Ryan ALM, inc.

Asset/Liability Management

The Solutions Company

Ronald Ryan, CEO, CFA

The Ryan Letter

June 30, 2012

Index	Returns YTD 2012	Estimated Weights
Liabilities :		
Market (Tsy STRIPS)	4.78 %	100 %
FAS 158 (AA Corporates)	2.30	
PPA (3 Segment)	8.19	
PPA (Spot Rates)	6.75	
GASB / ASOP (8% ROA)	4.00	
Assets :		
Ryan Cash	0.03 %	5 %
Lehman (Barclay)Aggregate	2.37	30
S&P 500	9.48	60
MSCI EAFE Int'l	3.33	5
Asset Allocation Model	6.66 %	100 %
Assets – Liabilities		
Market	1.88%	
FAS 158	4.36	
PPA (3 Segment)	-1.53	
PPA (Spot Rates)	-0.09	
GASB / ASOP (8% ROA)	2.66	

Using the Asset Allocation above, the difference in asset growth vs. liabilities in 2012 was: **1.88%** (market valuation STRIPS), **4.36%** (FAS 158), **-1.53%** (PPA rules-3 segment rates), -**-.09%** (PPA-Spot Rates) and **2.66%** (GASB/ ASOP). Such valuations show the significant difference in not using *market* valuations. Most pension funds enjoyed a funded ratio surplus in 1999 but **pension asset growth has underperformed liabilities by about -202.46% since 1999** on a compounded index basis starting at 100 on 12/31/99!

(see **Pension Scoreboard on page 7**)

Total Returns													
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Assets	-2.50	-5.40	-11.41	20.04	8.92	4.43	12.25	6.82	-24.47	19.43	11.89	3.27	6.66
Liabilities	25.96	3.08	19.47	1.96	9.35	8.87	0.81	11.76	33.93	-19.52	10.13	33.77	-4.78
Diff:													
Annual	-28.46	-8.48	-30.89	18.08	-0.43	-4.44	11.44	-4.94	-58.40	38.95	1.76	-30.50	1.88
Cumulative		-37.60	-73.40	-60.08	-66.13	-76.75	-64.60	-78.38	-181.57	-106.94	-115.67	-195.73	-202.46

Ford and GM Pension Buyout by Prudential

In an effort to remove the pension liability and de-risk their plans, Ford offered 98,000 salaried retirees and GM 42,000 retirees a lump-sum payment option from Prudential. GM's retirees are forced to decide by July 20th while Ford's offers will rollout periodically through 2013. GM indicated that this buyout would reduce their pension liabilities by $26 billion. GM will spend $3.5 to $4.5 billion cash in this deal before transferring the pension assets to Prudential.

Companies Moving to Mark-To-Market (MTM) Accounting on Pensions

Several major companies have announced a move to mark-to-market (MTM) accounting for their pensions. They include ATT, IBM, Honeywell, UPS and Verizon. The primary motivation is get rid of the large ***actuarial loss*** carry forward that is a drag on future earnings. Such a loss occurs when the actual return on pension assets is well below the return on asset (ROA) forecast. The year 2008 all by itself was a huge asset underperformance year where assets had negative growth of around **-24%**. Compared to an ROA of 8% represents a difference of 32% minus a 10% corridor equals a difference of around **-20%**. This is then amortized over the average life of the pension as an annual direct hit to earnings. ATT announced it was restating 2008 earnings from a $2.5 billion profit to a $12.5 billion loss… an amazing $15 billion adjustment! Many companies are saddled with a similar loss carry forward. Under the IASB new accounting rules effective 1/1/13, the ROA is removed and companies must report actual asset returns. FASB is expected to follow given its outspoken accounting convergence philosophy. Such new accounting rules will enhances transparency and the ability to forecast benefit costs. It aligns pension plans with market-based accounting principles. These new rules will reflect pension plans' actual return on assets as well as changes in discount rates on liabilities. Such a move to MTM requires a focus on liabilities. In order to minimize the cost and volatility on your financial statements assets will have to grow equal to or better than liability growth on a MTM basis. Ryan ALM is a long-time leader in providing MTM on liabilities in harmony with FAS 158, PPA and GASB (see next paragraph).

