

Ronald Ryan, CEO, CFA

William F. Sharpe  
Lifetime Achievement Award

Money Management Letter  
Lifetime Achievement Award

Capital Link  
Most Innovative ETF Award

IMN  
ETF of the Year Award

Bernstein Fabozzi/Jacobs Levy  
Research Paper of the Year  
Award



# The Ryan ALM Pension Letter

September 30, 2013

(Copyright Ryan ALM, Inc. 2013 ...All Rights Reserved)

Index	Returns YTD 2013	Weights
<b>Pension Liabilities:</b>		
Market (Tsy STRIPS)	-9.82%	100 %
ASC 715 (FAS 158)	-9.75	
PPA (MAP 21 = 3 Segments)	5.22	
PPA (Spot Rates)	-10.58	
GASB /ASOP (8% ROA)	5.92	
<b>Pension Assets:</b>		
Ryan Cash	0.12 %	5 %
Barclay (Lehman) Aggregate	-1.89	30
S&P 500	19.79	60
MSCI EAFE Int'l	16.78	5
<b>Asset Allocation Model</b>	<b>11.82 %</b>	<b>100 %</b>
<b>Pension Assets – Liabilities:</b>		
Market	21.64%	
ASC 715 (FAS 158)	21.57	
PPA (MAP 21 = 3 Segments)	6.60	
PPA (Spot Rates)	22.40	
GASB/ASOP (8% ROA)	5.90	

Using the Asset Allocation above, the difference in pension asset growth vs. liabilities in 2013 was: **21.64%** (market valuation STRIPS), **21.57%** (ASC 715), **6.60%** (PPA – 3 segment rates), **22.40%** (PPA-Spot Rates) and **5.90%** (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 liability growth since by an estimated -141.63%** on a compounded index basis starting at 100 on 12/31/99!

	Total Returns (Market Values)									
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Assets	-2.50	-5.40	-11.41	20.04	8.92	4.43	12.25	6.82	-24.47	19.43
Liabilities	25.96	3.08	19.47	1.96	9.35	8.87	0.81	11.76	33.93	-19.52
<b>Difference:</b>										
<b>Annual</b>	<b>-28.46</b>	<b>-8.48</b>	<b>-30.89</b>	<b>18.08</b>	<b>-0.43</b>	<b>-4.44</b>	<b>11.44</b>	<b>-4.94</b>	<b>-58.40</b>	<b>38.95</b>
<b>Cumulative</b>		<b>-37.60</b>	<b>-73.40</b>	<b>-60.08</b>	<b>-66.13</b>	<b>-76.75</b>	<b>-76.75</b>	<b>-64.60</b>	<b>-181.57</b>	<b>-106.94</b>
	2010	2011	2012	2013						
Assets	11.89	3.27	11.79	11.82						
Liabilities	10.13	33.77	4.46	-9.82						
<b>Difference:</b>										
<b>Annual</b>	<b>1.76</b>	<b>-30.50</b>	<b>7.33</b>	<b>21.64</b>						
<b>Cumulative</b>	<b>-115.67</b>	<b>-195.73</b>	<b>-194.30</b>	<b>-141.63</b>						

### **2013... A Great Year for Pensions**

So far 2013 is shaping up as a very successful year for pensions thanks to rising interest rates which produced negative growth on liabilities if you used market values as required by ASC 715 (-9.75%), PPA spot rates (-10.58%) or measured by Treasury STRIPS (-9.82%). MAP 21 or PPA 3-segment discount rates would value liabilities differently suggesting liability positive growth of 5.22%. We estimate double digit positive pension asset growth of 11.82% which would enhance the funded ratio by as much as 13% (if 60% funded) to 24% (if fully funded).

