



# Ryan ALM, inc.

Asset/Liability Management

The Solutions Company



Ronald Ryan, CEO, CFA

## The Ryan Letter

June 2007

Index	Returns YTD 2007	Estimated Weights
<b>Liabilities :</b>		
Market (Tsy STRIPS)	-1.98 %	100 %
IRS (Corporates)	2.19	
ROA (8% constant rate)	4.00	
<b>Assets :</b>		
Ryan Cash	2.61 %	5 %
Lehman Aggregate	0.97	30
S&P 500	6.96	60
MSCI EAFE Int'l	11.09	5
Asset Allocation Model	5.17 %	100 %
<b>Assets – Liabilities</b>		
Market	7.15 %	
IRS	2.98	
ROA	1.17	

Based on the Asset Allocation above, for the year 2007, pension assets outperformed liabilities by about **7.15%** using market valuations (i.e. STRIPS); **2.98%** under the IRS Contribution rules (PPA Corporate rates); and only **1.17%** 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 -54% 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	5.17
Liabilities	25.96	3.08	19.47	1.96	9.35	8.87	0.81	-1.98
Difference : Annual	-28.46	- 8.48	-30.89	18.08	-0.43	-4.44	11.44	7.15
Cumulative		-37.60	-73.40	- 60.08	-66.13	-76.75	-64.60	-54.36

God Bless Pension America !

### **Ameristock / Ryan Launch Five (5) New Bond ETFs**

On Monday, July 2<sup>nd</sup> 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 existing 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.

Since there are no longer the 1-year and 20-year auction issues, Ron Ryan and his team designed a solution. By weighting the 6-month and 2-year Ryan indexes (2/3rds + 1/3 rd) we created a synthetic 1-year constant maturity index. Given a normal positive sloping yield curve this index should outyield the Bill yield curve consistently. By weighting the 10-year and 20-year Ryan indexes (50/50%) we created a 20-year constant maturity index series. For more info on these ETFs and the Ryan Indexes, please go to :

**Ryan Indexes = [www.RyanIndex.com](http://www.RyanIndex.com)**  
**and**  
**[www.RyanALM.com](http://www.RyanALM.com)**  
**Ameristock / Ryan ETFs = [www.Ameristock.com](http://www.Ameristock.com)**

### **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 do not mark to market the liabilities. Instead, they value the liabilities at the ROA. 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. Here is an update on some municipalities :

**California** - Under a new proposal, public employees in California would have to wait until ages 65 to 67 to get full pension benefits. Police and firefighters could retire at age 55. The measure would apply to new hires as of July 2009.

**Connecticut** - Currently, the unfunded pension liability for the Teachers pension fund stands at approximately seven billion dollars. These Teachers are not part of the Social Security

system. The state has not kept up with its share of the pension contribution needed over the last several which has worsened the funding ratio. Currently, the funded ratio is estimated at 63%. The state senate gave approval on June 5 to allow for issuance of a pension obligation bond (POB) of \$2 billion to shore up the deficit. It is estimated that the POB would come at a cost of 5.6% and the ROA is expected to return 8.5% over time and create excess earnings of \$70 million annually to help reduce the deficit.

**Fort Worth** - With pension assets of \$1.9 billion, the unfunded actuarially accrued liability (UAAL) is estimated at \$410.7 million. Fort Worth's city council is considering boosting the pension contribution; cracking down on overtime "spiking" which affects the calculation of retirement benefits for those near retirement; and switching from a 2% COLA to an "ad hoc" COLA that could range from nothing to 4% based on the pension plan financial soundness.

**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** - Governor Corzine released a \$33.8 billion budget in June. Pension contributions will be raised to about a \$1 billion annually but still fall way short of the actuarial requirement (currently = \$2 billion). This will continue to put burden on future taxpayers and pension assets to perform. 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** - Thousands of city retirees could lose a portion of their pension benefits following a legal victory for City Attorney Michael Aguirre. Judge Jeffrey Barton ruled on June 28 that only workers who retired before July 2004, when San Diego agreed to end the practice of underfunding the pension system, are immune from seeing their benefits challenged. This will affect about 11,000 employees who will be served notice that their pension benefit increases awarded in 1996 and 2002 will be eliminated.

