Response to Comments

Response to Comments by Professors Baer, Candeub, Medwed, Painter, and Prentice

Manuel A. Utset*

I first want to thank Professors Baer, Candeub, Medwed, Painter, and Prentice for their thoughtful Comments, which have helped to underline those parts of my theory that require clarification and amplification, as well as those that can serve as a stepping stone for further inquiry. Self-control problems are, by nature, difficult to address: their magnitude and potential solutions vary among individuals and across contexts, organizations, and regulatory frameworks. This variety makes generalizations difficult, and calls for caution when making claims and proposing solutions. But heterogeneity is not a new problem, or one too difficult to tackle; it is definitely not a problem that is best solved by ignoring it, such as by assuming that all actors have time-consistent (TC) preferences, and would never engage in the sort of repeated time-inconsistent (TI) misconduct that I identify. Before I turn to the Comments, it is helpful to provide a brief summary of my main arguments and some clarifications; this will allow me to focus on specific areas in which the commentators and I agree or disagree, and to better highlight their glosses and extensions.

I am concerned with misconduct by “corporate actors:” officers, board members (and the board of directors, as a whole), gatekeepers (such as auditors and lawyers), and regulators. A corporation is technically a “corporate actor”, but one whose behavior is the end result of one or more actions (or inactions) by other corporate actors. I assume, throughout, that a corporate actor has a preference to maximize her own returns (she has self-regarding, as opposed to other-regarding preferences). As such, she will decide that it is in her best interest to commit a crime, whenever her private benefits from misconduct are greater than the costs. The law and economics literature on criminal deterrence assumes that actors, including corporate actors, have TC preferences: they either do not have a preference for immediate gratification, or, one that is too weak or

*William & Catherine VanDercreek Professor, Florida State University College of Law.
insignificant to lead to systematic TI misconduct. This perfect-self-control assumption is not an innocuous one, particularly given the growing empirical evidence on TI preferences.

The TI misconduct model of corporate misconduct developed in the main article begins with the observation that the benefits from misconduct are often immediate in nature, while the attendant criminal sanctions are always delayed: an offender must first be apprehended and prosecuted before she can be officially punished. Some legal rules prohibit corporate actors from doing something (embezzling funds, making false disclosures in securities filings); other rules require actors to do something by a particular date (filing an annual report or paying corporate taxes). A corporate actor that violates either type of rule will often receive an immediate payoff: prohibited behavior may yield an immediate return; a delay in complying with a legal rule may allow an actor to postpone immediate disutility—the time, effort, and other costs needed to comply. A TI corporate actor faced with these immediate payoffs and delayed criminal sanctions will have an incentive to overconsume criminal misconduct or to engage in compliance procrastination. That is, all other things being equal, a TI actor will violate the law more often than a TC one. For example, if the expected benefits from embezzling funds exceed the expected sanctions, a TC actor would not embezzle funds, but a TI one, may repeatedly do so; and if the immediate costs of filing a Form 8-K at the required time are less than the expected sanctions, a TC offender will file on time, but his TI counterpart may repeatedly procrastinate following through.

Offenders often have to make investments to plan and cover up their crimes; they also have to exert immediate effort to execute it, and may experience disutility from violating moral strictures and anxiety from being caught in the act. As with other types of investments, these transaction costs of criminal misconduct require an offender to experience an immediate disutility, in order to set up the potential for a future payoff.\footnote{In the case of executing a crime, it would be an investment, only if some or all of the benefits from misconduct are not received immediately.} To the extent that these transaction costs are sufficiently high, a TI corporate actor may underconsume criminal misconduct. More generally, a TI actor with a long-term preference to commit a crime at time \( t \),
because doing so would maximize her returns, may procrastinate for one or more periods, and may never follow through with the planned misconduct. She may, in short, engage in TI obedience.

The TI misconduct model allows for heterogeneous corporate actors, who differ as to the magnitude of their preference for immediate gratification and awareness of their future willpower. At one end of the preference continuum are corporate actors that do not value immediate gratification (these are the TC actors found in standard law and economic models); at the other end of the spectrum are actors with a high level of immediate impatience. One would expect that most corporate actors will fall somewhere in between. Similarly, some corporate actors are perfectly aware of their self-control problems and future willpower (sophisticated actors); others, on the other hand, are perfectly naïve, always believing incorrectly that, in the future, they will exhibit perfect self-control. Again, one expects that most actors will fall somewhere in between. Such partially naïve actors know that they have a propensity to override their long-term preferences, but mispredict the full magnitude of their preference for immediate gratification. A corporate actor may exhibit high self-control problems because she either has a high preference for immediate gratification or is sufficiently naïve (or both). In fact, as I show in the article, even an actor who has a very low preference for immediate gratification (in other words, one very close to fitting the description of a TC actor) may nonetheless engage in repeated TI misconduct, if she is sufficiently mistaken about her future willpower. This, in turn, can lead to large aggregate welfare losses to the TI actor, as well as her victims, and thus to society at large.

