Commissioner Luis A. Aguilar

Washington, DC

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Good afternoon. Thank you for that kind introduction. Before I begin my remarks, let me issue the standard disclaimer that the views I express today are my own, and do not necessarily reflect the views of the U.S. Securities and Exchange Commission ("SEC" or "Commission"), my fellow Commissioners, or members of the staff.

I am pleased to be here today. As a practicing securities lawyer for more than thirty years, I have in the past advised boards of directors, including mutual fund boards, and I am well acquainted with the important work that you do. I also understand the essential role that independent directors play in ensuring good corporate governance. As fiduciaries, you play a critical role in setting the appropriate tone at the top and overseeing the funds' business. Thus, I commend the Mutual Fund Directors Forum's efforts in providing a platform for independent mutual fund directors to share ideas and best practices. Improving fund governance is vital to investor protection and maintaining the integrity of our financial markets.

There are a number of issues that are important to the asset management industry, including the Commission's recently proposed reforms to money market funds and the need to move quickly to adopt rules improving disclosure in the marketing of target date retirement funds.[1] However, today I would like to focus my remarks on the following topics:

- First, the need to utilize the Commission's expertise in overseeing the asset management industry, including evaluating the risks that the industry may pose to our financial markets;
- Second, the need to review our current market structure to ensure that the trading markets operate in a manner that is both transparent and fair; and
- Finally, the need to address the growing cyber-threat to the capital markets.

Oversight of the Mutual Fund Industry

History of the SEC's Regulation of the Mutual Fund Industry

The investment company concept dates back to the late 1700s in Europe.[2] Later, the emergence of the "investment pooling" concept in the 1800s in England resulted in the fund concept being brought to the United States, which helped develop our nation's post-Civil War economy.[3] In 1924, the first open-end mutual fund was introduced in the United States, along with the innovative ideas of the simplified capital structure, the continuous offering of shares, and the ability to redeem shares.[4]

A few years later, the stock market crash of 1929 and the Great Depression exposed the significant risks that arose from the widespread abuse in the securities industry, in which half of the $50 billion in new securities offered during that period became worthless.[5] As a result, investor confidence plummeted and Congress held hearings over years to determine the causes of the crash.[6] Based on the evidence and findings gathered in those hearings, Congress created the Securities and Exchange Commission and passed a number of landmark securities laws to create market and financial product transparency and to prevent investor harm and exploitation.[7] These laws included the Securities Act of 1933, the Securities Exchange Act of 1934, and a few years later, the Investment Advisers Act of 1940 and the Investment Company Act of 1940.[8]

Approximately 75 years have passed since that time and the mutual fund industry—and its regulation by the SEC—has had a long and synergistic history. In particular, the Commission has served as the watchdog for the capital markets, and has worked to implement the strong regulatory framework set out by Congress for the mutual fund industry. Today, the mutual fund industry in the United States is a vibrant and well-developed component of the world's financial sector, offering investors a wide array of investment alternatives to meet their financial planning needs, such as saving for college and retirement. In fact, the U.S. mutual fund market, by itself, is the largest in the world and accounts for 49% of the $26.8 trillion in mutual fund assets held worldwide.[9]

The SEC's oversight of this industry continues through, among other things, rulemaking, examinations, and enforcement.

To name just a few examples in the rulemaking space, in the last few years the Commission has adopted rules to enhance the custody practices of investment advisers,[10] rules to prohibit pay-to-play activities in the investment advisory industry,[11] amendments enhancing Commission oversight of certain private fund advisers,[12] and, in 2010, the Commission significantly reformed money market funds.[13] Moreover, as is well known, we are currently considering additional reforms to money market funds.[14]

In addition to its rulemaking responsibilities and activities, the SEC is responsible for the examination of over 10,000 investment advisers with more than $48 trillion of assets under management, as well as more than 800 registered investment company complexes.[15] The SEC has approximately 450 examiners, accountants, and lawyers located throughout all 12 SEC offices dedicated to examining investment advisers and investment companies.[16]

The Commission is also devoting significant resources to financial data and research. To that end, the Commission's Division of Economic and Risk Analysis ("DERA") provides support on data analytics to various operating segments of the SEC, including rulemaking, enforcement, and examinations.[17] In particular, DERA has an Office of Asset Management that is dedicated to providing analytical support on issues relating to the regulation of investment advisers, investment companies, hedge funds, and other institutional investors.[18]

The Commission has also been active in bringing various enforcement actions. For example, over the past three years, the SEC has brought more than 430 cases relating to investment advisers and investment companies, some of which involved mutual funds and their advisers.[19] For example:

- In November 2013, the SEC brought fraud charges against Ambassador Capital Management, an investment advisory firm, and a portfolio manager for misleading the trustees of a money market fund,[20] and for failing to comply with rules that limit risk in a money market fund's portfolio.[21]
- In May 2013, the SEC charged several gatekeepers—the fund trustees, chief compliance officer, and fund administrator—of certain Northern Lights trusts for causing false or misleading disclosures about the factors they considered when approving or renewing investment advisory contracts.[22]

I mention all of these aspects of the Commission's activities in the asset management industry—rulemaking, examinations, and enforcement—to highlight the proactive role of the Commission. And, going forward, I expect the Commission to continue to focus a significant portion of its resources to overseeing investment companies and investment advisers.

FSOC and OFR's Recent Foray into the Money Market Fund and Mutual Fund Industry

Recently, however, the Commission's authority in the mutual fund industry—an industry in which the SEC has capably served as the primary regulator for almost 75 years—has been undercut by the activities of the Financial Stability Oversight Council ("FSOC")[23] and its research arm, the Treasury

Department's Office of Financial Research ("OFR").[24] In particular, FSOC has focused its sights on various aspects of the asset management industry. Obviously, this is an area where the SEC has a great deal of expertise.

Initially, FSOC focused on money market funds. FSOC's attention to this issue began in 2010,[25] shortly after FSOC was created by the Dodd-Frank Act.[26] Specifically, FSOC called for reforms to address what it viewed as structural vulnerabilities in money market funds that left them susceptible to shareholder runs.[27]

As this group knows, the financial crisis of 2008 put pressure on various money market funds, with the most public example being The Reserve Fund "breaking the buck" in September 2008.[28] In response, in 2010, the Commission acted to adopt amendments to make money market funds more resilient to short-term market risks and provide greater protections for investors.[29] In late 2011 and early 2012, the SEC began to consider further money market reforms. However, at that time, a majority of the Commission felt it was appropriate, and responsible, to study the effects of the Commission's 2010 amendments regarding money market funds before taking additional action. Also at that time, the SEC staff informed the Commission that it could complete such a study in only five to six weeks. For reasons I have never understood, the SEC staff was not authorized to do the study until late in 2012, and the study was not made available to the Commissioners until November 30, 2012, after the announcement of the then-Chairman's departure. However, after receiving this study, and the data it contained, the Commissioners began productive discussions that led to a set of proposals to further reform the money market fund industry. The full Commission *unanimously* approved these proposals on June 5, 2013.[30] The SEC staff continues to work on this matter and, just last week, published additional data analyses relating to money market fund reform.[31] I am hopeful that the final rules will soon come to a vote. It is important for the Commission to bring closure to this issue and I am pleased that real data is being utilized in the process.

