



Ryan ALM
Asset/Liability Management

RYAN ALM QUARTERLY

2Q 2022

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Pension Performance Monitor

Pension Liabilities	YTD '22 (%)
Market (Treasury STRIPS)	-18.3
ASC 715 (FAS 158)	-23.2
PPA (MAP 21 = 3 Segments)	2.7
PPA (Spot Rates)	-20.9
GASB /ASOP (7.50% ROA)	3.7

Pension Assets	
Cash (Ryan Cash Index)	-0.1
Bloomberg Barclay Aggregate	-10.4
S&P 500	-20.0
MSCI EAFE International	-19.2
Asset Allocation Model ¹	-16.1

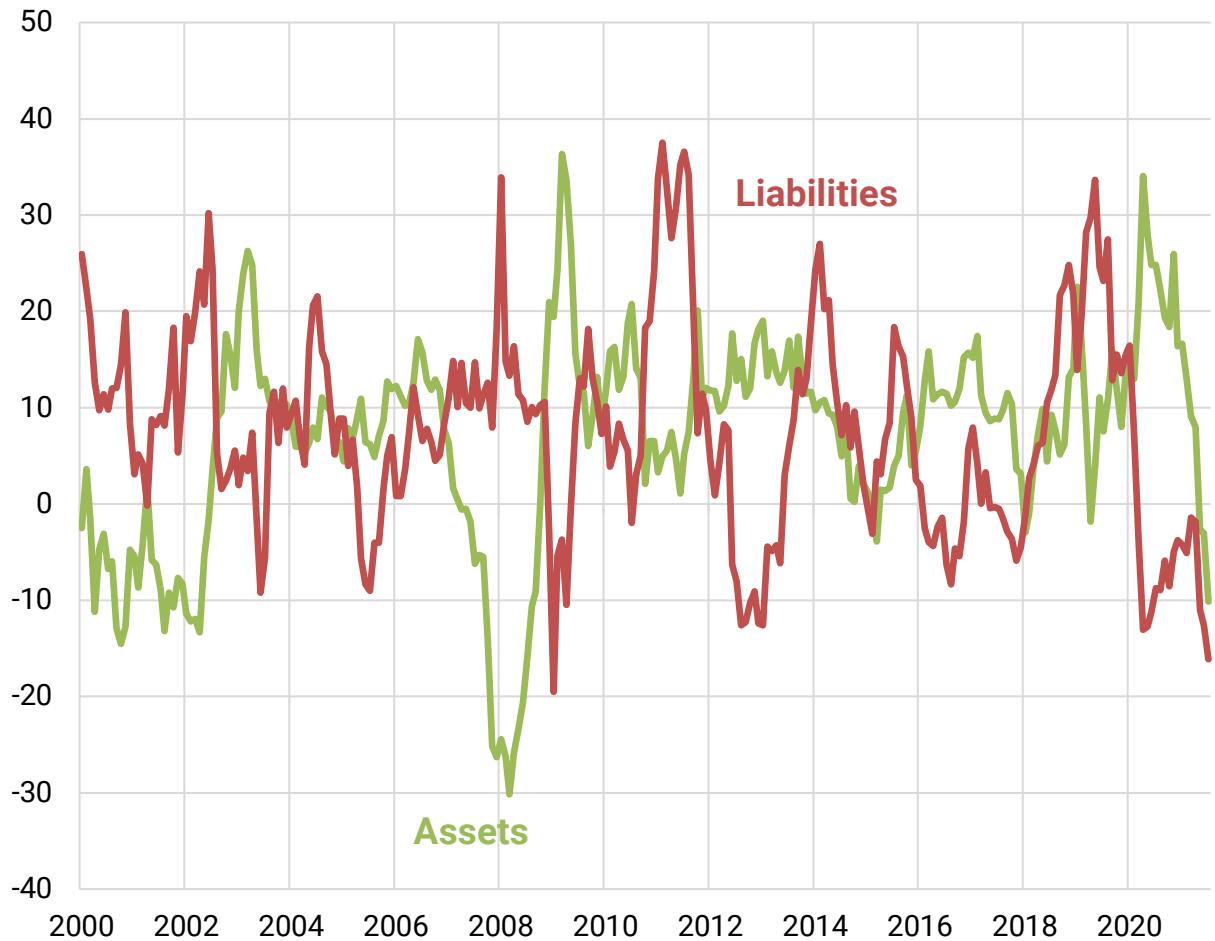
Pension Assets Minus Liabilities	
Market (Treasury STRIPS)	2.2
ASC 715 (FAS 158)	7.1
PPA (MAP 21 = 3 Segments)	-18.8
PPA (Spot Rates)	4.8
GASB/ASOP (7.50% ROA)	-19.8

