

From Diagnosing the Dilemma to Divining a Cure: Post-Crisis Regulation of Financial Markets

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ABSTRACT

The recent financial crisis highlights gaps in the regulation of financial markets. This Essay introduces the contributions of some of the participants in the 2009 Seton Hall Law Review Symposium exploring the future of financial markets regulation. Their contributions examine causes of the recent crisis, mechanisms that may address these concerns, and unexplored concerns that impact effective regulation of financial markets.

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I. INTRODUCTION

In response to the turmoil of the recent financial crisis, or “the Great Recession,”¹ Congress adopted the Dodd-Frank Wall Street Reform and Consumer Protection Act (the Dodd-Frank Act).² Since the inception of the financial crisis, businesses, employees, individual and institutional investors, charitable institutions, and city and state investment funds experienced significant economic losses.³ As a result of these losses, questions emerged regarding the fundamental structure of our national financial markets regulatory framework and the international regulatory agenda.⁴

Despite having one of the most advanced regulatory frameworks in the world and highly-sophisticated market participants, a series of debilitating events unfolded in the United States financial services sector beginning in 2006. These events threatened the stability of the National economy.⁵ The years leading to the onset of the financial crisis witnessed exponential growth in the markets for exotic investment products such as credit default swaps, collateralized debt obligations (CDOs), credit linked notes, and other derivatives.⁶ As residential property and related asset-backed securities began to decline in value, financial market participants whose businesses invested in

¹ Krishna Guha, *US Faces Worst Recession in 26 Years*, FIN. TIMES, Oct. 19, 2008, <http://www.ft.com/cms/s/0/232eb4de-9e20-11dd-bdde-000077b07658.html>.

² See Dodd-Frank Wall Street Reform and Consumer Protection Act, Pub. L. No. 111-203 (2010).

³ See John Hechinger & Craig Karmin, *Harvard Hit by Loss as Crisis Spreads to Colleges*, WALL ST. J., Dec. 4, 2008, at A1; Renae Merle, *Wall Street's Final '08 Toll: \$6.9 Trillion Wiped Out*, WASH. POST, Jan. 1, 2009, at A1; Louis Uchitelle, *U.S. Loses 533,000 Jobs in Biggest Drop Since 1974*, N.Y. TIMES, Dec. 5 2008, at A1; *Credit Crisis Could Cost Nearly \$1 Trillion, IMF Predicts*, N.Y. TIMES, Apr. 8, 2008, <http://www.nytimes.com/2008/04/08/business/worldbusiness/08iht-imf.3.11771908.html>.

⁴ See Jackie Calmes, *Financial Crisis May Give Rise To New Era of Regulation*, N.Y. TIMES, Oct. 13, 2008, at A15.

⁵ Guha, *supra* note 1.

⁶ See Kristin N. Johnson, *Things Fall Apart: Regulating Credit Default Swaps*, 81 U. COLO. L. REV. (forthcoming 2010) (manuscript at 20–23), available at http://papers.ssrn.com/sol3/Delivery.cfm/SSRN_ID1572467_code1440806.pdf?abstractid=1572467&mirid=2; Matthew Philips, *The Monster that Ate Wall Street: How 'Credit Default Swaps'—an Insurance Against Bad Loans—Turned from a Smart Bet into a Killer*, NEWSWEEK, Oct. 6, 2008, at 46. See also *Credit Default Swaps and the Financial Crisis: "Interconnectedness" and Beyond—The Role of Credit Derivatives in the U.S. Economy. Hearing Before the H. Comm. on Agriculture*, 110th Cong. (2008) (statement of Prof. Henry T. C. Hu), available at <http://agriculture.house.gov/testimony/110/h81015/Hu.pdf>; Edmund L. Andrews, *Greenspan Concedes Flaws in Deregulatory Approach*, N.Y. TIMES, Oct. 24, 2008, at B1.

these products faced significant losses.⁷ The losses quickly reverberated across the nation. As easily as capital flows across national borders and into other jurisdictions, the troubles of the crisis soon threatened the financial health of sovereign nations, significant foreign financial institutions, and ultimately, the global economy.⁸

Some scholars posit that enterprise and systemic risk management failures at individual domestic and international businesses were among the chief causes of the crisis.⁹ Other scholars explore American legal standards governing the personal liability of directors and officers and compare this doctrine with corporate governance policies adopted in other jurisdictions.¹⁰ Theorists also explore advances in virtual communications technology and the impact of evolving technology on the relationship between shareholders and managers of a company.¹¹

The government and the private sector responded to the events of the crisis by engaging in a form of triage, sewing together a patchwork of hurriedly arranged financing structures.¹² Some scholars describe these arrangements as “regulation by deal.”¹³ Commentators argue that, once the crisis no longer presents an imminent threat, these arrangements may encourage private parties to abuse the managerial authority granted to boards of directors under corporations laws or adopt liberal interpretations of laws affecting distressed companies facing insolvency.¹⁴ Still other scholars examine the impor-

⁷ See, e.g., Peter Robison & Yalman Onaran, *Fuld's Subprime Bets Fueled Profit, Undermined Lehman (Update 1)*, BLOOMBERG, (Sept. 15, 2008, 6:19 AM), <http://www.bloomberg.com/apps/news?pid=newsarchive&sid=aiETiKXNbDVE>.

⁸ Guha, *supra* note 1.

⁹ See, e.g., Michelle Harner, *Barriers to Effective Risk Management*, SETON HALL L. REV. 1323 (2010).

¹⁰ See, e.g., Wulf Kaal and Richard Painter, *Initial Reflections on an Evolving Standard: Constraints on Risk Taking by Directors and Officers in Germany and the United States*, 40 SETON HALL L. REV. 1433 (2010).

¹¹ See, e.g., Lisa Fairfax, *Virtual Shareholder Meetings Reconsidered*, SETON HALL L. REV. 1367 (2010).

¹² See Joan Heminway, *Federal Interventions in Private Enterprise in the United States: Their Genesis in and Effects on Corporate Finance Instruments and Transactions*, 40 SETON HALL L. REV. 1487 (2010); J.W. Verret, *The Bailout Through a Public Choice Lens: Government-Controlled Corporations as a Mechanism for Rent Transfer*, 40 SETON HALL L. REV. 1521 (2010).

¹³ Steven M. Davidoff & David Zaring, *Regulation by Deal: The Government's Response to the Financial Crisis*, 61 ADMIN. L. REV. 463, 463 (2009).

¹⁴ See, e.g., Heminway, *supra* note 12.

tance of adopting a coordinated international initiative to address the antecedents to the recent crisis and to prevent future crises.¹⁵

The events of the crisis illustrate the threat of systemic risk created by failing significant financial institutions and the efforts to turn back a tidal wave of calamity in financial markets. In some instances, firms escaped insolvency by seeking federal government aid in the form of loans or capital investments.¹⁶ In other instances, firms that faced insolvency engaged in mergers, acquisitions, or dispositions to avoid collapse.¹⁷

Systemic risk, triggered by the failure of a significant financial institution or several such institutions, threatens the stability of the national economy.¹⁸ Many commentators suggest that careful oversight of systemically significant financial institutions reduces systemic risk.¹⁹ The recently adopted Dodd-Frank Wall Street Reform and Consumer Protection Act reflects Congress's efforts to identify systemically significant financial institutions and to improve the regulatory oversight of these institutions.²⁰

¹⁵ See Eric Chaffee, *Finishing the Race to the Bottom: An Argument for the Harmonization and Centralization of International Securities Law*, 40 SETON HALL L. REV. 1581 (2010).

