

# Quarterly Performance Report Kansas City Police Employees' Retirement System

December 31, 2024

PORTLAND BOISE CHICAGO NEW YORK

## Table Of Contents

1	Capital Markets Review	Page 3
2	Total Fund	Page 11
3	Civilian Plan	Page 38
4	Investment Manager Profiles	Page 67
5	Addendum & Glossary	Page 82



# **Capital Markets Review**

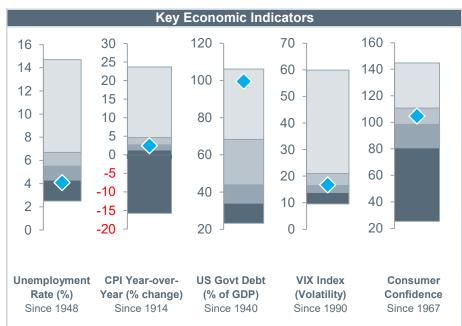
## **Capital Markets Review**

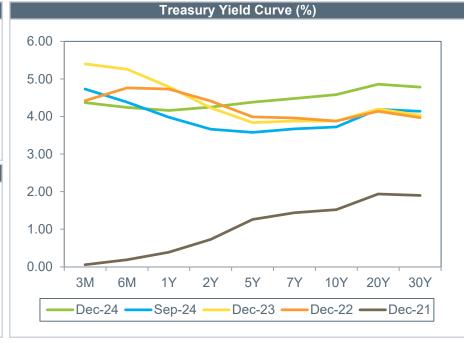
## As of December 31, 2024

## Fourth Quarter Economic Environment

Despite multiple risks to economic growth-including persistent pockets of inflation, ongoing wars, and the prospect of renewed trade disruptions-risk assets delivered robust returns in 2024. For the calendar year, the MSCI All Country World Investable Market Index generated returns of 16.9%, primarily due to the returns of the US stock market and many of its largest companies. However, during Q4, investor sentiment for Chinese and other non-US securities weakened due to the trade measures expected from the second Trump administration, which caused global stock markets to experience a minor retracement. Credit spreads within debt markets continued to tighten throughout the year, leading to attractive returns for noninvestment grade, leveraged loan, securitized, and hard currency emerging markets debt. In December, the Organisation for Economic Co-operation and Development (OECD) Economic Outlook report forecasted global GDP growth of 3.2% for 2024, with a slight increase to 3.3% in 2025 and 2026. The year-over-year Headline Consumer Price Index change was 2.9% according to the December reading, representing a decline from 3.4% at the end of 2023. The Federal Open Markets Committee (FOMC) continued its trend of reducing the Federal Funds Rate with a 0.25% cut in December, following a 0.25% cut in November and 0.50% cut in September. The range for the Federal Funds Rate is now 4.25%–4.50%, down from its recent peak range of 5.25%–5.50%.

Economic Indicators	Dec-24	Sep-24	Dec-23	Dec-21	20 Yr
Federal Funds Rate (%)	4.33 🔻	4.83	5.33	0.07	1.68
Breakeven Infl 5 Yr (%)	2.37 🔺	2.06	2.14	2.91	1.93
Breakeven Infl 10 Yr (%)	2.33 🔺	2.16	2.17	2.59	2.09
CPI YoY (Headline) (%)	2.9 🔺	2.4	3.4	7.0	2.6
Unemployment Rate (%)	4.1 —	4.1	3.7	3.9	5.8
Real GDP YoY (%)	2.5 🔻	2.7	3.1	5.4	2.0
PMI - Manufacturing	49.2 🔺	47.2	47.4	58.8	52.9
USD Total Wtd Idx	129.49 🔺	121.53	118.77	115.37	104.49
WTI Crude Oil per Barrel (\$)	71.6 🔺	68.2	71.7	75.2	71.9
Gold Spot per Oz (\$)	2,612 🔻	2,636	2,068	1,829	1,335
Market Performance (%)	QTD	CYTD	1 Yr	5 Yr	10 Yr
S&P 500 (Cap Wtd)	2.41	25.02	25.02	14.53	13.10
Russell 2000	0.33	11.54	11.54	7.40	7.82
MSCI EAFE (Net)	-8.11	3.82	3.82	4.73	5.20
MSCI EAFE SC (Net)	-8.36	1.82	1.82	2.30	5.52
MSCI Emg Mkts (Net)	-8.01	7.50	7.50	1.70	3.64
Bloomberg US Agg Bond	-3.06	1.25	1.25	-0.33	1.35
ICE BofAML 3 Mo US T-Bill	1.17	5.25	5.25	2.46	1.77
NCREIF ODCE (Gross)	1.16	-1.43	-1.43	2.87	5.88
FTSE NAREIT Eq REIT (TR)	-6.21	8.73	8.73	4.27	5.73
HFRI FOF Comp	2.30	9.40	9.40	5.28	3.81
Bloomberg Cmdty (TR)	-0.45	5.38	5.38	6.77	1.28

