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Governing Financial Markets: Regulating Conflicts

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GOVERNING FINANCIAL MARKETS: REGULATING CONFLICTS

Kristin N. Johnson*

Abstract: Payment, clearing, and settlement systems constitute a central component in the infrastructure of financial markets. These businesses provide channels for executing the largest and smallest commercial transactions in local, national, and international financial markets. Notwithstanding this significant role, there is a dearth of legal scholarship exploring central clearing counterparties (CCPs) and their contributions to the regulation of financial markets. To address this gap in the literature, this Article sketches the contours of the theory that frames regulation within financial institutions and across financial markets, examines the merits of implementing CCPs, and explores the role of CCPs as primary regulators within financial markets. Applying these theoretical constructs to a practical issue, this Article analyzes Title VII of the Dodd-Frank Wall Street Reform and Consumer Protection Act and the statute's introduction of mandatory clearing requirements in the over-the-counter (OTC) derivatives market.

This Article advances several arguments that explore the merits of Title VII's clearing mandate. First, this Article posits that introducing clearing requirements and authorizing only a handful of CCPs to execute clearing obligations concentrates systemic risk concerns. Title VII's clearing mandate endows CCPs with the authority to serve as gatekeepers. As a result, these institutions become critical, first-line-of-defense regulators, managing risk within the OTC derivatives markets. Second, weak internal governance policies at CCPs raise noteworthy systemic risk concerns. CCP boards of directors face persistent and pernicious conflicts of interest that impede objective risk oversight, and thus may fail to adopt effective risk management oversight policies. Well-tailored corporate governance reforms are necessary to address these conflicts and to prevent CCP owners' self-interested commercial incentives or other institutional constraints from triggering systemic risk concerns.

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Finally, this Article deconstructs the theory of self-regulation that characterizes financial markets regulation. After reviewing the benefits and weaknesses of the self-regulatory approach, this Article explores the emerging New Governance paradigm. Drawing from the New Governance literature and internal corporate governance reforms employed by venture capital and private equity firms, regulators, and federal prosecutors, this Article proposes that regulators appoint an independent, third party board observer or monitor to CCPs' board of directors. The appointed board observer or monitor will endeavor to ensure the safety and soundness of CCPs' risk-management decisions and that their risk-taking decisions are consistent with the public's interest in mitigating systemic risk concerns.

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INTRODUCTION

Should bankers regulate bankers?¹ For more than two centuries, legislators, academics, and commentators have passionately debated the promise and the peril of permitting financial intermediaries² to regulate their own activities.³ In recent years, an escalating scandal involving a critical interest rate benchmark has revived the self-regulation debate.⁴

In early 2008, investigative journalists released reports alleging that commercial banks manipulated the calculation of the London Interbank Offered Rate (LIBOR)—one of the world's most significant interest rate benchmarks.⁵ The British Bankers' Association (BBA), a prestigious international banking organization, developed LIBOR in the 1980s to offer member banks a comprehensive view of the rates at which banks

1. Landon Thomas Jr., *Trade Group for Bankers Regulates a Key Rate*, N.Y. TIMES, July 6, 2012, at B1 (“If there is one thing that the escalating [London Interbank Offered Rate] scandal has established, it is that bankers have a hard time regulating bankers . . .”).

2. Financial intermediaries are privately owned and controlled businesses that provide fundamental financial services to financial market participants. Examples of financial intermediaries include securities and commodities exchanges, clearinghouses, and commercial depository banks.

3. This Article explores several interpretations of the theory of self-regulation and various self-regulatory organizations (SROs). *See infra* Parts I.D and III.B. In some instances, the notion of self-regulation connotes an entirely private market regulatory approach and the relevant SROs are not subject to external regulation. *See infra* notes 5–7 and accompanying text. In other contexts, SROs organized as private businesses remain subject to a government or external regulator. *See infra* notes 71–77 and accompanying text. For a general discussion of the regulation of securities and commodities exchanges and clearinghouses in the United States, see Jonathan R. Macey & Maureen O'Hara, *From Markets to Venues: Securities Regulation in an Evolving World*, 58 STAN. L. REV. 563, 568 (2005); Paul G. Mahoney, *The Exchange as Regulator*, 83 VA. L. REV. 1453, 1457–59 (1997).

4. *See, e.g.*, Jacob Gyntelberg & Philip Wooldridge, *Interbank rate fixings during the recent turmoil*, in BIS QUARTERLY REVIEW 59, 70 (Mar. 2008) (concluding that “available data do not support the hypothesis that contributor banks manipulated their quotes to profit from positions based on fixings”); WORLD ECONOMIC AND FINANCIAL SURVEYS, INTERNATIONAL MONETARY FUND, GLOBAL FINANCIAL STABILITY REPORT 95 (Oct. 2008) (dismissing allegations that banks manipulated the London Interbank Offered Rate (LIBOR) and concluding that the rate “remains an accurate measure of a typical creditworthy bank's marginal cost of unsecured U.S. dollar term funding”); Carrick Mollenkamp & Mark Whitehouse, *Study Casts Doubt on Key Rate*, WALL ST. J., May 29, 2008, at A1 (arguing that member banks manipulated the average interbank borrowing rates calculated by the British Bankers' Association).

5. Mollenkamp & Whitehouse, *supra* note 4, at A1.

borrow funds from other banks.⁶ BBA member banks and market participants around the world now utilize LIBOR to decide the rates that they will apply to various domestic and international financial arrangements, including syndicated corporate loans and foreign exchange transactions.⁷

Financial markets have integrated LIBOR into more than \$500 trillion of corporate and consumer loans—student loans, home mortgages, automobile financing arrangements—and sophisticated derivatives transactions.⁸ For example, LIBOR influences the interest rates applied to more than half of variable rate private student loans.⁹ Consequently, LIBOR impacts access to credit for millions of consumers and businesses.¹⁰

British and American investigations revealed that bank traders colluded to distort the international interest rate benchmark.¹¹ Evidence

6. “The British Bankers’ Association was created in 1919 as a result of the merger of the Central Association of Bankers and the Association of English Country Bankers.” *British Bankers’ Ass’n, Identity Statement*, AIM25, http://www.aim25.ac.uk/cgi-bin/vcdf/detail?coll_id=16736&inst_id=118&nv1=search&nv2= (last visited Feb. 9, 2013). Originally organized to promote the interests of the British banking community, the trade association opened its membership to all banks in the United Kingdom in 1972. *Id.* Today the organization represents the interests of over 200 member banks organized around the world. *See About Us*, BRITISH BANKERS’ ASS’N, <http://www.bba.org.uk/about-us> (last visited Jan. 26, 2013); *see also* David Enrich, *British Banks Step Back from Libor Role*, WALL ST. J., Sept. 26, 2012, at C1, available at <http://online.wsj.com/article/SB10000872396390444180004578018371243449916.html>; Thomas, *supra* note 1, at B1 (discussing the history and development of the BBA). Unlike the securities and commodities exchanges discussed below, *see infra* Part II, the BBA is not subject to external, government regulation. In the wake of the LIBOR scandal, some critics demand that the British government adopt a supervisory framework to regulate the BBA. *See* Mark Scott, *Trade Group Seen as Near Conceding Libor Power*, N.Y. TIMES, Sept. 26, 2012, at B1; Julia Werdigier, *British Banker Group to Strengthen Libor Oversight*, N.Y. TIMES, May 31, 2008, at C2.

7. *See* Peter Eavis & Nathaniel Popper, *Libor Scandal Shows Many Flaws in Rate-Setting*, N.Y. TIMES, July 19, 2012, <http://dealbook.nytimes.com/2012/07/19/libor-scandal-shows-many-flaws-in-rate-setting/>.

8. Peter Eavis, *A Rate Setting Mechanism of Far-Reaching Effects*, N.Y. TIMES, June 28, 2012, at B1; Enrich, *supra* note 6, at C1; Carrick Mollenkamp, *Libor Fog: Bankers Cast Doubt on Key Rate Amid Crisis*, WALL ST. J., April 16, 2008, at A13 (estimating that LIBOR influences the valuation and interest rates associated with \$500 trillion in financial contracts).

9. *Behind the Libor Scandal*, N.Y. TIMES, July 10, 2012, <http://www.nytimes.com/interactive/2012/07/10/business/dealbook/behind-the-libor-scandal.html>; *see also* Mark Scott, *British Authorities to Announce Changes in Libor Oversight*, N.Y. TIMES, Sept. 27, 2012, <http://dealbook.nytimes.com/2012/09/27/british-authorities-to-announce-changes-in-libor-oversight/>.

10. *See* David Enrich & Dana Cimilluca, *Barclays Director Is Latest to Leave*, WALL ST. J., July 26, 2012, at C1.

11. Azam Ahmed & Ben Protess, *As Libor Fault-Finding Grows, It Is Now Every Bank for Itself*, N.Y. TIMES, Aug. 5, 2012, <http://dealbook.nytimes.com/2012/08/05/banks-in-libor-inquiry-are-said-to-be-trying-to-spread-blame/>.

suggests that the securities, commodities, and foreign exchange traders who were employees of BBA member banks intentionally misreported information solicited by the BBA to determine LIBOR.¹² By manipulating borrowing and lending rates, these traders buttressed their firms' profits on structured derivatives products,¹³ limited losses on their firms' trading positions,¹⁴ and created the appearance that their firms had reduced their exposure to commercial risks.¹⁵

A pernicious and persistent tension plagues self-regulatory organizations (SROs) such as the BBA. SROs have unique expertise and sophistication. They frequently adopt and implement industry standards that enhance efficiency and organization within specific sectors of financial markets. Similar to other SROs, within the BBA internal committees establish and enforce rules governing member banks' activities. SROs are unencumbered by the bureaucratic processes that stymie government regulators' rule-making efforts and, when members violate community standards, SROs may act promptly to enforce their rules.

The BBA exemplifies the benefits and concerns that SROs create in financial markets. Prior to the rate-fixing scandal, commentators celebrated the BBA for developing an international interest rate benchmark.¹⁶ LIBOR offers a critical tool that reduces transaction costs and mitigates information asymmetries in the calculation of lending rates.¹⁷

BBA member banks' manipulation of LIBOR, however, illustrates the intransigent conflicts of interest that plague self-governing financial institutions. Members' incentives frequently diverge from SROs'

12. The Foreign Exchange and Money Markets Committee of the BBA is responsible for the design and governance of LIBOR and for scrutinizing data from contributor banks. *See Governance*, BRITISH BANKERS' ASS'N, <http://www.bbalibor.com/governance> (last visited Jan. 27, 2013); *The Basics*, BRITISH BANKERS' ASS'N, <http://www.bbalibor.com/bbalibor-explained/the-basics> (last visited Jan. 27, 2013). The committee determines LIBOR by aggregating interest rate information gathered from a panel of representative banks. *Id.* The resulting figure reflects a typical bank's marginal cost of borrowing unsecured funds, meaning the rate at which banks are willing to lend unsecured funds to other banks. *Id.* Currently, the BBA calculates and publishes LIBOR each business day. *Id.*

13. Megan Murphy, Brooke Masters & Caroline Binham, *Probe Reveals Scale of Libor Abuse*, FIN. TIMES, Feb. 9, 2012, at B4.

14. Ahmed & Protess, *supra* note 11.

15. Eduardo Porter, *The Spreading Scourge of Corporate Corruption*, N.Y. TIMES, July 11, 2012, at B1.

16. *See* Karen Krebsbach, *The Inside Track, Policy, Players, and Politics: Repairing Libor's Credibility Crisis*, U.S. BANKER, July 2008, at 14.

17. Thomas, *supra* note 1, at B1.

regulatory objectives. In an effort to increase profits or to avoid losses, members may disregard an SRO's regulatory policies and violate the trade organization's rules. In the absence of policies that effectively mitigate members' conflicts of interest, self-serving behavior may lead to regulatory failures, creating significant costs, triggering market disruptions, and leading to harmful spillover effects that impact the global economy.¹⁸ Market participants' manipulation of LIBOR, for example, continued unchecked for several years and impacted financial arrangements around the world; arguably, the lack of external or government regulatory oversight enabled market participants to conceal their deceit.¹⁹

The LIBOR scandal is salacious, in part because bankers acted to increase or preserve profits on over-the-counter (OTC) derivatives trades—financial transactions that many commentators blame for the onset of the greatest financial crisis since the Great Depression.²⁰ The complexity of the derivatives transactions linked to adjustable rate prime and subprime mortgages severely weakened the solvency of many systemically significant financial institutions and evoked a public outcry for financial markets reform. Barclays Bank recently admitted that several of its traders manipulated LIBOR in order to ensure the profitability of the bank's derivatives trades and agreed to pay \$450

18. See generally Eavis & Popper, *supra* note 7.

19. See Werdigier, *supra* note 6, at C2; Macey & O'Hara, *supra* note 3, at 596 (distinguishing between SROs subject to government regulations and SROs that are not subject to external regulation).

20. See generally Paul Krugman, *The Third Depression*, N.Y. TIMES, June 28, 2010, at A19 (predicting that the recent financial crisis created depression-era like conditions). For a discussion of claims that derivatives were a catalyst that precipitated the recent financial crisis, see Kristin N. Johnson, *Things Fall Apart: Regulating the Credit Default Swap Commons*, 82 U. COLO. L. REV. 167, 193 (2011). A derivative is a financial instrument that derives its value from an external asset, described as a reference asset or an underlying asset. *Id.*; Norman Menachem Feder, *Deconstructing Over-the-Counter Derivatives*, 2002 COLUM. BUS. L. REV. 677, 681–82 (2002); Willa E. Gibson, *Are Swap Agreements Securities or Futures?: The Inadequacies of Applying the Traditional Regulatory Approach to OTC Derivatives Transactions*, 24 J. CORP. L. 379, 383–88 (1999). An underlying asset or reference asset can be a cash instrument, such as a treasury security, a stock, a bond, or a commodity. Johnson, *supra*, at 193. A derivative agreement may also reference a calculated rate such as an interest rate or a foreign exchange rate. *Id.* The value of the derivative depends on the value of the underlying asset, while the value of the underlying asset is determined based on fluctuations in market pricing. *Id.* Derivative contracts may take the form of privately negotiated agreements or the contracts can be traded on a derivatives exchange. *Id.* Commentators describe the former type of arrangements as over-the-counter (OTC) derivatives because these instruments do not trade on an exchange but instead trade on non-centralized markets that are comprised of numerous privately negotiated transactions. *Id.*; Feder, *supra*, at 681–82; Gibson, *supra*, at 383–88.

million to settle prosecutors' claims against the bank.²¹

While federal prosecutors continue to pursue the traders and banks involved in the BBA LIBOR scandal, Congress has taken steps to address the lack of regulation in OTC derivatives markets. Ironically, recently adopted legislation introduces a self-regulatory framework that is strikingly similar to other self-regulatory approaches that have failed to detect fraud, prevent manipulation, or effectively prosecute violations of federal securities laws.

Title VII of the Dodd-Frank Wall Street Reform and Consumer Protection Act²² ("Dodd-Frank Act" or the "Act") requires financial market participants to register and clear OTC derivatives transactions through federally authorized registered clearinghouses.²³ The landmark federal legislation aims to increase transparency,²⁴ enhance efficiency, and reduce the likelihood that trading in OTC markets will disrupt broader financial market stability or create the types of systemic risk²⁵ that threatened global financial markets from 2007 to 2010.²⁶

In addition to mitigating systemic risks, Title VII imposes clearing requirements in OTC markets in order to engender the economic benefits of exchanges and clearinghouses. Organizational literature suggests that these benefits include reduced transaction and agency costs and

21. See Ben Protesse & Mark Scott, *Barclays Settles Regulators' Claims Over Manipulation of Key Rates*, N.Y. TIMES, June 27, 2012, <http://dealbook.nytimes.com/2012/06/27/barclays-said-to-settle-regulatory-claims-over-benchmark-manipulation>; see also Press Release, U.S. Commodity Futures Trading Comm'n, CFTC Orders Barclay's to Pay \$200 Million Penalty for Attempted Manipulation of and False Reporting Concerning LIBOR and Euribor Benchmark Interest Rates (June 27, 2012), available at <http://www.cftc.gov/PressRoom/PressReleases/pr6289-12> ("According to the Order, Barclays, through its traders and employees responsible for determining the Bank's LIBOR and Euribor submissions (submitters), attempted to manipulate and made false reports concerning both benchmark interest rates to benefit the Bank's derivatives trading positions by either increasing its profits or minimizing its losses. This conduct occurred regularly and was pervasive.").

22. Dodd-Frank Wall Street Reform and Consumer Protection Act, Pub. L. No. 111-203, 124 Stat. 1376 (2010) (codified in scattered sections of 7, 12, 15, 18, 22, 31, and 41 U.S.C.) [hereinafter Dodd-Frank Act].

23. *Id.* §§ 701–74 (codified in scattered sections of 7 and 15 U.S.C.).

24. *Id.*

25. Steven L. Schwarcz, *Systemic Risk*, 97 GEO. L.J. 193, 204 (2008) (integrating the factors used in various definitions of *systemic* and suggesting the following working definition for *systemic risk*: "the risk that (i) an economic shock such as market or institutional failure triggers (through a panic or otherwise) either (X) the failure of a chain of markets or institutions or (Y) a chain of significant losses to financial institutions, (ii) resulting in increases in the cost of capital or decreases in its availability, often evidenced by substantial financial-market price volatility").

26. Edward Wyatt, *To Cushion Against Losses, Fed Considers Raising Capital Requirements for Banks*, N.Y. TIMES, June 4, 2011, at B3.

enhanced market stability.²⁷ Transitioning to a formal market with centralized clearing and settlement is not, however, without disadvantages. The clearinghouses' ownership and internal governance structure raise noteworthy concerns.

Similar to the structure of many SROs, OTC derivatives clearinghouses are directly controlled by a small group of elite banking institutions.²⁸ The membership lists of the five clearinghouses currently authorized by federal regulators to execute OTC derivatives transactions are comprised almost exclusively of banks, bank holding companies, or their affiliates.²⁹ The significant players in the OTC derivatives markets—JPMorgan Chase, Bank of America, Citigroup, Goldman Sachs, HSBC, and Morgan Stanley—are also the largest and controlling stakeholders of several of the authorized clearinghouses.³⁰ The similarities between the ownership structure of the BBA and recently authorized OTC derivatives clearinghouses suggest that OTC derivatives clearinghouses are susceptible to the same conflicts of interest implicated in the LIBOR scandal.

When Congress enacted the Dodd-Frank Act in 2010, ten large banks served as the dealers for ninety percent of OTC derivatives transactions.³¹ These banks earned \$60 billion dollars in fees for their role as dealers.³² As a result of their controlling ownership and voting positions, large dealers will have the authority to limit the volume of transactions executed on clearinghouse platforms and affect the percentage of transactions that become subject to Title VII's clearing mandate. Because these large dealers generate staggering revenue from OTC derivatives trades, they will face significant conflicts of interest when deciding whether to permit smaller dealers to become clearinghouse members. Large dealers will also face conflicts when determining trade eligibility policies.

Given clearinghouse members' self-interests and anticompetitive incentives, academics and regulators have expressed concerns that clearinghouses' risk management policies may undermine federal efforts to make OTC derivatives markets more transparent and to mitigate

27. For a discussion of the ownership structure of clearinghouses, see *infra* Part II.B.

28. See discussion *infra* Part I.B.

29. See INTERCONTINENTALEXCHANGE, ICE CLEAR EUROPE-CLEARING MEMBERS (Dec. 13, 2012), available at https://www.theice.com/publicdocs/clear_europe/ICE_Clear_Europe_Clearing_Member_List.pdf.

30. Gretchen Morgenson, *It's Not Over Until It's in the Rules*, N.Y. TIMES, Aug. 29, 2010, at B1.

31. *Id.*

32. *Id.*

systemic risk concerns. Consequently, some commentators conclude that introducing clearinghouses may only shift risks in the OTC derivatives market from the balance sheets of individual market participants to the balance sheet of a centralized institution. Under this analysis, clearinghouses may well emerge as the next class of institutions to bear the moniker “too big to fail.”

