nonetheless pose some risk of clumsily regulating, or even outlawing, private prediction markets. To avoid that unwelcome result calls for more than abstract policy arguments; it calls for careful legal engineering. In brief, private prediction markets can reduce their exposure to legal liability if they:[15]

- Avoid supporting hedging functions;
- Offer only spot exchanges of conditional negotiable notes;
- Publicize material information or safeguard against insider trading; and
- Require agents of the firm to trade on the market.

[15] Note that you will not find among these suggested strategies, "Run the private market overseas." That would not protect a firm from liability under U.S. law if any acts illegal under that law occurred on U.S. soil, such as would happen if a resident employee illegally traded on insider information obtained from her firm's overseas-based prediction market. A firm U.S. firm could avoid that sort of liability by moving all of its assets and personnel out of the U.S., of course, but that seems a rather drastic measure.

Those strategies err on the side of caution, admittedly, and might seem rather defensive to the sort of risk-loving, cutting-edge companies most likely to use prediction markets. Perhaps that explains the relative dearth of such legal prophylactics. More likely, though, most firms running private prediction markets have yet to carefully assess, much less mitigate, their legal risks. This Part offers a clear-eyed view of the legal terrain and describes a safe path for the advance of private prediction markets.

A. PRIVATE PREDICTION MARKETS AS FUTURES MARKETS

A real-money *public* prediction market operating with the reach of U.S. law would run some risk of falling prey to regulation by the Commodities Futures Trading Commission ("CFTC").[16] A *private* prediction market would probably run a smaller, but not zero, risk of the same result. This section briefly describes the scope of that threat and offers some curative responses. It bears noting up front, however, that considerable uncertainty surrounds this question—so much so that the CFTC itself recently issued a request for comments about whether and to what extent it should have any say over how prediction markets operate.[17]

As the CFTC has observed, prediction markets often offer binary option contracts akin to those over which the Commission has claimed exclusive jurisdiction.[18] Any public prediction market that offered real-money trading on such contracts, and that does so within the reach of U.S. law, would thus arguably fall within the CFTC's regulatory purview—especially if the market offered significant hedging functions. Notably, however, a prediction market could probably dodge that outcome by carefully choosing the sorts of instruments in which it deals. Even though they facially resemble the sorts of instruments traditionally regulated by the CFTC, for instance, lottery tickets and foreign currency "forex" contracts fall outside of the CFTC's jurisdiction.[19] To likewise escape the Commission's reach, prediction markets

---

[16] For a more complete discussions of that question, see Bell, *supra* note 7 at 67-68; Bell, *supra* note Tom W. Bell, "Gambling for the Good, Trading for the Future: The Legality of Markets in Science Claims," 5 *CHAPMAN L. REV.* 159 (2002) at p 170-72 at 170-72.

[17] *See* "Concept Release on the Appropriate Regulatory Treatment of Event Contracts," 73 *Fed. Reg.* 25,669 (2008) at http://www.cftc.gov/lawandregulation/federalregister/proposedrules/2008/e8-9981.html (visited May 18, 2008).

[18] *See id.* at 25670. Conceivably, a prediction market could offer contracts structured to resemble the sorts of futures contracts also subject to the exclusive jurisdiction of the CFTC. *See id.* at 25670-71.

[19] *See Commodity Futures Trading Comm'n v. Zelener*, 373 F.3d 861, 867 (7th Cir. 2004)

should deal only in spot (rather than future) exchanges of conditional negotiable notes (rather than contracts).[20]

Private prediction markets, in particular, have good claim to falling outside the CFTC's regulatory authority. First, it looks unlikely that most private prediction markets would routinely offer the sort of significant hedging functions that characterize markets falling within the CFTC's jurisdiction. That level of hedging requires quite thick markets, whereas few private markets would attract sufficient trading to offset large monetary losses. Nonetheless, as a safeguard against venturing into the CFTC's jurisdiction, a private prediction market might wisely choose to bar trading above certain levels of capitalization, revenue, or volume.[21] That would assure that the market does not support significant financial hedging, yet leave it free to pursue its primary purpose: discovering what an enterprise's agents think about its future.[22]

Private prediction markets can also cite their closed nature as a second reason why they have a particularly good claim to escape the CFTC's jurisdiction. A great many of the markets that the CFTC regulates, such as the HedgeStreet Exchange, operate as retail establishments, with their doors open to almost any member of the public.[23] The CFTC also regulates markets open only to participants who satisfy special statutory criteria, granted.[24] Those markets must presumably admit each trader who so qualifies, however; unlike a corporation setting up a private prediction market, they cannot freely pick

---

(affirming that exchange of present payment for right, conditional on demand, to present delivery of foreign currency qualifies as "spot" rather than "futures" trading, and thus falls outside the CFTC's jurisdiction).