¹⁶ Kenneth Ayotte & David Skeel, Jr., *Bankruptcy or Bailouts?*, 35 J. CORP. L. 469, 469-70 (2010).

¹⁷ See Heminway, *supra* note 12.

¹⁸ *In Bear Bailout, Fed Tried to Avoid a 'Contagion,'* N.Y. TIMES, June 27, 2008, <http://dealbook.blogs.nytimes.com/2008/06/27/in-bear-bailout-fed-tried-to-avoid-a-contagion/>.

¹⁹ See *Establishing a Framework for Systemic Risk Regulation: Hearing before the S. Comm. on Banking, Housing & Urban Affairs*, 111th Cong. (2009) (statement of Mary L. Schapiro, Chairman, Securities & Exchange Comm.), available at <http://www.sec.gov/news/testimony/2009/ts072309mls.htm>; *Feasibility of Systemic Risk Measurement: Hearing Before the H. Comm. on Financial Services*, 111th Cong. 2 (2009) (statement of Prof. Andrew W. Lo), available at <http://web.mit.edu/alo/www/Papers/testimony2009.pdf>. See also *Enhancing Investor Protection and the Regulation of Securities Markets, Hearing Before the S. Comm. on Banking, Housing & Urban Affairs*, 111th Cong. 4, 8-9 (2009) (statement of Barbara Roper, Director of Investor Protection, Consumer Federation of America), available at http://www.consumerfed.org/elements/www.consumerfed.org/file/Roper_Testimony_Senate_Banking_3-26-09.pdf.

²⁰ The Act describes a systemically significant financial institution as a domestic or foreign "nonbank financial company" whose "material financial distress . . . or the nature, scope, size, scale, concentration, interconnectedness, or [the] mix of [whose] activities . . . [may] pose a threat to the financial stability of the United States." Dodd-Frank Wall Street Reform and Consumer Protection Act, Pub. L. No. 111-203, § 113 (2010). Prior to the promulgation of the Dodd-Frank Act, commentators expressed varying descriptions of the characteristics of "systemically significant" institutions. For example, the Federal Reserve Bank of Cleveland, one of the twelve regional Reserve Banks in the Reserve Bank System, explained that, at a very basic

This Essay explores significant financial institutions' efforts to withstand the threats of systemic risk during the Great Recession. This Essay examines each of the three phases of the recent financial crisis: crisis management, diagnosing the dilemma, and divining a cure to prevent future crises. Finally, this Essay introduces the contributions of authors who presented reflections at Seton Hall Law Review's symposium, the Future of Financial Markets Regulation. The ensuing discussion enriches the analysis of the precipitating factors of the crisis that disrupted global financial markets and proposes market reforms designed to address these concerns.

II. CRISIS MANAGEMENT

The events that led to the recent financial crisis brewed for several years prior to the summer of 2007.²¹ Some argue that two dec-

level, "systemically significant" could mean an institution whose "failure would have economically significant spillover effects which, if left unchecked, could destabilize the financial system and have a negative impact on the real economy." JAMES B. THOMSON, FED. RESERVE BANK OF CLEVELAND, POLICY DISCUSSION PAPERS NO. 27, ON SYSTEMICALLY IMPORTANT FINANCIAL INSTITUTIONS AND PROGRESSIVE SYSTEMIC MITIGATION I (2009). For other examples, see Steven Schwarcz, *Systemic Risk*, 97 GEO. L.J. 193, 198–204 (2008); Timothy Geithner, President & CEO, Fed. Reserve Bank of N.Y., Remarks at the Council on Foreign Relations Corporate Conference 2008: The Current Financial Challenges: Policy and Regulatory Implication (Mar. 6, 2008). The varying descriptions consistently note the importance of several factors in determining that an institution is systemically significant, including size, concentration of financial interests, and participation in high risk activities.

²¹ Commentators point to many precipitating causes that foreshadowed the economic crisis, beginning in the summer of 2007. See, e.g., Matthew Beville et al., *An Information Market Proposal for Regulating Systemic Risk*, 12 U. PA. J. BUS. L. 849, 852–56 (2010). Some point to the Federal Reserve's decision to maintain the federal funds target rate, or the interest rate at which the Federal Reserve agrees to lend money to private depository institutions for short periods, at its lowest level in 45 years. *Id.* at 853. See Robert Higgs, *Cumulating Policy Consequences, Frightened Overreactions, and the Current Surge of Government's Size, Scope, and Power*, 33 HARV. J.L. & PUB. POL'Y 531, 543 (2010). Responding to the market bubble that gave rise to internet and technology related securities, the Federal Reserve lowered the rate in 2001 from 6.5% to 1.75% and further reduced the rate to 1% in 2003. Press Release, Federal Reserve Bank (Dec. 11, 2001), available at <http://www.federalreserve.gov/boarddocs/press/general/2001/20011211/default.htm> (lowering the rate to 1.75%); Press Release, Federal Reserve Bank (June 25, 2003), available at <http://www.federalreserve.gov/boarddocs/press/monetary/2003/20030625/default.htm> (lowering the rate to 1%).

Other events signaled the coming crisis. In April of 2007, New Century Financial Corp., the largest independent provider of mortgage loans to borrowers with poor credit histories, filed for Chapter 11 bankruptcy. *New Century Files for Chapter 11 Bankruptcy*, CNNMONEY, Apr. 3, 2007, http://money.cnn.com/2007/04/02/news/companies/new_century_bankruptcy. Ownit Mortgage Solutions, Mortgage Lenders Network USA Inc., ResMae Mortgage Corp., and People's Choice Home Loan all filed for bankruptcy in the first three months of 2007 in response to increasing defaults on subprime mortgages. See, e.g., Tiffany Kary, *People's Choice Home Loan*

ades of deregulation eroded regulatory oversight of financial markets;²² the absence of oversight, commentators explain, led to condemnable practices such as predatory lending in the residential mortgage market.²³ The lack of oversight also contributed to an environment in which a shroud obscured financial engineers' development of complex structured products, such as credit derivatives.²⁴ These deregulatory policies coupled with the purposeful engineering of products that fell beyond the purview of regulation fueled the growth of high-risk financial products.²⁵

Files for Bankruptcy (Update2), BLOOMBERG (Mar. 20, 2007, 2:13 PM), <http://www.bloomberg.com/apps/news?pid=newsarchive&sid=atkiRNcdlZ8M&refer=home>; Bradley Keoun, *Mortgage Lenders Network Halts Loans as Housing Slows (Update4)*, BLOOMBERG (Jan. 2, 2007, 6:47 PM), http://www.bloomberg.com/apps/news?pid=newsarchive&sid=aTpglnM_rtRM&refer=home; Bradley Keoun and Jody Shenn, *ResMae Seeks Bankruptcy; Credit Suisse to Buy Assets (Update5)*, BLOOMBERG (Feb. 13, 2007, 7:22 PM), <http://www.bloomberg.com/apps/news?pid=newsarchive&sid=arsKNQcbPcxc&refer=home>; see also Liz Moyer, *Bad News Bear*, FORBES.COM (Aug. 6, 2007, 4:43 PM), http://www.forbes.com/2007/08/06/debt-bear-stearns-biz-wall-cx_lm_0806bear.html.

