



PERiSCOPE

Public Employee Retirement Systems

New accounting rules for public pension plans in the United States are set to take effect beginning in 2014. Successful implementation of the new rules will require an understanding of a variety of technical concepts regarding the various newly required calculations. In this multi-part PERiScope series, we explore these technical topics in detail. See sidebar for more information on upcoming technical articles in this series.

GASB 67/68: Long-term expected investment returns and the money-weighted rate of return

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The Governmental Accounting Standards Board (GASB) in 2012 released new accounting standards for public pension plans and participating employers. These standards, GASB Statements No. 67 and 68, have substantially revised the accounting requirements previously mandated under GASB Statements No. 25 and 27. Required implementation is imminent, with GASB 67 effective for plan fiscal years beginning after June 15, 2013, and GASB 68 effective for employer fiscal years beginning after June 15, 2014.

This article, the fourth in Milliman's *PERiScope* GASB 67/68 mini-series, begins with a discussion of the development of the long-term expected rate of return assumption and the selection of the municipal bond rate, both of which are used to determine the single equivalent discount rate. This article also covers the technical details of calculating the money-weighted rate of return (a new disclosure item), followed by a summary of the discount rate and other asset-related disclosures required by GASB 67/68.

As discussed in the previous mini-series article, "Depletion Date Projections," the single equivalent discount rate that is used to determine liabilities under GASB 67/68 is the outcome of a depletion date projection process. For plans that are *not* projected to have a depletion date, the single equivalent discount rate is equal to the long-term expected rate of return on investments. For plans that *are* projected to reach a depletion date, the single equivalent discount rate is a blend of the long-term expected rate of return on investments and a municipal bond rate. Note that the long-term expected rate of return is an actuarial assumption, so it is generally not required to be updated between valuation dates unless there is an indication that the assumption is no longer valid. In contrast, the municipal bond rate is *not* an assumption, but rather a published yield or index rate that changes over time, so it must be redetermined on each successive measurement date (see Question 89 of the GASB 67 Implementation Guide and Question 65 of the GASB 68 Implementation Guide).

Did you know? Milliman's GASB 67/68 Task Force is releasing a miniseries on technical and implementation issues surrounding GASB 67 and 68. Each article will be released through *PERiScope*. Several articles have been published, with more articles to be published shortly. Look for the following articles in coming months:

- Calculation specifics on individual entry age normal and recognition of deferred inflows/outflows
- Substantively automatic plan provisions
- Balance sheet items and projections from valuation dates to measurement dates
- Calculation of pension expense
- Proportionate share calculations
- Special funding situations

Additionally, a Frequently Asked Questions document will be maintained, with links to relevant miniseries articles as they become available.

Visit www.milliman.com/GASB6768 for all the latest resources on the new statements.

Long-term expected rate of return assumption

According to GASB Statements No. 67 (paragraph 44) and No. 68 (paragraph 68), the long-term expected rate of return should be based on the nature and mix of current and expected plan investments over a period starting when an employee begins to provide service to an employer and ending when all benefits to the employee have been paid. This is likely a much longer time frame than plan sponsors are used to considering with their investment professionals. The expected rate of return must be determined net of investment expenses, but not net of administrative expenses.

GASB 67/68 also specifies that the selection of any assumption must comply with all applicable Actuarial Standards of Practice (ASOPs) issued by the Actuarial Standards Board (see paragraph 38 of GASB 67 and paragraphs 23 and 61 of GASB 68). In September 2013, the Actuarial Standards Board adopted an updated version of ASOP No. 27, *Selection of Economic Assumptions for Measuring Pension Obligations*, which governs the selection of an investment return assumption and will be effective for any actuarial work product with a measurement date on or after September 30, 2014.

