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A BRIDGE TOO FAR: A CRITICAL ANALYSIS OF THE SECURITIES AND EXCHANGE COMMISSION'S APPROACH TO EQUITY MARKET REGULATION

John Polise *

ABSTRACT

*Using the framework articulated by Thomas S. Kuhn in his book, *The Structure of Scientific Revolutions*, this Article traces the evolution of equity market regulation in terms of its epistemological foundations and operative paradigms. It examines the SEC's growth from a more passive partner with the securities industry to being an aggressive and perhaps overly intrusive arbiter of equity market operations. This Article identifies two distinct paradigms of securities regulation—the “Self-Regulatory Paradigm” and the “Micro-Intervention Paradigm.” The Self-Regulatory Paradigm and the Micro-Intervention Paradigm are not compatible, and this Article explains how the intellectual dissonance between them ultimately allowed the Micro-Intervention Paradigm to gain acceptance and replace the Self-Regulatory Paradigm. It then identifies issues with the Micro-Intervention Paradigm and argues that the adoption of the more interventionist approach it requires has strained the resources of the SEC, and may now be inhibiting innovation and improvement in the equity markets.*

INTRODUCTION

In January of 2015, the Securities and Exchange Commission (SEC or Commission) announced the formation of a new Equity Structure Advisory Committee (the Committee).¹ The stated purpose of the Committee was to provide a formal mechanism through which the Commission can receive

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1. Press Release, Sec. & Exch. Comm'n, SEC Announces Members of New Equity Market Structure Advisory Committee (Jan. 13, 2015), <https://www.sec.gov/news/pressrelease/2015-5.html>; Press Release, Sec. & Exch. Comm'n, SEC Votes to Renew Equity Market Structure Advisory Committee (Nov. 29, 2016), <https://www.sec.gov/news/pressrelease/2016-249.html>.

advice and recommendations specifically related to equity market structure issues.² This evaluation of equity market structure provides an opportunity to analyze the development and application of the Commission's views on equity market regulation in the twenty-first century.

This analysis is timely because of the numerous substantive changes to the capital markets that have occurred in the eighty years since the federal securities laws were first adopted. The markets of 1934 were largely centralized, physical locations where individuals could gather to consummate transactions in securities. Today's markets do not require physical locations or even direct human interaction. Computers executing algorithmic instructions automatically conduct much of modern trading.³ While there have been and continue to be numerous additions to the federal securities laws, there has not been a wholesale evaluation of the assumptions underlying the statutes or whether the approach is sufficient to address twenty-first century market issues. Academic debates about the appropriate level of financial regulation perhaps miss the larger point that the framework on which regulation is built may not be adequate for the markets.⁴ Indeed, the basic assumption that the Commission always has been, and must continue to be, deeply involved in the mechanics of the equity markets may be misplaced.⁵ In short, I believe the context and

2. The SEC had previously held Roundtables on Market Structure on Oct. 29, 2002. *See* Cynthia Glassman, Comm'r, Sec. & Exch. Comm'n, Roundtable: Market Structure Hearing (Oct. 29, 2002), <https://www.sec.gov/spotlight/marketstructure/mkts102902-hrg.txt>; *see also*, Concept Release on Equity Market Structure, Proposed Rule, 75 Fed. Reg. 3594, 3596 (Jan. 21, 2010) (to be codified at 17 C.F.R. pt. 242) (conducting "a comprehensive review of equity market structure" to assess "whether market structure rules have kept pace with, among other things changes in trading technology practices").

3. *See* Andrei A. Kirilenko & Andrew W. Lo, *Moore's Law Versus Murphy's Law: Algorithmic Trading and Its Discontents*, J. ECON. PERSP., 2013, at 51 (providing an overview of algorithmic trading arguing that Commission rules are outdated).

4. *Compare* Roberta Romano, *The Sarbanes-Oxley Act and the Making of Quack Corporate Governance*, 114 YALE L.J. 1521 (2005), and Roberta Romano, *Does the Sarbanes-Oxley Act Have a Future?*, 26 YALE J. ON REG. 229 (2009), with John C. Coffee Jr., *The Political Economy of Dodd-Frank: Why Financial Reform Tends to Be Frustrated and Systemic Risk Perpetuated*, 97 CORNELL L. REV. 1019 (2012).

5. Mary Jo White, Chair, Sec. & Exch. Comm'n, Remarks Before the SEC Historical Society, *The Continuous Process of Optimizing the Equity Markets* (June 2, 2016) (referring to the SEC's "equity market structure agenda" as "a priority for the Commission throughout its history"). Actually, active management of equity market structure did not become a Commission priority until the 1970s. *See* Sec. & Exch. Comm'n, *Policy Statement, Future Structure of the Securities Markets*, CCH No. 409, 8 (Feb. 4, 1972) [hereinafter *1972 Policy Statement*] (recognizing that the Commission's call for a central market system was a "shift in the historic position of the Commission"); *see also* Arthur Levitt, Chairman, Sec. & Exch. Comm'n, Opening Statement on NASD's Proposed SuperMontage and Streamlining the SEC Review Process for SRO Filings (Jan. 10, 2001) ("There are features, no doubt, that the Commission would add to or remove if we were in the business of designing markets—but we are not."). Equity market structure is not defined in the Securities Exchange Act of 1934 (Exchange Act). For the purposes of this paper Exchange Act refers to the systems and rules that allow orders for equity securities to be displayed and executed in public markets and reported to the public.

common vocabulary needed to have effective policy discussions around the issues facing equity markets are lacking.

A comparison of the 1934 Packard Phaeton, equipped with a 160 horsepower, 12 cylinder engine, with the 2016 Chevrolet Camaro Coupe, with a 275 horsepower, 4 cylinder engine, illustrates the amazing increases in efficiency that are possible with new technological platforms. One can upgrade the Packard; however, continual changes at different times under the guidance of different engineers risks the creation of additional problems. Moreover, the original design of the Packard may cease to accommodate the latest technologies; at some point a leap to a new design may be required. In regulatory terms, is it better to continue to add additional requirements to current statutes (the Packard), or should a different approach be considered, such as buying the Camaro? In broader terms, much of modern equities regulation is modeled on the market operations of the New York Stock Exchange (NYSE) as they were in 1934. Is the system of accretion on existing statutes the appropriate methodology for twenty-first century markets?

In analyzing the Commission's approach to equity markets, I borrow from the epistemological framework created by Thomas S. Kuhn in his book, *The Structure of Scientific Revolutions (Structure)*.⁶ In *Structure*, Kuhn argues that science does not develop in a linear progression, with one discovery logically leading to the next breakthrough. In Kuhn's view, normal inquiry proceeds under a widely accepted set of rules or a "paradigm."⁷ The paradigm is applied to whatever puzzles or challenges the discipline confronts. In the normal course of business, scientists are trained to apply the paradigm, but not to test or question it. Whether a particular phenomenon can be explained by employing the paradigm is generally considered more of a test of the scientist's ability rather than a test of the paradigm itself.

In exploring the potential explanatory scope of the paradigm, scientists obtain results that do not comport with the predictions anticipated by it. As scientists attempt to explain these anomalies within the existing paradigm, the dissonance between predicted and actual results leads to a crisis where the assumptions underlying the paradigm are challenged, questioned, and deconstructed. During this period, the old and new paradigms continue to coexist while their respective followers debate the merits of both. When the new paradigm becomes widely accepted (often when the adherents to the old paradigm die off), there is a "revolution." The old views are overturned and replaced with a new paradigm that better explains and predicts phenomena in the real world.

6. See generally THOMAS KUHN, *THE STRUCTURE OF SCIENTIFIC REVOLUTIONS* (Univ. of Chi. Press, 4th ed., 2012).

7. *Id.* at 11.

Securities regulation is a reflection of the prevailing political, economic, and social trends of the time in which it was formulated. It is from these trends that observers formulate the epistemological framework, or paradigm, used to explain, understand, and regulate capital markets. This Article traces the evolution of equity market regulation. It examines the SEC's growth from a more passive partner with the securities industry to being a more aggressive and perhaps overly intrusive arbiter of equity market operations. It identifies the development of two distinct paradigms of securities regulation. Part I describes the road to federal securities regulation and the development of both a federal regulatory framework and an analytical paradigm within that framework. This section concentrates on the historic antecedents to modern securities legislation and examines the origins of the federal system of securities regulation.

Part II concentrates on the New Deal legislation that is the basis for the current regulatory framework. While there were at least six major securities statutes adopted between 1933 and 1940, this Article concentrates on those directly relevant to the development of equity markets trading and structure: the Securities Act of 1933 (Securities Act) and the Securities Exchange Act of 1934 (Exchange Act).⁸ These two statutes established the disclosure regime, created the Securities and Exchange Commission, and defined the status, responsibilities, and duties of market professionals and exchanges, including adopting a model of supervised self-regulation. The founding paradigm, which I call the "Self-Regulatory Paradigm," developed and rose to dominance during this period.

Part III examines the regulatory issues presented by the "paperwork crisis" of the late 1960s and the resulting stress on the Self-Regulatory Paradigm. This crisis highlighted anomalies in the Self-Regulatory Paradigm that allowed for new regulatory approaches to emerge. This section focuses on the 1975 amendments to the Exchange Act (1975 Amendments) and argues that they represent a change in the role of the Commission, stressing the parameters of the Self-Regulatory Paradigm without completely replacing it.⁹ Using two related SEC actions as examples, this Article illustrates how the Commission's use of authority granted in the 1975 Amendments inaugurated a paradigm shift and the adoption of a new approach to equity market regulation. Specifically, this Article analyzes and contrasts the Commission's 1995 Order of Investigation against the National Association of Securities Dealers

8. Securities Act of 1933 (Securities Act), Pub. L. No. 73-22, 48 Stat. 74 (codified as amended at 15 U.S.C. §§ 77a-77aa (2012)); Securities Exchange Act of 1934 (Exchange Act), Pub. L. No. 73-291, 48 Stat. 881 (codified as amended at 15 U.S.C. §§ 78aa-78pp (2012)).

9. This section draws on remarks by Hon. Daniel M. Gallagher, former Commissioner of the SEC. See Daniel M. Gallagher, Comm'r, Sec. & Exch. Comm'n, Time for a Fresh Look at Equity Market Structure and Self-Regulation (Oct. 19, 2012), <https://corpgov.law.harvard.edu/2012/10/19>.

(NASD) and the Order Handling Rules. Here a new paradigm, which I call the “Micro-Intervention Paradigm,” developed to compete with the Self-Regulatory Paradigm.

Part IV explains how the Self-Regulatory and Micro-Intervention Paradigms are not compatible, and how the intellectual dissonance between them ultimately allowed the Micro-Intervention Paradigm to gain acceptance and replace the Self-Regulatory Paradigm. It then identifies anomalies that have developed in the Micro-Intervention Paradigm. Specifically, as the Commission committed more and more resources to regulation of the mechanics of trading, it neglected to examine and update the system of self-regulation upon which the securities laws were based. Part V concludes by identifying weaknesses with the Micro-Intervention Paradigm, arguing that the adoption of the more interventionist approach has strained the resources of the SEC and may now be inhibiting innovation and improvement in the equity markets. Finally, this Article suggests the most important areas of inquiry to develop in seeking a new model for securities regulation. Specifically, this Article poses the types of questions that should be answered as part of an evaluation of the most effective path forward and suggests that it is perhaps time to develop a new paradigm that is distinct from the traditional approach to securities regulation.

I. DEVELOPING A PARADIGM: PREDECESSORS TO FEDERAL SECURITIES REGULATION—HUGHES, PUJO, BRANDEIS, AND PECORA

Federal securities regulation did not spring fully formed from the head of the New Deal, rather it is part of the larger and more complicated development of federal administrative law that arguably began at the start of the republic.¹⁰ In general, federal securities regulation is part of a larger social, political, and economic movement that began in the nineteenth century. In the so-called “Gilded Age,” the confluence of industrialization, urbanization, immigration, and unionization required fundamental rethinking of the appropriate balance between centralized wealth and the federal government. The Progressive Movement sought to redefine the role of government to have a role in the regulation of industry. This manifested itself in early assertions of federal regulatory control over railroads, including the formation of the Interstate Commerce Commission in 1887 and the passage of the Sherman Anti-Trust Act in 1890. At the same time, social critics became concerned about the power of concentrated means of production and the effect it had on quality control and labor affairs. For example, in 1906 Upton Sinclair published, *The Jungle*, his exposé on the

10. See Jerry L. Mashaw, *Federal Administration and Administrative Law in the Gilded Age*, 119 YALE L.J. 1362, 1366 (2010).

working conditions in Chicago's stockyards.¹¹ Sinclair was a journalist and his work is a novel, not an empirical analysis; however, it raised questions about the sanitary conditions in Chicago meat packing plants. Partially to assuage public fears over the safety of the public food supply, Congress immediately convened hearings and President Theodore Roosevelt commissioned an investigation of the Chicago stockyards. The resulting report confirmed many of the unsanitary practices alleged by Sinclair and was transmitted to Congress by the President.¹² Congress ultimately passed the Meat Inspection Act of 1906.¹³

Securities regulation took a similar, albeit slower path toward development. The first notable government examination of the operation of the securities industry in the twentieth century was conducted by the State of New York. In the wake of the Panic of 1907, Governor Charles Evans Hughes empaneled a New York State Commission.¹⁴ The mandate of the committee was to determine "... what changes, if any, are advisable in the laws of the State bearing upon speculation in securities and commodities, or relating to the protection of investors, or with regard to the instrumentalities and organizations used in dealing in securities and commodities which are the subject of speculation. . . ."¹⁵ The resulting Hughes Report identified the vulnerability of the individual investor to various schemes perpetrated by investment professionals, including market manipulation and false and misleading disclosure. It also highlighted the informational advantages market professionals possessed over individual investors.¹⁶ The Hughes Report identified a basic problem that would continue to vex regulators, namely the difference between speculation and investing:

It is unquestionable that only a small part of the transactions upon the exchange is of an investment character; a substantial part may be characterized as virtually gambling. Yet we are unable to see how the

11. See generally UPTON SINCLAIR, *THE JUNGLE* (WW. Norton & Co. 2003).

12. See *CONDITIONS IN CHICAGO STOCK YARDS*, H.R. DOC. NO. 873-59, at 1-3, 9-13 (1906).

13. Federal Meat Inspection Act of 1906, Pub. L. No. 59-242, 34 Stat. 1256 (codified as amended at 21 U.S.C. §§ 601-95 (2012)). Sinclair had meant his novel to be an expose on the working conditions of immigrant laborers rather than an expose of the food industry. See Karen Olsson, *Welcome to the Jungle, Does Upton Sinclair's Famous Novel Hold Up?*, SLATE (July 10, 2006, 12:57 AM), http://www.slate.com/articles/arts/books/2006/07/welcome_to_the_jungle.html.

14. Hughes had previously served as counsel to the New York Legislature Joint Committee on Investigation Life Insurance (Armstrong Committee). The Armstrong Committee produced a ten-volume report and recommended significant state law reforms in the sale of life insurance. See JOINT COMM. ON INVESTIGATIONS OF LIFE INSURANCE TESTIMONY TAKEN BEFORE THE JOINT COMMITTEE OF THE SENATE AND ASSEMBLY OF THE STATE OF NEW YORK: TO INVESTIGATE AND EXAMINE INTO THE BUSINESS AND AFFAIRS OF LIFE INSURANCE COMPANIES DOING BUSINESS IN THE STATE OF NEW YORK (Brandow Printing Co. 1906).

15. N.Y. STATE LEGISLATURE, REPORT OF GOVERNOR HUGHES COMMITTEE ON SPECULATION IN SECURITIES AND COMMODITIES 3 (1909) [hereinafter HUGHES REPORT].

16. See *id.* at 5, 10.

State could distinguish by law between proper and improper transactions, since the form and the mechanism used are identical.¹⁷

The Hughes Report concluded that many of these abuses could be remedied by stricter rules and better enforcement by the industry itself, specifically by the NYSE.¹⁸ While eschewing further state regulation of capital markets, the Hughes Report identified the basic issues and systemic risks presented by the securities industry, and concluded that regulation at the state level would have a negative effect on the financial industry based in New York. The report suggested that the best approach was to promote different behavior within the industry by the industry itself rather through a government-sponsored system.¹⁹

The stability of the banking system and possible reform was shortly thereafter examined at the federal level.²⁰ A House committee named for Congressman Arsene Pujo held hearings that examined the effect of the concentration and control of money and credit on the financial system. The work of the Pujo Committee was limited by a lack of subpoena authority and the then-unsettled issue of congressional authority to either conduct such inquiries or to require participation from relevant parties. The Pujo Committee was unsuccessful in obtaining cooperation from the executive branch, the Senate, or the Courts in settling the basic question of its own authority.²¹ It therefore was unable to obtain basic documents, including the books and records from most of the entities it was investigating.²²

Even with its limited ability to obtain evidence, the Pujo Report identified several areas of market operations that seemed to create unnecessary risks to the public. Chapter Two of the report focused

17. *Id.* at 5.

18. *See id.* at 8.

19. *Id.* at 4 (“The most fruitful policy will be found in measures which will lessen speculation by persons not qualified to engage in it. In carrying out such a policy exchanges can accomplish more than legislatures.”).

20. REPORT OF THE PUJO COMMITTEE APPOINTED PURSUANT TO HOUSE RESOLUTIONS 429 AND 504 TO INVESTIGATE THE CONCENTRATION OF CONTROL, OF MONEY AND CREDIT, H.R. REP. NO. 1593-62 Appendix A and B, 175–79 (1913) [hereinafter PUJO REPORT].

21. *Id.* at 16 (“It is thus seen that the refusal of aid by the controller, the failure of the Senate to pass the bill amending 5241 of the Revised Statutes, the lack of any authoritative decision by the courts sustaining its right to obtain access to the books of the national banks have seriously embarrassed your committee in its efforts to present complete disclosure of the extent, if any, to which the resources of the lending national banks in the cities of New York, Boston and Chicago have been or are being exploited in the interest of banking houses and others with which they are affiliates through stock holdings, joint account, promotion, syndicate and other financial relations and transactions.”); *see also* MARY A. O’SULLIVAN, *DIVIDENDS OF DEVELOPMENT, SECURITIES MARKETS IN THE HISTORY OF U.S. CAPITALISM 1865–1922* (Oxford Univ. Press 2016) (discussing late nineteenth and early twentieth century markets, Chapter 7 examines the Pujo Committee).

