Ryan ALM, inc.

Asset/Liability Management

The Solutions Company

Ronald Ryan, CEO, CFA

The Ryan Letter

March 31, 2011

Index	Returns YTD 2011	Estimated Weights
Liabilities :		
Market (Tsy STRIPS)	-1.15 %	100 %
FAS 158 (AA Corporates)	-1.58	
PPA (3 Segment)	3.64	
PPA (Spot Rates)	-2.05	
GASB / ASOP (8% ROA)	1.97	
Assets :		
Ryan Cash	0.08 %	5 %
Lehman (Barclay)Aggregate	0.42	30
S&P 500	5.92	60
MSCI EAFE Int'l	3.50	5
Asset Allocation Model	3.84 %	100 %
Assets – Liabilities		
Market	4.99%	
FAS 158	5.42	
PPA (3 Segment)	0.20	
PPA (Spot Rates)	5.89	
GASB / ASOP (8% ROA)	1.87	

Using the Asset Allocation above, the difference in asset growth vs. liabilities in 2011 was: **4.99%** (market valuation STRIPS), **5.42%** (FAS 158), **0.20%** (PPA rules-AA Corporate rates), **5.89%** (PPA-Spot Rates) and **1.87%** (GASB/ ASOP). Such valuations show the significant difference in not using proper *market* valuations. Most pension funds enjoyed a funded ratio surplus in 1999 but **pension asset growth has underperformed liabilities by about -107.62% 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
Assets	-2.50	-5.40	-11.41	20.04	8.92	4.43	12.25	6.82	-24.47	19.43	11.89	3.84
Liabilities	25.96	3.08	19.47	1.96	9.35	8.87	0.81	11.76	33.93	-19.52	10.13	-1.15
Difference:												
Annual	-28.46	-8.48	-30.89	18.08	-0.43	-4.44	11.44	-4.94	-58.40	38.95	1.76	4.99
Cumulative		-37.60	-73.40	-60.08	-66.13	-76.75	-64.60	-78.38	-181.57	-106.94	-115.67	-107.62

Pension Reform: NYC

In an effort to reduce the NYC budget deficit of $2.5 billion for 2011 (2012 E = $4.5 billion) Mayor Bloomberg is proposing pension rules to reduce future pension benefit + contribution costs to the city which represent about 12% of the NYC $67.5 billion budget. The mayor took aim at sacred pension rules that govern the pension benefit formulas. In particular he wants to require municipal employees to work a minimum of 10 years to get vested (twice the current formula) with no retirement checks until they reach age 65. Currently the age requirement is 57 except police and firefighters start benefits after 20 years of employment no matter their age. Moreover, overtime would no longer be considered as part of salary in the pension formula. This is a noble and proper fiduciary effort but the real villain of escalating pension and budget costs has been the underperformance of pension assets returns vs. liability returns (growth rate) since 1999. Such underperformance results in higher pension contributions. **Currently 100% of the NYC budget deficit is due to spiking Pension Contribution costs!** Based on the fiscal June 30, 2010 actuarial report, NYCERS (one of five NYC pensions) had a pension contribution cost of $2.2 billion (up from $68 million in FY 1999). NYC needs to focus asset allocation and asset management on the *economic* Funded Ratio by outgrowing liabilities (not the ROA). This requires a ***Custom Liability Index*** to measure and monitor the risk/reward behavior of liabilities on a frequent basis plus provide necessary data to understand the Funded Ratio. **Mr. Mayor give me a call… Ryan ALM can help reduce NYC pension costs!**

Moody's to Include Pension Deficits as Debt

Congratulations! ... to Moody's for their recent decision to acknowledge that unfunded pension liabilities are debt obligations to be included in the credit ratings of any state. The Government Accounting Standards Board (GASB) does not require that pension obligations be shown on the financial statements. Someday they will awaken from their long sleep to require full disclosure of pension and OPEB obligations. Since pensions and OPEB represent, by far, the largest liabilities of any state it is inconceivable how such immense obligations were never disclosed on financial statements or considered debt for credit rating consideration until now. It should be obvious that adding the pension deficit to existing debt will increase debt and hurt credit ratings. Since the size of pension deficits *relative* to total debt for so many states is immense, you can only expect a significant trend of Moody's downgrades for states. Note that Moody's will be using *reported* pension deficits which I have reported on consistently for the last 11 years seriously underestimates the true economic deficit. The States that are most likely to feel the wrath of Moody's are: Connecticut, Hawaii, Illinois, Kentucky, Massachusetts, Mississippi, New Jersey, Rhode Island and Puerto Rico.

