Pension Solution: Custom Liability Index (CLI)

Most pension assets are managed versus a market index as the objective or benchmark. However, **the true objective of a pension is to fund the pension liabilities (benefit payments) at the lowest cost to the plan with prudent risk.** No market index could ever represent the liability objective of any pension. Just like snowflakes, no two pension liabilities are alike due to each plan having a different labor force, salaries, mortality and plan amendments. As pensions have experienced too often, **given the wrong index objective … you will get the wrong risk/reward profile!**

This has been the pattern for most pension plans as their Funded Ratios have been on a roller coaster for several decades. Until the true liability objective of a pension plan (and any liability driven objective) is measured and monitored frequently and accurately, pension assets are in jeopardy of being managed to the wrong index objective(s). Until a ***Custom Liability Index*** is built and put in place as the proper benchmark, all asset decisions are in danger of being mismanaged. Asset Allocation, Asset Management and Performance Measurement are all index driven. Given the wrong Funded Ratio, asset allocation will most probably function inappropriately. It follows that a pension plan with a surplus should have a different asset allocation than a plan with a large deficit. Such Funded Ratios need to be based on market or economic valuations not accounting or actuarial valuations. Given the wrong index objective(s), asset management will behave accordingly and produce an inappropriate risk/reward profile (same as index benchmark). Given the wrong index objective(s), performance measurement will then provide inappropriate risk/reward measurements. It is rare that pension assets are ever compared to pension liabilities in performance measurement reports. It follows that if you **outperform the S&P 500 or any market index but lose to liability growth …the pension plan loses!**

Traditional generic bond indexes do a good job of measuring the risk/reward behavior of a market sector but have nothing to do with pension liabilities. It is mission impossible for any generic index to measure the unique cash flows of any pension. Only a Custom Liability Index could ever measure and monitor the risk/reward behavior of any pension liability cash flow schedule.

Accounting and Actuarial Reports

Most accounting and actuarial reports are based on an annual fiscal year basis. These tedious and complicated reports usually take months to compile. Such reports usually include a thorough analysis of pension liabilities based on current accounting rules (i.e. ASC 715, ASC 960, PPA, GASB) and actuarial practices (i.e. ASOP 27).

Although these annual accounting and actuarial reports are quite thorough they do not provide the calculations, transparency and frequency needed for proper asset/liability management (ALM). What asset manager could manage assets to an index that comes out annually, months delinquent and you are not provided with the index portfolio. It is rare that the liability cash flow schedule of benefit payments is provided in an actuarial report or CAFR.

Solution: Custom Liability Index (CLI)
Given a liability objective, the first step in a solution is a **Custom Liability Index** that accurately and frequently measures the size, term structure shape and risk/reward behavior of this unique cash flow. A Custom Liability Index is the proper benchmark for liability driven objectives. The CLI creates a true *economic or market value* measurement of liabilities instead of a single discount rate approach (that is not a market rate) used by most clients today. Since Contributions are the first source to fund benefit payments, the Ryan ALM Custom Liability Index creates a gross and net CLI (after Contributions). Assets need to know what they are funding… net liabilities (after Contributions). Unlike actuarial reports that come out annually and even tri-annually (delinquent), the Ryan ALM Custom Liability Indexes are *monthly* reports. Our CLI will calculate:

YTM
Duration
Future Value
Present Value
Growth Rate %
Term Structure
Interest Rate Sensitivity
Gross and Net Liabilities

Benefit: Asset Allocation (AA)
Plan sponsors can now know their economic funded status monthly on both a gross and net liability basis. Asset allocation should be based on the economic net liability funded status. A surplus should have a much different AA than a deficit. A deep deficit should have a different AA than a small deficit.

Benefit: Proper Benchmark for Assets
Assets need to know what they are funding… net liabilities (after Contributions). Bonds are best as the **core portfolio to cash flow match Retired Lives chronologically**. Out Liability Beta Portfolio (LBP) is the proper cash flow matching tool and is explained in our future research topic. This buys time for the Alpha assets to grow and perform vs. the CLI.

Benefit: Performance Measurement
Once the Liability Beta Portfolio is installed to cash flow match Retired Lives chronologically, you now need the Alpha assets to outgrow liability growth to enhance the funded status. The CLI will provide the growth rate of net liabilities just like any index benchmark so performance measurement can be easily assessed.

An error is not a mistake until you refuse to correct it.
John F. Kennedy

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