

**CHANGING THE RULES OF THE GAME: BEYOND A DISCLOSURE  
FRAMEWORK FOR SECURITIES REGULATION**

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I. INTRODUCTION

*Skyrocketing markets that depend on purely psychic support  
have invariably succumbed to the financial law of gravitation.  
Unsustainable prices may persist for years, but eventually they  
reverse themselves. Such reversals come with the suddenness  
of an earthquake; and the bigger the binge the greater the  
resulting hangover.*

– Burton G. Malkiel<sup>1</sup>

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\* Professor, West Virginia University College of Law. In an Article that is six years in the making, my list of thanks is long and includes: andre douglas pond cummings, Kristin Johnson, Audrey McFarlane, Steven Ramirez, Nicola Sharpe, Cheryl Wade, and the other participants on the Panel - Financial Market Discipline in the Obama Era at the National People of Color Conference for their comments. Atiba Ellis, Joshua Fershee, Kendra Fershee, Peter Huang, Karen Kunz, Elaine Wilson, and Yesha Yadav for their thoughts, comments and support. Also thanks to Jason Holliday, Brittany Johnson, Brandon Lucki, and Derik Pennington for their assistance with this Article. As always, Bertha Romine was an invaluable help with proofing and editing. This Article was supported by the College of Law’s Hodges Faculty Research Grant.

<sup>1</sup> BURTON G. MALKIEL, A RANDOM WALK DOWN WALL STREET: THE TIME-TESTED STRATEGY FOR SUCCESSFUL INVESTING 37–38 (10th ed. 2011).

This year, the Securities and Exchange Commission (“SEC” or “Commission”) will have been in existence for 81 years. Founded in 1934, the agency was created in the wake of the worst financial disaster in America’s history—one that came about largely as the result of speculative and manipulative trading in its securities markets.<sup>2</sup> Since its founding, one of the SEC’s central missions is to “protect investors.”<sup>3</sup> However, the model that the Commission uses to serve that mandate can by and large be framed as a *laissez-faire* approach to regulation.<sup>4</sup> Rather than directly intervene in the corporate governance of a company, the SEC primarily uses a disclosure paradigm to protect American investors.<sup>5</sup> The disclosure model rests on the premise that “an educated investor is a protected investor.”<sup>6</sup> As such, the SEC model requires

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<sup>2</sup> JERRY W. MARKHAM, *A FINANCIAL HISTORY OF THE UNITED STATES: FROM J.P. MORGAN TO THE INSTITUTIONAL INVESTOR (1900–1970)* 143, 153 (2002). Although later, Prof. Markham states that “it is difficult to isolate a single event that caused the stock market crash of 1929,” certainly the speculative behavior by some of the country’s top traders was a contributing factor. *Id.* at 153. Of course, many of the issues that were at the heart of the Great Depression have mutated into contributing factors of the financial crisis that hit between 2007 and 2009. *See infra* Section III.B.

<sup>3</sup> *The Investor’s Advocate: How the SEC Protects Investors, Maintains Market Integrity, and Facilitates Capital Formation*, U.S. SEC. & EXCH. COMM’N [hereinafter *Investor’s Advocate*], <http://www.sec.gov/about/whatwedo.shtml> (last visited Oct. 8, 2015).

<sup>4</sup> There are many, of course, in the legal academia who would disagree with this characterization of the SEC as being *laissez-faire*. In fact, many legal scholars today have faulted Congress and the SEC for what they describe as the federalization of corporate governance. *See, e.g.*, Stephen M. Bainbridge, *Dodd-Frank: Quack Federal Corporate Governance Round II*, 95 MINN. L. REV. 1779 (2011). While it is true that some of the provisions of Dodd-Frank, Sarbanes-Oxley, and the SEC’s more recent rule making (in the realm of shareholder proposals and proxy access) does show a keener interest in corporate governance issues, as I have argued elsewhere, the underlying methodology that the SEC used to advance those issues is still, by and large, one that is disclosure-based. Jena Martin Amerson, *The SEC and Shareholder Empowerment—Analyzing the New Proxy Regime and Its Impact on Corporate Governance*, 30 BANKING & FIN. SER. POL’Y REP. 8 (2011). In addition, the SEC’s most recent endeavors, in examining markets as a whole (for instance through their creation of the Economic and Risk Analysis Division), is precisely so notable because it is the exception.

<sup>5</sup> Jennifer B. Lawrence & Jackson W. Prentice, *The SEC Form 8-K: Full Disclosure or Fully Diluted? The Quest for Improved Financial Market Transparency*, 41 WAKE FOREST L. REV. 913, 913 (2006) (“[O]ur results reflect the [SEC’s] fundamental shift in the regulatory model to one premised upon more disclosure, greater SEC involvement, heightened corporate accountability, and an increased investor demand for market transparency.”).

<sup>6</sup> The SEC’s investor website states that “information is the investor’s best tool when it comes to investing wisely.” *Microcap Stock: A Guide for Investors*, U.S. SEC. & EXCH. COMM’N, <https://www.sec.gov/investor/pubs/microcapstock.htm> (last visited Oct. 8, 2015); *see also The Basics of Saving and Investing: Investor Education 2020*, W. VA. ST. AUDITOR’S OFF., <http://www.wvsao.gov/securitiescommission/education/investored2020.aspx> (last visited Oct. 8, 2015) (“Investor education is a key component of our efforts and we sincerely believe that an educated investor is a protected investor.”). This mantra is repeated in other markets across the globe. *See, e.g.*, *Investor Education: Overview*, CAP. MKTS. AUTHORITY OF KENYA, <http://www.cma.or.ke/index.php/investor-education> (last visited Oct. 8, 2015) (“We hold the view that an educated investor is a protected investor and that a protected investor is always a

companies to provide investors with a substantial amount of information regarding its financial operations and financial well-being in the hope that investors will use that information to make sound choices for their investments.<sup>7</sup>

The problem with the disclosure system is that it does not work.<sup>8</sup>

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more willing player in the capital market place. To us, investor education is one of the most effective regulatory tools.”).

<sup>7</sup> Other commentators also note that the SEC’s regulatory model seems to rely almost exclusively on disclosure. *See, e.g.*, A.C. Pritchard, *The SEC at 70: Time for Retirement?*, 80 NOTRE DAME L. REV. 1073 (2005). Professor Pritchard argues that the SEC has a “fixation with disclosure” and uses disclosure as the panacea for all the ills of the securities markets. *Id.* at 1087. Pritchard also points out that “disclosure is the tool of choice largely because that is what Congress has given the SEC.” *Id.* at 1088. Both Professor Pritchard and this Article agree that disclosure is a problem. However, while Professor Pritchard is focusing on disclosure as a symptom of the SEC’s problem as a regulator and its narrow focus and “group think” attitude, this Article focuses on disclosure as an inappropriate response to the securities markets because it no longer reflects the way the markets operate. In his article, Pritchard cites to another author, Donald Langevoort, who notes that “the Commission has never studied investor behavior deeply enough to say, publicly at least, what percentage of investors read or understand these documents, or what influence the fundamental analysis-oriented disclosure has on their investment decisions.” *Id.* at 1088–89 n.53 (citing Donald C. Langevoort, *Taming the Animal Spirits of the Stock Markets: A Behavioral Approach to Securities Regulation*, 97 NW. U. L. REV. 135, 173 (2003)). Ironically, since the date of Langevoort’s article, the SEC has publicly discussed the low percentage of investors that read these documents; however, they have used this low statistic simply as a way of stating that disclosure needs to be better, not questioning the underlying assumption of whether disclosure should be used at all. *Study Regarding Financial Literacy Among Investors*, U.S. SEC. & EXCH. COMM’N (Aug. 2012), <https://www.sec.gov/news/studies/2012/917-financial-literacy-study-part1.pdf>.

<sup>8</sup> I realize that by taking this stance I am wading into a space that is fraught with opinions and controversy. For instance, many scholars believe that the disclosure paradigm is key to making sure that investors have a baseline of confidence in the markets in order to feel confident about investing in corporations. *See, e.g.*, Steven A. Ramirez, *The Virtues of Private Securities Litigation: An Historic and Macroeconomic Perspective*, 45 LOY. U. CHI. L.J. 669, 682–83 (2014) (discussing the historical impetus for the Securities Act and the Securities Exchange Act as being designed to return investor confidence into the markets); Joshua Fershee, *Activist Shareholder and Law Prof: Robin Hood or Charles Pillsbury?*, BUS. L. PROF BLOG (July 28, 2015), [http://www.lawprofessors.typepad.com/business\\_law/2015/07/activist-shareholder-and-law-prof-in-merger-class-action.html](http://www.lawprofessors.typepad.com/business_law/2015/07/activist-shareholder-and-law-prof-in-merger-class-action.html) (arguing that disclosure is the most efficient system for regulating the markets); *see also* John C. Coffee, Jr., *Market Failure and the Economic Case for a Mandatory Disclosure System*, 70 VA. L. REV. 717 (1984) (discussing the need for a mandatory disclosure system within the context of an efficient capital market). According to Ramirez, “[f]ull disclosure of material facts backed by both public and private enforcement ultimately secured investor confidence and therefore investment.” Ramirez, *supra*, at 682–83. Because I join the growing number of authors that express skepticism for the Efficient Market Hypothesis, I believe that Professor Coffee’s view of a mandated disclosure system is based on a fundamentally flawed premise. *See infra* Part III.B. In addition, while I understand and respect Professor Ramirez’s concern regarding disclosure as a way to maintain investor confidence, I fear that his solution to make disclosure more effective and increase enforcement over companies that fail to accurately disclose ignores the larger issue—that this is no longer how securities markets operate. In a framework where the underlying corporate disclosures account for a very small amount (if any) of a person’s decision to buy a stock, having additional (even if more effective) disclosures still

Under this model, many of the SEC's biggest corporate scandals in the last 20 years—ones that precipitated hundreds of millions of dollars in losses to the markets and investors—would have been perfectly legal if the company had disclosed what it was doing.<sup>9</sup> To be clear, the company could have still engaged in the underlying practice, they just needed to tell the general public about it. Enron,<sup>10</sup> the analyst conflict scandals,<sup>11</sup> and Goldman Sachs<sup>12</sup> are all notable

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misses the mark. Rather, it would seem that the better course of action would be to envision a system that *both* keeps the pace with our current trading patterns while still providing a paradigm that would allow people to feel confident enough to purchase securities in the market—even without corporate disclosure. For my initial thoughts on such a schema, see *infra* Part III.B.

On the other side of the debate, there are scholars who contend (like I do) that disclosure is not a workable model. See, e.g., Barbara Ann Banoff, *Regulatory Subsidies, Efficient Markets, and Shelf Registration: An Analysis of Rule 415*, 70 VA. L. REV. 135, 179 n.210 (1984) (expressing doubt over whether the required disclosure of the 1934 Act is effective); Henry T. C. Hu, *Too Complex to Depict? Innovation, "Pure Information," and the SEC Disclosure Paradigm*, 90 TEX. L. REV. 1601, 1612 (2012) (arguing for "major changes to the longstanding federal regulatory architecture itself"); Steven L. Schwarcz, *Rethinking the Disclosure Paradigm in a World of Complexity*, 2004 U. ILL. L. REV. 1 (2004). Moreover, some studies have found that the disclosure system has not worked from the beginning. See Gregg A. Jarrell, *The Economic Effects of Federal Regulation of the Market for New Security Issues*, 24 J.L. & ECON. 613 (1981); Larry E. Ribstein, *Bubble Laws*, 40 HOUS. L. REV. 77, 93 n.86 (2003) (citing George J. Benston, *The Effectiveness and Effects of the SEC's Accounting Disclosure Requirements*, in ECONOMIC POLICY AND THE REGULATION OF CORPORATE SECURITIES 23 (Henry G. Manne ed., 1969)); Carol J. Simon, *The Effect of the 1933 Securities Act on Investor Information and the Performance of New Issues*, 79 AM. ECON. REV. 295 (1989); George J. Stigler, *Public Regulation of the Securities Markets*, 19 BUS. L. 721 (1964).