ASC 715 (formerly FAS 158) Pension Discount Rates Available via Ryan ALM

Ryan ALM produces pension discount rates in conformity with ASC 715 (FAS 87/158) by manufacturing an AA corporate zero-coupon bond yield curve since FAS 158 became effective in 2006. We make our discount rate curves available to any corporate plan sponsor, consultant, accounting and actuarial firm usually by the third business day of each month. Our discount rate yield curve is monitored and approved by a major accounting firm. If you have an interest in subscribing to our data, please contact us at… **RyanContact@RyanALM.com.** Moreover, Ryan ALM creates **Custom Liability Indexes (CLI)** as the proper benchmark for liability driven objectives based on FASB, PPA, GASB and Market discount rates. Our CLI is a *daily index* report that calculates: Present Value, Term Structure, Growth Rates (Returns), Summary Statistics (YTW, MDuration, Average Price (Cost)) and Interest Rate Sensitivity.

SSDI Bankruptcy!

The latest entitlement problem (and perhaps scam) is Social Security Disability Insurance (SSDI). It is well rumored that Social security will go bankrupt somewhere around 2033 and Medicare goes belly up as early as 2024. According to J. Brendan Ryan (no relation), a Cincinnati insurance agent, Social Security's disability insurance program (known as SSDI) is projected to become insolvent by 2016! This program was added to Social Security during the

Eisenhower administration. It pays income to disabled workers for life… for those who have paid into Social Security. To collect the individual must be unable to do any gainful activity and the disability must be expected to last at least one year. You must also have contributed to Social Security in at least five of the previous 10 years. The amount of your monthly benefit receivable is based upon your history of earned income covered by SS up to a certain level. Since the end of 2008, SSDI enrollment has doubled to 10.8 million recipients. Since the recession ended in June 2009 the # of new enrollees is twice the job growth rate.

Stockton, CA Files for Bankruptcy!

On June 28, 2012 the city of Stockton, CA filed for bankruptcy making it the largest city to ever file Chapter 9 Title 11. The city council adopted a Pendency Plan which is the budget and operational plan while the petition is pending with a Federal Bankruptcy Court. The Pendency Plan includes: suspending payment of bonds, claims and long-term debt paid by the General Fund. It is estimated that the city owes $1 billion in long-term debt. The city's debt has been attributed to one of the most healthy retiree benefit plans in CA + large projects. All projects were to be funded by housing taxes which started to crumble in 2008.

GASB Introduces Two New Accounting Rules

On June 25, GASB approved Statements # 67 and 68. GASB 67 outlines the basic framework for financial reports of DB plans. GASB 68 will require governments with defined benefit plans to disclose a "net pension liability" on their balance sheets. That liability equals the difference between the total pension liability and the value of the pension assets (without smoothing). This statement also calls for recognition of more pension expense. One of the changes is that the discount rate will be bifurcated such that the ROA is used as the discount rate for "funded" liabilities and a yield on 20-year AA tax-exempt municipal bonds is used as the discount rate for "unfunded" liabilities… what a concoction! Under the new standards Funded Ratios are about 20% lower according to the Center for Retirement Research at Boston College. The Center went on to calculate that only four of 126 state pension plans are fully funded. Ph.D. Joshua Rauh says it well when reacts with "this is still a flawed accounting system". He says states should measure their pension promise the way insurance companies set the price of an annuity – using the market prices for risk-free bonds. I have promoted the risk-free concept (Treasury STRIPS) ad-nauseu since 1985. The economic truth is that using the ROA as the discount rate undervalues liabilities by at least 40% to 60% vs. risk-free bonds.

