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Capital Markets Review



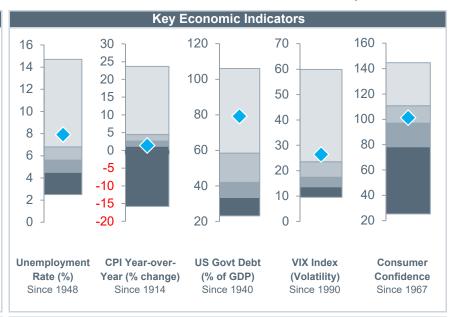
Capital Markets Review As of September 30, 2020

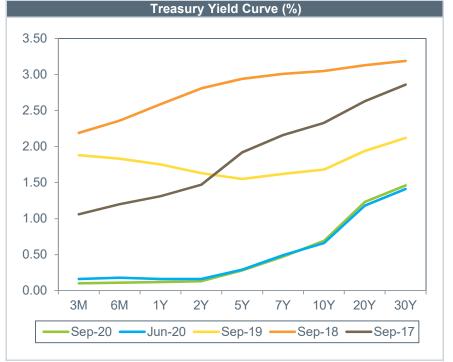
Third Quarter Economic Environment

In the first two months of Q3, capital markets generally tracked trends stemming from the latter half of Q2. After strong results in the first two months of the guarter, returns from risk assets reversed in September due to growing concerns over a stagnating recovery and reduced confidence that the US Congress could agree to enact further fiscal stimulus. In addition, the upcoming US presidential and congressional elections offer another source of uncertainty when building expectations for the ongoing economic recovery. The Federal Open Market Committee (FOMC) maintained its accommodative stance and boosted sentiment further by announcing it will use an average inflation target indicating that it could accept levels above its stated 2% target in future periods. Market participants largely saw this as an indication that policy could remain supportive for longer than expected with a fixed inflation target. As of October 1st, the Atlanta Fed's GDPNow annualized estimate for Q3 growth stood at 34.6% which stands in stark contrast to the final reading of the Q2 GDP decline of -31.4%. On a non-annualized basis, the decline in real US GDP, peak to trough, was -10.1%, according to JP Morgan, compared to a -4.0% decline during the great financial crisis. For calendar year 2020, the OECD released a projection in September for a -4.5% contraction in global GDP, which represented an improvement from its June projection for a -6.0% contraction.

Economic Indicators	Sep-20		Jun-20	Sep-19	Sep-17	20 Yr
Federal Funds Rate (%)	0.09	lack	0.08	1.90	1.06	1.57
Breakeven Infl 5 Yr (%)	1.49		1.17	1.35	1.78	1.82
Breakeven Infl 10 Yr (%)	1.63	\blacktriangle	1.34	1.52	1.85	2.01
CPI YoY (Headline) (%)	1.4		0.6	1.7	2.2	2.1
Unemployment Rate (%)	7.9	\blacksquare	11.1	3.5	4.2	6.0
Real GDP YoY (%)	-2.9	\blacktriangle	-9.0	2.1	2.4	1.8
PMI - Manufacturing	55.4		52.6	48.2	59.9	52.5
USD Total Wtd ldx	117.35	\blacksquare	120.86	117.99	110.08	103.23
WTI Crude Oil per Barrel (\$)	40.2		39.3	54.1	51.7	62.2
Gold Spot per Oz (\$)	1,886	A	1,781	1,472	1,280	989

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Market Performance (%)	QTD	CYTD	1 Yr	5 Yr	10 Yr
S&P 500 (Cap Wtd)	8.93	5.57	15.15	14.15	13.74
Russell 2000	4.93	-8.69	0.39	8.00	9.85
MSCI EAFE (Net)	4.80	-7.09	0.49	5.26	4.62
MSCI EAFE SC (Net)	10.25	-4.20	6.84	7.37	7.33
MSCI Emg Mkts (Net)	9.56	-1.16	10.54	8.97	2.51
Bloomberg US Agg Bond	0.62	6.79	6.98	4.18	3.64
ICE BofAML 3 Mo US T-Bill	0.04	0.64	1.10	1.20	0.64
NCREIF ODCE (Gross)	0.48	-0.12	1.39	6.64	10.27
FTSE NAREIT Eq REIT (TR)	1.44	-17.54	-18.16	3.95	7.90
HFRI FOF Comp	4.24	2.55	5.71	3.09	2.88
Bloomberg Cmdty (TR)	9.07	-12.08	-8.20	-3.09	-6.03
Bloomborg officially (111)	0.01	12.00	0.20	0.00	0.00







US Equity Review As of September 30, 2020

Third Quarter Review

Broad Market

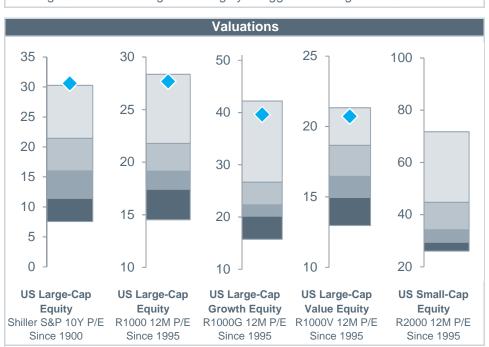
In Q3, US markets continued their climb from the Q1 selloff, bolstered by substantial pent-up demand being released with re-openings across the country and continued accommodative monetary policy. Domestic equities continued their strong performance from Q2, albeit to a lesser extent, with the S&P 500 hitting an all-time high in early September before a slight drawback to finish the quarter. The S&P 500 ended Q3 up 8.9%, with positive YTD returns of 5.57%.

Market Cap

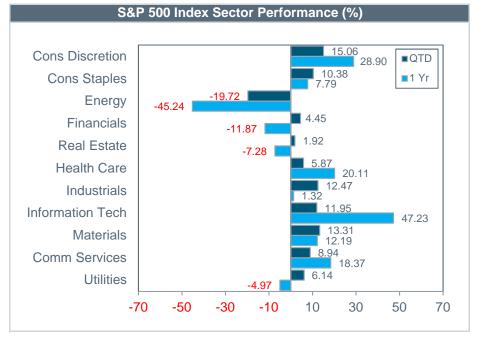
Additionally, larger cap stocks fared best in Q3, a reversal of what was seen in Q2. The Russell Top 200 finished Q3 ahead of its smaller-cap counterparts, returning 10.2%, while the Russell 2000 and Mid Cap indexes returned 4.9% and 7.5%, respectively.

Style and Sector

Growth led value across all market caps by a significant margin once again during Q3. Active management largely struggled once again in Q3.



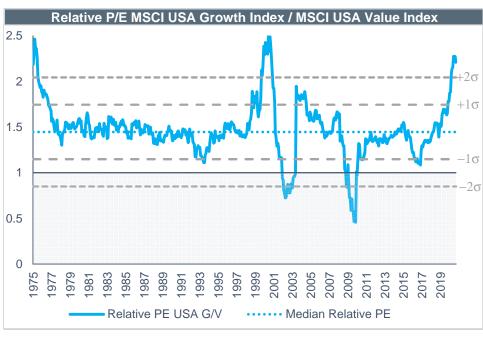


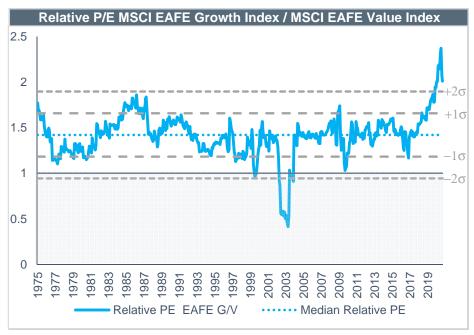


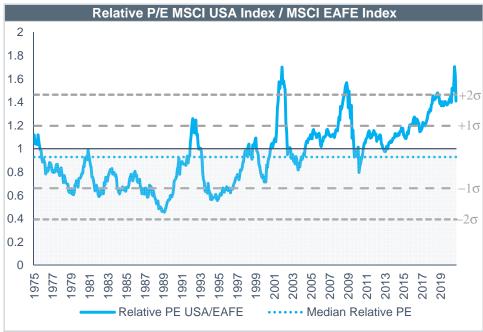
Valuation data courtesy of Bloomberg Professional Service and Robert J. Shiller, Irrational Exuberance, Second Edition. P/E metrics shown represent the 5th through 95th percentiles to minimize the effect of outliers. Current R2000 P/E is unavailable and does not appear in the historical ranges.



Extreme Pricing Conditions As of September 30, 2020

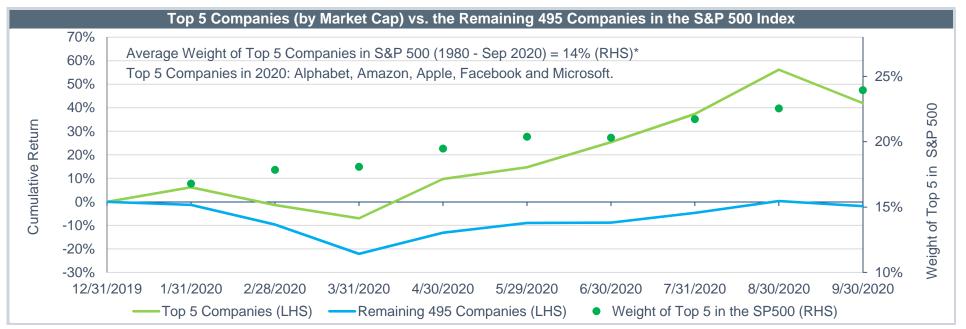


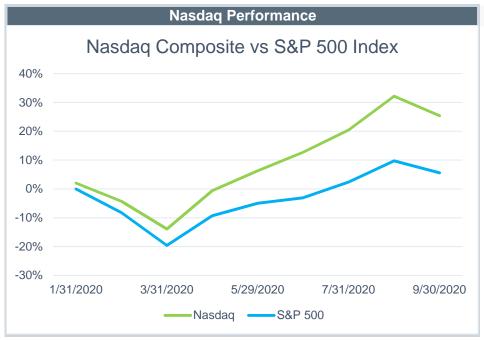


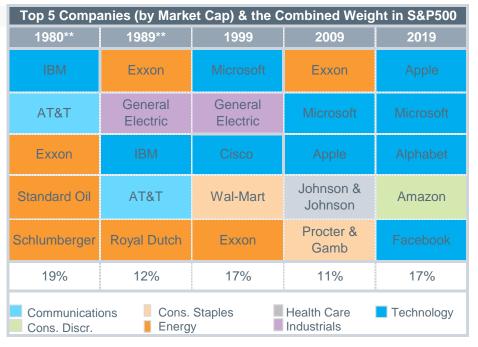




Relative valuation ratios are based on historical P/E ratios using trailing 12-month EPS, courtesy of MSCI. Treasury yield data courtesy of Robert Shiller. Data use monthly periodicity. Sigma symbol represents standard deviation.







Data courtesy of Bloomberg Professional Service except when noted. Cumulative returns are calculated assuming hypothetical portfolios consisting of the top 5 companies and of the remaining 495 companies; the weights for each hypothetical portfolio are adjusted based on the actual month end market cap. LHS and RHS refer to the left hand side axis and right hand side axis, respectively.

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^{*}Source: Goldman Sachs Portfolio Strategy Research, "U.S. Kickstart" - April 24, 2020.

^{**}Source: Visual History of the S&P 500 at https://etfdb.com/history-of-the-s-and-p-500/ . The earliest data available is from Jan 1980.

Non-US Equity Review

As of September 30, 2020

Third Quarter Review

Developed Markets

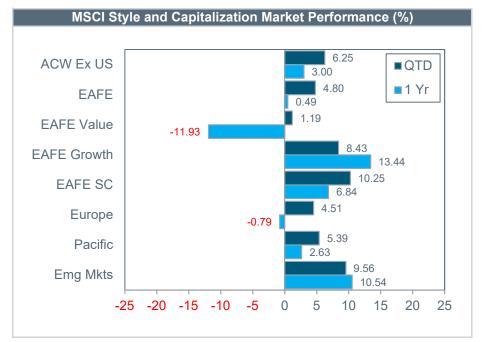
Developed international markets had a strong quarter, but remain in negative territory for the year. Growth stocks outperformed value while small outpaced large. The majority of developed market countries had positive returns for the quarter. Active management fared well, with developed equity focused managers beating the benchmark in the large and small cap universes.

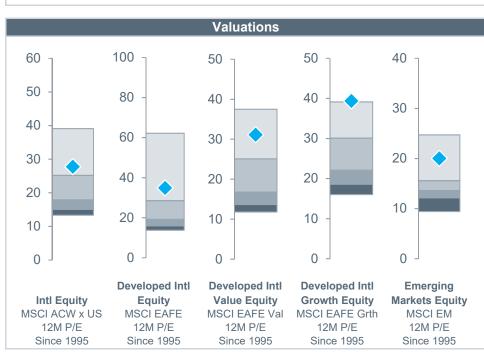
Emerging Markets

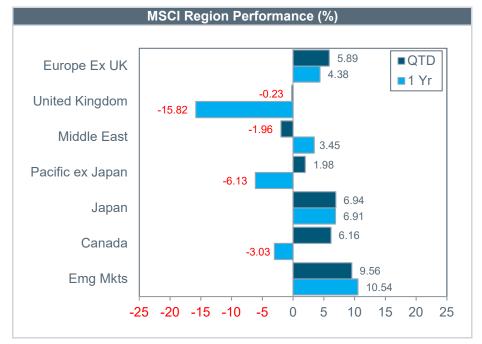
Emerging markets outpaced developed markets during Q3. Similar to other regions, value stocks underperformed growth. However, small cap stocks did outperform large within emerging markets. By region, Asia and the Middle East saw double digits returns while Latin America and Eastern Europe delivered negative returns.

Market Cap & Style

In both developed international markets and emerging markets, value stocks continued to underperform growth, while small-cap stocks outperformed large-cap for the quarter.







Valuation data courtesy of Bloomberg Professional Service.

P/E metrics shown represent the 5th through 95th percentiles to minimize the effect of outliers. All returns are shown net of foreign taxes on dividends.



Fixed Income Review As of September 30, 2020

Third Quarter Review

Broad Market

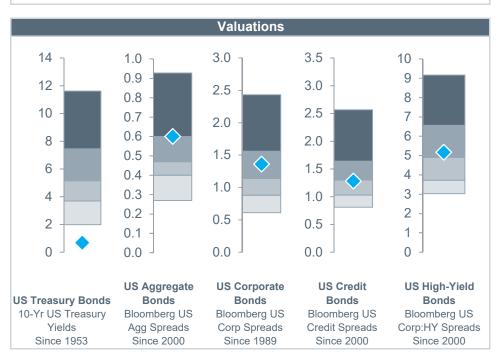
The Bloomberg US Aggregate Index returned a modest 0.6% in Q3, ending the quarter with a yield of just 1.2% as Treasury yields remained at historic lows. Although yields initially declined across the Treasury curve, longer-maturity yields rose again in August amid a record issuance of Treasury debt and the Fed's new policy announcement to shift to average inflation targeting resulting in a modest steepening of the curve.

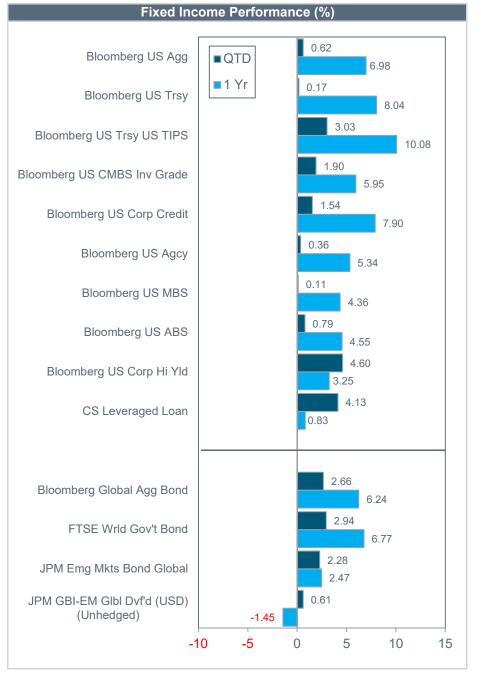
Credit Market

Credit markets extended their rally as the hunt for yield continued, and the Bloomberg US Corporate Investment Grade Index returned 1.5% in Q3 despite record-setting issuance.

Emerging Market Debt

Emerging market debt also extended its rally, as the JPMorgan EMBI Global Diversified Index returned 2.3% in Q3 despite momentum slowing later in the quarter as uncertainty around the global economic recovery increased.







Valuations shown represent the 5th through 95th percentiles to minimize the effect of outliers.



Alternatives Review As of September 30, 2020

Third Quarter Review - Absolute Return

General Market - Hedge Funds

Broad hedge fund benchmarks indicated that the industry protected capital relatively well during the heightened equity market volatility in September. The HFRI Fund Weighted Composite Index added to Q2 gains with a return of 4.1% in Q3, bringing the index return into positive territory YTD at 0.5%. Positive performance for the HFRI Hedged Equity and HFRI Event Driven indices helped contribute to the overall index returns.

General Market - Global Tactical Asset Allocation (GTAA)

GTAA strategies RVK follows closely generated positive returns in Q3 ranging from low to high single digits. As with past quarters, long-biased strategies reported mixed performance versus a static and less diversified blend of 60% US equity and 40% US fixed income. The value bias exhibited by some managers in emerging markets has caused them to lag peers. Strategies that have kept risk at relatively higher levels and favored US or other developed markets had a strong quarter with returns ranging from mid to high single digits.

HFRI Hedge Fund Performance (%) HFRI FOF ■ QTD 5.71 6.63 Conv Arbitrage ■1 Yr 8.19 6.03 **Equity Hedge** 8.34 1.12 Mkt Neutral Eq -1.17 Distressed 0.89 1.17 Macro 0.29 2.94 Relative Value 0.02 4.41 **Event Driven** 0.72 2.55 Merger Arb -1.35 Credit Arb -0.86 -30 -20 -10 0 10 20 30

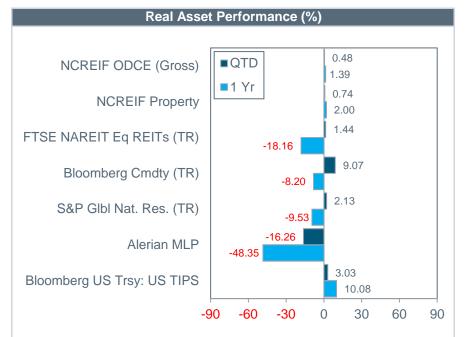
Third Quarter Review - Real Assets

General Market - Diversified Inflation Strategies (DIS)

Performance for DIS managers that RVK follows closely largely saw positive absolute performance during Q3, with many strategies posting returns in the low single digits. Commodities and TIPS indices generally fared better than REITs, listed infrastructure, and global natural resource equities. Divergence across managers within the space was relatively limited when compared to the wide spread in results for the YTD period.

General Market - Real Estate

Core private real estate returned 0.5% during the third quarter, as reported by the NFI-ODCE Index, with the total return comprised of a positive contribution of 1.0% from income and a negative contribution of 0.5% from price appreciation. While the income component remained relatively healthy, price appreciation experienced a further decrease, albeit to a lesser degree relative to the prior quarter. Investors in publicly traded real estate outperformed their private market counterparts.





