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Capital Markets Review



Capital Markets Review As of June 30, 2020

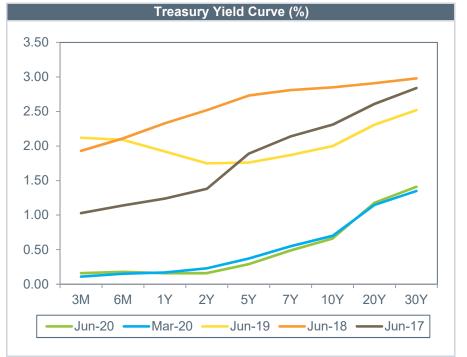
Second Quarter Economic Environment

Key Economic Indicators

The disconnect between investor risk appetite and on-the-ground economic conditions reached staggering levels during the second quarter, fueled in large part by a myriad of fiscal relief and liquidity reinforcing programs implemented by governments and global central banks. The S&P 500 returned 20.5%, bringing its YTD returns to -3.1%, as forward P/E ratios reached levels last seen during the dotcom era tech bubble. In general, the funding pressures markets experienced in the first quarter abated, as various programs enacted by the Federal Reserve proved successful in restoring normal capital markets activity amid the unprecedented economic shutdowns. While economic data generally pointed to a bottoming of global GDP growth during the month of April, the modest economic recoveries in May and June lagged significantly behind the "V" shaped recovery seen in the pricing of risk assets. The Atlanta Fed's popular GDPNow estimates for Q2-2020 growth in the US indicated a 36.8% annualized economic contraction. However, Q2 saw capital markets activity much more consistent with boom times. The NASDAQ and DJIA experienced their best quarters since 2001 and 1987, respectively, while US equity issuance hit a record of \$184 billion.

	Key E	Economic Indi	icators	
16 7	30]	120 7	70 7	160]
14 -	25 - 20 -	100 -	60	140 -
12 -	15 -	100 -	50 -	120 -
10 -	10 -	80 -	40 -	100 -
8 -	5 - 0 -	60 -	30 -	80 -
6 -	-5 -		20 -	60 -
2 -	-10 - -15 -	40 -	10 -	40 -
0	-20	20	0	20
Unemploymen Rate (%)	t CPI Year-over- Year (% change)	US Govt Debt (% of GDP)	VIX Index (Volatility)	Consumer Confidence
Since 1948	Since 1914	Since 1940	Since 1990	Since 1967

Economic Indicators	Jun-20	Mar-20	Jun-19	Jun-17	20 Yr
Federal Funds Rate (%)	0.08 -	0.08	2.40	1.06	1.65
Breakeven Infl 5 Yr (%)	1.17	0.53	1.54	1.66	1.82
Breakeven Infl 10 Yr (%)	1.34	0.93	1.70	1.74	2.01
CPI YoY (Headline) (%)	0.6	1.5	1.6	1.6	2.1
Unemployment Rate (%)	11.1	4.4	3.7	4.3	6.0
Real GDP YoY (%)	-9.5 ▼	0.3	2.0	2.2	1.9
PMI - Manufacturing	52.6 ▲	49.1	51.6	56.4	52.5
USD Total Wtd Idx	120.86 ▼	122.82	114.56	111.97	103.13
WTI Crude Oil per Barrel (\$)	39.3	20.5	58.5	46.0	62.1
Gold Spot per Oz (\$)	1,781 🔺	1,577	1,410	1,242	969
	OTD	OVED	4.1/.	F V··	40 V.
Market Performance (%)	QTD	CYTD	1 Yr	5 Yr	10 Yr
Market Performance (%) S&P 500 (Cap Wtd)	20.54	-3.08	7.51	10.73	10 Yr 13.99
<u> </u>					
S&P 500 (Cap Wtd)	20.54	-3.08	7.51	10.73	13.99
S&P 500 (Cap Wtd) Russell 2000	20.54 25.42	-3.08 -12.98	7.51 -6.63	10.73 4.29 2.05	13.99 10.50 5.73
S&P 500 (Cap Wtd) Russell 2000 MSCI EAFE (Net)	20.54 25.42 14.88	-3.08 -12.98 -11.34	7.51 -6.63 -5.13	10.73 4.29 2.05 3.81	13.99 10.50 5.73
S&P 500 (Cap Wtd) Russell 2000 MSCI EAFE (Net) MSCI EAFE SC (Net)	20.54 25.42 14.88 19.88	-3.08 -12.98 -11.34 -13.11	7.51 -6.63 -5.13 -3.52	10.73 4.29 2.05 3.81	13.99 10.50 5.73 8.02
S&P 500 (Cap Wtd) Russell 2000 MSCI EAFE (Net) MSCI EAFE SC (Net) MSCI Emg Mkts (Net)	20.54 25.42 14.88 19.88 18.08	-3.08 -12.98 -11.34 -13.11 -9.78	7.51 -6.63 -5.13 -3.52 -3.39 8.74	10.73 4.29 2.05 3.81 2.86 4.30	13.99 10.50 5.73 8.02 3.27
S&P 500 (Cap Wtd) Russell 2000 MSCI EAFE (Net) MSCI EAFE SC (Net) MSCI Emg Mkts (Net) Bloomberg US Agg Bond	20.54 25.42 14.88 19.88 18.08 2.90	-3.08 -12.98 -11.34 -13.11 -9.78 6.14	7.51 -6.63 -5.13 -3.52 -3.39 8.74	10.73 4.29 2.05 3.81 2.86 4.30 1.19	13.99 10.50 5.73 8.02 3.27 3.82
S&P 500 (Cap Wtd) Russell 2000 MSCI EAFE (Net) MSCI EAFE SC (Net) MSCI Emg Mkts (Net) Bloomberg US Agg Bond ICE BofAML 3 Mo US T-Bill	20.54 25.42 14.88 19.88 18.08 2.90 0.02	-3.08 -12.98 -11.34 -13.11 -9.78 6.14 0.60	7.51 -6.63 -5.13 -3.52 -3.39 8.74 1.63	10.73 4.29 2.05 3.81 2.86 4.30 1.19 7.31	13.99 10.50 5.73 8.02 3.27 3.82 0.64
S&P 500 (Cap Wtd) Russell 2000 MSCI EAFE (Net) MSCI EAFE SC (Net) MSCI Emg Mkts (Net) Bloomberg US Agg Bond ICE BofAML 3 Mo US T-Bill NCREIF ODCE (Gross)	20.54 25.42 14.88 19.88 18.08 2.90 0.02 -1.56	-3.08 -12.98 -11.34 -13.11 -9.78 6.14 0.60 -0.60	7.51 -6.63 -5.13 -3.52 -3.39 8.74 1.63 2.22	10.73 4.29 2.05 3.81 2.86 4.30 1.19 7.31	13.99 10.50 5.73 8.02 3.27 3.82 0.64 10.80





US Equity Review As of June 30, 2020

Second Quarter Review

Broad Market

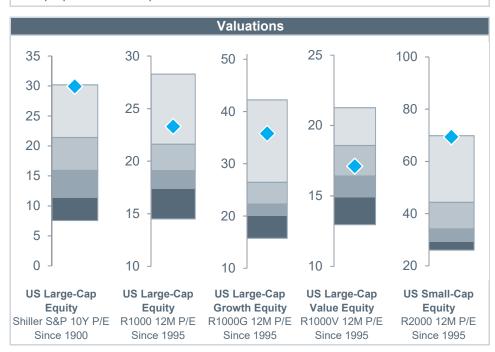
US equity markets rebounded sharply in Q2 despite weakening economic conditions and uncertainty around upcoming earnings releases. Much of the optimism was driven by trial data for COVID-19 vaccines and treatments combined with the phased openings of states across the country. The swift rally saw the S&P 500 index turn positive YTD, with QTD returns as high as 25.0% in early June before finishing Q2 up 20.5% and down -3.1% YTD.

Market Cap

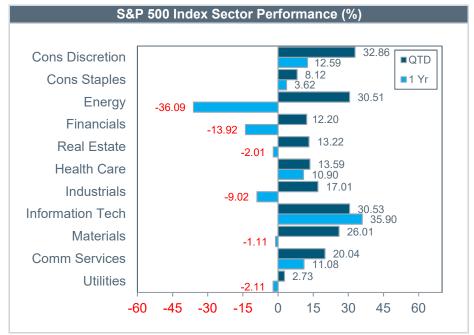
The strong performance was realized across all market caps, with smaller stocks faring best. The Russell 2000 and Mid Cap indexes returned 25.4% and 24.6%, respectively, while the Russell 1000 lagged behind its smaller-cap counterparts, finishing Q2 up 21.8%.

Style and Sector

Growth continued to outperform value by a significant margin during Q2 across all market caps. In addition, active managers generally struggled to keep up with their respective benchmarks in Q2.







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.



Non-US Equity Review
As of June 30, 2020

Second Quarter Review

Developed Markets

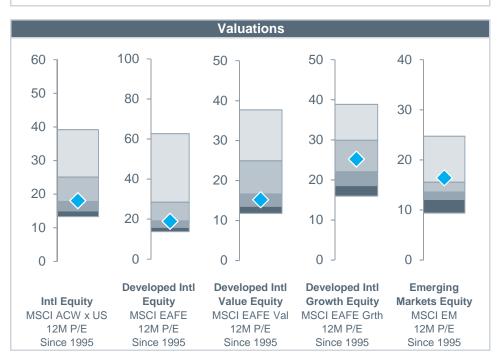
Developed international markets had a strong quarter, although they lagged both US and emerging markets. During Q2, value stocks underperformed growth, while small-cap stocks outperformed their larger counterparts. Each developed country index generated positive returns for the quarter and the vast majority saw double digit returns. Markets were bolstered by government programs, but the near-term macro outlook remains poor.

Emerging Markets

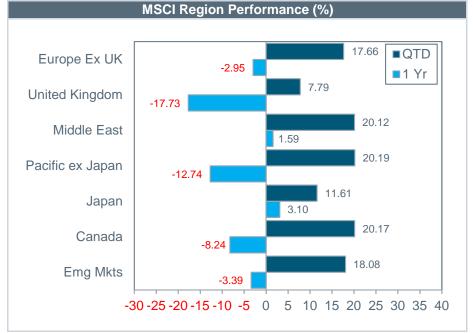
Emerging markets outpaced developed international, but lagged the US market. All emerging countries and broad sectors saw positive returns for the quarter. Latin America, a laggard in Q1, saw some mean reversion, with countries such as Brazil and Argentina leading the region higher.

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.









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 June 30, 2020

Second Quarter Review

Broad Market

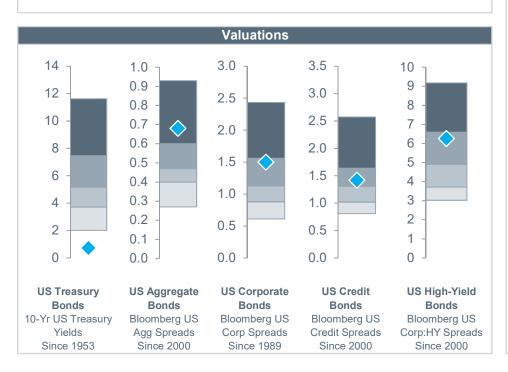
A supportive Fed helped propel the beginning of a recovery that saw few periods of slowdown throughout the quarter. While a spike in COVID-19 cases threatened to disrupt the rally in June, a better-than-expected jobs report and the Fed's announcement of its plan to purchase corporate bonds helped the segment finish the quarter on a positive note.

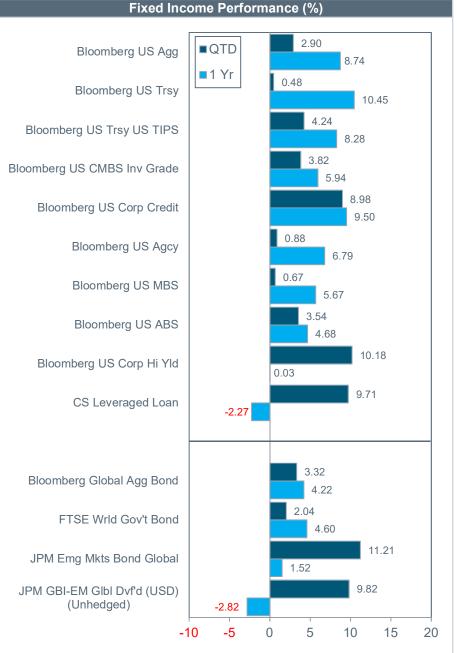
Credit Market

In contrast to Q1, investor appetite for risk returned, leading to a strong recovery in credit. Overall, the Bloomberg US Credit Index and US High Yield Index returned 8.2% and 10.2% in Q2, respectively.

Emerging Market Debt

Emerging market debt enjoyed its own rally, erasing most of its losses of the first quarter. The JPMorgan EMBI Global Diversified Index returned 12.3%, with nearly every country in the index ending positive.







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



Alternatives Review As of June 30, 2020

Second Quarter Review - Absolute Return

General Market - Hedge Funds

Broad hedge fund benchmarks indicate the industry recovered relatively well from Q1-2020 drawdowns. The HFRI Fund Weighted Composite Index is down just 3.5% YTD after a 9.0% gain in Q2, led higher by the HFRI Hedged Equity Index, which finished the quarter up 13.6%. Still, YTD the vast majority of hedge fund strategies remain at least marginally negative, with those that pursue event oriented and special situations strategies, particularly within credit markets, still off from 5.0% to 7.0% YTD on average.

General Market - Global Tactical Asset Allocation (GTAA)

GTAA managers largely provided positive absolute returns during Q2. Even with positive absolute returns, long-biased strategies reported mixed performance versus a static and less diversified blend of 60% US equity and 40% US fixed income. Long-biased strategies that had relatively weaker performance versus peers tended to have more exposure to EM equities which slightly underperformed US and other developed markets. Within EM equities, growth equities once again out-paced value by a significant margin, detracting from performance for managers.

HFRI Hedge Fund Performance (%) 7.89 HFRI FOF ■ QTD 0.48 5.83 Conv Arbitrage ■1 Yr 2.81 13.27 Equity Hedge 0.72 1.40 Mkt Neutral Eq -1.25 10.43 Distressed -4.23 Macro 0.93 6.32 Relative Value -2.82 10.27 **Event Driven** -4.38 Merger Arb -2.99 9.16 Credit Arb -4.25 -10 10 -30 30

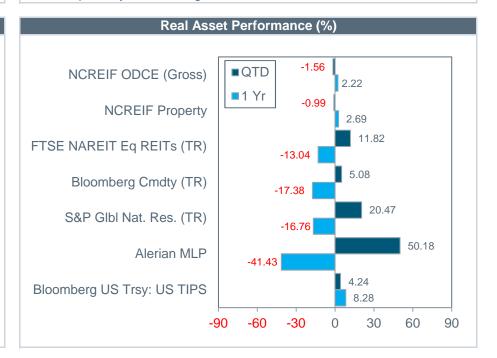
Second Quarter Review - Real Assets

General Market - Diversified Inflation Strategies (DIS)

Performance across DIS managers RVK tracks was largely positive during Q2, ranging from the high single digits to the high teens. With the relatively strong performance across a number of risk assets, managers with larger TIPS allocations tended to underperform peers as generally riskier assets saw a bounce back from poor Q1 performance. These strategies also tended to hold higher relative allocations to commodities. Though commodities provided positive absolute returns in Q2, the asset class did not keep up with other parts of the market.

General Market - Real Estate

Core private real estate returned -1.6% during the second quarter, as reported by the NFI-ODCE Index, with the total return comprised of 0.9% from income and -2.5% from price appreciation. While the income component remained relatively healthy and in-line with historical levels, price appreciation experienced a further meaningful decrease from Q1. Investors in publicly traded real estate outperformed their private market counterparts by a wide margin.





