MANAGED FUNDS ASSOCIATION
The Voice of the Global Alternative Investment Industry
WASHINGTON, DC | NEW YORK

March 25, 2015

Via Electronic Filing:

Patrick Pinschmidt
Deputy Assistant Secretary for the Financial Stability Oversight Council
Financial Stability Oversight Council
1500 Pennsylvania Ave., NW
Washington, DC 20220

Re: Managed Funds Association Response to FSOC Notice Seeking Comment on Asset Management Products and Activities

Dear Mr. Pinschmidt:

Managed Funds Association ("MFA")[1] welcomes the opportunity to provide comments on the Notice Seeking Comment on Asset Management Products and Activities (the "Notice") issued by the Financial Stability Oversight Council (the "Council").[2] MFA supports the Council's effort to study asset management products and activities and appreciates the opportunity to participate in the Council's ongoing efforts to understand our industry. Given the broad scope of the Notice, we wish to note at the outset our view that any Council recommendations with regard to the asset management industry will require additional deliberation and analysis. We believe that it would be appropriate for the Council, after studying the responses to the Notice, to refine remaining concerns regarding the asset management industry and to continue a dialogue with industry participants regarding more tailored requests for information and data analysis.

The Notice identifies risks that are of concern to all segments of the asset management industry, including the hedge fund industry. Several of the questions presented in the Notice raise issues that hedge fund managers think about every day and devote considerable resources to mitigate and resolve. In particular, hedge fund managers (and,

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[1] Managed Funds Association represents the global alternative investment industry and its investors by advocating for sound industry practices and public policies that foster efficient, transparent and fair capital markets. MFA, based in Washington, DC, is an advocacy, education and communications organization established to enable hedge fund and managed futures firms in the alternative investment industry to participate in public policy discourse, share best practices and learn from peers, and communicate the industry's contributions to the global economy. MFA members help pension plans, university endowments, charitable organizations, qualified individuals and other institutional investors to diversify their investments, manage risk and generate attractive returns. MFA has cultivated a global membership and actively engages with regulators and policy makers in Asia, Europe, the Americas, Australia and many other regions where MFA members are market participants.

[2] Notice Seeking Comment on Asset Management Products and Activities, 79 Fed. Reg. at 77,488 (Dec. 24, 2014) [hereinafter Notice].

importantly, hedge fund investors) consider liquidity risk management and appropriate use of leverage to be among the most important elements of a successful portfolio management program. Hedge fund managers have developed extensive operational risk management processes and controls, including systems that, in response to regulatory initiatives and investor demands, are designed to address cybersecurity risks and to ensure continuity of business operations in the event of a disaster. Hedge fund investors, who generally are sophisticated investors, and their third-party consultants also monitor these issues diligently and often mandate that the managers of the hedge funds in which they invest address these risks in a robust and transparent manner.[3] Managers also are sensitive to the risks associated with the activities of certain of their counterparties and service providers, such as prime brokers and securities lending agents, and keenly monitor developments in their counterparties' operations and internal risk management programs.

We do not believe, however, that any risk identified in the Notice rises to the level of systemic risk to the U.S. financial system. Moreover, these risks are mitigated by managers' sensitivity and responsiveness to the issues raised in the Notice. We make this basic argument throughout our letter but want to highlight it at the outset to frame the discussion that follows.

While the Notice focuses on the asset management industry generally, we seek to explain in this letter certain key characteristics of the hedge fund industry and the regulatory regime applicable to our members, the funds they manage and the counterparties and creditors to those funds. We believe these characteristics and the regulatory regime make the hedge fund industry and its individual members improbable sources of systemic instability in the U.S. financial system. We are concerned that the questions presented in the Notice may reflect a view that hedge funds could be sources of systemic risk and may, especially in periods of market stress, destabilize the U.S. financial system. For example, several questions inquire about the likelihood of "forced asset sales" and the possible impact of such asset sales on fund counterparties and the markets more broadly. The questions also indicate the Council's concern about the interconnectedness of asset managers and their service providers and counterparties, which include the largest financial institutions in the country – and our responses seek to address that concern and explain why we believe it to be misplaced.

As the first fundamental principle of our comment letter, we submit that, while no hedge fund closure threatened the broader financial system during the financial crisis, regulations implemented and market practices adopted since the financial crisis further mitigate the risk that the liquidation of assets held by one or more hedge funds, even in periods of market stress, could have widespread impact on the financial system or cause any

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[3] *See, e.g.*, Deutsche Bank Global Prime Finance, *Third Annual Operational Due Diligence Survey*, at 21, 49 (Summer 2014), *available at* https://www.managedfunds.org/wp-content/uploads/2014/07/Third-Annual-Deutsche-Bank-Operational-Due-Diligence-Survey-Summer-2014.pdf (citing that 73% of investor due diligence teams ranked fund compliance and regulatory framework as one of their top areas of focus, more than any other area, and that 95% of investors plan to review a fund's Form ADV as part of their pre-investment and ongoing due diligence). *See also generally* AIMA Investor Steering Comm., *A Guide to Institutional Investors' Views and Preferences Regarding Hedge Fund Operational Infrastructures* (2011), *available at* http://www.aima.org/download.cfm/docid/CF822EF3-CB7A-4B13-81A7949E4C97C0AA.

significant harm to hedge fund's counterparties. Large hedge fund managers[4] are now directly supervised by the Securities and Exchange Commission ("SEC"), in some cases, by the Commodity Futures Trading Commission ("CFTC") and, in some cases, by both the SEC and CFTC. To the extent that hedge funds are linked to their service providers and counterparties, they also are linked and exposed, albeit indirectly, to regulation applicable to those entities. These regulations, both direct and indirect, including the reforms implemented under the Dodd-Frank Wall Street Reform and Consumer Protection Act (the "Dodd-Frank Act") and other post-crisis reforms, as well as those undertaken by European regulatory agencies,[5] have had a substantial impact on hedge funds and their managers because banks, broker-dealers, swap dealers and other hedge fund counterparties have changed their business practices in order to comply with the new rules. Hedge funds, their managers and their investors have been, directly and indirectly, beneficiaries of these new regulations, which is why MFA has supported many of these new initiatives and constructively engaged in the related rulemaking process.

A second fundamental principle of our letter is that systemic risk is best addressed holistically, as opposed to by regulation of individual participants. Key, and we believe laudable, examples of such an approach are regulations implemented under Title VII of the Dodd-Frank Act, such as central clearing and margin requirements, which apply to markets holistically and approach sources of potential risk on a market structure-basis. This regulatory approach, which may, at first glance, appear to leave entities unregulated because it does not prioritize entity-level regulatory requirements, addresses fundamental market behaviors and investment activities that represent sources of risk comprehensively and in a manner that is even-handed and limits opportunities for regulatory arbitrage. These regulatory efforts have also been effective at addressing structural weaknesses in important parts of short-term funding markets, such as tri-party repo and money market funds. We believe that a market structure-approach is the appropriate method of addressing potential systemic risk because it regulates both sides of every relevant transaction, thereby addressing the financial interconnections between firms. With a comprehensive focus on markets and investing activities, the Council can strengthen the system as a whole, rather than merely changing characteristics of certain isolated individual market participants. To reiterate, we strongly believe that systemic risk is best addressed holistically at the system level.[6]

While this letter seeks to respond to the specific questions posed in the Notice, which we address chronologically in Sections I through IV below, we first provide an

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[4] We use the terms "large hedge fund" and "large hedge fund manager" throughout this letter to refer generally to hedge funds with at least $1 billion in AUM and their managers. The Preqin database indicates that firms with over $1 billion in AUM manage over 90% of hedge fund assets. *See Billion-Dollar Club Boasts 90% of Hedge Fund Assets*, FINALTERNATIVES, *available at* http://www.finalternatives.com/node/27176.

[5] Although we do not discuss European regulatory reform in detail in this letter, we wish to note that the European regulatory agencies have adopted or are adopting rules similar to many of the Dodd-Frank Act reforms discussed in this letter. This ensures a fair amount of regulatory uniformity between the United States and European jurisdictions.

[6] Treasury Secretary Jacob Lew acknowledged this same dynamic at the January 22, 2015 open session of the Council when he stated: "As we learned during the financial crisis, without a mechanism to look at the entire financial system, risks to financial stability can spread quickly across institutions and markets. This siloed approach allowed certain risks to fall through the cracks of the regulatory system, and failed to protect us in the lead-up to the crisis."

overview of certain key aspects of the hedge fund industry, as we believe that any informed discussion of risks that may be created by hedge funds and regulations that are or may become applicable to them must be founded on a comprehensive understanding of the structure of the hedge fund industry. We agree with Treasury Secretary Jacob Lew's observation that the Council must "understand whether there is a problem that traditionally rises to the level of regulatory concern" before imposing additional regulation, and must avoid "jump[ing] to a conclusion that there is a need for a regulatory response."[7]

Overview of the Structure of the Hedge Fund Industry

Several unique characteristics of hedge funds and hedge fund managers distinguish them from other financial institutions and even from other participants in the asset management industry.

A. Size and Diversity of the Industry

Although the hedge fund industry is a meaningful participant in financial markets and the financial system, it is very small in size when considered in relation to the broader financial markets and other industry segments. For example, the hedge fund industry is significantly smaller than the global mutual fund industry. The global mutual fund industry managed $31.32 trillion in assets as of September 30, 2014,[8] with U.S.-based mutual funds managing approximately $18.6 trillion.[9] In contrast, the global hedge fund industry had an estimated $2.85 trillion in assets under management ("AUM") as of December 31, 2014,[10] with U.S.-based hedge funds managing approximately $1.7 trillion.[11] In other words, on both a global and U.S.-only scale, the hedge fund industry is less than 1/10th the size of the mutual fund industry. As another point of comparison, the aggregate assets of all U.S. bank holding companies with assets greater than $10 billion was over $15 trillion as of September 30, 2014,[12] or over five times the total assets managed by the entire hedge fund industry. There are five U.S. bank holding companies each of which owns assets equal to 50% or more of the entire U.S. hedge fund industry's AUM.[13]

Hedge funds represent a relatively small part of the asset management industry, pursue a tremendous diversity of investment strategies and invest in a wide variety of asset

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7 Matthew Boesler, *Lew Says Regulators Undecided on High-Frequency Trading*, BLOOMBERG, Mar. 10, 2015, *available at* http://www.bloomberg.com/news/articles/2015-03-10/lew-says-regulators-undecided-on-high-frequency-trading.

8 Investment Company Institute [hereinafter ICI], *Worldwide Mutual Fund Assets and Flows Third Quarter 2014* (Dec. 30, 2014), http://www.ici.org/research/stats/worldwide/ww_09_14.

9 ICI, *2014 Annual Report to Members*, at II (Nov. 18, 2014), *available at* http://www.ici.org/pdf/14_ici_annual.pdf.

10 Press Release, Hedge Fund Research, Inc. [hereinafter HFR], Hedge Funds Conclude 2014 With Inflows As Investors Position for Volatility (Jan. 20, 2015), *available at* https://www.hedgefundresearch.com/pdf/pr_20150120.pdf.

11 Preqin, U.S. Hedge Fund Industry, at 3 (Sept. 2013), *available at* https://www.preqin.com/docs/reports/Preqin_Special_Report_US_Hedge_Fund_Industry_Sep_13.pdf.

12 Nat'l Info. Ctr., *Holding Companies with Assets Greater Than $10 Billion*, FED. FIN. INSTS. EXAMINATION COUNCIL, http://www.ffiec.gov/nicpubweb/nicweb/HCSGreaterThan10B.aspx (last visited Mar. 4, 2015).

13 *Id.* (JPMorgan Chase & Co., Bank of America Corp., Citigroup Inc., Wells Fargo & Co., and The Goldman Sachs Group, Inc.).

classes. As a result, the overall composition of any two hedge funds' portfolios is likely to be quite different. Accordingly, it would not be accurate to describe the hedge fund industry as pro-cyclical. Rather than approach hedge funds as a single type of product offered by asset managers, regulators must be careful to differentiate among the many varied types of funds and take into account the diversity of their strategies and assets.

B. Structure of Hedge Funds

Hedge funds are generally structured as partnerships, limited liability companies or similar entities, with fund investors holding percentage interests or shares in these funds. All of a fund's profits and losses flow directly to its partners and members.

Hedge fund managers are separate entities, often formed as limited liability companies, that enter into advisory contracts with the hedge funds that they manage. An affiliate of the manager is typically the general partner or managing member of a fund. Large hedge fund managers often advise multiple hedge funds that pursue different investment mandates or strategies, and, consequently, the assets of any fund advised by a manager may represent only a fraction of the manager's total AUM. Hedge funds may make investments directly or indirectly through subsidiary investment vehicles. Hedge funds that enter into credit agreements typically do not cross guarantee the credit agreements of any other fund with different investors managed by the same manager and generally hedge funds are not exposed to the liabilities of other funds with different investors managed by the same manager.

C. Industry Concentration and Substitutability of Hedge Fund Managers

The hedge fund industry is also significantly less concentrated than other sections of the financial services industry. As a result, it is unlikely that the closing of any one fund or adviser would create systemic risk. For example, 100 investment advisers represent approximately 50% of total AUM by all hedge fund managers in the United States,[14] while only four bank holding companies represent over 50% of U.S. bank holding company assets.[15] In 2014, the largest hedge fund adviser managed assets equal to only approximately 6% of the global hedge fund industry's assets and the second largest managed only 2% of industry assets.[16] Given that the global hedge fund industry was estimated at $2.85 trillion in AUM, 6% of the industry represents roughly $154.8 billion in AUM and 2% represents roughly $57 billion in AUM.

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[14] Stephen Taub, *The 2014 Hedge Fund 100: The World's Top Hedge Funds*, INST. INVESTOR'S, May 12, 2014, *available at* http://www.institutionalinvestorsalpha.com/Article/3340199/The-2014-Hedge-Fund-100-The-Worlds-Top-Hedge-Funds.html.

[15] Nat'l Info. Ctr., *supra* note 12 (last visited Mar. 4, 2015). *Cf.* Steve Schaefer, *Five Biggest U.S. Banks Control Nearly Half Industry's $15 Trillion In Assets*, FORBES, Dec. 3, 2014, *available at* http://www.forbes.com/sites/steveschaefer/2014/12/03/five-biggest-banks-trillion-jpmorgan-citi-bankamerica (citing SNL figures that 5 commercial banks accounted for 44% of U.S. bank assets as of Sept. 30, 2014).

[16] *Billion-Dollar Club Boasts 90% of Hedge Fund Assets*, FINALTERNATIVES, *available at* http://www.finalternatives.com/node/27176 (citing figures from Preqin's Hedge Fund Spotlight, *available at* https://www.preqin.com/docs/newsletters/hf/Preqin_Hedge_Fund_Spotlight_May_2014.pdf).

We note that the test for special leverage requirements developed by the Board of Governors of the Federal Reserve System (the "Federal Reserve") is $10 trillion in assets under custody, or 60 times the AUM of the largest hedge fund manager and that at least nine bank holding companies have assets at least five times the AUM of the largest hedge fund manager, with three having assets at least ten times the AUM of the largest manager.[17] Assets are even less concentrated when looking at concentration on a fund-level basis since each adviser can manage multiple funds.

Each year, many hedge funds close for any number of reasons such as extended poor performance, the retirement or departure of senior personnel, or a changed market environment. In each case, the fund's portfolio is wound down by the manager, sometimes gradually over many months and, less frequently, in a "liquidation" by the prime brokers or other market participants that hold the fund's collateral. This market discipline is a hallmark of the industry as hedge funds and hedge fund managers close while new funds and managers emerge. Moreover, because hedge funds are one of many different types of asset management structures, other types of investment managers and institutional investors also replace the services of hedge funds that cease operations. This continued cycle of fund closures and launches evidences that hedge fund managers and funds are highly substitutable.

We further note that, while hedge funds do liquidate and wind up with some regularity, no hedge fund has ever been bailed-out by the government and hedge fund closures have generally not been identified as a primary source of instability during the financial crisis. Even the famed near-failure of Long-Term Capital Management in 1998, which we argue below is an outdated and no longer relevant example of hedge fund risk, avoided a government bail-out and, more importantly, led to a number of structural reforms that have been implemented across the hedge fund industry and, more broadly, across key markets in and counterparties with which hedge funds interact. During the financial crisis, there were special government programs for banks, the Troubled Asset Relief Program and commercial paper guarantees, similar programs for insurance companies, and even direct guarantees of money market funds. However, we submit that there was no government relief program for hedge funds for a simple reason – though hedge funds suffered investment losses and some closed, hedge funds were not a cause of systemic risk. As we discuss more fully in Section IV below, hedge funds wind up and merge routinely in transactions that do not disrupt the markets, much less create systemic risk.

D. Leverage

Hedge funds are often thought of as highly leveraged, but many hedge funds are, in fact, less leveraged than many other financial institutions. As we explain in Section II below, several studies of our industry conducted in the past several years have demonstrated that the hedge fund industry has consistently employed relatively low levels of leverage compared to other financial institutions. U.S. regulators collect information about leverage from large

[17] *See* Enhanced Supplementary Leverage Ratio Standards for Certain Bank Holding Companies and Their Subsidiary Insured Depository Institutions, 79 Fed. Reg. 24,528 (May 1, 2014); Nat'l Info. Ctr., *supra* note 12 (as reported on Banking Organization Systemic Risk Report (FR Y-15)).

hedge fund managers and should be able to analyze this information to confirm industry leverage. Because this information is not available to the public, we rely on other sources in this letter. For example, one study indicates that the average leverage ratio of the hedge fund industry from December 2004 to October 2009 was 2.1x.[18] This compares to average leverage ratios of approximately 13x for the U.S. banking industry[19] and 11.8x for the insurance industry in the same periods.[20] Although different funds use leverage in several different ways to implement their investment strategies and some use more leverage than others, they typically engage in collateralized financing that requires daily margining. In fact, in our members' experience, almost all hedge fund financing is fully collateralized. This means that, in the event that a hedge fund experiences significant losses or closes, its creditors are protected because they have legal rights to seize the fund's assets. If a fund closes or its value falls, its investors bear virtually all of the fund's losses and there is limited impact on the fund's creditors and counterparties.

In addition to a manager's internal risk assessment, a fund's use of leverage is subject to close scrutiny by its creditors and investors. Potential creditors perform extensive analysis on a fund's portfolio before extending credit to a hedge fund, and sophisticated investors may require a fund to abide by certain leverage limits and, at a minimum, typically will require transparency regarding the leverage utilized by hedge funds.[21] In particular, a hedge fund's transactions with its lenders are subject to the prudential regulation of such lenders and constraints on their capital, liquidity and leverage. Absent direct government support or evidence that hedge fund leverage poses special risks, hedge funds' use of leverage should not compel additional oversight.

E. Managers' Focus on Risk Management

Hedge fund managers are sophisticated, institutionalized businesses that provide services to highly sophisticated investors through their investment in funds. Hedge fund managers tend to rely on larger third parties to provide certain services including trade execution, asset custody, certain valuation services, and administration. Hedge fund

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[18] Andrew Ang, et al., *Hedge Fund Leverage* 25 (Nat'l Bureau of Econ. Research, Working Paper No. 16801, 2011), *available at* http://www.nber.org/papers/w16801.pdf. Please note that we refer to this academic study, and the other sources that provide average hedge fund leverage estimates, for illustrative purposes and that we do not necessarily believe that the methods used to calculate leverage in these studies represents the best method of calculating a hedge fund's leverage. Please see discussion in response to Question 8 in Section III.

[19] Sebnem Kalemli-Ozcan et al., *Leverage Across Firms, Bank and Countries* 14–15 (Nat'l Bureau of Econ. Research, Working Paper 17354, 2011), *available at* http://www.nber.org/papers/w17354.pdf (finding a stable aggregate leverage ratio for U.S. banks from 2000 to 2008, displayed in Figure 4). The authors of this paper derived their statistics from data on global banks for which they had consistent data reporting. Their data set included 1,123 U.S. banks, 7,335 European banks and 9,437 banks from outside of the U.S. and Europe.

