INVESTMENT COMPANY INSTITUTE®

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May 29, 2015

Secretariat of the Financial Stability Board
c/o Bank for International Settlements
CH-4002
Basel, Switzerland

Re: Consultative Document (2nd); Assessment Methodologies for Identifying Non-Bank Non-Insurer Global Systemically Important Financial Institutions: Proposed High-Level Framework and Specific Methodologies

Dear Sir or Madam:

The Investment Company Institute, on behalf of its entire fund membership,[1] appreciates the opportunity to comment on the Financial Stability Board's second consultation ("Second Consultation") regarding assessment methodologies for identifying non-bank non-insurer global systemically important financial institutions ("NBNI G-SIFIs").[2] ICI and its members have a keen interest in a strong and resilient global financial system that operates on a foundation of sound regulation. We seek to engage actively with policymakers and to provide meaningful input on global financial regulatory policy initiatives, such as this one, that may have significant implications for regulated funds, their investors and the broader financial markets.

In January 2014, the Financial Stability Board ("FSB") first issued proposed methodologies for identifying NBNI G-SIFIs (the "Initial Consultation").[3] The Initial Consultation included a distinct assessment methodology for investment funds. Our

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[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 US fund members manage total assets of US$17.9 trillion and serve more than 90 million US shareholders. Members of ICI Global, the international arm of ICI, manage total assets of US$1.5 trillion.

[2] Consultative Document (2nd), *Assessment Methodologies for Identifying Non-Bank Non-Insurer Global Systemically Important Financial Institutions: Proposed High-Level Framework and Specific Methodologies* (4 March 2015), available at http://www.financialstabilityboard.org/wp-content/uploads/2nd-Con-Doc-on-NBNI-G-SIFI-methodologies.pdf.

[3] Consultative Document, *Assessment Methodologies for Identifying Non-Bank Non-Insurer Global Systemically Important Financial Institutions: Proposed High-Level Framework and Specific Methodologies* (8 January 2014), available at http://www.financialstabilityboard.org/wp-content/uploads/r_140108.pdf.

April 2014 comment letter on the Initial Consultation ("2014 ICI Letter")[4] expressed our deep concerns with the focus on investment funds that are comprehensively regulated and eligible for public sale ("regulated funds")[5] as possible NBNI G-SIFIs and highlighted several fundamental problems with the FSB's proposed approach.

Regrettably, these fundamental problems remain present in the Second Consultation, which discounts key aspects of the extensive public commentary that the FSB received on the Initial Consultation. In fact, much of the Second Consultation mirrors the one before it. Where changes have been made, they do not suggest a more informed understanding of the asset management industry on the part of the FSB. In particular, the Second Consultation continues to place undue emphasis on the size of a fund, thus continuing to single out large, highly regulated US funds as candidates for potential designation.[6] The Second Consultation also adds criteria to sweep large asset managers into the designation net, again appearing to target large US firms.

We begin this letter by reiterating our deep concerns about the FSB's proposed approach and highlighting key areas in which the FSB has left those concerns unaddressed (Section I). Next, we provide a summary of our comments on the Second Consultation (Section II). We then address the revised methodology for investment funds (Section III) and the proposed methodology for asset managers (Section IV). Following this discussion, we offer our views on the proposed assessment process (Section V) and conclude by urging the FSB to address any concerns identified in asset management through a market-wide or activity-based approach (Section VI).

I. Concerns with the FSB's Approach to Asset Management

Since the global financial crisis, ICI has become increasingly concerned about the continued propensity of banking-oriented regulators, in various jurisdictions and on the global stage, to view the asset management industry through the lens of banking—in particular, the "safety and soundness" goals of bank regulation, the inherent riskiness of the highly-leveraged bank model, the significant problems that banks experienced during the crisis, the unprecedented level of government intervention needed to safeguard the banking system, and the various regulatory tools that have been employed to strengthen

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

[5] The term "regulated funds" includes "regulated US funds" (or "US mutual funds," where appropriate), which are comprehensively regulated under the Investment Company Act of 1940 ("Investment Company Act"), and "regulated non-US funds," which are organized or formed outside the US and substantively regulated to make them eligible for sale to retail investors (*e.g.*, funds domiciled in the European Union and qualified under the UCITS Directive ("UCITS")). Our comments in this letter generally address regulated stock and bond funds and not money market funds, given the significant regulatory reforms for money market funds that have been adopted in the US and are under consideration in other jurisdictions.

[6] The regulated US stock and bond funds with assets greater than $100 billion were remarkably stable during the global financial crisis. Flows were moderate and diverse: some of these funds had net inflows while others experienced mild redemptions. For further detail, *see* Appendix A.

individual banks and the overall banking sector. From the outset, we have strenuously objected to the characterization of all portions of the financial system other than banks as mere "shadow banks"—a term that describes this FSB workstream and that betrays the kind of bank regulatory "group think" that pervades the current consultation.[7] This distorted "shadow-banking" perspective, when applied to investment funds and asset managers, has predictably led to the view that the largest participants in asset management, in case they are not regulated like banks, may pose unaddressed and unacceptable risks to other market participants and the financial system as a whole.

This propensity is on display in the Second Consultation. Although the FSB does acknowledge some of the defining characteristics of asset management—characteristics that highlight the vastly different risk profile of investment funds and asset managers, as compared to those of banks—these acknowledgements do not appear to have "moved the dial" in terms of the FSB's thinking. Indeed, many of the FSB's choices as reflected in the proposed methodologies for investment funds and asset managers remain stubbornly rooted in the banking mindset. This leads to certain fundamental flaws in the Second Consultation.

First, the FSB has determined to persist with a methodology for investment funds, and to *add* a methodology for asset managers.[8] And it has continued to insist that the proposed methodologies for asset management be fashioned to achieve "broad consistency with the existing assessment methodologies for global systemically important banks (G-SIBs) and insurers (G-SIIs)."[9] This goal, too, does not appear to stem from directions from the G20 Leaders but rather is a choice made by the FSB that utterly discounts the fundamental distinctions between the agency business of asset management and the principal businesses of banking and insurance.

Second, the FSB provides no data or analysis to support the proposed materiality thresholds for investment funds or asset managers—thresholds that have no nexus to the global financial system or its stability. Under either threshold proposed for "traditional" investment funds, the effect is the same: the FSB would continue to zero in on the most highly regulated, transparent and unleveraged funds for possible G-SIFI designation.[10] In other words, the FSB has ignored the substantial body of evidence, brought to its attention in response to the Initial Consultation, showing that these funds have not been

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[7] *See* Letter from Paul Schott Stevens, President and CEO, Investment Company Institute, to Secretariat of the Financial Stability Board, dated June 1, 2011 (responding to FSB consultation on "Shadow Banking—Scoping the Issues"), available at http://www.ici.org/pdf/25258.pdf.

[8] Neither methodology is compelled by a specific mandate from the G20 to consider asset management entities for G-SIFI designation. In addition, the new methodology for asset managers conflicts with the comments that the FSB received on the Initial Consultation. The asset manager methodology is discussed in detail in Section IV of this letter.

[9] Second Consultation, *supra* note 2, at 1.

[10] We discuss the proposed materiality thresholds and their practical effect in more detail in Section III.A.1 of this letter.

and are not expected to be sources of risk to global financial stability. In fact, as demonstrated by the data in our 2014 ICI Letter, the largest regulated US funds belong to the part of the financial system that proved most stable during the global financial crisis.

This persistent focus on large, unleveraged investment funds in fact undermines the FSB's goal of "broad consistency" with the G-SIB methodology. As we already explained to the FSB, looking simply at the size of an investment fund as compared to a bank is not an "apples to apples" comparison. All banks are leveraged to one degree or another, because the size of a bank's balance sheet and the amount of its debt go hand-in-hand. The same is not true for regulated funds. For this reason, a materiality threshold effectively based on size would impose a unique and more sweeping standard on regulated funds, without any justification for this difference in treatment.[11]

Equally unsupported by data or analysis are two additional aspects of the proposed scope of the FSB's methodologies for asset management. With respect to asset managers, the FSB is considering a materiality threshold based on a manager's level of assets under management. This proposed approach conflicts sharply with the FSB's recognition that asset managers act as agents and it is their clients, and not the managers themselves, who bear the risks of investing. In addition, the FSB in this Second Consultation proposes to exclude from consideration a large swath of funds and investment pools, including pension funds and sovereign wealth funds. In addition to lacking an empirical basis, the reasons offered for these exclusions are facially unconvincing.

Third, the investment fund and asset manager methodologies are based on flawed assumptions of "distress" and "disorderly failure" derived from the experience of banks and have little relevance to asset management. The comment record on the Initial Consultation amply explains these flaws,[12] yet the Second Consultation insists on starting from the premise that investment funds and asset managers do experience the sort of distress or disorderly failure that would roil the global financial markets. It states:

> The overarching objective in developing the methodologies is to identify NBNI financial entities *whose distress or disorderly failure*, because of their size, complexity and systemic interconnectedness, would cause significant disruption to the global financial system and economic activity across jurisdictions.[13]

Further evidence of the FSB's intransigence in departing from its flawed assumptions in the Initial Consultation can be found in its footnote to the above-quoted passage, which states: "Therefore, the methodologies' emphasis is on identifying indicators that point to systemic impact on failure, rather than an institution's likelihood of failure."[14] We

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[11] *See* 2014 ICI Letter, *supra* note 4, at 11-12.

[12] *See, e.g.*, *id.* at 18-24.

[13] Second Consultation, *supra* note 2, at 2-3 (emphasis added).

[14] *Id.* at 3 n. 8.

continue to question how the FSB can simply assume its way past such a fundamental question—that is, whether an institution might actually ever experience such distress or disorderly failure.

Fourth, we believe the FSB has vastly overstated the potential for "fire sales" of investment fund assets, the transmission of risk from an investment fund to other market participants, and destabilizing effects to the global financial system. With respect to regulated funds, we are aware of no historical or empirical basis for those concerns. Our 2014 ICI Letter offered extensive data and analysis to show that, over the course of the 75-year history of the US regulated fund industry, there is compelling evidence to the contrary—that is, regulated US funds and their investors simply do not behave in the manner that the FSB envisions. The FSB discounts this and other commentary on the Initial Consultation, and continues to advance its hypothesis that individual investment funds could, in certain circumstances, experience "fire sales" that could have negative spillover effects on other investment funds, fund counterparties, or particular markets.

The FSB does so, in part, by reference to similar conjectural statements by other banking-oriented regulators. The Second Consultation seems to endorse statements in a recent notice by the US Financial Stability Oversight Council ("FSOC") concerning investment funds that offer redeemable interests. The Second Consultation repeats, without empirical or historical support, the conjectural statements in the FSOC notice suggesting a "first mover advantage" for investors in such funds, particularly funds investing in less liquid asset classes.[15] Nor did the FSOC notice provide any empirical or historical support for this suggestion. In a recent comment letter to FSOC (the "2015 ICI FSOC Letter"), ICI provided detailed analysis and data to refute these purported risks in regulated US stock and bond funds.[16] The Second Consultation likewise appears to endorse similar statements in a 2014 speech by Andrew Haldane of the Bank of England.[17] Those statements by Haldane also suggest that "fire sales" of investment fund assets "could aggravate frictions in financial markets or in market liquidity" that could result in asset prices falling "possibly to well below their long-term or fundamental value."[18] The Second Consultation conveniently ignores, however, subsequent

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[15] *Id.* at n. 46; Financial Stability Oversight Council, Notice Seeking Comment on Asset Management Products and Activities, 79 Fed. Reg. 77488 (Dec. 24, 2014), available at http://www.treasury.gov/initiatives/fsoc/rulemaking/Documents/Notice%20Seeking%20Comment%20on%20Asset% 20Management%20Products%20and%20Activities.pdf.

[16] Letter to the Financial Stability Oversight Council from Paul Schott Stevens, President & CEO, ICI, dated March 25, 2015, available at http://www.ici.org/pdf/15_ici_fsoc_ltr.pdf and attached as Appendix B.

[17] Second Consultation, *supra* note 2, at n. 46; Andrew G. Haldane, Executive Director, Financial Stability, Bank of England, *The age of asset management?* (4 April 2014), available at http://www.bankofengland.co.uk/publications/Documents/speeches/2014/speech723.pdf. For additional commentary on the Haldane speech, *see* Brian Reid, Chief Economist, ICI, *"The Age of Asset Management"—Less Risk, Not More* (Viewpoints dated July 24, 2014), available at http://www.ici.org/viewpoints/view_14_ft_reid and attached as Appendix C.

[18] *Id.* at 6.

statements later in the Haldane speech acknowledging that this line of inquiry "still leaves some big questions begging" and that "[a]t present, we do not have good empirical answers to any of those questions."[19] We are puzzled as to why the FSB would give far more weight to the conjectures of other banking-oriented regulators (or their representatives) than to the demonstrable, real-world experience of regulated funds.[20]

Fifth, the repeated dismissal or discounting of empirical data, historical experience, industry structure and practice, existing regulation, and other highly pertinent factors raises the question of whether the FSB may be attempting to reverse-engineer the proposed methodologies to achieve a specific outcome. How else to explain developments such as the addition of the substitutability channel for investment funds, and a new proposed methodology for asset managers? Far from reflecting a better understanding of asset management, both changes run contrary to the FSB's conclusions on these topics in the Initial Consultation and input from commenters affirming the FSB's original decisions.

Sixth, we presume that the starting point for the FSB's development of incremental policy measures for NBNI G-SIFIs will be the types of measures already established for G-SIBs and G-SIIs. Those policy measures are bank-like in nature, consisting of: (1) "loss absorption" capacity (*i.e.*, capital) requirements; (2) enhanced prudential supervision requirements; and (3) resolution planning requirements.[21] Given the FSB's heavy emphasis on consistency, we are concerned that such measures may be adopted with little consideration of whether they make sense outside the banking context. Moreover, the consequences of NBNI G-SIFI designation for regulated US funds—which are in the cross-hairs under the proposed investment funds methodology—already are established under US law.[22] Similarly bank-oriented, the prescribed US "remedies" are altogether inappropriate and will be harmful if applied to regulated US funds.[23]

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[19] *Id.* at 12. *See also* Reuters, *Top Securities Regulator Says No Proof Big Funds Pose Systemic Risks* (May 12, 2015) (quoting Greg Medcraft, Chairman of the Australian Securities and Investments Commission as saying "I don't think at this stage the case has been proven" that fund managers could cause systemic risk).

[20] The FSB similarly cites statements by the International Monetary Fund (IMF) in its April 2014 *Global Financial Stability Report* (GFSR). Second Consultation, *supra* note 2, at 34. ICI's examination of the most recent GFSR, however, reveals numerous data errors, misinterpretations, and charts that present a misleading picture of funds' and investors' activity. By and large, these issues arise because the IMF lacks sufficient expertise in, and institutional knowledge of, regulated funds. *See* "The IMF Is Entitled to Its Own Opinions, but Not Its Own Facts" (April 10, 2015); "The IMF Quietly Changes Its Data, but Not Its Views" (April 21, 2015); "The IMF on Asset Management: The Perils of Inexperience" (May 28, 2015); *ICI Viewpoints*, available at www.ici.org/imf.

[21] *See Progress and Next Steps Towards Ending "Too-Big-To-Fail" (TBTF)*, Report of the Financial Stability Board to the G-20 (2 September 2013) at 2, available at http://www.financialstabilityboard.org/wp-content/uploads/r_130902.pdf.

[22] *See, e.g.,* Section 165 of the Dodd-Frank Wall Street Reform and Consumer Protection Act ("Dodd-Frank Act").

[23] *See* Section III.C of this letter, below.

Finally, despite every cogent reason to focus on sector-wide activities and practices, the FSB seems blindly determined to pursue an "entity-based" approach that will culminate in labelling individual investment funds, and possibly asset management firms, as NBNI G-SIFIs—again, without a specific mandate to do so. It seems that part of what is driving this effort is the stated desire to strive for consistency with the treatment of banks. But that truly is "a foolish consistency," in our view, because it leads down an unproductive path. The substitutable nature of investment funds (and asset managers) distinguishes them from banks and suggests that true mitigation of identified risks in the asset management sector can only come from activity-based regulation.

II. Summary of Comments

A. Investment Funds Methodology

1. The proposed methodology for analyzing investment funds has not materially changed from that set forth in the Initial Consultation. The FSB has kept highly regulated "traditional" funds (regulated funds) within the scope of its assessment of individual entities, relying on a flawed size-based approach to identifying funds for review.

2. The Initial Consultation proposed applying a wholly arbitrary materiality threshold of $100 billion in AUM to determine which "traditional" investment funds automatically would be subject to further analysis. ICI and other commenters urged the FSB to modify the threshold to include balance sheet leverage. Despite the FSB's assertion of an increased focus on leverage, the two materiality thresholds proposed in the Second Consultation are, in effect, still based on size alone. As a result, both options continue to focus attention disproportionately on regulated US funds.

3. The proposed materiality thresholds contrast sharply with the robust public record demonstrating why—unlike in the case of banks—asset size by itself reveals very little about whether an investment fund could pose risk to the global financial system.

4. There is simply no historical or empirical basis for the FSB's concerns that a regulated fund's investment losses, fully borne by its shareholders, could be transmitted to other market participants in such a manner and magnitude as to destabilize the global financial system. Nor has the FSB provided any empirical data or reasoned analysis for concluding that these concerns will materialize in the future when, for example, the US Federal Reserve Board raises interest rates after years of keeping them at historically low levels.

5. Regulated funds, as the Second Consultation acknowledges, "currently have legal and regulatory limitations on their ability to use leverage (either balance-sheet leverage or synthetic leverage)." For this reason, they are highly unlikely to

transmit risk to their counterparties, an effect that the FSB describes as occurring through the "exposures/counterparty channel." In fact, regulated funds are typically providers of capital to public and private sector entities—as such, they are more likely to be the *bearers* of counterparty exposure from banks and other entities, rather than transmitters of risk to those counterparties.

6. The FSB's concerns about forced asset sales by individual investment funds (so-called "fire sales") and their negative spillover effects on other investment funds, fund counterparties or particular markets—effects that the FSB describes as occurring through the "asset liquidation/market channel"—are not relevant for regulated funds generally and US mutual funds in particular.

7. Regulated funds are able to meet redemptions—including during exceptional market conditions—and employ a variety of means to reduce the impact of such redemptions on remaining shareholders. When a regulated fund does need to liquidate, it follows an established and orderly process, and does not occasion systemic disorder. The FSB acknowledged as much in the Initial Consultation, citing to data for 2000-2012 (a period that includes the global financial crisis). Our empirical data and analysis show that the actual experience of US mutual funds contradicts the FSB's "asset liquidation/market channel."

8. The Initial Consultation correctly recognized the high level of substitutability of investment funds and therefore concluded that funds would not transmit risk to other market participants through the so-called "critical function or services/substitutability channel." The FSB has reversed course in the Second Consultation, in a manner that is contrary to the comment record and does not appear to have any empirical basis. Our views, however, remain the same. The regulated US funds that exceed the proposed materiality thresholds have highly diversified portfolios and invest in deep and liquid markets. They compete against large numbers of other regulated funds, and none is a "dominant player" in its market segment.

9. In contrast to other jurisdictions, the US already has established by statute the measures that will apply to any nonbank financial company designated as systemically important under US law. These include certain mandatory enhanced prudential standards and consolidated (prudential) supervision by the US Federal Reserve. These bank-oriented "remedies" are altogether inappropriate and would be harmful if applied to regulated US funds.

10. The FSB proposes to exclude from consideration a large swath of funds and investment pools, including sovereign wealth funds and pension funds, many of which are far larger than the largest regulated fund and less comprehensively

regulated or transparent. The reasons that the FSB proffers for doing so lack empirical bases and are facially lacking in credibility.

B. Asset Manager Methodology

1. The Second Consultation proposes a separate assessment methodology for asset managers. The decision to do so conflicts with the Initial Consultation and the public comment record.

2. The Second Consultation suggests that an asset manager facing "distress or forced failure could . . . potentially cause or amplify significant disruption to the global financial system . . . ." We know of no instances of this occurring in the case of managers of regulated funds. In fact, there are compelling reasons why these concerns should not arise—reasons that the FSB acknowledges in the Second Consultation.

3. The FSB seeks to justify its focus on asset managers by emphasizing activities other than "traditional" asset management—namely, securities lending agent services, provision of risk management platforms or pricing services to clients, and consulting/advisory services that rely on an asset manager's breadth of expertise. If these activities in fact are the cause of the FSB's concern, it should be looking at these activities broadly across financial institutions, and not through an entity-based methodology focused only on the largest asset managers.

4. The Second Consultation suggests that a large asset manager experiencing distress or failure due to reputational or operational risks could transfer those risks through the assets it manages, with adverse effects for global financial stability. There has been no instance in which redemptions from a manager's regulated funds destabilized the broader fund industry, much less the global financial system. And there are several reasons why there is virtually no chance of such an instance occurring in the future.

5. More broadly, managers of regulated funds—like all financial firms and other organizations—face reputational and operational risks. Effectively managing and mitigating these risks is part and parcel of running a successful business which, presumably, describes any asset manager managing at least $1 trillion in assets for a range of clients. Moreover, as fiduciaries to comprehensively regulated funds, these managers are required to have robust policies, procedures and systems covering not only their own operations but also those of their significant service providers.

6. It is not apparent how G-SIFI designation of an asset manager would mitigate in any way either reputational issues that may arise in the future or operational risks that are beyond currently applicable regulations and standards. And we question

how it would be possible to identify in advance—and on that basis designate—the specific manager or managers that would be expected to experience either reputational or operational problems of the sort that the FSB would consider to have the potential to pose risks to global financial stability.

C. Assessment Process

1. ICI strongly believes that application of the proposed methodologies to regulated funds and their managers would be misplaced, counterproductive, and harmful to investors. If regulators identify risks involving regulated funds and their managers—or indeed the asset management industry more broadly—that need to be addressed, industry-wide or activity-based regulation would be a better approach.

2. The FSB's discussion in the Second Consultation of the assessment process and outcome remains largely unchanged from that in the Initial Consultation. Our letter therefore reiterates ICI's serious concerns about many aspects of the proposed process. These include the tremendous discretion to regulators to engage in highly subjective deliberations, the fact that funds or managers may receive little to no information as to the basis upon which specific decisions are made, and the lack of transparency or "due process" requirements.

3. We believe that the experience in the United States—the only jurisdiction to have adopted a process for SIFI designation—should serve as a cautionary tale. Moreover, we firmly believe that the process for G-SIFI designation of an NBNI financial entity should be no less robust than that applicable to a US "domestic" designation.

III. Comments on Investment Funds Methodology

The proposed methodology for analyzing investment funds has not materially changed from that set forth in the Initial Consultation. ICI's extensive commentary in the 2014 ICI Letter accordingly remains valid and relevant to this Second Consultation. In this letter, we focus our comments on what we believe to be the two most fundamental shortcomings of the proposed methodology.[24]

First, the FSB has kept highly regulated "traditional" funds (regulated funds) within the scope of its assessment of individual entities. The assessment methodology for investment funds maintains its inordinate focus on size as indicative of global systemic risk, which is particularly difficult to reconcile with the fact that the FSB is considering the wholesale exclusion of classes of investment funds (*i.e.*, sovereign wealth funds and

[24] Appendix D to this letter sets forth our views on the proposed indicators for assessing the global systemic importance of investment funds.

pension funds), many of which are far larger than the largest regulated fund (see subsection A below) and less comprehensively regulated or transparent.

Second, the FSB's premise about global systemic risk in investment funds simply is inapposite to regulated funds (see subsection B below).

These concerns are not theoretical. The policy measures likely to apply to any regulated US funds designated as NBNI G-SIFIs would harm these funds, their investors, and the capital markets (see subsection C below).

A. Shortcomings of Intended Application of Proposed Methodology

1. Proposed Materiality Thresholds for "Traditional" Investment Funds

As set forth in both the Initial Consultation and the Second Consultation, the FSB's proposed assessment methodology for investment funds begins with the application of a "materiality threshold" to the universe of investment funds. Those funds that exceed the applicable threshold then automatically become subject to evaluation by the relevant national authorities. While the application of a materiality threshold to investment funds does not, by itself, determine which funds will be designated as NBNI G-SIFIs, it is a critically important step in the process.

The Initial Consultation proposed applying a wholly arbitrary materiality threshold of $100 billion in AUM to determine which "traditional" investment funds automatically would be subject to further analysis. The 2014 ICI Letter discussed at length—and provided data to demonstrate—why basing the materiality threshold solely on asset size is a fundamentally flawed approach. We urged that the FSB modify the threshold to include balance sheet leverage.

The Second Consultation states that based on responses to the Initial Consultation, "the FSB and IOSCO have decided to utilise 'leverage' in the materiality threshold for investment funds … due to the fact that 'leverage' is considered a key driver for investment funds in posing risks to the global financial system."[25] It indicates that two options are being considered: (1) $30 billion (USD) in NAV and balance sheet financial leverage of 3 times NAV, with a size-only backstop of $100 billion (USD) in AUM; or (2) $200 billion (USD) in gross AUM (GAUM) "unless it can be demonstrated that the investment fund is not a dominant player in its markets (e.g., substitutability ratio below 0.5% or fire sale ratio below 5%)."[26] The Second Consultation asks whether these thresholds appropriately filter the relevant funds for detailed assessment and are properly calibrated.

Unfortunately, despite the assertion of an increased focus on leverage, both of the proposed materiality thresholds are, in effect, still asset size-based. As a result, both

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[25] Second Consultation, *supra* note 2, at 36.

[26] *Id.* at 11 and 36.

options would focus attention disproportionately on regulated US funds. As shown in Figure 1, 14 regulated US funds (11 stock and bond funds and 3 money market funds) exceed one or both of the proposed materiality thresholds.[27] In fact, because of the $100 billion net AUM backstop, Option 1 is exactly the same as the original proposal as it relates to regulated funds. Like the original proposal, the backstop incorrectly theorizes a linear relationship between asset size and risk. The Second Consultation simply disregards a robust public record demonstrating why—unlike in the case of banks—asset size by itself reveals very little about whether a fund could pose risk to the global financial system.[28]

Figure 1: Largest Regulated US Funds
Assets in billions of US dollars; March 31, 2015

	Fund name	Complex	Domicile	Net assets
1	Vanguard Total Stock Market Index Fund	Vanguard	US	403.9
2	Vanguard 500 Index Fund	Vanguard	US	206.6
3	Vanguard Institutional Index Fund	Vanguard	US	193.8
4	SPDR S&P 500 ETF Trust	SSgA	US	185.4
5	Vanguard Total International Stock Index Fund	Vanguard	US	148.2
6	Growth Fund of America	Capital Research	US	146.0
7	Vanguard Total Bond Market Index Fund	Vanguard	US	143.9
8	Vanguard Prime Money Market Fund	Vanguard	US	133.1
9	EuroPacific Growth Fund	Capital Research	US	128.5
10	Stock Account	TIAA-CREF	US	125.2
11	Total Return Fund	PIMCO	US	117.4
12	Fidelity Contrafund	Fidelity	US	111.8
13	JPMorgan Prime Money Market Fund	J.P. Morgan	US	111.4
14	Fidelity Cash Reserves	Fidelity	US	110.4
15	Capital Income Builder	Capital Research	US	97.6
16	Income Fund of America	Capital Research	US	97.8

Source: Morningstar

[27] Over time, more regulated funds will cross the proposed materiality threshold(s) as asset prices rise in response to long-term real economic growth. Fluctuations in exchange rates relative to the US dollar also could push regulated funds (both regulated US funds with an international focus and regulated non-US funds that invest in securities denominated in a non-US currency) over the threshold(s).

[28] *See, e.g.,* 2014 ICI Letter, *supra* note 4, at Appendix B to that letter.

Option 2 attempts to take a step in the right direction in recognizing that a fund could exceed the specified asset size threshold and yet still not pose potential risks that warrant additional scrutiny under the proposed methodology (*i.e.,* because the fund is not a "dominant player"). But the proposed tests for determining whether a fund is a "dominant player" would not help ascertain whether a fund poses significant risks to the global financial system.

The Second Consultation proposes that a fund's status as a "dominant player" might be determined by looking at either of two measures: (1) substitutability ratio, defined as "the funds [sic] trading volume in relation to the daily trading volume of the underlying asset class (*i.e*., whether it is easily replaceable);"[29] or (2) fire sale ratio, defined as "the extent to which the total net AUM of the fund could be easily absorbed, in a stressed market scenario, by the daily trading volume of the underlying asset class."[30] As noted above, the Second Consultation suggests that a substitutability ratio below 0.5% or a fire sale ratio below 5% might be considered to provide evidence that a particular investment fund is not a dominant player in its markets. The Second Consultation does not provide any detail on how it arrived at these specific levels.

Fire sale ratio. The fire sale ratio contemplates the possibility that a large fund would unexpectedly sell *all* of its assets on a given day—a scenario so unlikely as to be merely academic, even fanciful.[31] Moreover, the suggested 5% level would not create an additional criterion: any fund with GAUM of $200 billion or more automatically would be classified as a "dominant player." Consider, for example, a hypothetical $200 billion broad-based US equity index fund. The average daily trading volume in the US equity market—the deepest, most active equity market in the world—was $260 billion in 2014, which would give the hypothetical fund a fire sale ratio of 77% (100*200/260), far exceeding the 5% limit. Another way to look at the proposed test is that a broad-based US equity index fund would exceed the 5% fire sale ratio test if its assets exceeded $13 billion ($260 billion daily trading volume times .05). By this measure, there are 287 regulated US funds that would be considered "dominant players." Surely this is not a sensible or credible outcome, and presumably not one that the FSB intended.

Substitutability ratio. Although far less extreme, the suggested 0.5% substitutability ratio test also fails to convey useful information with respect to the stability of the global financial system. For example, based on the average daily trading volume of US equities in 2014 ($260 billion), a $200 billion broad-based US equity index fund would exceed the 0.5% level if its "trading volume" were more than $1.3 billion per day—an amount constituting only about one-half of one percent of the fund's assets. This test inappropriately could be biased against actively managed funds as opposed to index funds.

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[29] Second Consultation, *supra* note 2, at n. 55.

[30] *Id.* at n. 56.

[31] We note that in a crisis period, a fund's fire sale ratio might *fall* because the value of the fund's assets presumably would decline whereas trading volume in the market might rise.

In addition, the ratio's value for systemic risk monitoring is questionable and would depend critically on the definition of "fund trading volume." For example, if a fund buys corporate bonds during a period of distressed prices, the fund is adding liquidity to the bond market, which would seem to be desirable from the standpoint of mitigating systemic risk t. But under some definitions of "fund trading volume," these bond purchases might raise the likelihood that the fund exceeds the 0.5% threshold (because fund trading volume increases while overall bond market trading declines). Alternatively, on any given day, a fund might be buying bonds of one or more issuers while selling an identical dollar amount of bonds of other issuers. This would raise the fund's "trading volume" but would not necessarily create an overall effect on the corporate bond market.

Moreover, as discussed above and as the Initial Consultation specifically recognized, investment funds as a general matter are highly substitutable. This is certainly true in the case of the largest regulated US funds. Use of the term "substitutability ratio" might lead stakeholders incorrectly to infer that funds exceeding a given (and seemingly arbitrary) ratio are "dominant players" that cannot easily be replaced, when in fact most of the largest regulated US funds compete with hundreds of other funds investing in the same asset classes.[32]

In sum, although we appreciate the effort to devise tests that do not rely solely on asset size (and the apparent recognition of a need to do so), the proposed tests for identifying "non-dominant players" among investment funds are based on faulty premises and simply do not work. Consequently, our views on the proposed materiality thresholds remain essentially the same as before: they rely far too heavily on size, which is a misguided approach because size is not a *per se* indicator of risk in the context of investment funds. We continue to urge that any materiality threshold for evaluating investment funds must include balance sheet leverage—the "interconnection" that speeds the transmission and heightens the impact of risk among institutions and the essential fuel for financial crises. Balance sheet leverage should not serve as an alternative means of sweeping in additional funds (as would be the case under Option 1), but rather should be a necessary condition for identifying *any* fund as warranting additional analysis.

[32] *See, e.g.*, Figure 5 in Section III.B.3.f of this letter.

2. The FSB Has Not Convincingly Distinguished Sovereign Wealth Funds and Pension Funds From Other Investment Funds

As noted above and in the 2014 ICI Letter, the mandate to the FSB in the G20 Leaders' Declaration was not highly prescriptive. It asked only that the FSB, in consultation with IOSCO and other standard setting bodies, "develop for public consultation methodologies for identifying global systemically important non-bank non-insurance financial institutions… ."[33] Our view is that the FSB is under no obligation to construct an assessment methodology for every conceivable type of NBNI financial institution, and subject each type to a global systemic risk assessment under such a methodology. The FSB has discretion here, and could exclude certain NBNI financial institutions from the scope of this proposal.

As is clear from the Second Consultation, the FSB agrees with our view of its G20 mandate. The Second Consultation notes that the FSB is considering excluding public financial institutions (*e.g.*, multilateral development banks, national export-import banks), sovereign wealth funds, and pension funds from the scope of its NBNI G-SIFI methodologies. Its rationales are that public financial institutions and sovereign wealth funds "are owned and fully guaranteed by a government;" that pension funds "pose low risk to global financial stability and the wider economy due to their long-term investment perspective;" and that pension funds are "in general also covered indirectly through contractual relationships with asset managers or use of investment funds."[34] The Second Consultation seeks comment, however, on whether these proposed exclusions are appropriate.

We view these proposed exclusions as wholly inappropriate. To be clear, we do *not* mean to suggest that we believe sovereign wealth funds or pension funds pose global systemic risks and should be designated as G-SIFIs. Rather, we find fault with the hollowness of the FSB's proffered distinctions between these funds and other investment funds that potentially will be considered for further analysis. These distinctions lack empirical bases and are facially lacking in credibility. The Second Consultation offers nothing of substance to support the idea that, unlike all other investment funds (broadly defined), sovereign wealth funds and pension funds need not be analyzed under the proposed assessment methodology because they categorically could not, under any hypothesis of the kind indulged with respect to regulated funds, occasion risks to the global financial system. This shows the shallowness of the methodology altogether.

Most strikingly, as discussed above, the FSB is focusing intently on size as a relevant metric in assessing the potential for an investment fund to pose risks to global financial stability. Although we oppose a materiality threshold based purely on asset

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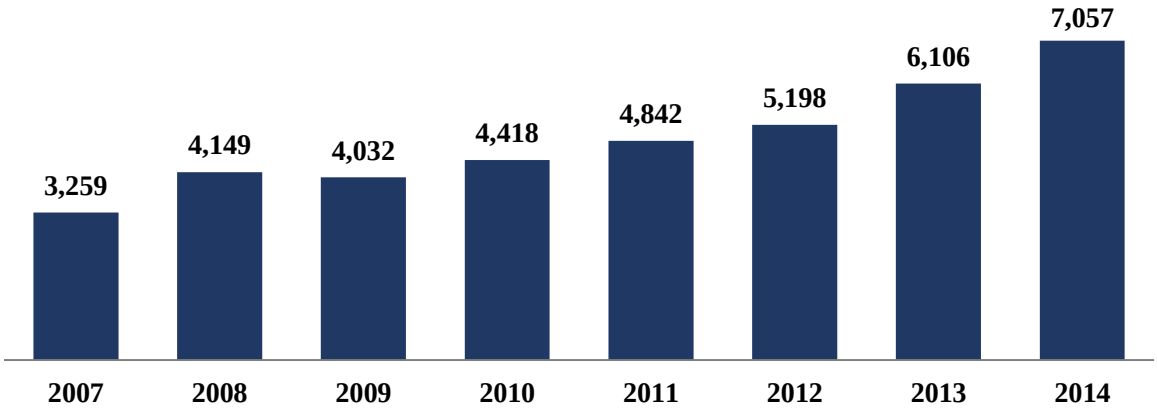
[33] G20 Leaders' Declaration, paragraph 70 (September 2013), available at http://en.g20russia.ru/news/20130906/782776427.html.

[34] Second Consultation, *supra* note 2, at 5.

size, if the FSB considers size so important, then these proposed exclusions are quite puzzling. Collectively, sovereign wealth funds held about $7.1 trillion in assets as of 2014, more than double the level of $3.3 trillion in 2007 (see Figure 2). Moreover, a number of individual sovereign wealth funds and pension funds hold hundreds of billions in assets under management, well in excess of the size-based materiality thresholds set forth for investment funds generally (Figure 3). And 10 of these funds are larger than the largest regulated fund (a US-registered equity index fund), which as of December 2014 had assets totaling about $380 billion. By way of comparison, the French sovereign fund operated by Caisse des Dépôts et Consignations had assets of $354 billion. The sovereign wealth or pension funds for Netherlands, South Korea, Norway, and Japan (among others) were even larger, with the assets of Japan's sovereign pension fund exceeding $1 trillion.

Figure 2: Assets of Sovereign Wealth Funds
Billions of US dollars



Source: Sovereign Wealth Fund Institute

Figure 3: Assets of Sovereign Wealth Funds and Pension Funds
Assets in billions of US dollars; December 31, 2014

	Fund	Country	Assets
1	Government Pension Investment Fund	Japan	1,100
2	Government Pension Fund - Global	Norway	863
3	Abu Dhabi Investment Authority (ADIA)	United Arab Emirates	773
4	SAMA Foreign Holdings	Saudi Arabia	757
5	China Investment Corporation (CIC)	China	653
6	SAFE Investment Company	China	568
7	Kuwait Investment Authority (KIA)	Kuwait	548
8	National Pension Service of Republic of Korea	South Korea	455
9	Stichting Pensioenfonds ABP	Netherlands	440
10	Hong Kong Monetary Authority Investment Portfolio	Hong Kong	400
11	Caisse des Depots et Consignations	France	354
12	GIC Private Limited	Singapore	320
13	California Public Employees' Retirement System (CalPERS)	United States	293
14	Central Provident Fund Board	Singapore	285
15	Qatar Investment Authority (QIA)	Qatar	256
16	National Social Security Fund	China	236
17	Canada Pension Plan Investment Board (CPPIB)	Canada	210
18	Pension Fund for Local Government Officials	Japan	201
19	Caisse des depot et placement du Quebec (CDPQ)	Canada	194
20	California State Teachers' Retirement System (CalSTRS)	United States	189
21	Istituto Nazionale della Previdenza Sociale (INPS)	Italy	186
22	Pensioenfonds Zorg en Welzijn (PFZW)	Netherlands	185
23	Florida Retirement System Pension Plan	United States	181
24	New York State Common Retirement Fund	United States	178
25	Employees' Provident Fund (KWSP)	Malaysia	178
26	Temasek Holdings	Singapore	173
27	New York City Employee Retirement System (NYCERS)	United States	159
28	Arbejdsmarkedets Tillægspension (ATP)	Denmark	140
29	Pension Fund Association	Japan	131
30	Government Employees Pension Fund (GEPF)	South Africa	129
31	Teacher Retirement System of Texas	United States	129
32	Ontario Teachers' Pension Plan Board (OTPP)	Canada	129
33	Washington State Investment Board (WSIB)	United States	104
34	New York State Teachers' Retirement System	United States	104
35	British Columbia Investment Management Corporation (bcIMC)	Canada	100

Note: Funds below $100 billion US dollars are excluded.
Source: Sovereign Wealth Fund Institute

Given the FSB's intense focus on size, we would expect the FSB to offer a compelling justification, based on rigorous analysis, for why all of these funds, and these funds alone, deserve exclusion from assessment. But the Second Consultation offers nothing of the sort. With respect to sovereign wealth funds, for example, it merely states that these funds "are owned *and fully guaranteed by* a government." We seriously question whether this statement accurately depicts how these funds participate in global capital markets, and submit that it is wholly irrelevant as a mitigant to the FSB's concerns

regarding the potential for systemic risk. For example, the Second Consultation does not explain how any such government guarantee would shield other market participants, or the markets, from the risks that are of concern to the FSB.

Regarding pension funds, the Second Consultation suggests it would be appropriate to exclude them from consideration because they "pose low risk to global financial stability and the wider economy due to their long-term investment perspective." The FSB has offered no explanation as to why a long-term investment perspective would be unique to pension funds, nor are we aware of any. In fact, the investor base for many large regulated stock and bond funds consists of investors saving with a long-term horizon, such as for retirement.[35] To date, the FSB has not proposed to exclude such funds from consideration under this methodology.

The second stated rationale (*i.e.*, that pension funds generally would be "covered indirectly through contractual relationships with asset managers or use of investment funds") is very weak.[36] Under the proposed materiality thresholds for asset managers and investment funds, only a subset of these entities would be evaluated further for possible designation as NBNI G-SIFIs. There is no assurance that a pension fund that would meet the materiality threshold generally applicable to investment funds on its own will have contracted with or invested in a designated entity.[37] The most that can be said is that *certain* pension funds *could* have connections relating to *portions* of their overall portfolios with *one or a few* designated asset managers or investment funds. To the extent that this constitutes "coverage," it is highly spotty at best, in that it would not account for large swaths (and in many cases would not account for any) of a pension fund's investment portfolio.

Finally, the FSB assumes that public financial institutions are stable investors in foreign markets, thus posing low risk to global financial stability. If public financial institutions are excluded on those grounds then, by extension, most regulated funds that invest primarily in stocks and bonds also should be excluded. Indeed, there is some evidence that during the global financial crisis private sector asset managers reacted less strongly than did foreign official sector asset managers. For example, US Treasury International Capital (TIC) data show that from July 2008 to June 2009, public sector entities outside the US on net sold $103 billion in US agency bonds and bought $345 billion in US Treasury bills (Figure 4). By comparison, over the same period foreign private sector investors on net sold $79 billion of agency bonds and bought $135 billion in US Treasury bills.

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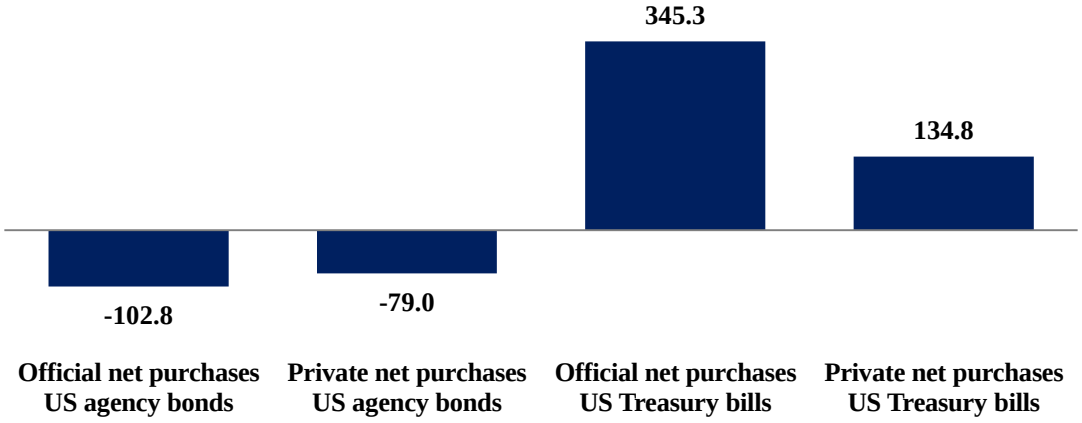
[35] This is true of regulated US stock and bond funds, which were remarkably stable during the global financial crisis. For further detail, *see* Section III.B.3.d of this letter.

