Ryan ALM, inc.

Asset/Liability Management

The Solutions Company

Ronald Ryan, CEO, CFA

The Ryan Letter

March 2009

Index	Returns YTD 2009	Estimated Weights
Liabilities :		
Market (Tsy STRIPS)	-9.61 %	100 %
FAS 158 (AA Corporates)	- 8.73	
PPA (AA Corporates)	0.30	
GASB / ASOP (8% ROA)	1.97	
Assets :		
Ryan Cash	0.10 %	5 %
Lehman Aggregate	0.12	30
S&P 500	-11.01	60
MSCI EAFE Int'l	-13.85	5
Asset Allocation Model	-7.17 %	100 %
Assets – Liabilities		
Market	2.44%	
FAS 158	1.56	
PPA	-7.47	
GASB / ASOP	-9.14	

Using Asset Allocation above, 2009 pension assets **outperformed** liabilities by **2.44%** using market valuations (STRIPS); won by **1.56%** under FAS 158; lost by **-7.47%** under the PPA rules (AA Corporate rates); and lost by **-9.14%** 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 -161.66% 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	2009
Assets	-2.50	-5.40	-11.41	20.04	8.92	4.43	12.25	6.82	-24.47	-7.17
Liabilities	25.96	3.08	19.47	1.96	9.35	8.87	0.81	11.76	33.93	-9.61
Difference:										
Annual	-28.46	-8.48	-30.89	18.08	-0.43	-4.44	11.44	-4.94	-58.40	2.44
Cumulative		-37.60	-73.40	-60.08	-66.13	-76.75	-64.60	-78.38	-181.57	-161.66

God Bless Pension America !

Fed Plans to Buy $1 Trillion in Government Bonds

The Fed announced on March 18, that it would buy $300 billion in long-term Treasuries and $750 billion in mortgage-backed securities guaranteed by FNMA and FHLMC. This should provide both an accommodation to help fund the massive new Treasury financings and a stimulus to housing to lower mortgage rates. Accordingly, long Treasuries had one of the greatest rallies in history on March 18 as interest rates on the 30-year Treasury dropped by 24 basis points and prices rose by 4.34% based on the Ryan Treasury 30-year Index (see www.RyanALM.com/RyanIndexes). In harmony with the Fed action, 30-year fixed rate mortgages fell to 4.94% on March 19 (a drop of 21 bps for the day). According to FHLMC 30-year fixed rate mortgages hit a record low of 4.96% in January. This was due primarily to the Fed initial plan to buy $500 billion in mortgage-backed securities.

Treasury Announces PPI Program

The Public-Private Investment (PPI) is a joint effort between the Treasury, the FDIC and the Federal Reserve. The Treasury initially will commit $100 billion of Troubled Assets Relief Program ("TARP") funds to the program. The PPI is trying to attract private capital to generate $500 billion in funds to buy legacy assets. The goal may expand to $1 trillion depending on the success of the PPI program. Under the Legacy Loan program, the PPI will purchase Legacy Loans from banks at market prices through FDIC auctions. The Treasury will co-invest with the private sector providing up to 50% of the equity. The FDIC will guarantee the debt of the PPI. Each transaction is a separate and distinct fund (PPIF). The PPIFs will be managed by some private sector manager subject to FDIC oversight. FDIC-insured U.S. banks and savings associations of all sizes are eligible to sell assets under the program. Such asset sales must meet criteria yet to be established by the FDIC. The FDIC will conduct auctions and pre-qualify PPIF bidders. PPIF bidders will have access to Treasury equity under the PPI program in an amount up to 50% of the equity required for the purchase of the asset pool. The PPIF buyers of Legacy Loans would finance the purchase in part by issuing debt guaranteed by FDIC and secured by the Legacy Loans purchased. The FDIC will collect a fee for guaranteeing the debt. The Treasury will make an equity investment in PPIFs on a "side-by-side" basis with private sector investors on a pro-rata basis plus will receive warrants in the PPIFs as required by the Emergency Economic Stabilization Act of 2008. Each PPIF will have a term not to exceed 10 years unless the Treasury consents to a longer term. Approximately five fund managers are expected to be initially selected by the Treasury.

