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March 25, 2015

Financial Stability Oversight Council
Attn: Patrick Pinschmidt
Deputy Assistant Secretary for the Financial Stability Oversight Council
1500 Pennsylvania Avenue NW
Washington, DC 20220

Re: Notice Seeking Comment on Asset Management Products and Activities (FSOC-2014-0001)

Dear Mr. Pinschmidt:

The Investment Company Institute[1] welcomes the opportunity to submit comments to the Financial Stability Oversight Council ("FSOC" or "Council") in response to the Notice Seeking Comment on Asset Management Products and Activities ("Notice").[2] The Notice reflects a constructive effort by the Council to narrow the issues and seek factual information and data on how the asset management industry operates, including U.S. regulated stock and bond funds.[3]

ICI and its members, both in the United States and globally, long have favored sound regulation to address risks to investors and the capital markets. We actively have supported U.S. and global efforts to address abuses and excessive risk taking highlighted by the global financial crisis and to bolster areas of insufficient regulation. ICI previously has commented on the Council's proposals related to designation of nonbank financial companies as systemically important financial institutions

[1] The Investment Company Institute ("ICI") is a leading, global association of regulated funds, including mutual funds, exchange-traded funds ("ETFs"), closed-end funds, and unit investment trusts ("UITs") in the United States, and similar funds offered to investors in jurisdictions worldwide. ICI seeks to encourage adherence to high ethical standards, promote public understanding, and otherwise advance the interests of funds, their shareholders, directors, and advisers. ICI's U.S. fund members manage total assets of U.S. $17.5 trillion and serve more than 90 million U.S. shareholders.

[2] Financial Stability Oversight Council, Notice Seeking Comment on Asset Management Products and Activities, available at: http://www.treasury.gov/initiatives/fsoc/rulemaking/Documents/Notice%20Seeking%20Comment%20on%20Asset%20Management%20Products%20and%20Activities.pdf.

[3] Unless the context provides otherwise, references in this letter to "funds" or "regulated funds" means investment companies registered under the Investment Company Act of 1940 ("Investment Company Act"). Our comments below generally address regulated stock and bond funds and not money market funds, given the significant regulatory reforms that have been adopted for money market funds since the financial crisis.

("SIFIs")[4] and to the Federal Reserve Board on enhanced prudential standards.[5] We also have commented on the Office of Financial Research's *Report on Asset Management and Financial Stability* ("OFR Report")[6] and we provided comments to the Financial Stability Board ("FSB") on its consultation regarding assessment methodologies for identifying non-bank non-insurer global systemically important financial institutions ("NBNI G-SIFIs").[7] Our detailed submissions, and our extensive public commentary,[8] have sought to inform policymakers about the operations and existing regulation of regulated funds and their managers—a sector of the financial system with which they may not be fully familiar. We also have sought to inform the policymaking process by providing empirical research about these funds and their investors. Sound policy decisions, in our view, require empirical rigor and fact-based analysis.

The Notice appears to reflect the Council's announced intention to focus on industry-wide activities or products and to assess their risk potential, as distinct from SIFI designation of individual funds or asset managers. If so, we strongly endorse that approach. As we have commented previously, we believe there is no basis for SIFI designation of a regulated fund or its manager. The comprehensive scheme of regulations to which funds are subject, their consistent historical experience, and the nature of their investors, all serve to allay concerns about funds becoming a source of instability in the financial system. Moreover, the consequences of SIFI designation under Title I of the Dodd-Frank Wall Street Reform and Consumer Protection Act ("Dodd-Frank Act")—including the imposition of capital requirements and a regime of bank-type regulation—would be harmful to the designated fund, its investors and the capital markets at large.

We begin our comments below with certain preliminary observations about the regulated fund industry and FSOC's request for comment (Section I). We then provide an executive summary of our comments (Section II). Following the executive summary, we address each of the four areas the Notice

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[4] *See* ICI comment letters on Advance Notice of Proposed Rulemaking Regarding Authority to Require Supervision and Regulation of Certain Nonbank Financial Companies (FSOC-2010-0001), available at: http://www.ici.org/pdf/24696.pdf, Nov. 5, 2010, and Authority to Require Supervision and Regulation of Certain Nonbank Financial Companies (FSOC-2011-0001-0001), available at: http://www.ici.org/pdf/24994.pdf, Feb. 25, 2011.

[5] *See* ICI comments on Enhanced Prudential Standards and Early Remediation Requirements for Covered Companies, available at: http://www.ici.org/pdf/26118.pdf, April 30, 2012.

[6] *See* ICI comments on Public Feedback on OFR Study on Asset Management Issues, available at: http://www.ici.org/pdf/13_ici_ofr_asset_mgmt.pdf, Nov. 1, 2013.

[7] *See* ICI comments on Assessment Methodologies for Identifying Non-Bank Non-Insurer Global Systemically Important Financial Institutions: Proposed High-Level Framework and Specific Methodologies, available at: http://www.ici.org/pdf/14_ici_fsb_gsifi_ltr.pdf, April 7, 2014.

[8] For examples, see http://www.ici.org/financial_stability/statements.

discusses: Liquidity and Redemptions (Section III); Leverage (Section IV); Operational Risk (Section V); and Resolution (Section VI).

I. Preliminary Observations about the Regulated Fund Industry and FSOC's Request for Comment

A. Regulated Funds are Comprehensively Regulated under a Legal Framework That Promotes Financial Stability

This year marks the 75th anniversary of enactment of the key statutes—the Investment Company Act and the Investment Advisers Act of 1940—under which funds and their investment advisers ("advisers" or "managers") are regulated and governed. Those statutes have supported the growth of the modern fund industry, which today helps some 93 million Americans meet their most important, long-term financial goals, such as saving for retirement, education, or home ownership. Our data show that 95 percent of the assets in U.S. regulated stock and bond funds are owned by households—and almost half (49 percent) are held in retirement accounts.

Regulated funds operate in a diverse and highly competitive industry. In January 2015, some 800 U.S. fund complexes offered more than 16,000 funds, providing investors with a wealth of investment choices. Those funds respond to the particular investment objectives and risk tolerances of millions of shareholders and their financial advisers—a vast and diverse array of individual decision-makers who ultimately determine how their respective financial assets will be deployed.

The strengths and remarkable success of the regulated fund industry are directly attributable to the comprehensive regulatory framework to which U.S. regulated funds are subject.[9] That framework was developed in large part by the Securities and Exchange Commission ("SEC"), the primary regulatory authority for regulated funds and their managers, as well as for the capital markets. Under the federal securities laws, U.S. regulated funds must meet strict standards on, among other things, valuation, liquidity, redemptions, leverage, transactions with affiliates, custody of fund assets, transparency, compliance programs, and oversight by boards (including independent directors).

The SEC has designed and administered these standards in keeping with the agency's core missions: to protect investors; to maintain fair, orderly, and efficient markets; and to facilitate capital formation. As the body of our letter demonstrates, this comprehensive regulatory regime also serves to promote financial stability.

The four areas raised by the Notice—liquidity and redemptions, leverage, operational risk, and resolution—all have been subject to extensive regulatory oversight and evolving practices throughout

[9] In addition to the Investment Company Act and the Advisers Act, U.S. regulated funds are regulated under the Securities Act of 1933 and the Securities Exchange Act of 1934.

the 75-year history of U.S. regulated funds. In addition, SEC Chair Mary Jo White has announced a robust rulemaking agenda for the SEC to make potential enhancements in all four of these areas.[10]

B. For Regulated Funds, the Notice Presents Conjectural Risks, Ignoring Funds' Historical Experience and the Empirical Data in the Existing Record

There already is before the FSOC an extensive record on many of the issues raised in the Notice. As a request for further information, we hope the Notice signals a determination to make certain that any future actions by the Council with respect to the asset management sector generally, and regulated funds and their managers in particular, have some reasonable evidentiary basis, are grounded in data and experience, and take full account of the substantial risk-mitigating effect of current regulations and related fund practices.

To that end, much of the Notice identifies potential concerns and poses questions regarding investment vehicles and asset managers generally, the answers to which should assist the Council in its stated objective, namely "evaluating whether any of these areas might present potential risks to U.S. financial stability." The Notice takes a different approach with respect to its inquiry that focuses solely on "pooled investment vehicles that offer near-term access to redemptions."[11] Or, in other words, regulated stock and bond mutual funds.

Here, the Notice appears to assume the potential for threats to the financial system arising from redemptions by mutual fund investors. FSOC hypothesizes that liquidity management practices and the mutualization of trading costs for funds lead to a unique incentive for fund investors to redeem heavily in the face of a market decline, potentially leading to additional downward pressure on markets. The Notice provides no empirical data or historical basis for this hypothesis. Nor could it. In the 75-year history of the U.S. regulated fund industry, through market events of all kinds, stock and bond funds have never experienced anything remotely resembling a "run." Our investor base is overwhelmingly retail in nature. These 93 million shareholders, and their personal financial advisers, represent an exceptionally heterogeneous group of decision-makers. But they do have one thing in common: they use mutual funds to achieve some of their longest-term financial goals, principally saving for retirement. It should come as no great surprise that this investor base exhibited exceptional stability in the face of the 2008 financial crisis, a real-world "stress test" constituting the second worst stock market downturn since the early nineteenth century.

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[10] *Enhancing Risk Monitoring and Regulatory Safeguards for the Asset Management Industry*, Speech by SEC Chair Mary Jo White at The New York Times Dealbook Opportunities for Tomorrow Conference, New York, NY (Dec. 11, 2014) ("SEC Chair White Speech"), available at http://www.sec.gov/News/Speech/Detail/Speech/1370543677722#.VIoGhTHF884.

[11] Notice at 7.

Moreover, the hypotheses in the Notice are based on a series of assumptions that are simply unrealistic. In Section III below, we test these hypotheses and offer data to demonstrate that mutual funds in aggregate experience only modest outflows in response to even severe market downturns. This fact remains no less true for funds with investment strategies focused on less liquid asset classes.

The assumptions in the Notice unfortunately suggest that FSOC continues to labor under misconceptions about regulated stock and bond funds, despite the extensive public record already before it. Our prior submissions on the OFR Report and the FSB consultation on NBNI G-SIFIs have provided data and analysis demonstrating that concerns about destabilizing effects of mutual fund redemptions have no historical basis. In addition, these same submissions, and those of many other stakeholders, have explained that the reasons for this historical experience are grounded in the existing regulatory framework, the nature of the investor base, and how regulated stock and bond funds manage their portfolios. We urge FSOC to give full account to the existing record as well as the responses to this Notice in its evaluation of areas that might present potential risks to U.S. financial stability.[12]

C. Any Potential Responses to Identified Risks to U.S. Financial Stability Should be Tailored Carefully

The Notice indicates that "[i]n the event the Council's analysis [based on input in response to this Notice] identifies risks to U.S. financial stability, the Council will consider potential responses." In the case of regulated stock and bond funds, we firmly believe that an objective review of the record will lead the Council to conclude that these funds do not present risks to U.S. financial stability. Should the Council disagree, and proceed to consider "potential responses" that would affect regulated stock and bond funds, we urge the Council to recognize that the SEC, as the primary regulator of the asset management industry, is best positioned to address any such risks through enhancements to its existing regulatory program.

In addition, any solutions the Council ultimately may propose must not exacerbate the perceived risks they are intended to address, nor introduce new costs or difficulties that have consequences more severe than the supposed risks themselves. To date, the Council's "remedy of choice" has appeared to be SIFI designation, which carries with it capital requirements and "enhanced prudential supervision" by the Federal Reserve Board. Some commentators have called for the application of other policy measures to mutual funds, such as highly prescriptive liquidity or liquidity

[12] *See, e.g., Quincy Cable TV, Inc. v. FCC*, 768 F.2d 1434, 1455 (D.C. Cir. 1985) (quoting *Home Box Office, Inc. v. FCC*, 567 F.2d 9, 36 (D.C. Cir. 1977) (stating that a regulatory action that would be "perfectly reasonable and appropriate in the face of a given problem may be highly capricious if that problem does not exist.").

management requirements.[13] In our view, if these remedies were imposed on regulated funds or their managers, they would pose significant risks of:

- Diminishing diversification in financial services and financing for economic activity;
- Increasing correlation of investment portfolios and herding;
- Exacerbating volatility;
- Increasing the probability of shocks to the financial system; and
- Amplifying—rather than muting—the impact of such shocks.[14]

We offer these prefatory comments to convey the deep concerns we have over the apparent direction of regulatory policy in this area, taking into account the FSOC's deliberations to date, the second FSB consultation on NBNI G-SIFIs (a work stream led by Federal Reserve Board Governor Daniel Tarullo), and the prospective impact of that process on future actions by the Council.

II. Executive Summary

A. Liquidity and Redemptions

- The Council asks whether mutual funds pose unique and systemic risks by virtue of the requirement under the Investment Company Act that they provide investors the ability to redeem shares on a daily basis. We explain in detail that the answer is no: the structure and regulation of mutual funds, the nature of their shareholder base, and the empirical evidence provide no support for this supposition.

- Daily redeemability is a defining feature of mutual funds. This means that liquidity management is not only a regulatory compliance matter, but also a major element of investment

[13] *See, e.g.*, International Monetary Fund, "Improving the Balance Between Financial and Economic Risk Taking," IMF Global Financial Stability Report, Chapter 1, October 2014, at 45. ("Finally, reviewing liquidity and investment policy requirements for mutual funds invested in less liquid assets would help mitigate liquidity mismatches. This requirement may include limits on investments in illiquid assets, minimum liquidity buffers, and greater scrutiny of the use of derivatives and the embedded leverage they carry. Increased liquidity-risk-management requirements . . . may be helpful to improve the resilience of funds to liquidity volatility.").

[14] *See also* "No, Mr. Tarullo, We're Not All Macroprudentialists Now," Hester Peirce, Real Clear Markets, available at http://www.realclearmarkets.com/articles/2015/02/25/no_mr_tarullo_were_not_all_macroprudentialists_now_101548.html ("Imagine the scene as banks and asset managers all fight during a crisis for the safe assets that their common regulatory frameworks permit.").

- risk management, an intrinsic part of portfolio management, and a constant area of focus for fund managers.

- Liquidity management is a nuanced, fund-specific, and fluid process, and there is no "one size fits all" approach. It involves active monitoring of a fund's individual holdings, overall portfolio, and shareholder base.

- The Council's inquiry overlooks the dynamics of mutual fund cash flows. Funds typically receive cash from investor purchases of new fund shares, interest payments and dividends on portfolio securities, maturing bonds, or sales of portfolio securities. We provide data illustrating these features for high-yield bond funds; notably, some investors continue to purchase shares of high-yield bond funds even during periods of market stress.

- The Notice suggests a "waterfall" theory of liquidity management, positing that in times of stress, a fund may sell off the more liquid part of its portfolio first to meet investor redemptions, thereby concentrating liquidity risk on investors remaining in the fund. Contrary to this theory, falling securities prices cause the share of a portfolio invested in cash and liquid assets to rise. Fund managers can then use some of these assets to meet redemptions and still maintain a relatively constant allocation to cash and liquid securities. We provide data showing that, as a result of this rebalancing, funds' holdings of cash as a percent of their assets tend to remain relatively stable, even during periods of redemptions.

- Just as investors are both purchasing and redeeming fund shares even during periods of market stress, funds also are routinely in the markets buying and selling securities month-in and month-out, in bull markets and in bear markets. This continuous buying and selling of securities—whether precipitated by portfolio rebalancing, accommodation of fund flows, or the investment decisions of fund portfolio managers—helps to add liquidity to the market.

- The Notice also lays out a hypothesis in which mutualization of trading costs creates a unique incentive for fund investors to redeem heavily in the face of a market decline. We explain how this hypothesis fails to consider certain regulatory characteristics of funds and tools that fund managers currently have to mitigate trading costs and foster more equitable treatment of fund shareholders. Investor behavior provides evidence that any mutualized trading costs must not be sufficiently large to drive investor flows. We consistently observe that investor outflows are modest and investors continue to purchase shares in most funds even during periods of market stress.

- The Council is interested in whether the growth in assets in funds focused on less liquid asset classes has caused an increase in investor redemptions. We provide a case study of high-yield

bond funds, the assets of which have increased substantially in the last several years with no increase in the tendency of investors to redeem during periods of market stress.

B. Leverage

- We strongly concur with the Council's focus on leverage as a practice that, without appropriate controls and under certain circumstances, could have implications for financial stability. As seen during the global financial crisis, declining asset values quickly can erase a highly leveraged company's equity, resulting in cascading losses among the company's creditor firms.

- As the Notice recognizes, the use of leverage by regulated funds generally is limited by the Investment Company Act. And, in fact, the very largest regulated funds barely are leveraged.

- The Notice seeks to explore the connection between the use of leverage by investment vehicles and negative impacts on lenders, counterparties, and other market participants, and the extent of any implications for U.S. financial stability. We explain why it is difficult to conceive how a regulated fund could ever be the source, or transmitter, of such impacts. In particular, regulated funds primarily act as *providers of capital* (through their long positions in debt and equity investments) to financial and operating companies, various governments, and the U.S. Treasury. As a result, regulated funds—and, by extension, their investors—are typically the bearers of risk posed by their counterparties (*e.g.*, by reason of the fund's purchase of debt issued by a bank).

- The Notice acknowledges that regulated funds may use derivatives for purposes other than obtaining leverage. Given the importance of derivatives as an integral tool in modern portfolio management, we explain in some detail how funds may use derivatives to implement their investment strategies and manage risk.

- The Notice poses several questions relating to securities lending transactions. We explain that regulated funds are among the most conservative of securities lenders, operating under strict regulatory limits. Those regulated funds that do engage in securities lending often lend a relatively small percentage of their portfolio, and their conservative investment of cash collateral should allay any concerns on the part of the Council.

C. Operational Risk

- The Notice asks about potential risks that may arise when multiple asset managers rely on a small number of service providers for important services. We briefly describe regulated funds'

use of service providers—typically highly regulated financial entities in their own right—and the robustness of the selection and ongoing oversight relating to these relationships. We then address the Council's question, with specific attention to the role of pricing vendors. We explain how regulated funds use pricing vendors and oversee their services, and how a fund would determine its net asset value per share in the absence of security values from a pricing vendor for one or more of the fund's portfolio holdings.

- In our view, the most significant source of operational risk for regulated funds is unanticipated business interruptions, regardless of the cause. We explain that the regulated fund industry is well positioned to respond to such risks when they arise. Among the reasons for this are robust business continuity planning by funds and their key service providers, technology and processing improvements that enable the continuation of certain activities during unscheduled market events, and involvement by the SEC and FINRA.

- We briefly address the importance of continued efforts—by all financial institutions and their regulators—with respect to cybersecurity.

D. Resolution

- The Council expresses interest in the extent to which the failure or closure of an asset manager, investment vehicle, or affiliate could have an adverse impact on financial markets or the economy. We discuss characteristics that distinguish mutual funds and their managers from the kinds of large, complex, and highly leveraged institutions whose distress or disorderly failure during the financial crisis caused (or absent government intervention might have caused) negative repercussions for the financial system at large.

- Mutual funds do not experience "disorderly failure." Mutual funds do not guarantee returns to investors, and investors know a fund's gains or losses belong to them alone. Unlike banks, mutual funds use little to no leverage. Without leverage, it is virtually impossible for a fund to become insolvent—*i.e.,* for its liabilities to exceed its assets. A fund that does not attract or maintain sufficient assets typically will be merged with another fund or liquidated through an established and orderly process.

- Fund managers likewise are unlikely to fail and highly unlikely to do so in the kind of disorderly manner that might pose risks to financial stability or require any government intervention. The main reason is the agency nature of the asset management business: acting as agent, a fund's investment adviser manages the fund's portfolio under a written contract. A fund manager does not bear the fund's investment risks; those risks are borne entirely by fund shareholders.

As a result of their agency role, fund managers typically have small balance sheets with limited assets and liabilities. We are unaware of any notable fund manager in its own right filing for bankruptcy protection. Should resolution be necessary, it would be a very straightforward process.

- The Notice correctly acknowledges that "asset management firms and investment vehicles have closed without presenting a threat to financial stability." There are a number of "exit strategies" available to funds and managers, all of which can be accomplished within the existing regulatory framework (and on an expedited basis, if need be).[15] We provide data showing that from 2000-2014, large numbers of mutual funds and fund sponsors left the business each year (*e.g.,* through fund liquidations or mergers and sales or mergers of fund management businesses). Even when these exits occur during, or are precipitated by, a period of severe market stress, they do not occasion disorder broadly affecting the investing public, market participants, or financial markets.

- Several features of the structure and regulation of mutual funds, along with the dynamic and competitive nature of the fund management business, facilitate "orderly resolution" of funds and their managers and help explain why certain concerns suggested by the Notice are unlikely to arise. These features include the independent legal character of a fund and Investment Company Act provisions concerning separate custody of fund assets, restrictions on affiliated transactions, and board oversight. The industry is very competitive, and mutual funds and their managers are highly substitutable. No single mutual fund or fund manager is so important or central to the financial markets or the economy that the government would need to intervene or offer support to protect financial stability.

- Historical experience demonstrates that the existing legal and regulatory framework works well. As the primary regulator of mutual funds and their managers, the SEC has the necessary expertise and regulatory authority to propose any enhancements it determines may be advisable.

III. Liquidity and Redemptions

This section of the Notice begins with a statement that the Council "is focused on exploring whether investments through pooled investment vehicles that provide redemption rights, as well as their management of liquidity risks and redemptions, could potentially influence investor behavior in a way that could affect U.S. financial stability differently than direct investment."[16]

[15] We describe fund and manager "exit strategies" in Appendix B to this letter. We outline the established and orderly process for liquidating and dissolving a fund in Appendix C.

[16] Notice at 6-7.

As a preliminary matter, we note that, for stock and bond mutual funds, this would be a purely hypothetical comparison. Individuals hold 95 percent of stock and bond mutual fund assets, typically to save for goals such as college and retirement. They overwhelmingly choose mutual funds as a cost-effective way to achieve their objectives, through a shared interest in a professionally managed pool of securities that is protected by comprehensive regulation under the federal securities laws. The vast majority of these investors would be unable to replicate such investment exposure by directly holding securities themselves.

This is because separately managed accounts require minimum investment balances that are typically considerably higher than those for mutual funds, putting them out of the reach of many investors. Behind this practical limitation lies a more fundamental reality. Prudent financial planning and asset allocation often require investors to maintain diversified exposures to multiple asset and sub-asset classes in order to meet financial goals while minimizing risk, irrespective of how investors choose to obtain those exposures (*e.g.*, through discretionary separately managed accounts or self-directed brokerage accounts). In addition, the transaction costs of constructing and maintaining a properly diversified portfolio of directly held investments would be prohibitively expensive for most retail investors, and would have an adverse effect on investment returns. Attempting to achieve cost-effective, broad, and diversified exposures to multiple asset classes exclusively through a portfolio of directly held (non-fund) investments could require millions of dollars that most retail investors simply do not have.

We interpret the Council's questions as asking whether stock and bond mutual funds pose unique and systemic risks by virtue of the requirement under the Investment Company Act that they provide investors the ability to redeem shares on a daily basis.[17] The Council appears to be asking whether portfolio management practices in response to redemption requests and the mutualization of the costs that stock and bond funds incur for trading creates a unique and economically meaningful incentive for fund investors to redeem heavily after a financial shock, necessitating sales of portfolio securities in a way (or to an extent) that could destabilize financial markets. The answer, as we discuss at length below, is no: in practice, specific characteristics of funds and their investors render this theoretical prospect extremely remote-indeed, all the evidence rebuts this proposition.

Daily redeemability is a defining feature of mutual funds. This means that liquidity management is not only a regulatory compliance matter, but also a major element of investment risk management, an intrinsic part of portfolio management, and a constant area of focus for fund managers. Following a brief overview of the primary statutory and regulatory requirements that

[17] The data and analysis in this section pertain to stock and bond mutual funds. ETFs operate differently, with secondary market trading providing a share of the liquidity in ETF shares (*i.e.*, investors buy and sell ETF shares on an exchange rather than transacting directly with the fund). *See* Appendix A for a detailed discussion of the ETF primary and secondary markets and the behavior of bond ETFs during the summer of 2013, a period in which bond prices moved down sharply.

support daily redeemability, we explain that funds manage net new cash flows every day.[18] Even during periods of significant outflows from a fund (*i.e.*, negative net new cash flows), many investors continue to purchase the fund's shares. And cash continues to come in from other sources, such as income, dividends, and returns of principal on the securities funds hold. This means that liquidity management is a nuanced and fluid process. It is also fund-specific—there is no "one size fits all" approach. A fund's manager must have the flexibility to manage in accordance with the fund's objective, policies, and strategies and in light of shareholder activity.

In the comments that follow, we provide an overview of mutual fund liquidity management practices, including the role of active monitoring by the fund manager of a fund's individual holdings, its overall investment portfolio, and the fund's investor base.

We then address the two explanations the Notice posits as to why pooled investment vehicles that offer redemption rights (*e.g.*, stock and bond mutual funds) potentially could pose systemic concerns. First, the Notice hypothesizes that in times of market stress, a fund manager will sell off the most liquid portfolio assets first to minimize the price impact of early redemptions, and will continue in this manner to meet further redemptions. It suggests that a fund's portfolio thus becomes ever more illiquid through this "waterfall" approach, and that this growing concentration of less liquid assets in the fund heightens the incentives for one fund investor to redeem ahead of others.

We explain that this characterization bears little resemblance to how mutual funds actually manage liquidity. Moreover, contrary to this suggestion in the Notice, conditions in falling markets necessitate that fund managers rebalance their portfolios in a manner that ends up cushioning any potential effects of investor redemptions on stock or bond prices. All else equal, when stock and bond prices fall, a fund's holdings of cash will rise as a share of its assets. A fund manager then can use cash to meet redemptions and still keep the fund's cash-to-asset ratio relatively stable, even during periods of outflows.[19]

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[18] Net new cash flow, the term referring to mutual fund investor purchase and redemption activity most commonly cited in the media, is the difference between investors' gross purchases of new fund shares and investors' redemptions of fund shares. Investors' gross purchases of new fund shares represents the total dollar value of shares newly created and sold to investors in a given period irrespective of whether other shareholders redeem pre-existing fund shares. Gross purchases includes any new sales of fund shares arising from exchanges into a fund from another fund in the same complex (*i.e.*, an investor redeems shares of ABC Fund 1 and, using the redemption proceeds, purchases shares of ABC Fund 2). Gross purchases excludes dividends that are declared by funds and subsequently reinvested automatically by investors. Investors' gross redemptions of fund shares represents the total dollar value of fund shares redeemed by investors in a given period irrespective of whether other shareholders purchase new fund shares. Gross redemptions includes any redemptions of fund shares arising from exchanges out of a fund into another fund in the same complex.

[19] ICI collects data from its member firms on a wide range of fund-related statistics, compiles and stores the data, and publishes summaries of the data on its website. Among other things, these data include monthly figures on the assets of regulated funds, net new cash flows from investors to mutual funds, and mutual funds' holdings of cash and net and gross purchases of stocks and fixed income securities. ICI's monthly Trends data collection is the broadest available, capturing 98

A second hypothesis posed by the Notice turns on the fact that fund investors bear a *pro rata* portion of the costs associated with purchases and sales of portfolio securities, including costs associated with investor redemptions. Since these costs are mutualized, remaining investors will share the costs of portfolio trades prompted by redemptions by other investors and thus, the Notice suggests, such costs are so significant and predictable that investors may have an incentive to exit funds ahead of other investors. As discussed below, even if fund trading costs are significant, this is highly unlikely to create arbitrage opportunities for fund investors. Redeeming investors could incur significant transaction and tax costs. Investors who choose not to reinvest their redemption proceeds immediately also would be exposed to market-timing risks by being out of the market. We explain that, in fact, mutual funds already employ techniques that reduce the impact of redemptions on investors that remain in the fund. Moreover, as the data show, stock and bond funds in aggregate experience only modest outflows in response to market events, even severe market downturns. This is true even for funds whose investment strategies focus on less liquid asset classes, suggesting that any costs of remaining in the fund are swamped by costs and risks associated with leaving the fund. Furthermore, as we discuss, for virtually all funds, even when a fund is experiencing outflows, some investors continue to buy shares in that fund. This pattern of investor behavior suggests that the hypothesized costs of remaining in a fund with net outflows are not significant enough to dissuade new or existing investors from continuing to purchase shares of those funds, even during periods of market stress.

The Notice asks questions about specific types of funds, including high-yield bond funds. For consistency and ease of exposition, our comment letter presents data for high-yield bond funds throughout our discussion of liquidity management.[20] Although high-yield bond funds account for only 2 percent of the assets of all long-term mutual funds (Figure 1), and only 7.5 percent of the assets of bond funds, we believe this approach is illustrative because the patterns represented here are similar for other types of funds.[21]

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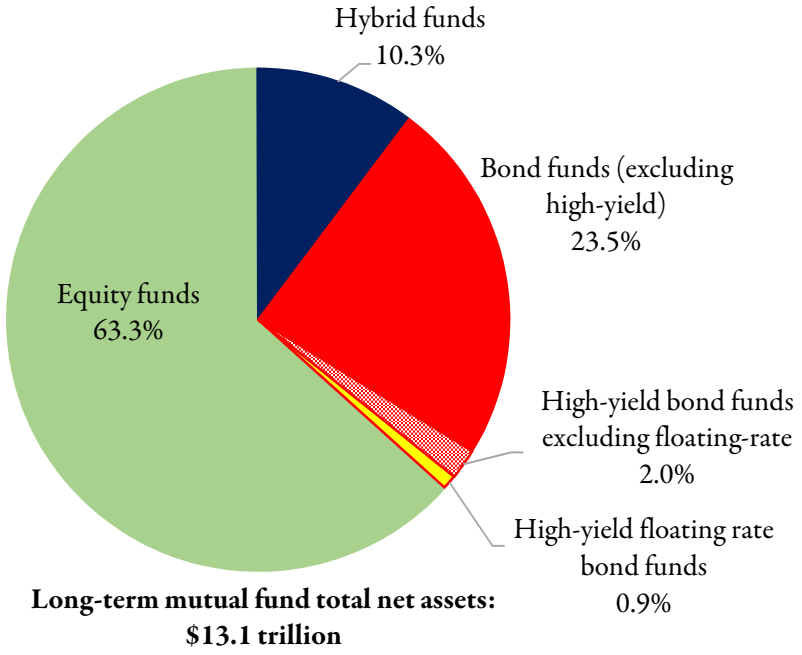
percent of mutual fund assets. We supply this information to federal regulatory authorities and it is widely cited in the media and academic research.

