



GASB75

Crossover Date & Why it Matters

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Odyssey has provided a series of white papers to help you better understand the details of GASB 75. We continue with "GASB 75 - Crossover Date & Why it Matters" to provide a detailed explanation of the new crossover date concept (similar to Depletion Date under GASB 67/68).

GASB 75

This GASB 75 white paper is part of a series of white papers discussing the accounting standards released under GASB 75 for OPEB plans. It will discuss the determination of the plan's crossover date or depletion date - the projected date that plan assets and contributions are no longer sufficient to satisfy benefit payments, and the calculation of the plan's single equivalent discount rate based on that crossover date.

GASB 75 White Papers

- [Investment Return & Money Weighted Rate of Return](#)
- [OPEB Expense & Deferred Inflow & Outflow of Resources](#)
- [Valuation, Measurement & Reporting dates & their interaction](#)

What is the "Crossover Date" or Depletion Date?

The Crossover or Depletion Date is the measurement period where plan assets and expected future contributions are no longer sufficient to pay expected future benefit payments. This date is used to determine the single equivalent discount rate which represents a blended interest rate based on a long term rate of return for those payments prior to the crossover date and a 20-year high grade municipal bond index for all remaining payments after such a crossover date.

This will lead to increased volatility in the calculation of plan liabilities. As many OPEB plans are unfunded or underfunded, the municipal bond index rate will be the predominant rate used to calculate plan liabilities. As this rate is based on market conditions as of the measurement date, the discount rate used to calculate plan liabilities may vary significantly from valuation to valuation. Given that a 1% reduction in the discount rate (e.g., 4.0% to 3.0%) will often increase plan liabilities by 15% to 20% or more, those with unfunded or underfunded plans will see a significant increase in the volatility of disclosed plan liabilities.

Visit [**GASB75.com**](http://GASB75.com) for the latest information on the new GASB OPEB statements, as well as [**OdysseyAdvisors.com**](http://OdysseyAdvisors.com) for all of your retirement needs.



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How do we calculate the Single Equivalent Discount Rate?

If it has been determined that there is no crossover date (i.e., assets are projected to be sufficient to cover benefit payment for all periods) then the plan's assumed long term return on assets is used as the discount rate. If there is a crossover date, a single equivalent discount rate must be determined by the plan actuary.

The single equivalent discount rate is determined by first discounting all benefit payments prior to the crossover date by the plan's assumed long term rate of return on assets. Next, all benefit payments after the crossover date are discounted using the 20-year high grade municipal bond index rate. The total of these two actuarial present values represents the total actuarial present value of projected future benefit payments. Then, we calculate a single discount rate which yields that same actuarial present value. This becomes the plan's single equivalent discount rate. The single equivalent discount rate is used to calculate the total pension liability for GASB purposes and is the rate disclosed in the financial statement.

You will find a sample single equivalent discount rate calculation at the end of this white paper.

How do we calculate the Crossover Date?

The first step in calculating the crossover date is to project future benefit payments as of the plan's measurement date. These payments will be projected using "closed group" assumptions. This means that only the benefit payments projected for the plan's current active and retired employees will be included and no benefits that are expected for future employees will be considered. The projection of benefit payments will be based on the current plan design as well as expectations of future benefit changes that are considered to be substantively automatic.

The next step is to project the plan's fiduciary net position (assets). Assets are projected taking into account the current plan assets as well as expected future contributions and expenses related to plan administration. Expected future contributions will be based on the plan's funding policy. If an ad hoc funding policy is used the average of the last five years of contributions in excess of the pay-as-you-go cost is the maximum contribution that can be projected for future years.

Once future benefit payments and assets have been determined, they are analyzed to determine the crossover date. This is the measurement period during which the projection of assets is no longer sufficient to meet benefit payments. When this date has been determined the single equivalent discount rate can be calculated.

How is the long-term rate of return determined?