More recently, FSOC and OFR have focused on a wider swath of the asset management industry. In particular, FSOC charged OFR with studying the activities of asset management firms in order to aid FSOC in deciding whether to subject certain aspects of the industry to enhanced prudential standards and supervision.[32] In September 2013, OFR published what it considered a study of the asset management industry.[33] I recommend that you read the report in its entirety; however, in sum and substance, the report concluded that asset management firms and their activities "introduce vulnerabilities that could pose, amplify, or transmit threats to financial stability."[34]

The report should not take you very long to read. The OFR report, which purported to analyze the risks posed by the *entire* multi-faceted asset management industry, is only 34 pages long, and the report virtually ignored the hedge fund industry and the private equity industry.[35] By contrast, the SEC staff's November 30, 2013 study, which focused only on certain aspects of money market funds, was 98 pages long.[36]

Although neither FSOC nor the OFR chose to solicit public comment on the report, the report was posted on the SEC's website and public comments were solicited. Subsequently, OFR's report received near universal criticism from academics, investor advocates, lawmakers, asset management firms, industry groups, and others. The criticisms generally referred to the report's quality, research, and analysis.[37] For example, according to commenters:

- First, the report has significant factual and analytical defects that rendered it unreliable as a basis for making policy determinations.[38]
- Second, the report failed to draw a clear line between asset managers and the funds they manage.[39] As one commenter noted, this line is important because mutual funds are organized separate and apart from their investment advisers and other funds in the same complex.[40] As another commenter pointed out, asset managers act as agents for their clients, whose assets are held by custodians and not by the asset manager[41] and asset management firms do not present systemic risk at the company level.[42]

- Finally, according to a bipartisan group of Senators in their joint letter to the U.S. Department of the Treasury, "[t]he OFR Study mischaracterizes the asset management industry and the risks asset managers pose, makes speculative assertions with little or no empirical evidence, and in some places, predicates claims on misused or faulty information."[43]

The concerns voiced by commenters and lawmakers raise serious questions as to whether OFR's report provides an adequate basis for FSOC to designate asset managers as systemically important under the Dodd-Frank Act, and whether OFR is up to the tasks called for by its statutory mandate. As one commenter observed, OFR has been "expected to set the gold standard for independent, rigorous, unimpeachable, and sophisticated analysis of the financial system."[44] The criticism of the report has caused some observers to question OFR's rigor for analysis, as well as its objectivity.[45] As one commenter observed, "the numerous flaws in the [OFR] Report indicate that the writers of the Report may not have fully taken advantage of the SEC's comprehensive understanding and knowledge of the asset management industry."[46] This view is consistent with what I have heard at the SEC.

Unfortunately, the Commission, as a body, does not have input or influence into what FSOC or OFR says or does. Only the SEC's Chair or her designee participates in FSOC meetings.[47] None of the Commissioners attends FSOC meetings, nor are we invited. Additionally, SEC staff may be working quite closely with staff of other FSOC member agencies and OFR staff on the SIFI designations, but the Commissioners are not involved in this process. Rather, we generally receive a quick 5-10 minute oral description of the FSOC agenda the day before a meeting, as well as a high-level, after-the-fact description of what occurred at the FSOC meetings, and only once every few months. Thus, my fellow Commissioners and I have very little control or input over the content and output of projects undertaken by FSOC, as well as the behavior, inputs, and conclusions supplied by others from the SEC working with FSOC and OFR.

The Need to Use the Commission's Expertise in Regulating the Mutual Fund Industry

However, rather than continuing to discuss the merits of the research and analysis—or lack thereof—in OFR's report, I would simply note that there needs to be a mechanism by which the full Commission, not just the Chair and SEC staff, provide meaningful input and coordinate with the leadership of FSOC and OFR. The Dodd-Frank Act envisions such coordination; for instance, the Dodd-Frank Act contemplates that federal agencies, including the Commission, would assist OFR on its work upon request.[48] I do not think that assistance should be limited to one representative of the Commission, or limited to the SEC's staff. Clearly, the expertise and judgment that the securities laws imbues in the presidentially appointed, Senate-confirmed Commissioners is undercut when there is an end-run around the Commissioners tasked with running the SEC.

Let me be clear, the work of FSOC and OFR to identify and mitigate systemic risk is important. However, there is real danger in that work being compromised if the full five-member Commission is cut out of the process. The SEC and our fellow regulators should assist FSOC's efforts in a thorough and objective manner. My interest is in making sure that the full expertise and judgment of the Commission—and all the Commissioners—is being utilized, and that our authority and expertise are not being undercut. For the protection of our economy, financial regulators across the U.S. federal government have to work together to address risks and threats to the stability of our financial markets.[49]

Before leaving the subject of the OFR report, I note that just last Friday, the Department of the Treasury announced that FSOC will hold a conference in May on the asset management industry and its activities.[50] While I welcome the effort to better understand the asset management industry, this does not address the issues arising from the criticisms of the OFR report's quality, research, and analysis, or the issues that arise when the SEC's decision makers are excluded from the process. FSOC and OFR should acknowledge the Commission's—and, in particular, the Commissioners'—role as the primary regulator of the asset management industry.

Reviewing Market Structure to Maintain Transparency and Fairness

I would like to spend a few minutes discussing mutual funds and the ongoing debate about equity market structure. Unfortunately, as many of you know, there is a growing perception that the trading markets do not appropriately serve the interests of all investors. As a result, many investors and investor advocates have expressed serious concerns about the way that the trading markets are operating.[51] For example, some have raised concerns that the trading markets may not treat all investors fairly, and that they have become too fragmented, too fast, and too complex.[52]

One aspect of the current market structure debate that has garnered significant interest from the mutual fund industry and others is the trading fee structure known colloquially as "maker-taker,"[53] which has become the standard pricing model for stock exchanges and other trading venues.[54] The maker-taker model was first used by electronic communication networks in the 1990s as a way to attract more liquidity to their systems, and the large, well-established exchanges began using this model during the mid- to late-2000s.[55] Under the maker-taker model, buyers and sellers who submit standing limit orders or quotes are paid rebates, and those who "take" that liquidity by submitting immediately executable marketable orders are charged a fee by the trading venues to which those orders are routed.[56] In just a few years, the maker-taker model has become an entrenched part of our market structure.[57]

Proponents of the maker-taker model argue that the system increases competition and attracts liquidity providers.[58] In addition, they say that the maker-taker model lowers costs for investors, eases the trading of shares,[59] provides better execution, and improves quoted prices.[60]

However, as broader concerns about our market structure have recently come to the fore, questions about the maker-taker model have emerged from various sectors of the capital markets. Many have observed that the maker-taker model may present a conflict of interest between brokers and their customers because broker-dealers are incentivized to send customer orders to the venue that pays the best maker-taker rebate, and not necessarily the venue that provides best execution.[61] Some have argued that in order to mitigate this conflict, broker-dealers should be required to pass the maker-taker rebates they receive to their customers.[62] Another criticism of maker-taker is that it produces quoted spreads that do not represent actual trading costs, thereby decreasing transparency, and could potentially confuse investors about the true costs of trading.[63] Others claim that maker-taker has contributed to a market structure in which order execution is too fragmented among exchanges, dark pools, and broker-dealers that execute orders internally,[64] and that it has incentivized some market participants, including high-frequency traders, to trade primarily, if not solely, to profit from collecting maker-taker rebates.[65] These concerns should also be taken seriously by the mutual fund industry, since these entities are some of the largest buyers and sellers of equities.

As I said recently, the Commission needs to consider seriously whether the current equity market structure is working for all investors.[66] Of course, any comprehensive market structure review would require a close examination of the maker-taker model and any resulting conflicts between broker-dealers and their customers. To that end, one idea that the commenters have recommended is a pilot program in which maker-taker rebates would be temporarily prohibited for certain securities.[67] The idea is that such a pilot program would allow the Commission and others to study the effects of the maker-taker model on order routing practices, transparency, and other metrics, and would help inform the discussion on whether the maker-taker model needs to be changed or eliminated.

