U.S. Department of Labor
Advisory Council on Employee Welfare and Pension Benefit Plans

Written Testimony on Hedge Fund and Private Equity Investments

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Good morning. I want to thank the Department of Labor, Secretary Solis, Chairman Tomasek, Vice Chairman Sasso, and the ERISA Advisory Council for the opportunity to address you on the characteristics of hedge funds and private equity investments.

My name is Sam Gallo, and by way of background I am a Managing Director at PricewaterhouseCoopers, or better known as PwC. I currently assist alternative investment managers in achieving institutionally oriented best practices with respect to their systems, data, and operating controls. More specifically, I work in the Risk Assurance business practice offering investment advisors services where PwC can test control system effectiveness, validate operational procedures and report our independent findings through a suite of different reporting products. These services assist investment managers in working towards the achievement of operational best practices and aim to better satisfy the increasing trust and transparency demands set by institutional investors.

Prior to joining PwC, I was a senior member and shareholder of the investment consulting firm Ennis Knupp & Associates, now known as Hewitt-Ennis Knupp, a division of Aon Insurance. While at Ennis Knupp, I assisted some of the nation's largest public pension plans and Taft-Hartley investment programs understand the benefits of alternative investments and constructed portfolio recommendations based upon client investment objectives and constraints.

At Ennis Knupp, I was also an alternative investment researcher, evaluating the front-office investment strategies and back-office operations of managers. I built and led the operational due diligence research practice on alternative investment managers, and co-led the investment due diligence research efforts on hedge fund of funds, multi-strategy, commodity, and real-return hedge fund managers. Additionally, I educated several ERISA fiduciaries on performing investment and operational due diligence when considering investments in hedge funds.

Prior to my work at Ennis Knupp, I was a successful trader for a proprietary trading group and hedge fund after serving as a valuation specialist for the former public accounting firm Arthur Andersen.

I maintain a registered CPA license in the State of Illinois, and am a Chartered Alternative Investment Analyst, also known as CAIA, Charterholder. I also volunteer my time to assist the CAIA Association in developing and refining exam questions and answers for its Level 1 and Level 2 CAIA Examinations. As you may know, the CAIA Association is a non-for-profit entity providing global education to investment professionals on alternative investments – testing candidate proficiency of its curriculum, consisting of academic and industry materials related to alternative investments.

I am here today to provide an informational and educational overview on the benefits and risks of two alternative investment vehicles – that is, hedge funds and private equity investments. The Council provided me with a list of questions to which I will now state the question and address a response.

1. What are the essential characteristics of a hedge fund?

The following characteristics are broadly descriptive of a typical hedge fund:

- Hedge funds are a private investment vehicle, meant for accredited investors or qualified purchasers. They fall within a legal framework for organizing a private investment vehicle within regulatory guidelines for registration in accordance with various securities laws.

- Hedge funds typically follow an investment strategy that is less constrained than that of a traditional fund, such as a mutual fund sold to retail investors, and may (although it does not have to) include the use of short selling, derivative instruments, and/or hedges to express investment views or mitigate risks.

- Hedge funds have varying, and potentially limited, degrees of liquidity. Many hedge funds require an initial lock-up period of one to two years, during which times withdrawals of capital are limited or restricted. After this initial lock-up period, regular periods of liquidity may be offered on a monthly, quarterly, or annual basis.

- Hedge funds typically have a fee structure that includes both a traditional management fee based on assets under management and a performance-based incentive fee. This incentive fee provides the manager with a percentage of profits, which is meant to align the interests of the investment manager with those of its investors.

- It is usual and customary for hedge funds managers to invest their personal capital in their firm's funds, alongside their investors.

- By maintaining a broad mandate, hedge funds can be structured in a number of ways, and can pursue a wide variety of investment strategies. Common categories of hedge fund investment styles include Long/Short Equity (also known as Equity Hedge), Event-Driven, Relative Value, and Macro strategies. Hedge funds can pursue any of the broad strategies described above, focus on any of a number of narrow strategy categories that fall within one of the broader categories, or invest across several strategies in a "multi-strategy" format.

- Hedge funds can invest in a wide variety of instruments to execute their specific investment strategies. In addition to traditional markets such as equities and fixed income, some hedge funds invest in currencies, equity and fixed income derivatives, structured credit instruments, commodities, or private investments.

- Depending on the investment strategy, hedge funds can exhibit varying degrees of market exposure ranging from short-biased funds, to market-neutral, to long-biased and leveraged strategies. Market sensitivity or level of exposure of a hedge fund plays a significant role in that fund's sensitivity to the directional moves in the

markets the fund invests in. Depending on the strategy and level of exposure, hedge funds can serve to either increase or mitigate the volatility and market risk of a traditional investment portfolio that they're added to.

- Hedge funds are typically designed to have lower market sensitivity than traditional funds; and thus would be expected to lose less in a down market than traditional investment funds.