[20] ICI's "high-yield fund" investment objective classification includes floating rate funds that invest primarily in high-yield bank debt. In the analysis here, we exclude high-yield floating rate funds in order to focus on those funds that *primarily* invest in high-yield debt (as opposed to high-yield bank loans). This should also help maintain better comparability with the definitions of high-yield funds used by third-party data providers. Upon request, ICI can provide the Council charts and tables comparable to those in this letter for high-yield floating rate funds, subject to confidentiality limits intended to prevent inadvertent disclosure of data points for individual funds. At the end of 2014, mutual funds and ETFs held just 15 percent of the leveraged loan market.

[21] *See, e.g.*, "Why Long-Term Fund Flows Aren't a Systemic Risk: Multi-Sector Review Shows the Same Result," *Viewpoints*, Investment Company Institute, March 4, 2015, which presents charts similar to Figure 13 in this comment letter for domestic equity funds, emerging markets equity funds, investment grade bond funds, government bond funds, multi-sector bond funds, world bond funds, and tax-exempt bond funds.

Figure 1: High-Yield Bond Fund Assets Are a Small Share of Long-Term Mutual Fund Market
Year-end 2014



Source: Investment Company Institute

If it would be of interest or assistance to the Council, ICI can provide this information for other types of funds upon request.

A. Mutual Fund Liquidity and Portfolio Management Are More Robust and Multifaceted Than the Notice Suggests

For mutual funds, the central importance of meeting redemptions means that liquidity management is a key element of regulatory compliance, investment risk management, and portfolio management—and a constant area of focus. Even before launching a mutual fund, the fund manager and fund board consider whether the fund's proposed investments and strategies are suitable for the mutual fund structure, including whether it will be able to satisfy applicable regulatory requirements on an ongoing basis.[22]

Liquidity management is a nuanced, fund-specific, and fluid process, and there is no "one size fits all" approach. While a fund manager's approach to liquidity management may include general principles, the way in which it applies them (*i.e.*, the specific means used for monitoring and managing risk) often will vary by fund, in recognition of the differing liquidity profiles and investors that funds have. Fund-wide and asset-specific liquidity assessments are dynamic, have elements that are both

[22] If not, the manager may decide to offer that strategy through a different vehicle (*e.g.,* a closed-end fund or a private fund).

objective and subjective, and remain subject to change depending on market conditions and evolving views. Furthermore, liquidity management policies and practices themselves evolve, and are shaped in part by the manager's unique experiences and market events.

1. Mutual Fund Regulatory Requirements Support the Daily Redeemability of Fund Shares

Mutual funds offer their investors the opportunity to participate on a *pro rata* basis in the investment results of the fund's portfolio. The fund experiences the effects of market movements every day, and fund investors understand that the value of their investment in the fund will fluctuate according to the day-to-day performance of the fund's portfolio holdings.

Mutual funds also offer their investors the ability to redeem shares on a daily basis. This is a defining feature of these funds, and it is one around which many of the regulatory requirements and operational practices for these funds are built. Of particular importance are the daily marking-to-market of all portfolio assets and maintaining much of the portfolio in liquid investments.

a) Daily Valuation of Fund Assets

A mutual fund must value all of its portfolio holdings on a daily basis, based on market values if readily available. If there is no current market quotation for a security or the market quotation is unreliable, the fund board of directors or trustees (a substantial majority of whom typically are independent of the fund's manager) has a statutory duty to "fair value" the security in good faith.[23] The fund uses the values for each portfolio holding to calculate the net asset value ("NAV") of its shares at least once each business day.[24] The daily NAV is the price used for all transactions in fund shares, including both purchases and redemptions.

Significantly, SEC rules require forward pricing of fund shares, meaning that an investor submitting a purchase order or redemption request must receive the price next calculated *after* receipt of the purchase order or redemption request.[25] As the SEC has observed, these pricing requirements are

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[23] *See* Section 2(a)(41) of the Investment Company Act and Rules 2a-4 and 22c-1 thereunder. "Fair value" refers to the amount the fund might reasonably expect to receive for the security upon its current sale. *See* Accounting Series Release No. 118, SEC Release No. IC-6295, 35 Fed. Reg. 19986 (December 23, 1970).

[24] Rule 22c-1(b) under the Investment Company Act.

[25] Rule 22c-1(a) under the Investment Company Act. Substantially all funds calculate their NAV per share as of 4:00 p.m. Eastern time. While the mechanical process of calculating NAV per share takes place sometime after 4:00 p.m., the security values used in the calculation are as of 4:00 p.m. For domestic equity securities, this entails obtaining the last sale closing price from the exchange where the security is listed. For fixed income securities, the SEC has indicated that the fund and its board should consider "the extent to which the service determines its evaluated prices as close as possible to the time as of which the fund calculates its net asset value." (Investment Company Act Release No. IC-31166, July 23, 2014). For securities that trade on foreign exchanges that close prior to 4:00 p.m. Eastern time, the SEC has stated that the fund must evaluate whether a significant event has occurred after the close of the foreign exchange but before the fund's NAV calculation. If so, the closing price for that security would not be considered a readily available market quotation, and the fund must value the security pursuant to a fair value pricing methodology. (Letter from Douglas Scheidt, Associate Director

critical to ensuring that fund shares are purchased and redeemed at fair prices and that shareholder interests are not diluted.[26]

Given the importance of the pricing process, funds have extensive policies and procedures designed to ensure that fund portfolio securities are properly valued and that the fund's NAV accurately reflects the fund's net asset value per share. Valuation policies generally serve multiple purposes: they define the roles of various parties involved in the valuation process; describe how the fund will monitor for situations that may necessitate fair valuation of one or more securities; describe board-approved valuation methodologies for particular types of securities; and describe how the fund will review and test fair valuations to evaluate whether the valuation procedures are working as intended. These policies are a critical component of a fund's governance process and compliance program, and accordingly are a significant area of focus for the SEC during inspections and examinations.[27] Valuation also is a critical component of a fund's annual audit.[28]

b) Liquidity to Support Redemptions

At least 85 percent of a mutual fund's portfolio must be invested in "liquid securities"—namely, assets that can be "sold or disposed of in the ordinary course of business within seven days at approximately the value at which the mutual fund has valued the instrument on its books."[29] On an

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and Chief Counsel, Division of Investment Management, U.S. Securities and Exchange Commission to Craig S. Tyle, General Counsel, Investment Company Institute, dated April 30, 2001). Funds investing in foreign securities may use U.S. traded futures contracts, American Depository Receipts or other indicia of value to calculate a 4:00 p.m. value for those securities.

[26] *See, e.g.*, Compliance Programs of Investment Companies and Investment Advisers, SEC Release No. IC-26299, 68 Fed. Reg. 74714, 74718 (Dec. 24, 2003) (adopting Rule 38a-1 under the Investment Company Act) ("Fund Compliance Rule Release"); and Adoption of Rule 22c-1 Under the Investment Company Act of 1940 Prescribing the Time of Pricing Redeemable Securities for Distribution, Redemption, and Repurchase, and Amendment of Rule 17a-3(a)(7) Under the Securities Exchange Act of 1934 Requiring Dealers To Time-Stamp Orders, SEC Release IC-5519 (Oct. 16, 1968) ("One purpose of Rule 22c-1 is to eliminate or reduce so far as reasonably practicable any dilution of the value of outstanding redeemable securities of registered investment companies through (i) the sale of such securities at a price below their net asset value or (ii) the redemption or repurchase of such securities at a price above their net asset value.").

[27] For more detail, *see generally* ICI, Independent Directors Council and ICI Mutual Insurance Company, *An Introduction to Fair Valuation*, (Spring 2005), available at www.ici.org/pdf/05_fair_valuation_intro.pdf.

[28] A fund's financial statements must be audited annually by an independent public accountant registered with the Public Company Accounting Oversight Board ("PCAOB"). Among other things, the independent accountant examines the fund's valuation policies and procedures to confirm that the prices used to value the fund's security holdings are consistent with generally accepted accounting principles. As required by SEC rules, the independent accountant must verify 100 percent of the security valuations applied to the fund's portfolio at the balance sheet date; the accountant also would typically review valuations for selected dates throughout the year. The auditing of security values and fair value measurements is a significant area of focus in PCAOB inspections of public accounting firms.

[29] *See* Revisions of Guidelines to Form N-1A, SEC Release No. IC-18612, 57 Fed. Reg. 9828 (March 20, 1992)("SEC Liquidity Guidelines Release"); and SEC Division of Investment Management, IM Guidance Update No. 2014-1 at 6 (January 2014), available at www.sec.gov/divisions/investment/guidance/im-guidance-2014-1.pdf (explaining that the 1992

ongoing basis, funds monitor the overall level of liquidity in their portfolios as well as the liquidity of particular securities, as discussed further below. Many funds adopt a specific policy with respect to investments in illiquid securities; those policies are sometimes more restrictive than the SEC guidelines. Although an unexpected market event potentially could cause certain previously liquid securities to become illiquid, the SEC has determined that the 85 percent standard should ensure a mutual fund's ability to meet redemptions.[30]

There are times, of course, in which market conditions or investor redemptions may pose particular challenges. In those circumstances, mutual fund managers have certain liquidity management tools at their disposal that can be used on a temporary basis. For example, a mutual fund has by law up to seven days to pay proceeds to redeeming investors, although as a matter of practice funds typically pay proceeds within one to two days of a redemption request.[31] By using the full seven-day period for directly-held accounts, a fund would have more flexibility in meeting redemptions. Other tools, such as interfund lending and redemptions in kind, are discussed below.

Additionally, if a mutual fund is faced with an emergency situation that would make it reasonably impracticable for the fund to dispose of portfolio securities or determine the fair value of its assets, the fund may seek relief from the SEC to suspend redemptions temporarily or postpone the payment of redemption proceeds beyond seven days.[32] The SEC and its staff have used this authority, for example, in response to emergencies outside the U.S. and the disruption of trading in particular markets.[33] Even in the face of unforeseen events, however, funds generally are expected to value their portfolio securities (using market quotations or their fair valuation methodologies) and calculate their NAVs.[34]

The SEC and its staff recently have been focusing on fixed income fund liquidity risk management. For example, in January 2014, the Division of Investment Management issued an "IM

Guidelines are Commission guidance and remain in effect).

[30] SEC Liquidity Guidelines Release at 9828 (stating that its standard was "designed to ensure that mutual funds will be ready at all times to meet even remote contingencies").

[31] Section 22(e) of the Investment Company Act.

[32] Section 22(e)(2) of the Investment Company Act.

[33] *See, e.g.*, Letter to Investment Company Institute from Gerald Osheroff, Associate Director, SEC Division of Investment Management (March 20, 1986) (permitting municipal bond funds to suspend redemptions for two days due to a temporary freeze in the municipal bond market caused by uncertainty over proposed tax reforms). Similarly, in March 1994, ICI requested and received oral no-action relief to allow certain funds to suspend redemptions for one day when the assassination of a Mexican presidential candidate caused the Mexican Stock Exchange to close.

[34] *See, e.g.,* Letter to Craig S. Tyle, General Counsel, Investment Company Institute, from Douglas Scheidt, Associate Director and Chief Counsel, Division of Investment Management, SEC (December 8, 1999) at n.14 (observing that certain funds "used a variety of indicators and benchmarks to fair value price their Asian portfolio securities" in connection with "the extreme volatility that occurred in world financial markets in October 1997").

Guidance Update" addressing risk management in changing fixed income market conditions.[35] In addition, the Office of Compliance Inspections and Examinations ("OCIE") has been examining fixed income funds, with an emphasis on their liquidity and liquidity risk management.[36] The SEC also is considering proposing new requirements for mutual funds relating to their management of liquidity risk.[37]

2. The Notice Ignores the Dynamics of Mutual Fund Cash Flows

Managing liquidity as part of overall portfolio management is a dynamic process requiring fund managers to make daily adjustments to accommodate cash inflows and outflows. Even during periods of market stress, some investors continue to purchase fund shares, and funds receive interest income, dividends, and proceeds from maturing debt instruments. Portfolio managers and traders typically receive data on cash flows at least daily and thus have a strong sense of whether additional actions (including the sale of portfolio holdings) would be needed to meet redemption requests or otherwise adjust a fund's liquidity profile. Moreover, funds accommodate redemptions virtually every day.

Figure 2 plots investors' gross purchases of new fund shares and gross redemptions of fund shares from high-yield bond funds industry-wide on a monthly basis from February 2000 to December 2014. As seen, in every month since February 2000, high-yield bond funds have experienced both gross purchases and gross redemptions of fund shares. One example of this is June 2013 (the so-called "Taper Tantrum" episode, a period that saw the sharpest 4-month rise in long-term Treasury yields since the bond market rout of 1994) when outflows from high-yield bond funds totaled just over 4 percent of their assets, but investors purchased $5.7 billion of new shares, or 2.1 percent of these funds' assets.

Investors' gross purchases of fund shares may even rise during periods of market stress, such as when funds are seeing net cash outflow. July 2014 is a case in point. That month, returns on high-yield bonds dropped 1.85 percent owing to a confluence of events, including: (i) mid-month comments by Federal Reserve Board Chair Janet Yellen suggesting that the high-yield market might be overvalued; (ii) global concerns about the high-yield debt market that spilled over to the U.S. late in the month; and

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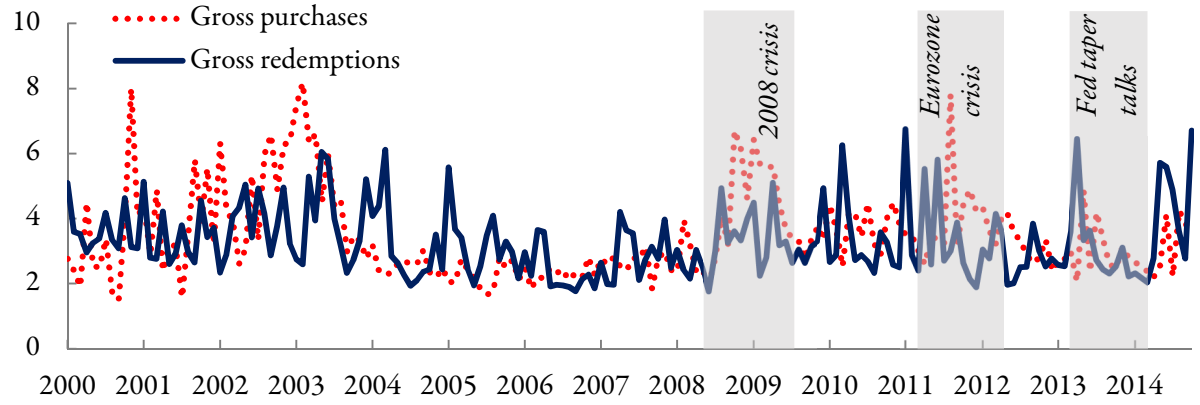
[35] U.S. Securities and Exchange Commission, Division of Investment Management, *Risk Management in Changing Fixed Income Market Conditions,* IM Guidance Update No. 2014-01 (January 2014), available at http://www.sec.gov/divisions/investment/guidance/im-guidance-2014-1.pdf.

[36] OCIE's 2015 national examination priorities include fixed income investment companies. In particular, OCIE has indicated that "[w]ith interest rates expected to rise at some point in the future, we will review whether mutual funds with significant exposure to interest rate increases have implemented compliance policies and procedures and investment and trading controls sufficient to ensure that their funds' disclosures are not misleading and that their investments and liquidity profiles are consistent with those disclosures." OCIE, National Examination Priorities for 2015, available at http://www.sec.gov/about/offices/ocie/national-examination-program-priorities-2015.pdf.

[37] SEC Chair White Speech, *supra* note 10. Chair White indicated that the SEC staff "is considering whether broad risk management programs should be required for mutual funds and ETFs to address risks related to their liquidity and derivatives use…" She added that the staff also is reviewing options for specific requirements, such as updated liquidity standards and disclosure of liquidity risks.

(iii) stronger economic data that the markets interpreted as indicating an increased likelihood of tighter monetary policy.[38] In that month, high-yield bond funds experienced outflows of 3 percent of their assets. The same month, investors purchased $7.5 billion of fund shares, an *increase* from the previous month, when their purchases totaled $6.5 billion. To be sure, investors' gross redemptions of fund shares rose even more (from $8.2 billion in June 2014 to $16.9 billion in July 2014), which was enough to create a net outflow. The point, however, is that even during months when funds see significant net outflows, some investors continue to purchase new fund shares.

Figure 2: High-Yield Bond Funds' Gross Purchases of New Fund Shares by Investors and Gross Redemption of Shares by Investors
Percent of previous period assets; monthly, February 2000–December 2014



Note: Data exclude high-yield bond funds designated as floating-rate funds.
Source: Investment Company Institute

Several factors explain investors' tendency to continue purchasing new fund shares, even during stress periods. One significant factor is that there are over 90 million investors in mutual funds and thus fund investors are bound to have a wide range of views on market conditions and how best to respond to those conditions in light of their personal circumstances. Understanding generally how investors (many of whom use financial advisors to assist them) use mutual funds is critical in understanding funds' cash flow behavior. An individual's financial goals (such as funding education or retirement), time horizon, risk tolerance, and other idiosyncratic considerations, will often shape how he or she approaches selecting a portfolio of investments. In addition to the individual's financial goals, other general principles of portfolio construction are important. These include diversification and ensuring that assets are appropriately matched with future financial needs.

[38] *See, e.g.,* Chris Dietrich, Katy Burne, and Ben Edwards, "Junk Bonds Sink on Fears Rally Will End as Economy Picks Up," *Wall Street Journal,* July 31, 2014.

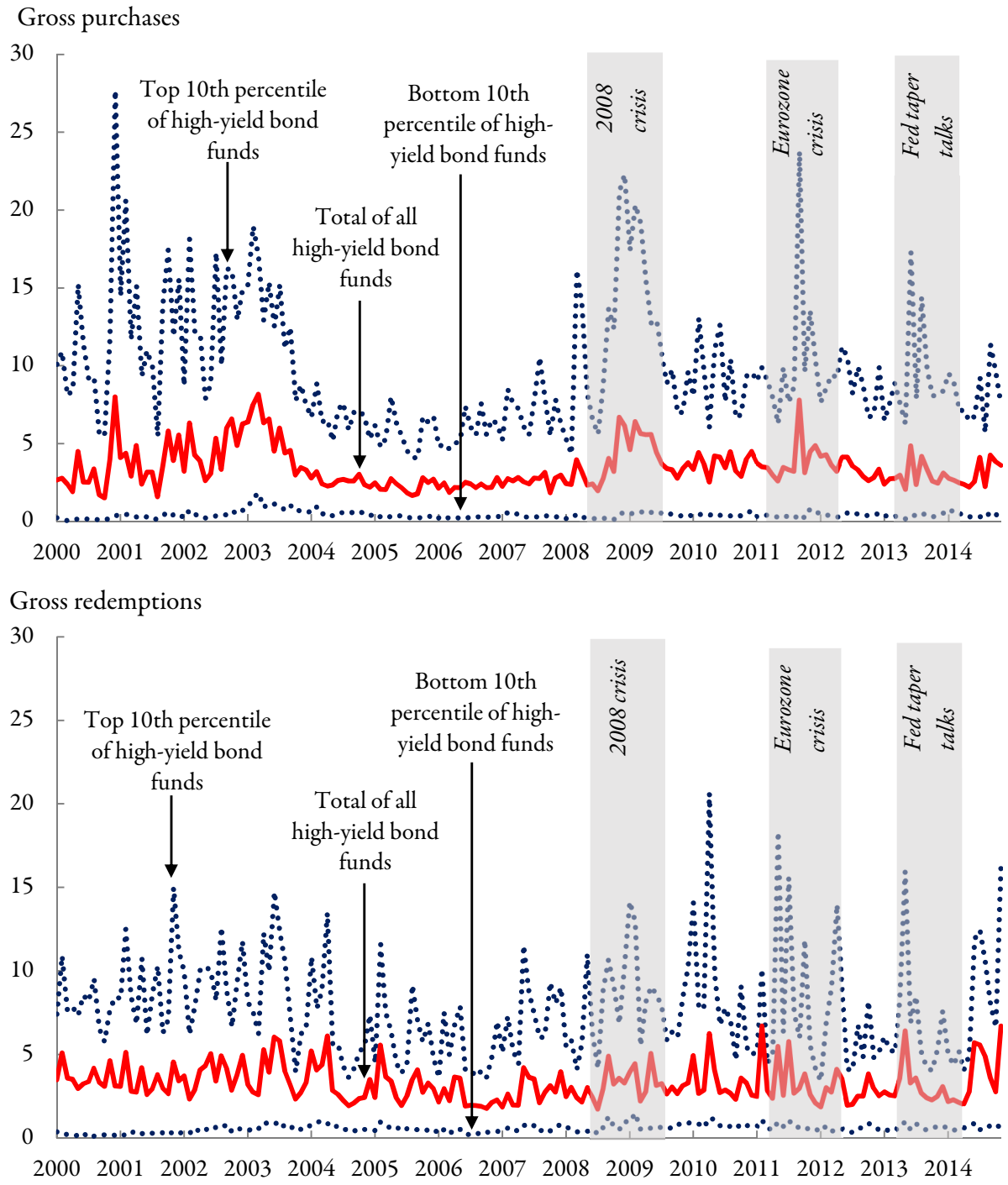
The upshot of this process is that in constructing and maintaining an investment portfolio, individuals often invest in a number of asset classes (*e.g.*, stocks, bonds, and cash) and sub-asset classes (*e.g.*, high-yield bonds) that have different risk and liquidity profiles and behave differently as market conditions change. Quite often, investors obtain exposure to these asset classes through investment in a number of different funds, each forming an element of a diversified portfolio. While a particular fund may look relatively risky or less liquid in isolation, allocating a portion of assets to it may nevertheless be beneficial depending on its performance and correlation with other asset classes held in an investor's portfolio. Diversification across and within asset classes helps reduce variability of investment returns, and allows an investor to better withstand stressful periods experienced within a particular asset class or fund. If such a fund represents a relatively small percentage of an investor's portfolio, that investor is far less likely to redeem fund shares in times of market stress—indeed, has reasons *not* to do so. And if an investor has a short-term liquidity need, he or she is far more likely to tap a deposit account or money market fund (because of their high degree of liquidity and stability of value) rather than a high-yield bond fund.

Another important influence is that many investors purchase shares through 401(k) plans or other types of defined contribution plans, in many cases on the basis of automatic payroll deductions, which tend to continue even during stress periods. Similarly, investors may engage in strategies of dollar-cost averaging and portfolio rebalancing, increasing their purchases of fund shares in markets that have recently declined and selling shares of funds whose value has recently increased because of market returns. To the extent that fund investors follow such strategies, their behavior may in fact have counter-cyclical stabilizing effects.

What is true in the aggregate also is true at the individual fund level: most mutual funds routinely experience and manage both investors' redemptions of fund shares and purchases of new fund shares. The top panel in Figure 3 shows investors' gross purchases of fund shares as a percentage of fund assets. The center red line shows investors' gross purchases of all high-yield bond funds as a percentage of the assets of all such funds. The dashed lines show the top 10th percentile and bottom 10th percentile of funds. The lower dashed line sits above zero, indicating that in all periods at least some investors purchase shares in virtually all high-yield bond funds. Moreover, the upper dashed line indicates that investors are making gross purchases of new fund shares that exceed 5 percent of the funds' assets in any given month for a significant fraction of high-yield bond funds. The bottom panel shows that the same characteristics are true for gross redemptions by investors in high-yield bond funds.

Figure 3: Investors' Gross Purchases and Gross Redemptions of High-Yield Bond Fund Shares, 10th and 90th Percentiles

Percentage of previous period total net assets; monthly, February 2000–December 2014

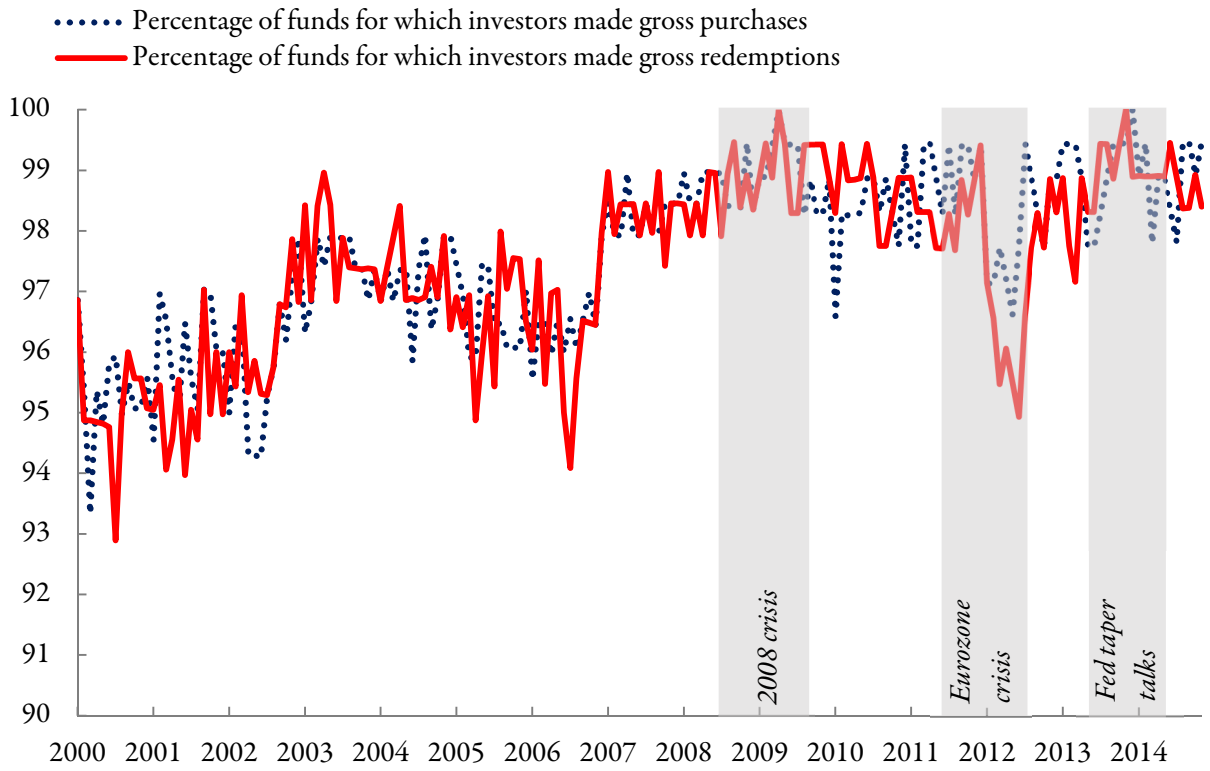


Note: Data exclude high-yield bond funds designated as floating-rate funds.
Source: Investment Company Institute

Similarly, for the vast majority of long-term funds, at each point in time some investors are redeeming shares while others are purchasing new shares. Figure 4 illustrates this point for high-yield bond funds. The figure shows the percent of all high-yield bond funds from which investors were purchasing new shares during a given month, as well as the percent of such funds where at least some investors were redeeming fund shares. Over the fifteen years 2000–2014, in every month, over 90 percent (and generally over 95 percent) of all high-yield bond funds saw both gross purchases and gross redemptions of fund shares, including during periods of financial market stress. For instance, in June 2013 (the Taper Tantrum period), 98 percent of high-yield bond funds experienced both gross purchases and gross redemptions of fund shares.

Figure 4: Percentage of High-Yield Bond Funds in Which Investors Made Gross Purchases or Gross Redemptions of Fund Shares

Percentage of total high-yield bond mutual funds; monthly; February 2000–December 2014

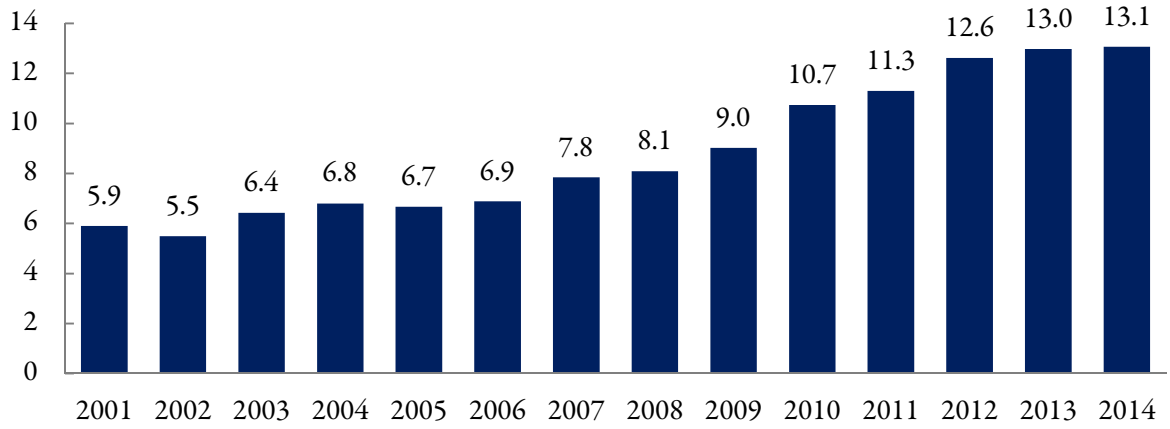


Note: Data exclude high-yield bond funds designated as floating-rate funds.
Source: Investment Company Institute

Another element of the dynamics of liquidity (and overall portfolio) management is the income that funds receive from portfolio securities throughout the year. U.S. tax laws require funds to distribute to their shareholders virtually all net income by the end of the calendar year, but investors choose to reinvest a high percentage of these dividends. The reinvested dividends provide a measure of

the net amount of portfolio income that fund managers have available to invest on an annual basis. Figure 5 shows dividends paid by high-yield bond funds that investors subsequently reinvested in those same funds ("reinvested dividends") annually from 2001 to 2014. In 2014, for example, shareholders in these funds reinvested $13 billion, which was an average of about ½ percent of their assets on a monthly basis. Thus, reinvested dividends provide a not insignificant source of cash flow to funds. This is important because net new cash flows—the measure most observers focus on in assessing potential pressures in financial markets—do not take into account reinvested dividends.

Figure 5: Dividends Paid by High-Yield Bond Funds that Are Reinvested in Those Same Funds
Billions of dollars; yearly, 2001–2014



Note: Data exclude high-yield funds designated as floating-rate funds.
Source: Investment Company Institute

3. Liquidity Management Involves Active Monitoring of a Fund's Individual Holdings, Overall Portfolio, and Shareholder Base

A mutual fund manager's liquidity management practices typically will include active monitoring of the liquidity profile of individual portfolio holdings. While the SEC's 85 percent liquidity test requires binary determinations for each portfolio holding (*i.e.*, for purposes of compliance testing, all assets are either "liquid" or "illiquid"), for broader liquidity management purposes fund managers think of portfolio holdings as falling along a liquidity continuum. Based in large part on the historical performance of particular holdings in different market conditions, a fund manager may develop general "macro" liquidity views of such holdings by class and sub-class, issuer domicile, duration, credit quality, and currency, and modify them on an ongoing basis as necessary. Specific information that may contribute further to the manager's view of an asset's liquidity may include: (i) assessments of bid-ask spreads, volumes, depth of secondary market for the asset, information from pricing vendors, and other data; (ii) deliberations among portfolio managers and traders regarding valuation and liquidity; (iii) analysis of the capital structure and credit quality of the asset/holding;

(iv) the "newness" of a bond issue (newer issues tend to be more liquid); and (v) liquidity data provided by third parties. Some fund managers assign "liquidity scores" to particular holdings based on these types of factors.