Based on the weights of the Ryan ALM Asset Allocation Model¹, the difference in pension asset growth versus liability growth for 1H'22 reveals mixed results very much dependent on how pension liabilities are calculated. Corporate plans showed outperformance versus their liability benchmarks, while Public and multiemployer plans using the ROA as the discount rate significantly underperformed their liability growth rates. Rising interest rates had a positive impact on the present value of corporate pension liabilities and offset the poor asset performance experienced across most asset classes.

1. Model weights are: 5% Ryan Cash, 30% Bloomberg Barclay Aggregate, 60% S&P 500, and 5% MSCI EAFE International

Assets and Liabilities Through Time

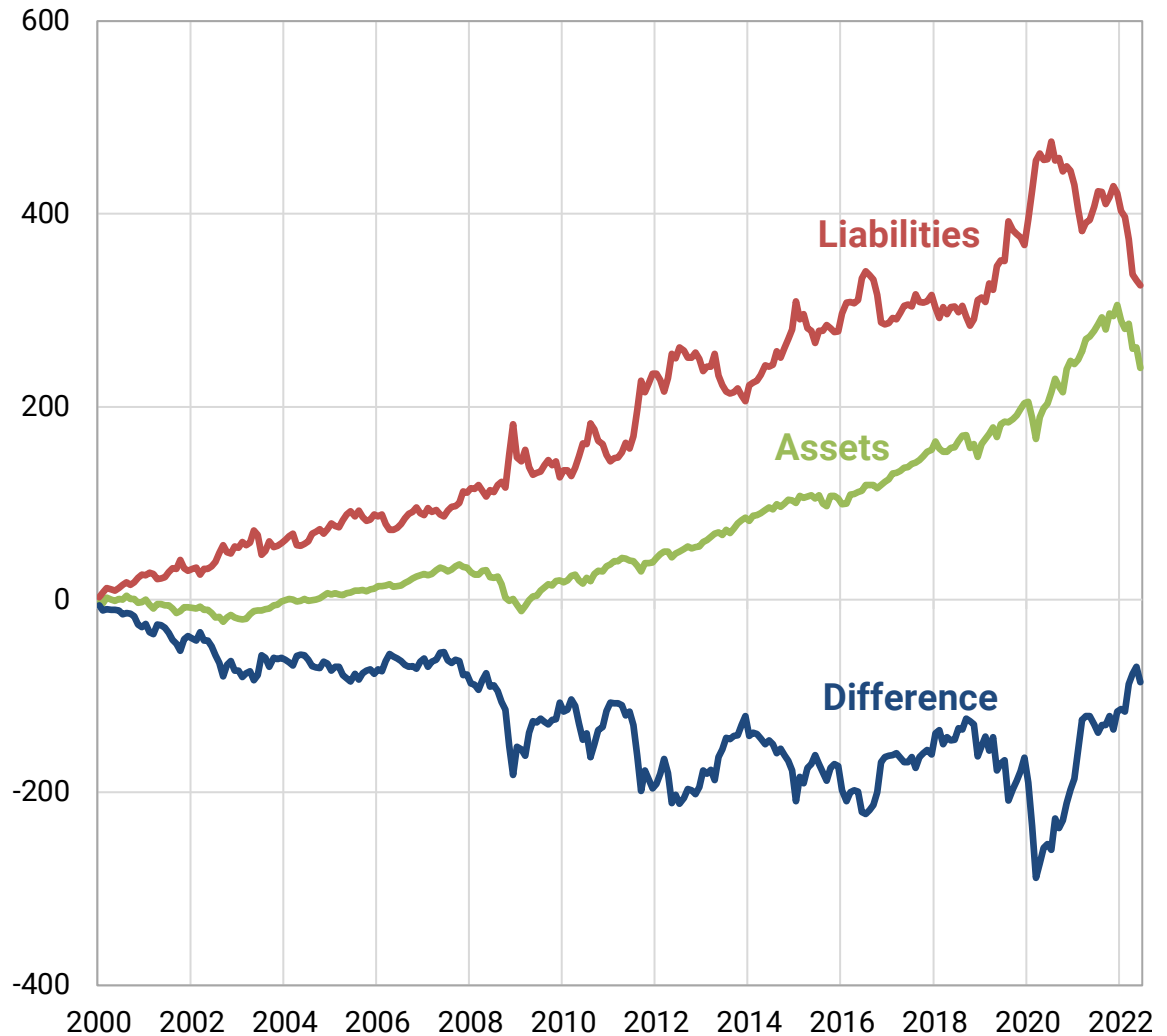
Rolling 12-month asset versus liability growth



Source: Ryan ALM, Inc.