This Article argues that employing a traditional, one-size-fits-all, self-regulatory solution in OTC derivatives market fails to address the complexities of governance in sophisticated, concentrated financial markets. Part I explores economic organization theory and describes the transaction and agency costs that motivate individual businesses and certain industries to organize production in a particular manner. Notwithstanding the economic benefits that result from industry-wide collaboration, the absence of effective governance policies that ensure fairness and open access to markets may engender anti-competitive practices. In the case of OTC derivatives, these negative practices may have deleterious consequences.

Part II analyzes the application of the principles of organization theory to the activities and recent regulation in the OTC derivatives markets. The application reveals disconcerting conflicts of interest. Part III contends that a modified approach to self-regulation articulated by New Governance theorists alleviates many of the concerns that plague self-regulating markets.

Part IV proposes that regulators adopt lessons from the theory of New Governance and modify the self-regulatory approach in OTC derivatives markets to better address conflicts of interest within the clearinghouse governance framework. This Part contends that appointing an expert, independent third party to serve as a corporate monitor or board observer on clearinghouse boards enhances critical risk-management decision-making, mitigates systemic risk, preserves the integrity of financial markets, and protects third parties from the negative spillover effects of future financial crises.

I. ECONOMIC ORGANIZATION THEORY PROMOTES THE DEVELOPMENT OF SPECIALIZED FIRMS

While legal and finance theory frequently explores the costs and benefits of corporations’ internal governance structures, few theorists have examined the organizational approaches that nontraditional firms adopt. As the LIBOR scandal demonstrates, corporate governance strategies have salience for various types of business organizations. The well-known conflicts of interest that emerge in conventional corporations also affect the decision-making frameworks employed by

businesses that serve as SROs. This Part explores the economic rationale for widely-adopted corporate governance mechanisms and their application in the context of financial market SROs.

Section A of this Part compares the theoretical justification for a firm's decision to integrate production with the firm's decision to acquire inputs in a competitive market. Section B argues that the decision to integrate or outsource production influences the governance structure that a firm adopts. Industry participants may, as Section C posits, collaborate to engineer a solution to their demand for a common input or service; they may collectively contribute to a joint venture, such as an SRO, that governs market transactions. Section D applies the theory of the firm to the development of SROs and contends that securities and commodities exchanges and clearinghouses engender valuable economic benefits and perform a critical role in the regulation of financial markets.

A. *The Theory of the Firm Reveals the Contours of Allocational Efficiency*

For almost one hundred years, economists have studied the organization of economic activity and markets.³³ The “theory of the firm” engenders an important body of literature that explores organizational, structural, and governance strategies.³⁴ In *The Nature of the Firm*, Ronald Coase examines a firm's decision to vertically integrate production (producing an input) instead of outsourcing production (acquiring the same input from the market).³⁵ According to Coase, a firm's decision whether to “make” or “buy” assets involves a tradeoff between two distinct governance costs: agency costs (the costs of overseeing production) and transaction costs (the costs of acquiring an asset).³⁶ Coase concludes that an optimal allocation of economic activity occurs when the cost of making an additional input equals the cost of

33. See, e.g., FRANK H. KNIGHT, *RISK, UNCERTAINTY AND PROFIT* 1–11 (1921) (exploring the theory of market risk and uncertainty and the organization of economic activity).

34. See Armen A. Alchian & Harold Demsetz, *Production, Information Costs, and Economic Organization*, 62 AM. ECON. REV. 777, 777 (1972); Margaret M. Blair, Erin O'Hara O'Connor & Gregg Kirchoefer, *Outsourcing, Modularity, and the Theory of the Firm*, 2011 BYU L. REV. 263, 266 (2011); Margaret M. Blair & Lynn A. Stout, *A Team Production Theory of Corporate Law*, 85 VA. L. REV. 247, 278 (1999); Benjamin Klein, Robert G. Crawford & Armen A. Alchian, *Vertical Integration, Appropriable Rents, and the Competitive Contracting Process*, 21 J.L. & ECON. 297, 311 (1978); Todd R. Zenger & William S. Hesterly, *The Disaggregation of Corporations: Selective Intervention, High-Powered Incentives, and Molecular Units*, 8 ORG. SCI. 209, 212–16 (1997).

35. R.H. Coase, *The Nature of the Firm*, 4 ECONOMICA 386 (1937).

36. *Id.* at 390–92.

buying the input,³⁷ or there is a balance between transaction costs and agency costs.³⁸

Firms that decide to integrate production incur agency costs.³⁹ In the 1930s, Adolph Berle and Gardiner Means explained that agency costs arise in modern corporations as a consequence of the classic principal-agent problem.⁴⁰ According to Berle and Means, when shareholders delegate authority over production to managers, shareholders' interests as owners may diverge from the interests of directors and executive officers who are hired to manage the firm's production. Shareholders cannot ensure that managers will prioritize the firm's interests ahead of their own self-interests. Managers may maximize their own happiness, shirk, underperform, or even steal.⁴¹

In a critical contribution to the theoretical framework, Michael Jensen and William Meckling posit that agency costs arise because owners must employ governance strategies to identify, monitor, and mitigate managers' self-interested or slothful behavior.⁴² A firm might, for example, commission an external accountant to conduct an independent audit of the firm's financials to limit shirking and stealing.⁴³ Agency costs create additional expenditures that increase the firm's costs of production.⁴⁴

37. *Id.* at 394 (“Naturally, a point must be reached where the costs of organising an extra transaction within the firm are equal to the costs involved in carrying out the transaction in the open market, or, to the costs of organising by another entrepreneur.”).

38. *Id.* at 245–46.

39. Michael C. Jensen & William H. Meckling, *Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure*, 3 J. FIN. ECON. 305, 310 (1976) (arguing that “contractual relations are the essence of a firm,” and that a firm is a “nexus for a set of contracting relationship among individuals”) (emphasis omitted).

40. ADOLPH A. BERLE & GARDINER C. MEANS, *THE MODERN CORPORATION AND PRIVATE PROPERTY* 4–5 (1932).

41. *See id.* at 5–7.

42. Jensen & Meckling, *supra* note 39, at 308 (noting that because owners and managers seek to maximize their utility, the owner “can limit divergences from his interest by establishing appropriate incentives for the agent and by incurring monitoring costs designed to limit the aberrant activities of the agent”); *see also* Stephen M. Bainbridge, *Unocal at 20: Director Primacy in Corporate Takeovers*, 31 DEL. J. CORP. L. 769, 812–13 (2006) (describing the divergence between managers and shareholders' interests); Bernard S. Sharfman, *Enhancing the Efficiency of Board Decision Making: Lessons Learned from the Financial Crisis of 2008*, 34 DEL. J. CORP. L. 813, 840–41 (2009) (explaining how managers' pursuit of their self-interests contributed to the recent financial crisis); Lynn A. Stout, *The Shareholder as Ulysses: Some Empirical Evidence on Why Investors in Public Corporations Tolerate Board Governance*, 152 U. PA. L. REV. 667, 674–75 (2003) (exploring the asymmetries between the interests of owners and managers).

43. *See* ROBERTA ROMANO, *FOUNDATIONS OF CORPORATE LAW* 2 (2012).

44. *See id.* at 183.

Transaction costs arise when a firm acquires assets at prevailing market prices.⁴⁵ Buying inputs exposes firms to market uncertainties such as fluctuations in market prices and the availability of supply.⁴⁶ According to Oliver Williamson's celebrated analysis, two factors complicate open-market transactions: bounded rationality and opportunism.⁴⁷ The first factor, bounded rationality, describes the asymmetries of information, cognitive limits, and the limits on market participants' time and ability to process information.⁴⁸ The second factor, opportunism, describes market participants' propensity to act in their own self-interest to the detriment of others.⁴⁹ Market participants act opportunistically to mitigate their exposure to market risk.⁵⁰ As a result of these limitations, for example, a firm may pay a premium for inputs that are available at a lower price elsewhere in the market. To address these concerns, market participants adopt various governance solutions.

B. Production Decisions Require Firms to Evaluate Transaction Costs and Agency Costs

Firms adopt several governance solutions to address agency and transaction costs. To reduce agency costs, firms generally implement an internal governance method. The most common methods involve implementing a hierarchical decision-making process, electing a board of directors to make strategic decisions, and appointing executive officers to manage the daily operations of the business. Within the firm, the board of directors appoints executive officers to monitor lower level employees. State law endows directors with the authority to hire and fire executive officers. To minimize directors and officers' incentives to

45. Coase, *supra* note 35, at 394–95.

46. *Id.* at 391–92.

47. Oliver E. Williamson, *Transaction Cost Economics: The Governance of Contractual Relations*, 22 J.L. & ECON. 233, 245–46 (1979).

48. *See generally id.* (describing the limits of bounded rationality).

49. *Id.* at 234 n.3.

50. *See* Kristin N. Johnson, *Addressing Gaps in the Dodd-Frank Act: Directors' Risk Management Oversight Obligations*, 45 U. MICH. J.L. REFORM 55, 63–64 (2011) (describing “market risk as the potential for a dramatic change in the value of an asset class, such as a sudden decline in the value of equity securities traded on a national stock exchange, or a sharp spike in the price of a commodity, such as oil or gold”). *See generally* HAL S. SCOTT & PHILIP A. WELLONS, *INTERNATIONAL FINANCE, TRANSACTIONS, POLICY, AND REGULATION* 252 (6th ed. 1999); BASEL COMM. ON BANKING SUPERVISION, *BANK FOR INT’L SETTLEMENTS, AMENDMENT TO THE CAPITAL ACCORD TO INCORPORATE MARKET RISKS* (2005), available at <http://www.bis.org/publ/bcb119.pdf> (describing methods of measuring market risk).

shirk and steal, shareholders enter into contractual arrangements that create fiduciary duties, outline compensation arrangements, or establish other details that govern directors and officers' relationships with the firm.

Firms that purchase inputs similarly depend on long-term contracts to mitigate costs.⁵¹ Parties can reduce the uncertainty of market transactions through contractual arrangements, agreeing *ex ante* on price, quality, quantity, or other material transaction terms.⁵² Contracts are, however, often incomplete and, *ex post*, firms may discover that an agreement fails to address unanticipated changes or recently identified material terms.⁵³

Contractual governance may also offer limited relief if a firm invests in a transaction-specific asset and the invested resources are not easily redeployed.⁵⁴ After a firm invests in a transaction-specific asset, the firm becomes vulnerable to the opportunistic behavior of rent-seeking trading partners.⁵⁵ Opportunistic trading partners may create a classic hold-up problem by demanding additional fees and putting the squeeze on a firm that has invested in a transaction-specific asset and incurred sunk costs.⁵⁶

Consider, for example, a securities brokerage firm's decision to create or acquire securities trading software. The firm earns fees for executing clients' securities transactions. Under the terms of its arrangement with clients, the securities brokerage firm must cease trading if prices for designated securities move beyond a predetermined range. A specialized software program enables the securities brokerage firm to monitor their traders' compliance with clients' complex instructions.

51. Blair, O'Connor & Kirchhoefer, *supra* note 34, at 270 n.14 (discussing the "contractual nature (voluntary exchange) of the relationships of participants in a firm"); Blair & Stout, *supra* note 34, at 250 (discussing how contracts reduce agency costs); Frank H. Easterbrook & Daniel R. Fischel, *The Corporate Contract*, 89 COLUM. L. REV. 1416, 1426–28 (1989) (exploring the application of the "nexus of contracts" theory); see Alchian & Demsetz, *supra* note 34, at 777; William W. Bratton, *Dividends, Noncontractibility, and Corporate Law*, 19 CARDOZO L. REV. 409, 410 (1997); Jensen & Meckling, *supra* note 39, at 310 (arguing that "[c]ontractual relations are the essence of a firm," and that a firm is a "nexus for a set of contracting relationship among individuals") (emphasis omitted); Edward B. Rock & Michael L. Wachter, *Islands of Conscious Power: Law, Norms, and the Self-Governing Corporation*, 149 U. PA. L. REV. 1619, 1624–25 (2001).

52. Thomas F. McInerney, *Implications of High Performance Production and Work Practices for Theory of the Firm and Corporate Governance*, 2004 COLUM. BUS. L. REV. 135, 148–49 (2004).

53. Stephen M. Bainbridge, *Privately Ordered Participatory Management: An Organizational Failures Analysis*, 23 DEL. J. CORP. L. 979, 1008 (1998) ("In any organization . . . the familiar triad of contracting problems, uncertainty, complexity, and opportunism, precludes the organization and its agents from entering into the complete contract necessary to prevent shirking by the latter.").

54. Williamson, *supra* note 47, at 257.

55. *Id.* at 234.

56. *Id.* at 240.

The firm faces the dilemma of either developing its own software or acquiring a license from a software developer. The benefits of either approach are similar; the costs, however, are distinguishable. While developing proprietary software creates agency costs, purchasing commercially distributed software creates transaction costs.

If a securities firm engineers software, it incurs research and development costs and must carefully monitor employees to avoid theft or abuse of the proprietary program. If the securities firm acquires a license for a software program distributed by a commercial software developer, the firm must also invest in reconfiguring its operating system to ensure that it is compatible with the program. What happens if the developer upgrades the software program and demands fees that exceed competitive market prices for similar programs? The securities firm will be reluctant to lose its initial investment in the recently acquired software. The firm will also be reticent to spend additional funds to acquire software from another developer and incur the costs to reconfigure its operating system to make it compatible with the second developer's software. Aware of the securities brokerage firm's aversion to suffer the loss of the sunk costs and incur the additional costs of transitioning to a different software, the developer of the software already implemented on the brokerage firm's systems can hold out and demand above market fees for upgrades or updates to its software program.

Before investing in the software and reconfiguring its systems, the firm faced a competitive market. After its initial investment and expending the resources to acquire one developer's software, the firm is vulnerable to opportunism; if the software developer markets upgrades, discontinues, or materially alters its existing software, it may extract excessive fees from the early adopters of its software. In many instances, integration and acquisition both present significant costs, and contractual governance methods may not address concerns regarding access to critical and rapidly evolving inputs. Fortunately, markets offer an alternative governance solution: a specialized firm that produces these critical inputs through collaborative institutional design.

C. Industries Endow Specialized Firms with Property Rights

When there is a general demand for a common input, market participants may collaborate to organize a single firm (the specialized firm) to produce the common input.⁵⁷ Market participants collaborate

57. Easterbrook & Fischel, *supra* note 51, at 1422–24; Oliver Hart & John Moore, *Property*

and assign property rights to the specialized firm, granting the specialized firm a residual right to control the assets of the joint enterprise. Specialized firms develop a competitive advantage by producing the input more efficiently and reducing the costs of production for participating members.⁵⁸

Notwithstanding their heterogeneous commercial interests, market participants share a homogenous interest in the success of the specialized firm. Co-owners create an internal governance arrangement, adopting bylaws, implementing a hierarchical decision-making process, electing directors, and appointing officers to govern the specialized firm.⁵⁹ Consequently, the specialized firm alleviates market participants' transaction and agency costs and overcomes hold-up concerns. In financial markets, the creation of SROs such as exchanges and clearinghouses illustrates this type of collaborative industry effort.

D. Self-Regulating Organizations Illustrate the Development of Specialized Firms in Financial Markets

For hundreds of years, financial market participants have organized exchanges and clearinghouses.⁶⁰ These institutions illustrate the promise

Rights and the Nature of the Firm, 98 J. POL. ECON. 1119, 1120 (1990) (explaining that firms matter when parties must make specific investments, exploring the impossibility of drafting complete contracts, and noting that integration of production within a firm reduces the opportunistic behavior and holdup problems that can arise in such circumstances); Bengt Holmstrom & Paul Milgrom, *Multitask Principal-Agent Analyses: Incentive Contracts, Asset Ownership, and Job Design*, 7 J.L. ECON. & ORG. 24, 26 (1991); Bengt Holmstrom & John Roberts, *The Boundaries of the Firm Revisited*, 12 J. ECON. PERSP. 73, 77 (1998).

58. See Hart & Moore, *supra* note 57, at 1120; Holmstrom & Roberts, *supra* note 57, at 77.

59. See Hart & Moore, *supra* note 57, at 1120; Mahoney, *supra* note 3, at 1459 (citing Broadside of Securities Trading Rules, September 1791, reprinted in WALTER WERNER & STEVEN T. SMITH, WALL STREET app. C, at 190–91 (1991)) (describing a “set of rules adopted by New York stockbrokers in 1791, the earliest surviving organizational document for the New York stock market, was concerned principally with defining the terms of contracts and the procedures for their performance”); Donna M. Nagy, *Playing Peekaboo with Constitutional Law: The PCAOB and its Public/Private Status*, 80 NOTRE DAME L. REV. 975, 1022–26 (2005) (illustrating the rich history of SROs and highlighting the NYSE’s history, which dates back to an informal agreement between twenty-four brokers signed under a buttonwood tree on Wall Street). See generally R.C. Michie, *Development of Stock Markets*, in 1 THE NEW PALGRAVE DICTIONARY OF MONEY AND FINANCE 662, 662 (Peter Newman, Murray Milgate & John Eatwell eds., 1992) (describing the development of financial markets organized around specialized intermediaries as early as the seventeenth century).

60. See THOMAS LEE HAZEN, THE LAW OF SECURITIES REGULATION, 553–54 (6th ed. 2009) (noting that “[s]ecurities broker regulation can be traced back to the thirteenth century”); Jonathan Lurie, *Private Associations, Internal Regulation and Progressivism: The Chicago Board of Trade, 1880–1923, as a Case Study*, 16 AM. J. LEGAL HIST. 215, 219 (1972). Community-based regulations governed commercial trading in the earliest African kingdoms, and in ancient Grecian,

of endowing specialized firms with property rights. Coase's theorem suggests that firms vertically integrate trading activities unless transaction costs are significant.⁶¹ In the case of securities and commodities markets, transactions engender substantial costs.⁶² Trading requires continuous monitoring of securities and commodities prices and information that affects pricing. Tracking the market often requires subscribing to expensive data streaming services and buying sophisticated investment research or analysts' reports.⁶³ Firms also incur legal and administrative costs, including documentation, clearing, and settlement costs.⁶⁴

Development of trading platforms further increases costs. Firms must create, acquire, or license the intellectual property necessary to engineer proprietary trading platforms.⁶⁵ Relying on the market to provide a trading platform is similarly costly.⁶⁶ Incomplete contracts for access to trading platforms may create incentives for opportunistic behavior in financial markets and hold-up problems may prevail.

Exchanges and clearinghouses reflect the attributes of specialized firms. Exchanges and clearinghouses centralize the execution, clearing, and settlement of market transactions.⁶⁷ In addition to increasing liquidity,⁶⁸ reducing the costs of capital,⁶⁹ and encouraging investment

Egyptian, and Roman civilizations. For a description of the influence of ancient civilizations on western law generally, see Robin Bradley Kar, *Western Legal Prehistory: Reconstructing the Hidden Origins of Western Law and Civilization*, 2012 U. ILL. L. REV. 1499 (2012). Merchant guilds and religious fraternities in Medieval Europe organized self-regulating regimes. Saule T. Omarova, *Rethinking the Future of Self-Regulation in the Financial Industry*, 35 BROOK. J. INT'L L. 665, 671 (2010). In Japan, as early as the 1600s, rice exchanges emerged, institutionalizing a self-regulatory approach in the rice and rice futures markets. Mark D. West, *Private Ordering at the World's First Futures Exchange*, 98 MICH. L. REV. 2574, 2580 (2000).

61. Coase, *supra* note 35, at 397.

62. Macey & O'Hara, *supra* note 3, at 568, at 568–69; Jonathan R. Macey & David D. Haddock, *Shirking at the SEC: The Failure of the National Market System*, 1985 U. ILL. L. REV. 315, 326 (1985); Lynn A. Stout, *Technology, Transactions Costs, and Investor Welfare: Is A Motley Fool Born Every Minute?*, 75 WASH. U. L. Q. 791, 797 (1997).

63. Macey & O'Hara, *supra* note 3, at 568.

64. *Id.* at 568.

65. *Id.*

66. See Easterbrook & Fischel, *supra* note 51, at 1423; George S. Geis, *The Space Between Markets and Hierarchies*, 95 VA. L. REV. 99, 110 (2009) (explaining that “it is expensive (and ultimately impossible) to prevent parties from taking self-interested actions when they are given control over other people's money”).