A fund's liquidity management practices also typically include active monitoring of the overall portfolio's liquidity profile, informed in large part by the "bottom up" asset-level liquidity monitoring discussed above. Evaluation of portfolio liquidity is a fluid and collaborative process that features qualitative and quantitative contributions from several groups within the fund manager (*e.g.,* portfolio managers, traders, risk officers and analysts, legal and compliance personnel, and senior management). Once again, the fund manager may develop a "macro" view on a portfolio's liquidity profile based on past experience.

Managers also frequently use quantitative tools, designed to measure the liquidity of the overall portfolio, to complement and inform their views. These tools may include: (i) comparing a portfolio's liquidity to that of a benchmark; (ii) calculating "coverage ratios," *i.e.*, measures of the extent to which the fund has sufficient liquidity to meet daily/weekly redemptions based on average activity and historical highs for the fund, and/or historical highs for the fund's peer group (the latter may be a better measure for newer funds);[39] (iii) calculating how long it would take to raise specified amounts of cash in the portfolio; and (iv) conducting forms of stress testing to determine the impact of certain changes (*e.g.*, changes in interest rates, credit quality, widening spreads, currency fluctuations) on portfolio liquidity. Based on the above factors, some fund managers then assign "liquidity scores" to portfolios. Some managers also use "dashboards" as a convenient way to pull together all relevant liquidity-related information in a succinct manner.

Another critical component of liquidity management is understanding the fund's investor base and historical patterns of purchases and redemptions. Several characteristics of a fund's investor base help predict the potential magnitude of the fund's net redemption activity, including the following: (i) the percentage of the base that consists of typically long-term investors (*e.g.*, investors in retirement plans and discretionary asset allocation programs); (ii) diffuseness (the more diffuse the investor base, the less likely a fund will encounter large aggregate outflows); and (iii) heterogeneity (*e.g.*, fund investors differ in their personal financial goals, time horizons, and risk tolerances, and these differences lessen the likelihood of large aggregate outflows). In addition, managers review their funds' historical redemption patterns (particularly the highest historical levels of redemption activity), and many also review historical redemption activity data for similarly-managed peer funds.

More generally, funds seek to maintain open lines of communication with the intermediaries (*e.g.,* broker-dealers) through which investors purchase and redeem fund shares. Many fund complexes

[39] Some fund managers seek to maintain multiples of coverage (*e.g.*, 3x liquidity coverage assuming the highest historical redemption activity), or target some amount *above* the historical highs, each as a more conservative way of measuring and maintaining coverage.

also request that intermediaries provide advance notice of large redemptions, thus providing the fund manager with greater ability to plan for meeting those redemptions.

While fund managers monitor liquidity on a day-to-day basis, fund boards of directors also play a role in oversight of liquidity management. Fund boards must (i) review and approve funds' and fund managers' compliance policies and procedures, and (ii) receive annual written reports from funds' chief compliance officers regarding the operation of those policies and procedures.[40] Consequently, a fund board would be responsible for reviewing and approving compliance-related liquidity procedures, along with any proposed material changes. Fund managers also typically keep a fund's board apprised of the manager's general approach to monitoring and managing liquidity risk. As needed or appropriate, boards receive more specific information on fund liquidity as market conditions and redemption activity warrant. Finally, SEC rules require that fund boards either approve a redemption fee on certain fund share redemptions, or else determine that the imposition of such a fee either is not necessary or not appropriate.[41] This responsibility provides boards yet another opportunity to focus their attention on fund liquidity and the impact of shareholder redemptions.[42]

B. "Waterfall Theory" of Liquidity Management Does Not Reflect Reality

In discussing investor incentives to redeem from pooled investment vehicles (particularly those invested in less-liquid asset classes), the Notice speculates about actions a fund manager might take that could possibly heighten redemption incentives and increase the likelihood of asset sales.[43] In particular, the Notice contends that in times of stress, if a fund manager sells securities at a discount, or sells off "the more-liquid part of the portfolio to minimize the price impact of early redemptions, liquidity risk could be concentrated on investors redeeming later," thus heightening the incentives to redeem before other investors.[44] Below, we describe how fund managers in fact manage liquidity as part of overall portfolio management. In so doing, we explain why this "waterfall theory" (*i.e.,* the notion that a fund manager will meet redemptions by first depleting its supply of cash and more liquid holdings) does not accurately depict how funds actually are managed.

Informed by their monitoring and analysis of liquidity at the individual asset and overall portfolio levels, assessments of their investor bases, and other factors, fund managers actively manage their funds' liquidity profiles. Liquidity is often an important factor in deciding whether to purchase a

[40] Rule 38a-1 under the Investment Company Act.

[41] Rule 22c-2(a)(1).

[42] The SEC has indicated that it expects the compliance programs of funds and/or managers to address, among other subjects: portfolio management processes, trading practices, pricing of portfolio securities and fund shares, and processing of purchases and sales of fund shares (including the forward pricing requirement). *See* Fund Compliance Rule Release, *supra* note 26, at 74718.

[43] Notice at 7.

[44] *Id.*

portfolio investment in the first place, and fund managers sometimes will avoid investments that might be expected to decrease the portfolio's overall liquidity.[45]

Fund managers generally maintain some cash and/or highly liquid securities in their funds, upon which they can draw if necessary. The percentage of cash and highly liquid holdings in proportion to the overall portfolio is likely to vary across different types of funds, based on factors such as the nature of a fund's investment objective and strategies and the make-up of its investor base, evaluated in light of the overarching legal right of shareholders to redeem daily. The cash position also may vary within a given fund at times, *e.g.,* due to market movements or investor activity.[46]

But fund managers also employ other portfolio management techniques that mitigate the risk that they might need to sell portfolio securities to meet redemptions at a material discount. For example, managers of stock and bond funds may diversify across holdings, issuers, sectors, countries, and currencies within their funds to varying degrees, thereby reducing liquidity risk and investment risk.[47] This diversification makes funds less susceptible to sharp declines in their share prices, which in turn reduces any marginal incentive for fund shareholders to redeem. Fund managers also may hold bonds scheduled to mature in the near future as a means of providing a predictable internal and natural source of cash. Some funds use highly liquid derivatives to gain investment exposure and hold cash or government securities to more nimbly manage their daily cash flows. These tools also help the fund accommodate redemptions while simultaneously seeking to meet the investment objectives set forth in the fund's prospectus.

When necessary and appropriate, fund managers may carefully select and sell portfolio holdings to raise cash, weighing a number of factors in doing so. Contrary to the suggestion in the Notice, managers do *not* automatically sell their funds' most liquid portfolio holdings to meet redemption requests. Concerns beyond liquidity strongly influence portfolio sales decisions. In addition to the obligation to satisfy redemption requests, fund managers have ongoing duties to the fund. Thus, on an ongoing basis, portfolio managers seek to ensure that a fund's portfolio is well-positioned to pursue its stated investment objective. Put another way, managers try to maintain the integrity of a fund's

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[45] Moreover, before investing in a "new instrument" across funds, a fund manager analyzes a number of the instrument's characteristics, including its liquidity.

[46] As discussed further below, however, funds' cash balances tend to remain relatively stable, even during periods of net redemptions.

[47] All mutual funds are required by federal tax laws to be, among other things, diversified. *See* Subchapter M of the Internal Revenue Code. Generally speaking, with respect to half of the fund's assets, no more than 5 percent may be invested in the securities of any one issuer; with respect to the other half, the limit is 25 percent. In other words, the minimum diversification a fund could have is 25 percent of its assets in each of two issuers, and 5 percent of its assets in each of 10 additional issuers. If a fund elects to be diversified for purposes of the Investment Company Act (and most do), the requirements are more stringent—with respect to 75 percent of its portfolio, no more than 5 percent may be invested in any one issuer. Some fund managers also impose aggregate position limits across all of their funds and other client accounts with respect to a particular holding.

portfolio irrespective of whether at any given time there are net inflows or outflows, thereby endeavoring to give investors the exposure they seek when investing in the fund.

If shareholders redeem, a fund manager in fact may well view that as an opportunity to dispose of holdings in which the manager has less conviction, which may or may not be the most liquid. And when a fund manager opts to sell portfolio holdings, it works with traders and dealers to trade efficiently and minimize the market impact of its sales. At the same time, even if some shareholders redeem because of a market downturn, portfolio managers may maintain or even add to the fund's holdings of less liquid securities to ensure continued exposure to particular asset classes, consistent with fund policies, and in an effort to realize future gains for the fund's remaining investors in the event that the market rebounds. Thus, adept cash management, or even just the natural consequences of a downturn in the market (*i.e.,* an increase in the fund's cash position relative to the value of its other holdings), can allow a fund to take advantage of attractive portfolio purchase opportunities in times of stress, and funds quite frequently are buyers in such situations.

1. Contrary to FSOC's Theory, Market Conditions Necessitate Portfolio Rebalancing that Cushions Effects of Redemptions

As noted above, fund managers endeavor to provide investors the exposure they seek from investing in funds. To do so, the manager likely will need to take action periodically to rebalance the fund's portfolio. And as it turns out, the interplay of market dynamics, fund policies, investor expectations, and portfolio management actually has effects that can be just the opposite of what FSOC suggests.

This is because, in periods where outflows are more likely, a fund's portfolio has, in effect, natural built-in stabilizers. During a market downturn, a fund's cash balances will rise as a share of the fund's portfolio. Consider, for instance, a high-yield bond fund with $1 billion in assets that holds 5 percent of its assets in cash or cash equivalents (*e.g.*, demand deposits, repurchase agreements, short-term Treasuries). During the financial crisis, the high-yield bond market fell about 30 percent during September, October, and November 2008. Under these circumstances, all else equal, the fund's cash ratio (cash and cash equivalents as a percent of its assets) would have risen from 5 percent to 7 percent. This happens, obviously, because the fund's cash position does not decline in value, boosting its weight within the fund's portfolio. A fund manager may then rebalance the portfolio and return the fund's cash ratio to its original level by using cash to either purchase securities or meet redemptions.[48]

[48] Strategic Insight, *Mutual Funds and Systemic Risk: The Reassuring Lessons of Stability Amid Past Periods of High Financial Markets Volatility* (March 2015).

A similar effect may occur as a fund manager seeks to maintain a certain credit quality of a fund's portfolio during a market downturn. Investors expect the funds they select to adhere to fund policies, because otherwise the investor's preselected asset-allocation strategy would be undermined.[49] As market conditions shift, a fund's portfolio manager may need to reduce the fund's cash and investment grade holdings to meet redemptions and help return the portfolio toward its original weightings. For example, suppose that a high-yield bond fund holds 10 percent of its portfolio in cash and investment grade bonds and the balance in non-investment grade bonds. If the high-yield market declines for credit-related reasons, the value of the cash and investment grade bonds is likely to decline less in percentage terms than the value of the fund's non-investment grade bonds. This will drive up the value of the cash and investment grade bonds as a portion of the fund's portfolio.

Indeed, a fund's investment policies may drive this rebalancing. For instance, the "ABC High Yield Bond Fund" generally must hold at least 80 percent of its net assets in high yield bonds (while permitted to invest the remaining 20 percent in cash, investment grade bonds and perhaps other assets).[50] Using the example above, if the fund's percent allocation to cash and investment grade bonds continued to increase, the fund may be precluded from adding to its cash and investment grade holdings.

Portfolio management of stock, bond, hybrid and other funds can provide natural stabilizers for their respective markets, with these funds buying some undervalued securities during a downturn and selling some overvalued securities in a bull market. For many kinds of funds, the investment objectives, policies, and strategies described in the funds' prospectuses may dictate this outcome. Hybrid funds, target risk funds and target date funds all may need to sell securities that have increased in value and buy securities that have fallen in value in order to keep their portfolios in balance.

Other types of long-term funds may react similarly by choice. For example, most funds classified by third-party data providers as "large blend" funds invest the bulk of their assets in stocks of U.S. companies. But many such funds hold a substantial fraction of fund assets, often as much as 20 percent, in international stocks. When foreign markets decline relative to U.S. markets, those funds

[49] Investors themselves may help stabilize markets. As noted earlier, investors often allocate their assets across asset classes and funds (thereby reducing the risk in their overall portfolios), which better positions them to withstand short-term losses from a particular market sector. This portfolio allocation is likely to include some portion dedicated to funds (such as high-yield bond funds) that invest in less liquid securities. Furthermore, for investors who follow asset-allocation strategies (including the increasing use of program-driven strategies that periodically rebalance an investor's portfolio), a decline in the high-yield market matched by, say, a rise in the Treasury market, may prompt the investor to *add to* his or her holdings of high-yield bond funds and *reduce* Treasury bond fund holdings. These characteristics mean that the actions of funds and their investors may help *stabilize* markets.

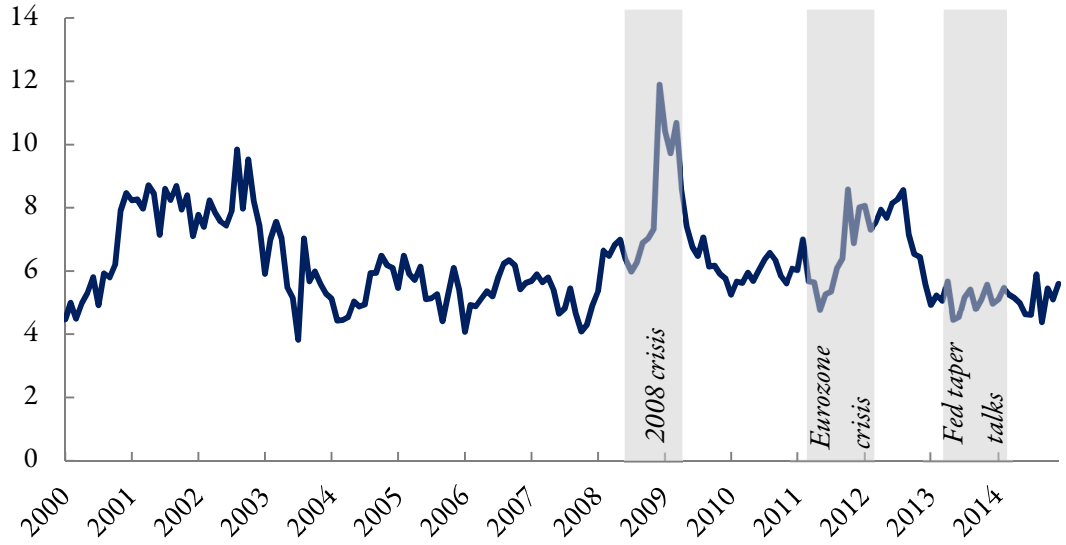
[50] Rule 35d-1(a)(2) under the Investment Company Act (known as the "fund name rule").

may sell some of their U.S. portfolio holdings and buy foreign stocks that they feel are undervalued, buffering the decline in foreign markets and taking some of the heat out of U.S. markets.

What do the data show? Reflecting the kinds of considerations discussed above, funds' holdings of cash and cash equivalents as a percent of their assets ("cash ratio") have remained well in positive territory and relatively stable, even during periods of net redemptions. Figure 6 plots the cash ratio of high-yield bond funds over the 15-year period 2000–2014. In aggregate, cash balances for high-yield bond funds averaged 6.3 percent of those funds' assets. The cash ratio varied somewhat during the 15 years, but never dropped below 3.8 percent of funds' total assets. Most notably, the cash ratio did not fall perceptibly during recent periods of net cash outflows from high-yield bond funds. For example, during the financial crisis, the cash ratio for high-yield bond funds *rose*, from 6.3 percent in August 2008 to 11.9 percent in December 2008, the opposite of what the "waterfall" scenario in the Notice predicts.

Figure 6: "Cash" Ratio of High-Yield Bond Funds

Percentage of fund assets; monthly; January 2000–December 2014



Note: Data exclude high-yield bond funds designated as floating-rate funds.
Source: Investment Company Institute

As another example, in May and June 2013 long-term interest rates rose sharply in the U.S., reflecting anticipated changes in monetary policy. In June 2013, net outflows from high-yield bond funds totaled 4.4 percent of funds' total assets, which though modest as a percent of funds' assets was large by historical standards. The cash ratio for high-yield bond funds, however, rose slightly, from 4.44 percent in May 2013 to 4.53 percent in June 2013, a development also contrary to the waterfall theory of portfolio management about which the Notice asks.

Figure 7 provides a statistical analysis of these concepts for high-yield bond funds. The figure shows results of regressions of changes in the cash ratio for high-yield bond funds against their net new cash flows on using monthly fund-by-fund data. If the Notice's concern is correct (*i.e.,* that redemptions tend to deplete funds' cash holdings), the "slope" coefficients (labelled as "Beta" in the figure) should be positive and substantially greater than zero. Also, the regressions should fit the data "well" in the sense that the R^2 should be sizable (an R^2 of 1.0 means the regression fits the data "perfectly"; an R^2 of zero means that new net cash flows do not help explain changes in a fund's cash ratio). The figure shows results for a number of different time periods: 2000–2006 (pre-crisis period); 2007–2009 (crisis period); 2010–2014 (post-crisis period); 2000–2014 (last 15 years); September–November 2008 (height of the financial crisis); and June 2013 (Taper Tantrum period). For each period, the figure provides three regressions which use: (a) all observations in a given period ("all net new cash flow"); (b) observations with positive net new cash flow ("net new cash flow ≥ 0"); and (c) observations with negative net new cash flow ("net new cash flow < 0").

As seen, the regressions provide little if any support for the narrative in the Notice. The "Beta" is considerably less than 1.0 and generally less than 0.20. Taken at face value, that suggests that individual funds' cash ratios do rise and fall modestly as funds experience net cash inflows or outflows. For example, for the period 2000–2014, the "Beta" for "net new cash flow < 0" is 0.18, indicating that a fund that begins the month with a cash ratio of 4 percent and experiences a net cash outflow of 7 percent of its assets, would have a cash ratio of 2.74 percent by month-end, still well above zero.[51]

[51] The results also indicate that the link between net new cash flow and changes in a fund's cash ratio is statistically significant. That is likely somewhat of an artifact, however, due to the very large samples when the regressions span periods of several years. For instance, the regression for 2000–2014 based on "net new cash flow < 0" is highly statistically significant (a very small standard error, just 0.01), no doubt in part because the regression uses 9,527 observations. Consequently, the statistical significance of the regression coefficients is not the best indicator of the value of the strength (or lack thereof) of the relationship between a fund's cash ratio and its net new cash flows. More importantly, however, the relationship does not fit the data well at all (the R^2 averages about 0.03—that is, 3 percent—for the multi-year periods). In fact, there is nearly a complete lack of any relationship, contrary to the Notice's "waterfall" theory of portfolio management, but consistent with the reality of funds' carefully managing their portfolios (including cash balances) to accommodate investor inflows and outflows while adhering to the fund's investment objectives.

Figure 7: Net New Cash Flow Has Small Effect on Cash Ratios of High-Yield Bond Funds

Regressions: Change in fund cash ratio = $\alpha + \beta \cdot$ net new cash flow

Percentage of previous period's assets; selected periods

		Regression results		
Period		**Alpha (Std. error)**	**Beta (Std. error)**	**R^2**
2000–2006	All net new cash flow	-0.06 (0.07)	**0.13 (0.01)**	0.015
	Net new cash flow ≥ 0	0.23 (0.13)	**0.09 (0.02)**	0.007
	Net new cash flow < 0	-0.05 (0.10)	**0.18 (0.02)**	0.015
2007–2009	All net new cash flow	-0.07 (0.12)	**0.14 (0.01)**	0.029
	Net new cash flow ≥ 0	-0.10 (0.21)	**0.14 (0.02)**	0.035
	Net new cash flow < 0	0.16 (0.17)	**0.22 (0.05)**	0.013
2010–2014	All net new cash flow	-0.11 (0.08)	**0.20 (0.01)**	0.067
	Net new cash flow ≥ 0	-0.20 (0.13)	**0.22 (0.01)**	0.071
	Net new cash flow < 0	-0.16 (0.10)	**0.16 (0.02)**	0.031
2000–2014	All net new cash flow	-0.08 (0.05)	**0.17 (0.01)**	0.036
	Net new cash flow ≥ 0	-0.05 (0.09)	**0.16 (0.01)**	0.035
	Net new cash flow < 0	-0.05 (0.07)	**0.18 (0.01)**	0.019
Sep–Nov 2008	All net new cash flow	-0.07 (0.39)	**0.17 (0.06)**	0.005
	Net new cash flow ≥ 0	0.45 (1.06)	0.13 (0.09)	0.032
	Net new cash flow < 0	-0.14 (0.57)	0.19 (0.16)	0.007
June 2013	All net new cash flow	0.15 (0.42)	0.01 (0.05)	0.000
	Net new cash flow ≥ 0	-0.08 (1.54)	0.13 (0.19)	0.029
	Net new cash flow < 0	-0.21 (0.50)	-0.04 (0.06)	0.006

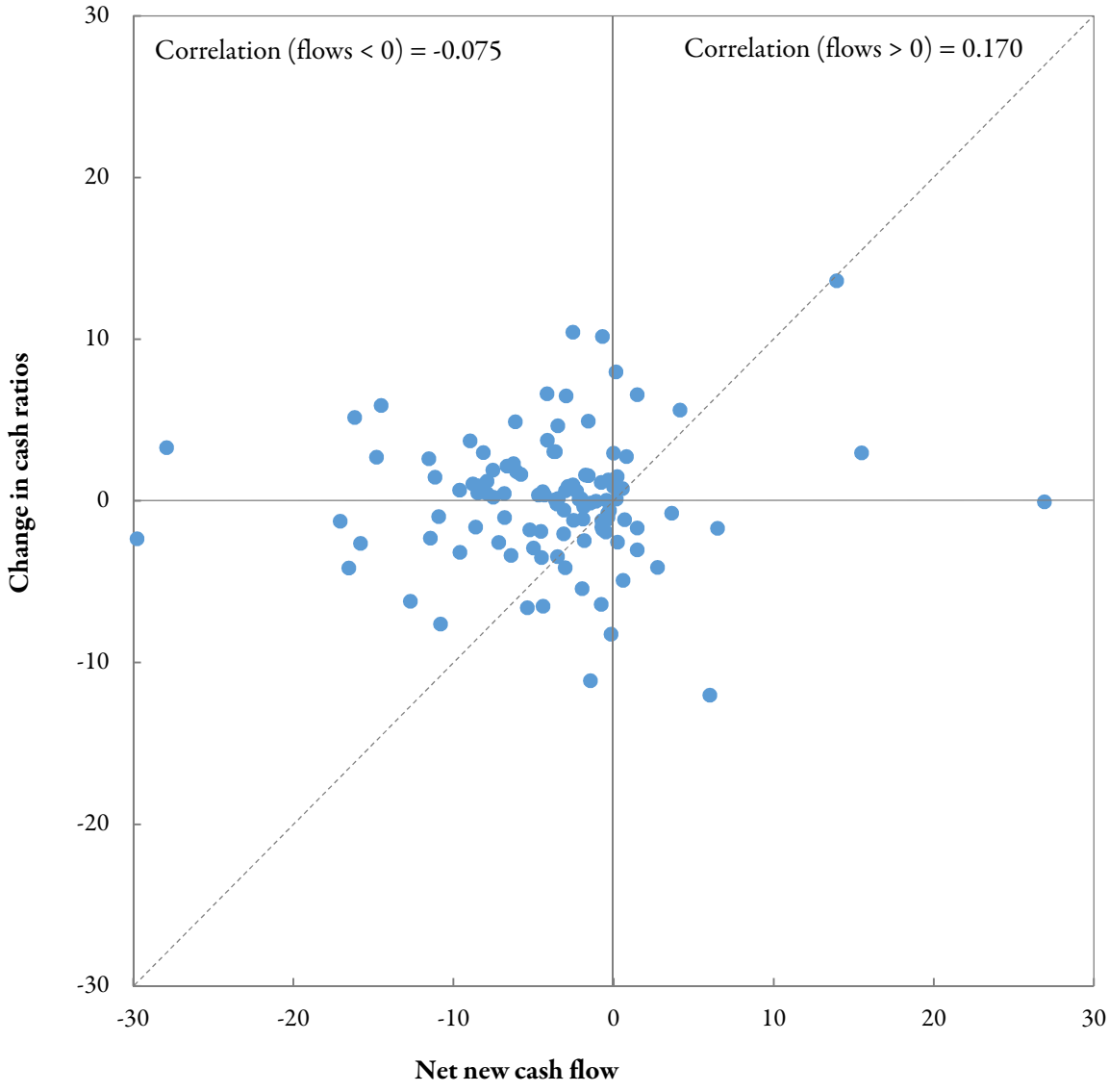
Note: Data exclude mutual funds that invest in other mutual funds, variable annuities, any fund with less than $10 million in total net assets, funds specifically designed for frequent trading, funds designated as floating rate funds, and any fund-month where a merger or liquidation takes place for a fund. **Bolded** coefficients denote statistical significance at the 5 percent level.

Source: Investment Company Institute

The lack of an economically meaningful relationship between a fund's net new cash flows and its cash ratio is underscored by examining crisis periods. For example, from September to November 2008, there is no evidence of any relationship between net new cash flows to high-yield bond funds and their cash ratios. The same is true of June 2013, the Taper Tantrum period; that month high-yield bond funds had significant outflows in total, but those outflows had no apparent effect on the funds' cash positions.

To provide a visual example of the lack of a relationship between net cash flow and cash ratios, Figure 8 plots net new cash flows to individual high-yield bond funds against the change in each fund's cash ratio in June 2013. If the narrative described in the Notice is at all accurate (*i.e.,* that redemptions tend to deplete funds' cash holdings), the dots in the chart should line predominantly along the dashed 45 degree line. In other words, according to that narrative, outflows should deplete funds' cash balances while inflows should raise them. In fact, the dots in the chart are distributed essentially randomly around the vertical and horizontal axes, suggesting that there is no statistical relationship between net new cash flows and changes in funds' cash positions. Even if one focuses only on those high-yield bond funds that had outflows in June 2013 (a number of high-yield bond funds did have inflows), the posited relationship is absent. In short, even during periods of market stress, the data do not support the notion that outflows cause funds to run down their cash balances to the detriment of remaining fund shareholders.

Figure 8: High-Yield Bond Funds' Change in Cash Ratio Unrelated to Their Flows
Percentage of previous period total net assets; June 2013



Note: Data exclude mutual funds that invest in other mutual funds, variable annuities, any fund with less than $10 million in total net assets, funds specifically designed for frequent trading, funds designated as floating rate funds, and any fund-month where a merger or liquidation takes place for a fund. One observation is hidden to preserve the bounds of the figure.
Source: Investment Company Institute

In sum, fund managers, as a matter of course, do not significantly draw down their cash positions and dispose of their most liquid holdings in response to net redemptions in the way the Notice posits. Indeed, if a fund simply followed this course of action in response to net outflows, it would risk running afoul of specific SEC guidance in this area:

> [T]he Commission expects funds to monitor portfolio liquidity on an ongoing basis to determine whether, in light of current circumstances, an adequate level of liquidity is being maintained. For example, an equity fund that begins to experience a net outflow of assets because investors increasingly shift their money from equity to income funds should consider reducing its holdings of illiquid securities in an orderly fashion in order to maintain adequate liquidity.[52]

2. Mutual Funds Accommodate Redemptions by Varying Sales and Purchases of Portfolio Securities

Just as fund investors are both purchasing and redeeming fund shares even during stress periods, mutual funds are routinely in the markets buying and selling securities month-in and month-out, in bull markets and in bear markets. This is true for equity funds and bond funds, including those funds investing in "less liquid" asset classes.

A number of factors drive continuous buying and selling of portfolio securities by funds, including portfolio rebalancing, accommodation of investors' purchases and redemptions of fund shares, and portfolio managers' market calls. Funds also may purchase additional portfolio securities in order to reinvest the interest and dividends received on current holdings in the fund's portfolio. Bonds maturing, the normal return of principal on mortgage-backed or other securities, prepayments of principal on investments such as on bank loans, home mortgages, and calls of debt securities also generate cash for funds to reinvest.

One approach funds can use to help accommodate outflows is to reduce their purchases of portfolio securities. To illustrate, Figure 9 shows high-yield bond funds' gross purchases and gross sales of corporate bonds for the 15-year period 2000 to 2014. The top panel shows securities purchases and sales in dollars, while the bottom panel scales by funds' assets. High-yield bond funds in total made both sales *and* purchases of corporate bonds in every month during that period, including during the financial crisis and the Taper Tantrum.

In fact, a key feature of Figure 9 is that high-yield bond funds' purchases of corporate bonds are more variable than their sales of corporate bonds, highlighting the potential to vary purchases in response to current circumstances, including investor flows.