[36] The FSB's argument *assumes* the adoption of a final assessment methodology for asset managers and the designation of individual asset managers as G-SIFIs, which we oppose for the reasons discussed in Section IV of this letter.

[37] Given the likely consequences of G-SIFI designation of a regulated US fund (discussed in Section III.C of this letter), it would not be surprising for a pension fund to sell any investments in a designated regulated US fund and reinvest the proceeds elsewhere, *e.g.,* in a similar fund that has not been so designated.

Figure 4: Net Foreign Official and Private Purchases of US Agency Bonds and US Treasury Bills

Total net foreign purchases in billions of US dollars from July 2008 to June 2009



Source: Treasury International Capital (TIC) System

B. The FSB's Premise About Systemic Risk in Investment Funds Is Misplaced with Respect to Regulated Funds

1. Regulated Funds Are Not Destabilizing to the Global Financial System

The FSB's premise is that "the distress or forced liquidation of an investment fund that had extensive exposures and liabilities in the financial system or that provides a critical role in certain markets could have a destabilizing impact on other market participants or counterparties in a cascading manner that could lead to broader financial system instability… ."[38] The Second Consultation posits that fund distress could be transmitted: (i) to counterparties that have extended financing to, or have direct trading linkages with, the fund (the "exposures/counterparty channel"); (ii) to other market participants through "forced sales" of fund assets to meet redemptions or repay creditors (the "asset liquidation/market channel"); or (iii) to participants within a market or market segment for which the fund provides a function or service for which there are no ready substitutes (the "critical function or services/substitutability channel"). In the view of the FSB, the risk thus transmitted could be of a magnitude that could threaten the stability of the global financial system. The Second Consultation asks whether there are other potential systemic risks not appropriately captured in these transmission channel descriptions. It does *not* ask whether these descriptions as set forth are accurate or persuasive, apparently satisfied that they may be incomplete but are otherwise altogether unimpeachable. They are certainly *not*, at least insofar as regulated funds are concerned. In this section of our letter, we explain why.

[38] Second Consultation, *supra* note 2, at 31.

As a starting point, we wish to reiterate that the concept of "distress" is derived from the experience of banks and other "too big to fail" institutions, and has little relevance to regulated funds. Bank customers deposit their money with the expectation that the bank will return their principal plus interest. They, and the broader marketplace, are assured that the government will intervene when a bank experiences distress in order to protect the interests of the bank's customers and to preserve the safety and soundness of the banking system generally.

Fund investing is an altogether different paradigm. Investors purchase fund shares in full knowledge that the fund's assets will be invested according to the fund's stated investment objectives and policies and that the value of those investments may decline. Investors also know that the fund's assets and investment results, gains and losses alike, belong to them on a *pro rata* basis. Stated another way, investment losses are not "distress" but rather are an inherent part of the "risk-reward" proposition based on which investors knowingly and willingly participate in the capital markets.

For regulated funds, moreover, there is simply no historical or empirical basis for the FSB's concerns that a fund's investment losses, fully borne by its shareholders, could be transmitted to other market participants in such a manner and magnitude as to destabilize the global financial system. Nor has the FSB provided any empirical data or reasoned analysis for concluding that these concerns will materialize in the future when, for example, the US Federal Reserve Board raises interest rates after years of keeping them at historically low levels. There are several reasons why.

- Regulated funds are subject to regulatory limits on leverage and typically have little to no leverage.
- Certain structural features of regulated funds have the effect of limiting risk and the transmission of risks. Most notably, each regulated fund is a separate legal entity, and the assets of each regulated fund are separate and distinct from, and not available to claims by creditors of, other funds or the fund manager. Each regulated fund has its own investment objectives, strategies, and policies. As a result, regulated funds' economic exposures will vary, especially across different types of funds. And the losses of one regulated fund are not absorbed by other funds or the fund manager.
- Regulated funds must adhere to comprehensive regulatory requirements that protect investors and serve to mitigate risk to the financial system. These requirements include, among others, provisions relating to disclosure (particularly with regard to investment risk), custody of assets with an eligible custodian, mark-to-market valuation of assets, and investment restrictions (including, *e.g.*, types of investments or "eligible assets," concentration limits and/or diversification standards).[39]
- Regulated funds typically invest in equity and debt instruments and thus are providers of capital to the issuers of those instruments (financial and operating companies, various governments and government agencies, and central banks). In other words, it

[39] For a detailed description of the regulatory requirements that apply to regulated US funds, *see* 2014 ICI Letter, *supra* note 4, at Appendix C to that letter.

is far more common that a regulated fund—and, by extension, its 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. We have made this same point repeatedly in the course of this consultation, but its significance has not as yet been observed: funds are *not* banks.

- Regulated funds are highly substitutable, as the FSB recognized in the Initial Consultation. As we discuss later in this letter, the same is true of their managers.
- The regulatory requirements applicable to regulated funds support the fundamental right of investors to redeem their shares. Most notably, these include requirements relating to daily mark-to-market valuation of portfolio assets and the liquidity of the fund's portfolio. Fund managers have a range of tools that can be employed, both to support redemptions and to protect the interests of those investors remaining in the fund. Our data show that US mutual funds have a strong record of managing investor redemptions, even during periods of market stress.
- Regulated funds do not "fail" but instead routinely exit the business through merger or liquidation. A liquidation follows an established, orderly process for distributing remaining assets to the fund's investors and winding up the fund. These events do not give rise to disorder in the markets or otherwise "transmit distress" to other market participants.

2. Exposures/Counterparty Channel

As in the Initial Consultation, the FSB defines the counterparty channel to include situations in which a bank, broker or other counterparty has extended financing to an investment fund or has "direct trading linkages" to an investment fund. It postulates that "[l]osses on investments by a fund could, if exposures to such fund are significant and have not been adequately managed, generate heavy losses to counterparties and ultimately destabilise creditors who might be systemically important in their own right."

Below, we evaluate the common types of exposures and counterparty relationships that regulated funds have and explain why they do not give rise to global systemic risks. As a starting point, however, we reiterate that regulated funds are typically providers of capital to public and private sector entities. As such, regulated funds are more likely to be the bearers of counterparty exposure, rather than transmitters of risk to their counterparties.

a) Role of Leverage

In discussing the exposures/counterparty channel, the consultation focuses on the connection between an investment fund's level of leverage and the possible transmission of risk to the fund's counterparties. It describes leverage as being a "central component in the analysis of the counterparty channel." ICI strongly concurs with the FSB's conclusions regarding the importance of leverage, for the reasons outlined earlier in this letter. We likewise agree that the potential for systemic risk is further magnified if a leveraged entity has a large number of creditors that are themselves leveraged. In such a case, the entity's failure could potentially lead to failure among its creditors, which in

turn could have implications for still more firms—the cascading effect that the Second Consultation mentions.

Regulated funds, as the Second Consultation acknowledges, "currently have legal and regulatory limitations on their ability to use leverage (either balance-sheet leverage or synthetic leverage)."[40] For this reason, they are highly unlikely to transmit risk to their counterparties. Former US Federal Reserve Chairman Alan Greenspan recognized as much when he wrote about the central role of leverage in the 2008 financial crisis. He stated:

> Subprime [mortgages] were indeed the toxic asset, but if they had been held by *mutual funds* or *in 401(k)s*, we would *not* have seen the serial contagion we did. … It is not the toxic security that is critical, but the *degree of leverage* of the holders of the asset. … In 2008, tangible capital on the part of many investment banks was around 3 percent of assets. That level of capital can disappear in hours, and it did. And the system imploded.[41]

b) Use of Derivatives

With regard to "synthetic leverage," which the Second Consultation defines as a form of leverage that investment funds may acquire through the use of derivatives, we wish to remind the FSB that investment funds may use derivatives for purposes other than obtaining leverage. In fact, the FSB observed in the Initial Consultation that investment funds other than hedge funds use derivatives "more commonly to hedge exposures and gain exposures to certain asset categories."[42]

Given that derivatives have become an integral tool in modern portfolio management, we believe that it is important for the FSB to have a full appreciation of the ways in which investment funds may employ these financial instruments. In essence, derivatives offer investment fund managers an expanded set of choices, beyond the traditional "cash securities" markets, through which to implement a fund's investment strategy and manage risk. Consistent with the fund's investment objectives and guidelines and its disclosures to investors, and taking into account current market conditions, the fund manager may engage in derivatives transactions for a wide variety of purposes. These include the following:

- Hedge exposure to a market, sector, security, or other target exposure;

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[40] Second Consultation, *supra* note 2, at 32 and n.45.

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

[42] Initial Consultation, *supra* note 3, at n.43.

- 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;
- 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 US 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 synthetic leverage.[43] 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 expensive to execute through direct purchases and sales of bonds). For example, inflation protected funds are now relatively common. To protect against inflation, these strategies use US Treasury inflation-protected securities ("TIPS") or an efficient substitute. Regulated funds may find it more cost effective to achieve inflation protection through interest rate swaps linked to the return on TIPS.

A regulated fund's use of derivatives, whether to obtain leverage (within regulatory limits) or for some other investment purpose, is of prime concern to securities regulators. Adequate risk management (with respect to, *e.g.*, counterparty risk), adherence by the fund to its stated investment policies, and accurate disclosure about a fund's use of derivatives and their attendant risks are all critical to protecting investors as well as mitigating risk to the broader financial system. In recent years, securities regulators in various jurisdictions have been examining their regulation and oversight in

[43] In both cases, US Securities and Exchange Commission ("SEC") rules or guidance would require any regulated US fund using these strategies to segregate liquid assets equal to the fund's daily exposure.

this area to ensure that it keeps apace with current uses of derivatives (both those that are centrally cleared and those that are not).[44]

c) Investment of Cash Collateral

The Second Consultation suggests that investment funds also may acquire leverage through the investment of cash collateral pledged by their counterparties. In our 2014 ICI Letter, we explained that US regulated funds engaging in securities lending activities must adhere to well-established SEC guidelines. Among other things, the guidelines require 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.[45] In practice, US regulated funds typically invest cash collateral in very high-quality, highly liquid investments.[46] 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.

3. Asset Liquidation/Market Channel

Like the Initial Consultation, the Second Consultation posits that one way an investment fund could destabilize financial markets is through an "asset

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[44] In the US, such a review is currently underway by the SEC staff. *See, e.g.*, 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"), at http://www.sec.gov/News/Speech/Detail/Speech/1370543677722. A regulated US fund that invests in derivatives must take into consideration various provisions of the Investment Company Act, related SEC rules, and relevant guidance from the SEC and its staff. Among these considerations are the application of Section 18, which governs the extent to which a fund may issue "senior securities," and the corresponding requirement to "cover" any future indebtedness by segregating liquid assets or maintaining offsetting positions. The fund also must consider regulatory provisions governing diversification, concentration, investing in certain types of securities-related issuers, valuation, accounting and financial statement reporting, and applicable disclosure requirements. These provisions are described in detail in a 2011 SEC concept release. *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). *See also* Letter from Karrie McMillan, General Counsel, ICI, to Elizabeth M. Murphy, Secretary, SEC (Nov. 7, 2011) (responding to the SEC concept release), available at http://www.ici.org/pdf/25625.pdf.

[45] Similar regulatory guidelines apply to UCITS. *See* ESMA, Guidelines for competent authorities and UCITS management companies (18.12.2012), available at http://www.esma.europa.eu/system/files/2012-832en_guidelines_on_etfs_and_other_ucits_issues.pdf.

[46] FSOC acknowledged as much in its 2015 Annual Report ("Market participants' strategies for reinvesting cash collateral remain conservative—the weighted-average maturity of cash reinvestment is relatively low and well below pre-crisis levels …, and the collateral is mostly reinvested in liquid assets such as overnight repos and MMFs."), available at: www.treasury.gov/initiatives/fsoc/studies-reports/Documents/2015%20FSOC%20Annual%20Report.pdf.

liquidation/market channel." It states that this channel "describes the impact of distress or liquidation of an investment fund on other market participants through asset sales that negatively impact market prices and, in turn, the market value of other participants' financial positions."[47] It adds that this channel "becomes more relevant when a market is experiencing stress and/or when a distressed or failing investment fund is a dominant investor in particular markets or asset classes."[48]

In the 2014 ICI Letter, we discussed the compelling evidence that US mutual funds and their investors simply do not behave in the manner envisioned by the FSB in the asset liquidation/market channel. We described the various factors that explain why the actual experience of US mutual funds does not reflect any such transmission channel at work. And we noted that even if such a situation ever were to arise with respect to a large US mutual fund, the fund would have at its disposal an array of tools to mitigate these risks.

In an expanded discussion of this transmission channel, the Second Consultation notes that responses to the Initial Consultation "generally disagreed with the relevance of the asset liquidation/market channel for investment funds and argued that fire sales by investment funds do not pose a global systemic risk."[49] Yet, the Second Consultation continues to maintain that individual investment funds, in certain conditions, potentially could experience forced asset sales (so-called "fire sales") that could have negative spillover effects on other investment funds, fund counterparties, or particular markets. It also theorizes that fire sales may be prompted by or amplified by "the loss of investor confidence in a specific asset class as a result of the distress of one particular fund leading to 'runs' on other funds presenting similar features or conducting a similar investment strategy" (so-called "herding" by fund investors).[50] The Second Consultation introduces several additional theories as to why forced sales might occur and cites additional circumstances that, it hypothesizes, might create cause for concern about transmission of risks.

We continue to believe that the asset liquidation/market channel is not relevant for regulated funds generally and US mutual funds in particular.[51] In addition, we recently submitted comments responding to FSOC's notice seeking comment on asset management products and activities, which is included as Appendix B to this letter. Our further analysis of liquidity and redemptions in US stock and bond mutual funds in that letter bolsters our earlier comments on the asset liquidation/market channel and speaks directly to one of the additional theories the FSB cites in the Second Consultation.

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[47] Second Consultation, *supra* note 2, at 33.

[48] *Id.*

[49] *Id.* at 34.

[50] *Id*. at 33.

[51] For more detail, *see* 2014 ICI Letter, *supra* note 4, at 26-29 and Appendix F to that letter.

In the subsections below, we highlight relevant portions of our analysis and address a number of points raised in the Second Consultation.

a) How Regulated Funds Manage Their Liquidity Needs

US mutual funds and many non-US regulated funds offer their investors the ability to redeem shares on a daily basis. As we previously have explained, 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 requirements relating to the market valuation of portfolio assets and the liquidity of the fund's portfolio.[52] The 2014 ICI Letter describes these requirements in some detail, but we believe it is important to reiterate the following requirements applicable to US mutual funds:

- *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 has a statutory duty to "fair value" the security in good faith.[53]
- *Daily Pricing of Fund Shares*: The fund uses these current values for each portfolio holding to calculate the net asset value ("NAV") of its shares at least once each business day.[54] 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.

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[52] For a detailed discussion, *see, e.g.*, 2014 ICI Letter, *supra* note 4, at 19-24 and Appendix C to that letter; *see also* 2015 ICI FSOC Letter, *supra* note 16, at 15-18.

[53] *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). Substantially all US mutual 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." *See* 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. *See* Letter from Douglas Scheidt, Associate Director and Chief Counsel, Division of Investment Management, SEC, to Craig S. Tyle, General Counsel, ICI, dated April 30, 2001. Funds investing in foreign securities may use US traded futures contracts, American Depository Receipts or other indicia of value to calculate a 4:00 p.m. value for those securities.

[54] Rule 22c-1 under the Investment Company Act.

- *Liquidity to Support Redemptions*: At least 85 percent of a fund's portfolio must be invested in "liquid assets"—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 investment."[55] The SEC has determined that the 85 percent standard should ensure a mutual fund's ability to meet redemptions, even in the case of "remote contingencies."[56] The SEC also is considering proposing new requirements for mutual funds relating to their management of liquidity risk.[57]

Similar requirements apply to many regulated non-US funds. A UCITS, for example, must publish its unit price when offering purchases and redemptions, which the vast majority of UCITS do on a daily basis, and valuation of its holdings must comply with applicable national law and fund documents. UCITS also must have a documented risk management policy covering, among other things, how the UCITS will manage liquidity to meet redemptions, and must invest at least 90 percent of their assets in transferable securities and other liquid assets.

Compliance with these regulatory requirements is critically important, but it is just part of how a regulated fund ensures that it has sufficient liquidity to meet its redemption obligations. As we recently explained to FSOC, there is no "one size fits all" approach to liquidity management; a fund's manager will manage liquidity taking into account the specific characteristics of the fund.

Elements of day-to-day liquidity management include the following:

- *Active Monitoring of Individual Holdings*. 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 quantitative and qualitative information may then contribute further to the manager's view of an asset's liquidity.
- *Active Monitoring of the Overall Portfolio*. This is informed in large part by the "bottom up" asset-level liquidity monitoring described 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

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[55] *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 (Jan. 2014), available at www.sec.gov/divisions/investment/guidance/im-guidance-2014-1.pdf (explaining that the 1992 Guidelines are Commission guidance and remain in effect).

[56] SEC Liquidity Guidelines Release at 9828.

[57] SEC Chair White Speech, *supra* note 44. 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.

management). Managers frequently use a number of quantitative tools, designed to measure the liquidity of the overall portfolio, to complement and inform their views.

- *Active Monitoring of the Shareholder Base*. Fund 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. Managers also seek to understand the characteristics of a fund's shareholder base (including, *e.g.*, the percentage of the base that consists of typically long-term investors; diffuseness; and heterogeneity), which help predict the potential magnitude of the fund's net redemption activity.[58]

Cash inflows also bear directly on how a regulated fund manages the liquidity of its portfolio. As we recently explained to FSOC, even during periods of market stress, some investors continue to purchase fund shares; funds also have additional inflows from, *e.g.*, interest income, dividends and proceeds from maturing debt instruments, and reinvested dividends. Portfolio managers and traders routinely receive data on cash flows and thus have a strong sense of whether net new cash should be sufficient to meet redemptions or whether additional actions would be needed.[59] While these "additional actions" potentially may include the sale of portfolio securities, the fund also could choose to reduce its purchases of portfolio securities. In the 2015 ICI FSOC letter, we provide data from the "Taper Tantrum" period showing that US high-yield bond funds met redemptions more by reducing their purchases of securities than by increasing sales of securities from their portfolios.[60]

b) Regulated Funds Have a Variety of Tools at Their Disposal to Support Redemptions *and* Mitigate Impact on Remaining Shareholders

As noted above, a regulated fund manager must remain ready to satisfy redemption requests. The manager also must act consistent with its fiduciary obligations to the fund. What this means is that the manager must seek to ensure that the fund's portfolio is well-positioned to pursue its stated investment objective. Stated differently, fund managers try to maintain the integrity of a fund's 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.[61]

Regulated funds have a variety of techniques and tools at their disposal to meet redemptions (including during exceptional market conditions) and reduce the impact of such redemptions on remaining shareholders.[62] They include the following:

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[58] For more detail regarding these elements of liquidity management, *see* 2015 ICI FSOC Letter, *supra* note 16, at 23-25.

[59] *Id.* at 18-23.

[60] *See* 2015 ICI FSOC letter, *supra* note 16, at 34-36. The "Taper Tantrum" period in 2013 saw the sharpest 4-month rise in long-term US Treasury yields since the bond market rout of 1994.

[61] *See* 2015 ICI FSOC Letter, *supra* note 16, at 26-27.

[62] *See* 2014 ICI Letter, *supra* note 4, at 21-22; *see also* 2015 ICI FSOC Letter, *supra* note 16, at 36-38.

- *Valuation and Pricing Techniques*. Regulated US funds may use bid prices to value their fixed income securities, as permitted by SEC guidance. 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). In the European Union, some Member States allow UCITS to utilize "swing pricing," a method by which a fund's price (or NAV) is adjusted to pass on the cost of movements into and out of a fund to those investors leaving or investing in the fund rather than the long-term or remaining fund investors. In addition, applicable regulations may allow these funds to apply an "anti-dilution levy," a fee that can be assessed as an entry or exit charge on entering or exiting investors.

- *Limits on Short-Term Trading*. Many US regulated 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 periods;[63] (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.

- *Redemptions in Kind*. Regulated US 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. In the 2014 ICI Letter, we noted that this tool is used sparingly today 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 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.

- *Temporary Borrowing*. US mutual funds must adhere to regulatory constraints on their ability to borrow, including by maintaining at least 300 percent asset coverage for all borrowings.[64] Some US regulated fund complexes have obtained orders from the SEC that permit funds to lend and borrow money to and from one another for temporary purposes.[65] Similarly, some complexes have obtained lines of credit from individual banks or bank syndicates, which provide an additional outside source of

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

[64] Section 18(f) of the Investment Company Act.

[65] 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 place strict limits on the amounts, terms, and durations of these loans. Moreover, these arrangements are subject to board approval and ongoing oversight, designed to ensure equitable treatment of all participating funds. Some member firms have found that, at times, interfund loans provide a useful alternative source of short-term liquidity. Nevertheless, we understand from most ICI members that have secured these interfund lending orders that they do not routinely rely on them.

liquidity in the event that other means of meeting redemption requests are unavailable or otherwise suboptimal. UCITS likewise may borrow for temporary purposes, subject to applicable restrictions. For example, a UCITS may borrow no more than ten percent of its assets.

- *Temporary Suspension and/or "Gating" of Redemptions*. Faced with an emergency situation, a US regulated fund might seek relief from the SEC to suspend redemptions temporarily or postpone the payment of redemption proceeds beyond the seven days allowed by law.[66] Similarly, the UCITS Directive permits the UCITS home Member State to require the suspension of redemptions, or allow the UCITS manager to do so, in the interest of the fund's unit holders or the public.[67] In addition, UCITS may "gate" redemptions, thereby limiting the amount of total assets that can be redeemed on a pro-rata basis.

The Second Consultation suggests that liquidity management tools are "infrequently used" and thus "their availability to mitigate potential systemic risk warrants further investigation, particularly in light of the continued increase in AUM [or assets under management] of investment funds."[68] We agree that some of these tools are infrequently used, because they are very seldom needed, and would point out that the infrequency of usage is evidence of a regulatory structure that supports daily redeemability and sound liquidity management practices by fund managers. We would not object to further investigation of an investment fund's liquidity "toolkit"—in fact, it is precisely this kind of broad, activity-based review of potential sources of systemic risk that makes sense for asset management. What we do object to, however, is using this suggestion as a reason to justify the designation of individual investment funds as G-SIFIs.

c) Liquidation of a Regulated Fund Follows an Orderly Process and Does Not Occasion Systemic Disorder

The asset liquidation/market channel assumes that, in times of stress: (1) an investment fund will suffer distress and possibly be forced to liquidate; and (2) this forced liquidation will have a negative impact on other market participants. But these premises—which seem to be rooted in the experience of certain large, complex, and highly leveraged financial institutions during the global financial crisis—simply do not hold true in the case of regulated funds.

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[66] Section 22(e) of the Investment Company Act. For more detail, *see* 2014 ICI Letter, *supra* note 4, at 21-22.

[67] UCITS Directive, Article 84 (obligation to redeem).

[68] Second Consultation, *supra* note 2, at 34.

As we explained in the 2014 ICI Letter and more recently,[69] concerns about "disorderly failure" of regulated funds are misplaced. To begin with, regulated funds do not "fail" like banks do. Instead, they routinely exit the business in an orderly manner with no need for government intervention or taxpayer assistance and no negative spillover effects on the financial markets—even during periods of market stress. Thus, the Initial Consultation correctly observed that "even when viewed in the aggregate, no mutual fund liquidations led to a systemic market impact" for the period 2000-2012."[70]

Key features of regulated fund structure and regulation, as well as fund industry competitive and marketplace dynamics, all serve to facilitate these orderly exits. Most significant, in the case of US mutual funds, are the following:

- the independent legal character of a fund
- separate custody of fund assets
- restrictions on affiliated transactions
- the role of the fund board of directors
- the high degree of substitutability of US mutual funds, with typically well over 100 funds competing with each other in each investment category

If a US mutual fund needs to liquidate, there is an established and orderly process through which the fund liquidates its assets, distributes the proceeds *pro rata* to investors and winds up its affairs. While the process normally unfolds over a time period that the fund manager and fund board deem appropriate, they can expedite the process if circumstances warrant. Most significantly, the liquidation of a mutual fund occurs without consequence to the financial system at large. As the FSB has recognized:

> [F]rom a purely systemic perspective, funds contain a specific "shock absorber" feature that differentiates them from banks. In particular, fund investors absorb the negative effects that might be caused by the distress or even the default of a fund, thereby mitigating the eventual contagion effects in the broader financial system.[71]

UCITS similarly have orderly liquidation procedures as prescribed in their fund rules and the laws of the UCITS home member state.[72] Liquidations are subject to the

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[69] *See* 2015 ICI FSOC Letter, *supra* note 16, at pp. 72-82; *see also* Investment Company Institute, *"Orderly Resolution" of Mutual Funds and Their Managers* (July 2014), available at http://www.ici.org/pdf/14_ici_orderly_resolution.pdf.

[70] Initial Consultation, *supra* note 3, at n. 38. We provided data on US mutual fund mergers and liquidations for the period 2000-2014 in the 2015 ICI FSOC Letter, *supra* note 16, at 75.

[71] *See* Initial Consultation, *supra* note 3, at 29.

[72] *See, e.g.,* UCITS Directive Article 19 (management company and complying with rules of UCITS home Member State, including rules related to liquidation and winding up).

fiduciary responsibilities of the UCITS' management company and/or directors, requiring the liquidation to be conducted in an orderly manner and in the best interest of investors. During a liquidation, the right of an investor to receive redemption proceeds is suspended and replaced with the right to receive a *pro rata* share in the assets of the UCITS, as and when realized by management following the orderly disposal of investments in such manner as is determined by management for the purposes of maximizing returns to investors.[73]

d) The Actual Experience of US Mutual Funds Contradicts This Transmission Channel

With regard to US mutual funds, the evidence is compelling: the kinds of "herding" and "fire sale" risks the Second Consultation posits as arising through investment funds simply are not characteristic of regulated US funds. Appendix F to the 2014 ICI Letter describes in detail this evidence and the reasons for it; we therefore reiterate only certain key takeaways here.

Tens of millions of retail investors hold more than 95 percent of US stock and bond fund shares and, for many of them, saving for retirement is their primary investment goal. In addition, nearly 80 percent of those who invest in mutual funds outside of employer-based retirement accounts rely on the advice of a financial professional.[74] This combination of retirement saving and the use of financial professionals leads investors to pursue savings and investment strategies with a focus on their long-term goals.

Investors employ certain general principles of portfolio construction in pursuit of their goals. These include diversification and ensuring that assets are appropriately matched with future financial needs. The upshot is that in constructing and maintaining investment portfolios, 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 (or lack thereof) with other asset classes held in an investor's portfolio. Diversification across

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[73] The liquidation procedure usually involves the appointment of an official liquidator with statutory powers and responsibilities regarding the accumulation, realization and distribution of assets. The party in control of the UCITS liquidation, whether that is the management company, liquidator or board, has the ability to apply to the courts for directions. Investors have the right to be notified of the termination of the UCITS and may have the right to appoint a liquidator. The depositary continues to be responsible for the safekeeping of assets during the liquidation of a UCITS and has oversight in relation to the payment of the proceeds from the realization of assets to investors. In addition, it is possible to merge a UCITS with another UCITS, either within the same Member State or on a cross border basis. The merger of UCITS can be done on a voluntary basis, whether on a redemption and subscription basis or by a share exchange whereby assets of the migrating UCITS are transferred to the receiving UCITS in exchange for the issue of shares in the receiving UCITS.

[74] ICI, 2015 Investment Company Fact Book, at 122.

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. Portfolio construction of this kind—calculated to achieve and maintain a high degree of diversification among asset classes—militates against market timing. It makes investors far less likely to redeem fund shares in times of market stress—indeed, it provides reasons for them not to do so. And for short-term liquidity needs, investors are 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 stock or bond fund.

Many investors purchase shares through retirement accounts, such as 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.

The FSB has acknowledged the long-term focus and behavior of US stock and bond mutual fund investors. Indeed, the Initial Consultation specifically noted that "many US investors hold mutual fund shares for retirement purposes" and, as a result, "these investors' investment horizon could be long-term, whereby they would prefer to remain invested rather than cash-out during a market downturn."[75]

Another aspect of investor behavior has important implications for financial stability. The data show that, even in times of market stress, investors are making new purchases of fund shares, and funds are continuously receiving dividend and interest income. As discussed in subsection a) above, a mutual fund can use these new cash inflows to manage liquidity, thus minimizing the fund's need to sell portfolio securities. In September and October 2008, during the height of the global financial crisis, investors *purchased* $274 billion of US equity mutual fund shares and $141 billion in US bond mutual fund shares. In addition, during those two months equity funds reinvested $7 billion in dividend payments and bond funds reinvested nearly $11 billion. As a result, net outflows (including reinvested dividends) amounted to only 2 percent of US equity mutual fund assets during September and October of 2008 and 1.8 percent of US bond mutual fund assets.

The 2014 ICI Letter also emphasizes that any sales of portfolio securities by US mutual funds are unlikely to impact market prices to any substantial degree. The data show that even when redemptions do materialize, they are unlikely to lead to much downward pressure on securities prices because sales of stocks and bonds by US mutual funds are small relative to the value of overall stock and bond market trading.

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[75] Initial Consultation, *supra* note 3, at n.38.

The Second Consultation acknowledges this last point, observing that some commenters on the Initial Consultation "referred to data analyses to illustrate that mutual fund flows in the aggregate are not directly correlated with large price movements."[76] It then seems to backpedal from this observation, however, by stating that "asset sales from redemptions are not likely to materially impact market prices *under normal circumstances*… ."[77] We wish to note that the data provided in Appendix F to the 2014 ICI Letter covers both the global financial crisis and the Taper Tantrum period—two timeframes that are generally not considered to constitute "normal circumstances."

e) Mutualized Trading Costs are Unlikely to Create Systemic Pressures for Regulated Funds

As we note above, the asset liquidation/market channel assumes that, in times of stress: (1) an investment fund will suffer distress and possibly be forced to liquidate; and (2) this forced liquidation will have a negative impact on other market participants. The Second Consultation goes on to surmise that, "with respect to open-end funds, investors could have an incentive to redeem before other investors to avoid sharing the costs associated with other investors' redemptions, particularly for funds investing in less-liquid asset classes."[78] For further details, the Second Consultation directs the reader not to any data or analysis proving that this dynamic exists but rather to the FSOC's recent notice requesting comment on asset management products and activities.

We address this "mutualization of trading costs" theory at length in our 2015 ICI FSOC Letter,[79] and explain that there is no basis on which to conclude that funds provide sufficiently large systematic incentives for investors to redeem shares during periods of market stress and thereby create systemic risks.[80] The main reasons are as follows.

- While it is true that the costs of redeeming fund shares (including brokerage commissions, bid-ask spreads, and market impact costs) are generally "mutualized" among all investors in a fund, it does not follow that those investors have a unique or powerful incentive to redeem heavily *because* of these shared costs, especially during periods of market stress. Regulatory and other fundamental characteristics of regulated funds severely restrict any benefit to redeeming investors and mitigate the impact of redemptions on investors who remain in the fund. These characteristics include, for example, the fund's fluctuating NAV, the required valuation of portfolio holdings at current value to establish the fund's share price and, for regulated US

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[76] Second Consultation, *supra* note 2, at 34.

[77] *Id.*

[78] Second Consultation, *supra* note 2, at 33.

[79] 2015 ICI FSOC Letter, *supra* note 16, at 38-43.

[80] While not a focus of the Second Consultation, the 2015 ICI FSOC Letter also debunks FSOC's "waterfall theory" of liquidity management (*i.e.*, that in times of stress, funds meet redemptions with cash, then sell their most liquid securities, leaving non-redeeming investors with a less liquid and riskier portfolio), at 25-36.

funds, the forward pricing requirement.[81] Tax considerations and "early withdrawal" penalties also may serve as disincentives to redeem.[82]

- The mutualization of trading costs theory ignores the care that regulated fund managers take in selling portfolio holdings, as well as the use of other techniques and tools to blunt the impact of this cost sharing and foster more equitable treatment of fund shareholders. These techniques and tools are summarized in subsection b) above.
- The theory is based on a combined set of assumptions that are highly unlikely to arise in practice.
    - The first assumption is that the NAV of a regulated fund is systematically and predictably mispriced. Although there were cases of this in US international equity funds some 15-20 years ago, these mispricing problems have been corrected through heightened attention by funds and the SEC to fair value pricing requirements, and by increased sophistication in the techniques used to ensure that pricing inputs used in calculating a fund's NAV are accurate indicators of current market value.
    - The second assumption is that regulated fund investors accurately can predict how fund flows will respond to declines in market prices. The data for regulated US funds demonstrate, however, that investor responses to market declines tend to be muted and variable.
    - The third assumption is that fund managers are forced to accommodate outflows by selling portfolio securities. In fact, as discussed in subsection a) above, quite often fund managers satisfy redemption requests without selling portfolio securities. Even if a manager determines that such sales are necessary, the manager typically will 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), or using futures as a way to accommodate cash flows.
    - The fourth assumption is that the market impacts from sales of portfolio securities are large enough to create a meaningful incentive for investors to try to time the markets. Our 2015 ICI FSOC Letter highlights a number of reasons why this assumption is highly uncertain, including the fact that institutional traders are positioned to arbitrage away any market impact effect well before fund investors are able to take advantage of it.

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[81] *See* subsection a above (describing, among other things, the "forward pricing" requirement, under which an investor submitting a redemption request receives the price next calculated *after* receipt of the redemption request).

[82] Tax rules often figure prominently in investors' decisions about when to buy or sell fund shares. This may be particularly true for many non-US funds, which "roll up" gains during the course of an investor's holding period and distribute the entire amount upon redemption.

- If the mutualization of trading costs theory were correct, data on index funds should show that outflows depress a fund's return relative to its index (resulting in negative tracking error). As outlined in our 2015 ICI FSOC Letter, the data show no such relationship.
- In fact, patterns of fund flows suggest 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, moreover, have a modest impact on the overall demand for funds during periods of market stress.

f) Regulated Funds are Not "Dominant Players" in Their Market Segments

The Second Consultation raises the issue of whether an individual fund, if a "dominant player" in a particular "market segment," might create or heighten risk through the posited asset liquidation / market channel particularly in "less liquid markets" and particularly during "periods of broader market turbulence."[83] We have serious concerns about this line of inquiry as regards regulated funds.

We do not believe that regulated funds are in any sense "dominant players" in the financial markets, even in "less liquid markets." Figure 5 shows the assets of the ten largest regulated US funds in selected investment categories relative to the estimated sizes of those markets. The assets of the ten largest funds in each category account on average account for less than 5 percent of the market segments. The highest figure is for the investment grade bond category, where the ten largest regulated funds hold an estimated 15.4 percent of that market. Even in "less liquid markets," such as high-yield bonds, high-yield floating rate ("bank loan funds"), and emerging market debt, the ten largest funds never hold more than 10 percent of their respective "market segments."

Even if a fund or group of funds did constitute a significant fraction of a given market segment, there would be little cause for concern if the funds' underlying investors are highly stable. A striking example of this is in Plantier (2015),[84] who studies the variability of foreigners' net purchases of emerging market bonds. He finds regulated funds hold a significant fraction of the emerging market bonds held by foreigners (*i.e.*, those residents outside of a given emerging market country). He also finds, however, that regulated funds' net purchases of emerging market bonds are considerably more stable than net purchases made by other investors. Consequently, even if a regulated fund constitutes a large segment of a particular market, that fact does not necessarily have systemic implications.

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[83] Second Consultation, *supra* note 2, at 34-35.

[84] *See* L. Christopher Plantier, "Regulated Funds, Emerging Markets, and Financial Stability," *Perspective*, Investment Company Institute, vol. 2, no. 1, April 2015. A copy of this paper is included as Appendix E.

Figure 5: Regulated US Funds Are Not "Dominant Players" in Their "Market Segments"

Assets in billions of US dollars; December 31, 2014

				Largest 10 funds	
Fund Category	**"Market size"**	**Number of funds**	**Total net assets**	**Total net assets**	**Percentage of "market"**
Equity					
Large cap growth[1]	$9,847	306	$599	$246	2.5%
Mid cap growth[1]	$1,940	189	$226	$97	5.0%
Small cap growth[1]	$1,670	203	$172	$81	4.9%
Large cap value[1]	$11,246	353	$665	$266	2.4%
Mid cap value[1]	$1,915	194	$230	$98	5.1%
Small cap value[1]	$1,824	222	$184	$72	4.0%
Large cap blend[1]	$20,606	483	$2,125	$1,322	6.4%
Mid cap blend[1]	$3,699	150	$327	$209	5.7%
Small cap blend[1]	$3,336	217	$269	$150	4.5%
Emerging market[2]	$7,576	460	$433	$230	3.0%
Global[3]	$37,643	650	$666	$319	0.8%
International[4]	$17,355	631	$1,268	$563	3.2%
Bond					
High-yield ex. floating rate[5]	$1,344	217	$296	$124	9.2%
High-yield floating rate[6]	$831	55	$123	$80	9.7%
Government[7]	$9,461	188	$180	$77	0.8%
Mortgage backed[7]	$4,990	70	$137	$104	2.1%
Investment grade[7]	$4,105	670	$1,645	$632	15.4%
Global/International[8]	$20,043	278	$407	$232	1.2%
Emerging market[9]	$3,017	125	$68	$42	1.4%
Emerging market[10]	$11,226	125	$68	$42	0.4%

[1]Based on market cap of relevant CRSP market index as reported on Bloomberg for December 2014.
[2]Based on market cap of the MSCI Emerging Markets Index (Bloomberg symbol MXEF) as of December 2014.
[3]Based on market cap of the MSCI World Index (Bloomberg symbol MXWO) as of December 2014.
[4]Based on market cap of the MSCI World Excluding United States Index (Bloomberg symbol MXWOU) as of December 2014.
[5]Based on market value of the bonds in the BofA Merrill Lynch US High Yield Index as of December 2014.
[6]LSTA estimates for market size as of December 2014.
[7]Based on market value of the bonds in the relevant Bloomberg indexes as of December 2014.
[8]Based on market value of the bonds in the Citi World Government Bond Index (Bloomberg symbol SBWGU) as of December 2014.
[9]Based on market value of the bonds in the J.P. Morgan Emerging Markets Bond Index as of December 2014.
[10]For comparison, the market cap here is based on IMF estimates of the total size of emerging debt markets as of December 2013; 2014 figures are not yet available.
Sources: Investment Company Institute, International Monetary Fund, Bloomberg, Morningstar, J.P. Morgan, and fund documents

The "dominant player" concept focuses yet again on size, in this case size relative to market segment. As we have repeatedly stated, size *can* be a factor in creating systemic risk but only if the large-sized entity is also highly leveraged. The "dominant player" concept articulated in the Second Consultation does not address the issue of leverage. It also ignores the substitutability of investment funds, and the fact that the designation of a particular fund or group of funds simply will cause investor assets to migrate to undesignated funds.[85] Finally, we believe that adopting a "dominant player" focus risks diverting the FSB's attention away from other factors that could contribute to global systemic risks.

g) The Second Consultation Provides an Unbalanced View of Potentially Relevant Research

The Second Consultation makes sweeping statements suggesting that investment funds, through the actions of their portfolio managers or underlying investors, create or amplify distress in financial markets. In support of these statements, the Second Consultation cites only four studies: Raddatz and Schmukler (2011); Gelos (2011); Broner, Gelos, and Reinhart (2006); and the International Monetary Fund's *Global Financial Stability Report* (April 2014).[86] As discussed in Appendix F to this letter, the Second Consultation's citations to these four studies represents, at best, a highly selective interpretation of the results presented in those studies. The Second Consultation fails to mention that other studies are available that come essentially to the opposite conclusion. Studies by ICI economists, for example, show that evidence is lacking to support the conclusion that regulated funds create or add to systemic risk (Collins and Plantier, 2014) and conclude that regulated funds may be among the most stable investors in certain investment classes such as emerging market bonds (Plantier, 2015).

4. Critical function or services/Substitutability Channel

The Second Consultation asserts that "[i]t is possible that a fund could attract significant investment and present features that are, in combination, fairly unique and may potentially have very few immediate substitutes."[87] As examples, the Second Consultation suggests that a fund "may provide a highly tailored investment strategy, or may serve as a significant source of liquidity to particular asset classes, such as certain types of derivative contracts."[88] It further indicates that the FSB and IOSCO are "interested in exploring whether an individual investment fund can provide such a significant function or service to a particular market or market segment that its distress

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[85] We discuss this issue in more detail in subsection 4 below.

[86] Second Consultation, *supra* note 2, at 33-34.

[87] *Id.*, *supra* note 2, at 34-35.

[88] *Id.* at 35.

could affect global financial stability and, if so, what the particular circumstances would be to contribute to that role."[89]

Given that investment funds by nature are highly substitutable, this line of inquiry is another sign of the giant step backward the Second Consultation takes. The Initial Consultation correctly recognized the high level of substitutability of investment funds and therefore did not consider this transmission channel applicable to them. The Second Consultation notes the prior posture and adds that responses received on the Initial Consultation "noted that the fund industry is highly competitive with numerous substitutes existing for most investment fund strategies."[90] We question why the FSB is choosing to depart from its initial approach in a manner that is contrary to the comment record and does not appear to have any empirical basis.

The Second Consultation does not further explain or provide any actual examples of a fund that "provides a highly tailored investment strategy" or that "serves as a significant source of liquidity to particular asset classes." If, as noted above, the FSB and IOSCO are "interested in exploring" whether such an individual investment fund may pose risks to global financial stability due to a lack of substitutability, this strikes us as an issue on which the FSB should be asking specifically for further public comment, and not as a valid reason for including this transmission channel within the investment funds methodology. We note that, to the extent that such an investment fund does exist or could exist, the proposed methodology already requires the consideration of substitutability as discussed in Section 6.4.3 of the Second Consultation.

