Ryan Labs
ASSET MANAGEMENT

July 2016

Asset/Liability Watch
July 31, 2016

Index	Estimated Weights (%)	Total Return		
		QTD (%)	YTD (%)	Last 12 Months (%)
Ryan Labs Cash	5	0.03	0.43	0.45
Barclays Aggregate Index	30	0.63	5.98	5.94
S&P 500	60	3.69	7.66	5.61
MSCI EAFE Int'l	5	5.08	0.83	-7.08
Asset Allocation Model	100	2.66	6.55	5.03
Ryan Labs Liability (PPA)	100	3.80	20.00	19.06
Assets – Liabilities (PPA)		-1.15	-13.45	-14.02
Ryan Labs Liability (FAS 158)	100	2.42	17.73	17.72
Assets – Liabilities (FAS 158)		0.24	-11.17	-12.69
Ryan Labs Liability (TSY)	100	2.55	19.75	19.56
Assets – Liabilities (TSY)		0.10	-13.20	-14.53

50 Year Equal Par Weighted Cash Flows by RL PPA Corp A to AAA Index (PPA)				
	YTW[1] (%)	MDuration (Years)	YTD Returns (%)	Last 12 Month Returns (%)
2 Year	1.52	1.94	2.02	2.30
5 Year	1.72	4.91	6.44	7.65
10 Year	2.85	9.81	14.43	16.55
30 Year	3.88	29.38	36.79	35.71
RL PPA Index[2]	2.98	16.72	20.00	19.06

50 Year Equal Par Weighted Cash Flows by RL FAS 158 Corp AA to AAA Index (PPA-FAS158)				
	YTW[1] (%)	MDuration (Years)	YTD Returns (%)	Last 12 Month Returns (%)
2 Year	1.19	1.94	1.81	2.04
5 Year	1.59	4.91	5.52	6.73
10 Year	2.58	9.82	13.83	17.16
30 Year	3.75	29.40	31.33	20.94
RL FAS 158 Index[2]	2.78	16.87	17.73	17.72

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

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Index	Weights	'03	'04	'05	'06	'07	'08	'09	'10	'11	'12	'13	'14	'15	7/16
Ryan Labs Cash	5%	1	1	3	5	5	3	1	0	0	0	0	0	0	0
Barclays Aggregate	30%	4	4	2	4	7	5	6	7	8	4	-2	6	1	6
S&P 500	60%	29	11	5	16	5	-37	26	15	2	13	30	11	-1	8
MSCI EAFE Int'l	5%	39	21	14	27	12	-43	32	8	-12	18	23	-4	0	1
Asset Allocation Model	100%	20	9	5	12	6	-24	19	12	3	11	18	8	0	7
RL PPA Liability		7	11	6	2	2	10	6	14	21	9	-7	14	-3	20
Return Difference		13	-2	-1	10	4	-35	13	-2	-18	2	25	-6	3	-13
Funding Ratio (RL PPA)		93	91	90	98	102	70	78	77	66	67	85	81	83	74
Liabilities (TSY)		2	10	10	1	11	42	-26	9	31	3	-15	28	-2	20
Return Difference		18	-1	-5	11	-4	-67	45	2	-28	8	33	-20	2	-13
Funding Ratio (Economic)		77	76	72	80	77	41	66	67	53	57	79	67	68	61

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

ABOUT RYAN LABS ASSET MANAGEMENT

Ryan Labs Asset Management is an institutional fixed income manager that provides custom and market index strategies tailored to the unique needs of institutional clients since 1988. Our diversified, disciplined, and structured investment process is employed versus popular market indexes as well as custom liability indexes.

Ryan Labs employs a disciplined investment process that seeks to add value through issue selection and sector rotation, not through interest rate anticipation. All of our strategies are actively managed in a total return framework.