[20] A conditional note takes the form, "If condition X obtains, the holder of this note can redeem it for $1 from the Bank." They qualify as notes, rather than contracts, because they do not win legal efficacy via offer and acceptance. A spot market in conditional notes would support the exchange of such notes for value and for present delivery. Thus, for instance, you might for $60 buy on such a market 100 notes, each paying $1 if your company ships its newest product on schedule. You would take immediate possession of the notes, and look forward to perhaps cashing them in later for $1 each, making a profit (ignoring such costs as lost interest) of $40.

[21] Some commentators have suggested formalizing that approach. *See, e.g.*, Robert W. Hahn & Paul C. Tetlock, "A New Approach for Regulating Information Markets," 29 *J. Reg. Econ.* 265, 277 (2006) (suggesting that the CFTC should exempt from regulation prediction markets that are limited in the size of investment).

[22] A caveat: limiting markets too sharply, or in the wrong way, runs the risk of decreasing their functionality.

[23] *See* Hedgestreet, *Open An Account*, at https://www.hedgestreet.com/open-account/ (visted May 7, 2008) (describing requirements for opening a trading account).

[24] *See* CFTC, *Trading Organizations*, at http://www.cftc.gov/industryoversight/tradingorganizations/index.htm (visited May 7, 2008) (outlining the criteria for trading on derivative transaction execution facilities and various "exempt" institutions).

and choose who can access the market. Because their hosts retain absolute discretion over who trades on them, therefore, private prediction markets differ markedly from the types of markets over which the CFTC claims jurisdiction.

B. PRIVATE PREDICTION MARKETS AND SECURITIES REGULATIONS

Securities regulations threaten private prediction markets on two major fronts. First, the SEC might in theory claim that such markets themselves deal in securities. For reasons discussed in subpart 1, however, that does not look like too worrisome a risk. Second, and more plausibly, a publicly-traded corporation's private prediction market might facilitate illegal insider trading of its host corporation's securities.[25] Subpart 2 describes the scope of that risk and offers several suggestions about how to manage it.

1. Private Prediction Markets as Securities Markets

Would the claims traded on a private prediction market qualify as "securities" under U.S. law?[26] History and public policy say, "Not very likely." The claims traded on a private prediction market look nothing like the sort of financial instruments—fractional ownership in business enterprises—that have traditionally fallen within the jurisdiction of the SEC.[27] Nor do private prediction markets function at all like the sorts of markets the SEC regulates.[28] Most notably, securities markets create wealth by making capital available for productive purposes, whereas prediction markets pit each trader against all others in a zero-sum game.[29] The statutes that define the SEC's jurisdiction leave room for debate, granted.[30] By and large, though,

[25] A corporation that is not publicly-traded of course need not worry about illegal insider trading of its shares.
[26] For a more complete exploration of this question, see Bell, *supra* note 7 at 77-82.
[27] *See Chicago Mercantile Exch. v. Sec. & Exch. Comm'n*, 883 F.2d 537, 543 (7th Cir. 1989) ("A security, roughly speaking, is an undivided interest in a common venture the value of which is subject to uncertainty.").
[28] *See supra*, figures 1 & 2.
[29] *See* Thomas Lee Hazen, "Rational Investments, Speculation, or Gambling? Derivative Securities and Financial Futures and Their Effect on the Underlying Capital Markets," 86 *Nw. U. L. Rev.* 987 (1992) at p 1006-07.
[30] *See* David J. Gilberg, "Regulation of New Financial Instruments under the Federal Securities and Commodities Laws," 39 *Vand. L. Rev.* 1599 (1986) at p 1622 ("[T]he securities Act definition of a security] has been the subject of extensive judicial and legal debate and has spawned probably the most extensive literature in the areas of securities and commodities

courts have interpreted those statutes to give the SEC authority only over financial instruments similar to those traditionally regulated by the Commission.[31] The sorts of claims traded on a private prediction market look unlikely to qualify on that count.

2. Insider Trading Regulations

Broadly speaking, U.S. law forbids two types of insider trading. The traditional or "classical" theory of illegal insider trading bars a corporate insider from trading the securities of his or her corporation "on the basis of material, nonpublic information."[32] The "misappropriation" theory of illegal insider trading, in contrast, bars a corporate "outsider" from trading a corporation's securities in breach of an obligation to maintain the confidentiality of material information about the corporation.[33] Private prediction markets run the risk of facilitating both sorts of insider trading.[34] These risks differ only in kind—not in principle—from extant ones. This section diagnoses the legal ill, prescribes a good dose of the usual remedies, and offers a somewhat experimental supplementary therapy.

a) Liability for Illegal Insider Trading. Suppose that a corporate insider, such as a CEO, used material information gleaned from a non-public, in-house prediction market to time the purchase or sale of the corporation's securities. That would probably qualify as illegal insider trading under the classical theory.[35] As fiduciaries of their corporations' shareholders, insiders

regulation.") (footnote omitted).

