

ARTICLE

LINKAGE AND THE DETERRENCE OF CORPORATE FRAUD

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INTRODUCTION

THERE is a notion, common throughout law enforcement circles, that a criminal's repeated conduct increases the chances over time that he will one day be caught. Each time a drug dealer completes another sale, a rapist brutalizes another victim, or a burglar enters another home, the new offense offers the government a new opportunity to catch the offender. With the advent of new technology, the recidivist criminal also provides the government the opportunity to solve previous cases by examining his likeness, DNA, fingerprints, and any other evidence he leaves behind. Accordingly, for many criminals, the expression, "quit while you're ahead," is very good advice.

For some crimes, however, cessation of conduct does not benefit the criminal. To the contrary, the termination of the conduct in question *accelerates* the government's identification of the perpetrator and almost assures that he will be punished. This Article focuses on a particular type of this conduct: corporate fraud. The relationship between the corporate fraudster's cessation of conduct, and the resulting increase in his probability of detection and punishment, is what I refer to as the "linkage" problem.

Commentators agree that corporate fraud is socially undesirable and should be deterred.¹ Where they differ is *how* the law should accomplish that goal. The debate has traditionally focused on the

¹"Fraud is bad. Pretty much everyone, communitarians and contractarians, liberals and conservatives, can agree with this broad conclusion (though perhaps not its policy implications)." Robert A. Prentice, *The Inevitability of a Strong SEC*, 91 *Cornell L. Rev.* 775, 824 (2006).

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identity of the enforcers (public or private),² the type of adjudication (criminal or civil)³ and, more recently, the type and degree of sanctions.⁴ Scholars have largely ignored, however, the temporal problems that inhere with deterring corporate fraud.⁵ Commentators rarely distinguish between potential and “current” perpetrators of fraud (for the purposes of this Article, “mid-fraud perpetrators” or “MFPs”). Nor do they consider how the issue of timing undermines traditional enforcement strategies designed to deter and incapacitate perpetrators.

This Article fills an important gap by exploring how timing affects the enforcement of criminal anti-fraud laws.⁶ In particular, it examines the effects of timing on both traditional enforcement techniques (increasing sanctions and hiring more law enforcement agents), and alternative and often more controversial methods (undercover operations and amnesty programs).

The traditional law enforcement response to corporate fraud is straightforward and predictable. Following widely-reported scandals, politicians increase penalties for a given group of offenses, and promise an increased devotion to detecting and prosecuting

² Compare Larry E. Ribstein, *Market vs. Regulatory Responses to Corporate Fraud: A Critique of the Sarbanes-Oxley Act of 2002*, 28 J. Corp. L. 1, 3 (2002) (“[W]ith all their imperfections, contract and market-based approaches are more likely than regulation to reach efficient results”), with Prentice, *supra* note 1, at 828–30 (arguing that a strong SEC presence is necessary to combat corporate fraud).

³ See, e.g., Samuel W. Buell, *Novel Criminal Fraud*, 81 N.Y.U. L. Rev. 1971 (2006) (suggesting a framework for explaining why certain frauds are treated criminally or civilly).

⁴ Compare Ellen S. Podgor, *Throwing Away the Key*, 116 Yale L.J. Pocket Part 279 (2007), <http://thepocketpart.org/2007/02/21/podgor.html> (arguing that many federal white collar prison sentences are unnecessary and inordinately severe), with Andrew Weissmann & Joshua A. Block, *White-Collar Defendants and White-Collar Crimes*, 116 Yale L.J. Pocket Part 286 (2007), http://thepocketpart.org/2007/02/21/weissmann_block.html (contending that, with the exception of certain severe sentences, most white collar sentences are appropriate).

⁵ I use the term “corporate fraud” to refer to those fraud-based crimes (mail, wire, and securities fraud and various other financial crimes based on deceit) that occur in corporate or business settings.

⁶ This Article focuses exclusively on attempts to curb fraud through the criminal law. The analysis below, however, should also apply in various civil and regulatory settings.

those offenses.⁷ Prosecutors then implement the traditional approach by publicly arresting wrongdoers (and alerting the media in advance of their arraignments) and, after prevailing at widely-reported trials, pressing for long prison sentences and other notable penalties.⁸

The federal government's most recent response to corporate fraud, the Sarbanes-Oxley Act of 2002 ("Sarbox"),⁹ aptly demonstrates the traditional law enforcement approach. Among other changes, Sarbox increased statutory maximum penalties for mail and wire fraud, created new criminal statutes for securities-related frauds and for obstruction of federal investigations, and required public companies to adopt a number of structural changes that ostensibly increased the likelihood that corporate criminals would be caught.¹⁰ During the same year, the Bush Administration announced the creation of a Corporate Fraud Task Force and increased the SEC's budget.¹¹

⁷ E.g., President George W. Bush, President Announces Tough New Enforcement Initiatives for Reform (July 9, 2002), available at <http://www.whitehouse.gov/news/releases/2002/07/20020709-4.html> ("When abuses . . . begin to surface in the corporate world, it is time to reaffirm the basic principles and rules that make capitalism work: truthful books and honest people, and well-enforced laws against fraud and corruption."). See generally David A. Skeel, Jr., *Icarus and American Corporate Regulation*, 61 *Bus. Law.* 155 (2005).

⁸ See, e.g., John R. Emshwiller & Alexei Barrionuevo, U.S. Prosecutors File Indictment Against Skilling, *Wall St. J.*, Feb. 20, 2004, at A1; Martin Zimmerman & Lianne Hart, Former Enron CEO Gets 24-Year Sentence, *L.A. Times*, Oct. 24, 2006, at A1, A15 ("The government said Monday that it was filing a court action to seize Lay's condominium in Houston, property associated with a Lay family investment partnership and a bank account with more than \$22,000 . . ."); Carrie Johnson, Prosecutors Oppose Delay of Ebberts's Term, *Wash. Post*, Aug. 4, 2005, at D3; Erin McClam, Martha Stewart Loses Bid to End House Arrest Early, *St. Louis Post-Dispatch*, Apr. 12, 2005, at C3 ("In court papers that mocked the request for a shorter sentence, prosecutors had urged the judge to uphold the original sentence."); Rorie Sherman, It's Scandal Time, *Tr. & Est.*, July 2002, at 55 ("[L. Dennis Kozlowski's] accuser, Manhattan District Attorney Robert M. Morgenthau, held a press conference almost gleefully announcing the 'first step in a long investigation' into the world of wealthy art collectors and unscrupulous dealers who may be evading millions in sales taxes.").

⁹ Sarbanes-Oxley Act of 2002, Pub. L. No. 107-204, 116 Stat. 745 (codified in scattered sections of, for example, 15, 18, and 28 U.S.C.).

¹⁰ See Robert C. Brighton, Jr., *Sarbanes-Oxley: A Primer for Public Companies, and Their Officers and Directors, and Audit Firms*, 28 *Nova L. Rev.* 605, 606 (2004).

¹¹ See Geraldine Szott Moohr, *Prosecutorial Power in an Adversarial System: Lessons from Current White Collar Cases and the Inquisitorial Model*, 8 *Buff. Crim. L.*

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The government's reliance on significant criminal sanctions and announcements of enhanced enforcement resources is hardly new.¹² During the last three decades, the federal government has steadily increased penalties for white collar crimes such as mail and wire fraud. Whereas the typical white collar criminal in 1970 might have received a sentence of probation and a fine, current white collar criminals who enter the federal system can expect to spend at least one year in prison.¹³

Policymakers laud traditional law enforcement techniques for their ability to deter future executives from fraudulent practices.¹⁴ In doing so, they all but ignore their policies' affects on MFPs—the people who are in the midst of committing frauds when laws or enforcement intensity suddenly change.

The premise of this Article is that increases in sanctions and likelihood of punishment do not, and indeed *cannot*, persuade MFPs to abandon their course of conduct. Although observers often blame less-than-expected deterrence on behavioral factors such as loss

Rev. 165, 166–67 (2004); Michael Schroeder, SEC Gets a Raise, but Will It Be Enough?, *Wall St. J.*, Aug. 12, 2002, at C1.

¹² For an argument that much of the criminal sanction aspects of Sarbox were unnecessary, see Frank O. Bowman III, *Pour Encourager Les Autres? The Curious History and Distressing Implications of the Criminal Provisions of the Sarbanes-Oxley Act and the Sentencing Guidelines Amendments That Followed*, 1 *Ohio St. J. Crim. L.* 373 (2004).

¹³ Podgor, *supra* note 4, at 279.

¹⁴ In its sentencing memorandum supporting a substantial prison sentence for former Worldcom CEO Bernard Ebbers, prosecutors for the United States Attorneys Office for the Southern District of New York reasoned:

Corporate executives across the country, and the American public as a whole, will be measuring the seriousness of Ebbers' conduct in part by the seriousness of his sentence. More importantly, corporate executives will, in the future, consider the sentence imposed on Ebbers whenever those executives are tempted to mislead shareholders or manipulate the financial statements of their companies. General deterrence serves an important function and works, perhaps even more effectively than in the context of other types of criminal conduct, to prevent financial crimes of the sort committed by Ebbers.

Government's Memorandum of Law in Opposition to Defendant's Sentencing Motions at 66–67, *United States v. Ebbers*, S4 02 Cr. 1144 (BSJ) (S.D.N.Y. June 24, 2005), available at http://lawprofessors.typepad.com/whitecollarcrime_blog/files/ebbers_sentencing_usao.pdf. Whether such penalties actually deter criminals is difficult to determine. See Christine Hurt, *The Undercivilization of Corporate Law*, 33 *J. Corp. L.* 361, 366 (2008) (“[W]hether criminal penalties or civil penalties provide greater deterrence is empirically unknown and perhaps undeterminable . . .”).

aversion,¹⁵ this Article argues that a key, unexplored reason for the failure of deterrence in the corporate fraud arena is that MFPs *rationaly* perceive a link between the cessation of their future criminal activity and the detection of their prior criminal conduct. I refer to this phenomenon as “linkage,” which is the probability that cessation of future criminal conduct will increase the likelihood of detection of similar, prior conduct.

Corporate accounting fraud aptly demonstrates the linkage problem. When a manager or executive has already lied to shareholders about a public company’s first quarter profits, she cannot refrain from lying about second quarter profits without causing shareholders to doubt the veracity of her prior statements. As a result, neither increases in sanctions nor visible increases in the probability of detection will fully deter her from further crime. In fact, traditional “noisy” law enforcement approaches may cause the MFP either to increase the magnitude of her crime (to pay for her additional risk exposure) or to invest resources for avoiding detection.¹⁶ In those instances, society becomes worse off.

Prudent lawmakers who wish to incapacitate and deter MFPs from generating further harm therefore must consider alternative enforcement strategies. One possible strategy, which is used quite often in prosecuting street crime and corruption cases, is the use of undercover surveillance and stings.¹⁷ The benefit of a sting is that

¹⁵ For discussions of bounded rationality and its interference with attempts to deter corporate crime, see James D. Cox, *Private Litigation and the Deterrence of Corporate Misconduct*, *Law and Contemp. Probs.*, Autumn 1997, at 1, 5–8 (prospect theory); Donald C. Langevoort, *Resetting the Corporate Thermostat: Lessons from the Recent Financial Scandals About Self-Deception, Deceiving Others and the Design of Internal Controls*, 93 *Geo. L.J.* 285, 308 (2004) (loss aversion); Geraldine Szott Moohr, *An Enron Lesson: The Modest Role of Criminal Law in Preventing Corporate Crime*, 55 *Fla. L. Rev.* 937, 958–59 (2003) (optimism bias).

¹⁶ See generally Chris William Sanchirico, *Detection Avoidance*, 81 *N.Y.U. L. Rev.* 1331 (2006).

¹⁷ For a description of how undercover operations such as wiretapping and electronic surveillance were used (legally) to combat organized crime, see James B. Jacobs, Coleen Friel & Robert Radick, *Gotham Unbound: How New York City Was Liberated from the Grip of Organized Crime* 131, 133 (1999) (describing the use of electronic surveillance as the “chief investigative tool”). Jacobs et al. also discuss in detail how the government used stings to detect and punish organized crime. See *id.* at 175 (discussing an FBI sting operation resulting in arrests of eighty-three people accused of stealing and fencing goods at JFK airport), 196 (examining how the Man-

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the government increases the likelihood of detection and punishment without tipping off its target. MFPs who are unaware that the government has increased its likelihood of detection have no reason to invest resources in detection avoidance. Stings, however, have their own drawbacks. They may be more susceptible to government abuse and they may produce more false positives (identifying as “criminals” people who otherwise are no threat to society). As such, they may undermine law enforcement’s legitimacy. Reduced legitimacy, in turn, may lead potential offenders to feel less bound by normative restraints.

In lieu of relying solely on undercover investigations, the government might instead offer amnesty to corporate criminals (either by itself or in combination with other law enforcement approaches). This strategy has been employed in both the tax and antitrust contexts, and generally involves the government forgiving all or most of the offender’s prior criminal conduct in exchange for his cessation of that conduct.¹⁸ However, this strategy too has obvious drawbacks: while it encourages MFPs to cease criminal conduct, it simultaneously generates moral hazards for potential offenders.

No enforcement strategy is perfect. The literature of corporate fraud enforcement is deficient because it fails to consider an important reason *why* some of these strategies fail. This Article fills that gap by introducing a new concept to the literature of law enforcement, which I call “linkage.” Linkage is the perpetrator’s estimation of the probability that cessation of future criminal conduct will result in his apprehension for prior related conduct. Using the criminal cost/benefit analysis developed by Gary Becker, I demonstrate that when linkage is high, traditional law enforcement measures fall short of their deterrence goals and encourage detection avoidance and further criminal conduct. I then argue that linkage

hattan District Attorney’s use of undercover police officers allowed the government to collect evidence of organized crime’s control of the waste-hauling industry on Manhattan). Gotham Unbound discusses these stings and surveillance operations in a positive light. For a less positive discussion of undercover operations in narcotics and street crime cases, see Alexandra Natapoff, Snitching: The Institutional and Communal Consequences, 73 U. Cin. L. Rev. 645 (2004).

¹⁸ See discussion *infra* Section III.E.

may be helpful to lawmakers, as they decide between traditional and alternative law enforcement approaches.

This Article proceeds in four Parts. Part I briefly describes neo-classical deterrence theory and its application to corporate fraud. Part II discusses two characteristics of crime, duration and connectivity, that sentencing regimes often ignore. This Part also explains how these characteristics are present in corporate fraud and how they combine to create the linkage problem.

Using linkage as a premise, Part III then conducts a theoretical inquiry of how current and potential fraud perpetrators might fare under traditional and alternative law enforcement strategies. Finally, Part IV discusses some of the broader implications for lawmakers and suggests policy approaches designed to address linkage concerns.

I. THE THEORY OF DETERRING FRAUD

This Part lays out the theory of deterrence in criminal law and the modern refinements to that theory that have evolved over time.¹⁹ Because lawmakers often invoke deterrence as the primary basis for enforcing corporate fraud sanctions, it is useful to consider the neoclassical economic theory of deterrence.

A. Neoclassical Deterrence Theory and Its Refinements

As first explained in modern discourse by Gary Becker, the economic theory of criminal law posits that criminals will cease committing crimes when the net expected benefits from the crime are outweighed by their expected costs.²⁰ For the potential criminal,

¹⁹ See John T. Scholz, *Enforcement Policy and Corporate Misconduct: The Changing Perspective of Deterrence Theory*, *Law & Contemp. Probs.*, Summer 1997, at 253 (describing the evolution of deterrence theory to “incorporat[e] broader institutional and motivational analyses in order to understand the increasingly complex institutional structures and policy objectives involved in mitigating a growing range of social harms”).

²⁰ See Gary S. Becker, *Crime and Punishment: An Economic Approach*, 76 *J. Pol. Econ.* 169 (1968). Becker, in turn, drew on Cesare Beccaria and Jeremy Bentham. See Cesare Beccaria, *On Crimes and Punishments*, in *On Crimes and Punishments and Other Writings 1* (Richard Bellamy ed., Richard Davies et al. trans., Cambridge Univ. Press 1995) (1764); Jeremy Bentham, *The Theory of Legislation* (Etienne Dumont ed., Richard Hildreth trans., Tripathi Private Ltd. 1975) (1802).

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costs are measured by the prescribed sanction, multiplied by the probability that the criminal will be caught and prosecuted. In other words, when B (the criminal's expected benefit) is less than the product of p (probability of punishment, the shorthand term for being caught and prosecuted) and the proscribed sanction s , the perpetrator will abandon the crime.

Becker's work is often taken as the starting point for economic analyses of law enforcement, although others have added to it. Whereas Becker theorizes that high monetary sanctions are preferable to longer prison sentences (since prisons cost money),²¹ others have since pointed out that imprisonment is necessary to deter both irrational criminals and offenders who are judgment-proof.²² This pragmatic recognition of the need for incarceration overlaps with the expressive theory of criminal law, which posits imprisonment as a method of expressing society's moral norms.²³

Apart from his preference for monetary over non-monetary sanctions, Becker's model treats probability of detection and sanctions as fungible substitutes; lawmakers might reasonably choose high sanctions for most crimes in order to reduce policing costs.²⁴ Steven Shavell and others have explained, however, that this model fails to consider notions of "marginal deterrence."²⁵ If all sanctions

²¹ Becker, *supra* note 20, at 207–08 ("Fines have several advantages over other punishments . . .").

²² See, e.g., Richard A. Posner, *An Economic Theory of the Criminal Law*, 85 *Colum. L. Rev.* 1193, 1208 (1985) (explaining that solvency limitations for many criminals necessitate non-pecuniary sanctions such as imprisonment).

²³ For a discussion of the expressive theory of criminal law, see Johannes Andenaes, *Punishment and Deterrence* 110–12 (1974) (observing that "punishment is not only the artificial creation of a risk of unpleasant consequences but also a means of expressing societal disapproval"). For more modern discussions, see Kenneth G. Dau-Schmidt, *An Economic Analysis of the Criminal Law as a Preference-Shaping Policy*, 1990 *Duke L.J.* 1; Dan M. Kahan, *The Secret Ambition of Deterrence*, 113 *Harv. L. Rev.* 413 (1999); Dan M. Kahan & Martha C. Nussbaum, *Two Conceptions of Emotion in Criminal Law*, 96 *Colum. L. Rev.* 269, 356 (1996).

²⁴ Becker, *supra* note 20, at 207 ("The public's decision variables are its expenditures on police, courts, etc., which help determine the probability . . . that an offense is discovered . . . the size of the punishment for those convicted . . . , and the form of the punishment . . .").

²⁵ Steven Shavell, *Criminal Law and the Use of Nonmonetary Sanctions as a Deterrent*, 85 *Colum. L. Rev.* 1232, 1245 (1985) ("[R]aising the sanction with the expected harmfulness of acts gives parties who are *not* [initially] deterred incentives to do less harm.").

are equally high, criminals have no reason to refrain from the worst crimes.²⁶ Therefore, some sanctions must be more severe than others.²⁷

Deterrence also depends on the perpetrator's evaluation of risk.²⁸ Some criminals may ignore risks because they are overly optimistic about their ability to evade detection. Others may be thrill seekers who enjoy committing crimes in the face of a high probability of detection.²⁹ Over-optimism and thrill-seeking behavior ironically may be the characteristics that corporate organizations are most likely to value and promote.³⁰

Apart from subjective valuations of risk, the discounted and declining disutility of imprisonment further reduces the impact of

²⁶ See Tracey L. Meares, Neal Katyal & Dan M. Kahan, *Updating the Study of Punishment*, 56 *Stan. L. Rev.* 1171, 1173–74 (2004) (“The marginal deterrence argument, therefore, is one about creating incentives for individuals to refrain from committing the same crime on a greater scale.”).

