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"MARK TO MARKET" ACCOUNTING: An Endowment's Guide to the New Valuation (FAS 157)

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ABSTRACT

1. The upcoming implementation of the new "mark to market" ("fair value") accounting standard represents a change in the way investment manager performance will be reported in financial statements, with varying effects among the asset classes.

2. The new standard, FAS 157, tightens valuation and expands disclosures. It applies both to investment managers and to investing institutions.

3. *For investment funds*, net asset value (NAV) will be calculated using a new mark to market accounting standard based on the "exit price" of a given asset, or the price that the asset holder could get upon exiting the position. Further, all assets must be classified into three levels, according to the transparency of the valuation data used to price the asset. Assets unexpectedly frozen in illiquid markets may be "marked to model" and classified as "Level 3."

4. *For investing institutions*, there will be comparable requirements, although the new mark to market standard and the "leveling" of assets into three categories will affect certain asset classes more than others in the endowment's portfolio.

5. Non-marketable asset managers' performance reports will likely be affected more by mark to market accounting than by the leveling of assets into the three categories, because most such assets are expected to be classified as "Level 3." Going forward, the reported performance of non-marketable funds will become more volatile.

6. Hedge funds and long-only managers (particularly fixed income managers) will likely be affected more by the "leveling" of assets than by the new mark to market accounting. For managers of marketable assets, mark to market is not new, but the leveling exercise is very new.

7. Any managers or funds holding structured financial products rendered illiquid by credit conditions since the summer of 2007 will be affected by both the new valuation guidance and by the leveling requirement. Currently the pricing of these securities is subject to considerable debate.

8. All funds will be carried in the endowed institution's financial statements as either a "Level 2" fund or a "Level 3" fund. This includes all commingled funds as well as limited partnership participation in alternative investment funds. Leveling will be on a fund-by-fund basis, based on liquidity features and recent market activity rather than on a "look through" method based on the fund's underlying assets.

9. Securities held in separately managed accounts must be priced and classified by the account owner (the investing institution).

10. Endowed institutions should consider taking a number of steps to prepare for the implementation of FAS 157 and the subsequent auditing of financial reports based on the new accounting guidance. These steps are listed at the end of this working paper.

11. While accounting rules are fundamental to wise investing, it would be misleading to characterize "valuation" (in the accounting sense) as the dominant investment concern. Endowments should continue to focus on the underlying investment strategies and on manager talent, and put the greater transparency provided by FAS 157 in its proper perspective. As managers provide more information on how they price their investments, this should be integrated with the other driving factors behind successful and prudent investing.

Introduction

Over the past two years there have been a number of changes in the way that endowments are audited, the cumulative effects of which have been keenly felt by most institutional investors. Foremost among the changes was more detailed guidance on the auditing of alternative investments, contained in the AICPA *Practice Aid* issued in July 2006.[1] The auditing of alternative investments has been discussed in two previous working papers from Cambridge Associates, *Auditing Alternative Investments* (2006) and *Endowments and Alternative Investments: Preparing for the Next Audit* (2007).

In the coming months, both investment firms and endowments will be implementing a major accounting change that will generate even more adjustments to the auditing of endowment investments, "traditional" as well as "alternative." The new accounting standard, FAS 157,[2] addresses valuation. It provides a definition of "fair value" that is meant to cover all assets and liabilities and to replace the more than 60 previous references in accounting guidance on fair value.[3] Henceforth, GAAP will require that fair value be based on "exit price" (the price an entity would receive if it were to sell the asset as of the reporting date*)* rather than the "entry price" (what the entity paid or would pay to buy the asset, not necessarily on the reporting date). In addition to mandating a new definition of fair value, FAS 157 provides for three valuation methodologies: the market approach, the income approach, and the replacement cost approach. Most financial assets would be valued using either the market approach or the income approach (discounted cash flow, options pricing models, etc.). For institutional investors receiving reports from their investment managers, there will essentially be two key features:

- On the balance sheet, investments will be *valued at* ***exit price*** *as of the reporting date*; this is often loosely referred to as ***"mark to market" accounting***. Reporting an investment at cost or based on transactions at other dates will no longer be compliant with GAAP.

- In the footnotes, each investment must be classified according to a ***three-level "valuation hierarchy"*** that reflects the "observability" of the data used to price the asset.

Quite obviously, these changes will affect the calculation of net asset values (NAVs) to a greater or lesser extent. They may also affect investor perceptions of the reliability of the NAV (or "quality of

[1]American Institute of Certified Public Accountants (AICPA), *Alternative Investments—Audit Considerations: A Practice Aid for Auditors*, July 2006.

[2] Statement of Financial Accounting Standards No. 157, *Fair Value Measurements*, issued by the Financial Accounting Standards Board (FASB), which is the primary body that sets Generally Accepted Accounting Principles (GAAP). With respect to U.S. investments, most institutional fiduciaries are required to invest only in investment management companies that comply with GAAP.