[31] *See, e.g., Reves v. Ernst & Young*, 494 U.S. 56, 64-65 (1990) (adopting a "family resemblance" test for determining whether a note qualifies as a security governed by the 1934 Act); *Landreth Timber Co. v. Landreth*, 471 U.S. 681, 687 (1985) (adopting a definition of "stock" that would fit it within the definition of "security" because "an investor [buying that stock] would believe he was covered by the federal securities laws").

[32] *United States v. O'Hagan*, 521 U.S. 642, 652 (1997). The definition of "corporate insider" here includes "not only officers, directors, and other permanent insiders of a corporation, but also to attorneys, accountants, consultants, and others who temporarily become fiduciaries of a corporation." *Id.*

[33] *Id.*

[34] Though my conversations with those who offer prediction market services to corporations, and those who buy those services, suggests that this issue concerns them a great deal, I've not yet found any published papers on the topic. Other aspects of the interplay of prediction markets and insider trading have drawn academics attention, granted. *See, e.g.,* Robin Hanson, "Insider Trading and Prediction Markets," 4:2 *Journal of Law, Economics, and Policy* 449 (2008) (forthcoming), available at http://hanson.gmu.edu/insiderbet.pdf. That still leaves unanswered, however, the question of how private prediction markets might create risks under illegal insider trading laws and what to do about it.

[35] The same analysis would apply if the CEO instead advised his niece to trade the corporation's

bear special obligations to not trade on material, nonpublic information about their corporations.[36]

Non-insiders, such as run-of-the-mill employees or independent contractors of the corporation, generally bear no corresponding duty.[37] Even they, however, can become "remote temporary insiders" by dint of entering into a special confidential relationship with the corporation.[38] Suppose, then, that a low-level employee of the corporation acquired material information from her corporation's private prediction market and then used that information to trade the corporation's securities. Her access to that non-public material information might qualify her as a remote temporary insider, thereby rendering her just as liable, under the classical theory of illegal insider trading, as the company's CEO.

Misappropriation theory offers another route to liability for illegal insider trading. Under this alternative to the classical theory, a low-level corporate employee or (more likely) independent contractor might commit insider trading by trading on information gleaned from the firm's private prediction market.[39] The theory gets its name from the notion that the illegal insider trader has, in that event, misappropriated valuable confidential information from the corporation.

No matter how a private prediction market leads to illegal insider trading, civil or criminal sanctions might follow. It does not look very likely that merely *hosting* a private prediction market would suffice to render a corporation *itself* liable for illegal insider trading. At the least, a complaint would have to establish that the corporation's prediction market had abetted or

---

securities based on that material, non-public information, thereby violating his fiduciary duty to the corporation, and the niece did so knowing of that breach. Even a "tippee" who is not a corporate insider might thus be held liable for illegal insider trading. *See Dirks v. SEC*, 463 U.S. 646, 659 (1983) ("[T]he tippee's duty to disclose or abstain is derivative from that of the insider's duty.").

[36] *See Chiarella v. United States*, 445 U.S. 222, 230 (1980) ("Application of a duty to disclose prior to trading guarantees that corporate insiders, who have an obligation to place the shareholder's welfare before their own, will not benefit personally through fraudulent use of material, non-public information.").

[37] *Id.* at 231-35.

[38] *Dirks v. SEC*, 463 U.S. 646, 655 n.14 (1983) ("Under certain circumstances . . . outsiders may become fiduciaries of the shareholders. The basis for recognizing this fiduciary duty is not simply that such persons acquired nonpublic corporate information, but rather that they have entered into a special confidential relationship in the conduct of the business of the enterprise and are given access to information solely for corporate purposes.").

[39] *See United States v. O'Hagan*, 521 U.S. at 652 ("In lieu of premising liability on a fiduciary relationship between company insider and purchaser or seller of the company's stock, the misappropriation theory premises liability on a fiduciary-turned-trader's deception of those who entrusted him with access to confidential information.").

recklessly failed to prevent illegal insider trading.[40] Even if they do not threaten the corporation directly, however, the pall cast by illegal insider trading laws could understandably discourage a corporation from running a private prediction market. Even apart from a well-founded concern for its insiders, no corporation would welcome the heavy evidentiary burdens imposed by investigations into illegal trading of its shares.

b) Legal Cures. How can publicly-traded corporations run private prediction markets and yet dodge illegal insider trading laws? For a simple and sure-fire fix, a corporation could make public the claims traded on its private prediction market and their prices. Illegal insider trading relies on *non-public* material information, after all; making the information public dissipates liability. But many corporations would refuse to make that sort of information public, regarding the prices of claims on its in-house prediction market, or even the claims themselves, as sensitive information. A corporation might host a private prediction market in order to generate new trade secrets, which have value—indeed, that *exist*—only insofar as they remain confidential.