Professor Baer, “Temporal Inconsistency and the Regulation of Corporate Misconduct”

In her Comment, Professor Miriam Baer focuses on an important (but difficult) regulatory problem: designing deterrence schemes in a world populated by both TC and TI corporate actors. While acknowledging that the regulatory obstacles faced by a “well-intentioned and highly knowledgeable regulator” are daunting, Professor Baer, in her
Comment, begins the task of analyzing the various policy choices available to it.2

Professor Baer begins by addressing the question of how much society should spend on enforcement. Under the standard law and economics theory of optimal deterrence, a regulator would set the expected sanctions equal to the expected harm; and since, all other things being equal, the administrative costs of imposing sanctions (particularly fines) are lower than the costs of enforcement activities, society should use the following rule of thumb: choose the highest possible gross sanction and set the probability of detection as low as possible. However, society spends more on enforcement than the amount predicted by the standard account. Why? In my article, I argue that enforcement activities increase the immediate costs of planning and executing crimes, and thus have a disproportional effect in deterring TI corporate actors. For example, the added deterrence on a TC corporate actor is the same if the regulator increases either the delayed sanctions or the immediate transaction costs by $1.3 On the other hand, a TI corporate actor with an immediacy multiplier of 2, for example, would perceive a $1 increase in delayed sanctions as $1, and a $1 increase in immediate costs as $2. I argue that this asymmetry in the way that TC and TI offenders react to short-term incentives helps explain, at least in part, why society spends so much on enforcement.

There are of course other potential explanations for this “over-enforcement” puzzle, some of which apply to both TC and TI actors, as Professor Baer points out. For example, suppose that the optimal expected sanctions for a crime are $100. If the probability of detection is set to 0.5 and the gross fine to $200, an offender with total wealth of $100 will be underdeterred; and a risk averse offender will be overdeterred, as compared with a regime in which the probability of detection is set to 1 and the gross sanctions to $100. Spending more on enforcement helps alleviate the wealth-constrained and risk averse offender problems by

2 See Miriam Baer, Temporal Inconsistency and the Regulation of Corporate Misconduct, 1 VA. J. CRIM. L. 385 (2013).

3 Assuming that both TC and TI actors have a long-term discount factor equal to 1, which does not affect the underlying result, since both types of actors react in the same manner to their long-term impatience.
increasing the probability of detection and decreasing the gross sanction. It also, as Professor Baer argues, makes it easier for society to acquire information that it can later use to better design penalty schemes and evaluate enforcement regimes, to identify shortcomings and make the requisite adjustments. This information-collection benefit provided by enforcement-intensive regimes is important for the problem of TI misconduct, given that it allows society to design deterrence regimes that can effectively target corporate actors with different immediacy multipliers. But Professor Baer’s principal argument in this part of her Comment is that there are good arguments for using enforcement-intensive regime, regardless of whether corporate actors have TC or TI preferences.

While I agree with this general point, I do want to point out a number of problems with the standard justification for not using maximal gross sanctions. Compared with other types of offenders—which I will refer to as “street criminals”—corporate actors, particularly in public corporations, are not wealth-constrained, and thus can be deterred using higher gross fines. Additionally, a manager who commits a crime and is caught will lose most or all of the compensation stream and intangible utility—e.g., stature in the community and among peers—that she would have received from continuing her career as a manager. This means, among other things, that a manager would bear a relatively higher disutility from being imprisoned than would a street criminal. One would expect that rational managers would take into account these “career concerns” when deciding whether to engage in misconduct. So even if a manager is wealth-constrained there may be little need to resort to long prison sentences. A street criminal, on the other hand, has different career concerns and, in certain instances, may experience an increase in his expected future cash flows, if he develops a reputation as an effective criminal, committed to a path of misconduct and willing to harm others when the need arises. He is also more likely to have limited wealth.

In conclusion, one can make a strong argument that the standard explanations for the higher-than-expected expenditures on enforcement are not as convincing when applied to corporate actors; and, while it is difficult to compare the enforcement activities in both contexts there is no evidence that enforcement expenditures are higher for street crimes than they are for regulatory crimes. At the same time, enforcement strategies
used in corporate setting are particularly well-calibrated for deterring TI misconduct. For example, the layering of monitors, such as the board of directors, gatekeepers, shareholders, and regulators increase the immediate costs of planning and executing crimes, as does the protections and rewards for whistleblowers that were included in the Sarbanes-Oxley and Dodd-Frank Acts.

Professor Baer draws a distinction between: (1) sanction-based regimes, which prohibit certain actions and punish transgressors; and (2) structural regulation, by which “instead of punishing or threatening to swiftly punish someone for engaging in misconduct, the regulator can design a structure at T0 that all but removes a corporate manager’s freedom to bow to such temptation at T1.” She argues that relying on sanctions is costly and can create a number of unintended side effects. I agree with Professor Baer on this count, although I am not sure that structural regulation is less costly or better suited at deterring misconduct. For one thing, people value freedom and choice. They get intangible utility from keeping their options open and preserving their autonomy. Moreover, when there is sufficient uncertainty about the future, the option to wait and choose—that is, keeping one’s action set as large as possible—is valuable.

---


5 The existence of public and private causes of actions and enforcers reduces the immediate costs of enforcement, given that enforcement activities are a public good and thus once one party has acted, the others can free ride; but the public good nature of enforcement can have the opposite effect—increasing the likelihood of procrastination, given standard collective action arguments.