The June 2013 Taper Tantrum period provides a prime example of this. As indicated, high-yield bond funds had net outflows of 4.4 percent of their assets. High-yield bond funds' total sales of corporate bonds increased that month, both in dollar terms (from $15.4 billion in May to $18.5 billion in June) and as a percent of high-yield bond funds' assets (from 5.5 percent in May to 6.7 percent in June). Nonetheless, to the extent that high-yield bond funds altered purchases and sales of securities to accommodate outflows, it was mostly by reducing their total purchases, which fell in dollar terms (from

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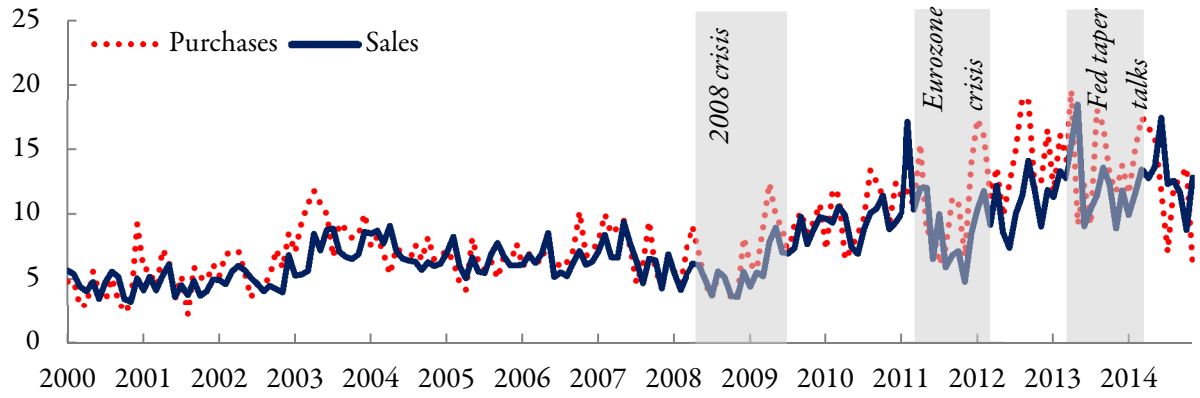
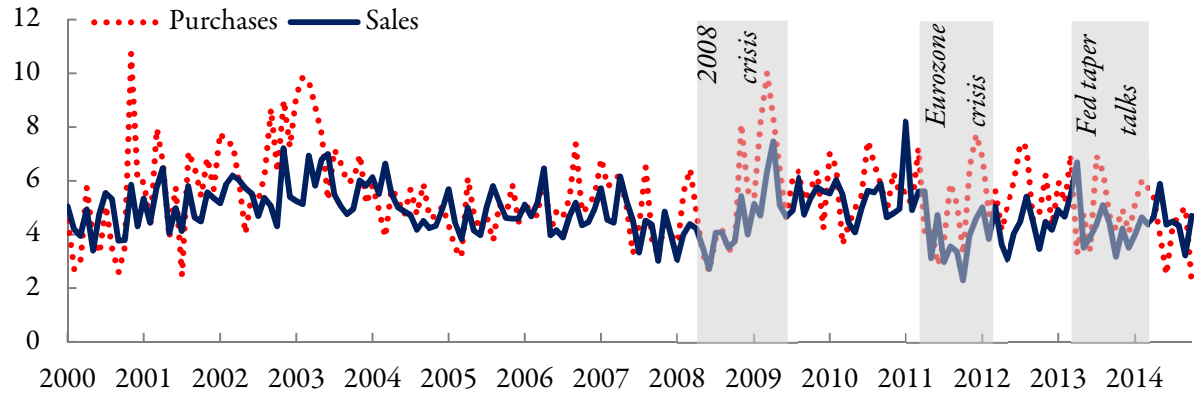
[52] SEC Liquidity Guidelines Release at 9829.

$19.6 billion in May to $9.2 billion in June) and percentage terms (from 7.0 percent in May to 3.3 percent in June).

Figure 9: Purchases and Sales of Corporate Bonds by High-Yield Bond Funds
Billions of dollars; monthly, February 2000–December 2014



Percentage of previous period assets; monthly, February 2000–December 2014



Note: Data exclude high-yield bond funds designated as floating-rate funds.
Sources: Investment Company Institute

Another example is December 2014, when high-yield bond funds had net outflows of 3.1 percent of their assets. While high-yield bond funds' sales of bonds did rise (from $8.8 billion to $12.8 billion), the brunt of the redemptions was borne by a reduction in purchases of bonds, which dropped from $13.6 billion in November to $6.1 billion in December.

Thus, high-yield bond funds recently have met redemptions more by reducing their purchases of securities than by increasing sales of portfolio securities. The difference is not semantic. During these episodes, high-yield bond funds elected to refrain from entering the market, analogous to easing

up on the gas pedal. The fire sale hypothesis referred to in the Notice[53] posits funds being forced to meet redemptions by *selling* securities at much *discounted* prices—an analogy like taking one's foot off the gas and then stomping on the brakes.

C. Mutual Funds Employ Techniques that Reduce the Impact of Redemptions on Remaining Investors

The Notice offers a second theory about why a first-mover advantage might arise: all investors in a fund bear a *pro rata* portion of the costs associated with purchases and sales of portfolio securities, including those necessitated by investor transactions with the fund. Since these costs are mutualized, remaining investors may bear the costs associated with portfolio activity prompted by redemptions by other investors.

The costs of redeeming fund shares (including brokerage commissions, bid-ask spreads, and market impact costs) are indeed, generally speaking, "mutualized" among all fund investors. It does not follow, however, that this creates a unique or powerful incentive for mutual fund investors to redeem heavily, especially during periods of market stress, as the Notice posits. The theory ignores regulatory and other fundamental characteristics of stock and bond mutual funds that serve to restrict severely any benefit to redeeming investors and mitigate the impact of redemptions on investors who remain in the fund—for example, the fact that the fund's NAVs fluctuate, the required daily valuation of portfolio holdings at current value to establish the fund's share price, and the forward pricing requirement to which a fund is subject. It also ignores the care that fund managers take in selling portfolio holdings and the use of other techniques and tools that can blunt the impact of this cost sharing and foster more equitable treatment of fund shareholders. These techniques and tools include the following:

- Many funds use bid prices to value their fixed income securities, as permitted by SEC guidance.[54] Under this pricing method, a redeeming investor, in effect, would pay a share of the transaction costs associated with the redemption (*i.e.,* if the fund did sell portfolio securities to meet the redemption).

- Many funds have adopted measures to discourage and limit excessive short-term trading. For example, a fund may: (i) impose a fee on redemptions of fund shares held for short

[53] *See, e.g.,* Question 3 on p. 10 of the Notice. *See also* Remarks of Deputy Assistant Secretary of FSOC Office Patrick Pinschmidt at the Investment Adviser Association's 2015 Compliance Conference (March 5, 2015), available at http://www.treasury.gov/press-center/press-releases/Pages/jl9988.aspx , (describing the liquidity and redemptions section of the Notice as focusing on "whether structural features of pooled investment vehicles can create a 'first mover advantage' that could make fire sale dynamics more likely.")

[54] In a recent survey of 92 mutual fund groups, 52 percent indicated that in valuing fixed income securities they use bid pricing exclusively. Deloitte, *Fair Value Pricing Survey, Twelfth Edition* (2014), at 7.

periods;[55] (ii) limit the number of trades an investor may make within a specified period; and/or (iii) reserve the right to reject purchase orders if it suspects that an investor intends to redeem the shares shortly after purchasing them.[56] Funds must provide detailed disclosure about these measures in their prospectuses, alerting investors to the risks of frequent purchases and redemptions of fund shares and the funds' related policies and procedures.[57] These measures help protect long-term shareholders and keep "hot" money out of funds. They also reinforce the notion that, notwithstanding their daily redemption rights, stock and bond funds generally are not meant to be short-term investments.

- Funds may and often do reserve the right to redeem in kind—that is, to provide a redeeming investor with portfolio securities rather than cash proceeds.[58] This tool is used sparingly in practice today by mutual fund managers because it is operationally more challenging than cash redemptions and because cash redemptions are what investors typically expect. Nevertheless, depending upon the particular circumstances, redemptions in kind may help a mutual fund manage certain redemption requests (*e.g.,* large redemptions by institutional investors) in a way that minimizes negative effects to investors remaining in the fund.

- Some fund complexes have obtained orders from the SEC that permit funds to lend and borrow money to and from one another for temporary purposes.[59] We understand from most ICI members that have secured these interfund lending orders that they do not routinely rely on them. Some member firms have found that, at times, these arrangements provide a useful alternative source of short-term liquidity. Interfund lending potentially can help a borrowing fund meet redemptions under adverse market conditions while also benefiting the lending fund through a better rate of return on the loaned amount.

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[55] Rule 22c-2 under the Investment Company Act.

[56] *See, e.g.*, Disclosure Regarding Market Timing and Selective Disclosure of Portfolio Holdings, SEC Release No. IC-26287 (December 11, 2003).

[57] Item 11(e) of Form N-1A.

[58] The SEC has stated that it can be desirable for mutual funds to have available the flexibility to redeem in kind. *See* Adoption of (1) Rule 18F-1 under the Investment Company Act of 1940 to Permit Registered Open-End Investment Companies Which have the Right to Redeem in Kind to Elect to Make Only Cash Redemptions and (2) Form N-18F-1, SEC Release No. IC-6561 (June 14, 1971).

[59] These orders provide conditional exemptions from, among other things, the Investment Company Act's stringent restrictions on affiliated transactions. Generally speaking, the borrowing fund benefits because it pays a lower interest rate than those offered by banks on short-term loans, and the lending fund benefits because it earns more interest than it otherwise could obtain from investing in repurchase agreements or other short-term instruments. These arrangements are subject to board approval and ongoing oversight, designed to ensure equitable treatment of all participating funds. Although the SEC has granted a number of these orders to fund complexes, obtaining one can be a lengthy process.

- Some fund complexes have obtained lines of credit from individual banks or bank syndicates, which provide an additional outside source of liquidity in the event that the aforementioned means of meeting redemption requests are unavailable or otherwise sub-optimal. These lines may be committed (offering greater certainty to borrowers, at a cost) or uncommitted. Additionally, some fund complexes have arranged them for certain funds only (based on perceived potential need and/or cost considerations), while others share lines across all funds in the complex.

- Funds may seek to reduce the settlement time on certain transactions (including both equity and fixed income securities) from trade date plus 3 days (T+3) to trade date (T) or T+1. Such accommodations require the agreement of the broker-dealer on the other side of the trade. If granted, the expedited settlement wouldaccelerate the receipt of cash proceeds at the fund's custodian bank, thus providing the fund with additional flexibility in managing temporary cash needs.

1. Additional Reasons Mutualized Trading Costs Are Unlikely to Create Systemic Pressures

The Notice lays out a hypothesis in which mutualization of fund trading costs leads to a unique incentive for fund investors to redeem heavily in the face of a market decline, potentially leading to additional downward pressure on markets.

This hypothesis, however, assumes a set of combined circumstances that are highly unlikely to arise in practice—*i.e.*, first, that the fund's NAV is systematically and predictably mispriced; second, that sharp-penciled fund investors can accurately predict the effects of market declines on funds flows; third, that outflows from funds necessarily will cause fund managers to sell securities in succeeding days; and fourth, that the "market impact costs" from such securities sales will be large enough to create a meaningful incentive for some fund investors to redeem and remain out of the fund for at least some period. We discuss each of these in turn below.

a) Mispricing. The hypothesis relies on the idea that a fund's NAV is systematically and predictably mispriced, which could arise, for instance, if a fund sets its NAV on the basis of stale prices for its portfolio holdings.[60] There were cases of this in the late 1990s to early 2000s, when the use of stale prices across time-zones by international equity funds made some of these funds vulnerable to market timers. These problems were corrected through

[60] *See, e.g.*, Governor Jeremy C. Stein, Board of Governors of the Federal Reserve System, "Comments on 'Market Tantrums and Monetary Policy'," 2014 U.S. Monetary Policy Forum, New York. In the context of discussing whether "strategic complementarities" (*i.e.*, first-mover effects) arise in mutual funds, Governor Stein stated that "[a] fund's stated NAV is less likely to keep pace with the ultimate price impact of investor withdrawals if the underlying assets are illiquid [and] ... some of the assets are likely to have stale prices--that is, not to have been recently marked to market."

subsequent actions taken by the SEC, by funds and by pricing service vendors. Pricing services have become much more sophisticated since the early 2000s, using a wide array of techniques to ensure that price quotes provided to clients are accurate indicators of market value as of 4 p.m. Eastern time (or other time that a fund determines its NAV).[61]

b) Investor predictions. The hypothesis rests as well on the presumed ability of fund investors to predict accurately how fund flows will respond to declines in market prices. Fund investors do react to market conditions, tending in general to redeem shares when market prices have been falling and purchase shares when market prices have been rising. But these responses tend to be muted and variable. For example, prices of high-yield bonds fell very sharply from August to November 2008, creating cumulative negative returns of 30 percent over those months. Yet outflows from high-yield bond funds over those months cumulated to just 1.1 percent of their August assets. Any fund shareholders who read the September 2008 decline in the high-yield market as a prediction of large fund outflows must have been disappointed.[62]

c) Forced selling. The hypothesis further assumes that fund managers will accommodate outflows solely by selling portfolio securities in succeeding days. In fact, as discussed above, quite often fund managers satisfy redemption requests without selling portfolio securities. Moreover, funds often have good information regarding the size of same-day net cash flows and may buy or sell securities today in anticipation of incoming investor orders to sell. In such cases, the costs of selling any of the fund's portfolio securities, notably the market impact costs of selling the securities, are shared by redeeming investors.[63]

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[61] In effect, the Notice's hypothesis that fund outflows today will create systematic and predictable downward pressure on market prices tomorrow is an implicit statement that markets are inefficient. In fact, the hypothesis assumes a rather extreme and highly artificial form of market inefficiency in which market prices do not fully incorporate all publicly available information, creating an arbitrage opportunity (a free lunch) on which *only* fund investors can trade. In addition, the assumed inefficiency is that the predictability of market prices is *necessarily* in terms of positive serial correlation (*i.e.*, the assumption that negative returns one day are much more likely to be followed by negative returns the following day). Presumably, if these conditions really held in markets, some market participants outside of funds would step in to take advantage and eliminate any such arbitrage.

[62] To be sure, high-yield bond fund investors who read the downturn in the high-yield market in September as a signal to redeem would have done better for the next few months than investors who did not redeem. But the reason they did better was simply because the market continued to decline in October and November as the financial crisis spread.

[63] If, for example, a shareholder places an order at 11 a.m. Eastern time to sell fund shares, the order will be executed at the fund's next-determined daily NAV (determined on the basis of mark-to-market portfolio values most commonly as of 4 p.m. Eastern time when the New York Stock Exchange closes). Thus, a shareholder who places an order at 11 a.m. (or for that matter at any point before 4:00 p.m. Eastern time) gains no informational or economic advantage over an investor who waits until just before 4 p.m. Eastern time to place an order. Orders placed after 4 p.m. Eastern time receive the next day's NAV.

Even if a fund's manager does sell portfolio securities in succeeding days to accommodate redemptions, the hypothesis advanced in the Notice takes for granted the notion that fund portfolio managers have little or no ability (or skill) at controlling the market impact costs created by portfolio sales. In reality, portfolio managers go to great lengths to avoid creating market impact costs—for example, by avoiding sales of particular holdings, spreading orders to buy or sell securities over time, gaining bond exposure through the credit default swap market (where liquidity may be better than in the physical market), or using futures to help accommodate cash flows. If, for example, a large corporate bond fund were to experience significant outflows, the portfolio manager might be able to accommodate those outflows by unwinding derivatives positions (such as credit default swaps). The manager would then sell the Treasury and agency securities previously segregated against those derivatives positions to meet the redemptions.[64] Alternatively, if large redemptions arise from the actions of 401(k) plan sponsors moving from one fund complex to another, some funds have notification requirements that allow them to meet the redemptions through redemptions in kind if prior notice is not given.

d) Meaningful financial incentive. Finally, the hypothesis assumes that the market impacts from sales of fund securities in succeeding days are large enough to create a meaningful incentive for investors to try to time the markets. For a number of reasons, this is highly uncertain. For example, an investor might decide on the basis of a declining market today to redeem out of a fund, only to find the market rebounding tomorrow. Thus, the redeeming investor is, in effect, trying to time the markets, a behavior against which academics and financial advisers have long cautioned fund investors. Certain investors also must consider taxes. An investor who redeems may incur a current tax liability because of capital gains. Also, the number of times an investor could seek to gain from this behavior (redeeming in an attempt to avoid market impact or other fund trading costs) is limited by frequent-trading costs or restrictions imposed by funds or 401(k) plans; for instance, each of the 100 largest mutual funds has prospectus language indicating that it monitors for frequent trading and either imposes explicit controls to limit that activity or has the ability to bar frequent traders. Finally, if sharp-penciled fund investors can correctly anticipate a market impact tomorrow from fund redemptions today, so too can hedge funds and other institutional traders. But institutional traders have the distinct advantage of being able to execute a trade at any point during the trading day (or even before the trading day through derivatives markets). As a result, institutional traders may be able to arbitrage away any

[64] SEC requirements that mutual funds segregate liquid assets to "cover" their derivatives positions are discussed in Section IV of this letter, which addresses leverage.

market impact effect well before fund investors (whose orders are generally not executed before 4 p.m. Eastern time at the 4 p.m. Eastern time NAV) are able to take advantage of it.

Evidence that mutualization of trading costs does *not* result in the hypothesized pressures on securities prices can be gleaned from tracking errors of index funds. If the Notice's scenario is correct, it presumably would apply to all funds, even index funds. Consequently, in situations where index funds experience outflows, if they can accommodate those outflows only by selling securities at a discount to fundamental value, that should result in negative tracking error (*i.e.*, the fund's return temporarily drops below that of the fund's target index). Conversely, in situations where an index fund experiences inflows, that should result in positive tracking error (*i.e.*, the fund's return temporarily rises above that of the fund's target index).[65]

The data we have examined show no evidence of such effects. Figure 10 plots tracking errors for bond index funds whose target index is the Barclays U.S. Aggregate Bond index against the monthly net new cash flows to such funds. The chart examines all months in the five years from January 2010 to December 2014. We selected this period because of the Notice's interest in recent growth in fixed income funds.[66]

If the hypothesis the Notice describes played out in reality, the dots in the figure should lie along the dashed 45 degree line, indicating that outflows depress a fund's return relative to its index (resulting in negative tracking error) and that inflows boost a fund's return relative to its index (resulting in positive tracking error). As seen, there is no such relationship (either visually or statistically). Even considering only those months when these bond index funds had outflows (the left quadrants), there is no relationship between fund flows and fund tracking error. Indeed, there are many dots (each representing a single month for a single fund) in the upper left quadrant, representing cases when a bond index fund had outflows but saw its return *rise* relative to its benchmark index, precisely the reverse of what the hypothesized scenario would suggest.

In sum, we find no support for the theories that funds are managed in such a way that they provide sufficiently large systematic incentives for investors to redeem shares during periods of market stress and thereby create systemic risks. Contrary to the waterfall theory, fund cash ratios show no

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[65] Funds incur transactions costs—including brokerage commissions, bid-ask spreads, and market impact costs—when selling or buying securities. For instance, if a fund buys a security, it may well purchase at the ask, which will reduce the fund's performance relative to its index. Thus, a more likely outcome is that any fund trades as the result of fund outflows *or* fund inflows may reduce a fund's performance. This is certainly in keeping with academic studies indicating that, all else equal, higher fund portfolio turnover may result in lower fund returns (see, for example, Roger Edelen, Richard Evans, and Greg Kadlec, "Shedding Light on Invisible Cost: Mutual Fund Trading and Performance," *Financial Analysts Journal*, January 2013). Portfolio managers, of course, take steps to limit impact costs from trading, which may help explain why for the group of index funds in Figure 10 there appears to be no strong, if any, relationship between fund flows (whether inflows or outflows) and their tracking errors.

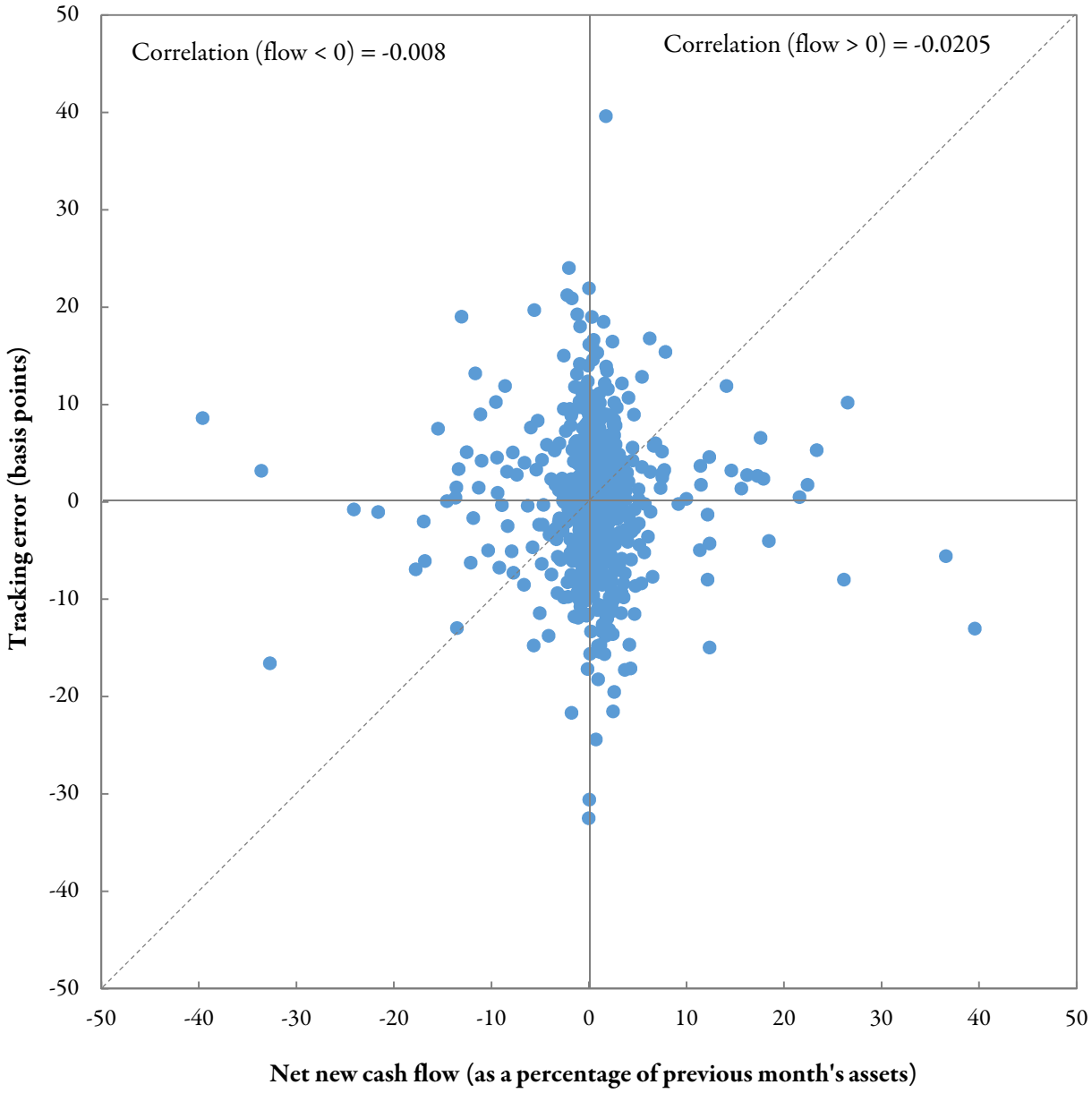
[66] For Figure 10, we did not use high-yield bond funds because we do not believe any high-yield bond index funds exist.

significant decline when funds have heavier redemptions. Index bond fund performance is not related to fund flows, indicating that fund managers can manage to mitigate the effects of transaction costs on fund performance. Finally, shareholders continue to make new share purchases even during periods of market stress, and many funds are in net inflow. These consistent patterns of investor behavior provide evidence that asset management practices and mutualization of trading costs are not causing destabilizing fund outflows by incentivizing large numbers of investors to leave funds, nor are they deterring investors from buying fund shares during periods of market stress.

Rather, patterns of shareholder flows would suggest the opposite: that investors' purchases and sales of fund shares most likely reflect decisions to increase or decrease exposure to a particular asset class, no different from what would be observed if investors held the securities directly. These divergent investor decisions have a modest impact on the overall demand for funds during periods of market stress. As we discuss in the next section, we find no evidence that investor behavior has changed even after a period of heavy bond fund inflows.

Figure 10: Bond Index Funds' Flows Unrelated to Their Tracking Errors

Monthly, January 2010–December 2014



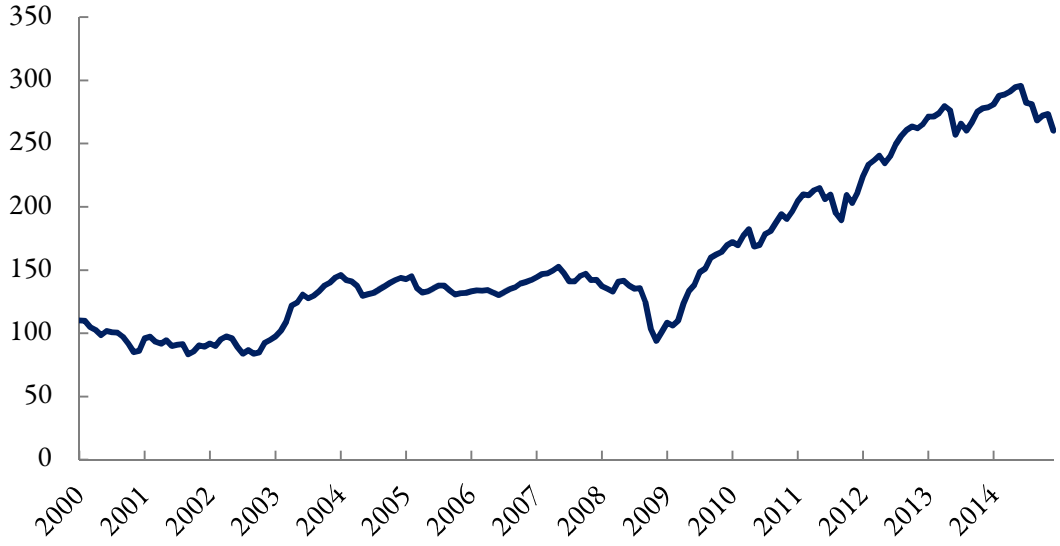
Note: Tracking error is the difference between a fund's gross return and the total return on the fund's benchmark index. The bond index funds in this chart track either the Barclays Aggregate Bond Total Return index or the Barclays Aggregate Bond Float Adjusted Total Return index.

Source: Investment Company Institute, Bloomberg, Morningstar, and CRSP

D. Fund Assets Have Grown with No Increase in Tendency of Investors to Redeem

The Notice asks whether "the growth in recent years in assets in pooled vehicles dedicated to less liquid assets (such as high-yield ...) affect any" redemption risks.[67] The assets in high-yield bond funds have indeed grown in the past several years, more than doubling from $101 billion in December 2008 to $260 billion in December 2014 (Figure 11). There are, however, a number of reasons to conclude that this development is benign.

Figure 11: Assets of High-Yield Bond Funds
Billions of dollars; month-end, 2000–2014



Note: Data exclude high-yield bond funds designated as floating rate funds
Source: Investment Company Institute

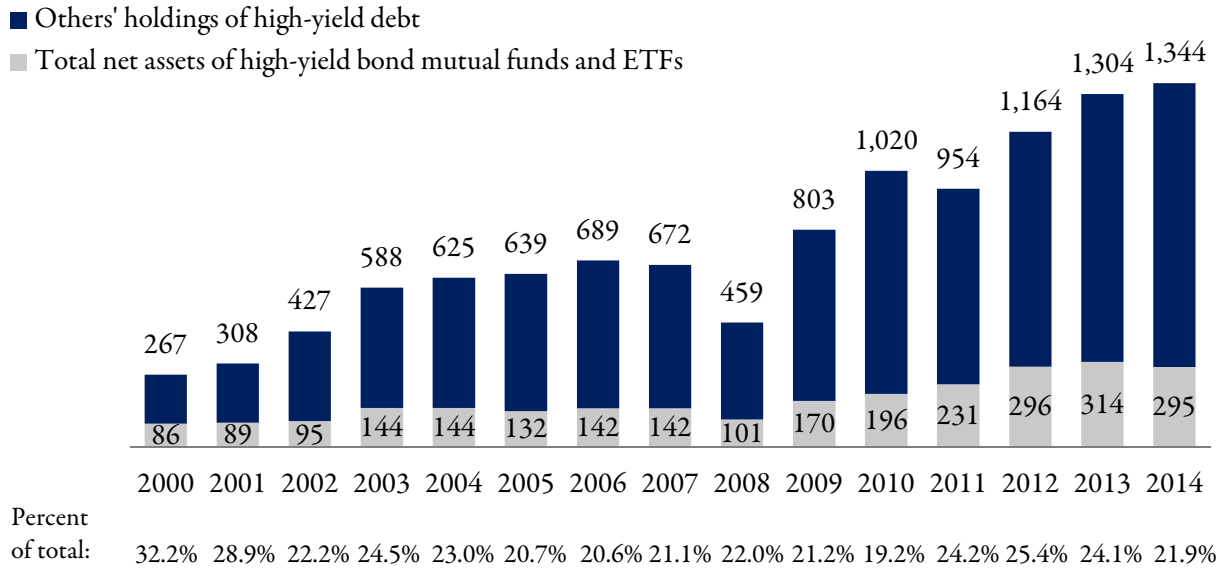
One reason is that, despite the strong growth in their assets, high-yield bond funds still account for a relatively small share of the high-yield market (Figure 12). In 2014, for instance, assets in high-yield bond funds totaled $295 billion, only 21.9 percent of the total outstanding $1.344 trillion in high-yield bonds. Although this share of the market has fluctuated in the post-crisis era, it is well below its level (32.2 percent) in 2000.

Another reason is this: if the theory that mutualized trading costs create a unique redemption incentive for mutual fund investors is correct, in practice there is no evidence that investors are taking

[67] *See* Notice, Question 2 on page 10.

advantage of it. The evidence indicates that fund investors in all types of funds redeem only modestly in response to market events, even severe market downturns.[68]

Figure 12: High-Yield Bond Mutual Funds' and ETFs' Share of Outstanding High-Yield Bonds
Billions of dollars; year-end, 2000–2014



Note: Data include ETFs but exclude high-yield funds designated as floating rate funds. Outstanding high-yield bonds measured as the market value of the bonds in the BofA Merrill Lynch U.S. High Yield Index.
Sources: Investment Company Institute and Bloomberg

Figure 13 plots net new cash flows to all high-yield bond funds measured as a percent of the assets of those funds over the 15-year period 2000–2014. The center red line in the figure shows net new cash flow to all high-yield bond funds as a percentage of the total assets in high-yield bond funds. Ten percent of high-yield bond funds had more pronounced outflows than the lower dashed line, while 10 percent had inflows greater than the upper dashed line. The shaded areas mark episodes of market stress.