Annual Asset Class Performance As of June 30, 2020

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	YTD
Best	35.03	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	12.82
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	6.14
	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	6.01
	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	0.60
	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	-0.60
	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	-1.59
	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	-3.08
	11.86	6.60	-33.79	18.91	15.06	0.10	10.94	2.47	3.37	-0.81	6.67	7.62	-4.62	14.32	-3.80
	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	-9.78
	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	-11.34
	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	-12.98
	2.72	1.45		1.92	6.31	-13.32	4.21	-8.61	-4.90	-4.47	1.00	3.01	-13.79	7.69	-13.11
	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	-18.71
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	-19.40
S&P 500 US Larg Cap		mall (Net)		(Net) - (N	MSCI EM Net) - Int'l Img Mkts	Bloombrg US Agg Bond - Fl	Bloombrg US Corp H Yield - Fl		IS Crodit I	ov OD(ng (Gros	CE NARI	EIT Eq (EITs II	odov (ICE BofAML 3 Mo T-Bill - Cash Equiv





Total Fund



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

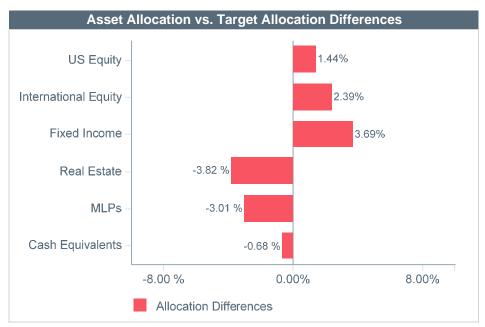
	Allocation		Performance (%)		Allocation		Performance (%)
	Market Value (\$)	%	QTD		Market Value (\$)	%	QTD
US Equity	848,572,789	40.44	21.84	Real Estate	234,573,440	11.18	-2.04
Eagle Capital Large Cap Value (SA)	197,604,008	9.42	18.97	JPM Real Estate Strategic Property (CF)	177,394,504	8.45	-2.23
NT S&P 500 Index (CF)	264,267,558	12.59	20.54	Principal US Property (CF)	57,178,936	2.72	-1.44
Loomis Sayles Large Cap Growth (CF)	127,615,730	6.08	24.03				
Sawgrass Diversified Large Cap Growth (SA)	115,997,188	5.53	22.57	MLPs	52,158,616	2.49	31.30
Wedge Capital Small Cap Value (CF)	62,675,627	2.99	18.93	Harvest Fund Advisors MLP (SA)	26,303,930	1.25	32.59
Pinnacle Associates US SMID Cap Growth (SA)	80,381,407	3.83	31.99	Tortoise Capital Advisors MLP (SA)	25,854,687	1.23	30.01
GAMCO	17,757	0.00	N/A				
Brown Inv Advisory	13,514	0.00	N/A	Cash	6,661,318	0.32	0.11
International Equity	469,936,699	22.39	20.62				
Silchester International Value (CF)	134,013,036	6.39	10.42				
NT EAFE Index (CF)	34,725,198	1.65	14.94				
Baillie Gifford International Growth (BGEFX)	161,507,250	7.70	36.75				
Acadian Emerging Markets (CF)	139,691,215	6.66	16.49				
Fixed Income	486,580,024	23.19	7.02				
NT Aggregate Bond Index (CF)	12,527,604	0.60	2.80				
Thompson Siegel Core Fixed Income (SA)	99,997,727	4.77	5.98				
Loomis Sayles Core Plus Full Discretion (CF)	152,952,812	7.29	8.50				
Neuberger Berman Core Plus Trust (CF)	221,101,881	10.54	6.73				

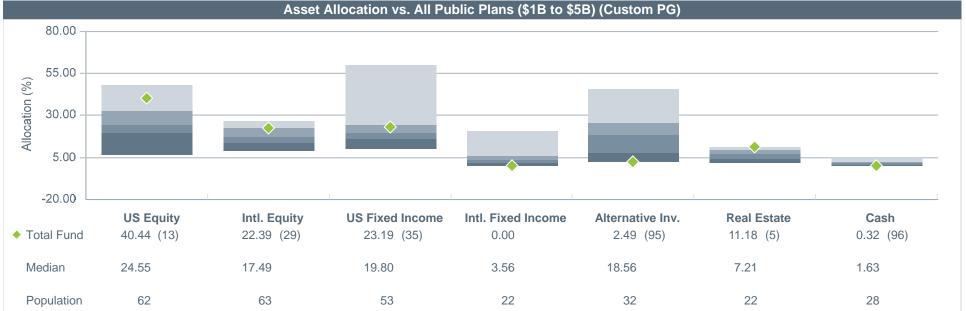
Schedule of Investable Assets (Total Assets)											
Periods Ending	Beginning Market Value (\$)	Net Cash Flow (\$)	Gain/Loss (\$)	Ending Market Value (\$)	% Return	Unit Value					
CYTD	2,165,594,144	-45,137	-67,066,121	2,098,482,886	-3.11	96.89					



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	2,098,482,886	100.00	-	100.00	-
US Equity	848,572,789	40.44	34.00	39.00	44.00
International Equity	469,936,699	22.39	15.00	20.00	25.00
Fixed Income	486,580,024	23.19	14.50	19.50	24.50
Real Estate	234,573,440	11.18	10.00	15.00	20.00
MLPs	52,158,616	2.49	0.00	5.50	10.00
Cash Equivalents	6,661,318	0.32	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.

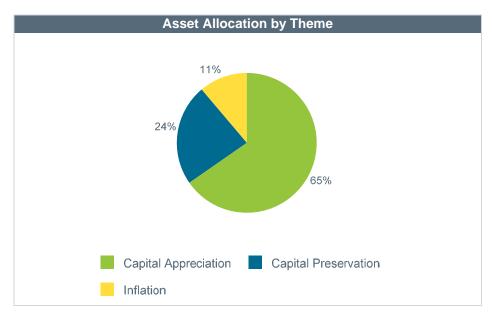


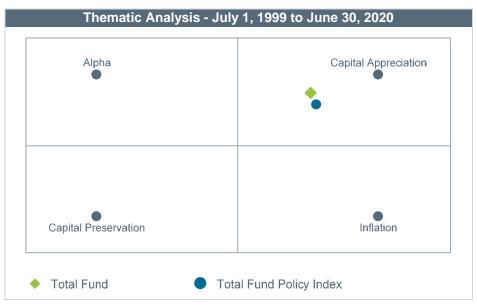
City of Jacksonville Police and Fire Pension Fund Total Fund vs. All Public Plans (\$1B to \$5B) (Custom PG) Plan Sponsor Peer Group Analysis

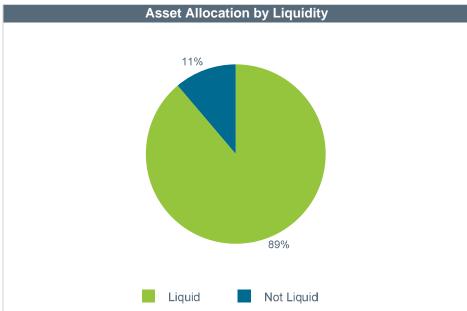


Performance shown is gross of fees. Parentheses contain percentile ranks.







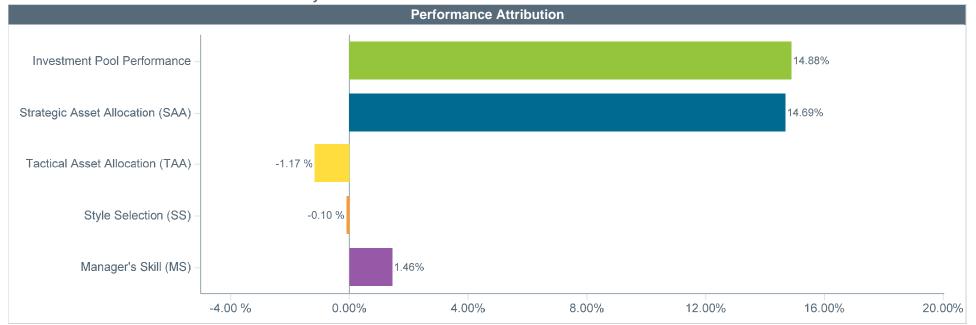


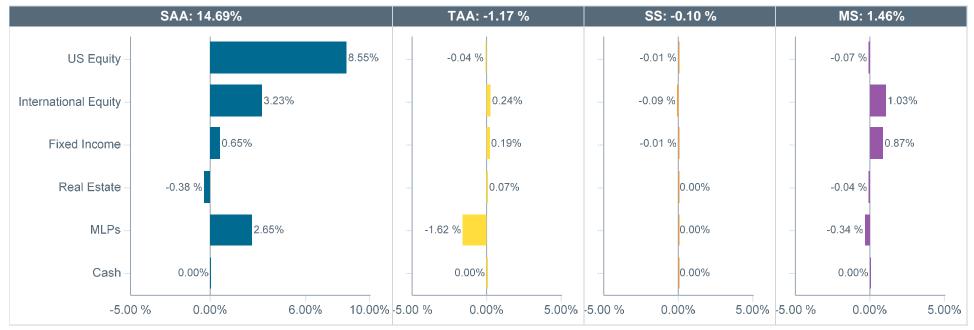
		Correlation Mat	rix - 10 Years	
	Α	В	С	D
Α	1.00			
В	0.72	1.00		
С	-0.33	-0.42	1.00	
D	0.61	0.79	-0.12	1.00
A B C D	= = = =	HFRI EH: Eq Mkt Neut Ind MSCI ACW Index (USD) (I Bloomberg US Gov't Bond Real Return Custom Index	Gross) (Capital Appre Index (Capital Prese	

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)

	Allocatio	on					Perfor	mance (%)			
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Total Fund	2,098,482,886	100.00	15.00	-2.88	3.56	3.41	6.26	6.29	7.61	9.04	8.03	04/01/1989
Total Fund Policy Index			14.69	-3.75	1.46	1.94	5.67	5.88	7.06	8.73	7.99	
Difference			0.31	0.87	2.10	1.47	0.59	0.41	0.55	0.31	0.04	
All Public Plans (\$1B to \$5B) (Custom PG) Median			10.44	-3.57	1.17	1.77	5.21	5.48	6.52	7.75	8.09	
Rank			5	34	11	25	14	16	11	9	53	
US Equity	848,572,789	40.44	21.94	-4.51	5.12	5.25	9.80	9.36	10.91	13.30	10.22	01/01/1988
US Equity Policy Index			22.03	-3.48	5.31	6.53	10.04	10.03	11.68	13.72	10.49	
Difference			-0.09	-1.03	-0.19	-1.28	-0.24	-0.67	-0.77	-0.42	-0.27	
IM U.S. Equity (SA+CF) Median			22.18	-8.26	-1.34	-0.67	6.17	7.14	9.45	12.53	11.40	
Rank			53	40	35	36	37	38	42	43	89	
International Equity	469,936,699	22.39	20.77	-5.32	5.45	2.88	4.00	4.88	6.51	6.47	5.10	02/01/1999
International Equity Policy Index			16.12	-11.00	-3.06	-4.80	1.13	2.26	3.71	4.97	3.52	
Difference			4.65	5.68	8.51	7.68	2.87	2.62	2.80	1.50	1.58	
IM International Equity (SA+CF) Median			18.43	-10.23	-1.17	-3.05	1.50	3.20	4.95	6.72	7.23	
Rank			32	28	25	27	32	32	31	55	87	
Fixed Income	486,580,024	23.19	7.10	5.10	6.02	8.19	5.47	4.78	4.27	4.10	6.30	01/01/1988
Fixed Income Policy Index			3.63	5.37	5.78	8.06	5.19	4.28	3.95	3.81	6.32	
Difference			3.47	-0.27	0.24	0.13	0.28	0.50	0.32	0.29	-0.02	
IM U.S. Fixed Income (SA+CF) Median			4.64	3.64	4.38	5.96	4.42	4.05	4.05	4.34	6.54	
Rank			31	37	32	31	29	31	44	57	60	
Real Estate	234,573,440	11.18	-1.83	-0.52	1.54	2.30	5.44	7.19	9.02	11.09	8.53	04/01/2005
NCREIF ODCE Index (AWA) (Gross)			-1.56	-0.60	0.91	2.22	5.66	7.31	9.07	10.80	7.24	
Difference			-0.27	80.0	0.63	0.08	-0.22	-0.12	-0.05	0.29	1.29	
MLPs	52,158,616	2.49	31.54	-32.94	-33.69	-37.34	-13.96	-11.03	-5.38	N/A	0.91	03/01/2011
S&P MLP Index (TR)			45.82	-35.66	-37.65	-40.17	-15.34	-12.68	-8.68	-0.52	-3.27	
Difference			-14.28	2.72	3.96	2.83	1.38	1.65	3.30	N/A	4.18	





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

	Allocatio	n					Perfor	mance (%	5)			
	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)	197,604,008	9.42	19.17	-8.78	1.37	-0.40	8.35	9.15	11.30	N/A	12.01	04/01/2011
Russell 1000 Val Index			14.29	-16.26	-10.06	-8.84	1.82	4.64	7.11	10.41	8.22	
Difference			4.88	7.48	11.43	8.44	6.53	4.51	4.19	N/A	3.79	
IM U.S. Large Cap Value Equity (SA+CF) Median			16.98	-14.65	-7.95	-6.61	3.16	5.32	7.80	10.96	8.74	
Rank			28	19	15	22	14	12	8	N/A	8	
NT S&P 500 Index (CF)	264,267,558	12.59	20.55	-3.06	5.73	7.53	10.74	10.75	12.16	14.02	6.42	01/01/1999
S&P 500 Index (Cap Wtd)			20.54	-3.08	5.71	7.51	10.73	10.73	12.13	13.99	6.41	
Difference			0.01	0.02	0.02	0.02	0.01	0.02	0.03	0.03	0.01	
IM U.S. Large Cap Core Equity (SA+CF) Median			20.19	-4.29	3.54	5.29	9.71	9.73	11.73	13.83	7.32	
Rank			45	37	33	30	33	28	39	42	88	
Loomis Sayles Large Cap Growth (CF)	127,615,730	6.08	24.16	10.26	21.24	19.75	N/A	N/A	N/A	N/A	16.94	09/01/2017
Russell 1000 Grth Index			27.84	9.81	21.48	23.28	18.99	15.89	16.62	17.23	18.35	
Difference			-3.68	0.45	-0.24	-3.53	N/A	N/A	N/A	N/A	-1.41	
IM U.S. Large Cap Growth Equity (SA+CF) Median			26.58	8.79	19.50	19.56	17.42	14.27	15.77	16.61	16.80	
Rank			70	43	39	49	N/A	N/A	N/A	N/A	50	
Sawgrass Diversified Large Cap Growth (SA)	115,997,188	5.53	22.63	4.53	13.25	15.35	16.31	13.47	N/A	N/A	13.35	11/01/2013
Russell 1000 Grth Index			27.84	9.81	21.48	23.28	18.99	15.89	16.62	17.23	15.40	
Difference			-5.21	-5.28	-8.23	-7.93	-2.68	-2.42	N/A	N/A	-2.05	
IM U.S. Large Cap Growth Equity (SA+CF) Median			26.58	8.79	19.50	19.56	17.42	14.27	15.77	16.61	14.29	
Rank			78	70	70	67	62	61	N/A	N/A	67	
Wedge Capital Small Cap Value (CF)	62,675,627	2.99	19.17	-25.72	-19.74	-19.73	-5.46	N/A	N/A	N/A	-1.18	09/01/2016
Russell 2000 Val Index			18.91	-23.50	-17.00	-17.48	-4.35	1.26	3.98	7.82	0.30	
Difference			0.26	-2.22	-2.74	-2.25	-1.11	N/A	N/A	N/A	-1.48	
IM U.S. Small Cap Value Equity (SA+CF) Median			21.18	-21.45	-15.05	-15.08	-2.50	1.92	5.30	9.51	1.36	
Rank			70	85	82	82	85	N/A	N/A	N/A	87	
Pinnacle Associates US SMID Cap Growth (SA)	80,381,407	3.83	32.13	-3.10	12.77	12.88	9.63	8.92	11.62	14.90	18.41	03/01/2009
Russell 2500 Grth Index			32.87	2.02	12.80	9.21	12.10	9.57	12.06	14.45	17.54	
Difference			-0.74	-5.12	-0.03	3.67	-2.47	-0.65	-0.44	0.45	0.87	
IM U.S. SMID Cap Growth Equity (SA+CF) Median			33.51	7.12	15.95	12.70	14.31	11.44	12.76	15.35	18.20	
Rank			57	80	63	49	78	73	70	67	45	