[3] This is the basis for the oft-heard manager comment that they "have always used fair value." They are probably correct. However, FAS 157 is meant to address this proliferation of fair value standards by mandating a single fair value standard applied consistently across all asset classes and all managers.

earnings" in auditor parlance). The banking sector, which had many participants that were early adopters of FAS 157 a year ago, has already seen both of these effects.[4]

While FAS 157 applies to *all* investments, not just alternative investments, it is expected to have a greater effect on the reported performance of alternative investment fund managers, relative to its effect on "traditional" managers. This is because the assets in alternative investment portfolios are more likely to be "hard to value" under the new accounting standard. Commingled funds and separately managed accounts containing "traditional" investments might also be affected if their holdings include certain kinds of hard-to-value fixed income securities (most notably, structured financial products).

In the following pages we provide a brief review of the broader accounting and auditing context, and then a discussion of the probable effects of FAS 157 on each of the following asset classes: long-only equity and fixed income managers, hedge funds, and non-marketable investment funds (private equity, venture capital, real estate).

Brief Background

Recent developments can be briefly summarized as three discrete events: changes in the auditing of alternative investments; the credit crisis that first struck in 2007; and the new valuation standard (FAS 157).

Auditing Alternative Investments

Prior to 2005, an institution's investment staff rarely became involved in accounting issues. The institution's controller or accounting office would typically book the NAVs provided by the custodians of their assets or (often in the case of alternative assets) the NAVs reported by the funds themselves. In 2005, the AICPA informed auditors that investment managers' say-so was insufficient "evidence" that the reported NAVs are correct; further steps to judge the accuracy of valuations would be required of institutional investors. These were summarized in the *Practice Aid* noted earlier, issued in July 2006, right after the close of the fiscal year for most institutions of higher education. Predictably, this led to considerable scrambling to meet the newly revised audit standard for fiscal year 2006 financial statements.

The core of the issue was and is: how do you know that the price of the asset is properly calculated and accurately reported? The answer at the time was to pursue a new or expanded due diligence process to increase confidence in the NAVs reported by investment managers. For traditional managers, this was

[4] Some believe that the valuation methodology and disclosures newly adopted by banks contributed to the banks' difficulties in the ongoing credit crisis. If so, there is reason to be alert to FAS 157's possible effects on investment managers. However, beyond having to report on performance, there is arguably not enough in common between the banking sector and investment companies and partnerships to warrant concern about the impact of FAS 157 on the managers' performance reports and investor reactions to the new reports. An exception might be those managers or funds still having meaningful exposure to structured financial products. A recent "clarification" of FAS 157, issued jointly by the SEC and the FASB on September 30, 2008, permits greater discretion in the valuation of such securities, in that the use of internal valuation models is encouraged.

seldom an issue with auditors. But for most alternative investment funds, particularly hedge funds loath to provide full transparency (usually for understandable competitive reasons), the process of providing sufficient audit evidence on valuation could be extremely difficult. Nevertheless, most institutions developed or strengthened approaches that were acceptable to their auditors; investment managers made efforts to accommodate the new requirements from their institutional investors; institutional auditors became more familiar with investment practices; and institutional investing settled back into a new reporting equilibrium. Hence, audits of fiscal year 2007 were relatively smooth.

Credit Crisis

Then came the subprime meltdown and the related credit crisis. The stream of events triggered initially by the failure of two Bear Stearns hedge funds amid a still-deflating housing bubble have generally resulted in further audit procedures to address the reliability of investment managers' reported NAVs. The new demands from auditors for the institutions whose books close before November 2008 are attributable to the combined effect of the *Practice Aid* noted above, the recent volatility of the capital markets, and the consequent increase in auditor concern regarding managers' reported NAVs. Auditors have sometimes asked institutional investors to provide more evidence or "comfort" that the NAVs brought onto the institutions' books are reliable. Thus, fiscal year 2008 audits are likely to prove more demanding than those of the previous year.

New Valuation Standard

For all fiscal years beginning after November 15, 2007 (or ending after November 15, 2008), all investment managers must adopt FAS 157 ("mark to market" accounting) in order to remain compliant with GAAP.[5] Similarly, all institutions must adopt this standard in their own reporting. With FAS 157, institutions can expect not only some changes in the way their investment managers calculate NAVs (and therefore performance), but also changes in the way their own financial statements are prepared and audited. It is fair to say that the implementation of both the accounting change and the audit procedures are in some flux, and will be road-tested this coming year.

Further, mark to market accounting became the focus of even greater contention during September 2008 up to the publication date of this report. It became one of the key issues addressed during negotiations surrounding the "rescue package" advanced by the Secretary of the Treasury. Partly in response to the argument that mark to market accounting has exacerbated the banking crisis, on September 30 the SEC and the FASB jointly issued a "clarification" of how FAS 157 is to be implemented with respect to assets for which the market has become illiquid (primarily structured financial products). Henceforth, holders of these assets *are encouraged to apply valuations based on expected cash flows (estimates generated by internal*

[5] Investment managers that manage only separately managed accounts will not be required to report on the basis of FAS 157, because they do not own the assets under their management. It is the investing institution that owns the assets, and hence it is that institution that must adhere to the new valuation guidelines and related disclosures that are described in this paper.

models), instead of on market prices. All such valuations would be classified as "Level 3" and therefore require further disclosures. An explanation of "mark to market" and "Level 3" follows.

Overview of FAS 157

For institutional investors, the impact of FAS 157 will be felt on two levels:

- *By the institution's investment managers*, whose audited financial statements and reported NAVs will be received by investors generally in the spring of 2009.

