RYAN LABS
ASSET MANAGEMENT

# ASSET/LIABILITY WATCH

## JUNE 30, 2014

| Index | Estimated Weights % | Total Return | | |
|---|---|---|---|---|
| | | QTD % | YTD % | Last 12 Months % |
| Ryan Labs Cash | 5 | 0.03 | 0.08 | 0.19 |
| Barclays Aggregate Index | 30 | 2.04 | 3.93 | 4.37 |
| S&P 500 | 60 | 4.70 | 6.05 | 22.04 |
| MSCI EAFE Int'l | 5 | 3.64 | 5.12 | 15.56 |
| Asset Allocation Model | 100 | 3.76 | 5.23 | 15.66 |
| Ryan Labs Liability (PPA) | 100 | 5.56 | 11.36 | 13.76 |
| Assets – Liabilities (PPA) | | -1.80 | -6.13 | 1.90 |
| Ryan Labs Liability (FAS158) | 100 | 3.27 | 9.62 | 10.23 |
| Assets – Liabilities (FAS 158) | | 0.49 | -4.39 | 5.43 |
| Ryan Labs Liability (TSY) | 100 | 5.10 | 13.14 | 6.16 |
| Assets – Liabilities (TSY) | | -1.34 | -7.91 | 9.50 |

At the halfway point of 2014, the pullback in funding gains that 2013 provided continues. While assets continue to push ahead, albeit at a slower pace than last year, bond yields have continued to fall, resulting in double digit gains in liability returns year to date. The traditional asset allocation model has returned 5.23% YTD. The S&P is up 6.05% for the first half of the year, and the Barclays Aggregate is up +3.93%. When assessed in isolation, these returns for a 6 month period are more than reasonable. The S&P has hit record highs, surpassing 1900. The Dow Jones Industrial Average surpassed 17,000. However, spreads have tightened in core durations and long yields continue to fall. The RL PPA yield is down from a 2013 year end 3.83% YTW to 3.44% as of 6/30/14. This 39 bps of tightening has been the catalyst of RL PPA liabilities to rally, up 11.36% YTD. The resulting affect on funding ratios have seen RL PPA funding decline from 85% as of 12/31/13 to 81% at 6/30/14.

In the post-Pension Protection Act/FAS 158 era, pension plans are divided into three camps. Those that have implemented LDI, those that are considering LDI, and those that have considered LDI but have decided not to implement it. For those plan sponsors that have implemented LDI, regardless of the degree, the foundation of risk management based asset allocation has been built. This has resulted in plan sponsors harvesting gains, rebalancing to their LDI strategies, and reducing future surplus volatility after the funding gains of 2013. These plans have taken a portion of the behavioral aspect out of their asset allocation decisions and have not been as impacted by the rate tightening of 2014.

For those plans that have considered implementing LDI and but have yet to do so, common questions that arise in the decision making process deal with the level of rates, the valuation of the equity markets, and the uncertainty of where rates will go. While yields have come down over the past 6 months, long corporate A rated spreads are at similar levels than they were at the end of the year. 10-year A corporate spreads were at 102 basis points and 30-year spreads were at 109 bps as of 12/31/14. As of 6/30/14, these same maturity spreads are at 98 basis points and 111 basis points for the respective 10 and 30 year maturities. If spread compression carries across the long end of the curve in a similar manner that core duration corporate spreads have tightened, the liability rally will be felt by those plan sponsors that have left their tail risk un-hedged. While we do not have the proverbial crystal ball to inform our readers of where rates are going, we can use the funding volatility that has occurred over the course of the past thirteen years (page 3) to safely predict that when left un-hedged, a plan's funding ratio will be at the whims of the capital markets. With equity index levels at record highs and fixed income markets that are unpredictable, building the foundation of LDI at these yield levels at an allocation that fits within a plan sponsor's desired risk management goals can be both timely and effective going forward.