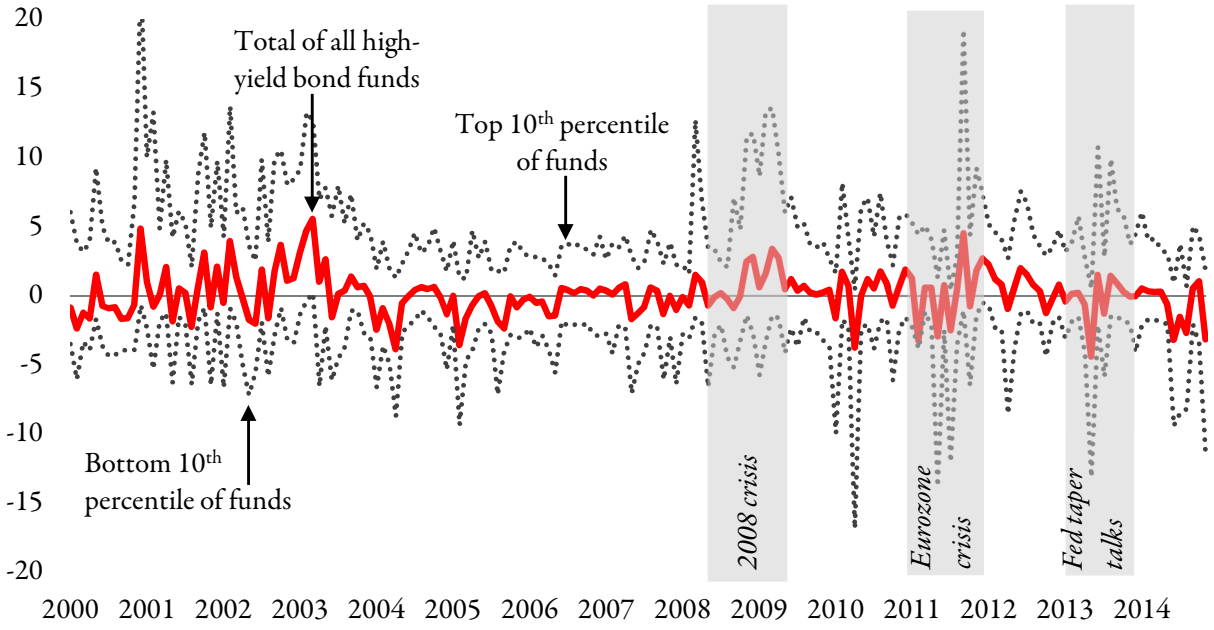
As seen, over the entire 15-year period, the variability in the flows to high-yield bond funds has been modest. Flows have typically been in the range of ±1.6 percent per month (as measured by the standard deviation of net new cash flow to all high-yield bond funds as a percent of their assets). Moreover, even during periods of severe market stress, investors in these funds have not redeemed

[68] For a summary of the literature on this issue, *see* Sean Collins and Chris Plantier, "Are Bond Mutual Fund Flows Destabilizing: Evidence from the 'Taper Tantrum'," Investment Company Institute, working paper, September 2014, http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2510666. *See also* Letter to the Financial Stability Board from Paul Schott Stevens, President & CEO, Investment Company Institute, dated April 7, 2014 at Appendix F (providing data and analysis with respect to stock and bond mutual funds), available at http://www.ici.org/pdf/14_ici_fsb_gsifi_ltr.pdf.

heavily. For instance, in June 2013—amidst the Taper Tantrum in the bond market—high-yield bond funds saw outflows of 4.4 percent of their assets, hardly the fire-sale cataclysm alluded to in questions 3 and 8 in the Notice.

To be sure, as shown by the lower dashed line, some high-yield bond funds have experienced greater-than-average outflows, notably during periods of market stress. As shown by the upper dashed line, however, even during periods of market stress when high-yield bond funds as a whole were experiencing outflows, some number of high-yield bond funds were experiencing inflows, thus indicating that outflows from some funds were simply recycled as inflows into other funds, in what might be described as akin to a "closed-loop system." At a minimum, this indicates that investors in high-yield bond funds have a range of views on market developments, questioning the often-expressed but never empirically demonstrated idea that mutual fund investors "herd."[69]

Figure 13: Modest Outflows from High-Yield Bond Funds Even During Times of Market Stress
Net new cash flow as a percentage of assets; monthly, February 2000–December 2014



Note: Data exclude high-yield funds designated as floating rate funds. Data also exclude funds with less than $10 million in total net assets over the February 2000–December 2014 period, mutual funds that invest primarily in other mutual funds, and data for funds in any fund-month where a merger or liquidation takes place. One observation for the top 10th percentile of funds in January 2001 is hidden to preserve the scale.
Source: Investment Company Institute

[69] As indicated earlier, mutual funds have millions of investors. The notion that these millions of investors independently will "herd" (that is, make the same kinds of investments decisions in response to a particular market event) is highly unlikely. Moreover, as also indicated earlier, many investors follow asset allocation strategies that may in fact lead them to purchase shares of funds that have recently fallen in value and sell those that have recently appreciated in order to keep their portfolios in balance.

There is also little evidence that growth in the assets of high-yield bond funds has resulted in a greater tendency of their investors to redeem. Figure 14 shows relevant summary statistics of the flows to high-yield bond funds for two five-year periods: 2002–2006 and 2010–2014. The first period represents the five years before the financial crisis and the second the five-year period following the crisis.

As seen, the monthly variability of fund flows (as a percent of fund assets) is nearly the same in the two five-year periods. Using all of the months in each of the two five-year periods, the variability of flows fell slightly, from 1.80 percent in 2002–2006 to 1.68 percent over 2010–2014. Using only those months that had outflows, variability of fund flows rose slightly, from 1.03 percent in 2002–2006 to 1.31 percent in 2010–2014. The rise, though, is not statistically significant.

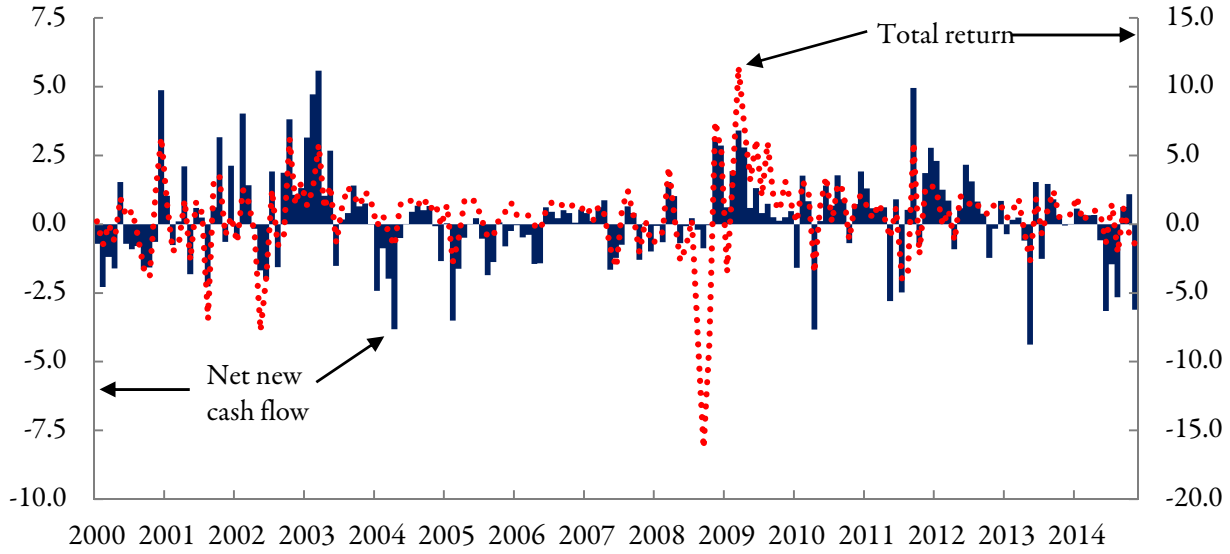
Figure 14: Variability of Net New Cash Flows[1] to High-Yield Bond Funds
Standard deviation of monthly net new cash flows as percentage of fund assets, selected periods

	All months		*Months with outflows*	
Period	*Standard deviation*[2]	*Number of months*	*Standard deviation*[3]	*Number of months*
2002–2006	1.80	60	1.03	27
2010–2014	1.68	60	1.31	19

[1] Net new cash flow to high-yield bond funds (excluding high-yield funds designated as floating-rate funds) expressed as a percentage of the previous month's assets.
[2] There is no statistically significant difference between the two standard deviations 1.80 and 1.68.
[3] There is no statistically significant difference between the two standard deviations 1.03 and 1.31.
Sources: Investment Company Institute and the Federal Reserve Bank of St. Louis

The concern, however, might be not so much whether the variability of fund flows has increased, but whether mutual funds investors now respond more strongly to market conditions than previously. Mutual fund investors certainly do respond to market conditions. Figure 15 plots monthly net new cash flow to all high-yield bond funds (measured as a percent of high-yield bond fund assets the previous month) relative to the return on high-yield bonds. In general, investor flows to these funds are positively related to returns on high-yield bonds. But there are important cases when the correlation is altogether lacking. As can be seen in Figure 15, returns on high-yield bonds fell very sharply from August to November 2008 (*i.e.*, during the financial crisis) but outflows from high-yield bond funds were negligible.

Figure 15: Net New Cash Flow to High-Yield Bond Funds is Related to Returns on High-yield Bonds
Percentage; monthly, February 2000–December 2014



Note: Net new cash flow is expressed as a percentage of previous month's assets. The total return is the monthly percentage change in the BofA Merrill Lynch U.S. High Yield Master II Total Return index. Data exclude high-yield funds designated as floating-rate funds.
Sources: Investment Company Institute and the Federal Reserve Bank of St. Louis

Moreover, there is no evidence that the responsiveness of investors in these funds to market returns has increased. For instance, Figure 16 presents the correlation between high-yield bond fund flows (as a percentage of fund assets) and returns on high-yield bonds for the five-year pre-crisis period 2002–2006 and the five-year post-crisis period 2010–2014. The correlation between cash flows and fund returns rose slightly from the pre-crisis to the post-crisis period (from 0.72 to 0.79) but the difference is not statistically significant. When only outflows are considered, the correlation rises from 0.55 in the pre-crisis period to 0.68 in the post-crisis period. Again, however, the rise is not statistically significant.[70]

Thus, to answer the Notice's question, growth in the assets of mutual funds that invest in less liquid securities does not increase redemption incentives. Certainly for high-yield bond funds, there is no evidence of that.

[70] A regression analysis relating net new cash flows to high-yield bond funds to returns on high-yield bonds leads to the same conclusion: there is no evidence of a shift in the relationship between net new cash flows and returns between the pre- and post-crisis periods.

Figure 16: Correlation between Net New Cash Flows[1] and Returns on High-Yield Bonds
Standard deviation of monthly net new cash flows as percentage of fund assets, selected periods

	All months		*Months with outflows*	
Period	*Correlation*[2]	*Number of months*	*Correlation*[3]	*Number of months*
2002–2006	0.72	60	0.55	27
2010–2014	0.79	60	0.68	19

[1] Net new cash flow to high-yield bond funds (excluding high-yield funds designated as floating-rate funds) expressed as a percentage of the previous month's assets.
[2] Note: there is no statistically significant difference between the two correlations 0.72 and 0.79.
[3] Note: there is no statistically significant difference between the two correlations 0.55 and 0.68.
Sources: Investment Company Institute and the Federal Reserve Bank of St. Louis

IV. Leverage

Section II of the Notice begins by differentiating between an investment vehicle's use of leverage "with appropriate controls and risk management," which FSOC acknowledges "can be a useful component of an investment strategy," and high degrees of leverage, which "can present risks to investment vehicles by magnifying the impact of asset price or rate movements." The Notice proceeds to explain that FSOC "is interested in exploring ways in which the use of leverage by investment vehicles could increase the potential for forced asset sales, or expose lenders or other counterparties to losses or unanticipated market risks, and the extent to which these risks may have implications for U.S. financial stability."

As a starting point, we strongly concur with FSOC's focus on leverage as a practice that, without appropriate controls and under certain circumstances, could have implications for financial stability. Excessive leverage, as we have explained in our previous letters to FSOC, is "the essential fuel" of financial crises, causing losses to multiply and spread among interconnected firms in times of strain. As a result, companies that are highly leveraged pose greater potential risk to the financial system.

In contrast, the use of leverage by regulated funds—which the Notice recognizes is generally limited by the Investment Company Act—does not have implications for financial stability. Former Federal Reserve Board Chairman Alan Greenspan expressed a similar view in 2014, when he observed that "we would not have seen the serial contagion we did" in 2008 if subprime mortgages "had been

held by mutual funds or in 401(k)s." This is because, as he explained, "it is not the toxic security that is critical, but the degree of leverage of the holders of the asset."[71]

Below, we briefly elaborate on the relationship between leverage and potential risks to financial stability. We explain how the use of leverage by regulated funds, including through derivatives, is limited under the Investment Company Act. We also take this opportunity to explain the range of purposes other than obtaining leverage for which regulated funds may engage in derivatives transactions. We then examine the Council's concerns regarding the effect of leverage on the potential for forced asset sales or negative effects to lenders or counterparties, explaining why such concerns are unfounded in the context of regulated funds. Finally, we briefly address the Council's questions regarding securities lending transactions.

A. Relationship Between Leverage and Potential Risks to Financial Stability

As we have previously discussed in our submissions to FSOC, virtually all financial crises have involved a financial institution (or group of financial institutions) taking on excessive leverage or debt-like exposure (such as through credit default swaps). Leverage provides the grease that makes modern financial systems an efficient engine for economic growth. But in times of strain, leverage also can act as a multiplier, turning small losses into large ones, and creating risks that can shake the system overall. For example, when a financial company is highly leveraged, a relatively small drop in asset values may be more than enough to wipe out all of the company's equity. If that company's debt was held by another highly leveraged firm, losses can mount exponentially and spread quickly.

By way of illustration, suppose that a financial company has assets of $100 million and capital of $4 million, and thus a leverage ratio of assets-to-equity of 25-to-1. This implies that the company has debt of $96 million. If the value of the company's assets drop by $5 million (a 5 percent decline), the company now has debt ($96 million) that exceeds its assets ($95 million). In that case, even if the company were able to sell off all of its assets at current market values, it would be unable to fully repay its debts. If the company's creditors are also highly leveraged, the company's losses and inability to fully repay its obligations could result in cascading losses among creditor firms, as the creditor firms in turn suffer losses on their assets.[72]

Recent history confirms that a highly leveraged company may, in times of financial market strain, pose these types of risks to financial stability. Well before it failed, Bear Stearns was leveraged at 31-to-1, with each dollar of capital supporting $31 in assets. Similarly, in August 2007, twelve full

[71] Alan Greenspan, "How to Avoid Another Global Financial Crisis," The American, March 6, 2014, available at: http://american.com/archive/2014/march/how-to-avoid-another-global-financial-crisis.

[72] In contrast, in the event of the failure of a financial company whose creditors are not highly leveraged, the creditors would take a charge against their own capital, but further repercussions would be unlikely.

months before it failed, Lehman Brothers was leveraged at 30-to-1.[73] And, as the Notice makes reference to leverage used by Long-Term Capital Management ("LTCM"), we note that at the end of 1997, roughly ten months before the near-failure of the LTCM fund, the fund had a leverage ratio of 25-to-1.[74]

B. Use of Leverage by Regulated Funds is Limited Under the Investment Company Act

As the Notice acknowledges, the Investment Company Act and related guidance from the SEC and its staff limit the extent to which regulated funds can enter into transactions involving leverage. The key statutory provision is Section 18, the purpose of which is to limit a fund's indebtedness—contractual future obligations to pay—and thereby limit volatility caused by indebtedness and the possibility that a fund could lack sufficient assets to pay its obligations.[75]

In the case of mutual funds, for example, Section 18(f) prohibits a fund from issuing a class of senior security or selling any senior security of which it is the issuer, but permits borrowing from a bank if there is asset coverage of at least 300 percent for all such borrowings. As a result, the maximum ratio of debt-to-assets for a mutual fund is 1-to-3, which translates into a maximum allowable leverage ratio of 1.5-to-1. As the Senate Banking Committee has observed, "a typical mutual fund could be an example of a nonbank financial company with a low degree of leverage."[76]

Beyond bank borrowings, other types of transactions by a regulated fund (*e.g.*, selling securities short, investments in certain derivatives) likewise implicate the "senior security" restrictions of Section

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[73] Source: Bloomberg.

[74] *See Hedge Funds, Leverage, and Lessons of Long-Term Capital Management,* Report of the President's Working Group on Financial Markets (April 1999) at 14 ("Assessed against the trading practices of hedge funds and other trading institutions . . . the LTCM Fund stood out with respect to its opaqueness and low degree of external monitoring, and its high degree of leverage.").

[75] *See Investment Trusts and Investment Companies: Hearings on S. 3580 Before a Subcomm. of the Senate Committee on Banking and Currency*, 76th Cong., 3d Sess., at 1040 ("The 'introduction of leverage' by long-term borrowings was one of the practices of investment companies most severely criticized by investment company sponsors and managers themselves at the public hearings."). As we previously have explained, Section 18 was not designed to regulate or prevent volatility associated with financial instruments involving solely economic leverage (in other words, instruments that do not impose a payment obligation on the fund above its initial investment). Letter from Karrie McMillan, General Counsel, ICI, to Elizabeth M. Murphy, Secretary, SEC (Nov. 7, 2011) at 7, available at: http://www.ici.org/pdf/25625.pdf. In our view, in addition to the constraints on *indebtedness* leverage in Section 18, the Investment Company Act's disclosure regime should serve to appraise investors of the risks of *economic* leverage. We have encouraged the SEC to address this aspect of fund disclosure to ensure that investors are appropriately protected.

[76] *See* S. Rep. No. 111-176, accompanying S. 3217, the Restoring American Financial Stability Act of 2010, at 48 (discussing the "degree of leverage" factor to be considered by FSOC in exercising its SIFI designation authority).

18. Under SEC and staff positions, funds generally may not engage in these transactions unless they "cover" their exposure. The purpose of the coverage requirement is, as explained above, to limit the possibility that the fund could lack sufficient assets to pay its obligations. As the Notice acknowledges, a fund may cover its exposure by segregating liquid assets on its books or maintaining offsetting positions.[77]

The limitations described above constrain a fund's ability to engage in transactions involving leverage. And, in fact, the largest U.S. regulated funds barely are leveraged at all. As we explained last year to the Financial Stability Board, the roughly dozen regulated U.S. funds with assets greater than $100 billion had an average leverage ratio of 1.04. In contrast, the average leverage ratio of the largest U.S. banks—those that have been designated as global systemically important banks, or G-SIBs—is 10.7.[78] To illustrate the importance of this difference, we looked at the level of indebtedness of the smallest U.S. G-SIB, which as of the second quarter of 2013 was $207 billion. A regulated U.S. fund with a leverage ratio of 1.04 would need to have assets of about *$5.4 trillion* to match the level of dollar indebtedness of the smallest G-SIB.[79]

C. Use of Derivatives for Purposes Other Than Leverage

The Notice acknowledges that investment vehicles use derivatives for purposes other than obtaining leverage, but points only to hedging as one of those other purposes. Given that derivatives have become an integral tool in modern portfolio management, we believe that it is important for FSOC to have a full appreciation of the ways in which these financial instruments may be employed. In essence, derivatives offer asset managers an expanded set of choices, beyond the traditional "cash securities" markets, through which to implement an investment vehicle's investment strategy and manage risk. Consistent with the vehicle's investment objectives and guidelines and its disclosures to investors, and taking into account current market conditions, the asset manager may engage in derivatives transactions to:

- Hedge exposure to a market, sector, security, or other target exposure;
- Gain or reduce exposure to a market, sector, security, or other target exposure more quickly, more precisely, and/or with lower transaction costs and less portfolio disruption;

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[77] Notice at 14. The Notice further acknowledges that the asset segregation approach and various other aspects of derivatives use by regulated funds are currently under consideration by the SEC staff. *See Use of Derivatives by Investment Companies Under the Investment Company Act of 1940*, SEC Release No. IC-29776 (Aug. 31, 2011), 76 Fed. Reg. 55237 (Sept. 7, 2011); SEC Chair White Speech, *supra* note 10.

[78] Assets for U.S. G-SIBs are as reported by the FDIC. *See* "Capitalization Ratios for Global Systemically Important Banks (G-SIBs)," FDIC. https://www.fdic.gov/about/learn/board/hoenig/capitalizationrations2q13.pdf.

[79] This is seen by noting that $5.4 trillion times .04 (the average percent indebtedness of the 11 U.S. regulated funds with assets greater than $100 billion) equals $216 billion, very close to the $207 billion indebtedness of the smallest G-SIB.

- Manage cash positions (*e.g.,* by equitizing cash that cannot immediately be invested in direct equity holdings, such as after the stock market has closed for the day);

- Adjust portfolio duration (*e.g.*, by seeking to maintain a stated duration as an investment vehicle's fixed income securities age or mature);

- Manage bond positions (*e.g.*, in anticipation of expected changes in monetary policy or the Treasury's auction schedule);

- Utilize a more liquid alternative to traditional cash securities; or

- Gain access to markets in which transacting in cash securities is difficult, costly, or not possible.

We offer two examples to illustrate how a regulated fund might use common derivative instruments in ways other than to obtain leverage or hedge against other portfolio investments. Total return swaps, for example, provide an efficient means to gain exposure (*e.g.*, to particular indices, to foreign markets for which there is no appropriate or liquid futures contract, or to foreign markets where local settlement of securities transactions may be difficult and costly). A regulated fund might use a total return swap based on a broad market index in order to gain market exposure on cash flows to the fund until such cash flow is fully invested. This allows the fund to put cash flows "to work" immediately, for the benefit of the fund's investors.

As a second example, regulated funds that follow fixed income strategies frequently use interest rate swaps. This type of swap allows the fund to adjust the interest rate and yield curve exposures of the fund or to replicate a broadly diversified fixed income strategy (which may be difficult to do solely through direct purchases of bonds). For example, inflation protected funds are now relatively common. To protect against inflation, these strategies use Treasury inflation-protected securities ("TIPS") or an efficient substitute. Since the market for TIPS is not especially deep, regulated funds may find it more efficient to achieve inflation protection through interest rate swaps linked to the return on TIPS.

We strongly believe that the Council's consideration of derivatives use by investment vehicles should focus solely on transactions that create leverage of such extent as to pose risks to financial system stability. Regulated funds do not engage in such transactions. Broader regulatory consideration of the use of derivatives should be handled by the appropriate primary regulator. In the case of regulated funds, such a review is already underway by the SEC staff.

D. <u>Use of Leverage by Regulated Funds Does Not Present Potential for Forced Asset Sales or Negative Effects to Lenders or Counterparties</u>

The Notice contains a succinct statement explaining the Council's concerns relating to the use of leverage by investment vehicles:

> In this Notice, the Council is interested in exploring ways in which the use of leverage by investment vehicles could increase the potential for forced asset sales, or expose lenders or other counterparties to losses or unanticipated market risks, and the extent to which these risks may have implications for U.S. financial stability. For example, during periods of financial market stress, declines in asset prices could lead to collateral or margin calls, requiring leveraged investors to meet those demands through asset sales that could in turn result in further declines in asset prices. Additionally, the exposures created by leverage establish interconnections between borrowers and lenders—and possible further interconnections between lenders and other market participants—through which financial stress could be transmitted to the broader financial system[80].

The Council's concerns regarding the potential for forced asset sales or negative effects to lenders or counterparties appear to echo the concerns voiced by the FSB in its January 2014 consultation on NBNI G-SIFIs. That FSB consultation stated in relevant part:

> The more interconnected a fund, or the greater the counterparties' credit exposures are to that fund, the greater that fund's potential impact in case of default on counterparties (counterparty channel) and to the broader financial system. Equally, the greater a fund's leverage, the greater its potential impact on counterparties that have provided finance (counterparty channel) and on markets in the event of a disorderly and rapid de-leveraging (market channel).[81]

In a detailed comment letter to the FSB, we concurred with these observations and the emphasis on the important role of leverage.[82] We likewise concur with the Council's description of the destabilizing effects that could be sparked by the distress of a highly leveraged institution during a time of financial market stress. These are indeed the effects observed during the global financial crisis, when the distress or disorderly failure of certain large, complex and highly leveraged financial institutions—

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[80] Notice at 12 - 13.

[81] The consultation describes the "counterparty channel" as follows: "The failure of [a nonbank, non- insurer financial entity] would affect its creditors, counterparties, investors or other market participants through their exposures to the failing entity. As a result of the failing entity, effects may materialize in a cascading manner, leading to broader financial system instability if their exposures and linkages are significant." The "market channel" is described as follows: "This channel describes the indirect impact a failure of [a nonbank, non-insurer financial entity] could have on other market participants. If an entity has to liquidate its assets quickly, this may impact asset prices and thereby significantly disrupt trading or funding in key markets, potentially provoking losses for other firms with similar holdings. The potential for forced liquidations and market distortions may be amplified by the use of leverage by financial entities." 2014 FSB NBNI G-SIFI Consultation at 3.

[82] Letter from Paul Schott Stevens, President & CEO, ICI, to Financial Stability Board, dated April 7, 2014, available at http://www.ici.org/pdf/14_ici_fsb_gsifi_ltr.pdf.

banks, insurance companies, and investment banks—required direct intervention by governments, including a number of bailouts, to repair the damage.

Nonetheless, it is frankly puzzling how the FSOC or FSB believes a regulated fund could ever be the source, or transmitter, of such destabilizing effects. Regulated funds are, first and foremost, holders of *long* positions in debt and equity instruments through *paid-in capital (equity)* from investors. Regulated funds thus generally act as *providers of capital* (to financial and operating companies, various governments, and the U.S. Treasury and central banks), not borrowers of capital.[83] In other words, it is far more common that regulated funds—and, by extension, their investors—are the bearers of counterparty exposure (*e.g.*, by reason of the fund's purchase of debt issued by a bank), rather than transmitters of risk to those counterparties.

Regulated funds typically engage in financing and other transactions with counterparties in one of three ways: borrowing, derivatives transactions, or securities lending. The extent to which a regulated fund may engage in such activities is strictly limited by the existing regulatory regime administered by the SEC (along with the fund's particular policies, which may be stricter still).

- Borrowing. Any borrowing by a mutual fund must be from a bank. Additionally, as explained above, Section 18(f) of the Investment Company Act requires a mutual fund to maintain asset coverage of at least 300 percent for all such borrowings that is, $3 in equity for every $1 of debt.. A mutual fund's leverage ratio thus cannot exceed 1.5, although, as a practical matter, the leverage ratios for U.S. mutual funds generally are well below this level.

- Derivatives Transactions. The applicable limitations under the Investment Company Act and related guidance from the SEC and its staff, which are spelled out in greater detail above, effectively limit the extent to which regulated funds can invest in derivatives and help assure that a regulated fund will be able to meet its obligations.

- Securities Lending. Well established SEC guidelines apply to securities lending activities by regulated funds. Among other things, these guidelines restrict the types of collateral that are permissible and how that collateral may be treated, impose limitations on the amount of securities lending, ensure the ability of a fund to recall securities in a timely manner, and mitigate conflicts of interest. A regulated fund must receive from the borrower at least 100 percent of the value of the loaned securities as collateral, and the collateral must be marked to market daily to ensure that at least 100 percent collateral is maintained at all times.[84] Permissible collateral is limited to cash, U.S. Treasury and agency securities and, subject to

[83] At the end of 2014, regulated U.S. funds as a whole held 30 percent of the outstanding U.S. corporate equity, 19 percent of U.S. and international corporate bonds, 11 percent of U.S. Treasury and government agency securities, 26 percent of U.S. municipal securities, and 46 percent of commercial paper.

[84] In practice, securities lending arrangements typically establish somewhat higher thresholds (102 percent collateral for loaned domestic securities and 105 percent collateral for loaned foreign securities).

limitations, certain bank guarantees and irrevocable bank letters of credit. Although some regulated funds do engage in securities lending, it is generally to a very limited degree.[85]

We note that the potential for inadequately managed exposures in these areas is further minimized by other regulatory requirements applicable to regulated funds, including daily mark-to-market valuation of all positions (including collateral and coverage amounts, as discussed above) and independent board oversight of the fund's investment program.[86]

E. A Further Note on Securities Lending

In several places, the Notice requests input on securities lending transactions. Specific questions posed by the Council include whether the investment of cash collateral in assets with longer maturities would increase liquidity risk, the degree of discretion that securities lending agents have with respect to cash collateral reinvestment, and whether the termination of securities loans would pose any distinct financial stability concerns.[87]

Securities lending is an investment technique employed by many different types of institutional investors, including various collective investment vehicles, insurance companies, pension funds, corporations, endowments, foundations, central banks, and others. As it considers securities lending, the Council should take into account that practices among these institutional investors vary, as do the attendant risks.

Regulated funds are a case in point. They are among the most conservative of securities lenders, operating under strict regulatory limits. Not all regulated funds engage in securities lending,[88] and those that do often lend a relatively small percentage of their portfolio.[89] When regulated funds lend

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[85] This point is discussed in more detail below.

[86] For a more detailed discussion of the fund board's role, *See* Letter from Amy B.R. Lancellotta, Managing Director, Independent Directors Council, to the Financial Stability Oversight Council, dated March 25, 2015.

[87] See question 4 on page 11 and question 6 on page 16 of the Notice.

[88] A regulated fund may lend securities only if lending is permitted by its organizing documents and disclosed to investors in the fund's prospectus or statement of additional information. The fund's lending program also is subject to approval and oversight by its board of directors, including its independent directors.

[89] In her December 2014 speech, SEC Chair Mary Jo White suggested that securities lending was done by "approximately a quarter of funds," based on SEC staff analysis of public reports filed on Form N-SAR with the SEC by regulated funds. *See* SEC Chair White Speech, *supra* note 10. Similarly, an ICI review of the most recent financial statements for the 500 largest regulated funds, which held about $9.62 trillion in total assets, showed that only 188 of these funds lent any securities at all, and that these funds collectively had just $95.1 billion in securities on loan—just 2.28 percent of the total assets of these 188 funds and about one-twentieth of the estimated $1.8 trillion of securities on loan worldwide. *See* Bob Grohowski and Sean Collins, "Securities Lending by Mutual Funds, ETFs, and Closed-End Funds: The Market" (September 16, 2014), available at http://www.ici.org/viewpoints/view_14_sec_lending_02.

securities, they reinvest cash collateral in a conservative manner that should allay any financial stability concerns.

The Council asks whether securities lending agents typically have discretionary authority to determine the investments of the cash collateral. The answer with respect to regulated funds is no. SEC guidelines permit the lending agent or custodian to invest cash collateral only as specified by the fund's investment adviser and under the adviser's supervision. These limits on the lending agent's or custodian's discretion are necessary to avoid issues under Section 15 of the Investment Company Act[90] and, for affiliated lending agents or custodians, the prohibition in Section 17(e)(1) of the Act on compensating affiliates for purchases and sales of fund assets.[91]

Applicable SEC staff guidelines require, among other things, that cash collateral be invested conservatively, in instruments that produce reasonable interest for the loan but also give maximum liquidity to pay back the borrower if and when the loan is terminated.[92] In practice, regulated funds typically invest cash collateral in very high-quality, highly liquid investments—including U.S. money market funds managed according to Rule 2a-7 under the Investment Company Act, or other funds managed with very conservative short-term investment strategies.[93] It bears noting that the economic return from a securities loan is not entirely a function of the income produced from the reinvestment of cash collateral. Frequently, lenders receive additional securities lending compensation, particularly in a low interest rate environment. This mitigates any incentive to "stretch for yield" with respect to investment of the cash collateral.

