



Ryan ALM, inc.

Asset/Liability Management

The Solutions Company



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The Ryan Letter

July 2007

Index	Returns YTD 2007	Estimated Weights
Liabilities :		
Market (Tsy STRIPS)	1.44 %	100 %
IRS (Corporates)	2.85	
ROA (8% constant rate)	4.67	
Assets :		
Ryan Cash	3.05 %	5 %
Lehman Aggregate	1.81	30
S&P 500	3.64	60
MSCI EAFE Int'l	9.47	5
Asset Allocation Model	3.42 %	100 %
Assets – Liabilities		
Market	1.98%	
IRS	0.57	
ROA	-1.25	

Based on the Asset Allocation above, for the year 2007, pension assets outperformed liabilities by only **1.98%** using market valuations (i.e. STRIPS); **0.57%** under the IRS Contribution rules (PPA Corporate rates); and **-1.25%** 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, this **funded ratio has been reduced by about -63% since 1999** (see Graphs and Index disclosures on pages 3 and 4).

Total Returns								
	2000	2001	2002	2003	2004	2005	2006	2007
Assets	- 2.50	- 5.40	-11.41	20.04	8.92	4.43	12.25	3.42
Liabilities	25.96	3.08	19.47	1.96	9.35	8.87	0.81	1.44
Difference : Annual	-28.46	- 8.48	-30.89	18.08	-0.43	-4.44	11.44	1.98
Cumulative		-37.60	-73.40	- 60.08	-66.13	-76.75	-64.60	-63.05

God Bless Pension America !

Goodbye 3-year Treasury Auction

The Treasury announced recently they will discontinue the 3-year note. There have been twenty 3-year auctions since November 4, 1997. There was a gap between May 15, 1998 and May 15, 2003 where there were no 3-year auctions. This announcement would affect short maturity bond indexes, mutual funds and ETFs especially those using a 1-3 year Treasury index benchmark. Such an index could have a dramatic % shift in average duration ... and yield if a normal positive sloping yield curve returns.

Public Pension and OPEB 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. As I have preached since 1991, the accounting rules governing Public Pension plans are the start of the pension crisis since they do not *mark to market* the liabilities. Instead, they value the liabilities at the ROA rate. Such a discount rate has undervalued public pension liabilities by 30 to 45% in the last 5 years. So reported funded ratios are not accurate and need to be reduced accordingly. As a result of these inappropriate rules has led to inappropriate ... benefit decisions, contribution decisions and asset allocation decisions. It all links! Here is an update on some municipalities:

California - Recent disclosures estimate OPEB unfunded liabilities at \$4.9 billion (San Francisco), \$3.2 billion (Los Angeles), \$1.38 billion (San Diego). On a per capita basis San Francisco OPEB liability is 14 times worse than San Diego.

Hawaii - Pension unfunded liability estimated at \$5.13 billion and OPEB estimated at \$11 billion.

Illinois - Governor Rod Blagojevich's strategy to lease the state lottery for \$10 billion to help fund the \$41 billion pension shortfall failed in the House by a lopsided vote.

Massachusetts - Legislators in both the House and Senate approved overwhelmingly of a Bill to allow the state to seize the assets of 19 underperforming local government pension funds. Under the pension bill, poorly performing local systems would be required to transfer funds into the state Pension Reserves Management Board.

Mississippi - The state reported a \$6 billion shortfall. According to the Wilshire survey their funded ratios stood at 72% with Louisiana (64%) and Kentucky (60%) the only two states reportedly in worst shape. According to the Wilshire study, Florida, Georgia and North Carolina are the only states with an overfunded situation.

New Jersey - According to a seven month study, the OPEB estimated liability is \$58 billion. There are no assets set aside for this liability. New pension contribution cost projections have tabbed \$1 billion in property taxes to help fund the state pension shortfall. This amount is 20 times larger than the contribution cost four years ago. Even at \$1 billion, pension contributions fall way short of the annual actuarial requirement (currently = \$2 billion). In just the last four years, the annual cost of making up for skipped pension contributions into the state's largest two pension funds rose from \$38 million to \$841 million. That figure is included in the \$2 billion annual contributions actuarially owed for this year. Even if the state makes the full actuarial contribution, this annual cost is expected to rise by at least 4% annually. Any

deficiency in making this payment and/or underperformance by pension assets will increase this annual payment requirement.