²² See Johnson, *supra* note 6, at 55–60; Patricia A. McCoy et al., *Systemic Risk Through Securitization: The Result of Deregulation and Regulatory Failure*, 41 CONN. L. REV. 1327, 1333–1334, (2009); see also André Douglas Pond Cummings, *Still "Ain't No Glory in Pain": How the Telecommunications Act of 1996 and Other 1990s Deregulation Facilitated The Market Crash of 2002*, 12 FORDHAM J. CORP. & FIN. L. 467, 469–77 (2007); Frank Partnoy & David A. Skeel, Jr., *The Promise and Perils of Credit Derivatives*, 75 U. CIN. L. REV. 1019, 1020–21 (2007).

²³ See Daniel Immergluck, *Private Risk, Public Risk: Public Policy, Market Development, and the Mortgage Crisis*, 36 FORDHAM URB. L.J. 447, 470 (2009) (describing the lack of regulation and the failure of Congress to adopt recommendations submitted in a joint report from the Federal Reserve Board and the Department of Housing and Urban Development).

²⁴ See Johnson, *supra* note 6, at 55–60 (explaining that, as the credit default swap market grew and creditors gained access to instruments that reduced their exposure to debtors' defaults, creditors relaxed their due diligence investigations and continuous debtor monitoring practices). The growth of the credit default swaps led some market participants began to perceive credit default swap agreements as an absolute guarantee against risk of loss and, therefore, they adopted less disciplined risk management processes and exposed themselves to excessive levels of risk. *Id.* at 2–3.

²⁵ Describing the origins of the liquidity crisis that began in 2007, a Congressional Report notes that securitization allowed mortgage lenders to bypass traditional banks.

Securitization pools mortgages or other debts and sells them to investors in the form of bonds rather than leaving loans on the lenders' balance sheets. . . . [Mortgage backed securities market ("MBS")] were popular with investors and banks because [they] allowed both to better diversify their portfolios. But because the MBS market was growing rapidly in size an sophistication, accurate pricing of its risk was difficult and could have been distorted by the housing boom.

Securitization, an underwriting process involving securities issued to investors for investments in bundled pools of debt instruments, such as residential mortgages or other asset-backed lending arrangements, offered a new source of investment opportunities.²⁶ In the securitization process special purpose entities (SPEs), also referred to as special investment vehicles, issued equity or debt securities to investors to raise capital in order to invest in traditional debt products and nascent high-risk structured financial products.²⁷

The SPEs typically purchased debt investments secured by collateral such as mortgage-backed loan obligations or other collateralized debt obligations.²⁸ Managers of SPEs earned fees for identifying and developing portfolios of mortgage loans.²⁹ The interests in the SPEs entitled shareholders to receive income from the cash flows generated by the SPEs' debt investments.³⁰ In some instances, these investments included only certain loans identified within a pool of debt instruments.³¹ Market participants referred to the division of a pool of debt instruments or asset-backed securities as tranches.³² The investment managers of the SPEs evaluated the collateralized debt securities and other investment opportunities in order to offer investors positive returns and diversified investment strategies.³³

Two critical issues converged during the crisis. First, the SPEs divided the debt pools into tranches, allowing investors to gain exposure to the varying levels of default risk represented in each pool of debt obligations. Despite the fact that the borrowers in each pool of debt investments had strikingly different risk-of-default profiles, credit ratings agencies assigned similar ratings to the pools or agreed to other policies that resulted in erroneous ratings of the risk-of-default

DARRYL E. GETTER, ET AL., CONG. RESEARCH SERV., FINANCIAL CRISIS? THE LIQUIDITY CRUNCH OF AUGUST 2007, 8 (2007), available at http://assets.opencrs.com/rpts/RL34182_20070921.pdf.

²⁶ See *id.*

²⁷ Schwarcz, *supra* note 20, at 221.

²⁸ *Id.* See also Raymond Brescia, *Capital in Chaos, the Subprime Mortgage Crisis and the Social Capital Response*, 56 CLEV. ST. L. REV. 271, 290 (2008).

²⁹ Schwarcz, *supra* note 20, at 221.

³⁰ *Id.*

³¹ *Id.*

³² Steven L. Schwarcz, *The Future of Securitization*, 41 CONN. L. REV. 1313, 1316 (2009); see also Immergluck, *supra* note 23, at 448. For a description of CDOs and their role in the mortgage crisis, see *infra* notes 41–42.

³³ Brescia, *supra* note 28, at 291.

for the entire tranche.³⁴ Second, SPEs and significant financial institutions adopted proprietary risk analysis models and these models erroneously underestimated the probability of a decline in housing prices.³⁵ The collapse of Bear Stearns Companies, Inc. (Bear Stearns) illustrates the convergence of these critical issues.

A. *Lions and Tigers and Bears Stearns, Oh My!*

In the summer of 2007, with an eighty-five year operating history, Bear Stearns was a diversified financial services holding company.³⁶ Bear Stearns core lines of business included the origination, distribution, and trading of equity and fixed income securities, investment banking, global clearing services, asset management, and private client services.³⁷ Bear Stearns was one of the most prominent investment banks in the United States with offices on Madison Avenue in New York City and a significant international market participant with offices in London's Docklands.³⁸

In the decade prior to the summer of 2007, the market for financial products related to residential mortgage-backed or asset-backed securities grew rapidly.³⁹ Bear Stearns' business became increasingly engaged in the securitization or the consolidation, packaging, and sale of interests in residential mortgages, real estate financings, and other collateralized debt obligations through SPEs.⁴⁰

In the months leading to the summer of 2007, collateralized debt obligations, or CDOs, became increasingly popular.⁴¹ Two Bear

³⁴ See U.S. SECS. & EXCH. COMM'N, SUMMARY REPORT OF THE ISSUES IDENTIFIED IN THE COMMISSION STAFF'S EXAMINATION OF SELECT CREDIT RATING AGENCIES 7-9 (July, 8 2008), available at <http://sec.gov/news/studies/2008/craexamination070808.pdf>.

³⁵ See *Systemic Risk: Regulatory Oversight and Recent Initiatives to Address Risk Posed by Credit Default Swaps: Hearing Before the Subcomm. on Capital Mkts, Ins., and Gov't Sponsored Enters. of the H. Comm. on Fin. Servs.*, 111th Cong. 13-14 (2009) (statement of Orice M. Williams, Director, Financial Markets and Community Investment, U.S. Gov't Accountability Office), available at <http://www.gao.gov/new.items/d09397t.pdf>.

³⁶ GARY SHORTER, CONG. RESEARCH SERV., BEAR STEARNS: CRISIS AND "RESCUE" FOR A MAJOR PROVIDER OF MORTGAGE-RELATED PRODUCTS 2 (2008), available at http://assets.opencrs.com/rpts/RL34420_20080326.pdf.

³⁷ *Id.*

³⁸ BEAR STEARNS ANNUAL REPORT 2006 (Mar. 31, 2007).

³⁹ Robert Hockett, *A Fixer-Upper for Finance*, 87 WASH. U. L. REV. 1213, 1254 (2010).

⁴⁰ Alistair Barr, *Bear Stearns Bailed Out by Fed, J.P. Morgan*, MARKETWATCH (Mar. 14, 2008, 5:16 PM), <http://www.marketwatch.com/story/bear-stearns-goes-on-life-support-as-trading-crisis-turns-dire>.

