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## The Ryan Letter

May 2006

Index	Returns YTD 2005	Estimated Weights
<b>Liabilities :</b>		
Market (Tsy STRIPS)	- 8.40 %	100 %
IRS (30 yr Treasury)	2.40	
ROA (8% constant rate)	3.33	
<b>Assets :</b>		
Ryan Cash	1.84 %	5 %
Lehman Aggregate	- 0.93	30
S&P 500	2.57	60
MSCI EAFE Int'l	10.46	5
Asset Allocation Model	1.88 %	100 %
<b>Assets – Liabilities</b>		
Market	10.28 %	
IRS	- 0.52	
ROA	- 1.45	

The month of May saw asset growth slip (-1.93%) and liability growth nil (0.19%). This has now highlighted even more the **tremendous error in pricing liabilities at any discount rate except the market rates**. Pension assets are up vs. liabilities for the year by about **10.28%** using market valuations (i.e. STRIPS); but are down vs. liabilities by **-0.52%** under the IRS Contribution rules; and down **-1.45%** using the ASOP 27 methodology of a constant ROA (i.e. 8.00%). Most pension funds enjoyed a funded ratio surplus in 1999. However, this **funded ratio has been reduced by about -40% since 1999** (see table below).

Total Returns							
	2000	2001	2002	2003	2004	2005	2006
Assets	- 2.50	- 5.40	-11.41	20.04	8.92	4.43	1.88
Liabilities	25.96	3.08	19.47	1.96	9.35	8.87	- 8.40
Difference	-28.46	- 8.48	-30.89	18.08	-0.43	-4.44	10.28
Cumulative		-34.53	-54.75	- 46.57	-46.80	-49.16	-43.93

**God Bless Pension America !**

### **Liability Beta ... Liability Alpha**

The constant theme of many seminars and research papers today is ...the “*Quest for Alpha*”. I constantly hear that Alpha is the excess return above a generic market index ... **WRONG!** Let’s get the pension fundamentals correct then we can build upon them a proper strategy to cure the pension crisis across most of America. **Liability Alpha is the excess growth above liability growth.** This requires an accurate measurement of liability growth. Just like assets, until we mark-to-market liabilities we can not calculate an accurate measurement of liability growth (return). The SOA in their 2004 paper “Principles underlying Asset/Liability Management” made it clear that accounting rules distort economic reality. The SOA recommends that until a set of **economic books** are created; pension assets can not be effectively managed versus liabilities. This requires the creation of a **Custom Liability Index** (i.e. Economic Books) to properly calculate the market value of liabilities not only in total but as a term structure such that any asset class can be managed versus any part of the liability term structure (i.e. long assets vs. long liabilities). Non-bond assets are best as the Alpha portfolio since they non-correlate to Liabilities and have a higher return ability given time.

**Liability Beta is the portfolio that matches liabilities (i.e. Liability Index Fund).** Once again until a Custom Liability Index is created, how could you manage a Liability Index Fund or match liabilities effectively. To match liabilities you must know the term structure shape of liabilities in present value dollars. Immunization was mathematically incorrect since it tried to match the average duration of liabilities instead of each and every liability payment (benefit payment schedule). If you bought a 100% 12-year duration portfolio of zero-coupon bonds to match a 12-year average duration liability portfolio ... you would **not** match or immunize liabilities. As soon as the yield curve changed its shape (takes about an hour) you are out of balance. You must match every liability payment not an average payment. Zero-coupon bonds are the best assets to use as the Beta portfolio since they have a guaranteed future value and have no reinvestment risk or credit risk if Government securities (risk free asset).

### **Thank You ... Brad Belt, Former Executive Director of PBGC**

Brad Belt has left the PBGC but his direction and guidance will hopefully live on. His remarks before the National Association for Business Economics this year will leave a lasting impression. I urge every pension practitioner to make this speech required reading. Mr. Belt cites ...“In many cases, pension plans have grown so large that they dwarf the companies that sponsor them. Consider: With the pension assets of one of the domestic automakers, you could buy all *three* companies. And yet, despite their massive size and economic importance, defined benefit pension plans have been largely hidden from view behind a nearly impenetrable thicket of often incomprehensible accounting standards, funding rules, and actuarial conventions.”

Mr. Belt went on to detail the economic consequences of using an *expected* ROA instead of an *actual* ROA to create phantom earnings; the funded ratio distortions by using a smoothing of assets valuation along with a four-year average single discount rate liability valuation. As I have preached for a long time ... **Bad Rules lead to bad Asset Allocation decisions, bad Benefit decisions, and bad Contribution decisions.** To read Mr. Brad Belt’s speech please go to our web site ([www.RyanALM.com](http://www.RyanALM.com)) and click on Company Info, Research:  
**Through the Looking Glass: Adventures in Pension Land.**

### **Pension Watch ... Delta**

The PBGC filed a complaint in late May objecting to a proposed agreement between Delta Air Lines and its pilot union (ALPA) under which Delta would pay the pilots \$650 million if it terminates the pension benefits. The PBGC accused Delta of violating the federal pension plan termination insurance program and certain provisions of bankruptcy law whereby ALPA is compensated for claims due PBGC. Moreover, the PBGC should dictate the terms of a plan of reorganization without the protections afforded to creditors in the confirmation process. On May 31, the U.S. Bankruptcy Court Judge Adlai Hardin rejected the PBGC claims finding that the agreement with ALPA was in the best interest of Delta. Judge Hardin rejected the PBGC's main argument that the agreement between Delta and ALPA was illegal. Delta will now file a request to terminate its pilot DB plan soon. On June 7, the PBGC filed an appeal with U.S. District Court in New York. Stay tuned for more action.