S&P Downgrades State of New Jersey

On Feb. 9, S&P downgraded NJ bond rating from AA to AA- making it among the three lowest states ratings (CA and IL are worst). This will increase borrowing costs marginally. S&P cited pension and OPEB escalating costs as a major factor. Gov. Christie responded that such a downgrade could have been avoided if Democratic lawmakers approved the pension overhaul. In particular, Gov. Christie wanted to rescind a 9% pension increase granted in 2001 plus raise retirement age and freeze cost-of-living increases. **NJ has an $11 billion budget shortfall, a $53.9 billion pension unfunded liability and a $66.8 billion OPEB deficit**. Such pension and OPEB deficits are based on a Discount Rate equal to the ROA rate of 8.25%. If marked to market, such deficits would increase by 40% to 55%!

<u>Cities and States Face Major Budget Deficits…due to Spiking Pension Contribution Costs</u>
Will America face a rash of municipal bankruptcies? To see a ranking of our worst city/ state budget deficits go to… **www.Business Insider.com/Americas/most-bankrupt-cities-2010-12.** According to Business Insider, states are worse off than most cities as a % of budget deficits. The cause of most of these huge budget deficits is the rising contribution costs of pensions. As I cited several times in previous newsletters, New York City contribution costs for employees went from $68,619,745 in fiscal year ending 06/30/00 to $2,150,438,042 in fiscal year ending 06/30/09… an increase of 30.3 xs. This is just one of five NYC pensions. NYC budget deficit is estimated to be $2.5 billion thru 06/30/11 suggesting that pension contribution costs are over 100% of the budget deficit. Solution: fix the pension deficit and you fix the budget deficit.

Worst Cities / States Budget Deficits as a % of Budget

City	$ Deficit	% of Budget	State	$ Deficit	% of Budget
Detroit, MI	$ 85	5.5%	Illinois	$15.0 b	46.2%
Newark, NJ	$ 30	4.5%	New Jersey	$10.5	37.5%
Wash. DC	$600	4.4%	Nevada	$ 1.3	36.7%
Los Angeles, CA	$438	4.4%	California	$25.0	30.2%
San Francisco, CA	$380	3.9%	Mississippi	$ 1.2	27.6%
Honolulu, HI	$100	3.7%	South Carolina	$ 1.3	26.1%
Cincinnati, OH	$ 60	2.4%	Minnesota	$ 3.8	25.0%
New York, NY	$2.0 b	2.1%	Texas	$10.0	22.3%
San Diego, CA	$ 73	1.7%	Connecticut	$ 3.8	26.6%

Source: www.BusinessInsider.com

<u>BANKRUPTCY for Public Pensions?</u>
There has been much talk and controversy on whether we will see State and municipal bankruptcies. Meredith Whitney may have lit the fuse from her 60 minute presentation a few months ago. Since then we have had a litany of editorials and debates on this hot topic:
01/27/11, "Better Off Bankrupt", LA Times
02/09/11, House TARP Subcommittee hearing: State & Municipal Debt: The Coming Crisis?
02/14/11, House Judiciary Committee hearing: "The Role of Public Employee Pensions in Contributing to State Insolvency and the Possibility of a State Bankruptcy Chapter".

To file for bankruptcy, it must be allowed by state law. Half of the states do **not** permit municipal bankruptcy while sixteen states have such provisions with another eight requiring state approval before filing (Source: Wells Fargo):

Have State Authorization		Require State approval for filing
Alabama	Missouri	Connecticut
Arizona	Montana	Louisiana
Arkansas	Nebraska	Michigan
California	New York	New Jersey
Florida	Oklahoma	North Carolina
Idaho	South Carolina	Ohio
Kentucky	Texas	Pennsylvania
Minnesota	Washington	Rhode Island

Pension Solution: Ryan's Bill on Pension Transparency

House Budget Committee Chairman Paul Ryan, a Wisconsin Republican, introduced a bill on December 2 that would force public retirement funds to report annually on their pension status using *uniform* assumptions. Such assumptions would require pension liabilities to use Treasury rates (@ 4%) which would produce a larger deficit estimate since Treasury rates are lower than the ROA (@ 8%) currently used as the Discount Rate. I applaud Paul Ryan for trying to establish a normalized approach using Treasury rates which are the only rates that could defease pension liabilities (i.e. Treasury STRIPS) and are risk-free. This approach would be a market value approach that would reveal the true economic Funded Ratio valuation. Such a market value approach would reveal a Public pension deficit of over $3 trillion.

