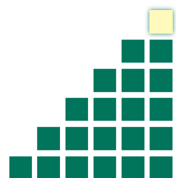


Ryan ALM, inc.

Asset/Liability Management — *The Solutions Company*

The Ryan ALM Quarterly Pension Letter™

March 31, 2020

Index	Returns Q1'20	Weights
Pension Liabilities:		
Market (Tsy STRIPS)	18.66%	100 %
ASC 715 (FAS 158)	2.58	
PPA (MAP 21 = 3 Segments)	1.67	
PPA (Spot Rates)	6.31	
GASB /ASOP (7.50% ROA)	1.88	
Pension Assets:		
Ryan Cash	0.92%	5 %
Bloomberg Barclay Aggregate	3.15	30
S&P 500	-19.60	60
MSCI EAFE Int'l	-22.73	5
Asset Allocation Model	-12.26%	100 %
Pension Assets – Liabilities:		
Market	-30.92%	
ASC 715 (FAS 158)	-14.84	
PPA (MAP 21 = 3 Segments)	-13.93	
PPA (Spot Rates)	-18.57	
GASB/ASOP (7.50% ROA)	-14.14	

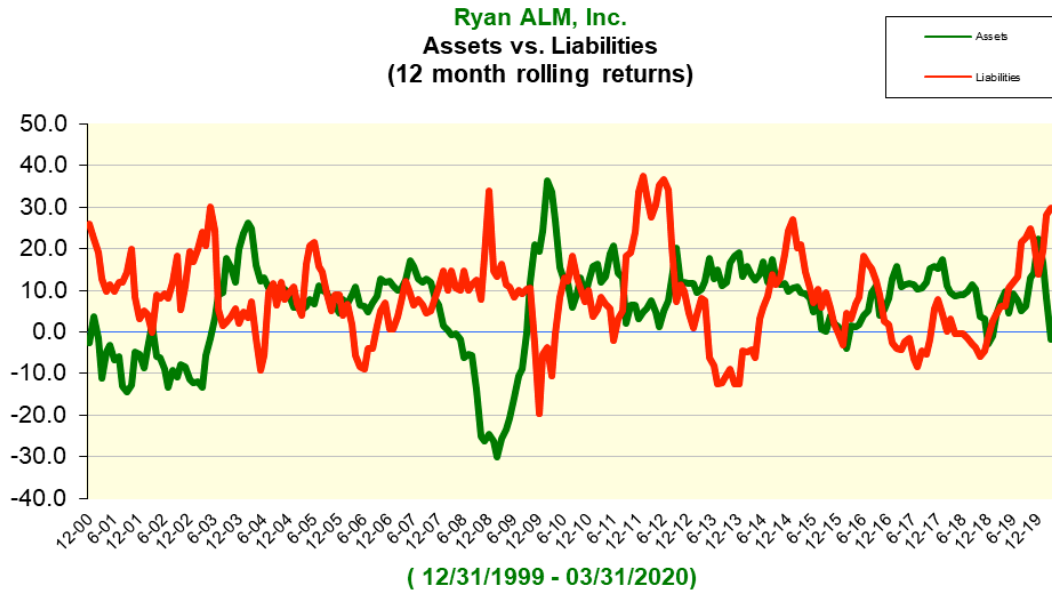
Year-to-Date

Using the Asset Allocation return above, the difference in pension asset growth vs. liability growth in 2019 is a staggering **-30.92%** (market valuation STRIPS), **-14.84%** (ASC 715), **-13.93%** (PPA 3-segment rates), **-18.57%** (PPA-Spot Rates) and **-14.14%** (GASB/ASOP). Such valuations show the significant difference in ***not*** using *market* valuations despite the fact that all of the data points are negative for the first 3-months. Unlike last year when asset growth was strong, significant first quarter weakness, coupled with rapidly falling interest rates have created a tsunami for Pension America. Funded status is down across all plan types, while we anticipate significant increases in annual contribution expense. Unfortunately, the closure of the U.S. economy will negatively impact DB pension systems across the board making the need for increased contributions a very difficult challenge.

Since 1999

Most pension funds enjoyed a funded ratio surplus in 1999 but **pension asset growth has *underperformed* liability growth fairly consistently since by an estimated -288.50%** on a compounded index basis starting at 100 on 12/31/99! Starting at a Funded Ratio of 100.00 on 12/31/99, the estimated funded ratio today would be ***only 48%!***

Total Returns											
	2000	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**
Assets	-2.50	-5.40	-11.41	20.04	8.92	4.43	12.25	6.36	-24.47	15.73	11.89
Liabilities	25.96	3.08	19.47	1.96	9.35	8.87	0.81	10.99	33.93	-19.52	10.13
Difference:											
Annual	-28.46	-8.48	-30.89	18.08	-0.43	-4.44	11.44	-4.94	-58.40	35.25	1.76
Cumulative		-37.60	-73.40	-60.08	-66.13	-76.75	-64.60	-77.50	-181.53	-106.9	-115.67
	2011	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2019**	**2020**
Assets	3.27	11.79	19.04	9.74	1.22	8.12	15.15	-2.96	15.73	22.54	-12.26
Liabilities	33.77	4.46	-12.59	24.35	-0.49	1.92	7.94	-1.26	17.63	13.92	18.66
Difference:											
Annual	-30.5	7.33	31.63	- 14.61	1.71	6.20	7.21	-1.70	-1.90	8.62	-30.92
Cumulative	-195.73	-194.30	-120.74	-177.14	-172.78	-163.36	-160.34	-162.68	-196.07	-163.93	-288.50



Ryan ALM Blogs
by
Russ Kamp – Managing Director

Ryan ALM's Believe It Or Not!