67. Johnson, *supra* note 20, at 235.

68. Norman S. Poser, *Restructuring the Stock Markets: A Critical Look at the SEC's National Market System*, 56 N.Y.U. L. REV. 883, 886 (1981) (defining liquidity (as the term is employed in the securities markets) as a condition that enables investors to dispose of or purchase securities at established prices with ease). Liquidity describes the feasibility of selling an asset. When there are

and innovation, these institutions aggregate and disseminate trading data, alleviating transaction costs for collaborating members.⁷⁰ More importantly, exchanges and clearinghouses serve a governing role, introducing a regulatory framework in which market participants govern themselves.

1. *Financial Markets Employ a Self-Regulatory Framework*

More than a century before the federal government enacted a formal securities and commodities regulatory framework, exchanges and clearinghouses occupied a central role in market regulation.⁷¹ When Congress adopted federal regulations governing securities markets in the 1930s, the legislation expressly authorized exchanges and clearinghouses to serve in this self-governing manner; the early legislation embraces the notion that market participants may serve a primary role in governing securities and commodities market activities.⁷² Congress authorized these privately owned exchanges and clearinghouses to develop and enforce disciplinary policies governing market participants' behavior.⁷³ SROs retained significant autonomy to determine the fundamental elements of their operating policies and governance structure.⁷⁴

many buyers and sellers engaged in a significant volume of transactions involving an asset, market participants describe the asset as liquid. Based on the volume of transactions involving the asset, the value of asset is readily determinable. Yair Listokin, *Taxation and Liquidity*, 120 YALE L.J. 1682, 1682 (2011) (defining liquidity and describing the benefits of liquid asset markets).

69. Comment, *A Role for the 10b-5 Private Action*, 130 U. PA. L. REV. 460, 461 n.10 (1981).

70. Stavros Gadinis & Howell E. Jackson, *Markets As Regulators: A Survey*, 80 S. CAL. L. REV. 1239, 1249 (2007).

71. See Mahoney, *supra* note 3, at 1457 ("For most of their history . . . exchanges have been the primary regulators of securities markets. They mediated between buyers and sellers and between issuers and investors. They determined how bargains would be struck and performed, what standards of financial responsibility brokers must meet, and what information listed companies must disclose to investors. The rules supplemented generally applicable rules of contract agency . . . negotiable instruments, and so on."). See generally Lurie, *supra* note 60. Following a government bond scandal, members organized the New York Stock Exchange (NYSE) in 1792. Roberta S. Karmel, *Should Securities Industry Self-Regulatory Organizations Be Considered Government Agencies?*, 14 STAN. J.L. BUS. & FIN. 151, 159 (2008). After the adoption of the Securities Exchange Act, members created the National Association of Securities Dealers (NASD) in 1936. *Id.* For regulations governing securities exchanges, see Securities Exchange Act of 1934 § 15A, 15 U.S.C. § 78o-3 (2006).

72. 15 U.S.C. § 78o-3(k)(1).

73. 15 U.S.C. §§ 78o-3(h), 78s.

74. Section 19(b) requires SROs to file proposed rules with the SEC for review and approval. 15 U.S.C. § 78s(b)(1). Without the SEC's approval, proposed rules may not become effective. 15 U.S.C. § 78s(b)(2). In addition, under Section 19(d)(2), the SEC has the authority to review

In exchange for voluntary submission to federal oversight, Sections 6 and 19 of the Securities Exchange Act and Section 7 of the Commodities Future Modernization Act empower federal regulatory agencies to regulate SROs.⁷⁵ Specifically, the statutes authorize the Securities and Exchange Commission (SEC) and the Commodities Futures Trading Commission (CFTC) to monitor SROs' rulemaking processes to ensure that SRO regulations are consistent with federal regulations and that SROs vigorously enforce these rules.⁷⁶

While there is no universally agreed upon definition, financial markets scholars use the term "self-regulation" to describe a dual-tiered regulatory approach.⁷⁷ The self-regulatory framework employed in financial markets rests on several critical assumptions. First, the self-regulatory framework assumes that SROs adopt innovative, timely regulatory solutions. Second, the framework presumes that SROs implement and enforce rules consistent with federal regulations and the public's interest in market integrity and stability. Finally, the framework assumes that the person or group that exercises decision-making authority for the SRO will prioritize these regulatory norms.

Consistent with the first two assumptions, SROs independently introduce and enforce critical regulation. As early as the mid-nineteenth century, for example, the New York Stock Exchange (NYSE) required issuers that listed their securities on the exchange to disclose material information regarding the company's financial performance.⁷⁸ When federal legislators adopted statutes regulating securities market transactions nearly one hundred years later, Congress instituted a mandatory disclosure-oriented regime that paralleled the NYSE's

disciplinary penalties and, upon complying with notice and procedural requirements, may affirm, modify, remand, or set aside the penalties. 15 U.S.C. § 78s(d)–(e). SRO disciplinary actions are now subject to the SEC's "plenary" review. *Nat'l Ass'n of Sec. Dealers v. SEC*, 431 F.3d 803, 804 (D.C. Cir. 2005).

75. 15 U.S.C. §§ 78f, 78s; Commodity Futures Modernization Act of 2000 § 105(c), 7 U.S.C. § 2 (2006).

76. 15 U.S.C. §§ 78f, 78s; 7 U.S.C. § 7a-2.

77. See Onnig H. Dombalagian, *Demythologizing the Stock Exchange: Reconciling Self-Regulation and the National Market System*, 39 U. RICH. L. REV. 1069, 1075 (2005); Karmel, *supra* note 71, at 197. See generally, Jonathan Macey & Hideki Kanda, *The Stock Exchange as a Firm: The Emergence of Close Substitutes for the New York and Tokyo Stock Exchanges*, 75 CORNELL L. REV. 1007, 1050–51 (1990); Mahoney, *supra* note 3, at 1464–65.

78. Mahoney, *supra* note 3, at 1461–62 ("Stock exchange rules have long been concerned with the validity of shares traded on the exchange. . . . By 1869, the Exchange had instituted a listing requirement aimed principally at assuring that market participants had accurate information about each company's capitalization . . .").

approach.⁷⁹ SRO rules and federal regulations continue to rely on disclosure to provide an effective regulatory tool.⁸⁰

The NYSE's mandatory disclosure requirements ameliorate asymmetries of information, lowering transaction costs and the costs of capital and enhancing market efficiency.⁸¹ The disclosure requirements also reduce market manipulation and militate against opportunistic behavior, improving the reputation of exchanges and clearinghouses and securing their role in the federal regulatory framework.

The third—and potentially most problematic—assumption suggests that the governing authority of SROs embrace their role as enforcers of public policy. While SRO regulations often complement federal and state regulatory efforts, SROs are neither government agencies nor proxies of regulators.⁸² The difficulty with self-regulation lies in the presumption that regulated entities continuously introduce regulation that aligns market participants' behavior with the public's interest in financial markets regulation.

Deferring to SROs allows government regulators to benefit from SRO boards of directors and governing committees' sophisticated understanding of conventional and exotic financial instruments.⁸³ The monitoring and enforcement policies that SRO governing authorities adopt do not, however, always align with federal policies or regulatory goals. In response, regulators have chastised SROs for delayed or weak enforcement efforts.⁸⁴ In recent years, certain foundational changes in the business organization of SROs have permanently transformed the nature of the relationship between federal regulators and financial

79. Securities Act of 1933 § 5, 15 U.S.C. §§ 77e, 78m (2006).

80. 15 U.S.C. §§ 77e, 78m.

81. Increasing liquidity reduces transaction costs by enabling buyers and sellers to identify counterparties quickly and with ease. This reduces the risks associated with holding and trading shares, increasing market participants' willingness to trade. *See generally*, Macey and Kanda, *supra* note 77, at 1019–20. By aggregating and continuously revealing bid-and-ask pricing data, exchanges reduce investment research costs, as well as asymmetries of information. Daniel R. Fischel, *Organized Exchanges and the Regulation of Dual Class Common Stock*, 54 U. CHI. L. REV. 119, 121 n.9, 123 (1987).

82. Nagy, *supra* note 59, at 1007. Unlike the lengthy, expensive, bureaucratic processes that federal agencies employ, SROs' rule-making and enforcement processes often involve fewer administrative and political hurdles. *See* Frank D'Souza, Nan S. Ellis & Lisa M. Fairchild, *Illuminating the Need for Regulation in Dark Markets: Proposed Regulation of the OTC Derivatives*, 12 U. PA. J. BUS. L. 473, 516 n.181 (2010).

83. *See* Yesenia Cervantes, "Fin Rah!" . . . *A Welcome Change: Why The Merger Was Necessary To Preserve U.S. Market Integrity*, 13 FORDHAM J. CORP. & FIN. L. 829, 834, 856–57 (2008).

84. *See id.* at 838–42; Dombalagian, *supra* note 77, at 1087; Nan S. Ellis, Lisa M. Fairchild & Harold D. Fletcher, *The NYSE Response to Specialist Misconduct: An Example of the Failure of Self-Regulation*, 7 BERKELEY BUS. L.J. 102, 105–07 (2009); Karmel, *supra* note 71, at 164.

market SROs.

2. *The Dynamic of Clearinghouse and Exchange Ownership Evolves from Cooperative to Corporate*

Three shifts in the organizational structure of financial markets demonstrate an increasing conflict between SROs' commercial goals and their participation in market regulation. These shifts—changes in the ownership structure of exchanges and clearinghouses, technological developments, and increased competition—may undermine the efficacy of self-regulation in financial markets.

First, exchanges and clearinghouses have traditionally been organized as cooperatives or private clubs.⁸⁵ In the last decade, the member firms that organized large public exchanges and clearinghouses voted to demutualize these businesses, converting them from non-profit cooperatives to private business. In addition, the members of the exchanges and clearinghouses registered their equity shares with the SEC for sale in public offerings, allowing a broad base of shareholders to publicly trade their ownership interests in the exchanges and clearinghouses.⁸⁶ Today, securities exchanges and clearinghouses are international public corporations with freely transferable equity shares held by a global body of shareholders.⁸⁷

Second, technological advances have displaced traditional trade execution strategies.⁸⁸ Domestically and internationally, trading venues

85. Some early commodities clearinghouses were established with government assistance. *See, e.g.,* West, *supra* note 60, at 2582–85 (describing the Japanese eighth Tokugawa shogun's role in creating a market for rice futures). Market participants collaborated to form the gentlemen's clubs that evolved into modern exchanges and clearinghouses. *See, e.g., The New York Stock Exchange*, NYSE EURONEXT, <http://www.nyx.com/en/who-we-are/history/new-york> (last visited Jan. 25, 2013) (describing four stockbrokers' execution of the Buttonwood Agreement on May 17, 1792, and the history of the drafting of the New York Stock & Board Exchange Constitution); *see also* Chris Brummer, *Stock Exchanges and the New Markets for Securities Laws*, 75 U. CHI. L. REV. 1435, 1458 (2008); Karmel, *supra* note 71, at 152.

86. *See* Brummer, *supra* note 85, at 1451.

87. Cervantes, *supra* note 83, at 842–43 (describing the NYSE's merger with Archipelago Holdings Inc., operator of an electronic communications network, the NYSE's merger with Euronext, and the exchange's transformation from a private, member-managed not-for-profit business to an entity whose equity interests are publicly traded, permitting the public to own the exchange).

88. Increasingly, issuers elect to list their securities on an international securities exchange, use alternatives such as global depository shares, or cross-list their securities on multiple alternative exchanges to reduce the regulatory burdens of listing their securities on an exchange subject to U.S. federal securities regulation. *See* Stephen J. Choi & Andrew T. Guzman, *Portable Reciprocity: Rethinking the International Reach of Securities Regulation*, 71 S. CAL. L. REV. 903, 944–45 (1998). The introduction of electronic communication networks (ECNs) and alternative trading

have multiplied, increasing the competitors in the securities and commodities clearing and settlement markets.⁸⁹ With the rise of electronic communication networks⁹⁰ and the proliferation of high frequency trading, brokers may execute orders for publicly-traded securities in milliseconds from any number of trading platforms organized in cities around the world.⁹¹ Consequently, no single exchange or clearinghouse has a dominant role in capital markets. The increasing competition among trading venues reduces the ability of any single venue to exert regulatory authority over its member institutions.⁹² Moreover, technology glitches on premier exchanges have further weakened the perception of historically dominant securities and commodities exchanges as preferred trading venues. Examples include the flash crash of 2010 and NASDAQ, Inc.'s technology failures during the sale of Facebook, Inc.'s initial public offering—the largest equity offering in the history of U.S. securities markets.⁹³

Third, the profound consequences of the recent financial crisis severely strained the reputation of market participants and SROs in U.S. capital markets. Even before the exchanges demutualized, several

systems (ATSS), as well as the decline in the cost of information processing, equities, options, and futures, have enabled trading to occur in fractions of seconds and on a virtually uninterrupted basis. Chris Brummer, *Post-American Securities Regulation*, 98 CALIF. L. REV. 327, 346 (2010); Brummer, *supra* note 85, at 1460–61.

89. The increasing number of international trading platforms has altered the exchange industry and reflects an increasing preference by issuers to list their securities on exchanges organized in foreign jurisdictions. Brummer, *supra* note 85, at 1460–61.

90. See Brummer, *supra* note 85, at 1460; Jerry W. Markham & Daniel J. Harty, *For Whom the Bell Tolls: The Demise of Exchange Trading Floors and the Growth of ECNs*, 33 J. CORP. L. 865, 897 (2008).

91. Charles Duhigg, *Stock Traders Find Speed Pays in Milliseconds*, N.Y. TIMES, July 24, 2009, at A1.

92. Charles Duhigg, *S.E.C. Starts Crackdown on 'Flash' Trading*, N.Y. TIMES, Aug. 4, 2009, at B1 (describing the controversial high-frequency trading technique known as “flash orders,” which allow traders to view other investors’ orders before they are sent to the wider marketplace).

93. For information about the flash crash of 2010, see “Flash Crash” Shaved Almost 6 Percent off the Dow in a Single Day, WALL ST. J, Aug. 5, 2012, <http://professional.wsj.com/article/TPPBTR000020120806e88500021.html>; Christopher Matthews, *High Frequency Trading: Wall Street's Doomsday Machine?*, TIME, Aug. 8, 2012, <http://business.time.com/2012/08/08/high-frequency-trading-wall-streets-doomsday-machine>; Ronald D. Orol, *'Flash Crash' Rules Made Knight Keep Bad Trades; 30% Is Threshold for Getting Trades Cancelled*, WALL ST. J, Aug. 7, 2012, http://www.marketwatch.com/story/flash-crash-rules-made-knight-keep-bad-trades-2012-08-07?reflink=MW_news_stmp. For information about NASDAQ, Inc.'s systems failure during the launch of the initial public offering of Facebook, Inc., see Michael J. De La Merced, Evelyn M. Rusli & Susanne Craig, *As Facebook's Stock Struggles, Fingers Start Pointing*, N.Y. TIMES, May 22, 2012, at B1, and Telis Demos, *NASDAQ 'Embarrassed' Over Facebook IPO*, FIN. TIMES, May 20, 2012, at C2.

challenges—compensation scandals and SROs' selective enforcement of their rules—had sullied the perception of American financial services intermediaries.⁹⁴ With the effects of the recent financial crisis still resounding in European credit markets, commentators expressed distrust in the American financial services industry, debunking the myth of American preeminence.

These realities undermine the presumption that SROs serve as effective market-governing institutions.⁹⁵ The new ownership structures permit shareholders who may have profit maximizing incentives to govern exchanges and clearinghouses.⁹⁶ The diverse and widely dispersed shareholders of demutualized exchanges and clearinghouses no longer share a homogenous interest in promoting the SROs' governance goals.⁹⁷ If the board of directors prioritizes earnings or the commercial interests of certain classes of shareholders above regulatory norms, these institutions may fail to serve as effective governing authorities.⁹⁸

These weaknesses illustrate the difficulty of relying on self-regulation in securities and commodities markets.⁹⁹ While scholars have engaged in

94. See Dale Arthur Oesterle, Donald Arthur Winslow & Seth C. Anderson, *The New York Stock Exchange and Its Out Moded Specialist System: Can the Exchange Innovate to Survive?*, 17 J. CORP. L. 223, 257 (1992). But see David P. Doherty, Arthur S. Okun, Steven F. Korostoff & James A. Nofi, *The Enforcement Role of the New York Stock Exchange*, 85 NW. U. L. REV. 637, 639 (1991) (dismissing arguments that exchanges slack in their enforcement). See also Ellis, Fairchild & Fletcher, *supra* note 84 (describing the specialists scandal involving trading irregularities in the early 2000s resulting in specialist firms being fined a total of \$150 million). In the 1990s, an executive compensation scandal involving former NYSE CEO Richard Grasso tarnished the public and regulators' perceptions of the exchange as an effective regulator. The Department of Justice investigations exposed anti-competitive collusion and price fixing by NYSE specialists and numerous examples of SROs' relaxed enforcement of mandatory disclosure policies. Karmel, *supra* note 71, at 164.

95. Karmel, *supra* note 71, at 153; Macey & O'Hara, *supra* note 3, at 569; see also LARRY E. BERGMANN, DIV. OF MKT. REGULATION, U.S. SEC. & EXCH. COMM'N, INTERNATIONAL SECURITIES SETTLEMENT CONFERENCE: THE U.S. VIEW OF THE ROLE OF REGULATION IN MARKET EFFICIENCY (Feb. 10, 2004), available at <http://www.sec.gov/news/speech/spch021004leb.htm>; Dombalagian, *supra* note 77, at 1145. The 1975 Amendments enhanced the SEC's oversight of SROs' rulemaking, enforcement, and disciplinary processes. *Id.* at 1081; Securities Exchange Act of 1934 § 19 (d), (g), 15 U.S.C. § 78s(d), (g) (2006); see also *id.* § 78f(a)(3); S. REP. NO. 94-75, at 4 (1975), reprinted in 1975 U.S.C.C.A.N. 179, 182–83.

96. Karmel, *supra* note 71, at 164 (discussing the excessive executive compensation scandal involving excessive distributions to NYSE former CEO Richard Grasso).

97. Onnig H. Dombalagian, *Self and Self-Regulation: Resolving The SRO Identity Crisis*, 1 BROOK. J. CORP. FIN. & COM. L. 317, 318 (2007).

98. *Id.* at 317 (“SROs are now accused of advocating no interest more keenly than their own survival.”).

99. See generally Dombalagian, *supra* note 77, at 1143–44; Andreas M. Fleckner, *Stock Exchanges at the Crossroads*, 74 FORDHAM L. REV. 2541, 2543 (2006); Macey & Kanda, *supra*

a robust debate regarding the difficulties of relying on exchanges to serve as unbiased regulators in securities and commodities markets, there is a dearth of literature examining these issues in the context of clearinghouses that settle over-the-counter financial products such as OTC derivatives. The next Part explores the federal government's introduction of clearing requirements in the OTC derivatives markets, presumptions regarding the market advantages and governance benefits that SROs engender, and the challenges that arise when regulators rely on this approach.

II. MITIGATING SYSTEMIC RISKS REQUIRES REGULATING OTC DERIVATIVES MARKETS

Commentators offer several explanations for the events that led to the recent financial crisis, including excessive risk taking by financial institutions, artificial price inflation in U.S. housing markets (a housing price bubble), and the absence of regulation in the market for certain complex financial products.¹⁰⁰ In July of 2010, Congress enacted Title VII of the Dodd-Frank Act in response to critics' claims that the lack of regulation in the OTC derivatives market contributed to the recent financial crisis. Title VII of the Dodd-Frank Act requires market participants to register and settle all eligible OTC derivatives transactions with authorized clearinghouses.¹⁰¹ Title VII endows clearinghouses with a license and empowers them to serve as the primary governing authority in OTC derivatives markets.¹⁰² Consequently, the mandatory clearing requirement heightens the significance of clearinghouses in financial markets and their prominence as a governing authority in the federal regulatory framework.

There are well-supported reasons for applying the self-regulatory approach adopted in securities and commodities markets to the OTC derivatives markets. As Part I illustrated, securities and commodities

note 77, at 1023.