A number of the Council's questions focus on whether the termination of securities loans would pose any distinct financial stability concerns. Securities lending contracts, in general, can be terminated by either party at any time. The SEC staff guidelines require regulated funds to be able to terminate a loan at any time and recall the loaned securities within the ordinary settlement time associated with those securities.[94] Termination generally would cause securities lenders to unwind cash collateral investment positions. The potential for illiquidity or losses with respect to the sale of the collateral investment would depend, of course, on the nature of the investment. As noted above,

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[90] *See* Salomon Brothers, SEC No-Action Letter (pub. avail. Sept. 29, 1972) ("The type of investment for the cash collateral is a decision for directors of the fund and should not be delegated to anyone unless such person serves as an investment adviser under a contract meeting the requirements of Section 15 of the Investment Company Act.").

[91] *See* Norwest Bank Minnesota NA, SEC No-Action Letter (pub. avail. May 25, 1995).

[92] *See* State Street Bank and Trust Company, SEC No-Action Letter (pub. avail. Sept. 29, 1972) ("Guideline (4): 'reasonable interest on such loan' could include the fund's investing the cash collateral in high yielding short-term investments which give maximum liquidity to pay back the borrower when the securities are returned.").

[93] A fund's schedule of investments, which is included in its financial statements, lists the investments purchased with cash collateral.

[94] *See, e.g.,* State Street Bank and Trust Company, SEC No-Action Letter (pub. avail. Jan. 29, 1972) and State Street Bank and Trust Company, SEC No-Action Letter (pub. avail. Sept. 29, 1972).

regulated funds often invest cash collateral in Rule 2a-7 money market funds and similarly managed investment pools, which present little risk of loss or illiquidity.

V. Operational Risk

Section III of the Notice focuses on whether any areas of operational risk—broadly defined to include the risk arising from inadequate or failed processes or systems, human errors or misconduct, or adverse external events—within the asset management industry could present risks to U.S. financial stability. In particular, the Council is interested in risks that may arise when multiple asset managers rely on a small number of service providers for important services.[95] According to the Notice, these include custody, brokerage, asset pricing and valuation, trade processing, recordkeeping, accounting and transfer agency services.

Below, we briefly describe regulated funds' use of service providers and the robustness of the selection and ongoing oversight relating to these relationships. We then address the Council's stated concern regarding the use by multiple asset managers of a limited number of service providers, with particular attention to pricing vendors. We also discuss what we believe to be the most significant source of operational risk for regulated funds—unanticipated business interruptions, regardless of the cause—and why the fund industry is well positioned to address such risks when they arise. Finally, we briefly address the importance of continued efforts, by all financial institutions and their regulators—with respect to cybersecurity.

A. Regulated Funds' Use of Service Providers

Regulated funds usually are managed externally; they do not have their own employees in the traditional sense. In a typical fund complex, the SEC-registered investment adviser launches or sponsors the funds and, acting as agent for each fund, arranges for other service providers (whether affiliated or unaffiliated with the sponsor) to perform all necessary services. Fund investors purchasing shares of the fund in effect choose the investment adviser to implement their selected investment strategy and provide related services, and so the adviser is not commonly thought of as a mere "service provider." Nonetheless, pursuant to statute, the adviser provides its services under a contract with the fund that the fund's board (including a majority of the board's independent directors) must approve annually, and those services are subject to ongoing oversight by the fund board.[96]

[95] The Council also expresses interest in risks associated with the transfer of significant levels of client accounts or assets from one asset manager to another. We do not address this topic, given that the Council's focus is on separately managed accounts. *See* Notice at n. 19.

[96] Sections 15 (a) and (c) of the Investment Company Act.

In fact, the Investment Company Act and rules thereunder dictate or govern many aspects of service provider relationships with regulated funds. An important example, discussed further below, is the requirement that fund boards (1) approve compliance policies and procedures for the fund, including provisions for the fund to oversee compliance by its service providers, and (2) approve the compliance policies and procedures of certain fund service providers. Additionally, most key fund service providers are highly regulated in their own right under securities or banking law. The structure under which separate entities carry out fund operations—coordinated by the fund adviser and under the board's oversight—also receives regular focus in SEC regulatory compliance examinations. As a result of the interplay of regulatory requirements and how funds actually operate, service provider relationships receive greater attention than might be the case in other contexts. As is clear from the fund industry's growth and success over time, this structure has proven very resilient and effective throughout different market cycles and in the face of numerous events causing unanticipated business interruptions.

For purposes of the discussion below, we focus on regulated funds' key service providers other than the fund's sponsoring investment adviser. Other key service providers to a regulated fund generally include:

- **Custodian**: a state or federally regulated U.S. bank, which is responsible for safeguarding fund assets.[97] Most fund custodians are large institutions subject to heightened regulation under Title I of the Dodd-Frank Act and/or as global systemically important banks. Use of an affiliated bank custodian involves additional safeguards (*e.g.*, verification of the fund's securities by an independent public accountant at least three times annually, two of which must be on an unannounced basis).[98] Funds may invest in securities issued and traded outside the United States. To do so, the fund must use one or more foreign banks as sub-custodian to participate in the local markets, interact with local clearing agencies and hold accounts in local depositories. These relationships are governed by Rule 17f-5 under the Investment Company Act, which requires certain approvals and determinations by the fund's board of directors or its delegate.[99]

[97] Section 17(f) of the Investment Company Act.

[98] Rule 17f-2 under the Investment Company Act.

[99] Under Rule 17f-5, the fund board or its delegate must determine that assets held by the sub-custodian will be subject to reasonable care, based on standards applicable to custodians in the local market, after considering all relevant factors including (i) the sub-custodian's internal controls and physical protections; (ii) its financial strength; (iii) its general reputation and standing; and (iv) whether the fund will have jurisdiction over, and be able to enforce judgments against, the sub-custodian.

- **Principal underwriter**: an SEC-registered broker-dealer and FINRA[100] member, which is responsible for entering into selling agreements with other intermediaries to distribute fund shares.[101] The fund board (including a majority of the fund's independent directors) must approve this contract on an annual basis.[102]

- **Transfer agent**: an SEC-registered entity, which is responsible for maintaining records of investor accounts and providing other investor-related services.

- **Administrator**: a function often performed by the fund's investment adviser or custodian bank, which includes a variety of "back office" services (*e.g.*, internal audit, tax preparation, clerical/bookkeeping, report preparation, and filing).[103]

- **Fund accounting**: a function typically performed by the fund's custodian bank (or sometimes by the fund's investment adviser or an affiliate), which includes maintaining a current record of the fund's portfolio holdings and calculating daily the fund's NAV per share.[104]

- **Pricing vendor**: an entity that provides price and trade-related data for both domestic and foreign financial instruments. Fund accounting uses these inputs to calculate the fund's daily NAV.

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[100] The Financial Industry Regulatory Authority, Inc. ("FINRA") is a private corporation that acts as a self-regulatory organization regulating broker-dealer firms. FINRA's activities, including rulemaking, are subject to SEC oversight and approval.

[101] These intermediaries include a significant number of broker-dealers, banks and retirement plan service providers.

[102] Section 15 of the Investment Company Act.

[103] The term "administrator" means any person who provides significant administrative or business affairs management services to a regulated fund. Rule 0-1(a)(5) under the Investment Company Act.

[104] The regulations under the Investment Company Act impose certain safeguards relevant to the fund accounting function. *See, e.g.*, Rule 31a-1 (requiring the fund to keep and maintain current accounts, books and other documents relating to its business that constitute the record forming the basis for the fund's financial statements); Rule 30a-3 (requiring the fund to maintain internals control over financial reporting); Rule 30a-2 (requiring the fund's principal executive officer and principal financial officer to certify the fund's financial statements). In addition, an independent public accountant must audit the fund's annual financial statements. Rule 3-18 under Regulation S-X, 17 CFR, Part 210.

- **Portfolio trade processing**: a function that must be performed by the fund's investment adviser, administrator and/or custodian bank, which includes matching and confirming trades, providing settlement instructions to the fund's custodian bank, and reconciling books and records.

- **DTC/FICC/NSCC**: subsidiaries of the Depository Trust and Clearing Corporation (DTCC), all of which are regulated as systemically important financial market utilities under Title VIII of the Dodd-Frank Act, that provide centralized processing, clearing and settlement services for regulated funds.[105]

B. Selection and Ongoing Oversight of Service Providers

Both the investment adviser and the board of directors of a regulated fund focus considerable attention on the selection and ongoing oversight of the fund's service providers. First and foremost, these efforts are guided by three principles fundamental to regulated funds and fund investing:

- By law, the adviser has a fiduciary duty to the fund. In other words, the adviser has a legal obligation to act in the best interests of the fund pursuant to a duty of undivided loyalty and utmost good faith.

- By law, each director of the fund also has a fiduciary duty to the fund. Further, the board of directors is charged with broad oversight of actions taken on behalf of a fund by its adviser and other service providers. The independent directors (who typically constitute a substantial majority of all funds' boards) act as "watchdogs" for the interests of fund investors.[106]

- Regulated fund investors have considerable choice. The industry is highly competitive, with up to several hundred funds available within each investment category. Along with investment performance, the quality of shareholder services is a highly important factor in attracting and retaining fund investors.

[105] The relevant DTCC subsidiaries are the Depository Trust Company (DTC), the Fixed Income Clearing Corporation (FICC), and the National Securities Clearing Corporation (NSCC). Further details on these utilities are provided below.

[106] *Burks v. Lasker*, 441 U.S. 471 (1979).

The selection and oversight of the fund's service providers also is critically important for regulatory compliance reasons (*e.g.*, to comply with the fund compliance program rule, discussed below) and to ensure proper business functioning.

1. Selection of Service Providers

Selection of a key service provider for a fund (or, most commonly, for several or all funds in a fund complex) generally begins with a request for proposal "RFP" process. The RFP is used to gather information from service providers offering a specific service. The RFP typically gathers, among other things, information related to the following:

- the service provider's history and reputation, including client references;
- the experiences of similar funds serviced by the provider and the provider's history of client retention;
- the service provider's financial condition and ability to devote resources to the fund;
- the experience and quality of the service provider's staff and the stability of its workforce;
- the services to be provided, including systems capabilities;
- the service provider's internal controls and compliance policies and procedures;
- the service provider's insurance coverage;
- the service provider's controls and procedures regarding information security and the protection of customer data;
- third party assurance reports on the service provider's controls and the implementation of its compliance policies and procedures; and
- details of the service provider's business continuity plans and capabilities.

Personnel of the adviser tasked with the selection process will then undertake due diligence that typically includes a review of the service provider's regulatory and disciplinary history, as well as site visits and other meetings to gain a better understanding of the service provider's capabilities and operating environment. Discussions with a potential service provider will focus on, among other things, the services to be provided, the cost of such services, specified performance metrics (*e.g.*, processing quality, processing turnaround times, system availability), penalties for failing to meet agreed-upon service levels, and reporting or certification related to business continuity planning and tests. The fund board may review and approve the final contract of a key service provider.

2. Ongoing Oversight of Service Providers

Rule 38a-1 under the Investment Company Act (sometimes referred to as the "fund compliance program rule") requires the fund board, including a majority of its independent directors, to approve the compliance policies and procedures of the fund (which must include provisions for the fund to oversee compliance by its service providers) and those of certain service providers (*i.e.*, the fund's investment adviser, principal underwriter, administrator, and transfer agent). The board must find that the policies and procedures are reasonably designed to prevent violations of the federal securities laws. Among other things, the compliance policies and procedures must address: (a) pricing of fund portfolio securities and fund shares; (b) processing of fund share transactions; (c) identification of affiliated persons; (d) protection of nonpublic information; and (e) market timing. The compliance policies and procedures of the fund's investment adviser also must address business continuity planning.[107]

Regulated funds have comprehensive programs for oversight of their critical service providers. The contracts between a fund and its service providers typically include terms relating to such oversight, as well as escalation protocols and procedures.[108] Similar to the methods used for initial due diligence, oversight tools for existing service providers may include but are not limited to the following:

- enforcement of service level agreements and corresponding reporting;
- third party assurance reports (*e.g.*, SSAE 16);[109]
- periodic site visits;
- regularly scheduled meetings to discuss issues, concerns, long-term strategies and ongoing projects;
- evaluations of daily interactions and processes, including whether the service provider has provided adequate cooperation and support regarding the resolution of any errors;

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[107] Fund Compliance Rule Release, *supra* note 26, at n. 22 (stating that an investment adviser's obligations regarding business continuity planning are an extension of the adviser's fiduciary duty).

[108] These protocols and procedures outline the process for addressing significant issues or exceptions relating to the services to be provided under the contract. They typically describe, among other things, the scope of issues to be reported, the level of management to involve, and timeframes for elevating such issues.

[109] SSAE 16 reports are prepared by an independent public accountant in accordance with the American Institute of CPAs' Auditing Standards Board's Statement on Standards for Attestation Engagements No. 16, *Reporting on Controls at a Service Organization*. Such reports provide assurance that the service provider has established a system of internal controls, that the internal controls are suitably designed to achieve specified objectives, and that the internal controls are operating effectively.

- reports regarding the departure of any key personnel at the service provider and whether such departure(s) has had, or is expected to have, an effect on the quality of services rendered to the fund;
- ongoing monitoring of regulators' websites and news media that may raise "red flags" about the service provider's ability to meet its contractual obligations;
- required reporting of specific metrics;
- periodic certifications or questionnaires;
- required reporting of business continuity tests and readiness; and
- regular reporting to the adviser's senior management and the fund board.

At least annually, as required by Rule 38a-1, the fund's chief compliance officer (CCO) will provide a written report to the board regarding the operation of the compliance procedures of the fund's and its service providers' policies and procedures, and each material compliance matter that occurred since the date of the last report.[110] Although the rule requires compliance reviews and reports to be undertaken at least annually, such reviews and reports may occur on a more frequent basis, or on an ongoing basis throughout the year.

C. Implications of Limited Number of Service Providers

1. In General

According to the Notice, the Council is particularly interested in potential risks "that may arise when multiple asset managers rely on one or a limited number of third parties to provide important services" and "one of these providers either ceases operations or renders the services in a flawed manner."[111] In its discussion of this issue, the Notice alternately refers to "risks to U.S. financial stability," "potential risk across the asset management industry," and "risks to certain markets or asset classes if asset managers were to suffer a disruption in service."[112] As a starting point, we believe it is important for the Council to be clear that its interest in this issue is limited to potential risks to U.S. financial stability. Risks that relate to asset management but do not raise systemic concerns should be addressed by the SEC.

[110] The rule contains provisions designed to promote the independence of the fund CCO from the fund's investment adviser. Specifically, the fund board, including a majority of the independent directors, must approve the appointment and compensation (and, if necessary, the removal) of the fund CCO.

[111] Notice at 17, 19.

[112] *Id.*

In some areas, regulated funds collectively do rely on a limited number of providers for important services.[113] For example, there are approximately ten large banks that act as fund custodians. All are subject to extensive regulation and supervision by federal or state banking regulators, and most are subject to heightened regulation and supervision under Title I of the Dodd-Frank Act and/or standards for global systemically important banks. Bank holding companies ("BHCs") and insured depository institutions ("IDIs") with $50 billion or greater in total assets are required annually to prepare and submit resolution plans to the Federal Reserve Board and Federal Deposit Insurance Corporation. These resolutions plans, which are a key element of the post-crisis bank regulatory framework, require the BHC or IDI to demonstrate how its business would be wound down in an orderly manner if it were to experience material financial distress. Thus, through the resolution planning process, custodian banks and their holding companies (as well as the bank regulatory agencies) are continually evaluating potential risks for a disorderly failure, and planning ways to address such risks.

There also are a limited number of independent transfer agents providing services to regulated funds. That said, many fund complexes use a hybrid arrangement in which an independent transfer agent performs only certain of the transaction processing and/or shareholder servicing functions; others are performed by a transfer agent affiliated with the funds' investment adviser. As with the custodian banks, all SEC-registered transfer agents are extensively regulated in their own right.[114] They also are not entities that present risks of sudden failure. They are more akin to general commercial enterprises in that they finance their business with a mix of debt and equity, and their assets include computers, software, and proprietary systems. In our view, any deterioration in a transfer agent's financial condition would typically be gradual and discernable through the fund's monitoring and oversight programs.

With the expansion of intermediary omnibus account structures,[115] transfer agent services are performed not only by the fund's transfer agent but also by regulated intermediaries (*e.g.*, broker-dealers, bank trust departments) on behalf of the intermediaries' customers who purchase fund shares. Funds, generally through the transfer agent or fund compliance staff, use robust oversight and

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[113] Some funds, particularly large complexes, may choose to contract with multiple providers for the same service (*e.g.*, custody and related services) in order to mitigate risk presented by a single vendor relationship.

[114] *See, e.g.*, Rules 17Ad-1 – 17Ad-21T under the Securities Exchange Act of 1934. In particular, Rule 17Ad-13 under that Act requires a registered transfer agent to file annually with the SEC a report prepared by an independent accountant concerning the transfer agent's system of internal accounting controls and related procedures for the transfer of record ownership and the safeguarding of related securities and funds.

[115] An omnibus account includes the shares of multiple investors—sometimes numbering in the thousands—that are customers of the intermediary. Omnibus accounts are held on the books of a fund in the name of the financial intermediary, acting on behalf of its customers. When an intermediary submits its transactions for an omnibus account, it usually consolidates the transactions of all customers that are purchasing or redeeming shares of the same fund that day into one or a few "summary" transactions for processing by the fund.

compliance procedures to monitor the performance of these intermediaries to ensure compliance with contractual and regulatory obligations.

2. Pricing Vendors

Asset pricing and valuation are mentioned several times in this section of the Notice. Below, we describe how regulated funds use pricing vendors and their oversight of the services provided by such vendors. We also comment on what would happen in the event that one or more pricing vendors failed to provide security valuations to a fund for its portfolio holdings.

Pricing vendors have real time access to securities markets and provide pricing data on a wide range of financial instruments including equities, fixed income, and derivatives. Vendors provide real-time as well as end of day values for financial instruments. In addition, many vendors provide valuations for instruments that are not regularly traded by collecting data from broker/dealers, trading desks, and many other sources to generate fair values (*e.g.*, fixed income instruments). Specific valuation techniques will vary according to vendor and type of security. Some more commoditized evaluated pricing data is generated by computer models but valuations on complex and illiquid securities can involve significant manual interactions (*e.g.*, calling a primary dealer).

Funds (or their fund accounting service providers) use the information provided by the pricing vendor in calculating the fund's daily NAV per share. They thus employ a range of practices designed to ensure that security values obtained from pricing vendors are consistent with applicable regulations and accurately reflect current market value. These include:

- Comparing the current day's price as provided by the pricing vendor to the prior day's price and researching any price that changes more than a specified tolerance;

- Identifying and researching all security prices that did not change over a specified period (*e.g.*, five days);

- Routinely comparing prices at which portfolio securities are sold to the security value provided by the pricing vendor the day prior to the sale; and

- Periodically comparing security values provided by the primary pricing vendor to the security values provided by their back-up pricing vendor and researching any differences above a specified tolerance.

Whenever these practices suggest that a security value provided by the pricing vendor may not accurately reflect the current market, the fund may "challenge" the security value provided and request that the pricing vendor change or affirm the price for the security. The price challenge process, which is

employed by all funds and many other pricing vendor clients, creates a "feedback loop" that helps ensure that the pricing vendor's security values accurately reflect the current market.

While the market for providing security valuations to funds is highly competitive, there are approximately six primary vendors that provide security values. Developing evaluated prices requires a pricing vendor to have relationships with broker/dealers, trading desks, and other parties. The significant effort involved in establishing and maintaining these relationships may explain, in part, the limited number of providers.

It is our understanding that most funds contract with a "primary" pricing vendor and one or more "back-up" pricing vendors for the asset classes in which they invest. The process of selecting a primary pricing vendor (and one or more back-ups) is comprehensive. Typically, the fund will select its vendors based on how well the vendor's product suite aligns with the security types in which the fund invests, the ability to obtain detailed information on the assumptions, inputs, and methodologies used in pricing, design and appropriateness of pricing methodologies, effectiveness of its price challenge process, timeliness of its daily pricing files, level of staff trading expertise, and business continuity plan. Accordingly, if the fund's primary pricing vendor does not provide service on a particular day, the fund could switch to its back-up vendor. For funds that do not perform fund accounting in-house, their third-party fund accounting agent typically will have relationships with all or substantially all of the pricing vendors providing security values for the different asset classes in which their fund clients invest. If a particular pricing vendor is unable to provide service to the fund for an extended period, the fund could easily establish a relationship with another pricing vendor (that is already providing security valuations to the fund accounting agent).

In instances where the pricing vendor is unable to provide security values for a particular security or a number of different securities, and the fund cannot obtain such values from another pricing vendor, the fund would be required to develop its own estimate of the "fair value" of the security (*i.e.*, the amount the fund would reasonably expect to receive upon a current sale). Section __ above explains this obligation under the Investment Company Act and the extensive policies and procedures that funds have in place to ensure their portfolio holdings are properly valued. Further, as noted in that same section, if there were an emergency situation that would make it impracticable for the fund to determine the fair value of its assets, the fund may seek approval from the SEC under Section 22(e) of the Investment Company Act to suspend redemptions.[116]

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[116] In 1987, ICI submitted a proposed rule under Section 22(e) of the Investment Company Act to the SEC's Division of Investment Management. Among other things, the proposed rule would have permitted regulated funds to suspend redemptions if the fund's pricing service was unable to provide a price for more than a *de minimis* amount of the fund's portfolio securities. The Division Director responded that because of the infrequency of such "emergencies" and the "expeditious manner" in which the staff handles them, the Division preferred to continue to handle emergencies on a case-by-case basis. The Director further expressed the view that the determination that an emergency exists under Section 22(e), such that funds cannot fairly determine net asset value, should be made by the SEC or the Division, not by individual funds.

3. DTCC and its Subsidiaries

DTCC and its subsidiaries—DTC, FICC, and NSCC—are the industry utilities that act as the central counterparty for the clearance and settlement of portfolio security transactions and as a conduit for mutual fund share processing activities. DTCC has a well-established infrastructure for its subsidiaries and extensive operational risk mitigation practices that include: (1) requirements regarding participants' financial resources and operational capacity; (2) collection of collateral deposits to meet clearing fund requirements and mark-to-market payments in the form of margin; and (3) close out and loss allocation procedures designed to facilitate an orderly liquidation in the event of a participant default.[117] In addition, as noted above, each subsidiary is regulated as a systemically important financial market utility under Title VIII of the Dodd-Frank Act.

As part of its risk mitigation efforts, DTCC has issued a series of white papers[118] and spearheaded both internal and industry-focused risk mitigation initiatives. Examples of these initiatives include developing new stress tests to help identify both potential weaknesses and opportunities to strengthen the risk control environment; numerous improvements to the process for conducting participant closeout exercises; executing a project to enhance settlement for money market instruments; and facilitating an industry initiative[119] to shorten the U.S. securities settlement cycle from the current trade date plus three days (T+3) to T+2 for equities, corporate and municipal bonds, and shares of unit investment trusts.

D. Unanticipated Business Interruptions: the Regulated Fund Industry's Positioning to Prepare, Respond and Remediate

A significant operational risk for regulated funds and their key service providers is the disruption of normal operations that may impact the ability to service fund investors. Over the past several decades, the fund industry has confronted and worked through a variety of emergencies that can be broadly characterized in one of two ways: emergencies that cause a financial *market* to close (*e.g.*, Hurricane Sandy in October 2012, which caused the NYSE to close)[120] and emergencies that cause a fund's office to close (*e.g.*, the San Francisco earthquake in October 1989 that uniquely affected certain

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[117] *See* FSOC Annual Report (2012) at Appendix A (describing each of the DTC subsidiaries and FSOC's analysis of its systemic importance), available at http://www.treasury.gov/initiatives/fsoc/Documents/2012%20Appendix%20A%20Designation%20of%20Systemically%20Important%20Market%20Utilities.pdf.

[118] The papers can be found on the DTCC website at: http://www.dtcc.com/about/managing-risk.aspx.

[119] For additional information see: http://www.ust2.com/.

[120] Other examples include the 1963 assassination of President John Kennedy, the 1994 assassination of a Mexican presidential candidate, and blackouts in New York City in 1977 and 1990.

funds in northern California).[121] Either type of emergency also may cause power outages, disrupt transportation and cause interruptions to postal services. All of these may impact the ability of funds to determine their daily NAVs as required by the Investment Company Act, process transactions, and/or fulfill certain other legal obligations.

To mitigate such risks, funds and key service providers to the industry have robust plans and strategies in place to facilitate the continuation or resumption of business operations in the event of an emergency, regardless of the cause. A common approach to business continuity planning by the regulated fund industry is to identify and prioritize the functions, technology, and people critical for maintaining business operations.[122] Firms often conduct a business impact analysis using a cross-functional team drawn from technology, business operations, and risk. An important part of this process is the identification and estimation, by business units and information technology staff, of proposed Recovery Time Objectives and Recovery Point Objectives.[123] Once the objectives are established, they are usually updated annually.

It is our understanding that fund complexes and critical vendors to the industry test their business continuity plans on an ongoing basis, with a variety of approaches and scenarios, that evolve as appropriate.[124] In addition, since September 11, 2001, the nature and scope of business continuance has changed significantly, making fund complexes and their critical service providers more resilient to unexpected business interruptions. Two examples are illustrative.

First, technology and processing improvements now make it possible for certain activities (*e.g.*, movement of data files between funds and the intermediaries that sell fund shares, settlement of previously executed trades, management of account transfers) to continue during unscheduled market events. Thus, during Hurricane Sandy, fund complexes and financial markets were closed[125] but

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[121] Other examples include the major power outages in Houston caused by Hurricane Ike in 2008 and the devastation in the Gulf Coast area caused by Hurricane Katrina in 2005.

[122] There are many business continuity guidelines that funds use as resources to ensure the availability of critical services. These resources include the Federal Financial Institutions Examination Council (FFIEC) Information Technology Examination Handbook, Business Continuity Planning booklet (http://ithandbook.ffiec.gov/it-booklets/business-continuity-planning.aspx) and the SANS Institute (http://www.sans.org/reading-room/).

[123] Recovery Time Objective is the maximum tolerable length of time that a computer, system, network, or application can be unavailable after an emergency occurs. Recovery Point Objective is the age of the files that must be recovered from backup storage for normal operations to resume in the event of an emergency.

[124] Tests may include table top exercises with a small number of people, virtual tests with multiple departments, and, in some cases, complex "surprise" exercises involving actual first responders, actors simulating terrorists, and employees simulating injuries. These tests are repeated periodically so that employees are well trained in a variety of emergency situations.

[125] A mutual fund prospectus will disclose policies regarding the processing of investor transactions in fund shares. Typically, funds accept purchase and redemption transactions on any "business day," which is usually tied to the operating

DTCC and the Federal Reserve were open for business as usual. Fund complexes were able to continue these regular automated activities, thus avoiding any increased risk of error that might be introduced through manual processing or other "work-arounds" during the market interruption.

Second, it is not uncommon for the larger fund complexes and their critical vendors to have multiple business continuity sites located in different regions of the country, something that was not as common prior to the 9/11 terrorist attacks. These sites are appropriately staffed to handle daily operations. In fact, some firms switch normal operations between regions on a regular basis as a means of testing and training. These alternate sites have proven to be able to handle daily operations as evidenced during the numerous emergencies that have occurred since 2001, including two (unplanned) Presidential days of mourning (2004, 2007), the largest winter storm in New York City history (2006), Hurricane Sandy (2012), the Boston Marathon bombings (2013), and the record snowfall in Boston (2015).

Regulated funds and their boards also focus intently on the business continuity capabilities of the funds' third party service providers. Due diligence of such vendors typically includes a detailed assessment of their ability to continue business operations in an emergency.[126] This process is carried out by business continuity professionals and key advisory personnel. The investment adviser to a regulated fund and/or affiliates of the adviser also may provide services outside the fund complex, subjecting them to similar inspections of their business continuity capabilities. For example, a fund complex that is part of a banking institution subject to federal bank examination will at a minimum use the FFIEC guidelines for business continuity planning.

Underpinning the rigorous assessments above are regulation and oversight by the SEC and FINRA.[127] Over the years, the SEC has issued orders or SEC staff has published guidance and/or "no action" letters providing limited relief for funds, fund directors, transfer agents, and others affected by a natural disaster or other emergency. In very rare instances, this relief has permitted funds to suspend redemptions on a temporary basis. Both regulators also examine fund complexes and their critical service providers' business continuity programs and capabilities. The SEC, for example, conducted targeted exams of nearly 50 investment advisers immediately after Hurricane Sandy. It subsequently issued a risk alert highlighting numerous examples of well-crafted business continuity plans for fund

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status of the equity and fixed income markets.

[126] These assessments can include lengthy questionnaires, site inspections, shared test results, and regular testing of technology from primary and alternate sites.

[127] *See, e.g.*, Rule 206(4)-7 under the Investment Advisers Act of 1940, FINRA Rule 3510.

complexes.[128] The alert also identified some observed weaknesses and encouraged advisers to modify practices, if appropriate, based on lessons learned during that emergency.

Since the 9/11 terrorist attacks, regulated fund complexes and their key service providers have coordinated closely with other market participants, regulators, exchanges, and offices of emergency management in response to several emergencies. These joint efforts have focused on ensuring business continuance or resumption of normal operations, without adverse impact to investors or the financial markets. With regard to Hurricane Sandy, for example, SEC staff participated in numerous industry calls immediately preceding, during, and after the storm, which kept them informed of the severity and scope of the emergency, including the potential consequences of widespread flooding and power outages, and the related impacts to industry participants.

Senior technology representatives responsible for business continuity at ICI member fund complexes meet periodically each year to exchange emergency event information, discuss challenges encountered, and establish or improve industry recommended practices, in addition to receiving presentations from private business continuity planning experts. Additionally, ICI has a separate Business Continuity Planning Steering Committee (BCPSC), comprised of mutual fund and intermediary back office operations professionals, key service providers and industry business continuity experts, to facilitate and improve the fund industry's resilience in servicing investors during times of market disruption or operational stress. The BCPSC developed the Mutual Fund Operations Planning Guide for an Unexpected Market Close to assist funds and intermediaries in preparing for processing challenges associated with an unplanned market closure.[129]

E. Cybersecurity

The Notice mentions that "[a]sset management firms, like other financial services firms, rely significantly on technological systems, including processing, recordkeeping, and communications systems, which are vulnerable to a number of operational risks ranging from normal system disruptions to targeted cyber-attacks."[130] We recognize that this is not the first instance in which FSOC has highlighted cyber risks as a potential area of concern. For example, FSOC's most recent annual report discusses cyber incidents in its chapter on potential emerging threats to the financial system. The report states that such incidents

> can impact the confidentiality, integrity and availability of the information and technologies essential to the provision of services, resulting in financial, compliance and reputation risk. Moreover, cyber incidents that disrupt, degrade or impact the integrity

[128] The risk alert is available at http://www.sec.gov/about/offices/ocie/business-continuity-plans-risk-alert.pdf.

