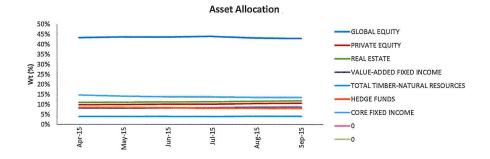
# Managed Services Monthly Executive Summary - Total Plan

## **Total Plan**

Statistic	Current Month	Previous Month	Δ (Mth.)	Δ (Qtr.)	Trend
Market Value	\$56,073,949,572	\$56,911,552,480	-1.47%	-4.90%	
Portfolio Total Risk	8.68%	8.09%	7.32%	6.00%	
Benchmark Total Risk	8.99%	8.37%	7.49%	6.38%	
Active Risk	0.57%	0.56%	2.75%	7.29%	
Portfolio Beta	0.96	0.97	-0.13%	-0.35%	
Contrib. to Eff. Duration	2.28 yrs	2.38 yrs	-4.07%	-4.76%	<b>=</b>

	Risk Source for Tota	il Plan		
	Total Risk Contri.	% of Total Risk	Active Risk Contri.	% of Active Total Risk
Total	8.68	100%	0.57	100%
Local Market Risk	8.02	92%	0.47	82%
Common Factor Risk	8.01	92%	0.33	58%
Industry	7.39	85%	0.22	38%
Style	0.08	1%	0.07	13%
Term Structure	-0.10	-1%	0.01	2%
Spread	0.15	2%	-0.01	-1%
Emerging Market	0.07	1%	0.00	-1%
Commodity	0.00	0%	0.00	0%
Equity Implied Vol	0.00	0%	0.00	0%
Private Real Estate	0.42	5%	0.02	4%
Hedge Fund	0.00	0%	0.01	2%
Private Equity	0.00	0%	0.00	0%
Selection Risk	0.01	0%	0.14	24%
Currency Risk	0.66	8%	0.10	18%

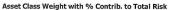


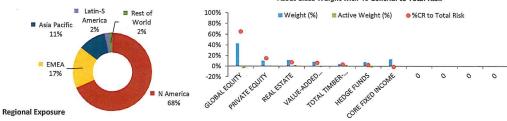
Currency:

USI

Analysis Date:

30-Sep-15





# Asset Allocation:

Global Equity is the largest sleeve with 43% weight followed by Core Fixed Income(14%) and Real Estate (12%) - leverage is not accounted for within Barra.

Observations:

## Geographic Diversification:

North America continues to carry the most exposure at 68%.

#### Risk Contribution:

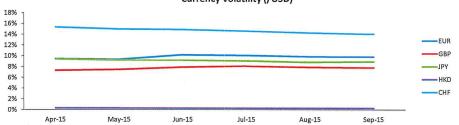
Equities together contribute 80% of the Total Risk, with Global Equity at 65% and Private Equity at 15%. This is slightly above the contribution in Aug end and Equities together are causing increase in Portfolio Total Risk.

## Currency Exposure:

Total Plan has 70.0% exposure to USD. Next 5 currency exposure and time series of their volatility with respect to USD is plotted below. The volatility has remained stable compared to August end except for CHF which goes to 14.09% vs 14.31% in Aug end

		Cu	rrency:			
Currency:	USD	EUR	GBP	JPY	HKD	CHF
Exposure:	70.0%	6.1%	5.9%	4.1%	2.0%	1.3%
%CR To Total Risk	54.7%	10.8%	8.7%	4.0%	3.3%	2.1%
Volatility (/USD):		9.88%	7.85%	8.97%	0.28%	14.09%

# Currency Volatility (/USD)



# Managed Services Monthly Executive Summary - GLOBAL EQUITY

# Equity

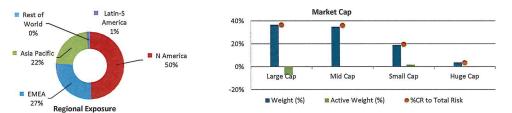
Statistic	Current Month	Previous Month	Δ (Mth.)	Δ (Qtr.)	Trend
Market Value	\$24,088,169,465	\$24,629,389,105	-2.20%	-6.41%	
Portfolio Total Risk	13.52%	12.58%	7.46%	6.02%	
Benchmark Total Risk	13.70%	12.76%	7.38%	6.25%	
Active Risk	0.56%	0.54%	3.25%	2.66%	<b>= =</b>
Portfolio Beta	0.99	0.99	0.09%	-0.21%	

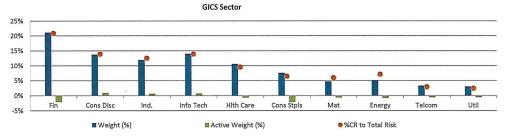
	Risk Source for B	quity		
	Total Risk Contri.	% of Total Risk	Active Risk Contri.	% of Active Tota Risk
Total	13.52	100.0%	0.56	100.0%
Equity	12.07	89.3%	0.34	60.7%
Fixed Income	0.03	0.2%	0.00	-0.1%
Alternative	0.00	0.0%	0.00	0.0%
Selection Risk	0.03	0.2%	0.15	26.4%
Currency Risk	1.39	10.3%	0.07	13.0%

