

FAS87 Research Series

2010: An Update for Disclosures for 2009

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The volatility of the capital markets and interest rates over the past two years has continued to wreak havoc on the funded status of corporate defined benefit plans in the United States. While capital markets have improved significantly over lows in early 2009, volatility has continued. In addition, interest rates which impact liabilities and assets have varied dramatically during the year and credit spreads have also seen extremes.

Many plan sponsors had made significant progress in funding pension deficits in 2007 and 2008; however, the losses incurred in late 2008 and early 2009 offset much of that progress. While markets rebounded during 2009, sponsors of pension plans are still under extreme financial pressures, as cash continues to be needed to fund asset and liability losses. The risks of an underfunded pension to the overall financial health of the sponsor have become too apparent.

Financial executives overseeing pensions have taken notice. In a recent poll of pension sponsors, 42 percent said the success metric for pension investments was “improved funded status” versus only 15 percent that said it was “absolute return of the portfolio.” This was quite a contrast from two years earlier when the same poll saw 28 percent say it was absolute return and only 23 percent say it was improved funded status.¹

The end result is a paradigm shift in the way pensions are being managed. The focus moving forward is on implementing a risk management process to better deal with the impact that poor investment conditions and subsequent pension funding shortfalls can have on the sponsor’s overall finances. This new focus involves a greater emphasis on funding policies and strategies, plan design considerations, and aligning investment decisions with corporate goals. Plan sponsors are evaluating new investment management models that better support this process, allow for a re-allocation of internal treasury resources and provide oversight and expertise, especially within such a challenging environment.

SEI’s Pension Accounting Series (updated for 2009 disclosures) intends to educate plan sponsors and corporate officers as well as address issues regarding Financial Accounting Standard Nos. 87 & 158 (Employers’ Accounting for Pensions). Data used in this research is derived from the 2008 SEI Plan Sponsor Accounting Database. The SEI database consists of data from Standard & Poor’s Institutional Market Services database as well as proprietary analysis created by SEI’s Institutional Group.

SECTION 1:

WHAT FAS 87 DISCOUNT RATE SHOULD PLAN SPONSORS USE FOR YEAR END 2009?

At the end of each fiscal year, plan sponsors must select a discount rate to be used in valuing the liabilities of their pension plans for corporate accounting purposes. The rate must be based on current market conditions and will be disclosed in the footnotes to the financial statements.

In addition to determining the accounting liabilities at year-end 2009, the disclosed discount rate will also be used in determining the plan’s FAS 87 pension expense/income for the 2010 fiscal year. SFAS 158 clarifies the guidance for setting discount rates by amending FAS 87. The result is generally a closer review by plan sponsors of the specific indices or yield curve matching used to select the discount rate assumption.

The discount rate is used to determine several accounting items, in particular the Service Cost and the Projected Benefit Obligation (PBO). The Service Cost and the interest on the PBO are components of pension expense. Generally, the higher the Service Cost and the PBO, the higher the total pension expense. Of additional note, the PBO is crucial in determining the adjustment to shareholder equity because the market funded status of the pension plan, whether a deficit or a surplus, will appear directly on the balance sheet. This effectively subjects the balance sheet to any volatility experienced in the funded status such as changes in the liabilities and in the assets that do not offset one another. This is of particular importance over the last

¹ SEI’s 3rd Annual Liability Driven Investing (LDI) Poll: Globally, LDI Has Entered the Mainstream (November 2009)

couple of years given the high volatility in the investment markets and in the discount rate indices.

When determining discount rates, the conventional benchmark used by plan sponsors and actuaries has been the range of yields between AA and AAA rated long-term corporate bonds. This has been the interpretation of the SEC’s recommendation that “fixed-income debt securities that receive one of the two highest ratings given by a recognized ratings agency be considered high quality.” Since the AA rated bonds provide the yields on the high end of the range, they have traditionally been the benchmark rate of choice for plan sponsors.

