SEPTEMBER 11, 2008 TESTIMONY PRESENTED BY DR. SUSAN MANGIERO, AIFA, AVA, CFA, FRM, PRESIDENT PENSION GOVERNANCE, LLC

ACKNOWLEDGMENT AND DISCLAIMER:

I appreciate this opportunity to give comments about what I believe to be a hugely important topic, namely the valuation of "hard-to-value" assets. I am presenting today as a risk management and valuation professional. My industry experience includes work on several trading desks, forensic financial analysis, model verification, hedge effectiveness testing and rendering opinions of value. I am the author of *Risk Management for Pensions, Endowments and Foundations* (John Wiley & Sons, 2005). I have written and spoken extensively about valuation and risk management from an investment fiduciary perspective. I am the creator of a syndicated pension blog, www.pensionriskmatters.com and the President of Pension Governance, LLC.

Pension Governance, LLC is an independent analysis, research and training company. Clients include service providers as well as pension fiduciaries, in the United States and abroad. The company's primary goal is to assist decision-makers by providing tools, process checks and educational information about retirement plan risk management, financial and otherwise. We believe that every strategy and product should be reviewed on its own merits and is neither "good" nor "bad." We believe that anticipated performance should be considered on the basis of both return and risk.

The remarks provided herein reflect my own opinions and not those of the company. I am neither an attorney nor a CPA nor an actuary. This statement is not intended to offer legal, financial or accounting advice, but rather, to provide general information only.

INTRODUCTORY COMMENTS:

My comments today are in response to your fact-finding hearings, after which the ERISA Advisory Council will make a recommendation to the U.S. Department of Labor about what, if anything, regulation-wise, should be done regarding investments in "hard to value assets."

I concur with others who assert that additional regulation would be redundant and arguably counterproductive. For one thing, empirical evidence suggests that a "one size fits all" mandate could induce perverse outcomes. Plan sponsors may get overly scared about investing in "hard to value assets" and ignore them altogether rather than conducting a thorough analysis as to their suitability. I don't believe it is the current intent of any regulator to have plan fiduciaries automatically shrink the universe of possible product and/or strategies. Second, a more flexible environment that encourages industry participants to "do the right thing" makes for a better reward system, thereby (hopefully) motivating plan sponsors to improve on existing policies and procedures, if not already in place.

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In a recent *Financial Times* editorial, it was somewhat cynically inferred that attempts to create alternative fund valuation policies and practices are more show than anything else, a way to allay concerns on the part of institutional investors. Whether this is true or not is unknown. However, the notion of perception versus reality can likewise be applied to retirement plans. Given current disclosure rules, it is often difficult to distinguish pro-active plan sponsors from those who ignore or do little to implement effective risk management (and, by extension, valuation) initiatives. It would be far superior if market dynamics could correctly match demand for "good" plan sponsors with those that embrace ("supply") an enterprise risk mentality.

Alas, a pure free market environment is more of a theoretical construct than reality. ERISA and the Pension Protection Act of 2006 are here to stay. This means that regulators are confronted with whether to add more rules or work with existing mandates. I vote for the latter and believe that real reform is nevertheless possible as long as regulators acknowledge certain exigencies and structural complications. Think about the following three hypothetical situations. (This is not an exhaustive list nor are these examples meant to single out a particular type of fund or strategy.)

- Hypothetical Situation One: A RETIREMENT PLAN FIDUCIARY IS TOO FAR REMOVED FROM THE VALUATION INFORMATION HUB TO PROPERLY ASSESS WHETHER SUFFICIENT SAFEGUARDS ARE IN PLACE. Consider a defined benefit plan that employs a consultant to select and monitor a particular hedge fund manager. That particular hedge fund manager employs a prime broker. It could be difficult (perhaps impossible) for the consultant to directly verify how the prime broker values "hard to value" assets on behalf of the hedge fund unless the pension consultant has ample access to the prime broker (which may not be possible for confidentiality reasons). This in turn is problematic for the consultant who is expected to report back to the plan sponsor. It is likewise an issue for the plan sponsor. Could plan fiduciaries possibly be subject to breach allegations under this scenario because their access to necessary and sufficient information is limited?
- Hypothetical Situation Two: RELEVANT PARTIES, EXPECTED TO FORMALLY VET VALUATION NUMBERS, DO NOT POSSESS THE REQUISITE SPECIALIZED TRAINING AND EXPERIENCE TO RENDER AN OPINION OF VALUE. Consider the appraisal industry. Business valuation professionals cannot be accredited unless and until they have successfully completed numerous specialized courses and met stringent experiential requirements. Their reaccreditation requires a similar adherence to pre-specified standards. Not all individuals who offer pricing services are accredited and/or possess a specialized knowledge of valuation. Could plan sponsors possibly be