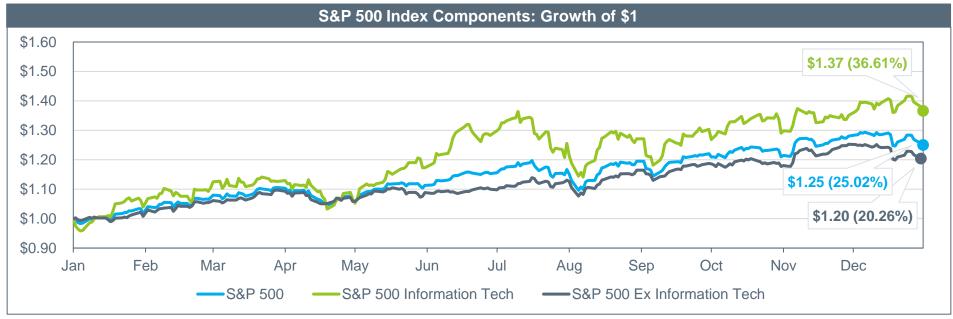




Treasury data courtesy of the US Department of the Treasury. Economic data courtesy of Bloomberg Professional Service.







Source: Federal Reserve Bank of St. Louis and FactSet.

Treasury Yield Dates: Beginning: January 2, High: April 25, Low: September 16, End: December 31.



## Fourth Quarter Review

### **Broad Market**

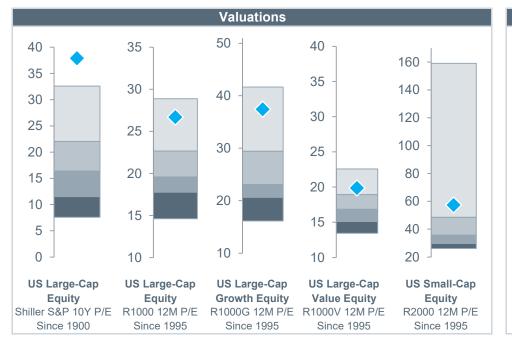
US equities began on a strong note in Q4, supported by easing monetary policy and optimism related to anticipated policies from the incoming administration. This positive momentum lasted through much of the quarter but was disrupted after the December FOMC meeting. During the meeting, guidance was provided that interest rates could remain higher than expected, triggering a sharp market correction. US markets still ended Q4 in positive territory, with the Russell 3000 Index gaining 2.6% in Q4 and 23.8% for the year.

## Market Cap

The Russell 1000 Growth Index gained 7.1%, while the Russell 2000 Value Index declined by -1.1%. Gains were concentrated in a few sectors, with only 4 of the 11 GICS sectors posting positive results.

## **Style and Sector**

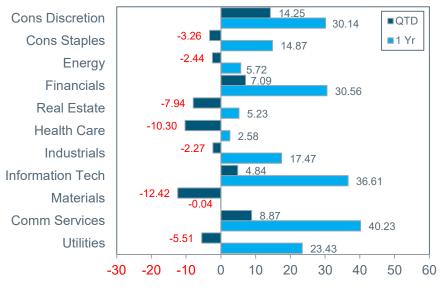
Active managers faced headwinds during the quarter, with median core and growth managers underperforming across size spectrums. Value managers fared the best, with median large-cap and small-cap value managers generating incremental excess returns.



Style and Capitalization Market Performance (%)