Annual Asset Class Performance As of September 30, 2020

Best	35.03	00.00													
Dest		39.38	8.44	78.51	27.94	22.49	20.00	38.82	30.14	15.02	21.31	37.28	8.35	31.49	14.20
1	32.18	16.23	5.24	58.21	26.85	15.99	18.23	32.39	19.31	9.59	17.13	33.01	1.87	26.00	9.22
	26.34	15.97	2.06	46.78	22.04	13.56	18.06	29.30	13.69	3.20	11.96	25.03	0.01	25.53	6.79
	19.31	11.63	-2.35	31.78	18.88	8.29	17.32	22.78	12.50	1.38	11.77	21.83	-1.26	24.96	5.57
	18.37	11.17	-10.01	28.01	16.83	7.84	16.35	13.94	5.97	0.55	11.19	14.65	-2.08	22.01	2.55
	16.32	10.25	-21.37	27.17	16.36	4.98	16.00	8.96	4.89	0.05	8.77	10.71	-4.02	19.59	0.64
	15.79	6.97	-26.16	26.46	15.12	2.11	15.81	7.44	3.64	-0.27	8.52	7.77	-4.38	18.44	0.62
	11.86	6.60	-33.79	18.91	15.06	0.10	10.94	2.47	3.37		6.67	7.62	-4.62	14.32	-0.12
	10.39	5.49	-35.65	11.47	10.16	-4.18	8.78	0.07	2.45	-1.44	4.68	7.50	-4.68	8.72	-1.16
	4.85	5.00	-37.00	11.41	7.75	-5.72	6.98	-2.02	0.04	-3.30	2.65	5.23	-11.01	8.43	-4.20
	4.34	1.87	-37.74	5.93	6.54	-12.14	4.79	-2.60	-2.19	-4.41	2.18	3.54	-11.25	8.39	-7.09
	2.72	1.45	-43.38	1.92	6.31	-13.32	4.21	-8.61	-4.90	-4.47	1.00	3.01	-13.79	7.69	-8.69
	2.07	-1.57	-47.01	0.21	5.70	-15.94	0.11	-8.83	-4.95	-14.92	0.51	1.70	-14.58	5.34	-12.08
Worst	0.49	-15.70	-53.33	-29.76	0.13	-18.42	-1.06	-9.52	-17.01	-24.66	0.33	0.86	-17.89	2.28	-17.54
S&P 500 US Large Cap		nall (Net)		(Net) - (N	/ISCI EM Net) - Int'I mg Mkts	Bloombrg US Agg Bond - FI	Bloombrg US Corp H Yield - Fl	Bloombro i US Trsy U TIPS - Fl	S Cradit I	ov OD(.ng (Gros	CE NARI	EIT Eq C	Comp	Bloombrg mdty (TR) Commod.	ICE BofAML 3 Mo T-Bill - Cash Equiv

NCREIF ODCE (Gross) performance is reported quarterly; performance is shown N/A in interim-quarter months.



Total Fund



City of Jacksonville Police and Fire Pension Fund Asset Allocation, Performance & Schedule of Investable Assets

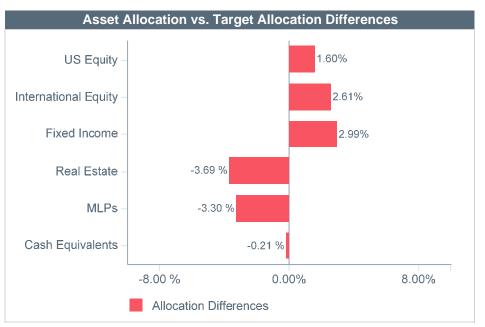
	Allocation		Performance (%)		Allocation		Performance (%)
	Market Value (\$)	%	QTD		Market Value (\$)	%	QTD
US Equity	842,369,231	40.60	7.04	Real Estate	234,568,559	11.31	-0.17
Eagle Capital Large Cap Value (SA)	209,446,788	10.09	5.80	JPM Real Estate Strategic Property (CF)	177,342,226	8.55	-0.25
NT S&P 500 Index (CF)	230,890,073	11.13	8.91	Principal US Property (CF)	57,226,332	2.76	0.08
Loomis Sayles Large Cap Growth (CF)	141,438,944	6.82	10.71				
Sawgrass Diversified Large Cap Growth (SA)	113,684,620	5.48	8.55	MLPs	45,651,863	2.20	-12.64
Wedge Capital Small Cap Value (CF)	63,189,361	3.05	0.64	Harvest Fund Advisors MLP (SA)	23,804,923	1.15	-9.67
Pinnacle Associates US SMID Cap Growth (SA)	83,688,156	4.03	3.98	Tortoise Capital Advisors MLP (SA)	21,846,940	1.05	-16.01
GAMCO	17,766	0.00	N/A				
Brown Inv Advisory	13,523	0.00	N/A	Cash	16,397,316	0.79	0.05
International Equity	469,195,803	22.61	8.27				
Silchester International Value (CF)	138,315,255	6.67	3.21				
NT EAFE Index (CF)	36,406,929	1.75	4.82				
Baillie Gifford International Growth (BGEFX)	144,970,321	6.99	14.75				
Acadian Emerging Markets (CF)	149,503,298	7.21	6.89				
Fixed Income	466,712,757	22.49	1.63				
NT Aggregate Bond Index (CF)	12,603,093	0.61	0.59				
Thompson Siegel Core Fixed Income (SA)	81,627,586	3.93	1.58				
Loomis Sayles Core Plus Full Discretion (CF)	148,077,463	7.14	1.97				
Neuberger Berman Core Plus Trust (CF)	224,404,616	10.82	1.49				

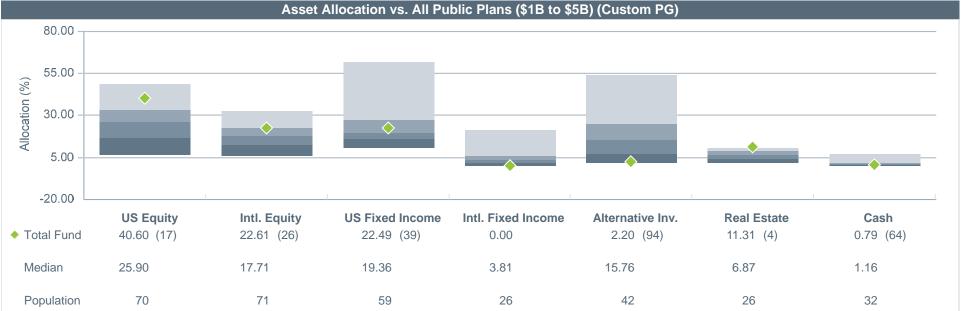
	Schedule of Investable Assets (Total Assets)												
Periods Ending	Beginning Market Value (\$)	Net Cash Flow (\$)	Gain/Loss (\$)	Ending Market Value (\$)	% Return	Unit Value							
CYTD	2,165,594,144	-123,982,258	33,283,642	2,074,895,528	1.49	101.49							



City of Jacksonville Police and Fire Pension Fund Total Fund vs. All Public Plans (\$1B to \$5B) (Custom PG) Asset Allocation vs. Target and Plan Sponsor Peer Group

	Asset Allocation v	s. Target Allo	ocation		
	Market Value (\$)	Allocation (%)	Min (%)	Target (%)	Max (%)
Total Fund	2,074,895,528	100.00	-	100.00	-
US Equity	842,369,231	40.60	34.00	39.00	44.00
International Equity	469,195,803	22.61	15.00	20.00	25.00
Fixed Income	466,712,757	22.49	14.50	19.50	24.50
Real Estate	234,568,559	11.31	10.00	15.00	20.00
MLPs	45,651,863	2.20	0.00	5.50	10.00
Cash Equivalents	16,397,316	0.79	0.00	1.00	5.00

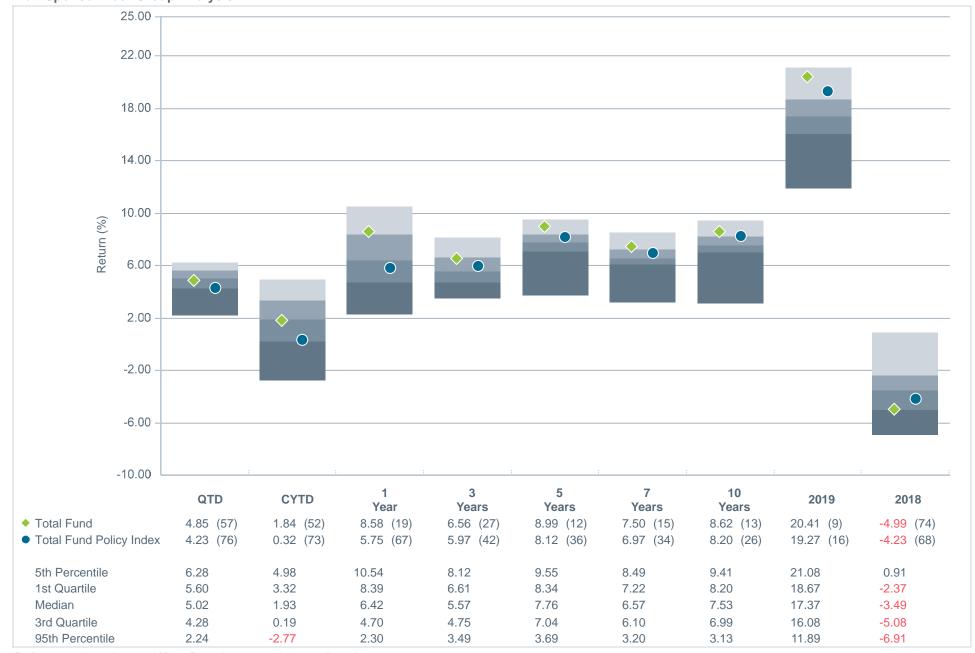




Allocations shown may not sum up to 100% exactly due to rounding. Parentheses contain percentile ranks. Target Allocation and associated ranges exclude the 10% allocation to Private Investments approved on 06/21/2019, and are therefore reflective of the previously approved 2016 policy targets.

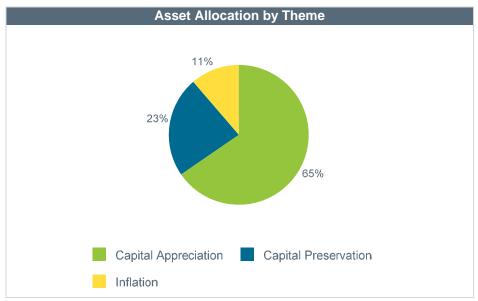


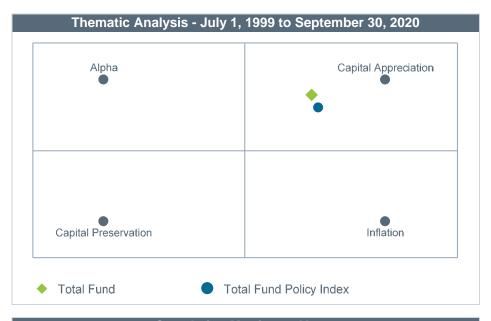
City of Jacksonville Police and Fire Pension Fund Total Fund vs. All Public Plans (\$1B to \$5B) (Custom PG) Plan Sponsor Peer Group Analysis

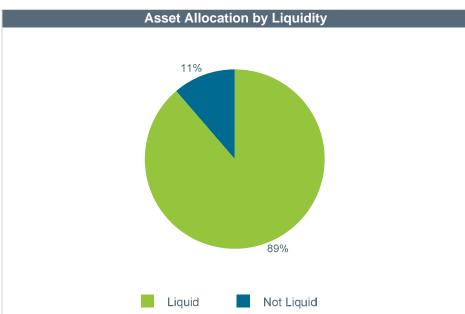


Performance shown is gross of fees. Parentheses contain percentile ranks.







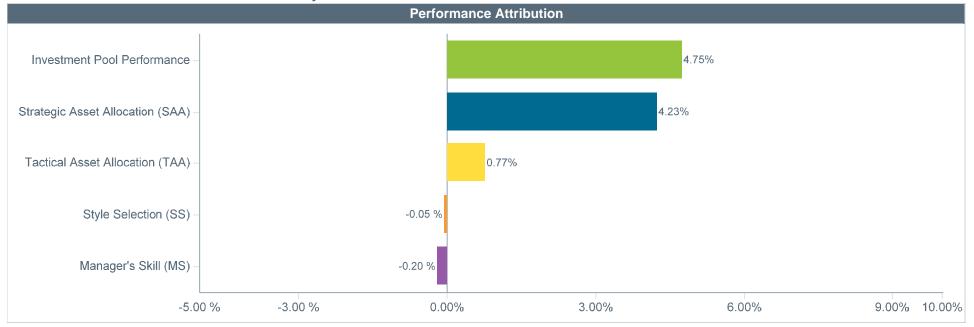


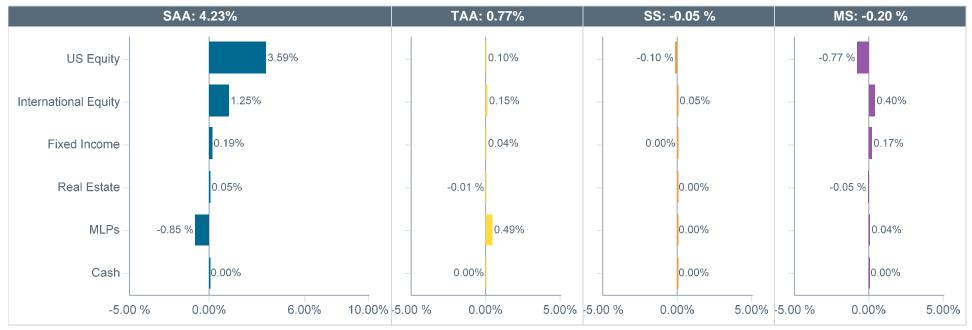
		Correlation Mat	rix - 10 Years	
	Α	В	С	D
Α	1.00			
В	0.71	1.00		
С	-0.29	-0.42	1.00	
D	0.60	0.79	-0.12	1.00
A B C D	= = = =	HFRI EH: Equity Market N MSCI ACW Index (USD) (0 Bloomberg US Gov't Bond Real Return Custom Index	Gross) (Capital Appre Index (Capital Prese	

Asset Allocation by Theme is based on dedicated manager allocations; as such, thematic allocations are approximations. The RVK Liquidity Rating is calculated using beginning of month investment weights applied to each corresponding asset class liquidity rating. Please see the Glossary for additional information regarding liquidity, thematic, and custom index descriptions.



City of Jacksonville Police and Fire Pension Fund Total Fund Attribution - IDP vs. Total Fund Policy Index





Performance shown is net of fees. Calculation is based on monthly periodicity. See Glossary for additional information regarding the Total Fund Attribution - IDP calculation.



City of Jacksonville Police and Fire Pension Fund Asset Allocation & Performance (Gross of Fees)

	Allocation	on			Performance (%)							
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Total Fund	2,074,895,528	100.00	4.85	1.84	8.58	8.58	6.56	8.99	7.50	8.62	8.13	04/01/1989
Total Fund Policy Index			4.23	0.32	5.75	5.75	5.97	8.12	6.97	8.20	8.07	
Difference			0.62	1.52	2.83	2.83	0.59	0.87	0.53	0.42	0.06	
All Public Plans (\$1B to \$5B) (Custom PG) Median			5.02	1.93	6.42	6.42	5.57	7.76	6.57	7.53	8.22	
Rank			57	52	19	19	27	12	15	13	55	
US Equity	842,369,231	40.60	7.13	2.29	12.61	12.61	10.77	13.05	11.00	12.87	10.37	01/01/1988
US Equity Policy Index			9.21	5.41	15.00	15.00	11.65	13.69	12.11	13.48	10.70	
Difference			-2.08	-3.12	-2.39	-2.39	-0.88	-0.64	-1.11	-0.61	-0.33	
IM U.S. Equity (SA+CF) Median			6.98	-2.35	5.79	5.79	7.14	10.71	9.45	12.19	11.61	
Rank			49	42	40	40	38	37	41	44	89	
International Equity	469,195,803	22.61	8.41	2.64	14.31	14.31	3.91	9.74	5.96	5.82	5.43	02/01/1999
International Equity Policy Index			6.25	-5.44	3.00	3.00	1.16	6.23	3.18	4.00	3.77	
Difference			2.16	8.08	11.31	11.31	2.75	3.51	2.78	1.82	1.66	
IM International Equity (SA+CF) Median			8.49	-2.20	7.23	7.23	2.26	7.57	4.85	6.00	7.55	
Rank			51	31	29	29	38	30	38	53	85	
Fixed Income	466,712,757	22.49	1.69	6.88	7.81	7.81	5.65	4.97	4.38	4.05	6.31	01/01/1988
Fixed Income Policy Index			0.91	6.33	6.75	6.75	5.17	4.22	4.00	3.65	6.30	
Difference			0.78	0.55	1.06	1.06	0.48	0.75	0.38	0.40	0.01	
IM U.S. Fixed Income (SA+CF) Median			1.34	4.98	5.87	5.87	4.62	4.47	4.16	4.17	6.53	
Rank			41	31	27	27	30	37	45	54	58	
Real Estate	234,568,559	11.31	0.05	-0.48	1.59	1.59	4.80	6.45	8.44	10.63	8.39	04/01/2005
NCREIF ODCE Index (AWA) (Gross)			0.48	-0.12	1.39	1.39	5.18	6.64	8.60	10.27	7.15	
Difference			-0.43	-0.36	0.20	0.20	-0.38	-0.19	-0.16	0.36	1.24	
MLPs	45,651,863	2.20	-12.47	-41.31	-41.96	-41.96	-17.16	-8.44	-7.32	N/A	-0.50	03/01/2011
S&P MLP Index (TR)			-14.31	-44.87	-46.57	-46.57	-18.92	-10.50	-10.61	-3.10	-4.74	
Difference			1.84	3.56	4.61	4.61	1.76	2.06	3.29	N/A	4.24	





City of Jacksonville Police and Fire Pension Fund Asset Allocation & Performance (Gross of Fees)

	Allocatio	n		Performance (%)								
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
US Equity												
Eagle Capital Large Cap Value (SA)	209,446,788	10.09	5.99	-3.31	7.44	7.44	9.16	12.01	11.17	N/A	12.37	04/01/2011
Russell 1000 Val Index			5.59	-11.58	-5.03	-5.03	2.63	7.66	7.35	9.95	8.62	
Difference			0.40	8.27	12.47	12.47	6.53	4.35	3.82	N/A	3.75	
IM U.S. Large Cap Value Equity (SA+CF) Median			5.39	-10.38	-3.35	-3.35	3.51	8.06	7.79	10.39	9.00	
Rank			41	23	17	17	15	13	9	N/A	9	
NT S&P 500 Index (CF)	230,890,073	11.13	8.92	5.58	15.16	15.16	12.31	14.17	12.72	13.77	6.77	01/01/1999
S&P 500 Index (Cap Wtd)			8.93	5.57	15.15	15.15	12.28	14.15	12.68	13.74	6.75	
Difference			-0.01	0.01	0.01	0.01	0.03	0.02	0.04	0.03	0.02	
IM U.S. Large Cap Core Equity (SA+CF) Median			8.06	3.33	12.87	12.87	10.68	13.14	12.16	13.55	7.68	
Rank			37	38	37	37	31	24	37	44	85	
Loomis Sayles Large Cap Growth (CF)	141,438,944	6.82	10.83	22.20	34.38	34.38	19.27	N/A	N/A	N/A	19.38	09/01/2017
Russell 1000 Grth Index			13.22	24.33	37.53	37.53	21.67	20.10	17.39	17.25	21.54	
Difference			-2.39	-2.13	-3.15	-3.15	-2.40	N/A	N/A	N/A	-2.16	
IM U.S. Large Cap Growth Equity (SA+CF) Median			11.14	21.85	33.27	33.27	19.69	18.16	16.03	16.36	19.48	
Rank			58	47	45	45	55	N/A	N/A	N/A	51	
Sawgrass Diversified Large Cap Growth (SA)	113,684,620	5.48	8.55	13.48	22.94	22.94	17.97	16.34	N/A	N/A	14.19	11/01/2013
Russell 1000 Grth Index			13.22	24.33	37.53	37.53	21.67	20.10	17.39	17.25	16.88	
Difference			-4.67	-10.85	-14.59	-14.59	-3.70	-3.76	N/A	N/A	-2.69	
IM U.S. Large Cap Growth Equity (SA+CF) Median			11.14	21.85	33.27	33.27	19.69	18.16	16.03	16.36	15.65	
Rank			88	76	77	77	63	73	N/A	N/A	72	
Wedge Capital Small Cap Value (CF)	63,189,361	3.05	0.82	-25.11	-19.08	-19.08	-6.22	N/A	N/A	N/A	-0.91	09/01/2016
Russell 2000 Val Index			2.56	-21.54	-14.88	-14.88	-5.13	4.11	3.27	7.09	0.90	
Difference			-1.74	-3.57	-4.20	-4.20	-1.09	N/A	N/A	N/A	-1.81	
IM U.S. Small Cap Value Equity (SA+CF) Median			2.39	-19.54	-13.35	-13.35	-3.72	4.39	4.27	8.57	1.70	
Rank			79	87	88	88	79	N/A	N/A	N/A	88	
Pinnacle Associates US SMID Cap Growth (SA)	83,688,156	4.03	4.11	0.88	17.41	17.41	8.70	13.18	10.48	13.41	18.39	03/01/2009
Russell 2500 Grth Index			9.37	11.58	23.37	23.37	13.36	14.19	11.69	14.06	18.05	
Difference			-5.26	-10.70	-5.96	-5.96	-4.66	-1.01	-1.21	-0.65	0.34	
IM U.S. SMID Cap Growth Equity (SA+CF) Median			9.19	13.48	24.91	24.91	17.52	15.85	12.27	14.94	18.99	
Rank			91	81	71	71	80	73	70	75	63	

Performance shown is gross of fees and is annualized for periods greater than one year. Allocations may not sum up to 100% due to the exclusion of managers in liquidation. Please see the addendum for custom benchmark definitions. Fiscal year for the COJ Police and Fire ends 09/30.