In general, the 2009 disclosure will show discount rates being set relative to the 2008 disclosure while incorporating the change in high-quality bond yields over the past year. Plan sponsors with calendar fiscal years will typically need to wait until year end before they can finalize their discount rates. Plans with a fiscal year end of November 30 have enough information now to determine the discount rates for the 2009 disclosure.

Plans with a calendar fiscal year do not yet have enough information to determine the discount rate to use. They may want to look at how rates have changed from December 31, 2008 through November 30, 2009 and make assumptions about the range of yield change they expect during December. Table 1-1

shows the changes in long-duration yields from December 31, 2008 to November 30, 2009.

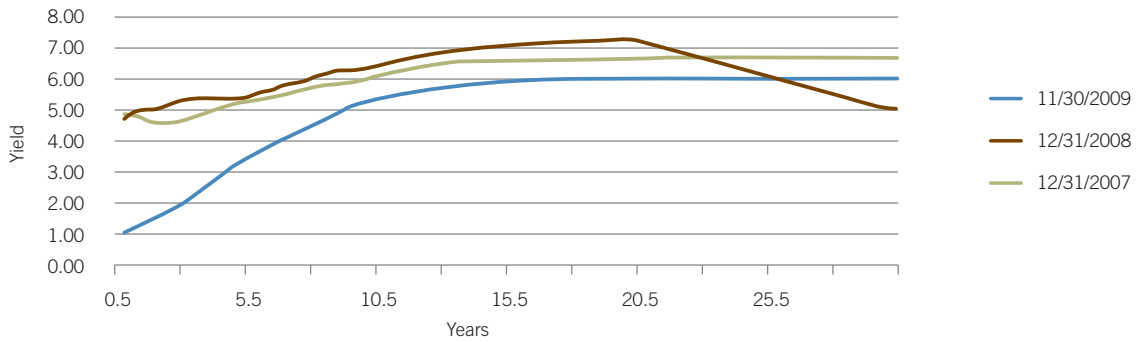
Based on this analysis, and assuming no change during December 2009, plans with a December 31 measurement date may consider decreasing their discount rates. The caveat to this analysis is that the range of movement of the indices throughout 2009 and the shape of current yield curves indicate the potential for quite a bit of variation in selected discount rates.

A review of Table 1-1 also finds that while most of the indices have decreased, there are two increases. In particular, the Bellwether Swap index has increased substantially, the reversal of the large decreases experienced in 2008. Underlying the relative size and direction of this change versus the other indices noted is the availability of credit in the markets. As credit tightened in 2008, corporate yields rose while treasury and swap rates fell. This year we have seen somewhat of a reversal as credit has flowed back into the markets. In planning for future years, sponsors must consider how potential changes in credit availability will affect the direction of corporate rates as the spread over Treasuries changes. Further, when considering non-US pensions, plan sponsors will also have to consider similar issues in those local (non-US) markets as well as differences from the US rate setting.

Table 1-1:
CHANGE IN YIELDS, YEAR-END 2008 TO NOVEMBER 30, 2009

Bond Index	12/2008 Yield	11/2009 Yield	Change (bps)
Lehman Brothers AA Long Credit	5.35	5.53	18
Merrill Lynch AA 15+ Corporate	6.12	5.72	(40)
30-Year Bellwether Swap	2.77	4.03	126
Moody’s Long-Term AA Corporate	5.54	5.20	(34)
Citigroup Pension Liability Index	5.87	5.70	(17)

CITIGROUP PENSION CURVE



Plan sponsors should consider selecting the discount rate using a method that matches plan cash flows to the yield curve, rather than using an index benchmark, if they have not done so already. Movement from an index benchmark to a yield-curve-matching method will be highly plan-specific based on the duration and size of the plan's projected cash outflows.