22. “Most of the State institutions and the principal national banks in the reserve cities of New York, Philadelphia, Boston, and St Louis refused or omitted to make any return whatever and denied the power or jurisdiction of the committee to inquire into their affairs.” PUJO REPORT, *supra* note 20, at 14.

completely on the operation of the NYSE and noted several questionable activities, including: anti-competitive practices against rival exchanges, the maintenance of an engraving monopoly for the securities of listed companies, undisclosed hypothecation of customer securities, “unwholesome speculation,” manipulation, and short selling.²³ Speculation, and the difficulty in defining it, was a major focus of the 1909 Hughes Commission, and the Pujo Committee drew heavily on the former’s work. Notably, the Pujo Committee did not identify any illegal activity; rather it documented the negative effects of the concentration of capital and credit in too few institutions, with resulting unfairness in capital markets.²⁴

This theme was developed further in popular culture. In 1913, Louis Brandeis, known as “the people’s attorney,” published a series of articles that challenged the operation of America’s financial system. These articles were collected in the book, *Other People’s Money and How the Bankers Use It*, published in 1914. He documented instances where large banking institutions, acting in collusion with major industries, created trusts that controlled those industries and manipulated the value of companies, free of market forces. This, Brandeis argued, inhibited innovation, competition, and efficient operation of the capital markets. The book described the interlocking relationships between commercial and investment banking, and warned of the risk that unchecked capitalism in the United States was leading to financial oligarchy.²⁵ Brandeis was particularly critical of the relationships between commercial banking and investment banking functions, noting:

These large profits from promotions, underwritings and security purchases led to a revolutionary change in the conduct of our leading banking institutions. It was obvious that control by the investment bankers of the deposits in banks and trust companies was an essential element in their securing these huge profits. And the bank officers naturally asked, “Why then should not the banks and trust companies share in so profitable a field? Why should not they themselves become investment bankers too, with all the new functions incident to ‘Big Business’?” To do so would involve a departure from the legitimate sphere of the banking business,

23. *Id.* at 42–52.

24. “They have not taken the position that there is a Money Trust such as would be unlawful under the Sherman law. They have contended, however, that there was a dangerous concentration of money and credits in the hands of a few men of great power in the financial world, which, in fact, amounted to a trust or monopoly.” *Say Money Trust is Now Exposed*, N.Y. TIMES (Jan. 12, 1913), http://query.nytimes.com/mem/archive-free/pdf?_r=2&res=9F00E2DB163FE633A25751C1A9679C946296D6CF.

25. LOUIS D. BRANDEIS, *OTHER PEOPLE’S MONEY: AND HOW THE BANKERS USE IT* 26–27 (Martino Pub., Mansfield Centre, CT, 2009). Louis D. Brandeis was a noted progressive lawyer in the early Twentieth Century. He was appointed to the Supreme Court in 1916. The book was a collection of essays that Brandeis published in *Harpers Weekly* between November 1913 and January 1914. For a complete biography of Louis D. Brandeis, see generally MELVIN UROFSKY, *LOUIS D. BRANDEIS: A LIFE* (Pantheon Books, 2009).

which is the making of temporary loans to business concerns. But the temptation was irresistible. The invasion of the investment banker into the banks' field of operation was followed by a counter invasion by the banks into the realm of the investment banker.²⁶

Brandeis also seized upon the discussion of capital concentration from the Pujo Report, expressly recognizing the role of public opinion in seeking reforms:

Publicity is justly commended as a remedy for social and industrial diseases. Sunlight is said to be the best of disinfectants; electric light the most efficient policeman. And publicity has already played an important part in the struggle against the Money Trust. The Pujo Committee has, in the disclosure of the facts concerning financial concentration, made a most important contribution toward attainment of the New Freedom. The battlefield has been surveyed and charted. The hostile forces have been located, counted and appraised.²⁷

Brandeis clearly identifies the concentration of capital and resulting behavior as issues to be addressed.²⁸ What is missing from Brandeis's argument is empirical evidence or economic analysis supporting his views. As with the Hughes and Pujo Committees, he did not expose illegal activity, so much as activity that seemed unfair. Unlike Sinclair's *The Jungle*, Brandeis's book did not lead to federal action with regard to the securities laws generally. It did, however, temper the thinking of many of the people who would later draft the New Deal. The lack of federal regulation was filled by state "Blue Sky" laws, which regulated the sale and distribution of securities in specific states. These varied from state to state and have been generally described as antifraud laws or licensing laws.²⁹

Both the Hughes and Pujo Committees took pains to explain the operation of the marketplace and the risks that could follow from unregulated operation. Notable themes from both were the use of leverage and non-public information by market participants, and manipulation by market professionals. Also, both reports heavily criticized the operation of the NYSE, the then-dominant securities exchange in the United States. These criticisms defined the major themes of the regulatory debate and would shape the arguments in favor of more federal regulation. Specifically,

26. BRANDEIS, *supra* note 25, at 26.

27. *Id.* at 92.

28. The issue of large concentrations of capital continues to the present time. For a modern analog consider the formation of the Financial Stability Oversight Council Board and its attempts to designate systemically important financial institutions. See Dodd-Frank Wall Street Reform and Consumer Protection Act (Dodd-Frank), Pub. L. No. 111-203, §§ 111-12, 124 Stat. 1376 (2010) (codified as amended at 12 U.S.C. §§ 5321-5322 (2012)).

29. See MICHAEL E. PARRISH, SECURITIES REGULATION DURING THE NEW DEAL 6-12 (Yale Univ. Press 1970); see also Elisabeth Keller, *Introductory Comment: A Historical Introduction to the Securities Act of 1933 and the Securities Exchange Act of 1934*, 49 OHIO ST. L.J. 329, 329-52 (1988).

as discussed later, conflict between the NYSE and the government has played a large role in the development of the regulatory paradigm well into the twenty-first century.

The next crisis, and the straw that broke the camel's back, was the market crash of 1929 and the subsequent financial turmoil that culminated in the Great Depression. In April of 1932, the Senate Committee on Banking and Currency began an investigation of stock exchange practices. The Committee's mandate was:

(1) To make a thorough and complete investigation of the practices with respect to the buying and selling and the borrowing and lending of listed securities upon the various stock exchanges, the values of such securities, and the effect of such practices upon interstate and foreign commerce, upon the operation of the national banking system and the Federal Reserve system, and upon the market for securities of the United States Government, and the desirability of the exercise of the taxing power of the United States with respect to any such securities; and (2) to report to the Senate as soon as practicable the results of such investigation and, if in its judgment such practices should be regulated, to submit with such report its recommendations for the necessary remedial legislation.³⁰

While this has commonly been referred to as the Pecora Committee, it was in fact a Senate Committee empaneled under a Republican President.³¹ The Committee was authorized to examine stock exchange practices, which had been a major topic of both the Hughes and Pujo Reports. Its mandate was limited to listed securities—that is, securities listed and traded on a stock exchange.³² The early hearings, conducted first by Claude Branch and later by William Gray, counsel for the Committee, were limited by the scope of the Committee's mandate as well as witness obfuscation and avoidance. In one case, a witness, M.J. Meehan, claimed illness and travelled to Europe to avoid testifying.³³ Similarly, Counsel Gray was reminded by the Committee members about the scope of the Committee's

30. *A Resolution to Thoroughly Investigate Practices of Stock Exchanges With Respect to The Buying and Selling and The Borrowing and Lending of Listed Securities The Values of Such Securities And The Effects Of Such Practices: Hearings On S. Res. 84 Before the S. Comm. on Banking & Currency*, 72d Cong. 1 (1932) [hereinafter *Hearings Part 1*].

31. *FDR Timeline*, FRANKLIN D. ROOSEVELT PRESIDENTIAL LIBRARY & MUSEUM, <http://www.fdrlibrary.marist.edu/archives/resources/timeline.html> (last visited Feb. 22, 2017) (The hearings began in April of 1932 under the Hoover Administration.).

32. Securities can be either listed on a registered exchange ("listed securities") or be traded off exchange, in the over-the-counter or broker-to-broker market ("OTC securities").

33. *A Resolution to Thoroughly Investigate Practices of Stock Exchanges With Respect to The Buying and Selling and The Borrowing and Lending of Listed Securities The Values of Such Securities And The Effects Of Such Practices: Hearing on S. 84 Before the S. Comm. on Banking & Currency*, 72d Cong. 529 (1932) [hereinafter *Hearings Part 2*].

work and encouraged not to veer too far off of the subject.³⁴ The activity of the Committee was not without its partisan infighting.³⁵

The Committee had been hearing evidence for ten months, and had conducted hearings and taken testimony from numerous witnesses, prior to the appointment of Ferdinand Pecora as counsel in January 1933.³⁶ In April and June of 1933, the mandate of the inquiry was substantially expanded to include virtually all areas of securities offerings, sales, underwriting, and financing.³⁷ Unlike the Hughes or Pujo Committees, the Pecora Committee had subpoena power and could require the production of documents and testimony under oath. Generally, commentators believed that the inquiry, while not without issues, was well prepared. One contemporary commenter noted:

The inquiries conducted by the Senate Committee on Banking and Currency, while occasionally without dignity and frequently given publicity in such a way as to amount to extreme unfairness to the interests being investigated, set a new standard for thoroughness of preliminary preparation. This was especially true after Mr. Pecora became the Committee's Counsel.³⁸

While the Pecora Committee's findings are often cited as the foundation of modern securities regulation, it is worth noting that the major statutes that would define federal regulation of securities and banking were all passed prior to the completion of the investigation and the issuance of a final report. Thus, the Banking Act of 1933 (Glass-Steagall) (enacted June 16, 1933), the Securities Act (enacted May 27, 1933), and the Exchange

34. *Id.* at 436 (noting Mr. Gray was not able to illicit complete testimony due to instructions from the Chairman to limit time); *id.* at 645 (discussing relevance of certain securities and acknowledgement by the Chairman that Counsel has requested more time to prepare).

35. *Id.* at 714.

Senator Glass: Is there any other official of General Motors Co. from whom kindred information can be secured that you have subpoenaed?

Mr. Gray: Not that I have subpoenaed. There are some other accounts that I have investigated.

Senator Glass: I ask that question because it has been whispered for weeks around the Capitol that this investigation was initiated with the expectation of involving several prominent Democrats, and I want to elicit information from you as to whether you equally want to involve several prominent Republicans.

Id.

36. Pecora was retained as counsel on January 24, 1933. S. REP. NO. 1455, at 2 (1955). He was appointed after the elections of 1932 and prior to the inauguration of President Roosevelt on March 4, 1933.

37. *Id.* at 2.

38. John Hanna, *The Securities Exchange Act of 1934*, 23 CALIF. L. REV. 1, 23 (1934).

Act (enacted June 6, 1934) were all proposed, debated, and passed prior to the completion of the Pecora Committee's inquiry.³⁹

The Pecora Committee neither explained the 1929 crash nor tied it to the wider financial instability that led to the Great Depression. The relationship, if any, between the two events is the subject of debate.⁴⁰ Rather, the hearings provided a forum to, as Brandeis might have put it, "publicize" the business practices and operations of securities firms and banking entities. Much as Brandeis had attempted to shame bankers in his book, Pecora used the hearings to expose practices that were unfair or offensive, many of which were legal practices that seemed to be immoral, unethical, or unfair to public users of the securities markets and banking system.

For example, the final report of the Committee (Pecora Report) identified numerous troublesome business practices engaged in by commercial banks, including: the operation of manipulative stock pools, insider trading, offering profitable securities to "preferred lists" of clients (usually those with ties to industry or government), avoiding the federal prohibition against trading in securities by operating state-chartered securities firms, funneling bank clients to the securities affiliates, and offering securities without full disclosure.⁴¹ Similarly, the regular practices of brokers and stock exchanges were explicated. The Pecora Committee heard testimony on pooling arrangements, manipulation, and abuse of customer stop loss orders.⁴² As later commenters have observed, none of the securities lending practices are directly linked to the numerous failures of commercial banks during that era.⁴³

39. Banking Act of 1933 (Glass-Steagall), 12 U.S.C. § 227 (2012); *see generally* Securities Act, 15 U.S.C. §§ 77a–77aa (2012); Exchange Act, 15 U.S.C. §§ 78a–78pp (2012).

40. George D. Green, *The Economic Impact of the Stock Market Boom and Crash of 1929*, in, CONSUMER SPENDING AND MONETARY POLICY: THE LINKAGES 189, 190 (The Federal Reserve Bank of Boston, Monetary Conference June, 1971).

41. *See* S. REP. NO. 1455, at 30, 109, 211, 301.

42. *Hearings Part 2*, *supra* note 33, at 385–406 (testimony of Edward Knight, accountant).

43. GEORGE J. BENSTON, *THE SEPARATION OF COMMERCIAL AND INVESTMENT BANKING: THE GLASS-STEAGALL ACT REVISITED AND RECONSIDERED* 27 (Oxford Univ. Press, 1990). However, there was testimony indicating that banks engaging in securities activity did not have sufficient internal controls to manage exposure to the risk of securities affiliates. The exposure to securities loans was substantial and was recognized by industry participants. For example, in arguing against short sale regulation Richard Whitney, President of the NYSE, testified:

We have some five billions to six billions of loans held by our banks throughout this country on collateral security listed on the New York Stock Exchange. If the stock exchange did not have a liquid market, if that market was closed, as would, in my opinion happen with the prohibition of short selling, those five to six billion of collateral loans would be frozen, and the gravity of the effect on our banking situation I do not think can be estimated.

Hearings Part 1, *supra* note 30, at 29 (testimony of Richard Whitney, President, New York Stock Exchange).

The Pecora Report produced an almost endless parade of characters and testimony that seemed to confirm what many Americans had suspected—that Wall Street operators had an insurmountable advantage with regard to the control of capital, the availability of useful information about issuers, access to the means of profiting on that information, as well as a penchant to use those advantages for personal gain. In some instances, those advantages, such as using securities sales to generate losses for tax purposes, were only tangentially related to the regulation of securities, but still made excellent copy for the media.⁴⁴

The bankers, traders, and exchanges that were excoriated by the Pecora Committee were doing nothing more than, quite rationally, responding to the incentives that were inherent in the system. In other words, they were using superior information and access to capital to maximize the returns on their investments. However, they were doing so by using their role as market participants to profit at the expense of others, some of who were ostensibly their customers. Their use of information asymmetries caused the nation to question whether or not economic incentives, rather than ethics and responsibilities, should control the operation of the capital markets. Much of the public outrage at these practices came from moral objections and associated lack of perceived fairness. In many ways it echoed the moral outrage of Brandeis in *Other People's Money and How the Bankers Use It*. While these issues are often cast in terms of fairness or legality, what they really illustrate is how much information asymmetry distorted the ability of the markets to effectively allocate capital.

The Pecora Report was deeply influential on the development of federal securities regulation. As James Landis, a drafter of the Securities Act, described the Committee's impact:

That Committee spread on the record more than the peccadillos of groups of men involved in the issuance and marketing of securities. It indicted a system as a whole that had failed miserably in imposing those essential fiduciary standards that should govern persons whose function it was to handle other people's money. Investment bankers, brokers and dealers, corporate directors, accountants, all found themselves the object of criticism so severe that the American public lost much of its faith in professions that had theretofore been regarded with a respect that had approached awe.⁴⁵

Armed with the Pecora Committee's findings, encouraged by public opinion, and enjoying political support from both houses of Congress, FDR's administration sought to redefine the role of the federal government in the oversight of the financial industry. The drafters of major New Deal

44. S. REP. NO. 1455, at 321–33.

45. James Landis, *The Legislative History of the Securities Act of 1933*, 28 GEO. WASH. L. REV. 29, 30 (1959–1960).

securities legislation shared much of the motivation of their precursors in the Progressive Era⁴⁶ many of the drafters of the Securities Act and the Exchange Act were directly associated with figures in the Progressive movement. For example, Felix Frankfurter, part of Roosevelt's "Brain Trust," had a long professional relationship with Brandeis.⁴⁷ Frankfurter recruited the primary drafters of the Securities Act and the Exchange Act—James M. Landis, Benjamin Cohen, and Thomas G. "Tommy the Cork" Corcoran.⁴⁸ Landis had clerked for Justice Brandeis, Corcoran for Justice Oliver Wendell Holmes, and Cohen for Judge Learned Hand, all of who had links to the nineteenth-century Progressive movement.⁴⁹ The worldview associated with this group has been described as follows:

A belief that the present was not like the past, and that the future would not resemble the present, defined the sensibilities of Americans who were acutely self-conscious about living in the modern age. From the late nineteenth century onwards, the rise of new technologies, new institutional forms such as the corporation and the modern factory, unprecedented possibilities offered by mass production, and the proliferation of new economic and social relationships engendered by these developments both promised and threatened to overturn completely past assumptions about the economic foundations of American society.⁵⁰

In a period of six years they produced the statutes that would define federal securities regulation in the twentieth century: the Securities Act, the Exchange Act, the Public Utility Holding Company Act of 1935, the Maloney Act of 1938, the Trust Indenture Act of 1939, the Investment Advisers Act of 1940, and the Investment Company Act of 1940.⁵¹ These statutes and the drafters' epistemological framework set the stage for the development of the original paradigm of federal securities regulation.

II. THE FRAMEWORK OF FEDERAL SECURITIES REGULATION: THE SELF-REGULATORY PARADIGM

The original analytical framework for the federal securities laws can be described as the Self-Regulatory Paradigm. It developed as a progressive

46. Jessica Wang, *Neo-Brandeisianism and the New Deal: Adolf A. Berle, Jr., William O. Douglas, and the Problem of Corporate Finance in the 1930s*, 33 SEATTLE U. L. REV. 1221, 1231 (2009-2010).

47. David W. Levy & Bruce Allen Murphy, *Preserving the Progressive Spirit in a Conservative Time: The Joint Reform Efforts of Justice Brandeis and Professor Frankfurter, 1916-1933*, 78 MICH. L. REV. 1252, 1260 (1980).

48. Landis, *supra* note 45, at 36.

49. This is not an analysis of the progressive movement; rather I use the period to illustrate how the New Dealers were influenced by the thinkers of the prior century.

50. Wang, *supra* note 46, at 1242.

51. Public Utility Holding Company Act, 15 U.S.C. §§ 79–79z (2012); Maloney Act, 15 U.S.C. § 78o (2012); Trust Indenture Act, 15 U.S.C. §§ 77aaa–77bbb (2012); Investment Advisers Act of 1940, 15 U.S.C. §§ 80b-1-80b-21 (2012); Investment Company Act, 15 U.S.C. §§ 80a-1-80a-64 (2012).

yet moderate approach to federal intervention in the securities markets. While all seven of the above statutes share this underlying framework, this section focuses on the statutes most relevant to equity market structure: the Securities Act, the Exchange Act, and the Maloney Act. Using these examples, I will explain the development of the paradigm.

A. THE SECURITIES ACT: DISCLOSURE, TRANSPARENCY, AND SUNLIGHT

The New Deal built on Brandeis' call for transparency and structured a system requiring full disclosure. The Securities Act instituted a system of mandatory registration and disclosure for companies issuing new securities.⁵² Initially, the Federal Trade Commission (FTC) oversaw this system. The new disclosure requirements built upon standards that had been instituted by the NYSE, which required that companies seeking to have securities listed on the exchange file annual reports. Perhaps seeking to avoid federal intervention, the NYSE tightened those standards after the crash of 1929.⁵³

Specifically, the statute required the issuers to provide detailed financial information and required that information to be certified by an independent accountant. Rather than requiring the government to pass on the merit of any given issuance of securities, professionals associated with the industry were required to examine and certify the financial disclosures for completeness and accuracy.⁵⁴

The drafters of the legislation changed the incentives for the financial community. Up to this point the incentives in the financial industry had been skewed toward taking risk and using information for personal gain. This, in turn, resulted in a prevailing perception that the system was unfair to most investors. Under the Securities Act, the industry participants had a strong incentive to ensure the accuracy of disclosures in order to avoid liability and to maintain professional standing in the financial community. In other words, professionals such as accountants and lawyers were given a special status in the process, because no company could register an offer or sale of securities without their involvement. At the same time, industry professionals were incorporated into the regulatory system because they faced liability if the company's disclosures were subsequently found to be materially false. Liability could be avoided if professionals such as accountants, lawyers, and underwriters conducted a reasonable inquiry of the offerings. In short, the government enlisted the industry in the process

52. Securities Act, §§ 6–7, 15 U.S.C. §§ 77f–77g.

53. John Hanna, *The Securities Exchange Act as Supplementary of the Securities Act*, 4 L. & CONTEMP. PROBS. 256, 258 (1937).