City of Jacksonville Police and Fire Pension Fund Asset Allocation & Performance (Gross of Fees)

	Allocation	า					Perfor	mance (%)			
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
International Equity												
Silchester International Value (CF)	138,315,255	6.67	3.37	-13.17	-5.12	-5.12	-2.23	4.85	3.92	N/A	4.79	09/01/2013
MSCI EAFE Val Index (USD) (Net)			1.19	-18.31	-11.93	-11.93	-5.86	1.14	-0.33	2.10	0.74	
Difference			2.18	5.14	6.81	6.81	3.63	3.71	4.25	N/A	4.05	
IM EAFE Value (SA+CF) Median			3.75	-12.80	-4.64	-4.64	-2.92	3.46	2.01	4.76	2.94	
Rank			59	51	55	55	47	34	25	N/A	26	
NT EAFE Index (CF)	36,406,929	1.75	4.84	-6.56	0.97	0.97	N/A	N/A	N/A	N/A	4.25	02/01/2019
MSCI EAFE Index (USD) (Net)			4.80	-7.09	0.49	0.49	0.62	5.26	3.01	4.62	3.78	
Difference			0.04	0.53	0.48	0.48	N/A	N/A	N/A	N/A	0.47	
IM Enhanced and Indexed International Equity (SA+CF) Median			5.94	-5.30	3.17	3.17	1.17	6.52	3.46	4.98	4.28	
Rank			70	54	54	54	N/A	N/A	N/A	N/A	53	
Baillie Gifford International Growth (BGEFX)	144,970,321	6.99	14.89	35.44	54.57	54.57	16.70	19.60	12.38	N/A	11.37	03/01/2011
Baillie Gifford Index			10.16	7.27	17.79	17.79	8.42	10.05	6.78	7.41	6.51	
Difference			4.73	28.17	36.78	36.78	8.28	9.55	5.60	N/A	4.86	
IM ACWI Ex US Growth (SA+CF) Median			10.37	6.72	17.67	17.67	7.62	10.53	7.54	8.25	7.51	
Rank			4	1	1	1	4	4	7	N/A	9	
Acadian Emerging Markets (CF)	149,503,298	7.21	7.02	-5.34	6.01	6.01	-0.98	7.43	N/A	N/A	2.93	01/01/2014
MSCI Emg Mkts Index (USD) (Net)			9.56	-1.16	10.54	10.54	2.42	8.97	3.74	2.51	3.61	
Difference			-2.54	-4.18	-4.53	-4.53	-3.40	-1.54	N/A	N/A	-0.68	
IM Emerging Markets Equity (SA+CF) Median			9.91	-1.12	10.19	10.19	2.45	8.85	4.41	4.09	4.17	
Rank			78	71	67	67	78	66	N/A	N/A	71	
Fixed Income												
NT Aggregate Bond Index (CF)	12,603,093	0.61	0.60	6.83	7.01	7.01	5.30	4.22	4.02	N/A	3.47	02/01/2013
Bloomberg US Agg Bond Index			0.62	6.79	6.98	6.98	5.24	4.18	3.97	3.64	3.45	
Difference			-0.02	0.04	0.03	0.03	0.06	0.04	0.05	N/A	0.02	
IM U.S. Broad Market Core Fixed Income (SA+CF) Median			1.11	7.33	7.55	7.55	5.67	4.73	4.44	4.17	3.87	
Rank			89	72	76	76	85	88	86	N/A	92	
Thompson Siegel Core Fixed Income (SA)	81,627,586	3.93	1.63	7.49	8.35	8.35	5.99	5.16	4.67	4.41	6.18	08/01/1991
Thompson Siegel Policy Index			0.62	6.79	6.98	6.98	5.24	4.18	3.97	3.64	5.84	
Difference			1.01	0.70	1.37	1.37	0.75	0.98	0.70	0.77	0.34	
IM U.S. Broad Market Core Fixed Income (SA+CF) Median			1.11	7.33	7.55	7.55	5.67	4.73	4.44	4.17	6.22	
Rank			14	46	21	21	26	14	30	29	58	

Performance shown is gross of fees and is annualized for periods greater than one year. Allocations may not sum up to 100% due to the exclusion of managers in liquidation. Please see the addendum for custom benchmark definitions. Fiscal year for the COJ Police and Fire ends 09/30.



City of Jacksonville Police and Fire Pension Fund Asset Allocation & Performance (Gross of Fees)

	Allocatio	n			Performance (%)							
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Loomis Sayles Core Plus Full Discretion (CF)	148,077,463	7.14	2.05	7.47	8.58	8.58	5.59	N/A	N/A	N/A	5.89	02/01/2017
Bloomberg US Unv Bond Index			0.99	6.20	6.68	6.68	5.15	4.49	4.16	3.92	5.12	
Difference			1.06	1.27	1.90	1.90	0.44	N/A	N/A	N/A	0.77	
IM U.S. Broad Market Core+ Fixed Income (SA+CF) Median			1.71	6.96	7.44	7.44	5.72	5.09	4.70	4.65	5.68	
Rank			24	40	18	18	59	N/A	N/A	N/A	37	
Neuberger Berman Core Plus Trust (CF)	224,404,616	10.82	1.53	6.19	7.04	7.04	5.43	N/A	N/A	N/A	5.44	01/01/2017
Bloomberg US Unv Bond Index			0.99	6.20	6.68	6.68	5.15	4.49	4.16	3.92	5.10	
Difference			0.54	-0.01	0.36	0.36	0.28	N/A	N/A	N/A	0.34	
IM U.S. Broad Market Core+ Fixed Income (SA+CF) Median			1.71	6.96	7.44	7.44	5.72	5.09	4.70	4.65	5.67	
Rank			62	69	63	63	67	N/A	N/A	N/A	68	
Real Estate												
JPM Real Estate Strategic Property (CF)	177,342,226	8.55	-0.03	-0.52	1.77	1.77	4.54	6.15	8.15	10.19	7.51	04/01/2005
NCREIF ODCE Index (AWA) (Gross)			0.48	-0.12	1.39	1.39	5.18	6.64	8.60	10.27	7.15	
Difference			-0.51	-0.40	0.38	0.38	-0.64	-0.49	-0.45	-0.08	0.36	
Principal US Property (CF)	57,226,332	2.76	0.28	-0.35	1.04	1.04	5.64	7.40	9.37	N/A	9.46	07/01/2013
NCREIF ODCE Index (AWA) (Gross)			0.48	-0.12	1.39	1.39	5.18	6.64	8.60	10.27	8.81	
Difference			-0.20	-0.23	-0.35	-0.35	0.46	0.76	0.77	N/A	0.65	
MLPs												
Harvest Fund Advisors MLP (SA)	23,804,923	1.15	-9.50	-38.55	-39.11	-39.11	-15.32	-7.75	-6.73	N/A	0.18	03/01/2011
S&P MLP Index (TR)			-14.31	-44.87	-46.57	-46.57	-18.92	-10.50	-10.61	-3.10	-4.74	
Difference			4.81	6.32	7.46	7.46	3.60	2.75	3.88	N/A	4.92	
Tortoise Capital Advisors MLP (SA)	21,846,940	1.05	-15.85	-44.27	-45.00	-45.00	-18.99	-9.14	-7.96	N/A	-1.21	03/01/2011
S&P MLP Index (TR)			-14.31	-44.87	-46.57	-46.57	-18.92	-10.50	-10.61	-3.10	-4.74	
Difference			-1.54	0.60	1.57	1.57	-0.07	1.36	2.65	N/A	3.53	



City of Jacksonville Police and Fire Pension Fund Asset Allocation & Performance (Net of Fees)

	Allocation			Performance (%)								
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Total Fund	2,074,895,528	100.00	4.75	1.49	8.13	8.13	6.17	8.58	7.06	8.16	7.91	04/01/1989
Total Fund Policy Index			4.23	0.32	5.75	5.75	5.97	8.12	6.97	8.20	8.07	
Difference			0.52	1.17	2.38	2.38	0.20	0.46	0.09	-0.04	-0.16	
US Equity	842,369,231	40.60	7.04	2.01	12.19	12.19	10.36	12.61	10.53	12.37	10.21	01/01/1988
US Equity Policy Index			9.21	5.41	15.00	15.00	11.65	13.69	12.11	13.48	10.70	
Difference			-2.17	-3.40	-2.81	-2.81	-1.29	-1.08	-1.58	-1.11	-0.49	
International Equity	469,195,803	22.61	8.27	2.25	13.75	13.75	3.44	9.26	5.51	5.39	5.17	02/01/1999
International Equity Policy Index			6.25	-5.44	3.00	3.00	1.16	6.23	3.18	4.00	3.77	
Difference			2.02	7.69	10.75	10.75	2.28	3.03	2.33	1.39	1.40	
Fixed Income	466,712,757	22.49	1.63	6.67	7.58	7.58	5.54	4.86	4.25	3.90	6.26	01/01/1988
Fixed Income Policy Index			0.91	6.33	6.75	6.75	5.17	4.22	4.00	3.65	6.30	
Difference			0.72	0.34	0.83	0.83	0.37	0.64	0.25	0.25	-0.04	
Real Estate	234,568,559	11.31	-0.17	-1.27	0.76	0.76	4.20	5.71	7.61	9.71	7.77	04/01/2005
NCREIF ODCE Index (AWA) (Net)			0.27	-0.75	0.52	0.52	4.25	5.69	7.62	9.26	6.17	
Difference			-0.44	-0.52	0.24	0.24	-0.05	0.02	-0.01	0.45	1.60	
MLPs	45,651,863	2.20	-12.64	-41.64	-42.40	-42.40	-17.78	-9.13	-8.02	N/A	-1.21	03/01/2011
S&P MLP Index (TR)			-14.31	-44.87	-46.57	-46.57	-18.92	-10.50	-10.61	-3.10	-4.74	
Difference			1.67	3.23	4.17	4.17	1.14	1.37	2.59	N/A	3.53	





City of Jacksonville Police and Fire Pension Fund Asset Allocation & Performance (Net of Fees)

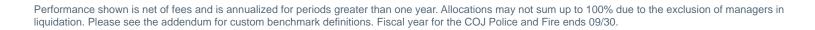
	Allocation	1					Perfor	mance (%)				
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
US Equity												
Eagle Capital Large Cap Value (SA)	209,446,788	10.09	5.80	-3.84	6.64	6.64	8.34	11.20	10.36	N/A	11.56	04/01/2011
Russell 1000 Val Index			5.59	-11.58	-5.03	-5.03	2.63	7.66	7.35	9.95	8.62	
Difference			0.21	7.74	11.67	11.67	5.71	3.54	3.01	N/A	2.94	
NT S&P 500 Index (CF)	230,890,073	11.13	8.91	5.57	15.15	15.15	12.29	14.15	12.69	13.74	6.74	01/01/1999
S&P 500 Index (Cap Wtd)			8.93	5.57	15.15	15.15	12.28	14.15	12.68	13.74	6.75	
Difference			-0.02	0.00	0.00	0.00	0.01	0.00	0.01	0.00	-0.01	
Loomis Sayles Large Cap Growth (CF)	141,438,944	6.82	10.71	21.81	33.80	33.80	18.82	N/A	N/A	N/A	18.94	09/01/2017
Russell 1000 Grth Index			13.22	24.33	37.53	37.53	21.67	20.10	17.39	17.25	21.54	
Difference			-2.51	-2.52	-3.73	-3.73	-2.85	N/A	N/A	N/A	-2.60	
Sawgrass Diversified Large Cap Growth (SA)	113,684,620	5.48	8.55	13.37	22.74	22.74	17.76	16.11	N/A	N/A	13.95	11/01/2013
Russell 1000 Grth Index			13.22	24.33	37.53	37.53	21.67	20.10	17.39	17.25	16.88	
Difference			-4.67	-10.96	-14.79	-14.79	-3.91	-3.99	N/A	N/A	-2.93	
Wedge Capital Small Cap Value (CF)	63,189,361	3.05	0.64	-25.54	-19.54	-19.54	-6.62	N/A	N/A	N/A	-1.30	09/01/2016
Russell 2000 Val Index			2.56	-21.54	-14.88	-14.88	-5.13	4.11	3.27	7.09	0.90	
Difference			-1.92	-4.00	-4.66	-4.66	-1.49	N/A	N/A	N/A	-2.20	
Pinnacle Associates US SMID Cap Growth (SA)	83,688,156	4.03	3.98	0.52	16.78	16.78	8.14	12.53	9.79	12.66	17.71	03/01/2009
Russell 2500 Grth Index			9.37	11.58	23.37	23.37	13.36	14.19	11.69	14.06	18.05	
Difference			-5.39	-11.06	-6.59	-6.59	-5.22	-1.66	-1.90	-1.40	-0.34	
International Equity												
Silchester International Value (CF)	138,315,255	6.67	3.21	-13.58	-5.71	-5.71	-2.82	4.16	3.21	N/A	4.07	09/01/2013
MSCI EAFE Val Index (USD) (Net)			1.19	-18.31	-11.93	-11.93	-5.86	1.14	-0.33	2.10	0.74	
Difference			2.02	4.73	6.22	6.22	3.04	3.02	3.54	N/A	3.33	
NT EAFE Index (CF)	36,406,929	1.75	4.82	-6.59	0.94	0.94	N/A	N/A	N/A	N/A	4.22	02/01/2019
MSCI EAFE Index (USD) (Net)			4.80	-7.09	0.49	0.49	0.62	5.26	3.01	4.62	3.78	
Difference			0.02	0.50	0.45	0.45	N/A	N/A	N/A	N/A	0.44	
Baillie Gifford International Growth (BGEFX)	144,970,321	6.99	14.75	34.95	53.94	53.94	16.47	19.29	12.01	N/A	10.97	03/01/201
Baillie Gifford Index			10.16	7.27	17.79	17.79	8.42	10.05	6.78	7.41	6.51	
Difference			4.59	27.68	36.15	36.15	8.05	9.24	5.23	N/A	4.46	
Acadian Emerging Markets (CF)	149,503,298	7.21	6.89	-5.71	5.45	5.45	-1.59	6.78	N/A	N/A	2.39	01/01/2014
MSCI Emg Mkts Index (USD) (Net)			9.56	-1.16	10.54	10.54	2.42	8.97	3.74	2.51	3.61	
Difference			-2.67	-4.55	-5.09	-5.09	-4.01	-2.19	N/A	N/A	-1.22	

Performance shown is net of fees and is annualized for periods greater than one year. Allocations may not sum up to 100% due to the exclusion of managers in liquidation. Please see the addendum for custom benchmark definitions. Fiscal year for the COJ Police and Fire ends 09/30.



City of Jacksonville Police and Fire Pension Fund Asset Allocation & Performance (Net of Fees)

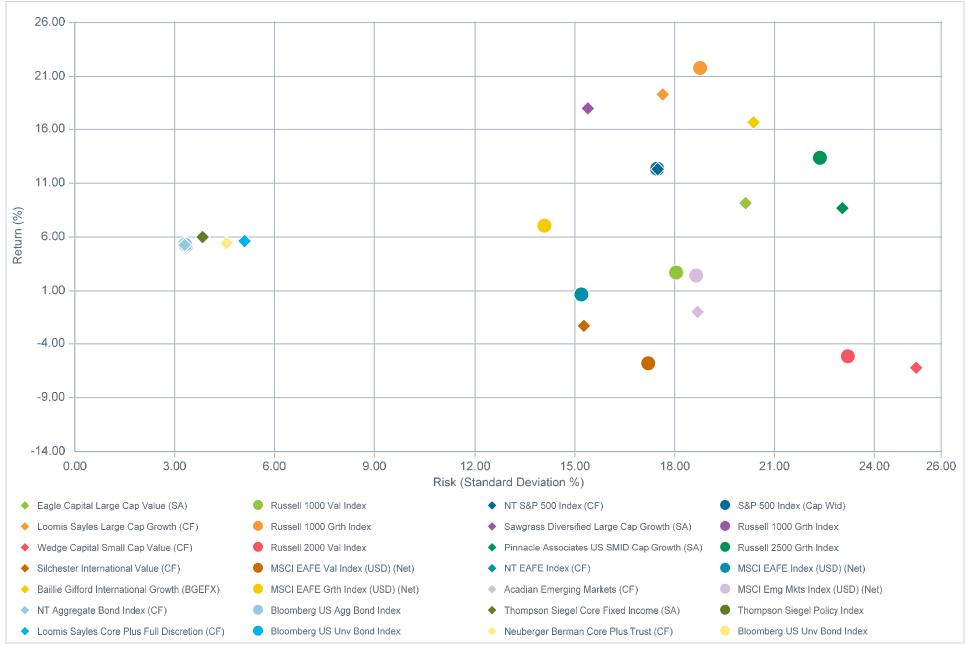
	Allocation Performance (%)											
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Fixed Income												
NT Aggregate Bond Index (CF)	12,603,093	0.61	0.59	6.81	6.98	6.98	5.28	4.19	3.99	N/A	3.45	02/01/2013
Bloomberg US Agg Bond Index			0.62	6.79	6.98	6.98	5.24	4.18	3.97	3.64	3.45	
Difference			-0.03	0.02	0.00	0.00	0.04	0.01	0.02	N/A	0.00	
Thompson Siegel Core Fixed Income (SA)	81,627,586	3.93	1.58	7.34	8.20	8.20	5.82	4.98	4.49	4.23	6.11	08/01/1991
Thompson Siegel Policy Index			0.62	6.79	6.98	6.98	5.24	4.18	3.97	3.64	5.84	
Difference			0.96	0.55	1.22	1.22	0.58	0.80	0.52	0.59	0.27	
Loomis Sayles Core Plus Full Discretion (CF)	148,077,463	7.14	1.97	7.08	8.19	8.19	5.43	N/A	N/A	N/A	5.76	02/01/2017
Bloomberg US Unv Bond Index			0.99	6.20	6.68	6.68	5.15	4.49	4.16	3.92	5.12	
Difference			0.98	0.88	1.51	1.51	0.28	N/A	N/A	N/A	0.64	
Neuberger Berman Core Plus Trust (CF)	224,404,616	10.82	1.49	6.07	6.91	6.91	5.38	N/A	N/A	N/A	5.40	01/01/2017
Bloomberg US Unv Bond Index			0.99	6.20	6.68	6.68	5.15	4.49	4.16	3.92	5.10	
Difference			0.50	-0.13	0.23	0.23	0.23	N/A	N/A	N/A	0.30	
Real Estate												
JPM Real Estate Strategic Property (CF)	177,342,226	8.55	-0.25	-1.38	0.89	0.89	3.93	5.40	7.30	9.26	6.89	04/01/2005
NCREIF ODCE Index (AWA) (Net)			0.27	-0.75	0.52	0.52	4.25	5.69	7.62	9.26	6.17	
Difference			-0.52	-0.63	0.37	0.37	-0.32	-0.29	-0.32	0.00	0.72	
Principal US Property (CF)	57,226,332	2.76	0.08	-0.94	0.37	0.37	5.07	6.71	8.61	N/A	8.99	04/01/2013
NCREIF ODCE Index (AWA) (Net)			0.27	-0.75	0.52	0.52	4.25	5.69	7.62	9.26	8.07	
Difference			-0.19	-0.19	-0.15	-0.15	0.82	1.02	0.99	N/A	0.92	
MLPs												
Harvest Fund Advisors MLP (SA)	23,804,923	1.15	-9.67	-38.92	-39.60	-39.60	-15.95	-8.44	-7.43	N/A	-0.54	03/01/2011
S&P MLP Index (TR)			-14.31	-44.87	-46.57	-46.57	-18.92	-10.50	-10.61	-3.10	-4.74	
Difference			4.64	5.95	6.97	6.97	2.97	2.06	3.18	N/A	4.20	
Tortoise Capital Advisors MLP (SA)	21,846,940	1.05	-16.01	-44.57	-45.41	-45.41	-19.60	-9.83	-8.66	N/A	-1.91	03/01/2011
S&P MLP Index (TR)			-14.31	-44.87	-46.57	-46.57	-18.92	-10.50	-10.61	-3.10	-4.74	
Difference			-1.70	0.30	1.16	1.16	-0.68	0.67	1.95	N/A	2.83	





City of Jacksonville Police and Fire Pension Fund Risk and Return

Traditional Managers

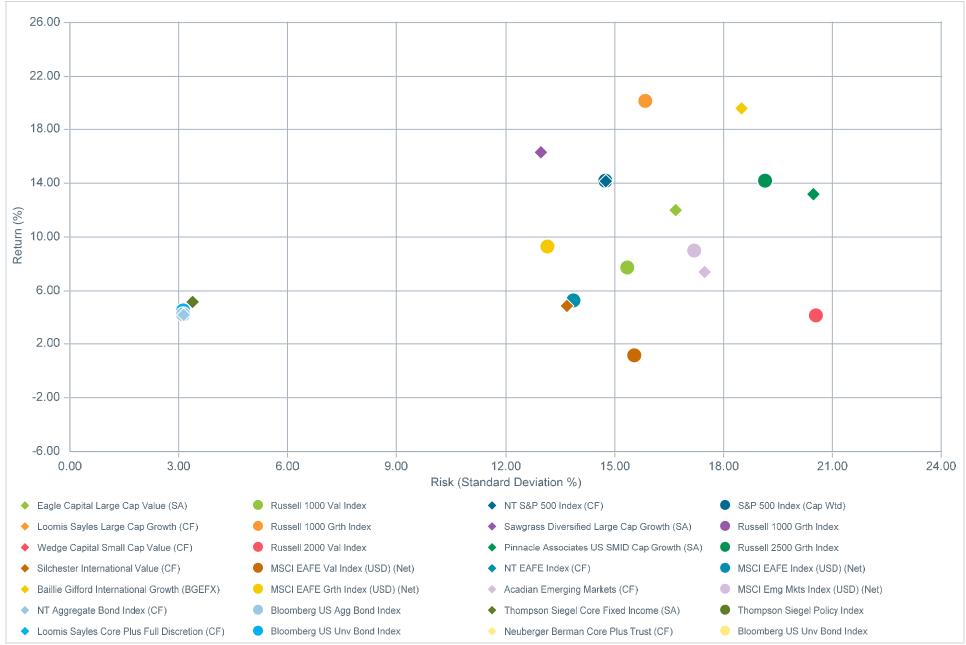


Performance shown is gross of fees and client specific. Calculation is based on monthly periodicity. Managers with less history than the specified time period will not appear. Please see the Addendum for custom index definitions.