2. What are the essential characteristics of a private equity fund?

Similar to hedge funds, private equity funds can pursue a number of investment strategies, and typically include a profit-based incentive fee with a hurdle. They typically differ from hedge funds in a number of respects:

- Investment strategies used by private equity funds typically involve longer investment horizons. As a result, liquidity terms of private equity funds are longer as well, and typically include an extended multi-year investment period followed by an extended multi-year holding or harvesting period, with the possibility of further extensions. Fund lives can range from eight to twelve years or longer, often without provisions for early withdrawal.

- Private equity investing traditionally involves the purchase of controlling stakes in companies using a combination of investor capital and externally raised debt to finance the acquisition. The use of debt financing is responsible for the use of the acronym "LBO" or "Leveraged Buy-Out" to describe many typical private equity transactions.

- Other investment strategies, such as venture capital, real estate investment, mezzanine, and distressed investing can also be expressed in a private equity style investment structure.

- Similar to hedge funds, private equity funds fall within a legal framework for organizing a private investment vehicle within offering regulatory guidelines for registration in accordance with various securities laws.

- Private equity funds have a fee structure that includes both a traditional management fee based on assets under management and a performance-based incentive fee, which provides the manager with a percentage of profits, which is meant to align the interests of the investment manager with those of the investors.

- Fee structures of private equity funds differ from those of hedge funds in that private equity funds typically charge management fees on committed capital during a fund's investment period (typically 3-5 years), regardless of whether it has been called and invested or not. Hedge funds, on the other hand, only charge fees on invested capital. Private equity funds also typically have a hurdle return rate, often

followed by a catch-up period. Finally, private equity funds typically charge incentive fees (also known as carried interest) only on realized gains at the end of the investment period. In contrast, most hedge funds typically charge an incentive fee on both realized and unrealized performance gains at the end of every year subject to a high water mark an/or other performance hurdles to avoid overpayment for portfolio losses and poor performance. Both hedge fund and private equity fund fee structures can include additional features such as claw-backs, ratchet clauses, and sliding fee scales.

3. To what degree do hedge funds and private equity funds outperform (or under perform) traditional plan investments?

Estimating aggregate performance of hedge funds and private equity funds can be difficult, given the lack of consistent reporting requirements and methodologies as well as the variety of strategies pursued by the underlying funds. While a number of hedge fund and private equity performance indices exist, they provide an incomplete picture of performance given a series of biases and limitations in their creation and calculation methodology.

With these caveats in mind and using broad hedge fund and private equity performance indices, both investment styles have, over the past 21 years, outperformed traditional equity and fixed income benchmarks, as measured by returns of the S&P 500 Total Return Index and the Barclays Aggregate Bond Index.

Performance Statistics	S&P 500 Total Return Index	Barclays Aggregate Bond Index	Cambridge Associates LLC U.S. Private Equity Index	HFRI Fund Weighted Composite Index
Annualized Return	9.6%	6.9%	14.3%	11.9%
Standard Deviation	16.5%	4.1%	10.4%	8.7%
Downside Deviation	11.8%	1.5%	8.3%	6.0%
Maximum Drawdown	-45.8%	-3.9%	-26.2%	-19.0%

Source: Pertrac. Quarterly data, Q1 1990 through Q4 2010

Standard deviation is by definition a measure of dispersion of a data set around its mean. In this case, the standard deviation calculation is applied to the quarterly return data points to measure the investment's annualized volatility, and is traditionally used by investors to gage the amount of expected volatility within a normal distribution.

Capital market returns, however, are not normally distributed. In other words, markets can experience tail-risk, which is risk outside of normal expectations. Since capital markets themselves are not normally distributed and can experience dramatic shocks outside of normal conditions, standard deviation is not necessarily the best measure of risk when evaluating alternative investments.

Additional measures such as downside deviation and maximum drawdown give indications of downside non-normal tail risk exposure. More simply stated, these measures indicate

how a portfolio performs under stress indicating downside volatility and the historical maximum loss during market sell-offs. As observed in the above table, the downside deviation and maximum drawdowns of hedge funds and private equity investments are significantly less than traditional equity markets, indicating that alternative investments provide a mechanism for downside risk protection, when needed the most.

4. To what degree are the returns of hedge funds and private equity funds correlated with the performance of the markets and traditional plan investments?

Using the same benchmarks for hedge fund and private equity fund performance, both investment styles have a moderate to high degree of correlation to the equity markets, and a slightly negative correlation to the fixed income markets. Although these numbers show the long-term historical relationship, over short periods of time correlations between hedge fund and private equity returns and those of the broad equity and fixed income markets have varied significantly.

