

Ryan ALM, inc.

Asset/Liability Management



Ronald Ryan, CEO, CFA

The Ryan Letter August 2008

Index	Returns YTD 2008	Estimated Weights
Liabilities: Market (Tsy STRIPS) IRS (Corporates) ROA (8% constant rate)	3.82 % 1.31 5.33	100 %
Assets: Ryan Cash Lehman Aggregate S&P 500 MSCI EAFE Int'I	1.84 % 2.01 -11.38 -16.93	5 % 30 60 5
Asset Allocation Model	-7.01 %	100 %
Assets – Liabilities Market IRS ROA	-10.83% -8.32 -12.34	

Based on the Asset Allocation above, year to date 2008 pension assets **underperformed** liabilities by **-10.83%** using market valuations (i.e. STRIPS); lost by **-8.32%** under the IRS Contribution rules (PPA Corporate rates); and lost by **-12.34%** using the ASOP 27 methodology of a constant ROA (i.e. 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 -95% since 1999** on a compounded index basis starting at 100 on 12/31/99!

(see Graphs and Index disclosures in 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	-7.01
Liabilities	25.96	3.08	19.47	1.96	9.35	8.87	0.81	11.76	3.82
Difference:									
Annual	-28.46	-8.48	-30.89	18.08	-0.43	-4.44	11.44	-4.94	-10.83
Cumulative		-37.60	-73.40	-60.08	-66.13	-76.75	-64.60	-78.38	-94.87

God Bless Pension America!

Pension PV Liability Growth Significant in August

Due to a lowering of interest rates the present value (i.e. market value) of liabilities and bonds grew significantly in August. Based on the Ryan Liability Index (generic version) liabilities grew 3.82% in August whereas the Lehman Aggregate index grew 2.01%. Although this looks like a high monthly liability growth rate (56.80% annualized), it only ranks as the 36th strongest growth months in the history of the Ryan Liability Index (which began at the birth of STRIPS in March 1985). The top five months in terms of liability growth were:

February 1986 = 18.63% May 1985 = 14.49% March 1986 = 12.65% October 1987 = 10.55% December 1985 = 9.52%

Bonds and pension liabilities are extremely *interest rate sensitive and volatile!* The longer the duration, the greater the volatility in growth. Most pension liabilities have average durations of 10 to 15 years whereas the Lehman Aggregate usually posts an average duration between 4 and 5 years. This is just one of the many reasons why the Lehman Aggregate and any generic bond market index should never be used as a proxy for pension liabilities. Moreover, discount rates that are not market rates (i.e. ASOP 27 and GASB methodologies of using a constant ROA rate) should be viewed as accounting interventions and not an assessment of the true market value or economics of how liabilities grow in present value dollars. The differences in growth and volatility of returns (standard deviation = STD) over the last 20.5 years between the Lehman Aggregate, ASOP 27, GASB and the Ryan Liability Index have been enormous:

	Time Horizon <u>Annual Return</u>	(02/28/85 thru 08/31/08) <u>Cumulative Return</u>	<u>STD</u>
Lehman Aggregate	8.17%	532.92%	4.22%
Ryan Liability Index	11.73%	1,255.39%	13.37%
Difference	- 3.56%	- 722.47%	- 9.15%

The opportunity cost in being in the wrong index benchmark has been incredible ... an annual difference of -3.56% and a cumulative difference of 57.57% over 23.5 years!

KLD, Mergent and Ryan ALM Launch First ESG Corporate Bond Indexes!

KLD Research & Analytics, Inc, Mergent, Inc. and Ryan ALM, Inc. announced the August 1, 2008 launch of the KLD U.S. Corporate Bond (USCB) Index series. These investable indexes are the first to apply environmental, social and governance (ESG) performance factors to a U.S. fixed income asset class. The KLD 1-3 Year U.S. Corporate Bond Index (USCB3), KLD 1-5 Year U.S. Corporate Bond Index (USCB5), and KLD 1-10 Year U.S. Corporate Bond Index (USCB10) are available for licensing as well as "custom indexes". Custom fixed income indexes can be built to meet customer demand. These could include indexes with market-weighted or alternative weight factors; indexes with longer term maturities; or indexes with specific responsible investing strategies such as faith-based

investing, sustainable investing, or green investing. The KLD USCB series is the product of collaboration by three firms: KLD Research & Analytics (the leading ESG research firm in the world); Mergent (fixed income terms & conditions data); and **Ryan ALM** (fixed income index architect and calculation agent).

