



Office of the State Treasurer & Cash Management Policy Board

Investment Performance Report Quarter Ending September 30, 2017

John Krimmel, CPA, CFA, Partner

Kevin M. Leonard, Partner

255 State Street, Boston, MA 02109 | TEL: 617.374.1300 | FAX: 617.374.1313 | www.nepc.com BOSTON | ATLANTA | CHARLOTTE | CHICAGO | DETROIT | LAS VEGAS | SAN FRANCISCO



Introduction

Investors, emboldened by an improved economic outlook and record low volatility, pushed equities even higher in the third quarter. Emerging markets, bolstered by China, continued to lead the way; they have gained 28% so far this year. They were followed by non-US developed markets, which have returned 20% in 2017, boosted by robust corporate earnings in Europe and Japan. In their ninth year of a bull run, US stocks were also in the black amid optimism around a tax overhaul working its way through Congress; domestic equities are up 14% this year.

The last three quarters have been a banner year for global stocks. The outperformance of international equities, in particular, has exceeded our expectations even as we began the year with an overweight recommendation for them. Their stellar returns are all the more significant when you reflect on the pessimism at the start of 2017: Europe was under a shroud of political uncertainty as a number of key elections loomed, investors were fretting over potential capital outflows from China as economic growth appeared to slow, and there were concerns around major shifts in US trade policy disrupting the global economic order. These risks — notwithstanding some outbursts on Twitter, tensions with North Korea and lingering political concerns in Europe—seemingly dissipated as the year went on, as if three wishes had been granted to investors. To this end, not only did consumer sentiment and economic indicators improve across Europe, Japan and China, but also the decline in perceived risks benefited the euro and emerging market currencies, which have rallied over 10% relative to the US dollar.

However, now that the three wishes are spent and equities have scaled new heights, a colder reality sets in. Investors' desire for continued market stability—a big driver of returns for risky assets—in the year ahead may be wishful thinking as corporate earnings and fundamental valuations assume a greater role. With this in mind, we encourage investors to prioritize actions that reduce total portfolio volatility. We suggest using the outsized gains of US equities and high-yield bonds to rebalance safe-haven fixed-income exposure back to strategic targets. We also support adding assets, for instance, systematic-global macro or long-volatility strategies, which mitigate the effects of market drawdowns.

To be sure, this is less of a warning and more of a reminder that adhering to strategic asset allocation targets is the most effective long-term risk-management tool. That said, we still see opportunities driven by fundamentals in global markets and recommend investors maintain an overweight position in international equities. We believe a multi-year earnings recovery is underway in non-US developed markets, offering the possibility of elevated returns. Within emerging markets, equities offer the highest potential for total returns for public-market investors as corporate earnings and currencies benefit from the economic adjustments of recent years. While we view equities positively in a pro-risk environment, we are well aware that all wishes do not come true. To this end, we remind investors that a diversified investment program is best equipped to weather market uncertainty.



Global Equities

Global equities posted another solid quarter with returns of 5.2%, according to the MSCI ACWI Index. Small-cap stocks bested large-cap equities. Returns, in US dollar terms, were boosted by a stronger euro, sterling and Canadian dollar. Energy, materials and information technology led performance; regionally, Norway, Italy and Portugal were top performers.

At home, the S&P 500 gained 4.5% and the Russell 2000 Index returned 5.7% for the three months ended September 30. Growth bested value; economic growth overshadowed the fallout from hurricanes and floods, and the threat of a nuclear outburst between the US and North Korea, confounding ever-expanding valuations of financial assets.

Emerging market stocks maintained their lead with gains of 7.9%, according to the MSCI Emerging Markets Index, aided by Brazil, Russia and China. Real estate was the top-performing sector, dominated by China. Energy took second place with higher oil prices fueling returns.

In private equity, \$40.8 billion of value exited public markets across 224 companies in the third quarter, a 20% drop from the earlier quarter as high valuations slowed down activity. That said, investor demand remains strong with the median size for US private equity funds at a record \$239 million and \$265 million for buyout funds; funds larger than \$5 billion accounted for 54% of capital raised through the third quarter. While there was a 20% drop in the number of deals in the third quarter from the second, aggregate value fell only 6% in the same period as deal sizes got larger.

Within hedge funds, healthcare-focused approaches outperformed, with returns of 5.9%. They were followed by emerging-market strategies— dominated by Latin America and Asia—which were up 4.9%. Energy and basic materials gained following higher prices on the back of Hurricane Harvey. Sector-focused managers bested diversified equity; market-neutral strategies were also in the black. Special-situations strategies have gained momentum as hedge fund investors seek more idiosyncratic sources of return.



Global Fixed Income

US credit also fared well in the third quarter. The Barclays US Aggregate Index was in the black, pushing returns so far this year to just over 3.0%. High-yield debt was up 2.0% with spreads modestly tighter than the second quarter; the S&P LSTA Leveraged Loan Index returned 1.0% in the third quarter, bringing gains so far this year to 3.0%.

The Barclays Long Treasury Index gained 0.6%, the Barclays Long Credit Index was up 2.2%, and the Barclays Long Government/Credit Index returned 1.5%. Yields compressed 10 basis points in the third quarter for the Long Credit and Long Government/Credit Indices to 4.2% and 3.6%, respectively. The long Treasury yield remained unchanged at 2.8%.

As in public equities, emerging markets led the pack. Emerging-market local-sovereign debt returned 3.6%, clocking returns so far this year of over 14%, helped, in large part, by currency appreciation.

In private debt, fundraising has totaled \$16.5 billion so far in 2017, already surpassing the \$14.4 billion raised last year. Across the pond, fundraising totaled €10.4 billion in Europe, exceeding the €6.0 billion in 2016.

Within hedge funds, credit was up 1.4% for the quarter; relative-value arbitrage strategies were in the black for the three months ended September 30.

Real Assets

Commodities gained 2.5% in the third quarter, according to the Bloomberg Commodity Index, helped by a decline in the US dollar. Energy futures were up 9.8% with the exception of natural gas, which was down 4.2%. Metals were up 6.5%, led by industrial metals which gained 9.9%; precious metals returned 2.3%. Steep contango—when the futures price of a commodity is above the expected future spot price—in agriculture resulted in a negative roll yield; wheat and lean-hogs contracts were in the red.

Within energy, our highest conviction strategies remain in private equity and credit as these managers appear best equipped to invest and manage assets amid what we believe will be a choppy recovery.

We still believe asset selection is critical in energy; in the public markets, we favor midstream/Master Limited Partnerships or MLPs, as these companies repair their balance sheets and reset dividends for a strong outlook.



Real Assets (continued)

We are constructive on the mining sector over the mid-to-longer-term and are actively seeking infrastructure opportunities; however, the impact of federal legislation remains uncertain. We are positive on energy, negative on timber and neutral on agriculture, infrastructure, and metals and mining; we prefer niche opportunities targeting assets within sectors we have rated as neutral.

In real estate, US core property markets have normalized, but fundamentals remain healthy. Future value appreciation will likely come from income growth as opposed to compressions in the cap rate. Rising interest rates will place upward pressure on cap rates but we expect growth, although at a slower pace, as capital flows chase income-yielding assets in the United States; the US remains the largest, healthiest and most diversified real-estate investment market. Relative value opportunities remain within non-core

US real estate. We favor demographically-driven property sectors, and managers that are attentive to duration risk in the later innings of the expansion cycle. Capital markets constraints and pockets of distress in Europe and emerging markets may be appealing. Select subordinate-debt opportunities may yield attractive income streams, while providing a hedge against declining property values.

Final Thoughts

While we welcome the robust gains of 2017, it is beneficial to remind investors of this core investment principle: reduce exposure to assets that have outperformed expectations over a prolonged period. This especially holds true for US equities and high-yield bonds, which have provided outsized returns in recent years. We encourage investors to tap these asset classes as a funding source to ensure safe- haven fixed-income exposures are near strategic targets.

Furthermore, despite a positive outlook for global equities, we advocate balance and recommend investors seek out exposures that mitigate portfolio volatility should market stability break down. These include systematic global macro strategies and long-volatility exposures. With 2018 around the corner, we view equities positively in a pro-risk market environment. Still, we doubt the harmonious financial conditions we saw in 2017 can provide a similar backdrop for the coming year. In time, new trends will evolve. We remain vigilant and look forward to helping investors meet their long-term investment objectives.



Index Performance Summary as of 09/30/2017

	2009	2010	2011	2012	2013	2014	2015	2016	Q1	Q2	Q3	Sept	YTD
Liquidity Custom Index	1.12%	0.93%	0.58%	0.42%	0.27%	0.27%	0.33%	0.77%	0.18%	0.24%	0.31%	0.02%	0.73%
Reserve Custom Index	2.58%	3.01%	2.35%	1.51%	0.12%	1.1%	0.86%	1.15%	0.39%	0.42%	0.36%	-0.20%	1.17%
Land & Water Custom Index	20.44%	10.23%	-0.01%	11.29%	14.46%	5.43%	-0.07%	5.71%	4.13%	2.99%	3.24%	1.16%	10.71%
MSCI EM	78.5%	18.9%	-18.4%	18.2%	-2.6%	-2.2%	-14.9%	11.2%	11.4%	6.3%	7.9%	-0.4%	27.8%
MSCI EAFE	31.8%	7.8%	-12.1%	17.3%	22.8%	-4.9%	-0.8%	1.0%	7.2%	6.1%	5.4%	2.5%	20.0%
MSCI ACWI	34.6%	12.7%	-7.3%	16.1%	22.8%	4.2%	-2.4%	7.9%	6.9%	4.3%	5.2%	1.9%	17.3%
S&P 500	26.5%	15.1%	2.1%	16.0%	32.4%	13.7%	1.4%	12.0%	6.1%	3.1%	4.5%	2.1%	14.2%
Russell 1000	28.4%	16.1%	1.5%	16.4%	33.1%	13.2%	0.9%	12.1%	6.0%	3.1%	4.5%	2.1%	14.2%
Russell 2500	34.4%	26.7%	-2.5%	17.9%	36.8%	7.1%	-2.9%	17.6%	3.8%	2.1%	4.7%	4.5%	11.0%
Russell 2000	27.2%	26.9%	-4.2%	16.3%	38.8%	4.9%	-4.4%	21.3%	2.5%	2.5%	5.7%	6.2%	10.9%
BC Global Agg	-6.5%	-5.3%	-5.3%	-4.1%	2.7%	-0.6%	3.3%	2.1%	1.8%	2.6%	1.8%	-0.9%	6.3%
BC US Agg Bond	5.9%	6.5%	7.8%	4.2%	-2.0%	6.0%	0.5%	2.6%	0.8%	1.4%	0.8%	-0.5%	3.1%
BC US Agg Interm	6.5%	6.1%	6.0%	3.6%	-1.0%	4.1%	1.2%	2.0%	0.7%	0.9%	0.7%	-0.4%	2.3%
BC US Govt/Cred 1-3 Yr	3.8%	2.8%	1.6%	1.3%	0.6%	0.8%	0.7%	1.3%	0.4%	0.3%	0.3%	-0.1%	1.1%
Alerian MLP	76.4%	35.9%	13.9%	4.8%	27.6%	4.8%	-32.6%	18.3%	3.9%	-6.4%	-3.0%	0.7%	-5.6%

Source: Bloomberg, Barclays, Alerian, Nareit, MSCI, JP Morgan, Credit Suisse



Returns for Key Indices Ranked in Order of Performance

2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
MSCI EMERGING MARKETS 32.17	MSCI EMERGING MARKETS 39.39	BC AGGREGATE 5.24	MSCI EMERGING MARKETS 78.51	RUSSELL 2000 GROWTH 29.09	BC AGGREGATE 7.84	MSCI EMERGING MARKETS 18.22	RUSSELL 2000 GROWTH 43.30	S&P 500 13.69	RUSSELL 1000 GROWTH 5.67	RUSSELL 2000 VALUE 31.74
MSCI EAFE 26.34	RUSSELL 1000 GROWTH 11.81	RUSSELL 2000 VALUE -28.92	RUSSELL 1000 GROWTH 37.21	RUSSELL 2000 26.85	RUSSELL 1000 GROWTH 2.64	RUSSELL 2000 VALUE 18.05	RUSSELL 2000 38.82	RUSSELL 1000 VALUE 13.45	S&P 500 1.38	RUSSELL 2000 21.31
RUSSELL 1000 VALUE 22.25	MSCI EAFE 11.17	RUSSELL 2000 -33.79	RUSSELL 2000 GROWTH 34.47	RUSSELL 2000 VALUE 24.5	S&P 500 2.11	RUSSELL 1000 VALUE 17.51	RUSSELL 2000 VALUE 34.52	RUSSELL 1000 13.24	RUSSELL 1000 0.92	RUSSELL 1000 VALUE 17.34
RUSSELL 2000 VALUE 23.48	RUSSELL 2000 GROWTH 7.06	RUSSELL 1000 VALUE -36.85	MSCI EAFE 31.78	MSCI EMERGING MARKETS 18.88	RUSSELL 1000 1.50	MSCI EAFE 17.32	RUSSELL 1000 GROWTH 33.48	RUSSELL 1000 GROWTH 13.05	BC AGGREGATE 0.55	RUSSELL 1000 12.05
RUSSELL 2000 18.37	BC AGGREGATE 6.97	S&P 500 -37.0	RUSSELL 1000 28.43	RUSSELL 1000 GROWTH 16.71	RUSSELL 1000 VALUE 0.39	RUSSELL 1000 16.42	RUSSELL 1000 33.11	BC AGGREGATE 5.97	MSCI EAFE -0.81	S&P 500 11.96
S&P 500 15.8	RUSSELL 1000 5.77	RUSSELL 1000 -37.6	RUSSELL 2000 27.16	RUSSELL 1000 16.10	RUSSELL 2000 GROWTH -2.91	RUSSELL 2000 16.35	RUSSELL 1000 VALUE 32.53	RUSSELL 2000 GROWTH 5.60	RUSSELL 2000 GROWTH -1.38	RUSSELL 2000 GROWTH 11.32
RUSSELL 1000 15.46	S&P 500 5.49	RUSSELL 1000 GROWTH -38.44	S&P 500 26.46	RUSSELL 1000 VALUE 15.51	RUSSELL 2000 -4.18	S&P 500 16.00	S&P 500 32.39	RUSSELL 2000 4.89	RUSSELL 1000 VALUE -3.83	MSCI EMERGING MARKETS 11.19
RUSSELL 2000 GROWTH 13.35	RUSSELL 1000 VALUE -0.17	RUSSELL 2000 GROWTH -38.54	RUSSELL 2000 VALUE 20.58	S&P 500 15.06	RUSSELL 2000 VALUE -5.50	RUSSELL 1000 GROWTH 15.26	MSCI EAFE 22.78	RUSSELL 2000 VALUE 4.22	RUSSELL 2000 -4.41	RUSSELL 1000 GROWTH 7.08
RUSSELL 1000 GROWTH 9.07	RUSSELL 2000 -1.56	MSCI EAFE -43.38	RUSSELL 1000 VALUE 19.69	MSCI EAFE 7.75	MSCI EAFE -12.14	RUSSELL 2000 GROWTH 14.59	BC AGGREGATE -2.02	MSCI EMERGING MARKETS -2.19	RUSSELL 2000 VALUE -7.46	BC AGGREGATE 2.65
BC AGGREGATE 4.33	RUSSELL 2000 VALUE -9.78	MSCI EMERGING MARKETS -53.33	BC AGGREGATE 5.93	BC AGGREGATE 6.54	MSCI EMERGING MARKETS -18.42	BC AGGREGATE 4.21	MSCI EMERGING MARKETS -2.60	MSCI EAFE -4.90	MSCI EMERGING MARKETS -14.93	MSCI EAFE 1.00