²⁷ By contrast, those who adhere to a retributivist or “just deserts” theory of criminal law argue that commonly held notions of justice demand a connection between the severity of the crime and the corresponding sanction. See Paul H. Robinson & John M. Darley, *The Utility of Desert*, 91 *Nw. U. L. Rev.* 453 (1997); Paul H. Robinson & Robert Kurzban, *Concordance and Conflict in Intuitions of Justice*, 91 *Minn. L. Rev.* 1829, 1893 (2007) (“[A] criminal justice system that regularly fails to do justice or that regularly does injustice, as judged by the community’s shared intuitions of justice, will inevitably be widely seen as failing in a mission that the community thinks important . . .”).

²⁸ For an economic analysis of how one’s aversion or preference for risk affects the disutility of criminal punishment, see A. Mitchell Polinsky & Steven Shavell, *On the Disutility and Discounting of Imprisonment and the Theory of Deterrence*, 28 *J. Legal Stud.* 1, 4–7 (1999). For a discussion of how law can shape our “tastes” or preferences for crime, see Dau-Schmidt, *supra* note 23.

²⁹ See Mark A. Cohen, *The Economics of Crime and Punishment: Implications for Sentencing of Economic Crimes and New Technology Offenses*, 9 *Geo. Mason L. Rev.* 503, 508 (2000) (“How else do you explain most computer viruses and hackers? Although some of this activity is motivated by money, such as extortion, it seems that some computer crime may be perpetrated for the psychic rewards that the offender receives from crashing other computers.”).

³⁰ Donald C. Langevoort has hypothesized that the manner by which corporations choose and promote managers favors risk-preferring executives over their risk-averse counterparts. Langevoort, *supra* note 15, at 299–300. See also Skeel, *supra* note 7, at 157 (noting that executives who “rise to the top” of corporate hierarchies “tend to be self confident and willing to take risks”) (citing Robert Jackall, *Moral Mazes: The World of Corporate Managers* (1988)).

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criminal sanctions.³¹ First, for most criminals, the marginal disutility of each additional year in prison decreases. A six-year jail sentence does not carry twice the disutility as a three-year sentence. The stigma of conviction, the pain of separation from one's loved ones, and the opportunity cost of not being able to work all decrease over time. This decline in disutility may be expressed as a "discount." A CFO favors receiving a thousand dollars today over a thousand dollars tomorrow. Similarly, she also fears the disutility of going to jail tomorrow far more than being in jail five years from now.³² Discounts affect criminal sentences in two ways. First, they erode the disutility of additional penalties.³³ Second, they reduce the overall disutility of sentences meted out after a long delay.³⁴ Delays occur when the government is unable to identify and prosecute violators quickly.

Corporate fraud is precisely the type of crime where we would expect to see delays in identification and prosecution of perpetrators. The crimes are complex and take a long time to unfold and then investigate. White collar criminals, meanwhile, often have plausible defenses and sufficient resources to challenge the government at trial. For example, Enron imploded and filed for bankruptcy in December 2001.³⁵ The trial of Jeffrey Skilling and Ken Lay, Enron's former CEO and Chairman, did not conclude until

³¹ For a discussion of discounting and its impact on deterrence, see Polinsky & Shavell, *supra* note 28, at 2.

³² Two different biases cause the discounts. Risk aversion causes the CFO to prefer the definite dollar today (and similar benefits) to the uncertain dollar tomorrow. Loss aversion, on the other hand, causes the CFO to prefer the future prison sentence (and similar losses) to the more certain one imposed today. "[R]esearch participants in a wide variety of settings tend to be risk averse with respect to gains and risk seeking with respect to losses." Tom Baker, Alon Harel and Tamar Kugler, *The Virtues of Uncertainty in Law: An Experimental Approach*, 89 *Iowa L. Rev.* 443, 453 (2004).

³³ Arguably, the declining disutility of prison already reflects the perpetrator's "discount." Professors Polinsky and Shavell, however, treat the discount as distinct from the decline in disutility. Polinsky & Shavell, *supra* note 28, at 4 (positing that "[d]iscounting can occur regardless of whether the immediate disutility experienced each period rises, falls, or remains constant").

³⁴ See Yair Listokin, *Crime and (with a Lag) Punishment: The Implications of Discounting for Equitable Sentencing*, 44 *Am. Crim. L. Rev.* 115, 115-16 (2007).

³⁵ *Enron Declares Bankruptcy*, *Houston Chron.*, Dec. 6, 2001, at Yo! 2.

May 2006.³⁶ Skilling's 24-year prison sentence was not imposed until October 2006 and did not commence until December 2006, when the Fifth Circuit affirmed the trial court's denial of his request for bail pending appeal.³⁷ However miserable Skilling might be in prison, the disutility of that sentence (and the perceived disutility to potential criminals) arguably was lessened by the delay between his offense and his ultimate penalty.

In light of discounts and the declining disutility of sanctions, numerous neoclassical accounts of deterrence support policies that increase the likelihood rather than the severity of the sanction.³⁸ This emphasis is also necessary to counteract criminals who make mistakes when they calculate probabilities of punishment from a limited pool of information.³⁹ Although scholars often refer to a singular likelihood of punishment or detection, the enforcement probability term is itself a composite of several probabilities, including the likelihood of: (i) detection; (ii) subsequent apprehension; (iii) conviction in a court of law; and (iv) sanctions.⁴⁰ The potential criminal estimates his chances of "getting caught" by

³⁶ Mary Flood, *Ex-Enron Bosses Closer to Prison*, *Houston Chron.*, May 26, 2006, at A1.

³⁷ Kristen Hays, *No Fanfare as Skilling Steps into Prison Life*, *Houston Chron.*, Dec. 14, 2006, at A1.

³⁸ Cohen, *supra* note 29, at 514–15 (citing empirical evidence that prisoners respond more readily to more certain punishments than to more severe ones); Polinsky & Shavell, *supra* note 28, at 6 ("For risk-preferring individuals, the severity of imprisonment sanctions has a lesser effect on deterrence than the probability of sanctions . . .") (emphasis omitted); Scholz, *supra* note 19, at 255 (observing that workplace safety improved after OSHA imposed penalties for violations, but that the size of the penalty was irrelevant to the level of deterrence).

³⁹ "While there presumably is a positive relationship between actual and perceived levels of enforcement, it is implausible that individuals' probability estimates are generally accurate, particularly when the probability is extremely low." Lucian Arye Bebchuk & Louis Kaplow, *Optimal Sanctions When Individuals Are Imperfectly Informed About the Probability of Apprehension*, 21 *J. Leg. Stud.* 365, 366–67 (1992). Bebchuk and Kaplow contend that low probabilities of enforcement paired with maximum sanctions will produce greater mistakes because the criminal's error in estimating enforcement probability will result in larger errors when multiplied against a higher sanction. *Id.*

⁴⁰ See Richard Craswell, *Deterrence and Damages: The Multiplier Principle and its Alternatives*, 97 *Mich. L. Rev.* 2185, 2211 (1999); see also Oren Bar-Gill & Alon Harel, *Crime Rates and Expected Sanctions: The Economics of Deterrence Revisited*, 30 *J. Legal Stud.* 485 (2001).

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calculating the perceived probabilities of each of these outcomes and multiplying them together.⁴¹

Complicating the matter further is the fact that probabilities are not static, but change over time.⁴² When a CFO commences a fraudulent scheme, the probability of detection by others might be rather low. As the scheme unfolds and proceeds throughout time, various contingencies (both within and beyond the CFO's control) may significantly increase the probability of detection. For crimes that take place over a given period of time, this dynamic is significant.

Given the foregoing, it should come as no surprise that criminals, who are constantly forced to calculate and recalculate costs and benefits, often make mistakes.⁴³ Effective law enforcement policies therefore must contend with not only eliminating and reducing criminal opportunities, but also correcting criminals' mistaken conclusions that such opportunities exist.⁴⁴ Here again, increased enforcement may serve as a better correction mechanism than increased sanctions.⁴⁵

⁴¹ "Since all four events must occur before the defendant will be punished, the expected penalty depends on the combined probability of . . . the probability of detection *times* the probability of prosecution *times* the probability of a finding of liability *times* the expected fine or damage award." Craswell, *supra* note 40, at 2211.

⁴² David Adam Friedman, *Reinventing Consumer Protection*, 57 DePaul L. Rev. 45, 65 n.112 (2007) ("Detection is a staged proposition [that] can happen at different stages in the scheme—ranging from conception, to completion, to the edge of the legal statute of limitations and beyond."). As I explain *infra*, because of the manner in which federal criminal law defines and punishes most fraud, early detection is not likely to result in a diminished sanction.

⁴³ See Dau-Schmidt, *supra* note 23, at 14.

⁴⁴ One might see this as a debiasing problem. See discussion *infra* Subsection IV.B.2; Christine Jolls & Cass R. Sunstein, *Debiasing Through Law*, 35 J. Legal Stud. 199 (2006); Scholz, *supra* note 19, at 255 ("[A] modest extension of deterrence theory incorporates the assumption that the function of the legal system is to keep the risk of social harms arising from inevitable corporate mistakes within tolerable limits.").

⁴⁵ Multiple investigations and prosecutions also permit law enforcement agents to learn from and correct their mistakes. "The agency accumulates data and information (on criminals, on opportunities of crime), enhancing the ability of future apprehension at a lower marginal cost." Nuno Garoupa & Mohamed Jellal, *Dynamic Law Enforcement with Learning*, 20 J.L. Econ. & Org. 192, 192 (2004). Of course, if law enforcement agents can learn from increased enforcement, so too can criminals. However, if the law enforcement agency's enforcement is spread over a broad enough pool (and if agencies are permitted to keep certain details secret), the agency's collec-

Even when a criminal properly calculates likelihood of detection and sanctions, there is no guarantee that he will cease committing *all* crimes. Substitution effects⁴⁶ may cause criminals to direct their criminal activity to another location, to engage in a different crime, or to invest in techniques that lower the risk of detection.⁴⁷

One of the great critiques—or refinements, depending on how one looks at it—of neoclassical deterrence theory comes from the field of behavioral economics. Whereas Becker assumes that criminals are rational, adherents of behavioral economics contend that criminals (indeed, all individuals) are “boundedly rational.”⁴⁸ They make rational cost-benefit decisions, but do so against a backdrop of limited time and information. Accordingly, they rely on certain shortcuts or heuristics, to calculate probabilities of certain outcomes, and they fall prey to a number of biases that predictably skew their decisions.⁴⁹

As its proponents have recognized, the concept of bounded rationality has several implications for the study of criminal behavior and criminal law enforcement policy.⁵⁰ Criminals may succumb to the “self-serving” bias by cherry-picking the facts that best support their conception of the world. Their “optimism bias” may cause them to overestimate their ability to control future outcomes.⁵¹ They may fall prey to “hyperbolic discounting,” whereby they excessively discount the costs of near future sanctions (or excessively

tive rate of learning should exceed the rates of the individual criminals within its purview, particularly where the criminal population is disorganized.

⁴⁶ See Neal Kumar Katyal, *Deterrence's Difficulty*, 95 Mich. L. Rev. 2385, 2391–2402 (1997).

⁴⁷ See Doron Teichman, *The Market for Criminal Justice: Federalism, Crime Control, and Jurisdictional Competition*, 103 Mich. L. Rev. 1831, 1839–40 (2005) (discussing displacement); Katyal, *supra* note 46, at 2402–08 (suggesting that mandatory minimum sentences for crack cocaine distribution may have led drug dealers to substitute heroin for crack). See generally Sanchirico, *supra* note 16 (explaining detection avoidance).

⁴⁸ Christine Jolls, Cass R. Sunstein & Richard H. Thaler, *A Behavioral Approach to Law and Economics*, in *Behavioral Law and Economics* 13, 14–15 (Cass R. Sunstein ed., 2000).

⁴⁹ *Id.*

⁵⁰ *Id.* at 45–47; see also Alon Harel & Uzi Segal, *Criminal Law and Behavioral Law and Economics: Observations on the Neglected Role of Uncertainty in Deterring Crime*, 1 Am. L. & Econ Rev. 276 (1999).

⁵¹ Jolls, Sunstein & Thaler, *supra* note 48, at 47.

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overvalue near future benefits), but do not employ such steep discounts for time periods farther from the present.⁵² That is, even though the difference between receiving a dollar today and tomorrow should be identical to the difference between receiving the same dollar a year from today and the day after that, criminals are likely to apply a much higher discount to the 24-hour difference in the near future, as opposed to the 24-hour difference one year from now.⁵³

Finally, as many have noted, not all crimes (and not all criminals) are amenable to deterrence theory. Some (perhaps most) criminals lack information necessary to make anything approaching a cost/benefit analysis. Others commit crimes for impulsive or irrational reasons, and are not likely to respond to increases in sanctions or increased probability of detection.⁵⁴

Monetary crimes such as fraud, however, very often are discussed under the deterrence rubric, in part because such activity requires advance planning and reasoning.⁵⁵ The criminal must pick his target(s), set his price, devise a scheme for achieving his desired payout, and avoid detection during and after the life of the scheme. Moreover, the individuals who commit crimes in corporate settings are often engaged in the very type of cost/benefit accounting with respect to their legitimate “day job” activities. If deterrence has any value as a theory of criminal law, it should be in the arena of corporate fraud.⁵⁶ It is not surprising that when lawmakers unveil

⁵² Id. at 46.

⁵³ Whereas “ordinary” people might exponentially discount future benefits or costs according to a static discount figure, criminals (in the bounded rationality model) hyperbolically discount future benefits or costs because they are too “present-oriented.” See Yair Listokin, *Efficient Time Bars: A New Rationale for the Existence of Statutes of Limitations in Criminal Law*, 31 J. Leg. Stud. 99, 103 (2002) (citing James Q. Wilson & Allan Abrahamse, *Does Crime Pay?*, 9 Just. Q. 359 (1992)).

⁵⁴ See Samuel Kramer, *Comment, An Economic Analysis of Criminal Attempt: Marginal Deterrence and the Optimal Structure of Sanctions*, 81 J. Crim. L. & Criminology 398, 405 & n.32 (1990) (suggesting that deterrence theory does not apply to crimes of passion).

⁵⁵ See Cohen, *supra* note 29, at 503 (“[T]here should be little controversy” that perpetrators of economic crimes act “in what they perceive to be their own best interest.”).

⁵⁶ The few empirical studies of corporate fraud do suggest that where moral inhibitions are low, the threat of formal and informal sanctions can serve as a deterrent. See Raymond Paternoster & Sally Simpson, *Sanction Threats and Appeals to Morality:*

strategies for restraining and even eradicating corporate fraud, those strategies are almost always accompanied by claims that presume the defendant's calculation of utility and predict the myriad ways in which the chosen enforcement strategy will successfully alter that calculus.⁵⁷

B. Deterrence and Uncertainty

Deterrence theory presumes that criminals know they are violating the law.⁵⁸ One might expect this to hold true with corporate executives because they are well-educated and have ready access to legal advice. When lawmakers draft statutes that are either overly broad or complex, executives and their agents may experience difficulty discerning which conduct is and is not illegal.⁵⁹

Testing a Rational Choice Model of Corporate Crime, 30 Law & Soc'y Rev. 549 (1996) (demonstrating empirically the deterrent effect of sanctions when moral norms are lacking); Daniel S. Nagin, Criminal Deterrence Research at the Outset of the Twenty-First Century, 23 Crime & Just. 1, 20–21 (1998) (discussing the importance of formal and informal sanctions in tax compliance). Others have questioned, however, whether corporate fraud is in fact the result of deliberate choice by individuals. See, e.g., Sung Hui Kim, The Banality of Fraud: Re-situating the Inside Counsel as Gatekeeper, 74 Fordham L. Rev. 983, 997 (2005) (arguing that fraud is the result of situational factors); Milton C. Regan, Jr., Moral Intuitions and Organizational Culture, 51 St. Louis U. L.J. 941 (2007) (examining the importance of organizational culture). Although organizational factors may affect one's decision to commence criminal conduct, for reasons set forth in Part III *infra*, they may well recede for MFPs who are deciding whether to *end* such conduct.

⁵⁷ In a July 2007 speech, Attorney General Alberto Gonzalez praised members of the Corporate Fraud Task Force for obtaining 1200 convictions of corporate wrongdoing over a five-year period: “[P]erhaps the most important accomplishment [of the Task Force] is the criminal conduct that never occurred because of the wide-spread deterrent effect triggered by the tireless and thorough efforts of the Task Force and everyone in this room.” Prepared Remarks of Attorney General Alberto R. Gonzalez at the Corporate Fraud Task Force 5th Anniversary Event (July 17, 2007), available at http://www.usdoj.gov/archive/ag/speeches/2007/ag_speech_070717.html.

⁵⁸ This presumption has been attacked in numerous instances. See, e.g., Paul H. Robinson & John M. Darley, Does Criminal Law Deter? A Behavioural Science Investigation, 24 Oxford J. Leg. Stud. 173, 174 (2004) (“Potential offenders commonly do not know the legal rules, either directly or indirectly, even those rules that have been explicitly formulated to produce a behavioural effect.”).

⁵⁹ Even as the criminal law expands to cover broader categories of commercially questionable conduct (thereby allowing a jury to convict virtually anyone who is charged), criminals still may be uncertain of the outcome of an arrest insofar as prose-

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The issue of uncertainty is a common feature of discussions of corporate fraud⁶⁰ and regulatory offenses such as environmental crimes.⁶¹ Many have written of the uncertainty that permeates federal fraud cases, particularly applications of the “honest services” prong of the mail and wire fraud statutes.⁶² Apart from the “honest services” category, the “uncertainty argument” is overemphasized. Many (if not most) executives know that lying to a company’s shareholders about its finances; or lying to the government about the costs of certain services rendered; or colluding with other companies to fix prices; or dumping chemicals in a stream and then lying about it, are illegal and socially undesirable acts. Indeed, executives often go to great lengths to cover up these crimes, precisely because they know they are “outside the bounds of market norms.”⁶³

Thus, at least where most corporate frauds are concerned, this Article presumes that uncertainty does not increase the number of frauds through accident. The hypothetical managers referred to in this Article are presumed to know that they are doing something that is illegal.

Less frequently discussed is the role that legal uncertainty may play as a rationalization. Executives who do not wish to think of themselves as criminals may be able to convince themselves—and others in the community—that they are doing nothing wrong because of alleged “uncertainty” in the law.⁶⁴ Uncertainty may not

cutors retain charging discretion. For a discussion of overcriminalization, see Erik Luna, *The Overcriminalization Phenomenon*, 54 *Am. U. L. Rev.* 703 (2005).

⁶⁰ See, e.g., Buell, *supra* note 3, at 1972.

⁶¹ See Assaf Hamdani, *Mens Rea and the Cost of Ignorance*, 93 *Va. L. Rev.* 415, 444–45 (2007) (discussing the effect of uncertainty regarding the mens rea required for conviction for environmental crimes).

⁶² See 18 U.S.C. § 1346 (2000). For an argument that the statutes that outlaw corporate fraud are too broad, see Geraldine Szott Moohr, *On the Prospects of Deterring Corporate Crime*, 2 *J. Bus. & Tech. L.* 25, 28–30 (2007) (“In prohibiting everything, vague and broad criminal laws prohibit nothing.”).

⁶³ Buell, *supra* note 3, at 2015. Buell continues: “The presence of consciousness of wrongdoing, as evidenced by steps taken to disguise the actor’s conduct . . . establishes that the actor feared and sought to evade the adverse judgments of her market peers, including refusal to transact.” *Id.*

⁶⁴ Moohr hypothesizes that the firm’s institutional setting and the uncertainty inherent in the law permit otherwise law-abiding executives who view themselves as inher-

explain the existence of the crime, but it may well provide both a defense that society finds plausible and a means by which otherwise intelligent people can rationalize their behavior and see themselves as a part of the moral community even as they proceed with their criminal conduct.⁶⁵ If that is the case, increases in sanctions may have little effect on potential offenders, since they will always convince themselves and their social peers that such sanctions apply to acts committed by others, but not to their own conduct.