<sup>9</sup> Of course, going down the "what if" path is always dangerous. For instance, it is quite possible that the disclosure framework could lead other companies away from engaging in the bad behavior in the first place—knowing that they would have to disclose it. In fact, that seems to be the rationale behind the SEC's move to require companies to disclose whether or not they have a Code of Ethics (rather than substantively require companies to adopt a Code of Ethics): the act of disclosing that one does *not* have a Code of Ethics, should, in theory, lead to companies adopting one. See Code of Ethics for Senior Financial Officers, 15 U.S.C. § 7264 (2014); Code of Ethics, 17 C.F.R. § 229.406 (2015). In passing the rule in 2003, the SEC stated:

The strength of U.S. financial markets depends on investor confidence. Recent events involving allegations of misdeeds . . . have undermined that confidence . . . . It seems reasonable to expect that a company would hold its chief executive officer . . . to at least the same standards of ethical conduct to which it holds its senior financial officers.

Disclosure Required by Sections 406 and 407 of the Sarbanes-Oxley Act of 2002, Exchange Act Release No. 33-8177, 68 Fed. Reg. 5110 (Jan. 31, 2003).

<sup>10</sup> See, e.g., Michael Duffy, *By the Sign of the Crooked E*, TIME (Jan. 19, 2002), <http://content.time.com/time/business/article/0,8599,195268,00.html> ("Enron and Andersen officials hardly deny the dubious deals, the 881 offshore tax havens or the stupid accounting tricks. That's partly because nobody can be sure that those dodges were inherently illegal."). In an even more prescient article, Richard Cudahy and William Henderson discuss the Enron collapse and note its similarity to a largely forgotten scandal of another energy titan—Samuel Insull—that occurred over 70 years ago. Richard D. Cudahy & William D. Henderson, *From Insull to Enron: Corporate (Re)Regulation After the Rise and Fall of Two Energy Icons*, 26 ENERGY L.J. 35 (2005). According to Cudahy and Henderson, the main lesson to be learned from

examples of scandals that were illegal, not because of the practice itself, but because the corporation in question failed to disclose it. While the causes of actions for these scandals often sound in fraud, the underlying factual claims frequently rested on nondisclosure.<sup>13</sup> Indeed, the whole legal theory at the heart of a fraud cause of action arguably rests on nondisclosure, because in the end, fraud is a deception. The deception only works if the actual truth is concealed. Whether it is done through a material misrepresentation or simply an omission is almost ancillary to the fact underlying the problem—that the real facts have not been disclosed.

Enron, in particular, offers an insight into the failure of this regulatory framework. To try to escape liability, many executives of Enron contended that most of the questionable transactions that led to the company's collapse were in fact disclosed in various SEC filings.<sup>14</sup> It is undisputed that Enron's collapse had significant ramifications, not just for the employees and suppliers but also

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this is “in recognizing that during a financial bubble driven by rapid changes in network industries . . . regulatory officials will inevitably buckle under political pressure . . . . [T]he laws adopted in response to Enron are destined to be watered down and ignored during the next boom.” *Id.* at 37–38. Unfortunately, we did not have to wait for the next boom to see the full impact of the lack of political pressure. *See also* Steven L. Schwarcz, *Enron and the Use and Abuse of Special Purpose Entities in Corporate Structures*, 70 U. CIN. L. REV. 1309 (2002) (noting the complex, yet arguably technically compliant disclosures made by the company).

<sup>11</sup> *See* Jill E. Fisch, *Fiduciary Duties and the Analyst Scandals*, 58 ALA. L. REV. 1083, 1084 (2007). The analyst conflict scandals emerged when it was shown that analysts were touting stocks of a company without disclosing their conflict of interest: that their investment firm had many of the touted companies as clients. *Id.*

<sup>12</sup> According to the SEC's release on the matter:

Goldman Sachs structured and marketed a synthetic collateralized debt obligation (CDO) that hinged on the performance of subprime residential mortgage-backed securities (RMBS). Goldman Sachs failed to disclose to investors vital information about the CDO, in particular the role that a major hedge fund played in the portfolio selection process and the fact that the hedge fund had taken a short position against the CDO.

Press Release, U.S. Secs. & Exch. Comm'n, SEC Charges Goldman Sachs With Fraud in Structuring and Marketing of CDO Tied to Subprime Mortgages (Apr. 16, 2010), <http://www.sec.gov/news/press/2010/2010-59.htm>.

<sup>13</sup> *See, e.g.*, Second Consolidated Amended Complaint for Violation of the Securities Exchange Act of 1934 ¶¶ 21, 23, *In re Dura Pharmaceuticals Inc.*, No. 99CV0151-L(NLS), 2000 WL 34612019 (S.D. Cal. Sept. 23, 2000) (discussing a fraudulent scheme to get an inhaler to market by “falsely persuad[ing] investors” that Dura's sales were increasing and “concealing . . . problems” regarding the process”).

<sup>14</sup> *See, e.g.*, Alexei Barrionuevo, *Enron Secretary Defends Her Criticism of Executives*, N.Y. TIMES (Feb. 23, 2006), <http://www.nytimes.com/2006/02/23/business/businessspecial3/23enron.html> (noting that in the Enron board minutes, Herbert Winokur, head of the finance committee, stated, “neither Andy nor Enron did anything wrong” and that the company had “disclosed everything necessary”).

for the marketplace as a whole.<sup>15</sup> However, if the executives' arguments are to be believed, the collapse of Enron still would have occurred, with the SEC having no recourse with which to seek redress for investors.<sup>16</sup>

Indeed, the public had access to Enron's copious SEC filings prior to the company's collapse.<sup>17</sup> Although, as the Honorable Richard D. Cudahy and Professor William D. Henderson point out, "the presentation of this information was hopelessly complex" to the point that it "made it impossible to gauge Enron's true financial health," and such "deliberate lack of transparency hardly dissuaded investors."<sup>18</sup> Similar to Samuel Insull's "shoddy financial disclosures" in the 1920s that left over 600,000 shareholders bereft of their life savings following the 1929 stock market crash,<sup>19</sup> a rational investor in the 1990s should have concluded that there was insufficient information to determine the business risk of investing in Enron and what "was available was too impenetrable . . . [t]hus, Insull and Enron stock should have sold at a discount rather than a premium."<sup>20</sup>

More recently, the rise of computerized trading has made the disconnect between the U.S. securities markets and the leading regulatory body that oversees them all the more alarming.<sup>21</sup> By some accounts, high frequency trading—that is, using complex algorithms and formulas to move in and out of large volumes of stock—accounts for up to 70% of all trading volume on the U.S. markets.<sup>22</sup> And, while the current status of this market regulation is

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<sup>15</sup> See Uma V. Sridharan, Lori Dickes & W. Royce Caines, *The Social Impact of Business Failure: Enron*, 17 AM. J. BUS. 11 (2002) (arguing that the Enron collapse had ramifications that went beyond the impact to its employees and investors).

<sup>16</sup> For another example, the market for high frequency trading shows the limits of the SEC's power. The SEC has only recently made questionable methods used by high-frequency traders, such as front running or naked access, illegal. See *Abusive Trading Practices Prohibited*, 17 C.F.R. § 38.152 (2015) (making front running illegal starting in 2012); *Risk Management Controls for Brokers or Dealers with Market Access*, 17 CFR § 240.15c3-5 (2015) (making naked access illegal for individual traders as of 2010); see also Nathan D. Brown, Note, *The Rise of High Frequency Trading: The Role Algorithms, and the Lack of Regulations, Play in Today's Stock Market*, 11 APPALACHIAN J.L. 209, 220–21 (2012) (defining "front-running" as trading long or short, knowing that others will soon take a position that would benefit their own, and "naked access" as trading on exchanges using the broker's computer code without having to be filtered through the broker's computer code); David D. Gruberg, Note, *Decent Exposure: The SEC's Lack of Authority and Restraint in Proposing to Eliminate Flash Trading*, 65 U. MIAMI L. REV. 263 (2010).

<sup>17</sup> Cudahy & Henderson, *supra* note 10, at 96.

<sup>18</sup> *Id.*; see also Schwarcz, *supra* note 8.

<sup>19</sup> Roger Lowenstein, *Before There Was Enron, There Was Insull*, N.Y. TIMES (Mar. 19, 2006), <http://www.nytimes.com/2006/03/19/business/yourmoney/19shelf.html>.

<sup>20</sup> Cudahy & Henderson, *supra* note 10, at 96; see also Schwarcz, *supra* note 8.

<sup>21</sup> See David M. Serritella, *High Speed Trading Begets High Speed Regulation: SEC Response to Flash Crash, Rash*, 2010 U. ILL. J.L. TECH. & POL'Y 433 (2010).

<sup>22</sup> Karen Kunz & Jena Martin, *Into the Breech: The Increasing Gap Between Algorithmic Trading and Securities Regulation*, 47 J. FIN. SERVS. RES. 135, 135 (2015).

generally open only to large institutional investors, the continuing advancement in technology will soon make algorithmic trading something that is within anyone's grasp.<sup>23</sup>

Moreover, while many of the symptoms of the practices that led to the financial meltdown can be traced to deception and fraudulent behavior, the root causes of the market meltdown of 2007 were completely divorced from the issues that the SEC generally regulates under a disclosure model.<sup>24</sup>

Nevertheless, despite this disconnect between the underlying harm to investors and its causes, the SEC still offers disclosure as the ultimate panacea to the country's financial ailments. While the concept that knowledge is power usually rings true, in the case of securities regulation, well-informed shareholders in the United States are still, by and large, powerless—they are simply aware of their powerlessness.<sup>25</sup> Equally true is that many shareholders may be apathetic to the reality because they are solely interested in the returns.<sup>26</sup> The dual harms of apathy and ignorance put in question the disclosure-based regime's ability to fix the underlying issues.<sup>27</sup>

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<sup>23</sup> *Id.*

<sup>24</sup> SCOTT PATTERSON, *THE QUANTS: HOW A NEW BREED OF MATH WHIZZES CONQUERED WALL STREET AND NEARLY DESTROYED IT* 249 (Rick Horgan ed., 2010) (“The quants [are] also haunted by another fear: systemic risk. The August 2007 meltdown showed that the quants’ presence in the market wasn’t nearly as benign as they had believed.”). One of Patterson’s central points in the book was the interconnectedness of all segments of the markets—those regulated by the disclosure framework (such as securities) and those completely outside its structures (like hedge funds). *Id.* at 238. “We are seeing things that were 25-standard-deviation events, several days in a row.” *Id.*

<sup>25</sup> Indeed, many of the corporate governance movements of recent years reflect this growing awareness that shareholders, as a whole, lack significant power over the company in which they hold stock. For instance, the “say on pay” movement for executive compensation and increased voting powers for director nominations seem to reflect this growing awareness. *See generally* Larry Catá Backer, *From Moral Obligation to International Law: Disclosure Systems, Markets and the Regulation of Multinational Corporations*, 39 *GEO. J. INT’L L.* 591 (2008) (discussing a process-oriented approach to business and human rights issues). Professor Larry Backer takes the position that, in order to truly hear the voices of those impacted, a process-oriented approach can “serve as a vehicle for the enhancement of a market environment in which corporate stakeholders . . . might incorporate information about corporate ‘social behavior’ in their . . . decisions.” *Id.* As such, transparency, process, and empowerment are intrinsically linked. All three of these are particularly needed in the U.S. securities market. *See* Jena Martin Amerson, *In Praise of Process: Examining the SEC, Rule 14a-8(i)(8), and AFSCME v. AIG*, 5 *J. BUS. & TECH. L.* 23 (2010).

<sup>26</sup> Cudahy & Henderson, *supra* note 10.

<sup>27</sup> There are two arguments that can be made about the challenges of the disclosure system. One is that, while theoretically sound, the implementation, enforcement, and oversight of the current structure is so flawed that it has become unworkable. The other, more ambitious argument, is that the disclosure system itself, even if perfectly implemented, would still not be the optimal way to regulate our markets. I tend to vacillate between the two camps. There might have been a point at which an ideal disclosure system would have been enough (with robust enforcement and oversight) to allow for market stability. Indeed, as Professor Ramirez points out, the stability of our markets for decades could likely be traced to a robust disclosure based system

This Article argues that this current trend in market activity marks a fundamental paradigm shift in trading habits. Instead of the traditional *investor* paradigm—the old game—(where an investor’s purchase of a stock is a reflection of his confidence in the market), we have now moved to a *consumer* paradigm—the new game—(where the purchase of stocks is not at all connected to a valuation of the company<sup>28</sup> but rather to the value of the stock itself and its currency within the market).<sup>29</sup> Given this transition, what is needed is a regulatory structure (a new set of rules) that takes into account this new trading framework.<sup>30</sup> Specifically, this Article argues that we need to develop a regulatory structure that embraces the stock as a product separate and apart from its underlying corporation. In this way, we can devise a more nimble regulatory configuration that addresses the markets as they are today rather than the markets as they were prior to the advances in technology.