San Diego - The independent board that oversees San Diego County's \$8.5 billion pension fund decided to stay with the projected ROA of 8.25%. This rate is significant in that it determines the amount of contributions. This rate has been in place for several years. In other notable action, Judge Jeffrey Barton ruled on August 3 that the case filed by City Attorney Mike Aguirre was filed far too late to meet the one year statute of limitations. Aguirre sued to erase the benefits in July 2005, long after November 2002, when a worried pension board member approached the City Council to warn that a deal the board agreed to could bankrupt the city.

West Virginia - The West Virginia Public Employees Insurance Agency (PEIA) uncovered nearly \$8 billion in healthcare liability based upon the new GASB 45 standards.

Wilshire Study - Average Funded Ratio reported by all 125 state pension plans was 88% in 2006 and 87% in 2005 (note: true economic ratio is about 30% lower due to using the ROA as the liability discount rate).

Ameristock / Ryan Launch Five (5) New Bond ETFs

On Monday, July 2nd Ameristock and Ryan ALM launched five new bond ETFs based upon the Ryan Indexes. Here is the list of these innovative ETFs and ticker names:

Ameristock / Ryan 1 year Treasury (GKA)
Ameristock / Ryan 2 year Treasury (GKB)
Ameristock / Ryan 5 year Treasury (GKC)
Ameristock / Ryan 10 year Treasury (GKD)
Ameristock / Ryan 20 year Treasury (GKE)

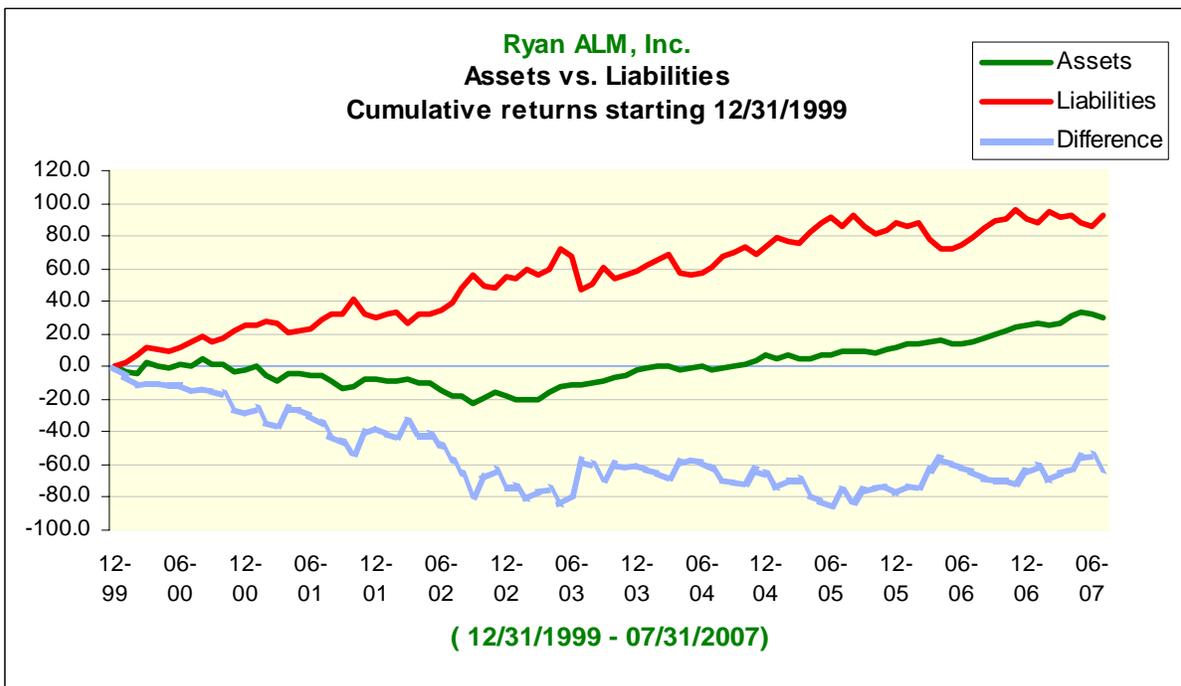
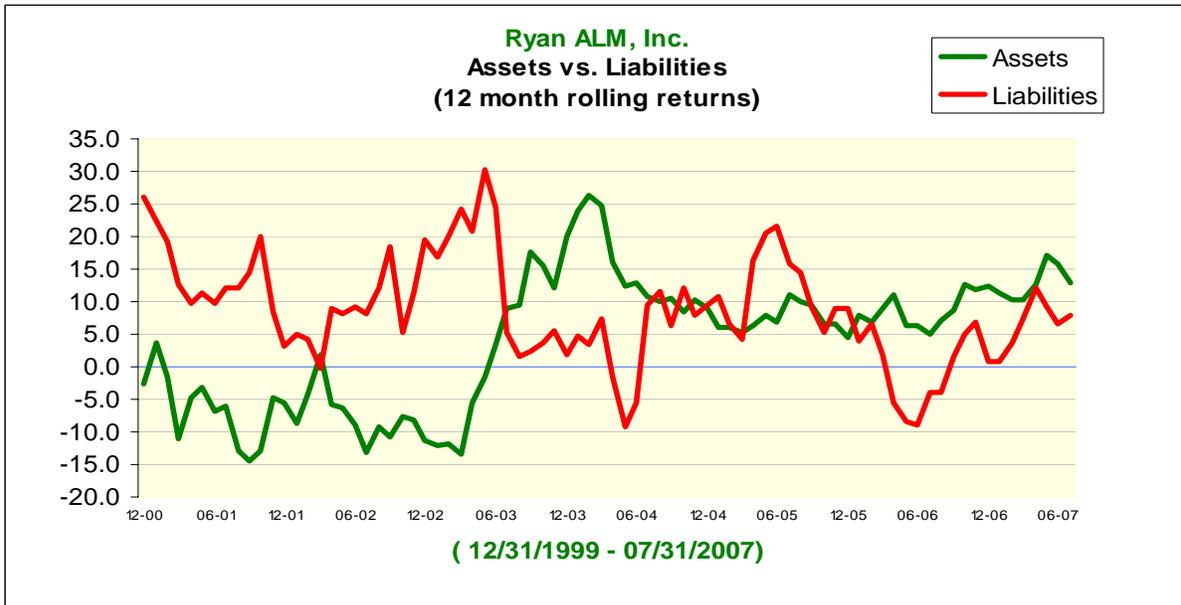
These new ETFs are **constant maturity** index funds. They are the first such bond funds in the ETF market place today. The other bond ETFs are a maturity range (i.e. 7-10 years) rather than a precise spot on the Treasury yield curve. These maturity band indexes tend to have significant drifts in average coupon and duration as old issues pass thru this index composition. Such drifts can distort the implied or expected risk/reward behavior. Moreover, these indexes allow for callable bonds which trade to a call date and not a maturity date which create more skewness. Such drifts and skewness are corrected with a constant maturity index methodology. For more info on these ETFs and the Ryan Indexes, please go to :