[20] FED. INS. OFFICE, ANNUAL REPORT ON THE INSURANCE INDUSTRY 20 (June 2013), *available at* http://www.treasury.gov/initiatives/fio/reports-and-notices/Documents/FIO%20Annual%20Report%202013.pdf (average for life and health insurers from 2004 to 2009). For property and casualty insurers, which measure leverage as a ratio of premiums-to-surplus (versus assets-to-surplus), during this period the average leverage was about 1x. *Id.* at 28.

[21] We note that, pursuant to the SEC's Custody Rule, hedge fund managers generally distribute audited financial statements prepared in accordance with GAAP to their investors on an annual basis. These financial statements indicate a fund's total assets. *See* Rule 206(4)–2 under the Investment Advisers Act of 1940.

managers actively recruit personnel with risk analysis, regulatory, legal and compliance expertise to help run and oversee their businesses. Additionally, large hedge fund managers devote extensive resources to building portfolio management programs and systems that incorporate sophisticated risk management tools – including proprietary software and other quantitative tools to monitor and test concentration of investments and exposure to exogenous market shock, and qualitative human analysis, including risk committees and compliance personnel oversight of trading. Managers, in our members' experience, seek continually to improve the effectiveness of their risk management programs in order to protect their businesses from operational risk and to protect their clients' assets from unwanted market risks and counterparty risk.

Finally, we note that hedge fund managers typically invest their own capital in their funds (often a material amount), which reduces any moral hazard that may exist in the agency relationship between a manager and its clients and aligns managers' interests with those of fund investors in developing robust risk control procedures and systems. We also believe that the significant investment in hedge funds by their managers improves the stability of hedge fund capital.

F. Sophistication of Hedge Fund Investors

Pursuant to applicable provisions of the federal securities laws, interests in hedge funds are available only to large institutions and high net worth investors. Most large hedge fund managers have minimum investment amounts for their investors that are higher than the net worth thresholds set by the federal securities laws.[22] The largest hedge fund investors are institutional investors with assets of several billion dollars or more, such as pension funds, endowments, foundations, sovereign wealth funds and insurance companies. These professional investors, in our members' experience, have long-term investment horizons and do not view their hedge fund investments as temporary placements of cash to which they require immediate access. Further, these investors typically invest only a small portion of their portfolios in hedge funds and further diversify their risk and minimize their exposure to any particular strategy by spreading their hedge fund investments among multiple funds. For example, U.S. public pension funds, on average, allocate only approximately 8.6% of their assets to hedge funds as of December 2013.[23] By diversifying their risk and controlling their exposure to hedge funds, these investors are able to ensure that the significant losses or other distress of any one fund would not have a severe impact.

Hedge fund investors are actively interested in hedge fund managers' risk management and operational practices. In addition to the pressure to manage risk and

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[22] Under the federal securities laws, interests in hedge funds are generally available only to those who meet specific economic standards: "accredited investors," generally individuals whose net worth excluding their primary residence exceeds $1 million and certain other entities, and "qualified purchasers," including generally individuals who own not less than $5 million in investments or any other person acting for its own account or the account of other qualified purchasers who owns and invests on a discretionary basis not less than $25 million.

[23] Preqin, *CalPERS Withdraw From Hedge Funds – Start of a Trend?* (June 2014), *available at* https://www.preqin.com/docs/press/CalPERS-Sep-14.pdf. Under the so-called "25 percent test", hedge funds often seek to limit pension plan investments to less than 25 percent of each class of a fund's interests. *See* 29 U.S.C. § 1002(42) (Section 3(42) of ERISA); 29 C.F.R. § 2510.3-101.

market exposure managers put on themselves, hedge fund investors and the third-party consultants who evaluate hedge funds for them insist that managers of the hedge funds in which they invest implement and maintain robust and transparent risk management systems, compliance infrastructures and operations. Investors and consultants increasingly scrutinize fund managers' risk management programs and spend considerable time before investing researching these practices during the due diligence process, that typically takes months to complete.[24] Detailed diligence questionnaires, in-person interviews, and third-party background and reference checks are all used to examine business operations and investment risk management practices before any decision to invest in a hedge fund is made. In our members' experience, investors and consultants continue to focus on these issues as part of ongoing due diligence even after an initial investment is completed. Managers provide regular reports to investors with detailed risk analyses, and many investors insist on at least annual follow-up due diligence meetings.

G. Redemption Characteristics and Asset-Liability Matching

Hedge funds use both investor's contributions and borrowed funds to construct their portfolios. Managers work diligently to ensure that those investor contributions and borrowed funds match the tenor and volatility of the assets in which they invest. Managers are particularly focused on managing risk during times of market stress and maintaining adequate liquidity by matching lending duration with expected portfolio liquidity. Hedge funds are not subject to mandatory redemption requirements under any statute or regulation and their organizational documents generally impose certain limits on investors' ability to redeem their interests. Because hedge funds are able to limit their investors' ability to withdraw their investments, managers can seek to ensure that the liquidity of the fund's portfolio is consistent with their funds' redemption obligations.[25] For example, funds that invest in less liquid or longer maturity assets, like certain less liquid credit instruments, will typically allow annual or less frequent redemptions with 90-day notice periods and substantial up-front waiting periods, called initial lock-up periods. A manager of a more liquid portfolio, such as a managed futures fund, might provide quarterly redemptions with a 30-day notice period.

The hedge fund industry has also developed carefully crafted practices to manage liquidity risk.[26] For example, hedge funds do not rely on unsecured, short-term financing to

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24 *See* Deutsche Bank Global, *supra* note 3, at 16–17 (finding that 61% of respondents take at least 4 to 8 weeks, with consultants and pension plans more likely to spend more than 8 weeks).

25 *See* OFFICE OF FIN. RESEARCH, 2013 ANNUAL REPORT 94 (2013), *available at* http://financialresearch.gov/annual-reports/files/office-of-financial-research-annual-report-2013.pdf ("[O]n 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. 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. That suggests funds with larger leverage ratios may be choosing assets that are relatively easier to dispose of during a crisis.").

26 *See* MFA, SOUND PRACTICES FOR HEDGE FUND MANAGERS (ed. 2009), *available at* https://www.managedfunds.org/wp-content/uploads/2011/06/Final_2009_complete.pdf; *see also*, ASSET MANAGER'S COMM., PRESIDENT'S WORKING GRP. ON FIN. MKTS., BEST PRACTICES FOR HEDGE FUND MANAGERS (Jan. 2009), *available at*: http://www.cftc.gov/ucm/groups/public/@swaps/documents/file/bestpractices.pdf.

support their investing activities. Instead, hedge funds generally rely on secured borrowings, for which they pledge collateral of cash or securities that are marked-to-market on a daily basis. As a result, managers strive to match closely the financing term and the expected liquidity of the financed assets. The U.K. Financial Conduct Authority (the "FCA") 2014 Hedge Fund Survey confirmed these practices, finding that the assets of surveyed hedge funds could be liquidated in a shorter timeframe than the period in which their liabilities (to investors and finance providers) would become due.[27] Overall, these practices help mitigate the potential for liquidity risks relevant to the hedge fund industry to become risks to the financial system.

H. Regulatory Supervision of Counterparties and Service Providers

Since the financial crisis, very significant regulatory changes have been implemented, and market practices have fundamentally changed the way hedge funds invest and manage portfolio risk. New and revised regulations (such as swap clearing and derivative margin requirements) are applicable to hedge fund managers and to their counterparties and service providers, including banks, broker-dealers, swap dealers and central clearing counterparties. Any assessment of the hedge fund industry must account for these regulatory and market practice changes in order to analyze properly potential sources of systemic risk. Changes have been driven by the Dodd-Frank Act and other regulatory reforms, which have had multiple important and positive effects including: increasing regulatory oversight of large hedge funds by requiring their managers to register as investment advisers and to report detailed information; increasing transparency and standardization in derivative markets; reducing counterparty credit risk exposure through central clearing of swaps and higher levels of margin for uncleared swaps;[28] increasing financial buffers at the largest financial institutions; and addressing deficiencies in important short-term funding markets. In addition, changes in market regulations, such as circuit breakers and enhanced short sale rules in the equities markets, together with enhanced oversight of technology preparedness form rules such as Regulation SCI, have diminished the risk of significant disruption in the event of a failure or mistake in market infrastructure.

I. Regulatory Reporting and Transparency

Our industry has become considerably more transparent to regulators since the financial crisis. Hedge fund managers not only provide detailed information directly to two primary regulators, the SEC and the CFTC, but also to the Council indirectly through the Office of Financial Research ("OFR").[29] The Dodd-Frank Act further permits the Council to obtain "all reports, records, and information" filed with or provided to the SEC by an investment adviser that the Council may "consider necessary for the purpose of assessing the

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[27] FIN. CONDUCT AUTHORITY, HEDGE FUND SURVEY 6 (Mar. 2014), *available at* http://www.fca.org.uk/static/documents/hedge-fund-survey.pdf ("Funds in aggregate continue to hold investments that are more liquid than the terms they offer their investors."). *See also infra* note 36.

[28] We note in this regard that hedge funds have historically—before the financial crisis—been required to post collateral for swaps.

[29] We note that the OFR has used information reported in Form PF filings in analyses discussed in the OFR's annual reports. *See* OFR, *supra* note 25, at 93.

systemic risk posed by a private fund."[30] The Dodd-Frank Act generally requires all hedge fund managers with $150 million or more in assets to register with the SEC as investment advisers, and hedge funds with over $1 billion in assets to comply with substantial SEC regulatory reporting requirements. The CFTC requires a broad swath of the industry to register as commodity trading advisors or commodity pool operators and report certain information to the CFTC, if they use more than a *de minimis* amount of futures or swaps in their investment strategies. Required reports provide regulators with ample information to analyze and inform their view of the industry. Through Form ADV, the SEC collects a myriad of firm-specific information from investment advisers, including information about key service providers and counterparties. Filings on Form PF and CPO-PQR allow regulators to monitor fund holdings and strategies in depth, to evaluate funds' use of leverage, to review each fund's asset/liability and liquidity matching, to analyze the outcome of stress tests, to see detailed counterparty exposure at both the fund and industry level and to evaluate funds' susceptibility to market shocks.[31] Certain market activities relevant to hedge funds, such as repurchase agreement transactions and securities lending, are not currently subject to specific reporting requirements. We support regulators' efforts to collect more information in these areas, as they determine necessary to ensure effective regulatory oversight.[32]

Additionally, we believe that regulators should continue working to implement various industry-wide data collection and transparency reforms that are currently underway. One significant information gathering tool under development is the Legal Entity Identifier, which would assign unique identifications to single corporate entities and allow global regulators and supervisors to measure and monitor systemic risk by aggregating and sharing information. It would also help funds and managers measure and manage counterparty exposure and develop a consistent and integrated view of their counterparty exposures.[33]

In the remainder of our letter, we respond to each question posed by the Council in the Notice. Our responses highlight, where applicable, the unique features of hedge funds that mitigate the risks discussed in the Notice and emphasize the impact of existing regulation, both on hedge funds and the market participants with which they interact. While we identify below some areas for further improvement, we submit that regulators already have developed a robust regulatory framework to contain and monitor key risks in the hedge fund industry.

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30 Dodd-Frank Act § 404.

31 The adopting release for Form PF noted the importance of Form PF, Form ADV and Form CPO-PQR: "Collectively, these reporting forms will provide [the Council] and the [SEC and CFTC] with important information about the basic operations and strategies of private funds and help establish a baseline picture of potential systemic risk in the private fund industry." Reporting by Investment Advisers to Private Funds and Certain Commodity Pool Operators and Commodity Trading Advisors on Form PF, 76 Fed. Reg. 71,127, 71,129 (Nov. 16, 2011).

32 *See also* our response to Question 10 in Section I.

33 *See* AFME et al., *Requirements for a Global Legal Entity Identifier (LEI) Solution*, at 7 (May 2011), *available at* http://www.gfma.org/uploadedFiles/Initiatives/Legal_Entity_Identifier_%28LEI%29/RequirementsForAGlobalLEISolution.pdf.

I. Liquidity and Redemptions

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)?*

From a risk management perspective, hedge funds are well positioned with regard to redemptions because they are not subject to regulations requiring prompt redemption, and the contracts their investors enter into in connection with investing in the fund limit the investors' ability to redeem their interests in the fund to specific periods and with advance notice. These measures enable hedge fund managers to match the term or expected liquidity of their funds' assets with the term of the funds' capital from equity investors.

When making portfolio allocations, investors recognize that hedge funds are not sources of immediate liquidity. Hedge fund investors receive detailed disclosures outlining the limitations on their ability to exit hedge funds.[34]

Because hedge funds are not required under applicable law to offer prompt redemptions, they specify the terms on which investors may redeem their interests in their organizational documents and design redemption terms that accommodate their investment strategies and reflect the liquidity of their portfolios. Hedge funds use a variety of contractual redemption restrictions to manage orderly outflows of investor funds, which helps reduce the likelihood that redemptions of investor capital will be disruptive to a fund or to markets. Such redemption restrictions include:

- *Limited period of redemptions.* Hedge funds have established redemption periods, sometimes monthly, and often quarterly, annually, or even less frequently, depending on the fund's investment strategy.

- *Lock-up periods.* Hedge funds also often limit investors' ability to withdraw some or all of their investments for periods of time after their initial investment. For

[34] Regulators have acknowledged that because hedge fund investors are sophisticated, they may be less likely to withdraw funds during times of stress. As an August 2008 publication from the Federal Reserve Bank of Dallas explained, "[h]edge funds typically require a minimum investment, sometimes $1 million or more. The restriction usually limits participants to relatively sophisticated investors who would conduct considerable due diligence before investing and be unlikely to withdraw their funds on a whim." Jeffery W. Gunther & Anna Zhang, *Hedge Fund Investors More Rational Than Rash*, 2 ECON. LETTER—FED. RESERVE BANK OF DALLAS 3, Aug. 2007, *available at* http://www.dallasfed.org/assets/documents/research/eclett/2007/el0708.pdf. Despite the fact that their investors are sophisticated and are unlikely to withdraw their funds on a whim, hedge funds did face significant redemptions during the financial crisis in 2008. *See* International Financial Services London, *Hedge Funds 2009*, at 1 (Apr. 2009), *available at* http://www.finalternatives.com/node/7511 ("Hedge funds returned 13.2% of investors' assets in 2008. . . . This is only the second time over the past two decades that the industry has suffered an annual net outflow of funds."). Importantly, however, these net outflows did not have any systemic effect on the wider financial system. Rather, hedge funds were able to manage redemption requests by using their contractual tools, such as gates and suspensions. Those funds that were unable to meet their redemptions requests uneventfully liquidated or merged into other funds.

example, a fund that normally allows for monthly redemptions may institute an initial six-month or one-year lock-up period during which investors are not able to redeem their interests. These types of provisions discourage so-called "hot money" investors, provide a more stable funding base to the fund, and protect remaining investors' interests.

- *Fees for early redemptions*. Some funds provide investors with the ability to redeem sooner if they pay an early redemption fee. That fee not only deters investors from making premature redemptions, but also serves to defray any costs associated with the sale of assets for the benefit of the remaining investors.

- *Advance notice requirements*. Hedge funds require investors to notify the hedge fund manager of their desire to redeem a specified number of days (usually 30 to 90 days) prior to the requested withdrawal date. Advance notice provides managers sufficient time to consider how to provide cash to meet any redemption requests, which mitigates the need for so-called "fire sales" of fund assets and enables funds to meet their obligations to both redeeming and remaining investors.

- *Side pockets*. Hedge funds' contracts may also allow managers to establish side pockets to hold investments that are illiquid or difficult to value. Side pockets have more restrictive redemption provisions than the main fund, and redemptions from side pocket vehicles are generally allowed only when realizations occur. The assets in a side pocket are valued separately from the rest of a fund's portfolio. Managers may terminate side pockets if the assets in them become sufficiently liquid to move them back into the main fund. In the case of illiquid or hard-to-value investments, side pockets help ensure that all investors are treated similarly and help hedge funds manage liquidity risk.

- *Gates*. If redemption requests in one redemption period exceed a certain specified threshold (*e.g.*, 10% of assets), a fund may have a so-called "gating" mechanism that limits redemptions beyond the threshold. In subsequent periods, the gate can be triggered again until all redemption requests can be met or the fund is wound down. Although the precise terms of gates can vary from fund to fund, common types of gates include fund-level gates, which limit the percentage of assets a fund will redeem on any given redemption date, and investor-level gates, which are applied on an investor-by-investor basis and limit the amount any one investor can redeem at a time (*e.g.*, 25% of its investment per quarter). These gates are pre-established in the contracts investors sign, and, while used rarely, it was not uncommon for gates to be triggered and used during the global financial crisis. Gates allow managers to avoid fire sales and protect remaining investors' interests.

- *Limited suspensions of redemptions*. Fund agreements often permit the general partner or board of a fund to suspend redemptions during the course of unusual events (*e.g.*, a significant market disruption such as severe market-wide liquidity issues or market dislocations) and at the manager's discretion. This kind of

provision is used infrequently in practice but can provide another tool for certain hedge funds to manage acute liquidity issues that may arise in periods of severe market stress. Some managers may also establish side pockets for investments that unexpectedly become illiquid, which limits redemptions on that portion of their assets.

- *Redemptions in-kind*. Fund agreements often permit redemptions in-kind. If a fund does not have enough cash on hand to meet redemptions in cash or believes redeeming in-kind is in the best interest of all fund investors (*e.g.*, to avoid selling assets at depressed prices to the detriment of redeeming and remaining investors), the manager may distribute the assets held by the fund to redeeming investors, on a *pro rata* basis. We note that this is extremely rare in practice, as the other liquidity mechanisms discussed above are usually more than sufficient to allow the manager to ensure any outflows are orderly.

Although hedge funds, to various degrees, have implemented the tools described above to address liquidity risks related to investor redemptions, managers generally are careful to avoid using tools such as side pockets, suspensions of redemptions and redemptions in-kind unless, pursuant to their fiduciary obligations, the fund's interests as a whole would be better protected. Such redemption limits are helpful liquidity and risk management tools, particularly in periods of market stress, but managers carefully balance any decision to limit redemptions with the need for investors to withdraw their money in a fair manner and their continuing obligations to other non-redeeming investors.

We believe it is important to emphasize redemption restrictions in this context because, by enabling hedge fund managers to limit redemptions from the funds they manage, these restrictions make less relevant any concern that there may be a "first mover advantage" for hedge fund investors who redeem early. While investors generally are able to redeem their hedge fund investments in times of stress, the contractual redemption restrictions described above give managers some flexibility to control the volume and timing of investor redemptions from a hedge fund. We understand regulators' concern that, in an effort to obtain cash, investors may be incentivized to redeem from funds with fewer redemption restrictions first. However, even hedge funds with relatively more frequent redemption terms (often, matching their more liquid portfolios) have advance notice requirements, which allow managers the time to sell funds' assets to meet redemptions in an orderly manner without undue harm to remaining investors. Finally, as discussed in Section II, funds may have access to a back-up credit facility that provides a source of liquidity to fund redemptions.

The Council has previously expressed concern that companies might refrain from using suspensions and deferrals due to reputational risk and that the use of suspensions or deferrals at one fund may create duress at similarly situated funds.[35] While hedge fund

[35] In its publicly released designations of Prudential and MetLife, the Council expressed concern that, although many insurance products have deferral provisions, companies might be unlikely to use those deferrals due to reputational risk. The Council also expresses concern that if one company begins deferring payments, investors in other similar products may react by pulling their investments out of those similar products. *See*

managers do seek to accommodate their investors' redemptions requests promptly, we note that hedge fund managers have not shied away from using tools, such as deferrals, suspensions and gates, when necessary. For example, in our members' general experience, during the recent financial crisis, it was not uncommon for large hedge fund managers to suspend investor redemptions for a period of time or for the gating provisions to be triggered in certain of their funds. We believe that the practice of limiting redemptions in accordance with fund terms helped funds manage market stress and survive the financial crisis, and did not contribute to the closure of other similar funds.[36] We also note that, as fiduciaries and in accordance with the Investment Advisers Act of 1940, hedge fund managers are obligated to make decisions with respect to redemptions that are in the best interests of their clients and will consider their clients' best interests above any other concern in making redemption restriction decisions. This includes using tools available to the manager to avoid disorderly redemptions or asset sales that would unfairly disadvantage investors remaining in the fund. Additionally, we note that during the recent financial crisis, our members' experience was that the decision to suspend or limit redemptions was often made in consultation with investors, who often advocated for limiting redemptions to help manage risk and to avoid unwinding portfolios in volatile markets.