Part II of this Article examines this transition in trading habits and discusses in more detail the shift between the investor paradigm and the consumer paradigm. Part III juxtaposes this current model of trading with the current system of regulation and, in doing so, exposes how out-of-step our current regulatory models are from the way the markets behave. Finally, Part IV examines other suggestions for regulating the market and sets forth some preliminary thoughts on another potential way.

The aim here is not to provide a definitive answer to the regulatory problem. Rather, the objective is to frame the conversation regarding what type of fixes need to be made.<sup>31</sup> While an overhaul of the current securities regulatory system is arguably in order, there is likely not enough political capital at this stage to warrant such a change (especially in light of the current

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coupled with vigorous enforcement. See Ramirez, *supra* note 8. However, given the fundamental (and I believe irrevocable) shift in our trading patterns, it would seem that the whole disclosure system, at its core, is outmatched in every way for the challenges that lay ahead for our securities market. For further discussion of this shift, see *infra* Part III.

<sup>28</sup> This is underscored even more so by the current model of algorithmic trading that, by and large, doesn’t even take into consideration the individual company value so much as the securities markets as a whole. For further discussion on algorithmic trading, see *infra* Part III.A.

<sup>29</sup> While there have been many more articles in recent years, there have yet to be any that intertwine market behavior (with its consumerism mentality) to the disclosure regulatory system. Understanding this paradigm shift is crucial to understanding the necessary regulatory changes that need to be implemented.

<sup>30</sup> I am not the first person to address the question of whether the SEC’s style of regulation has become outdated. For instance, Professor Donald C. Langevoort has discussed the issue within the rise of institutional investors. Donald C. Langevoort, *The SEC, Retail Investors, and the Institutionalization of the Securities Markets*, 95 VA. L. REV. 1025, 1026 (2009).

<sup>31</sup> For instance, one of the issues that this Article does *not* assess is the current state of exempt securities on the market and the resultant regulation. By its nature, private markets hit a completely different demographic and investment aims. And, while any proposal for a shift in the regulatory structure will by its nature also impact private securities (especially given the rise of crowdfunding investment and the newly enacted regulations to address it), the analysis of *how* this will impact those markets cannot be addressed here.

rulemaking avalanche that the SEC is still coping with in the wake of Congress' response to the market meltdown—Dodd-Frank).<sup>32</sup> Therefore, this Article aims to stimulate a conversation regarding what can be done in both the long and short term so as to prevent other fissures within our regulatory structure from widening into chasms and leading to another financial crisis, greater than any before.<sup>33</sup>

## II. THE CHANGING GAME

In the U.S. securities markets, the game has changed. In previous generations, a securities purchase represented a person's investment in the underlying company itself—a show of faith in the company's intrinsic value.<sup>34</sup> During that time, our markets were symbolized by the retail investor.<sup>35</sup> These were individuals or families who would purchase a company's securities and then hold onto them for years, if not decades, confident in the company's long-

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<sup>32</sup> As of this writing, the SEC is currently dealing with 98 provisions of the Dodd-Frank Act that require SEC rulemaking action and “dozens of other provisions” providing the SEC with discretionary rulemaking authority, of which it claims to have proposed or adopted three-quarters. *Implementing the Dodd-Frank Wall Street Reform and Consumer Protection Act*, U.S. SEC. & EXCH. COMM'N, <http://www.sec.gov/spotlight/dodd-frank.shtml> (last visited Oct. 8, 2015). At the start of 2012, it had finalized only 18 of the 98 rulemaking requirements and missed 59 of its deadlines, with 21 future rulemaking deadlines pending. Of the 59 missed deadlines, the SEC has released 53 of the proposed rules. Reese Darragh, *SEC Ends 2011 Still Well Behind Its Dodd-Frank Schedule*, COMPLIANCE WEEK: THE FILING CABINET (Jan. 3, 2012), <http://www.complianceweek.com/sec-ends-2011-still-well-behind-its-dodd-frank-schedule/article/221520/>.

<sup>33</sup> This last statement may seem rather dire; however, there are others who believe that there is a strong potential for another crisis—one that could, in this case, lead to a total economic collapse. See *THE BIG ONE* (Miramax Films 1997).

<sup>34</sup> One of the ways that this was expressed was in discussions of the fundamentals of the securities and how those fundamentals added value to the security that embodied it. See, e.g., Daniel Gross, *Amazon Stock May Be Up, but the Company Still Doesn't Make Any Money*, THE DAILY BEAST (Oct. 25, 2013, 1:35 PM), <http://www.thedailybeast.com/articles/2013/10/25/amazon-stock-may-be-up-but-the-company-still-doesn-t-make-any-money.html>; Neil Irwin, *Twitter Could End Up Being Really Profitable. But It's a Super Risky Stock.*, WASH. POST: WONKBLOG (Nov. 4, 2013), <http://www.washingtonpost.com/blogs/wonkblog/wp/2013/11/04/twitter-could-end-up-being-really-profitable-but-its-a-super-risky-stock/> (stating that at the time of its IPO, Twitter was being valued at \$13.6 billion, although it has never earned a profit); Trefis Team, *Why LinkedIn's Fundamentals Don't Support Its Share Price*, FORBES: GREAT SPECULATIONS (July 15, 2011, 12:01 PM), <http://www.forbes.com/sites/greatspeculations/2011/07/15/why-linkedins-fundamentals-dont-support-its-share-price/>; Matthew Yglesias, *The Prophet of No Profit: How Jeff Bezos Won the Faith of Wall Street*, SLATE: MONEYBOX (Jan. 30, 2014, 11:40 PM), [http://www.slate.com/articles/business/moneybox/2014/01/amazon\\_earnings\\_how\\_jeff\\_bezos\\_gets\\_investors\\_to\\_believe\\_in\\_him.html](http://www.slate.com/articles/business/moneybox/2014/01/amazon_earnings_how_jeff_bezos_gets_investors_to_believe_in_him.html).

<sup>35</sup> See MATTHIAS BURGHARDT, RETAIL INVESTOR SENTIMENT AND BEHAVIOR: AN EMPIRICAL ANALYSIS (Stefanie Brich & Anita Wilke eds., 2011) (arguing that retail investor trading is important to financial institutions and the market).

term performance.<sup>36</sup> Any profit that the investor realized in the short term came, not from selling a portion of his initial investment, but from dividends that the company returned to the investor year after year.<sup>37</sup>

Now, however, the trading patterns are unlike anything that has been seen before. The shift largely divorces the purchase of the stock from an interest in the corporation. There are a number of different reasons for this. First, the players are different—retail investors have been replaced by large institutional investors dominating the market.<sup>38</sup> As it stands, the game benefits the institutional investor over its retail counterpart. For instance, the nature of the current disclosure system focuses on the sellers' disclosures (i.e., corporate issuers who must disclose information so that investors can make a decision to buy or sell). On the other hand, the institutional buyers, whose influence on and share of the market is growing exponentially, are not under the same disclosure obligations or scrutiny. Such one-sided oversight misses at least half of the activity in the market, which arguably gives institutional players unrestrained power over the market.

Second, the plays being called have changed dramatically. The rise of computerized technology has allowed market players to trade in ways that would have been impossible a few decades ago.<sup>39</sup> The use of algorithmic trading formulas has only made this even more evident.<sup>40</sup> Finally, as we will see in Part III, the scorecard itself has changed. Rather than focusing on the fundamentals of a company and using that stock purchase as an investment in that company, now market players are examining the value of the stock itself,

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<sup>36</sup> Another aim of shareholders who held their stock over many quarters was to receive corporate dividends. See Philip van Doorn, *Time to Sell Your Dividend Stocks? Not So Fast*, MARKETWATCH: INVESTING (Apr. 10, 2014, 11:11 AM), <http://www.marketwatch.com/story/time-to-sell-your-dividend-stocks-not-so-fast-2014-04-10> (arguing that in the long run, dividends make up the majority of returns in the market).

<sup>37</sup> Paul Sullivan, *Assessing the Value of Owning Dividend-Paying Stocks*, N.Y. TIMES: WEALTH MATTERS (June 3, 2011), <http://www.nytimes.com/2011/06/04/your-money/stocks-and-bonds/04wealth.html>.

<sup>38</sup> Deborah Fuhr, *Institutional Investors Dominate the Market*, FINANCIALNEWS (Oct. 21, 2013), <http://www.efinancialnews.com/story/2013-10-21/institutional-investors-dominate-the-market>.

<sup>39</sup> The advent of computerized trading has affected the retail markets as well. Clients who were once required to call a broker to place an order can now simply go on-line to Ameritrade and open up a securities account, effectively bypassing an intermediary who would advise them on which stock to purchase. John Saunders, *Lean Mean Times for Retail Brokers: Major Discounters Hungrily Eating Away at Their Business*, GLOBE & MAIL, July 6, 1990, at B2.

<sup>40</sup> See, e.g., John Fullerton, *High Frequency Trading Is a Blight on Markets that the Tobin Tax Can Cure*, THE GUARDIAN: ECON. (Apr. 4, 2014, 7:42 AM), <http://www.theguardian.com/business/economics-blog/2014/apr/04/high-frequency-trading-markets-tobin-tax-financial-transactions-algorithms> (“During 18 years with JP Morgan and for more than a decade since, I have watched and participated in the inexorable transformation of the markets, enabled by advances in technology.”).

separate and apart from the underlying company.<sup>41</sup> This disconnect, or “disaggregation,” between the security and the company is at the heart of the new securities marketplace.<sup>42</sup> But first, this Part will examine the different players and the different plays that are called.

A. *Different Players*

*[The] Securities and Exchange Commission thinks of itself as the investors’ advocate, by which it means retail investors—individuals and households—as opposed to institutional investors.*

– Donald C. Langevoort<sup>43</sup>

The last three decades have witnessed a precipitous rise in the volume of trading by institutional investors. There are a number of reasons for this. First, with the gradual (and then explicit) lessening of regulation<sup>44</sup> in this area, banks that once were confronted with an either/or investment plan were now liberated to engage in both commercial and investment banking.<sup>45</sup> Second, the facility with which other institutions were able to engage in trading allowed investment plans to enter the markets in unprecedented amounts (pension funds and other institutional investors).<sup>46</sup> Finally, the rise and proliferation of computerized trading has made it an incredibly profitable venture for institutions (like hedge funds) and investment banks to enter the market and trade for their own benefit on a level that eclipses retail traders.<sup>47</sup>

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<sup>41</sup> PATTERSON, *supra* note 24.

<sup>42</sup> Even rampant speculation—a hallmark of the Roaring ‘20s—has morphed into something completely different: computerized trading. *See* PATTERSON, *supra* note 24 (discussing how only a small portion of market analysis by quant firms involves studying the fundamentals of a company); Fullerton, *supra* note 40 (noting that “[o]ver time, these same quantitative trading strategies became centres of speculative proprietary trading themselves, at times quite predatory in nature”).

<sup>43</sup> Langevoort, *supra* note 30, at 1025.

<sup>44</sup> In some cases, the securities “deregulation” can rather more aptly be named reduced or modified regulation. Enron once again provides an example of this—part of why the company underwent such turmoil is because previous California regulations that affected the company were still in place while other regulations were removed. *See* Cudahy & Henderson, *supra* note 10.

<sup>45</sup> For a detailed discussion of the perils of deregulation in this context, see andré douglas pond cummings, *Still “Ain’t No Glory in Pain”: How the Telecommunications Act of 1996 and Other 1990s Deregulation Facilitated the Market Crash of 2002*, 12 *FORDHAM. J. CORP. & FIN. L.* 467 (2007).

<sup>46</sup> Langevoort, *supra* note 30.

