



March 25, 2015

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

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

Dear Financial Stability Oversight Council:

BlackRock, Inc. (together with its affiliates, “BlackRock”)¹ appreciates the opportunity to respond to the Financial Stability Oversight Council (“Council”) Notice Seeking Comment on Asset Management Products and Activities (“Request for Comment”). BlackRock supports efforts to promote resilient and transparent financial markets, which are in the best interests of all market participants. We are encouraged by the Council’s focus on assessing asset management products and activities, particularly given our view that asset managers do not present systemic risk at the company level, and focusing on individual entities will not address the products and activities that could pose risk to the system as a whole. We have been actively engaged in the dialogue around many of the issues raised in the Request for Comment. We have written extensively on many of these issues (see the list of our relevant publications in Appendix A). Our papers seek to provide information to policy makers and other interested parties about asset management issues. In aggregate, these papers provide background information and data on a variety of topics, such as exchange traded funds (“ETFs”), securities lending, fund structures, and liquidity risk management. In these papers, we also provide recommendations for improving the financial ecosystem for all market participants. All of these papers are available on our website (<http://www.blackrock.com/corporate/en-us/news-and-insights/public-policy>).

Regulators and asset managers have a common interest in protecting asset owners, including pension funds, insurers, official institutions, banks, and individuals from the damaging effects of systemic events. Regulators are charged with protecting investors, not only from systemic risks but also from unsafe or unsound financial services practices. Asset managers are charged, as fiduciaries, with helping their clients (the asset owners) navigate the financial markets to achieve their investment goals. By recognizing these mandates, the Council, regulators, and asset managers can work together to minimize systemic risks while at the same time enabling asset owners to achieve their long-term investing goals. BlackRock is eager to assist in these efforts, and we look forward to working with the Council, the various regulators, and our asset management peers to continue to evolve asset management products and activities in ways that help our clients achieve their goals.

While we are supportive of the Council’s focus on products and activities, we would like to emphasize that in order to truly address risks to U.S. financial system stability, the Council

¹ BlackRock is one of the world’s leading asset management firms, managing approximately \$4.65 trillion (as of Dec. 31, 2014) on behalf of institutional and individual clients worldwide, across equity, fixed income, liquidity, real estate, alternatives, and multi-asset strategies. Our client base includes pension plans, endowments, foundations, charities, official institutions, insurers and other financial institutions, as well as individuals around the world.

must consider the overall market ecosystem, of which asset managers are only one component. This includes recognizing that assets are managed directly by asset owners as well as outsourced to asset managers. The variety of investment vehicles available including mutual funds, separate accounts, hedge funds, private equity funds, among others must also be recognized. McKinsey & Company estimates that approximately 75% of the world's financial assets are managed directly by the asset owner,² with the remaining approximately 25% managed by asset managers in separate accounts (approximately 10%) and funds (approximately 15%).³ In the absence of a holistic approach, or if regulation is targeted at a subset of participants or investment vehicles within the market ecosystem, the Council's efforts will move risks from one part of the market ecosystem to another or create market distortions without materially addressing its concerns. For example, if the solution to address risks in mutual funds were to mandate an explicit cash buffer in every mutual fund, this would result in a performance lag in mutual funds, likely incentivizing migration to other investment vehicles such as separate accounts. While large institutional investors would be able to set up separate accounts or manage their assets internally, individual investors would be disadvantaged. A holistic view of the market ecosystem is essential to the Council's success in its efforts to address threats to U.S. financial stability and it is with this lens – as a participant within the market ecosystem – that we have approached our response to this Request for Comment.

Looking at the financial system in 2015, the many reforms that have already been implemented have made the system safer than it was at the time of the 2008 financial crisis ("2008 Crisis"). In the wake of the 2008 Crisis, policy makers implemented numerous reforms to banks, over-the-counter ("OTC") derivatives, cash pools, leverage limits, and private funds which have collectively created a safer, sounder financial system (see Exhibit 1). The Council should take into consideration the changed environment when evaluating asset management products and activities.

² See McKinsey & Company, *Strong Performance but Health Still Fragile: Global Asset Management in 2013. Will the Goose Keep Laying Golden Eggs?* (2013). Also see BlackRock, *ViewPoint, Who Owns the Assets? Developing a Better Understanding of the Flow of Assets and the Implications for Financial Regulation* (May 2014), available at <http://www.blackrock.com/corporate/en-us/literature/whitepaper/viewpoint-who-owns-the-assets-may-2014.pdf> ("Who Owns the Assets *ViewPoint*").

³ Source: BlackRock estimates using McKinsey & Company and ICI data. For further detail See our *ViewPoint* publication entitled "Fund Structures as Systemic Risk Mitigants." BlackRock, *ViewPoint, Fund Structures as Systemic Risk Mitigants* (Sep. 2014), available at <http://www.blackrock.com/corporate/en-us/literature/whitepaper/viewpoint-fund-structures-as-systemic-risk-mitigants-september-2014.pdf> ("Fund Structures *ViewPoint*").

Exhibit 1: Major Financial Legislation and Regulation Since 2008 Crisis

Key Pieces of Financial Legislation / Regulation	Key Reforms
Basel Accords	Bank Capital, Stress Testing & Liquidity Rules
Solvency II	
Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010	OTC Derivatives Reforms
European Market Infrastructure Regulation (EMIR)	
Markets in Financial Instruments Directive (MIFID) II / MiFIR	Improved Cash Investing Rules
SEC Reforms for Money Market Funds in 2010 and 2014	
OCC Reforms for Short Term Investment Funds (STIF) in 2012	Private / Alternative Funds Reporting & Registration
ESMA Guidelines on Money Market Funds in 2010	
ESMA Guidelines on ETFs and other UCITS Issues in 2012	Establishment of Financial Stability Oversight Council (FSOC)
Alternative Investment Fund Managers Directive (AIFMD)	
Undertakings for Collective Investment in Transferable Securities V (UCITS V)	Establishment of Office of Financial Research (OFR)

While it is important to recognize the positive impact of financial regulatory reform, it is equally important to recognize the needs of end-investors and the cumulative impact that public policies adopted after the 2008 Crisis – both regulatory and monetary – have had on the investment opportunities for these end-investors. For example, for asset owners who need to generate income from their investments or fund liabilities, such as pension plans, insurers, and retirees that are reliant upon their savings to support themselves, the prolonged nature of an extremely low interest rate environment has challenged their ability to meet their investment objectives. Moreover, these same investors may face steep losses on their investments if monetary policy changes are implemented too quickly. Today, many asset owners find it necessary to “reach for yield” by taking on more risk in order to meet their anticipated liabilities or income requirements. Indeed, the Securities and Exchange Commission (“SEC”) recently noted the need to disclose to investors the potential impact of the tapering of the Federal Reserve’s quantitative easing program.⁴ In addition, the SEC announced a sweep exam of fund companies to review how well they are prepared for changes in the interest rate environment.⁵ Monetary policy has become a primary driver of increasing allocations to higher yielding assets, such as high yield bonds, emerging markets debt (“EMD”) and bank loan assets. Amongst the ways the market awards higher yields is by making investors give up some of the market liquidity of their investments. This was not directly addressed in the Request for Comment but should be taken into consideration when the Council reviews responses to Section I, “Liquidity and Redemptions.” In particular, we note that the increased demand for income-generating assets is sometimes incorrectly attributed to an independent decision on the part of asset managers, rather than being properly attributed to the portfolio allocation decisions of asset owners.

In addition to responding to each question in the Request for Comment individually, we highlight several broad themes and recommendations in our responses. Note that in a number of cases we highlight existing definitions and methodologies in various regulatory jurisdictions that can be used or adapted to address the questions being raised. In these situations, we advocate for global harmonization, wherever possible, rather than the creation of new and

⁴ SEC, IM Guidance Update, No 2014-01 (Jan. 2014), available at <http://www.sec.gov/divisions/investment/guidance/im-guidance-2014-1.pdf>.

⁵ Office of Compliance Inspections and Examinations, SEC, Examination Priorities for 2015 3 (Jan. 13, 2015), available at <http://www.sec.gov/about/offices/ocie/national-examination-program-priorities-2015.pdf>. Topics covered by the SEC staff’s sweep include liquidity (procedures, oversight, risks, stress testing and sources of liquidity) and related compliance matters and fund board oversight.

potentially inconsistent definitions and methodologies. Other jurisdictions have been considering some of the same issues that underlie this Request for Comment, and their solutions merit serious attention. Likewise, we highlight a number of areas where asset managers have developed processes and tools to address some of the questions being raised. In these situations, we recommend defining “best practices” that should be applied consistently.

I. Liquidity and Redemptions

We are supportive of the Council’s focus on liquidity in this Request for Comment and in other forums. We recommend the Council consider three aspects of liquidity: (i) the structural features of funds, (ii) the liquidity risk management practices currently being used by asset managers, and (iii) market structure issues associated with the underlying investments.

Structural Features of Funds

As the experience of the 2008 Crisis demonstrated, financial markets can and do fail to function properly on occasion, and neither portfolio managers nor regulators should assume as a given that liquidity will necessarily be available in any security or market at all points in time.⁶ With this in mind, part of the responsibility of a fund manager is to manage market liquidity risks to ensure that commingled investment vehicles (“CIVs” or “funds”), including hedge funds, mutual funds and other types of funds are constructed in ways that allow funds to respond to potential redemptions within the agreed upon timeframe outlined in a fund’s constituent documents. In short, we are not aware of evidence in the data to conclude that (non-money market) mutual fund redemptions have been a source of systemic risk in the past, and given that it is impossible to legislate the behavior of free markets during periods of extremis, the best strategy to mitigate unlikely potential systemic risks in the future is to make CIVs even more structurally resilient.

Unlike bank deposits, the liquidity required by a fund does not entail the notion of a guaranteed price or value to investors upon exit. Part of the risk borne by investors when they choose to invest in funds that invest in less liquid assets is that their ability to realize the intrinsic value of their investment may be challenged during periods of market distress – this is known as market liquidity risk. As the Request for Comment highlights, all securities are subject to market liquidity risk, and it is imperative that the Council separate concerns about investment losses by asset owners (including those resulting from adverse manifestations of market liquidity risk) from concerns that funds could create or transmit systemic risk. Likewise, concerns regarding the market liquidity of a particular security or asset class need to be distinguished from concerns regarding the redemption characteristics of funds that hold these assets.

We recommend that the Council endorse a “toolkit” of measures (many of which are already in use in various jurisdictions) to help funds better address periodic market liquidity challenges. These recommendations are based on the best practices we have identified by reviewing regulatory structural features of funds and practices across multiple global jurisdictions where BlackRock currently does business. Appendix B includes a table that highlights key elements of fund structures in several jurisdictions. As an asset manager engaged in the management of funds across a wide range of regulatory jurisdictions, BlackRock has developed a deep understanding of the comparative strengths across a wide range of CIVs. In formulating our recommendations for consideration, we have looked broadly at structural

⁶ See Bennett W. Golub and Conun Crum, *Risk Management Lessons Worth Remembering from the Credit Crisis of 2007-2009*, 36(3) *Journal of Portfolio Management* 21-44 (Spring 2010).

elements of CIVs, risk management practices, and disclosure requirements to investors and regulators. Based on our analysis, we recommend that policy makers consider the costs and benefits associated with the following fund features. While each of these tools is already in place for certain funds, we believe that their availability more broadly across fund structures and jurisdictions would be beneficial. Of course, the implementation of any of these features where they do not already exist must include engagement with the industry through industry forums and notice and comment periods to ensure that any unintended consequences are fully understood and addressed. Importantly, to be effective, the tools in the expanded toolkit should be made available consistently, as opposed to being prescribed only for certain funds or asset classes. We are not advocating isolated measures, but rather consideration of and potential enhancements to the package of features that are currently available to funds to help mitigate redemption risk. If these measures are applied only to certain funds or in isolation, they would likely create market distortions without mitigating risk. Based on our analysis, we recommend that policy makers consider the costs and benefits associated with the following fund features:

1. Mechanism to allocate transaction costs to redeeming shareholders as a way to provide a price signal for the price of market liquidity and to reimburse or buffer a fund's remaining shareholders.
2. Temporary borrowing from non-government sources.
3. In-kind redemptions, where feasible.
4. Mechanism to facilitate the suspension of redemptions to protect investors, which in turn would mitigate concerns about the potential for fire sales:
 - a. By the fund's board of directors (or other governing body⁷)
 - b. By the regulator
5. Discretion to include "out-of-the-money" ("OTM") gates⁸ in fund structures.
6. Clear, concise disclosure to investors regarding:⁹
 - a. The potential costs and risks to the CIV of significant redemption activity, including the potential dilutive effects of liquidating assets to meet redemptions and the potential transaction costs;
 - b. The market impact costs that could be associated with redemption activity;
 - c. The risk that due to unpredictable disruptions in financial markets, under certain circumstances, that various mechanisms in the fund's charter might trigger a suspension of redemptions; and

⁷ One example is trust bank management in the case of bank collective investment funds ("CIFs").

⁸ An out-of-the-money gate is a gate where the trigger for considering whether to put the gate down is sufficiently unlikely to be triggered (or "out-of-the-money") under normal market circumstances, so as to only be triggered in emergency or extraordinary circumstances.

⁹ Such disclosures are in many cases already required under the Investment Company Act of 1940, as amended ("1940 Act"), on Form N-1A.

- d. Should any of the above fund structural features already be in use or implemented in the future, their risks should also be fully disclosed to investors.

Liquidity Risk Management and Stress Testing

We support the SEC's plan to enhance transparency and efforts to improve liquidity risk management through appropriately-calibrated stress testing of funds, as outlined recently by SEC Chair White.¹⁰ We believe that several overarching principles provide the foundation for a prudent market liquidity risk management framework for CIVs:

1. Having a risk management function that is independent from portfolio management,¹¹ with direct reporting lines to senior leadership and a regular role in communicating with the asset manager's board of directors. This helps to ensure that risk is evaluated independently to verify that portfolio managers are constructing client portfolios in a manner that is consistent with client expectations;
2. Conducting pre- and post- trade portfolio compliance checks to ensure that portfolio holdings do not exceed client guidelines and/or regulatory limits, particularly with respect to holdings of illiquid securities, leverage, and concentration. The individuals that conduct portfolio compliance checks should be organizationally independent from portfolio management.
3. Carefully managing the liquidation of assets in response to redemptions in a manner that prevents the fund from becoming materially illiquid by disproportionately selling only liquid positions to meet redemption requests. Portfolio managers certainly may utilize a fund's liquid asset buffer to meet ordinary redemptions but they need to do so in a way that precludes concentrating or altering the fund's overall positions in a manner that is inconsistent with the fund's mandate or disadvantages the remaining fund investors.
4. Measuring or estimating (a) levels of liquid assets with recognition of tiers of liquidity, (b) liquidation time frames, and (c) transaction costs for fund holdings in varying market environments, including analyzing the impact of stressed markets;
5. Estimating potential fund redemptions based on (a) historical behavior under normal as well as under adverse market conditions, and (b) monitoring investor profiles and related redemption behaviors to help identify potential liquidity needs, recognizing the differences between institutional and retail investors, large and small investors, categories of assets (e.g., retirement versus non-retirement assets), and the platforms on which funds are sold (e.g., self-directed versus through an intermediary);
6. Requiring that individual funds have sufficient sources of market liquidity to meet anticipated redemptions under a range of scenarios, including changes in market risk factors (e.g., interest rates) that may impact the value of portfolio securities and/or

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

¹¹ The CFA Institute in its *Asset Manager Code of Professional Conduct* sets this out as a recommended standard that should be adopted by asset managers, available at www.cfainstitute.org.

collateral and various levels of potential fund redemptions. This could be achieved by setting out principles for managing liquidity and redemption risk that should include maintaining sufficient levels of liquid assets, such as cash and liquid bonds as well as dedicated and shared loan facilities. The principles-based approach should provide appropriate flexibility to tailor practices to particular asset structures and fund redemption terms;

7. Setting reasonable controls on and monitoring of the use of illiquid asset classes to ensure they do not compromise the liquidity offered to investors within the fund; and
8. Identifying backup sources of liquidity, if they are permitted by the fund's regulatory regime and allowing prudent use of temporary borrowings to meet redemptions with ongoing monitoring and management, including appropriate funding and margining policies.

We therefore recommend that industry participants and regulators work together to develop best practices for redemption risk and market liquidity risk management. In reviewing existing regulations of funds, we find that the Alternative Investment Fund Managers Directive ("AIFMD") in the EU provides a good model for conducting fund market liquidity stress testing, and we recommend emulating this approach rather than developing a new methodology. Moreover, we believe that predictive models to understand potential future redemptions could be enhanced by greater data transparency into omnibus accounts. In particular, it would be helpful for fund managers to receive data regarding the type of investors in omnibus accounts that subscribe to or redeem from their 1940 Act Funds¹² either from transfer agents, distributors, or some other entity that could aggregate this type of information. This recommendation is discussed further in our response to Question 1.9.

Market Structure for Underlying Securities

We encourage the Council to recognize that market liquidity issues are not just fund or asset management issues. In many cases, a lack of market liquidity in the marketplace results from certain challenges related to market structure which are separate and distinct from potential risks that could be related to CIVs. Market liquidity impacts all market participants, and ensuring well-functioning, liquid capital markets benefits the U.S. economy as a whole. As such, we believe addressing market structure issues to improve market liquidity should be a high priority for the Council. Indeed, there are many reforms that the Council could suggest that would serve to improve market liquidity, including standardizing the settlement period for bank loans, providing more transactional transparency in markets, promoting greater standardization of corporate bond issuances and promoting increased electronic trading of bonds. This could be achieved by incentivizing the move to greater exchange trading. We elaborated on many of these suggestions in our recent response to the UK Authorities' Consultation on Fair and Effective Markets Review as they relate to fixed income, currency, and commodity markets.¹³

¹² 1940 Act Funds include open-end funds, closed-end funds, and 1940 Act ETFs unless otherwise indicated by context.

¹³ BlackRock, Comment Letter, Response to UK Authorities' Fair and Efficient Markets Review (Jan. 22, 2015), available at <http://www.blackrock.com/corporate/en-gb/literature/publication/femr-how-fair-and-effective-are-the-ficc-markets-hmt-boe-fca-012215.pdf>.

II. Leverage

Numerous existing global regulations already constrain the use of leverage by CIVs. Given the potential for leverage to create systemic risk, especially through the use of short-term funding, we agree with this regulatory approach. It is noteworthy that asset managers use minimal to no leverage in their own capital structures and are, thus, not materially exposed to short-term funding liquidity risk.¹⁴

With respect to the vehicles managed by asset managers, some CIVs can use leverage, but many CIVs are restricted in the amount of leverage that they can use by regulation or by the CIV's investment mandate or guidelines. Although there has been quite a bit of speculation on the actual use of leverage in separate accounts managed by asset managers, the empirical data is quite clear that the vast majority of these portfolios do not incorporate any leverage into their investment strategies as highlighted by the SIFMA Separate Account Study in April 2014.¹⁵

Unfortunately, in trying to respond to questions on leverage in Section II, we find the subject unnecessarily complicated by the lack of global regulatory agreement on definitions. For example, mutual funds in Europe, Asia, and the U.S. utilize different regulatory approaches to defining, measuring and/or limiting leverage in CIVs. Even the definitions and the rules on the uses of derivatives differ, sometimes within one regulatory framework. In the U.S., this has led to increased reliance on "interpretive guidance" rather than on clear, uniformly applied rules. We recommend addressing this situation with several steps:

1. Policy makers should differentiate between different types and uses of leverage to enable regulators to tailor solutions appropriately. In particular, we emphasize the distinctions between *temporary leverage* – which we define as borrowing for short-term purposes, such as meeting redemptions – and *structural leverage* which we view as embedded in investment strategies to enhance returns consistent with fund mandates, regulatory status, and client guidelines.
2. Policy makers should differentiate between various types and uses of derivatives in order to develop appropriate constraints. For example, derivatives can be used to lever a portfolio, in essence creating additional economic exposure. However, in other cases, derivatives are used to hedge (mitigate) risks and thus do not result in the creation of leverage and, in fact may specifically reduce economic leverage.
3. In 2011, the SEC commenced a process to broadly address the use of derivatives in funds established under the Investment Company Act of 1940, as amended (the "1940 Act"). We recommend that the SEC work with the industry to move forward with its Derivatives Concept Release of 2011,¹⁶ with a goal of finalizing rules for the use of derivatives in 1940 Act Funds and using these rules in place of interpretive guidance. We recommend the SEC consider the guidelines set forth in AIFMD in an effort to establish global standards that are consistent across jurisdictions.

¹⁴ Asset managers may borrow to make acquisitions, for their own working capital, and similar purposes.

¹⁵ SIFMA, Comment Letter, Response to the FSB's Assessment Methodologies for Identifying Non-Bank Non-Insurer Global Systemically Important Financial Institutions and the OFR's Asset Management and Financial Stability (Apr. 4, 2014), available at <http://www.sifma.org/issues/item.aspx?id=8589948419> ("SIFMA Separate Account Study"). The report detailed the separate account data of 9 asset managers with aggregate assets under management ("AUM") of \$11.2 trillion, \$3.98 trillion of which was separate account AUM.

¹⁶ Derivatives Concept Release at 55242.

4. In 2013, European regulators implemented AIFMD which considers both borrowings and derivatives when measuring leverage, thereby providing the ability to gauge structural leverage and actual borrowings.¹⁷ As one of the newest and most comprehensive approaches, we recommend that policy makers try to harmonize their approach to measuring leverage, rather than developing a completely new and potentially inconsistent methodology.
5. Finally, we recommend clear disclosure in all funds on the use of leverage and derivatives. Investors should be informed on the investment strategies in place or potentially in place, the types of financial instruments being used to exercise these strategies and the risks associated with the strategies and/or the financial instruments.

A clear definition of “leverage,” including, as appropriate, the use of borrowings and derivatives, combined with uniform metrics for measurement and clear rules on their usage, will improve transparency to investors, fund boards, and regulators. This transparency will, in turn, enable regulators to monitor exposures and limit usage, as appropriate given the type of fund and its investor base. We encourage policy makers to actively engage with the asset management industry to establish clear definitions and rules that can be applied to different types of funds and strategies.

III. **Operational Risk**

Asset managers come in various shapes and sizes, which are reflected in numerous variations in operating business models. These differences include the management of the company’s capital structure, the product focus such as specialty asset classes or investment vehicles versus multiple product strategies, the client focus such as specific types of clients or client geographies versus multiple distribution channels, and the degree of insourcing versus outsourcing of middle and back office functions. In assessing the potential operational risk of an asset manager, understanding the differences in their operating models is crucial. We discuss a number of these differences and their implications in Section III. Importantly, both the SEC and the Office of the Comptroller of the Currency (“OCC”) have regulations in place regarding the management of operational risk.¹⁸

Regardless of the differences in operating models for asset managers, operational risks faced by asset managers do not present the same type of risk to financial stability that the operational risk facing banks¹⁹ presents. Even in the worst-case scenario where an asset manager was unable to effectively operate at all, clients would be able to transition the ongoing management of their investments to another manager. Transitioning the management of client assets from one manager to another regularly occurs in the normal course of business. Furthermore, transitioning the management of a client’s account need not necessarily entail the selling of assets, as client assets are segregated from the asset manager’s own assets and are

¹⁷ Undertaking for Collective Investments in Transferable Securities (“UCITS”) guidance is conceptually similar to AIFMD, but differs in some key aspects where we believe that AIFMD employs more consistent overall standards.

¹⁸ See e.g., Compliance Programs of Investment Companies and Investment Advisers, 68 Fed. Reg. 74714 (Dec. 17, 2003) (“Compliance Programs of Investment Companies and Investment Advisers”); OCC Comptroller’s Handbook on Asset Management Operations and Controls at 14 (Jan. 2011).

¹⁹ By “banks,” we are referring to commercial banks throughout this document.

held by a custodian.²⁰ The inability of an asset manager to operate, therefore, does not incentivize the type of first-mover exit behavior or liquidation of assets associated with a bank failure.

Nevertheless, operational risk does exist in asset management and operating errors do occur. Asset managers can and do manage operational risks and business continuity risks, including those related to preventing and responding to operating errors by a third party service provider. In addition to internal processes and controls that should be overseen by independent operational and risk management personnel, asset managers necessarily conduct due diligence of critical third party service providers and perform ongoing oversight and monitoring to ensure that their service providers are meeting agreed upon performance standards. In the normal course of business, asset managers implement measures to mitigate the impact of potentially disruptive events through operational risk management programs, including maintaining business continuity plans (“BCP”) and technology disaster recovery plans (“DRPs”). This starts with having an independent risk management function with separate reporting lines from the portfolio management function. There should be individuals within risk management that are responsible for managing operational and technology risk. Sound operational risk management practices by asset managers are reinforced by the demands of institutional clients and consultants, who often conduct operational due diligence prior to hiring an asset manager,²¹ and through regulatory oversight which requires asset managers to have robust operational risk management and BCPs. In certain jurisdictions, regulators are highly prescriptive of the operational risk management practices of asset managers.

Importantly, as agents on behalf of their clients, asset managers participate in the broader financial system, and they and their clients utilize the existing financial market infrastructure, including exchanges, electronic trading and affirmation platforms, trade messaging systems, and depositories that facilitate the movement of securities, foreign exchange, and other positions from one counterparty to another to execute the management of client assets. Central clearing counterparties (“CCPs”) are used for exchange traded futures and centrally cleared OTC derivatives. Improvements to regulation in response to the 2008 Crisis have improved the safety and soundness of the financial system and reduced the likelihood of certain operational risks.²² While many market entities have been designated systemically important financial market utilities (“SI-FMUs”) by the Council and subjected to greater regulatory safeguards that are calibrated to their importance within the financial system,²³ other elements of the financial market infrastructure have not received the same degree of attention. In particular, we would highlight that regulatory reform has concentrated

²⁰ Note that cleared derivative positions may be held through a different entity such as a futures commissions merchant (“FCM”) and not held directly by the custodian. Nonetheless, derivative positions are not held by the asset manager.

²¹ See Tim Sturrock, *Endowments Ramp Up Due Diligence Demands on Managers*, FundFire (Feb. 19, 2015), available at http://fundfire.com/c/1068143/111203/endowments_ramp_diligence_demands_managers?referrer_module=emailMorningNews&module_order=0&code=UVd4bGVHbHpMbEp2YzJWdVltdFVUJdYkdGamExSnZZMnN1WTI5dExDQXINREUwTWpjM0xDQXhPVEUzT1RBeE5gTTU.

²² For example, the Federal Reserve Bank of New York created a Tri-Party Repo Reform Task Force the made recommendations which have resulted in improvements to the tri-party repo settlement systems of the tri-party repo clearing banks, Bank of New York Mellon and J.P. Morgan, “in ways that significantly reduce the amount of intraday credit needed for daily settlement,” among other reforms that have improved the safety and soundness of the tri-party repo market. Federal Reserve Bank of New York, Update on Tri-Party Repo Infrastructure Reform (Feb. 13, 2014), available at http://www.newyorkfed.org/newsevents/statements/2014/0213_2014.html (“NY Fed Update on Tri-Party Repo Reform”).

²³ See Federal Reserve Board, Designated Financial Market Utilities (Jan. 29, 2015), available at http://www.federalreserve.gov/paymentsystems/designated_fm_u_about.htm; Financial Services Roundtable, Comment Letter, Response to FSB-IOSCO’s Consultation Regarding Assessment Methodologies for Identifying Non-Bank Non-Insurer Global Systemically Important Financial Institutions (Apr. 7, 2014), available at <http://fsroundtable.org/letter-re-assessment-methodologies-for-identifying-non-bank-non-insurer-global-sifis-4-7-14/>.

what were once bi-lateral risks into CCPs, and CCPs now represent one of the largest concentrations of risk within the financial system. While we support increased standardization and centralized clearing of derivatives, we agree with U.S. Commodity Futures Trading Commission (“CFTC”) Chairman Massad that central clearing is not a “panacea.”²⁴ We encourage the Council to implement safeguards to protect against a potential CCP failure by ensuring that CCPs have adequate financial resources such as capital, robust risk management procedures, BCPs and technology DRPs, and a fully funded and transparent default waterfall.

IV. Resolution

Resolution is a concept generally associated with entities that may fail in a way that requires governmental intervention. The presence of insured deposits, access to the Federal Reserve discount window, the use of the firm’s balance sheet as counterparty to client trades and derivative transactions, exposure to short-term funding, and other basic features of the bank business model make resolution planning a very important aspect of bank regulation. Asset managers are fundamentally different than banks and other financial institutions. The relationship of an asset manager to the investment vehicles it manages is most analogous to the relationship any provider of services has to its customers – they provide specified services and receive fees for those services. The relationship of asset managers to the investment vehicles it manages is *not* analogous to commercial banks and other balance sheet lenders that utilize the capital and deposits of the bank or other affiliates to finance the lending or other activities of another member of the affiliated group. Asset managers facilitate financing and securities transactions as an agent. These transactions are contractually between the asset owners and their counterparties; the asset managers do not act as counterparties. Asset managers do not offer insured deposits, nor do they have access to the Federal Reserve discount window, nor are they exposed to short-term funding. In circumstances where the asset manager provides borrower default indemnification, the exposure is limited to the difference between the loans and the value of the collateral which is marked-to-market daily. As a result, asset managers do not cease operations the way a bank can suddenly fail and do not create the systemic exposures that banks create.²⁵ In Section IV, we provide detailed answers to the questions asked: however, we must emphasize that “resolution of asset managers” presupposes that an asset manager shares the business model characteristics of a bank, which they do not.

The client assets managed by an asset manager are held in portfolios that are legally separate and distinct from the manager. For example, separate accounts managed by asset managers are portfolios managed on behalf of various clients, including pension plans, insurers, foundations, endowments, and official institutions. Each client portfolio has its own investment management agreement (“IMA”) and its own investment guidelines specifying the investment objectives and constraints for that portfolio. Importantly, each client selects a custodian and contracts with that custodian – as such, client assets are held by the custodian, meaning that a

²⁴ See Testimony of Chairman Timothy G. Massad before the U.S. House Committee on Agriculture 114th Cong., (2015) (statement of Timothy Massad, Commodities Futures Trading Commission, Chairman), available at <http://www.cftc.gov/PressRoom/SpeechesTestimony/opamassad-11> (“Chairman Massad Congressional Testimony”) (“[Clearing provides us with] powerful tools to monitor default risk, manage it, and mitigate adverse effects should a default occur. For central clearing to work well, active, ongoing oversight is critical. And given the increasingly important role of clearinghouses in the global financial system, this is a top priority. We must do all we can to ensure that clearinghouses have the financial, operational and managerial resources, and all the necessary systems and safeguards, to operate in a fair, transparent, and efficient manner”).

²⁵ The “resolution” of asset managers is discussed in BlackRock, Comment Letter, Supplemental Response to SEC and OFR Study on Asset Management and Financial Stability (Mar. 14, 2014), available at <http://www.blackrock.com/corporate/en-us/literature/publication/am-res-sec-031414.pdf> (“Supplemental Letter to SEC”).

change in asset manager does not necessitate the physical movement of the client's assets. Likewise, mutual fund families have a board of directors that oversees each of the portfolios within the fund family. As with separate accounts, each mutual fund portfolio is legally separate, and the assets are held by a custodian selected by the Board. Unlike a bank that uses customer deposits to fund its lending and other activities, the client assets are not owned by the asset manager and hence are not held on the balance sheet of the asset manager,²⁶ and client assets are not intermingled with the assets of the asset manager. Finally, in most cases, there are numerous competitors in each investment strategy, providing clients with a choice of new managers to select if net investment performance or client service does not meet expectations.²⁷ Transitioning managers does not entail "run-like" behavior that causes "fire sales" of assets; often the process does not even involve the sale of any assets. The inability of a large asset manager or its constituent funds to operate therefore would not create systemic risk because their financial distress "would not set off a chain reaction of financial institution failures."²⁸ Neither would it set off forced selling and a fire sale. Thus, we agree with Governor Powell when he said, "Unless there is a plausible threat to the core of the system or potential for damaging fire sales, I would set a high bar for supervisory interventions to lean against the credit cycle. Such interventions would almost surely interfere with the traditional function of capital markets in allocating capital to productive uses and dispersing risk to the investors who willingly choose to bear it."²⁹

Although concerns have been raised about client behavior in the event of a reputational event at an asset manager, the actual experience of managers facing reputational events does not support the hypotheses around potential run behavior. In the case of the reputational events we have witnessed over the past twenty-five years, while significant amounts of client assets have moved from one manager to another, these movements have not destabilized financial markets. For example, in the past six months, we have seen over \$200 billion in fixed income assets move from a single manager to multiple managers during a period of reduced market liquidity.³⁰ In this example, the securities and derivatives markets continued to function, and there was no negative knock-on effect on any counterparties or banks. In Appendix C, a list of asset managers that have experienced reputational events has been included. This provides a substantial amount of anecdotal information which reinforces the thesis that asset management firms do not cease operations in the way banks can suddenly fail, nor do these events rise to systemic importance.

²⁶ We note that some asset managers (including BlackRock) offer investment advisory services to pension plans through separate accounts held by an affiliate regulated as a life insurer in the United Kingdom. These separate accounts represent segregated clients assets held solely for the purpose of funding individual and group pension contracts; they are not available to creditors of the asset manager, and the holders of the pension contracts have no recourse to the asset manager's assets. While the separate accounts represent assets for the benefit of clients, under applicable accounting standards they are reported as separate account assets on the consolidated balance sheet of the asset manager, and the obligation to pay clients under the contracts are recorded as equal and offsetting liabilities.

