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ASOP No. 27 Revision
Actuarial Standards Board
1850 M Street, NW, Suite 300
Washington, DC 20036

May 9, 2011

Subject: Proposed Revision of ASOP 27, *Selection of Economic Assumptions for Measuring Pension Obligations*

To members of the Actuarial Standards Board:

Mercer is pleased to provide our response to the proposed revisions of ASOP 27. These comments were prepared with the assistance of Mercer's Actuarial Resource Network, a group of senior actuaries within Mercer's Retirement Practice, and with input and comments from other senior Mercer actuaries.

The exposure draft takes an important step forward in advancing actuarial thought and practice concerning the use of economic assumptions, although we have some concerns about some of the specific sections.

In particular, the partial separation of the discount rate and investment return assumption into two separate assumptions is a helpful step; we encourage the ASB to go even further and completely separate the two elements. Similarly, it would be helpful to clearly distinguish between assumptions about the future and observations or estimates about current market conditions. The reassessment of the "reasonableness" criteria for economic assumptions is long overdue, although this is a topic of judgment about shades of gray and nuance, and may not be amenable to summation in a single-sentence standard. In addition, it would be helpful to clarify throughout that actuarial assumptions should be selected and evaluated within the context of a particular measurement purpose or objective, the chosen or prescribed model, and the plan sponsor's goals and objectives.

Our suggestions and comments are described below, ordered by paragraph number in the exposure draft. Suggested language additions are **underlined and bold**, and suggested deletions are ~~struck through~~.

Questions specifically posed by the ASB

1. *Is the language of section 3.1... clear?* Discussed below under definitions and section 3.1.
2. *Breaking the link between investment return and discount rate* – See our comments on multiple sections in 3.6 and 3.7.
3. *Reasonability standard* – Discussed in our comments for section 3.1.
4. *Arithmetic vs. geometric return* – Discussed in our comments for 3.6.3.j
5. *Active investment management* – Discussed in our comments for 3.6.3.d.
6. *Is the guidance in 3.15.6 on expert advice clear and sufficient?* Yes. We have no further comments on this section.
7. *Conservatism* – Conservatism is a factor to consider within the overall measurement purpose, objectives and context and the evaluation of reasonability. Disclosure of the measurement context and the supporting rationale for the choice of assumption in that context should be sufficient.
8. *Rationale for changes* – Discussed in our comments for 4.1.2.

Comments on specific sections of the exposure draft

Section 1.2, Scope. Clarify that the plan sponsor may be ultimately responsible for selecting the assumptions, within the constraints imposed by the relevant accounting standards or statutory requirements.

1.4, Effective date. Using a “valuation date” standard is more practical cutoff for the effective date than a “work produced” standard. A valuation might consist of many components that are produced over an extended period of time – for example, funding results might be produced during a plan year, but the calculations for the audit report that gets attached to the form 5500 might not be done until 9 months into the next plan year. It does not make practical sense for different standards to apply to different parts of the same valuation just because they happen to be produced at different points in time.

2, Definitions. It would be helpful to add definitions that distinguish among assumptions, current market estimates and plan provisions. For example:

*Assumption: an estimate of the amount, timing or likelihood of a **future** cash flow or market price*

*Current market estimate: an observation or estimate of **current** market conditions or prices.*

Plan provision: part of the terms of a plan for calculating a benefit or optional form of payment.

These related, but separate concepts, are often blended together under the general umbrella of “assumptions”. It would be beneficial for actuaries to distinguish these concepts within valuation models since a particular item might embody two or more concepts in the context of the same model. For example, a plan provision might call for using a particular market rate, and the actuary might have to make an assumption about what that market rate will be in the future and whether it is appropriate to use something different from the market rate at the valuation date.

2.5, Prescribed assumption. clarify that a prescribed assumption is a specific assumption that is mandated or selected by a principal ...

2.7, 2.8, 2.9, Real return, real risk-free return, risk premium. these sections are not needed and can be deleted.

