August 30, 2017

Office of the Secretary
PCAOB
1666 K Street NW
Washington, D.C. 20006-2803
Via email: comments@pcaobus.org

Re: PCAOB Release no. 2017-002 (June 1, 2017), Auditing Accounting Estimates, Including Fair Value Measurements

To the Board:

Harvest Investments, Ltd. thanks the Board for the opportunity to comment on its proposed auditing standard dealing with accounting estimates and fair value measurements. Before offering our thoughts on the substance of the Board's Release, we would like to express our appreciation for all the work the Board has done in preparing this document for public release, not least since we recognize that it required organizing considerable outreach efforts as well as integrating years of research and scores of previous commentaries from many of the major stakeholders. We think the Board has been successful both in highlighting critical issues and in generating workable remedies for many continuing difficulties involving auditing accounting estimates and fair value measurements.

In our responses to the Board's questions, we draw on our experience as a securities valuation specialist to point out a number of persistent challenges arising from the ways information about price and risk currently circulates within the financial system, specifically in relation to the fair-valuation of financial instruments. The PCAOB, auditors, and many pricing providers have made great strides in addressing and increasing transparency in recent years. As the Board explains, its intention to replace three auditing standards instituted prior to the 2008 crisis results from its acknowledgment that more sophisticated understandings of risk and its causes have developed since then. Harvest agrees that amending and clarifying current guidance will be beneficial to the public interest. We have lately experienced a relatively long-term period of low interest rates and low volatility, but in all likelihood this situation will not last forever.[1] We share the Board's concerns about clearly identifying sources of risk and welcome its efforts to ensure that guidelines are put in place before the environment changes, so that its considerable efforts to protect investors over the past decade pay off.

Question 1: Does the discussion of the reasons to improve auditing standards sufficiently describe the nature of concerns related to auditing accounting estimates that the Board should address? Are there additional concerns that the Board should seek to address?

We think that the Board's discussion accurately describes the most important reasons for improvement in auditing standards, and we agree with the Board's observation that the crisis underscored the importance of audit and valuation issues within the financial system (p. 6). At present, the market exhibits comparable features to the pre-crisis period in 2007: the role played by mortgage securities, auctions rates, and CDOs then is now being taken over by CMBS, conduit municipals, bundled student loan and sub-prime auto loan securities, along with CLOs (which are considered CDOs).[2]

The public testimony of SIFMA's Randolph Snook confirms our assessment: "the U.S. fixed income markets are truly without parallel. Total outstanding U.S. fixed income debt is almost $40 trillion dollars (based on SIFMA)...On average, $775 billion of securities are traded each and every day."[3] In other words, only 2% of the fixed income market trades on any given day. The quantity of trades within the fixed-income security market has declined considerably from where it was ten years ago,[4] which means that the vast majority of those securities get priced using non-trade-based assumptions and calculations. We estimate that as many as 80-90% of all prices provided by pricing services are consequently based on inputs and assumptions that require testing in order to be fully compliant with ASC 820. Further, "new issuance (was) in the range of $6 to $7 trillion per year over the last five years," and structured products (including CLOs and other items with embedded derivatives) continue to boom: as Snook notes, "[t]he securitization market funded 60% of consumer lending in 2016."[5]

Given the evidence linking bad prices and ratings to the crisis,[6] we think that investor protection will be improved by carefully addressing the use of pricing sources and their different degrees of

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[1] For a recent example of this perspective, see FT Reporters, "Equity Valuation: Five Charts that Matter for Investors" in *Financial Times* (22 August 2017) https://www.ft.com/content/c4de73e2-17a1-11e7-9c35-0dd2cb31823

[2] James Crotty, "Structural Causes of the Global Financial Crisis: A Critical Assessment of the 'New Financial Architecture'" in *Cambridge Journal of Economics* 33:4 (2009), pp. 563-80; and Mary Barth and Wayne Landesman, "How did Financial Reporting Contribute to the Financial Crisis?" in *European Accounting Review* 19:3 (2010), pp. 399–423. Cf. Randall Dodd and Paul Mills, "Outbreak: The US Subprime Contagion" in *Finance & Development, A Quarterly Magazine of the IMF* 45:2 (June 2008) http://www.imf.org/external/pubs/ft/fandd/2008/06/dodd.htm for a useful overview emphasizing problems of information transparency in general.

