



AMERICAN ACADEMY *of* ACTUARIES

May 31, 2012

ASOP No. 27 Revision
Actuarial Standards Board
1850 M Street, NW, 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 Actuaries¹ appreciates the opportunity to provide comments on the Actuarial Standards Board's (ASB) proposed revision of ASOP No. 27, *Selection of Economic Assumptions for Measuring Pension Obligations*. The Academy has groups spanning various practice areas that can offer different perspectives on issues. The Academy's Joint Committee on Retiree Health will also be submitting comments on this Exposure Draft.

In general, we believe the ASB addressed many of the points raised in our letter of May 6, 2011. There are several areas, however, on which we still would like to provide comments.

1.1 Purpose

Since the inflation assumption is also a significant assumption discussed in this ASOP and as it influences many of the other assumptions discussed in this ASOP, we believe it is important to add to the list of assumptions in Paragraph (a).

1.2 Scope

We note that the second and third paragraph of this section are not worded consistently and suggest the following changes for consistency:

“To the extent that the guidance in this standard may conflict with ASOP Nos. 4 or 6, ASOP Nos. 4 or 6 will govern. If a conflict exists between this standard and applicable law (statutes, regulations, and other legally binding authority), the actuary is obligated to comply with the applicable law.

¹ The American Academy of Actuaries is a 17,000-member professional association whose mission is to serve the public and 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.

If the actuary departs from the guidance set forth in this standard in order to comply with applicable law or for any other reason the actuary deems appropriate, the actuary should refer to section 4.”

3.5.4 Rounding

It is unclear how the unbiased rounding technique provision in this section should relate to the materiality provision in Section 3.5.2. Since the materiality provision appears to be an overarching principle, this lack of clarity can be addressed by changing the last sentence of Section 3.5.4 to the following:

“In such cases, the rounding technique should be unbiased, unless the bias of the rounding technique is not expected to produce materially different results.”

3.5.5 Changes in Circumstance

We are concerned that this section as drafted could result in actuaries perceiving a need to reflect changes in circumstances when they are not appropriate to the purpose of a measurement. This can be clarified by changing this section to the following:

“The actuary may change the economic assumption that otherwise would have been selected due to an event occurring after the measurement date if such a change is appropriate for the purpose of the measurement. For example, a collective bargaining agreement ratified after the measurement date may lead the actuary to change the compensation increase assumption that otherwise would have been selected.”

3.6 Selecting a Reasonable Assumption

While we generally agree with the changes made to Section 3.6 to define a “reasonable assumption” based on the actuary’s professional judgment, we have some concerns with Paragraph 3.6(e). As written, this paragraph could imply that a single “best estimate” assumption must be used. There is no definition of “unbiased” included in the ASOP, other than the parenthetical phrase “i.e., neither optimistic nor pessimistic.” Taken literally, this could imply that the 50th percentile of a stochastic distribution is required to be used (since any other assumption would be viewed as being either optimistic or pessimistic). There is also a concern that the wording of this paragraph might prove problematic in situations in which the actuary is developing an accounting discount rate based on an above-median portfolio of bonds (which is a fairly common circumstance and is presumably considered acceptable). In these situations, we would view the purpose of the measurement to produce an above-median result and the approach to doing that can be evaluated appropriately given that objective. In order to address these two concerns, we suggest Paragraph 3.6(e) be rewritten as follows:

“3.6. (e) It has no significant bias (i.e., it is not significantly optimistic or pessimistic) except if the objectives for the assumption (and the liability determination based on it) are consistent with a biased approach, e.g., when a provision is made for adverse deviation, when alternative assumptions are used for the assessment of risk, or when an accounting discount rate is determined based on an above-median portfolio of bonds. Note that in each

such exception, the rationale for the assumption and the incorporation of bias in its determination should be disclosed as described in Section 4.”

3.6.2 Range of Reasonable Assumptions

In general, we think the guidance in Section 3.6.2 regarding a range of reasonable assumptions is appropriate. But we believe that the last sentence could be modified slightly to clarify (along with the changes to 3.6(e) suggested above) that an individual actuary might consider assumptions as being within a reasonable range, rather than presuming that a single best estimate is being defined. We suggest the last sentence be changed to:

“As a result, a range of reasonable assumptions may develop, both for an individual actuary and across actuarial practice.”