Congress Passes Pension Relief

On June 29, Congress passed legislation to give corporate pension plans funding relief while raising their PBGC premiums. The relief came under a highway reauthorization bill. The President is expected to sign it. Instead of using the two year average corporate bond rates (PPA three segment rates) pensions may now use a 25-year average corporate rate that is within a 10% range. That range will grow 5% a year. This formula would raise the current PPA discount rates to 6.7% from 5.3%. This will raise the Funded Ratios and reduce contribution costs. The Society of Actuaries estimated that will increase the number of plans over 80% funded to 91% from 62%. Congress estimates this will bring in $9.4 billion in federal tax revenues in 10 years by reducing the pension contribution tax deduction. This bill also raises the PBGC flat-rate premium from $35 to $42 per participant in 2013 (20% increase) and $49 in 2014 (another 16.7% increase). It is estimated this PBGC increase will bring in $9 billion in 10 years.

Spain Banks need up to $78 Billion

Independent auditors revealed that major Spanish banks may require up to $78 billion to recapitalize and stay solvent. The Economy Ministry and the Bank of Spain announced in late June that the needs of Spanish banks are between $30 billion in a base-line scenario to $78 billion in a high stress scenario.

If Elected President

Given that we are now in the stretch run of an election year, I thought I would offer some ideas for the candidates. Hopefully, you find them entertaining and even useful. I would appreciate any critiques sent to **rryan@ryanalm.com** :

1. Rank Golden Parachutes as Debt in Bailouts/Mergers – Golden parachutes that award key executives with incredible severance packages should be positioned as junior debt of the firm. This means that they get paid *after* senior creditors. This would provide discipline and incentive for these executives to take care of all senior creditors.

2. Give the President a Line Item Veto - Many, if not most, Bills presented before Congress get amendments added ("earmarks") to promote and fund pet projects of our congressmen. These amendments usually have nothing to do with the topic of the Bill being passed but wise politicians realize that they can get their special interests funded if the Bill is favorable to the House and Senate. The President should be allowed to cut the fat and excessive spending by vetoing any of these line item amendments.

3. Quit Stealing from Social Security – The federal government consistently borrows the so-called Social Security surplus each year and spends it on general budget expenditures. Congress has borrowed over $2 trillion over the years and plans to borrow over $200 billion this year. According to a new book "Stop the Raid" by Dennison Smith and Peter Ferrara, they estimate that taxpayers will pay an additional $6 trillion from 2017 to 2041. Art Linkletter writes in the foreword, "What was a much-needed means of social security in the 1930s has become an ATM machine for Congress rather than securing and guaranteeing a portion of our retirement".

4. Reduce Our U.N. Costs – The U.N. was a well-conceived idea that has gone sour for America and other Nations over the 59 years of its existence. The central purpose of the United Nations is to preserve peace. Under the charter, member states agree to settle disputes by peaceful means and refrain from threatening or using force against other States. America bears the burden for a great portion of the U.N. costs (@ 30%) but we only have equal vote with the other 192 nations. There needs to be a more equitable sharing of costs. The site of UN headquarters consists of 18 acres owned by the UN not America!

5. Require Less Dependence on Foreign Oil - Given the escalating and high cost of oil we continue to feed these foreign oil exporting countries with great wealth, some of whom are considered our enemy (i.e. Venezuela). We need to reduce our dependence on foreign oil. We need to be self-sufficient on such a dependent commodity. We need to allow more exploration in our own oil deposits (i.e. Alaska and off shore Florida). We need to promote other sources of fuel as a replacement for oil, especially flex-fuel (alcohol based fuel). We need to find a replacement for the internal-combustion engine. After 100 years, can't we find a more energy efficient and cost effective alternative to run our cars and trucks (i.e. CNG)? Congress needs to act quickly to promote the proper incentives plus place penalties (taxes) where companies do not behave in the best interests of the American economy (i.e. gas guzzling cars). Most of these foreign oil export countries have built a Sovereign Wealth Fund of incredible size. This is most commendable to these countries as they save and invest during their good times (surplus) protecting and ensuring their future. Where is America's Sovereign Wealth Fund? Why don't we ever run a Surplus economy? What role do oil lobbyists play in our energy demise?