<sup>47</sup> MICHAEL LEWIS, *FLASH BOYS: CRACKING THE MONEY CODE* (2014).

Until 1993, most of the equity in the U.S. securities markets was not held in the hands of institutional investors.<sup>48</sup> Prior to that, equity still resided mainly in the hands of retail investors. However, since then, the total amount of equity held by institutional investors has skyrocketed.<sup>49</sup>

In his article, *The SEC, Retail Investors, and the Institutionalization of the Securities Markets*, Professor Donald C. Langevoort<sup>50</sup> documents the transition in the markets from a retail-driven to an institution-driven vehicle. Langevoort writes: “The last thirty years or so have brought a rapid shift towards institutionalization in the financial markets in the United States—in other words, a shift toward investment by mutual funds, pension funds, insurance companies, bank trust departments, and the like.”<sup>51</sup> Langevoort notes that this has led to what he terms “deretailization” in the markets, which, in turn, has profound implications for regulation of the markets.<sup>52</sup>

Certainly, Professor Langevoort is correct that the rise of the institution as a principal player is a significant factor in the shift in our securities markets.<sup>53</sup> The sheer volume of the markets that the institutional participants claim bear this out—current statistics show that institutional investors account for more than half of the market participants in the United States, giving them a huge power dynamic in the marketplace.<sup>54</sup>

Specifically, the dominance of institutional players has affected the overall investment strategies in the market. As Langevoort notes, while an increasing number of people invest in the securities markets, they do so indirectly, using institutional investors (such as mutual funds and pension funds) as intermediaries.<sup>55</sup> In this way, institutional investors gain even more power in the securities market because of the vast amount of wealth they control by trading with other people’s money.

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<sup>48</sup> Allen D. Boyer, *Activist Shareholders, Corporate Directors, and Institutional Investment: Some Lessons from the Robber Barons*, 50 WASH. & LEE L. REV 977, 977 (1993).

<sup>49</sup> Fuhr, *supra* note 38.

<sup>50</sup> Professor Donald Langevoort is a professor at Georgetown Law where he teaches courses on Business Organizations, Securities Regulation, as well as various seminars on corporate and securities law. For a full biography, see *Donald C. Langevoort*, GEO. L., <http://www.law.georgetown.edu/faculty/langevoort-donald-c.cfm#> (last visited Oct. 8, 2015).

<sup>51</sup> Langevoort, *supra* note 30, at 1026.

<sup>52</sup> *Id.* at 1027–28. In that regard, both Professor Langevoort and this Article share the opinion that there are significant changes in the markets. *Id.* However, each examines these issues from a different perspective. It seems that Professor Langevoort believes that the greatest cause of the shift in the market has come from a change in the types of players and the causes. *Id.* While I certainly believe that this is a significant part of the shift, I actually believe that the more significant change has happened in how the markets, and particularly the products in the markets, are being traded. It is this disaggregation that I believe has the most significant and the longest impact.

<sup>53</sup> Langevoort, *supra* note 30.

<sup>54</sup> *See id.*

<sup>55</sup> *Id.* at 1072.

At the forefront of the rise of the institution and the trends towards purchasing stock as stock, stands the hedge fund. At its core, hedge funds are organizations that pool and manage securities for a (usually) small and incredibly wealthy group of investors.<sup>56</sup> As one commentator rightly points out, the prevailing themes that many use to characterize hedge funds are “secretive, aggressive, anything-goes investors.”<sup>57</sup> The dominance of these hedge funds goes hand in hand with the dominance of algorithmic trading, and, because hedge funds were largely left untouched by the SEC, these funds and their investments have been allowed to grow by leaps and bounds.<sup>58</sup>

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<sup>56</sup> In fact, many of the reasons why hedge funds have been able to avoid SEC regulation is because they have relied on this exemption by using the money of these wealthy (or sophisticated) investors.

<sup>57</sup> Thomas W. Briggs, *Corporate Governance and the New Hedge Fund Activism: An Empirical Analysis*, 32 J. CORP. L. 681, 686 (2007).

<sup>58</sup> As a result, the idea that hedge funds would be associated with corporate governance seems at odds with the idea of algorithmic trading as the predominant form of investment for hedge funds. And yet, this is the central thesis of Professor Thomas W. Briggs’s article. *Id.* Briggs makes the point that, in light of desultory returns in the early 2000s, hedge funds began to engage in greater corporate governance activism in the companies in which they invest. *Id.* at 685. If what Briggs is saying is true, then that certainly undermines my theory; however, I wonder how much of this involved a small handful of hedge funds, rather than becoming the dominant trend. *Id.* Briggs himself alludes to this when he notes that there are a wide range of investment styles that are captured in the term hedge funds (including “plain vanilla” hedge funds). *Id.* at 686. Given this range, I wonder if that small amount of hedge fund activism was merely an outlier or whether it did in fact mark a shift. I suspect we will need empirical studies to confirm which way the wind actually blew.

It should also be noted that Briggs’s article, while helpful, was not a statistically significant analysis in that he did not point out how many of the total hedge funds were involved in activism, he merely pointed out that some hedge funds were, and how. This doesn’t answer the question posed in the present Article. In fact, Briggs’s findings (which are eight years old) are not statistically significant events. Also, it seems that the type of hedge funds that Briggs is addressing does not fall into the type of hedge funds that would generally go into algorithmic trading (Carl Icahn, Edward Lampert ESL Investments are examples of more traditional investment pools, not ones that involve financial engineering). *Id.* at 696, 699. In the end, Briggs’s article, while interesting, seems to document more traditional behavior (one may even call it quaint) rather than the behavior that most hedge funds demonstrate today, especially because the article concludes that hedge funds “infrequently . . . get directly involved” in issues of corporate governance. *Id.* at 708. Briggs is providing support for the idea that the principal issue of the day in the 1970s was that “the principal concern had become how shareholders (the owners) could control and monitor their agents (the directors and managers).” *Id.* at 710 (citing Michael C. Jensen & William H. Meckling, *Theory of the Firm: Managerial Behavior, Agency Costs, and Ownership Structure*, 3 J. FIN. ECON. 305, 308 (1976)); see also Morten Huse, *Accountability and Creating Accountability: A Framework for Exploring Behavioural Perspectives of Corporate Governance*, 16 BRIT. J. MGMT. S65, S70 (2005) (“Large corporations were listed on stock exchanges around the world, corporate ownership became increasingly global, and owners became faceless and impatient. Attention to market prices and quarterly earnings replaced the attention to dividends.”).

As Professor Joel Seligman<sup>59</sup> states, our markets have “fundamentally changed in recent decades while financial regulation has moved far more slowly.”<sup>60</sup> Yet despite this changing dynamic, the SEC’s mode of regulation is still too narrowly focused on a now largely marginalized class of investors and their investments: the retail investors.<sup>61</sup>

In short, the growing influence of institutional players cannot be overstated.<sup>62</sup> They have been key in the shifting paradigm. Their volume of trading in the market has created the demand for new technologies to keep pace.

### B. *Different Plays*

In the last few decades, the amount of information and data that can be processed has increased exponentially. Concomitant with this rise in storage space is the speed with which it can be processed.<sup>63</sup> While the data and how it is used in the securities market have been advancing in an unprecedented fashion, the technology necessary to complete these transactions has simultaneously been shrinking.<sup>64</sup> The sheer space needed to perform these mighty calculations is minute compared to what was needed a generation ago. As Professor Karen Kunz<sup>65</sup> and I commented in a previous article: “data

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<sup>59</sup> Joel Seligman is President of the University of Rochester, former dean and Ethan A. H. Shepley University Professor of the Washington University School of Law, former dean and Samuel M. Fegtly Professor of Law at the University of Arizona, and law professor at Michigan, George Washington, and Northeastern. *Office of the President: Joel Seligman, President and CEO, University of Rochester*, U. ROCHESTER, <http://www.rochester.edu/president/bio.html> (last visited Oct. 8, 2015).

<sup>60</sup> Joel Seligman, *The SEC in a Time of Discontinuity*, 95 VA. L. REV. 667, 679 (2009). Among the changes Seligman notes are the diversification of financial holding companies, the globalization of securities trading, the expansion of instruments for securities trading, and the increase in the number of investors in the market. *Id.* at 669–70. I would add to this three other significant changes: (1) the rise of the institutional investor, (2) the increase in the use of technology in investing, and (3) the changed behavior for investors’ buying patterns for stocks.

<sup>61</sup> See, e.g., Langevoort, *supra* note 30, at 1026.

<sup>62</sup> Marcel Kahan & Edward Rock, *Embattled CEOs*, 88 TEX. L. REV. 987, 995 (2010) (documenting the rise of the institutional investor); see also Langevoort, *supra* note 30, at 1026 n.4 (discussing how over 72% of the trading in U.S. markets comes from institutional investors).

<sup>63</sup> LEWIS, *supra* note 47.

<sup>64</sup> Kunz & Martin, *supra* note 22.

<sup>65</sup> Professor Karen Kunz is an Associate Professor of Public Administration at West Virginia University. *Karen Kunz, DEP’T PUB. ADMIN.*, <http://publicadmin.wvu.edu/faculty-staff/mpa-faculty/karen-kunz> (last visited Oct. 8, 2015) (“Her research interests include public finance and fiscal policy, political economy, and financial markets regulation. In addition, Dr. Kunz brings over 25 years of professional experience in the financial markets industry. She began her career in the municipal bond market before starting one of the first female-owned consulting firms in the industry. Her clients included institutional investors and traders, and boutique, regional and multinational firms.”).

analyses that would have been nearly impossible a few decades ago (and even then only with a number of supercomputers) can now take place on one's iPad with a few swipes.<sup>66</sup> The disconnect between the changing players in the markets and the SEC's outdated method of regulating is a significant symptom of this new financial landscape. This change in the plays, in the way people are trading, is another.

The rise in innovation and technology has led to another curious consequence: the increased separation between man and machine. With the sheer speed that many of these trades are occurring (where thousands of shares are moved in less than a second), the "human factor"—a typical backstop against, at minimum, computer glitches, or at most, flaws in formulas—has been all but lost.<sup>67</sup> Hedge funds and other institutional investors have taken this even further and allowed for the rise of computer trading—buy and sell orders with huge volume being executed with very little human intervention or oversight. As discussed below, this disaggregation has resulted in the increasing prevalence of a consumer-driven (as opposed to investor-driven) securities market.

Ironically, the traders who were responsible for the current market structure may not even have the traditional MBA background. As some scholars note, "[n]ot surprisingly, many of the most successful funds in [the discipline of high frequency trading] have been founded by computer scientists, mathematicians, and engineers, not by economists or fundamental stock-pickers."<sup>68</sup>

As a result, the last few decades have seen a shift in the trading patterns of the market.<sup>69</sup> No longer are a shareholder's investments in a company primarily an indication of his belief in a company's fundamentals.<sup>70</sup> Now it is a testament to how the shareholder believes the company will do as a *security*.<sup>71</sup> In short, there is now a disaggregation in the securities market between the company itself and the stock of that company. In fact, the corporation's fundamentals represent only a small portion of what an institutional investor will consider in deciding to trade that security. Consequently, the vast majority

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<sup>66</sup> Kunz & Martin, *supra* note 22, at 3.

<sup>67</sup> One example of these consequences occurred during the 2010 flash crash, in which the Dow Jones lost 1,000 points in minutes because of what was later discovered to be a computer glitch. Ken Sweet, 'Flash Crash' Worries Go Global, CNN: MONEY (May 6, 2011, 11:09 AM), [http://money.cnn.com/2011/05/06/markets/flash\\_crash/](http://money.cnn.com/2011/05/06/markets/flash_crash/).

<sup>68</sup> Andrew W. Lo & Mark T. Mueller, *WARNING: Physics Envy May Be Hazardous to Your Wealth!*, 2010 J. INV. MGMT. 1, 33, <http://ssrn.com/abstract=1563882>.

<sup>69</sup> See Bernard S. Black, *Shareholder Passivity Reexamined*, 89 MICH. L. REV. 520, 520 (1990).

<sup>70</sup> See also Kunz & Martin, *supra* note 22.

