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ARTICLES

REGULATING FINANCIAL INNOVATION: A MORE PRINCIPLES-BASED PROPOSAL?

Dan Awrey*

INTRODUCTION

The global financial crisis has exposed the complexity of modern financial markets. One of the primary drivers of this complexity has been financial innovation. From sub-prime mortgages, securitization, and credit default swaps to sophisticated quantitative models for measuring and managing risk, the footprints of financial innovation can be found at almost every step along the road to the Great Recession. More broadly, complexity and innovation—its nature and its pace—have combined to generate significant asymmetries of information and expertise between public regulators and private (regulated) actors and exacerbated the agency cost problems that pervade global financial markets. At the same time, the pace of innovation has left financial regulators and regulation chronically behind the curve. Identifying the optimal policy response to the complexity and nature and pace of innovation within financial markets is, accordingly, vitally important in terms of the delivery of effective financial regulation. Astonishingly, however, none of the proposals for regulatory reform which have emerged in response to the crisis—including the recently enacted Wall Street Reform and Consumer Protection Act1—directly address the challenges posed by these seemingly ubiquitous forces.

With a view to redressing this somewhat glaring oversight, this paper examines the desirability of “more principles-based” financial regulation (or MPBR) as a potential response to the challenges stemming from the complexity and innovativeness of modern financial markets. The focal point of this examination is thus the philosophy or style of financial regulation: it is concerned with who generates substantive regulation (and outcomes) within regulatory regimes and how, as opposed to the institutional structure, statutory construction, or substantive content of regulation, in and of themselves. MPBR is itself a recent innovation—cutting against the historically predominant trend toward prescriptive, rules-based approaches to financial regulation. MPBR experienced a surge in momentum in the decade or so prior to the crisis, with comprehensive principles-based regimes pursued by the United Kingdom (U.K.) Financial Services Authority (FSA), the Australian Securities and Investment

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Commission (ASIC) and other jurisdictions, most notably Canada, showing signs of moving in a similar direction. In the wake of the crisis, however, MPBR has been the target of significant—and, as I will argue, largely misguided—criticism.

Sailing against this prevailing current, this paper advances the scholarly and public policy debates surrounding the optimal approach toward financial regulation in three ways. First, it describes the core principle underlying MPBR and demonstrates how this principle transcends the now stale “rules versus principles” debate. Second, using over-the-counter (OTC) derivatives markets as a case study, it illustrates the pervasiveness and significance of asymmetries of information and expertise and agency (incentive) problems within complex, innovative financial markets and how MPBR manifests the potential to address many of the attendant regulatory challenges. Finally, and more broadly, this paper seeks to move the debate beyond the structure, perimeter, and even substance of regulation, and toward the examination of questions respecting the optimal philosophy of regulation given the complexity and innovation within modern financial markets.

The remainder of this paper proceeds as follows. Part I canvasses the traditional rules versus principles dialectic and examines its shortcomings as a determinant of public policy. Part II introduces MPBR—its core principle, the preconditions to its successful implementation and, if implemented, its wisdom and potential challenges—and illustrates how this emerging philosophy of regulation transcends the formalism of the traditional (arrested) dialectic. Employing the regulation of OTC derivatives markets as a case study in complexity and innovation, Part III illustrates how carving out a role for MPBR can ameliorate asymmetries of information and expertise vis-à-vis regulators and regulated actors, constrain agency costs, promote substantive harmonization, and generate more responsive and durable regulation. At the same time, it examines the challenges to the successful implementation of MPBR, especially in terms of fostering trust between regulators and regulated actors and minimizing the prospect of regulatory capture. Part IV concludes with some preliminary observations respecting the broader potential applications of MPBR.

I. THE TRADITIONAL RULES VERSUS PRINCIPLES DIALECTIC

A. THE TRADITIONAL DIALECTIC

The debate respecting the optimality of rules versus principles (or standards\(^2\)) as mechanisms for delivering the content of legal norms

\(^2\) The terms “principles” and “standards” are often used interchangeably in the theoretical literature. Some scholars, however, have employed the term “standard” in a manner encompassing both rules and principles. See Mark W. Nelson, *Behavioral Evidence on the Effects of Principles-
represents one of the most enduring dialectics in all of legal thought. This dialectic incorporates both descriptive and normative elements. As a descriptive matter, both rules and principles are often viewed as being comprised of two basic components: triggers and responses. Where rules and principles diverge, according to this view, is in their respective approaches toward the design of each of these components. The archetypal rule prescribes both the empirical substance of the trigger and the precise response thereby elicited, leaving only factual issues to be determined by the decision-maker (whether it be a prosecutor, judge, or regulatory authority). The archetypal principle, in contrast, leaves both the trigger and response to be determined by the decision-maker on the basis of an underlying evaluative framework.

Beyond such highly stylized conceptions, legal scholars have attempted to differentiate between rules and principles on the basis of, inter alia, their locus on a continuum from generality to specificity, their temporal orientation, the degree of discretion which they confer upon regulated actors, and the position they occupy within the hierarchy of norms. Ultimately, however, the largely binary nature of these attempts fails to reflect that, in reality, it is perhaps more accurate—and in any event more useful—to view rules and principles as “endpoints of a spectrum” integrating each of these variables (and potentially many others). Simultaneously, it seems important to acknowledge that more complex norms may contain both rules and principles and, as a corollary, the

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5. See Schlag, *supra* note 3, at 381–83. This underlying evaluative framework may itself be specified ex ante to varying degrees or left entirely to the ex post discretion of the decision-maker. The degree to which this framework is transparent to those other than the decision-maker may also vary widely in practice.


11. See id. at 27.
tendency of rules and principles to blur into one another over time. Viewed from this perspective, it seems almost inevitable that the vast majority of regulatory regimes will in practice contain a mixture of both rules and principles. Indeed, as will be discussed in greater detail in Part II, this is one of the rationales underlying the FSA’s branding of its regulatory approach as simply more principles-based.

The generic normative arguments for and against both rules and principles will be instinctively familiar to every student of the law. Indeed, these arguments have become so generic as to induce Pierre Schlag to characterize them as “drearily predictable, almost routine.” Schlag, supra note 3, at 380.


Indicia of precision, as the term is employed here, include, but are not limited to, the specificity of both a norm’s trigger and its response, its transparency (the use of language with well defined and universally accepted meanings within the relevant community) and its accessibility (the easy application of the rule to concrete situations). Diver, supra note 16, at 67–68.

14. Id. at 9.
15. Indeed, these arguments have become so generic as to induce Pierre Schlag to characterize them as “drearily predictable, almost routine.” Schlag, supra note 3, at 380.
17. Schlag, supra note 3, at 384. Indicia of precision, as the term is employed here, include, but are not limited to, the specificity of both a norm’s trigger and its response, its transparency (the use of language with well defined and universally accepted meanings within the relevant community) and its accessibility (the easy application of the rule to concrete situations). Diver, supra note 16, at 67–68.
18. Sunstein, supra note 7, at 969, 972.
greater formal equality and minimizes the potential for bias, arbitrariness, abuses of power, and rent-seeking behavior on the part of decision-makers.

Rules, however, are not without their drawbacks. The drafters of rules are invariably afflicted by cognitive and temporal constraints (i.e. bounded rationality) which undermine their ability both to draft rules which encompass all future contingencies and to foresee the unintended consequences of their drafting choices. The utilization of rules thus manifests the risk that they will be rendered anachronistic by subsequent developments. Furthermore, rules are by their very nature either over-inclusive (capturing behaviors which should be excluded) or under-inclusive (failing to capture behaviors which should be included). To the extent of this over- and/or under-inclusiveness, rules generate incentives which are incongruent with their underlying purposes. More specifically, this emphasis of form over substance incentivizes those subject to rules to engage in: (1) activities up to the boundary of permissible conduct; and (2) welfare-reducing creative compliance and regulatory arbitrage. As explained by Lawrence Cunningham: “rules can be blueprints for evading their underlying purposes. Bright lines and exceptions to exceptions facilitate strategic evasion, allowing artful dodging of a rule’s spirit by literal compliance with its technical letter.” Finally, as Cass Sunstein has suggested, rather than minimizing the potential for bias, abuses of power, and rent-seeking behavior, rules may simply serve to drive such phenomena underground.

The traditional dialectic views the benefits and drawbacks of principles as in many respects the mirror images of those typically associated with rules. In stark contrast with the precise bright-line tests residing at the heart of the rules, principles provide a more flexible and dynamic framework for addressing the diverse and ever-changing challenges of financial innovation. Principles, by their very nature, are not as rigid and rigid as rules, allowing for greater adaptability and responsiveness to new developments. Moreover, principles can be more easily modified and updated to reflect changing circumstances, thereby reducing the risk of rules becoming anachronistic.

19. Id. at 974–75.
20. Rose, supra note 16, at 591; Schlag, supra note 3, at 386; Sunstein, supra note 7, at 974–75.
21. “Bounded rationality . . . is a semistrong form of rationality in which economic actors are assumed to be ‘intendedly’ rational, but only ‘limitedly’ so.” OLIVER E. WILLIAMSON, THE ECONOMIC INSTITUTIONS OF CAPITALISM 45 (1985) (citing HERBERT A. SIMON, ADMINISTRATIVE BEHAVIOR xxiv (2d ed. 1961)). The concept of bounded rationality is grounded in the notion that, if the mind is a scarce resource, there will exist temporal and cognitive constraints on our ability to process information. Id. at 45–46.
22. Sunstein, supra note 7, at 957, 993.
23. Id. at 993–94. As discussed in greater detail infra, this assertion rests in large measure on assumptions respecting the high transaction costs of amending an anachronistic rule.
24. Kennedy, supra note 3, at 1689. Thus, for example, the archetypal rule with a pre-determined response will not distinguish between flagrant and technical violations. Schlag, supra note 3, at 386.
27. Cunningham, supra note 2, at 1423.
of rules, the primary benefits of principles derive from their flexibility and resulting durability in the face of changing factual circumstances and evolving customs and understandings. This contextual sensitivity is often viewed as enabling principles to retain a greater degree of congruence with their underlying purposes as compared with relatively static prescriptive rules. The dual traits of flexibility and durability also render principles more difficult to manipulate than rules—thereby frustrating opportunities for both creative compliance and regulatory arbitrage. Finally, as will be explored in greater detail in Part II, the use of principles can provide the foundation and impetus for dialogue. As explained by Pierre Schlag: "[b]ecause standards are cast in evaluative terms, they place the onus on the parties to work out and communicate their intentions completely and thoroughly." By promoting communication between drafters, decision-makers, and those subject to their application, principles thus manifest the potential to generate greater contextualized understandings (thereby enhancing precision, certainty, and predictability) and, simultaneously, ameliorate the potential adverse effects of bounded rationality and various forms of bias, abuses of power, and rent seeking behavior.