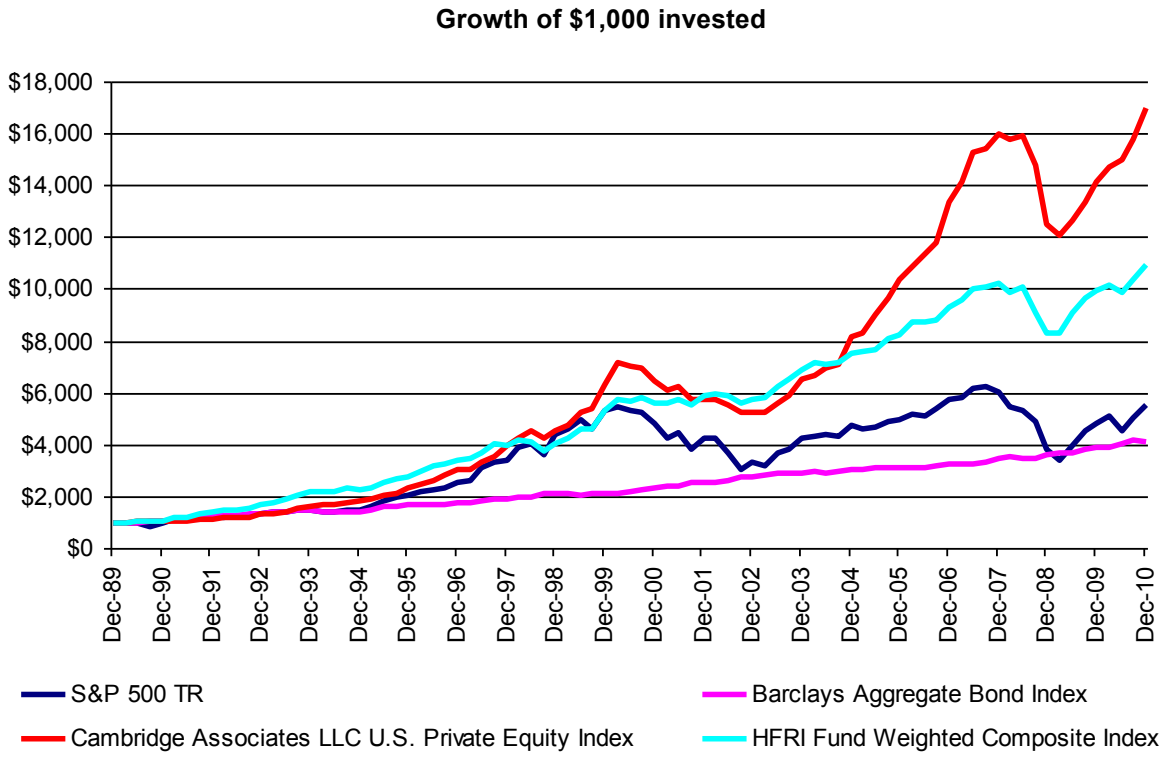
Table of Correlations	S&P 500 Total Return Index	Barclays Aggregate Bond Index
Cambridge Associates LLC U.S. Private Equity Index	0.71	-0.22
HFRI Fund Weighted Composite Index	0.79	-0.12

Table of Betas	S&P 500 Total Return Index	Barclays Aggregate Bond Index
Cambridge Associates LLC U.S. Private Equity Index	0.44	-0.56
HFRI Fund Weighted Composite Index	0.42	-0.26

Source: Pertrac. Quarterly data, Q1 1990 through Q4 2010

While correlation is one measure used to relate performance linkages, beta is another important measure, as it measures sensitivity to broad market indices. Measures of equity beta of values less than 1.0, as observed in the above table, indicate that hedge funds and private equity investments have much less market sensitivity to equity market performance than traditional funds - indicating a benefit to adding these alternative investments to a diversified portfolio.

Taken together, increased historical return performance, lower standard deviations, lower downside deviations, lower maximum drawdowns, correlations less than 1.0, and beta exposure to the S&P 500 Total Return Index of less than 1.0, hedge funds and private equity investments have outperformed both in absolute, relative, and risk-adjusted terms. Additionally, as observed in the chart below, when needed most for diversification and return enhancement, both alternative investment options grew a $1,000 investment over the past two decades at a greater pace with reduced risk relative to traditional portfolios. More simply stated, when needed the most during market shocks, according to the indices noted above, hedge funds and private equity investments delivered upon their objectives, although this performance can vary among managers and depends greatly on their quality.



Source: Pertrac. Quarterly data, Q1 1990 through Q4 2010

5. What role do hedge funds and private equity funds play in the investment strategy of defined benefit plan sponsors and/or defined contribution plan sponsors and participants?

The lower historical volatility, higher absolute and risk-adjusted returns, and varied correlations of hedge funds and private equity funds to traditional markets can make those investments a valuable addition to traditional investment portfolios. Depending on the investment style and strategy, hedge funds and private equity funds can provide access to uncorrelated sources of performance, and according to Modern Portfolio Theory, they can potentially improve the absolute and risk-adjusted returns of the portfolios they are being added to.