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 December 31, 2024

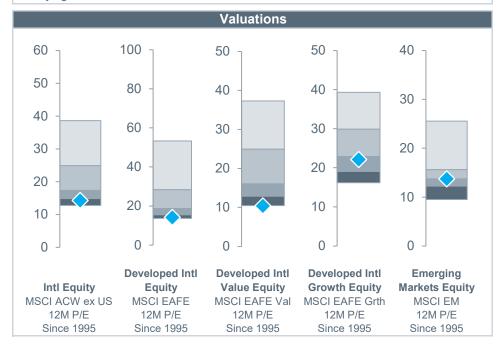
## Fourth Quarter Review

### **Developed Markets**

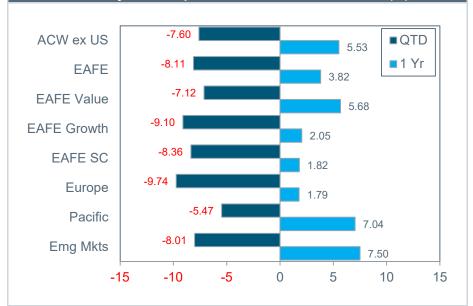
Developed international markets posted significant negative results in Q4, with the MSCI EAFE Index generating returns of -8.1% in Q4. International value stocks continued to outperform growth stocks during the quarter—outperforming by a wide margin for the year. Small-cap slightly underperformed large-cap stocks for Q4 and all of 2024. Most country returns finished the quarter in negative territory. Israel was a standout, with double-digit positive returns, while Singapore, Taiwan, and Austria posted more modest gains. European securities continue to struggle due to subdued investor sentiment and lackluster economic forecasts.

## **Emerging Markets**

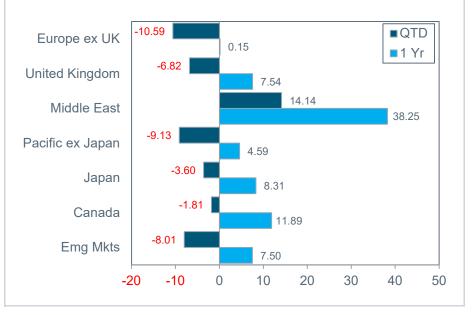
Emerging market slightly outperformed developed international markets for Q4. For 2024, emerging markets outperformed with the MSCI Emerging Markets Indexes returning 7.5% compared to 3.8% for the MSCI EAFE Index. Within emerging markets, growth stocks outperformed value stocks in Q4 and the year. Small-cap stocks outperformed large-cap stocks in Q4. China continues to dominate headlines. In Q4, returns for Chinese securities turned negative as investors worried about the impact of tariffs from the incoming Trump administration. Investors also became more skeptical of Chinese government stimulus efforts, which were previously buoying the market.



### MSCI Style and Capitalization Market Performance (%)



## MSCI Region Performance (%)



Valuation data courtesy of Bloomberg Professional Service.

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



## **Fixed Income Review**

## As of December 31, 2024

## Fourth Quarter Review

#### **Broad Market**

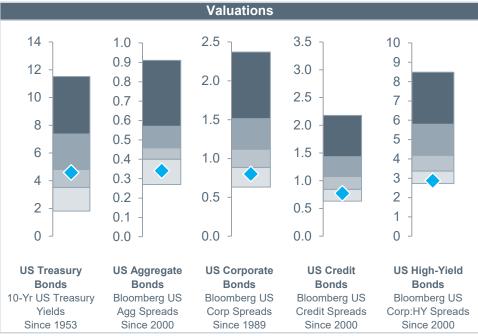
Treasury yields rose across most maturities in 2024, with a sharp increase in Q4, while the 2-year Treasury yield remained stable. The results of the US election boosted expectations for economic growth, inflation, and deficits, contributing to an increase in the premium for longer-dated debt. In 2024, investor focus was on the Treasury yield curve and spreads between key maturities commonly used as recession indicators. The inversion between the 2- and 10-year Treasuries ended in Q3 while the inversion between the 3-month and 10-year Treasuries ended in Q4. The Bloomberg US Aggregate Bond Index declined by -3.1% in Q4 but finished the year with a 1.3% gain.

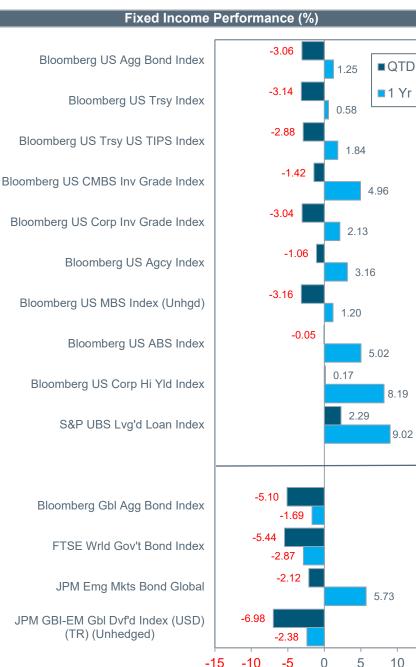
## **Credit Market**

Risk assets showed resilience, with lower-rated bonds outperforming. The Bloomberg US Corporate Investment Grade Index posted -3.0% for Q4 and 2.1% for the year, while the Bloomberg US Corporate High Yield Index returned 0.2% in Q4 and 8.2% for the year.

