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

*September 15, 2019*

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

To members of the Actuarial Standard Board:

I would like to thank the Actuarial Standards Board for the opportunity to provide further comments on the proposed revision of ASOP No. 27. The current version of this ASOP is quite problematic (see [my July 31, 2018 comments](#)), so the deletion of some of the most questionable parts of the current version is a step in the right direction. The focus of these comments is on correcting some of the remaining problematic parts in this ASOP.

1. *The ASOP's title "Selection of Economic Assumptions for Measuring Pension Obligations."* What is an obligation? There are two obligations well-known in pension accounting – Projected Benefit Obligation (PBO) and Accumulated Benefit Obligation (ABO). PBO and ABO are calculated according to the rules of Financial Accounting Standards Board (FASB). How do actuaries “measure” these obligations? They do not. PBO and ABO are numbers that need no additional measurements – they are what they are. Actuaries do not need to select “Economic Assumptions for Measuring Pension Obligations.” Therefore, the title of this ASOP makes little sense.

The problem is the term “obligation” in the title. “Obligations” are present values in the FASB rules and, at the same time, series of benefit payments in this ASOP. The dual use of the term should be discontinued. I propose “*Selection of Economic Assumptions for Measuring Pension Commitments*” as the title of this ASOP.

2. *“Forward-looking expected arithmetic and geometric returns.”* These terms should be eliminated altogether. There are several reasons to do so. The most obvious reason to do so is these terms are not defined anywhere. Some other reasons are presented in [my July 31, 2018 comments](#), see pages 7-8. Instead, actuaries should use well-known terms “*arithmetic and geometric means.*”



3. *“The use of a forward-looking expected geometric return as an investment return assumption will produce an accumulated value that generally converges to the median accumulated value as the time horizon lengthens.”* This passage should be deleted for several reasons. First, when “forward-looking expected arithmetic and geometric returns” are eliminated, this passage should get the same treatment. Second, actuaries are in business of calculating present values, not “accumulated” values. The current version of ASOP 27 contains a similarly dubious passage regarding present values, but fortunately it is *not* in the exposure draft. The abovementioned fantasy regarding accumulated values should not be too far behind. Third, those who insist that this passage should have a place in ASOP 27, please provide a reference to a publication that substantiates the passage. I, for one, would greatly appreciate such a reference.
4. *Sections 3.8.3.c and 3.8.3.j should be combined.* I propose the combined section as follows:  
“3.8.3.c. Measurements of Portfolio Returns—Such measurements include, but are not limited to, arithmetic mean, geometric mean, variance, and percentiles. The actuary should consider the capital market assumptions (CMAs) utilized to calculate these measurements. The *arithmetic* mean of a portfolio *is* equal to the weighted average of the *arithmetic* means of the underlying asset classes. The *geometric* mean of a portfolio generally *is not* equal to the weighted average of the *geometric* means of the underlying asset classes. One way to calculate the geometric mean of a portfolio is to calculate the arithmetic mean of the portfolio and convert it to the geometric mean. Several conversion formulas are presented in

[On the Relationship between Arithmetic and Geometric Returns](#)  
and  
[Present Values, Investment Returns and Discount Rates.](#)

5. *The first two sentences in section 3.9 should be combined in one.* “A discount rate is used to calculate the present value of expected future plan payments. A discount rate may be a single rate or a series of rates, such as a yield curve.” I propose to replace these two sentences with the following: “If a discount rate is used to calculate the present value of expected future plan payments, a discount rate may be a single rate or a series of rates, such as a yield curve.”

While seemingly very similar, these passages are fundamentally different. The original text mandates the use of a discount rate for present value calculations. The revised text does not require a discount rate, which is a choice, not a necessity.

6. *Section 3.9.c should be rewritten as follows:* “Buy-and-Hold” Portfolios and their Market Prices—If an (actual or hypothetical) “buy-and-hold” portfolio is relevant to the plan, an actuary may consider a discount rate implicit in the price of this portfolio. If a hypothetical bond portfolio’s cash flows reasonably match the pattern of benefits expected to be paid in



the future, then the discount rate may be approximated by market yields for the bond portfolio. The type and quality of bonds in the hypothetical portfolio should be taken into the account in the determination of the discount rate.

Last but not least, I would like to reiterate that this ASOP still provides no justification for the use of risk premium in “risk-free” rates of return (a.k.a. discount rates), even though this justification is readily available and would be greatly appreciated.

### **Conclusion**

I believe that this exposure draft has significant room for improvement. As discussed in these comments, certain parts of the draft should be re-written or eliminated.

Thank you for your attention to these comments. Feel free to contact me if you have any questions/comments. I would be happy to assist the ASB in the development of this standard and related issues.

Sincerely

A handwritten signature in black ink that reads "D. Mindlin". The signature is fluid and cursive.

Dimitry Mindlin, ASA, MAAA, PhD.

President

*CDI Advisors LLC*

[dmindlin@cdiadvisors.com](mailto:dmindlin@cdiadvisors.com)

[www.cdiadvisors.com](http://www.cdiadvisors.com)