A generic asset allocation that we have been tracking for more than two decades produced a ***-12.3%*** return for the first quarter of 2020. That same pension system with a 15-year duration on it's liabilities allocated equally across maturities and using a US Treasury STRIPS discount rate produced a ***+18.7%*** gain in the quarter. Shockingly, pension assets ***underperformed*** pension liabilities by ***31%*** during the first 3 months of this year.

Those Aren't Lessons Learned – They Are Penalties Inflicted on the Participants

We are very much looking forward to presenting "Pension Lessons Learned" with the Opal Group beginning on April 15th. This is the first in a series of Ryan ALM and Opal Group webinars addressing this important topic. But, in order to discuss potential lessons learned from this crisis, we need to reflect on what lessons were learned following the Great Financial Crisis of 2007-2009, when pension America saw its funded status plummet and contribution expense dramatically escalate.

News For the ROA Chasers

A pension system's primary objective should be to secure the promised benefits at low cost and prudent risk. Seems obvious, but regrettably that objective has ***NOT*** been the primary focus for most public and multiemployer plans for decades now. We can debate the reasons why when the dust settles, but that isn't going to help us right now.

Did We Learn Nothing?

The Great Financial Crisis of 2007-2009 highlighted the need for liquidity in pension plans. The lack of liquidity that was witnessed as the result of moving significant assets into private market investments spawned the growth of the secondary markets, while driving asset prices lower as liquidity was forced where natural liquidity didn't exist.

It Would Have Been Perfect

I frequently get comments on the blogs that I produce. I love the feedback, even when I am being called a putz or worse! There is a gentleman who has engaged more often than most everyone else who yesterday commented that H.R. 397 (The Butch Lewis Act – BLA) would have had a painful start had this rescue program been implemented in January or February of 2020. This statement couldn't be more wrong! My support for this legislation has never been stronger.

Take Advantage of the Widening

As we've consistently reported, the damage to DB pension systems of falling equities and declining US interest rates is an awful combination that is harming the funded ratios of these plans, which will ultimately impact contribution expenses. But, there is always opportunity during periods of uncertainty. One of the great opportunities at this time is provided within the US bond market.

Why Pension Reform Is Absolutely Necessary!

For those of you who are perhaps wondering why I've become so passionate about pension reform, there is a social and economic crisis impacting American retirees within the multiemployer universe of Critical and Declining plans (roughly 125) that is about to get even worse, as many of the plans once deemed Critical are likely to have fallen in status with the recent market action.

Yeah, I Think That We Have!

On January 29, 2020, I penned a post on this blog asking the question "have we outsmarted ourselves?" Well, I don't think that there is any question that we, as an industry, have, and it is crushing the very funds that we were tasked with trying to help. The whole idea that managing a pension has morphed into a return seeking game is the biggest problem of all. DB pension plans should have focused on the promised benefits (plan liabilities) and NOT the return on asset assumption, which isn't a calculated number in the first place and achieving that number doesn't guarantee a successful outcome.

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 (Patent pending) - The first step in prudent pension management is to measure and monitor the liability objective frequently and accurately. Until liabilities are packaged as a **Custom Liability Index (CLI)** the asset side of the pension equation 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™ (LBP) – The value added in bonds is small as every performance ranking study proves (1st quartile vs. median difference). **The best value in bonds is its cash flow 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 Liability Beta Portfolio™ (LBP) 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 Liability Beta Portfolio™ is the lowest cost portfolio since we will always out yield liabilities by more than our very low fee thereby guarantying each client **No *Net* Fee**. Moreover, the Liability Beta portfolio is a cash flow matching liability portfolio that fully funds liabilities thereby reducing the cost and volatility of contributions.

Disclaimer

The material herewith is for informational purposes only, and does not contend to address the financial objectives, situation, or specific needs of any individual investor. Any information is for illustrative and educational purposes only and is not intended to serve as investment

advice since the availability and effectiveness of any strategy is dependent upon your individual facts and circumstances. Results will vary, and no suggestion is made here about how any specific solution or strategy will perform in reality.

Ryan ALM and Ronald J. Ryan, CFA: Awards and Recognition

William F. Sharpe
Index Lifetime Achievement Award
ETF Product of the Year Award

Lifetime Achievement Award

Bernstein Fabozzi/Jacobs Levy Award
Research Paper of the Year

Most Innovative ETF of the Year Award

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