### **AT&T to put \$9.5 billion of Preferred Stock into Pension Plan**

AT&T's plan to contribute \$9.5 billion of a new class of preferred equity in AT&T Mobility (wireless business) to its pension plan was approved by the U.S. Department of Labor on September 6. This will free up cash and lower its tax bill by about \$3 billion as pension contributions are a tax deduction. The plan is to contribute 320 million preferred shares valued at \$8 billion but with dividends are worth \$9.5 billion. AT&T had a pension deficit of \$13.9 billion as of fiscal 2012. With pension assets of \$45.1 billion and pension liabilities at \$58.9 billion such a contribution will enhance the funded ratio from 77.6% to 92.7%. Such a contribution amounts to 18% of the pension assets. The DOL posted a "*notice of proposed exemption*" which allows AT&T to exceed the federal limits on how much companies can contribute stocks to their pension. These limits are in place to avoid the double jeopardy when a company's stock takes a dive.

### **50<sup>th</sup> Anniversary of Studebaker Shut Down**

Roger Lowenstein's Sept. 22 WSJ review of "The Long, Sorry Tale of Pension Promises" was a wake-up call for me. He cited the Studebaker story as the prelude to ERISA and the current pension fiasco. When Studebaker closed its South Bend, Indiana plant it created a pension panic that laid the ground work for ERISA which was enacted in 1974. As Studebaker was struggling to compete with the Big Three auto manufacturers, it decided to increase pension benefits in lieu of salary to keep employees and the company afloat. Studebaker increased benefits roughly four times in the 10 years prior to its shut down. Unfortunately, it didn't make nor intend to make the contributions necessary to fund such massive increases in pension liabilities. The United Auto Workers were also complicit in this improper funding or scam. The UAW thought it better to give members hope of a pension increase rather than reveal the eventual demise of Studebaker auto production. Studebaker halted auto production at the end of 1963 and also terminated its pension plan. Congress acted with a long and arduous remedy approving the Employee Retirement Income Security Act (ERISA) in 1974. ERISA mandates that corporations pay annual premiums for pension insurance to the new agency Pension Benefit Guaranty Corp. (PBGC). It also mandates that corporations fund their pensions (contributions). Public pensions were not governed by ERISA nor required to pay premiums to the PBGC. Unfortunately, many public plans today are critically underfunded with many not paying their actuarially required contribution (ARC). Over the decades, politicians have been guilty of approving significant pension benefit increases when they cannot afford to fund such long and spiraling liabilities. Public pension plans are self-governed with no PBGC safety net for employees and retirees should the plans be insolvent. As I preached often in the last 25 years, I blame inappropriate accounting rules for this public pension crisis. I urge pension practitioners to read several of my research papers listed on our web site [www.RyanALM.com](http://www.RyanALM.com) under Research to understand how the GASB accounting rules misled public plans into the fiasco of today. In particular, please read: **How the ROA created the Public pension crisis!**

### **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 accepted by a major accounting firm. If you have an interest in subscribing to our data, please contact us at... [RyanContact@RyanALM.com](mailto: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.

### **GASB and Moody's Seek More Realistic ROA**

The ROA (Return On Asset assumption) plays a critical role in the Public pension crisis as my research hopefully proved in my paper "How the ROA created the Public Pension Crisis!" Please go to our web site [www.RyanALM.com](http://www.RyanALM.com) and click on Research to read. GASB 67 and 68 require public pensions to bifurcate the valuation of their pension liabilities. The ROA (usually @ 8%) is used as the discount rate up to a fully funded position. The underfunded liabilities are then discounted at the yield of high-quality long-term municipals (currently @ 4%). Moody's has proposed new rules to require states to use more realistic ROAs. Their proposal requires pension plans to use the yield of high grade, long term corporate bonds similar to ASC 715 (FASB 158) and PPA spot rates. According to the survey done by Moody's the difference in the present value of liabilities using more appropriate discount rates is more than \$3 trillion or more than double the assets of the 250 largest state pension plans. States reported a funded ratio of 73%. Using a fair market approach would suggest a funded ratio around 39%. As I said in my testimony before the ERISA advisory committee way back in 2003 (for PPA), the proper discount rates are a yield curve that can settle or defease the liabilities. If you cannot buy the discount rates you are using then it is a financial lie... and is not a valid discount rate.