- *In the institution's own financial statements* and reported endowment performance, which will incorporate the new reporting by investment managers.

Each of these effects is reviewed below.

Reports from Investment Managers

What follows is a quick overview of manager effects. A more detailed discussion for each asset class will follow.

1. **"Exit price" (mark to market) as fair value.**[6] This new approach to the pricing of assets (and liabilities) is likely to have the most evident impact on the reported performance of private equity, real estate, and venture capital funds, as well as certain kinds of fixed income and hedge funds. The primary reasons for the revised valuations of these kinds of funds would be any *pricing disparity* between an asset previously carried at cost or on another basis (such as latest financing round) and its valuation now reported at current exit price; and any assets for which *reduced market liquidity* creates pressures for markdowns—as for example happened with structured products frozen by the credit crisis that began in earnest in August 2007.[7]

   Both impacts have been subject to considerable argument at specialized conferences and in the press. In the case of private equity and venture capital, the argument against the new fair value standard has dwelt on lack of a fund's intention or necessity to sell at the given quarterly or annual valuation date. For such funds there has been a strong bias toward using actual transaction data even if the transactions occurred before the reporting date, and to err on the side of "conservatism" (undervaluation). In the case of certain fixed income and hedge fund investments, the argument has

[6] Fair value is defined as the price that would be received to *sell* an asset, or paid to transfer a liability, in an orderly transaction between market participants at the measurement date. Related concepts include highest and best use, principal or most advantageous market, exclusion of transaction costs and blockage factors, and other important valuation details that are beyond the scope of this paper.

[7] Beginning September 30, 2008, holders of such securities are encouraged to value them on the basis of internal models instead of market prices. This is seen as a key measure (among others) to stabilize the credit markets.

sprung from the sudden loss of liquidity in the markets for complex structured securities and even some simpler asset-backed securities—leading to the contention that any transaction (actual or hypothetical) is a "forced sale" and therefore neither an "orderly transaction" nor the appropriate valuation basis. Of course, these two arguments against the new valuation methodology often overlap.

The requirement to mark at regular report intervals will lead to more volatility in the performance of assets that were previously carried at cost or with less frequent repricing. This is likely to be most obvious in the non-marketable asset classes. Because of the recent market pressures primarily related to the credit crisis, non-marketable assets might experience a one-time decline in valuation as of December 31, possibly moderated by write-downs already taken in anticipation of FAS 157 implementation. Assets long carried at original cost might still experience a one-time boost when they are marked to market on December 31.

2. **The three-level classification of assets** is likely to have the greatest impact on certain hedge funds, fixed income funds, and "distressed opportunities" funds. FAS 157 requires that the footnotes disclose in the aggregate whether the reported price of a given type of asset is based on (1) "observable" data; (2) partially observable data (i.e., observable on a basis other than publicly listed prices for identical assets in active markets); or (3) unobservable data. The most typical examples of "Level 1" assets are equities traded on public exchanges with publicly listed transaction prices. Technically, only a Level 1 asset is literally marked to market on a readily observable basis. An example of a "Level 2" asset might be a security price based on a *similar* asset trading in a highly liquid market, such as many traditional fixed income securities. An example of a "Level 3" asset would be most private equity investments, virtually all venture capital investments, and many kinds of structured asset-backed securities—all of whose valuations are generally based on the use of models for which a majority of the data ("inputs") are "unobservable"—i.e., frequently provided by the general partner (GP), based on the GP's knowledge and experience. This type of valuation is sometimes referred to as "mark to model." If an asset is classified as Level 3, then further footnote disclosures are required, including the movement of any given type of asset from Level 2 to Level 3, or vice versa, from one reporting period to the next. Exhibit 1 provides a classification of investments according to the FAS 157 three-tier typology.

   It is important to bear in mind that the actual placement of a given asset into one "level" or another is subject to considerable judgment. Even a cursory review of the footnote disclosures of banks already reporting on the basis of FAS 157 shows that there is variation in how they have chosen to classify their assets. As investment managers and auditors gain more experience with these new valuation rules, classification decisions will become more standardized.

   Second, the classification of the asset does not affect the valuation *per se*—the balance sheet —but simply provides some information as to how any given asset price was determined. Some have said this is "merely" a footnote disclosure. Others say that the added transparency provided by the classification may give the investor reason to have more (or less) confidence in the reported NAV. In

the case of assets in the banking sector, for example, investors have come to question the "murky" valuation of Level 3 assets on the banks' books, because many such assets are the collateralized debt obligations (CDOs) and other structured products whose valuations had been model-driven rather than "observed," and therefore more subject to mispricing. Hence, the introduction of greater information (greater transparency) *can* trigger adverse investor responses as in the banking sector, particularly among investors less familiar with the underlying assets.