According to a March 2011 Preqin survey, pension fund investment in hedge funds has been growing rapidly[1]. From the end of 2007 until the beginning of 2011, worldwide public pension plans that invest in hedge funds grew this allocation to 6.6% of assets from 3.6% of assets. A 2010 survey by Russell Investments found that institutional investors are likely to increase their allocation to alternative investments to 19% of assets by 2013 from the then current level of 14%. This 14% allocation included a 4.3% allocation to private equity,

[1] http://www.prequin.com/docs/press/public_pension_HF_exposure _doubles.pdf

4.2% in hedge funds, and 4% in real estate in addition to growing investments in areas such as infrastructure and commodities[2].

These survey results demonstrate an increased willingness by plan sponsors and participants to include alternative investments such as hedge funds and private equity investments within their broader investment portfolios.

6. What unique benefits and risks do hedge funds and private equity funds present over traditional plan investments?

Unique benefits of hedge funds and private equity funds for a traditional portfolio include potential access to less correlated sources of alpha or non-market driven returns, varying investment horizons which can result in better performance, and, in the case of hedge funds, the potential ability to hedge or mitigate some of the downside sensitivity of such portfolios to downside moves in the traditional markets. Decreasing downside sensitivity can lead to improved asymmetry of returns, benefiting the long-term profitability of the aggregate investment portfolio.

Despite these benefits, there are a number of risks unique to hedge fund and private equity fund investing that need to be understood and evaluated prior to investment. Those risks vary by strategy and investment style, but can include:

- Market risks – hedge fund and private equity investments involve varying degrees of market risk. The use of leverage can further exacerbate those risks.
- Illiquidity – although varying greatly for hedge funds, liquidity of investments is inferior to that of investing in the traditional markets such as equities and fixed income. Illiquidity risk is much more significant for private equity, given the long lockups associated with that investment style.
- Valuation and pricing – pricing for liquid instruments is typically readily available. Certain hedge fund strategies involve making investments in less liquid instruments such as distressed debt, direct loans, private equity, and complex financial derivatives. Some of those instruments can be difficult to value. This is particularly true for private equity and side pocket investments.
- Operational – there are operational complexities associated with executing many hedge fund strategies. Those include back office, personnel, execution, legal, regulatory, compliance, and other factors. Understanding these issues and best practices in managing them should be an important aspect of the due diligence process for both hedge funds and private equity fund investments.
- Lack of regulatory oversight – most hedge and private equity funds are not registered under the Investment Company Act of 1940 ("1940 Act") and do not have the protections afforded to mutual funds and their investors.
- Lack of transparency – hedge and private equity funds generally regard their investment strategies and valuation models as proprietary sources of intellectual

[2] http://www.russell.com/us/news/press-release.aspx?link=press-releases/2010/PR20100621.htm

property. Investment managers will vary in their viewpoints in sharing information with investors, each striking a different balance between voluntarily disclosing information with investors and guarding their proprietary information from competitive threats.

- Governance – mutual funds are required to have Board of Directors consisting of independent directors, whereas hedge and private equity funds have no such requirement. Some alternative investment funds may institute this governance practice. However, it is generally more likely to observe advisory committees made up of experienced professionals within the sector or niche strategy of the fund.

7. What steps can defined benefit and defined contribution sponsors take to mitigate the lack of liquidity that is characteristic of these investments?

Investment liquidity should be viewed in the context of the investor's own investment horizon and liquidity needs. Not all of the investment strategies discussed here are illiquid. After the initial lock-up period, most hedge fund strategies offer monthly or quarterly investor liquidity while certain recent offerings present even more frequent liquidity. Selecting the relevant investment strategies and sizing them based on the client's own liquidity needs may allow investors access to the uncorrelated sources of exposure and added potential returns that hedge funds and private equity funds offer, while maintaining an appropriate liquidity profile.

8. What role could plan sponsors expect for investment managers, advisors, consultants and other service providers with regard to due diligence and ongoing monitoring?

Intermediaries such as investment managers, advisors, consultants, auditors, and tax advisors can play a varied role in the investment due diligence process, depending on the level of service desired by the investor. Benefits provided by intermediaries can include:

- Investment sourcing, particularly as it relates to smaller managers or complex investment strategies;
- Manager selection and portfolio construction;
- Ongoing investment monitoring;
- Economies of scale in research;
- Access to investment managers that are closed or have large minimum investment amounts;
- Benefit of collective bargaining with investment managers with respect to terms such as fees, liquidity, and transparency;
- Transparency and risk aggregation services;
- Operational due diligence;
- Legal and regulatory review and analysis;
- Reference checks;

Those benefits need to be weighted against the fees that are typically applied on the intermediary level.

9. Are hedge fund and private equity fund investments viable with regard to both defined benefit and defined contribution plans?