6 See Daniel T. Gilbert & Jane E.J. Ebert, Decisions and Revisions: The Affective Forecasting of Changeable Outcomes, 82 J. PERSONALITY & SOC. PSYCHOL. 503, 510–11 (2002) (finding that subjects valued the ability to change prior choice, even when they were satisfied with that choice ex post).


8 See AVINASH K. DIXIT & ROBERT S. PINDYCK, INVESTMENT UNDER CERTAINTY 6–9 (1994) (discussing the value of having an option to choose, once uncertainty is reduced by the passage of time or the acquisition of new information).
Having said that, Professor Baer does acknowledge that, under my approach, society can deter TI misconduct by corporate actors by using both types of deterrence schemes. Structural regulation—reducing the set of actions available to a potential offender—is one way to deter TI corporate misconduct. A sufficiently sophisticated TI actor would adopt her own “private structural regulation”: a gang member who is released from prison may choose to move to a new neighborhood, away from his old gang buddies; the person who knows about her temptation to steal (when no one is looking) may choose an occupation in which she does not have to handle cash. If the offender is not sufficiently sophisticated to anticipate how she will react to future temptations, the government can use structural regulation to achieve the same sort of pre-commitment. A regulator can deter TI misconduct by increasing the immediate costs of committing crimes—that is by increasing the level of enforcement—and/or reducing the immediate benefits from misconduct. And the latter can be accomplished either by delaying when an offender receives the benefits from misconduct, or by reducing the immediate benefits available to offenders. One of the most effective ways of doing this is to completely foreclose an offender’s ability to engage in behavior that would yield an immediate reward.

For example, suppose that a TI corporate actor, with an immediacy multiplier of 2, has the ability to commit a crime that would yield immediate benefits of $100 and delayed sanctions of $150. One way to achieve deterrence is to increase the delayed sanctions by $51, given that $201 > $100 \times 2 = $200. However, this approach has the effect of over-deterring TC corporate actors. A second approach is to use heightened enforcement activities aimed at increasing the immediate costs of planning and executing a crime: if these immediate costs go from $0 to $25.50, then the TI corporate actor would be deterred, given that she will give twice as much weight to those transaction costs and perceive them as $51. Notice, that compared with increasing the delayed sanctions, the negative impact on TC actors is not as great. A third approach is to delay $25.50 of the $100 benefit from misconduct. This will deter the TI actor, and,

\[
9 \text{ I will focus only on the effects on TC corporate actors, although similar arguments, with some modifications, apply to TI actors with immediacy multipliers less than 2.}
\]
importantly, will have no negative effect on TC actors, who by definition react in the same way to immediate and delayed costs and benefits.\(^{10}\)

Under the fourth approach, Professor Baer’s structural regulation, society would reduce the benefits from misconduct by $25.50. Compared to the third approach, structural regulation over-deters TC actors. Moreover, the structural regulation that Professor Baer has in mind would foreclose certain types of behavior altogether. For example, reducing the immediate benefits from misconduct from $100 to $0 would over-deter both TC and TI actors. One would want to adopt such an approach only when society is concerned with total deterrence. However, corporate crimes rarely call for total deterrence; they are primarily regulatory offenses, in which overdeterrence (and underdeterrence) reduce aggregate social welfare.

Interestingly, structural regulation, as a means for deterring TI misconduct, does not have to be limited to reducing the set of actions available to TI corporate actors; by increasing the number of options, a regulator can increase the immediate costs of choosing between different types of crimes, and for choosing the best course of action for executing the chosen crime. Having too many choices, in short, can lead actors to engage in TI obedience. TI actors that are sufficiently naïve may have an incentive to repeatedly procrastinate, settling on the best possible crime; and even when they have formed an intention to commit a particular crime, they may have an incentive to procrastinate executing it. There is a second counterintuitive result. A TI corporate actor may decide (from a long-term perspective) that she is better off carrying out the super-sized crime—one with a very large payoff—as opposed to committing a series of crimes with smaller payoffs. However, all other things being equal, super-sized crimes require more time and effort to plan and execute. It follows, that in some instances, TI actors would follow through with a series of smaller, less complex crimes in the absence of the one-big-score crime; but when the super-sized crime is available, they will form an intention to carry it out instead. A subset of these TI actors, however, will procrastinate following through. The very existence of the super-sized crime, in short, can have a deterrence effect on TI actors. This is thus an instance in which limiting the number of actions available (by removing

\(^{10}\) Continuing to assume that there is no long-term discounting.
the most obvious crime—the super-sized one) can have the perverse effect of leading offenders to commit a series of smaller crimes (instead of succumbing to TI obedience).

As we have seen, corporate actors may have different levels of short-term impatience and awareness of their future willpower. Professor Baer draws an additional distinction: the well-meaning akratic has socially desirable goals and wants to do the right thing, but violates the law due to her time-inconsistency; the TC rank opportunist, on the other hand, is bad-to-the-core, and violates the law willfully.11 I agree with Professor Baer that it is “folly to ignore the rank opportunist,” the corporate actor who “simply enjoys his own personal welfare to the exclusion of everyone else’s – and…knows it.”12 But I disagree with the need to draw a sharp distinction between TC rank-opportunists and TI offenders. Someone concerned with designing an optimal13 retributivist scheme may want to draw a distinction between an offender moved to violate the law by a failure of will and one who willfully chooses and executes a course of action that she knows will harm third parties. But the distinction is of much less consequence when a utilitarian sets out to design an optimal deterrence scheme.