²⁷ There are multiple commercially available sources of information on the investment products offered by various asset managers. These include eVestment for institutional separate accounts and other types of investment vehicles; Strategic Insight Simfund, Lipper, and Morningstar for data on mutual funds; and HedgeFundResearch and Prequin for information on many alternative products.

²⁸ Committee on Capital Markets Regulation, Comment Letter, Letter to FSOC Regarding the Designation of Asset Managers as SIFIs (Feb. 15, 2013), available at [http://capmktreg.org/app/uploads/2013/02/FSOC.non-bank.SIFI..comment.ltr..pdf](http://capmktreg.org/app/uploads/2013/02/FSOC.non-bank.SIFI.comment.ltr..pdf).

²⁹ Jerome H. Powell, Governor, *Federal Reserve System, Financial Institutions, Financial Markets, and Financial Stability*, Speech delivered at the Stern School of Business, New York University (Feb. 18, 2015), available at <http://www.federalreserve.gov/newsevents/speech/powell20150218a.htm>

³⁰ See Allianz, *Allianz – A Strong Community* (Feb. 26, 2015), available at https://www.allianz.com/v_1424930390000/media/investor_relations/en/results/2014_fy/fy14_analyst_presentation.pdf. Pacific Investment Management Company, LLC ("PIMCO") net flows for 3Q14 and 4Q14 totaled €194 billion or approximately \$235 billion using Bloomberg 12/31/14 exchange rate.

Securities Lending

In a number of questions throughout the Request for Comment, the Council raises concerns regarding securities lending and the practice of providing borrower default indemnification. Some of these questions reflect misunderstandings about the practices involved and/or do not reflect the regulatory reforms that have been implemented since 2008. A detailed description of securities lending is contained in our response to Question 1.4.

Securities lending agents are *not* the counterparty in securities loans; rather they arrange a transaction between a client who wishes to lend securities (“lender”) and an entity that wishes to borrow securities (“borrower”). BlackRock acts as a lending agent for some of its asset management clients. When BlackRock is the lending agent, all securities loans are made to borrowers that are *independent* of BlackRock. Furthermore, regulatory requirements and market practice require that borrowers post collateral for securities loans in excess of the value of the security being lent. This collateral is marked-to-market daily, and the borrower may be required to deliver additional collateral to maintain the required excess level. BlackRock typically requires borrowers to post collateral between 102% and 112% of the value of the securities lent. This overcollateralization provides an additional “safety cushion” in the event that a borrower fails to return the security that is out on loan. When non-cash collateral is pledged, the collateral is held by a third party custodian, and this collateral is *not* available for re-hypothecation by the terms of the custodial agreement.³¹

Due to regulatory requirements applicable to most clients,³² securities lending transactions involving cash collateral, use cash re-investment vehicles that are subject to Rule 2-a7 of the 1940 Act or funds with similar investment guidelines (e.g., those which only allow short term instruments). We do not believe that the potential for terminations of securities loans to trigger redemptions from cash collateral vehicles poses a distinct financial stability concern, particularly given reforms that were implemented by the SEC in 2010 and the OCC in 2012 to improve the safety and soundness of cash investment vehicles including implementing stricter maturity, credit quality, and diversification guidelines.³³ With the possible exception of Short Term Investment Funds (“STIFs”) sponsored by state-chartered trust banks which have not yet been mandated to update their practices, the changes in the allowed liquidity profile of cash re-investment vehicles has substantially mitigated the risks experienced during the 2008 Crisis when cash pools were allowed to invest in longer-dated maturity securities.

For over two decades lending agents (both custodial banks and asset managers) have offered certain clients indemnification against “borrower default.”³⁴ In these arrangements, the lending agent does *not* guarantee the investment performance of the securities lending arrangement, including the returns on any cash investment vehicle. Rather, in the event that the borrower fails to return the securities that have been lent and the collateral amount pledged is insufficient to cover the cost of replacing the securities, then the borrower default indemnification will require the lending agent to cover the shortfall between the value of the

³¹ Note that other Lenders may have more flexibility than BlackRock’s Lenders.

³² Certain separate account clients may not be obligated by regulation to use cash vehicles governed by Rule 2a-7 or similar, but currently all clients using BlackRock’s lending program have chosen cash vehicles governed by 2a-7 or similar requirements.

³³ The specter of American International Group, Inc. (“AIG”) and securities lending activities undertaken by its subsidiaries is raised by some as risks presented by securities lending activities more generally. The securities purchased by AIG using cash collateral would not be eligible investments for securities lending activities subject to SEC and OCC regulation today.

³⁴ BlackRock and its predecessors have been providing borrower default indemnification since the 1990’s. During this period, three borrowers in our securities lending program have defaulted and in each case the collateral was sufficient to cover the loans.

collateral pledged and the replacement cost of the securities lent. BlackRock provides borrower default indemnification to some of our lending clients. The contingent liability related to securities lending indemnification is disclosed on our balance sheet, and BlackRock maintains a high level of liquidity to support that potential liability. BlackRock holds up to \$2 billion in unencumbered liquidity against potential indemnification exposure and has access to an additional \$6 billion of liquidity, both in the form of unencumbered cash and a \$4 billion, 5-year bank credit facility as of December 2014. BlackRock does not rely on wholesale funding nor FDIC-insured deposits to support its liquidity. We are currently rated A1 and AA- by Moody's and S&P, respectively, which is among the highest in the asset management industry and equal to or higher than other securities lending agents.

As the Request for Comment acknowledges, "there are meaningful differences within the asset management industry, with diverse investment strategies, corporate structures, regulatory regimes, and customers."³⁵ As such, our responses to the questions posed primarily reflect our experience and business model, which may differ from that of other managers.

We appreciate the opportunity to provide comments to the Council on all aspects of asset management, and we encourage continued engagement with the industry as we believe that ongoing engagement will ensure the best outcomes for asset owners and the financial ecosystem as a whole. We encourage the Council to continue to gather input from multiple sources, including public forums, such as the Council's Asset Management Conference in May 2014, one-on-one meetings with Council Members and their staff, smaller group sessions, and additional information requests similar to this Request for Comment. We believe that the Council's active engagement with the industry is critical to the Council's mission and its commitment to a fair, thorough and transparent process. Given the complexity of the capital markets and their importance to the overall health of our economy, we consider an active dialogue between policy makers and industry practitioners critical to identifying and implementing constructive solutions that make financial markets more resilient and protect investors.

Sincerely,

Barbara G. Novick
Vice Chairman

cc:

Chairman Jacob L. Lew, Secretary, U.S. Department of the Treasury

Richard Cordray, Director of the Bureau of Consumer Financial Protection

Thomas J. Curry, Comptroller of the Currency

Martin J. Gruenberg, Chair, Federal Deposit Insurance Corporation

³⁵ Notice Seeking Comment on Asset Management Products and Activities, 79 Fed. Reg. 77489 (Dec. 18, 2014).

Timothy G. Massad, Chair, Commodity Futures Trading Commission

Debbie Matz, Chair, National Credit Union Administration

Melvin L. Watt, Director, Federal Housing Finance Agency

Mary Jo White, Chair, U.S. Securities and Exchange Commission

S. Roy Woodall, Jr., Independent Member of the Financial Stability Oversight Council

Janet L. Yellen, Chair, Board of Governors of the Federal Reserve System

Richard Berner, Director, Office of Financial Research

John P. Ducrest, Commissioner, Louisiana Office of Financial Institutions and Chairman
of State Bank Supervisors

Adam Hamm, Commissioner, North Dakota Insurance Department

David Massey, Deputy Securities Administrator, North Carolina, Department of the
Secretary of State, Securities Division

Michael T. McRaith, Director, Federal Insurance Office of the Department of the
Treasury

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³⁶ Please note that we set out the questions in their entirety below and our responses to each.

I. Liquidity and Redemptions

1.1 How does the structure of a pooled investment vehicle, including the nature of the redemption rights provided by the vehicle and the ways that such vehicles manage liquidity risk, affect investors' incentives to redeem? Do particular types of pooled investment vehicles, based on their structure or the nature of their redemption management practices, raise distinct liquidity and redemption concerns (e.g., registered funds, private funds, or ETFs)?

It is important to recognize that the structure of CIVs can vary greatly based on a CIV's investor base (e.g., retail or institutional) and the jurisdiction in which the CIV is domiciled. Various types of CIVs have been developed to meet the needs of different client segments around the world. In theory, certain structural characteristics of CIVs may create an incentive to redeem from a CIV. However, we note that although incentives to redeem may exist, this does not necessarily imply that investors will in fact redeem *en masse* in times of market stress. For example, savers are relatively unlikely to rebalance the assets held in their retirement accounts, given the well-known stickiness of asset allocation decisions and the long term nature of retirement savings.³⁷ Further, many pension plans maintain rebalancing policies that require them to act in a counter-cyclical manner, buying when securities lose value and selling when they increase in value.³⁸

Nevertheless, a well-structured CIV should seek to avoid features that could create a "first-mover advantage" in which one investor has an incentive to leave a CIV before other investors in that CIV. Importantly, this approach protects all investors while also mitigating the potential for systemic risk by eliminating "accelerants" related to fund redemptions. Regulators of different types of CIVs, including the SEC and the OCC, have recognized the importance of addressing these issues and have developed different regulatory regimes for CIVs under their jurisdiction that respond to these issues in different ways. Key characteristics distinguishing each type of CIV include:

- Pricing methodologies for subscriptions and redemptions;
- Redemption provisions, including powers granted to the trustees, directors, or other governing body of a fund;
- Limitations, if any, on leverage and derivatives, plus stress testing and other risk management and risk monitoring procedures; and
- Disclosures in fund constituent documents and communications with investors.

Importantly, the attributes described above cannot be considered in isolation because the interplay among the structural features of a CIV can help to mitigate certain risks.

³⁷ Towers Watson states that empirical evidence suggests individual investors often fail to rebalance their portfolios due to inertia. See Gaobo Pang, *Household Survey Shows Evolving Retirement Plan Coverage, Savings and Investments* (May 2013), available at <http://www.towerswatson.com/en-U.S./Insights/Newsletters/Americas/insider/2013/Household-Survey-Shows-Evolving-Retirement-Plan-Coverage-Savings-and-Investments>; Testimony by Monique Morrissey of the Economic Policy Institute before the U.S. Senate Committee on Banking, Housing and Urban Affairs Subcommittee on Economic Policy, "The State of U.S. Retirement Security: Can the Middle Class Afford to Retire?" (Mar. 2014), available at <http://www.epi.org/publication/morrissey-senate-panel-retirement-security/>.

³⁸ Bank of England and the Procyclicality Working Group, *Procyclicality and Structural Trends in Investment Allocation by Insurance Companies and Pension Funds* (Jul. 2014), available at <http://www.bankofengland.co.uk/publications/Documents/news/2014/dp310714.pdf>. See also *Who Owns the Assets ViewPoint*.

For the purposes of this response, we will focus on the structural features of U.S. CIVs, as this is the primary focus of the Council. However, we will also make comparisons to CIVs operated in other jurisdictions since we believe it would be helpful for the Council to consider different approaches that have been taken and whether certain features could or should be adopted in the U.S.³⁹

U.S. Publicly Available CIVs

In the U.S., there are several different types of CIVs that are publicly available and regulated by the SEC under the 1940 Act.

1940 Act Open-End Mutual Funds are typically open for subscriptions and redemptions on a daily basis. Subscriptions to and redemptions from 1940 Act Open-End Mutual Funds are executed at the price per share at the next calculation of the net asset value per share (“NAV”) after the order is placed.⁴⁰ As a result, when a 1940 Act Open-End Mutual Fund buys or sells securities to meet net redemption or subscription requests, the fund will need to engage with the primary asset market by selling or buying underlying assets in the fund which will generate transaction costs. In the case of equities, if the issue is relatively thinly traded, a large sell order might have a market impact, which would make the actual price achieved by the 1940 Act Open-End Mutual Fund less than what the NAV calculation implied, thereby negatively impacting the NAV of the fund. Similarly, given the limited transparency and trading in specific bonds in the bond market, the price provided to a 1940 Act Open-End Mutual Fund by a pricing vendor might adjust relatively slowly, particularly when markets for such bonds become increasingly illiquid. Similar to equities, there may also be a market impact on the price. The net effect may be that the proceeds from the sale of securities due to a redemption are less than what would result from the NAV-based calculation. The opposite might occur in a net subscription. When markets are functioning well and subscriptions / redemptions are modest relative to fund assets, the impact of these circumstances is typically small. However, since there is effectively no mechanism to reflect the actual contemporaneous transaction costs realized by a 1940 Act Open-End Mutual Fund at the time the fund calculates its NAV on a given day, the impact could be magnified when markets are turbulent or illiquid, potentially diluting the interests of the remaining shareholders.

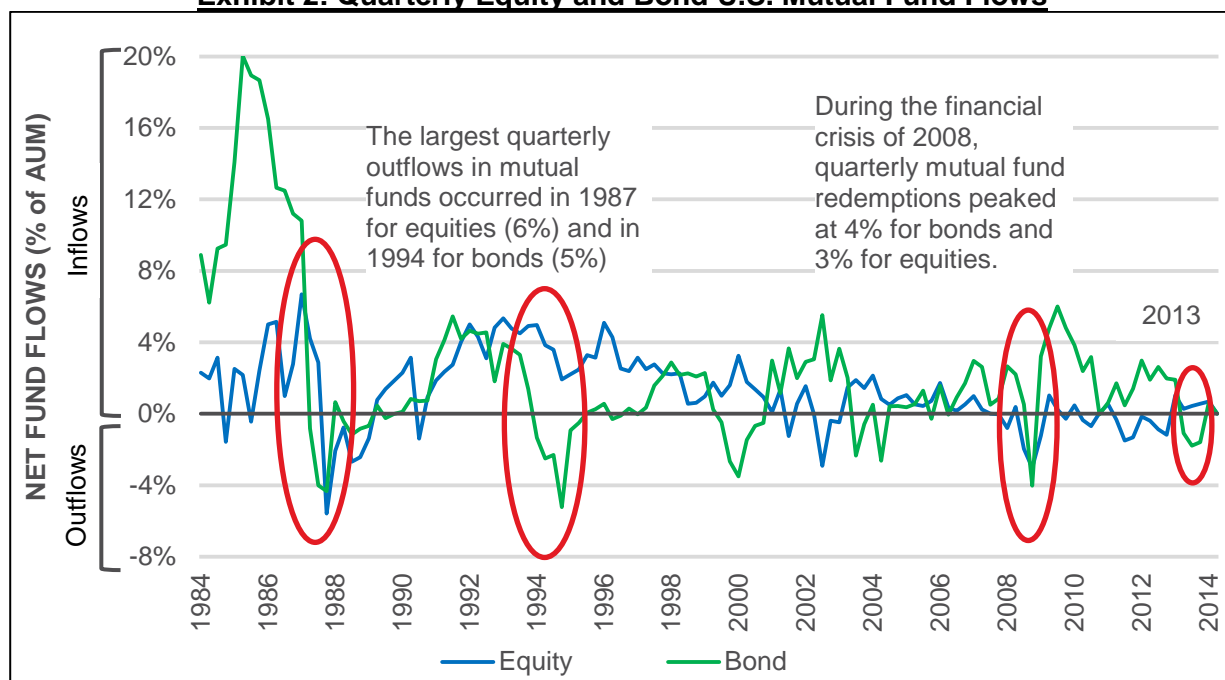
While the lack of a mechanism to allocate transaction costs and market impact to transacting investors could create a first-mover advantage, our review of historical data and our experience in the market shows that redemptions from 1940 Act Open-End Mutual Funds have not impeded the ability of fund managers to meet redemptions, even during times of market stress. Exhibit 2 shows quarterly net flows as a percentage of AUM for U.S.-domiciled bond and equity mutual funds and ETFs over a thirty year period (from 1984 to 2014). A review of this data during the 2008 Crisis demonstrates that mutual funds in aggregate did not experience extraordinary levels of redemptions by historical standards. Certainly, there were large outflows from mutual funds during the 2008 Crisis, but these outflows were not extreme compared to previous market events. For example, equity mutual funds in aggregate experienced bigger outflows as a percentage of AUM in 1987 than they did in either the fourth quarter of 2008 or the first quarter of 2009. Likewise, bond funds in aggregate experienced larger outflows as a

³⁹ See Appendix B for a high level comparison of various approaches. We more fully explore the various structural features of CIVs across several jurisdictions in our Fund Structures *ViewPoint*.

⁴⁰ 1940 Act Funds, excluding closed-end funds, publish a daily NAV at the end of each business day. That NAV is calculated without regard to the specific net flow with which the fund will be confronted. It generally uses the last close for exchange-traded securities like equities, and bid-side indications for OTC assets like bonds, assuming an institutional-sized block.

percentage of AUM during the monetary policy tightening cycles of 1987 and 1994. In all, the mutual fund industry as a whole experienced more extreme outflow episodes in 1987 (for equity funds) and 1994 (for bond funds) than in 2008. The highest quarterly net outflow as a percentage of AUM for bond funds in 1994 did not exceed 6%. Some commenters⁴¹ have specifically cited bond fund outflows in the second half of 2013 as evidence of systemic riskiness; however, outflows during this period look rather modest, with peak quarterly outflows coming in at less than 2%.

Exhibit 2: Quarterly Equity and Bond U.S. Mutual Fund Flows



Source: ICI, Bloomberg, J.P. Morgan. As of March 2014.

There are a number of factors that explain the relatively low levels of aggregate redemptions of mutual funds during the 2008 Crisis. In part, this was due to the long-term nature of many mutual fund investors, in particular, retirement assets as previously discussed. For example, as of March 31, 2014, 43% of mutual fund assets were in retirement accounts (e.g., 401k plans and Individual Retirement Accounts).⁴²

Portfolio managers actively manage levels of cash and liquid securities and maintain backup sources of liquidity, such as repo⁴³ and bank credit lines, which are permitted, within certain limitations,⁴⁴ under the 1940 Act, providing additional sources of liquidity to meet a redemption spike, should one occur. However, it should be noted that in our experience,

⁴¹ See, e.g., Feroli, Michael, Anil K. Kashyan, Kermit Schoenholtz, and Hyun Song Shin, *Market Tantrums and Monetary Policy* (Feb. 2014).

⁴² Investment Company Institute, *2014 Factbook* (Mar. 2014), available at http://www.ici.org/pdf/2014_factbook.pdf.

⁴³ By repo, we refer to contracts commonly referred to as repo or reverse repo. For the party selling the security (and agreeing to repurchase it in the future) it is a repo; for the party on the other side of the transaction (buying the security and agreeing to sell in the future), it is a reverse repurchase agreement. Thus, the terms repo or reverse repo refer to the perspective of the counterparty, not the security, and the practice of which counterparty is the reverse is not consistent between the U.S. and Europe. Consequently, we use repo throughout this comment letter to refer to contracts from either perspective.

⁴⁴ See 15 U.S.C. § 80a-15(f); Securities Trading Practices of Registered Investment Companies, Investment Company Act Release No. 10666 (Apr. 18, 1979).

portfolio managers do not borrow on a regular basis to meet redemptions and, instead, sell securities on a pro rata basis to ensure that asset sales to meet redemptions do not alter the risk positioning of their fund (which is determined by the fund's mandate and client guidelines / fund prospectuses). Back-up liquidity sources can be used to provide sufficient time to support the orderly sale of portfolio holdings, but are only a temporary measure.

1940 Act ETFs are a type of open-end fund that can be traded on the secondary market throughout the day at the current market price (i.e., like any listed stock). Unlike 1940 Act Open-End Mutual Funds, retail investors who wish to gain exposure to an ETF can buy or sell ETF shares in the secondary market through their brokers. As such, secondary market trading of ETF shares by individual investors does not directly impact the underlying portfolio securities of the ETF, since individual investor activity does not necessarily result in the ETF's portfolio securities being bought or sold. Further, secondary market transactions do not directly impact the ETF's NAV or performance because the secondary market investor pays all transaction fees, including exchange fees, brokerage commissions, and the like. ETFs issue and redeem shares daily at NAV, but only in large aggregations, sometimes referred to as Creation Units, transacted with large institutional trading firms known as Authorized Participants ("APs"). In some cases (e.g., when there are supply and demand imbalances in the secondary market resulting in the ETF trading at a discount or a premium to its NAV), an AP will choose to transact directly with the ETF to create or redeem ETF shares in order to capture the arbitrage opportunity. Transactions between an ETF and an AP are typically conducted "in-kind," with the AP providing or receiving a basket of securities with very similar risk characteristics to the ETF's holdings.⁴⁵ Alternatively, some of these "create" or "redeem" transactions are made in part or whole for cash, with the ETF structure providing that transaction costs are absorbed by the AP in a manner that mimics the economics of an in-kind transaction.⁴⁶ This "externalization of costs" approach results in transaction costs being allocated to transacting APs in a reasonable way outside of the ETF itself (and, thus, without impacting the ETF's shareholders).

In an ETF, because transaction costs are isolated to the transacting participants within the secondary market or to the AP in the primary market, there is no impact to the remaining investors of the ETF. Therefore, there is no "first-mover advantage" and no "accelerants for a run" in ETFs. While some policy makers have raised concerns about the potential of ETFs to amplify market stress, the data show that ETFs enhance market stability by providing an additional source of liquidity in the secondary market. The recent period of volatility and large flows in the fixed income market in September-October 2014 demonstrated that ETFs are increasingly used by bond investors for liquidity and price discovery purposes. We recently analyzed the dynamics of ETFs during this period in a publication entitled "ETFs Help Improve Market Stability: A Closer Look at Fixed Income ETF Behavior During Recent Bond Market Movement."⁴⁷ As bond markets evolve over the coming years, ETFs will play an important role

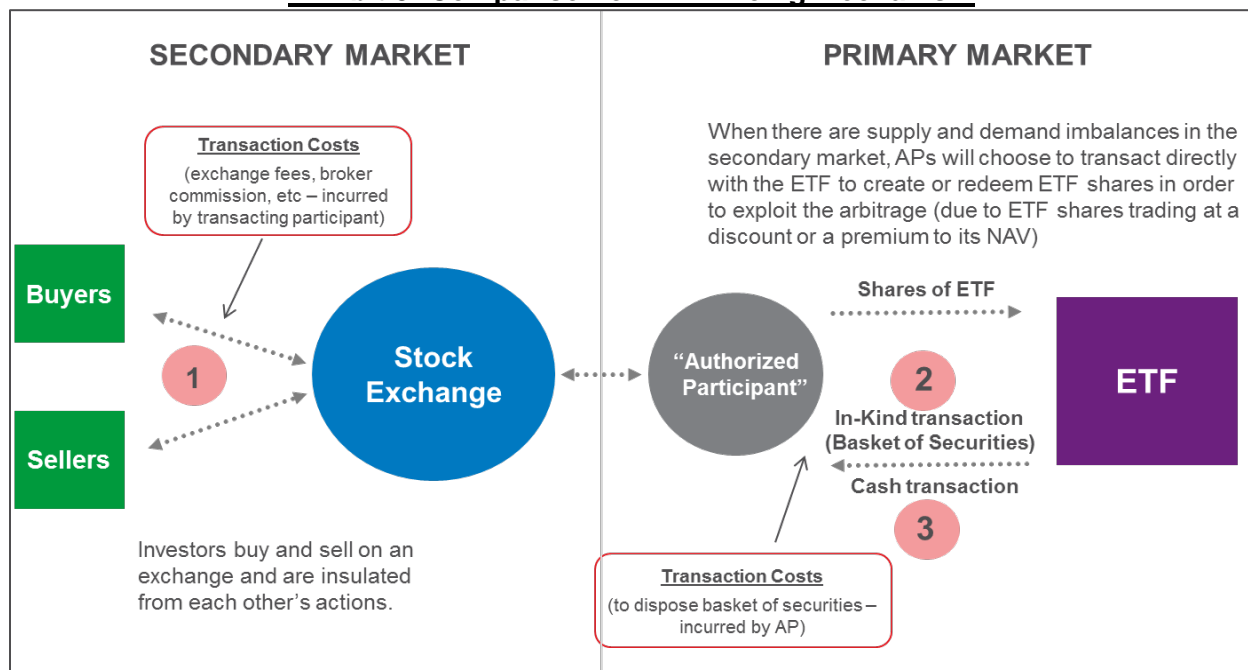
⁴⁵ For most equity and Treasury ETFs, creations and redemptions involve a pro rata basket of securities included in the underlying portfolio or benchmark index. However, for some broad equity and most fixed income ETFs, it may not be possible to include all underlying portfolio or benchmark securities in a creation or redemption basket. Instead, the ETF will publish "optimized" creation and redemption baskets wherein the ETF's advisor attempts to match the risk and return characteristics of the baskets to those of the underlying portfolio or to the applicable benchmark index.

⁴⁶ The use of cash is sometimes required because certain investments held in ETFs, such as emerging market stocks, may be subject to legal restrictions that prevent in-kind transfers. If a purchase or redemption consists solely or partially of cash and the Fund places a brokerage transaction for portfolio securities with the AP or its affiliated broker-dealer, the AP (or its affiliated broker-dealer) may be required, in its capacity as broker-dealer with respect to that transaction, to cover certain brokerage, tax, foreign exchange, execution, and market impact costs.

⁴⁷ BlackRock, iShares, *ETFs Help Improve Market Stability: A Closer Look at Fixed Income ETF Behavior During Recent Bond Market Movement* (Oct. 2014), available at <http://www.ishares.com/us/literature/brochure/etfs-help-improve-bond-market-stability-en-us.pdf>.

in providing investors with efficient, transparent, exchange-traded, reliable exposure to a variety of market segments. Exhibit 3 provides an illustration of the pricing mechanisms for ETFs.

Exhibit 3: Comparison of ETF Pricing Mechanism



Source: BlackRock, *ViewPoint, Fund Structures as Systemic Risk Mitigants* (Sep. 2014), available at: <http://www.blackrock.com/corporate/en-us/literature/whitepaper/viewpoint-fund-structures-as-systemic-risk-mitigants-september-2014.pdf>.

1940 Act Closed-End Mutual Funds (“CEFs”) trade on the secondary market, like ETFs, but unlike ETFs, CEFs have a fixed number of shares. Investors in CEFs can buy and sell shares of the fund on an exchange at the current market price. Consequently, subscriptions and redemptions in CEFs do not entail the buying or selling of securities held in the CEF. Given the fixed number of shares in a CEF, the shares of CEFs may be more likely to experience premiums and discounts, depending on secondary market demand for the CEF’s shares.

U.S. CIVs That Are Not Publicly Available

There are numerous types of CIVs that are not publicly offered. For example, U.S. trust banks may offer **CIFs**, which are regulated by the OCC for nationally chartered trust banks and by state banking regulators for state chartered trust banks. Unlike 1940 Act Funds, CIFs are not offered publicly but are, instead, offered to a limited subset of institutional investors.⁴⁸ CIFs in the U.S. calculate a NAV on a periodic basis (typically on each business day). Similarly, orders for subscriptions and redemptions in CIFs received before the time as of which a CIF’s NAV is determined on a given business day are processed at that business day’s NAV. CIFs have potentially more flexibility to implement redemption provisions than 1940 Act Funds, given their limited institutional investor base. The redemption terms of a CIF must be disclosed in the CIF’s constituent documents (which are made available to CIF investors but not otherwise published). As such, it is somewhat difficult to generalize the redemption characteristics of CIFs. Nonetheless, CIFs regulated by the OCC are permitted to include provisions that enable the externalization of transaction costs from the CIF to the transacting investor. One method to

⁴⁸ See Fund Structures *ViewPoint*.

accomplish such externalization of costs is to use a “purchase net asset value” (“PNAV”) and a “redemption net asset value” (“RNAV”), where applicable. With this method, to the extent that a contribution or redemption cannot be accommodated through a unit exchange⁴⁹ and a CIF is permitted to use the PNAV/RNAV method, the contribution or redemption may be valued at a PNAV or a RNAV, each calculated to reflect brokerage commissions, third-party fees for calculation of a PNAV/RNAV, bid-offer spreads, differences between closing prices and actual execution prices, accrued interest for fixed income CIFs, and other transactional costs of acquiring or selling portfolio assets. In this manner, portfolio transaction costs caused by contributions or withdrawals are allocated to contributing or redeeming CIF participants. Another available tool is the creation of separate trading CIFs to isolate portfolio transaction costs caused by contributions to or withdrawals from certain types of CIFs. The PNAV/RNAV mechanism and the trading CIF option appropriately address the risk of creating a “first-mover” advantage by externalizing transaction costs incurred by the CIF to transacting investors.

Hedge funds have the flexibility to employ a variety of tools to manage redemptions and asset-level liquidity. These are typically tailored to the liquidity profile of the hedge fund’s investments and differ by investment strategy. Redemption provisions (including notice periods, gates and, suspension provisions) are disclosed in detail in each hedge fund’s offering documents and agreed to by the investor in the subscription agreements and documentation. In the U.S., private funds can only be invested in by “accredited investors” or “qualified purchasers,” effectively limiting the client-base in these funds to institutional investors and high net worth individuals.⁵⁰ For funds that invest in illiquid securities or liquid securities that may become illiquid, there are a number of mechanisms that can be employed to protect remaining fund investors in the event the fund experiences significant withdrawal requests from other investors in the fund. One such mechanism is a “side pocket”⁵¹ where illiquid assets are placed into and held away from the main fund. When a “side pocket” is employed, redeeming investors can only receive cash from their pro-rata stake in the non-side-pocketed assets. Another mechanism is a distribution-in-kind where assets are distributed to redeeming shareholders on a pro-rata basis through a variety of mechanics which are disclosed in fund offering documents.

Hedge funds’ experience during the 2008 Crisis was instructive and prompted many hedge funds to change certain policies. Ironically, due to the relative liquidity of hedge funds as compared to private equity and real estate funds, many hedge funds experienced significant redemption requests during the financial crisis, which caused many to implement fund-level gates or suspend redemptions. Since then, many hedge funds have updated their constituent documents to improve the alignment of interests among the investors in the hedge fund and to respond to new regulatory disclosure standards (e.g., AIFMD in the EU). Today, a typical hedge fund will offer monthly or quarterly redemptions combined with an extended prior notice period that generally ranges between ten and ninety days. In addition, many hedge funds now apply “investor-level gates,” which means each investor is allowed to redeem only a certain percentage of their investment on each redemption date (as opposed to fund-level gates that

⁴⁹ To the extent there are both contributions and withdrawals from a given CIF on an opening date, either the contribution side or the withdrawal side (whichever is the smaller dollar value) will be able to effect the transaction entirely through an exchange of CIF units rather than incurring transaction costs or redemption fees.

⁵⁰ An accredited investor who is a natural person meets one of the following criteria: (1) an individual whose net worth or joint net worth exceeds \$1 million, excluding his/her primary residence or (2) an individual whose income exceeded \$200,000 in both of the past two years or whose joint income with a spouse exceeded \$300,000 in both of the past two years. 17 C.F.R. §230.501(5)-(6).

⁵¹ A side pocket is an account that is established by a hedge fund to segregate certain, often illiquid, assets or investments (including both gains and losses thereon) from the fund’s general portfolio. Only investors who were invested in the fund at the time the investment was placed in a side pocket participate in the gains and losses of the side pocket.

apply when aggregate withdrawal requests are received for more than a certain percentage of the fund's total assets). Investor-level gates are often used in lieu of fund-level gates. Typically, investor-level gates are set to allow an investor to redeem no more than 10% to 50% of the investor's investment in a single redemption period. Finally, some hedge funds place limits on the allocation to illiquid securities to avoid a portfolio level mismatch with the redemption features of the fund.

In summary, we do not believe that the structure of any particular investment vehicle presents risks that rise to the level of being systemic. That said, we do make specific recommendations in our responses to Questions 1.5 and 1.8 below to better manage the market liquidity risk of particular vehicles.

1.2 To what extent do pooled investment vehicles holding particular asset classes pose greater liquidity and redemption risks than others, particularly during periods of market stress? To what extent does the growth in recent years in assets in pooled investment vehicles dedicated to less liquid asset classes (such as high-yield bonds or leveraged loans) affect any such risks?

