Barriers to Effective Risk Management

Michelle M. Harner

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BARRIERS TO EFFECTIVE RISK MANAGEMENT

Michelle M. Harner[*]

ABSTRACT

"As long as the music is playing, you've got to get up and dance. We're still dancing."[**]

This now infamous quote by Charles Prince, Citigroup's former Chief Executive Officer, captures the high-risk, high-reward mentality and overconfidence that permeates much of corporate America. These attributes in turn helped to facilitate a global recession and some of the largest economic losses ever experienced in the financial sector. They also represent certain cognitive biases and cultural norms in corporate boardrooms and management suites that make implementing a meaningful risk culture and thereby mitigating the impact of future economic downturns a challenging proposition.

The global recession highlighted significant failures in firms' risk management practices. These failures implicated weaknesses not only in firms' financial risk modeling but also the human/governance side of risk management. Unfortunately, fixing the former might be significantly easier than attending to the latter. Studies suggest that cognitive biases, including confirmation bias, overconfidence/optimism bias and framing, can impair a board's and management's ability to assess risk accurately. These problems are compounded by the typical incentive structure and the "winner-take-all" mentality adopted by many corporations in the United States.

This essay analyzes the potential benefits of improved risk management practices, commonly called enterprise risk management (ERM), and the potential barriers to implementing meaningful ERM at U.S. firms. ERM is an integrated risk management framework that seeks to improve knowledge of and communication about potential risks throughout the firm, starting with the board and senior management team. Indeed, the board and senior management team are vital to creating a risk culture. The essay considers the impact of boardroom dynamics and U.S. corporate culture on risk management practices. The essay further considers whether regulation or a different approach is needed to encourage U.S. corporations to invest the necessary human capital in meaningful ERM.

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[**] Michiyo Nakamoto & David Wighton, *Citigroup Chief Stays Bullish on Buy-Outs*, FT.COM, July 9, 2007, http://www.ft.com/cms/s/0/80e2987a-2e50-11dc-821c-0000779fd2ac.html.

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INTRODUCTION

Risk management is not a new concept, but it typically garners renewed attention during periods of corporate scandals or market turmoil.[1] The global recession of 2008 (2008 recession) is no exception.[2] Many commentators have highlighted significant risk management failures as contributing factors to that recession.[3]

The recurring nature of the risk management problem suggests that the approach to, or the implementation of, corporate risk management practices is lacking in some respect. Prior studies show that meaningful risk management practices can enhance firm

[1] For example, Barings Bank, Long-Term Capital Management and the Asian Crisis each are often viewed as a case study in risk management failures. *See, e.g.*, JOHN MARTHINSEN, RISK TAKERS (2003) (discussing risk management issues raised by derivatives trading and analyzing the Barings Bank and Long-Term Capital Management scenarios, among others); GEOFFREY POITRAS, RISK MANAGEMENT, SPECULATION, AND DERIVATIVE SECURITIES (2002) (same); Wing Thye Woo, *Lessons from the Asian Financial Crisis, and the Prospects for Resuming High Growth*, *in* EXCHANGE RATE REGIMES AND MACROECONOMIC STABILITY (Lok-Sanh Ho & Chi-Wa Yuen eds., 2003); Int'l Fin. Risk Inst., Case Studies, http://riskinstitute.ch/Introduction.htm (last visited Mar. 31, 2010) (analyzing Barings Bank, Long-Term Capital Management and the Asian Crisis in the context of risk management).

[2] This essay uses the term "2008 recession" to reference the entire period of financial turmoil, which became widely evident in late 2007 and continued into 2009.

[3] *See, e.g.*, RISK & INS. MGMT. SOC'Y, INC., THE 2008 FINANCIAL CRISIS: A WAKE-UP CALL FOR ENTERPRISE RISK MANAGEMENT 3 (Bill Coffin ed., 2009), *available at* www.RIMS.org/ERMwhitepaper (follow "2008 Financial Crisis a Wake-Up Call for ERM" hyperlink) [hereinafter RIMS PAPER]; Roger Barker, *Observations on the Current Crisis from a Corporate Governance Perspective*, INST. DIRECTORS, Feb. 20, 2009, at 2, *available at* http://www.iod.com/intershoproot/eCS/Store/en/pdfs/article_responding_crisis.pdf; Grant Kirkpatrick, *The Corporate Governance Lessons from the Financial Crisis*, FIN. MARKET TRENDS, Feb. 2009, at 4, *available at* http://www.oecd.org/dataoecd/32/1/42229620.pdf.; Joe Nocera, *Risk Management*, N.Y. TIMES, Jan. 4, 2009, *available at* http://www.nytimes.com/2009/01/04/magazine/04risk-t.html?_r=1&pagewanted=print; Ben S. Bernanke, Chairman, Fed. Reserve, Address at the Federal Reserve Bank of Chicago's Annual Conference on Bank Structure and Competition (May 15, 2008) (transcript available at http://www.federalreserve.gov/newsevents/speech/bernanke20080515a.htm). For a summary of the role of risk management in the 2008 recession, see Michelle M. Harner, *Ignoring the Writing on the Wall: The Role of Enterprise Risk Management in the Economic Crisis*, 5 J. BUS. TECH. L. 45 (2010).

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performance.[4] Yet, U.S. corporations are slow to embrace risk management, and as evidenced by the 2008 recession, even when they do, the results are underwhelming.[5]

This essay examines two possible barriers to effective risk management: individual biases and cultural norms.[6] At its core, any risk management technique attempts to provide corporate decisionmakers with better and more accurate information to identify, assess and mitigate events that threaten firm value—i.e., risk events.[7] A firm certainly can adopt strict procedures instructing managers on how and what types of information to evaluate, detailing the timing and participants in risk assessment meetings and requiring periodic reports to the board of directors and senior executives. Those procedures alone, however, will not necessarily change a firm's decision regarding any particular risk, deter corporate fraud or help moderate market turmoil.[8] Individuals still make those decisions, and their possible biases and surrounding environment may be more influential than any risk assessment reports.[9]

This reality raises an important question: Can the law change the way individuals receive and filter information, or is the human component of risk management an inevitable limitation on its utility? The question is difficult to answer definitively, but the essay suggests that policymakers will encourage, and corporate boards will design and implement, more effective risk management practices if they acknowledge and attempt to address this limitation.

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[4] Lori A. Brassell-Cicchinit, *The Shareholder Value of Crisis Handling*, RISK MGMT., May 2003 (explaining 1997 study showing value in risk planning and discussing case studies); Steven M. Cassidy et al., *The Market Value of the Corporate Risk Management Function*, 57 J. RISK & INS. 664 (1990) (markets react positively to risk management); P.J. Stoh, *Enterprise Risk Management at United Health Group*, 87 STRATEGIC FIN. 26 (2005); Marcel Boyer et al., The Value of Risk Management: A Frontier Analysis (Mar. 15, 2005) (unpublished manuscript), *available at* http://papers.ssrn.com/sol3/papers.cfm?abstract_id=687127 (study showing that "role of financial risk management is to create flexibility to alleviate this inefficiency problem . . . [and] it does contribute indirectly to the value of the firm"); Brian W. Nocco & Rene M. Stulz, Enterprise Risk Management: Theory and Practice (July 2006) (unpublished manuscript), *available at* http://papers.ssrn.com/sol3/papers.cfm?abstract_id=921402 (discussing value of risk management in context of competitive advantage and shareholder wealth).

[5] *See infra* Parts I.A & I.C.

[6] As discussed *infra* Part IV.A, many of the biases discussed in the individual context apply in the group or collective board context as well. *See also* Stephen M. Bainbridge, *Why a Board? Group Decisionmaking in Corporate Governance,* 55 VAND. L. REV. 1 (2002); James D. Cox & Harry L. Munsinger, *Bias in the Boardroom: Psychological Foundations and Legal Implications of Corporate Cohesion*, 48 LAW & CONTEMP. PROBS. 83, 83-84, 99-108 (1985) (describing bases of ingroup bias among directors); Marleen A. O'Connor, *The Enron Board: The Perils of Groupthink*, 71 U. CIN. L. REV. 1233 (2003).

[7] *See infra* Parts I.A & II.A.

[8] *See* Jeffrey M. Lipshaw, *The Venn Diagram of Judgment in Business Lawyering: Toward a Theory of Practical Metadisciplinarity*, 41 SETON HALL L. REV. (forthcoming 2011) (manuscript at 10-11, *available at* http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1551243) (using boardroom conference example to illustrate uncertainty in decisionmaking process and noting that, despite extensive advice provided at meeting, "when it came time to make the decision, the CEO had no authority upon which to fall back except her own").

[9] *See infra* Part IV.A.

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To assist in this endeavor, the essay analyzes three of the cognitive biases that may impede risk assessment—confirmation bias, overconfidence/optimism bias and framing—and considers how other legal disciplines have addressed bias in decisionmaking.[10] The essay uses Citigroup, Inc. as a case study to highlight potential behavioral and cultural barriers to effective risk management.[11] The essay suggests that training and outside assessment may help corporate decisionmakers avoid some biases in risk assessment and response decisions.

The essay also considers corporate culture and whether the environment at entrepreneurial or risk-aggressive firms poses a barrier to effective risk management practices.[12] Most commentators acknowledge that some risk-taking is healthy and often necessary to enhancing firm performance.[13] The goal of risk management should not be the elimination of all risk, but rather the pursuit of prudent and informed risk profiling and decisionmaking. The challenge then is to convince firms that value and reward successful high-risk endeavors that risk management can enhance their decisions without changing their profit-oriented objectives.

The essay evaluates these complex issues in the context of enterprise risk management (ERM).[14] As explained below, ERM is a holistic approach to risk management that goes beyond financial risk modeling and seeks to integrate a firm's risk assessment and response practices.[15] It also is a form of risk management that holds value for firms outside of the financial and insurance industries. Consequently, although this essay uses financial institution examples from the 2008 recession, the analysis and

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[10] For a general discussion of cognitive biases and decisionmaking, see Amos Tversky & Daniel Kahneman, *Judgment Under Uncertainty: Heuristics and Biases*, 185 SCIENCE 1124 (1974). *See also infra* Part IV.A.

[11] *See infra* Parts III & IV.

[12] For a general discussion of corporate culture, see Alice Belcher, *Imagining How a Company Thinks: What is Corporate Culture?*, 11 DEAKIN L. REV. 1, 18 (2006). *See also infra* Part IV.B.

[13] *See, e.g.*, ASWATH DAMODARAN, STRATEGIC RISK TAKING: A FRAMEWORK FOR RISK MANAGEMENT 7 (2007) ("A business that decides to protect itself against all risk is unlikely to generate much upside for its owners; however, a business that exposes itself to the wrong types of risk may be even worse off, because it is more likely to be damaged than helped by the risk exposure."); Diane Brady, *Sarbanes-Oxley=a Downturn in Corporate Risk-Taking*, BUS.WEEK, Sept. 26, 2007, *available at* http://www.businessweek.com/careers/managementiq/archives/2007/09/sarbanes-oxley.html (discussing need for risk-taking to spur economic growth and citing two academic papers suggesting that the Sarbanes Oxley Act of 2002 reduced risk-taking); Donald L. Kohn, Fed. Reserve Bank, Address at the Official Celebration of the 10th Anniversary of the Banque Centrale du Luxembourg (Nov. 12, 2008) (transcript available at http://www.federalreserve.gov/newsevents/speech/kohn20081112a.htm ("A central challenge will be to structure financial oversight to both deter unwanted and excessive risk-taking and permit the innovation that can ultimately boost economic growth.").

[14] *See infra* Part I.

[15] *See id. See also* COMM. OF SPONSORING ORGS. OF THE TREADWAY COMM'N (COSO), ENTERPRISE RISK MANAGEMENT—INTEGRATED FRAMEWORK: EXECUTIVE SUMMARY (2004), *available at* http://www.coso.org/Publications/ERM/COSO_ERM_ExecutiveSummary.pdf [hereinafter COSO REPORT] (describing ERM framework).

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suggested prescriptions apply across industries and have far broader implications than simply addressing the fallout from the recession.[16]

Part I of the essay provides an overview of the ERM movement, discussing its origins, key components and perceived role in the 2008 recession. Part II summarizes the various regulatory and judicial responses to the 2008 recession that involve some aspect of risk management. Part III presents a case study of Citigroup, Inc., and analyzes its decision making process during the 2008 recession in light of events and developments in its industry and the economy more generally at the time. Part IV then uses the Citigroup case study to evaluate the impact of cognitive biases and corporate culture on risk management decisions. This analysis leads to a discussion of potential regulatory and market responses to strengthen the ERM movement. The essay concludes by encouraging policymakers and corporate boards to consider cognitive biases and the importance of corporate culture as part of their risk management dialogue.

I. OVERVIEW OF ERM

Risk often is defined simply as "the possibility of loss or injury."[17] In the business context, the concept of risk includes not only the probability of loss but also the consequences of that loss or risk event.[18] Managing quantifiable risk is a much easier task than considering unquantifiable risk. Nevertheless, as suggested by the 2008 recession, prudent risk management needs to consider both.[19]

Yet, taking this type of broad, all-encompassing approach to managing business risk is a relatively new development.[20] Traditionally, financial institutions and insurance companies used risk management techniques to hedge financial risk exposures.[21] Risk

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[16] *See, e.g.*, Steven J. Dreyer & Amra Balic, *Progress Report: Integrating Enterprise Risk Management Analysis into Corporate Credit Ratings*, STANDARD & POOR'S, July 22, 2009, at 2 ("In May 2008, Standard & Poor's Ratings Services announced its intention to include enterprise risk management (ERM) assessments in ratings of nonfinancial companies."); Kirkpatrick, *supra* note 3, at 17–18 (discussing broad utility of ERM and emphasizing its application in the context of non-financial firms).

