May 6, 2011

ASOP No. 27 Revision
Actuarial Standards Board (ASB)
1850 M Street, Suite 300
Washington, DC 20036-4601
comments@actuary.org

RE: Proposed Revision of Actuarial Standard of Practice (ASOP) No. 27

To Whom It May Concern:

The Pension Committee of the American Academy of Actuaries[1] appreciates the opportunity to provide comments on the Actuarial Standards Board's proposed revision of ASOP No. 27, *Selection of Economic Assumptions for Measuring Pension Obligations.*

Our responses to the questions in the proposed revision are as follows:

1. Is the language in section 3.1 of ASOP No. 27, indicating that 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, clear? Do you agree that either approach produces a reasonable assumption? If not, what change do you suggest?

The language regarding basing assumptions on estimates inherent in financial market data should be clarified. The practice of basing assumptions on estimates of future experience is intuitive, widely understood and of general applicability. The practice of basing assumptions on "observations of the estimates inherent in financial market data" is much less well understood. The standard should provide examples of those specific assumptions for which this latter approach is appropriate. See recommended revisions to section 3.1 below.

2. Section 3 clarifies that there is no explicit link between an investment return assumption and discount rate. Does this create challenges for any existing actuarial processes? If so, please provide a description of the actuarial practice and how the new standard creates a problem. Is the removal of the material in section 3.6.2 of the current standard, which addresses the building-block method and the cash flow matching method, appropriate? Are the examples in section 3.7 of ASOP No. 27 sufficient to communicate the various purposes for which actuaries may need to choose a discount rate?

Asserting "no explicit link" between the investment return assumption and a discount rate overstates the degree of separation between the two. It therefore may create challenges in

[1] The American Academy of Actuaries is a 17,000-member professional association whose mission is to serve the public on behalf of the U.S. actuarial profession. The Academy assists public policymakers on all levels by providing leadership, objective expertise, and actuarial advice on risk and financial security issues. The Academy also sets qualification, practice, and professionalism standards for actuaries in the United States.

actuarial practices (particularly those outside the single-employer corporate practice) for which the discounting of benefit cash flows arises solely from the intent to anticipate investment returns on the pool of invested assets that supports the benefit cash flow. Rather than removing the link, the standard should note that depending on the context, discount rates may be based on expected returns on an actual pool of assets, on returns on hypothetical asset pools, or on current market yields.

We believe that the most useful and general framework is that there are two distinct bases or purposes for setting a discount rate: either to anticipate investment earnings or to reflect the yields implicit in current market price measurements. We have recommended a revision to section 3.7 below that begins with this distinction and then provides measurement examples for each of these two types of discount rates. For example, settlement and defeasance values would use a market-based discount rate while funding costs and some accounting costs may use an expected earnings based discount rate. Cost studies (which we believe is a more appropriate phrase than "pricing," which is used in the exposure draft) similarly would use a discount rate consistent with the purpose of the cost study.

Note that this helps clarify an inconsistency in the examples in section 3.7, since "market measurement" is more a technique of measurement reflecting the purpose of the discount rate (i.e., to reflect current market conditions), while budgeting, defeasance and pricing are actual purposes of the measurement itself.

As to terminology, also in section 3.7, we suggest that "market measurements" should be changed to "market-consistent measurements," both for consistency with the current ASOP No. 4 discussion draft and to reflect that these "market measurements" of pension obligations often are not actual market prices for traded financial instruments.

In section 3.6, the first sentence, "The investment return assumption reflects the anticipated returns on the plan's current and future assets" (emphasis added) should be amended to read: "The investment return assumption reflects the anticipated returns on the plan's current and/or future assets depending upon the purpose of the measurement." It may not be appropriate for many measures to reflect assets related to future contributions or benefit accruals in developing an investment return assumption.

See recommended revisions to section 3.7 as well as section 3.6 below.