QTD	1 Year	3 year	5 Year	10 Year
MSCI	MSCI	RUSSELL	RUSSELL	RUSSELL
EMERGING	EMERGING	1000	1000	1000
MARKETS	MARKETS	GROWTH	GROWTH	GROWTH
7.89	22.46	12.69	15.26	9.08
RUSSELL	RUSSELL	RUSSELL	RUSSELL	RUSSELL
2000	1000	2000	2000	2000
GROWTH	GROWTH	12.18	GROWTH	GROWTH
6.22	21.94		14.28	8.47
RUSSELL	RUSSELL	RUSSELL	RUSSELL	RUSSELL
1000	2000	2000	1000	2000
GROWTH	GROWTH	GROWTH	14.27	7.85
5.90	20.98	12.17	14.27	7.65
RUSSELL	RUSSELL	RUSSELL		RUSSELL
2000	2000	2000 VALUE	S&P 500	1000
5.67	20.74	12.12	14.22	7.55
5107	2017 1	12.12		7.55
	RUSSELL		RUSSELL	
MSCI EAFE	2000 VALUE	S&P 500	2000	S&P 500
5.40	20.55	10.81	13.79	7.44
RUSSELL	MSCI EAFE	RUSSELL	RUSSELL	RUSSELL
2000 VALUE	19.10	1000	2000 VALUE	2000 VALUE
5.11	19.10	10.63	13.27	7.14
S&P 500	S&P 500	RUSSELL	RUSSELL	RUSSELL
4.48	18.61	1000 VALUE	1000 VALUE	1000 VALUE
	10.01	8.53	13.20	5.92
DUCCELL	PUCCELL			DC
RUSSELL	RUSSELL	MSCI EAFE	MSCI EAFE	BC
1000	1000	5.04	8.38	AGGREGATE
4.48	18.54			4.27
RUSSELL	RUSSELL	MSCI	MSCI	
1000 VALUE	1000 VALUE	EMERGING	EMERGING	MSCI EAFE
3.11	15.12	MARKETS	MARKETS	1.34
5.11	15.12	4.90	3.99	
BC.	BC.	BC	BC.	MSCI
AGGREGATE	AGGREGATE	AGGREGATE	AGGREGATE	EMERGING
0.85	0.07	2.71	2.06	MARKETS
2.00	2.07	,_		1.32



Executive Summary

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Total Fund Performance Summary

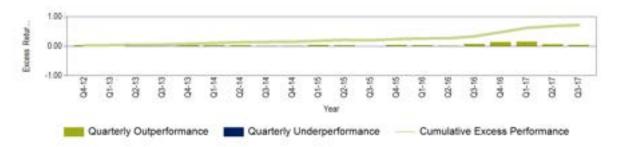
	Market Value	3 Mo	1 Yr	3 Yrs	5 Yrs	Return	Since
Delaware Total Consolidation	\$1,579,257,069	0.49%	1.32%	1.20%	0.86%	1.96%	Jan-05
Total Liquidity	\$651,580,972	0.35%	1.11%	0.82%	0.64%	1.76%	Jan-05
Liquidity Custom Index		0.31%	0.73%	0.63%	0.49%	1.77%	Jan-05
eA US Cash Management Net Median		0.30%	0.93%	0.53%	0.37%	1.43%	Jan-05
Total Reserve (Including Operating)	\$858,873,766	0.41%	0.62%	1.26%	0.89%	2.28%	Jan-05
Reserve Custom Index		0.36%	0.40%	1.18%	0.90%	2.51%	Jan-05
eA US Short Duration Fixed Inc Net Median		0.44%	0.94%	1.34%	1.11%	2.70%	Jan-05
Total Endowment	\$68,802,331	3.72%	12.34%			6.57%	Aug-15
Endowment Custom Index		3.24%	10.63%	5.82%	7.47%	6.04%	Aug-15
eA Global Balanced Net Median		3.99%	13.57%	5.37%	6.99%	5.59%	Aug-15

Fiscal year ends June 30.

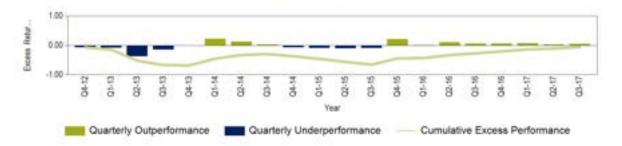


Total Fund Performance Summary

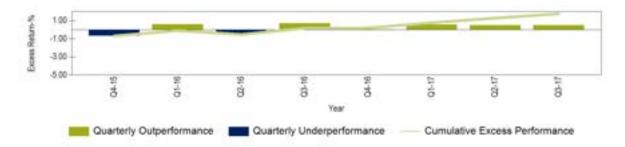
Quarterly and Cumulative Excess Performance Total Liquidity vs. Liquidity Custom Index



Quarterly and Cumulative Excess Performance Total Reserve (Including Operating) vs. Reserve Custom Index



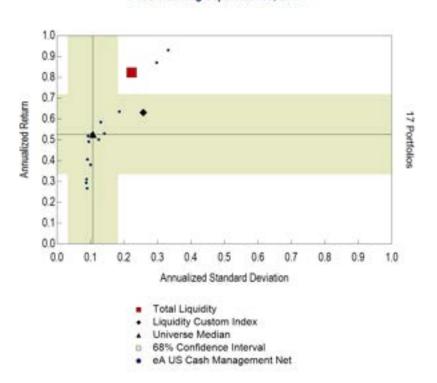
Quarterly and Cumulative Excess Performance Total Endowment vs. Endowment Custom Index





Liquidity Risk/Return - 3 & 5 Years

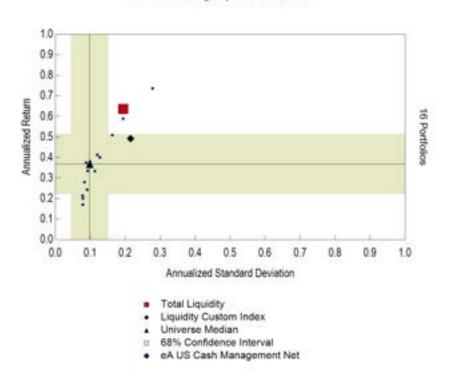
3 Years Ending September 30, 2017



3 Years Ending September 30, 2017

	Anlzd Ret	Anlzd Std Dev	Sharpe Ratio
Total Liquidity	0.82%	0.22%	2.25
Liquidity Custom Index	0.63%	0.26%	1.20

5 Years Ending September 30, 2017



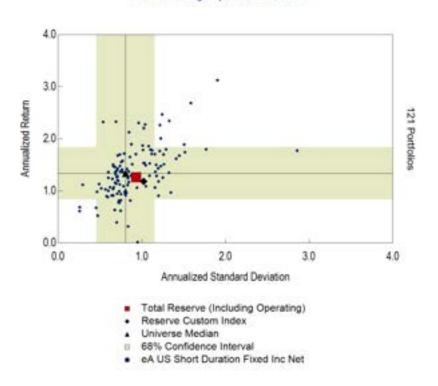
5 Years Ending September 30, 2017

	Anizd Ret	Anizd Std Dev	Sharpe Ratio
Total Liquidity	0.64%	0.19%	2.18
Liquidity Custom Index	0.49%	0.22%	1.30



Reserve Risk/Return - 3 & 5 Years

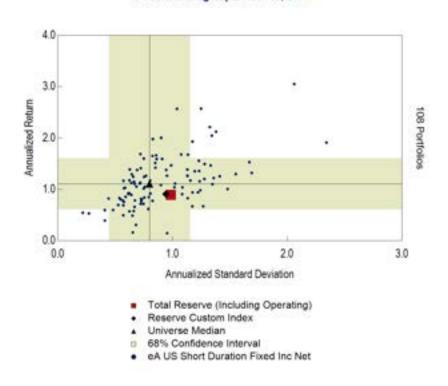
3 Years Ending September 30, 2017



3 Years Ending September 30, 2017

	Anlzd Ret	Anlzd Std Dev	Sharpe Ratio
Total Reserve (Including Operating)	1.26%	0.93%	1.08
Reserve Custom Index	1.18%	1.02%	0.90

5 Years Ending September 30, 2017



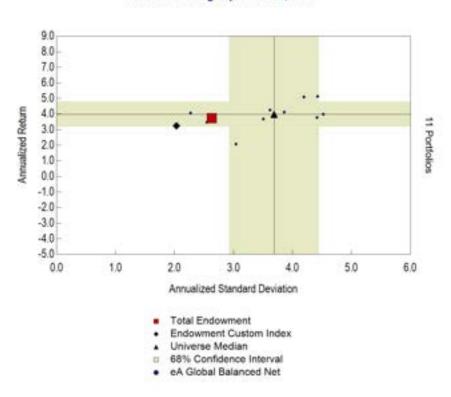
5 Years Ending September 30, 2017

	Anlzd Ret	Anlzd Std Dev	Sharpe Ratio
Total Reserve (Including Operating)	0.89%	0.99%	0.73
Reserve Custom Index	0.90%	0.94%	0.78



Endowment Risk/Return - 3 Month & 1 Year

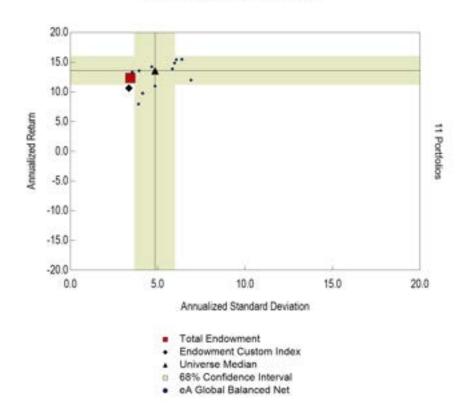
3 MonthsEnding September 30, 2017



3 Months Ending September 30, 2017

	Anlzd Ret	Anlzd Std Dev	Sharpe Ratio
Total Endowment	12.34%	3.43%	3.39
Endowment Custom Index	10.63%	3.34%	2.96

1 Year Ending September 30, 2017



1 Year Ending September 30, 2017

	Anlzd Ret	Anlzd Std Dev	Sharpe Ratio
Total Endowment	12.34%	3.43%	3.39
Endowment Custom Index	10.63%	3.34%	2.96



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Total Fund Performance Detail

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	Return (%)	Since
Delaware Total Consolidation	1,579,257,069	100.00	0.49		1.32		1.20		0.86		1.96	Jan-05
Total Liquidity & Reserve	1,510,454,738	95.64	0.36		0.80		-				1.11	Jan-16
Total Liquidity	651,580,972	41.26	0.35	17	1.11	15	0.82	13	0.64	5	1.76	Jan-05
Liquidity Custom Index			0.31	38	0.73	85	0.63	20	0.49	15	1.77	Jan-05
eA US Cash Management Net Median			0.30		0.93		0.53		0.37		1.43	Jan-05
Insight Investment	161,598,941	10.23	0.34	18	1.11	15	0.76	15	-		0.62	Jun-13
Liquidity Custom Index			0.31	38	0.73	85	0.63	20	0.49	15	0.53	Jun-13
PFM Asset Management	164,520,912	10.42	0.33	21	1.20	10	0.91	2			0.80	Jun-13
Liquidity Custom Index			0.31	38	0.73	85	0.63	20	0.49	15	0.53	Jun-13
Wells Capital Inv. Liquidity	163,196,149	10.33	0.39	1	1.23	8	0.85	10	0.66	4	4.25	Jan-85
Liquidity Custom Index			0.31	38	0.73	85	0.63	20	0.49	15		Jan-85
Wilmington Liquidity	162,264,970	10.27	0.32	32	0.91	57	0.78	15	0.57	8	4.30	Jan-85
Liquidity Custom Index			0.31	38	0.73	85	0.63	20	0.49	15		Jan-85
Total Reserve (Including Operating)	858,873,766	54.38	0.41	61	0.62	73	1.26	56	0.89	69	2.28	Jan-05
Reserve Custom Index			0.36	72	0.40	85	1.18	61	0.90	68	2.51	Jan-05
eA US Short Duration Fixed Inc Net Median			0.44		0.94		1.34		1.11		2.70	Jan-05
Chandler Asset Management	104,653,436	6.63	0.42	56	0.55	77	1.41	43	-		1.18	Jun-13
Reserve Custom Index			0.36	72	0.40	85	1.18	61	0.90	68	1.01	Jun-13
Federated Investors	146,944,291	9.30	0.35	74	0.39	85	1.32	52	-		1.05	Jun-13
Reserve Custom Index			0.36	72	0.40	85	1.18	61	0.90	68	1.01	Jun-13
JPM Intermediate	247,513,646	15.67	0.40	64	0.53	79	1.25	57			1.09	Jun-13
Reserve Custom Index			0.36	72	0.40	85	1.18	61	0.90	68	1.01	Jun-13
Morgan Stanley	157,461,743	9.97	0.43	53	0.71	65	1.23	59	-		1.08	Jun-13
Reserve Custom Index			0.36	72	0.40	85	1.18	61	0.90	68	1.01	Jun-13
Schroder Intermediate	202,300,650	12.81	0.44	50	0.81	59	1.21	59	0.94	63	3.45	Jul-95
Reserve Custom Index			0.36	72	0.40	85	1.18	61	0.90	68		Jul-95

Notes: Net of Fees. Results for periods longer than one year are annualized.