[17] MERRIAM-WEBSTER DICTIONARY, *available at* http://www.merriam-webster.com/dictionary/risk (last visited Mar. 27, 2010).

[18] DAMODARAN, *supra* note 13, at 5-6.

[19] "Everything that can be counted does not necessarily count; everything that counts cannot necessarily be counted." Albert Einstein. *See also* CROWE HORWATH, AVOIDING THE BLACK SWAN: BARRIERS TO IMPROVING RISK MANAGEMENT (2009), *available at* http://www.cfo.com/whitepapers/index.cfm/download/14467404 (study showing challenges with risk management highlighted by the 2008 recession, including surprise risk events); NASSIM NICHOLAS TALEB, THE BLACK SWAN: THE IMPACT OF THE HIGHLY IMPROBABLE (2007) (discussing challenges of identifying and addressing surprise risk events).

[20] As discussed below, COSO introduced its first proposal for a comprehensive risk management or ERM framework in 2004. *See* COSO REPORT, *supra* note 15. *See also infra* Part I.A.

[21] *See, e.g.*, DAMODARAN, *supra* note 13, at 8-9 (describing origins of risk management); DOUGLAS W. HUBBARD, THE FAILURE OF RISK MANAGEMENT 21-36 (2009) (same); THOMAS L. BARTON ET AL., MAKING ENTERPRISE RISK MANAGEMENT PAY OFF 11 (2002) (discussing silo approach to risk management); Betty Simkins & Steven A. Ramirez, *Enterprise-Wide Risk Management and Corporate Governance*, 39 LOYOLA

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managers at those companies would analyze the specific type of risk assigned to them—e.g., credit, market, foreign currency, etc.—and design or purchase financial products to mitigate that risk. Risk managers rarely discussed or assessed the company's overall risk profile; rather, risk management was confined to separate and individual silos.[22] Any meaningful consideration of risk management was even rarer outside of the financial and insurance industries. ERM seeks to address these limitations. This Part provides an overview of the ERM theory, its application in practice and its perceived role in the 2008 recession.

A. Development of ERM

Although the Barings Bank and Long-Term Capital Management meltdowns highlighted risk management flaws, it was the Enron, WorldCom and other corporate scandals of the early 2000s that sparked a call for more comprehensive risk management.[23] For example, in describing the internal controls adopted by Enron to manage risks associated with related-party transactions, the report of the Enron Special Investigation Committee observed that the "controls as designed were not rigorous enough, and their implementation and oversight was inadequate at both the Management and Board levels."[24] The report concluded that Enron's board failed "to demand more information, and . . . to probe and understand the information that did come to it."[25] The response to Enron and similar governance failures was swift and emerged in at least two separate forms: new risk-related disclosure regulations and redefined best practices.[26]

Risk-related regulations were included in the Sarbanes-Oxley Act of 2002, the listing standards for the New York Stock Exchange and the U.S. Department of Justice Sentencing Guidelines. The most extensive of these regulations is Section 404 of the Sarbanes-Oxley Act, which requires management to explain and assess the company's

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U. CHI. L.J. 581, 584 (2008) (same). *See also* CFO RESEARCH SERVS. & IBM CORP., THINKING THROUGH UNCERTAINTY: CFOS SCRUTINIZE NON-FINANCIAL RISK 4 (2007) (exploring proposition that "[c]ompanies seek a more expansive view of the risks that place their business performance in jeopardy"). For an explanation of the financial risk modeling technique commonly used by firms, called "Value at Risk" or VaR, and viewed as flawed in the context of the 2008 recession, see Nocera, *supra* note 3, at 1-3.

[22] *See supra* note 21.

[23] *See generally* Robert Prentice, *Enron: A Brief Behavioral Autopsy*, 40 AM. BUS. L.J. 417 (2008); Robert Rosen, *Risk Management and Corporate Governance: The Case of Enron*, 35 CONN. L. REV. 1157 (2003); J. Gregory Sidak, *The Failure of Good Intentions: The WorldCom Fraud and the Collapse of American Telecommunications After Deregulation*, 20 YALE J. REG. 207 (2003). *See also supra* note 1.

[24] WILLIAM C. POWERS JR. ET AL., REPORT OF INVESTIGATION BY THE SPECIAL INVESTIGATION COMMITTEE OF THE BOARD OF DIRECTORS OF ENRON CORP. 10 (2002), *available at* http://news.findlaw.com/wp/docs/enron/specinv020102rpt1.pdf.

[25] *Id.* at 23. The United States Permanent Subcommittee on Investigations reached similar conclusions, faulting Enron's board for approving "new business ventures and complex transactions" with insufficient information and oversight. *See* Rosen, *supra* note 23, at 1.

[26] *See, e.g.*, Troy A. Paredes, *After the Sarbanes-Oxley Act: The Future of the Mandatory Disclosure System*, 81 WASH. U. L.Q. 229 (2003) (explaining the events leading up to the corporate scandals of the early 2000s and the regulatory and legislative responses).

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internal control structure and procedures for financial reporting.[27] Section 406 of the Act also requires reporting companies to adopt a code of ethics for its senior officers or explain why it does not have a code.[28] The NYSE listing standards address both internal controls and codes of ethics and specifically identifies risk assessment as an audit committee responsibility.[29] Moreover, the Sentencing Guidelines offer reduced penalties for companies that demonstrate effective compliance programs that, among other things, incorporate ongoing risk assessment practices.[30]

To assist companies in meeting these various requirements, the Committee of Sponsoring Organisations of the Treadway Commission (COSO) developed a more comprehensive framework for risk management practices referred to as ERM.[31] COSO defines ERM as "a process, effected by an entity's board of directors, management and other personnel, applied in strategy setting and across the enterprise, designed to identify potential events that may affect the entity, and manage risk to be within its risk appetite, to provide reasonable assurance regarding the achievement of entity objectives."[32] ERM is a holistic approach to risk management that considers strategic and operational risks in

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[27] *See* 15 U.S.C. § 7262 (2006); William J. Carney, *The Costs of Being Public After Sarbanes-Oxley: The Irony of "Going Private"*, 55 EMORY L.J. 141, 142 (2006) (explaining the impact of the Act, including Section 404, on corporations); Larry E. Ribstein, *Bubble Laws,* 40 HOUS. L. REV. 77 (2003) (same).
[28] *See* 15 U.S.C. § 7264 (2006); Elizabeth F. Brown, *No Good Deed Goes Unpunished: Is There a Need for a Safe Harbor for Aspirational Corporate Codes of Conduct*, 26 YALE L. & POL'Y REV. 367 (2008) (exploring the requirements of Section 406). *See also* Lawrence E. Mitchell, *The Sarbanes-Oxley Act and the Reinvention of Corporate Governance?,* 48 VILL. L. REV. 1189, 1202-03 (2003) (discussing various requirements of the Act, including the code of ethics).
[29] *See* NYSE, INC., LISTED COMPANY MANUAL; Robert B. Thompson, *Collaborative Corporate Governance: Listing Standards, State Law and Federal Regulation*, 38 WAKE FOREST L. REV. 961 (2003) (explaining and analyzing changes to listing standards).
[30] *See generally* David Hess, *A Business Ethics Perspective on Sarbanes Oxley & the Organizational Sentencing Guidelines*, 105 MICH. L. REV. 1781 (2007) (explaining and analyzing changes to sentencing guidelines); David Hess et al., *The 2004 Amendments to the Federal Sentencing Guidelines and Their Implicit Call for a Symbiotic Integration of Business Ethics*, 11 FORDHAM J. CORP. & FIN. L. 725 (2006).
[31] A detailed explanation of the components of ERM is beyond the scope of this essay. Nevertheless, the COSO report contains those details and additional information. *See* COSO REPORT, *supra* note 15. In certain respects, ERM resembles prior organizational literature by emphasizing the need to restructure how firms conceive and utilize knowledge, information and channels of communication. *See, e.g.,* PETER M. SENGE, THE FIFTH DISCIPLINE—THE ART AND PRACTICE OF THE LEARNING ORGANIZATION (1990); PETER M. SENGE ET AL., THE DANCE OF CHANGE: THE CHALLENGES OF SUSTAINING MOMENTUM IN LEARNING ORGANIZATIONS (1999); JAMES CHAMPY & MICHAEL HAMMER, REENGINEERING THE CORPORATION: A MANIFESTO FOR BUSINESS REVOLUTION (2003). ERM tries, however, to offer a simplified process for implementing the necessary changes and improving firm culture and governance. *See infra* Part I.B. Although initial reports suggest that ERM is effective, the longevity of the movement remains to be seen. *See supra* note 4; *infra* notes 51-53.
[32] COSO REPORT, *supra* note 15, at 2; Kirkpatrick, *supra* note 3, at 7. Federal Reserve Bank Governor Susan Bies defined ERM as "a process that enables management to deal effectively with uncertainty and the associated risk and opportunity, enhancing the capacity to build stakeholder value." Susan Schmidt Bies, Fed. Reserve Bank, Address at the National Credit Union Administration 2007 Risk Mitigation Summit on Enterprise Risk Management and Mortgage Lending 2 (Jan. 11, 2007) (transcript available at http://www.federalreserve.gov/newsevents/speech/Bies20070111a.htm).

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addition to financial risks and focuses on identifying, assessing and responding to risk events.[33]

ERM takes a top-down approach to risk management.[34] COSO and other commentators stress the importance of the board's and senior management's role in ERM.[35] Under this framework, the board and senior management are critical in creating a risk culture at the firm—i.e., a culture that values and rewards meaningful assessment and communication regarding risk events.[36] The board also plays an important role in setting the firm's risk appetite and designing and monitoring the firm's ERM program.[37] COSO's ERM framework is viewed by many commentators as best practices in business risk management practices.

Notably, despite the regulatory and industry endorsements for enhanced risk management practices, corporate boards voiced resistance to the concept.[38] Many

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[33] ERM generally targets all potential risk events, including financial risks; operational risks; business risks; litigation risks; and governance and human resource risks. *See, e.g.*, CONFERENCE BD., THE ROLE OF U.S. CORPORATE BOARDS IN ENTERPRISE RISK MANAGEMENT 11 (2006) [hereinafter CONFERENCE BOARD REPORT]. *See also* Simkins & Ramirez, *supra* note 21, at 584 ("Under ERM, risks can be viewed as falling into two broad areas: core risks (risks which a firm should have a competitive advantage to handle in their business model) and non-core risks (risks which could be hedged by the business or transferred through risk management techniques)."). "ERM consists of eight interrelated components, which are derived from the way management runs an enterprise and integrated with the management process: (1) internal environment, (2) objective setting, (3) event identification, (4) risk assessment, (5) risk response, (6) control activities, (7) information and communication, and (8) monitoring." Bies, *supra* note 32, at 2.

[34] *See* COSO REPORT, *supra* note 15, at 3–4. *See also* COMM. OF SPONSORING ORGS. OF THE TREADWAY COMM'N (COSO), STRENGTHENING ENTERPRISE RISK MANAGEMENT FOR STRATEGIC ADVANTAGE 4-5 (2009), *available at* http://www.coso.org/documents/COSO_09_board_position_final102309PRINTandWEBFINAL.pdf [hereinafter COSO PAPER]; RIMS PAPER, *supra* note 3, at 7.

[35] CONFERENCE BD., EMERGING GOVERNANCE PRACTICES IN ENTERPRISE RISK MANAGEMENT 4-7 (2007); CONFERENCE BOARD REPORT, *supra* note 33, at 11. *See also infra* Part II.A.

[36] "Risk culture is the system of values and behaviors present in an organization that shapes risk decisions of management and employees." John Michael Farrell & Angela Hoon, *What's Your Company's Risk Culture?*, NAT'L ASS'N CORP. DIRECTORS DIRECTORSHIP, April 15, 2009, *available at* http://www.mgt.ncsu.edu/erm/index.php/articles/entry/risk-culture-companies/; Peter Green & Jeremy Jennings-Mares, *IIF's Final Report on Market Best Practices for Financial Institutions and Financial Products*, BANKING & FIN. SERV. POL'Y REP., Sept. 2008, at 1 ("Cultivation of a consistent 'risk culture' throughout firms is the most important element in risk management."); COSO PAPER, *supra* note 34, at 4-5.

[37] *See, e.g.*, Barker, *supra* note 3 (explaining that boards should "evaluat[e] the risks associated with corporate strategies, defin[e] the risk appetite of the company, [and] ensur[e] that appropriate resources are devoted to risk identification, avoidance, and mitigation"); CONFERENCE BOARD REPORT, *supra* note 33, at 6–7 (recommending six primary tasks for boards considering ERM); COSO REPORT, *supra* note 15, at 7 (defining role of board in ERM).

[38] RIMS PAPER, *supra* note 3, at 6; Mark S. Beasley et al., *ERM: A Status Report*, INTERNAL AUDITOR, Feb. 1, 2005 (study finding that less than half of respondents adopted ERM-like procedures); Simkins & Ramirez, *supra* note 21, at 584 ("Evidence from studies and surveys indicates that, to date, only about 10% of major companies claim to have implemented many aspects of ERM, while almost all the others claim that they plan to do so in the future.").