The revised ASOP 27 prescribes multiple steps in the assumption-setting process, including evaluating relevant data, considering factors specific to the measurement, and then selecting a reasonable assumption. For this purpose, the term “reasonable assumption” has a specific meaning:

- Is appropriate for the purpose of the measurement.
- Reflects the actuary’s professional judgment.
- Takes into account historical and current economic data that is relevant as of the measurement date.
- Reflects the actuary’s estimate of future experience, the actuary’s observation of estimates inherent in market data, or a combination of the two.
- Has no significant bias (i.e., it is not significantly optimistic or pessimistic).

In selecting the assumption, the actuary may incorporate the views of experts (i.e., investment advisors, economists, or other professionals), so long as the resulting assumption reflects the actuary’s professional judgment. The actuary should not assume that superior or inferior returns will be achieved, net of investment expenses, from the use of an active rather than passive investment management strategy (often referred to as “alpha”), unless there is relevant data supporting this conclusion. All economic assumptions should be internally consistent, and the rationale used in selecting any non-prescribed assumption must be disclosed.

In addition to explicitly tying the assumption selection process to actuarial standards of practice, the new GASB statements require a description of how the investment return assumption is determined, as well as disclosure of specific components of this assumption (see below for a discussion of the additional disclosures). As plan

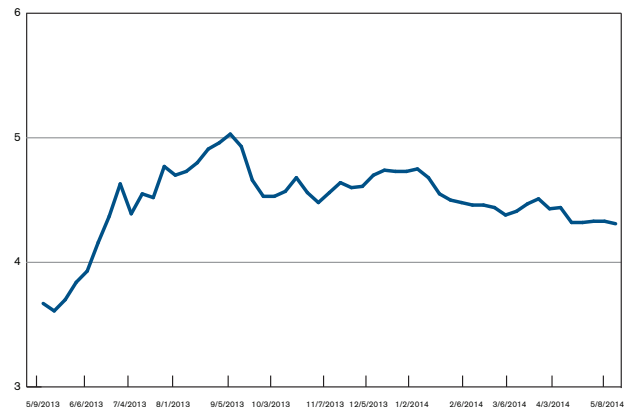
sponsors prepare to implement GASB 67/68, it is an opportune time to evaluate their own assumption-setting process to ensure that it complies with the new standards and is well-articulated for the necessary disclosures. Milliman consultants have the tools and expertise to work with you and your investment professionals to help you select a long-term rate of return assumption that will satisfy both the new ASOP No. 27 and the new GASB 67/68 requirements.

Municipal bond yield or index rate

According to GASB 67/68, the municipal bond yield or index rate to be used for benefit payments expected to be paid after the depletion date is based on 20-year, tax-exempt, general obligation municipal bonds, with an average rating of AA/Aa or higher (or equivalent quality on another scale).

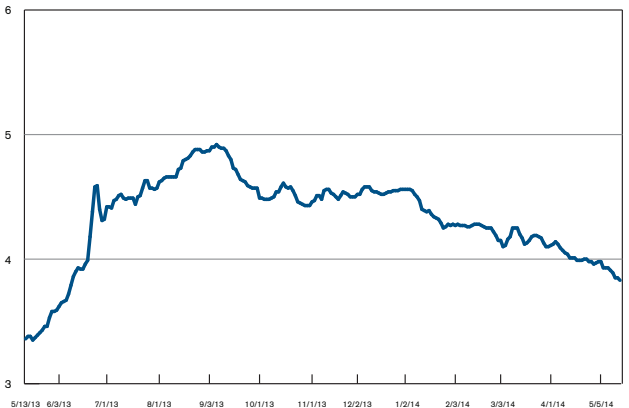
While this GASB description provides a basis and some guidance, it does not state a specific municipal bond rate source that should be used. For example, Bond Buyer and S&P both publish 20-year municipal bond indices. The charts below show the rates for each of these indices since May 2013. Other indices are available as well. If it is likely that a projected depletion date exists, it will be up to the plan sponsor and their pension plan professionals to select an appropriate benchmark or methodology for selecting the municipal bond rate.