Ryan Indexes = www.RyanIndex.com
and
www.RyanALM.com
Ameristock / Ryan ETFs = www.Ameristock.com

Pension Scoreboard

Based on the Ryan generic Liability Index and a static Asset Allocation, as shown on page 1, the following graphs show asset growth versus liability growth for rolling 12 month periods and cumulative growth since 1999. The cumulative growth difference is **-63.05%** suggesting any plan with a Funding Ratio below 154.37% at the end of 1999 is in a deficit position today.

In order to closely watch the Pension Crisis, we have designed the **Pension Monitor**. We believe that this is the most comprehensive site for pension articles in the world today. To view, please click on : <http://www.pensionmonitor.com/>



Custom Liability Indexes

In 1991, my current product development team and I designed the first Liability Index using the Ryan STRIPS Indexes. Since then we have 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, 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 + 10 pages of research and methodology including :

**Returns
Yield History
Yield Spreads
Percentage Spreads**

The best way to price (discount rate) and understand the interest rate sensitivity of **liabilities** is ... the **Ryan Treasury STRIPS yield curve** 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.).

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***

Ryan Indexes (07/31/07) Daily Reports

Index	Index			Total Returns						Yield Change (bp)							
	Level	Yield	MDur	Last			Last			Last			Last				
				Day	7 Days	Month	Quarter	Year	12 MO	3 YR	Day	7 Days	Month	Quarter	Year	12 MO	3 YR
Ryan 1 Month Index	116.977	5.119	0.075	0.009	0.097	0.375	0.375	2.932	5.128	3.837	18	8	86	86	39	11	387
Ryan 3 Month Index	236.275	4.956	0.243	0.012	0.131	0.435	0.435	3.060	5.274	3.916	1	-7	14	14	-6	-14	351
Ryan 6 Month Index	241.196	4.985	0.485	0.012	0.146	0.457	0.457	3.153	5.379	3.964	0	-9	4	4	-11	-18	323
Ryan Cash Index	243.388	5.020	0.267	0.011	0.125	0.422	0.422	3.048	5.260	3.905	6	-2	35	35	7	-7	354
Ryan 1 Year Index *	259.931	4.844	0.953	0.019	0.253	0.635	0.635	3.115	5.321	3.614	-0	-13	-8	-8	-16	-26	278
Ryan 2 Year Index	1,194.525	4.561	1.890	0.033	0.467	0.991	0.991	3.036	5.202	2.914	-1	-21	-32	-32	-25	-41	188
Ryan 3 Year Index	110.802	4.543	2.572	0.039	0.671	1.331	1.331	3.115	5.583	2.985	-1	-23	-36	-36	-20	-38	153
Ryan 5 Year Index	875.358	4.604	4.419	0.115	1.021	1.825	1.825	2.952	5.682	2.583	-2	-22	-33	-33	-10	-30	91
Ryan 10 Year Index	1,023.134	4.771	7.744	0.266	1.435	2.483	2.483	2.034	6.038	3.320	-3	-17	-26	-26	6	-22	29
Ryan 20 Year Index *	1,116.650	4.847	11.501	0.420	1.840	3.041	3.041	1.359	6.496	4.246	-3	-16	-23	-23	9	-18	0
Ryan 30 Year Index	1,602.078	4.922	15.259	0.574	2.246	3.596	3.596	0.656	6.906	5.127	-4	-14	-20	-20	11	-15	-28
Ryan Index	913.217	4.680	6.377	0.205	1.167	2.047	2.047	2.382	5.924	2.575	-2	-19	-30	-30	-8	-29	121