It is important to separate concerns about investment losses by asset owners, including those resulting from the presence of market liquidity risk, from concerns that CIVs could create or transmit systemic risk. Further, concerns regarding the market liquidity of a particular security or asset class need to be distinguished from concerns regarding the redemption characteristics of funds. As the experience during the 2008 Crisis demonstrated, one's ability to liquidate a security is never guaranteed, and financial markets can and do break down.⁵² Part of the responsibility of a fund manager is to ensure that client portfolios are constructed in a way that allows a fund to efficiently respond to potential redemptions within the agreed upon timeframe outlined in a fund's constituent documents. This practice is known as market liquidity risk management. Market liquidity risk management is important to the management of all funds, not just those that invest primarily in what may be considered "less liquid assets." Existing fund structures and industry market liquidity management practices, including holding cash and liquid securities and maintaining backup sources of liquidity, are intended to enable funds to meet redemptions in times of market stress.⁵³

Policy makers have focused on the daily-offered nature of 1940 Act Open-End Mutual Funds with respect to asset classes that may be considered less liquid, such as bank loans, high yield bonds, and EMD. These funds need to be able to deliver liquidity in a manner that is consistent with their prospectuses and regulatory guidelines of the 1940 Act, just like all 1940 Act Funds. Unlike bank deposits, however, market liquidity in funds does not involve either the promise to return principal plus interest or a government guarantee of the value of shares of the fund. In recognition of this, the risk that one's investment could lose value is clearly disclosed in 1940 Act Fund prospectuses and marketing materials.⁵⁴

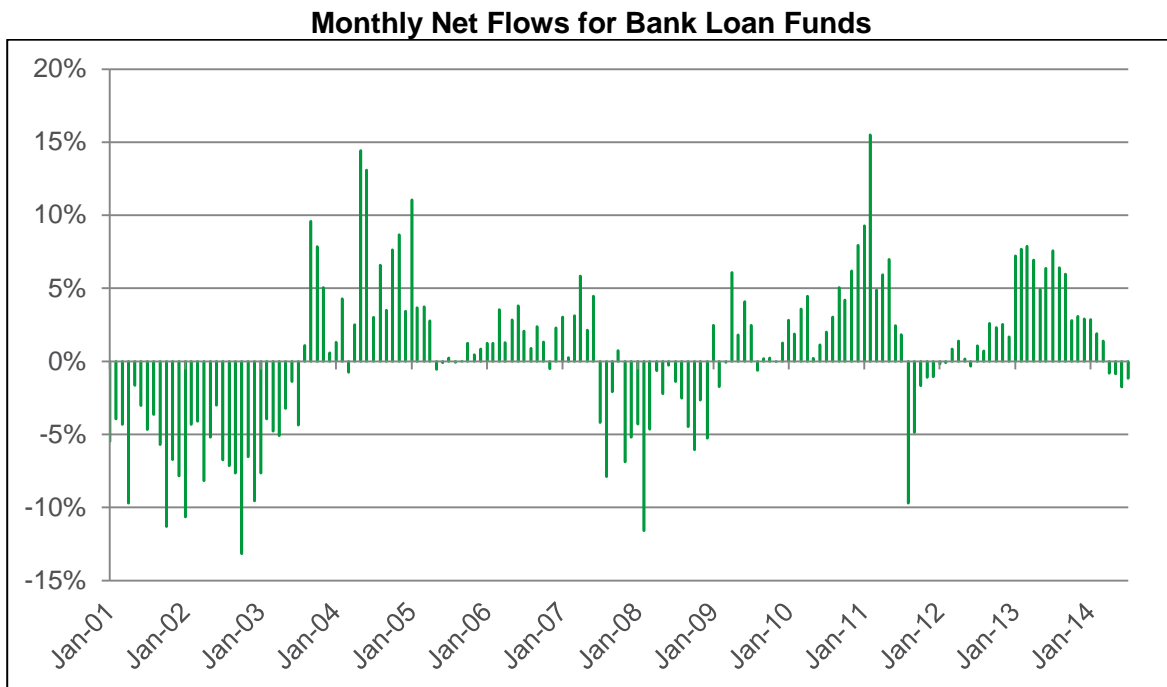
⁵² See Bennett W. Golub and Conan Crum, Risk Management Lessons Worth Remembering from the Credit Crisis of 2007-2009, 36(3) *Journal of Portfolio Management* 21-44 (Spring 2010).

⁵³ Liquidity risk management is also used to manage idiosyncratic events affecting a fund, such as the departure of a key portfolio manager or anticipated large redemption requests at the commencement of a notice period due to reputational or performance issues. See Kirsten Grind, *Pimco Sees \$48 Billion in Outflows After Gross Departure*, *The Wall Street Journal* (Nov. 5, 2014), available at <http://www.wsj.com/articles/pimco-sees-48-billion-in-outflows-after-gross-departure-1415209111?mg=id-wsj>; Peter Lattman, *The New York Times DealBook, Possible Client Redemptions Weigh on SAC Capital* (Jan. 11, 2013), available at http://dealbook.nytimes.com/2013/01/11/client-redemptions-loom-for-sac-capital/?_r=0.

⁵⁴ Form N-1A, the SEC registration form for 1940 Act Open-End Mutual Funds and 1940 Act ETFs (available at <http://www.sec.gov/about/forms/formn-1a.pdf>), requires a fund to disclose its principal investment strategies and risks, including

Given the interest in these particular asset classes by policy makers, we reviewed the dynamics of bank loans, high yield, and EMD funds looking at liquidity risk management practices and data on historical redemption patterns and cash balances across these funds in our September 2014 *ViewPoint* publication entitled, “Who Owns the Assets? A Closer Look at Bank Loans, High Yield Bonds and Emerging Markets Debt”.⁵⁵ While policy makers and academics have raised concerns about the potential risks associated with bank loan, high yield and EMD funds, our analysis concluded that these funds have handled redemptions without creating any material systemic issues, including during periods of market stress and relatively high redemptions (see Exhibit 4). Further, in aggregate, these asset classes make up only a small fraction of investable global fixed income assets, and dedicated mutual funds hold an even smaller fraction – less than one-third of investable assets in any one of these asset classes.⁵⁶ Should the Council be interested in learning about additional asset classes, we would be happy to conduct similar analyses.

Exhibit 4: Bank Loan, High Yield Bond, and EMD Mutual Fund Flows



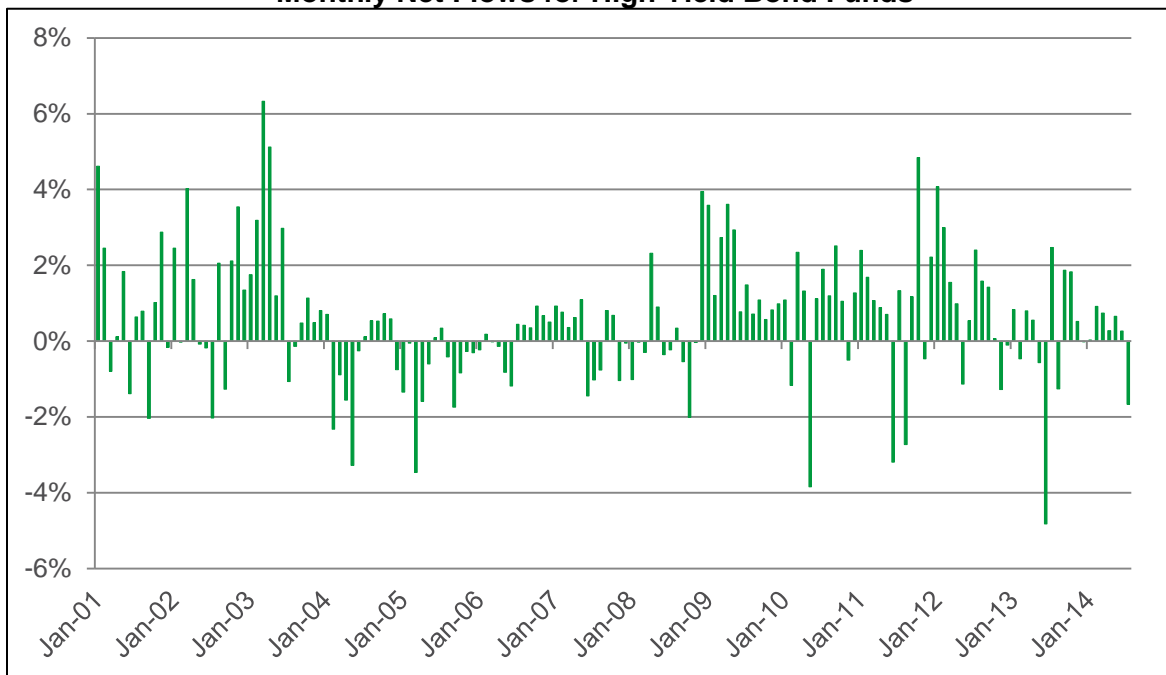
Source: S&P Capital IQ LCD.

the types of investments and techniques used by a fund to achieve its investment objective, and that the use of such investments and techniques may result in the fund losing money.

⁵⁵ BlackRock, *ViewPoint, Who Owns the Assets: A Closer Look at Bank Loans, High Yield Bonds, and Emerging Markets Debt* (Sep. 2014), available at <http://www.blackrock.com/corporate/en-us/literature/whitepaper/viewpoint-closer-look-selected-asset-classes-sept2014.pdf> (“Who Owns the Assets Part 2”).

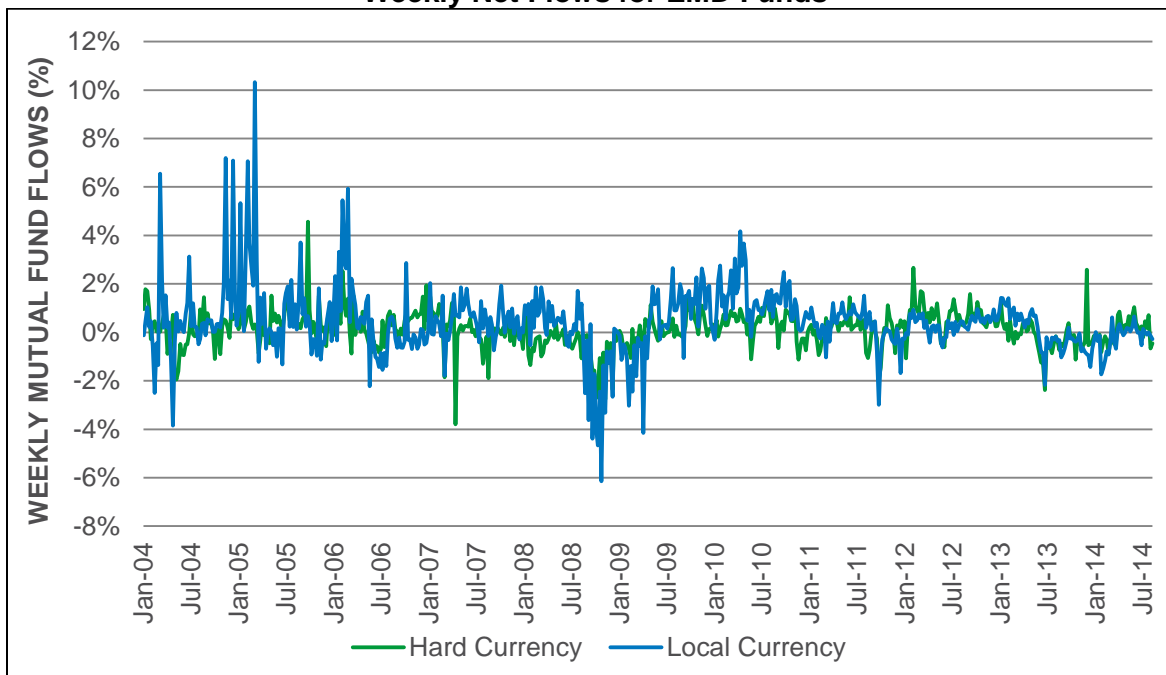
⁵⁶ See *Who Owns the Assets Part 2*.

Monthly Net Flows for High Yield Bond Funds



Source: Morningstar. As of July 2014.

Weekly Net Flows for EMD Funds



Source: J.P. Morgan. As of Aug. 13, 2014.

We have made specific recommendations regarding ways to potentially make all categories of CIVs more resilient to the changing market liquidity of their underlying assets as outlined in our response to Question 1.8. These recommendations include addressing structural elements of funds, risk management practices, and disclosure to investors and regulators. We reiterate here the importance of examining these elements of funds broadly to

establish global principles that can be tailored to specific regulatory regimes. Based on our review of bank loan, high yield, and EMD funds, we recommend that regulators consider ways of codifying best practices for market liquidity risk management in these types of funds to improve liquidity risk management industry-wide. We provide detailed recommendations on market liquidity risk management in our responses to Questions 1.5 and 1.8.

1.3 To what extent might incentives to redeem shares in a pooled investment vehicle or other features of pooled investment vehicles make fire sales of the portfolio assets, or of correlated assets, more likely than if the portfolio assets were held directly by investors?

As a starting premise, it is important to recognize that decisions regarding the flow of assets into and out of individual asset classes and funds is largely driven by asset owners (not asset managers) in a variety of ways, including subscription and redemption requests, delegation of asset allocation decisions to financial advisors or institutional investment consultants and regulatory constraints governing asset owners (e.g., state insurance regulation, Employee Retirement Income Security Act (“ERISA”), UK pension regulation, etc.). Asset owners’ control over the flow of assets exists regardless of whether the asset owner invests their assets directly or outsources management to an asset manager/fund. In the event that an asset class falls out of favor with asset owners, they might re-allocate assets held directly or in a fund structure.

Investors in funds understand that there may be risks involved with investing in such vehicles, including the loss of principal, and these risks are clearly disclosed in detail in fund constituent documents (i.e., 1940 Act Fund prospectuses) and in marketing materials, as a result of the robust regulatory requirements related to the disclosure of risks.⁵⁷ Importantly, while investors recognize the potential risks and losses that can be associated with investing in mutual funds (and even the fact that some transaction costs may be shared across a fund’s shareholders), millions of investors recognize a great benefit from investments in funds – one that if funds ceased to exist, or if investors were discouraged from using, would have significant consequences of their own. In particular, investments in funds allow investors to obtain professional management of their assets, including professional management of the risks associated with investing in particular asset classes. Investors also obtain economies of scale that afford diversification and cost reduction that could not be obtained by individual fund investors investing their individual assets directly into the capital markets.

Not only do CIVs provide benefits to fund investors, they also benefit the broader U.S. economy by facilitating investments in capital markets that would otherwise likely end up in bank accounts or in a select number of well-known companies’ stocks.⁵⁸ As such, we encourage the Council to recognize that the concern that investors may one day redeem assets from funds (and that those redemptions might occur in a correlated fashion) cannot be separated from the benefits afforded to the economy and to investors by investments in funds in the first place.

⁵⁷ See SEC, Form N-1A. The disclosure of risks in the funds’ prospectuses is a Form requirement. For example Items 4 and 9 of Form N-1A contain related requirements for disclosure of a fund’s principal investment strategies and the associated risks to investors. Form N-1A contemplates disclosure of “the principal risks of investing in the Fund, including the risks to which the Fund’s particular portfolio as a whole is expected to be subject and the circumstances reasonably likely to affect adversely the Fund’s net asset value, yield, or total return.” Form N-1A at 16.

⁵⁸ Luis Aguilar, Commissioner, SEC, *Institutional Investors: Power and Responsibility*, Speech at Georgia State University (Apr. 19, 2013), available at <http://www.sec.gov/News/Speech/Detail/Speech/1365171515808#.VLhOBzh0zcs>. Martin Flanagan, Chairman, Investment Company Institute, Remarks at the 2006 Mutual Fund Leadership Dinner (May 3, 2006), available at http://www.ici.org/pressroom/speeches/06_slid_flanagan_spch.

Moreover, as we discuss in other parts of our response, there are many ways for policy makers to mitigate systemic risk issues while maintaining the benefits of funds by expanding the “toolkit” of options available to make CIVs more resilient to large correlated redemption requests. To this end, before enacting new regulations that could impair CIVs rather than improve them, regulators should consider the significant consequences of creating regulations that deter investments in funds, as this would undoubtedly have a greater and longer-term systemic impact than a potential short period of high redemptions, which can be managed effectively using a variety of tools.

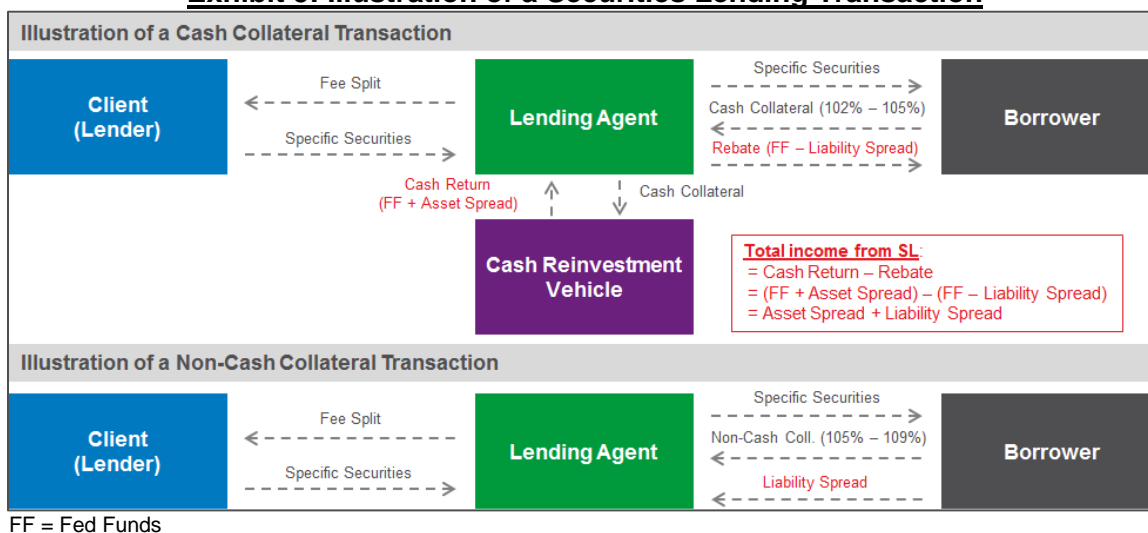
1.4 To what extent does the potential for terminations of securities loans that would trigger redemptions from cash collateral reinvestment vehicles or other asset sales pose any distinct financial stability concerns? To what extent do investment vehicles reinvest cash collateral in assets with longer maturities relative to the lender’s obligation to repay the collateral, which may increase liquidity risk? How much discretion do lending agents have with respect to cash collateral reinvestment? To what extent do lending agents reinvest cash collateral in vehicles managed by the same firm that manages the investment vehicle lending the securities?

We do not believe that the potential for terminations of securities loans to trigger redemptions from cash collateral vehicles poses a distinct financial stability concern, particularly given reforms that were implemented by the SEC in 2010 and the OCC in 2012 to improve the safety and soundness of cash investment vehicles. With the possible exception of STIFs sponsored by state-chartered trust banks which have not yet been mandated to update their practices,⁵⁹ the liquidity profile allowed in the cash re-investment vehicles has substantially mitigated the risk from previous issues experienced during the 2008 Crisis with longer-dated maturity securities. Further, regulatory requirements and market practice require that borrowers post collateral for securities loans in excess of the value of the security being lent. As a further measure, securities loans and collateral are marked-to-market daily, and the borrower may be required to deliver additional collateral to maintain the required excess level.

Exhibit 5 provides illustrations of two types of securities lending transactions – the first where cash collateral is used and the second where non-cash collateral is used. First, a lender must choose to make its securities available to be lent. Lenders may choose to participate in securities lending arrangements in order to earn fees from the borrower, and in cases where the lender receives cash as collateral, additional returns may be generated from investing the cash.

⁵⁹ We encourage the Council to implement similar reforms for the state-chartered trust banks that sponsor STIFs, using its Section 120 authority if Member Agencies with oversight over state-chartered banks fail to compel these changes.

Exhibit 5: Illustration of a Securities Lending Transaction



In the course of the discussion about securities lending, we have found that there is confusion regarding the respective roles of securities lending agents and the lenders as well as misinformation on several other aspects of securities lending. In this section, we explain the basics of securities lending and seek to clarify the practices involved.

Role of a Securities Lending Agent

Engaging in securities lending is accomplished through the appointment of a lending agent which arranges the loan of the lender’s securities with a borrower for a fee (the “liability spread”).⁶⁰ Lending agents act as *agents* that arrange securities loans between lenders and borrowers. As such, lending agents are *not* the counterparties in these transactions.

The lending agent can be the lender’s asset manager, custodian, or other third party. The lending agent arranges to lend securities to borrowers that include financial institutions that have been prescreened and preapproved, such as banks, broker-dealers, or market makers, that acquire the security for a financial transaction, either for themselves or on behalf of their own client (the “borrower’s Client”). In exchange for the loan of the securities, the borrower is required to post collateral in the form of cash or securities in an amount in excess of the value of the securities lent. In cash collateral transactions, the borrower remits cash to the lending agent that can be re-invested for additional income.

BlackRock acts as a lending agent for some of its clients. Where BlackRock is the lending agent, all securities loans are made to borrowers that are independent of BlackRock. BlackRock’s securities lending program only approves counterparties (borrowers) that are well-capitalized, highly regulated financial institutions and these entities are subject to ongoing monitoring by BlackRock’s independent risk managers. BlackRock does not arrange transactions between clients who are borrowers (such as hedge funds managed by BlackRock) and clients who are lenders (such as mutual funds managed by BlackRock). Due to regulatory requirements applicable to most clients,⁶¹ securities lending transactions involving cash

⁶⁰ Note that some large institutional investors may lend securities directly without employing an agent to arrange the transaction.

⁶¹ Certain separate account clients may not be obligated by regulation to use cash vehicles governed by Rule 2a-7, but currently all clients using BlackRock’s lending program have chosen cash vehicles governed by 2a-7 or similar funds with similar requirements.

collateral use cash re-investment vehicles that are subject to Rule 2a-7 of the 1940 Act or funds with similar guidelines (e.g., those which only allow short-term instruments such as OCC regulated STIFs).

Depending on the structure of a lending client, mechanisms are in place such that the client, the fund board, or fund investor will set or consent to the parameters of the lending program, including the types of securities are lent, what types of collateral are accepted, and how that collateral is handled. The lending agent's role is limited to negotiating the best possible transaction with the borrower within the parameters set by the lender, and overseeing the exchange of both the security that was lent and the collateral received, while limiting a lender's risk exposure.

Securities Loans are Collateralized

Regulatory requirements and market practice require that borrowers post collateral for securities loans in excess of the value of the security being lent. Applicable U.S. regulation requires that U.S. lenders accept only cash collateral or a limited universe of non-cash collateral in conjunction with securities loans. Regulations governing U.S. based lenders further require that securities loans be collateralized at no less than 100% of the value on loan, though U.S. market practice generally requires collateral valued at more than 100% of the value of the securities on loan to be posted. European and Asian lenders tend to designate a more expansive list of eligible collateral to include high quality, liquid securities. In instances where a lender allows for non-cash collateral, the lender and lending agent will work together to designate appropriate over-collateralization levels for each type of non-cash collateral the lender chooses to accept. BlackRock typically requires borrowers to post collateral between 102% and 112% of the value of the securities lent.

Overcollateralization above 100% of a loan's market value provides an additional "safety cushion" in the event that a borrower fails to return the security that is out on loan. As a further measure, loans and collateral are marked-to-market daily, and the borrower may be required to deliver additional collateral to maintain the required excess level. Failure by the borrower to meet its mark-to-market obligations could constitute a default under the relevant securities lending agreement.

Non-Cash Collateral is Not Re-Hypothecated

In the event that non-cash collateral is accepted, BlackRock, as lending agent, is subject to contractual restrictions which forbid the re-hypothecation of collateral received. The lending agent directs the borrower to post all non-cash collateral directly to a third-party custodian for the benefit of the lender, and the collateral is not available for use by either the lender or the lending agent, except in the event that the borrower defaults, at which time the collateral would be used to cover the replacement cost of the securities that were on loan. In addition, the lending agent may not and does not use non-cash collateral from securities lending for its own business purposes, under any circumstances.

Cash Collateral Re-Investment

In the case of cash collateral, the lending agent directs the borrower to post cash directly into a cash re-investment vehicle. Pursuant to regulatory guidance and exemptive orders applicable to the lenders in BlackRock's securities lending program, only cash re-investment vehicles that are subject to Rule 2-a7 of the 1940 Act or cash investment vehicles with similar

investment guidelines (e.g., those which only allow short term instruments) can be designated.⁶² As discussed above, the SEC and the OCC modified the rules for short-term cash investment vehicles,⁶³ however, the state banking regulators have not acted.

Exhibit 6: Key Rules for U.S. Cash Management Vehicles⁶⁴

	SEC Rule 2a-7	OCC STIF Rules
Quality / Concentration / Diversification	<ul style="list-style-type: none"> • Max. issuer concentration: 5% • Max. 2nd tier⁶⁵ issuer concentration: 3%⁶⁶ 	<ul style="list-style-type: none"> • Portfolio and issuer quality standards and concentration restrictions must be identified, monitored and managed
Maturity / Duration	<ul style="list-style-type: none"> • Max. WAM: 60 days • Max. WAL: 120 days 	<ul style="list-style-type: none"> • Max. WAM: 60 days • Max. WAL: 120 days
Liquidity	<ul style="list-style-type: none"> • ≥10% in daily liquid assets • ≥30% in weekly liquid assets 	<ul style="list-style-type: none"> • Liquidity standards, contingency plans for market stress must be developed and regularly tested
Stress Testing	<ul style="list-style-type: none"> • Required to periodically stress test MMF to examine MMF's ability to maintain a CNAV 	<ul style="list-style-type: none"> • Required to periodically stress test STIF to examine STIF's ability to maintain a CNAV
Transparency / Disclosure	<ul style="list-style-type: none"> • Monthly public disclosure of portfolio holdings and additional data (i.e. shadow NAV) • Daily NAV 	<ul style="list-style-type: none"> • Monthly disclosure to client and OCC of portfolio holdings and additional data (i.e. shadow NAV)

WAM = Weighted Average Maturity
WAL = Weighted Average Life
CNAV = Constant Net Asset Value

Borrower Default Indemnification

For over two decades⁶⁷ it has been the practice of lending agents (both custodial banks and asset managers) to offer to some lenders indemnification against “borrower default”—that is, if the borrower fails to return the securities that have been lent. Some lenders are required by their investment policies to have this type of indemnification in order to participate in securities lending programs. Clients conduct due diligence on the lending agent which includes an assessment of risk management and operational controls as well as the financial strength of the lending agent.

⁶² Certain separate account clients may not be obligated by regulation to use cash vehicles governed by Rule 2a-7 or, but currently all clients using BlackRock’s lending program have chosen cash vehicles governed by 2a-7 or funds with similar requirements.

⁶³ Short-Term Investment Funds, 77 Fed. Reg. 61229 (Oct. 9, 2012); Money Market Fund Reform; Amendments to Form PF, 79 Fed. Reg. 47735 (Aug. 14, 2014).

⁶⁴ BlackRock, *ViewPoint, Securities Lending: Balancing Risks and Reward* (May 2012), available at <http://www.blackrock.com/corporate/en-us/literature/whitepaper/balancing-risks-and-rewards-may-2012.pdf>.

⁶⁵ A 2nd-tier security is a security rated in the second-highest short-term rating category.

⁶⁶ Additional restrictions of 0.5% per single issuer and a final maturity not exceeding 45 days exist. Details of Rule 2a-7 are available at <https://www.blackrock.com/cash/literature/whitepaper/us-money-market-funds-and-rule2a7.pdf>.

⁶⁷ BlackRock and its predecessors have been providing indemnifications since the 1990s.

Borrower default indemnification is limited to the “shortfall” that could occur in the event the collateral delivered is insufficient at the time of default to acquire replacement securities for those out on loan. In other words, borrower default indemnification is only triggered if *both* of the following conditions are met:

- (i) The counterparty defaults; and
- (ii) The collateral is insufficient to cover the cost of replacing the securities.

As an example, in the event of a borrower default, if a borrower had provided \$102 of collateral to borrow securities currently valued at \$100, and the cost of repurchasing the loaned securities was \$103, the indemnification provider would make the lender whole for the difference between the collateral received and the cost to repurchase the loaned security (in this example, \$1).

Importantly, the lending agent does *not* guarantee the investment performance of the securities lending arrangement including the returns on any cash investment vehicle. As of December 31, 2014, BlackRock had indemnified \$145.7 billion of client securities on loan, and borrowers have posted collateral of \$155.8 billion or 107% of the value on loan; this collateral was marked-to-market daily. In the unlikely event of a borrower default, BlackRock would use the borrower’s collateral to repurchase the lent security on behalf of the client. If there were a shortfall between the value of the collateral and the cost of repurchasing the security (\$1 in the above example), BlackRock would cover the shortfall if it had provided borrower default indemnification to the lender. Indemnification allows the lender to recover losses from the indemnifying lending agent – in the unlikely circumstance where the collateral received is insufficient to cover the repurchase price of the lent securities, this shortfall would be borne by the indemnification provider.

As a lending agent on behalf of clients, BlackRock has a strong incentive to have robust risk management practices. In the more than 30 years since BlackRock and its predecessor entities started our securities lending program, we are aware of four instances of borrower default in the securities lending industry (Drexel Burnham Lambert in 1990, Barings Bank in 1995, Lehman Brothers in 2008, and MF Global in 2011). Three of these defaults were by entities borrowing from BlackRock’s securities lending program (including its predecessor entities) but in each instance, there was sufficient collateral to fund the repurchase of securities on loan. As such, BlackRock (including its predecessor entities) has never had its indemnification agreements triggered or had to use its own monies to repurchase a security on a lending client’s behalf.

Notwithstanding the immateriality of the liability on a current “expected value” basis (and in accordance with Generally Accepted Accounting Principles), BlackRock also evaluates an estimate of “stress risk” to ensure we have adequate liquidity to support potential indemnification needs in the event of a “stress event” where the market environment may look very different from today. Our methodology uses a stress Value at Risk (“VaR”) metric to monitor potential shortfall risk from indemnification. This uses a 99% confidence level over a five day horizon based on data going back to the financial crisis, and attaches greater weightings to price moves experienced during periods of financial sector credit stress. Consequently, BlackRock holds up to \$2 billion in unencumbered liquidity against potential indemnification exposure and has access to an additional \$6 billion of liquidity, both in the form of unencumbered cash and a \$4 billion, 5-year bank credit facility as of December 2014. BlackRock does not rely on wholesale funding or FDIC-insured deposits or central bank liquidity to support its liquidity. BlackRock is rated A1 and AA- by Moody’s and S&P, respectively, which

is among the highest in the asset management industry and equal to or higher than other securities lending agents.

Benefits of a Securities Lending Agent that is Affiliated with an Asset Manager

We believe that using affiliates for certain aspects of a securities lending arrangement can be advantageous to lending clients because for both lenders who accept cash collateral and those who accept non-cash collateral, appointing a lending agent who is affiliated with their asset manager can be risk mitigating. An affiliated lending agent's integration into the investment process of the asset manager allows the lending agent to align the securities lending strategy with the asset management process to coordinate around corporate actions, tax management, index rebalancing, and other events. An integrated lending model is one in which the lending agent also manages the cash reinvestment vehicles. From a risk management standpoint, the integrated model utilized by BlackRock allows for more robust information about the end to end risks of the securities lending program including liquidity risk. BlackRock's Risk and Quantitative Analytics group ("RQA"), is able to incorporate asset management decisions and cash reinvestment decisions into their daily monitoring of the securities on loan. Additionally, the close interaction between our investment process and our securities lending process allows us to more effectively manage the settlement cycles and other time sensitive interactions.

An integrated approach to lending allows for close coordination surrounding anticipated loan terminations, which gives the cash reinvestment vehicle manager the ability to shorten the vehicle's liquidity profile well in advance of those loan terminations. As such, we view affiliation to be a risk mitigant, particularly during times of financial stress.

Lastly, as part of a discussion on securities lending, it is important to recognize that securities lending benefits the capital markets by increasing liquidity and facilitating activity among market participants. As of December 31, 2014, more than \$15.1 trillion of assets were available for lending globally, with more than \$1.8 trillion on loan on a daily basis.⁶⁸ This incremental liquidity increases transactions in the marketplace, facilitating price discovery, enhancing efficiency, and helping to mitigate price volatility and settlement failures.⁶⁹ Proposals to change securities lending practices, if any, should take into consideration the benefits of this activity.

1.5 How do asset managers determine whether the assets of a pooled investment vehicle are sufficiently liquid to meet redemptions? What liquidity and redemption risk management practices do different types of pooled investment vehicles employ both in normal and stressed markets, and what factors or metrics do asset managers consider (e.g., the possibility that multiple vehicles may face significant redemptions at the same time, availability of back-up lines of credit) in managing liquidity risk?

Given the differences among underlying assets, investment strategies, structural features, and applicable regulatory requirements, measures to manage liquidity in a CIV are

⁶⁸ Data from Markit as of Dec. 31, 2014.