[3] Randolph Snook (Executive Vice President SIFMA), Written Testimony before the US House of Representatives Financial Services Committee, Subcommittee on Capital Markets, Securities and Investments Hearing "A Review of Fixed Income Market Structure" (July 14, 2017): pp. 2, 4. Available for download here: http://www2.sifma.org/issues/item.aspx?id=1515

[4] Snook, pp. 7-9 especially Chart 6.

[5] Snook, p. 26.

[6] Academic attention to issues of price construction is fairly recent: Cf. Larry Cordell, Yilin Huang and Meredith Williams, "Collateral Damage: Sizing and Assessing the Subprime CDO crisis" Philadelphia Federal Reserve working paper 11-30R (May 2012): https://www.philadelphiafed.org/-/media/research-and-data/publications/working-papers/2011/wp11-30.pdf. But note the pricing data they use to revalue the CDOs in their sample

transparency so that issuers and auditors are able to assess and evaluate the information provided to them by management accurately and critically. Our response to Question 1 hinges substantially on this point.

The role of the auditor remains crucial to the functioning of the financial system as a whole, but it is important to point out that auditors did not cause the crisis.[7] Rather, it originated with prices that were calculated using approximations, which then fell out of alignment once the crisis disrupted the markets. Auditors could not scrutinize price construction because the actual inputs used in their development were not transparent, and so the prices continued to circulate throughout the financial system. In a crisis, many items previously trading in liquid markets start trading differently or stop trading altogether, which means that they can abruptly transform from easier-to-value into very difficult-to-value. With any meaningful market shift, categorizations or rules-of-thumb about individual instruments or types of instruments and their valuation complexities need to be revisited and appropriately revised.

In this Release, the Board raises multiple concerns about the current testing of fair value assumptions: on page 9, the need to test management's process, assumptions, and data is mentioned; on page 12, attention is called to deficiencies in testing accuracy, completeness, and reasonableness of assumptions and resultant fair values; pages 13-14 treat deficiencies related to the testing of fair value inputs as they have come up in enforcement cases. Taken together, these examples provide a compelling rationale for the Board's additional efforts to improve guidance and increase transparency.

On page 15, the Board mentions that some commentators on its SCP thought that PCAOB requirements could be improved by adding clear guidelines for the appropriate use of third-party pricing sources. We agree, and think that appropriate use should include recognition of the need for transparency of security-specific structural features and related market-participant inputs at the individual price level.

The Board lays out specific requirements and directions for the testing of fair values as part of its "Discussion of Proposed Rules" (pp.16-21, 20), including a requirement that the auditor understand how unobservable inputs were determined and evaluated. We agree with this requirement, because any source used in ASC 820 valuation should conform to that guidance; in other words, it should be transparent about the origin of the pricing data (trading in exact, broker quote, etc.) and the inputs and assumptions used in the price development or algorithm. In order to conduct analysis and testing successfully, an auditor clearly needs to know which securities have unobservable inputs (i.e.,

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on p. 31, Table 8. See also Beltran, Cordell and Thomas: "Asymmetric Information and the Death of ABS CDOs" in *Journal of Banking & Finance* v.47 (March 2017), pp. 1-14. Rating agency problems have received far more attention: Frank Partnoy, "What's (Still) Wrong with Credit Ratings" San Diego Law School Working Paper 17-285, forthcoming in *Washington Law Review*, and available via SSRN here: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2969086 and Partnoy, "Overdependence on Credit Ratings was a Primary Cause of the Crisis" in *Proceedings of the 2008 International Banking Conference: "The First Credit Market Turmoil of the 21st Century"* (World Scientific Publishers, 2009) available via SSRN: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1430653. See also the article Crotty 2009 (note 2, above) and Ben Beachy, "A Financial Crisis Manual: Causes, Consequences and Lessons of the Financial Crisis", Tufts University Global Development Institute Working Paper no. 12-06, available at: https://ideas.repec.org/p/dae/daepap/12-06.html