### **Inflation Watch**

Former Atlanta Fed President, William Ford, commented recently about Fed Chairman Bernanke testimony before the Joint Congressional Economic Committee on inflation saying "no matter what inflation rate you look at there is an inflation problem, even the hokey CPI and Core. Those of us that eat and use energy know the real CPI and inflation rate is far greater than the Bureau of Labor Statistics CPI." This has direct repercussions for TIPS (Treasury Inflation-Protected Securities) whose principal is indexed to the CPI-U. These securities may not be the inflation fighter or protection investors wanted. The gap between the true inflation rate to be hedged (pension inflation, medical inflation, etc.) and the CPI-U is the potential risk in TIPS. Pension inflation rates tends to be salary related where the CPI-U might be a good fit while medical liabilities have an inflation rate much higher.

### **Housing Bubble ?**

Realty Trac Inc., a property tracker, reported foreclosures up 38% higher in the 1<sup>st</sup> quarter of 2006 than any quarter of last year. Rick Sharga, VP of marketing further commented "The increases we've been seeing in foreclosures don't even reflect the worst-case scenario that could happen when the \$2.7 trillion in adjustable-rate mortgages are reset over the next 18 months." Toll Brothers, Inc., the largest U.S. builder of luxury homes, saw fiscal second quarter orders fall 33%. It was the second consecutive decline following 10 quarters of increases.

### **Sign of the Times**

San Diego recently removed "America's Finest City" from the city's Web site due to the financial, legal and political aftermath of their pension dilemma and Mayor Dick Murphy's resignation.

### **Small Victory for Taxpayers !**

The Treasury Department and the IRS announced on May 26 that after 108 years they will no longer seek to enforce the 3% excise tax on long-distance telephone calls enacted during the Spanish-American War of 1898 as a "luxury" tax on wealthy Americans who owned telephones. The IRS will issue \$15 billion in refunds to consumers.

**Ryan Indexes**

In March 1983, my index team and I at the Ryan Financial Strategy Group (RFSG) created the **1<sup>st</sup> Daily bond Index ... Ryan Index**. 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 best way to price and understand the interest rate sensitivity of liabilities is the Treasury STRIPS yield curve. In March 1985, when STRIPS were born, my team and I at the Ryan Financial Strategy Group (RFSG) created the **1st STRIPS Index**.

To view all Ryan Indexes data go to : [www.RyanIndex.com](http://www.RyanIndex.com)

*Given the Wrong Index ... you will get the Wrong Risk/Reward*  
**Confucius**



In order to closely watch the ever evolving tragedy of the Pension Crisis, we have designed the **Pension Monitor**. This web based site is a chronology of press clippings and research reports on what's happening with pensions throughout the world. Currently, there are over 1,500 press articles going back to 2002. We believe that this is the most comprehensive site for pension articles in the world today. To view, please go to :

[www.RyanALM.com/PensionMonitor](http://www.RyanALM.com/PensionMonitor)

# Pension Ideas

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## Pension Problems :

Key pension problems itemized in [www.RyanAlm.com/Research/The PENSION CRISIS](http://www.RyanAlm.com/Research/The%20PENSION%20CRISIS) :

1. **Discount Rate** = Wrong rate(s) creates wrong present values
2. **Smoothing** = Distorts / Overstates market values by about 29%
3. **ROA** = Dictates Asset Allocation and Discount Rate for Public Funds.

## Pension Solutions !

Ryan ALM has a series of Pension Solutions research papers :

- |                             |   |
|-----------------------------|---|
| <b>Pension Solution # 1</b> | <b>Custom Liability Index (CLI)</b>           |
| <b>Pension Solution # 2</b> | <b>Portable Alpha Liability System (PALS)</b> |
| <b>Pension Solution # 3</b> | <b>Liability Index Fund (LIF)</b>             |

## Custom Liability Index (CLI)

Ryan ALM provides the Benchmark for ALM with accurate daily pricing **that best represents the present value of the projected benefit payment schedule.** Ryan ALM builds Custom Liability Indexes based on market rates or any discount the client wants.

## Liability Beta + Liability Alpha Portfolio

For pensions, **Beta is the portfolio that matches liabilities** not some generic market index. Without a CLI it would be difficult to match liabilities. **Beta is best as a Liability Index Fund.** This is where investment grade bonds should go since they have little or no Alpha vs. liabilities. **Alpha is the excess return above liability growth.** It is certainly not excess returns above a **generic** market index. If you outperform a market index but lose to liabilities, **...you LOST ! Alpha is best as non-bonds portfolios that do not correlate to liabilities.**

## Portable Alpha

Portable Alpha strategies should be liability driven since that is their true objective. Instead, most Alpha portfolios are given benchmarks different than liabilities and most Beta portfolios have poor correlation to pension liabilities (not matched). Ryan ALM designed our CORE product **“PALS”** as a Portable Alpha Liability Strategy where the Alpha portfolio is non-bonds (i.e. Equity, Real Estate, etc.) and the Beta portfolio is 100% bonds matched to liabilities. **Our Alpha portfolio mission is to cure the pension deficit by outperforming target liabilities (Alpha) over a time horizon equal to the liability payment dates** based on a Custom Liability Index. When our Alpha portfolio achieves the client goal (i.e. full funding) we **port over to the Beta portfolio to match liabilities and secure the victory !**