⁴¹ Investors perceived investments in CDOs as low risk because the securities were backed by residential mortgage loans, and incorporated a diversified risk structure.

Stearns hedge funds, the Bear Stearns High Grade Structured Credit Strategies Enhanced Leverage Fund and a related fund (the “funds”), created portfolios that invested in credit investment strategies involving CDO products.⁴² Commentators reported that Bear Stearns investments in the CDO market were highly leveraged. According to commentators,

Bear Stearns’s enhanced fund, which at its peak borrowed 10 times its equity, and the Bear Stearns High-Grade Structured Credit Strategies Fund, a similar pool that wasn’t as highly leveraged, speculated mostly in collateralized debt obligations, securities that mostly [held] pieces of junk-rated corporate bonds, mortgage bonds, high-interest loans, derivatives or even other CDOs.⁴³

By the end of the summer of 2007, Bear Stearns’ strong presence in these markets became an albatross, ominously circling the storied financial institution.⁴⁴

While the losses on CDOs and other credit strategies began in 2006, it was during the early months of 2007 that Bear Stearns acknowledged that the funds, worth an estimated \$1.5 billion at the end of 2006, had lost significant value.⁴⁵ As of April of 2007, the funds had lost 23% of their value.⁴⁶ By the beginning of the summer of 2007, Bear Stearns announced its intention to suspend redemptions of the funds’ shares, meaning that the funds rejected investors’ re-

See Immergluck, *supra* note 23, at 462. (stating that CDOs “peeled apart” various types and degrees of risk, thereby allocating risk to different classes of investors depending on their appetite and tolerance for different sorts of risk). “[I]nvestors who would not invest in a pass-through security backed by loans exhibiting anything but the lowest default risks or were likely to prepay could invest in a bond that was designed to be highly secure.” *Id.* In 2006, sales of CDOs reached \$503 billion. Jody Shenn & Bradley Keoun, *Bear Stearns Rivals Reject Fund Bailout in LTCM Redux (Update3)*, BLOOMBERG (June 25, 2007, 11:25 PM), <http://www.bloomberg.com/apps/news?pid=newsarchive&refer=home&sid=aYDTeHYnV3ms> [hereinafter Shenn & Keoun, *Bear Stearns Rivals*].

⁴² CDOs are secured credit investment products. For an in-depth description and analysis of CDOs, see generally Johnson, *supra* note 6.

⁴³ Shenn & Keoun, *Bear Stearns Rivals*, *supra* note 41.

⁴⁴ Andrew Clark, *Bear Stearns Shares Plummet as it Seeks Emergency Funding*, GUARDIAN, Mar. 14, 2008, <http://www.guardian.co.uk/business/2008/mar/14/creditrunch.useconomy>.

⁴⁵ See Gretchen Morgenson, *Bear Stearns Says Battered Hedge Funds Are Worth Little*, N.Y. TIMES, July 18, 2007, <http://www.nytimes.com/2007/07/18/business/18bond.html>.

⁴⁶ Vikas Bajaj & Julie Creswell, *Bear Stearns Staves Off Collapse of 2 Hedge Funds*, N.Y. TIMES, June 21, 2007, at C1.

quests to redeem shares.⁴⁷ Notwithstanding the rapidly declining value of their investments in the funds, Bear Stearns refused to return the remaining value of their investments in the funds.⁴⁸ During the week of June 11, 2007, concerns escalated regarding the liquidity of the two funds.⁴⁹ The market lost confidence in the funds' ability to satisfy their debt obligations and maintain sufficient operating capital.⁵⁰

In addition to mounting losses, the two Bear Stearns funds faced demands from creditors for additional collateral as insurance against the funds' default on their obligations.⁵¹ On June 21, 2007, Merrill Lynch & Co., Inc. (Merrill Lynch) and Deutsche Bank AG (Deutsche Bank) seized over \$900 million in assets that the creditors held as collateral in connection with Bear Stearns funds' outstanding debt obligations.⁵² Merrill Lynch threatened to auction the Bear Stearns' assets held in its custody as collateral for the funds' repayment of their obligations.⁵³

An auction to liquidate the assets or the collateral held by the funds' counterparties presented several disconcerting issues for Bear Stearns and other large financial institutions. The rise in foreclosures reduced the value of mortgage-backed securities related to those debt obligations. In addition, prior to the crisis, market participants calculated the prices for these obscure assets using proprietary quantitative models.⁵⁴ Initiating an auction heightened concerns regarding systemic risk. An auction threatened to reveal conflicts in the privately determined prices and force market-wide recognition of differences in market participants' valuation of the securities.⁵⁵ An auction that revealed a public market price of the investments could trigger the

⁴⁷ See Matthew Goldstein, *Bear Stearns' Subprime Bath*, BUSINESSWEEK (June 12, 2007, 6:15 PM), http://www.businessweek.com/bwdaily/dnflash/content/jun2007/db20070612_748264.htm.

⁴⁸ *Id.*

⁴⁹ *Id.*

⁵⁰ *Id.*

⁵¹ Bajaj & Creswell, *supra* note 46.

⁵² *Id.*

⁵³ *Id.*

⁵⁴ See GETTER, *supra* note 25, at 5 (“[A]ccurate pricing of [the risk related to investments the mortgage-backed securities market] was difficult and could have been distorted by the housing boom.”).

⁵⁵ Bajaj & Creswell, *supra* note 46 (reporting that Merrill Lynch quietly displayed seized assets to a small group of potential buyers in an effort to keep the pricing of the securities under wraps and avoid marking down their own stakes).

need for systemically significant institutions that held the same securities to revise their valuations of these securities.

In July of 2007, the funds became insolvent and filed for bankruptcy.⁵⁶ Bear Stearns escaped bankruptcy for nearly another year.⁵⁷ The losses that Bear Stearns experienced in the summer of 2007, however, marked the beginning of the public revelation of tumult in the market for credit derivatives and mortgage and other asset-backed securities.⁵⁸ In March of 2008, rumors spread rapidly that Bear Stearns faced a significant liquidity crisis⁵⁹ and had failed in its efforts to obtain a \$2 billion short-term loan.⁶⁰ Senior management at Bear Stearns adamantly denied the rumors regarding the firm's declining condition, but the denials were insufficient to assuage the fears of the firm's counterparties.⁶¹

Movement in the prices for credit default swap agreements that referenced Bear Stearns' debt obligations signaled market participants' perception that Bear Stearns would likely default on its debt obligations or announce the firm's insolvency.⁶² Credit default swaps are insurance-like arrangements that allow creditors to transfer some or all of their exposure to a debtor's default on a particular debt instrument identified in the agreement.⁶³ Prices for credit default swap agreements "represent the size of the premium paid by the buyer of protection" and "change over time based on supply and demand for particular [credit default swap] contracts."⁶⁴ The spreads in the premiums for credit default swap agreements "are analogous to insurance premiums and similarly reflect market participants' assessment of the risk of a default" by the entity referred to in the credit default swap.⁶⁵

According to commentators, the premiums for credit default swap agreement spreads on contracts that offered protection against Bear Stearns' default increased in July of 2007, "reflecting the in-

⁵⁶ Francesco Guerrera, *JPMorgan to Buy Bear Stearns for \$236m*, FIN. TIMES, Mar. 17, 2010, <http://www.ft.com/cms/s/0/e2206ed2-f380-11dc-b6bc-0000779fd2ac.html>.