In our 2014 ICI Letter, we agreed with the Initial Consultation's statement that investment funds are highly substitutable and we observed that this is one of many reasons why regulated funds do not pose risks to financial stability. We pointed out that the proposed materiality threshold ($100 billion in AUM) produced a pool of regulated US funds, none of which invest in specialized strategies or markets. We also provided information illustrating the substitutability of the largest regulated US funds, most of which invest in the deepest, most liquid markets in the world and compete against a large number of other regulated funds.[91] As of January 2015, for example, approximately 350 US fund complexes offered more than 10,000 funds, providing investors a wealth of choices and strategies.

Our views have not changed and neither have the facts. In the case of regulated funds, the result is the same under the two materiality threshold options described in the Second Consultation—*i.e.,* the regulated US funds that exceed the size thresholds have

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[89] *Id.*

[90] *Id.*

[91] *See* 2014 ICI Letter, *supra* note 4, at Appendix F to that letter.

highly diversified portfolios and invest in deep and liquid markets. For these funds and, we believe, for investment funds in general, the critical function or services/substitutability channel is irrelevant.

C. The Policy Measures Likely to Apply to Any US Mutual Fund Designated as a G-SIFI Will Be Harmful

In contrast to other jurisdictions, the US already has established by statute the measures that will apply to any nonbank financial company designated as systemically important under US law.[92] As we indicated in the 2014 ICI Letter, we expect that the FSOC will look to the Dodd-Frank Act, as the governing legal authority, to determine the policy measures for a US mutual fund designated as a G-SIFI. Under that law, nonbank SIFIs become subject to certain mandatory enhanced prudential standards and consolidated (prudential) supervision by the US Federal Reserve. The Federal Reserve also has authority to impose heightened prudential standards in certain other areas.

In the 2014 ICI Letter, we described the likely—and very troubling—consequences of G-SIFI designation for US mutual funds, based on the comprehensive requirements of the Dodd-Frank Act.[93] The Dodd-Frank standards are designed to moderate bank-like risks and, as a result, the prescribed "remedies" are ill-suited to mutual funds. Most notably, the requirements include:

- Capital requirements – possibly at the level of the minimum bank capital requirement, which is 8 percent[94]
- Fees/assessments – to defray the Federal Reserve's supervisory costs and to cover the expenses of the FSOC and the US Treasury Department's Office of Financial Research
- Possible resolution assessments – to cover costs associated with the resolution of a distressed financial institution deemed systemically important—for example, fund investors could have to help bail out a "too-big-to-fail" bank

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[92] *See, e.g.,* Section 165 of the Dodd-Frank Wall Street Reform and Consumer Protection Act.

[93] *See* 2014 ICI Letter, *supra* note 4, at 29-34 and Appendix G. *See also* Testimony of Paul Schott Stevens, President & CEO, Investment Company Institute, before the U.S. Senate Committee on Banking, Housing and Urban Affairs, on FSOC Accountability: Nonbank Designations (March 25, 2015), available at http://www.ici.org/pdf/15_senate_fsoc.pdf, at 15-18.

[94] As we indicated previously, unlike banks, which have capital requirements to protect their depositors and other creditors against the risk of losses, US mutual funds simply have neither the need for capital nor the ability to meet capital requirements. Their "capital" comes from investors who own fund shares—shares that represent the investors' pro rata interests in all the underlying assets of the fund. Applying capital or "loss absorption" requirements to mutual funds or other regulated funds to protect against losses would be antithetical to their basic nature and purpose; as fund investors understand and expect, these are investment products that entail investment risk. If capital were actually available or were perceived to be available to absorb fund investors' losses, it would introduce moral hazard and lessen market discipline.

- Possible highly prescriptive liquidity requirements – such as a requirement to hold a specified level of cash or cash equivalents
- Federal Reserve prudential supervision – described as "prudential market regulation" of funds and asset managers in accord with banking "system demands" determined by the Federal Reserve Board, in contrast to the fiduciary obligations of fund managers and fund boards of directors to act in funds' best interests[95]

Based on these requirements, designated funds and their investors would face higher costs, and the resulting competitive imbalances would distort the fund marketplace, potentially leading to regulatory arbitrage and reducing investor choice. Designation also could have far-reaching implications for how a fund's portfolio is managed, depending on how the Federal Reserve exercises its supervisory charge under the Dodd-Frank Act to "prevent or mitigate" the risks presented by large, interconnected financial institutions. Regulated funds and their advisers could be subject to a highly conflicted form of regulation, pitting the interests of banks and the banking system against those of millions of investors. The harmful consequences of applying these ill-suited policy measures to US mutual funds only serve to underscore our strong conviction that designation would be inappropriate for regulated funds.

IV. Comments on Asset Manager Methodology

The FSB proposes what it terms a "dual approach" that involves a separate assessment methodology for asset managers. This approach departs from the FSB's reasoned decision in the Initial Consultation to focus on individual investment funds on the basis that this is where the economic exposures lie. And, as the Second Consultation freely admits, the FSB's choice now to add an asset manager methodology conflicts with the comment record, including the comments we submitted in the 2014 ICI Letter. Our view remains the same—if the FSB insists on developing a G-SIFI methodology applicable within asset management, the methodology should cover only individual investment funds and not asset managers. Although our comments generally address managers of regulated funds, much of our reasoning likely applies more broadly to other types of asset managers.[96]

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[95] *Remarks at the Office of Financial Research and Financial Stability Oversight Council's 4th Annual Conference on Evaluating Macroprudential Tools: Complementarities and Conflicts*, Daniel K. Tarullo, Member, Board of Governors of the Federal Reserve System (January 30, 2015), available at http://www.federalreserve.gov/newsevents/speech/tarullo20150130a.pdf.

[96] We support the letter submitted by the Investment Adviser Association, which focuses entirely on the proposed methodology for analyzing asset managers. *See* Letter from Karen Barr, President and Chief Executive Officer, Investment Adviser Association, to Secretariat of the Financial Stability Board, dated May 29, 2015.

Below we discuss the reasons why managers to regulated funds do not pose risks to global financial stability.[97] We also explain why it is inappropriate to look at assets under management as a proxy for the potential of an asset manager to pose such risks.

1. The Second Consultation Acknowledges the Reasons Why Managers to Regulated Funds Do Not Raise Systemic Concerns

The Second Consultation suggests that "[a]s with investment funds and other NBNI financial entities, an asset manager that faces distress or forced failure could, in certain circumstances, potentially cause or amplify significant disruption to the global financial system and economic activity across jurisdictions through the three transmission channels set out in Section 1… ." We know of no instances of this occurring in the case of managers of regulated funds. Further, there are compelling reasons why these concerns should not arise—reasons that the FSB acknowledges in the Second Consultation.

- "The core function of an asset manager is managing assets as an agent on behalf of others in accordance with a specified investment mandate, or the investment strategy defined in the prospectus for the investment fund that it manages." (Second Consultation at 47)
- "Asset managers must follow investment guidelines set out in the agreement with each client (or the investment strategy in the prospectus for investment funds), as the client assumes the risk of investing." (Second Consultation at 47)
- "The asset manager's discretion to invest assets is also subject to a number of regulatory, legal and contractual limits. These limits result from a variety of sources, such as an investment fund's governing documents or the contractual arrangements for a separately managed account, securities laws, market conduct regulations, and corporate laws that create fiduciary duties to investors." (Second Consultation at 47)
- "Since the core function of an asset manager is managing assets as an agent on behalf of others in accordance with a specified investment mandate, asset managers tend to have small balance sheets and the forced liquidation of their own assets would not generally create market disruptions." (Second Consultation at 48)
- "[A]sset managers primarily provide advice or portfolio management service to clients on an agency basis. This model makes their provision of this particular activity generally substitutable as there is considerable competition in the market place. For example, investors at any time may choose to move their assets to a different asset manager, to a different investment strategy or to a different investment fund." (Second Consultation at 49)

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[97] For more detail, *see* 2015 ICI FSOC Letter, *supra* note 16, at 72-82 (explaining why US mutual funds and their managers do not "fail"); ICI, *"Orderly Resolution" of Mutual Funds and Their Managers* (July 2014), available at http://www.ici.org/pdf/14_ici_orderly_resolution.pdf.

- "Asset managers generally use third-party custodians to hold investor assets, as required by regulation [such as in the case of regulated funds] or as a best practice." (Second Consultation at 47)
- "[T]hird-party custody arrangements facilitate the substitution of asset managers." (Second Consultation at 49)

The FSB seeks to justify its focus on asset managers by emphasizing activities other than "traditional" asset management—namely, securities lending agent services, provision of risk management platforms or pricing services to clients, and consulting/advisory services that rely on an asset manager's breadth of expertise. If these activities in fact are the cause of the FSB's concern, we respectfully suggest that the FSB should be looking at these activities broadly across financial institutions, and not through an entity-based methodology focused only on the largest asset managers. As we and other stakeholders repeatedly have emphasized, a market-wide or activity-based review is a more appropriate way to identify and address any areas of undue risk.

2. The FSB's Focus on Assets Under Management is Highly Problematic

One of the materiality thresholds proposed for asset managers is $1 trillion in assets under management. The Second Consultation concedes that "AUM may not be the most effective measure to assess the impact of failure or distress of an asset manager, especially if it is only involved in asset management activities (or core activity) and acts only as an agent."[98] This is indeed the case for managers of regulated funds. Yet, in a separate passage, the Second Consultation states that "[a]sset managers that have higher amounts of AUM may have a greater potential systemic impact on the global markets *in situations where the risks are transferred through the assets they manage*."[99] In particular, in its discussion of how the asset liquidation channel would apply to an asset manager, the Second Consultation suggests that the failure or distress of an asset manager could

> create or amplify potential market distress … through its reputational/ operational risks. For example, if an asset manager experiences material distress caused by litigation, the departure of key individuals, or operational problems (such as inadequate or failed internal processes and systems), the assessment methodology may want to examine whether this could cause, for example, substantial redemptions from any investment funds that it manages and substantial transfers of SMAs that it advises in a way that could adversely affect the global financial system.[100]

Managers of regulated funds, like all financial firms and other organizations, face reputational and operational risks. Effectively managing and mitigating these risks (*e.g.*, through succession and business continuity planning) is part and parcel of running a

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[98] Second Consultation, *supra* note 2, at 52.

[99] *Id.* at 51 (emphasis added).

[100] *Id.* at 48-49.

successful business (which, presumably, describes any asset manager managing at least $1 trillion in assets for a range of clients). Moreover, as fiduciaries to comprehensively regulated funds, these managers are required to have robust policies, procedures and systems covering not only their operations but those of their significant service providers.[101] In our 2015 FSOC Letter, for example, we discussed at length the ways in which US regulated funds and their managers manage operational risks.[102]

There have been instances in which a regulated fund manager has experienced a "reputational event" that has resulted in higher than normal redemptions from the manager's funds. In some cases, this event was so damaging that the fund manager was forced to exit the fund business. For example, during the "market timing" scandal in the United States in 2003-04, several fund managers faced disciplinary action by the SEC. In one of those cases, the SEC barred from the industry the founder of a fund management firm bearing his name. Within six days, another asset manager acquired that firm.[103] In *no* instance, however, have there been redemptions from a manager's regulated funds that destabilized the broader fund industry, much less the global financial system.

And what about the future—what are the chances of a reputational event at a regulated fund manager causing fund redemptions to such a degree that financial stability would be impacted? Virtually none, for the following reasons:

- As we explained in detail in Section III.B.3, regulated funds have a strong record of managing redemptions, even in exceptional circumstances. The techniques and tools that fund managers use in times of market stress, for example, would be equally available to assist a fund manager in weathering a "reputational event."
- For regulated US funds, if a reputational event causes a fund manager to be unable to perform its obligations to the funds it manages, the funds' board(s) of directors have the authority to replace the manager.[104] If necessary, this can be done quickly on an interim basis, subject to subsequent shareholder approval. Entering into a new fund management contract should not occasion the need for any immediate sale of assets or even the alteration of fund custody arrangements. The funds' board(s) simply would provide instructions to the custodian regarding which persons at the new manager are authorized to transact on behalf of the fund.
- The regulated fund business is highly competitive, and fund managers have a very strong incentive to acquire assets under management (for example, to diversify their offerings or achieve greater economies of scale). In any situation in which a fund manager decided or was forced to leave the business, other fund managers, or other

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[101] In the case of UCITS, any outsourced function remains the responsibility of the outsourcing manager.

[102] *See* 2015 ICI FSOC Letter, *supra* note 16, at 58-72.

[103] For more details, *see id.* at n. 160.

[104] For UCITS that are in contractual form, the regulator would orchestrate the transfer of fund assets from a defaulting manager to another manager.

institutions seeking to enter the business, could be expected to be bidders for that business.

The Second Consultation provides neither examples nor data to support its hypotheses regarding the potential for managers of regulated funds to pose risks to global financial stability at all, let alone as a function of the amount of their assets under management. Nor is it apparent how G-SIFI "designation" of such managers would mitigate in any way either "reputational" issues that may arise or, beyond currently applicable regulations and standards, "operational" risks. And we question how it would be possible to identify in advance—and on that basis designate—the specific manager or managers that would be expected to experience either reputational or operational problems of the sort that the FSB would consider to have the potential to pose risks to global financial stability.

V. Assessment Process

As is evident from our comments above and in the 2014 ICI Letter, we strongly believe that application of the proposed methodologies to regulated funds and their managers would be misplaced, counterproductive and harmful to investors. If regulators identify risks involving regulated funds and their managers—or indeed the asset management industry more broadly—that need to be addressed, industry-wide or activity-based regulation would be a better approach. In this regard, we note the pending and expected SEC asset management initiatives as well as the FSB's announced plan to pursue an activities-based workstream in the asset management arena.[105] If the FSB nevertheless decides to move forward with assessment methodologies for identifying investment funds or asset managers as NBNI G-SIFIs, we offer the following comments.

The FSB's discussion in the Second Consultation of the assessment process and outcome remains largely unchanged from that in the Initial Consultation. We therefore reiterate our serious concerns about many aspects of the proposed process. Briefly stated, these include the following:

- The FSB, IOSCO, and national authorities would be given tremendous discretion to engage in highly subjective deliberations.
- The process is not governed or guided by any specific law or statute.

[105] *See, e.g.*, SEC Chair White Speech, *supra* note 44; Letter from Mark Carney, Chairman, FSB to G20 Finance Ministers and Central Bank Governors, dated 9 April 2015.

- Investment funds or asset managers being considered for G-SIFI designation may have little or no information as to the basis upon which specific decisions are being or will be made.[106]

- There are no transparency or "due process" requirements: no assurance that all comments received by the FSB are available for public scrutiny; no required notice that a fund is being evaluated (*i.e.,* for funds that do not meet the materiality threshold but are considered by national authorities to be "potentially globally systemic") or that a fund will *not* be designated (for funds that do meet the materiality threshold); no assurance that an investment fund or asset manager will be permitted to provide information that they believe is relevant to a designation determination (or that any such information would be considered by the FSB and the relevant national authority); no requirement to consider the relative costs and benefits of a potential designation; and no formal (or informal) mechanism for an investment fund or asset manager to challenge a G-SIFI determination.[107]

The FSB has said that it is striving for "consistency" with the G-SIB and G-SII methodologies and their application.[108] As the FSB acknowledges, however, application of the NBNI methodology will necessitate a greater reliance on supervisory judgment. This, in our view, calls for a much more robust process with certain protections for NBNI entities under evaluation. We believe that the experience in the United States—the only jurisdiction to have adopted a process for SIFI designation—should serve as a cautionary tale.

In April 2012, FSOC adopted a rule and interpretive guidance to govern its SIFI designation process, following three rounds of public comment. ICI and other stakeholders, members of the US Congress from both political parties, the US Government Accountability Office, and other interested parties have roundly criticized this rule and guidance as insufficient—even though the rule and guidance spell out a more detailed process than that the FSB has proposed for considering NBNI financial entities.[109] In February of this year, FSOC responded in part by adopting certain enhancements to the SIFI designation process. The intended purposes of these

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[106] As in the Initial Consultation, the FSB provides no insight as to the "guidelines" that will address the analysis to be conducted by national authorities and the "Narrative Assessment" of each NBNI financial entity that will discuss the application of the relevant indicators and transmission mechanisms to that entity. It remains unclear whether those guidelines will be developed through a consultation process or released publicly at all. Also unknown are the answers to such basic questions as: Who will serve as members of the international oversight group? How will they make decisions? What vote is required to take "official" actions?

[107] The Second Consultation indicates that national authorities will have the "option" of seeking information through industry-wide consultations or requesting information directly from financial entities.

[108] We do not offer our views on whether the application of those methodologies has provided sufficient protections for the affected banks and insurance companies.

[109] *See* Stevens Testimony, *supra* note 93 (describing, among other things, correspondence from members of the US Congress and bipartisan legislation to reform the SIFI designation process).

enhancements are (1) to require FSOC to engage more extensively with companies that are under evaluation and with the primary regulator of each such company, and (2) to provide greater transparency to the public at large regarding FSOC's actions.[110] ICI firmly believes that the process for G-SIFI designation of an NBNI financial entity should be no less robust than that applicable to a US "domestic" designation.

At a minimum, therefore, we recommend that the FSB revise the NBNI assessment process to include the following key protections:

- Notification to an NBNI entity when it has been identified for detailed review, and the opportunity at that point for the entity to submit information to be considered in the analysis.
- Provision to an NBNI entity of sufficiently detailed information about the potential risks of concern to the FSB, so that it may provide the FSB with an informed and appropriately targeted response.
- Greater reliance on an NBNI entity's primary regulator, including consideration of whether potential risks posed by the NBNI entity are better addressed through regulation targeted to the relevant activity, rather than through systemic designation of the individual entity.
- Opportunity for the NBNI entity to propose changes to its business, structure or operations to address the risks identified by the FSB, and a response from the FSB to those proposed changes.
- Mechanism for "appealing" a designation decision.

We believe that enhancements such as these would help address concerns that the FSB is designing a process with a predetermined outcome in mind—*i.e.,* naming the largest NBNI entities as G-SIFIs—rather than seeking to identify demonstrable risks to global financial stability and to pursue the most effective and efficient means of mitigating them.

VI. Conclusion

For the reasons discussed in this letter and in the 2014 ICI Letter, there is nothing to indicate that individual regulated funds or their managers warrant designation as G-SIFIs. In fact, all the available evidence very strongly suggests otherwise. We continue to believe that there is no basis for designating individual regulated funds or their managers and subjecting them to inappropriate and harmful bank-like regulation.

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[110] *See* FSOC, Supplemental Procedures Relating to Nonbank Financial Company Determinations (Feb. 4, 2015), available at http://www.treasury.gov/initiatives/fsoc/designations/Documents/Supplemental%20Procedures%20Related%20to%20Nonbank%20Financial%20Company%20Determinations%20-%20February%202015.pdf. While ICI welcomes these enhancements, we believe they fall well short of what is necessary. In particular, we have called for FSOC to be more explicit about the systemic risks it identifies arising from a firm's structure or activities, and for FSOC to be required to give both primary regulators and companies under consideration an opportunity to address those identified risks prior to designation.

As we stated previously, industry-wide, activity-based regulation would be a better way to address any identified risks to the market or the financial system posed by the asset management sector.

* * * * *

We appreciate the opportunity to comment on this consultation. If you have any questions regarding our comments or would like additional information, please contact me at (202) 326-5901 or paul.stevens@ici.org, Dan Waters, Managing Director, ICI Global, at (011) 44-203-009-3101 or dan.waters@iciglobal.org, or 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

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A. Net Cash Flows of Regulated US Funds with Assets Greater than $100 Billion Were Remarkably Stable During 2008

B. ICI Letter to FSOC on Notice Requesting Comment on Asset Management Products and Activities, dated March 25, 2015 ("2015 ICI FSOC Letter")

C. ICI Chief Economist Brian Reid, "The Age of Asset Management"—Less Risk, Not More (Viewpoints dated July 24, 2014)

D. Proposed Indicators for Assessing the Global Systemic Importance of Investment Funds

E. L. Christopher Plantier, "Regulated Funds, Emerging Markets, and Financial Stability," *Perspective,* Investment Company Institute, vol. 2, no. 1, April 2015.

F. An Assessment of the Studies Referred to in Section 6.2.2 (Asset Liquidation/Market Channel) of the Second Consultation

Appendix A: Net Cash Flows of US Stock and Bond Funds with Assets Greater than $100 Billion Were Remarkably Stable During 2008

As in the Initial Consultation, the proposed investment fund assessment methodology in the Second Consultation contemplates applying a "materiality threshold" to limit the pool of investment funds that automatically would be subject to additional analysis for possible designation as NBNI G-SIFIs. For "traditional" investment funds, the Second Consultation sets forth two options, the more expansive of which includes a "backstop" threshold of $100 billion in assets under management. As of the end of March 2015, 11 regulated US stock and bond funds had $100 billion or more in assets. Seven of these funds were domestic equity funds, two were international equity funds, and two were domestic taxable bond funds. An examination of the individual and collective behavior of these funds shows that their net new cash flows were not destabilizing during the global financial crisis of 2008.

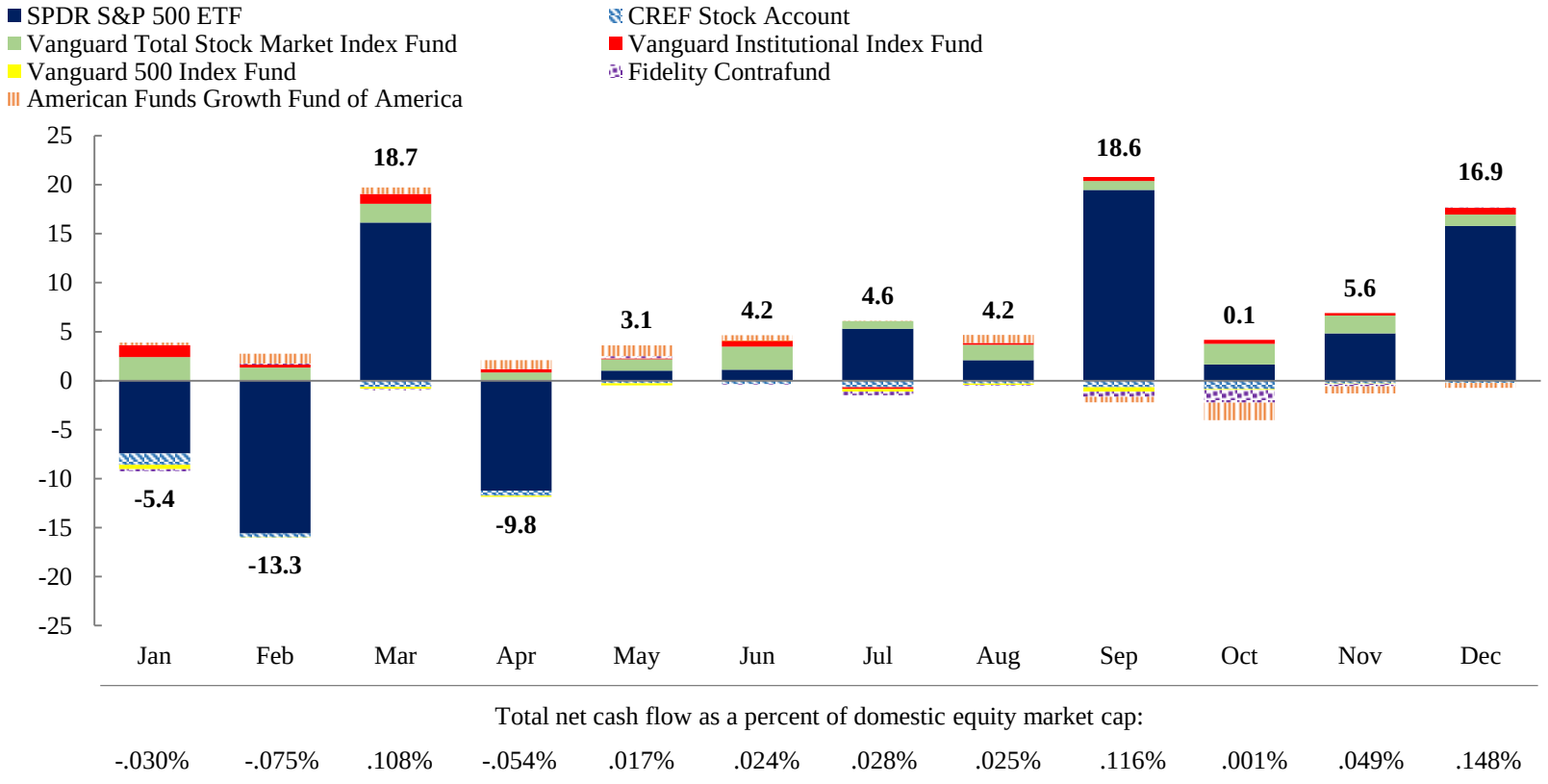
For the domestic equity group (Figure A.1), it is evident that investors in these funds did not move in one direction during 2008—some funds had net inflows while others had net outflows. In addition, the flows were moderate in size. For example, in October 2008, US stock prices[1] fell about 17 percent, the largest monthly decline in 2008. Individual fund flows were diverse—four funds had net outflows totaling $4 billion and three funds had net inflows totaling $4.1 billion. Collectively, these funds had an aggregate net inflow of $100 million, which represented a negligible fraction (0.001 percent) of the market capitalization of US equities at the time. Indeed, over the September to December 2008 period, generally considered the worst of the crisis, these funds had an aggregate net inflow in each month and represented, at most, 0.148 percent of US equity market capitalization.

For the international equity and domestic taxable bond groups, net cash flows also were moderate in dollars and miniscule relative to the market capitalization of their respective underlying markets. The largest monthly net outflow over 2008 for the two international equity funds occurred in October and amounted to only $1.8 billion, representing 0.017 percent of the market capitalization of the MSCI World Index excluding the United States (Figure A.2).[2] The largest monthly net outflow for the two domestic taxable bond funds was $3.7 billion in October 2008 (Figure A.3). This outflow represented 0.014 percent of outstanding domestic bonds and foreign bonds held by US residents.

[1] Measured by the Wilshire 5000 Total Return Index (float-adjusted).

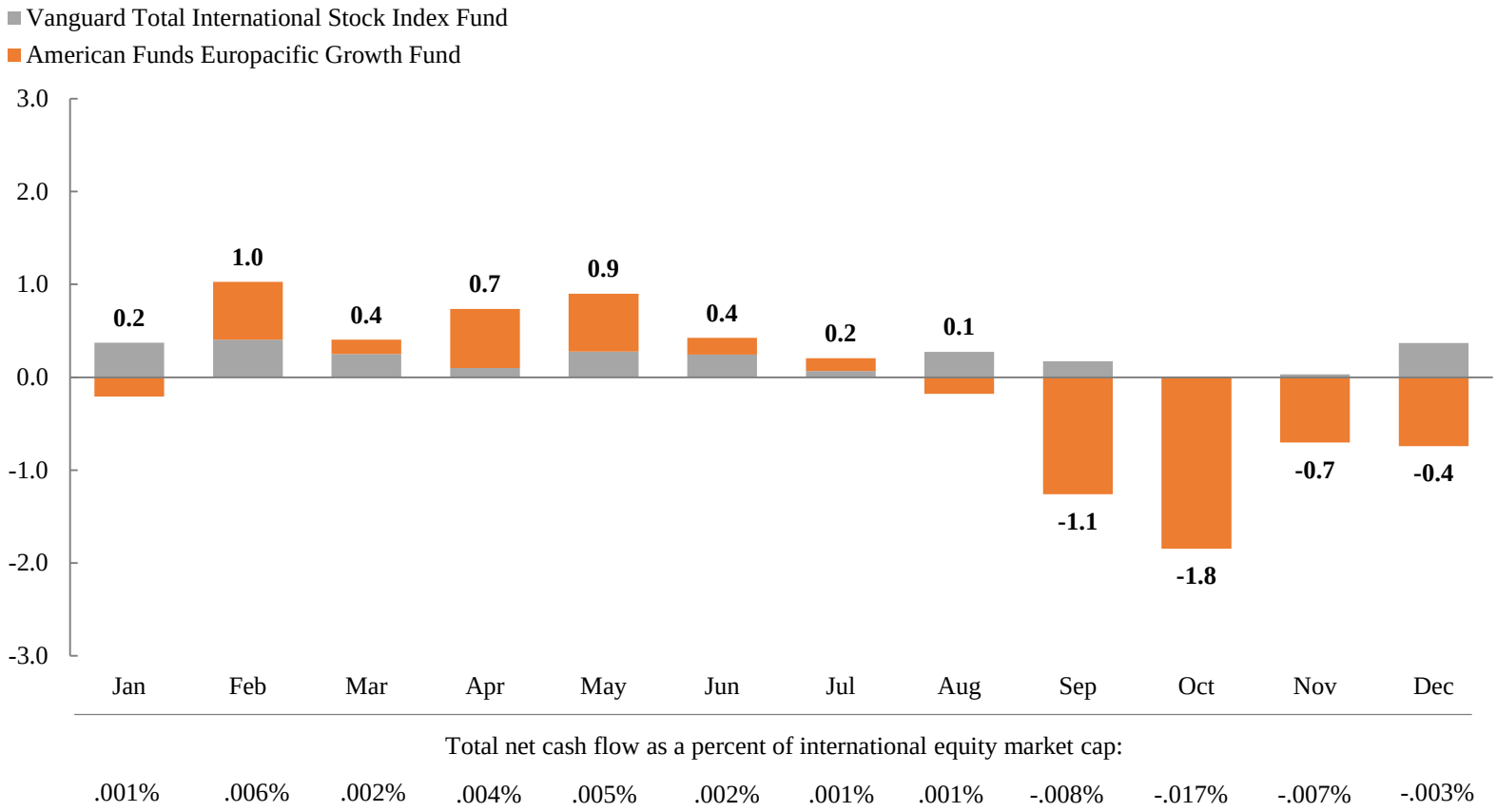
[2] According to ICI's investment classification system, these funds are international equity funds, which means they must invest in equity securities of companies located outside of the United States.

Figure A.1: Estimated Net Cash Flows of US Regulated Domestic Equity Funds with Assets Greater than $100 Billion*
Billions of dollars; monthly, January 2008–December 2008



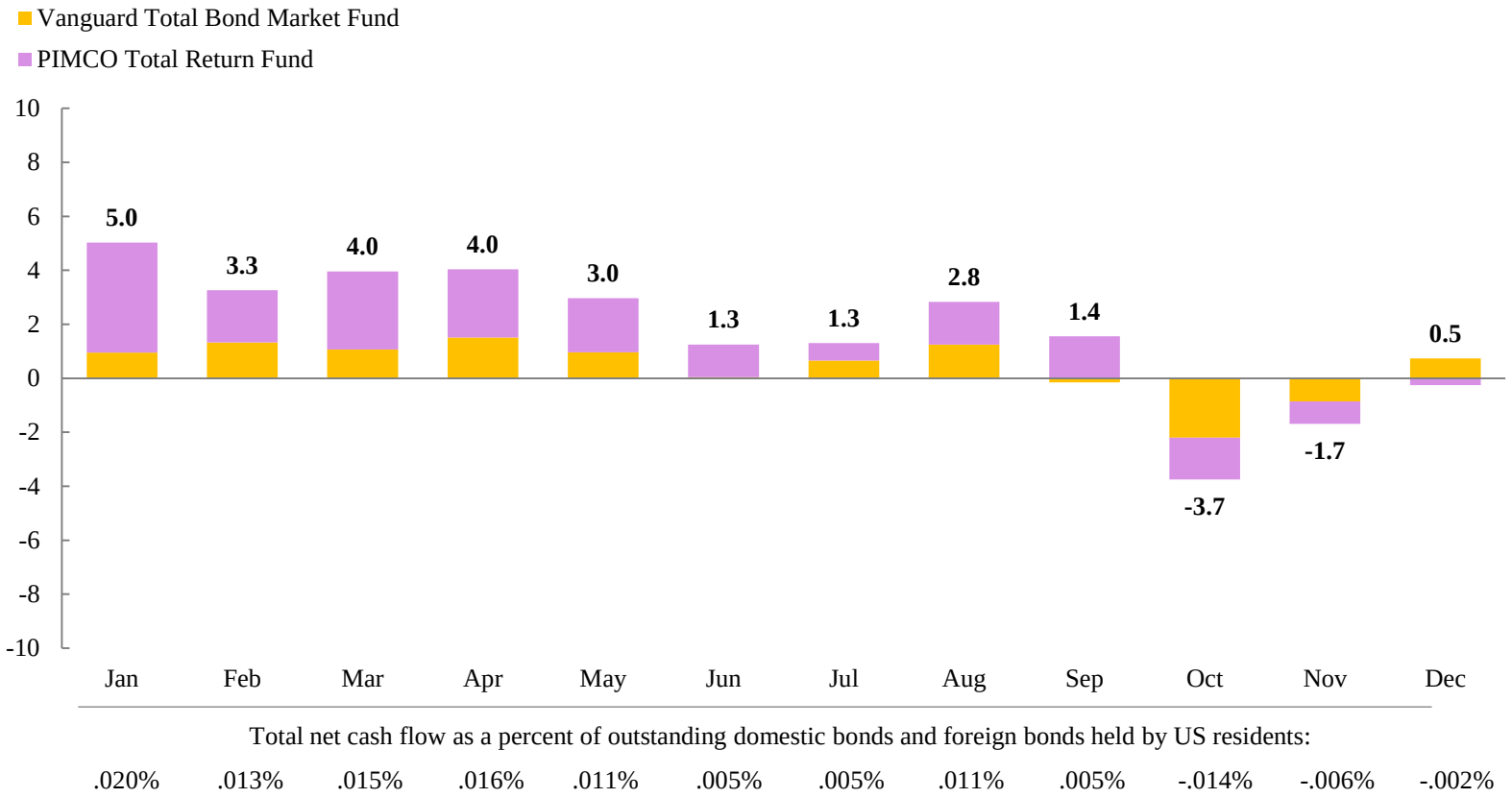
*As of March 31, 2015, these funds had assets of $100 billion or more.
Note: The domestic equity market capitalization is based on the market cap of the NYSE and NASDAQ exchanges.
Sources: Morningstar and World Federation of Exchanges

Figure A.2: Estimated Net Cash Flows of US Regulated International Equity Funds with Assets Greater than $100 Billion*
Billions of dollars; monthly, January 2008–December 2008



*As of March 31, 2015, these funds had assets of $100 billion or more.
Note: The international equity market capitalization is based on the market cap of the MSCI World Excluding United States Index.
Sources: Morningstar and Bloomberg

Figure A.3: Estimated Net Cash Flows of US Regulated Domestic Bond Funds with Assets Greater than $100 Billion*
Billions of dollars; monthly, January 2008–December 2008



*As of March 31, 2015, these funds had assets of $100 billion or more.
Note: The outstanding domestic bonds and foreign bonds held by US residents is based on the total outstanding of Treasury securities (excluding Treasury bills), agency and GSE-backed securities, municipal securities and loans, corporate bonds, and foreign bonds held by US residents. Monthly estimates are interpolated from quarterly figures.
Sources: Morningstar and Federal Reserve Board

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March 25, 2015

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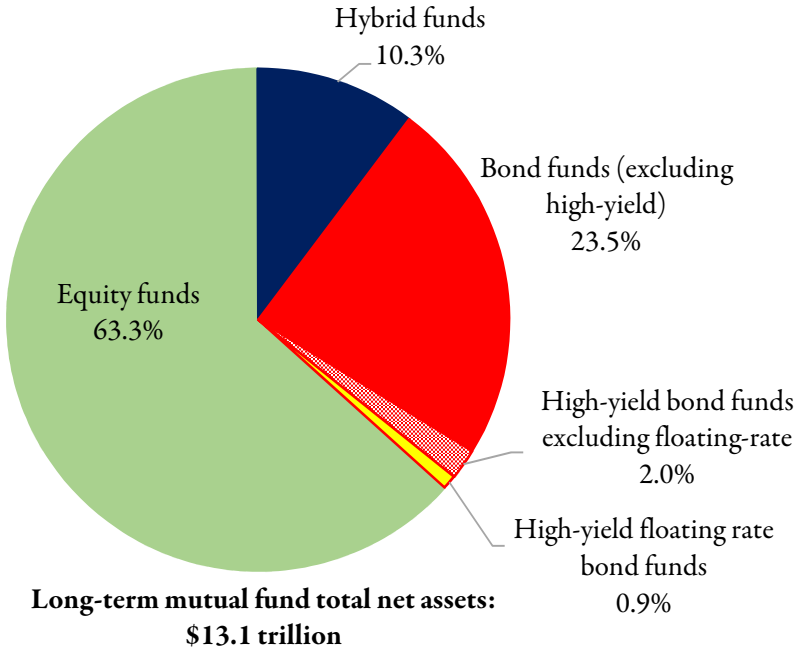
percent of mutual fund assets. We supply this information to federal regulatory authorities and it is widely cited in the media and academic research.

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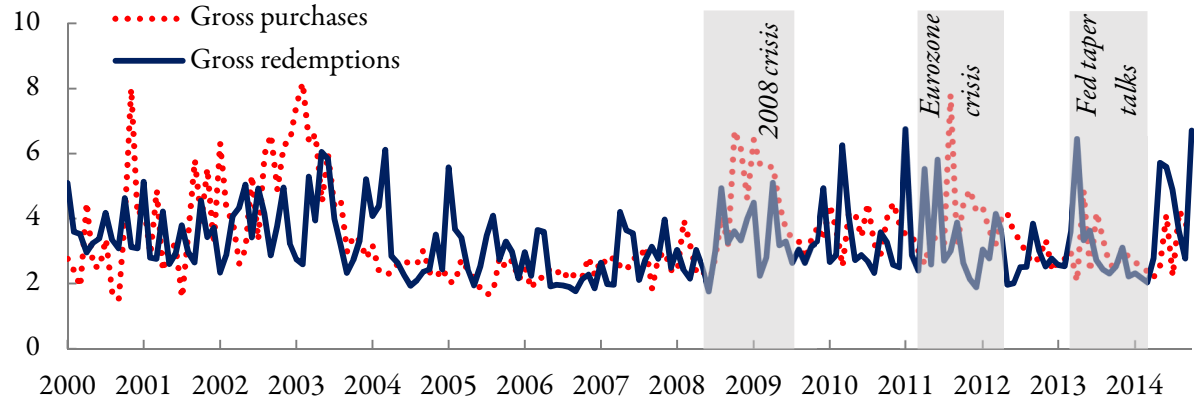
[35] U.S. Securities and Exchange Commission, Division of Investment Management, *Risk Management in Changing Fixed Income Market Conditions,* IM Guidance Update No. 2014-01 (January 2014), available at http://www.sec.gov/divisions/investment/guidance/im-guidance-2014-1.pdf.

[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.