The drawbacks of principles derive, first and foremost, from a perceived absence of precision. Remaining faithful to the traditional dialectic (at least for the moment), the absence of precision undermines the certainty and predictability of norms formulated on the basis of principles. Principles are thus frequently criticized as rendering entitlements uncertain, thereby increasing transaction costs, discouraging careful planning and, ultimately, resulting in the sub-optimal allocation of resources. It has also been advanced that, to the extent that principles eschew clearly defined boundaries between prohibited and permissible conduct, they serve to chill risk-averse actors from engaging in otherwise acceptable behaviors. The absence of precise bright-line triggers and prescribed responses is also the source of concerns that the use of principles may lead to erratic results by decision-makers, further compounding their uncertainty and unpredictability. Building on this theme, critics often point to the opportunities that principles generate for abuses of discretion on the part of decision-makers which, in addition to generating deadweight losses, may

31. Schlag, supra note 3, at 388.
32. See Sunstein, supra note 7, at 958.
33. Id.; Rose, supra note 16, at 609.
34. Schlag, supra note 3, at 385.
35. Id.
render their application increasingly incongruent with their underlying purposes.36

What becomes evident from the recitation of these largely boilerplate arguments is that the traditional dialectic offers no clear predictions respecting the optimality of rules versus principles and, thus, few (if any) useful policy prescriptions. Indeed, the most we can extract from the dialectic is that the relative desirability of rules and principles will depend on both the design of a particular norm and the circumstance in which it is applied.37 It is a question of horses for courses. This state of affairs has prompted Pierre Schlag to observe that “[t]his dialectic doesn’t go anywhere. It is an arrested dialectic: There is no moment of synthesis.”38

B. THE DIALECTIC REDUX: A QUESTION OF COSTS

The traditional dialectic has more recently been recast in terms of the transaction and social costs stemming from: (1) the generation of legal norms; (2) their subsequent application by decision-makers; and (3) the resulting incentive effects on those subject to their application. This of course makes perfect sense. In the absence of transaction costs, drafters would be able to design infinitely precise norms contemplating the entire universe of possible contingencies and ensuring absolute congruence with their underlying purposes. Simultaneously, those subject to norms would possess a complete understanding of how they apply to their precise circumstances (thereby encouraging future planning and the efficient allocation of resources) and be wholly dis-incentivized from engaging in creative compliance or regulatory arbitrage (thereby eliminating potential social costs). Yet we live in a world of transaction (and thus social) costs in which drafters, decision-makers, and subjects face potentially significant financial, technological, cognitive and temporal constraints. It seems reasonable, therefore, to suggest that the relative costs of rules versus principles play an important role in determining their optimality.

Conventional wisdom holds that the generation of rules will typically involve the incursion of greater ex ante transaction costs attributable to the time and effort expended by drafters to articulate the empirical substance of triggers and match each trigger with the appropriate response.39 Thereafter, the expectation is that these upfront costs will translate into lower ex ante transaction costs for both decision-makers (applying rules) and subjects (evaluating the potential application of rules to their current and

36. Id.; Diver, supra note 16, at 90–92; Sunstein, supra note 7, at 958. Diver characterizes the potential for such abuses as the hidden transaction costs of controlling subordinate decision-makers. Diver, supra note 16, at 90.
38. Schlag, supra note 3, at 383.
contemplated future conduct). The same conventional wisdom holds that principles, meanwhile, to the extent that they defer judgments as to the substance of triggers and the appropriate response to the point of application, impose greater ex ante transaction costs on both decision-makers and subjects.\(^40\) Utilizing this ex ante/ex ante framework, scholars have emphasized the importance of both the frequency and homo/heterogeneity of triggering fact patterns as potential determinants of the optimality of rules versus principles.\(^41\) Scholars have also highlighted the potential private and social costs flowing from the over/under-inclusiveness of rules and, conversely, the perceived lack of certainty and predictability surrounding principles.\(^43\)

Ultimately, however, the conventional wisdom respecting the transaction and social costs of both rules and principles is almost as unsatisfactory as the traditional dialectic in which it is so deeply rooted. The preponderance of this wisdom remains empirically untested and, accordingly, must be approached with caution as a potential driver of public policy. More importantly for the present purposes, the two-dimensional transaction cost analyses which flow from this dialectic fail to adequately account for the long-term, iterative nature of the relationships between drafters, decision-makers, and subjects within many regulatory regimes. Indeed, as will be explored in Part II, the agency and transaction cost ramifications of more principles-based financial regulation provide perhaps the most intuitive illustration of how this emerging regulatory philosophy transcends the traditional (arrested) dialectic.

\(^{40}\) Korobkin, supra note 10, at 32–35. Although, as Korobkin explains, this is an oversimplification:

> Predicting what behaviors are within the law’s boundaries might be more costly under a standard than under a rule, but this is likely to depend on the content of the standard. Standards that require adjudicators to judge citizens’ actions on the basis of a cost-benefit analysis demand considerable effort on the part of citizens who wish to conform to the law in order to avoid sanctions. However, standards that require adjudicators to judge citizens’ actions on the basis of whether those actions comply with community norms might require even less effort for citizens to understand than would rules.

*Id.* at 35.

\(^{41}\) Kaplow, supra note 4, at 577; Korobkin, supra note 10, at 37. See, e.g., Sunstein, supra note 7, at 972–74. According to this view, rules are more likely to represent the optimal response to frequently recurring and homogeneous fact patterns (essentially owing to economies of scale), whereas principles are more likely to represent the optimal response to less frequent and more diverse fact patterns (where over/under-inclusiveness are intuitively more likely to raise problems). Sunstein, supra note 7, at 972–74.

\(^{42}\) See generally Diver, supra note 16.

\(^{43}\) See Korobkin, supra note 10, at 31–35.
C. THE DIALECTIC DISTILLED: A QUESTION OF VALUE TRADEOFFS

Before shifting the examination to more principles-based financial regulation, however, it is worth briefly considering the following question: *if the traditional dialectic is truly arrested, why has it proven so enduring?* One potentially compelling explanation is that the dialectic is simply a reflection of far more fundamental normative disputes between competing values: certainty versus flexibility, uniformity versus individualization, stability and security versus dynamism. 44 Along the same vein, rules and principles can be seen as representing conflicting visions of the world. 45 According to this view, whereas rules are designed to ring fence undesirable conduct in a world of self-interested individuals, principles are designed to promote “good” and “altruism” in a world inclined toward collectivism. Approached from this perspective, the traditional dialectic can be distilled down to a series of value tradeoffs. 47 Stated bluntly, the optimality of rules versus principles becomes a question of perspectives and priorities. While conceptualizing the dialectic in such terms does not serve to liberate it (indeed, quite the opposite), rendering transparent these competing visions, values, and priorities is arguably a necessary pre-condition to meaningful debate respecting the optimal design of public policy.

II. THE DIALECTIC TRANSCENDED: MORE PRINCIPLES-BASED FINANCIAL REGULATION

Without a doubt, the emergence of more principles-based financial regulation (or MPBR) represents one of the most important regulatory developments within global financial markets in these, the early (and heady) years of the 21st century. Yet in the wake of the global financial crisis, this emerging philosophy of regulation has become a lightning rod for criticism. Much of this criticism stems from the association of MPBR with the FSA (long a “thought leader” in the field), its so-called “light touch” approach to regulation, and its perceived culpability for failing either

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44. For a more thorough list of these competing values or, as Schlag characterizes them, “virtues” and “vices,” see Schlag, *supra* note 3, at 400.
46. *Id.* at 1742, 1773–74; Rose, *supra* note 16, at 592. See also Schlag, *supra* note 3, at 418–22.
47. Schlag, *supra* note 3, at 400–01.
to predict the gathering storm or fix the leaking roof whilst the sun still shined. It has not helped that MPBR has also been widely misunderstood. 

Consequently, this section begins by asking, what is more principles-based financial regulation?

MPBR is frequently described as encompassing a move away from detailed, prescriptive rules toward more high-level principles in establishing the parameters within which regulated actors are required to conduct their business activities. The “more” in MPBR, in part, reflects this shift: the baseline comparator being historically predominant rules-based approaches toward financial regulation. Viewed from this perspective, however, the distinction between MPBR and purely prescriptive, rules-based approaches effectively boils down to one of statutory construction and interpretation, with the resulting normative debate revolving primarily around the relative desirability of rules versus principles within the enforcement context. This perspective is, on one level, correct. A move toward MPBR would necessarily entail a shift in terms of statutory construction toward the articulation of broader principles. This shift would, in turn, have repercussions in terms of both statutory interpretation and enforcement. However, viewed solely from this narrow, formalist perspective, MPBR simply forms part of—and risks ultimately being subsumed within—the traditional (arrested) dialectic.

While the broader theoretical debate has undeniably influenced its development, MPBR deserves to be decoupled from the traditional dialectic for two reasons. First, rather than contemplating the wholesale abandonment of rules, MPBR envisions that rules and principles can play complementary re-enforcing roles within a regulatory regime (this, in turn, is the second rationale for characterizing MPBR as simply “more” principles-based). Indeed, MPBR reflects a tacit acknowledgement that

49. A piece of anecdotal evidence illustrating the level of misunderstanding is provided by Cristie Ford. Ford notes that “87.5% of the 75 written submissions from stakeholders” to Canada’s Expert Panel on Securities Regulation were in favor of MPBR. Ford, Global Financial Crisis, supra note 48, at 266. However, as Ford observes: “a substantial number seemed to assume that principles-based and rules-based regulation were at opposite extremes, and that a move to a more principles-based system meant substantially eliminating rules no matter how efficient or necessary they might be.” Id.

50. Black et al., supra note 30, at 191; FINANCIAL SERVICES AUTHORITY REPORT, supra note 48, at 6.


52. See Black, Forms and Paradoxes, supra note 29, at 435. See also infra Part II.B.

53. FINANCIAL SERVICES AUTHORITY REPORT, supra note 48, at 4. See Black et al., supra note 30, at 192; Ford, Global Financial Crisis, supra note 48, at 266. This vision has been explained by Julia Black:

There are strong arguments for saying that a tiered approach to rule design should be adopted—principles need an under-pinning of detailed rules in some areas—and
the effectiveness of a regulatory regime in delivering desired regulatory outcomes is a product not just of statutory design, but also institutional philosophy.\textsuperscript{54} Second, the theoretical core of MPBR clearly transcends the engrained formalism of the traditional dialectic. As explored in Part II.A., the pith and substance of MPBR is not concerned with the institutional structure, statutory construction, or even the content of financial regulation—it is concerned with who generates that regulation and in what sort of environment they generate it.

\textbf{A. MPBR IN THEORY: THE CORE PRINCIPLE}

The traditional rules versus principles dialectic reflects a legal-centric view which conceptualizes regulation as emanating exclusively from the power of the state to generate and enforce “the law.”\textsuperscript{55} The pervasiveness of this view is evidenced by the fact that proponents of both rules and principles share a marked tendency in their arguments to presuppose that there exist two (and only two) groups of actors, each performing mutually exclusive functions: one generating, monitoring, and enforcing norms (the state) and another complying with them (subjects). As depicted in Figure 1, this top-down, command-and-control paradigm envisions a world in which communication between regulators and regulated actors is effectively a one way street.

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{figure1.png}
\caption{Figure 1}
\end{figure}

\textbullet\ Generates, monitors and enforces regulation.

\textbullet\ Comply with state generated regulation.

Standing in stark contrast with the legal-centric paradigm, MPBR is premised upon an iterative, dialogic relationship within which regulated detailed rules in turn need the support and coverage of principles to thwart strategies, which seek to exploit gaps and inconsistencies in those detailed provisions.


actors (and other stakeholders) are invited to play a potentially important role within the process of generating regulation. MPBR is thus a reflection of a more expansive (or “decentered”\(^{56}\)) understanding of regulation which spans the public-private divide to encompass all forms of social control or influence—whether generated, monitored, and enforced via the apparatus of the state or other sources.\(^{57}\) This dialogic relationship also shares a number of traits with so-called “new governance” regulatory mechanisms.\(^{58}\) The basic dynamics of this relationship—examined in greater detail in Part II.B.—are depicted in Figure 2.


57. Credit for articulating this more expansive conception is often attributed to the work of Robert Ellickson regarding “non-legal” dispute resolution mechanisms developed by ranchers and farmers in Shasta County, California. See Robert C. Ellickson, *Order Without Law: How Neighbors Settle Disputes* (1991). This more expansive conception flows from the acknowledgement that instrumental public policy objectives are embedded within the design of, and normative discourses surrounding, these non-state sources of regulation. Hugh Collins, *Regulating Contracts* 56–62 (1999).