Hedge funds and private equity funds attempt to provide investors with:

- Access to less correlated and idiosyncratic sources of alpha. Otherwise stated as returns driven by skill and not by market direction;
- Potential for capital preservation in falling market environments;
- Reduced volatility.

All of those factors can serve to help improve absolute and risk-adjusted returns when added to a traditional investment portfolio, making both hedge funds and private equity funds attractive investment options for both defined benefit and defined contribution plan investors.

10. Given the often illiquid nature of both hedge funds and private equity, what other options are available to plan sponsors and participants that would provide exposure to the unique investment opportunities offered by hedge fund and private equity investments, but that provide for greater (and possibly daily) liquidity and pricing?

There are multiple ways of obtaining liquid exposure to sources of alternative investment opportunities normally pursued by hedge funds and private equity funds. Those include:

- Investing in hedge funds that offer more frequent liquidity and pricing (e.g., monthly, weekly, or even daily, in some cases).
- Investing in futures based products, such as macro or managed futures vehicles, some of which offer liquidity as often as weekly without an initial lock-up period;
- Investing through a managed account or a fund-of-one structure that provides improved liquidity and/or direct control of the underlying portfolio investments;
- Investing in hedge fund replication strategies, which can be offered as ETFs, mutual funds, structured notes, standalone funds, UCITS III products, or managed accounts. Benefits of hedge fund replication typically include better transparency and liquidity, but are achieved at the expense of negative manager selection bias and occasionally lower returns, since the strategies are specifically designed to isolate the beta, not alpha, component of hedge fund strategies.
- The nature of the private equity investment strategy does not allow for easy access to the strategy in a more liquid form. The closest proxy would be to invest in the listed shares of private equity firms, or in the ETF consisting of a collection of those stocks, assuming that they are public. However, this approach only provides access to the performance of stocks of private equity firms themselves, not that of their underlying funds or strategies.

11. What steps can plan sponsors take to ensure fee transparency?

Fee terms charged by hedge fund and private equity fund managers are defined in the offering documents of the fund. Hence, they are typically known prior to the investment. It is common for many hedge fund managers to have an independent administrator manage the books and records of the fund, to ensure that all fees and expenses are allocated consistently and in an equitable fashion.

In addition to contractual fees, hedge fund and private equity managers can charge certain expenses to the fund. Best practice in operational due diligence includes a detailed analysis of such expenses to make sure that they are appropriate for the strategy.

12. How do private equity and hedge fund investments affect the broader financial economy?

Capital invested in hedge funds and private equity funds represents a small portion of the global fixed income and equity markets. However, these funds deliver multiple benefits to the broader financial economy, such as:

- Hedge funds improve market liquidity by serving as an incremental seller of securities when prices go up and an incremental buyer when prices go down (in part due to short selling and covering of shorts in a sell-off);
- Hedge funds assist in price discovery for securities, particularly in newly developing financial markets or complex investment instruments where price transparency can be challenging;
- Hedge fund managers, especially those focused on short selling, may perform deep due diligence on the issuers of publicly traded stocks and bonds. Hence, hedge funds can serve as a "watch-dog" for capital markets, constantly analyzing financial statements of public companies for potential fraud or aggressive accounting practices. This monitoring can serve as a potential deterrent for corporate managers.
- Flexibility of hedge fund investment mandates serves to spur innovation in development of new trading and hedging techniques, and also allows for efficient capital movement toward the most attractive investment opportunities;
- Hedge funds can serve as a risk management tool for investors;
- Both hedge funds and private equity funds can serve as a catalyst for unlocking shareholder value through activism and financial or organizational restructuring of companies they invest in;
- Private equity funds provide a stable source of investment capital for company buyouts. In that, their investment horizon tends to be aligned with the company's management team as well as many of the underlying investors.
- Certain styles of private equity investing, such as venture capital and mezzanine finance, provide growth capital for new and emerging companies and industries, supporting innovation and job creation.

13. To what degree are hedge fund and private equity fund managers and the funds themselves currently subject to regulation?

Hedge fund and private equity funds and fund managers, depending on their investment activities and investor base, may be subject to a substantial amount of federal, state and foreign market regulation. What follows is a brief summary of the market regulation to which a private fund and its manager may be subject.

Hedge fund and private equity fund managers, subject to exemptions, are now required to register with the Securities and Exchange Commission (the "SEC") under the Investment Advisers Act of 1940, as amended (the "Advisers Act" or "1940 Act"). The Advisers Act and SEC rules there under, as well as SEC guidance, substantively regulate the material activities of registered investment advisers including, but not limited to the following areas: (i) advertising, marketing and communication to clients; (ii) client solicitation, including recently adopted "pay to play" restrictions; (iii) custody of client assets; (iv) voting of client proxies; (v) limitations and prohibitions on certain types of transactions between registered advisers and their clients; (vi) their ability to charge clients performance fees; (vii) detailed recordkeeping requirements; (viii) requirement for compliance programs, including robust policies and procedures designed to ensure compliance with the federal securities laws and the prevention of insider trading, the monitoring and testing of such policies and procedures, controls over the personal trading of employees, and employee compliance training (ix) client privacy requirements; and (x) fiduciary duty and anti-fraud provisions, applicable to all investment advisers, whether registered or not. Registered investment advisers may also be subject to examinations by the SEC, including sweep examinations, or "for cause" examinations.