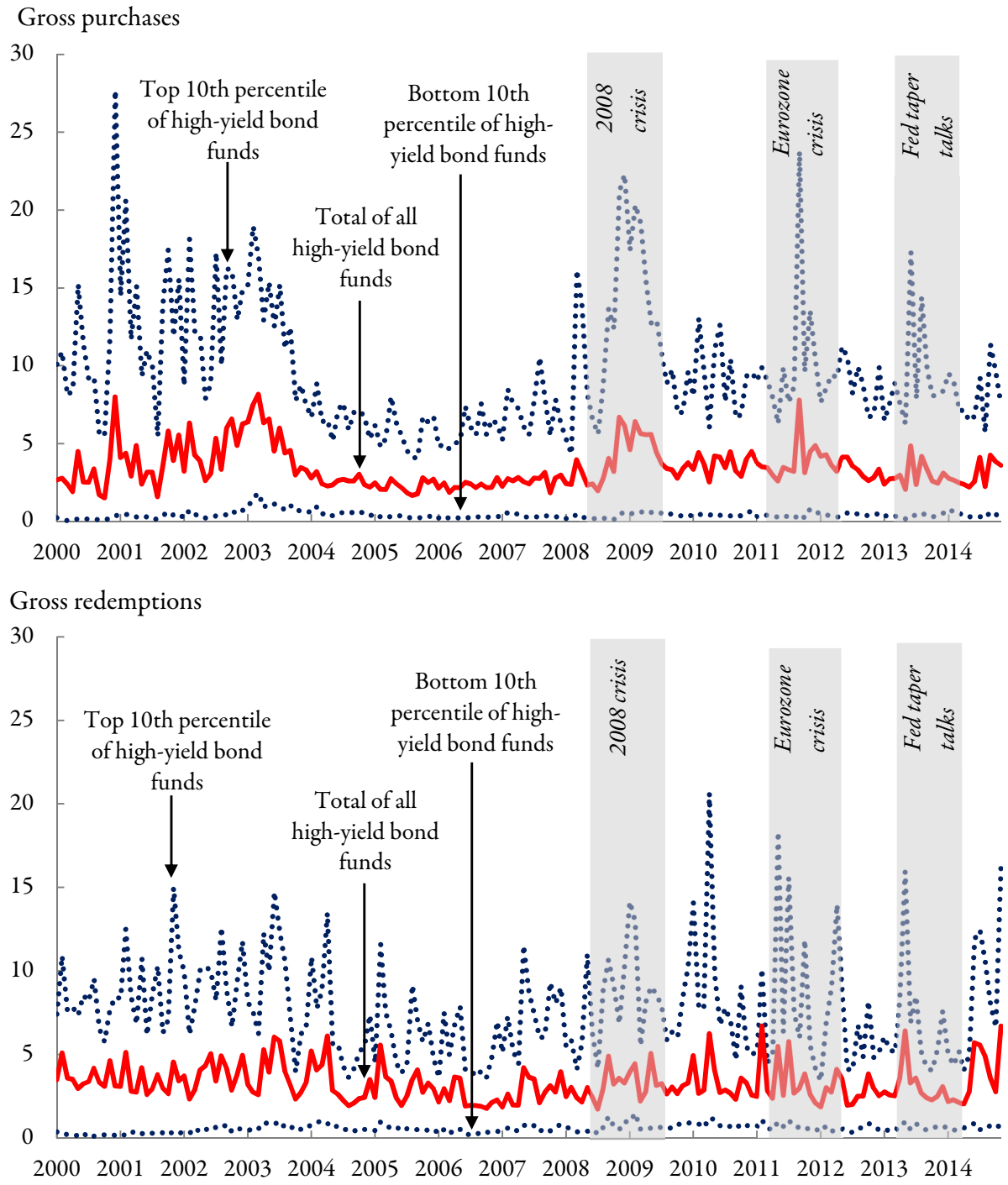
The upshot of this process is that in constructing and maintaining an investment portfolio, individuals often invest in a number of asset classes (*e.g.*, stocks, bonds, and cash) and sub-asset classes (*e.g.*, high-yield bonds) that have different risk and liquidity profiles and behave differently as 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

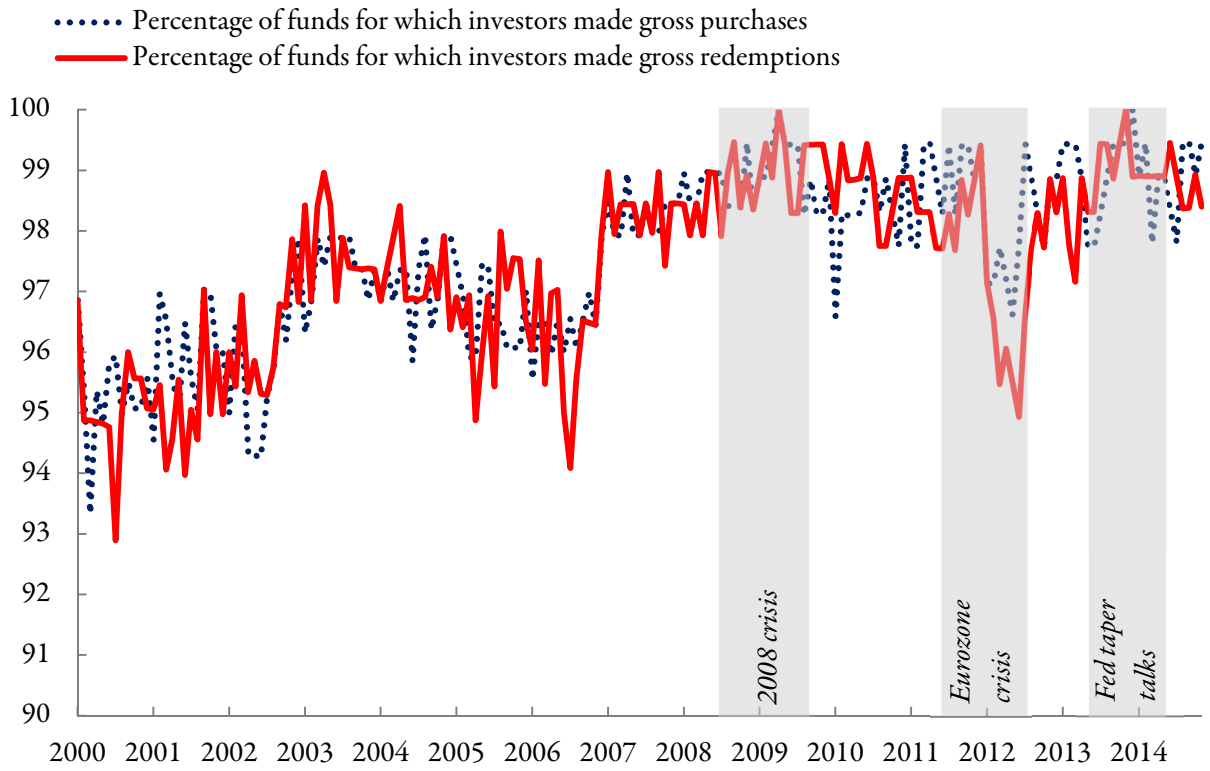


Note: Data exclude high-yield bond funds designated as floating-rate funds.
Source: Investment Company Institute

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

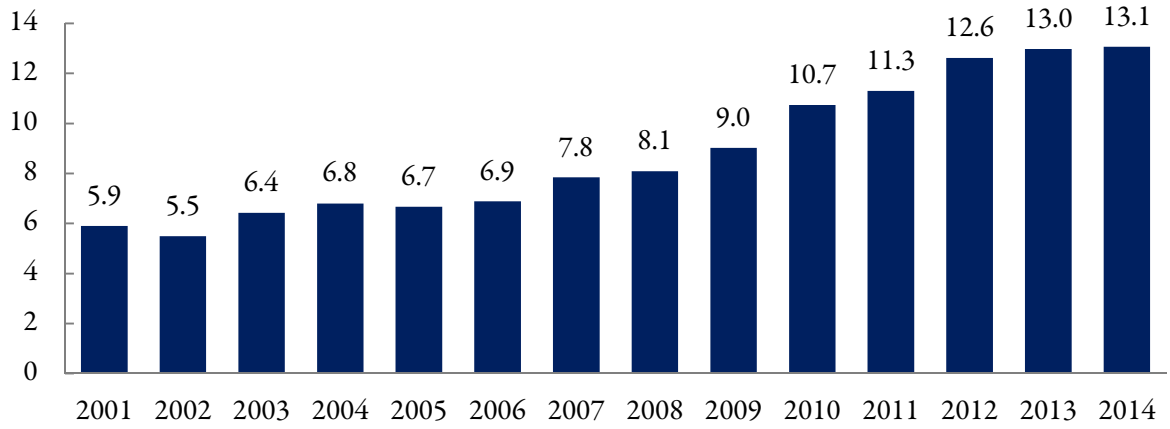


Note: Data exclude high-yield bond funds designated as floating-rate funds.
Source: Investment Company Institute

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.

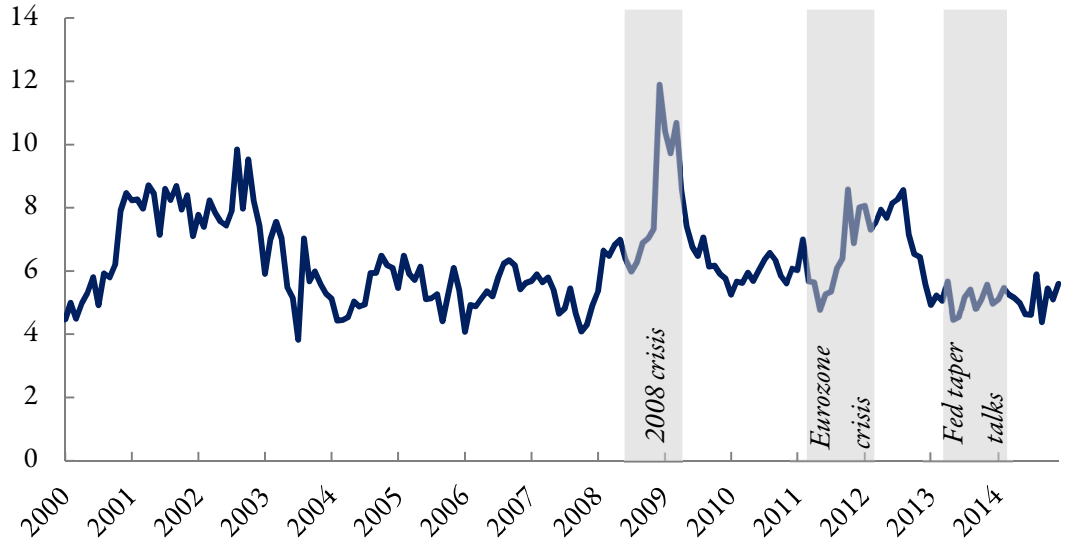
[50] Rule 35d-1(a)(2) under the Investment Company Act (known as the "fund name rule").

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

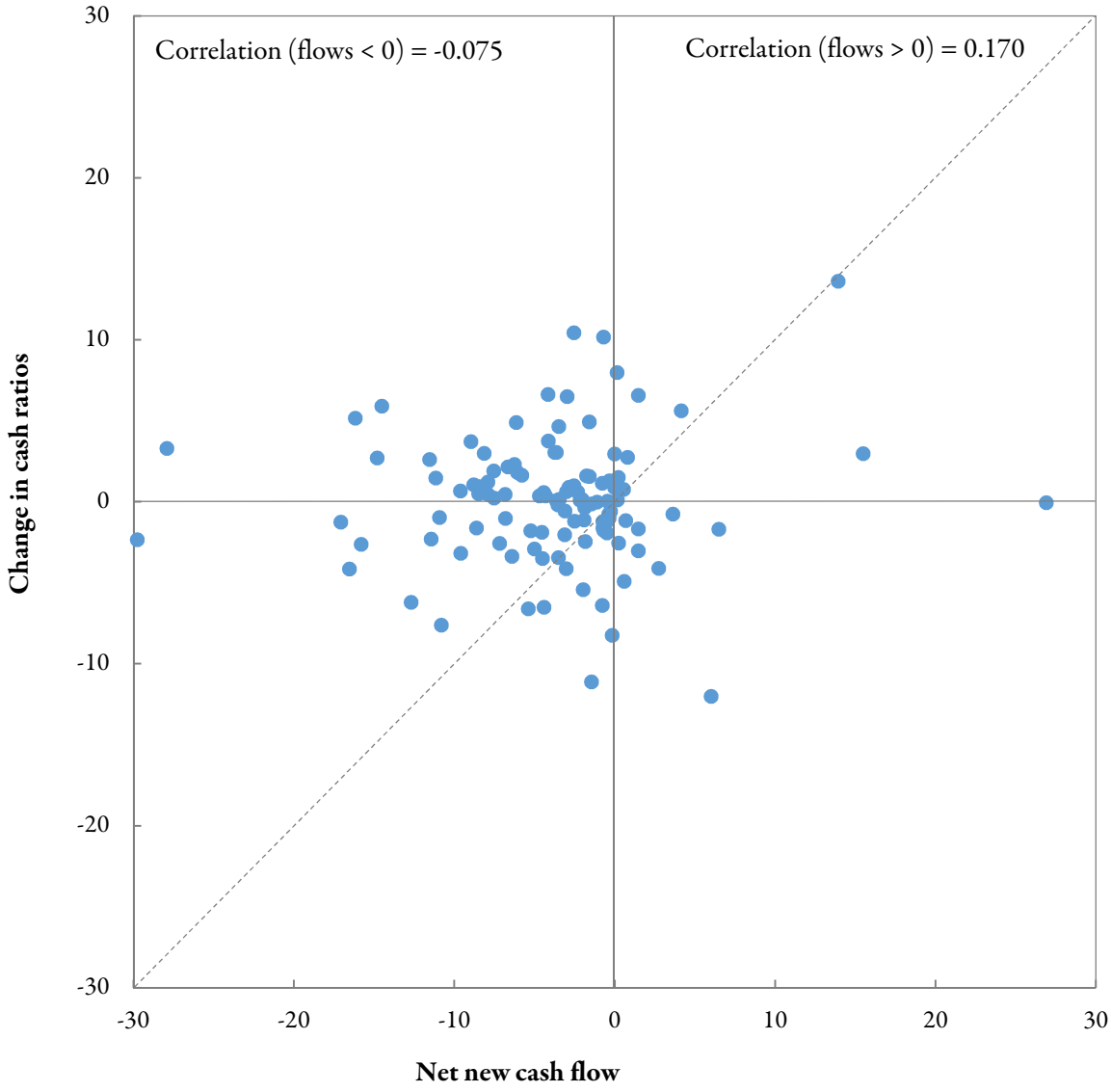
Note: Data exclude mutual funds that invest in other mutual funds, variable annuities, any fund with less than $10 million in total net assets, funds specifically designed for frequent trading, funds designated as floating rate funds, and any fund-month where a merger or liquidation takes place for a 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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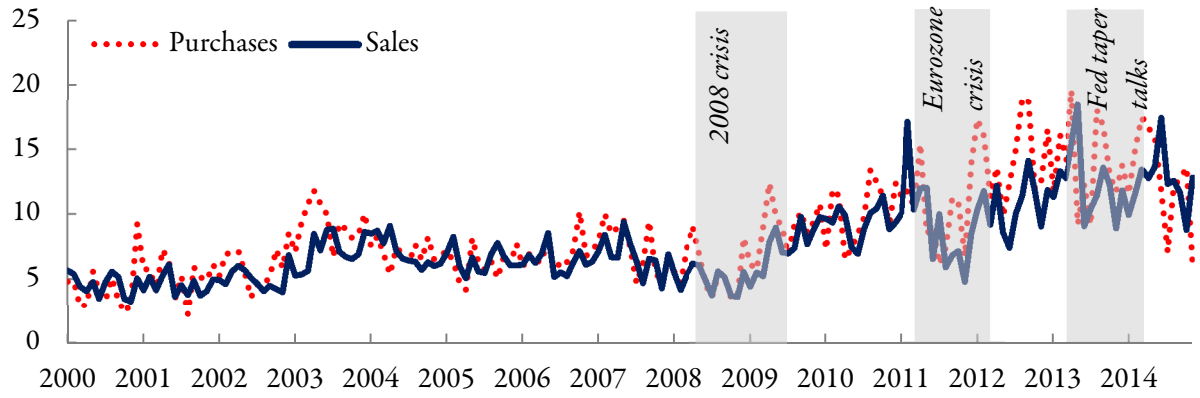
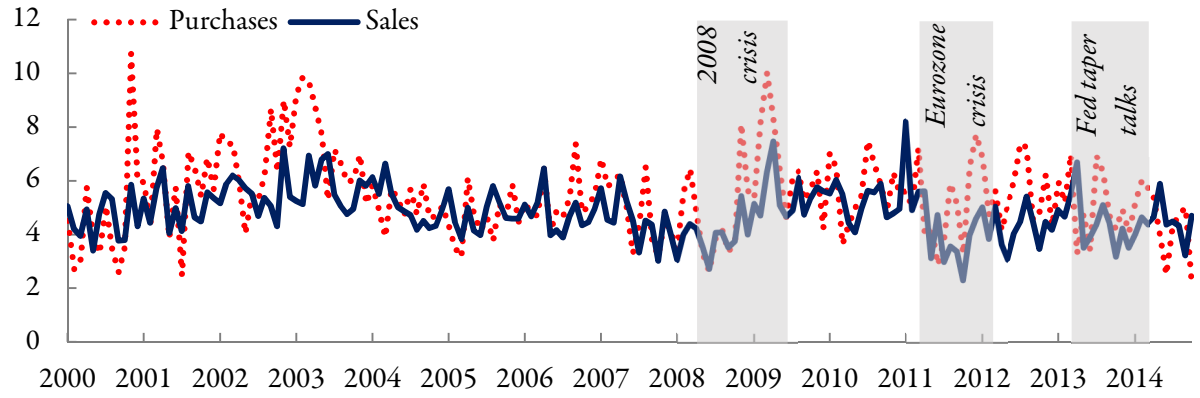
[52] SEC Liquidity Guidelines Release at 9829.

$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.

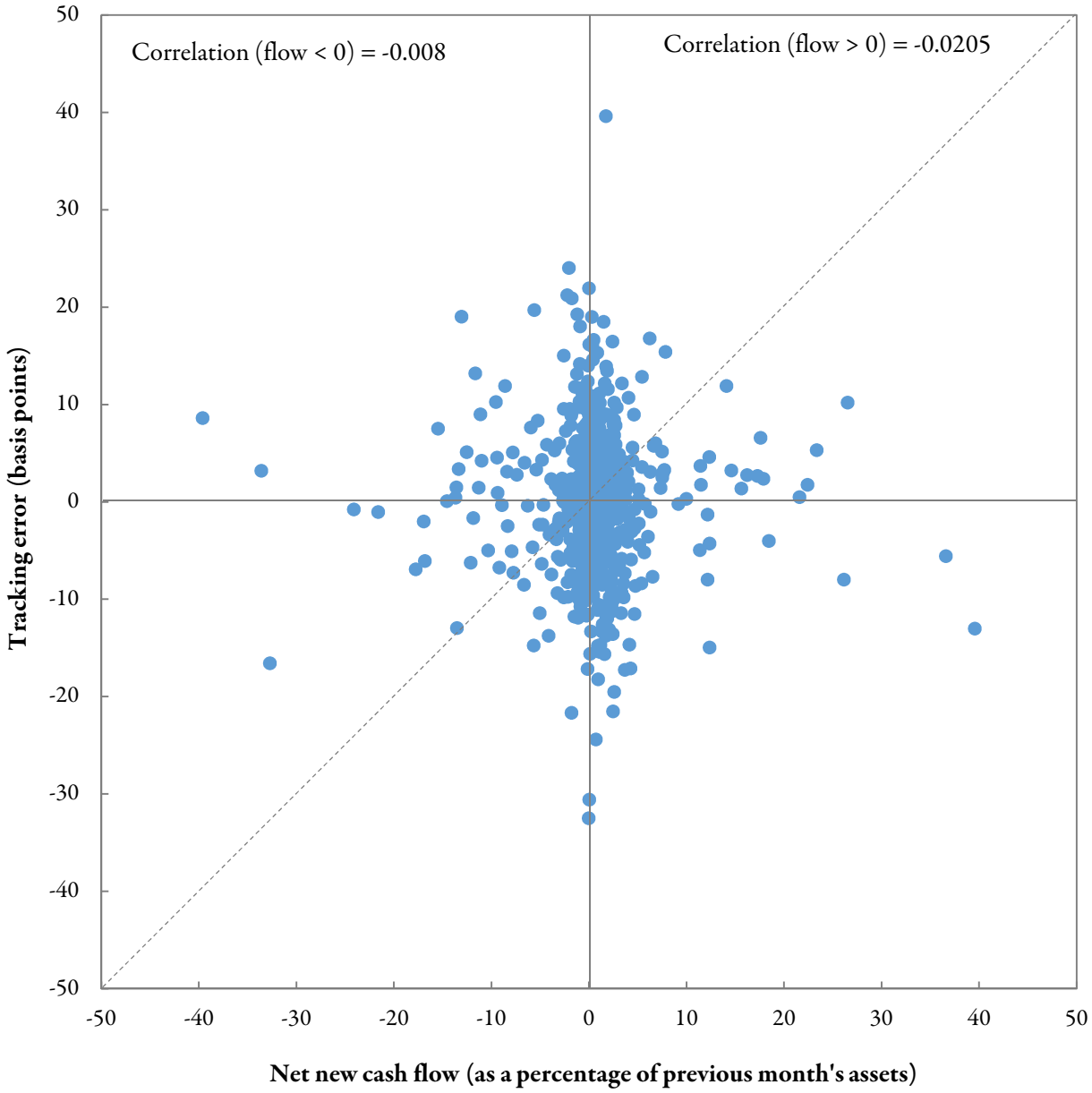
[66] For Figure 10, we did not use high-yield bond funds because we do not believe any high-yield bond index funds exist.

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



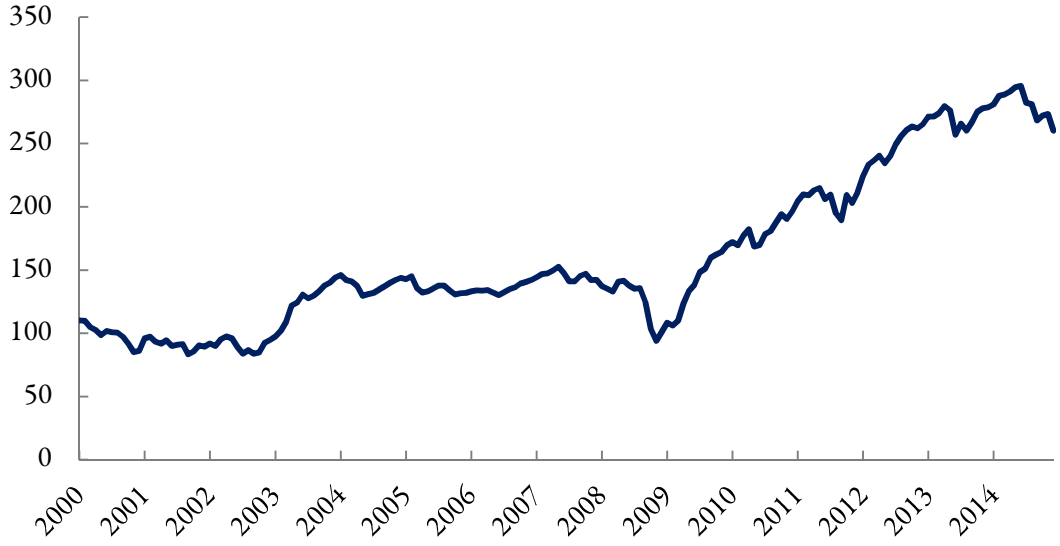
Note: Tracking error is the difference between a fund's gross return and the total return on the fund's benchmark index. The bond index funds in this chart track either the Barclays Aggregate Bond Total Return index or the Barclays Aggregate Bond Float Adjusted Total Return index.

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

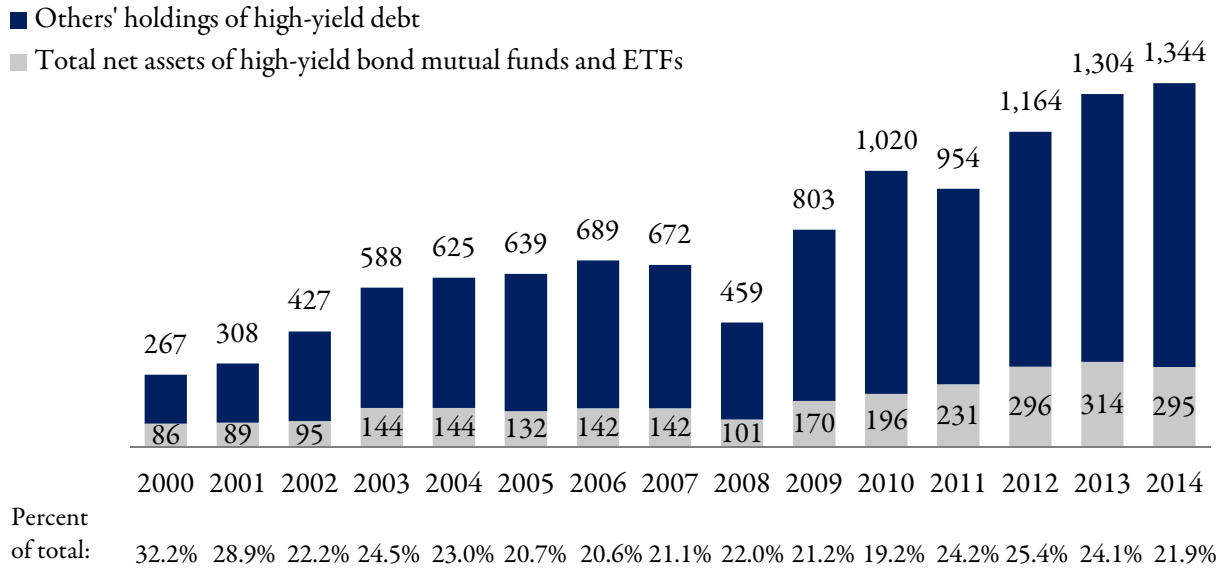
One reason is that, despite the strong growth in their assets, high-yield bond funds still account for a relatively small share of the high-yield market (Figure 12). In 2014, for instance, assets in high-yield bond funds totaled $295 billion, only 21.9 percent of the total outstanding $1.344 trillion 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.

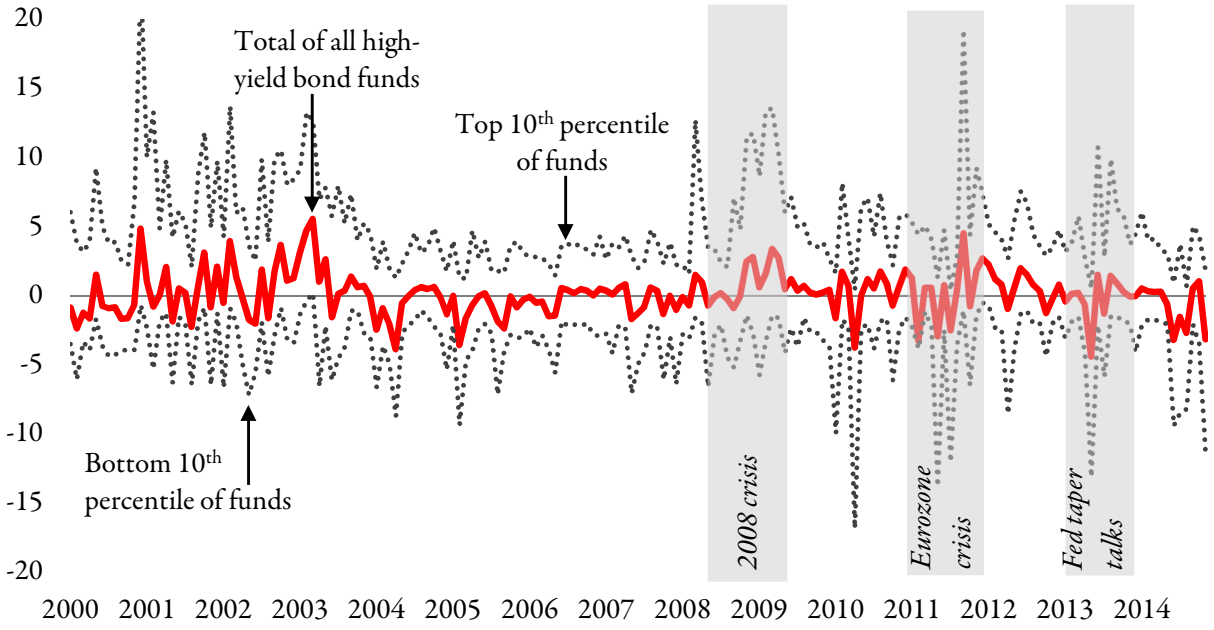
As seen, over the entire 15-year period, the variability in the flows to high-yield bond funds has been modest. Flows have typically been in the range of ±1.6 percent per month (as measured by the standard deviation of net new cash flow to all high-yield bond funds as a percent of their assets). Moreover, 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.

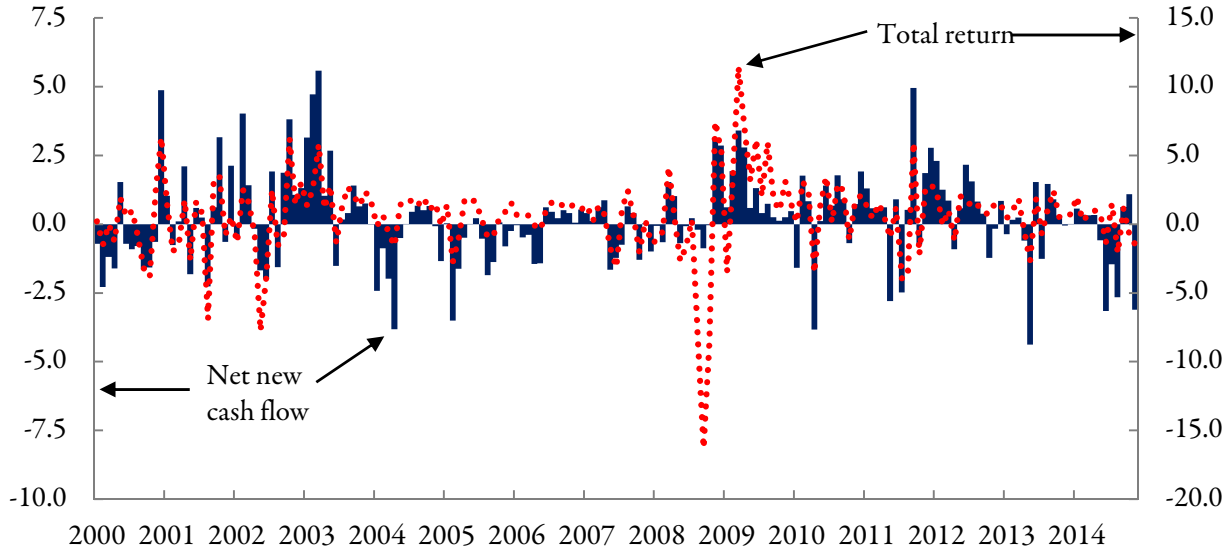
Figure 14: Variability of Net New Cash Flows[1] to High-Yield Bond Funds
Standard deviation of monthly net new cash flows as percentage of fund assets, selected periods

	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.

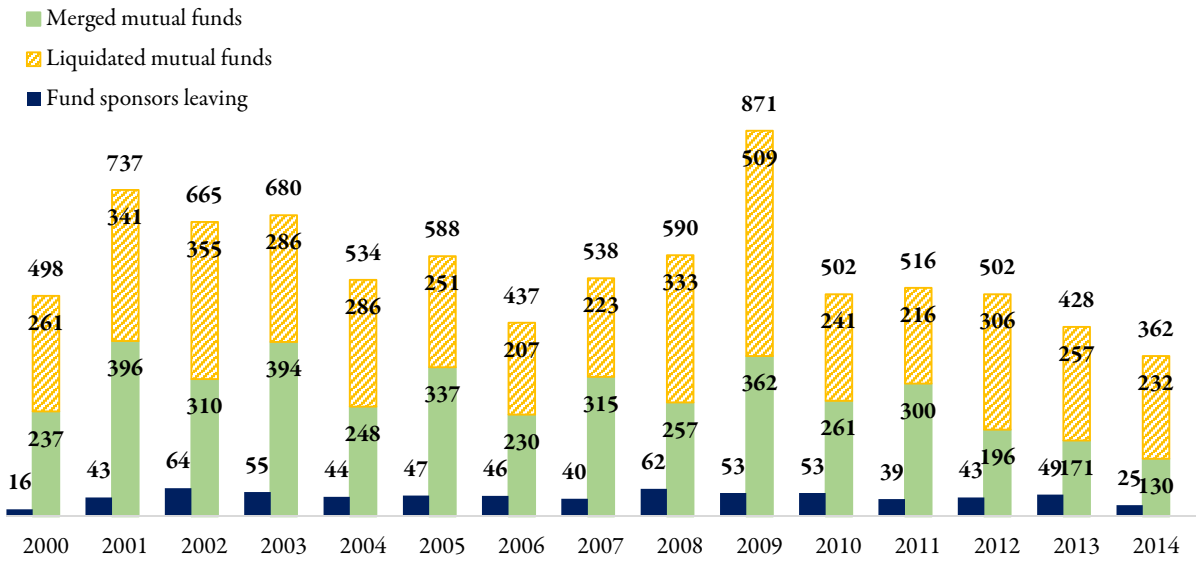
[138] Under Section 113 of the Dodd-Frank Act, among the criteria that FSOC must consider in determining whether to designate a nonbank financial company for enhanced prudential standards and consolidated supervision by the Federal Reserve Board is "the extent to which assets are managed rather than 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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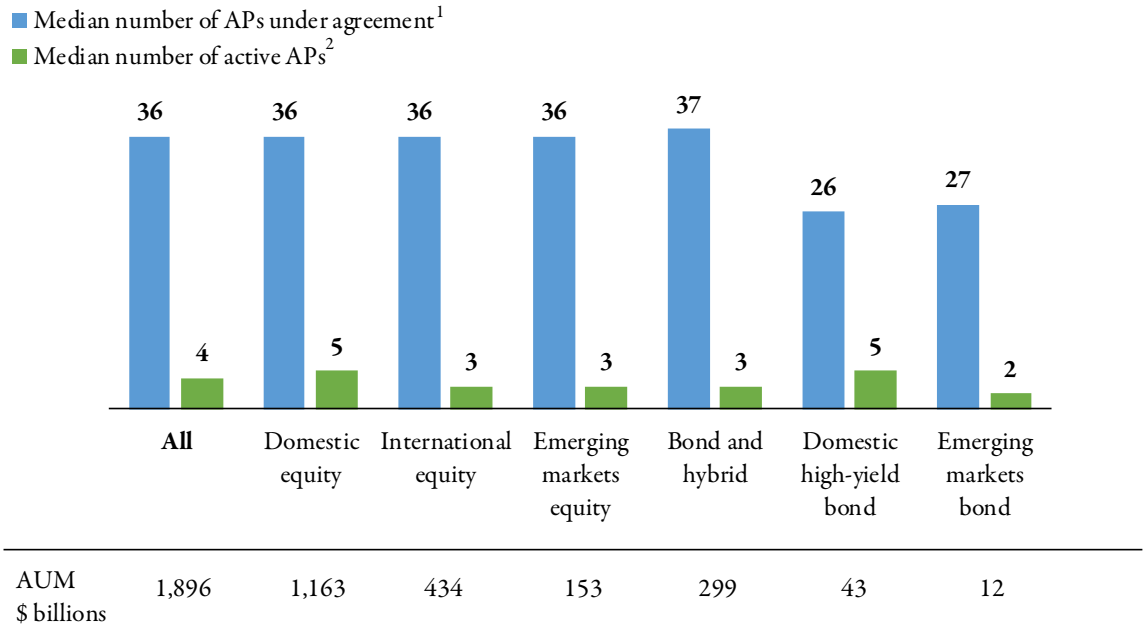
[6] For example, the composition of baskets for bond ETFs may vary from day to day with the mix of cash and the selection of specific bonds in the basket based on liquidity in the underlying bond market. In these cases, because the basket is not an identical replication of the ETF's portfolio holdings, 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



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

[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.

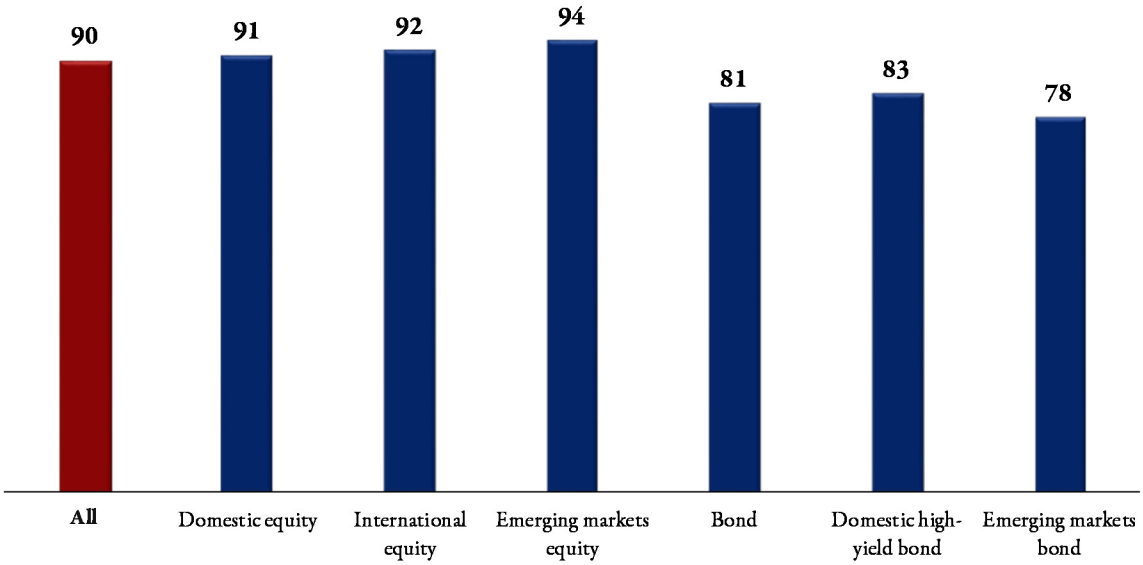
The results of ICI's analysis indicate that most activity in ETFs occurs on the secondary market (trading ETF shares) rather than on the primary market (creations and redemptions transacted through an AP). On average, 90 percent of the daily activity in all ETF shares occurs on the secondary market (Figure 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

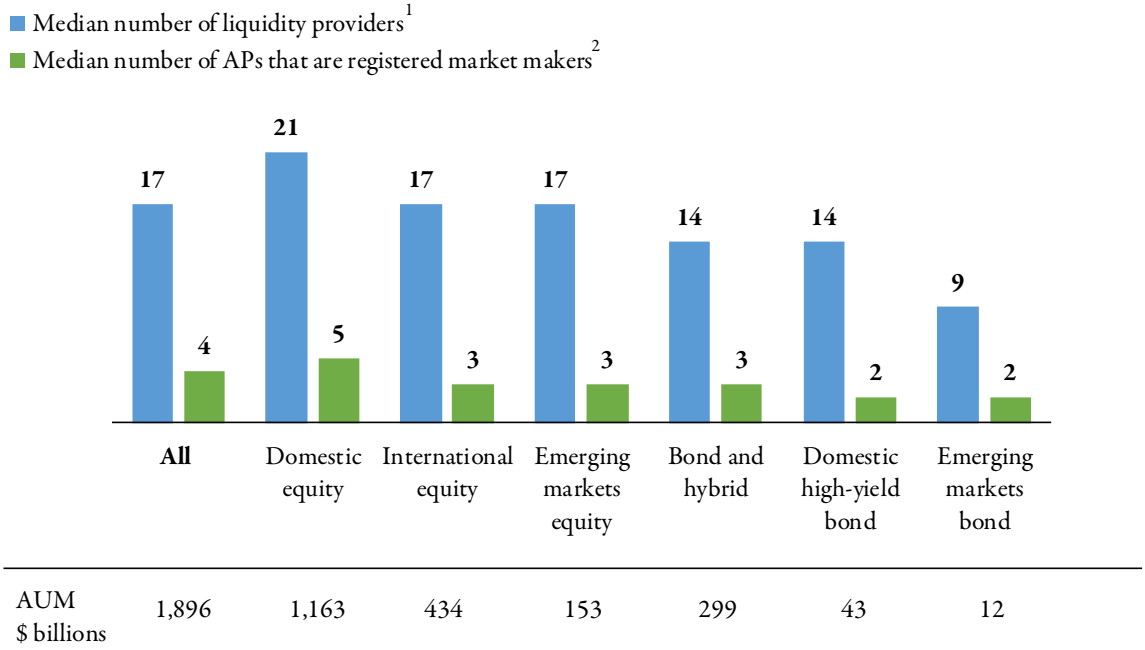
Role of Liquidity Providers in the Secondary Market

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



	All	Domestic equity	International equity	Emerging markets equity	Bond and hybrid	Domestic high-yield bond	Emerging markets bond
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

"The Age of Asset Management"—Less Risk, Not More

By Brian Reid

July 24, 2014

The following was written by ICI's chief economist, Brian Reid, and published on FT Alphaville on July 23. For more information on ICI's views and research on financial stability, please visit our Financial Stability Resource Center.

As banks learn to live under tighter postcrisis constraints, central bankers around the world are worrying about financial risks that could move from banks to capital markets and perhaps trigger the next great crisis. After the experience of 2007–2008, regulators rightly should be on guard for sources of weakness in the financial system.

Unfortunately, in their vigor, many regulators are seeing "systemic risk"—threats to the stability of the financial system—when the issue at hand is investment risk. Investment risk is a necessary part of a well-functioning economy, attracting investors willing to take known risks in hopes of gaining a reward. Systemic risk occurs when the financial system itself breaks down and is unable to perform its normal functions of matching savings to investment opportunities or facilitating economic activity.

One of the more thoughtful discussions of this issue was "The Age of Asset Management," an April speech by Andrew Haldane, now chief economist at the Bank of England. As FT Alphaville readers will know, Haldane speculates that rapid growth and structural changes in asset management could open new and "more potent" "transmission channels" for systemic risk.

But Haldane, like others, fails to make the crucial distinction between investment and systemic risks. In banking, the two are intertwined, because banks have a limited capacity to absorb investment losses or even fluctuations in asset prices. With their high leverage, banks that suffer even relatively small losses can find their existence and that of their counterparties under threat. So it's not surprising that bank regulators fear that bank "de-risking" will move investment risk out of banks, only to increase systemic risk in other parts of the financial system.

Moving investment risk to other financial market participants, however, may actually reduce systemic risk. Asset managers, in particular, act as agents, hired to manage and oversee investors' assets through separate accounts or collective investment schemes. Rather than centralize risks—as banks do—asset managers leave risk-taking to the end investors. Those investors absorb investment losses without creating the cascade of failures that can occur when banks and other leveraged financial firms experience losses.

Haldane implicitly acknowledges this point by noting that "history is not littered with examples of failing funds wreaking havoc in financial markets." But—like other banking regulators—Haldane falls back on

banking models and regulatory approaches both when identifying emerging risks and when proposing solutions.

For example, Haldane highlights the potential for investor "herding" and "run" behavior that he—along with the U.S. Treasury Office of Financial Research and others—argues can lead to procyclical swings in asset prices.

The examples Haldane cites, however, are idiosyncratic and far from systemic. And arguments about "herding" and "runs" in capital markets fail both historically and conceptually. Anyone who wants to demonstrate systemic financial risk in the alleged "flightiness" of investors in regulated funds has a heavy weight of data and history to overcome.

Just as important, "run behavior" is inherently a banking concept. Banks cannot accommodate large outflows of deposits, because they hold illiquid, hard-to-value portfolios of loans and securities. Instead, banks rely on opacity and protection of depositors from losses—by government intervention, if necessary—to maintain a stable deposit base.

What Haldane and other bank regulators have not demonstrated is how fluctuating asset prices can lead to systemic financial risk in non-leveraged financial institutions. The expansion and then collapse of the tech bubble in the 1990s and 2000 caused large swings in stock prices. But that episode did not take down financial institutions or freeze the financial system, because the losses were largely borne by investors who used little leverage, not by banks.

Unlike banks, capital markets rest on transparency. In well-functioning markets, risks are clearly assigned, well understood, and knowingly accepted by all parties. As information enters the market, asset prices adjust and investors experience gains and losses. Losses may be unwelcome—but investors accept them because risks were disclosed and because they believe gains will win out in the balance.

When either the assignment or acknowledgment of risk breaks down, risks are sure to increase—and in some cases become systemic.

For example, in the tri-party repo market, custodial banks were for decades unwinding the trades intraday, leaving them and the lenders exposed to the risks of a borrower default. The risks of that practice were compounded by the methods banks and brokers used to manage and track the collateral behind these loans. This unclear assignment and acknowledgement of risks led to one of the most significant market failures during the crisis. ICI and its members have been supportive of regulatory changes to this market to ensure that it operates effectively even during future periods of market stress.

Financial products also arose that failed to assign risks clearly and provide transparency. Collateralized debt obligations (CDOs) and certain asset-backed securities had complicated capital structures that led to disastrous product failures during the financial crisis. The structuring of payoffs and underwriting standards were too complicated and poorly controlled, preventing a clear assignment and acknowledgement of risk.

For capital markets regulators, the answer to such problems is to clarify what the risks are and who

bears them, so that willing investors can knowingly judge and accept risks. But in the banking world, where investment and systemic risk are intertwined, bank regulators instead resort to microprudential tools to intricately manage bank balance sheet activities and macroprudential tools to manage capital flows and banks' overall levels of risk taking. Haldane and other central bankers would bring these tools to capital markets. Haldane for example, speculates about central banks taking "an explicit role in managing the risk taking cycle and activity in the wider economy."

That would be a historic and colossal mistake.

The risk of relying on such tools in securities markets is that microprudential rules could lead more asset managers to act in a similar manner—in other words, they could increase "herding." Macroprudential rules would direct capital flows by tilting the investment landscape in favor of one set of assets over another.

Would this make the financial system more secure? The historical record is filled with examples where policymakers inflated bubbles, rather than deflating them. Replacing the collective decisions of millions of investors with the judgment of a handful of regulators in allocating capital will most certainly lead to greater fluctuations in securities prices and larger distortions, not to mention decisions driven by politics over economics. That's not the way forward to a sounder, more secure financial system.

Brian Reid is the chief economist at ICI.