A corporation might thus prefer an alternative safeguard against illegal insider trading laws: bifurcated private markets, one available solely to officers and other insiders and another solely for other agents of the corporation to trade on.[41] That bifurcated structure would help to ensure that inside information generated by the private prediction market remained within the corporation's executive suites, where it would easily fit within the same sort of controls—blind trusts or trading windows, for instance—that apply to inside information generally. That would protect both a corporation's insiders and, since they might otherwise qualify as "tippees" liable under the same theory, non-insiders from liability under the classic theory of illegal insider trading.

---

[40] Although the theories under which a firm might be held liable for the illegal insider trading of its agents vary, they basically boil down to knowingly or recklessly inducing or failing to prevent the wrong. *See* Harold K. Gordon and Tracy V. Schaffer, "Recent SEC Actions Show Employer Liability for Insider Trading," *Law.com,* July 30, 2007, at http://www.law.com/jsp/ihc/PubArticleIHC.jsp?id=1185527216922 (visited April 25, 2008) (describing various ways in which a firm might be held liable for the illegal insider trading of its employees). Careful firms should thus not find it too difficult to implement procedures sufficient to avoid a lawsuit brought by the SEC on that count. As to private parties, thanks to the holding of *Central Bank of Denver, N.A. v. First Interstate Bank of Denver*, N.A., 511 U.S. 164 (1994), they have no standing to sue a corporation for aiding and abetting illegal insider trading.

[41] At least one major corporation (which I will not name here) has implemented such a segregated market structure, albeit not evidently in order to dodge illegal insider trading laws.

Even a market that keeps insider trading separate from non-insider trading raises some risk of illegal insider trading, however. A private prediction market, even if restricted to traditional non-insiders, generates material information about its host corporation. So long as it is not made public, but rather offered only subject to confidentiality obligations, that information can turn otherwise outsiders into remote temporary insiders. Furthermore, because the claims and prices of a private prediction market would quite likely constitute trade secrets,[42] even a non-insider employee who buys or sells shares of the host corporation based on information gleaned from its private market might, under the misappropriation theory, violate illegal insider trading laws.

Broadening participation in a private prediction markets thus broadens the risk of illegal insider trading. A corporation might run that risk for good reason, granted; prediction markets offer a very useful tool for gathering and quantifying information distributed throughout an organization. A corporation would still want to mitigate its exposure to legal risks, however. How to do so? In brief, I suggest four strategies:

- Segregating markets for traditional insiders from other markets.
- Broadening safeguards against illegal insider trading to reach beyond traditional insiders.
- Treating the market's claims and prices as trade secrets.
- Setting up decoy claims and prices.

Allow me to expand on those four strategies, in order. First, as mentioned above, a corporation should consider running segregated markets. That can help to forestall claims that traditional insider info has leaked out of the corporate headquarters. Second, as a corporation broadens access to its private markets, it should also broaden the sort of legal safeguards traditionally reserved for dealings with corporate insiders. The corporation should thus admonish all who participate in its private markets against trading on the information thereby disclosed. Click-through interfaces could make those admonitions routine and unavoidable. Third, the corporation should inform all who access its private prediction market that claims and prices constitute the corporation's trade secrets. That helps to ensure that the corporation, far from being considered jointly liable for any insider information, will instead have a misappropriation claim against anyone who trades the corporation's shares based on information gleaned from the

[42] *See* Uniform Trade Secret Act § 1(4) (defining "trade secret").

corporation's private prediction market. That sort of notice could, like those discussed under point three, appear in the market's click-through interface.

I offer the fourth strategy for reducing liability for illegal insider trading as a bit of an experiment, one suggested by theory rather than observed practice. To implement it, a corporation need only pepper its internal market with decoy claims and prices. Why do so? In order to help protect the confidentiality of *real* claims and prices. Run-of-the-mill employees don't need to know everything about every claim traded on a corporation's prediction market, after all, because they can limit their trades to claims concerning their areas of specialization. Only a few traditional insiders, who need to oversee all of a corporation's operations, would need to know the difference between the real and fake claims on the firm's private prediction market. By keeping *that* information within the walls of its headquarters, a corporation could protect itself from allegations that it had abetted illegal insider trading, protect its non-traditional insiders from accusations of illegal trading, and protect the confidentiality—and thus the value—of corporate trade secrets generated by the private prediction market.

c. Private Prediction Markets as Gambling.

Generally speaking,[43] a gambling transaction must have three elements: prize, chance, and consideration.[44] If any of the three fails to obtain, therefore, no gambling exists. A firm that wants to offer a private prediction market without running the risk of gambling should thus structure its market to avoid one or more of those elements.