6. Increase IRA Allowance – As we prepare for a Social Security crisis, American taxpayers should be allowed to provide for their retirement. The IRA has been a great invention but limited. We need to allow our citizens to provide for their own retirement. We need to raise the limits on what taxpayers can allocate to their IRA plan. At current IRA allowances plus Social Security benefits, most Americans would be hard pressed to meet retirement costs. Why not allow a 20% + allocation to an IRA. The government still gets paid in taxes. The only question becomes are taxes paid upfront (Roth IRA) or deferred.

7. Make Healthcare Assets Tax-Exempt - We are currently facing the largest financial disaster in America's history: how to pay for Healthcare benefits (OPEB). Pensions were given an incentive to prefund pension liabilities by making them tax-exempt. However, healthcare assets do not have the same tax treatment. As a result, they are reluctant to prefund. Instead of funding these future liabilities at 50 to 60% cost thereby saving 40 to 50% most institutions (corporate and Public) have chosen a pay-as-you-go strategy which funds such liabilities at 100% cost. Treat OPEB assets the same as pension assets … make them tax-exempt!

9. Reduce Taxes – If our Declaration of Independence is correct that all men are created equal then perhaps we should treat our citizens the same way. Robbing the rich to give to the poor may be a Robin Hood value but does not work in a capitalist system. We need to motivate the rich to live and work in America. A FLAT INCOME TAX would be a fair system which would eliminate much cost of preparing those arduous tax forms and generate as much revenue as the government gets today with great cost savings. We also need to reduce the corporate income tax which is now the highest in the world to attract and keep corporations in America. We need to create an environment that motivates the most productive people and companies to live, build and work here. In this way, they will in turn hire more people and spend more in our economy. We should also make permanent the lower capital gains tax rates and eliminate double taxation of dividends to motivate economy activity.

10. Find and Buy Low Cost Manufacturing - America has steadily lost its manufacturing to the rest of the world due to our higher labor costs and taxes. We need to find a way to produce our goods cheaper where the production facilities are on our soil. It's time we become more self-dependent, especially on any critical goods and services. As we see with oil, any dependence on foreign goods here can be harmful to our economy. Why not buy a less developed country to be a low cost provider where we send our intellectual property to teach a low cost labor force. We do not want them to come to America where they would have to be paid at least our minimum wage, move away from family and live a life style they are not used to or perhaps want. Remember, most of America's land mass was purchased! Our key cities and environmental resources were purchased (Manhattan, Louisiana Purchase, Alaska, etc.). I would think that Haiti is an ideal candidate. It is close to our shores with the third largest land mass in the Caribbean. I would think that we could buy this undeveloped country for a lot less than the Iraq war costs. I am sure that the Haitians would welcome becoming a U.S. possession that would upgrade their way of life. U.S. possessions can work too (i.e. Puerto Rico, Samoa) which have become entitlement areas that are a drain on the U.S. economy… put them to work thru private capital incentives!

11. Bring back Investment Tax Credit - We are losing our manufacturing steadily to the rest of the world for many years now. We need incentives for corporations to do the right thing for America. Build plant and equipment here in America, hire more Americans! Create tax incentives for companies to build plant & equipment (i.e. jobs) in America. The ITC has always worked … we need a strong *corporate* America.

12. Legalize National Lottery - There are about 38 states that have a state lottery. For many states, this is the second or third largest revenue for that state. We need to find ways to finance and support Social Security and Medicare without taxing our citizens. A National Lottery with revenue dedicated to SS and Medicare would be a big help.