[129] The guide is available at http://www.ici.org/pdf/14_ops_manual_marketclose.pdf.

[130] Notice at 19.

> and availability of critical financial infrastructure could have consequences on operations and efficiency. Such incidents can undermine the confidence of consumers and investors and, ultimately, threaten the stability of the financial system.[131]

We concur with this assessment, and we welcome FSOC's attention to this serious operational risk. Indeed, it is precisely in an area such as this—one where the risk cuts across regulatory boundaries and financial market participants—that the Council is uniquely suited to play a coordinating role.

For their part, regulated funds and their key service providers are spending considerable time and resources to secure their computer networks and data and otherwise take steps to prevent and combat cyber attacks. To help facilitate these efforts, ICI's Chief Information Security Officer Advisory Committee provides a trusted forum in which fund industry information security professionals have the opportunity to interact with their peers and informally exchange threat information, as well as threat mitigation and program development strategies. This committee convenes regularly and receives presentations on information security from federal regulators and organizations such as the SANS Institute. ICI also sponsors an annual cybersecurity forum for its members and other market participants to discuss information security concerns relevant to the industry.

The SEC and FINRA frequently conduct examinations of fund complexes' and their critical service providers' information security programs. In 2014, for example, the SEC conducted targeted exams of investment advisers to better understand how these firms address the legal, regulatory, and compliance issues associated with cybersecurity. The SEC's summary of its findings serves as a useful tool for fund complexes to assess their own programs relative to the SEC's areas of interest. In addition, the summary makes clear that OCIE "will continue to focus on cybersecurity using risk based examinations," reinforcing the previously published OCIE "Examination Priorities for 2015."[132]

VI. Resolution

The Notice indicates that the Council is interested in the extent to which the failure or closure of an asset manager, investment vehicle, or affiliate could have an adverse impact on financial markets or the economy. FSOC's focus and questions on this topic clearly are rooted in experience during the global financial crisis when—as noted in the "Leverage" section above—the distress or disorderly failure of certain large, complex and highly leveraged financial institutions required direct intervention by governments, including a number of bailouts, to stem the damage and prevent it from spreading. These incidents led to post-crisis reforms designed to better equip regulators to "resolve" a failing institution in a way that minimizes risk to the broader financial system and costs to taxpayers. Such reforms

[131] FSOC Annual Report (2014) at 120.

[132] http://www.sec.gov/news/pressrelease/2015-3.html.

include the "orderly liquidation authority" established under Title II of the Dodd-Frank Act and advance resolution planning requirements under Dodd-Frank Act Section 165 for large bank holding companies and nonbank financial companies that FSOC designates for enhanced prudential regulation and Federal Reserve Board supervision.

It is perfectly logical that experience in the global financial crisis would influence FSOC's current inquiry. Below we discuss characteristics that distinguish mutual funds and their managers from the kinds of large, complex, and highly leveraged institutions whose distress or disorderly failure during the financial crisis caused, or absent government intervention might have caused, negative repercussions for the financial system at large. We explain why mutual funds and their managers do not experience disorderly failure and, as a related matter, why the "resolution" or liquidation of a mutual fund or its manager, even in circumstances of financial market stress, is highly unlikely to present financial stability concerns.[133] We also address several of FSOC's specific questions, some of which seem to imply that resolution and liquidation in the asset management industry could present risks to financial stability. In the case of stock and bond mutual funds and their managers, there is nothing to indicate that this would be the case. Moreover, consistent historical experience, including in periods of financial stress, strongly suggests otherwise.

A. Mutual Funds and Their Managers Do Not Experience "Disorderly Failure"

1. Mutual Funds

The concept of "failure" is inapt in the context of mutual funds. These funds do *not* guarantee any return to investors or even promise that investors will get their principal back. Investors know that they and they alone will reap *all* the rewards of any fund gains (net of expenses)—and absorb the impact of any losses—on a *pro rata* basis. This expectation on the part of fund investors contrasts sharply with that of bank customers, who deposit their money in anticipation of principal repayment plus interest.[134] And it contrasts with the expectation of the broader marketplace that, in the case of banks, the government will step in if needed to preserve the safety and soundness of individual banks and the banking system generally.

The suggestion that a mutual fund might "fail" also ignores another important characteristic that distinguishes mutual funds from banks: mutual funds' use of little or no leverage.[135] Without

[133] Much of the following discussion is drawn from ICI's July 2014 paper, *"Orderly Resolution" of Mutual Funds and Their Managers*, available at http://www.ici.org/pdf/14_ici_orderly_resolution.pdf.

[134] The FSB acknowledged this point in its consultation last year (stating that "[u]nlike banks, for instance, where capital is set aside to protect depositors and other creditors against the risk of losses, investment management is characterized by the fact that fund investors are knowingly exposed to the potential gains and losses of a fund's invested portfolio."). 2014 FSB NBNI G-SIFI Consultation at 29.

[135] For additional discussion of mutual funds and leverage, *see* Section IV of this letter.

leverage, a fund's NAV per share may steeply decline, but it is virtually impossible for a fund to become insolvent—*i.e.,* for its liabilities to exceed its assets. Instead, as discussed further below, a fund that does not attract or maintain sufficient shareholder equity to be viable from a business perspective typically will be merged with another fund or liquidated through an established and orderly process.

2. Fund Managers

Fund managers also are unlikely to "fail"—and highly unlikely to do so in the kind of disorderly manner that might pose risks to financial stability or require any government intervention.[136] The main reason for this is the agency nature of the asset management business, which results in a fund manager's having a vastly different risk profile from that of a bank.

Acting as agent, a fund's investment adviser manages the fund's portfolio pursuant to a written contract with the fund and in strict accordance with the fund's investment objectives and policies as stipulated in the fund's prospectus. Fund management fees compensate the adviser for managing the fund as its agent and for providing ongoing services that the fund needs to operate. Managers do *not*, however, bear the fund's investment risks. The manager itself does not take on the risks inherent in the securities or other assets it manages for its mutual funds or other clients,[137] or in other activities or strategies it may pursue on behalf of clients, such as securities lending. Those are investment risks that are borne *exclusively* by fund shareholders or the adviser's other clients. The manager does not own and has no claim on fund or client assets[138] and it may not use such assets to benefit itself or any other client. Investment gains and losses from a client account are solely attributable to that account, and do not flow through to the manager.

As a result of the agency nature of the asset management business, fund managers typically have small balance sheets with limited assets and liabilities. This means that, should it be necessary, resolution would be a very straightforward process.[139]

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[136] Indeed, we are unaware of any notable fund manager in its own right filing for bankruptcy protection.

[137] In its 2011 annual report to Congress, FSOC observed that "[i]n separately managed accounts, investment losses fall solely on the account owner, so these accounts generally do not raise direct financial stability concerns." Financial Stability Oversight Council, 2011 Annual Report, at 65. This statement is equally true for mutual funds and other types of collective investment vehicles.

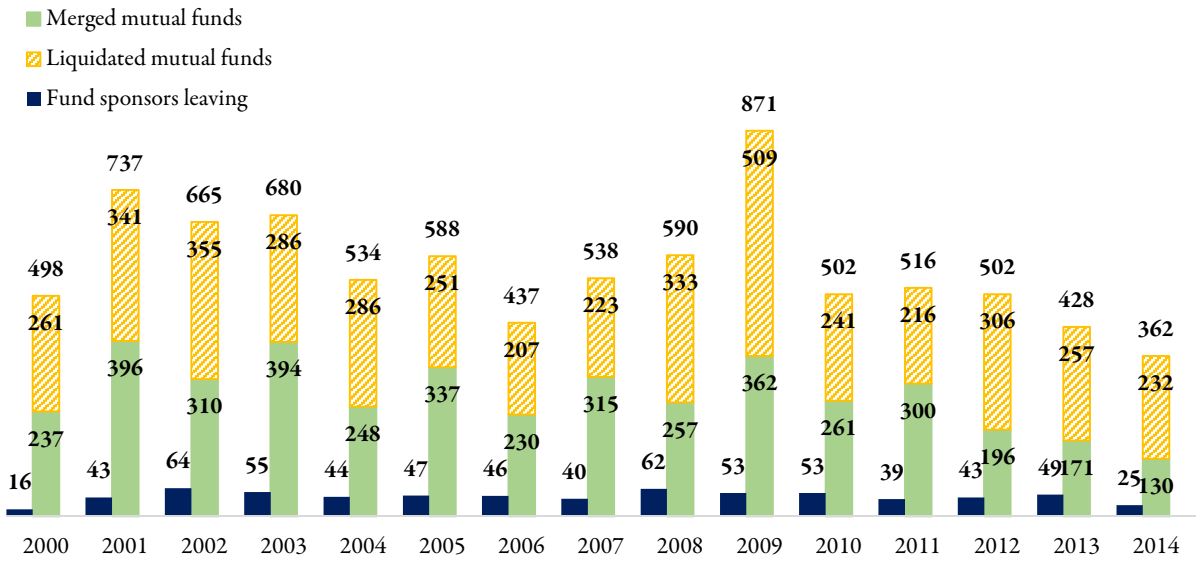
[138] Under Section 113 of the Dodd-Frank Act, among the criteria that FSOC must consider in determining whether to designate a nonbank financial company for enhanced prudential standards and consolidated supervision by the Federal Reserve Board is "the extent to which assets are managed rather than owned by the company."

[139] *See* Appendix B.

B. Mutual Funds and Fund Managers Routinely Exit the Business, in an Orderly Way

The Notice correctly acknowledges that "asset management firms and investment vehicles have closed without presenting a threat to financial stability."[140] In fact, mutual funds and fund managers routinely exit the asset management business, as shown in the figure below.

U.S. Funds and Sponsors Routinely Exit With No Government Aid



Note: Data include mutual funds that do not report statistical information to the Investment Company Institute and mutual funds that invest primarily in other mutual funds.
Source: Investment Company Institute

A variety of established "exit strategies" are available to funds and managers. All of them can be accomplished within the existing regulatory framework (and on an expedited basis, if need be), even in periods of market stress. Fund exits generally occur either through the liquidation of a fund or by merging the fund with another fund. For fund managers, a common exit strategy is the sale or merger of the fund management business. We discuss these and other exit strategies—including the resolution of a fund manager in the unlikely event of a solvency problem—in Appendix B.[141]

The numbers of mutual funds and fund managers exiting the business each year are significant. In 2014 alone, for example, 362 funds were merged or liquidated and 25 fund sponsors left the business. But even when these exits occur during, or are precipitated by, a period of severe market stress, they do not occasion disorder broadly affecting the investing public, market participants or financial markets.

[140] Notice at 23.

[141] Appendix C outlines the established and orderly process for liquidating and dissolving a fund.

In fact, it is widely recognized that mutual funds regularly exit the market with no systemic impact.[142] Below we outline the main reasons why.

C. Fund Structure, Regulation, and Industry Dynamics Facilitate Orderly Exits

Several features of the structure and regulation of mutual funds, along with the dynamic and competitive nature of the fund management business, facilitate "orderly resolution" of funds and their managers. An understanding of these features also will help explain why certain potential concerns suggested by the Notice are unlikely to arise. The most relevant aspects of fund structure and regulation include the following.

1. Independent Legal Character of a Fund

As the Notice correctly indicates, a fund manager and each fund it may sponsor or advise are separate and distinct legal entities.[143] The independent legal character of a mutual fund has a number of important implications for the fund and the manager, including in the "resolution" context. For example:

- As noted above, the fund manager manages the fund's portfolio acting as an agent under a written contract with the fund.
- The fund itself, not the manager, is the principal/party to any transactions in the fund's portfolio (including, *e.g.*, derivatives or other financial contracts).
- Losses in a fund do not flow through to the manager or any other fund it may advise, as indicated above.
- The manager (and its creditors) have no claim on fund assets.[144]
- If the manager were somehow impaired or had to be wound down, there likely would be no spillover effect on the funds, and certainly no risk to financial stability resulting from any spillover effect.

The Notice inquires whether the failure of an asset manager or an affiliate could "provide counterparties with the option to accelerate, terminate, or net derivative or other types of contracts of

[142] *See, e.g.*, 2014 FSB NBNI G-SIFI Consultation at 30 n.38 ("[E]ven when viewed in the aggregate, no mutual fund liquidations led to a systemic market impact throughout the [2000-2012] observation period.").

[143] Notice at 23.

[144] The Notice acknowledges this point at pp. 23-24, stating that "the assets of [an] investment vehicle are not legally available to the asset manager, its parent company, or affiliates for the purpose of satisfying their financial obligations or those of affiliated investment vehicles." The FSB likewise recognized in its 2014 consultation that the assets of a fund "are separated and distinct from those of the asset manager and as a result, the assets of a fund are not available to claims by general creditors of the asset manager." 2014 FSB NBNI G-SIFI Consultation at 30 (footnote omitted).

affiliates or investment vehicles that have not entered insolvency."[145] In other words, the Council is asking whether counterparties have "cross-default" rights under these contracts. In the case of a mutual fund's financial contracts, the answer generally is no.

- For OTC derivatives contracts, mutual funds use the ISDA Master Agreement, which only grants cross-default rights to the counterparty if the fund's manager or an affiliate is specifically listed in the contract. It is our understanding that mutual funds typically do not list the manager (or an affiliate). We further understand that it is customary for a counterparty to require funds to accept termination rights granting the counterparty or clearing firm a right to terminate, accelerate and engage in close-out netting against the fund counterparty if the manager is no longer able to act for the fund (regardless of the reason for the manager's inability to act). These provisions typically include reasonable cure periods (*e.g.,* 30 days) under which the fund can appoint a new manager. Under Investment Company Act Rule 15a-4, a fund's board can appoint a new manager expeditiously, if necessary.[146]

- For cleared swaps, the standard agreements that mutual funds use do not provide cross-default rights.

- Standard master agreements for repurchase transactions and securities lending transactions include cross-default provisions that would be triggered by the fund manager's failure if the fund and its counterparty elected to treat the manager as "agent" under the agreement.[147] Mutual funds typically negotiate the cross-default provisions out of the agreement or elect not to treat the manager as agent for this purpose.

2. Separate Custody of Fund Assets

The Investment Company Act requires mutual funds to maintain strict custody of fund assets, separate from the assets of the fund manager, using an eligible custodian. As discussed in Section V of this letter (Operational Risk), nearly all mutual funds use a U.S. bank custodian for domestic securities.[148] Any foreign investments must be held in custody by a qualified foreign custodian.

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[145] *See* Notice at 24, question 2.

[146] *See* Appendix B.

[147] As discussed above, fund managers are unlikely to fail.

[148] The Investment Company Act and rules thereunder permit other limited custodial arrangements: Rule 17f-1 (broker-dealer custody); Rule 17f-2 (self custody); Rule 17f-4 (securities depositories); Rule 17f-5 (foreign banks); Rule 17f-6 (futures commission merchants); and Rule 17f-7 (foreign securities depositories).

The custody requirements constitute a core investor protection that the SEC takes very seriously, as illustrated by a recent SEC enforcement proceeding.[149] Fund custody arrangements facilitate the movement of a fund's advisory contract to another manager (*e.g.*, in the event of the sale or merger of the fund's manager). Because a fund's custody arrangements are governed by a separate contract between the fund and the custodian, there would be no immediate need to alter the fund's custody arrangements in such a situation. Instead, the fund's custody arrangements would remain in place and the fund's assets (and thus fund shareholders' interests) would continue to be protected. In general, the custodian would simply need instructions from the fund's board of directors on the identity of persons at the new manager who are authorized to transact on behalf of the fund.

3. Restrictions on Affiliated Transactions

The Investment Company Act contains a number of strong and detailed prohibitions on transactions between a mutual fund and affiliated organizations such as the fund's manager, a corporate parent of the fund's manager, or an entity under common control with the fund's manager.[150]

The detailed and restrictive provisions of the Investment Company Act governing dealings with affiliates are no less stringent than those contained in Sections 23A and B of the U.S. Federal Reserve Act. Designed to protect funds and their investors against overreaching or other abusive practices and conflicts of interest, these Investment Company Act provisions prohibit or strictly limit the types of "financial interconnections" FSOC refers to in the Notice—both between a fund manager and the funds it manages, and among funds managed by the same manager.[151] The Notice asks what financial interconnections among these parties exist "that could pose obstacles to an orderly resolution."[152] Taking into consideration the manager's agency role, the independent legal character of a mutual fund, the custody requirements, and the restrictions on affiliated transactions, the risk that there would be such financial interconnections, and that they would pose obstacles to an orderly resolution of the manager, is entirely hypothetical. As noted above, all the evidence indicates that this

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[149] *See In the Matter of Water Island Capital LLC*, SEC Investment Company Act Release No. 31445 (Feb. 12, 2015), available at http://www.sec.gov/litigation/admin/2015/ic-31455.pdf (Finding that a registered investment adviser caused mutual funds it advised to violate Section 17(f) of the Investment Company Act and the funds' related policies and procedures by failing to ensure that cash collateral relating to certain total return and portfolio return swaps was transferred to the funds' bank custodian).

[150] Among other things, Section 17 of the Investment Company Act prohibits transactions between a fund and an affiliate acting for its own account, such as the buying or selling of securities (other than those issued by the fund) or other property, or the lending of money or property. It also prohibits joint transactions involving a mutual fund and an affiliate. In some cases, transactions involving an affiliate are permitted in accordance with SEC rules and exemptive orders, which impose conditions designed to protect investors and require the fund's board of directors, including the independent directors, to adopt and review procedures designed to ensure compliance with those conditions.

[151] *See* Notice at 22 and Question 1 at 24.

[152] *Id.*

has not been, and is not likely to be, an issue of any significance in the context of mutual funds and their managers.[153]

4. Role of the Fund Board of Directors

As we allude to in the preceding sections of this letter, mutual funds must, by statute, have their own board of directors (or trustees), a governance structure altogether distinct from that of the fund's sponsor or adviser. The board generally must have a minimum proportion of members who are independent of the fund manager,[154] and in practice most fund boards have 75 percent or more independent members.[155] Fund directors are subject to fiduciary duties of care and loyalty under state law, and the independent directors serve as "watchdogs" for the interests of fund shareholders. In broad terms, the fund board oversees the fund's management, operations, and investment performance. Specific responsibilities include annual review and approval (including by a majority of the independent directors) of the fund's investment advisory contract and overseeing the fund manager's provision of services under that contract. As a result of its oversight functions, a fund board generally will be attuned to any difficulties with the fund, such as lagging performance, failure to attract assets or investor outflows. The board would be required to approve any proposed merger or liquidation of a fund. It likewise will be aware of material developments involving the manager, such as operational challenges, a planned sale or merger of the manager, or other changes that could affect the ability of the manager to continue to fulfill its contractual obligations to the fund. The board would be involved in reviewing the terms of a sale or merger transaction and has authority to transfer the advisory contract to another manager should circumstances warrant.

5. Competition in the Mutual Fund Industry

Fund industry competitive and marketplace dynamics play an important role in facilitating "orderly resolution" of mutual funds and their managers. There were 867 sponsors of mutual funds in the United States in 2014, with no single firm or group of firms dominating the market.[156]

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[153] *See* Mutual Funds and Fund Managers Routinely Exit the Business, in an Orderly Way, above.

[154] More precisely, these directors cannot be "interested persons" (defined very broadly in Section 2(a)(19) of the Investment Company Act) of the fund, its investment adviser (manager), or its principal underwriter.

[155] As of year-end 2012, independent directors made up three-quarters of boards in 85 percent of fund complexes. *See* Independent Directors Council/Investment Company Institute, *Overview of Fund Governance Practices, 1994–2012*, available at http://www.idc.org/pdf/pub_13_fund_governance.pdf.

[156] For example, of the largest 25 fund complexes in 2000, only 13 remained in this top group in 2014.

A prominent measure of market concentration, the Herfindahl-Hirschman Index, shows that the U.S. mutual fund industry is unconcentrated.[157] The lack of concentration in the industry also demonstrates that fund managers are highly "substitutable" and that there would be no need for government intervention to support the activities or survival of any particular manager.

Individual funds likewise are highly substitutable.[158] Appendix D shows that there are typically well over 100 different mutual funds within each investment category—and, in many cases, several hundred funds—available to investors in the market. Fund sponsors generally offer funds in many different categories. Investors can and do move their investments easily from one fund to another without causing market disruption.

6. An Active and Robust Mergers &Acquisitions Market

The high degree of competition in the fund industry also suggests that there are many potential bidders for a fund management business should it be put up for sale. Historical experience has borne this out, even during times of severe market stress.[159] Similarly, there is no shortage of firms willing and able to take on additional fund assets under management, for example through fund mergers. In any situation in which a fund manager decided or was forced to leave the business, other fund managers (or other financial institutions seeking to enter the fund management business) could be expected to be bidders for that business.[160]

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[157] The Herfindahl-Hirschman Index weighs both the number and relative size of firms in an industry. Index numbers below 1,000 indicate that an industry is unconcentrated. The U.S. mutual fund industry had a Herfindahl-Hirschman Index number of 507 as of December 2014.

[158] The FSB and IOSCO highlighted this characteristic of investment funds in the FSB/IOSCO 2014 NBNI G-SIFI Consultation, stating that "the investment fund industry is highly competitive with numerous substitutes existing for most investment fund strategies (funds are highly substitutable)." FSB/IOSCO 2014 NBNI G-SIFI Consultation at 30.

[159] To provide some context, in 2008, the global merger and acquisition activity in the asset management industry totaled $2.0 trillion in assets under management (AUM). In 2009, the level of such activity reached $4.0 trillion in AUM, with nine deals in excess of $100 billion. Source: Grail Partners LLC, Current and Future State of the Asset Management Industry and Implications on Fund Manager Merger and Acquisition Transactions (June 2014).

[160] As one example among many: in 2004 Wells Fargo announced that it was acquiring the mutual fund business of Strong Capital Management. *See* Wells Fargo press release at https://www.wellsfargo.com/press/strong05262004?year=2004. The deal was prompted by an SEC enforcement action (settled just six days prior to the deal announcement) that, among other things, barred Strong's founder from the industry. *See Strong Capital Management and Founder Richard Strong Agree to Pay $140 Million to Settle Fraud Charges Concerning Undisclosed Mutual Fund Trading* (May 20, 2004), available at http://www.sec.gov/news/press/2004-69.htm.

As a result of these fund industry competitive and marketplace dynamics, no single mutual fund or fund manager is so important or central to the financial markets or the economy that the government would need to intervene or offer support to protect financial stability.[161]

D. The Existing Regulatory Framework is Effective and Remains Appropriate

The Council poses the question: "[t]o the extent that resolution and liquidation in the asset management industry present risks to financial stability, how could the risks to financial stability be mitigated?"[162] As discussed above, we have not seen and would not expect to see risks to financial stability resulting from the resolution or liquidation of a mutual fund or fund manager. Instead, the regulation and other characteristics of mutual funds and their managers, as well as industry dynamics—all as discussed above—facilitate "orderly resolutions" even during periods of exceptional market stress. In the "resolution" area, as well as others discussed in this letter, aspects of the current SEC regulatory regime, while focused on investor protection, also serve to mitigate potential financial stability risk. Historical experience demonstrates that the existing legal and regulatory framework works well.

As the primary regulator of mutual funds and their managers, the SEC has the necessary expertise and regulatory authority to propose any enhancements it determines may be advisable. In this regard, the SEC recently announced plans to consider requiring investment advisers to develop "transition plans to prepare for a major disruption in their business."[163] This initiative appropriately is focused on protecting investors' interests, for example, should an investment adviser need to wind down its business and transfer any remaining client assets to another firm. In describing the purpose of such a requirement, SEC Chair White stressed that "the risks associated with winding down an investment adviser are different than those associated with other kinds of financial firms," specifically noting that "client assets are not the assets of an adviser, and advisers routinely exit the market without significant market impact."[164]

ICI supports the SEC's consideration of whether there are opportunities to enhance the processes investment advisers already follow that allow successful transitioning of clients' assets, *e.g.,*

[161] As discussed in the Liquidity and Redemptions section of this letter, the SEC has the authority to take action under Section 22(e) of the Investment Company Act, such as permitting a fund to suspend redemptions, if necessary or appropriate to protect fund investors.

[162] *See* Notice at 25, question 7.

[163] *See, e.g.,* SEC Chair White Speech, supra note 10.

[164] *Id.* (footnote omitted).

through an extension of existing investment adviser compliance programs.[165] Any regulatory proposal presumably would build on the business continuity and other contingency planning (discussed in the Operational Risks section above) that is already in place in the industry.[166] Any such proposal should take into account unique features of the asset management business and the diversity of the industry; it should allow for tailoring based on an individual investment adviser's specific business model, clients and activities.

VII. Conclusion

The analysis and discussion above provide ample evidence that regulated funds and their managers do not pose risks to financial stability—either as a general matter or in any of the specific areas the Council examines in the Notice. If the Council's review of industry-wide asset management products and activities identifies demonstrable risks related to regulated stock and bond funds, and the Council believes such risks require regulatory action, the SEC is the appropriate regulator for the job. As the primary regulator for regulated funds and their managers, the SEC has the necessary expertise and regulatory authority to propose any enhancements it determines may be advisable.

* * * * *

[165] *See* Remarks to the 2015 IAA Compliance Conference by Dave Grim, Acting Director, SEC Division of Investment Management (March 6, 2015), available at http://www.sec.gov/news/speech/remarks-iaa-compliance-conference-2015.html#.VQ9MtvnF884. ("The staff's recommendation regarding transition plans will be informed by current requirements of registered investment advisers, and designed to complement existing compliance programs [required by Rule 206(4)-7 under the Investment Advisers Act].")

[166] The Notice asks about contingency planning that asset managers undertake to help mitigate risks to clients associated with firm-specific or market-wide stress. Notice at 25, question 6. We discuss business continuity and contingency planning in Section V (Operational Risks), above. We note that the Council's question addresses "risks to clients," and not risks to financial stability. While we agree that investor protection is the appropriate focus in the context of mutual fund and fund manager "resolution," we also strongly believe that this is and should continue to be the purview of the SEC, not FSOC.

Thank you for the opportunity to submit these views. If you have any questions regarding our comments or would like additional information, please feel free to contact me at (202) 326-5901 or paul.stevens@ici.org, Brian Reid, ICI Chief Economist, at (202) 326-5917 or reid@ici.org, or David Blass, ICI General Counsel, at (202) 326-5815 or david.blass@ici.org.

Sincerely,

/s/ Paul Schott Stevens

Paul Schott Stevens
President & CEO
Investment Company Institute

Appendices

cc: The Honorable Mary Jo White, Chair
The Honorable Luis Aguilar, Commissioner
The Honorable Dan Gallagher, Commissioner
The Honorable Kara Stein, Commissioner
The Honorable Mike Piwowar, Commissioner

Mr. David Grim
Acting Director, Division of Investment Management

Mr. Mark Flannery
Director and Chief Economist, Division of Economic and Risk Analysis
U.S. Securities and Exchange Commission

The Honorable Jacob Lew, Secretary
Mr. Richard Berner, Director, Office of Financial Research
U.S. Department of the Treasury

The Honorable Janet Yellen
Chairman, Board of Governors of the Federal Reserve System

The Honorable Timothy Massad
Chairman, Commodity Futures Trading Commission

The Honorable Martin Gruenberg
Chairman, Federal Deposit Insurance Corporation

Mr. Melvin Watt
Acting Director, Federal Housing Finance Agency

The Honorable Thomas J. Curry
Comptroller of the Currency

The Honorable S. Roy Woodall, Jr.
Financial Stability Oversight Council

The Honorable Debbie Matz
Chairman, National Credit Union Administration

The Honorable Richard Cordray
Director, Consumer Financial Protection Bureau

Exchange-Traded Funds

This appendix generally responds to the Council's request for information on two specific topics as they pertain to exchange-traded funds ("ETFs"):[1] (1) how the structure of a pooled investment vehicle, including the nature of its redemptions rights, affects investors' incentives to redeem; and (2) the effectiveness of techniques to manage liquidity risks during periods of overall market stress. To do this, the appendix first discusses the ETF primary market and the role of authorized participants ("APs")[2] in that market. It then discusses the importance of the ETF secondary market to the liquidity of ETFs, including the role of its liquidity providers. Finally, the appendix discusses the behavior of bond ETFs during the summer of 2013, a period in which bond prices moved down sharply.

ETF Primary Market

ETFs are similar to mutual funds, except that ETFs list their shares on a stock exchange, thereby allowing retail and institutional investors to buy and sell shares throughout the trading day at market prices.[3] Most investors trade ETFs on stock exchanges in the secondary market; however, the actual creation and redemption of ETF shares occurs in the primary market. APs alone transact directly with ETFs, in large amounts called "creation units" (typically involving 25,000 to 200,000 ETF shares) based not on market prices but on the ETF's daily net asset value.[4] ETFs create shares when an AP submits an order for one or more creation units. The ETF delivers shares to the AP when the AP transfers the specified daily creation basket[5] to the ETF. The redemption process is simply the reverse. An AP delivers the specified number of ETF shares that comprises a creation unit to the ETF and, in

[1] Our comments do not relate to ETFs that operate outside of the Investment Company Act of 1940. Nearly all ETFs (96 percent of total net assets and 95 percent of the total number of ETFs) are registered under the Investment Company Act.

[2] APs are U.S. registered self-clearing broker-dealers that can process all required trade submission, clearance, and settlement transactions on their own account, and are full participating members of the National Securities Clearing Corporation and the Depository Trust Company. An AP enters into a legal contract with an ETF distributor to allow the AP to create and redeem shares of the fund.

[3] For more detailed information on the structure and regulatory framework of ETFs in the United States, *see Understanding Exchange Traded-Funds: How ETFs Work*, ICI Research Perspective, September 2014, available at http://www.ici.org/pdf/per20-05.pdf.

[4] How these transactions must take place, and the substantial disclosures that the ETF must make to facilitate them, are spelled out in the SEC order pursuant to which the ETF operates. Due to various unique features relating to their ability to trade on an exchange at market prices, ETFs require an exemptive order from the SEC. ETFs comply with all of the key investor protection provisions in the Investment Company Act, including, among others, those regarding leverage, conflicts of interest, and corporate governance.

[5] The creation or redemption basket for an ETF is a specific list of names and quantities of securities, cash, and/or other assets. Often, baskets will track the ETF's portfolio through either a *pro rata* slice or a representative sample, but, at times, baskets may consist of a subset of the ETF's portfolio along with a cash component.

return, receives the daily redemption basket. This exchange of securities and ETF shares between the fund and its APs is called in-kind creation or redemption.