C. Formal Sanctions, Moral Norms and Collateral Effects

The sanction that a criminal receives includes not only the formal punishment ordered by a court (such as a fine or term of imprisonment), but also those collateral effects that attach to formally ordered penalties.⁶⁶ For example, as a result of a criminal conviction, an individual may lose his job and future employment opportunities, his property (beyond the amount required to pay his fine), his social status, and his connection with his family. The collateral damages of criminal law have long been discussed in the street crime context.⁶⁷ They also impact white collar offenders. Indeed, one recent empirical study indicates that, in the realm of corporate fraud, collateral effects are quite steep, attach very early, and are often irrevocable.⁶⁸

To the extent that informal sanctions (such as the disapproval of one's family or friends) flow from moral norms, it is useful to consider the connection between norms and deterrence. Some scholars view social norms as divorced from cost/benefit analysis; norms

ently "ethical" to delude themselves into thinking that their conduct is not in fact illegal. Moohr, *supra* note 62, at 31–32.

⁶⁵ See Regan, *supra* note 56, at 949–50 (explaining that individuals rely on cognitive frames to explain behavior "by recourse to what they regard as socially acceptable reasons").

⁶⁶ For a discussion of the numerous collateral consequences that attach to investigations of corporate wrongdoing, see Jonathan M. Karpoff, D. Scott Lee & Gerald S. Martin, The Consequences to Managers for Financial Misrepresentation, 88 *J. Fin. Econ.* 193 (2008), available at <http://www.sciencedirect.com/science/journal/0304405X> (follow link to PDF).

⁶⁷ See, e.g., Darryl K. Brown, Cost-Benefit Analysis in Criminal Law, 92 *Cal. L. Rev.* 323, 345–47 (2004) (discussing collateral consequences of conviction on offenders, their communities, and their families).

⁶⁸ Karpoff, Lee & Martin, *supra* note 66, at 3.

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serve as a stand-alone alternative to deterrence as a guide of public policy.⁶⁹ Others argue that norms may be used to achieve society's ends by forcing wrongdoers to internalize both informal and formal sanctions.⁷⁰ The informal sanctions, however, necessarily flow from the formal ones. Policymakers therefore may find it difficult to calibrate formal sanctions optimally because those sanctions trigger informal and collateral costs that are difficult to measure.⁷¹

II. FRAUD AND ENFORCEMENT: WHEN TIMING MATTERS

Despite forty years of refinements, the basic model of deterrence remains intact: when the net benefits of a crime outweigh the net costs, the perpetrator will proceed with socially undesirable conduct. To reduce such conduct, society must focus on increasing the criminal's expected penalty by enacting harsher sanctions, increasing the probability of punishment, or some combination of both.

In theory, corporate fraud ought to be the type of crime that is easily deterred. After all, perpetrators of corporate fraud calculate costs and benefits on a daily basis and have multiple opportunities to make money through legitimate means. Moreover, their crime, fraud, is not exactly an "impulse" crime.⁷² Many of the most famous frauds within the last decade (such as Enron's off-balance-sheet transactions, Worldcom's wrongful accounting treatment of line expenses, and the more recent examples of options back-dating at companies such as Brocade) were complex, evolved over a number of months or years, and required their participants' deliberate and concerted activity.

Ordinarily, critics of deterrence theory contend that most individuals are unaware of, or lack the ability to understand, complex legal rules.⁷³ By contrast, the corporate executives who commit frauds are well aware of the legal ramifications of their activity. In

⁶⁹ See Paternoster & Simpson, *supra* note 56, at 554.

⁷⁰ See Dan M. Kahan, *Response: Between Economics and Sociology: The New Path of Deterrence*, 95 *Mich. L. Rev.* 2477, 2478–79 (1997).

⁷¹ See Richard A. Bierschbach & Alex Stein, *Overenforcement*, 93 *Geo. L.J.* 1743, 1750 (2005). See generally Andenaes, *supra* note 23.

⁷² Concededly, some frauds may arise because of an impulse to lie. Cf. Kim, *supra* note 56, at 1026–34.

⁷³ See generally Robinson & Darley, *supra* note 58.

many instances, a legal expert (the in-house lawyer) occupies the office down the hall or is only a phone call away. Although uncertainty about legal requirements may cause a few individuals to provide misinformation, most of the scandals of the last decade were *deliberately* hidden from the outside world. This suggests that their perpetrators knew quite well that they were breaking the law.⁷⁴

In sum, if any group is likely to be deterred by increased criminal sanctions, it is the white collar criminals who perpetrate fraud. Why then, are they under-deterred? This Part attempts to answer that question by exploring two characteristics of crime that derail traditional law enforcement policies: duration and connectivity. Duration refers to the time it takes to commit a given crime. Connectivity might be described as a kind of “path dependence.” Together, these facets contribute to the concept I call “linkage,” which is the probability that cessation of future illegal conduct will increase the probability of detection and conviction for previous instances of similar conduct. I then discuss three common features of corporate fraud: it is fairly easy to commence, is difficult to terminate, and often requires the perpetrator’s ongoing presence. As a result, corporate fraud often includes the two components of linkage: it takes place over a prolonged period of time, and it is highly path dependent.

A. Duration and Connectivity: The Building Blocks of Linkage

Despite the fact that lawmakers often invoke deterrence as a primary goal of law enforcement policy, they are largely indifferent to the issues of timing and connectivity, and how these features affect changes in enforcement policy.⁷⁵ The federal statutes that define most crimes, as well as the Sentencing Guidelines that sanction them, almost completely ignore the duration of the crime.⁷⁶ Instead,

⁷⁴ See Buell, *supra* note 3, at 2015.

⁷⁵ For more cynical accounts of lawmakers’ use of deterrence as a basis for increased penalties and the enactment of overlapping and additional crimes, see Luna, *supra* note 59, at 719; William J. Stuntz, *The Pathological Politics of Criminal Law*, 100 *Mich. L. Rev.* 505, 506–09 (2001).

⁷⁶ Neither the major federal statutes that define criminal fraud, 18 U.S.C. §§ 1341–1342, 1344 (2000), 18 U.S.C.A. § 1348 (West Supp. 2007), nor the Sentencing Guide-

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criminal law is far more interested in the size, rather than the timing, of the victim's loss (or in the case of narcotics, the weight of the drug).

The reason that criminal law all but ignores the temporal aspects of crime is that retributivism has come to captivate both popular and scholarly discourse.⁷⁷ A community that seeks "just deserts" for perpetrators cares far more about the size and scope of the harm (measured by monetary loss or drug weight) than it does the duration of the scheme. Timing, in a retributivist world, is relevant only insofar as it serves as a proxy for: (a) the defendant's state of mind (with longer frauds suggesting a more "evil" or deliberate intent to do harm) and/or (b) the scope of the harm when loss is undetectable.

Conversely, under a deterrence-based theory of law, timing matters.⁷⁸ Perpetrators who have entered the beginning phases of their criminal activity are likely to respond far differently to certain enforcement measures than those who either have completed their criminal activity or, at the other end of the spectrum, those who are only considering engaging in such conduct. A society that seeks to prevent and contain harm will care deeply about the intersection of

lines' fraud provision, U.S. Sentencing Guidelines Manual § 2B1.1 (2007), take into account the length of time necessary to complete the fraud, other than the Sentencing Guidelines' departure for defendants who demonstrate that their crime was an "aberrant act." See U.S. Sentencing Guidelines Manual § 5K2.20, which permits a downward departure from the proscribed guidelines sentence when the crime: "(1) was committed without significant planning; (2) was of limited duration; and (3) represents a marked deviation by the defendant from an otherwise law-abiding life." Except where other circumstances exist to demonstrate that the fraud was particularly sophisticated or widespread, courts are not likely to sentence defendants on the basis of the fraud's duration alone. See, e.g., *United States v. Alpert*, 28 F.3d 1104, 1108–09 (11th Cir. 1994) (reversing the district court's upward departure on the basis of the duration of defendant's fraud scheme). Compare *Alpert*, with *United States v. Ben-skin*, 926 F.2d 562, 563, 566–67 (6th Cir. 1991) (permitting upward departure where defendant defrauded over 600 victims during a five-year period).

⁷⁷ See, e.g., Moohr, *supra* note 15, at 939 ("Empathy with employees, investors, and creditors readily explains the public's demand for punishment."). For a contrary view that the law governing corporate crime focuses primarily on deterrence, whereas the law governing street crime addresses retributivist notions, see Darryl K. Brown, *Street Crime, Corporate Crime, and the Contingency of Criminal Liability*, 149 U. Pa. L. Rev. 1295, 1313–15 (2001).

⁷⁸ See generally Paul R. Hoerber, *The Abandonment Defense to Criminal Attempt and Other Problems of Temporal Individuation*, 74 Cal. L. Rev. 377 (1986).

the government's imposition of sanctions, society's exposure to harm, and the criminal's attainment of his benefit.⁷⁹

Unfortunately, neither the substantive nor sentencing aspects of criminal law handle the issue of timing very well. Consider the doctrine of completeness. Criminal liability attaches when a statute's elements are fulfilled and the crime is "complete." The statute of limitations, the statutory window within which the government must initiate its prosecution, runs from the moment of "completeness."⁸⁰ Under the standard iteration of criminal law, many completed crimes "begin" and "end" in the same moment. Although this concept may make sense for certain crimes ("murder" begins and ends when the victim dies), it bears no relation to reality for crimes characterized by conduct that takes place over a prolonged period of time.

With the aid of the "continuing offense" doctrine, Congress and courts have attempted to cure the shortcomings of completeness doctrine, although they have done so only partially and rather haphazardly. When a crime is deemed a continuing offense, "its commission is not complete until the conduct has run its course."⁸¹ Unlike a discrete crime, a continuing offense is one in which the defendant's conduct "even before it is concluded, may fit the statutory definition of a crime, thereby permitting institution of a prosecution before the offense is complete."⁸²

Conspiracy is a continuing offense; a fraud undertaken by two or more people in concert begins when the elements of conspiracy are met and "continues" through the date of the last overt act in furtherance of the conspiracy.⁸³ Single-actor frauds, on the other hand, create far more confusion. Some frauds are statutorily defined as continuing offenses, while others are deemed discrete.⁸⁴ Courts

⁷⁹ For simplification, I assume throughout much of this Article that benefits and harm are equivalent. In reality, for many defendants, the loss amount in a corporate fraud case will far outstrip the perpetrator's monetary benefit.

⁸⁰ See generally *Toussie v. United States*, 397 U.S. 112, 115 (1970).

⁸¹ *United States v. Rivera-Ventura*, 72 F.3d 277, 281 (2d Cir. 1995).

⁸² *Id.*

⁸³ Christian Davis & Eric Waters, *Federal Criminal Conspiracy*, 44 *Am. Crim. L. Rev.* 523, 536 & n.82 (2007) (citing *Fiswick v. United States*, 329 U.S. 211, 216 (1946)).

⁸⁴ See Wayne R. LaFare, Jerold H. Israel & Nancy J. King, *Criminal Procedure* § 18.5(a) (4th ed. 2004).

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have further confused the issue by applying inconsistent means of measuring the severity of these “discrete” fraud crimes. Whereas mail and wire fraud crimes become “complete” and trigger the statute of limitations from the moment that the mails or wires are used, bank frauds are measured in units of “execution.”⁸⁵ Depending on the context, conduct that serves as the basis of a bank fraud prosecution (for example, opening an account) may be a component of a defendant’s execution of a scheme, or it may be a separate execution (and therefore chargeable as a separate crime) altogether.⁸⁶

Whatever the legal label, from a practical perspective, we know that many crimes, particularly frauds, take place over a period of hours, months or years.⁸⁷ Perpetrators need that time to devise complex schemes, seduce and fool their targets, and obtain the objects of their illegal activity. Yet the criminal law does not take into account the temporal aspects of most crimes, including fraud. Instead, it focuses almost exclusively on harm. Indeed, although courts recognize each mailing or use of the wires as a separate offense,⁸⁸ the Sentencing Guidelines aggregate the total intended or actual loss from the entire scheme.⁸⁹ For purposes of determining the severity of the sanction, the presence of multiple mailings or wires is effectively irrelevant; the loss amount (that is, the overall

⁸⁵ Compare *United States v. Vaughn*, 797 F.2d 1485, 1493 (9th Cir. 1986) (holding that each mailing constitutes a separate violation of the mail fraud statute), and *United States v. Garlick*, 240 F.3d 789, 792 (9th Cir. 2001) (reaching the same result for wire fraud), with *United States v. Bruce*, 89 F.3d 886, 889 (D.C. Cir. 1996) (“It is settled law that acts in furtherance of the [bank fraud] scheme cannot be charged as separate counts unless they constitute separate executions of the scheme . . . , and that acts which *do* constitute individual executions *may* be charged separately” (citations omitted)).

⁸⁶ Although an act that is a separate execution of a bank fraud scheme may be charged separately, it may also be charged in a single count if the count provides the defendant sufficient notice of the government’s case and the “executions” can be viewed “as parts of a single course of conduct.” *Bruce*, 89 F.3d at 890; see also *United States v. King*, 200 F.3d 1207, 1213 (9th Cir. 1999) (holding that “each execution of a scheme to defraud need not give rise” to a separate charge).

⁸⁷ See, e.g., *Schmuck v. United States*, 489 U.S. 705, 711 (1989) (describing a used car dealer’s odometer fraud that spanned fifteen years as “an ongoing fraudulent venture”).

⁸⁸ *Badders v. United States*, 240 U.S. 391, 394 (1916).

⁸⁹ See U.S. Sentencing Guidelines Manual § 2B1.1 (2007).

harm) is what counts. As I demonstrate in Part III, however, a government intent on achieving deterrence is not well served by this strategy. If deterrence is the goal, the government must account both for the duration of the offense and for the various events that may transpire and impact the law's ability to deter.

Like duration, the connectivity of a given offense is another characteristic that criminal law more or less ignores, but which deterrence adherents must consider. Whereas some crimes are discrete (for example, pocketing an apple from the local supermarket), others are constructed from interlocking instances of conduct, the cessation of which may increase or decrease the likelihood of one's detection and punishment at any time.

In other words, some, but not all, crimes are "path dependent": prior decisions foreclose otherwise rational or preferable future decisions.⁹⁰ Path dependency is often discussed in the context of corporate organizations or political institutions and comes about when one person's earlier decisions necessarily foreclose otherwise desirable options for later decisionmakers within the same organization or institution.⁹¹ Where crime is concerned, path dependency is a bit different. Although prior decisions foreclose future ones, the same person (the perpetrator) is responsible for all of them. The temporal problems are caused not by the large depersonalized nature of an organization or the randomness of multiple actors making different decisions over time, but rather by the inherent nature of certain criminal acts. The act of lying to someone *now* creates a commitment to lie *later*. Criminal path dependency thus results not from the nature of the actor, but from the nature of the act.

Although crime is path dependent, it is unevenly dependent. Some crimes can be terminated with little or no transition costs. Others, such as fraud, are far more difficult to curtail once started. As I explore below in more detail, the "path dependency" of the

⁹⁰ See Garoupa & Jellal, *supra* note 45, at 192–93 (noting the path dependent nature of criminal conduct); Ronald J. Gilson, Corporate Governance and Economic Efficiency: When Do Institutions Matter?, 74 Wash U. L.Q. 327, 329–30 (1996) (discussing path dependence in a more general sense).

⁹¹ See, e.g., Gilson, *supra* note 90.

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crime is likely to be a function of its complexity, its opportunity for exit, and its involvement of other people.⁹²

The penalty structure of federal criminal law does not focus on those factors that make criminal conduct more or less path dependent. Rather, following the retributivist paradigm, criminal law imposes increasingly serious penalties for corresponding levels of harm. Where transition costs are low, the harm-based approach to sentencing makes sense. If a robber stakes out a grocery store, then enters the store with the intent of committing the crime, but walks out empty-handed because he sees an armed guard, he is technically guilty of attempted robbery. If no one is aware of his intent, however, he can abandon his course of conduct with little fear of apprehension. Of course, he may encounter other drawbacks from abandoning his plan. For example, he may have intended to use the proceeds of the robbery to pay a gambling debt. The costs that flow from his inability to repay his debts, however, are exogenous; they are not an inherent aspect of the crime itself.

By contrast, financial accounting fraud is highly path dependent. Once a perpetrator lies to his victims, he cannot extricate himself from his lies without tipping someone off that his earlier statements were grievously incorrect. Note that part of the problem stems from the fact that the crime itself requires an interaction between the criminal and another person. The cessation of conduct causes the victim to reconsider his prior interaction with the criminal. By contrast, unless a drunk driver is caught or injures someone, no one will ever know of her crime. Crimes that require no interaction with other people (including victims) will feature fewer linkage problems.

It is well-accepted that interactions between two or more criminals “make wrongdoing more likely to arise and can make it more virulent once it begins.”⁹³ Group dynamics overcome the fear and self-interest that might otherwise dissuade perpetrators at the last minute. Linkage, however, extends that analysis to interactions be-

⁹² Of course, the length of the crime also may affect its path dependence, but I treat “duration” as a separate factor affecting deterrence.

⁹³ Samuel W. Buell, *Criminal Procedure Within the Firm*, 59 *Stan. L. Rev.* 1613, 1624 (2007).

tween criminals and *other* people besides co-conspirators.⁹⁴ The presence of witnesses and victims, for example, may pose similar roadblocks to laws designed to deter offenders from additional criminal conduct.

In sum, two factors that criminal law often overlooks may have a very important effect on the success of the marginal deterrence of offenders: the practical duration of the offense, and its connectivity.⁹⁵ A graph of these two characteristics (duration versus “connectedness” of the offense) might look like the following:

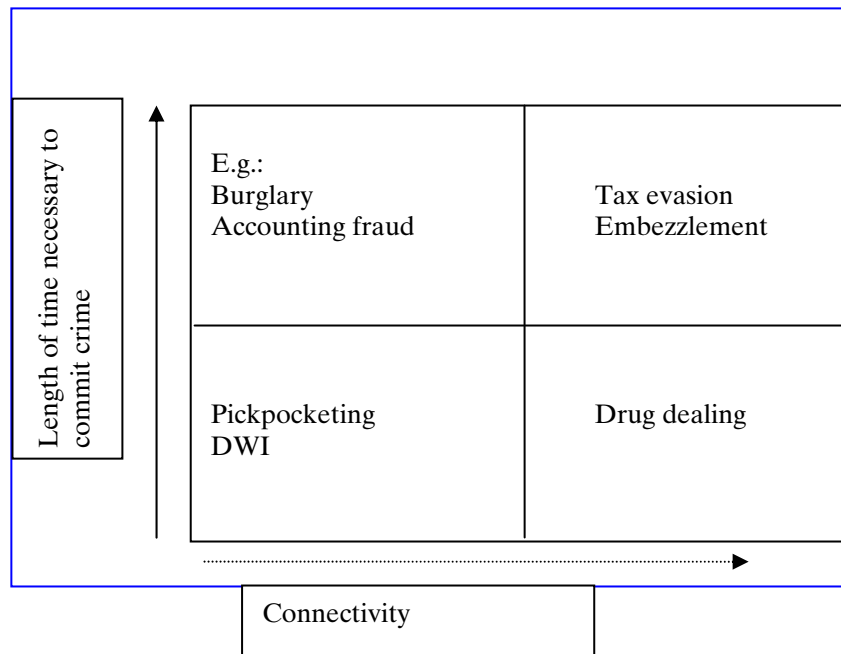


Figure 1

⁹⁴ Although there has been discussion of how group dynamics increase the likelihood and extent of harm, see Neal Kumar Katyal, *Conspiracy Theory*, 112 *Yale L.J.* 1307 (2003), the literature has not yet discussed the extent to which a perpetrator's interaction with *victims* might increase the severity of harm because the victims' presence reduces the possibility for costless exit.

⁹⁵ I purposely refer to the first characteristic as the time necessary to obtain the object of the offense and *not* the time it takes to complete the offense because, doctrinally, many crimes (including fraud) are considered “complete” long before the defendant has obtained his expected object. The problems with this disconnect are discussed *supra*, at notes 80–89 and accompanying text.