3.8 Selecting an Investment Return Assumption

This section includes a list of factors that should be considered in determining an investment return assumption. We have some concerns that the described list might not include all of the fundamental elements that actuaries analyze in setting these assumptions, and in fact might include some terms that are either unfamiliar to actuaries or—if familiar—of less practical relevance perhaps than other factors.

In order to illustrate our concerns, we would point to the terms “time value of money,” “inflation risk” and “growth in earnings, dividends, and rents,” which while being generally meaningful economic terms, may not be ones that directly connect to the actuary’s determination of an expected rate of investment return.

We suggest that more fundamental building blocks that actuaries would typically rely on in determining an investment-return assumption include expectations for:

- Inflation
- Real cash yields
- Term premiums
- Credit spreads
- Costs related to bond defaults and downgrades
- Equity risk premiums
- Applicable expenses.

The actuary also should evaluate the impact of initial economic and capital market conditions, which might cause expectations related to the above items to be modified.

3.8.3 Measurement-Specific Considerations

In Section 3.8.3, Measurement-Specific Considerations, not all the factors listed will necessarily be considered in every development of an investment return assumption. We recommend accordingly the following replacement text for the introduction to that section:

“3.8.3 Measurement-Specific Considerations—The following are examples of factors that may be considered in developing an investment return assumption:”

Regarding Section 3.8.3.j., we support the inclusion in the ASOP of the specific discussion of arithmetic and geometric returns, including the general background in Appendix 3. We recommend that the ASOP make clear that, whether historical or forward-looking, these are two different types of *average* returns. This can be accomplished by stating so at the beginning of this section (and in Appendix 3) or, preferably, consistently using the terms *arithmetic average return* and *geometric average return* throughout this section and in Appendix 3. In addition, consideration should be given to adding a definition of these two terms to Appendix 3, or alternatively to Section 2 of the standard.

In the second paragraph of Section 3.8.3.j. the ASOP should make clear that forward-looking geometric average returns for a portfolio are not necessarily developed as described therein, and so the caution stated may not always be applicable. We therefore recommend the following amended text for second paragraph of Section 3.8.3.j.:

“In some instances, the actuary will receive forward-looking expected returns by asset class from an investment professional. The actuary should ensure that the type of forward-looking expected returns received from the investment professional is known (i.e., forward-looking expected geometric returns or forward-looking expected arithmetic returns) and that the forward-looking expected returns are used appropriately. For example, if the actuary is determining a forward-looking expected geometric return for an entire portfolio as a weighted average of the expected returns for each asset class, the actuary generally should not take the weighted average of the forward-looking expected geometric return for each of the asset classes. In this instance, to determine the forward-looking expected geometric return for an entire portfolio, the actuary should take the weighted average of the forward-looking expected arithmetic return for each of the asset classes and adjust such determination to reflect the variance of the entire portfolio.”

Consideration also should be given to moving this example to Appendix 3.

Note that the Pension Committee currently is working on a practice note to further clarify the appropriate use of geometric and arithmetic average returns.

3.8.4 Multiple Investment Return Rates

Regarding Section 3.8.4.b., Benefit Payments Covered by Designated Current Assets, we note that in at least one specific context (the Governmental Accounting Standards Board’s current Exposure Drafts) this type of Multiple Investment Return Rate calculation is based on a projection of assets, including certain future contributions as well as future benefit payments. We recommend that the example in this section be modified to encompass this type of calculation by using the following substitute text:

“3.8.4.b. Benefit Payments Covered by Designated Current or Projected Assets—One investment return rate is assumed for benefit payments covered

by designated current or projected plan assets on the measurement date, and a different investment return rate is assumed for the balance of the benefit payments and assets.”

3.9 Selecting a Discount Rate

Regarding Section 3.9, Selecting a Discount Rate, we note that in our comments on the first ASOP No. 27 Exposure Draft we recommended a substantial restructuring of this section (Section 3.7 in the first Exposure Draft). That restructuring was based on identifying two distinct types of discount rates. Here is the relevant discussion from our earlier comment letter:

“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.”

Since these comments were submitted, the ASB has released an Exposure Draft for ASOP No. 4. We note that the ASOP No. 4 Exposure Draft uses a framework very similar to what we suggested in our comments on the first ASOP No. 27 Exposure Draft to distinguish two types of present values—those based on plan assets (i.e., those in which discount rates reflect an assumed return on plan assets) and those not based on plan assets (which are based on a variety of market-derived discount rates). Given that these two types of present values are based on two similarly defined types of discount rates, consistency between ASOP No. 4 and ASOP No. 27 will be achieved best if the ASOP No. 4 framework also is used to describe the selection of a discount rate in ASOP No. 27.

