Ryan ALM, inc.

Asset/Liability Management

The Solutions Company

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The Ryan Letter

December 2009

Index	Returns YTD 2009	Estimated Weights
Liabilities :		
Market (Tsy STRIPS)	-19.52 %	100 %
FAS 158 (AA Corporates)	12.67	
PPA (3 Segment)	4.54	
PPA (Spot Rates)	23.53	
GASB / ASOP (8% ROA)	8.16	
Assets :		
Ryan Cash	0.53 %	5 %
Barclay's Aggregate	5.93	30
S&P 500	26.46	60
MSCI EAFE Int'l	32.45	5
Asset Allocation Model	19.43 %	100 %
Assets – Liabilities		
Market	38.95%	
FAS 158	6.76	
PPA (3 Segment)	14.89	
PPA (Spot Rates)	-4.10	
GASB/ASOP (8% ROA)	11.27	

Using Asset Allocation above in 2009, pension asset growth difference vs. liabilities was: **38.95%** (market valuation STRIPS); **6.76%** (FAS 158); **14.89%** (PPA rules-AA Corporate rates) and **-4.10%** (PPA-3 Segments); **11.27%** (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 **have underperformed liabilities by about -106.94% since 1999** on a compounded index basis starting at 100 on 12/31/99! (see **Pension Scoreboard**)

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	19.43
Liabilities	25.96	3.08	19.47	1.96	9.35	8.87	0.81	11.76	33.93	-19.52
Difference:										
Annual	-28.46	-8.48	-30.89	18.08	-0.43	-4.44	11.44	-4.94	-58.40	38.95
Cumulative		-37.60	-73.40	-60.08	-66.13	-76.75	-64.60	-78.38	-181.57	-106.94

Best Year in Pension History ! or ?

The year 2009 will hopefully be recognized as the best pension year in modern history (since FAS 87 was enacted in 1985). According to our calculations on the first page, pension assets should have grown around **19.43%**. This is the sixth best asset allocation performance in the last 24 years:

1996 = 28.67%
1991 = 24.13%
1997 = 22.98%
1998 = 21.37%
2003 = 20.04%

Liabilities should have grown around **-19.52%** on a market basis (Treasury STRIPS). This is the worst liability growth rate in 24 years followed by: **1999 = (12.70%), 1994 = (12.60%), 1996 = (3.70%)**. Based on different accounting methods for discount rates liabilities grew around: **12.67% using FAS 158, 4.54% using the PPA (3 segment rates), 23.53% using the PPA (spot yield curve) and 8% using the GASB discount rates (ROA)**. Obviously, there was a significant difference in returns between Treasuries and Corporate bonds for 2009. Please note that Ryan ALM developed a FAS 158 spot rate yield curve as the proper discount rates in harmony with the FAS 158 directive and used by major accounting firms. For more info please contact us at: newsletter@RyanALM.com or 888-RYAN-ALM x22.

The decade of the 2000s has not been a pretty one for pensions. Most pensions were fully funded on an economic basis when they entered the decade starting January 2000. Using our asset allocation and liability valuations on the first page, we see the Funded Ratio declining rapidly throughout the decade. Assuming the Funded Ratio started at 100.00 on 12/31/99, here is our Funded Ratio calculation on an economic or market valuation basis:

Economic Funded Ratio
(starting 12/31/99 = 100.00)

12/31/00	**77.41**	**12/31/05**	**59.25**
12/31/01	**71.04**	**12/31/06**	**65.97**
12/31/02	**52.68**	**12/31/07**	**63.22**
12/31/03	**62.01**	**12/31/08**	**35.66**
12/31/04	**61.68**	**12/31/09**	**52.91**

GAO Reports Unfunded OPEB Debt Exceeds $530 billion

The General Accounting Office just released its November 2009 report entitled "State and Local Government Retiree Health Benefits" with a subtitle "Liabilities Are Largely Unfunded but Some Governments Are Taking Action". This report covers the 50 states plus 39 large local governments (defined as cities and counties with total revenues of $3 billion or greater according to the U.S. Census Bureau). Other Postemployment Benefits (OPEB) are lifetime health care benefits to retired government workers. GASB 45 accounting rules required large governments to begin reporting OPEB liabilities effective fiscal year 2008. The GAO found that the total unfunded OPEB liability reported by these 89 governments exceeded $530

billion. Unlike pensions most municipalities never put assets in escrow or trust to prefund these growing liabilities like pensions do. Approximately 35% of the 89 governments GAO reviewed had set aside some assets for OPEB liabilities. As a result, most governments fund OPEB liabilities on a pay-as-you-go basis at 100 cents on the dollar (high cost).

In truth, the actual size of the OPEB deficit is a lot higher for several reasons:

1. This survey did not include all of the smaller cities.
2. Survey was mainly reviewing fiscal 2008 which for most ended on June 30, 2008. Since assets are valued on a five-year moving average the significant erosion of assets in late 2008 is not included in this actuarial valuation.
3. OPEB liabilities tend to have a higher inflation rate than the 5% rate assumption used here. Historically, health care inflation rates have exceeded 10%.
4. The discount rate used to price the OPEB liabilities is the ROA (@8.00%). This is certainly not a market rate and a much lower rate. If marked to market such OPEB liabilities would be 30% to 55% higher.