3.1, Overview. Revise language to be consistent with the sharpened distinction amongst assumptions, current market estimates and plan provisions as outlined above. For example,

In order to measure a pension obligation, the actuary will need to choose or evaluate assumptions underlying the obligation and may also need to make estimates of current market conditions. The actuary needs to use professional judgment in choosing or evaluating economic assumptions. When the actuary chooses an economic assumption, the actuary should choose a reasonable assumption. ~~Assumptions can be based either on the actuary’s estimate of future experience or on the actuary’s observation of the estimates inherent in financial market data, depending upon the purpose of the measurement.~~ An assumption based ~~on that~~ estimates of future experience is reasonable [if it is not anticipated to produce significant cumulative gains or losses over the measurement period]. ~~An assumption based on~~ estimate or observation of current market observations is reasonable if it conditions should fairly reflects current financial market data.

We also have concerns about the reasonableness standard for assumptions, bracketed in the text above. Economic experience can be quite volatile, and at any point in time, the accumulated gain or loss could be significant; that fact should not be taken out of context to suggest that the assumptions are unreasonable. Although anticipating that future compound average growth rates will converge to some median value over longer time periods might be one of the desirable attributes for assessing reasonability *a priori*; the potential range of dollar amounts actually accumulated grows ever larger as the time period grows longer. This divergence of the dollars accumulated (and by extension, the dollar amount of cumulative gains and losses) makes a “no cumulative gain or loss” standard a poor tool for assessing the reasonability of the assumption *ex post*, and we fear that focusing only on one aspect of reasonableness could be misleading. This is a problem with any stochastic compounding process: average rates may converge over time, but total accumulations diverge.

Thus, it may not be possible to define “reasonable” in a single sentence when what is needed is a judgmental balancing of a variety of relevant facts, circumstances, factors, nuances and shades of gray. Perhaps the entire definition of reasonable should become its own section that provides a collection of factors that might be considered, with no single factor necessarily being determinative, nor necessarily appropriate for every use or application. For example:

- No significant cumulative gains or losses anticipated over the measurement period, considering the difference between long-term expected value vs. likelihood of gains and losses
- A specific acknowledgment of the potential range of outcomes, and how they compare to the assumption. This might include a discussion that short-term accumulated gains or losses could be significant, but not necessarily an indication of an improper assumption; in the short term, significant accumulated gains and losses are possible, but under a reasonable assumption they would not be expected to be unduly persistent over the long-term measurement period.
- No significant bias expected
- How is reasonability assessed for the assumptions in the models used to evaluate or select the valuation assumptions?
- What are the facts, logic and reasoning that support the choice of assumptions?
- Would the assumption be generally accepted as being plausible?
- What is the purpose and context of the particular measurement?
- What is the objective of the measurement?

- Are the consequences for experience being different from assumption asymmetric for gains and losses? Does that subjectively influence the choice of assumption to qualitatively reduce the likelihood of the more severe consequence?

3.3.d, long-term historical data, and the sentence following. This language doesn't belong in general considerations, it should be moved to 3.4, Selection process. Section 3.4 would then include the following steps:

- a. identify components
- b. identify and evaluate relevant data, which may include recent and appropriate long-term historical data, as well as forward-looking data or assumptions from other sources. The actuary will need to exercise judgment to determine what weight to accord to the various data sources, according to the context and purpose of the measurement. No single element, including recent experience, should be unduly weighted.
- c. develop a reasonable assumption
- d. evaluate all assumptions for consistency

3.5.2, "Select" and "ultimate" inflation rates. Clarify that the actuary may assume a single inflation rate or select and ultimate inflation rates in lieu of a single inflation rate.

3.6, Investment return. Add individual asset class return, volatility and correlation with other asset classes, as well as portfolio volatility, to the list of factors that are typically considered when constructing an investment return assumption.

3.6.3.a, Investment policy. the actuary should consider whether and how the investment policy is expected to change during the measurement period. In addition, the actuary should consider the effect of any known or agreed to dynamic changes in policy.