<sup>71</sup> Under this model, the shareholder's purchase of stock may have very little to do with his knowledge or faith in the company. Rather, his purchase could be the result of his belief that (for whatever reason) that company's stock price will go up.

of market movement is not dictated by public companies' disclosures, but is instead based on quantitative formulas and inherent trading patterns. As will be discussed in the next section, this changing pattern is marked by a disaggregation between the security and the underlying company that it represents.

### III. A DIFFERENT SCORECARD

Traditionally, securities trading was based on an analysis that was always tied to the underlying security. Certainly, for many financial professionals, various theories were posited regarding trading patterns: whether a buy, hold, or sell recommendation was in order. Commentators put forth many different theories regarding how the market would behave or what the trading patterns would be, but, at their heart, all of these theories were tied directly to the fundamentals of an individual corporation (or even an industry). A few years ago, that all began to change.

#### A. *The Rise of Quantitative Trading*

In the book, *The Quants*, reporter Scott Patterson discusses the source of this change: the rise of quantitative analysis as a framework for trading in the market.<sup>72</sup> According to Patterson, this methodology was originally developed by Ed Thorp, who first applied it to blackjack.<sup>73</sup> However, it soon became clear that this methodology could be translated into the securities arena, with dramatic results.<sup>74</sup>

Quantitative trading is a type of computerized trading involving the buying and selling of securities based on complex formulas and algorithms that are tied to such varied indicators as the market as a whole, a particular industry, or even, perhaps, the weather,<sup>75</sup> rather than relying primarily on the

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<sup>72</sup> PATTERSON, *supra* note 24, at 40.

<sup>73</sup> *Id.* at 14–15.

<sup>74</sup> As Patterson notes, this transition was not always smooth. *Id.* For instance, many of the most serious market glitches were, at least in some way, tied to the use of quantitative analysis.

<sup>75</sup> The weather, of course, is not (one hopes) a primary factor for the algorithm process trades. However, given the legendary secrecy that shrouds “quant shops” and their formulas, it is hard to know what is in fact being used. *See, e.g.,* James Aley, *Wall Street's King Quant David Shaw's Secret Formulas Pile Up Money. Now He Wants a Piece of the Net.*, FORTUNE MAG. (Feb. 5, 1996), [http://archive.fortune.com/magazines/fortune/fortune\\_archive/1996/02/05/207353/index.htm](http://archive.fortune.com/magazines/fortune/fortune_archive/1996/02/05/207353/index.htm). Aley discusses the quant shops' trading formulas as follows:

The secrecy [in the firm] is understandable when it comes to the firm's proprietary technology—what Shaw calls “our life's blood.” Shaw's market-beating algorithms are so secret, even limited partners such as Morgan Miller (one of Shaw's earliest investors and an executive at National Spinning Co.) aren't entirely sure what's going on behind the curtain. “With most of the investments I have, I understand exactly what's going on. I don't with David,” says Miller. “It does bother me in a way. But it's something I can live with.”

fundamentals of the underlying companies. Different forms of computerized trading accomplish different goals. In one variant, computers are used to buy and sell at a rapid pace, performing arbitrage<sup>76</sup> between the bid and ask prices (which can sometimes be distinguished by fractions of pennies). The frequency, speed of transaction, and sheer volume represent the arbitrage that allows the trader to make his money.<sup>77</sup> One writer offers a succinct commentary on the rise of computerized trading:

As part of a high frequency trading (HFT) strategy, computer generated algorithms dominate daily trading volumes. Algorithmic trading uses computer programs to enter trading orders with the computer algorithm deciding aspects of the order, such as the timing, price, and quantity of the order, or in many cases, initiating the order without human intervention . . . . HFT firms may hold their position for a very short horizon and try to close the trading day in a neutral position. Therefore, HFT must be a type of algorithmic trading, but algorithmic trading need not be HFT.<sup>78</sup>

Algorithmic trading itself has now been incorporated into the securities industry at an institutional level, representing the dominant trading model at most hedge funds and being a significant part of the curriculum for a financial engineering degree. The premise behind algorithmic trading and its ascent into securities markets is based on the fundamental belief of many of its adherents that the market is run by a mathematical “truth” (creatively named the “Truth”). The perfect trading formula is one that captures this inherent truth of the markets and uses that truth to yield high returns for investors. The Truth, simply stated, is “a universal secret about the [w]ay the market worked that could only be discovered through . . . the study of obscure [mathematical] patterns in the market.”<sup>79</sup> As such, many traders in today’s markets are on a

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*Id. See generally* LEWIS, *supra* note 47; PATTERSON, *supra* note 24. Both Lewis and Patterson have both done a very good job of capturing the secrecy involved in this sub-section of the financial industry.

<sup>76</sup> Arbitrage means buying securities or foreign currency in one market and nearly simultaneously selling it in another market to profit from the difference in price. *Arbitrage*, MERRIAM-WEBSTER, <http://www.merriam-webster.com/dictionary/arbitrage> (last visited Oct. 8, 2015).

<sup>77</sup> The SEC’s recent regulation on decimalization had the unintended consequence of making this form of arbitrage even easier. *See* John Carney, *SEC Rethinks the Penny Tick in Stock Trading*, CNBC: NETNET (Feb. 4, 2013, 7:15 PM), <http://www.cnbc.com/id/100433013#> (“A task force formed in March 2012 found that decimalization had created an environment that favored the stocks of companies with highly liquid, very large capitalizations at the expense of smaller companies.”).

<sup>78</sup> Brown, *supra* note 16, at 209 (citations omitted).

<sup>79</sup> PATTERSON, *supra* note 24, at 8.

quest to find *the* formula that encapsulates that Truth and insulates its wielders from significant market failure.<sup>80</sup>

The pinnacle of the shift came with the institutionalization of this methodology at the academic level.<sup>81</sup> By the turn of the century, financial engineering programs that endeavored to develop algorithmic trading patterns were proliferating across the country.<sup>82</sup> These graduates, in turn, either went to work for large institutional investors (usually brokerage firms or hedge funds) or began to set up their own shop—getting investors to fund millions upon millions of dollars into these new trading models with the potential for incredible returns.<sup>83</sup>

Other indicia that the paradigm has changed from one of an investor to that of a consumer model is that the importance of dividends seems to have dwindled in the last few decades.<sup>84</sup> With a few noteworthy exceptions (Apple, Inc.<sup>85</sup> being the primary one), purchasers of securities rarely make their decisions based on the dividends that will be paid out by the company.<sup>86</sup>

Quantitative firms are notoriously secretive about the formulas and data needed to execute these strategies.<sup>87</sup> The formulas, once created, are protected with the same intensity and paranoia as some of the highest held trade secrets<sup>88</sup> or top level government security information.<sup>89</sup> As such, the derivation of these formulas and their processes have come to be known as the black box—trading patterns where unknown quantities and data sets are entered and high yields are produced and spat out on the other side.<sup>90</sup> The only thing that is

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<sup>80</sup> *Id.*

<sup>81</sup> *Id.*

<sup>82</sup> *Id.*

<sup>83</sup> *Id.*

<sup>84</sup> Huse, *supra* note 58.

<sup>85</sup> See Jeff Reeves, *Apple Stock Has Discovered Gravity—But Don't Sell*, SLANT (Nov. 6, 2012, 6:00 AM), <http://slant.investorplace.com/2012/11/apple-stock-has-discovered-gravity-but-dont-sell-aapl/>.

<sup>86</sup> Huse, *supra* note 58.

<sup>87</sup> See generally RISHI K. NARANG, *INSIDE THE BLACK BOX: THE SIMPLE TRUTH ABOUT QUANTITATIVE TRADING* (Arzhang Kamarei ed., 2009).

<sup>88</sup> PATTERSON, *supra* note 24.

<sup>89</sup> *Id.*

<sup>90</sup> So much so that the strategies have earned themselves nicknames such as “black box” or “dark pools” (two similar, but distinct, concepts). Rishi K. Narang defines the former as, “any system that is fed inputs and produces outputs, but whose inner workings are either unknown or unknowable.” NARANG, *supra* note 87, at 12 (emphasis added). In contrast, a dark pool is a mechanism that allows investors to shield their trades from the view of the securities markets allowing “investors operating with the dark pool [to] have access to information about a potential trade that other investors using public quotations do not.” Brown, *supra* note 16, at 217.

clear is that the amount of data being processed through these funds is enormous.<sup>91</sup>

Outsiders, therefore, know very little regarding what type of information is used for these formulas. However, what has become clear is that not much of the information relates to the corporation to which the security is attached.<sup>92</sup> What the corporation is doing, what its long-term prospects are, what its fundamentals or balance sheets contain matter very little (if at all) for these formulas.<sup>93</sup> In fact, given that many HFTs require that the position be liquefied at the end of *each day of trading*, one can see why the long-term fundamentals of a company would have very little to do with the actual trading.<sup>94</sup>

This disaggregation is at the heart of the shift from an investor paradigm to a consumer paradigm. Since it is clear that traders are buying stock for reasons that are fundamentally different than traditional retail investors, the investment prospects of the corporation, then the logical conclusion is that they are purchasing the particular stock solely for its gains—for its value as a product that is divorced from the company rather than as a proxy for the company itself.

Even more telling is Google's recent decision regarding the classes of stock that they offer. Traditionally, corporations have offered stock that allows stockholders to exercise voting rights. Google, in 2014, decided to issue a new class of stock, one that has no voting rights attached to it.<sup>95</sup>

This habit of buying and selling the thing itself is much more characteristic of a consumer rather than an investor. The trader is purchasing the stock for its value today and then selling the stock (like an informed connoisseur) before the value decreases. Admittedly, this is a fast-paced version of the consumer model but a version nonetheless.<sup>96</sup>

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<sup>91</sup> NARANG, *supra* note 87.

<sup>92</sup> *Id.*

<sup>93</sup> *Id.*

<sup>94</sup> *Id.*

<sup>95</sup> For Google, this is merely another step forward on the continuum. During their IPO, Google issued a different class of stock that, in effect, made sure that its founders stayed in control.

<sup>96</sup> The idea of thinking of financial products similar to tangible products (like a toaster) is not without precedent. For instance, in 2008, Senator Elizabeth Warren (who was, at the time, a Professor at Harvard Law School) and Oren Bar-Gill (an Associate Professor at NYU Law) wrote an article extending the notion of product safety beyond merely physical products to financial products (which, for Warren and Bar-Gill were credit products). The authors' position, as stated in the article, was that much in the same way that all physical products undergo a safety review, this type of framework should be extended to credit products. *See* Oren Bar-Gill & Elizabeth Warren, *Making Credit Safer*, 157 U. PA. L. REV. 1 (2008). In the end, thinking of purchasing stocks from a consumer rather than an investment paradigm opens up a whole new framework for re-imagining regulation of the stock markets.

The disconnect between an equity's position in the securities market and the underlying company's position in the overall commercial market is increasingly being recognized. For instance, one author reports that, "[e]quity markets are full of companies with powerful positions and sluggish stock prices."<sup>97</sup> The changed pattern of trading allows for traders to leverage bad performing assets and can ensure liquidity in the markets. However, these benefits can only be seen if the models—the formulas on which trades are based—perform as predicted. The 2009 financial crisis revealed the flaw in this thinking.

### B. *The Financial Crisis*

The 2007–2009 financial crisis was deemed by many to be a black swan—a statistically unpredictable disaster that, in the words of one commentator, “occur[s] so infrequently that they are virtually impossible to analyze using standard statistical inference.”<sup>98</sup> However, to others, this merely highlighted the flawed nature of the statistical prediction model of market performance and, in particular, its heavy reliance on the rational investor. Indeed, even financial engineers acknowledge the impact of behavioral economics on trading decisions. As Andrew W. Lo and Mark T. Mueller state, “the incentive structures of hedge funds, proprietary trading desks, and most non-financial corporations have a non-trivial impact on the attendant risks those financial institutions face.”<sup>99</sup> In other words, traders at these firms are often motivated not by gains to the market but by short-term greed to make decisions that affect millions.<sup>100</sup>

Moreover, the traditional use of hedging (leveraging against one security by buying another security with offsetting risks in order to diversify an investor's portfolio) has now become an end in and of itself rather than a means to maintain a stable portfolio.<sup>101</sup> In other words, while hedging used to be the way to create diversification, now hedging has simply become a new

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<sup>97</sup> Todd Zenger, *What Is the Theory of Your Firm?*, HARV. BUS. REV. (June 2013), <http://hbr.org/2013/06/what-is-the-theory-of-your-firm/ar/pr>.