58. See Black et al., *supra* note 30, at 193; Ford, *New Governance, supra* note 13, at 5; Robert F. Weber, *New Governance, Financial Regulation, and Challenges to Legitimacy: The Example of the Internal Models Approach to Capital Adequacy Regulation*, 62 *Admin. L. Rev.* 783, 838 (2010). The term “new governance” has grown to encompass a wide range of approaches to administrative governance emphasizing polycentric and collaborative regulatory structures which span the public-private divide and envision an important role for private (i.e. non-state) actors in shaping public policy and regulation. Weber, *supra* at 785. Perhaps most significantly, new governance mechanisms—much like MPBR—seek to harness the expertise of private actors in furtherance of public regulatory objectives. *Id.* at 838. In this respect, both MPBR and new governance can be understood as pragmatic responses to the increasing complexity within many fields of human endeavor. Other parallels between MPBR and new governance include: (1) a dynamic, flexible, and dialogic lawmaking process; (2) the use of flexible forms of legal norms; and (3) the retention of a strong public role in terms of the generation and, especially, enforcement of regulation.
It is this dialogic relationship which constitutes the core principle underlying MPBR. Principles themselves, while an integral element, are perhaps best understood as uniquely responsive and durable conduits through which this relationship generates and, importantly, updates regulation. The label “MPBR” is thus somewhat misleading: a more accurate (and less tainted) moniker perhaps being “dialogic regulation.” Such branding issues aside, and before exploring its wisdom and potential challenges, the next task is to identify the essential elements—the preconditions—necessary to establish and maintain the dialogic relationship envisioned by MPBR.

B. MPBR IN PRACTICE: THE ESSENTIAL ELEMENTS

Taking the archetypal rules-based regime as a point of departure, the successful implementation of MPBR requires the fulfillment of at least four preconditions: (1) the identification and articulation by regulators of outcome-oriented principles; (2) a fundamental change in the philosophy of both regulators and regulated actors toward their respective roles in achieving desired regulatory outcomes; (3) the fostering of a new relationship between regulators and regulated actors premised on real trust, a more sophisticated dialogue, and shared understandings; and (4) a credible commitment by regulators to pursue a policy of intensive supervision combined with targeted and proportional (yet vigorous)
enforcement. These preconditions together make up the essential elements of MPBR.

The first element is the identification and articulation by regulators of legal norms—formulated as regulatory principles—which identify the regulatory outcomes (or desired behaviors) they are designed to achieve (or incentivize), and not merely the technical rules and procedures with which regulated actors are expected to comply. This precondition flows from an acknowledgement (fundamental to MPBR) that regulated actors are often better positioned than regulators—owing to both their superior expertise and greater and more timely access to firm-specific and market information—to determine the technological content of the policies and procedures necessary to achieve desired regulatory outcomes. Simultaneously, regulators are able to redeploy resources away from prescribing the technological content of regulation toward articulating the outcomes which regulated actors are expected to deliver, supervising compliance with these outcomes, and bringing targeted and proportional enforcement action to compel compliance. Ultimately, as Cristie Ford observes: “[s]ome version of outcome-oriented regulation is a necessary correlative to principles-based regulation, in that it is a responsible way to force accountability into a system that leaves the articulation of the content of those principles to on-the-ground actors.”

It is important at this juncture to distinguish between substantive and technological content for the purposes of MPBR. The substantive content of a principle is collectively made up of the animating principle itself (e.g. “a firm must conduct its business with integrity”), the statutory construction of any legal norms giving effect to this principle (e.g. anti-fraud provisions), the interpretive assumptions underpinning this statutory

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59. As explained by Dan Waters, the FSA’s principles-based approach involves “a shift of emphasis . . . away from looking at the processes carried out by firms, toward the outcomes we seek to achieve, for consumers, firms and markets.” Black et al., supra note 30, at 192 (quoting Dan Waters, Director of Retail Policy, Financial Services Authority, Speech at the ABI Conference: Implementing Principles-Based Regulation (Dec. 7, 2006)). A number of observers, and in some ways the FSA itself, understandably view MPBR and outcome-oriented regulation as representing distinct (albeit related) approaches to regulation. See, e.g., id. at 191. However, the symbiotic relationship between these approaches also provides ample justification for the view, advanced by scholars such as Cristie Ford, that MPBR represents a single and coherent philosophy of regulation. See Ford, New Governance, supra note 13, at 14.

60. Black et al., supra note 30, at 192.
61. Id.
63. In a previous article, I described technological content as “procedural” content. Dan Awrey, Principles, Prescriptions and Polemics: Regulating Conflicts of Interest in the Canadian Investment Fund Industry, 32 D ALHOUSIE L.J. 69, 86 (2009). I have changed the label to reflect what I think is a helpful distinction drawn by Cary Coglianese and David Lazer between regulation designed to intervene at the planning (management-based), acting (technology-based), and output (performance-based) stages. Cary Coglianese & David Lazer, Management-Based Regulation: Prescribing Private Management to Achieve Public Goals, 37 LAW & SOC’Y REV. 691, 693 (2003).
construction (such as the common law definition of fraud) and, importantly, the desired regulatory outcomes (e.g. the promotion of confidence in financial institutions and markets). The technological content of a principle, on the other hand, consists of the policies and procedures implemented by regulated actors for the purpose of achieving desired regulatory outcomes. While responsibility for articulating the substantive content of principles resides with regulators, MPBR contemplates that the technological content of principles will in many cases be generated by regulated actors. It further contemplates that regulators will leverage the information and expertise of regulated actors when generating and updating substantive content.

The outcome-oriented focus of MPBR envisions a fundamental change in the philosophy of both regulators and regulated actors toward their respective roles in achieving desired regulatory outcomes. There are several intertwined facets to this change. First, MPBR necessitates that regulators provide clear and robust guidance respecting the substantive content of principles. Second, to the extent that MPBR contemplates that the technological content of principles will be generated by regulated actors, it demands that regulators loosen their grip on the reigns of regulation and, in so doing, devolve responsibility to—and leverage the accumulated expertise of—regulated actors in vital areas such as risk management. This in turn requires that a good faith sphere be expressly carved out in which regulated actors are free to design and implement technological content with a view to achieving desired regulatory outcomes. Of particular importance in this regard is a philosophy of transparency, predictability, and restraint in the deployment of enforcement resources. In the absence of such a sphere, regulated actors are more likely to behave as though subject to prescriptive rules, thereby negating many of the prospective benefits of MPBR described in Part II.C.

The outcome-oriented focus of MPBR concomitantly envisions a fundamental shift in the role and responsibilities of regulated actors within a regulatory regime. MPBR requires that regulated actors actively and meaningfully engage with principles at the highest level with a view to generating technological content capable of achieving desired regulatory outcomes. This contemplates both a more hands-on role for boards of

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64. Relative to historically predominant rules-based approaches to financial regulation.
66. Black, Forms and Paradoxes, supra note 29, at 439. Mechanisms for disseminating such guidance include, but are not limited to, “official administrative guidance, speeches, ‘no action’ or ‘Dear CEO’ letters, compliance audits, comments on industry standards, or specific enforcement actions.” Ford, Global Financial Crisis, supra note 48, at 278.
68. Black et al., supra note 30, at 200.
69. Id. at 197; Ford, Global Financial Crisis, supra note 48, at 288–89.
70. Black, Forms and Paradoxes, supra note 29, at 449; Steven L. Schwarz, The ‘Principles’ Paradox, 10 EUR. BUS. ORG. L. REV. 175, 176 (2009).
directors and senior management in terms of their oversight and stewardship of regulatory compliance matters\textsuperscript{71} and, simultaneously, a more strategic business role for firm compliance, risk management, and audit personnel.\textsuperscript{72} Importantly, it also contemplates a change in the mindset of (many) regulated actors. As explained by the FSA in the context of its migration toward a more principles-based regime:

Firms must change their own behaviour and grasp the opportunities this presents for increased innovation and more flexible operations, while at the same time fully appreciating their regulatory responsibilities and ensuring that they deliver against them.

This will mean a shift in focus from managing a legally driven process of compliance with detailed rules to managing the delivery of defined outcomes in a more flexible regulatory environment.

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Effective compliance will evolve away from a primary focus on the designing, implementing and monitoring processes that embed detailed regulatory rules in business operations. Instead, it will increasingly require the exercise of judgment.\textsuperscript{73}

Accordingly, in addition to a potentially significant shift in the overall regulatory burden in terms of the generation of technological content, MPBR thus demands from regulated actors a deeper philosophical change in terms of their attitude and approach toward their role in achieving desired regulatory outcomes.

The third essential element of MPBR contemplates a sea change in the relationship between regulators and regulated actors. This change springs from the rejection of the prescriptive, command-and-control relationship of regulated (dis)trust, enforced through an adversarial process, which has generally characterized financial regulation—both before and in the wake of the global financial crisis. Residing at its core, as previously discussed, is a more honest and sophisticated dialogue within which: (1) regulators are more transparent about their expectations and the regulatory outcomes they desire to achieve; and (2) regulated actors are more willing to share their superior information and expertise with a view to achieving regulatory objectives and more forthcoming about the challenges they face in aligning their business activities with these objectives.\textsuperscript{74} The goal of this enhanced

\footnotesize{\textsuperscript{71} Financial Services Authority Report, supra note 48, at 2; Black et al., supra note 30, at 193.}

\footnotesize{\textsuperscript{72} Financial Services Authority Report, supra note 48, at 17. See also Black et al., supra note 30, at 200.}

\footnotesize{\textsuperscript{73} Financial Services Authority Report, supra note 48, at 17. See also Black, Forms and Paradoxes, supra note 29, at 439.}

\footnotesize{\textsuperscript{74} Financial Services Authority Report, supra note 48, at 8, 17. See also Black, Forms and Paradoxes, supra note 29, at 439; Ford, Global Financial Crisis, supra note 48.}
dialogic relationship is to foster “shared understandings” 75 between regulators and regulated actors regarding their respective roles and responsibilities within the regulatory regime, the substantive content of principles, and the real world outcomes regulators hope (and can reasonably expect) to achieve. 76 The cultivation of these shared understandings requires the creation of a “new regulatory architecture” 77 in the form of “interpretive communities.” 78 These interpretive communities—made up of regulators, regulated actors, and third-party stakeholders (such as industry trade associations, investor advocacy groups, and the broader policy community 79)—constitute the driving force behind MPBR: generating, updating, and disseminating substantive and technological content on a dynamic basis in response to market and regulatory developments.

The forth essential element of MPBR is a credible commitment on the part of regulators to pursue a policy of intensive supervision and targeted and proportional (yet vigorous) enforcement. Supervision and enforcement take on special importance within a more principles-based regime for three related reasons. First, intensive supervision—that is to say, supervision characterized both by a high frequency of interactions and high levels of expertise and independence on the part of supervisors—facilitates greater information flow between regulators and regulated actors and provides a built-in feedback mechanism for communicating regulatory expectations in a non-public, non-adversarial fashion. 80 Intensive supervision thus forms the front line of the enhanced dialogic relationship between regulators and regulated actors. 81 Second, insofar as MPBR contemplates the devolution of responsibility for generating the technological content of principles to regulated actors, intensive supervision and the credible threat of enforcement are necessary in order to ensure the greatest possible

75. Black et al., supra note 30, at 194. As Black et al. explain:

Whether a rule is clear or certain depends on shared understandings. Just looking at a rule does not tell us whether it is certain. . . . Whether or not a rule is “certain” depends not so much on whether it is detailed or general, but whether all those applying the rule (regulator, regulated firm, court/tribunal) agree on what the rule means.

Id.

76. Id. at 203–04.

77. FINANCIAL SERVICES AUTHORITY REPORT, supra note 48, at 8.

78. Schwarcz, supra note 70, at 184.

79. Ayres and Braithwaite have used the term “tripartism” to describe this sort of participation by third-parties within the regulatory process. AYRES & BRAITHWAITE, supra note 16, at 54–100.