Finally, I am in agreement with Professor Baer that New Governance techniques can provide important insights, in the areas of corporate governance and financial regulation. Professor Baer describes an “idealized continuous negotiating table” in which constituencies bargain and cooperate and share information, a table of trusting and trustworthy participants. But New Governance (which advocates, bottom-up as opposed to top-down, centralized mechanisms), as a theory, has limitations. It is best when carried out in the shadow of more binding constraints, and taking into account that long-term, repeated cooperative bargaining solutions can lead to path dependent institutions that can eventually concentrate power in the hands of one or more of the

11 See id at 131.
12 Id. at 131.
13 Optimal in the sense that the retributivist would: (1) choose the proper metric to compare penalty schemes to determine which one comes closest to the underlying punishment goal; and (2) order possible schemes using that metric.
New Governance approaches can help deal with the problem of TI corporate misconduct, particularly when actors are sufficiently aware of their self-control problems and can rely on trustworthy partners to provide them with commitment devices and salient reminders at the time when the opportunity to engage in misconduct is at hand.

In conclusion, Professor Baer raises important questions about how one would design and implement legal rules and other governance mechanisms to deter, in as efficient manner as possible, corporate actors with different motives, time-horizons, immediacy multipliers, and awareness of their self-control problem. This heterogeneity problem is one that, in recent years, has receive a large amount of attention from economists working on self-control problems; and it is one that will require further attention from scholars concerned with providing a positive and normative account of self-control problems, as they apply to the law.

In his Comment, Professor Adam Candeub makes two general points: that corporations are artificial entities, and as such, are subject to different “motivations” and constraints than individuals (human beings); and that the corporate governance shortcomings of financial institutions in the period leading to the financial crisis of 2007-2009 can be explained as the product of either “market failure and inefficient agency/institutional structure” or TI behavior, which he admits are “difficult to disentangle.”

Let me start with Professor Candeub’s second point. His claim, more specifically, is that it is possible to provide an accurate positive account of the 2007 crisis without introducing the concept of TI preferences: TC actors can, by themselves, create the sort of market failure and inefficient agency contracts and institutional structures that gave rise to the crisis. One can generalize further and reach the same conclusion for: the internet bubble and corporate scandals in 2001; the Argentinian crisis of 2001-2002; the Russian crisis and concomitant failure of Long Term Capital Management in 1998; the Asian crisis that beset the “Dragons” and “Tigers” in 1997; the Scandinavian crises in 1991; the Japan crisis, beginning in 1990, which continued for close to a decade; and the Great Depression—to name a few. Each of these crises were the product of market/agency/institutional failures: of collective action problems, externalities, transaction cost, and informational asymmetries.

Moreover, Professor Candeub, relying on Judge Richard Posner’s analysis, acknowledges that the myopic behavior of corporate actors was in part to blame for the recent crisis. He states that there were “numerous instances of exchanging long term benefits for short-term benefits,” and argues (again relying on Judge Posner) that this short-termism is a rational reaction by financial institutions and market participants to low interest rates. This, in turn, leads Professor Candeub to conclude that “given the promise of high return, there is not irrational economic behavior—discounting or otherwise—in preferring immediate payoffs in exchange for risk of a much greater downside.” I will take this to mean that short-termism provided individual financial institutions with a net positive return, but created a collective action problem, which eventually led to the financial crisis, which made institutions as a group worse off.

Professor Candeub’s main point is important, for it leads to a foundational question: what are the normative implications of attaching the labels “rational” and “irrational” when providing a positive account of the behavior of economic actors? As a general matter, an actor acts “rationally” if, given a specific goal, she chooses the best mean to

---

14 See Manuel A. Utset, Towards a Bargaining Theory of the Firm, 80 CORNELL L. REV. 540 (1995) (arguing that when parties are involved in repeated bargaining games, a party can use her bargaining power in period 1 to increase her power in future periods, which, over time can lead to path dependence in institutions that benefit that party).

account of the 2007 crisis without introducing the concept of TI preferences: TC actors can, by themselves, create the sort of market failure and inefficient agency contracts and institutional structures that gave rise to the crisis. One can generalize further and reach the same conclusion for: the internet bubble and corporate scandals in 2001; the Argentinian crisis of 2001-2002; the Russian crisis and concomitant failure of Long Term Capital Management in 1998; the Asian crisis that beset the “Dragons” and “Tigers” in 1997; the Scandinavian crises in 1991; the Japan crisis, beginning in 1990, which continued for close to a decade; and the Great Depression—to name a few. Each of these crises were the product of market/agency/institutional failures: of collective action problems, externalities, transaction cost, and informational asymmetries.

Moreover, Professor Candeub, relying on Judge Richard Posner’s analysis, acknowledges that the myopic behavior of corporate actors was in part to blame for the recent crisis. He states that there were “numerous instances of exchanging long term benefits for short-term benefits,” and argues (again relying on Judge Posner) that this short-termism is a rational reaction by financial institutions and market participants to low interest rates. This, in turn, leads Professor Candeub to conclude that “given the promise of high return, there is not irrational economic behavior—discounting or otherwise—in preferring immediate payoffs in exchange for risk of a much greater downside.” I will take this to mean that short-termism provided individual financial institutions with a net positive return, but created a collective action problem, which eventually led to the financial crisis, which made institutions as a group worse off.