[7] Khurram Shahzad, Thierry Pouw, Ghulame Rubbaniy and Osama el-Temamy, "Audit Quality During the Financial Crisis: An Investor's Perspective" in *Research in International Business and Finance* (in press, 7/2017), finds "strong evidence of an increase in the perceived quality of audits during the GFC for US firms non-financial and financial firms." For a report focused more on audit practice and valuation issues, see UK House of Lords inquiry "Auditors: Market Concentration and their Role" assembled and published by the House of Lords Select Committee on Economic Affairs: https://publications.parliament.uk/pa/ld201011/ldselect/ldeconaf/119/119.pdf.

which are level 3) and to obtain the actual inputs used, as well as the level of those inputs. Specific provisions that ensure this level of informational detail within the audit process can easily, efficiently, and inexpensively ensure that accurate pricing data circulates through the system.

Question 2: Does the information presented above reflect current audit practice? Are there additional aspects of current practice of both larger and smaller audit firms that are relevant to the need for standard setting in this area?

Harvest agrees that the information presented (pp. 10-14) reflects present audit practice. We would also like to call the Board's attention to the different ways that the work of pricing sources currently gets used in practice, particularly within mid-size and smaller firms. At some smaller firms, for example, auditors will "test" management's information using the same ultimate pricing source (a reseller). Sometimes this is done intentionally; in other cases it may be inadvertent, especially if an auditor is unaware of the ways data can be repackaged and resold without transparency into price construction. Regardless, nothing at all is being tested if the information used by management and auditor is identical. Such observations from practice, coupled with PCAOB inspection findings that auditors used neither an employed or engaged specialist in 75% of the analyzed audit engagements[8], are concerning and should be addressed.

Question 7: The Board requests comment generally on the analysis of the need for the proposal. The Board is interested in any alternative economic approaches to analyzing the issues presented in this release, including references to relevant data, studies, or academic literature.

The Board identifies concerns over moral hazards, confirmatory bias, and the need for skepticism (pp. 28-35), all of which are well-supported by the literature cited. We would like to call attention to a discretely temporal concern here as well, alongside the epistemological: auditors are under great pressure when assessing and handling variance, often working under tight time constraints. We recommend that the forthcoming guidance help identify situations in which auditors should seek additional support. Currently, only a handful of the largest and most sophisticated auditors have the knowledge, experience, skill, training, and resources to make such judgments; this already challenging task becomes considerably more difficult if auditors are blind to inputs at the individual price level, as is often currently the case.

The Board appropriately addresses pricing services, broker quotes, and other sources of information, commenting that "differences in relative risk suggest that some third parties (e.g., pricing services and brokers or dealers) may need to be treated differently from others (e.g., specialists) under some circumstances" (pp. 36-7, 37). We share the Board's concerns about risk, and concur with its corresponding emphasis on the need for unbiased, consistent, and transparent deliverables.

The Board states that there is less risk of inherent bias when a pricing service is used since "most of the prices provided by these services are for traded securities or for securities for which quotes are

[8] PCAOB Release No. 2017-003 (1 June 2017), p. 26.

available or for which similar securities are traded" (p. 37). We find this statement somewhat misleading in its emphasis on the "monitoring activity by the market as a whole" and market activity in exact or similar instruments (p. 37). Elsewhere, however, the Board correctly acknowledges that "only a fraction of the population of financial instruments is traded actively" (Appendix 3, A3-36). In fact, trading levels are down from pre-crisis rates in every sector except corporate bonds: municipals are down 62%, treasuries down 7%, agency MBS down 24%, and agencies down 94%; corporates are up 57%, thanks in part to a booming structured securities market, which now make up about half of investment bank bond issuances.[9] These figures indicate that the majority of prices circulating in the financial system are not based on trade information (whether exact or comparable) but on some other approach.

