

Pension Doctor: Generalist or Specialist?

Most people go to a doctor who is a specialist or expert on the subject they are looking for treatment. The same should be true in business, especially for a pension. Since pensions are liability driven, you would think that plan sponsors would want to hire liability driven specialists. Indeed, they do when it comes to actuaries. It is less clear when it comes to asset management. As our name implies, Ryan ALM is entirely dedicated to asset liability management (ALM). To our knowledge, we are the only pure ALM specialist. We believe our turnkey system is unique in the pension industry:

1. Custom Liability Index (CLI)

Ron Ryan and his team invented the CLI product over 32 years ago. As the former director of fixed income research at Lehman, Ron designed the popular Lehman bond benchmarks which are still in vogue today as the Bloomberg Barclays indexes. It became obvious to Ron long ago that pension liabilities are like snowflakes... no two are alike. Only a CLI could understand and capture the liability cash flows that assets need to fund. Although the actuaries provide *annual* projections of benefits (B), administrative expenses (E) and contributions (C) they do not refine this data into the *monthly* liability cash flows assets must fund. In reality, **liabilities are monthly net payments of (B+E) – C as contributions are usually the first source to fund liabilities.** As the initial step, our CLI will calculate the liability cash flows that assets must fund... monthly net payments (B+E) - C. The CLI will then perform a series of monthly calculations:

Future Value
Present Value
Growth Rate %
Yield / Duration
Interest Rate Sensitivity

We believe that the CLI is the proper benchmark for any ALM mandate providing vital monthly calculations. There should never be an investment meeting without liabilities (the CLI) being presented. Pension management is all about assets versus liabilities. Most often such investment meetings are about assets versus assets (generic market indexes).

2. ASC 715 Discount Rates

Ryan ALM is one of few vendors providing ASC 715 discount rates ever since FAS 158 was enacted in 1998. Such discount rates are a zero-coupon AA corporate yield curve. We provide four versions:

High End Select (top 10% yielding bonds)
Top 1/3 Curve (top 33% yielding bonds)
Above Median Curve (top 50% yielding bonds)
Full Curve (all 100% yielding bonds)



Yield curves derived from actual AAA/AA corporate bonds placed into 8 maturity bands:

1.01 - 3.00 years	7.51 – 9.50 years	24.01 – 27.00 years
3.01 - 5.00 years	9.51 – 17.00 years	27.01 + years
5.01 - 7.50 years	17 01 - 24 00 years	-

If the market value of assets is the most accurate measurement of asset valuation, then the same is true for liabilities. ASC 715 discount rates are *market rates*. The Society of Actuaries (SoA) delivered a research paper "Principles Underlying Asset Liability Management (ALM)" years ago that warns of erroneous accounting valuations and recommends that pensions create a set of economic books:

"A consistent ALM structure can only be achieved for economic objectives. Accounting measures can sometimes *distort* economic reality and produce results inconsistent with economic value. Because ALM is concerned with the future asset and liability cash flows, the **natural** *focus of ALM is economic value*."

Ryan ALM Translation: Pension plans need to create a set of "economic books" so ALM can function effectively. It's all about asset cash flows funding liability cash flows. A *Custom Liability Index* (CLI) is the method and proper benchmark to create economic books. ASC 715 discount rates are a proper method to evaluate the market valuation of liabilities. The Ryan ALM CLI and ASC 715 discount rates provide all of the calculations needed for efficient ALM and performance measurement.

3. Liability Beta Portfolio™ (LBP)

Cash flow matching is the optimal strategy to achieve the true pension objective... **secure benefits in a cost-efficient manner with prudent risk**. The Ryan ALM LBP is a cash flow matching portfolio that matches and funds monthly net liability cash flows *chronologically*. Our LBP is a cost optimization model that will produce the lowest cost portfolio to fund the target liability cash flows. Our LBP should **reduce funding costs by about 2% per year (1-10 year liability schedule = 20% funding cost savings)!**

The intrinsic value in bonds is the certainty of their cash flows. We urge pensions to use bonds for their value... to match bond cash flows to fund liability cash flows chronologically. We do not view bonds as performance vehicles or Alpha assets. They are best as *liquidity assets* to fund liabilities as they come due. By bifurcating liquidity assets from growth assets (Beta vs. Alpha assets) you BUY TIME for the Alpha assets to grow unencumbered. The LBP should be the *core* portfolio of asset allocation. It provides numerous benefits:

- Reduces risk (de-risks) by *cash flow matching* net liability payments with certainty
- No deficits in cumulative asset cash flows vs. liability cash flows differences
- No interest rate risk since it is funding future values (liability payments)
- Reduces funding costs by approximately 2% per year (1-10 years = 20%)
- Reduces pension expense since assets will outyield liabilities



- Reduces volatility of the funded ratio and contributions
- Creates a more precise Duration matching as a byproduct

4. Performance Attribution Report (PAR)

Ryan ALM provides a monthly comparison of the risk/reward behavior of asset growth versus liability growth. PAR calculates 14 measurements of risk/reward:

- 8 Risk measurements
- 4 Reward measurements
- 2 Risk Adjusted measurements

In addition, we provide a graphic presentation of asset cash flows versus liability cash flows. There should never be a deficit in any month of cumulative cash flows differences.

"Hakuna Matata" (No worries)
-Lion King

For info on the Ryan ALM turnkey system, please contact:

Russ Kamp <u>rkamp@ryanalm.com</u> or 201-675-8707