## **Emerging Market Debt**

Emerging market debt had mixed results. The JPMorgan EMBI Global Diversified Index, tracking hard currency bonds, fell -1.9% in Q4 but gained 6.5% for the year. In contrast, local currency bonds struggled due to a strong US dollar, with the JPMorgan GBI-EM Global Diversified Index returning -7.0% in Q4 and -2.4% for the year.





Valuation data courtesy of Bloomberg Professional Service.

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



15

## Fourth Quarter Review - Absolute Return

## **General Market - Hedge Funds**

Hedge funds finished the year strongly, with the HFR Composite Index returning 2.5% in Q4, resulting in a total return of 9.2% for 2024. All major strategy indices posted positive results during the quarter. Positive performance primarily came during November, as the US presidential election served as a positive catalyst for various strategies. The top performing strategy index in Q4 was Credit Arbitrage, with a return of 2.9%. Credit Arbitrage managers continued to find opportunities as volatility remained elevated due to the disparity of inflation expectations between policy makers and the bond market.

## **General Market - Global Tactical Asset Allocation (GTAA)**

Global Tactical Asset Allocation (GTAA) strategies that RVK follows closely posted negative returns in Q4 to close a challenging year for long-biased active managers, as all underperformed a US-centric blend of 60% equity and 40% fixed income (60/40 blend) in Q4 and 2024. In Q4, the top performing long-biased GTAA strategies featured a higher allocation to US banks, high yield credit, and mega-cap companies that were less sensitive to interest rates. Underperforming peers tended to hold larger exposures to emerging markets and long duration government bonds.

## Fourth Quarter Review - Real Assets

## **General Market - Diversified Inflation Strategies (DIS)**

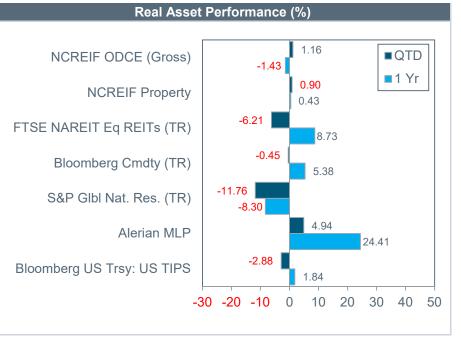
Diversified Inflation Strategies (DIS) closely monitored by RVK reported positive performance for the first three quarters of the year. However, this positive trend reversed in Q4 as rate-sensitive sectors faced pressure following the December FOMC meeting. DIS managers ended the year with negative absolute performance, underperforming a 60/40 blend in Q4 and for the year.

## **General Market - Real Estate**

Core private real estate generated a 1.2% total return in Q4 (on a preliminary and gross of fee basis), as reported by the NFI-ODCE Index, with the total return comprised of 1.0% from income and 0.1% from price appreciation. Income returns were generally flat for quarter-over-quarter and remained slightly elevated compared to recent years. This is the first quarter of positive overall price appreciation returns after nine consecutive quarters of negative returns. Investors of publicly traded real estate significantly underperformed their private market counterparts. Publicly traded real estate securities delivered a total return of -8.2% in Q4, as measured by FTSE/NAREIT All REITs Index, finishing 2024 with a 4.9% return.



