Pension Solution: Asset Exhaustion Test (AET)

The primary pension objective is **to** *secure* **promised benefits** (**Retired Lives**) in a cost-**effective manner** (**stable to lower contribution costs**) with **prudent risk.** In our last Pension
Solution blog, we explained that this is best accomplished through *cash flow matching* with
fixed income... hopefully through our Liability Beta PortfolioTM (LBP). We recommend that
our LBP should fund the first 10-years of NET Retired Lives (after Contributions). This buys
time for the Alpha assets (performance assets) to grow without being diluted to fund any
benefits. This leaves the residual liabilities to be monitored and funded through Alpha assets.
As a result, the Alpha assets need to know their target ROA that will fully fund residual
liabilities. This requires an Asset Exhaustion Test (AET).

Asset Exhaustion Test (AET)

GASB 67/68 requires an AET. We recommend this test for all pension plans. The AET requires projected contributions be subtracted from projected benefits to get a net liability schedule. The assets are then grown at an actuarial driven ROA to see if they fully fund these annual net liabilities. If the assets are exhausted, GASB requires the discount rate to be bifurcated and the area of future deficits to be discounted at the AA muni 20-year index rate. We have always recommended a market rate to discount all liabilities to calculate the true economic present value of liabilities so the economic funded status can be known. We also recommend that contributions be included as an asset or liability offset in the funded status calculation.

Ryan ALM modifies the GASB AET into a matrix that calculates the ROA needed to fully fund the net liabilities to be fully funded by the Alpha assets. Asset allocation needs to know its target ROA in order to function efficiently. A 5.27% ROA should have a different asset allocation than an 8.23% ROA. Since contributions are included in the ROA as an asset or liability offset, the calculated ROA is way lower than without contributions included. The point here is that assets need to know what their required hurdle rate is... or target ROA. Without this calculation, asset allocation is misaligned and may invite more risk into the equation than needed. A *calculated ROA* should be a requirement for asset allocation.



Ryan ALM, Inc.

"Where is the knowledge we have lost in information." T.S. Eliot

Ryan ALM, Inc. is an asset/liability manager specializing in cash flow matching thru a proprietary cost optimization model called the Liability Beta PortfolioTM.



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