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directors opined that extensive risk management procedures were unnecessary or too cumbersome; others resisted any mandated approach to risk management.[39] Studies suggest that these sentiments linger in corporate boardrooms even after the 2008 recession.[40]

B. Implementation of ERM

The design and implementation of ERM is firm-specific, but generally involves the board of directors and senior management first mapping the firm's business strategies and risks. "Developing an understanding of the linkages between top risk exposures and key strategies and objectives can help both management and risk oversight by identifying where risks are overlapping with an individual strategy and where certain risks may affect multiple strategies."[41] With this information, the board and management can evaluate the firm's portfolio of key risks—assessing the impact and likelihood of each risk event—and set the firm's risk appetite.[42]

The core elements of the ERM program then revolve around efficient and effective communication channels and active monitoring of the firm's risks against its risk portfolio and risk appetite.[43] Commentators stress the need for risk managers to have direct access to the board and multiple contact points to encourage the free-flow of information and reduce the likelihood that risk reports are presented but not heard.[44] Firms also are encouraged to develop key risk indicators that facilitate more effective monitoring of potential risk events.[45]

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[39] *See, e.g.*, CONFERENCE BOARD REPORT, *supra* note 33, at 18 (noting that "many directors interviewed resisted what they termed 'an excessively formal' way to incorporate risk management into their deliberations.").

[40] *See, e.g.*, HORWATH, *supra* note 19, at 4 (study finding that one-third of respondents view risk management "as an unnecessary interference with business activities."); PRICEWATERHOUSECOOPERS, ENTERPRISE RISK MANAGEMENT BENCHMARKING SURVEY (2008), *available at* http://www.pwc.com/fi_FI/fi/julkaisut/tiedostot/erm_benchmarking_survey_2008.pdf (approximately 31% of respondents did not have risk management practices in place); *Audit Committees Put Risk Management at the Top of Their Agendas*, KPMG, June 16, 2008, http://www.kpmg.co.uk/news/detail.cfm?pr=3120 (study finding that only forty-six percent of respondents were very satisfied with risk practices); *Financial Crisis Intensifies Interest in Risk Management Among CFOs*, TOWERS PERRIN, Sept. 2008, http://www.towersperrin.com/tp/showdctmdoc.jsp?country=global&url=Master_Brand_2/USA/Spotlights/2008/Sept/2008_09_30_spotlight_cfo_survey.htm (seventy-two percent of respondents "expressed concern about their own company's risk management practices and ability to meet strategic plans.").

[41] COSO PAPER, *supra* note 34, at 13.

[42] *Id.* at 14-15.

[43] *Id.* at 16-18.

[44] *See supra* Part I.A and *infra* Part II.A.

[45] COSO PAPER, *supra* note 34, at 17-18 ("Key risk indicators . . . are metrics used by some organizations to provide an early signal of increasing risk exposure in various areas of organization.").

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C. ERM and the 2008 Recession

The 2008 recession revealed significant weaknesses in existing risk management practices.[46] Risk management failures alone did not trigger the recession, but many commentators identify such failures as contributing to the severity of the economic losses. For example, Chairman Bernanke stated: "Among other things, our analysis reaffirms that capital adequacy, effective liquidity planning, and strong risk management are essential for safe and sound banking; the recession revealed serious deficiencies on the part of some financial institutions in one or more of the areas."[47] Similarly, the Chairman of Morgan Stanley, John Mack, testified before the Financial Crisis Inquiry Commission that "[i]n retrospect, many firms were too highly leveraged, took on too much risk and did not have sufficient resources to manage those risks effectively in a rapidly changing environment."[48]

Although it is difficult to pinpoint one key deficiency in existing risk management practices, a lack of integration and communication appears to be one of the most significant problems.[49] The traditional segregated approach to risk management prevented many firms from understanding their true exposure if various identified risks converged and from communicating those risks efficiently to senior executives and directors.[50] Consequently, firms' responses to the changing financial landscape during 2007-2008 were slow, and in many cases, too late.

At least one study suggests that financial institutions with more integrated risk management programs performed better during the 2008 recession.[51] The study posits

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[46] "Despite the importance given to risk management by regulators and corporate governance principles, the financial turmoil has revealed severe shortcomings in practices both in internal management and in the role of the board in overseeing risk management systems at a number of banks." Kirkpatrick, *supra* note 3, at 7. *See also supra* note 3. For example, a study revealed that risk managers at UBS AG were aware of potential losses in the firm's subprime mortgage holdings in early 2007 but did not advise senior executives of these potential losses until July 2007. Moreover, UBS's board did not learn of the firm's financial situation until August 2007. Kirkpatrick, *supra* note 3, at 11-12. UBS subsequently acknowledged that "[a]s a result of [risk management] weaknesses, the firm failed to adequately assess correlated risks and risk concentrations." UBS AG, Form 20-F, at 120 (Mar. 11, 2009) (for the period ending Dec. 31, 2008).

[47] Ben S. Bernanke, Chairman, Fed. Reserve, Address at the Federal Reserve Bank of Chicago's Annual Conference on Bank Structure and Competition (May 7, 2009) (transcript available at http://www.federalreserve.gov/newsevents/speech/bernanke20090507a.htm).

[48] *4-Quotes from US Financial Crisis Commission Hearing*, REUTERS, Jan. 13, 2010, *available at* http://www.reuters.com/article/idUSN1315021320100113.

[49] Kirkpatrick, *supra* note 3, at 8-12.

[50] *See* Harner, *supra* note 3, at 50-51 (describing silo approach to risk management and its role in the 2008 recession).

[51] SENIOR SUPERVISORS GROUP, OBSERVATIONS ON RISK MANAGEMENT PRACTICES DURING THE RECENT MARKET TURBULENCE (2008), *available at* http://www.newyorkfed.org/newsevents/news/banking/2008/ssg_risk_mgt_doc_final.pdf. The study concluded that "[f]irms that avoided [significant] problems demonstrated a comprehensive approach to viewing firm-wide exposures and risk, sharing quantitative and qualitative information more efficiently

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that these firms communicated information throughout the organization more efficiently and were able to implement necessary changes more effectively. A nimble response to a risk event can preserve significant value.[52] More studies and data are needed to evaluate fully the impact of ERM, but initial studies and anecdotal evidence suggest that ERM provides more timely information to boards and senior management and thus may better equip them to respond both proactively and reactively to risk events.[53]

II. RISK MANAGEMENT REPONSES TO THE 2008 RECESSION

By most accounts, the 2008 recession was the most significant recession since the Great Depression of the 1930s.[54] The economic losses were steep and the recovery slow. The International Monetary Fund estimates that global financial institutions lost approximately $4.05 trillion in value, with $2.7 trillion of that relating to loans originating in the United States.[55] The U.S. Bureau of Labor Statistics estimates that the United States lost approximately 8.4 million jobs during the recession, with the U.S. unemployment rate hovering between 9 to 10 percent since 2009.[56]

Not surprisingly, policymakers and commentators are scrutinizing the causes of the 2008 recession and searching for ways to avoid or at least mitigate the next economic downturn.[57] Some of this discussion has focused on risk management and improving

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across the firm and engaging in more effective dialogue across the management team." Kirkpatrick, *supra* note 3, at 8 (summarizing findings of the Senior Supervisors Group Study).

[52] *See, e.g.*, RIMS Paper, *supra* note 3, at 3-4 (explaining impact of risk management failures on firms during the 2008 recession and how to address those issues).

[53] *See, e.g.*, Kurt A. Desender, The Influence of Board Composition on Enterprise Risk Management Implementation (Oct. 2007) (unpublished manuscript), *available at* http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1025982 (exploring value components of ERM); Robert E. Hoyt & Andre P. Liebenberg, The Value of Risk Management (July 29, 2009) (unpublished manuscript), *available at* http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1440947 (study finds "a positive relation between firm value and the use of ERM"). *See also supra* notes 38-40.

[54] "The financial market crisis that erupted in August 2007 has developed into the largest financial shock since the Great Depression, inflicting heavy damage on markets and institutions at the core of the financial system." INT'L MONETARY FUND, WORLD ECONOMIC OUTLOOK: HOUSING AND THE BUSINESS CYCLE 4 (2008), *available at* http://imf.org/external/pubs/ft/weo/2008/01/pdf/text.pdf.

[55] Mark Landler, *I.M.F. Puts Bank Losses from Global Financial Crisis at $4.1 Trillion*, N.Y. TIMES, Apr. 21, 2009, *available at* http://www.nytimes.com/2009/04/22/business/global/22fund.html.

[56] News Release, Bureau of Labor Statistics, The Employment Situation—February 2010, at 1-2 (Mar. 5, 2010), *available at* http://www.bls.gov/news.release/pdf/empsit.pdf.

[57] *See, e.g.*, Patrice Hill, *CEOs Trade Blame with Congress over Financial Crisis*, WASH. TIMES, Jan. 14, 2010, *available at* http://www.washingtontimes.com/news/2010/jan/14/ceos-trade-blame-with-congress-over-finance-crisis/ ("Wall Street clashed with Washington on Wednesday over the causes of the biggest financial crisis since the Great Depression, with political leaders and financial chieftains trying to cast the blame on each other."); Dawn Kopecki & Matthew Leising, *Derivatives Industry Gets Second Look from Congress*, BLOOMBERG.COM, June 22, 2009, http://www.bloomberg.com/apps/news?pid=20601087&sid=aTZhIZJYCeS8 ("Congress will take a second shot at the derivatives industry after its decision nine years ago to forgo regulations led to a $592 trillion market that brought some financial firms to their knees.").

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firms' risk management practices.[58] This Part highlights the developments regarding risk management as a result of the 2008 recession. As discussed below, industry proponents are encouraging more attention to ERM, while regulatory responses focus on enhanced disclosure regarding risk management and governing risk through executive compensation schemes. Part IV then considers how neither approach fully accounts for the behavioral and cultural barriers to effective risk management.

A. ERM as a Potential Solution

In a speech in January 2007, Federal Reserve Bank Governor Susan Bies stated, "A successful enterprise risk-management process can help an organization meet many of [its] challenges by providing a framework within which managers can explicitly consider how the organization's risk exposures are changing."[59] Governor Bies discussed the importance of ERM not only in the context of large financial institutions and subprime lending practices, but also as universal principles valuable to firms of all sizes in all industries. As she explained, "[W]hether someone is designing a new branch office, shipping tapes to a backup site for storage, developing the layout for a newspaper ad, or training new employees, they [should] consciously think about risk as one of the elements of that business activity. Increased risk awareness by staff throughout the enterprise is integral to managing risk successfully."[60]

Many commentators agree with Governor Bies' focus on firm-wide risk responsibility and the creation of a risk culture within firms as a response to the 2008 recession. In 2009, COSO issued a thought paper, titled *Strengthening Enterprise Risk Management for Strategic Advantage*, to assist boards in strengthening risk management practices and complying with anticipated regulatory mandates on risk management, such as the SEC rule on proxy disclosure enhancement.[61] Much of the thought paper discusses the importance of the board's role in ERM and provides guidance for boards in fulfilling that role. COSO explains that "[b]ecause management is accountable to the board of directors, the board's focus on effective risk oversight is critical to setting the tone and culture towards effective risk management through strategy setting, formulating high-level objectives, and approving broad-based resource allocation."[62]

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[58] *See, e.g.*, Mary Schapiro, Sec. & Exch. Comm'n, Address at the Council of Institutional Investors (Apr. 6, 2009) ("The Commission will be considering whether greater disclosure is needed about how a company — and the company's board in particular — manages risks, both generally and in the context of setting compensation").
[59] Bies, *supra* note 32, at 1. Governor Bies identified those challenges as including "emerging technologies and business processes, new financial instruments, the growing scale and scope of financial institutions, and changing regulatory frameworks." *Id.*
[60] *Id.* at 3.
[61] *See* COSO PAPER, *supra* note 34. For a discussion of the SEC rule on proxy disclosure enhancement, see *infra* Part II.B.1.
[62] COSO PAPER, *supra* note 34, at 4.

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Specifically, COSO identifies four areas of risk-related tasks for boards: (1) "[d]iscuss risk management philosophy and risk appetite;" (2) "[u]nderstand enterprise risk management practices;" (3) "[r]eview portfolio of risks in relation to risk appetite;" and (4) "[b]e apprised of the most significant risks and related responses."[63] This type of board involvement provides more information to directors and can help them better understand the overall business enterprise. It also signals to management and others at the firm the importance of risk responsibility and the need to align the firm's risk appetite with its business strategies.

Other commentators suggest that ERM, as opposed to more traditional financial risk management, can facilitate a more complete risk assessment that captures at some level what generally is viewed as unquantifiable risk. Speaking to this point, the Risk and Insurance Management Society, Inc. (RIMS) observed, "A number of actuaries, financial managers and consultants regularly advocate a primarily 'scientific' and quantifiable approach for enterprise risk management. Certain financial institutions seem to have replaced sound business judgment with this 'scientific' approach."[64] RIMS perceives ERM as a means of reintroducing sound business judgment to the risk management process, allowing firms to identify and respond more effectively and efficiently to both quantifiable and unquantifiable risks.

A report prepared for the Organisation for Economic Co-operation and Development reached similar conclusions regarding the 2008 recession and the value of ERM in that context.[65] The report urges more emphasis on the corporate governance or human component of risk management and suggests ERM as a technique for achieving that objective.[66] Among other things, the report stresses the need for better understanding of and communication regarding risks, noting that "[e]ven if risk management systems in the technical sense are functioning, it will not impact the company unless the transmission of information is through effective channels, a clear corporate governance issue."[67]

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[63] *Id.* at 5.
[64] RIMS PAPER, *supra* note 3, at 5. RIMS faults overreliance on historic controls and risk metrics for some of the losses experienced during the 2008 recession. It posits that "[t]here was a failure to embed enterprise risk management best practices from the top all the way down to the trading floor, with the mistaken assumption that there is only one way to view a particular risk." *Id.* at 7. *See also* Nocera, *supra* note 3, at 9 (discussing flaws in relying solely on VaR and noting that, in the context of the 2008 recession, "[i]nstead of scrutinizing VaR for signs of impending trouble, they took comfort in a number and doubled down, putting more money at risk in the expectation of bigger gains").
[65] *See* Kirkpatrick, *supra* note 3, at 4.
[66] *Id.* at 2 ("The risk management systems have failed in many cases due to corporate governance procedures rather than the inadequacy of computer models alone: information about exposures in a number of cases did not reach the board and even senior levels of management, while risk management was often activity rather than enterprise-based.").
[67] *Id.* at 11.