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Appendix D: Proposed Indicators for Assessing the Global Systemic Importance of Investment Funds

Like the Initial Consultation, the Second Consultation sets forth a high-level framework, consisting of five "impact factors," that would be applied to all types of NBNI financial entities. These impact factors are size, interconnectedness, substitutability, complexity and global, or cross-jurisdictional, activities. The Second Consultation then presents proposed investment fund-specific "indicators," which correspond to the impact factors.

As discussed in the body of this letter and the 2014 ICI Letter, we do not believe regulated funds should be considered for G-SIFI designation. In the event the FSB decides to adopt assessment methodologies that include various indicators for use in analyzing how the five impact factors should be applied to investment funds, we provide our response to the Second Consultation's request for comment on the indicators below.

As an initial general comment, an alarming number of these indicators (i) use ambiguous terms that are not explained or defined, (ii) do not clearly specify how the calculations would be performed, (iii) offer thin (or non-existent) rationales for the utility of these measures and how they relate to the impact factors and global systemic risk generally, or (iv) suffer from some combination of these defects. Evaluating and providing meaningful feedback on these indicators requires a clear understanding of the terms and calculation methodology, along with the related rationales. For instance, there is no practical way of commenting on potential difficulties in collecting data related to these indicators (a topic about which the Second Consultation requests comment) without an understanding of all of this information. What follows is our good faith attempt to provide useful feedback, in spite of these serious limitations.

Factor 1: Size

Indicator 1-1: Net assets under management (AUM or NAV)

For the reasons discussed in the body of our letter, any materiality threshold applied to investment funds should take into account balance sheet leverage and size *together*.[1] Assuming that balance sheet leverage is part of the initial screen for determining the assessment pool, we do not take issue with considering an investment fund's AUM or NAV[2] as one element of the analysis of multiple impact factors. We note, however, that although this proposed indicator has not changed since the first consultation, the accompanying description has changed in ways that we find troubling.

[1] The Second Consultation proposes a *separate* materiality threshold that incorporates leverage, which would have the effect of increasing the assessment pool of investment funds. In this way, the proposed changes to the thresholds do nothing to remove the "false positives" from the pool, *i.e.*, investment funds that pose no global systemic risk.

[2] In the US, "NAV" sometimes refers to NAV *per share*. In this context, NAV refers to the *fund's* total NAV.

In particular, the Second Consultation states that NAV "represents investor equity in a fund. It is the traditional calculation for determining investor capital at risk, i.e. the amount of capital that would be lost if the fund was to cease operations. Therefore, NAV represents the amount of money the investors in the investment fund may lose if the investment fund unexpectedly liquidates."[3]

This description is inaccurate as applied to regulated funds. If a regulated US fund's board, at the recommendation of the fund's manager, were to approve the closure and liquidation of the fund "unexpectedly," the fund's assets would not simply disappear, Instead, the fund would follow an established and orderly process for liquidating its assets and distributing the proceeds *pro rata* to investors.[4]

The NAV may represent the hypothetical maximum amount that a fund's investors may lose, but this figure bears no practical relationship to the losses that investors may realistically experience in the event of a voluntary redemption or liquidation. It is inconceivable that the NAV of an unleveraged fund would decline to zero and that NAV therefore represents the amount that "would be lost" by investors in these circumstances. This would require a total loss in every holding of the portfolio, simultaneously, which is practically impossible even in the most stressed market conditions. If the FSB has in mind the theft or misappropriation of fund assets, it is important to note that by law regulated funds' assets must be held in custody by eligible custodians subject to specific conditions and responsibilities.[5] Fund assets are not available to the fund's manager, nor are they subject to claims by the manager's creditors. When a regulated US fund liquidates, the fund assets typically will be converted to cash or cash equivalents and investors will receive a *pro rata* share of the proceeds (minus expenses). Some investors might choose to redeem their fund shares before the liquidation process begins (in which case they would still receive their *pro rata* share of fund assets, only sooner). These redemptions might reduce the NAV of the fund, but this is far different from saying that NAV represents the amount of money the investors in a fund "may lose" if the fund ceases operations.

Finally, investors are well aware that they bear the risk of loss, *pro rata*, on their fund investments. But fund losses borne by shareholders, in and of themselves, do not pose global systemic risk. The FSB has not established this causal connection here or elsewhere.[6]

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[3] Second Consultation, *supra* note 2, at 38.

[4] More specifically, if a regulated fund's manager and board of directors determine that liquidation of portfolio holdings and dissolution of the fund is in the best interests of the fund, they will announce a plan of liquidation including, among other things, the date on which the fund will close to new share purchases and the date on which the fund expects to distribute liquidation proceeds to investors.

[5] *See, e.g.*, Section 17(f) of the Investment Company Act and rules thereunder; and UCITS Directive, Directive 2009/65/EC, as amended, Articles 22-24. *See also* IOSCO, Consultation Report, Principles Regarding the Custody of Collective Investment Schemes' Assets (October 2014) (describing principles for the safekeeping of fund assets).

[6] In fact, the Initial Consultation pointed out that "from a purely systemic perspective, funds contain a specific 'shock absorber' feature that differentiates them from banks. In particular, fund investors absorb the negative effects that might be caused by the distress or even the default of a fund, thereby mitigating the eventual contagion effects in the broader financial system." Initial Consultation, *supra* note 3, at 29.

Indicator 1-2: For hedge funds and where available, gross notional exposure (GNE) as an alternative indicator

In proposing the use of GNE as an alternative indicator of size, the Second Consultation indicates that GNE "is a measure of market footprint" and captures a fund's use of leverage.[7] We question the usefulness of GNE for this purpose. In our view, GNE is a crude measure that does not accurately convey a fund's exposure and, on its own, does not indicate the degree to which an investment fund may pose systemic risk. This figure could far exceed a fund's true economic exposure, particularly where the fund has an offsetting position in the portfolio. Indeed, the consultation itself acknowledges that "GNE does not directly represent the amount of money (or value) that a fund is at risk of losing."[8] We agree, and caution against relying on GNE as a general proxy for size or risk. For example, an investment fund's use of derivatives to hedge other portfolio positions could inflate its GNE, but this hedging would serve to *reduce* overall portfolio volatility. In addition, as discussed in the body of this letter, funds may use derivatives for a variety of purposes other than to obtain leverage (*e.g.*, to gain exposure to a particular market, or to adjust the duration of the fund's portfolio). These uses of derivatives would not be apparent from a fund's GNE alone, which could create a misleading impression as to the fund's "riskiness." Bank regulators similarly have acknowledged the limitations of GNE as a systemic risk measure.

Factor 2: Interconnectedness

Indicator 2-1: Balance sheet financial leverage

As discussed in Section III.B.2.a of our letter, we continue to believe strongly that balance sheet financial leverage must be considered along with size in determining the pool of investment funds subject to further analysis. Given its prominent role in virtually every financial crisis, we agree that it is appropriate also to consider balance sheet financial leverage as an indicator of an investment fund's "interconnectedness."

Indicator 2-2: Leverage ratio

In our 2014 ICI Letter, we stated our agreement that an investment fund's leverage ratio is a relevant measure to review in connection with assessing the risks posed by an investment fund's "interconnectedness." We continue to hold that view.

We further expressed our belief that the Initial Consultation correctly defined leverage ratio as Gross AUM of the fund/NAV of the fund. The Second Consultation states that a fund's leverage ratio "could be expressed as 'market value of total balance sheet assets/NAV' or 'Total borrowings + NAV/NAV'."[9] There is no explanation of this proposed change. In order to provide meaningful comments, it would be helpful to understand the reasoning behind, and the intended effect of, the change.

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[7] Second Consultation, *supra* note 2, at 39.

[8] *Id.*

[9] Second Consultation, *supra* note 2, at 40.

Indicator 2-3: Ratio of GNE to NAV

Under the Initial Consultation, this proposed indicator would have been applied only to hedge funds. See our comments on proposed Indicator 1-2, above, noting our reservations about the use of GNE as a proxy for market footprint.

Indicator 2-4: Ratio of collateral posted by the fund to NAV

The Second Consultation states that this indicator "pertains to both probability of liquidation or material distress, as well as its impact," and that it seeks "to measure the riskiness of an investment fund's situation based on the amount of assets it has used to cover for outstanding positions."[10] Presumably, the lower the figure, the less interconnected and risky the fund (a fund that engaged in no derivatives activity or borrowing would have a ratio of 0).

We disagree with the assumption that the ratio of collateral posted by the fund to NAV is indicative of the "probability of liquidation or material distress." First, the indicator may not accurately measure a fund's derivatives and borrowing activity. For example, in the case of certain counterparties (such as regulated funds), the posting of collateral currently may not be required or contractually demanded for certain over-the-counter ("OTC") derivatives transactions.

Second, the ratio has at best a tenuous connection to the "riskiness" of a fund's positions because the practice of posting collateral for derivatives and securities lending transactions *protects* counterparties and *reduces* systemic risk.[11] The more demanding the regulatory or contractual requirements in this area, the higher the fund's ratio will be.[12] We further note that

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[10] *Id*.

[11] Margin Requirements for Non-Centrally-Cleared Derivatives, Basel Committee on Banking Supervision and Board of the International Organization of Securities Commissions, September 2013, available at www.iosco.org/library/pubdocs/pdf/IOSCOPD423.pdf ("International Margin Framework"). In the International Margin Framework, the BCBS/IOSCO explained that a greater reliance on margin would provide a more effective risk mitigant than imposition of higher capital levels because: (i) margin is more targeted to a particular transaction and marketplace and is easy to adjust; (ii) capital is easily depleted whereas margin can be topped up, even intraday; (iii) margin allows for immediate liquidity; and (iv) requiring posting of collateral incentivizes more prudent behavior by market participants by forcing them to internalize the costs of risk taking. In its 2015 Annual Report (available at www.treasury.gov/initiatives/fsoc/studies-reports/Documents/2015%20FSOC%20Annual%20Report.pdf), FSOC recognized the significance of these efforts, stating that "[o]nce implemented, these margin standards will increase protective collateral and decrease implicit leverage in OTC derivatives markets."

[12] Regulators in the G-20 countries are in the process of implementing margin rules for uncleared derivatives in accordance with the International Margin Framework. *See* Margin and Capital Requirements for Covered Swap Entities; Proposed Rule, 79 FR 57348 (Sept. 24, 2014), available at www.gpo.gov/fdsys/pkg/FR-2014-09-24/pdf/2014-22001.pdf (margin proposal by the US prudential regulators); Margin Requirements for Uncleared Swaps for Swap Dealers and Major Swap Participants, 79 FR 59898 (Oct. 2, 2014), available at www.gpo.gov/fdsys/pkg/FR-2014-10-03/pdf/2014-22962.pdf (proposal by the US Commodity Futures Trading Commission); Consultation Paper on Draft Regulatory Technical Standards on Risk-Mitigation Techniques for OTC-Derivative Contracts Not Cleared by a CCP under Article 11(15) of Regulation (EU) No. 648/2012, April 14, 2014, available at www.esma.europa.eu/system/files/jc_cp_2014_03_cp_on_risk_mitigation_for_otc_derivatives.pdf (proposal by the

collateral that regulated funds post must be kept segregated with an eligible custodian, providing greater assurance to the fund's counterparty that the terms of the agreement will be fulfilled. And in addition to these direct benefits to counterparties, collateral posting requirements can serve to limit a fund's ability to engage in other transactions requiring additional collateral.

Indicator 2-5: Counterparty credit exposure to the fund

This indicator appears to be a variation on proposed Indicator 2-2 (Counterparty exposure ratio) and proposed Indicator 2-3 (Intra-financial system liabilities) in the Initial Consultation. The Second Consultation indicates that Indicator 2-5 aims to measure counterparty financial institution exposure to the investment fund, "using total net current credit exposure as the basis of calculation."[13] The Second Consultation does not explain, however, how "total net current credit exposure" would be calculated. The Initial Consultation defined total net counterparty exposure as "the total sum of all residual uncovered exposures that the fund positions represent for its counterparties, after considering valid netting agreements and collateral/margin posted by the fund to its counterparties."[14]

As we stated in the 2014 ICI Letter, although we agree in concept that uncovered counterparty exposures may be relevant to an analysis of "interconnectedness," it is difficult to evaluate the utility of this proposed indicator without further guidance as to how it would be calculated. In addition, consistent with our previous comments, any indicator looking at "uncovered" exposures should treat as a form of coverage the practices that regulated US funds follow under US law and related guidance from the SEC and its staff requiring funds to "cover" any future indebtedness (*i.e.*, segregation of liquid assets on the fund's books or maintaining offsetting positions).[15]

Indicator 2-6: Intra-financial system liabilities to G-SIFIs

The Second Consultation states that the proposed indicator is measured as the total net current credit exposure of G-SIFIs to the investment fund. This indicator would be subject to the same issues as discussed above regarding Indicator 2-5.

Indicator 2-7: Nature of investors of the funds

We agree that the nature of a fund's investor base can be a relevant consideration in assessing the potential for the fund to pose risks to financial stability. For example, as discussed in the body of our letter, the overwhelming majority of investors in regulated US funds are retail investors pursuing long-term investment goals and, as such, are not prone to "flightiness." The stability of a fund's investor base has important financial stability implications. As we have

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EU supervisory authorities). To the extent that these regulations have been or are being strengthened, such measures have not increased risk to counterparties. To the contrary, such regulatory changes enhance protection.

[13] Second Consultation, *supra* note 2, at 40.

[14] Initial Consultation, *supra* note 3, at 34. The Second Consultation acknowledges that the proposed indicator can be difficult to produce because of, among other things, the complex nature of the calculations for credit exposure. Second Consultation, *supra* note 2, at 41.

[15] Similarly, consideration of any regulations limiting counterparty exposure would be relevant. *See, e.g.*, UCITS Directive, Directive 2009/65/EC, as amended, Article 52 (limits on counterparty exposure).

discussed, understanding a fund's historical patterns of purchases and redemptions and investor base is a critical component of liquidity management.[16] We would caution against relying on certain simplistic proxies for institutional ownership, however, such as net assets in a fund's "institutional" share class, because a large percentage of these assets may consist of investments from retail investors.[17]

The Second Consultation suggests that operational difficulties at an investment fund could have negative spillover effects on certain "cornerstone investors," described to mean institutional investors, such as banks, insurance companies, or major corporate entities, especially those that "have significant investments in a fund and are of systemic importance themselves."[18] It is important to recognize that, in the case of regulated US funds, the funds far more typically 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 institutional investor or other counterparties.

In addition, we disagree with the Second Consultation's contention that the exposure of systemically important banks, insurance companies, or corporate entities to an investment fund should be considered a possible sign of the *investment fund's* systemic importance. Instead, those institutional investors should be responsible for managing any counterparty risks associated with their investments in investment funds.[19]

Factor 3: Substitutability

Indicator 3-1: Daily trading volume of certain asset classes of the fund compared to the overall daily trading volume of the same market segment

The Second Consultation states that this proposed indicator "is measured as the average daily trading activity (turnover) per asset class or instrument compared to the average daily trading volume of the overall market segment for the same asset class or instrument."[20] This is an improvement over the Initial Consultation's formulation (which would have measured a fund's substitutability by its turnover related to a *specific asset).*[21] This indicator appears to be rather similar to the "substitutability ratio," which we address in detail in the body of our letter in Section III.A.1.

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[16] 2015 ICI FSOC Letter, *supra* note 15, at 24-25.

[17] See Collins, S. (2015) *Why Long-Term Fund Flows Aren't a Systemic Risk: Understanding the Data on Institutional and Retail Investors,* available at www.ici.org/viewpoints/view_15_fund_flow_03.

[18] Second Consultation, *supra* note 2, at 41.

[19] Some of these institutional investors may be subject to counterparty credit limits or other regulatory requirements designed to mitigate counterparty risk. *See, e.g.,* Section 165(e)(2) of the Dodd-Frank Act. This is a more appropriate way to address any concerns with their exposures to counterparties.

[20] Second Consultation, *supra* note 2, at 42.

[21] Initial Consultation, *supra* note 3, at 34.

Additionally, we remain concerned by the reference to the "asset class *or instrument*" (emphasis added). We believe that a comparison of a fund's average daily trading activity by asset class, compared to the average daily trading volume of that overall asset class, is far more useful (and easier to calculate) than instrument-by-instrument comparisons for each of a fund's holdings. Based on the header of this indicator and the first paragraph under it, we do not believe that the intent is for such an instrument-by-instrument comparison, and therefore we recommend deleting the term "or instrument" to clear up the potential ambiguity.

Indicator 3-2: Fund holdings per certain asset classes compared to the overall daily trading volume of the same asset class

This proposed indicator "seeks to calculate the potential impact of fire sales from the investment fund which will depend on the extent to which the assets held by the fund could be easily absorbed . . . ."[22] This indicator appears to be rather similar to the "fire sale ratio," which we address in detail in Section III.A.1 of this letter. Furthermore, this indicator does not have much to do with substitutability—unlike Indicators 3-1 and 3-3, it is an apples-to-oranges comparison (fund holdings, which we read to mean "values of fund holdings," and trading volume), and one premised on a view of rapid and jarring fund liquidation activity that does not occur in practice, at least not in the case of regulated funds.

Indicator 3-3: NAV of the fund compared to the size of the underlying market

According to the Second Consultation, "[t]his proposed indicator aims at evaluating if an investment fund represents a particularly high proportion when compared to the size of the underlying market. The higher the market share, the higher the potential systemic risk since other investment funds in the market may not have the capacity to take over or assume the transition of client assets."[23] We think this indicator could be clarified in certain respects (*e.g.*, we assume that "size of the underlying market" means "total value of assets comprising the market"). We would caution, however, against overstating the connection between a "high" market share (however that may be understood) and a lower degree of substitutability or higher potential systemic risk. A fund with a high market share could nevertheless have one or more substitutes that would be able, and more than willing, to "take over" the fund's assets. In the highly competitive asset management industry, assets do not go begging.

Factor 4: Complexity

Indicator 4-1: Non-centrally cleared derivatives trade volumes of the fund/Total trade volumes of the fund

The FSB's concern here is that "[f]unds that engage in a significant volume of non-centrally cleared derivatives in comparison to their total trading activity potentially could be

[22] Second Consultation, *supra* note 2, at 42.

[23] *Id.*

exposed to higher counterparty risk."[24] The Second Consultation equates non-centrally cleared derivatives with greater complexity.

As an initial matter, the method of calculating this indicator is unclear.[25] More fundamentally, the information that this ratio would convey is less meaningful than the FSB believes. As the Second Consultation notes, regulatory initiatives are facilitating the central clearing of a growing share of derivatives transactions. As a result, it is likely that for funds using derivatives, their ratios may decline over time. In addition, regulators have been strengthening regulatory requirements for non-centrally cleared derivatives. As discussed above in response to proposed Indicator 2-4, regulators in the G-20 countries are in the process of implementing margin requirements for uncleared derivatives, which has had and will have the effect of reducing the risks they pose to counterparties. Therefore, going forward the differences between centrally cleared and non-centrally cleared derivatives in this respect will not be as pronounced as they were during the financial crisis.

Indicator 4-2: Ratio (%) of collateral posted by counterparties that has been re-used by the fund

This indicator has remained virtually the same as in the Initial Consultation[26] but there is a more detailed explanation of what the indicator seeks to measure. The explanation suggests that this indicator seeks to focus on the risk that a fund would experience difficulty retrieving and returning reinvested collateral to a counterparty in the case of a default.

As we noted in the 2014 ICI Letter, when regulated US funds engage in transactions such as securities lending, regulatory guidelines impose strict requirements on collateral practices that minimize the risks to counterparties. For example, 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.[27] In practice, registered funds typically invest cash collateral in very high-quality, highly liquid investments—often US 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.

It also 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

[24] Second Consultation, *supra* note 2, at 42.

[25] For instance, we cannot tell how a derivative's trading volume should be determined, or whether all trading volume for a fund (including non-derivatives transactions) should be included in the denominator and how the denominator should be calculated.

[26] Previously, it was described as "Ratio (%) of collateral posted by counterparties that has been re-hypothecated by the fund."

[27] *See* State Street Bank and Trust Company (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.").

environment. This mitigates any incentive to "stretch for yield" with respect to investment of the cash collateral.[28]

To the extent that regulated US funds "re-use" collateral as this indicator outlines, they do so in ways that would not give rise to meaningful risks to counterparties, much less global systemic risks. More significant than the *percentage* of collateral that a fund has "re-used" is the nature of the re-use. For this reason, the proposed indicator does not provide a reliable way to assess an investment fund's "complexity."

Indicator 4-3: Proportion of fund's portfolio using high frequency trading strategies

As with Indicator 4-2, although the Second Consultation provides a more detailed explanation of Indicator 4-3, the added detail does not change the view we expressed in our 2014 ICI Letter. Namely, this proposed indicator has little to do with the "complexity" of an investment fund and should be eliminated. As we stated previously, to the extent the use of high frequency trading strategies raises regulatory concerns, activity-based regulation would be a more appropriate and effective way to address those concerns.

Indicator 4-4: Investment fund liquidity profile

This proposed indicator "is measured as the ratio or the difference at various time intervals, between the liquidity of an investment fund (time needed to liquidate a given proportion of a fund's assets at reasonable prices) and the liquidity offered to investors (the proportion of capital investors in the fund that have the right to redeem given the contractual terms offered by the fund)."[29] While not entirely clear, it appears to assume that a fund's *entire portfolio* might need to be liquidated. It then suggests that an inability to do so in a timely manner could force the fund to suspend redemptions, which in turn "could generate further detriment to a broader set of financial actors or cause instability in the markets . . . ."[30]

Indicator 4-4 raises both practical and substantive issues. From a practical standpoint, it is hard to determine what the precise calculation is supposed to be. This lack of clarity likely will pose a challenge for national authorities and could result in differing interpretations in different jurisdictions.

Substantively, the underlying premise of this indicator appears to be that a fund that (i) offers daily redeemability and (ii) cannot fully liquidate its *entire portfolio* within the redemption period (seven days for US mutual funds)[31] could be exposed to the risk of needing to suspend redemptions, potentially leading to a destabilizing "liquidity shock." We strongly disagree with this premise.

To our knowledge, no US stock or bond mutual fund ever has needed to liquidate its entire portfolio in a week in response to redemptions of all, or even nearly all, fund shares—in

[28] For a more complete discussion of US regulated funds' securities lending practices, *see* 2015 ICI FSOC Letter, *supra* note 15, at 56-58.

[29] Second Consultation, *supra* note 2, at 43.

[30] *Id.*

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

any set of market conditions or individual fund circumstances. Nor is there reason to believe one ever would. As we explain in the body of this letter and in more detail in the 2014 ICI Letter and the 2015 ICI FSOC Letter, the structure and regulation of US mutual funds, the nature of their shareholder base, and the empirical evidence provide no support for the supposition that these funds' daily redeemability poses unique and systemic risks. Under SEC requirements, at least 85 percent of a mutual fund's portfolio must be invested in "liquid assets"—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 investment."[32] Based on what the SEC had observed over the course of over fifty years, this standard tacitly, and sensibly, recognizes that a mutual fund would not face any realistic possibility of needing to liquidate the overwhelming majority (much less all) of its portfolio to meet redemptions within a week.[33] And were this type of event to occur in a single fund, there is little reason to believe it would have the negative spillover effects suggested by the Second Consultation.

If a mutual fund were 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.[34] The SEC and its staff have used this authority, for example, in response to emergencies outside the US and the disruption of trading in particular markets.[35] 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.[36]

Our conviction about US mutual funds' ability to meet redemptions in the face of market stress is further strengthened by what we know about their investors. Our data show that 95 percent of the assets in regulated US funds are owned by households—and almost half (49

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[32] *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 Guidelines are Commission guidance and remain in effect).

[33] SEC Liquidity Guidelines Release at 9828 ("The Commission believes that a 15% standard should satisfactorily assure that mutual funds will be able to make timely payment for redeemed shares. Experience has shown that mutual funds generally have not had difficulty in meeting redemption requests from available cash reserves, even during times of abnormally high selling activities in the securities markets. Even if a fund were forced to sell securities to meet redemption requests, substantially all of its remaining assets would be required to be liquid securities which it could sell consistent with appropriate portfolio management.")

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

[35] *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.

[36] *See, e.g.*, Letter to Craig S. Tyle, General Counsel, ICI, from Douglas Scheidt, Associate Director and Chief Counsel, Division of Investment Management, SEC (Dec. 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").

percent) are held in retirement accounts. There are over 90 million investors in US mutual funds that have a wide range of views on market conditions and how best to respond to those conditions in light of their personal circumstances. 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. These same factors also shape redemption decisions.[37]

Regulated funds offering daily redeemability regularly conduct analysis to consider whether they could satisfy redemption requests under highly challenging conditions. But there is a big difference between evaluating liquidity under highly challenging conditions (informed by past experience) and doing so based on a speculative and counterfactual fact pattern (*e.g.*, a sudden need to liquidate a fund's entire portfolio in a very compressed time period). To be meaningful, any indicator that the FSB adopts should be rooted in realistic (or at least plausible) scenarios.

Indicator 4-5: For leveraged funds, ratio of unencumbered cash to gross notional exposure

This proposed indicator is the ratio of unencumbered cash and cash equivalents to a fund's GNE. The Second Consultation suggests that "the lower the figure, the higher the potential systemic risk of the fund."[38]

Assuming this indicator is intended to be part of the analysis of traditional investment funds (including regulated US funds),[39] we have several concerns. First, we object to this notion that a lower "liquidity buffer" (as defined here) is necessarily indicative of heightened risk. The amount of cash and cash equivalents that a fund holds is largely driven by the fund's portfolio of investments, investment strategies, historical cash flows, shareholder base, and market conditions. Depending on these fund-specific factors, it may be entirely appropriate for a fund to hold a relatively low percentage of its assets in cash and cash equivalents.

Second, we object to the proposed indicator's underlying assumptions regarding how funds manage their portfolios and meet liquidity needs. The Second Consultation posits that in response to margin calls (or, presumably, redemption requests), a fund first would draw down its "liquidity buffer" and then start selling assets under stressed conditions. In the case of US mutual funds, this simplistic portrait overlooks the dynamics of cash flows. For example, US mutual funds typically receive cash on an ongoing basis from investor purchases of new fund shares, interest payments and dividends on portfolio securities, maturing bonds, or sales of portfolio securities. Further, this "waterfall" theory of liquidity management does not accurately depict how mutual funds actually manage their portfolios.[40]

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[37] *See* 2015 ICI FSOC Letter, *supra* note 15, at 19-20 for more on US mutual fund investors' behavior and approach to investing.

[38] Second Consultation, *supra* note 2, at 44.

[39] It is unclear whether it could—the header of the indicator suggests it would not ("For leveraged funds…"), but the Consultation notes that "[t]this indicator is *particularly* relevant for funds with investment strategies that involve highly leveraged positions or large derivatives portfolios." (Emphasis added.)

[40] We address these topics more extensively in the 2015 ICI FSOC Letter, *supra* note 15, at 18-23 and 25-36.

Third, the proposed indicator's "liquidity buffer" concept does not fully account for how regulated funds manage liquidity and redemptions. The Second Consultation defines "liquidity buffer" to consist only of cash and cash equivalents. This definition is too narrow. There are other highly liquid securities that can readily be converted to cash (*e.g.*, longer-dated US Treasury securities).

Finally, the choice of GNE as the denominator is misguided. As noted above in our response to proposed Indicator 1-2, GNE is a crude measure that does not accurately convey a fund's exposure and level of risk. Insofar as GNE is capturing notional exposures of derivatives, this figure could far exceed a fund's realistic potential cash commitments, particularly where the fund has an offsetting position in the portfolio. The too-narrow numerator and too-broad denominator would result in artificially low ratios for many funds, giving a mistaken impression about their liquidity profiles and ability to satisfy redemptions and other commitments—and thus overstating their "potential systemic risk."

Indicator 4-6: Ratio of unencumbered cash to the NAV of the fund

This indicator appears to be identical to Indicator 4-5, except that it uses NAV rather than GNE in the denominator. It is meant to measure the ability of a fund to absorb loss.

While NAV is a more appropriate denominator, we reiterate our concerns about the FSB's misguided assumptions regarding the liquidity management practices of investment funds. In particular, this indicator continues to focus on a narrowly-defined cash buffer as a fund's sole means of meeting liquidity and redemption needs. With respect to regulated funds offering daily redeemability, this approach ignores key aspects of liquidity management. A cash buffer ratio defined in this way will understate a fund's ability to meet redemptions or other obligations.

Indicator 4-7: Amount of less liquid assets

This indicator focuses on the amount of assets in the fund's portfolio that could not be sold and converted into cash in a prompt manner without a significant adverse price impact, and suggests that authorities consider the amount of level 2 and level 3 assets in the fund's portfolio as part of this evaluation.[41]

Using fair value categorizations as a proxy for liquidity is inappropriate. The Second Consultation recognizes this inapt use of an accounting measure ("the fair value categorisation of the fund's assets is an accounting measure that provides information on the level of market inputs into the pricing of the asset, and thus is not a measure of liquidity"). Nevertheless, it proceeds to propose using these accounting categorizations for the purpose of evaluating liquidity.

In public comments, members of the SEC staff have expressed the view that the fair value hierarchy should not be used as a practical expedient to determine portfolio liquidity for purposes of compliance with SEC regulations.[42] The practical effect of using this accounting

[41] *See* Financial Accounting Standards Board (FASB) Accounting Standards Codification (ASC) 820, Fair Value Measurements and Disclosures for a description of this accounting concept.

[42] *See, e.g.*, AICPA's "Investment Companies Expert Panel" (May 20, 2014), available at: www.aicpa.org/InterestAreas/FRC/IndustryInsights/DownloadableDocuments/INV/INV_EP_Minutes/INV_ExpertP

concept as a proxy for liquidity would be to give the mistaken impression that large numbers of US mutual funds invest heavily in "less liquid" assets. Many types of bonds routinely are categorized as level 2 assets, based on how they trade and the inputs used in their valuations. Nevertheless, US fund managers routinely conclude that these same bonds could be sold or disposed of in the ordinary course of business within seven days at approximately the values at which the funds have valued them, and historically funds holding these bonds have not had difficulty satisfying redemption requests. A reliable inference about a holding's liquidity cannot be drawn from its fair value categorization.

Two examples illustrate the potentially anomalous results of this approach. First, short-term debt securities valued at amortized cost typically are categorized as level 2 assets. Under this indicator, a fund's investments in short-term US Treasury bills would be treated as "less liquid," notwithstanding the fund's ability readily to sell those securities and convert them to cash.[43] Second, the SEC requires US mutual funds that invest in foreign securities traded on markets that close prior to 4:00 p.m. Eastern to adjust the last sale closing price from the foreign exchange for any "significant events" that take place subsequent to the foreign exchange close and prior to 4:00 p.m. Eastern.[44] Such adjustment is intended to eliminate any opportunity for market timing/time zone arbitrage associated with the fund's use of stale prices to value foreign securities. Securities that a fund otherwise would characterize as level 1 must be characterized as level 2 any time the fund adjusts the last sale closing price (even for highly liquid large cap stocks or government bonds that are actively traded).[45]

Aside from the problem of using an accounting measure for liquidity purposes, it is unclear what information this indicator would convey ("This indicator focuses on the amount of assets in the fund's portfolio that could not be sold and converted into cash in a prompt manner without a significant adverse price impact.") that Indicator 4-4 would not (it captures "time needed to liquidate a given proportion of a fund's assets at reasonable prices").

Factor 5: Cross-jurisdictional activities (global activity)

Indicator 5-1: Number of jurisdictions in which a fund invests

This indicator has not changed, nor have our views on it. As we stated previously, we question the assumption that "[f]unds that invest globally may have a larger global impact than

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anel_Minutes_Archive.pdf. These comments and observations do not constitute a statement of the official views of the SEC or its staff.

[43] Additionally, US money market funds treat direct obligations of the US government as "daily liquid assets" for purposes of Rule 2a-7 under the Investment Company Act.

[44] "Significant events" may include company specific developments (*e.g.*, merger or other corporate action), macroeconomic developments (*e.g.*, change in central bank monetary policy) or simply material changes in security values (*e.g.*, U.S. stock values change materially subsequent to the foreign close, implying the value of foreign stocks has changed).

[45] *See* FASB Accounting Standards Codification section 820-10-35-41C.

funds that invest in the securities of only a few jurisdictions."[46] As in the Initial Consultation, the Second Consultation offers no data in support of this claim.

This indicator turns on its head the widely-accepted principle that diversification *reduces* risk. This is a bedrock principle of risk management—an asset manager does not invest in a single security, a bank does not make a single loan, and an insurer does not write a single policy. Diversification, in fact, is one of the primary benefits that most investment funds offer to investors. In this context, investments in multiple jurisdictions provide greater diversification of a fund's portfolio holdings across different markets, industries, countries, regions, currencies, *etc*., all of which serve to mitigate risk. Many investors find appealing the idea of obtaining broad international investment exposure through a single fund. Nevertheless, under this proposed indicator, if Regulated Fund A invests predominantly in US securities and has a number of *de minimis* positions in issuers from several other countries, while Regulated Fund B (of equal size) invests exclusively in issuers from a single country, the indicator incorrectly would suggest that Regulated Fund A would have the larger "global impact." This example demonstrates the serious flaws of this "count the jurisdictions" approach to assessing global systemic risk. This indicator's reasoning also is at odds with that of Indicator 3-3, because a more geographically concentrated portfolio will represent a larger percentage of the underlying market.

We note that this indicator does not measure what the Second Consultation claims it does ("significant amounts of investors' funds"[47])—in fact, none of the three global activities indicators measures amounts of assets. Therefore, none of these indicators even attempts to measure what the Second Consultation calls for in Section 2.2 ("The global impact from a financial entity's distress or failure should vary in line with its share of cross-border assets and liabilities.").[48]

Indicator 5-2: Number of jurisdictions in which the fund is sold/listed

The Second Consultation states that funds sold or listed in many jurisdictions "may have a larger global impact with respect to their operations" than those sold in one or a few jurisdictions.[49] Similar to our comment on the previous indicator, when looking at this indicator, a more diversified, less correlated investor base would be far more likely to *reduce* systemic risk.[50] A heterogeneous investor base will comprise individuals and entities with a variety of different motivations for purchasing, holding, or redeeming fund shares (based, for example, on geography and other demographic factors, personal financial goals, time horizon, and risk tolerance, among a number of other salient characteristics). These differences would tend to diminish further the possibility of mass fund share redemptions and any resulting need to

[46] Second Consultation, *supra* note 2, at 45.

[47] *Id*. at 44.

[48] *Id*. at 6.

[49] *Id*. at 45.

[50] *See, e.g*., Ferreira, M. Massimo, M. and P. Matos (2013) *Investor-Stock Decoupling* (using a sample of equity mutual funds, finding that funds experiencing higher investor-stock decoupling—that is, investor location that does not coincide with that of the stock holdings—exhibit higher performance, and avoid asset-fire sales in adverse market conditions).

sell fund portfolio securities. We find it puzzling that the FSB would express concern with a diversified shareholder base here after expressing concern with a fund having large institutional shareholders in its description of Indicator 2-7.

In Europe, concern with this type of diversity certainly would represent a dramatic break from the UCITS legislative framework adopted 1985, which permits these robustly regulated investment funds to be marketed throughout the European Union on the basis of a single authorization from the home Member State. A large and increasing number of UCITS take advantage of this pan-European passport. Appropriate structures are in place in the Members States to permit investors to invest in and redeem from these UCITS as easily on a pan-European basis as it would be on a national basis. There is no historical evidence over the past 30 years of this marketing feature posing a risk to any particular financial system, much less global systemic risk.

Indicator 5-3: Number of jurisdictions where the fund has counterparties

The Second Consultation notes that contract and bankruptcy laws can vary across jurisdictions. It states that "[t]he higher the number of different jurisdictions faced by a fund through its counterparties, the potentially more complex the situation if the fund had to be liquidated."[51]

This observation ignores the fact that counterparties, by contract, generally stipulate the governing law that will apply and the jurisdiction in which any suit, action, or proceeding relating to the agreement may be brought. These terms are expressly agreed to by the parties, and tend to be more uniform than a simple headcount of counterparties would suggest. More generally, we question the assumption that a counterparty's domicile will affect the liquidation of a fund. We are not aware of instances in which cross-border counterparty relationships have impeded the liquidation of a regulated fund. A liquidating fund would liquidate and unwind positions through the same channels as those through which it builds and reduces them in the ordinary course of operations.

[51] Second Consultation, *supra* note 2, at 45.

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LONDON | HONG KONG | WASHINGTON, DC
APRIL 2015 | VOL. 2, NO. 1

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Suggested citation: Plantier, L. Christopher. 2015. 'Regulated Funds, Emerging Markets, and Financial Stability.' *ICI Global Research Perspective* 2, no. 1 (April). Available at www.iciglobal.org/pdf/icig_per02-01.pdf.

Regulated Funds, Emerging Markets, and Financial Stability

KEY FINDINGS

- **Regulated fund holdings of emerging market stocks and bonds have grown significantly in the past decade.** This growth is part of a broader trend of investors seeking greater exposure to emerging markets, and these flows have supported strong growth in emerging economies. From 2010 to 2014, emerging market economies received cumulative gross portfolio capital flows of $1.4 trillion. A small fraction of those inflows—less than $200 billion—came from regulated funds.
- **While regulated funds have contributed to the broad trend of portfolio capital flows to emerging economies over the past decade, they are unlikely to pose systemic risk to emerging markets.** New empirical results in this report suggest that there are three main reasons for this.
  - **First, regulated fund holdings of emerging market securities remain a small portion of the total value of the stocks and bonds of emerging market countries.** In 2013, regulated funds held just 4.3 percent of outstanding debt and 8.5 percent of the stock market capitalisation of emerging market countries. Other market participants are the dominant investors in emerging market equity and fixed-income markets.
  - **Second, while regulated funds represent a sizeable part of the foreign investor base in emerging market countries, they are a stable investor base.** Regulated funds are not the primary source of the variability of portfolio capital flows to emerging markets. As of 2013, regulated funds held more than half of the emerging market equities held by foreign investors and almost 30 percent of emerging market bonds held by foreign investors. But on average, regulated funds accounted for less than 15 percent of the variance of foreign portfolio capital flows to emerging markets from 2005 to 2013.
  - **Third, regulated fund holdings are diversified across a wide number of emerging economies, which limits the effects of their portfolio transactions on any particular country.** Regulated fund holdings are spread across more than 85 different countries, and if there were investor outflows from US and European regulated funds, funds could accommodate them by selling a small amount of securities from a wide range of those countries.

Continued on next page

New Empirical Results

- **Monthly returns on emerging market securities are explained by factors other than funds' net purchases of emerging market stocks and bonds—most significantly by capital flows from other (non-fund) foreign investors.** For example, the returns on US Treasury securities and the S&P 500 index affect the returns on emerging market bonds and equities, respectively. More notably though, statistical analysis demonstrates that a broader measure of all foreign investor flows dominates net purchases by regulated funds. Thus, when this broader measure is included in the analysis, it shows that regulated funds' net purchases have no effect on monthly returns of emerging market securities. This suggests that regulators should focus on portfolio capital flows to emerging market countries from all foreign investors, rather than narrowly focusing on those from regulated funds.
- **Regulated funds' net purchases of emerging market securities do not drive returns.** Weekly data show that while net purchases respond with a lag to returns on emerging market securities, those purchases do not have a persistent effect on future returns. In addition, weekly data demonstrate that the gradual and lagged response of net purchases to returns explains much of the monthly correlation between net purchases and returns.

Introduction

In the quarter century since the fall of the Berlin Wall, the global economy has become much more open. With this new openness, capital flows to emerging market economies have boomed. One of the reasons for this is investors' desire to diversify their portfolios away from shocks that primarily affect their home countries and to gain access to higher returns often seen abroad, especially in developing countries. Another reason is that capital markets in emerging economies have grown rapidly as emerging market governments and corporations have sought new sources of financing. From 2000 to 2013, emerging market economies received cumulative gross capital inflows of nearly $10 trillion (Figure 1).[1] These inflows came from three sources: *foreign direct investment*, which occurs when a foreigner obtains a controlling interest in a business; *other investment inflows*, such as bank deposits; and *portfolio capital flows*, which arise from foreigners' net purchases of stocks, bonds, and other securities issued by entities in emerging market countries.

Of the roughly $10 trillion of capital inflows into emerging market economies, $1.7 trillion is attributable to this last source—portfolio capital flows. Even though portfolio capital flows make up only a small fraction of the total capital flows to emerging economies, observers have raised some concerns about their impact on emerging economies. Portfolio capital flows are generally thought to be more variable than foreign direct investment because it is easier to sell equity and debt securities than a controlling interest in a company. Many observers have suggested that if portfolio capital inflows quickly turn to outflows, it could disrupt the financial markets and economy of an emerging country.

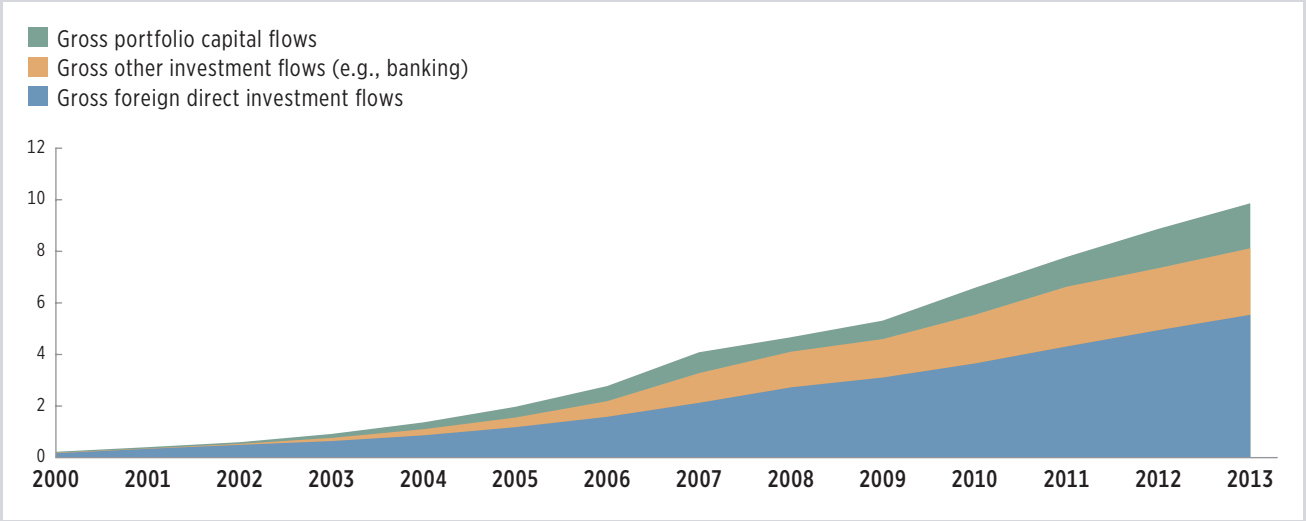
In particular, some economists have suggested that regulated funds[2]—which have contributed to the broad trend of portfolio capital flows to emerging economies—could prove to be a relatively unstable source of capital, perhaps even to the extent of posing systemic risks to emerging markets. They argue that in times of economic stress, regulated fund investors will generate heavy sales of fund shares, which could put downward pressure on securities prices and perhaps ultimately destabilise the financial market of an emerging economy.