⁵⁷ *Id.*

⁵⁸ See Kara Scannell, *Credit Crisis: SEC Comes Under Criticism in Light of Bear Woes*, WALL ST. J., Mar. 27, 2008, at A6.

⁵⁹ SHORTER, *supra* note 36, at 1.

⁶⁰ *Id.* at 3.

⁶¹ *Id.* at 3–4.

⁶² Mark Flannery et al., *Credit Default Swap Spreads as Viable Substitutes for Credit Ratings*, 158 U. PA. L. REV. 2085, 2101 (2010).

⁶³ Johnson, *supra* note 6, at 20–23.

⁶⁴ Mark Flannery et al., *supra* note 62, at 2088.

⁶⁵ *Id.*

creased perceived risk of default.”⁶⁶ As commentators note, credit default swap spreads for “Bear Stearns increased by more than those of the other investment banks,” during the period when defaults on higher risk mortgages increased. The spreads in the credit default swap market for contracts that referenced Bear Stearns’ debt increased, indicating market participants’ perception that “Bear Stearns had more exposure to risk in the subprime market” and was therefore, more likely to default on its debt obligations.⁶⁷

After failed efforts to increase the company’s liquidity, including an unprecedented offer by the Federal Reserve to open the discount window to Bear Stearns,⁶⁸ on March 16, 2008, JP Morgan Chase & Co. (JP Morgan) agreed to purchase Bear Stearns in a stock-for-stock transaction for the price of \$2 per share.⁶⁹ Bear Stearns’ near collapse, however, presented only one of several instances during the recent crisis in which the federal government and private market participants responded to the threat of the demise of a systemically significant financial institution.⁷⁰

⁶⁶ *Id.* at 2101.

⁶⁷ *Id.*

⁶⁸ During the crisis, the Federal Reserve Bank (Fed) interpreted its authority as to allow short term credit extensions secured by collateral to eligible depository institutions. SHORTER, *supra* note 36, at 4. As explained in a recent congressional report, the Federal Reserve understood its authority to include the ability to

make direct short-term loans to commercial banks. A 1932 provision of the Federal Reserve Act allow[ed] it to lend to non-banks if at least five of its seven governors approve, a provision that has not been used since the Great Depression. . . . The arrangement would involve providing collateral-based financing to Bear through JP Morgan, which would be used as a conduit, since as a commercial bank it already has access to the discount window and is also under the Fed’s supervision. . . . JP Morgan would have incurred no risk from the transaction but the Fed would [have incurred risk].

Id.

⁶⁹ Guerrero, *supra* note 56. Bear Stearns shares had traded at \$170 in January of 2008 and as high as \$30 per share the week before the sale to JP Morgan. *Id.*

⁷⁰ Ayotte & Skeel, *supra* note 16, at 469–70.

Starting with the bailout of Bear Stearns in early 2008, . . . governmental bodies and their leaders were prominently involved in the negotiations and the ultimate resolution of each major non-bank financial institution that encountered financial distress. The government arranged outcomes on an ad-hoc basis, with varying degrees of taxpayer support. In the Bear Stearns case, taxpayer funds facilitated a merger. In the AIG case, the Federal Reserve made a substantial direct loan to the company. With Lehman Brothers, the government declined to offer any money, and the company ultimately filed for Chapter 11 bankruptcy.

Id.

B. Trouble at Lehman Brothers

On September 15, 2008, after a steep decline in the company's stock price and reductions in its credit ratings, Lehman Brothers Holdings, Inc. (Lehman Brothers) filed for Chapter 11 bankruptcy protection.⁷¹ Lehman Brothers' filing marked the largest bankruptcy in U.S. history and severely undermined consumer confidence in the stability of capital and credit markets.⁷² Lehman Brothers' bankruptcy illustrates the tension that the government faced as concerns increased regarding liquidity in credit markets in 2008.⁷³ The government had the choice to offer rescue loans to non-banking institutions, such as Lehman Brothers and other failing systemically significant institutions, or face the risk that any of these institutions might become insolvent and trigger a domino effect of losses across financial markets.

After the government's refusal to offer financing to prevent Lehman Brothers' bankruptcy, the crisis of confidence escalated, threatening the stability of the entire financial services industry.⁷⁴ As the casualties mounted, JP Morgan acquired Washington Mutual, Inc. (Washington Mutual) buying the business out of receivership from the FDIC.⁷⁵ Washington Mutual, when placed into receivership by the Office of Thrift Supervision, was the largest bank failure in the history of the United States.⁷⁶ Wachovia Corporation⁷⁷ and Merrill Lynch⁷⁸ relinquished their status as independent investment banks,

⁷¹ *Lehman Brothers Files for Bankruptcy*, FIN. TIMES, Sept. 15, 2008, <http://www.ft.com/cms/s/0/52098fa2-82e3-11dd-907e-000077b07658.html>.

⁷² *Id.*

⁷³ See Matt Phillips, *Wall Street's 'Window Dressing': Lehman's Accidental Historian*, WALL ST. J., Sept. 18, 2010, at B1.

⁷⁴ Professors Ayotte and Skeel argue that allowing failing firms to enter into the bankruptcy process offers a better solution to the concerns of financial contagion than the governments' ad hoc approach. Ayotte & Skeel, *supra* note 16, at 471. The use of rescue loans in the recent crisis "increased uncertainty, increased costs of moral hazard, and dampened the incentive of private actors to resolve distress before the 'day of reckoning' arose." *Id.*

⁷⁵ Eric Dash, *JPMorgan Builds Strength with WaMu Deal in Tense Age*, N.Y. TIMES, Sept. 26, 2008, at C1.

⁷⁶ Robin Sidel et al., *WaMu is Seized, Sold Off to J.P. Morgan, in Largest Failure in U.S. Banking History*, WALL ST. J., Sept. 26, 2008, at A1.

⁷⁷ Michael J. de la Merced, *Regulators Approve Wells Fargo Takeover of Wachovia*, N.Y. TIMES, Oct. 9, 2008, at B1. On December 31, 2008, Wells Fargo's purchase of Wachovia closed averting a government-led sell off of the bank. Press Release, Wells Fargo, Wells Fargo and Wachovia Merger Completed (Jan. 1, 2009), *available at* https://www.wellsfargo.com/press/2009/20090101_Wachovia_Merger.

⁷⁸ Eric Dash, *Purchase of Merrill Fulfills Quest for a Bank*, N.Y. TIMES, Sept. 15, 2008. On September 15, 2008, Bank of America announced its intentions to acquire Mer-

and Wells Fargo and Bank of America, respectively, acquired these freshly-minted bank holding companies.⁷⁹

Facing an unprecedented credit and liquidity environment, firms combined, announced their insolvency, or accepted aid from the government. In each case, the outcomes had tremendous consequences for the firms and the national economy.⁸⁰ Some commentators argued that extending aid stirred concerns that the government would act as a deep pocket for many failing financial institutions and heightened the risk of moral hazard.⁸¹

The scholars' contributions in this volume offer comments on the origins and genesis of the crisis, the government and private sectors' responses to the crisis, and concerns regarding financial markets regulations that continue to receive insufficient national and international attention. The scholars' contributions highlight the mechanisms pursuant to which we may develop a true balm for the tragedies that transpired in the financial markets during the recent crisis and to prevent such events from recurring in the future.