The KLD USCB series provides index solutions that minimize ESG risk factors and limit exposure to any one issuer. Traditional bond indexes are market-weighted, so companies who issue more bonds gain a larger share of the overall index. The KLD USCB indexes are *equal-weighted* with a 5% cap, so no one issuer could ever become a significant weight factor. Moreover, the USCB indexes only use the largest issues of each issuer, which provides the best liquidity and pricing. KLD evaluates the ESG performance of the largest one thousand publicly traded companies in the United States. Ryan then selects companies from the top quartile of ESG performers that issue investment grade debt within the maturity parameters of each index and meet specific liquidity criteria. The USCB3 index includes companies ranked in KLD's 1st and 2nd quartiles of ESG performers whose issues are within the 1-3 year maturity parameter. These indexes are rebalanced monthly and reconstituted annually.

A major benefit of the KLD USCB indexes has been their historical return behavior. The KLD USCB index series has produced similar to enhanced returns vs. the leading traditional bond index benchmarks. Apparently, as you remove the liquidity and ESG problems of most bonds you improve your returns.

For more information about KLD's indexes visit http://www.kld.com/indexes
For information about licensing a KLD index, please email: indexes@kld.com

Accounting Convergence is Coming!

On August 27, 2008 the SEC proposed a roadmap that could force U.S. companies to stop using GAAP and instead use the International Financial Reporting Standards (IFRS) beginning in 2014. The SEC will make a final decision in 2011. IFRS are quickly becoming the new global language of accounting. According to the International Accounting Standards Board (IASB) over 100 countries have required companies to use the IFRS standards. As we reported in our June newsletter, Sir David Tweedie directs the IASB and is a strong advocate of proper discounting of pension liabilities to a fair economic value (i.e. market value). His speech is located on our web site under Research ... www.RyanALM.com/Company Info/Research.

Mick Jagger Hits Pension Age

The famous lead singer of the Rolling Stones turned 65 on July 26. He is entitled to a state pension of 91 pounds per week. He has an estimated fortune of 225 million pounds. The Rolling Stones "A Bigger Bang" tour became the most successful of all time grossing \$558,255,524.

FLASH: Judge rules Vallejo, CA bankrupt! ... see Public Pension Watch page 5 Public Pension Watch

There seems to be an avalanche of recent Public Pension announcements concerning the growth of 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 @ 5.00%). 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. As a result, reported funded ratios are not accurate 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:

Alabama – On August 29, Jefferson County sent a proposal to Wall Street creditors to restructure \$3.2 billion in bond sewer debt at lower rates over a longer term. If a deal isn't struck, the next step for the county would be to file for Chapter 9 (bankruptcy protection). **If filed this would be the largest municipal bankruptcy in U.S. history!** It would eclipse the \$1.6 billion bankruptcy of Orange County in 1994.

New Jersey - On June 23, the State Legislature enacted several reforms to the State's pension system awaiting Governor Corzine's signature. The reforms include raising the retirement age from 60 to 62, prohibiting public employees from counting time spent working in other states towards the 25 years of work required for lifetime health benefits, calculate retirement benefits based on the average of the last five years annual salary rather than the current three and even eliminating Lincoln's Birthday as a separate holiday after 2011. All of this will only save an estimated \$300 million over 15 years. Good try but with a **\$26.8 billion pension deficit**, New Jersey will need much more imagination and tough rules.

Pittsburgh - In an effort to resolve the City's unfunded pension liability of \$660 million as of January 1, 2007 with total liabilities at \$1.04 billion and a Funded Ratio of only 36%, Mayor Luke Ravenstahl asked state senators to consider major changes. First, he said the city must consolidate the 3,100 local pension plans. This would reduce administrative costs. Then the state should ban overtime in the calculation of pensions. Currently, the retirement formula is 50% of the last year total compensation. Last, the state should remove a requirement that all employees are provided defined benefit plans.

San Diego - San Diego disclosed huge pension shortfalls in 2002. City officials have been charged with fraud by the SEC, the city bond rating has been slashed and both the IRS and SEC have demanded changes in the way the city's pensions are administered. Yet the generous pension benefits handed out by the politicians that triggered this budget crisis remain in place. Contributions to the pension fund have quadrupled in recent years to repair a \$1.2 billion deficit. California state law caps property tax levies so San Diego has paid for the increased contributions by deferring road maintenance and reducing library funding and recreation programs.

Vallejo, CA - A U.S. federal court ruled on September 5 that Vallejo, CA is bankrupt! This ends a battle over its solvency and forces the city and creditors to begin negotiating a plan to adjust the city's debts. Vallejo is a city of 117,000 about 30 miles northeast of San Francisco, filed for protection from creditors under Chapter 9 on May 23 becoming the biggest municipal bankruptcy since Orange County, CA in 1994.