Pricing services price everything from treasuries to complex non-agency mortgages, inverse IO's, and structured notes, and users of those services are not able to identify which items are easy-to-price and which are complex from the information provided. Even a very seasoned specialist cannot identify a structured note within a portfolio merely by reading its description, because these descriptions often look exactly like their easier-to-price corporate bullet counterparts. Prices provided by custodians and other service organizations ultimately come from a pricing service; when management or audit forms contract with a service organization, however, they have no contractual option for compelling transparency with respect to the pricing information they receive. Adding to the confusion, custodians/service organizations now routinely assign levels using varying methodologies that are not necessarily aligned with ASC 820 and that provide no clarity concerning inputs and input strength at the individual security level. This practice has resulted in widespread overreliance on level 2 designations in a manner that is not ASC 820 compliant, given that it is impossible to know whether the inputs are even observable. In such cases, appropriate levels simply cannot be determined unless the items are tested by a specialist using transparent methods and inputs. Sector-based approaches are unsuitable as well as incorrect, since they are not based on the structural features that drive pricing inputs and adjustments. Because such leveling practices are not in conformity with ASC 820, the intended quality of information stipulated by that guidance does not reach issuers and auditors, nor can it be used in investor disclosures.

Question 8: The Board requests comment generally on the potential benefits to investors and the public. Are there additional benefits the Board should consider?

Improving price transparency will also improve ASC 820 level assignations, and this will benefit investors by improving financial disclosures.

[9] SIFMA Fact Book 2017, p. 37.

Question 11: The Board requests comment generally on the potential unintended consequences of the proposal. Are the responses to the potential unintended consequences discussed in the release adequate? Are there additional potential unintended consequences that the Board should consider? If so, what responses should be considered?

In answering this question, we rely upon our experience with fair value and ASC 820 reporting to consider the valuation contexts and scenarios most likely to occur as a result of replacing three existing standards with a single new one. Harvest notes the Board's remark on page 38, that "for easier-to-value securities, particularly exchange-traded securities, requiring the auditor to obtain a price from a different source may not provide better evidence since it is likely based on the same underlying information." Harvest concurs, and sees little risk in or unintended consequences resulting from the pricing of exchange-traded items. Because Harvest's pricing methodologies are aligned with ASC 820, for example, we know whether or not trading in an exact security is taking place, with reasonable range and volume; we provide that information to our clients along with the price, level, and models used. We agree that as an industry we should not burden issuers, auditors, and ultimately investors with undue costs for exchange-traded items, especially when it is relatively easy to identify them and make their inputs available; we already identify such items for our clients and give them considerable discounts on prices of traded items, with US listed equities priced free of charge.

At a more systemic level, however, we would like to call the Board's attention to some lingering practical challenges when it comes to distinguishing "easy" from "hard" to value securities. Our concerns revolve around the ways information is (or is not) currently communicated to auditors. Again, only a small fraction of the total number of securities is actively traded on any given day. This means that the vast majority are not in fact "easy" to value and that their prices are not based on trades. Even so, we often see complex items like alternative investments passed over as easy-to-value because they are mistakenly thought to be mutual funds. Structured products and items with derivative features can also go untested because they carry common issuer names (for example, US GSEs or large investment banks); moreover, most pricing services and custodians do not specifically identify the key structural features that relate to price development. If this informational deficit is not addressed, one potential unintended consequence of allowing an exclusion on so-called "easy" securities is that an auditor could very easily and unknowingly fail to test complex items susceptible to material variances, passing on risk to investors in the process.

Question 17: Are the scope and objective of the proposed standard clear?

Harvest thinks that the scope and objective of the proposed standard (A3-4f) are both very clear, and we appreciate all the work that the Board has done to integrate three existing standards into a single, workable new one that takes into account the latest understandings of and approaches to questions of risk. This has obviously been an enormous undertaking. We hope our comments throughout will be received in support of the Board's judicious and painstaking efforts.