I am hopeful that the Commission will take a serious look at this proposal and have requested the staff of our Division of Trading and Markets to devote time in the near term to this issue. As we continue to consider this and other questions regarding our equity trading markets, it is important that the Commission considers the views of the mutual fund industry and, in particular, their investors. After all, it is their investments that fuel our economy.[68] Accordingly, I encourage each of you to work within your organizations to facilitate the expression of those views.

Addressing the Growing Cyber-Threat

The last topic I want to touch on today involves the increasing concerns regarding cyber-threats.[69] There is no shortage of evidence that the constant threat of cyber-attack is real. It is here to stay and cannot be ignored. One of the most prominent examples of the wide-ranging and potentially devastating effects that can result from cyber-attacks is the December 2013 data breach of Target Corporation.[70] In addition, cyber-attacks on financial institutions appear to have become both more frequent and more sophisticated.[71]

Mutual funds and their advisers are not immune to the ever-present threat of cyber-attacks. One significant cyber-risk that has been mentioned is the risk of hackers gaining unauthorized access to funds' systems and communications to steal information about funds' investment strategies and pending transactions.[72] This information can be used by hackers to front-run large, market-moving trades, among other things.[73] Another risk is that third-party service providers—such as transfer agents, custodians, and administrators—will be the subject of cyber-attacks, which, though several steps removed from the fund company itself, could nevertheless cause harm to the fund and its investors.[74]

For these and other reasons, I know cyber-security is an important area of concern to fund boards and advisers.[75] It is a serious concern to the SEC too. Just last week, the Commission held a Roundtable to develop a better understanding of these growing risks and to facilitate discussion about the ways in which regulators and industry can work together to address them.[76] I will also note that the SEC's Office of Compliance and Examinations announced that cybersecurity would be an exam priority. You should expect that SEC examiners will be reviewing whether asset managers have policies and procedures in place to prevent and detect cyber-attacks and whether they are properly safeguarding their systems against security risks.[77]

Cybersecurity is an area that will only grow in importance, and fund boards need to get out in front of the problem to help prevent and mitigate investor harm.

Conclusion

I will conclude my remarks where I started. I have a great deal of respect for the contributions of independent directors to good governance. Your efforts are crucial to restoring investor confidence, which is even more important as we continue to emerge from the financial crisis and face the new challenges, risks, and threats that lie ahead. After all, public trust is the foundation on which our financial markets are built.

Thank you for the opportunity to be here with you today.

[1] SEC Release No. 33-9408, *Money Market Fund Reform; Amendments to Form PF* (June 5, 2013), *available at* http://www.sec.gov/rules/proposed/2013/33-9408.pdf; SEC Release No. 33-9126, *Investment Company Advertising: Target Date Retirement Fund Names and Marketing* (June 16, 2010), *available at* http://www.sec.gov/rules/proposed/2010/33-9126.pdf.

[2] Investment Company Institute, *2013 Investment Company Fact Book*, Appendix A, p. 204 (discussing the origins of pool investing), *available at* http://www.icifactbook.org/pdf/2013_factbook.pdf.

[3] *Id.*

[4] *Id.* at 205.

[5] SEC Article, *The Investor's Advocate: How the SEC Protects Investors, Maintains Market Integrity, and Facilitates Capital Formation*, *available at* http://www.sec.gov/about/whatwedo.shtml.

[6] *Id.*

[7] *See id.*

[8] *See supra* note 2, p.205 (discussing the origins of pool investing).

[9] *Id.* at 24-25.

[10] SEC Release No. IA-2968, *Custody of Funds or Securities of Clients by Investment Advisers* (Dec. 30, 2009), *available at* http://www.sec.gov/rules/final/2009/ia-2968.pdf. More recently, the SEC has passed rule amendments to strengthen the custody practices of broker-dealers, SEC Release No. 34-70073, *Broker-Dealer Reports* (July 30, 2013), *available at* http://www.sec.gov/rules/final/2013/34-70073.pdf.

[11] SEC Release No. IA-3043, *Political Contributions by Certain Investment Advisers* (July 1, 2010), *available at* http://www.sec.gov/rules/final/2010/ia-3043.pdf.

[12] SEC Release No. IA-3221, *Rules Implementing Amendments to the Investment Advisers Act of 1940* (June 22, 2011), *available at* http://www.sec.gov/rules/final/2011/ia-3221.pdf.

[13] SEC Release No. IC-29132, *Money Market Fund Reform* (Feb. 23, 2010), *available at* http://www.sec.gov/rules/final/2010/ic-29132.pdf.

[14] SEC Release No. 33-9408, *Money Market Fund Reform; Amendments to Form PF* (June 5, 2013), *available at* http://www.sec.gov/rules/proposed/2013/33-9408.pdf.

[15] SEC Article, *About Office of Compliance Inspections and Examinations, National Exam Program: Offices and Program Areas*, *available at* http://www.sec.gov/ocie/Article/about.html.

[16] *Id.* When the examination staff uncovers potential misconduct during the course of its work, it refers the matter to the Division of Enforcement for investigation. In Fiscal Year 2013, the SEC's Office of Compliance Inspections and Examinations made more than 200 such referrals, many of which resulted in enforcement actions. *See* U.S. Securities and Exchange Commission, *Fiscal Year 2013 Agency Financial Report*, p. 23 (Dec. 12, 2013), *available at* http://www.sec.gov/about/secpar/secafr2013.pdf.

[17] SEC Article, *About Division of Economic and Risk Analysis*, *available at* http://www.sec.gov/dera/Article/about.html.

[18] *Id.*

[19] *See* SEC Year-by-Year SEC Enforcement Statistics, *available at* http://www.sec.gov/news/newsroom/images/enfstats.pdf.

[20] SEC Press Release, *SEC Announces Fraud Charges Against Detroit-Based Money Market Fund Manager* (Nov. 26, 2013), *available at* http://www.sec.gov/News/PressRelease/Detail/PressRelease/1370540414950.

[21] *Id.*

[22] SEC Press Release, *SEC Charges Gatekeepers of Two Mutual Fund Trusts for Inaccurate Disclosures About Decisions On Behalf of Shareholders* (May 2, 2013), *available at* http://www.sec.gov/News/PressRelease/Detail/PressRelease/1365171514096.

[23] In 2010, as a result of the recent financial crisis, Congress passed the Dodd-Frank Act. This law was designed to prevent future financial crises by, among other things, reducing systemic risks and increasing transparency in the marketplace. As part of achieving that purpose, the Dodd-Frank Act created the Financial Stability Oversight Council (FSOC) to identify and address risks and threats to our nation's financial stability. *See* Sections 152 and 153 of the Dodd-Frank Act. One of FSOC's most potent tools is its ability to designate U.S. nonbank financial companies for supervision by the Federal Reserve, and to subject these companies to prudential standards. *See* Section 113(a)(1) of the Dodd-Frank Act. These prudential standards include, among other things, risk-based capital requirements, leverage limits, and liquidity requirements. *See* Section 115(b)(1)(A)-(I) of the Dodd-Frank Act. In addition, nonbank financial companies that are designated as systematically important by FSOC would likely be subject to enhanced regulation by their primary regulators. *See, e.g.*, SEC Release No. 34-71669, *Standards for Covered Clearing Agencies* (Mar. 12, 2014), *available at* http://www.sec.gov/rules/proposed/2014/34-71699.pdf.