To the extent that private fund managers manage funds that are considered ERISA "plan assets", ERISA and DOL regulations, including the ERISA fiduciary provisions and prohibited transaction restrictions apply to a private fund and the investment manager.

Registered investment advisers are required to file with the SEC and make available to investors certain disclosure documents including, Form ADV, which provides the SEC and investors with detailed information about the operations, investment activities, conflicts of interest, and disciplinary history of the adviser. The SEC recently adopted rules requiring that registered investment advisers include in Form ADV certain detailed disclosure information about the private funds that they manage.

While private funds conduct their marketing activities in reliance on various exemptions from the 1933 Act, 1934 Act and the 1940 Act, domestic private funds relying on Regulation D under the 1933 Act are required to file Form D with the SEC and filings with certain states providing information about the private offering.

In addition, both the SEC and U.S. Treasury Department ("Treasury") have proposed new forms requiring disclosure of information regarding private funds. As part of the implementation of the Dodd-Frank Wall Street Reform and Consumer Protection Act, the SEC has proposed new rules that require registered investment advisers who advise one or

more private funds to file a "Form PF." The new reporting guidelines, which are specific to private fund advisers, substantially increase reporting obligations for hedge funds and private equity funds. The Treasury recently proposed rules requiring registered investment advisers to file "Form SLT" on a monthly basis if the fair market value of certain securities owned by the funds it advises exceed $1 billion.

The day to day trading activities of private funds and their investment managers are also subject to various regulations, including but not limited to rules governing short selling, IPO participation, best execution and the use of "soft dollars", trade allocation and aggregation. The Securities Exchange Act of 1934, as amended, requires investment managers, whether registered or not, to file reports detailing certain equity holdings with the SEC and national securities exchanges.

Depending on the investment activity of the fund, fund managers may also be subject to recordkeeping or reporting requirement of other regulatory authorities, such as the Commodity Futures Trading Commission ("CFTC"), the U.S. Department of Treasury, the Federal Trade Commission ("FTC") and others. For instance, hedge fund managers that trade commodities, futures and options are, subject to certain exemptions required to register as commodity pool operators and commodity trading advisers with the CFTC and subject to the Commodity Exchange Act. Hedge or private equity funds that take large positions in certain companies are required to file Hart Scott Rodino flings with the FTC. Private funds, like other financial institutions are subject to the anti-money laundering requirements of the USA PATRIOT Act and the requirements of the U.S. Office of Foreign Assets Control and similar regulations in other jurisdictions.

Fund managers managing funds that invest in non-U.S. securities or that solicit or manage the assets of non-U.S. persons are also subject to the laws and regulations in the various jurisdictions in which they conduct their activities.

The funds themselves are generally exempt from the regulatory regime applicable to mutual funds or pubic companies. A private investment fund typically is not registered as an investment company under the 1940 Act (as a mutual fund would be) in reliance upon an exception available to privately offered investment companies composed of qualified purchasers. Accordingly, the provisions of the 1940 Act (which, among other matters, require investment companies to have a majority of disinterested directors, require securities held in custody to at all times be individually segregated from the securities of any other person and marked to clearly identify such securities as the property of such investment company, and regulate the relationship between the adviser and the investment company) are not applicable.

Also, as indicated, private investment funds rely on private placement rules, which allow them to be exempt from the registration and disclosure requirements of the 1933 Act and 1934 Act.

14. Discuss key recommendations for plan sponsors that are best practices when analyzing and assessing these unique risk factors. (answered with #15)

15. Overall, what unique steps should plan sponsors take when considering and monitoring hedge fund and private equity investments relative to traditional investment vehicles?

Investments in hedge funds and private equity funds require significant due diligence to ensure that the various aspects of the strategy and the manager are consistent with the plan's investment mandate and portfolio construction considerations. Various areas of focus in evaluating hedge fund and private equity investments may include:

- An understanding of the investment strategy pursued by the fund;
- Review of the investment process and methodology utilized by the manager;
- A review of the associated risks of the investment strategy;
- An operational due diligence review of back-office risk management (enterprise- and portfolio-level), reporting, controls, policies, and compliance procedures;
- Background and reference checks on the key investment professionals;
- A legal document review;
- And a review of the portfolio construction considerations with respect to the plan's overall portfolio.

In terms of monitoring, plan sponsors should have regular, substantive contact through perpetual calls and meetings including periodic operational due diligence reviews.

