Pension Solution: Liability Beta Portfolio™ (LBP)

The primary pension objective is **to *secure* promised benefits (Retired Lives) in a cost-effective manner (stable to lower contribution costs) with prudent risk. This is best accomplished through *cash flow matching*.**

Cash Flow Matching

Since benefits (liabilities) are future value numbers, it is consistent and necessary to match the future value of assets to the future value of liabilities. This is better said as ***cash flow matching*** asset cash flows to liability cash flows… **cash flow driven investments (CDI)**. Since bonds are the only asset class with a known future value, it has been the obvious choice to cash flow match liabilities. Indeed, this is the true value of fixed income assets. In truth, *cash flow matching* the liability benefit payment schedule (liability cash flow) is the **ideal way to de-risk a pension plan.** Since projected benefits (future values) are not interest rate sensitive, cash flow matching projected benefits eliminates the biggest risk in bonds… interest rate sensitivity.

Since contributions are the initial source to fund liabilities, current assets fund net liabilities (benefits – contributions). It is critical that current assets know what they are funding… net liabilities! Fixed income assets are best cash flow managed versus Retired Lives, which are the most certain and imminent liabilities. Active Lives tend to be the most uncertain cash flows (actuarial noise). Matching Retired Lives net liabilities *chronologically* is wise and recommended as it not only secures benefits over a certain time horizon, it buys time for the non-bond assets (Alpha assets) to perform and outgrow Active Lives liabilities. It would not be prudent to use volatile, risky assets to fund the shorter Retired Lives liabilities… too uncertain.

Ryan ALM has developed a cash flow matching model called the **Liability Beta Portfolio™ (LBP)**. Our LBP is a cost optimization model that matches and funds Retired Lives monthly benefit payments chronologically at the lowest cost to the plan sponsor. Our LBP should reduce funding costs by 8% to 10% vs. 1-10 years Retired Lives. The true value in bonds is the certainty of their cash flows. We urge plan sponsors to transfer current active fixed income management from generic index benchmarks to our LBP to de-risk the plan gradually and reduce costs.

Ryan ALM, Inc.

The Solutions Company
1-561-656-2014
www.RyanALM.com

Asset Allocation

Asset allocation would be wise to separate Retired Lives from Active Lives and liability Beta assets from liability Alpha assets. We recommend using bonds cash flow matched to Retired Lives chronologically as the liability Beta assets and use Alpha assets (risky assets) for the Active Lives. The funded ratio should dictate the allocation to bonds. The higher the funded ratio: the higher the allocation to liability Beta assets. The pension plan's current allocation to bonds should determine how much of the net liabilities bonds can cash flow match (i.e. 15% bond allocation might fund the next seven to 10-years of Net Retired Lives). By switching from traditional bond management and generic bond indexes to a Custom Liability Index coupled with a ***Liability Beta Portfolio*** will produce many benefits to the pension plan:

1. Reduce Funding Costs

The Liability Beta Portfolio should be the core portfolio since it best represents the true pension objective… securing benefits in a cost-effective manner. Our LBP will reduce funding costs by 8% to 10% in funding 1-10 years of Retired Lives. The true quest of any pension or liability driven objective is to reach and maintain a fully funded liability cash flow matched asset position. This can only be achieved with a cash flow matching bond portfolio. Any other asset class does not match the behavior of liabilities and creates the roller coaster effect of victories (surplus) and losses (deficits).

2. Reduces Volatility in Funded Ratio

If you match liabilities then you match the risk/reward behavior of the present value of liabilities. This eliminates the roller coaster effect that most plans have in their Funded Ratio due to a mismatching of assets vs. liabilities. This erratic growth difference between assets vs. liabilities plays havoc with budgets (i.e. Contributions), benefit decisions and financial statements.

3. Reduces Contribution Volatility and Cost

If you match liabilities then the funded ratio is less volatile which in turns means that contribution costs become less volatile. Our LBP will also outyield liabilities thereby creating some Alpha which will reduce Contribution costs.

4. Reduces Interest Rate Risk

Benefit payments are future value amounts which are not interest rate sensitive. By cash flow matching future values, we have neutralized interest rate risk.

5. Reduces Bond Asset Management Fees

The Ryan ALM Liability Beta Portfolio (LBP) has a low fee which should save clients about 50% on bond asset management fees.

6. Buys Time for Alpha assets

The LBP will match and fund Retired Lives chronologically. If the LBP funds 1-10 years of Retired Lives it buys 10-years of time for the Alpha assets to grow and perform. History tells us that risky assets do better the more time you give them to perform.

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

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