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

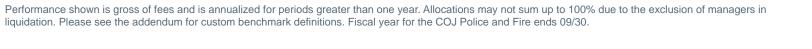
	Allocation	า					Perfor	mance (%)			
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
International Equity												
Silchester International Value (CF)	134,013,036	6.39	10.59	-16.00	-8.22	-9.35	-1.46	2.12	N/A	N/A	4.46	09/01/2013
MSCI EAFE Val Index (USD) (Net)			12.43	-19.27	-12.97	-14.48	-4.43	-1.59	1.21	3.53	0.60	
Difference			-1.84	3.27	4.75	5.13	2.97	3.71	N/A	N/A	3.86	
IM EAFE Value (SA+CF) Median			14.84	-16.61	-7.71	-9.51	-2.14	0.45	3.01	5.93	2.60	
Rank			92	49	57	50	43	28	N/A	N/A	23	
NT EAFE Index (CF)	34,725,198	1.65	14.96	-10.87	-3.69	-4.62	N/A	N/A	N/A	N/A	1.57	02/01/2019
MSCI EAFE Index (USD) (Net)			14.88	-11.34	-4.10	-5.13	0.81	2.05	3.93	5.73	1.06	
Difference			0.08	0.47	0.41	0.51	N/A	N/A	N/A	N/A	0.51	
IM Enhanced and Indexed International Equity (SA+CF) Median			16.24	-11.17	-3.51	-4.62	1.17	2.56	4.28	6.10	0.77	
Rank			84	36	54	50	N/A	N/A	N/A	N/A	21	
Baillie Gifford International Growth (BGEFX)	161,507,250	7.70	36.91	17.89	34.53	31.07	16.19	12.66	12.80	N/A	10.04	03/01/201
Baillie Gifford Index			19.11	-2.62	6.93	6.45	6.68	5.98	6.83	8.02	5.59	
Difference			17.80	20.51	27.60	24.62	9.51	6.68	5.97	N/A	4.45	
IM ACWI Ex US Growth (SA+CF) Median			20.11	-2.45	8.04	6.44	6.63	6.24	7.47	8.81	6.59	
Rank			1	1	1	1	3	8	6	N/A	10	
Acadian Emerging Markets (CF)	139,691,215	6.66	16.65	-11.55	-0.95	-5.06	-0.70	1.91	N/A	N/A	1.97	01/01/201
MSCI Emg Mkts Index (USD) (Net)			18.08	-9.78	0.89	-3.39	1.90	2.86	3.22	3.27	2.30	
Difference			-1.43	-1.77	-1.84	-1.67	-2.60	-0.95	N/A	N/A	-0.33	
IM Emerging Markets Equity (SA+CF) Median			19.49	-10.13	-0.19	-3.56	1.28	2.90	3.59	4.77	2.53	
Rank			79	62	55	58	71	66	N/A	N/A	65	
Fixed Income												
NT Aggregate Bond Index (CF)	12,527,604	0.60	2.80	6.19	6.37	8.79	5.39	4.35	4.01	N/A	3.51	02/01/201
Bloomberg US Agg Bond Index			2.90	6.14	6.33	8.74	5.32	4.30	3.96	3.82	3.49	
Difference			-0.10	0.05	0.04	0.05	0.07	0.05	0.05	N/A	0.02	
IM U.S. Broad Market Core Fixed Income (SA+CF) Median			4.42	6.24	6.47	8.93	5.57	4.70	4.41	4.34	3.86	
Rank			92	56	62	65	73	81	83	N/A	88	
Thompson Siegel Core Fixed Income (SA)	99,997,727	4.77	6.03	5.77	6.62	8.87	5.79	5.03	4.58	4.48	6.17	08/01/199
Thompson Siegel Policy Index			2.90	6.14	6.33	8.74	5.32	4.30	3.96	3.82	5.87	
Difference			3.13	-0.37	0.29	0.13	0.47	0.73	0.62	0.66	0.30	
IM U.S. Broad Market Core Fixed Income (SA+CF) Median			4.42	6.24	6.47	8.93	5.57	4.70	4.41	4.34	6.23	
Rank			9	68	42	56	36	15	29	36	57	

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					Perfor	mance (%)			
	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)	152,952,812	7.29	8.65	5.31	6.40	8.37	5.37	N/A	N/A	N/A	5.70	02/01/2017
Bloomberg US Unv Bond Index			3.81	5.17	5.64	7.88	5.15	4.42	4.13	4.12	5.20	
Difference			4.84	0.14	0.76	0.49	0.22	N/A	N/A	N/A	0.50	
IM U.S. Broad Market Core+ Fixed Income (SA+CF) Median			5.90	5.29	5.88	8.22	5.50	4.80	4.56	4.90	5.60	
Rank			11	49	33	48	61	N/A	N/A	N/A	44	
Neuberger Berman Core Plus Trust (CF)	221,101,881	10.54	6.77	4.59	5.43	7.69	5.26	N/A	N/A	N/A	5.38	01/01/2017
Bloomberg US Unv Bond Index			3.81	5.17	5.64	7.88	5.15	4.42	4.13	4.12	5.18	
Difference			2.96	-0.58	-0.21	-0.19	0.11	N/A	N/A	N/A	0.20	
IM U.S. Broad Market Core+ Fixed Income (SA+CF) Median			5.90	5.29	5.88	8.22	5.50	4.80	4.56	4.90	5.58	
Rank			34	64	60	61	64	N/A	N/A	N/A	63	
Real Estate												
JPM Real Estate Strategic Property (CF)	177,394,504	8.45	-2.02	-0.49	1.80	2.26	5.14	6.87	8.78	10.63	7.64	04/01/2005
NCREIF ODCE Index (AWA) (Gross)			-1.56	-0.60	0.91	2.22	5.66	7.31	9.07	10.80	7.24	
Difference			-0.46	0.11	0.89	0.04	-0.52	-0.44	-0.29	-0.17	0.40	
Principal US Property (CF)	57,178,936	2.72	-1.24	-0.63	0.76	2.44	6.35	8.23	9.77	N/A	9.77	07/01/2013
NCREIF ODCE Index (AWA) (Gross)			-1.56	-0.60	0.91	2.22	5.66	7.31	9.07	10.80	9.07	
Difference			0.32	-0.03	-0.15	0.22	0.69	0.92	0.70	N/A	0.70	
MLPs												
Harvest Fund Advisors MLP (SA)	26,303,930	1.25	32.88	-32.10	-32.72	-36.10	-13.06	-10.91	-5.21	N/A	1.26	03/01/2011
S&P MLP Index (TR)			45.82	-35.66	-37.65	-40.17	-15.34	-12.68	-8.68	-0.52	-3.27	
Difference			-12.94	3.56	4.93	4.07	2.28	1.77	3.47	N/A	4.53	
Tortoise Capital Advisors MLP (SA)	25,854,687	1.23	30.20	-33.78	-34.65	-38.56	-14.71	-11.06	-5.53	N/A	0.60	03/01/2011
S&P MLP Index (TR)			45.82	-35.66	-37.65	-40.17	-15.34	-12.68	-8.68	-0.52	-3.27	
Difference			-15.62	1.88	3.00	1.61	0.63	1.62	3.15	N/A	3.87	



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

	Allocatio	Allocation					Perfor	mance (%)				
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Total Fund	2,098,482,886	100.00	14.88	-3.11	3.23	3.01	5.86	5.88	7.17	8.60	7.81	04/01/1989
Total Fund Policy Index			14.69	-3.75	1.46	1.94	5.67	5.88	7.06	8.73	7.99	
Difference			0.19	0.64	1.77	1.07	0.19	0.00	0.11	-0.13	-0.18	
US Equity	848,572,789	40.44	21.84	-4.69	4.82	4.87	9.39	8.93	10.44	12.80	10.06	01/01/1988
US Equity Policy Index			22.03	-3.48	5.31	6.53	10.04	10.03	11.68	13.72	10.49	
Difference			-0.19	-1.21	-0.49	-1.66	-0.65	-1.10	-1.24	-0.92	-0.43	
International Equity	469,936,699	22.39	20.62	-5.56	5.06	2.40	3.51	4.43	6.06	6.05	4.85	02/01/1999
International Equity Policy Index			16.12	-11.00	-3.06	-4.80	1.13	2.26	3.71	4.97	3.52	
Difference			4.50	5.44	8.12	7.20	2.38	2.17	2.35	1.08	1.33	
Fixed Income	486,580,024	23.19	7.02	4.95	5.85	8.00	5.37	4.67	4.14	3.96	6.26	01/01/1988
Fixed Income Policy Index			3.63	5.37	5.78	8.06	5.19	4.28	3.95	3.81	6.32	
Difference			3.39	-0.42	0.07	-0.06	0.18	0.39	0.19	0.15	-0.06	
Real Estate	234,573,440	11.18	-2.04	-1.11	0.93	1.51	4.77	6.45	8.18	10.20	7.92	04/01/2005
NCREIF ODCE Index (AWA) (Net)			-1.75	-1.01	0.25	1.33	4.72	6.35	8.09	9.78	6.26	
Difference			-0.29	-0.10	0.68	0.18	0.05	0.10	0.09	0.42	1.66	
MLPs	52,158,616	2.49	31.30	-33.19	-34.07	-37.82	-14.60	-11.70	-6.09	N/A	0.20	03/01/2011
S&P MLP Index (TR)			45.82	-35.66	-37.65	-40.17	-15.34	-12.68	-8.68	-0.52	-3.27	
Difference			-14.52	2.47	3.58	2.35	0.74	0.98	2.59	N/A	3.47	



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

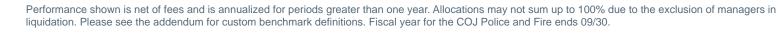
	Allocation											
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
US Equity												
Eagle Capital Large Cap Value (SA)	197,604,008	9.42	18.97	-9.11	0.79	-1.16	7.54	8.36	10.48	N/A	11.21	04/01/2011
Russell 1000 Val Index			14.29	-16.26	-10.06	-8.84	1.82	4.64	7.11	10.41	8.22	
Difference			4.68	7.15	10.85	7.68	5.72	3.72	3.37	N/A	2.99	
NT S&P 500 Index (CF)	264,267,558	12.59	20.54	-3.07	5.72	7.52	10.72	10.74	12.14	13.99	6.40	01/01/1999
S&P 500 Index (Cap Wtd)			20.54	-3.08	5.71	7.51	10.73	10.73	12.13	13.99	6.41	
Difference			0.00	0.01	0.01	0.01	-0.01	0.01	0.01	0.00	-0.01	
Loomis Sayles Large Cap Growth (CF)	127,615,730	6.08	24.03	10.02	20.85	19.23	N/A	N/A	N/A	N/A	16.51	09/01/2017
Russell 1000 Grth Index			27.84	9.81	21.48	23.28	18.99	15.89	16.62	17.23	18.35	
Difference			-3.81	0.21	-0.63	-4.05	N/A	N/A	N/A	N/A	-1.84	
Sawgrass Diversified Large Cap Growth (SA)	115,997,188	5.53	22.57	4.43	13.07	15.11	16.06	13.23	N/A	N/A	13.10	11/01/2013
Russell 1000 Grth Index			27.84	9.81	21.48	23.28	18.99	15.89	16.62	17.23	15.40	
Difference			-5.27	-5.38	-8.41	-8.17	-2.93	-2.66	N/A	N/A	-2.30	
Wedge Capital Small Cap Value (CF)	62,675,627	2.99	18.93	-26.02	-20.06	-20.05	-5.87	N/A	N/A	N/A	-1.55	09/01/2016
Russell 2000 Val Index			18.91	-23.50	-17.00	-17.48	-4.35	1.26	3.98	7.82	0.30	
Difference			0.02	-2.52	-3.06	-2.57	-1.52	N/A	N/A	N/A	-1.85	
Pinnacle Associates US SMID Cap Growth (SA)	80,381,407	3.83	31.99	-3.32	12.31	12.25	9.05	8.28	10.91	14.15	17.73	03/01/2009
Russell 2500 Grth Index			32.87	2.02	12.80	9.21	12.10	9.57	12.06	14.45	17.54	
Difference			-0.88	-5.34	-0.49	3.04	-3.05	-1.29	-1.15	-0.30	0.19	
International Equity												
Silchester International Value (CF)	134,013,036	6.39	10.42	-16.26	-8.65	-9.91	-2.05	1.45	N/A	N/A	3.74	09/01/2013
MSCI EAFE Val Index (USD) (Net)			12.43	-19.27	-12.97	-14.48	-4.43	-1.59	1.21	3.53	0.60	
Difference			-2.01	3.01	4.32	4.57	2.38	3.04	N/A	N/A	3.14	
NT EAFE Index (CF)	34,725,198	1.65	14.94	-10.89	-3.71	-4.64	N/A	N/A	N/A	N/A	1.55	02/01/2019
MSCI EAFE Index (USD) (Net)			14.88	-11.34	-4.10	-5.13	0.81	2.05	3.93	5.73	1.06	
Difference			0.06	0.45	0.39	0.49	N/A	N/A	N/A	N/A	0.49	
Baillie Gifford International Growth (BGEFX)	161,507,250	7.70	36.75	17.60	34.15	30.70	15.96	12.36	12.42	N/A	9.66	03/01/2011
Baillie Gifford Index			19.11	-2.62	6.93	6.45	6.68	5.98	6.83	8.02	5.59	
Difference			17.64	20.22	27.22	24.25	9.28	6.38	5.59	N/A	4.07	
Acadian Emerging Markets (CF)	139,691,215	6.66	16.49	-11.78	-1.35	-5.59	-1.36	1.33	N/A	N/A	1.44	01/01/2014
MSCI Emg Mkts Index (USD) (Net)			18.08	-9.78	0.89	-3.39	1.90	2.86	3.22	3.27	2.30	
Difference			-1.59	-2.00	-2.24	-2.20	-3.26	-1.53	N/A	N/A	-0.86	

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)