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In addition, Standard & Poor's has integrated ERM assessment into its ratings analysis.[68] For example, Standard & Poor's is interviewing its rated, non-financial issuers regarding their ERM practices.[69] The questions asked during these interviews concern the company's process for identifying top risks; how often that process takes place; how those risks are managed; who is responsible for risk management; the board's role in risk management; and how the company has responded to unexpected information in its industry.[70] Standard & Poor's and ERM proponents generally view the ERM framework as an important tool for mitigating future economic downturns through better information flow and core cultural changes.[71]

B. Risk-Related Policy

Even before the extent of the 2008 recession was apparent, U.S. federal financial regulatory agencies issued Interagency Guidance on Nontraditional Mortgage Product Risks (Interagency Guidance) that emphasized the importance of risk management with respect to nontraditional mortgage products, including subprime mortgages.[72] The Interagency Guidance, dated September 29, 2006, observed that "risk layering, combined with the broader marketing of nontraditional mortgage loans, exposes financial institutions to increased risk relative to traditional mortgage loans."[73] It urged financial institutions to adopt rigorous risk management practices that closely monitor the volume and volatility of nontraditional mortgage loan originations and investments. Among other guidelines, it suggested that financial institutions "[m]aintain capital at levels that reflect portfolio characteristics and the effect of stressed economic conditions on collectability."[74]

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[68] Standard & Poor's, Big Changes in Standard & Poor's Rating Criteria, http://www.standardandpoors.com/ratings/erm/en/us (last visited Mar. 27, 2010) ("Standard & Poor's Ratings Services has expanded its review of the financial service industry's enterprise risk management (ERM) practices.").

[69] *See, e.g.*, Dreyer & Balic, *supra* note 16, at 2 ("Since the third quarter of last year, our analysts have begun to incorporate specific ERM discussions into their regular meetings with the companies we rate, focusing on risk-management culture and strategic risk management as two universally applicable aspects of ERM."); AON GLOBAL RISK CONSULTING, ENTERPRISE RISK MANAGEMENT: S&P ENHANCEMENT WHITE PAPER 3 (2009), *available at* http://www.aon.com/about-aon/intellectual-capital/attachments/risk-services/enterprise_risk_management_enhancement_white_paper.pdf [hereinafter AON PAPER].

[70] *See, e.g.*, Dreyer & Balic, *supra* note 16, at 2-3 (identifying seven key questions for company interviews and noting that Standard & Poor's "analysts have explored managements' views of the most consequential risks that their firms face, their likelihood of occurring, how these top risks are identified, monitored, and updated, and the influence of risk sensitivity on liability management and financing decisions"); AON PAPER, *supra* note 69.

[71] *See, e.g.*, Dreyer & Balic, *supra* note 16, at 2 (explaining purpose of ERM consideration); AON PAPER, *supra* note 69.

[72] Office of the Comptroller of the Currency et al., Interagency Guidance on Nontraditional Mortgage Product Risks (Sept. 29, 2006).

[73] *Id.* at 2.

[74] *Id.* at 6.

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Nevertheless, many financial institutions failed to implement the types of controls, monitoring and communication procedures recommended by the Interagency Guidance. For example, despite the warning that nontraditional mortgage products may not perform well in a stressed environment, and that firms should consider collectability issues, many financial institutions did not account for a decline in the housing market in their financial risk modeling.[75] Likewise, communication between risk managers and senior management was delayed, incomplete or both.

In response, policymakers introduced several risk-related initiatives, and the courts weighed in on the issue as well. As discussed below, many of the regulatory responses focus on increased disclosure regarding risk management practices and regulating risk through restrictions on executive compensation schemes. This Part also discusses the Delaware Court of Chancery's decision in the *Citigroup* litigation, which posits a low threshold for boards' risk oversight responsibilities and, consequently, may underscore the need to explore disclosure, executive compensation and other alternative means to help regulators and markets monitor firms' risk management practices.

1. Proposed or Adopted Regulatory Responses

In May 2009, Senator Charles Schumer introduced the Shareholder Bill of Rights Act of 2009 in the Senate (Shareholder Bill).[76] The stated purpose of the Shareholder Bill was "[t]o provide shareholders with enhanced authority over the nomination, election, and compensation of public company executives."[77] Section 5 of the Shareholder Bill provides that reporting companies shall "establish a risk committee, comprised entirely of independent directors, which shall be responsible for the establishment and evaluation of the risk management practices of the issuer."[78]

In addition, in December 2009, the SEC addressed risk management practices in its final rule on proxy disclosure enhancement.[79] The rule requires reporting companies

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[75] *See, e.g.*, Eric Dash & Julie Creswell, *Citigroup Saw No Red Flags Even as It Made Bolder Bets*, N.Y. TIMES, Nov. 22, 2008, *available at* http://www.nytimes.com/2008/11/23/business/23citi.html?pagewanted=1 ("Citigroup's risk models never accounted for the possibility of a national housing downturn, this person said, and the prospect that millions of homeowners could default on their mortgages."); Nocera, *supra* note 3, at 10 ("The fact that [risk models] didn't measure the possibility of an extreme event was a blessing to the executives. It made black swans all the easier to ignore."); Eric S. Rosengren, Fed. Reserve Boston, Address at The Global Interdependence Center's Conference on Financial Interdependence in the World's Post-Crisis Capital Markets (Mar. 3, 2010) (transcript available at http://www.bos.frb.org/news/speeches/rosengren/2010/030310/index.htm) ("There is evidence that financial institutions understood the risks that would arise if house prices fell, but assigned too low a probability to this potential outcome. Thus they were woefully unprepared to weather the consequences when prices did indeed fall.").

[76] Shareholder Bill of Rights Act of 2009, S. 1074, 111th Cong. (2009).

[77] *Id.* § 5.

[78] *Id.*

[79] Sec. & Exch. Comm'n, Final Rule: Proxy Disclosure Enhancements, Release No. 33-9089 (74 Fed. Reg. 68334-01, 17 CFR Parts 229, 239, 240, 249 and 274 (Dec. 16, 2009).

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to discuss their general risk management practices and how their compensation schemes relate to risk profiles.[80] It also mandates a disclosure regarding the board's role in and oversight of risk management.[81] The SEC posits that "disclosure about the board's involvement in the oversight of the risk management process should provide important information to investors about how a company perceives the role of its board and the relationship between the board and senior management in managing the material risks facing the company."[82]

Also in December 2009, the U.S. House of Representatives approved the Wall Street Reform Act and Investor Protection Act of 2009 (Wall Street Act).[83] The Wall Street Act addresses risk management in the context of executive compensation. Specifically, it grants regulators extensive authority to assess whether a firm's compensation scheme "is aligned with sound risk management" and "to jointly prescribe regulations that prohibit any incentive-based payment arrangement, or any feature of any such arrangement, that the regulators determine encourages inappropriate risks."[84] Other regulations relate risk to executive compensation and seek to control risk through firms' compensation schemes.[85]

2. The Judicial Response

As discussed above, several proposed regulatory responses to the 2008 recession focus on executive compensation. The relation between risk and executive compensation is an important component of any risk management program, including ERM.[86] Several

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[80] *Id.* at 6-7.
[81] *Id.* at 42-44.
[82] *Id.* at 44.
[83] Wall Street Reform and Consumer Protection Act, H.R. 4173, 111th Cong. (2009).
[84] *Id.* § 2004.
[85] For example, the TARP legislation and the Federal Reserve Bank's proposed guidance on incentive compensation practices also seek to ensure that compensation incentives do not encourage inappropriate risk-taking. For a thoughtful discussion of those and other regulations governing risk through compensation practices, see Karl S. Okamoto & Douglas O. Edwards, Risk-Taking 13-21 (Mar. 1, 2010) (unpublished manuscript), *available at* http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1562018&utm_source=twitterfeed&utm_medium=twitter. Although this essay does not focus on the relation between risk and compensation structures, that factor is an important consideration in designing and evaluating any risk management program, including ERM. Several commentators have addressed this relationship. *See, e.g.*, Lucian A. Bebchuk & Holger Spamann, *Regulating Bankers' Pay*, 98 GEO. L.J. 247 (2010); Douglas O. Edwards, Comment, *An Unfortunate "Tail": Reconsidering Risk Management Incentives After the Financial Crisis of 2007–2009*, 81 U. COLO. L. REV. 247 (2010); Karl S. Okamoto, *After the Bailout: Regulating Systemic Moral Hazard*, 57 UCLA L. REV. 183 (2009); Okamoto & Edwards, *supra*; Frederick Tung, Pay for Banker Performance: Structuring Executive Compensation for Risk Regulation (Mar. 13, 2010) (unpublished manuscript), *available at* http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1546229.
[86] *See* Daniel K. Tarullo, Fed. Reserve, Address at the University of Maryland's Robert H. Smith School of Business Roundtable on Executive Compensation: Practices and Reforms (Nov. 2, 2009) (transcript available at http://www.federalreserve.gov/newsevents/speech/tarullo20091102a.htm) (explaining that "some firms gave loan officers incentives to write a lot of loans, or traders incentives to generate high levels of trading revenues, without sufficient regard for the risks associated with those activities," and that

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commentators, however, have observed significant flaws in trying to reduce risk and achieve financial stability through compensation reform.[87] In fact, such an approach appears incomplete at best.[88] Nonetheless, public outrage over executive compensation during the 2008 recession and the perceived difficulty in enhancing board oversight duties under state law likely influenced the compensation-reform approach.

Consider the views of the Delaware Chancery Court in the *Citigroup* litigation.[89] The court granted the defendants' motion to dismiss with respect to the plaintiffs' allegations that "director defendants breached their duty of oversight either because the oversight mechanisms were not adequate or because the director defendants did not make a good faith effort to comply with the established oversight procedures."[90] The court discussed those allegations under the standard articulated in *Caremark*, *Guttman* and *Stone*.[91] The court explained that "[t]he presumption of the business judgment rule, the protection of an exculpatory § 102(b)(7) provision, and the difficulty of proving a *Caremark* claim together function to place an extremely high burden on a plaintiff to state a claim for personal director liability for a failure to see the extent of a company's business risk."[92]

The Delaware Chancery Court's reluctance to impose liability on Citigroup's directors for allegedly failed or inadequate risk management practices is consistent with the general notion that business decisions should be made in the boardroom and not the

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those incentives undermine "the very foundation of sound risk management"); Kirkpatrick, *supra* note 3, at 14 (discussing components of compensation that might encourage short-termism and risk-taking and noting that "the system of bonuses in investment banking provides incentives for substantial risk taking while also allowing no flexibility for banks to reduce costs when they have to: at the upper end, the size of the bonus is unlimited while at the lower end it is limited to zero"). *See also Aligning Risk Management and Executive Compensation*, ENTERPRISE RISK MGMT. INITIATIVE, Dec. 1, 2008 ("A 2008 study conducted by The Wall Street Journal and ERI Economic Research Institute found that the median CEO salary of a Standard and Poor's 500 company increased 20.5 percent from the previous year while corporate revenues increased only 2.8 percent."); Okamoto & Edwards, *supra* note 85, at 21-25 (discussing additional empirical studies analyzing links between executive compensation and firm performance).

[87] *See* Okamoto & Edwards, *supra* note 85, at 26-44 (criticizing prevailing views that "excessive" risk can be controlled through compensation-related reform on both functional and completeness grounds; authors also discuss difficulty with defining excessive risk and when regulating that risk might be socially desirable).

[88] *See* Kirkpatrick, *supra* note 3, at 14-15 (explaining that alignment between compensation practices and long-term interests of firm does not necessarily improve risk assessment and noting that "one study . . . reports that financial institutions that collapsed had a CEO with high stock holdings so that they should normally have been risk averse, whereas the ones that survived had strong incentives to take risks").

[89] *In re* Citigroup Inc. S'holder Derivative Litig., 964 A.2d 106 (Del. Ch. 2009).

[90] *Id.* at 127.

[91] Stone v. Ritter, 911 A.2d 362 (Del. 2006); Guttman v. Huang, 823 A.2d 492 (Del. Ch. 2003); *In re* Caremark Int'l Inc. Derivative Litig., 698 A.2d 959 (Del. Ch. 1996). Under this precedent, plaintiffs generally must show "a sustained or systematic failure of the board to exercise oversight—such as an utter failure to attempt to assure a reasonable information and reporting system exists." *Caremark*, 698 A.2d at 971. For an excellent discussion of these three cases and their relation to failure to monitor claims, see Stephen M. Bainbridge, Caremark *and Enterprise Risk Management*, 34 J. CORP. L. 967 (2009).

[92] *Citigroup*, 964 A.2d at 125.

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courtroom.[93] It also reflects the complexity of assessing business risk and the delicate balance between risk and return. As Chancellor Chandler stated, "Business decision-makers must operate in the real world, with imperfect information, limited resources, and an uncertain future. To impose liability on directors for making a 'wrong' business decision would cripple their ability to earn returns for investors by taking business risks."[94]

Although no liability resulted in the *Citigroup* case, the conduct of Citigroup and the individuals responsible for its risk management activities prior to and during the 2008 recession make for a compelling case study. The information available to Citigroup's executives and how they used that information provide insight into corporate risk assessment and highlight cultural norms that may impede meaningful ERM.