That said, to equate Level 3 with "high risk" would be absurd. By their very nature, valuations of certain kinds of assets (e.g., venture capital) cannot be "observed" on a quarterly or annual basis, but only as and when portfolio investments are realized. Therefore, knowledgeable investors know well that interim reporting on these funds has to be based on "unobservable" inputs. At most, Level 3 might be characterized as having a higher *valuation (pricing) risk* or (to put it another way) a higher probability of measurement error in asset pricing. For such investments, however, this kind of risk is one among many, and so to avoid valuation risk altogether would be to avoid venture capital, most of private equity, distressed opportunities funds, real estate funds, and many hedge funds. Thus, while endowment investors should certainly be attentive to valuation issues, they should not let this dominate their investment decisions, lest other important criteria be insufficiently considered.[8]

To take any policy position on Level 3 exposure—i.e., exposure to valuation risk as defined by FAS 157—without distinctions among the varying kinds of "unobservability" (e.g., a real estate fund's valuation methodology versus a hedge fund's valuation methodology) would be to paint with too broad a brush. It is far better to understand the particular nature of the underlying assets along with the kinds of pricing errors that might occur, rather than to deal indiscriminately with managers' footnote classifications. This is especially the case during the early days of FAS 157, when classification decision rules can vary markedly from manager to manager and perhaps from auditor to auditor, as noted above.

Reports by Endowed Institutions

Although much has been written on how *investment managers* might apply FAS 157 in their reporting, to date little has been said about how *institutions* should apply the new standard. In general, for alternative investment and commingled funds, the expanded disclosures by fund managers should help investors better meet the audit requirements discussed in the AICPA *Practice Aid* of 2006. For separately managed accounts, however, FAS 157 might pose some implementation challenges. An AICPA task force is currently reviewing the relevant questions and at some point will no doubt issue another "practice aid" for use by auditors and institutions. If so, one hopes the issue date will be sooner rather than later, to provide institutions adequate time to adopt it. Nevertheless, with the major caveat that specific accounting and auditing guidance has yet to be issued, we can make the following observations:

[8] As one investment manager perhaps overstated it, "Level 3 is where the alpha is!"

1. **The "exit price" standard** may not permit institutions simply to report the FAS 157–compliant NAVs they receive from their managers. In particular, for alternative investments involving lock-up periods, gates, and other constraints upon conversion to cash, institutions may need to apply an "illiquidity discount" factor. How this would be implemented is anyone's guess at this point. And it is not without controversy. For example, logically an institution might apply a premium to its participation in a highly sought-after fund, on the theory that another (hypothetical) investor might pay such a premium were that investor to purchase the institution's participation.[9] While it is unlikely that institutions will face a "mandatory discount factor" for their funds with the liquidity constraints described above, precisely how any discount would be implemented remains to be seen.[10]

   Certainly endowments will be expected to report on their own books their managers' NAVs only if they believe them to be appropriate; in fact, that is the current expectation and practice. Beyond the illiquidity discount, it is conceivable that FAS 157 might require endowments to adjust further their managers' reported NAVs. Were this the case, there could be further implementation complexities as well as the likelihood that implementation might differ significantly from institution to institution. Rather than speculate, it is better to wait for further guidance.

2. **The three-level classification of assets** will likely be implemented on a fund-by-fund basis, rather than on an asset-by-asset basis across all funds. Thus, for example, a long-only equities investment manager invested in publicly listed companies on a separate account basis would be a Level 1 asset in the institution's financial statement, while a commingled long-only fund, a private equity fund or a hedge fund would be either a Level 2 asset or a Level 3 asset, depending upon its liquidity terms and upon whether the NAV can be validated by market activity (e.g., redemption or secondary market activity). A real estate fund would generally be Level 3, and so forth. We are informed that none of the commingled or private partnership funds will be classified as Level 1, no matter how liquid and transparent its assets, because percentage participation does not constitute direct ownership of the underlying assets. Therefore, many smaller endowments may show a very small percentage of invested assets as Level 1. Those with substantial exposure to non-marketable alternative investments will likely show a large percentage of Level 3 assets.

   How will we know if and when a given asset (fund) passes from Level 2 to Level 3, or vice versa? Presumably the answer will depend upon any changes in liquidity terms or secondary market transactions or redemptions. It might also result from changes in valuation methodology. Recall that any Level 3 assets require further footnote disclosures, which is at least potentially a more demanding reporting task. This could conceivably create an incentive for an investor to make a small redemption in the interest of providing a "validated" NAV to support a Level 2 classification.

[9] FAS 157 refers to investors as "market participants."

[10] Logically, investors in a fund-of-funds (FOF) could face a double discount of NAV. For example, a hedge FOF might apply an illiquidity discount to the NAVs of its underlying hedge fund managers. Then the investor in the FOF might have to add a second discount reflecting the illiquidity features of the FOF itself.

Would hedge funds or other funds be moved themselves to invest in fewer Level 3 assets (for example) in order to be more attractive to investors?[11] We hope not, if this is inconsistent with their investment approach. Would auditors change their opinions on financial statements containing a large percentage of Level 3 assets? We trust not, as long as the valuations are well understood (e.g., the venture capital example) and the "valuation risk" appropriately considered and vetted by the institution within the context of many other investment criteria.[12] Would debt rating agencies lean toward lower ratings for institutions with considerable exposure to Level 3 assets (after all, for many kinds of institutions the endowment can be the bulk of the assets on the balance sheet)? We doubt it, because we believe that the agencies will continue to look at the investments in terms of the broader picture, and not focus excessively on pricing risk. But we cannot know the answers to these questions at this point.