Professor Candeub’s main point is important, for it leads to a foundational question: what are the normative implications of attaching the labels “rational” and “irrational” when providing a positive account of the behavior of economic actors? As a general matter, an actor acts “rationally” if, given a specific goal, she chooses the best mean to

16 See FRANKLIN ALLEN & DOUGLAS GALE, UNDERSTANDING FINANCIAL CRISES 14–18 (2007) (providing an overview of these crises, which involved asset bubbles, stock market bubbles and runs on financial institutions and foreign exchange markets).

17 Candeub, supra note 15, at 161.

18 Id. at 162 (emphasis mine).
achieving that goal. The concept of rationality in economics, however, is narrower; it assumes that actors make decisions using a well-defined preference relation to compare and order the various alternatives available to them. This preference relation is complete, in that every positive alternative in the relevant choice set is comparable; it also satisfies transitivity—if the individual prefers a over b and b over c, she prefers a over c. At the same time, it is difficult to say exactly when an individual acts “irrationally” under the economic definition, since embedded within it are a number of implicit assumptions about an individual’s ability to make the requisite comparisons, to make use of all available information, to update that information in a consistent, coherent manner, and to correctly apply concepts from probability theory and deductive logic. One possible way to get around this definitional problem is not to give too much weight to labels. Instead of starting with the axiom that people always act in a perfectly rational manner, one can start with the assumption that people know that, as a general matter, they will be better off if they keep to the dictates of rationality, and thus have a second-order preference to do so. People, however, are not automatons: they have free will and thus when they are faced with an actual decision, in which they have to do either a, or b, or c..., they may not always keep to their second-order preference to act in a perfectly rational manner. Rationality


and irrationality are best understood (and most profitably used) if they are stretched into a continuum, instead of taken as binary concepts. That is the approach that I take in my article.

The failures described by Professor Candeub occur at the level of abstract entities: of markets and institutions. But the behavior of these entities must, in the end, bottom out in the behavior of one or more individuals. It thus makes sense to look into the “black box” and try to ascertain whether these market and institutional failures were brought about by perfectly rational actors, or less than perfectly rational ones. 23 One can explain the financial crisis of 2007 as the result of a sequence of actions by rational actors. 24 One can also explain it (and previous financial crises) as the product of TI behavior, and other “rationality shortcomings” of individuals. More generally, let FR be the fully rational causes of the crisis, and LR be the less-than-fully rational causes. Then one can say that the financial crisis was due to: \([\alpha \times FR] + [(1 - \alpha) \times LR]\). In cases in which \(\alpha = 1\), the LR behavior does not play a role; and when \(\alpha = 0\), FR does not play a role. One would expect, however, that the dynamics that led to the crisis are captured by an \(\alpha\) less than 1 and greater than 0. The fact that one can explain the crisis under the two extreme

23 Abstractions are important; among other things, they help reduce complexity and allows for more general theories. But because abstractions work by “hiding” information, it is important to, on occasion, revisit them with a critical eye. See, e.g., Ronald H. Coase, The Nature of the Firm, in Ronald H. Coase, The Firm, The Market, and The Law 33, 35-36 (1988) (originally published in 1937) (re-visiting the question of “what is a firm” and departing from the neoclassical approach—in which the firm is a “black box” in which certain inputs are transformed into outputs, using a specific technology—and instead focusing on the master-servant relationship within firms in which an “entrepreneur-co-ordinator” makes production decisions).

24 This “rational” explanation of the 2007 crisis is one that is both plausible and in need of further analysis. See Manuel A. Utset, Complex Financial Institutions and Systemic Risk, 45 Ga. L. Rev. 779 (2011) (developing a theory of “blind contracting” in which rational lenders extend credit to complex financial institutions without acquiring information to pierce through that complexity and properly assess risk, and showing that this type of rational behavior can lead to sudden switches in equilibrium to one in which the lenders withdraw credit as a group); Manuel A. Utset, “Transitive Counterparty Risk” and Financial Regulation, 78 Brooklyn L. Rev. __ (forthcoming 2013) (arguing that interconnected financial contracts can lead to “transitive relationships” in which counterparty risk is transferred down the line to parties who are not in privity of contract).
scenarios—with $\alpha = 1$ and $\alpha = 0$—provides little theoretical or practical solace, unless the solutions would be the same under both. However, as we have seen, TI actors react disproportionally to short-term incentives, while TC ones react in the same manner to short-term and long-term incentives. It follows, as I show in my article, that it is impossible to achieve optimal deterrence for both types of actors, by using only delayed sanctions.

Bubbles and sudden crashes are sometimes caused by herding behaviors. More specifically, corporate investors, competitors, and regulators (in cases in which there are multiple regulators in the same industry) make decisions using their own private information, as well as public information, including that gleaned from observing the behavior of similarly situated actors. Actors engage in herding behavior when they discount or completely ignore their own private information and make decisions solely based on what they observe that others are doing. An actor considering mimicking the behavior of another would want to have a good sense of whether the actor it is following has self-control problems and is acting in a sub-optimal manner. More generally, one would expect that TC and TI herding both contribute to bubbles and crashes. Moreover, TI herding is more likely to occur in contexts in which bubbles and sudden crashes are already likely. Why? All other things being equal, the immediate costs of observing the behavior of competitors and of other investors is lower than other sources of information. This is particularly the case in contexts in which the information is complex or the environment is changing quickly. This differential in the immediate costs of acquiring different types of information is important because a TI actor will have an incentive to procrastinate acquiring information the higher the immediate investment. This dynamic will increase the likelihood that the TI herding problem will increase the closer one gets to the top of a bubble.