[24] The Dodd-Frank Act created OFR to provide FSOC and its member agencies with financial data and research. *See* Sections 152 and 153 of the Dodd-Frank Act.

[25] In October 2010, the President's Working Group on Financial Markets published a report on money market fund reform options, which detailed a number of options for money market reform that the President's Working Group requested be examined by FSOC. *See Report of the President's Working Group on Financial Markets: Money Market Fund Reform Options* (Oct. 2012), *available at* http://www.treasury.gov/press-center/press-releases/Documents/10.21%20PWG%20Report%20Final.pdf. In addition, FSOC highlighted its focus on structural vulnerabilities of money market funds in its 2011 and 2012 annual reports. *See* FSOC, *2011 Annual Report*, *available at* http://www.treasury.gov/initiatives/fsoc/documents/FSOCAR2011.pdf; FSOC, *2012 Annual Report*, *available at* http://www.treasury.gov/initiatives/fsoc/Documents/2012%20Annual%20Report.pdf. On September 27, 2012, then Treasury Secretary Timothy Geithner sent a letter to FSOC members that, among other things, called for further reforms to address the structural vulnerabilities of money market funds. *See* September 27, 2012 Letter from Timothy Geithner to Members of the Financial Stability Oversight Council, *available at* http://www.treasury.gov/connect/blog/Documents/Sec.Geithner.Letter.To.FSOC.pdf. In November 2012, FSOC proposed recommendations regarding money market mutual fund reform, and recommended that the SEC proceed with structural reforms of money market funds. *See* FSOC, *Proposed Recommendations Regarding Money Market Mutual Fund Reform* (Nov. 2012), *available at* http://www.treasury.gov/initiatives/fsoc/Documents/Proposed%20Recommendations%20Regarding%20Money%20Market%20Mutual%20Fund%20Reform%20-%20November%2013,%202012.pdf.

[26] Dodd-Frank Wall Street Reform and Consumer Protection Act (the "Dodd-Frank Act"), Pub. L. 111-203, § 410 (2010).

[27] *Id.*

[28] *See* Financial Industry Regulatory Authority, Inc., *Treasury's Guarantee Program for Money Market Mutual Funds: What You Should Know*(last updated July 9, 2010) ("In the nearly 40-year history of money market mutual funds, this has happened on only two occasions—in 1994, when a fund lost approximately four cents on the dollar, and in September 2008, when the NAVs of money market funds issued by The Reserve Fund fell below $1.00.") *available at* http://www.finra.org/investors/protectyourself/investoralerts/mutualfunds/p117136.

[29] SEC Release No. IC-29132, *Money Market Fund Reform,* p.1 (Feb. 23, 2010), *available at* http://www.sec.gov/rules/final/2010/ic-29132.pdf.

[30] *Supra* note 14.

[31] SEC Press Release, *Staff Analysis of Data and Academic Literature Related to Money Market Fund Reform* (Mar. 24, 2014), *available at* http://www.sec.gov/News/PressRelease/Detail/PressRelease/1370541253716.

[32] *See* Office of Financial Research, *Asset Management and Financial Stability* (Sept. 2013), *available at* http://www.treasury.gov/initiatives/ofr/research/Documents/OFR_AMFS_FINAL.pdf.

[33] *Id.*

[34] *See supra* note 32, p. 1.

[35] *Id. See also, id.* at *p. 2* ("In addition, the activities and risks posed by hedge funds, private equity, and other private funds are not addressed in detail [in the OFR report].").

[36] *See* SEC Division of Risk, Strategy, and Financial Innovation, *Response to Questions Posed by Commissioners Aguilar, Paredes, and Gallagher* (Nov. 20, 2012), *available at* http://www.sec.gov/news/studies/2012/money-market-funds-memo-2012.pdf. To provide additional

context, the SEC's recent proposal to further reform money market funds has 698 pages. *See supra* note 14.

[37] *See* Comments on OFR Study on Asset Management Issues, *available at* http://www.sec.gov/comments/am-1/am-1.shtml. According to one commenter, instead of focusing on the known systemic risks posed by the activities of too-big-too-fail banks, OFR chose to take aim at buy-side asset managers, which present much lower risk and played virtually no role in the financial crisis. *See* Better Markets comment letter to the SEC, *Public Feedback on OFR Study on Asset Management*, at p. 2 (Nov. 1, 2013), *available at* http://www.sec.gov/comments/am-1/am1-24.pdf.

[38] Dechert LLP comment letter to the SEC, *The Report on Asset Management and Financial Stability of the Office of Financial Research*, p. 2 (Oct. 31, 2013) ("The Report has significant and substantive factual, analytical, and methodological defects that render it completely unreliable and insufficient to form the basis of any policy determinations."), *available at* http://www.sec.gov/comments/am-1/am1-4.pdf. Similar observations have been made by other commenters. *See, e.g.*, CFA Institute's comment letter to the SEC, *OFR Report on Asset Management and Financial Stability*, at p.2 (Dec. 4, 2013), *available at* http://www.sec.gov/comments/am-1/am1-32.pdf (questioning "whether [the OFR] Report, without more in-depth analysis, can form the basis for conclusions about the systemic risk implications of the asset management industry," and encouraging "further data gathering and a continued analysis of the issues before reaching conclusions about whether prudential regulatory measures are needed for this industry." Comment letter to the SEC from James J. Angel, Ph.D., CFA, Associate Professor of Finance, Georgetown University, McDonough School of Business and Visiting Associate Professor, University of Pennsylvania, The Wharton School, *Comments on OFR Study*, at pp. 2-3, 6-8 (Nov. 5, 2013), *available at* http://www.sec.gov/comments/am-1/am1-27.pdf (noting among other things that the study appears "hasty and incomplete" because it fails to identify the severity of the potential risks from asset managers, fails to distinguish between investor characteristics (such as reaching for yield, herding, and the use of leverage) and asset management, and provides little insight for imposing prudential regulation on asset managers.); Investment Company Institute's comment letter to the SEC, *Public Feedback on OFR Study on Asset Management Issues (SEC File No. AM-1)*, at p. 2 (Nov. 1, 2013), *available at* http://www.sec.gov/comments/am-1/am1-26.pdf (noting that "the OFR Study reflects an inaccurate understanding of the asset management industry in general and registered investment companies ('registered funds') in particular," and "should not serve as the basis for policy decisions or regulatory action of any kind and, accordingly, should be withdrawn."); Committee on Capital Markets Regulation's comment letter to the SEC, *Study: "Asset Management and Financial Stability,"* at p. 2 (Nov. 1, 2013), *available at* http://www.sec.gov/comments/am-1/am1-9.pdf (stating that "the OFR Report presents an inaccurate and incomplete picture of the asset management market and the risks it poses to the financial system.").

[39] *See* Mercatus Center at George Mason University comment letter to the SEC, *Office of Financial Research Study Titled "Asset Management and Financial Stability*," p. 2 (Nov. 1, 2013), *available at* http://www.sec.gov/comments/am-1/am1-8.pdf.; *see also* Investment Company Institute's comment letter to the SEC, *Public Feedback on OFR Study on Asset Management Issues (SEC File No. AM-1)*, at p. 11 (Nov. 1, 2013), *available at* http://www.sec.gov/comments/am-1/am1-26.pdf (noting that the OFR Study fails to recognize "several cogent reasons why risk does *not* flow from one fund to related or similar funds or to the advisor," including that each fund is a separate legal entity.); Mayer Brown LLP comment letter to the SEC, *Office of Financial Research, Asset Management and Financial Stability (Sept. 2013): Comments in Response to SEC Request, File No. AM-1*, at p. 11 (Oct. 31, 2013), *available at* http://www.sec.gov/comments/am-1/am1-5.pdf (noting that "there is one very clear and simple point that OFR fails to recognize or give proper weight to—registered fund products and managed account programs (and the separate accounts themselves) are legally separate and distinct from the asset managers that service them.")