As can be seen in the chart above, the yield curve as of November 30, 2009 has decreased relative to last year for durations up to 25 years. The result is that shorter plan liabilities will be discounted at these lower rates. A further note is the significant change in the shape of the curve over the last 11 months.

In the next chart we can see the change in the Citigroup Pension Liability Curve through November 2009. You can see the large decrease in early years — well over 100 bps — and also the increase in yields beginning at 25 years. This chart also demonstrates the large variation in discount rates we may see as plan payout projections are matched against the curve. The largest changes are at the shortest durations, which have the least impact on the PBO. The increases in discount rates occur

at the longest periods, meaning that plans with liabilities payable at these times will see decreases in PBO attributable to those discounted liabilities.

Table 1-2 on the next page shows that 90% of companies with defined benefit plans in the 2008 SEI Plan Sponsor Accounting Database (over 700 sponsors reporting) set their discount rates in their 2008 pension disclosure between 5.50% and 6.91% — very similar to that found in our prior analysis. The 141-basis-point range of discount rates suggests diversity among companies in measurement date, fiscal year, country of origin of the pension plan, liability structure, investment philosophy and willingness to be aggressive when setting rates. The most common range of rates (used by most of the companies in the database) from the 2008 disclosure was between 6.00% and 6.41%. The number of plans in the table is smaller than in prior years because we have considered for this table only those with fiscal year ends in December, 2008 and January, 2009. Other year ends were excluded for this study because inclusion of those plans, given the dramatic fluctuations in discount rates, made the results less conclusive.

INCREASE IN CITIGROUP PENSION CURVE 12/31/2008 THROUGH 11/30/2009

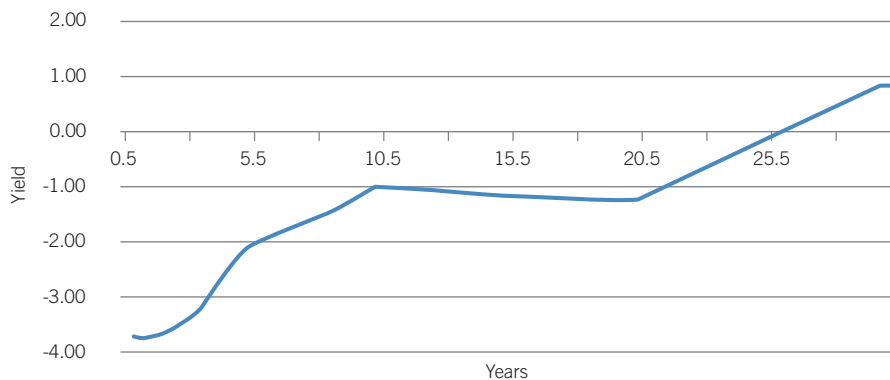


Table 1-2:

Distribution of 2008 Disclosure Discount Rates

Number of Plan Sponsors	713
Percentile	Discount Rate
95th percentile	6.91%
75th percentile	6.41%
Median	6.20%
25th percentile	6.00%
5th percentile	5.50%

Source: Standard & Poor's Institutional Market Services

Resulting discount rates will vary by plan based on the exact measurement date and on the schedule for benefit payout. Changes from 2008 discount rates are likely to be very plan-specific this year.

LOOKING BACK AT 2008:

DISCOUNT RATE CHANGES FROM 2007 DISCLOSURE TO 2008 DISCLOSURE

Last year's research as outlined in the addendum (issued in January 2009) stated "...plans with a December 31st measurement date should consider lowering their discount rate by up to 75 bps."

The 2008 SEI Plan Sponsor Accounting Database contains 2007 and 2008 disclosure discount rates for over 700 plan sponsors.

The distribution is shown in Table 1-3. Forty-three percent of plan

sponsors kept their rates or decreased them. The rest increased the discount rate by a variety of levels. This shows the substantial impact that plan-specific benefit payout streams had on setting the discount rates last year. We are likely to see similar dispersion of rate changes this year.