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¹ "Funds of hedge funds," Financial Times, July 17, 2008

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subject to breach allegations if they fail to sufficiently monitor the capabilities of individuals who render mark-to-model or mark-to-market numbers that are used to make retirement plan financial management decisions?

• Hypothetical Situation Three: SOME FUND MANAGERS, ACROSS STRATEGIES AND ASSET CLASSES, ARE GRANTED TREMENDOUS LATITUDE TO SELF-REPORT MARK-TO-MODEL OR MARK-TO-MARKET NUMBERS. A cursory review of a sufficient number of Private Placement Memorandums and other relevant documents suggests that asset managers frequently enjoy such freedoms. Common sense suggests that traders who are compensated on the basis of self-reported performance numbers are conflicted, however well intentioned they may be. "Follow the money" is apt advice. Could plan sponsors possibly be subject to breach allegations if they ask too few questions about key person risks, including the basis on which traders are compensated?

The topic of "hard to value" asset assessment is broad. It is impossible to offer a comprehensive analysis in a few pages. With that caveat, the remainder of my report attempts to provide meaningful answers to questions put forth to testifying experts, in preparation for today's hearings. I am happy to field inquiries for those who seek further commentary.

ROLE OF VALUATION:

SHOULD VALUATION ISSUES PLAY A ROLE IN THE SELECTION OF PLAN INVESTMENTS, AND IN ACHIEVING PROPER ASSET ALLOCATION AND DIVERSIFICATION? Famed American author Mark Twain once said "There are two times in a man's life when he should not speculate: when he can't afford it and when he can." Applied to retirement schemes (whether defined benefit or defined contribution in nature), failure to recognize valuation analysis as an integral part of risk management is arguably a form of speculation. It is impossible to effect proper risk mitigation (not necessarily the same thing as risk minimization) without understanding what drives performance. To believe otherwise is folly. The creation of an effective hedge, determination of optimal asset allocation and/or the assessment of a strategy such as Liability-Driven Investing with a portable alpha kicker are just a few of the countless activities that, properly carried out, depend on good risk management steps (and, by extension, a thorough understanding as to how and why prices vary across asset classes and over time).²

² For purposes of this testimonial statement, market prices (to the extent they exist) are assumed to equal value. A discourse as to when this is unlikely to occur is outside the scope of this brief discussion.

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It is unclear as to whether the notion of stringent pension risk management ("pension" being used herein as a generic term that encompasses all retirement benefit programs) is fully embraced by plan sponsors. Publicly available information is sketchy. More vocal pension plan leaders deserve praise for their comprehensive and sophisticated (holistic) approach to risk management. Others arguably need to improve their current practices. A soon-to-be released study of pension risk management policies and practices of 162 U.S. and Canadian plan sponsors, conducted by Pension Governance, LLC, with funding and research support from the Society of Actuaries, suggests a mixed bag with respect to the pervasiveness of financial and fiduciary risk awareness. While the survey centers on the use of financial derivatives by plan sponsors, some of the key findings more broadly inform and disturb.

For said survey, the term "USER" defines a plan that trades derivatives in its own name. A NON-USER does not trade derivatives in its own name. By definition, both USERS and NON-USERS may nevertheless be exposed to the use of derivatives if any or all of their external money managers employ futures, options, swaps and hybrid instruments. Aware that response rates fall with every additional question asked, an already long survey was truncated. Some of the questions we wanted to ask but did not ask include the following. When a plan sponsor affirms that they interview external money managers about their valuation policies and procedures, what kinds of exact inquiries are made and of whom? How much time is spent in discussing risk management policies and procedures? How much rigor is applied by plan sponsors so they feel comfortable with the models employed by fund managers, whether the managers self-report or use a third party pricing service? In the absence of a Chief Risk Officer function, how do plan sponsors assess their organization's internal risk management activities as well as those of third party service providers?