BOND BUYER GENERAL OBLIGATION 20-BOND MUNICIPAL BOND INDEX



Source: <http://research.stlouisfed.org/fred2/series/WSLB20/>

S&P MUNICIPAL BOND 20 YEAR HIGH GRADE RATE INDEX



Source: S&P Dow Jones Indices LLC. <http://us.spindices.com/indices/fixed-income/sp-municipal-bond-20-year-high-grade-rate-index>

Money-weighted rate of return calculation

One of the new GASB Statement No. 67 disclosure requirements is the annual money-weighted rate of return. This figure incorporates both the size and the timing of cash flows to determine an internal rate of return. The money-weighted rate of return considers the changing amounts actually invested during a period and weights the amount of pension plan investments by the proportion of time they are available to earn a return during that period. There are several specific requirements for how the rate should be determined:

- The rate should be net of investment expenses but not net of administrative expenses.
- The external cash flows (i.e., contributions, benefit payments, and administrative expenses) used as inputs to the calculation should be determined on a monthly basis, or more frequent than monthly if possible.
- The cash flows should be determined on an accrual basis of accounting rather than a cash basis.
- Cash-flow weighting should be representative of the plan's actual external cash-flow timing (i.e., beginning, middle, or end of month).

From a practical standpoint, plan sponsors may not currently have access to monthly cash-flow information aggregated across all plan investments, and may therefore need to build out the infrastructure needed to enable this information to be compiled. It seems unlikely that many plans will want to spend the resources required to gather and report cash-flow information on a daily or weekly basis.

Discount rate and other asset-related disclosure requirements

GASB Statements No. 67 and No. 68 introduce several new discount rate and other asset-related disclosure requirements. Many of these new requirements are contained in both GASB 67 and GASB 68, and the precise location of the disclosure requirements between plans and employers can vary depending on the plan type (i.e., single employer versus agent multiple employer).

To satisfy GASB 67/68, the following information regarding the discount rate should be disclosed:

- **Discount rate** – The rate applied in the measurement of the total pension liability (TPL) and the change from the prior measurement date.
- **Projected cash flows** – Assumptions regarding the projected cash flows into and out of the pension plan, such as contributions from employers, non-employer contributing entities, and employees.
- **Long-term rate of return assumption** – Include a brief description of the significant methods and assumptions used to determine the long-term expected rate of return assumption. This includes the

assumed asset allocation of the pension plan's portfolio, the long-term real rate of return for each major asset class, and whether the information is presented as arithmetic or geometric means.

- **Municipal bond yield or index rate** – If the municipal bond yield or index rate was used in the determination of the single equivalent discount rate, the rate used and the source of the rate must be disclosed.
- **Projected benefit payments** – Disclose which periods used the long-term expected rate of return assumption and which periods used the municipal bond rate.
- **Sensitivity of the NPL** – Show the net pension liability (NPL) calculation using a discount rate that is 1% higher and 1% lower than the single equivalent discount rate.

To satisfy GASB 67/68, the following asset-related disclosure requirements apply:

- **Investment policies** – The procedures and authority for amending the investment policy, policies pertaining to investment policy asset allocation, and a description of changes to the investment policy during the reporting period must be disclosed.
- **Fair value of investments and assets of 5% or more** – Must include a brief description of how the fair value of investments is determined, including any methods and significant assumptions used if it is estimated and investments in any one organization (other than U.S. government-issued or -guaranteed) representing 5% or more of the plan's fiduciary net position must be disclosed.
- **Money-weighted rate of return calculation** – The internal rate of return on pension plan investments must be disclosed. As discussed above, this calculation is done on a monthly, accrual basis and is net of investment expenses.

GASB Statements No. 67 and No. 68 will require plan sponsors to consider several elements of their assumption-setting and reporting process. Now is the time that plan sponsors should start reviewing the methodology used to set the long-term expected rate of return assumption, consider which municipal bond yield or index rate to use as a benchmark, and begin assessing their ability to obtain monthly cash-flow information on an accrual basis for the money-weighted rate of return calculation. Milliman consultants can work with you and your other plan professionals to help provide a smooth transition to the new discount rate and asset-related reporting and disclosure requirements of GASB 67/68.

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