Note that "open to the public" does not number among the defining features of a gambling transaction. The confidential nature of an in-house prediction market thus gives it protection from gambling laws only in practice—not in theory. Those tasked with enforcing prohibitions on gambling cannot prosecute what they never discover, granted. Furthermore, as universal toleration of "Final Four" office pools demonstrates, prosecutors typically show little interest in shutting down discretely private games.

---

[43] Because in the U.S. states primarily regulate gaming, no uniform federal standard exists. That makes it risky not only to generalize about gambling law, but also to rely on the leniency of any given state. True, if a firm manages to keep its private prediction market entirely within safe states, it can confidently disregard other states' laws. But that strategy could prove difficult to implement.

[44] The other two elements of a gambling transaction are prize and chance. *See*, Midwestern *Enters. v. Stenehjem*, 2001 ND 67, ¶17, 625 N.W.2d 234, 237 (2001) ("The three elements of gambling are generally recognized as consideration, prize, and chance."). It will thus protect a private prediction market from anti-gambling laws if, as argued above, the outcome of transactions on the market do not rely on chance. I here discuss the consideration element as a separate, sufficient but not necessary means of warding off the "gambling" label.

Nonetheless, the definition of "gambling" evades sharp distinctions[45] and prosecutors enjoy wide discretion. An especially risk averse corporation might thus worry about its in-house prediction market drawing the attention of a nosy and aggressive prosecutor. How might it structure its market to defend itself against such an attack? By ruling out the elements of prize, chance, or consideration. This section discusses each in turn.

1. Prize

A private prediction market that offers players no prospect of any material benefit could not constitute gambling. Thus, for instance, an in-house market might give its top players only a pat on the back and bragging rights. Such modest rewards might suffice to induce participation in a prediction market; employees routinely perform much more burdensome tasks for no more reason than currying favor with the boss. Nonetheless, a firm might want to provide a more powerful incentive for traders to take its in-house prediction market seriously: valuable prizes or even cold, hard, cash. Fortunately, a private prediction markets could offer material rewards and still avoid the "gambling" label so long as the market also dodges the chance or consideration elements.

2. Chance

For a transaction to qualify as gambling, generally speaking, chance must predominate over skill in determining who wins.[46] More specifically, chance must *in theory* predominate over skill; it doesn't matter that lucky players sometimes beat skilled ones if, on average, skilled players win more.[47]

---

[45] *See* Hazen, *supra* note 29 at p 1002 ("Speculative investing has long been viewed as tantamount to gambling.").

[46] *See* Opinion of the Justices No. 373, 795 So.2d 630, 635-36 (Ala. 2001) (collecting authorities in support of the "American rule" that chance must dominate over skill in a gambling transaction); R. Randall Bridwell & Frank L. Quinn, "From Mad Joy to Misfortune: The Merger of Law and Politics in the World of Gambling," 72 *Miss. L.J.* 565 (2002) at p 646-60 (describing origins and content of "American rule" that chance must predominate over skill in gambling transactions); Anthony Cabot & Robert Hannum, "Gaming Law and Technology: Advantage Play and Commercial Casinos," 74 *Miss. L.J.* 681 (2005) at p 682 n.3 ("The prevailing rule in the United States is that the element of chance is met if chance predominates, even if the activity requires some skill."). *But see, Boardwalk Regency Corp. v. State,* 457 A.2d 847, 852 (N.J. Super. Ct. Law Div. 1982) (holding that backgammon tournament constituted gambling because "chance plays at least a material role in determining the outcome of this activity on which money is risked, no matter how much it is claimed that the role of skill predominated . . . .").

[47] *See People ex rel. Ellison v. Lavin*, 71 N.E. 753, 754 (1904) ("[A]n event presents the

Precisely because they focus on claims amenable to *prediction*, therefore, prediction markets generally fall outside the scope of anti-gambling laws.

Think of it this way: Why would anybody use a prediction market to trade in claims about something as random as, say, the spin of a roulette wheel? That sort of game just isn't worth the candle. Prediction markets, whether public or private, instead offer trading on the sort of claims that a diligent and informed person can assess more accurately than lazy or ignorant one can. Google employees who buy and sell claims on an in-house prediction market about the firm's ad revenue forecasts, for instance, will doubtless find that careful analysis serves better than dumb luck.

Luck may still play some role in deciding who wins such a claim, granted. Luck's influence pervades our lives. That does not make trading on a prediction market the same as gambling, however. It suffices that skill proves, or in theory *could* prove, more important than luck in determining who makes the best trades on a prediction market. To avoid the reach of anti-gambling laws, therefore, a firm hosting a private prediction market need only stick to the sort of claims that skilled players are likely to win. As a happy coincidence, those are the only sort of claims that a firm will likely care about.

