

FASB ROA Assumption December 2011

Background

The FASB expected return on assets (ROA) assumption is used by the Plans' actuary (Hewitt) in its determination of the annual retirement benefit expense projections. This assumption is a long-term assumption and as such should not be adjusted frequently. The assumption should be monitored annually and changed if the observed returns deviate significantly from the current assumption, or if certain conditions change.

The current ROA assumption for the Pension Fund is 7.75% and 8.00% for the Retiree Benefits Plan (reflecting its higher equity allocation).

The process Trust Fund Investments has used for the past several years in evaluating the reasonableness of the expected ROA assumption has been to look to different data sets when evaluating the current year's expected return assumption. Each year those data sets have been:

- A "backward looking" historical rolling return analysis using historical returns for a portfolio with an equity & bond asset mix similar to the Plans, over rolling 10-year, 20-year, 30-year and 40-year periods;
- A "backward looking" 1000 trial monte carlo using historical returns, risk and correlations for a portfolio with an equity & bond asset mix similar to the Plans over a 30-year horizon;
- A "forward-looking" simulation of expected returns for a portfolio with an asset allocation similar to the Pension Plan as developed by the plans' independent external actuary and as developed by the plans' independent external investment consultant.

In addition to different models or capital market return assumptions, additional consideration can include an active management premium, past success relative to expected returns, and other qualitative expectations.

Assumption Setting for 2012 & forward

It has become an acceptable practice, when developing long-term (i.e. 10 year or greater) forecasts of expected returns, to assume no premium for int'l, mid- or small-caps, and let the investment case for these assets reside on the diversification benefits. In this vein, when examining historical returns to judge the appropriateness of the FASB ROA assumptions, it is reasonable to utilize the S&P 500 returns and US Core Bond Index (Barclays US Aggregate Bond Index) as they provide the longest historical data set -- and length of time is deemed more important for this purpose than 'over engineering' the process through incorporating sub asset classes. The allocation to equity/bonds is by far the more influential factor is determining returns.

In the 3rd quarter 2011, the Pension invested \$100 million (approx. 3%) in five different absolute return multi-strategy hedge funds. Accordingly, the Pension's policy mix was modified to 43.5/10/43.5/3 (stocks, convertibles, bonds and alternatives). For the analyses, the convertible bond allocation was split 50/50 between stocks and bonds as was the hedge fund allocation. The RBP plan has a 60/40 target policy mix of stocks and bonds.

Historical Rolling Returns

The historical rolling return analysis draws on returns from 1926 to 2010.

Summary results for the Pension are:

- The median return over the 75 10-year periods (that is the 10-years ending 12/10, 10-years ending 12/09, etc.) is 8.2%.
- Over 20-year periods, the median of the 65 periods is 8.3%.
- Over 30-year periods, the median of the 55 periods is 8.3%.
- Over 40-year periods, the median of the 45 periods is 8.7%.

Summary results for the Retiree Benefits Plan (RBP) are:

- The median return over the 74 10-year periods (that is the 10-years ending 12/10, 10-years ending 12/09, etc.) is 8.9%.
- Over 20-year periods, the median of the 65 periods is 9.3%.
- Over 30-year periods, the median of the 55 periods is 9.1%.
- Over 40-year periods, the median of the 45 periods is 9.3%.

Historical Monte Carlo Results

The monte carlo simulation draws on historical returns, risk and correlations from 1926 through 2010.

- The simulation's 50th percentile return is 8.1% for the Pension.
- The simulation's 50th percentile return is 8.5% for the RBP.

Forward Looking Simulation

The newly combined firm of our plans' legacy actuarial firm Hewitt and legacy investment consultant firm EnnisKnupp, has run a simulation based on our benefit plans asset mix and the HewittEnnisKnupp capital market assumptions, utilizing an underlying inflation rate consistent with our other actuarial assumptions.

Pension Fund

The simulated distribution of possible returns yields a median expected return of 6.95%.

The Pension Plan's observed alpha has ranged from a high of 310 bps over the past 2 years to 80 bps over the trailing 10-years. It is important to note that none of these historical alpha figures reflects any premium from Alternative Investments, as 2011 marks the first year the Pension Fund has had Alternatives in its asset mix.

Further, based on alpha expectations of 150 bps from active equity management and 100 bps for active fixed income management, weighted according to the Plan's current asset allocation and utilization of active & passive management, yields a forward looking alpha expectation of approximately 95 bps.

In summary, based on a review of our Pension Fund's historical realized alpha, the plan's actuary is supportive of including a return premium of between 75 to 90 bps to the median expected return generated from their model. This would yield an expected return assumption for the Pension of between 7.70% and 7.85%.

Retiree Benefits Fund

For the Retiree Benefits Plan (RBP), the simulation yields a median expected return of 7.19%. The RBP has had an indexed approach to its equity assets since 2006, and has generated alpha of 520 bps over the past 2 years and 30 bps over the past 5 years. A similar exercise of determining a forward-looking alpha expectation, modified to adjust for the 100% passive equity management of the Fund, yields a forward-looking alpha expectation of approximately 40 bps for the Plan.

Based on a review of our RBP's historical realized alpha, the plan's actuary is supportive of including a return premium to the simulated median expected return generated from their model; this would yield an expected return assumption of 7.59%.

Summary

The current 7.75% Pension and 8.00% RBP assumptions fall in the range of results from both the two "backward looking" analysis and the forward-looking projections (including the alpha premium). We do not believe the differences in the observed median returns from the three sources compared to the current assumptions are meaningful enough to warrant revising the assumptions.