Performance history through 12/2015 is from BNY Mellon. NEPC performance start date is January, 2016. Fiscal Year end is June 30. Liquidity Custom Index is comprised of 25% BofA Merrill Lynch 1-3 Year Govt/Corporate A+ or Better/ 75% 6 Month Treasury Bill. Reserve Custom index is comprised of 75% BofA Merrill Lynch 1-5 Year Govt/Corporate A+ or better/ 25% 6 Month Treasury Bill.



Delaware Office of the State Treasurer

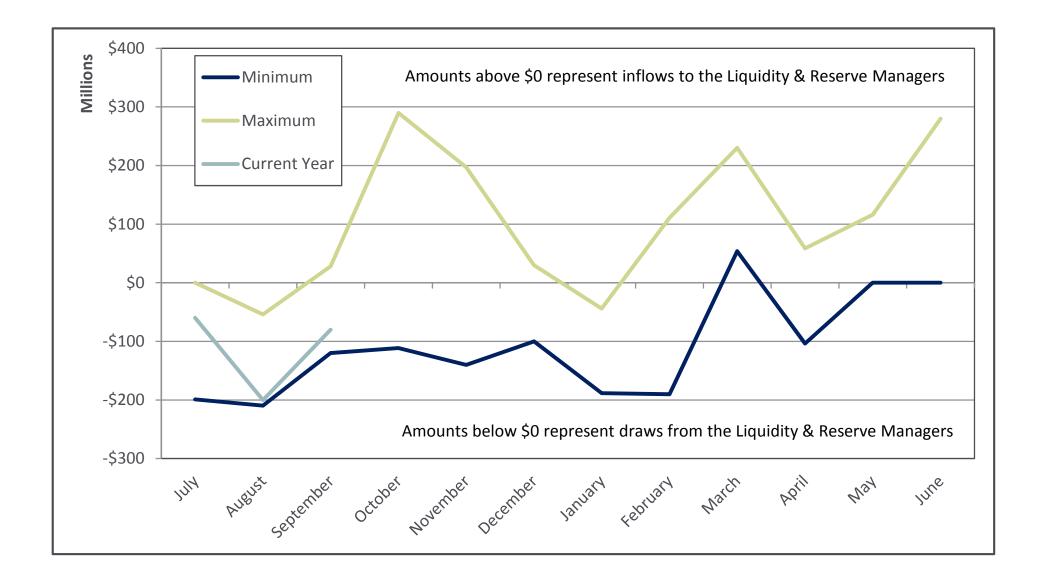
Total Fund Performance Detail

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	Return (%)	Since
Total Endowment	68,802,331	4.36	3.72	76	12.34	68	-	-	-		6.57	Aug-15
Endowment Custom Index			3.24	92	10.63	83	5.82	44	7.47	26	6.04	Aug-15
eA Global Balanced Net Median			3.99		13.57		5.37		6.99		5.59	Aug-15
SEI Funds	22,479,247	1.42	3.78	70	13.19	62	-	-	-		8.19	Aug-15
Endowment Custom Index			3.24	92	10.63	83	5.82	44	7.47	26	6.04	Aug-15
MSIFT Global Strategist	21,281,204	1.35	3.56	86	11.95	71			-		5.74	Aug-15
Endowment Custom Index			3.24	92	10.63	83	5.82	44	7.47	26	6.04	Aug-15
JP Morgan Diversified	21,720,610	1.38	4.25	21	13.55	51			_		6.93	Aug-15
Endowment Custom Index			3.24	92	10.63	83	5.82	44	7.47	26	6.04	Aug-15
Cash Account	3,321,270	0.21	0.17	99	0.43	99	-	-	-		0.31	Aug-15
91 Day T-Bills			0.26	81	0.72	85	0.32	87	0.21	89	0.44	Aug-15

Notes: Net of Fees. Results for periods longer than one year are annualized. Performance history through 12/2015 is from BNY Mellon. NEPC performance start date is January, 2016. Fiscal Year end is June 30. L&W Endowment Custom Index is comprised of 60% MSCI World Index/40% Barclays Capital Aggregate.



Cash Flows – Fiscal Year 2018





Total Fund Change in Market Value - September 30, 2017

Change in Market Value Month Ending September 30, 2017

		Beginning Market Value	Contributions	Withdrawals	Fees	Income	U	nrealized Gain (Loss)	Realized Gain (Loss)	Å	Amortization / Accretion	Ε	nding Market Value
Liquidity Managers													
Insight Investment	\$	181,504,535	\$ -	\$ (20,000,000)	\$ -	\$ 215,361	\$	(65,172)	\$ (38,287)	\$	(17,496)	\$	161,598,941
PFM Asset Management	\$	184,389,349	\$ -	\$ (20,000,000)	\$ -	\$ 204,536	\$	(80,896)	\$ 5,687	\$	2,236	\$	164,520,912
Wells Capital Inv. Liquidity	\$	183,032,736	\$ -	\$ (20,000,000)	\$ -	\$ 235,588	\$	(46,427)	\$ 121	\$	(25,870)	\$	163,196,149
Wilmington Liquidity	\$	182,183,185	\$ -	\$ (20,000,000)	\$ -	\$ 124,104	\$	(79,623)	\$ (3,626)	\$	40,930	\$	162,264,970
Total Liquidity Managers	\$	731,109,805	\$ -	\$ (80,000,000)	\$ -	\$ 779,589	\$	(272,117)	\$ (36,106)	\$	(199)	\$	651,580,972
Reserve Managers													
Chandler Asset Management	\$	104,894,719	\$ -	\$ -	\$ -	\$ 152,834	\$	(386,695)	\$ (1,294)	\$	(6,128)	\$	104,653,436
Federated Investors	\$	147,172,333	\$ -	\$ -	\$ -	\$ 179,852	\$	(391,660)	\$ (1,599)	\$	(14,635)	\$	146,944,291
JPM Intermediate	\$	247,864,489	\$ -	\$ -	\$ -	\$ 336,346	\$	(630,341)	\$ (41,503)	\$	(15,345)	\$	247,513,646
Morgan Stanley	\$	157,697,848	\$ -	\$ -	\$ -	\$ 224,149	\$	(458,091)	\$ (422)	\$	(1,741)	\$	157,461,743
Schroder Intermediate	\$	202,429,042	\$ -	\$ -	\$ -	\$ 261,384	\$	(396,325)	\$ 11,676	\$	(5,127)	\$	202,300,650
Total Reserve Managers	\$	860,058,431	\$ -	\$ -	\$ -	\$ 1,154,565	\$	(2,263,111)	\$ (33,142)	\$	(42,977)	\$	858,873,766
Land & Water Endowment													
SEI Funds	\$	22,223,327	\$ -	\$ -	\$ -	\$ 19,612	\$	236,307	\$ -	\$	-	\$	22,479,246
MSIFT Global Strategist	\$	20,988,599	\$ -	\$ -	\$ -	\$ 451	\$	292,154	\$ -	\$	-	\$	21,281,204
JP Morgan Diversified	\$	21,373,350	\$ -	\$ -	\$ -	\$ 119,376	\$	227,885	\$ -	\$	-	\$	21,720,610
Cash Account	\$	3,319,291	\$ -	\$ -	\$ -	\$ 1,979	\$	-	\$ -	\$	-	\$	3,321,270
Total Land & Water Endowment	\$	67,904,567	\$ -	\$ -	\$ -	\$ 141,418	\$	756,346	\$ -			\$	68,802,330
	_						-						
Total	\$:	1,659,072,803	\$ -	\$ (80,000,000)	\$ -	\$ 2,075,572	\$	(1,778,882)	\$ (69,248)	\$	(43,176)	\$ 1	,579,257,069

Footnotes:

Values provided by Northern Trust and are reconciled to the audited custodian reports.

Income is a product of income received during the month plus accrued income.

Numbers may not add due to rounding.



Total Fund Change in Market Value – Fiscal Year to Date

Change in Market Value Fiscal Year-to-Date Through September 30, 2017

							ο	p	-, -									
		Beginning									Ur	nrealized Gain		Realized Gain	1	Amortization /	Е	nding Market
		Market Value		Contributions		Withdrawals		Fees		Income		(Loss)		(Loss)		Accretion		Value
Liquidity Managers																		
Insight Investment	\$	245,868,623	\$	-	\$	(85,000,000)	\$	(45,860)	\$	750,975	\$	119,511	\$	(55,799)	\$	(38,509)	\$	161,598,941
PFM Asset Management	\$	248,829,522	\$	-	\$	(85,000,000)	\$	(41,254)	\$	762,083	\$	28,789	\$	(59,039)	\$	811	\$	164,520,912
Wells Capital Inv. Liquidity	\$	247,394,630	\$	-	\$	(85,000,000)	\$	(41,030)		873,831	\$	124,660		(76,571)		(79,372)	\$	163,196,149
Wilmington Liquidity	\$	246,587,584	\$	-	\$	(85,000,000)	\$	(43,110)	\$	503,311	\$	88,254	\$	(32,136)	\$	161,066	\$	162,264,970
Total Liquidity Managers	\$	988,680,359	\$	-	\$	(340,000,000)	\$	(171,254)	\$	2,890,200	\$	361,215	\$	(223,545)	\$	43,996	\$	651,580,972
Reserve Managers																		
Chandler Asset Management	\$	104,214,660	\$	-	\$	-	\$	(19,888)	\$	456,679	\$	26,931	\$	(14,434)	\$	(10,512)	\$	104,653,436
Federated Investors	\$	146,429,584	\$	-	\$	-	\$	(37,176)	\$	534,695	\$	69,067	\$	(6,090)	\$	(45,789)	\$	146,944,291
JPM Intermediate	\$	246,533,929	\$	-	\$	-	\$	(54,807)	\$	1,017,311	\$	45,455	\$	31,100	\$	(59,343)	\$	247,513,646
Morgan Stanley	\$	156,784,983	\$	-	\$	-	\$	(30,362)	\$	671,431	\$	40,154	\$	432	\$	(4,894)	\$	157,461,743
Schroder Intermediate	\$	201,408,815	\$	-	\$	-	\$	(50,735)	\$	813,203	\$	189,531	\$	(44,975)	\$	(15,189)	\$	202,300,650
Total Reserve Managers	\$	855,371,971	\$	-	\$	-	\$	(192,968)	\$	3,493,319	\$	371,138	\$	(33,966)	\$	(135,728)	\$	858,873,766
Land & Water Endowment																		
SEI Funds	\$	22,788,788	\$	-	\$	(1,139,439)	Ś	(19,680)	Ś	84,882	Ś	694,368	Ś	70,326	Ś	-	Ś	22,479,247
MSIFT Global Strategist	\$	21,618,353	\$	-	\$	(1,080,918)		-	\$	1,351		653,765		88,652		-	\$	21,281,204
JP Morgan Diversified	\$	21,920,165	\$	-	\$	(1,096,008)	•	-	\$	119,457	•	737,585	•	39,411	•	-	\$	21,720,610
Cash Account	\$	1,407	\$	-	\$	3,314,958	\$	-	\$	4,905	\$	-	\$	-	\$	-	\$	3,321,270
Total Land & Water Endowment	\$	66,328,713	\$	-	\$	(1,407)	\$	(19,680)	\$	210,595	\$	2,085,718	\$	198,389			\$	68,802,331
Total	Ś.	1,910,381,043	Ś	-	Ś	(340,001,407)	Ś	(383,902)	Ś	6,594,114	Ś	2,818,071	Ś	(59,121)	Ś	(91.731)	\$ 1	,579,257,069
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Footnotes:

Values provided by Northern Trust and are reconciled to the audited custodian reports.

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Numbers may not add due to rounding.



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Liquidity Manager Review

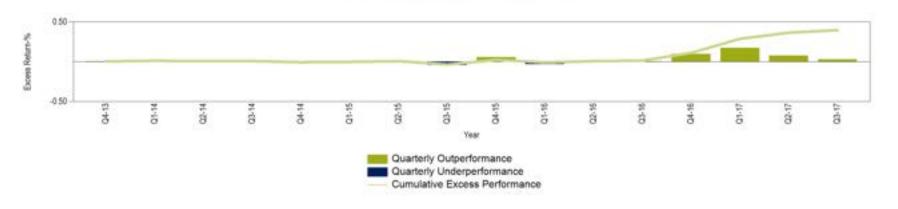


Insight Investment Management

Insight Investment manages an enhanced cash strategy. The goal of the strategy is to provide the liquidity of traditional money market funds but with a desire to migrate away from the restrictions of SEC Rule 2A in search of higher yield.