80. See Ford, New Governance, supra note 13, at 35.

81. Intensive supervision will be particularly vital during the transition toward a more principles-based regime. See Black, Forms and Paradoxes, supra note 29, at 443 (examining the importance of intensive supervision within the context of the FSA’s role-out of its “Treating Customers Fairly” (TCF) Initiative).
congruence between private incentives and public regulatory objectives.\textsuperscript{82} At the same time, and as described above, MPBR necessitates that regulators strike a delicate balance between the use of supervision and enforcement to compel compliance and the desire to foster a more honest dialogue and stimulate regulatory innovation.\textsuperscript{83} At the fulcrum of this balance is a strategy of targeted and proportional enforcement sensitive to whether any given transgression represents a case of well-intentioned misjudgment or a more deliberate (or willfully blind) attempt to exploit the inherent discretion conferred upon regulated actors under MPBR.\textsuperscript{84} Whereas the former may be addressed within the dialogic relationship itself without resort to formal enforcement proceedings, the later demands swift and decisive action on the part of regulators.\textsuperscript{85} This dovetails with the final reason why intensive supervision and vigorous enforcement are particularly important within a more principles-based regime: the need to identify, punish, and potentially remove from the marketplace altogether (via de-licensing) those “bad apples” whose willful misconduct would otherwise threaten to erode the mutual trust upon which MPBR is premised. Accordingly, while often overlooked by regulators and other observers prior to the global financial crisis, intensive supervision and targeted and proportional enforcement are clearly vital to the success of MPBR.

What emerges from the foregoing discussion is that the essential elements of MPBR—where they all coalesce—form something of an equilibrium. Simultaneously, however, the absence of any one element is likely to thwart the implementation, or precipitate the systemic unraveling, of a regulatory regime founded upon MPBR. The experiences of the FSA are illustrative in this regard: its failure both to foster interpretive communities (or engage as a meaningful participant within them) and to pursue a policy of intensive supervision and vigorous enforcement ultimately undermining its attempts to implement MPBR.\textsuperscript{86} Indeed, regulators seeking to harness the prospective benefits of MPBR must address a myriad of potential challenges.

\textsuperscript{82} Ayres & Braithwaite, supra note 16, at 19–53. The retention of a strong public role for supervision and enforcement also serves to distinguish MPBR from various forms of self-regulation. Id. See, e.g., Weber, supra note 58, at 811–12.

\textsuperscript{83} Expert Panel Report, supra note 48, at 20.

\textsuperscript{84} Id.

\textsuperscript{85} Ford, New Governance, supra note 13, at 48. To this end, MPBR also requires that a robust array of remedial mechanisms (including de-licensing) be available in respect to the violation of principles themselves. Id. The “enforcement pyramid” envisioned by Ayres and Braithwaite, at the apex of which resides a “benign big gun” (i.e. a regulatory agency with the power to de-license regulated actors), would seem an appropriate starting point in devising such a model. Ayres & Braithwaite, supra note 16, at 35–36.

\textsuperscript{86} See Schwarz, supra note 70, at 183–84.
C. THE WISDOM AND POTENTIAL CHALLENGES OF MPBR

If successfully implemented, the wisdom and prospective benefits of MPBR would potentially flow from four primary sources: (1) the attenuation of chronic asymmetries of information and expertise between financial regulators and regulated actors; (2) greater congruence between the private incentives of regulated actors and public regulatory objectives; (3) its responsiveness to changing customs, understandings, and new market developments; and (4) its durability as a source of regulation. Each manifests important advantages in terms of the regulation of financial innovation.

Financial regulators face chronic and potentially severe asymmetries of information and expertise vis-à-vis regulated actors. These asymmetries are products of, inter alia: (1) the high-powered economic incentives unique to regulated actors to invest in the acquisition of information and expertise; and (2) incomplete and often less than timely access of regulators to market and firm-specific information. These asymmetries are likely to be most pronounced on the cutting edge of financial innovation. MPBR holds the potential to attenuate—although perhaps not eliminate—these asymmetries. As described above, it contemplates that regulated actors will, as part of the enhanced dialogic relationship, be more willing to share their superior information and expertise with regulators. The interpretive communities fostered by MPBR—where substantive and technological content is continuously generated, updated, and disseminated—can similarly be viewed as conduits for the accumulation of information and expertise by regulators. Insofar as it can successfully ameliorate these asymmetries, MPBR manifests clear benefits for regulators: making them more effective supervisors and enforcers and, importantly, more capable of playing an active leadership role within interpretive communities. MPBR also manifests potential benefits for compliance-oriented regulated actors by helping to overcome the adverse selection (or “lemons”) problem which might otherwise persuade regulators to approach all regulated actors and activities with (potentially unwarranted) suspicion.

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88. In many cases, of course, these asymmetries will also be the product of the financial constraints on regulators.

89. See Awrey, supra note 87, at 175–76 (discussing the challenge of information asymmetry in the context of increasingly complex financial instruments).

90. Whether regulated actors will actually share this information and expertise is something of an open question and is, accordingly, explored in greater detail infra.

The global financial crisis serves as a powerful reminder that the incentives of private actors will often diverge from the broader public welfare. Intuitively, one would expect this divergence to be particularly acute within new and innovative financial markets. Within such markets, private actors possess powerful incentives to rapidly invest resources with a view to capitalizing upon temporarily high profit margins. At precisely the same time, however, regulators are likely to encourage caution and restraint with a view to identifying the attendant regulatory challenges and crafting the appropriate policy response. MPBR aims to encourage greater congruence between these private incentives and public regulatory objectives via several mechanisms. First, having been ex ante participants in the generation of technological content and within various interpretive communities, MPBR implicitly seeks to engender a higher level of commitment from regulated actors in terms of ex ante compliance. Second, the articulation of outcome-oriented principles acts as a constraint on the discretion that MPBR confers upon regulated actors with respect to the design and implementation of technological content, effectively minimizing the opportunities for welfare-reducing creative compliance and regulatory arbitrage. Finally, MPBR leverages the credible threat of swift and decisive enforcement action (including de-licensing) in response to the violation of regulatory principles in order to recalibrate the incentives of those private actors who might otherwise seek to abuse this discretion.

The third source of prospective benefits flowing from MPBR is its inherent capacity to respond to changing customs, understandings, and new market developments. As Cristie Ford explains, the benefits of such responsiveness are perhaps best understood in juxtaposition to more prescriptive, rules-based regulatory approaches:

The advantage of regulatory principles, as opposed to detailed rules, is not that they will remain forever vague, but rather that their content can be filled in more dynamically and insightfully by those with the greatest

92. Concomitantly, this is also likely to be the point at which the asymmetries of information and expertise vis-à-vis regulators and regulated actors will be most acute.

93. The advantages of MPBR in terms of the promotion of congruence are particularly clear when compared with more prescriptive, rules-based approaches to regulation. Prescriptive rules are by their very nature either over-inclusive or under-inclusive and thus promote or deter the behavior of regulated actors in ways which are incongruent with their underlying purposes. See discussion supra Part I.A. Accordingly, as Ford observes: “prescriptive requirements emphasize the wrong things. That is, they encourage firms to focus on detailed compliance rather than to exercise sound judgment with a view to the best interests of their clients and the markets.” Ford, New Governance, supra note 13, at 19.


95. Black et al., supra note 30, at 195; Black, Forms and Paradoxes, supra note 29, at 438.
understanding of the relevant situations. . . . The difference is that their content is meant to remain flexible and up to date—that rather than ossifying, the principles’ content will continue to evolve, discarding older formulations as newer, more comprehensive or effective ones emerge.96

The responsiveness of MPBR is thus of particular utility (especially relative to more prescriptive, rules-based approaches)97 within the context of financial markets, where change and innovation are among the only constants.98 Importantly, the responsiveness of MPBR—and in particular its ability to evolve to reflect new market developments without modification to its substantive core—further minimizes the potential opportunities for creative compliance and regulatory arbitrage. Indeed, when combined with its outcome-oriented focus, the responsiveness of MPBR arguably renders it more or less impervious to evasion.

Finally, the responsiveness of MPBR enhances its durability as a source of regulation. The generation of prescriptive rules represents a crystallized—and therefore relatively static—response to the prevailing conditions within a market, regulatory, and political environment at a particular moment in time.99 Thereafter incapable of reflecting changing conditions or new learning, rules “ossify” quickly and, thus, require constant amendment in order to respond to the rapid pace of change and innovation that characterizes modern financial markets.100 In sharp contrast, the responsiveness of MPBR enables it to evolve organically in response to market developments and new regulatory challenges, often without the need for formal regulatory intervention.101 Accordingly, as observed by Lawrence Cunningham, “[i]n rapidly changing environments, such as securities markets, rules can become obsolete faster than principles.”102

The wisdom of MPBR is perhaps most intuitively understood in terms of the agency and transaction cost implications of the long-term, iterative “relational contract”103 formed between regulators and regulated

96. Ford, New Governance, supra note 13, at 36 (emphasis added).
97. Black et al., supra note 30, at 193.
98. Weber, supra note 58, at 812–13. Here we find an obvious and important parallel between MPBR and new governance. As explained by Weber, “[n]ew governance tools aim to respond to the continual changes of regulated society and knowledge itself, so ‘all solutions [to problems] should be seen as provisional.’” Id. at 838 (quoting David M. Trubek & Louise G. Trubek, New Governance & Legal Regulation: Complementarity, Rivalry, and Transformation, 13 COLUM. J. EUR. L. 539, 542 (2006)).
99. See Black et al., supra note 30, at 193.
100. Ford, New Governance, supra note 13, at 36.
101. Id. at 45.
102. Cunningham, supra note 2, at 1423 (citing Frank Partnoy, A Revisionist View of Enron and the Sudden Death of “May,” 48 VILL. L. REV. 1245, 1265 (2003)).
actors. The reason for this intuitiveness is perhaps that the relationship is essentially a contract between a licensor (the regulator) and licensee (the regulated actor) wherein the regulator, in exchange for certain undertakings (e.g. compliance with regulation), grants the regulated actor a license to engage in business activities within the parameters of their registration.

Although, as described in greater detail below, regulated actors are not the only parties in respect to which agency cost concerns arise within the context of MPBR.

Enhancing the expertise and information possessed by regulators may also generate transaction cost benefits to the extent that, after accounting for acquisition costs, regulators are able to more cost-effectively identify, understand, and respond to new market developments.

See Williamson, supra note 103, at 236–37.

In the sense either of being Pareto optimal or manifesting zero transition costs.

The FSA, for example, earmarked £50 million to cover non-recurring expenses relating to, inter alia, reorganization costs, training and development, and improved knowledge management
Ultimately, however, such investments may provide a useful signal to regulated actors that regulators are committed to MPBR, thus potentially helping to overcome the trust paradox described in greater detail below.

Financial regulators seeking to harness the prospective benefits of MPBR must also address a host of potential challenges. The most frequently cited of these challenges, perhaps not surprisingly, emanate from the traditional dialectic: a perceived absence of certainty surrounding principles resulting in unpredictability in their application. Articulated somewhat differently, the inherent flexibility of MPBR gives rise to the possibility that regulators and regulated actors will fail to arrive at shared understandings respecting the scope and/or substantive content of principles. Understandably, regulated actors do not wish to operate within an environment of regulatory uncertainty—especially where there are significant costs associated with the risk of “getting it wrong.” Within such an environment, one might expect some regulated actors to adopt more conservative interpretations of principles as a way of mitigating this risk, thus generating an unintended “chilling effect.” Julia Black has characterized this as the “compliance paradox” of MPBR. Insofar as it incentivizes regulated actors to err on the side of caution in this way, the absence of sufficient certainty and predictability thus runs counter to the prevailing current of MPBR—stifling regulatory innovation rather than promoting it. At the same time, however, this critique ignores the extent to which the more honest and sophisticated dialogue and greater mutual trust between regulators and regulated actors residing at the heart of MPBR may actually serve to enhance the certainty and predictability surrounding principles.

The potential absence of sufficient certainty and predictability also raises the prospect of “regulatory creep.” The concept of regulatory creep proceeds from the premise that regulation—like matter in a gaseous state—will inevitably expand into any empty space that it encounters. Viewed in this light, the flexibility of MPBR introduces the possibility that it may be used (and abused) by regulators to expand the reach of the regulatory hand into the business activities of regulated actors in a discretionary or arbitrary manner.