3.6.3.b, Reinvestment risk. It is not clear that this section adds value as is; we recommend that it be deleted. If fixed income securities need to be singled out, a much fuller discussion of the issues is needed – including limiting the discussion to matching portfolios, and addressing the fact that expected return of a fixed income portfolio is not necessarily the same thing as its yield.

3.6.3.d, Investment Manager Performance. Clarify as shown below:

The actuary should not assume An assumption about returns that superior or inferior returns will be achieved, net of investment expenses, from an active investment management strategy compared to a passive investment management strategy unless the actuary has reason to believe, should be based on relevant supporting data including the additional expenses incurred with an active investment management strategy, ~~that~~ such that any superior or inferior returns for an active strategy represent a reasonable expectation over the long term.

The relevant data supporting an assumption that an investment manager will outperform the market may require several difficult to evaluate implicit assertions, including:

- That the manager has access to better information than the market (or a better predictive model than the market),
- That such an advantage can persist over long periods of time and not be arbitrated away by other market participants or diluted by the size of the portfolio being managed,
- That the advantage can be institutionalized and is not the result of one individual's insights, and
- That the manager will continue to manage the plan's assets over a long period of time.

3.6.3.e, Investment expenses. Clarify to include all expenses (both investment and administrative) paid from plan assets that are not otherwise accounted for, and note that assumed expenses paid from investment return should coordinate with the requirements under ASOP 35. Assumed expenses should also take into account both those items that are specifically identified as "expenses" in trust statements, plus estimates of those costs that may be hidden in fund net asset values or the buy/sell spreads on portfolio trades.

3.6.3.j, Arithmetic vs. Geometric Return. As written, this section is confusing, and does not tie to the reasonableness criteria outlined above. We suggest the following revisions:

Arithmetic return for an asset class or portfolio is the arithmetic average of ~~observed~~ returns for that asset class over several individual periods of time (usually several one year periods). Geometric return for an asset class or portfolio is the periodic return that, if compounded over the ~~observed~~ entire measurement period of time, would reflect the actual asset growth over the ~~observed time~~ period; it includes, either explicitly or implicitly, the arithmetic returns, the volatility of those returns and the effects of diversifying and rebalancing the portfolio. ~~The use of an investment return assumption based on a geometric return, either by itself or in combination with an arithmetic return, is reasonable.~~ The reasonableness of the

choice between arithmetic or geometric return will depend, in part, on the measurement model, and whether returns are being measured for a single or multiple periods.

3.6.4.b, Obligations Covered by Designated Covered Assets. Investment returns have nothing to do with obligations – that question should be addressed with discount rates. This paragraph should be rewritten to focus on allowing separate investment returns for separate pools of assets, for example, those assets that are dedicated to a particular stream of benefit payment cash flows or segregated insurance contracts owned by a pension plan.

3.6.5, Form of benefit. This section would be better if the references to “investment return” were changed to “**discount rate**” and it were moved in its entirety to 3.9.4, Variable Conversion Factors. Once moved, clarify that the actuary should consider whether the measurement purpose calls for an assumption about future conditions or an observation of current market rates / prices.

3.7.a, Contribution Budgeting. Clarify that the actuary may choose among several discount rates, **depending on the context and particular needs.** It may also be appropriate to move the existing 3.6.4.b here (before our suggested amendment above), after changing “investment return rate” to “discount rate.”

3.7.b, Defeasance or Settlement. We suggest amending this section as follows:

*An actuary measuring a plan’s present value of benefits on a defeasance or settlement basis ~~may~~ **should** use a discount rate **and other assumptions equal to consistent with current or estimated** rates implicit in annuity prices or other settlement options.*

3.7.c, Market Measurements. We suggest amending this section as follows:

*An actuary making a market measurement ~~may~~ **should** use a set of discount rates based on **currently observed or estimated** market yields for **actual or hypothetical bond portfolio fixed income investments or yield curves** whose cash flows reasonably match the pattern of benefits that are expected to be paid in the future. The type and quality of ~~bonds in the hypothetical portfolio~~ **fixed income investments or yield curve** may depend on the particular type of market measurement.*

3.7.d, Pricing. We find this section confusing; “obligations with similar characteristics in financial markets” don’t exist. If what is intended here is a general statement that different discount rates could be selected for different calculations done for different purposes, then that statement could be made much more simply and directly.