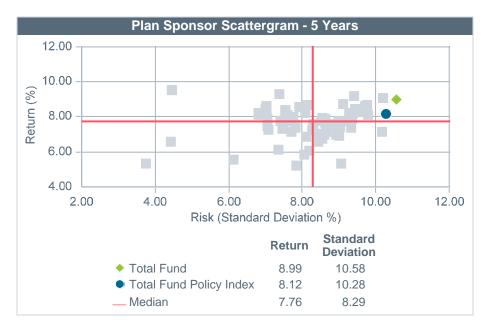
City of Jacksonville Police and Fire Pension Fund Risk and Return

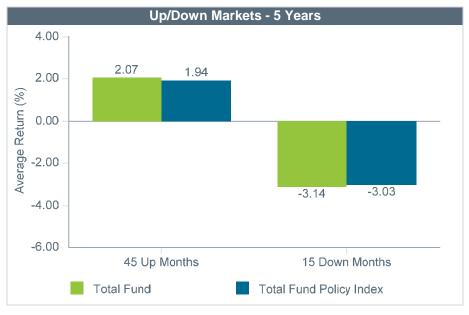
Traditional Managers

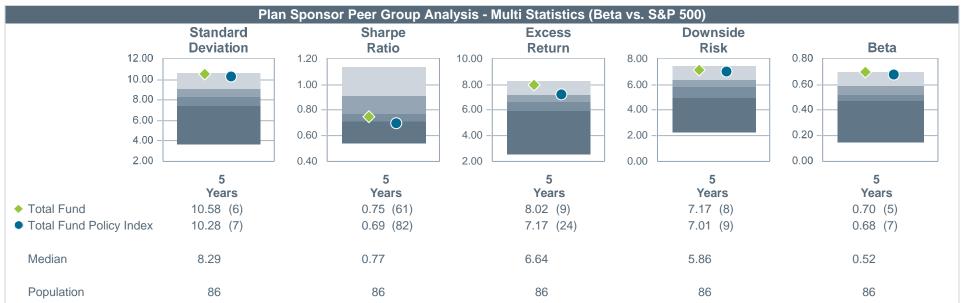


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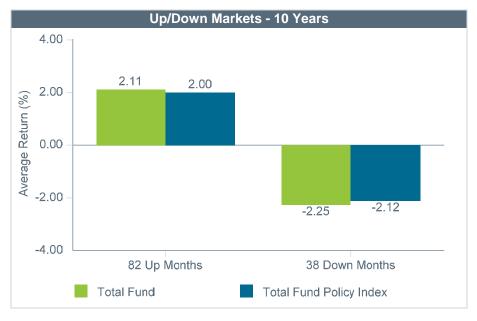


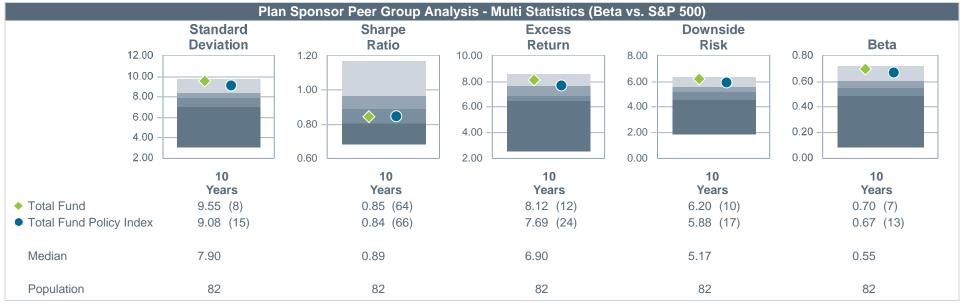


Performance shown is gross of fees. Calculation is based on monthly periodicity. Parentheses contain percentile ranks.









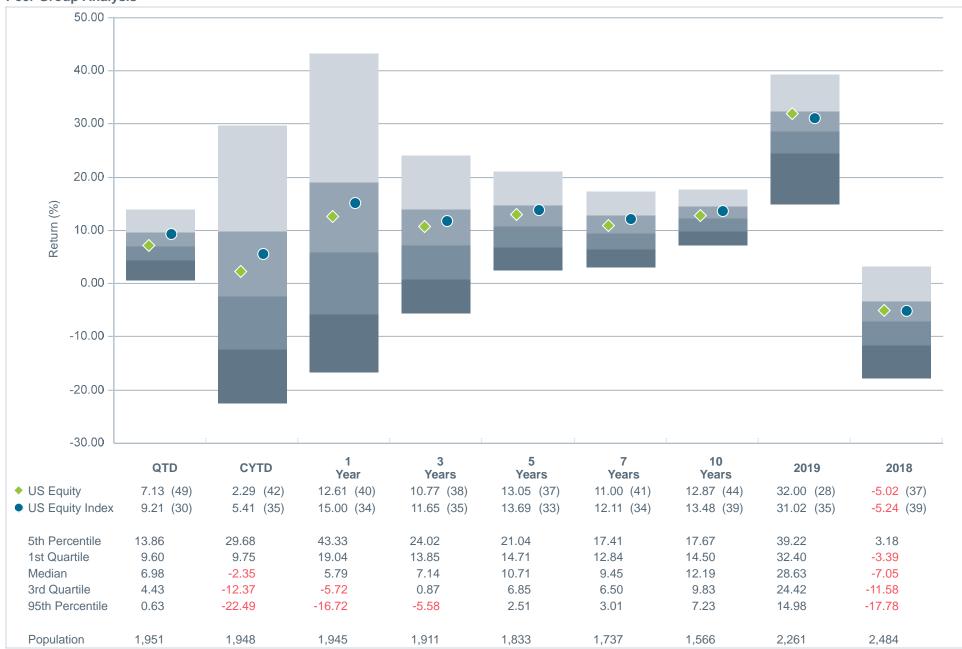
Performance shown is gross of fees. Calculation is based on monthly periodicity. Parentheses contain percentile ranks.



Composite Profiles



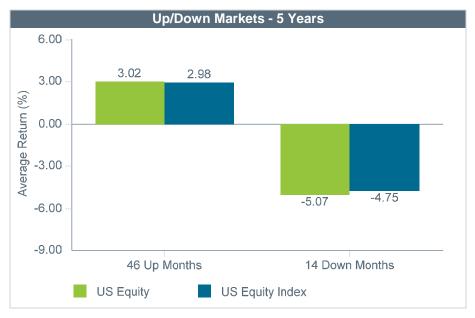
City of Jacksonville Police and Fire Pension Fund US Equity vs. IM U.S. Equity (SA+CF)
Peer Group Analysis

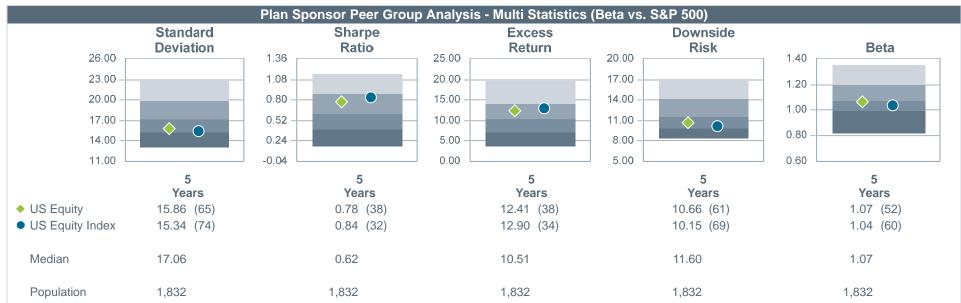


Performance shown is gross of fees. Parentheses contain percentile ranks.









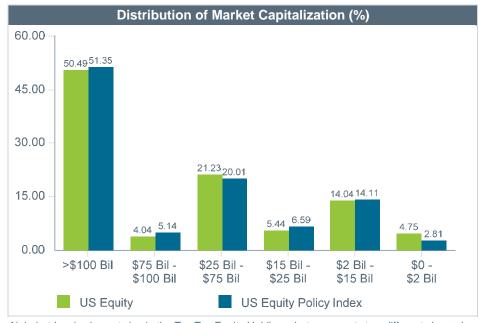
Performance shown is gross of fees. Calculation is based on monthly periodicity. Parentheses contain percentile ranks.



City of Jacksonville Police and Fire Pension Fund US Equity vs. US Equity Policy Index Portfolio Characteristics

	Top Ten Eq	uity Holdings		
	Portfolio Weight (%)	Benchmark Weight (%)	Active Weight (%)	Quarterly Return (%)
Microsoft Corp	5.54	4.74	0.80	3.60
Amazon.com Inc	5.04	4.02	1.02	14.13
Facebook Inc	3.45	1.89	1.56	15.34
Alphabet Inc	3.09	1.31	1.78	3.96
Apple Inc	3.00	5.62	-2.62	27.22
Comcast Corp	2.24	0.63	1.61	18.68
Berkshire Hathaway Inc	1.83	1.23	0.60	19.29
Aon plc	1.43	0.14	1.29	7.34
Visa Inc	1.40	1.02	0.38	3.68
Alphabet Inc	1.40	1.32	0.08	3.35
% of Portfolio	28.42	21.92	6.50	

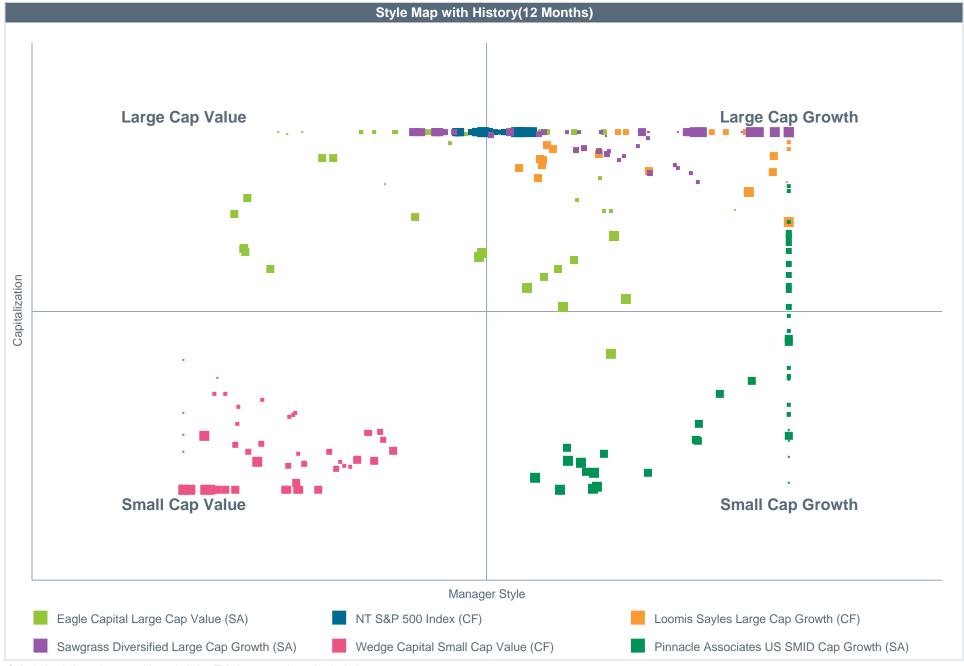
Portfolio Characteristics						
	Portfolio	Benchmark				
Ntd. Avg. Mkt. Cap (\$M)	381,626	378,976				
Median Mkt. Cap (\$M)	15,581	1,536				
Price/Earnings Ratio	26.20	26.57				
Price/Book Ratio	4.30	4.39				
5 Yr. EPS Growth Rate (%)	13.78	12.89				
Current Yield (%)	1.19	1.59				
Beta (5 Years, Monthly)	1.03	1.00				
Number of Securities	681	3,034				





Alphabet Inc. is shown twice in the Top Ten Equity Holdings, but represents two different share classes: GOOGL (Class A) and GOOG (Class C).

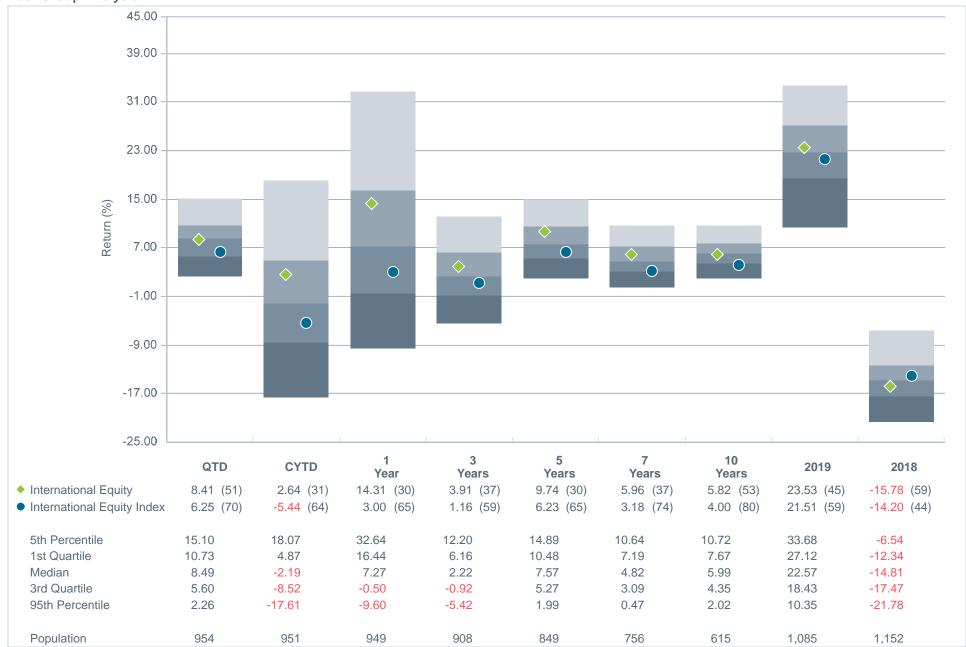




Calculation is based on monthly periodicity. This is a return based calculation.

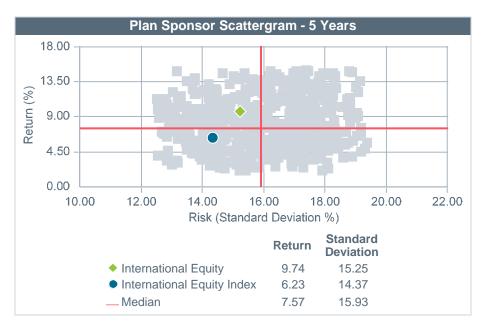


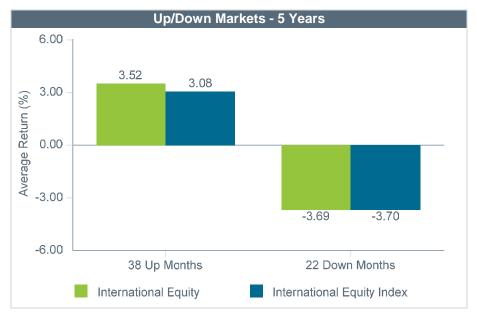
City of Jacksonville Police and Fire Pension Fund International Equity vs. IM International Equity (SA+CF) Peer Group Analysis

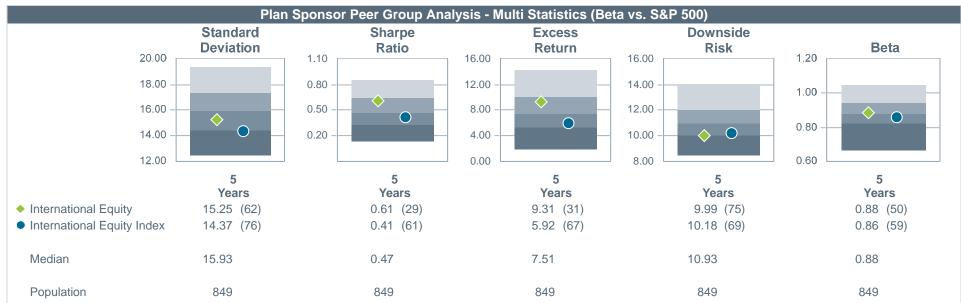


Performance shown is gross of fees. Parentheses contain percentile ranks.









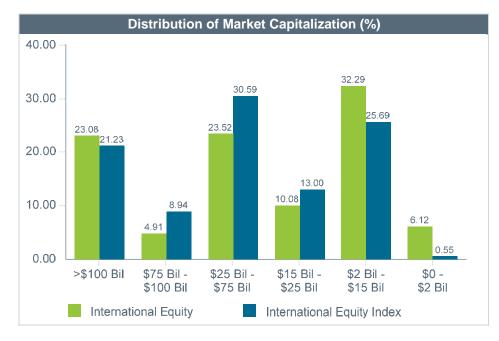
Performance shown is gross of fees. Calculation is based on monthly periodicity. Parentheses contain percentile ranks.