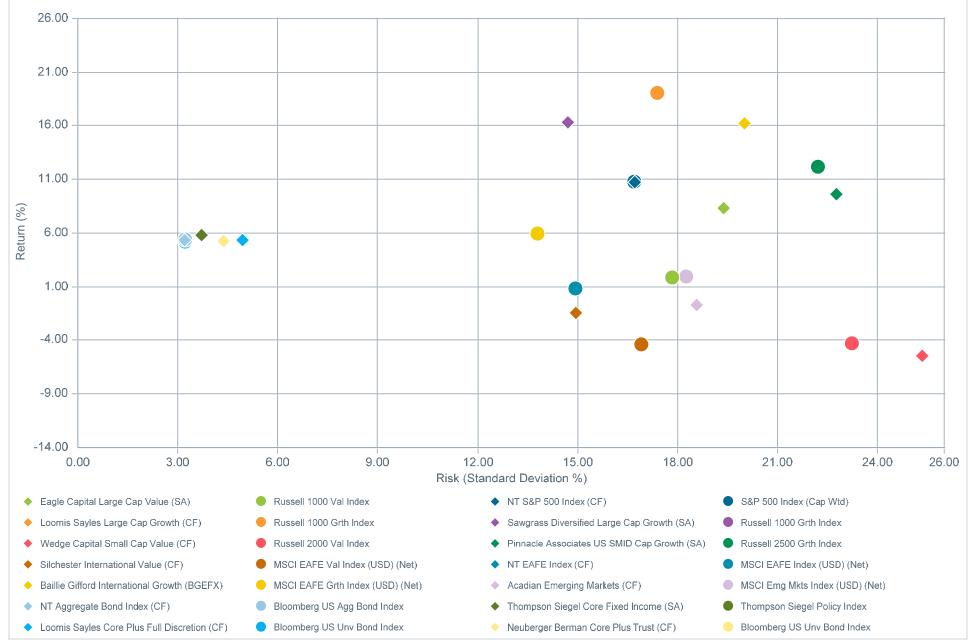
	Allocation				Performance (%)							
	Market Value (\$)	%	QTD	CYTD	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years	Since Incep.	Inception Date
Fixed Income												
NT Aggregate Bond Index (CF)	12,527,604	0.60	2.80	6.18	6.35	8.78	5.37	4.33	3.98	N/A	3.48	02/01/2013
Bloomberg US Agg Bond Index			2.90	6.14	6.33	8.74	5.32	4.30	3.96	3.82	3.49	
Difference			-0.10	0.04	0.02	0.04	0.05	0.03	0.02	N/A	-0.01	
Thompson Siegel Core Fixed Income (SA)	99,997,727	4.77	5.98	5.68	6.52	8.72	5.61	4.84	4.40	4.30	6.11	08/01/1991
Thompson Siegel Policy Index			2.90	6.14	6.33	8.74	5.32	4.30	3.96	3.82	5.87	
Difference			3.08	-0.46	0.19	-0.02	0.29	0.54	0.44	0.48	0.24	
Loomis Sayles Core Plus Full Discretion (CF)	152,952,812	7.29	8.50	5.01	6.10	8.06	5.23	N/A	N/A	N/A	5.59	02/01/2017
Bloomberg US Unv Bond Index			3.81	5.17	5.64	7.88	5.15	4.42	4.13	4.12	5.20	
Difference			4.69	-0.16	0.46	0.18	0.08	N/A	N/A	N/A	0.39	
Neuberger Berman Core Plus Trust (CF)	221,101,881	10.54	6.73	4.51	5.33	7.59	5.23	N/A	N/A	N/A	5.35	01/01/2017
Bloomberg US Unv Bond Index			3.81	5.17	5.64	7.88	5.15	4.42	4.13	4.12	5.18	
Difference			2.92	-0.66	-0.31	-0.29	0.08	N/A	N/A	N/A	0.17	
Real Estate												
JPM Real Estate Strategic Property (CF)	177,394,504	8.45	-2.23	-1.13	1.14	1.37	4.45	6.10	7.92	9.72	7.02	04/01/2005
NCREIF ODCE Index (AWA) (Net)			-1.75	-1.01	0.25	1.33	4.72	6.35	8.09	9.78	6.26	
Difference			-0.48	-0.12	0.89	0.04	-0.27	-0.25	-0.17	-0.06	0.76	
Principal US Property (CF)	57,178,936	2.72	-1.44	-1.03	0.29	1.96	5.77	7.53	9.00	N/A	9.30	04/01/2013
NCREIF ODCE Index (AWA) (Net)			-1.75	-1.01	0.25	1.33	4.72	6.35	8.09	9.78	8.32	
Difference			0.31	-0.02	0.04	0.63	1.05	1.18	0.91	N/A	0.98	
MLPs												
Harvest Fund Advisors MLP (SA)	26,303,930	1.25	32.59	-32.38	-33.13	-36.61	-13.71	-11.59	-5.92	N/A	0.53	03/01/2011
S&P MLP Index (TR)			45.82	-35.66	-37.65	-40.17	-15.34	-12.68	-8.68	-0.52	-3.27	
Difference			-13.23	3.28	4.52	3.56	1.63	1.09	2.76	N/A	3.80	
Tortoise Capital Advisors MLP (SA)	25,854,687	1.23	30.01	-34.00	-35.00	-39.01	-15.35	-11.73	-6.24	N/A	-0.11	03/01/2011
S&P MLP Index (TR)			45.82	-35.66	-37.65	-40.17	-15.34	-12.68	-8.68	-0.52	-3.27	
Difference			-15.81	1.66	2.65	1.16	-0.01	0.95	2.44	N/A	3.16	





City of Jacksonville Police and Fire Pension Fund Risk and Return

Traditional Managers

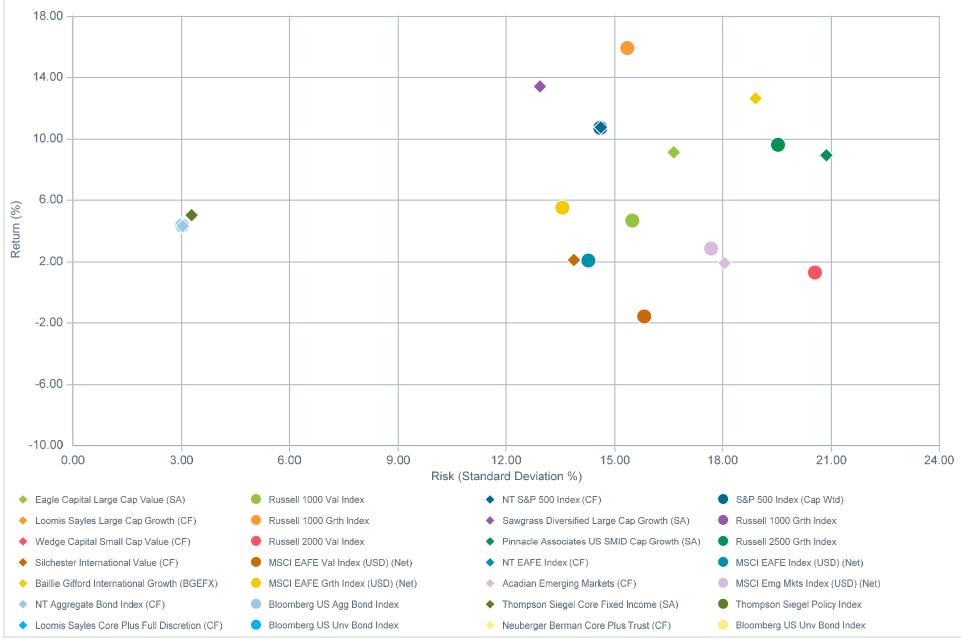


Performance shown is gross of fees and client specific. Calculation is based on monthly periodicity. Managers with less history than the specified time period will not appear. Please see the Addendum for custom index definitions.



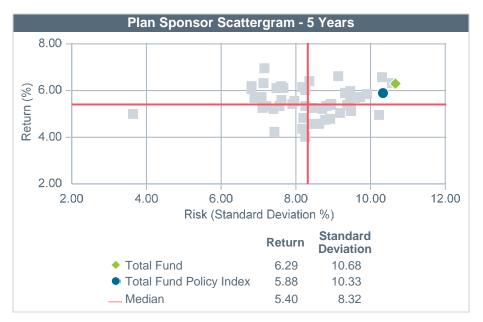
City of Jacksonville Police and Fire Pension Fund Risk and Return

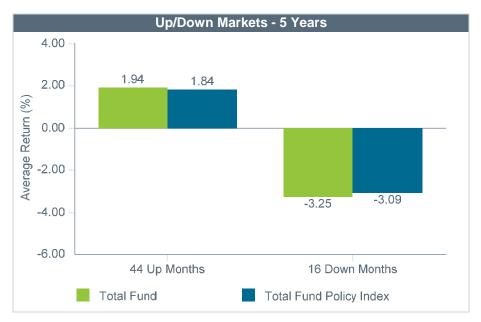
Traditional Managers

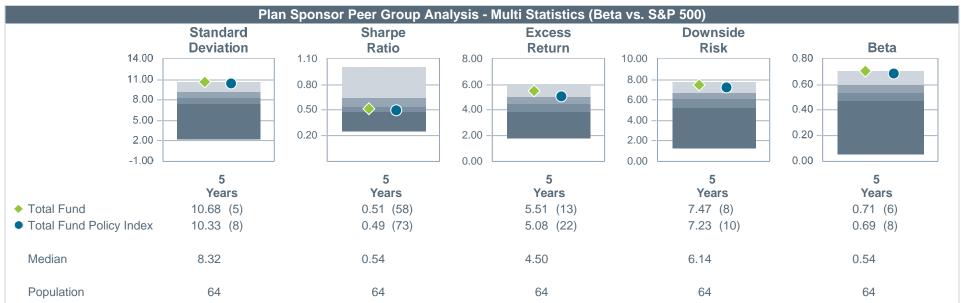


Performance shown is gross of fees and client specific. Calculation is based on monthly periodicity. Managers with less history than the specified time period will not appear. Please see the Addendum for custom index definitions.





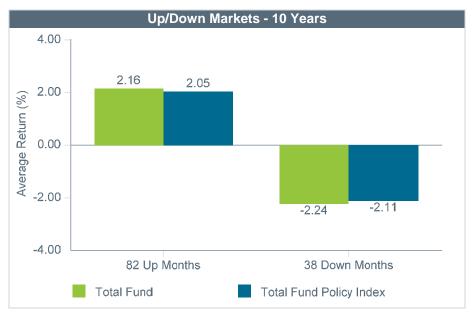


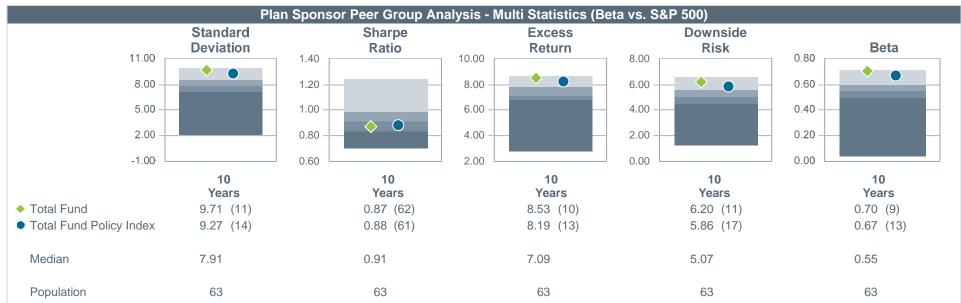


Performance shown is gross of fees. Calculation is based on monthly periodicity. Parentheses contain percentile ranks.









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

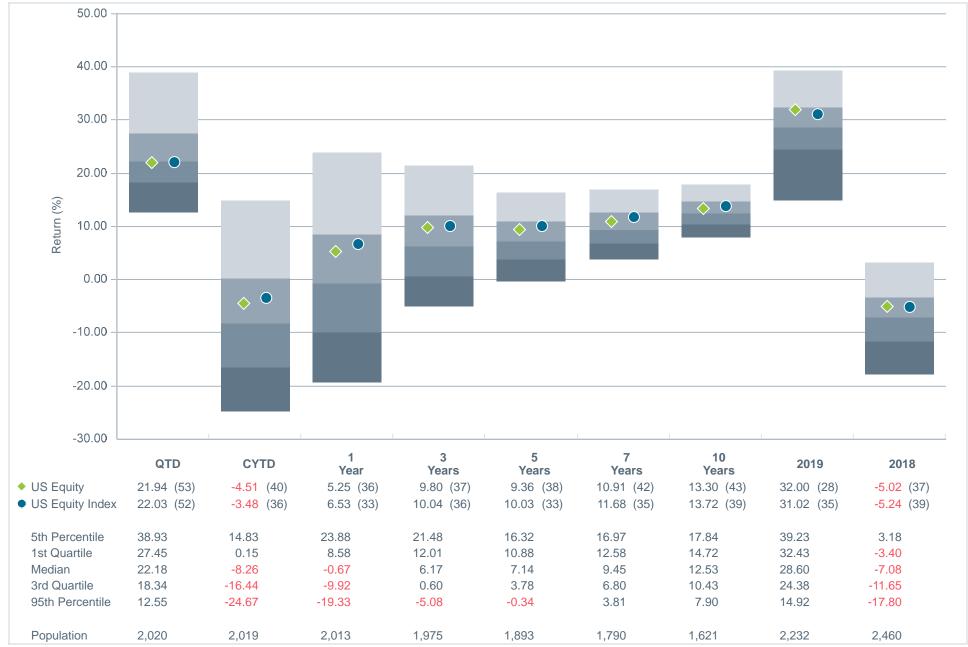


Composite Profiles



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

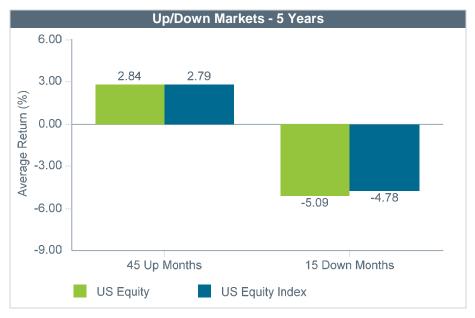
Peer Group Analysis

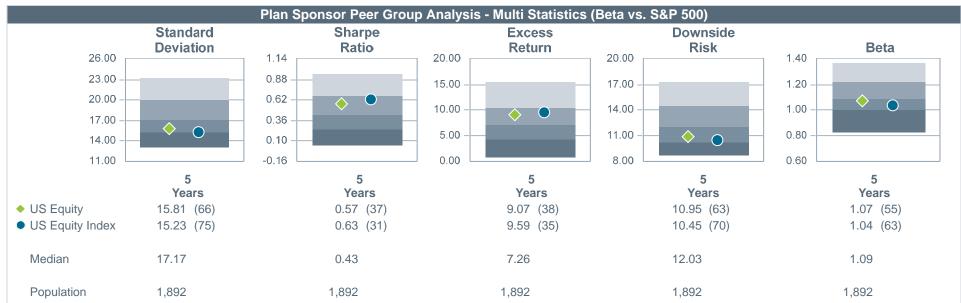


Performance shown is gross of fees. Parentheses contain percentile ranks.









