Ryan ALM, inc.

Asset/Liability Management

The Solutions Company


Ronald Ryan, CEO, CFA

The Ryan Letter

December 2008

Index	Returns YTD 2008	Estimated Weights
Liabilities :		
Market (Tsy STRIPS)	33.93 %	100 %
FAS 158 (AA Corporates)	16.18	
PPA (AA Corporates)	0.48	
GASB / ASOP (8% ROA)	8.00	
Assets :		
Ryan Cash	3.23 %	5 %
Lehman Aggregate	5.24	30
S&P 500	-36.99	60
MSCI EAFE Int'l	-43.06	5
Asset Allocation Model	-24.47 %	100 %
Assets – Liabilities		
Market	-58.40%	
FAS 158	-40.65	
PPA	-24.95	
GASB / ASOP	-32.47	

Using Asset Allocation above, 2008 pension assets **underperformed** liabilities by **-58.40%** using market valuations (STRIPS); lost by **-40.65%** under FAS 158; lost by **-24.95%** under the PPA rules (AA Corporate rates); and lost by **-32.47%** using the GASB and ASOP 27 methodology of a constant ROA (8.00%). Such valuations show the significant difference in not using proper *market* valuations. Most pension funds enjoyed a funded ratio surplus in 1999. However, **assets have underperformed liabilities by about -181.57% since 1999** on a compounded index basis starting at 100 on 12/31/99! (see **Pension Scoreboard** section)

Total Returns

	2000	2001	2002	2003	2004	2005	2006	2007	2008
Assets	-2.50	-5.40	-11.41	20.04	8.92	4.43	12.25	6.82	-24.47
Liabilities	25.96	3.08	19.47	1.96	9.35	8.87	0.81	11.76	33.93
Difference:									
Annual	-28.46	-8.48	-30.89	18.08	-0.43	-4.44	11.44	-4.94	-58.40
Cumulative		-37.60	-73.40	-60.08	-66.13	-76.75	-64.60	-78.38	-181.57

God Bless Pension America !

2008 is Worst Pension Year in History !

According to Ryan ALM's calculations based on the Asset Allocation from the first page, this is the worst pension year on record since we monitored pensions starting 12/31/86. Much worst is that **pension assets underperformed liabilities by -181.57% in this decade!**

Year	Asset Return	Liability Growth	Difference	
2008	**- 24.47 %**	**33.93 %**	**- 58.40 %**	
2002	**- 11.41 %**	**19.47 %**	**- 30.89 %**	
2000	**- 2.50 %**	**25.96 %**	**- 28.46 %**	
Current Decade	**0.61 %**	**182.17 %**	**-181.57 %**	**(cumulative)**

Since pension liabilities behave like long zero-coupon bonds their growth was spectacular in 2008 (Ryan 10-year STRIPS index = 21.84%, 15-year = 25.89%, 20-year = 38.54%, 25-year = 57.57%). **Long Treasuries were the best performing asset class in 2008!** Since 1988, long Treasury STRIPS outperformed every asset class. For info on Ryan Treasury, STRIPS and Liability Indexes, go to: **RyanALM.COM RyanIndexes (RyanSTRIP Ryan Liability Benchmark)**

As a fiduciary and watchdog on pensions for the last 22 years, I have preached about how improper accounting rules (FASB/GASB) and actuarial practices (ASOP 27) have led to improper Asset Allocation decisions, improper Benefit decisions and improper Contribution decisions. Until pensions mark-to-market both assets and liabilities, they will never know the economic truth. GASB and ASOP 27 promote the use of the ROA (@ 8%) as the discount rate to price liabilities while FASB and the PPA allow for *hypothetical* AA Corporate zero-coupon bonds. This severely *undervalues* liabilities by as much as 50% today under GASB and 30% under FASB and PPA. The proper discount rate is the rate(s) that defeases or settles the liability. This should be the risk-free Treasury STRIPS yield curve as lotteries, pre-funded bonds and any defeasance strategy have used for decades. If you can not buy the discount rate(s) then it is not a market rate(s) or economic reality and you can not defease! Smoothing techniques (PPA, GASB) on the asset side severely *overvalue* assets today. Based on these improper asset and liability valuations, pensions are then told that they are *actuarially sound* with Funded Ratios much higher than economic truth. This led to increased benefits and reduced contributions when pensions could not afford to do so. Given an actuarial rate (@8.00%) or projected ROA as the hurdle rate instead of risk-free Treasury rates led to asset allocation decisions skewed to risky investments (equities, hedge funds, interest rate swaps). If you outperform the S&P 500 or the actuarial rate but lose to liability market value growth …the pension plan loses! **Financial lies should not be tolerated in America anymore!!**