In its proposed recommendations to the SEC regarding money market fund reform, the Council expressed concern over the use of gates and the potential for increased fire sale risk.[37] This concern is, in our view, not applicable to hedge funds. During the financial crisis, a number of large hedge funds, including certain of our members, used gates and other deferral mechanisms; however, those funds generally continued to operate post-deferral, indicating that the use of gates did not result in market-impacting fire sales and subsequent fund closures. Indeed, we believe that hedge fund investors expect managers to use such tools when doing so is consistent with the manager's fiduciary obligations to act in the best interests of the funds they advise. While some investors may be inconvenienced, the funds' interests as a whole are protected when a manager limits redemptions when it is prudent to do so.

FSOC, BASIS FOR THE FINANCIAL STABILITY OVERSIGHT COUNCIL'S FINAL DETERMINATION REGARDING PRUDENTIAL FINANCIAL, INC. 10 (Sept. 19. 2013), *available at* http://www.treasury.gov/initiatives/fsoc/designations/Documents/Prudential%20Financial%20Inc.pdf; FSOC, BASIS FOR THE FINANCIAL STABILITY OVERSIGHT COUNCIL'S FINAL DETERMINATION REGARDING METLIFE, INC. 23 (Dec. 18, 2014), at 23, *available at* http://www.treasury.gov/initiatives/fsoc/designations/Documents/MetLife%20Public%20Basis.pdf.

[36] As discussed above in footnote 27, hedge funds faced an increase in redemptions during the financial crisis. However, there was no systemic risk associated with the redemptions that occurred and no widespread "run" on hedge funds. We believe this is because investors understand that hedge fund liquidity management tools limit any first mover advantage with regard to redemptions that may otherwise exist. For example, if an investor wanted to redeem its investment in a hedge fund that had adopted a gate, submitting an early redemption request would not guarantee that the investor would be able to redeem its interest at the end of the period, as redemption requests would be granted *pro rata* in the event that redemption requests in that redemption period exceeded the gate threshold. Hedge fund investors are sophisticated and understand these mechanics.

[37] *See* FSOC Proposed Recommendations Regarding Money Market Mutual Fund Reform, 77 Fed. Reg. 69,455, 64,478–79 (Nov. 19, 2012).

Finally, we note that hedge fund managers to larger funds report information in Form PF filings that allows the SEC (and the OFR and the Council) to monitor hedge fund liquidity, including the liquidity of the assets held by funds and redemption rights of fund investors. The CFTC collects similar information from commodity pool operators and commodity trading advisors in its Form CPO-PQR and Form CTA-PR, respectively. This regulatory transparency allows regulators to review the liquidity terms of hedge funds and confirm the protections that we describe above are in place. According to the SEC, data collected on Form PF showed that over 50% of hedge fund assets could be liquidated in seven days or less and 80% could be liquidated in 90 days or less,[38] suggesting that the liquidity terms commonly used in hedge fund structures are well matched to the assets in the funds.

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?*

Speaking earlier this year at the OFR and the Council's annual conference on "Evaluating Macroprudential Tools: Complementarities and Conflicts," Governor Daniel Tarullo of the Federal Reserve argued that, to the extent that asset management vehicles "hold relatively less liquid assets but provide investors the right to redeem their interests on short notice, there is a risk that in periods of stress, investor redemptions could exhaust available liquidity."[39] We agree with the observation that asset management vehicles that hold less liquid assets and offer near-term liquidity to investors will be more challenged to meet redemption requests in periods of market stress; however, we emphasize that less liquid hedge funds generally have less frequent redemption rights and require longer notice periods.[40] As Governor Tarullo correctly recognized, the question of fund liquidity is a two-sided equation involving both the liquidity of the assets held by the fund and the redemption liquidity of the investments in the fund.

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[38] *See* Form PF Questions 32, 46, 48, 49, 50, 63, 64. The SEC has analyzed hedge fund liquidity information collected on Form PF in the past. The SEC staff has compiled the following chart showing the percent of aggregated qualifying hedge funds reported on Form PF portfolios capable of being liquidated within certain time periods. SEC, ANNUAL STAFF REPORT RELATING TO THE USE OF DATA COLLECTED FROM PRIVATE FUND SYSTEMIC RISK REPORTS, at Appendix A, p. 3 (July 2013).

Percent of Net Asset Value	Time Period
27%	1 day or less
53%	7 days or less
71%	30 days or less
80%	90 days or less
85%	180 days or less
89%	365 days or less
100%	365 days or more

[39] Daniel K. Tarullo, Member, Federal Reserve, Advancing Macroprudential Policy Objectives (Jan. 30, 2015), *available at* http://www.federalreserve.gov/newsevents/speech/tarullo20150130a.htm.

[40] Please see our response to Question 1 for additional detail regarding redemption restrictions.

Additionally, as we noted above, we believe the federal regulators have sufficient information to monitor hedge fund asset/liability matching and to evaluate the impact of declines in asset values (stress tests) through the extensive information filings on Form PF that managers make. In this regard, we note that larger managers, with over $1 billion in assets, file quarterly reports on Form PF with monthly data. Regulators can and do use the information they collect from hedge funds for further rulemaking and enforcement actions.[41]

As discussed at length in response to Question 1 above, hedge funds invest in assets with different liquidity profiles depending on their investment strategy, and have portfolio liquidity guidelines that are consistent with their strategies and redemption rules. Many of the largest hedge funds invest primarily in highly liquid, exchange-traded equities, debt, futures and other instruments. For these funds, monthly or quarterly redemption does not pose significant liquidity risk. Private funds that invest primarily in fairly illiquid assets (for example, high yield bonds and senior debt securities) manage their liquidity risk by, among other things, utilizing contractual redemption restrictions and other management tools available to them. Hedge fund managers consider and match the liquidity constraints of an investment strategy with appropriate redemption restrictions when setting up a new fund and remain focused on liquidity matching for the duration of the fund. Hedge funds regularly conduct liquidity stress testing,[42] and the SEC has announced plans to implement annual stress tests for large investment advisers and large funds pursuant to the Dodd-Frank Act, which will provide regulators with even more information.[43] As mentioned above, managers provide the SEC and CFTC with extensive information, which is also made available to the Council and OFR, to enable Council members and the OFR staff to monitor liquidity risk, among other things. Analysis of data collected on Form PF, including asset liquidation data and leverage information, has shown that the use of leverage by hedge funds decreases when they hold assets that are more illiquid or hard to value.[44]

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[41] The SEC has stated that it has used and will continue to use the information gathered on Form PF in its examinations and enforcement efforts of hedge fund and other private fund advisers. SEC staff is also focused on incorporating Form PF data into the SEC's risk monitoring activities. *See* SEC, ANNUAL STAFF REPORT RELATING TO THE USE OF DATA COLLECTED FROM PRIVATE FUND SYSTEMIC RISK REPORTS (Aug. 15, 2014), *available at* http://www.sec.gov/reportspubs/special-studies/im-private-fund-annual-report-081514.pdf.

[42] On January 15, 2009, at the request of the President's Working Group on Financial Markets, the Asset Managers' Committee issued a report entitled "Best Practices for the Hedge Fund Industry." This report noted that managers "should consider regularly conducting liquidity stress scenario analyses on the portfolio(s) in order to understand and better manage its ability to meet obligations in light of the fund's portfolio." ASSET MANAGER'S COMM., *supra* note 26, at 26. The MFA's sound management practices also suggest such stress testing. *See* MFA SOUND PRACTICES, *supra* note 26, ch.3, § 3.6. We believe these are widely adopted market practices.

[43] Mary Jo White, Chair, SEC, Enhancing Risk Monitoring and Regulatory Safeguards for the Asset Management Industry (Dec. 11, 2014), *available at* http://www.sec.gov/News/Speech/Detail/Speech/1370543677722#.VO9T4f50yAA.

[44] *See supra* note 25 (citing finding from 2013 OFR Annual Report that "funds with larger leverage ratios may be choosing assets that are relatively easier to dispose of during a crisis"). More specifically, the 2013 OFR Annual Report explored the relationship between a hedge fund's leverage and the portion of its assets that are less liquid by sorting hedge funds into five categories, with the first category containing funds that reported zero leverage on Form PF and the other four categories containing the remaining funds, broken into quartiles. The OFR report showed: "Hard-to-value assets represent a little more than 20 percent of the assets of funds

Additionally, in our members' experience, investors in hedge funds, who are highly sophisticated, focus on fund liquidity when making investment decisions, and assess a manager's ability to consider liquidity risk and implement effective liquidity management procedures before they invest. Both large institutional investors and many high net worth investors also engage the service of consultants and advisers that perform rigorous assessments of hedge fund risk management practices.[45] Several groups representing large institutional investors and hedge funds, including the Alignment of Interests Association, an organization that represents hedge fund investors, have published principles to inform investors' due diligence processes which reflect very common investor concerns and, in our members' experience, the issues investors typically ask about when making investment decisions. Principles published by the Alignment of Interests Association related to liquidity include:

- Redemption notice periods should reflect a combination of the liquidity of the fund's underlying securities, together with some level of sensitivity to the manager's business stability concerns.

- Gates can be an appropriate approach to managing business risk and the liquidity of the fund, but should not be used to maintain fees or for other non-investment related reasons.

- Illiquid investments should be designated as side pocket positions at the time of purchase. Any investment transferred into a side pocket after purchase should be subject to transparent disclosure as to the rationale for such change in status and when liquidity on the investment is expected.[46]

Given the fact that hedge fund managers, closely monitored by sophisticated investors and investors' third-party consultants, and reporting to federal regulators, spend a great deal of time ensuring that the liquidity profiles of their portfolios, and the assets included therein, are appropriately matched with redemption restrictions, we do not believe that there are particular asset classes that pose materially greater liquidity and redemption risks to hedge funds either during normal market functioning or during times of stress.

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with no leverage. For the category of funds with the highest leverage . . . the corresponding fraction was less than 5 percent." OFR, *supra* note 25, at 94 (citations omitted).

[45] *See* Deutsche Bank Global, *supra* note 3, at 13 (finding 24% of respondents use a consultant or non-dedicated investment team to conduct operational due diligence).

[46] Alignment of Interests Assoc., *AOI Hedge Fund Investing Principles* (Dec. 2014), *available at* http://www.altaoi.org/s/AOI-Hedge-Fund-Principles_2014.pdf. The members of the Alignment of Interests Association include Employees' Retirement System of Rhode Island, Employee Retirement System of Texas, and Teacher Retirement System of Texas, among other hedge fund investors. *See also* MFA, *Model Due Diligence Questionnaire for Hedge Fund Investors*, *available at* http://www.managedfunds.org/wpcontent/uploads/2011/06/Due-Dilligence-Questionnaire.pdf (setting out additional due diligence questions related to liquidity and redemption matching).

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?*

We do not believe that, by their nature, collective investment vehicles make fire sales of portfolio assets more likely than if the portfolios of assets were held directly by investors. They may, in fact, make fire sales less likely, as hedge fund managers, who as professionals may be more comfortable with risk and are adept at managing risk, may be less likely than individuals to sell portfolio assets at the first signs of trouble. An individual investor who holds a particular asset and needs liquidity may only have that asset (or a relatively limited number of assets) to sell. In contrast, a fund with a diversified portfolio can choose which assets to sell to minimize fire sale risk. Additionally, hedge funds have administrative and procedural hurdles that investors must be met for investors to exit their investments. These hurdles cause investors to think of their investments as long-term. As discussed above in response to Question 1, fund agreements contain redemption restrictions, agreed to by investors, which allow managers to match the frequency of redemptions to investment strategy. Thus, the very structure of hedge funds mitigates the possibility that a hedge fund would need to liquidate precipitously due to investor redemptions.[47] Managers' ability to limit investor redemptions allows hedge funds to liquidate their assets in an orderly and controlled manner.

In our members' experience, the various redemption provisions related to hedge fund investments, notice periods, gates and potential redemption suspensions intentionally make most hedge funds a less likely and less available source of liquidity for investors than many other available options in times of stress. As mentioned above, potential redemption suspensions are often imposed in consultation with investors and, based on the experience of many managers in the aftermath of the financial crisis, with the support of many investors. Investors are advised of the liquidity terms of their hedge fund investments in advance and can plan accordingly.

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?*

As we understand this question, the Council's concerns relate primarily to the risk that, in the event securities loans need to be unwound suddenly, unwinding securities loans could cause distress for lenders and lending agents. This would occur in the event that the lender has invested the cash collateral for the securities loan in longer term or relatively

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[47] Each year, many hedge funds liquidate or close for reasons as diverse as extended poor performance reducing their attractiveness to investors, the retirement or departure of senior personnel, or an investment strategy that no longer excels in a changed market environment. The fund's assets are sold, sometimes gradually over many months by the manager and sometimes suddenly in a "liquidation" mode by the prime brokers and exchanges with which the fund traded and that hold its collateral. This market discipline is a hallmark of the industry as funds and firms close and other funds (existing or new) emerge.

illiquid securities that may nonetheless need to be liquidated quickly in order to return cash collateral.

At the outset, these concerns have relatively limited application to hedge funds because they much more frequently borrow securities rather than lend them. As far as these questions relate to hedge funds, terminations of securities loans that might trigger asset sales do not pose financial system stability concerns because well-established market practices, designed to limit counterparty and liquidity risks, safeguard participants in securities lending transactions.[48]

When hedge funds borrow securities from, for example, a pension fund, the transaction is conducted through a securities lending agent, most commonly a bank, which imposes strict collateral requirements to address counterparty risk in securities lending transactions.[49] The strict collateral requirements typical of securities lending transactions reflect banks' efforts to enhance their risk management related to their role as lending agents. In our members' experience, since the financial crisis, banks that have significant securities lending agency businesses have changed their cash collateral reinvestment practices to address their vulnerability to liquidity risk brought to light during the financial crisis. Securities lending agents have adopted new policies and procedures that seek to ensure that cash collateral is invested in a sufficiently liquid pool of assets to enable the lending agent to meet any collateral repayment requirements that may come due, and lending agents regularly evaluate the liquidity of the collateral they manage and stress test their portfolios.[50]

As noted, hedge funds most often participate in securities lending transactions as borrowers and, therefore, in instances where they post cash collateral, are exposed to possible counterparty default risk associated with cash collateral reinvestment by their

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[48] The Financial Stability Board ("FSB") has done extensive work in the area of haircuts, valuation methods and recommendations on collateral reinvestment. *See* FSB, *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 (proposing qualitative standards for methodologies to calculate haircuts and numerical haircut floors for certain non-centrally cleared securities financing transactions); FSB, *Strengthening Oversight and Regulation of Shadow Banking: Policy Framework for Addressing Shadow Banking Risks in Securities Lending and Repos* (Aug. 29, 2013), *available at* http://www.financialstabilityboard.org/publications/r_130829b.pdf (proposing global aggregated collection of repo and securities lending data and minimum standards for cash collateral reinvestment and re-hypothecation).

[49] *See* FFIEC Revised Policy Statement on Securities Lending, 62 Fed. Reg. 40,816 (July 30, 1997). Collateral posted in securities lending transactions is marked-to-market daily. Daily mark-to-market margining allows securities lenders to call for additional cash or securities from a hedge fund borrower as needed to cover their risk of loss. If the value of the collateral decreases, the securities lender can make collateral calls, requiring the borrower to deliver additional collateral to the securities lender. This protects both the intermediary lending agent bank as well as the lender of securities. *See* Letter from Stuart Kaswell, Exec. Vice President & Managing Dir., General Counsel, MFA, to Secretariat, FSB, at 2 (Nov. 28, 2013), *available at* https://www.managedfunds.org/wp-content/uploads/2013/12/MFA-comment-letter-on-FSB-Consultation-on-securities-lending-and-repo-markets.pdf.

[50] In addition to these changes in practice, banks in the United States and abroad also are in the process of coming into compliance with a host of enhanced capital and liquidity requirements that will have a transformative impact on banks, including their securities lending activities. Because of the role large banks have in securities lending markets, the changes banks make to comply with these requirements are almost certain to affect the securities lending markets more broadly, and the potential and actual market effects of these changes cannot yet be fully understood.

counterparties. If a hedge fund terminated a securities loan, it might cause a counterparty to sell assets in order to return collateral to the fund. If a counterparty is unable to return the collateral, it would default on its obligations to the hedge fund. However, the collateral management practices of securities lending agents described above make it unlikely that a counterparty would be unable to return collateral, and, in any event, a default would not have systemic impact.[51] Furthermore, we note that, to the extent any risks exist with respect to cash collateral management, they would be best addressed by further restrictions on the practices of securities lenders and lending agents, not on borrowers.

In the infrequent instances when a hedge fund is the securities lender rather than borrower, the termination of a securities lending transaction would generally cause the securities lender to unwind cash collateral reinvestment positions or return securities posted as collateral. Securities lenders, however, are generally not exposed to significant risk of loss, as collateral posted for securities loans is marked-to-market daily and lenders are able to manage liquidity and maturity/term risks. In addition, managers typically adopt policies and procedures that seek to ensure that their investments of any cash collateral have terms commensurate with the corresponding loan, that their funds have sufficient liquidity to meet their obligations as they become due, and that they appropriately manage their portfolio risk. These procedures may include periodic stress testing. For non-cash collateralized loans, the manager will assess the types of collateral that it will accept from counterparties. These assessments include using applicable "haircuts" to ensure that there is a sufficient collateral buffer in place and assessing daily the risk of each asset and counterparty to ensure the collateral continues to be sufficient.

We understand that the insufficient liquidity risk management related to the unique securities lending practices of at least one large insurance company was a concern during the recent financial crisis. However, this was not a result of securities lending *per se*, but of investment of cash collateral by the lenders in less liquid assets. We believe this is a key distinction and note that, in practice, reinvestment standards have changed to reflect this in the time since the financial crisis.[52] Notwithstanding experience during the financial crisis (and, in part, due to lessons learned from it), we believe the basic securities lending market functions with significant safeguards. The market practices summarized in this response to Question 4 significantly mitigate any concerns that terminations of securities lending loans

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[51] Non-cash collateralized loans (*i.e.*, posting securities as collateral instead of cash) has increased since the financial crisis and further mitigates risk in securities lending by eliminating risks surrounding cash collateral reinvestment. This increased use of non-cash collateral, in our view, offers additional protection when banks act as lending agents because it mitigates any cash collateral reinvestment risk a hedge fund might face if it posted cash collateral.

[52] The Federal Reserve Bank of New York has raised this concern in the past: "While all available evidence suggests that the securities-for-cash loan transaction does not typically lead to market disruption or harmful unintended consequences, AIG's use of this transactional form provides a stark illustration of the potential for it to have significant consequences given the investment and incentive risks it can create. . . . [AIG] used securities loans to fund investment in what proved to be illiquid residential MBS that were valued at deep discounts at the time its counterparties withdrew funding." *See* Frank M. Keane, *Securities Loans Collateralized by Cash: Reinvestment Risk, Run Risk, and Incentive Issues*, 19 CURRENT ISSUES IN ECONS. & FIN.—FED. RESERVE BANK OF N.Y., May 2013, at 6, *available at* http://www.newyorkfed.org/research/current_issues/ci19-3.pdf.

might trigger redemptions from cash collateral reinvestment vehicles or other asset sales to an extent that would pose financial stability concerns.

5. *To what extent do lending agents reinvest cash collateral in vehicles managed by the same firm that manages the investment vehicle lending the securities?*

As mentioned above, our members only infrequently lend securities and, when they do, they generally do not reinvest the cash in a separate reinvestment vehicle managed by the fund's manager (although they may hold the cash in the lending fund).

6. *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?*

Our response to Question 1 of this Section describes the ways that advisers manage investor redemptions from their funds. In this response, we focus on the practices managers use to manage liquidity in their funds' assets in order to meet redemption requests in a timely way.