Reflecting both portfolio capital flows and investment returns, foreigners' holdings of emerging market stocks and bonds have increased markedly since 2005. (Figure 2). In 2005, foreign investors held $1.5 trillion in emerging market stocks and bonds. By 2013, these holdings had more than doubled to roughly $3.5 trillion, and were almost evenly split between stocks and bonds.

FIGURE 1

Cumulative Gross Capital Inflows to Emerging Markets

Trillions of US dollars; yearly, 2000–2013

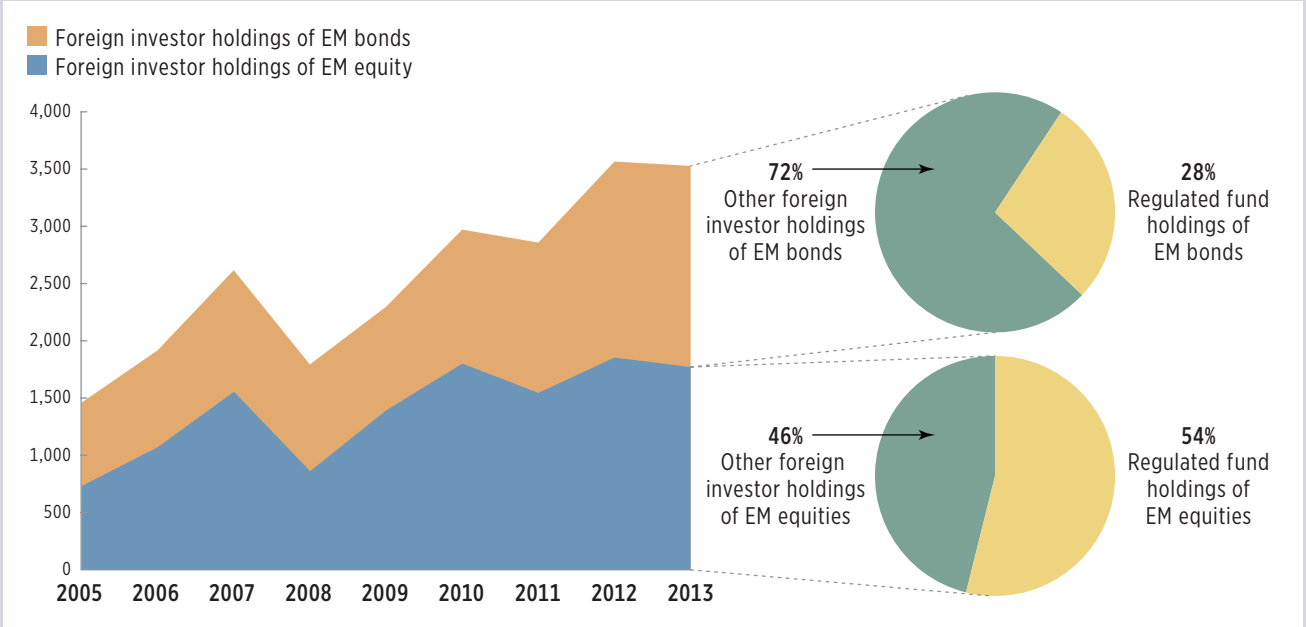


Source: International Monetary Fund *Global Financial Stability Report* (April 2014)

FIGURE 2

Foreign Investor Holdings of Emerging Market Equities and Bonds

Billions of US dollars; 2005–2013



Sources: International Monetary Fund and EPFR Global

Regulated funds accounted for a little more than half of the emerging market stocks held by foreigners and a bit more than one-fourth of the emerging market debt held by foreigners.

This report examines trends in regulated fund holdings of emerging market securities, and puts those trends in context to explain why regulated funds pose limited systemic issues for emerging economies. This report focuses primarily on regulated funds domiciled in either the United States or Europe, mainly because these funds hold the bulk of the worldwide assets of regulated funds and data for these funds are more complete and comprehensive than those available for most other regions.[3]

Overview of Analysis

The report begins by reviewing earlier research into the hypothesis that regulated funds might pose risks to the financial markets of emerging economies. This hypothesis was previously advanced in the mid- to late-1990s about emerging market equity funds (regulated funds that invest primarily in the stocks of emerging market companies). A range of academic studies found little if any evidence supporting the hypothesis.

In light of the financial crisis, regulators' concerns about systemic risk, and the increase in regulated fund holdings of emerging market stocks and bonds, observers are reexamining the issue.

This report examines more-recent studies surrounding this topic and explains that while questions about the role of regulated funds in emerging markets are understandable, suggestions that such funds are likely to disrupt the capital markets of emerging economies seem overstated for three main reasons. Regulated fund holdings of emerging market securities:

- remain a small portion of the total value of the stocks and bonds of emerging market countries (page 9);
- are relatively stable (page 14); and
- are generally diversified across a wide number of emerging economies, which limits the effects of their portfolio transactions on any particular country (page 21).

This report finishes by addressing concerns that regulated funds could amplify changes in emerging market securities prices. By analysing both monthly and weekly data, this report demonstrates that returns on emerging market stocks and bonds are explained by factors other than funds' net purchases of emerging market stocks and bonds—the most significant being capital flows from other (non-fund) investors to emerging economies. This report shows that while funds' net purchases of emerging market securities respond to returns on emerging market securities, they do not have a persistent influence on future returns on those securities. Thus, when looking at the effects of regulated fund flows on the financial stability of emerging market economies, it is important that regulators consider all economic factors as well as the portfolio capital flows from all foreign investors, rather than narrowly focusing on regulated funds and their activities.

An Old but Unsubstantiated Hypothesis: Regulated Funds Disrupt Financial Markets in Emerging Economies

The notion that outflows from regulated funds might destabilise financial markets is an old one, dating back to the late 1920s (Collins and Plantier 2014). This hypothesis has resurfaced from time to time about both equity funds and bond funds. Each time, observers have argued that although regulated funds may not have previously destabilised financial markets, things have changed recently—most notably, assets in regulated funds have grown. Because of the growth, it is conjectured, regulated funds might disrupt markets in the *future*.

Pre–Financial Crisis Research

In the mid- to late-1990s, similar concerns arose surrounding the investments of US regulated funds in emerging market equities. Observers noted that assets in US-domiciled emerging market equity funds grew considerably in the 1990s. It was posited that those fund shareholders might redeem heavily following a decline in the stock markets of emerging economies. If so, those regulated funds might be forced to liquidate their holdings of emerging market equities, amplifying downward pressure on the stock markets of those countries (Folkerts-Landau et al. 1997).

A number of studies examined this theory. Generally speaking, the studies found little support for the hypothesised amplification, sometimes called a 'negative feedback,' from shareholder redemptions from regulated funds and stock prices in emerging market economies.

For instance, Rea (1996) studied flows to US emerging market equity funds from 1991 to early 1996. He found that shareholders in such funds did not redeem heavily during periods of weakness in emerging markets. In fact, these funds garnered investor inflows during some periods in which equity prices in emerging markets moved sharply lower. During other market downturns, such as the Mexican peso crisis in late 1994, outflows from emerging market equity funds were small and short-lived.

Post and Millar (1998) examined flows from emerging market equity funds during the Asian currency crisis of 1997. They showed that after Thailand floated the baht in early July 1997, returns on emerging market funds were significantly negative—about 13 percent in August 1997 and 16 percent in October 1997—but that emerging market funds experienced modest and gradual outflows, with peak outflows in December 1997 of 2.5 percent of the assets of these funds. They note that these outflows were unlikely to have had a significant effect on emerging stock markets as these funds accounted for only 1.2 percent of the stock market capitalisation of emerging equity markets in December 1996.

Borensztein and Gelos (2003) make a similar point, indicating that emerging market funds (based on a sample including emerging equity funds domiciled in the United States and elsewhere) held only about 3 percent of the stock market capitalisation in emerging Asia in the late 1990s. That share has risen since the late 1990s but remains small (see page 9).

Kaminsky et al. (2001) reach a different conclusion about the effects that flows to regulated funds can have on the financial markets of emerging economies. They argue that 'injections and redemptions [of such funds] are large relative to total funds [i.e., assets] under management.' For example, they report that redemptions from emerging market funds that invest in Latin America reached 25 percent of the assets of those funds in 2005:Q1 during the Mexican crisis. It is unclear how they arrived at this figure. ICI data indicate that net outflows from US-domiciled emerging market funds with a Latin American focus totaled just $66 million in 2005:Q1, which was just 1.8 percent of their December 1994 assets.

In short, pre–financial crisis literature at best yields mixed evidence for the hypothesis that regulated funds somehow destabilise the securities markets of emerging economies.

Post–Financial Crisis Research

In the aftermath of the 2007–2008 global financial crisis, a number of commenters have again asked whether regulated funds might destabilise the financial markets of emerging economies. As in the past when the destabilising-fund-flow hypothesis has resurfaced, commentators and studies have cited the fact that regulated fund holdings of emerging market securities have grown substantially, in this case since 2009.

New studies have looked at the issue, focusing on the effect of flows from regulated funds to bond markets in emerging economies. For example, a recent paper by Miyajima and Shim (2014) from the Bank for International Settlements states, 'The presence of asset managers in emerging market economies has grown considerably, and…may create one-sided markets and exacerbate price fluctuations.' They claim to have found evidence that emerging market bond fund flows drive returns on emerging market bonds.

One of the most prominent postcrisis studies on this issue is Feroli et al. (2014). Based on a statistical analysis of aggregated weekly flows to US regulated bond funds, they argue that fund flows can amplify changes in market prices. In particular, their results seem to indicate that outflows from emerging market bond funds can amplify declines in emerging market bond prices, consistent with a view that regulated fund flows can destabilise financial markets. Their analysis, however, is highly sensitive to critical underlying assumptions. As Collins and Plantier (2014) show, if one makes plausible alternative assumptions, there is no statistical evidence that flows from US-domiciled emerging market bond funds are destabilising. In fact, Collins and Plantier (2014) find some evidence that regulated fund flows may in fact buffer shocks to emerging financial markets.

Feroli et al. (2014) and Miyajima and Shim (2014) are macro-level studies—that is, they examine data that is aggregated across regulated funds. Recent studies have used fund-by-fund data (micro-level data) to discern whether regulated funds could be disruptive, such as through *herding* (many investors trading in the same securities or same direction), *momentum trading* (buying winners and selling losers), or *contagion selling* (selling in markets where the fundamentals have not changed).

For instance, one micro-level study (Raddatz, Schmukler, and Williams 2014) argues that the increased popularity of index funds, combined with attempts by actively managed funds to outperform indexes, means that the securities trades of regulated funds are in some sense coordinated, potentially leading to 'herding, information cascades, and aggregate or systemically important effects.'

A second micro-level study (Raddatz and Schmukler 2012) claims that regulated funds were not a stabilising force during the global financial crisis and instead, helped spread it across countries. They conclude that 'capital flows from mutual funds do not seem to have a stabilising role and expose countries in their portfolios to foreign shocks.'

Gelos (2013), however, summarises the evidence in these and other micro-level studies on international and emerging market funds and concludes that 'the behavior of international mutual funds is complex and overly simplistic characterisations are misleading.'

More recently, some researchers have looked at whether the patterns of investing in emerging market securities are the same for residents of emerging market countries (domestic investors) as for foreigners. For example, Adler, Djigbenou, and Sosa (2014) find that when foreigners pull back from emerging market stocks and bonds, which creates gross portfolio capital outflows, the effect is at least partly offset by domestic investors selling foreign assets and buying domestic stocks and bonds.

Although regulated fund holdings of emerging market stocks and bonds have increased notably in recent years, the evidence is mixed on whether this development poses a greater risk to emerging economies. Given the renewed interest in this topic, the remainder of this report offers new and additional evidence on the issue.

Regulated Fund Holdings of Emerging Market Securities

A range of regulated funds invest in securities issued by emerging market entities. This section sizes regulated fund holdings of emerging market securities.

The primary objective of certain regulated funds is to invest in the stocks and/or bonds of emerging markets. These funds are generally referred to as *emerging market funds* or *emerging market equity and bond funds*. Emerging market funds that primarily invest in stocks are typically denoted as emerging market equity funds, while emerging market funds that primarily invest in emerging market bonds are commonly referred to as emerging market bond funds.

Other regulated funds also invest in emerging market securities. For instance, funds that have a global or international focus may invest in the securities of both developed and developing countries. Even funds that have a more domestic market focus, such as a bond fund whose prospectus states that it will primarily invest in US fixed-income securities, may have some exposure to emerging market securities. Other funds, such as asset allocation funds, target date funds, and target risk funds, may all invest in emerging market securities to some degree.

Irrespective of their primary investment objectives, funds that invest in emerging market securities may be mutual funds or ETFs (as in the United States), UCITS (European regulated funds), or similarly regulated funds in any region. Closed-end funds also may invest in emerging market securities, but are not considered in this report.

US and European Regulated Fund Holdings of Emerging Market Securities

For many years, economists (e.g., Rowland and Tesar 2004) and financial advisers (e.g., Philips 2014) argued that households in many countries were overinvesting in the stocks and bonds issued by entities (corporations and governments) in their home countries, a tendency known as 'home bias.' They also argued that by tilting their portfolios somewhat toward foreign securities, investors could diversify away from shocks that primarily affect their home countries and gain access to higher returns often seen abroad, especially in developing countries.

Investors and portfolio managers have accepted this message. Regulated fund holdings of assets in emerging market economies have grown substantially in the last decade. The growth, which reflects both net purchases of emerging market stocks and bonds and returns on investments, occurred fairly steadily. Primarily due to returns, there was a significant decline and sharp bounce back associated with the 2007–2008 global financial crisis.

Assets in Emerging Market Equities

For example, regulated fund assets that were invested in the stocks of companies headquartered in emerging market economies (emerging market equities) grew from a little more than $200 billion in 2005 to almost $1.4 trillion by the end of 2014 (Figure 3).[4] At that point, 47 percent of regulated fund holdings of emerging market equities were held by US-domiciled funds. The lion's share of the remainder was held by European-domiciled funds (36 percent) and the balance (17 percent) was held by funds domiciled elsewhere in the world, primarily in Canada and Japan.

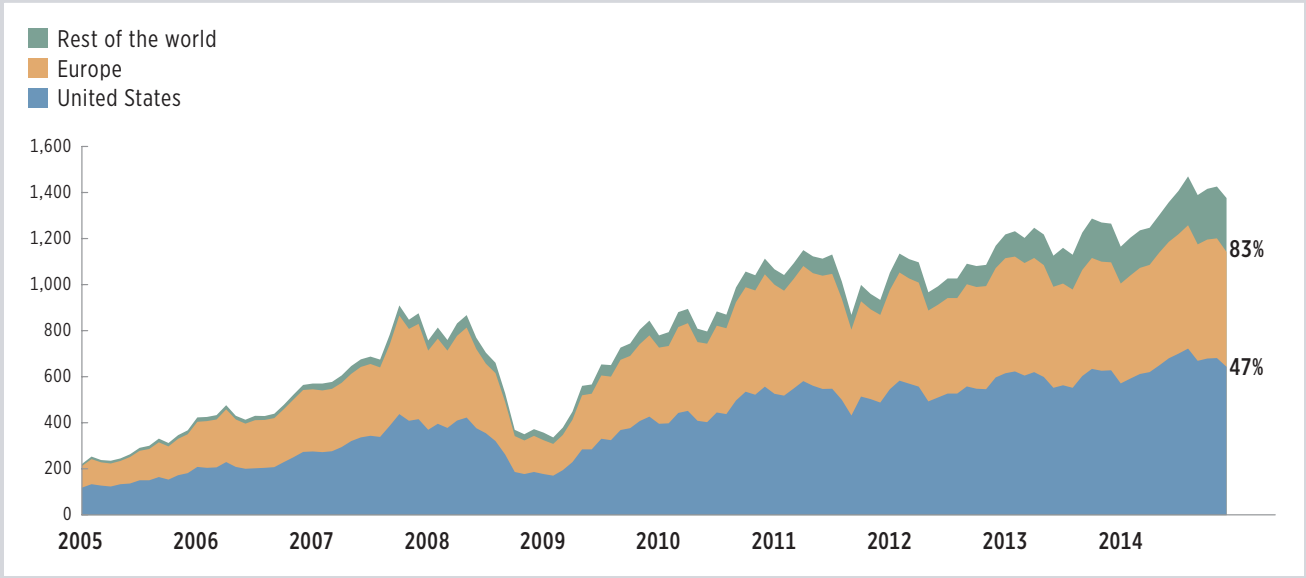
Assets in Emerging Market Bonds

Similar patterns are evident with respect to regulated fund holdings of fixed-income securities issued by entities domiciled in developing economies (emerging market bonds). These grew from $32 billion in January 2005 to $526 billion by December 2014 (Figure 4). In this case, however, European-domiciled funds held the majority of the assets, 54 percent ($285 billion), compared to only 26 percent ($134 billion) for US-domiciled funds. Regulated funds domiciled elsewhere in the world held the remaining 20 percent, which amounted to $106 billion.[5]

FIGURE 3

Assets Invested in Emerging Market Equities by Domicile of Regulated Funds

Billions of US dollars; month-end, 2005–2014



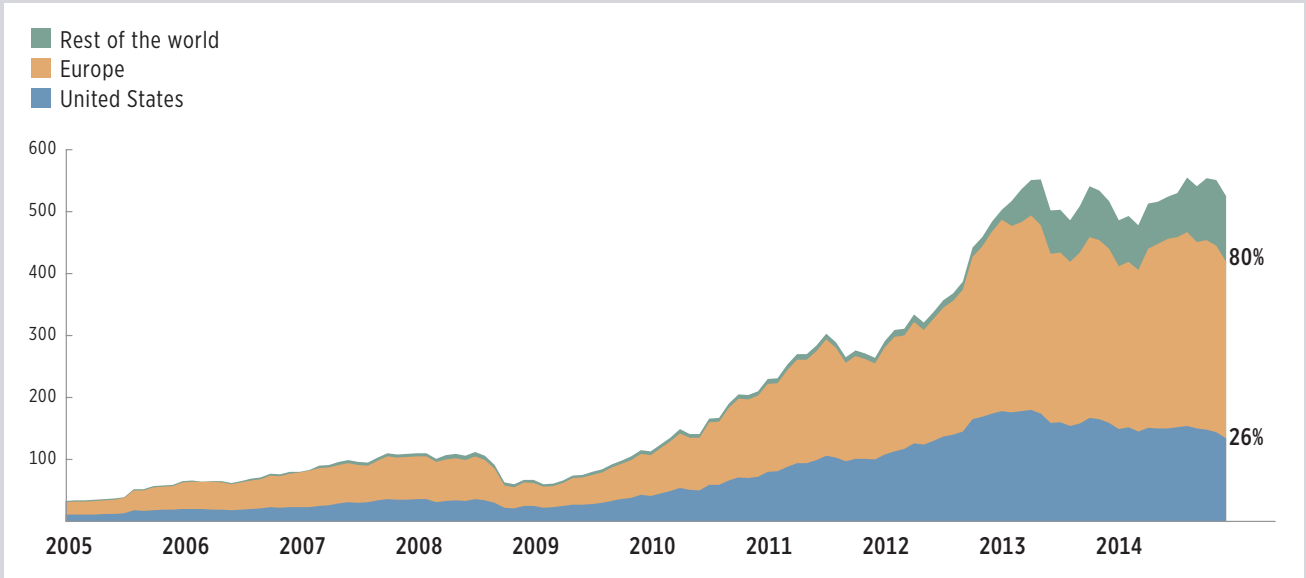
Note: This figure classifies countries as emerging based on EPFR Global's country classification.

Source: EPFR Global

FIGURE 4

Assets Invested in Emerging Market Bonds by Domicile of Regulated Funds

Billions of US dollars; month-end, 2005–2014



Note: This figure classifies countries as emerging based on EPFR Global's country classification.

Source: EPFR Global

The Relative Size of Regulated Fund Holdings in Emerging Markets

The increased participation of regulated funds in the capital markets of emerging economies is likely benign in relation to systemic risk. One reason is that regulated funds' *share* of the total value of stock and bonds of emerging market countries remains relatively small.

Rising, but Still Small Relative to Emerging Market Capital Markets

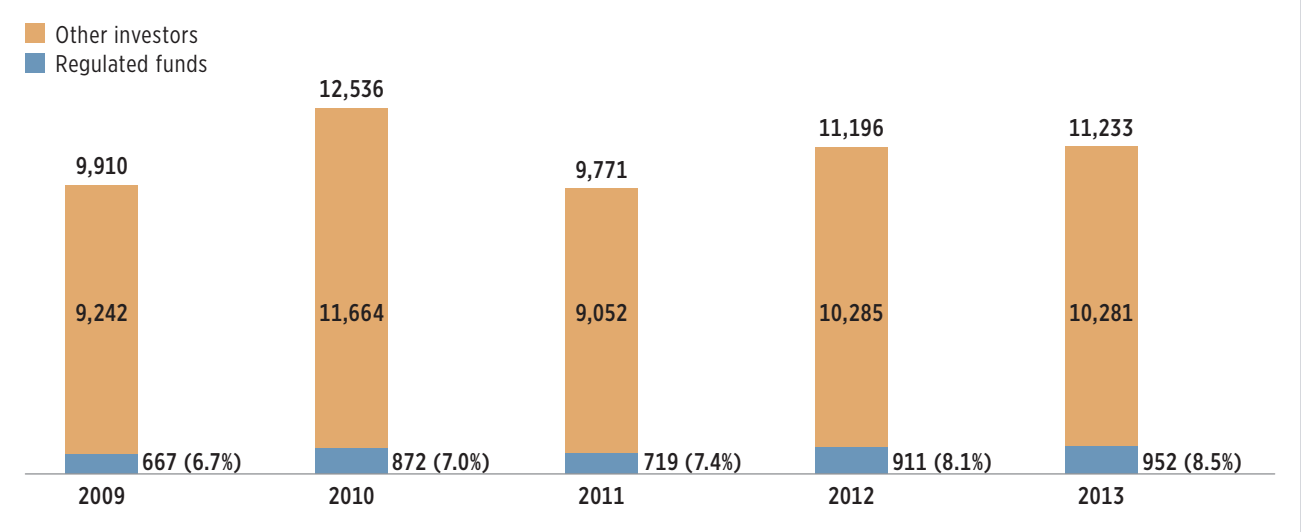
Although regulated funds now hold more assets in emerging market securities than they did a decade ago, it is the scale of those holdings relative to the overall size of the financial markets in those economies that is most relevant.

Figure 5 shows regulated fund holdings of emerging market equities across the globe relative to the total market capitalisation of the stock markets of emerging economies. These holdings rose from $667 billion in 2009 to $952 billion in 2013, an increase of 43 percent. Viewed in isolation, these increases might seem large, even strikingly so. But the stock market capitalisation of emerging market economies is much larger and also has been growing. For example, emerging market stock market capitalisation totaled $9.9 trillion in 2009,[6] and was $11.2 trillion by 2013. Thus, in 2013, regulated funds held just 8.5 percent of the stock market capitalisation of emerging market countries. Moreover, regulated funds' share rose only a bit from 2009 to 2013.

FIGURE 5

Regulated Funds' Share of Total Emerging Market Stock Market Capitalisation

Billions of US dollars (percentage of total); year-end, 2009–2013



Note: This figure classifies countries as emerging based on the IMF's country classification. Components may not add to the total because of rounding.

Sources: EPFR Global and International Monetary Fund (IMF)

These characteristics are even more apparent for regulated fund holdings of emerging market bonds. From 2009 to 2013, regulated fund holdings of emerging market bonds increased from $108 billion to $484 billion, a jump of nearly 350 percent (Figure 6). As with funds' holdings of emerging market equity, although this increase seems large, it is unclear how large an influence it would have on the financial markets of emerging economies. Emerging market debt outstanding is large and growing. According to the International Monetary Fund (IMF), emerging market debt outstanding totaled $7.6 trillion in 2009 and rose to $11.2 trillion by 2013. As a result, in 2013, regulated funds held just 4.3 percent of the total emerging market debt outstanding, up from 1.4 percent in 2009.[7]

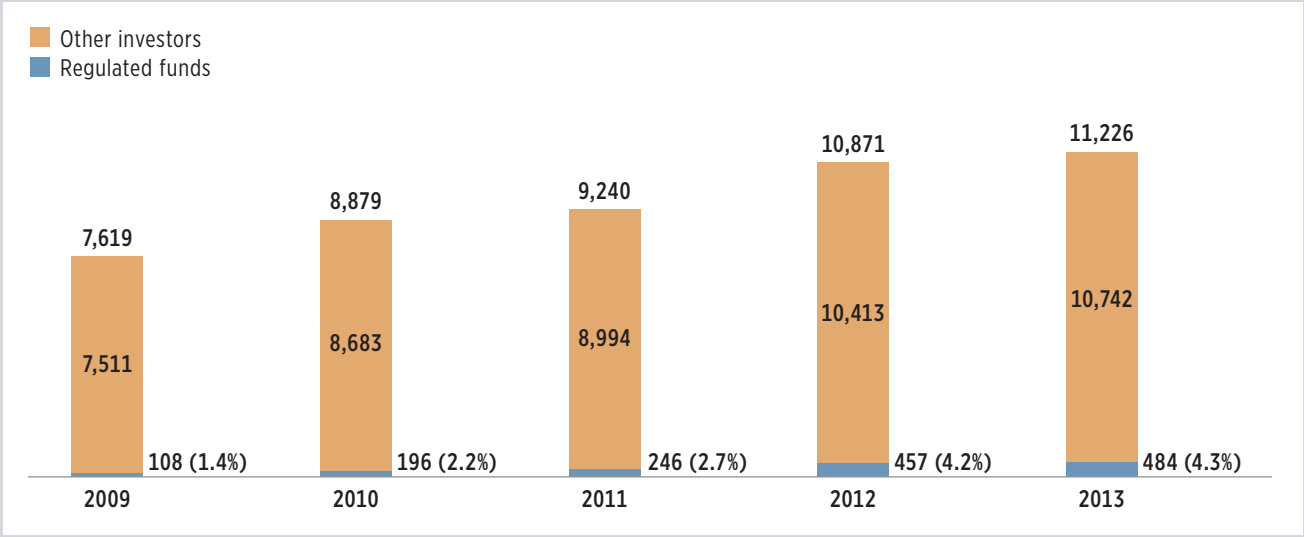
Figures 5 and 6 could, however, understate the relative size of regulated fund holdings in financial markets of emerging economies. For legal or institutional reasons, a large portion of the stocks and bonds issued by emerging market entities often do not trade in financial markets or simply cannot be purchased by foreigners. Thus, it is worth considering scaling the size of regulated fund holdings by the value of the securities that foreigners can actually trade, a concept called 'free float.' For example, one estimate places the free float of emerging market debt at $2.8 trillion as of 2013, much lower than the $11.2 trillion in total emerging market debt outstanding.[8] Even on this basis, regulated funds still hold a small share of outstanding emerging market debt—just 17 percent at year-end 2013.

To summarise, regulated fund holdings of securities issued by emerging market entities have increased substantially in recent years. This, however, was from a very small base, making percent increases look elevated. Overall, regulated funds continue to hold only a small share of the value of capital markets in emerging economies. Other market participants—including banks, other institutional investors in emerging market countries, and domestic investors—remain the overwhelmingly dominant investors in emerging market equity and fixed-income markets.

FIGURE 6

Regulated Funds' Share of Total Emerging Market Bonds Outstanding

Billions of US dollars (percentage of total); year-end, 2009–2013



Note: This figure classifies countries as emerging based on the IMF's country classification. Components may not add to the total because of rounding.

Sources: EPFR Global and International Monetary Fund (IMF)

Regulated Funds' Purchases of Emerging Market Securities Are Not Necessarily Cross-Border

Portfolio capital flows to emerging markets provide benefits in terms of lowering the costs of financing for businesses and governments. But they can also add to pressures in financial markets, contributing to interest rate and exchange rate variability in emerging market countries.

For these reasons, government agencies and international financial institutions (IFIs)—such as the IMF and the Bank for International Settlements—track cross-border portfolio capital flows. By definition, portfolio capital flows arise if there is a transfer of capital across an international border, in particular when a foreign investor purchases a financial asset from or sells a financial asset to a domestic investor. In tracking statistics on portfolio capital flows, government agencies and IFIs do not attempt to identify the portion of the capital flows arising from regulated funds.

Corporations and governments of emerging market countries often issue equity or debt in markets outside their home countries. One reason they do this is to access the deeper and more liquid markets in advanced economies. Emerging market corporations and governments may also issue bonds denominated in 'hard currencies,' such as the US dollar, euro, and other major developed country currencies, partly because interest costs can be lower on bonds issued in hard currencies and because foreign investors may be more apt to purchase emerging market debt if they can avoid exchange rate risk. Finally, corporations may issue securities outside their home countries to either support their international operations or avoid capital controls of one form or another.

These aspects create challenges for analysts because regulated funds' purchases and sales of emerging market securities may or may not result in cross-border capital flows. Perhaps most obviously, a regulated fund can simply purchase an exisiting emerging market stock or bond from a resident of a developed country.

Regulated funds often gain exposure to emerging markets through purchases of American Depository Receipts (ADRs), international debt securities or bonds, and other instruments that trade outside the domestic financial markets of emerging market economies.[9] For example, US-domiciled equity funds largely gain exposure to Chinese stocks through ADRs, which trade on US stock exchanges, and H-shares, which trade on the Hong Kong Stock Exchange (Figure 7),[10] rather than through stocks traded in China (which are known as A-shares). If a regulated fund purchases an ADR or H-share from a resident outside China, the fund in effect gains exposure to Chinese entitites without creating a portfolio capital flow.

FIGURE 7

US Regulated Funds Gain Exposure to Chinese Equity Largely Through ADRs and H-Shares

Billions of US dollars; 31 December 2013

Share type	US regulated fund holdings of equity issued by Chinese companies
ADRs (e.g., traded on NYSE, NASDAQ)	$28.2
H-shares (e.g., traded on Hong Kong SE)	56.0
Unclassified	49.6
Total	133.8
Total market capitalisation of ADRs as of 30 September 2014: $2.7 trillion US dollars	

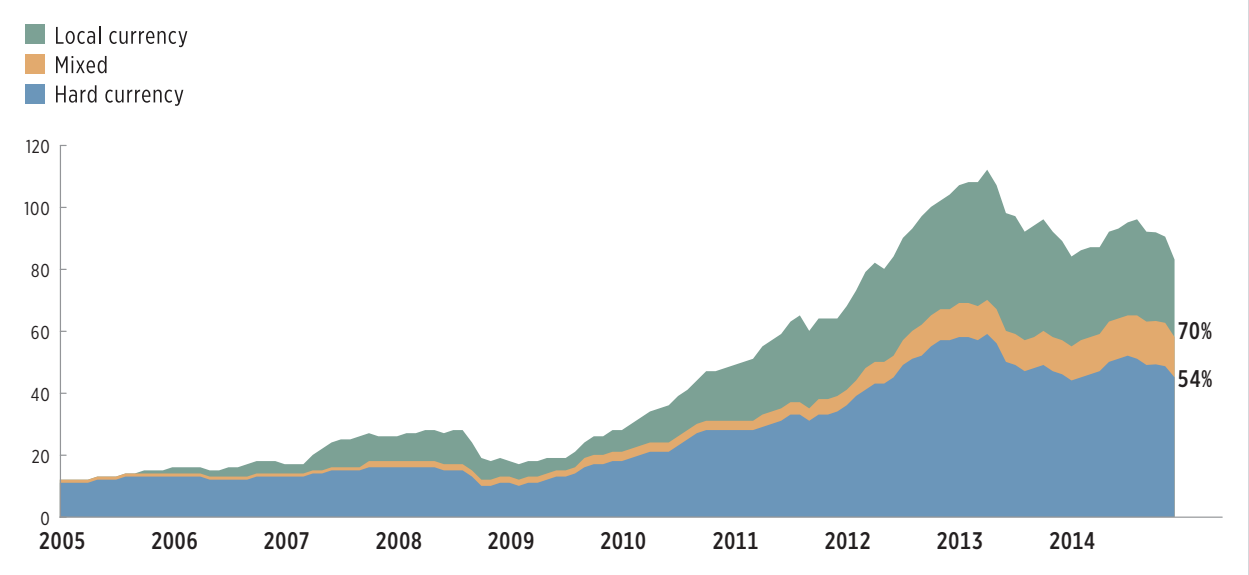
Source: Investment Company Institute tabulations of Morningstar and Bloomberg data

A related issue is what happens when an emerging market fund purchases an emerging market bond that is denominated in a hard currency. Many emerging market bond funds own what are called hard-currency emerging market bond funds (Figure 8). Local-currency bond funds have gained in popularity over time and now manage about 30 percent of emerging market bond fund assets. This preference for hard-currency debt means that these funds may very well purchase outstanding debt securities from another foreign investor, since foreign investors are very active in international hard-currency bonds.

FIGURE 8

Assets of US Emerging Market Bond Funds by Currency Type

Billions of US dollars; month-end, 2005–2014



Note: This figure classifies countries as emerging based on EPFR Global's country specification.
Source: EPFR Global

The growth of ADRs and the issuance of offshore equity and debt complicates efforts to gauge the potential influence of regulated funds on emerging markets. Official statistics are insufficient to determine whether a regulated fund's purchases and sales of emerging market securities are cross-border. Consequently, most analyses, including the analysis in this report, simply assume that when a regulated fund purchases or sells an emerging market security, that creates a cross-border capital flow. This approach would overstate the portfolio capital flow arising from a regulated fund to the extent that it buys or sells emerging market securities from other investors who do not live in an emerging market country.

In fact, portfolio capital flows to emerging markets may be driven more by new issuance of debt and equity than regulated funds' purchases and sales of emerging market securities. Certainly, much of the new issuance of emerging market stocks and bonds appears to be absorbed by investors other than regulated funds. For example, Shin (2014) reports that emerging market corporate bond issuance has grown tremendously since the global financial crisis. Since June 2013, US and European regulated funds have not increased their holdings of emerging market bonds, and net fund purchases of emerging market bonds from 2010 to 2014 totaled just $134 billion. This indicates that investors other than regulated funds must have been absorbing the vast majority of new emerging market bond issuance since the financial crisis.

Regulated Funds Typically Constitute a Minority of Foreigners' Holdings of Emerging Market Stocks and Bonds

Domestic investors, such as banks, institutional investors, and retail investors, provide the vast majority of capital to emerging market economies and play a key role in financial stability. Yet theoretically, regulated funds could still have an outsized influence on capital markets in emerging economies if they constitute a sizeable fraction of the emerging market stocks and bonds held by investors *outside* of emerging market countries.

For instance, suppose that the total bonds outstanding in a given emerging market country (country X) is $100 billion. Fifty billion is held by residents of that country and the remaining $50 billion is held by foreigners. Suppose also that regulated funds hold $40 billion of the $50 billion held by foreigners. It is possible that the $40 billion could have an outsized influence on the bond market of country X, if the residents of country X trade their bonds very little. This might be the case if, say, that debt were held by defined benefit pension (DB) plans that seek to hold a fixed proportion of their portfolios in country X's bonds. In that case, because regulated funds could be the most active traders in the bonds of country X, their actions might have an outsized effect on that country's bond prices, and thus, interest rates.

Regulated funds account for a substantial fraction of the foreign portfolio investment—foreign holdings of emerging market stocks and bonds—in a number of emerging market countries. Generally, however, regulated funds do not account for the *majority* of that investment. Figure 9 tabulates estimated regulated fund holdings of emerging market stocks and bonds as a percentage of all foreigners' holdings for 11 emerging market countries as of 2012. The median was just 30 percent.[11]

Thus, regulated funds hold a sizeable fraction of the emerging market country equities and bonds held by all foreign investors, but generally not the majority. The majority is held by other foreign investors, such as banks, DB pension plans, insurance companies, sovereign wealth funds, hedge funds, and individual investors with direct holdings.

FIGURE 9

Regulated Fund Holdings Account for a Minority of Foreign Portfolio Holdings in Many Emerging Markets

Country	Regulated fund share of foreign portfolio holdings *Percent, year-end 2012*
Brazil	29
Chile	30
China	82
India	56
Korea	25
Mexico	30
Poland	26
Russia	47
South Africa	39
Thailand	34
Turkey	29
Median	**30**

Source: Investment Company Institute tabulations of EPFR Global and International Monetary Fund (IMF) International Investment Position data (June 2014)

Regulated Funds Account for a Small Portion of Cumulative Flows of Foreign Investment in Emerging Market Countries

Yet another way to gauge whether regulated funds might have a sizeable influence on financial markets in emerging market countries is to examine investment flows, as opposed to levels of holdings.

Figure 10 shows cumulative flows of new capital by foreigners to emerging market countries from 2010 to 2014.[12] The top panel shows investment flows to emerging market equities and the bottom panel shows flows to emerging market bonds. According to the IMF, from the first quarter of 2010 to the fourth quarter of 2014, all foreign investors cumulatively purchased, on net, $400 billion in emerging market equity and more than $1 trillion in emerging market bonds. Of that, regulated funds' cumulative purchases, on net, totaled $60 billion in emerging market equity and $134 billion in emerging market bonds.

In short, during the past five years, regulated funds have accounted for less than 15 percent of the $1.4 trillion of new foreign portfolio capital flowing to emerging economies. The balance of new foreign portfolio investment—more than 85 percent—has come from other financial market participants.

The Relative Stability of Regulated Fund Flows to Emerging Market Countries

Although regulated funds do not account for the majority of the emerging market stocks and bonds held by foreigners, authorities may be more concerned about the *stability* of regulated fund holdings of foreign capital.

Consequently, this section analyses the variability of portfolio capital flows from regulated funds to emerging economies. As it turns out, portfolio capital flows from regulated funds to emerging markets are *less* variable than those attributable to other investors. In addition, portfolio capital flows from regulated funds in some cases actually *offset*, rather than add to, the portfolio capital flows from other investors. Thus, if anything, regulated funds create a more stable base of capital investment for emerging market countries.

Funds Are a Relatively Stable Source of Foreign Investment in Emerging Market Countries

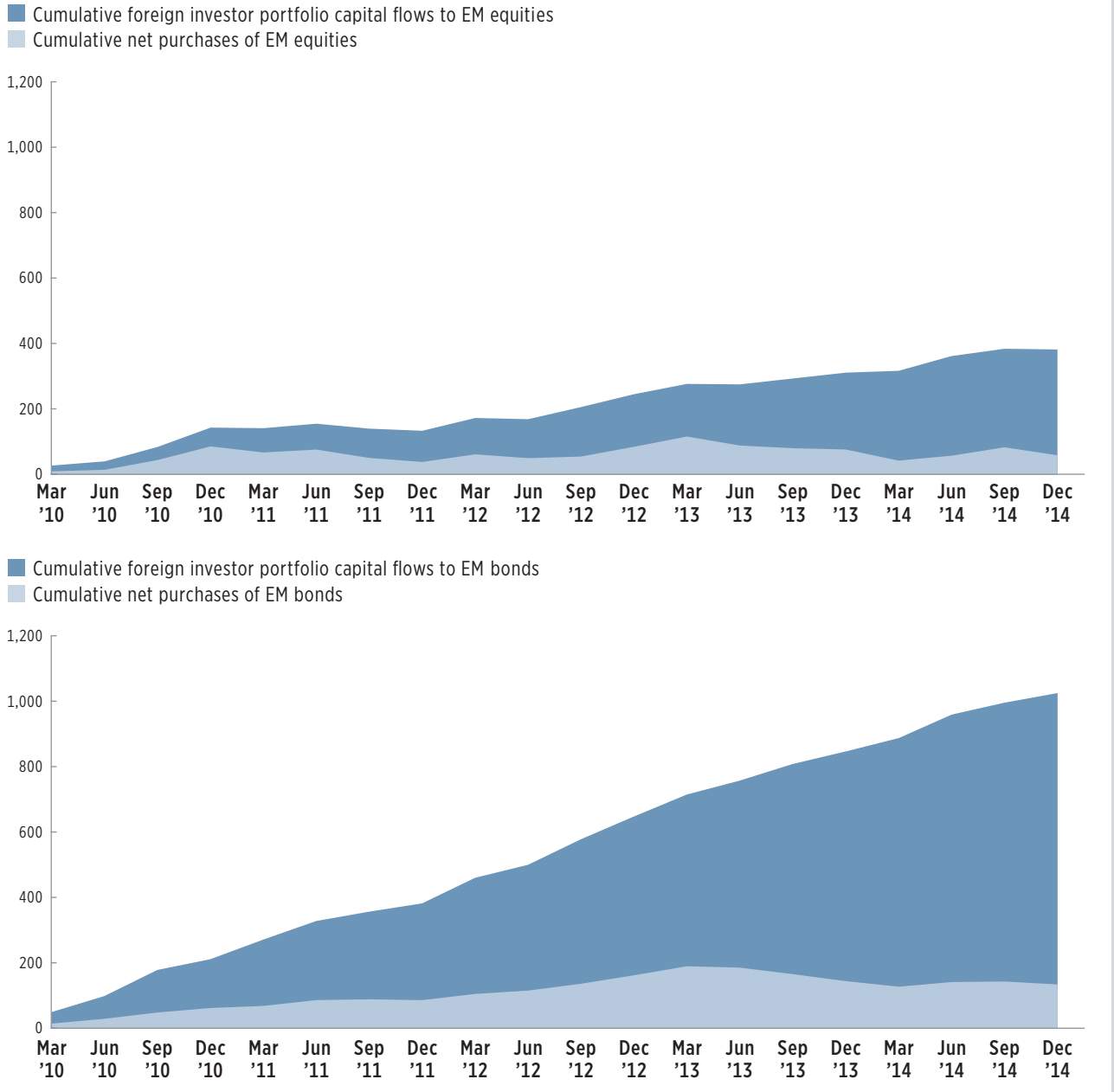
Figure 11 examines the variability of portfolio flows to the same 11 emerging market countries considered in Figure 9. The first column in the table presents a measure (standard deviation) of the total variability of portfolio capital flows to these countries, based on quarterly data. The measure shows, for instance, that roughly two-thirds of the time, quarterly portfolio capital flows to Brazil will be within ±$8.4 billion. The average across the 11 countries is ±$5.2 billion.