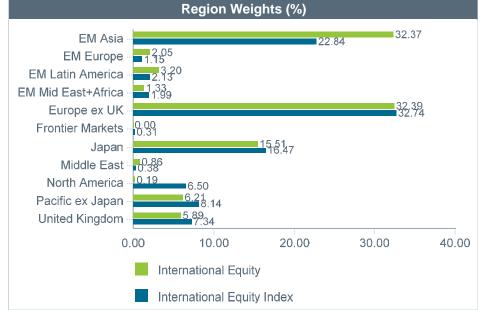


City of Jacksonville Police and Fire Pension Fund International Equity vs. International Equity Index Portfolio Characteristics

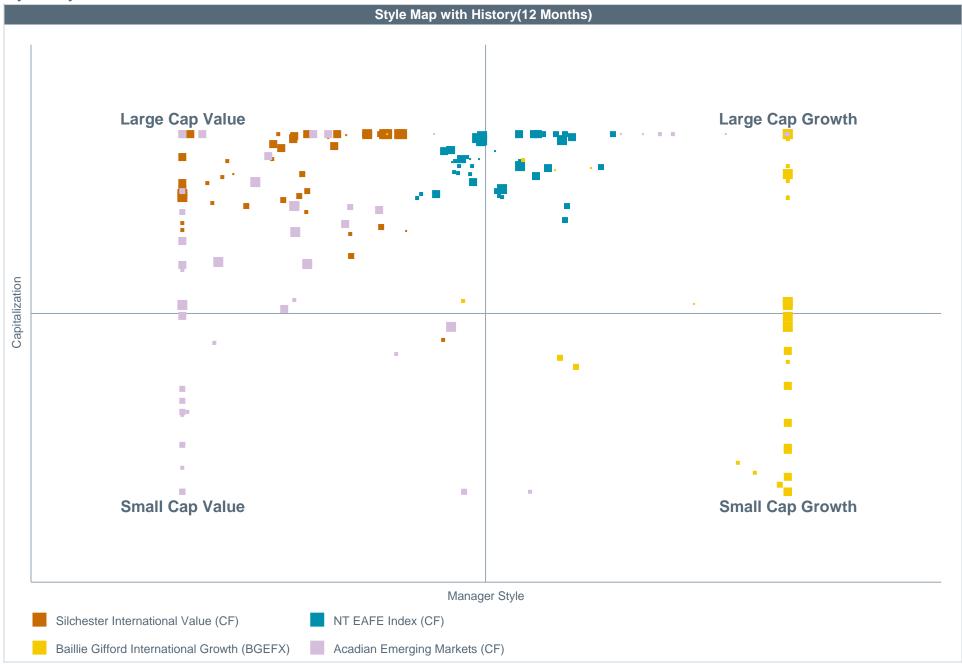
To	p Ten Equi	ty Holdings		
	Portfolio Weight (%)	Benchmark Weight (%)	Active Weight (%)	Quarterly Return (%)
Tencent Holdings LTD	3.85	1.76	2.09	2.59
Alibaba Group Holding Ltd	2.50	2.57	-0.07	36.29
ASML Holding NV	2.14	0.73	1.41	0.44
Samsung Electronics Co Ltd	2.00	1.11	0.89	14.25
M3 Inc	1.84	0.13	1.71	44.90
Alibaba Group Holding Ltd	1.66	2.57	-0.91	31.50
Meituan	1.51	0.52	0.99	40.67
Kering	1.32	0.24	1.08	22.30
MercadoLibre Inc	1.28	0.00	1.28	9.81
Ferrari NV	1.25	0.11	1.14	7.64
% of Portfolio	19.35	9.74	9.61	

	lio Characteristics	
	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap (\$M)	105,728	95,729
Median Mkt. Cap (\$M)	7,366	7,795
Price/Earnings Ratio	14.69	18.16
Price/Book Ratio	3.55	2.84
5 Yr. EPS Growth Rate (%)	7.07	6.23
Current Yield (%)	2.48	2.63
Beta (5 Years, Monthly)	1.04	1.00
Number of Securities	1,438	2,375





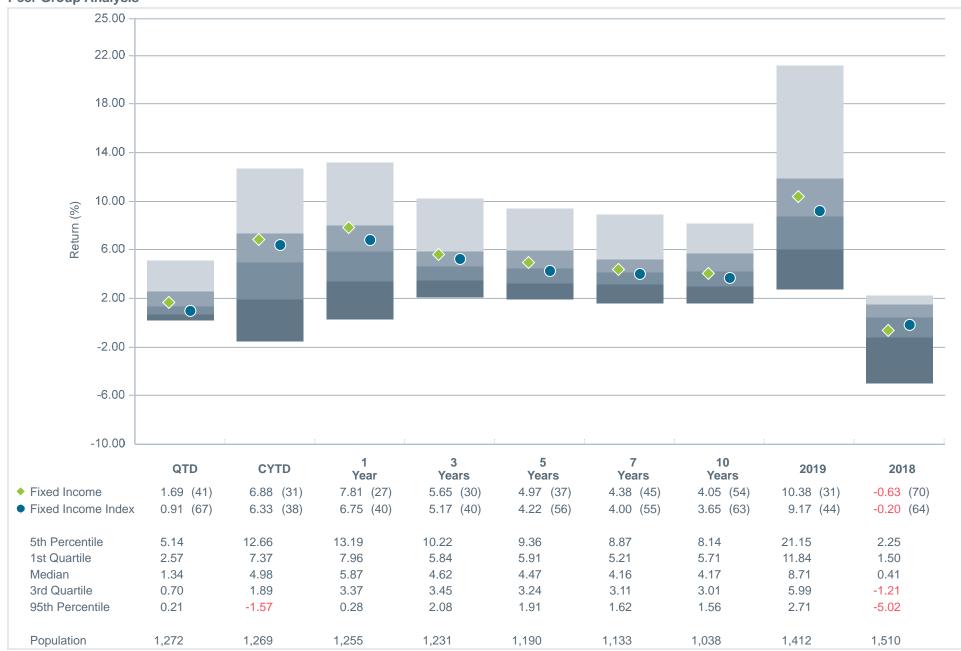




Calculation is based on monthly periodicity. This is a return based calculation.

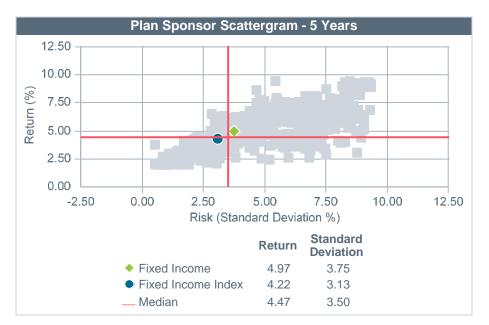


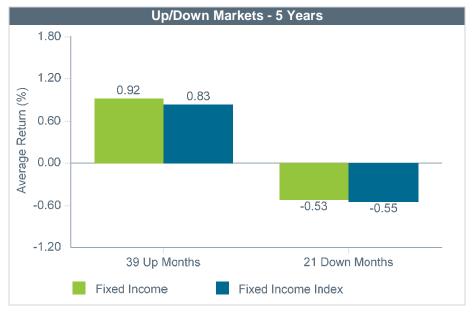
City of Jacksonville Police and Fire Pension Fund Fixed Income vs. IM U.S. Fixed Income (SA+CF) Peer Group Analysis

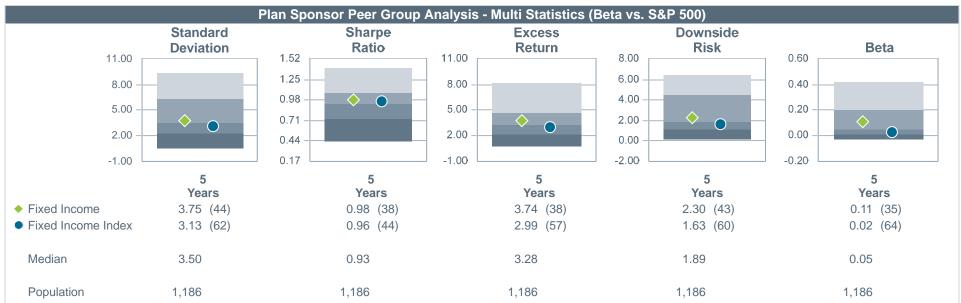


Performance shown is gross of fees. Parentheses contain percentile ranks.







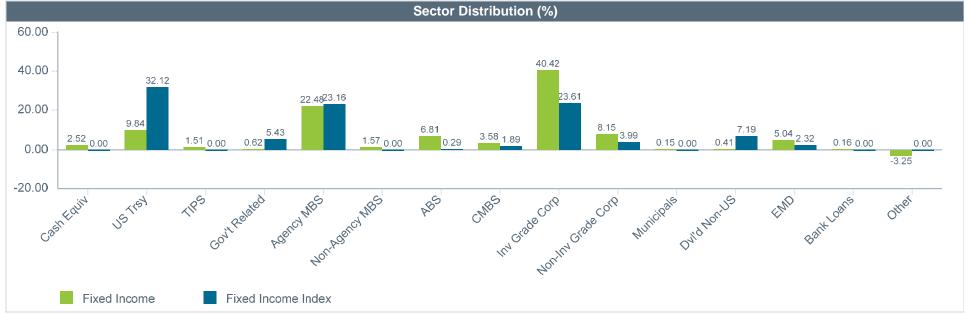


Performance shown is gross of fees. Calculation is based on monthly periodicity. Parentheses contain percentile ranks.



City of Jacksonville Police and Fire Pension Fund Fixed Income vs. Fixed Income Index Portfolio Characteristics

	Portfolio Characteristics	
	Portfolio	Benchmark
Effective Duration	6.15	6.00
Avg. Maturity	8.40	8.13
Avg. Quality	A2	N/A
Yield To Maturity (%)	2.33	1.59
Coupon Rate (%)	3.51	3.16
Current Yield (%)	3.52	N/A



Cash equivalents are defined as any security with duration under one year. Allocation to "Other" consists of convertibles, hedges, net unsettled positions, credit risk transfer, and CLOs.



City of Jacksonville Police and Fire Pension Fund Real Estate vs. NCREIF ODCE Index (AWA) (Gross) Comparative Performance & Rolling Return

	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2019	2018	2017	Since Incep.	Inceptior Date
Real Estate	0.05	-0.48	1.59	1.59	4.80	6.45	8.44	10.63	4.85	8.29	7.66	8.39	04/01/200
ICREIF ODCE Index (AWA) (Gross)		-0.12	1.39	1.39	5.18	6.64	8.60	10.27	5.34	8.35	7.62	7.15	
Difference	-0.43	-0.36	0.20	0.20	-0.38	-0.19	-0.16	0.36	-0.49	-0.06	0.04	1.24	
6.4													
4.8 -													
4.0													
2.4 -					\								
2.4 - 1.6 - 0.8 -			√		1								
0.8													
0.0			Щ	 .	ال	L	Ġ.	_=_					
-0.8 -			_										
-1.6 -													
-2.4													

Performance shown is gross of fees. Calculation is based on quarterly periodicity.

6/08

3/09 12/09

3/06 12/06 9/07

Rolling 3 Years Active Return

6/05



9/20

9/19

3/12 12/12

6/14

9/13

3/15 12/15 9/16

Quarterly Excess Return vs. Market

6/17

3/18 12/18

9/10 6/11

— Rolling 3 Years Tracking Error

City of Jacksonville Police and Fire Pension Fund MLPs vs. S&P MLP Index (TR)

Comparative Performance & Rolling Return

QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2019	2018	2017	Since Incep.	Inception Date
-12.47	-41.31	-41.96	-41.96	-17.16	-8.44	-7.32	N/A	11.34	-12.70	-3.81	-0.50	03/01/2011
-14.31	-44.87	-46.57	-46.57	-18.92	-10.50	-10.61	-3.10	9.78	-11.67	-5.58	-4.74	
1.84	3.56	4.61	4.61	1.76	2.06	3.29	N/A	1.56	-1.03	1.77	4.24	
	-12.47 -14.31	-12.47 -41.31 -14.31 -44.87	-12.47 -41.31 -41.96 - 14.31 - 44.87 - 46.57	-12.47 -41.31 -41.96 -41.96 -14.31 -44.87 -46.57 -46.57	-12.47 -41.31 -41.96 -41.96 -17.16 -14.31 -44.87 -46.57 -46.57 -18.92	-12.47 -41.31 -41.96 -41.96 -17.16 -8.44 -14.31 -44.87 -46.57 -46.57 -18.92 -10.50	-12.47 -41.31 -41.96 -41.96 -17.16 -8.44 -7.32 -14.31 -44.87 -46.57 -46.57 -18.92 -10.50 -10.61	Q1D CY1D FY1D Year Years Year	Q1D CY1D FY1D Year Years Year	Q1D CY1D FY1D Year Years Year	Q1D CY1D FY1D Year Years Year	Q1D CY1D FY1D Year Years Year



Performance shown is gross of fees. Calculation is based on quarterly periodicity.



Investment Manager Profiles

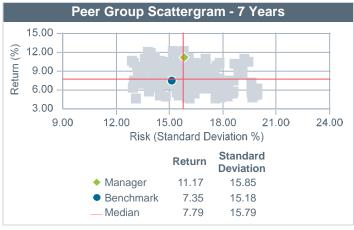


Manager: Eagle Capital Large Cap Value (SA)

Benchmark: Russell 1000 Val Index

Peer Group: IM U.S. Large Cap Value Equity (SA+CF)

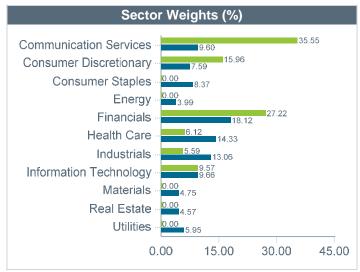
	Performance Performance												
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2019	2018	2017	2016	2015		
Manager	5.99	7.44	9.16	12.01	11.17	N/A	32.20	-5.55	23.64	10.81	1.90		
Benchmark	5.59	-5.03	2.63	7.66	7.35	9.95	26.54	-8.27	13.66	17.34	-3.83		
Difference	0.40	12.47	6.53	4.35	3.82	N/A	5.66	2.72	9.98	-6.53	5.73		
Peer Group Median	5.39	-3.35	3.51	8.06	7.79	10.39	27.29	-8.27	17.24	14.52	-2.22		
Rank	41	17	15	13	9	N/A	13	27	8	80	13		
Population	269	269	268	261	255	225	311	333	352	380	394		







	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap (\$M)	472,285	121,950
Median Mkt. Cap (\$M)	54,533	9,434
Price/Earnings Ratio	23.23	20.03
Price/Book Ratio	3.27	2.55
5 Yr. EPS Growth Rate (%)	12.71	5.48
Current Yield (%)	0.92	2.47
Beta (5 Years, Monthly)	1.03	1.00
Number of Securities	30	850
Active Share	90.04	N/A
80.00 ···· 56.98 40.00 ··· 38.03 20.00 ··· 6.22 7.20	28.38.27.63 2.88 8.98	17.89 5.50 0.04 0.21
>\$100 Bil	\$25 Bil - \$15 Bil - \$75 Bil \$25 Bil	\$2 Bil - \$0 - \$15 Bil \$2 Bil



Performance shown is gross of fees and client specific. Calculation is based on monthly periodicity. Parentheses contain percentile ranks.

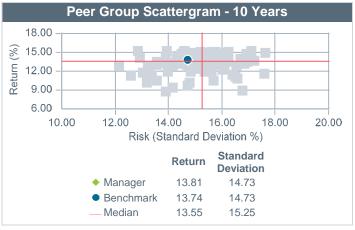


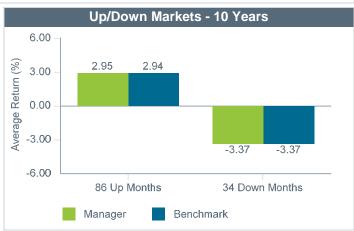
Manager: NT Collective Daily S&P 500 Index Lending (CF)

Benchmark: S&P 500 Index (Cap Wtd)

Peer Group: IM U.S. Large Cap Core Equity (SA+CF)

	Performance												
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2019	2018	2017	2016	2015		
Manager	8.93	15.17	12.32	14.20	12.74	13.81	31.54	-4.34	21.87	12.03	1.49		
Benchmark	8.93	15.15	12.28	14.15	12.68	13.74	31.49	-4.38	21.83	11.96	1.38		
Difference	0.00	0.02	0.04	0.05	0.06	0.07	0.05	0.04	0.04	0.07	0.11		
Peer Group Median	8.06	12.87	10.68	13.14	12.16	13.55	29.99	-5.16	21.84	10.54	1.42		
Rank	37	36	30	23	35	42	34	36	49	33	48		
Population	196	196	194	184	179	157	239	268	292	312	328		







		Portfol	lio	Benchmark
Wtd. Avg. Mkt. Cap (\$M)		446,81	18	446,824
Median Mkt. Cap (\$M)		23,15	50	23,150
Price/Earnings Ratio		26.7	76	26.76
Price/Book Ratio		4.5	52	4.52
5 Yr. EPS Growth Rate (%)		12.8	38	12.88
Current Yield (%)		1.7	70	1.70
Beta (5 Years, Monthly)		1.0	00	1.00
Number of Securities		50	08	505
Active Share		0.0	02	N/A
80.00 60.42 60.42 40.00 20.00 0.00	5.89 5.89	22.03 22.03	6.17 6.17	5.50 5.50
>\$100 Bil	\$75 Bil - \$100 Bil	\$25 Bil - \$75 Bil	\$15 Bil - \$25 Bil	\$2 Bil - \$15 Bil



Performance shown is gross of fees and product specific. Calculation is based on monthly periodicity. Parentheses contain percentile ranks.

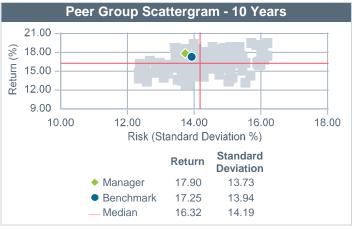


Manager: Loomis, Sayles & Co Lg Cap Grth (CF)

Benchmark: Russell 1000 Grth Index

Peer Group: IM U.S. Large Cap Growth Equity (SA+CF)

				Pe	rforman	ce					
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2019	2018	2017	2016	2015
Manager	10.78	34.32	19.25	20.20	17.81	17.90	32.71	-1.72	34.03	6.54	10.99
Benchmark	13.22	37.53	21.67	20.10	17.39	17.25	36.39	-1.51	30.21	7.08	5.67
Difference	-2.44	-3.21	-2.42	0.10	0.42	0.65	-3.68	-0.21	3.82	-0.54	5.32
Peer Group Median	11.14	33.27	19.69	18.16	16.03	16.36	33.81	-0.90	28.31	4.70	4.97
Rank	59	45	55	26	23	19	61	57	16	33	11
Population	223	222	220	208	201	188	251	280	291	311	339







Portfolio Chara	eristics ar	nd Dist. c	of Market Cap (%)
		Portfolio	Benchmark
Wtd. Avg. Mkt. Cap (\$M)		429,498	652,347
Median Mkt. Cap (\$M)		93,281	13,809
Price/Earnings Ratio		36.34	38.38
Price/Book Ratio		8.45	11.28
5 Yr. EPS Growth Rate (%)		20.76	20.24
Current Yield (%)		0.69	0.84
Beta (5 Years, Monthly)		0.93	1.00
Number of Securities		36	447
Active Share		71.04	N/A
75.00 50.00 25.00	21.97 15.44	6.44 5.18	3.19 6.41 0.00 0.03
	Bil - \$25 Bil - Bil \$75 Bil	\$15 Bil - \$25 Bil	\$2 Bil - \$0 - \$15 Bil \$2 Bil



Performance shown is gross of fees and product specific. Calculation is based on monthly periodicity. Parentheses contain percentile ranks.

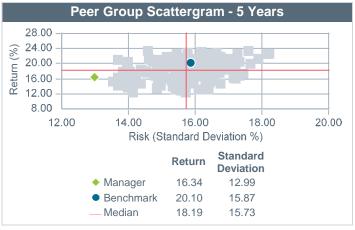


Manager: Sawgrass Diversified Large Cap Growth (SA)

Benchmark: Russell 1000 Grth Index

Peer Group: IM U.S. Large Cap Growth Equity (SA+CF)

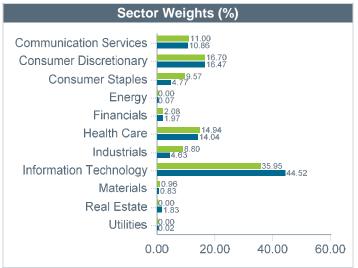
	Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2019	2018	2017	2016	2015	
Manager	8.55	22.94	17.97	16.34	N/A	N/A	30.50	3.34	22.94	6.80	2.21	
Benchmark	13.22	37.53	21.67	20.10	17.39	17.25	36.39	-1.51	30.21	7.08	5.67	
Difference	-4.67	-14.59	-3.70	-3.76	N/A	N/A	-5.89	4.85	-7.27	-0.28	-3.46	
Peer Group Median	11.14	33.27	19.69	18.16	16.03	16.36	33.81	-0.90	28.31	4.70	4.97	
Rank	88	77	63	73	N/A	N/A	78	15	82	30	73	
Population	223	222	220	208	201	188	251	280	291	311	339	







Portfolio Cha	racteris	stics an	d Dist. o	of Mark	et Cap (%)
			Portfolio		Benchmark
Wtd. Avg. Mkt. Cap (\$M)			507,789		652,347
Median Mkt. Cap (\$M)			115,520		13,809
Price/Earnings Ratio			29.15		38.38
Price/Book Ratio			7.26		11.28
5 Yr. EPS Growth Rate (%)		12.89		20.24
Current Yield (%)			1.31		0.84
Beta (5 Years, Monthly)			0.79		1.00
Number of Securities			49		447
Active Share			60.17		N/A
150.00 100.00 50.00	0.00 3.43	2.53 2.42	0.00 0.46	0.00 0.13	0.00 0.00
>\$15 Bil	\$10 Bil - \$15 Bil	\$5 Bil - \$10 Bil	\$3 Bil - \$5 Bil	: \$1 Bil - \$3 Bil	; \$0 - \$1 Bil



Performance shown is gross of fees and client specific. Calculation is based on monthly periodicity. Parentheses contain percentile ranks.