Public Pension Crisis …Contributions

The stated objective of any public pension is to fund the liabilities at a *level or low* Contribution rate over the future. The Public pension crisis is a *budget crisis* due to spiking higher Contributions that violate the pension objective. Because of inappropriate accounting rules (i.e. GASB) public pension plans are driven by their ROA assumptions. The ROA is the hurdle rate for their Asset Allocation Models and also the Discount Rate for Liabilities. By definition, this means **that the projected growth rate for both assets and liabilities is the same …ROA**. The ROA is always a positive robust number. Based on this ROA growth rate, the future value of assets is calculated and compared vs. projected annual benefit payments (liabilities). Any annual shortfall (deficit) is cured only through higher contributions. That is basically how Contributions are calculated. As the year 2008 starts to become known to

Public pension plans later this year they will be most probably go into shock when they see their upwardly revised projected contributions. Since New York City has a June 30 fiscal year they have delivered their well documented 2008 actuarial report. The historical employer contribution rates for NYCERS (New York City Employees Retirement System (NYCERS) are a testimonial to this growing pension crisis:

FY End	Contribution ($)	Contribution (% of Payroll)
06/30/00	$ 68,619,745	0.915%
06/30/02	$ 105,660,069	1.241%
06/30/04	$ 542,229,450	3.526%
06/30/06	$1,024,358,175	11.142%
06/30/08	$1,874,242,487	19.001%

It should be obvious that you cannot forecast the ROA and future value of any asset class with any certainty. Accordingly, the only way to compare assets to liabilities (Funded Ratio) is with *present values* that are accurate market values. The Funded Ratio and not the ROA should dictate Asset Allocation. The Funded Ratio requires a ***Custom Liability Index*** to measure the liability market value growth and be the **proper benchmark** for assets. Ryan ALM has designed a liability driven Asset Allocation Model that focuses on the true economic (market value) Funded Ratio. Our model is based on our Custom Liability Index (CLI) which calculates the present value size, shape, interest rate sensitivity and risk/reward behavior of liabilities. Once the CLI is installed, we calculate the economic Funded Ratio comparing the market value of assets versus liabilities. We then take these economic valuations and calculate an appropriate allocation to Liability Alpha and Liability Beta assets. Such a model calculates the hurdle rate needed for assets to fully fund liabilities over a distinct time horizon (duration of liabilities, etc.). For more information on Ryan Liability Indexes, go to: **www.RyanALM/RyanIndexes/RyanSTRIPS YC.com** as well as **Research** in the Company Info section from our home page.

OPEB (Healthcare + Liabilities) …the next Tsunami for Cities and States

In 2004 the Government Accounting Standards Board (GASB) issued its Statement 45 which requires cities and states to account for their healthcare costs on an accrual basis within five years. Previously, cities and states did not disclose these costs. This lack of transparency encouraged irresponsibility in benefit negotiations and usually pushed such costs to future generations. Now governments have to show full costs on their balance sheets. New York City which began compliance in 2007 admitted to a $63 billion liability on its books. Atlanta's annual pension + related benefit expenses exploded from $44.5 million in 2005 to $118 million in 2008 on a fiscal year basis. Vallejo, California declared bankruptcy last May due to the fact that 74% of its $80 million budget went to salaries and benefits. Stockton, CA city council announced at the end of February that the city should consider filing for bankruptcy protection in the face of an $18.3 million budget deficit. Two smaller towns outside San Francisco (Isleton and Rio Vista) appear on the brink of bankruptcy too. There are 22.5 million public-sector employees in the United States. The average public employee makes 46% more in combined salary plus benefits than the average private-sector counterpart including 128% more on health care and 162% more on pension benefits according to the

Employee Benefit Research Institute. New York City now spends an average of $107,000 for each of its 281,000 current employees (a huge 63% increase since 2000). Its direct pension expenses have increased from $615 million to $5.8 billion over the same time period. Forty states estimate that their OPEB liabilities for health care and other benefits exceed $400 billion. This is more than their entire debt outstanding according to S&P. Credit Suisse estimated that state and local governments owe more than $1.5 trillion in unfunded OPEB liabilities (not including pension deficits of over $1.5 trillion).