No doubt, beyond DWI and discrete theft crimes, many will categorize crimes differently depending on their context. Drug dealing, for example, need not be a particularly connected crime. A dealer's sale of cocaine tomorrow need not be linked to his sale yesterday. Nevertheless, because drug dealing occurs in groups and, like any other business, often involves future agreements to purchase or sell a product at a given price, it is a far more path dependent crime than drunk driving. For that reason, it should come as no surprise that attempts to deter drug dealing solely by relying on sanctions or visibly increased enforcement often fail with criminals who are already in the midst of such activity when these strategies are announced and implemented.⁹⁶

This Article's contention is that many of the frauds that occur in corporate settings fall squarely within the upper-right quadrant of Figure 1. Corporate fraud occurs over long periods of time⁹⁷ (long enough for changes in legal policy to occur while perpetrators are already in the midst of criminal schemes), and it inherently requires interactions with other people. As a result, linkage problems are likely to arise when lawmakers adopt strategies to deter corporate fraud. I explain this concept further and its interaction with different law enforcement strategies in the sections below.

B. Fraud and Linkage

"Linkage," as defined in this Article, is the extent to which the cessation of new criminal conduct increases the perceived likelihood of detection and punishment for previous instances of criminal conduct. Before discussing linkage in more detail, it is helpful to consider certain characteristics of criminal fraud. These characteristics illuminate the linkage problem.

⁹⁶ See Stephen J. Schulhofer, *Solving the Drug Enforcement Dilemma: Lessons from Economics*, 1994 U. Chi. Legal F. 207, 220 (discussing the organizational dynamics of drug dealing and ways in which "more intensive enforcement exacerbates" drug-related crime).

⁹⁷ This may be due in part to the very nature of the corporation. As decisionmaking becomes more decentralized and compartmentalized, the perpetrator may need more time to perfect his plan and achieve his objective.

First, criminal fraud is easily completed, as a matter of federal law.⁹⁸ The bare-bones elements of fraud as defined by federal law are: (a) a scheme to defraud someone of their money, property or “honest services,” and (b) the use of either the mails or interstate wires (or other media, depending on the statute) to further that scheme.⁹⁹ The perpetrator need not have obtained the object of her scheme, and the target need not have suffered any damages or “loss” for the fraud to be considered “complete.”¹⁰⁰

It is important to note that the ease of committing fraud is a characteristic solely of federal criminal law.¹⁰¹ Common-law civil fraud is far more difficult to prove and consequently more difficult

⁹⁸ I refer primarily to 18 U.S.C. § 1341 (2000) (mail fraud), 18 U.S.C. § 1343 (2000) (wire fraud), 18 U.S.C. § 1344 (2000) (bank fraud), 18 U.S.C. § 1347 (2000) (health care fraud), 18 U.S.C.A. § 1348 (West Supp. 2007) (securities fraud), 18 U.S.C.A. § 1349 (West Supp. 2007) (attempt and conspiracy), 18 U.S.C. § 371 (2000) (conspiracy); and to Section 10(b) of the Securities Exchange Act, 15 U.S.C. § 78j (2000) and 17 C.F.R. 240.10b-5 (2000), promulgated under that Act. In the federal system, a single scheme might support indictment under several or all of the above statutes. See, e.g., *United States v. Vought*, No. 3:05cr268, 2006 WL 1662882 (D. Conn. June 15, 2006) (describing multiple fraud-related counts in indictment).

⁹⁹ The elements of mail fraud and wire fraud are:

(i) a scheme to defraud that includes a material deception; (ii) with the intent to defraud; (iii) while using the mails, private commercial carriers, and/or wires in furtherance of that scheme; (iv) that did result or would have resulted in the loss of money or property, or the deprivation of honest services.

Skye Lynn Perryman, *Mail and Wire Fraud*, 43 *Am. Crim. L. Rev.* 715, 718 (2006) (citing 18 U.S.C. § 1341). Wire fraud also requires an interstate communication as an element. *Id.* (citing 18 U.S.C. § 1343). To be found guilty of mail fraud, the defendant need not even personally use the mails; it is sufficient to show that it was foreseeable that the mails would be used in furtherance of the execution of the fraud. See *Pereira v. United States*, 347 U.S. 1, 8–9 (1954); *United States v. Crossley*, 224 F.3d 847, 857 (6th Cir. 2000).

¹⁰⁰ See *Perryman*, *supra* note 99, at 729; see also, e.g., *United States v. Kennedy*, 64 F.3d 1465, 1478 (10th Cir. 1995) (stating that the crime of wire or mail fraud is complete “when any wiring or mailing is used in execution of a scheme; there is no requirement that the scheme actually defraud a victim into investing money for the crime to be complete”); *United States v. Hickey*, 16 F. Supp. 2d 223, 234 (E.D.N.Y. 1998) (“[T]he crime is complete upon the hatching of the scheme with the requisite intent supplemented by the use of the mails.”).

¹⁰¹ For scholarly commentary on both the breadth of the mail and wire fraud statutes and the relative ease with which federal prosecutors can prove a violation of such statutes, see *Moohr*, *supra* note 15, at 944 & n.41 (citing various accounts for the view that mail fraud is a prosecutor’s primary and best weapon against wrongdoers); see also *John Hasnas*, *Trapped: When Acting Ethically Is Against the Law* 31–32 (2006).

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to commit.¹⁰² Unlike a federal prosecutor, a private individual seeking monetary redress for a commercial fraud must show: (a) a false statement (b) uttered by a defendant possessing a requisite amount of scienter (knowledge and intent that the plaintiff act on that statement), (c) upon which the plaintiff justifiably relied (d) to the detriment of the plaintiff.¹⁰³ The federal definition of fraud essentially jettisons the third and fourth requirements of common law fraud. The prosecutor need not show reliance (much less “justifiable” reliance). Nor need she prove that the plaintiff (or anyone) suffered detriment.¹⁰⁴ Whereas first year torts casebooks teach that there is no such thing as “negligence in the air,”¹⁰⁵ federal criminal law demonstrates that “fraud in the air” is alive and well.

Because fraud is so easily “completed” as a legal matter, few frauds are “attempts” (or, *all* attempts effectively are completed crimes).¹⁰⁶ This is the case despite the fact that both the U.S. Code

¹⁰² As Christine Hurt has observed, the burden on civil plaintiffs seeking to prove corporate fraud is much greater than the burden placed on prosecutors. Whereas prosecutors may rely on aiding and abetting and conspiracy theories of liability, civil plaintiffs are barred from using aiding and abetting theories and are likely to find conspiracy difficult to prove, under the Private Securities Litigation Reform Act. See Hurt, *supra* note 14, at 403–05.

¹⁰³ See *So. Dev. Co. v. Silva*, 125 U.S. 247, 250 (1888), in which the Court split the first and second elements into four and stated the complete test as follows:

That the defendant has made a representation in regard to a material *fact* . . . [t]hat such representation is false; . . . [t]hat such representation was not actually believed by the defendant, on reasonable grounds, to be true; . . . [t]hat it was made with intent that it should be acted on[.]; . . . [t]hat it was acted on by [the plaintiff] to his damage; and, . . . [t]hat in so acting on it the [plaintiff] was ignorant of its falsity, and reasonably believed it to be true.

Later courts have appended the requirement that the false statement “caused” the plaintiff’s detriment. For a discussion of this final element and the general requirements of a common law fraud claim, see John C.P. Goldberg, Anthony J. Sebok & Benjamin C. Zipursky, *The Place of Reliance in Fraud*, 48 *Ariz. L. Rev.* 1001, 1001–02 (2006). For a comparison of the differences in prosecuting similar conduct under civil and criminal fraud doctrines, see Hasnas, *supra* note 101, at 31–32; Hurt, *supra* note 14.

¹⁰⁴ “A person can be guilty of wire or securities fraud without causing any loss at all, for the essence of both crimes lies in the defendant’s conduct, not in his or her success in harming the intended victim.” *United States v. Emmenegger*, 329 F. Supp. 2d 416, 425 (S.D.N.Y. 2004) (Lynch, J.).

¹⁰⁵ *Palsgraf v. Long Island R.R. Co.*, 162 N.E. 99, 99 (N.Y. 1928) (Cardozo, C.J.).

¹⁰⁶ See John C. Coffee, Jr., *The Metastasis of Mail Fraud: The Continuing Story of the “Evolution” of a White-Collar Crime*, 21 *Am. Crim. L. Rev.* 1, 10–11 (1983) (criti-

and the Sentencing Guidelines contain provisions for “incomplete” crimes, the sanctions for which are slightly less severe than for their completed counterparts.¹⁰⁷ Deterrence theorists praise the attempt doctrine because it proscribes lesser sanctions for perpetrators who voluntarily suspend their offense prior to its completion.¹⁰⁸ The doctrine is useful because it increases the potential criminal’s probability of punishment, yet allows unsure perpetrators to abandon their course of conduct before they have completed their crimes and caused harm.¹⁰⁹

Where criminal fraud is concerned, however, the attempt doctrine offers little help to either perpetrators or their intended victims. Since criminal fraud is complete from the moment a scheme is devised and a particular medium is first used (interstate wires, mail, or securities filings), perpetrators retain little incentive to curtail their frauds once their scheme has begun.¹¹⁰ To the contrary,

cizing the breadth of mail fraud statute as inconsistent with inchoate crimes). “The [wire fraud] statute punishes the scheme (more precisely, the use of the telephone or cognate means of communication to conduct the scheme) rather than the completed fraud. . . . It punishes, in short, the attempt to defraud.” *United States v. Coffman*, 94 F.3d 330, 333 (7th Cir. 1996) (Posner, J.) (citations omitted).

¹⁰⁷ See 18 U.S.C.A. § 1349 (West Supp. 2007) (attempt and conspiracy); U.S. Sentencing Guidelines Manual § 2X1.1(b)(1) (2007) (decreasing the offense level for attempts by three levels, “unless the defendant completed all of the acts the defendant believed necessary for successful completion of the substantive offense or the circumstances demonstrate that the defendant was about to complete all such acts but for apprehension or interruption of some similar event beyond the defendant’s control.”); see also, e.g., *United States v. DeFelippis*, 950 F.2d 444, 446 (7th Cir. 1991) (concluding that a defendant was not entitled to a reduction in sentence under §2X1.1 because he had completed all steps necessary to obtain a \$250,000 loan through fraudulent means). Section 1349 was added pursuant to the Sarbanes-Oxley Act of 2002. It is unclear, however, why it was necessary. Conspiracy was already an offense under 18 U.S.C. § 371, and most fraudulent conduct already triggered the substantive fraud statutes.

¹⁰⁸ See Richard A. Posner, *An Economic Theory of the Criminal Law*, 85 *Colum. L. Rev.* 1193, 1217 (1985) (concluding that an attempted robber should receive a lesser sentence than an actual robber, “to give offenders an incentive to change their minds at the last moment”); see also Shavell, *supra* note 25, at 1241–43.

¹⁰⁹ For an argument that lawmakers should sometimes grade more developed attempts *less* harshly than less-formed attempts, see Kramer, *supra* note 54, at 410–12 (arguing that reduction in sentence for “last-step” of attempt will encourage defendants to desist from completing the attempt).

¹¹⁰ The Sentencing Guidelines further reduce this incentive by basing the perpetrator’s sentence on the perpetrator’s intended loss and not his victim’s actual loss. See,

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once the perpetrators in question send the letter, forward the email, or submit the filing, they are legally culpable for the completed crime.¹¹¹

Similarly, if two fraudsters concoct a *conspiracy*¹¹² to commit fraud, the fraud is complete as soon as they agree to devise the scheme and one of them commits a single act in furtherance of that agreement.¹¹³ Regardless of whether perpetrators of fraud act in concert or alone, they will trigger a completed offense quite easily. Once they have tripped this alarm, they have little reason to abandon their plans: if they turn back, they remain subject to full, or close to full, criminal liability and stand to gain little or nothing from abandoning the scheme.¹¹⁴

As easily as fraud is commenced, it is difficult to terminate. Legally, fraud terminates upon the perpetrator's "execution" of his scheme.¹¹⁵ As a practical matter, fraud does not end until the perpetrator safely exits from the scene with the object of his scheme in hand. When the "object" of the crime includes the preservation of one's employment, however, the fraud may never end until someone detects the employee's crime.¹¹⁶ If a mid-level manager inflates

e.g., *United States v. Wallace*, 458 F.3d 606, 612 (7th Cir. 2006) (stating that a stockbroker employee's liability for criminal fraud is properly based on the intended loss of \$400,000 and not the actual loss of \$30,000).

¹¹¹ The caveat is that the defendant may qualify for a reduction under U.S. Sentencing Guidelines Manual § 2X1.1. See discussion *supra* note 107.

¹¹² For an argument that conspiracy ought to remain a separate crime because perpetrators draw economic and psychological strength from groups (and thereby pose a greater threat to society), see Katyal, *supra* note 94, at 1370–71.

¹¹³ 18 U.S.C. § 371 (2000).

¹¹⁴ Under the Sentencing Guidelines, a defendant who "accepts responsibility" by pleading guilty to an offense in advance of trial receives a slight reduction in his sentence. U.S. Sentencing Guidelines Manual § 3E1.1 (2007). This reduction, however, is available to most defendants post-detection, up through and including a few weeks or even days prior to trial. A separate departure exists for a defendant, where "motivated by remorse, discloses an offense that otherwise would have remained undiscovered." The disclosure cannot be prompted by the defendant's fear of detection. U.S. Sentencing Guidelines Manual § 5K2.16 (2007).

¹¹⁵ A scheme to defraud terminates when it is "fully consummated." *United States v. Evans*, 473 F.3d 1115, 1119 (11th Cir. 2006) (citing *Henderson v. United States*, 425 F.2d 134, 141 (5th Cir. 1970)).

¹¹⁶ See *United States v. Emmenegger*, 329 F.Supp.2d 416, 427 (S.D.N.Y. 2004) (criticizing the Sentencing Guidelines' approach to loss amount in fraud cases where the

her revenue figures to improve her yearly commission and bonus, she must continue deceiving her employer until she finds a way to safely exit her job and obtain similar employment. This may be a fairly difficult task.

Fraud also is not easily terminated because the probability of detection often depends on the perpetrator's ability to continue misleading the target. Unlike many other crimes, fraud is a crime in which repeated conduct—at least temporarily—decreases the likelihood of apprehension.¹¹⁷

Imagine another mid-level manager, who works at a large public corporation in the chemical industry. She is responsible for certifying to her supervisor that her division has disposed of certain chemicals properly. If Mid-Level Manager lies to her supervisor about her division's compliance with environmental dumping laws this year, she most likely has committed her division to continuing that lie in the future. By filing a false certification, Mid-Level Manager has painted a rosier picture about the cost of compliance than is possible. If her division properly disposes of the chemicals next year, the division's costs will increase and Mid-Level Manager's supervisor will question her performance. Either Mid-Level Manager will lose her job (the prevention of which was the reason she lied in the first place) or, even worse, her supervisor will become suspicious about her previous compliance and inquire further.

As the above example demonstrates, the failure of a perpetrator to lie in future statements can cause his targets to suspect his previous statements. For this reason, it is not surprising that numerous fraud cases include discussions of perpetrators engaging in "lull-

loss amount appeared to be a function of the employer's failure to catch the employee and not the employee's interest in defrauding employer of a specific amount).

¹¹⁷ See *United States v. Morelli*, 169 F.3d 798, 807-08 (3d Cir. 1999) ("Each wiring concealed and promoted each and every fraudulent series of transactions by making the entire scheme less detectable."); *United States v. Ashman*, 979 F.2d 469, 483 (7th Cir. 1992) ("[C]oncealment—in this case, the appearance of legitimate trading—formed a vital part of the instant defendants' ongoing scheme [to collude fraudulently on setting the price of soybean futures]. The mailing and wiring aided that concealment. They led customers to believe that the broker had attempted to obtain the best price available in the market; they prevented customers from complaining that they were not getting appropriate execution of their orders, and, perhaps most importantly, they maintained the defendants' positions of trust as brokers and traders on the [Chicago Board of Trade].").

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ing” activities (providing “follow-up” lies or interim “payments” to investors)¹¹⁸ designed to assure their targets that nothing is amiss.¹¹⁹

Some will note that Mid-Level Manager’s repeated lying is not a pure positive for her. Although lulling statements temporarily delay the detection of the fraud, the aggregation of such statements may, over time, increase the likelihood of Mid-Level Manager’s detection, and perhaps more importantly, conviction. Additionally, the accumulation of lies may contribute to a larger sanction when the fraud is eventually detected.¹²⁰ Moreover, if Mid-Level Manager directs these statements to federal officials (such as SEC employees), she may provide them with an easier road map for prosecution under either the false statement or obstruction statutes.¹²¹ For someone who discounts future events, however, the extension

¹¹⁸ See *United States v. Barbera*, No. 02 CR. 1268(RWS), 2005 WL 2709112, at *5 (S.D.N.Y. Oct. 21, 2005) (citing fraud cases in which defendants remitted “payments” that were “necessary . . . for the scheme to continue”); see also H. Lowell Brown, *Extraterritorial Jurisdiction Under the 1998 Amendments to the Foreign Corrupt Practices Act: Does the Government’s Reach Now Exceed Its Grasp?*, 26 N.C. J. Int’l L. & Com. Reg. 239, 307–10 nn.244–45 (2001) (discussing cases). For an argument that the courts’ willingness to accept lulling statements sent via the mails or wires has unduly weakened the mail and wire fraud statutes’ jurisdictional requirements, see Geraldine Szott Moohr, *The Federal Interest in Criminal Law*, 47 *Syracuse L. Rev.* 1127, 1157–60 (1997).

¹¹⁹ The Supreme Court observed this phenomenon in *United States v. Lane*, 474 U.S. 438 (1986):

Mailings occurring after receipt of the goods obtained by fraud are within the statute [18 U.S.C. § 1341] if they “were designed to lull the victims into a false sense of security, postpone their ultimate complaint to the authorities, and therefore make the apprehension of the defendants less likely than if no mailings had taken place.”

Id. at 451–52 (quoting *United States v. Maze*, 414 U.S. 395, 403 (1974) (rejecting subsequent mailing as basis of mail fraud prosecution because it was irrelevant to the defendant’s execution of the scheme)); see also *United States v. Sampson*, 371 U.S. 75, 80 (1962) (“[S]ubsequent mailings can in some circumstances provide the basis for an indictment under the mail fraud statutes.”).

¹²⁰ I am indebted to Professor Dan Richman for this observation.

¹²¹ See Stuart P. Green, *Uncovering the Cover-Up Crimes*, 42 *Am. Crim. L. Rev.* 9, 36–37 (2005) (describing the benefits of prosecuting cover-ups); Daniel C. Richman & William J. Stuntz, *Al Capone’s Revenge: An Essay on the Political Economy of Pretextual Prosecution*, 105 *Colum. L. Rev.* 583, 590 (2005) (explaining why prosecutors find it easier to prosecute defendants for cover-up crimes such as obstruction and perjury, as opposed to more complex crimes such as fraud and insider trading).

of the fraud will appear far more positive than the increased likelihood of conviction and additional sanctions in the future.

Lulling statements extend both the practical and legal life of a scheme to defraud.¹²² Because courts measure the statute of limitations¹²³ from either the date of the last overt act on behalf of a conspiracy (if there is more than one perpetrator), or from the date of the last act in furtherance of the scheme's execution (such that "lulling" the victim is considered a part of the fraud's "execution"), many frauds persist years after the perpetrator initially devised his scheme. Lulling statements often fill the gap between the scheme's creation and its ultimate detection and termination.¹²⁴

The third aspect of fraud that creates a "linkage" problem is that fraud—particularly the type of scheme that is hatched in the workplace—is likely to require the perpetrator's physical presence. First, as discussed earlier, one of the primary objects of the perpetrator's fraudulent scheme is to maintain her position within the company and her status and position within her community. Her status and position, moreover, are likely to make it quite difficult for her to flee successfully.¹²⁵ Accordingly, corporate fraud does not permit the same exit opportunities as other types of fraud, such as simple schemes that con artists perpetrate on near-strangers.