The bull markets for both equities and bonds that helped to close the gap between assets and liabilities have ended. US fixed income was hammered as the US Federal Reserve began to elevate rates in an attempt to combat significant inflationary pressures. Most market participants have not worked in our industry during a rising rate environment coupled with significant inflationary pressures. It is a new day that demands a new strategy. Failure to manage plan assets relative to plan liabilities lead to significant volatility in both contribution costs and the funded ratio. Get off the asset allocation rollercoaster.

Cumulative returns of assets versus liabilities



Source: Ryan ALM, Inc.

Most pension funds enjoyed a funded ratio surplus in 1999, but pension asset growth has underperformed liability growth (based on the Ryan ALM Treasury STRIPS discount rate) fairly consistently for much of the past two decades. The current level of underperformance is -125.2% on a compound index basis starting at 100 on 12/31/99. Starting at a funded ratio of 100 on 12/31/99, the estimated funded ratio today would be 79.9%. **Despite very weak market returns, the funded ratio has improved from the beginning of 2022 as pension liabilities continue to underperform pension assets.**

Cumulative returns of assets versus liabilities (%)

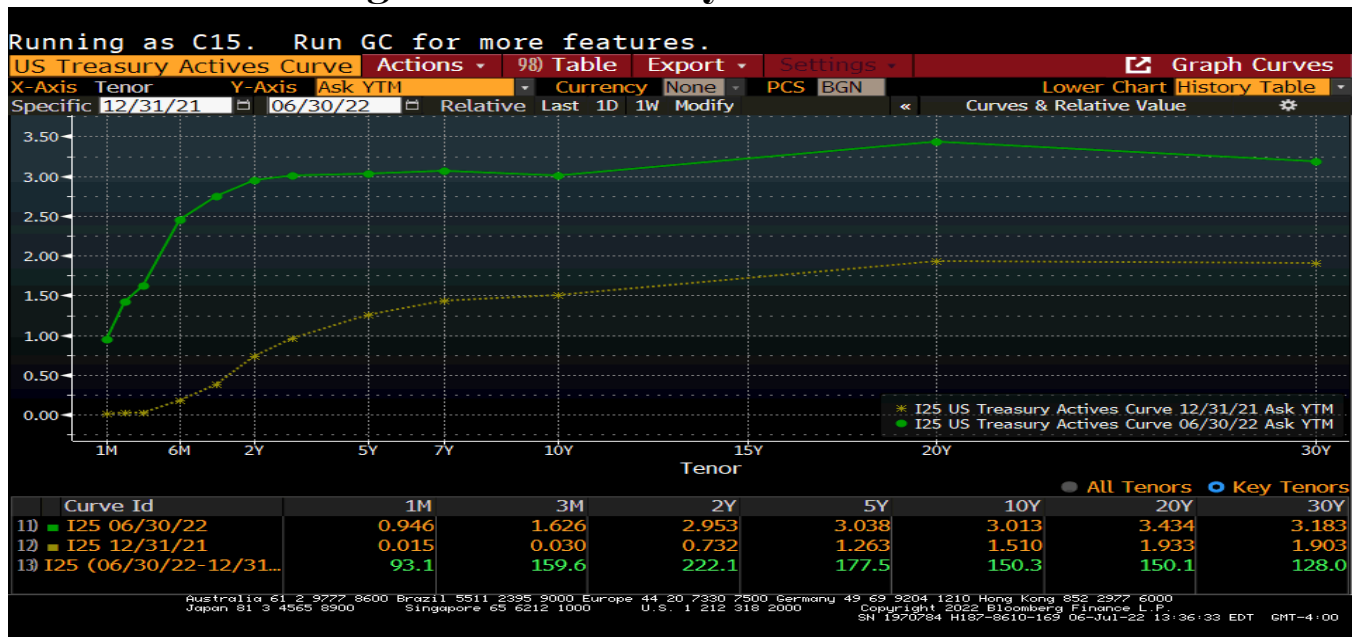
	Assets	Liabilities	Difference	Cumulative Difference	Funded Ratio
2000	-2.5	26.0	-28.5	-28.5	77.4
2001	-5.4	3.1	-8.5	-37.6	71.0
2002	-11.4	19.5	-30.9	-73.4	52.7
2003	20.0	2.0	18.1	-60.1	62.0
2004	8.9	9.4	-0.4	-66.1	61.8
2005	4.4	8.9	-4.4	-76.8	59.2
2006	12.3	0.8	11.4	-64.6	66.0
2007	6.4	11.0	-4.6	-77.5	63.2
2008	-24.5	33.9	-58.4	-181.6	35.7
2009	15.7	-19.5	35.3	-106.9	52.9
2010	11.9	10.1	1.8	-115.7	53.8
2011	3.3	33.8	-30.5	-195.7	41.5
2012	11.8	4.5	7.3	-194.3	44.4
2013	19.0	-12.6	31.6	-120.7	60.5
2014	9.7	24.4	-14.6	-177.1	53.4
2015	1.2	-0.5	1.7	-172.8	54.3
2016	8.1	1.9	6.2	-163.4	57.6
2017	15.2	7.9	7.2	-160.3	60.9
2018	-3.0	-1.3	-1.7	-162.7	60.4
2019	22.8	13.9	8.9	-163.9	65.0
2020	14.4	16.5	-2.1	-197.1	63.8
2021	17.4	-4.2	21.6	-116.1	77.8
YTD'22	-16.1	-18.3	2.2	-125.2	79.9