Is TARP II coming for Public Pension Funds?

My perception is that, similar to corporations, if you declare bankruptcy then and only then can you restructure or even renege on your pension obligations. Since most cities and states face this pension plague, we could have a rash of public bankruptcies (if allowed) forcing the Government to take action. My belief is that the Pension Benefit Guaranty Corp (PBGC) is the Government model for a pension bailout. This would suggest that all municipal employees would pay for such insurance not just the endangered plans. Moreover, just like the PBGC, it puts a cap on the maximum a pension beneficiary can collect (currently around $54,000 for corporations). This will give the Federal Government some insurance funds to work with (in addition to the takeover of pension assets) as a bailout fund plus the authority to takeover public pension plans and place a maximum cap on benefits. Would the Government turn over such bankrupt pensions to the PBGC or to a newly created agency? I bet on a new agency.

Vallejo… Lessons Learned About Bankruptcy

Vallejo filed for chapter 9 bankruptcy protection on May 23, 2008. For the fiscal years 2005 thru 2008, General Fund expenditures had exceeded revenues by $3 - 4 million per year. At the time of the bankruptcy filing, projections were that the General Fund reserves would be depleted by June 30, 2008 and that FY 2009 could see a $16 million deficit causing financial insolvency. The city was unable to reach agreement with its employee labor associations. Chapter 9 buys time for a municipality to develop and negotiate a rescue plan for its debts. Chapter 9 declares the municipality as a debtor who may continue to conduct business as usual. The city efforts to increase revenues included a cost allocation plan among funds and an updated fee schedule (i.e. parking fines, etc.). To decrease expenses, Vallejo reduced its workforce by 31% (from 494 to 340 employees) and continues to negotiate with union labor groups. Such negotiations have resulted in over $6 million in General Fund savings so far. The city of Vallejo has about $175 in debt obligations. The General Fund secures $52 million through five Certificates of Participation. The remaining debts are secured by restricted enterprise funds such as the Water Fund, certain Assessments and Tax Levies. To learn more go to the city's webpage at www.ci.vallejo.ca.us.