A central element of investment management is understanding the liquidity of the assets individually and the portfolio as a whole that one is managing. To achieve exposure to certain asset classes, managers may want to sell or trade around positions on a regular basis, so understanding the depth of the market, the impact any sale might have on asset price, and maintaining sufficient cash to meet margin calls are some of the fundamental skills of investment and portfolio management. Hedge fund managers are adept at managing these relationships. In considering the appropriate liquidity profile and cash holdings of their portfolios, managers must reflect on what their liquidity needs would be in times of stress. Managers conduct regular liquidity stress tests on the funds they manage in order to understand and better manage each fund's ability to meet redemption requests and respond to changing market conditions. And, in addition to setting aside a portion of their assets in cash and cash equivalents, managers may enter into back-up credit agreements that provide liquidity to their funds on an as-needed basis.

Managers scrutinize numerous factors to assess the liquidity of their funds in potential times of stress, including creditors' (i) reluctance to release collateral or provide financing, (ii) potential increases of "haircuts" and collateral requirements, (iii) likelihood of terminating relationships based on NAV triggers,[53] and (iv) ability to sell securities under economically favorable terms. In assessing cash on hand and borrowing capacity, managers consider the potential for large losses and conditions of severe market distress, including the possibility of significant redemptions. Large managers often negotiate terms that limit the ability of lending sources to exercise their remedies without meaningful advance notice and,

[53] Hedge fund credit agreements regularly include a provision, often referred to as a "NAV trigger", that would allow a hedge fund's creditor to terminate the agreement if a hedge fund's net asset value or "NAV" declines at a certain rate or below a certain number, and NAV triggers are often tied to the funds' monthly NAV statement to investors.

especially since the financial crisis, have demanded longer-term credit agreements. We reiterate that, although multiple vehicles may face significant redemptions at the same time, the assets of one vehicle cannot be used to satisfy the redemptions of another because hedge funds do not cross-guarantee each other's performance—they are completely separate legal entities.[54]

Additionally, because, unlike banks, neither asset managers nor their investment funds have access to federal borrowing facilities, managers are particularly focused on managing risks and avoiding losses that could destabilize their funds or concern or alienate their investors, and have learned to manage risk in order to maintain their businesses. In our collective experience, hedge fund managers devote considerable resources to managing risks to avoid destabilizing losses and recognize that failure to implement such practices could cause them to suffer damaging reputational harm.

7. *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 discussed in our response to Question 1 of this Section, we believe hedge fund redemption provisions, whether used in isolation or in combination, reduce, rather than amplify, liquidity risk, by enabling fund managers to liquidate securities over appropriate periods to meet redemptions requests. Investors in hedge funds are sophisticated, understand the applicable restrictions and do not expect to be able to liquidate their investments quickly. Moreover, as has been demonstrated, because of this investor sophistication, use of gates at one firm has not sparked a "rush to the exits" at other firms. In addition, while firms that do not have such mechanisms or elect not to use them may see greater redemptions, there are no examples of market impacting fire sales resulting from a lack of gates. Furthermore, funds have used various combinations of deferrals, gates, side-pockets and fees without amplifying risks. Hedge fund investors understand that their redemptions may be limited and, as previously indicated, generally do not view these investments as short-term sources of cash.

8. *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?*

Although competitive pressures inevitably exist, we believe that it is relatively rare for a hedge fund manager to deviate from sound risk management practices to "chase" competitors. Hedge fund managers, like all investment advisers, are fiduciaries of their clients (*i.e.*, the funds they advise). Managers are bound to abide by risk parameters and investment mandates disclosed to and agreed to by investors in fund documents and may not alter portfolio allocations in ways that are inconsistent with their contractual obligations or their general as fiduciaries. As discussed throughout this letter, hedge funds' investors, often sophisticated institutions themselves, research their hedge fund managers' portfolio

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[54] We thank the Council for acknowledging that "an investment vehicle has a separate legal structure from the asset manager, any parent company, or any affiliated investment vehicles under the same manager." Notice, 79 Fed. Reg. at 77,494.

and risk management systems prior to investing and continue to monitor them throughout their investment. We also note that this practice has been acknowledged and endorsed by the Investors' Committee of the President's Working Group on Financial Markets, which advises that investors should conduct thorough due diligence on a manager before investing, including a manager's risk management procedures and third-party service providers, such as prime brokers, administrators and auditors.[55] Investors and consultants acting on their behalf are in regular contact with managers regarding risk and risk management.

Hedge fund managers have developed robust risk management structures that address their investors' concerns and that are designed to allow them to execute their investment mandates in a manner that is consistent with their obligations to their clients. Large funds are increasingly providing investors more information related to risk profiles, with most funds providing regular (usually monthly) portfolio risk reporting. The MFA's Sound Practices for Hedge Fund Managers, for example, suggests that hedge fund managers disclose to investors information about any material changes in asset allocation, as well as quantitative and qualitative information about the strategies employed by the hedge fund and the allocation by or among such strategies, and we believe most managers do.[56] This enhanced transparency, coupled with investors' attention to managers' risk management systems and managers' obligations to manage their clients' assets in a manner consistent with their fiduciary duties, makes it unlikely that competitive pressures will cause managers to alter portfolio allocation in ways that may be inconsistent with best risk management practices. Additionally, exams conducted by the SEC's Office of Compliance Inspections and Examination ("OCIE") and the National Futures Association help ensure that managers continue to invest in a manner that is consistent with their mandates and continue to provide adequate disclosure to investors.

9. *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 discuss throughout our responses to questions in this section, we do not believe that hedge fund liquidity and redemption practices present significant risks to U.S. financial stability. We also note that due to changes mandated by the Dodd-Frank Act, the Council, OFR, SEC and CFTC have sufficient data available to monitor these issues through the extensive periodic filings on Form PF, Form CPO-PQR and/or Form CTA-PR that hedge fund managers submit. Note that we discuss the issue of liquidity as it relates to leverage and market risk in Section II below.

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55 *See* ASSET MANAGER'S COMM., *supra* note 26. The report also recommended that an investor establish its own risk management framework, and take certain factors into consideration when evaluating the risk management framework employed by a hedge fund manager.

56 *See* MFA SOUND PRACTICES, *supra* note 26, ch.1, §§ 3.2.4, 6.1.1.

10. *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?*

As mandated by the Dodd-Frank Act, the Council, OFR, SEC and CFTC receive large quantities of data to monitor these issues through extensive periodic reports on Form PF, Form CPO-PQR and Form CTA-PR. A large manager's Form PF filing to the SEC may exceed 150 pages in a typical quarter and provides detailed information about the liquidity positions of the funds advised by a reporting manager, the specific holdings of each fund with over $500 million in assets, the results of numerous detailed stress tests, and other detailed information about their businesses and the risk profile of their funds. We note that these reporting forms were designed to collect information from managers to help regulators evaluate potential systemic risk.

We request that, if the requirements of Forms PF, CPO-PQR or CTA-PR seem deficient, regulators collaborate with members of the industry to develop a specific proposal to better tailor its requirements and that the public be given an opportunity to comment on any specific changes that may be proposed prior to implementation. We request that, as part of this process, the industry is given greater insight into how the OFR is using the data reported on Form PF.

As discussed above, although we believe that regulators already collect sufficient data about hedge funds themselves through regulatory filings by their managers, and indirectly through reporting by their counterparties, we understand regulators' concerns that certain market activities which may affect hedge funds, such as securities lending and repo transactions, are not currently subject to reporting requirements and thus are not sufficiently transparent to regulators. We support regulators' efforts to collect more information in these areas, in particular the current focus by the Federal Reserve and the OFR on collecting additional data to understand fully and to monitor effectively repo and securities lending markets, including data on collateral types, haircuts and repurchase agreements.[57]

In addition to the extensive information provided to regulators, hedge funds also supply their counterparties with a large amount of information, and a prospective counterparty will typically conduct thorough due diligence on manager or fund before entering into business relationships it. We believe counterparties receive sufficient information from hedge funds to meaningfully assess a fund's liquidity position and credit worthiness.

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[57] Eric S. Rosengren, President & CEO, Fed. Reserve Bank of Boston, Short-Term Wholesale Funding Risks, (Nov. 5, 2014), *available at* http://www.bostonfed.org/news/speeches/rosengren/2014/110514/110514text.pdf ("[T]o date, there has not been a significant focus on public and more timely disclosure of broker-dealers' financing activities. . . . [F]urther detail on repurchase collateral and maturities at the consolidated bank holding company level would also be useful."). *See also* Tobias Adrian, et al., *Repo and Securities Lending*, FED. RESERVE BANK OF N.Y. STAFF REPORTS, Feb. 2013, *available at* http://www.newyorkfed.org/research/staff_reports/sr529.pdf. We note that the FSB has also focused on and made recommendations with respect to securities lending and repo practices. *See* FSB Securities Lending & Repos, *supra* note 48.

II. Leverage

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?*

We believe that this question is highly important because, as has been widely recognized, excessive leverage, by individuals as well as companies, was one of the principal causes of severe distress in the financial sector and at individual institutions in 2008.[58] As we saw during the crisis, in times of market stress, a financial institution with a very high level of leverage and reliance on short-term funding markets to maintain that leverage may become increasingly unable to cover its obligations as its assets depreciate and margin requirements rise.

We submit that it was the absence of significant leverage, which we discuss below, that enabled the hedge fund industry to perform relatively well during the financial crisis. Whether in stressed or normal economic conditions, hedge funds routinely use leverage as part of their overall investment strategies, but at nowhere near the levels found in other sectors of the financial services industry.

Like other types of investment vehicles and financial institutions, hedge funds use leverage in a variety of different ways and to varying degrees. Hedge funds use leverage to expand the assets on their balance sheets per unit of investor capital, to enhance returns and to mitigate risk by hedging other investments. Not all hedge funds use leverage, and use of leverage varies among managers and by investment strategy type (*e.g.*, long/short, relative value, event-driven and arbitrage strategies all use leverage to varying degrees, with considerable variability among funds).[59] Additionally, various asset classes and instruments have differing risk and liquidity characteristics that make them more appropriate for increased leverage. While some hedge funds use more leverage than others, managers typically use leverage with terms that more closely match the investment period of the assets they are financing and are not dependent on access to overnight financial markets, like banks and brokerage firms were heading into the global financial crisis. These are important distinctions as not all leverage entails identical risk.

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[58] *See, e.g.*, Ben. S. Bernanke, Chair, Federal Reserve, Some Reflections on the Crisis and the Policy Response (Apr. 13, 2012), *available at* http://www.federalreserve.gov/newsevents/speech/bernanke20120413a.htm (citing "high levels of leverage" as a key vulnerability that spread risk); Anat R. Admati, *Address Excessive Leverage*, N.Y. TIMES, Apr. 18, 2011, *available at* http://www.nytimes.com/roomfordebate/2011/01/30/was-the-financial-crisis-avoidable/address-excessive-leverage (citing pervasive excessive leverage as the key reason for the bank failures and credit-market freeze).

[59] *See* FIN. SERVICES AUTHORITY, ASSESSING THE POSSIBLE SOURCES OF SYSTEMIC RISK FOR HEDGE FUNDS 14 (Aug. 2012) (fund leverage per investment strategy data); *see also* SEC, IMPLICATIONS OF THE GROWTH OF HEDGE FUNDS 37 (Sept. 2003), *available at* http://www.sec.gov/news/studies/hedgefunds0903.pdf ("The degree to which a hedge fund uses leverage depends largely on its investment strategy."). We note that this study evaluates hedge fund leverage on the basis of GNE. We think that the same trends would be apparent if alternative measures of leverage were used, and, as discussed in more detail elsewhere in our letter, we do not believe GNE is the appropriate measure of hedge fund leverage.

Although hedge funds are sometimes characterized as being highly leveraged financial institutions, the industry is, and has been, significantly less leveraged than other financial market participants. Because, as we explain in greater detail below, hedge funds must post collateral and margin in connection with their borrowings, hedge fund leverage has been and continues to be relatively modest compared to other financial institutions. According to a Columbia University study published in 2011, the average leverage ratio of investment banks during the period from December 2004 to October 2009 averaged 14.2x, with a peak of 40.7x for investment banks in 2009, and the leverage ratio of the entire financial sector during that period averaged 9.4x.[60] By comparison, this same study found that the leverage ratio for the hedge fund industry was 1.5x as of October 2009, with an average ratio of 2.1x from December 2004 to October 2009, and a high of 2.6x.

The findings of the Columbia University study with respect to the leverage ratio of the hedge fund industry are consistent with other studies, including the Hedge Fund Survey published by the FCA in March 2014 which reports median leverage ratios based on hedge funds' gross notional exposure below 5.5x for an extended period of time. The FCA found median leverage ratios of 2.3x, 3.3x, 4.5x, 3.6x and 4.2 as of October 2009, September 2010, September 2011, September 2012 and September 2013, respectively.[61] The data published by the FCA indicate that median leverage ratios have increased modestly since the financial crisis, but are still a considerably lower level than exists at other types of financial institutions.[62] In this regard, we note that the supplementary leverage ratio applicable to U.S. global systemically important banks is 20x, and the ratio applicable to such banks' subsidiaries is 16.67x. Both of these regulatory standards permit substantially higher leverage than is found in the hedge fund industry.

Hedge funds are not subject to the type of direct regulatory restrictions on the use of leverage that apply to certain other products offered by asset managers, such as registered investment companies,[63] which may contribute to the impression that hedge funds can be, and are, highly leveraged. It is important to note, however, that hedge funds are subject to indirect regulatory restrictions and contractual restrictions on their use of leverage that

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[60] Andrew Ang, et al., *Hedge Fund Leverage* 25 (Nat'l Bureau of Econ. Research, Working Paper No. 16801, 2011), *available at* http://www.nber.org/papers/w16801.pdf. Please note that we refer to this academic study, and the other sources that provide average hedge fund leverage estimates, for illustrative purposes and that we do not necessarily believe that the methods used to calculate leverage in these studies represents the best method of calculating a hedge fund's leverage. Please see discussion in response to Question 8 in this section.

[61] FIN. CONDUCT AUTHORITY, *supra* note 27, at 16. The FCA Hedge Fund Survey calculates leverage based on a hedge fund's gross notional exposure, a metric that we do not believe is a useful or accurate measure of hedge fund exposure. We believe that a leverage ratio calculated based on gross notional exposure greatly exaggerates actual leverage. We include the FCA's gross notional exposure-based leverage statistics here for illustrative purposes only and discuss more appropriate leverage calculations in detail in our response to Question 8 in this Section II.

[62] *Id.* at 17.

[63] *See* 15 U.S.C. § 80a-18(f)(1) (Section 18(f) of the Investment Company Act of 1940). Although there are regulatory limits placed on the amount of leverage a mutual fund can use, the basis for such limits is not systemic risk mitigation but, rather, investor protection. *See* Investment Company Act Release No. 10666 (Apr. 18, 1979), 44 Fed. Reg. 25,128, 25,129–30 (Apr. 27, 1979) (discussing the congressional intent of Section 18 as to prevent fraud, such as pyramiding). Unlike hedge funds, mutual funds are open to retail investors who may not understand how to evaluate leverage.

prevent them from accumulating excessive leverage. Futures contracts and options are subject to strict margin requirements, for example, and financing of other positions is also regulated as the SEC has acknowledged:

> A hedge fund's limitation on its use of leverage is often dictated by any margin or collateral requirements imposed on lenders or on others (*e.g.*, broker-dealers), and the willingness of lenders or other counterparties to provide it with credit. For example, a broker-dealer extending credit to a hedge fund in connection with a short sale would have to comply with Regulation T issued by the Board of Governors of the Federal Reserve System. The hedge fund could also be required to provide additional "maintenance margin" for transactions in short sales under margin requirements imposed by self-regulatory organizations.[64]

Important regulatory changes since the financial crisis, including the derivatives regulations under Title VII of the Dodd-Frank Act, which impose various new requirements including mandatory clearing, margin requirements for swaps, capital requirements for swap dealers and MSPs, and new data reporting and recordkeeping requirements (described in greater detail below), have addressed perceived gaps in regulatory restrictions on additional sources of leverage, reduced counterparty risk and increased transparency of derivatives transactions.

Hedge fund borrowings, in our view, should not be thought of as a significant source of systemic risk. Given the limited leverage and the collateral posted by hedge funds to their counterparties, any losses that hedge funds incur are almost exclusively borne by their investors, not their creditors, counterparties, the general financial system, and certainly not taxpayers. First, hedge fund borrowings are not guaranteed by the fund's manager or other control persons or affiliates, or by another fund or vehicle under common control with the fund, so that the financial distress of a fund is less likely to destabilize an entire fund family. Second, since hedge funds borrow almost exclusively on a secured basis, the posting of collateral by hedge funds reduces the credit exposure of counterparty financial institutions to those funds. Consequently, hedge funds are substantially less likely to contribute to systemic risk by causing the failure of a systemically significant counterparty, such as a major bank, than an uncollateralized counterparty. This was true even during the last crisis because hedge funds, unlike AAA-rated insurance companies, for example, always had to post both initial margin and variation margin on their swap contracts. Moreover, it is important to note that, even though some markets have few available counterparties, hedge funds strive to diversify their exposures across multiple counterparties, mitigating the risk that a fund poses to any one counterparty. For example, following the collapse of Lehman Brothers, many large hedge funds increased the number of prime brokers they used, thus reducing their exposure to any individual prime broker and the prime broker's exposure to them. Finally, information concerning the counterparties of hedge funds and the amount of exposure to each is detailed in Form PF and provided to regulators (as described above).

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[64] SEC GROWTH OF HEDGE FUNDS, *supra* note 59, at 38 (citations omitted).

Hedge funds rely on brokerage firms for a number of different services, referred to collectively as prime brokerage. Prime brokerage services are the most common way in which hedge funds gain leverage, and constitute their principal source of borrowed funds. In addition to custody and trade execution services, prime brokerage services include margin credit, securities lending (borrowing), repurchase agreements, derivatives transactions and other services. Prime brokers require full collateralization, which limits the amount of leverage that any fund may obtain. Several of the primary ways hedge funds are able to obtain leverage and the relevant regulatory and contractual leverage restrictions applicable in each case are summarized below:

A. Margin Credit

The terms on which prime brokers can extend credit for securities transactions are governed by federal regulation, the rules of the Financial Industry Regulatory Authority ("FINRA") and the securities exchanges, and by each broker's own "house" rules which may be more restrictive than applicable regulation. Credit from prime brokers is generally secured by a fund's overall assets or specifically posted collateral. Various rules, for example, Regulations T, U and X with respect to securities, and regulations mandated under Title VII of the Dodd-Frank Act with respect to derivatives (described more fully below), impose margin or collateral requirements, thereby restricting the amount of credit that a prime broker can extend to counterparties, including hedge funds. The rules of FINRA and the exchanges supplement the requirements of Regulation T by placing "maintenance" margin requirements on customer accounts. Hedge funds also use portfolio margining and arranged financing to make leveraged investments in securities. These sources of credit generally allow hedge funds to achieve higher leverage ratios, subject to the policies of and risk-based limitations imposed by participating creditors. As noted above, hedge funds are not reliant on the overnight financing markets that banks used so extensively before the financial crisis. In our members' experience, since the financial crisis, hedge funds have generally entered into credit agreements with even longer terms than were in place prior to the financial crisis, providing even more stable financing agreements and further reducing liquidity risk.

Prime brokerage agreements generally include restrictive margin requirements and leverage limits. Before entering into a prime brokerage contract, brokers closely evaluate potential clients. This type of due diligence includes a thorough risk assessment of a prospective hedge fund client and evaluation of its portfolio and organization. Prime brokers carefully review the financial condition of their counterparties and structure services agreements that reflect their risk assessments. In particular, prime brokers will negotiate margin requirements and NAV triggers that reflect their evaluation of a hedge fund's risk profile. The failure to maintain required margin may result in the sale of pledged securities in a hedge fund's account in order to bring the account's equity back up to the required level and protect the primer broker from losses.