Second, although there are numerous crimes (including many variations of online or credit card frauds) for which the perpetra-

¹²² "Mailings sent after the defendant has obtained the victim's money are considered 'in furtherance of the scheme' for purposes of 18 U.S.C. § 1341 if they facilitate concealment of the scheme. . . . These mailings are commonly referred to as 'lulling letters.'" *United States v. Trammell*, 133 F.3d 1343, 1352 (10th Cir. 1998) (citation omitted). "[T]he scheme is not fully consummated, and does not reach fruition, until the lulling portion of the scheme concludes." *United States v. Evans*, 473 F.3d 1115, 1120 (11th Cir. 2006) (citing *Sampson*, 371 U.S. at 80–81).

¹²³ 18 U.S.C. § 3282 (2000).

¹²⁴ See *Brown*, supra note 118 (discussing numerous instances of lulling statements or statements that otherwise delayed detection of the fraudulent scheme). It should be noted that a mail or wire fraud prosecution is within the statute of limitations if at least one mailing or use of the wires occurred within five years of indictment, regardless of whether part or all of the scheme was devised prior to the five-year period. See *United States v. Howard*, 350 F.3d 125, 127 (D.C. Cir. 2003).

¹²⁵ See Ianthe Jeanne Dugan, *Hedge-Fund Fugitive Caught in Crete*, Wall St. J., Aug. 21, 2007, at C3 (describing apprehension of perpetrator who fled the country one day prior to his sentencing for defrauding investors through hedge fund Ponzi scheme).

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tor's absence decreases the likelihood of detection, workplace fraud is not one of them.¹²⁶ Put another way, premature exit can substantially increase the probability that a perpetrator will get caught. If a CFO has been using "creative" accounting methods to determine a company's profit, the last thing she wants to do is move on to another job and thereby trigger the company's (and public's) discovery of just how creative she has been.¹²⁷

In sum, as a practical matter, corporate fraud is not an instantaneous offense. Rather, it is a continuing one, which requires the criminal's ongoing commitment and, in many instances, presence. This, in turn, creates two additional problems.

First, because fraud inherently occupies an indistinct period of time extending into the future, perpetrators of fraud may discount both the magnitude of their commitment and the likelihood of being detected over the course of the crime. As a result, they may fail to devise useful exit strategies. The CFO who lies to her company's shareholders may estimate the short-term probability of detection, but it is doubtful that she will consider how to carry her lies forward an additional *five* years. Moreover, because she commits the fraud in order to *keep* her job, it is less likely that the CFO has considered how she will exit her job if the situation changes.

Second, the continuing nature of this crime ensures that some criminals will be in the midst of fraudulent schemes when new law enforcement strategies are announced and implemented. As I explain in Part III, *infra*, these criminals, "mid-fraud perpetrators," will continue their criminal conduct regardless of changes in policy because they fear detection and punishment for their previous conduct.¹²⁸ I describe their potential reactions to different law enforcement strategies in the next Part.

¹²⁶ See *Schmuck v. United States*, 489 U.S. 705, 714 (1989) (finding mailings essential to a scheme involving sale of cars whose odometers had been fraudulently set back, because they supported the defendant's "relationship of trust and goodwill with the retail dealers upon whose unwitting cooperation his scheme depended").

¹²⁷ Despite his insistence that he did so for personal reasons, Jeffrey Skilling's resignation as CEO of Enron in August 2001, just a few months after he had attained the position, alerted Wall Street of possible issues with the company. See Laura Goldberg, *Enron's New CEO Resigns Suddenly*, *Houston Chron.*, Aug. 15, 2001, at A1.

¹²⁸ The commitment to lying may further hurt the company in other markets as well. See Gil Sadka, *The Economic Consequences of Accounting Fraud in Product Mar-*

III. LINKAGE AND LAW ENFORCEMENT: FIVE STRATEGIES FOR DETECTING FRAUD

The premise of this Article is that corporate fraud includes an inherent characteristic—linkage—that complicates the government's attempts to deter corporate fraud. Linkage does not affect each law enforcement strategy equally. The following sections explore how linkage and timing impact five common law enforcement strategies: (A) increased sanctions; (B) increased probability of detection (announced); (C) increased probability of detection (announced) combined with higher sanctions; (D) increased probability of detection (unannounced); and (E) amnesty or lenience programs.¹²⁹

A. Strategy 1: Increase Sanctions

Although politicians often use deterrence language to justify increases in criminal penalties, including the deterrence of those perpetrators currently engaged in fraud, the strategy of increasing sanctions to combat corporate fraud is the strategy least likely to marginally deter mid-fraud perpetrators (“MFPs”).

Imagine a CEO who lies to his shareholders about the company's financial health in its first quarter filings. Even if sanctions increase prior to second quarter filings, the CEO is still likely to persist in his fraud. This is so because: (a) the CEO will likely discount the additional sanction; (b) the CEO is more willing, given his situation, to gamble on a greater loss in order to avoid the more certain loss that will occur if he suspends his lie; and (c) the new sanction is probably not large enough to compensate for the increased probability that he will be held liable for the old sanction if the CEO terminates the fraud.

kets: Theory and a Case from the U.S. Telecommunications Industry (WorldCom), 8 *Am. L. & Econ. Rev.* 439, 440–41 (2006) (explaining how WorldCom's misrepresentations in securities filings also caused it to make inefficient pricing decisions in product markets in order to match the company's misrepresentations).

¹²⁹ This analysis assumes that both current and future perpetrators are aware that the fraud in question violates well-defined legal norms, and does not address the problems associated with changes in the *content* of criminal law.

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Whereas the first two factors (hyperbolic discounting and loss aversion) have been discussed at length by proponents of behavioral economic analysis,¹³⁰ the third factor is simply an example of the linkage that occurs between efforts to avoid liability for a “new” crime and the likelihood of increasing the probability of detection for another, “older” crime. Although this linkage may not be present in all fraud cases, it certainly pervades securities and other workplace frauds. It is exactly this linkage that creates a commitment effect for perpetrators of fraud—even the ones who are so “rational” as to calculate risk and reward perfectly.

For example, suppose that the CEO’s initial estimated probability of detection is 10%. Imagine further that the CEO’s net benefit from deceiving the company’s shareholders is 1 million units, and that the sanction, should he be caught and punished, (a combination of fines and imprisonment) is 2 million units.¹³¹ With a 10% probability of detection, the CEO will definitely commit the crime, as indicated by the following model:

$$(1MM) > (10\%)(2MM).^{132}$$

Now imagine that the government increases sanctions by a factor of X , but does not increase the likelihood of detection. If the CEO had never lied at all, he would decline to commit the crime if:

$$(1MM) < (10\%)(2MM)(X).$$

Thus, if X exceeds 5 (a rather steep increase in sanctions), the CEO will not commit the crime.

If the CEO *has already lied* to the company’s shareholders as of the day sanctions are increased by a factor of X , however, his calculation changes, because the CEO perceives that cessation of his conduct will increase the probability of detection for the old con-

¹³⁰ See generally Jolls, Sunstein & Thaler, *supra* note 48.

¹³¹ For purposes of this Article, I have defined the sanction in units equivalent to the expected benefit. In real life, the perpetrator must convert the disutility of imprisonment and the perceived benefit of his conduct into an equivalent currency, which itself increases the risk of error.

¹³² Admittedly, this simplistic model does not consider the bounce-back effect of the prevalence of white collar crime on the success of sanctions or probability of detection. For such an analysis and discussion, see Bar-Gill & Harel, *supra* note 40, at 495–97.

duct from 10% to $Y\%$. Accordingly, when the CEO contemplates whether to engage in new lies (to which the new sanctions apply), he will balance the benefits of avoiding increased liability for his old conduct (which exposes him to the “old” 2MM sanction) against the drawbacks of incurring a new risk of liability for new conduct (which exposes him to the “new” 10MM sanction). Accordingly, a CEO who is also a mid-fraud perpetrator (MFP) will continue to lie if:

$$(Y\%)(2MM) > (10\%)(2MM)(X).$$

In the first example, when sanctions were increased by more than a factor of 5, our *potential* fraudster declined to engage in the crime because the increased sanction forced him to internalize the costs of his wrongdoing.¹³³ But, unlike the potential fraudster, our MFP does not compare the original benefit with the new expected value of the penalty. Rather, our MFP quite reasonably worries about avoiding sanctions for his prior conduct, for which he is liable regardless whether he ceases new conduct. Accordingly, the left side of the inequality now includes the sanction that the MFP is trying to avoid (2MM) multiplied by the new probability of punishment if he stops lying. Thus, even when sanctions are increased by a factor of 5, the MFP will continue with the crime when the linkage rate Y (as perceived by the CEO) exceeds 50%. For example,

$$(51\%)(2MM) > (10\%)(2MM)(5).$$

As the above discussion demonstrates, the deterrent effect of the new sanction is no longer grounded in forcing the CEO to internalize the costs of his conduct. Instead, it is driven by the rapid increase in probability of detection caused by the CEO’s cessation of conduct—the “linkage” factor.

Although some might question the magnitude of the linkage factor, it might be quite significant for fraud-related crimes. In fact, it is quite possible that a CEO will perceive the linkage between ending a fraudulent scheme and having it detected to be as high as 100%. That is, in the CEO’s mind, the cessation of the fraud would

¹³³ For the sake of simplicity, I treat the fraudster’s harm and benefit as equivalents.

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inevitably result in punishment for those acts already committed, but the continuation of the fraud is likely to go undetected, even though it is now subject to higher sanctions. Anyone who has participated in issuing public restatements of earnings will understand the phenomenon. Shareholders (and investigators) who learn that the company generated only 100 million dollars in profits in Quarter 2 will immediately wonder why the same company was able to generate substantially greater profits in Quarter 1. And if, acting on this curiosity, shareholders ask the CEO about the difference in quarterly profits, the CEO will find himself in the same quandary: he is forced either to lie to the shareholders (and therefore become subject to a new penalty) or to admit fraud in Quarter 1 (and suffer the “older” penalty for his past fraud). If the CEO determines that he would lie to the shareholders if questioned about the gap between Quarter 1 and Quarter 2 profits, he might as well lie about Quarter 2 altogether and avoid the increased concerns about the veracity of Quarter 1’s reported profits.¹³⁴

When sanctions change while frauds are underway, rational MFPs will include the value of the foregone sanction on the benefit side of the scale in balancing the benefit of proceeding with the crime against the expected cost. This is true even if the CEO has already obtained the original benefit that was the target of the crime and cannot obtain any additional benefit from new criminal activity, which in reality is unlikely to be the case. Indeed, in situations where the CEO has not yet obtained the full expected benefit of his original crime, he will have even more reason to continue lying because under the federal Sentencing Guidelines (which many judges continue to follow voluntarily¹³⁵), the penalty is calibrated

¹³⁴ This is obviously an oversimplified example of the CEO’s expected punishment. The release of false Quarter 2 earnings may cause greater shareholder loss (and therefore a larger penalty) than the release of truthful Quarter 2 earnings paired with a denial that Quarter 1 earnings were fraudulent. For simplicity’s sake, I assume that the sanctions are already so substantial that the extra penalty for additional lying has been severely discounted.

¹³⁵ In 2005, the Supreme Court struck down the Guidelines in their mandatory form as an unconstitutional encroachment on the defendant’s jury trial right. *United States v. Booker*, 543 U.S. 220, 226–27 (2005). Nevertheless, federal trial courts must sentence defendants according to the general considerations laid out in 18 U.S.C. § 3553(a) (2000), including the seriousness of the offense and the need for deterrence. To carry out this responsibility, courts must calculate the defendant’s Guideline sen-

according to intended loss, regardless of whether the criminal has reaped his expected benefit.¹³⁶

True enough, the CEO's continued fraud may depend more on his *perception* of linkage than the *actual* probability of getting caught. If the CEO is unaware of a link between future and past conduct, he may well fess up to bad numbers when it comes time to report Quarter 2's financial numbers. On the other hand, assuming that managers *are* well-informed and rational, they should have no difficulty perceiving linkage and acting accordingly.¹³⁷

For the sake of simplicity, I have made several assumptions throughout this analysis: that the MFP is lying to the same set of victims, and that the MFP's lies are consistent enough that they do not, of themselves, increase the likelihood of detection. These characteristics are typical of corporate accounting fraud at a public company: management lies to the shareholding public on a periodic and repeated basis; and the individual lies, to the extent they are grounded in a particular type of accounting trick, are more or less consistent with each other until someone comes forward with information about the trick.¹³⁸

tence range as a starting point. See *Gall v. United States*, 128 S. Ct. 586, 596 (2007) (citing *Rita v. United States*, 127 S. Ct. 2456, 2465 (2007)).

¹³⁶ See U.S. Sentencing Guidelines Manual § 2B1.1 comment (n.3) (2007). If the actual or intended loss amount is indeterminate, courts may use the defendant's gain as a measure for sentencing. See *United States v. Mooney*, 425 F.3d 1093, 1099–1100 (8th Cir. 2005). Similarly, when deciding whether to proceed with the crime, the offender also should take into account the likelihood that the government will detect prior misconduct (and prior losses) along with the current one. See Bar-Gill & Harel, *supra* note 40, at 490.

¹³⁷ Other than Chris William Sanchirico (see *supra* note 16, at 1375–76), few scholars have considered the effect on MFPs of increasing sanctions. An exception is Professor Ribstein's discussion of the Sarbanes-Oxley Act of 2002. Larry E. Ribstein, *Sarbox: The Road to Nirvana*, 2004 Mich. St. L. Rev. 279, 285 (“[E]xecutives’ incentives may change after they take the first step to fraud. At this point they are motivated to engage in cover-up. In other words, the law itself may discourage law compliance by blocking the exit route. This suggests that rigid penalties for fraud may, to some extent, be counterproductive unless they take account of the cover-up incentive.” (citation omitted)).

¹³⁸ The linkage implications and economics of continued lying will differ depending on the type of fraud. For example, Internet and computer-driven frauds occur intermittently and between strangers. Linkage may not be a concern for the perpetrators of these scams. On the other hand, Ponzi schemes (whereby a perpetrator uses funds illegally obtained from one victim to pay off another) are quite likely to implicate

Before moving on to the second strategy (increasing the probability of enforcement), it is useful to pause for a moment and consider several corollary points that arise from the study of linkage and its effect on deterrence.

1. *The Possibility of Additional Benefits*

The above discussion concludes that an MFP will continue to defraud others if the linkage probability, Y , multiplied by the original sanction, S , exceeds the probability of detection, p , multiplied by S , and by the factor increasing the sanction, X .¹³⁹ Some may wonder how and whether the possibility of additional benefits changes the MFP's calculations.

The original discussion assumed that the MFP had already attained her benefit and that there were no additional benefits that she could obtain from continued conduct, other than avoiding the sanction. It may be the case, however, that the MFP has not yet attained all of the 1MM benefit at the time lawmakers announce an increase in sanctions.¹⁴⁰ Because criminals convicted of fraud are punished on the basis of the harm they *intend* to inflict,¹⁴¹ the MFP has every reason to capture any potential benefit (B_r) that remains available to her.¹⁴² Accordingly, the MFP will continue her fraud if:

$$(L)(S) + B_r > (p)(S)(X).$$

linkage, but the course of lying (whereby the perpetrator must increasingly manufacture new stories for an ever widening group of people) may cumulatively increase the perpetrator's likelihood of detection. Accordingly, the creator of a Ponzi scheme will engage in slightly different analysis from the typical corporate fraudster, who periodically lies to the same people (the shareholding public) again and again.

¹³⁹ If $(L)(S) > (p)(S)(X)$, then the MFP will continue to commit the crime.

¹⁴⁰ For the purposes of my analysis above, I have assumed that benefit and loss are equivalent. In reality, when the fraud pertains to a publicly owned company, the loss amount is likely to dwarf the defendant's benefit. Cf. *United States v. Adelson*, 441 F. Supp. 2d 506, 509 (S.D.N.Y. 2006) (commenting on the stratospheric level of loss when fraud concerns the value of shares of a publicly owned company).

¹⁴¹ See *supra* note 136 and accompanying text.

¹⁴² I assume that our MFP perceives a 100% likelihood of obtaining the remaining benefit, based on her earlier fraudulent conduct. I also assume that the MFP's attempt to recoup the remaining benefit has no effect on her probability of getting caught.

It is also possible that the MFP sees a possibility of taking *additional* benefits (B_a) beyond the original 1MM, in which case the fraud will continue if:

$$(L)(S) + B_a + B_r > (p)(S)(X).$$

In the case of smaller frauds, it is possible that the MFP's seizure of additional benefits will also increase her resulting sentence (the "cost" of her conduct), which would result in little or no change in her initial cost-benefit calculation. However, B_a may not significantly add to the MFP's expected penalty if: (a) the base sanction, S , is already so high that the disutility of any increase is minimal and likely to be substantially discounted (the marginal deterrence of an additional six months added onto a twenty-year sentence is insignificant); (b) the MFP perceives a very low probability of detection (reducing the value of any additional sentence) but a fairly high probability of realizing the additional benefit; or (c) the sentencing regime is one in which the sentence corresponds to a range of losses or benefits, and the original conduct places the defendant's conduct at the low end of the range.¹⁴³ If any of these conditions hold true, the MFP will have incentive not only to continue with her fraudulent conduct, but also to seize as much additional benefit as she can.

2. Fixing Mistakes

The reason the government must increase the sanction for fraud in the first place is that it realizes that its initial combination of sanctions and law enforcement is deficient. For example, 10% multiplied by 2MM was far less than the 1MM benefit available to the potential fraudster.

¹⁴³ For example, the Sentencing Guidelines set offense levels that correspond to certain ranges of losses. See U.S. Sentencing Guidelines Manual § 2B1.1(b) (2007); see also Katyal, *supra* note 46, at 2389 ("[E]xacting equal penalties for crimes of lesser and greater magnitude leads to crimes of greater magnitude."). Accordingly, if an offense level corresponds to any loss between \$2.5 and \$7 million, a defendant who has taken \$2.5 million has little reason to refrain from taking more money from his victim, up to an amount that triggers the next offense level.

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Notice, however, that the government's starting point greatly affects its ability to correct itself. For example, consider two law enforcement regimes that yield the same expected penalty:

Regime 1: 1% probability of punishment and a 20MM sanction, which yields an expected penalty of 0.2MM.

Regime 2: 50% probability of punishment and a 0.4MM sanction, which also yields an expected penalty of 0.2MM.

In either case, the penalty's expected value is 0.2MM and the criminal's expected benefit is 1MM. Under either regime, the potential fraudster commits the crime.

If the government attempts to correct its initial stance by increasing either its enforcement efforts or the original penalty so that the penalty's expected value rises to more than 1MM (the expected benefit), the linkage problem produces radically different outcomes for MFPs under the two regimes. Consider an MFP who has already committed a crime under Regime 1. To increase the expected penalty, the government vastly expands its enforcement efforts in order to increase the probability of detection. Unfortunately, these efforts are unlikely to deter an MFP who perceives 100% linkage between cessation of conduct and likelihood of detection and punishment. The government's correction will not deter the MFP because his cessation of conduct exposes him to a 20MM sanction. Because the benefit of avoiding the 20MM sanction is much greater than the new expected penalty under a heightened enforcement regime (recall that the government sought to increase it to more than 1MM, the expected benefit), the MFP will continue to commit the crime.

Suppose instead that the government has Regime 2 in place and adjusts the sanction so that it yields an expected value of 1MM. Assume further that the new sanction will not apply to the MFP if he ceases his conduct. In this situation, our hypothetical MFP confronts a choice between a sanction of 0.4MM (if he ceases his fraudulent conduct) and an expected penalty of 1MM if he continues it. In this situation, the rational MFP will discontinue the

fraud.¹⁴⁴ The government's correction to Regime 2 meets its goal of deterrence.