54. Securities Act, § 11, 15 U.S.C. § 77k; *see, also* Regulation S-X, 17 C.F.R. § 210.2-02 (2011) (accountant's reports and attestation reports); Regulation S-K, 17 C.F.R. § 229.308(b) (2011) (accountant's attestation of internal controls over financial reporting).

of improving the flow of information to investors and made market professionals “gatekeepers” to the capital markets.⁵⁵ This innovative approach would be expanded upon in the next piece of New Deal legislation, the Exchange Act.

B. THE EXCHANGE ACT: ONGOING DISCLOSURE AND SECONDARY MARKET TRADING

The momentum created by FDR’s election and his first “100 days” had ebbed and business leaders were concerned that any additional financial regulation would have a negative impact on recovery. After that flurry of initial activity, the industry regrouped and began to oppose further federal intervention. The Exchange Act met serious opposition from business and the financial services industry. In particular, there was new skepticism toward certain customer protection portions of the legislation, especially with regard to limitations on securities lending.⁵⁶

The Exchange Act supplemented the disclosure requirements of the Securities Act by adding the requirement of periodic reporting.⁵⁷ It also created the SEC and defined a regulatory framework for all secondary market securities trading. More particularly, the Exchange Act defined the roles of market participants, such as broker-dealers and exchanges, and

55. JOHN COFFEE, *GATEKEEPERS THE PROFESSIONS AND CORPORATE GOVERNANCE* 2–3 (Oxford Univ. Press 2006).

56. An example can be seen in this colloquy between Corcoran and Senator Kean:

Senator Kean: One of the reasons is that there has been testimony here as to billions of dollars or hundreds of millions of dollars loaned on the stock exchange, and that they did not lose 1 cent.

Mr. Corcoran: That is, the broker didn’t lose, nor the bank that loaned didn’t lose. But how about the fellow that bought stocks on margin? He did lose.

Senator Kean: Yes.

Mr. Corcoran: I do not think we need legislation particularly to protect the broker all the time. They normally won’t lose.

Senator Kean: I do not know. If you get a narrow market, they might lose. The liquidity of the market is what they loaned money on.

Mr. Corcoran: What you are talking about, Senator, is the social desirability of accepting all the perils that have been perfectly evident to us over the last 5 years of excess of borrowed money in the market. You are balancing those perils against the advisability of having quotations that will run an eighth or a quarter of a point instead of 2 or 3 points.

Senator Kean: What I am saying is this, that the money market in New York has been of continuous benefit to protect banks and dealers.

Stock Exchange Practices, Hearings Before the S. Comm. on Banking & Currency, 73d Cong. 6421–7409, 6498 (1934) [hereinafter *Stock Exchange Practices*].

57. Exchange Act § 13, 15 U.S.C. § 77k (periodical and other reports).

required them to register with the newly formed SEC.⁵⁸ Registration, in turn, required that they comply with the rules and regulations that the new Commission would promulgate—for example, requiring them to keep detailed books and records.⁵⁹

Building on the paradigmatic concept of industry participation in regulation, the Commission gave the existing exchanges the status of regulators. It required them to register but granted them broad authority to set standards for membership and police the activities of their members. The structure was modeled to comport with the business models of the existing exchanges, but the over-the-counter market, which was not centralized, presented additional challenges.⁶⁰ Of the thirty-four stock exchanges examined in the Pecora Report, the NYSE was the most dominant.⁶¹ Most of the other exchanges in existence in 1934 have since disappeared or merged, and the NYSE has drastically changed its form.. More than eighty years later, it is no longer a floor-based trading center with a membership structure, but an almost exclusively electronic trading center owned by a multinational, publicly-traded company.⁶² It is no longer the dominant or even primary equities exchange in the United States. In other words, the exchange registration process was designed for a Packard, while today exchanges operate more like Camaros.

C. THE MALONEY ACT: THE OVER-THE-COUNTER MARKET

Prior to the passage of the Maloney Act, the Investment Bankers Association (IBA) played a key role in the supervision of the over-the-counter securities markets.⁶³ Founded in 1912 with a mandate to provide a voluntary code for industry participants, the IBA described its mission as follows:

The object of this Association being to improve the methods of distributing securities, the Committee believes that its duty is to develop a system of comprehensive publicity which will advance the interest of the

58. See *id.* § 6 (registration of exchanges); *id.* § 15 (registration of broker-dealers).

59. *Id.* § 17 (record keeping requirements for exchanges and broker dealers).

60. *Stock Exchange Practices*, *supra* note 56, at 6496. “There is a provision in this bill which empowers the Federal Trade Commission to regulate the over-the-counter market. *Just exactly how you are going to regulate that market, no one has yet worked out.*” *Id.* (emphasis added) (statement of Thomas G. Corcoran, Counsel, Reconstruction Finance Corp.).

61. “A comparison of the returns filed by these exchanges establishes the New York Stock Exchange dominates the securities business in every respect.” S. REP. NO. 1455, at 8 (1935).

62. The New York Stock Exchange and its related markets are subsidiaries of the Intercontinental Exchange Inc. See Press Release, Intercontinental Exchange, Intercontinental Exchange Reports Fourth Quarter 2016 GAAP Diluted ESP of \$0.59 on Revenues of \$1.1 Billion; Fourth Quarter 2016 Adjusted Diluted ESP of \$0.71, + 9% Y/Y (Feb 7, 2017).

63. PARRISH, *supra* note 29, at 17–41.

members of this Association and tend to protect the investors of the United States and foreign investors in American Securities.⁶⁴

In 1934, the IBA presented its Code of Fair Conduct for Investment Bankers (Code) to the National Recovery Administration (NRA).⁶⁵ The NRA, another product of the New Deal, was authorized by the National Industrial Recovery Act (NIRA), which sought to stabilize prices and encourage codes of conduct and fair competition in industries.⁶⁶ This attempt to give industry codes in the over-the-counter securities market the force of law failed when the Supreme Court declared the NIRA unconstitutional.⁶⁷ With the enacting statute deemed unconstitutional, the Code was no longer enforceable under federal law.

After the Court's decision was announced, the SEC, with James Landis taking the lead, encouraged the IBA to continue to develop the Code.⁶⁸ This continued the approach, started in the Securities Act, of allowing industry a seat at the table and giving it the opportunity to shape the regulatory structure the government would adopt. As Landis put it:

Just as the disciplinary committees of the exchanges have been invaluable to us in our effort to supervise the activities on the exchanges, similar machinery would seem to be of value for the over-the-counter markets. Under a self-imposed discipline it is frequently possible to lift standards . . . to a point beyond that possible through legislation and regulation.⁶⁹

At the same time, the Landis approach is a modification of the Brandeis formula of direct government intervention.⁷⁰ It is a pragmatic approach that recognizes that intense government regulation would be extremely expensive and could be counterproductive given the risk of overregulation. As an alternative to expanding the capacity of the SEC to police the over-the-counter securities market, Congress created a new classification of regulators, called Registered Securities Associations.⁷¹ Building on the Code created by the IBA, the Maloney Act established a system of regulation among brokers, dealers, underwriters, and investment bankers operating in the over-the-counter market for securities, comparable to that

64. H.R. REP. NO. 96-746, pt. 2, at 156 (1963).

65. See generally INV. BANKERS CODE COMM., CODE OF FAIR COMPETITION FOR INVESTMENT BANKERS (1934).

66. National Industrial Recovery Act, H.R. 5755, 73rd Cong. (1933); Enrolled Acts and Resolutions of Congress, 1789-1996; General Records of the United States Government; Record Group 11, National Archives.

67. *United States v. Schechter*, 8 F. Supp. 136 (E.D.N.Y. 1934), *aff'd in part, rev'd in part sub nom.*, *United States v. A.L.A. Schechter Poultry Corp.*, 76 F.2d 617 (2d Cir. 1935), *aff'd in part, rev'd in part*, 295 U.S. 495 (1935).

68. THOMAS K. MCCRAW, *PROPHETS OF REGULATION* 199 (Belknap Press 1984).

69. James M. Landis, Chairman, Sec. & Exch. Comm'n, Address before The New England Council 4 (Nov. 22, 1935).

70. JOEL SELIGMAN, *THE TRANSFORMATION OF WALL STREET* 158 (Wolters Kluwer 1982).

71. Exchange Act § 15A, 15 U.S.C. § 78o (2012) (registered securities associations).

provided for national securities exchanges under the Exchange Act. National associations were modeled closely on the duties and responsibilities that had already been delegated to national securities exchanges in the Exchange Act, but with the intent that association membership criteria be more inclusive than membership in an exchange.⁷²

Congress mandated that these self-policing organizations would supervise the conduct of their members and take disciplinary action where necessary. The approach was described as “. . . cooperative regulation, in which the job is largely done by the representative organizations of investment bankers, dealers, and brokers, with the Government exercising appropriate supervision in the public interest, but occupying what may be termed a residual role.”⁷³

Congress gave these associations the right to create rules and to ensure their members' compliance with the specific requirements of the federal securities laws, as well as to promote just and equitable principles of trade and high standards of commercial honor. Thus, aside from supporting its members' interests generally, the principal function of any national securities association is regulating its members through a continuous program of rulemaking, interpretation, surveillance, and enforcement of the applicable federal securities laws and its own ethical standards. Major industry groups endorsed it, with minor changes.⁷⁴

The Maloney Act parallels the exchange provisions of the Exchange Act. The Commission was given jurisdiction over associations and the power to impose rules. Keeping with the concept introduced in the

72. *Regulation of Over-The-Counter Markets, Hearings before the Subcomm. of the Comm. on Interstate & Foreign Commerce, 75th Cong. 17 (1938) [hereinafter Over-The-Counter Market Hearing]*.

Mr. Reece: The first section of this bill dealing with the associations is not materially different from the provisions of the Stock Exchange Act, dealing with the stock exchange? That is, there is not any new principle here?

Mr. Matthews: No, sir. We have tried to run them parallel as closely as we could. Of course there is this fundamental distinction growing out of the nature of the business: The stock exchange is an exclusive organization. This cannot be exclusive. Anybody who will abide by the rules of the game, who has a decent character, can come into this association. There is not a property right in a seat in this association which could be transferred. The aim has been not to narrow, but to spread out, to get into this association as many as we can of these people, and then if they come in and form the association, to parallel the stock-exchange situation as closely as the nature of things permit. But basically there is this difference in conception, that a stock exchange necessarily is an exclusive organization and this cannot be.

Id.

73. *Regulation of Over-The Counter Markets, Hearings before the S. Banking & Currency Comm., on S.R. 3255, 75th Cong. 16 (1938) (statement of George C. Mathews, Comm'r, Sec. Exch. Comm'n)*.

74. The Congressional Record refers to endorsements from the Investment Bankers Conference, The Investment Bankers Association of America, the New York Securities Dealers Association and groups from other states. *Id.* at 6.

Securities Act of incorporating market professionals into the policing of the markets, the association had the responsibility to adopt and enforce rules, but the Commission retained oversight of the both associations and exchanges.⁷⁵ Although the statute allows for the possibility of more than one association, to this date there is only one fully functional, registered national securities association.⁷⁶

To summarize, the Exchange Act and the Maloney Act complete the paradigm of an integrated system of regulation, managed in the first instance by market professionals. This paradigm relies on the registered exchanges and the registered securities associations to enforce the federal securities laws, and to develop and enforce their own rules of member conduct and behavior. With a couple of exceptions, brokers and dealers registered with the Commission and wishing to conduct public business are required to be a member of either an exchange or an association.⁷⁷

With the passage of the Maloney Act, the federal securities laws came to equipoise; progressive principals of transparency, disclosure, and fairness had become law. The architects of the federal securities laws put their own spin on the progressive approach by mobilizing industry to set standards for conduct, discipline its members, and bear many of the costs of the regulatory scheme. They also required the industry to participate in the regulatory process and to determine the precise rules of conduct and trading. As quasi-governmental actors, the self-regulatory organizations (SROs) also enjoyed immunity from private damage suits resulting from their exercise of regulatory responsibilities.⁷⁸ This Self-Regulatory Paradigm controlled the analysis and revision of the federal securities laws for the next thirty-five years. The paradigm remained unchallenged until a

75. While this system is commonly referred to as “self-regulation,” it was not viewed as such at the time.

We have felt, as I say, that a voluntary association was highly desirable. This bill we do not consider a self-regulating bill as setting up a self-regulating organization. It is, on the contrary, in so many directions, under the regulation and prescription of the Securities and Exchange Commission that it cannot be so called.

Over-The-Counter Market Hearing, *supra* note 73, at 21 (testimony of Francis E. Frothingham, President, Investment Bankers Ass’n of America, testimony of Francis E. Frothingham, President of the Investment Bankers Association of America). “Self-Regulatory Organization” was not defined until the adoption of § 3(a) of the Exchange Act as part of the 1975 Amendments.

76. The National Association of Securities Dealers (NASD), the predecessor to the Financial Industry Regulatory Authority (FINRA) registered with the Commission as a National Securities Association in 1939. The National Futures Association is registered with the Commission as a special purpose national securities association for the purpose of regulating single stock futures.

77. The efficacy and efficiency of self-regulation has been debated for decades. *See generally* Sam Scott Miller, *Self-Regulation of the Securities Markets: A Critical Examination*, 42 WASH. & LEE L. REV. 853 (1985).

78. *Standard Inv. Chartered, Inc. v. Nat’l Ass’n of Sec. Dealers, Inc.*, 637 F.3d 112, 115 (2d Cir. 2011) (“SRO and its officers are entitled to absolute immunity from private damage suits in connection with the discharge of their regulatory responsibilities.”).

different crisis brought renewed attention to the operation of the public exchanges and to the SEC's role in supervision. The anomalies identified during this crisis caused the Commission to question the original principles of the Exchange Act. Ultimately a new paradigm would emerge that favored direct SEC authority over exchanges and associations and more government intervention in the structure of equity markets.

III. THE PAPERWORK CRISIS AND THE 1975 AMENDMENTS: A NEW PARADIGM EMERGES

As Kuhn noted in *Structure*, a dominant paradigm can only shift once practitioners begin to identify anomalies or weaknesses in the dominant approach.⁷⁹ This is especially so when the operation of the paradigm is perceived as preventing the development of new approaches that may benefit the discipline. As early as 1963, the SEC highlighted the risk of market disruption created by inefficiencies in the system for securities clearance and settlement.⁸⁰ Those fears came to be realized in what has become known as the paperwork crisis.⁸¹ Although systems of communication had improved and volumes of traded securities skyrocketed, the industry did not modernize the system for clearance and settlement of those securities, which remained a manual process. The lack of prompt and accurate settlement creates significant risks for firms. They require securities and cash to be transferred and delivered to ensure that customer balances are correct, to manage the firm's own risk positions, and to calculate the amount of net capital required for regulatory purposes.

When volume increased substantially, the ability to settle trades was overwhelmed by the amount of paperwork.⁸² The NYSE started reducing trading hours and at one point stopped trading on Wednesdays in an attempt to give firms time to catch up on the mounting backlog of documentation required to settle transactions. In some cases, the NYSE under its own authority limited the activities of member firms until they took steps to decrease the paperwork backlog. Numerous firms failed during this period and the liquidation was complicated by the lack of completed clearance and settlement paperwork.⁸³ The paperwork crisis provided the impetus for both Congress and the Commission to examine different aspects of capital market operation.⁸⁴ These studies coincided with a shift in the views of

79. KUHN, *supra* note 6, at 77–91.

80. H.R. REP. NO. 96-746, pt. 2 (1963).

81. See SELIGMAN, *supra* note 70, at 450–64.

82. U.S. SEC. & EXCH. COMM'N, STUDY OF UNSAFE AND UNSOUND PRACTICES OF BROKERS AND DEALERS 13–14 (1971) [hereinafter 1971 STUDY].

83. JERRY W. MARKHAM, A FINANCIAL HISTORY OF THE UNITED STATES FROM ENRON-ERA SCANDALS TO THE GREAT RECESSION 363 (2004-2009) (Routledge, 2011).

84. Reacting to the issues presented by firms failing and the difficulties with liquidation, Congress quickly passed the Securities Investor Protection Act of 1970 ("SIPA") which created the Securities Investor Protection Corporation to oversee firm liquidations. It was a non-

many SEC staffers away from the Self-Regulatory Paradigm and toward an approach in which the Commission, rather than the industry, would play the primary role in the development of the capital markets.⁸⁵

Between 1971 and 1975, SEC staff developed a new vision of equity market structure. The Commission actively lobbied Congress for greater authority to supervise the development of equity markets. In March of 1971, the Commission transmitted its Institutional Investor Study Report to Congress.⁸⁶ The Institutional Investor Study Report examined the effect of increased institutional ownership of stocks and implied that the markets and the industry had reached consensus with regard to market structure: "A major goal and ideal of the securities markets and the securities industry has been the creation of a strong central market system for securities of national importance, in which all buying and selling interest in these securities could participate and be represented under a competitive regime."⁸⁷

In December of 1971, the Commission published its Study of Unsafe and Unsound Practices of Brokers and Dealers.⁸⁸ The 1971 Study detailed the remedial action taken to avoid a repeat of the large number of firm failures that occurred in the late 1960's. The study also identified additional anomalies emerging in the Self-Regulatory Paradigm. Specifically, it appeared to the Commission that the SROs in general, and the NYSE in particular, had acted too slowly in identifying the looming crisis and then lacked a coherent plan to resolve the crisis. The Commission recommended that it be granted more authority in four areas: (1) the processing of securities transactions; (2) the rule making authority of SROs; (3) the enforcement of SRO rules; and (4) the administration of disciplinary proceedings conducted by SROs.⁸⁹ The Commission also indicated that it

governmental agency that was funded by assessments of member firms. This approach is consistent with the then dominant self-regulatory paradigm; a quasi-governmental organization funded by the industry was given special responsibilities in a specified area. *See* Securities Investor Protection Act of 1970, Pub. L. No. 91-598, 84 Stat. 1636 (1970) (codified as amended at 15 U.S.C. § 78aaa (2012)). SIPA established the Securities Investor Protection Corporation ("SIPC").

85. *In the Midst of Revolution: The SEC, 1973-1981*, SEC. & EXCH. COMM'N HISTORICAL SOC'Y, <http://www.sechistorical.org/museum/galleries/rev/rev03d.php> (last visited Jan. 24, 2017).

Some SEC staff believed that the evolution of the markets required new and more fundamental regulation. It was not enough, they contended, merely to inform investors through the disclosure of information about companies. What was needed was assertive regulation to reform the institutions and structures of the market mechanisms, including the exchanges, to promote the efficiency, stability, liquidity, and capacity of the market in times of increasing volume of stock transactions. The automation and centralization of the market system seemed to be an obvious method for achieving those results.