III. DIAGNOSING THE DILEMMA AND DIVINING A CURE

Cries for regulatory reform rose loudly in response to the events of the crisis. Many also expressed concerns that federal government aid would lead to moral hazard—systemically significant financial institutions' use of excessive leverage based upon assumptions that the government would act as a guarantor and bail them out if they experienced large losses.⁸² In response to the demands for regulatory reform, the government adopted a number of legislative measures

rill Lynch & Co, Inc., one of the nation's largest investment banking and wealth management businesses with over 20,000 brokers and several trillion dollars in clients' assets. *Id.* Merrill Lynch was the world's largest brokerage firm prior to the acquisition. *Id.*

⁷⁹ See *supra* notes 77–78 and accompanying text.

⁸⁰ *This Week with George Stephanopoulos* (ABC television broadcast Mar. 30, 2009), available at <http://www.abcnews.go.com/ThisWeek/story?id=7200273&page=4> (Interview by George Stephanopoulos of Timothy Geithner, U.S. Treasury Secretary) (explaining that the federal agencies were “caught between these terrible choices of letting Lehman fail . . . or coming in and putting huge amounts of taxpayer dollars at risk, like we did at AIG”).

⁸¹ Edmund Andrews, *A 'Moral Hazard' for a Housing Bailout: Sorting the Victims From Those Who Volunteered*, N.Y. TIMES, Feb. 23, 2008, http://www.nytimes.com/2008/02/23/business/23housing.html?pagewanted=1&_r=1.

⁸² Todd Zywicki & Joseph Adamson, *The Law and Economics of Subprime Lending*, 80 U. COLO. L. REV. 1, 58 (2009). See also Richard Painter, *Bailouts: An Essay on Conflicts of Interest and Ethics when Government Pays the Tab*, 41 MCGEORGE L. REV. 131, 156 (2009) (stating that “[g]overnment could respond to the moral hazard problem by imposing risk management regulation on firms that receive bailouts”).

and commissioned regulatory agencies to draft and enforce well-tailored rules to oversee systemically significant financial institutions.⁸³

Scholars exploring concerns regarding the government's approach to regulation during the crisis critique the results of the government's intervention.⁸⁴ Other scholars posit that issues that remain unresolved after the adoption of the Dodd-Frank Act deserve careful consideration.⁸⁵ These scholars consider regulation through a unique lens and offer important contributions aimed to divine a better approach to regulate financial markets.

Professor Michelle Harner explores the role of enterprise risk management ("ERM") as one of the central concerns in the recent financial crisis.⁸⁶ According to Professor Harner, ERM involves a comprehensive approach to managing risk.⁸⁷ ERM offers a "technique for firm-wide risk identification, assessment and response [to enterprise risk] that involves the board of directors, senior management, and appropriate individuals throughout the firm."⁸⁸ Professor Harner explores shareholder litigation challenging Citigroup's investment decisions and risk management practices in the period lead-

⁸³ The Emergency Economic Stabilization Act, Pub. L. No. 110-343, 122 Stat. 3765-3933 (2008), empowered the Department of the Treasury to extend public financing to failing businesses in the financial services industry. The Troubled Asset Relief Program and the American Recovery and Reinvestment Act, Pub. L. No. 111-5, 123 Stat. 115 (2009), were designed to engender an economic stimulus. *See The Recovery Act*, RECOVERY.GOV, http://www.recovery.gov/About/Pages/The_Act.aspx (last visited September 21, 2010). The Department of Treasury's Capital Assistance and Public-Private Investment Programs were designed to restore confidence in the nation's largest depository institutions. *See* FIN. STABILITY OVERSIGHT BD., QUARTERLY REPORT TO CONGRESS PURSUANT TO SECTION 104(G) OF THE EMERGENCY ECONOMIC STABILIZATION ACT OF 2008, QUARTER ENDING MAR. 31, 2009, at 51 (2009), *available at* <http://www.financialstability.gov/docs/FSOB/FINSOB-Qrtly-Rpt-033109.pdf>. Finally, the Dodd-Frank Wall Street Reform and Consumer Protection Act, Pub. L. No. 111-203, § 919 (2010), addresses oversight of systemic risk across domestic capital and credit markets, the orderly liquidation of a failing systemically significant financial institution, the transfer of power from the Office of Thrift Supervision to the Office of the Comptroller of Currency, the roles of federal agencies that supervise significant financial markets or significant financial market participants, including the Federal Deposit Institution Corporation and the Federal Reserve Bank, the regulation of hedge fund advisers, the creation of a federal insurance regulation agency, the regulation of bank holding companies and depository institutions, the regulation of the over-the-counter derivatives markets, and the creation of a Consumer Financial Protection Bureau. *Id.*

⁸⁴ *See, e.g.*, Heminway, *supra* note 12; *see also* Verret, *supra* note 12.

⁸⁵ *See* Harner, *supra* note 9; Kaal & Painter, *supra* note 10; Chaffee, *supra* note 15; Fairfax, *supra* note 11.

⁸⁶ *See* Harner, *supra* note 9.

⁸⁷ *Id.* at 1331-33.

⁸⁸ *Id.* at 1365.

ing to the recent financial crisis.⁸⁹ Even when companies implement comprehensive ERM programs, Professor Harner argues that cultural and structural biases, including individual and cognitive biases and corporate cultural norms, present barriers to the most well-intentioned risk management programs.⁹⁰

As Professor Harner observes, enterprise risk management is a critical component in any firm's ability to shield itself from poor investments and bad business decisions.⁹¹ Many scholars, regulators, and corporate governance specialists were surprised to learn that, prior to the crisis, systemically significant banking and financial institutions relied almost exclusively on quantitative risk management models in their decision-making process.⁹² Professor Harner posits that managers relying on these models failed to acknowledge the influence that cognitive biases and cultural norms had on the assumptions that constitute the basic architecture of these models.⁹³ Professor Harner argues that regulatory reform should incorporate consideration of these limitations to effective enterprise and systemic risk management.⁹⁴

In addition to concerns regarding cognitive and cultural biases and the limitations of quantitative risk models, other scholars' reflections encourage regulators to create reforms that enhance policies governing the relationship between shareholders and managers. These scholars highlight the important role of shareholders in corpo-

⁸⁹ *Id.* at 1343–49.

⁹⁰ *See id.* at 1350; *see also* Amos Tversky & Daniel Kahneman, *Judgment Under Uncertainty: Heuristics and Biases*, 185 SCIENCE 1124 (1974).

⁹¹ *See* Harner, *supra* note 9, at 1365.

⁹² *See* RISK & INS. MGMT. SOC'Y, INC., THE 2008 FINANCIAL CRISIS: A WAKE-UP CALL FOR ENTERPRISE RISK MANAGEMENT 5 (Bill Coffin ed., 2009), *available at* www.RIMS.org/ERMwhitepaper. RIMS faults overreliance on historic controls and risk metrics for some of the losses experienced during the 2008 recession. *Id.* According to RIMS, “[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* Joe Nocera, *Risk Management*, N.Y. TIMES MAG., Jan. 4, 2009, at 24 (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”).

⁹³ *See* Harner, *supra* note 9, at 1338; *see also* Grant Kirkpatrick, *The Corporate Governance Lessons from the Financial Crisis*, FIN. MARKET TRENDS, Feb. 2009, at 2, *available at* <http://www.oecd.org/dataoecd/32/1/42229620.pdf>. (“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.”).