⁶⁹ For more information on securities lending's importance to providing liquidity, see the Bank of England's review available at http://www.bankofengland.co.uk/markets/Documents/gilts/sl_intro_green_9_10.pdf. For discussion of the importance of short selling see the NY Fed's review available at http://www.newyorkfed.org/research/staff_reports/sr518.pdf.

tailored to the specific fund.⁷⁰ As such, there is no blanket response to this question. Nonetheless, we believe there are several overarching principles that make for a prudent liquidity risk management framework for CIVs:

1. Having a risk management function that is independent from portfolio management, with direct reporting lines to senior leadership and a regular role in communicating with the asset manager's board of directors.⁷¹ This helps to ensure that risk is evaluated independently to verify that portfolio managers are constructing client portfolios in a manner that is consistent with client expectations;
2. Conducting pre- and post- trade portfolio compliance checks to ensure that portfolio holdings do not exceed client guidelines and/or regulatory limits, particularly with respect to holdings of illiquid securities, leverage, and concentration. The individuals that conduct portfolio compliance checks should be organizationally independent from portfolio management.
3. Carefully managing the liquidation of assets in response to redemptions in a manner that prevents the fund from becoming materially illiquid by disproportionately selling only liquid positions to meet redemption requests. Portfolio managers certainly may also utilize a fund's liquid asset buffers to meet ordinary redemptions, but they need to do so in a way that precludes concentrating or altering the fund's overall positions in a manner that is inconsistent with the fund's mandate or disadvantages the remaining fund investors.
4. Measuring or estimating (a) levels of liquid assets with recognition of tiers of liquidity, (b) liquidation time frames, and (c) transaction costs for fund holdings in varying market environments, including analyzing the impact of stressed markets;
5. Estimating potential fund redemptions based on (a) historical behavior under normal as well as under adverse market conditions, and (b) monitoring investor profiles and related redemption behaviors to help identify potential liquidity needs, recognizing the differences between institutional and retail investors, large and small investors, categories of assets (e.g., retirement versus non-retirement assets), and the platforms on which funds are sold (e.g., self-directed versus through an intermediary);
6. Requiring that individual funds have sufficient sources of market liquidity to meet anticipated redemptions under a range of scenarios, including changes in market risk factors (e.g., interest rates) that may impact the value of portfolio securities and/or collateral and various levels of potential fund redemptions. This could be achieved by setting out principles for managing liquidity and redemption risk that should include maintaining sufficient levels of liquid assets, such as cash and liquid bonds as well as dedicated and shared loan facilities. The principles-based approach should provide appropriate flexibility to tailor practices to particular asset structures and fund redemption terms;

⁷⁰ See *Who Owns the Assets* Part 2.

⁷¹ The CFA Institute in its "Asset Manager Code of Professional Conduct" sets this out as a recommended standard that should be adopted by asset managers, available at www.cfainstitute.org.

7. Setting reasonable controls on and monitoring the use of illiquid asset classes to ensure they do not compromise the amount of liquidity offered to investors within the fund; and
8. Identifying backup sources of liquidity, if they are permitted by the fund's regulatory regime and allowing prudent use of temporary borrowings to meet redemptions with ongoing monitoring and management, including appropriate funding and margining policies.

Backup Sources of Liquidity

In our experience, mutual fund portfolio managers generally hold some cash and can sell liquid securities to meet redemptions. Besides cash and liquid securities, there are additional tools available to meet higher redemption scenarios for certain CIVs, including repo, bank credit facilities, and inter-fund lending. Wherever possible, obtaining access to multiple backup sources of liquidity is beneficial. As discussed in our response to Question 2.1, borrowings by funds is subject to applicable regulatory and contractual limits. In our experience, portfolio managers do not typically utilize these liquidity sources in the ordinary course of managing funds, but if they do, they leave capacity to borrow in the event of significant redemptions.

Repo can be used in some mutual funds including in some bond funds,⁷² within the constraints set forth by applicable regulation, such as the 1940 Act, UCITS, and/or AIFMD regulations and the funds' constituent documents. Repo is a collateralized loan governed under a master repurchase agreement. Repo involves delivering securities held in funds in exchange for cash, with an obligation to return the cash in exchange for the securities at maturity. Repo can be done on a term (e.g., three months), overnight, or open-ended maturity basis. Depending on client guidelines and fund prospectuses, repo can be used as part of a fund's investment strategy (e.g., to equitize cash via repo to buy bonds) and as a way to manage liquidity for bond funds; such as high yield funds.⁷³ Open-ended maturities provide the best flexibility for portfolio managers to use repo as a way to raise temporary cash to meet redemptions and manage changes in portfolio positioning. This allows portfolio managers to raise cash for temporary purposes rather than sell liquid securities that are part of core investment strategies, which could result in risk positioning that is not in line with the investment management agreement or fund prospectus. Repo also allow portfolio managers to manage the timing differences associated with selling bonds to meet redemptions or reposition portfolios as part of the investment management process.

Bank credit facilities are another source of backup liquidity. We do not have full visibility into other managers' practices, however, we believe this description is reflective of common practices in the industry. Bank credit facilities typically rely upon funding from a diversified group of banks and can either be "dedicated" to a fund or "shared" across different

⁷² Funds that predominately own assets on which repo is rarely (or never) available will have limited (or no) ability to enter into these transactions, and may be more likely to hold cash or to have a credit facility in place to meet redemptions. For example, repo is typically not available for bank loans given the delayed settlement period and resultant liquidity mismatch. While repo markets exist in developed markets and a number of emerging markets (e.g., Mexico, Turkey and Argentina) given operational complexities related to settling transactions in local currencies, repo is rarely used for local EMD funds.

⁷³ We recognize that OFR has described "data gaps in the repo and securities lending markets" as a "top priority for the OFR" and has laid out plans for voluntary collection of data relating to both bilateral repo activity and securities lending during the course of 2015. OFR, 2014 Annual Report, 107 (Dec. 31, 2014), available at <http://financialresearch.gov/annual-reports/files/office-of-financial-research-annual-report-2014.pdf> ("OFR 2014 Annual Report"). We would be happy to provide information to the SEC and OFR as might be helpful in this regard.

groups of funds. In some cases, dedicated credit lines are established and supplemented with shared lines across additional funds. Generally, the credit agreement that establishes the credit facility is between the fund and the lead arranger/administrative bank and the syndicate banks and is an obligation of the fund, not the asset manager. A credit facility credit agreement for mutual funds would usually include a commitment fee on unutilized commitment amounts and a rate based on LIBOR or the Fed Funds rate plus a spread on borrowed amounts. Borrowed funds must typically be repaid within a short period of time.

As a separate but related matter, many custodians, as part of their service package and subject to applicable law will cover overdrafts in their clients' accounts. In certain circumstances, overdrafts permit funds to acquire securities prior to the receipt of cash from the purchase of fund shares. In addition, overdrafts may permit funds to pay redemption proceeds to redeeming shareholders prior to the receipt of the proceeds of securities sales.

Inter-fund Lending: Some funds have been granted exemptive relief from the SEC⁷⁴ that permits 1940 Act Funds to borrow from one another, under certain circumstances, including direct board oversight. The presence of inter-fund lending facilities provides an additional avenue to obtain short-term liquidity if needed.

Central Bank Provided Liquidity for Mutual Funds

Recently, a number of policy makers have suggested a new idea for back-stop liquidity for mutual funds. The idea is for central banks to provide liquidity via repo. We are not proponents of this concept for several reasons. First, we believe the likelihood of a massive correlated manifestation of redemptions is extremely low. Many mechanisms exist that mitigate against such an outcome (without the adverse impact of a central bank liquidity facility).

Again, we reiterate that conflating the systemic implications of a correlated manifestation of mutual fund redemptions with a classical run on a depository is a profound conceptual error. Unlike even the best capitalized banks, by regulation, 1940 Act Open-End Mutual Funds have equity capital ratios between 67% and 100%. In other words, leverage is limited to 1.5 times net assets. Mutual funds are by design, financially robust enough to "pay" the cost of market liquidity in almost any conceivable environment. Unlike banks which have an obligation to meet liabilities (including the repayment of the principal of their depositors), mutual fund redemptions are executed based upon a pro rata share of the value of the securities held in the fund, with no guarantee of a particular price. (To the extent that there may be issues, they are more related to the need to equitably allocate the cost of the market liquidity between the redeeming and remaining shareholders of the fund).

Second, the explicit presence of central bank liquidity in a mutual fund creates the potential for moral hazard. Asset managers are expected to incorporate liquidity risk management into managing mutual fund portfolios. Were central bank liquidity to be explicitly available, asset managers might have less incentive to actively manage the liquidity of funds. Third, this approach socializes risk. Whereas today, each fund is expected to stand on its own and the investors in each fund solely bear this risk, the presence of central bank liquidity will

⁷⁴ Certain 1940 Act Fund complexes have obtained SEC exemptive relief to permit funds to loan money to each other in order to meet redemptions. See, e.g., JNL Series Trust, et al., Investment Co Act Release Nos. 31261 (Sept 24, 2014) (notice) and 31297 (Oct. 20, 2014) (order); BMO Funds, et al., Investment Co Act Release Nos. 31146 (July 2, 2014) (notice) and 31193 (July 30, 2014) (order); Ivy Funds, et al., Investment Co Act Release Nos. 31068 (June 2, 2014) (notice) and 31138 (June 30, 2014) (order); Vanguard Admiral Funds, et al., Investment Co Act Release Nos. 31021 (Apr. 17, 2014) (notice) and 31044 (May 13, 2014) (order). We understand that while the exemptions are available to fund families that have obtained the requisite SEC relief, many of these fund families do not regularly utilize the exemptions to borrow from affiliated funds.

essentially share the risk of each fund across the system. Fourth, this approach blurs the very necessary line between bank deposits that have government credit and liquidity backstops and mutual fund investments that have neither government credit nor liquidity backstops. Further, Form N1-A requires 1940 Act Open-End Mutual Funds to disclose that an investment in a 1940 Act Open-End Mutual Fund is not a bank deposit, and not insured or guaranteed by the FDIC or any other government agency. The availability of Federal Reserve liquidity to funds could require a change to this universal disclaimer in 1940 Act Open-End Mutual Funds' prospectuses, potentially changing investors' understanding or perception of risk associated with mutual funds. The average investor may be confused about what role the central bank is playing and what is being guaranteed. Rather than accepting the market risks associated with their investments, they may mistakenly believe that investments in mutual funds have become safer, including a misunderstanding of market risk. In our response to question 1.8, we address the need to explore alternative ways to make sure that mutual fund investors understand that market liquidity might at times be expensive (e.g., transaction costs may be higher at times of less liquidity) and that there may be occasions (subject to applicable regulation) where a fund's Board of Directors might, in the collective interests of all the fund's investors, choose to gate redemptions.

We believe liquidity risk management can be achieved through the tools that already exist and through expanding the "toolkit" available to fund managers and their fund boards. Therefore, in our opinion, the introduction of central banks as providers of liquidity to mutual funds is not necessary.

Rules and Regulatory Guidance on Liquidity Risk Management

Several regulators have provided guidance or issued rules on liquidity risk management. For example, on January 1, 2014, the SEC's Division of Investment Management issued guidance to fund managers regarding liquidity risk management and disclosure for fixed income mutual funds. The guidance recommended that fund managers regularly assess and stress test fund liquidity in normal and stressed market conditions. The SEC also recommended that fund managers evaluate liquidity risk management strategies and communicate risk exposures and liquidity positions of funds to fund boards. Finally, the SEC's guidance recommended greater disclosure to shareholders regarding any additional risks due to relevant events in fixed income markets.⁷⁵ Additionally, during a speech given in December 2014, SEC Chair White indicated that the SEC is working on a rule proposal that would provide more specific rules around stress testing of 1940 Act Funds and liquidity risk management.⁷⁶

We are supportive of the SEC's efforts to develop specific rules regarding the stress testing of mutual funds. We believe that existing regulations for funds in the EU would be a good example of rules that could be implemented in the U.S. Registered open-end mutual funds in the EU, known as UCITS, are required to have the ability to regularly measure and manage liquidity risk, in particular, risks arising from potential changes in market conditions that might adversely impact a UCITS fund and to have a comprehensive risk management process in place. Similarly, Alternative Investment Funds ("AIFs") in the EU must adopt a general risk management process and a specific liquidity management process. Managers of AIFs must conduct stress tests of liquidity coverage (ability to meet redemptions with liquid assets) under

⁷⁵ SEC Investment Management Guidance Update No. 2014-01, Risk Management in Changing Fixed Income Market Conditions, (Jan. 2014), available at <http://www.sec.gov/divisions/investment/guidance/im-guidance-2014-1.pdf>.

⁷⁶ See SEC Chair White Speech. The OCC also subjects CIFs to bank liquidity risk management requirements, which are described in our response to Question 2.1.

normal and exceptional liquidity scenarios and provide regulators with detailed reporting on the liquidity profile of the AIF, exposure to counterparties, and the nature of leveraged positions whether arising from borrowing cash and securities or from leverage embedded in derivative instruments.⁷⁷

Exhibit 7 is intended to illustrate the type of analysis that must be conducted by managers of AIFs to comply with AIFMD rules. The example uses both a normal and a “stressed” market scenario (2008 Crisis) to calculate the fund’s asset and liability profile and liquidity coverage ratios. This analysis then links to periodic reporting on liquidity and redemption profiles disclosed to regulators in the AIFMD reporting form. The key focus of this type of analysis, as is prescribed under AIFMD, is to understand the percentage of assets within a fund that could be liquidated in a certain period of time (e.g., one day, one week, one month, etc.). Such an analysis should examine the ownership profile and concentration of investors in a fund. The AIFMD rules require that managers test their funds to determine if the fund would be able to meet a redemption that is higher than has historically been experienced by the fund.

Exhibit 7: Example of Fund Liquidity Analysis Under AIFMD⁷⁸

“Base Case” Market Conditions								
	Market Value	1 Day	2-7 Days	8-30 Days	31-90 Days	91-180 Days	181-365 Days	365+ Days
Assets (£ millions)	481	A 467	478	479	481	481	481	481
Assets (%)		C 97%	99%	99%	100%	100%	100%	100%
LIQUIDITY COVERAGE RATIOS								
Top 5 Largest Investors		E 5.1	5.3	5.3	5.3	5.3	5.3	5.3
Average Annual Redemption		3,265.9	3,342.9	3,346.9	3,366.0	3,366.1	3,366.1	3,366.9
99% Historical Redemption		125.3	128.3	128.4	129.1	129.1	129.1	129.2
“Stressed” Market Conditions <i>Stress Scenario: 2008 Financial Crisis</i>								
	Market Value	1 Day	2-7 Days	8-30 Days	31-90 Days	91-180 Days	181-365 Days	365+ Days
Assets (£ millions)	481	B 341	352	353	356	356	356	356
Assets (%)		D 71%	73%	73%	74%	74%	74%	74%
LIQUIDITY COVERAGE RATIOS								
Top 5 Largest Investors		F 3.8	3.9	3.9	3.9	3.9	3.9	3.9
Average Annual Redemption		2,387.9	2,464.6	2,468.7	2,487.6	2,487.6	2,487.6	2,488.4
99% Historical Redemption		91.6	94.6	94.7	95.4	95.4	95.4	95.5

A: Under normal market conditions, £467 million in assets out of the total NAV of £481 can be liquidated in 1 day.
B: Under the “stress” scenario, £341 million in assets out of the total NAV of £481 can be liquidated in 1 day.
C: Under normal market conditions, 97% of the fund could be liquidated in 1 day.
D: Under “stress” scenario, 71% of the fund could be liquidated in 1 day.
E: If the 5 largest investors redeemed from the fund on the same day, this fund would have 5.1 times liquid asset coverage to meet those redemptions in 1 day, under normal market conditions.
F: Under the stress scenario, if the 5 largest investors redeemed from the fund on the same day, this fund would have 3.8 times liquid asset coverage to meet those redemptions in 1 day, under normal market conditions.

We recommend that securities regulators consider codifying best practices in liquidity risk management, and we believe that the stress tests prescribed under AIFMD provide a useful framework that could be adopted in the U.S.

⁷⁷ See AIFMD, available at <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2011:174:0001:0073:EN:PDF>.

⁷⁸ This example is for illustrative purposes only. Note this is an example of a liquidity analysis performed on an AIF for compliance with AIFMD. AIFs are not subject to the 1940 Act or other U.S. regulations, and therefore, portfolio composition and liquidity may differ from a fund subject to U.S. regulation.

1.6 To what extent could any redemption or liquidity risk management practices (e.g., discretionary redemption gates in private funds) used in isolation or combination amplify risks?

As we have discussed in previous responses in this section, redemption and liquidity risk management practices protect shareholders in a fund, thereby mitigating the risks associated with a first-mover advantage. As such, these measures support financial stability. Importantly, risk management practices and structural features in funds cannot be looked at in isolation. We do not believe that existing tools to manage liquidity risk and redemptions amplify risks. In fact, liquidity risk management practices are designed to mitigate risk. Care should be taken in implementing new rules to ensure they do not introduce new systemic risks. For this reason, we believe that any proposed reforms should be thoroughly tested and analyzed through engagement with market participants and subject to public notice and comment periods to ensure that any potential unintended consequences of such reforms are raised and sufficiently addressed prior to adoption of new or additional rules.

1.7 To what extent can competitive pressures create incentives to alter portfolio allocation in ways that may be inconsistent with best risk management practices or do not take into account risks to the investment vehicle or the broader financial markets?

We believe that this concern is not warranted. The fiduciary standard to which asset managers are held requires them to act in the best interests of their clients, and asset holdings must be consistent with risk positioning guidelines set forth in fund constituent documents and/or IMAs. Penalties (both commercial and regulatory) associated with breaching this fiduciary responsibility are sufficiently high to deter the behavior described in this question.⁷⁹ We would again highlight our analysis in “Who Owns the Assets? A Closer Look at Bank Loans, High Yield Bonds and Emerging Markets Debt,”⁸⁰ which demonstrated that many fund managers have actively managed cash and liquidity in order to meet client redemptions. In addition, many asset managers have independent risk management functions that regularly review fund positioning for consistency with the fund’s mandate, supporting investment process, and client guidelines.⁸¹

1.8 To the extent that liquidity and redemption practices in pooled investment vehicles managed by asset managers present any risks to U.S. financial stability (e.g., increased risks of fire sales or other spillovers), how could the risks to financial stability be mitigated?

As we highlighted in our previous responses, we respectfully disagree with the Council’s presumption that redemption practices in CIVs managed by asset managers inherently present risks to U.S. financial stability. Both fund structure and liquidity risk management practices are essential to protect investors, which mitigates the potential for a first-mover advantage to arise, thereby mitigating systemic risk. However, in order to make CIVs more resilient, we make

⁷⁹ For example, under section 409 of ERISA, a fiduciary is personally liable to reimburse plan losses and restore any profits as a result of a breach of its fiduciary duties. A court may also award other equitable or remedial relief deemed appropriate. In addition, section 502(l) of ERISA provides that the Secretary of Labor may assess a civil penalty of 20% of the applicable recovery amount against a fiduciary who knowingly participates in a fiduciary breach. Furthermore, the SEC can bring an enforcement action against an investment adviser under Section 36A of the 1940 Act. 15 U.S.C. § 80a-35(a), with remedies including fines and disgorgement.

⁸⁰ See Who Owns the Assets Part 2.

⁸¹ Under AIFMD, managers of AIFs are required to have a risk management function that is independent of portfolio management.

several recommendations below that could help to harmonize regulations around fund structures and improve the myriad of existing regulatory frameworks.

Enhancing the “Toolkit” for Managing Redemptions

Recognizing that attempting to predict the nature or circumstances of the next financial crisis is an impossible task, we do not advocate prescriptive measures to address potential risks, as these measures will be inherently backward-looking and, if they do not provide sufficient flexibility, could exacerbate or create future challenges. Instead, we recommend a more flexible approach or “toolkit” that would allow fund managers, fund boards, and regulators to react in the best interests of shareholders, should they be faced with a spike in redemptions or other extraordinary circumstance as postulated by the Council. We believe that these same tools mitigate systemic risk. Our recommendations are based on an analysis that compared existing fund structures. An overview of our comparison of fund structures is provided in Appendix B. Based on our analysis, we recommend policy makers consider the costs and benefits across existing fund structures.

While each of these tools already exist for funds in one or more jurisdictions, we believe that their availability more broadly across fund structures and jurisdictions would be beneficial. Implementation of any features where they do not already exist should include engagement with the industry through industry forums, formal rule-making processes, and cost-benefit analyses to ensure that any unintended consequences are fully understood and addressed. Importantly, to be effective, the tools in the toolkit must be available consistently, as opposed to prescribed only for certain funds or asset classes. We are not advocating isolated measures, but rather consideration of and potential enhancements to the package of features that are currently available to funds to help mitigate redemption risk. If these measures are applied only to certain funds or in isolation, they would likely create market distortions without mitigating risk.

1. **Mechanism to allocate transaction costs to redeeming shareholders** as a way to provide a price signal for the price of market liquidity and to reimburse or buffer a fund’s remaining shareholders. For 1940 Act Open-End Mutual Funds, transaction costs are allocated on a pro rata basis based on fund unit value and ownership by each investor. As discussed in our *ViewPoint* “Fund Structures as Systemic Risk Mitigants,”⁸² this approach could potentially lead to a first-mover advantage with transaction costs for redeeming investors being allocated across all investors. In contrast, the AIFMD and UCITS regulation in Europe provides funds with the ability to include mechanisms in their fund structures to allocate transaction costs to redeeming shareholders. There are two broadly-used transaction cost allocation methods – Swing Pricing and Dual Pricing – both of which result in transaction costs being allocated directly and solely to redeeming investors. Under Swing Pricing, daily trading flows are netted and the NAV of the fund “swings” to either the “bid” or the “ask” NAV depending on whether there are net redemptions or subscriptions. For dual pricing, two fund NAVs are maintained (bid and ask) and transaction costs are allocated to redeeming investors at the bid NAV and to subscribing investors at the ask NAV.⁸³ In a sense, Swing Pricing and Dual Pricing achieve a similar result

⁸² BlackRock, *ViewPoint*, Fund Structure as Systemic Risk Mitigants (Sep. 2014), available at <http://www.blackrock.com/corporate/en-us/literature/whitepaper/viewpoint-fund-structures-as-systemic-risk-mitigants-september-2014.pdf>.

⁸³ For further detail on how swing pricing works, see “Swing Pricing - Survey” (Aug. 2011), available at <http://www.alfi.lu/publications-statements/publications/new-brochure-swing-pricing>.

as a redemption fee; however, rather than a flat fee that could be perceived as punitive by investors, these methods are apportioning an estimate of contemporaneous transaction costs to transacting investors and protecting remaining shareholders. The OCC in the US also permits certain types of CIFs to allocate transaction costs to redeeming CIF participants.

2. **Temporary borrowing from non-government sources.** The 1940 Act permits the use of borrowing as a tool to meet redemptions, including borrowing from any person of up to 5% of NAV for short-term purposes.⁸⁴ As described in our response to Question 1.5, we view the ability to use repo and/or draw on bank lines of credit and overdraft facilities as helpful tools to manage a potential spike in redemptions. In addition, some funds are permitted by the SEC to use inter-fund lending.
3. **In-kind redemptions,** where feasible, are a unique method for allocating transaction costs to redeeming investors – particularly when those costs are imposed by a large redemption by a single, institutional investor. While in-kind redemptions are not practical for retail investors,⁸⁵ they could be a tool to be used in the event of a large redemption by an institutional investor. The 1940 Act currently permits funds to make redemptions in-kind.⁸⁶ The OCC also permits payment of redemption proceeds in-kind. Additional regulatory guidance on usage of this provision would be beneficial.
4. **Mechanisms to facilitate suspension of redemptions** to protect investors and reduce the risk of fire sales to the system under extraordinary circumstances:
 - a. Suspension of Redemptions by a Fund's Board of Directors (or other governing body): The Board of Directors (or equivalent) for a fund has a responsibility to act in the best interests of shareholders. As such, we believe it would be a prudent measure to extend the authority to suspend redemptions under extraordinary circumstances, including an unmanageable spike in redemptions, to fund boards. At present, 1940 Act Fund boards do not have this authority and funds need to receive permission from the SEC in order to suspend redemptions. We fully recognize that this authority is unlikely to be used but having the tool in place, should an extraordinary circumstance occur, could serve as an important protection for fund shareholders and could potentially have follow on benefits for the financial system.
 - b. Suspension of Redemptions by a Fund's Regulator: The SEC currently has the power to temporarily suspend redemptions in an individual fund or fund sector. In line with the “worst-case scenario” nature of this tool, the SEC has used its authority to suspend redemptions only in rare instances.⁸⁷ Nevertheless, we

⁸⁴ 15 U.S.C. § 80a-18(A)(2)(g). Borrowings of 60 days or less are presumed to be temporary.

⁸⁵ Retail investors may lack the proper custodial accounts to hold a particular security and they may be less likely to have the necessary expertise and/or the operational ability to trade the securities that could be held in a fund. Further, there are often thousands of retail investors invested in a single fund and splitting securities on a pro rata basis may not be possible across such a large number of individuals. These practical impediments make in-kind redemptions relatively impractical for retail investors.

⁸⁶ 1940 Act Funds, excluding closed-end funds, often elect to be governed by Rule 18f-1, which obligates the fund to redeem in cash up to the lesser of \$250,000 or 1% of NAV during any 90-day period. These 1940 Act Funds can then elect to redeem greater amounts in kind.

⁸⁷ An example of the use of this authority was the Reserve Fund. See The Reserve Fund, on Behalf of Two of Its Series, the Primary Fund and the U.S. Government Fund; Order Temporarily Suspending Redemption of Investment Company Shares and Postponing Payment for Investment Company Shares Which Have Been Submitted for Redemption for Which Payment Has Not

view this authority as an important tool available to 1940 Act Funds that does not universally exist in other jurisdictions. Action by the SEC levels the playing field as the regulator can make objective decisions based on market conditions (and the SEC's high level of access to data) and individual fund conditions.

5. **Discretion to include Out-of-the-Money (“OTM”) gates in fund structures.** We suggest that fund boards should have the discretion to consider including a gate in the structure of a fund. This discretion to include OTM gates in fund structures is already allowed under the UCITS regulation in Europe and has been included in UCITS structures without any discernable market impact. However, a parallel does not exist for 1940 Act Funds in the U.S. While some fund boards might determine that a gate is not necessary for a given type of fund or asset class, others may decide that building in a gate would be a prudent measure. In general, we believe gates would be most helpful if they are sufficiently OTM such that investors' ability to redeem on a daily basis is preserved under normal market and fund conditions. Importantly, certain operational issues would need to be addressed prior to implementation of such a measure for 1940 Act Funds and this would need to be taken into account should the SEC decide to permit the use of OTM gates in these funds. However, we note that the SEC has already required the implementation of gates for certain money market funds (“MMFs”) by 2016⁸⁸ and, therefore, the technology put in place to facilitate gates in MMFs could be leveraged to facilitate the use of this feature in other types of 1940 Act Funds in the future. The implementation of the SEC's MMF reforms in the coming year will also provide a good test-case to understand the market perception and reaction to the inclusion of this feature in U.S. fund structures.
6. **Clear and concise disclosure to investors** regarding:
 - a. The potential costs and risks to the CIV of significant redemption activity, including the potential dilutive effects of liquidating assets to meet redemptions and the potential transaction costs;
 - b. The market impact costs that could be associated with redemption activity;
 - c. The risk that due to unpredictable disruptions in financial markets, under certain circumstances, that various mechanisms in the fund's charter might trigger a suspension of redemptions; and
 - d. Should any of the above fund structural features already be in use or implemented in the future, their risks should also be fully disclosed to investors.

While already required and practiced in many regulatory frameworks, including the 1940 Act, broader disclosure of potential redemption risks associated with CIVs

Been Made Pursuant to Section 22(E)(3) of the Investment Company Act of 1940, 73 Fed. Reg. 55572 (Sept. 25, 2008), available at <https://www.federalregister.gov/articles/2008/09/25/E8-22547/the-reserve-fund-on-behalf-of-two-of-its-series-the-primary-fund-and-the-us-government-fund-order>.

⁸⁸ The SEC has approved changes to Rule 2a-7 under the 1940 Act that permits a money market fund that has invested less than thirty percent of its total assets in weekly liquid assets to suspend the right of redemption temporarily (for up to 10 business days) if the fund's board, including a majority of the directors who are not interested persons of the fund, determines that the suspension of redemptions is in the best interest of the fund. See Rule 2a-7(c)(2)(i).

would help to ensure that investors understand that redemption risk may exist in certain fund structures.

1.9 What additional information would help regulators or market participants better assess liquidity and redemption risks associated with various investment vehicles, including information regarding the liquidity profile of an asset class or of a particular type of investment vehicle?

More granular data on the types of investors in omnibus accounts that subscribe to or redeem from their 1940 Act Open-End Mutual Funds could help regulators and asset managers create better predictive models of potential future redemption behavior, including potential redemption behavior under “stressed” market conditions. This would help asset managers to better understand the potential redemption risks faced by funds they manage in order to ensure their funds are sufficiently liquid to meet redemptions, even during times of market stress. Currently, complete and accurate investor-level redemption data is not always readily available.⁸⁹ Access to this granularity of redemption data for all investors in their funds would help fund managers better understand the differences in redemption patterns for different types of investors, which could be incorporated into stress testing and liquidity coverage models.⁹⁰ We believe the most helpful points of differentiation would be (i) whether the assets are retirement assets (e.g., 401k plan investments and Individual Retirement Accounts),⁹¹ as investors in retirement accounts are less likely to change their strategic asset allocation than other investors, and (ii) whether the assets in the fund are held by brokerage accounts versus wrap advisory accounts as these types of accounts tend to have different average holding periods.⁹² Access to this level of investor data would require that mutual fund managers have the ability to obtain this information about the underlying shareholders in omnibus accounts that hold shares of the mutual fund. To achieve this, transfer agents which maintain funds’ official unit holder registries or some other entity that can aggregate this type of data, would need to track and provide a breakdown of the type of investors in each mutual fund to the fund manager. This level of granularity would be most helpful if it could be provided on a daily basis to fund managers by transfer agents, distributors, or some other entity that could aggregate and provide this type of information.⁹³

⁸⁹ Matthew Beaton, *Shops Read the Tea Leaves with Redemption Modeling* (Feb. 9, 2015), Ignites, available at http://ignites.com/c/1061333/110113/shops_read_leaves_with_redemption_modeling?referrer_module=emailForwarded&module_order=0.

⁹⁰ In Europe, the Markets in Financial Instruments Directive (“MiFID”) is fostering a move toward providing greater transparency of underlying individual client types and categories based on the need for fund managers to assess the needs of the relevant target market for the fund.

⁹¹ Total Individual Retirement Account (“IRA”) assets were \$6.5 trillion at year-end 2013 and mutual funds accounted for \$3.0 trillion of those IRA assets. The mutual fund industry’s share of the IRA market was 45 percent. For more information, see “2014 Investment Company Fact Book: A Review of Trends and Activities in the U.S. Investment Company Industry,” 54th edition (2014), available at http://www.icifactbook.org/pdf/2014_factbook.pdf.

⁹² Matthew Beaton, Ignites, *Shops Read the Tea Leaves with Redemption Modeling* (Feb. 9, 2015), available at http://ignites.com/c/1061333/110113/shops_read_leaves_with_redemption_modeling?referrer_module=emailForwarded&module_order=0.

⁹³ Regulators may conclude that access to real time data is less important for their oversight purposes, but may want to receive periodic reports and the ability to request real time data on a selected basis as circumstances warrant.

II. Leverage

2.1 How do different types of investment vehicles obtain and use leverage? What types of investment strategies and clients employ the greatest amount of leverage?

The degree and use of leverage varies significantly across investment vehicles, type of investor, and investment strategies. Each investment vehicle can be governed by different rules often promulgated by different regulators, such as the SEC, OCC, CFTC, and others. Likewise, different groups of clients are subject to and influenced by different regulations, e.g., ERISA, state insurance rules, state pension rules, and others. Use of leverage is also affected by tax rules applicable to investment vehicles and/or investors. Below we consider several different types of CIVs and clients as examples. Given the large number of variations, no discussion of CIVs' strategies and investors can be comprehensive.

As an initial matter, leverage is not consistently defined across regulatory regimes and regulatory definitions of leverage are not necessarily aligned with the actual economic exposure obtained through leverage. Furthermore, at a conceptual level, it is important to distinguish “temporary leverage,” which is permitted by a number of fund structures (see our response to Question 1.5), from “structural leverage,” which can be embedded in certain types of investment strategies. While these terms are not formally defined or codified in regulation, we think of “temporary leverage” as borrowing for short-term purposes and “structural leverage” as encompassing risk taken to enhance returns, e.g., the use of derivatives as part of an investment strategy or borrowing through capital markets by issuing preferred shares. It is important to note, however, that the use of derivatives does not necessarily constitute leverage. Derivatives are often used, for instance, for hedging purposes, which is intended to mitigate risks in an investment portfolio (e.g., currency risk, interest rate risk, etc.). As reflected in the recent testimony of CFTC Chairman Massad, derivatives are important for a variety of reasons, including “enabl[ing] exporters to hedge foreign exchange risk and businesses of all types to lock in borrowing costs...[T]he derivatives markets enable businesses of all types to manage risk.”⁹⁴ Dodd-Frank’s comprehensive regulation of the OTC derivatives market has fundamentally changed the landscape for derivatives, greatly mitigating potential systemic risks posed by the use of derivatives in a strategy employing leverage. For instance, increased central clearing, margin requirements on uncleared swaps, and capital requirements for swap dealers will greatly reduce leverage. Thus, even those investors that are levered today will have less leverage once the Dodd-Frank Act regulations are fully implemented.

Structural leverage varies based on vehicle, client, and strategy. Leverage is common in a small subset of CIVs. Leverage is uncommon in index strategies regardless of legal vehicle. The SIFMA Separate Account Study showed that leverage is uncommon in institutional separate accounts.⁹⁵

The use of leverage varies significantly as a result of the regulation to which the end-investor is subject. For example, the use of leverage by insurers is subject to restrictions by insurance regulations. Likewise, regulations that U.S. pension funds are subject to, including ERISA, influence the use of derivatives by U.S. pension funds. On the other hand, some asset owners, including family offices, universities, endowments, sovereign wealth funds, and central banks are subject to fewer regulations on leverage.

⁹⁴ Chairman Massad Congressional Testimony.

⁹⁵ SIFMA Separate Account Study.