Table 1-3:

Change in Discount Rates, 2007 Disclosure to 2008 Disclosure

Increased	57%
Unchanged	20%
Decreased	23%

Source: Standard & Poor's Institutional Market Services

IMPACT ON 2010 PENSION EXPENSE

The discount rate that is selected for the 2009 disclosure is the same rate that will be used in the calculation of 2010 pension expense. The discount rate affects three of the five components of pension expense: (1) service cost, or the present value of benefits attributed to service to be rendered in 2010, (2) interest cost or the increase in PBO liability due to the passage of time, and (3) amortization of unrecognized gains/losses, which arise when actual experience deviates from what was assumed, including assumption changes. The other two components, expected return on assets and amortization of prior service cost (value of unamortized plan amendments), are relatively independent of the discount rate.

Service Cost Component: Service cost is the portion of the present value of participants' accrued benefits that are attributable to having worked during the year. With no change in the discount rate, service cost will generally increase 2% to 10% from year to year due to the methods used to value the plan (the funding method) and the aging of the population.

The impact of a change in the discount rate depends on the duration of the service cost. Most pension plans have a service cost duration that ranges between 12 and 18. A 25-basis-point drop in discount rates is expected to increase service cost by an additional 3% to 5%, and a 25-basis-point increase in discount rates is expected to decrease service cost by 3% to 5%, all beyond the "natural" increase of 2% to 10%.

Interest Cost Component: Interest cost is the cost of the plan due to the passage of time. It is calculated by multiplying the PBO (adjusted for benefit payments) by the discount rate. Without changing the discount rate, interest cost will generally increase with PBO. Typically, before any changes in the discount rate, the interest cost component will typically increase between 5% and 12%.

The impact of changing the discount rate on interest cost is not straightforward. On one hand, a change in the discount rate will change the PBO liability in the opposite direction. However, this new PBO is then multiplied by the new discount rate. The net effect of these changes is that for generalized estimation purposes, the Interest Cost will be unchanged for variation in the discount rate.

Amortization of Unrecognized Gain/Loss: When assumptions are not met regarding liability experience and asset returns, the differences are accumulated with prior-year gains and losses and are recognized as an amortization credit or charge. The minimum recognized amount is based on the excess of the gain/loss over 10% of the greater of assets or PBO and divided by the plan's future working lifetime, which is usually 10 – 15 years. Faster recognition may also be used.

Amortization of gain/loss will vary dramatically from plan to plan based on several factors, including:

- Recognition method used (e.g., 10% corridor method)
- Amount of gain or loss on the balance sheet as of 12/31/2009
- Relative size of gain or loss to the PBO and asset amounts
- Demographic changes during 2009
- Assumption changes under consideration
- Asset smoothing method used

Therefore, no generalized effect of a discount rate change on the gain/loss recognition can be made. However, a few rules of thumb can be used in an analysis:

- If already amortizing a loss (gain) for 2010 and the discount rate is decreased (increased), the full amount of the PBO increase (decrease) will be subject to amortization into expense
- If amortizing a loss (gain) for 2010 and the discount rate is increased (decreased), the loss amortization will decrease (increase) and could be eliminated
- If no gain or loss amortization is occurring for 2010, a closer examination of the specifics of the plan should be made

In summary, plan expense will typically increase from year to year due to the required funding method used and the passage of time. In addition to this "natural" growth, if the discount rate is decreased plan expense can be expected to increase further and vice versa; if discount rates increase, expenses will likely decrease or increase less than the "natural" growth. A close analysis of your plan's specific situation and the application of a few generalized rules should allow you to estimate the impact of changing assumptions.

SECTION 2:

WHAT FAS 87 RETURN-ON-ASSET (ROA) ASSUMPTION SHOULD PLAN SPONSORS USE FOR 2010?