⁹⁴ Harner, *supra* note 9, at 1350.

rate governance.⁹⁵ Notwithstanding the increased role of federal regulation in the sphere of corporate governance, critical issues relating to the quality of shareholder participation remain unresolved.⁹⁶

Professor Lisa Fairfax explores the intersection of technology and corporate governance in the context of electronic shareholder meetings.⁹⁷ Professor Fairfax surveys the states that allow virtual participation or remote-only participation for annual shareholders meetings.⁹⁸ Upon completing her survey of the various approaches to the question of electronic participation, Professor Fairfax concludes that the prevalence of discussions about virtual participation and electronic meetings among state legislatures signals the significance of virtual alternatives to traditional shareholder participation.⁹⁹

Professor Fairfax notes that recently adopted state statutes allowing virtual participation in annual shareholder meetings create national concerns regarding the impact of technology on traditional corporate governance practices.¹⁰⁰ Supporters of virtual participation argue that virtual meetings are less expensive than in-person meetings and may engender enhanced participation by engaging a broader shareholder demographic.¹⁰¹ Electronic shareholder meetings offer a cost savings by reducing the financial burden of hosting an in-person annual shareholder meeting.¹⁰² In addition, hosting electronic shareholder meetings allows corporations to enhance their image as technologically advanced firms and to create an advantage for adopters of virtual meetings in the competition to attract capital.¹⁰³

Opponents to the use of electronic shareholder meetings argue that electronic shareholder meetings reduce shareholder-

⁹⁵ See Fairfax, *supra* note 11.

⁹⁶ See *id.*

⁹⁷ See *id.* at 1367. Professor Fairfax further divides the category of “electronic shareholder meetings” into “remote shareholder participation” and “remote-only shareholder participation.” *Id.* at 1368.

⁹⁸ *Id.* at 1370–82.

⁹⁹ See *id.* at 1368–70.

¹⁰⁰ *Id.* at 1390–96.

¹⁰¹ Fairfax, *supra* note 11, at 1391–92. See also Elizabeth Boros, *Virtual Shareholder Meetings: Who Decides How Companies Make Decisions*, MELB. U. L. REV. 265, 274 (2004); *Remote Communications Laws Provide Alternative Format for Shareholder Meetings*, CORP. COUNS. WKLY., June 20, 2007, at 188.

¹⁰² *Id.* at 1391.

¹⁰³ *Id.* See Dan Birnhak, *Online Shareholder Meetings: Corporate Law Anomalies or the Future of Governance*, 29 RUTGERS COMPUTER & TECH. L.J. 423, 428 (2003); see also Gavin A. Beske, *Shareholder Meetings Online*, in SECURITIES IN THE ELECTRONIC AGE: A PRACTICAL GUIDE TO THE LAW AND REGULATION 8–14 (John F. Olson & Carmen J. Lawrence eds., 2002).

management interaction.¹⁰⁴ Professor Fairfax explores shortcomings of electronic shareholder meetings including concerns that hosting remote-only meetings may permit managers to insulate themselves from shareholders.¹⁰⁵ As a result managers may respond selectively to favorable questions posed virtually (via email)¹⁰⁶ or only scripted responses to shareholder concerns.¹⁰⁷ Critics of electronic participation also challenge the assumption that virtual participation and electronic meetings are less expensive. While initially the transition to electronic meetings may reduce the expense of the annual shareholder meeting, the need to adapt continuously to advances in technology will likely create recurring expenses for the firm.¹⁰⁸ Moreover, there are, of course, concerns that arise directly from the use of technology, such as the ability to verify shareholders' identity and to assess and record shareholder votes accurately during a remote access only meeting.¹⁰⁹

Professors Wulf Kaal and Richard Painter explore weaknesses in the corporate governance policies of certain systemically significant institutions that contributed to the losses that these institutions experienced during the recent financial crisis.¹¹⁰ Through a comparison of liability standards for managers breach of fiduciary duties under American and German laws and an analysis of the cultural components of undertaking risk, Professors Kaal and Painter explore different jurisdictions' approaches to evaluating a duty to manage business risks.¹¹¹ While laws in both the United States and Germany offer a highly deferential presumption that directors act in good faith, on an informed basis, and in the best interest of shareholders, legislative proposals in Germany and changes to the interpretation of the application of the business judgment rule suggests that German managers may soon face personal liability for taking "inappropriately excessive" business risks.¹¹²

Comparing the costs of monitoring risk management with the adopted or proposed substantive and procedural rules for directors' duty to monitor risk, Professors Kaal and Painter explore divergences

¹⁰⁴ Fairfax, *supra* note 11, at 1392.

¹⁰⁵ *Id.* at 1392-93.

¹⁰⁶ *Id.* at 1393.

¹⁰⁷ *Id.*

¹⁰⁸ Birnhak, *supra* note 103, at 439.

¹⁰⁹ See CORP. COUNS. WKLY *supra* note 101, at 188; see also Boros, *supra* note 101.

¹¹⁰ Kaal & Painter, *supra* note 10, at 1433.

¹¹¹ See Kaal & Painter, *supra* note 10.

¹¹² *Id.* at 1465.

between the approach adopted in the United States and the approach to fiduciary duty adopted in Germany.¹¹³ Through litigation arising out of the financial crisis, Professors Kaal and Painter illustrate the weaknesses of imposing stricter fiduciary standards in even an enhanced disclosure regime.¹¹⁴

The United States disclosure regime seemingly failed to assist in detecting excess risk taking at large financial institutions. The absence of comprehensive industry oversight and the concentration of risks among a small group of large financial institutions in the markets for exotic products, such as CDOs and credit default swaps, linked the financial health of systemically significant financial institutions.¹¹⁵ Many of these transactions were so complex that investors did not appreciate the impact of the disclosed risks or the limitations of disclosure.¹¹⁶ Professors Kaal and Painter conclude that more effective disclosure requirements and heightened corporate governance measures create the teeth necessary to enforce shareholder rights with respect to risk management.¹¹⁷ Professors Kaal and Painter qualify their findings by noting that continuing investigations into the causes of the crisis and the reforms implemented in response will inform their ultimate conclusions regarding risk management and directors and officers' duties to monitor the same.¹¹⁸

Other commentators explore the role of the federal government as a creditor and a shareholder. Professor Heminway examines the federal government's bail-out of failing institutions through capital investment—the government's decision to become a shareholder in private for-profit businesses.¹¹⁹ Through emergency use of their authority to designate a preferred series of stock, or their “blank check” authority, directors quickly gained access to federal funds.¹²⁰ The

¹¹³ *Id.* at 1445.

¹¹⁴ *Id.* at 1436–37.

¹¹⁵ *See id.* at 1433–38.

¹¹⁶ *Id.* at 1473.

¹¹⁷ Kaal & Painter, *supra* note 10, at 1484–85.

¹¹⁸ *Id.* at 1438.

¹¹⁹ *See* Heminway, *supra* note 12, at 1487–88.