<sup>98</sup> Lo & Mueller, *supra* note 68, at 37.

<sup>99</sup> *Id.* at 47.

<sup>100</sup> This greed may be rational and even benefit the market; however, when self-interest rather than market performance for investors motivates trades, this leads to a classic agency conflict issue, where traders may, in fact, put their own interests ahead of those upon whose behalf they are investing.

<sup>101</sup> Used in the way it was during the financial crisis, leveraging becomes another form of speculative trading. For further discussion on the role of hedging and its contribution to the crisis, see James Crotty, *Structural Causes of the Global Financial Crisis: A Critical Assessment of the 'New Financial Architecture'* (Univ. Mass., Dep't Econ., Working Paper No. 2008-14, 2008).

way to play the markets to get at the Truth of the market—and it would seem to create money where none existed before.<sup>102</sup>

All of these factors have combined to bring us to the point where disaggregation has now been embedded, on an institutional level, with the securities markets.<sup>103</sup> As a result, the shift from an investor paradigm to a consumer paradigm appears to be complete. Given this, having a market that is regulated by disclosure, which seems to only consider the investor paradigm, is dangerously out of step.

Not only does this paradigm shift the nature of regulation, but it also has serious ramifications for the underlying economic and legal theories upon which it is based. For instance, for years, scholars (and the courts) have advanced the Efficient Market Hypothesis (“EMH”) as a way of understanding (and, in some cases, monitoring) the securities markets. At its core, the efficient market posits that markets are so efficient that the trading price of a share accurately incorporates all of the current information about that stock. Some versions of EMH believe that such is the level of efficiency in the markets that any stock at any given time will accurately reflect the historical and current information about that company regardless of whether that information is public or non-public. In essence, the market knows all and your stock price knows what to do with that knowledge.<sup>104</sup>

In the end, the financial crisis brought to the forefront the debate in other parts of the academy regarding the role of quants and the relevance of the efficient market hypothesis.<sup>105</sup> As one scholar noted,

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<sup>102</sup> LEWIS, *supra* note 47.

<sup>103</sup> Henry G. Manne, *In Defense of Insider Trading*, 44 HARV. BUS. REV. 113 (1966).

<sup>104</sup> Of course, this idea of EMH is impacted greatly by what the market knows. For instance, it would seem that the level of efficiency that is tied to stock markets must, by definition, be related to stock prices. For support that the Efficient Market Hypothesis is no longer a valid claim, see Brian Milner, *Sun Finally Sets on Notion that Markets Are Rational*, GLOBE & MAIL (July 3, 2009, 7:40 PM), <http://www.theglobeandmail.com/globe-investor/investment-ideas/sun-finally-sets-on-notion-that-markets-are-rational/article4301916/> (“Nothing in the hypothesis can explain speculative bubbles and busts, bizarre stock valuations and the inconvenient truth that some shrewd investors can indeed do better than the market.”); see also JUSTIN FOX, *THE MYTH OF THE RATIONAL MARKET: A HISTORY OF RISK, REWARD, AND DELUSION ON WALL STREET* (2009).

According to Milner, the efficient market hypothesis has been “largely discredited,” and yet, many academics still discuss it, and many professors are still teaching it. See Milner, *supra*; see, e.g., STEPHEN J. CHOI & ADAM C. PRITCHARD, *SECURITIES REGULATION: CASES AND ANALYSIS* (4th ed. 2015). Milner also credits proponents of the EMH for “conjur[ing] up the wonderful world of derivatives, securitized mortgages and the like.” Milner, *supra*. While the implications of the EMH have huge potential ramifications, a fuller discussion of these consequences is outside the scope of this article. *Id.*

<sup>105</sup> Cf. Bainbridge, *supra* note 4 (stating that past market actions are wholly disconnected from the future).

Those who rail against the quants and blame them for the crisis believe that market behavior cannot be quantified and financial decisions are best left to individuals with experience and discretion. Those who defend quants insist that markets are efficient and the actions of arbitrageurs impose certain mathematical relationships among prices that can be modeled, measured, and managed.<sup>106</sup>

As Lo and Mueller write, “no statistical method can fully capture wholesale changes in financial institutions and discrete structural shifts in business conditions.”<sup>107</sup> Therefore, in response to the rapidly changing game, the question remains: what, if anything, has been done to ensure fairness in the market?

### C. *Different Game—Same Rules*

Notably silent from the previous section has been any mention regarding the SEC’s role in this changing market. That is because, by and large, there has been no role for the octogenarian agency. Throughout history, there have been repeated instances of games changing before the rules caught up with the new form of play. One can only hope that the SEC’s longstanding disclosure mission will also fall into this pattern—being seen later as a quaint system that can now be called antiquated.

As outlined above, there are many issues that disclosure can no longer catch. In addition, it appears that disclosure no longer functions to help the SEC with its primary mandate to protect investors by ensuring equal access to information, which is then used by investors to make informed decisions.<sup>108</sup>

Investor protection however, is not the SEC’s only stated mission. In fact, the SEC’s mission, stated in full, is to “protect investors, maintain fair, orderly and efficient markets, and facilitate capital formation.”<sup>109</sup> As Professor Barbara Black points out, this mission statement “identifies several strategic

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<sup>106</sup> Lo & Mueller, *supra* note 68, at 1; Robert C. Merton, *Financial Innovation and the Management and Regulation of Financial Institutions*, 19 J. BANKING & FIN. 461 (1995).

<sup>107</sup> Lo & Mueller, *supra* note 68, at 34.

<sup>108</sup> More recently, the SEC has expanded its focus for investor protection beyond its traditional scope. Typically, the SEC’s investigative focus is on corporations or individuals who either falsely disseminate or omit material information. Recently, however, the SEC has expanded its investigative reach by bringing fraud charges against a quant manager. According to the SEC, the quant manager failed to disclose an erroneous calculation that affected the fund’s formulas and calculations. While this may be a step in the right direction in that it focuses on key players that have heretofore been left out of many of the SEC’s investigative focus—namely the players in quantitative analysis—it is still mired in the old paradigm because it is still based on a fraud and, therefore, a disclosure model. Press Release, U.S. Sec. & Exch. Comm’n, SEC Charges Quant Manager with Fraud (Sept. 22, 2011), <http://www.sec.gov/news/press/2011/2011-189.htm>.

<sup>109</sup> *Investor’s Advocate*, *supra* note 3.

goals that include enforcing the federal securities laws, establishing effective regulation of trading markets and their participants, and facilitating investors' access to information."<sup>110</sup> Having a number of distinct priorities in its mission statement has often led to tension at the SEC when one priority seemingly comes into conflict with another.<sup>111</sup> Nevertheless, the SEC's mission is not fundamentally the problem. Or, more specifically, a new pattern of regulation could be instituted that could do a better job of fulfilling the SEC's mission. Or the mission itself could change.

Recently, even the SEC seems to be finally coming to the understanding that a strict disclosure model may not be enough. In 2010, the SEC proposed rules that set the stage for a potential shift (albeit an incredibly gradual one) from a primarily disclosure-based model to one that is more attuned to the market as a whole. The SEC issued a Concept Release<sup>112</sup> that requested feedback on high frequency trading.<sup>113</sup> In the wake of the financial crisis, the SEC began to examine high frequency trading. One reporter wrote:

Federal securities regulators are examining whether some sophisticated, rapid-fire trading firms have used their close links to computerized stock exchanges to gain an unfair advantage over other investors . . . . The SEC probe illustrates a bigger push by regulators to examine less transparent parts of the securities markets, such as the fast-growing area of so called high frequency trading.<sup>114</sup>

On March 8, 2013, the SEC took additional steps to address a more holistic market solution. The proposed rule, Regulation Systems Compliance and Integrity (Regulation SCI), provides a set of enforceable rules for other

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<sup>110</sup> Barbara Black, *Introduction: The SEC at 75*, 78 U. CIN. L. REV. 445, 447 (2009).

<sup>111</sup> *Id.* at 448.

<sup>112</sup> The SEC publishes Concept Releases to solicit comments from the public on a given subject to ascertain the need for future rules. *SEC Concept Releases*, U.S. SEC. & EXCH. COMM'N, <http://www.sec.gov/rules/concept.shtml> (last visited Oct. 8, 2015).

<sup>113</sup> Concept Release on Equity Market Structure, Securities Exchange Act Release No. 34-61358 (Jan. 14, 2010).

<sup>114</sup> Scott Patterson & Jean Eaglesham, *SEC Probes Rapid Trading*, WALL ST. J., Mar. 23, 2012, at A1. While the SEC's initial probe seems promising, the information may be stifled from the disclosure paradigm within which the SEC is primarily working. Under this framework, the SEC must examine whether information dissymmetries hurt investors, rather than examine whether or not the markets as a whole are hurt. This idea of protecting investors can be particularly problematic when it is the big investors themselves who are practicing the trading that can lead to market failure. Most trading by retail investors do not carry this risk. Notice how even with this conceptual release (and the discussion of high frequency trading), the perspective that the SEC is using is still a disclosure one. As a result, the SEC's analysis potentially misses a whole avenue of regulation and its ability to impact markets. In contrast, its most recent proposals with Regulation Systems Compliance and Integrity moves the discussion beyond mere disclosure, but these are still, at best, an incomplete solution.

market participants that require them to “carefully design, develop, test, maintain, and surveil systems that are integral to their operations. The proposed rules would require them to ensure their core technology meets certain standards, conduct business continuity testing, and provide certain notifications in the event of systems disruptions and other events.”<sup>115</sup> The primary goal of the rule is to provide some stability to the use of market participants’ relationship with technology and the impact of this technology on the market as a whole.<sup>116</sup>

The regulation is a step forward in that it specifically acknowledges and attempts to address the new players (high frequency traders), their new plays (the use of computerized trading), and the impacts these have on the game as whole. However, the proposed regulation does not go nearly far enough to address the systemic way in which these changes have fundamentally altered the game. Allowing for these fixes will, at most, provide a superficial and temporary solution that amounts to little more than treating the symptoms rather than finding a cure.

Further, on a micro level, the SEC tends not to focus on long-range patterns and practices. For example, former Secretary for the SEC Jonathan Katz notes that until 2009, “the SEC ha[d] never recruited, hired, and retained skilled people capable of performing quantitative analysis.”<sup>117</sup> Katz also observes that two of the biggest scandals of the previous decades were uncovered, not by staff at the Division of Enforcement, but by academics,

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<sup>115</sup> Press Release, U.S. Sec. & Exch. Comm’n, SEC Proposes Rules to Improve Systems Compliance and Integrity (Mar. 7, 2013), <http://www.sec.gov/News/PressRelease/Detail/PressRelease/1365171513148>.

<sup>116</sup> Zachary J. Ziliak, *Regulation Ahead: Advice and Options for Automated and High-Frequency Traders*, BLOOMBERG (Apr. 22, 2013), <http://www.bna.com/regulation-ahead-advice-and-options-for-automated-and-high-frequency-traders/>.

<sup>117</sup> Jonathan G. Katz, *Reviewing the SEC, Reinvigorating the SEC*, 71 U. PITT. L. REV. 489, 501 (2010). In 2009, the SEC created the Division of Economic and Risk Analysis (“DERA”). According to the SEC, DERA was created to integrate financial economics and rigorous data analytics into the core mission of the SEC. The Division is involved across the entire range of SEC activities, including policy-making, rule-making, enforcement, and examination. As the agency’s “think tank,” DERA relies on a variety of academic disciplines, quantitative and non-quantitative approaches and knowledge of market institutions and practices to help the Commission approach complex matters in a fresh light. DERA also assists in the Commission’s efforts to identify, analyze and respond to risks and trends, including those associated with new financial products and strategies. Through the range and nature of its activities, DERA serves the crucial function of promoting collaborative efforts throughout the agency and breaking through silos that might otherwise limit the impact of the agency’s institutional expertise. *About the Division of Economic and Risk Analysis*, U.S. SEC. & EXCH. COMM’N, <http://www.sec.gov/divisions/riskfin.shtml> (last visited Oct. 8, 2015). While DERA seems to be a step in the right direction, the SEC is still using these tools and goals within the current regulatory framework. In the end, if the SEC is still looking at regulating through issuer disclosures rather than on a more quantitative, proactive basis, all of the data in the world will not get at the heart of the problem.

going through publicly available information (in one instance, SEC filings).<sup>118</sup> As Katz notes, “[t]he SEC does not itself routinely analyze [those] or other filings in this way,” and concludes that “[a] regulator and the investing public must accept the fact that all frauds cannot be prevented, and that it is not always possible to detect them before they explode.”<sup>119</sup>

Katz’s assessment is correct. As someone with an insider’s perspective from the SEC,<sup>120</sup> I can firmly say that given the resources allocated to the agency and the potential for fraud, it is inevitable that fraud will occur.<sup>121</sup> But, that is all the more reason to change the game.