The true objective of any pension is to fund the liabilities at the lowest cost to the plan with prudent risk. The goal is to match assets to liabilities (Fully Funded) with no extra contributions needed. If there is a true deficit then assets need to outgrow liability growth to makeup this deficiency and/or you need extra contributions. This requires a ***Custom Liability Index*** to measure liability market value growth and be the **proper benchmark** for assets.

Bailout Mortgage, Pension, Social Security Solution: Issue 50 year Treasuries !

I urge our leaders to consider issuing 50-year Treasuries as a solution to the bailout, the Pension Crisis, the Mortgage Crisis and even Social Security. Here's my thinking. We currently have the lowest yields in America's history with 30-year Treasuries below 3.00% yields (2.70%). Any good Treasurer would see this as an opportunity to get cheap financing and restructure existing debt. You want to lock up these cheap funds for as long as possible since you plan to be in business forever. Such financing could be done as both an auction process + a ***Shelf Registration*** of zero-coupon bonds which avoids the auction process. I urge our leaders to make these funds available as an economic bailout and recovery strategy. Such financing can be achieved at an interest rate arbitrage profit to our country. I urge that a ***lock box*** is mandated to keep all funds for the repayment of this debt. My strategy is as follows:

Corporations = Make funds available to qualified troubled corporations as preferred stock at a rate equal to cost + 2.00%. This would provide cheap financing for these companies when they cannot find proper liquidity today. Our country would have collateral, an equity stake in our economic future plus an interest rate arbitrage profit of 2.00%. Of course, there needs to be a procedure to qualify such companies for these bailouts. I would think that age and size are two considerations. As a stipulation of any bailout, I urge that executive bonuses are withheld until these bailout companies return to profitability. If executive pay is aligned with the best interests of creditors and stockholders, executives should behave accordingly.

Mortgages = Allow for new loans + refinancing of mortgages thru FNMA and FHLMC as 50-year mortgages at a rate equal to Govt. cost + 50 basis points. This will lower mortgage payments significantly plus give our country collateral or an equity stake in our future. The best road to economic recovery is thru stabilization of the consumer and growth in housing. Such new financing should be capped at 80% of appraised values to protect us from the risk of housing speculations and improper housing appraisals.

Pensions = Pensions may be the hardest hit area by our economic slowdown which is crushing municipal and corporate budgets who must come up with significantly higher pension contributions. Similar to a Pension Obligation Bond (POB) the country needs to support troubled pensions thru 50-year loans at Govt. cost + 2.00%. Such rates and maturities are not available to corporations and municipalities in today's market. The 50-year Treasuries can be ***stripped*** and made available as a yield curve of zero-coupon bonds that would afford pensions to better price and *defease* their liabilities with risk-free (to maturity) Treasury zero-coupon assets. A Shelf Registration could accomplish this without the stripping process.

Treasury Debt = The Treasury could redeem and retire all old callable debt that is left and reduce interest costs. Moreover, they could go into the open market and buy high coupon existing debt at above market prices to retire high cost debt that is non-callable. I would imagine that most current holders of Treasury debt would accept a 3% premium to sell their holdings. Amortized over the maturity of these bonds (6 bps) could result in significant interest cost savings! Such *Tenders* were quite successful with corporate bonds in the 1970s. As of November 30, 2008, Federal Marketable Public Debt was :

Type of Debt	**Size of Debt ($ millions)**	**Average Interest Rate**
Bills	**$ 2,003,705**	**1.228%**
Notes	**$ 2,650,499**	**3.969 %**
Bonds	**$ 655,354**	**7.038 %**

At an average 3.0% interest cost to issue 50-year bonds, the Treasury could save annually $19.9 billion on its bonds and $25.7 billion annually on its Notes for a **total savings of about $45 billion annually**. Since most of the Treasury debt gets refunded there is a high probability that the average interest rate on Treasury Notes will be much higher over the next 10 to 50 years which would result in even more savings. Believe it or not …there are still $28.43 billion in Treasury bonds with coupons above 10.0%.