In connection with its transition to a more principles-based regime, Financial Services Authority Report, supra note 48, at 18.

110. Black et al., supra note 30, at 196.
111. This possibility is arguably rendered more likely by virtue of the proliferation of guidance (and sources of guidance) within the interpretive communities of MPBR. Id. at 197; Nelson, supra note 2, at 94.
112. Black et al., supra note 30, at 195.
113. Black, Forms and Paradoxes, supra note 29, at 449.
115. Black et al., supra note 30, at 196.
A similar risk arises in connection with the technological guidance generated within interpretive communities, where a concern exists that industry-developed “recommended,” “good,” or “best” practices will be invoked by regulators as an “opaque proxy” for prescriptive rules. While the risk of regulatory creep is omnipresent, it is particularly acute in the context of politically charged environments such as that which has followed in the aftermath of the global financial crisis.

The challenges posed by the potential uncertainty and unpredictability of principles should not be discounted. The two most significant challenges, however, stem not from the nature of principles, but rather the nature of the relationship which MPBR envisions between regulators and regulated actors. The first of these challenges is how to build the mutual trust necessary to sustain truly dialogic relationships. As the FSA has acknowledged, fostering and maintaining this trust is the “acid test” of MPBR. However, while the new regulatory architecture of MPBR manifests the potential to generate greater mutual trust, a fairly high threshold level of trust would instinctively seem necessary at the outset of the relationship in order to get MPBR off the ground. Black has characterized this as the “trust paradox.” Overcoming the trust paradox may prove particularly difficult in the current climate, where the global financial crisis has served to undermine public confidence in the expertise and incentives of both regulators and regulated actors. In the wake of the crisis, therefore, it remains an open question whether MPBR can generate the level of mutual trust necessary to unlock its inherent potential.

The second significant challenge posed by the nature of the enhanced dialogic relationship is the prospect of regulatory capture. As described above, MPBR contemplates close contact and collaboration between regulators and regulated actors within the context of both their supervisory relationships and as participants within interpretive communities. The frequency and intensity of these interactions places regulated actors in an advantageous strategic position relative to other stakeholders to influence—the long-term and in potentially very subtle and sophisticated ways—the attitudes of regulators and, accordingly, the substantive content of regulation. The potential for such “soft” capture is exacerbated by the

116. Cunningham, supra note 2, at 1433.
118. Although, as previously discussed, the enhanced dialogic relationship and interpretive communities contemplated by MPBR are specifically designed to address these challenges.
119. FINANCIAL SERVICES AUTHORITY REPORT, supra note 48, at 18.
120. Black, Forms and Paradoxes, supra note 29, at 456.
121. Along with the likely disparity between the resources possessed by regulators and regulated actors.
122. For an excellent description of how the U.S. banking industry has succeeded in capturing both federal banking regulators and the U.S. Congress, primarily by inculcating a pervasive belief
chronic asymmetries of information and expertise described above. Minimizing the opportunities for capture, and with it the hollowing out of substantive regulation by powerful vested interests, is thus of vital importance to the success of MPBR. Potential strategies for minimizing such opportunities will be explored in Part III.

It is a testament to the enormity of the foregoing challenges that the essential elements of MPBR have yet to be implemented in their entirety in any jurisdiction. Even the standard-bearer of MPBR—the FSA—has failed thus far to acquire the expertise (or will) necessary to assert itself as an active participant within interpretive communities and, thus, as an effective counterweight to regulated actors.123 Perhaps more fundamentally, the FSA’s adherence to a belief in the self-correcting nature and optimality of free and unfettered financial markets prior to the crisis124 undermined both the intensity (and focus125) of its supervision and the vigor with which it pursued enforcement action. Nevertheless, its inherent promise—combined with the potential shortcomings of more prescriptive, rules-based approaches—suggests that it is far too early to write MPBR off. Indeed, time may well be a critical success factor; time to build mutual trust and accrete substantive content. Accordingly, and with a view to the future, the time has come to examine a case study illustrating both the wisdom and potential challenges of MPBR: the regulation of OTC derivatives markets.

III. MPBR AND FINANCIAL INNOVATION: THE REGULATION OF OTC DERIVATIVES MARKETS

OTC derivatives markets are the 800-pound gorillas of the global financial system.126 At their most basic level, OTC derivatives are constructed out of two basic building blocks: options and forwards.127 These

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123. Ford, Global Financial Crisis, supra note 48, at 261.
125. Effectively by causing the FSA to shift its focus away from potential systemic risks. Id.
126. As of December 2009, the Bank for International Settlements reported the outstanding notional value of all OTC derivatives at $615 trillion: several times the global (M3) money supply. BANK FOR INT’L SETTLEMENTS, BIS QUARTERLY REVIEW 25 (June 2010), available at http://www.bis.org/pub/qtrpdf/r_qt1006.pdf. However, while illuminative of the size and growth of derivatives markets, notional value—effectively the benchmark against which cash flows are calculated in the context of derivatives transactions—does not provide an accurate picture of value actually at risk. This is illustrated, for example, by the fact that while the gross market value of all OTC derivatives decreased by 15% between June and December 2009, gross credit exposures fell by only 6% during the same period. Id.
127. Whereas options represent a contingent right to acquire or dispose of an asset in the future at a pre-determined price, forwards represent an obligation to do so. See Ed Murray, UK Financial
building blocks can then be combined in an infinite number of ways (and with reference to an infinite number of underlying assets), thus giving birth to the overwhelming diversity and dazzling complexity observed within modern OTC derivatives markets. From “plain vanilla” currency, interest rate, and equity-linked swaps, to credit derivatives, complex structured notes, and other securitisations, the structure and potential uses of OTC derivatives are theoretically as boundless as the imaginations of the Wall Street and Canary Wharf “rocket scientists” who create them. Put simply, OTC derivatives markets are hotbeds of financial innovation.

The regulation of OTC derivatives markets represents a compelling case study for at least two other reasons. First, OTC derivatives played a prominent role in both the origins and spread of the global financial crisis. Asset-backed securities and complex collateralized debt obligations (CDOs) resided at the heart of the “originate and distribute” lending model which precipitated the U.S. sub-prime mortgage crisis. The liquidity crunch unleashed by the resulting market uncertainty tore through the balance sheets of many financial institutions, sparking the flight of assets and collateral calls which triggered the near collapse of Bear Stearns, the bankruptcy of Lehman Brothers, and the government bailout of AIG between March and September 2008. Second, as amply illustrated by the crisis, OTC derivatives markets pose a number of significant challenges for financial regulators. Many of these challenges stem from the complexity,


128. For a more comprehensive overview of the taxonomy of OTC derivatives, see generally SATYAJIT DAS, THE SWAPS AND FINANCIAL DERIVATIVES LIBRARY (3rd ed. 2006).

129. Rather than continuing to hold debt (un-hedged) on its balance sheet, the originate-and-distribute model contemplates that lenders will repackage debt and distribute it to third party investors via securitization. Amongst other implications, this has the effect of eliminating the lenders’ exposure to borrower default and, thus, reduces the incentives of lenders to invest resources with a view to monitoring creditor quality.

130. Many of which were themselves linked to OTC derivatives.


133. For a detailed account of AIG’s derivatives operations, how they precipitated the firm’s downfall, and the subsequent bailouts, see William K. Sjostrom, Jr., The AIG Bailout, 66 WASH. & LEE L. REV. 943 (2009).

134. These challenges stem from, inter alia: (1) the size of OTC derivatives markets; (2) the complex inter-connections they create between derivative, underlying, and related markets; and (3) the opportunities they generate for opportunism, market manipulation, and regulatory arbitrage.
opacity, and pace of innovation within OTC derivatives markets and, accordingly, highlight the chronic asymmetries of information and expertise which confront financial regulators. The regulation of OTC derivatives markets thus represents a significant—and socially important—real world test of the wisdom and prospective benefits of MPBR.

OTC derivatives markets have historically fallen outside the perimeter of U.S. financial regulation.\textsuperscript{135} The absence of regulatory intervention was primarily attributable to a pervasive belief—enshrined in the Commodity Futures Modernization Act of 2000 (CFMA)\textsuperscript{136}—in the societal benefits generated by free markets and their role in securing the United States’ global position.\textsuperscript{137} In the wake of the global financial crisis, however, the White House, Congress, and U.S. financial regulators have been spurred to re-evaluate this non-interventionist stance and determine how best to respond to the complexity, opacity, and systemic importance of OTC derivatives markets. The centerpiece of the U.S. response was enacted in July 2010 as Title VII of the Dodd-Frank Wall Street Reform and Consumer Protection Act.\textsuperscript{138}

A. OTC DERIVATIVES MARKETS AND THE DODD-FRANK ACT

The Obama Administration has characterized the objectives of its new approach toward the regulation of OTC derivatives markets as to: (1) guard against excessive systemic risk; (2) promote “transparency and efficiency”; (3) prevent “market manipulation, fraud, insider trading, and other market abuses”; and (4) block inappropriate marketing to unsophisticated parties.\textsuperscript{139} The Dodd-Frank Act employs three primary mechanisms in pursuit of these

\textsuperscript{135} From their inception until the enactment of the Commodity Futures Modernization Act of 2000, Pub. L. No. 106-554, 114 Stat. 2763 (2000), OTC derivatives markets enjoyed a de facto exemption from regulation largely attributable to the jurisdictional posturing of the Securities Exchange Commission (SEC), Commodity Futures Trading Commission (CFTC), and federal banking regulators. See generally Roberta Romano, The Political Dynamics of Derivatives Security Regulation, 14 YALE J. ON REG. 279 (1997) (discussing the multiple regulator status of financial derivatives and contemplating a shift to a unitary approach). This exemption was formalized under the CFMA, which exempted OTC derivatives markets from regulatory oversight by the SEC, CFTC and state regulators.


\textsuperscript{137} Indeed, this view pervades the 1999 Report of the President’s Working Group on Financial Markets that provided the inspiration for the CFMA. See President’s Working Grp. on Fin. Markets, OVER-THE-COUNTER DERIVATIVES MARKETS AND THE COMMODITY EXCHANGE ACT (1999); see also JOHNSON & KWAK, supra note 122.


\textsuperscript{139} Treasury Press Release, supra note 138.
objectives. First, the Act confers upon the CFTC and SEC the authority to require “swaps” and “security-based swaps,” respectively, to be centrally cleared through CFTC-regulated derivatives clearing organizations or through SEC-regulated securities clearing agencies (CCPs). A (security-based) swap will be exempt from the central clearing and exchange trading requirements if one of the counterparties is not a “financial entity” or is using the instrument to “hedge or mitigate

140. However, not included is the so-called “push out” of (most) derivatives activities of federally insured banks to separate non-bank affiliates. See Dodd-Frank Wall Street Reform and Consumer Protection Act § 716. Also not included is the so-called “Volcker Rule,” which limits proprietary trading of derivatives by bank holding companies. Id. § 619.

141. Taken together, the definitions of “swap” and “security-based swap” encompass the vast majority of OTC derivatives instruments. See id. §§ 721, 761. That said, the dividing line between swaps and security-based swaps is not altogether clear under the Dodd Frank Act, especially with respect to swaps based on a portfolio of assets, such as those which often form the subject matter of structured finance transactions.

142. In very broad terms, CCPs interpose themselves as counterparties to what would otherwise be a number of bilateral transactions, thus assuming counterparty risk and centralizing, inter alia, clearing and settlement procedures, trading data, and risk management functions. The potential benefits of CCPs are discussed in greater detail below. See BANK FOR INT’L SETTLEMENTS & TECHNICAL COMMITTEE OF THE INT’L ORG. OF SECURITIES COMMISSIONS, CONSIDERATIONS FOR TRADE REPOSITORIES IN OTC DERIVATIVES MARKETS: CONSULTATIVE REPORT 2–3 (2010) [hereinafter IOSCO TRADE REPOSITORIES IN OTC DERIVATIVES MARKETS REPORT].