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

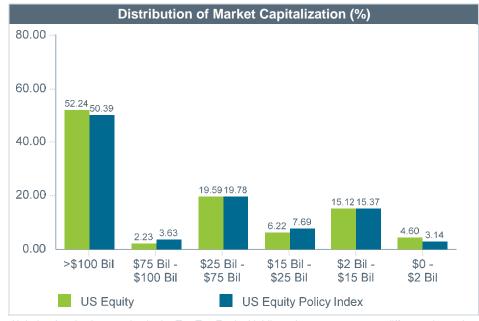


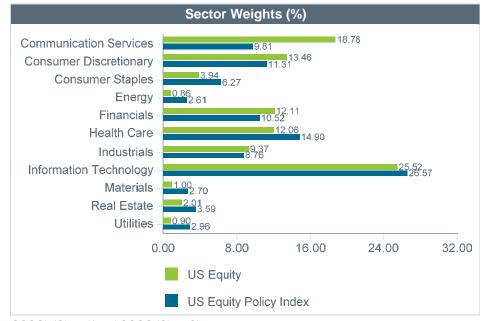
City of Jacksonville Police and Fire Pension Fund US Equity vs. US Equity Policy Index

Portfolio	Characteristics

	Top Ten Eq	uity Holdings		
	Portfolio Weight (%)	Benchmark Weight (%)	Active Weight (%)	Quarterly Return (%)
Microsoft Corp	6.25	5.00	1.25	29.40
Amazon.com Inc	5.43	3.84	1.59	41.50
Alphabet Inc	3.29	1.37	1.92	21.57
Facebook Inc	3.27	1.79	1.48	36.13
Apple Inc	2.84	4.89	-2.05	43.84
Comcast Corp	1.95	0.58	1.37	14.05
Berkshire Hathaway Inc	1.78	1.14	0.64	-2.36
Alphabet Inc	1.64	1.40	0.24	22.04
Unitedhealth Group Inc	1.42	0.91	0.51	18.78
Visa Inc	1.38	1.07	0.31	20.10
% of Portfolio	29.25	21.99	7.26	

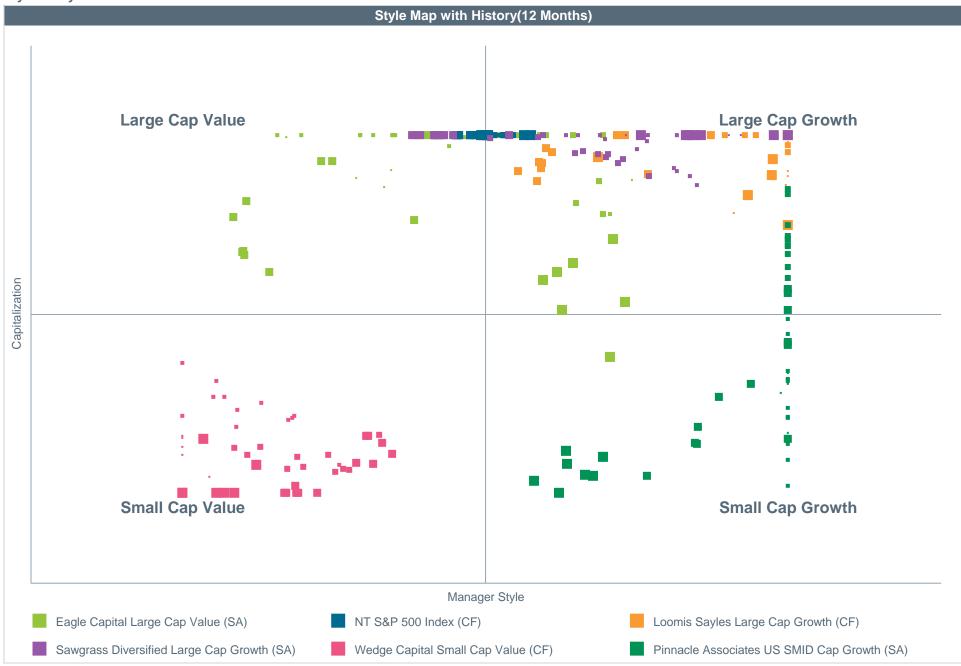
Portfolio Characteristics				
	Portfolio	Benchmark		
Wtd. Avg. Mkt. Cap (\$M)	357,275	324,322		
Median Mkt. Cap (\$M)	14,773	1,461		
Price/Earnings Ratio	23.02	22.81		
Price/Book Ratio	3.98	3.93		
5 Yr. EPS Growth Rate (%)	13.72	12.15		
Current Yield (%)	1.34	1.74		
Beta (5 Years, Monthly)	1.03	1.00		
Number of Securities	678	3,008		





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

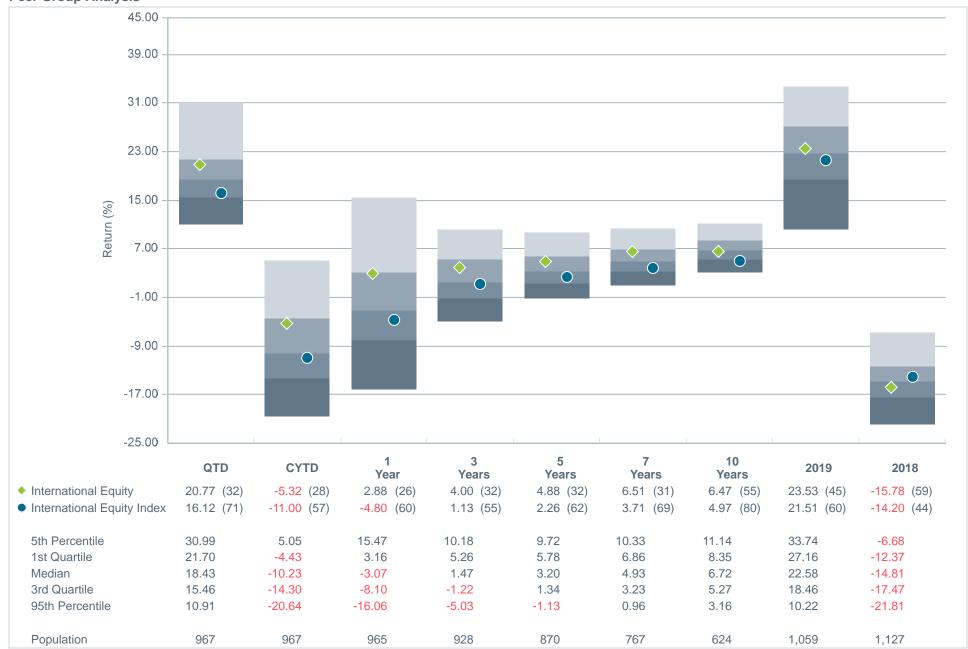




Calculation is based on monthly periodicity. This is a return based calculation.

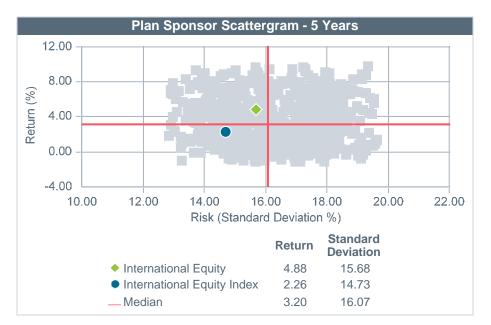


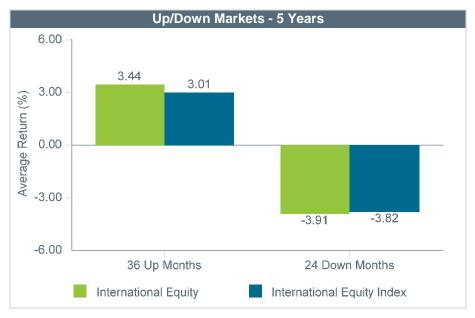
City of Jacksonville Police and Fire Pension Fund International Equity vs. IM International Equity (SA+CF) Peer Group Analysis

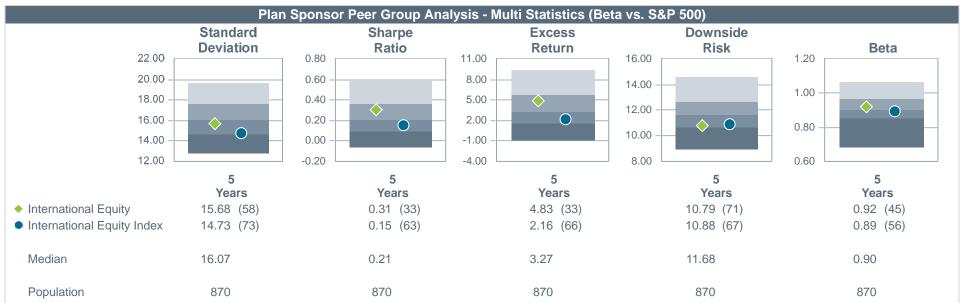


Performance shown is gross of fees. Parentheses contain percentile ranks.









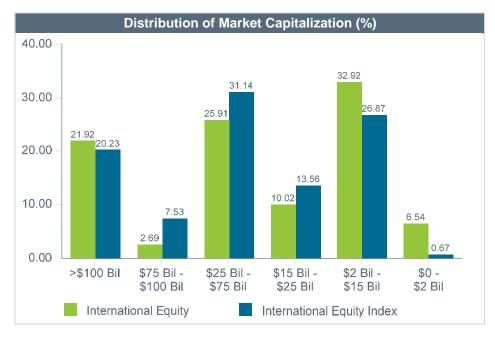
Performance shown is gross of fees. Calculation is based on monthly periodicity. Parentheses contain percentile ranks.

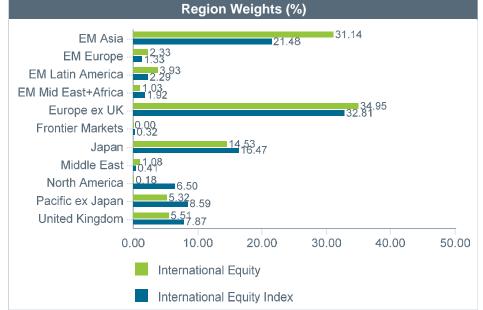


City of Jacksonville Police and Fire Pension Fund International Equity vs. International Equity Index Portfolio Characteristics

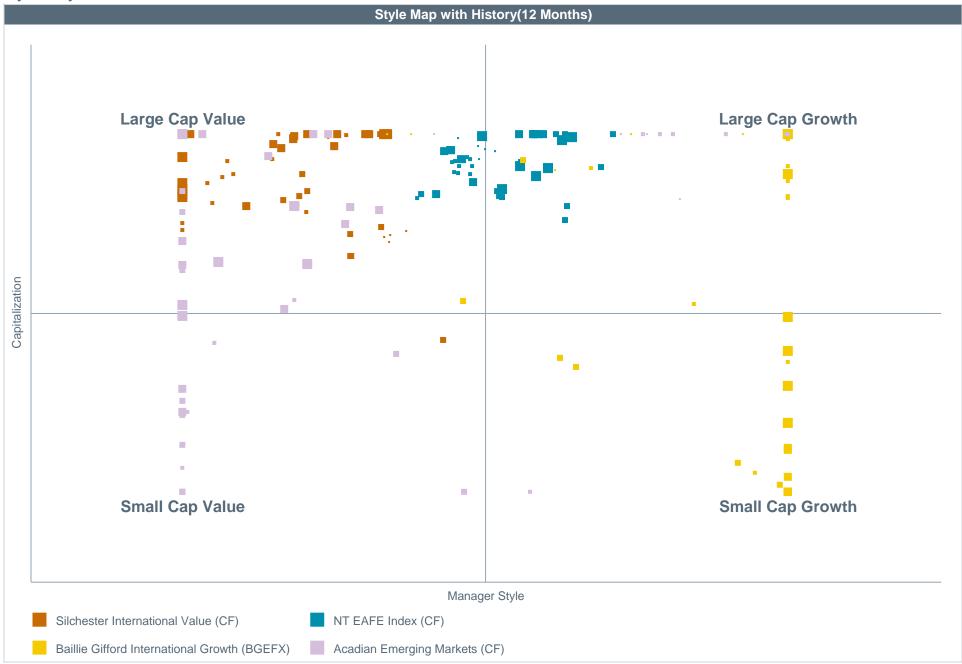
Гор Ten Equi [.]	ty Holdings		
Portfolio Weight (%)	Benchmark Weight (%)	Active Weight (%)	Quarterly Return (%)
4.06	1.82	2.24	31.53
3.13	2.00	1.13	10.91
2.58	0.77	1.81	38.79
1.90	1.04	0.86	12.84
1.82	0.00	1.82	101.76
1.66	0.09	1.57	43.24
1.55	0.39	1.16	83.58
1.44	0.11	1.33	10.72
1.34	0.00	1.34	112.61
1.33	0.20	1.13	5.16
20.81	6.42	14.39	
	Portfolio Weight (%) 4.06 3.13 2.58 1.90 1.82 1.66 1.55 1.44 1.34	Weight (%) Weight (%) 4.06 1.82 3.13 2.00 2.58 0.77 1.90 1.04 1.82 0.00 1.66 0.09 1.55 0.39 1.44 0.11 1.34 0.00 1.33 0.20	Portfolio Weight (%) Benchmark Weight (%) Active Weight (%) 4.06 1.82 2.24 3.13 2.00 1.13 2.58 0.77 1.81 1.90 1.04 0.86 1.82 0.00 1.82 1.66 0.09 1.57 1.55 0.39 1.16 1.44 0.11 1.33 1.34 0.00 1.34 1.33 0.20 1.13

Portfolio 86,241 6,858 13.99 3.38	80,702 7,497 16.19
6,858 13.99	7,497
13.99	•
	16.19
3.38	
0.00	2.62
7.70	7.11
2.54	2.80
1.05	1.00
1,485	2,372
	2.54 1.05





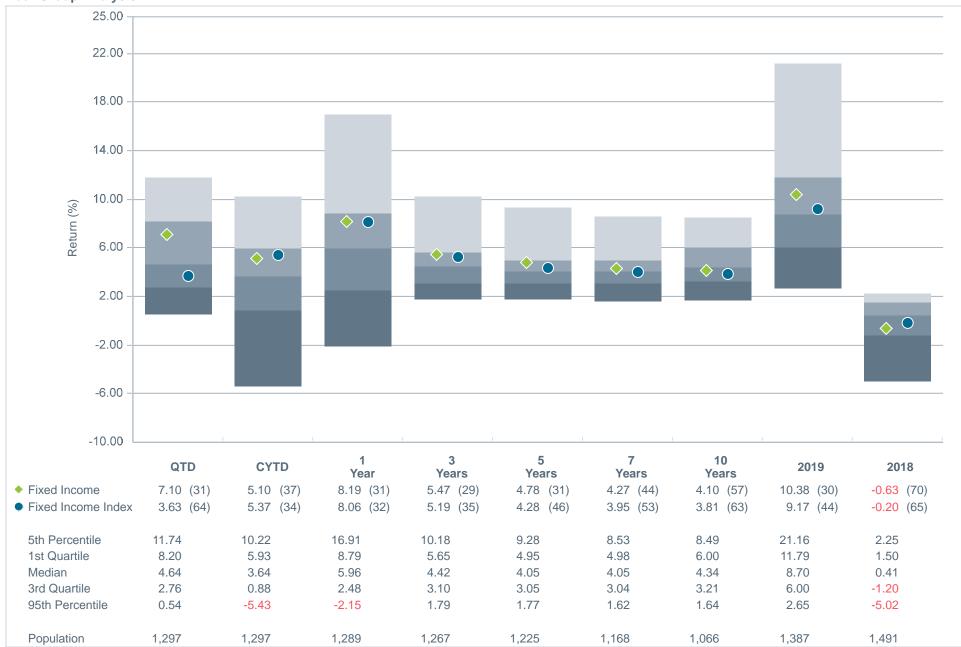




Calculation is based on monthly periodicity. This is a return based calculation.



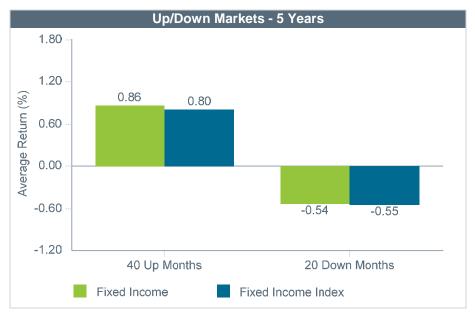
City of Jacksonville Police and Fire Pension Fund Fixed Income vs. IM U.S. Fixed Income (SA+CF) Peer Group Analysis

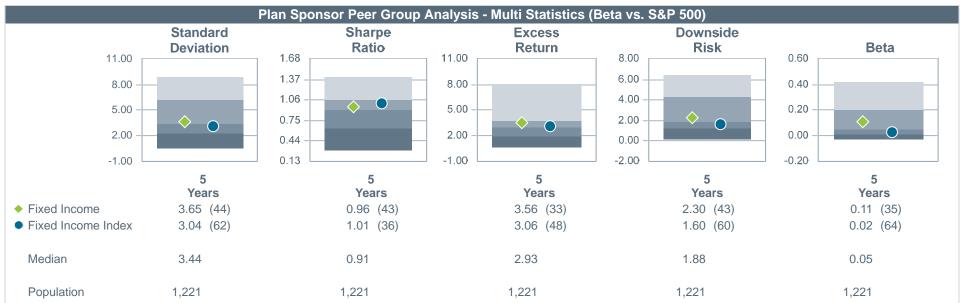


Performance shown is gross of fees. Parentheses contain percentile ranks.