### **Senator Hatch Introduces Legislation to use Insurance Annuities to end Pension Crisis**

In July, Utah's Senator Orrin Hatch introduced a Bill that would create a new public retirement plan in which insurance companies pay benefits through annuity contracts. According to the Bill, an employer would pay a premium each year to a state-licensed insurer. Employees would then receive fixed income annuity contracts from the insurance company. This would build into an annuitized pension year-by-year during employees working lives and make pension plan underfunding "not possible". This is an enviable goal and a step in the right direction. Similar to "Cash Flow Matching" this Bill is focused on the future vale benefit payment schedule. Pru executed the two largest "Buy-Out Annuities" in American history with the \$29 billion annuity with GM and the \$7.5 billion annuity with Verizon. In those cases Pru discounted the liabilities at a 3% discount rate which became the cost to GM and Verizon for Pru to assume the liabilities. If public plans were to discount their at 3% or anything resembling Treasury rates, the economic cost or true deficit of Public Plans would be over \$4 trillion rather than the reported deficit based on GASB accounting estimated at \$850 billion by the Pew Center. Hopefully, this new Bill will open up the eyes of Congress and Public Boards of Trustees as to the true economic underfunding facing cities and states.

### **Social Security 57<sup>th</sup> Birthday Status**

As SS hits 57 years old on Sept. 1, many wonder if it can last another 57 years. According to the latest report from SS Board of Trustees, the program faces \$9.6 trillion in unfunded liabilities over the next 75 years. This amounts to a liability of \$83,000 per household. The annual surplus (FICA taxes paid – benefits paid) SS had been receiving ran out in 2010 and is now an annual deficit creating a drain on the SS trust fund and then the Federal budget. The SS trust fund of \$2.7 trillion is expected to be depleted by 2031 (fiscal cliff) or thereabouts. If the economy grows by 2% per year, the trust funds will be depleted well before 2031... maybe by 10 years. Since the SS trust fund is 100% Treasuries, several experts argue that they are not real assets since it is an IOU from the federal government. In an effort to keep SS solvent for as long as possible, the government is expected to install the “Chained CPI” as the inflation factor in SS benefit payments in 2015. This will produce significant benefit cuts that compound over time. For an average worker, this cuts benefits by 3.7% over 10 years, 6.5% over 20 years and 9.2% over 30 years.