An excerpt of the survey follows:

- Plan size seems to be one factor that distinguishes USERS and NON-USERS, with 39% of USERS managing
 plans in excess of \$5 billion versus 14 percent of NON-USERS for plans larger than \$5 billion.
- Pension decision-making appears to vary considerably by job function, with 48% (37%) of USERS (NON-USERS) choosing "Other" rather than selecting from eleven titles such as Actuary, Benefits Committee Member, CFO or Human Resources.
- Time allocation varies considerably with 64% (40%) of USERS (NON-USERS) saying they spend 75 to 100
 percent of their work week to pension issues
- A majority of USERS acknowledge their fiduciary duties to hedge with 64% answering affirmatively than NON-USERS with 64% (55%) answering "Yes" when asked whether they discuss asset (liability) hedging. In contrast, 48% (39%) NON-USERS answer "Yes" about asset (liability) hedging conversations.

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- Few plans currently embrace an enterprise risk management approach with 59% (57%) of USERS (NON-USERS) responding that their organization does not use a risk budget. When asked if their organization has or is planning to hire a Chief Risk Officer, 57% (64%) of USERS (NON-USERS) answered "No." For those organizations with a Chief Risk Officer, 62% (43%) of USERS (NON-USERS) state that defined benefit plan duties are handled by someone else.
- Defined benefit plan redesign does not appear to be an imminent priority with 68% (58%) of USERS (NON-USERS) answering "No" when asked if changes are imminent.
- NON-USERS cite numerous reasons for not using derivatives directly, including, but not limited to, "lack of fiduciary understanding" (25%), "perception of excess risk" (31%), "considered too complex" (23%), "prohibition against possible leverage" (19%) and "defined benefit plan risk not considered significant" (28%).
- A query about the review of external money managers' risk management policies results in 70% (58%) of USERS (NON-USERS) responding "Yes." Fifty-two percent (57%) of USERS (NON-USERS) say they review of external money managers' valuation policies.
- Sixty-eight percent (61%) of USERS (NON-USERS) include questions about the use of derivatives and risk management as part of the Request for Proposal ("RFP") process.
- Survey respondents seem to rely mainly on basic tools to measure risk. Eighty-three percent (64%) of USERS (NON-USERS) rank standard deviation first. Seventy-nine percent (63%) of USERS (NON-USERS) rank correlation second.
- Survey respondents worry about the future with 58% (60%) of USERS (NON-USERS) ranking "accounting impact" as a concern. Other pain points include, but are not limited to, "actuarial analysis," "fiduciary pressure," "longevity of plan participants," and "regulation."

INVESTMENT POLICIES:

WHAT, IF ANY, MODIFICATIONS TO PLAN INVESTMENT POLICIES AND GUIDELINES SHOULD PLANS CONSIDER WHEN UTILIZING "HARD TO VALUE ASSETS"? At a minimum, and certainly not a maximum, an Investment Policy Statement should address whether, and to what extent: (a) a plan is permitted to expose itself to "Hard to Value Assets" (b) how financial and operational leverage is to be defined, measured and managed (c) which parties will take responsibility for identifying "red flags" and act to limit or exit exposure to a particular type of "Hard to Value" Asset (d) how risk factors associated with "Hard to Value Assets" will be identified, measured and managed, ideally by segmenting HTV assets into appropriate sub-sectors (e) how fee economics are to be analyzed by type of HTV asset sub-sectors and whether risk-adjusted return expectations are adequate in a risk budget context (f) the role of external third parties as either

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functional or contractual fiduciaries with respect to "HTV" asset manager selection, monitoring and firing (g) frequency of review of HTV asset performance, taking into account liquidity and trading limit factors and strategic asset allocation objectives (h) how limits will be established, monitored and revised, as necessary. Ideally, a plan sponsor creates a separate Risk Management Policy for itself and external asset managers, respectively. The Risk Management Policy should serve as a detailed guide for all things risk management, including the identification and ranking of various risks, including but not limited to, liquidity, price, operational, settlement, legal, fiduciary and model risk.

In 1996, then Assistant Secretary of Labor, Olena Berg, urged plan sponsors to focus on risk analysis when considering the use of derivative instruments. A portion of that letter is excerpted below. This official guidance, while written more than 10 years ago, applies to "Hard to Value Asset" investing as well.³ Note the text that relates to valuation of derivative instruments.