[40] *See* Mercatus Center at George Mason University comment letter to the SEC, *Office of Financial Research Study Titled "Asset Management and Financial Stability*," p. 2 (Nov. 1, 2013), *available at* http://www.sec.gov/comments/am-1/am1-8.pdf.

[41] BlackRock comment letter to the SEC, *Feedback on OFR Study on Asset Management and Financial Stability*, p. 3 (Nov. 1, 2013), *available at* http://www.sec.gov/comments/am-1/am1-14.pdf.; *see also* Investment Company Institute comment letter to the SEC, *Public Feedback on OFR Study on Asset Management Issues (SEC File No. AM-1)*, at pp. 3, 7-10 (Nov. 1, 2013), *available at* http://www.sec.gov/comments/am-1/am1-26.pdf (noting that asset managers act primarily as agents on behalf of clients, do not take on the risks inherent in the assets they manage for registered funds or other clients, nor do they own client assets, and that the OFR study "loses sight of this defining characteristic."); Better Markets comment letter to the SEC, *Public Feedback on OFR Study on Asset Management*, at pp. 9-10 (Nov. 1, 2013), *available at* http://www.sec.gov/comments/am-1/am1-24.pdf (noting that asset managers "are predominantly agents for clients, and it is client funds that are at *[sic]* risk. In contrast, banks and insurance companies are principals, and in the event of failure, they put shareholder, creditor, and ultimately taxpayer money at risk. This distinction strongly suggests that while investors may lose money through asset management, those activities do not threaten widespread contagion. However, the significance of these distinctions is not analyzed in the Report."); The Capital Group Companies, Inc. comment letter to the SEC, *Office of Financial Research – Report on Asset Management and Financial Stability,* at pp. 2-3 (Nov. 1, 2013), *available at* http://www.sec.gov/comments/am-1/am1-21.pdf (noting that the agency relationship maintained by asset managers is vastly different than the principal relationship maintained by banks and insurance companies); Pacific Investment Management Company LLC comment letter to the SEC, *Office of Financial Research Report on Asset Management and Financial Stability,* at p. 4 (Nov. 1, 2013), *available at* http://www.sec.gov/comments/am-1/am1-23.pdf (noting that client assets are not held on the asset manager's balance sheet, which is "an important distinction between asset managers that function as an agent for their clients, and banks that act in their capacity as principal, which the Report does not adequately consider. In view of this fundamental difference, the Report does not explain how an asset manager itself would be at risk, or how an institutional investment manager's activities could result in the transmission of risks to the U.S. financial system.").

[42] BlackRock comment letter to the SEC, *Feedback on OFR Study on Asset Management and Financial Stability*, *supra* note 41 at p. 3; *see also* Vanguard comment letter to the SEC, *Comments on the Office of Financial Research's ("OFR")Report "Asset Management and Financial Stability,"* at p. 3 (Nov. 26, 2013), *available at* http://www.sec.gov/comments/am-1/am1-30.pdf (noting that "regulated asset management activity that is conducted on an agency basis does not generate system risk."); Better Markets comment letter to the SEC, *Public Feedback on OFR Study on Asset Management*, *supra* note 41 at pp. 8, 11; Pacific Investment Management Company LLC's comment letter to the SEC, *supra* note 41. Others have noted that the report did not use the ten factors that FSOC must apply in making statutory designation determinations, nor did the report track the six-factor test that FSOC developed in implementing the statutory standards. In addition, the report does not provide a basis for FSOC to designate asset managers as in need of Fed supervision and prudential standards under the Dodd-Frank Act. *See* Mercatus Center at George Mason University comment letter to the SEC, *Office of Financial Research Study Titled "Asset Management and Financial Stability*,*" supra* note 40 at p. 5.

[43] *See* January 23, 2014 Letter from U.S. Senators Kirk, Carper, Toomey, McCaskill, and Moran to FSOC Chairman Jacob Lew regarding the September 30, 2013 OFR report titled *Asset Management and Financial Stability, available at* http://www.sec.gov/comments/am-1/am1-36.pdf; Emily Stephenson and Sarah N. Lynch, *U.S. Senators Slam Study on Systemic Risks Posed by Asset Managers*, Reuters (Jan. 24, 2014), *available at* http://www.reuters.com/article/2014/01/24/financial-regulation-asset-idUSL2N0KY19A20140124; *see also*, January 27, 2014 Letter from U.S. Senator Mike Crapo to FSOC Chairman Jacob Lew, *available at* http://www.crapo.senate.gov/issues/banking/documents/SenatorCrapoonOFR.pdf ("I am concerned that OFR's failures to take into account the perspectives of and data from market participants will result

in flawed evaluation of the asset management industry by FSOC and, worse, a move towards designation of asset management firms as SIFIs without an accurate understanding of the role they play in financial system.”).

[44] *See* Better Markets comment letter to the SEC, *Public Feedback on OFR Study on Asset Management*, at p. 1 (Nov. 1, 2013), *available at* http://www.sec.gov/comments/am-1/am1-24.pdf.

[45] *See, e.g., id,* at pp. 8, 11 (Nov. 1, 2013) (“The first and most obvious problem is the inexcusable lack of transparency and disclosure regarding how and why the Report came about as well as how its analysis (such as it is) was conducted and with who's input and direction. Most troubling, it appears to confirm some of the worst suspicions that OFR is influenced by and biased toward the too big-to-fail sell-side banks that dominate Wall Street. After all, rather than focusing on the known systemic risks that they pose, which materialized just five years ago and which inflicted widespread economic wreckage across the country, OFR chooses to take aim at the asset management buy-side of the financial industry, which, by comparison, presents much lower risk and played no role or virtually no role in the most recent financial crash.”); Emily Stephenson and Sarah N. Lynch, *U.S. Senators Slam Study on Systemic Risks Posed by Asset Managers*, Reuters (Jan. 24, 2014) (reporting on a letter from a bipartisan group of U.S. Senators to Treasury Secretary Jack Lew that expressed concern that “the OFR study could potentially compromise the credibility of the OFR and, by extension, the FSOC.”), *available at* http://www.reuters.com/article/2014/01/24/financial-regulation-asset-idUSL2N0KY19A20140124.

[46] Dechert LLP comment letter to the SEC, *The Report on Asset Management and Financial Stability of the Office of Financial Research*, p. 19 (Oct. 31, 2013), *available at* http://www.sec.gov/comments/am-1/am1-4.pdf.

[47] *See* U.S. Government Accountability Office Report to Congressional Requesters, *Financial Stability: New Council and Research Office Should Strengthen the Accountability and Transparency of Their Decisions* (Sept. 2012), *available at* http://www.gao.gov/assets/650/648064.pdf; U.S Department of the Treasury, Financial Stability Oversight Council, *About FSOC: Who is on the Council?*, *available at* http://www.treasury.gov/initiatives/fsoc/about/council/Pages/default.aspx.