Question 32: Are there other matters that the auditor should take into account when obtaining an understanding of the nature of the financial instruments being valued? If so, what are they?

Harvest agrees that attention to the nature of the financial instruments being valued is important, since different risks relate to different structures, as the Board clearly recognizes. Financial instruments may contain both structural complexities and/or valuation complexities within what the Board calls their "nature". For example, if a newly-issued corporate structured note is readily-traded with reasonable range and volume, it has structural complexity but not valuation complexity on a given valuation date. If the market changes and there is no trading, this item now has both structural and valuation complexity.[10] This is precisely what happened to auction rates and pooled trust preferred securities in the last crisis. As with any meaningful market shift, any preconceived notions about valuation complexity should have been immediately revisited.

Question 34: Are the requirements for using information from a pricing service clear? Are there other requirements that should be considered? For example, are there other methods used by pricing services to generate pricing information that are not currently addressed in the proposed standard?

In Appendix 1 (A1-16), the Board outlines factors affecting the relevance of the pricing information provided by a pricing service and how they should be treated by auditors. These fair values are based on:

a) quoted price in active markets for identical financial instruments;

b) transactions of similar financial instruments, including basis for comparability and process used (e.g., matrix pricing, algorithm);

c) instances where there are no active trades, and fair value is constructed using brokers quotes or complex models and algorithms

We agree that it is crucial for an auditor to be fully informed about the way a fair value has been arrived at in order to determine appropriate handling. To that end, we recommend that the Board carefully attend to the different types of pricing services and the ways that their information may or may not be appropriate within the context of the auditor's obligation to carry out their work in accordance with ASC 820.

Some pricing services and specialists already follow ASC 820 fair value guidance, manufacturing their prices using the highest-level inputs and making all of that information available for their clients. They document whether the price came from trading in the exact security or trading in a close comparable (with appropriate adjustments) and whether it was modeled or based on a broker

[10] Cf. the work now being done by Stephani Mason: "Survey participants needed in new research on fair value estimation," *BVR Wire News* (23 June 2006) https://www.bvresources.com/blogs/bvwire-news/2016/06/23/survey-participants-needed-in-new-research-on-fair-value-estimation

quote, etc. They also provide their clients with transparent information about the inputs and assumptions used to price a given item and the market observability (ASC 820 level) of each input.

Other pricing services use an "expedient process" which provides prices on large volumes of securities in a very time-efficient manner. These prices are manufactured using matrices and algorithms (analogous to the way Zillow estimates the value of all homes based on the sale of a few). The origin of the price (trades, broker quotes, etc.) is not provided with these prices, and neither are the actual inputs used in the calculation of individual prices. Still other pricing services do not manufacture prices at all, but re-sell them from other sources, with no transparency about price development.

Among issuers, it is widely acknowledged and accepted that the use of nontransparent prices requires strong internal controls that use and make available market-participant inputs so that (unnecessary) risks to investors may be avoided. The same should apply to audit use. We also agree with the Board that all methodologies used should conform to applicable financial reporting frameworks (A3-35) - specifically, ASC 820, which requires the use of the highest-level inputs and ASC 820 level assignations tied to the valuation methodology.

Question 35: Do the requirements included in the proposed standard pose operational challenges for audit firms that use centralized groups? If so, what are they and how could they be addressed in the proposed standard?

One challenge for pricing desks is that they are unable to collect transparent information from either the issuer (i.e. the custodian) or their pricing services about the origin of the pricing inputs at the individual price level. Secondarily, if pricing desks are to make decisions about fair value, valuation difficulty, and risks, they should be required to meet the same standards for knowledge, skill, experience, and professional standing as the specialist.

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We thank the Board for its invitation to comment and for its time in considering our remarks. If the Board would find it helpful to discuss them in more detail, we remain at its disposal: please contact Susan DuRoss at 312-823-7051.

With best regards,

Harvest Investments, Ltd.