In sum, the government's starting point matters as much as its end point. When linkage is high and the government is uncertain of the sanctions necessary to deter criminal conduct, it may be better served by an initial strategy of relatively low sanctions paired with a high probability of detection and punishment. Although increasing the likelihood of detection is costly because it requires the state to expend resources on different types of regulators and enforcement agents (as well as technology), the opposite strategy—high sanctions paired with a low probability of enforcement—is far more difficult to correct.

3. *Retroactivity*

Some may wonder how the non-retroactivity doctrine affects this analysis. The Ex Post Facto Clause of the Constitution prohibits statutes that criminalize or increase penalties for conduct that preceded the legislature's enactment of those penalties.¹⁴⁵

Although scholars often defend the Ex Post Facto Clause on normative grounds,¹⁴⁶ it also has a basis in deterrence theory: it encourages individuals who previously engaged in disfavored activities to refrain from repeating such conduct. Were those individuals subject to newly heightened sanctions for conduct that preceded the announcement of those sanctions, they would have no incentive to cease such conduct and they would attempt to snatch up as many benefits as they could prior to detection.¹⁴⁷ If a perpetrator

¹⁴⁴ Of course, loss aversion, sunk cost fallacies, and the MFP's belief that he can obtain additional benefits may undermine the corrected regime's deterrent effect, but those are different problems.

¹⁴⁵ "No Bill of Attainder or ex post facto Law shall be passed [by Congress]." U.S. Const. art. I, § 9, cl. 3; see also *Calder v. Bull*, 3 U.S. (3 Dall.) 386, 390 (1798).

¹⁴⁶ See, e.g., Paul H. Robinson, *Fair Notice and Fair Adjudication: Two Kinds of Legality*, 154 U. Pa. L. Rev. 335, 351–53 (2005); Peter Westen, *Two Rules of Legality in Criminal Law*, 26 Law & Phil. 229, 235 (2007).

¹⁴⁷ The reason why these laws are so universally condemned is, that they overlook the great object of all criminal law, which is, to hold up the fear and certainty of punishment as a counteracting motive, to the minds of persons tempted to crime, to prevent them from committing it. But a punishment prescribed after an act is done, cannot, of course, present any such motive.

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previously miscalculated the costs and benefits of a given course of conduct (for example, drunk driving), a new, harsher sanction alerts her that the costs (such as the potential loss of human life) are far greater than she presumed, and she can terminate her conduct costlessly. In doing so, she avoids all penalties (both new and old) for her conduct, since presumably no one observed her driving drunk in the past.

The calculation is not nearly so easy for an MFP or any other criminal who has committed a crime where linkage is present. Suppose that an MFP conducts a corporate accounting fraud scheme without the aid of others.¹⁴⁸ If she terminates the scheme before the new penalty goes into effect, she will incur no risk for the new penalty, even if her prior fraud is detected. Under the *ex post facto* doctrine, the “old” fraud will be subject only to the “old” penalty. If she wishes to avoid *all* penalties, however, (like our drunk driver in the example above), our MFP is out of luck. Because she has a continuing obligation to communicate with her company’s employees and shareholders about the company’s financial position, our MFP’s only choices are to continue to lie (and risk liability under the new penalty), or to tell the truth (and raise the likelihood of detection to 100% or nearly so).¹⁴⁹ Accordingly, linkage undermines the Ex Post Facto Clause’s contribution to marginal deterrence.

4. Draconian Sanctions

Some lawmakers might conclude that the linkage problem is merely one of degree. Increasing sanctions for a given crime still might do the trick, provided the government increases them enough to overcome the defendant’s perception of linkage. If sanctions skyrocket, the difference between the sanction for the “old”

Warren v. U.S. Parole Comm’n, 659 F.2d 183, 188 (D.C. Cir. 1981) (citing *Jacquins v. Commonwealth*, 63 Mass. (9 Cush.) 279, 281 (1852)).

¹⁴⁸ If the MFP was party to a fraud conspiracy, she theoretically could terminate liability under the new statute by withdrawing from the conspiracy prior to the enactment of the new penalty. Withdrawal, however, is both legally and practically difficult. The defendant must either notify authorities of the conspiracy’s aims or communicate her withdrawal to all of her co-conspirators. See, e.g., *United States v. Greenfield*, 44 F.3d 1141, 1149–50 (2d Cir. 1995).

¹⁴⁹ She also might quit her job. A replacement employee, however, would likely find the fraud that our MFP perpetrated.

crime and the sanction for the new one should overcome the detection probabilities generated when the perpetrator ceases lying.

There are, however, several problems with the “draconian sanctions” strategy. First, it is costly. In addition to increasing prison costs, it increases prosecution costs, because a perpetrator is more likely to exercise his right to a jury trial if a guilty plea would net an extremely long prison sentence. It also increases detection costs because it effectively alerts current and future offenders to take additional steps to hide their frauds.¹⁵⁰

Second, draconian sanctions may trigger an “inverse sentencing effect,” whereby the public perceives certain sentences as disproportionate or unwarranted.¹⁵¹ Witnesses may offer less assistance to investigators, juries might acquit more corporate defendants, and judges might rule against prosecutors more often on pre-trial matters or go out of their way to lessen the corporate defendant’s sentence.¹⁵²

Third, even when the strategy technically overcomes linkage costs, it fails to take into account “loss aversion.” Loss-averse MFPs may be willing to risk a much larger loss (the draconian sanction) to avoid a smaller, but more certain loss (the sanction for the “old” fraud).¹⁵³

Fourth, and perhaps most upsetting, the draconian sanction strategy may increase the scope and extent of the underlying harm.

¹⁵⁰ See Sanchirico, *supra* note 16, at 1338 (“[H]iking up sanctions on securities fraud encourages violators to exert more effort avoiding detection of their securities fraud . . .”).

¹⁵¹ Meares, Katyal & Kahan, *supra* note 26, at 1185; see also Edward K. Cheng, *Structural Laws and the Puzzle of Regulating Behavior*, 100 *Nw. U. L. Rev.* 655, 660 (2006) (observing that draconian sentences for relatively minor offenses may trigger inverse enforcement effects because they “insult[] common intuitions of desert”).

¹⁵² For a recent example of a court’s unsuccessful attempt to significantly reduce the sentences of two individuals convicted of a \$100 million fraud, see Mark Hamblett, *Sentences Reversed for Parties in \$100 Million Fraud Scheme*, *N.Y. L.J.*, Mar. 18, 2008, at 1 (describing the Second Circuit’s overruling of a district court’s drastic reduction of Guidelines sentences for a former Days Inn general counsel and CFO who were convicted of a multi-million dollar fraud scheme). Theoretically, lawmakers and prosecutors might overcome inverse sentencing effects by educating the public on the linkage problem and the need for draconian sanctions sufficient to overcome linkage effects. Of course, the public might reject this justification.

¹⁵³ Loss aversion is discussed at length in Baker, Harel & Kugler, *supra* note 32, at 453–55.

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Because draconian sanctions force the MFP to bear additional risk or reduce that risk through costly detection avoidance measures, the MFP may compensate for those costs by seizing more benefits than he originally intended.¹⁵⁴ In other words, the MFP will steal more and use more deceptive efforts to do so than he otherwise would have in order to compensate for draconian sanctions that he previously failed to take into account.

In Part II, I argued that fraud is a crime that often takes place over a period of time. The longer the duration of fraud, the greater likelihood that society will impose changes in law enforcement strategy or sanctions while the fraud is ongoing. Increased sanctions—even (or especially) draconian ones—may have the perverse effect of encouraging mid-fraud perpetrators to *expand* their frauds and to do so in a manner that makes them *more difficult* to detect.¹⁵⁵

5. *Detection Avoidance*

Detection avoidance describes the efforts criminals take in order to avoid detection and punishment. Recently discussed in great detail by Professor Sanchirico, the detection avoidance principle holds that as the expected value of a penalty increases, so too does the value of avoiding detection.¹⁵⁶ Visible increases in sanctions and enforcement encourage some criminals to invest in detection avoidance. In doing so, they increase the social costs of crime.¹⁵⁷

Linkage advances the discussion of detection avoidance by predicting the types of crimes most likely to trigger avoidance activi-

¹⁵⁴ As he increases the amount he steals, the MFP also increases the base amount for his sanction. This increase, however, may be quite small if the probability of enforcement is low. Moreover, if the MFP is engaged in a corporate fraud worth millions of dollars, the base amount is already so high that the marginal increase in his sanction is quite negligible. See U.S. Sentencing Guidelines Manual § 2B1.1(b)(1) (2007) (providing the sentencing table for measuring offense level for economic crimes).

¹⁵⁵ I have discussed this elsewhere with regard to corporate compliance programs. See Miriam H. Baer, *Insuring Corporate Crime*, 83 Ind. L.J. 1035, 1059 (2008).

¹⁵⁶ Sanchirico, *supra* note 16, at 1337 (citing, e.g., Arun S. Malik, *Avoidance, Screening and Optimum Enforcement*, 21 RAND J. Econ. 341, 341–42 (1990)); see also Jacob Nussim & Avraham D. Tabbach, *Controlling Avoidance: Ex Ante Regulation Versus Ex Post Punishment*, 4 Rev. L. & Econ. 1, 46 (2008).

¹⁵⁷ Sanchirico, *supra* note 16, at 1363–64.

ties in response to increased enforcement and sanctions. Indeed, the MFP's continuation of his fraud is itself a specific form of detection avoidance. The only difference from "traditional" detection avoidance conduct is that the MFP avoids detection by generating additional lies instead of destroying records or bribing potential witnesses. The lies cover his tracks much like a paper shredder destroys relevant documents.¹⁵⁸ Moreover, just as higher sanctions fail to deter the MFP, so too do the laws and sanctions aimed at deterring detection avoidance (referred to in the enforcement world as either "obstruction" statutes or penalty enhancements).¹⁵⁹ As Professor Sanchirico explains:

There is . . . no logical end to this rhetorical see-you-and-raise-you. Every additional assertion that the state can also sanction the next order of cover-up, newly encouraged by the last order of sanctioning, is defeated by the retort that, in that case, the detection avoider will more strenuously cover up the next order of cover-up in response.¹⁶⁰

Professor Sanchirico suggests that instead of ratcheting up detection avoidance sanctions, lawmakers should focus on reducing the "productivity" of detection avoidance efforts.¹⁶¹ Sanchirico relies primarily on evidentiary rules that exploit defendants' cognitive shortcomings.¹⁶² For example, it is more difficult to lie to a regulator if she surprises you with a visit or phone call. But there are alternative techniques¹⁶³ that may be more effective in reducing the "productivity" of detection avoidance and continued lying. I discuss them at length with regard to Strategies 4 and 5 below.

¹⁵⁸ Admittedly, the additional detection avoidance techniques (like the additional lies) may cumulatively increase the MFP's likelihood of punishment. Nussim & Tabach, *supra* note 156, at 51. I am assuming that this increase, however, pales in comparison to the increase in probability that occurs when the offender terminates his conduct.

¹⁵⁹ See, e.g., 18 U.S.C. §§ 1501–1518 (2000) (criminalizing obstruction-related offenses such as witness intimidation and destruction of records); U.S. Sentencing Guidelines Manual § 3C1.1 (2007).

¹⁶⁰ Sanchirico, *supra* note 16, at 1339.

¹⁶¹ *Id.* at 1387.

¹⁶² *Id.* at 1395.

¹⁶³ See Part III.D, Strategy 4 and 5, *infra*.

B. Strategy 2: Increase the Probability of Punishment

If increased sanctions fail to deter fraud, lawmakers might respond instead by increasing (or attempting to increase) the offender's probability of punishment. This is most easily accomplished by increasing the probability of detection. Although more costly than an increase in monetary sanctions, this strategy is often invoked as preferable on the ground that criminals respond more readily to shorter, more likely sanctions than they do to longer sanctions that are more remote.¹⁶⁴

One problem with this strategy is that it is difficult to calibrate and control. If a lawmaker wants to increase penalties by 100%, she can simply vote for an increase of that amount, notwithstanding the political fallout of doing so.¹⁶⁵ Increasing probability of detection, however, is not so straightforward. It may require an increase in the number of government agents, in the quality of those agents, in the technology that those agents will use, or some combination of all three (and other) factors. It may even necessitate a change in the substantive and procedural laws that regulate criminal conduct. Moreover, while a lawmaker knows whether she has increased a given sanction for specified conduct, it might take years for her to find out if an increase in allocation of resources actually resulted in increased probability of detection.¹⁶⁶

The strategy of increasing detection nevertheless retains one particular benefit over the strategy of increasing sanctions. Whereas the government must publicly announce increases in

¹⁶⁴ See Linda S. Beres & Thomas D. Griffith, *Habitual Offender Statutes and Criminal Deterrence*, 34 Conn. L. Rev. 55, 59 n.27 (2001) (citing studies).

¹⁶⁵ Of course, the calculation is not so simple. Even if the legislature raises the penalty by 100% and strips courts of their discretion to mete out any lesser sentence, the legislature is nevertheless dependent on prosecutors to institute charges. See Meares, Katyal & Kahan, *supra* note 26, at 1185.

¹⁶⁶ Arguably, similar problems could pervade the strategy of increasing sanctions, particularly if criminals are initially unaware that sanctions have in fact increased. See Beres & Griffith, *supra* note 164, at 60. However, given the media attention surrounding increases in economic crime penalties, as well as the fact that corporate executives receive regular briefings from in-house and external attorneys, corporate awareness of new sanctions seems likely to be quite prompt.

sanctions,¹⁶⁷ it retains more flexibility in how it increases the likelihood of punishment and how it publicizes that increase.¹⁶⁸

With regard to the method of increasing probability of punishment, the government can focus on different phases of criminal enforcement. It can hire more agents to detect fraud; enact (within constitutional limits) evidentiary rules that make it more likely that defendants will be convicted of fraud; or amend penalty statutes to reduce judicial discretion (mandatory minimum sentences, for example, make a term of punishment more likely without explicitly increasing the sanctions for a given offense).

The government also may turn to a different type of enforcement, often referred to as situational crime prevention (“SCP”). SCP, primarily discussed in the context of street crime, attempts to reduce crime by eliminating opportunities for crime.¹⁶⁹ Instead of enforcing laws by detecting and sanctioning violations, SCP removes or severely curtails the opportunity to commit the crime in the first place.

The government also has some flexibility, within democratic and constitutional limits, as to how it announces the methods by which it intends to increase the probability of punishment. For example, the government might rely on a task force of undercover agents and cooperating defendants to infiltrate conspiracies or particular industries suspected of fraud. These operations increase the likelihood of detection, but the government may not announce them until they have reached some logical end point, presumably the very public arrest of a number of perpetrators.

Despite this flexibility, numerous arguments in favor of transparency push the government in the direction of noisier law en-

¹⁶⁷ The obligation to disclose penalties publicly is often discussed as part of the “legality principle” under which “criminal liability and punishment can be based only upon a prior legislative enactment of a prohibition that is expressed with adequate precision and clarity.” Paul H. Robinson, *Criminal Law: Case Studies and Controversies* 47 (2005).

¹⁶⁸ “Ordinarily, enforcement strategies are closely guarded secrets, since disclosure undermines their efficacy and deterrence value.” Cheng, *supra* note 151, at 686 (observing that the IRS does not publish the formulas on which it relies to audit taxpayers).

¹⁶⁹ For more detailed discussions of SCP, see Brown, *supra* note 67, at 349–50; Cheng, *supra* note 151, at 662–64.

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forcement. Widely announced increases in detection and punishment deter potential criminals and assure society that the government cares about such activity and has a plan to eliminate it. Conspicuous increases in detection may convince potential criminals not to engage in a particular crime either because they determine that the likelihood of getting caught is too high or because visible detection efforts “teach” potential criminals that society looks down upon this particular course of conduct.

Visible increases in detection may also encourage noncriminals to come forward with evidence of wrongdoing, either because of an increased sense of moral outrage or because they are less fearful that they will be the subject of retaliation if they cooperate with the government.¹⁷⁰ Whistleblowers should be more likely to go to the FBI or the SEC if they think the government is serious about cracking down on fraud. Shareholders will more willingly invest in corporations if they believe that the government is protecting the markets’ integrity. Finally, noisy enforcement techniques support democratic values. Society can make better and more informed decisions as to who it elects to power if it knows how its elected officials are using that power.¹⁷¹ Society can also more easily abandon those strategies it finds repugnant or inefficient if it knows that they are being used. Undercover enforcement techniques threaten these democratic checks on authority.

¹⁷⁰ For a discussion of how the crime rate links to fears of retaliation by victims and witnesses, see Bar-Gill & Harel, *supra* note 40, at 489. Gerard Lynch has written persuasively about the more general effect of visible law enforcement on cultural norms: “The public punishment of those who violate [societal] norms enables the law-abiding to define themselves as such in contrast to those who are not, and, not incidentally, reinforces the view that those who comply with the law are not saps or dupes, but the righteous and respected majority.” Gerard E. Lynch, *The Role of Criminal Law in Policing Corporate Misconduct*, *Law and Contemp. Probs.*, Summer 1997, at 23, 46–47 (explaining that public enforcement of criminal law is necessary to remind “good citizens” that “society at large continues to abide by [the basic norms of the culture]”).

¹⁷¹ Bruce D. Pringle, *Comment, Present and Suggested Limitations on the Use of Secret Agents and Informers in Law Enforcement*, 41 *U. Colo. L. Rev.* 261, 261 (1969) (“[T]he methods used by secret agents and informers are inconsistent with a truly free society.”).

However, noisy promises to hunt down suspects or clean up an entire industry can backfire.¹⁷² If, despite its promises, the government fails to increase detection and conviction rates, it will lose credibility and undermine future compliance with the law. Moreover, as discussed below, noisy law enforcement may cause “current” perpetrators to dig in deeper—either by covering up prior crimes or inflating future harms to pay for increased risk of detection.

Imagine the hypothetical CEO discussed in the preceding section. He still gains a 1MM benefit from the crime, and the sanction remains constant at 2MM units. Now, however, the probability of detection, previously 10%, is multiplied by a factor of X . The CEO will commit his crime if:

$$1\text{MM} > (X')(10\%)(2\text{MM}).$$

As was the case with Strategy 1, if the probability of detection and punishment is increased by a factor of 5 or more, potential criminals should be deterred. MFPs, however, may continue their conduct, depending on their perception of linkage. As was the case with the increased sanctions strategy, the MFP will compare the value of the foregone sanction with the expected value of the punishment, and will proceed with the crime if:

$$(Y\%)(2\text{MM}) > (5)(10\%)(2\text{MM}).$$

Again, if the linkage factor (Y) exceeds 50%, even a five-fold increase in probability of enforcement is insufficient to marginally deter the MFP.

C. Strategy 3: Increased Sanctions and Probability of Punishment

Thus far, I have considered increases in sanctions and probability of punishment separately. The two variables, however, are arguably interdependent. Significant increases in penalties are likely to increase the probability of detection, because law enforcement officials have greater incentives to investigate and prosecute crimes

¹⁷² Nagin, *supra* note 56, at 34.

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that result in longer and more serious sanctions.¹⁷³ Moreover, as a practical matter, legislators rarely announce an increase in sanctions without also suggesting (or outright ensuring) that enforcement efforts simultaneously will increase. Although the Economic Crime Package of 2001 that increased Guideline sentences for economic crimes was not accompanied by any announced increase in enforcement, the Bush administration soon attempted to remedy that by substantially increasing the SEC's enforcement budget and announcing the formation of the Corporate Fraud Task Force in 2002.¹⁷⁴

So how would an MFP respond to increases in *both* sanctions and probability of detection? Combining the five-fold increases outlined in subsections A and B above, he will continue the fraud if:

$$(Y\%)(2MM) < (5)(10\%)(5)(2MM).$$

This simplifies to:

$$(Y\%)(2MM) < (5MM).$$

Even if the linkage factor is 100%, an MFP still should be deterred from further crime. Thus, a strategy that increases *both* sanctions *and* probability of detection may overcome the problem posed by

¹⁷³ “Given scarce resources and the need to prioritize workloads, one factor that inevitably affects investigators and prosecutors is the ultimate punishment the alleged criminal offender can expect to receive.” Cohen, *supra* note 29, at 511; see also Craswell, *supra* note 40, at 2187 (“In most contexts in which enforcement is imperfect . . . the probability of punishment any particular defendant faces depends in part on the nature of his or her violation. That is, in most legal regimes, defendants who commit only marginal offenses are less likely to be punished than those who commit more serious or egregious ones.”). Craswell contends that “multiplier mechanisms,” designed to account for less-than-perfect enforcement are optimal only if calculated on a case-by-case basis to reflect differing likelihoods of detection across a defendant population. *Id.* at 2187–88.