III. A CASE STUDY: *CITIGROUP, INC.*

Citigroup, Inc. is a storied financial services firm. With roots dating to 1812, Citigroup "has approximately 200 million customers and does business in more than 140 countries."[95] It provides a variety of financial products and service to its customers, including "consumer banking, credit cards, corporate and investment banking, securities brokerage and wealth management."[96] Citigroup carries approximately $1.857 trillion of assets and approximately $1,702 trillion of liabilities on its balance sheet.[97]

Notwithstanding, or perhaps because of, its massive scope and size, Citigroup was hit hard by the 2008 recession. It experienced losses of approximately $10 billion in the last three months of 2007, and the losses continued into 2009.[98] Citigroup's stock price dropped precipitously as well, falling to below $4 per share in November 2008 and below $1 per share in March 2009.[99]

As a result, Citigroup accepted assistance from the U.S. government under the Troubled Asset Relief Program (TARP). Specifically, Citigroup received over

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[93] See, e.g., Capital Bancshares, Inc. v. Federal Deposit Ins. Corp., 957 F.2d 203, 207 (5th Cir. 1992) ("under this familiar rule of American jurisprudence, the courts refrain from second guessing business decisions made by corporate directors in the absence of a showing of fraud, unfairness or overreaching"); Dodge v. Ford Motor Co., 204 Mich. 459, 170 N.W. 668, 684, 3 A.L.R. 413 (1919) ("[t]he judges are not business experts"). *See also* Stephen M. Bainbridge, *The Business Judgment Rule as Abstention Doctrine*, 57 VAND. L. REV. 83, 95-100 (2004) (discussing development of business judgment rule).
[94] *Id.* at 126.
[95] Citigroup Inc., Annual Report (Form 10-K), at 4 (Feb. 26, 2010) (for the period ending Dec. 31, 2009).
[96] *Id.* at 7.
[97] *Id.* at 39.
[98] *See* Eric Dash, *After Year of Heavy Losses, Citigroup Finds a Profit*, N.Y. TIMES, Apr. 17, 2009, *available at* http://www.nytimes.com/2009/04/18/business/18bank.html.
[99] Dash & Creswell, *supra* note 75 ("Citigroup's stock has plummeted to its lowest price in more than a decade, closing Friday [November 2008] at $3.77."); Laurie Kulikowski, *Citigroup Shares in Rally Mode*, THESTREET.COM, Mar. 9, 2010, http://www.thestreet.com/story/10698901/1/citigroup-shares-in-rally-mode.html.

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$45 billion in capital infusions from the government, and the government agreed to guarantee approximately $306 billion in loans and securities.[100] The government converted $25 billion of its investment into Citigroup common stock.[101] Citigroup also repaid the remaining $20 billion in December 2009.[102]

Prior to its participation in TARP, Citigroup; its CEO, Charles Prince; its risk managers; and its board of directors made interesting decisions. Despite various market and industry indications that the subprime mortgage market was deteriorating quickly in early 2007, Citigroup stayed firmly committed to its large subprime mortgage and collateralized debt obligation (CDO) portfolios and related investment strategies.[103] In fact, in July 2007, Mr. Prince brushed aside these warnings and stated, "As long as the music is playing, you've got to get up and dance. We're still dancing."[104]

Mr. Prince's statement is not the only evidence that Citigroup as an institution failed to appreciate or ignored the significance of the subprime mortgage crisis. Following the Bear Stearns collapse in the summer of 2007, Citigroup assured the Securities and Exchange Commission (SEC) that it anticipated no subprime mortgage losses.[105] One report suggests that Citigroup indicated that "the probability of those mortgages defaulting was so tiny that they excluded them from their risk analysis."[106] That approach proved devastating in October 2007 when Citigroup announced that "third-quarter profit would fall 60% from the prior year after huge write-downs for unsold debt it issued to finance corporate takeovers and for big losses on the value of subprime mortgage-backed securities."[107]

Standing alone, Citigroup's position would not appear unreasonable. When placed in context with the other events of late 2006 and early 2007, however, the position becomes more troubling. Consider the following sampling of information known by or available to Citigroup executives[108]:

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[100] *See, e.g.*, David Enrich et al., *U.S. Agrees to Rescue Struggling Citigroup*, WALL STREET J., Nov. 24, 2008, *available at* http://online.wsj.com/article/SB122747680752551447.html?mod=djemalertNEWS (explaining $45 capital infusion and structure of U.S. loan guaranty).
[101] *See, e.g.,* Eric Dash, *U.S. Agrees to Raise Its Stake in Citigroup*, N.Y. TIMES, Feb. 27, 2009, *available at* http://www.nytimes.com/2009/02/28/business/28deal.html.
[102] *See, e.g.,* Matthias Rieker, *Citi, Wells Repay TARP Funds*, WALL STREET J., Dec. 24, 2009, *available at* http://online.wsj.com/article/SB10001424052748704254604574614082322331944.html.
[103] *See, e.g.*, Dash & Creswell, *supra* note 75 (explaining events leading up to Citigroup's announcement of significant losses in October 2007).
[104] Michiyo Nakamoto & David Wighton, *Citigroup Chief Stays Bullish on Buy-Outs*, FT.COM, July 9, 2007, http://www.ft.com/cms/s/0/80e2987a-2e50-11dc-821c-0000779fd2ac.html.
[105] *See* Dash & Creswell, *supra* note 75.
[106] *Id.*
[107] Greg Morcroft, *Big Write-Downs to Slash Citi's Quarterly Net 60%*, WSJ.COM, Oct. 1, 2007, http://www.marketwatch.com/story/citigroup-says-quarterly-profit-to-drop-60-but-shares-gain.
[108] In addition to the sources noted below, information regarding this sample and other events relating to the 2008 recession during this and additional periods is provided in several excellent sources. *See, e.g.*, Edward Harrison, *Banking Crisis Timeline*, CREDIT WRITEDOWNS, *available at*

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- February 8, 2007: HSBC Holdings Plc and New Century Financial Corp. announce concerns regarding performance of their subprime mortgage portfolios and perceived risks are reflected in ABX's credit-default swap index.[109]

- February 20, 2007, Federal Reserve Board Governor Susan Bies observes that "'[o]ne segment of [the mortgage market] . . . is starting to behave in a very problematic way and that is the subprime adjustable rate mortgages.'"[110]

- February 21, 2007: NovaStar Financial Inc. loses one-third of its stock value due to subprime mortgage issues.[111]

- March 4, 2007: HSBC Holdings Plc forced to take a $11 billion write-off to cover subprime mortgage losses.[112]

- March 12, 2007: Reports predict a significant surge in home foreclosures and that "[t]he deepest housing decline in 16 years is about to get worse."[113]

- March 2007: Fremont General and New Century Financial stop making loans, and "People's Choice files for bankruptcy."[114]

- April 6, 2007: "American Home Mortgage writes down the value of risky mortgages rated one step above subprime."[115]

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http://www.creditwritedowns.com/credit-crisis-timeline/banking-crisis-timeline (last visited Mar. 23, 2010); *Timeline: Banking Crisis*, CNN.COM, Oct. 16, 2008, http://edition.cnn.com/2008/BUSINESS/09/30/us.bailout.timeline/index.html; Joint Econ. Comm., Subprime Mortgage Market Crisis Timeline (July 2008), *available at* http://jec.senate.gov/public/?a=Files.Serve&File_id=4cdd7384-dbf6-40e6-adbc-789f69131903 [hereinafter Economic Committee Timeline].

[109] Jody Shenn & Shannon D. Harrington, *Subprime Mortgage Bond Risks Surge, Index Suggests*, BLOOMBERG.COM, Feb. 8, 2007, http://www.bloomberg.com/apps/news?pid=20601103&sid=a3ztUp9Z6_UE&refer=us.

[110] *Bad Mortgage Debt Not Widespread Problem, Fed Official Says*, USATODAY.COM, Feb. 20, 2007, http://www.usatoday.com/money/economy/housing/2007-02-20-mortgage-debts-problems_x.htm.

[111] Jody Shenn & Elizabeth Hester, *NovaStar Sheds One-Third of Value After Posting Loss*, BLOOMBERG.COM, Feb. 21, 2007, http://www.bloomberg.com/apps/news?pid=conewsstory&refer=conews&tkr=NFI:US&sid=aKFh3Eockz2k.

[112] John Waples & Grant Ringshaw, *US Triggers $11bn HSBC Fall-Out*, SUNDAY TIMES, Mar. 4, 2007, *available at* http://business.timesonline.co.uk/tol/business/industry_sectors/banking_and_finance/article1465662.ece.

[113] Bob Ivry, *Foreclosures May Hit 1.5 Million in U.S. Housing Bust*, BLOOMBERG.COM, Mar. 12, 2007, http://www.bloomberg.com/apps/news?pid=20601087&sid=ahwzaBwuNaII&refer=home.

[114] Economic Committee Timeline, *supra* note 108, at 24.

[115] *Id.*

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- April 2007: New Century Financial files for bankruptcy, and GMAC LLC and General Electric Co. announce massive reductions in workforce relating to subprime mortgage businesses.[116]

- May 3, 2007: UBS announces the closing of its hedge fund, Dillon Read Capital Management, due to U.S. subprime mortgage losses.[117]

- May 30, 2007: Report suggests manipulation in subprime mortgage market and notes that "[s]ince the beginning of 2006, more than 50 U.S. mortgage companies have put themselves up for sale, closed or declared bankruptcy."[118]

- June 12, 2007: Bear Stearns suspends redemptions at its hedge funds, which posted an 18.97 percent loss in April 2007, and "RealtyTrac announces U.S. foreclosure filings surge 90 percent in May from May 2006."[119]

- July 2007: Standard & Poor's, Moody's and Fitch "downgrade bonds backed by subprime mortgages," and Bear Stearns announces that its hedge funds are essentially worthless.[120]

- July 18-19, 2007: Federal Reserve Bank Chairman Bernanke acknowledges that "there will be 'significant losses' due to subprime mortgages" and that "the problems 'likely will get worse before they get better.'"[121]

Admittedly, hindsight reveals information not always visible in the moment, but Citigroup faced fairly stark evidence in early to mid-2007.[122] Citigroup's inaction is

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[116] Rachel Layne & Greg Bensinger, *GMAC, GE Will Cut 1,400 Job Cuts on Subprime Decline*, BLOOMBERG.COM, Apr. 19, 2007, http://www.bloomberg.com/apps/news?pid=20601103&sid=ammC8WlswFTQ&refer=news; *Top Lender in Chapter 11* Move, BBC NEWS, Apr. 2, 2007, http://news.bbc.co.uk/2/hi/business/6519051.stm.
[117] *UBS to Close Its Hedge Fund Arm*, BBC NEWS, May 3, 2007, http://news.bbc.co.uk/2/hi/business/6619033.stm.
[118] Seth Lubove & Daniel Taub, *Subprime Fiasco Exposes Manipulation by Mortgage Brokerages*, BLOOMBERG.COM, May 30, 2007, http://www.bloomberg.com/apps/news?pid=20601109&refer=home&sid=a8VFwgtdQ9FM. In addition, in April and June 2007, Standard & Poor's issued warnings about the acceleration in subprime mortgage payment defaults delinquencies. *See Insurance and Government Sponsored Enterprises Before the H. SubComm. on Capital Markets*, 109th Cong. 22 (2006) (testimony of Vickie A. Tillman, Executive Vice President, Standard & Poor's Credit Market Services).
[119] Matthew Goldstein, *Bear Stearns' Subprime Bath*, BUSINESSWEEK, June 12, 2007, *available at* http://www.businessweek.com/bwdaily/dnflash/content/jun2007/db20070612_748264.htm; Economic Committee Timeline, *supra* note 108, at 23.
[120] Economic Committee Timeline, *supra* note 108, at 22-23.
[121] *Id.* at 22. Chairman Bernanke did observe that the subprime mortgage problems "have not spilled over into the greater system" and opined that the problems were "'bumps' in 'market innovations.'" *Id.*
[122] *See* Donald C. Langevoort, *The Legal Implications of Psychology: Human Behavior, Behavioral Economics, and the Law*, 51 VAND. L. REV. 1499, 1504 (1998) (explaining hindsight bias as "people over estimat[ing] the extent to which they could have predicted some future event (i.e., its foreseeability) once

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perhaps even more striking given that it held approximately $55 billion in U.S. subprime mortgage assets at the time.[123] In addition, "Citigroup was the biggest CDO underwriter, responsible for $46.9 billion of the securities sold in the first nine months" of 2007.[124] Those holdings also led to significant write-downs in 2007.[125]

The remainder of this essay considers the Citigroup scenario in the context of ERM and proposed and potential regulatory responses to the perceived risk management failures associated with the 2008 recession. It is easy to posit that better or more rigorous risk management procedures would have prevented the losses suffered by Citigroup shareholders and the markets more generally, but much harder to prove that proposition.[126] That challenge is intensified by the existing law governing corporate boards' compliance obligations and basic behavioral and cultural barriers that impede many decisionmaking processes.[127]

IV. POTENTIAL BARRIERS TO THE ERM SOLUTION

At its core, ERM strives to change corporate culture and improve information and communication regarding risk events.[128] Those objectives alone, however, will not necessarily result in better risk management.[129] Indeed, a firm could implement a process that projects an ERM façade but does nothing substantive to change the way decisionmakers consider and resolve risk issues. Moreover, that process likely would satisfy existing and proposed risk regulations.[130] As discussed above, those regulations focus primarily on disclosure regarding risk management practices and do not prescribe the content or scope of those practices.