Social Security = All interest payments from the above financings should go into a lock box to pay for the 50-year debt financing with all interest rate arbitrage **profits** going into the Social Security Trust Fund to shore up this emerging monster deficit. Social Security also needs a lock box to protect it from the traditional political raids totaling over $2 trillion dollars in the last 12 years. Such raids steal the so-called annual surpluses of SS to pay for the operating budget of the Federal Government. This is not only stealing but lying as it distorts the true federal deficit.

Capital Losses **=** Many Americans have suffered great losses on their investments in 2008. With a capital loss limit of $3,000 on tax returns, they have little ability to offset income with losses. Our tax system needs to be more equitable providing the same rules and limits for capital losses as capital gains.

Motorola to Freeze Salaries and Pensions

In a move to slash expenses, Motorola initially said it would eliminate 3,000 jobs that would reduce costs by $800 million. In addition, it now says it will freeze salaries in 2009 and will suspend matching 401(k) contributions. This should save another $100 milion. Co-Chief Executives Greg Brown and Sanjay Jha have volunteered to accept a 25% salary reduction in 2009 from their base salary of $1.2 million.

Goldman Sachs Posts First Quarterly Loss

Goldman Sachs reported a fourth-quarter loss of $2.12 billion or $4.97 per share …its first loss as a public company. That was down from a profit of $7.01 a share the prior year. Goldman's stock rose 14% on the news and is up more than 50% since hitting an all time low of $47.41 on Nov. 21 …! or ?

Potential Mergers in 2009 ?

1. FedEx and UPS = **FedUP**
2. 3M and Goodyear = **MMMGood**
3. Stop & Shop and A&P = **Stop and Pee**
4. Grey Poupon and Docker Pants = **Poupon Pants**
5. Polygram Records, Warner Bros., Zesta Crackers = **PolyWarnerCrackers**
6. Hale Business Systems, Mary Kay Cosmetics, Fuller Brush and W.R. Grace = **Hale, Mary, Fuller Grace**

In God We Trust ! … (Not in our Financial Institutions)
U.S. Currency

Public Pension Watch

There seems to be an avalanche of recent Public Pension announcements concerning Pension + OPEB deficits and the mismanagement of such funds. **Potential municipal bankruptcies are waiting to erupt across America due to budget crises stemming mainly from unaffordable pension and OPEB contributions!** As I have preached since 1991, the accounting and actuarial rules (GASB and ASOP 27) governing Public Pension plans are the start of the pension crisis since they do not *mark to market* the liabilities (market rates @ 3.00%). Instead, they value the liabilities at the ROA rate (discount rate @ 8.00%). Such a discount rate methodology has *undervalued public pension liabilities by 30 to 55%* in the last 7 years. Moreover, they do not mark to market assets using a smoothing technique that can undervalue or overvalue assets. Currently, this method *overvalues assets significantly*. As a result, reported F**unded Ratios are greatly overstated** and need to be reduced accordingly. These inappropriate rules have led to inappropriate …benefit decisions, contribution decisions and asset allocation decisions. It all links! Here is an update on some municipalities:

California - Governor Arnold Schwarzenegger ordered all state workers to take two days of unpaid leave each month to conserve money beginning February 2009 and will last through June 2010 S&P said it may cut it's A+ rating on $54 billion of California bonds. State Democrats proposed a plan to raise $9.3 billion in new fees and taxes by installing a 39 cent-a-gallon gasoline fee and a 2.5% surcharge on state income taxes.

Nevada - Unfunded pension liabilities are estimated at $4 billion. Recommendations by the SAGE (Spending and Government Efficiency) Commission would include cutting the health care allowance by 50% and then eliminating the health care subsidy upon enrollment in Medicare.

New York - On December 17th, Governor Paterson proposed a steep rollback on pension benefits. The proposal focuses on reduced benefits to new employees by placing them in a new category. The proposal would require new police officers and firefighters to work 25 years and reach age 50 before they qualify for a full pension. Currently, they can qualify for a full pension after 20 yearts regardless of age. Moreover, new employees must contribute 3% of salary for pensions for life versus 10 years today. Overtime would no longer be allowed to count in the formula for pension payments.