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

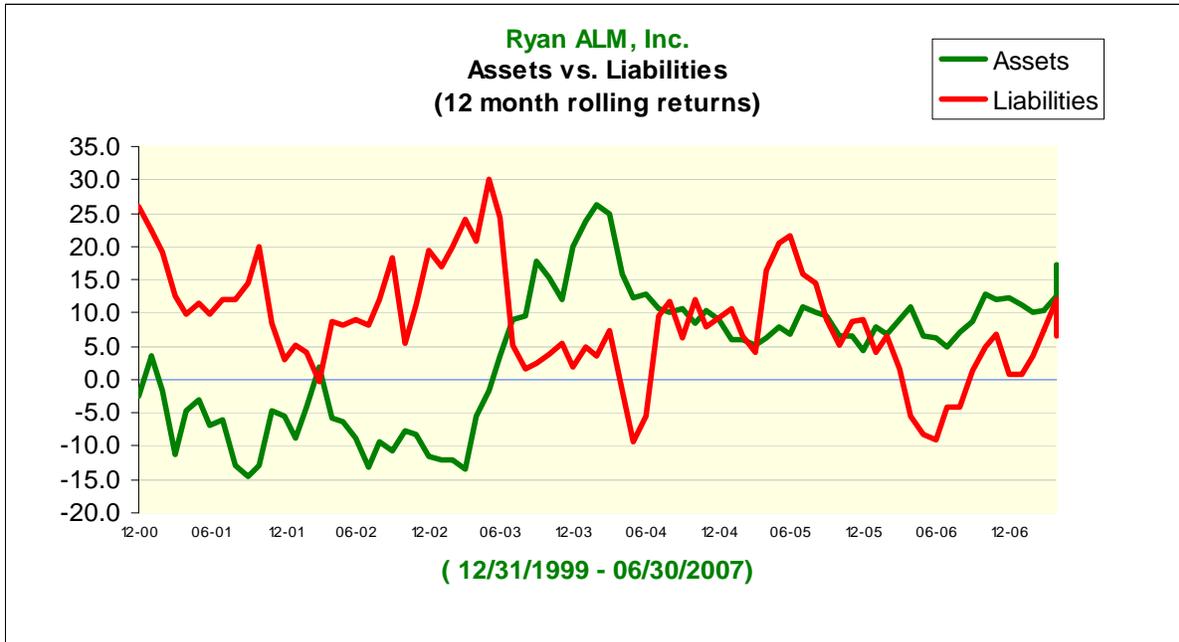
### **GM, Ford and Daimler May Create Independent Health-Care Fund**

In a novel way to solve their healthcare costs, the three auto giants may create a fund to pay for the \$114 billion in health care obligations for UAW retirees. Each would contribute to the fund. The objective is to cap the expenses and liabilities. In 2006, health-care cost \$12 billion combined for the three entities. The idea was inspired by a Goodyear Tire & Rubber plan. This plan made a one-time payment of \$1 billion in cash and stock. After the payment Goodyear had no further health-care obligation to the UAW.

## 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 **-54.37% 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 **1<sup>st</sup> 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 **1<sup>st</sup> STRIPS Index**. Based upon these Ryan STRIPS indexes we created the **1<sup>st</sup> 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](http://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

(06/30/07)  
Daily Reports

Index	Index			Total Returns							Yield Change (bp)						
	Level	Yield	MDur	Day	Last 7 Days	Month	Quarter	Year	Last 12 MO	3 YR	Day	Last 7 Days	Month	Quarter	Year	Last 12 MO	3 YR
Ryan 1 Month Index	116.539	4.263	0.070	0.012	0.091	0.419	1.269	2.547	5.161	3.745	-0	1	-55	-81	-47	-27	310
Ryan 3 Month Index	235.252	4.814	0.237	0.013	0.077	0.399	1.335	2.614	5.280	3.807	-0	9	8	-23	-20	-18	347
Ryan 6 Month Index	240.100	4.941	0.480	0.014	0.113	0.456	1.406	2.684	5.451	3.859	-0	-2	-1	-12	-15	-30	325
Ryan Cash Index	242.365	4.673	0.262	0.013	0.094	0.425	1.337	2.615	5.298	3.803	-0	3	-16	-39	-27	-25	327
Ryan 1 Year Index *	258.291	4.922	0.946	0.013	0.129	0.458	1.116	2.464	5.286	3.474	-0	-2	-2	2	-8	-29	289
Ryan 2 Year Index	1,182.805	4.883	1.878	0.013	0.163	0.462	0.536	2.025	4.950	2.703	0	-4	-3	30	7	-28	217
Ryan 3 Year Index	109.346	4.899	2.649	0.012	0.275	0.338	0.097	1.761	5.191	2.723	0	-7	2	36	16	-23	177
Ryan 5 Year Index	859.668	4.936	4.383	0.013	0.463	0.047	-0.624	1.107	5.061	2.315	0	-8	8	40	23	-16	113
Ryan 10 Year Index	998.344	5.035	7.793	0.013	0.924	-0.716	-1.925	-0.438	5.103	2.978	0	-11	14	38	33	-11	42
Ryan 20 Year Index *	1,083.693	5.081	11.451	0.013	1.498	-1.022	-2.448	-1.633	5.313	3.795	0	-12	13	33	32	-8	11
Ryan 30 Year Index	1,546.474	5.127	15.109	0.014	2.074	-1.337	-2.980	-2.837	5.478	4.567	0	-13	12	28	31	-6	-19
Ryan Index	894.898	4.976	6.362	0.013	0.779	-0.235	-0.976	0.328	5.196	2.175	0	-9	7	34	22	-17	141