Consistent with our earlier comments, we suggest that the ASB consider restructuring Section 3.9 of ASOP No. 27 to reflect that there are two primary classes of discount rates. The first are those based on the expected earnings on plan assets. These are developed in accordance with Section 3.8 of the ASOP No. 27 exposure draft.

The second class could be described simply as discount rates not based on plan assets, with market-consistent discount rates as one example of this type. This is the approach used in the ASOP No. 4 Exposure Draft. We observe, however, that discount rates that are not based on plan assets generally are derived from market observations, even if those observations may not be current or rigorous enough to be considered fully market-consistent. For that reason we recommend that the standard categorize the second class of

discount rates using some terminology that reflects that they are derived from market observations.

Here are two examples of discount rates not based on current market observations that nonetheless are derived from market observations:

- (1) A discount rate that is based on an average of market observations, such as the segment rates under the Pension Protection Act (PPA) (which are based on average rates over 24 months), or the full yield curve under PPA (which is based on average rates during a month).
- (2) Discount rates that are reviewed on a periodic schedule and thus may be somewhat outdated relative to current market conditions.

As to terminology, one approach would be to use market-consistent as the more general category, and then have the standard note that some discount rates are more market-consistent than others. Given the need for guidance on factors to consider when selecting truly market-consistent discount rates, however, that term probably should retain its more narrow meaning. In that case, we believe it still would be useful to the users of the standard to understand that the second class of discount rates are not simply “not based on plan assets,” but also generally are derived from market observations (market derived, market sensitive, and market related are all possible terms).

We note that, for present values, there is another reason that present values whose discount rates are derived from market observations may not be consistent with current market measurements—those present values may be based on other assumptions that are not market consistent. While that is more properly within the scope of ASOP No. 4, we note here that it still might be useful to categorize such values generally as derived from market observations.

Finally, while not as common as these two categories, there are some discount rates that neither are based on expected earnings nor derived from market observations, even in the more general sense. The standard should incorporate this other category as well.

Based on this discussion, here is our recommended replacement text for Section 3.9, which reflects the structure from the ASOP No. 4 Exposure Draft:

3.9. Selecting a Discount Rate—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 measurement and the type of present value being determined as the primary factors in choosing a discount rate. Discount rates (and the associated present values) generally fall into one of two types—those that anticipate investment earnings on plan assets and those that are generally based on observations of market yields and interest rates, independent of plan assets. The latter include market-consistent discount rates, which are based specifically on current observations of market yields and interest rates. Examples of measurement 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 3.8.
 - 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 3.9(b).
- b. Discount Rates Derived from Market Observations—Discounts rates that are derived from market observations may be developed so as to be consistent with specific current market conditions or may be more generally based on market observations.
 1. Market-Consistent Discount Rates—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.

2. Other Market-Derived Discount Rates—Discount rates may be developed so as generally to reflect market prices or yields in a manner that may not be considered specifically market consistent.
 - A discount rate may be based on market observations averaged over some period. One example is the segment rates under PPA, which are based on market observations averaged over 24 months. Even the full yield curve under PPA, which is based on average rates during a month, may not be considered fully market-consistent.

- A discount rate may be based on a market observation that is reviewed on a periodic schedule and thus may become outdated between its review dates.
 - A discount rate may be set so as to approximate the level of market prices or yields without being linked to a specific market observation.
- c. Other Discount Rates—Discount rates may neither be based on expected earnings nor derived from market observations. Examples of such discount rates include rates that are based on a Principal’s internal measures, such as the cost of capital.

Within this framework of two primary types of discount rates, certain measurements may call for a combination of approaches. For example, under the GASB’s proposed financial reporting for public plans, the discount rate is based on expected return up to the future date (if any) that plan assets are projected to be exhausted—and on a market bond yield thereafter.

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 3.9(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-derived value for the impact of the plan amendment, a market-derived rate such as described in 3.9(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 relevant otherwise to the entity funding the plan or the plan participants.

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 Donald Fuerst, the Academy’s senior pension fellow (202-785-7871, fuerst@actuary.org), if you have any questions or would like to discuss these items further.

Sincerely,



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