[48] *See* Section 152(e) of the Dodd-Frank Act (“Assistance From Federal Agencies. Any department or agency of the United States may provide to the [OFR] and special advisory, technical, or professional committees appointed by [OFR], such services, funds, facilities, staff, and other support services as [OFR] may determine advisable.”) Similarly, FSOC’s designation processes under the statute require FSOC to consider, among other things, “the degree to which the company is already regulated by 1 or more primary financial regulatory agencies.” Section 113(a)(2)(H) of the Dodd-Frank Act.

[49] The recently adopted Volcker Rule demonstrates that financial regulators can work together. *See* Commissioner Luis A. Aguilar, *Statement on the Volcker Rule: Reducing Systemic Risks By Banning Excessive Proprietary Trading with Depositor’s Money* (Dec. 10, 2013), *available at* http://www.sec.gov/News/PublicStmt/Detail/PublicStmt/1370540478214.

[50] *See* U.S. Department of the Treasury Press Release, *Financial Stability Oversight Council (FSOC) to Host Public Asset Management Conference* (Mar. 28, 2014), *available at* http://www.treasury.gov/press-center/press-releases/Pages/jl2338.aspx.

[51] For example, in 2010, the Commission issued a release seeking public comment on equity market structure. Of the more than 275 comments we have received, many were from investors expressing serious concerns about how the markets were operating.

[52] *See, e.g.*, Jacob Bunge, *A Suspect Emerges in Stock-Trade Hiccups: Regulation NMS*, Wall Street Journal (Jan. 28, 2014), *available at* http://online.wsj.com/news/articles/SB10001424052702303281504579219962494432336 (quoting Andy Books, vice president and head of U.S. equity trading at T. Rowe Price Group, as saying that the market is “overly complex, with 13 exchanges and 50 dark pools” and “[i]t adds operational costs, it adds complexity, it’s destabilizing. . .and the improvement from all this stuff is negligible.”); Sal Arnuk

and Joseph Saluzzi, *Broken Markets: How High Frequency Trading and Predatory Practices on Wall Street Are Destroying Investor Confidence and Your Portfolio,* at p. 14 (2012) ("the changes brought about by Regulation NMS have turned the market from an investor-focused mechanism that welcomes investors of all types and speeds, to a sub-second, trader-focused system where the concerns of individual investors are an afterthought."); Jacob Bunge, *NYSE's Prospective New Owner Calls U.S. Markets "Fundamentally Wrong,"* Wall Street Journal (Nov. 5, 2013), *available at* http://online.wsj.com/news/articles/SB10001424052702303482504579179573660376020 (the CEO of the InterContinental Exchange, which recently acquired the NYSE, said that the current market structure allows some intermediaries and exchanges to take advantage of individual investors and that "there is a sense that things are not fair.") More recently, the CEO of InterContinental Exchange said that he intends to reorient the exchange back toward individuals and away from the high-frequency traders who play an increasingly large role in the financial markets. Bradley Hope, *NYSE's New Chief Puts Focus on Individual Investors*, Wall Street Journal (Nov. 13, 2013), *available at* http://online.wsj.com/news/articles/SB10001424052702303460004579194213036953446.

[53] *See, e.g.,* Dave Michaels, *Trading Rebates Skew Markets, NYSE and Allies Tell SEC*, Bloomberg (Feb. 21, 2014) (noting that NYSE and a group of buy-side firms are advocating for the SEC to eliminate the maker-taker model). Comment letter from T. Rowe Price to the Investor Advisory Committee, *Recommendation of the Securities and Exchange Commission's Dodd-Frank Investor Advisory Committee Market Structure Subcommittee with respect to decimalization and tick sizes*, at p. 2 (Jan. 30, 2014), *available at* http://www.equitycapitalformationtaskforce.com/files/T%20Rowe%20Price%20Letter%20to%20SEC%20Investor%20Advisory%20Committee%2001%2030%2014.pdf (arguing for a pilot program eliminating the maker-taker model and placing limitations on payment for order flow and internalization); Comment letter from T. Rowe Price to the SEC at pp. 2-3 (Aug. 30, 2010), *available at* http://www.sec.gov/comments/s7-02-10/s70210-290.pdf (questioning whether the maker-taker model challenges best execution obligations).

[54]*See*, *e.g.*, Laura Cardella, Jia Hao, and Ivalina Kalcheva, *Make and Take Fees in the U.S. Equity Market,* at p. 1 (Apr. 29, 2013), *available at* http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2149302. ("[a]s of 2010, all 14 registered equity exchanges in the United States employed make-and-take fees"); Robert Battalio, Shane Corwin, and Robert Jennings, *Can Brokers Have It All? On the Relation between Make Take Fees & Limit Order Execution Quality,* at p. 1 (Oct. 29, 2013), *available at* http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2367462 ("Today, every U.S. stock exchange levies fees or pays rebates based on order characteristics.")

[55] Maker-taker was first used in the 1990s by Electronic Communication Networks as a way to attract liquidity to their systems. The larger, more well-established exchanges such as the New York Stock Exchange and Nasdaq began to offer rebates to liquidity providers in order to compete with these entities/upstarts and, today, all U.S. equities exchanges use some form of maker-taker pricing. *See, e.g.,* Larry Harris, *Maker-Taker Pricing Effects on Market Quotations,* Draft 0.91, at p. 5 (Nov. 14, 2013), *available at* http://bschool.huji.ac.il/.upload/hujibusiness/Maker-taker.pdf ("Soon after ECNs started business in the US, they adopted maker-taker pricing schemes to attract more liquidity to their systems. The first system to introduce this scheme was Island ECN in 1997. . . [t]o remain competitive, all US equity exchanges ultimately adopted the maker-taker pricing model."); Battalio, et al., *Can Brokers Have It All? On the Relation between Make Take Fees & Limit Order Execution Quality*, *supra* note 54. According to one article, Nasdaq introduced maker-taker pricing in 2005. *See, e.g.,* Katya Malinova and Andreas Park, *Subsidizing Liquidity: The Impact of Make/Take Fees on Market Quality,* at p. 10 (June 4, 2013), *available at* http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.408.3267&rep=rep1&type=pdf. In addition, according to press reports, the New York Stock Exchange announced on February 2, 2009 that it would begin paying market participants for providing liquidity to its market. *See,* Nina Mehta, *NYSE Joins the Crowd and Pays for Liquidity*, Traders Magazine Online News (Feb. 2, 2009), *available at*

http://www.tradersmagazine.com/news/103286-1.html?zkPrintable=true (reporting that, starting March 1, 2009, NYSE will give those placing limit orders on its book 10 cents per 100 shares, and that "previously firms received no credit for liquidity they brought to the big board.")

[56] *See* Battalio, et al., *Can Brokers Have It All? On the Relation between Make Take Fees & Limit Order Execution Quality¸ supra* note 54("In the 'traditional' model, exchanges charge liquidity demanding orders (*e.g.*, marketable orders) a fee that exceeds the rebate they offer liquidity supplying orders (*e.g.*, nonmarketable limit orders."); *see also* Michael Brolley and Katya Malinova, *Maker-Taker Fees and Informed Trading in a Low-Latency Limit Order Market* at p. 1 (Oct. 18, 2012), *available at* http://www.bankofcanada.ca/wp-content/uploads/2012/11/Malinova-Katya.pdf ("many exchanges incentivize traders who provide, or 'make' liquidity. Specifically, trading venues pay a rebate to submitters of executed limit orders, and they finance these rebates by levying higher fees to remove, or 'take' liquidity on submitters of marketable orders. This practice of levying different trading fees for liquidity provision and removal is referred to as 'maker-taker' pricing.")