Determining whether governance shortcomings are due to TI preferences is not as difficult as may first appear. In fact, there is no reason to believe that it is more difficult than the type of inquiry called for under the market/agency/institutional failure approach: for example, trying to ascertain whether a corporation has been underperforming because its board of directors has been captured by the CEO or because the market for corporate control or the market for managers is inefficient. The simplest way to distinguish between the various sources of governance
shortcomings is to change legal, institutional, or contractual constraints and see how actors react. One can engage in this type of governance experimentation by using some of the techniques I discuss in my article: creating incentive mechanisms that restrict the types of actions available to corporate actors, or that increase the immediate costs or decrease the immediate benefits from misconduct. Additionally, over time, affected third parties will be able to discern the reaction time of particular corporations (how quickly they react to new entrants or to changes in the capital markets) and their relative patience regarding long-term, repeated decisions (such as R&D investments); this will allow third parties to acquire information about the potential TI behavior of corporate actors.

Now to Professor Candeub’s other general argument. In my article, I modeled the behavior of corporations as the end product of series of decisions by corporate actors such as officers and the board of directors. Professor Candeub argues that corporate entities are subject to market pressures that will effectively deter repeated TI misconduct (and other types of TI behavior): a corporation that fails to pre-commit to a path of TC behavior will eventually be taken over or go bankrupt (what Candeub describes as “capital punishment” for corporations). Of course, the real question is how long an “akratic”, moribund corporation may survive, and how many investors and other third parties will be hurt along the way. For example, General Motors survived for a very long time in a moribund state, as did many of the financial institutions that were involved in originating and investing in sub-prime, mortgage-backed securities. A person who, due to his self-control problems, overeats and fails to exercise for the first 40 years of his adult life will face higher medical costs and insurance premiums in retirement and may die younger than he would have had he exhibited better self-discipline. As a result, one should rely on the deterrent effect of delayed penalties—bankruptcy, death, foreclosures—only if the costs of directly targeting short-term preferences are higher.

Finally, Professor Candeub is correct that the prototypical self-control problems studied in the criminal law literature—such as killings in the heat-of-passion—are not applicable to corporate entities. But this “heat-of-passion” is a manifestation of a more general phenomenon: a person makes a decision without deliberating fully and objectively because she is in a hot-psychological state. Rogue traders in investment
banks sometimes succumb to the heat-of-passion, as do insider traders of the Martha Stewart variety and managers in companies facing financial collapse; in each of these, the self-control problems of corporate actors can have a significant impact on the welfare of corporations and their shareholders.

PROFESSOR MEDWED, “DETERRENCE THEORY AND THE CORPORATE CRIMINAL ACTOR: PROFESSOR UTSET’S FRESH TAKE ON AN OLD PROBLEM”

In his Comment, Professor Daniel Medwed examines the relationship between TI preferences and commitment devices, on the one hand, and the confirmation bias and corporate culture, on the other hand. His Comment builds on his work on an analogous type of institutional context: the criminal justice system, and, in particular, the relationship between judges, prosecutors, and wrongfully convicted individuals. A wrongful conviction can be modeled as the end product of a sequence of interconnected actions by the true perpetrator, the innocent defendant, the police, prosecutors, judges, and juries. Viewed from an institutional perspective, the actors involved face similar types of informational problems and rationality shortcomings as do corporate actors. For example, a judge who is asked by a convict to grant her a new trial will face an informational problem similar to that of potential investors in a corporation: in both instances one party—rightfully and wrongfully convicted individuals; corporate insiders in good and bad corporations—has superior information about its type. This creates an adverse selection problem that can distort the decision-making process of both judges and investors. Additionally, both the criminal justice system and corporations are populated with actors who are repeat players. These actors need to make intertemporal decisions that take into account the

reputational effect: the signal that their current actions will send to future partners or adversaries. Professor Medwed, for example, has analyzed the general reluctance of prosecutors and judges to become involved in revisiting potentially erroneous convictions, and the role played by institutional structures and rationality shortcomings in exacerbating the general problem. In particular, the confirmation bias and structural biases, such as the conformity effect, can distort the decision-making process of judges and prosecutors when they are asked to review one of their own previous cases, or even one involving a colleague. One way to deal with these problems is to take the decision-making authority away from those involved in the earlier decision and to introduce other formal or informal debiasing mechanisms.

In his Comment, Professor Medwed suggests that similar internal mechanisms can be used to try to deal with the TI misconduct of corporate actors. Mechanisms that force actors to memorialize and justify their decisions, for example, can act as commitment devices by making more salient to actors, at the time that they make a decision, the potential future consequences of their actions. They can also increase the immediate costs of covering-up misconduct and reduce the immediate costs to gatekeepers of discovering past or ongoing misconduct; they can thus lead corporate actors to procrastinate committing crimes—TI obedience—and reduce the likelihood that gatekeepers will procrastinate following through with their responsibilities. Professor Medwed also proposes the use of internal review committees to monitor corporate actors.