3. Do you agree that a reasonability standard is an appropriate way to set economic assumptions? If not, why not?

Yes, we believe that a reasonability standard is a more appropriate way to set economic assumptions than determining a best-estimate range and selecting a specific point from within that range.

4. Do you agree that the guidance on arithmetic and geometric returns is appropriate?

The language in section 3.6.3(j), perhaps unintentionally, appears to express a bias towards the use of a geometric-based return assumption. We believe that the language should be modified to clarify that both arithmetic and geometric are permissible, and that either may be appropriate depending on the purpose and application of a given return assumption.

We also note that the *Background* section of the draft includes information intended to educate users about some statistical considerations related to the use of geometric- vs. arithmetic-based experience data and assumptions. The use of geometric and arithmetic returns in the selection of an appropriate basis for assumption-setting is a complex issue, and the information provided is by no means sufficient to address all of the relevant considerations. We believe that an appropriate handling of the subject requires more comprehensive treatment in a publication more broadly focused on informing actuaries about the considerations involved in making appropriate methodology decisions, i.e., an Academy practice note. We also note that the stated purpose of the ASOP no longer includes "education" of actuaries. For these reasons, we recommend that the ASOP itself not include any commentary about the issues related to the use of geometric vs. arithmetic means beyond an identification of the two alternative approaches and a statement that either approach may be appropriate under certain circumstances. The Pension Committee of the Academy then can undertake the prospect of developing a detailed practice note to help inform actuaries on this issue.

Should the consequences of the use of geometric or arithmetic returns be disclosed?

It may be appropriate to require the actuary to disclose whether the underlying basis for a given investment assumption reflects an arithmetic or geometric mean of an underlying distribution as well as the rationale for the approach that is employed if that approach has changed. We do not believe, however, that it is appropriate to require quantification of the "consequences" related to the assumption basis selected vs. the basis not selected. In setting assumptions, economic or otherwise, there are many possible options from which the actuary must choose. There is no compelling reason that this particular choice should be singled out for special disclosure that is not required of other assumption decisions. See further discussion on disclosure of assumptions below in our comments on section 4.1.2.

5. Do you agree the guidance in section 3.6.3(d) regarding active investment management is appropriate?

Yes, we believe this guidance regarding active investment management is appropriate.

6. Is the guidance in section 3.15.6 on the use of expert advice clear and sufficient?

We believe the guidance regarding the use of expert advice should be revised. See our comments below on section 3.15.6.

7. Do you agree that it may be appropriate for the actuary to include conservatism in his or her assumptions? Are the disclosure requirements for a conservative assumption sufficient?

We believe there are situations in which it is appropriate for the actuary to include conservatism in an assumption and that the disclosure requirement when conservatism is included is sufficient.

8. Do you agree it is appropriate to require the actuary to provide rationale for assumptions or changes in assumptions? If so, do you agree that the proposed changes represent the appropriate approach?

While we agree that providing rationale for assumptions and changes in assumptions is generally a good or even "best" practice, we do not believe it should be a minimum requirement. We believe that required disclosures about rationale should be limited to assumption changes. See our comments below on section 4.1.2.

In addition, we have several thoughts on specific sections of the proposed revision:

ASOP Title

The draft ASOP currently is titled "Selection of Economic Assumptions for Measuring Pension Obligations." This terminology may be inappropriately limiting given the various other applications for economic assumptions, e.g., for developing annual pension expense and contributions amounts, and in pension forecasting. As a result, we suggest changing the title of the standard to incorporate more general language that better reflects the broad range of uses, such as "Selection of Economic Assumptions for Pension Valuations."

1.4.1 Effective Date

This draft standard indicates it will be effective for any actuarial work product covered by this standard's scope produced on or after four months following the standard's adoption by the ASB. The effective date should be implemented under a more definitive determination period such as the measurement date on or after four months following adoption by the ASB. Actuarial work may be produced in draft form and become an Actuarial Communication at some later date, and should be allowed to do so without modification. This will enable actuaries and actuarial consulting firms to provide consistent advice to comparable clients.