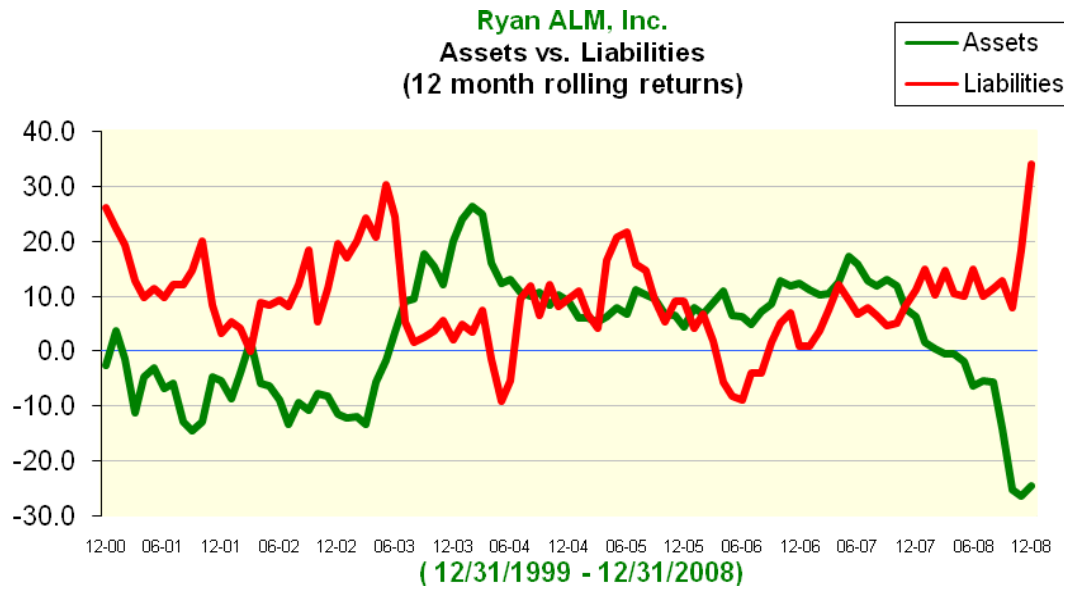
North Carolina - A bright star among state pension pensions might be North Carolina. They believe they are overfunded (on an actuarial basis). Unlike so many public pension plans they are 50% in fixed income securities. As a result, their 2008 returns were only down 12%. North Carolina has been ranked among the top three state pension systems since 2003 in various national rankings.

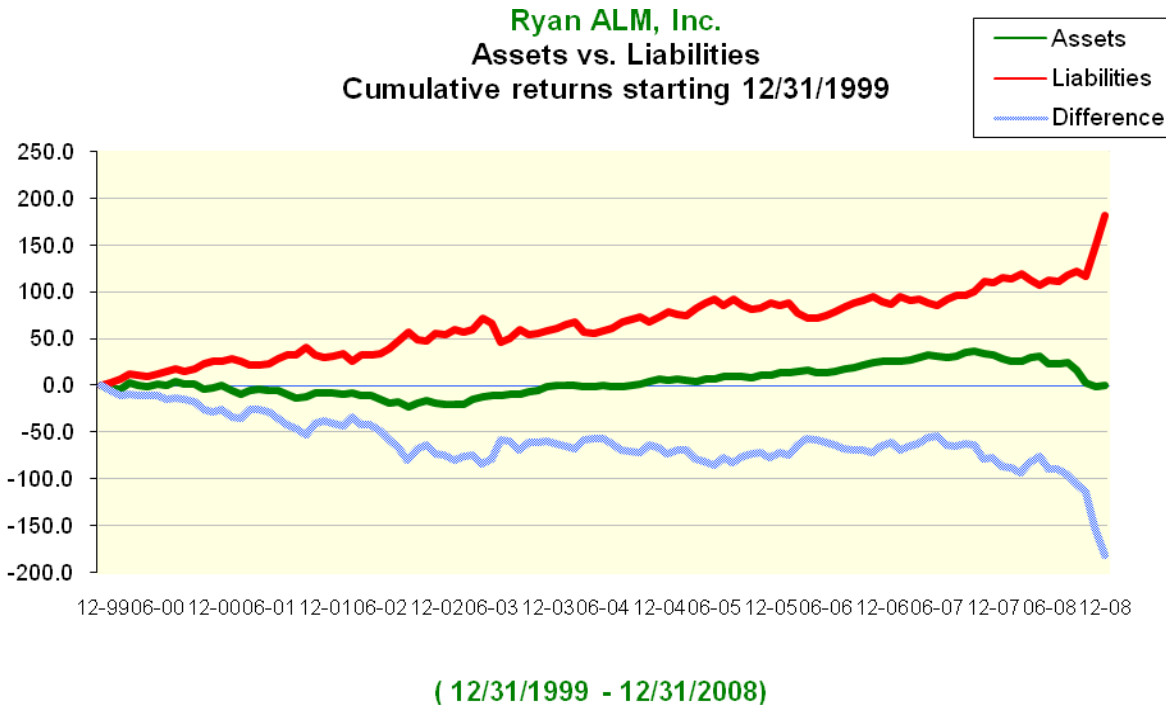
Pennsylvania - Pension contributions for SERS and PSERS are expected to increase from $1 billion to $4.2 billion by 2012 and that's only if the actuarial value of assets earn 8.5% annually.