[57]*See, e.g.*, Battalio, et al., *Can Brokers Have It All? On the Relation between Make Take Fees & Limit Order Execution Quality¸ supra* note 54. Cardella, *et al.*, *Make and Take Fees in the U.S. Equity Market supra* note 54. Some have estimated that billions of dollars are transferred between makers and takers. *See, e.g.,* Harris, *Maker-Taker Pricing Effects on Market Quotations* , *supra* note 55, at p. 2 ("Although maker-taker fees are a very small fraction of trade prices, the total money transferred from takers to makers in U.S. equity markets is quite significant due to their high trading volumes. Cardella, Hao and Kalcheva (2013) calculate that this flow amounts to approximately $2B/year.").

[58] *See,* SEC Release No. 34-61358, *Concept Release on Equity Market Structure,* at p. 17 (Jan. 14, 2010), *available at* http://www.sec.gov/rules/concept/2010/34-61358.pdf.

[59] Dave Michaels, *Trading Rebates Skew Markets, NYSE and Allies Tell SEC,* Bloomberg (Feb. 21, 2014) , *available at* http://www.bloomberg.com/news/2014-02-21/trading-rebates-skew-markets-nyse-and-allies-tell-sec.html ("Proponents of the maker-taker system say it has lowered costs for investors and eased buying and selling of shares.").

[60] *See* GETCO comment letter to the SEC, *Comments Regarding Proposed Amendments to Rule 610 of Regulation NMS; Release No. 61902 (File No. S7-09-10)*, p.5 (June 23, 2010), *available at* http://www.sec.gov/comments/s7-09-10/s70910-25.pdf; Stanislav Dolgopolov, *Linking the Securities Market Structure and Capital Formation: Incentives for Market Makers?*, 16 U. Pa. J. Bus. L. 1, 39 (Fall 2013).

[61] *See* Battalio, *et al.*, *Can Brokers Have It All? On the Relation between Make Take Fees & Limit Order Execution Quality*, *supra* note 54, at 1 (finding that "several large retail brokerages route their order flow in a manner that appears to maximize order flow payments: they sell marketable orders and they route limit orders to venues that offer the highest liquidity rebates")*;* Sal Arnuk and Joe Saluzzi, *Broken Markets: How High Frequency Trading and Predatory Practices on Wall Street are Destroying Investor Confidence and Your Portfolio,* at 259- 60 ("The maker/taker model is at the core of the equity market structure problem. It has influenced how broker-sponsored smart order routers access liquidity . . . However, some orders are not routed to the destination where best execution would dictate, but to the destination where the broker receives the best rebate. While these SORs may be 'smart' for the broker, they may be pretty dumb for the client."); James Angel, Lawrence Harris, and Chester S. Spatt, *Equity Trading in the 21st Century* at p. 42 (Feb. 23, 2010), *available at* http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1584026 (the maker-taker model has '[d]istorted order routing decisions, aggravated agency problems among brokers and their clients, unleveled the playing field among dealers and exchange trading systems, produced fraudulent trades, and produced quoted spreads that do not represent actual trading costs."); Testimony of Erik R. Sirri, Professor of Finance, Babson College, before the House Committee on Financial Services (Feb. 28, 2014), *available at* http://financialservices.house.gov/uploadedfiles/hhrg-113-ba16-wstate-esirri-20140228.pdf ("potential

concerns include the effects of access fees and liquidity rebates on broker routing decisions, and the routing of non-marketable customer limit orders to exchanges rather than to other venues more advantageous to the limit order.")

[62] *See, e.g.,* May 10, 2012 Letter from U.S. Senator Charles E. Schumer to then-SEC Chairman Mary Schapiro, *available at* http://www.schumer.senate.gov/record.cfm?id=336748& ("I respectfully urge the Commission to act as promptly as possible to ensure complete disclosure of all such [maker-taker] payments and require brokers to pass these payments on to their customers, thus eliminating the potential for conflicts of interest."); Bradley Hope and Scott Patterson, *Study: Rebates Are Key to Where Brokers Route Orders*, Wall Street Journal (Dec. 17, 2013), *available at* http://online.wsj.com/news/articles/SB10001424052702303949504579264531110497344 (Robert Battalio and Shane Corwin, authors of a 2013 study of maker-taker pricing, support the idea of requiring brokers to pass rebates on to customers because "[t]hat way a broker would have no conflict of interest when routing an order.")

[63]*See, e.g.,* Harris, *Maker-Taker Pricing Effects on Market Quotations*, *supra* note 54, at 3 ("maker-taker pricing creates a transparency problem since quoted spreads are different from the more economically meaningful net spreads [that include the maker/taker fee] and since most retail traders are unaware of the difference"); Angel, *et al.*, *Equity Trading for the 21st Century*, *supra* note 61, at p. 42 ("the make or take pricing model thus would appear to accomplish nothing besides reducing quoted spreads and thereby obfuscating true economic spreads, which are the net spreads inclusive of the access fees and liquidity rebates.").

[64] *See, e.g.,* John McCrank, *NYSE Owner Says Outlawing Exchange Rebates Would Simplify Market*, Reuters (Feb. 12, 2014), *available at* http://www.reuters.com/article/2014/02/12/intercontinentalexchange-rebates-idUSL2N0LH14D20140212 (quoting IntercontinentalExchange Group CEO Larry Sprecher as saying that "[w]e increasingly hear calls for a holistic review of the U.S. equities markets, the fragmentation, the risk that's in it, and the increased demand for high-speed networks in order to be the first to receive those rebates. I think you could really simplify the market with just a simple change of outlawing maker taker pricing and allowing us to compete on technology and service and being low-cost providers as exchanges."); *See, e.g.,* Larry Harris, *Maker-Taker Pricing Effects on Market Quotations* (Nov. 14, 2013), *available at* http://bschool.huji.ac.il/.upload/hujibusiness/Maker-taker.pdf.

[65] *See, e.g.*, comment letter from RBC Capital Markets to the SEC, *Comments Regarding Potential Equity Market Structure Initiatives*, at p. 2 (Nov. 22, 2013), *available at* http://www.sec.gov/comments/s7-02-10/s70210-411.pdf. ("maker/taker pricing has compromised efficiency and liquidity, predominantly by incentivizing some market participants to trade primarily, if not solely, to profit from collecting rebates"); Wallace Turbeville, *Cracks in the Pipeline Part Two: High Frequency Trading*, De-mos (March 8, 2013), *available at* http://www.demos.org/publication/cracks-pipeline-part-two-high-frequency-trading ("Commencing with the late 1990's, matching venues started the practice of rebating fees for large volume . . . The competition became so intense that in some venues the 'rebates' for posting orders to buy and sell became profitable to the traders. [High-frequency traders] constructed 'rebate harvesting' software that was designed to implement high-volume order posting and simultaneous purchases and sales for the sole intent of profiting from the rebates."); *Rise of the Machines: Algorithmic Trading Causes Concern Among Investors and Regulators*, The Economist (July 30, 2009), *available at* http://www.economist.com/node/14133802 (noting that one strategy used by high-frequency traders is to collect rebates offered by exchanges to liquidity providers, in which "high-frequency traders will quickly outbid investors before immediately selling the shares to the investor at the slightly higher purchase price, collecting a rebate of one-quarter of a cent on both trades.")

[66] *See* Commissioner Luis A. Aguilar, *Seeing Capital Markets Through Investor Eyes,* Washington D.C. (Dec. 5, 2013), *available at* http://www.sec.gov/News/Speech/Detail/Speech/1370540451723.

