

# Pension Game: Find the Liabilities?

by  
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The true objective of a pension is **to fund liabilities (benefits + expenses) in a cost-efficient manner with prudent risk**. Although the management of pensions should have a liability driven objective, it is hard to find a focus on liabilities in any of the critical pension management functions. This has led to a singular focus on assets versus assets for several decades.

## Asset Allocation

Most pension asset allocation (AA) models are designed to earn a return equal to the return on asset (ROA) assumption. Asset management is required to perform versus a generic market index for their asset class as their benchmark. Most AA models use the historical returns of these generic market indexes benchmarks to create an average or expected asset class return as their forecast of future returns. These market indexes average returns are then weighted for each asset class based on the target exposure in the fund to arrive at the ROA. This asset allocation process is usually the job of the pension consultant. The pension actuary will then use this ROA to calculate the annual contributions needed to attain full funding. This ritual is repeated at some frequency by both the pension consultant and actuary in conjunction with the pension Board. So, what's missing... **liabilities and the funded status**.

If the true objective of a pension is to fund liabilities in a cost-effective manner with prudent risk, then the funded status is paramount. Obviously, **the pension objective is a cost objective not a return objective!** Logically a 60% funded plan would need a higher ROA to reach full funding than a 90% funded plan. But regrettably AA models ignore the funded status and work with an asset only focus.

To make matters worse, the funded ratio/status ignores future contributions as future assets. The truth is **assets fund net liabilities after contributions** (benefits + expenses - contributions) not gross liabilities. GASB requires a test of solvency whereby a plan sponsor must prove that they can fully fund total liabilities **with contributions**. We applaud GASB for this test and funding awareness. Ryan ALM modifies this solvency or asset exhaustion test (AET) to calculate the accurate ROA needed to fully fund net liabilities after contributions. It has been our experience that the actual ROA is always different and most often lower than the current ROA target (maybe significantly). We recommend the Ryan ALM calculated AET be employed as part of the asset allocation process to determine the accurate ROA needed to fully fund the pension plan's net liabilities.

**Asset allocation should be responsive to the funded status** rather than strategic (long-term) or tactical (short-term) AA that ignore the ever-changing funded status. If the funded status is steadily improving, then AA should respond by shifting the allocation to more fixed income to cash flow match (defease) liabilities and thereby reduce risk while increasing the certainty of full funding



which should lower contribution costs. Funded ratios have improved dramatically since 2020 but the allocation to fixed income has not.

Ryan ALM offers the following solutions to fix this asset only focus of pensions:

**Solution: Asset Exhaustion Test (AET)**

Based on each client's actuarial projections of benefits, administrative expenses and contributions, the Ryan ALM modified AET will create a matrix of ROAs to calculate what ROA is a best fit to fully fund net liabilities (B+E) – C. The projected contributions can be adjusted as well if the **calculated** ROA is meaningfully different than the current target.

**Solution: Custom Liability Index (CLI)**

Most institutional **objectives mandates** are liability driven (Pensions, OPEB, SFA grants, Lotteries, etc.). Yet it is hard to find the liability objective in anything the asset side does (asset allocation, asset management (other than LDI), performance measurement, etc.). There seems to be a definite disconnect here. If all asset managers outperform their generic index benchmark but lose to liability growth... did the client win or lose? Clients lost and may have to pay a penalty (higher contribution costs). **The true objective for liability driven clients is to fund their unique and proprietary liabilities in a cost-efficient manner with prudent risk.** Similar to snowflakes... no two liability cash flow schedules are alike. As a result, it is impossible for any generic index to properly represent the client's liability objective. **Only a CLI could be the proper benchmark for a liability objective. Now pensions can compare asset growth versus liability growth as the proper performance measurement for a pension.** Ron Ryan and his team developed the first CLI in 1991... it remains as one of the key products of Ryan ALM and an essential tool in our turnkey proprietary cash flow matching system.

Liabilities are the realm of actuaries. They are usually difficult and tedious calculations. As a result, actuarial projections are produced annually months after the end of the fiscal year. This is not in harmony with active asset management which needs to monitor their objective often in detail. The Ryan ALM CLI is a *monthly report* that provides all the calculations and data needed for successful asset liability management (ALM). Our CLI will take the annual actuarial projections and convert them to monthly NET liability cash flows. Assets need to know what they are funding. Usually it is monthly **(benefits + expenses) – contributions = net liability cash flows.**

Ryan ALM will then price the CLI using our proprietary **ASC 715 discount rates.** Ryan ALM is one of a few ASC 715 vendors providing such rates since the inception of FAS 158 in 2008. In addition to a monthly net liability cash flow schedule, our CLI will provide numerous statistics based on ASC 715 discount rates: average duration, YTM, growth rate, interest rate sensitivity, etc.



### **Solution: Cash Flow Matching (CFM)**

The value in bonds is the certainty of their cash flows. Bonds may be the only asset class with such value. Ryan ALM has consistently recommended to ***use bonds for the certainty of their cash flows***. We do not consider bonds as performance or Alpha assets. We view bonds as liquidity or Beta assets. Bonds have always been the chosen asset class for the cash flow matching of liabilities. In the 1970s it was called Dedication. CFM has a long successful record of being the core portfolio to defease and fully fund the liability objective. With interest rates much higher today than in the last 20-years, CFM should be in vogue. We urge clients and their consultants to use CFM as the bond allocation to fully fund the net liability cash flows chronologically and replace the allocation to highly interest rate-sensitive active core bond strategies managed to a generic market index.

We call the Ryan ALM CFM model... **Liability Beta Portfolio™ (LBP)**. Our LBP is a **cost optimization model** composed of investment grade bonds skewed to A/BBB+ issues at low cost to fully fund net liabilities. The LBP will cash flow match monthly liabilities ***chronologically*** based on the CLI data. We recommend funding 1-10 years of Retired Lives as the minimum target area to fund given the certainty of the liability cash flows and to buy time for the performance assets (the fund's residual alpha assets) to grow unencumbered. The LBP will provide the liquidity needed to fully fund these net liabilities in a cost-efficient manner thereby reducing or eliminating the need to do a cash sweep from the performance assets. S&P data shows that dividends reinvested account for over 50% of the S&P 500 total return over 20-year periods since 1940. Since our LBP is skewed to A/BBB+ corporate bonds it should outyield traditional bond management which will enhance the fund's ability to achieve the ROA. More importantly, our LBP should reduce funding costs in this rate environment by about 2% per year (20% for 1-10 years), reduce the volatility of the funded ratio, contributions, and reduce asset management costs (our fee = 15 bps).

### **Benefits**

The benefits of the Ryan ALM process are numerous:

- AET will calculate the ROA that accurately fully funds liabilities after contributions
- CLI benchmark provides all the data and calculations needed for efficient ALM
- LBP de-risks the plan by ***cash flow matching*** benefit payments with certainty
- LBP provides liquidity to fully fund net liabilities so no need for cash sweep
- Eliminates interest rate risk since it is funding benefits (future values)
- Reduces funding costs by about 2% per year = 20% on 1-10 years
- Reduces asset management costs (Ryan ALM fee = 15 bps)
- Enhances ROA by out-yielding active bond management
- Reduces volatility of the funded ratio + contributions
- CLI + ASC 715 discount rates provided at no cost
- Buys time so Alpha assets grow unencumbered

For more info on the Ryan ALM process, please contact Russ Kamp, CEO at:

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