"It is amazing what you can accomplish if you do not care who gets the credit."
Harry Truman

Pension Scoreboard

The graphs below show asset vs. liability rolling 12 month and cumulative growth since 1999. The cumulative growth difference is **– 181.57% suggesting any pension Funded Ratio below 280.46 in 1999 has a deficit today!** As the Pension Crisis watchdog, we designed the **Pension Monitor** to capture world pension news: **http://www.pensionmonitor.com**





Ryan Indexes

Custom Liability Indexes

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, my team and I at the Ryan Financial Strategy Group (RFSG) created the **1st STRIPS Index.** Based upon these Ryan STRIPS indexes we created the **1st Liability Index in 1991** as the proper liability Benchmark for liability driven objectives (i.e. Pensions, NDT, Insurance Cos.). Since 1991, the Ryan team has developed hundreds of Custom Liability Indexes (CLI). Similar to snowflakes, no two pension funds are alike in that they each have unique benefit payment schedules due to different labor forces, mortality and plan amendments. **The true objective of a pension is to fund liabilities at the lowest cost to the plan with prudent risk**. Without a Custom Liability Index it would be difficult, if not impossible, for assets to be managed vs. this liability objective. Until a CLI is installed as the benchmark, the asset side is in jeopardy of managing vs. the wrong objective (generic market indexes). **If you outperform generic market indexes, but lose to the CLI … the plan loses !**

Ryan Treasury Indexes

In March 1983, my index team and I at the Ryan Financial Strategy Group (RFSG) created the **1st Daily bond Index … the Ryan Index** as a *Treasury Yield Curve* index series for each auction maturity series (from Bills to Bonds). The best way to understand the interest rate behavior of bonds is to use the Ryan Treasury constant maturity series for each Treasury *auction* series with two composite indexes … **Ryan Cash and Ryan Index.**

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

On October 11, 2007 Powershares launched a fixed income ETF 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)

KLD U.S. Corporate Bond Indexes

On August 7, 2008 KLD, Ryan ALM and Mergent launched a family of U.S. Environmental, Social and Governance (ESG) Corporate Bond Indexes. These are the First ESG Ratings Criteria as U.S. Corporate Bond Indexes. These investable indexes are the first to apply environmental, social and governance factors to a U.S. fixed income asset class. The KLD 1-3, 1-5 year, 1-10 year U.S. Corporate Bond Indexes are available for licensing as both generic and custom indexes, The KLD USCB series is the product of collaboration by three firms: KLD Research & Analytics (the leading ESG research and index provider since 1988), Ryan ALM as the fixed income architect and calculation agent; and Mergent, the fixed income data provider.

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

Note: 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
Confucius

Index Funds

Liability Index Funds (Liability Beta Portfolio)

The best way to match assets to liabilities and reduce the volatility of the Funded Ratio is through a Liability Index Fund or Liability Beta Portfolio. Immunization is a popular strategy to match liabilities but has a mathematical problem in that it matches the *average duration* of liabilities instead of the entire *term structure* of liabilities. Only a Liability Index Fund correctly matches and fully funds each liability payment. This requires a Custom Liability Index. Ron Ryan was the inventor of both the Custom Liability Index and Liability Index Fund (Liability Beta Portfolio) concept.