Instead of making fraud prevention its primary (or seemingly sometimes its sole mission), the SEC should instead focus on market stability. Having a quick way of reacting to the markets seems to be more in line with the trading patterns of today. While focusing on fraud is a laudable goal, focusing on the market would have a greater impact.<sup>122</sup>

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<sup>118</sup> Katz, *supra* note 117, at 496.

<sup>119</sup> *Id.*

<sup>120</sup> The Author worked as an attorney for the SEC’s Division of Enforcement from 2000–2005.

<sup>121</sup> Indeed, even with unlimited resources, there will always be someone out there who is smart enough to outwit the regulators and to stay ahead of the game.

<sup>122</sup> One of Katz’s solutions to what he labels as the problematic “DNA” of the SEC is to have the SEC develop the capacity to engage in empirical analysis. Katz, *supra* note 117, at 501. However, since the article’s publication, that seems to have changed. Currently, the SEC’s homepage has a link to a market structure page, which, according to the SEC is there “to promote better understanding of our equity markets and equity market structure through the use of data and analytics.” *Market Structure*, U.S. SEC. & EXCH. COMM’N, <http://www.sec.gov/marketstructure/> (last visited Oct. 8, 2015). The website allows users to “[r]eview current staff market structure research, use interactive data visualization tools to explore a variety of advanced market metrics produced from the Commission’s Market Information Data and Analytics System (MIDAS), download dozens of datasets to perform your own analyses, and further the dialogue through public feedback.” *Id.* Katz’s other proposals, including reorganizing the current structure of the SEC, also have merit. As Katz sees it, there should be one division that would “regulate retail market operations (business conduct) and a second division to regulate market structure and operations as well as firm safety and soundness (prudential regulation).” Katz, *supra* note 117, at 511. The idea, according to Katz, is modeled after the Australian “twin peaks” regulatory structure. *Id.* One of Katz’s final comments was that disclosure needed to get back to basics. As Katz notes, “the concept of disclosure has metamorphosed from the goal of providing investors with documents containing clear and comprehensive information into documents containing highly legalistic and all-encompassing statements designed to protect the issuer from future litigation.” *Id.* at 515. Clearly, Katz is correct in his assessment of the current disclosure regime. However, the issue arguably goes deeper than that. Even if one were to correct for the disclosure to make things easier for people to learn about a company, the issue would remain unresolved because—in short—no one’s listening. Quantitative traders are not trading primarily on corporate information or corporate disclosures. They are trading on market information and market disclosures. They are allowing the markets to set the price of a stock as separate and apart from the value of the underlying issuer. Making what the issuer has to say clearer is, in essence, too little too late.

#### IV. CHANGING THE RULES—TOWARDS A SYSTEMIC APPROACH TO REGULATION

Given the inherent trading patterns that have emerged in the last few years, it seems clear that, just as there is a disaggregation between the company as a company and the company as an investment vehicle, there is also a disaggregation between how people are trading in the markets and how the government is regulating the markets. Under a disclosure model, the SEC is regulating the wrong behavior. At its core, the disclosure model focuses on the fundamentals of a company when, in fact, the current securities markets have very little to do with a company's fundamentals.<sup>123</sup>

There are a number of different ways that the SEC (and other regulators who have similar missions) can approach regulation. In a recent article, Professor Kunz and I proposed a number of potential frameworks that can be advanced to allow for regulation:

Of primary importance is the question of who, or what, is being regulated. The model currently in place emphasizes oversight of corporate disclosure, which allows for easy identification of who is being regulated, but it limits oversight to a very narrow spectrum of market participants and seems to ignore the “what” portion of the equation. Any meaningful attempt at acclimating to this new trading environment must involve a seismic shift in the nature of regulation itself. To this end we identify three possible perspectives of viable regulatory paradigms that warrant further discussion and analysis. The first is of a regulatory structure that focuses exclusively on markets. The second is of a regulatory structure that focuses on the market participants, and the final consideration is of a regulatory structure that treats securities themselves as separate products from their corporate producer and regulates them as such.<sup>124</sup>

The three types of regulation would each advance the regulatory structure forward. However, whole market regulation (or, more precisely, a holistic approach to regulating the markets) would encompass all three of the perspectives (and whatever else is needed to bring about market stability). Admittedly, this style of regulation is furthest from what we currently use. Yet, it also is the style of regulation that would have the best chance of success. Therefore, this Part of the Article will advocate for a new paradigm to examine

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<sup>123</sup> The irony is that, under the mantra of *Dodge v. Ford Motor Co.*, 170 N.W. 668 (Mich. 1919), the *raison d'être* for the company itself is to serve as a profit maximizing machine for its shareholders. Now, however, it seems that we have become too impatient and are unwilling to rely on companies to achieve those ends for us. Instead we are using the securities markets as a means to achieve those ends for ourselves.

<sup>124</sup> Kunz & Martin, *supra* note 22, at 12.

securities regulation: whole market regulation. Under this approach, the focus shifts from regulating individual companies to regulating the market as a whole—its participants, its products but particularly, its systems, to make sure that market stability is maintained. Using this perspective when analyzing the SEC’s current regulatory framework can offer some stark insights into where our system of regulation is going wrong and how we can make it better.

A. *A Word About Whole Market Regulation*

Whole market regulation, at its core, focuses on systemic risk. Under this paradigm, the overall trading framework and patterns are examined. Traditionally, under our regulatory structure, the focus of regulation has been on the players involved in the markets. Within this framework, corporations have traditionally garnered the most regulatory ardor with other players (brokerage firms, market makers, exchanges, and the like) also being considered but less centrally so. Investors, for the most part, have been traditionally exempt from regulatory purview. In contrast, under a whole market scheme—the focus shifts from the *players* to the *game*. Under this new schema, *any* party (or player) can be subject to regulatory intervention, if they are seen as rigging the game. This would allow the SEC to be more nimble and proactive. Under this new schema, the agency would be able to engage in any action as appropriate in order to maintain fairness and integrity in the markets.

The advantage of a whole market system of market regulation is that it starts with where the market currently is: it can work with the consumer paradigm while still allowing for a mixed framework that goes beyond a consumer paradigm. In short, market regulation would change as the market changes; it would be flexible and adaptable. However, in order to do so, the SEC would need to be given sufficient delegated authority to adjust as the market adjusts. Given how fast the world has moved and continues to move, giving the SEC the tools to adapt is crucial.

The idea that systemic risk should be at the heart of our analysis in the equities markets is a late addition to the legal academic literature. Now, however, there is a growing consensus among legal academics that systemic risk must be a part of any analysis of legal responses to our corporate and securities structure, whether through changes to corporate governance<sup>125</sup> or through changes to the securities market.<sup>126</sup> Risk assessment as it pertains to the securities markets seems central to the analysis.

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<sup>125</sup> See, e.g., Lucian A. Bebchuk & Jesse M. Fried, *Paying for Long-Term Performance*, 158 U. PA. L. REV. 1915 (2010); Margaret M. Blair, *Corporate Personhood and the Corporate Persona*, 2013 U. ILL. L. REV. 785.

<sup>126</sup> See, e.g., Brett McDonnell, *Dampening Financial Regulatory Cycles*, 65 FLA. L. REV. 1597 (2013). Nonetheless, in order to be transformative to our regulatory agencies, the scholarship needs to examine three things: (1) the current trading patterns in the United States; (2) the current holding patterns of stock in the United States; and (3) the current state of systemic risk and risk

If nothing else, the financial crisis has shown that risk assessment needs to include systemic risks, not just the risk of individual sectors or corporations. Rather, the meltdown in 2007–2009 highlighted just how interdependent the markets were. Indeed, this can be most vividly shown in comparing how a corporation's stock did in the wake of the financial crisis with the corporation's internal health during that same period of time. However, the seeds for this disaggregation between the stock and a company's value were sown long ago. One of the most well-covered examples can be seen in the rise of Amazon.com in the 1990s. Analysts were initially flummoxed by the steady rise in Amazon stock for a period of at least 12 years,<sup>127</sup> despite the company never having posted a profit. While some of this could certainly be attributed to the company's potential (which has certainly proven true), it could also be seen as a complete disaggregation between the stock of the company and the company itself.<sup>128</sup>

Given then that risk assessment should be an integral part of the view of securities markets, how, then, do we quantify it? Many argue that the difficulty in calculating these risks means that this avenue should not be pursued. In the end, though, uncertainty does not mean unknown. Thus, there should be a number of tools that can be employed to project how the markets will do and in what way they need to be regulated beyond simply using disclosure.

This new solution does not completely dismiss the role of corporate scandals and corporate mismanagement—of course there is validity to the truth that some of the hits to the markets have occurred because of corporate mismanagement and that regulatory disclosure may, in fact, have prevented even more hits from happening. Still, there are two responses: first, the market seems better able, as a whole, to recover when the damage is done through individual corporate scandals (even when it's wave after wave of individual corporate scandals).<sup>129</sup> Second, there is no reason to assume that under another type of regulation—one that focuses on the market as a whole instead of on individual entities—we could not have achieved the same or an even better result than under a disclosure model. In short, an alternative regulatory

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assessment in the securities markets in the United States. To my knowledge, there is no scholarship in the legal academy that addresses all three issues.

<sup>127</sup> See generally *Interactive Stock Chart: AMZN*, YAHOO!: FIN., <http://finance.yahoo.com/echarts?s=amzn+Interactive> (last visited Oct. 8, 2015).

<sup>128</sup> According to news reports from the time, there were many reasons for Amazon's successful IPO. For instance, the 2001/2002 market was particularly favorable for technological stocks. In addition, commentators felt that Amazon was "riding an IPO resurgence that has reclaimed the market . . ." Dawn Kawamoto, *Amazon.com IPO Skyrockets*, CNET (Jan. 2, 2002, 4:43 PM), <http://www.cnet.com/news/amazon-com-ipo-skyrockets/>. In the end, much of Amazon's successful launch can be attributed to timing more than corporate promise or fundamentals.

<sup>129</sup> For instance, after the wave of accounting fraud scandals with Tyco, Enron, and Worldcom, the market as a whole still continued to climb.

structure could not only achieve many of the same ends as a disclosure-based system, but also build upon those achievements to get to something greater.

In the end, the solution has to be something that offers additional benefits that disclosure currently does not.<sup>130</sup> How the SEC fits into this analysis, however, is worth further examination.

*B. What, Then, for the SEC?*

The challenge of regulation in a rapidly changing world is not confined to the SEC. Nonetheless, the sheer breadth of what the SEC must regulate is enough to give one pause. The SEC, while not the exclusive regulator, is certainly the lead regulator of the U.S. securities markets. The securities markets are the heart of the financial market here in the United States, which is, in turn, at the heart of American economic stability. As such, how the SEC regulates (or fails to regulate) has a direct impact on the stability of American lives—as the financial crisis brought into stark light. Moreover, the markets that are subject to SEC regulation are arguably undergoing the most innovation in recent years. This is a potentially combustible combination, akin to a dodo bird watching over an android robot.

Flash trading provides a particularly stark contrast in the pace between regulators and the world that they regulate. Flash trading, a form of HFT, occurs when, after an order is placed by an investor, the exchange flashes the order for a split second to its members within the exchange. This gives the HFT firms a fraction of a second to decide and then execute the order.<sup>131</sup> If they choose not to exercise on the stock, then it will go out to the market at large. This type of trading is particularly advantageous to HFT because they can move through these orders with ridiculous speed.