[67] *See, e.g.,* Comment Letter from RBC Capital Markets, *Comments Regarding Potential Equity Market Structure Initiatives* (Nov. 22, 2013), *available at* http://www.sec.gov/comments/s7-02-10/s70210-411.pdf. (arguing that the SEC should conduct a pilot study that would subject a limited number of stocks, for a limited period of time, to trading on a rebate-free basis); January 30, 2014 Letter from T. Rowe Price to the Investor Advisory Committee, *available a*t http://www.equitycapitalformationtaskforce.com/files/T%20Rowe%20Price%20Letter%20to%20SEC%20Investor%20Advisory%20Committee%2001%2030%2014.pdf (arguing for a pilot program eliminating the maker-taker model and placing limitations on payment for order flow and internalization).

[68] Retail investors generally consider mutual funds attractive investment options. Thus, it is not surprising that individual investors, 93% of whom invest in mutual funds to save for retirement, hold approximately 90% of all mutual fund assets. Investment Company Institute, *2013 Investment Company Fact Book* (Jan. 7, 2014), *available at* http://www.icifactbook.org/fb_ch2.html. For this reason, mutual funds are significant players in the equity markets, holding 28% of the outstanding stock of U.S companies at the end of 2012. *Id.* Accordingly, in reviewing equity market structure, it is important that the Commission consider whether the trading markets are operating fairly, transparently, and efficiently for mutual fund investors.

[69] For example, on February 26, 2014, the U.S. Commodity Futures Trading Commission ("CFTC") published guidance outlining the data security practices it expects from firms it oversees and the third parties they contract with. *See* CFTC Staff Advisory No. 14-21, Gramm-Leach-Bliley Act Security Safeguards, *available at* http://www.cftc.gov/ucm/groups/public/@lrlettergeneral/documents/letter/14-21.pdf. In addition, the Director of the Federal Bureau of Investigation (FBI), James Comey, said last November that "resources devoted to cyber-based threats will equal or even eclipse the resources devoted to non-cyber based terrorist threats." *See* Testimony of James B. Comey, Director, Federal Bureau of Investigation, before the Senate Committee on Homeland Security and Governmental Affairs (Nov. 14, 2013), *available at* http://www.fbi.gov/news/testimony/homeland-threats-and-the-fbis-response. In addition, on December 9, 2013, the Financial Stability Oversight Council held a meeting to discuss cyber-security threats to the financial system; *see also*, U.S. Department of the Treasury Press Release, *Financial Stability Oversight Council to Meet December 9*, *available at* http://www.treasury.gov/press-center/press-releases/Pages/jl2228.aspx; Jaclyn Jaeger, *Boards Look to Boost IT, Data Security Oversight*, Compliance Week (March 11, 2014) (noting that company boards have become much more sensitive to cyber-security risks and the harm they could cause to a company's reputation and business).

[70] On December 19, 2013, Target Corp. announced a data breach resulting from a cyber-attack on its systems. The breach affected two types of data: payment card data, which affected approximately 40 million Target customers, and certain personal data, which affected up to 70 million Target customers. *See* Testimony of John Mulligan, Executive Vice President and Chief Financial Officer of Target, before the U.S. Senate Committee on the Judiciary (Feb. 4, 2014), *available at* http://www.judiciary.senate.gov/pdf/02-04-14MulliganTestimony.pdf; Target Press Release, *Target Confirms Unauthorized Access to Payment Card Data in U.S. Stores* (Feb. 4, 2014), *available at* http://pressroom.target.com/news/target-confirms-unauthorized-access-to-payment-card-data-in-u-s-stores.

[71] It is well-known that several large banks have repeatedly been the subject of denial-of-service attacks in which their public websites have been knocked offline for hours at a time. *See, e.g.,* Joseph Menn, *Cyber Attacks Against Banks More Severe than Most Realize,* Reuters (May 18, 2013), *available at* http://www.reuters.com/article/2013/05/18/us-cyber-summit-banks-idUSBRE94G0ZP20130518; Bob Sullivan, *Bank Website Attacks Reach New Highs*, CNBC (Apr. 3, 2013), *available at* http://www.cnbc.com/id/100613270. Numerous government agencies have also experienced a series of cyber-attacks. *See, e.g.,* Jim Finkle and Joseph Menn, *FBI Warns of U.S. Government Breaches by Anonymous Hackers*, Reuters (Nov. 15, 2013), *available at* http://www.reuters.com/article/2013/11/15/us-usa-security-anonymous-fbi-idUSBRE9AE17C20131115

(activist hackers secretly accessed U.S. government computers in multiple agencies, resulting in stolen data on at least 104,000 employees, contractors, and others associated with the Department of Energy, along with information on almost 2,000 bank accounts); *Healthcare.gov Targeted 'About 16 Times' by Cyberattacks, DHS Official Says*, NBC News.com (Nov. 13, 2013), *available at* http://www.nbcnews.com/news/investigations/healthcare-gov-targeted-about-16-times-cyberattacks-dhs-official-says-v21440068.

[72] Stan Wilson, *Hackers Target Secret Fund Info*, Compliance Reporter (Jan. 13, 2014). ("Criminals hacking mutual fund complexes increasingly are no longer 16-year-olds randomly raiding customer assets but competent market professionals who may have a variety of motives for wanting to tap into the hidden plans of big firms . . . Prominent among those motives: a simple desire to front-run large, market-moving trades. How much stealing of fund secrets goes on is unknown, but the incidence is believed to be high.")

[73] *Id.*

[74] *See, e.g.,* Deloitte, *2014 Mutual Fund Outlook*: *Championing Growth, Innovating Around The Edges*, *available at* http://www.deloitte.com/view/en_US/us/Industries/Private-Equity-Hedge-Funds-Mutual-Funds-Financial-Services/64154b96b23d3410VgnVCM3000003456f70aRCRD.htm. ("One risk area where we expect to see heightened attention in 2014 is cyber threats. The specter of a cyber breach is top of mind for many in the industry, and while steps may have been taken to address the internal dimensions of cyber risk, the extended enterprise still represents a soft spot. The reality is cyber threats represent a complex array of possible breaches that can be many times removed from the fund company itself. For example, a cyber attack may not target the service provider directly, but potentially cripple a third party vendor the service provider utilizes, with damaging consequences nonetheless. Leading mutual fund firms now regularly conduct cyber threat assessments to better understand not just their own potential exposure to cyber attacks, but their service providers' as well.")

[75] *Id.*

[76] *See* SEC Press Release, *SEC Announces Agenda, Panelists for Cybersecurity Roundtable,* (Mar. 24, 2014), *available at* http://www.sec.gov/News/PressRelease/Detail/PressRelease/1370541253749; *Cybersecurity Roundtable Webcast* (Mar. 26, 2014), *available at* http://www.sec.gov/news/otherwebcasts/2014/cybersecurity-roundtable-032614.shtml.

[77] *See,* Sarah N. Lynch, *SEC Examiners to Review How Asset Managers Fend Off Cyber Attacks*, Reuters (Jan. 30, 2014), *available at* http://www.reuters.com/article/2014/01/30/us-sec-cyber-assetmanagers-idUSBREA0T1PJ20140130; *see, e.g.*, SEC's Office of Compliance Inspections and Examinations, National Exam Program, *Examination Priorities for 2014*, p. 7 (Jan. 9, 2014) ("The [examination] staff will focus on market access controls related to … information leakage and cyber security…"), *available at* http://www.sec.gov/about/offices/ocie/national-examination-program-priorities-2014.pdf.

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