We are aware of certain regulators' concern that collateralized borrowing can lead to systemic risk if asset values fall, requiring additional collateral to be posted. As the value of assets posted as collateral declines, borrowers may be required to liquidate other assets to

meet mounting margin calls, which might put downward pressure on asset values.[65] Nonetheless, we think that it is important that this concern about "procyclicality" of collateralized borrowing not be overstated. Hedge fund managers employ various tools to manage their liquidity risk and, as discussed elsewhere in our letter, managers employ widely differing investment strategies. In our response to Question 4 in this section, we explain that hedge funds typically set aside significant cash reserves (creating so-called "cash buffers") to meet margin calls and regularly scenario test their cash buffers to confirm that they will be able to meet margin calls in periods of market stress. In our members' experience, adequate management of overall cash is critical to the survival and success of a fund over time. These cash buffers are reported in the Form PF, Form CPO-PQR and Form CTA-PR filings that the regulators already receive, and the OFR could analyze the levels of reserves of large funds. Some hedge funds may also enter into back-up credit facilities that provide liquidity on an as needed basis to meet, for example, redemption requests or margin requirements in periods of market stress.[66] These lines of credit are typically secured by a fund's assets and the credit agreements contain covenants and credit terms that govern the commitment and may limit a fund's ability to draw credit if it does not meet certain balance sheet thresholds, helping to limit the counterparty bank's risk. Additionally, as mentioned above, such agreements are subject to regulations that constrain the banks' capital, liquidity and leverage, and bank regulators have full transparency into the banks' lending terms and agreements. Such credit facilities act as low-risk, flexible funding mechanisms.[67] Additionally, the availability of this liquidity allows hedge funds to avoid selling assets at depressed prices in times of stress. Certain of our members, for example, relied on back-up credit facilities to avoid selling assets at depressed prices during the financial crisis. We believe that these practices substantially limited downward pressure on asset prices associated with collateralized borrowing during the financial crisis.

B. Securities Lending (Borrowing)

Hedge funds engage in securities lending as borrowers and, much less frequently, as lenders.[68] Securities lending involves a loan of securities to a third-party borrower (such as a hedge fund), who generally intends to sell those securities short and gives the lender collateral in the form of cash, shares, or bonds. At a transaction's initiation, the borrowing hedge fund must provide collateral in excess of the value of the securities borrowed. Regulatory guidance governing U.S. securities lending agents provides that security loans be collateralized at no less than 100% of the value on loan, though U.S. market practice requires 102% for U.S. securities and 105% for non-U.S. securities, that loans be marked-to-market

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65 *See, e.g.,* Daniel K. Tarullo, Member, Federal Reserve, Liquidity Regulation (Nov. 20, 2014), *available at* http://www.federalreserve.gov/newsevents/speech/tarullo20141120a%20.htm; Lord Adair Turner, *Shadow Banking & Financial Instability*, HARVARD L. BLOG (Apr. 16, 2012; 9:12 AM), http://blogs.law.harvard.edu/corpgov/2012/04/16/shadow-banking-and-financial-instability/.

66 *See, e.g.*, Jonathan P. Blum, *Bank Credit and Hedge Funds*, HEDGE FUND NEWS (Nov. 1996), *available at* http://www.hedgefundnews.com/news_n_info/article_detail.php?id=91 ("Increasingly prudent for all types of funds are backup lines of credit to finance redemptions.").

67 In our members' experience, some large hedge funds draw down on such credit facilities before liquidity is actually needed and hold the cash in their reserves.

68 Although hedge funds use direct securities lending as a source of financing, we note that they do so to a much lesser degree than they use prime brokerage margin credit as a source of financing.

daily and that lending agents establish individual credit limits for individual borrowers.[69] Lending agents' internal policies may create stricter standards. In instances when a borrower posts non-cash collateral, the common market practice is for the lending agent to require a higher percentage of collateral relative to the value of the loaned securities. Additionally, collateral value is marked-to-market on a daily basis to reflect changes in the market value of the loaned securities, and a margin is maintained above the market value as noted above.[70] As we describe in detail in our response to Question 4 of Section I, lending agents' cash collateral management practices have changed in ways that help mitigate risks related to collateral reinvestment since the financial crisis, but that is probably an issue that lending agents are better positioned than MFA to discuss.

C. Repurchase Agreements

Hedge funds may obtain financing in the repo market (*i.e.*, incur short-term liabilities) and use such financing to acquire assets. However, the significant difference between typical hedge fund repo liabilities and the typical liabilities of other entities is that hedge fund liabilities in repo transactions, like securities lending transactions, are marked-to-market and, therefore, collateralized daily as part of the collateral and margining process. In addition to the overcollateralization by hedge funds that is built into the repo transaction via haircuts to the value of the posted collateral or initial margin, daily mark-to-market margining allows repo buyers (that is, the lender) to call for additional cash or securities assets from repo sellers (the hedge fund). Thus, if the value of the repo collateral decreases, the repo buyer can make margin calls and the repo seller is required to deliver additional collateral to the repo buyer. The daily marked-to-market collateral requirements mitigate the possibility that a hedge fund will need to sell a material amount of assets in order to meet potential margin calls and seek to ensure that the hedge fund will have sufficient assets to meet to meet any such calls. In the event that the hedge fund is not able to meet its margin requirements, the lender may claim the collateral and terminate the loan. The collateral minimizes any potential loss to the lender and, in turn, mitigates any risks to the larger financial system.

In some cases, assets financed by hedge funds in the overnight repo markets may be less liquid, and so hedge funds can theoretically engage in "maturity transformation."[71] However, given the need for daily valuations and daily posting of collateral, overnight repos generally are not a significant source of funding for illiquid and/or longer duration securities. For this type of transaction, lenders would require significant haircuts and substantially worse terms, making such short-term financing relatively costly and unattractive to hedge funds.

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[69] *See* FFIEC Revised Policy Statement on Securities Lending, 62 Fed. Reg. 40,816, 40,818 (July 30, 1997).

[70] The FSB has also focused on and made recommendations with respect to securities lending practices. *See* FSB Securities Lending & Repos, *supra* note 48.

[71] Maturity transformation refers to the practice of borrowing capital with short-term maturity and investing in assets with long-term maturity, and thereby "transforming" a short-term obligation into a long-term investment.

Since the end of the financial crisis, significant reforms have been made in the tri-party repo market, under the direction of the Federal Reserve Bank of New York and its Tri-Party Repo Infrastructure Reform Task Force (the "Task Force"), a consortium of market participants (including the MFA) and members of the staffs of the Federal Reserve Bank of New York and the SEC.[72] In February 2012, the Task Force published its final recommendations to reduce reliance on intraday credit provided by tri-party clearing banks, which resulted in a number of important industry reforms to the tri-party repo settlement process, including establishing automated collateral substitution for most transactions and implementing a three-way trade confirmation process for all tri-party repo transactions.[73] In the years since, tri-party repo market participants have made significant progress, based on the Task Force's recommendations, in "reducing reliance on intraday credit as a source of systemic risk in the market."[74]

Additionally, we note that, before the financial crisis, repurchase agreements were available on assets with a high credit rating but no demonstrated liquidity in the market. In our members' experience, the ability to enter into repos on these types of assets has largely disappeared.

D. Derivatives

Like nearly every sophisticated organization, financial or otherwise, hedge funds regularly use derivatives. Derivative instruments, such as futures, options and swaps, are often used as risk-mitigating financing tools and also help managers efficiently achieve exposure to a certain investment or investment strategy. Used appropriately, the derivatives market is a useful store of potentially risk-mitigating financing tools. One reason for the success of certain derivative products is that they embed many high-quality leverage features (including maturity matching, margining, relatively low cost and clear contractual terms), which makes them very efficient and, we believe, lower-risk instruments (relative to cash equivalents) for expressing investment views.[75]

The futures and options markets are highly regulated and were regulated even prior to the financial crisis and the Dodd-Frank Act. With limited exceptions, commodity futures and options are exchange-traded and persons and firms who engage in futures and options trading are required to register with the CFTC. Futures and options investing is a type of

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[72] *See* Fed. Reserve Bank of N.Y., *Tri-Party Repo Infrastructure Form Task Force*, http://www.newyorkfed.org/tripartyrepo/triparty_members.html (last visited Mar. 16, 2015).

[73] *See* Press Release, Fed. Reserve Bank of N.Y., Statement on the Release of the Tri-Party Repo Infrastructure Reform Task Force's Final Report (Feb. 15, 2012), *available at* http://www.newyorkfed.org/newsevents/news/banking/2012/ma120215.html.

[74] Press Release, Fed. Reserve Bank of N.Y., Update on Tri-Party Repo Infrastructure Reform (Feb. 13, 2014), *available at* http://www.newyorkfed.org/newsevents/statements/2014/0213_2014.html.

[75] Consider the comparison between purchasing a corporate bond and writing a credit-default swap ("CDS") on the same corporate issuer: the financing on a cash bond is typically short term, medium haircut, and medium cost (relative to LIBOR), and entails contractual terms and conditions that are open to negotiation. A CDS, on the other hand, is an exposure to a possible credit event that does not involve the transfer of cash other than collateral paid by the swap client to mitigate the dealer's counterparty risk. One could describe this type of financing as long term, medium haircut, low cost, and having more standardized terms and conditions.

collateralized investing, and investors are required to post margin. The swaps market is now also subject to extensive regulation. Title VII of the Dodd-Frank Act created a comprehensive regulatory regime for the swaps portion of the derivatives markets. The Title VII regulations are designed to address risks, including risks associated with leverage and the lack of transparency in derivatives markets that played a role in the financial crisis. These new regulations: (1) require certain standardized transactions to be cleared and traded on new regulated trading platforms;[76] (2) require "Swap Dealers" and "Major Swap Participants" to register with the SEC and CFTC, and subject them to significant requirements including capital requirements;[77] (3) impose initial and variation margin requirement on both cleared and uncleared swaps;[78] and (4) provide for significant incremental transparency, including transaction reporting and recordkeeping, to market participants and regulators.[79] These rules significantly reduce the potential for systemic risk involving the derivatives markets and their participants, including hedge funds. For cleared swaps, central counterparties possess the ability to manage their risks by imposing margin requirements and other risk mechanisms that limit their exposure to potential losses from defaults by members and participants. The margin requirements must be sufficient to cover potential exposures in almost all market conditions. These provisions are well designed to ensure that central counterparties' operations would not be disrupted and non-defaulting members would not be exposed to unexpected losses.

Unlike a number of other financial market participants, hedge funds do not rely on unsecured, short-term financing to support their investing activities. Instead, hedge funds generally rely on secured borrowings, which are designed to match more closely the term or expected liquidity of the asset and the financing that funds it. Further, such secured borrowing is subject to the capital, liquidity and leverage requirements of the lender. Similar to their structuring of investor redemption rights described in Section I, hedge funds (and their creditors) structure their financing arrangements in light of their investment strategies and the liquidity of the assets they hold or finance.

We note above that regulatory reforms and stricter market practices adopted since the financial crisis have increased transparency of hedge funds' practices to regulators and brought a new discipline to financial markets. We continue to believe that the best way to address leverage risk is through the types of changes in market structure that have been implemented since the financial crisis.

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 described in response to Question 1 in this section, hedge funds use leverage in a variety of different ways, and each tool used has distinct characteristics and is subject to a

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76 Dodd-Frank Act, Pub. L. No. 111-203, §§ 723, 763(a), 763(c), 124 Stat. 1376, 1675, 1762, 1769 (2010).

77 Dodd-Frank Act §§ 731, 764(a).

78 Dodd-Frank Act §§ 731, 764(a).

79 Dodd-Frank Act §§ 728, 763(i), 766.

distinct regulatory regime. It is important to distinguish the various forms of leverage employed by hedge funds. Please see our response to Question 1 in this section for a discussion of the regulations, market practices and legal protections associated with margin credit, securities lending, repurchase agreements and derivatives.

In order to reduce the likelihood that a hedge fund may have to sell assets to meet margin payment obligations (or meet investor redemption requests, as discussed in Section 1), funds also maintain cash buffers and, in some cases, may enter into back-up credit agreements that provide additional liquidity on an as-needed basis in an effort to protect the fund from forced asset sales to meet margin calls.[80] Cash buffers are carefully calibrated to reflect possible market risk and asset price volatility that might affect margin payments. Daily mark-to-market and posting of variation margin imposes discipline on hedge funds and their lenders and makes it less likely for a fund's distress to escalate into a crisis.

Those hedge funds that ceased operations during the financial crisis often did so because they became unable to meet their margin calls and their prime brokers claimed their assets, causing the funds to wind down quickly, but not creating critical systemic consequences. Although many hedge funds, mostly smaller funds, liquidated and closed during the financial crisis, such closures did not create systemic risk or require government intervention. The losses incurred in these liquidations were borne by fund investors.

To be clear, many hedge funds and other investors sold securities in the distressed markets of the last financial crisis. They needed to take prudent actions to limit losses to the funds they manage. As fiduciaries, hedge fund managers have to manage risks and take action, sometimes quickly, to protect their client's interests. These sales should not be viewed as destabilizing, but rather appropriate and prudent risk management. Additionally, any losses were absorbed by investors in such hedge funds, who understood and accepted the risk of loss, rather than other market participants.

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?*

In our members' experience, hedge fund managers invest a significant amount of time and resources into risk management programs, including portfolio stress testing and counterparty risk management. Analysis of the appropriate use of leverage in light of portfolio composition (including liquidity and term), fund strategy and market conditions is a key part of a manager's risk management of a portfolio. One key element of a hedge fund manager's risk management program is maintaining an appropriate cash buffer that is designed to enable the fund to meet margin calls and investor redemption requests without having to sell assets. Managers carefully calibrate their cash buffers and stress test their portfolios to evaluate the adequacy of the amount of cash set aside. Managers monitor leverage levels over time, with a frequency appropriate to the fund's assets (types, sectors

[80] See our response to Question 4 of this section for more detail.

and positions), overall liquidity profile, trading strategies and volatility.[81] In addition, as discussed below in our response to Question 4 in this section, managers spend considerable time monitoring the creditworthiness of their counterparties and looking to diversify among appropriate counterparties to reduce their funds' exposure to counterparty credit risk. Concerns about counterparty credit risk lay at the heart of MFA's strong advocacy in support of central clearing parties for swaps. Because hedge funds were required to post margin to their dealer counterparties before the financial crisis, many funds suffered losses when brokerage firms failed. We believe the move to central clearing has substantially reduced hedge funds' counterparty credit risk, made balance sheet management more efficient and provided consistent and transparent margining practices, and we commend the regulators' efforts to implement these reforms.

In addition to the risk analysis conducted by managers, hedge fund counterparties, including broker-dealers and banks, also carefully analyze and rigorously test hedge funds' portfolios and risk management programs. Hedge fund creditors are typically highly regulated entities that are subject to enhanced prudential standards under the Dodd-Frank Act and must abide by strict margin requirements, sharply enhanced capital rules and regulatory lending requirements. Creditors play an important role in determining a hedge fund's appropriate leverage ratio and, in many cases, are responsible for establishing the maximum leverage level a fund will incur by virtue of the terms of any credit it extends to the fund. As part of their credit analysis, prime brokers, for example, will analyze a fund's strategy, capital base and leverage levels and will perform a comprehensive risk assessment of the fund to develop a view of whether the fund can withstand stress. Prime brokers will, on an ongoing basis, analyze a fund's portfolio and conduct stress tests to evaluate its ability to withstand market shocks and to determine appropriate margin requirements. Margin levels are set at a level to cover the prime broker's exposure in the event of market stress. So, for example, a concentrated portfolio of less liquid ABS securities will have little if any leverage, while a statistical arbitrage portfolio made up of hundreds of small, offsetting long and short positions in highly liquid equities may be levered more than the average portfolio. Other counterparty requirements may include constraints on a fund's portfolio (*e.g.*, concentration, diversification, liquidity limits), and creditors may require rights to alter the terms of a credit arrangement (*e.g.*, increase margin requirements) and/or terminate their relationships with the manager if certain conditions are met (*e.g.*, a NAV trigger, based on net asset value which would allow the lender to terminate or reduce lending if a fund's total assets decline by a set amount or percent).

Finally, investors will evaluate a fund's use of leverage before investing. Investors have varying degrees of tolerance for leverage and usually seek to understand its value and use with respect to any particular investment strategy before investing in a fund. Some investors may insist that limits on leverage be in place before investing in a fund. Investors' requirements are an important limitation on a fund's use of leverage and are often fairly restrictive.

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[81] In addition to representing the current practices and experience of our members, we note that this type of portfolio review and risk management program is also among the practices MFA recommends to the hedge fund industry. We believe the practices outlined in the MFA Sound Practices Manual are representative of many hedge fund managers' actual practices. *See* MFA SOUND PRACTICES, *supra* note 26.

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?*

Hedge funds use multiple tools to monitor and manage portfolio risks, including leverage risks. Several of the most prominent practices are described below:

- *Stress Tests.* Many hedge funds run periodic stress tests on their funds' assets and liabilities. In our members' experience, managers recognize that running stress tests on liabilities is as important as running them on assets. Managers will consider a range of possible scenarios as part of their testing, including: what would happen if certain categories of financing dry up or lenders pull back on the amount of leverage they are willing to offer? How much cash could be raised and what would be the impact on the value of a fund's holdings if the fund has to sell assets under adverse market conditions? Managers test the performance of their portfolios under various adverse scenarios such as the conditions of prior crashes or the risk that various asset classes could decline in price simultaneously, despite having been historically not correlated. These tests do not deliver a pass/fail result, but rather highlight potential risks or unexpected correlations that the manager can use to better construct and manage its portfolios' risks. Managers also monitor various static measures, such as the ratio of available cash to the amount of financing or the levels of margin and risk of demand for additional margin. One of the basic objectives of stress analyses is to consider a variety of challenging financing climates in order to avoid taking on too much or the wrong kind of leverage.

- *Cash Buffers.* Hedge funds often hold a certain portion of their assets in cash and cash equivalents, generally referred to as a cash buffer, and use their cash buffers to manage liquidity and to protect the fund from forced asset sales. Cash set aside is used to meet margin calls and, in our members' experience, hedge fund managers carefully calibrate their cash buffer to reflect possible market risk and asset price volatility that might affect their margin payments and, more generally, the value and liquidity of their portfolio.

- *Back-Up Credit Facilities.* A small number of hedge funds may enter into back-up credit agreements that provide liquidity on an as-needed basis. In our members' experience, and as discussed above in response to Question 1 in this section, hedge funds use these credit facilities as a source of liquidity to meet redemption requests and margin requirements and to avoid selling assets in times of stress. Hedge funds may rely on such credit agreements in

place of or to supplement prime brokerage credit or in place of other short-term financing, such as the repo markets.

- *Concentration Avoidance*. Many hedge funds avoid concentrating leverage in a single class of assets.

- *Counterparty Diversification*. Hedge funds seek to ensure that they engage a diversity of counterparties and conduct due diligence on the counterparties with which they enter into credit arrangements. Counterparty exposures are fully disclosed to regulators in Form PF, Form CPO-PQR and Form CTA-PR filings. In addition, we have advocated with regulators for rules to encourage protection of customer collateral and margin, even in the case of counterparty default. After the Lehman Brothers bankruptcy, many MFA members moved to establish custody accounts for their margin and collateral at third-party banks to further protect these pledged assets. In the case of a failure of any counterparty, being able to quickly access the assets they had posted as margin and collateral enables funds to replace a failing counterparty promptly and reduces the risk of losses to fund investors. Replacing individual counterparties with central clearing parties also reduces counterparty exposure, and so we have been a leading advocate for increasing access to central clearing for hedge funds and other buy-side firms.

- *Balanced Term Structure*. Hedge funds manage the term structure of their credit arrangements to balance the term structure and liquidity of their assets, similar to how they manage their redemption provisions. For example, a manager may take the view that a diversified portfolio of highly liquid U.S. equities can accommodate a different degree of leverage than a concentrated portfolio of illiquid credit instruments.[82] As we described in our response to Question 1 of this section, hedge funds do not rely on unsecured financing to support their investing activities. Instead, hedge funds typically rely on secured borrowings, which are designed to more closely match the characteristics of a fund's assets.[83] Hedge funds also enter into bilateral investment contracts, such as swaps, that have matched terms. Hedge funds frequently negotiate for extended term borrowing and, since the financial crisis, have extended the duration of their borrowing arrangements to provide greater funding stability and maturity matching.

- *Collateral Requirements*. Hedge fund borrowing is generally collateralized on a daily mark-to-market basis. Hedge funds closely monitor their margin requirements, including, in some cases, by using analytical software programs

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[82] *See* OFR, *supra* note 26.