U.S. 1940 Act Funds

The SEC's definition of leverage for 1940 Act Funds is "the right to a return on a capital base that exceeds the investment which [the investor] has personally contributed to the entity or instrument achieving a return."⁹⁶ 1940 Act Open-End Mutual Funds and 1940 Act ETFs are subject to the 1940 Act rules regarding limits on borrowing and on collateralizing derivative exposures. Borrowings are limited to 33.3% of total fund assets (i.e., the fund must have asset coverage of 300%), which equates to a total asset limit of 1.5 times net assets.⁹⁷ The SEC has interpreted Section 18 of the 1940 Act, which governs the capital structure of 1940 Act Funds, as applying to certain transactions, including derivatives, that create potential structural leverage. According to SEC interpretations, a 1940 Act Fund can avoid the creation of a "senior security" under Section 18 by segregating "liquid" assets to cover its payment obligations under such instruments or otherwise "cover" its obligations under such instruments (e.g., by owning or having the right to acquire a security it has sold short). Since many 1940 Act Funds use these instruments sparingly, most regularly have unused borrowing capacity.

With respect to 1940 Act CEFs, their leverage is limited under the 1940 Act. Like 1940 Act Open-End Mutual Funds, borrowings by CEFs are limited to 33.3% of total fund assets. However, CEFs may issue a single class of preferred stock (subject to a 200% asset coverage requirement). The closed-end structure mitigates the risk of redemption mismatch since individual CEF shares are not generally redeemable.

The vast majority of ETFs are managed using long-only passive strategies that are designed to track a specific capitalization-weighted index. However, the number and size of non-capitalization-weighted index ETFs (including "smart beta" or fundamental index ETFs) and non-index-based (or active) ETFs are increasing. A number of these strategies make use of derivatives as a means to obtain an economic exposure. That said, over 90 percent of U.S. ETFs, are backed by physical holdings, not derivatives.⁹⁸

Levered ETFs and inverse-levered ETFs, which currently comprise approximately 1.5 percent of the U.S. ETF market,⁹⁹ utilize leverage to magnify returns relative to an index. The risks of these products are still being debated.¹⁰⁰ We have previously noted our concern that levered and inverse-levered ETFs create significantly different risks than those presented by traditional ETFs¹⁰¹ and have recommended that these products not use the ETF label.¹⁰²

⁹⁶ Derivatives Concept Release at 55242.

⁹⁷ 15 U.S.C. § 80a-18(a)(1)(B). In addition, although the Internal Revenue Code does not contain explicit limitations on leverage, borrowing may impact the tax character of distributions paid to shareholders and interest expense may not be deductible for tax purposes in certain circumstances. In addition, income received from certain derivatives contracts may not constitute qualifying income for purposes of the gross income test applicable to regulated investment companies. Together, the provisions further limit the ability of 1940 Act Funds to utilize leverage.

⁹⁸ Hearing on Market Microstructure: Examination Of Exchange-Traded Funds Before the Committee On Banking, Housing, And Urban Affairs Subcommittee On Securities, Insurance, And Investment 112th Cong., (2011) (statement of Noel Archard, CFA, BlackRock, Inc., Managing Director, Head U.S. iShares Product) ("Noel Archard Congressional Testimony").

⁹⁹ Data is from BlackRock and Bloomberg as of Dec. 2014 and is calculated by dividing total AUM of U.S. ETFs that are leveraged or inversely leveraged into total AUM of all U.S. ETFs.

¹⁰⁰ Ivan Ivanov and Stephen Lenkey, *Are Concerns About Leveraged ETFs Overblown?* Federal Reserve Board (Nov. 19, 2014), available at <http://www.federalreserve.gov/econresdata/feds/2014/files/2014106pap.pdf>; Tugkan Tuzun, *Are Leveraged and Inverse ETFs the New Portfolio Insurers?* Federal Reserve Board (Jul. 16, 2013), available at <http://www.federalreserve.gov/pubs/feds/2013/201348/201348pap.pdf>.

¹⁰¹ BlackRock, *ViewPoint, Exchange Traded Products: Overview, Benefits and Myths* (Jun. 2013), available at <http://www.blackrock.com/corporate/en-us/literature/whitepaper/viewpoint-etps-overview-benefits-myths-062013.pdf> ("June 2013 ETFs ViewPoint").

We support the proposals in the SEC's Derivatives Concept Release from 2011,¹⁰³ and we reiterate the suggestions we made in our response to that release.¹⁰⁴ In our Derivatives Concept Release comment letter, we suggested that the SEC adopt a principles-based approach to asset segregation that would identify a reasonable amount of fund assets to be set aside to cover potential future obligations based upon a stated risk measure. We also reiterate our recommendation for the SEC to provide guidance relating to the use of derivatives that can be applied across 1940 Act Funds, including appropriate chief compliance officer ("CCO") and board oversight of the use of derivatives and clear disclosure of a fund's leverage and derivatives usage.

Bank Collective Investment Funds ("CIFs")

There are leverage limits and restrictions on the use of derivatives in CIFs. The use of leverage by CIFs maintained by national trust banks is subject to OCC regulation and oversight and is limited because of trust bank fiduciary obligations and CIFs' structure, client base, and tax status. The OCC has established rules for the use of leverage in fiduciary accounts managed by national banks, including CIFs maintained by such a trust bank. The OCC considers it an unsafe and unsound practice for a trust bank to purchase assets in a fiduciary capacity, without a full appreciation of the risks involved.¹⁰⁵ The OCC has provided regulatory guidance that trust banks should understand and manage the risks associated with instruments that can be used to achieve leverage, such as derivatives, and should consider the appropriateness of such instruments.¹⁰⁶ The OCC routinely examines trust banks' use of derivatives and trust banks' internal oversight of its fiduciary activities.

The OCC requires trust banks to develop a risk management framework to ensure safe and sound fiduciary investment activities for the use of derivatives and requires trust banks to have policy guidelines for the use of derivatives in portfolio management processes.¹⁰⁷ Trust bank management is required to review derivatives policies periodically and analyze new types of derivative products before utilizing in investment activities.¹⁰⁸ The OCC requires trust banks to ensure that a CIF's portfolio is operated within documented risk limits.¹⁰⁹ Trust banks must have processes in place to calculate and monitor the leverage risk in CIF portfolios, and where appropriate, incorporate risk mitigation and diversification to reduce that leverage risk.¹¹⁰ Risk management processes are required to describe guidelines and risk control limits applicable to derivatives.¹¹¹ They must also conduct stress tests on significant risks to ascertain how the risk profile of portfolios and individual assets, such as derivatives, will behave under various

¹⁰² BlackRock, *ViewPoint, ETFs: A Call for Greater Transparency and Consistent Regulations* (Oct. 2011), available at <http://www.blackrock.com/corporate/en-ch/literature/whitepaper/transparency-and-consistent-regulation-oct-2011.pdf> ("October 2011 ETFs *ViewPoint*").

¹⁰³ Use of Derivatives Concept Release at 55237.

¹⁰⁴ BlackRock, Comment Letter, Response to the SEC's Concept Release on Use of Derivatives by Investment Companies Under the Investment Company Act of 1940 (Nov. 4, 2011), available at <http://www.sec.gov/comments/s7-33-11/s73311-39.pdf> ("Derivatives Concept Release Comment Letter").

¹⁰⁵ OCC Bulletin on Fiduciary Risk Management of Derivatives and Mortgage-Backed Securities (1996-25).

¹⁰⁶ OCC Comptroller's Handbook on Risk Management of Financial Derivatives at 7 (1997-1998).

¹⁰⁷ OCC Comptroller's Handbook on Investment Management at 150 (2001).

¹⁰⁸ OCC Comptroller's Handbook on Risk Management of Financial Derivatives at 8 (1997-1998).

¹⁰⁹ OCC Comptroller's Handbook on Collective Investment Funds at 13 (2014).

¹¹⁰ *Id.* at 13-14.

¹¹¹ OCC Comptroller's Handbook on Investment Management at 150 (2001).

conditions.¹¹² The OCC has noted that stress testing is particularly useful when portfolios have instruments with non-symmetrical returns, such as certain options and other derivatives. The OCC's guidance on stress testing imposes a rigorous analytical framework with extensive modeling and an expectation of periodic testing of all types of leverage in a variety of scenarios.¹¹³

We also note that another consideration for tax exempt investors is that the use of leverage can generate unrelated business taxable income ("UBTI"). Institutional investors that are normally exempt from taxes generally seek to avoid the generation of UBTI as it will not only cause taxes to be owed but requires an extensive and detailed tax return to be filed. As such, we manage these investors' CIFs with the intent to avoid UBTI and accomplish this aim by sharply limiting potential leverage activities.¹¹⁴

Unlike 1940 Act Funds, CIFs do not issue senior securities (e.g., debt or preferred stock) and thus do not engage in that form of leverage. The extent of leverage used by CIFs is also dependent on their investment strategies. Most of the CIF assets managed by BlackRock are in passive index strategies that are executed predominantly through direct, unleveraged investments in securities; some of these funds may use futures to invest periodic cash balances, thereby minimizing index tracking error.

Private Funds

With respect to private funds, the amount of leverage a private fund may utilize, whether through derivatives and otherwise, is limited by the availability of sources of leverage and the willingness of private fund investors to take on leverage. This means that a private fund could seek to follow a highly levered strategy, but, for all practical purposes, the fund's ability to obtain leverage will limit the amount of leverage that may be achieved. At some point, the cost of obtaining leverage will likely outweigh the potential returns the fund could generate. For a variety of reasons, including more onerous capital requirements facing banks and prime brokers since the 2008 Crisis, the opportunity for private funds to take on significant levels of leverage has been constrained.

Furthermore, as discussed in the Office of Financial Research ("OFR") 2013 Annual Report, which analyzed Form PF data, funds using a significant amount of leverage held liquid securities, thereby mitigating redemption and other risks, and those holding illiquid securities used relatively little leverage.¹¹⁵ OFR finds that on average, funds with higher leverage have a lower proportion of hard-to-value assets. Hard-to-value assets represent a little more than 20 percent of the assets of funds with no leverage.¹¹⁶ For the category of funds with the highest leverage (mean ratio of debt to net asset value of about 2.8), the corresponding fraction was less than 5 percent. They conclude that funds with larger leverage ratios may be choosing assets that are relatively easier to dispose of during a crisis. They also find suggestive

¹¹² *Id.* at 23.

¹¹³ *Id.*

¹¹⁴ Income from interest, dividends, capital gains, swaps, futures and securities lending is generally excluded from the calculation of UBTI.

¹¹⁵ OFR, 2013 Annual Report (Dec. 5, 2013).

¹¹⁶ *Id.* at 94 & fig. 63.

evidence that funds taking on more leverage take on less portfolio risk as measured by value-at risk (“VaR”) models.¹¹⁷

While many private funds (and some 1940 Act Funds) are also “commodity pools” under CFTC rules and there are no specific CFTC limitations on the amount of leverage in a pool, but as financial end-users under CFTC rules, pools must post margin for their futures and swaps positions. In addition, CFTC regulations subject commodity pools to significant reporting requirements and periodic examination.¹¹⁸

Separate Accounts

Institutional separate account assets are explicitly on the balance sheet of the respective asset owners and are subject to the rules pertinent to that asset owner. Examples of rules include DoL rules for ERISA plans, state insurance rules for insurers, and state laws applicable to public pension plans. As confirmed in the SIFMA Separate Account Survey, in which nine managers representing \$3.98 trillion in separate account AUM participated, 97% of separate accounts managed by the firms participating in the study were long-only, i.e., they do not employ leverage.¹¹⁹ Furthermore, 53% were invested in passively managed, index strategies.¹²⁰ Specifically, the survey found that in aggregate, less than 4% of the number of “Large Surveyed Separate Accounts” employ leverage, and the average leverage reported for these accounts is modest.¹²¹

While there may be separate accounts that employ leverage, there is insufficient data about such accounts to inform policy. We recommend that the Council conduct a targeted information request for separate accounts managed by “alternatives specialists” in order to understand the use of leverage in these portfolios.

¹¹⁷ *Id.* at 95 & fig.65.

¹¹⁸ Many private funds and most 1940 Act Funds that utilize derivatives qualify for exemptions from the commodity pool regulations by limiting the amount of derivatives-related leverage exposure in accordance with CFTC regulations. For example, under 4.13, a private fund that would otherwise be a commodity pool will be exempt if the aggregate initial margin and premiums do not exceed 5% of the liquidation value of the pool's portfolio and the aggregate net notional value of positions does not exceed 100% of the liquidation value of the pool's portfolio. Under CFTC Regulation 4.5, a 1940 Act Fund that would otherwise be a commodity pool will be exempt if it engages in bona fide hedging activities and its derivatives exposure does not exceed 5% of the liquidation value of the fund's portfolio.

¹¹⁹ SIFMA Separate Account Study. The OFR acknowledged the value of this research in its 2014 Annual Report. See OFR 2014 Annual Report at 58, which cites *the* SIFMA Separate Account Study.

¹²⁰ SIFMA Separate Account Study.

¹²¹ The SIFMA Separate Account Study defines leverage in the following manner: long market value that exceeds NAV for equity or gross market exposure minus margin for derivatives; long-only accounts that use derivatives for the purpose of hedging or benchmark replication were excluded.” See SIFMA Separate Account Study at 2 n.5.

2.2 To what extent and under what circumstances could the use of leverage by investment vehicles, including margin credit, repos, other secured financings, and derivatives transactions, increase the likelihood of forced selling in stressed markets? To what extent could these risks be increased if an investment vehicle also offers near-term access to redemptions?

As discussed above, investment vehicles that offer near-term access to redemptions are restricted in their use of leverage by a variety of regulatory requirements, including the rules for 1940 Act Funds. Further, the risks and the utility associated with each of the activities described, such as repo, derivatives, and securities financing transactions should not be conflated. These activities are distinct from one another and should be considered separately by the Council. We recommend looking at the rules on each of the activities cited in our previous responses:

- **Securities Lending:** Securities lending is not an activity that is associated with obtaining leverage in a portfolio. Rather, securities lending is a means for asset owners to obtain incremental income from their securities holdings by lending securities for a fee, and, for clients that accept cash collateral, re-investing the collateral into short-term cash investment vehicles to earn an additional return. See response to Question 1.4 for further detail on securities lending.
- **Repo:** Repo can be used to manage liquidity risk and serve as a source of temporary borrowing to meet redemptions (see response to Question 1.5 for detail). As highlighted in our response to Question 3.1, significant reforms to the repo market have been implemented which have improved the market infrastructure for repo and mitigated certain operational risks that were present prior to and during the 2008 Financial Crisis.
- **Derivatives:** Derivatives can be used for hedging (to mitigate risks in a portfolio) and to obtain structural leverage. See our response to Question 2.1 for an overview of rules and limitations relating to leverage and the use of derivatives.

2.3 How do asset managers evaluate the amount of leverage that would be appropriate for an investment strategy, particularly in stressed market conditions? To what extent do asset managers evaluate the potential interconnectedness of counterparties? How do lenders or counterparties manage their exposures to investment vehicles?

The appropriate amount of leverage depends on several factors including:

- An analysis of the asset-liability match based primarily on the term of borrowing, but also factoring in redemption features.
- The types of assets and the liquidity characteristics of those assets.
- The needs and goals of the client and any specifications in the client agreements or fund offering documents as well as requirements specified by applicable regulation.

Counterparty credit risk management is an important discipline in asset management. Asset managers act in an agency capacity on behalf of each of the clients for whom they manage assets. As such, counterparty credit risk in this context is the potential loss that a client could incur if a counterparty is unable to perform on its trading commitments.

A fundamental premise of BlackRock's counterparty risk management program is that each direct trading counterparty to a client is independently reviewed, approved, and monitored by professionals with an appropriate level of expertise, experience, and authority. Examples of counterparties include broker-dealers for OTC transactions, FCMs, prime brokers, APs for ETFs, and CCPs for centrally cleared derivatives. The counterparty review takes into account fundamental creditworthiness (ownership structure, financial strength, regulatory oversight) and commercial reputation of each counterparty and includes scrutiny of the type, volume, settlement, and delivery mechanism of the proposed securities transactions. Research materials from the recognized credit rating agencies allow for additional considerations to be built into the credit decision process.

It is important that transactions involving counterparty performance over longer periods than standard delivery versus payment settlement cycles, such as OTC derivatives, foreign exchange contracts, and securities financing activities, are limited to top tier financial institutions, typically high quality investment grade banks and broker-dealers which are regulated by banking, securities, and other financial regulators in G-20 countries. Risk mitigation tools, including strong credit terms in legal documentation and the procurement of collateral, are implemented wherever appropriate and practicable to the client investment vehicle. Robust legal documentation governing transactions with a higher degree of counterparty credit exposure, such as International Swaps and Derivatives Association ("ISDA") Master Agreements with bi-lateral Credit Support Annexes for OTC derivative transactions, are executed prior to trading.

Asset managers are not the lenders or counterparties to investment vehicles. We recommend that questions on lending and credit exposure management practices be answered by lenders and counterparties.

2.4 What risk management practices, including, for example, widely-used tools and models or hedging strategies, are used to monitor and manage leverage risks of different types of investment vehicles? How do risk management practices in investment vehicles differ based on the form of leverage employed or type of investment vehicle? How do asset managers evaluate the risk of potential margin calls or similar contingent exposures when calculating or managing leverage levels? How are leverage risks managed within SMAs, and to what extent are such risks managed differently than for pooled investment vehicles?

As discussed in our answer for Question 2.1, each CIV has different regulations that impact the use of leverage. We also discussed that some vehicles tend to utilize leverage to a greater extent than others. Risk management practices depend on investment strategies, asset classes, investment vehicles, asset owners, and asset managers. We are not aware of tools specific to the management of leverage but rather tools to manage overall market exposure, counterparty risk, liquidity risk, etc. There are a large number of models and tools used by different asset managers. These include internally developed and commercially available products. Many asset managers use a combination of tools and models. Even where tools are commercially purchased, the assumptions employed will differ by user.

While the underlying risk models used in the systems provide important information, there are many other factors that are equally, if not more important, in driving investment decisions. This includes the underlying client's investment objectives, portfolio strategy (e.g., active versus passive), security indicative data, rating agency ratings, benchmark constituents and weightings, media reports, external research reports and a manager's own internal

research/ratings, among other factors. Additionally, risk models, even those commonly used by multiple asset managers, are "run" differently as they are highly configurable with switches, dials, and underlying assumptions, typically customized as specified by a given investment organization.¹²² Furthermore, different firms have different business models regarding risk management. Some are highly decentralized with each portfolio manager responsible for managing risk; others are highly centralized with coordinated risk management, and yet others use a hybrid approach in which both individual portfolio managers and a central risk group share responsibility for various aspects of risk management.

2.5 Could any risk management practices concerning the use of leverage by investment vehicles, including hedging strategies, amplify risks?

As noted previously, more clarity on the definition of leverage and the use of derivatives is necessary. By definition, risk management strategies are employed to mitigate, not enhance risk. Hedging requires the use of models that accurately measure risk and calculate hedges for funds or exposures. If models are not properly used and independently reviewed, they can result in incorrect hedges which can lead to poor risk mitigation. The effectiveness of risk management depends on the accuracy of the tools and models used, including those used for hedging. Accurate pricing and risk models must be utilized to track the efficacy of hedging over time. The quality of pricing services, therefore, is relevant and is further discussed in our response to Question 3.1. In general, however, risk management tools are designed to mitigate overall risk and we would not expect them to amplify risks.

2.6 To what extent could the termination of securities borrowing transactions in stressed market conditions force securities lenders to unwind cash collateral reinvestment positions? To what extent are securities lenders exposed to significant risk of loss?

As detailed in our response to Question 1.4, we do not believe that the potential for terminations of securities loans to trigger redemptions from cash collateral vehicles poses a distinct financial stability concern, particularly given reforms that were implemented by the SEC in 2010 and the OCC in 2012 to improve the safety and soundness of cash investment vehicles. With the possible exception of STIFs sponsored by state-chartered banks which have not yet been mandated to change practices,¹²³ the liquidity profile now allowed in cash re-investment vehicles has substantially mitigated the risk from previous issues experienced during the 2008 Crisis with longer-dated maturity securities. Further, regulatory requirements and market practice require that borrowers post collateral for securities loans in excess of the value of the security being lent. As a further measure, securities loans and collateral are marked-to-market daily, and the borrower may be required to deliver additional collateral to maintain the required excess level. Please see our response to Question 1.4 for further detail.

¹²² For a more detailed discussion of the use of technology by asset managers, see BlackRock, *ViewPoint, The Role of Technology Within Asset Management* (Aug. 14, 2014), available at <http://www.blackrock.com/corporate/en-us/literature/whitepaper/viewpoint-asset-management-technology-aug-2014.pdf>.

¹²³ We encourage the Council to implement similar reforms for the state-chartered trust banks that sponsor STIFs, using its Section 120 authority if Member Agencies with oversight over state-chartered banks fail to compel these changes.

2.7 To the extent that any risks associated with leverage in investment vehicles present risks to U.S. financial stability, how could the risks to financial stability be mitigated?

Today, potential systemic risks are being addressed by greater regulation of margin haircuts, the centralized clearing of OTC derivatives, and a comprehensive reporting regime for OTC derivatives. The full implementation of the Dodd-Frank Act will mitigate risks in the OTC derivatives market, assuming that rules are established for CCPs that require adequate resources and appropriate safeguards. Furthermore, the Financial Stability Board (“FSB”) is establishing principles for securities lending haircuts through its “Framework for Haircuts on Non-Centrally Cleared Securities Financing Transactions, which is expected to be completed in 2015, followed by national implementation.¹²⁴ There are also conservative haircuts in the repo market. We believe that these measures and existing regulation for funds in the U.S. and elsewhere, along with measures such as those that we recommend in this response, are more than sufficient to address any potential risks presented by leverage in CIVs. As discussed in our responses to previous questions in Section II, we recommend:

- i) Harmonization of definitions and reporting of leverage;
- ii) Finalization of rules contemplated in SEC’s 2011 Derivatives Concept Release on the use of derivatives in 1940 Act Funds; and
- iii) Further study of levered and inverse-levered ETFs.
- iv) Implementation rules that require adequate resources and appropriate safeguards for financial market utilities, including CCPs.

2.8 What are the best metrics for assessing the degree and risks of leverage in investment vehicles? What additional data or information would be useful to help regulators and market participants better monitor risks arising from the use of leverage by investment vehicles?

We believe that those measures of leverage, that provide an indication of the true economic exposure that is obtained from temporary borrowing and/or the use of derivatives is the best metric for assessing the degree of leverage that may be present in investment vehicles. We believe that the AIFMD regulatory framework that is already in place in Europe provides a good framework for calculating the value of economic exposure obtained through the use of leverage and what points of information would be required to do so. While the rules for UCITS differ somewhat from the AIFMD framework, the UCITS regulations have similarities to the AIFMD approach and may converge over time. We are proponents of global harmonization of leverage rules around AIFMD.

AIFMD includes two measures of leverage: the first is “gross leverage,” which provides an understanding of gross derivatives exposure in a fund and is useful for informational

¹²⁴ The FSB published a consultative proposal on the Regulatory Framework for Haircuts on Non-Centrally Cleared Securities Financing Transactions in October 2014 for comment by December 2014. The FSB announced that it will set out details of how it will monitor implementation by the second quarter of 2015. FSB member authorities will implement the Framework by the end of 2017. See Financial Stability Board, Consultative Proposal, Strengthening Oversight and Regulation of Shadow Banking: Regulatory Framework for Haircuts on Non-Centrally Cleared Securities Financing Transactions (Oct. 14, 2014), available at http://www.financialstabilityboard.org/wp-content/uploads/r_141013a.pdf?page_moved=1.

purposes¹²⁵ when reviewed in combination with the second metric, “commitment leverage.” We believe commitment leverage provides a comprehensive measure of economic exposure obtained through leverage. These two metrics combined lay out a common method to calculate leverage for all funds, which we believe provides a comprehensive representation of leverage in investment vehicles that is generally reported to AIF regulators on a quarterly basis.¹²⁶ While the U.S. 1940 Act rules and body of interpretative guidance and exemptive relief also include measures of leverage, we believe that the streamlined approach present in AIFMD is worthy of consideration. Provided below is a summary of the 1940 Act rules and SEC guidance concerning leverage. We also provide a discussion of the calculations of leverage in AIFMD. Limitations on leverage can help mitigate liquidity risk, run risk, and concerns about systemic risk in certain funds. At a minimum, it would be helpful for the guidance on leverage to be consistent across jurisdictions.

SEC Leverage Rules

Section 18 of the 1940 Act limits the amount of leverage, or “indebtedness,” that may be held by registered investment companies by placing: 1) limits on direct borrowing; and 2) direct restrictions on the issuance of senior securities. 1940 Act Funds may “borrow” from U.S. regulated banks as long as they maintain asset coverage of at least 300% (ratio of assets to debt). The asset coverage rule essentially limits leverage to 1.5 times net assets. In addition to traditional bank borrowings, the term “borrowings” specifically includes: reverse repurchase agreements, firm commitments, and standby commitments when issued. In order to prevent the creation of a senior security related to these borrowings, investment companies must segregate liquid assets to “cover” 100% of these transactions.¹²⁷ Together, these rules effectively limit the amount of leverage that can be used by mutual funds. Liquid assets are defined as assets that can be sold “in the ordinary course of business” over a seven calendar day period at approximately the price as they are marked in the fund.¹²⁸ Additionally, 1940 Act Funds may borrow on a temporary basis up to five percent of total assets from any person.¹²⁹

In addition to these specific regulations, over time, the SEC and its staff have provided guidance on various instruments, including several types of derivatives.¹³⁰ These interpretations, which cover short sales, written options, forwards, futures, and certain other derivatives transactions, provide that these transactions or instruments will not result in the creation of a “senior security” under section 18 if the fund covers its future obligations by segregating liquid assets. However, there are inconsistencies in these interpretations, with some requiring asset segregation of the full notional value of the transaction, while others require only segregation of the initial margin deposit and any mark-to-market amounts. In addition, the interpretations have not kept pace with developments in the broader derivatives industry. The SEC should update its guidance around leverage to reflect current interpretations and industry usage, and consider implementing further enhancements such as those contained in AIFMD, particularly as it pertains to the use of borrowings and derivatives. This could be accomplished, in part, by formulating a rule proposal based on comments received on the

¹²⁵ Note that we believe the use of gross leverage *in isolation* does not provide a meaningful assessment of leverage.

¹²⁶ By contrast, the UCITS regime requires funds to calculate only one measure of leverage.

¹²⁷ 15 U.S.C. § 80a-18(A)(1)(c).

¹²⁸ 17 C.F.R. § 270.5b-3.

¹²⁹ 15 U.S.C. § 80a-18(A)(2)(g). Borrowings of 60 days or less are presumed to be temporary.

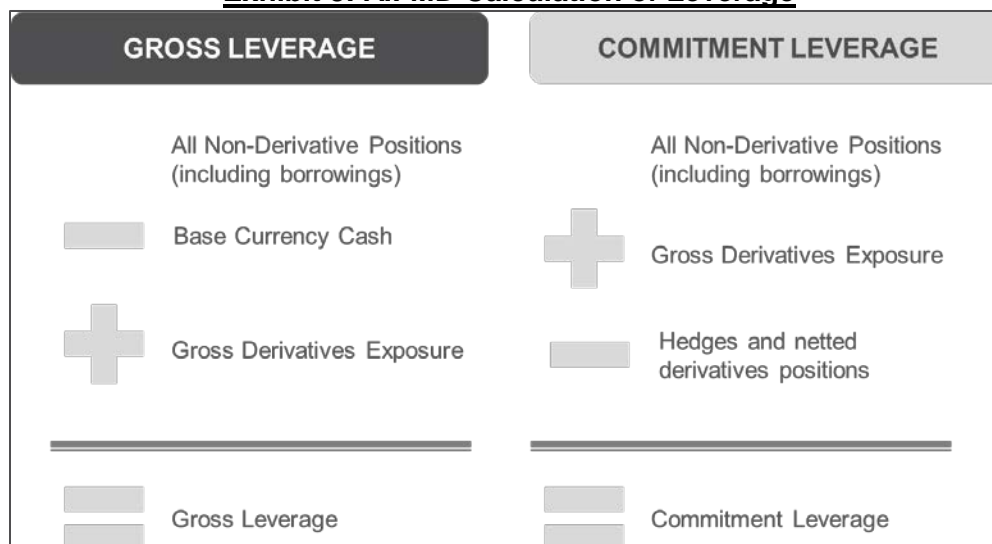
¹³⁰ See SEC Registered Investment Company Use of Senior Securities – Select Bibliography (Feb. 12, 2013), available at <http://www.sec.gov/divisions/investment/seniorsecurities-bibliography.htm>.

SEC's Derivatives Concept Release,¹³¹ and, after notice and comment, adoption of formal rules on the use of derivatives by 1940 Act Funds.

AIFMD Leverage Rules

AIFMD introduces a common method to calculate leverage for all funds. AIFMD uses two measures of leverage: (i) "gross leverage" and (ii) "commitment leverage" (see Exhibit 8) which together provide a comprehensive representation of leverage. Gross leverage provides an indication of the overall use of derivatives by a fund, regardless of whether the fund is using the derivatives positions for hedging. This provides a baseline measure of whether a fund is using derivatives and/or borrowing and to what degree. Recognizing that gross leverage does not provide a view of economic exposure, given that offsetting derivatives positions used for hedging as well as macro/micro hedges reduce economic exposure and are not captured by gross leverage, AIFMD additionally requires the calculation of commitment leverage. Commitment leverage provides a calculation designed to assess economic exposure obtained through the use of leverage by reflecting direct borrowings as well as derivatives exposure (with netting allowed for many, but not all, macro/micro hedges as well as paired offsetting derivatives positions). Exhibit 8 below defines at a very basic, high level the calculation methods for gross and commitment leverage that are used under AIFMD. AIFMD allows derivatives used for hedging security holdings and offsetting derivative positions to be excluded in the commitment leverage calculation, subject to specific netting/hedging calculation rules.¹³² There are also a variety of more specific rules for what is allowed to be removed under netting and hedging under the commitment leverage approach. Under AIFMD, the entire portfolio exposure (NAV scaled up to include calculated leverage) based on both calculations of leverage for AIFs must be reported to regulators.

Exhibit 8: AIFMD Calculation of Leverage



For illustrative purposes only. This is a very high level presentation of the calculations.

¹³¹ Use of Derivatives by Investment Companies under the Investment Company Act of 1940, 76 Fed. Reg. 55237 (Sep. 7, 2011).

¹³² Article 8, Commission Delegated Regulation (EU) No 231/2013 of 19 December 2012 supplementing Directive 2011/61/EU of the European Parliament and of the Council with regard to exemptions, general operating conditions, depositaries, leverage, transparency and supervision.

Under AIFMD, if a fund's exposure exceeds three times its NAV using the commitment approach, it is considered to be employing leverage on a "substantial basis" and may become subject to additional reporting requirements and other restrictions.¹³³ Similarly, UCITS, though using slightly different calculations for leverage, are prohibited from exceeding two times leverage using one of two leverage measures.

Data and Data Collection

With respect to data, substantial data is already available for regulators to monitor and assess regularly, however, the data is not being collected in a consistent manner across different jurisdictions. This lack of harmonization significantly reduces the value of data that is currently being reported as it cannot be combined, compared, or studied for historical trends. Thus, regulators should seek to harmonize definitions and reporting to foster the better use of data that is being collected. To highlight this issue, asset managers currently report multiple leverage calculations to multiple regulators: Form PF, Form PQR, and AIFMD. Form PF does not require private funds to report a net leverage number similar to AIFMD's commitment approach, nor is it possible to derive such a figure from the other leverage-related data collected on Form PF.

While individual asset managers may use more precise measures of leverage for individual funds and the calculation of commitment leverage may require an element of subjective application of judgment or complex models,¹³⁴ it is capable of being applied on a relatively consistent basis across funds and provides a comprehensive measure of leverage. Furthermore, because it is currently required as part of reporting under AIFMD, it is already being reported to regulators for certain funds offered in the EU, and there is expertise in the industry around its calculation. Since many asset managers that operate in the U.S. also do business in Europe, there is existing industry expertise that is familiar with the AIFMD reporting process and its calculation. Funds that are offered in both the EU and the U.S. may be providing reporting through both Form PF and for AIFMD. More generally, there are third party service providers who could assist in calculating commitment leverage.

¹³³ Article 111, AIFMD Level 2 Regulation of Dec. 19, 2012.

¹³⁴ BlackRock, Comment Letter, Response to ESMA on Implementing Measures Under AIFMD (Sep. 13, 2011), available at http://www.esma.europa.eu/system/files/ESMA_consultation_13_09_11_FINAL_SUBMISSION.pdf. Not all hedging strategies fall within the definition of hedging or netting allowed in the commitment approach such as, for example, offsetting the currency risk of one geographical market by taking a position in another market.

III. Operational Risk

3.1 What are the most significant operational risks associated with the asset management industry and how might they pose risks to U.S. financial stability? What practices do asset managers employ to manage operational risks (e.g., due diligence, contingency planning)?