FASB Votes to Approve Changes in Fair Value Accounting

FASB voted to modify its standards for fair value accounting in response to Congressional demands. FAS 157 relates to how to figure out the fair value when there is no active market or where the prices used represent distressed sales. The objective here is to reflect how much an asset would be sold in an orderly transaction (as opposed to a distressed transaction). Apparently, FASB or Congress is not aware of the economic recession and TARP situation where prices are affected. FASB received over 600 comments most of which urged FASB to resist pressure from Congress. FASB also modified its position for any financial instruments that are not reflected on balance sheets at fair value from annual disclosure to quarterly. Finally, FASB modified its position on other-than-temporary impairment (OTTI) where no impairment charge on the income statement is required if there is both no current intention to sell and, it is more likely than not, required to sell prior to the fair value reporting. Given such relaxed accounting regulations, it is best that investors be cautious …Caveat Emptor!

Economic Recovery Watch … Housing

A mixed picture was painted by the recent economic news. U.S. home prices rose 1.7% in January for the first gain in 11 months. They were still down 6.3% vs. a year ago. However, there were 3.8 million existing homes on the market in February equal to 9.7 months of inventory which could put pressure on home prices for some time. Even so, February existing home sales rose 5.1% in February for the best monthly gain in years. New home sales were up 4.7% in February to a 337,000 seasonally adjusted level. January new home sales were revised upward from 309,000 to 322,000. January is still the record low for the data series that started in 1963. February is the second lowest.

Economic Recovery Watch … GDP

The fourth quarter of 2008 was the greatest contraction in a generation as the real gross domestic product sank at a -6.3% seasonally adjusted rate according to the Commerce Department. This slump was broad based with declines in every major sector except the federal government. Corporate profits fell at the fastest pace since 1953.

Economic Recovery Watch …Unemployment

The unemployment rate jumped to 8.5% in March for the highest rate since November 1983. Some 5.1 million jobs have been lost since the recession began in December 2007. The unemployment rate stood at 8.1% in February and 5.1% a year earlier.

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 @ 3.50%). 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 9 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 by @ 25%*. 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:

Moody's – Issued a *negative outlook* to the creditworthiness of *all* local governments in the U.S.. This is the first time Moody's ever issued a blanket report on municipalities.

Worst Funded Cities – Based on actuarial reports (which *overvalue* Funded Ratios) the cities with Funded Ratios below 50% are: Atlanta, Jersey City, Little Rock, Philadelphia, Pittsburgh, Providence and Wilmington.

Nat'l Bureau of Economic Research – Predicts that pension obligations for U.S. state governments will grow to approximately $7.9 trillion in just 15 years. They conservatively estimate that state pensions are 50% underfunded ($750 billion deficit) with a good chance that they are $1.75 trillion underfunded today.

Illinois – The Chicago Civic Committee announced that the state of Illinois faces unfunded pension debts of $116 billion which could increase by $10 billion annually.

Maryland – Has hired a commission to examine the city's troubled fire and police pension system. The city is required to make a pension contribution of $82 million this year and $110 million next year. Projected contributions climb significantly to $171 million within a few years.