Source: Ryan ALM, Inc.

Economic Snapshot as of June 30, 2022

	2021	1H'22
U.S. GDP	\$22.9 T	Est. -2.1%
US Debt	\$29.6 T	\$30.4 T
CPI - U	6.81	8.6%
Unemployment Rate	3.90	3.60
30-Year Treasury Yield	1.90	3.18
10-Year Treasury Yield	1.52	3.01
2-Year Treasury Yield	0.73	2.95
3 Mo. T-Bills Yield	0.06	1.63
S&P 500	4,796.56	3,785.38
Nasdaq 100	15,832.80	11,031.94
R2000	2,245.31	1,707.99
Gold	1,794.25	1,740.32
Oil	\$75.21	\$105.76
Existing Single Family sales	5.4 M	4.8 M

Year-to-date change in the Treasury Yield Curve



Providing Perspective

The Pension ROA is Plural...ROAs

The pension return on assets (ROA) assumption is a critical calculation since it affects both assets (asset allocation) and liabilities (discount rate).

It Has the Potential, but it Isn't All Bad News!

“The Lost Decade”, a phrase originally used to describe Japan’s economic performance during the 1990s, has been recently showing up in story after story in the financial press. In fact, Stifel’s chief equity strategist, Barry Bannister, has said

Buying the Dip?

Buying the dip is always a challenging objective. Given the current inflationary environment and the goal of the Federal Reserve to conquer inflation, buying this dip may be premature.

How's Your Liquidity?

Many pension systems lack a formal liquidity policy. As a result, they often ask their custodians to sweep cash (residual cash among managers, dividends, interest, and distributions) from wherever they can find it. But is that the right approach to meeting monthly benefits and expenses? We'd say *NO*

Why is Buying Time so Critical?

As most investors appreciate, trying to time the markets can prove to be a fool’s game. We know that timing the tops, bottoms, and dips is incredibly challenging and often leads to excessive turnover coupled with transaction costs that can erode potential value-added.