### **Obamacare... A Bailout of State and Local Governments OPEB Deficits?**

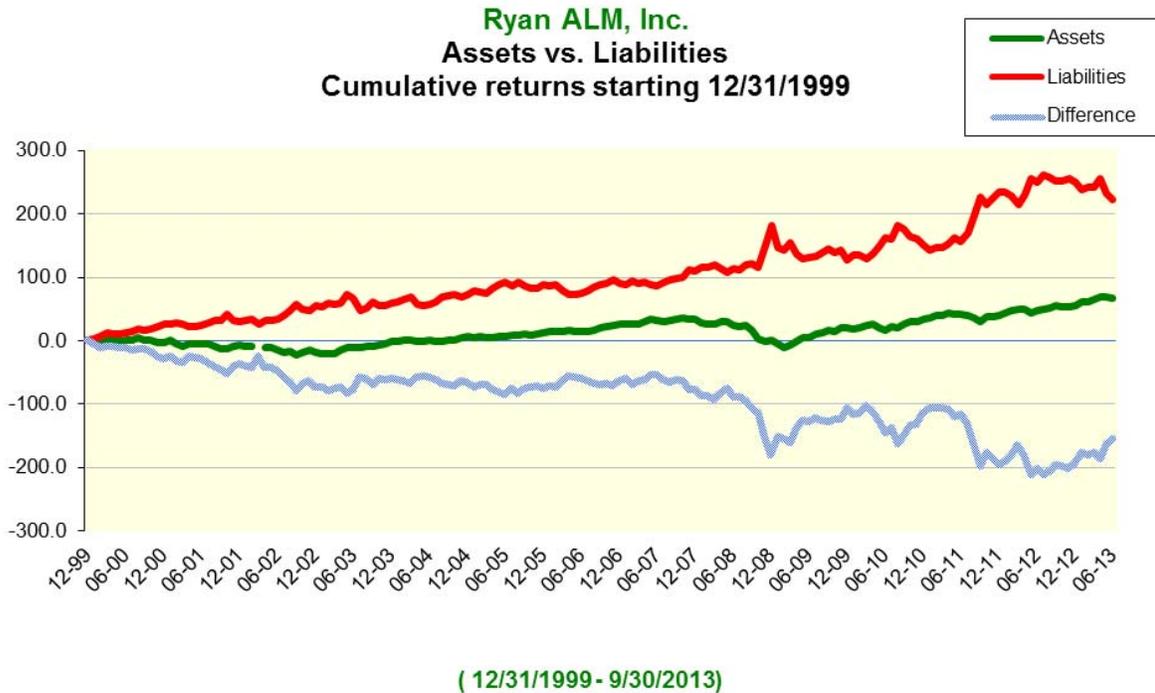
Cities and States have a pension deficit of over \$4 trillion if marked to market, If TARP I was a national emergency at \$800 billion, what do you call this? This does not count the OPEB (other post-employment benefits) deficit which in time will be greater than the pension underfunding due to the very low funded ratios and the high inflation rate of medical benefits. Obamacare will give states and cities a major way out. Instead of providing health costs to under-65 retirees, they can tell them to go buy health plans in the Obamacare exchanges. In many cases, retirees will qualify for substantial subsidies to enter Obamacare. This will save cities and states thousands of dollars per retiree per year. It is estimated that cities and states should be able to shift hundreds of billions of dollars in OPEB liabilities to the federal government.

### **U.S. Had Budget Surplus in June!**

The U.S. government posted the widest monthly budget surplus since April 2008 in June 2013. This was due to a government spending decline of 47%. Receipts exceeded outlays by \$116.5 billion compared with a \$59.7 billion deficit in June 2012. Revenues rose 10.2% compared to June 2012 while spending totaled \$170.1 billion versus \$319.9 billion last year. The Administration predicts that the federal budget deficit will shrink to \$759 billion for the fiscal year ending September 30, 2013.

## Ryan ALM Pension Scoreboard

The graphs below show asset vs. liability rolling 12 month and cumulative growth since 1999. Ryan ALM Benchmark Liability Index = % growth while pension assets = % growth for a difference of **-141.63%** suggesting any pension **Funded Ratio below 181.61% in 1999 has a deficit today on a market weighted basis. The Ryan ALM Pension Funded Ratio = 55.06%.**



## [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](http://www.Powershares.com) (click on fixed income portfolios)

### [Ryan/Nasdaq 1-30 year Treasury Maturity Ladder \(PowerShares ETF = PLW\)](#)

On October 11, 2007 PowerShares launched a fixed income ETF (**PLW**) based upon the Ryan/Nasdaq 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](http://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 ASC 715 \(formerly FAS 158\) 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.

### [Ryan Canadian Corporate Bond Index \(Pro-Financial fund\)](#)

In 2012, Ryan ALM designed an investment grade index for Canadian corporate bonds. This index should help with the new IAS 19 discount rate accounting rules.

To view all Ryan Indexes data go to: [www.RyanIndex.com](http://www.RyanIndex.com)

*Ryan Index is a Registered Trademark of Ryan ALM, Inc.*

*In October 2005, Ron Ryan terminated his license agreement with Ryan Labs to distribute and calculate the Ryan Indexes and Ryan STRIPS Indexes. Ron Ryan and Ryan ALM have no affiliation with Ryan Labs. Any use of the formulas, methodologies and data of any of the Ryan Indexes without Ron Ryan's written permission is prohibited.*

***Given the Wrong Index ... you will get the Wrong Risk/Reward!***

## **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** (Patent pending) - 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 (1<sup>st</sup> 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.