[83] This is supported, for example, by the FSA studies on the hedge fund industry which found that the assets of the surveyed hedge funds could be liquidated in a shorter timeframe than the period after which their liabilities (to investors and finance providers) would become due. *See, e.g.*, FSA, ASSESSING POSSIBLE SOURCES OF SYSTEMIC RISK FROM HEDGE FUNDS 8 (July 2010), *available at* http://www.fsa.gov.uk/pubs/other/hf_report.pdf.

> that forecast and monitor margin calls, and maintain cash buffers and enter into back-up credit arrangements to be able to meet obligations as they come due. Daily variation margin requirements, which require both counterparties to post margin if their position begins to lose money, considerably reduce the risk of a destabilizing margin call at any point in time. In retrospect, it was in some large part lack of initial and variation margin requirements that allowed certain insurance companies' and brokerage firms' exposures and losses to grow undetected by their own management and their regulators during the financial crisis. Arguably, had those firms been required to post margin, as current regulators will require, and then add to it each day as their losses increased, those firms would not have been able to generate levels of risk so excessive that those risks became systemic.

Risk management tools used by hedge funds reflect the investment strategy and the unique characteristics of each fund, including any restrictions on redemptions by investors that may be imposed. Because hedge funds are able to design their liquidity terms in light of the liquidity, volatility and other aspects of their risk profile, they are less prone to fire sales in the face of redemption requests or margin calls. Please see our response to the questions posed in Section I for a full discussion of hedge fund liquidity and redemption limitations.

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

The use of leverage clearly increases the risk to investors that a loss of value in their investment might be magnified. However, the use of hedging techniques, including those that might increase leverage, when appropriately implemented as part of a portfolio will reduce the overall risk of losses to investors and therefore reduce the risks of fire sales or other destabilizing actions.

It is important to recognize that, while leverage can be a source of risk, leverage and risk are not the same. In fact, when conceived not as a means of increasing market exposure but rather as a way of extending "balance sheet" per unit of capital, leverage can be used simultaneously to reduce some kinds of risk and to enhance expected return. As such, leverage can be utilized with constant or even lower risk per unit of capital compared to un-leveraged investing. For example, it is possible that risk as a unit of capital could be high with low balance sheet use, just as risk per unit of capital could be low with high balance sheet use. To see how leverage might be used to mitigate some risks, consider the following example of how leverage might be applied in a relative value investment strategy. An investor wants to put $1 million to work and believes a given automobile stock is expensive relative to its industry peers while a certain technology stock is cheap relative to its own industry peers. This investor is otherwise agnostic on where the overall stock market or the auto or tech sectors in particular are going. Without access to leverage on the long side, the best the investor can probably do is to short the auto stock and buy the technology stock, capturing some of the relative value and hedging the systemic factor risk. But with access to leverage, the investor could more effectively target its desired risk/return by, first, hedging the short position in the auto stock with a basket of long positions in other auto stocks and,

second, hedging the long position in the technology stock with a basket of short positions in other tech names. The use of leverage in this second example has two benefits:

- it allows the investor to isolate more precisely the investment thesis (that the stocks are mispriced relative to their industry groups) and focus the investment on his precise area of expertise, which increases expected return; and

- it reduces the portfolio's exposure to industry group risk and expected volatility.

So by using leverage, the investor has increased the expected return of the portfolio and decreased expected volatility and exposure to a big risk factor (industry group moves) with respect to which this investor is not intending to take risk.

This example also shows that when leverage is used precisely and carefully, risk and volatility are not proportional to the amount of leverage employed. That would only be the case if leverage is used to proportionately increase the size of all positions instead of being used (in addition to increasing position size) to reshape the portfolio in potentially helpful, risk-reducing ways. We think it is important for regulators to recognize that while use of leverage can increase risks, it can also be used as a tool through which investors modify their exposure to other risk factors. Leverage is both one of many inputs and one of many risk management tools in the portfolio construction process.

We do not believe that risk management practices concerning the use of leverage, which seek to avoid concentration of risk and to limit or hedge certain exposures in investment portfolios, would amplify risks. We note that hedging strategies designed to reduce market risks would be subject to the same collateral and margin requirements as any other investments, which considerably limit market-wide risk. As we explained in our response to Question 1 of this section, losses that hedge funds incur are borne by their investors, not their creditors, counterparties, the general financial system, or taxpayers, because of the limited leverage used and the collateral posted by hedge funds. To the extent the Council believes there are specific practices that amplify concerns, we reiterate our request that the Council identify and publish for comment these concerns so we and other industry participants can respond with greater specificity.

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?*

Please see our response to Questions 4 and 5 in Section 1. We note that the termination of securities borrowing transactions in stressed market conditions would generally cause securities lenders to unwind cash collateral reinvestment positions. However, securities lenders generally are not exposed to significant risk of loss because collateral posted for securities loans is marked-to-market on a daily basis and lenders and lending agents are able to manage liquidity and maturity/term risks.

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?*

In light of the significant regulatory changes that have been implemented under the Dodd-Frank Act and additional changes to market practices since the financial crisis, we do not believe that risks associated with leverage in hedge funds poses a threat to U.S. financial stability. As we describe earlier in this Section, the posting of collateral and both initial and daily mark-to-market margin requirements protect hedge fund counterparties from losses and potential instability in the event of a hedge fund's closure. These protections significantly reduce the risks associated with hedge funds "interconnectedness" with other financial institutions, the primary channel through which hedge fund portfolio risk could reach other participants in the financial markets. Current regulations and market practices help ensure that hedge fund risks and losses are borne solely by hedge funds and their investors.

We feel strongly that, especially in the asset management industry where managers are highly substitutable and investors regularly revise their portfolio allocations and move their assets to different products and different fund managers, regulation that targets only specific classes of investment vehicles for heightened regulation would not be an effective mechanism. We also believe that there has been a significant expansion of regulatory oversight of and data gathering from the hedge fund industry over the past five years. The following steps were taken by regulators specifically to address potential sources of risk related to hedge funds and the other market participants with which they interact: (i) investment adviser registration and related requirements, including SEC examinations, regulatory reporting on Form ADV and Form PF, and Large Trader reporting; (ii) CPO and CTA registration and reporting on Form CPO-PQR and Form CTA-PR; and (iii) the Title VII initiatives including mandatory clearing, margin requirements for swaps, capital requirements for swap dealers and MSPs, and new data reporting and recordkeeping requirements. Based on our assessment of the minimal risk to the U.S. financial system from hedge funds and in light of the new regulations already implemented, we do not believe additional mitigating steps need to be taken.

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?*

There are several measures that could be useful, depending on what issue one was intending to study. The most common measures of leverage that hedge fund investors consider are balance sheet leverage (essentially total assets divided by investor capital), long derivative adjusted leverage (the same as balance sheet leverage, but adjusted for derivatives), net derivative-adjusted leverage (essentially long minus short adjusted for derivatives) and unencumbered cash as a percentage of total capital. We do not believe that any single measure of leverage is as helpful as looking at several in combination.

For regulators considering the question of counterparty exposure and interconnectedness, we think that a measure of uncollateralized credit exposure, for example, may be the most helpful measure of leverage risk because this metric may indicate risk that

could impact a fund's counterparties and possibly convey risk outside of a fund and to other financial markets participants.

In another example, to best evaluate the leverage level of a leveraged pool of less liquid securities, one might use the ratio of gross assets to investor capital for those types of funds. Regulators might also consider industry averages to evaluate whether any systemic issue may exist, and consider the distribution of leverage among industry participants (including identifying outliers from the industry averages) to understand if there are large numbers of funds that are using more leverage than average.

Another common measure used to evaluate leverage levels for long/short equity funds is "net long" or the ratio of total value of long positions to total value of short positions. As that ratio rises and falls, it may offer regulators some insights into what a relatively heterogeneous group of investment managers thinks about potential risks and rewards in the equities space and provide additional insight into the function of equities markets. While the insight of any single manager may not be helpful, the "wisdom of crowds" suggests that looking at what a large group of managers think about markets may be valuable.

We also believe that maturity matching and portfolio liquidity are more important risk variables related to leverage than absolute leverage. We note that hedge fund managers report information about their financing arrangements, liquidity and portfolio composition on Form PF and Form CPO-PQR, and we believe that this information, if aggregated, would provide regulators a sound data set for an evaluation of systemic risk related to the hedge fund industry.[84] For example, hedge fund managers must identify the five counterparties to which the reporting fund has the greatest mark-to-market net counterparty credit exposure, measured as a percentage of the reporting fund's net asset value, as well as the five counterparties that have the greatest mark-to-market net counterparty credit exposure to the reporting fund. They are also required to show the collateral and other credit support that the counterparty has posted to the reporting fund or that the reporting fund has posted to the counterparty.[85] Additionally, Form PF provides the results of numerous detailed stress tests, which regulators can use to better understand and monitor risks.

We do not believe that gross notional exposure is an appropriate or useful metric for determining a fund's leverage ratio. When assessing the potential impact of derivative portfolios, total gross notional exposure or "GNE" does not in fact represent a fair appreciation of economic or market exposure. If the intent is to assess the market or counterparty exposure through derivatives, it is improper to look at gross notional amounts alone without adjusting for significant variations in actual risk and exposure that vary by (i) asset class, (ii) tenor, (iii) netting terms, (iv) margining and collateral arrangements, and (v) clearing status. GNE is thus a highly flawed metric that significantly overstates a fund's true market or counterparty exposure. Global regulators have recognized the importance of

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[84] *See* Form PF Questions 32, 43, 46.

[85] *See* Form PF Questions 22 & 23 (regarding counterparty exposures), 36 & 37 (regarding posted collateral).

these inputs in rulemakings establishing margin and capital requirements, and important regulatory thresholds, such as those set for major swap participants.[86] Therefore, any analysis of derivatives exposures should similarly account for these inputs, consistent with established regulatory risk criteria.

In addition to the various practices adopted by hedge funds, their counterparties and regulators to mitigate risk associated with hedge funds using leverage to implement their investment strategies, hedge funds and their managers have adopted operational risk management techniques and best practices that address and seek to limit operational risks associated with hedge funds. The discussion in the following section summarizes hedge funds' operational risk management practices.

III. Operational Risk

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)?*

We believe that operational risks associated with the hedge fund industry are not unique to this industry and are unlikely to pose risk to U.S. financial stability. The hedge fund industry is highly diverse and is composed of many relatively substitutable entities employing a wide variety of investment structures and strategies. Given this landscape, any operational risks faced by hedge funds are likely to be contained at individual funds or managers and not spread throughout the market.

As the Council identified in the Notice, operational risks may be generally associated with human error and failure of processes or systems, either internally at a manager or at an external service provider. Hedge funds tend to rely on third-party service providers for several key operations and systems, including asset custody, valuation, and administration, as well as record keeping, accounting and other services. In fact, federal regulations generally require hedge fund managers to engage external custodians to hold fund assets, independent accounting firms to audit fund financial statements, brokerage firms to execute trades, and central counterparties to process trades and, increasingly, to hold collateral. Therefore, the determination of whether a firm is vulnerable to a particular operational risk, as well as the potential magnitude of such risk, depends significantly on the specific operations implemented by such firm and its relationships with different service providers. This analysis should be informed by an assessment of the risk management practices of, and regulations applicable to, service providers and counterparties.

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[86] *See, e.g.*, Regulatory Capital Rules: Regulatory Capital, Implementation of Basel III, Capital Adequacy, Transition Provisions, Prompt Corrective Action, Standardized Approach for Risk-Weighted Assets, Market Discipline and Disclosure Requirements, Advanced Approaches Risk-Based Capital Rule, and Market Risk Capital Rule, 78 Fed. Reg. 62,018, 62,095 (Oct. 11, 2013); Further Definition of "Swap Dealer," "Security-Based Swap Dealer," "Major Swap Participant," "Major Security-Based Swap Participant" and "Eligible Contract Participant", 77 Fed. Reg. 30,595, 30,749 (May 23, 2012).

Fund managers consider operational risk management to be an integral part of their investment activities rather than merely an adjunct function, and, in our members' experience, tend to emphasize operational risk awareness and management across their management and business units. Many firms devote significant resources to monitoring and mitigating operational risk, particularly large managers that often use specially developed proprietary risk management systems and employ teams of experienced, dedicated operations personnel for real-time monitoring. Investors and their independent consultants also scrutinize hedge fund managers' practices as part of their due diligence process, applying pressure to managers to abide by industry best practices. Among other things, investors commonly inquire about a manager's risk management philosophy, the fund's exposures to various market and operational risks, and reliance on third-party services and risk management measures.[87] Some widely used industry consultants specialize in performing rigorous assessments of fund managers' risk management practices beyond the due diligence analysis performed by individual investors, creating additional external incentives for managers to implement robust risk management systems.

Mindful of the fact that operational risks are specific to each fund manager's individual operations, we believe that the most significant operational risks (certain of which are addressed by existing regulation) that our industry faces include those listed below. Please note that we include this list for purposes of being responsive to Question 1, but we do not believe that any of these risks are systemic.

- *Errors or disruptions associated with third-party service providers, such as the prime brokers or custodians.* Hedge funds are exposed to the operational risks of their service providers, which are often large financial institutions with more complex operations than the hedge fund itself. Hedge fund managers that rely on third-party service providers perform due diligence on their service providers before entering into service agreements and conduct ongoing oversight and monitoring of their service providers. Although hedge fund managers actively oversee and monitor their service providers, any operational failure at a major service provider, such as a prime broker or custodian, could have a harmful effect on a hedge fund. Many types of hedge fund service providers are subject to extensive regulation that we believe mitigates their operational risks.

- *Counterparty risks (especially any un-collateralized exposures).* This risk relates to the possibility that a counterparty might fail to comply with its contractual obligations and has operational and non-operational aspects. Hedge funds have very limited uncollateralized counterparty exposure, as we describe in response to Section II, and carefully evaluate their contractual counterparties

[87] For example, MFA published a Model Due Diligence Questionnaire designed as a guide for the questions a potential investor may wish to consider before investing in a hedge fund. The model questionnaire includes inquiries about various operational aspects, such as the infrastructure and procedures for executing trades, the use of third-party software, controls to prevent unwanted transfers, the terms of engagement of service providers, the philosophy of the risk management function and the use of written business continuity and disaster recovery plan and its effectiveness. *See* MFA Questionnaire, *supra* note 46.

to mitigate this risk. Funds also use credit-default swaps ("CDS") as a form of insurance against the failure of a large counterparty. Despite the market turmoil during the last financial crisis, the CDS contracts relating to Lehman Brothers were honored and paid promptly.

- *Errors in automated trading systems or trade errors.* This operational risk refers to technology or system failures in which an automated trading system mistakenly executes trades on behalf of a fund when such trades were not intended. A system malfunction of this type would have an impact on the hedge fund whose assets were used to make the trade, but would be unlikely to have a wider systemic impact. Over the past five years, regulators have adopted a number of measures that considerably reduce the risk that a malfunction of a firm's trading systems would have wider systemic impact. Regulatory measures, such as market access controls under Rule 15c3-5 under the Securities Exchange Act of 1934, the use of market-wide circuit breakers, price collars (*i.e.*, the "Limit Up-Limit Down" mechanism), and uniform exchange rules on clearly erroneous executions, have been extremely effective at reducing risks faced by hedge fund managers. The implementation of Regulation SCI over the next year will further strengthen system resilience at equity and options exchanges, central clearing counterparties and certain alternative trading systems.

- *Cybersecurity risks.* This refers to the risk of unauthorized access to, or activity in, a firm's electronic records or networks, including through third-party service providers. While the asset management industry is working with regulatory agencies to improve its ability to address cybersecurity threats, a recent summary by the OCIE indicated that 83 percent of advisers have adopted written information security policies and that most conduct periodic compliance audits.[88] In our members' experience, hedge fund managers have invested significant resources in developing and implementing encryption and data protection software in order to guard their investing platform intellectual property and protect their trading programs, and have expanded their resources dedicated to monitoring the security of their IT systems.

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[88] SEC, *Risk Alert: SEC Examinations of Business Continuity Plans of Certain Advisers Following Operational Disruptions Caused by Weather-Related Events Last Year* (Aug. 27, 2013), *available at* http://www.sec.gov/about/offices/ocie/business-continuity-plans-risk-alert.pdf (stating that 83% of advisers have adopted written information security policies and the vast majority of the advisers (79%) conduct periodic risk assessments, on a firm-wide basis, to identify cybersecurity threats, vulnerabilities, and potential business consequences). The OCIE has identified cybersecurity as one of the examination priorities for 2015 and has "collected and analyzed information from the selected firms relating to their practices for: identifying risk related to cybersecurity; establishing cybersecurity governance, including policies, procedures, and oversight processes; protecting firm networks and information; identifying and addressing risks associated with remote access to client information and fund transfer requests; identifying and addressing risks associated with vendors and other parties; and detecting unauthorized activity." SEC, *Risk Alert: Cybersecurity Examination Sweep Summary* (Feb. 3, 2015), *available at* http://www.sec.gov/about/offices/ocie/cybersecurity-examination-sweep-summary.pdf.

Nonetheless, we believe cybersecurity remains an area of some risk in our industry. Cybersecurity threats could pose significant hazard to individual management firms or to specific funds managed by any firm. Hedge funds, like all other market participants, could be vulnerable to being used as conduits to direct cyberattacks to other market participants, such as trading platforms or central clearing counterparties. This risk will be more effectively addressed as exchanges, central clearing counterparties and certain other trading platforms begin compliance with Regulation SCI.

- *Inadequate disaster recovery systems.* Hedge fund managers, in compliance with SEC guidance and Rule 206(4)-7 under the Investment Advisers Act, have adopted business continuity plans that seek to protect clients' assets from the risks associated with an adviser's inability to provide services in the event of a disaster.[89] It is in every manager's self-interest to have appropriate plans in place to handle emergencies. Emergency preparedness and disaster recovery are not abstractions, but real risks to every market participant. Nonetheless, it is possible that plans for the continuation of a fund manager's operations and services in the event of a natural disaster, market disruption, loss of a key person or other emergency will be inadequate. MFA, for example, recommends that hedge fund managers design and implement business continuity/disaster recovery plans "reasonably designed to: (1) identify and prioritize critical business functions; (2) protect the hedge fund manager's personnel from harm; (3) permit the orderly continuation of the manager's key business operations; (4) protect client assets; and (5) permit the manager to maintain communications with clients, investors in any hedge funds it manages, regulators, and other parties as necessary in the event of a crisis or business disruption."[90] The SEC inspects a manager's business continuity plan during examinations, and a significant number of third-party service providers assist managers in creating back-up trading floors, data storage solutions and other emergency systems. Many hedge fund managers run regular drills to identify weak links and prepare staff to work remotely and on back-up systems if needed. Despite the precautions, there is a risk that these programs will not be sufficient to allow firms to continue to operate, but it is hard to imagine how that could have systemic consequences.

In addition to the tools to mitigate operational risk summarized above, hedge fund managers often employ chief risk officers or risk committees to establish, implement and periodically review their risk measurement frameworks and to monitor each managed fund's risk profile. In establishing a risk management framework, fund managers determine which risk measures should be monitored and whether and how to apply risk constraints (*e.g.*, hard limits, soft guidelines), test risk monitoring systems, and prepare reports of key exposures for senior management and other appropriate personnel. In addition, some managers may require service providers to carry insurance against certain risks, or may directly purchase

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89 *See also* our response to Question 6 in Section IV.

90 MFA SOUND PRACTICES, *supra* note 26, ch. 7, § 1.1.

their own insurance against certain risks, including coverage for errors and omissions, trade errors and, less frequently, cybersecurity incidents.

In our opinion, operational risks relevant to hedge funds, including the risks described above, are localized risks relevant to individual funds and their managers and investors and could not create systemic concerns.

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?*

Investors in hedge funds generally are not permitted to transfer fund interests without manager consent. To exit a hedge fund investment, investors redeem their interests in compliance with restrictions that may be applicable under a fund's organizational documents and receive cash which they are then free to invest elsewhere if they choose.[91] Investors make such redemptions routinely in both normal and stressed market conditions. Additionally, fund administrators, custodians and prime brokers offer transition management services that seek to facilitate smooth transitions by selling assets gradually and migrating assets to new accounts at the asset owner's election. In our collective experience, redemption transactions are low risk.