Id.

86. *See* SEC. & EXCH. COMM'N, INSTITUTIONAL INVESTOR STUDY REPORT OF THE SEC. & EXCH. COMM'N (1971).

87. *Id.* at XXIV (letter of Transmittal from Richard B. Smith, Comm'r).

88. *See generally* 1971 STUDY, *supra* note 82.

89. *Id.* at 5.

would exercise more influence on the operation of the markets, stating that it would “monitor and actively consult with members of the industry regarding the development of automated systems for each stage of the transaction handling process: order entry, execution, comparison, clearance, settlement, custody and transfer.”⁹⁰

In February of 1972, the Commission further solidified its views in the Statement on the Future Structure of the Securities Markets (1972 Policy Statement), stating:

In order to maximize the depth and liquidity of our markets, so that securities can be bought and sold at reasonable, continuous, and stable prices, and to ensure that each investor will receive the best possible execution of his order, regardless of where it originates, it is generally agreed that action must be taken to create a single central market system of listed securities.⁹¹

The SEC defined “central market system” as: “. . . a system of communications by which the various elements of the marketplace, be they exchanges or over-the-counter markets, are tied together. It also includes a set of rules governing the relationships which prevail among market participants.”⁹² The Commission explained the goals of a central market system as:

[T]o make information on prices, volume, and quotes for securities in all markets available to all investors, so that buyers and sellers of securities, wherever located, can make informed investment decisions and not pay more than the lowest price at which someone is willing to sell, or not sell for less than the highest price a buyer is prepared to offer.⁹³

In 1973, the Commission continued its initiative, releasing another policy statement that further articulated its vision of a central market system.⁹⁴ Taken together, these statements show the Commission’s evolution from the passive approach represented by the Self-Regulatory Paradigm toward a new and more aggressive approach. Within the paperwork crisis, the Commission staff had seen difficulties with the older paradigm and began to argue for modifications. Such modifications would allow the SEC to expand its mission and become an active participant in the development and structure of equity markets. At the heart of this change was a paradox—while the Commission’s goal was to create a central market, the NYSE maintained a near monopoly on the trading of NYSE

90. *Id.* at 37.

91. 1972 Policy Statement, *supra* note 5, at 7.

92. *Id.* at 8.

93. *Id.* at 12.

94. SEC. & EXCH. COMM’N, POLICY STATEMENT OF THE SECURITIES AND EXCHANGE COMMISSION ON THE STRUCTURE OF A CENTRAL MARKET SYSTEM (1973).

listed securities and was thus already the de facto central market.⁹⁵ However, it was an organization of limited membership, which limited access and charged dearly, in the form of fixed commissions, to access that liquidity.⁹⁶ One may wonder whether the aggressive approach by the Commission was aimed less at creating an optimal market structure and more at weakening the NYSE's dominant position.⁹⁷

After in-depth hearings, Congress passed the 1975 Amendments, and the national market system (NMS) concept was codified in § 11A of the Exchange Act.⁹⁸ The term "national market system" is not defined in the statute. Rather, it is described in a list of five characteristics that the NMS should encourage:

- (1) Economically efficient executions;
- (2) Fair competition among market participants;
- (3) Availability of information about quotations and transactions in securities;
- (4) Practicability of executing customer orders in the best market; and
- (5) An opportunity for customer orders to be executed without the participation of a dealer.⁹⁹

The 1975 Amendments changed the fundamental relationship between the SEC and the markets it regulates, going far beyond the issues presented by the paperwork crisis. In the New Deal vision, the markets were largely left to regulate and police themselves. The SEC was, as Chairman William O. Douglas put it, the proverbial shotgun in

95. Norman S. Posner, *Restructuring The Stock Markets: A Critical Look At The SEC's National Market System*, 56 N.Y.U. L. REV. 883, 891 (1981).

96. H.R. REP. NO. 96-746, pt. 2, at 256-67 (1963); Richard R. West & Seha M. Tinic, *Minimum Commission Rates on the New York Stock Exchange Transactions*, THE BELL J. ECON. & MGMT. SCI., 577, 557-605 (1971).

97. Notably, these policy statements, are limited to "listed securities." The monopoly operator concerns in the listed market seemed not to be as acute in the over-the-counter market. In fact, the Commission praised the development of a more centralized system in the over-the counter market, noting its "satisfaction with the manner in which the NASDAQ communications system has been operating." 1972 *Policy Statement*, *supra* note 5, at 9. By 1995, the Commission would sanction the NASD for operating a non-competitive OTC market. *In re Nat'l Ass'n of Sec. Dealers, Inc.*, Exchange Act Release No. 37,538, 62 SEC Docket 1346 (Aug. 8, 1996).

98. The Commission began implementing its vision prior to the adoption of the 1975 Amendments by adopting Rule 17a-15, which required the exchanges and the NASD to submit a plan for a consolidated tape, that is a collection of exchange and over the counter transaction for listed securities (the "Consolidated Tape Plan"). Commenters have questioned whether or not the Commission had the authority under the Exchange Act to require such a system. Posner, *supra* note 95, at 905-06 (The immediate effect of the '75 Act amendments was the registration of The Consolidated Tape Plan as a Securities Information Processor).

99. Exchange Act § 11A(a)(1), 15 U.S.C. § 78-k1 (2012).

the closet.¹⁰⁰ As such, it was generally a reactive rather than a proactive agency. If abuses in the system manifest themselves, the SEC had the authority and flexibility to address those issues.

After the 1975 Amendments, the Commission believed it was granted broader authority to oversee the SROs and was specifically designated to facilitate a radically new vision of equity securities trading, the NMS.¹⁰¹ Partially to ensure the creation of an NMS, the SEC was granted additional review and disciplinary powers over the SROs. The Commission now had the authority to review and approve rules filed by each SRO. The 1975 Amendments also gave the Commission the power to directly discipline SROs for failure to enforce their own rules and other failures in their regulatory responsibilities.¹⁰²

Interestingly, as the *de facto* central market, the NYSE had no desire to provide broader access to its quotations and execution facilities.¹⁰³ As one SEC Commissioner stated:

[T]he New York Stock Exchange has not evolved into a national market system, and its share of the order flow has tended to deteriorate in recent years, although one would expect that the development of modern communications technology would have brought about the opposite result. I suggest that a main reason for this failure has been restraints on competition. The Exchange has sought in many ways to channel orders to its market but has maintained or erected barriers to competition with, and within, that market.¹⁰⁴

100. WILLIAM O. DOUGLAS, *DEMOCRACY AND FINANCE: THE ADDRESSES AND PUBLIC STATEMENTS OF WILLIAM O. DOUGLAS AS MEMBER AND CHAIRMAN OF THE SECURITIES AND EXCHANGE COMMISSION* 82 (1940).

101. "In the 1975 Amendments, Congress directed the Commission to oversee the development of a national market system. Congress granted the Commission broad, discretionary powers to oversee the development of a fully integrated national market system for the processing and settlement of securities transactions." SEC. & EXCH. COMM'N, *FIRM QUOTE AND TRADE-THROUGH DISCLOSURE RULE FOR OPTIONS* n.13 (2001).

102. Exchange Act § 19, 15 U.S.C. § 78s (Exchange Act section 19(a) sets forth the procedures for approval of SRO rules. The power to review and reject or abrogate SRO rules meant that the Commission could directly influence the development of the market structures at each exchange.; *see also* 15 U.S.C. § 78s(h) (Exchange Act section 19(h) gives the Commission the authority to sanction SROs and their officers and directors for failure to enforce their own rules and the federal securities laws); *see, e.g., In re Salvatore F. Sodano*, Exchange Act Release No. 59,141, 94 SEC Docket 2968 (Dec. 22, 2008).

103. The NYSE was slow to embrace this expanded federal mandate. "It has not been easy for the New York Stock Exchange and the American Stock Exchange to accept this idea that competing markets should have equal exposure along with their tapes and to cooperate in bringing this about." Ray Garrett Jr., Chairman, Sec. & Exch. Comm'n, Address at the Nat'l Ass'n of Sec. Dealers, *The Consolidated Tape: A Perspective*, Speech before the National Association of Securities Dealers 9 (Jan. 15, 1974).

104. Philip A. Loomis, Jr., Remarks Before the Joint Securities Conference Sponsored by the NASD, Boston Stock Exchange and the SEC: *The Securities Acts Amendments of 1975, Self-Regulation and the National Market System*, 8 (Nov. 18, 1975).

In 1978, after the Commission issued yet another policy statement that called for a central limit order book, the NYSE relented somewhat and agreed to the first linkage plan, known as the Intermarket Trading System (ITS). At first it was simply a linked Teletype machine that transmitted orders between exchanges. Part of its rules included the “trade through” prohibition, which required members to route orders to markets displaying better quotations before executing a trade on its own market at an inferior price. Participants were given one minute to respond.¹⁰⁵

All of these developments were cited as furthering the objectives of Congress in the 1975 Amendments.¹⁰⁶ Commissioner Loomis saw this as an extremely positive evolution in the NMS concept. According to him, “[i]t provide[d] a maximum opportunity for such orders to interact and to be matched, and it enable[d] market professionals, particularly market makers, to have access to the entire order flow and this in turn greatly improve[d] their ability to perform their functions effectively and efficiently.”¹⁰⁷

With the passage of the 1975 Amendments, the proponents of a new, more aggressive approach to securities regulation gained the upper hand. The question was how the Commission would use this new grant of authority. Would it encourage the evolution of the self-regulatory structures of the Exchange and Maloney Acts, or would it take a different approach? As argued below, the Commission’s approach would shift away from the Self-Regulatory Paradigm and embrace a new epistemological foundation for the federal securities laws.

IV. PARADIGM SHIFT: SELF-REGULATION TO MICRO-INTERVENTION

While Kuhn describes paradigm shifts as revolutions, he also recognizes that they take time to fully manifest themselves.¹⁰⁸ The 1975 Amendments gave the Commission the authority to depart from the regulatory framework established in the Securities Act, the Exchange Act, and the Maloney Act. Instead of allowing market professionals to address the issues in their respective markets, it empowered the Commission to intervene in certain areas to “facilitate” the development of a national market system.¹⁰⁹ After the 1975 Amendments, the Commission had greater authority to directly influence or even to dictate the mechanics of equity trading. As the Commission began to exercise that authority, a new paradigm developed, one that I call the Micro-Intervention Paradigm. From

105. Robert L.D. Colby & Eric Sirri, *Consolidation and Competition in the U.S. Equity Markets*, 5 CAPITAL MKTS. L.J. 1, 14 (2010).

106. Harold M. Williams, Address at the Sec. Indus. Ass’n, 1978 Annual Convention, The Securities Industry and The National Market System: A Current Perspective (Nov. 30, 1978).

107. Loomis Jr., *supra* note 104, at 11.

108. KUHN, *supra* note 6, at ch. XII, The Resolution of Revolutions.

109. Exchange Act § 11A(a)(1), 15 U.S.C. § 78-k1 (2012).

an epistemological standpoint, it neither fits squarely within the Self-Regulatory Paradigm nor does it completely replace it. Instead, it incorporates core elements of the self-regulatory structure and seeks to make them more effective by allowing the Commission to influence or impose structures on the industry.

In the short term, the Commission achieved its goal of providing better access to quotations and better dissemination of market information.¹¹⁰ However, its approach to the instructions to “facilitate” the development of an NMS resulted in more Commission intervention in market operations. As a consequence, the Commission now needed to adopt rules addressing the mechanics of equity market structure on a regular and active basis. New technologies, new market models, and new instruments taxed the existing concepts and regulations, requiring an ever increasing need for guidance, interpretation, and rule making. Thus, over time, the Commission rather than the markets has become the primary arbiter of the structure of equities trading. In a world of finite regulatory resources, the Commission seemed less inclined to use its authority to improve the self-regulatory framework.

As an example of this dichotomy, one can compare and contrast the Commission’s approach to simultaneous crisis in equity market regulation and equity market structure. I will focus on two related events from the mid 1990’s: the SEC’s Report of Investigation of the NASD and the adoption of the Order Handling Rules. The contrast between them underscores the difficulty in reconciling the Self-Regulatory Paradigm with the emerging Micro-Intervention Paradigm.

A. THE NASD 21(a) REPORT¹¹¹

In 1994, William G. Christie and Paul H. Schultz published an economic analysis of quotations on the NASDAQ market. This paper observed the presence of quoting increments and strongly suggested that NASDAQ market makers were acting in concert to keep those quotations artificially wide.¹¹² At that time, quotations were posted as fractions in increments of one-eighth of a dollar (12.5 cents). Instead of posting an offer to sell at $3 \frac{1}{8}$, market makers routinely quoted in the next increment (i.e., $3 \frac{1}{4}$). This had the effect of changing the price available to the public by 12.5 cents. This convention was referred to as avoiding odd-eighths. This practice led to multiple class action lawsuits and an SEC investigation. The Commission’s Report of Investigation concluded that NASDAQ market makers had engaged in numerous anti-competitive and abusive practices,

110. See Onnig H. Dombalagian, *Licensing the Word on the Street: The SEC’s Role in Regulating Information*, 55 BUFFALO L. REV. 63, 75 (2007).

111. REPORT PURSUANT TO SECTION 21(a) OF THE SECURITIES AND EXCHANGE ACT OF 1934 REGARDING THE NASD AND THE NASDAQ MARKET (1996) [hereinafter NASD 21(a) REPORT].

112. William G. Christie & Paul H. Schultz, *Why Do NASDAQ Market Makers Avoid Odd-Eighth Quotes?*, 49 J. FIN. 1813, 1813–40 (1994).

including: colluding to avoid odd-eighth quotes, coordinating price quotations and trading reports, sharing proprietary information without the customer's knowledge or consent, failing to honor price quotations, and poor trade reporting practices.¹¹³

The Commission determined that NASD, the SRO responsible for supervising the NASDAQ market, had failed in its duties under the federal securities laws. The NASD appeared to be captured by its market maker members, deferring to their views rather than enforcing NASD rules or the federal securities laws. The SEC's Report documents a culture of failed regulation where members were viewed as clients and market conventions were largely left to the members to set, disciplinary processes were interfered with, and enforcement was used to discourage competition.¹¹⁴ To illustrate just how far the NASD had gone astray, the SEC uncovered that the 1995 bonus of a senior NASD executive was tied to whether the SEC brought a formal action against the NASD, creating what appeared to be a conflict between self-regulatory obligations and personal enrichment.¹¹⁵ Internal documents indicated that NASD senior executives were aware of the issues and continued to receive outside complaints through the early 1990s. It was not until the Christie-Schultz study became public that practices on the NASDQ market began to change.¹¹⁶

Given the emphasis of the Exchange Act on self-regulation and the fact that the Commission's authority over SROs had been increased as a result of the 1975 Amendments, one might have expected the SEC to evaluate the self-regulatory process.¹¹⁷ Specifically, under the Self-Regulatory Paradigm, one might have expected the Commission to lead an in depth examination of the regulatory structure of the over-the-counter markets.

113. See NASD 21(a) REPORT, *supra* note 111.

114. The NASD 21(a) report notes that members had too much influence over the disciplinary process, including encouraging enforcement actions against competitors while discouraging enforcement of Commission Rules. *Id.* It further concluded that NASD allowed corporate goals and competitive concerns to overshadow its regulatory responsibilities. *Id.* at 42–49.

115. Brett D. Fromson, *Make-Over for a Tarnished Stock Market*, WASH. POST, Mar. 17, 1997, at 12.

116. According to the SEC, the NASD was aware of the pricing convention as early as 1990, but took no steps to address it. See NASD 21(a) REPORT, *supra* note 111, at 35–36. The NASD began to address the issue informally after the publication of the Christie-Schultz Study. In a subsequent paper, the authors document the abandonment of this convention in 5 large stocks after the publication of the first paper and a meeting of market participants and NASD officials. See William G. Christie, Jeffrey H. Harris & Paul H. Schultz, *Why Did Nasdaq Market Makers Stop Avoiding Odd-Eighth Quotes?*, 49 J. FIN. 1841, 1841 (1994). This meeting is also referenced in the NASD 21(a) Report. See NASD 21(a) REPORT, *supra* note 111, at 23.

117. As part of the 1975 amendments the Commission had been granted broad powers to discipline SROs. Up to this point, it had used this power sparingly. NASD 21(a) REPORT, *supra* note 111, at 50; see, e.g., Midwest Clearing Corp., Exchange Act Release No. 31,416 (Nov. 6, 1992), 57 Fed. Reg. 54,435 (Nov. 18, 1992); Chicago Bd. Options Exchange, Ex. Act Release No. 26,809 (May 11, 1989); Philadelphia Stock Exchange, Exchange Act Release No. 16,648 (Mar. 13, 1980); Boston Stock Exchange and Boston Stock Exchange Clearing Corporation, Exchange Act Release No. 17,183 (Oct. 1, 1980).

After a complete investigation of the NASD, the Commission neither reevaluated the self-regulatory process nor articulated changes or improvements to the self-regulatory system. Instead, the Commission deferred to the findings of a private committee, chaired by retired Senator Warren Rudman and paid for by NASD. This committee developed the regulatory structure of the NASD going forward and has influenced the evolution of SROs ever since. The SEC ratified most of Rudman's recommendations as undertakings by NASD in its Order Instituting Proceedings against NASD.¹¹⁸

Among the most significant aspects of the Rudman Report is the recommendation that the regulatory process be split from the market function. The Rudman Committee believed that this would be possible under a single SRO structure that maintained and enhanced the regulatory function.¹¹⁹ In practice, however, it was a deviation from the Self-Regulatory Paradigm and the rationale underlying both the Exchange Act and the Maloney Act. The issues at NASD were attributable to a failure to manage the inherent conflict between the business and regulatory responsibility of the SRO. But this conflict exists and has always existed in all self-regulated markets. Indeed, that is the purpose of self-regulation; the people who are intimately involved in market operations are in the best position to identify and police those markets. Thus, the problem that needed to be solved was not that *a conflict existed*; it was that the NASD lacked the internal controls necessary to *manage the conflict* between its responsibilities to oversee broker-dealers and its operation of the market.

Rather than addressing the self-regulatory system directly by, for example, promulgating rules for conflict mitigation or asking Congress to define SRO responsibilities, the Commission embraced Rudman's recommendation to separate the market function run by NASDAQ and the regulatory function for broker-dealers to be run by the NASD. Notably, the Rudman Committee's recommendations were addressing a specific issue within the structure of the NASD/NASDAQ situation. It was not articulating a rule for general application to all equity markets.¹²⁰ While the Rudman Committee's suggestion of separation still contemplated close cooperation between the market and the regulator, in practice the normative

118. Nat'l Ass'n of Sec. Dealer Inc., Exchange Act Release No. 37,538, 62 SEC Docket 1346 (Aug. 8, 1996).

119. WARREN B. RUDMAN ET AL., EXECUTIVE SUMMARY OF THE REPORT OF THE NASD SELECT COMMITTEE ON STRUCTURE AND GOVERNANCE TO THE NASD BOARD OF GOVERNORS 22 (1995).