143. Dodd-Frank Wall Street Reform and Consumer Protection Act §§ 723, 763. The process of determining whether a particular group, category, type or class of (security-based) swap will be subject to the central clearing and exchange-trading requirements can be initiated by either the relevant CCP or the relevant regulator. Id. § 723(h)(2)(A). CCPs are required to submit to the CFTC or SEC, as applicable, “any group, category, type, or class of [security-based] swap” it intends to accept for clearing and provide notice of this submission to its members. Id. § 723(h)(2)(B)(i). In reviewing a submission, the CFTC or SEC will determine whether the submission is consistent with the core principles of the relevant CCP. Id. § 723(h)(2)(D)(i). The relevant regulator is also required to take into account the following factors:

(I) The existence of significant outstanding notional exposures, trading liquidity, and adequate pricing data.

(II) The availability of a rule framework, capacity, operational expertise and resources, and credit support infrastructure to clear the contract on terms that are consistent with the material terms and trading conventions on which the contract is then traded.

(III) The effect on the mitigation of systemic risk, taking into account the size of the market for such contract and the resources of the [CCP] available to clear the contract.

(IV) The effect on competition, including appropriate fees and charges applied to clearing.

(IV) The existence of reasonable legal certainty in the event of the insolvency of the relevant [CCP] or 1 or more of its clearing members with regard to the treatment of customer and swap counterparty positions, funds, and property.

Id. § 723(h)(2)(D)(ii).

144. Id. § 723(h)(7)(A)(i). The definition of financial entity includes (security-based) swap dealers, major (security-based) swap participants, and other categories of financial institution. Id. § 723(h)(7)(C).
commercial risk.\textsuperscript{145} The principle advantage of centralized clearing and settlement is the potential mitigation of counterparty and systemic risk via the: (1) multilateral netting of exposures;\textsuperscript{146} (2) collateralization of residual net exposures;\textsuperscript{147} (3) enforcement of robust risk management standards;\textsuperscript{148} and (4) mutualization of losses resulting from clearing member (CM) failures.\textsuperscript{149} The centralization of trade data within CCPs and trade repositories (TRs)\textsuperscript{150} also facilitates greater market transparency and, accordingly, enables regulators to more effectively monitor systemic risk.\textsuperscript{151} Second, the Act requires that all (security-based) swaps subject to the central clearing requirement trade on a regulated board of trade, exchange, or alternative swap execution facility, thus promoting greater price transparency and curbing opportunities for market abuse.\textsuperscript{152} Un-cleared (security-based) swaps are subject to reporting and recordkeeping requirements.\textsuperscript{153} In order to incentivize greater utilization of centrally-cleared and exchange-traded instruments, it is likely that the new regime will ultimately impose higher capital and margin requirements in connection with un-cleared (security-based) swaps.\textsuperscript{154}

\textsuperscript{145} Id. § 723(7)(A)(ii). This exemption is subject to a notification requirement. The non-financial or hedging counterparty retains the option to require that the instrument be centrally cleared. Id.

\textsuperscript{146} Thus decreasing the complexity and resulting opacity of the interconnections within OTC derivatives markets.

\textsuperscript{147} Effectively creating a first loss position which serves as a capital buffer in the event of counterparty default.

\textsuperscript{148} By, for example, prescribing rules regarding the appropriate design and implementation of stress tests in respect of the financial models utilized by market participants.

\textsuperscript{149} See THE INT’L MONETARY FUND, GLOBAL FINANCIAL STABILITY REPORT: MEETING NEW CHALLENGES TO STABILITY AND BUILDING A SAFER SYSTEM 97 (2010), available at http://www.imf.org/external/pubs/ft/gfsr/2010/01/pdf/text.pdf [hereinafter IMF REPORT]. At the same time, however, it is important to acknowledge that CCPs concentrate counterparty, and thus systemic, risk.

\textsuperscript{150} A TR is a centralized registry that maintains a database of transaction records. TRs “may also engage in the management of trade life-cycle events and downstream trade processing services.” IOSCO TRADE REPOSITORIES IN OTC DERIVATIVES MARKETS REPORT, supra note 142, at 1.

\textsuperscript{151} See IMF REPORT, supra note 149, at 105–106.

\textsuperscript{152} Dodd-Frank Wall Street Reform and Consumer Protection Act §§ 723, 763, Pub. L. No. 111-203, 124 Stat. 1376, 1675–82, 1762–84 (2010). The execution requirement will not apply where (1) no board of trade or swap execution facility makes the swap available to trade or (2) one of the counterparties satisfies the commercial end-user exemption to the central clearing requirement. Id.

\textsuperscript{153} Id. §§ 729(a)(1), 766(a)(1). These instruments must be reported to a TR or, where a TR is unavailable, the relevant regulator. Id.

\textsuperscript{154} See Treasury Press Release, supra note 138. However, the Act only mandates that the CFTC, SEC, and federal banking regulators, as applicable, set minimum capital and margin requirements. Dodd-Frank Wall Street and Consumer Protection Act §§ 731(e), 764(e).
Finally, the Dodd-Frank Act requires the OTC derivatives dealers, major swap participants (including banks), CCPs, TRs, and alternative execution facilities (which have over the course of time developed into the private regulatory infrastructure supporting many OTC derivatives markets), to register with the SEC, CFTC, and/or federal banking regulators. Once registered, dealers and major market participants are subject to, *inter alia*, capital, margin, reporting and recordkeeping, and business conduct requirements. CCPs registered with the CFTC, alternative swap execution facilities and TRs, meanwhile, are required to comply with a set of “core principles” and other requirements articulated in the Act and to design, implement, monitor, and enforce technical regulation.

155. Dodd-Frank Wall Street and Consumer Protection Act §§ 731, 764. The term as defined in the Act means:

[A]ny person who—

(i) holds itself out as a dealer in [security-based] swaps;
(ii) makes a market in [security-based] swaps;
(iii) regularly enters into [security-based] swaps . . . ; or
(iv) engages in any activity causing the person to be commonly known in the trade as a dealer or market maker in [security-based] swaps . . .

*Id.* § 721(a)(49)(A). The definition does not include a person who does not do so as part of a regular business. *Id.* § 721(a)(49)(C).

156. *Id.* §§ 731, 764. The term as defined in the Act means:

[A]ny person who is not a [security-based] swap dealer and—

(i) maintains a substantial [net] position in [security-based] swaps for any of the major swap categories as determined by the [relevant regulator], excluding

(I) positions held for hedging or mitigating commercial risk;

. . .

(ii) whose outstanding swaps create substantial counterparty exposure that could have serious adverse effects on the financial stability of the United States banking system or financial markets . . .

*Id.* §721(a)(33)(A). Or is a financial institution falling under the definition of “financial entity” in the Act that is highly leveraged, not subject to capital requirements, and maintains a substantial net position in outstanding (security-based) swaps for any of the major swap categories as determined by the applicable regulator. *Id.* The definition of a “substantial position” is left to be defined by the relevant regulators. *Id.*

157. *Id.* § 725.
158. *Id.* §§ 728, 763.
159. *Id.* §§ 733, 763. Essentially, OTC derivatives exchanges and other trading platforms.
160. *Id.* §§ 731, 764. The capital and margin requirements apply only in respect of un-cleared instruments; these requirements will be set by the relevant CCP in respect of centrally cleared instruments. *Id.* Section 737 also contemplates that the relevant regulator may set position limits (excluding *bona fide* hedges) for (security-based) swaps that perform or affect a significant price discovery function with respect to registered entities. *Id.* § 737.
in furtherance of these principles. While the Act does not articulate a similar set of core principles for CCPs registered with the SEC, it does mandate that the agencies adopt consistent and comparable rules governing these registrants.

The Dodd-Frank Act carves up jurisdiction over OTC derivatives markets by distinguishing between contracts for the sale of a commodity for future delivery and swaps (subject to CFTC jurisdiction), and security-based swaps (subject to SEC jurisdiction). Simultaneously, however, the Act mandates consistency and comparability between SEC and CFTC rules and regulations governing functionally or economically similar products and entities. To this end, the SEC and CFTC have been handed joint responsibility for fleshing out many of the technical details of the Act. The Obama Administration also requested that the two agencies produce a joint plan for harmonizing the regulation of OTC derivatives markets. At the same time, innumerable technical issues remain to be resolved. Arguably the most pressing are those necessary to ensure that CCPs can adequately discharge their systemic protection function under the new regime. It is clear that resolving these technical issues will require a high level of coordination between the SEC, CFTC, federal banking regulators, and their respective registrants. It is equally clear that many of these issues reside beyond the traditional competencies of both the SEC and CFTC and, what is more, manifest potentially significant divergences between the incentives of private actors and public regulatory objectives. As explored in greater detail in Part III.B., it is at precisely this point where MPBR can play a role.

B. CARVING OUT A ROLE FOR MPBR

It is worthwhile acknowledging from the outset that the Dodd-Frank Act does not explicitly contemplate a role for MPBR. Indeed, beyond a handful of abstract statements made prior to the global financial crisis,
neither Congress, the Treasury Department, nor U.S. financial regulators have expressed any appetite for moving toward a more principles-based regime.\textsuperscript{168} Furthermore, the failure of the FSA to either predict the coming crisis or to prevent its occurrence has, in some ways unfairly, reflected unfavorably on the perceived effectiveness of MPBR.\textsuperscript{169} Accordingly, without further inquiry, one might question the desirability of carving out a role for MPBR within the context of OTC derivatives regulation. The riposte to this (not unfounded) skepticism is twofold. First, as described above, the FSA has yet to successfully implement a regime which exhibits all of the essential elements of MPBR. We will simply never know how history might have unfolded had the FSA been given more time to achieve this (admittedly difficult) objective prior to the crisis.\textsuperscript{170} Second, and more importantly, the pace of innovation, asymmetries of information and expertise, and incentive problems which characterize OTC derivatives markets will invariably render prescriptive, rule-based regulatory regimes obsolete before the ink dries.\textsuperscript{171} MPBR manifests the potential to overcome these challenges and, in the process, generate more responsive, nuanced, and effective regulation. Perhaps nowhere is this more clearly illustrated than with respect to the regulation of CCPs under the Act.

The Act rightly identifies CCPs as playing a central role in guarding against excessive systemic risk and promoting transparency and efficiency within OTC derivatives markets. In furtherance of this role, CCPs registered with the CFTC are required to comply with a set of core principles relating to, amongst other matters, the maintenance of adequate financial resources, participant and product eligibility, risk management, settlement procedures, default rules and procedures, rule enforcement, system safeguards, regulatory reporting, recordkeeping, information sharing, governance, and conflicts of interest.\textsuperscript{172} These core principles are largely derived from a similar set of principles introduced under the CFMA and applicable to CFTC-registered CCPs, commodities exchanges, and alternative trading platforms for exchange-traded derivatives.\textsuperscript{173} As previously mentioned, the Act contemplates—without providing any guidance in terms of how to effect this result—that consistent and

\textsuperscript{168} Other than the CFTC in the view of some observers. However, while the foundation of the CFTC’s approach toward the regulation of commodities exchanges and contract markets is founded upon a set of “core principles,” it is contestable whether this approach manifests any of the other essential elements of MPBR.

\textsuperscript{169} See, e.g., Conceicao & Gray, supra note 114.

\textsuperscript{170} It must be remembered that the FSA is itself only 10 years old and that its principles-based regime is still very much an experiment in progress.

\textsuperscript{171} Indeed, the U.S. experience in regulating OTC derivatives markets between 1974 and the global financial crisis provides ample evidence of this. See, e.g., Awrey, supra note 87, at 174–89.


\textsuperscript{173} That is to say, those derivatives, which were traded on exchanges prior to the Act.
comparable rules will be adopted by the SEC. How MPBR can facilitate such substantive harmonization will be explored in greater detail in due course.

The Act bestows upon regulated CCPs wide latitude to design and implement rules and procedures (technological content) in furtherance of the core principles. This is perhaps not surprising given the myriad technical issues associated with the centralized clearing and settlement of OTC derivatives. Table 1 contains a non-exhaustive list of major high-level technical issues.