He concludes by alluding to a third type of commitment device, which I will call “expectation management”: managers, he argues, should spend time and effort in creating and disseminating information about the behavior that they expect from those within the organization. At first glance this sort of information strategy may appear too weak to deter misconduct. However, in order to effectively deter TI misconduct all that is needed is to reduce the immediate costs of complying with the law, or increase the immediate costs of misconduct, by an amount sufficiently great to override the immediate benefit that is motivating the TI actor. To achieve this, the change in immediate costs can be relatively small: ostracism, disapproval, or other informal sanctions from colleagues can all

---

26 Cite to comment
act as commitment devices. While Professor Medwed’s suggestion regarding expectation management (and his more general suggestion of the value of increased transparency) are interesting, there is an inherent tradeoff that must be kept in mind: lack of transparency, uncertainty about sanctions and about what counts as justified and unjustified corporate behavior can increase the immediate costs of engaging in misconduct, and thus increase the likelihood of TI obedience.

**Professor Painter, “Sworn to Fun, Loyal to None: Time Inconsistent Preferences in Investment Banking”**

In his Comment, Professor Richard Painter extends the model of TI misconduct to the problem of “extreme risk-taking” by investment banks, a type of behavior that, while not criminal, can be analyzed using the model of TI misconduct. Professor Painter is concerned with changes in investment banking firms, beginning in the 1980s, that have created a number of misincentives both within individual firms, and the industry, more generally. These include organizational changes, such as the transformation of investment banks from partnerships to corporate entities and the increased use of high-powered compensation packages that encourage bankers to focus unduly on short-term returns; they also include changes in the business model of investment banks, particularly the move from traditional banking services, such as underwriting securities and advising firms involved in takeovers, to shadow banking businesses, such as borrowing large amounts of funds on a short-term basis to use to finance longer term investments, engage in proprietary trading and participate in the securitization process.

Professor Painter gives special attention to the heterogeneity of the short-term discount rates of corporate actors, and, in the process, he raises the interesting question of whether some industries, such as investment banking, are likely to attract individuals with a greater level of short-term impatience.²⁷ He is, however, primarily concerned with institutional features within investment banks that can exacerbate TI behaviors, as well

---

²⁷ See Richard Painter, Sworn to Fun, Loyal to None: Time Inconsistent Preferences in Investment Banking, 1 VA. J. CRIM. L. 360 (2013).
as those that can act as commitment devices to foreclose repeated procrastination and overconsumption.

Professor Painter argues that one “way to mitigating time inconsistent preferences is to adopt a business and social model that assigns a high present value to long term relationships.”\(^{28}\) Traditionally, investment banks made substantial investments in developing long-term business relationships and a reputation for dealing fairly with their clients and counterparties. That is, the partners running investment banks had a long-term preference to act in a relatively patient manner in their repeat interaction with clients and counterparties. They were able to commit to such a course of behavior by creating institutional incentives aimed at reducing the likelihood that partners and employees would let the pull of immediate gratification jeopardize the bank’s reputation and the partners’ long-term wellbeing.

Professor Painter argues that the practices and institutions that fostered patience and precommitment have largely disappeared, due, in large part, to the abandonment of the partnership model, the increased complexity of the investment banking business (particularly given the move toward proprietary trading), and the high-powered incentives created by exposure to the capital markets (after the banks went public), and by the use of compensation packages laden with stock options and performance bonuses.

Partnership liability does increase the likelihood that partners will monitor each other (and the employees of the partnership), and thus increases the immediate costs to partners and employees of engaging in repeated TI misconduct, such as insider trading. But because all partners are in the same position, they will each have an incentive to free-ride on the monitoring investments of the other partners. This collective action problem is analogous to that of shareholders in public corporations, although if the partnership is sufficiently small, the partners will find it easier to allocate monitoring duties and the attendant costs. However, as I discuss in the article, TI preferences exacerbate collective action problems: reaching an agreement to share the costs of producing a public good is an investment (it requires an immediate expenditure) that will, if successful, produce returns in the future; at an extreme, each member of a

\(^{28}\) See id. at 95.
group may be willing to make the full investment (and allow all other group members to free ride), but each may choose to repeatedly procrastinate producing the public good.

Professor Painter’s approach—a microanalysis of institutional and cultural characteristics within a particular industry—helps to further our understanding of self-control problems and commitment devices within the investment banking industry; moreover, it provides a useful framework that can be used to study other industries. TI misconduct can affect the speed with which companies react to changes in their operations, their expected cash flows, their competitive environment, and their costs of raising capital; moving too quickly or too slowly can be due to managers’ having made the right strategic decision, or to their self-control problems, something that such a microanalysis can help tease out.

**PROFESSOR PRENICE, “BEYOND TEMPORAL EXPLANATIONS OF CORPORATE CRIME”**

While Professor Robert Prentice, in his Comment, accepts my general argument regarding repeated TI misconduct by corporate actors, he argues that my theory fails to fully account for the messy complexity of most decision environments, and the irrational behavior exhibited by a large number of real-world decision-makers. In other words: “life is more complex for behavioral economists than for true believers in human rationality.”29 I agree: human behavior is complex, and criminal misconduct even more so (moreover, commentators will have limited direct knowledge or intuition about the deliberation process and motivations involved in criminal misconduct, if, for no other reason, than that they are not in the business of committing crimes).