Given the unique set of investment considerations and complex monitoring requirements, both investment consultants and fund of hedge funds have played important roles in the investments by institutional investors in both private equity and hedge funds.

16. Are there any unique diversification benefits offered by hedge funds and private equity investments?

By virtue of having a broader investment mandate than that of typical mutual funds, both hedge funds and private equity funds can offer diversification benefits for a traditional investment portfolio. In aggregate, hedge fund and private equity fund returns have historically exhibited a varying degree of correlation to equity and fixed income markets, supporting the argument for positive diversification benefits exhibited by those funds. That diversification can stem from the funds' focus on unique geographies, instrument types, or investment strategies not already represented in the plan's portfolio. The manager's potential for generating alpha through trading and hedging can serve as an additional source of diversification, although this depends greatly on manager quality and does not apply to managers universally.

17. What are the benefits and drawbacks of investing in direct hedge funds and private equity investments as opposed to a fund of hedge funds?

The primary advantage of investing in hedge funds and private equity funds directly, rather than through a fund of hedge funds, is the ability to avoid additional fees typically applied by the intermediary for their services. Direct investing also places greater control in the hands of the ultimate investor, potentially allowing for a more dynamic investment allocation process as well as an ability to customize the types of investment styles and degree of risk and diversification.

There are several factors that need to be considered in evaluating the relative attractiveness of a direct investment program as opposed to using a fund of hedge funds:

- Cost – manager sourcing, due diligence, and appropriate monitoring requires significant investment in personnel and resources. Intermediaries such as fund of hedge funds have the experience of economies of scale, and can hire quality investment and back office personnel to perform due diligence and monitoring. Building a similar infrastructure for a direct investment program from scratch may or may not be economical for a single allocator, depending on its size.
- Information flow – intermediaries, particularly those with multi-billion dollar asset bases, have access to market participants and exposure data that can be advantageous in determining and making dynamic asset allocation decisions across strategies, regions, and sectors.
- Asset base – by virtue of aggregating multiple investors, fund of hedge funds can provide improved access to funds and managers, as well as improved bargaining power in negotiating better terms and fees with individual funds.

18. What are the benefits and drawbacks of investing in actual hedge funds and private equity investments to gain access to these strategies as opposed to investing in more traditional investment options that may utilize similar strategies (such as long/short equity or merger arbitrage mutual funds or long/short separate accounts)?

There are benefits and drawbacks to investing in comingled hedge funds and private equity funds relative to other investment options that seek to replicate hedge fund returns through a customized structure or a managed account.

Some of the benefits of investing in comingled funds include:

- Buying into an existing portfolio, rather than having to build a portfolio, as would be the case for a new managed account;
- Lower expenses, as those are allocated across a larger pool of assets;
- Lower execution costs because of the larger size of the investment pool;
- Alignment of interests with the General Partner, who typically has personal capital invested in the comingled fund alongside other investors.

Disadvantages include the typically higher fees and lower liquidity of a comingled fund relative to other alternative investment options.

Some of the advantages of traditional investment options utilizing alternative investment strategies (such as long/short equity or merger arbitrage mutual funds) include:

- Lower fees;
- Better liquidity;
- Consistent and regimented investment approach providing access to the alternative investment strategy being targeted by the fund.

The drawback of this approach can be the lack of alpha or skill-based returns provided by the managers, which stems from the nature of the investment goal of fully replicating the returns of the hedge fund strategy. Other drawbacks of this approach may include selection bias (given the limited number of investment options), lack of flexibility due to the narrow investment mandate of such funds, and the need for some funds to remain fully invested regardless of the attractiveness of the opportunity set in the strategy being pursued by the fund.

Some of the advantages of managed accounts include:

- Improved transparency;
- Direct investment control;
- Potentially better fees and liquidity.

Drawbacks of the managed account approach may include higher initial and ongoing expenses, potential for tracking error relative to the returns earned by other investors with the same fund manager, unlimited liability, and manager selection bias as some investment managers may not be willing to operate a managed account.

19. To what extent have defined contribution plans been offering these types of strategies to their participants? Has it been through actual hedge fund or private equity investments or through traditional investment options? Also, has it been as a stand alone option within a plan lineup or through the use of a target date fund or managed account type product?

To date, there has been minimal use of absolute return strategies, including hedge funds or private equity funds, by defined contribution plans. While plan sponsors often acknowledge the value of these strategies from an overall diversification perspective, they have generally concluded that offering them as stand-alone core investment options would be difficult given their less liquid nature, perceived difficulties in explaining these non-traditional strategies to plan participants, and challenges in plan participants understanding these investment options. There has however been growing interest in the feasibility of including such strategies within custom target-date funds ("TDFs") as such an

approach would enable them to be integrated within the overall glide path of such funds by the fund's manager.

20. How do target date fund managers view the viability of including these strategies within their funds? In what capacity have they begun to offer this type of exposure or see themselves including it in the future?