<table>
<thead>
<tr>
<th>Major High-Level Technical Issues for CCPs</th>
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</thead>
<tbody>
<tr>
<td>Product eligibility criteria (i.e. evaluating potential liquidity, susceptibility to manipulation, etc.)</td>
</tr>
<tr>
<td>CM eligibility criteria (i.e. evaluating financial resources, operational capacity and expertise)</td>
</tr>
<tr>
<td>Structure of the lines of defense against CM default (i.e. the capital waterfall)</td>
</tr>
<tr>
<td>Methodology for calculating initial and variation margin requirements</td>
</tr>
<tr>
<td>Methodology for valuing posted collateral/Quality of collateral requirements</td>
</tr>
<tr>
<td>Timing and method of variation margin payments</td>
</tr>
<tr>
<td>Methodology for calculating CM contributions toward any CCP guarantee fund within the capital waterfall</td>
</tr>
<tr>
<td>Emergency liquidity support/Participation by non-defaulting CMs in the event of CM default (i.e. the portability of positions) and other resolution procedures</td>
</tr>
</tbody>
</table>

Many of these high-level technical issues fall outside the traditional areas of expertise of financial regulators and/or contemplate timely, continuous, and detailed access to (and evaluation of) market and counterparty-specific information.

The methodology for calculating initial and variation margin provides a relatively straightforward yet representative example. CCPs seek to minimize their residual net exposures (i.e. after multilateral netting) by requiring counterparties to post collateral at the outset of an OTC derivatives contract (initial margin). Thereafter, CCPs periodically...

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175. Typically either cash or highly liquid securities.
176. IMF REPORT, supra note 149, at 4.
177. Typically each day. See BANK FOR INT’L SETTLEMENTS & TECHNICAL COMMITTEE OF THE INTERNATIONAL ORGANIZATION OF SECURITIES COMMISSIONS, GUIDANCE ON THE APPLICATION OF THE 2004 CPSS-IOSCO RECOMMENDATIONS FOR CENTRAL COUNTERPARTIES...
adjust the amount of posted collateral required to keep the contract open in
order to reflect market fluctuations (variation margin).\textsuperscript{178} The purpose
of initial and variation margin is to reduce the exposure of CCPs to
counterparty and market risk and, thereby, ameliorate the systemic risks
arising from their potential failure.\textsuperscript{179} The relevant core principle under the
Act states as follows:

\begin{quote}
(D) Risk Management.—

\ldots

(iii) LIMITATION OF EXPOSURE TO POTENTIAL LOSSES FROM
DEFAULTS.—Each derivatives clearing organization, through
margin requirements and other risk control mechanisms, shall
limit the exposure of the derivatives clearing organization to
potential losses from defaults by members and participants of the
derivatives clearing organization to ensure that—

(I) the operations of the derivatives clearing organization
would not be disrupted; and

(II) nondefaulting members or participants would not be
exposed to losses that nondefaulting members or participants
cannot anticipate or control.

(iv) MARGIN REQUIREMENTS.—The margin required from each
member and participant of a derivatives clearing organization
shall be sufficient to cover potential exposures in normal market
conditions.

(v) REQUIREMENTS REGARDING MODELS AND PARAMETERS.—
Each model and parameter used in setting margin requirements
under clause (iv) shall be—

(I) risk-based; and

(II) reviewed on a regular basis.\textsuperscript{180}
\end{quote}

The relative simplicity of the principle, however, belies the true
complexity of its requirements. Calculating initial and variation margins
requires sophisticated financial models incorporating, amongst other
variables, historic price volatility, market volatility, and any idiosyncratic
characteristics of the relevant instrument (for example, the non-linear price
characteristics and “jump to default” risk\textsuperscript{181} associated with single-name

\begin{footnotesize}
178. Id.; IMF REPORT, supra note 149, at 7.
179. Id.
181. To say that a credit default swap exhibits non-linear price characteristics is essentially to
say that any change in the underlying market conditions or asset prices may be disproportional to

\end{footnotesize}
Calculating margin also requires CCPs to continually monitor counterparty positions with a view to assessing their scale, concentration, and risk profile. These calculations become even more complex where CCPs engage in “portfolio margining” across all of a counterparty’s open positions. The financial models used by CCPs require rigorous and ongoing back-testing and stress-testing in order to evaluate their robustness during periods of market distress. What is more, these models must be recalibrated to reflect relevant market developments such as evolving relationships between financial markets and, importantly, the introduction of new and innovative financial instruments. All of these processes demand subjective judgments by personnel with technical expertise and experience in, amongst other areas, stochastic modeling. The majority of financial regulators are quite simply out of their depth when it comes to these and other similar technical issues.

The relative dearth of expertise possessed by regulators with respect to many of the technical issues associated with the centralized clearing and settlement of OTC derivatives does not bode well in terms of the ability of the either the SEC or CFTC to monitor compliance with the Act. This dearth becomes even more foreboding when one realizes that these technical issues: (1) are central to achieving the policy objectives underlying the Act; and (2) manifest latent incentive problems. Table 2 sets out the same non-exhaustive list of major high-level technical issues, this time alongside their attendant public policy objectives and latent incentive problems.

182. See IOSCO RECOMMENDATIONS FOR CCPs REPORT, supra note 177, at 14.
183. See id.
184. Where, as a result, the correlations between various financial instruments and markets become particularly important.
185. IOSCO RECOMMENDATIONS FOR CCPs REPORT, supra note 177, at 14–15.
186. See id. at 4–5, 14.
187. And, ideally, an appreciation for the limits of stochastic models (which are premised on randomness) within increasingly interconnected global financial markets.
188. See Waldman, supra note 127, at 1080. This is not to suggest, of course, that all regulators were created equal in this regard: the CFTC for example has developed some potentially transferrable expertise with respect to centralized clearing and settlement of exchange-traded derivatives. Also, the CPSS-IOSCO joint working group has exhibited a firm grasp of the complexity of many of these technical issues, if not necessarily how they should be resolved. See IOSCO RECOMMENDATIONS FOR CCPs REPORT, supra note 177.
## Table 2

<table>
<thead>
<tr>
<th>Technical Issue</th>
<th>Public Policy Objectives</th>
<th>Latent Incentive Problems</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product eligibility criteria (i.e. evaluating potential liquidity, susceptibility to manipulation, etc.)</td>
<td>Ensuring that the broadest possible range of products is subject to the centralized clearing and exchange-trading requirements arguably furthers all of the stated objectives of the Act</td>
<td>CCPs may be compelled by competitive pressures (or to extract network externalities or economies of scale) to expand the universe of eligible products, even where they exhibit little or no economic value or manifest potential systemic risks</td>
</tr>
<tr>
<td>CM eligibility criteria (i.e. evaluating financial resources, operational capacity and expertise)</td>
<td>Ensuring that CMs possess sufficient financial resources, operational capacity and expertise minimizes the likelihood of CM default (thereby furthering the systemic protection objective of the Act)</td>
<td>CCPs may be compelled by competitive pressures to adopt less stringent eligibility criteria, even where doing so increases the likelihood of CM default</td>
</tr>
<tr>
<td>Structure of the lines of defense against CM default (i.e. the capital waterfall)</td>
<td>Ensuring that CCPs possess adequate financial resources to withstand periods of market distress and CM defaults minimizes the likelihood of CCP failure; appropriate mechanisms for mutualizing losses amongst CMs minimize moral hazard (thereby furthering the systemic protection objective of the Act)</td>
<td>CCPs may be compelled by competitive pressures to structure lines of defense to the benefit of counterparties (by, for example, imposing lower margin requirements or accepting lower quality collateral) or CMs (by, for example, not requiring them to contribute toward a CCP guarantee fund), even where doing so undermines their ability to withstand periods of market distress or CM defaults</td>
</tr>
<tr>
<td>Methodology for calculating initial and variation margin requirements</td>
<td>Employing a prudent methodology for calculating margin requirements minimizes the residual exposure of CCPs to counterparty and market risk (thereby furthering the systemic protection objective of the Act)</td>
<td>CCPs may be compelled by competitive pressures to employ methodologies which systematically under-estimate prudent margin requirements</td>
</tr>
</tbody>
</table>

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189. Many of these latent incentive problems rely at least in part on assumptions respecting: (1) the existence of a competitive market for CCPs and/or low price elasticities of demand as between cleared and un-cleared instruments; and/or (2) the preference of decision-makers for current (enhanced revenues) over potential future (losses stemming from the realization of systemic or other risks) consumption.  

190. Although it is contestable whether casting such a broad net will actually enhance efficiency. Furthermore, to the extent that imposing centralized clearing requirements on the broadest possible range of instruments serves to concentrate counterparty and operational risk within CCPs, it may actually exacerbate systemic risk.
What becomes immediately apparent on the face of Table 2 is that CCPs are likely to face significant competitive and other pressures incentivizing them to generate technological content which may be incongruent with the policy objectives underlying the Act.

Returning to our margin example, it can be expected that the opportunity costs of posting collateral will drive counterparties and CMs to clear trades through the CCPs which impose the least onerous initial and variation margin requirements. Indeed, so great are the perceived opportunity costs that large commercial counterparties have expended considerable financial and political capital lobbying lawmakers in both the U.S. and E.U. for exemptions from these requirements on the basis that they make it too costly for businesses to use derivatives to manage risk. In the U.S., these efforts have yielded exemptions from the central clearing and exchange trading requirements for commercial end-users using (security-based) swaps to hedge or mitigate commercial risk. These efforts also induced Senators Chris Dodd and Blanche Lincoln, in response to industry concerns that the Act was ambiguous in this regard, to send a letter to Representatives Barney Frank and Colin Peterson confirming that the margin and capital requirements imposed on (security-based) swap dealers and major (security-based) swap participants in connection with un-cleared instruments were not to be imposed on

194. Most often interest rate and foreign exchange risk.
commercial end-users. While potentially warranted, these carve-outs cut against the grain of the systemic protection objective of the Act. At the same time, however, the prospect of financial regulators imposing bright-line margin requirements across the board would also appear to be sub-optimal insofar as these requirements would not reflect market, counterparty or product-specific risk factors.

By now the broad strokes of a potential role for MPBR should be starting to take shape. On the assumption that it can be successfully implemented, the mutual trust, enhanced dialogic relationships, and interpretive communities thereby generated could be leveraged to tap the accumulated information and expertise of CCPs, CMs, and major counterparties, thereby attenuating the twin asymmetries which confront financial regulators. This transfer of information and expertise could then be brought to bear on more intensive supervision of CCPs and other market participants. More expert regulators possessed of more timely, accurate, and complete market- and firm-specific information would also serve to make the threat of swift and decisive enforcement more credible. As previously described, more intensive supervision and the credible threat of enforcement would ultimately serve to better align the incentives of private actors with the policy objectives underlying the Act, thus providing some measure of protection from, for example, the hollowing out of its systemic protection mandate due to competitive pressures on CCPs.