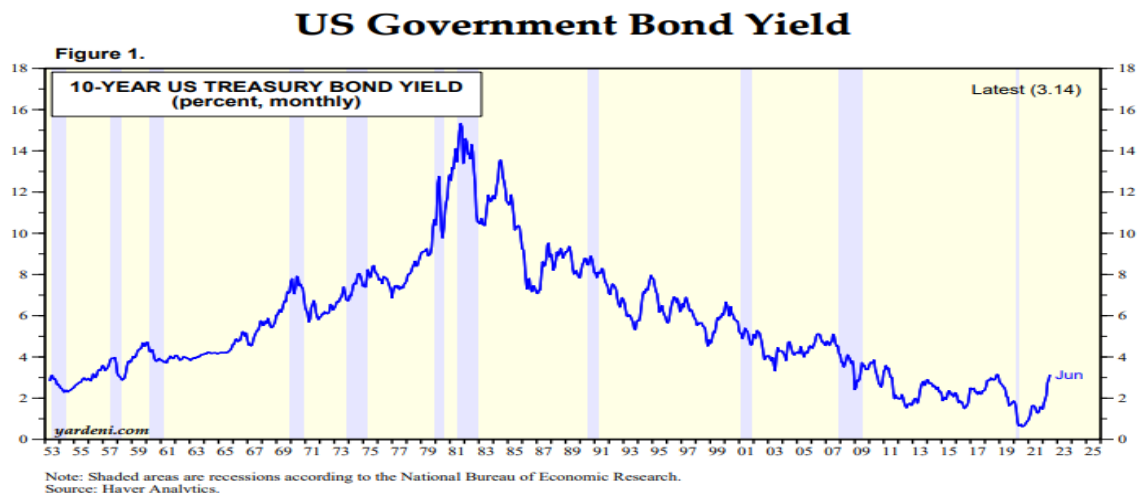
Could Rising Rates be THE Antidote?

As everyone knows, corporate defined benefit (DB) plans have been disappearing like the dinosaur. However, rising US interest rates following a 39-year bond bull market might just prove to be the antidote needed to stem this tide. Milliman’s 2022 Pension Funding Study is out, and as usual, it provides a great overview of the top 100 corporate plans (ranked by plan assets).

Latest Thinking

We are thrilled that the American Rescue Plan Act (ARPA) was passed as part of the \$1.9 trillion stimulus package. This legislation has some of the elements of the Butch Lewis Act. Importantly, any Special Financial Assistance (SFA) received must be kept separate and managed conservatively to ensure that the funds necessary to pay the promised benefits (through 2051) are actually available. The PBGC has approved 27 plans that filed for the SFA, totaling just over \$6.7 billion in government grants. After nearly a one-year wait, the PBGC has just provided the “Final, Final Rules” related to the implementation of this legislation. The legislative changes are an improvement in some areas, but we are disappointed that the permissible investments were broadened to include a 33% allocation to return-seeking assets (RSA). Any fixed income not used to defease liabilities are return-seeking. Plans could end up with a 100% allocation to RSA and jeopardize the SECURING of the promised benefits.

We are very committed to educating plan sponsors and their advisors about the impact of rising interest rates on traditional fixed income products, which continue to dominate pension portfolios. The end of an unprecedented bull market is here following a 39-year bond market rally. The US Federal Reserve is determined to conquer the significant inflation through multiple rounds of Fed Funds Rate increases. To date the Fed has increased rates by 1.5% with an expectation that we could see at least another 1.25% to 2.0%, if not more, by year-end. Even if inflation moderates from current levels, “sticky” inflation suggests that 4% is not out of the question. Real rates of return would suggest long bonds with yields of 6% or higher. It will remain a challenging environment.



Ryan ALM's mission is to solve liability driven problems through low cost, low risk solutions.

About Ryan ALM, Inc.

Ryan ALM was founded by Ronald J. Ryan, CFA on July 12, 2004 as an Asset/Liability Management firm. The firm builds a turnkey system of proprietary synergistic products designed to measure liabilities as a Custom Liability Index (CLI) and manage assets to the CLI as Liability Beta Portfolios.

Ryan ALM is unique in having its own proprietary Index company named ALM Research Solutions, LLC. This company builds both custom and generic bond indexes. Such indexes range from Custom Liability Indexes to ETF Indexes.

Our Liability Beta Portfolio™ is our proprietary cost optimization model that "cash flow matches" clients projected liability benefit payment schedules at the least cost using investment grade bonds. It is back-tested since 2009 showing a consistent cost savings of 8% to 15%. Our LBP best represents the core portfolio of a pension plan.

FASB requires corporations and nonprofit organizations to price their liabilities at certain discount rates. Ryan ALM provides these discount rates in conformity to ASC 842: Lease Accounting and ASC 715: Pensions. For more info: [Read here](#)

Our team has been recognized for our expertise and results including Ron Ryan having won the William F. Sharpe Index Lifetime Achievement Award.



Ryan ALM

Asset/Liability Management

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