¹²⁰ *Id.* at 1490–95. The blank check authority captured in section 151 of the Delaware General Corporation Law allows corporations to designate and issue preferred stock. DEL. CODE ANN. tit. 8, § 151(a) (2010); *see also* Heminway, *supra* note 12, at 1490–91. All corporations incorporated in Delaware have the authority through blank check provisions to issue preferred stock with voting rights, preferences in dividends and options or other special rights appealing to the party receiving the issued securities. Heminway, *supra* note 12, at 1490 n.12. Corporations also have the authority to designate different series of preferred stock to obtain equity financing without amending their charter, as they do each time they intend to issue preferred

boards of directors of several of the companies that received federal aid in exchange for preferred shares adopted a broad interpretation of their authority under the relevant provisions of their certificates of incorporation to issue preferred stock.¹²¹ While this broad interpretation of the “blank check” authority was useful during the crisis to forge public-private partnerships to prevent the insolvency of systemically significant financial institutions, Professor Heminway notes that continuing to employ a broad interpretation of directors’ “blank check” authority creates concerns about directors’ potential abuse of this authority in future non-emergent situations.¹²²

In addition, Professor Heminway explores the federal government’s efforts to regulate through intervention in bankruptcy reorganizations.¹²³ Examining the Chrysler and General Motors bankruptcies under § 363 of the U.S. Bankruptcy Code, Professor Heminway contends that the government’s efforts to save the automakers may disrupt established practices for assigning priority in future bankruptcy transactions.¹²⁴ These approaches create the potential for future abuse of directors’ “blank check” authority and uncertainty regarding priority in certain bankruptcy proceedings.

Professor Verret examines the Troubled Asset Relief Program¹²⁵ (TARP) and the government’s decision to obtain a significant investment interest in several prominent publicly traded companies.¹²⁶ Professor Verret explores the possible impact of government ownership in private businesses. In particular, he examines the ability of political activists to influence private businesses through the government’s role as a shareholder.¹²⁷ Professor Verret raises questions regarding political activists’ ability to exert influence over private enterprises through their influence on government actors and policies.¹²⁸

stock. *Id.* at 1491–92. During the recent financial crisis, each of the largest recipients of federal funds, AIG, Bank of America, and Citigroup, issued shares to the United States Government. *Id.* at 1492. Each transaction was unique because of distinctions in their certificates of incorporation. *See id.*

¹²¹ Heminway, *supra* note 12, at 1493–94.

¹²² *Id.* at 1516–18.

¹²³ *Id.* at 1505–13.

¹²⁴ *See id.* at 1508–11.

¹²⁵ The Troubled Asset Relief Program and the American Recovery and Reinvestment Act, Pub. L. No. 111-5, 123 Stat. 115 (2009).

¹²⁶ Verret, *supra* note 12, at 1522–28.

¹²⁷ *Id.* at 1537–52.

¹²⁸ *Id.* at 1552–55.

Professor Verret offers an interesting lens through which one may view public choice theory and the question of rent seeking.¹²⁹ Understanding rent seeking as a two-step process, Professor Verret describes the means by which government-controlled firms are likely to use their politically conferred rents to subsidize transfers to interest groups.¹³⁰ After examining the remedial constraints of administrative law, Professor Verret posits that the TARP Recipient Trust Act may offer a reasonable mechanism for limiting the influence of political interest groups.¹³¹

Still other commentators examine the international cooperation that may be necessary to effectuate the promises Congressional responses to the crisis embodied in the Dodd-Frank Act.¹³² Professor Eric Chaffee's contribution invites financial reformers to explore harmonization and centralization of international securities laws as a preventative tool for avoiding the next financial crisis.¹³³ Fragmented regulation, according to Professor Chaffee, encourages a "race-to-the-bottom."¹³⁴ Professor Chaffee posits that institutional and retail investors' willingness to shop for opportunities beyond American shores evidences the shifting assumptions regarding the preeminence of American law in international financial services markets.¹³⁵ This transition occurred, according to Professor Chaffee, in part, because of consolidation among international securities exchanges, and in part because of the increasing size and sophistication of securities markets outside of the United States.¹³⁶ The aggressively litigious culture of American shareholders, the culture of enforcement, and the adoption of the Sarbanes-Oxley Act of 2002, further alienated U.S. capital markets from global investors.¹³⁷

Professor Chaffee introduces six models of international securities law that may address global financial market concerns such as sys-

¹²⁹ *See id.*

¹³⁰ *Id.* at 1521.

¹³¹ *Id.* at 1566–77.

¹³² *See* Chaffee, *supra* note 15.

¹³³ *Id.* at 1584.

¹³⁴ *Id.* at 1583 (citing Roberta S. Karmel & Claire R. Kelly, *The Hardening of Soft Law in Securities Regulation*, 34 BROOK. J. INT'L L. 883, 946–47 (2009) (“[P]atchwork regulation does not work to regulate the emerging global markets, because it generates a race-to-the-bottom in which nations ratchet down their systems of regulation and enforcement to suboptimal levels in an attempt to gain competitive advantage over other nations”).

¹³⁵ *Id.* at 1589–90.

¹³⁶ *Id.*

¹³⁷ *Id.* at 1590.

temic risk—privatization, competition, convergence, mutual recognition, harmonization, and centralization.¹³⁸ Of the six models, only two—harmonization and centralization—offer a truly effective long-term remedy.¹³⁹ Professor Chaffee suggests that markets would benefit from harmonized securities laws. Harmonization creates a gateway for other international market reforms such as a centralized global securities regulator with robust monitoring, regulatory, and enforcement powers.¹⁴⁰ Without such harmonization, gaps or differences in regulation between and among nations make it possible for market participants to shift activities from a jurisdiction with an explicit prohibition and ready enforcement regime to other jurisdictions with less explicit regulation or lighter touch enforcement.¹⁴¹ Harmonization and centralization of international securities law have the benefits of minimizing risk in the emerging global capital marketplace,¹⁴² increasing market efficiency by reducing transaction costs, increasing investor confidence,¹⁴³ and pooling the technical and financial expertise and experience of securities regulators.¹⁴⁴

Arguments against harmonization and centralization often point to the challenges posed by the autonomy and independence of national regulators.¹⁴⁵ Opponents also argue that regulatory competition creates intangible benefits, including the benefits of inspiring a diverse array of approaches to regulatory questions.¹⁴⁶ In response, Professor Chaffee explains that any gains from regulatory competition are outweighed by the costs of satisfying regulatory standards in a fragmented global regulatory environment where market participants expend money and time to comply with many jurisdictions' regulatory expectations.¹⁴⁷

IV. CONCLUSION

The recent financial crisis illustrates many concerns raised by economists and other theorists regarding asset bubbles. The reflec-

¹³⁸ Chaffee, *supra* note 15, at 1595–1603.

¹³⁹ *Id.* at 1603.

¹⁴⁰ *Id.*

¹⁴¹ *Id.* at 1583 (citing Roberta S. Karmel, *The Case for a European Securities Commission*, 38 COLUM. J. TRANSNAT'L L. 9, 39 (1999)).

¹⁴² *Id.* at 1603.

¹⁴³ *Id.* at 1606.

¹⁴⁴ Chaffee, *supra* note 15, at 1610.

¹⁴⁵ *Id.* at 1614–17.

¹⁴⁶ *Id.* at 1614.

¹⁴⁷ *Id.* at 1614–15.

2010]

DIAGNOSING THE DILEMMA

1321

tions shared at the symposium offer insight regarding the cultural and cognitive limitations company management and federal regulators faced when attempting to evaluate risks. The reflections also offer a comparison of responses in different jurisdictions. The reflections highlight concerns regarding shareholders' ability to influence risk management or other corporate governance matters. The disconcerting events of the crisis present an opportunity to engage in a discourse to develop, implement, and enforce effective reform.