120. This recommendation was attempting to deal with the conflict presented by the NASD being the primary regulator for OTC markets and the operation of the NASDAQ market and assumed that Nasdaq would be creating rules for the OTC markets, not operating as an exchange.

model of self-regulation developed into complete separation.¹²¹ As the next example illustrates, as the Commission shifted away from the Self-Regulatory Paradigm, it departed from an area of its traditional expertise and expanded into a new approach based on Commission intervention into the mechanics of trading. Arguably, the Commission ceded its role in defining self-regulatory responsibilities and duties to the industry, and began to usurp the role of the industry in equity market development. Thus, as the Commission shifted to the Micro-Intervention Paradigm, the focus was not on the improvement of the operation of self-regulatory structures; rather, it was on developing a solution based on SEC intervention into the mechanics of trading.

B. THE ORDER HANDLING RULES

In 1996, invoking its authority under the 1975 Amendments, the Commission adopted a series of rules designed to increase transparency by requiring market makers to publically display customer limit orders that would improve prices of existing quotations. These became known as the “Order Handling Rules.”¹²² The adopting release cites a Commission study that recommended better disclosure of order handling practices generally, but that did not recommend that the Commission dictate such practices.¹²³ The Order Handling Rules, as adopted, used the authority granted the Commission under the 1975 Amendments to mandate broker-dealer routing practices. While the 1975 Amendments gave the Commission the authority to “facilitate the development of a national market system,” it is not at all clear to some observers that Congress envisioned direct SEC intervention into such decisions.¹²⁴

In a nutshell, the SEC’s Limit Order Display Rule requires a market maker to display customer limit orders that (1) are priced better than a market maker’s quote, or (2) add to the size associated with a market maker’s quote when the market maker is at the best price in the market. The Order Handling Rules amended the SEC’s Quote Rule to require a market maker to display in its quote any better-priced orders. The stated purposes of these rules were greater transparency and access. As the Commission noted, “[c]omprehensive and transparent information about market

121. RUDMAN ET. AL., *supra* note 119, at 22 (“The NASD and the NASDAQ market should not be divorced, but regulation of the broker-dealer profession should otherwise be separated from and performed independently of regulation of the NASDAQ and other OTC markets.”)

122. Order Execution Obligations, 61 Fed. Reg. 48,290 (Sept. 12, 1996) (codified at 17 C.F.R. pt. 240).

123. DIV. OF MKT. REG. U.S. SEC. & EXCH. COMM’N., MARKET 2000: AN EXAMINATION OF CURRENT EQUITY MARKET DEVELOPMENTS 22–25 (Jan. 1994).

124. Letter from Ralph C. Ferrara, former General Counsel, Sec. & Exch. Comm’n, to Robert G. Britz, Group Exec. Vice President, N.Y.S.E. (Apr. 5, 2000) (In describing the 1975 Amendments, Mr. Ferrara noted: “After sparring on the subject with ideologues of every stripe, Congress settled on the verb ‘facilitate’ rather than ‘establish.’ It was a wise choice.”).

conditions is critical to efficient and competitive markets for all investors, whether retail or institutional.”¹²⁵

The Commission, keen to increase transparency and encourage competition, included electronic systems that automatically matched orders, and in the case of listed securities, provided the markets with execution alternatives that did not require the intervention of an exchange specialist.¹²⁶ These systems were called electronic communications networks (ECNs). The Commission recognized that these systems had become integrated into the securities markets and provided much needed completion to market makers and specialists; however, the widespread use of what the Commission called “hidden markets” frustrated the NMS goal of greater transparency.¹²⁷

To accommodate the evolution of ECNs and to further integrate them into the NMS, the Commission added a new compliance option for broker-dealers, the “ECN display alternative.”¹²⁸ This allowed broker-dealers to satisfy their obligations under the Quote Rule by sending an order to an ECN that widely disseminated the quote publicly. To ensure the accessibility and dissemination of those quotations, the Commission also required all SROs to both display and to provide access to ECN quotes.¹²⁹ The Commission’s direct intervention in equity market structure had significant consequences. While it could now encourage more competition in market execution services, it ran the risk of putting its thumb on the scales and picking the winners and losers in the equity markets.

In the Order Handling Rules, the Commission is very clear about its NMS goals and extremely specific about the responsibilities of broker-dealers, going as far as dictating their order display requirements and options. However, it was less precise about the duties and responsibilities of an ECN. Recall that under the Exchange Act and the Self-Regulatory Paradigm, the Commission was concerned with both the identification of entities and assigning *duties* and *responsibilities* that flowed from their status. Specialists and market makers, for example, had special status and informational advantages and in turn were subject to affirmative and negative obligations in the market place.¹³⁰

125. Order Execution Obligations, 61 Fed. Reg. at 48,308 n.223.

126. The Commission had sought to regulate what it called “automated trading information systems” since the 1960s. In 1969, the Commission proposed Rule 15c2-10 under the Exchange Act (17 C.F.R. 240.15c2-10) to “provide a regulatory framework for automated trading information systems that are not within the existing scope of regulation of exchanges and national securities associations.” U.S. SEC. & EXCH. COMM’N., 35TH ANNUAL REPORT 5 (1969), https://www.sec.gov/about/annual_report/1969.pdf (Ultimately the Commission abandoned this rule making and informally established a system whereby such systems could operate as broker-dealers.).

127. Order Execution Obligations, 61 Fed. Reg. at 48,291 n.5, 48,298 n.94, 48,299 n.113-14.

128. 17 C.F.R. § 242.604 (2017).

129. Order Execution Obligations, 61 Fed. Reg. at 48,291 n.5, 48,298 n.94, 48,299 n.113-14.

130. See, e.g., 17 C.F.R. § 240.11b-1 (2017).

As the Commission shifted to the Micro-Intervention Paradigm, it became less concerned with defining the duties and responsibilities of market participants and more focused on defining the terms of trading. In the OHRs, for example, the Commission granted the ECNs a special unique status as a display alternative. This no doubt encouraged completion and allowed ECNs to compete in the NMS.¹³¹ However, the Commission did not adopt rules regarding ECN regulation; rather, it continued the informal process of granting staff no-action letters to entities that sought to act as display alternatives under the OHRs.¹³² Not surprisingly, the number and trading volumes of these entities grew, creating a new regulatory problem for the Commission; having granted a special status to non-exchanges, how could it ensure that the transparency sought by the Order Handling Rules would be achieved and that these entities would be properly policed?

In sum, the Commission's approach in the NASD Order and the Order Handling Rules illustrates the paradigm shift brought about by the 1975 Amendments. When faced with a failure of epic proportions in the regulatory structure established by the self-regulatory framework, the Commission took a passive approach to the authority granted it under the 1975 Amendments. That is, although it sanctioned the SRO, it declined the opportunity to codify substantive SRO standards suitable for evolving markets. Arguably, it ceded its traditional policy making role with regard to self-regulation to a committee paid for by the NASD. That committee, rather than the Commission, established a new standard for over-the-counter SRO compliance, one based on *independence* from markets, rather than *conflict management* within markets. It is as if the Commission viewed

131. One ECN described the adoption of the Order Handling Rules as a seismic event in its history:

Turning point came in 1997 when the Securities and Exchange Commission (SEC) promulgated new order handling rules that required Nasdaq market makers to send on to ECNs any limit orders whose price fell between the market maker's best buy and sell prices. Those ECN prices were displayed on the Nasdaq ticker. "For me to be able to have my orders displayed over the Nasdaq system was an absolute seminal event," Matthew Andresen, the day-trader at Datek who was one of the first to understand the rule's import, told the *Dallas Morning News*. "It's the difference between trying to sell your house with a sign in the yard or without a sign."

The Island ECN, Inc. History, FUNDING UNIVERSE, <http://www.fundinguniverse.com/company-histories/the-island-ecn-inc-history> (last visited Jan. 25, 2017).

132. *No Action Letters*, U.S. SEC. & EXCH. COMM'N, <https://www.sec.gov/answers/noaction.htm> (last visited Jan. 25, 2017) ("Most no-action letters describe the request, analyze the particular facts and circumstances involved, discuss applicable laws and rules, and, if the staff grants the request for no action, concludes that the SEC staff would not recommend that the Commission take enforcement action against the requester based on the facts and representations described in the individual's or entity's request." While the Commission defined ECN, it never promulgated rules for establishing a formal registration process or objective standards for ECNs. The Staff conferred ECN status via no action letters.).

the mandate of the 1975 Amendments as limiting, rather than strengthening, its authority to intervene in the SRO system.¹³³

On the other hand, when faced with an issue of equity market structure, the Commission took an aggressive approach, using its authority under the 1975 Amendments to adopt a set of precise, proscriptive rules regulating the handling of individual orders. This was a foray into an area where the Commission had not traditionally ventured and represented a stretch of authority into an area where the Commission had no previous demonstrated expertise. In terms of Kuhn's analysis, these two events represent anomalies in the old paradigm being identified and a new paradigm emerging. In shifting toward the Micro-Intervention Paradigm, the Commission started to be the arbitrator of market structure and from this point on, it would have a much greater role in equity market development.

C. THE REGULATION OF ELECTRONIC TRADING SYSTEMS: REGULATION ATS¹³⁴

In creating the ECN alternative, the Commission succeeded in encouraging market competition and in opening market structure to new technology and innovation. Yet automated systems that were not ECNs were not required to display quotations. According to the Commission, by 1998 such systems accounted for more than twenty percent of the orders for securities listed on the NASDAQ market.¹³⁵ The Commission's success in encouraging competition between the markets required it to address the regulatory status of those systems. Regulation ATS allows an emerging group of trading centers to operate electronic trading markets, with the choice of either registering as national securities exchanges or registering as broker-dealers and complying with additional record keeping requirements and, at certain thresholds, the requirement to display quotes in the public markets. It also provided a blueprint for entities wishing to register as exchanges. These provisions are addressed in turn.

1. Adapting the Framework to Include Alternative Trading Systems

The Commission adopted a new rule, Rule 3b-16, which revised the Exchange Act definition of "exchange" to include a marketplace that:

133. For a discussion of the myriad issues currently facing SROs, see generally Onnig H. Dombalagian, *Self and Self-Regulation: Resolving the SRO Identity Crisis*, 1 BROOK. J. CORP. FIN. & COM. L. 317 (2007).

134. I concentrate on the effects of Regulation ATS on the Self-Regulatory Paradigm. For a more complete discussion of the development of Regulation ATS see Roberta S. Karmel, *Turning Seats Into Shares: Cause and Implication of Demutualization of Stock and Futures Exchanges*, 53 HASTINGS L.J. 367, 370–81 (2002).

135. Regulation of Exchanges and Alternative Trading Systems, 63 Fed. Reg. 70,844, 70,845 (Dec.22, 1998) (to be codified at 17 C.F.R. pts. 202, 240, 242, and 249).

- (1) Brings together the orders for securities of multiple buyers and sellers; and
- (2) Uses established, non-discretionary methods (whether by providing a trading facility or by setting rules) under which such orders interact with each other, and the buyers and sellers entering such orders agree to the terms of a trade.¹³⁶

This change clarified that Alternative Trading Systems (ATSs) were in fact exchanges under the Exchange Act definition. After clarifying the ATSs' status under the federal securities laws, the Commission provided two options: (1) register as a national securities exchange under § 6 of the Exchange Act or (2) register as a broker-dealer, and thereby subject itself to the self-regulatory scrutiny of either an exchange or a national securities association.¹³⁷ Under the first option, if an ATS chose to register as a national securities exchange, it would be required to meet the requirements of § 6 of the Exchange Act, namely to perform self-regulatory functions. In return, the exchange/ATS would be able to participate in NMS plans, share in data revenue from the consolidated tapes, and list securities. Under the second option, it could not perform self-regulatory functions, could not list securities, could not participate in NMS plans, and could not use the term "exchange" in describing itself.

This approach was a compromise between the more formal requirements of exchange registration (which might have been too costly or difficult for some ATSs) and the need for a formal regulatory structure including registration and record keeping requirements for ATSs. Exchanges were still required to regulate themselves, to establish rules and monitor their broker-dealer members for compliance, and to take disciplinary action when members failed to comply. The Commission also required the SROs to conduct surveillance of trading on ATSs by "integrating alternative trading system trading data into the SRO's existing surveillance system," arguably placing additional burdens on registered exchanges to regulate entities that were in fact their competitors.¹³⁸

Almost immediately, anomalies developed in this approach. Recall one of the major goals of the 1975 Amendments was transparency. As then Commissioner Loomis put it:

Perhaps the cornerstone of a national market system is the creation of a mechanism by which all, or at least most, of the orders for securities traded in the system are channeled into the system rather than being fragmented and dispersed. This concentration of the order flow has at least two important consequences. It provides a maximum opportunity for such

136. 17 C.F.R. § 240.3b-16 (2017).

137. *Id.* § 242.301.

138. Recall that this same conflict was at the heart of the Commission's 21(a) Order. *See* NASD 21(a) REPORT, *supra* note 111.

orders to interact and to be matched, and it enables market professionals, particularly market makers, to have access to the entire order flow and this in turn greatly improves their ability to perform their functions effectively and efficiently.¹³⁹

Under Regulation ATS, however, orders on an ATS may or may not be publicly displayed. Their eligibility for display depends on an awkward calculation of volume in a specific security during a specific time period. Trading venues with less than five percent of the volume of a specific security could choose to remain “dark,” meaning that they were not required to display their quotations publicly. Today this dark liquidity accounts for approximately fifteen percent of the total market volume and may frustrate the goals of creating fair and transparent markets.¹⁴⁰

2. Regulation ATS: A New Approach to Exchange Registration and Self-Regulation

As part of Regulation ATS, the Commission recognized that its implementation had the potential to lead to changes among registered exchanges in two significant ways. First, it could encourage ATSs to register as exchanges, and second, it could incentivize existing exchanges to explore other corporate structures. The preamble to Regulation ATS contained a section concerning existing registered exchanges and the possibility of ATSs registering as exchanges.¹⁴¹ The Commission continued to embrace the self-regulatory system:

The Commission believes that the self-regulatory role of registered exchanges is fundamental to the enforcement of the federal securities laws. Congress has delegated to the SROs certain quasi-governmental functions and responsibilities, and has charged the Commission with overseeing the SROs to make sure they have the ability and resources to comply with those obligations.¹⁴²

At the same time, it adopted approaches that fundamentally altered the market as SRO model. In the same release the Commission began to articulate a different approach to self-regulation:

Further, the Commission also believes that the ultimate responsibility for enforcement and disciplinary actions for violations relating to transactions executed in an SRO’s market or rules unique to that SRO should continue to be retained by that SRO. In addition, these exchanges must establish a

139. Loomis Jr., *supra* note 104, at 11.

140. See, e.g., *Hidden Volume Ratios*, U.S. SEC. & EXCH. COMM’N, <https://www.sec.gov/marketstructure/research/highlight-2013-02.html#WK3VMvkrLIU> (last updated Oct. 9, 2013) (finding that “the hidden volume ratio for stocks is typically between 11% and 14%”).

141. Regulation of Exchanges and Alternative Trading Systems, 63 Fed. Reg. 70,844, 70,880 (Dec. 22, 1998) (to be codified at 17 C.F.R. pts. 202, 240, 242 and 249).

142. *Id.* at 70,881.

disciplinary process including appropriate sanctions for violations of the rules and a fair procedure for administering the disciplinary process. Existing exchanges generally employ personnel and establish extensive programs to fulfill this responsibility. However, it may be possible for an exchange to contract with another SRO to perform *its day-to-day enforcement and disciplinary activities. Nevertheless, a registered exchange would retain ultimate responsibility for this function. In considering an exchange's application for registration the Commission will consider whether allowing the exchange to contract with another SRO to perform its day-to-day enforcement and disciplinary activities would be consistent with the public interest.* (emphasis added)¹⁴³

In terms of the epistemological analysis, this is a further shift from the Self-Regulatory Paradigm. Industry participation in regulation is at the core of the Securities Act and the Exchange Act. These Acts require financial professionals to act as gatekeepers to the capital markets.¹⁴⁴ They give registered exchanges and, through the Maloney Act, national securities associations the power to act as quasi-governmental rule makers and enforcers. The underlying assumption is that the professionals best suited to regulate a market are the same professionals that run the market.

In Regulation ATS the Commission articulated a model favoring separation of regulation from markets, and allowed SROs to contract out for regulatory services. Under the Commission's new formulation, and expanding the recommendations in the Rudman Report to the listed markets, regulation was recast as a market neutral service rather than a characteristic and an imperative for each market. On their face, the 1975 Amendments were designed to *strengthen* the Commission's oversight of SROs. As part of the 1975 Amendments, Congress recognized the desirability of a self-regulatory structure (albeit with additional SEC oversight), and even adopted a definition of "self-regulatory organization."¹⁴⁵ Under Regulation ATS the Commission was content to allow regulation, which had been a core function of a market, to be contract service.¹⁴⁶ While the language of Regulation ATS is expressly limited to "day-to-day enforcement and disciplinary activities," in practice the Commission has not objected to allowing all regulatory functions to be

143. *Id.* at 70,882. The release does not say that an exchange in existence at the time of the adoption of Regulation ATS would be able to outsource its regulatory functions. Nevertheless, as of this writing virtually all the exchanges have contracted out some of their self-regulatory functions to the only existing full service national securities association, FINRA.

144. *See generally* Coffee, *supra* note 55.

145. Exchange Act § 3(a)(26), 15 U.S.C. § 78c(a)(26) (2012).

146. The Exchange Act allows the Commission by rule or order, to allocate authority among self-regulatory organizations. *Id.* at § 17(d)(1). The ATS formulation is something short of such delegation as the SRO contracting for regulatory services retains responsibility and presumably liability for the regulation of its members and markets.

covered by contract.¹⁴⁷ More than twenty years after the adoption of Regulation ATS, the Commission continues to intervene deeper and deeper into market microstructure, but has yet to establish rules addressing the oversight responsibilities of SROs contracting for regulatory services. Exchanges, perhaps seeking to narrow the competitive gap with ATSs, have for the most part outsourced self-regulatory functions to third parties. Thus, the Rudman Committee's recommendation to separate regulation in the over-the-counter market has evolved into a normative model where the regulator is generic and no expertise in the operation of a specific market is required.

In addition, again invoking the 1975 Amendments, the Commission stated that exchanges, which up to that point had been mutual associations, could now be for-profit shareholder companies. In the early 2000s, the traditional exchanges embraced the Commission's invitation to become public companies—a process known as demutualization. As commenters at the time recognized, the demutualization of exchanges would require a reconsideration of the responsibilities of SROs.¹⁴⁸ The Commission made no adjustments to the self-regulatory structure to accommodate its acquiescence in demutualization. Only after blessing demutualization and after demutualization occurred did the Commission begin to grapple with the regulatory structure required for these new entities. In 2004, the Commission issued a concept release that discussed possible governance standards and other requirements for SROs.¹⁴⁹ Informal requirements have been suggested for exchanges to follow concerning ownership structure and governance.¹⁵⁰ However, these are staff interpretations and are not part of or supported by Commission rules. In addition, many of the current exchanges are owned by a parent holding company that performs many of the

147. For example, in late 2014, FINRA announced a contract to provide “market surveillance, financial surveillance, examinations, investigations and disciplinary services” for the Chicago Board Options Exchange. *FINRA Signs Regulatory Services Agreement with CBOE and C2*, FIN. INDUS. REG. AUTHORITY (Dec. 22, 2014), <http://www.finra.org/newsroom/2014/finra-signs-regulatory-services-agreement-cboe-and-c2>.