Accordingly, before firms adopt or policymakers mandate ERM or any other risk management protocol, all participants need to consider whether more process alone will improve risk management and enhance firm value or whether something else is needed. Specifically, will more reporting and information necessarily result in different or better

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they learn what actually happened"). *See also* Jeffrey J. Rachlinski, *A Positive Psychological Theory of Judging in Hindsight*, 65 U. CHI. L. REV. 571, 576 (1998) (explaining that "[r]esearch by cognitive psychologists has shown that the folk wisdom on hindsight is correct—past events seem more predictable than they really were"). *See also* Joy v. North, 692 F.2d 880, 886 (2d Cir. 1982) ("[A]fter-the-fact litigation is a most imperfect device to evaluate corporate business decisions.").

[123] Susan Pulliam & Randall Smith, *Citi, SEC Are in Talks to Settle Asset Probe*, WALL STREET J., May 28, 2009, *available at* http://online.wsj.com/article/SB124347855330961363.html.

[124] Bradley Keoun, *Citigroup Fires CDO Bankers After Mortgage Losses*, BLOOMBERG.COM, Dec. 19, 2007, http://www.bloomberg.com/apps/news?pid=20601087&sid=aQmPC4T4g8Uo&refer=home.

[125] *Id.*

[126] *See infra* Part IV.

[127] *See supra* Part II.B.2 and *infra* Part IV.

[128] *See supra* Parts I.A and II.A.

[129] *See* Lipshaw, *supra* note 8, at 19 ("The problem with any reduction to rules . . . is the illusion of objectivity, something fostered by the particular construct of concepts that constitutes law generally.").

[130] *See supra* Part II.B.

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decisions? If not, how do we improve risk management and does the law have a role to play in that process?

A. Behavioral Barriers to Effective ERM

Why did Citigroup keep dancing well into 2007? Several key indicators in its industry and the economy more generally suggested that caution was warranted.[131] Some of its competitors observed these indicators and instituted responsive measures. For example, J.P. Morgan observed red flags in late 2006 and "exited the business of securitizing subprime mortgages when it was still booming."[132] Other investors actually grossed large profits during 2007 by shorting mortgage-backed securities.[133] But Citigroup remained committed to its investment strategy, with little meaningful hedging, until arguably it was too late.

It is difficult to discern with any precision the motivation for Citigroup's conduct. Nevertheless, analyzing its course of action through the lens of behavioral economics provides an interesting perspective on risk management.[134] Citigroup, like most financial

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[131] *See supra* Part III.

[132] Shawn Tully, *Jamie Dimon's Swat Team: How J.P. Morgan's CEO and His Crew Are Helping the Big Bank Beat the Credit Crunch*, CNNMONEY.COM, Sept. 2, 2008, *available at* http://money.cnn.com/2008/08/29/news/companies/tully_dimon.fortune/. J.P. Morgan reportedly embraces ERM, focusing on structure and culture. *See Enterprise Risk Management,* The Centennial Global Business Summit Report, Harvard Business School, at 3-4 (2008) (explaining that, at J.P. Morgan, "[r]isk management starts with tone set at the very top" and includes "a culture of collaboration"), *available at* http://www.hbs.edu/centennial/businesssummit/global-business/enterprise-risk-management.pdf.; *see also Cinderella's Moment*, THE ECONOMIST, Feb. 11, 2010 (observing that financial institutions like J.P. Morgan that survived the recession better than their peers "relied largely on giving their risk-managing roundheads equal status with the risk-taking cavaliers"), *available at* http://www.economist.com/specialreports/displaystory.cfm?story_id=15474145.

[133] *See, e.g.*, RIMS PAPER, *supra* note 3, at 4 ("Goldman Sachs adjusted its positions in mortgage-backed securities beginning in 2006, differentiated itself from the rest of the market at a time when some might have criticized the move as excessively cautious."); Nocera, *supra* note 3, at 1 (Goldman Sachs' CFO explained that "In December [2006] our mortgage business lost money for 10 days in a row. It wasn't a lot of money, but by the 10th day we thought that we should sit down and talk about it."; this recognition reportedly led Goldman Sachs to rein in risk in its subprime mortgage portfolio.); Carol Loomis, *Robert Rubin on the Job He Never Wanted*, CNNMONEY.COM, Nov. 28, 2007, http://money.cnn.com/2007/11/09/news/newsmakers/merrill_rubin.fortune/index.htm?postversion=2007111119. Notably, Goldman Sachs has been criticized for, and is the subject of a lawsuit concerning, its products and investment decisions leading up to the 2008 recession. *See, e.g.*, Press Release, SEC Charges Goldman Sachs with Fraud in Structuring and Marketing of CDO Tied to Subprime Mortgages, Apr. 16, 2010, *available at* http://www.sec.gov/news/press/2010/2010-59.htm; John D. McKinnon, *Senate Probes Bank for Meltdown Fraud*, WALL STREET J., July 30, 2009, *available at* http://online.wsj.com/article/SB124890898142691729.html.

[134] "Behavioral economics is the combination of psychology and economics that investigates what happens in markets in which some of the agents display human limitations and complications." Sendhil Mullainathan & Richard H. Thaler, *Behavioral Economics* (Nat'l Bureau of Econ. Research, Working Paper No. 7948, 2000), *available at* https://www.msu.edu/course/aec/810/clippings/Thaler-behavioral%20economics.pdf. *See also* Craig Lambert, *The Marketplace of Perceptions*, HARV. MAG., Apr. 2006, *available at* http://harvardmagazine.com/2006/03/the-marketplace-of-perce.html (explaining

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institutions, had risk management procedures in place prior to the 2008 recession.[135] Its risk managers and executives had access to information that suggested significant potential risk to its major asset portfolios.[136] Yet, Citigroup consistently asserted its risk exposure was nominal.

The behavioral economics literature documents unconscious cognitive biases that might account for the Citigroup scenario.[137] Many commentators have thoughtfully analyzed the impact of individual and group biases on decisions by and relations among boards of directors and senior management.[138] This essay considers three of those biases in the risk management context: confirmation bias, overconfidence/optimism bias and framing.

Confirmation bias commonly is defined as "the tendency to ascribe too much weight to evidence that confirms [individuals' or groups'] views and too little weight to

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development of behavioral economics); Langevoort, *supra* note 122 (explaining role of behavioral economics in legal profession). *But see, e.g.*, Richard A. Posner, *Rational Choice, Behavioral Economics, and the Law*, 50 STAN. L. REV. 1551, 1556-57 (1998) (criticizing behavioral economics); Victor Fleischer, *The Rational Exuberance of Structuring Venture Capital Start-ups*, 57 TAX L. REV. 137, 141 (2003) ("The broader point is that cognitive biases, though sometimes enlightening, should be used as a last resort rather than as a primary or all-purpose explanation for seemingly irrational behavior."). This essay suggests that behavioral economics can help create a more complete picture of the risk management problem and in turn a more complete solution; it is just one of several analytical tools that policymakers can and should utilize in this analyze.

[135] *See* Citigroup Inc., Annual Report (Form 10-K), at 39-60 (Feb. 27. 2008) (for the period ending Dec. 31, 2007) (describing risk management practices).

[136] *See supra* Part III.

[137] *See, e.g.*, Inga Chira et al., *Behavioral Bias Within the Decision Making Process*, 6 J. BUS. & ECON. RESEARCH 11 (2008) (explaining that behavioral economics "draws on the psychology and cognitive science literatures to examine why individual decision-making often deviates from rational choices in systematic ways"); Tversky and Kahneman, *supra* note 10, at 1124 ("[P]eople rely on a limited number of heuristic principles which reduce the complex tasks of assessing probabilities and predicting values to simpler judgmental operations. In general, these heuristics are quite useful, but sometimes they lead to severe and systematic errors.").

[138] *See, e.g.*, Regina F. Burch, *The Myth of the Unbiased Director*, 41 AKRON L. REV. 509 (2008); Lawrence A. Cunningham, *Beyond Liability: Rewarding Effective Gatekeepers*, 92 MINN. L. REV. 323 (2007); Lynn Dallas, *A Preliminary Inquiry into the Responsibility of Corporations and Their Officers and Directors for Corporate Climate: The Psychology of Enron's Demise*, 35 RUTGERS L.J. 1 (2003) [hereinafter *Psychology of Enron's Demise*]; Lynne Dallas, *Two Models of Corporate Governance: Beyond Berle and Means*, 22 U. MICH. J.L. REFORM 19, 73-77 (1988); Kent Greenfield, *Using Behavioral Economics to Show the Power and Efficiency of Corporate Law as Regulatory Tool*, 35 U.C. DAVIS L. REV. 581 (2002); Donald C. Langevoort,, *Resetting the Corporate Thermostat: Lessons from the Recent Financial Scandals About Self-Deception, Deceiving Others and the Design of Internal Controls*, 93 GEO. L.J. 285 (2004); Donald C. Langevoort, *The Human Nature of Corporate Boards: Law, Norms, and the Unintended Consequences of Independence and Accountability*, 89 GEO. L.J. 797, 812–13 (2001); Donald C. Langevoort, *Organized Illusions: A Behavioral Theory of Why Corporations Mislead Stock Market Investors (and Cause Other Social Harms)*, 146 U. PA. L. REV. 101 (1997); Oliver Marnet, *Behavior and Rationality in Corporate Governance,* 34 J. ECON. ISSUES 613 (2005); Anthony Page, *Unconscious Bias and the Limits of Director Independence*, 2009 ILL. L. REV. 237.

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evidence that invalidates their views."[139] Several commentators have identified instances of confirmation bias in corporate boardrooms, including in the decision of Sun Microsystems to continue an aggressive investment strategy in the face of an economic downturn.[140] This hubris encourages individuals on an unconscious level to seek out information supporting their position and discount opposing views.

Citigroup's risk supervisors were operating in an environment that fostered confirmation bias. Reports suggest that Citigroup's trading supervisor, Thomas Maheras, relied on Citigroup's ratings from the ratings agencies to bolster his position that "the bank 'would never lose a penny.'"[141] Likewise, statements from Chairman Bernanke and others during this period provided support for his position. For example, in May 2007, Chairman Bernanke repeated his March statements that "the Fed does not foresee a broader economic impact from the growing number of mortgage defaults."[142] Moreover, Mr. Prince, colleagues and subordinates at Citigroup blindly relied on Mr. Maheras' projections to continue their public statements that the bank was financially sound.[143]

In addition, Citigroup's executives' willingness to buy into rosy projections despite the realities surrounding its industry demonstrates overconfidence and an optimism bias.[144] Several studies have identified overconfidence as a trait affecting corporate CEOs.[145] Individuals in these powerful positions tend to overestimate their own abilities; they often believe that they are the exception to the rule.[146] Other financial

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[139] Hersh Shefrin, *Behavioral Corporate Finance*, 14 J. APPLIED CORP. FIN. 113, 118 (2001). *See also* Chira et al., *supra* note 137, at 12.

[140] HERSH SHEFRIN, BEHAVIORAL CORPORATE FINANCE: DECISIONS THAT CREATE VALUE 3-10 (2007).

[141] *See* Dash & Creswell, *supra* note 75.

[142] Economic Committee Timeline, *supra* note 108, at 22.

[143] *See* Dash & Creswell, *supra* note 75. A related, but distinct bias, is commitment bias. I. JANIS & L. MANN, DECISION MAKING: A PSYCHOLOGICAL ANALYSIS OF CONFLICT, CHOICE AND COMMITMENT (1977). That hubris makes it difficult to change course or exit a failing business strategy. In Citigroup's scenario, Mr. Prince committed to aggressive growth in Citigroup's CDO products early in his tenure. "From 2003 to 2005, Citigroup more than tripled its issuing of CDO's, to more than $20 billion from $6.28 billion, . . . meaning Citigroup made up to $500 million in fees from the business in 2005 alone." Dash & Creswell, *supra* note 75. Here, "the subsequent discovery of information that indicates harmful consequences flowing from that commitment directly threatens their self-concept as good, worthwhile individuals. Thus, cognitive processes will work to suppress such information if at all possible." Donald C. Langevoort, Where Were the Lawyers? A Behavioral Inquiry Into Lawyers' Responsibility for Clients' Fraud, 46 Vand. L. Rev. 75, 102-03 (1993).

[144] *See, e.g.*, Inga Chira et al., *Behavioral Bias Within the Decision Making Process*, J. BUS. & ECON. RESEARCH (2008); Dan Lovallo & Daniel Kahneman, *Delusions of Success: How Optimism Undermines Executives Decisions*, HARVARD BUS. R. (2003).

[145] "Every CEO who goes into [an acquisition] thinks he is different–that he will be able to pull it off." Edward Teach, *Watch How You Think: Insights from Behavioral Finance Could Change the Way Companies Approach Mergers and Acquisitions*, CFO MAG., Jan. 2004. *See also* Ribstein, *supra* note 27, at 81 ("Executives also are susceptible to overconfidence, particularly those who have the highest self-esteem and who may also be the most successful."); Paredes, *supra* note 26, at 697-701.

[146] *See, e.g.*, Chira et al., *supra* note 137, at 12; Prentice, *supra* note 23. *See also* PAUL C. NUTT, WHY DECISIONS FAIL: AVOIDING THE BLUNDERS AND TRAPS THAT LEAD TO DEBACLES (2002) (describing overconfidence and commitment bias present in Disney's decision to open Euro Disney).

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companies may be affected by the 2008 recession, but their company will be the lone standing survivor. As one commentator observes, "[M]any companies may unintentionally engage in excessive optimism, especially when their existence depends on favorable forecasts."[147]

Finally, framing can play a significant role in risk management decisions.[148] "Studies on framing of legal risks find, for example, that taxpayers who owe money are more likely to cheat on their taxes than taxpayers who expect a refund."[149] Although some of Citigroup's decisions in 2007 arguably were infected by framing, a framing bias likely had a much larger impact in creating the situation in which Citigroup found itself at that time.