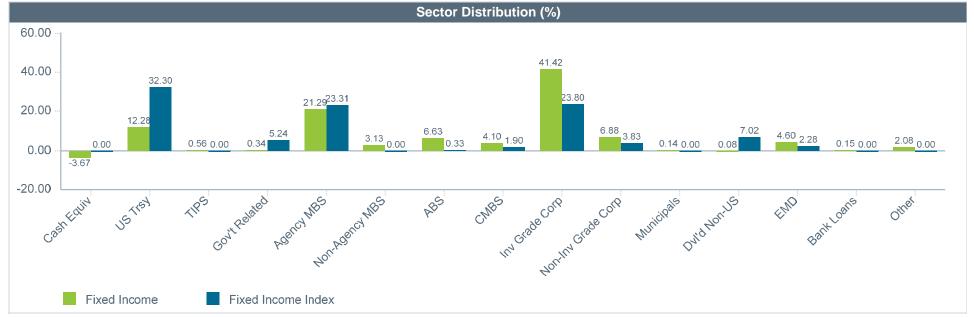


Performance shown is gross of fees. Calculation is based on monthly periodicity. Parentheses contain percentile ranks.



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

	Portfolio Characteristics	
	Portfolio	Benchmark
Effective Duration	5.97	5.92
Avg. Maturity	8.15	8.08
Avg. Quality	A2	N/A
Yield To Maturity (%)	2.51	1.72
Coupon Rate (%)	3.52	3.31
Current Yield (%)	3.66	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, derivatives, 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.	Inception Date
Real Estate	-1.83	-0.52	1.54	2.30	5.44	7.19	9.02	11.09	4.85	8.29	7.66	8.53	04/01/2005
NCREIF ODCE Index (AWA) (Gross)	-1.56	-0.60	0.91	2.22	5.66	7.31	9.07	10.80	5.34	8.35	7.62	7.24	
Difference	-0.27	0.08	0.63	0.08	-0.22	-0.12	-0.05	0.29	-0.49	-0.06	0.04	1.29	



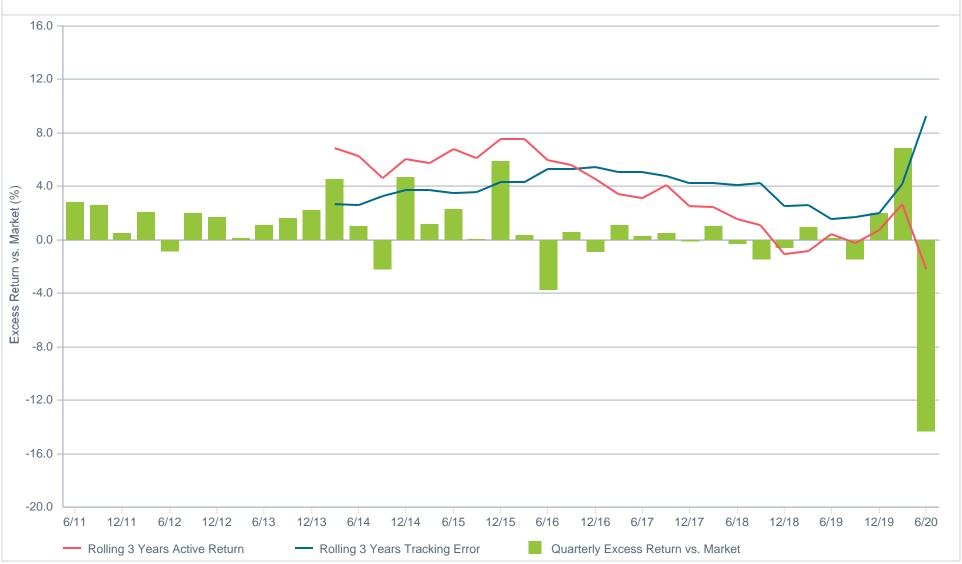
Performance shown is gross of fees. Calculation is based on quarterly periodicity.



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
MLPs	31.54	-32.94	-33.69	-37.34	-13.96	-11.03	-5.38	N/A	11.34	-12.70	-3.81	0.91	03/01/2011
S&P MLP Index (TR)	45.82	-35.66	-37.65	-40.17	-15.34	-12.68	-8.68	-0.52	9.78	-11.67	-5.58	-3.27	
Difference	-14.28	2.72	3.96	2.83	1.38	1.65	3.30	N/A	1.56	-1.03	1.77	4.18	



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



Investment Manager Profiles

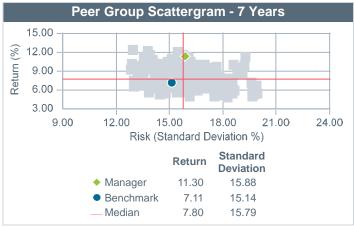


Manager: Eagle Capital Large Cap Value (SA)

Benchmark: Russell 1000 Val Index

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

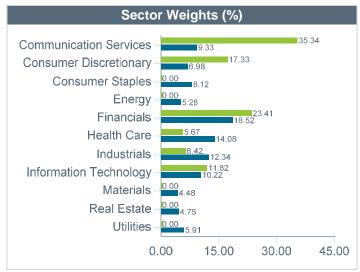
	Performance Performance										
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2019	2018	2017	2016	2015
Manager	19.17	-0.40	8.35	9.15	11.30	N/A	32.20	-5.55	23.64	10.81	1.90
Benchmark	14.29	-8.84	1.82	4.64	7.11	10.41	26.54	-8.27	13.66	17.34	-3.83
Difference	4.88	8.44	6.53	4.51	4.19	N/A	5.66	2.72	9.98	-6.53	5.73
Peer Group Median	16.98	-6.61	3.16	5.32	7.80	10.96	27.28	-8.27	17.24	14.52	-2.25
Rank	28	22	14	12	8	N/A	14	27	8	80	13
Population	271	271	270	262	253	230	306	329	348	375	391







			Portfolio	E	Benchmark
Wtd. Avg. Mkt. Cap (\$N	1)		505,183		113,862
Median Mkt. Cap (\$M)			63,022		8,979
Price/Earnings Ratio			20.13		17.42
Price/Book Ratio			3.31		2.33
5 Yr. EPS Growth Rate	(%)		14.01		6.09
Current Yield (%)			1.10		2.63
Beta (5 Years, Monthly))		1.03		1.00
Number of Securities			28		839
Active Share			90.46		N/A
80.00 63.37 40.00 38.71 20.00 0.00	2.58 4.77	25.94	7.50 10.87	19.54	0.06 0.18
>\$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 client specific. Calculation is based on monthly periodicity. Parentheses contain percentile ranks.

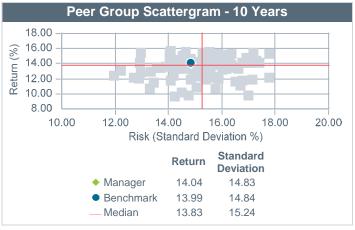


Manager: NT Collective Daily S&P 500 Index Lending (CF)

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	20.55	7.53	10.77	10.78	12.19	14.04	31.54	-4.34	21.87	12.03	1.49
Benchmark	20.54	7.51	10.73	10.73	12.13	13.99	31.49	-4.38	21.83	11.96	1.38
Difference	0.01	0.02	0.04	0.05	0.06	0.05	0.05	0.04	0.04	0.07	0.11
Peer Group Median	20.19	5.29	9.71	9.73	11.73	13.83	29.97	-5.17	21.84	10.54	1.43
Rank	45	30	31	27	38	40	34	36	49	33	48
Population	210	208	206	198	191	167	236	267	291	312	328







	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap (\$M)	383,328	383,282
Median Mkt. Cap (\$M)	21,806	21,806
Price/Earnings Ratio	23.16	23.16
Price/Book Ratio	4.03	4.03
5 Yr. EPS Growth Rate (%)	12.16	12.16
Current Yield (%)	1.85	1.85
Beta (5 Years, Monthly)	1.00	1.00
Number of Securities	509	505
Active Share	0.02	N/A
80.00 ··· 59.52 59.52 40.00 ··· 20.00 ··· 4.38 4.	21.96 21.96 38 7.85	7.85 6.29 6.30
>\$100 Bil \$75 Bil \$100 B	7-7	. ,



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)

	Performance Performance										
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2019	2018	2017	2016	2015
Manager	24.23	19.58	17.67	17.21	17.63	18.34	32.71	-1.72	34.03	6.54	10.99
Benchmark	27.84	23.28	18.99	15.89	16.62	17.23	36.39	-1.51	30.21	7.08	5.67
Difference	-3.61	-3.70	-1.32	1.32	1.01	1.11	-3.68	-0.21	3.82	-0.54	5.32
Peer Group Median	26.58	19.56	17.42	14.27	15.77	16.61	33.81	-1.01	28.21	4.74	4.89
Rank	70	49	48	17	21	16	61	56	16	34	11
Population	223	222	220	208	202	189	248	276	287	307	337







			Portfolio		Benchmark
Vtd. Avg. Mkt. Cap (\$M)		385,013		566,331
Median Mkt. Cap (\$M)			85,960		12,655
Price/Earnings Ratio			32.21		34.09
Price/Book Ratio			7.16		10.40
Yr. EPS Growth Rate	(%)		20.34		18.98
Current Yield (%)			0.76		0.92
Beta (5 Years, Monthly)			0.95		1.00
Number of Securities			36		435
Active Share			70.06		N/A
75.00 64.6767.73 50.00 25.00 0.00	1.70 2.96	24.31 16.20	2.71 5.54	6.61 7.54	0.00 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.

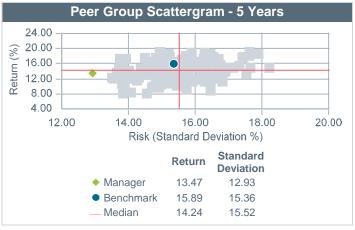


Manager: Sawgrass Diversified Large Cap Growth (SA)

Benchmark: Russell 1000 Grth Index

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

	Performance Performance										
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2019	2018	2017	2016	2015
Manager	22.63	15.35	16.31	13.47	N/A	N/A	30.50	3.34	22.94	6.80	2.21
Benchmark	27.84	23.28	18.99	15.89	16.62	17.23	36.39	-1.51	30.21	7.08	5.67
Difference	-5.21	-7.93	-2.68	-2.42	N/A	N/A	-5.89	4.85	-7.27	-0.28	-3.46
Peer Group Median	26.58	19.56	17.42	14.27	15.77	16.61	33.81	-1.01	28.21	4.74	4.89
Rank	78	67	62	61	N/A	N/A	78	16	82	30	73
Population	223	222	220	208	202	189	248	276	287	307	337







Portfolio Charact	ristics and Dist	. of Market Cap (%)
	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap (\$M)	457,600	566,331
Median Mkt. Cap (\$M)	118,155	12,655
Price/Earnings Ratio	26.76	34.09
Price/Book Ratio	6.49	10.40
5 Yr. EPS Growth Rate (%)	13.20	18.98
Current Yield (%)	1.31	0.92
Beta (5 Years, Monthly)	0.82	1.00
Number of Securities	48	435
Active Share	60.04	N/A
150.00 ··· 100.00 ··· 96.87 _{92.43}		
50.00	72 2.28 3.09 0.00 0.6	5 0.00 0.10 0.00 0.00
>\$15 Bil \$10 I \$15	7	\$1 Bil - \$0 - \$3 Bil \$1 Bil



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

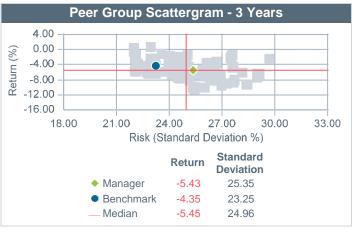


Manager: Wedge Capital Mgmt Sm Cap Val (CF)

Benchmark: Russell 2000 Val Index

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

				Pe	erforman	се					
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2019	2018	2017	2016	2015
Manager	19.17	-19.74	-5.43	N/A	N/A	N/A	26.10	-14.38	6.47	N/A	N/A
Benchmark	18.91	-17.48	-4.35	1.26	3.98	7.82	22.39	-12.86	7.84	31.74	-7.47
Difference	0.26	-2.26	-1.08	N/A	N/A	N/A	3.71	-1.52	-1.37	N/A	N/A
Peer Group Median	21.81	-17.72	-5.45	-0.42	2.93	7.26	21.26	-16.08	8.32	26.61	-7.10
Rank	77	74	50	N/A	N/A	N/A	15	39	71	N/A	N/A
Population	239	239	223	202	176	133	250	257	244	233	213







			Portfolio	1	Benchmark
Vtd. Avg. Mkt. Cap (\$M)			2,767		1,688
ledian Mkt. Cap (\$M)			1,859		548
rice/Earnings Ratio			14.12		12.53
rice/Book Ratio			1.84		1.62
Yr. EPS Growth Rate (%	o)		5.06		6.14
Surrent Yield (%)			1.96		2.30
eta (3 Years, Monthly)			1.08		1.00
lumber of Securities			89		1,439
ctive Share			91.02		N/A
80.00 ···· 60.00 ···· 40.00 ···· 20.00 ···· 14.55	55.59 2.25	9.14	5.20 10.60	0.49 2.95	0.00 0.14
	: \$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)

				Pe	rforman	се					
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2019	2018	2017	2016	2015
Manager	32.13	12.88	9.63	8.92	11.62	14.90	41.32	-11.11	25.97	5.33	0.58
Benchmark	32.87	9.21	12.10	9.57	12.06	14.45	32.65	-7.47	24.46	9.73	-0.19
Difference	-0.74	3.67	-2.47	-0.65	-0.44	0.45	8.67	-3.64	1.51	-4.40	0.77
Peer Group Median	33.51	12.70	14.31	11.44	12.76	15.35	31.74	-4.62	25.00	8.56	0.14
Rank	57	49	78	73	70	67	4	90	44	76	41
Population	52	52	48	42	36	31	57	63	62	68	69







Wtd. Avg. Mkt. Cap (\$M) 13,127 5,035 Median Mkt. Cap (\$M) 2,514 1,146 Price/Earnings Ratio 27.05 30.93 Price/Book Ratio 3.41 5.63 5 Yr. EPS Growth Rate (%) 14.83 16.68 Current Yield (%) 0.67 0.51 Beta (5 Years, Monthly) 1.02 1.00 Number of Securities 74 1,264 Active Share 95.45 N/A			Portfolio	Benchmark
Price/Earnings Ratio 27.05 30.93 Price/Book Ratio 3.41 5.63 5 Yr. EPS Growth Rate (%) 14.83 16.68 Current Yield (%) 0.67 0.51 Beta (5 Years, Monthly) 1.02 1.00 Number of Securities 74 1,264 Active Share 95.45 N/A	Wtd. Avg. Mkt. Cap (\$N	1)	13,127	5,035
Price/Book Ratio 3.41 5.63 5 Yr. EPS Growth Rate (%) 14.83 16.68 Current Yield (%) 0.67 0.51 Beta (5 Years, Monthly) 1.02 1.00 Number of Securities 74 1,264 Active Share 95.45 N/A 40.00 30.00 22.93 26.18 23.55 20.00 22.93 17.42 11.63 8.37 8.47	Median Mkt. Cap (\$M)		2,514	1,146
5 Yr. EPS Growth Rate (%) 5 Yr. EPS Growth Rate (%) 14.83 16.68 Current Yield (%) 0.67 0.51 Beta (5 Years, Monthly) 1.02 1.00 Number of Securities 74 1,264 Active Share 95.45 N/A	Price/Earnings Ratio		27.05	30.93
Current Yield (%) 0.67 0.51 Beta (5 Years, Monthly) 1.02 1.00 Number of Securities 74 1,264 Active Share 95.45 N/A 40.00 30.00 22.93 26.18 23.55 29.28 27.48 10.00 17.42 14.32 10.37 11.63 8.37 8.47	Price/Book Ratio		3.41	5.63
Beta (5 Years, Monthly) Number of Securities 74 1,264 Active Share 95.45 N/A 20.00 22.93 17.42 10.07 11.63 8.37 8.47	5 Yr. EPS Growth Rate	(%)	14.83	16.68
Number of Securities 74 1,264 Active Share 95.45 N/A 40.00 30.00 22.93 27.48 23.55 29.28 27.48 10.00 17.42 14.32 10.37 11.63 8.37 8.47	Current Yield (%)		0.67	0.51
Active Share 95.45 N/A 40.00 30.00 22.93 26.18 23.55 29.28 27.48 10.00 17.42 14.32 10.37 11.63 8.37 8.47	Beta (5 Years, Monthly))	1.02	1.00
40.00 ···· 30.00 ··· 22.93 26.18 23.55 29.28 27.48 20.00 ··· 17.42 14.32 10.37 11.63 8.37 8.47	Number of Securities		74	1,264
30.00 ··· 22.93 26.18 23.55 29.28 27.48 20.00 ··· 10.00 ··· 11.63 20.07 11.63 8.37 8.47	Active Share		95.45	N/A
	30.00 ··· 22.93 20.00 ··· 10.00 ···			