3. Consideration

Gambling requires, as one of its fundamental elements, that bettors stake valuable consideration on the outcome of a transaction. A firm offering a private prediction market should thus bar its agents from staking their own money on the market. That means, of course, that the firm must subsidize the market by giving players a certain amount of seed capital. At the same time, however, the firm should limit the liquidity of that capital. If title to it vested immediately and completely in a player, after all, she would effectively stake "her" money if she chose to reinvest it in the market rather than pocket it. To avoid the consideration element, therefore, the firm should both subsidize participation in its private market and limit the right of players to cash out.[48]

element of chance so far as after the exercise of research, investigation, skill, and judgment we are unable to foresee its occurrence or non-occurrence, or the forms and conditions of its occurrence."); *Rouse v. Sisson*, 199 So. 777, 779 (Miss. 1941) ("'[I]t is the character of the game, and not the skill or want of skill of the player, which brings it into or excludes it from the prohibition of the [anti-gambling] statute.'" (quoting *Wortham v. State*, 59 Miss. 179, 182 (1881))); Bridwell & Quinn, *supra* note 46, at p 649-50 ("[T]he possession of skill should enable the skilled person in a true game of skill to win with regularity.").

[48] What if a subsidized player wins the right to cash out but instead decides to reinvest her funds on the market? Whether or not that constitutes consideration poses a rather nice legal question. Sound public policy suggests that so long as no player risks a negative return on the market, no court should label it as "gambling." *See supra*, Figure 2 (illustrating that gambling

Though it might at first sound paradoxical, the same reasoning suggests that a firm eager to protect its private prediction market from anti-gambling laws should *require* its agents to participate. If a firm instead only *allowed or encouraged* participation, after all, it would invite the claim that its agents had staked their own time and effort in hopes of winning a prize. Legally speaking, that would suffice to show the consideration required for a gambling transaction. "Time is money," as the saying goes. If a firm would not let its agents stake their own money on the in-house prediction market, therefore, it should not let them stake their own time. To escape the reach of anti-gambling laws, a private prediction market should instead require participation as a condition of employment.

PART III: THE FUTURE OF PRIVATE PREDICTION MARKETS

This Part forecasts the future of private prediction markets in the U.S. Private prediction markets have grown popular despite the pall of legal uncertainty that now surrounds them. As evidence of their utility accumulates, and as they win clearly legal status under U.S. law, private prediction markets stand to see even more use. That will, among other benefits, help to encourage the development of *public* prediction markets.

A. Towards Legal Clarity

Some of the legal uncertainty that now inhibits private prediction markets will dissipate as a matter of course, thanks simply to the passage of time and the accumulation of experience. Corporate counsels will, for instance, come to understand both the extent to which a private prediction market might increase the risk of illegal insider trading and how to design a market to manage that risk.[49]

At this point, it does not look likely that litigation or legislation will do much to clarify the legal status of private prediction markets under U.S. law. New CFTC regulations do look likely, however. The Commission recently issued a request for public comments about the appropriate regulatory treatment of prediction markets,[50] an indication that new rules might follow.

---

offers only zero-sum trading). A firm unpersuaded by that analysis, and nervous about the reach of anti-gambling laws, might structure its private market to disallow reinvestment of seed capital.

[49] Perhaps reading this paper will help them; I hope it does.

[50] *See*, CFTC *Concept Release on the Appropriate Regulatory Treatment of Event Contracts*, *supra* note 17.

It remains possible that the CFTC might effectively regulate private prediction markets out of existence in the U.S., making a broad claim to jurisdiction over them and then smothering them under red tape. Even the most ardent regulator must recognize, however, that U.S. residents have ready access to public prediction market that operate outside the scope of domestic laws.[51] That freedom of exit will doubtless encourage the CFTC to take a largely hands-off approach towards prediction markets in general. Overly burdensome regulations would, after all, do little to stop U.S. residents from trading on prediction markets but much to drive prediction markets overseas.

Those practical limits on the CFTC's power should encourage it to write any new regulations so as to allow qualifying prediction markets to operate legally, and fairly freely, under U.S. law. To judge from its current regulatory model, the CFTC will offer prediction markets a range of options, from markets that must obey relatively burdensome regulations aimed at protecting retail consumers from large losses to markets that receive relatively light regulation because they limit trading to sophisticated traders. Ideally, the CFTC would offer prediction markets something like these three tiers, each divided from the next with clear boundaries.

- **Designated Contract Markets.** Regulations designed for designated contract markets,[52] such as the HedgeStreet Exchange,[53] would apply to retail prediction markets that offer trading in binary option contracts and significant hedging functions.