All such questions lead to a basic premise cited earlier: while accounting rules are fundamental to wise investing, it would be misleading to characterize "valuation" (in the accounting sense) as the dominant investment concern. Endowments should continue to focus on the underlying investment strategies and on manager talent, and put the greater transparency provided by FAS 157 in its proper perspective. As managers provide more information on how they price their investments, this should be integrated with the other driving factors behind successful and prudent investing.

Long-Only Managers

Traditional equity managers in general are well positioned to adopt FAS 157. Those investing only in listed and actively traded stocks will generally classify their holdings as Level 1. Less actively traded stocks, or stocks judged harder to value for whatever reason, including certain emerging markets stocks or foreign securities fair valued for post-close events, would probably be classified as Level 2.[13] Hence small-cap and emerging markets funds might face more classification issues. In the case of separately managed accounts, the classification of the investments is taken into the institutional investor's own financial statements. For each commingled fund, the investor (endowment) would report either a Level 2 or Level 3 holding for *the fund as a whole,* as noted earlier.

Fixed income managers are a different story. With the possible exception of Treasuries, and certain kinds of sovereign government debt, few debt securities are likely to qualify as Level 1. Corporates and

[11] Some predict that institutions and investment managers alike might avoid Level 3 investments at the margin because of the additional reporting requirements and the concern about potentially negative investor perceptions of Level 3 valuations.

[12] Perhaps auditors will choose simply to use an "emphasis of matter" paragraph to highlight any "material" exposure to Level 3 assets. This would still be an unqualified opinion.

[13] One complication cited is that many Asian markets have year-end holidays. Hence, the December 31 trading on some exchanges may be so thin as to affect the "leveling" of securities traded at year-end.

agencies would likely be Level 2; municipals, high-yield, whole mortgages, and many other fixed income securities would be either Level 2 or Level 3, depending upon their particular pricing sources (i.e., the degree of transparency of their "valuation inputs"), such as broker quotes, matrix pricing, and pricing models. Whether a given fixed income fund would be classified by an endowment as Level 2 or Level 3 would depend, again, on the liquidity features and market activity.

Fixed income managers and other managers[14] holding structured debt instruments such as CDOs, collateralized loan obligations, and other complex asset-backed securities may be challenged by the FAS 157 reporting requirements. The investment banks' experience with FAS 157, as they began to apply it to their holdings of such assets, has not been encouraging. Like the banks before them, investment managers are undoubtedly in discussions with their auditors regarding the appropriate valuation—extent of markdown—of securities for which there now exists little or no market. The extensive discussion of valuation in illiquid or less liquid markets is beyond the scope of this paper.[15] But it is worth noting that assets priced on the basis of complex models with little or no accommodation (assumptions) for the possibility of illiquid or thin markets, and little transparency on inputs, would certainly be classified as Level 3.

As noted earlier, for all Level 3 assets, FAS 157 requires additional disclosures: a reconciliation or schedule showing (1) total gains and losses for the period; (2) purchases, sales, issuances, and settlements; and (3) transfers into or out of Level 3. Some observers believe that these incremental reporting requirements alone are sufficient for managers to avoid, if and where possible, classifying assets as Level 3. However, we are also told that the extra valuation input required to lift an asset from Level 3 to Level 2 can be considerable. Moreover, for certain complex asset-backed securities, valuations based on internal models (Level 3) are likely to be higher than valuations based on a substantially illiquid market.

Endowments invested in separately managed accounts may or may not receive "FAS 157 pricing services" from their investment managers. Some managers offer these only for their funds. FAS 157 permits the classification of investments managed in a separate account to be taken into the investor's (endowed institution's) own financial statement. Thus, for example, assets separately managed by a large-cap equity manager could be reported as Level 1 in the institution's statements, whereas the same holdings in a commingled fund would be reported as Level 2—because of the fund structure. On the other hand, at least some managers of separate accounts will not provide FAS 157 valuation and classification support, leaving the institution to rely on its custodian or other sources for pricing and classification. Currently the situation is in flux, as custodians, investors, investment managers, and pricing specialists adapt to the new reporting requirements and to the modified reporting relationships among one another.

[14] For example, certain hedge funds and "distressed opportunities" funds.

[15] The Center for Audit Quality, a consortium of the major public accounting firms, issued a "white paper" in October 2007 addressing this valuation controversy within the context of FAS 157.
See www.iasplus.com/usa/caq/0710caqfvmeasurement.pdf. See also the recent guidance from the SEC and the FASB, at www.sec.gov/news/press/2008/2008-234.htm

Hedge Funds

The implementation of FAS 157 has had varying effects on hedge fund managers, driven in large part by the complexity and diversity of the investment strategy(ies) of the firm. A long/short equity fund investing solely in listed equity securities has a far simpler task implementing FAS 157 than a complex multi-strategy fund with investments spanning Levels 1, 2, and 3. For the most part the hedge fund industry is well positioned to adopt and implement FAS 157. However, as with most things, the proof is in the pudding and the devil in the details, and these await actual implementation over the next year.