It is possible to separate the quarterly variability in portfolio capital flows into proportions arising from regulated funds, other investors, and a residual that captures the co-movement between the portfolio capital flows attributable to regulated funds and other investors.[13] This is shown in the three remaining columns in the table. By definition, the sum of the three columns is 100 percent.

FIGURE 10

Cumulative Net Purchases of Emerging Market Securities Are a Small Share of Total Foreign Investor Portfolio Capital Flows to Emerging Markets

*Billions of dollars; quarterly, March 2010–December 2014**



* Data for September 2014 and December 2014 are estimated.

Sources: Institute of International Finance and EPFR Global

FIGURE 11

Net Purchases of Emerging Market Securities Are Not the Primary Source of Variability of Portfolio Capital Flows

Quarterly data, 2005:Q1–2013:Q4

	Volatility measure:	Percentage of variance in net foreign portfolio capital flows due to:		
	Standard deviation of net foreign portfolio capital flows *Billions of US dollars*	Regulated funds	Other foreign portfolio investors	Residual[1]
	(1)	(2)	(3)	(4)
Brazil	8.4	25.2	73.1	1.6
Chile	1.6	4.1	100.0	-4.1
China[2]	7.8	48.4	48.2	3.3
India[2]	5.6	10.8	64.8	24.5
Korea	8.2	7.6	74.7	17.7
Mexico	7.7	5.4	89.4	5.2
Poland	3.6	4.5	74.9	20.7
Russia	5.4	21.9	72.5	5.6
South Africa	3.0	10.8	91.9	-2.7
Thailand	2.2	13.2	66.1	20.7
Turkey	4.3	4.7	82.0	13.3
Simple average	**5.2**	**14.2**	**76.2**	**9.6**

[1] 'Residual' is due to the correlation between net purchases and portfolio capital flows from other foreign investors.

[2] In the IMF database, China's balance-of-payments data are only available from 2010:Q1 to 2012:Q4 and India's balance-of-payments data on debt flows are only available from 2009:Q2 to 2013:Q1.

Source: Investment Company Institute tabulations of EPFR Global and International Monetary Fund (IMF) balance-of-payments data (June 2014)

The analysis strongly suggests that regulated funds are not the primary source of the variability of portfolio capital flows to emerging markets. On average, less than 15 percent of the variance of foreign portfolio capital flows is attributable to regulated funds. By contrast, more than 75 percent is directly attributable to other foreign investors.[14]

Moreover, for each of the 11 countries, regulated funds are responsible for less than half—and in most cases, far less than half—of the variability of portfolio capital flows. In the case of Mexico, for instance, regulated funds account for just 5.4 percent of the variability in portfolio capital flows to that country from 2005:Q1 to 2013:Q4; other investors account for the vast majority of the variation (89.4 percent).[15]

In addition, regulated funds' contribution to the variability of portfolio capital flows is generally smaller than their contribution to total foreign portfolio holdings. For example, Figure 9 shows that regulated funds hold 39 percent of South African stocks and bonds held by foreigners. However, Figure 11 shows that they account for only 10.8 percent of the variability of portfolio capital flows to South Africa. As another example, regulated funds hold 30 percent of Mexican stocks and bonds held by foreigners, but account for only 5.4 percent of the variability of portfolio capital flows to Mexico. Indeed, the numbers in column (2) of Figure 11 are always less than their counterparts in Figure 9, indicating that with respect to the variability of portfolio capital flows to emerging economies, regulated funds 'punch under their weight.'

In fact, the analysis in Figure 11 highlights a feature of portfolio capital flows from regulated fund flows that is often overlooked: they may help *dampen*, rather than exacerbate, variability in stock or bond prices in emerging market economies. For two of the countries, Chile and South Africa, capital flows due to regulated funds tend to move inversely to capital flows arising from other investors, which is what a negative 'residual' in column (4) means. Thus, if other investors reduce their net holdings of Chilean and South African securities, that could put downward pressure on stock and bond prices in those countries. Yet, according to recent data, in those instances regulated funds were, if anything, likely to have been making net purchases of Chilean and South African securities, buffering any downside pressure arising from sales of portfolio securities by other investors.

A striking example of this phenomenon is Brazil's experience during the so-called Taper Tantrum in the summer of 2013, a period when US long-term interest rates rose sharply on market expectations that the US Federal Reserve would soon begin scaling back its programme of large-scale asset purchases and perhaps begin raising short-term interest rates (see page 18).

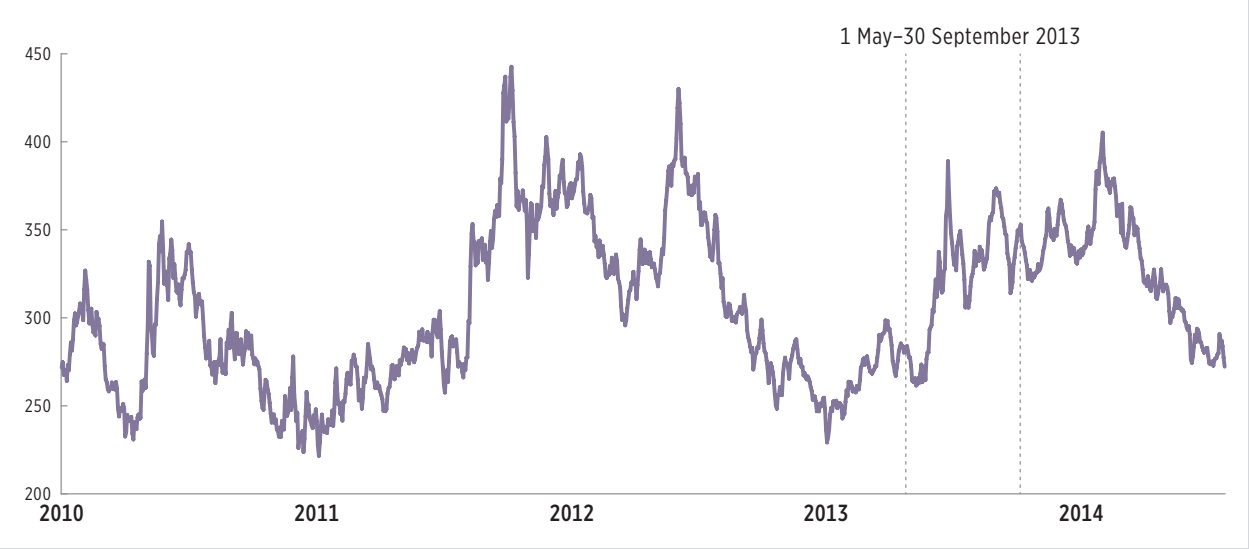
A Case Study in Portfolio Capital Flows from Regulated Funds: Brazil

In May and June 2013, US long-term interest rates spiked on expectations that the Federal Reserve would soon begin to reduce its large-scale purchases of bonds and perhaps begin to raise short-term interest rates. In tandem, yields rose on emerging market debt relative to yields on US Treasuries (Figure 12).

FIGURE 12

Yield Spread on Dollar-Denominated Emerging Market Sovereign Debt over Treasuries

Basis points; daily, 4 January 2000–24 July 2014



Source: Bloomberg

Concerns arose that these developments could create unhelpful pressures in the financial markets of emerging economies, particularly among those with large current account deficits. Private-sector analysts highlighted the so-called Fragile Five—Brazil, India, Indonesia, South Africa, and Turkey—as being especially vulnerable. In light of their large current account deficits, analysts were concerned that portfolio capital outflows could put upward pressure on interest rates in those countries and downward pressure on their exchange rates. Some commentators noted that emerging market funds were experiencing outflows over this period, apparently assuming that these outflows were creating the downward pressure on exchange rates and assets prices in emerging markets.

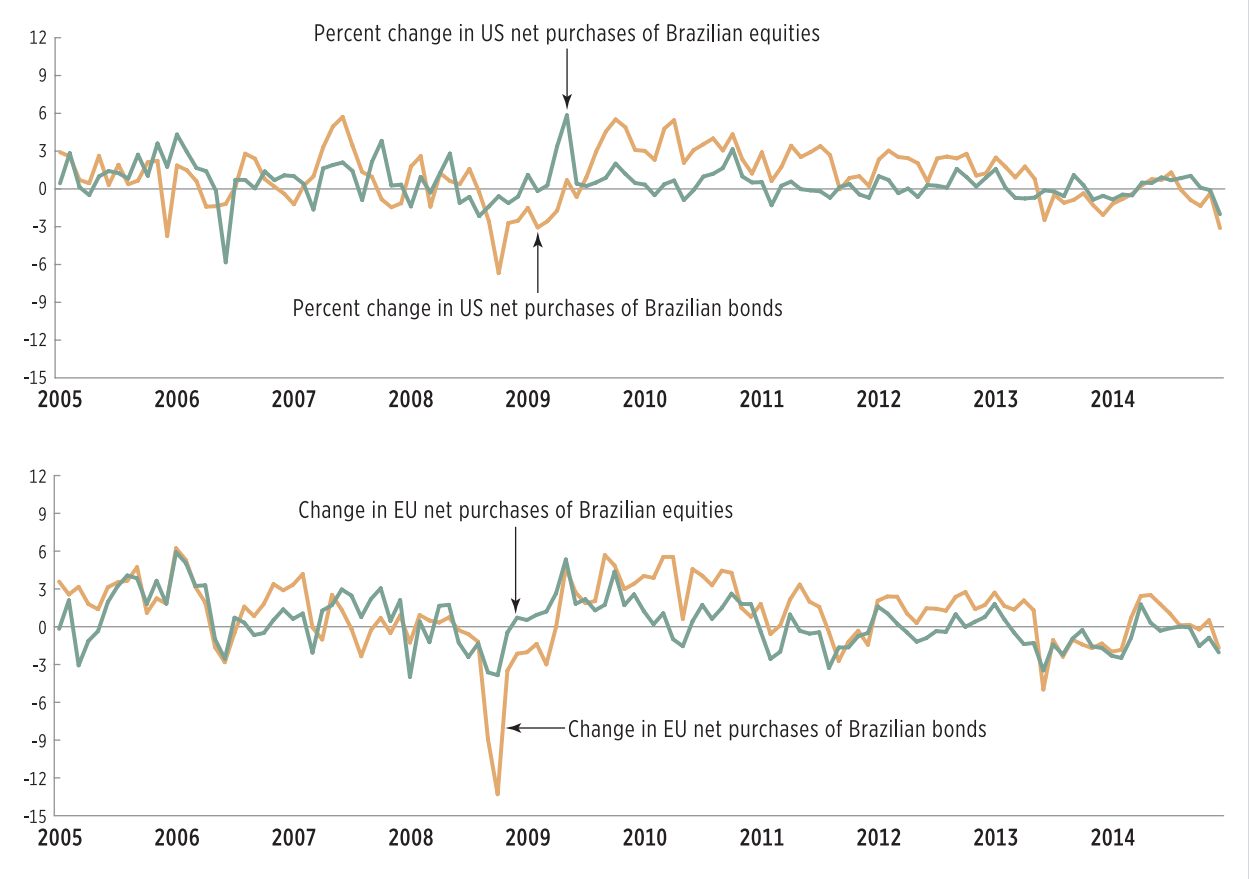
Brazil's experience, however, is edifying. During this period, regulated funds reduced their holdings of Brazilian debt and equity. It is unclear what effect, if any, this had on Brazilian financial markets.

One reason is that the reduction in regulated fund holdings of Brazilian financial market securities was relatively small compared to funds' holdings of Brazilian securities. Of the Fragile Five, Brazil experienced the largest estimated dollar reduction in regulated fund holdings of their bonds from June to December 2013—a $5.3 billion cumulative outflow.[16] Figure 13 shows, however, that this reduction was small compared to regulated fund holdings of Brazilian bonds and equity. For example, the estimated reduction in US-domiciled bond fund holdings of Brazilian debt never exceeded 2.5 percent of their assets in any month from June to December 2013, and averaged 1.2 percent over this period. EU-domiciled bond funds reduced their estimated holdings by somewhat more, on average 2 percent per month over this same period, but the overall decline was not especially sharp or large.

FIGURE 13

Changes in Regulated Net Purchases of Brazilian Securities

Net purchases as a percentage of previous period holdings; monthly, 2005–2014



Source: EPFR Global

Brazilian policymakers took preemptive and aggressive policy actions to mitigate any potential effect that rising US long-term interest rates might have had on Brazilian financial markets. From late May 2013 to late November 2013, the central bank of Brazil raised its policy interest rate from 7.5 percent to 10 percent.[17] In addition, in early June 2013, the Brazilian government eliminated a 6 percent tax on foreigners' purchases of Brazilian government bonds that had previously been instituted to limit 'excessive capital flows.'[18] Reflecting these changes, balance of payments data indicate that from June to December 2013, foreigners, on net, *purchased* $18 billion of Brazilian bonds.[19]

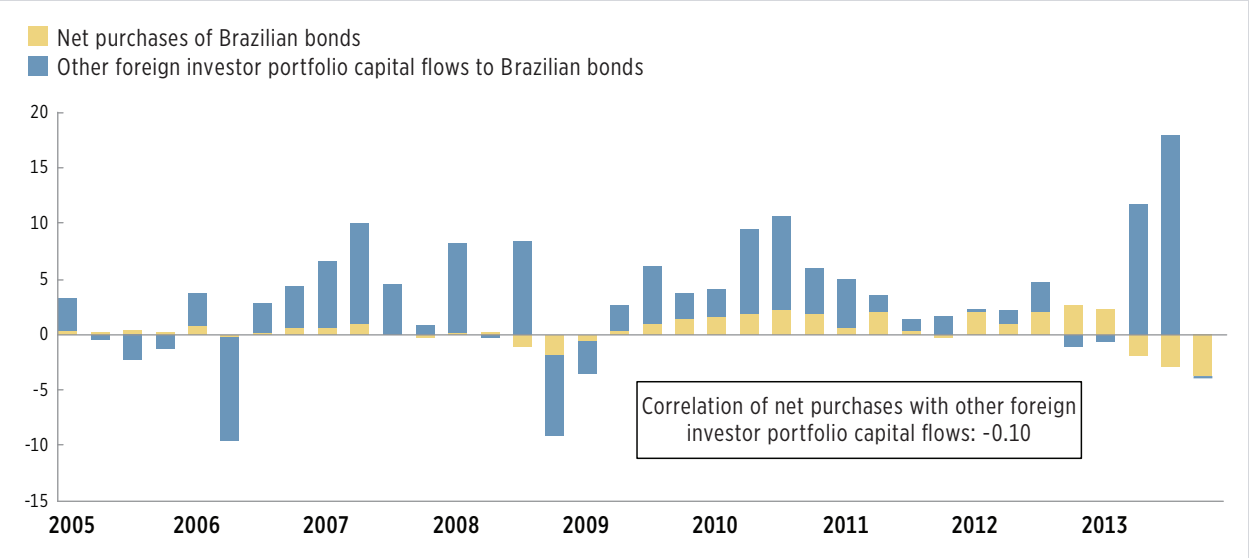
Arguably, in Brazil's case, the actions of regulated funds during the Taper Tantrum were not the determining factor in whether Brazil received portfolio inflows or outflows. Figure 14 illustrates this point. The figure plots the estimated change in regulated fund holdings of Brazilian bonds versus net purchases of Brazilian debt from other foreign investors from 2005 to 2013. Net purchases arising from other foreign investors account for most of the variability in foreign capital flowing to Brazil's bond market, and these flows do not always move in the same direction. More to the point, however, net purchases of Brazilian debt attributable to regulated funds and other foreign investors were inversely related in 2013. Thus, although regulated funds were reducing their holdings of Brazilian debt during the Taper Tantrum period, the reduction was more than offset by increased purchases by other investors.

Brazil's experience highlights the more general point that, from a public policy perspective, when it comes to portfolio capital flows, it is important to monitor portfolio capital flows arising from all foreigners, not just those of regulated funds in isolation.

FIGURE 14

Net Purchases of Brazilian Bonds Versus Brazilian Bond Portfolio Capital Flows from Other Investors

Billions of US dollars; quarterly, 2005–2013



Sources: EPFR Global and International Monetary Fund (IMF)

Regulated Fund Holdings of Emerging Market Securities Are Diffuse

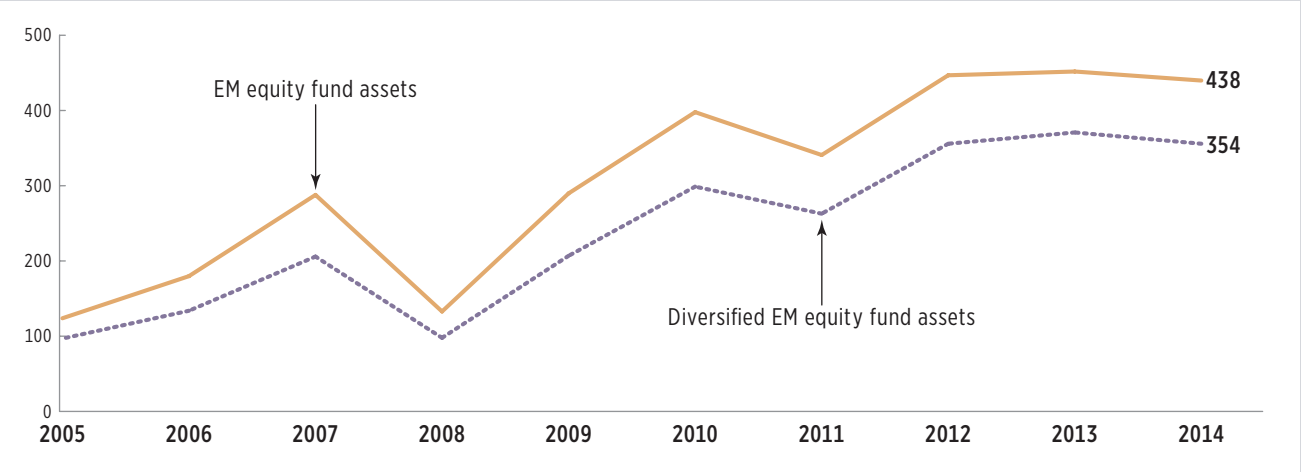
Households typically purchase regulated funds with the expectation that funds' holdings are diversified. Perhaps not surprisingly, emerging market funds,[20] especially those domiciled in the United States, tend to diversify their portfolios across a wide range of emerging market countries, rather than allocating their assets to just a few countries.

For example, as of December 2014, assets in US emerging market equity funds totaled $438 billion. Of that, 81 percent was in funds classified as global emerging market equity funds, funds that seek to diversify their portfolios across a wide array of countries (Figure 15). At that same time, assets in US emerging market bond funds totaled $83 billion, and essentially all of that ($82 billion) was in global emerging market bond funds (Figure 16). Thus, broadly speaking, US-domiciled emerging market equity and bond funds tend to diversify their holdings across many countries, rather than concentrating them in a few.

FIGURE 15

Most US-Domiciled Emerging Market Equity Funds Are Diversified Across Emerging Markets

Billions of US dollars; year-end, 2005–2014

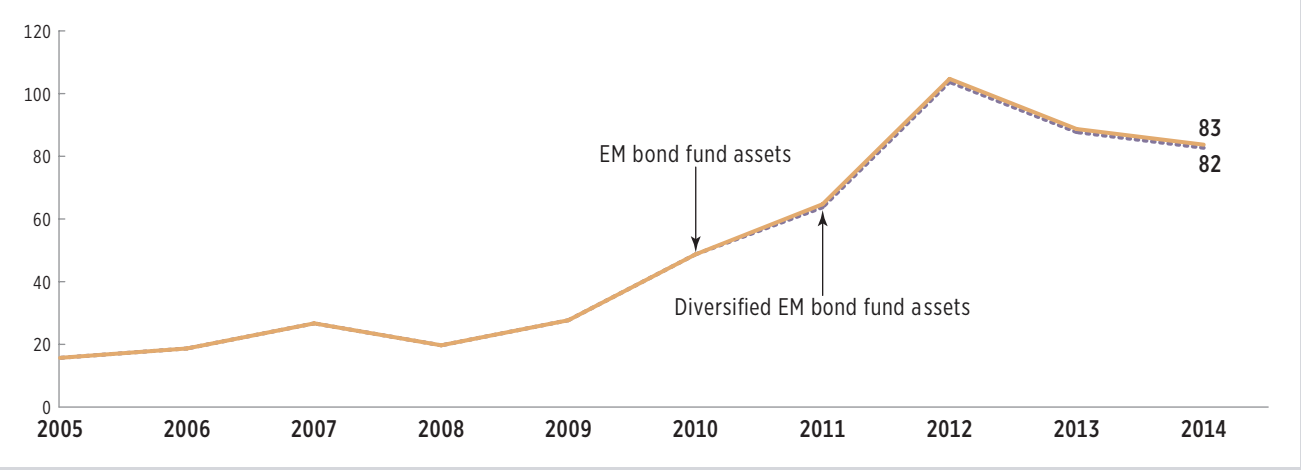


Source: EPFR Global

FIGURE 16

Most US-Domiciled Emerging Market Bond Funds Are Diversified Across Emerging Markets

Billions of US dollars; year-end, 2005–2014



Source: EPFR Global

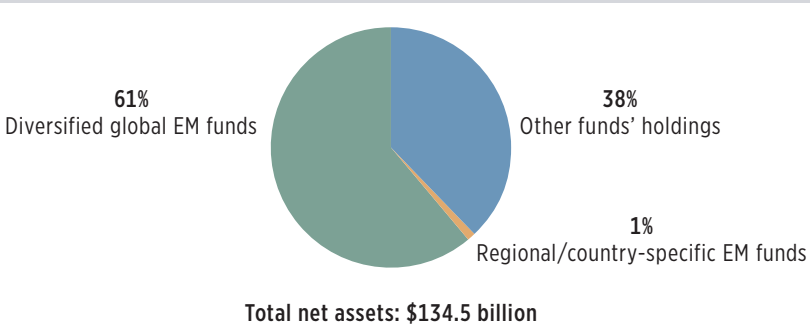
US and European funds' holdings of emerging market bonds, more generally, do not tend to focus on specific regions or countries, and instead focus on obtaining diversified exposure to emerging market bonds. For example, Figure 17 depicts all US regulated fund holdings of emerging market bonds as of December 2014. In total, US regulated funds—which includes both emerging market funds and other funds—held $134.5 billion of emerging market bonds. The majority, or 61 percent, was held by globally diversified emerging market bond funds. The remainder was held almost entirely by other (non–emerging market) funds, which are also likely to diversify their holdings widely, in some cases gaining broad exposure to emerging markets by investing in underlying mutual funds or ETFs that track globally diversified emerging market indexes. Regional- or country-specific emerging market funds held only 1 percent—about $1 billion—of the emerging market bonds held by US regulated funds.

European regulated funds that focus on emerging markets also are primarily diversified funds, rather than region- or country-specific funds, although to a somewhat lesser degree than US regulated funds. European regulated funds held $285.4 billion in emerging market bonds as of December 2014 (Figure 18). As with US regulated funds, the majority of this was held by globally diversified funds. Most of the rest (35 percent) was held by other (non–emerging market) funds, and only 10 percent was held in region- or country-specific funds.

FIGURE 17

Estimated Holdings of Emerging Market Bonds by Type of Regulated US Fund

Year-end 2014

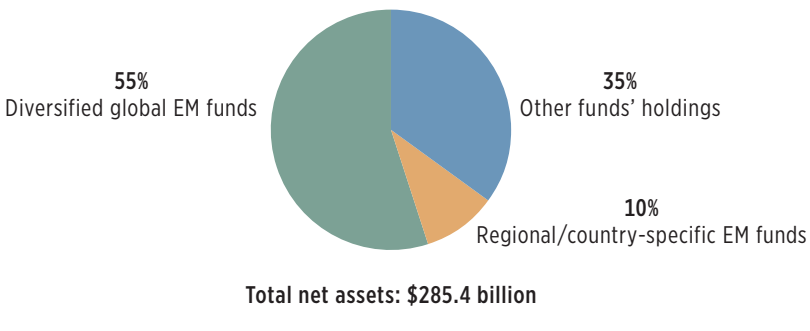


Source: EPFR Global

FIGURE 18

Estimated Holdings of Emerging Market Bonds by Type of Regulated EU Fund

Year-end 2014



Source: EPFR Global

Thus, in both the United States and Europe, regulated fund holdings of emerging market securities are apt to be dispersed across many countries. Figure 19 demonstrates this by summarising regulated fund holdings of emerging market securities by the issuer's domicile.[21] In total, US and European regulated funds—both emerging market funds and other funds—held $1.7 trillion in emerging market securities as of December 2014. Of that, $1.3 trillion was in emerging market equities and the balance, $431 billion, was in emerging market bonds. These holdings were spread across more than 85 different countries, although most of the holdings were in the top 22 countries.[22]

FIGURE 19

US- and European-Domiciled Regulated Fund Holdings of Emerging Market Securities

31 December 2014

	Total holdings	Equity holdings		Bond holdings	
Country	*Millions of US dollars*	*Millions of US dollars*	*Percentage of total*	*Millions of US dollars*	*Percentage of total*
China	$309,230.2	$290,374.3	22.82%	$18,855.9	4.37%
South Korea	143,642.8	128,093.2	10.07	15,549.6	3.61
India	141,629.5	132,370.7	10.40	9,258.8	2.15
Brazil	131,502.5	91,644.0	7.20	39,858.5	9.25
Taiwan, Province of China	107,329.5	107,104.8	8.42	224.7	0.05
Hong Kong	97,233.7	90,477.6	7.11	6,756.1	1.57
Mexico	86,001.3	38,084.4	2.99	47,916.9	11.11
South Africa	71,779.9	53,540.8	4.21	18,239.1	4.23
Russia	56,816.1	38,434.2	3.02	18,382.0	4.26
Indonesia	52,858.4	29,479.4	2.32	23,379.0	5.42
Singapore	44,081.9	39,638.5	3.12	4,443.4	1.03
Other Europe	43,573.6	21,995.7	1.73	21,577.9	5.01
Poland	39,941.0	10,592.5	0.83	29,348.5	6.81
Thailand	38,689.4	32,733.3	2.57	5,956.1	1.38
Turkey	38,067.7	21,418.4	1.68	16,649.3	3.86
Malaysia	33,443.1	21,784.5	1.71	11,658.6	2.70
Israel	26,635.6	22,727.8	1.79	3,907.8	0.91
Philippines	23,169.2	16,276.3	1.28	6,892.9	1.60
Colombia	19,552.7	4,528.4	0.36	15,024.3	3.49
Chile	18,950.6	11,861.5	0.93	7,089.1	1.64
Peru	15,800.5	5,844.5	0.46	9,956.0	2.31
Hungary	13,724.2	2,325.2	0.18	11,398.9	2.64
All other EM countries	149,723.2	60,937.0	4.79	88,786.3	20.59
Total	**1,703,376.6**	**1,272,266.9**	**100.00**	**431,109.8**	**100.00**

Note: Equity and bond holdings may not add to the total because of rounding. Countries listed represent those with total holdings greater than $10 billion US dollars. This table includes the newly industrialised countries of Hong Kong, Singapore, South Korea, and Taiwan (Province of China) for illustrative purposes.

Source: EPFR Global

China, South Korea, and India received the highest equity allocations, each exceeding 10 percent, which is not surprising given the size of their economies. No other country received more than 10 percent of the total assets that regulated funds allocated to emerging market equities.

For bond allocations, Mexico, Brazil, and Poland received the highest allocations, each exceeding 6 percent; no other country received more than 6 percent of the total assets allocated by regulated funds to emerging market bonds. For example, funds allocated $6.9 billion to bonds issued by Philippine entities, which amounted to just 1.6 percent of the total $431 billion in emerging market debt securities held by regulated funds.

In sum, regulated fund holdings of emerging market securities are widely diversified across developing countries. This finding suggests that if there were investor outflows from US and European regulated funds, funds would likely accommodate them by selling a small amount of securities from a wide range of emerging market countries, which should help alleviate concerns about destabilisation. Also, the countries where regulated funds allocate more assets to equity markets—such as China, South Korea, and India—have much larger economies and stock market capitalisation with very large domestic investor bases, which help limit the impact of relatively small fund inflows and outflows. Also, for China, much of the equity investment by regulated funds occurs outside of China's domestic equity market, limiting the potential impact of funds' actions on its domestic markets.

Regulated Funds' Net Purchases of Emerging Market Securities and Returns

In monthly data, regulated funds' net purchases of emerging market securities are correlated with returns on those securities.[23] For example, Figure 20 plots regulated funds' net purchases of emerging market stocks against a measure of the returns on those securities. Funds' net purchases tend to move in the same direction as (or in other words, are positively correlated with) returns in emerging stock markets. The same correlation is apparent between regulated funds' purchases of emerging market bonds and the returns on emerging market bonds (Figure 21).

It is an axiom of statistics, however, that correlation is not the same as causation. The relationships apparent in Figures 20 and 21 could arise for many reasons. For example, fund portfolio managers and other market participants could be reacting to a common influence, such as changes in monetary policy or the release of a gross domestic product (GDP) report indicating that economic growth has been stronger in emerging economies than previously anticipated.

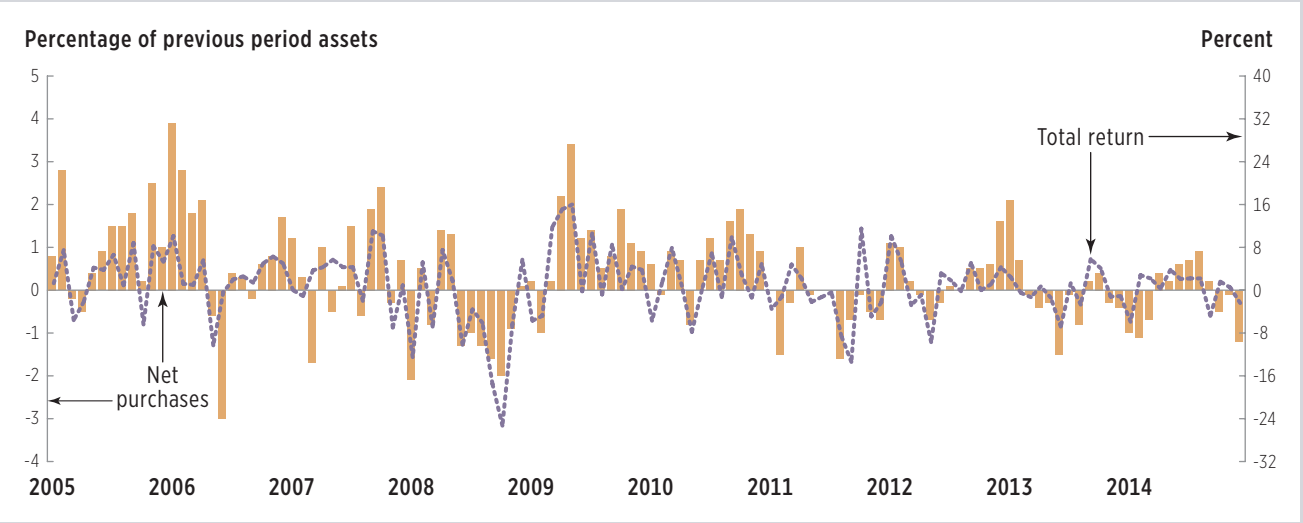
As discussed earlier, there has been a fair bit of research exploring whether investors' redemptions from regulated funds *cause* stock and bond prices to change to a degree that could be destabilising. The evidence of this, however, is mixed to absent.

This section summarises new research on this issue, the full details of which are in the appendix. This new research improves on earlier work in three important ways. First, the new research assesses the influence of regulated funds' activities on emerging financial markets by studying their monthly net purchases of emerging market securities, rather than investors' flows to emerging market funds only. Second, the new research distinguishes the influence regulated funds may have on emerging markets independently from the influence of other (non-fund) investors. Third, the research provides new evidence based on weekly data on whether regulated funds' net purchases of emerging market securities amplify returns in the financial markets of emerging countries.

FIGURE 20

Net Purchases of Emerging Market Equities Are Related to Emerging Market Equity Returns

Monthly, 2005–2014

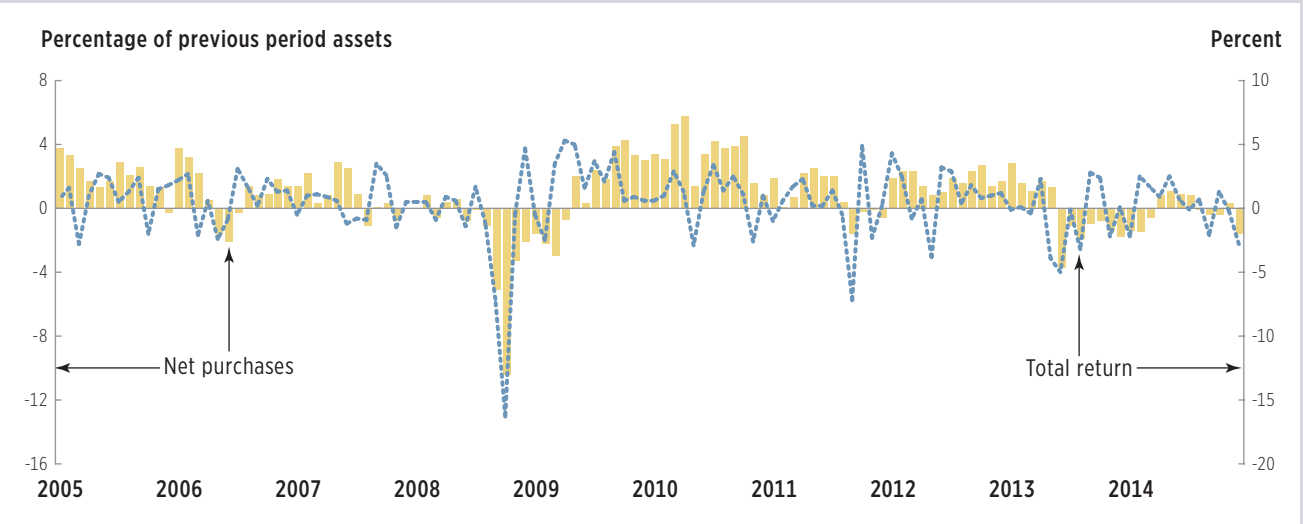


Note: Total return is the asset-weighted average total return for all EM equity funds.
Sources: EPFR Global and Bloomberg

FIGURE 21

Net Purchases of Emerging Market Bonds Are Related to Emerging Market Bond Returns

Monthly, 2005–2014



Note: Total return is the asset-weighted average total return for all EM bond funds.
Sources: EPFR Global and Bloomberg

Evidence from Monthly Data on Links Between Emerging Market Returns and Regulated Funds' Net Purchases of Emerging Market Securities

Analysis in the appendix uses monthly data to examine the relationship between the returns on emerging market securities and regulated funds' net new purchases of emerging market securities. Regulated funds' net purchases of emerging market securities are estimates for all regulated funds in the United States, Europe, Canada, Japan, and include emerging market funds and all other funds.[24]

The results show, as might be expected given earlier research, that there is a strong, positive statistical relationship between regulated funds' purchases of emerging market stocks and bonds and returns on those securities. Taken at face value, this could be interpreted as indicating that when regulated funds sell emerging market bonds, that puts downward pressure on their prices.

But the analysis also indicates that returns on emerging market securities are influenced by a range of other fundamental factors, such as US financial market developments. Not surprisingly, shocks to financial markets in developed countries have a significant effect on financial markets in developing economies. Returns on emerging market securities, for instance, are heavily influenced by gains or losses in US stock and bond markets. Returns on emerging market securities also tend to fall when volatility in US equity markets increases.

More significantly, though, the analysis indicates that regulated funds' net purchases are a poor proxy for the actions of other (non-fund) investors. The statistical link between returns on emerging market securities and regulated funds' net purchases of such securities vanishes when allowance is made for the fact that many investors other than regulated funds also buy and sell emerging market securities. While this finding does not rule out the possibility that the actions of regulated funds could significantly affect the financial markets of emerging economies, it does suggest that regulators should focus on portfolio capital flows to emerging market countries from all foreign investors, rather than focusing narrowly on those from regulated funds.

Evidence from Weekly Data on Links Between Emerging Market Returns and Regulated Funds' Net Purchases of Emerging Market Securities

Conclusions based on monthly data about the potential for regulated funds to amplify shocks to emerging markets must be tempered by the recognition that there is an inherent 'lead-lag' issue. Suppose, for instance, that the stock market in Chile jumps early in the month owing to new data pointing to a stronger economy. Also suppose that later in the month, in view of the stronger economy, regulated funds add to their holdings of Chilean equities. In monthly data, regulated funds' additional purchases of Chilean stocks will be correlated with returns on Chilean stocks. This creates the possibility that an analyst who looks only at monthly data on Chilean stock market returns and funds' net purchases—without considering other factors or data—might incorrectly conclude that funds' purchases were *causing* Chilean stock prices to rise.

Although not eliminating the lead-lag issue, weekly data can ameliorate it, allowing for a better understanding of how funds' purchases of securities respond to past returns and whether they drive future returns. In the Chilean example, for instance, one could tell from weekly data that funds purchased additional securities late in the month, well after Chilean stock prices had risen, allowing one to conclude that the rise in Chilean stock prices had caused funds' purchases to rise and not the opposite.

Broadly, the results indicate that regulated funds' net purchases of emerging market securities respond gradually to unexpected changes in returns on emerging market securities. In contrast, the results provide no statistical evidence that regulated funds' net purchases of emerging market securities drive future returns on those securities.[25]

Results for Emerging Market Bonds

The appendix presents a statistical model that relates returns on emerging market bonds and funds' weekly net purchases of emerging market bonds to past values of these variables (Figure A3).[26] The model explains funds' net purchases of emerging market bonds well, explaining more than 60 percent of the weekly variation in funds' net purchases. The model does not explain returns on emerging market bonds as well, accounting for only 33 percent of weekly variation.

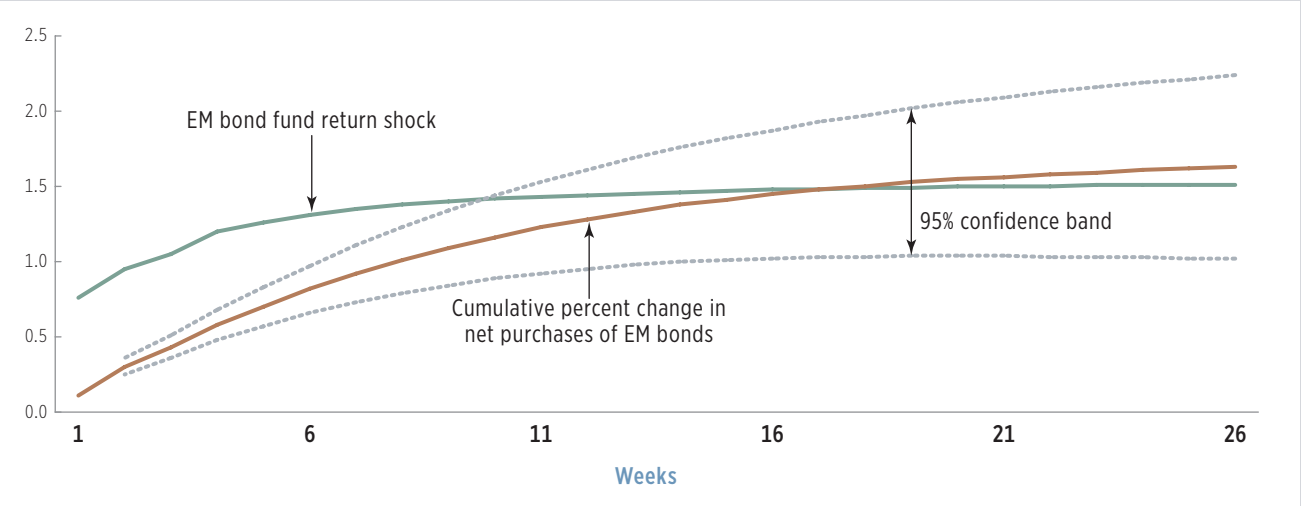
By and large, the model's ability to track the data arises from inertia—to a limited extent from inertia in emerging market bond returns but primarily from inertia in funds' net purchases of emerging market securities. If funds have recently been purchasing emerging market bonds, they are more likely to continue doing so in coming weeks. Alternatively, if funds have recently been selling, they are more likely to continue selling in the near future. In addition, as US financial markets become more volatile (as measured by the VIX index), returns on emerging market bonds decline and funds appear to somewhat reduce their purchases of those bonds. Funds' net sales of emerging market bonds have, at most, a small, transitory effect on emerging market bond returns. Figures 22 and 23 summarise these results.

Figure 22 illustrates how funds' net purchases of emerging market bonds respond to unexpected changes in emerging market bond returns, which might occur if central banks in emerging market countries unexpectedly lowered interest rates (bond prices and interest rates are inversely related).[27] The green line plots a plausible scenario in which emerging market bond returns unexpectedly rise by 0.75 percent this week. Because past returns influence future returns, bond returns continue to rise in future weeks, with a rise of more than 1 percent after 3 weeks, and 1.5 percent after 20 weeks. Funds respond by increasing their net purchases of emerging market bonds by 0.11 percent in the first week, with purchases eventually increasing to 1.55 percent after 20 weeks (solid brown line). These results, although statistically significant, are economically muted: less than half of the adjustment occurs in the first five weeks after the initial increase in emerging market bond returns. If, rather than rising, emerging market bond returns had initially fallen, which might happen if emerging market central banks raised interest rates, the results would be exactly inverted: emerging market bond returns would fall, and in response, funds would cumulatively sell emerging market bonds; however, those sales would be quite muted.

FIGURE 22

Cumulative Response of Net Purchases of Emerging Market Bonds to Typical Shock to Emerging Market Bond Returns

Percent



Source: Investment Company Institute tabulations of EPFR Global data

Figure 23 illustrates how emerging market bond returns react to unexpected changes in funds' net purchases, a scenario more relevant for assessing whether regulated funds pose financial stability concerns for emerging economies. According to the new research, funds' net purchases of emerging market bonds (which, for simplicity, are not shown in the figure) initially jump unexpectedly by 0.37 percent and, having inertia, eventually rise to a total of 1.3 percent of funds' assets after 20 weeks. Returns on emerging market bonds initially fall slightly, then rise very modestly in coming weeks, cumulatively rising by 0.16 percent after 20 weeks (solid brown line).