"Plan fiduciaries have a duty to determine the appropriate methodology used to evaluate market risk and the information which must be collected to do so. Among other things, this would include, where appropriate, stress simulation models showing the projected performance of the derivatives and of the plan's portfolio under various market conditions. Stress simulations are particularly important because assumptions which may be valid for normal markets may not be valid in abnormal markets, resulting in significant losses. To the extent that there may be little pricing information available with respect to some derivatives, reliable price comparisons may be necessary. After entering into an investment, a plan fiduciary should be able to obtain timely information from the derivatives dealer regarding the plan's credit exposure and the current market value of its derivatives positions, and, where appropriate, should obtain such information from third parties to determine the current market value of the plan's derivatives positions, with a frequency that is appropriate to the nature and extent of these positions."

DEFINITION:

AS FIDUCIARIES, WHAT DO YOU DEEM TO BE OR WHAT DO YOU EXPECT TO BE "HARD TO VALUE ASSETS?" It depends in part on how the term "Hard to Value Assets" is being defined. For example, some hedge funds may regularly buy and sell actively traded stocks and bonds for which market prices are readily available. It would therefore be inaccurate to characterize that hedge fund as a "Hard to Value Asset." In contrast, some traditional assets might be classified as

³ http://www.dol.gov/ebsa/regs/ILs/il032196.html

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"Hard to Value." A money market mutual fund (perhaps a 401(k) plan choice) that invests in securities with embedded derivatives might be properly classified as a "hard to value asset."

There is disagreement as to whether any or all of "hard to value" money pools constitute a separate asset class. Additionally, there is significant risk diversity across types of funds, managers and strategies. Making sweeping performance statements is ill-advised. With these qualifiers in mind, a sampling of "Hard to Value Assets" is shown below:

- Hedge funds
- Funds of funds
- Private equity funds
- Complex derivatives
- Venture capital funds
- Infrastructure
- Commodity pools
- Real estate funds
- Compound or contingent securities or instruments.

Diversification is a frequently proffered justification for the allocation of monies to "Hard to Value Assets." A discussion of empirical evidence that either confirms or refutes diversification potential is outside the scope of this statement but is nevertheless critical for any plan sponsor to consider. Cash flow transformation, transference of risk, synthesizing an exposure to a particular sector and/or return enhancement are some of the many reasons one might consider "HTV" instruments and/or funds. Achieving an absolute return target was likewise cited in "Defined Benefit Plans: Guidance Needed to Better Inform Plans of the Challenges and Risks of Investing in Hedge Funds and Private Equity, (U.S. Government Accountability Office, August 2008).

While there has been focus to date on pension plans that allocate monies to "Hard to Value Assets," it is unclear whether those who abstain have conducted a thorough review of probable risks and returns before making a final decision. Is an arbitrary rejection of "Hard to Value Assets" a possible breach of fiduciary duty? This puzzle is left to

⁴ "Money-Market Fund Investors Fret About Their SUV Risk," Washington Post, October 28, 2007

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legal experts but prudent process might be interpreted as mandating a discussion of the appropriateness of "Hard to Value Assets" before deciding whether to add them to a portfolio or reject their use.⁵

Notwithstanding the legal issues regarding process, doing one's homework as a precursor to exclusion or acceptance of "Hard to Value Assets" should reflect care in avoiding pitfalls such as: (a) over-reliance on a simple measure like the Sharpe Ratio (b) limiting return analysis to a "too long" period of time (c) recognizing that price behavior and correlations are time-variant (d) assuming that statistical measures tell most of the story (e) ignoring impact of fees (f) incorporating deal structure terms (such as transferability restrictions or valuation carve-outs in the form of lock-ups, side pockets, most favored nation clauses, side letters, etc) (g) not asking questions about market or industry fundamentals (For example, for a venture capital or private equity holding that dominates a particular portfolio, asking questions about a likely exit strategy and timing of such makes sense.) and/or (h) forgetting to use common sense and "conducting sanity checks." The list is long. A good starting point is to ask an "HTV" asset manager what keeps him or her up at night and what is being done to mitigate the stated risks.