100. See, e.g., SIMON JOHNSON & JAMES KWAK, THIRTEEN BANKERS, 126–30 (2010) (describing the rise of the housing bubble); Steven Schwarcz, *Regulating Complexity in Financial Markets*, 87 WASH. U. L. REV. 211, 216–19, 233–34 (2010); Steven Schwarcz & Iman Anabtawi, *Regulating Systemic Risk: Towards an Analytical Framework*, 86 NOTRE DAME L. REV. 1349, 1359–61 (2011) (attributing the recent financial crisis to risky subprime mortgage lending and “a failure to see both the tight interconnectedness among not just banks but also non-bank financial institutions”); Art Wilmarth Jr., *The Dark Side of Universal Banking: Financial Conglomerates and the Origins of the Subprime Financial Crisis*, 41 CONN. L. REV. 963, 982 (2009).

101. Dodd-Frank Act, Pub. L. No. 111-203, § 723(h)(1)(A), 124 Stat. 1376, 1675 (2010) (codified at 7 U.S.C. § 2 (Supp. 2011)).

102. See generally Dodd-Frank Act §§ 701–74 (codified in scattered sections of 7 and 15 U.S.C.).

exchanges and clearinghouses engender important economic and governance benefits.¹⁰³ This Part considers the benefits of imposing mandatory clearing obligations in OTC derivatives markets. The discussion in this Part describes the concerns that arise when privately-owned clearinghouses are endowed with regulatory authority.¹⁰⁴

The decision to vest primary regulatory authority in clearinghouses raises two important sets of questions. The first set of questions explores whether this model of governance effectively overcomes the limitations of the agency or transaction costs that underscore the theory of the firm. The second set of questions explores the conflicts of interest within the internal organizational structure of clearinghouses. Large dealers who exercise voting authority and economic control over clearinghouses may adopt weak risk management policies or engage in exclusionary practices when such policies and practices serve their interests. As the LIBOR scandal demonstrates, members' manipulation of a self-regulating financial institution may create severe consequences that spill over and effect innocent third parties throughout the economy. In the context of OTC derivatives clearinghouses, the failure to introduce an effective governance solution may lead to moral hazard and systemic concerns that threaten the stability of global financial markets.

A. *The Complexity of Financial Innovation and the Severity of the Crisis*

A wave of financial innovation marked the twenty year period leading to the financial crisis from 2007 to 2010.¹⁰⁵ During this period, financial product engineers introduced a variety of financial instruments specifically designed to avoid the ambit of federal financial markets regulation.¹⁰⁶ Credit derivatives, described by some critics as “weapons of mass destruction,” are among the most infamous financial products developed during the late 1990s and early 2000s.¹⁰⁷ Similar to traditional derivatives arrangements, such as futures, options, forwards, and swaps, credit derivatives are contracts that derive their value from the value of an asset referenced in the agreement (the “underlying asset”).¹⁰⁸

103. See *supra* notes 61–71.

104. See generally H.R. REP. NO. 111-517 (2010) (Conf. Rep.), reprinted in 2010 U.S.C.C.A.N. 722.

105. See Johnson, *supra* note 20, at 196–97.

106. *Id.*

107. See BERKSHIRE HATHAWAY INC., 2002 ANNUAL REPORT 15 (2003).

108. For a general description of derivatives, see Roberta Romano, *A Thumbnail Sketch of Derivative Securities and Their Regulation*, 55 MD. L. REV. 1, 2–6 (1996).

There are two classes of credit derivative agreements: collateralized debt obligations (CDOs) and credit default swaps (CDSs).¹⁰⁹ An underwriter creates a CDO by organizing a special purpose vehicle (SPV)—a business formed to acquire a portfolio of asset-backed debt obligations. The SPV issues debt or equity interests that offer investors the right to the profits the portfolio generates.¹¹⁰ CDOs allow SPV investors to collectively acquire a diverse basket of debt obligations. By purchasing interests in CDOs, investors acquire a fraction of the many individual debt products held by the SPV. Consequently, investments in CDOs, diversify investors' risk exposure, spread risk exposure related to a basket of debt products across a group of market participants and mitigate the impact of any individual debtor's default for each CDO investor.

CDS agreements mitigate one party's exposure to the risk that an underlying asset will decline in value.¹¹¹ Market participants purchase debt securities issued by local, state, federal, or foreign governments and other market participants. Market participants also extend loans to other market participants. In a CDS agreement, the party that acquires debt securities issued by another firm or extends a loan to a debtor (the "protection buyer") faces the risk that the debtor will default on its principal and interest obligations related to the debt instrument ("default risk"). The protection buyer enters a CDS contract with a counterparty, the protection seller, to mitigate default risk related to the underlying asset. In exchange for payment of a periodic fee, the protection seller agrees to buy the underlying asset from the protection buyer if certain events occur and the underlying asset declines in value.¹¹²

The CDS arrangement only reduces the protection buyer's risk exposure, however, if the protection seller—the counterparty to the contract—can satisfy her obligations under the CDS agreement when the agreement expires. Commentators describe the risk that a CDS counterparty may default on its obligations under the contract as counterparty credit risk.¹¹³ In the event that both the debtor who issued

109. Frank Partnoy & David A. Skeel, Jr., *The Promise and Perils of Credit Derivatives*, 75 U. CIN. L. REV. 1019, 1019 (2007).

110. Daniel J. Morrissey, *The Road Not Taken: Rethinking Securities Regulation and the Case for Federal Merit Review*, 44 U. RICH. L. REV. 647, 660–61 (2010); Darrell Duffie, *Innovations in Credit Risk Transfer: Implications for Financial Stability* 12 (Bank for Int'l Settlements, Working Paper No. 255, 2008), available at <http://www.bis.org/publ/work255.pdf>.

111. See also Johnson, *supra* note 20, at 197; Seema G. Sharma, *Over-the-Counter Derivatives: A New Era of Financial Regulation*, 17 LAW & BUS. REV. AM. 279, 284 (2011).

112. See Johnson, *supra* note 20, at 194.

113. Counterparty credit risk describes the risk that a counterparty may default or fail to satisfy

the underlying asset and the CDS counterparty default, the protection buyer will sustain losses under both contractual arrangements. The risk that a protection buyer may face compounding credit and counterparty defaults necessitates careful evaluation of the issuer and CDS counterparties' credit worthiness.

An illustration may be useful. Assume for example, that a protection buyer owns a \$10 million sovereign bond issued by The Republic of Greece. Concerned that Greece may default on its debt obligations, the protection buyer enters into a CDS agreement with a protection seller. The protection buyer pays the protection seller ten percent of the notional value of the bond or \$100,000. In exchange for payment of this premium, the protection seller agrees to purchase the bond at face value if Greece defaults on its debt principal or interest payment obligations.

Investment banking engineers created credit derivatives to diversify the universe of hedging products. Theoretically, CDOs diversify market participants' risk exposure protecting any one firm from severe losses if a debt issuer or borrower defaults on a debt obligation; similarly, CDSs provide a guarantee for the protection buyer, ensuring against losses related to a decline in the value of a bond or loan.¹¹⁴ For banking institutions subject to regulatory capital requirements, the appearance of reduced exposure to risk permits the bank to reduce the amount of capital that the bank must retain on reserve to satisfy federal regulations.¹¹⁵ The appearance of reduced risk exposure permits the bank to issue additional loans, further leverage its assets, or enter into other arrangements that create risk exposure for the bank.¹¹⁶ Advocates of credit derivatives posit that these instruments enhance credit markets and expand commercial and consumer access to credit.

As the theory of the firm suggests, internalizing and outsourcing trading creates predictable costs.¹¹⁷ Similar to transactions in the

principal and interest obligations. *See generally* Johnson, *supra* note 50, at 65; Miguel A. Segoviano & Manmohan Singh, *Counterparty Risk in the Over-The-Counter Derivatives Market* 5–8 (Int'l Monetary Fund, Working Paper No. 08/258, 2008), available at <http://www.imf.org/external/pubs/ft/wp/2008/wp08258.pdf>. A broader description of credit risk might include concentration risk, or the risk that arises when individual or group exposure creates the potential for losses and country risk, or the risk that a country may default on sovereign debt obligations. *See generally* Johnson, *supra* note 50, at 65.

114. JOHNSON & KWAK, *supra* note 100, at 125.

115. *Id.*

116. *Id.*

117. For a discussion of the costs associated with sophisticated trading technology, see Kenneth A. Bamberger, *Technologies of Compliance: Risk and Regulation in a Digital Age*, 88 TEX. L. REV. 669, 686–87 (2010). Scholars generally acknowledge that OTC derivatives trading is more expensive than trading less complicated financial products. *See* Kimberly D. Krawiec, *Derivatives*,

equities, swaps, options, futures, and forwards markets, early entrants in the OTC derivatives markets faced the decision to vertically integrate trading, outsource trading, or organize a specialized firm to execute, clear, and settle transactions.¹¹⁸ In the absence of a formal institution designed to order trading in the OTC derivatives market, market participants adopted each of these methods. The implementation of these trading methods created three precipitating conditions that led to

Corporate Hedging, and Shareholder Wealth: Modigliani-Miller Forty Years Later, 1998 U. ILL. L. REV. 1039, 1098 (1998); Daniel G. Schmedlen, Jr., *Broker-Dealer Sales Practice in Derivatives Transactions: A Survey and Evaluation of Suitability Requirements*, 52 WASH. & LEE L. REV. 1441, 1454 (1995).

118. As Part I.C. explained, trading in financial markets may be organized internally (two firms engage in securities or commodities transactions directly) or through the use of an external intermediary (a firm uses a broker to execute securities or commodities trades). See *supra* Part I.C. Highly evolved securities and commodities markets rely on either a specialized firm, an exchange or a clearinghouse, to organize anonymous transactions among a wide array of market participants. See *supra* Part I.D.

While futures and option contracts were initially traded in a bilateral market, these derivatives arrangements currently trade on highly complex, formally organized exchanges. See, e.g., ROBERT WHALEY, *DERIVATIVES: MARKETS, VALUATIONS, AND RISK MANAGEMENT* 35 (2006) (noting that the concept of options contracts dates back to 1750 B.C. and outlining the development of formal futures and options exchanges more than two centuries later). The development of trading in the OTC credit derivatives market has followed a similar course.

Prior to the late 1990s, the dominant lending model involved a single-borrower, single-lender model, in which a bank originated a loan to a designated borrower and the bank retained risk exposure related to the loan until the principal and interest obligations on the loan were satisfied. JOHNSON & KWAK, *supra* note 100, at 77. In the late 1990s, banks began to depart from this originate-and-hold approach. *Id.* Two catalysts inspired the departure from this approach. First, a model involving a group of banks agreeing to lend collectively to a single borrower—syndicated lending arrangements—gained increasing popularity. DOUGLAS J. LUCAS, LAURIE S. GOODMAN & FRANK J. FABOZZI, *COLLATERALIZED DEBT OBLIGATIONS: STRUCTURES AND ANALYSIS* 249–50 (2006).

Second, in 1997, a team of bankers at JP Morgan led by Managing Director Blythe Masters developed the Broad Index Secured Trust Offering (BISTRO), radically altering banks' ability to mitigate risks related to debt exposure. BETHANY MCLEAN & JOE NOCERA, *ALL THE DEVILS ARE HERE: THE HIDDEN HISTORY OF THE FINANCIAL CRISIS*, 78–81 (2010). BISTRO, the earliest form of a credit derivative, enabled banks to compile a portfolio of debt obligations and purchase credit protection for the designated portfolio. *Id.* In other words, BISTRO combined a) pooling and securitizing debt assets, and b) overlaying an insurance-like hedge around the arrangement that protects the bank against default risk. JOHNSON & KWAK, *supra* note 100, at 124–26. In exchange for payment of a premium, a counterparty agrees to pay the face value of underlying assets. *Id.* at 79–81. The BISTRO transactions protected creditors from the risk of loss associated with the potential default by the corporate issuer on the debt obligations transferred to the SPV; this approach reduced the appearance of banks' risk exposure and consequently, banks' need to maintain capital reserves. *Id.* at 125.

Bankers described the contracts that provide insurance-like protection against default risk on the SPV debt obligations as CDS. While banks initially traded CDSs bilaterally, efforts to mitigate costs, enhance operational efficiency, and standardize clearing and settlement of these transactions prompted banks to organize formal clearinghouses to execute them. WHALEY, *supra*, at 21–35.

devastating losses in OTC derivatives markets during the recent financial crisis.

First, during the period leading to the financial crisis, OTC derivatives markets grew exponentially.¹¹⁹ In the absence of a formal, publicly-ordered market, the expansive growth of OTC derivatives agreements occurred in an opaque, bilateral, shadow market. Without a designated repository, there was limited market data regarding OTC derivatives transactions. Market participants were often unaware of the magnitude of their counterparties' risk exposure related to OTC derivatives contracts.

Second, operational risks plagued these informal, private markets.¹²⁰ Market participants employed informal contract execution and trading procedures, creating backlogs and disputes regarding contractual obligations.¹²¹ While securities and commodities exchanges or clearinghouses manage these transactional details for regulated financial products, counterparties trading OTC derivatives managed these responsibilities internally or outsourced trading.¹²²

Unlike the fungible stocks and bonds that trade on regulated securities and commodities exchanges, OTC derivatives contracts are often highly customized agreements; their novelty makes it difficult to execute these transactions on traditional securities and commodities exchange platforms.¹²³ As a result, early market entrants implemented internal

119. The size of the CDS market grew from a negligible volume of private contracts at the market's inception in the 1980s to a market with a notional value of over \$596 trillion just before the height of the recent financial crisis in the fall of 2008. *See infra* note 127.

120. Operational risk refers to the "risk of loss resulting from inadequate or failed internal processes, people and systems or from external events." Kimberly D. Krawiec, *The Return of the Rogue*, 51 ARIZ. L. REV. 127, 134 (2009). For a detailed discussion of the operational risks that challenged the OTC derivatives markets in the period prior to the recent financial crisis, see Johnson, *supra* note 20, at 205.

121. WHALEY, *supra* note 118, at 35 (noting that early derivatives "markets lacked depth and liquidity, which meant that early unwinding of a contract involved negotiating with your counterparty, frequently at unfavorable terms...[i]n addition, contract defaults were commonplace, undermining the integrity of the market"). Market participants may have relied on a mere term sheet, an email exchange, or a fax. The parties may have failed to execute a formal contract or segregate the collateral supporting the agreement. *Id.* Either or both parties may subsequently trade their interests in the contract in an informal secondary market. *Id.* Consequently, unwinding multiple informal agreements engendered operational risks in OTC derivatives markets.

122. Johnson, *supra* note 20, at 213 (citing COMM. ON THE GLOBAL FIN. SYS., BANK FOR INT'L SETTLEMENTS, CREDIT RISK TRANSFER 6 (2003), available at <http://www.bis.org/publ/cgfs20.pdf>). *See generally* Sharma, *supra* note 111.

123. OTC derivatives contracts are often specifically tailored to address specific risk concerns. Colleen M. Baker, *Regulating the Invisible: The Case of Over-the-Counter Derivatives*, 85 NOTRE DAME L. REV. 1287, 1303-04 (2010); D'Souza, Ellis & Fairchild, *supra* note 82, at 504.

trading processes or outsourced trading to a group of large investment banks acting as OTC derivatives dealers.¹²⁴

Thus, market participants absorbed the costs of information gathering, obtaining intellectual property licenses for trading software, and documenting, monitoring, clearing, and settling transactions.¹²⁵ Risk management failures, such as errors in trade documentation, evaluation of counterparties' creditworthiness, or the valuation of collateral, exposed market participants to potentially perilous losses. These preclusive trading costs restricted the number of market participants eligible to engage in OTC derivatives transactions. As a result, the OTC derivatives market became highly concentrated.¹²⁶ The burgeoning volume of transactions, coupled with the limited number of financial institutions engaging in the OTC derivatives market, transformed common default, counterparty, and operational risks into systemic risks.¹²⁷

The absence of an effective governing authority in the OTC market prior to the crisis¹²⁸ created a third contributing factor. While trade

124. The institutional development phase of privatization began with the creation of the International Swaps and Derivatives Association (ISDA) in the mid-1980s. Through ISDA, swaps and derivatives dealers and their lawyers developed the foundational documents for swap transactions. Housman B. Shadab, *Guilty By Association? Regulating Credit Default Swaps*, 4 ENTREPRENEURIAL BUS. L.J. 407, 422–24 (2010). Lawyers played a critical role in drafting standard swap documentation, which reduced transaction costs associated with contract negotiation and facilitated dispute resolution by introducing form agreements. See *About ISDA*, INT'L SWAPS & DERIVATIVES ASS'N, <http://www2.isda.org/about-isda> (last visited Jan. 25, 2013); CME GROUP, <http://www.cmegroup.com/> (last visited Jan. 25, 2013); INTERCONTINENTALEXCHANGE, <https://www.theice.com/homepage.jhtml> (last visited Jan. 25, 2013).

125. Bamberger, *supra* note 117, at 685–86.

126. Johnson, *supra* note 20, at 213 (citing COMM. ON THE GLOBAL FIN. SYS., BANK FOR INT'L SETTLEMENTS, CREDIT RISK TRANSFER 6 (2003), available at <http://www.bis.org/publ/cgfs20.pdf>).

127. COMM. ON THE GLOBAL FIN. SYS., BANK FOR INT'L SETTLEMENTS, CREDIT RISK TRANSFER 6 (2003), available at <http://www.bis.org/publ/cgfs20.pdf>. From the end of 1998 through the end of 2005, the total size of the OTC derivatives market increased at an annual rate of approximately twenty percent. COMM. ON PAYMENT AND SETTLEMENT SYS., BANK FOR INT'L SETTLEMENTS, NEW DEVELOPMENTS IN CLEARING AND SETTLEMENT ARRANGEMENTS FOR OTC DERIVATIVES 8–10 (2007). By the end of June 2006, the total size of the OTC derivatives market, as measured by total notional amount of contracts outstanding, was almost \$370 trillion. *Id.* The notional amounts of OTC contracts continued to increase through 2006, reaching \$415 trillion by December. MONETARY AND ECON. DEP'T, BANK FOR INT'L SETTLEMENTS, OTC DERIVATIVES MARKET ACTIVITY IN THE SECOND HALF OF 2006, at 1 (2007), available at http://www.bis.org/publ/otc_hy0705.pdf. By the end of 2007, the notional amounts of all categories of OTC contracts reached \$596 trillion, an increase of approximately forty-four percent from the previous year. MONETARY AND ECON. DEP'T, BANK FOR INT'L SETTLEMENTS, OTC DERIVATIVES MARKET ACTIVITY IN THE SECOND HALF OF 2007, at 1 (2008), available at http://www.bis.org/publ/otc_hy0805.pdf.

128. Johnson, *supra* note 20, at 213.

organizations attempted to ameliorate risks, the market lacked broader oversight. The development of OTC derivatives and the promise of transaction fees generated from trading structured derivative products inspired banks and trade organizations affiliated with the derivatives market to improve bilateral trading practices and adopt uniform settlement procedures. For example, the International Swaps and Derivatives Association (ISDA)¹²⁹ introduced certain governance mechanisms, including collateral policies, standardized contracts, and common settlement terms.¹³⁰ These market improvements reduced transaction costs.¹³¹ No domestic or international regulator, however, directly monitored the risk exposure teeming in the OTC derivatives market.¹³²

In 2007, the debt obligations underlying a large volume of OTC derivatives contracts began to decline in value; the rapid change in the value of the debt obligations pooled in CDO arrangements revealed the weaknesses of internal and contractual governance mechanisms. In September of 2008, American International Group, Inc. (AIG) nearly collapsed as staggering losses arising from their CDS portfolio thrust the firm toward insolvency.¹³³ AIG's risk management processes, executives, and board failed to properly assess the firm's exposure in the CDS market.¹³⁴ AIG's near collapse triggered a cascade of losses among

129. *Id.* at 229–30 (“ISDA currently develops essential trading policies and best practice standards and resolves disputes among its members. ISDA also advises market participants on clearing and settlement procedures and settlement auctions.”).

130. Bamberger, *supra* note 117, at 674–75; Shadab, *supra* note 124, at 422–24.

131. WHALEY, *supra* note 118, at 35 (describing the origins of ISDA in the early 1980s and its role in developing standardized documents for OTC derivatives transactions and implementing basic settlement procedures for bilateral trades).