Many ETFs have in-kind redemption baskets. The in-kind redemption feature of the ETF structure operates to externalize liquidity-related costs onto the AP (or its customer if the AP is acting as agent). When an AP redeems ETF shares and receives the basket of securities from the fund, an AP (if acting on its own behalf) or other market participant (if an AP is acting as an agent) becomes a direct holder of the securities and must make the decision to hold or sell the securities into the market. If the AP or other market participant decides to sell, it bears the full cost (commissions and bid/ask spreads) of liquidating the securities; the remaining ETF shareholders do not bear any portion of these costs.

Other ETFs have redemption baskets that are partially in-kind (that is, a mix of cash and securities)[6] or offer APs the option of receiving a cash basket.[7] As the Notice indicates, an ETF often charges APs a cash adjustment and/or a transaction fee for the cash component of the basket to offset any transaction expenses the fund incurs. The ETF typically sets this fee daily and posts it on the fund's website in advance of the opening of the financial markets. The fee is not adjusted intraday.

All cash redemption orders generally are at the election of the ETF portfolio manager. If the market for the underlying securities is volatile, the ETF portfolio manager may believe that the cost of selling the underlying securities will exceed the fee collected from the AP. As a result, the portfolio manager may determine that it will not accept any cash redemptions—this serves to protect the fund's remaining shareholders from absorbing potential liquidity-related costs. In these situations, APs will only receive the underlying securities as specified in the daily redemption basket.

Authorized Participants' Role in the ETF Primary Market

Generally speaking, an AP (or its customer if the AP is acting as agent) trades with the ETF if there is an opportunity for arbitrage—the financial incentive for the AP (or its customer) to engage in creations or redemptions with the ETF to capture differences in value between the ETF's secondary market shares and assets comprising a creation or redemption basket. This arbitrage opportunity helps keep the market price of ETF shares near the per share net asset value. In contrast, closed-end funds do not have a similar arbitrage feature and can trade at significant premiums or discounts to their net asset values.

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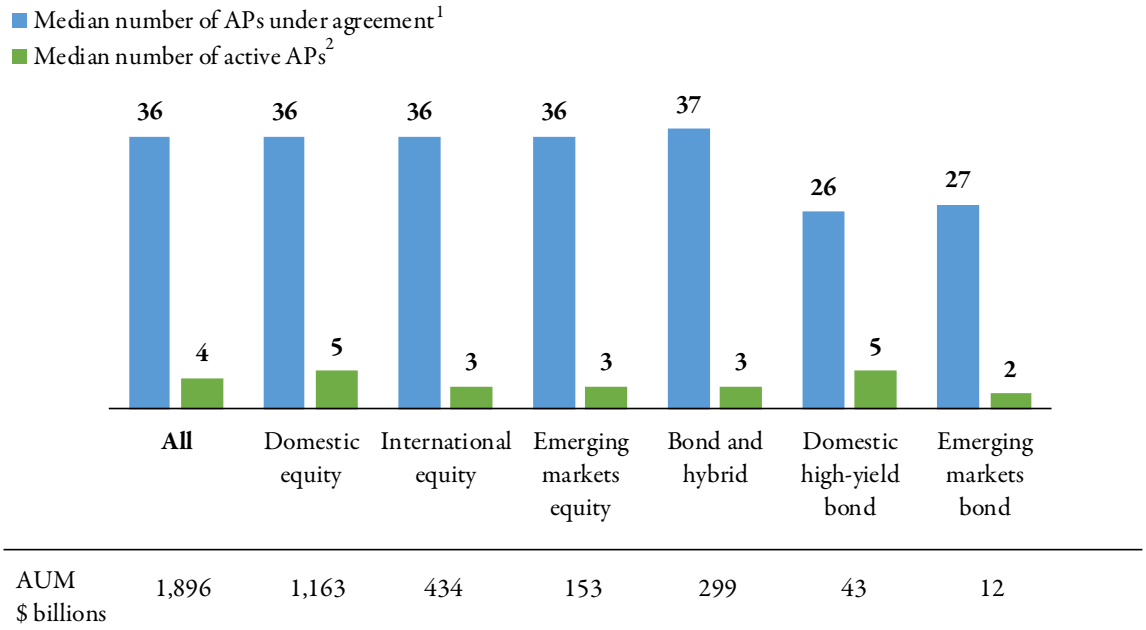
[6] For example, the composition of baskets for bond ETFs may vary from day to day with the mix of cash and the selection of specific bonds in the basket based on liquidity in the underlying bond market. In these cases, because the basket is not an identical replication of the ETF's portfolio holdings, a cash adjustment is required to equate the value of the basket to the net asset value of the ETF.

[7] For example, an ETF may substitute cash in the redemption basket when an instrument in the basket is difficult to transfer ownership to an AP as is the case with some foreign securities.

ICI recently conducted a survey of its members that sponsor ETFs to collect information on APs.[8] Half of the ETFs in the sample have at least 36 APs under contract and at least four active APs that create and redeem ETF shares (Figure A1).

Figure A1: Most ETFs Have Many ETFs



[1]APs are entities that have a legal contract with an ETF distributor to create and redeem ETF shares.
[2]For purposes of the survey, an AP was deemed active in an ETF if it had conducted at least one creation or redemption in that particular ETF's shares in the previous six months.
Source: Investment Company Institute

Some have expressed concern that the primary market in ETF shares depends heavily on a limited number of active APs, and that this dependence could add stress to the financial markets if an active AP were to step away from creating and redeeming ETF shares.

Two recent instances of an active AP stepping away demonstrate that for most ETFs there are other APs ready and willing to process creation and redemption orders to keep the ETF primary market functioning smoothly.

- ***Knight Trading Group, Inc.***, one of the biggest U.S. trading firms, suffered a technology error on August 1, 2012. Knight was an active AP for most ETF sponsors in the United States. As a result of the firm's losses, Knight's ability to create and redeem ETF shares was severely

[8] For more details on the results of the survey, *see Understanding the Role and Activities of Authorized Participants of Exchange-Traded Funds*, March 2015, available at http://www.ici.org/pdf/ppr_15_aps_etfs.pdf.

impaired. Other APs saw an opportunity and stepped in rapidly to fill the void. The response was quickest for larger ETFs that invest primarily in domestic equities because these ETFs have more APs that are active and more APs under agreement than other types of ETFs. Even for smaller domestic equity ETFs and U.S. fixed-income ETFs, other APs stepped in to facilitate creations and redemptions that kept the ETF primary market functioning.

• ***Citigroup Inc.,*** a major AP, temporarily ceased transmitting redemption orders to various ETFs that had foreign underlying securities on June 20, 2013, because it had reached an internal net capital ceiling imposed by its corporate banking parent. According to press reports, Citigroup made the business decision to no longer post collateral in connection with redemption activity in these ETFs. Although fewer APs can quickly step into the international space,[9] one large active AP was able to process the redemption requests without any problems. In addition, investors could have turned to the secondary market, which was functioning normally and not showing signs of stress, to sell their ETF shares.

Even if no APs had processed creation and redemption orders in either of these cases, the affected ETF shares would have traded on the secondary market, essentially like closed-end funds, which can have substantial discounts or premiums to their net asset values. Impacts would have been contained to the affected ETFs and not transmitted to other ETFs or the underlying securities markets.

ETF Secondary Market

It is important to understand the sources of ETF activity. Are market participant orders primarily executed on the primary market through APs or on the secondary market with other market participants? In the first case, creations or redemptions generate trading in the underlying securities; in the latter case, only the ETF shares trade hands.

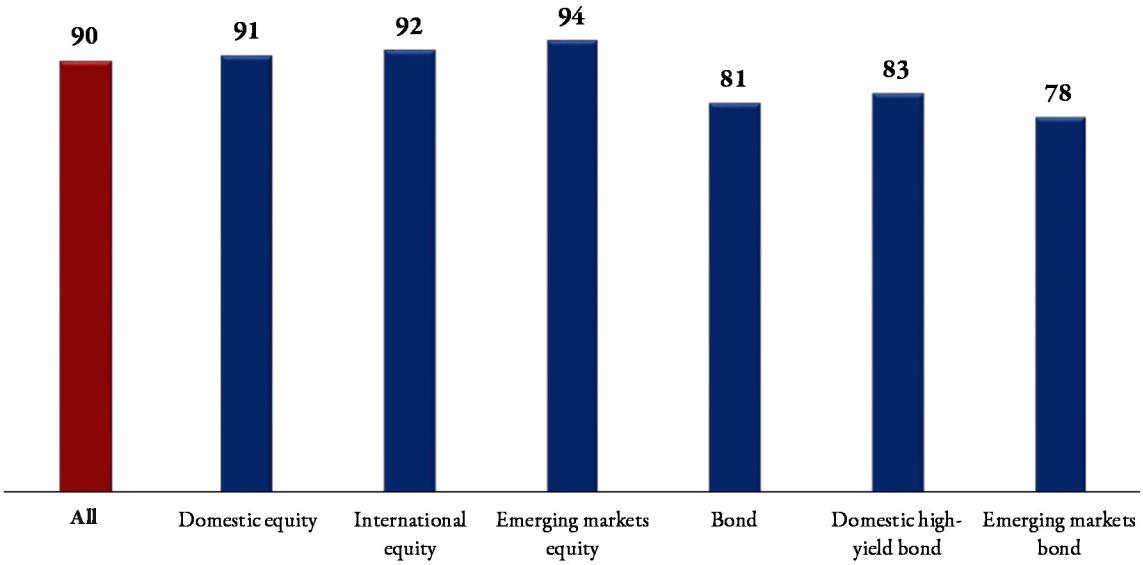
The results of ICI's analysis indicate that most activity in ETFs occurs on the secondary market (trading ETF shares) rather than on the primary market (creations and redemptions transacted through an AP). On average, 90 percent of the daily activity in all ETF shares occurs on the secondary market (Figure A2). Even for narrow asset classes, such as emerging markets equity, domestic high-yield bond, and emerging markets bond, the bulk of the activity is in the secondary market. Investors involved in many of these ETF secondary market trades generally are not motivated by arbitrage (*i.e.*, the desire to

[9] Often, the ability to conduct transactions in foreign securities is more challenging than for domestic securities. For example, some foreign markets require investors to have foreign investor status, a local bank account, and a local custodian to pre-collateralize trades. As a result, APs that do not have these arrangements in place are unable to create and redeem shares of these ETFs. Also, APs that create and redeem ETFs with foreign underlying securities generally are required to post collateral upfront with the fund custodian to protect ETF shareholders in the event the AP fails to deliver the agreed upon securities.

exploit differences between the market price of the ETF and its net asset value). These investors do not interact with the ETF directly and do not create transactions in the underlying securities.

Figure A2: Most ETF Activity Is in the Secondary Market

Percentage of secondary market activity relative to total activity; daily, January 3, 2013–June 30, 2014*



*Total activity is the sum of primary and secondary market activity; excludes commodity ETFs.
Sources: Investment Company Institute and Bloomberg

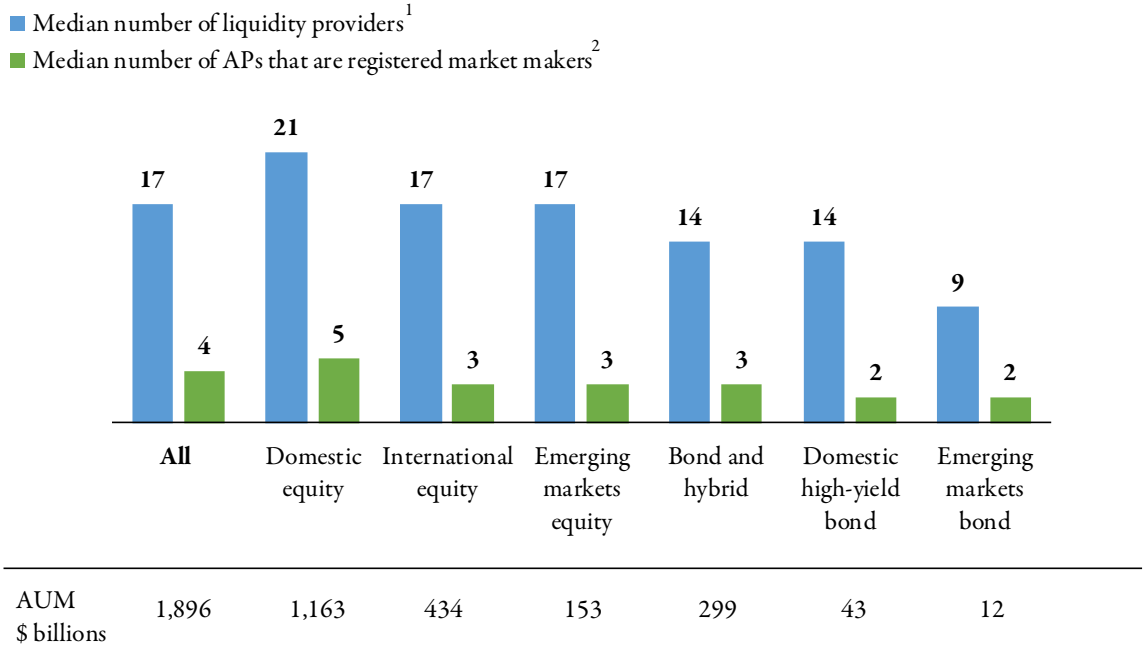
Role of Liquidity Providers in the Secondary Market

Domestic equity ETFs have the most secondary market liquidity providers (Figure A3). But, even ETFs in narrow asset classes, such as emerging markets equity, domestic high-yield bond, and emerging markets bond, have multiple liquidity providers in the secondary market.

One common misperception is that APs are the only entities that provide liquidity in the trading of ETF shares in the secondary market. In fact, there are a host of other market participants that are active in quoting and trading in ETF shares. This was the case when Knight Trading Group, a registered market maker for more than 400 U.S. ETFs ranging in size and across investment objectives (domestic and international, equity, fixed income, and commodity), came under pressure in the summer of 2012. When Knight's ability to act as a registered market maker for ETF shares was curtailed in the summer of 2012, there was little to no impact on secondary market trading in larger ETFs because many other liquidity providers were competing for these trades. For smaller ETFs in which Knight acted as a registered market maker, bid/ask spreads temporarily widened in the

immediate aftermath of Knight's withdrawal, but returned to normal within a day or so as other registered market makers and liquidity providers stepped in.

Figure A3: There Are Many ETF Liquidity Providers



AUM $ billions	1,896	1,163	434	153	299	43	12

[1]For purposes of the survey, liquidity provider was defined as an entity that regularly provides two-sided quotes in an ETF's shares.
[2]A registered market maker is registered with a particular exchange to provide two-sided markets in an ETF's shares.
Source: Investment Company Institute

Behavior of Bond ETFs in a Stressed Environment

Some have expressed concern that liquidity in bond ETFs will evaporate in the aftermath of an interest rate shock. ICI's analysis of bond ETF behavior in the summer of 2013 provides evidence that this concern is unfounded.[10] During that summer, bond prices moved sharply downward in response to indications that the Federal Reserve might begin to curtail its massive bond buying program known as quantitative easing. Over the three months from May to July 2013, the nominal interest rate on the 10-year Treasury bond rose 90 basis points.

Secondary market liquidity in bond ETFs did not disappear in the 2013 episode. In fact, by one measure (dollar value traded), there was both more demand for liquidity by sellers and more liquidity available from buyers during that period. As shown in Figure A4, volume in the secondary market for

[10] *See Plenty of Players Provide Liquidity for ETFs*, ICI Viewpoints, December 2, 2014, available at http://www.ici.org/viewpoints/view_14_ft_etf_liquidity.

all bond ETFs averaged close to $5 billion per day during the May to July period, up from a daily average of nearly $3.8 billion during the preceding four-month period. Even narrow asset classes, such as domestic high-yield and emerging markets bond ETFs, had ample liquidity in the secondary market during the summer of 2013.

More importantly, bond ETF liquidity remained strong during a broad sell-off in the bond market. For all bond ETFs, the share of secondary market activity to total activity remained steady at 82 percent on a daily basis both preceding and during the summer of 2013. For domestic high-yield bond ETFs, trading on the secondary market was 84 percent of total activity, slightly above the average earlier in the year. For emerging markets bond ETFs, the ratio was 80 percent, just below the earlier four-month average.

Even in times of stress, recent experience demonstrates that most of the trading activity in ETF shares is in the secondary market, where many liquidity providers are available to help match sellers of ETF shares with willing buyers. During the summer of 2013, when prices of bond ETFs were declining sharply, buyers remained highly engaged, providing robust liquidity in this market.

Figure A4: Activity in Bond ETFs
January–April 2013 and May–July 2013

	Primary market[1] *Millions of dollars*	**Secondary market[2]** *Millions of dollars*	**Secondary market share of total activity[3]** *Percent*
All bond ETFs			
January–April 2013	$825	$3,772	82%
May–July 2013	1,068	4,990	82
Domestic high-yield bond ETFs			
January–April 2013	133	628	83
May–July 2013	196	1,020	84
Emerging markets bond ETFs			
January–April 2013	49	210	81
May–July 2013	54	221	80

[1]Represented by average daily ETF share creations and redemptions, which are computed by averaging the sum of creations and the absolute value of redemptions across all ETFs in each investment objective each day.
[2]Average daily value traded of ETF shares on exchanges, in dark pools, and on other venues across all ETFs in each investment objective.
[3]Secondary market activity in ETF shares as a percentage of total ETF share activity in both the primary market and secondary market, calculated as: secondary/(primary+secondary).
Sources: Investment Company Institute and Bloomberg

"Orderly Resolutions" of Mutual Funds and Their Managers—The Exit Strategies

Mutual funds and their managers routinely exit the asset management business in an orderly way, even during periods of severe market stress. A variety of "exit strategies" are available to funds and managers. All can be accomplished under the existing regulatory framework, and on an expedited basis if necessary. We outline these strategies below.

Fund Mergers and Liquidations

In the vast majority of cases, a fund merger or liquidation is not compelled by unusual circumstances, so the process can unfold over a time period that the fund manager and fund's board of directors deem appropriate. As a result of its oversight functions, a fund's board generally will be attuned to any difficulties with the fund, such as lagging performance, failure to attract assets or investor outflows. Tax-free fund mergers or the sale of an advisory business (discussed below) may be preferred options, because they do not involve potential adverse tax consequences (*i.e.*, recognition of capital gains) for shareholders.

In the face of extreme market conditions or other extraordinary circumstances, these transactions may need to occur on a more expedited basis. The Securities and Exchange Commission also has sufficient authority to provide regulatory relief if necessary to protect the interests of fund shareholders.

Fund mergers. Funds are merged into other funds on a routine basis. A merger could be recommended when a fund fails to attract or maintain sufficient assets, and there is another fund advised by the manager with similar investment objectives and strategies. A merger involving affiliated funds would be conducted in accordance with Rule 17a-8 under the Investment Company Act of 1940, which seeks to ensure that the transaction is in the best interests of the shareholders of each fund. Fund mergers also are common following the merger of two fund managers that have similar or overlapping lineups of fund offerings. In this instance, the newly combined manager will frequently rationalize its investment product offerings by merging similar funds.[1] Fund boards play a critical role in evaluating and approving the terms of any merger, consistent with their fiduciary obligations.[2]

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[1] For example, as part of the Wells Fargo acquisition of the Strong funds in 2004, several Strong funds were merged into similar funds already offered by Wells Fargo, while the remaining Strong funds continued to be offered under a new management contract with Wells Fargo. *See Company News; Wells Fargo Will Merge Some Strong Capital Funds*, New York Times (September 16, 2004), available at http://query.nytimes.com/gst/fullpage.html?res=9F0CE6DA1F30F935A2575AC0A9629C8B63.

[2] *See generally Board Consideration of Fund Mergers*, Independent Directors Council Task Force Report, June 2006, available at http://www.idc.org/pdf/ppr_idc_fund_mergers.pdf.

Fund liquidation. When a mutual fund does need to liquidate, there is an established and orderly process by which the fund liquidates its assets, distributes the proceeds *pro rata* to investors and winds up its affairs, all without consequence to the financial system at large. This process, which is explained in detail in Appendix C, adheres to requirements in the Investment Company Act and state or other relevant laws based on the domicile of the fund, including consideration and approval by the mutual fund's board of directors. Furthermore, as with fund mergers, all actions by the fund manager and the fund board are undertaken in accordance with their fiduciary obligations to the fund. As the SEC has observed, "liquidations will proceed differently depending on a fund's particular circumstances, and we believe that fund management, under the supervision of the board, is best able to devise and execute a plan of liquidation that is in the best interests of fund shareholders."[3]

Fund liquidations are relatively straightforward because mutual funds have simple capital structures. A fund contracts with a limited number of service providers (in addition to the fund manager, these typically include the custodian, administrator, auditors, transfer agent and distributor) and it pays these service providers through routine asset-based or annual service fees that are accrued in advance on the fund's books. The Investment Company Act strictly regulates and limits the ability of a fund to borrow or lend money or other assets, and to engage in transactions involving leverage. Accordingly, a primary focus of the liquidation process is the conversion of the fund's portfolio investments to cash or cash equivalents. As noted in Appendix C, how long this process takes will depend upon such factors as portfolio liquidity, the degree of ease in converting portfolio securities to cash or cash equivalents, and the fund's investment strategy and objectives.

Extraordinary circumstances. If a particular situation demands an expedited timetable, the fund manager and fund board have the ability to act swiftly. An example from the height of the 2008 financial crisis is instructive. On September 18, 2008, Putnam Investments announced the closing of the Putnam Prime Money Market Fund and the distribution to investors of the fund's assets. The fund had no exposure to Lehman Brothers or other troubled issuers, but had experienced significant redemption pressures from its concentrated institutional investor base. The fund manager and the fund's board of directors determined to close the fund rather than sell portfolio securities into a liquidity constrained market; this action allowed the fund to treat all of its investors fairly. Just six days later, on September 24, the fund merged with Federated Prime Obligations Fund at $1.00 per share and investors did not lose any principal.[4] The transaction required no government intervention.

Even in times of severe market stress, funds—particularly stock and bond funds—are generally able to satisfy investor redemptions without adverse impact on the fund's portfolio and the broader

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[3] *See* Money Market Fund Reform, 75 Fed. Reg. 10060, 10089 (March 4, 2010).

[4] *See* "Putnam Fund Shifts Investors to Federated," *New York Times* (September 24, 2008) (citing *Bloomberg News*), available at http://www.nytimes.com/2008/09/25/business/25fund.html.

marketplace.[5] Should a fund face a "perfect storm" of unusually heavy redemption pressures and difficult market conditions, however, the SEC has the authority under Section 22(e) of the Investment Company Act to allow a fund to suspend redemptions for such period as the SEC determines necessary to protect the fund's shareholders. The need for such relief is rare. We are aware, however, that during the height of the financial crisis, the SEC invoked this authority to facilitate the orderly liquidation of several money market funds and a short-term bond fund, all of which were managed by Reserve Management Company, Inc. The funds' boards of trustees requested the relief "to ensure that each of the funds' shareholders will be treated appropriately in view of the otherwise detrimental effect on each fund of the recent unprecedented illiquidity of the markets and extraordinary levels of redemptions that the funds have experienced." The SEC concluded that the circumstances "require immediate action to protect the funds' security holders" and issued an order allowing each fund to suspend redemptions until it had liquidated.[6]

We note that the SEC has since adopted rules allowing a money market fund to impose liquidity fees, suspend redemptions, and/or liquidate in times of severe market stress.[7] The rules contain strict conditions designed to limit their use to certain circumstances and require a vote by the fund's board (including a majority of the independent directors) and prompt notice to the SEC and the public.

Sale or Merger of Advisory Businesses

Because of the dynamic nature of the fund industry, as described above, a likely exit strategy for a fund manager would be to find a buyer for its business. A fund board must carefully consider the terms of any proposed transaction. In addition, Section 15(f) of the Investment Company Act addresses circumstances under which a fund manager may receive compensation or other benefits in connection with the sale of its business, consistent with its fiduciary obligations to fund shareholders. Pursuant to Section 15(f), the fund board must maintain a high degree of independence from both the original manager and the acquiring manager for a three-year period, and there can be no "unfair burden" (*e.g.*, fee hikes) on the fund as a result of the transaction for at least two years.

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[5] The reasons for this are discussed in the Liquidity and Redemptions section of this letter. For further discussion, *see, e.g.,* Letter to Secretariat of the Financial Stability Board from Paul Schott Stevens, President & CEO, Investment Company Institute, dated April 7, 2014, at Appendix F (discussing the historical experience of U.S. stock and bond funds, including modest redemptions by mutual fund investors during periods of financial stress), available at http://www.ici.org/pdf/14_ici_fsb_gsifi_ltr.pdf.

[6] *See* Reserve Municipal Money-Market Trust *et al.*, SEC Rel. No. IC-28466, File No. 812-13585 (Oct. 24, 2008).

[7] *See* Rules 2a-7(c)(2) and 22e-3 under the Investment Company Act.

A sale or merger of a fund business may happen for a variety of "routine" business reasons. Such a transaction also may be prompted by financial difficulty of the fund manager, or if there was a problem with an entity affiliated with the fund manager (*e.g.*, the bankruptcy of the manager's parent company), there would likely be a sale or spin-off of the advisory business.

Fund custody arrangements facilitate the movement of an advisory contract to another manager. Because a fund's custody arrangements are governed by a separate contract between the fund and the custodian, there would be no immediate need to alter the fund's custody arrangements if there is a change in the fund manager. In general, the custodian simply would need instructions from the board on the identity of persons at the new adviser who are authorized to transact on behalf of the fund.

Transfer of Fund Management Contract to a New Manager

As noted in the body of our comment letter, the fund manager serves as manager to the fund pursuant to a contract that must be approved annually by the fund board, including a majority of the independent directors. Typically, any issues relating to the manager's provision of services to the fund are discussed and resolved as a part of the board's regular oversight function and/or as part of the contract renewal process. The fund board has the authority under the Investment Company Act to terminate a fund's contract with its manager and engage a new manager for the fund. If necessary, this can be done quickly on an interim basis, subject to later shareholder approval.[8]

This process can occur without undue disruption to the fund and its shareholders. For example, as is the case with the sale of an advisory business, there would be no immediate need to alter the fund's custody arrangements. The custodian would simply need instructions from the board on the identity of persons at the new manager who are authorized to transact on behalf of the fund. It also bears re-emphasizing that the manager and its creditors would have no claim on the fund's assets.

Resolution of the Fund Manager

We are unaware of any notable fund manager in its own right filing for bankruptcy protection. In the unlikely event of a solvency problem with a fund manager, the fund board could exercise its authority to terminate the fund's contract with the manager, as discussed above.

The resolution of a fund manager would be a very straightforward process. The manager's own assets would typically be limited to, for example, real estate, and telecommunication, computer and office equipment, and possibly some proprietary equity investments in the funds it (previously) managed, that would rank *pari passu* with investments held by other shareholders. Liabilities would

[8] Rule 15a-4 under the Investment Company Act.

typically be limited to, for example, leases and contracts for services used in the asset management business (*e.g.*, investment research, pricing vendors, legal, and accounting) and routine liabilities tied to personnel.

It is worth noting that two of the nonbank financial companies that have been designated as "systemically important" under Title I of the Dodd-Frank Act have asset management subsidiaries that are considered to be "material entities" that must be included in their resolution plans.[9] The plans for both companies contemplate a Chapter 11 bankruptcy proceeding for their asset management subsidiaries. Moreover, one of those plans specifically contemplates the sale of certain businesses from its asset management holding company as part of the Chapter 11 proceeding.[10]

[9] Section 165(d)(1) of the Dodd-Frank Wall Street Reform and Consumer Protection Act; *Resolution Plans Required*, 76 Fed. Reg. 67323 (November 1, 2011) (implementing rules).

[10] *See* Prudential Financial Inc., 2014 Resolution Plan, Public Section (June 30, 2014), available at http://www.federalreserve.gov/bankinforeg/resolution-plans/prudential-fin-1g-20140701.pdf; American International Group, Inc., Resolution Plan, Section I: Public Section (July 1, 2014), available at http://www.federalreserve.gov/bankinforeg/resolution-plans/aig-1g-20140701.pdf.

Process for Liquidating and Dissolving a Mutual Fund[*]

1. Consideration of whether to liquidate the fund, by fund manager and fund board
2. Determine whether approval by fund investors is needed, based upon state law and the fund's charter documents
3. Prepare a plan of liquidation and dissolution
4. Fund board to consider and approve the plan of liquidation and dissolution
    a. Fund directors to consider the details of the proposed plan and the rationale for liquidating the fund
        i. Is liquidation and dissolution in the best interests of the fund?
        ii. Are there other viable options?
    b. Directors will make a determination based on their duties to the fund
5. Announce the plan of liquidation and related details
    a. Date on which fund will be closed to new investors
    b. Date on which liquidation proceeds will be paid to investors ("Closing Date")
        i. The Closing Date will depend upon factors such as portfolio liquidity, the degree of ease in converting portfolio securities to cash or cash equivalents, recommendations of the fund's portfolio manager, and the fund's investment strategy and objectives
    c. Description of how purchases, redemptions and exchanges will be conducted during the period prior to the Closing Date
6. Fund to begin the liquidation process
    a. Set aside reserves for liquidation-related expenses (typically limited)
    b. Pay any debts or other obligations (often limited to previously accrued fees to service providers)
    c. Begin to convert portfolio securities to cash or cash equivalents
7. Pay liquidation proceeds to investors on the Closing Date
8. File last financial reports with the SEC
9. File an application with the SEC for deregistration of the fund (on Form N-8F)
10. File with the state to dissolve the fund (typically a perfunctory filing)

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[*] For further detail, *see* Jack Murphy, Julien Bourgeois and Lisa Price, *How a Fund Dies*, Review of Securities & Commodities Regulation, Vol. 43 No. 21 (December 1, 2010).

Number of Mutual Funds by Investment Category, December 31, 2014

Mutual Fund Category	Number of Mutual Funds
Equity Funds	
Multi Cap Growth	160
Large Cap Growth	288
Mid Cap Growth	179
Small Cap Growth	189
Multi Cap Value	218
Large Cap Value	328
Mid Cap Value	185
Small Cap Value	212
Multi Cap Blend	233
Large Cap Blend	417
Mid Cap Blend	129
Small Cap Blend	187
Sector	347
Emerging Market	283
Global	463
International	542
Regional	67
Bond Funds	
High Yield ex. Floating Rate	189
High Yield - Floating Rate	52
Government	134
Mortgage Backed	65
Investment Grade	605
Multi-Sector	113
Global/International	245
Emerging Market	102
State Specific Municipal	322
National Municipal	235
Mixed-Asset Funds	
Hybrid (Balanced, Flexible, Income-Mixed)	427
Alternative Strategies	402

Source: Investment Company Institute