ROLE OF THIRD PARTIES:

WHO CAN THE FIDUCIARY RELY UPON WHEN ASCERTAINING THE VALUE OF "HARD TO VALUE ASSETS" WHEN THE FIDUCIARY IS INCAPABLE OF VALUING, IN ORDER TO FULFILL THEIR FIDUCIARY RESPONSIBILITY TO PLAN PARTICIPANTS? This question is disturbing. If a fiduciary is (a) truly incapable of understanding valuation risks of "Hard to Value Assets" and (b) does not feel comfortable delegating duties and then overseeing third parties, does a foray into "Hard to Value Assets" make sense? Assuming that a plan sponsor feels comfortable identifying and assessing a third party's abilities, and at the risk of oversimplification, I think a reasonable solution is to search for those independent individuals (organizations) who (that) can adequately value various holdings, by type of product, sector and/or complexity. For example, a plan sponsor with an investment in fallen angel fixed income securities may feel more comfortable with a bankruptcy expert than a derivatives pricing specialist.

While specific questions will vary, depending on the type of service provider, an RFP (Request for Proposal) might include, but is not limited to, questions such as those listed below:

- How many valuation specialists does the service provider have on staff?
- Describe each person's specialized valuation-centric training and experience by sectors of the "HTV" market.

⁵ While most of the discussions about "Hard to Value Assets" center on interest by defined benefit plans, defined contribution plan fiduciaries should query their external money managers to identify any "hidden" exposure.

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- Are there any compensation arrangements in place that could render the valuation numbers as subjective and therefore of little use to a plan sponsor?
- Does the third party service provider have adequate technology systems in place that capture data and allow for back-testing and stress-testing a particular model?
- Is there a chain of command as to which persons have the authority to pull the plug on trading in complex instruments (if an external money manager is providing marks)?
- What is the oversight process that determines when positions in "Hard to Value Assets" should be reduced, if possible (if an external money manager is providing marks)?
- What percentage of the overall market for a particular "HTV" sector does the external money manager control?

Interestingly, and somewhat anecdotally, hedge funds (an increasing favorite of defined benefit plans) have yet to look to the business valuation industry for much assistance. A recent survey of 39 appraisers, jointly conducted by Business Valuation Resources, LLC and Pension Governance, LLC, suggests a gap between the need for and the use of professional valuation experts. Some highlights are summarized below:

- Of the few survey respondents who currently provide services to hedge funds, appraisers say that 55% of their clients have a formal valuation process in place.
- Appraisers who took the survey say that almost half of their hedge fund clients generate valuation numbers internally. A quarter of their clients rely on third party administrators. Relatively few used certified business appraisers.
- Many reasons were given by appraisers as to why hedge funds procure a valuation. These include, but are not limited to: auditing (33% of respondents), asset allocation (27%) and performance reporting (24%), redemption (18%) and risk management (18%).
- Eight out of 10 appraisers with hedge fund clients say they've never been called in to assist their hedge fund clients with the development of a valuation policy.
- When asked about standards (guidelines), 48% of respondents claim their clients cite fair value accounting
 rules, 23% of respondents say their hedge fund clients use no standards and 23% of survey-takers cite the
 Private Equity Industry Group Guidelines (PEIGG) as a guide for their hedge fund clients.
- For those survey respondents who choose not to pursue hedge fund valuation work, appraiser liability is cited as the primary deterrent (77% of respondents), followed by 54% of survey-takers who say they are unfamiliar with the hedge fund industry.

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POLICIES AND PROCEDURES

WHAT VALUATION POLICIES AND PROCEDURES SHOULD A FIDUCIARY ADOPT WHEN HOLDING "HARD TO VALUE ASSETS?" Suggestions are provided in the foregoing section about Investment Policy Statements. Industry valuation guidelines (and there are many) offer further insight. Critical questions abound as to how a fiduciary can establish effective valuation policies and procedures. A number of the many "must do" elements are listed below:

- Determine what valuation standards apply. While there is some overlap, voluntary and mandatory valuation standards may conflict with each other.
- Clarify definitions. "Fair value" for purposes of dissenting shareholder actions does not necessarily mean the same thing as "fair value" for financial accounting purposes.
- Aside from mandatory reasons, identify when valuations should be done at other times (i.e. to cash out of a
 position, adjust a hedge or exit a relationship with a particular money manager).
- Identify whether it makes sense to value individual holdings versus a portfolio, with the latter taking into account correlation offsets (to the extent that correlation is a viable metric of association).
- Document how competing valuation numbers will be reconciled for different purposes (i.e. financial reporting versus economic risk management)
- Identify how competing models will be vetted and either accepted or rejected.
- Identify how model risk will be managed and who has the responsibility for kicking the tires on complex algorithms.
- Identify how and how often model error will be measured.
- Identify which individuals and/or organizations will render prices, by category of "Hard to Value Assets."
- Identify requisite frequency of valuation reports.
- Query external fund managers as to whether a function risk officer is in place and ensure that this person does not report to the trading desk.
- Agree that a formulaic approach to valuation will be avoided (i.e. discounting a holding by the same percentage each year for an identified expected holding period).
- Examine market microstructure characteristics such as trading volume and bid-ask differentials (when possible).
- Identify data sources and possible discrepancies across data vendors.