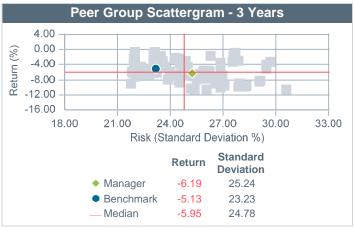


Manager: Wedge Capital Mgmt Sm Cap Val (CF)

Benchmark: Russell 2000 Val Index

Peer Group: IM U.S. Small Cap Value Equity (MF)

	Performance										
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2019	2018	2017	2016	2015
Manager	0.82	-19.08	-6.19	N/A	N/A	N/A	26.10	-14.38	6.47	N/A	N/A
Benchmark	2.56	-14.88	-5.13	4.11	3.27	7.09	22.39	-12.86	7.84	31.74	-7.47
Difference	-1.74	-4.20	-1.06	N/A	N/A	N/A	3.71	-1.52	-1.37	N/A	N/A
Peer Group Median	2.48	-14.93	-5.95	2.38	2.24	6.53	21.26	-16.08	8.32	26.61	-7.10
Rank	81	83	58	N/A	N/A	N/A	15	39	71	N/A	N/A
Population	238	232	211	196	174	136	250	257	244	233	213







			Portfolio	Ben	chmark
Wtd. Avg. Mkt. Cap (\$N	1)		2,799		,909
Median Mkt. Cap (\$M)			1,834		558
Price/Earnings Ratio			15.02		13.26
Price/Book Ratio			1.93		1.73
5 Yr. EPS Growth Rate	(%)		4.03		5.81
Current Yield (%)			2.08		2.22
Beta (3 Years, Monthly)			1.08		1.00
Number of Securities			90		,459
Active Share			91.32		N/A
80.00 ···· 60.00 ··· 40.00 ··· 20.00 ··· 0.00	46.30	16.82 7.84	3.03	1.20 2.61 0	00_0.31_
>\$3 Bil	; \$1 Bil - \$3 Bil	\$500 Mil - \$1 Bil	\$200 Mil - \$500 Mil	\$100 Mil - \$200 Mil \$: \$0 - 100 Mil



Performance shown is net of fees and product specific. Calculation is based on monthly periodicity. Parentheses contain percentile ranks.



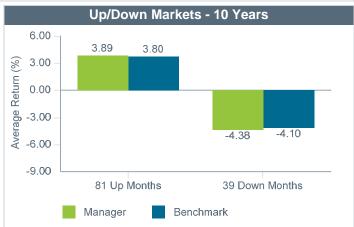
Manager: Pinnacle Associates US SMID Cap Growth (SA)

Benchmark: Russell 2500 Grth Index

Peer Group: IM U.S. SMID Cap Growth Equity (SA+CF)

	Performance Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2019	2018	2017	2016	2015	
Manager	4.11	17.41	8.70	13.18	10.48	13.41	41.32	-11.11	25.97	5.33	0.58	
Benchmark	9.37	23.37	13.36	14.19	11.69	14.06	32.65	-7.47	24.46	9.73	-0.19	
Difference	-5.26	-5.96	-4.66	-1.01	-1.21	-0.65	8.67	-3.64	1.51	-4.40	0.77	
Peer Group Median	9.19	24.91	17.52	15.85	12.27	14.94	31.74	-4.62	25.00	8.56	0.14	
Rank	91	71	80	73	70	75	4	90	44	76	41	
Population	53	53	49	43	37	31	57	63	62	68	69	







			Portfolio		Benchmark
Wtd. Avg. Mkt. Cap (\$N	1)		13,401		6,054
Median Mkt. Cap (\$M)			2,731		1,160
Price/Earnings Ratio			28.52		32.64
Price/Book Ratio			3.47		5.85
5 Yr. EPS Growth Rate	(%)		13.67		20.35
Current Yield (%)			0.48		0.46
Beta (5 Years, Monthly))		1.02		1.00
Number of Securities			75		1,291
Active Share			95.85		N/A
32.00 ···· 24.00 ··· ^{24.09}		26.90	20.47	25.44 _{23.98}	
16.00 ···	18.95 16.16	15.87	12.33		
8.00 2.44					6.12 7.27
>\$15 Bil	\$10 Bil -	: \$5 Bil -	\$3 Bil -	: \$1 Bil -	\$0 -



Performance shown is gross of fees and client specific. Calculation is based on monthly periodicity. Parentheses contain percentile ranks.

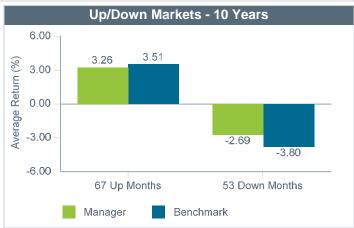


Manager: Silchester Int'l Value Equity (CF)
Benchmark: MSCI EAFE Val Index (USD) (Net)

Peer Group: IM EAFE Value (SA+CF)

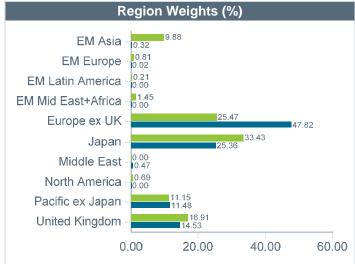
	Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2019	2018	2017	2016	2015	
Manager	3.37	-5.12	-2.22	4.86	3.93	6.89	18.05	-13.74	28.10	8.27	2.35	
Benchmark	1.19	-11.93	-5.86	1.14	-0.33	2.10	16.09	-14.78	21.44	5.02	-5.68	
Difference	2.18	6.81	3.64	3.72	4.26	4.79	1.96	1.04	6.66	3.25	8.03	
Peer Group Median	3.75	-4.64	-2.92	3.46	2.01	4.76	21.17	-15.76	24.17	3.15	-1.05	
Rank	59	55	47	34	25	14	89	41	26	9	26	
Population	48	48	48	48	48	46	55	59	61	65	76	







Portfolio Cha	aracteri	stics an	d Dist. c	of Mark	et Cap (%)
			Portfolio		Benchmark
Wtd. Avg. Mkt. Cap (\$N)		34,413		48,811
Median Mkt. Cap (\$M)			3,642		9,207
Price/Earnings Ratio			11.50		13.71
Price/Book Ratio			1.98		1.86
5 Yr. EPS Growth Rate	(%)		-2.04		0.18
Current Yield (%)			3.95		3.91
Beta (5 Years, Monthly)			0.86		1.00
Number of Securities			142		545
Active Share			84.10		N/A
60.00					
45.00				43.20	
10.00		34.48			
30.00				26.10	
15.00 ··· 10.80 9.54	15.75 6.04	15.43	11.08 14.10		0.03
>\$100 Bil	\$75 Bil - \$100 Bil	: \$25 Bil - \$75 Bil	: \$15 Bil - \$25 Bil	: \$2 Bil - \$15 Bil	\$0 - \$2 Bil



Performance shown is gross of fees and product specific. Calculation is based on monthly periodicity. Parentheses contain percentile ranks.



Manager: NT Collective Daily EAFE Index Lending (CF)

Benchmark: MSCI EAFE Index (USD) (Net)

Peer Group: IM Enhanced and Indexed International Equity (SA+CF)

				Pe	rforman	ce					
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2019	2018	2017	2016	2015
Manager	4.84	0.96	1.01	5.68	N/A	N/A	22.23	-13.18	25.16	1.42	-0.45
Benchmark	4.80	0.49	0.62	5.26	3.01	4.62	22.01	-13.79	25.03	1.00	-0.81
Difference	0.04	0.47	0.39	0.42	N/A	N/A	0.22	0.61	0.13	0.42	0.36
Peer Group Median	5.94	3.17	1.17	6.52	3.46	4.98	21.97	-13.76	25.54	4.67	-2.06
Rank	67	57	58	66	N/A	N/A	38	29	61	84	27
Population	40	40	39	36	34	30	41	46	49	50	47







Wtd. Avg. Mkt. Cap (\$M) 63,995 64,391 Median Mkt. Cap (\$M) 10,206 10,289 Price/Earnings Ratio 19.20 19.05 Price/Book Ratio 2.83 2.87 5 Yr. EPS Growth Rate (%) 3.98 3.93 Current Yield (%) 2.58 2.72 Beta (5 Years, Monthly) 0.99 1.00 Number of Securities 920 902 Active Share 6.71 N/A				Portfolio	Benchma
Price/Earnings Ratio 19.20 19.05 Price/Book Ratio 2.83 2.87 5 Yr. EPS Growth Rate (%) 3.98 3.93 Current Yield (%) 2.58 2.72 Beta (5 Years, Monthly) 0.99 1.00 Number of Securities 920 902 Active Share 6.71 N/A	Wtd. Avg. Mkt. Cap (\$M)			63,995	64,391
Price/Book Ratio 2.83 2.87 5 Yr. EPS Growth Rate (%) 3.98 3.93 Current Yield (%) 2.58 2.72 Beta (5 Years, Monthly) 0.99 1.00 Number of Securities 920 902 Active Share 6.71 N/A	Median Mkt. Cap (\$M)			10,206	10,289
5 Yr. EPS Growth Rate (%) 5 Yr. EPS Growth Rate (%) 5 Yr. EPS Growth Rate (%) 5 2.58 2.72 8eta (5 Years, Monthly) 7 920 902 902 902 Active Share 920 902 Active Share 920 902 76.7977.46 90.00 76.7977.46 90.00 905 820 818 11.9111.43	Price/Earnings Ratio			19.20	19.05
Current Yield (%) 2.58 2.72 Beta (5 Years, Monthly) 0.99 1.00 Number of Securities 920 902 Active Share 6.71 N/A	Price/Book Ratio			2.83	2.87
Beta (5 Years, Monthly) 0.99 1.00 Number of Securities 920 902 Active Share 6.71 N/A	5 Yr. EPS Growth Rate (%)			3.98	3.93
Number of Securities 920 902 Active Share 6.71 N/A	Current Yield (%)			2.58	2.72
Active Share 6.71 N/A 100.00 75.00 25.00 25.00 8.20 8.18 11.9111.43	Beta (5 Years, Monthly)			0.99	1.00
100.00 75.00 50.00 25.00 8.20 8.18 11.9111.43	Number of Securities			920	902
75.00 76.7977.46 50.00 25.00 8.20 8.18 11.9111.43	Active Share			6.71	N/A
	75.00 ··· 76.7977.46 50.00 ··· 25.00 ···	.20 8.18	11.91 11.43	270.255	
		10 Bil -	\$5 Bil -	\$3 Bil -	\$1 Bil - \$0 -



Performance shown is gross of fees and product specific. Calculation is based on monthly periodicity. Parentheses contain percentile ranks.



Manager: Baillie Gifford International Growth (BGEFX)

Benchmark: MSCI ACW Ex US Index (USD) (Net)

Peer Group: IM ACWI Ex US Growth (MF)

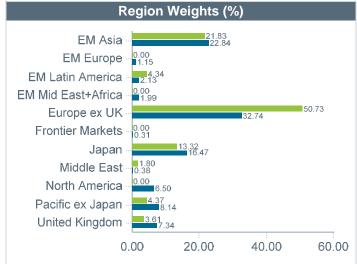
	Performance										
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2019	2018	2017	2016	2015
Manager	14.75	53.94	16.47	19.29	12.01	N/A	37.47	-17.26	46.24	1.42	-2.99
Benchmark	6.25	3.00	1.16	6.23	3.18	4.00	21.51	-14.20	27.19	4.50	-5.66
Difference	8.50	50.94	15.31	13.06	8.83	N/A	15.96	-3.06	19.05	-3.08	2.67
Peer Group Median	10.58	17.75	7.59	9.68	6.41	6.59	27.84	-14.32	32.37	-0.80	0.27
Rank	7	1	6	3	7	N/A	2	79	5	17	100
Population	171	171	171	149	128	104	172	176	188	165	143







			Portfolio	1	Benchmark
Wtd. Avg. Mkt. Cap (\$N	1)		134,904		95,729
Median Mkt. Cap (\$M)			23,863		7,795
Price/Earnings Ratio			36.85		18.16
Price/Book Ratio			7.65		2.84
5 Yr. EPS Growth Rate	(%)		14.21		6.23
Current Yield (%)			0.55		2.63
Beta (5 Years, Monthly)		1.13		1.00
Number of Securities			53		2,375
Active Share			91.94		N/A
45.00 ··· 28.74 21.23		35.45 30.59		25.69	
15.00	7.94 8.94		11,29 13.00	15.74	0.84 0.55
>\$100 Bil	\$75 Bil - \$100 Bil	\$25 Bil - \$75 Bil	\$15 Bil - \$25 Bil	: \$2 Bil - \$15 Bil	; \$0 - \$2 Bil



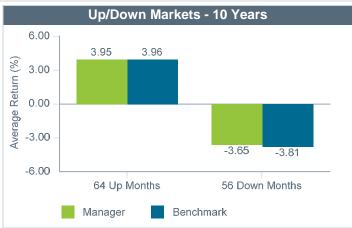
Performance shown is net of fees and client specific. Calculation is based on monthly periodicity. Parentheses contain percentile ranks.



Manager: Acadian Emg Mkts Equity CI II (CF)
Benchmark: MSCI Emg Mkts Index (USD) (Net)
Peer Group: IM Emerging Markets Equity (SA+CF)

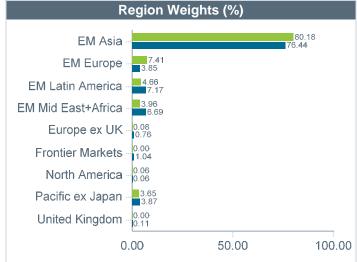
				Pe	rforman	ce					
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2019	2018	2017	2016	2015
Manager	7.13	6.10	-0.86	7.55	2.98	3.37	18.00	-18.30	38.94	14.08	-17.37
Benchmark	9.56	10.54	2.42	8.97	3.74	2.51	18.44	-14.58	37.28	11.19	-14.92
Difference	-2.43	-4.44	-3.28	-1.42	-0.76	0.86	-0.44	-3.72	1.66	2.89	-2.45
Peer Group Median	9.91	10.19	2.45	8.85	4.41	4.09	19.49	-15.23	36.80	10.36	-12.66
Rank	77	67	76	65	75	58	64	81	36	23	90
Population	271	270	255	238	201	135	312	321	335	346	348







Portfolio Characteristic	s and Dist. of Market Cap (%)
	Portfolio Benchmark
Wtd. Avg. Mkt. Cap (\$M)	155,336 173,863
Median Mkt. Cap (\$M)	1,715 5,324
Price/Earnings Ratio	11.90 16.80
Price/Book Ratio	2.64 3.06
5 Yr. EPS Growth Rate (%)	11.65 11.58
Current Yield (%)	2.84 2.31
Beta (5 Years, Monthly)	1.00 1.00
Number of Securities	420 1,386
Active Share	64.02 N/A
60.00 ··· 45.00 ··· 30.00 ··· 15.00 ··· 0.00 2.26	39.46 33.42 20.94 7.08 9.77 5.63
>\$100 Bil \$75 Bil - \$25 \$100 Bil \$75	



Performance shown is gross of fees and product specific. Calculation is based on monthly periodicity. Parentheses contain percentile ranks.

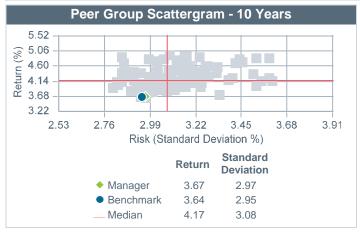


Manager: NT Collective Daily Agg Bnd Index Lending (CF)

Benchmark: Bloomberg US Agg Bond Index

Peer Group: IM U.S. Broad Market Core Fixed Income (SA+CF)

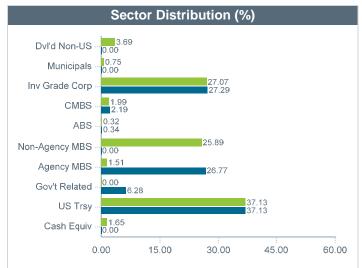
				Pe	erforman	ce					
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2019	2018	2017	2016	2015
Manager	0.60	7.01	5.28	4.20	4.01	3.67	8.77	0.03	3.57	2.64	0.58
Benchmark	0.62	6.98	5.24	4.18	3.97	3.64	8.72	0.01	3.54	2.65	0.55
Difference	-0.02	0.03	0.04	0.02	0.04	0.03	0.05	0.02	0.03	-0.01	0.03
Peer Group Median	1.11	7.55	5.67	4.73	4.44	4.17	9.18	0.06	4.03	3.10	0.82
Rank	89	76	88	91	87	91	72	56	80	76	71
Population	137	137	134	132	127	121	151	157	162	169	174







	Portfolio	Benchmark
Effective Duration	6.14	6.12
Spread Duration	3.86	6.35
Avg. Maturity	8.12	8.18
Avg. Quality	Aa3	Aa1/Aa2
Yield To Maturity (%)	1.15	1.19
Coupon Rate (%)	3.00	2.90
Current Yield (%)	2.64	N/A
Holdings Count	4,827	11,912



Performance shown is gross of fees and product specific. Calculation is based on monthly periodicity. Parentheses contain percentile ranks.

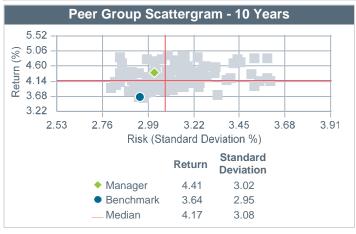


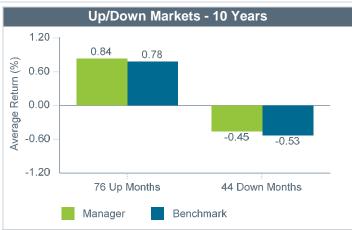
Manager: Thompson Siegel Core Fixed Income (SA)

Benchmark: Bloomberg US Agg Bond Index

Peer Group: IM U.S. Broad Market Core Fixed Income (SA+CF)

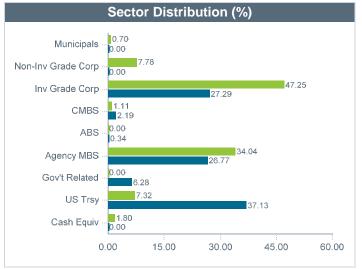
				Pe	erforman	се					
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2019	2018	2017	2016	2015
Manager	1.63	8.35	5.99	5.16	4.67	4.41	10.35	-0.25	4.44	4.44	1.42
Benchmark	0.62	6.98	5.24	4.18	3.97	3.64	8.72	0.01	3.54	2.65	0.55
Difference	1.01	1.37	0.75	0.98	0.70	0.77	1.63	-0.26	0.90	1.79	0.87
Peer Group Median	1.11	7.55	5.67	4.73	4.44	4.17	9.18	0.06	4.03	3.10	0.82
Rank	14	21	26	14	30	29	9	82	28	14	12
Population	137	137	134	132	127	121	151	157	162	169	174







Portfol	io Characteristic	s
	Portfolio	Benchmark
Effective Duration	5.34	6.12
Spread Duration	5.89	6.35
Avg. Maturity	7.04	8.18
Avg. Quality	A2	Aa1/Aa2
Yield To Maturity (%)	2.03	1.19
Coupon Rate (%)	3.53	2.90
Current Yield (%)	3.29	N/A
Holdings Count	115	11,912



Performance shown is gross of fees and client specific. Calculation is based on monthly periodicity. Parentheses contain percentile ranks.