Consider the following account: "In 2005, stung by regulatory rebukes and unable to follow Mr. Weill's penchant for expanding Citigroup's holdings through rapid-fire takeovers, Mr. Prince and his board of directors decided to push even more aggressively into trading and other businesses that would allow Citigroup to continue expanding the bank internally."[150] As Mr. Prince searched for ways to regain Citigroup's prowess, he and his colleagues likely were operating in a loss frame, making them more risk seeking.[151] "This risk taking might be conscious, but decision makers can also

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[147] Chira et al., *supra* note 137, at 12.

[148] "[F]raming bias is the tendency to view a given problem in different terms depending on the perspective from which the problem is viewed." Ian Weinstein, *Don't Believe Everything You Think: Cognitive Bias in Legal Decision Making*, 9 CLINICAL L. REV. 783, 797 (2002). *See also* Jeffrey J. Rachlinski, *Gains, Losses, and the Psychology of Litigation*, 70 S. CAL. L. REV. 113 (1996) (explaining framing bias); X.T. Wang, *Framing Effect: Dynamics and Task Domains*, 68 ORGANIZATIONAL BEHAV. & HUMAN DECISION PROCESSES 145 (same).

[149] Richard W. Painter, *Governance and Competition in Rules Governing Lawyers*, 29 J. CORP. L. 397, 404 (2004). *See also* Robert B. Thompson, *Securities Regulation in an Electronic Age: The Impact of Cognitive Psychology,* 75 Wash. U. L.Q. 779, 784 (1997) ("But I think that there are enough examples where framing leads investors to violate simple economic principles that the SEC and the courts would want to recognize it.").

[150] Dash & Creswell, *supra* note 75. *See also Can Chuck Prince Clean Up Citi?*, BUSINESSWEEK.COM, Oct. 4, 2004, http://www.businessweek.com/magazine/content/04_40/b3902049_mz011.htm (describing many challenges facing Mr. Prince in turning around Citigroup). For example, one commentator observes, "'[Mr. Prince] came in at a time when you know a famous leader had been yanked away and there were a lot of problems in the past. All sorts of market disruptions occurred. And he wasn't a charismatic leader who could rally the troops necessarily.'" Jim Zarroli, *Citigroup CEO Prince Falls to Subprime Debacle*, NPR, Mar. 26, 2010 (quoting Professor Roy Smith) (transcript available at http://www.npr.org/templates/story/story.php?storyId=15995002).

[151] *See, e.g.*, Painter, *supra* note 149, at 403 ("Some psychological studies suggest that decision makers are risk averse when deciding between two alternatives that they perceive to result in a gain, but risk preferring when deciding between two alternatives that they perceive to result in a loss."); Wang, *supra* note 148, at 146 (describing loss framing in context of Tversky and Kahneman's prospect theory and explaining that, under this theory, "people code the possible choice outcomes as gains and losses, and tend to be risk averse when choosing among prospects seen as gains but risk seeking when choosing among prospects seen as losses"). *See also* Richard H. Thaler et al., *The Effect of Myopia and Loss Aversion on Risk Taking: An Experimental Test*, 112 Q. J. ECON. 647, 648 (1997) (explaining myopic loss aversion and noting that "[e]mpirical estimates find that losses are weighted about twice as strongly as gains").

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conceal risk preferring behavior from themselves by adjusting their estimates of risk artificially downwards."[152]

Notably, cognitive biases can overlap and often enable each other. For example, the loss framing that might have influenced Mr. Prince's initial decision to invest aggressively in the CDO market likely made him susceptible to confirmation and commitment biases with respect to the success of that strategy (as well as his overall strategic plan for Citigroup).[153] Moreover, cognitive biases were not the only factors contributing to Citigroup's scenario. It certainly had weak controls and risk management, and admittedly was dealing with a very difficult economic environment.[154]

The presence of cognitive biases in the decisionmaking process, however, cautions against blind reliance on more internal controls and risk management as the solution. As discussed below, in designing any ERM program, cognitive biases should be considered.[155] Reflecting on the Citigroup scenario, having more high-level individuals responsible for risk assessment and having direct access to individuals on the ground gathering the risk-related information might have shattered the confirmation bias sooner. Part of Citigroup's problem appears to be that most risk information and decisions funneled through Mr. Maheras.[156]

B. Cultural Barriers to Effective ERM

When Mr. Prince took over as CEO of Citigroup, the firm had a reputation for being aggressive and obsessed with maximizing short-term gains.[157] At the time, Citigroup was under intense scrutiny for its roles in Enron and Worldcom, as well as questionable trading practices in Japan and Europe. Mr. Prince vowed to change corporate culture but ultimately remained aggressive in his pursuit of profits, creating a

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[152] Painter, *supra* note 149, at 404.
[153] Indeed, even after announcing huge losses in October 2007, Mr. Prince continued to pronounce his confidence in Citigroup and his vision for the firm, stating: "'No one can be happy with the results in our fixed-income business or with the results that relate to that. But, I think if you are able to look at other parts of the business, if you look at the strategic plan we're executing on, I think any fair-minded person would say that strategic plan is working.'" Jim Zarroli, *Citigroup CEO Prince Falls to Subprime Debacle*, NPR, Nov. 5, 2007, http://www.npr.org/templates/story/story.php?storyId=15995002.
[154] *See, e.g.*, Citigroup Inc., Annual Report (Form 10-K), at 49 (Feb. 27, 2009) (for the period ending Dec. 31, 2008) ("Recent market conditions, particularly during the latter part of 2007 and 2008, have involved unprecedented dislocations and highlight the limitations inherent in using historical data to manage risk."); Eric Dash, *Citigroup Acknowledges Poor Risk Management*, N.Y. TIMES, Oct. 16, 2007, *available at* http://www.nytimes.com/2007/10/16/business/16citi.html ("Citigroup acknowledged yesterday that its risk management models did not function properly during this summer's credit crisis, contributing to the company's 57 percent drop in third-quarter profit.").
[155] *See infra* Part IV.C.
[156] *See* Dash & Creswell, *supra* note 75.
[157] *See, e.g.*, Louise Cooper, *Scandal-hit Citigroup Rebuilds Its Image*, BBC NEWS, Mar. 14, 2005, http://news.bbc.co.uk/2/hi/business/4318333.stm.

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culture where "senior managers got addicted to the revenues and arrogant about the risks they were running."[158]

Citigroup is not alone in promoting an aggressive, win-at-all-cost corporate culture. That culture arguably is the norm in the United States.[159] The utility of the culture has been called into question by the 2008 recession, and many policymakers and commentators, including ERM proponents, are pushing for an overhaul of corporate culture.[160] But change is hard and slow, and memories of tragic events like the 2008 recession are short. Moreover, pressure in the boardroom to increase the bottom line remains.

Notably, studies suggest a strong link between corporate culture and risk management practices.[161] For example, one study of firms in 35 different countries shows a strong negative association between harmonious corporate cultures and risk-taking, and a strong positive association between individual-centric corporate cultures and risk-taking.[162] The study defines "harmony" in the context of cultures that are "more accepting of traditional ways of doing business rather than striving for innovation."[163] It defines "individualism" in the context of cultures that "focus on individual freedom and personal challenge."[164] Perhaps not surprisingly, the United States scored the highest on cultures exhibiting individual-centric characteristics.[165]

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[158] *See* Dash & Creswell, *supra* note 75; Zarolli, *supra* note 147 (noting that Citigroup under Mr. Prince has "been very aggressive and . . . pushing profit growth very hard in a lot of areas").

[159] *See, e.g.*, Francesco Guerrera et al., *Damning Insight into Corporate Culture Sheds Light on Fall of a Wall Street Giant*, FT.COM, Mar. 13, 2010, http://www.ft.com/cms/s/0/d0441982-2e40-11df-85c0-00144feabdc0.html (noting that the examiner report on Lehman Brothers describes the firm as an "organisation prepared to take short cuts and huge risks to boost earnings, where control and accounting procedures were found to be sorely lacking"); Cynthia Webster & Allyn White, *Exploring the National and Organizational Culture Mix in Service Firms*, J. ACAD. MARK. SCI. (2009) (study analyzing corporate cultures in United States and Japan and observing that the "U.S. is characterized by such values as assertiveness, decisiveness, innovativeness, and risk-taking which stem from its frontier-conquering history"); *Psychology of Enron's Demise*, *supra* note 137, at 54 ("Enron has been described as having an arrogant climate. Such a climate is prone to greater homogeneity because differing views are not valued. This homogeneity can result in exaggerating the impact of various decision-making biases."). Interestingly, J.P. Morgan's corporate culture has been described as "'extremely cautious, ultra-conservative,' and bureaucratic." Liz Wolgemuth, *JPMorgan and Bear Stearns: A Culture Challenge*, U.S.News.com, Mar. 31, 2008, *available at http://www.usnews.com/money/careers/articles/2008/03/31/jpmorgan-and-bear-stearns-a-culture-challenge.html.* This difference may reflect J.P. Morgan's earlier embrace of general ERM principles. *See supra* note 132.

[160] *See supra* Parts I.A & II.A.

[161] *See* Griffin et al., Cultural Values and Corporate Risk Taking 1-4 (Oct. 2009) (unpublished manuscript), *available at* http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1362163 (describing prior studies on culture and risk-taking).

[162] *Id.* at 7, 28-29.

[163] *Id.* at 7.

[164] *Id.*

[165] *Id.* at 13.

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Although this study focuses on corporate culture in relation to country of origin, its data provide helpful insight into the values that enhance or detract from cultivating a risk culture.[166] As demonstrated by the Citigroup scenario, a win-at-all-costs culture might be an impediment to a firm embracing ERM beyond a pure process approach. ERM proponents recognize this limitation, which drives in part their strong emphasis on corporate culture. "Enterprise risk management—to be effective—must fundamentally change the way organizations think about risk."[167] Accordingly, in addition to mechanisms to mitigate cognitive biases, policymakers and ERM proponents must create incentives for U.S. boards and management to buy into a risk culture.

C. Strengthening ERM Proposals

More people knowing more information and accepting responsibility for risk decisions is a good first step in addressing risk management failures. ERM provides a useful framework to achieve those objectives. But a firm adopting ERM or even just more rigorous risk management procedures will not necessarily improve risk management decisions.[168] Risk-related regulations and best practices need to account for cognitive biases and the challenges in creating true risk cultures, and whether through regulation or the markets, firms need incentives to commit the time and resources necessary to develop effective ERM.

1. Breaking Down the Behavioral Barrier

Overcoming cognitive bias is a tricky endeavor. One popular approach is training to sensitize individuals to their potential biases. This technique is used in a variety of settings, including discrimination in the workplace and strategic decisions in the courtroom.[169] Studies are split regarding the utility of training, and some commentators observe the risk of the training itself being biased or creating new biases.[170] Nevertheless, as boards and management consider ERM and reflect on risk-related

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[166] *Id*. at 17-23.
[167] RIMS PAPER, *supra* note 3, at 9.
[168] *See supra* Part IV.A.
[169] *See, e.g.*, Alafair Burke, *Neutralizing Cognitive Bias: An Invitation to Prosecutors*, 2 N.Y.U. J. L. & LIBERTY 512 (2007) (discussing debiasing training in prosecutor/litigation context); Susan Bisom-Rapp, *An Ounce of Prevention Is a Poor Substitute for a Pound of Cure: Confronting the Developing Jurisprudence of Education and Prevention in Employment Discrimination Law*, 22 BERKELEY J. EMP. & LAB. L. 1, 20-29 (2001); Tristin K. Green, *Discrimination in Workplace Dynamics: Toward a Structural Account of Disparate Treatment Theory*, 38 HARV. C.R-C.L. L. REV. 91 (2003).
[170] *See* Bisom-Rapp, *supra* note 169, at 29-30 (describing uncertainty regarding success of bias training and noting dearth of empirical support for approach); Katherine L. Milkman et al., *How Can Decision Making Be Improved?*, 4 PERSP. ON PSYCHOL. SCI. 379, 380 (2009) (noting that studies show that training produces only minimal success). *See also* Lipshaw, *supra* note 8, at 19 ("But the recursiveness of self-analysis is problematic in the internal *making*, as opposed to the *analysis*, of judgments: one may attempt to assess the extent of one's own bias, framing issues, heuristics, and so, but the analysis itself may be subject to those same influence."). *See also* Christine Jolls & Cass R. Sustein, *Debiasing through Law*, 35 J. LEGAL STUD. 199, 229 (2006) ("But in some circumstances, a strategy of debiasing through law could introduce new distortions through its effect on those who did not previously exhibit bounded rationality.")

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decisions, training regarding decisionmaking skills, including the impact of cognitive biases, may complement the process with nominal downside risk.[171]

This is not say that boards will automatically make better or unbiased decisions; they might not. The training, however, would increase the prospect of boards and management at least hesitating and reflecting on a decision before pulling the trigger.[172] That reflection time could result in some better outcomes. Many firms have incorporated ongoing training for their boards. Extending that training to management to cover cognitive biases likely can be done at little cost and with significant potential return.

In addition to training, boards and management could create objective tools to gauge biases. For example, in setting the firm's risk appetite, the board and management could breakout in detail the firm's acceptable risk exposure overall and in different segments or projects and then adopt rigorous approval procedures for changing or making exceptions to those designations.[173] By setting parameters at the outset—before any surprises or exigencies—boards and management would have an objective measure for their subsequent decisions. The change/exception approval process again would mandate a moment of hesitation and give decisionmakers the opportunity to recognize any bias. They may still miss the opportunity, but it gives the individuals involved in the process yet another chance to get it right.