EDUCATION AND DISCLOSURES:

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WHAT DISCLOSURES AND EDUCATION MEASURES ARE REQUIRED OR SUGGESTED FOR PARTICIPANTS AND FIDUCIARIES WITH RESPECT TO PLANS WHICH INVEST IN "HARD TO VALUE ASSETS?" Our firm offers a wide array of training deliverables in the investment risk and valuation areas. We've found that it is best to modify the training and case studies to accommodate the educational and experiential background of a particular audience. Providing technical education to persons unfamiliar with investment principles is a challenge. Acknowledging that even persons with advanced degrees in fields such as math and finance do not always agree on certain valuation models or theories, it may not be straightforward to convey model basics, let alone nuances, to persons unaccustomed to doing a deep dive into risk and valuation data.

Nevertheless, the need for valuation education is paramount in my view and deserves considerable attention. Asking investment fiduciaries to construct a valuation risk driver matrix is a good starting point. The resulting visual is a great reminder that risk can initially be evaluated on a qualitative basis. For example, suppose an investment fiduciary knows that both an increase in interest rates and a depreciation of the Euro vis-à-vis the U.S. dollar is likely to erode the value of the plan's global bond exposure. That decision-maker puts a minus sign in the relevant table cell. When eventually asked to review valuation numbers for that part of the portfolio, he or she possesses a sensibility about the directional impact of at least two risk drivers.

Regarding disclosure, a broad topic indeed, I think it is critically important to have numbers that do more than hint at economic reality. Disclosure-related compliance is a time-consuming and expensive process. The final numbers should give shareholders, plan participants and other interested parties timely insight as to whether their money is at risk. The current state of public financial disclosure bodes poorly for anyone seeking quality information about how retirement plans govern themselves, how they implement risk management (including valuation) policies and procedures and how they oversee the use of outside parties.

A few months ago, the Financial Accounting Standards Board ("FASB") requested comments from interested parties about a possible revision to FAS 132 (as a way to enhance pension disclosures). I am taking the liberty of excerpting text from my May 2, 2008 letter. A review of all of the comment letters is worthwhile. I believe they are posted to the FASB website.

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- An assessment of fair value should, at a minimum, reflect transferability restrictions. A plan may report stellar
 returns and yet be unable to liquidate a position. Plan sponsors require cash to write monthly retirement
 checks. It is unclear as to whether the categories you propose will fully inform about the ability to exit a
 position and raise cash.
- Consider derivative instruments. Even if they are segregated by type of contract, it is important to know much more than notional principal amounts and other numerical metrics. Other items of interest include (but are not limited to): (a) type and quality of posted collateral, frequency of monitoring and identification of monitoring parties (b) whether the derivative instrument is being used to hedge (c) efficacy of hedge (d) concentration of counterparties by type of instrument on a net and gross basis (e) which, if any, independent parties value the various derivative instruments and (f) what risk metrics are used to determine likely economic impact of derivatives.
- A category such as "equity securities" is overly broad. A pension fund may invest in both blue chip stocks and "wallflowers" that are followed by few, if any, securities analysts and tend to trade in thin markets. They are dissimilar in many ways, not the least of which is the ability to unwind a position with ease.
- In a similar fashion, outright ownership of land or buildings would be categorized as "real estate" as would an investment in a real estate investment trust or, as you indicate, a hedge fund that owns real estate or invests in infrastructure. The risk-return tradeoff, fees and legal protections vary considerably. These differences would be camouflaged if different types of holdings are lumped together.
- Some hybrid instruments could be categorized in one of several ways. Convertible bonds may, given prevailing market conditions, trade more like equity than debt. A balanced mutual fund invests in both debt and equity. Complex securities embed derivatives. International stock and/or bond pools may be partially or fully hedged with foreign exchange contracts. Could disparate treatment of hybrid instruments give rise to difficulties in financial statement interpretation across plan sponsors and pension plans?
- Lumping concentration numbers together with the use of a filter such as country may be helpful but insufficient. It would be nice to know how a plan sponsor decides on a particular concentration, what person(s) monitors the concentrations, what triggers a "fire alarm" breach and what should happen when a concentration is exceeded. Perhaps FASB assumes that this kind of information will be included in a narrative description of the pension plan's investment policies and procedures.
- FASB is proposing that valuation information be provided on an annual basis. This renders much of the
 reported data worthless for anyone seeking to assess whether a plan sponsor is likely to encounter liquidity
 problems in meeting its obligations to existing retirees. While frequent valuations may be overly expensive
 (and possibly misleading), a financial statement user needs to understand what keeps pension plan managers