The relationship in Figure 23, however, is not statistically significant. As seen, a 95 percent 'confidence band' encompasses the horizontal axis at zero, indicating that the rise in emerging market bond returns (solid brown line) is not statistically different from zero. If, rather than rising, funds purchases of emerging market bonds had initially fallen, the results would be exactly inverted: there would be a small, statistically insignificant decline in emerging market bond returns.

In short, these new results do not support conjectures that regulated funds pose concerns for emerging bond markets. Regulated funds may sell emerging market bonds, but there is no statistical evidence that those sales alone would meaningfully depress emerging market bond prices.

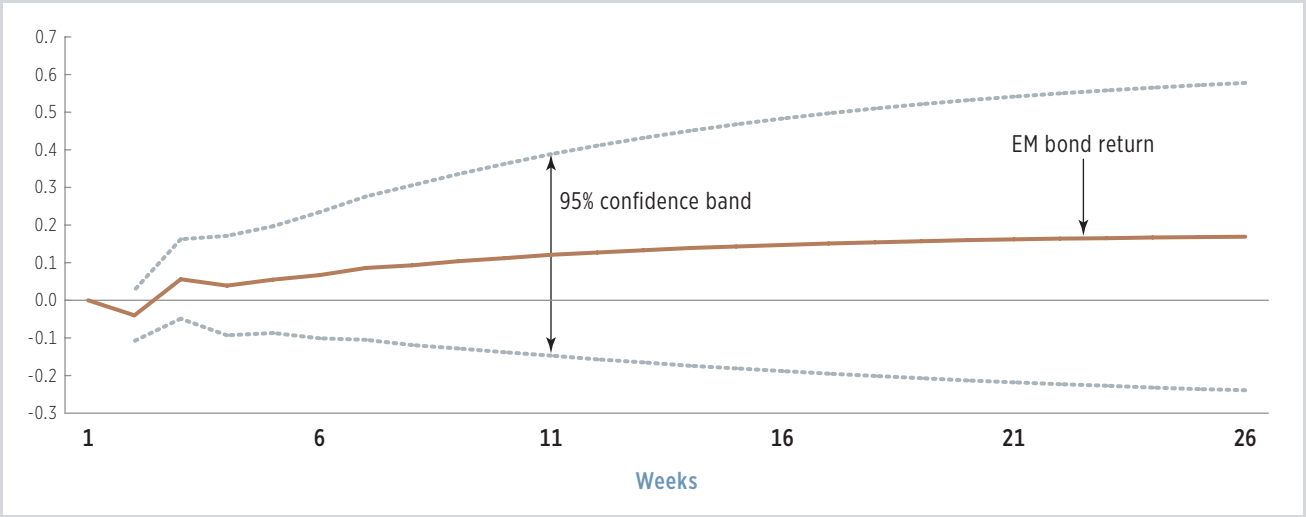
Results for Emerging Market Equities

The appendix presents a statistical model that relates returns on emerging market stocks and funds' weekly net purchases of emerging market stocks to past values of these variables (Figure A4).[28] The results are very similar to those for emerging market bonds. Briefly, the model does a reasonably good job of tracking the variation in funds' weekly net purchases of emerging market equities, but has more difficulty tracking emerging market stock returns. As with emerging market bonds, the model's tracking ability mostly arises from inertia in fund purchase or stock returns. For emerging market equity fund returns, almost all of the explanatory power is due to the negative effect of stock market volatility, but some is due to past emerging market equity fund returns. Virtually none is due to net fund purchases of emerging market equities.

FIGURE 23

Cumulative Response of Emerging Market Bond Returns to Typical Shock to Net Purchases of Emerging Market Bonds

Percent



Source: Investment Company Institute tabulations of EPFR Global data

Conclusion

During the past decade, regulated fund holdings of emerging market securities have grown significantly. In light of this growth and regulators' increased concerns about systemic risk, policymakers and academics have questioned whether certain kinds of fund-level behavior might increase volatility in capital markets of emerging economies. While these concerns are understandable, they are unjustified for many reasons.

First, regulated fund holdings of emerging market securities remain a small portion of the total value of the stocks and bonds of emerging market countries. Second, regulated funds are a stable source of foreign investment in emerging market countries. Even though they represent a sizeable part of the foreign investor base that buys emerging market stocks and bonds, they account for less than 15 percent, on average, of the quarterly variance of foreign portfolio capital flows to emerging markets from 2005 to 2013. Third, regulated fund holdings are diversified across a wide number of emerging economies, which limits the effects of their portfolio transactions on any particular country.

Although these three reasons address many of the concerns held by regulators, they do not address a key issue: whether regulated funds may amplify changes in emerging market securities prices. Some studies since 2009, which often used monthly or even quarterly data, have posited that they do. New evidence suggests otherwise. An analysis of both monthly and weekly data reveals that monthly returns on emerging market securities are explained by factors other than funds' net purchases of emerging market stocks and bonds—most significantly by capital flows from other (non-fund) foreign investors. The analysis also demonstrates that while funds' net purchases of emerging market securities respond to returns on emerging market securities, they do not have a persistent influence on the future returns of those securities.

This new evidence has important implications, not only about the role regulated fund holdings play in emerging economies, but also about how regulators study the effects of fund flows on emerging markets. Indeed, as this new analysis shows, it is critical for regulators to consider all the economic factors affecting emerging markets and the portfolio capital flows from all foreign investors, rather than simply focusing on regulated funds and their activities.

Appendix: Regression Analysis of Monthly and Weekly Data

To more comprehensively examine the relationship between regulated funds' net purchases of emerging market securities and returns, the statistical analysis in this appendix uses monthly and weekly estimates of regulated fund holdings and net purchases of emerging market securities. These data are provided by EPFR Global and primarily reflect regulated funds in the United States, Europe, Canada, and Japan. Unless otherwise specified, the analysis occurs from January 2005 to December 2014. In previous work, ICI has used ICI and Lipper flow data to analyse the relationship between net new cash flows (flows) to regulated funds in the United States and returns for specific fund categories, therefore excluding regulated funds in Europe and elsewhere.[29] Also, the research did not discuss net purchases of securities, only net new cash flows. In contrast, this report uses the broadest possible measure of net purchases of emerging market securities for all available fund domiciles—the 'country flows' database in the EPFR Global online database. The database includes US, European, Canadian, and Japanese funds and estimates all fund holdings and net purchases of emerging market securities.

The monthly regressions estimate the potential impact of monthly net purchases of emerging market bonds and equities on emerging market returns. That is, they illustrate the contemporaneous relationship by assuming that net purchases of emerging market bonds or equities drive these category returns and by ignoring the fact that much of the positive correlation is likely due to fund investors responding to returns. This basic regression is then compared to regressions that contain other potential influences on category returns, namely the monthly percent change in the total return index for US Treasuries for bond fund regressions, the monthly percent change in the S&P 500 index for equity fund regressions, and the monthly measure of stock market volatility (the VIX) for both bond and equity fund regressions (Figure A1).

FIGURE A1

Potential Factors Affecting Emerging Market Returns: Regression Results

Sample data: monthly, 2005–2014

	Dependent variable				
Independent variable	**Equation 1 Bond return**	**Equation 2 Bond return**	**Equation 3 Equity return**	**Equation 4 Equity return**	**Equation 5 Equity return**
Intercept	-0.111	-0.206	-0.34	-0.076	-0.257
	(0.359)	(0.293)	(0.59)	(0.466)	(0.314)
$Return_{t-1}$		0.085			
		(0.107)			
$Net\ purchases_t$	***0.645***	***0.507***	***3.039***	***2.494***	***1.852***
	(0.216)	(0.162)	(0.49)	(0.333)	(0.261)
$Treasury\ bond\ index\ return_t$		***0.547***			
		(0.175)			
$Percent\ change\ in\ equity\ volatility_t$		***-0.076***		***-0.143***	
		(0.012)		(0.022)	
$S\&P500\ return_t$					***0.901***
					(0.084)
R-squared	0.271	0.547	0.461	0.642	0.772
Durbin-Watson statistic	1.731	2.079	1.879	1.787	1.939

Note: ***Bolded and italic*** coefficients denote statistical significance at the 1 percent level. Standard errors are represented by the values in parentheses.

Source: Investment Company Institute tabulations of EPFR Global and Bloomberg data

The basic regression explores the contemporaneous relationship between net purchases of emerging market bonds or equities, C_t, and the relevant category returns, R_t. Because net purchases of emerging market bonds and equities, *C*, grow over the sample period, C_t is divided by the estimated fund holdings (or assets) of emerging market securities at time *t-1*, A_{t-1}. Note that C_t does not necessarily equal ΔA_t.

Equation 1 specifies the first regression to be estimated on monthly data (shown in columns 1 and 3 in Figure A1),

$$R_t = \alpha + \beta * C_t/A_{t-1} \qquad (1)$$

where R_t is either the emerging market bond or equity fund return (the weighted average return on all emerging market bond or equity funds in the EPFR Global fund database), α is the intercept (or average return) of that fund category, and β is the estimated impact of a 1 percent increase in net purchases of emerging market securities relative to total fund holdings of those securities (or assets held in those securities). This regression assumes that there is only a contemporaneous relationship between net purchases and returns, and does not allow for other variables to affect returns or net purchases.

The more general specification in Figure A1 includes the following variables

$$R_t = f(R_{t-1,} C_t/A_{t-1}, \Delta\ln(USTR_t), \Delta\ln(SP_t), \text{ or } \Delta\ln(VIX_t)) \qquad (2)$$

where Δln denotes the rate of change in the natural log (the percent change), $USTR_t$ is the total return index from holding US Treasuries at time *t*, SP_t is the percent change in the S&P 500 index at time *t*, and VIX_t is an index measuring the volatility of the S&P 500 at time *t*. To focus on short-term movements, both variables enter the regression as monthly percent changes.

As noted in the paper, monthly net purchases of emerging market bonds are positively correlated (0.52) with emerging market bond fund returns contemporaneously, but it is unclear whether this association represents returns causing movements in future net purchases or vice versa. In equation 1, net purchases are able to explain 27 percent of the monthly variation in returns. This weak association between net purchases and returns at the monthly frequency could very well reflect the effect of news on market prices, or some other economic variable that might simultaneously encourage net purchases and increase returns.

For emerging market bond returns, the monthly movements in the VIX and the return on US Treasuries can explain a significant amount of the variation in the monthly returns on emerging market bond funds from January 2005 to December 2014. These two factors combined are able to explain more than one-third of the variation in the monthly returns on emerging market bond funds if net purchases are excluded from the regression, and double the R-squared when combined with net purchases.

For emerging market equity returns, the monthly percent changes in the VIX or the S&P 500 index can explain a significant amount of the variation in the returns on emerging market equity funds from January 2005 to December 2014. The percent change in the VIX can explain more than one-third of the variation in the returns on emerging market equity funds, and the percent change of the S&P 500 index can explain more than 60 percent of the returns in emerging market equity funds if net purchases are excluded from the regression. Both variables significantly increase the R-squared when combined with net purchases (see columns 4 and 5 of Figure A1). These regressions strongly suggest that other factors have a large effect on returns in both emerging market bond and equity markets.

As discussed in this report, a wider measure of foreign investors' net purchases of emerging market securities may be a better indicator of the portfolio capital flows that emerging market economies receive than reliance on net purchases of emerging market securities alone. The Institute for International Finance (IIF) produces a monthly indicator of foreign portfolio capital flows to 30 emerging market countries based on high-frequency balance of payments data for a subset of these countries. This statistic is called the emerging market portfolio flows tracker, and it tracks all foreign investor flows to emerging market equity and bonds. This broader indicator of portfolio capital flows does not always align well with funds' net purchases of emerging market securities, especially for bonds.[30] The emerging market portfolio tracker is available from January 2010 to December 2014, so the statistical analysis is limited to this sample period.

Using the emerging market portfolio tracker, the statistical results indicate that it dominates net purchases of bonds and equities in terms of being more closely aligned to movements in the returns on emerging market bonds and equities (Figure A2). As the results show, the emerging market portfolio tracker is able to explain more of the variation in emerging market returns on both bonds and equities. It also causes the coefficient on net purchases to attenuate towards zero and become insignificant statistically for both bonds and equities. These results are not surprising given the evidence presented in this report that other foreign investors play a larger role in determining the variability of portfolio capital flows to emerging markets. In addition, they suggest that policymakers should pay more attention to broader indicators of foreign investor flows to emerging markets.

FIGURE A2

Foreign Investor Portfolio Capital Flows and Emerging Market Returns: Regression Results

Sample data: monthly, 2010–2014

	Dependent variable			
Independent variable	**Equation 1 Bond return**	**Equation 2 Bond return**	**Equation 3 Equity return**	**Equation 4 Equity return**
Intercept	-0.219	-0.804	0.018	-1.574
	(0.334)	(0.420)	(0.456)	(0.467)
Net purchases$_t$	***0.513***	0.119	***2.446***	0.074
	(0.123)	(0.157)	(0.522)	(0.477)
IIF EM portfolio flows tracker$_t$		**0.171**		***2.688***
		(0.066)		(0.591)
R-squared	0.186	0.257	0.302	0.444
Durbin-Watson statistic	2.303	2.310	2.249	2.556

Note: **Bolded** coefficients denote statistical significance at the 5 percent level and ***bolded and italic*** coefficients denote statistical significance at the 1 percent level. Standard errors are represented by the values in parentheses.

Source: Investment Company Institute tabulations of EPFR Global and Institute of International Finance data

Exploring the Lead-Lag Relationship with Weekly Data

The weekly regressions explore the lead-lag relationship between net purchases of emerging market bonds or equities and the relevant category returns.

To investigate the dynamic relationship between net purchases and category returns, a vector autoregression (VAR) is estimated that uses lags of both variables to explain future movements of net purchases and category returns. The general specification is as follows,[31]

$$R_t = \alpha_0 + \alpha_1 * R_{t-1} + \ldots + \alpha_{t-k} * R_{t-k} + \beta_1 * C_{t-1}/A_{t-2} + \ldots + \beta_k * C_{t-k}/A_{t-1-k} \quad (3)$$

$$C_t/A_{t-1} = \rho_0 + \rho_1 * C_{t-1}/A_{t-2} + \ldots + \rho_k * C_{t-k}/A_{t-1-k} + \delta_1 * R_{t-1} + \ldots + \delta_{t-k} * R_{t-k} \quad (4)$$

where *k* is the number of lagged regressors used to explain current movements in category returns and net purchases of either emerging market bonds or equities. This specification allows us to see whether net purchases have any impact on future returns and whether returns have any impact on future net purchases. For the emerging market bond VAR, the Hannan-Quinn information criterion selected $k = 4$ as the appropriate number of lags. For the emerging market equity VAR, the Hannan-Quinn information criterion suggested $k = 3$, but four lags were estimated for comparability purposes. The VARs also treat the change in equity market volatility, or the percent change in the VIX at time *t*, as an exogenous variable.[32] The statistical results are in Figures A3 (emerging market bonds) and A4 (emerging market equities).

The first column of Figure A3 seeks to explain the average return of emerging market bond funds. The first and third lags of the return on emerging market bond funds are positive and statistically significant at the 1 percent level; the second lag of net purchases is positive and statistically significant at the 1 percent level; and the current percent change in equity market volatility is negative and statistically significant at the 1 percent level. The R-squared is 0.337. Most of the explanatory power comes from the negative effect of equity market volatility and lagged returns (positive serial correlation). While one of the lagged values of net purchases is positive and statistically significant (the second lag), the sum of the coefficients on the four lags is not statistically different from zero. These results indicate that weekly net purchases do not have a persistent effect on the return on emerging market bond funds, which is consistent with the impulse response function shown in Figure 23.

The second column of Figure A3 seeks to explain the net purchases of emerging market bonds. The first and third lags of the return on emerging market bond funds are positive and statistically significant at the 1 percent level; the first, second, and fourth lags of net purchases are positive and statistically significant at the 1 percent level; and the current percent change in equity market volatility is negative and statistically significant at the 1 percent level. The R-squared is 0.621. Most of the explanatory power comes from lags of net purchases (positive serial correlation), but some is also due to lagged returns. The current percent change in equity market volatility explains very little of the variation in net purchases. These results indicate that the return on emerging market bonds helps explain the future net purchases of emerging market bonds, which is supported by the impulse response function shown in Figure 22.

FIGURE A3

Weekly Bond Fund Returns and Net Purchases: Regression Results

Sample data: weekly, 9 February 2005–31 December 2014

	Dependent variable	
Independent variable	**Return$_t$**	**Net purchases$_t$**
Return$_{t-1}$	***0.257***	***0.221***
	(0.040)	(0.020)
Return$_{t-2}$	0.055	0.021
	(0.044)	(0.022)
Return$_{t-3}$	***0.106***	***0.047***
	(0.045)	(0.022)
Return$_{t-4}$	-0.004	-0.025
	(0.043)	(0.022)
Net purchases$_{t-1}$	-0.110	***0.218***
	(0.091)	(0.045)
Net purchases$_{t-2}$	***0.317***	***0.266***
	(0.093)	(0.046)
Net purchases$_{t-3}$	-0.146	0.033
	(0.092)	(0.046)
Net purchases$_{t-4}$	0.017	***0.178***
	(0.083)	(0.041)
Percent change in equity volatility$_t$	***-0.036***	***-0.004***
	(0.003)	(0.001)
Intercept	0.042	0.025
	(0.036)	(0.018)
R-squared	0.337	0.621

Note: ***Bolded and italic*** coefficients denote statistical significance at the 1 percent level. Standard errors are represented by the values in parentheses.

Source: Investment Company Institute tabulations of EPFR Global data

The first column of Figure A4 seeks to explain the average return on emerging market equity funds. The first and third lags of the return on emerging market equity funds are positive and statistically significant at the 1 percent level, the third lag of net purchases is negative and statistically significant at the 5 percent level, and the current percent change in equity market volatility is negative and statistically significant at the 1 percent level. The R-squared is 0.348, with almost all of the explanatory power arising from the negative effect of equity market volatility, and a little from lagged returns on emerging market equity funds (positive serial correlation). While one of the lagged values of net purchases is negative and statistically significant (the third lag), the sum of the coefficients on the four lags is not statistically different from zero. These results indicate that net purchases do not have a persistent effect on the return on emerging market equity funds.

FIGURE A4

Weekly Equity Fund Returns and Net Purchases: Regression Results

Sample data: weekly, 9 February 2005–31 December 2014

	Dependent variable	
Independent variable	**Return$_t$**	**Net purchases$_t$**
Return$_{t-1}$	***0.160***	***0.075***
	(0.044)	(0.006)
Return$_{t-2}$	-0.052	0.007
	(0.049)	(0.007)
Return$_{t-3}$	***0.163***	-0.008
	(0.049)	(0.006)
Return$_{t-4}$	-0.010	-0.005
	(0.046)	(0.006)
Net purchases$_{t-1}$	-0.205	**0.097**
	(0.384)	(0.051)
Net purchases$_{t-2}$	0.394	***0.261***
	(0.378)	(0.050)
Net purchases$_{t-3}$	**-0.859**	**0.098**
	(0.375)	(0.050)
Net purchases$_{t-4}$	0.525	0.046
	(0.315)	(0.042)
Percent change in equity volatility$_t$	***-0.138***	***-0.007***
	(0.009)	(0.001)
Intercept	0.173	0.029
	(0.113)	(0.015)
R-squared	0.348	0.467

Note: **Bolded** coefficients denote statistical significance at the 5 percent level and ***bolded and italic*** coefficients denote statistical significance at the 1 percent level. Standard errors are represented by the values in parentheses.

Source: Investment Company Institute tabulations of EPFR Global data

The second column of Figure A4 seeks to explain the net purchases of emerging market equities. The first lag of the return on emerging market equity funds is positive and statistically significant at the 1 percent level; the first, second, and third lags of net purchases are all positive and statistically significant at the 5 percent level (second lag is significant at 1 percent level); and the current percent change in equity market volatility is negative and statistically significant at the 1 percent level. The R-squared is 0.467. Most of the explanatory power comes from the lags of net purchases (positive serial correlation) and lagged returns. Some of the variation is also explained by the current percent change in equity market volatility. These results are consistent with the view that net purchases of emerging market equities respond to past market returns, but not the reverse.

Notes

[1] See International Monetary Fund (IMF) for data on gross capital flows to emerging market countries.

[2] Regulated funds are defined as pooled investment products that are substantively regulated, that invest in transferable securities (e.g., publicly traded stocks and bonds) and money market instruments, and that are redeemable.

[3] For the United States, the report defines regulated funds as comprising mutual funds and exchange-traded funds (ETFs) registered with the Securities and Exchange Commission under the Investment Company Act. For Europe, the report defines regulated funds primarily as European-domiciled UCITS.

[4] The rise of regulated fund holdings in emerging market equities in the rest of the world in early 2013 was primarily caused by the addition of Japanese funds into the EPFR Global database, rather than by a surge of inflows from funds outside the United States and Europe. Also, the addition of Indian-domiciled funds in 2014 led to a $35 billion increase in assets invested in Indian equity. In general, some of estimated increase of fund investment in emerging market equities by US- and European-domiciled funds will also be due to fund asset coverage ratios improving over time.

[5] The rise of fund investment in emerging market bonds in the rest of the world in early 2013 was primarily caused by the addition of Japanese funds into the EPFR Global database, rather than by a surge of inflows from funds outside the United States and Europe. Also, the addition of Indian-domiciled funds in 2014 led to a $50 billion increase in assets invested in Indian debt. In general, some of estimated increase of fund investment in emerging market bonds by US- and European-domiciled funds will also be due to fund asset coverage ratios improving over time.

[6] Stock and bond market capitalisation are sourced from the statistical appendix of the IMF's *Global Financial Stability Report* from 2010 to 2014.

[7] The relatively small share held by funds is consistent with a recent IMF working paper showing that the government debt of emerging markets is held by a diverse base of investors; see Arslanalp and Tsuda (2014).

[8] See Reuters blog that cites JP Morgan index of emerging market debt market capitalisation at $2.8 trillion at the end of 2014, http://blogs.reuters.com/globalinvesting/2014/01/08/market-cap-of-em-debt-indices-still-rising/ or see BlackRock (2014) Viewpoint 'Who Owns the Assets? A Closer Look at Bank Loans, High-Yield Bonds, and Emerging Markets Debt,' www.blackrock.com/corporate/en-us/literature/whitepaper/viewpoint-closer-look-selected-asset-classes-sept2014.pdf, which says investable emerging market debt stands at $2.7 trillion.

[9] NASDAQ defines ADRs as 'certificates issued by a US depository bank, representing foreign shares held by the bank, usually by a branch or correspondent in the country of issue. One ADR may represent a portion of a foreign share, one share, or a bundle of shares of a foreign corporation. ADRs are subject to the same currency, political, and economic risks as the underlying foreign share.' The Bank for International Settlements defines international debt securities as debt issued by nonresidents in all markets, which contrasts with the old definition that classified debt securities as international if they were targeted at international investors. Read more about ADRs and international debt securities at www.nasdaq.com/investing/glossary/a/american-depositary-receipts#ixzz3UCkylihP and www.bis.org/publ/qtrpdf/r_qt1212h.pdf.

[10] MSCI does not currently include China A-shares in its emerging market indexes. A recent MSCI piece, 'China A-Shares: Too Big to Ignore,' discusses the potential diversification benefits of China A-shares and whether MSCI should include A-shares in its emerging market indexes. See MSCI website at www.msci.com/resources/research_papers/research_insight_-_china_a-shares_too_big_to_ignore_-_september_2014.html and www.msci.com/resources/pdfs/ChinaA_Roadmap_Consultation_Mar2014_updated.pdf, respectively.

[11] These fund shares assume that 100 percent of estimated assets invested by funds in a particular country are cross-border. In the case of China, this assumption is clearly incorrect for equities since EPFR Global estimates fund investment in Chinese equities at $265 billion at the end of 2012, yet international investment position data from the IMF suggest that all foreigners hold just $262 billion in Chinese equities at the end of 2012. This peculiar result may be explained by significant fund investment in Chinese ADRs and H-shares; see page 11.

[12] This figure shows cumulative IMF balance of payments data for 30 of the largest emerging markets tracked by the Institute for International Finance (IIF) from March 2010 to June 2014, and then uses the IIF's emerging markets portfolio tracker as an estimate of flows received in the last six months of 2014. IIF's emerging markets portfolio tracker uses high-frequency indicators of all foreign investor flows to both emerging market equities and bonds, and appears to be a much more reliable indicator of flows to emerging markets than fund flows alone; see www.iif.com/publications/portfolio-flows-tracker.

[13] The variance of two correlated variables X and Y, or variance (X+Y) equals the variance (X) plus the variance of Y plus 2 times the covariance of (X, Y). The residual term in the table is simply 2 times the covariance of X and Y, and shows the effect of any underlying correlation between these two variables.

[14] The remaining 9.6 percent reflects the effect of the covariance between regulated fund flows and portfolio capital flows from other foreign investors.

[15] The remaining 5.2 percent reflects the effect of the covariance between regulated fund flows and portfolio capital flows from other foreign investors.

[16] EPFR's estimate of the net fund purchases of Brazilian bonds is based on flows to all funds with an allocation to Brazilian bonds and any reported change in that allocation by these funds.

[17] See Central Bank of Brazil's website for history of the policy interest rate, called the SELIC, at www.bcb.gov.br/?INTEREST.

[18] See Bloomberg story announcing elimination of tax on foreign investor purchases of domestically traded Brazilian debt at www.bloomberg.com/news/reports/2013-06-04/brazil-scraps-foreign-investment-tax-as-real-hits-four-year-low.

[19] The IIF kindly shared their monthly indicator of Brazilian portfolio capital flows based on higher frequency Brazilian balance of payments data. The IIF publicly posts their aggregate monthly indicator of emerging market portfolio capital flows based on higher frequency balance of payments data from national authorities, see www.iif.com/content/portfolio-flows-tracker-data.

[20] Some analysts refer to emerging market funds as 'dedicated emerging market funds.' For the United States, it is redundant to call an emerging market fund 'dedicated.' Under the SEC's 'fund name rule,' if a fund refers to itself as an 'emerging market fund,' at least 80 percent of its assets must be invested in securities of emerging markets; therefore, the fund is by definition 'dedicated.'

[21] This table includes all US and European funds' estimated allocations to emerging market equity and bonds, whether or not the primary investment objective of the fund is to invest in emerging market equities and bonds.

[22] The figure shows all the countries plus one regional category that received more than $10 billion combined in fund investment from US- and EU-domiciled funds, ranked in order of total fund holdings of those countries' securities.

[23] The term net purchases of emerging market securities is used in the section, and should be thought of as a proxy for the net cash flow to emerging market countries for all regulated funds. Net purchases of emerging market securities will be equal to the estimated net new cash flow to emerging market funds multiplied by their overall emerging market allocation plus any estimated net purchases from non–emerging market funds that receive inflows or outflows multiplied by their overall emerging market allocation. This definition would correspond to the country flow database in EPFR Global's database.

[24] Returns on emerging market equities are proxied by the return measure shown in Figure 20, which is an asset-weighted average of the percent change in the net asset value (NAV) of emerging market equity funds, adjusted to include the effects of dividends and capital gains paid by funds. Returns on emerging market bonds are proxied by the corresponding return measure in Figure 21.

[25] Returns are ordered first and net purchases second in the VAR. A positive and statistically significant effect was found if net purchases are ordered first and returns second; however, these results are not reported since it was not robust to VAR ordering. See Collins and Plantier (2014) for a discussion of the impact of VAR ordering.

[26] The model uses four lags, and treats the percent change in the VIX index as an exogenous variable to control for any impact it might have on returns and net fund purchases.

[27] A typical shock is defined as a one standard deviation exogenous shock.

[28] The model uses four lags, and treats the percent change in the VIX index as an exogenous variable to control for any impact it might have on returns and net fund purchases.

[29] See Plantier (2013) on commodity mutual funds and Collins and Plantier (2014) on certain bond fund categories for US regulated funds.

[30] The IIF's emerging markets portfolio tracker uses high-frequency indicators of all foreign investor flows to both emerging market equities and bonds; see www.iif.com/publications/portfolio-flows-tracker.

[31] Returns are ordered first and net purchases second in the VAR. See Collins and Plantier (2014) for a discussion of the impact of VAR ordering.

[32] Collins and Plantier (2014) estimated three variable VARs, which include the return on US Treasury bonds, to demonstrate that shocks to the return on US Treasuries can affect the return on emerging market bonds, and hence, emerging market bond fund flows. For simplicity, this appendix does not show similar three variable VARs, although the results for these variables show that unexpected changes in long-term US interest rates can affect emerging market returns, and hence, net purchases of emerging market bonds.

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Appendix F: An Assessment of the Studies Referred to in Section 6.2.2 (Asset Liquidation / Market Channel) of the Second Consultation

The Second Consultation on pages 33-34 makes sweeping statements suggesting that investment funds, through the actions of their portfolio managers or underlying investors, create or amplify distress in financial markets. In support of these statements, the Consultation cites just four studies: Raddatz and Schmukler (2012)[1]; Gelos (2011)[2]; Broner, Gelos, and Reinhart (2006)[3]; and the International Monetary Fund's *Global Financial Stability Report* (April 2014). The Second Consultation's citation to these four studies is at best a highly selective interpretation of the results presented in those studies. Moreover, the Second Consultation fails to mention that other studies are available that come essentially to the opposite conclusion. This section reviews the cited studies and selected studies by ICI economists that the Second Consultation does not cite.

1 *Raddatz and Schmukler (2012)*

The Second Consultation argues that "[c]ertain studies have shown that concentrated selling by investment funds, particularly in less liquid markets (e.g., high-yield corporate debt, emerging market debt), can result in significant pricing pressures that propagate market contagion." In support of this sweeping conclusion, the Second Consultation offers only a single study, Raddatz and Schmukler (2012).

ICI has not sought to replicate the results in Raddatz and Schmukler (2012) and thus we can neither confirm nor refute their results. One thing, however, is clear: Raddatz and Schmukler (2012) does not support the FSB's contention that concentrated selling by regulated funds creates pricing issues in less liquid markets, such as the markets for high-yield corporate debt and emerging market debt. If anything, Raddatz and Schumkler (2012) find largely the reverse result. For example, they state that:

> *bond funds seem to behave in a relatively more contrarian way than equity funds …. Consistent with this, bond funds hold, on average, more cash than equity*

[1] *See* Claudio Raddatz and Sergio L. Schmukler, "On the International Transmission of Shocks: Micro-evidence from Mutual Fund Portfolios," *Journal of International Economics*, 2012, vol. 88, 357-374.
[2] *See* Gaston Gelos, "International Mutual Funds, Capital Flow Volatility, and Contagion—A Survey," *IMF Working Paper*, WP/11/92, April 2011.
[3] *See* Fernanado A. Broner, R. Gaston Gelos, and Carmen M. Reinhart, "When in Peril, Retrench: Testing the Portfolio Channel of Contagion," *Journal of International Economics*, 2006, vol. 69, 203-230.

funds, which makes them better able to respond to injections/redemptions through variations in cash instead of reallocating money across countries.

This seems to suggest that Raddatz and Schmukler (2012) view bond funds as being in a position to make purchases of securities when fixed income markets are depressed, which would tend to help stabilize those markets.

2 *Gelos (2011) and Studies Cited Therein, Including Broner, Gelos, and Reinhart (2006)*

The Second Consultation cites a survey article by Gelos (2011) on the academic literature on investment funds and capital flow volatility in emerging markets as indicating that "portfolio rebalancing mechanisms are important in explaining contagion patterns."

While Gelos (2011) does indeed argue that portfolio rebalancing by funds appears, on the basis of other studies he cites, to play a role in transmitting shocks across financial markets, he also suggests that "the behavior of international mutual funds is complex and overly simplistic characterizations are misleading."

To this point, it is worth noting that the studies Gelos (2011) points to as indicating that portfolio rebalancing may affect returns in emerging markets appear to examine *stock* market returns, not bond market returns. For example, Gelos (2011) cites a study by Broner, Gelos and Reinhart (2006) (also cited in the Second Consultation), which examines the linkages between emerging market equity funds and emerging stock markets over the period January 1996 to December 2000. Similarly, Gelos (2011) cites a study by Jotikasthira, Lundblad, and Ramadorai (2009), which appears to examine linkages between regulated funds and emerging equity markets.[4] Thus, in general, these studies have little if anything to say about the markets about which the Second Consultation seems most interested (*e.g.*, high-yield corporate debt, emerging market debt).

Moreover, even if the FSB were interested in the potential effects of regulated funds on equity markets, the implications of these studies are unclear. For example, Broner, Gelos, and Reinhart (2006) appear to find that the average emerging market equity fund reduces its exposures to countries where it is overweight and increases its exposures to countries where it is

[4] *See* Chotibhak Jotikasthira, Christian Lundblad, Tarun Ramadorai, "Asset Fire Sales and Purchases and the International Transmission of Funding Shocks," *Journal of Finance*, 2012, vol. LXVII, no. 6, 2015-2050.

underweight.[5] This is consistent with standard portfolio rebalancing techniques. Such techniques, if anything, tend to be stabilizing, as they induce funds to sell securities that are more likely overvalued and buy securities that are undervalued, both of which would tend to push securities prices toward their "equilibrium" levels.

3 *IMF Global Financial Stability Report, April 2014*

The Second Consultation also refers to a "recent assessment" by the International Monetary Fund (IMF) in the IMF's April 2014 *Global Financial Stability Report* (GFSR (2014)). The Second Consultation states the GFSR "explains that investor herding among global funds and a rising share of volatile bond fund flows can transmit instability to local emerging markets." This is at best a highly selective interpretation of the analysis presented in the GFSR (2014).

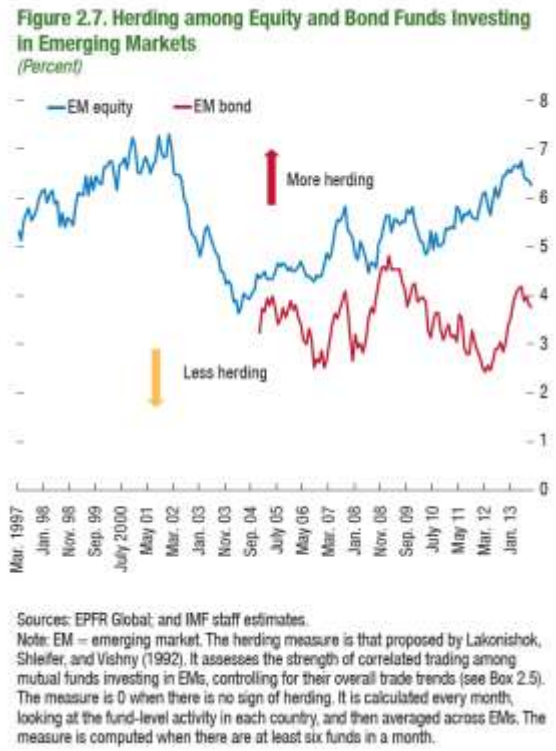
Herding, as commonly discussed in the literature, occurs if many or most investors tend to buy (or sell) the same stocks and bonds at the same time—that is, the idea that investors tend to "mimic" each other's actions. The GFSR (2014) simply asserts that herding can "destabilize financial markets, aggravate shocks, and lead to mispricing or asset price bubbles." The literature is more mixed, however. For example, one reason investors may "herd" is that they tend to react to new information in the same manner. If so, as Lakonishok, Shleifer and Vishny (1992)[6] note, those investors are "making the market more efficient by speeding up the adjustment of prices to new fundamentals." Alternatively, according to Lakonishok, Shleifer and Vishny (1992), investors might "herd" if they seek to "counter the same irrational moves in individual investor sentiment, which would also have a stabilizing effect."

Even assuming the veracity of the GFSR's (2014) assertion that herding is destabilizing, the GFSR (2014) provides at best mixed evidence that regulated funds do in fact herd. Most of the concerns that systemic risk regulators and stakeholders (including the FSB in the Second Consultation) have expressed recently have been about "less liquid markets," such as for emerging market debt. Figure F.1 shows the herding measure reported in the GFSR (2014) for emerging market bond funds. The GFSR (2014) presents a herding measure for emerging

[5] *See* Broner, Gelos, and Reinhart (2006), page 218, stating that "There is also a significant revision to the mean in the sense that on average funds buy into countries where they are underexposed."
[6] *See* Josef Lakonishok, Andrei Shleifer, and Robert W. Vishny, "The Impact of Institutional Trading on Stock Prices," *Journal of Financial Economics,* vol. 32, 1992, 23-43.

market bond funds that averages about 3.5 percent from late 2004 to 2013, which is rather small.[7] Perhaps more significantly, there is no apparent upward trend in the herding measure for emerging market bond funds, a point the GFSR (2014) noted. Thus, to the extent that the GFSR (2014) presents any evidence of herding in "less liquid markets," it is small and stable.[8]

Figure F.1: IMF's Estimates on "Herding" by Emerging Market Stock and Bond Funds



[7] According to the interpretation offered in Lakonishok, Shleifer, and Vishny (1992), this would mean that if funds were buying and selling securities in roughly equal proportions, 53.5 percent would be increasing their debt holdings of the average emerging market economy and 46.5 percent would be moving in the opposite direction. In other words, although more funds would have been buying in more of the same emerging market economies, the effect is rather small. Indeed, Lakonishok, Shleifer, and Vishny (1992) apply the same methodology to pension funds' holdings of US stocks, finding that the average herding measure is only a bit less than this (2.7 percent), which they interpret as indicating that "pension fund managers herd relatively little."

[8] Broadly speaking, the same features hold for the herding figures the GFSR (2014) reports for emerging market equity funds. According to the IMF's estimates (as shown in Figure F.1, the herding measure for emerging market equity funds has been rising since late 2003. But by late 2013 the measure was no higher than it was in 2001-2002. Thus, it is unclear whether recent increases in the measure reflect a long-term upward trend or simply a rebound from a cyclical low in 2003. In addition, while the herding measure for emerging market equity funds is larger than for emerging market bond funds, it is still rather small (averaging perhaps 6 percent from 1997 to 2013. Moreover, Lakonishok, Shleifer, and Vishny (1992) found that *measured* herding appeared to be higher for small-cap stocks (6.1 percent for the smallest-cap stocks compared to 1.6 percent for the largest-cap stocks). They argue that there is reason to believe that the herding statistic may be upward-biased for small-cap stocks, for example because such firms may be more likely to be issuing shares. A similar kind of effect could be present for emerging market equities if the proportion of start-up companies in emerging economies is higher than in developed economies.

We would also challenge the Second Consultation's statement that the IMF's assessment in the GFSR (2014) was that "a rising share of volatile bond fund flows can transmit instability to local emerging markets." The text of the GFSR (2014) is considerably more mixed than this. For example, the IMF's analysis seeks to consider the effects that various types of funds might have on global financial markets. The GFRS (2014) reports that "Different types of mutual funds show distinctive sensitivities to global financial shocks …. Global funds are *more stable sources of capital flows* [emphasis added]. The evidence suggests that this may be because they also face smaller redemption pressures from their ultimate investors during periods of distress."

Beyond this, the GFSR (2014) seems to be of two distinct views, which it fails to reconcile, as to whether funds do or do not pose any increasing risks to global financial stability. For example, the GFSR (2014) states that:

> *Although various factors are working in opposite directions, the overall composition of mutual funds is likely to become more reactive to global financial conditions. Most important, the share of bond funds, which are more sensitive to global financial shocks, is rising. Moreover, the proportion of open-end funds that are subject to redemptions is growing as well.*

While this might seem to suggest that the GFSR (2014) considers risks as increasing, in the very same paragraph, the GFSR (2014) takes an almost diametrically opposite view, stating that "in fixed income and equity markets, more flows are now coming from more stable global funds. The declining share of offshore-domiciled funds has also contributed to stability." This seems to suggest that the IMF views an increase in the market share of regulated funds domiciled in regions such as the US and Europe as a stabilizing influence for global financial stability.

4 Other Studies Not Cited by the Second Consultation

Although the Second Consultation cites four studies as supporting its apparent view that investment funds can destabilize financial markets, it fails to mention that other studies come to essentially the opposite conclusion.

Collins and Plantier (2014) review a range of studies dating back to the mid-1990s that examine whether regulated equity or bond funds appear to destabilize financial markets.[9] The weight of the evidence these studies provide that regulated funds create or amplify disturbances in financial markets is at best mixed to largely absent. Some recent studies (e.g., Feroli, Kashyap, Schoenholtz, and Shin, 2014)[10] claim to have found evidence that flows to regulated funds create "feedback effects" to returns in emerging bond markets. Collins and Plantier (2014), however, question this result, showing that it depends critically on an underlying assumption which arguably does not hold. When this assumption is reversed, Collins and Plantier (2014) find no evidence that fund actions create destabilizing effects in emerging bond markets.[11]

Moreover, more recent ICI research indicates that regulated funds, if anything, may be among the most stable investors in certain asset classes such as emerging market bonds. Plantier (2015) finds that regulated funds account for a large share of the foreign investment into emerging stock and bond markets.[12] He also finds, however, that regulated funds' purchases of emerging market stocks and bonds generally account for only a small fraction of the variability of portfolio capital flows to emerging economies. This indicates that investors other than regulated funds account for the bulk of the variability in foreign capital flowing to emerging economies. Consequently, it is important for systemic risk regulators and other stakeholders to focus on the effect of *all* investors on financial markets, rather than simply focusing on regulated funds and their activities.

Finally, even if there is some modest evidence of herding, and even if that herding is interpreted as creating instability in financial markets, this begs the question of whether financial instability would be greater or less if regulated funds did not exist. For millions of investors, the lack of regulated funds would raise significantly the costs of saving for the long-term. But one

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[9] *See* Sean Collins and L. Christopher Plantier, "Are Bond Mutual Fund Flows Destabilizing? Examining the Evidence from the 'Taper Tantrum," September 2014, available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2510666.

[10] *See* Michael Feroli, Anil Kashyap, Kermit Schoenholtz, and Hyun Song Shin, "Market Tantrums and Monetary Policy," working paper presented at the 2014 Monetary Policy Forum, 2014.

[11] More recent work by the International Monetary Fund (*Global Financial Stability Report*, April 2015) reports finding evidence that "mutual fund flows [affect] asset returns in smaller, less liquid markets," namely emerging bond markets. That work, however, uses techniques broadly similar to those used by Feroli et al. (2014) and thus its results also appear to be quite sensitive to underlying assumptions that arguably do not hold.

[12] *See* L. Christopher Plantier, "Regulated Funds, Emerging Markets, and Financial Stability," *ICI Global Research Perspective*, April 2015.

cannot assume that "herding" would be zero, or for that matter any lower than it would be in the presence of regulated funds. Investors might still "herd" through direct holdings of stocks and bonds. Alternatively, "herding" could still occur through other pooled investment vehicles such as defined benefit pension funds, endowments, and sovereign wealth funds. The Second Consultation provides no discussion of such issues.