Some target date funds ("TDFs") suffered poor performance during the financial crisis of 2008 as portfolios were largely sensitive to traditional long-only equity strategies in the midst of an equity and credit market correction. In light of this, some providers of TDFs have pointed to a need to expand the asset classes offered by TDFs to include alternative investments that are less correlated and less sensitive to traditional investment strategies. The rationale for this opinion is that based on the concept of Market Portfolio Theory coupled with the risk/reward characteristics of alternative investments. That is, by expanding the opportunity set of TDFs to include alternative investments, the glide path may result in a more efficient achievement of investor objectives by their retirement dates.

However, notwithstanding this growing awareness of the role that alternative investment strategies such as hedge funds and private equity investments can play within a target date fund's overall investment program, actual inclusion of such strategies has been limited, as a recent PCSA TDF survey has revealed.

Asset Classes	Percent of Plans[3]
Global equity	94.8%
High yield	56.1%
Global fixed income	65.7%
Emerging market equity	64.4%
Emerging market debt	22.6%
REITs	19.1%
Direct real estate	4.4%
Fund of hedge funds or hedge funds	1.3%
130/30 strategies	1.7%
Private equity	6.1%
Commodities	6.5%

One factor that may explain this limited usage appears to be that TDFs are still evolving and that alternative investments generally are only beginning to be included in the more recent versions of TDF products. For example, there is research that views the evolution of TDFs as consisting of three generations of products. The first generation of funds used primarily traditional equity and fixed-income asset classes in their asset allocation decisions. The

[3] PSCA Target-Date Funds Survey, Profit Sharing/401k Council of America (April 2009) (Survey consisted of 397 responses from plan sponsors. 54.8% of responding companies had more than 1,000 participants. (the "PSCA Survey")).

second generation expanded on the equity/fixed-income dichotomy to include a broader range of asset classes as diversifiers, including real estate, commodities and high yield bonds to offer equity-like returns with very low correlation to the rest of the portfolio. The most recent third generation TDFs "give investors exposure to asset classes and investment management tools typically used by highly sophisticated investors. These funds are notable for their use of leverage (130/30 strategies) and other more exotic investment vehicles."[4] Interestingly, a recent TDF industry survey noted, "[A] new wrinkle is to incorporate low-correlation or absolute return funds that may employ a variety of complex strategies."[5]

In addition, including alternatives in its asset mix of a TDF and the degree to which such an allocation is made may depend on other portfolio management approaches used by the TDF's sponsor. These include the slope of the glide path (which affects the level and timing of reallocations among asset classes), whether the fund uses passive or active management and whether tactical allocation (which permits deviations from the glide path) is allowed.

21. What are some of the differences in management, fee structure and investment strategy between a hedge fund or private equity fund which is a plan asset vehicle (i.e., 25% or more benefit plan investors) and a non-plan asset vehicle?

Creating a dedicated "plan asset" vehicle results in additional reporting and transparency requirements for the General Partner. The expenses associated with the different regulatory framework are typically borne by the General Partner, rather than the fund's investors. Plan asset funds are typically run in a similar fashion to the comingled funds using the same investment strategy and investment terms and fees. As such, there is usually limited to no tracking error in performance between the "plan asset" vehicles and the non-plan asset comingled funds.

In managing a "plan assets" fund, the manager is subject to more stringent fiduciary responsibility standards and prohibited transaction requirements of ERISA and must maintain policies and procedures designed to manage "plan asset" funds to comply with these and other specific ERISA rules. These procedures should address ERISA rules relating to investment allocations, principal trades, cross trades, conflicts of interest, fees, proxy voting, gift prohibitions, and its bonding requirements, as well as others.

[4] Susan Czochara and Janet Yang, "Trends in the DC Plan Universe," Point of View, Northern Trust (January 2008).
[5] "Target-Date Series Research Paper: 2010 Industry Survey, p. 15, Morningstar (2010).

In conclusion, I again thank you for the privilege and opportunity to address the ERISA Advisory Council. Additionally, I would like to thank the following firms and individuals that assisted me in providing facts, figures, and statements mentioned in today's testimony. Those firms and people being:

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I am happy to answer any of the Council's questions.

Thank you.

Acknowledgments, Credits, and Sources for Additional Information

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Firm Name and Logo	Contact Name and Information	Type of Organization
K2 Advisors, LLC K2 ADVISORS®	David Saunders Chief Executive Officer & Co-Founder 300 Atlantic Street 12th Floor Stamford, CT. 06901 (203) 905-5343 saunders@k2advisors.com	Hedge Fund of Funds
The Chartered Alternative Investment Analyst (CAIA) Association CAIA ASSOCIATION®	Florence Lombard Chief Executive Officer 100 University Drive, Amherst, MA 01002 (413) 253-7373 x105 flombard@caia.org	Not-for-profit educational firm specializing in alternative investment education.

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