While there are many different operating models for asset managers, operational risk faced by asset managers does not present risks to U.S. financial stability. This is because even in the worst-case scenario in which an asset manager is unable to operate, clients would transition the management of their underlying investments to another manager. Transitioning the management of client assets occurs regularly in the normal course of business. Nonetheless, it appears that the Council is concerned about a scenario where an asset manager were to suddenly “become insolvent,” “declare bankruptcy,” or face some other extraordinary circumstance where the manager is no longer viable. In addition to being highly unlikely to occur in the manner theorized – as we describe fully in our responses in Section IV – we do not believe that such a scenario would lead to systemic risk, even if a large number of end-investors (funds and separate account clients) needed to appoint new asset managers. If a client’s custodian is unable to fulfill their role in transitions – which is to provide the new manager with complete and accurate information on the client holdings before the new manager can undertake full management responsibility for the portfolio, there could be delays in effecting these transitions. This could occur if an extraordinary number of clients of the same custodian sought to change managers at the same time on short notice. This scenario is contained only to the portfolios managed by the afflicted asset manager and does not result in a first-mover advantage or incentive to liquidate assets. In fact, we believe there is a disincentive to immediately sell securities in this scenario as these actions could result in unnecessary costs to the end-investor with little or no potential benefit. The inability of an asset manager to operate, therefore, does not incentivize the type of first-mover exit behavior or liquidation of assets associated with a bank failure. As we will explain in our responses in this section, there is a regulatory and governance framework, including roles and responsibilities of fund boards, to protect funds in emergency circumstances.

This, of course, is not to say that operational risks and/or business continuity risks do not exist in asset management. Operating errors can and do occur, and can cause varying degrees of disruption. As such, procedures need to be in place to minimize the frequency of operating issues and mitigate the potential impact of such events. BlackRock defines operational risk as the risk of financial loss, reputational damage, or regulatory sanction to BlackRock and our clients. Business continuity risk includes risks that can arise from business disruptions (e.g., natural disasters, terrorist attacks, cyber-attacks, facility issues, etc.) resulting in the loss of facilities, systems, and the unavailability of personnel to perform their duties. Issues related to operational and business continuity risk can be costly and/or harm an asset manager’s reputation with its clients. It is prudent for asset managers to have policies and procedures in place to address the operational risks to which they are subject, including business continuity plans (“BCPs”) and technology disaster recovery plans (“DRPs”), and robust due diligence and oversight of all third party service providers.

Regulation of Operational Risk, Business Continuity Planning, and Internal Controls

Properly managing operational risks, including business continuity risks is not just demanded by clients, it is also required of asset managers by several regulators. For example, according to SEC rules, the advisers of 1940 Act Funds have the fiduciary obligation to engage

in BCP.¹³⁵ Further, Rule 38a-1 of the 1940 Act requires 1940 Act Funds' policies and procedures to provide for the oversight of compliance with the Federal Securities Laws by the funds' service providers through which the funds conduct their activities. The Board of Directors of each 1940 Act Fund (including a majority of those directors who are not "interested persons"¹³⁶) is required to approve policies and procedures of the funds they oversee, including the funds' service providers, that are reasonably designed to prevent violations of the Federal Securities Laws. Chief Compliance Officers for 1940 Act Funds are also required to approve these policies, which must entail having an understanding of each service provider's procedures to manage business continuity risks. In addition, 1940 Act Funds' CCOs must report to fund boards any "material compliance matter"¹³⁷ arising at the 1940 Act Fund manager or any service provider that the board would reasonably need to know about to oversee fund compliance.

Similarly, the OCC has stated that, "a [trust] bank's board of directors is responsible for overseeing business continuity planning for all business lines," and the board should review the trust bank's contingency plans annually.¹³⁸ National Futures Association ("NFA") members (e.g., commodity pool operators and commodity trading advisors) are also required to establish and maintain written BCP and disaster recovery plans that outline procedures to be followed in the event of an emergency or significant business disruption.¹³⁹ The plan should be reasonably designed to enable the member to continue operating, to re-establish operations, or to transfer its business to another member with minimal disruption to its customers, other members, and the commodity futures markets. Financial Industry Regulatory Authority ("FINRA") requires member firms to create and maintain BCPs appropriate to the scale and scope of their businesses and to provide FINRA with emergency contact information.¹⁴⁰ FINRA Members must update their BCPs in the event of any material changes, conduct an annual review, and disclose to the firms' clients how their BCPs address the possibility of significant business disruption. These plans must be approved by a registered principal.

Further, regulation is designed to ensure that companies have adequate internal controls in place. For example, BlackRock's activities are subject to a continuous audit program including internal and external audits. Under the rules adopted in connection with the Sarbanes-Oxley Act of 2002, BlackRock must annually issue a report on controls in accordance with the Statement on Standards for Attestation Engagements 16 ("SSAE 16"). BlackRock's report on controls covers a broad range of asset management activities, including asset management services, recordkeeping, reporting, and technology. This document is reviewed by an external auditor. The presence of internal audit functions is another way that companies ensure that their internal controls are adequate and functioning properly. Internal audit functions typically examine and evaluate the adequacy and effectiveness of internal controls, governance, and risk management processes, and implement corrective action when necessary. Internal audit functions should report results of examinations to senior management and the company board of directors. Further, internal audit functions must have complete

¹³⁵ Compliance Programs of Investment Companies and Investment Advisers at 74716 & n.22.

¹³⁶ "Interested persons" is defined in Section 2(a)(19) of the 1940 Act.

¹³⁷ "Material compliance matter" involves, without limitation: (a) a violation of the Federal Securities Laws by a fund or a service provider (or officers, directors, trustees, employees or agents thereof); (b) a violation of the policies and procedures of a fund or a service provider; or (c) a weakness in the design or implementation of the policies and procedures of a fund or a service provider.

¹³⁸ Comptroller's Handbook on Asset Management Operations and Controls, at 14 (Jan. 2011).

¹³⁹ NFA Rule 2-38.

¹⁴⁰ FINRA Rule 4370.

independence with respect to the business units being audited in order to be effective. The International Institute of Internal Auditors provides principles for best practices in internal audit.¹⁴¹

Financial Market Infrastructure

Notably, there are certain operational risks that are present for all market participants – in particular, those related to the financial market infrastructure or the “plumbing” that makes the financial system work. While these elements are considered by asset managers (as one class of market participant), the proper functioning of financial market infrastructure relies on the robust rules and regulatory oversight of Council member agencies. Indeed, regulatory initiatives in response to the 2008 Crisis has improved the safety and soundness of the financial system and reduced the likelihood of certain operational risks related to financial market infrastructure.

As agents on behalf of their clients, asset managers participate in the broader financial system. Asset managers utilize the financial market infrastructure, including exchanges, electronic trading and affirmation platforms, trade messaging systems (e.g., Society for Worldwide Interbank Financial Telecommunication), and depositories that facilitate the movement of securities from one counterparty to another (e.g., Depository Trust Company (“DTC”), National Securities Clearing Corp. (“NSCC”)) to execute management of client assets. CCPs are used for centrally cleared OTC derivatives. A significant breakdown in a major component of financial market infrastructure would be a significant operational risk to all market participants, including asset managers and their clients and could potentially require regulatory intervention to resolve. Regulators have an important role to play in ensuring that financial market infrastructure risk is mitigated and managed through regulation and oversight. In fact, the Council and its member agencies have implemented many reforms that have had a positive impact on ensuring the safety and soundness of financial market infrastructure.

- For example, the entities that have been designated SI-FMUs¹⁴² by the Council are subjected to robust regulatory safeguards that are calibrated to their importance within the financial system.
- Further, the SEC, as the regulator of the U.S. securities markets, has been focused on improving safeguards to ensure the resiliency of the technology infrastructure of U.S. markets. In November 2014, the SEC released Regulation Systems Compliance and Integrity (“Reg SCI”), which introduced new rules that apply to “self-regulatory organizations, certain alternative trading systems (“ATs”), plan processors, and certain exempt clearing agencies” that require safeguards to be put in place to prevent technology or systems issues and to maintain plans to rectify issues when they do occur. The rules require these entities to conduct business continuity testing.¹⁴³

¹⁴¹ See The Institute of Internal Auditors, *Standards & Guidance* (2011), available at <https://na.theiia.org/standards-guidance/mandatory-guidance/Pages/Standards-With-Introduction.aspx>. See also The Institute of Internal Auditors, *International Professional Practices Framework* (2013).

¹⁴² Federal Reserve Board of Governors, Designated Financial Market Utilities (Jan. 19, 2015), available at http://www.federalreserve.gov/paymentsystems/designated_fmu_about.htm.

¹⁴³ SEC Press Release, *SEC Adopts Rules to Improve Systems Compliance and Integrity* (Nov. 19, 2014), available at http://www.sec.gov/News/PressRelease/Detail/PressRelease/1370543496356#_VLhJdvnF-iE.

- Another example of regulatory intervention to improve market infrastructure is the Federal Reserve Bank of New York's (NY Fed's) work on the tri-party repo market. This work resulted in significant operational improvements to the tri-party repo settlement systems for the two tri-party repo banks, BNY Mellon, and J.P. Morgan. According to the NY Fed, these reforms "significantly reduce the amount of intraday credit needed for daily settlement, including ending the daily unwind of cash and collateral for non-maturing trades and redesigning the process for settling maturing trades in a more liquidity-efficient manner, thereby requiring less clearing bank credit."¹⁴⁴
- The CFTC has implemented extensive measures to reform the derivatives markets including mandatory central clearing of interest rate swaps and index credit default swaps with more clearing mandates to follow. The SEC is working to implement similar reforms for security-based swaps.¹⁴⁵

While many areas of financial market infrastructure are already highly regulated, other elements are not subject to the same degree of safeguards and regulatory supervision. In particular, we would highlight CCPs as requiring further review by regulators.¹⁴⁶ The requirement that OTC derivatives be centrally cleared was a key piece of the reforms called for in Title VII of the Dodd-Frank Act. Congress devoted an entire title to OTC derivatives reform requiring the SEC and CFTC to comprehensively change and oversee this market. As a result, interest rate swaps and index credit default swaps are required to be centrally cleared, and new rules have been imposed to reduce the risk of customer losses in the event of a clearing member's default. We are, and have consistently been, supportive of the concept of central clearing to reduce counterparty risk and increase transparency. However, we are concerned that risks are being concentrated in CCPs as more jurisdictions mandate central clearing and additional products become subject to the mandate. We encourage measures to reduce the likelihood of a CCP failure and avoid a contagion effect of such failure. We recommend regulators focus on: (i) establishing the adequacy of default resources, including capital standards for CCPs, (ii) establishing standards for stress testing of CCPs, (iii) providing transparency to counterparties of CCPs, and (iv) identifying a resolution plan, including a clear and fully funded default waterfall, in the event of a CCP failure. When considering the regulation of SI-FMUs, regulators could consider recommendations that have been made for policies that would promote CCP soundness, e.g., developing comprehensive risk management processes, focusing on strengthening risk model development and model validation practices,

¹⁴⁴ See NY Fed Update on Tri-Party Repo Reform.

¹⁴⁵ See, e.g., Clearing Requirement Determination Under Section 2(h) of the CEA, 17 C.F.R. Parts 39 and 50 (2012); Swap Dealer and Major Swap Participant Recordkeeping, Reporting, and Duties Rules; Futures Commission Merchant and Introducing Broker Conflicts of Interest Rules; and Chief Compliance Officer Rules for Swap Dealers, Major Swap Participants, and Futures Commission Merchants, 17 C.F.R. Parts 1, 3 and 23 (2012); Core Principles and Other Requirements for Swap Execution Facilities, 17 C.F.R. Part 37 (2013); Real-Time Public Reporting of Swap Transaction Data, 17 C.F.R. Part 43 (2012); Process for a Designated Contract Market or Swap Execution Facility To Make a Swap Available to Trade, Swap Transaction Compliance and Implementation Schedule, and Trade Execution Requirement Under the CEA, 17 C.F.R. Parts 37 and 38 (2013); Security-Based Swap Data Repository Registration, Duties, and Core Principles, 17 C.F.R. Parts 200, 232, 240 and 249 (2015); Regulation SBSR—Reporting and Dissemination of Security-Based Swap Information, 17 C.F.R. Part 242 (2015).

¹⁴⁶ We note that there has been much focus on CCP recovery and resolution recently. In October 2014, the FSB released their paper *Key Attributes of Effective Resolution Regimes for Financial Institutions*, available at <http://www.bis.org/cpmi/publ/d121.pdf>, which considered resolution of CCPs, among other financial market infrastructures ("FMIs"), and CPMI-IOSCO released their report *Recovery of financial market infrastructures*, available at http://www.financialstabilityboard.org/wp-content/uploads/c_141016.pdf?page_moved=1, providing guidance on recovery planning for FMIs including CCPs. Also see Chairman Massad Congressional Testimony.

and regularly conducting end-to-end testing of default management processes with market participants.¹⁴⁷

Managing Business Continuity Risk

Business disruptions can occur from a variety of natural and man-made events resulting in the loss of facilities, technology systems, and the inability of personnel to perform their duties. In order to manage the business continuity risk that could arise as a result of business disruptions, asset managers must have procedures in place to recover business operations and supporting technology in the event of a disruption. We believe that planning for these types of events requires a comprehensive program that includes: (i) business continuity planning, (ii) technology DRPs, and (iii) a crisis management framework to coordinate in crisis situations. As mentioned above, a key component of our overall strategy and a key differentiator for BlackRock is our ability to transfer work across our offices globally. By having staff that utilize shared systems and common processes, we are able to service our client base from our offices around the world. In the event of a disruption that impacts one office or region, work can be transferred to staff at other locations. This capability is included in BCPs and in many cases is utilized in the course of normal business.

BlackRock's BCM program employs a "three lines of defense" model. In our experience, similar models have been or are being implemented by many asset managers across the industry. The three lines of defense in this model are: (i) *first line* - business units are responsible for creating and testing BCPs that are in adherence with centrally defined requirements; (ii) *second line* - a central business continuity team defines policy, oversees adherence with planning requirements, conducts quality checks and reports to management; and (iii) *third line* - internal and external audit are responsible for auditing individual business plans as well as the overall business continuity program and framework. There are several elements of managing business continuity risk that we believe are employed by most asset managers:

- ***Business Continuity Planning:*** At a practical level, BCP includes planning, training, testing, and regular reporting of risks that could arise from major disruptions to facilities or systems. Certain best practices exist for BCP programs and are followed by many managers, including:
 - (i) Threat analysis to define the probability and potential impact of external threats and hazards;
 - (ii) Written plans that analyze potential impacts to business units, outline the recovery strategy, and define key team members, critical records, dependencies, key third parties, and technology requirements needed to facilitate technology DRPs;
 - (iii) Ongoing training of staff in order to ensure they understand their roles and how the firm will operate during a crisis; and
 - (iv) Testing of plans through annual exercises to confirm adequacy of recovery strategies, including use of remote access, recovery sites, alternate offices and transfer of critical processes. At a minimum, this should include annual all-staff awareness training and all-staff accountability tests to ensure the

¹⁴⁷ See PriceWaterhouseCooper, A Closer Look, "Financial Market Utilities: Is the System Safer?" (Feb. 2015), available at <http://www.pwc.com/us/en/financial-services/regulatory-services/publications/financial-market-utilities.jhtml> (providing 10 recommendations for SIFMUs).

company's ability to contact and account for staff during a crisis. Finally, this can also entail participation in industry recovery exercises.

- *Technology Disaster Recovery Planning:* Technology DRPs are a part of any business continuity program and include processes and procedures to recover technology systems and infrastructure that are critical to the management of client accounts. As we described in our *ViewPoint* entitled "The Role of Technology Within Asset Management," different asset managers have adopted many different technology systems to support their businesses.¹⁴⁸ As such, this could result in differences in technology DRPs. In our DRP, we strive to ensure minimal downtime and minimal data loss for all applications that support critical business processes in the event of a disruption to technology. We maintain a highly redundant technology infrastructure that is designed to ensure that recovery timelines can meet business requirements.
- *Crisis Management:* When business disruptions do occur, a crisis management framework can be used to manage incidents that require coordination across multiple business lines or across multiple locations. Asset managers, typically develop a framework that defines how coordination will take place during a crisis event. This includes communication and escalation procedures (across business, technology, management, etc.) as well as with clients, regulators, and other third parties. The frameworks should include local, regional, and global crisis teams that respond to and facilitate the recovery from disruptive events.

Information Security

Information security threats and cyber-attacks are a key risk across all industries, including asset management. Like all companies operating in this digital age, asset management companies need to be committed to ensuring the integrity, reliability, availability and confidentiality of their information and computer systems. To this end, BlackRock's senior management team has created a global information security office to evaluate, establish, maintain, and ensure compliance with information security controls that protect our information and computer systems.

Third Party Service Providers

As we have described more fully in our response to Question 3.5, there are a variety of different operating models within the asset management industry, and therefore different levels of outsourcing of certain operational activities to third party service providers. While certain services may be performed by a third party, asset managers need to ensure that third parties, like the asset manager itself, have sufficient controls in place to mitigate the risk of operational errors and to ensure adequate business continuity and disaster recovery plans are in place.¹⁴⁹ Asset managers conduct robust due diligence to assess the operational controls of third party service providers and maintain a regular dialogue with each provider to ensure that they are meeting the asset manager's standards. Given the fiduciary responsibility that asset managers have to their clients, it is in the best interest of the asset manager to ensure that the service

¹⁴⁸ BlackRock, *ViewPoint, The Role of Technology Within Asset Management* (Aug. 14, 2014), available at <http://www.blackrock.com/corporate/en-us/literature/whitepaper/viewpoint-asset-management-technology-aug-2014.pdf>.

¹⁴⁹ Note that given the diversity of ways that asset managers utilize third party service providers, our views on this topic are inherently based on our operational model which may be different than those of other asset managers.

provider has robust operational controls and can continue operations, even during times of market stress or business disruptions.

Conducting robust due diligence in the selection of third party service providers followed by ongoing monitoring is key to ensuring that third party service providers are adequately managing operational risk. BlackRock maintains a robust selection program with a comprehensive set of guidelines and criteria to ensure that providers meet certain requirements without limitations, such as business concentration, financial stability, proper legal documentation, operational efficiencies, adequate risk and controls including BCP. Oversight and ongoing relationship management of critical third party service providers includes performance monitoring, onsite process and control reviews, reviewing financial condition, documentation related to internal controls (i.e., SSAE 16), and assessing potential vulnerabilities as well as the results of BCP and technology disaster recovery testing. BlackRock is in constant contact with third party service providers in the course of supporting our day-to-day operations, and, therefore, has an ongoing relationship and understanding of our providers' performance in their given areas. In addition, service level agreements and key performance indicators are metrics used to gauge and measure provider performance and adherence to BlackRock's operational requirements.

As it relates to BCP, asset managers should review the BCPs and technology DRPs of critical third party service providers both during the initial due diligence process and then on an ongoing basis, thereafter. As part of these reviews, onsite meetings are typically conducted in which individual contingency plans are reviewed, evaluated, and, where appropriate, tested. These standards are to ensure that key incidents faced by third party service providers will not have an adverse impact on the asset manager's business. This helps asset managers ensure that their service providers are appropriately prepared to handle adverse circumstances and mitigate risk, while continuing to provide their services during such a crisis.

The level of engagement with providers will likely vary based on the services being provided and potential impact to the asset manager should the vendor's services be interrupted. Written contracts with third party service providers should clearly outline the duties, obligations and responsibilities of each third party. We require critical third parties to be contractually obligated to notify us when changes to their business continuity program are made and to provide results of business continuity testing annually. Based on reviews of third party service providers, additional measures may need to be taken to ensure there is alignment in communications with the service provider, were a disruptive event to occur.

In conclusion, while operational risk, including business continuity risk, is certainly an important concern for asset managers, there are many established practices in place, including regulatory oversight, that help asset managers plan for, manage, and mitigate operational risk. While it is important for asset managers to ensure they have adequate controls to mitigate operational risk and ensure their commercial viability, it is also important to recognize that even in the extreme scenario where an asset manager's controls were so poor or a massive business disruption occurred so as to cause the manager to cease doing business, this would not lead to systemic risk. This is because unlike a bank failure, this scenario would not result in a first-mover advantage or an incentive to suddenly liquidate assets.

3.2 What are the risks associated with transferring client accounts or assets from one manager to another and how do these risks vary depending on the nature of the client, the asset types owned by the client (e.g., derivatives), or how the asset type is traded or cleared? For certain asset classes or strategies, are the number of asset managers offering a comparable strategy so concentrated that finding a substitute would present challenges? How rapidly could investment management accounts be transferred, including during a time of financial market stress?

As mentioned in our response to Question 3.1, transitioning the management of client assets from one manager to another occurs regularly in the normal course of business. In the case of separate accounts, separate account clients initiate and terminate IMAs frequently for a variety of reasons, including changes in the client's asset allocation, poor performance or client service on the part of the asset manager, and administrative consolidation. Such changes can be implemented on short notice, sometimes in as little as 24 hours, with no noticeable market impact.¹⁵⁰ While a typical search by an institutional client for a new manager usually takes several weeks or even months, clients can and do move quickly when situations necessitate. In our experience, there have been numerous situations where we assisted a client by taking on investment management responsibility for a separate account on extremely short notice.¹⁵¹ Substituting asset managers can be achieved quickly because client separate account and fund assets are held with custodians who are contractually obligated to the asset owner or fund (not the asset manager). Custodians hold the assets regardless of which asset manager the asset owner selects to manage their assets. As such, clients can re-direct the management of an existing portfolio of securities to another manager. Importantly, assets are not required to physically move when there is a change of asset managers; assets remain with the custodian in client denominated accounts.

With respect to clients invested in CIVs, if a client wishes to replace a manager by redeeming their assets from a fund, the structure of funds and applicable legal requirements significantly mitigate the risk that large fund redemptions will have a broader impact on the markets.¹⁵² In particular, even in the instance where the manager of a CIV goes out of business, fund risk is mitigated due to fund board oversight, which allows boards to implement an expedited asset manager replacement process on an emergency basis. The 1940 Act provides for this very situation by allowing 1940 Act Fund boards to replace a manager on a temporary basis without a shareholder vote.¹⁵³

There are several examples where the management of CIVs was transferred from one asset manager to another without requiring significant asset liquidations or causing any other disruptions to markets. For example, the chief executive and founder of Strong Capital

¹⁵⁰ We believe that the transition of separate accounts from one manager to another is typically no more difficult or impactful than transitions of other types of accounts or pooled vehicles. In some cases, asset sales may be directed by the client, but based on our experience, this would apply to a very limited amount of separate account assets. Therefore, these transitions would not contribute to systemic risk. See BlackRock, Comment Letter, Addendum to Feedback on OFR Study on Asset Management and Financial Stability – SEC (Dec. 3, 2013), available at <http://www.blackrock.com/corporate/en-us/literature/publication/ofr-study-addendum-sec-120313.pdf>.

¹⁵¹ For example, Barclays Global Investors (“BGI”) took on several international equity mandates on short notice in 2003 when Putnam Investors experienced significant reputational harm due to accusations that two portfolio managers were accused of market timing abuses in their funds.

¹⁵² We have made several recommendations in Section I to further improve protections offered to investors in certain funds.

¹⁵³ 15 U.S.C. § 80a-15. 1940 Act Rule 15a-4 provides that, subject to certain conditions, a fund board can appoint a new investment adviser to a fund for a period of up to 150 days without first obtaining shareholder approval of the new advisory contract. The Rule permits fund boards to appoint a new adviser in an emergency situation where the original adviser's contract has been terminated.

Management was implicated in facilitating market timing abuses in September 2003, at which time Strong Capital managed approximately \$42 billion in client accounts. Because of the severe reputational damage caused to Strong Capital as a result of this issue, the funds managed by Strong Capital were acquired by Wells Fargo in 2005.¹⁵⁴ Through this transaction, Strong Capital's funds were reorganized into the *Wells Fargo Funds*[®] family. The legal entities comprising the Strong Financial complex were subsequently liquidated. To our knowledge, there was no market impact or forced asset liquidations as a result of the circumstance. In a similar example during the same time period, Pilgrim Baxter & Associates, manager of the PBHG fund family, suffered severe reputational damage when principals Gary Pilgrim and Harold Baxter were accused of fraud and breach of fiduciary duty for allowing market timing abuses in the funds they managed at the end of 2003.¹⁵⁵ As a result of the reputational damage from the scandal, PBHG funds lost more than one-third of their AUM in one year. The PBHG funds were rebranded under the name of Pilgrim Baxter & Associates' parent company, Old Mutual, in 2005, and Pilgrim Baxter & Associates changed its name to Liberty Ridge Capital.¹⁵⁶ To our knowledge, this did not have a material market impact.

We believe that the processes required to transition the management of client accounts from one manager to another would remain more or less the same during times of market stress, which we would define as significant changes to market risk factors, including downgrades of securities in a particular sector, an unexpected fluctuation in currency valuation, a major shift in asset allocation by a large asset owner, or a natural disaster that disrupts markets in a certain region. Additional time could be required in these situations, but we do not believe that the process or time presents risks to the financial system. There are many recent examples (e.g., the Swiss National Bank currency announcement in January 2015, Japan's Government Pension Investment Fund rebalancing of its strategic asset allocation, and Hurricane Sandy), where these types of events external to asset managers have occurred with no impact on clients' ability to change managers if they desired to do so. This is in part because the types of events that cause market stress are unrelated to the asset management industry. Clients recognize the difference between idiosyncratic risks related to a particular manager and the potential of investment losses from market-related risks and decisions to change managers are not driven by market stress events.

Competition and Substitutability of Asset Managers

The asset management industry is highly competitive and there are numerous competitors across asset classes and investment strategies. There are many commercially available data sources that provide information about asset managers and their investment products. These data sources are used by asset owners and their consultants to identify

¹⁵⁴ Wells Fargo, Press Release, (May 26, 2004), available at http://www.wellscap.com/docs/press_releases/5.26.04.pdf. The transaction closed in 2005. Wells Fargo, Press Release, *Wells Fargo Becomes One of Nation's 20 Largest Mutual Fund Companies with Acquisition of Strong Financial Corporation Assets* (Jan. 3, 2005), available at <http://www.prnewswire.com/news-releases/wells-fargo-becomes-one-of-nations-20-largest-mutual-fund-companies-with-acquisition-of-strong-financial-corporation-assets-53825057.html>.

¹⁵⁵ Leticia Williams and Jonathan Burton, *Pilgrim Baxter Charged with Fraud*, MarketWatch, available at <http://www.marketwatch.com/story/pilgrim-baxter-founders-face-fraud-charges?siteid=google&dist=google>. On November 17, 2004, the SEC issued a press release stating that both Pilgrim and Baxter had agreed to personally pay a total of \$160 million to settle the fraud charges and both were also permanently barred from the investment industry and Pilgrim Baxter and Associates were required to pay \$90 million to be distributed to injured investors. See SEC Press Release, *Harold Baxter and Gary Pilgrim Agree to Pay a Total of \$160 Million to Settle Fraud Charges Concerning Undisclosed Market Timing* (Nov. 17, 2004), available at <http://www.sec.gov/news/press/2004-157.htm>.

¹⁵⁶ Todd Mason, *PBHG to Vanish from 18 Funds' Names*, (Nov. 9, 2015), available at http://articles.philly.com/2005-11-09/business/25431928_1_pbhg-funds-gary-pilgrim-liberty-ridge-capital.

managers that meet particular needs. For example, eVestment is one of several commercially available databases listing asset managers and their strategies, including separate accounts. Strategic Insight's Simfund, Lipper, and Morningstar databases have comparable data on mutual funds.

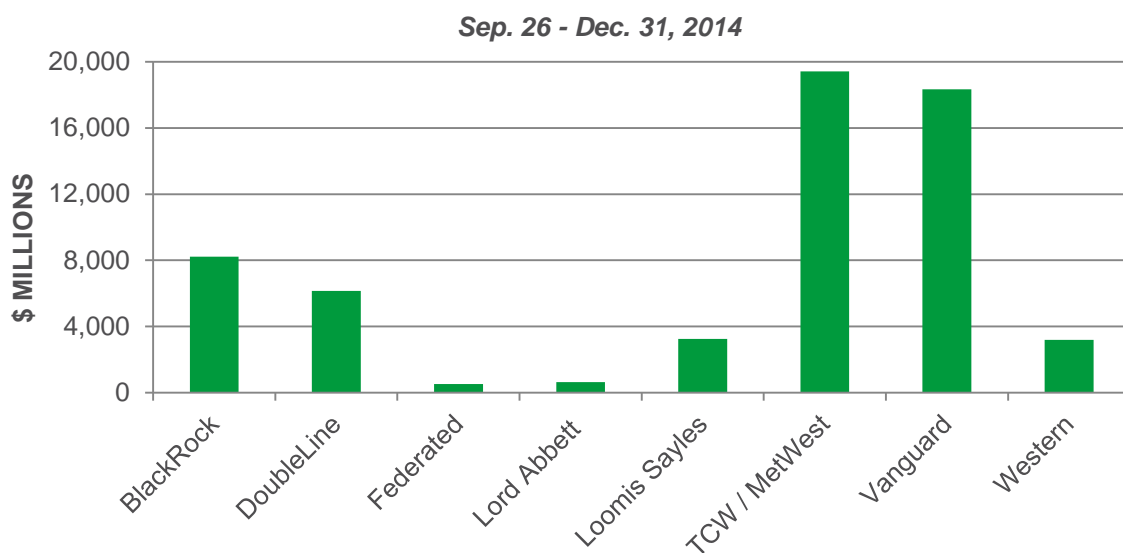
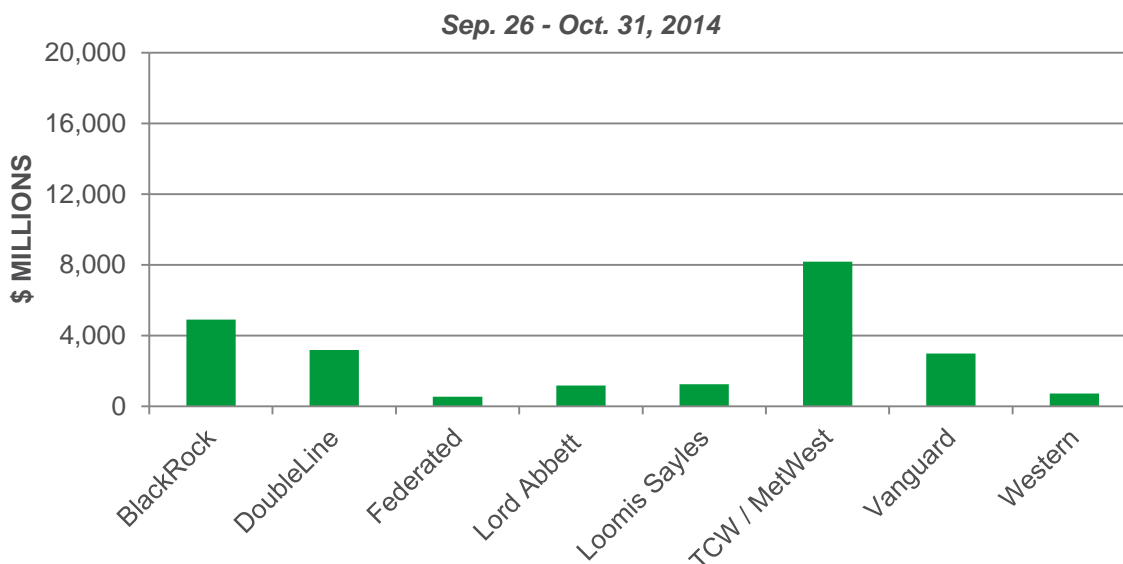
The recent example of outflows from PIMCO's Total Return Strategy following the resignation announcement of lead portfolio manager Bill Gross is a good example of the ability to transition large amounts of assets from one manager to another without market disruption and also demonstrates the large number of competitors in the industry. Outflows from PIMCO funds were primarily observed in products most closely associated with Bill Gross as the portfolio manager. October outflows from PIMCO totaled \$48 billion, 70% of which came from funds previously managed by Gross.¹⁵⁷ Likewise, the PIMCO Total Return Fund saw overall outflows of \$68 billion from October 2014 through January 2015, with larger outflows in both January 2015 and December 2014 than in November 2014.¹⁵⁸ While specific attribution of the aggregate outflows to receiving funds is difficult to ascertain, public data show that the flows were spread across multiple firms, products, and investment strategies, reflecting a high level of competition in the asset management industry. Various asset owners chose between active, passive, and unconstrained strategies offered by more than a half-dozen asset managers (see Exhibit 9); the data indicate that some clients may have bought shares in fixed income ETFs.¹⁵⁹ Despite this, fixed income markets, including related derivative instruments, continued to function in an orderly manner during this period of relatively low market liquidity.

¹⁵⁷ See Kirsten Grind, *Pimco Sees \$48 Billion in Outflows After Gross Departure* (Nov. 5, 2014), *The Wall Street Journal*, available at <http://www.marketwatch.com/story/pimco-sees-48-billion-in-outflows-after-gross-departure-2014-11-05>. Oliver Suess, *Pimco Offers Special Post-Gross Bonus to Retain Talent* (Nov. 7, 2014), *Bloomberg*, available at <http://www.bloomberg.com/news/articles/2014-11-07/pimco-offers-special-post-gross-bonus-to-retain-talent>.

¹⁵⁸ See PIMCO Press Releases, available at <http://www.pimco.com/en/pressreleases/Pages/PressReleasesOverview.aspx>.