New Federal Rule May Motivate Corporate Pension Closures and Freezes

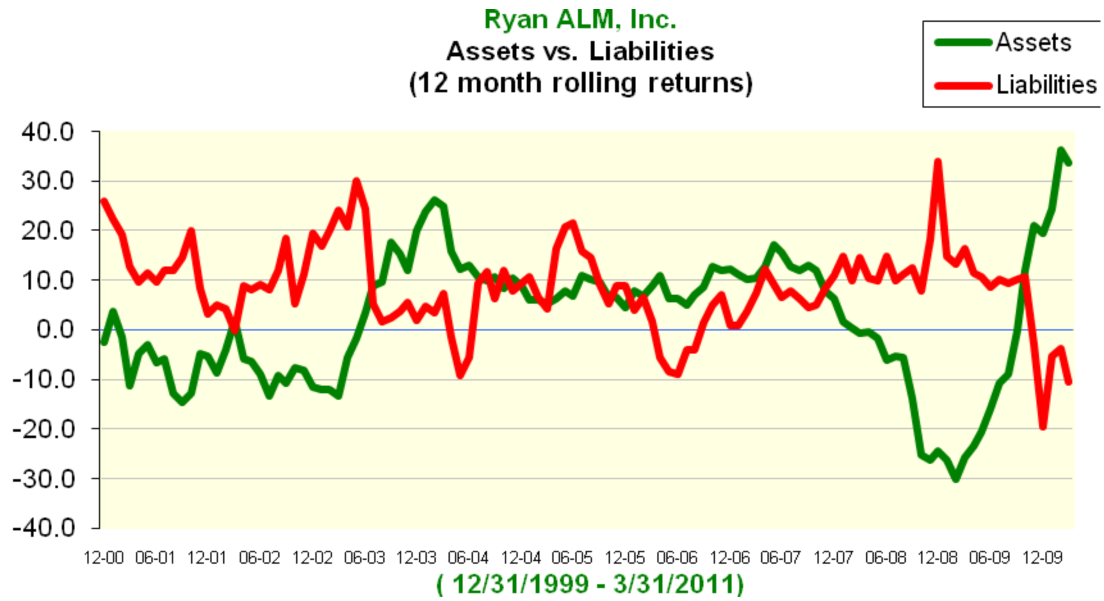
Hundreds of U.S. companies looking to shed expensive pensions may get a federal ruling that will reduce costs of terminating pension plans by around 14%. Companies with frozen plans or where employees don't accrue any benefits will face a change to the formula used to calculate the lump sum benefit payments. Such a change could reduce benefits by as much as 14%. Beginning in 2012, corporations must calculate minimum lump sums using corporate bond rates. Currently they use a blend of Treasury and corporate bond rates which are lower rates than the new rule. The higher the discount rate, the lower the present value of the lump sum benefit payment. An increase of 100 basis points would reduce lump sum benefit payments by 8% to 14% for most plans. This rate change was mandated by the PPA legislation of 2006. However, to terminate a plan, companies must fully fund them. Due to the current Funded Ratios of most private pension plans, it is unlikely that many companies can execute a plan termination but they could *freeze* the plan with the intention to terminate later. According to Towers Watson & Co., a pension consultant, 586 of the Fortune top 1000 companies still offer a pension. Of these 586 companies, 50% have frozen benefits for some employees or closed one or more of their pension plans to new employees.

***Woody* (the Pension Pencil)… the Weapon of Mass Destruction in the U.S.**

I have blamed accounting rules and schemes as the major villain causing the pension crisis. When I testified before the ERISA committee on pensions in 2003, I brought in a five foot pencil (***Woody***) which I proclaimed as the weapon of mass destruction among U.S. pensions. I showed how the pension accounting pencil is used to enhance the EPS of corporations, enhance the Funded Ratio of pensions, reduce Contributions and reduce the size of pension liabilities. Instead of using market values, the pension accounting rules smooth assets over 2 years (PPA) and 5 years (GASB) while using *hypothetical* corporate bonds (PPA) and significantly higher than market rates (GASB = ROA) as the discount rates. In the last 10 years this has led to an *overvaluation* of assets and a large *undervaluation* of liabilities (as much as 40% to 60% using GASB) which together created a significantly *overvalued* Funded Ratio. Such erroneous valuations misled most pensions into the wrong Asset Allocation, Benefit and Contribution decisions. My conclusion and recommendation was: **To validate any discount rates used… it must be purchasable such that the pension plan could settle or defease the liabilities if it so chooses with the discount rates used!** It should be a yield curve of discount rates such that every liability benefit payment has a distinct discount rate valuation. This is identical to how the bond market functions where every maturity is a separate and distinct yield. If you cannot buy the discount rates then they are *hypothetical rates* or financial lies and should not be used as financial valuations. After Enron and World Com, financial America should make sure that **we never tolerate financial lies anymore**.

Pension Scoreboard

The graphs below show asset vs. liability rolling 12 month and cumulative growth since 1999. The cumulative growth difference is **–107.62% suggesting any pension Funded Ratio below 186.04% in 1999 has a deficit today!**



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 in 1991** as the proper Liability Benchmark for liability driven objectives. Since 1991, 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 (generic 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. The best way to measure interest rate risk is to use the Ryan Treasury Yield Curve Index series.

RAFI Fundamental Weighted High Yield and Investment Grade Index Series (PowerShares ETF = PHB)

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 maintenance. In August 2010 the RAFI high Yield Index was launched as a **PowerShares ETF (PHB)**. For more info on this ETF 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 2008, Ryan ALM designed the FAS 158 yield curve Index that prices any private pension liabilities in conformity to FAS 158 standards. In Nov. 1, 2008 Pricewaterhouse Coopers, LLP signed a subscription to our FAS 158 yield curve Index and monitor our conformity to FAS 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

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.