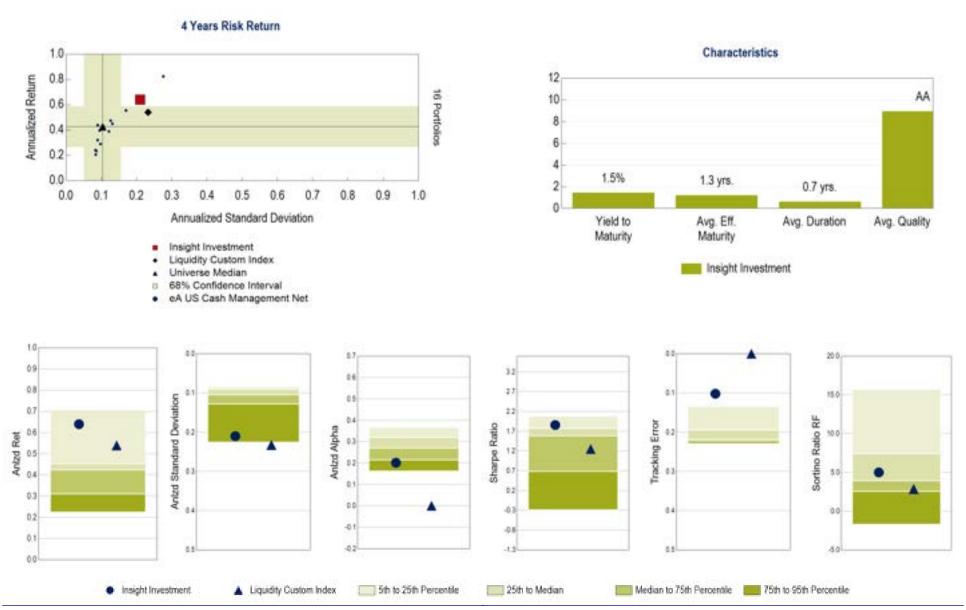


Quarterly and Cumulative Excess Performance





Insight Investment Management

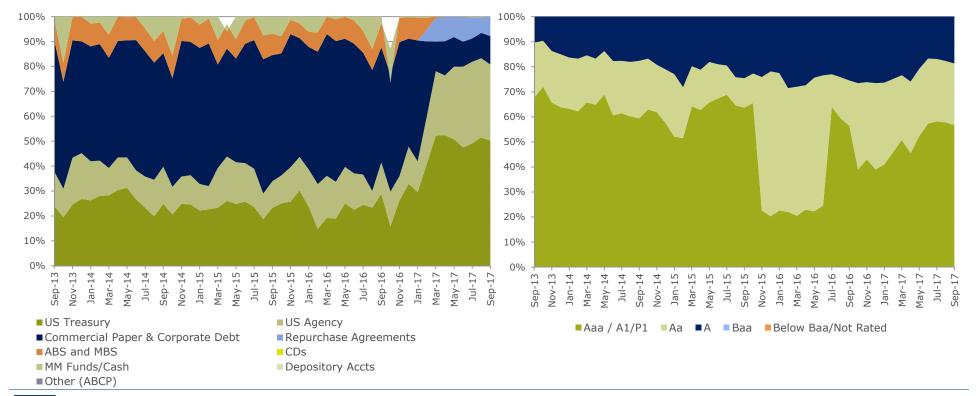




Insight Investment Management

	IPS	Aug-17	Sep-17
US Treasury	100%	51.5%	50.2%
US Agency	50%	31.8%	30.6%
Commercial Paper & Corporate Debt	50%	10.2%	11.4%
Repurchase Agreements	50%	6.3%	7.8%
ABS and MBS	10%	0.0%	0.0%
CDs	50%	0.0%	0.0%
MM Funds/Cash	100%	0.2%	0.0%
Depository Accts	50%	0.0%	0.0%
Other (Covered Bonds)	50%	0.0%	0.0%

	Aug-17	Sep-17
Aaa / A1/P1	57.8%	56.7%
Aa	24.5%	24.6%
A	17.7%	18.7%
Baa	0.0%	0.0%
Below Baa/Not Rated	0.0%	0.0%
Average	AA1/AA2	AA1/AA2



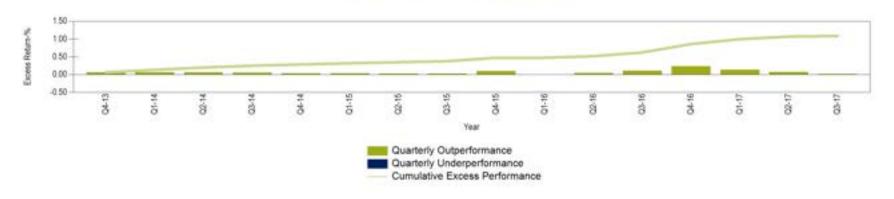


PFM Asset Management

PFM asset management manages an enhanced cash strategy. The enhanced cash strategy aims to achieve a higher total return than short-term investments such as money market funds while seeking to maintain a high level of principal stability and providing for occasional liquidity needs. The investments utilized include government securities as well as non-government instruments such as commercial paper, corporate notes, certificates of deposit, and asset-backed securities.

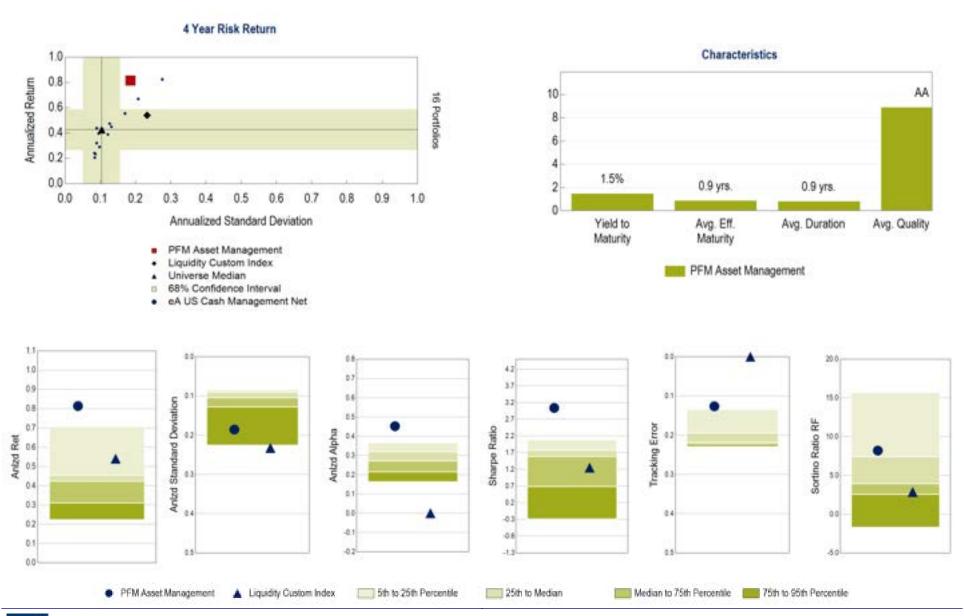


Quarterly and Cumulative Excess Performance





PFM Asset Management

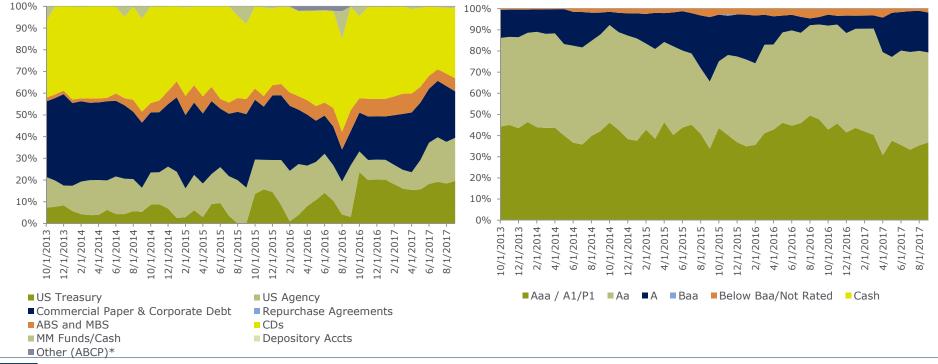




PFM Asset Management

	IPS	Aug-17	Sep-17
US Treasury	100%	18.4%	19.6%
US Agency	50%	19.2%	19.9%
Commercial Paper & Corporate Debt	50%	25.7%	21.4%
Repurchase Agreements	50%	0.0%	0.0%
ABS and MBS	10%	5.7%	6.0%
CDs	50%	30.3%	32.2%
MM Funds/Cash	100%	0.7%	0.9%
Depository Accts	50%	0.0%	0.0%
Other (ABCP)	50%	0.0%	0.0%

Aug-17	Sep-17
35.4%	36.8%
44.7%	42.5%
18.9%	18.9%
1.0%	1.8%
	35.4% 44.7% 18.9%



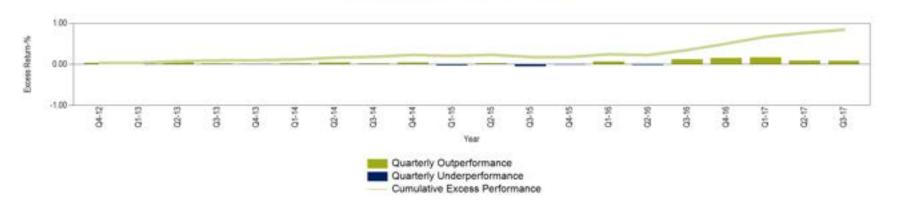


Wells Capital Inv. Liquidity

Wells Capital manages a taxable short duration fixed income strategy. The strategy invests primarily in Treasuries and Government securities, corporate, mortgage-backed, asset-backed, and commercial mortgage backed securities, as well as other forms of cash instruments. The investment universe consists of dollar-denominated, investment grade securities. Public agency cash portfolios generally maintain an average credit quality of high AA or better, regardless of minimum credit quality, with an emphasis on capital preservation, liquidity and diversification.

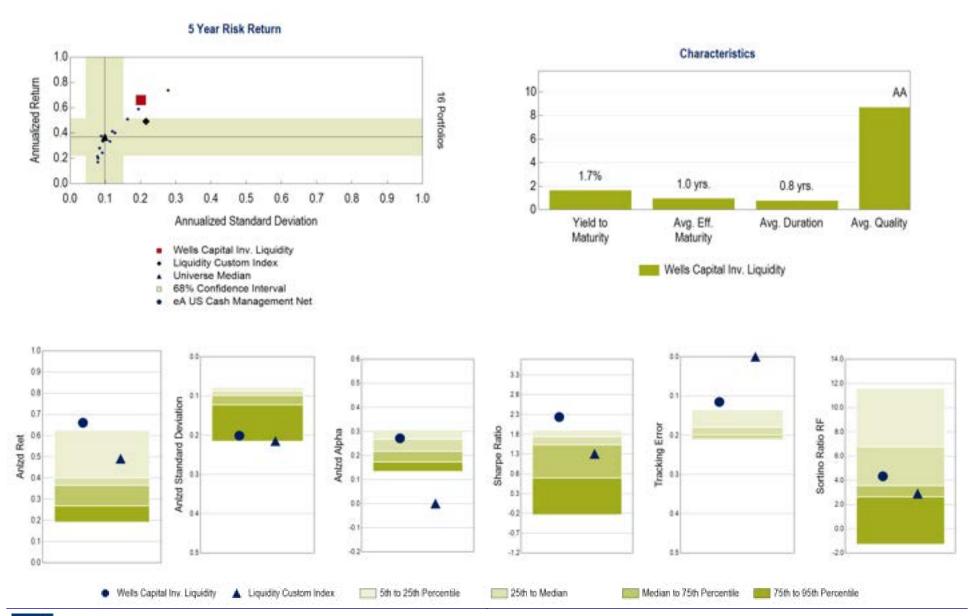


Quarterly and Cumulative Excess Performance





Wells Capital Inv. Liquidity

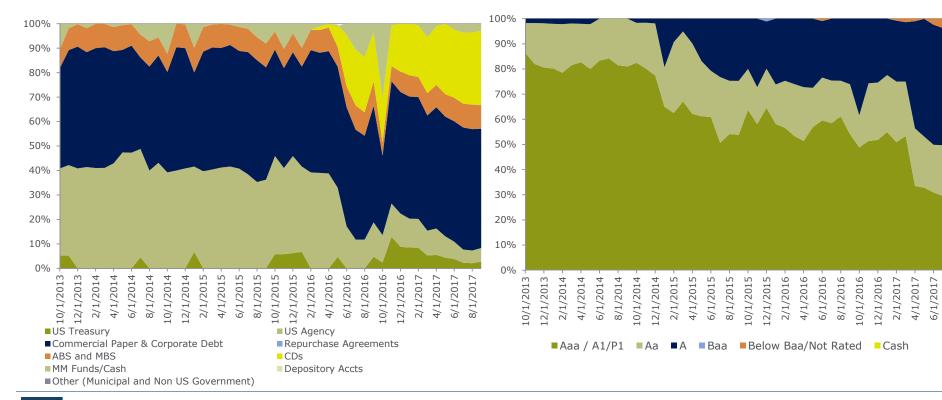




Wells Capital Inv. Liquidity

	IPS	Aug-17	Sep-17	
US Treasury	100%	2.1%	2.7%	
US Agency	50%	5.2%	5.6%	
Commercial Paper & Corporate				
Debt	50%	49.6%	48.8%	
Repurchase Agreements	50%			
ABS and MBS	10%	10.0%	9.7%	
CDs	50%	29.5%	30.4%	
MM Funds/Cash	100%	3.6%	2.8%	
Depository Accts	50%	0.0%	0.0%	
Other (Covered Bonds)	50%	0.0%	0.0%	

	Aug-17	Sep-17
Aaa / A1/P1	29.3%	28.9%
Aa	20.8%	20.4%
A	46.4%	47.6%
Baa		
Below Baa/Not Rated	3.5%	3.1%
Average	AA	AA