148. Karmel, *supra* note 134, at 400.

149. Fair Administration and Governance of Self-Regulatory Organizations, 69 Fed. Reg. 71,255 (Dec. 8, 2004) (to be codified at 17 C.F.R. pts. 240, 242 and 249). The release discusses the conflicts inherent in self-regulation, the funding sources for regulation and offers models for enhanced Commission oversight or alternative SRO structures. See generally *id.* The private sector had already weighed in on possible reforms. See *Securities Industry Association White Paper: Reinventing Self-Regulation*, SEC. INDUS. & FIN. MARKETS ASS'N (Jan. 5, 2000), <http://www.sifma.org/issues/item.aspx?id=21354>. These concepts are already more than a decade old.

150. See Exchange Act § 6(b)(3), 15 U.S.C. § 78f(b)(3) (2012) (providing that one or more directors is representative of issuers and investors, and not associated with a member of the exchange, or with any broker-dealer; and “[assures] a fair representation of its members in the selection of its directors and administration of its affairs.” An applicant is required to divine what may pass Commission muster as there are no rules governing representation).

functions of an SRO, including internal audit, rule writing, and governance. The regulatory status of these entities has not been examined.

D. REGULATION NMS: THE NEW PARADIGM PREVAILS¹⁵¹

Regulation ATS instituted three major changes to the market regulatory structure: (1) SROs could outsource one of their primary functions; (2) exchanges could be demutualized and operated as public companies; and (3) ATSS, virtual markets themselves, were to be regulated as broker-dealers.¹⁵² Each of these came with its own set of issues. The practical effects of these regulatory market structure decisions become more apparent as the Commission has adopted more complex equity market structures. For example, Regulation NMS is a series of rules addressing market practices. The regulation amended and renumbered existing rules as 601 and 603, amended the market data rules, introduced Rule 610 (the so-called Market Access Rule), introduced Rule 611 (known as the Order Protection Rule), and concluded with Rule 612 (the Sub-Penny Rule).¹⁵³ The Order Protection Rule, for example, presents a series of questions that affect market regulatory structure. Under this rule,¹⁵⁴ trading centers are required to establish, maintain, and enforce written policies and procedures reasonably designed to prevent the execution of trades at prices inferior to protected quotations displayed by other trading centers. In practice, the Order Protection Rule requires that trading centers route orders to an SRO that displays the national best bid or offer unless it falls under one or more of nine exceptions.¹⁵⁵ So if the best price is offered on exchange A, then a trader must execute on that platform and not “trade-through” to exchange B or C, where the price may be less favorable.¹⁵⁶

151. This article focuses on the epistemology underlying equity market regulation. For a concise analysis of issues presented by Regulation NMS see *Equity Market Structure: A Review of SEC Regulation NMS H. Comm. on Financial Services, Subcomm. on Capital Markets & Government Sponsored Enterprises* (Testimony of Steven Lofchie), <http://financialservices.house.gov/uploadedfiles/hhrg-113-ba16-wstate-slofchie-20140228>.

152. Regulation of Exchanges and Alternative Trading Systems, 63 Fed. Reg. 70,844, 70,880 (Dec. 22, 1998) (to be codified at 17 C.F.R. pts. 202, 240, 242 and 249); see also 17 C.F.R. § 242.301(b)(1) (2017).

153. 17 C.F.R. §§ 242.601, 242.603, 242.610, 242.611, 242.612 (2017).

154. The Order Protection Rule is one of the four substantive rules that comprise Regulation NMS. Adopted by the Commission in 2005 in a contested vote and implemented in 2007, Regulation NMS's other substantive rules include: a requirement that markets provide fair and non-discriminatory access to quotations, a prohibition on the display of quotations in pricing increments of less than a penny, and amendments to the formulas currently used to allocate market data revenues to SROs under joint industry plans. See 17 C.F.R. § 242.611.

155. The Order Protection Rule echoes the “trade through” prohibition of the Intermarket Trading System from the 1970s. Colby & Sirri, *supra* note 105.

156. Memorandum from the Sec. & Exch. Comm'n, Division of Trading and Markets, to Market Structure Advisory Committee (Apr. 30, 2015), <https://www.sec.gov/spotlight/equity-market-structure/issues-affecting-customers-emsac-012616.pdf>.

While the goal of achieving the best price laudable the Commission once again recognized a special status for a market participant, i.e., the one displaying a “protected quote.” This status could give registered exchanges an advantage and might encourage more entities to consider exchange registration. At the very least this status can be a lifeline for trading platforms that would not otherwise be competitive. Although the Commission changed the dynamics of exchange operation, it did not reevaluate the exchange registration process, so any entity that can register and operate as an automated exchange is entitled to quote protection regardless of its reputation, regulatory sophistication, or market share. Traders placing buy or sell orders in NMS securities must still account for orders on, for example, the Chicago Stock Exchange, which represents less than 0.5% of monthly share volume traded nationally.¹⁵⁷ Finally, the provisions of Regulation NMS, and therefore compliance, are complicated and require nearly constant adjustment.¹⁵⁸ Surveillance and enforcement require the ability to access, analyze, and compare a huge amount of data. When promulgating Regulation NMS in 2007, the SEC made no real attempt to have regulatory data available. Consolidated Audit Trail data is still years away.¹⁵⁹

In sum, the Commission was given a mandate in the 1975 Amendments to encourage completion and innovation and to create a national market system for securities. In complying with this mandate, the SEC has devoted a huge amount of resources to intervening in equity market structure. While doing so, however, it has not provided clear guidance on the market regulatory structure required to support the mandates of an NMS. Commission policy (such as allowing the outsourcing of regulatory functions) may have had the inadvertent effect of weakening the SROs’ ability to perform market regulation. Paradoxically, as the rules of the Commission and of the exchanges have become more complicated, the expertise in the operations and the ability to regulate individual market centers may have been degraded. Arguably, the epistemological approach adopted by the Commission after the 1975 Amendments elevated

157. Brian Louis & Nick Baker, *Chicago Stock Exchange Targets Latency Arbitrage With Delay*, BLOOMBERG MARKETS (Aug. 30, 2016), <https://www.bloomberg.com/news/articles/2016-08-30/chicago-stock-exchange-targets-latency-arbitrage-with-speed-bump>.

158. The Micro-Intervention Paradigm requires the Staff of the SEC to provide regular guidance on a variety of market rules. See, e.g., *Division of Market Regulation: Frequently Asked Questions Concerning Regulation SHO*, SEC. & EXCH. COMM’N, <https://www.sec.gov/divisions/marketreg/mrfaqregsho1204.htm> (last updated Oct. 15, 2015) (linking to Reg. SHO amendments and several pages of staff guidance).

159. See Press Release, Sec. & Exch. Comm’n, SEC Approves Plan to Create Consolidated Audit Trail (Nov 15, 2016), <https://www.sec.gov/news/pressrelease/2016-240.html>. FINRA claims that its market regulation department “monitors approximately 99 percent of the equities market.” *Market Regulation*, FIN. INDUS. REG. AUTHORITY, <http://www.finra.org/industry/market-regulation> (last visited Mar. 3, 2017).

intervention in equity market structure to primary importance while neglecting the regulatory market structure required to support it.

V. THE PROBLEM WITH THE MICRO-INTERVENTION PARADIGM

As Kuhn suggests, dominant paradigms begin to demonstrate anomalies—that is, facts that do not seem to fit the dominant paradigm. Drawing on publically available data, I can provide a snapshot of equity markets in a historic context. In 1934, the NYSE had over 75% of the market share in listed equities. In 2016, the NYSE complexes (that is NYSE, NYSE Arca, and NYSE Mkt) had, in total, just over 24% of the monthly volume of market share in listed equities, and the NASDAQ OMX complexes (NASDAQ, BX, and Phlx) had just over 17%. Almost 37% of the total volume was conducted over-the-counter.¹⁶⁰ Over the last five years, the NYSE, and to a lesser extent NASDAQ, have been slowly but steadily losing equity market share to the over-the-counter market.¹⁶¹ The monopoly hold on equity trading that once existed, and which seemed to provide the impetus for the 1975 Amendments, is no longer an issue. Technology, rather than Commission rulemaking, has enabled investors to reach liquidity not only across the nation, but also across the globe.

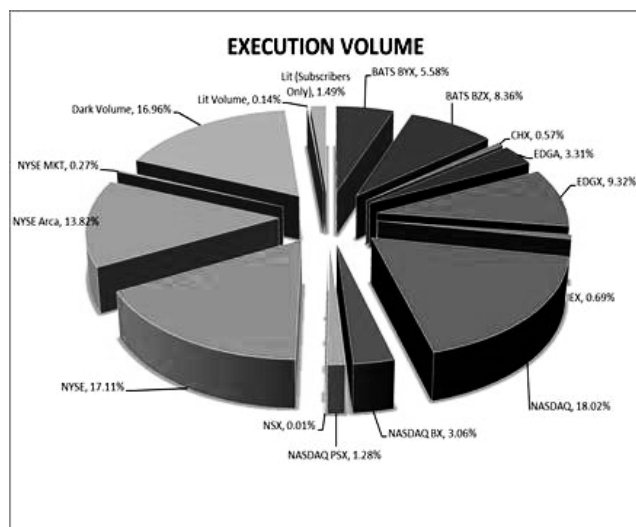
At the same time, in contravention to the stated goals of the NMS, non-displayed orders, such as liquidity in dark pools, have increased. These quotes arguably piggyback on the quotations on public exchanges without contributing to price discovery. As demonstrated in the chart below, between January 1, 2016 and December 31, 2016, approximately 17% of NMS shares traded were traded on an ATS that does not display its quotes either to an SRO (such as the FINRA Alternative Display Facility) or to the ATS's subscribers. During that period, only NASDAQ (18%) and the NYSE (17%) accounted for at least as much execution volume as these dark pools.¹⁶² This can be problematic as dark pools are opaque about their

160. *Historical Market Volume Data*, BATS [hereinafter *Historical Market Data*], https://www.bats.com/us/equities/market_statistics/historical_market_volume/ (last visited Mar. 6, 2017). I concentrate here on market fragmentation in the equity markets. I attempted to locate volume information for 1998, the year Regulation ATS was adopted. Unfortunately, it was not available. Even if it could be located, in 1998 all trading on NASDAQ was technically over-the-counter and was treated as such, as NASDAQ was not registered as an exchange but was a registered quotation system operated by the NASD.

161. *Historical Market Data*, *supra* note 160. According to BATS data, in 2015, the NYSE had 24.08% of the monthly volume compared to NASDAQ with 18.81%, while 45% of the volume took place over-the-counter (OTC). In 2014, the NYSE had 22.47% of the monthly volume compared to NASDAQ with 17% and 36.32% OTC. In 2013, the NYSE had 22.50% of the monthly volume and NASDAQ had 18.78%, while 36.44% was done OTC. In October of 2012, the NYSE had 24.00% of the monthly volume and NASDAQ had 20.76%, 32.92% was done OTC. The percentages of the smaller exchanges are included in the chart. *See id.*

162. This analysis was compiled using FINRA ATS Transparency Data Quarterly Statistics. *See, e.g., ATS Transparency Data Quarterly Statistics*, FIN. INDUS. REG. AUTHORITY,

operations and in several cases have misrepresented the manner in which their systems operate.¹⁶³



Today much of the Commission's focus in the area of market regulation remains geared toward improving the NMS for equity securities. As a baseline question the Commission should examine whether or not the massive intervention that is required to achieve that goal is warranted. Other products, such as fixed income securities, options, and derivatives now dwarf the equities markets. Is it necessary to devote so much attention to a mature market while others grow and continue to develop? Also, in an age

<http://www.finra.org/industry/ots/ats-transparency-data-quarterly-statistics> (last visited Mar. 6, 2017); *Historical Market Data*, *supra* note 160. The data includes two ATSs, Tradebook and IEX, that ceased operations during 2016. While the ATS data published by FINRA is for "All NMS Stocks," the market volume data published by BATS is for combined Tape A, Tape B, and Tape C volume by exchange; any incongruity between these measures may affect the analysis, though I believe any such impact would be small. Additionally, this analysis data excludes any transactions reported to the NASDAQ, NYSE TRF, or FINRA ADF that are executed elsewhere other than an ATS or ECN.

163. The SEC has settled numerous cases against ATS and dark pools for misleading customers and misusing customer data. *See, e.g., In Re Pipeline Trading Systems, et. al.*, 102 SEC Docket 1062 (Oct. 24, 2011) (Pipeline Trading Systems LLC and two of its top executives were charged with failing to disclose to customers of Pipeline's "dark pool" trading platform that the vast majority of orders were filled by a trading operation affiliated with Pipeline); eBX LLC, Exchange Act Release No. 67,969; Liquidnet, Inc, Exchange Act Release No. 72,339 (June 6, 2014) (improper use of confidential customer information); LavaFlow, Inc, Exchange Act Release No. 72,673 (July 25, 2014) (failure to protect confidential subscriber data.); UBS Securities, LLC, Exchange Act Release No. 74,060 (Jan. 15, 2015); ITG INC, Exchange Act Release No. 75,672 (Aug. 12, 2015); Credit Suisse Securities (USA) LLC Exchange Act Release No. 77,002 (Jan. 31, 2016), Barclays Capital Exchange Act Release No. 77,001 (Jan. 31, 2016).

of globalization where worldwide markets are linked through technology, is a national market system even a desirable goal?¹⁶⁴

On a practical level, the management of the microstructure of market operations is a far larger and more complicated task than overseeing the regulatory market structure of those markets. As a result of the paradigm shift after the 1975 Amendments, the Commission took on a primary role in regulating equity market structure and a secondary role in the evolution of the self-regulatory structure to police those markets. The distinction between the two is an important one; somewhat like solving a linear equation, it is necessary to balance both sides—that is, to ensure that the initiatives on one side do not compromise the goals on the other. The Micro-Intervention Paradigm exemplified in the Order Handling Rules, Regulation NMS, and the equity market structure changes that they established created a new set of issues that would need to be addressed by even more Commission rules.

First, through its Micro-Intervention Paradigm, the Commission broadly interpreted the mandate to facilitate the development of an NMS and has inserted itself into almost every area of the securities industry. The Commission now, directly or indirectly, regulates the dissemination of market information, the length of time an exchange has to disseminate information, the routing of broker dealer-orders, the routing of exchange orders, quoting increments, and the prices charged for access to quotations.¹⁶⁵ Given the speed and complexity of the markets, does this role continue to make sense, or are such matters best left to market forces? This is especially important in light of the changes brought about by the 2008 financial crisis.

Now financial institutions, including most large broker-dealers, are regulated by a mix of federal agencies from the Federal Reserve Board of Governors, the Office of the Comptroller of Currency, the Commodity Futures Trading Commission, and to some extent the Consumer Financial Protection Bureau. Each of these has different mandates, some overlapping jurisdiction, and is subject to bureaucratic turf wars. Can the Commission's approach under the Micro-Intervention Paradigm and the goals of federal securities regulation be harmonized with those of bank supervisors, futures regulators, and consumer advocates? With new registration requirements and markets created by the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010, the Commission's role in capital markets has expanded and the SEC must therefore spend even more of its resources to

164. Dombalagian, *supra* note 110, at 79 (“The combined impact of demutualization and globalization of markets will require greater reliance on comity and less reliance on domestic rulemaking to achieve regulatory goals.”).

165. See generally ONNIG H. DOMBALAGIAN, CHASING THE TAPE: INFORMATION LAW AND POLICY IN CAPITAL MARKETS (2015) (arguing that, historical classifications and regulation of market information may not be effective in globalized markets).

tinker with market microstructure. The Exchange Act, as proposed, comprises only fourteen pages of the Congressional Record.¹⁶⁶ One can compare this with current Commission market structure rulemaking, which is available on the Commission's public web site.¹⁶⁷ Although page count is not an exact proxy for content, it illustrates the massive undertaking that the Commission will continue to face if it does not reevaluate the efficacy of the Micro-Intervention Paradigm. Finally, as the data above indicate, it is not at all clear that the Commission's approach is achieving the desired results of greater transparency and order interaction.

Second, in order for the myriad Commission rules required under the Micro-Intervention Paradigm to be credible, they need to be policed and enforced. However, enforcement of complicated rules runs the risk of achieving policy goals through enforcement settlements rather than through thoughtful rulemaking. This may be problematic, as the agency has recast itself "first and foremost" as law enforcement, rather than a regulatory agency.¹⁶⁸ Under the Self-Regulatory Paradigm, the relationship between the industry and the SEC was designed to be more cooperative. As Chairman Joseph P. Kennedy put it:

We want to see the wheels turn over and gather speed. We want to see the security (sic) business, by far the greatest in volume and most important in its effects of any in the country, go forward on a broad scale. To bring that about we shall not sit as a prosecutor, hopeful of bringing in a verdict of guilty. We shall seek to help all proper enterprises by helping them establish new checks and setting up more positive standards. We believe in affirmation, not negation.¹⁶⁹

Now, as then, the SEC has no criminal authority. Yet, the Commission's enforcement program is now modeled on a federal criminal prosecutor's office.¹⁷⁰ Its strategies are defined by reference to criminal law

166. *Stock Exchange Practices*, *supra* note 56, at 3422–36; Exchange Act § 13, 15 U.S.C. § 77k (2012). Thomas Corcoran put the number at 49 pages noting, "there is a great deal of technical language in it relating to stock-exchange practices and to corporate practices, as there must be on any subject of this kind." *Stock Exchange Practices*, *supra* note 56, at 6465.

167. *See, e.g.*, Regulation of NMS Stock Alternative Trading Systems, Exchange Act Release No. 76,474 (Nov. 18, 2015) (to be codified at 17 C.F.R. pts. 240, 242 and 249).

168. *How Investigations Work*, SEC. & EXCH. COMM'N, <https://www.sec.gov/News/Article/Detail/Article/1356125787012> (last update Jan. 27, 2017).

169. Joseph P. Kennedy, Chairman, Sec. & Exch. Comm'n, Address at the National Press Club (July 25, 1934).

170. *See* Press Release, Sec. & Exch. Comm'n, SEC Names New Specialized Unit Chiefs and Head of New Office of Market Intelligence (Jan. 13, 2010), <https://www.sec.gov/news/press/2010/2010-5.htm>. These offices were referred to as "Specialized Prosecution Units." *See* Press Release, Sec. & Exch. Comm'n, Enforcement Director Robert Khuzami to Leave SEC (Jan 9, 2013), <https://www.sec.gov/News/PressRelease/Detail/PressRelease/1365171513652>; *see also* J. Bradley Bennett, *White Collar Crime, Blue Collar Tactics: A Defense Lawyer's Perspectives*, 28 W. ST. U. L. REV. 65 (2000) (providing a critique of aggressive criminal law approaches to white collar defendants).

theory.¹⁷¹ Its tools, such as cooperation agreements and deferred prosecution agreements, are drawn from the criminal law.¹⁷² Even with a more prosecutorial focus the Commission continues to be criticized for not being aggressive enough.¹⁷³ It may be that aggressive enforcement in areas of market integrity, such as fraud, provides a higher benefit than enforcement of the highly technical and sometimes vague rules required by the Micro-Intervention Paradigm.¹⁷⁴ Indeed, enforcement actions could have the unintended consequence of decreasing confidence in the capital markets and reinforcing a perception of unfairness.¹⁷⁵

VI. PARADIGM REEVALUATED: TOWARD EQUITY MARKET IMPROVEMENT

This Article began by identifying two controlling paradigms of federal securities regulation—the Self-Regulatory Paradigm and the Micro-Intervention Paradigm. This section examines some of the baseline questions that should be addressed in considering whether or not the current

171. Mary Jo White, Chair, Sec. & Exch. Comm'n, Remarks at the Securities Enforcement Forum (Oct. 9, 2013) (articulating the strategy of "Broken Windows" policing to the securities markets, citing an article from *The Atlantic* titled *Broken Windows*).