¹⁷⁴ For the establishment of the Corporate Fraud Task Force, see Exec. Order No. 13,271, 67 Fed. Reg. 46,091 (July 9, 2002). For a discussion of the increase in the SEC's budget, see Elizabeth F. Brown, *E Pluribus Unum—Out of Many, One: Why the United States Needs a Single Financial Services Agency*, 14 U. Miami Bus. L. Rev. 1, 51–52 (2005) (“In response to the public outcry over the Enron and WorldCom scandals, Congress . . . increased the SEC's budget almost 33 percent to \$716 million in 2003, from the \$540 million that it received in 2002.”) (citing Stephan Taub, *SEC Boosting Big-Company Caseload*, CFO.com, Mar. 9, 2004, <http://www.cfo.com/article.cfm/3012481>).

linkage.¹⁷⁵ Notice, however, that this combination of deterrence strategies requires that law enforcement agencies expend substantial effort and money. Voters may well balk at such outlays of resources. Lawmakers therefore should consider whether alternative strategies can achieve the same effect at lesser cost.

D. Strategy 4: Undercover Enforcement

Although the government cannot “quietly” increase sanctions, it can quietly increase the probability of detection through covert law enforcement measures such as undercover investigations and stings.¹⁷⁶ It can also create semi-covert increases in detection by generally promising greater surveillance and undercover measures without specifying exactly how or when such surveillance will take place.¹⁷⁷ An announced increase in tax audits without any further explanation falls within this category.

Undercover police activities do not trigger linkage problems. If an investigation is truly “undercover,” the MFP has no idea it exists and therefore has no reason to change her course of conduct. Undercover activities do, however, pose an entirely different set of

¹⁷⁵ When a linkage factor of Y exists, lawmakers should attempt to set the probability of the foregone sanction equal or less than the increased sanctions and enforcement. If X is the factor by which sanctions and probability of enforcement are multiplied, then $(Y)(S) = (M)(p)(S)$. M therefore must be at least as large as Y divided by p . For example, if linkage is very high (100%) and the initial probability of enforcement is very low (1%), the government must increase overall enforcement (probability and sanctions) by a factor of 100. It can split that multiple among sanctions (increasing them by 10 times as much) and enforcement probability (also increasing the probability by a factor of 10) or it could load the entire multiple onto one variable (for example, by imposing a new sanction that is 100 times as large as the original sanction).

¹⁷⁶ An undercover investigation may include instances in which government agents simply observe criminal conduct, or it may include a “sting” whereby government agents (or cooperating defendants acting under the government’s direction) orchestrate and participate in the conduct that they are observing. See Bruce Hay, *Sting Operations, Undercover Agents, and Entrapment*, 70 Mo. L. Rev. 387, 396 (2005) (describing the difference between stings and “pure surveillance”). For a discussion of “undercover work” and its common justifications, see Christopher Slobogin, *Deceit, Pretext, and Trickery: Investigative Lies by Police*, 76 Or. L. Rev. 775, 778–79 (1997).

¹⁷⁷ See Cheng, *supra* note 151, at 686 & nn.177–78 (observing that police officers “routinely discuss speeding enforcement policies and release the dates and locations subject to heightened attention”) (citing sources).

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problems, including corruption of law enforcement agents, entrapment of innocent targets, and spillover effects such as the creation of distrust both within the targeted community and between law enforcers and citizens.¹⁷⁸ Nevertheless, depending on how it is executed, the strategy may offer a potentially more effective means of incapacitating current offenders of “linked” crimes such as corporate fraud.¹⁷⁹ Because the investigation is covert and aimed at current perpetrators of fraud, it avoids the linkage problem discussed above. To the extent that it eliminates the need for draconian sanctions, it also avoids externalities such as overdeterrence of corporate executives.¹⁸⁰

Consider a situation in which the probability of detection increases, but the government does not announce the increase. For example, suppose that the government becomes aware of a public company’s fraud through a whistleblower and urges the whistleblower, a current employee, to attend and secretly tape meetings in

¹⁷⁸ See Natapoff, *supra* note 17, at 646 (describing the negative effects of using cooperating defendants to further undercover investigations of street crimes). “Because [secret agents and informers] take advantage of a suspect’s trust and confidence, they create an atmosphere of distrust and suspicion which adversely affects freedom of speech and association.” Pringle, *supra* note 171, at 261. See also Hay, *supra* note 176, at 397 (analyzing undercover stings’ potential for entrapment of otherwise law-abiding individuals).

¹⁷⁹ Although undercover enforcement is often disdained, it has been repeatedly accepted as an integral method of combating wrongdoing. See, e.g., Pringle, *supra* note 171, at 261 (“[A]fter denouncing [deceitful] police practices, most authors ultimately conclude that informers and secret agents are a necessary component of law enforcement.”). “The use of undercover techniques . . . is essential to the detection, prevention, and prosecution of white collar crimes, public corruption, terrorism, organized crime, offenses involving controlled substances, and other priority areas of investigation.” The Attorney General’s Guidelines on Federal Bureau of Investigation Undercover Operations 1 (May 30, 2002), available at <http://www.justice.gov/olp/fbiundercover.pdf>. “This technique is a critically effective means of investigating organized, clandestine, sophisticated criminal activity which is not readily susceptible to detection by traditional investigative techniques.” Jay B. Stephens, *Setting the Sting, Minimizing the Risk: The Government’s Case for an Effective Undercover Investigative Technique*, *Crim. Just.*, Summer 1986, at 14.

¹⁸⁰ Note, however, that employees and managers may become less informative or explicit with each other if they perceive the possibility that they are being “watched” or “reported” by someone else. Cf. Steven D. Clymer, *Undercover Operatives and Recorded Conversations: A Response to Professors Shuy and Lininger*, 92 *Cornell L. Rev.* 847, 852 (2007) (noting that “it is common for criminals to discuss their trade ambiguously or in code” in order to avoid revealing information to undercover policemen).

which the company's CEO and upper-level management discuss the details of their fraud.¹⁸¹ Because he is blissfully unaware of the government's investigation, the CEO will continue his fraud until he obtains his benefit, 1MM, and devises an appropriate exit or termination strategy.¹⁸² He is no more likely to take any additional steps to avoid detection than he would be absent the investigation. Accordingly, an unannounced increase in resources directed towards detection should result in the government's apprehension of more MFPs.

It should be noted that although the undercover strategy avoids linkage problems, it does not marginally deter MFPs; it provides no incentive for them to cease their fraudulent conduct voluntarily. However, it will at least incapacitate them. In addition, once a perpetrator is apprehended, the strategy may produce a less costly conviction and make up for the expense of the investigation. The evidence of the crime (for example, video or audio tapes of the CEO outlining the fraud) will be more compelling than the traditional historical narrative that prosecutors often must construct piecemeal from cooperating witnesses and documents that are difficult to understand.¹⁸³ Moreover, to the extent that corporate fraud is committed by groups rather than individuals, the undercover strategy may be more effective in identifying the entire membership of that group,¹⁸⁴ whereas noisier strategies may permit the most "protected" members of the group to scatter and reform later. During the investigative phase, the undercover strategy fails not only to marginally deter MFPs, but also to deter potential offenders. Despite this drawback, the strategy might well pay off for the government if: (a) it is successful in apprehending MFPs, and (b) when it does apprehend them, the government announces with

¹⁸¹ This was the government's strategy in its investigation of Archer Daniels Midland for its participation in an international price-fixing conspiracy. See Kurt Eichenwald, *The Informant* (2000).

¹⁸² Whether he can devise such a strategy, or whether he irrationally decides to stay at the company indefinitely, is another matter.

¹⁸³ Hay, *supra* note 176, at 388 (observing that stings "eliminat[e] many of the evidentiary difficulties of ordinary law enforcement").

¹⁸⁴ Bar-Gill & Harel, *supra* note 40, at 490 ("When criminality is organized in groups, police surveillance or interrogation of one criminal may lead to the apprehension of other members of the same criminal group.").

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great fanfare that it has done so. Following such an announcement, both potential offenders and victims will accept as credible the government's claim of increased enforcement.¹⁸⁵

Bruce Hay has discussed the tension between what he calls the "informational" and "deterrent" value of undercover investigations.¹⁸⁶ Whereas informational investigations seek to identify criminals and trap them in the government's sting operation, deterrent investigations are designed to deter potential criminals from participating in the crime at all.¹⁸⁷ Although the tension between information-gathering and deterrence seems quite real, it can also be overcome by careful planning. In the ideal world, while the investigation remains covert, the government increases its ability to identify and incapacitate current offenders (the "informational" goal). Then, when it has acquired sufficient information, the government can arrest its targets, publicize the investigation, and begin deterring future offenders (the "deterrent" goal).

Apart from its enforcement costs, the undercover strategy's greatest drawbacks may be the ones most difficult to quantify. Undercover strategies may offer increased risks of abuses of power because law enforcement operations are, by definition, conducted in secret.¹⁸⁸ Even when they are conducted in accordance with prescribed rules, such practices may perpetuate distrust and even a disdain for the rule of law, thereby undermining normative calls for compliance.¹⁸⁹

¹⁸⁵ "A natural effect of permitting covert police activity—and publicizing the fact—is to make individuals fear that they may be under surveillance without knowing it." Hay, *supra* note 176, at 411.

¹⁸⁶ *Id.* at 416.

¹⁸⁷ *Id.* ("When the objective is to *identify* crooks, to catch them in the act, the police want to keep the existence of undercover agents as hushed up as possible. . . . Deterrent stings have the opposite property. If the objective is to *deter* criminals, the authorities want to create the impression that there are traps everywhere.").

¹⁸⁸ Jacqueline E. Ross, *Valuing Inside Knowledge: Police Infiltration as a Problem for the Law of Evidence*, 79 *Chi.-Kent L. Rev.* 1111, 1115 (2004) ("[T]he ability of undercover agents to set up easy-to-prove contrived offenses presents a temptation to overworked law enforcement personnel . . ."). See also Natapoff, *supra* note 17, at 689 (suggesting that police "tolerate, even foster" criminal conduct in informants in exchange for information).

¹⁸⁹ For an explanation of how social norms may restrain wrongdoing, see Dan M. Kahan, *Reciprocity, Collective Action, and Community Policing*, 90 *Cal. L. Rev.* 1513, 1522–23 (2002); see also Miriam Hechler Baer, *Corporate Policing and Corporate*

E. Strategy 5: Amnesty

The final strategy that policymakers might utilize is to offer unidentified perpetrators lesser penalties in exchange for cessation of criminal activity, self-reporting, and sometimes assistance in identifying and prosecuting co-conspirators.¹⁹⁰ Amnesty programs have been implemented in both tax and antitrust contexts.¹⁹¹

Like the undercover strategy, the amnesty strategy is aimed primarily at current offenders.¹⁹² Unlike all of the foregoing strategies, the amnesty strategy should be most successful in marginally deterring MFPs when either the likelihood of detection or sanctions appear to be on the verge of a significant increase. Recall the example of the CEO who fraudulently obtains 1MM. Originally, he determined that the benefits of his crime exceeded the costs of his conduct:

$$(1\text{MM}) > (10\%)(2\text{MM}).$$

Governance, *in* Symposium: The Dysfunctional Boards: Causes and Cures, U. Cin. L. Rev. (forthcoming 2009), available at <http://ssrn.com/abstract=1133117>, (citing Regan, *supra* note 56, at 975 (2007)).

¹⁹⁰ For economic discussions of self-reporting, see, e.g., Robert Innes, Self-Reporting in Optimal Law Enforcement When Violators Have Heterogeneous Probabilities of Apprehension, 29 J. Legal Stud. 287 (2000); Louis Kaplow & Steven Shavell, Optimal Law Enforcement with Self-Reporting of Behavior, 102 J. Pol. Econ. 583 (1994).

¹⁹¹ For discussions of tax amnesty programs, compare Craig M. Boise, Breaking Open Offshore Piggybanks: Deferral and the Utility of Amnesty, 14 Geo. Mason L. Rev. 667, 670 (2007) (devising an “optimal tax amnesty theory”), with Leo P. Martinez, Federal Tax Amnesty: Crime and Punishment Revisited, 10 Va. Tax Rev. 535 (1991) (criticizing tax amnesties as generally ineffective). For a general discussion of the Department of Justice’s “Corporate Leniency Policy” and its effect on enforcement of antitrust violations, see Bruce H. Kobayashi, Antitrust, Agency, and Amnesty: An Economic Analysis of the Criminal Enforcement of the Antitrust Laws Against Corporations, 69 Geo. Wash. L. Rev. 715, 716 (2001) (arguing that the Corporate Leniency Policy may produce overdeterrence). See also Scott D. Hammond, Dir. of Crim. Enforcement, Antitrust Div., U.S. Dep’t of Just., Cornerstones of an Effective Leniency Program (Nov. 22–23, 2004), <http://www.usdoj.gov/atr/public/speeches/206611.pdf>.

¹⁹² The amnesty strategy therefore differs from the government’s courting of whistleblower employees, who are themselves innocent of wrongdoing. See Natapoff, *supra* note 17, at 651–52. It also differs from the government’s treatment of defendants who are offering information and cooperation after the government has already initiated prosecution. Compared to the MFP, the defendant who has already been identified and prosecuted is far less likely to be in a position to continue his fraudulent activities.

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When sanctions increased by a factor of 5 after the CEO had already commenced the crime, I predicted that the CEO would choose to continue his conduct if his perceived linkage exceeded 50%. This was because the CEO would compare the foregone sanction (2MM), multiplied by the linkage factor, with the revised sanction, multiplied by the original probability of punishment. Indeed, if linkage were as high as 100%, sanctions would have to increase by a factor of 10 to convince the CEO to terminate his criminal conduct.

Suppose now that the CEO has the option of confessing his sins and thereby avoiding the increased sanctions. Assuming that there were no additional benefits to be gained from continued lying, the CEO will confess when the expected penalty of continued lying (probability p of detection multiplied by the sanction, S) exceeds the costs of amnesty (A):

$$(p)(S) > A.$$

One of the problems with amnesty programs is that legislators are likely to tinker with their terms in order to make them more palatable to the public. For example, to gain society's acceptance, an amnesty scheme may require the criminal to forfeit at least the value of the benefit that he has wrongfully obtained.¹⁹³ Forfeiture, however, may cause the MFP to keep to his original plan: if p and S remain steady at 10% and 2MM, the CEO has no incentive to confess under an amnesty program that includes disgorgement, since 1MM is far greater than 10% of 2MM.¹⁹⁴ If, however, lawmakers also increase the expected value of sanctions to more than 1MM by increasing penalties or improving enforcement, the CEO will choose amnesty. In other words, if the expected penalty is increased by slightly more than a factor of 5, the CEO will discontinue the fraud in return for amnesty. In contrast, as set forth above in Subsections A and B, when linkage is present without an

¹⁹³ Cf. Roger Bowles, Michael Faure & Nuno Garoupa, Forfeiture of Illegal Gain: An Economic Perspective, 25 *Oxford J. Legal Stud.* 275, 276 (2005) (observing that forfeiture statutes have become popular in the contexts of environmental and white collar crime).

¹⁹⁴ *Id.* at 285 (highlighting that "removal of illegal gain" alone will not provide optimal deterrence).

offer of amnesty, enforcement and sanctions must increase far more to marginally deter MFPs.

In sum, when used alongside traditional enforcement strategies, amnesty reduces the effort necessary to identify and stop MFPs.¹⁹⁵ Indeed, amnesty is the flip side of detection avoidance: when the expected value of a given penalty increases, the value of amnesty increases alongside the value of detection avoidance.¹⁹⁶ But even after the government establishes an amnesty program, whether an MFP chooses it over detection avoidance will depend in large part on the terms of the program.

Although some MFPs may continue their crimes because the psychic thrill of violating the law is itself so overwhelmingly pleasant that it exceeds the value of any forgiven sanction, most MFPs are unlikely to fall within this category. The more likely reason MFPs may continue committing crimes despite the government's promise of amnesty is that the "amnesty" itself may be difficult to verify. If it extends to only some legal sanctions (e.g., to criminal but not civil penalties), fails to take account of informal sanctions such as loss of one's job or status, or is defined or applied in an uncertain manner, it is unlikely to persuade the MFP to terminate the fraud.

Finally, even as amnesty strategies assist in the apprehension of MFPs, they may also undermine the deterrence of potential offenders. Those contemplating corporate frauds may question the credibility of threatened sanctions because they perceive the possible escape hatch of future amnesty programs.

¹⁹⁵ Cf. Boise, *supra* note 191, at 700 (observing that amnesty may "ease the transition to a new legal regime or signal an impending change in enforcement activities").

¹⁹⁶ Conversely, amnesty reduces the value of detection avoidance. There is less reason to go to the trouble of hiding information when there are few costs associated with its disclosure. For an example of a proposal keyed to the idea of encouraging the dissemination of information by reducing the costs of its disclosure, see Paul Schwartz & Edward Janger, *Notification of Data Security Breaches*, 105 *Mich. L. Rev.* 913, 936-37 (2007) (describing regime for data security leaks in which consumers would receive information about the leak but not the identity of the entity responsible for the leak).

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There is no perfect solution to this problem.¹⁹⁷ The best use of amnesty programs may be in limited situations where the government can eliminate future offenders through structural changes. For example, if an industry's members have used fraudulent practices to procure funds through a government-sponsored program, a law enforcement agency might pair amnesty strategies aimed at MFPs with the elimination of the afflicted program.

F. Conclusion

This Part has reviewed five strategies that the government might rely upon in response to pervasive fraud: (A) increased sanctions; (B) increased enforcement; (C) both increased sanctions and increased enforcement; (D) undercover investigations; and (E) amnesty. The degree of linkage in a given context will have an important bearing on the effectiveness of each of these strategies for deterring MFPs. Lawmakers who consider these strategies must weigh the effects of their chosen policies on both MFPs and potential offenders. Although this approach complicates the lawmakers' task, it vastly improves their final product of criminal enforcement legislation. In contrast, mindlessly ratcheting up prison sentences and fines may prolong and worsen frauds already in progress by causing MFPs to cover up their crimes and do more harm.

IV. THE BROADER IMPLICATIONS OF LINKAGE

As the foregoing discussion demonstrates, traditional law enforcement strategies may fail to deter current perpetrators when linkage factors are present. Alternative strategies such as undercover investigations and amnesty programs may identify or deter MFPs, but they have their own drawbacks. As noted above, the strategies that best address the proliferation of MFPs may also undermine the deterrence of potential perpetrators. Nevertheless, for crimes that are likely to include a large MFP population, the delib-

¹⁹⁷ Schwartz and Janger suggest that the appropriate legal rule will turn on whether the community seeks to impose sanctions or mitigate the underlying problem. Where mitigation is the primary goal, "very little may be lost by [identifying the particular source of a security breach], and much may be gained in terms of a firm's willingness to disclose." Schwartz & Janger, *supra* note 196, at 937.

erate and limited use of these alternate enforcement strategies may be necessary.

This final Part provides an overview of some of the practical responses that lawmakers might adopt in light of the temporal issues associated with fraud. The following are only a few of the areas in which linkage might better inform our response to undesirable conduct in corporate settings.