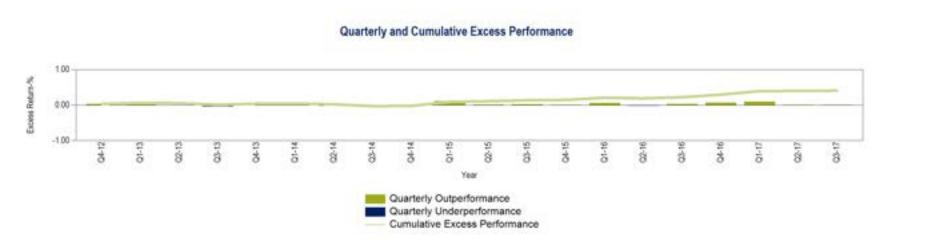


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Wilmington Liquidity

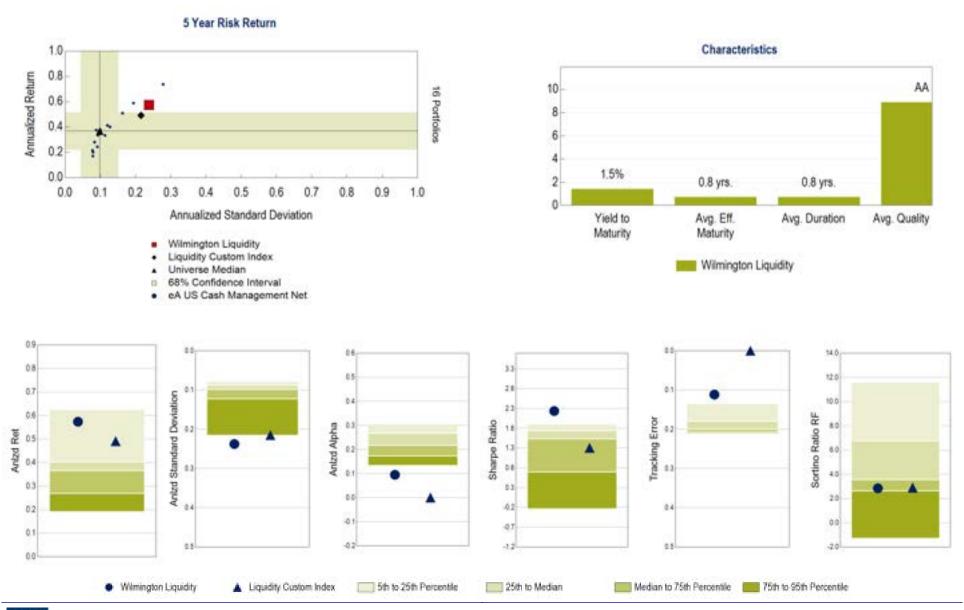
Wilmington Trust Investment Advisors manages a portfolio considered to be the "State of Delaware Wilmington Liquidity Portfolio". The portfolio is a 0-2 year maturity strategy. Using the guidelines and the expected cash flows in or out provided directly from the State, the portfolio is structured accordingly. The bulk of holdings are agency bullets, callable agencies, corporates, commercial paper and asset-backed securities, based on the guideline limitations. It is a fluid strategy based on cash needs and interest rate expectations.







Wilmington Liquidity

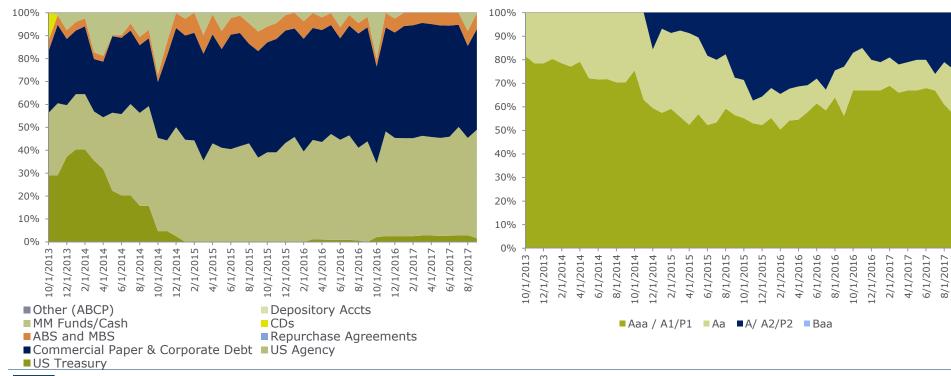




Wilmington Liquidity

	IPS	Aug-17	Sep-17
US Treasury	100%	2.9%	1.6%
US Agency	50%	42.5%	47.4%
Commercial Paper & Corporate Debt	50%	40.2%	43.9%
Repurchase Agreements	50%		
ABS and MBS	10%	6.4%	7.1%
CDs	50%		
MM Funds/Cash	100%	8.0%	0.0%
Depository Accts	50%	2.9%	1.6%
Other (ABCP)	50%		

	Aug-17	Sep-17
Aaa / A1/P1	61.0%	57.0%
Aa	18.0%	19.0%
A	21.0%	24.0%
Baa		
Below Baa/Not Rated		
Average	Aa	Aa





Reserve Manager Review

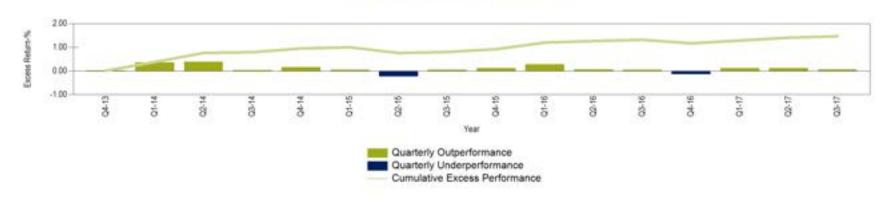


Chandler Asset Management

Chandler Asset Management manages a specialized portfolio. The portfolio has its own blended benchmark composed 75% of the Bank of America Merrill Lynch 1-5 Year Government/Corporates rated "A" or better Index, and 25% of the Bank of America Merrill Lynch 6 month US Treasury Bill Index. Through high-quality fixed income securities, the objective is to earn a total rate of return over a market cycle that equals or exceeds the State of Delaware Custom Index.

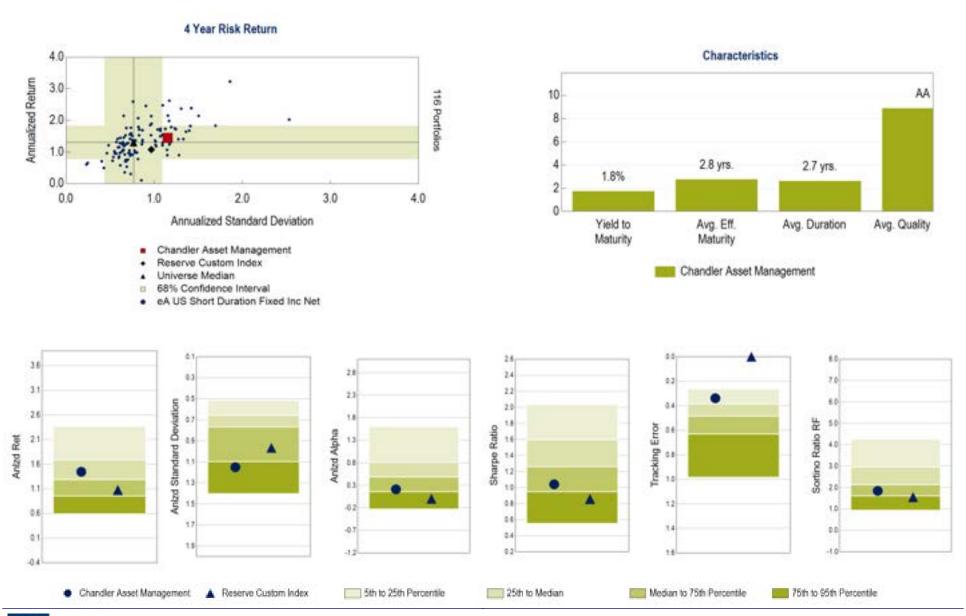


Quarterly and Cumulative Excess Performance





Chandler Asset Management

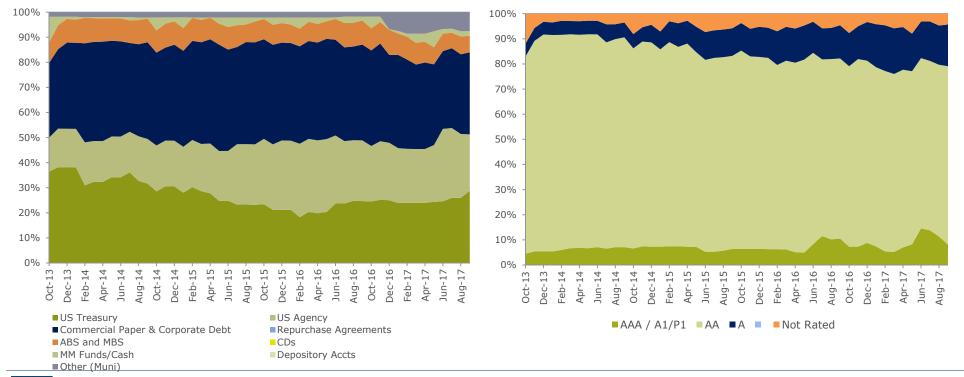




Chandler Asset Management

	IPS	Aug-17	Sep-17
US Treasury	100%	26.0%	28.8%
US Agency	50%	25.5%	22.5%
Commercial Paper & Corporate			
Debt	50%	31.8%	32.7%
Repurchase Agreements	50%		
ABS and MBS	10%	7.1%	6.6%
CDs	50%		
MM Funds/Cash	100%	2.1%	1.8%
Depository Accts	50%		
Other (Muni)	20%	7.6%	7.6%

	Aug-17	Sep-17	
AAA / A1/P1	11.3%	8.1%	
AA	68.3%	71.0%	
A	15.6%	16.6%	
Not Rated	4.7%	4.3%	
Average	AA	AA	



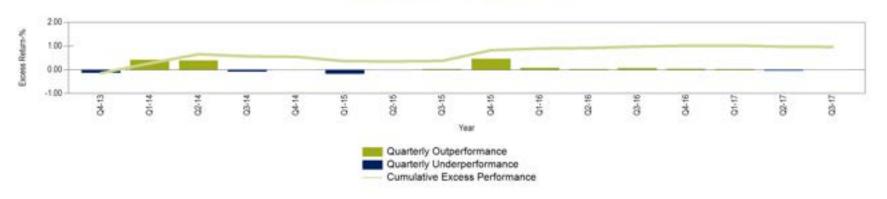


Federated Investors

Federated Investors manages a short-intermediate (1-5 Year) fixed income strategy. The strategy emphasizes the use of a traditional value-based approach using fundamental analysis with teams focused by sector to extract value from each step of the process – analysis of duration, sector, yield curve, security characteristics, and assessment of major long-term indicators such as interest rate direction and volatility. The fixed-income investment process combines top-down decision making with bottom-up security selection to provide a diversified, risk-managed portfolio.

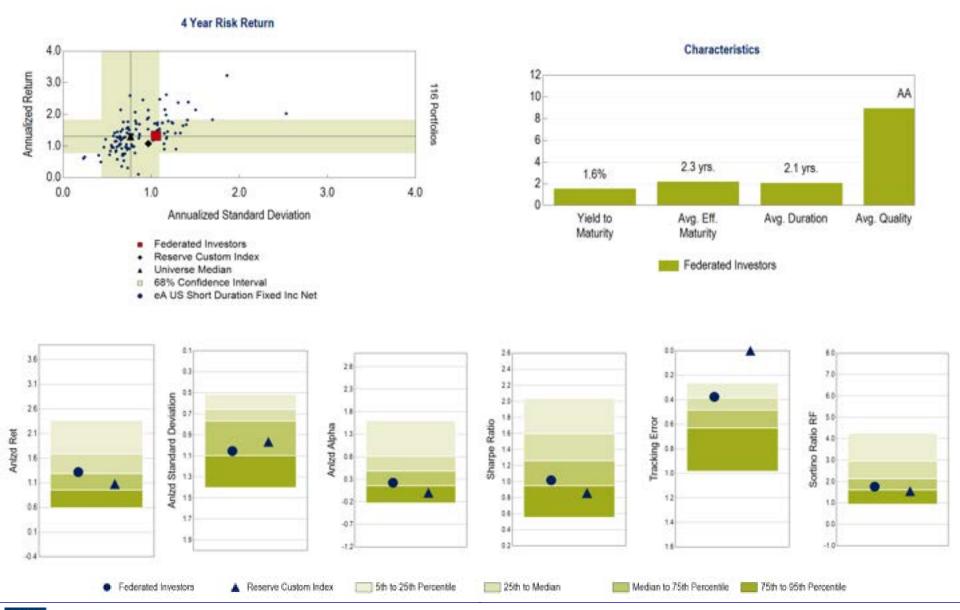


Quarterly and Cumulative Excess Performance





Federated Investors

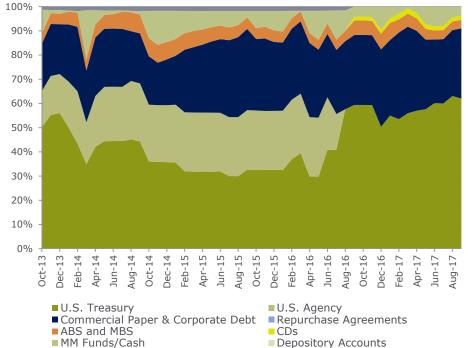


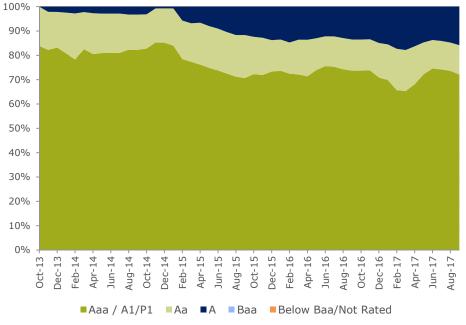


Federated Investors

	IPS	Aug-17	Sep-17
US Treasury	100%	63.1%	62.0%
US Agency	50%	0.0%	0.0%
Commercial Paper & Corporate Debt	50%	27.3%	29.0%
Repurchase Agreements	50%	0.0%	0.0%
ABS and MBS	10%	3.6%	3.5%
CDs	50%	1.7%	1.7%
MM Funds/Cash	100%	4.4%	3.7%
Depository Accts	50%	0.0%	0.0%
Other (ABCP)*	20%	0.0%	0.0%

	Aug-17	Sep-17
Aaa / A1/P1	73.6%	72.1%
Aa	11.6%	12.1%
A	14.8%	15.8%
Baa	0.0%	0.0%
Below Baa/Not Rated		
Average	Aaa	Aa1







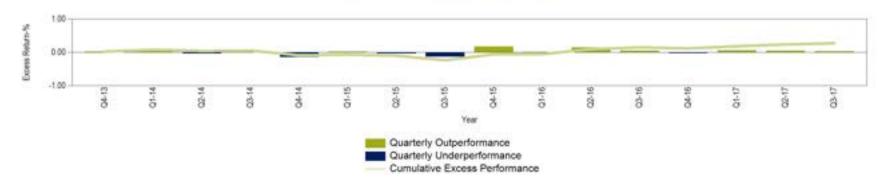
■ Other

JPM Intermediate

J.P. Morgan manages an intermediate bond strategy. The strategy emphasizes identifying securities that are priced inefficiently through a bottom-up, value-oriented methodology. Sector allocation decisions are based on a broad sector and expected return outlook and valuation analysis combined with the bottom up assessment of individual securities. Any overweighting or underweighting is done with respect to the benchmark. Sectors will be emphasized when the sector dynamics are attractive and undervalued securities can be readily identified. The minimum quality rating for an individual security in the portfolio is BBB.