Ten Worst State Pensions – According to a recent S&P study here are the 10 worst state pension plans based on their reported Funded Ratio. Remember these ratios are based on GASB accounting which prices liabilities at the ROA (@ 8.00% average discount rate). As a result, liabilities are about 40% higher than actuarially reported and the deficit should be about 20% higher than reported:

(\$ billions)

State Pension	Pension Size (\$)	Deficit (%)	Deficit (\$)
West Virginia	11.1	47.3 %	5.3
Rhode Island	10.6	46.6	4.9
Connecticut	33.9	43.6	14.8
Illinois	79.9	40.5	32.4
Oklahoma	24.4	40.5	9.9
Alaska	21.6	39.0	8.4
New Hampshire	6.4	38.6	2.5
Indiana	28.2	35.7	10.1
Hawaii	14.7	35.0	5.1
Louisiana	30.9	33.7	10.4

Presidential Debates ... Taxes

Certainly one of the key topics in our Presidential debates is taxation. Here is a quick rundown on each party's proposals as reported in key internet blogs:

Tax	McCain Proposal	Obama Proposal
Capital Gains	0% on home sales up to \$500,000	28% on profit from all home sales
Dividend Tax	No Change (15%)	39.6%
Income Tax	Single earning 75K = \$18,750	\$23,250
	Married earning $75K = 18,750$	\$21,000
	" $125 \text{ K} = \$31,250$	\$38,750
FICA	No Change	Eliminate salary ceiling = \$150,000
Inheritance	No Change (0%)	Restore Tax

Sources: www.cnn.com/ELECTION/2008/issues/issues..taxes.html

http://elections.foxnews.com/?s=proposed+taxes

http://blog.washingtonpost.com/fact-checker/candidates/john_mccain http://blog.washingtonpost.com/fact-checker/candidates/barrack_obama

If Elected President ...

Given that we are now in the stretch run of an election, 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:

Quit Stealing from Social Security – The federal government consistently borrows the socalled 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 \$209 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". A solution is now before Congress in the form of Social Security Preservation Act (H.R. 219) that will stop the raiding of SS. Urge your congressman to pass this Act!

- **2. Reduce Our U.N. Costs** The U.N. was a well conceived idea that has gone sour for America and many 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. It is an international territory owned by the UN not America!
- 3. 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? 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 leadership 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?
- **4. 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 is it upfront (Roth IRA) or deferred.

- **5. 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, there has been a reluctance 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!
- **6. 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. We also need to reduce the corporate income tax which is the second 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, 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.
- 7. 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 founded mainly by purchasing the land (i.e. 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 to become a U.S. possession that would upgrade their way of life. I am sure that the politicians would also welcome it for a price that would be less costly than any US war.
- **8. 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. It worked before in the 1960s and 1970s ... we need a strong *corporate* America.
- **9. 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.

- **10. 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 (\$821.50 per troy ounce as of 11/30/07) and our economy needs a stimulus (other than raising taxes) this might be a proper strategy and certainly good timing. As of September 2007, the U.S. owned 8,133.5 tonnes of Gold (Germany has 3,417.5, China = 600 and the UK = 310.3). There are 32,551 troy ounces in each tonne. This would value our Gold reserves at \$214,822,380,207. Such a new found wealth could 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).
- **10. 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.

Pension Scoreboard

Based on the Asset Allocation from page 1, the graphs below show asset growth vs. liability growth for rolling 12 month periods and cumulative growth since 1999. The cumulative growth difference is - 94.87% suggesting any pension with a Funded Ratio below 176.59 in 1999 has a deficit today! As the Pension Crisis watchdog, we designed the Pension Monitor to capture pension news throughout the world today:

http://www.pensionmonitor.com





(12/31/1999 - 8/31/2008)

Ryan ALM, Inc. - The Solutions Company www.ryanalm.com

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** known as the **LIABILITY BENCHMARK or LIABILITY INDEX**. 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 (Pensions, Lotteries, NDT, Insurance Cos., etc.).

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 have unique benefit payment schedules due to different labor forces, different mortality and different 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 a set of economic books, the asset side is in jeopardy of managing vs. the wrong objective (i.e. generic market indexes) **If you outperform generic market indexes, but lose to the CLI ... the plan loses!**

Ryan Indexes ...Enhanced!

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.

The daily reports on these indices have been greatly expanded and enhanced to over 100 daily pages + many pages of research and methodology including:

Returns
Yield History
Yield Spreads
Percentage Spreads

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

The best way to match assets to liabilities and reduce the volatility of the Funded Ratio is through a Liability Index Fund. Immunization was a common strategy to match liabilities but had a mathematical problem in that it matched 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) concept.

ETFs

Powershares Launches ETF based on Ryan/Mergent 1-30 year Maturity Ladder Indexes

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)