172. See, e.g., *Enforcement Cooperation Program*, SEC. & EXCH. COMM'N (Sep. 20, 2016), <http://www.sec.gov/spotlight/enfcoopinitiative.shtml>.

173. The Enforcement Division has been criticized for being too aggressive for decades. See generally ROBERTA S. KARMEI, REGULATION BY PROSECUTION: THE SECURITIES AND EXCHANGE COMMISSION VS. CORPORATE AMERICA (1982). More recently, it has been criticized for being too lenient. See Letter from Elizabeth Warren, Senator from Mass., to Mary Jo White, Chair, Sec. & Exch. Comm'n (June 2, 2015), http://www.warren.senate.gov/files/documents/2015-6-2_Warren_letter_to_SEC.pdf. I am not suggesting either extreme. Rather, as part of its equity structure review, the Commission should examine the most effective use of enforcement remedies in non-fraud, non-scienter based market operations cases.

174. The institutionalization of the Micro-Intervention paradigm is illustrated by the Commission referring to violations of "SEC market structure rules." Press Release, Sec. & Exch. Comm'n, SEC Charges Three Individuals and Broker Dealer With Violating Market Structure Rules (Dec. 16, 2016), <https://www.sec.gov/news/pressrelease/2016-266.html>.

175. In September of 2012 the NYSE settled charges that it had violated Regulation NMS by improperly distributing data to proprietary customer feeds prior to sending the same data to the consolidated feeds. See *In re N.Y. Stock Exch. LLC, & NYSE Euronext*, Exchange Act Release No. 67,857, 104 SEC Docket 2455 (Sept. 14, 2012). The Director of the SEC's Division of Enforcement emphasized that: "Improper early access to market data, even measured in milliseconds, can in today's markets be a real and substantial advantage that disproportionately disadvantages retail and long-term investors." Press Release, Sec. & Exch. Comm'n, 2012-189 (Sept. 14, 2012). However, the consolidated feeds mandated by the SEC take longer to process data than private parties receiving the same data directly from exchanges. Thus, even if the data had been released at the same instant, the consolidated tape data would have differed from the data processed by private parties. The action seems to reinforce the importance of a SEC mandated public data feed that the SEC concedes is inferior to other data feeds. See Mary Jo White, Chair, Sec. & Exch. Comm'n, Keynote Address at the Securities Traders Association: Equity Market Structure in 2016 and for the Future n.13 (Sept. 14, 2016), <https://www.sec.gov/news/speech/white-equity-market-structure-2016-09-14.html> [hereinafter White STA 2016 Address].

paradigm can be adjusted or whether a new one needs to be developed. Thinking back to the Packard/Camaro dilemma, in engineering the national market system, it is important to address not only modifications to the existing system, but also whether or not there are more cost effective and efficient alternatives available. As the Commission, through its Equity Market Structure Advisory Committee, considers new improvements to the NMS, it may very well be time to take a step back and examine whether the operating assumptions embodied in the 1975 Amendments, including the NMS mandate, are still applicable to twenty-first century markets. These issues go far beyond the repeal of a specific rule or series of rules. Rather, they go to what epistemological framework the SEC will use going forward.

A. WHAT ARE FAIR AND ORDERLY MARKETS IN THE TWENTY-FIRST CENTURY?

The Commission is at an inflection point. On the one hand there is the view held by many market professionals that the U.S. equity markets are the most liquid, transparent, efficient, and competitive in the world.¹⁷⁶ Spreads have decreased and transaction costs for individual trades have plummeted. Regardless of the efficiency of the markets or the savings resulting from lower spreads and transactions costs, it is possible that the general perception is that equity markets are not fair. On May 6, 2010, the exchange listed equity securities “experienced an extraordinarily rapid decline and recovery.”¹⁷⁷ The Dow Jones Industrial Average stock index fell 1,000 points in less than 6 minutes—approximately 10 minutes later it rose to previous levels.¹⁷⁸ This “Flash Crash,” as it came to be known, was an example of the ability of the system to withstand large volumes at record speeds and continue trading in an efficient manner. For the general public, however, it was hard to reconcile how such a dramatic drop and recovery reflected a robust price discovery mechanism. It seemed that the equity markets had become more of a casino than a long-term investment choice.¹⁷⁹ This is significant because, as shown in the historic overview, fairness to the trading public, rather than trading efficiency, has been a

176. *The Role of Regulation in Shaping Equity Market Structure and Electronic Trading: Hearing Before the S. Comm. on Banking, Hous. & Urban Affairs*, 113th Cong. 2 (2014) (testimony of Joe Ratterman).

177. U.S. COMMODITY FUTURES TRADING COMM’N & SEC. & EXCH. COMM’N, FINDINGS REGARDING THE MARKET EVENTS OF MAY 6, 2010: REPORT OF THE STAFFS OF THE CFTC AND SEC TO THE JOINT ADVISORY COMMITTEE ON EMERGING REGULATORY ISSUES 4 (2010), <https://www.sec.gov/news/studies/2010/marketevents-report.pdf>.

178. Graham Bowley, *U.S. Markets Plunge, Then Stage a Rebound*, N.Y. TIMES (May 6, 2010), <http://www.nytimes.com/2010/05/07/business/07markets.html>.

179. Brandon Keim, *Nanosecond Trading Could Make Markets Go Haywire*, WIRED (Feb. 16, 2012, 6:30 AM), <https://www.wired.com/2012/02/high-speed-trading/>.

primary motivation for the federal regulatory framework. This was true in 1906, 1912, and 1932. It is true today as well.

A good example of the emphasis on fairness was the public's reaction to Michael Lewis's book, *Flash Boys*.¹⁸⁰ The book documents the practices that exchanges and broker-dealers have adopted to comply with Regulation NMS. It describes a market where professional traders have a distinct advantage over ordinary investors because they invest in technology that allows them to execute trades at blinding speed. There was nothing surprising about the revelations in the book. Exchange rules are reviewed and approved by the Commission, and market participants simply reacted to the incentives inherent in the order routing requirements of Regulation NMS. One of the primary subjects of Lewis's book is so called high frequency trading (HFT). In general, HFT is the ability to use technology to reach posted quotations without human intervention. It is quite possible that a consequence of the Order Handling Rules and Regulation NMS has been the lack of discretion given to market participants in accessing quotations. Thus, entities with better technology can reach desirable quotes faster than the general public.

Much as the market participants in the twentieth century (as documented in the Hughes, Pujo, and Pecora Reports), today's HFT traders possess an informational advantage that they exploit for their benefit. In some cases they can process information faster than exchanges and thereby trade in anticipation of changes on an exchange market. It is hard to quantify the benefits and costs of this activity, but there are arguments on both sides.¹⁸¹ The last SEC Chair has conceded the problem inherent in reconciling market efficiency with the more subjective notion of fairness.¹⁸²

Lewis documented the manner in which the NMS, constructed under the Micro-Intervention Paradigm, functions. His conclusion and the conclusion of many others was that the system was "rigged" against ordinary investors.¹⁸³ Like the so-called robber barons of the late nineteenth and early twentieth centuries, HFT traders have been pilloried not for violating the law so much as offending the public's sense of fairness.¹⁸⁴

180. MICHAEL LEWIS, *FLASH BOYS: A WALL STREET REVOLT* (2014).

181. See Steven R. McNamara, *The Law and Ethics of High Speed Trading*, 17 MINN. J.L. SCI. & TECH. 71, 127–33 (2016).

182. "One of the most difficult tasks in developing the right regulatory response to such potentially disruptive trading strategies is the need to avoid undue interference with practices that benefit investors and market efficiency." White STA 2016 Address, *supra* note 175.

183. Jared Meyer, *Regulators Protect High Frequency Traders, Ignore Investors*, FORBES (Feb. 23, 2016, 7:16 AM), <https://www.forbes.com/sites/jaredmeyer/2016/02/23/sec-should-stand-up-for-small-investors/#695d32603a30>; see also Bradley Hope, *Dick Grasso: Today's Markets Aren't Fair*, WALL ST. J. (Sept. 11, 2015, 7:36 PM), <https://www.wsj.com/articles/fast-market-not-necessarily-a-fair-market-former-nyse-chief-says-1441992084>.

184. See generally *Conflicts of Interest, Investor Loss of Confidence and High Speed Trading in U.S. Stock Markets: Hearing Before the Permanent Subcomm. on Investigations of the S. Comm. on Homeland Sec. & Governmental Affairs*, 113th Cong. 2 (2014).

Much as Upton Sinclair had done for the meat packing industry and Brandeis for banking, Lewis revealed the mechanics of an industry that seemed to ignore the public it purported to serve. Thus, in spite of the interventions made after the 1975 Amendments, in many ways the entire market structure regulatory journey has brought matters right back to where they began.

B. WHAT IS THE ROLE OF AN EXCHANGE?

The exchanges have a very specific role under the Exchange Act; however, that role has eroded over time. Do they continue to be relevant? Since the Commission adopted Regulation ATS, the number of national securities exchanges has increased. While in 1998 there were nine exchanges (equities and options) in operation,¹⁸⁵ today there are twenty-one registered equities and options exchanges.¹⁸⁶ At the same time, technology and innovations such as co-location, sponsored access, and the availability of exchange data feeds, allows non-exchanges to compete directly with exchanges, without assuming the responsibilities, obligations, and costs of an exchange.¹⁸⁷ The proliferation of exchanges is the result of three factors. First, the ability of an exchange to outsource regulation makes it possible to operate an exchange without actually performing self-regulatory functions; this limits upfront investment costs and the need to hire experienced regulatory staff. Second, the desire of exchanges to charge differing fees to their customers may require that they register additional exchange platforms. Under current staff interpretation, charging different fees to similarly situated customers could be deemed discriminatory (and therefore violate § 6 of the Exchange Act), were they charged by one exchange.¹⁸⁸

185. This number includes NASDAQ, which in 1998 was not a registered exchange but a quotation service run by the NASD. Nevertheless, given its status as a competitor to the NYSE in 1998, I have included it here.

186. *Self-Regulatory Organization Rulemaking*, SEC. & EXCH. COMM'N, <https://www.sec.gov/rules/sro.shtml> (last visited Feb. 22, 2017).

187. GOLDMAN SACHS, MARKET STRUCTURE OVERVIEW (2009), <http://www.goldmansachs.com/our-thinking/archive/mkt-structure.pdf> (Sponsored access refers to broker-dealers who allow customers to access to the markets using the broker dealers market participant identifier.); *see also* Press Release, Sec. & Exch. Comm'n, SEC Adopts New Rule Preventing Unfiltered Market Access (Nov. 3, 2010), <https://www.sec.gov/news/press/2010/2010-210.htm>. Co-location is the ability of exchange customers to put computer servers closer to an exchange-matching engine, reducing the latency of data transmission. Concept Release on Equity Market Structure, Proposed Rule, 75 Fed. Reg. 3594, 3598 (Jan. 21, 2010) (to be codified at 17 C.F.R. pt. 242). Finally, exchanges often offer individual data feeds that deliver quotations directly to customers, bypassing the Commission mandated data feeds. Concept Release on Equity Market Structure, Proposed Rule, 75 Fed. Reg. at 3598.

188. This is apparently based on a Staff interpretation. The Commission has approved rules that allow exchanges to offer volume discounts to firms. *See, e.g.*, NASDAQ RULE 7018. It is hard to see why operating a different exchange with the same technology is any different from allowing exchanges to have fully disclosed prices. The question of whether the charging of different prices to different subscribers would be, in fact, unfair discrimination has not been addressed by the Commission.

This has led many exchanges to register a second or third exchange where a different pricing structure is used, even though the exchange is otherwise identical to the first.¹⁸⁹ Third, the ability to display a protected quote gives exchanges an incentive to have multiple venues in which to display order interest. With more exchange platforms a complex has a greater chance of displaying a protected quote and attaching interest.¹⁹⁰

Critical evaluation of exchanges is complicated by the lack of objective standards required of them and the lack of objective criteria for approving or disapproving exchange applications.¹⁹¹ Since 2000, eleven new exchanges have been approved.¹⁹² There is no record of the SEC rejecting any application. Indeed, as the recent approval of the IEX exchange application shows, lacking any standards the Commission writes governance, regulatory, and trading system standards into its Approval Orders. As the IEX Order illustrates, this requires the Commission to opine on the smallest aspects of the operation of an entity's trading system, while providing only minimal discussion of its regulatory abilities.¹⁹³ Finally, there are no real barriers to transferring exchange registrations to other market participants. Thus, unsuccessful exchanges, whether operating or not, can be added to the portfolio of existing exchanges.¹⁹⁴

189. Several exchange "complexes" consist of more than two equity exchanges. NASDAQ OMX operates six. CBOE operates two and has announced plans to merge with BATS Global Markets, which operates, four ICE, which owns NYSE, NYSE MKT, and NYSE Arca Equities, operates three equity exchanges and has acquired a fourth. *See infra*, note 194. MIAX operates two equity exchanges.. This staff interpretation of the Exchange Act has creates something of a paradox; it encourages greater fragmentation in the marketplace, and it strains inspection and surveillance resources of both the SROs and the Commission.

190. There may also be an additional incentive to operate multiple platforms steaming from the 1975 Act amendments. After the amendments, the Commission used its authority to require exchanges to participate in National Market System Plans. The governance of such plans generally assigns one vote to each SRO. Those complexes with multiple registered platform therefore get more votes. National Market System plans are posted on each member's website. *See, e.g., National Market System Plans*, FIN. INDUS. REG. AUTHORITY, <http://www.finra.org/industry/national-market-system-plans> (last visited Apr. 2, 2017).

191. Despite that reviewing applications for exchange status and ongoing rule filings consumes a considerable amount of staff time, there are no filing fees for registering a new exchange, and there are no fees associated with the filing of proposed rule changes.

192. *See Fast Answers: Exchanges*, U.S. SEC. & EXCH. COMM'N, <https://www.sec.gov/divisions/marketreg/mrexchanges.shtml> (last visited Feb. 22, 2017).

193. *In re Investors' Exchange, LLC.*, Exchange Act Release No. 78,101, 2016 WL 34401944 (June 17, 2016).

194. In 2011 while announcing the acquisition of the National Securities Exchange the Chairman and CEO of the Chicago Board Options Exchanges referred to an exchange registration as a "medallion," analogizing to taxi cab regulation. *CBOE Stock Exchange to Acquire National Stock Exchange*, GLOBAL CUSTODIAN, <http://www.globalcustodian.com/Market-Infrastructure/CBOE-Stock-Exchange-to-Acquire-National-Stock-Exchange/> (last visited Apr. 1, 2017). Five years later, the *same exchange registration* was acquired by the New York Stock Exchange. Alexander Osipovitch, *NYSE Deal for National Stock Exchange May Fuel New Trading Approaches*, WALL. ST. J. (Dec 14, 2016), <http://www.wsj.com/articles/nyse-to-buy-national-stock-exchange-1481728998?mg=id-wsj> (emphasis added).

The Commission should consider whether or not to adopt substantive standards for exchange registration. For example, exchanges are required to provide, and therefore fund, regulation (whether they outsource it or not), monitor markets, participate in NMS plans, discipline their members, and comply with the federal securities laws. Given these responsibilities it might make sense to require exchanges and applicants for exchange status to meet minimum financial standards.¹⁹⁵ Here, the Commission needs to balance the barriers to entry imposed by such standards with the goal of ensuring safe, fair, and efficient capital markets. Without such standards there is no guarantee that potential exchanges can afford to perform the functions they are required to.

Lack of financial means could also compromise the Commission's ability to discipline exchanges. For example, Facebook was one of the most anticipated IPOs in some time. However, a design limitation in NASDAQ's system to match the IPO buy and sell orders caused disruption of the IPO. NASDAQ officials decided not to delay the start of secondary trading, believing they had fixed the system limitation by removing some lines of computer code. However, the cause of the problem had not been fixed, and more than 30,000 Facebook orders remained stuck in NASDAQ's system for more than two hours when they should have been executed or cancelled.¹⁹⁶ This caused several rule violations by NASDAQ, which were compounded when NASDAQ assumed a short position in Facebook of more than three million shares in an error account and liquidated the short position for a profit of about \$10.8 million in violation of its rules. The Commission's settlement order found that NASDAQ violated § 19(h)(1) of the Exchange Act and imposed a \$10 million penalty.¹⁹⁷ It was in a financial position to pay that penalty, but other registered exchanges may not be.

195. Many businesses require some level of capitalization. For example, McDonald's, a business that does not materially impact the U.S. financial system, requires an initial down payment of 40% of the total cost to purchase a new restaurant or 25% of the total cost of an existing restaurant. The down payment must come from non-borrowed personal resources, which include cash on hand; securities, bonds, and debentures; vested profit sharing (net of taxes); and business or real estate equity, exclusive of a personal residence. Generally, McDonald's requires a minimum of \$500,000 of non-borrowed personal resources to consider an individual for a franchise. Additional funds may be required of individuals seeking additional or multi-restaurant opportunities, and the cost may be considerably higher depending on location. There are also additional fees and costs, such as rent. See *Acquiring a Franchise*, MCDONALDS, http://corporate.mcdonalds.com/content/mcd/franchising/us_franchising/acquiring_a_franchise.html (last visited Mar. 3, 2017). In contrast, there are no minimum capital requirements for either operating a national securities exchange or for acquiring an existing exchange registration.

196. Julianne Pepitone, *Facebook IPO: What the %\$#! Happened?*, CNN MONEY (May 23, 2012, 6:06 PM), <http://money.cnn.com/2012/05/23/technology/facebook-ipo-what-went-wrong/>.

197. *In re NASDAQ Stock Mkt.*, Exchange Act Release No. 69,655, 106 SEC Docket 1774 (May 29, 2013).

Finally, the Commission should consider whether or not exchange registrations are freely transferable. The registration requirements of § 6 of the Exchange Act seem to apply to the entity seeking registration and do not contain a provision for transfer. It may not be wise for the Commission to register additional entities that may ultimately be sold to others or even foreign interests, without articulating substantive standards regarding such transfers.