3.8.2.d, Compensation Volatility. Clarify that the average of bonuses over the last 3 years should include an appropriate adjustment for wage inflation, plan design or other factors, if any, consistent with the overall goal of estimating future compensation on which benefits will be based.

For example, if bonuses were \$100,000, \$50,000 and \$75,000 over the past three years an appropriate adjustment might be to increase the \$100,000 by two years’ salary scale and the \$50,000 by one year’s salary scale before averaging the three payments together.

3.8.2e, Expected Plan Termination. Should this also apply to plan freezes? Also, we suggest that expected plan termination should be a factor that applies to the context for setting *all* assumptions, not just the compensation scale assumption.

3.8.3, Multiple Compensation Scales. Clarify that the actuary may use a single compensation scale or multiple compensation scales in lieu of a single compensation scale. In addition, single age-based scales should be specifically identified as an acceptable example.

3.9.2, Cost of living adjustments. Clarify that adjustments apply to certain IRC limits.

3.9.3, Growth of Individual Account Balances. We recommend including in this section a discussion of optionality (greater-of two or more credit rates) and the complex valuation issues for floor-offset plans. Although we don’t expect the ASOP to reach conclusions on what standard practice is, it would be helpful to review the dimensions of the problem as issues the actuary should take into account when selecting these assumptions, and balancing those assumption choices against the interplay with other assumptions and the measurement context.

3.11, Consistency among Economic Assumptions Selected by the Actuary. The first sentence may need to be clarified to permit an actuary to utilize different assumptions on different projects, with different contexts and measurement purposes. Also, the wording, “selected by the actuary over the measurement period,” could be interpreted to bind the

actuary to the selection for an extend period of time, and not what we believe is intended, that the assumptions selected by the actuary for a particular measurement be evaluated for consistency based on how those assumptions interact over the entire measurement period. It is also important to note that economic assumptions may also need to be evaluated for consistency relative to the demographic assumptions, and that the measurement period may not be identical for all assumptions. (For example, the measurement period for a compensation assumption for a plan that is freezing in 5 years may be very different from the measurement period for either the discount rate or the expected return on plan assets.).

In addition, the “constant difference” method described at the end of the section has been widely discredited and should be removed in its entirety. We suggest deleting all the text beginning with, “~~If one particular economic assumption~~” and ending with “~~... constant differences would not be appropriate.~~” The deleted text would be replaced with: “**At each measurement the actuary should reevaluate both the individual assumptions and the relationships among them and make appropriate adjustments.**”

Clarify the last sentence dealing with prescribed assumptions to add, “**However, if such inconsistencies present a distorted or misleading picture, the actuary should disclose those inconsistencies and their effect.**”

3.15.4, Rounding. Clarify to indicate that if the actuary chooses a rounded assumption, it is the selected assumption (after rounding) that must be tested for reasonableness, and that the rounding convention should be disclosed. The section should not imply that it is acceptable to select a reasonable assumption on an unrounded basis and then round after the fact. We do not feel that it is appropriate to create elaborate rules on what degree of rounding is permitted; testing the rounded result against a reasonableness standard and appropriate disclosure should be sufficient.

4.1.2, Rationale for assumptions. We suggest replacing the entire section with:

The actuary should directly or by reference to a previous report, such as an experience study, describe the information and analysis used in selecting each significant economic assumption that was not prescribed.

This approach is consistent with the revised ASOP 41; the language proposed in the exposure draft could appear to create an excessive amount of additional work, especially since the entire section 4.1 is prefaced by, “in addition to the requirements of ASOP 41.”

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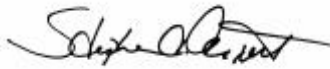
Again, we commend the ASB on the significant progress made in this exposure draft and encourage extending that work to its logical conclusion, as we have outlined above.

We are available to answer any questions concerning this material.

Sincerely,



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