Ryan ALM, inc.

Asset/Liability Management

The Solutions Company

Ronald Ryan, CEO, CFA

The Ryan Letter

April 2006

Index	Returns YTD 2005	Estimated Weights
Liabilities :		
Market (Tsy STRIPS)	- 8.57 %	100 %
IRS (30 yr Treasury)	1.99	
ROA (8% constant rate)	2.66	
Assets :		
Ryan Cash	1.42 %	5 %
Lehman Aggregate	- 0.84	30
S&P 500	5.61	60
MSCI EAFE Int'l	14.78	5
Asset Allocation Model	3.88 %	100 %
Assets – Liabilities		
Market	12.45 %	
IRS	1.89	
ROA	1.22	

April witnessed another sharp spike up in interest rates causing liabilities to show negative growth for the month (-3.36%). Assets posted good equity returns which lifted the total monthly returns to @ 1.01%. This trend towards higher rates is the quickest way for pensions to recover and illustrates 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 **12.45%** using market valuations (i.e. STRIPS); but only **1.26%** under the IRS Contribution rules; and by just **1.89%** 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	3.88
Liabilities	25.96	3.08	19.47	1.96	9.35	8.87	- 8.57
Difference	-28.46	- 8.48	-30.89	18.08	-0.43	-4.44	12.45
Cumulative		-34.53	-54.75	- 46.57	-46.80	-49.16	-42.83

God Bless Pension America !

1st Portable Alpha Conference in Asia

I was honored to be selected as the Master class leader for the giant Terrapin Conference in Hong Kong where I spent a full day teaching ALM and Portable Alpha strategies. The Conference continued for another two days and every continent was represented. It is obvious that most of the world seems to be ahead of America in Assets vs. Liabilities understanding and management. Portable Alpha is definitely the direction the world is headed which strongly suggests a movement towards Tactical Asset Allocation and bonds as the true **BETA** portfolio (**Core Portfolio**).

Thoughts on Beta vs. Alpha

Beta is the portfolio designed to match the objective and Alpha is the portfolio designed to outgrow the objective (excess return). If Liabilities = Objective then it must follow that … **Beta must be an Objective (Liability) Index Fund and Alpha must be the excess growth above Liability growth**. If you outperform a **generic** index (i.e. S&P 500) but lose to Liability growth … you LOSE ! To create a Beta portfolio and measure Alpha both require a **Custom Liability Index**. Without a Liability Index customized to the clients' unique benefit payment schedule, how could you understand the Objective, or create a Beta portfolio or properly measure Alpha. 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). Non-bond assets are best as the Alpha portfolio since they non-correlate to Liabilities and have a higher return ability given time.

More Thoughts on Bankruptcies, Freezing DB plans and Switching to DC Plans

This year so far is a great example of what I have been preaching as one of the **pension solutions … get interest rates to go UP !** Through the first four months of 2006, the Ryan Liability Index is down **-8.57%**. We calculated assets growing at @3.88% in 2006 such that assets won by **12.45%**. If interest rates were to go up just another 100 basis points over the next 12 months liabilities would decline another -7% to -12%. And if assets have normal growth (expected ROA of 8.00% annually) then assets would outgrow liabilities by an additional 15% to 20%. Added to the current 12.45% victory, this would improve the pension Funded Ratio by over 27% to 32% which should put many corporate pensions back on stable ground (fully funded). Given the inflationary trends and the huge supply of Treasuries coming there are strong fundamentals supporting this scenario for the next year plus even higher interest rates in the future.

Fed and Inflation Watch

Fed Chairman Bernanke testimony before the Joint Economic Committee plus comments from other Fed Governors have recently suggested that inflation is under control and there may be no further immediate hikes in interest rates. The inflation gauges that we watch tell a different story as about all commodity indexes have hit record highs this year and double digit growth. Moreover, credit expansion looks ominous as fourth quarter 2005 numbers have just been released showing overall financial and nonfinancial credit increased from $2,643.2 billion at the end of the 2nd quarter to $3,670.1 billion in the 4th quarter … a staggering growth of **38.9%**. The Fed may have increased short term rates but they have not tightened, they continue to increase the money supply (i.e. print money) at a fast pace.

<u>Coincident Indicator ?</u>
Money market assets in mutual funds hit an all time low when compared to stock fund assets. Currently the ratio is at 32% down from 180% in 1991.

<u>Pension Reform</u>
The Bush Administration proposal here would abandon the 30-year Treasury rate as a discount rate for determining funded status (and minimum contribution) in favor of a zero-coupon corporate yield curve based on a 90-day average of interest rates. As I have preached for years (since 1991) the only discount rate yield curve that works here is the Treasury STRIPS yield curve. The facts are clear: ***Corporate zero-coupon bonds do not exist*** causing an undervaluation of pension liabilities due to a higher discount rate. Moreover, **you can not defease liabilities with these imaginary securities**. Also using **any moving average of rates distorts the true economic value (present value/market value) of liabilities**. Although a 90-day average is far superior to the 4-year moving average traditionally used, it is still not accurate. For a review of our critique on this proposal, please go to **<u>www.ryanalm.com/research</u>** and read first the **Treasury White Paper on Pension Discounting** (dated 2/07/05) and then read **Critique of Treasury White Paper** (dated 03/04/05).

The best way to price liabilities is the Treasury STRIPS yield curve. In March 1995, when STRIPS were born, my team and I at the Ryan Financial Strategy Group created the first STRIPS Index. To view this index data go to :

<u>www.RyanIndex.com</u>

Pension Monitor
the latest pension articles and news from around the world

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 :

<u>www.RyanALM.com/PensionMonitor</u> **<u>www.PensionMonitor.com</u>**

Pension Ideas

I. Pension Problems :

Key pension problems itemized in www.RyanAlm.com/Research**/The PENSION CRISIS :**

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.

II. Pension Solutions !

Ryan ALM has a series of Pension Solutions research papers :

Pension Solution # 1 **Custom Liability Index (CLI)**
Pension Solution # 2 **Portable Alpha Liability System (PALS)**
Pension Solution # 3 **Liability Index Fund (LIF)**

III. 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.

IV. Beta + 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.**

V. 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 b**ased 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 !**

Given the Wrong Index … you will get the Wrong Risk/Reward
Confucius