- **Exempt Markets.** Regulations for "exempt" markets,[54] which impose only limited anti-fraud and manipulation rules, would apply to prediction markets that:

    - offer trading in binary option contracts;

[51] Private prediction markets would not prove quite so hard to regulate, alas, as their hosts may well have U.S.-based assets that the CFTC could effectively hold ransom. But the private nature of such markets gives the CFTC an even weaker claim over them than any claim it might have over public prediction markets. *See supra*, Part II.A.

[52] *See, e.g.,* CFTC, *Designated Contract Markets* (Sept. 19, 2007) at http://www.cftc.gov/industryoversight/tradingorganizations/designatedcontractmarkets/index.htm (visited May 16, 2008).

[53] *See* http://www.hedgestreet.com/ (visited May 16, 2008).

[54] *See, e.g.,* CFTC, *Exempt Boards of Trade* (Jan. 17, 2008) at http://www.cftc.gov/industryoversight/tradingorganizations/exemptmarkets/ebot.html (visited May 16, 2008).

- thanks to market capitalization limits or other CFTC-defined safe harbor provisions[55] do not primarily support significant hedging functions; and
- offer retail trading on a for-profit basis.

- **No Action Markets.** A general "no action" classification, similar to the one now enjoyed by the Iowa Electronic Markets,[56] would apply to any market that duly notifies traders of its legal status and that is either:

    - a public prediction market run by a tax-exempt organization offering trading in binary option contracts but not offering significant hedging functions;
    - a private prediction market offering trading in binary option contracts, but not significant hedging functions, only to members of a particular firm; or
    - any prediction market that offers only spot trading in conditional negotiable notes.

Notably, regulation under either of the first two regimes would definitely afford a prediction market the benefit of the CFTC's power to preempt state laws.[57] It remains rather less clear whether the third and lightest regulatory regime would offer the same protection, though the cover afforded by its two "no action" letters has allowed the Iowa Electronic Markets to fend off state regulators.[58] Markets that by default qualify for the third regulatory tier described above thus might want to opt into the second tier, so as to win a guarantee against state anti-gambling laws and the like. So long as they satisfy the first two conditions for such an "exempt market" status, public prediction markets run by non-profit organizations or private prediction markets that offer trading only to members of a particular firm should have that right.[59] Why offer this sort of domestic exit option? Because it would,

[55] Additional limits might include requiring all such markets to aid price discovery and academic research by keeping detailed and freely available records of all trading activity.
[56] *See, Is the IEM Regulated?* http://www.biz.uiowa.edu/iem/faq.html#Regulated (visited May 17, 2008).
[57] *See, e.g., Rasumussen v. Thomson & McKinnon Auchincloss Kohlmeyer, Inc*., 608 F.2d 175, 178 (5th Cir. 1979) ("[T]he Commodity Exchange Act preempts all state laws inconsistent with its provisions.").
[58] *See,* Email from Prof. George R. Neumann, Member, IEM Board of Directors, to Tom W. Bell (Jan. 29, 2007) ("We have been threatened several times with suits by various states but so far the CFTC coverage has been our trump card.").
[59] Because they fall outside the CFTC's jurisdiction, markets offering only spot trading in

like the exit option already open to U.S. residents who opt to trade on overseas prediction markets, have the salutatory effect of curbing the CFTC's regulatory zeal.

For now, of course, the final form of any new CFTC regulations for prediction markets—or whether it will issue such regulations at all—remains a matter of conjecture. In the meantime, we can and should encourage the CFTC to recognize the practical and legal limits to its authority, so as to protect private and public prediction alike from inefficient regulatory burdens.[60] The status of prediction markets under U.S. law will almost certainly grow more clear, thus dispelling the uncertainty that now hinders their development. We need only make sure that the CFTC does not render the U.S. law clearly inhospitable to prediction markets.

B. The Effect of Private Prediction Markets on Public Ones

The growing use of private prediction markets will have a variety of beneficial effects. They will help firms operate more efficiently and, thus, profitably. Firms that treat the claims and prices of their private prediction markets as trade secrets will also, in effect, create valuable new assets.[61] The benefits of private markets go beyond simply fattening firms' purses, however. The growing use of private prediction markets will help to educate many people—not only the people who trade on private prediction markets but also the academics and policymakers who monitor such things—about how prediction markets in general work. In that way, the success of *private* prediction markets stands to help *public* prediction markets succeed, too.

Private prediction markets could encourage the development of public prediction markets through a more direct and intentional route, too: By gradually expanding the boundaries of "private."[62] In step one of that process,

---

conditional negotiable notes could not opt into the second regulatory tier.

[60] For an effort on that front, see Tom W. Bell, et al., *Joint Comment on CFTC Concept Release on the Appropriate Regulatory Treatment of Event Contracts*, July 6, 2008, available at http://www.cftc.gov/lawandregulation/federalregister/federalregistercomments/2008/08-004.html (response to request for comments co-signed by 19 academics, professional traders, and laypeople).