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

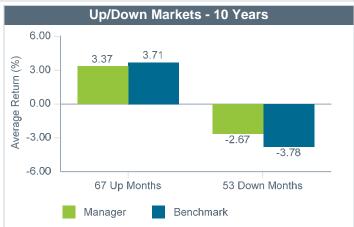


Manager: Silchester Int'l Value Equity (CF)
Benchmark: MSCI EAFE Val Index (USD) (Net)

Peer Group: IM EAFE Value (SA+CF)

				Pe	erforman	се					
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2019	2018	2017	2016	2015
Manager	10.58	-9.36	-1.44	2.13	5.13	7.79	18.05	-13.74	28.10	8.27	2.35
Benchmark	12.43	-14.48	-4.43	-1.59	1.21	3.53	16.09	-14.78	21.44	5.02	-5.68
Difference	-1.85	5.12	2.99	3.72	3.92	4.26	1.96	1.04	6.66	3.25	8.03
Peer Group Median	14.84	-9.51	-2.14	0.45	3.01	5.93	21.17	-15.76	24.17	3.15	-1.05
Rank	92	50	42	28	16	13	89	41	26	9	26
Population	47	47	47	47	46	43	55	59	61	65	76







Portfolio Cha	aracteri	stics an	d Dist. o	of Marke	et Cap (%
			Portfolio		Benchmark
Wtd. Avg. Mkt. Cap (\$M)		36,065		49,464
Median Mkt. Cap (\$M)			3,236		8,908
Price/Earnings Ratio			11.23		12.86
Price/Book Ratio			1.82		1.72
5 Yr. EPS Growth Rate	(%)		-0.20		1.03
Current Yield (%)			4.24		4.00
Beta (5 Years, Monthly)			0.85		1.00
Number of Securities			141		548
Active Share			83.68		N/A
60.00					
45.00		00.00		42.93	
		36.83			
30.00				26.02	
15.00 ··· 15.21 11.96	11.89	16.87	13.30		15,11
	2.54		7.33		0.00
0.00					
>\$100 Bil	\$75 Bil - \$100 Bil	\$25 Bil - \$75 Bil	\$15 Bil - \$25 Bil	\$2 Bil - \$15 Bil	\$0 - \$2 Bil
	\$ TOO DII	ψ/ 3 Bil	الط وعه	ψ10 UII	پک کاا



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

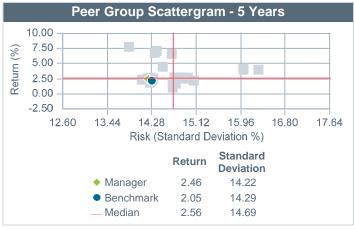


Manager: NT Collective Daily EAFE Index Lending (CF)

Benchmark: MSCI EAFE Index (USD) (Net)

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

				Pe	rforman	се					
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2019	2018	2017	2016	2015
Manager	14.96	-4.63	1.21	2.46	N/A	N/A	22.23	-13.18	25.16	1.42	-0.45
Benchmark	14.88	-5.13	0.81	2.05	3.93	5.73	22.01	-13.79	25.03	1.00	-0.81
Difference	0.08	0.50	0.40	0.41	N/A	N/A	0.22	0.61	0.13	0.42	0.36
Peer Group Median	16.24	-4.62	1.17	2.56	4.28	6.10	21.97	-13.76	25.54	4.67	-2.04
Rank	82	52	46	59	N/A	N/A	38	31	61	83	28
Population	39	38	38	35	33	29	39	44	47	48	45







	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap (\$M)	61,682	62,559
Median Mkt. Cap (\$M)	9,567	9,717
Price/Earnings Ratio	17.16	17.17
Price/Book Ratio	2.62	2.62
5 Yr. EPS Growth Rate (%)	5.21	4.74
Current Yield (%)	2.71	2.85
Beta (5 Years, Monthly)	0.99	1.00
Number of Securities	925	902
Active Share	7.33	N/A
75.00 50.00 25.00 0.00		0.46 0.43 0.00 0.00
>\$15 Bil \$10 Bi \$15 B	- \$5 Bil - \$3 Bil - \$10 Bil \$5 Bil	\$1 Bil - \$0 - \$3 Bil \$1 Bil



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)

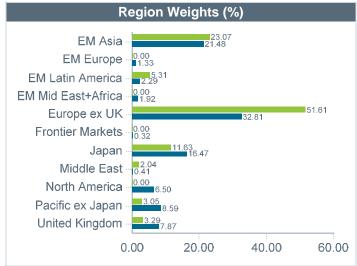
				Pe	rforman	се					
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2019	2018	2017	2016	2015
Manager	36.75	30.70	15.96	12.36	12.42	N/A	37.47	-17.26	46.24	1.42	-2.99
Benchmark	16.12	-4.80	1.13	2.26	3.71	4.97	21.51	-14.20	27.19	4.50	-5.66
Difference	20.63	35.50	14.83	10.10	8.71	N/A	15.96	-3.06	19.05	-3.08	2.67
Peer Group Median	21.06	5.55	6.30	5.33	6.35	7.29	27.84	-14.32	32.37	-0.80	0.27
Rank	1	1	5	5	4	N/A	2	79	5	17	100
Population	172	172	172	148	128	105	172	176	188	165	143







	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap (\$M)	119,321	80,702
Median Mkt. Cap (\$M)	18,366	7,497
Price/Earnings Ratio	39.24	16.19
Price/Book Ratio	7.05	2.62
5 Yr. EPS Growth Rate (%)	14.11	7.11
Current Yield (%)	0.57	2.80
Beta (5 Years, Monthly)	1.13	1.00
Number of Securities	55	2,372
Active Share	90.59	N/A
60.00 ···· 45.00 ··· 30.00 ··· 28.26 20.23 15.00 ··· 0.00	37.14 31.14 12.95 13.56	26 87 15.90 0.49 0.67
>\$100 Bil \$75 Bil - \$100 Bil	\$25 Bil - \$15 Bil - \$75 Bil \$25 Bil	\$2 Bil - \$0 - \$15 Bil \$2 Bil

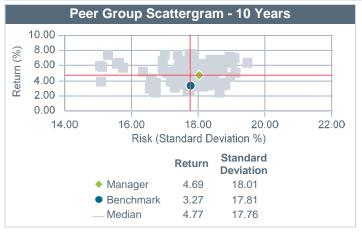


Performance shown is net of fees and client specific. Calculation is based on monthly periodicity. Parentheses contain percentile ranks.



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

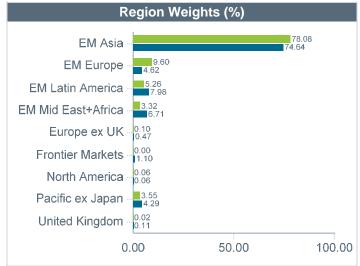
				Pe	rforman	ce					
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2019	2018	2017	2016	2015
Manager	16.54	-5.04	-0.61	2.04	2.74	4.69	18.00	-18.30	38.94	14.08	-17.37
Benchmark	18.08	-3.39	1.90	2.86	3.22	3.27	18.44	-14.58	37.28	11.19	-14.92
Difference	-1.54	-1.65	-2.51	-0.82	-0.48	1.42	-0.44	-3.72	1.66	2.89	-2.45
Peer Group Median	19.49	-3.56	1.28	2.90	3.59	4.77	19.53	-15.23	36.79	10.34	-12.64
Rank	80	58	71	64	71	54	64	81	36	23	90
Population	280	279	265	247	204	138	308	317	332	344	346







			Portfolio		Benchmark
Ntd. Avg. Mkt. Cap (\$N	1)		102,235		130,266
Median Mkt. Cap (\$M)			1,512		5,124
Price/Earnings Ratio			9.92		14.57
Price/Book Ratio			2.31		2.87
7 Yr. EPS Growth Rate	(%)		10.75		12.46
Current Yield (%)			3.13		2.55
Beta (5 Years, Monthly))		1.01		1.00
Number of Securities			458		1,385
Active Share			70.36		N/A
60.00					
45.00				41.53	
30.00 27.64				33.23	
22.08		19.03 20.76			
15.00			8.16		6.95
0.00	2.25 2.40				2.33
>\$100 Bil	\$75 Bil -	\$25 Bil -	\$15 Bil -	; \$2 Bil -	\$0 -
	\$100 Bil	\$75 Bil	\$25 Bil	\$15 Bil	\$2 Bil



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

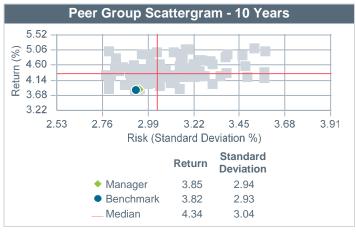


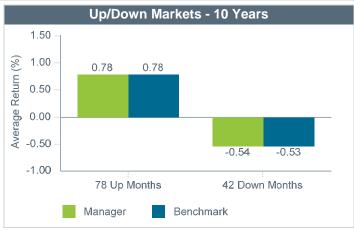
Manager: NT Collective Daily Agg Bnd Index Lending (CF)

Benchmark: Bloomberg US Agg Bond Index

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

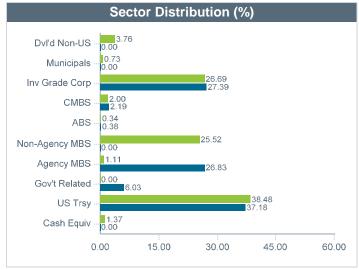
	Performance												
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2019	2018	2017	2016	2015		
Manager	2.80	8.78	5.36	4.33	4.00	3.85	8.77	0.03	3.57	2.64	0.58		
Benchmark	2.90	8.74	5.32	4.30	3.96	3.82	8.72	0.01	3.54	2.65	0.55		
Difference	-0.10	0.04	0.04	0.03	0.04	0.03	0.05	0.02	0.03	-0.01	0.03		
Peer Group Median	4.42	8.93	5.57	4.70	4.41	4.34	9.19	0.06	4.04	3.10	0.82		
Rank	92	66	78	86	86	91	72	56	79	75	71		
Population	137	137	134	133	129	125	150	156	161	168	173		







Portfol	io Characteristic	s
	Portfolio	Benchmark
Effective Duration	6.05	6.04
Spread Duration	3.73	6.30
Avg. Maturity	8.10	8.14
Avg. Quality	Aa2	Aa1/Aa2
Yield To Maturity (%)	1.23	1.27
Coupon Rate (%)	3.09	3.03
Current Yield (%)	2.72	N/A
Holdings Count	4,835	11,690



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

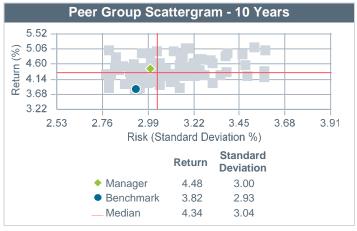


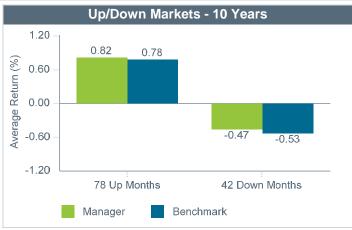
Manager: Thompson Siegel Core Fixed Income (SA)

Benchmark: Bloomberg US Agg Bond Index

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

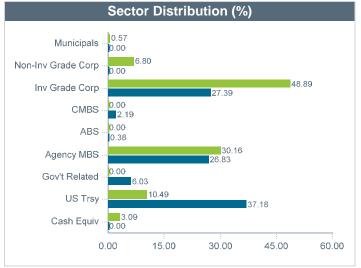
	Performance												
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2019	2018	2017	2016	2015		
Manager	6.03	8.87	5.79	5.03	4.58	4.48	10.35	-0.25	4.44	4.44	1.42		
Benchmark	2.90	8.74	5.32	4.30	3.96	3.82	8.72	0.01	3.54	2.65	0.55		
Difference	3.13	0.13	0.47	0.73	0.62	0.66	1.63	-0.26	0.90	1.79	0.87		
Peer Group Median	4.42	8.93	5.57	4.70	4.41	4.34	9.19	0.06	4.04	3.10	0.82		
Rank	9	56	36	15	29	36	9	82	28	14	13		
Population	137	137	134	133	129	125	150	156	161	168	173		







Portfolio Characteristics										
	Portfolio	Benchmark								
Effective Duration	5.27	6.04								
Spread Duration	5.64	6.30								
Avg. Maturity	6.81	8.14								
Avg. Quality	A2	Aa1/Aa2								
Yield To Maturity (%)	2.26	1.27								
Coupon Rate (%)	3.07	3.03								
Current Yield (%)	3.45	N/A								
Holdings Count	131	11,690								



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

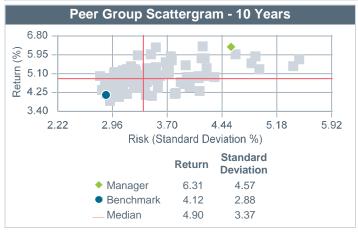


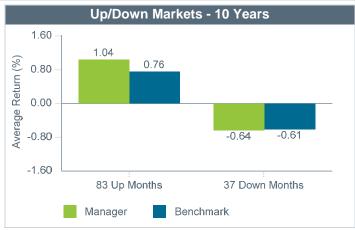
Manager: Loomis Core Plus Full Discretion (CF)

Benchmark: Bloomberg US Unv Bond Index

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

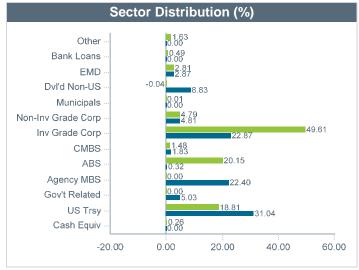
	Performance												
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2019	2018	2017	2016	2015		
Manager	8.35	8.75	5.95	5.46	5.33	6.31	9.06	0.54	6.58	7.83	-1.82		
Benchmark	3.81	7.88	5.15	4.42	4.13	4.12	9.29	-0.25	4.09	3.91	0.43		
Difference	4.54	0.87	0.80	1.04	1.20	2.19	-0.23	0.79	2.49	3.92	-2.25		
Peer Group Median	5.90	8.22	5.50	4.80	4.56	4.90	9.86	-0.32	4.79	4.69	0.29		
Rank	14	37	19	14	13	5	80	12	14	13	90		
Population	145	144	140	139	135	126	154	162	167	170	176		







	Portfolio	Benchmark		
Effective Duration	6.03	5.89		
Spread Duration	4.73	N/A		
Avg. Maturity	8.01	8.07		
Avg. Quality	А3	N/A		
Yield To Maturity (%)	2.69	1.84		
Coupon Rate (%)	3.45	3.38		
Current Yield (%)	3.33	0.17		
Holdings Count	576	18,363		



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.