In contrast, transferring a separately managed account advised by a hedge fund manager to another manager typically does not entail moving assets from the custodian or liquidating assets.[92] If an investor decides to terminate a manager's advisory relationship with a managed account, or the manager of the account ceases operations, the investor may enter into an advisory contract with a new manager or simply reclaim investment authority with respect to the assets held in the account. Managed accounts can be transferred to a new manager quickly without liquidating the underlying assets because the investor remains the beneficial owner of all assets and the account's third-party custodian commonly retains custody.[93] Since the assets need not be liquidated, "fire sale" risk is eliminated, and there would be no other risk to the financial system associated with such a transfer. If the investor desires further protection, they can hire transition managers who will, over a reasonable amount of time, sell and buy assets in order to migrate the investor's portfolio from the one structured by the old manager to one meeting the new manager's recommendations.

Finally, finding a substitute manager for any investment strategy is not likely to present challenges. Hedge fund managers are highly substitutable, as we describe in the introduction to this letter, and the number of managers offering specific strategies is not so concentrated that a client would have a difficult time finding a replacement. Further, hedge

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[91] Please see our responses in Section I.

[92] For example, the Depository Trust & Clearing Company's Automated Customer Account Transfer Service ("ACATS") enables eligible broker-dealers to automatically enter, review, and settle the transfer of customer accounts between each other.

[93] For further discussion of the Custody Rule, see our response to Question 1 in Section IV.

fund investors may move their mandates to non-hedge fund managers as they change the overall composition of their portfolios.

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?*

As mentioned in response to Question 2 above, third-party fund administrators, custodians and prime brokers offer transition services that seek to facilitate smooth asset transfers. Hedge fund managers work closely these service providers to address fund redemption requests. Because of the significant role fund administrators, custodians and prime brokers play with respect to transfers of client accounts and assets, an analysis of these transactions should focus on these entities.

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?*

Please see the discussion above in response to Questions 1 and 2 of this section. We emphasize that hedge funds' ability to limit or prohibit redemptions in periods of market stress significantly reduces the likelihood of large-scale liquidations to meet redemption requests and makes unlikely any systemic consequences related to transfers of hedge fund assets.

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?*

The vast majority of hedge fund service providers are not affiliates of the hedge funds they serve. Hedge fund managers typically engage a number of service providers, based on the firm's specific needs. Hedge fund managers conduct initial due diligence evaluations before hiring service providers, and continuously monitor their services providers over the course of their relationships, which may include monitoring for counterparty and operational risk. Examples of the type of review a manager might conduct include site visits, review of policies and procedures and review of independent reports, such as SSAE 16 reviews or reports by external auditors. We also note that hedge funds identify their service providers to regulators on various reports including Form ADV, Form PF, Form CPO-PQR, Form CTA-PR and Form 13H, the large trader reporting form.

Additionally, many large managers have significant back office operations that perform redundant functions to third-party service providers, such as calculations of net asset value and cash and position reconciliation, to mitigate the risk of service provider failure. If a service provider were to cease operations or provide materially deficient services, it would be subject to the legal and contractual remedies outlined in the applicable service agreements. We believe it would be unlikely to be disruptive, certainly not systemically so, as fund managers often address this contingency contractually and maintain relationships with alternative vendors.

In addition to internal proprietary valuation of assets, fund managers generally rely on multiple, independent third-party pricing services for valuation of illiquid assets (Level 3) and utilize widely accepted financial models to verify the value of assets for which a pricing source is not available. For liquid securities (Levels 1 and 2), managers rely on price information published by exchanges, dealers and other vendors of pricing information. Third-party fund administrators review asset prices on a regular basis, providing an independent check and confirmation for investors. If managers received inaccurate pricing information and a material valuation error occurred, it is unlikely that such error would have systemic effects. In practice, a manager may have to restate the fund's net asset value, but any such disclosure would likely be confined to the fund and would not rise to the level of posing a systemic risk to U.S. financial stability.

Hedge funds generally rely on multiple prime brokers (which provide multiple services including portfolio margining, trading, securities lending agent services, portfolio risk monitoring and custodial services) and futures commission merchants (each, an "FCM"). A fund may incur losses due to errors or failures in key services provided by a prime broker or FCM. To mitigate this risk, funds avoid concentrating positions with a single counterparty. Even in markets with few counterparties, managers seek to diversify exposure across various participants. Certain of these risks have been mitigated considerably by recent regulatory initiatives, particularly central clearing requirements that address the counterparty risk exposure of all participants in swap markets, including hedge funds.

We understand that counterparty exposure and interconnections that exist between funds and their counterparties are areas of focus for the Council. To the extent regulators focus on hedge funds' relationships with swap counterparties or other service providers that function in concentrated markets, we suggest they focus on the structure of each relevant market and the limited number of participants in each market, rather than proposing new direct regulation of hedge funds. In this way, regulators will be able to address systemic risk comprehensively and effectively.

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?*

Hedge funds are operationally connected to their managers, although we do not believe these operational linkages are potential sources of systemic risk. The type of operational interconnections that exist are best understood in light of typical relationships:

- *Operational interconnections between manager and investment vehicles.* Investment vehicles and their managers are separate legal entities. Funds grant full discretionary authority to their managers and are externally managed insofar as they rely entirely on the personnel, technology and services of their managers. If an adviser manages multiple hedge funds it is likely that, while the portfolio management teams may (or may not) be distinct, the funds rely on the same personnel for trade execution, investor relations and reporting and a variety of middle- and back-office functions.

- *Operational interconnections among investment vehicles managed by the same asset manager.* Investment vehicles managed by a common adviser have separate legal identities and, generally, the financial distress or closure of one will not impact the others because funds do not cross-guarantee each other's obligations. Although it is not uncommon for managers who manage multiple funds to close underperforming funds, and it is possible that such fund closures may cause a loss of confidence in the manager, such actions typically do not have consequences for the manager's other funds or overall business.

- *Operational interconnections between the asset manager and its affiliates.* Unlike other types of asset managers, hedge funds generally rely on third-party service providers so that operational risk related to affiliates of the manager is relatively low. If a hedge fund has an affiliated service provider, such as an affiliated prime broker or broker-dealer, it is possible that failure of that prime broker could have a harmful impact on the fund. We note that most large managers are independent organizations not associated with an asset management or financial institution. Independent hedge fund managers rarely rely on affiliated service providers.

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?*

In our members' experience, hedge fund managers effectively manage operational risks associated with the activities of their service providers. Below are a few examples of best practices managers have adopted to identify appropriate third-party service providers and counterparties, mitigate the contractual risks involved, and prepare for the potential impact of market stress on these relationships. We believe that these practices have been

widely adopted throughout the hedge fund industry and note that the MFA Sound Practices Manual endorses them.[94]

1. With respect to custodians, valuation agents, and fund administrators, managers conduct due diligence to select reputable service providers with the necessary expertise and experience to support the manager's particular business, and carefully review and understand the details of the terms of counterparty agreements.

2. With respect to prime brokers and other counterparties, managers conduct the same type of review with particular emphasis on credit risk and contractual terms. Managers carefully review and negotiate prime brokerage service agreements, for example, and seek to limit the factors that can affect a prime broker's obligation to extend credit, such as terms that can increase collateral requirements, or allow a prime broker to sell a fund's assets.

3. Managers also negotiate standardized events of default and other termination or collateral events to achieve consistency across contracts with counterparties, and seek to limit each counterparty's ability to terminate or make collateral calls solely at its discretion.

4. Once a manager has engaged a service provider, it monitors service quality and regularly communicates with that service provider.

5. Managers have established contingency plans for responding to the failure of significant counterparties or service providers in the event of a disaster, market disruption, or other similar event. As part of these contingency plans, managers become familiar with each key counterparty's and service provider's business continuity plan.

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?*

Our view is that operational risks in the hedge fund industry are localized and, particularly with respect to risk that originates at any particular fund, do not present risks to U.S. financial stability. Further, any risk that may exist within a particular manager is not likely to have systemic consequences. It is possible that risks may concentrate at service providers or counterparties to hedge funds. Although we believe these risks are mitigated by the best practices of hedge fund managers summarized in this section and the rigorous due diligence that investors perform prior to investing, to the extent the Council identifies any market structure concerns, we believe that such concerns are best mitigated by regulation focused on market-wide activities, including the activities of large banks, broker-dealers, futures commissions merchants, exchange clearing houses and other key service providers, and not by regulation that targets any particular class of asset manager.

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94 *See* MFA SOUND PRACTICES, *supra* note 26.

IV. Resolution

At the outset, we wish to state that we do not believe it is appropriate to use the construct of "orderly resolution" when considering the financial distress or closure of a hedge fund or its manager. Resolution, an important and specialized tool that banking regulators have developed for banks and the largest and most complex nonbank financial companies, places a high priority on minimizing the impact that a failure of such an institution would have on retail depositors, the financial system and, as we saw during the financial crisis, potentially U.S. taxpayers. However, we do not believe that hedge fund financial distress or closures pose risks to retail investors, taxpayers or the financial system as a whole. Therefore, we do not think that any new or special regimes are needed to handle hedge fund closures. As MFA President and Chief Executive Officer Richard Baker has noted in the past when speaking about the hedge fund industry: "if the unfortunate event occurs where [a funds goes] out of business, strange people show up and sell your furniture. That is the end of the story."[95]

We appreciate the Council affirming in the Notice that it "recognizes that asset management firms and investment vehicles have closed without presenting a threat to financial stability."[96] Compared to other types of financial institutions, hedge fund managers generally operate straightforward businesses with limited exposure to other financial institutions. Hedge fund managers' dissolutions tend to be streamlined and fairly simple transactions because managers generally have few operating affiliates and tend to have few general creditors. Because of their simple legal structures, hedge funds are easily wound up and liquidated under existing corporate and bankruptcy laws.[97] Liquidation is governed by a fund's organizational documents, which are made available to, and sometimes negotiated with, the fund's investors. Contractual provisions – including redemption restrictions, predetermined processes for appointment of a liquidator and priority of payments – ensure a predictable and transparent process for dissolving a hedge fund and disbursing payments to fund investors and creditors. Because hedge funds have little, if any, uncollateralized counterparty exposure, bankruptcy and liquidation proceedings are streamlined. Lawsuits may be filed to work out how to allocate assets between investors and lenders, but this litigation tends to be relatively straightforward.

Several factors make hedge fund closures relatively simple transactions. As we have explained throughout this letter, a hedge fund's losses are borne by that fund's investors, and generally not by its creditors or counterparties, whose loans typically are fully secured. Further, creditors of one fund (or its manager) cannot make claims against the assets of another fund – there are no cross-guarantees in place among hedge funds managed by a

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95 *Perspectives on Hedge Fund Registration: Hearing Before the Subcomm. On Capital Mkts., Ins., & Gov't Sponsored Enters.*, 111th Cong. 37 (2009) (statement of Richard Baker, Pres. & CEO, MFA).

96 *See* Notice, 79 Fed. Reg. at 77,494.

97 More than 950 hedge funds liquidated between October 2013 and October 2014, the most since the financial crisis when 1,023 funds closed in 2009, without fanfare or systemic impact. *See* Press Release, HFR, Hedge Fund Launches Slow as Assets, Global Equities Reach Record Levels (Dec. 11, 2014), *available at* https://www.hedgefundresearch.com/pdf/pr_20141211.pdf. By contrast, only 18 banks failed in 2014, down from their financial crisis peak of 157 in 2010 and 140 in 2009. *See* Fed. Deposit Ins. Corp., Bank Failure in Brief, *available at* https://www.fdic.gov/bank/historical/bank (2009 and 2010) (last visited Feb. 27, 2015).

common manager.[98] The legal separation of hedge fund managers from each of their hedge fund clients, including the fact that managers do not guarantee their clients' contractual obligations and clients do not cross guarantee each other's obligations,[99] makes liquidation and winding up of a hedge fund far less complicated than the bankruptcy or resolution of a large, complex financial institution, for which special resolution regimes, such as that administered by the Federal Deposit Insurance Corporation for insured depository institutions, are necessary and desirable.[100] Notwithstanding our belief that hedge fund financial distress or closures are not sources of systemic risk and that no special resolution regime is necessary for the hedge fund industry, we have endeavored to respond to the questions in Section IV of the Notice to provide the Council with additional information that may be helpful to its consideration of the issues.

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?*

As noted above and acknowledged by the Council,[101] funds and managers are legally separate entities. A manager cannot commingle the assets of a fund it manages with its proprietary assets or the assets of other funds it manages. Pursuant to the requirements of the SEC's Custody Rule, fund assets are typically held by an independent custodian and are not accessible to the fund manager to repay debts or other obligations.[102] Fund managers do not guarantee the performance or financial obligations of the funds they manage, and they do not otherwise create counterparty exposure between themselves and their clients with respect to trading activities of their funds or other clients. Although GAAP accounting rules may bring fund assets onto the adviser's balance sheet, this does not reflect the economic or

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98 *See* FSB & Int'l Org. of Sec. Comm'rs, *Assessment Methodologies for Identifying Non-Bank Non-Insurer Global Systemically Important Financial Institutions*, at 30 (Jan. 8, 2014), *available at* http://www.financialstabilityboard.org/wp-content/uploads/r_140108.pdf. Although a cross-default provision could link funds to some extent, we have found such provisions are rare in contracts between hedge fund advisors and their counterparties.

99 The Council acknowledges this relationship in the Notice: "[T]he assets of the investment vehicle are not legally available to the asset manager, its parent company, or affiliates for the purpose of satisfying their financial obligations or those of affiliated investment vehicles." Notice, 79 Fed. Reg. at 77,494.

100 Special resolution regimes were developed for certain types of financial institutions because of the nature of those entities' businesses and the types of claims that are commonly brought against them when they fail. *See, e.g.*, FSB, *Key Attributes of Effective Resolution Regimes for Financial Institutions*, at 3 (Oct. 15, 2014), *available at* http://www.financialstabilityboard.org/wp-content/uploads/r_141015.pdf ("The objective of an effective resolution regime is to make feasible the resolution of financial institutions without severe systemic disruption and without exposing taxpayers to loss, while protecting vital economic functions through mechanisms which make it possible for shareholders and unsecured and uninsured creditors to absorb losses in a manner that respect the hierarchy of claims in liquidation.").

101 Notice, 79 Fed. Reg. at 77,494.

102 *See* Custody of Funds or Securities of Clients by Investment Advisers; SEC Guidance Regarding Independent Public Accountant Engagements Performed Pursuant to Rule 206(4)–2 Under the Investment Advisers Act of 1940, 75 Fed. Reg. 1456 (Jan. 11, 2010).

legal reality of the adviser. Accordingly, there is no interconnectedness between the fund and the manager's balance sheet.[103]

Funds managed by a common manager are also not exposed to each other's balance sheet risk. Any investment losses at one fund are borne by the investors in that fund and do not subject other funds managed by the same manager to investment losses, and, since funds typically have different investors, losses are further dispersed among a broad set of investors. Further, unlike related entities in holding company or other similar structures, the different funds managed by a hedge fund manager do not have intercompany credit exposure or engage in transactions that can link the risks associated with one company to those of other companies in the same ownership structure.

The relationships between hedge fund managers and their hedge fund clients are straightforward and detailed in fund agreements and advisory contracts. Fund agreements allow for an orderly wind down and liquidation if a manager were to go bankrupt or a fund were to close. Fund agreements prescribe the types of events that would trigger the dissolution of a fund, such as a vote of the limited partners (by majority or super-majority), a discretionary decision by the manager, or the bankruptcy of the manager. In the case of a bankruptcy of a fund's manager, however, most agreements permit the fund to continue if the holders of a majority of the voting interests vote to continue the business and elect a new fund manager. If investors elect to liquidate the fund, fund agreements generally provide that a trustee or liquidator previously designated by the manager or the majority-in-interest holders will wind down the fund. When distributing assets of the fund, the liquidator is obligated to follow the priority of payments detailed in the fund agreement. This priority of payments affords creditors predictability and fairness and generally follows the statutory provisions of the fund's state corporate law regarding partnership or limited liability company dissolutions. Advisory contracts typically permit the hedge fund manager to terminate the advisory relationship and replace a fund's manager if it is in the best interest of the fund. We believe that the provisions of fund agreements and advisory contracts provide adequate documentation to prepare for and guide a liquidation.

Hedge fund closures have not historically had systemic impact. As illustrated by the chart below, hedge funds close and liquidate quite frequently with no impact on the stability of the U.S. financial system.[104] During the financial crisis, many hedge funds liquidated, but neither created nor amplified systemic risk and did not require government intervention.

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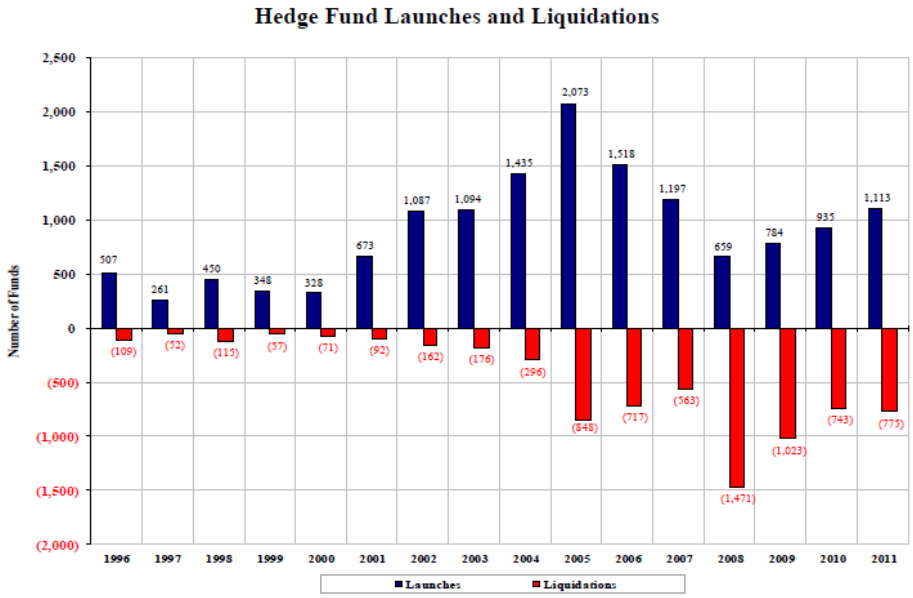
103 FSB-IOSCO, *supra* note 98, at 30.

104 One study sought to distinguish hedge fund "failures" from normal attrition and discovered that the number of "failures" is quite low. *See* Ging Lian & Hyuna Park, *Predicting Hedge Fund Failure: A Comparison of Risk Measures*, 45 J. FIN. & QUANTITATIVE ANALYSIS 199 (2010) (finding a 3.1% closure rate versus an 8.7% attrition rate for hedge funds on an annual basis from 1995 to 2004, differentiating the conventional measure of hedge fund closures used in prior academic studies – or "attrition" – from "real failure", defined as a fund (i) with a negative average rate of return for 6 months, (ii) with decreased AUM for 12 months and (iii) that was listed in a database (such as Lipper TASS or HFR) but is no longer reporting). In 2014, 764 hedge funds launched and 260 hedge funds liquidated. *See* 2015 Preqin Global Hedge Fund Report.



Source: HFR

Even large funds that have closed suddenly have had no systemic impact. For example, in 2006, a hedge fund managed by Amaranth Advisors LLC lost nearly $4 billion in natural gas futures in less than 14 days, forcing it to liquidate and wind up.[105] Despite the size of Amaranth's losses and the speed of its collapse, no government intervention was required and there was no systemic crisis associated with Amaranth's closure. The hedge fund's portfolio of natural gas futures was sold off, making "barely a ripple in broader markets."[106] We think this example illustrates the functioning of the private markets under these circumstances.[107]

We are concerned that the Council referred to the near-failure of Long-Term Capital Management ("LTCM") in 1998 as an example of a market destabilizing hedge fund closure that might exist today. We do not believe that LTCM is a relevant case study for regulators today in light of the many regulatory and market practice changes that have been implemented in the past 15 years. LTCM's excessive position size and leverage, along with its counterparties' inadequate risk management, were the primary underlying causes of LTCM's closing. The seminal analysis of the matter, conducted by the President's Working Group on Financial Markets, found that LTCM, as of January 1, 1998, was leveraged more than 25-to-1,[108] and that LTCM was able to get such leverage because its counterparties did not require LTCM to post initial margin on its over-the-counter derivatives or "OTC"

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105 Ludwig Chincarini, *A Case Study on Risk Management: Lessons from the Collapse of Amaranth Advisors L.L.C.*, 18 J. APPLIED FIN., no. 1, Spring/Summer 2008 at 1, 22.