There are several considerations regarding hedge funds' adoption of FAS 157. First, these funds have been marking their investments to market—as of reporting date—as a matter of routine. While the new definition of fair value has changed in certain respects under FAS 157,[16] these changes are unlikely to be material for many if not most hedge funds, with the notable exception of those with extensive side pockets holding non-marketable investments, those with investments in structured finance products for which the market has dried up, and (perhaps) those holding certain complex or "hard to value" derivatives. These exceptions generally constitute Level 3 assets, thus designated because they are more difficult to value. Nonetheless, because hedge funds have regularly marked to market for reporting purposes, they tend to have the processes, procedures, and controls in place to value their marketable and liquid holdings on a more timely and accurate basis. Hence, the implementation of FAS 157 has not been a watershed event in the industry thus far.

FAS 157 has, however, required that the fund managers work with their auditors to classify every security as Level 1, 2, or 3. Although this has proven to be very doable, it has not been a trivial exercise. Some of the challenges have been:

- Coming to agreement with their auditors on the level to be assigned to each investment (e.g., valuations based on various kinds of broker quotes),
- Working with their administrators to implement the systems changes to tag every security,
- Developing the decision rules to use to when assigning levels to newly purchased securities,
- In some cases, establishing or modifying the valuation committee overseeing the valuation process, and
- Classifying liabilities related to short positions into the three levels of classification (accounting guidance related to derivatives has generally been very complex, and some do not expect FAS 157 to be less difficult).

[16] For example, in the selection of which market to use when valuing a given asset.

Valuation issues are not new to the industry. In recent years hedge funds have dealt increasingly with valuation in response to such developments as the increasing complexity of investment strategies; the continued "institutionalization" of their industry and the operational changes that have been spurred as a result; and the 2006 issuance of the AICPA *Practice Aid* for the auditing of alternative investments. In addition, over the past year, the challenges driven by the credit crisis have moved hedge funds and the vendors providing them with pricing and valuation inputs to continue to re-evaluate their valuation processes, procedures, and controls.

With respect to funds-of-hedge-funds, there are ongoing discussions concerning classification of assets. The discussions have centered around whether a fund-of-hedge-funds can look through to the underlying hedge funds and classify its assets as Level 1, 2, and 3 based on how the underlying funds have classified their assets. For investors (endowments), it appears that funds-of-hedge-funds will be classified as either Level 3 or Level 2 assets in the institutions' financial statements, depending—once again—on the liquidity features of the funds-of-hedge-funds and any recent transactions (redemptions) that validate the NAV.

Finally, there is some disagreement as to whether and how a fund's reported NAV should be modified when it is booked by the institution. For example, as noted earlier, should an "illiquidity discount" be applied to investments with a lock-up period and, if so, how should it be calculated? Likewise, should a premium be applied to a NAV reported by a fund with limited access? In the first case, all other things being equal, an investment with a longer lock-up is worth less than one with a shorter lock-up—but how to calculate that discount? And how to calculate a premium on a participation in a highly sought-after fund? While there may be considerable soundness to these concepts of discount and premium, the potential variance in implementation (among institutional investors and among their auditors) may defeat one important purpose of FAS 157, which was to achieve greater consistency and comparability in the reporting of financial performance.

Currently the accounting profession is debating the question of when and how institutions should modify funds' reported NAVs. While definitive guidance is expected sometime next spring,[17] it is possible that industry-wide guidance may not be forthcoming and that it may be left to individual audit firms to form their own "house" views on this issue. This is just one of many issues in flux as all parties involved in investments seek to implement FAS 157.

Non-Marketable Alternative Assets

Non-marketable assets include venture capital, buyout funds, distressed securities, real estate, oil & gas, and timber. Fund managers in these areas have always found it difficult to apply a valuation that accurately reflects the potential investment outcome while accounting for the associated risks within the underlying companies. Since these investments are by their very nature illiquid and difficult to value,

[17] A document of frequently asked questions (FAQs) may be issued before year-end.

conventional valuation practices have usually involved booking investments at cost, with "fair value" (in one of its many forms prior to FAS 157) sometimes invoked to comply with GAAP. Relative to long-only "traditional" equity and fixed income managers and hedge funds, managers of non-marketable assets generally operate in an environment of far lower transaction volume. Hence in their ordinary course of business they are not called upon to price and value (transact) nearly as often, and in truth may not consider today's "valuation" to be particularly relevant to the eventual success of the fund (accumulated net distributions upon maturation of the fund). Yet, in order for investors to book their investments in non-marketable assets—on a basis consistent with funds operating in far more liquid markets—venture capital, buyout, and other non-marketable funds are now required to conform to the same guidelines, i.e., FAS 157.

FAS 157 will require managers with a cost-based valuation approach to change to a valuation approach based on other metrics that include "unobservable" data inputs. Valuation will be based on the exit price rather than the entry price, as noted earlier in this report. This will not come naturally to many managers whose mantra for portfolio valuations has been to "underpromise and overdeliver." In our review of the empirical data, they have done just that. However, adoption of FAS 157 might result in mark-ups and markdowns during interim reporting periods and thus the "delivery" of performance will be more volatile. For investors that had expected a low-volatility investment, this may come as a surprise.