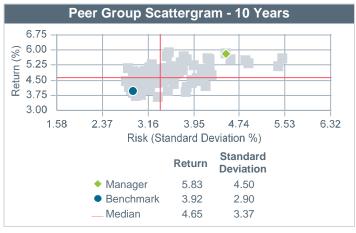


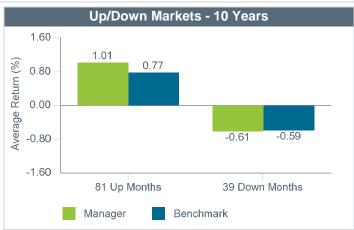
Manager: Loomis Core Plus Full Discretion (CF)

Benchmark: Bloomberg US Unv Bond Index

Peer Group: IM U.S. Broad Market Core+ Fixed Income (SA+CF)

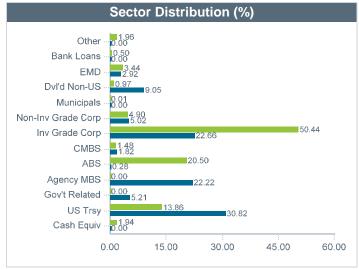
				Pe	erforman	се					
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2019	2018	2017	2016	2015
Manager	2.06	9.24	6.13	6.28	5.47	5.83	9.06	0.54	6.58	7.83	-1.82
Benchmark	0.99	6.68	5.15	4.49	4.16	3.92	9.29	-0.25	4.09	3.91	0.43
Difference	1.07	2.56	0.98	1.79	1.31	1.91	-0.23	0.79	2.49	3.92	-2.25
Peer Group Median	1.71	7.44	5.72	5.09	4.70	4.65	9.94	-0.32	4.79	4.69	0.31
Rank	24	5	19	6	11	7	80	12	14	13	90
Population	136	134	130	128	126	120	155	162	167	170	177







	Portfolio	Benchmark
Effective Duration	5.83	5.97
Spread Duration	5.00	N/A
Avg. Maturity	7.79	8.12
Avg. Quality	А3	N/A
Yield To Maturity (%)	2.43	1.69
Coupon Rate (%)	3.38	3.23
Current Yield (%)	3.20	0.17
Holdings Count	602	18,741



Performance shown is gross of fees and product specific. Calculation is based on monthly periodicity. Parentheses contain percentile ranks. Allocation to "Other" consists of convertibles and hedges.

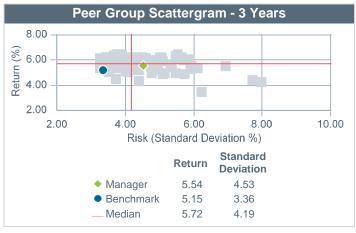


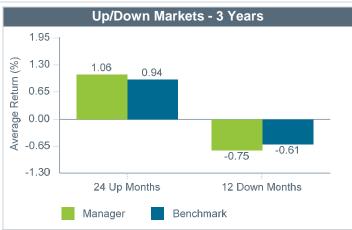
Manager: Neuberger Berman Core Plus Trust - Class III (CIT)

Benchmark: Bloomberg US Unv Bond Index

Peer Group: IM U.S. Broad Market Core+ Fixed Income (SA+CF)

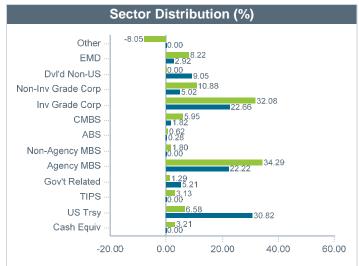
				Pe	erforman	се					
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2019	2018	2017	2016	2015
Manager	1.53	7.07	5.54	N/A	N/A	N/A	11.03	-0.89	4.63	N/A	N/A
Benchmark	0.99	6.68	5.15	4.49	4.16	3.92	9.29	-0.25	4.09	3.91	0.43
Difference	0.54	0.39	0.39	N/A	N/A	N/A	1.74	-0.64	0.54	N/A	N/A
Peer Group Median	1.71	7.44	5.72	5.09	4.70	4.65	9.94	-0.32	4.79	4.69	0.31
Rank	62	63	61	N/A	N/A	N/A	25	76	58	N/A	N/A
Population	136	134	130	128	126	120	155	162	167	170	177







Spread Duration 6.38 Avg. Maturity 9.32 Avg. Quality A1 Yield To Maturity (%) 2.44	read Duration 6.38	5.97 N/A
Avg. Maturity 9.32 Avg. Quality A1 Yield To Maturity (%) 2.44		NI/A
Avg. Quality A1 Yield To Maturity (%) 2.44	g. Maturity 9.32	IN/A
Yield To Maturity (%) 2.44		8.12
	g. Quality A1	N/A
Coupon Boto (9/)	eld To Maturity (%) 2.44	1.69
5.02	upon Rate (%) 3.62	3.23
Current Yield (%) 3.86	rrent Yield (%) 3.86	0.17
Holdings Count 473 18	Idings Count 473 18	3,741

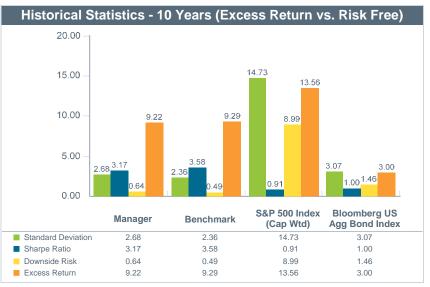


Performance shown is gross of fees and product specific. Calculation is based on monthly periodicity. Parentheses contain percentile ranks. Allocation to "Other" consists of net unsettled positions, credit risk transfer, and CLOs.

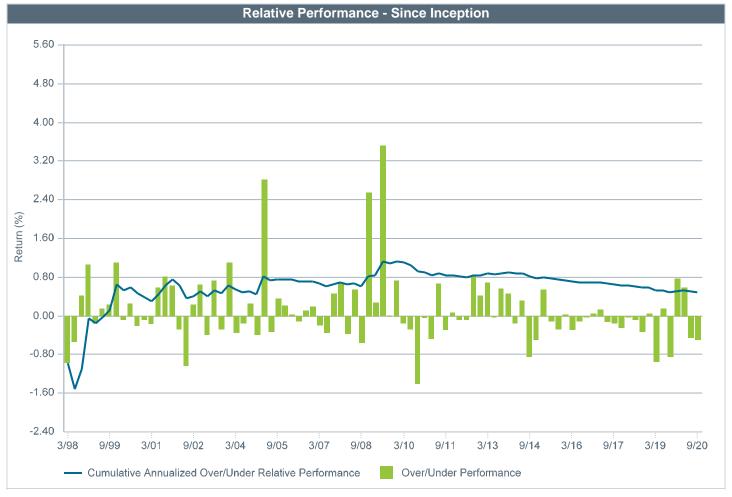


Manager: JPMorgan Strategic Property (CF)
Benchmark: NCREIF ODCE Index (AWA) (Gross)

				Pe	rforman	се					
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2019	2018	2017	2016	2015
Manager	-0.03	1.78	4.51	6.13	8.14	10.19	4.41	7.95	7.20	8.37	15.23
Benchmark	0.48	1.39	5.18	6.64	8.60	10.27	5.34	8.35	7.62	8.77	15.02
Difference	-0.51	0.39	-0.67	-0.51	-0.46	-0.08	-0.93	-0.40	-0.42	-0.40	0.21



Actual Correlation - 10	Years Actual Correlation
NCREIF ODCE Index (AWA) (Gross)	0.95
S&P 500 Index (Cap Wtd)	-0.18
Russell 2000 Index	-0.08
MSCI EAFE Index (USD) (Net)	-0.08
MSCI Emg Mkts Index (USD) (Net)	-0.23
Bloomberg US Agg Bond Index	-0.33
Bloomberg US Trsy US TIPS Index	-0.30
Wilshire US REIT Index	-0.08
HFRI FOF Comp Index	-0.19
Bloomberg Cmdty Index (TR)	-0.11
ICE BofAML 3 Mo US T-Bill Index	-0.47
Cons Price Index (Unadjusted)	0.02



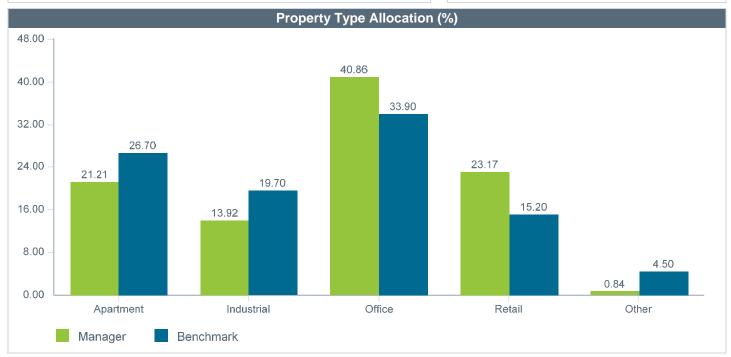


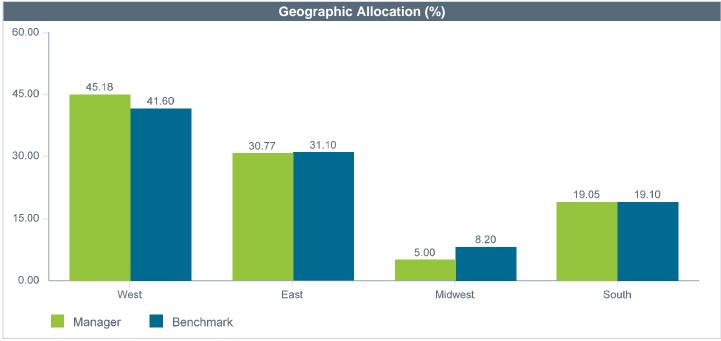
Manager: JPMorgan Strategic Property (CF)
Benchmark: NCREIF ODCE Index (AWA) (Gross)

Investment Strategy

The Fund pursues a diversified core real estate strategy that seeks a total return which consists largely of current income with modest appreciation and low risk potential. The Fund invests in high-quality, well-leased and stabilized assets with dominant competitive characteristics in attractive demographic markets throughout the US and targets to outperform the NCREIF ODCE Index over a full market cycle. The Fund uses third-party leverage, not presently expected to exceed 35% of the total portfolio value or 65% on any individual property at the time of procurement of debt.

Investment Prof	ile
Fund Inception	1998
Legal Structure	Collective Trust
Fund Structure	Open-End
Gross Real Estate Assets (\$M)	40,859
Fund Leverage %	24.88
Portfolio Occupancy %	92.20
Cash Reserve %	2.85
Number of Investments	163
Number of Limited Partners	381



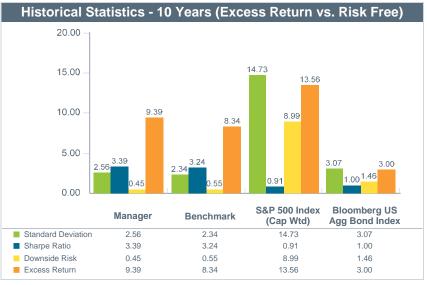


Performance shown is gross of fees and product specific. Calculation is based on quarterly periodicity. Investment profile data shown is provided by the investment manager and is as of the most recently available quarter end. Allocation data shown is based on NAV. Manager allocation to "Other" consists of land. Benchmark allocation to "Other" consists of entertainment (theaters, golf courses, bowling alleys), healthcare (hospitals, clinics), manufactured homes, parking lots, self-storage units, senior living, and undeveloped land.

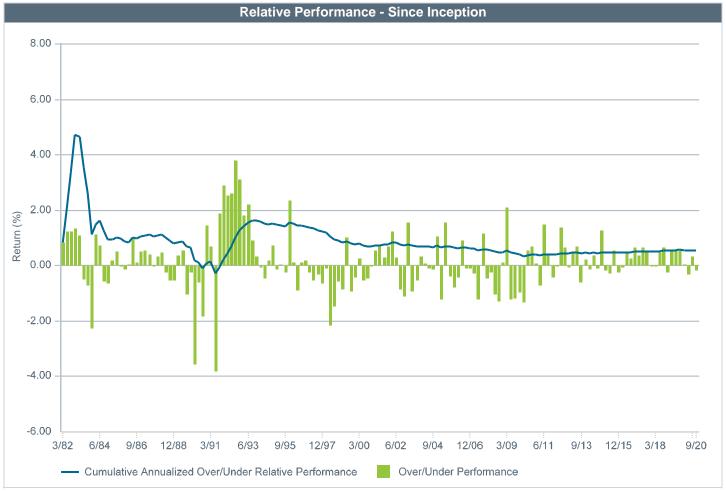


Manager: Principal US Property (CF)
Benchmark: NCREIF ODCE Index (AWA) (Net)

				Pe	rforman	се					
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2019	2018	2017	2016	2015
Manager	0.09	0.42	5.12	6.76	8.67	10.37	6.22	8.32	8.29	9.21	13.81
Benchmark	0.27	0.52	4.25	5.69	7.62	9.26	4.39	7.36	6.66	7.79	13.95
Difference	-0.18	-0.10	0.87	1.07	1.05	1.11	1.83	0.96	1.63	1.42	-0.14



	Actual Correlation
NCREIF ODCE Index (AWA) (Net)	0.92
S&P 500 Index (Cap Wtd)	-0.14
Russell 2000 Index	-0.06
MSCI EAFE Index (USD) (Net)	-0.15
MSCI Emg Mkts Index (USD) (Net)	-0.32
Bloomberg US Agg Bond Index	-0.24
Bloomberg US Trsy US TIPS Index	-0.29
Wilshire US REIT Index	0.09
HFRI FOF Comp Index	-0.19
Bloomberg Cmdty Index (TR)	-0.15
ICE BofAML 3 Mo US T-Bill Index	-0.43
Cons Price Index (Unadjusted)	-0.02
NCREIF ODCE Index (AWA) (Gross)	0.92





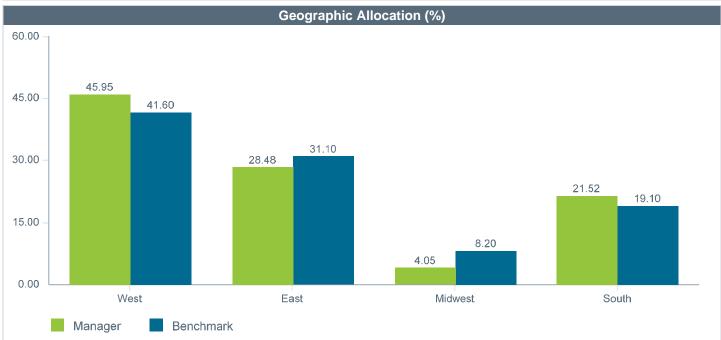
Manager: Principal US Property (CF)
Benchmark: NCREIF ODCE Index (AWA) (Net)

Investment Strategy

The Principal U.S. Property Account is a core real estate account designed to have a low to moderate risk profile consistent with other open-end real estate funds comprising the NFI-ODCE. This risk profile has two components: 1) a low to moderate real estate property risk profile; and 2) a low to moderate risk portfolio level operating profile. Low to moderate real estate property risk is accomplished by investing primarily in well-leased properties on an unleveraged basis. Low to moderate portfolio level risk is accomplished by operating with limited portfolio level obligations and a well-diversified portfolio. The Account invests in the traditional real estate property types; multifamily, office, industrial, and retail.

Investment Profile					
Fund Inception	1982				
Legal Structure	Insurance SA				
Fund Structure	Open-End				
Gross Real Estate Assets (\$M)	10,351				
Fund Leverage %	20.21				
Portfolio Occupancy %	91.21				
Cash Reserve %	2.14				
Number of Investments	133				
Number of Limited Partners	5,729				





Performance shown is net of fees and product specific. Calculation is based on quarterly periodicity. Investment profile data shown is provided by the investment manager and is as of the most recently available quarter end. Allocation data shown is based on NAV. Manager allocation to "Other" consists of land. Benchmark allocation to "Other" consists of entertainment (theaters, golf courses, bowling alleys), healthcare (hospitals, clinics), manufactured homes, parking lots, self-storage units, senior living, and undeveloped land.

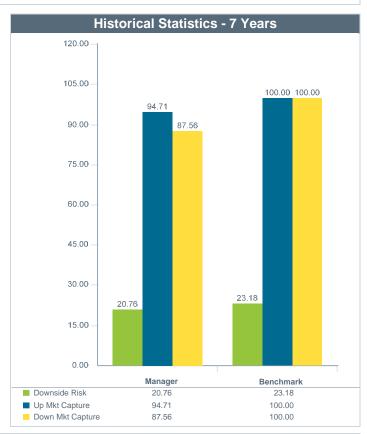


Manager: Harvest Fund Advisors MLP (SA)

Benchmark: S&P MLP Index (TR)

Performance Performance											
QTD 1 3 5 7 10 Year Years Years Years Years 2019 2018 2017 2016 2015											
Manager	-9.50	-39.11	-15.32	-7.75	-6.73	N/A	13.53	-12.78	-4.85	19.97	-30.37
S&P MLP Index (TR)	-14.31	-46.57	-18.92	-10.50	-10.61	-3.10	9.78	-11.67	-5.58	21.95	-35.07
Difference	4.81	7.46	3.60	2.75	3.88	N/A	3.75	-1.11	0.73	-1.98	4.70





Portfolio Characteristics					
	Portfolio	Benchmark			
Wtd. Avg. Mkt. Cap (\$M)	23,905	10,328			
Median Mkt. Cap (\$M)	7,697	1,269			
Price/Earnings Ratio	13.34	8.49			
Price/Book Ratio	1.71	1.96			
5 Yr. EPS Growth Rate (%)	-2.70	2.78			
Current Yield (%)	9.91	14.04			
Beta (5 Years, Monthly)	0.84	1.00			
Number of Securities	25	33			





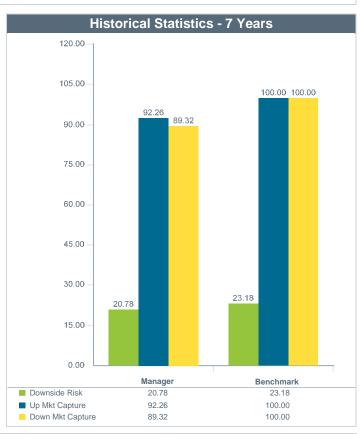


Manager: Tortoise Capital Advisors MLP (SA)

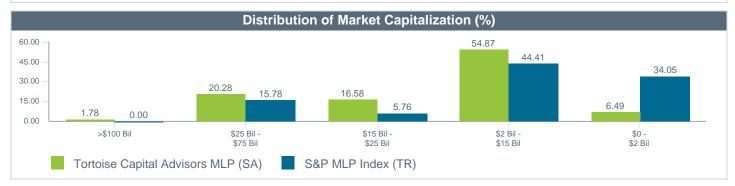
Benchmark: S&P MLP Index (TR)

Performance Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2019	2018	2017	2016	2015
Manager	-15.85	-45.00	-18.99	-9.14	-7.96	N/A	9.24	-12.24	-2.77	16.46	-26.59
Benchmark	-14.31	-46.57	-18.92	-10.50	-10.61	-3.10	9.78	-11.67	-5.58	21.95	-35.07
Difference	-1.54	1.57	-0.07	1.36	2.65	N/A	-0.54	-0.57	2.81	-5.49	8.48





Portfolio Characteristics					
	Portfolio	Benchmark			
Wtd. Avg. Mkt. Cap (\$M)	17,247	10,328			
Median Mkt. Cap (\$M)	5,261	1,269			
Price/Earnings Ratio	10.02	8.49			
Price/Book Ratio	1.81	1.96			
5 Yr. EPS Growth Rate (%)	2.39	2.78			
Current Yield (%)	11.64	14.04			
Beta (5 Years, Monthly)	0.83	1.00			
Number of Securities	27	33			







Addendum & Glossary



City of Jacksonville Police and Fire Pension Fund Addendum

Performance Related Comments:

- Performance is annualized for periods greater than one year.
- The inception date shown indicates the first full month of performance following initial funding.
- RVK began monitoring the assets of the City of Jacksonville Police and Fire on 12/01/2019. Prior historical data was
 provided by the custodian and previous consultant.

Custom Composite Benchmark Comments:

- Total Fund Policy Index: The passive Current Total Fund Policy Index is calculated monthly and currently consists of 39% Russell 3000 Index, 20% MSCI ACW Ex US Index (USD) (Net), 4% Bloomberg US Agg Bond Index, 15.5% Bloomberg US Unv Bond Index, 15% NCREIF ODCE Index (AWA) (Net), 5.5% S&P MLP Index (TR), and 1% FTSE 3 Mo T-Bill Index.
- **US Equity Policy Index**: The passive US Equity Policy Index consists of 100% US Equity Composite Custom Index through 09/2013 and 100% Russell 3000 Index thereafter.
- International Equity Policy Index: The passive International Equity Policy Index consists of 100% MSCI EAFE Index (USD) (Net) through 09/2009 and 100% MSCI ACW Ex US Index (USD) (Net) thereafter.
- **Fixed Income Policy Index**: The passive Fixed Income Policy Index consists of 100% Bloomberg US Agg Bond Index through 12/2016 and 20.5% Bloomberg US Agg Bond Index/79.5% Bloomberg US Unv Bond Index thereafter.