106 Steven Mufson, *Hedge Fund's Collapse Met With a Shrug*, WASH. POST, Sept. 20, 2006, http://www.washingtonpost.com/wp-dyn/content/article/2006/09/19/AR2006091901388.html.

107 Ultimately, the private markets withstood the closing of Amaranth, which required no government intervention in large part due to the significant market reforms post-LTCM.

108 PRESIDENT'S WORKING GRP. ON FIN. MKTS., HEDGE FUNDS, LEVERAGE AND THE LESSONS OF LONG-TERM CAPITAL MANAGEMENT 12 (Apr. 1999), *available at* http://www.treasury.gov/resource-center/fin-mkts/Documents/hedgfund.pdf.

trades. This practice of not requiring initial margin was not found to have occurred in the 2008 crisis in the case of hedge funds, and today hedge funds are required to post initial margin to their counterparties, a practice which will be codified under forthcoming regulations under the Dodd-Frank Act. Finally, despite initial concern from regulators, there was no actual impact on taxpayers or retail investors from the LTCM closure. While Federal regulators coordinated a private sector solution, importantly, there was no taxpayer bailout.

Since the LTCM event, there have been significant changes in the market with respect to counterparty risk management. As noted above, regulations have dramatically raised the amounts and quality of collateral required in secured financing. Counterparties now consistently limit the amount of leverage used by hedge funds by requiring the use of collateral to secure financing to hedge funds. Also, as a result of improvements to counterparty risk management best practices, financial institutions today conduct more in-depth due diligence on and have a much greater degree of transparency with respect to their hedge fund clients' overall portfolios. In 2006, Federal Reserve Chairman Bernanke noted the improvements in the marketplace:

> Since the LTCM crisis, ongoing improvements in counterparty risk management and the resultant strengthening of market discipline appear to have limited hedge fund leverage and improved the ability of banks and broker dealers to monitor risk, despite the rapidly increasing size, diversity, and complexity of the hedge fund industry. Many hedge funds have been liquidated, and investors have suffered losses, but creditors and counterparties have, for the most part, not taken losses.[109]

We appreciate the Council's acknowledgment that hedge fund closures have had little to no systemic impact within the hedge fund industry or across the financial system, but we are concerned that this basic fact is being lost in seemingly theoretical concerns. We think it is essential that the historical lack of systemic effects of hedge fund liquidations be studied before any steps are taken toward additional oversight of what is typically a very straightforward process.

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?*

As we discuss above, investment vehicles managed by a common adviser have separate legal identities and, generally, financial distress or liquidation of one will not impact the others because funds do not cross-guarantee each other's obligations or otherwise enter into agreements that might expose them to the financial risk of an affiliated fund. In some cases, a hedge fund derivative contract may contain provisions that include the removal, replacement or closing of a fund's manager or the departure of a fund's principal portfolio managers from a fund's adviser within the definition of "default." We note that these provisions are rare in our members' experience. We believe that these provisions, overall,

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[109] Ben S. Bernanke, Chairman, Federal Reserve, Hedge Funds and Systemic Risk (May 16, 2006), *available at* http://www.federalreserve.gov/newsevents/speech/bernanke20060516a.htm.

protect hedge fund counterparties and reduce markets risk associated with hedge fund investment strategies. The possible effects associated with any derivative contracts that might be accelerated, terminated or netted in the event that a hedge fund manager closes are limited to the parties to the contract and offset by applicable margin and collateral requirements. We do not believe these possible effects of these provisions would reach other hedge fund managers or other financial institutions.

We believe that certain factors, including, primarily, collateral requirements that are marked-to-market daily, prevent counterparty acceleration, termination or netting from posing any threat to the U.S. financial system. We also note that in our members' experience, hedge fund managers closely monitor their portfolios to stay well within contractual limits, seek to work out any possible issue as soon as it becomes foreseeable and attempt to head off activation of credit or investment contract default provisions. Hedge fund managers and counterparties negotiate these terms from the outset.

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?*

Because hedge funds use leverage and are exposed to liquidity risk, they can be forced by creditors or investors to liquidate and wind up. However, hedge funds' borrowing is generally fully collateralized, which streamlines the liquidation of hedge funds and ensures that their creditors are exposed to minimal losses. Likewise, as detailed in Section I above, fund agreements include redemption restrictions that seek to address the liquidity risks with respect to investor redemption requests inherent in a fund's investment strategy. We believe that these safeguards limit the impact of liquidity and leverage risks, discussed in Sections I and II, respectively, on a fund's liquidation and winding up.

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? If so, could those terminations have disruptive consequences if counterparties face an unexpected requirement to return borrowed securities upon early loan terminations?*

Certain interconnections and counterparty relationships between hedge funds (although generally not their managers), banks and other financial market participants could be disruptive for a hedge fund depending on the investment strategy it employed. For example, the failure of a bank that acts as a securities lending agent, if it caused securities loans to terminate suddenly (which would not necessarily be the case), could disrupt a fund's trading patterns. In addition, the failure of a hedge fund's prime brokerage bank could disrupt or temporarily suspend some portion of a fund's trading and could cause the hedge fund to sell some securities because its access to liquidity through the prime broker would be disrupted. During the financial crisis, the failure of Lehman Brothers created losses for hedge fund investors. The losses were mitigated by the prompt actions of exchanges, central counterparties and regulators to make sure that customer accounts were protected and transferred to other dealers as appropriate. This enabled hedge fund managers to continue to be able to manage their fund portfolios and, more importantly, kept the vital equity and

futures markets liquid and functioning, albeit volatile, through the financial crisis. Bank-centric activities, like commercial paper, repos, swaps and commercial lending were more impaired and took longer to recover, but the main markets that the majority of hedge funds use were available to them. However, as noted previously, reforms after the financial crisis substantially increased safeguards and transparency across the financial system—especially among the largest and most critical markets and institutions.

The risks stemming from a major bank failure must also be considered in the context of the overall risk management policies and procedures employed by hedge fund managers. For example, most large hedge funds have entered into third-party custody agreements for their swap initial margin posted with the counterparty dealer bank to protect these accounts from that bank's credit risk.[110] Similarly, MFA and its members have supported the introduction of central clearing for most liquid swap contracts to reduce counterparty risk to the major banks. As we describe in detail in our response to Question 5 of Section III, hedge funds generally rely on multiple banks for prime brokerage and avoid concentrating positions with any single counterparty bank. Should a bank acting as a prime broker or lending agent fail, the hedge fund will have others on which it can rely. Such a failure is a structural risk for the financial industry generally, not a risk specific to hedge funds, and such risks are being addressed through the myriad regulations applicable to banks and broker-dealers. In addition, as we describe in detail in our response to Question 3 of Section II, hedge fund managers invest a significant amount of time and resources in risk management programs, including counterparty risk management, that routinely evaluate and test their bank counterparty relationships to identify and address risks that could be transferred to a fund or its manager by the failure of a bank counterparty such as a prime broker or securities lending agent.

As we describe in our response to Question 3 of Section II, banks also invest significant resources to evaluate their relationships with hedge funds, analyze a fund's portfolio and conduct stress tests on an ongoing basis. These practices, and the high credit standards and robust margin requirements they relate to, limit the potential transmission of risk between a bank and the hedge fund or its manager.

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[110] The SEC has proposed imposing a capital charge on security-based swap dealers, as well as nonbank major security-bases swap participants that are dually-registered as broker-dealers, that elect to have their collateral held in a tri-party segregated account. *See* Capital, Margin, and Segregation Requirements for Security-Based Swap Dealers and Major Security-Based Swap Participants and Capital Requirements for Broker-Dealers, 77 Fed. Reg. 70,213, 70,256 n. 466 (Nov. 23, 2012). As we have expressed previously, alongside a wide range of financial market participants, collateral held in a tri-party segregated account under current industry-standard arrangements should not attract a capital charge. *See* Letter from Stuart J. Kaswell, Exec. Vice President, Managing Dir. & General Counsel, MFA, to Elizabeth M. Murphy, Secretary, SEC, at 2 (Feb. 24, 2014), *available at* http://www.sec.gov/comments/s7-08-12/s70812-57.pdf.

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?*

Hedge funds that invest in foreign assets, such as securities and loans issued by foreign companies, are exposed to the securities regulatory regimes and other applicable laws of the jurisdictions in which those companies are organized. Hedge fund managers and investors recognize and manage this exposure to multi-jurisdictional regulatory regimes in the same manner as the domestic counterparty and service provider review. For example, hedge funds routinely rely on foreign custodians (*e.g.*, to invest in assets in countries that require local investors), but their relationships with foreign custodians are typically managed and guaranteed by domestic custodians. Hedge fund managers strive to evaluate the qualifications of all service providers to their funds, including the location, resources and associated risks of each custodian and sub-custodian of their funds' assets. If foreign custody arrangements are deemed to be a source of risk, appropriate regulation should address custodians rather than a selection of their customers.

Hedge funds that are organized in foreign jurisdiction are exposed to non-U.S. bankruptcy regimes. The few locations that house most offshore funds, such as the Cayman Islands, have well-established and tested regimes for handling hedge fund closures.[111]

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

As described in Section III, hedge fund managers have adopted business continuity plans and test them periodically.[112] The plans account for providing every essential service during various hypothetical emergency scenarios. Such plans include identifying essential systems and creating redundancies (including, in the case of large managers, maintaining fully equipped disaster recovery sites located in facilities remote from the managers' main offices), establishing and using back-up trading systems and determining the time required to reboot operating systems after a complete shutdown.[113] In addition, some hedge fund counterparties demand audits of these plans and facilities to ensure they meet the counterparty's expectations.[114]

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111 *See, e.g.*, Josh Barbanel & Steve Eder, *Judge Orders Liquidation of a Fletcher Hedge Fund*, WALL ST. J., Apr. 19, 2012, http://www.wsj.com/articles/SB10001424052702303513404577354351667651304.

112 We note that Chair Mary Jo White and Division of Investment Management Acting Director Dave Grim have recently announced that the SEC, the primary regulator of hedge funds and hedge fund managers, intends to propose rules requiring all fund managers to create "transition plans" in the event of a manager's dissolution or the departure of key personnel. *See* Mary Jo White, *supra* note 43; Dave Grim, Acting Dir., Div. of Inv. Mgmt., SEC, Remarks to 2014 IAA Compliance Conference (Mar. 6, 2015), *available at* http://www.sec.gov/news/speech/remarks-iaa-compliance-conference-2015.html#.VQIKJf50yAA.

113 *See* Webcast: FSOC Hosts Public Conference on Asset Management (May 15, 2014), http://treas.yorkcast.com/webcast/Play/93bbe2ebe4c34750b4a7b2a301bdeba21d (Mr. Stahl).

114 *See in* Roger T. Cole et al., Federal Reserve, *Hedge Funds, Credit Risk Transfer and Financial Stability*, *in* BANQUE DE FRANCE, FINANCIAL STABILITY REVIEW: SPECIAL ISSUE ON HEDGE FUNDS, at 13 (Apr. 2007), *available at* https://www.banque-france.fr/fileadmin/user_upload/banque_de_france/publications/

Business continuity plans have not only been subject to internal testing but to real life external events across the globe.[115] For example, during Hurricane Sandy, some hedge fund managers, as well as some of the largest hedge fund counterparties and custodians, experienced severe operational adversity, exposure to flooding and were without power or remote access to email. Despite these significant technological and operational issues, these managers and service providers were able to continue to operate and provide services to their hedge fund clients without significant disruption largely because of contingency plans they had in place.[116]

In terms of the impact on portfolios, hedge funds perform extensive stress tests, including using the scenarios prescribed on Form PF which are reported to the SEC.[117] For example, hedge funds must assess and report the percentage of portfolio assets that could be liquidated within various timeframes, including within one day or less, assuming no fire sale pricing and using good faith estimates of market conditions over the specified timeframe.[118] Hedge funds also must determine and report the effect of various adverse scenarios, each with multiple degrees of severity, on the performance of long and short components of the fund's portfolio.[119] The European Union and FCA have implemented stress testing requirements for hedge fund managers abroad.[120] For example, as part of its business planning and risk management obligations under the FCA guidelines, a hedge fund must reverse stress test its business plan. This includes identifying a range of adverse circumstances that would cause its business plan to become unviable, assessing the likelihood that such events could occur and, where those tests reveal an "unacceptably high" risk of business failure (as compared against the firm's risk tolerance), adopting effective arrangements, processes, systems or other measures to prevent or mitigate that risk.[121]

As discussed above in our responses to Question 5 of Section III, hedge fund managers also regularly evaluate operating and counterparty risk as part of their risk management programs. For example, to mitigate risks associated with third-party valuations of assets, fund managers generally rely on multiple, independent third-party pricing services for valuation of illiquid assets. In many cases, fund administrators confirm substantially all of the investment positions held directly or indirectly by the funds managed by a firm, providing a redundant check and confirmation.

Revue_de_la_stabilite_financiere/etud1_0407.pdf ("As a result [of counterparty demand], hedge funds generally provide more information about their activities to counterparties than they did in 1998, and banks today are less likely to be surprised by an LTCM-type incident.").

115 *See* FSOC Conference, *supra* note 113 (Mr. Stahl and Mr. Prince) (*e.g.*, the financial crisis, Hurricane Sandy, the Japanese tsunami, the events of September 11, 2001, and various political events across the globe).

116 *Id.* (Mr. Griffin).

117 *See* Form PF Questions 32, 42, 46, 49, 50.

118 Form PF Question 32.

119 Form PF Question 42. These scenarios include increases and decreases in equity prices (5% or 20%), risk-free interest rates (25bp and 75 bp), credit spreads (50bp and 250bp), currency rates (5% and 20%), commodity prices (10% and 40%), option implied volatilities (4% and 10%) and default rates in asset-backed securities, corporate bonds and credit default swaps (1% and 5%).

120 *See* Directive 2011/61/EU of the European Parliament and of the Council of 8 June 2011 on Alternative Investment Funds Managers, 2011 O.J. (L 174); Alternative Investment Fund Managers Regulations, 2013, S.I. 2013/1773 (U.K.).

121 FCA, SENIOR MANAGEMENT ARRANGEMENTS, SYSTEMS AND CONTROLS HANDBOOK § 20.2.

In our members' experience, hedge fund managers effectively manage operational risks associated with the activities of their service providers. See our response above to Question 7 of Section III for examples of best practices that managers have adopted to identify appropriate third-party service providers and counterparties, mitigate the contractual risks involved, and prepare for the potential impact of market stress on these relationships. We believe that these practices have been widely adopted throughout the hedge fund industry and note that the MFA Sound Practices Manual endorses them.

As noted above, hedge funds already conduct stress tests using the scenarios prescribed in Form PF and Form CPO-PQR and report the results to the SEC and CFTC. In addition, we understand the SEC is considering requiring annual stress tests for large investment advisers and large funds pursuant to the Dodd-Frank Act.[122] To the extent additional information is required, we suggest the SEC and CFTC amend Form PF and Form CPO-PQR to include additional questions and scenarios for funds that exceed a certain asset threshold or meet certain risk criteria. To the extent stress test questions are already on Form PF and Form CPO-PQR, only funds above the threshold(s) should be required to answer those questions.

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 discussed throughout this Section, we do not believe that the liquidations of hedge funds or their managers present a risk to financial stability. Hedge funds liquidate and wind up regularly, and their counterparties are protected against losses associated with hedge fund closures through, among other things, collateralization, contractual protections and other risk management tools. As noted throughout this letter, recent regulatory reforms, such as central clearing of swaps, have greatly mitigated the potential systemic impact resulting from the closing or liquidation of a hedge fund. The investors in a fund, who are sophisticated and knowingly accept they may incur losses or lose the entire value of their investment, reap the gains and bear the losses associated with that fund's performance.

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

We do not believe that unique or additional data is required for regulators to assess activities that may affect the liquidation of a hedge fund. Hedge funds already report extensive information about their investments that provides regulators a full picture of activities that may affect a fund's financial health. To the extent regulators believe information about exposure and liquidity may be relevant to assess the possible effects of a fund's winding-up, hedge funds already provide such data on Form PF, Form CPO-PQR, Form CTA-PR and Form ADV. A typical Form PF filing for a large hedge fund manager might exceed 150 pages, with detailed monthly data presented each quarter. However, to the extent the Council believes there are specific practices that amplify concerns, we reiterate our request that the Council identify and publish for comment these concerns so we and other industry participants can respond with greater specificity.

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122 *See* Mary Jo White, *supra* note 43; *see also* Dodd-Frank Act § 165(i)(2).

MFA appreciates the opportunity to provide comments to the Council in response to the questions set out in the Notice. In reviewing and considering the responses it receives, we encourage the Council to continue its dialogue with industry participants in order to maintain a thoughtful approach to the regulation of asset managers.

As it continues to evaluate potential risks to the financial system, we believe that it is of the utmost importance for the Council to fully consider both how hedge funds are structured and managed and the comprehensive regulatory environment in which they operate. The hedge fund industry is made up of sophisticated managers and investors, both of which focus considerable time and attention on risk management, specifically in the areas of liquidity and leverage. Additionally, hedge funds do not operate in a vacuum. Instead, regulations and operational restrictions placed on their counterparties (such as banks, broker-dealers and swap dealers) and exchanges and other critical infrastructure affect hedge funds in important ways, which the Council must consider as part of a holistic approach to systemic risk regulation. In particular, the Council should consider how regulatory changes implemented under the Dodd-Frank Act, as well as additional changes to market practices, have affected the financial markets generally, and hedge funds in particular, before recommending any additional regulation.

In our members' experience, hedge fund managers consider liquidity risk management and appropriate use of leverage to be among the most important elements of a successful portfolio management program. As iterated throughout this letter, hedge funds are able to match the liquidity of their portfolio with the periods in which investor redemptions are permitted. Even hedge funds with liberal redemption terms are able to manage liquidity through the use of advanced notice requirements. Given the liquidity management tools hedge fund managers that have at their disposal, the Council's concern about fire sale risk seems to us to be misplaced. In fact, because investors are likely to think of hedge fund investments as long-term and relatively illiquid, and because hedge funds are adept at managing risk and may be less likely than individuals to sell portfolio assets in times of stress, hedge funds may actually reduce the risk of fire sales.

With respect to leverage, the Council should not accept the general mischaracterization of the hedge fund industry as highly leveraged. It should also be sure to recognize that leverage and risk are not the same thing. As explained thoroughly in this letter, the hedge fund industry is significantly less leveraged than other financial market participants, and various asset classes and instruments have differing risk and liquidity characteristics that make them more appropriate for increased leverage. Additionally, the use of leverage is limited by indirect regulatory restrictions and contractual restrictions, as well as by the terms a fund's creditors may demand in order to extend credit. It is also important for the Council to acknowledge that because most hedge fund borrowing is collateralized by cash or securities, any losses that hedge funds incur are borne almost entirely by their investors, not their creditors or counterparties.

As explained above, although funds closed during the financial crisis when they became unable to meet margin calls and their prime brokers claimed their assets, the consequence was not market disruption, but rather a quick and orderly winding down of the fund without systemic consequences – the only losses were to investors. Given the high

substitutability of hedge funds and hedge fund managers, investors were able to move their money to new hedge funds or to other asset managers without difficulty, and funds closed and managers went out of business without any need for government intervention.

To the extent the Council believes there are risks in the hedge fund industry that need to be addressed in additional regulation, we believe the most effective approach would be holistic market regulation, rather than regulation aimed at the hedge fund industry alone or at individual funds or managers. Further, we remind the Council that the question is not whether there are any risks – because there is, of course, no such thing as risk-free investing – but rather whether those risks rise to the level of systemic risks that could threaten the financial system. It is our view that the hedge fund industry does not pose such systemic risk.

If you have any questions regarding any of these comments, or if we can provide further information, please do not hesitate to contact Benjamin Allensworth or the undersigned at (202) 730-2600.

Respectfully submitted,

/s/ Stuart J. Kaswell
Stuart J. Kaswell

Executive Vice-President and Managing
Director, General Counsel