The GAO survey found that the 10 highest and lowest unfunded OPEB liabilities were:

	(Highest)		**(Lowest)**	
1.	California	$62.0 billion	Arizona	$ 71,180,000
2.	New York	$50.8 billion	South Dakota	$ 76,406,000
3.	New Jersey	$50.6 billion	North Dakota	$ 81,546,000
4.	North Carolina	$28.7 billion	Wyoming	$174,161,000
5.	Illinois	$24.2 billion	Kansas	$316,640,000
6.	Ohio	$20.4 billion	Iowa	$404,362,000
7.	Georgia	$18.5 billion	Indiana	$442,265,000
8.	Michigan	$14.9 billion	Mississippi	$570,248,000
9.	Maryland	$14.7 billion	Oregon	$609,793,000
10.	Louisiana	$12.5 billion	Utah	$669,617,000

Senate Approves Increase in Debt Limit to $12.4 trillion

On December 24, Senators voted 60-39 to approve a short-term increase in the U. S. debt ceiling to $12.4 trillion. This was just an increase of $290 billion which only provides enough funding to operate the Government through February. Currently there is $12.1 trillion public debt outstanding ($7.7 trillion held by the public and $4.4 intragovernmental holdings). What if our politicians did not approve any more debt ceiling increases? No politicians for awhile sounds rather refreshing and frugal.The history of our Federal debt is an alarming epic of escalating government spending:

Federal debt started at $75,463,476.52 in 1791
Federal debt reduced 36.6% over the last 218 years
73% of these debt reductions happened during the 1800s
Lowest debt in 1835 at $33,733.05 with Andrew Jackson as President
Last time debt reduced was 1956 … 53 straight years of increasing debt
First time Federal debt reached $1 billion was 1863 under Abraham Lincoln
First time Federal debt hit $1 trillion outstanding was 1981 under Ronald Reagan
It then went over $2 trillion in 1986, over $4 trillion in 1992 and over $8 trillion in 2006

December Treasury Auctions…Largest Issuance in Mankind

The December 2009 auctions raised $118 billion in three separate auctions: a 2-year = $44 billion, a 5-year = $42 billion and a 7-year = $32 billion. ***The 2-year auction of $44 billion was the largest debt issuance in the history of mankind.*** The combined total issued of $118 billion for these three auctions represents more debt issued in most years in history.

Treasury Auctions …a Snowball from Hell

In the early 1980s I had the pleasure to write the first chapter in the Frank Fabozzi "Handbook of Treasury Securities". In it I explained that our Federal Government does not usually pay its debt …instead it *refinances* it. This means that every Treasury auction not only finances the budget deficit but must refinance maturing debt. As a result, these auctions tend to grow significantly like a snowball gathers itself as it goes down a hill. The steeper the hill or budget deficit the bigger the snowball. Currently, we face the steepest hill in our history with unprecedented forecasted deficits to finance plus the largest refinancings in our history. Together this spells a real test of supply and demand forces. How much credit is available to finance America's debt? What about other countries that seemingly are in desperate need of funds? Will the Treasury crowd out corporations, cities and states that all need record amounts of debt financing?

A review of the history of the Treasury 2-year auction tells the scary story. The 2-year auction is the second oldest continuous auction series starting with the 09/04/73 auction. The 30-year is the oldest starting with the 05/15/73 auction.

History of Treasury 2-year Auction
(Last auction of calendar year in $ millions)