Custom Manager Benchmark Comments:

- Baillie Gifford Index: The passive Baillie Gifford Index consists of 100% MSCI EAFE Grth Index (USD) (Net) through 11/2019 and 100% MSCI ACW Ex US Grth Index (USD) (Net) thereafter.
- Thompson Siegel Policy Index: The passive Thompson Siegel Policy Index consists of 100% Thompson Siegel Custom Policy Index through 09/2009 and 100% Bloomberg US Agg Bond Index thereafter.



Active Return - The difference between the investment manager/composite performance relative to the performance of an appropriate market benchmark

Active Share - Measures the degree to which the holdings of a fund differ from the holdings of the benchmark. Active share is calculated by taking the sum of the absolute value of the differences of the weight of each holding in the fund versus the weight of each holding in the benchmark and dividing by two.

Alpha - A measure of the difference between a portfolio's actual returns and its expected performance, given its level of risk as measured by beta. It is a measure of the portfolio's historical performance not explained by movements of the market or a portfolio's non-systematic return.

Alpha Ratio - A measure of a portfolio's non-systematic return per unit of downside risk. It is measured by dividing the alpha of a portfolio by the downside risk. The non-systematic return is a measure of a portfolio's historical performance not explained by movements of the market.

Average Quality - Bond quality ratings are reported using the investment managers' and the index providers' preferred rating agency. *Average Quality for managers unable to provide this statistic is instead provided by Morningstar; if unavailable on Morningstar, it has been estimated using a credit quality distribution provided by the manager.* There are two primary rating agencies in the US. *Moody's* assigns ratings on a system that employs up to four symbols (consisting of letters and numbers), such as, Aaa, Aa2, etc., with Aaa being the highest or safest rating. *Standard & Poor's (S&P)* employs a system that uses + and - along with letters, such as AAA, AA+, etc. The two rating agencies' systems are summarized below:

S&P	Moody's	<u>Explanation</u>	S&P	Moody's	Explanation
Higher Cr	edit Quality – I	nvestment Grade	Lower Cr	edit Quality – E	Below Investment Grade
AAA	Aaa	Prime/Highest credit quality	BB+	Ba1	Speculative/Low credit quality
AA+	Aa1	High credit quality	BB	Ba2	
AA	Aa2		BB-	Ba3	
AA-	Aa3		B+	B1	Highly speculative
A+	A1	Upper-medium credit quality	В	B2	
Α	A2		B-	B3	
A-	A3		CCC+	Caa1	Substantial credit/default risk
BBB+	Baa1	Lower-medium credit quality	CCC	Caa2	Extremely speculative
BBB	Baa2		CCC-	Caa3	
BBB-	Baa3		CC	Ca	Vulnerable to default
			С	Ca	
			D	С	In default

Benchmark Effect - The difference between the blended return of each respective managers' benchmark within a composite and the composite's benchmark return.

Beta - A measure of the sensitivity of a portfolio to the movements in the market. It is a measure of a portfolio's non-diversifiable or systematic risk.

Box Plots - A graphical representation of the distribution of observations. From top to bottom, the four boxes represent the spread between the maximum value and the minimum value in each quartile. A quartile represents the values that divide the observations into four quarters (i.e., 1st quartile, 2nd quartile, 3nd quartile, and 4th quartile). The median observation is where the 2nd quartile and 3nd quartile meet.

Buy and Hold Attribution - At the beginning of the time period under analysis, the manager and benchmark portfolios are broken down into segments (i.e., styles, sectors, countries, and regions) based on the desired type of attribution. The formula assumes zero turn-over to the manager and benchmark portfolios throughout the period and calculates the segment returns ("buy and hold returns") to arrive at performance attribution. Due to portfolio turnover, buy and hold attribution may not accurately represent quarterly performance relative to the benchmark. Country, region, sector, and style allocations are as of the date one quarter prior to the reporting date, and the returns shown are for those segments throughout the quarter reported. Due to disclosure guidelines set by each investment manager, equity characteristics shown are as of the most recent date available. The following is the methodology for segment classification:

Sector - Attribution is calculated using the Global Industry Classification Standard (GICS), which is a detailed and comprehensive structure for sector and industry analysis. Stocks are classified by their primary sector as defined by S&P Capital IQ data.

Country/Region - Attribution is calculated using the Morgan Stanley Capital International (MSCI) region standards. Stocks are classified by their domicile country/region, as defined by S&P Capital IQ data, and thus may differ from the classification of the investment manager and/or index provider.

Style - Stocks are classified into the following style boxes: large/mid/small vs. growth/neutral/value. Stocks are classified along large/mid/small categories at the time of the Russell index rebalancing, using the index market cap boundaries as cutoff points. Stocks are classified along growth/neutral/value categories at the time of the Russell index rebalancing, using the price/book ratio as supplied by S&P Capital IQ. Stocks in the Russell 3000 Index portfolio are sorted by price/book ratio; names with the highest price/book ratio that make up 1/3 of the total market capitalization are assigned to the growth category, and names that make up the subsequent 1/3 of the total market capitalization are assigned to the names are assigned to the value category. Stocks are unclassified when there is not enough data to determine a size and style metric.

Portfolio Characteristics and Buy and Hold Attribution reports utilize product-specific data for all mutual funds and commingled funds.

Capital Markets Review -

Breakeven Inflation - Measures the expected inflation rate at each stated maturity by taking the difference between the real yield of the inflation-linked maturity curve and the yield of the closest nominal Treasury maturity.

Consumer Confidence - Measures domestic consumer confidence as defined by the degree of optimism on the state of the economy that consumers express through saving and spending.

Consumer Price Index (CPI) - Measures the change in the price level of consumer goods and services.

Federal Funds Rate - The interest rate at which a depository institution lends funds maintained at the Federal Reserve to another depository institution overnight. It is one of the most influential interest rates in the US economy, since it affects monetary and financial conditions, which in turn have a bearing on key aspects of the broad economy including employment, growth and inflation.

Option-Adjusted Spread - Measures the flat spread of an index or bond to the Treasury yield curve after removing the effect of any embedded options

Purchasing Managers Index (PMI) - Measures economic activity by surveying purchasing managers on a monthly basis as to whether business conditions have improved, worsened, or stayed the same.

Real Gross Domestic Product (Real GDP) - An inflation-adjusted measure that reflects the value of all goods and services produced by an economy in a given year.

Unemployment Rate - The percentage of the total labor force that is unemployed but actively seeking employment.

US Dollar Total Weighted Index - Measures the value of the US Dollar relative to a basket of other world currencies. It is calculated as the weighted geometric mean of the dollar's value versus the EUR, GBP, CAD, SEK, CHF, and JPY.

VIX - Measures the implied volatility of S&P 500 Index options by looking at the market's expectation of the S&P 500 Index volatility over the next 30 day period. Commonly referred to as the "fear index" or the "fear gauge."

Cash Flow Effect - The composite's active return minus the sum of each managers' active return minus the benchmark effect.

Consistency - The percentage of quarters that a product achieved a rate of return higher than that of its benchmark. The higher the consistency figure, the more value a manager has contributed to the product's performance.

Convexity - A measure of the shape of the curve that describes the relationship between bond prices and bond yields.

Correlation - A statistical measure of the relationship between asset class returns. A value of 1.00 is a perfect correlation; that is, the asset classes always move in the same direction. A value of -1.00 indicates a perfect negative correlation, in which the asset classes always move in opposite directions of each other. A value of 0 indicates there is no relationship between the direction of returns of the two asset classes. Correlation calculations only consider the direction of changes relative to two variables and not the magnitude of those changes.

Coupon Rate - The percentage rate of interest paid on a bond or fixed income security; it is typically paid twice per year.

Current Yield - The annual income of a security divided by the security's current price.

Down Market Capture - Down market by definition is negative benchmark return and down market capture represents the ratio in % terms of the average portfolios return over the benchmark during the down market period. The lower the value of the down market capture the better the product's performance.

Downside Risk - A measure similar to standard deviation that focuses only on the negative movements of the return series. It is calculated by taking the standard deviation of the negative returns for the selected periodicity. The higher the factor, the riskier the product.

Earnings Per Share - It is backward looking, calculated using the one year current EPS divided by the one year EPS five years ago.

Effective Duration - The approximate percentage change in a bond's price for a 100 basis point change in yield.

Excess Return vs. Market - Average of the monthly arithmetic difference between the manager's return and the benchmark return over a specified time period, shown on an annualized basis.

Excess Return vs. Risk Free - Average of the monthly arithmetic difference between the manager's return and the risk-free return (i.e., ICE BofAML 3 Mo US T-Bill Index unless specified otherwise) over a specified time period, shown on an annualized basis.

Excess Risk - A measure of the standard deviation of a portfolio's performance relative to the risk-free return.

Expense Ratios - Morningstar is the source for mutual fund expense ratios.

Gain/Loss - The net increase or decrease in the market value of a portfolio excluding its Net Cash Flow for a given period.

Indices - All indices and related information are considered intellectual property and are licensed by each index provider. The indices may not be copied, used, or distributed without the index provider's prior written approval. Index providers make no warranties and bear no liability with respect to the indices, any related data, their quality, accuracy, suitability, and/or completeness.

Information Ratio - Measured by dividing the active rate of return by the tracking error. The higher the information ratio, the more value-added contribution by the manager.

Liability Driven Investing (LDI) - A method to optimally structure asset investments relative to liabilities. The change in liabilities is estimated by the Ryan Labs Generic PPA Index of appropriate duration for that Plan. This benchmark is based on generic data and is therefore an approximation. RVK is not an actuarial firm, and does not have actuarial expertise.

Estimated Funded Status - The estimated ratio of a Plan's assets relative to its future liabilities. This is calculated by dividing the Plan's asset market value by the estimated present value of its liabilities. The higher the estimated funded status, the better the Plan's ability to cover its projected benefit obligations. An estimated funded status of 100% indicates a Plan that is fully funded.

Estimated PV of Liabilities - An estimate of a Plan's future liabilities in present value terms. The beginning of the period liability is provided by the Plan's actuary. The period-end present value liability estimate provided in this report is derived by applying the estimated percentage change generated using the Ryan Labs Generic PPA Index with duration similar to that reported on the most recent actuarial valuation report. **Duration of Liabilities** - The sensitivity of the value of a Plan's liabilities to changes in interest rates, as calculated by the Plan's actuary.

Duration of Assets - The dollar-weighted average duration of all the individual Plan assets.

Estimated Plan Hedge Ratio - The estimate of how well a Plan's investment portfolio is hedged against changes in interest rates - a primary driver of funded status movements. This is calculated by dividing the dollar-weighted values of both the Plan asset duration by the liability duration and

multiplying by the estimated funded status. An estimated plan hedge ratio of zero indicates that the Plan's liabilities have not been hedged, whereas a value of one indicates fully hedged.

Modified Duration - The approximate percentage change in a bond's price for a 100 basis point change in yield, assuming the bonds' expected cash flows do not change.

Mutual Fund Performance - Whenever possible, manager performance is extended for any share class that does not have 10 years of history. Using Morningstar's methodology, a single ticker within the same fund family (often the oldest share class) is chosen to append historical performance.

Net Cash Flow - The sum, in dollars, of a portfolio's contributions and withdrawals. This includes all management fees and expenses only when performance shown is gross of fees.

Peer Groups -

Plan Sponsor Peer Groups - RVK utilizes the Mellon Analytical Solutions Trust Universe along with the Investment Metrics Plan Sponsor Universe. The combined Mellon Analytical Solutions Trust Universe and Investment Metrics Plan Sponsor Universe is used for comparison of total fund composite results and utilizes actual client performance compiled from consultant and custodian data. The Plan Sponsor Peer Group database includes performance and other quantitative data for over 2,100 plans which include corporate, endowment, foundation, public, and Taft Hartley plans. Plan Sponsor Peer Groups are gross of fees.

Investment Manager Peer Groups - RVK utilizes Investment Metrics' Peer Groups for investment manager peer comparison and ranking. The Investment Metrics Peer Group database includes performance and other quantitative data for over 840 investment management firms and 29,000 investments products, across more than 160 standard peer groups. Mutual Fund Peer Groups are net of fees.

Percentile Rankings - Percentile rank compares an individual fund's performance with those of other funds within a defined peer group of managers possessing a similar investment style. Percentile rank identifies the percentage of a fund's peer group that has a higher return (or other comparative measurement) than the fund being ranked. Conversely, 100 minus the individual fund's ranking will identify the percentage of funds within the peer group that have a lower return than the fund being ranked.

1 - Highest Statistical Value 100 - Lowest Statistical Value

Example: American Funds AMCP;R-4 (RAFEX) is ranked in the 4th percentile within the IM US Equity Large-Cap Growth Funds (MF) Peer Group for the Sharpe Ratio. Within the IM US Equity Large-Cap Growth Funds peer group, 4% of the other funds performed better than American Funds AMCP;R-4 (RAFEX), while 96% of the funds performed worse.

Performance Methodology - RVK calculates performance for investment managers and composites using different methodologies.

Investment Managers - Performance is calculated for interim periods between all large external cash flows for a given month and geometrically linked to calculate period returns. An external cash flow is defined as cash, securities, or assets that enter or exit a portfolio. RVK defines a "large cash flow" as a net aggregate cash flow of ≥10% of the beginning-period portfolio market value or any cash flow that causes RVK calculated performance to deviate from manager/custodian reported performance in excess of 5 basis points for a given month.

Composites - The Modified Dietz methodology is utilized to calculate asset class, sub-asset class, and total fund composite performance. The

Modified Dietz method calculates a time-weighted total rate of return that considers the timing of external cash flows; however, it does not utilize interim period performance to mitigate the impact of significant cash in- and outflows to the composite.

RVK calculates performance beginning with the first full month following inception. Since inception performance may vary from manager reported performance due to RVK using the first full month of returns as the inception date. Performance for both managers and composites is annualized for periods greater than one year.

Portfolio Characteristics - Due to disclosure guidelines set by each investment manager, portfolio characteristics shown are as of the most recent date available.

Price to Earnings Ratio - The ratio valuing a company's current share price relative to its trailing 12-month per-share earnings (EPS).

Private Equity Quartile Ranks - Private Equity quartile ranks are generated using vintage year peer group data provided by Thomson Reuters, and are based on each fund's annualized, since inception internal rate of return (IRR). Three Private Equity peer groups are available via Thomson Reuters: Buyout, Venture, and All Private Equity. Ranks are available quarterly, at a one-quarter lag.

R-Squared - The percentage of a portfolio's performance explained by the behavior of the appropriate benchmark. High R-Squared means a higher correlation of the portfolio's performance to the appropriate benchmark.

Return - Compounded rate of return for the period.

% Return - The time-weighted rate of return of a portfolio for a given period.

Risk Free Benchmark – ICE BofAML 3 Mo US T-Bill Index unless specified otherwise.

RVK Liquidity Rating - A qualitative method for determining the relative amount of liquidity in a portfolio. The characteristics considered when determining relative liquidity include trading volume, gates for redemption, leverage, nature of transactions, and pricing mechanisms. The RVK Liquidity Rating is calculated using beginning of month investment weights applied to each corresponding asset class liquidity rating.

Asset Class	RVK Liquidity Rating	Asset Class	RVK Liquidity Rating
<u>Liquid Investments</u>		Less Liquid Investments	
T-Bills and Treasurys	100	Fixed Income Plus Sector	50
Cash Equivalents	98	Bank Loans	50
TIPS	95	Stable Value (Plan Sponsor Directed)	50
US Large Cap Equity	95	Absolute Return Strategies	35
Diversified Real Return	93	9	
Stable Value (Participant Directed)	91		
Non-US Large Cap Equity	90	Not Liquid Investments	
Global Tactical Asset Allocation	88	Core Real Estate	25
US Small Cap Equity	85	Core Plus Real Estate	15
REITS	85	Non-Core Real Estate	5
Non-US Small Cap Equity	85	Private Equity Funds of Funds	5
Emerging Markets Equity	85		
Core Fixed Income	85		
Core Plus Fixed Income	80		

Sector Allocation - Negative fixed income sector allocation reflects manager's use of derivatives, short selling, or interest rate swaps.

Sharpe Ratio - Represents the excess rate of return over the risk-free return (i.e., ICE BofAML 3 Mo US T-Bill Index unless specified otherwise), divided by the standard deviation of the excess return to the risk free asset. The result is the absolute rate of return per unit of risk. The higher the value, the better the product's historical risk-adjusted performance.

Simple Alpha - The difference between the manager's return and the benchmark's return.

Spread Duration - The approximate percentage change in a bond's price for a 100 basis point change in its spread over a Treasury of the same maturity.

Standard Deviation - A statistical measure of the range of a portfolio's performance. The variability of a return around its average return over a specified time period.

Thematic Classification - Represents dedicated manager allocations; as such, thematic allocations are approximations. RVK categorizes the following asset classes as Alpha, Capital Appreciation, Capital Preservation, and Inflation:

Alpha	Capital Appreciation	Capital Preservation	Inflation
Absolute Return Strategies	Public Equity	Core Fixed Income	TIPS
Currency Overlay	Private Equity	CMBS Fixed Income	Bank Loans
	Preferred Securities	Asset Backed Fixed Income	Core Real Estate
	High Yield	Domestic Core Plus Fixed Income	Real Return
	Convertible Fixed Income	Mortgage Backed Fixed Income	Inflation Hedges
	TALF Funds	International Developed Fixed Income	REITS
	Distressed Debt	Cash Equivalents	Commodities
	Emerging Market Fixed Income	Stable Value	
	Value Added Real Estate		
	Opportunistic Real Estate		

Time Period Abbreviations - QTD - Quarter-to-Date. CYTD - Calendar Year-to-Date. FYTD - Fiscal Year-to-Date. YOY - Year Over Year.

Total Fund Attribution – The Investment Decision Process (IDP) model provides an approach to evaluating investment performance that applies to all asset classes and investment styles. The IDP model is based on a top-down hierarchy framework of investment decisions, with each decision contributing to the overall profit or loss. The IDP approach starts from the strategic asset allocation and follows the flow of the investments down to the manager's skill.

Strategic Asset Allocation (SAA) – The percentage return gained or lost from the long-term strategic asset allocation decision, the most significant determinant of long-term performance. SAA is the product of the target asset allocation multiplied by the corresponding benchmark returns.

Tactical Asset Allocation (TAA) – The percentage return gained or lost from not having been precisely allocated at the target asset allocation mix, whether by deviations that are tactical in nature or a by-product of moving towards the target mix. TAA is the product of the actual asset allocation multiplied by the broad asset class benchmarks, less the SAA.

Style Selection (SS) – The percentage return gained or lost from intentional style biases within each asset class (e.g. value rather than core or overweight to emerging markets relative to benchmark). SS is the product of the actual manager allocation within each asset class multiplied by their specific benchmark, less TAA.

Manager's Skill (MS) – The percentage return gained or lost from manager value added relative to their specific benchmark. MS is the product of the actual manager allocation multiplied by their achieved excess return.

Total Fund Beta - Total Fund Beta is calculated using the S&P 500 as the benchmark. It represents a measure of the sensitivity of the total fund to movements in the S&P 500 and is a measure of the Total Fund's non-diversifiable or systematic risk.

Tracking Error - A measure of the standard deviation of a portfolio's performance relative to the performance of an appropriate market benchmark.

Treynor Ratio - Similar to Sharpe ratio, but focuses on beta rather than excess risk (standard deviation). Treynor ratio represents the excess rate of return over the risk-free rate (i.e., ICE BofAML 3 Mo US T-Bill Index unless specified otherwise) divided by the beta. The result is the absolute rate of return per unit of risk. The higher the value, the better historical risk-adjusted performance.

Unit Value - The dollar value of a portfolio, assuming an initial nominal investment of \$100, growing at the compounded rate of %Return for a given period.

Up Market Capture - Up market by definition is positive benchmark return and up market capture represents the ratio in % terms of the average portfolio's return over the benchmark during the up market period. The higher the value of the up market capture the better the product's performance.

Yield to Maturity - The rate of return achieved on a bond or other fixed income security assuming the security is bought and held to maturity and that the coupon interest paid over the life of the bond will be reinvested at the same rate of return. The 30-Day SEC Yield is similar to the Yield to Maturity and is reported for mutual funds.

Yield to Worst - The bond yield calculated by using the worst possible yield taking into consideration all call, put, and optional sink dates.