132. Johnson, *supra* note 20, at 213.

133. Press Release, Fed. Reserve Bd. (Sept. 16, 2008), *available at* <http://www.federalreserve.gov/newsevents/press/other/20080916a.htm> (announcing the Federal Reserve's decision to bailout AIG and explaining that AIG's failure would damage markets). Trading partners assumed that contractual covenants served as an effective governance mechanism in OTC derivatives transactions because the agreements are exempted from the automatic stay in bankruptcy proceeding. Stephen J. Lubben, *The Bankruptcy Code Without Safe Harbors*, 84 AM. BANKR. L.J. 123, 130 (2010); Stephen J. Lubben, *Derivatives and Bankruptcy: The Flawed Case for Special Treatment*, 12 U. PA. J. BUS. L. 61, 67 (2009) (explaining the safe harbor in the Bankruptcy Code for derivatives).

134. Olufunmilayo B. Arewa, *Financial Markets and Networks—Implications for Financial Market Regulation*, 78 U. CIN. L. REV. 613, 618–20 (2009); Johnson, *supra* note 20, at 215–16; Carrick Mollenkamp, Serena Ng, Liam Plevin, & Randall Smith, *Behind AIG's Fall, Risk Models Failed to Pass Real-World Test*, WALL ST. J., Oct. 31, 2008, at A1; Gretchen Morgenson, *A.I.G., Where Taxpayers' Dollars Go to Die*, N.Y. TIMES, Mar. 8, 2009, at BU1; Serena Ng, *AIG, Goldman Unwind Soured Trades*, WALL ST. J., Apr. 12, 2010, at C1.

the intimately interconnected web of sophisticated financial institutions in the OTC derivatives market.

The threat of losses flowed across the financial services industry, creating systemic risk concerns and producing detrimental spillover effects.¹³⁵ The federal government acted to prevent a run on large financial institutions and to bail out OTC derivatives market participants.¹³⁶ The mounting negative externalities triggered by losses in the OTC derivatives market demonstrated the insufficiency of market-based governance solutions and prompted Congress to act.

B. Dodd-Frank Introduces Mandatory Clearing

In an effort to mitigate the systemic risk concerns created in the OTC derivatives market, Congress enacted Title VII of the Dodd-Frank Act.¹³⁷ Title VII of the Act introduces a formal governance structure, an institutional safeguard designed to enhance transparency, improve operational efficiency, and increase risk oversight in the OTC derivatives markets.¹³⁸ Section 725 of the Act removes the shroud that previously veiled OTC derivatives markets.¹³⁹ Under this Section, traders must register OTC derivatives transactions with designated derivatives clearing organizations.¹⁴⁰ The registration requirements encourage greater risk oversight among individual firms and enable federal agencies to better assess aggregate risk across the market.¹⁴¹

In addition to the registration obligations, Section 726 of the Act requires market participants to clear eligible OTC derivatives transactions through authorized clearinghouses.¹⁴² The clearing

135. Spillover effects are externalities that impact third parties who are not engaged in a particular activity. See Stephanie Ben-Ishai & Stephen J. Lubben, *A Comparative Study of Bankruptcy as Bailout*, 6 BROOK. J. CORP. FIN. & COM. L. 79, 87 (2011) (describing the spill-over effects that arise from a bankruptcy). Spillover effects arise when market participants fail to internalize the negative externalities that their activities create. See also Iman Anabtawi & Steven L. Schwarcz, *Regulating Systemic Risk: Towards an Analytical Framework*, 86 NOTRE DAME L. REV. 1349, 1402 (2011) (“Analogizing excessive risk-taking to the tragedy of the commons suggests that regulatory policy should correct for risk-spillovers in financial markets by requiring firms to take into account the impact of their behavior on systemic stability.”); Johnson, *supra* note 20, at 213.

136. Dodd-Frank Act, Pub. L. No. 111-203, 124 Stat. 1376, 1376 (2010) (codified in scattered sections of 7, 12, 15, 18, 22, 31, and 41 U.S.C.).

137. *Id.* §§ 701–74 (codified in scattered sections of 7 and 15 U.S.C.).

138. *Id.* § 726(b) (codified at 15 U.S.C. § 8323 (Supp. 2011)).

139. *Id.* § 725 (codified at 7 U.S.C. § 7a-1 (Supp. 2011)).

140. *Id.* § 725(a) (codified at 7 U.S.C. § 7a-1).

141. *Id.* § 725 (codified at 7 U.S.C. § 7a-1).

142. *Id.* § 726 (codified at 15 U.S.C. § 8323).

requirement integrates an institutional-based regulatory solution that encompasses elements of internal risk management and private contract law. First, firms must establish internal governance systems to monitor their employees' compliance with section 726.¹⁴³ Next, any market participant seeking to enter into or trade eligible OTC derivatives contracts must become a member of an authorized clearinghouse or contract with a member of a clearinghouse.¹⁴⁴

Similar to exchanges, clearinghouses generate valuable positive externalities that enhance net social welfare. Clearinghouses mitigate the two types of credit risk that characterized bilateral markets—issuer default risk and counterparty credit risk. A clearinghouse acts as a central counterparty (CCP), interposing itself between the buyers and sellers of OTC derivatives transactions executed on its platform.¹⁴⁵

Unlike the bespoke OTC derivatives trading practices prior to the adoption of Title VII, trading through the clearinghouse introduces a central hub in the market that matches transactions between buyers and sellers.¹⁴⁶ When a member expresses desire to enter into an OTC derivatives contract as a buyer, the clearinghouse identifies a counterparty who is interested in entering into the contract as a seller.¹⁴⁷ The clearinghouse becomes a buyer to every seller and a seller to every buyer. Migrating the trades within the industry onto a clearinghouse platform thus mitigates risk exposure by increasing the transparency in the industry and maximizing allocational efficiency. Clearinghouse members can reduce the amount of collateral that they post because their trades will be settled in a manner that considers members' various accounts, transactions across asset classes, and agreements with various counterparties.¹⁴⁸

Figure 1 below illustrates the bespoke OTC derivatives market

143. *Id.* § 731 (codified at 7 U.S.C. § 6s).

144. *Id.* § 733 (codified at 7 U.S.C. § 7b-3).

145. Craig Pirrong, *The Economics of Clearing in Derivatives Markets: Netting, Asymmetric Information, and the Sharing of Default Risks Through a Central Counterparty* 1, 16 (Univ. of Houston Dep't of Fin., Working Paper, 2009), available at http://www.cba.uh.edu/spirrong/clearing_organization.pdf.

146. WHALEY, *supra* note 118, at 21.

147. Jeremy C. Kress, *Credit Default Swaps, Clearinghouses, and Systemic Risk: Why Centralized Counterparties Must Have Access to Central Bank Liquidity*, 48 HARV. J. ON LEGIS. 49, 65 (2011).

148. Viral V. Acharya, Or Shachar & Marti Subrahmanyam, *Regulating OTC Derivatives*, in REGULATING WALL STREET: THE DODD-FRANK ACT AND THE NEW ARCHITECTURE OF GLOBAL FINANCE 367, 399 (Viral V. Acharya, Thomas F. Cooley, Matthew P. Richardson, and Ingo Walter eds., 2011).

characterized by bilateral trading relationships prior to the recent financial crisis.¹⁴⁹ Figure 2 depicts the hub-and-spoke market that arises when a clearinghouse serves as a CCP.¹⁵⁰

FIGURE 1 – OTC derivatives counterparty relationships without a CCP

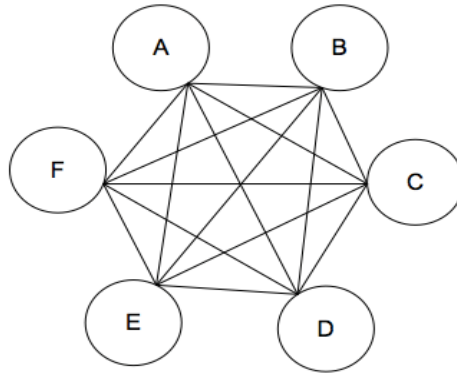
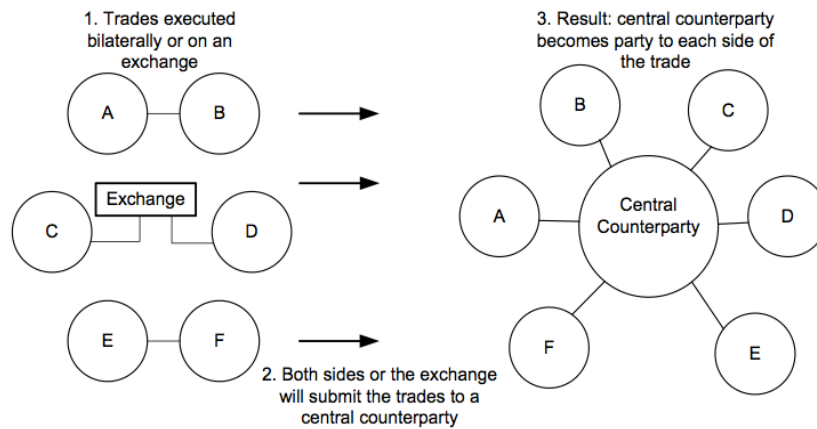


FIGURE 2 – Clearing trades through a Central Counterparty



Beyond the increased transparency and organizational benefits that centralized clearing introduces, clearinghouses also offer a structural

149. DARRELL DUFFIE, ADA LI & THEO LUBKE, FED. RESERVE BANK OF N.Y. STAFF REPORTS, POLICY PERSPECTIVES ON OTC DERIVATIVES MARKET INFRASTRUCTURE 5 (2010).

150. *Id.* at 6.

mechanism that mitigates counterparty credit risk. By standing between the buyer and the seller in each OTC derivatives transaction and guaranteeing each transaction executed on its platform, the clearinghouse mitigates market participants' exposure to default and counterparty credit risk.¹⁵¹ Clearinghouses guarantee that each member will "make good" on its obligations related to contracts executed on the clearinghouse platform.¹⁵² If a buyer defaults, the seller may hold the clearinghouse liable for the legal consequences of the buyer's default. By guaranteeing the transactions executed on its platform, clearinghouses stand behind both sides of a trading transaction, reducing market participants' exposure to counterparty credit risk.

Concentrating credit risk exposure within a handful of clearing businesses and guaranteeing satisfaction of cleared transactions may, however, increase systemic risk. As a consequence of their role centralizing risk exposure, clearinghouses face the potential that each member or several members may default on their obligations related to OTC derivatives transactions. The default of a clearing member with a significant volume of active OTC derivatives trades or a series of defaults among a group of clearing members may threaten the solvency of the clearinghouse.

To mitigate its risk exposure, a clearinghouse adopts several risk management policies. First, clearinghouses intentionally aim to be net zero, meaning the clearinghouse enters into transactions only when an identified buyer and a seller seek to contract on the same material terms.¹⁵³ To limit their exposure to market risk, clearinghouses simply match trade requests with the trade requests of members who are interested in taking an opposite trading position.¹⁵⁴ This approach limits clearinghouses' exposure to market risk or changes in the value of derivatives contracts; clearinghouses remain vulnerable, however, to counterparty risk.

Second, clearinghouses impose minimum capital contribution requirements and position limits on clearing members.¹⁵⁵ Clearinghouses typically deposit capital contributions into a collective reserve fund that the clearinghouse draws upon if a member defaults on its obligations.¹⁵⁶ Moreover, membership criteria and trade eligibility standards ensure that

151. Kress, *supra* note 147, at 65.

152. *Id.*

153. WHALEY, *supra* note 118, at 22.

154. Clearinghouses typically do not warehouse contracts or engage in market making activities.

155. WHALEY, *supra* note 118, at 21 n.24.

156. DUFFIE, LI & LUBKE, *supra* note 149, at 7.

market participants meet threshold requirements for engaging in OTC derivatives transactions.

Third, clearinghouses impose margin and collateral requirements to ensure that members maintain sufficient resources in their segregated trading accounts to satisfy their trading obligations under outstanding OTC derivatives contracts.¹⁵⁷ Together, the capital requirements, position limits, and margin and collateral obligations provide several layers of risk management protection.

Examining an application of clearinghouse risk management practices offers a useful illustration. If a member defaults on its trading obligations, a clearinghouse will first apply the value of the defaulting member's margin account to its contractual obligations under its outstanding trades. If the funds in the member's margin account are insufficient to satisfy trading obligations, the clearinghouse draws upon resources from the reserve fund to settle the defaulting member's trading obligations.

In addition to these risk management benefits, clearinghouses also reduce operational risk and promote market integrity and stability. Acting as CCPs, clearinghouses introduce formal trade documentation, execution, and settlement processes.¹⁵⁸ By introducing standardized documentation and procedures, clearinghouses reduce transaction costs and increase certainty regarding the settlement and enforceability of OTC derivatives contracts. These improvements enhance the stability of OTC derivatives markets.

CCPs also facilitate loss mutualization, credit risk homogenization, and multi-lateral netting.¹⁵⁹ These standards reduce information

157. See, e.g., CME GROUP, INC., 2010 ANNUAL REPORT 5 (2011); INTERCONTINENTALEXCHANGE, INC., 2010 ANNUAL REPORT 4 (2011); *About Eurex Clearing*, EUREX CLEARING AG, <http://www.eurexclearing.com/clearing-en/about-us/company-profile/> (last visited Jan. 27, 2013); *LCH.Clearnet*, LCH.CLEARNET GROUP, LTD., <http://www.lchclearnet.com/> (last visited Jan. 27, 2013).

158. Clearinghouses ensure that members segregate collateral and enforce other material terms in OTC derivatives transactions. See, e.g., CME GROUP, INC., *supra* note 157, at 5; INTERCONTINENTALEXCHANGE, INC., *supra* note 157, at 4; EUREX CLEARING AG, *supra* note 157; LCH.CLEARNET GROUP, LTD., *supra* note 157.

159. Risk of loss is mutualized by spreading the potential effect risk among clearing members. Hal S. Scott, *The Reduction of Systemic Risk In the United States Financial System*, 33 HARV. J.L. & PUB. POL'Y 671, 695 (2010). Credit homogenization refers to the standardization of credit risk. Bob Hills, David Rule, Sarah Parkinson & Chris Young, *Central Counterparty Clearing Houses and Financial Stability*, FIN. STABILITY REV., June 1999, at 122, 129–30. Because the CCP is the underlying counterparty to each transaction executed on its platform, members do not face the varying credit qualities of counterparties. *Id.* Rather, members are uniformly exposed to the risk of the CCP's creditworthiness. *Id.* Credit risk homogenization reduces the costs associated with members' due diligence and monitoring activities. *Id.* Multilateral netting enables clearinghouse

asymmetries and enhance price discovery, promoting greater market efficiency and integrity.¹⁶⁰ Each of these risk management policies mitigates systemic risk concerns, or concerns that a significant clearinghouse member or group of members will default on their contractual obligations, initiating a chain reaction of losses across OTC derivatives markets.

Economic organization theory describes clearinghouses as specialized firms. These institutions, forged by the collaborative efforts of market participants who are members of the clearinghouse, provide market participants with an alternative trade execution approach. This approach avoids the agency costs that arise when firms vertically integrate trading and the transaction costs that may arise if firms rely on bilateral transactions. Through its governance role, clearinghouses reduce the likelihood that hold-up problems will arise.

Relying on clearinghouses to govern OTC market activities, however, creates a new set of concerns. Careful evaluation reveals that pervasive conflicts of interest and members' self-interested commercial incentives weaken clearinghouse governance, threatening clearinghouses' effective internal risk management policies and creating systemic risk concerns. As Part I.B. explained, in recent years, several of the largest securities and commodities exchanges and clearinghouses demutualized, converting from cooperative clubs to private corporations.¹⁶¹ These

members to net their gains and losses across different classes of underlying assets. DUFFIE, LI & LUBKE, *supra* note 149, at 14 (“Whenever different types of derivatives are cleared with the same CCP, rather than at distinct CCPs, counterparty exposures are further reduced, on average, through the netting of positive position values in some derivative types against negative position values in others. Market participants may therefore prefer a single CCP, at least within a particular asset class, in order to have more efficient risk reduction and collateral allocation.”).

160. See ROBERT W. KOLB & JAMES A. OVERDAHL, *FINANCIAL DERIVATIVES: PRICING AND RISK MANAGEMENT* 16, 20 (2010) (describing price discovery as a process in which market transactions reflect both the economic impact of new information and market participants' expectations of asset prices); see also Julia Lees Allen, *Derivatives Clearinghouses and Systemic Risk: A Bankruptcy and Dodd-Frank Analysis*, 64 *STAN. L. REV.* 1079, 1087 (2012); Kress, *supra* note 147, at 65–69; Markham & Harty, *supra* note 90, at 882.

161. Currently, the market reflects a mix of organizational approaches. Some clearinghouses remain closely-held businesses. See, e.g., LCH.CLEARNET GROUP, LTD., *supra* note 157 (LCH.Clearnet is an independent company which “is owned 77.5% by its clients and 22.5% by [the] exchanges”). Others have elected to incorporate and distribute their equity shares in public offerings. See e.g., CME GROUP, INC., *supra* note 157, at 5 (CME Group is the parent company of CME Clearing Europe Ltd.); INTERCONTINENTAL EXCHANGE, INC., *supra* note 157, at 4 (relating that the customers of ICE, the parent company of ICE Clear Europe Ltd., include “corporations, manufacturers, utilities, commodity producers and refiners, professional traders, financial institutions, institutional and individual investors and governmental bodies”). In a few instances, exchanges have created subsidiaries to offer clearing services. EUREX CLEARING AG, *supra* note 157 (Eurex is a wholly owned subsidiary of Eurex Frankfurt AG and a public company); CME

exchanges and clearinghouses registered their equity securities with the SEC, distributed the securities in initial public offerings, and listed the securities on national exchanges. Converting to public corporations increased exchange and clearinghouse shareholders' liquidity, enabling shareholders to trade their ownership interests with greater ease.

Beyond these organizational changes, several exchanges and clearinghouses merged with other national, regional, or foreign exchanges, forming international conglomerates with trading venues in multiple countries around the world. The implications of these organizational changes are significant. Reorganizing the ownership structure of exchanges and clearinghouses creates noteworthy conflicts of interest.

A tension emerges between clearinghouses' public service role and their private ownership structure. While clearinghouses and exchanges are private businesses, these institutions provide a critical, public, infrastructure resource within financial markets. The self-regulatory approach adopted in financial markets presumes that clearinghouses and exchanges will provide a public service and engage in market oversight. The owners of exchanges and clearinghouses may, however, prioritize profit-maximizing strategies that de-emphasize or conflict with regulatory goals. The conflict between regulators' expectations and exchange and clearinghouse owners' priorities leads to questions regarding the merits of employing self-regulation. In the absence of effective internal governance mechanisms, clearinghouse members may prioritize their individual interests ahead of the integrity of clearinghouses.

Notwithstanding an impassioned debate among regulators, scholars, and market participants regarding the significance of these conflicts and the institutional constraints that they create, Congress elected to impose a self-regulatory framework on OTC derivatives markets and endow clearinghouses with a license to serve as regulators in these markets. Therefore, clearinghouses that are owned and controlled by market participants or parent companies whose equity shares are publicly-traded, will serve as the primary market regulators in OTC derivatives

GROUP, INC., *supra* note 157, at 100; INTERCONTINENTALEXCHANGE, INC., *supra* note 157, at 11; LCH.CLEARNET GROUP, LTD., ANNUAL REPORT & ACCOUNTS 2011, at 67 (2012). For a detailed treatment of the risk management concerns arising from clearinghouse governance policies, see Sean Griffith, *Governing Systemic Risk: Towards a Governance Structure for Derivatives Clearinghouses*, 61 EMORY L.J. 1153, 1165 (2012); Yesha Yadav, *The Problematic Case of Clearinghouses in Complex Markets*, 101 GEO. L.J. 387, 391–94 (2012); RENA S. MILLER, CONG. RESEARCH SERV., CONFLICTS OF INTEREST IN DERIVATIVES CLEARING 5–6 (2011), available at http://digitalcommons.ilr.cornell.edu/cgi/viewcontent.cgi?article=1832&context=key_workplace.

markets. These private businesses retain the discretion to decide significant regulatory policies. Clearinghouses determine market participants' eligibility for membership, the criteria for eligible OTC derivatives transactions, and quintessential risk management policies, such as capital, margin, and collateral requirements.¹⁶²

As Part I.B indicated, traditionally state law mandates rudimentary internal governance designs for corporations and other business organizations.¹⁶³ Congress will, however, intervene where state law or contractual mechanisms fail to establish an adequate balance between the authority granted to managers and their accountability for the externalities that businesses engender.¹⁶⁴ In response to criticism regarding Title VII's reliance on self-regulation, clearinghouse members' conflicts of interest, and concerns that weak clearinghouse risk management policies may cause risk management and systemic risk failures, Congress authorized the SEC and CFTC to adopt clearinghouse governance policies. These federal regulatory agencies have proposed rules focusing on two specific elements of clearinghouse governance: clearinghouse membership and clearing eligibility policies.