2.6 Productivity Growth

Other than renumbering, this section is unchanged from the current ASOP No. 27 section 2.7 definition. Subsequent sections of the exposure draft may create some justification for revising this definition. In particular, sections 3.8, 3.8.1(d), and 3.9.1 make use of the term productivity in related contexts. In section 3.8, the usage refers more to the broad population than to a group. In section 3.8.1(d), the text should refer to historical national wage increases and productivity growth, unless "productivity increases" has an intentional difference in meaning. If this is the case, the text should state the difference. In section 3.9.1, again, there should be more of a contextual explanation or distinction. It is more common for productivity growth to relate to overall macroeconomic change in wages attributable to productivity rather than an approach that isolates a group. The definition of productivity growth, therefore, may need to expand to refer to national productivity first and then to the consideration of any long-term influence specific to the group.

2.7 Real Return

This definition is unnecessary in the current form of the exposure draft since it no longer is referred to in subsequent sections.

2.8 Real Risk-Free Return

This definition is unnecessary in the current form of the exposure draft since it no longer is referred to in subsequent sections.

2.9 Risk Premium

This definition is unnecessary in the current form of the exposure draft since it no longer is referred to in subsequent sections.

3.1 Overview

As noted above in Question 1, we recommend the following replacement for the second paragraph of section 3.1:

"Economic assumptions are generally based on the actuary's estimate of future experience. Except as specifically allowed in this standard (i.e., risk-related or other adjustments for conservatism, or the use of an earnings assumption based on arithmetic- vs. geometric returns), an assumption based on estimates of future experience is reasonable if it is not anticipated to produce significant cumulative gains or losses over the measurement period.

Depending upon the purpose of the measurement, some assumptions can be based on the actuary's observation of the estimates inherent in financial market data. These assumptions include discount rates based on current fixed income market yields by duration ("yield curve") and inflation assumptions inherent in the market pricing of inflation-sensitive securities. An assumption based on market observations is reasonable if it fairly reflects current financial market data."

3.2 Identifying Types of Economic Assumptions

Item (d) of this section identifies an assumption as "compensation scale." We believe the use of this phrase is a bit outdated, and perhaps overly limiting, as the assumption is not always in the form of a scale that change. One example of this would be as a participant's age changes. We believe instead the phrase more currently used and more descriptive is "compensation increase assumption."

3.6 Selecting an Investment Return Assumption

As noted above in Question 2, we recommend the following change to section 3.6:

"The investment return assumption reflects the anticipated returns on the plan's current and/or future assets depending upon the purpose of the measurement. This assumption is typically is constructed by considering various factors including, but not limited to: the time value of money, inflation and inflation risk, illiquidity, credit risk, macroeconomic conditions, and growth in earnings, dividends, and rents."

3.6.3 Considerations

As we understand it, the investment return assumption is intended to reflect a reasonable—and presumably unbiased—estimate of the anticipated returns as relevant for a given pension plan, measurement approach and assumption application. This understanding is consistent with the understanding of an "estimate of future experience" that is defined as reasonable to the extent that it is "not anticipated to produce significant cumulative gains or losses over the measurement period" (section 3.1).

While issues related to risk adjustments or other adjustments for conservatism may be appropriate for consideration in many applications, we therefore believe that any such adjustments should be identified as separate and apart from the primary "estimate of future experience." The current list of considerations is unclear in this regard due to the three references to "risk" and "volatility" that are included in Items b, c and g.

If the actuary concludes that, in a given application, the level of anticipated volatility is such that an adjustment for risk is appropriate, we believe that implies an exception to the "estimate of future experience" aspect related to the assumption, i.e., the assumption may now—and intentionally—be anticipated to produce significant cumulative gains or losses. We believe, accordingly, that any discussion with regard to adjustments to the primary estimate—whether an adjustment for risk or any other purpose—should be included in section 3.15 *Other Considerations* and not in this section.

