



Ryan ALM
Asset/Liability Management

RYAN ALM QUARTERLY

2024 in Review

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Pension Performance Monitor (Total Returns %)

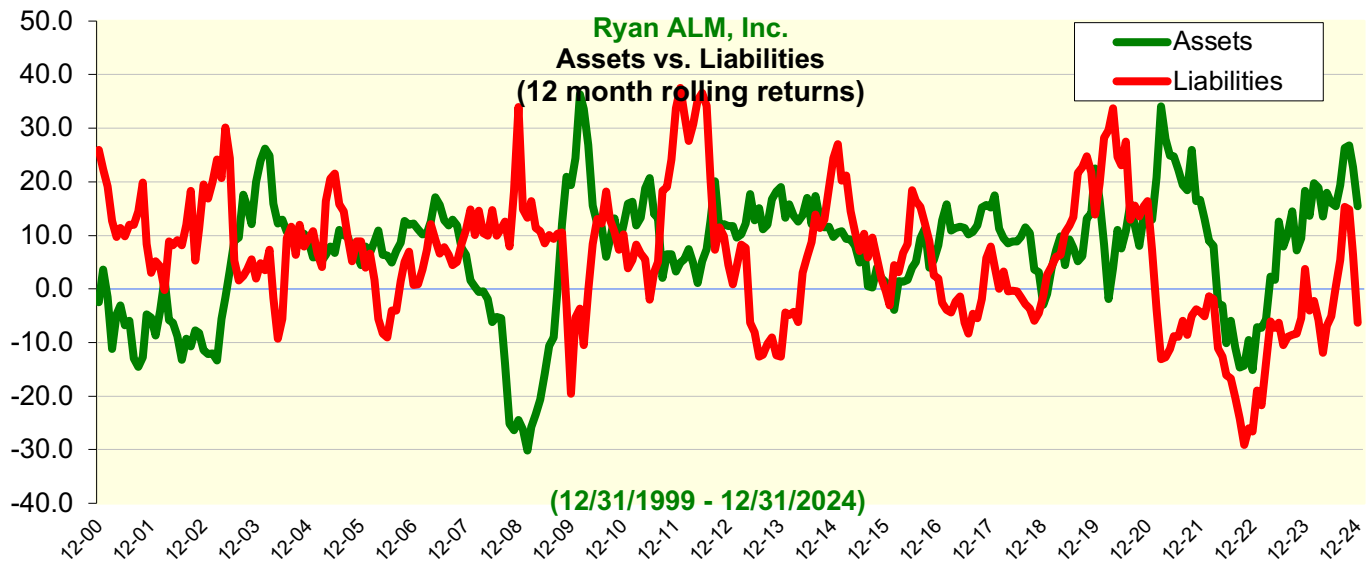
Pension Liabilities	2024 (%)
Market (Treasury STRIPS)	-6.4
ASC 715 (FAS 158)	-4.0
PPA (MAP 21 = 3 Segments)	5.1
PPA (Spot Rates)	-1.6
GASB /ASOP (7.25% ROA)	7.5

Pension Assets	
Cash (Ryan Cash Index)	5.3
Bloomberg Barclay Aggregate	1.3
S&P 500	25.0
MSCI EAFE International	4.4
Asset Allocation Model ¹	15.4

Pension Assets Minus Liabilities	
Market (Treasury STRIPS)	21.8
ASC 715 (FAS 158)	19.4
PPA (MAP 21 = 3 Segments)	10.3
PPA (Spot Rates)	17.0
GASB/ASOP (7.50% ROA)	7.9

Based on the weights of the Ryan ALM Asset Allocation Model*, the difference in pension asset growth versus liability growth for 2024 reveals a significantly positive comparison of pension assets minus pension liabilities no matter how pension liabilities are calculated. Corporate plans showed more robust funding gains (19.4%) versus their liability benchmarks (ASC 715), while Public and Multiemployer plans using the ROA as the discount rate had more modest, yet still robust, outperformance versus their liability growth rates (7.9%). Strong performance in U.S. equities proved to be the most important factor throughout 2024, while a choppy environment for US interest rates weighed on U.S. bonds as measured by the BB Aggregate performance of bonds. Rising rates produced declining pension liabilities leading to improved funding levels.