1. Anti-competitive Incentives Will Limit Access to Clearinghouse Membership

Clearinghouses generally permit only members to execute transactions on a clearinghouse platform. Clearinghouse members may trade for their own accounts or execute transactions on behalf of their clients as dealers. If a nonmember desires to execute transactions on the clearinghouse platform, the trader must identify a member who is willing to serve as a dealer and execute the transaction on behalf of the nonmember.¹⁶⁵

The large financial institutions that execute significant volumes of OTC derivatives transactions—the large dealers—earn sizeable fees for

162. CME GROUP, INC., *supra* note 157, at 6; EUREX CLEARING AG, ANNUAL FINANCIAL STATEMENTS FOR THE PERIOD ENDED DECEMBER 31, 2011, AND MANAGEMENT REPORT 8–16 (2012); INTERCONTINENTALEXCHANGE, INC., *supra* note 157, at 9–10; LCH.CLEARNET GROUP, LTD., ANNUAL REPORT, *supra* note 161, at 54–57.

163. DEL. CODE ANN. tit. 8, § 141(a) (2011).

164. Sarbanes-Oxley Act of 2002, Pub. L. No. 107-204, 116 Stat. 745 (codified as amended in scattered sections of 11, 15, 18, 28 & 29 U.S.C.); *see also* Johnson, *supra* note 50, at 93–100 (discussing federal corporate governance reforms incorporated in the Dodd-Frank Act).

165. *See* EUROPEAN CENTRAL BANK, CREDIT DEFAULT SWAPS AND COUNTERPARTY RISK 52 (2009), *available at* <http://www.ecb.int/pub/pdf/other/creditdefaultswapsandcounterpartyrisk2009en.pdf>.

executing transactions on behalf of smaller dealers.¹⁶⁶ By obtaining a majority of the ownership interests in clearinghouses, large dealers may exercise sufficient voting authority to control the election of directors to clearinghouse boards and the appointment of directors to board committees. Controlling the board and board committees enables large dealers to establish critical operational policies, such as membership eligibility standards.

Restricting access to clearinghouse membership creates a market opportunity for the dealers who successfully obtain membership. Adopting selective membership eligibility criteria protects the fees that large dealers earn for brokering transactions on behalf of excluded OTC derivatives dealers.¹⁶⁷ If clearinghouses adopt restrictive policies regarding membership eligibility, then small dealers, or dealers who execute fewer transactions or contracts involving smaller monetary amounts, may be precluded from becoming clearinghouse members. Dealers precluded from becoming clearinghouse members must contract with clearinghouse members to execute OTC derivatives transactions following the adoption of Title VII's clearing mandate.

Beyond their rent-seeking motivations, large dealers may offer legitimate commercial justifications for adopting exclusive membership eligibility criteria. For example, large dealers complain that small dealers seeking clearinghouse membership will be unable to satisfy minimum capital contribution, margin and collateral requirements. Recall that clearinghouses agree to guarantee the transactions executed on their platforms.¹⁶⁸ Small dealers generally have less capital than large dealers. Thus, in order for small dealers to gain access to membership, clearinghouses must adopt lower capital requirements than they would adopt if only large dealers participated as members. Large dealers, therefore, argue that admitting small dealers creates unnecessary credit and counterparty risks.¹⁶⁹

166. Christine Harper, Matthew Leising & Shannon Harrington, *Wall Street Stealth Lobby Defends \$35 Billion Derivatives Haul*, BLOOMBERG, Aug. 30, 2009, http://www.bloomberg.com/apps/news?pid=newsarchive&sid=agFM_w6e2i00.

167. See Stephen Craig Pirrong, *The Self-Regulation of Commodity Exchanges: The Case of Market Manipulation*, 38 J.L. & ECON. 141, 145 (1995) (describing the disadvantages of relying on an SRO to serve as a regulator when members with rent-seeking incentives control the SRO and noting that, in these instances, controlling members' interests may diverge from those of the membership as a whole).

168. See *supra* Part II.A.

169. See Michael Greenberger, *Diversifying Clearinghouse Ownership in Order to Safeguard Free and Open Access to the Derivatives Clearing Market*, 17 FORDHAM J. CORP. & FIN. L. 1, 5–8 (forthcoming 2013), available at http://digitalcommons.law.umaryland.edu/cgi/viewcontent.cgi?article=2176&context=fac_pubs.

Even if admitting smaller dealers creates credit risk, commentators disagree with claims that small dealers' defaults will lead to clearinghouse insolvencies. Additionally, two negative implications follow from restrictive membership policies. First, restrictive membership criteria impedes Title VII's goals to integrate as many market participants and transactions as possible into a formal clearing process. Second, limiting small dealers' direct access to clearinghouse platforms encourages small dealers and large dealers to continue to strike bilateral arrangements outside of the purview of the clearinghouse and regulators. With small dealers excluded from clearinghouse platforms, a significant volume of transactions will continue to occur in private, bilateral markets, undermining Title VII's transparency goals and perpetuating trading in an opaque market.

2. *Anti-competitive Incentives Will Limit Clearing Eligibility*

Clearinghouse boards also have the authority to decide clearing eligibility policies.¹⁷⁰ Similar to the economic incentives to restrict clearinghouse membership, large dealers have commercial incentives to limit the OTC derivative products that are eligible for settlement on clearinghouse platforms. Directors, who are likely to be appointed by the large dealers who control economic and voting interests in the clearinghouse, may face conflicts of interest when evaluating the policies that determine the clearing eligibility of OTC transactions.

Well before the adoption of the Dodd-Frank Act, clearinghouses initiated OTC derivatives clearing services.¹⁷¹ Initially, however, because clearing customized OTC derivatives trades involved greater credit and operational risk, clearing services were limited.¹⁷² Large dealers responded to the absence of a resource for clearing customized transactions by providing informal clearing services. The dealers earned

170. Dodd-Frank Act, Pub. L. No. 111-203, § 725, 124 Stat. 1376, 1685 (2010) (codified at 7 U.S.C. § 7a-1 (Supp. 2011)); Financial Resources Requirements for Derivatives Clearing Organizations, 75 Fed. Reg. 63113, 63113 (proposed Oct. 14, 2010) (to be codified at 17 C.F.R. pt. 39, 140).

171. CME GROUP, INC., *supra* note 157, at 5; INTERCONTINENTALEXCHANGE, INC., *supra* note 157, at 5.

172. CME GROUP, INC., *supra* note 157, at 5; INTERCONTINENTALEXCHANGE, INC., *supra* note 157, at 5. Certain OTC derivatives agreements are standard contracts that reference highly-liquid, fungible assets, such as a ten-year IBM bond or a fifteen-year General Motors bond. The frequency of trading of the underlying asset facilitates price discovery for standard OTC derivatives contracts. CME GROUP, INC., *supra* note 157, at 5-6; INTERCONTINENTALEXCHANGE, INC., *supra* note 157, at 3-4.

significant fees for clearing customized transactions.¹⁷³ Notwithstanding clearinghouses' interest in clearing the greatest volume of transactions, large dealers may pressure the directors they appoint to promote more restrictive clearing policies. The restrictive clearing policies will ensure that some volume of OTC derivatives transactions continue to clear in informal, opaque markets. The trades that clear in informal markets will continue to generate fees for large dealers.¹⁷⁴ Similar to preclusive membership eligibility criteria, restrictive clearing eligibility policies may undermine Title VII's clearing mandate.¹⁷⁵

3. *Weak Clearinghouse Governance Creates Moral Hazard, Risk Management, and Systemic Risk Concerns*

The previous section considered large dealers' commercial incentives to artificially restrict membership access and clearing eligibility to enhance the fees that they earn for their role as dealers. Large financial institutions also have individual incentives to manipulate clearinghouse risk management policies. Risk management concerns arise when directors, sponsored by large dealers, do not act in the best interest of the clearinghouse; rather, directors resolve policy questions based on what they perceive to be in the best interest of the large dealers who nominated them to the board. Allowing large dealers to control clearinghouses' internal decision-making processes may weaken critical risk management policies, engender moral hazard concerns, and create systemic risks.

Clearinghouses' risk management tools include operational strategies, position limits, collateral and margin requirements, and obligations for members to contribute to reserve funds. As Viral V. Acharya, Or Shachar and Marti Subrahmanyam, explain, “[t]o minimize . . . risk, a CCP relies on a range of controls and methods, including stringent membership access, a robust margining regime, clear default management procedures, and significant financial resources to back its

173. See Harper, Leising & Harrington, *supra* note 166; see also Ownership Limitations and Governance Requirements for Security-Based Swap Clearing Agencies, Security-Based Swap Execution Facilities, and National Securities Exchanges With Respect to Security-Based Swaps Under Regulation MC, 75 Fed. Reg. 65,882, 65,8845 (proposed Oct. 26, 2010) (to be codified at 17 C.F.R. pt. 242).

174. See, e.g., DUFFIE, LI & LUBKE, *supra* note 149, at 32.

175. Dodd-Frank Act, 124 Stat. at 1376 (“To promote the financial stability of the United States by improving accountability and transparency in the financial system, to end ‘too big to fail’, to protect the American taxpayer by ending bailouts, to protect consumers from abusive financial services practices, and for other purposes.”).

performance.”¹⁷⁶ Recall that a clearinghouse typically avoids risk exposure (as well as the potential for any gains and losses) by agreeing to clear contracts for members only if the clearinghouse can identify other members willing to take the opposite position on the same contracts. A clearinghouse’s election to enter into offsetting positions offers an example of an operational strategy that mitigates risk exposure.

Despite risk management efforts, however, clearinghouses continue to face significant risk exposure. In the above example, the clearinghouse mitigates market risk exposure (the potential for a contract to increase or decrease in value) but remains exposed to counterparty credit risk (the risk that any of the parties who clear contracts on the clearinghouse platform may default).¹⁷⁷ If a clearinghouse member with a large volume of contracts or a series of members whose transactions constitute a significant volume of contracts should default, the clearinghouse may face insolvency or bankruptcy.

Noteworthy concerns emerge when one couples (a) concerns regarding clearinghouse directors’ objectivity with (b) the consolidation of trading within a single clearinghouse or across a small number of clearinghouses.¹⁷⁸ By migrating OTC derivatives contracts onto its platform, each clearinghouse consolidates the risks in OTC derivatives markets. The concentration of risk within clearinghouses and among participants in the clearing industry requires careful evaluation and monitoring. These realities heighten the significance of the clearinghouse as a market risk regulator.¹⁷⁹

176. Acharya, Shachar & Subrahmanyam, *supra* note 148, at 399.

177. *Id.*

178. Increasing the number of clearinghouses in the OTC derivatives market does not necessarily alleviate concerns; clearing a significant volume of diverse products on the platforms of large number of clearinghouses that lack interoperability may lead to fragmentation, insufficient information sharing, and excessive posting of collateral.

179. Only a small number of clearinghouses have received authorization to act as derivatives clearing organizations. Order Extending Temporary Exemptions, Exchange Act Release No. 34-63388, 99 SEC Docket 3480 (Nov. 29, 2010), *available at* <http://www.sec.gov/rules/exorders/2010/34-63388.pdf> (granting Chicago Mercantile Exchange, Inc. an exemption to clear CDS transactions); Order Extending Temporary Exemptions, Exchange Act Release No. 34-63389, 99 SEC Docket 3482 (Nov. 29, 2010), *available at* <http://www.sec.gov/rules/exorders/2010/34-63389.pdf> (granting ICE Clear Europe, Ltd. an exemption to clear CDS transactions); Order Extending Temporary Exemptions, Exchange Act Release No. 34-63387, 99 SEC Docket 3457 (Nov. 29, 2010), *available at* <http://www.sec.gov/rules/exorders/2010/34-63387.pdf> (granting ICE Trust U.S., LLC. an exemption to clear CDS transactions); Order Extending Temporary Exemptions, Exchange Act Release No. 34-63390, 99 SEC Docket 3485 (Nov. 29, 2010), *available at* <http://www.sec.gov/rules/exorders/2010/34-63390.pdf> (granting Eurex Clearing AG an exemption to clear CDS transactions).

While clearinghouses generally manage risks well using risk management techniques, a few clearinghouse failures have occurred.¹⁸⁰ For example, in 1974, after months of erratic and speculative movements in the price of white sugar, several large traders who executed transactions on the *Caisse de Liquidation des Affaires en Marchandises* (a commodity exchange) in Paris failed to meet their margin obligations; as a result, the clearinghouse collapsed.¹⁸¹ U.S. clearinghouses faced similar liquidity crises following episodes of market manipulation. In 1976, the New York Mercantile Exchange faced a liquidity crisis after experiencing one of the largest defaults in the history of commodity futures trading; traders defaulted on over 1000 contracts for potato futures.¹⁸² An effort in 1979 by the infamous Hunt brothers to manipulate the world's silver supply led to a crisis that threatened the solvency of the Commodity Exchange.¹⁸³ Finally, in the wake of the 1987 stock market crash, one of the largest counterparties of the Chicago Mercantile Exchange failed to satisfy its payment obligations, and a private bank had to intervene to prevent the collapse of one of the oldest clearinghouses in the United States.¹⁸⁴

While “the failure of clearinghouses due to poor risk management or excess risk taking has been relatively rare[.]”¹⁸⁵ the incidents during the recent financial crisis and the Dodd-Frank Act's assignment of primary regulatory authority to a concentrated group of clearing facilities raises red flags. Without proper controls, moral hazard concerns emerge;¹⁸⁶ on the assumption that the federal government would bail out any insolvent clearinghouse to prevent systemic risks from materializing, clearinghouse directors may make risk management decisions that create the threat of liquidity crises.

To address concerns that moral hazard and systemic risk concerns might lead to a taxpayer bailout, the Dodd-Frank Act includes an express statutory prohibition limiting the use of federal funds to prevent a swap

180. Acharya, Shachar & Subrahmanyam, *supra* note 148, at 400.

181. In 1983, the Commodity Clearinghouse in Kuala Lumpur collapsed, and, in 1987, the Futures Guarantee Corporation also collapsed; in both of these cases, traders were also unable to settle their obligations with the clearinghouses. *Id.*

182. *Id.*

183. *Id.*

184. *Id.* at 401.

185. *Id.* at 402.

186. “Moral hazard” describes a situation in which a person makes a decision that creates risk but another person bears the costs or negative externalities associated with the risk-taking decision. PAUL KRUGMAN, *THE RETURN OF DEPRESSION ECONOMICS AND THE CRISIS OF 2008*, at 63 (2009).

dealer from becoming insolvent.¹⁸⁷ Section 716 prohibits transfers of advances from the Federal Reserve discount window or from a Federal Reserve sponsored credit facility originated under Section 13 of the Federal Reserve Act.¹⁸⁸ The Dodd-Frank Act further limits federal authorities from offering an assurance from the Federal Deposit Insurance Corporation (FDIC), making loans, or purchasing stock or equity interest or other assets from OTC derivatives market participants who may become insolvent.¹⁸⁹ To emphasize Congressional intent to avoid bailing out OTC derivatives market participants, Section 716, referred to as the “Pushout Rule,” allows FDIC regulated institutions to remain eligible for federal assistance if they push derivatives activities out of their FDIC insured subsidiaries.¹⁹⁰

Notwithstanding the promise not to bail out swap market participants, the Federal Reserve and the Financial Stability Oversight Council have the authority to intervene in the event that a clearinghouse fails.¹⁹¹ As a systemically important financial institution or a financial market utility, a clearinghouse may still gain access to the Federal Reserve liquidity facilities.¹⁹² Regulators promulgating final Dodd-Frank Act regulations may alter this interpretation. The plain statutory language, however, creates the possibility for clearinghouses to receive federal aid to prevent their insolvency or to facilitate the unwinding of derivatives contracts on their platforms.

Knowing that the Federal Reserve may serve as a liquidity provider of last resort heightens moral hazard concerns. The mere promise of emergency lending may severely weaken market participants’ resolve to adopt sufficiently rigorous risk management processes, limiting the efficacy of clearinghouses as primary regulators in OTC derivatives

187. Dodd-Frank Act, Pub. L. No. 111-203, § 716(a), 124 Stat. 1376, 1648 (2010) (codified at 15 U.S.C. § 8305 (Supp. 2011)) (“Notwithstanding any other provision of law (including regulations), no Federal assistance may be provided to any swaps entity with respect to any swap, security-based swap, or other activity of the swaps entity.”).

188. *Id.* § 716(b)(1).

189. *Id.* There is, however, an exemption that permits the extension of aid to a major swap participant that is “an insured depository institution.” *Id.* § 716(g).

190. *Id.* § 716(g).

191. Federal Reserve Act of 1913, Pub. L. No. 63-43, 38 Stat. 251 (codified as amended in scattered section of 12 U.S.C. (2006)). *See also* Lees Allen, *supra* note 160, at 1087; Adam Levitin, *Response: The Tenuous Case for Derivatives Clearinghouses*, 101 GEO. L. J. 445, 462 (2013) (noting that a clearinghouse may be deemed a systemically important financial institution market utility).

192. Dodd-Frank Act § 805(a) (codified at 12 U.S.C. § 5464(a)); Colleen Baker, *The Federal Reserve as Last Resort*, 46 MICH. J. L. REF. 69, 109–12 (2012).

markets.¹⁹³ Without countervailing internal governance mechanisms, the implicit backstop of the federal government may ironically increase, rather than reduce, risk in OTC derivatives markets.

C. *The Dodd Frank Act Imposes Federal Corporate Governance Reforms*

Legislators, regulators, and market participants have engaged in a spirited debate regarding the anticompetitive incentives, conflicts of interest, and institutional constraints that impede effective clearinghouse governance.¹⁹⁴ Congressional committees considered, but declined to incorporate language in the statute expressly promoting specific governance requirements.¹⁹⁵ Title VII does, however, authorize regulatory agencies to implement reforms to address governance, moral hazard, and systemic risk concerns. Under this authorization, the SEC and the CFTC proposed two alternatives.¹⁹⁶ The agencies proposed rules limiting large dealers' ability to obtain economic or voting control.¹⁹⁷ The rules aim to prevent directors sponsored by large dealers from dominating clearinghouse boards. In addition, the proposals impose

193. See, e.g., Ben S. Bernanke, Chairman, Bd. of Governors of the Fed. Reserve Sys., Address to the Council on Foreign Relations: Financial Reform To Address Systemic Risk (Mar. 10, 2009), available at <http://www.federalreserve.gov/newsevents/speech/bernanke20090310a.htm>.

194. Greenberger, *supra* note 169, at 7–14 (describing clearinghouse members' anticompetitive incentives to restrict membership and clearing eligibility); Griffith, *supra* note 161, at 1155–56; Yadav, *supra* note 161, at 395–99.

195. See, e.g., H.R. REP. NO. 111-370, at 188–92 (2009); Wall Street Reform and Consumer Protection Act, H.R. 4173, 111th Cong. § 3306(a)(2)(D) (1st Sess. 2009) (amending the Commodity Exchange Act by revising § 5d(15)); *id.* § 3306(b)(2)(D) (amending the Securities Exchange Act by inserting § 17A(b)(3)(J)). Representative Stephen Lynch proposed an amendment to the working bill in the House of Representatives suggesting that it include language addressing members' incentives to restrict access to membership. See Johnson, *supra* note 50, at 75. The “Lynch Amendment” proposed statutory language that would have expressly limited the voting interest of large dealers and imposed governance requirements designed to ensure that a majority of the members of the clearinghouse's board were independent. *Id.* While the Lynch Amendment did not become part of the final legislation, the enacted statute does include language that empowers federal regulatory agencies to adopt rules addressing concerns regarding members' incentives to restrict eligibility for clearinghouse membership and the types of transactions eligible for clearing. *Id.*

196. Both the CFTC and the SEC proposed rules in October 2011. See Requirements for Derivatives Clearing Organizations, Designated Contract Markets, and Swap Execution Facilities Regarding the Mitigation of Conflicts of Interest, 75 Fed. Reg. 63,732 (proposed Oct. 18, 2010) (to be codified as 17 C.F.R. pt. 1, 37, 38, 39, and 40); Governance Requirements for Derivatives Clearing Organizations, Designated Contract Markets, and Swap Execution Facilities; Additional Requirements Regarding the Mitigation of Conflicts of Interest, 76 Fed. Reg. 722 (proposed Jan. 6, 2011) (to be codified as 17 C.F.R. pt. 1, 37, 38, 39, and 40).