Period	Since Date	Yield		Yield Spread		% Spread Volatility			Yield Spread %								
		TSY30	TSY02	% Spread	Change	Mean Abs Dev	Variance	Std Dev	Low % Spread	High % Spread	Avg						
		Date	Date	Date	Date	Date	Date	Date	Date	Date	Date						
Today	07/31/07	4.922	4.561	7.915													
Month	06/29/07	5.127	4.883	4.997	2.918	0.9	1.5	19.1	5.002	07/02/07	8.775	07/26/07	6.115				
Quarter	06/29/07	5.127	4.883	4.997	2.918	0.9	1.5	19.1	5.002	07/02/07	8.775	07/26/07	6.115				
Year	12/29/06	4.815	4.813	0.042	7.873	2.1	6.5	40.1	-1.283	01/22/07	8.775	07/26/07	2.929				
7 Days	07/24/07	5.062	4.771	6.099	1.816	0.7	0.8	14.4	6.348	07/25/07	8.775	07/26/07	8.059				
14 Days	07/17/07	5.161	4.908	5.155	2.760	1.3	1.9	21.7	5.374	07/19/07	8.775	07/26/07	6.865				
30 Days	06/29/07	5.127	4.883	4.997	2.918	0.9	1.5	19.1	5.002	07/02/07	8.775	07/26/07	6.115				
60 Days	06/01/07	5.062	4.971	1.831	6.084	1.0	2.4	24.5	1.189	06/04/07	8.775	07/26/07	5.461				
90 Days	05/02/07	4.819	4.645	3.746	4.169	1.5	3.2	28.4	1.189	06/04/07	8.775	07/26/07	4.554				
180 Days	02/01/07	4.934	4.958	-0.484	8.399	1.8	5.2	36.0	-1.273	02/08/07	8.775	07/26/07	3.525				
365 Days	07/31/06	5.071	4.967	2.094	5.821	1.9	5.7	37.5	-2.452	11/15/06	8.775	07/26/07	2.027				
2 Years	07/29/05	4.474	4.015	11.432	-3.517	3.2	15.8	62.8	-4.648	02/23/06	15.855	09/19/05	3.483				
3 Years	07/30/04	5.207	2.685	93.929	-86.014	21.7	841.1	457.6	-4.648	02/23/06	111.864	08/06/04	19.483				
4 Years	08/01/03	5.327	1.844	188.883	-180.968	60.4	4,988.9	1,114.6	-4.648	02/23/06	237.172	10/01/03	55.697				
5 Years	08/01/02	5.298	2.154	145.961	-138.046	77.5	7,278.8	1,346.3	-4.648	02/23/06	291.089	06/24/03	82.923				
7 Years	08/01/00	5.745	6.267	-8.329	16.244	65.0	5,838.7	1,205.8	-9.344	08/18/00	291.089	06/24/03	72.850				
10 Years	08/01/97	6.465	5.892	9.725	-1.810	58.3	5,046.3	1,121.0	-10.995	05/16/00	291.089	06/24/03	52.760				
15 Years	08/03/92	7.461	4.404	69.414	-61.499	46.2	3,673.5	956.4	-10.995	05/16/00	291.089	06/24/03	45.498				
	12/30/05	4.547	4.408	3.153	4.762	2.1	6.2	39.2	-4.648	02/23/06	8.775	07/26/07	1.921				
	12/31/04	4.827	3.073	57.078	-49.163	8.8	136.9	184.6	-4.648	02/23/06	55.455	01/03/05	8.875				
	12/31/03	5.080	1.843	175.638	-167.723	45.9	3,298.8	906.3	-4.648	02/23/06	214.276	03/23/04	40.621				
	12/31/02	4.785	1.599	199.250	-191.335	76.8	7,395.2	1,357.0	-4.648	02/23/06	291.089	06/24/03	76.493				
	12/31/01	5.467	3.055	78.953	-71.038	70.8	6,548.2	1,276.9	-4.648	02/23/06	291.089	06/24/03	82.735				
	12/29/00	5.465	5.108	6.989	0.926	65.0	5,823.5	1,204.2	-4.648	02/23/06	291.089	06/24/03	77.619				
	12/31/99	6.487	6.243	3.908	4.007	64.9	5,836.8	1,205.6	-10.995	05/16/00	291.089	06/24/03	66.710				
	12/31/98	5.100	4.542	12.285	-4.370	62.4	5,507.9	1,171.1	-10.995	05/16/00	291.089	06/24/03	59.924				
	12/31/97	5.931	5.658	4.825	3.090	59.5	5,176.0	1,135.3	-10.995	05/16/00	291.089	06/24/03	54.651				
	12/31/96	6.643	5.876	13.053	-5.138	56.5	4,854.8	1,099.5	-10.995	05/16/00	291.089	06/24/03	50.480				
	12/29/95	5.957	5.183	14.933	-7.018	53.3	4,533.2	1,062.4	-10.995	05/16/00	291.089	06/24/03	47.406				
	12/30/94	7.885	7.690	2.536	5.379	50.6	4,264.8	1,030.5	-10.995	05/16/00	291.089	06/24/03	44.614				
	12/31/93	6.351	4.250	49.435	-41.520	47.7	3,987.3	996.4	-10.995	05/16/00	291.089	06/24/03	43.279				
	12/31/92	7.398	4.582	61.458	-53.543	46.3	3,747.2	965.9	-10.995	05/16/00	291.089	06/24/03	44.657				
	12/31/91	7.410	4.756	55.803	-47.888	44.9	3,541.0	939.0	-10.995	05/16/00	291.089	06/24/03	45.828				
	12/31/90	8.255	7.157	15.342	-7.427	43.1	3,356.1	914.2	-10.995	05/16/00	291.089	06/24/03	44.664				
	12/29/89	7.954	7.806	1.896	6.019	42.0	3,248.0	899.3	-10.995	05/16/00	291.089	06/24/03	42.456				
	12/30/88	9.020	9.143	-1.345	9.260	41.3	3,171.6	888.7	-10.995	05/16/00	291.089	06/24/03	40.111				
	12/31/87	8.961	7.772	15.299	-7.384	40.1	3,053.2	871.9	-10.995	05/16/00	291.089	06/24/03	38.616				
	12/31/86	7.487	6.350	17.906	-9.991	38.7	2,927.9	853.8	-10.995	05/16/00	291.089	06/24/03	37.522				
	12/31/85	9.265	7.978	16.132	-8.217	37.6	2,818.3	837.7	-10.995	05/16/00	291.089	06/24/03	36.419				