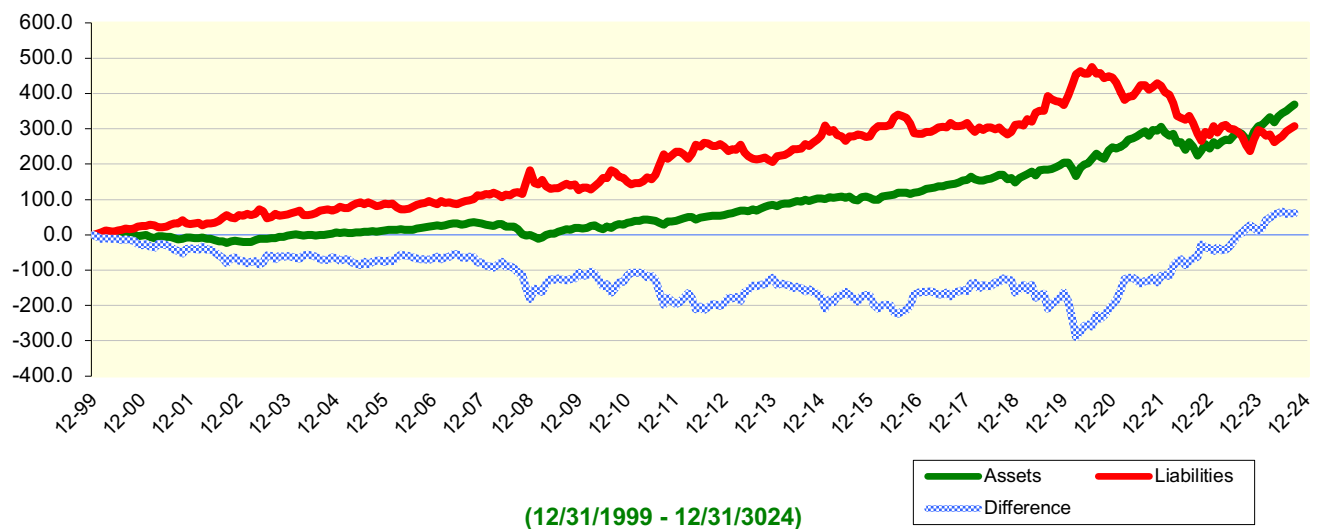
* Model weights are: 5% Ryan Cash, 30% Bloomberg Barclay Aggregate, 60% S&P 500, and 5% MSCI EAFE International



US equities as measured by the S&P 500, were up 25.0% for calendar year 2024. This result continues an incredible rally since the depths of 2022's Fed induced selloff following the initial phases of a dramatic change in US interest rates. Most of the gains during the year were attributable to the continuing rally in large cap stocks, and particularly the Growth style of investing, especially within the communication (+40.2%) and Information Technology (36.6%) sectors. As mentioned, large cap growth stocks have been where most of the market's action has been, as large cap outperformed both mid cap and small cap by 9.1% and 16.3%, respectively.

US interest rates have ridden a rollercoaster during 2024, rising sharply to begin 2024 only to see rates plummet during 2024's third quarter, as market participants concluded that the Fed had achieved its goal in combating inflation. However, we at Ryan ALM remained skeptical that the US economy was on the verge of a recession or that inflation had been conquered, as a fairly strong US labor market and continuing economic growth combine to create challenges for the US Fed, as they continue to monitor the progress made to date on inflation. Well, we were proven correct, as U.S. Treasury yields galloped higher during the last part of 2024 nearing levels last seen at the beginning of 2024.

Ryan ALM, Inc.
Assets vs. Liabilities
Cumulative returns starting 12/31/1999



Most pension funds enjoyed a funded ratio surplus in 1999, but pension asset growth had underperformed liability growth (based on the Ryan ALM Treasury STRIPS discount rate) fairly consistently for much of the next two decades. We are pleased to report that the funding deficit has been eliminated as a result of the Fed's tightening campaign, despite the recent Fed Fund's Rates cut of -1.0%, as rising interest rates reduce the present value of those future pension obligations. The cumulative difference is now 97.9% on a compound index basis starting at 100 on 12/31/99. The difference had been as much as -197 in 2020. Starting at a funded ratio of 100 on 12/31/99, the estimated funded ratio today would be 126.3%, which is based on the Ryan ALM liability calculations and our hypothetical asset allocation. It is trending in the same direction to the estimated funded ratio provide by Milliman in the Milliman 100 Pension Funding Index (PFI) which stood at 103.5% at the end of November. Strong equity market returns during during the year combined with a slight increase in US interest rates since the end of 2023 to lead to improved funded status. Public pension funded ratios have also improved and currently average roughly 82% according to Milliman.

US interest rates are not high relative to history, but they do provide the plan sponsor community with the opportunity to reduce the risk within their plans by defeasing a portion of the liabilities such as the Retired Lives Liability (RLL). You'll read more on this in the "latest thinking section", but the higher rates are creating an opportunity that hasn't been available in decades when US rates plummeted to historic lows (through 2022). We encourage you to act today before this opportunity fades.

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
2022	-15.2	-26.6	11.4	-39.0	89.8
2023	18.3	3.7	14.6	9.9	102.5
2024	15.4	-6.4	21.8	97.9	126.3

Source: Ryan
ALM, Inc.