Another technique would be employing an outside consultant to model potential risks and role play with the board and management.[174] Here, the consultant basically would play devil's advocate, identifying remote or seemingly inconsequential risks and

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[171] *See*, *e.g.*, Jolls & Sustein, *supra* note 169, at 234 ("[D]ebiasing through law -- especially debiasing through substantive law -- is a distinctive and sometimes far preferable alternative to the strategy of insulating legal outcomes from the effects of bounded rationality."); Lawrence A. Cunningham, *Behavioral Finance and Investor Governance*, 59 WASH & LEE L. REV. 767, 788-92 (2002) (suggesting training to combat investor biases). *See also* Tristin K. Green, *A Structural Approach as Antidiscrimination Mandate: Locating Employer Wrong*, 60 VAND. L. REV. 849, 860 (2007) (suggesting that training, in connection with structural changes, may address biases more effectively at least in workplace discrimination context).

[172] *See, e.g.*, Timothy D. Wilson & Nancy Brekke, *Mental Contamination and Mental Correction: Unwanted Influences on Judgments and Evaluations*, 116 PSYCHOL. BULL. 117, 130-35 (1994) (explaining ways to improve outcomes of bias training by emphasizing awareness of, motivation for and consequences/direction of bias); Green, *supra* note 168, at 858-60.

[173] *See supra* Part I.B (discussing mapping and profiling aspects of ERM).

[174] An outside consultant could serve in various capacities. For example, studies regarding the impact of training show a greater success rate with hands-on personal coaching for the decisionmaker. *See* Katherine L. Milkman et al., *supra* note 170, at 380. Alternatively, the consultant could serve as a "choice architect," who "design[s] situations in which choices are made . . . to maximize the odds that decision makers will make wise choices." *Id.* (citing RICHARD H. THALER & CASS R. SUSTEIN, NUDGE: IMPROVING DECISIONS ABOUT HEALTH, WEALTH, AND HAPPINESS (2008)). A similar proposal is being encouraged in Australia. *See* Leon Gettler, *Reversing Risks*, (explaining that the "real opportunity lies in developing roles in companies with risk expertise, for experts who can go in and model scenarios for managers to get a much deeper understanding of their risk profile").

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countering the board's and management's responses with opposing perspectives.[175] In Citigroup's scenario, a consultant could have asked the hard questions like why are Citigroup's holdings safe while others in the industry are exposed. If Citigroup had responded that it was relying on its ratings from outside agencies, the consultant could have asked why an outsider's assessment of the firm's risk should trump an internal assessment and point out that outside perspectives typically are based on information provided by the firm.

It is of course easy to script this conversation with the benefit of hindsight and much more difficult to do it in the moment.[176] The purpose of the consultant would not necessarily be to identify what the board and management missed. Rather, a primary objective would be to facilitate or teach the board and management how to facilitate conversations leading to that information.[177] In that regard, the consultant technique could be a once-a-year training program or a resource tapped into in times of uncertainty.

2. Breaking Down Cultural Barriers

As articulated in the ERM literature, creating a risk culture must be implemented and maintained by the board and senior management. ERM training again may help boards and management appreciate exactly what it means to have a risk culture and the value of that culture. The training, however, will not create a risk culture; that will be the product of board and management initiative.[178]

Why would a board agree to create a risk culture? The board has a duty to maximize shareholder wealth, and many firms abide by a high-risk, high-reward strategy. And isn't failure just a risk of doing business?

Those are hard questions, and the answer may not be the same for every firm. Boards, management and stakeholders looking to avoid the extraordinary and unexpected losses experienced in recent corporate scandals and the 2008 recession might find the endeavor worthwhile. As noted above, more data showing the value of ERM may help convince these firms to adopt the procedures voluntarily (or involuntarily under

[175] *See, e.g.*, Burke, *supra* note 169 (discussing potential value of having internal and external checks on decisionmaking, including checks that challenge thinking or assumptions of decisionmaker); Dan Lovallo & Olivier Sibony, *The Case for Behavioral Strategy*, STRATEGY PRAC., Mar. 2010 (urging internal and external review of risk options and noting that "[s]ometimes, simply coaxing managers to articulate the experiences influencing them is valuable"). The President & CEO of the Federal Reserve Bank of Boston has suggested an outside review by regulatory supervisors that could ask firms questions regarding risk exposures, including those viewed as nominal by the particular firm, and then "could evaluate the impact and perhaps conclude that the chance of a cascading systemic financial crisis was too big of a chance to take." Rosengren, *supra* note 75.
[176] *See supra* note 122.
[177] *See* Lovallo & Sibony, *supra* note 175.
[178] *See supra* Parts I.A & II.A.

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stakeholder pressure).[179] Alternatively, policymakers could mandate compliance.[180] In either event, training and motivation will be crucial to ERM's success.

3. Regulating ERM

As business techniques, ERM and the approaches for addressing bias and creating a risk culture sound great, but do they raise legal issues or require legal intervention? ERM directly impacts corporate governance. To the extent the law evaluates and governs the relationship between the board/management and shareholders, ERM invokes legal consideration. Nevertheless, this essay does not suggest that the law should mandate ERM for every corporation in every context.[181]

Rather, ERM appears better suited as a best practice for corporate governance that would offer firms legal protection against certain liabilities. The framework for this approach largely exists in the regulations adopted after the corporate scandals in the early 2000s. The Sarbanes-Oxley Act and the NYSE listing requirements already require corporations to consider risk and adopt codes of ethics, and the listing requirements also require board training.[182] A code of ethics easily could be expanded to cover the firm's risk management policy, and training likewise could be expanded in scope and attendees.[183] Moreover, firms could opt out of these requirements by disclosing their

[179] *See supra* notes 51-53.
[180] *See, e.g.*, Okamoto & Edwards, *supra* note 85, at 47-52, 54 (proposing a thoughtful approach to mandating more thorough risk management procedures through regulation that focus on, among other things, deliberation, contemporaneous rationale and regulator oversight).
[181] Imposing a mandatory risk management scheme on all public corporations likely would increase resistance to implementing meaningful ERM programs and encourage thoughtless compliance with the stated process. *See, e.g.*, Jeffrey M. Lipshaw, *Sarbanes-Oxley, Jurisprudence, Game Theory, Insurance and Kant: Toward a Moral Theory of Good Governance*, 50 WAYNE L. REV. 1083, 1088 (2004) (examining the shortcomings of the Sarbanes-Oxley Act and similar legislation and observing: "From the positivist point of view, Sarbanes-Oxley is a rule that imposes an obligation on corporate directors not to repeat the sins of the Enron and WorldCom debacles. And public companies have duly obeyed, like drivers at stop signs in empty intersections at three a.m., often out of compliance for compliance sake, and not for salutary benefit that should result from compliance."); Roberta Romano, *The Sarbanes-Oxley Act and the Making of Quack Corporate Governance*, 114 YALE L. J. 1521 (2005) (assessing the utility of the Sarbanes-Oxley Act based on the information and process underlying the legislation). The complexity of business-risk decisions and the variance based on a number of critical factors, including industry and size, counsel in favor of encouraging ERM through best practices and incentives.
[182] *See supra* Part I.A. As discussed *supra*, many commentators criticize the one-size-fits-all nature of many aspects of the Sarbanes-Oxley Act, as well as certain of its other features. The proposals discussed in this essay try to avoid many of those pitfalls.
[183] *See, e.g.*, *Psychology of Enron's Demise*, *supra* note 137, at 55-58 (suggesting use of a code of ethics and training to create a more ethical corporate culture). Notably, many firms have both a code of ethics and a code of conduct. A firm's code of conduct also might be an appropriate place to discuss risk policies either in addition to or in lieu of discussing it in the code of ethics.

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decision to do so, recognizing that they lose any protections or defenses available to firms following the guidelines.[184]

As to those protections and defenses, the Sentencing Guidelines could provide reduced penalties for firms establishing an ERM program that complies with best practices.[185] The SEC could grant additional weight to ERM programs in considering whether to file enforcement actions, and courts could use ERM best practices as evidence refuting knowledge in securities cases and proving good faith where boards are alleged to have failed to act in the face of a known duty or risk.[186] Even in the context of duty to monitor claims, ERM could expedite or streamline the litigation, particularly if self-regulatory organizations or similar institutions emerge to review and certify ERM programs.[187]

In determining what constitutes best practices and whether to acknowledge a process as effective ERM, policymakers and industry players need to consider the potential barriers to effective ERM, including those discussed in this essay.[188] Accordingly, best practices should include training on cognitive biases; require objective risk setting and risk modification standards; and recommend outside consultants. They also should emphasize the board's role in creating a risk culture and require boards to demonstrate their commitment to that culture through the firm's code of ethics, dissemination of risk information and participation in the process. Using a best practices approach allows firms to tailor ERM programs to their specific needs or adapt those programs to internal or external changes.

[184] *See, e.g.*, *supra* Part I.A (discussing the disclose or explain nature of the ethics code requirements under the Sarbanes Oxley Act). *See also* Luca Enriques & Paolo Volpin, *Corporate Governance Reforms in Continental Europe*, 21 J. OF ECON. PRINCIPLES 117, 134-36 (2007) (describing process whereby German firms may opt out of certain governance requirements upon a vote of shareholders representing at least 75 percent of the shares).

[185] *See supra* Parts I.A & II.A. *See also* Hess, *supra* note 30, at 1806-16 (discussing challenges of and benefits to trying to encourage ethical corporate cultures under the Sarbanes Oxley Act and the Sentencing Guidelines).

[186] *See supra* Part II.B.2. *See also* Harner, *supra* note 3, at 55-56.

[187] "Self-regulation is a broad concept that includes any attempt by an industry to moderate its conduct with the intent of improving marketplace behavior for the ultimate benefit of consumers. The universe of self-regulatory organizations includes industry-wide or economy-wide private groups that provide, *inter alia*, certification, product information, complaint resolution, quality assurance, industrial standards, product compatibility standards, professional conduct standards, and complaint resolution." Deborah Platt Majoras, Fed. Trade Comm's, Address at Council of Better Business Bureaus, Self Regulatory Organizations and the FTC, Apr. 11, 2005. *See also* Roberta S. Karmel, *Should Securities Industry Self-Regulatory Organizations Be Considered Government Agencies?*, 14 STANFORD J. L. BUS. & FIN. 151 (2008) (explaining use and potential issues relating to SROs); Donna Nagy, *Playing Peekaboo With Constitutional Law: The PCAOB and Its Public/Private Status*, 80 NOTRE DAME L. REV. 975, 1022-26 (reviewing traditional use of SROs in securities industry).

[188] *See supra* Parts IV.A & IV.B.

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In addition to regulatory incentives to adopt ERM, the markets could be very influential in ERM's meaningful development.[189] As stakeholders realize the value of ERM, shareholders can request that firms adopt ERM either informally or through shareholder proposals, and lenders can address ERM disclosures in their transaction documents. Likewise, as investors become more knowledgeable about ERM, they may make investment decisions based on firms with certified or well-documented ERM programs. As discussed above, Standard & Poor's already is working to provide investors with this type of information.[190]

Just as risk management did not cause the 2008 recession, improving risk management practices through ERM or otherwise will not prevent the next one. Nevertheless, thoughtful and considered risk planning may mitigate the losses suffered by firms in the next economic downturn and generally constitutes good business. To the extent that such practices preserve firm value and thereby protect stakeholders' interests, policymakers and markets should provide appropriate incentives for firms to adopt meaningful ERM.

CONCLUSION

As some commentators have observed, the 2008 recession was a "wake-up call" for risk management.[191] Many firms not only were surprised by developments during the recession but also had no effective means to communicate or respond to the changing financial landscape. Their operations were paralyzed by the subprime mortgage crisis and subsequent events. Better risk management practices would not have averted the 2008 recession, but they might have shortened the duration and eased the severity of the financial turmoil.

As policymakers and firms reflect on the recession, they should consider how risk management improvements can help firms operate more efficiently and be better prepared for the next round of operational or economic surprises. Here, ERM offers a technique for firm-wide risk identification, assessment and response that involves the board of directors, senior management and appropriate individuals throughout the firm.[192] Like any risk management practice, however, ERM has its limitations and is not a cure for all corporate ills.

Policymakers and industry organizations promulgating best practices should recognize the behavioral and cultural barriers to effective risk management and

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[189] *See* Harner, *supra* note 3, at 52-53. *See also* INTERNATIONAL CORPORATE GOVERNANCE NETWORK, ICGN CORPORATE RISK OVERSIGHT PRINCIPLES 4 (2010) (encouraging institutional investors to take an active role in reviewing and assessing a firm's risk management practices, explaining "The objective of these principles is to help investors assess how well a portfolio company's board—either unitary or supervisory—is effectively overseeing risk management.").
[190] *See supra* Part II.A.
[191] *See supra* Part II.A.
[192] *See supra* Parts I.A & II.A.

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encourage processes that account for those limitations. Among other things, guidelines suggesting ERM and cognitive bias training and the integration of risk practices into codes of ethics might assist firms in developing meaningful risk assessment and not simply more risk-related process.[193] The goal of any risk-related policy should be helping firms make better informed decisions—both as to the substance of the problem and the means for reaching the decision itself. As Warren Buffet has observed, "Risk comes from not knowing what you're doing."[194]

[193] *See supra* Part IV.C.
[194] Brad Tuttle, *Warren Buffet's Boring, Brilliant Wisdom*, TIME.COM, Mar. 1, 2010, *available at* http://money.blogs.time.com/2010/03/01/warren-buffetts-boring-brilliant-wisdom/.

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