¹⁵⁹ BlackRock, *ViewPoint, ETFs Help Improve Market Stability: A Closer Look at Fixed Income ETF Behavior During Recent Bond Market Movement* (Oct. 30, 2014), available at <https://www.blackrock.com/corporate/en-us/literature/whitepaper/etfs-help-improve-market-stability-october-2014.pdf>.

Exhibit 9: Flows for Selected 1940 Act Open-End Mutual Funds



Source: Morningstar. 6 Feb. 2015. The data shown includes actively managed and index intermediate-term, short-term and unconstrained bond strategies. Excludes ETFs.

Transitioning Derivatives Positions

Some commentators have focused on the transfer of “derivatives” positions as a potential impediment to transferring the management of client accounts from one asset manager to another. The use of central clearing as a result of OTC derivatives reforms that were mandated by the Dodd-Frank Act has resulted in greater standardization and transparency for centrally cleared OTC derivatives. Continued focus on standardization of terms in the derivatives market will increase transparency, minimize customized terms, and help ease the process of transferring derivatives positions from the trading control of one manager to another.

An important point of context within this discussion is that the transfer of derivative positions differs by type of derivative. For example, the dynamics of transferring management of exchange traded derivatives differ substantially from transferring management of OTC derivative positions. Likewise, there is differentiation based on the underlying asset class (e.g., foreign exchange (“FX”) forwards, commodity futures and interest rate options). Exchange traded derivative contracts are normally held at the central clearinghouse in client designated accounts which can be transferred easily and quickly from the control of one manager to another. This is particularly true when the same clearing member is used by both the new and existing (or “legacy”) asset manager. Transitioning OTC derivatives contracts presents more operational challenges; however, such transitions can be managed, though they may take longer to accomplish. The terms (including economic and non-economic terms) of OTC contracts may be negotiated by the asset manager on behalf of a number of clients rather than by the individual clients themselves. Thus, transitioning these contractual arrangements may be more expeditiously accomplished, in some cases, through the unwinding of contracts rather than amending agreements to reflect the contract terms available to the new asset manager. The positions would then be re-established under new contractual arrangements.

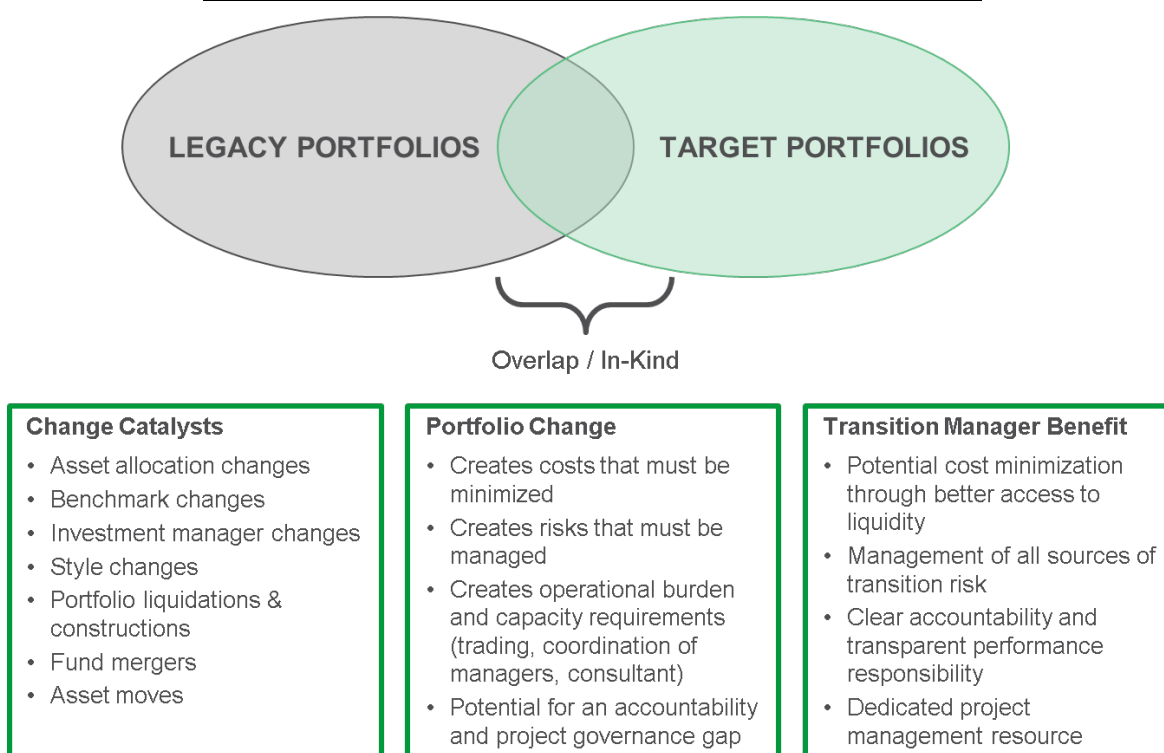
The standard transition management practice for OTC instruments is for the legacy manager to close positions and the new manager to open desired positions concurrently. For liquid and transparent OTC derivatives, this provides clients with the ability to economically move positions among managers quickly and efficiently with minimal cost and risk. The recent experience with the PIMCO Total Return Strategy was instructive in this regard. In our experience with separate accounts that were transferred from PIMCO to BlackRock, all OTC derivatives positions were unwound by PIMCO during this time period for cash and re-executed by BlackRock, where necessary, and in line with the investment strategy that we agreed to with the client.

Role of a Transition Manager

As a market practice in place today to effect the transfer of accounts and assets, we highlight the existence of a specialized business referred to as “transition management,” where firms have developed expertise in the process of facilitating and coordinating the transition of asset management from one manager to another, or from one asset class or investment strategy to another. Given the frequency of such transitions, there are a number of competitors in the transition management business.¹⁶⁰ Transition managers can be employed when there is a change to investment strategy, regardless of whether a change to investment strategy is concurrent with a change to the asset manager managing the assets. In cases where a change to investment strategy by a large institutional asset owner is taking place – for example, if an asset owner decides to increase their strategic asset allocation to Asian Equities by reducing an allocation to European Equities – asset owners will often employ a “transition manager” who specializes in these situations. Exhibit 10 provides an overview of the reasons why an asset owner might elect to use a transition manager.

¹⁶⁰ BlackRock, Citigroup, Frank Russell, Northern Trust, and State Street among others operate a transition management business.

Exhibit 10: Why Asset Owners Use Transition Managers



Asset owners typically employ a transition manager to help the asset owner minimize transaction costs associated with the transition and mitigate potential exposure, execution, or operational risks to the asset owner by coordinating the transition with all service providers to the client's account, including custodians and the legacy and new asset managers. Transition managers begin the transition process by identifying securities that do not need to be bought or sold when there is overlap between the legacy and new investment strategies. Transition managers identify optimal sources of liquidity for the particular asset classes and determine a transition plan with the goal of mitigating transaction costs and investment risk during the execution of the transition. The liquidity of the securities being bought or sold in a transition is an important consideration in transition management (and the management of a client's expectations for a transition), as liquidity can determine how expensive it will be to buy or sell securities at a given point in time and how long it may take to do so. In some instances where a client is trying to buy or sell a security or securities that have liquidity challenges, more liquid interim exposure vehicles or hedging instruments such as FX forwards, ETFs, or futures contracts may be available to provide similar investment exposures for the asset owner until a more optimal time to buy or sell the underlying securities can be achieved. In these cases, transition managers will typically work closely with the client to determine the client's preferences.

3.3 What market practices, processes, and systems need to be in place to smoothly effect transfers of client accounts or assets by asset managers and/or custodians? What differences exist in information technology systems, processes, or data formats that could pose operational risk, particularly when markets are stressed? Are there specific risks related to foreign clients, foreign custodians, foreign assets, or the use of offshore back-office operations?

Given that clients' assets (whether funds or separate accounts) are held by a custodian, not the asset manager, the discussion of transferring management of client assets from one asset manager to another is different from the transferring of assets from one custodian to another.¹⁶¹ A change from one asset manager to another requires a communication mechanism on the part of the asset owner to inform their custodian that their present manager is no longer authorized to manage the account and instructions to allow a new manager to manage the assets. At the manager level, this would entail contracting between the client and the asset manager, usually under an IMA (or the modification of an existing IMA that is already in place) to engage the services of the new manager and establish other authorizations including trading authorization. These processes can be effectuated very quickly. Once a new manager is responsible for managing client assets, it can quickly and easily obtain an asset listing in a standard electronic format from the client's custodian so that the new manager can load the portfolio onto its own systems to take trading control and oversight of the portfolio according to the asset owner's direction. This change of manager does not require the sale of securities, unless the target portfolio differs from the legacy portfolio.¹⁶² With respect to foreign assets, when transitioning separate account assets, the foreign market paperwork is held in the client's name, allowing the new asset manager to begin management in a short period of time. In the case of transitioning the management of CIVs, there may be limited circumstances where the manager may be required to complete new documentation to operate in the foreign market on behalf of the CIV, if the new manager did not already have the proper documentation in place to trade in that market.

The decision to change a custodian is driven by the asset owner or fund board, not the asset manager. As such, most asset managers interact with and maintain connectivity with multiple custodians, given that clients and fund boards can select the custodian of their choice. For example, BlackRock client portfolios are held at more than 80 custodian banks worldwide, including BNY Mellon, Citibank, J.P. Morgan, Northern Trust, State Street, and all other global custodians. In our experience, asset managers leverage common communication protocol and interfaces to custodians and industry utilities enabling smooth and quick transition when required. While the potential failure of a custodian bank could be a disruption for asset owners whose assets are held at the custodian, the fact that asset managers maintain connectivity with multiple custodians means that management of client accounts could resume very quickly once the client re-established a custodial relationship with a new custodian.

With respect to foreign custodians, the majority of the largest U.S. custodians are multinational corporations which are highly regulated in multiple jurisdictions, mitigating the potential risk associated with foreign custodians.¹⁶³ Further, Section 17 of the 1940 Act imposes

¹⁶¹ While some asset managers use affiliated custodians, the custodians have direct obligations to the client to hold and safekeep assets.

¹⁶² As discussed in our response to Question 3.2, transitioning derivatives positions as part of a transition to a new manager and under certain circumstances, a derivatives position could be closed out.

¹⁶³ "Service providers (in particular, custodians) are generally themselves subject to significant regulation, including prudential regulations relating to systemic risk." Financial Services Roundtable, Comment Letter, Response to FSB-IOSCO's Consultation Regarding Assessment Methodologies for Identifying Non-Bank Non-Insurer Global Systemically Important Financial Institutions

a burden on global 1940 Act Fund custodians to have vendor management programs for all sub-custodians, including specific contractual provisions to protect fund assets and regular oversight of sub-custodians. For these reasons, we do not believe that foreign clients or foreign assets substantially change the risks involved.

3.4 While asset liquidation is not required for, and is not typically associated with, the transfer of client accounts, are there any significant risks of asset liquidations in the event of a large-scale transfer of accounts or assets from an asset manager?

As noted in the question itself, "asset liquidation is not required for, and is not typically associated with, the transfer of client assets." This is particularly true because assets are held by the custodian, not by the asset manager, so a change in manager does not require physical movement or sale of securities. Further, when transitioning management of an account from one asset manager to another, an asset owner has no incentive to sell securities. In our experience, large-scale asset liquidations are not correlated with a change in the management of assets from one manager to another. Further, in instances where a large institutional client is invested in a CIV and decides to change to another fund, an in-kind redemption may be requested, as this provides an option to reduce the transaction costs that could be associated with redeeming a large position in a fund for cash and then re-establishing a similar set of exposures by subscribing to a similar fund managed by a different manager. As noted in our response to Question 3.2, the industry has experienced situations where the management of CIVs was transferred from one manager to another without requiring large-scale asset liquidations.

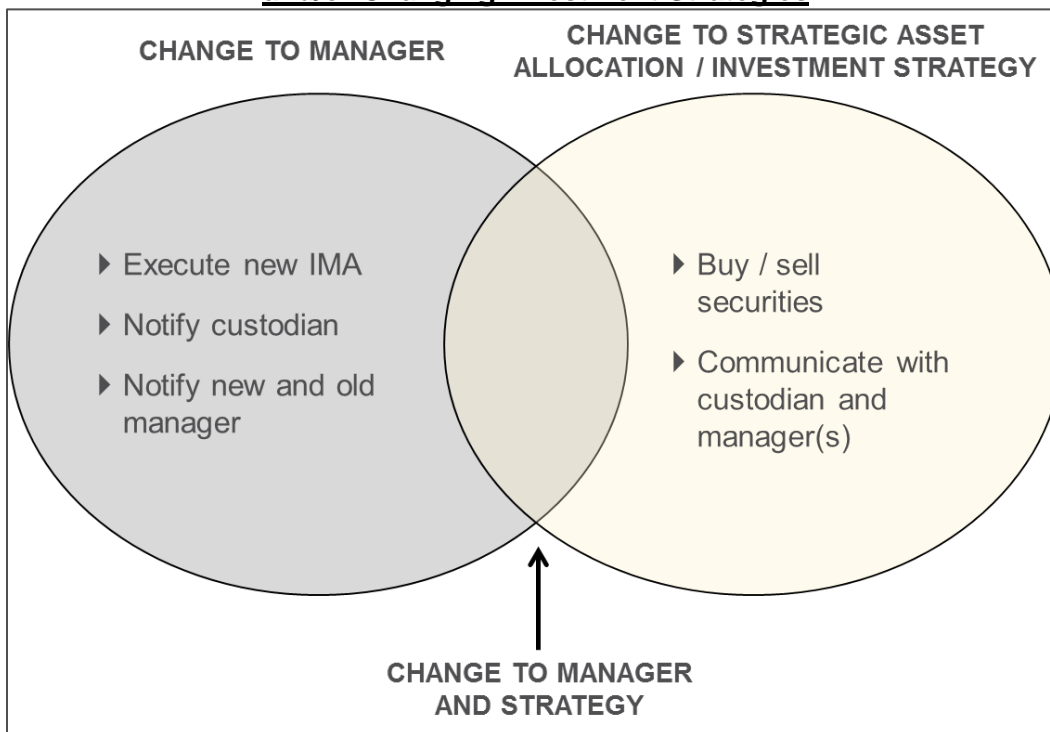
The liquidation of certain securities only becomes necessary if the asset owner makes a decision to alter their asset allocation. For illustrative purposes, we will use a hypothetical example of how this occurs in practice. Let's assume that a large pension plan decides to reduce its allocation to EMD by 10% and increase its allocation to U.S. fixed income by 10% at the advice of its institutional investment consultant. The pension's holdings in EMD are currently managed by an EMD specialist asset manager. The client conducts a manager search for a U.S. fixed income manager, including issuing a request for proposal ("RFP") and attending several onsite due diligence meetings with its consultant. The search concludes, and the client selects a new manager for the new allocation to U.S. fixed income. To effectuate the change in asset allocation – reducing EMD holdings and increasing U.S. fixed income holdings – the client hires a transition manager to coordinate the transition and minimize the transaction costs associated with this change in strategic asset allocation. A new IMA is executed with the new manager and the client's custodian is notified of the change. The EMD specialist manager is notified that the client will be reducing its allocation and possibly terminating its contract. As demonstrated by this example, the decision to change investment strategy from EMD to U.S. fixed income is a separate decision from the change to investment manager. The buying and/or selling of securities is the result of the change in strategic asset allocation, not the change in manager. In this typical example, the process takes several weeks or months.

In contrast, the change from one manager to another without a change to strategy only requires a set of documentation (e.g., IMAs) that can be executed very quickly. Further, a change to manager without a change to strategy does not require (or in any way incentivize) the buying and/or selling of securities. This would be true both in the normal course of business and in extreme scenarios where an asset manager would suddenly be unable to operate. In our

(Apr. 7, 2014), available at <http://fsroundtable.org/letter-re-assessment-methodologies-for-identifying-non-bank-non-insurer-global-sifis-4-7-14/>.

experience, when the situation necessitates, clients can and do effectuate changes to investment managers very quickly and without impacting markets. Exhibit 11 outlines the different actions required when changing managers and changing strategies at a high level.

**Exhibit 11: Actions Required when Changing Managers
and/or Changing Investment Strategies**



3.5 To what extent do asset managers rely on affiliated or unaffiliated service providers in a concentrated or exclusive manner for any key functions (e.g., asset pricing and valuation, portfolio risk modeling platforms, order management and trade processing, trading, securities lending agent services, and custodial services)? What would be the impact if one or more service providers ceased provision of the service, whether due to financial or operational reasons, or provide the service in a seriously flawed manner? To what extent do potential risks depend upon the type of service provided, whether the provider is affiliated with the asset manager, or whether the service provider is non-U.S. based? What due diligence do firms perform on systems used for asset pricing and valuation and portfolio risk management?

There is no single operating model within the asset management industry. Every firm has a different philosophy on which operating processes they want to control directly versus which processes they want to outsource, which leads to a very diverse set of business models across the industry. In some cases, economies of scale and the ability to provide cost-effective services may be a factor in decisions to select one or more external service providers, while affiliations with large banks (e.g., J.P. Morgan, State Street) may present other reasons to conduct processes in-house or with affiliates. As a result, there are a variety of different operating models used by asset managers that range from fully outsourced middle and back office functions to full execution of these functions in-house. Below we have categorized asset management operating models broadly into three different categories. In general, we find that

the selection of an operating model among asset managers is not particularly correlated with AUM, as the use of each model is well-distributed across the industry, with each model having pros and cons for large and small managers alike. We do not believe that affiliations, or lack thereof, with service providers change the nature of risks or potential risks to U.S. financial stability.

Asset Management Operating Models

In a **fully insourced model**, both the middle and back office functions are performed internally by the asset manager. This model requires direct investment in personnel, technology, and other resources that are dedicated to middle and back office functions.

In an **insourced middle office/outsourced back office** model, middle office services are conducted in-house, while back office functions including fund accounting, fund administration, and transfer agency services are outsourced.

This is the operating model currently employed by BlackRock. In our case, leveraging our single operating platform, our business operations team manages the traditional middle office functions including trade support services, data management, corporate actions, cash/position reconciliation, and client reporting. In addition, the group ensures post-trade compliance and reconciles with the third party service providers, providing back office services, including fund administrators and transfer agents. And, the business operations team oversees relationships with the custodians used by our CIVs and separate account clients.

In a **fully outsourced** model, the asset management firm hires an outside service provider (or providers) to perform all activities post trade execution, including all of the traditional middle and back office responsibilities. Key providers of this level of outsourcing services include BNY Mellon, J.P. Morgan, Northern Trust, and State Street. In addition, a number of smaller independent service providers have developed similar capabilities targeted to smaller firms and hedge funds.

The options available to both large and small asset managers to outsource middle and/or back office functions have increased significantly over the last several years.¹⁶⁴ In some cases, service providers have conducted what is called a “lift out” where previously insourced functions of an asset manager are outsourced to an external party and can also include transfer of personnel from the asset manager to the external party.¹⁶⁵ This allows the asset manager to concentrate its resources on its core activity of investment management.

¹⁶⁴ Jackie Noblett, *Middle Office Outsourcing: No Longer Just for Big Shops* (Jan. 15, 2015), Ignites, available at http://ignites.com/c/1045083/107583/middle_office_outsourcing_longer_just_shops?referrer_module=emailMorningNews&module_order=4&code=Y21GamFHVnNMbUpoY25KNVFHsnNZV05yY205amF5NWpiMjBzSURNNU1UWTVOak1zSURreU56SXIPV FUzT0E9PQ.

¹⁶⁵ See, e.g., *T. Rowe Negotiating Ops Lift-Out With BNY Mellon* (Aug. 11, 2014), Ignites. See also, *BBH, OppenheimerFunds Ink Deal* (Sep. 23, 2010), Institutional Investor, available at http://www.institutionalinvestor.com/Article/2676216/BBH-OppenheimerFunds-Ink-Deal.html#_VMKQjtj0zcs.

Securities Lending

In the case of securities lending, investors (for certain pooled funds), asset owners (for separate accounts), and fund boards (or the equivalent) must first make the decision whether they want to participate in a securities lending program. If an asset owner or fund board wants to conduct securities lending, they must then either decide to lend directly (some large pension plans and sovereign wealth funds are direct lenders) or select a lending agent. For an institutional investor in a pooled vehicle, the decision is whether (or not) to invest in a product that engages in securities lending. In many cases, clients select their custodian as their lending agent due to the linkage with securities movement as well as leveraging the overall business relationship. However, some clients or funds may instead select a lending agent that is affiliated with their asset manager or appoint an unaffiliated third party as lending agent completely independent of either the custodian or asset manager.¹⁶⁶ As discussed in Question 1.4, BlackRock has a securities lending business where BlackRock acts as the lending agent. We believe that an integrated lending model in which a client's asset manager is appointed as the lending agent can be advantageous and risk reducing for clients or funds that elect to conduct securities lending.

With respect to due diligence performed on third party service providers, please see our response to Question 3.1.

3.6 What operational interconnections exist between the asset manager and the investment vehicles it manages, among investment vehicles managed by the same asset manager or affiliated managers, or between the asset manager and its affiliates? For example, to what extent do asset management firms rely on shared personnel, technology, or services among affiliates? Could any of those interconnections result in operational risk transmission among affiliated investment vehicles or asset managers in the event of a failure and resolution of an affiliate? Do market practices ensure that operational interconnections are sufficiently documented to allow for an orderly continuation of an investment vehicle's operations if the asset manager or affiliated or independent third-party service providers were to declare bankruptcy?

As we explained in our response to Question 3.5, asset managers have a diverse set of operating models with respect to insourcing or outsourcing operational support functions, and this can include affiliations with service providers for some managers.

Asset managers use shared personnel, technology, and services for a variety of activities related to the funds and accounts they manage. This is inherent in the economies of scale that make asset management companies economically viable. However, as we described in our response to Question 3.1, this does not present a "risk" to U.S. financial stability. To the contrary, we believe shared personnel and redundancies in terms of expertise and training of employees along with access to portfolio data, systems, etc. in multiple locations around the world is a benefit that can help managers continue to operate normally, even when a disruption occurs in one office or region. To this end, we view our ability to transfer work across our offices globally as an important benefit for our clients and protection to ensure we can provide asset management services to our clients at all times. By having staff that utilize shared systems and common processes, we are able to service our client base from our offices around the world. In the event of a disruption that impacts one office or region, work can be transferred

¹⁶⁶ eSecLending is an example of a lending agent that is not affiliated with a custodian or an asset manager.

to staff at other locations. This capability is included in BlackRock's BCPs and in many cases is utilized in the course of normal business. We believe shared personnel, technology, and/or services are risk mitigants, not risk transmission mechanisms. In practice, asset managers with operations in multiple locations, particularly global managers, have an advantage in achieving this level of redundancy. The Council should survey responses of managers of different sizes and different geographic footprints to gain a better understanding of the differences in BCM practices in the industry.

With respect to ensuring sufficient documentation to allow for orderly continuation of an investment vehicle's operations were an asset manager to declare bankruptcy, we would highlight the fact that investment vehicles are separate legal entities, independent of the asset manager with assets separately safe-guarded. Additionally, as we will explain in our responses to Section IV, asset managers do not suddenly cease operations the way banks can suddenly fail. As such, this scenario is extremely unlikely to occur in the manner suggested in the question.

Critical third party service providers are typically contractually obligated to provide asset managers with their BCP programs, and annually provide program changes and test results. Asset managers incorporate the plans of service providers into their own BCPs. See our response to Question 3.1 for further detail.

3.7 What are best practices employed by asset managers to assess and mitigate the operational risks associated with asset management activities performed by service providers, whether affiliated with the asset manager or not, and how common are these practices across the industry? What agreements or other legal assurances are in place to ensure the continued provision of services? What are asset managers' contingency plans to deal with potential failures of service providers, and how might these plans be impacted by market stress?

See response to Question 3.1.

3.8 To the extent that any operational risks in the asset management industry present risks to U.S. financial stability, how could these risks to financial stability be mitigated?

We do not believe that operational risks specific to the asset management industry present risks to U.S. financial stability, as discussed throughout this section.

IV. Resolution

4.1 What financial interconnections exist between an asset manager and the investment vehicles it manages, between an asset manager and its affiliates, or among investment vehicles managed by the same or affiliated asset managers that could pose obstacles to an orderly resolution? To what extent could such interconnections result in the transmission of risk among asset managers and affiliated investment vehicles? Do market practices ensure that any financial interconnections are sufficiently documented to allow for an orderly continuation of operations if an asset manager, investment vehicle (e.g., private fund), or affiliate were to become insolvent, declare bankruptcy, or announce an intent to close?

Resolution is a concept generally associated with entities that may fail in a way that requires governmental intervention. The presence of insured deposits, access to the Federal Reserve discount window, the use of the firm's balance sheet as counterparty to client trades and derivative transactions, exposure to short-term funding, and other basic features of the bank business model make resolution planning a very important aspect of bank regulation. The relationship of an asset manager to the investment vehicles it manages is most analogous to the relationship any provider of services has to its customers – they provide specified services and receive fees for those services. The relationship of asset managers to the investment vehicles it manages is not analogous to commercial banks and other balance sheet lenders that utilize the capital and deposits of the bank or other affiliate to finance the lending or other activities of another member of the affiliated group. This difference in business model means that balance sheet lenders are much more likely to have financial interconnections between and among affiliates that will need to be unwound in the event of insolvency of one such affiliate.

As noted in our response to Question 3.5, investment vehicles are separate legal entities, independent of the asset manager.¹⁶⁷ Asset managers do not make loans or provide guarantees to funds that they manage.¹⁶⁸ Asset managers do not serve as counterparty to derivatives or securities transactions.¹⁶⁹ There are few, if any, financial interconnections that exist between the manager and investment vehicle – other than the fact that the fund is obligated to pay the asset manager for its services and may also be obligated to reimburse the manager for certain expenses incurred on behalf of the fund. These obligations will be contained in the IMA or similar document. If a fund closes, the relevance to the manager is the loss of revenue from managing the fund and possible reputational costs if the closure was the result of poor performance. If the manager ceases business operations, the fund will either substitute a new manager, or conduct an orderly liquidation of its assets. If in the unlikely circumstance an asset manager were to be declared bankrupt, under no circumstances will the assets of the fund be part of the bankruptcy estate of the manager.

As separate legal entities, CIVs share few if any financial interconnections between one another, even when advised by the same manager or affiliated managers. The assets of one fund are segregated from the assets of any other fund, and the obligations of one fund are not guaranteed by any other fund. Under limited circumstances in some jurisdictions, a fund may

¹⁶⁷ Similarly, separately managed accounts are not commingled with the assets of the manager; the asset owner retains title to these assets and in the event the manager were to cease operations due to financial distress leading to bankruptcy, the asset owner will reclaim control of its assets and transfer management responsibility to another manager.

¹⁶⁸ In limited circumstances, managers may prepay expenses that may ultimately be borne by the funds. These situations are rare.

¹⁶⁹ Affiliates of asset managers may act as agents for funds in connection with certain types of transactions (e.g., Rule 17e-1 brokerage transactions for 1940 Act Funds).

make loans to another fund but the requirements surrounding such loans are very strict and are subject to extensive conditions.

We understand that policy makers are interested in the circumstances that cause a manager to cease doing business. Asset management companies close for the same reasons any service company closes: its fee income (its primary source of revenue) is insufficient to support its operations or provide sufficient return for its shareholders. The reasons for this are again similar to any other provider of services: failure to attract or maintain a large enough client base / AUM (fees are usually a function of AUM). There are myriad reasons for this – newly established managers may find it difficult to attract assets to manage because their performance is untested; an established manager may have performance issues in its funds, or it may have a limited number of strategies that it offers which fall out of favor with investors. Changes in portfolio managers, or uncertainty created by executive management changes can cause asset owners to move their business elsewhere. Reputational events such as regulatory sanctions can also cause a manager to lose assets.

However, the closure of an asset manager – even in the unlikely event it were to occur over a short period of time – does not have the same potential financial market implications that the failure of other financial institutions such as commercial banks, broker-dealers and insurance companies have, for the reasons described throughout this letter. An asset manager's obligation to its clients is to provide services, not to repay principal (banks) or to make payments in the future based on the occurrence of certain events (insurance companies), and unlike these other institutions, an asset manager does not use its balance sheet to meet these obligations.

Asset Managers are Extremely Unlikely to Suddenly Cease Operations

Banks and broker-dealers, that suddenly fail typically do so for two reasons: (i) they experience a liquidity crisis in which they cannot fund their daily operations; and/or (ii) they have a credit problem exacerbated by a leveraged balance sheet. We believe asset managers are extremely unlikely to “fail” in a sudden manner, as they are not exposed to short-term funding, and they do not have leveraged exposure to credit on their balance sheet. The business model of asset management is fundamentally different than that of other financial institutions, and thus, the likelihood of catastrophic failure of an asset manager is extremely low.

Asset managers do not use short-term funding to run their business in the same way a bank or broker-dealer does, and asset managers do not have the same types of asset-liability mismatches or leverage on their balance sheet. As a result, asset managers are not exposed to short-term funding markets and do not engage in the activities that banks and broker-dealers engage in, which can lead to a “liquidity squeeze.”

Poor credit quality was a key factor in the 2008 Crisis for both banks and broker-dealers, and the use of balance sheet leverage magnified the underlying problem of poor credit quality assets on their respective balance sheets. In contrast, asset managers act as agent on behalf of clients and do not use their own balance sheets in the ordinary conduct of their business (and as a result do not have large or complicated balance sheets). Asset managers are not the counterparty in trades or derivative transactions – the risk of settlement and portfolio performance is borne by the client and its counterparty. Furthermore, asset managers do not offer guarantees in connection with their asset management business, and with the exception of cash products, asset managers have not provided financial support to portfolios that they manage. Asset managers are not lending from their own balance sheet, nor do they employ

significant leverage on their balance sheet; consequently, exposure to credit risk on their balance sheet is unlikely to cause the manager to suddenly go out of business.¹⁷⁰

While most asset managers that go out of business fade over time, on occasion an idiosyncratic event can trigger a more sudden substantial client exodus, so that the asset management firm will no longer have sufficient AUM to sustain itself and will look for a buyer or begin a wind-down of its business. In analyzing the failures of asset managers over the last 25 years,¹⁷¹ we see that in nearly all of the situations, the unwind of the client assets and the manager itself was orderly. In the two cases where direct or indirect regulatory intervention occurred in relation to a fund – Long Term Capital Portfolio and Reserve Primary Fund – the asset manager itself was wound down in an orderly fashion.¹⁷² While each of these situations was extremely disruptive to the markets, both situations reflected problems with *the funds*, rather than at the manager.

4.2 Could the failure of an asset manager or an affiliate provide counterparties with the option to accelerate, terminate, or net derivative or other types of contracts of affiliates or investment vehicles that have not entered insolvency?

Certain legacy ISDA agreements between a dealer and an advised account may include a termination right for the dealer that is triggered by the insolvency of the asset manager for the advised account. In particular, certain swap agreements may historically have included such a provision in the past, and some legacy agreements including such a provision may still be in use. More recently, however, swap agreements have not contained these provisions as market practices have evolved with counterparties recognizing that while the expertise of the asset manager is important to the counterparty, the asset manager is not the principal to the transaction, and therefore the counterparty's credit assessment should be focused on the client or investment portfolio, rather than on the financial condition of the asset manager.¹⁷³

¹⁷⁰ Securities lending agents who had indemnified clients against borrower default were exposed with the failure of Lehman. While there was sufficient collateral to cover the cost of repurchasing securities in BlackRock's program, we understand that other securities lending agents made payments to clients under indemnification agreements. However for agents that had sec lending indemnification triggered, these payments were not material to the agent (as they were not reported in the financial statements of these agents).

¹⁷¹ Supplemental Letter to SEC at 3-4, 8-10. See also Investment Company Institute, ViewPoint, "Orderly Resolution" of Mutual Funds and Their Managers 3 (Jul. 15, 2014), available at http://www.ici.org/pdf/14_ici_orderly_resolution.pdf (showing U.S. mutual funds and mutual fund sponsors routinely exit the U.S. mutual fund market).

¹⁷² LTCM did not enter bankruptcy; it continued operations after the master fund was recapitalized. Both LTCM and its master fund were wound up in 2000. With the exception of the Reserve Primary Fund, the other cash funds for which the Reserve Management Company, Inc. ("RCMI") was the investment adviser were wound down in an orderly fashion. The orderly wind-down of RCMI continues, pending the final disposition of various litigation matters. See SEC v RMCI, 09-Civ-4346 (PGG) (U.S.DC SDNY), Amended Judgment (Jan. 13, 2014); Reserve Primary Fund Securities & Derivative Class Action Litigation, 08-cv-08060 (U.S.DC SDNY) Order and Final Judgment (Jan. 13, 2014).

¹⁷³ Completely apart from its asset management activities, like most large corporations, BlackRock's treasury group does engage in hedging activities using derivatives, and those transactions are often entered into by BlackRock subsidiaries which are guaranteed by the parent company. The failure of the parent guarantor would typically allow a dealer counterparty to close out the transaction with the guaranteed subsidiary. However, it is important to note that such activities are completely separate from, and miniscule in comparison to, the transactions executed by BlackRock asset managers on behalf of our clients. Any close out rights a dealer has against the guaranteed subsidiary in such a situation would not be imported into an agreement entered into by BlackRock as agent for our clients and funds.

4.3 In what ways, if any, could the potential risks associated with liquidity and redemption or leverage discussed in Sections I and II, respectively, impact the resolution of an asset manager or investment vehicle in times of financial stress?