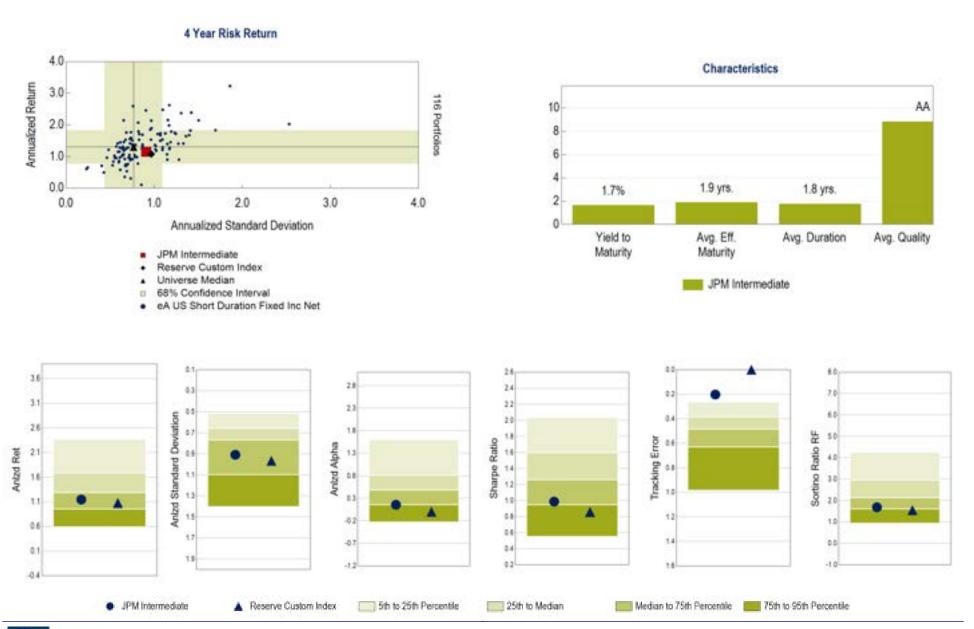


Quarterly and Cumulative Excess Performance





JPM Intermediate

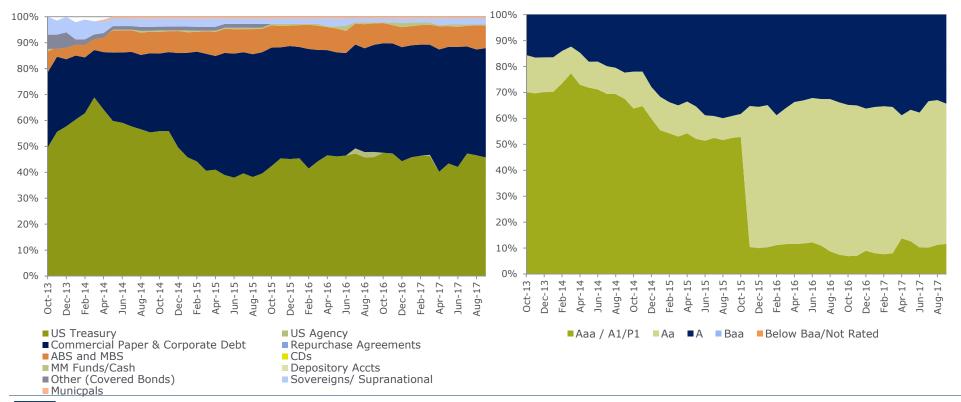




JPM Intermediate

	IPS	Aug-17	Sep-17
US Treasury	100%	46.6%	45.7%
US Agency	50%	0.0%	0.0%
Commercial Paper & Corporate Debt	50%	40.8%	42.2%
Repurchase Agreements	50%	0.0%	0.0%
ABS and MBS	10%	9.3%	8.7%
CDs	50%	0.0%	0.0%
MM Funds/Cash	100%	0.3%	0.4%
Depository Accts	50%	0.0%	0.0%
Other (Covered Bonds)	50%	0.0%	0.0%
Sovereigns/ Supranational	50%	2.3%	2.3%
Municpals	20%	0.7%	0.7%

	Aug-17	Sep-17
Aaa / A1/P1	11.3%	11.6%
Aa	55.8%	54.1%
A	32.9%	34.3%
Baa	0.0%	0.0%
Below Baa/Not Rated	0.0%	0.0%
Average	AA	AA





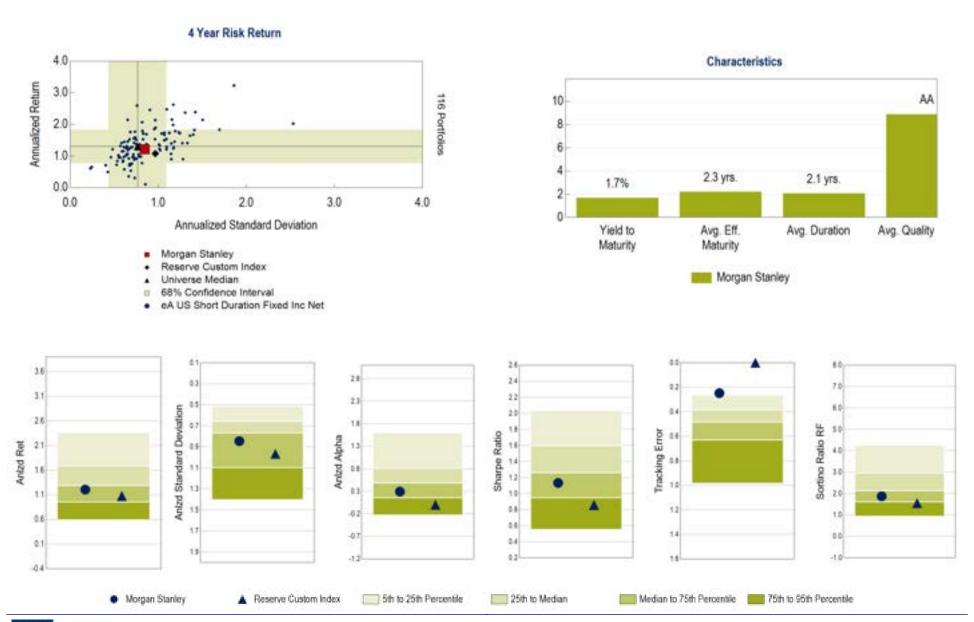
Morgan Stanley

Morgan Stanley manages a US customized limited duration strategy for the State of Delaware. The research process begins with a top-down value assessment of the bond universe, including a consideration of macroeconomic conditions, political and regulatory influences, market technical factors, the corporate earnings environment, and relative valuations. The team focuses on financial risk, business risk and management ability/intentions. The team develops financial models and projections for each issuer and analyzes critical factors such as competitive position, free cash flow and management intentions to develop a fundamental risk view and a relative valuation for each issuer.





Morgan Stanley

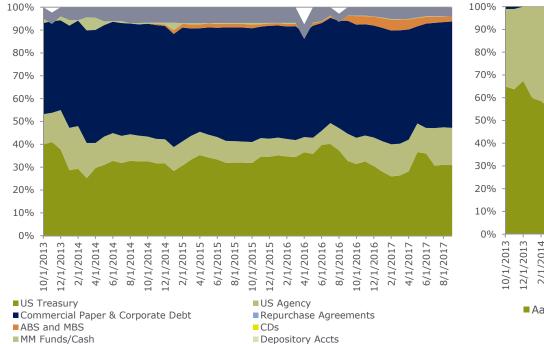


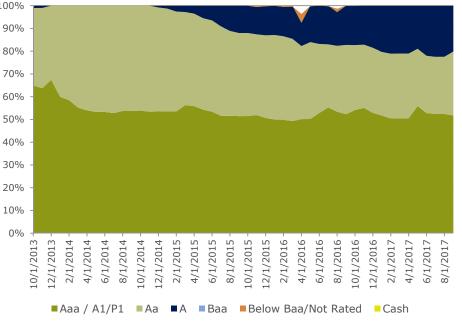


Morgan Stanley

	IPS	Aug-17	Sep-17
US Treasury	100%	31.1%	31.0%
US Agency	50%	16.4%	16.4%
Commercial Paper & Corporate Debt	50%	46.0%	46.7%
Repurchase Agreements	50%		
ABS and MBS	10%	2.4%	2.1%
CDs	50%		
MM Funds/Cash	100%	0.2%	-0.1%
Depository Accts	50%		
Other (ABCP)*	20%	4.0%	4.0%

	Aug-17	Sep-17
Aaa / A1/P1	52.4%	51.8%
Aa	25.1%	28.1%
A	22.4%	20.1%
Baa		
Below Baa/Not Rated	0.0%	0.0%
Average	AA	AA

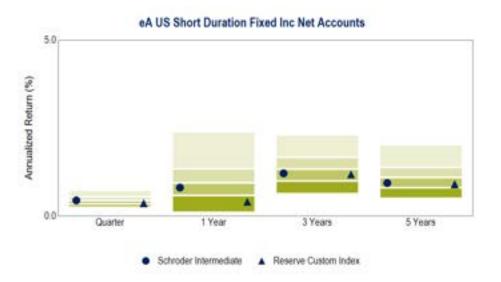




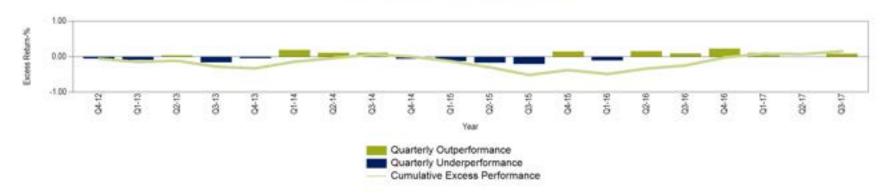
■ Other (Municipal and Non US Government)

Schroder Intermediate

Schroders manages an intermediate duration strategy for the Reserve and Health Fund Endowment portfolio. The strategy has historically been managed with the primary objectives of capital preservation and the ability to be a provider of liquidity whenever called upon. The secondary objective has been to maximize return as efficiently as possible within these parameters. The investment philosophy employed is that the bond markets are global, inter-related and generally efficient, but can overreact to events in the short term. The investment process combines both top-down and bottom-up components, and internal, macroeconomic analysis identifies long-term trends that will impact markets. The process seeks to achieve objectives by diversifying risks across investment types, decision styles, and investment horizons.

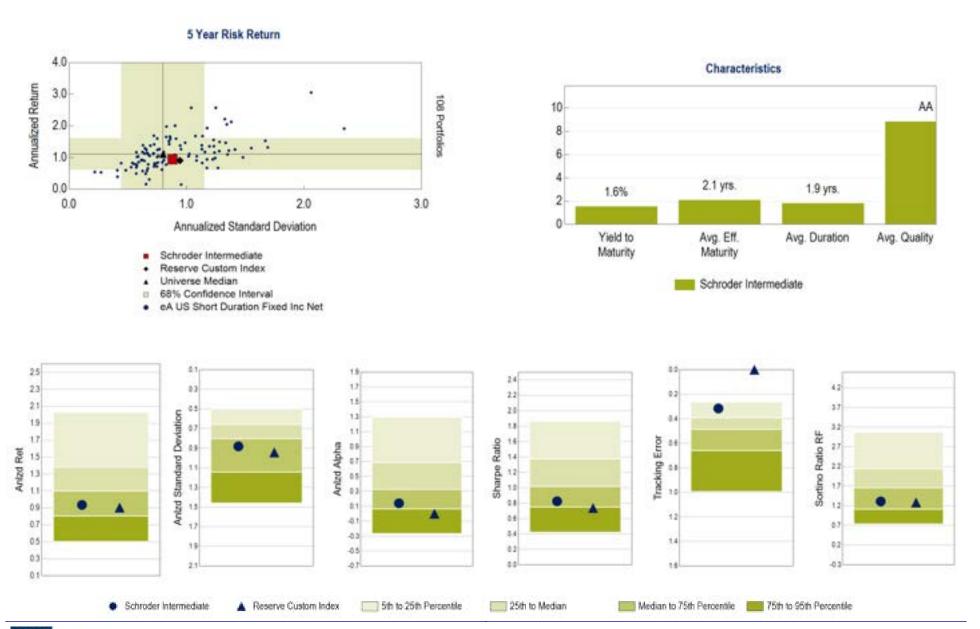


Quarterly and Cumulative Excess Performance





Schroder Intermediate

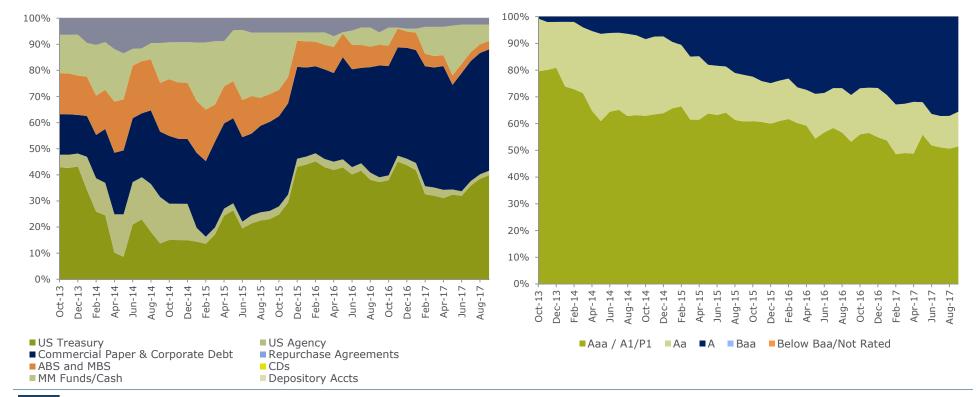




Schroder Intermediate

	IPS	Aug-17	Sep-17
US Treasury	100%	38.5%	39.8%
US Agency	50%	1.7%	1.7%
Commercial Paper & Corporate Debt	50%	46.5%	46.5%
Repurchase Agreements	50%	0.0%	0.0%
ABS and MBS	10%	3.3%	3.2%
CDs	50%	0.0%	0.0%
MM Funds/Cash	100%	7.5%	6.2%
Depository Accts	50%	0.0%	0.0%
Other (ABCP)*	20%	2.4%	2.4%