Enhancing the information and expertise possessed by regulators would also enable them to play a more meaningful leadership role within interpretive communities. Indeed, the new regulatory architecture envisioned by MPBR may prove particularly well suited to the task of fleshing out the innumerable (and often highly complex) outstanding technical issues under the Act which have been relegated to the post-enactment rulemaking process. By way of example, the accumulated expertise within interpretive communities could be leveraged to help generate substantive and technological content surrounding such key concepts as: (1) the requirement that CCPs maintain financial resources sufficient to meet their obligations to CMs and counterparties in “extreme but plausible market conditions;” (2) the quantitative and qualitative elements of a “substantial position” for the purpose of determining whether a market participant constitutes a major (security-based) swap

199. The reasonableness of this assumption is examined in greater detail infra.
participant;\textsuperscript{202} and (3) the definition of “hedging” and, thus, the scope of the commercial end-user exemptions from central clearing and exchange trading requirements.\textsuperscript{203} Interpretive communities could also help channel industry expertise with a view to fleshing out the anemic criteria which regulators must take into account when determining whether a (security-based) swap should be subject to the central clearing and exchange trading requirements. More broadly, interpretive communities comprised of regulators, regulated actors, and other stakeholders could provide a solid foundation from which to address the “trillion unintended consequences”\textsuperscript{204} which many observers believe reside within the Act’s 848 pages.\textsuperscript{205}

Another prospective benefit of carving out a role for MPBR stems from its capacity to facilitate substantive harmonization. As described above, the Act mandates consistency and comparability between SEC and CFTC rules governing, \textit{inter alia}, CCPs. This requirement exists notwithstanding vast differences between the statutory frameworks (and institutional cultures) of the two, often feuding, agencies. Perhaps most significantly, whereas the SEC’s statutory framework under the Securities Act of 1933\textsuperscript{206} and Exchange Act of 1934\textsuperscript{207} is predominantly rules-based, the CFTC’s approach toward the regulation of CCPs, commodity exchanges, and alternative trading platforms is (as we have already seen) founded upon a set of broad principles. MPBR holds the potential to bridge this formal divide by focusing instead on the articulation and subsequent realization of desired regulatory outcomes.\textsuperscript{208} For the same reason, MPBR can also facilitate substantive harmonization between the U.S. and other emerging national (and supranational\textsuperscript{209}) regulatory regimes governing OTC derivatives markets. Indeed, enhanced international coordination amongst financial regulators with a view to monitoring systemic risks and ensuring substantive harmonization is a strategic necessity given: (1) the globalized

\begin{footnotesize}
\begin{enumerate}
\item[202.] Id. § 721(a)(33).
\item[203.] Id. § 723(b)(7).
\item[204.] See \textit{A Trillion Unintended Consequences}, WALL ST. J., July 6, 2010, at A16.
\item[205.] A number commentators have described the Act as running to approximately 2,300 pages. \textit{See The Uncertainty Principle}, supra note 200. However, the version of the Act on file with the Library of Congress only runs to 848 pages.
\item[208.] And, furthermore, by emphasizing the importance of dialogue.
\end{enumerate}
\end{footnotesize}
nature of OTC derivatives markets; (2) competitive pressures to establish cross-border links between CCPs and trading platforms;\textsuperscript{210} and (3) the existence of markedly different systems governing, amongst other areas, bankruptcy, property,\textsuperscript{211} and contract\textsuperscript{212} law across jurisdictions.\textsuperscript{213} Most importantly, however, substantive harmonization at both the domestic and international level is essential in order to minimize the corrosive systemic effects of regulatory arbitrage. Insofar as its outcome-oriented focus is able to promote greater harmonization, MPBR is thus very likely to have a positive impact in terms of the overall effectiveness of OTC derivatives regulation.

All of this is not to suggest that the wisdom and prospective benefits of MPBR will be revealed and accrue predominantly at the early, formative stages of global OTC derivatives regulation. It is all but certain that the forces of change and innovation will continue to shape financial markets. New financial instruments and institutions will be created, new methods for measuring and managing various risks will be developed, relationships between financial markets will continue to evolve. Many of these developments will raise novel and complex issues. As these developments unfold, the hallmarks of MPBR—greater expertise, enhanced dialogic relationships, and interpretive communities—will enable regulators to mount more timely, nuanced, and effective responses to their attendant regulatory challenges. Simultaneously, the responsiveness of MPBR, buttressed by the durability of its outcome-oriented substantive core, will serve to deter socially useless forms of innovation motivated by, perhaps most glaringly, regulatory arbitrage. The responsiveness and durability of MPBR are thus very much geared toward generating benefits over the long term.

The prospective benefits described above combine to make a persuasive case for carving out a role for MPBR within the context of OTC derivatives regulation. But what about the potential challenges? As a preliminary matter, it is worth observing that the durability of MPBR—along with its

\textsuperscript{210} See IMF REPORT, supra note 149, at 20–21, 23.

\textsuperscript{211} For example, legal rules impacting both the possibility and feasibility of segregating counterparty and CM assets (i.e. cash and securities posted as collateral) within a CCP vary from jurisdiction to jurisdiction. See ALLIANCE BERNSTEIN ET AL., REPORT TO THE SUPERVISORS OF THE MAJOR OTC DERIVATIVES DEALERS ON PROPOSALS OF CENTRALIZED CDS CLEARING SOLUTIONS FOR THE SEGREGATION AND PORTABILITY OF CUSTOMER CDS POSITIONS AND RELATED MARGIN 5–22 (June 30, 2009), available at http://www.newyorkfed.org/markets/Full_Report.pdf.

\textsuperscript{212} For example, the contractual concept of novation is the most common method by which CMs assign derivatives transactions to CCPs. However, this concept is not a universal feature of contract law and, thus, the legal method by which CCPs interpose themselves into a transaction may vary across jurisdictions.

\textsuperscript{213} EC Working Paper, supra note 209; CESR RECOMMENDATIONS, supra note 209, at 92, 150–52; IOSCO RECOMMENDATION FOR CCPS REPORT, supra note 177, at 9, 26; IMF REPORT, supra note 149.
capacity to enhance the certainty and predictability surrounding key concepts—confound the predictions of the traditional dialectic in terms of the challenges flowing from the utilization of principles. The real challenges associated with the implementation of MPBR arise instead from the nature of the relationship it envisions between regulators and regulated actors and, more specifically, the dual (and in some ways conflicting) imperatives of building mutual trust whilst at the same time minimizing the potential for regulatory capture.

The iterative, dialogic relationship between regulator and regulated actors which characterizes MPBR raises the specter of capture and, with it, the eventual dilution of the systemic and other protections potentially afforded by the Act. The challenge of minimizing the potential for capture would need to be approached from several angles. First, the SEC and CFTC\textsuperscript{214} would require the legal authority, remedial powers, and resources necessary to undertake intensive supervision and maintain a strong (background) enforcement presence.\textsuperscript{215} In terms of the regulation of CCPs, this would mean providing regulators with, \textit{inter alia}: (1) a wide range of enforcement powers available in connection with the violation of core principles by CCPs, CMs, and counterparties;\textsuperscript{216} and (2) broad “emergency” powers enabling regulatory intervention during periods of market distress. Second, the governance structure of CCPs would need to be structured so as to establish clear lines of communication with, and accountability to, the relevant regulator(s). Accompanying these structures would ideally be mechanisms designed to render transparent the decision-making processes of CCPs in terms of the generation of technological content—particularly with respect to their risk management practices.\textsuperscript{217} Third, regulators would have to make a concerted effort to identify and attract appropriate third party stakeholders into interpretive communities.\textsuperscript{218} To the extent that the interests of these stakeholders are sufficiently diverse, their views could serve to filter out potential distortions in the perspectives advanced by more vested interests. Finally, and along the same vein, regulators would need to

\begin{itemize}
\item 214. And, as applicable, federal banking regulators.
\item 215. The CFTC, for example, has recently acknowledged that it lacks sufficient authority: (1) to ensure that exchanges and CCPs it regulates “are operating within the principles, rules and regulations established under” its enabling legislation; (2) to “adapt to market conditions and international standards”; (3) to “protect the public”; and (4) over disruptive trading practices. \textit{Joint Report of the SEC and CFTC, supra note} 166, at 11–13.
\item 216. By implication, this would necessitate: (1) the extension of core principles for CFTC-registered CCPs to SEC registered CCPs; and (2) the development of a set of core principles for both CMs and counterparties.
\item 217. By, for example, requiring CCPs to publicly disclose their methodologies (including their underlying assumptions) for calculating initial and variation margin requirements, along with the reasons \textit{why} they believe their methodologies are aligned with the objectives of the Act.
\item 218. With respect to the regulation of CCPs, such stakeholders might include policy analysts and scholars in the fields of economics, finance, and law. In other areas, investor advocacy groups might also play a meaningful role.
\end{itemize}
leverage their new found expertise with a view to developing their own “political economy filters.” Collectively, these strategies can minimize—though perhaps not foreclose—the possibility of capture.

The second challenge is how to build the mutual trust necessary to foster the enhanced dialogic relationships and interpretive communities from which the prospective benefits of MPBR largely flow. This challenge looms large in the wake of the global financial crisis. Nevertheless, the regulation of CCPs under the Act arguably provides a unique window of opportunity to overcome this trust paradox for three reasons. First, the CFTC has already acquired potentially transferrable experience forging relationships with regulated actors on the basis of a regulatory framework founded upon broad principles. Second, the fact that CCPs are essentially a new species of regulated actor might allow all parties concerned to enter the relationship with a relatively clean slate. That CCPs were considered by most observers to have performed well during the crisis would no doubt prove helpful in this respect. Third, carving out a role within the relatively circumscribed context of the regulation of CCPs would enable regulators to employ incrementalism as a means of establishing a credible commitment to MPBR. The objective in this regard would be to create a virtuous circle whereby establishing a credible commitment would enhance mutual trust, thereby generating the benefits described above and, ultimately, facilitating an expansion of the potential role for MPBR. Simultaneously, incrementalism interposes a natural circuit breaker: where the prospective benefits of MPBR fail to materialize (or its challenges are deemed too great) it serves to contain the sunk and transition costs of, in effect, unwinding the experiment.

IV. MPBR AND FINANCIAL INNOVATION: BROADER APPLICATIONS

In theory, the prospective benefits of MPBR—especially in terms of its responsiveness and durability—most strongly resonate within environments exhibiting high rates of change and innovation. Looking across the entire panoply of institutions, instruments, and activities within global financial markets, this suggests that MPBR is likely to generate the greatest benefits

219. The effectiveness of this filter could be enhanced by: (1) enforcing a rotation policy for regulatory personnel working on particular technical issues or supervising particular CCPs; and (2) limiting the ability of supervisory personnel, subsequent to their departure from the regulator, to accept employment (or other benefits) from regulated actors which they had previously supervised.

220. The SEC would, to a certain extent, have to play catch-up in this regard.

221. See, e.g., EC Working Paper, supra note 209, at § 2.4.2.1; IMF REPORT, supra note 149, at 2.

in the area of financial product regulation. At the same time, as illustrated by the CCP example, the capacity of MPBR to ameliorate asymmetries of information and expertise and realign the incentives of private actors opens the door to a potentially broader role in connection with conduct of business and prudential regulation. Ultimately, however, the broader applications of MPBR must be determined on the basis of their relative costs: the transaction costs of regulation, the agency cost implications for both regulators and regulated actors, and the social costs of (in)effective financial regulation. It is noteworthy in this regard that the enhanced dialogic relationships and interpretive communities of MPBR can be leveraged to yield more robust cost-benefit analyses. Furthermore, it bears reminding that MPBR does not preclude the utilization of regulatory tools formulated on the basis of prescriptive rules. Indeed, this may be the ultimate wisdom of MPBR: that it neither preordains nor envisions as static the optimal solutions to the myriad potential challenges associated with the regulation of complex and evolving global financial markets.

CONCLUSION

Modern financial markets are characterized by complexity, seemingly perpetual innovation, chronic asymmetries of information and expertise, and pervasive agency costs. Perhaps nowhere are these characteristics—or their attendant regulatory challenges—more pronounced than within OTC derivatives markets. Mounting effective responses to these challenges must be considered amongst the most difficult and important tasks confronting financial regulators. Prescriptive, rules-based approaches toward financial regulation have thus far proven inadequate to this task. Through the utilization of outcome-oriented principles, enhanced dialogic relationships, intensive supervision, and targeted and proportional (yet vigorous) enforcement, MPBR manifests the potential to overcome these challenges and, in the process, generate more nuanced, responsive, durable, and effective regulation. It remains an open question, however, whether MPBR can successfully conquer its own challenges in terms of how to insulate itself from regulatory capture and build mutual trust between regulators and regulated actors. Nevertheless, if these challenges can be bested, carving out a role for MPBR may well prove the optimal prescription for regulating financial innovation and, perhaps, beyond.