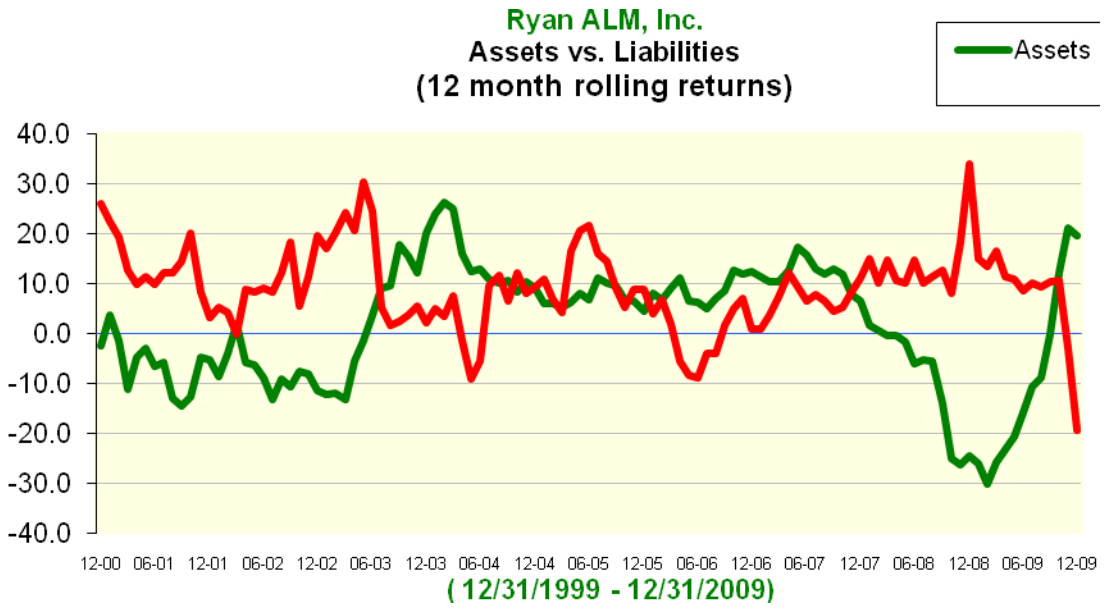
Year	$ Issued	Year	$ Issued	Year	$ Issued	Year	$ Issued
		1980	4,955	1990	14,237	2000	15,059
		1981	5,427	1991	16,539	2001	29,667
		1982	8,009	1992	17,136	2002	33,203
1973	1,731	1983	9,079	1993	19,305	2003	33,966
1974	2,282	1984	10,112	1994	18,944	2004	31,952
1975	2,765	1985	10,524	1995	18,688	2005	26,667
1976	3,376	1986	11,648	1996	20,615	2006	24,338
1977	4,791	1987	10,645	1997	16,747	2007	26,497
1978	3,195	1988	10,605	1998	19,475	2008	38,000
1979	4,307	1989	12,583	1999	19,196	2009	45,304

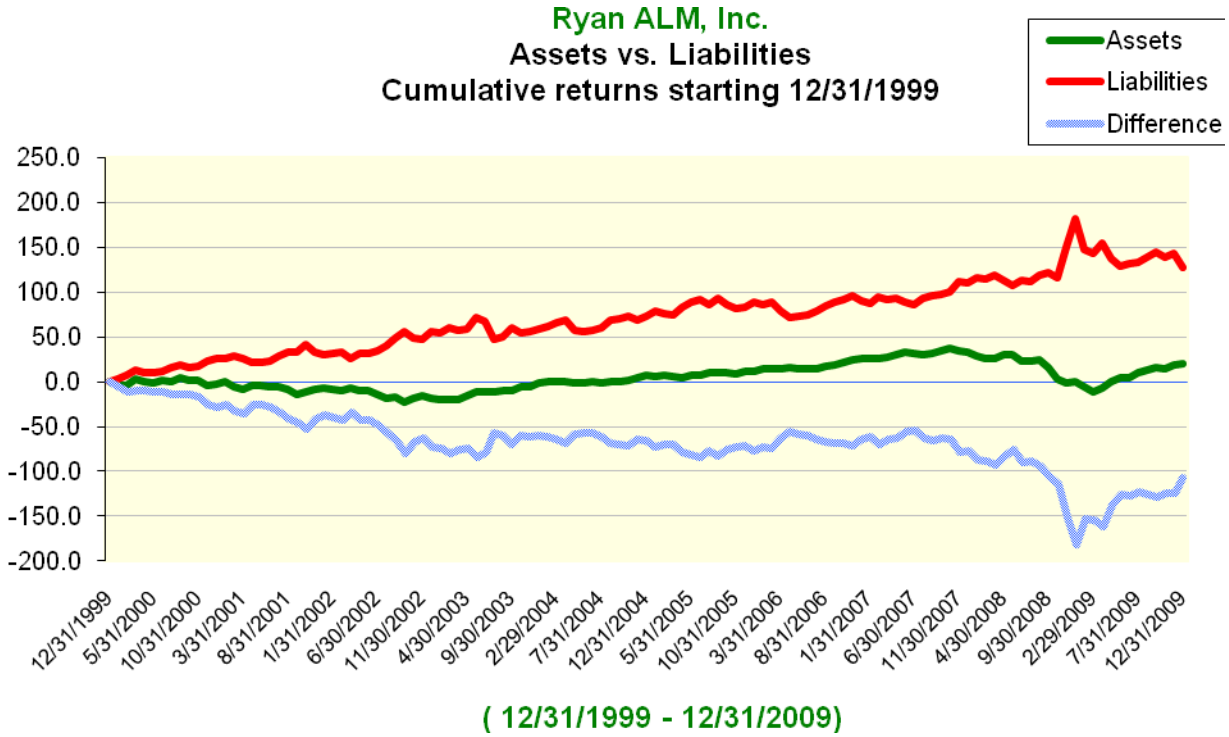
End of an Era?

AT&T asked the FCC to set plans to phase out landline networks. At&T said that landline infrastructure is costly and becoming obsolete. AT&T pointed out that landline revenues are plunging as most consumers are switching to cell phones.

Pension Scoreboard

The graphs below show asset vs. liability rolling 12 month and cumulative growth since 1999. The cumulative growth difference is **– 106.94% suggesting any pension Funded Ratio below 189.00 in 1999 has a deficit today!**





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, 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 CLI it would be difficult, 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

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.