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up at night. The creation and disclosure of a risk factor matrix is one approach. Disclosing periodic stress test results is another approach. In any event, one hopes that the pension plan is already conducting risk analyses at regular intervals. If true, disclosing information about test results should not cause an undue burden on plan sponsors.

- FASB proposes the disclosure of "information about valuation techniques and inputs." Does FASB want information about the use of an outside vendor to be disclosed? Does FASB expect disclosure text to include a discussion about (a) how often models are tested and by whom (b) when models are revised and for what reasons and (c) whether model errors are consistent or vary?
- In the event that an external money manager refuses to disclose information about his or her model, does that put a pension plan at risk for disclosure non-compliance?
- For hedge funds, will a pension plan be in disclosure non-compliance if a side pocket arrangement is in use? It
 would be extremely helpful to know how hedge fund managers determine what goes inside a side pocket. If
 the side pocket is "large," disclosures about the contents and a qualitative assessment of risk factors is
 recommended.
- Financial statement users stand to benefit from disclosure of multiple metrics. However, not all metrics are created equal. Reliance on a single measure such as the Sharpe Ratio is misleading at best. It is a snapshot assessment based on standard deviation of returns. It says little about a pension fund's risk control processes, including the selection and vetting of external money managers. Additionally, some prices (returns) are not normally distributed. While there is merit in allowing pension plans latitude, hopefully there will be some uniformity of appropriate metrics across plan sponsors. Otherwise, a financial statement user may end up comparing apples and oranges.
- Regarding valuation adjustments such as discounts for lack of marketability, it is imperative to understand
 whether a formulaic approach is being employed and why. Many valuation standards forbid the use of an
 arbitrary approach.
- When a pension plan invests in private equity for strategic long-term reasons, the position is often held at cost unless a write-down is deemed inevitable. Will FASB require annual valuations (even if the pension plan deems the resulting numbers "illusory") or allow for an exemption of assets held specifically for long-term reasons? Will the length of the expected holding period be a consideration?
- Has FASB given any consideration to the existence of competing valuation standards (binding or voluntary)
 and possible reconciliations thereof? They include, but are not limited to, USPAP, PEIGG and IOSCO/MFA.
- Will revisions to FASB Statement No. 132 comport with relatively recent changes in Form 5500 reporting rules?"

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CONCLUDING REMARKS:

In summary, risk in and of itself is not a bad thing to be avoided at all costs. However, being forced to accept uncompensated risk is economically imprudent and should not stand as acceptable. Investment fiduciaries must embrace the notion that (a) valuation analysis is an integral part of pension risk management and (b) effective pension risk management is an ongoing process. When scant attention is paid to pension risk identification, measurement and management, a nasty domino effect is likely to ensue. Realized losses, sub-par performance, cash flow pressures, rating downgrades, higher cost of capital, damage to corporate reputation and possible litigation or regulatory enforcement challenges are just a few of the many possible adverse consequences. While any or all of these outcomes are undesirable, probably the most acute fallout is an increased probability of being unable to keep promises to plan participants.

Again, many thanks for inviting me to participate today. I am happy to assist with any educational or information analysis initiatives that help to advance pension best practices in the area of investment fiduciary risk management (and, by extension, valuation). Before I close, I would like to publicly acknowledge the great work being done by countless plan fiduciaries and their service providers who recognize and embrace the importance of effective pension risk management. They often toil behind the scenes and get little incremental compensation, if any at all. They deserve acclaim.

Very Sincerely,

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Helping Pension Fiduciaries Measure Upsm