	Aug-17	Sep-17
Aaa / A1/P1	50.3%	52.0%
Aa	12.1%	13.1%
A	36.8%	35.9%
Average	AA	AA





Endowment Manager Review

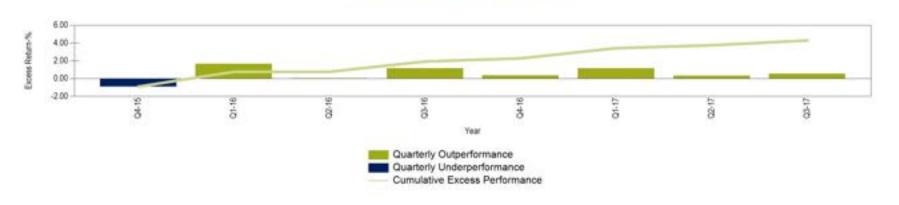


SEI Funds

SEI Funds manages a multi-asset class portfolio subject to a 60% target equity allocation which will be held in a range of 45% to 75%, with international equities not to exceed 35% of the equity allocation. A combination of fixed income, alternative investments, and cash will account for the remaining 40% target allocation. Funds will be managed by the following SEI strategies: SEI US Managed Volatility Strategy, SEI S&P 500 Index Strategy, SEI Extended Markets Index Strategy, SEI Small Cap II Equity Strategy, SEI World Equity ex-US Strategy, SEI Core Fixed Income Strategy, SEI High Yield Strategy, and SEI Emerging Markets Debt Strategy.

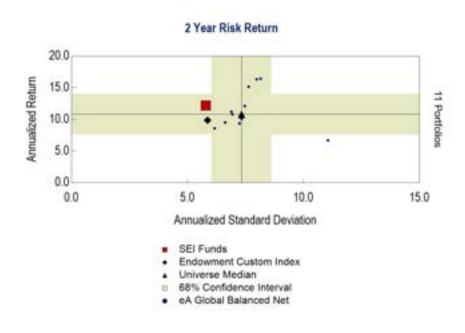


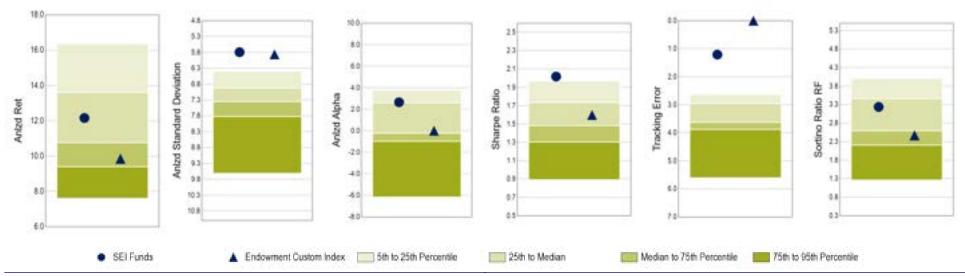
Quarterly and Cumulative Excess Performance





SEI Funds







MSIFT Global Strategist

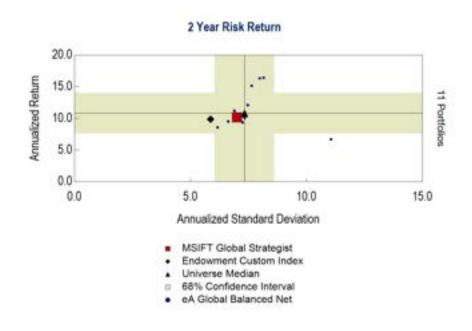
Morgan Stanley manages a multi-asset class portfolio. The portfolio seeks to achieve its investment objective by investing primarily in a blend of equity and fixed income securities of U.S. and non-U.S. issuers. The equity portfolio will be diversified by types of securities (i.e. common and preferred shares of equity), issuer, industry and sectors. The fixed income portfolio will be diversified by security types (i.e government, agency and corporate bonds), issuer, duration and yield characteristics.

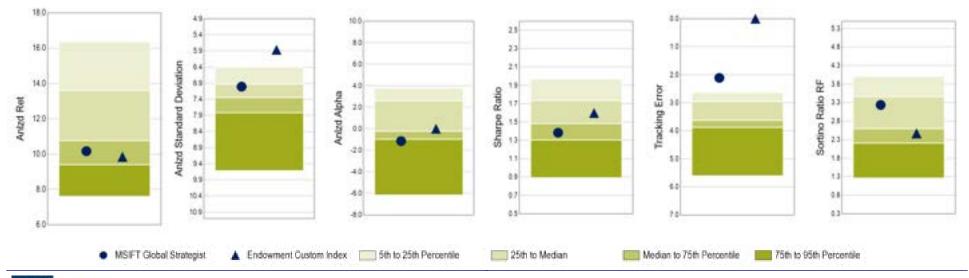


Quarterly and Cumulative Excess Performance 2:00 Excess Return-% 1.00 0.00 -1.00 -2.00 -3.00 -4.00 04-15 01-16 02.16 03-16 94-18 01:17 20-17 03-17 Year Quarterly Outperformance Quarterly Underperformance Cumulative Excess Performance



MSIFT Global Strategist

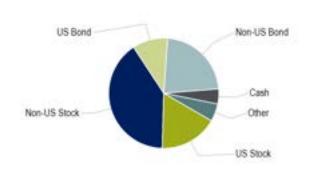






MSIFT Global Strategist

Mutual Fund Allocation as of June 30, 2017



Portfolio Fund Information as of June 30, 2017		
Ticker	MPBAX	
Morningstar Category	World Allocation	
Average Market Cap (\$mm)	46,297.84	
Net Assets (\$mm)	78.75	
% Assets in Top 10 Holdings	39.90	
Total Number of Holdings	1,585	
Manager Name	Mark A. Bavoso	
Manager Tenure	7	
Expense Ratio	0.74%	
Closed to New Investors	No	

Fund Characteristics as of June 30, 2017

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Sharpe Ratio (3 Year)	
Average Market Cap (\$mm)	46,297.84
Price/Earnings	16.30
Price/Book	1.91
Price/Sales	1.33
Price/Cash Flow	5.93
Dividend Yield	3.04
Number of Equity Holdings	1,181
R-Squared (3 Year)	
Alpha (3 Year)	

Top Holdings as of June 30, 2017

S+P500 EMINI FUT SEP17 XCME 20170915	12.17%
MINI MSCI EMG MKT SEP17 IFUS 20170915	5.72%
US 10YR ULTRA FUT SEP17 XCBT 20170920	4.84%
MS INST. FUND TRUST GLBL STRATEGIST CAYMAN POR LTD	4.45%
US 2YR NOTE (CBT) SEP17 XCBT 20170929	2.83%
EURO STOXX 50 SEP17 XEUR 20170915	2.62%
BMI56DKF1 IRS EUR R V 06MEURIB II9885450161207 CCPVANILLA	1.86%
BMI56DKF1 IRS EUR P F .73100 II9908210161207 CCPVANILLA	1.84%
BMI4PWYE9 IRS EUR R V 06MEURIB II6295410160610 CCPVANILLA	1.80%
BMI4PWYE9 IRS EUR P F .45500 II6299190160610 CCPVANILLA	1.75%

Sector Allocation as of June 30, 2017

BASIC MATERIALS	2.47%
COMMUNICATION SERVICES	1.83%
CONSUMER CYCLICAL	3.78%
CONSUMER DEFENSIVE	4.56%
ENERGY	1.66%
FINANCIAL SERVICES	8.03%
HEALTHCARE	5.35%
INDUSTRIALS	5.11%
REAL ESTATE	0.83%
TECHNOLOGY	3.34%
UTILITIES	1.42%

Characteristics have not been released for the third quarter.



JP Morgan Diversified

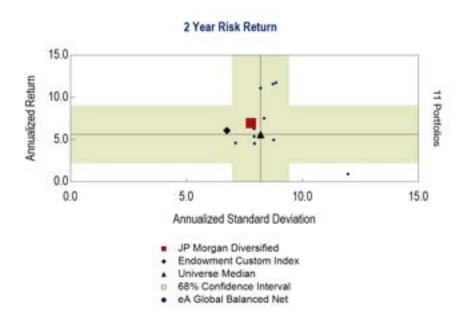
J.P Morgan manages a diversified mutli-asset class portfolio. The strategy seeks to provide a high total return from a diversified portfolio of equity and fixed income investments based on a model allocation. JP Morgan may periodically increase or decrease the Fund's actual asset allocation according to the relative attractiveness of each asset class. Within its equity allocations, the Fund primarily invests in the common stock and convertible securities of U.S. and foreign companies. Within its fixed income allocations, the Fund primarily invests in corporate bonds, mortgage-backed securities, mortgage "dollar rolls" and U.S. government securities.

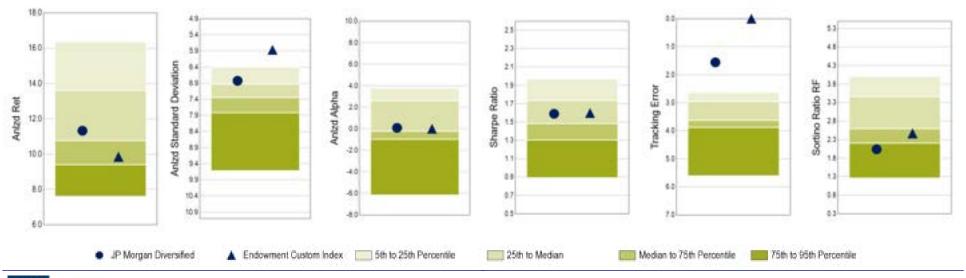


Quarterly and Cumulative Excess Performance 4.00 Excess Return-5 2.00 0.00 -2.00 4.00 04-15 01-16 02.16 03-16 94-18 01:17 20.17 03-17 Quarterly Outperformance Quarterly Underperformance Cumulative Excess Performance



JP Morgan Diversified







JP Morgan Diversified



Portfolio Fund Information as of September 30, 2017

Ticker	JPDVX			
Morningstar Category	Allocation50% to 70% Equity			
Average Market Cap (\$mm)	39,639.36			
Net Assets (\$mm)	1,211.81			
% Assets in Top 10 Holdings	20.63			
Total Number of Holdings	2,595			
Manager Name	Michael Schoenhaut			
Manager Tenure	8			
Expense Ratio	0.79%			

Fund Characteristics as of September 30, 2017

Sharpe Ratio (3 Year)	
Average Market Cap (\$mm)	39,639.36
Price/Earnings	18.10
Price/Book	2.32
Price/Sales	1.73
Price/Cash Flow	7.44
Dividend Yield	2.18
Number of Equity Holdings	945
R-Squared (3 Year)	
Alpha (3 Year)	

Top Holdings as of September 30, 2017

Top Holdings as of ocptember 30, 2017			
JPMORGAN HIGH YIELD R6	3.89%		
JPMORGAN EMERGING MARKETS EQUITY R6	3.26%		
JPMORGAN MID CAP EQUITY R6	3.03%		
JPMORGAN REALTY INCOME R6	2.89%		
JPMORGAN EMERGING MARKETS DEBT R6	2.15%		
JPMORGAN EMERGING MARKETS STRAT DBT R6	1.71%		
APPLE INC	1.22%		
MICROSOFT CORP	0.96%		
ALPHABET INC C	0.77%		
UNITEDHEALTH GROUP INC	0.75%		

Sector Allocation as of September 30, 2017

dector Anocation as of deptember 30, 2017				
BASIC MATERIALS	4.48%			
COMMUNICATION SERVICES	2.37%			
CONSUMER CYCLICAL	12.97%			
CONSUMER DEFENSIVE	6.46%			
ENERGY	5.09%			
FINANCIAL SERVICES	19.95%			
HEALTHCARE	9.71%			
INDUSTRIALS	11.29%			
REAL ESTATE	6.26%			
TECHNOLOGY	18.87%			
UTILITIES	2.55%			

Characteristics have not been released for the second quarter.





Glossary of Investment Terminology – Risk Statistics

Alpha - Measures the relationship between the fund performance and the performance of another fund or benchmark index and equals the excess return while the other fund or benchmark index is zero.

Alpha Jensen - The average return on a portfolio over and above that predicted by the capital asset pricing model (CAPM), given the portfolio's beta and the average market return. Also known as the abnormal return or the risk adjusted excess return.

Annualized Excess Return over Benchmark - Annualized fund return minus the annualized benchmark return for the calculated return.

Annualized Return - A statistical technique whereby returns covering periods greater than one year are converted to cover a 12 month time span.

Beta - Measures the volatility or systematic risk and is equal to the change in the fund's performance in relation to the change in the assigned index's performance.

Information Ratio - A measure of the risk adjusted return of a financial security, asset, or portfolio.