"Exit Price" Valuation. It is likely that there will be a transition period as managers and their audit firms adjust to the new valuation requirements. FASB has not been specific about how the new valuation approaches are to be implemented in particular situations, because it wants to avoid having excessively detailed and inflexible rules that fly in the face of good judgment. Of course, this leaves room for some considerable disagreement on the application of rules leading to markdowns (or mark-ups). And it places the responsibility for valuation decisions on the managers' own judgment and on investors to understand valuation approaches that are used by any given manager. Managers will use a number of methodologies to determine the appropriate valuation for portfolio companies. These include the use of comparable public company listings, discounted cash flow models, and multiples on earnings or multiples on other financial metrics. While funds are required annually to report on methodologies used to price their portfolio companies on a company-by-company basis, it is not clear how much detail will be provided because managers are concerned about releasing competitive data on their portfolio companies.

How FAS 157 will affect benchmark comparisons is difficult to assess at this time. Volatility is likely to increase, but will managers be conservative or aggressive in their valuations? Will their auditors agree with the funds' valuation decisions for particular portfolio companies? We expect that time and experience will bring funds and their auditors into closer agreement. In the meantime, it is possible that preliminary December 31 valuations may diverge from audited December 31 figures to a greater degree than in the past.

Classification Within the "Valuation Hierarchy." To no one's great surprise, the assets in these funds will generally be classified as Level 3. This will require the funds to provide further footnote disclosures including total realized and unrealized gains and losses, purchases and sales, and transfers into and out of Level 3. It is possible that some assets could meet the "observability" requirements of a Level 2

asset. For example, if an asset is acquired at or near the reporting date, then the valuation input is observable. In the investing institution's financial statements, an entire fund could be classified as Level 2 if the inception date is at or near the reporting date, because exit and entry price would be virtually identical. Or a fund might change from Level 3 to Level 2 later in its life, e.g., when a venture capital fund has liquidated all but one investment that happens to be a public company. All non-marketable FOFs would be classified as Level 3 in the financial statements of the investing institution.

Non-marketable alternative assets play an important role in the investment portfolio. Hence, current and prospective investors should understand the *investment* implications of the asset class, rather than becoming categorically wary of its Level 3 designation. Some of the obvious investment portfolio benefits of non-marketable assets are diversification (and risk mitigation) among asset classes and investment managers; hedging against inflation risk; the potential for higher return; and access to experienced and skilled investment managers. A Level 3 classification simply flags the necessity to use estimates in periodic valuation of the portfolio companies; it does not denote *fundamental* risks, which are addressed in the investment decision-making within these funds. Moreover, the institutional investor further mitigates investment risk *within* the asset class (the non-marketable portfolio) by means of diversification by manager, strategy, and vintage.

Conclusion

For audit purposes, investors are advised to be familiar with a fund or investment manager's valuation approach and oversight, including information on the valuation committee (if any) and valuation policies and procedures. As noted in our earlier reports, investors should have a documented deliberation process—including investment committee meeting minutes and discussion materials, supporting analysis, and assessment of investment managers' or general partners' experience and performance. These are part of the due diligence both preceding the decision to invest and on an ongoing, monitoring basis afterwards. Other ongoing due diligence such as regular calls and meetings for updates (for marketable investments), attendance at annual meetings and updates on portfolio company developments (for non-marketable investments), and review of financial statements—including the valuation methodologies and auditor opinions—will also help investors to detect and challenge any material misstatements of valuations.

We conclude with some suggestions for endowed institutions on their initial foray into the thicket of issues surrounding the concepts and implementation of FAS 157. For some institutions these suggestions will seem obvious. For others they will not.

1. Work with your auditor, preferably early and often, to identify areas requiring further effort to comply with FAS 157. For institutions with a December 31 fiscal year, now is not too soon. For institutions with a later fiscal year, it is advisable to consult with auditors on "roll-forward" procedures that will give confidence in managers' non-audited interim reports.

2. Request that your investments be audited by audit staff who are from your audit firm's investment funds practice. If this is not possible, request that their investment auditors be available on a consulting basis to the regular audit team.

3. Ask your investment managers and fund managers whether they have prepared statements on how they intend to implement FAS 157 and when (what date) their first FAS 157–compliant reports will be available. On receipt, review the managers' statements to determine whether they will be providing both "exit price" valuations and "valuation hierarchy" classifications.[18]

4. Expect more delays in reports from investment managers as they adopt FAS 157 for the first time and as their reports are audited in terms of the new accounting rules.

5. Custodians may provide views on classifications, but it is up to the investing institution to decide which level is selected for a given type of asset. Consult with your custodian to determine whether and how they can assist in the implementation of FAS 157. It is likely that all commingled funds and partnerships will be classified as Level 2 or Level 3, and most FOFs as Level 3. For separate accounts, ask the custodian which assets, if any, might be classified as Level 3; then consider whether further due diligence on the pricing of these assets might raise them to Level 2. Determine whether additional pricing services will be necessary, beyond those provided by your custodian.

6. Familiarize yourself generally with the standard pricing approaches for a given asset class, and the standard varieties of pricing sources (broker quotes, pricing vendors, internal models, etc.).

7. Be prepared to characterize the processes by which your institution reviews the valuations received from managers and custodians—e.g., regular review of reports, reconciliation of manager valuations with custodian-reported valuations and other performance reports, level of discrepancy requiring resolution, and process for resolving discrepancies.