Factor Analysis - Top 5 by CTR						
Factor	Exposure		Cont. to TR	Prev Month	Prev Qtr	
Euro	<b>V</b>	9.88	0.32	0.36	0.39	
US Internet	1	16.53	0.30	0.27	0.25	
US Banks	1	15.62	0.28	0.25	0.25	
US Computer Software	1	15.23	0.27	0.24	0.25	
British Pound Sterling	1	7.85	0.27	0.28	0.29	

Manager Analysis - Top 5 by CTR					
Managers		Wt(%)	Cont. to TR	Prev Month	Prev Qtr
SSGA S&P 500	<b>1</b>	28%	3.47	3.21	3.27
SSGA	<b>↓</b>	20%	2.87	2.72	2.72
Marathon	<b>V</b>	9%	1.25	1.20	1.20
Baillie Gifford	<b>^</b>	7%	0.97	0.90	0.93
SSGA Russell 2500	1	6%	0.79	0.77	0.84

#### **Risk Contribution by Sector** Cons Disc Cons Stpls Fin Hith Care Ind. Info Tech Mat Telcom Total Energy 5.74 0.80 0.26 0.51 1.02 0.73 0.70 0.28 0.11 0.14 N America EMEA 0.66 0.43 0.37 0.43 0.64 0.20 0.31 0.17 0.12 4.27 Asia Pacific 0.39 0.12 0.06 0.80 0.13 0.33 0.49 0.18 0.11 0.06 2.66 Latin-S America 0.02 0.06 0.03 0.05 0.00 0.02 0.00 0.03 0.01 0.01 0.23 Rest of World 0.00 0.00 0.01 0.00 0.00 0.00 0.02 Total 2.82 1.29 1.70 1.88 0.80 0.39 0.33 12.92 1.87 0.88 0.96





# Observations: In trend with the global equity markets there is a fall in MV by 6.41% in past three months. Most of the fall was observed in Aug end, inline with China meltdown of Black Monday- Aug 24th.

Most of the risk parameters in last 6 months are the highest in September end, visible through Green bars in the trends.

The portfolio risk and Bmk risk both have jumped by similar amounts in last quarter at ~ 6%.

Consumer Staples: Active weight of cons staple is significant at -2.07% while having a weight of only 7.6%

# Managed Services Monthly Executive Summary - CORE FIXED INCOME

## **Fixed Income**

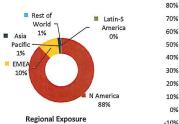
Statistic	Current Month	Previous Month	Δ (Mth.)	Δ (Qtr.)	Trend
Market Value	\$7,612,566,551	\$7,759,933,754	-1.90%	-7.31%	
Portfolio Total Risk	10.05%	10.58%	-5.04%	-4.79%	
Benchmark Total Risk	9.90%	10.02%	-1.19%	-3.41%	
Active Risk	0.28%	0.62%	-55.58%	-25.33%	_ = = = = _
Portfolio Beta	1.01	1.06	-3.89%	-1.44%	_ = = =
Contrib. to Eff. Duration	15.03	15.64	-3.91%	-2.78%	
OA Convexity	366.85	313.18	17.14%	-11.73%	

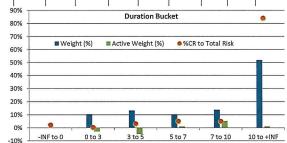
	Total Risk Contri.	% of Total Risk	Active Risk Contri.	% of Active Tota Risk
otal	10.05	100.0%	0.28	100.0%
Equity	0.00	0.0%	0.00	0.0%
Fixed Income	10.04	99.9%	0.25	91.5%
Alternative	0.00	0.0%	0.00	0.0%
Selection Risk	0.00	0.0%	0.02	6.2%
Currency Risk	0.00	0.0%	0.01	2.3%

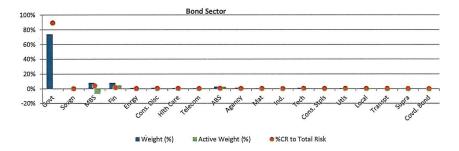
		Factor Analysis -	Top 5 by CTR		
Factor	E	xposure	Cont. to TR	Prev Month	Prev Qtr
US Shift	<b>V</b>	0.58	6.42	6.90	6.92
US Twist	1	0.30	2.73	2.85	2.74
US Inflation-protected Shift	<b>V</b>	0.62	0.40	0.40	0.41
GB Inflation-protected Shift	<b>V</b>	0.51	0.19	0.19	0.19
US Conventional 30 yr Mortgag	1	0.93	0.19	0.21	0.25

	Manager Analysi	is - Top 5 by CTR		
Managers	Wt(%)	Cont. to TR	Prev Month	Prev Qtr
Blackrock STRIPS	↓ 39%	7.66	7.96	8.11
Blackrock ILB	↑ 16%	1.02	1.15	0.98
Loomis Core	<b>↑ 14%</b>	0.50	0.51	0.48
Blackrock Passive	↑ 10%	0.34	0.35	0.36
Blackrock Tips	↑ 8%	0.23	0.23	0.22









Observations:

Market value has been decreasing over past 6 months in line with global trends which also prices in expectations of a rate hike by Fed.

Market value change over last month (Aug'15) was most prominent in Strips, which also caused the duration to drop by -3.9% and after the correction in Strips (Or allocation change as we moved \$200mn cash from STRIPS in Sep end) the active risk of the sleeve moves back to levels observed 3-4 month ago at 0.28%