Formula:

(Annualized Return of Portfolio - Annualized Return of Benchmark)/Annualized Standard Deviation(Period Portfolio Return - Period Benchmark Return). To annualize standard deviation, multiply the deviation by the square root of the number of periods per year where monthly returns per year equals 12 and quarterly returns is four periods per year.

R-Squared – Represents the percentage of a fund's movements that can be explained by movements in an index. R-Squared values range from 0 to 100. An R-Squared of 100 denotes that all movements of a fund are completely explained by movements in the index.

Sharpe Ratio - A measure of the excess return or risk premium per unit of risk in an investment asset or trading strategy.

Sortino Ratio - A method to differentiate between good and bad volatility in the Sharpe Ratio. The differentiation of up and down volatility allows the calculation to provide a risk adjusted measure of a security or fund's performance without upward price change penalties.

Formula:

Calculation Average (X-Y)/Downside Deviation (X-Y) * 2 Where X=Return Series X Y = Return Series Y which is the risk free return (91 day T-bills) **Standard Deviation** - The standard deviation is a statistical term that describes the distribution of results. It is a commonly used measure of volatility of returns of a portfolio, asset class, or security. The higher the standard deviation the more volatile the returns are.

Formula:

(Annualized Return of Portfolio – Annualized Return of Risk Free) / Annualized Standard Deviation (Portfolio Returns)

Tracking Error - Tracking error, also known as residual risk, is a measure of the degree to which a portfolio tracks its benchmark. It is also a measure of consistency of excess returns. Tracking error is computed as the annualized standard deviation of the difference between a portfolio's return and that of its benchmark.

Formula:

Tracking Error = Standard Deviation $(X-Y) * \sqrt{(\# of periods per year)}$ Where X = periods portfolio return and <math>Y = the period's benchmark returnFor monthly returns, the periods per year = 12 For quarterly returns, the periods per year = 4

Treynor Ratio - A risk-adjusted measure of return based on systematic risk. Similar to the Sharpe ratio with the difference being the Treynor ratio uses beta as the measurement of volatility.

Formula:

(Portfolio Average Return - Average Return of Risk-Free Rate)/Portfolio Beta

Up/Down Capture Ratio - A measure of what percentage of a market's returns is "captured" by a portfolio. For example, if the market declines 10% over some period, and the manager declines only 9%, then his or her capture ratio is 90%. In down markets, it is advantageous for a manager to have as low a capture ratio as possible. For up markets, the higher the capture ratio the better. Looking at capture ratios can provide insight into how a manager achieves excess returns. A value manager might typically have a lower capture ratio in both up and down markets, achieving excess returns by protecting on the downside, whereas a growth manager might fall more than the overall market in down markets, but achieve above-market returns in a rising market.

UpsideCapture = TotalReturn(FundReturns)/TotalReturns(BMReturn) when Period Benchmark Return is > = 0

DownsideCapture = TotalReturn(FundReturns)/TotalReturns(BMReturn) when Benchmark <0

Source: Investor Force



Glossary of Investment Terminology

Of Portfolios/Observations1 – The total number of data points that make up a specified universe

Allocation Index³ - The allocation index measures the value added (or subtracted) to each portfolio by active management. It is calculated monthly: The portfolio asset allocation to each category from the prior month-end is multiplied by a specified market index.

Asset Allocation Effect² - Measures an investment manager's ability to effectively allocate their portfolio's assets to various sectors. The allocation effect determines whether the overweighting or underweighting of sectors relative to a benchmark contributes positively or negatively to the overall portfolio return. Positive allocation occurs when the portfolio is over weighted in a sector that outperforms the benchmark and underweighted in a sector that underperforms the benchmark. Negative allocation occurs when the portfolio is over weighted in a sector that underperforms the benchmark and under weighted in a sector that outperforms the benchmark.

Agency Bonds (Agencies)³ - The full faith and credit of the United States government is normally not pledged to payment of principal and interest on the majority of government agencies issuing these bonds, with maturities of up to ten years. Their yields, therefore, are normally higher than government and their marketability is good, thereby qualifying them as a low risk-high liquidity type of investment. They are eligible as security for advances to the member banks by the Federal Reserve, which attests to their standing.

Asset Backed Securities (ABS)³ - Bonds which are similar to mortgagebacked securities but are collateralized by assets other than mortgages; commonly backed by credit card receivables, auto loans, or other types of consumer financing.

Attribution³ - Attribution is an analytical technique that allows us to evaluate the performance of the portfolio relative to the benchmark. A proper attribution tells us where value was added or subtracted as a result of the manager's decisions.

Average Effective Maturity⁴ - For a single bond, it is a measure of maturity that takes into account the possibility that a bond might be called back to the issuer.

For a portfolio of bonds, average effective maturity is the weighted average of the maturities of the underlying bonds. The measure is computed by weighing each bond's maturity by its market value with respect to the portfolio and the likelihood of any of the bonds being called. In a pool of mortgages, this would also account for the likelihood of prepayments on the mortgages.

Batting Average¹ - A measurement representing an investment manager's ability to meet or beat an index.

Formula: Divide the number of days (or months, quarters, etc.) in which the manager beats or matches the index by the total number of days (or months, quarters, etc.) in the period of question and multiply that factor by 100.

Brinson Fachler (BF) Attribution¹ - The BF methodology is a highly accepted industry standard for calculating the allocation, selection, and interaction effects within a portfolio that collectively explains a portfolio's underlying performance. The main advantage of the BF methodology is that rather than using the overall return of the benchmark, it goes a level deeper than BHB and measures whether the benchmark sector, country, etc. outperformed/or underperformed the overall benchmark.

Brinson Hood Beebower (BHB) Attribution¹ - The BHB methodology shows that excess return must be equal to the sum of all other factors (i.e., allocation effect, selection effect, interaction effect, etc.). The advantage to using the BHB methodology is that it is a highly accepted industry standard for calculating the allocation, selection, and interaction effects within a portfolio that collectively explains a portfolio's underlying performance.

Corporate Bond (Corp) ⁴ - A debt security issued by a corporation and sold to investors. The backing for the bond is usually the payment ability of the company, which is typically money to be earned from future operations. In some cases, the company's physical assets may be used as collateral for bonds.

Correlation¹ - A range of statistical relationships between two or more random variables or observed data values. A correlation is a single number that describes the degree of relationship between variables.

Data Source: ¹InvestorForce, ²Interaction Effect Performance Attribution, ³NEPC, LLC, ⁴Investopedia, ⁵Hedgeco.net



Glossary of Investment Terminology

Coupon⁴ – The interest rate stated on a bond when it is issued. The coupon is typically paid semiannually. This is also referred to as the "coupon rate" or "coupon percent rate."

Currency Effect¹ - Is the effect that changes in currency exchange rates over time affect excess performance.

Derivative Instrument³ - A financial obligation that derives its precise value from the value of one or more other instruments (or assets) at the same point of time. For example, the relationship between the value of an S&P 500 futures contract (the derivative instrument in this case) is determined by the value of the S&P 500 Index and the value of a U.S. Treasury bill that matures at the expiration of the futures contract.

Downside Deviation - Equals the standard deviation of negative return or the measure of downside risk focusing on the standard deviation of negative returns.

Formula:

Annualized Standard Deviation (Fund Return - Average Fund Return) where average fund return is greater than individual fund returns, monthly or quarterly.

Duration³ - Duration is a measure of interest rate risk. The greater the duration of a bond, or a portfolio of bonds, the greater its price volatility will be in response to a change in interest rates. A bond's duration is inversely related to interest rates and directly related to time to maturity.

Equity/Debt/Cash Ratio¹ – The percentage of an investment or portfolio that is in Equity, Debt, and/or Cash (i.e. A 7/89/4 ratio represents an investment that is made up of 7% Equity, 89% Debt, and 4% Cash).

Foreign Bond³ - A bond that is issued in a domestic market by a foreign entity, in the domestic market's currency. A foreign bond is most often issued by a foreign firm to raise capital in a domestic market that would be most interested in purchasing the firm's debt. For foreign firms doing a large amount of business in the domestic market, issuing foreign bonds is a common practice.

Hard Hurdle⁵ – is a hurdle rate that once beaten allows a fund manager to charge a performance fee on only the funds above the specified hurdle rate.

High-Water Mark⁴ - The highest peak in value that an investment fund/ account has reached. This term is often used in the context of fund manager compensation, which is performance based. Some performance-based fees only get paid when fund performance exceeds the high-water mark. The high-water mark ensures that the manager does not get paid large sums for poor performance.

Hurdle Rate⁴ - The minimum rate of return on an investment required, in order for a manager to collect incentive fees from the investor, which is usually tied to a benchmark.

Interaction Effects² - The interaction effect measures the combined impact of an investment manager's selection and allocation decisions within a sector. For example, if an investment manager had superior selection and over weighted that particular sector, the interaction effect is positive. If an investment manager had superior selection, but underweighted that sector, the interaction effect is negative. In this case, the investment manager did not take advantage of the superior selection by allocating more assets to that sector. Since many investment managers consider the interaction effect to be part of the selection or the allocation, it is often combined with the either effect.

Median³ - The value (rate of return, market sensitivity, etc.) that exceeds one-half of the values in the population and that is exceeded by one-half of the values. The median has a percentile rank of 50.

Modified Duration³ - The percentage change in the price of a fixed income security that results from a change in yield.

Mortgage Backed Securities (MBS)³ - Bonds which are a general obligation of the issuing institution but are also collateralized by a pool of mortgages.

Municipal Bond (Muni) ⁴ - A debt security issued by a state, municipality or county to finance its capital expenditures.

Net Investment Change¹ – Is the change in an investment after accounting for all Net Cash Flows.

Performance Fee⁴ - A payment made to a fund manager for generating positive returns. The performance fee is generally calculated as a percentage of investment profits, often both realized and unrealized.

Data Source: ¹InvestorForce, ²Interaction Effect Performance Attribution, ³NEPC, LLC, ⁴Investopedia, ⁵Hedgeco.net



Glossary of Investment Terminology

Policy Index³ - A custom benchmark designed to indicate the returns that a passive investor would earn by consistently following the asset allocation targets set forth in this investment policy statement.

Price to Book (P/B)⁴ - A ratio used to compare a stock's market value to its book value. It is calculated by dividing the current closing price of the stock by the latest quarter's book value per share, also known as the "price-equity ratio".

Price to Earnings (P/E)³ - The weighted equity P/E is based on current price and trailing 12 months earnings per share (EPS).

Price to Sales (P/S)⁴ - A ratio for valuing a stock relative to its own past performance, other companies, or the market itself. Price to sales is calculated by dividing a stock's current price by its revenue per share for the trailing 12 months.

Return on Equity (ROE)⁴ - The amount of net income returned as a percentage of shareholders equity. Return on equity measures a corporation's profitability by revealing how much profit a company generates with the money shareholders have invested.

Selection (or Manager) Effect² - Measures the investment manager's ability to select securities within a given sector relative to a benchmark. The over or underperformance of the portfolio is weighted by the benchmark weight, therefore, selection is not affected by the manager's allocation to the sector. The weight of the sector in the portfolio determines the size of the effect—the larger the sector, the larger the effect is, positive or negative.

Soft Hurdle rate⁵ – is a hurdle rate that once beaten allows a fund manager to charge a performance fee based on the entire annualized return.

Tiered Fee¹ – A fee structure that is paid to fund managers based on the size of the investment (i.e. 1.00% fee on the first \$10M invested, 0.90% on the next \$10M, and 0.80% on the remaining balance).

Total Effects² - The active management (total) effect is the sum of the selection, allocation, and interaction effects. It is also the difference between the total portfolio return and the total benchmark return. You can use the active management effect to determine the amount the investment manager has added to a portfolio's return.

Total Return¹ - The actual rate of return of an investment over a specified time period. Total return includes interest, capital gains, dividends, and distributions realized over a defined time period.

Universe3 - The list of all assets eligible for inclusion in a portfolio.

Upside Deviation - Standard Deviation of Positive Returns

Weighted Avg. Market Cap.⁴ - A stock market index weighted by the market capitalization of each stock in the index. In such a weighting scheme, larger companies account for a greater portion of the index. Most indexes are constructed in this manner, with the best example being the S&P 500.

Yield (%)³ - The current yield of a security is the current indicated annual dividend rate divided by current price.

Yield to Maturity³ -The discount rate that equates the present value of cash flows, both principal and interest, to market price.

Data Source: ¹InvestorForce, ²Interaction Effect Performance Attribution, ³NEPC, LLC, ⁴Investopedia, ⁵Hedgeco.net



Information Disclaimer and Reporting Methodology

Information Disclaimer

- Past performance is no guarantee of future results.
- All investments carry some level of risk. Diversification and other asset allocation techniques are not guaranteed to ensure profit or protect against losses.
- NEPC's source for portfolio pricing, calculation of accruals, and transaction information is the plan's custodian bank.
 Information on market indices and security characteristics is received from other sources external to NEPC. While NEPC has exercised reasonable professional care in preparing this report, we cannot guarantee the accuracy of all source information contained within.
- Some index returns displayed in this report or used in calculation of a policy, allocation or custom benchmark may be preliminary and subject to change.
- This report is provided as a management aid for the client's internal use only. Information contained in this report does not constitute a recommendation by NEPC.
- This report may contain confidential or proprietary information and may not be copied or redistributed to any party not legally entitled to receive it.

Reporting Methodology

- The client's custodian bank is NEPC's preferred data source unless otherwise directed. NEPC generally reconciles custodian data to manager data. If the custodian cannot provide accurate data, manager data may be used.
- Trailing time period returns are determined by geometrically linking the holding period returns, from the first full month after inception to the report date. Rates of return are annualized when the time period is longer than a year. Performance is presented gross and/or net of manager fees as indicated on each page.
- For managers funded in the middle of a month, the "since inception" return will start with the first full month, although actual inception dates and cash flows are taken into account in all Composite calculations.
- This report may contain forward-looking statements that are based on NEPC's estimates, opinions and beliefs, but NEPC cannot guarantee that any plan will achieve its targeted return or meet other goals.