The long term rate of return shall be based on the plan sponsor's investment policy. The actuary will review the plan sponsor's target asset allocations by investment class and weight the expected real rates of return (net of inflation) for each class to determine an expected long term real rate of return. Once this is determined, it shall be added to the actuary's long term inflation assumption (a building block approach) to determine the long term rate of return. Below is a sample calculation:

Investment Target Allocation & Expected Long-Term Real Rate of Return

<u>Asset Class</u>	<u>Target Allocation</u>	<u>Asset Class</u>	<u>Long-Term Expected Real Rate of Return</u>
Domestic Equity - Large Cap	51.50%	Domestic Equity - Large Cap	4.90%
Domestic Equity - Small/Mid Cap	9.00%	Domestic Equity - Small/Mid Cap	5.40%
International Equity - Developed Mkt	5.00%	International Equity - Developed Mkt	5.32%
International Equity - Emerging Mrkt	0.00%	International Equity - Emerging Mrkt	6.26%
Domestic Fixed Income	34.50%	Domestic Fixed Income	1.40%
International Fixed Income	0.00%	International Fixed Income	1.30%
Alternatives	0.00%	Alternatives	6.32%
Real Estate	0.00%	Real Estate	6.25%
Cash & Cash Equivalents	0.00%	Cash & Cash Equivalents	0.00%
Total	100.00%	I. Real Rate of Return**	3.76%
		II. Inflation Assumption	2.50%
		III. Total Nominal Return	6.26%
		IV. Investment Expense	(0.25%)
		V. Net Investment Return*	6.01%

* Based on 2020 Horizon Survey of Capital Market Assumptions

** Geometric Mean

Calculation of the Single Equivalent Discount Rate

For the Period Ending on the Measurement Date	Projected Beginning Fiduciary Net Position	Projected Benefits Payments	Funded Benefits Payments	Unfunded Benefits Payments	Present Value of Funded Benefit Payments using the Long-Term Rate of Return (6.01%)	Present Value of Unfunded Benefit Payments using the Munic- ipal Bond Rate (2.66%)	Present Value of Unfunded Benefits Payments using Single Equivalent Discount Rate of 3.97%
2020	2,943,055	223,220	223,220	0	223,220	0	223,220
2021	2,320,183	221,640	221,640	0	209,075	0	213,181
2022	2,241,187	230,190	230,870	0	205,435	0	213,584
2023	2,185,633	234,190	234,190	0	196,575	0	208,386
2024	2,142,347	242,168	242,168	0	191,747	0	207,261
2025	2,107,764	256,142	256,142	0	191,314	0	210,854
2026	2,077,736	277,898	277,898	0	195,796	0	220,032
2027	2,054,118	287,106	287,106	0	190,816	0	218,647
2028	2,037,419	304,123	304,123	0	190,667	0	222,767
2029	2,023,913	324,126	324,126	0	191,687	0	228,358
2030	2,014,110	346,707	346,707	0	193,417	0	234,944
2031	2,012,948	359,786	359,786	0	189,334	0	234,502
2032	2,007,736	367,569	367,569	0	182,464	0	230,431
2033	2,048,814	389,683	389,683	0	182,475	0	234,971
2054	55	477,552	55	477,497	8	195,566	127,183
2055	3	473,629	3	473,626	0	188,954	121,324
2056	0	461,464	0	461,464	0	179,331	113,696
2057	0	457,479	0	457,479	0	173,176	108,413
2058	0	458,060	0	458,060	0	168,903	104,407
2059	0	446,075	0	446,075	0	160,221	97,795
					5,029,927	3,687,471	8,717,398

Key Takeaways

There are two major takeaways for plan sponsors to note and begin planning as it relates to the crossover date. The first is that a plan sponsor with an unfunded or underfunded OPEB plans should expect increased volatility in the calculation of plan liabilities as the discount rate become more variable. The second is for plan sponsors without an official funding policy; the plan should establish a formal funding policy so that it can be used in the calculation of plan assets. If a formal funding policy is not established, the maximum allowable contribution that can be assumed is the average of the previous five years contributions.

If you have any questions about what the GASB 75 rollout will mean for you or would like more information, please contact one of our **Odyssey Advisors**.

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