3.6.3(b) Reinvestment Risk

Beyond the considerations noted above related to the "risk" involved in reinvestment, a portion of the investment return assumption will in many cases be dependent on an expectation of rates of return available upon reinvestment. Accordingly, we suggest that the title of the section be changed to "expectations for reinvestment."

3.6.3(j) Arithmetic versus Geometric Returns

As noted in our response above to Question 4, the current language in this section states that an investment return assumption should be "based on a geometric return, either by itself or in combination with an arithmetic return." We suggest that the wording be revised to state that either approach may be appropriate, depending on the purpose and application of the measurement.

3.6.5 Form of Benefit

This section discusses the measurement of the obligation in cases in which the plan defines factors used for converting to alternative payment forms. The second sentence reads, "The actuary should reflect such required interest rates in determining the amount of benefits expected to be paid, rather than as an adjustment to the investment return rate used to measure the obligation." In the next immediate section of the exposure draft, the discount rate is defined as the rate used to measure the obligation. While the investment return may be used as the discount rate, this is not necessarily the case under the proposed structure. As a result, there are two possible interpretations of the draft language:

1) In cases in which the investment return is used to discount the obligation, assumptions used to convert to alternative forms of payment should be identified separately and used to determine the amounts of those payments; or

2) This language was intended to apply more generally to separate the discounting of payments from the estimate of the amount of those payments.

If the first interpretation was intended, we believe that the approach described is reasonable. It may make sense, however, to clarify that this consideration applies specifically to the situation in which payments are discounted based on the expected investment return.

If the second interpretation was intended, then the discussion is misplaced and probably should be moved to section 3.15—Other Considerations. But in cases in which the plan's conversion basis adjusts for changes in economic conditions—so that the value of two different forms of payment have a definable relationship to one another based on the discount rate(s)—it may be reasonable to measure the value of one form of payment as a function of the value of another form of payment. One example is a plan that determines the lump sum payment as the value of an annuity benefit calculated using the statutory requirement for plans subject to ERISA. If both the lump sum conversion basis and the discount rate are based on similar high quality corporate bond yields, it would be reasonable to determine the value of the lump sum as the value of the equivalent annuity (with appropriate adjustment for factors such as differences in the mortality basis) without explicitly identifying the lump sum amount expected to be paid. While this approach would produce a reasonable estimate of the obligation, it may not provide a reasonable estimate of other relevant factors, such as the timing of cash payments.

3.7 Selecting a Discount Rate

As noted above in Question 2, we recommend the following change to section 3.7:

"The discount rate is used to measure the present value of expected future plan payments. The discount rate may be a single rate or a series of rates, such as select and ultimate discount rates or duration-based, such as derived from a yield curve.

The actuary should consider the purpose of the discount rate and of the related measurement as a primary factor in choosing a discount rate. Discount rates generally are determined to accomplish one of two purposes: to anticipate investment earnings or to reflect current market conditions. Examples of measurement techniques and purposes appropriate for these types of discount rates are as follows:

a. Anticipating Investment Earnings—Discount rates that anticipate future investment earnings should be determined in accordance with section 3.6.

   – As an example, an actuary determining the current or expected future funding cost (contributions) or evaluating the expected sufficiency of a plan's contribution policy may use a discount rate that reflects the anticipated investment return from the pension fund.

   – An actuary determining the accounting cost (expense) in a situation in which accounting expense is determined based on expected returns similarly may use a discount rate that reflects the anticipated investment return from the pension fund.

   – As an alternative, if the funding or accounting cost is to be determined on a market-consistent basis then the actuary may use discount rates appropriate to such measurements, in accordance with section 3.7(b).

b. Market-Consistent Measurements—An actuary making a market-consistent measurement may use a set of discount rates implicit in the market prices of instruments with cash flow patterns or durations similar to the obligation being measured. Such discount rates, for example, could be based on market yields for a hypothetical bond portfolio 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 may depend on the particular type of market measurement.