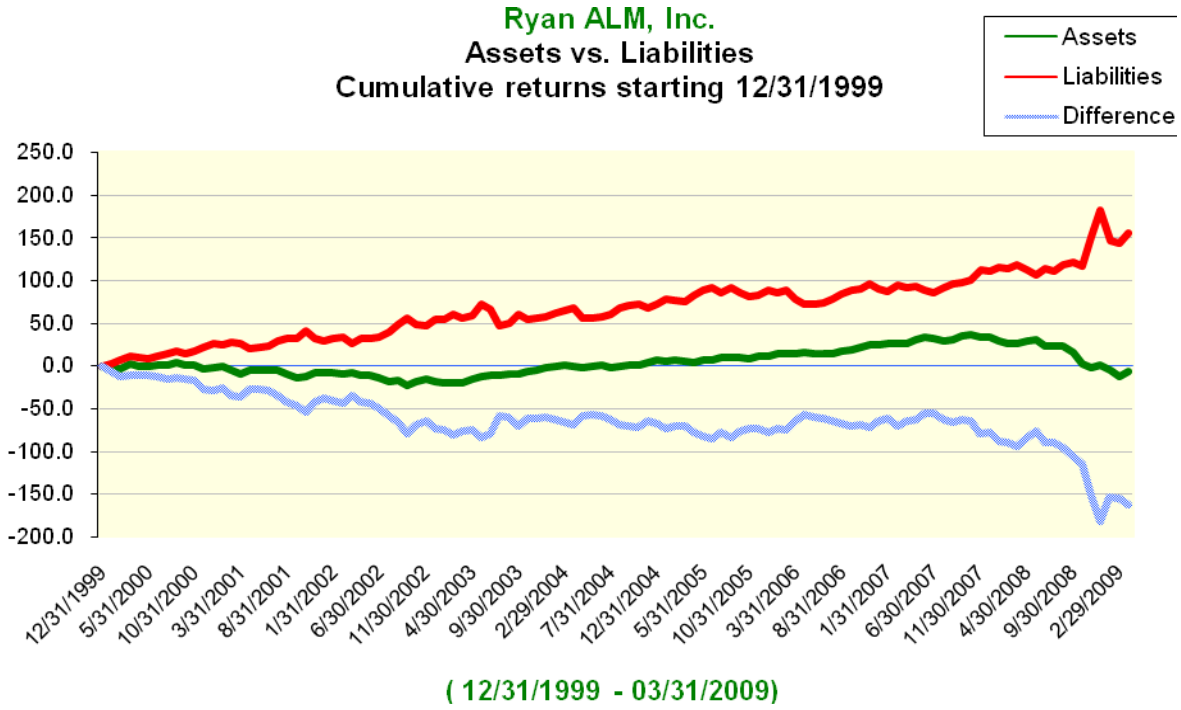
New Jersey – The pension fund for New Jersey Teachers is now underfunded by at least $15 billion (29% deficit) according to their latest actuarial report. Current assets are estimated at $36.6 billion with liabilities estimated at $51.7 billion (71% funded). This unfunded liability of $15.1 billion was $12.4 billion as of June 30, 2007.

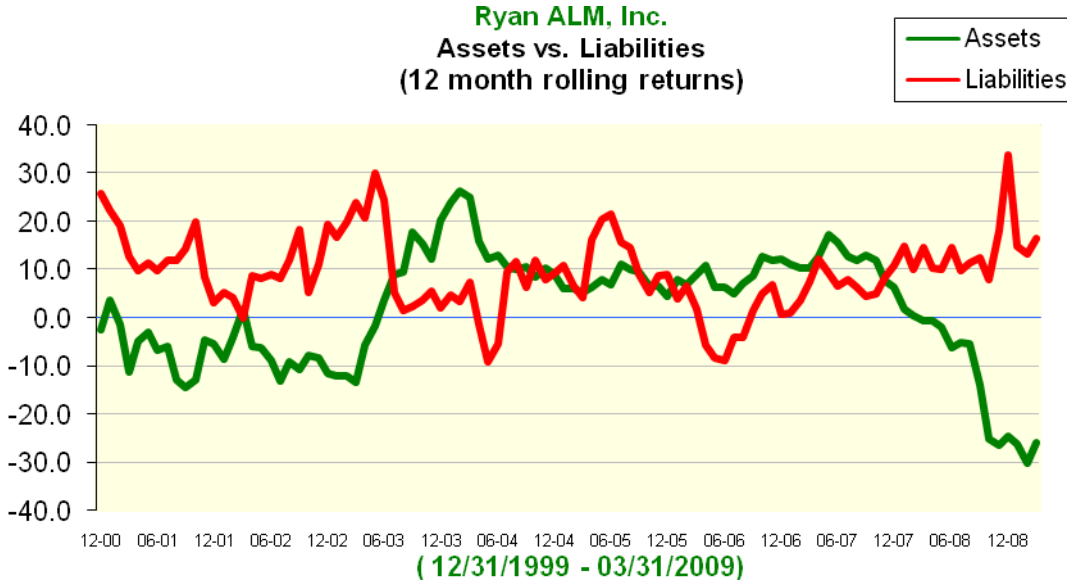
Rhode Island – Projected contributions will spike from $370.9 to $836.3 million by 2017.

"Investors should be skeptical of history-based models. Beware of geeks bearing formulas."
Warren Buffett

Pension Scoreboard

The graphs below show asset vs. liability rolling 12 month and cumulative growth since 1999. The cumulative growth difference is **– 161.66% suggesting any pension Funded Ratio below 273.07 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. 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. 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)

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.

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.

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