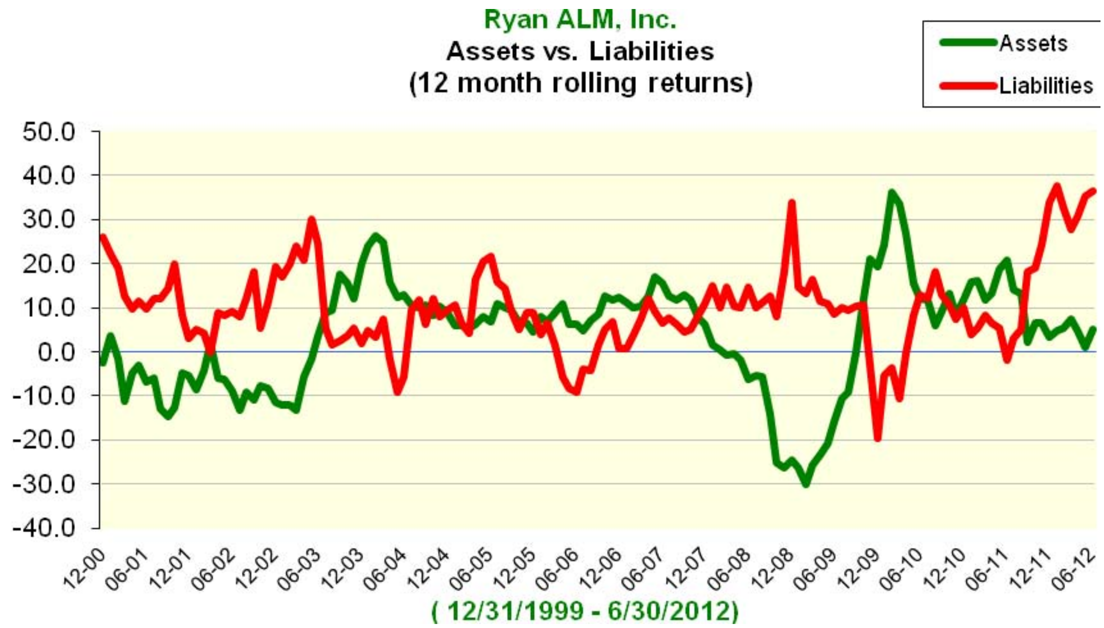
13. Sell our Gold – Since we left the Gold standard many decades ago, there is no economic reason to hold this commodity. Given the fact that Gold is now at an all-time high price ($1,571.90 per troy ounce) and our economy needs a stimulus (other than raising taxes) this might be a proper strategy and certainly good timing. As of August 30, 2011, the U.S. owned 8,133.5 tonnes of Gold (Germany has 3,412.60, IMF = 3,217.3, Italy = 2,451.8, France = 2,450.7, China = 600 and the UK = 310.3). There are 32,551 troy ounces in each tonne. This would value our Gold reserves at $416,166,118,606. Such a new found wealth could help shore up the Social Security and Medicare trust fund which is the next big financial crisis that all Americans will pay for in higher FICA taxes. Put the sale proceeds in a lock box and only use the interest income when you start to run SS deficits in future years. This way we would have an interest earning asset rather than the reverse situation which we have today (a cost center not a profit center).