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Interest rates have done one of three things over various time frames. They've gone up, down, or stayed the same. While absolute yields are at lower levels than the 80s, 90s, and early 2000s, and while rising rates are the wind at the back of liability valuations, being proactive in reducing tail risk by hedging a portion of liabilities will reduce volatility and uncertainty. To the degree that a plan sponsor wishes to do so is entirely up to their risk capacity and desired risk

| Ryan Labs Pension Protection Act Equal Weighted Index (RL PPA Corp A to AAA Index) | | | | | |
|---|---|---|---|---|---|
| | **Estimated Weights%** | **YTW[1] %** | **MDuration (Years)** | **YTD Returns %** | **Last 12 Month Returns %** |
| 2 Year Corporate | 25 | 0.92 | 1.97 | 0.80 | 1.86 |
| 5 Year Corporate | 25 | 2.25 | 4.61 | 3.01 | 4.99 |
| 10 Year Corporate | 25 | 3.34 | 7.90 | 6.63 | 7.05 |
| 30 Year Corporate | 25 | 4.38 | 14.09 | 10.56 | 11.07 |
| RL PPA Index[2] | 100 | 3.44 | 15.15 | 11.36 | 13.76 |

| Ryan Labs FAS 158 Pension Protection Expense Equal Weighted Index (RL FAS 158 Corp AA to AAA Index) | | | | | |
|---|---|---|---|---|---|
| | **Estimated Weights%** | **YTW[1] %** | **MDuration (Years)** | **YTD Returns %** | **Last 12 Month Returns %** |
| 2 Year Corporate | 25 | 0.73 | 1.97 | 0.63 | 1.36 |
| 5 Year Corporate | 25 | 2.04 | 4.71 | 2.67 | 3.97 |
| 10 Year Corporate | 25 | 3.15 | 8.00 | 6.34 | 5.70 |
| 30 Year Corporate | 25 | 4.26 | 14.34 | 10.20 | 9.74 |
| RL FAS158 Index[2] | 100 | 3.34 | 15.18 | 9.62 | 10.23 |

1. *Effective Annualized Yield to Worst*
2. *Equal Weighted Index*

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| Index | Weights | '01 | '02 | '03 | '04 | '05 | '06 | '07 | '08 | '09 | '10 | '11 | '12 | '13 | 06/'14 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Ryan Labs Cash** | **5%** | 5 | 2 | 1 | 1 | 3 | 5 | 5 | 3 | 1 | 0 | 0 | 0 | 0 | 0 |
| **Barclays Aggregate** | **30%** | 8 | 10 | 4 | 4 | 2 | 4 | 7 | 5 | 6 | 7 | 8 | 4 | -2 | 4 |
| **S&P 500** | **60%** | -12 | -25 | 29 | 11 | 5 | 16 | 5 | -37 | 26 | 15 | 2 | 13 | 30 | 6 |
| **MSCI EAFE Int'l** | **5%** | -21 | -16 | 39 | 21 | 14 | 27 | 12 | -43 | 32 | 8 | -12 | 18 | 23 | 5 |
| **Asset Allocation Model** | **100%** | -5 | -13 | 20 | 9 | 5 | 12 | 6 | -24 | 19 | 12 | 3 | 11 | 18 | 5 |
| **RL PPA Liability** | | 15 | 24 | 7 | 11 | 6 | 2 | 2 | 10 | 6 | 14 | 21 | 9 | -7 | 11 |
| **Return Difference** | | -21 | -38 | 13 | -2 | -1 | 10 | 4 | -35 | 13 | -2 | -18 | 2 | 25 | -6 |
| **Funding Ratio (RL PPA)** | | **119** | **83** | **93** | **91** | **90** | **98** | **102** | **70** | **78** | **77** | **66** | **67** | **85** | **81** |
| **Liabilities (TSY)** | **100%** | 4 | 17 | 2 | 10 | 10 | 1 | 11 | 42 | -26 | 9 | 31 | 3 | -15 | 13 |
| **Return Difference** | | -9 | -30 | 18 | -1 | -5 | 11 | -4 | -67 | 45 | 2 | -28 | 8 | 33 | -8 |
| **Funding Ratio (Economic)** | | **88** | **65** | **77** | **76** | **72** | **80** | **77** | **41** | **66** | **67** | **53** | **57** | **79** | **74** |

**Notes: RL PPA liability curve is the spot curve of the replication of IRS PPA curve (US credit A to AAA).**
**RL Treasury liability curve is the proxy for economic liabilities.**
**Assumptions :Normal costs = annual contributions**
**No benefit enhancements**
**Assets portfolio rebalanced monthly**

***We believe the information provided here is reliable, but do not warrant its accuracy or completeness. This material is not intended as an offer or solicitation for the purchase or sale of any financial instrument. The views and strategies described may not be suitable for all investors. This material has been prepared for informational purposes only, and is not intended to provide, and should not be relied on for, accounting, legal or tax advice.***

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