Period	Since Date	Yield		Yield Spread		Spread Volatility			Yield Spread				
		TSY30	TSY02	Spread	Change	Mean Abs Dev	Variance	Std Dev	Low Spread	Date	High Spread	Date	Avg
Today	06/29/07	5.127	4.883	24									
Month	05/31/07	5.011	4.916	10	15	6	66	128	6	06/04/07	34	06/22/07	23
Quarter	03/30/07	4.850	4.583	27	-2	5	41	101	6	06/04/07	34	06/22/07	19
Year	12/29/06	4.815	4.813	0	24	9	122	174	-6	01/22/07	34	06/22/07	11
7 Days	06/22/07	5.257	4.920	34	-9	3	11	52	24	06/29/07	33	06/25/07	30
14 Days	06/15/07	5.260	5.035	23	2	3	12	56	24	06/29/07	34	06/22/07	29
30 Days	05/30/07	5.011	4.892	12	13	7	71	133	6	06/04/07	34	06/22/07	22
60 Days	04/30/07	4.819	4.599	22	2	6	55	117	6	06/04/07	34	06/22/07	18
90 Days	03/30/07	4.850	4.583	27	-2	5	41	101	6	06/04/07	34	06/22/07	19
180 Days	12/29/06	4.815	4.813	0	24	9	122	174	-6	01/22/07	34	06/22/07	11
365 Days	06/29/06	5.253	5.200	5	19	8	95	154	-12	11/15/06	34	06/22/07	7
2 Years	06/29/05	4.264	3.651	61	-37	15	333	288	-22	02/23/06	62	09/19/05	16
3 Years	06/29/04	5.372	2.831	254	-230	68	6,916	1,312	-22	02/23/06	270	07/08/04	67
4 Years	06/30/03	4.566	1.316	325	-301	121	17,418	2,083	-22	02/23/06	364	07/29/03	131
5 Years	06/28/02	5.519	2.887	263	-239	132	19,050	2,178	-22	02/23/06	364	07/29/03	166
7 Years	06/30/00	5.890	6.375	-49	73	120	17,062	2,061	-59	08/18/00	364	07/29/03	158
10 Years	07/01/97	6.747	6.034	71	-47	112	15,704	1,977	-76	05/16/00	364	07/29/03	120
15 Years	07/02/92	7.631	4.546	309	-284	102	13,556	1,837	-76	05/16/00	365	10/05/92	130
	12/30/05	4.547	4.408	14	11	9	123	175	-22	02/23/06	34	04/15/98	8
	12/31/04	4.827	3.073	175	-151	32	1,636	638	-22	02/23/06	172	01/03/05	34
	12/31/03	5.080	1.843	324	-299	99	12,866	1,790	-22	02/23/06	332	01/13/04	101
	12/31/02	4.785	1.599	319	-294	131	19,052	2,178	-22	02/23/06	364	07/29/03	151
	12/31/01	5.467	3.055	241	-217	126	17,770	2,103	-22	02/23/06	364	07/29/03	172
	12/29/00	5.465	5.108	36	-11	114	15,643	1,974	-22	02/23/06	364	07/29/03	172
	12/31/99	6.487	6.243	24	0	125	18,442	2,143	-76	05/16/00	364	07/29/03	144
	12/31/98	5.100	4.542	56	-31	121	17,322	2,077	-76	05/16/00	364	07/29/03	133
	12/31/97	5.931	5.658	27	-3	115	16,269	2,013	-76	05/16/00	364	07/29/03	124
	12/31/96	6.643	5.876	77	-52	109	15,060	1,936	-76	05/16/00	364	07/29/03	118
	12/29/95	5.957	5.183	77	-53	101	13,833	1,856	-76	05/16/00	364	07/29/03	115
	12/30/94	7.885	7.690	20	5	95	12,879	1,791	-76	05/16/00	364	07/29/03	112
	12/31/93	6.351	4.250	210	-186	92	12,180	1,741	-76	05/16/00	364	07/29/03	114
	12/31/92	7.398	4.582	282	-257	98	12,727	1,780	-76	05/16/00	364	07/29/03	124
	12/31/91	7.410	4.756	265	-241	104	13,679	1,846	-76	05/16/00	365	10/05/92	135
	12/31/90	8.255	7.157	110	-85	100	13,034	1,802	-76	05/16/00	365	10/05/92	136
	12/29/89	7.954	7.806	15	10	99	12,833	1,788	-76	05/16/00	365	10/05/92	131
	12/30/88	9.020	9.143	-12	37	100	13,234	1,815	-76	05/16/00	365	10/05/92	123
	12/31/87	8.961	7.772	119	-95	96	12,728	1,780	-76	05/16/00	365	10/05/92	121
	12/31/86	7.487	6.350	114	-89	92	12,113	1,737	-76	05/16/00	365	10/05/92	121
	12/31/85	9.265	7.978	129	-104	89	11,641	1,703	-76	05/16/00	365	10/05/92	120