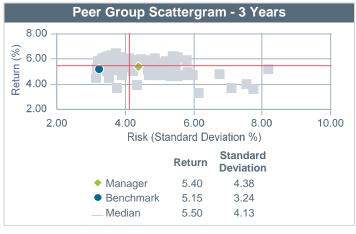


Manager: Neuberger Berman Core Plus Trust - Class III (CIT)

Benchmark: Bloomberg US Unv Bond Index

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

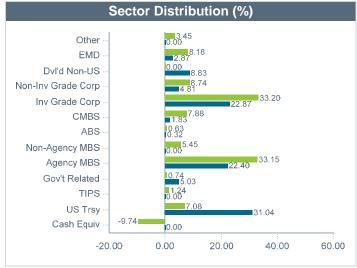
	Performance												
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2019	2018	2017	2016	2015		
Manager	6.77	7.75	5.40	N/A	N/A	N/A	11.03	-0.89	4.63	N/A	N/A		
Benchmark	3.81	7.88	5.15	4.42	4.13	4.12	9.29	-0.25	4.09	3.91	0.43		
Difference	2.96	-0.13	0.25	N/A	N/A	N/A	1.74	-0.64	0.54	N/A	N/A		
Peer Group Median	5.90	8.22	5.50	4.80	4.56	4.90	9.86	-0.32	4.79	4.69	0.29		
Rank	34	60	57	N/A	N/A	N/A	24	76	58	N/A	N/A		
Population	145	144	140	139	135	126	154	162	167	170	176		







lio Characteristic	S
Portfolio	Benchmark
6.24	5.89
6.12	N/A
8.86	8.07
A1	N/A
2.58	1.84
3.79	3.38
4.04	0.17
488	18,363
	Portfolio 6.24 6.12 8.86 A1 2.58 3.79 4.04

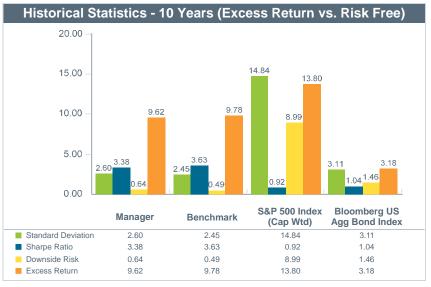


Performance shown is gross of fees and product specific. Calculation is based on monthly periodicity. Parentheses contain percentile ranks. Allocation to "Other" consists of net unsettled positions, credit risk transfer, derivatives, and CLOs.

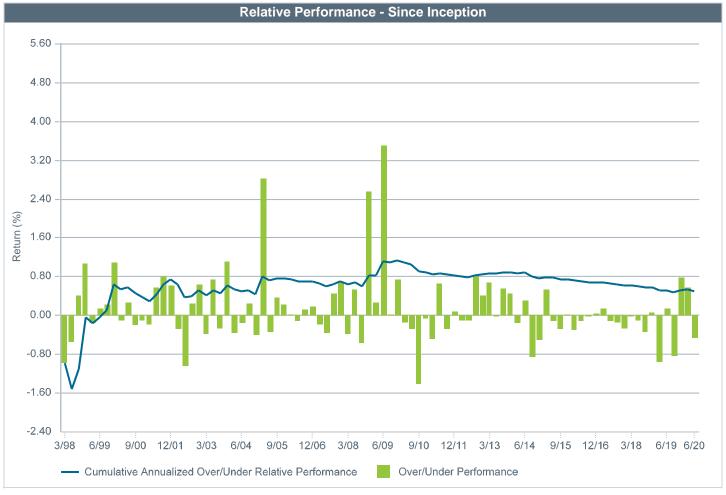


Manager: JPMorgan Strategic Property (CF)
Benchmark: NCREIF ODCE Index (AWA) (Gross)

	Performance												
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2019	2018	2017	2016	2015		
Manager	-2.02	2.27	5.12	6.85	8.77	10.62	4.41	7.95	7.20	8.37	15.23		
Benchmark	-1.56	2.22	5.66	7.31	9.07	10.80	5.34	8.35	7.62	8.77	15.02		
Difference	-0.46	0.05	-0.54	-0.46	-0.30	-0.18	-0.93	-0.40	-0.42	-0.40	0.21		



	Actual Correlation
NCREIF ODCE Index (AWA) (Gross)	0.92
S&P 500 Index (Cap Wtd)	-0.12
Russell 2000 Index	-0.05
MSCI EAFE Index (USD) (Net)	0.00
MSCI Emg Mkts Index (USD) (Net)	-0.13
Bloomberg US Agg Bond Index	-0.32
Bloomberg US Trsy US TIPS Index	-0.24
Wilshire US REIT Index	-0.05
HFRI FOF Comp Index	-0.12
Bloomberg Cmdty Index (TR)	-0.01
ICE BofAML 3 Mo US T-Bill Index	-0.53
Cons Price Index (Unadjusted)	0.05





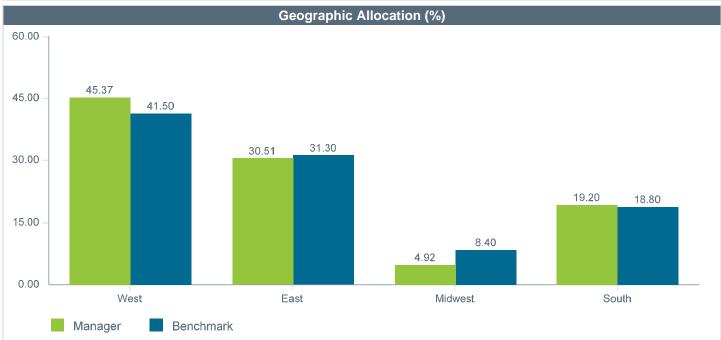
Manager: JPMorgan Strategic Property (CF)
Benchmark: NCREIF ODCE Index (AWA) (Gross)

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)	41,314
Fund Leverage %	23.70
Portfolio Occupancy %	93.51
Cash Reserve %	2.62
Number of Investments	162
Number of Limited Partners	380





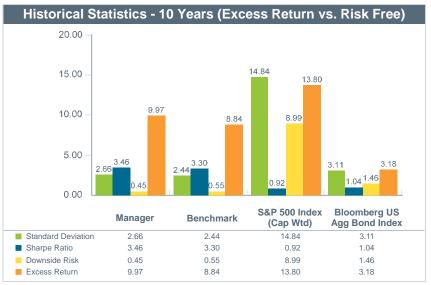
Performance shown is gross of fees and product specific. Calculation is based on quarterly periodicity. Investment profile data shown is provided by the investment manager and is as of the most recently available quarter end. Allocation data shown is based on NAV. Manager allocation to "Other" consists 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.



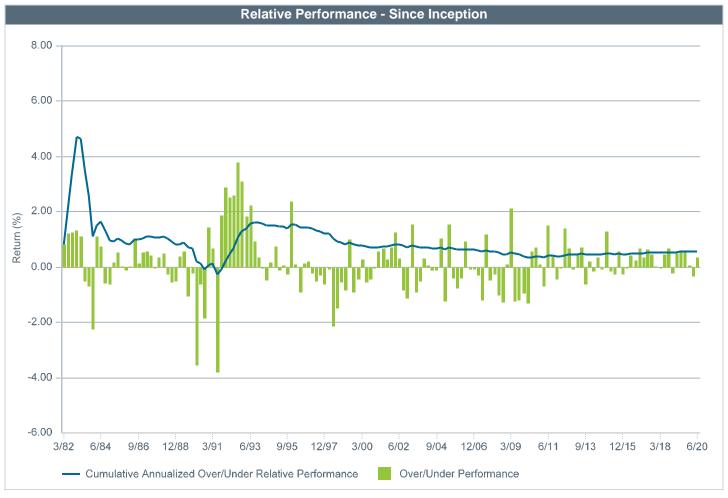
Manager: Principal US Property (CF)

Benchmark: NCREIF ODCE Index (AWA) (Net)

Performance												
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2019	2018	2017	2016	2015	
Manager	-1.42	2.01	5.82	7.58	9.07	11.00	6.22	8.32	8.29	9.21	13.81	
Benchmark	-1.75	1.33	4.72	6.35	8.09	9.78	4.39	7.36	6.66	7.79	13.95	
Difference	0.33	0.68	1.10	1.23	0.98	1.22	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)	-0.04
Russell 2000 Index	0.00
MSCI EAFE Index (USD) (Net)	0.00
MSCI Emg Mkts Index (USD) (Net)	-0.14
Bloomberg US Agg Bond Index	-0.17
Bloomberg US Trsy US TIPS Index	-0.19
Wilshire US REIT Index	0.17
HFRI FOF Comp Index	-0.07
Bloomberg Cmdty Index (TR)	0.03
ICE BofAML 3 Mo US T-Bill Index	-0.48
Cons Price Index (Unadjusted)	-0.01
NCREIF ODCE Index (AWA) (Gross)	0.92



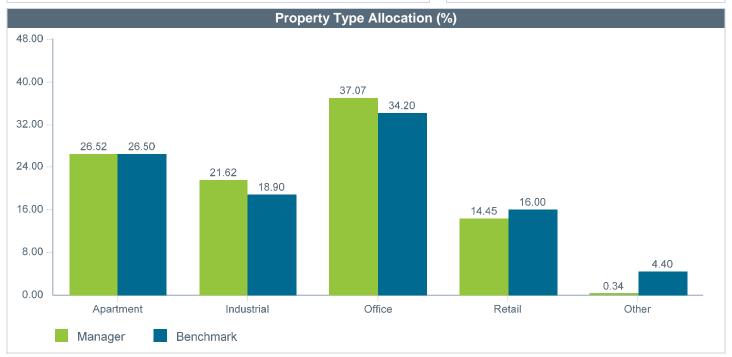


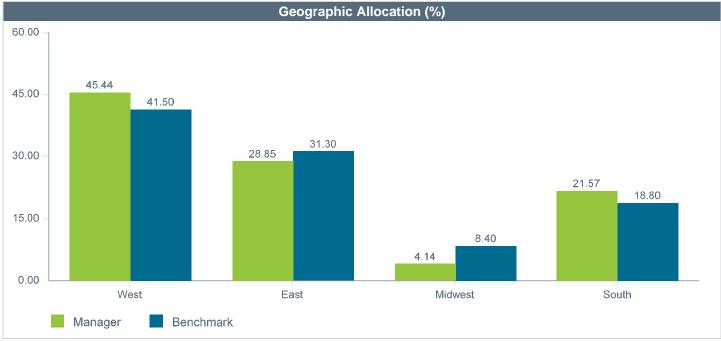
Manager: Principal US Property (CF)
Benchmark: NCREIF ODCE Index (AWA) (Net)

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)	10,365			
Fund Leverage %	19.80			
Portfolio Occupancy %	92.78			
Cash Reserve %	1.89			
Number of Investments	133			
Number of Limited Partners	5,788			





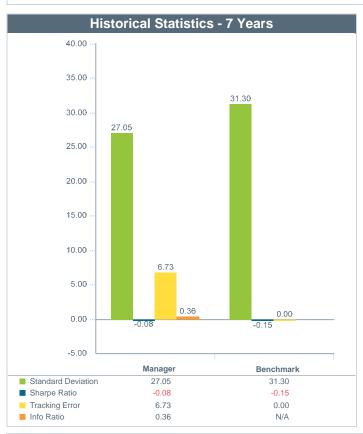
Performance shown is net of fees and product specific. Calculation is based on quarterly periodicity. Investment profile data shown is provided by the investment manager and is as of the most recently available quarter end. Allocation data shown is based on NAV. Manager allocation to "Other" consists 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.

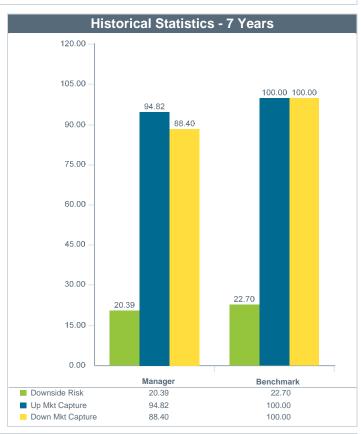


Manager: Harvest Fund Advisors MLP (SA)

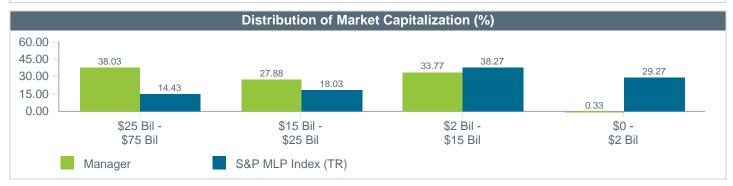
Benchmark: S&P MLP Index (TR)

Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2019	2018	2017	2016	2015
Manager	32.88	-36.10	-13.06	-10.91	-5.21	N/A	13.53	-12.78	-4.85	19.97	-30.37
S&P MLP Index (TR)	45.82	-40.17	-15.34	-12.68	-8.68	-0.52	9.78	-11.67	-5.58	21.95	-35.07
Difference	-12.94	4.07	2.28	1.77	3.47	N/A	3.75	-1.11	0.73	-1.98	4.70





Portfolio Characteristics				
	Portfolio	Benchmark		
Wtd. Avg. Mkt. Cap (\$M)	24,499	11,879		
Median Mkt. Cap (\$M)	10,949	1,346		
Price/Earnings Ratio	13.30	8.97		
Price/Book Ratio	1.84	2.21		
5 Yr. EPS Growth Rate (%)	0.76	6.92		
Current Yield (%)	9.00	11.67		
Beta (5 Years, Monthly)	0.85	1.00		
Number of Securities	20	34		

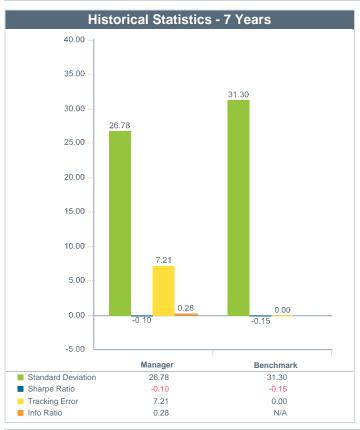


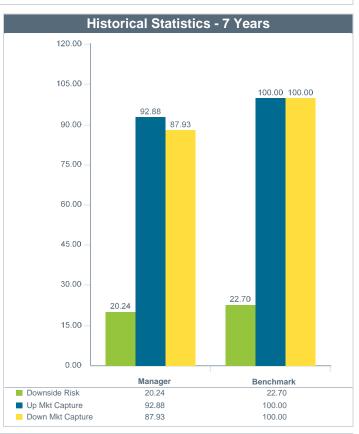


Manager: Tortoise Capital Advisors MLP (SA)

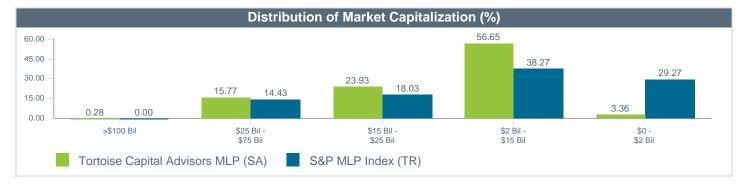
Benchmark: S&P MLP Index (TR)

Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2019	2018	2017	2016	2015
Manager	30.20	-38.56	-14.71	-11.06	-5.53	N/A	9.24	-12.24	-2.77	16.46	-26.59
Benchmark	45.82	-40.17	-15.34	-12.68	-8.68	-0.52	9.78	-11.67	-5.58	21.95	-35.07
Difference	-15.62	1.61	0.63	1.62	3.15	N/A	-0.54	-0.57	2.81	-5.49	8.48





Portfolio Characteristics				
	Portfolio	Benchmark		
Wtd. Avg. Mkt. Cap (\$M)	15,808	11,879		
Median Mkt. Cap (\$M)	9,716	1,346		
Price/Earnings Ratio	10.50	8.97		
Price/Book Ratio	2.16	2.21		
5 Yr. EPS Growth Rate (%)	7.58	6.92		
Current Yield (%)	10.60	11.67		
Beta (5 Years, Monthly)	0.83	1.00		
Number of Securities	25	34		







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	Explanation	S&P	Moody's	Explanation
Higher	Credit Qual	lity – Investment Grade	Lower	Credit Quali	ty – 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, 3rd quartile, and 4th quartile). The median observation is where the 2nd quartile and 3rd 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, 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.

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.

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

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, but 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

100 - Lowest Statistical Value

interim period performance to mitigate the impact of significant cash in- and outflows to the composite.

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

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 of a company's share price to its per-share earnings

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