But it is this very complexity that, at least in my mind, argues for small, well-specified deviations from the rational actor model: one well-worn method for finding solutions to complex problems is to divide-and-conquer: recursively solving a problem by first solving its k subparts, and then “gluing” together the solutions to the sub-problems, in order to come

up with a global solution. The model of TI misconduct by corporate actors deviates from the Beckerian model of rational criminals in small, well-specified ways; it excludes additional complicating factors in order to provide concrete insights into how even a relatively small preference for immediate gratification can lead offenders to repeatedly violate the law. But as we will see, Professor Prentice is concerned with the more general problem of the extent to which the typical offenders can be said to commit crimes, as the end result of the type of deliberation that is usually associate with rational decision-making.

As we saw above, as a general matter, a rational actor starts with a specific goal, determines the best possible path to reach that goal, and acts accordingly. Actors use different metrics to choose that “best” path: the least costly, the fastest, the one that minimizes immoral actions, and so on. For purposes of defining rational behavior, it does not matter which metric the actor chooses; what does matter is that after she has chosen the “best” path to reach the goal in question, the actor does not deviate from it, unless she has, in the meantime, learned something new that leads her to choose a new, better, course of action. An actor acts irrationally if, without new information, she overrides her original decision; if, in short, she chooses a new course of action without having a good reason (or reasons) to do so.

Under this definition, TI misconduct is a form of irrational behavior: from a long-term perspective, at time t, the offender decides that she would maximize her intertemporal utility by obeying the law; but at time t + 1, she makes a short-term decision to override that original decision. She changes her mind, not because she has learned something new about her environment, but due to a reason that (from a long-term perspective) she did not want to influence her behavior: the added weight that she gives to the immediate returns from committing the crime in question. In fact, at time t + 1, the TI offender would reach the same long-term decision vis-à-vis period t + 2: that her future self should obey the law.

It is true that, in my model, I do not take into account other sources of potential irrational behavior; but my claim is that TI misconduct is one type of deviation from the perfect rationality assumption—not the only type. I am, in fact, in agreement with Professor Prentice that “obedience to authority, conformity bias, framing, and ethical fading can help us understand why people not suffering from time-inconsistent preferences or
self-control problems can still make decisions that are not in their long-term best interests.” In fact, it seems to me that Professor Prentice and I are in agreement about a more general fact: that, as a general matter, people not only choose their long-term goals, so as to do what is in their long-term best interest, but also that they have a second-order preference to identify the best way to achieve those goals. Even if people give no prior thought to their long-term goals and best interests, there has to be a way of determining, at least hypothetically, what they would be; short of this, it is impossible to say that someone is acting rationally or irrationally.

But there is, it seems to me, an important difference between Professor Prentice’s and my approach: his corporate actors tend to make unconscious decisions, have overly compromised wills, engage in automatic behavior, and are not in the habit of making plans, or of trying to stick to them. For example, Professor Prentice argues that an important limitation of my TI misconduct model is that it is based on the “common assumption that ‘executives make explicit trade-offs between behaving ethically [and legally] and earning profits for their organizations…’” (emphasis mine). Whether or not corporate actors make explicit tradeoffs, deliberate deeply, systematically, and coherently is, in the end, an empirical question. Professor Prentice helps frame the general problem and provides a good summary of the extant evidence on irrational behavior due to undue obedience to authority, the conformity bias within groups, incremental moral disintegration, and ethical blind spots; he also shows how these rationality shortcomings can distort the decision-making process of offenders.

I agree that some corporate actors, when presented with a present opportunity to commit a crime, will, in some instances, do so with little or no on-the-spot deliberation; I am not as convinced that, from a long-term perspective, a large number of them are completely unaware of the

30 I am, in fact, in agreement with Professor Prentice that “obedience to authority, conformity bias, framing, and ethical fading can help us understand why people not suffering from time-inconsistent preferences or self-control problems can still make decisions that are not in their long-term best interests” (Prentice, supra note 11, at 147).

31 Prentice, supra note 11, at 190 (quoting MAX H. BAZERMAN & ANN E. TENBRUNSEL, BLIND SPOTS: WHY WE FAIL TO DO WHAT’S RIGHT AND WHAT TO DO ABOUT IT 4 (2011)).
possibility that they may succumb to the sort of irrational criminal behavior that Professor Prentice is concerned with. One would expect that, as in the case of TI misconduct, corporate actors will have different levels of awareness of the likelihood that they will override their long-term preferences due to undue obedience to authority, the conformity bias, or moral blank spots. Sophisticated actors are fully aware of their propensities and will take prophylactic actions to prevent their future selves from succumbing to irrationality; fully naïve actors, on the other hand, believe incorrectly that they will always act in a fully rational manner, and thus see no need to tie their hands; and partially naïve actors know that they may exhibit rationality shortcomings, but mispredict their likelihood. As a result, mandatory and default commitment devices (including legal rules, contractual mechanisms, and organizational structures) can help corporate actors pre-commit to avoiding these other types of irrationality, in the same way that they help deter TI misconduct.