[61] *See supra*, Part II.B.2.b.

[62] I first described this in a presentation, Getting from Collective Intelligence to Collective Action, Collective Intelligence FOO Camp, Google & O'Reilly Media, the Googleplex, Mountain View, California, February 22, 2008, available at http://www.tomwbell.com/writings/CIFOO_PM_Legalization.ppt. See also, Tom W. Bell, "Getting from Collective Intelligence to Collective Action," Agoraphilia (Feb. 28, 2008), http://agoraphilia.blogspot.com/2008/02/getting-from-collective-intelligence-to.html (visited May 17, 2008) (describing presentation).

a firm would set up a private prediction market open only to its employees. Per the guidelines described above,[63] the firm would make playing the market a condition of continued employment and offering valuable prizes to the best traders. In step two, the firm would open the market to a select number of independent contractor researchers, paying each a relatively low salary simply for trading on the market. That salary might, for instance, be set at a penny per trade and capped at 100 trades/day. Strictly speaking, the firm would pay those independent contractors for the valuable information gleaned from their trades, whether those trades beat the market or not. Significantly, however, the firm would offer valuable prizes to those whose trades best track the truth. In the third and last step, the firm would offer that same arrangement to any internet user willing to agree to a click-through license, the terms of which would qualify him or her as an independent contractor researcher.

That stepwise process would make it easy for a firm to test the legal waters gradually, without plunging into the risk of full liability. When and if standing for declaratory judgment obtains, the firm could bring suit to establish the legality of the private prediction market under U.S. law. In the event of any such test case, it would greatly help if the market were run by a worthy institution and if it dealt only in claims likely to generate large positive externalities. Google.org, for example, might set up a private prediction market in earthquake claims and ask for a court's blessing at each stage of the market's expansion, from its genesis as a market open only to firm management to a market open to all willing independent contractor researchers.

Executed properly, this sort of campaign would stand a fair chance establishing the legality under U.S. law of a wide range of private prediction markets. The effort would not impose great costs or risks, though it would take some careful planning and execution. On the upside, it would almost certainly generate large private and public goods. Imagine, for instance, if it helped us to establish an reliable early-warning system for major earthquakes. This strategy would directly benefit only subsidized markets, however; it would not suffice to establish the legality of prediction markets that allow traders to invest their own funds or hedge against off-market risks. Even so, all sorts of prediction markets would win great respectability if we could establish the legality of real-money open-access, private prediction markets under U.S. law.

[63] *See supra*, Part II.C.

CONCLUSION

This paper has described the legal risks facing private prediction markets under U.S. law and how firms that want to run such markets should adapt. To minimize the risk of CFTC regulation, firms should institute mechanisms to ensure that their private prediction markets do not support significant hedging functions and make clear, both in the documentation supporting their markets and in their markets' structures, that they offer trading not in binary option contracts but rather in conditional negotiable notes. Publicly-traded firms subject to U.S. law can minimize the risks of illegal insider trading by either making public all prices and claims traded on their prediction market or by:

- Keeping trading by traditional insiders separate from trading by others;
- Broadening safeguards against illegal insider trading to cover all traders;
- Treating the market's claims and prices as trade secrets; and/or
- Seeding the market with decoy claims and prices.

Although the skill-based trading emphasized on private prediction markets should in theory remove them from the scope of gambling regulations, a prudent firm could help to ensure that result by:

- Forbidding traders from investing their own funds in the market; and/or
- Requiring its agents to participate in its market.

As should perhaps go without saying (but as hereby will not), any firm implementing these legal strategies should back them up with ample record-keeping. Each person who trades on a firm's market should, for instance, receive clear notification that the market does not deal in CFTC- or SEC-regulated instruments, and that it does not offering services subject to oversight by any state gambling commission. Better yet, traders should be required to access the market only through a click-through agreement in which, among other things, they consent to that stipulation. So go only a few of the provisions that ought to appear in such an agreement; any reasonably competent attorney will think of many worthwhile provisions to add.

Private prediction markets will almost certainly escape the legal uncertainty that now clouds their prospects in the U.S. Even if no legislator, judge, or regulator ever notices them, private prediction markets will come to win *de facto* legality simply by merit of their widespread use and acceptance.

With reflection—perhaps aided by papers such as this one—and practical experience, attorneys will learn how to structure private prediction markets to accommodate the laws that rightfully apply to them and to dodge the effect of laws written for other, materially different markets. There remains some risk, granted, that the CFTC will crush private prediction markets under new regulations. With luck though—and perhaps also with some persuasion—the CFTC will instead allow prediction markets to choose from among several different tiers of regulations. And even in the worse-case scenario, private prediction markets will not disappear; they will simply flee the U.S. for other, freer homes.