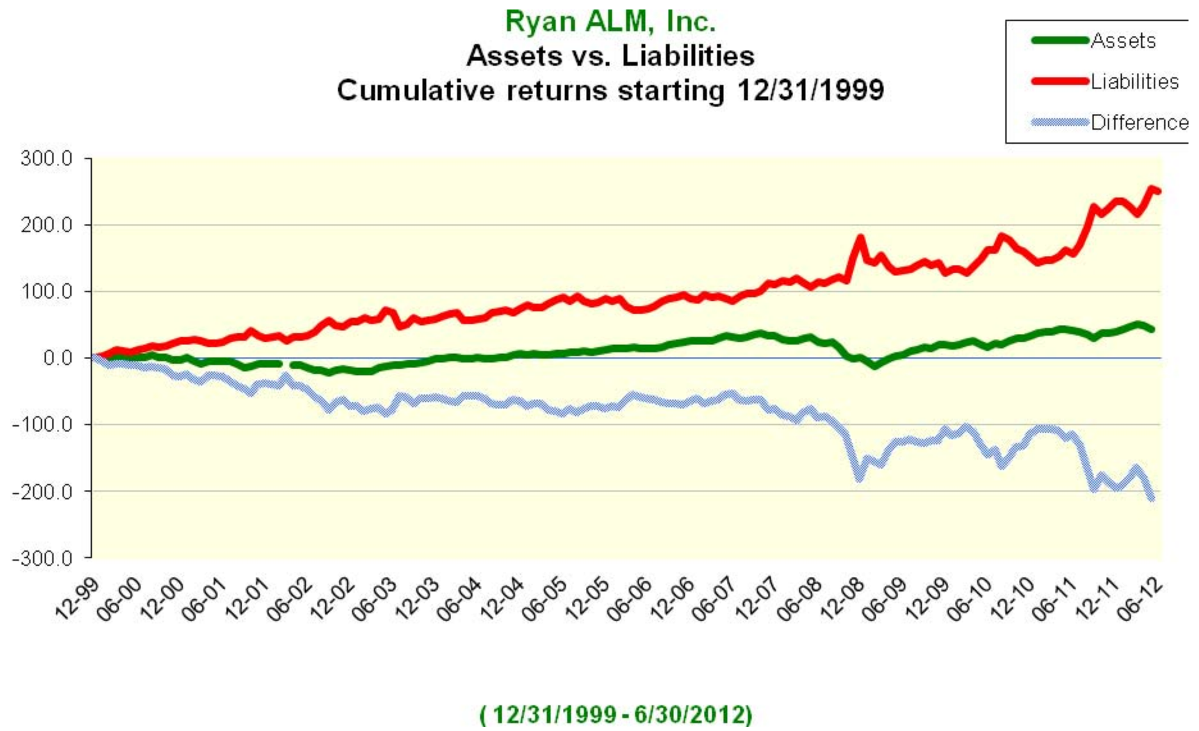
14. Get rid of Electoral College - This antiquated system is in defiance of our Declaration of Independence which states that all men are created equal. Each American should get an equal vote in our elections. Anything less or more contradicts our heritage. In the history of the U.S. Presidential elections there were four moments when a candidate won the office by electoral votes but lost the popular votes:

1824 = John Quincy Adams beat Andrew Jackson (lost Popular votes by -10.44%)
1876 = Rutherford Hayes beat Samuel Tilden (lost Popular vote by -3.00%)
1888 = Benjamin Harrison beat Grover Cleveland (lost Popular vote by - 0.83%)
2000 = George Bush beat Al Gore (lost Popular vote by -0.51%)

Pension Scoreboard

The graphs below show asset vs. liability rolling 12 month and cumulative growth since 1999. The cumulative growth difference is **–202.46% suggesting any pension Funded Ratio below 236.76% in 1999 has a deficit today on a *market weighted* basis**





The World of Ryan Indexes

Custom Liability Indexes … (Patent Pending)

The best way to price (discount rate) and understand the interest rate sensitivity of liabilities is the **Ryan Treasury STRIPS yield curve indexes** as a **LIABILITY INDEX BENCHMARK.** In March 1985, when STRIPS were born, the Ryan Financial Strategy Group (RFSG) created the **1st STRIPS Index.** Based upon these Ryan STRIPS indexes we created the **1st Liability Index** as the proper Liability Benchmark for liability driven objectives. The Ryan team has developed hundreds of Custom Liability Indexes (CLI). Similar to snowflakes, no two pension funds are alike with unique benefit payment schedules due to different labor forces, mortality and plan amendments. Until a CLI is installed as the benchmark, the asset side is in jeopardy of managing vs. the wrong objective (market indexes). **If you outperform generic market indexes, but lose to the CLI … the plan loses!**

Ryan Treasury Yield Curve Indexes (*Constant Maturity / Duration* series)

In March 1983, the Ryan Financial Strategy Group (RFSG) created the **1st Daily bond Indexes (the Ryan Index)** as a *Treasury Yield Curve constant maturity* index series for each ***auction*** maturity series (from Bills to Bonds). In March 1985, the day after Treasury STRIPS were born RFSG created the **1st Treasury STRIPS indexes** as a *Treasury Yield Curve constant duration* series of 1-30 year maturities (30 distinct constant duration indexes + composite)**.** The best way to measure interest rate risk is to use the Ryan Treasury Yield Curve Index series**.**

RAFI Fundamental Weighted High Yield Index Series + RAFI Investment Grade Index Series
(PowerShares ETFs = PHB + PFIG)