ECONOMIC SNAPSHOT AS OF DECEMBER 31, 2024

	2023	Q4'24
U.S. GDP	2.6%*	3.1%*
US Debt	\$34.0 T	\$35.5 T
CPI - U	3.1%^	2.7%^
Unemployment Rate	3.7%	4.2%
30-Year Treasury Yield	4.08%	4.79%
10-Year Treasury Yield	3.94%	4.58%
2-Year Treasury Yield	4.33%	4.25%
3 Mo. T-Bills Yield	5.37%	4.32%
S&P 500	4,742.83	5,881.63
Nasdaq 100	14,765.94	19,310.79
R2000	2,012.80	2,230.16
Gold	2,075.20	2,639.30
Oil	\$71.31	\$71.87
Existing Single Family sales	3.41M**	4.15M**

*GDPNow forecast as of December 24, 2024, ^annual # through November 30, 2024, ** as of November 30, 2024

Year-to-date change in the Treasury Yield Curve



Sharing Perspective

Pension Discount Rates: FASB, GASB, ASOP

One of the key measurements of the solvency of a pension is the funded ratio, which is simply assets/liabilities. But the valuation of liabilities can be quite controversial, if not erroneous, depending on what discount rate methodology you choose.

“More Needs To Be Done!” – Do You Think?

This post is the 1,500th on this blog! I hope that you’ve found our insights useful. We’ve certainly appreciated the feedback – comments, questions, and likes – throughout the years. A lot of good debate has flowed from the ideas that we have expressed and we hope that it continues.

Not So Fast!

You may recall in the 1970s Heinz Ketchup used Carly Simon’s song, “Anticipation” as a jingle for several of its commercials. US bond investors might just want to adopt that song once more as they wait for the anticipated rate cuts from the Federal Reserve’s FOMC.

How Comforting is \$1,305.54/Year?

One doesn’t have to spend much time on LinkedIn.com these days without seeing a discussion about the pros and cons of Defined Benefit (DB) vs. Defined Contribution (DC) aka 401(k) plans. Anyone who has read just a few of the >1,500+ posts

Is Now The Time To Act?

Equity market participants were recently reminded of the fact that markets can fall, and unfortunately they usually don’t decline with any kind of notice. The impetus behind the markets’ most recent challenging day was the Fed’s relatively tame forecast.

How Many Words Do You Need?

In 1971, David Gates, singer-songwriter for the band **Bread**, published the song “IF”. The song begins with the lyrics, “If a picture paints a thousand words...”. If David was correct and a picture does in fact paint 1,000 words, then how many words do you...

Latest Thinking

We continue to be thrilled that the American Rescue Plan Act (ARPA) was passed as part of the \$1.9 trillion stimulus package. This legislation has many of the elements of the Butch Lewis Act which Ryan ALM's Ron Ryan was instrumental in providing the defeasance language. As a reminder, any Special Financial Assistance (SFA) received must be kept separate and managed conservatively (>66.7% in bonds) to ensure that the funds received and earmarked to pay the promised benefits (through 2051) are actually available. The PBGC has approved the SFA applications for 105 multiemployer plans through December 31, 2024, totaling \$69.8 billion (including supplemental filings and interest) in government grants.

2024 proved to be a very good year for Ryan ALM, Inc. as we try to protect and preserve as many DB pension plans as possible. During the year we more than doubled the number of full discretion CFM clients that we are fortunate to support. We thank you for your trust. New clients included DB plans and our first E&F mandate. Please don't hesitate to reach out to us if you'd like to learn more about what we can do for DB pension plans.

We are very committed to educating plan sponsors and their advisors about the positive impact of rising interest rates and the impact those have on the ability to de-risk DB pensions through Cash Flow Matching (CFM). The US Federal Reserve's most recent action on Interest rates (-1% since the initial cut on 9/17) has reduced the Fed Fund's Rate to 4.25%-4.5%, but market participants remain concerned about the economy's strength and, as such, US interest rates have resumed the trek upwards. The below info is for a representative client. The rate environment provides an incredible opportunity to secure the promises at low cost!

LBP Summary

	ASC 715	LBP Model	Cost Savings (\$ and %) *	
Future Value	\$1,388,916,667	\$1,388,916,667		
Present Value	\$1,123,501,141	\$1,110,947,514	\$277,969,153	20.01%
YTM	4.85%	5.10%		
MDuration	3.94	3.87		
LBP Model Efficiency		100.58%		
Total Assets		\$1,118,999,999		

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

About Ryan ALM, Inc.

Ryan ALM was founded by Ronald J. Ryan, CFA on June 15, 2004 (happy 20th anniversary to us!) as an Asset/Liability Management firm. The firm has built 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. In this higher interest rate environment, our portfolios are producing cost savings of >2%/year. Our LBP best represents the core portfolio (or liquidity bucket) of a pension plan or endowment/foundation.

FASB requires corporations and nonprofit organizations to price their liabilities at certain discount rates. Importantly, 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



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