A. Identifying Linkage

Although this Article focuses on linkage in the corporate fraud context, the concept has applications for other violations of law. Policymakers would find it fruitful to identify those violations for which linkage is most likely to attach. Immigration violations are another category of conduct in which linkage problems might explain the problems with traditional law enforcement policies. Illegal immigrants who have used false identification documents to obtain employment are not likely to stop lying about their status when Congress ratchets up penalties for using false identification. Telling the truth would result not only in the loss of employment but also an increase in the likelihood of being penalized and deported.

It is also useful to note that other factors besides linkage cause criminals to persist in their conduct, regardless of the perceived legal costs of continuing or terminating such conduct. For example, drug dealing is not necessarily a highly linked crime. The cessation of sales on one day does not, by its very nature, increase one's likelihood of detection the next day. Exogenous factors, however, may cause a drug dealer to persist in his business despite dramatic increases in penalties. For example, his purchasers may have threatened to kill him if he fails to deliver the drugs. Or he might know no other way to support himself or to feed his drug addiction. These cases differ from linkage in that the sources of continued conduct (the drug dealer's fear of violence, his lack of employment opportunities, or his physical addiction) stand apart from his probability of detection.

By contrast, fraud is inherently linked. That is, the nature of the crime itself, as opposed to some outside social or personal factor, requires the criminal to continue future conduct in order to avoid

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liability for past conduct. For “inherent” cases of linkage, lawmakers should attempt to pinpoint the moment at which linkage arises. It may be that linkage exists from the moment the crime is commenced. On the other hand, for some crimes, linkage may arise at a particular moment in the life of the crime.

Corporate fraud, for example, may be terminable early on in the scheme, but nearly unstoppable after several reporting cycles. One response to the timing issues discussed in Part III might be to reduce the number of MFPs by redefining fraud into one or more graded crimes, and thus changing the point at which fraud becomes “complete.” Currently, the federal fraud statutes apply as soon as the defendant devises a “scheme” to defraud and uses a proscribed medium, such as wires, mail, or securities filings. Instead of relying on a single definition of fraud that ignores the temporal aspect of the crime, Congress might create several graded offenses that hinge on how far the scheme has proceeded. The most serious crimes would be those in which the defendant had engaged in repeated interaction with his victims and had caused them harm. Simultaneously, Congress might enact a lesser penalty for frauds that had been devised but not yet caused the victim any loss. The graded approach to fraud would, in effect, reinvigorate the concept of attempt as a lesser, yet still serious, offense.

Although a graded approach might eliminate some of the MFPs who had barely commenced their schemes, its benefits would be admittedly modest as applied to those MFPs who had already triggered linkage factors by lying and causing harm to their victims. Grading, after all, is simply another way of imposing harsher sanctions for increasingly harmful conduct.¹⁹⁸ An MFP will choose the risk of the harsher sanction when he believes that cessation of his conduct will inevitably result in sanctions for his prior conduct.

¹⁹⁸ Grading can also serve the function of distinguishing between different levels of moral culpability. For a discussion of how the Model Penal Code and New York Penal Code have used grading to sort, respectively, levels of culpability and extent of harm, see Gerard E. Lynch, *Towards a Model Penal Code, Second (Federal?): The Challenge of the Special Part*, 2 *Buff. Crim. L. Rev.* 297 (1998); see also Michael Cahill, *Offense Grading and Multiple Liability: New Challenges for a Model Penal Code Second*, 1 *Ohio St. J. Crim. L.* 599, 601 (2004) (arguing that grading schemes are used to distinguish the “seriousness” of given offenses).

There may be moments in the early life of a fraud, however, where linkage is fairly low. In these situations, the threat of more serious sanctions should be more effective. Grading therefore should track the linkage curve of a given crime. Tracking such a curve would require lawmakers to identify a “typical scheme” and then to determine when, in the course of that scheme, cessation of conduct becomes impossible without simultaneously increasing the likelihood of detection.¹⁹⁹ Where a certain type of crime is pervasive and bears similar characteristics, lawmakers should consider expending such effort, because it may result in a more efficient legal regime and therefore more marginal deterrence. When society experiences an uptick in crimes, but those crimes share few similarities, tracking the linkage curve of an individual crime may be too costly because it pertains to only one type of scheme. Under these circumstances, lawmakers might prefer a different approach, which I discuss below.

B. Altering the Perpetrator’s Mindset

A second prescription that might flow from Part III’s analysis is that the law should better instruct defendants *ex ante* on the temporal aspects of highly linked crimes, such as fraud. This concept arises in two strains of literature: “transition smoothing” and “de-biasing.”

1. Transition Smoothing

One might view the linkage problem as a variant of “transition smoothing.”²⁰⁰ Increased penalties and detection create transition problems for MFPs who either failed to anticipate these increases or were unable to protect themselves in advance. The question is

¹⁹⁹ For an example of how one might “grade” a particular crime, see Kramer, *supra* note 54, at 410–11 (describing phases of planning and execution of burglary and arguing that attempt sanctions ought to track the criminal’s cost-benefit calculation).

²⁰⁰ Louis Kaplow has discussed at length legal transitions and the government’s response to issues raised by changes in legal policy. See Louis Kaplow, *An Economic Analysis of Legal Transitions*, 99 *Harv. L. Rev.* 509 (1986). Although much of his analysis is applicable to criminal law, his analysis is restricted technically to civil law. See *id.* at 512 & n.1.

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the extent to which lawmakers should recognize and attempt to “smooth” these transitions.

Some might argue that transitions should not be a problem at all for corporate criminals because they are already in the business of weighing future costs and benefits. Just as businessmen are generally expected to expect and bear the costs of many changes in legal policy, rational and sophisticated criminals should assume that criminal law enforcement policy is not fixed. Therefore, if criminals have taken future transitions into account, they presumably have “priced” those shocks into their scheme or otherwise have found some mechanism to soften them. Perverse outcomes such as detection avoidance and increased criminality therefore theoretically should not arise in response to conspicuous increases in sanctions or probabilities of detection because criminals have already figured the future change into the criminal equation.

Yet in reality, we know that corporate executives do *not* plan adequately for many types of transitions in law, including those relating to criminal law enforcement. Although this failure may stem in part from cognitive biases, it also arises because even sophisticated criminals lack the ability to predict the future.²⁰¹ Moreover, unlike individuals who operate within the constraints of the law, perpetrators of crime lack full access to the two mechanisms on which individuals traditionally rely to spread and reduce risks: insurance and financial markets.²⁰² In other words, no matter how well they plan in advance, some corporate executives who have initiated and planned corporate frauds will find themselves caught unawares when the government announces policy changes in criminal sanctions and enforcement.

Under this view, amnesty programs might be defended as a form of smoothing.²⁰³ They ease the pains of changes in law enforcement policy and reduce the need for criminals to pass those pains on to

²⁰¹ “[T]he recognition that the legal system is dynamic does not give one clairvoyance concerning the precise changes that will occur.” *Id.* at 525.

²⁰² *Id.* at 527–28 (noting that insurance and diversification through financial markets are primary mechanisms for spreading transition risks). Although perpetrators may be able to use market diversification indirectly to smooth transition risks associated with criminal frauds, their access to these markets is clearly more limited and therefore less efficient in spreading risk.

²⁰³ See Boise, *supra* note 191, at 700–01.

victims in the form of increased fraud or increased investment in detection avoidance. That being said, lawmakers must take periodic stock of amnesty programs to ensure that their benefits, such as marginally deterring current criminals and interfering with the creation and maintenance of criminal networks, outweigh the costs, such as creating moral hazards and undermining the expressive value of law.

2. *Debiasing*

Another manner of responding to current perpetrators might be the adoption of a “debiasing” strategy. Whereas transition-based strategies address criminal mistakes *ex post*, debiasing strategies attempt to eliminate similar mistakes *ex ante*. For example, one might argue that linkage arises because corporate fraud perpetrators fail to formulate adequate exit strategies when they commence frauds. As a result, increases in sanctions and detection cannot marginally deter these criminals because they truly have “no exit.” Various cognitive biases may be to blame for the criminals’ lack of exit strategies. Hyperbolic discounting and excess optimism may cause perpetrators to ignore the necessity for mechanisms that de-link future incidences of criminality from prior incidences of fraud. As a result, perpetrators cannot be marginally deterred, even when sanctions or probability of detection increase.

If bounded rationality removes perpetrators’ incentives to create adequate exit strategies from their frauds, then lawmakers might respond with policies aimed at “debiasing” those perpetrators; that is, to counteract the various biases and heuristics that cause perpetrators to discount the penalties they will likely receive, and to educate them as to the future exit problems that are likely to arise if they go ahead with their frauds.²⁰⁴ As Professors Christine Jolls

²⁰⁴ A different technique would be to debias the shareholders who are the victims of corporate fraud. See, e.g., Amitai Aviram, Counter Cyclical Enforcement of Corporate Law, Ill. Pub. L. & Legal Theory Res. Papers Series (Feb. 28, 2007), <http://ssrn.com/abstract=968757> (arguing for countercyclical law enforcement strategies in order to correct shareholders’ incorrect perceptions of low incidences of fraud in good economies and high incidences of fraud in bad ones). The problem with this strategy is that shareholders are ordinarily unable to monitor adequately the corporate executives who run firms.

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and Cass Sunstein have observed, debiasing is a fairly under-explored area of law.²⁰⁵ Although behavioral economics now enjoys a wide audience, the more common response triggered by it are policies that insulate outcomes from biases and heuristics.²⁰⁶ Debiasing is different because it “involves the government in a self-conscious process of changing the behavior of at least some people by altering their perceptions of the world around them.”²⁰⁷

As Jolls and Sunstein concede, debiasing poses thorny implications insofar as it encourages the government to manipulate public perception. Concerns run the gamut from overshooting to serious abuses of power.²⁰⁸ For criminals, debiasing raises additional worries. At its best, debiasing facilitates a person’s “opportunity to make choices.”²⁰⁹ In other words, instead of foreclosing certain conduct (by fines or regulations), the government generates better outcomes by facilitating better (i.e., more rational) decisionmaking.²¹⁰

Where criminals are concerned, however, better decisionmaking is not always a positive outcome. It is one thing to enable consumers to make better product choices or jurors to render more accurate verdicts by eliminating various biases; it is quite another to improve *criminal* decisionmaking by encouraging perpetrators to contend with excessive discounting or over-optimism. While some white collar criminals might abandon corporate crime when confronted with their cognitive biases, others might respond by crafting better pricing and exit strategies. Still others might migrate to crimes that pose a lesser threat of detection.²¹¹ In other words, de-

²⁰⁵ Jolls & Sunstein, *supra* note 44, at 201.

²⁰⁶ *Id.* at 226.

²⁰⁷ *Id.* at 202–03.

²⁰⁸ See *id.* at 230–31. See also Douglas Glen Whitman & Mario J. Rizzo, *Paternalist Slopes*, 2 N.Y.U. J. L. & Liberty 411, 413 (2007).

²⁰⁹ Jolls & Sunstein, *supra* note 44, at 226.

²¹⁰ For example, Jolls and Sunstein suggest that policymakers might use the availability heuristic (the tendency to overestimate the likelihood of an event based on the availability of information about that event) to counteract smokers’ overoptimism about the risks that cigarettes pose to their future health. “Concrete information appears to render the incident in question available in a way that can successfully counteract optimism bias.” Jolls & Sunstein, *supra* note 44, at 210.

²¹¹ See also Katyal, *supra* note 46, at 2402–03 (discussing substitution effects from crack cocaine to heroin as a result of dramatic increase in penalties for dealing crack).

biasing might make some criminals better off, not worse. The overall number of criminals might decrease, but the ones who remained might cause more damage to society. By making criminals better decisionmakers, debiasing might reduce social welfare.

In this sense, the debiasing dilemma is similar to transition smoothing. Criminals fail to cease corporate fraud in response to law enforcement policy changes because they have failed to secure adequate exit strategies and plan in advance for transitions in legal policy. Society is therefore faced with the following choice: encourage criminals to plan ahead, or insulate society from perverse outcomes that emanate from law enforcement transitions. Which is the better path?

To date, no lawmaker has suggested a law enforcement strategy based solely or even primarily on debiasing criminals. It is doubtful that any politically prudent lawmaker will do so in the near future. Nevertheless, lawmakers ought to consider, when choosing among policies, whether those policies have the tendency to exacerbate or mitigate linkage problems. Assuming that longer frauds are more highly linked ones, policies that remind potential criminals in advance of the timing aspects of their frauds are likely to be more beneficial than policies that take no account of timing whatsoever. If corporate executives perpetuate frauds because they, naïvely or corruptly, expect better returns in the future, lawmakers must consider how and whether current laws perpetuate those expectations.

Unfortunately, nothing in the current criminal or civil law appears to forewarn potential fraudsters of the linkage factor that will likely appear and increase over the course of a fraud. The Supreme Court's latest decision on fraud on the market, *Dura Pharmaceuticals v. Broudo*,²¹² unwittingly perpetuates the corporate executive's naïve hope that better information will surface in the future and thereby counteract the fraud. *Dura* rejected the shareholder plaintiff's contention, in a civil securities fraud case, that the company's misrepresentations harmed him as of the moment he purchased the stock at an inflated price.²¹³ Instead, the plaintiff was obligated to show both economic loss and "proximate cause" from the com-

²¹² 544 U.S. 336 (2005).

²¹³ *Id.* at 342.

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pany's misrepresentations, a showing the plaintiff could accomplish by demonstrating a market decline after the announcement of the fraud.²¹⁴ Since bad news (the fraud) can be combined with good news (a new contract or patent, for example), *Dura* potentially undermines attempts to value the losses caused by corporate fraud. It also permits and even encourages executives to continue to discount the possibility that their lies will eventually unravel. Under *Dura*, the executive can at least hope that there will appear future good news on the horizon, which he can then bundle with the (as yet undisclosed) bad news and thereby soften his fall from grace.²¹⁵

Although *Dura* is a civil fraud-on-the-market case, courts have begun to apply its rationale in criminal cases.²¹⁶ Moreover, one would expect rational and informed corporate executives to consider both criminal and civil penalties in advance of and during their conduct. The federal Sentencing Guidelines, although advisory,²¹⁷ measure damages according to: the defendant's "intended loss," the victim's "actual loss," or, where loss calculations are too difficult to quantify, according to the defendant's actual gain.²¹⁸ The loss calculations do not, for the most part, take the duration of the fraud into account, except in rare and extreme cases in which the fraud lasts such a short time that the defendant can claim that the entire episode was an "aberrant" act.²¹⁹ Accordingly, like the

²¹⁴ See *id.* at 347 (criticizing the complaint's failure to allege "that *Dura*'s share price fell significantly after the truth became known").

²¹⁵ See James C. Spindler, *Why Shareholders Want Their CEOs to Lie More After Dura Pharmaceuticals*, 95 *Geo. L.J.* 653, 657 (2007).

²¹⁶ See, e.g., *United States v. Rutkoske*, 506 F.3d 170, 178–79 (2d Cir. 2007) (praising *Dura*'s "useful guidance" for sentencing in securities fraud cases); *United States v. Olis*, 429 F.3d 540, 546 (5th Cir. 2005) (advising that "[t]he civil damage measure should be the backdrop for criminal responsibility" in sentencing). But see *United States v. Mooney*, 425 F.3d 1093, 1100 (8th Cir. 2005) (electing to set defendant's sentence for securities fraud by reference to his gain rather than to victims' losses, because losses were too difficult to quantify and civil cases were inapposite).

²¹⁷ See *United States v. Booker*, 543 U.S. 220, 245 (2005).

²¹⁸ U.S. Sentencing Guidelines Manual § 2B1.1 comment. n.3 (2007); *Mooney*, 425 F.3d at 1100 (advocating measurement of sentence by defendant's gain).

²¹⁹ U.S. Sentencing Guidelines Manual § 5K2.20 (2007) (defining an aberrant act as a "single criminal occurrence or single criminal transaction" that required little planning, "was of limited duration," and "represents a marked deviation by the defendant from an otherwise law-abiding life"). Theoretically, courts are no longer bound by the departure's narrow definition. See, e.g., *Gall v. United States*, 128 S. Ct. 586, 595

method outlined in *Dura*, the current method of measuring criminal corporate fraud provides no incentive for perpetrators to shorten the duration of their frauds.

In contrast, one could imagine a legal regime that would penalize longer term frauds over shorter ones. Judges, who are now free to sentence offenders without strict adherence to the Sentencing Guidelines,²²⁰ could sentence offenders in such a way as to account for the length of the fraud. In the securities context, accounting frauds that lasted more than several reporting periods should garner more prison time, as well as greater fines and economic penalties, than frauds of shorter duration.²²¹

CONCLUSION

Although the concept of law as a deterrent has been more or less accepted in the realm of administrative regulation and tort law, it has a much more complicated relationship with criminal law. Lawmakers routinely invoke “deterrence” as a reason for expanding criminal law, increasing penalties, or promising greater enforcement of white collar crimes. Scholars, however, have either downplayed or completely dismissed the value of deterrence theory for predicting, much less controlling, criminal conduct.²²² Instead, they argue, cultural norms and the individual’s relationship with society are far more likely to determine whether criminal

(2007) (finding that lower court’s departure from Guidelines sentence for defendant did not require extraordinary circumstances). To the extent that the Guidelines remain a primary source and starting point for judges, however, it is unlikely that the duration of crimes such as fraud will figure highly in their calculations.

²²⁰ See *supra* note 135 and accompanying text.

²²¹ This is not to say that corporate executives at public companies do not worry about the next quarter’s results. To the contrary, executives are “fixat[ed]” on the earnings reports they must make to shareholders on a quarterly basis. Henry T.C. Hu, Risk, Time, and Fiduciary Principles in Corporate Investment, 38 *UCLA L. Rev.* 277, 303 (1990). The mismatch between the fixation on the timing of earnings and the contrasting lack of regard for the duration of fraud, however, encourages executives to discount further the penalties likely to accrue from their criminal conduct.

²²² See Paul H. Robinson & John M. Darley, The Role of Deterrence in the Formulation of Criminal Law Rules: At Its Worst when Doing Its Best, 91 *Geo. L.J.* 949, 953–56 (2003).

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conduct takes place.²²³ These norms-based arguments have proliferated from criminal law generally to the study of corporate law, as scholars now argue that executives refrain from wrongdoing not because they are rationally afraid of penalties if they are caught, but for a host of psychological reasons that bear little resemblance to Gary Becker's 1968 model.

The theory of linkage articulated in this Article does not attempt to resolve the tensions between these two schools of thought. It does illustrate, however, that classic deterrence models may be useful in illuminating issues that otherwise would be largely ignored.²²⁴ It is the deterrence-based analysis of fraud that allows us to see that "linkage"—the connection between cessation of future wrongful conduct and punishment for prior wrongful conduct—is a particularized problem lurking below the surface of many crimes. Although the benefits of deterring "new" or potential offenders may far outweigh the benefits of marginally deterring (or incapacitating) current ones, lawmakers should at least be aware of these tradeoffs at the outset so that they can consider alternate strategies instead of reflexively increasing sanctions and enforcement. Unlike norms-based analyses, deterrence theory forces lawmakers to confront these tradeoffs head-on and to better understand why fraud might persist. Even if we pay attention to these issues, we will never eliminate fraud. We might, however, adopt smarter—and cheaper—policies.

²²³ Paul H. Robinson & John M. Darley, *Intuitions of Justice: Implications for Criminal Law and Justice Policy*, 81 S. Cal. L. Rev. 1 (2007).

²²⁴ See also Katyal, *supra* note 94, at 1311 ("[T]he dominant motif in criminal law scholarship has veered too far toward retributivist analysis."). Cf. Steven Shavell, *An Economic Analysis of Threats and Their Illegality*, 141 U. Pa. L. Rev. 1877, 1903 (1993). ("[E]conomic analysis has its two usual virtues. First, it helps to describe behavior, which sometimes has complex and interesting aspects Second, it aids in making recommendations.").