In January 2010, Research Affiliates announced the creation of a series of bond indexes based on the RAFI fundamental weights. These include a short, intermediate long and composite Investment grade series and a short and intermediate High Yield series. Ryan ALM was honored and chosen as the index designer and calculation agent. In August 2010 the RAFI 1-10 year High Yield Index was launched as a **PowerShares ETF (PHB)**. There is also a Canadian hedged version **(PFH_CN)**. In September 2011 the RAFI 1-10 year Investment Grade index was launched as a PowerShares ETF **(PFIG)**. For more info on these ETFs and index, please go to:

www.Powershares.com (click on fixed income portfolios)

Ryan/Mergent 1-30 year Treasury Maturity Ladder (PowerShares ETF = PLW)

On October 11, 2007 PowerShares launched a fixed income ETF **(PLW)** based upon the Ryan/Mergent 1-30 year Treasury Maturity Ladder index. This index is an equal-weighted diversified portfolio of 30 distinct maturities. For more info on this ETF and index, please go to:

www.Powershares.com (click on fixed income portfolios)

Ryan ESG Bond Index Series (Global version)

In 2009 Ryan ALM launched the 1st ESG Global corporate bond index series based upon the GSRA ESG ranking (G100 + G400 series) for the top ranked ESG Global companies. This index series includes a 1-30+ year index.

Ryan FAS 158 Spot Rate Yield Curve Index

In 2006, Ryan ALM designed the FAS 158 yield curve index that prices any private pension liabilities in conformity to FAS 158 standards.

To view all Ryan Indexes data go to: www.RyanIndex.com

Given the Wrong Index … you will get the Wrong Risk/Reward
Confucius

Pension Solutions:
Custom Liability Index and Liability Beta Portfolio
(Patent Pending)

Ryan ALM offers a turnkey system of CLI + Liability Beta portfolio as a pension solution:

Custom Liability Index - The first step in prudent pension management is to understand, measure and monitor the liability objective frequently and accurately. Until liabilities are packaged as a **Custom Liability Index (CLI)** the asset side is in jeopardy of managing to the wrong objectives (i.e. market indexes). Only a CLI best represents the unique liability schedule of pensions. Just like snowflakes, no two pension liability schedules are alike due to different labor forces, salaries, mortality and plan amendments. How could a *generic market index* ever properly represent such a diverse array of pension liabilities? Once the CLI is installed the pension will now know the true **economic Funded Ratio** which should dictate the appropriate Asset Allocation, Asset Management and Performance Measurement. Ryan ALM is a leader in CLI as Ron Ryan was the inventor of the *first Liability Index* in 1991. In 2006, Ron won the *William F. Sharpe Index Lifetime Achievement Award* !

Liability Beta Portfolio (Patent Pending) – The value added in bonds is small as every performance ranking study proves (1st quartile vs. median difference). **The best value in bonds is to match and fund liabilities** as Dedication, Immunization and Defeasance have proven for decades. Since liabilities are dynamic calculations they need a CLI to monitor their risk/reward behavior. The *core* or Beta portfolio for a pension should be in high quality bonds that match and fund liabilities. A Beta portfolio is defined as the portfolio that matches the objective. If the true objective is liability driven then, by definition, the proper beta portfolio for any liability objective must be … a **Liability Index Fund or Liability Beta Portfolio**. This requires a Custom Liability Index in order to be executed.

The Ryan ALM Beta portfolio system will invest only in high quality securities that match the CLI. This provides our clients with the ***lowest cost and lowest risk portfolio***. It is the lowest risk portfolio since it has:

No Interest Rate Risk (matches CLI)
No Liquidity Risk
No Credit Risk
No Event Risk
No Prepay Risk

The Ryan ALM Beta portfolio is the lowest cost portfolio since we will always out yield liabilities by more than our low fee thereby guarantying each client **No Net Fee** to maturity (liability benefit payment dates). Moreover, the Beta portfolio is a matching liability portfolio that fully funds liabilities so no extra contributions are needed in this space reducing the volatility of contributions.