C. IS SELF-REGULATION STILL VIABLE?

More than twenty years after the NASD 21(a) Report, market events have illustrated the difficulty in reconciling the inherent conflict between business and regulation. In private litigation resulting from the Facebook IPO, the United States District Court for the Southern District of New York pointed to some of the results of converging lines of business and regulation. The facts discussed in the Commission's Order concerning the NASDAQ Facebook IPO and the facts outlined in the decision by Judge Sweet in the NASDAQ Facebook class action lawsuit¹⁹⁸ give a clear picture of the dilemmas NASDAQ faced in determining the appropriate role of regulatory staff during this business crisis. As Judge Sweet stated in his opinion, "NASDAQ OMX [which is not in fact the SRO – but is the unregistered parent of the NASDAQ Stock Market] competed aggressively with the NYSE for the Facebook IPO...To secure the IPO, Defendants shortened from two years to three months the 'seasoning' period usually required for inclusion in the NASDAQ 100 Index."¹⁹⁹ Judge Sweet also pointed out the numerous positive statements NASDAQ made regarding its trading platforms and technology to induce Facebook to choose to list on its exchange: "As exchanges have evolved into for-profit enterprises, an irreconcilable conflict has arisen, rendering independence unattainable in the context of an exchange regulating its own, for-profit business conduct."²⁰⁰ These conflicts have existed since the passage of the Exchange Act. The Commission acknowledged them in its Self-Regulation Concept Release.²⁰¹

The Commission has reinforced the concept of separation of regulation and market functions. In a private securities action stemming in part from the facts discussed in *Flash Boys*, the Commission filed an *amicus curiae* brief addressing in part whether or not SROs enjoyed complete immunity. The Commission noted that, "when an exchange is operating its own

198. *Id.*; See also, *In re Facebook, Inc., IPO Securities and Derivative Litigation*, 12-md-02384, U.S. District Court, Southern District of New York.

199. *In re Facebook, Inc., IPO Sec. & Derivative Litig.*, 288 F.R.D. 26 (S.D.N.Y. 2012).

200. *Id.* at 44.

201. See Fair Administration and Governance of Self-Regulatory Organizations, 69 Fed. Reg. 71,255 (Dec. 8, 2004) (to be codified at 17 C.F.R. pts. 240, 242 and 249). Inherent Conflicts with Members, Market Operations, Issuers, and Shareholders.

market and engaging in its own conduct pursuant to Commission regulation, it is acting as a *regulated* entity—not a *regulator* of others.”²⁰² While this analysis is in the context of private litigation action, the general principle seems to be that although exchange market rules are reviewed and approved by the Commission for consistency with the Exchange Act, and in many cases result from Commission requirements such as Regulation ATS or Regulation NMS, the Commission does not view these as within the purview of an exchange regulatory mandate. If the Commission believes that market operation is not part of the self-regulatory function, then there is even less of an incentive to operate as an SRO.

It is important to keep in mind that in this analysis, the Micro-Intervention Paradigm has deemphasized the self-regulatory function as articulated in the Exchange Act. So, for example, although performing self-regulatory functions has been a *sine qua non* of exchange status since the passage of the Exchange Act,²⁰³ most exchanges contract some or all of their regulatory programs through so called regulatory service agreements (RSAs). The reliance on RSAs means that many of the newer exchanges have never actually engaged in self-regulatory functions. Rather, an RSA vendor, usually the Financial Industry Regulatory Authority (FINRA), has always provided regulatory services for these exchanges.²⁰⁴ Without a self-regulatory apparatus, exchanges may focus almost exclusively on business functions, have formalistic oversight of the RSA provider, lack internal regulatory knowledge, and consequently have difficulty performing regulatory functions for which they are responsible. The exchanges also see each other primarily as competitors, rather than collaborators, making it more difficult to achieve common ground in the regulatory space, where cooperation is essential. When exchanges are permitted to contract out their

202. Brief of the SEC as *amicus curiae*, at 30, *City of Providence, et al v. Bats Global Markets Inc, et al.*, (2d Cir. Nov. 28, 2016), (No. 15-3057).

203. See Fair Administration and Governance of Self-Regulatory Organizations, 69 Fed. Reg. 71,255 (“The Markets recognize the special roles and responsibilities that marketplace self-regulatory organizations . . . have in the U.S. economy. Each Market helps ensure that U.S. financial markets are the most respected in the world and that each Market has the special duty to ensure the integrity of its respective market for the benefit of investors and issuers and others participating in the U.S. markets. Each Market also recognizes its responsibilities to enforce its members’ compliance with its own rules as well as with the . . . 1934 Act and the Commission’s rules. The Markets accept these special roles with the utmost seriousness. The Markets recognize the great responsibility placed on the Commission in an era of fast-paced changes in the nature, scope, and importance of the financial markets and, therefore, fully appreciate the Commission’s efforts. As a result, the Markets support the Commission’s efforts to ensure that SROs have effective compliance programs that are consistent with their self-regulatory responsibilities.”).

204. CBOE has ceased providing regulatory services for other exchanges and has negotiated with FINRA to provide it with regulatory services. Tom Polansek, *CBOE to Pass Regulatory Duties to FINRA*, REUTERS MKT. NEWS (Dec. 22, 2014, 1:12 PM), <http://www.reuters.com/article/cboe-regulation-finra-idUSL1N0U619320141222>. As of the end of 2016, FINRA is the only regulatory service provider, although as noted herein NYSE has reassumed much of its self-regulation.

regulatory responsibilities, they are effectively giving up what sets them apart from ATSs in a way that is not entirely transparent to the investing public.²⁰⁵

If the Commission wishes to have robust self-regulation, it must perform a critical evaluation of the role of the modern SRO and provide clarity regarding the duties of exchanges or any entity performing a specific regulatory task. Such review could include: the effects of loss of control by the exchange, including an erosion of market-specific expertise and reduction of direct interaction with its market; issues arising from using a single RSA provider, including in particular a lack of choice in providers of regulatory services; and conflicts between the SRO and the RSA provider (which can include pressure to conform to criteria set by the RSA provider), and the inherent financial conflicts between profit-driven SROs that want to lower costs and RSA providers that seek to increase revenue. Currently, virtually all of the exchanges have contracted out some of their regulatory obligations.²⁰⁶ The Commission should consider whether or not it can achieve positive results by (as the Securities Act and Exchange Act do) recognizing and incentivizing the performance of regulatory functions, rather than further removing market operations from self-regulatory responsibilities.

For example, while brokers are bound by their duty of best execution, quality of regulation is not emphasized.²⁰⁷ The Commission could use this

205. For example, Flash Boys repeatedly describes IEX as an “exchange.” At the time IEX was an ATS, a registered broker-dealer, and was exempt from the definition of exchange. While such distinctions are not obvious to the investing public, they have legal implications under the federal securities laws.

206. As noted, the NYSE complex has reassumed self-regulation.

207. Generally, broker dealer routing decisions had been governed by their obligation to obtain “best execution” for customer orders, which is the obligation to obtain the best terms reasonably available for the transaction. The concept of best execution is codified in FINRA RULE 5310. The Commission does not have a best execution rule, however, it enforces this duty under Rule 10b-5 (17 C.F.R. 10b-5) as a fraud. The Commission has brought a number of cases invoking this requirement against both broker-dealers and investment advisers. *See, e.g., In re Gavornik, Mariniello, & Argus*, Investment Advisers Act Release No. 3927 (Nov. 24, 2014) (adviser arranged for clients to execute at higher commission rates); *In re Strategic Capital Group, LLC*, Investment Advisers Act Release No. 3924 (Sept. 18, 2014) (firm failed to seek best execution through its affiliated broker-dealer); *In re Manarin Investment Counsel, Ltd., et al.*, Investment Advisers Act Release No. 3986 (Oct. 2, 2013) (adviser breached fiduciary duty by causing funds to buy certain shares of mutual funds, even when the funds were eligible to own lower cost share); *In re G-Trade Services, LLC, et al.*, Exchange Act Release No. 71,128 (Dec. 18, 2013) (broker-dealer routed orders to offshore affiliate in order to charge undisclosed mark-ups and mark-downs); *In re Goelzer Investment Management Inc.*, Investment Advisers Act Release No. 3638 (July 31, 2013) (adviser failed to perform best execution analysis before recommending itself to customers); *In re A.R. Schmeidler & Co.*, Investment Advisers Act Release No. 3637 (July 31, 2013) (adviser breached fiduciary duty by failing to seek best execution for clients); *In re Tilden Loucks & Woodnorth, LLC, et al.*, Exchange Act Release No. 68,118 (Oct. 29, 2012) (adviser charged increased commissions on trades for its clients through an affiliated broker-dealer); *In re BNY Mellon Securities, LLC*, Exchange Act Release No. 63,724 (Jan. 14, 2011) (BNY failed to meet its duty of best execution with various employee stock plans); *In re*

to provide an incentive to perform regulatory duties, by establishing standards and metrics around self-regulatory processes. This would allow the concept of best execution to include a component considering the quality of regulation at a given venue. There are other areas where the Commission can provide incentives to perform effective regulation. Notably, many of the exchanges currently registered with the Commission do not perform a primary regulatory function of exchanges—namely, listing securities. This could be another incentive to encourage core exchange functions. For example, the Commission might limit the listing of securities to exchanges that perform regulatory functions. It could also grant a period of exclusive listing for exchanges that bring new companies to market. Under §12(f) of the Exchange Act, the Commission has the authority to prescribe, by rule or regulation, the duration of the interval for exclusive trading privileges.²⁰⁸ Either case would require the Commission to reevaluate its Micro-Intervention Paradigm.

D. IF SELF-REGULATION CONTINUES, SHOULD THERE BE A “UNIVERSAL INDUSTRY SELF-REGULATOR”?

The Commission presented this alternative in its 2004 concept release on self-regulation.²⁰⁹ We have some experience with the single regulator model in practice. With the blessing of Regulation ATS, many exchanges have outsourced their regulatory functions. With little competition in this area, FINRA has evolved into the default option for regulatory service contracts.²¹⁰ Since the Commission has never set standards for what those contracts should include or how they should be administered and overseen, the Commission runs the risk that FINRA will become the standard setter for an area that had been uniquely within the SEC’s jurisdiction. In a parallel to the Commission’s approach to the NASD after the 21(a) Report, the Commission might cede SRO standards for FINRA to establish. This may be the appropriate approach; a single regulator might avoid duplication and lower compliance costs. Of course there would be immense pressures

Scottrade, Inc., Exchange Act Release No. 58,012 (Jun. 24, 2008) (broker-dealer failed to conduct rigorous review of execution quality); *In re Folger Nolan Fleming Douglas Capital Management, Inc.*, Investment Advisers Act Release No. 2639 (Aug. 23, 2007) (adviser failed to disclose that commission rates were twice as high for direct trades compared to non-directed trades); *In re Instinet, LLC*, Exchange Act Release No. 52,623 (Oct. 18, 2015) (broker-dealer failed to adequately test automated systems); *In re Knight Securities, LP*, Exchange Act Release No. 50,867 (Dec. 16, 2004) (Knight violated its best execution obligation by extracting excessive profits out of certain orders).

208. Exchange Act § 12(f), 15 U.S.C. § 78l (2012).

209. See Fair Administration and Governance of Self-Regulatory Organizations, 69 Fed. Reg. 71,255, 71,280–82 (Dec. 8, 2004) (to be codified at 17 C.F.R. pts. 240, 242 and 249).

210. I use FINRA as an example because it is the primary provider of regulatory services and therefore has many of the characteristics of a universal self-regulator. This is not a criticism of FINRA’s operations; rather it is an illustration of the conflicts that need to be managed under the Micro-Intervention Paradigm.

on trading venues to conform their structure to any regulator's existing systems. Similarly, in attempting to dictate norms to allow for more standardization in surveillance and enforcement, a service provider may inadvertently frustrate innovation and competition.

On the other hand, it is not clear that FINRA is the logical choice for such duties. It describes itself on its website as "an independent, not for profit organization authorized by Congress to protect America's investors by making sure the securities industry operates fairly and honestly."²¹¹ It goes on to say, "[o]ur independent regulation plays a critical role in America's financial system—by enforcing high ethical standards, bringing the necessary resources and expertise to regulation and enhancing investor safeguards and market integrity—all at no cost to taxpayers."²¹²

In my analysis of FINRA, it is not at all clear that FINRA can support this claim of independence; it has members and is supported by member fees, it is required by statute to give its members representation, it is a participant in the NMS, it operates a quotation, reporting, and comparison system called the Alternative Display Facility, it operates and charges for Trade Reporting services through a Trade Reporting Facility, it is a voting member of all NMS plans, it sells market data, it conducts disciplinary proceedings, and it collects fines from members for violations of its rules.²¹³ It thus performs the same functions as any other SRO, whether affiliated with an exchange or not. Finally, while it has the same conflicts as other SROs, it has a unique additional conflict in its role as a regulatory service provider for client exchanges. In my view its claim of independence is marginal.

On the issue of effectiveness, there is no public SEC or independent evaluation of FINRA as a vendor of regulatory services. There is no evidence that FINRA has any expertise in the operation and regulation of complicated market centers for which it monitors and for which it performs regulatory services. There is no public determination that FINRA has effectively mitigated the conflict that arises from its dual role as a vendor of regulation for exchanges, its operation of its own proprietary display facility, and its responsibility to regulate broker-dealers. These conflicts were at the heart of the Rudman Report. The Maloney Act neither

211. *About FINRA*, FIN. INDUS. REG. AUTHORITY, <http://www.finra.org/about> (last visited Mar. 3, 2017).

212. *Id.*

213. See Remarks of Robert W. Cook, Fin. Indus. Reg. Authority, President & CEO, SIFMA Compliance and Legal Society (Jan. 10, 2016) (describing among other things, member representation on the FINRA Board and member engagement in the rule making process). The Trade Reporting Facility is described on the FINRA web-site, <http://www.finra.org/industry/trade-reporting-facility-trf>. The Alternative Display Facility is described on same web-site <http://www.finra.org/industry/adf>. Revenues from the Alternative Display Facility and market data fees are accounted for as Transparency Services Revenue, FINRA Annual Report 2015, at 45. In 2015, FINRA posted an operating lost equal to approximately 4% of revenues. See FINRA ANNUAL REPORT 2015, at 9.

authorizes nor suggests that FINRA has statutory authority to conduct investigations, enforcement, and surveillance on behalf of other SROs by contract.²¹⁴ There are no Commission rules setting standards for what is required in an RSA, how the effectiveness of an RSA will be measured, or how an RSA should be overseen by a third party. FINRA, like many SROs, also has been disciplined by the SEC.²¹⁵ Even outside commenters have questioned the structure and governance of FINRA.²¹⁶ Finally, while FINRA expands its regulatory reach into the listed equity markets, its statutory mission remains rooted in the regulation of the over-the-counter markets. Recent research suggests that these markets pose specific risks to retail investors.²¹⁷

Thus, while a single regulator model has been encouraged (whether consciously or not) by SEC rules and the Commission's desire to separate market operations from regulatory functions, it is not at all clear that it is the best policy approach or, if it is, that FINRA is the best candidate for that role. If the ultimate goal is to have a single regulator, it should be done pursuant to statute and with transparency, rather than as an afterthought. It requires an examination of whether or not the governance structures suggested by the Rudman Report have resulted in better conflict mitigation and it should include an examination of the new conflicts and conflict mitigation strategies that have arisen as a result of the changing roles and structures of SROs.

CONCLUSION

The changes in the equities marketplace over the last eight decades have been profound. The explosion of innovation and competition in the financial industry has strained the Commission's ability to produce useful, understandable, and enforceable rules to govern the financial markets. The actions of the Commission are in no small part related to the paradigm it

214. *But see* 17 C.F.R. § 240.17d-2 (2017) (granting authority for SROs to allocate responsibilities among themselves, subject to approval by the Commission).

215.). The Commission has brought a settled cease and desist proceeding against FINRA for altering documents requested by SEC examiners. Such alterations took place on three separate occasions. Order Instituting Administrative and Cease-and-Desist Proceedings Pursuant to Section 21C Of The Securities and Exchange Act of 1934, Making Findings and Imposing Sanctions And A Cease-And-Desist Order, *In re* FINRA, Inc., Exchange Act Release No. 65,643, 102 SEC Docket 1148 (Oct. 27, 2011).

216. Hester Pierce, *The Financial Industry Regulatory Authority: Not Self-Regulatory After All* (Mercatus Working Paper Jan. 2015) (analyzing the historical development of FINRA and arguing that FINRA lacks accountability).

217. *See, e.g.*, Joshua T. White, *Outcomes of Investing in OTC Stocks*, SEC. & EXCH. COMM'N DIVISION OF ECON. & RISK ANALYSIS (Dec. 16, 2016), https://www.sec.gov/files/White_OutcomesOTCinvesting.pdf (White Paper from the Commission's Division of Economic and Risk Analysis highlighting the asymmetric outcomes of retail investors in listed securities and OTC securities). Costs associated with activities not required by the Exchange Act may also strain FINRA financial resources. In 2015, FINRA posted an operating loss equal to approximately 4% of revenues. *See* FINRA ANNUAL REPORT 2015, at 9.

adopts in its analysis. Different paradigms emphasize different approaches and produce different results. The current paradigm has resulted in the promulgation of many regulations while the market regulatory structure supporting those changes has evolved largely undirected.

The SEC must be able to lead a dynamic marketplace. However, when it tries to do too much, when its approach to rule making takes too long, and when its regulations are too complicated, it is not effective. As the first SEC Chairman Joseph P. Kennedy put it:

The regulations generally are broad in character and rest squarely upon the principles of ethics applicable not only to business but to everyday life. The success of the regulations will depend in part upon the wisdom with which we of the Securities and Exchange Commission apply them, but, even more, the success will rest upon the manner in which they are accepted.²¹⁸

The Commission's current approach is both extremely ambitious and firmly embedded in the Micro-Intervention Paradigm. As Chair Mary Jo White has said: "... working on market structure means never saying 'good enough'—the job is unceasing."²¹⁹ The question is whether the statute requires unceasing intervention, or whether the Commission's approach to the statute has created the need for unceasing intervention. It may be that in search of a unified theory of a national market system, the Commission has over extended itself, has gone a bridge too far. Matters may be at a point where a new regulatory paradigm needs to emerge. A different approach might revitalize some aspects of the Self-Regulatory Paradigm, perhaps deferring more to markets and SROs and providing incentives for robust regulation.

As Kuhn noted, "the proponents of competing paradigms practice their trades in different worlds."²²⁰ Paradigm change will thus require the industry, Congress, and the SEC to challenge many of the assumptions that they have accepted since 1975. A critical evaluation will require the small and self-selecting group of securities regulators and practitioners to reevaluate their accomplishments and decide whether or not to take a different road forward. Just as the Packard may be to the point where it cannot be improved through retrofits, the Commission must decide whether or not the benefits of its continued interventions in equity markets will result in diminishing marginal returns. History tells us that reevaluating long accepted practices is difficult. However, the consequences of not doing so can be catastrophic.²²¹ Ultimately, any new approach must make a

218. Kennedy, *supra* note 169, at 3.

219. See White STA 2016 Address, *supra* note 175.

220. See KUHN, *supra* note 6, at 19.

221. See, e.g., Gonzalo Alvarez, Francisco C. Ceballos & Celsa Quinteiro, *The Role of Inbreeding in the Extinction of a European Royal Dynasty*, PLOS ONE, April 2009, at 1.

critical examination of the costs and benefits of continuing to “improve” the Packard or to finally trade it in for a Camaro.