8. Try to anticipate which parts of your portfolio might show more significant changes because of FAS 157 implementation (e.g., non-marketable alternative assets), so that you can be prepared to evaluate the revised performance of those managers and any impact on portfolio diversification guidelines and spending rule. Note whether greater volatility in investment performance (valuations) would have an impact on your operations.

9. For partnership and commingled fund investments, consider whether to provide an additional disclosure of asset valuation classification on a "look-through" basis—i.e., in terms of each fund's underlying assets—in addition to the Level 2 or Level 3 classification of the fund as a whole. *Such an additional disclosure would reveal that the percentage of the endowment invested in Level 3 assets is far less when underlying assets are classified separately.* However, significant effort is required to provide this further disclosure.

[18] Funds should provide these. However, some managers of separate investment accounts may not do so.

10. With all due deliberation, consider establishing a valuation subcommittee of your investment committee, to oversee valuation issues and to avoid having valuation concerns (if any) dominate investment discussions at the expense of adequate consideration of other risks and other important investment criteria.[19]

A very general summary of the issues affecting investment managers and those affecting institutional investors is presented in Exhibit 2. This is a thumbnail list of major issues that have surfaced thus far among clients and auditors implementing FAS 157. Quite obviously some of these issues are unresolved and not susceptible to easy resolution. The only safe statement at this early stage of implementation is that further clarification of the implications of this new accounting approach remains to be seen.

[19] Such a subcommittee might be of particular interest to auditors, and would help to relieve the Board's audit committee of *direct* responsibility for valuation issues—although, of course, the audit committee retains ultimate oversight of all risks of the "enterprise," not limited to the investment area.

EXHIBITS

Exhibit 1

CLASSIFICATION OF ASSETS UNDER FAS 157

"Observability" of Valuation Inputs

Asset	Level 1	Level 2	Level 3
Listed Equity Securities	✓		
Listed and Actively Traded Derivatives	✓		
Cash/Money Market	✓	✓	✓
U.S. Government Debt Securities	✓	✓	
Other Sovereign Government Obligations	✓	✓	
U.S. Agencies	✓	✓	
Corporate Bonds		✓	
Equity Securities Not Actively Traded		✓	
Commodities (Physical)		✓	
Over-the-Counter Derivatives		✓	
Municipal Bonds		✓	✓
High-Yield Bonds		✓	✓
Corporate Loans & Loan Commitments		✓	✓
Whole Mortgages (Residential & Commercial)		✓	✓
Mortgage-Backed Securities		✓	✓
Asset-Backed Securities		✓	✓
Collateralized Debt Obligations		✓	✓
Private Equity		✓	✓
Venture Capital			✓
Real Estate Funds			✓
Complex Over-the-Counter Derivatives*			✓
Distressed Debt		✓	✓

The “valuation hierarchy” listed above is used to assign assets and liabilities to one of the three buckets, based on how “observable” the pricing data are. All Level 3 assets require additional disclosures, which may be a particular challenge for funds with underlying portfolio companies. This hierarchy is also to be applied separately to liabilities.

“In most cases, the use of a valuation model is acceptable only when quoted prices in active markets are not available. Exotic non-traded derivatives are almost always valued with mathematical models.” (Pluris Valuation Advisors LLC)

Note that at present there is variation in how a given asset might be assigned by a given manager. Hence a given position might be classified differently from manager to manager and fund to fund.

* Includes certain foreign currency options, long-dated commodity options and swaps, certain mortgage-related credit default swaps, derivative interests in mortgage-related collateralized debt obligations, and basket credit default swaps (from Morgan Stanley’s 10-K filing).

Exhibit 2

FAS 157: MAJOR EFFECTS AND IMPLEMENTATION ISSUES

	“Exit Price” as Fair Value	**Three-Level “Valuation Hierarchy”**
For Investment Managers and Funds	• More volatility in performance of non-marketable assets • Mark to model now encouraged for assets frozen in illiquid markets (e.g., structured finance products)[1] • Models shouldn’t be used if adequate market prices are available (“hierarchy”) • FOFs may report NAVs with “illiquidity discounts” on underlying funds • Impact on complex derivatives	• Some controversy regarding which level a given asset belongs in • Level 3 assets require potentially demanding additional disclosures • Some are concerned that Level 3 assets may be negatively perceived • Managers’ auditors may selectively encourage revision of the managers’ NAV and classifications[2]
For Endowed Institutions	• “Illiquidity discounts” *may* be required for NAVs of alternative investment funds with liquidity constraints (gates, lockups) • Endowments should ask investment managers about counterparty risk • Roll-forwards to other fiscal years (besides audited December 31) may be more problematic because of greater benchmark volatility • Endowments should monitor any changes in managers’ valuation policies	• No commingled fund or partnership can be Level 1 • Decision rules for classifying a fund as Level 2 versus Level 3 asset: still being developed • Level 3 funds require additional disclosures • Some concern regarding negative perceptions of Level 3 (by auditors, rating agencies, etc.) • Endowments are permitted to report on underlying asset, “look through” basis, as an optional supplement, in addition to fund-by-fund classification

[1] SEC/FASB “clarification” of FAS 157 issued September 30, 2008.

[2] Audited December 31 reports will be unusually important this year, because preliminary performance numbers and audited figures may differ more, as FAS 157 leads to varying interpretations