To many, this gives flash traders an unfair advantage because the practice could be considered front-running.<sup>132</sup> It is unfair to the investors because they will not get the best price,<sup>133</sup> and it is unfair to the market because the HFT firms can use this information edge to trade ahead of pending orders.<sup>134</sup> Others claim that flash trading provides liquidity to the market. One thing everyone agrees on, however, is that flash trading is, well, fast.

In contrast, the SEC works at a much slower pace. Given the nature of government agencies and their attendant bureaucracies, the regulator's response

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<sup>130</sup> This Article does not attempt to answer these questions. Rather, I argue that there are many other potential solutions. Instead, my modest contribution is to argue that disclosure is both ineffective and onerous. Adding more disclosure will not make it more effective.

<sup>131</sup> James J. Angel et al., *Equity Trading in the 21st Century*, 1 Q.J. FIN. 1 (2011).

<sup>132</sup> *Id.* at 29–30.

<sup>133</sup> *Id.* at 27, 29–30.

<sup>134</sup> *Id.* at 30.

time to an event could be considered quick if it were mere months.<sup>135</sup> Even when confronted with fast moving issues (such as technological malfunctions in the market), the SEC's reaction speed is eclipsed by the speed with which the initial event (and resulting consequences) takes place.

The 2010 flash crash is one example of this. An SEC Regulator, when talking about the flash crash stated,

I don't think I found out about this in real-time, so this was probably a half an hour later, or an hour later. There's nothing that one can do in the middle of the day, . . . there's no button that we can press that says hey, stop, stop what's going on, so the markets are going to move the way the markets move.<sup>136</sup>

In a market with over one billion shares traded per day,<sup>137</sup> the losses that can occur when there is "no button to press" can be disastrous. However, moving beyond a disclosure-based regime to one that can track the markets as a whole and even respond with deliberate speed would be able to match the technological advances.<sup>138</sup>

There are many people who believe that the SEC's disclosure framework, despite its flaws, is still the best method for regulating the securities markets. For those proponents of a disclosure regime, the regulatory environment has secured the rights for investors in such a way that the investors now have a baseline of accountability. Under this analysis, the disclosure model diminishes the concern that companies will engage in rampant fraud because they know that there is a certain line below which they cannot fall.

This is a legitimate point. The theory behind disclosure is that it instills faith in the markets by providing a common denominator of information that all investors can access. Taking that information away would breed inherent mistrust in the system and lead to either investors discounting the price of securities (for the inevitable fraud that will occur) or leaving the markets entirely. However, one of the benefits of a whole market system is that it minimizes the need for corporations to engage in fraud. Once investors

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<sup>135</sup> The SEC's rulemaking process is one example of this. Most regulations take months (or sometimes years) to be implemented.

<sup>136</sup> *Money and Speed: Inside the Black Box (VPRO Backlight)*, YOUTUBE (Dec. 13, 2012), <https://www.youtube.com/watch?v=aq1Ln1UCoEU>.

<sup>137</sup> Even when the market is undergoing relatively mild trading losses, the sheer volume that this represents often ranges in the billions. See *Daily Market Summary*, NASDAQTRADER.COM, <http://www.nasdaqtrader.com/Trader.aspx?id=DailyMarketSummary> (last visited Oct. 8, 2015). When there are actual corrections or unusual volatility, the results are even worse.

<sup>138</sup> To be clear, this would be a radical change from our present structure. However, it is not without precedent in our federal government. For instance, the Federal Emergency Management Agency ("FEMA") has "quick response" teams for emerging crises. *Community Emergency Response Teams*, FEMA, <http://www.fema.gov/community-emergency-response-teams> (last visited Sept. 17, 2015).

understand that the market is being examined as a whole, it might instead instill confidence to buy securities, but only if investors understand that they are buying *securities as products*, not securities as investments in companies. Corporations, in turn, would be freed from the onuses of disclosure requirements that lead to many of the corporate pressures that often produce fraud. So long as we divine a system<sup>139</sup> that allows regulators to examine markets as a whole, combined with a rapid response system that allows them to intervene quickly in issues that could lead to wide systemic impacts, then a system of accountability can be maintained even under a whole market structure of regulation. Moreover, if the SEC has more time to regulate the market as a whole, then it can devote itself to activities like quantitative analysis of the market as a whole, which may uncover fraudulent behavior.<sup>140</sup>

Allowing for this new framework of disaggregation would provide another benefit: it would free corporations from the current profit maximization model that is predominate here in the United States and allow corporations the freedom to develop their corporate structure in ways they would like without being beholden to shareholders. Under this model it would be made clear that the shareholders are not buying an investment (or an ownership interest) in the company, but rather purchasing the stock on its own. Doing so would then allow other models to exist that are more mindful of socially conscious ideas (such as the current rise of B-Corps or LC3 business entities), while at the same time allowing for more traditional corporate structures to consider issues such as business and human rights issues without fear that it might result in a short-term price drop.

David Gruberg makes the point that not all market processes that affect the price of a security fall within the court's definition of "deception" in securities regulation.<sup>141</sup> This point in fact strengthens why there needs to be a new form of regulation. As mentioned earlier, many of the trading practices that relate to a disclosure system (i.e., were properly conducted within the disclosure system) were nonetheless the same practices that led to the financial crisis. If part of the SEC's mission were to protect the markets (which is not currently a part of its mission), then the practices that right now are legal *but* still unstable would be analyzed from a completely different framework. Instead of asking "does this provide adequate enough disclosure to protect investors," the relevant query could be whether this protects the market as a whole.<sup>142</sup> As such, under this proposed framework, all of the unstable (but

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<sup>139</sup> The details of this new system are beyond the scope of this Article.

<sup>140</sup> Cf. Katz, *supra* note 117, at 496 (noting that the discovery of major frauds came from academics who analyzed data from SEC filings and stating that "[t]he SEC does not itself routinely analyze these or other filings in this way").

<sup>141</sup> Gruberg, *supra* note 16, at 272.

<sup>142</sup> Also look at North Dakota's Publicly Traded Corporations Act—they have a statutory program to give investors more access and control. See North Dakota Publicly Traded Corporations Act, N.D. CENT. CODE ANN. § 10-35 (2007).

legal) market practices would, in fact, be challenged and, hopefully, new ways would be designed to ensure market stability.

The markets,<sup>143</sup> in their wisdom, might already be stepping towards a “beyond disclosure regime.” For example, “tracking stock,” in the world of securities, is a relatively new and (still) underwritten phenomenon. Tracking stock is stock that is issued by a company that relates (or tracks) to one particular division of the issuer.<sup>144</sup> The issuer (and, to some extent, the parent company’s shareholders) still retains control over the division and the management of that division; however, the money that is generated from that corporate issuance is separated on the financials and allocated simply to that specific division.<sup>145</sup> In their article, Peter H. Huang<sup>146</sup> and Michael S. Knoll<sup>147</sup> present a number of different ways that tracking stock can be used, such as reducing agency costs (by aligning investors with specific division incentives) and separating out divisions whose financials are more opaque (and therefore difficult to value and allow for specific stock-based incentives for managers of that unit).<sup>148</sup>

## V. CONCLUDING THOUGHTS AND UNANSWERED QUESTIONS

This new approach is not without its challenges. Because of the fundamental shift that would need to take place, there are many challenges (both seen and unseen) that will inevitably rise when this amount of disruption is put into the system. While addressing all these challenges is beyond the scope of this Article, below I provide a few highlighted issues (that I hope others will wrestle with) and offer my preliminary thoughts on the matter.

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<sup>143</sup> In addition to the markets, other government agencies have recognized that the financial regulatory system in the United States needs to be overhauled. For instance, in the initial wake of the current financial crisis, the Department of Treasury released a report entitled *Blueprint for a Modernized Financial Regulatory Structure*. Press Release, Dep’t of the Treasury, The Department of Treasury Blueprint for a Financial Regulatory Structure (Mar. 2008), <http://www.treasury.gov/press-center/press-releases/Documents/Blueprint.pdf>. Although the report contains sweeping and far-reaching recommendations, Professor Seligman forecasted that the report would most likely not be adopted. Seligman, *supra* note 60, at 673. Indeed some of the proposal recommendations are more than likely made moot by the Dodd-Frank Act. For instance, Treasury’s recommendation that there be created a Conduct of Business Regulatory Agency which would, in part, have a role in consumer protection, seems to have become subsumed within the creation of the Consumer Financial Protection Bureau.

<sup>144</sup> For a fuller discussion of tracking stock, see Peter H. Huang & Michael S. Knoll, *Corporate Finance, Corporate Law and Finance Theory*, 74 S. CAL. L. REV. 175, 187–88 (2000).

<sup>145</sup> *Id.*

<sup>146</sup> *Id.*

<sup>147</sup> *Id.*

<sup>148</sup> *Id.* Tracking stock, however, might have another unintended consequence, namely the further separation of the security from the underlying asset.

At its core, a paradigm shift of this magnitude requires us to question, at the most fundamental level, the purpose of securities regulation. For instance, when we discuss regulating the securities markets we often use the adage of “protecting investors,” but what does that look like when investors themselves are causing the problems in the securities markets? As mentioned earlier, investors are not a “one size fits all” commodity. Different investors have different power bases and are thus able to access and leverage the markets differently. How then do we maintain a regulatory structure that takes into account all of the different market participants and their ability to affect the market (for good or for ill)?

A similar question relates to the beneficiaries of the markets. Specifically, who are the intended beneficiaries supposed to be—the capital markets?<sup>149</sup> If it is the investors, what does that lead to? As Professor Barbara Black has stated “[e]ven a hypothetical single purpose of investor protection presents the question of what investors the agency should be protecting, because investors are not a monolithic group with identical interests.”<sup>150</sup> Finally, translating these issues within the current regulatory environment would require an examination of our current structures from a critical, indeed a surgical, standpoint in which we have not yet engaged. For instance, the impact of whole market regulation goes to the heart not only of what we regulate but, moreover, the process by which we regulate. Currently, our general approach to regulation can be seen as top-down. Some scholars have reflected on the inadequacy of this approach to financial regulation. For instance, Professor Olufunmilayo Arewa has noted, “[c]urrent financial market regulatory structures often reflect top-down approaches. Sources of financial market risk, however, may go much deeper in organizations, including down to the level of individual traders embedded in highly complex networks.”<sup>151</sup> Similarly, the intended beneficiaries of the financial regulation that is being produced are

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<sup>149</sup> Pritchard seems to be arguing that, in addition to the wrongdoers, the regulation should focus on the investors themselves and the decisions that they make, particularly the decisions with regard to a lack of diversification. As Pritchard notes (rather cynically), “[p]olicy will continue to focus on throwing the books at the wrongdoers.” Pritchard, *supra* note 7, at 1098.

<sup>150</sup> Black, *supra* note 110, at 448. Although the typical delineation between investors is usually done between retail and institutional investors, Professor Black has another interesting take on the type of variety there can be among investors. She points out that:

Current shareholders in a corporation, for example, may not want the managers to disclose publicly the corporation’s current financial difficulties because it would result in decreased stock prices and might further damage the corporation. Potential investors in the corporation, conversely, want timely, forthright disclosure of all information material to an assessment of the corporation’s prospects.

*Id.*

<sup>151</sup> Olufunmilayo B. Arewa, *Financial Markets and Networks—Implications for Financial Market Regulation*, 78 U. CIN. L. REV. 613, 624 (2009).

often much more deeply embedded in the economy and the community than the promulgators of this top-down approach are aware.

Another thing to keep in mind is that very little about what caused the financial crisis could be linked back to the things that the disclosure regime is designed to regulate. Instead, the financial crisis was caused by bad securities, but what does that mean—bad securities? How they are packaged? The value of the underlying asset and industry? If so, then having a regulatory system that acknowledges securities as a product (largely divorced from the company) may be a way to understand what we value.

There is a strong need in the securities market for a comprehensive regulatory framework that takes into account not just the securities market as an investment paradigm, but also the securities market as a consumer paradigm—a regulatory framework that takes into account the systemic risks of the markets rather than the individualistic risks of public corporations. Otherwise, we run the risk of leaving untreated the causes that created the financial crisis. Changing our structure would require an engagement with *all* pieces from a thoughtful and open viewpoint. Truthfully, there have not been many instances of success with such a fundamental approach. But that doesn't mean it should keep us out of the game.