Market-based discount rates, alternatively, may be based on the application of current fixed income yields by duration (yield curve)

- As an example of a market-consistent measurement, an actuary measuring a plan's present value of benefits on a defeasance or settlement basis may use a discount rate based on rates implicit in annuity prices or other settlement options.

Within this framework, certain measurements may call for a combination of approaches. For example, an actuary might estimate future cash contributions required to maintain a targeted funding level for a private employer plan. This projection will use expected return up to the measurement date as well as an assumption about future bond yields (a future market-consistent measurement).

Cost studies—An actuary measuring the cost of plan amendments should use a discount rate consistent with the purpose of the cost study. For example, if the objective is to determine a plan sponsor's future contributions necessary to support the plan amendment, an investment return assumption such as described in section 3.7(a) above may be used—unless the contribution budgeting protocol calls for the use of a market-based measure. If the objective is to determine a market-consistent value for the impact of the plan amendment, a market-consistent rate such as described in 3.7(b) above may be used.

The present value of expected future pension payments may be calculated to address a range of perspectives, recognizing that different parties may have different measurement purposes. For example, the present value of expected future payments could be calculated from the perspective of the entity responsible for funding the plan, the plan participants, or an outside creditor. The outside entity, such as a creditor, may desire a discount rate consistent with other measurements of relevance to that entity even though those other measurements may not be otherwise relevant to the entity funding the plan."

3.8 Selecting a Compensation Scale

This is primarily if not entirely unchanged from the existing section 3.7, other than the deletion of section 3.7.2—Constructing the Compensation Scale Range." As indicated in the comments under section 2.6, section 3.8.1.d. should be changed to "historical national wage increases and productivity growth," unless productivity increases has an intentional difference in meaning. If this is the case, the text should state the difference. It is more common for productivity growth to relate to overall macroeconomic changes in wages attributable to productivity rather than an approach that is limited to a group. It is a more typical practice to consider differences related to a specific group as measurement-specific factors.

Finally, similar to the comment made for section 3.2, the section should be titled "Selecting a Compensation Increase Assumption." The opening paragraph sentence, "The assumption used to measure the anticipated year-to-year change in compensation is referred to as the *compensation scale*," (emphasis added) is antiquated and redundant. If the sentence is retained, "compensation scale" should be changed to "compensation increase assumption." The following sentence in that paragraph more appropriately should end with the statement, "…consistent with the productivity growth component."

3.11 Consistency among Economic Assumptions Selected by the Actuary

We agree with the first sentence of the first paragraph, which states:

> "With respect to any particular measurement, each economic assumption selected by the actuary should be consistent with every other economic assumption selected by the actuary over the measurement period, unless the assumption, considered individually, is not material, as provided in section 3.15.2."

We have some concerns, however, with the second sentence of this paragraph, which states:

> "Often this requirement can be met by using the same inflation component in each of the economic assumptions selected by the actuary."

We realize that this language was not changed from the prior version of the ASOP. The emphasis on the inflation assumption, however, may give the impression that consistency generally can be achieved simply by maintaining consistency among the underlying inflation components of economic assumptions. But there are other factors that also should be considered. We would recommend the following modification to the existing language:

> "There are a number of factors that may interact with one another and that may be components of other economic assumptions, such as inflation and economic growth. This requirement often can be met by using the same inflation, economic growth and other relevant components in each of the economic assumptions selected by the actuary."

3.15 Other Considerations

Consistent with the comments above for section 3.6.3, the list of considerations should be expanded to include references to risk-related adjustments that may be made to the primary assumption that reflects a "reasonable estimate." This reference either could be included in the current section 3.15.1 labeled "Conservatism" or a separate subsection could be created and labeled "Risk-Related Adjustments," in which case the existing section 3.15 probably should be relabeled "Other Adjustments for Conservatism."