Losses associated with liquidity risk, redemption risk, and leverage accrue to the asset owner (end-client), not the asset manager. An asset manager is expected to manage portfolios in a risk-controlled way to meet the requirements of the portfolios' redemption terms, but its obligation is limited to returning to redeeming investors their pro rata share of the net asset value of the fund either in-kind or in cash. Please see our responses in Sections I and II.

4.4 Are there interconnections that exist between asset managers and other financial market participants that in times of financial stress could transmit risks? For example, are there risks that securities lenders indemnified against borrower default by an asset manager lending agent may terminate their loans if the asset manager were to fail?¹⁷⁴ If so, could those terminations have disruptive consequences if counterparties face an unexpected requirement to return borrowed securities upon early loan terminations?

Please see our response to Question 4.1. In addition, we have described securities lending programs, including the limited borrower default indemnification provided to some lending clients by their lending agents, in detail in our response to Question 1.4. All securities lending arrangements provide for recalls by the lender with one-day notice, without regard to the underlying reason for the recall. Thus, the presumption that counterparties would face an "unexpected requirement" for "early" loan termination is misplaced.

4.5 For asset managers, investment vehicles, or affiliates that operate internationally, in what ways could cross-border resolution complicate an orderly insolvency or resolution in one or more jurisdictions? Do contracts with service providers, such as custodians or prime brokers, allow for assets to be custodied, or subcustodied, at offshore entities, and what are the implications for resolution?

As noted in our response to Question 3.1, the largest custodians are multinational, mitigating many of the potential challenges of cross-border custodial arrangements. For funds or accounts that invest internationally, assets are held within a custodian's sub-custodian network. The global custodian employs a vendor management program to monitor the performance of the sub-custodian. A common practice is to utilize multiple sub-custodians in the same market. Where financial concerns emerge about a particular custodial bank, the global custodian can effect a transfer to an alternative one. As with all custody arrangements, client assets are maintained separately from the assets of the bank, and in the event of the bankruptcy of the custodial institution, the assets would not be part of the bankruptcy estate, and would be returned to the asset owner.

4.6 What contingency planning do asset managers undertake to help mitigate risks to clients associated with firm-specific or market-wide stress?

With respect to firm-specific stress, asset managers engage in due diligence of third party service providers and counterparties in addition to business continuity planning. Clients also

¹⁷⁴ Securities lending agents indemnify some of their clients against borrower default, and under indemnification agreements, must cover the shortfall between the value of the securities on loan and the cost of repurchasing securities, if the value of the collateral pledged by the borrower is insufficient to cover this cost (but not losses resulting from cash collateral reinvestment).

undertake their own due diligence of the managers they hire as to their business continuity planning. Please see our response to Question 3.1 for further detail.

As to stress that is not idiosyncratic to a particular manager, investors understand that they are exposed to the risk of loss from market events. As described in our response to Question 1.5, fund managers engage in liquidity and redemption risk management, which includes how funds are structured in many cases. In addition to reminders about the risk of loss, disclosures are made to investors in fund constituent documents or otherwise about fund structures and redemption rights, thereby providing information to investors that they use in planning for stressed market conditions. We have made recommendations regarding disclosure to investors in our response to Question 1.8.

4.7 To the extent that resolution and liquidation in the asset management industry present risks to U.S. financial stability, how could the risks to financial stability be mitigated?

As the Council recognizes, “asset management firms and investment vehicles have closed without presenting a threat to financial stability.”¹⁷⁵ We agree with this comment, and we respectfully disagree with the premise otherwise suggested in this question. As noted in Appendix C, when managers have stumbled, no “financial instability” has resulted.

When asset managers go out of business, one of the following usually occurs: i) the sale of the asset management company, along with its existing investment management contracts, to a new owner; ii) the transfer of the IMAs and related personnel to another asset management company, followed by the liquidation of the asset management company; or iii) the winding down and subsequent liquidation of funds managed by the asset manager, followed by the liquidation of the asset management company.

4.8 What data currently are available or should be collected to monitor activities that may affect a resolution?

Asset managers produce many types of reports to many U.S. and non-U.S. regulators that include but are not limited to information on their AUM, the particular funds they manage, trade and position reporting, fee structures and contractual arrangements with clients and with third party service providers.¹⁷⁶ Asset managers are also subject to examination by their regulators – such as the SEC, the OCC, Federal Reserve (if affiliated with a bank holding company) or State Banking regulators, and non-U.S. regulators thereby providing additional information on their activities. It is unclear what additional data would be useful to regulators in assessing potential financial stability risks in financial market activities, especially since lack of harmonization in the data collected today limits the ability of regulators to effectively detect changes and trends.

¹⁷⁵ Request for Comment at 77494.

¹⁷⁶ BlackRock, Comment Letter, Feedback on OFR Study on Asset Management and Financial Stability (Nov. 1, 2013), available at <http://www.blackrock.com/corporate/en-us/literature/publication/study-of-asset-managers-sec-110113.pdf>.

Appendix A: List of BlackRock Publications on Asset Management Topics

Title	Description
Asset Management Overview	
<u>Who Owns the Assets? Developing a Better Understanding of the Flow of Assets and the Implications for Financial Regulation</u> <i>May 2014</i>	This paper explains the differences between asset owners, asset managers, and intermediaries and highlights the impact that post-financial crisis monetary policies and financial regulatory reforms have had on asset owners.
<u>Feedback on OFR Study on Asset Management and Financial Stability - SEC</u> <i>November 2013</i>	In response to the OFR's Study of Asset Management and Financial Stability, this comment letter provides background on asset management and recommends that the FSOC review investment <u>products and practices</u> to address concerns related to systemic risk.
<u>Addendum to Feedback on OFR Study on Asset Management and Financial Stability - SEC</u> <i>December 2013</i>	This letter is an additional supplement to the November 2013 letter to the OFR. It specifically addresses several frequently asked questions by policy makers in relation to systemic risk and asset management.
<u>Additional Feedback on OFR Study on Asset Management and Financial Stability - SEC</u> <i>March 2014</i>	This letter is an additional supplement to the November 2013 letter to the OFR. It specifically addresses questions raised by policy makers on the issues surrounding the winding up of both asset managers and funds.
<u>Assessment Methodologies for Identifying Non-Bank Non-Insurer ("NBNI") Global Systemically Important Financial Institutions</u> <i>April 2014</i>	In response to FSB-IOSCO's consultative document on assessment methodologies for identifying NBNI G-SIFIs, this letter recommends that regulators use leverage, not size, as the initial screen to identify funds that should be evaluated for systemic risk. The letter also recommends that the FSB work with national regulators to create a globally harmonized framework to address products and practices that present systemic risks.
<u>Financial Regulatory Reform: Looking Forward</u> <i>October 2014</i>	This memo identifies six categories of issues in asset management that warrant deeper analysis, both to develop a better understanding of asset management and to identify products and practices where changes in regulation might be beneficial.

Fund Structures and Liquidity Risk Management	
<u>Fund Structures As Systemic Risk Mitigants</u> <i>September 2014</i>	This <i>ViewPoint</i> examines and compares the structural features of several fund types across a range of jurisdictions and identifies a number of existing regulations that serve to mitigate “run risk” and protect investors.
<u>Who Owns the Assets? A Closer Look at Bank Loans, High Yield Bonds and Emerging Markets Debt</u> <i>September 2014</i>	This <i>ViewPoint</i> analyzes the dynamics of bank loans, high yield bonds, and EMD and examines the liquidity risk management practices of mutual funds that hold these asset classes.
ETFs	
<u>Exchange Traded Products: Overview, Benefits and Myths</u> <i>June 2013</i>	This <i>ViewPoint</i> provides a detailed overview of ETPs with a focus on ETFs. The paper explains some common misconceptions about how ETFs work.
<u>ETFs Help Improve Market Stability: A Closer Look at Fixed Income ETF Behavior During Recent Bond Market Movement</u> <i>October 2014</i>	This publication examines the behavior of bond markets and fixed income ETFs during the period of significant asset flows following September 26, 2014. This experience is an illustrative case study of how fixed income ETFs provide liquidity, price transparency, and fair allocation of costs amidst periods of market stability, as well as during periods when markets are challenged with uncertainty or significant asset flows.
<u>ETFs: A Call for Greater Transparency and Consistent Regulation</u> <i>October 2011</i>	In this <i>ViewPoint</i> , we provide background on the history and structure of ETFs, summarize concerns raised by regulators, and recommend reforms that would improve the marketplace for ETFs. We support uniform standards on labeling, transparency, disclosure, and reporting that would reduce systemic risk, improve investor protection, and help ensure that investors understand precisely the risks and attributes of the products that they are purchasing.
Securities Lending	
<u>ViewPoint - Securities Lending: Balancing Risks and Rewards</u> <i>May 2012</i>	In the wake of the financial crisis, securities lending has come under review by regulators in various jurisdictions. In this <i>ViewPoint</i> , we describe securities lending transactions, assess the risks involved, and respond to a series of questions posed by regulators. We also provide recommendations to improve securities lending practices.
<u>Borrower Default Indemnification in the Securities Lending Marketplace</u> <i>May 2014</i>	This memo provides an overview of securities lending and clarifies misperceptions associated with securities lending borrower default indemnification.

Role of Technology in Asset Management	
<u>The Role of Technology Within Asset Management</u> <i>August 2014</i>	This <i>ViewPoint</i> traces the role that investment technology plays throughout the asset management process, highlighting the fact that a core function of asset management technology is to support data management and information processing.
Market Structure	
<u>Central Clearing Counterparties and Too Big to Fail</u> <i>April 2014</i>	This <i>ViewPoint</i> outlines systemic risks associated with CCPs and provides recommendations on how to mitigate these risks.
<u>Corporate Bond Market Structure: The Time for Reform is Now</u> <i>September 2014</i>	This <i>ViewPoint</i> reviews how the corporate bond market is structured and identifies several issues with the current market structure for corporate bonds. In this paper, we recommend more “all to all” trading venues, adoption of multiple electronic trading protocols, standardization of select features of newly-issued corporate bonds, and behavioral changes by market participants.
<u>U.S. Equity Market Structure: An Investor Perspective</u> <i>April 2014</i>	This <i>ViewPoint</i> outlines key equity market structure issues from an investor perspective and provides recommendations for improving investor confidence. In the publication, we suggest initiatives to reduce conflicts of interest by addressing exchange access fees, enhance transparency and regulatory surveillance, curtail complexity in market structure, and ensure equal access to market data.
<u>Equity Market Structure Recommendations – SEC</u> <i>September 2014</i>	This comment letter responds to the SEC concept release on equity market structure.

Appendix B: Comparison of Fund Structures

Descriptive Details of Fund Structures						
	1940 Act Open-End Funds	1940 Act Closed-End Funds	1940 Act ETFs	CIFs	AIFMD (Open-End)	UCITS** (Open-End)
Principal Regulator	SEC	SEC	SEC	OCC*	National Regulators. Directive agreed at Pan-European level supplemented by ESMA standards.	National Regulators. Directive agreed at Pan-European level supplemented by ESMA standards.
How do Investors Buy / Sell Fund?	Through intermediary (e.g., Brokerage / RIA); Direct with fund.	Initial Public Offering (IPO) and thereafter, trading on secondary market. [Note that CEFs have the ability to issue common and 1 class of preferred shares.]	Trading on secondary market; Direct transactions between ETF and Authorized Participants ("APs") [a.k.a. creates / redeems].	Direct with bank trustee.	Through intermediary (e.g., bank or insurance channels, Independent Financial Advisors); Direct with fund via transfer agent.	Through intermediary (e.g., bank or insurance channels, Independent Financial Advisors); Direct with fund via transfer agent.
Principal Markets	US	US	US	US	Europe, Asia, Latin America	Europe, Asia, Latin America
Permitted Investor Types.	Designed for US Investors.	All	All	Investors that meet qualification criteria under applicable law (primarily institutional investors not subject to U.S. tax).	Primarily Professional Investors except where non-professional investors are specifically permitted by national regulation.	In EU, all investor types. UCITS can be sold cross-border in Europe, but elsewhere must be compliant with regulation in the country sold.
Subscription / Redemption Activity Impacts Size of Fund.	Yes.	No.	Transactions on secondary market do not necessarily impact size of fund, but creates / redeems with APs do impact size of fund.	Yes.	Yes.	Yes.
Redemption Provisions / Ability to Manage Redemptions						
Regulator has unilateral authority to suspend redemptions.	SEC can issue an order suspending redemptions.	Not applicable.	SEC can issue an order suspending redemptions.	OCC has power to compel the CIF trustee to do this.	No explicit power in directive, so likely that the regulator would need to seek court order to suspend redemptions.	No explicit power in directive, so likely that the regulator would need to seek court order to suspend redemptions.
Fund Board has discretion to suspend redemptions.	No. Prohibited unless Order obtained from SEC.	Not applicable.	No. Prohibited unless Order obtained from SEC.	Trustee has such power only if permitted under fund constituent documents and applicable law.	Generally permissible if provided for in fund constituent documents.	Board has discretion but would need to consult with regulator before implementing.

Green = Required / Inherent in Fund Structure
 Yellow = Permissible / Encouraged
 Red = Prohibited / Does Not Exist

Note that this table is for illustrative purposes only. May not include all details of all the regulations.

*The OCC is the primary regulator for CIFs maintained by U.S. national banks. CIFs maintained by state-chartered banks are primarily regulated by the applicable state's banking regulator. The description of CIFs is primarily based on the practices of CIFs regulated by the OCC.

**The description of UCITS' characteristics is primarily based on the practices of UK UCITS.

Appendix B: Comparison of Fund Structures

	1940 Act Open-End Funds	1940 Act Closed-End Funds	1940 Act ETFs	CIFs	AIFMD (Open-End)	UCITS** (Open-End)
“Out-of-the-Money” Gates Can be Included in Fund Structure	Prohibited. (Exception will be for MMFs, where gates will be permissible once reforms implemented in 2016.)	Not applicable.	Prohibited.	Trustee has such power only if permitted under fund constituent documents and applicable law. (Under OCC STIF rules, banks must adopt procedures that apply to suspensions or limitations of withdrawals; such suspensions are limited to extraordinary circumstances, and require OCC notice.)	Permissible. Power to do so must be provided for in fund constituent documents.	Permissible.
Ability to Delay Settlement	Ability to delay settlement up to 7 days but implementation would be operationally challenging and constitute highly irregular market practice.	Not applicable.	Ability to delay settlement up to 7 days by regulation, but ETFs can get relief from SEC to delay settlement for certain foreign securities for up to 15 days.	Permissible in certain situations if permitted under fund constituent documents and applicable law.	Permissible but must be provided for in fund constituent documents.	Permissible up to time period specified in the prospectus (as agreed by relevant regulator), but in practice rarely longer than 10 business days. Implementation would be operationally challenging and constitute highly irregular market practice.

Allocation of Transaction Costs

Transaction costs (T-costs) incurred as a result of subscriptions / redemptions are externalized from fund.	T-costs are not externalized. T-costs are generally allocated on a pro rata basis to all investors (redeeming / subscribing AND remaining / existing investors).	Subscription / redemption activity does not impact size of fund so T-costs related to subscriptions / redemptions are inherently externalized.	Secondary market trading does not impact size of fund so T-costs are externalized for secondary market transactions. Transactions with APs are typically done in kind which externalizes T-costs, though there can be exceptions.	Permissible dependent on fund investment strategy. This can be achieved through PNAV/RNAV, in-kind subscriptions and redemptions, or separate "trading CIFs" for subscriptions / redemptions. In addition, in-kind subscriptions or redemptions are available which can eliminate or reduce transaction costs.	Swing pricing, dual pricing, or dilution levy permissible. Must consider anti-dilution measures but not required to implement.	Swing pricing, dual pricing, or dilution levy permissible. Must consider anti-dilution measures but not required to implement.
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Appendix B: Comparison of Fund Structures

	1940 Act Open-End Funds	1940 Act Closed-End Funds	1940 Act ETFs	CIFs	AIFMD (Open-End)	UCITS** (Open-End)
Ability to impose exit fees (a.k.a dilution levy).	Boards are required to consider whether redemption fee of up to 2% is necessary to combat market timing. Instead, many boards elect to use fair value pricing in funds that invest in foreign markets.	Not applicable.	Redemption fee up to 2% is standard but funds typically charge only actual T-costs if less than 2%. In some instances, ETFs can require APs to bear execution costs in connection with certain brokerage guarantees, which could result in costs greater than 2%. Such fees are not redemption fees.	Generally not used and would likely require OCC approval; however, PNAV/RNAV process, which isolates actual identifiable costs to redeeming or subscribing participants, is potentially available as noted above.	Dilution levy permissible but is not the preferred method given option to use swing pricing or dual pricing.	Dilution levy permissible but is not the preferred method given option to use swing pricing or dual pricing.
Ability to Provide In-Kind Redemptions	Permissible. Funds generally elect to be governed by Rule 18f-1, which obligates redemptions in cash up to the lesser of \$250,000 or 1% of NAV during any 90-day period. Fund can elect to redeem greater amounts in-kind, though this may be impractical for some fund investors.	Not applicable.	Majority of creates/redeems with APs occur in in-kind. Not applicable for secondary market trading.	Permissible. Trustee typically has authority to implement in-kind redemptions when it is in the best interest of clients in the CIF. (In-kind distributions from a STIF require OCC notification).	Permissible but may not be practical for all AIF investors.	Required to set a minimum threshold of a redemption by an investor of at least 5% of AUM of a fund, above which redemptions can be provided in kind. However, clients can require that assets are liquidated for them.

Disclosure

Disclosure of market liquidity risk inherent in a fund.	Required to disclose all material risks to the fund, which could include market liquidity risk, particularly for certain less liquid asset classes.	Required to disclose all material risks to the fund, which could include market liquidity risk, particularly for certain less liquid asset classes.	Required to disclose all material risks to the fund, which could include market liquidity risk, particularly for certain less liquid asset classes.	Typically, the trustee provides risk disclosure to clients, though no explicit regulatory form disclosure is required. In addition, client-related regulation (e.g., ERISA) may require risk disclosure.	Requires disclosure of all risks associated with investment techniques, which may include market liquidity risk.	Requires disclosure of all risks associated with investment techniques, which may include market liquidity risk.
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Appendix B: Comparison of Fund Structures

	1940 Act Open-End Funds	1940 Act Closed-End Funds	1940 Act ETFs	CIFs	AIFMD (Open-End)	UCITS** (Open-End)
Disclosure of potential to not be able to redeem from a fund.	Funds disclose that redemptions may be suspended for any period where the NYSE is closed other than customary weekends or holidays or where trading is restricted, where there is an emergency where it's not practicable for the fund to dispose of or fairly value its securities or any other time the SEC determines for the protection of investors.	Not applicable.	Funds disclose that redemptions may be suspended for any period where the NYSE is closed other than customary weekends or holidays or where trading is restricted, where there is an emergency where it's not practicable for the fund to dispose of or fairly value its securities or any other time the SEC determines for the protection of investors.	OCC regulations require fund constituent documents to address terms of withdrawal or redemption.	Required to disclose all redemption provisions in normal and extraordinary circumstances, which could include the ability to suspend redemptions.	UCITS can suspend the calculation of NAV (and therefore redemptions) in emergency situations disclosed in the prospectus (e.g. markets being closed).
Borrowing and Leverage						
Borrowing is permitted.	Permitted with 300% asset coverage. Additional borrowing of up to 5% of NAV permitted for temporary purposes (up to 60 days).	Common Shares: Permitted with 300% asset coverage. Additional 5% of NAV for temporary purposes (up to 60 days). Preferred Shares: Must have 200% asset coverage. Borrowing not used for redemption purposes given structure of CEFs.	Permitted with 300% asset coverage. Additional 5% of NAV for temporary purposes (up to 60 days).	Only to the extent permitted in fund constituent documents and applicable law. CIFs typically do not borrow to finance investments due to unrelated business taxable income ("UBTI") issues.	Permissible to the extent it is provided for in constituent documents. If borrowing is permitted, it must be included in commitment leverage calculation. If commitment leverage is above 3x, additional disclosure is required.	Up to 10% of NAV from banks for short-term purposes (3-4 days).
<i>Borrowing from banks</i>	Permitted so long as within total borrowing limits. Many fund families obtain access to committed lines of credit. Custodians may also cover overdrafts.	Permitted so long as within total borrowing limits. Many fund families obtain access to committed lines of credit. Custodians may also cover overdrafts.	Permitted so long as within total borrowing limits. Many fund families obtain access to committed lines of credit. Custodians may also cover overdrafts.	Generally limited to temporary overdrafts if permitted under fund constituent documents and applicable law. CIFs generally do not use lines of credit due to UBTI issues.	Same as above.	Permitted so long as within total borrowing limits.

Appendix B: Comparison of Fund Structures

	1940 Act Open-End Funds	1940 Act Closed-End Funds	1940 Act ETFs	CIFs	AIFMD (Open-End)	UCITS** (Open-End)
<i>Repo / Reverse Repo</i>	Permitted so long as within total borrowing limits and disclosed in the registration statement.	Permitted so long as within total borrowing limits and disclosed in the registration statement.	Permitted so long as within total borrowing limits and disclosed in the registration statement.	Same as above, permitted under fund constituent documents and applicable law.	Same as above.	Permitted so long as within total borrowing limits.
<i>Interfund Lending</i>	Only permissible if exemptive relief provided by SEC in advance. If relief granted, rules for total borrowing and numerous SEC conditions apply.	Only permissible if exemptive relief provided by SEC in advance. If relief granted, same rules for total borrowing and numerous SEC conditions apply.	Only permissible if exemptive relief provided by SEC in advance. If relief granted, same rules for total borrowing and numerous SEC conditions apply.	Prohibited.	Prohibited.	Prohibited.
<i>Borrowing from Sponsor</i>	Generally prohibited. (However, capital support from sponsor for money market funds may be available in certain limited situations that are permissible under the 1940 Act or with permission from SEC.)	Prohibited.	Prohibited.	A temporary loan could be permissible in certain situations but would be subject to a variety of regulatory approvals and requirements under applicable law. CIFs generally do not use lines of credit due to UBTI issues.	Prohibited.	Prohibited.
<i>Borrowing from Other Sources</i>	5% of NAV for temporary purposes (up to 60 days) from any person not affiliated with the manager so long as this is within total borrowing limits.	5% of NAV for temporary purposes (up to 60 days) from any person not affiliated with the manager so long as this is within total borrowing limits.	5% of NAV for temporary purposes (up to 60 days) from any person not affiliated with the manager so long as this is within total borrowing limits.	Same as above (Borrowing from Banks).	Non-bank sources of lending are very limited as most jurisdictions require lenders to hold a banking licence.	Prohibited.
Derivatives are included in calculation of leverage	Derivatives do not necessarily create leverage under the 1940 Act, unless they result in indebtedness. However, asset segregation for derivatives is required with a body of interpretive guidance that provides information on how to calculate the required amount of assets that need to be segregated.	Derivatives do not necessarily create leverage under the 1940 Act, unless they result in indebtedness. However, asset segregation for derivatives is required with a body of interpretive guidance that provides information on how to calculate the required amount of assets that need to be segregated.	Derivatives do not necessarily create leverage under the 1940 Act, unless they result in indebtedness. However, asset segregation for derivatives is required with a body of interpretive guidance that provides information on how to calculate the required amount of assets that need to be segregated.	Derivatives may be included in calculation of leverage as required by fund constituent documents and applicable law	Derivatives and borrowings are included in the gross and commitment leverage calculations. Enhanced disclosure if commitment leverage exceeds 3 times net assets.	Derivatives are included in the calculation of leverage. Leverage cannot exceed 2 times net assets using one of two methods to calculate leverage. Note that VaR + notional approach does not include permitted borrowings (see above).

Appendix B: Comparison of Fund Structures

	1940 Act Open-End Funds	1940 Act Closed-End Funds	1940 Act ETFs	CIFs	AIFMD (Open-End)	UCITS** (Open-End)
Liquidity & Redemption Risk						
Liquidity Risk Management Conducted by Fund Manager	Encouraged in Jan. 2014 guidance for fixed income funds but not codified in 1940 Act.	Not applicable.	Encouraged in Jan. 2014 guidance for fixed income funds but not codified in 1940 Act.	Must ensure adequate liquidity to meet redemptions. OCC says should consider structure & duration of assets, redemption patterns, and cash flow projections.	Requires appropriate liquidity risk management process that considers concentration risk and ability to manage redemptions.	Fund managers must consider concentration risk when evaluating the liquidity profile of the fund.
Stress Testing Fund for Redemption Risk Under Normal and Stressed Market Conditions	Encouraged in Jan. 2014 guidance for fixed income funds but not codified for all funds.	Not applicable.	Encouraged in Jan. 2014 guidance for fixed income funds but not codified for all funds.	OCC says fund should be stress tested, looking at changes in fund flows and the availability of liquidity, under various scenarios. Regular testing of any contingency financing sources is expected.	Required to demonstrate ability to meet redemptions at all times.	Required to demonstrate ability to meet redemptions at all times.
Limits Holdings of Illiquid Assets	Required to principally hold 'securities,' which effectively precludes the purchase of real property or other non-securities. Tax rules limit direct holdings in commodities and other non-securities assets. Additionally, the SEC considers a security to be "illiquid" if it cannot be disposed of within seven days at approximately its carrying value. The 1940 Act requires that no more than 15% of a fund's NAV can be invested in "illiquid" securities.	No limit, but required to principally hold "securities" to be an investment company.	Required to principally hold 'securities,' which effectively precludes the purchase of real property or other non-securities. Tax rules limit direct holdings in commodities and other non-securities assets. Additionally, the SEC considers a security to be "illiquid" if it cannot be disposed of within seven days at approximately its carrying value. The 1940 Act requires that no more than 15% of a fund's NAV can be invested in "illiquid" securities.	No explicit limits in regulation. However, limits may be applied by fund constituent documents. Although no specific percentage limits apply, a trustee, in keeping with its fiduciary obligations, must conduct liquidity risk management. (Trustees must adopt liquidity standards for OCC-regulated STIFs).	No explicit limits in regulation. However, limits may be applied by fund constituent documents.	No fundamentally "illiquid" assets permissible including property, bank loans, direct commodity holdings. For other securities, must have liquidity control process in place which allows the fund to meet ongoing liquidity calls by investors.

Appendix C: Firm and Fund Closures, Large Outflows, and Related Events in the Asset Management Industry over the Past 25 Years

Name	Event	Year	Resolution	AUM year of event (if known)	AUM after event (if known)
Barlow Clowes	Investment losses Fraud	1988	<ul style="list-style-type: none"> Firm closed, funds liquidated, UK government made ex gratis payment to investors UK Government repaid from trustees GBP120mn of GBP153mn payment-2011 	GBP 188mn	GBP 30mn
Hyperion (Term Trusts 1997,99,03)	Investment losses-MBS	1993	<ul style="list-style-type: none"> Civil litigation Regulatory fines for fund marketers 	U.S.D 1.5bn	U.S.D1.2bn
Piper Jaffrey/ Institutional Government Bond Fund	Investment losses-MBS	1994	<ul style="list-style-type: none"> Fund closed to new investors - assets run off Civil litigation. Parent of manager sells stake to ITT insurance 1997 	Fund: U.S.D 750mn	Initial drop to U.S.D 590mn then run off to zero.
TCW/Term Trusts 2000 & 2003	Investment losses-MBS	1994	<ul style="list-style-type: none"> Civil litigation Regulatory fines for fund marketers Manager firm ownership change 1996 	Two trusts: U.S.D 1.5mn	Initial drop to U.S.D 1.0mn Trusts liquidate at term end
Community Bankers MMF	Investment losses in structured notes	1994	<ul style="list-style-type: none"> Fund liquidated September 1994 	U.S.D 82mn	None
LTCM	Investment losses	1998	<ul style="list-style-type: none"> Creditor investments to avoid loss Firm closed Creditors make small profits when unwind completed 	U.S.D 5bn	U.S.D 60mn Creditors made whole
Advanced Investments Management	Breach of client guidelines (all separate accounts)	2002	<ul style="list-style-type: none"> Firm closes 2002 Civil litigation Regulatory fines 	U.S.D 5.5bn	U.S.D 15mn
Canary Capital Partners	Market timing Late trading	2003	<ul style="list-style-type: none"> Fines Principal receives 10 year bar 	U.S.D 500mn	Not known
Alliance Capital Management	Market timing	2003	<ul style="list-style-type: none"> Fines and Disgorgement Management changes Renamed Alliance Bernstein in 2006 	U.S.D 434bn	U.S.D 456bn (U.S.D790m of mutual fund outflows from August 31 to November 30, 2003, increase in AUM attributed to market appreciation)

Name	Event	Year	Resolution	AUM year of event (if known)	AUM after event (if known)
Janus Capital Management	Market timing	2003	<ul style="list-style-type: none"> Fines Management changes 	U.S.D 149bn	U.S.D 151bn (outflows of \$3.2b from 8/31/2003 to 9/30/2003, increase in AUM attributed to market appreciation)
Pilgrim Baxter	Market timing	2003	<ul style="list-style-type: none"> Principals barred Old Mutual (owner since 2000) closes some funds; rebrands 	U.S. 7bn	U.S.D 5.4b (20% decline from September 30, 2003 to December 31, 2003)
Putnam	Market timing	2003	<ul style="list-style-type: none"> Management changes Fines Sold to Great West Life in 2007 	U.S.D 277bn	U.S.D 263bn \$14bn (5%) decline in first week of November 2003; U.S.D 141bn at 9/30/2013
Strong Capital	Market timing	2003	<ul style="list-style-type: none"> Principal barred Asset sale to Wells Fargo in January 2005 	U.S.D 34bn	U.S.D 29bn
Absolute Capital Management	Securities fraud	2007	<ul style="list-style-type: none"> Founder criminally charged Multiple enforcement actions Civil suits 	U.S.D 3bn	U.S.D 885mn
Reserve Primary Fund	Investment losses	2008	<ul style="list-style-type: none"> Fund in liquidation Firm in liquidation 	U.S.D 65 bn in fund U.S.D 125bn in total AUM	De minimis
Galleon Group	Insider trading	2009	<ul style="list-style-type: none"> Firm closed Founder criminally convicted Funds liquidated 2009 	U.S.D 7bn	None
Gartmore Group	"Star" manager departures	2010	<ul style="list-style-type: none"> Sold to Henderson 2011 	GBP 22bn	GBP 16bn
Axa Rosenberg	Concealed model error (fraud alleged)	2011	<ul style="list-style-type: none"> Founder barred Management changes 	U.S.D 61bn	U.S.D 42bn
SAC Capital Management	Allegations of insider trading by portfolio managers	2008-2012-	<ul style="list-style-type: none"> Firm to convert to internal management (per media reports) 	U.S.D 15bn	U.S.D 9bn
PIMCO*	Key personnel departure	2014	<ul style="list-style-type: none"> Management changes 	U.S.D 1.97tn	U.S.D 1.68tn
Everest Capital / Everest Capital Global Fund	Investment losses-Swiss franc	2015	<ul style="list-style-type: none"> Fund closed 	U.S.D 3.0bn	U.S.D 2.2bn
Ashmore*	AUM fell by 15 per cent year on year – Emerging market volatility	2015	<ul style="list-style-type: none"> Met \$9.8bn in redemptions 	U.S.D 75bn	U.S.D 63.7bn

*Represents large outflows, not fund or manager closures.

Glossary of Terms

Term	Definition
1940 Act	Investment Company Act of 1940
2008 Crisis	Financial crisis of 2008
AIF	Alternative investment fund
AIFMD	Alternative Investment Fund Managers Directive
AP	Authorized participant
ATS	Alternative trading systems
AUM	Assets under management
BCM	Business continuity management
BCP	Business continuity plan
BlackRock	BlackRock, Inc. together with its affiliates
BNY Mellon	Bank of New York Mellon
CCO	Chief compliance officer
CCP	Central clearing counterparty
CEF	Closed-end mutual fund
CFTC	Commodity Futures Trading Commission
CIF	Collective investment fund
CIV	Commingled investment vehicle
The Council	Financial Stability Oversight Council
DRP	Disaster recovery plan
DTC	Depository trust company
EMD	Emerging markets debt
ETF	Exchange-traded fund
ERISA	Employee Retirement Income Security Act
FCM	Futures commissions merchants
FINRA	Financial Industry Regulatory Authority
FSB	Financial Stability Board
IMA	Investment management agreement
ISDA	International Swaps and Derivatives Association
Liability spread	The loan of the lender's securities with a borrower for a fee
MMF	Money market fund
NAV	Net asset value per share
NFA	National Futures Association
NSCC	National Securities Clearing Corporation

OCC	Office of the Comptroller of the Currency
OFR	Office of Financial Research
OTC	Over-the-counter
OTM	Out-of-the-money
PNAV	Purchase net asset value
Reg SCI	Regulation Systems Compliance and Integrity
Request for Comment	Notice Seeking Comment on Asset Management Products and Activities
RFP	Request for proposal
RQA	BlackRock's Risk and Quantitative Analytics Group
RNAV	Redemption net asset value
SEC	Securities and Exchange Commission
SI-FMU	Systemically important financial market utility
SSAE 16	Statement on Standards for Attestation Engagements 16
STIF	Short Term Investment Fund
UBTI	Unrelated business taxable income
UCITS	Undertakings for the Collective Investment in Transferable Securities
VaR	Value at Risk