197. See Mitigation of Conflicts of Interest, 75 Fed. Reg. at 63732–53; Additional Requirements Regarding the Mitigation of Conflicts of Interest, 76 Fed. Reg. at 722–37.

conventional corporate governance reforms, such as requiring boards to reserve seats for independent board members, create certain board committees, and appoint independent directors to a specified number of board and committee seats.¹⁹⁸

The first proposal, the “Voting Interest Focus Alternative,”¹⁹⁹ creates individual and aggregate ownership limits for certain financial institutions described as “specified entities.”²⁰⁰ Under the “Voting Interest Focus Alternative,” a specified entity may not own directly or indirectly more than twenty percent of the voting interests of a clearinghouse.²⁰¹ In addition, a group of specified entities may not collectively own more than forty percent of the aggregate voting interests of a clearinghouse.²⁰² The approach limits large dealers’ ability to individually capture voting control, presumably diversifying the board of directors and increasing the likelihood of the board’s objective evaluation of membership, clearing, and risk management standards.

In addition, regulators have proposed a “Governance Focused Alternative,” which prohibits any individual member or specified entity from owning more than five percent of the voting interest of a clearinghouse.²⁰³ The Governance Focused Alternative limits any individual dealer from gaining voting control and attempts to mitigate the likelihood that large dealers will collaborate to capture sufficient voting authority to control a clearinghouse board.²⁰⁴

The Commissions’ proposals also aim to enhance clearinghouse boards’ objectivity by imposing board composition and committee

198. Ownership Limitations and Governance Requirements for Security-Based Swap Clearing Agencies, Security-Based Swap Execution Facilities, and National Securities Exchanges with Respect to Security-Based Swaps Under Regulation MC, 75 Fed. Reg. 65,882, 65,894 (proposed Oct. 26, 2010) (to be codified as 17 C.F.R. pt. 242).

199. Regulation MC, 75 Fed. Reg. at 65,893–94.

200. Section 765(a) of the Dodd-Frank Act authorizes the SEC to adopt rules that set numerical limits on the voting control of “Specified Entities” which includes bank holding companies with consolidated assets of \$50 billion or more, a nonbank financial company, an affiliate company, a security-based swap dealer, or a major security based swap participant. *See* Mitigation of Conflicts of Interest, 75 Fed. Reg. at 65,883. A parallel provision under Section 726(a) of the Dodd-Frank Act authorizes the CFTC to adopt rules of a bank holding company or nonbank financial limiting the voting control of Enumerated Entities. *Additional Requirements Regarding the Mitigation of Conflicts of Interest*, 76 Fed. Reg. at 722–37. (citing Dodd-Frank Act, Pub. L. No. 111-203, § 726(a), 124 Stat. 1376, 1695 (2010) (codified at 15 U.S.C. § 8305 (Supp. 2011)).

201. *See* Regulation MC, 75 Fed. Reg. at 65,894–903.

202. *Id.* at 65,895.

203. *See id.* at 65,900.

204. *Id.*

requirements.²⁰⁵ The Voting Interest Focus Alternative requires the clearinghouse to appoint independent directors to at least thirty-five percent of the clearinghouse's board seats,²⁰⁶ while the Governance Focused Alternative requires clearinghouses to appoint independent directors to a majority of the board positions.²⁰⁷ Each proposal obligates the board of the clearinghouse to establish a nominating committee, disciplinary panel, and risk-management committee.²⁰⁸ The proposed structural and compositional requirements serve as a critical "check against conflicts of interests."²⁰⁹

Limiting large dealers' ability to attain economic or voting control stymies their ability to influence the decisions of elected clearinghouse directors. If large dealers sponsor fewer directors, then their boards may face fewer conflicts and may independently assess risk management, collateral, margin, and capital contribution policies. A more independent board reduces the risk that clearinghouses will adopt artificial restrictions on membership access and clearing eligibility.

Regulators' proposed corporate governance reforms suffer, however, from commonly discussed shortcomings. Despite federal agencies' efforts to implement standards that enforce fair and balanced clearing membership and eligibility criteria, large dealers may collaborate to overcome ownership and voting limits.²¹⁰ Moreover, the appointment of independent directors may not effectively address concerns regarding policies that support large dealers' commercial incentives. Evidence demonstrates that independent directors may face conflicts of interest similar to the conflicts that inside directors face.²¹¹

205. *Id.* at 65,896, 65,901–02.

206. *Id.* at 65,896. The CFTC proposal requires "public directors," but defines public directors in a manner consistent with the SEC definition of "independent director." *See* Requirements for Derivatives Clearing Organizations, Designated Contract Markets, and Swap Execution Facilities Regarding the Mitigation of Conflicts of Interest, 75 Fed. Reg. 63,732, 63,742 n.73 (proposed Oct. 18, 2010) (to be codified as 17 C.F.R. pt. 1, 37, 38, 39, and 40).

207. Regulation MC, 75 Fed. Reg. at 65,901.

208. Under the SEC's Voting Interest Focus Alternative, clearinghouses must appoint independent directors to at least a majority of the seats on the nominating committee. Under the Governance Focus Alternative, only independent directors may be appointed to the nominating committee. *Id.* at 65,897, 65,901. Under the CFTC approval, the chair for the disciplinary panels must be a public director. Mitigation of Conflicts of Interest, 75 Fed. Reg. at 63,740. The risk management committee requirements in the CFTC proposal offer greater details regarding the participation of public directors and include a requirement that at least ten percent of the participants on the risk management subcommittee be customer representatives. *Id.* at 63,740–42.

209. Regulation MC, 75 Fed. Reg. at 65,896.

210. Greenberger, *supra* note 169, at 8.

211. Sanjai Bhagat & Bernard Black, *The Non-Correlation Between Board Independence and Long-Term Firm Performance*, 27 J. CORP. L. 231, 233 (2002); Lisa M. Fairfax, *The Uneasy Case*

Proposed requirements for appointing independent directors are similarly weak. In order to comply, clearinghouse boards will recruit from a limited pool of qualified experts and industry insiders.²¹² Evaluation of directors' independence focuses on material and financial ties.²¹³ In the insular group of qualified director candidates, it may be difficult to identify individuals who are *truly* independent—candidates who are free from relational ties to large dealers.²¹⁴ Failing to consider the influence of structural or relational ties or the impact of cognitive limits unduly restricts evaluation of directors' biases.²¹⁵

Clearinghouses function as critical engines in the operation of financial markets. Authorizing these institutions to serve as primary regulators, however, creates a uniquely public role for private businesses. While the introduction of clearinghouses alleviates some concerns regarding systemic risk in OTC derivatives markets, the recent financial crisis illustrates that OTC derivatives markets engender spillover effects that may impact the broader economy. Thus, significant risk governance concerns arise when members' self-interested incentives and conflicts of interest reduce the likelihood that clearinghouses will enhance the safety and soundness of financial markets and serve as an

for the Inside Director, 96 IOWA L. REV. 127, 174–76 (2010); *see also* Melanie B. Leslie, *The Wisdom of Crowds? Groupthink and Nonprofit Governance*, 62 FLA. L. REV. 1179, 1201 (2010) (arguing that “groupthink” bias can undermine the decision-making process by ignoring information that challenges the majority’s viewpoint or elevating the opinions of particular group members above others); Antony Page, *Unconscious Bias and the Limits of Director Independence*, 2009 U. ILL. L. REV. 237, 251–53 (2009) (describing how “in-group” bias makes directors more likely to side with other directors); Julian Velasco, *Structural Bias and the Need for Substantive Review*, 82 WASH. U. L.Q. 821, 865 (2004) (explaining that structural bias theory demonstrates that, when faced with a conflict of interest, directors “are inherently prejudiced in favor of each other and of management, and may, consciously or unconsciously, favor their own interests over those of shareholders”).

212. Donald C. Langevoort, *The Human Nature of Corporate Boards: Laws, Norms, and the Unintended Consequences of Independence and Accountability*, 89 GEO. L.J. 797, 798–99, 815–16 (2001).

213. *Id.* at 798–99; Marleen A. O’Connor, *The Enron Board: The Perils of Groupthink*, 71 U. CIN. L. REV. 1233, 1244 (2003).

214. This Article adopts the definitions of “independence” incorporated in recently adopted proposed federal corporate governance reforms. Existing reforms preclude directors who receive a certain amount of compensation from any particular institution from asserting that she is an “independent” board member of that institution’s board. *See, e.g.*, Sarbanes-Oxley Act of 2002, Pub. L. No. 107-204, Title III § 301(3), 116 Stat. 745, 776 (codified as amended at 15 U.S.C. § 78j-1(m)(3) (2006)). The Listed Company Manuals for the New York Stock Exchange and the NASDAQ adopt similar limiting provisions. *See* NEW YORK STOCK EXCHANGE, LISTED COMPANY MANUAL § 303A.02 (2013), *available at* <http://nysemanual.nyse.com>; NASDAQ STOCK MARKET RULES, LISTING RULE § Rule 5605(a)(2) (2009), *available at* <http://nasdaq.cchwallstreet.com/>.

215. Johnson, *supra* note 50, at 103–05; O’Connor, *supra* note 213, at 1251; Velasco, *supra* note 211, at 824.

institutional safeguard against systemic risk and moral hazard concerns. Without sufficient governance controls, clearinghouses will not serve the gatekeeping function that Congress envisions and the imposition of clearing requirements will not provide the anticipated solution to risk management concerns in the OTC derivatives market.

III. SELF-REGULATION ADDRESSES SOME CONFLICTS AND EXACERBATES OTHERS

As Part I explained, when owners delegate decision-making authority to professional managers, conflicts of interest may arise; professional managers' interests may diverge from the interests of owners. Corporate governance mechanisms enable owners to monitor managers. When an industry develops a specialized firm to enhance the order of a particular market, market participants and regulators rely on similar governance tools. The development of exchanges and clearinghouses illustrates the creation of specialized firms in the finance industry. Part II explores the difficulties of relying on boards of directors appointed by market participants who own and control OTC derivatives clearinghouses. In response to concerns that clearinghouse boards may not adopt regulation consistent with federal mandates, federal regulators have imposed corporate governance reforms similar to those regularly employed by various businesses.

The introduction of OTC derivatives clearinghouses represents a hybrid solution; the clearinghouses are private but serve a public regulatory function. This Part explores the merits of this hybrid regulatory approach and argues that an emerging theory within the self-regulation paradigm offers critical insights for maximizing the benefits of this approach and mitigating the costs.

A. *Regulatory Theories Fall Along a Continuum*

There are three dominant regulatory paradigms: a laissez-faire approach, a government-centered approach, and a self-regulatory approach. Careful examination reveals that these regulatory approaches fall along a continuum. The first two theoretical approaches rest at either end of the continuum. At one end of the continuum, the laissez-faire regulatory approach is characterized by the absence of an external regulator.²¹⁶

Under the laissez-faire, or free market approach, the government's

216. FINANCIAL CRISIS INQUIRY COMM'N, THE FINANCIAL CRISIS INQUIRY REPORT 386 (2011).

role is typically limited to enforcing private contracts. Arguments supporting the free market approach emphasize norms such as economic efficiency, liquidity, innovation, and entrepreneurialism. The command-and-control approach, which lies at the other end of the continuum, reposes absolute authority in the government or its delegated agencies. Under the command-and-control regulatory approach, government authorities adopt, implement, and enforce regulation through administrative proceedings.

Both the free market and command-and-control approaches are fairly controversial; few commentators support a pure form of either model. Critics of the free market regulatory model blame deregulation or reliance on a private market ordering for the implosion in the OTC derivatives markets during the recent crisis.²¹⁷ Commentators have expressed similar discontent with the command-and-control regulatory approach. The state-centered regulatory model rests on three assumptions: homogeneity, rigidity, and competency. This approach presumes that regulated firms are homogenous and that regulators' imposition of rigid, uniform, inflexible, prophylactic rules offers an effective regulatory solution.²¹⁸ Government agencies are assumed to have sufficient competence to implement market oversight.²¹⁹ These assumptions are often inaccurate. As a result of these weaknesses, theorists typically reject pure forms of the dominant regulatory approaches.

Self-regulation, however, offers a hybrid regulatory theory that incorporates the most beneficial elements of laissez-faire and command-and-control approaches.²²⁰ Self-regulation mitigates the costs of the models at the ends of the regulatory continuum. Within this framework,

217. See, e.g., Andre Cummings, *Racial Coding and the Financial Market Crisis*, 2011 UTAH L. REV. 141, 156–57 (2011); Johnson, *supra* note 20, at 173; Johnson, *supra* note 50, at 76–77.

218. For a survey of the expansive literature that supports the construction of this paradigm, see Timothy F. Malloy, *The Social Construction of Regulation: Lessons from the War Against Command and Control*, 58 BUFF. L. REV. 267, 280 (2010). Through the adoption of rigid rules and standards, a top-down, centralized decision-making authority resolves disputes regarding resource allocation or requests for licenses by requiring conformity with stated standards. See James E. Krier, *Marketable Pollution Allowances*, 25 U. TOL. L. REV. 449, 451 (1994); Cass R. Sunstein, *Problems with Rules*, 83 CALIF. L. REV. 953, 1019 (1995); see also Lisa Heinzerling, *Selling Pollution, Forcing Democracy*, 14 STAN. ENVTL. L.J. 300, 302 (1995). Financial markets commentators often express strong resistance to the command-and-control approach because it is rigid, inflexible, costly, misguided, and often fails to address undesirable conduct.

219. See Howard Latin, *Ideal Versus Real Regulatory Efficiency: Implementation of Uniform Standards and "Fine-Tuning" Regulatory Reform*, 37 STAN. L. REV. 1267, 1270–73 (1985) (arguing in favor of uniform command-and-control regulation).

220. Omarova, *supra* note 60, at 675–76.

regulators, private trade organizations, and market participants engage in a regulatory dialectic, collaboratively developing governance standards.²²¹

Self-regulation offers a dynamic alternative to the presumed binary choice between a laissez-faire and a command and control regulatory approach. Self-regulation is, however, an elusive theoretical concept. Within the bandwidth of the theory of self-regulation, there are several organizational models. Certain applications of self-regulation adopt more significant levels of government participation, while other models endow market participants with greater amounts of regulatory authority. Resolving the weaknesses in self-regulation requires carefully examining the contours of this regulatory model. The theory of New Governance offers salient lessons that identify critical attributes of the self-regulatory model and adapt the model to engender a better-tailored regulatory approach.

B. New Governance Proposes a New Vision of Self-Regulation

New Governance literature examines the contours of the theory of self-regulation.²²² New Governance deconstructs self-regulation and explores commonly adopted self-regulatory practices. New Governance is a “bottom-up, decentered, horizontal experimental process by private actors”²²³ that reinterprets the notion of self-regulation.²²⁴

New Governance focuses on critical characteristics of self-regulation, such as accountability, participation, and experimentation. To determine

221. See Robert B. Ahdieh, *Dialectical Regulation*, 38 CONN. L. REV. 863, 868 (2006). There are, however, commentators who challenge the efficacy of self-regulation. See, e.g., Roberta Romano, *The Sarbanes-Oxley Act and the Making of Quack Corporate Governance*, 114 YALE L.J. 1521, 1529 (2005) (critiquing reforms imposing a blend of federal mandates that impose internal corporate governance requirements because of the lack of empirical evidence correlating the reforms to regulated entities’ undesirable behavior). But see Robert A. Prentice & David B. Spence, *Sarbanes-Oxley as Quack Corporate Governance: How Wise Is the Received Wisdom?*, 95 GEO. L.J. 1843, 1845 (2007).

222. See IAN AYRES & JOHN BRAITHWAITE, *RESPONSIVE REGULATION: TRANSCENDING THE DEREGULATION DEBATE* 1, 7–20 (1992); EUGENE BARDACH & ROBERT A. KAGAN, *GOING BY THE BOOK: THE PROBLEM OF REGULATORY UNREASONABLENESS* (1982); Richard H. Pildes & Cass R. Sunstein, *Reinventing the Regulatory State*, 62 U. CHI. L. REV. 1 (1995); Charles F. Sabel & William H. Simon, *Destabilization Rights: How Public Law Litigation Succeeds*, 117 HARV. L. REV. 1016 (2004); Mark Tushnet, *A New Constitutionalism for Liberals?*, 28 N.Y.U. REV. L. & SOC. CHANGE 357, 360 (2003).

223. Cristie Ford, *New Governance in the Teeth of Human Frailty: Lessons from Financial Regulation*, 2010 WIS. L. REV. 441, 445 (2010).

224. See Joanne Scott & Susan Sturm, *Courts as Catalysts: Re-thinking the Judicial Role in New Governance*, 13 COLUM. J. EUR. L. 565, 566 (2007).

whether self-regulatory policies satisfy public expectations for governance, theorists evaluate three aspects of the policies. First, theorists examine whether self-regulatory policies are consistent with public interests in the regulated market. Self-regulating institutions are accountable when they implement reward and penalty systems that reinforce public policy goals. Second, accountable self-regulatory businesses adopt a culture and best practice standards that encourage executives and employees to consider the effect of their activities on third parties.²²⁵ Finally, accountable, self-regulatory policies lead market participants to internalize the negative externalities that market activities engender.²²⁶

Complimenting accountability, New Governance encourages greater participation and problem solving through consensus building. As Orly Lobel explains, New Governance challenges conventional assumptions about regulation by “broaden[ing] the decision-making playing field.”²²⁷ This approach invites a broader group of market participants, regulators and members of affected communities into the regulatory process.²²⁸ Increasing the diversity of actors who participate in the decision-making process leads to a more dynamic conversation regarding the substance of regulation.²²⁹

In addition, New Governance encourages experimentation with diverse solutions. Louis Brandeis famously proposed that the federal government should permit state governments to explore diverse solutions to regulatory questions.²³⁰ Similarly, New Governance introduces experimental processes that inspire creative solutions to regulatory questions. Experimentation facilitates innovation and encourages best practices standards.²³¹

The elements of participation and experimentation work in tandem to create a feedback loop, providing invaluable information to regulators.

225. Orly Lobel, *The Renew Deal: The Fall of Regulation and the Rise of Governance in Contemporary Legal Thought*, 89 MINN. L. REV. 342, 384 (2004).

226. *Id.*

227. *Id.* at 373.

228. *Id.*

229. David Hess & Cristie L. Ford, *Corporate Corruption and Reform Undertakings: A New Approach to an Old Problem*, 41 CORNELL INT'L L.J. 307, 327 (2008).

230. *New State Ice Co. v. Liebmann*, 285 U.S. 262, 311 (1932) (Brandeis, J., dissenting) (noting that “[i]t is one of the happy incidents of the federal system that a single courageous State may, if its citizens choose, serve as a laboratory; and try novel social and economic experiments without risk to the rest of the country If we would guide by the light of reason, we must let our minds be bold”).

231. *See* Lobel, *supra* note 225, at 460.

Regulators may aggregate the information that they receive, thereby enhancing their understanding of the costs and benefits of various approaches.²³² Based on the information that they receive, regulators adjust provisional rules to better achieve public policy goals.²³³ The sustainability of New Governance rests on the continuous monitoring and re-visitation of regulations as aggregated data informs the learning process.²³⁴ Experimentation enables regulators to adjust methods to better accomplish regulatory goals.