3.15.5 Subsequent Events

Although the language in this section (other than the title) remains unchanged from the previous version of the ASOP, we believe that this language is too restrictive. For example, it implies that the only events occurring after the measurement date that may be reflected are those that are "unique to a plan or plan sponsor." While certain prescribed measurements may require that events subsequent to the measurement date be disregarded, reflecting such events may improve the measurement for other purposes. We recommend the following language in place of the current language:

"The economic assumptions selected to measure pension obligations generally should reflect the actuary's knowledge base as of the measurement date. There may be circumstances, however, when it is appropriate, in light of the purpose of the measurement, to reflect events that occur between the measurement date and the date results are reported. For example, the actuary may learn of an event that is unique to a plan or plan sponsor (such as plan termination or death of the principal owner) occurring after the measurement date that would change the economic assumption selected. In addition, the usefulness of a projection of required contributions for future years may be improved by reflecting known changes in asset returns or other market conditions that

occur between the measurement date and the date results are presented. As long as it is not inconsistent with the purpose of the measurement the actuary, with appropriate disclosure, may reflect such changes as of the measurement date."

3.15.6 Advice of Experts

We believe that the title of this section is not well-aligned with the text since the information on which the actuary may be relying on is not restricted to advice. We recommend changing the title to "Reliance on Other Experts." We also suggest adding investment advisors, other actuaries and economists to the current list of possible experts.

4.1.2 Rationale for Assumptions

As noted above in the answer to Question 8, we agree that providing rationale underlying the selection of assumptions may be a good practice, or even a best practice in some cases. But we do not believe it should be a requirement except in circumstances in which the assumption is being changed. In addition, since we believe that there are circumstances in which providing a detailed rationale might risk disclosing information viewed as confidential by the plan sponsor, it would be helpful to note that under such circumstances, the description of the rationale may be limited to avoid such disclosure. We believe that adding this language avoids a potential conflict with Precept 9 of the Code of Professional Conduct.

Note that actuarial reports already are burdened heavily with large sections of standard disclosures that the typical user or reader may not find useful or helpful—a situation that may be counterproductive in that it reduces the level of attention paid to all of the information in our reports. The typical actuarial report is prepared for the plan sponsor and the rationale for assumptions is often not necessary for the sponsor's understanding of the report. The typical actuarial report generally is not prepared for other audiences, such as the plan's auditor, and any additional information required by a plan's auditor can be provided separately or upon request. It is important for an actuary to select the specific assumptions used for a particular measurement as noted in section 3.13. But in most cases, limited value is provided to our clients by repeating pages of information supporting the continued use of valid assumptions as employed in a prior measurement.

We understand that there may be some circumstances in which an actuary may see a need to provide rationale for not changing an assumption, such as cases in which there is a change in the conditions on which the assumption relies (e.g., a change in asset investment mix that does not result in a change to the expected return on assets assumption). In addition, a change only in the plan's actuary or actuarial consulting firm should not constitute a change in assumptions for this purpose.

4.1.4 Changes in Circumstances

We believe that the current phrasing is too broad: "…that would change the economic assumption selected." The use of the term "would" implies that the actuary is required to provide an update of current market circumstances even if these ultimately were not deemed sufficient for a change in assumptions to be made. In addition, economic circumstances are changing constantly and the need to review those circumstances, often right up to the minute the actuary issues the report, is burdensome and impractical. We believe there should be only be a required disclosure of changes in circumstances if the

actuary used the change in circumstances as a basis to modify the assumptions used after the measurement date.

4.2 Prescribed Assumption(s)

To be consistent with section 3.2 earlier in the exposure draft, this section also needs to include a reference to ASOP No. 41 in addition to the reference to ASOP No. 4.

The Pension Committee appreciates the opportunity to comment on this matter and would be happy to discuss any of these items with you at your convenience. Please contact Jessica M. Thomas, the Academy's pension policy analyst (202-785-7868, thomas@actuary.org) if you have any questions or would like to discuss these items further.

Sincerely

John H. Moore, FSA, MAAA, EA, FCA
Chairperson, Pension Committee
American Academy of Actuaries