In addition to the discount rate, pension plans are also required by FAS 87 to disclose an explicit assumption for the plan's expected return on assets (ROA). FAS 87 states that "...the expected long-term rate of return on plan assets shall reflect the average rate of earnings expected on the funds invested or to be invested to provide for the benefits." While the discount rate is intended to adjust to current market conditions, the ROA is long-term in nature and should not be adjusted unless there are significant shifts in asset allocations, capital market expectations, or structural shifts in the economy in general.

Returns in recent years have been varied relative to ROA assumptions. In 2006, a 60% Equity portfolio had a 12-month return of 12.7%, which was higher than the typical ROA assumption. In 2007, the same portfolio had a 12-month return

of 6.8%, slightly lower than most ROA assumptions and the 2008 return was well below expectations at -23.1%. In 2009, the 11-month return (as of November 30th) of the same portfolio is 18.8%. Plan sponsors may receive some pressure from auditors to review their ROA assumptions to determine whether current assumptions are reasonable. While recent market experience is a consideration in selecting an ROA assumption, plan sponsors should consider what they expect the portfolio to return over the long term. They should look at long-term capital market assumptions as a guide but customize them for their portfolios' asset allocations.

Table 2-1 shows the distribution of ROA assumptions used by almost 700 plan sponsors in 2008.

Table 2-1:

Distribution of 2008 Disclosure Return On Assets (ROA) Assumption

Number of Plan Sponsors	695
Percentile	Discount Rate
95th percentile	8.90%
75th percentile	8.50%
Median	8.00%
25th percentile	7.50%
5th percentile	6.00%

Source: Standard & Poor's Institutional Market Services

Of the 695 plan sponsors reporting ROA assumptions, most (64 percent) had ROAs between 7.50% and 8.50%, a larger range (at the low end) relative to the analysis of 2007. Almost all (90 percent) of the plan sponsors had ROAs between 6.00% and 8.90%, also a slight increase (of 10 bps) in range and a lowering of the range by 10 bps versus a year earlier. This reduction in the lowest return assumptions is generally attributable to sponsors of terminating plans taking a more conservative stance, as well as certain foreign plans with lower expectations and different asset allocations than typically found in the US.

A closer look at what happened between the 2007 disclosure and 2008 disclosure gives us additional insight about how companies and auditors are interpreting the events in the current marketplace. Table 2-2 illustrates the prevalence of changes in ROA assumptions from 2007 to 2008. Only 27% of the companies in the database lowered their ROA assumption, indicating that return assumptions for prior years were still

considered to have been appropriate. The majority of companies (57%) did not change their ROA, similar to a year earlier.

As we know, the markets have been extremely volatile over the past several years and short-term average returns may be extremely time-dependent. The 20-year average of a 60/40 portfolio is 7.7% as of November 30, 2009; however, it was 10.2% as of November 30, 2007. This demonstrates why it is not sufficient to look only at a given historical return period when determining the ROA assumption. It is important that plan sponsors continue to use a variety of information sources to set these assumptions.

In January 2010, SEI will be issuing an addendum to this study that will update this research with year-end numbers relative to November 30, 2009. If you are interested in receiving a copy of that addendum, please email seiresearch@seic.com and request it.

Table 2-2:

Change in ROA Assumptions, 2007 Disclosure to 2008 Disclosure

Increased	16%
Unchanged	57%
Decreased	27%

Source: Standard & Poor's Institutional Market Services

ABOUT THE AUTHOR

Jon Waite, F.S.A., E.A., is a Director, Investment Management Advice and the Chief Actuary for SEI's Institutional Group and is responsible for providing advice regarding defined benefit plan design, actuarial methods and assumptions, and funding policies for SEI's institutional relationships. With over 500 institutional clients worldwide, SEI is a recognized pioneer in developing first-to-market retirement solutions that integrate investment management strategies with overall business goals. **To learn more about the FAS assumptions discussed in this paper, feel free to contact Jon at 610-676-3493 or via email at jbwaite@seic.com.**

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