The theory of New Governance emerged from an eclectic group of legal disciplines and regulated markets, including environmental law, corporate law, health care law, employment discrimination law, cyber law, community policing, and nanotechnology.²³⁵ Scholars exploring the applications of New Governance have described the theory as “soft law,”²³⁶ “reflexive law,”²³⁷ “enforced self-regulation,”²³⁸ “negotiated governance,”²³⁹ “responsive regulation,”²⁴⁰ “collaborative governance,”²⁴¹ and “communicative governance.”²⁴² New Governance invites “flexible, responsive administrative practices [that] may be the only alternative to big, blunt bureaucracies on the one hand, and private

232. *Id.*

233. *Id.*

234. See Jody Freeman, *Collaborative Governance in the Administrative State*, 45 UCLA L. REV. 1, 34, 57 (1997).

235. See, e.g., Daniel A. Farber, *Taking Slippage Seriously: Noncompliance and Creative Compliance in Environmental Law*, 23 HARV. ENVTL. L. REV. 297, 297–326 (1999); Ford, *supra* note 223 (describing the application of New Governance in financial markets); Susan Sturm, *Second Generation Employment Discrimination: A Structural Approach*, 101 COLUM. L. REV. 458, 475–76 (2001) (describing the application of New Governance in employment discrimination law); Gurumurthy Ramachandran, et al., *Recommendations for Oversight of Nanobiotechnology: Dynamic Oversight for Complex and Convergent Technology*, 13 J. Nanoparticle Res. 1345, 1354–55 (2011).

236. Kerstin Jacobsson, *Innovations in EU Governance: The Case of Employment Policy Coordination*, 3 n.3 (Stockholm Ctr. for Organizational Research, Working Paper No. 2001:12, 2001), available at http://www.score.su.se/polopoly_fs/1.26668.1320939808!/200112.pdf.

237. ALBERTO FEBBRAJO & GUNTHER TEUBNER, *STATE, LAW AND ECONOMY AS AUTOPOIETIC SYSTEMS: REGULATION AND AUTONOMY IN A NEW PERSPECTIVE* 1 (1992).

238. AYRES & BRAITHWAITE, *supra* note 222, at 101.

239. Kimberly D. Krawiec, *Cosmetic Compliance and the Failure of Negotiated Governance*, 81 WASH. U. L.Q. 487, 487 (2003).

240. See AYRES & BRAITHWAITE, *supra* note 222, at 16.

241. Freeman, *supra* note 234, at 33.

242. See Martijn Van Vliet, *Environmental Regulation of Business: Options and Constraints for Communicative Governance*, in MODERN GOVERNANCE: NEW GOVERNMENT—SOCIETY INTERACTIONS 105, 105 (Jan Kooiman ed., 1993).

market mechanisms on the other.”²⁴³

In a seminal examination of the principles of the theory, Ian Ayers and John Braithwaite explained that New Governance encourages regulators to continue to entrust regulation to market participants but emphasizes the significance of accountability, participation, and experimentation.²⁴⁴ Fundamentally, New Governance counterbalances the weaknesses of self-regulation by emphasizing regulated entities’ accountability to the broader communities where they operate.

Important criticisms, however, challenge the effectiveness of New Governance. Empirical studies evaluating New Governance policies reveal mixed conclusions regarding the benefits of the theory.²⁴⁵ Some studies suggest that New Governance offers a valuable tool for ensuring compliance with the law.²⁴⁶ Yet, it is difficult to establish a correlation between New Governance and enhanced compliance with regulatory programs²⁴⁷ because a number of variables influence market participants’ decision to comply with regulatory requirements.²⁴⁸ A board representative appointed by regulators may ensure that SROs implement New Governance principles.

IV. PROSECUTORS AND PRIVATE MARKETS SUGGEST AN ALTERNATIVE TO TRADITIONAL SELF-GOVERNANCE

Historically, financial market regulators have employed self-regulation in the financial services industry. Firms are subject to internal compliance programs and participate in private, self-regulatory organizations that impose and enforce rules consistent with federal law. As Part II noted, there are significant weaknesses in the current architectural framework of this approach, particularly in the application of this approach in OTC derivatives markets. This Part examines an approach for redesigning self-regulation based on principles proposed under the theory of New Governance and offers a proposal to better-tailor clearinghouse governance to address systemic risk concerns.

243. Lobel, *supra* note 225, at 443.

244. See AYRES & BRAITHWAITE, *supra* note 222, at 126.

245. *Id.*

246. See generally Lobel, *supra* note 225, at 457.

247. *Id.*

248. *Id.*

A. *Board Monitors or Board Observers Ensure Compliance with Federal Regulations*

The increasing complexity in financial markets and the far-reaching effects of market disruptions create deep suspicions regarding the merits of a purely laissez-faire regulatory model.²⁴⁹ Most financial market participants agree that, at a minimum, private institutions are necessary to mitigate credit and operational risks in markets that create systemic risks.²⁵⁰ Mandating clearing of OTC derivatives shifts the regulatory approach in OTC derivatives markets from a free market model to a self-regulatory framework. If a self-regulatory approach is employed in OTC derivatives markets, New Governance may offer guidance as regulators develop the structural and organizational details of this regulatory framework. New Governance theories offer a better-tailored approach for resolving the governance concerns that OTC derivatives clearinghouses face.

Appointing a special director, designated to participate in clearinghouse boards' decision-making processes, offers one method of incorporating New Governance principles into this self-regulatory process. Consistent with New Governance principles, the special director can mitigate the influence of market participants' anti-competitive interests, conflicts of interest, and policies that undermine the clearinghouse's role in risk oversight. The director, because of her role, might be described as a board monitor or a board observer.

Federal regulators and prosecutors frequently rely on an appointed corporate monitor to assess a corporate entity's compliance with federal law.²⁵¹ The Department of Justice (DOJ), SEC, and other federal

249. Paul Krugman, *Their Own Private Europe*, N.Y. TIMES, Jan. 28, 2011, at A31 (referencing the Financial Crisis Inquiry Commission report, which concludes that "30 years of deregulation and reliance on self-regulation" created the catastrophe); Arash Massoudi, *Concern over US Exchange Self Regulation*, FIN. TIMES, June 21, 2012, at D1; Louise Story, *A Secretive Banking Elite Rules Derivative Trading*, N.Y. TIMES, Dec. 12, 2010, at A1 (determining that "[f]undamentally, the banks are not good at self-regulation . . .").

250. COMMODITY FUTURES TRADING COMM'N, CFTC-SEC STAFF ROUNDTABLE ON CLEARING OF CREDIT DEFAULT SWAPS 1, 66-67 (Oct. 22, 2010), available at http://www.cftc.gov/ucm/groups/public/@swaps/documents/dfs submission/dfs submission7_102210-transcrip.pdf; COMMODITY FUTURES TRADING COMM'N, JOINT CFTC-SEC STAFF ROUNDTABLE ON IMPLEMENTATION PHASING FOR FINAL RULES FOR SWAPS AND SECURITY-BASED SWAPS UNDER TITLE VII OF THE DODD-FRANK WALL STREET REFORM AND CONSUMER PROTECTION ACT 1, 35 (May 2, 2011), available at http://www.cftc.gov/ucm/groups/public/@newsroom/documents/file/cs jac_transcript050211.pdf.

251. A rich body of literature has emerged examining the cooperative concessions described in the Department of Justice memoranda issued since 1999, including the waiver of attorney client privilege and work product doctrine. See, e.g., Miriam Hechler Baer, *Governing Corporate*

regulatory agencies, impose corporate monitors on subject companies after criminal investigations, prosecutions, or indictments.²⁵² The responsibilities of the monitor are often memorialized in deferred prosecution agreements (DPAs), non-prosecution agreements (NPAs)²⁵³ or consent decrees.²⁵⁴

A similar market-based solution exists among venture capital and private equity firms. These businesses frequently acquire interests in fledgling firms and negotiate for the right to appoint an observer to the board of directors.²⁵⁵ The board observer analyzes the information distributed to the board and periodically delivers reports to the private equity or venture capital investors who appointed her to monitor the board's decisions.²⁵⁶ Unlike any of the elected directors, a board monitor or observer would report directly to and receive compensation from the federal regulatory organizations that oversee clearinghouses' compliance with Title VII. The presence of the board monitor or observer would

Compliance, 50 B.C. L. REV. 949, 969 (2009); Brandon L. Garrett, *Structural Reform Prosecution*, 93 VA. L. REV. 853, 893–902 (2007); Gideon Mark & Thomas C. Pearson, *Corporate Cooperation During Investigations and Audits*, 13 STAN. J.L. BUS. & FIN. 1, 5 (2007).

252. See Cristie Ford & David Hess, *Can Corporate Monitorships Improve Corporate Compliance?*, 34 J. CORP. L. 679, 691, 731 (2008).

253. During the course of criminal investigations, upon a guilty plea, or following a criminal conviction under Racketeer Influenced and Corrupt Organizations Act (RICO), 18 U.S.C. §§ 1961–1968 (2006), and other federal laws, the DOJ has agreed to enter into settlement agreements with companies subject to enforcement. As part of the settlement agreement, the DOJ required the appointment of a corporate monitor. Ford & Hess, *supra* note 252, at 684.

254. The SEC has the authority under Section 21(d) of the Securities Exchange Act to enjoin activity that violates federal securities laws. Securities Exchange Act of 1934 § 21(d), 15 U.S.C. § 78u(d) (2006); see also Daniel J. Morrissey, *SEC Injunctions*, 68 TENN. L. REV. 427, 439–40 (2001); David M. Weiss, *Reexamining the SEC's Use of Obey-the-Law Injunctions*, 7 U.C. DAVIS BUS. L.J. 239, 242 (2006). Under DPAs, NPAs, other settlement agreements, or consent decrees, the DOJ appoints monitors to review and report on the legal compliance of the firms, organizations, and institutions, including corporations, labor unions, public schools, prisons, and police and fire departments, that are subject to enforcement proceedings. Vikramaditya Khanna & Timothy L. Dickinson, *The Corporate Monitor: The New Corporate Czar?*, 105 MICH. L. REV. 1713, 1714–20 (2007). The DOJ and other federal agencies have a long history of using settlement agreements requiring the appointment of independent consultants, examiners, and private inspector generals to report on a firm's current and likely future compliance with federal law. *Id.* These settlement agreements, consent decrees, DPAs, and NPAs often create conditions consistent with corporate probation. Christopher Wray, *Corporate Probation Under the New Organizational Sentencing Guidelines*, 101 YALE L.J. 2017, 2027–28 (1992) (describing how the 1991 Organizational Sentencing Guidelines adopted the use of corporate probation and obligated firms subject to enforcement to appoint a special monitor).

255. Mark J. Graffagnini, *Corporate Strategies for Nanotech Companies and Investors in New Economic Times*, 6 NANOTECHNOLOGY L. & BUS. 251, 258 (2009) (describing strategic investors and venture capital funds investment in nanotechnology start-up companies).

256. *Id.*

offer the clearinghouses greater insight into federal agencies' regulatory expectations and provide greater transparency in the regulation of clearinghouses.

B. Evaluating Monitors and Observers' Performance Poses a Challenge

Monitors or observers engender significant benefits, but it may be difficult for these outsiders to accomplish certain principles outlined in the New Governance literature. Monitors or observers function as an important liaison between financial market participants and regulators that enhances risk oversight. Currently, industry efforts to expand interoperability are limited, meaning it is difficult to facilitate clearing and settlement across clearinghouse platforms.²⁵⁷ Unlike a clearinghouse board which can only view market participants' risk exposure on their individual platforms, a monitor or observer can solicit information from all OTC derivatives clearinghouses and assess all market participants' risk exposure across OTC derivatives markets.

In the absence of a market-based commitment to aggregating the information across OTC derivatives transactions, board observers or board monitors may report transaction-related data to the regulatory agency assigned as the primary regulator of the clearinghouse. The agencies may then report information to the Financial Stability Oversight Committee (FSOC)²⁵⁸ and the Office of Financial Research.²⁵⁹ Armed with timely and more complete information, FSOC and the Office of Financial Research will be better positioned to anticipate and mitigate systemic risk concerns in OTC derivatives markets.

The board monitor or observer will ensure that clearinghouses are more accountable by assessing, evaluating, and advising clearinghouse boards regarding important risk management policies. In addition, the board monitor or observer increases the diversity of participants

257. Scott, *supra* note 159, at 700 nn.124, 127.

258. Dodd–Frank Act, Pub. L. No. 111-203, § 111(a), 124 Stat. 1376, 1392 (2010) (codified at 12 U.S.C. § 5321 (Supp. 2011)) (establishing the FSOC); Brett McDonnell & Daniel Schwarcz, *Regulatory Contrarians*, 89 N.C. L. REV. 1629, 1674–75 (2011).

259. Dodd–Frank Act § 152(a) (codified at 12 U.S.C. § 5342) (establishing the Office of Financial Research); McDonnell & Schwarcz, *supra* note 258, at 1670; Jennifer Taub, Great Expectations for the Office of Financial Research, 23 (Oct. 4, 2011) (unpublished paper), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1784298; see also OFFICE OF FIN. RESEARCH, DEP'T OF THE TREASURY, 2012 ANNUAL REPORT 1–5, 59–64 (2012), available at http://www.treasury.gov/initiatives/wsr/ofr/Documents/OFR_Annual_Report_071912_Final.pdf; OFFICE OF FIN. RESEARCH, DEP'T OF THE TREASURY, STRATEGIC FRAMEWORK 1, 8–10 (2012), available at <http://www.treasury.gov/initiatives/wsr/ofr/Documents/OFRStrategicFramework.pdf>.

involved in regulation, offering an expert representative who has no financial ties to the clearinghouse or large dealers that control the board. The board monitor or observer is free from the politics of board election processes and does not face the conflicts that elected directors face. Therefore, the board observer or monitor may freely challenge policies that are antithetical to risk-mitigating public policy goals. Finally, the role of the board monitor or observer does not detract from the authority state law assigns to the board or the efficiency of the board's decision-making process; the board monitor or observer will not vote on board decisions.

Monitors or observers, however, may not fully achieve the goals of New Governance. Similar to corporate monitors, clearinghouse board monitors and observers may face constraints in the timing of their service and the scope of their duties. Such limitations would impede the clearinghouses' accountability for the negative externalities that they engender and the greater depth of participation envisioned by regulators. As the corporate monitor who was appointed in 2002 following the SEC's prosecution of WorldCom, Inc. noted, there are persistent challenges that inhibit a monitor's execution of his responsibilities.²⁶⁰ The WorldCom monitor's authority was limited to preventing the destruction of documents evidencing WorldCom's pervasive fraud.²⁶¹ Establishing the appropriate limits on the monitor's authority may be difficult.

There are many reasons that critics challenge the appointment of a monitor. First, courts generally appoint monitors in cases involving criminal misconduct.²⁶² While there are examples of monitors appointed in civil cases, these examples are less common.²⁶³ Seeking participation in the board room represents an invasion into the most intimate exchanges in the life of a corporation. If the appointment of a monitor is

260. Following the massive accounting scandals at Enron, WorldCom, and Tyco in the early 2000s, the SEC increased its use of corporate monitors. See Jennifer O'Hare, *The Use of the Corporate Monitor in SEC Enforcement Actions*, 1 BROOK. J. CORP. FIN & COM. L. 89, 96 (2006). Judge Jed Rakoff of the U.S. District Court for the Southern District of New York signed the order appointing the corporate monitor of WorldCom within two days of the SEC filing its complaint requesting the monitor. Within a week, the court and parties agreed upon a process for selecting a monitor, identified candidates, and agreed upon the appointment of Richard S. Breeden, former Chairman of the SEC. See Stipulation and Order of June 28, 2002, SEC v. WorldCom, Inc., No. 02 Civ. 4963 (S.D.N.Y. June 28, 2002); Memo to Civil Docket Clerk, SEC v. WorldCom, Inc., No. 02 Civ. 4963 (S.D.N.Y. July 3, 2002).

261. SEC v. WorldCom, Inc., No. 02 Civ. 4963, 2002 U.S. Dist. LEXIS 14201, at *3-4 (S.D.N.Y. Aug. 1, 2002).

262. See, e.g., O'Hare, *supra* note 260, at 96.

263. See Khanna & Dickinson, *supra* note 254, at 1733.

a form of punishment, then requiring boards of clearinghouses or other important financial institutions to appoint a monitor in advance of evidence of wrongdoing may be difficult to justify. This approach also seems to create a greater right to participate than New Governance requires.

Second, there is no universally agreed upon criteria for evaluating the performance of a board observer or corporate monitor.²⁶⁴ In addition, the board observers and board monitors have disparate mandates. Mission creep, or a monitor's expanding powers and authority, further complicates any evaluation of the merits of appointing a monitor.²⁶⁵ Finally, corporate monitors are appointed for a term, meaning, upon the expiration of the term, there is no means to ensure that the monitor served as an effective antidote to overcome the incentives, conflicts, or institutional constraints that limit effective risk management.

These concerns, however, are not fatal to the proposal. Regulators can carefully tailor the scope of board monitor or observers' responsibilities to empower board observers or monitors to detect risk management and legal compliance concerns while respecting the intimacy of the boardroom. Because the board monitor or observer does not vote, the proposals respect the sanctity of the relationship between members or shareholders and the clearinghouse businesses that they own or manage. In addition, regulators can be flexible in their assignments of monitors and observers, crafting specific missions and adjusting the term of the board monitor or observer in accordance with other internal risk oversight mechanisms such as board composition, risk management technology, or frequent, voluntary disclosure of more comprehensive material information than federal regulations require.

CONCLUSION

This Article questions the existing architectural framework of self-regulation in financial markets. Historically, financial services firms have adopted internal compliance programs and participated in private, collective trade organizations that impose rules on individual market

264. See Ford & Hess, *supra* note 252, at 691.

265. In *WorldCom*, however, Judge Rakoff expanded the monitor's mission by granting the monitor authority to solicit "complete information about every aspect of the business," to interview any employee, and to participate in any meetings, discussions (bankruptcy or other), or proceedings relevant to the monitor's mission. *WorldCom*, 2002 U.S. Dist. LEXIS 14201, at *4. Moreover, the monitor was granted authority to attend all WorldCom board and board committee meetings. The final consent decree between WorldCom and the SEC further extended the monitor's powers, permitting the monitor to engage in every aspect of WorldCom's general operations.

participants and the industry. The prevailing view suggests that this framework employs elements that effectively align market participants' and SROs' interests with broader normative regulatory goals. Recent scandals and financial crises, however, undermine the assumptions supporting this claim.

Proponents of self-regulation rightly assert that for centuries SROs have adopted, implemented, and enforced desirable regulatory norms. The LIBOR rate-rigging scandal described above illustrates how conflicts of interest within and among financial institutions undermine self-regulation. In the case of the LIBOR scandal, BBA member banks face a persistent tension between reporting accurately (even if such reporting negatively impacts their individual financial condition) or misreporting, manipulating, and threatening the integrity of LIBOR. These conflicts are pervasive and commonly arise within SROs.²⁶⁶

This Article disputes the oversimplification of the regulatory debate which characterizes the financial markets regulation framework as a static, binary choice between a free market approach or a top-down regulatory regime. Economic organization theory supports the creation and empowerment of SROs. According to economic organization theory, the creation of SROs engenders valuable benefits including greater transparency, operational integrity, and economic efficiency.

There are numerous challenges, however, to adopting a self-regulatory framework in OTC derivatives markets. Clearinghouse boards face intractable conflicts of interest and institutional constraints. The Dodd-Frank Act proposes weak corporate governance measures to address these concerns. The proposed reforms leave clearinghouses vulnerable to manipulation by the market participants who control the internal decision-making processes within clearinghouses. Regulatory design must address these complex and dynamic conflicts of interest.

To address weaknesses in the SRO model, this Article argues that regulation must introduce well-tailored governance reforms that enhance effective risk management within clearinghouses. Employing principles from the theory of New Governance and drawing from other examples in the finance literature, this Article advocates for appointing a board monitor or observer to clearinghouse boards. This expert, independent third party would enhance risk management decision-making in OTC derivatives markets, mitigate moral hazard and systemic risk concerns, and thereby protect financial markets from the perils of future crises.

266. See generally Michael S. Barr, *The Financial Crisis and the Path of Reform*, 29 YALE J. ON REG. 91, 93 (2012); Justin T. Wong, *LIBOR Left in Limbo: A Call for More Reform*, 13 N.C. BANKING INST. 365, 372 (2009).