## HFRI Hedge Fund Performance (%)





	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	CYTD
Best	27.94	22.49	20.00	38.82	30.14	15.02	21.31	37.28	8.35	31.49	19.96	6 43.24	16.09	26.29	25.02
Î	26.85	15.99	18.23	32.39	19.31	9.59	17.13	33.01	1.87	26.00	18.40	28.71	7.47	18.24	11.54
	22.04	13.56	18.06	29.30	13.69	3.20	11.96	25.03	0.01	25.53	18.31	27.11	1.46	16.93	9.40
	18.88	8.29	17.32	22.78	12.50	1.38	11.77	21.83	-1.26	24.96	16.12	22.17	-5.31	13.73	8.73
	16.83	7.84	16.35	13.94	5.97	0.55	11.19	14.65	-2.08	22.01	12.34	14.82	-11.19	13.45	8.19
	16.36	4.98	16.00	8.96	4.89	0.05	8.77	10.71	-4.02	19.59	10.99	11.26	-11.85	13.16	7.50
	15.12	2.11	15.81	7.44	3.64	-0.27	8.52	7.77	-4.38	18.42	10.88	10.10	-13.01	9.83	5.38
	15.06	0.10	10.94	2.47	3.37	-0.81	6.67	7.62	-4.62	14.32	7.82	6.17	-14.45	7.13	5.25
	10.16	-4.18	8.78	0.07	2.45	-1.44	4.68	7.50	-4.68	8.72	7.51	5.96	-18.11	6.07	3.82
	7.75	-5.72	6.98	-2.02	0.04	-3.30	2.65	5.23	-11.01	8.43	7.11	5.28	-20.09	5.53	1.84
	6.54	-12.14	4.79	-2.60	-2.19	-4.41	2.18	3.54	-11.25	8.39	1.19	0.05	-20.44	5.02	1.82
	6.31	-13.32	4.21	-8.61	-4.90	-4.47	1.00	3.01	-13.79	7.69	0.67	-1.55	-21.39	3.90	1.25
	5.70	-15.94	0.11	-8.83	-4.95	-14.92	0.51	1.70	-14.57	5.34	-3.12	-2.52	-24.37	-7.91	-1.43
Worst	0.13	-18.42	-1.06	-9.52	-17.01	-24.66	0.33	0.86	-17.89	2.28	-8.00	-2.54	-27.09	-12.02	-4.15
S&P 500 US Larg Cap		mall (Net)		C (Net) - (	MSCI EM (Net) - Int'I Emg Mkts	Bloombrg US Agg Bond - Fl	Bloombrg US Corp Hi Yield - Fl	Bloombrg US Trsy US TIPS - FI		ng (Gros	CE NA ss) -	FTSE AREIT Eq REITs Idex (TR)	HFRI FOF Comp Index - ARS	Bloombrg Cmdty (TR) - Commod.	ICE BofAML 3 Mo T-Bill - Cash Equiv

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



# **Police Plan**

## Kansas City Police Employees' Retirement Systems (KCPERS) Investment Objective Review As of December 31, 2024

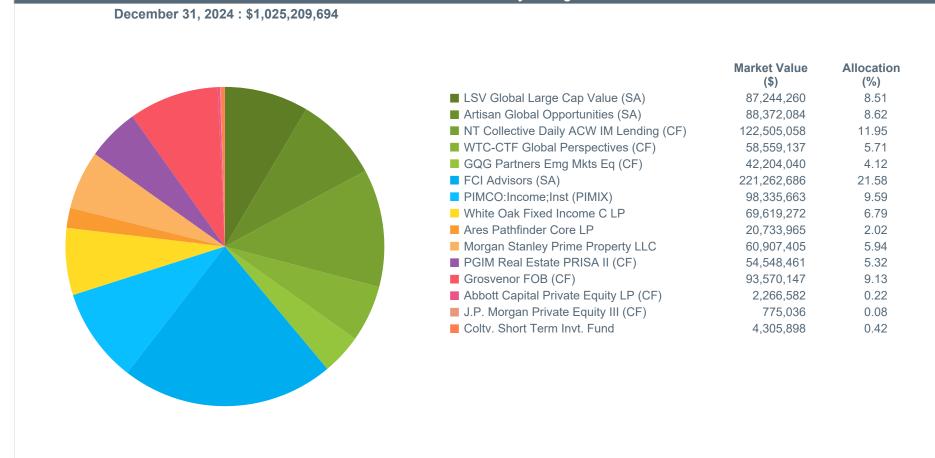
Asset Allocation												
	Yes	No	Current	Min.	Target	Max.						
Global Equity	√		38.9%	33%	38%	43%						
Fixed Income	√		31.2%	26%	31%	36%						
Direct Lending	4		8.8%	7%	10%	13%						
Real Estate	√		11.3%	9%	13%	17%						
Absolute Return	4		9.1%	6%	8%	10%						
Private Equity	Not	laterial	0.3%	0%	0%	0%						
Cash Equivalent	4		0.4%	0%	0%	5%						
Total Fund	✓		100%	95%	100%	100%						

Investment Policy Guidelines	Plan Performance (Net)/Rank	Benchmark Performance	Yes	No	Comments
Performance (over full market cycle of 5 years)	(internet)				
Total Fund Total fund composite rate of return exceeds the current Target Allocation Index (gross of	5.69%	5.41%	1		
fees) over 5 years. The total fund return is equal to or exceeds 6.85% annualized return (gross of fees) over	5.09 %	3.4176			
5 years.	5.69%	6.85%		1	
Global Equity	1	1			1
The global equity composite rate of return exceeds the benchmark (net of fees).	8.66%	9.67%		1	
The global equity composite performed at the fortieth (40th) percentile or better.	59			1	
LSV Global Large Cap Value (SA)					
The manager return exceeds the benchmark (net of fees).	7.73%	11.17%		1	
The manager performed at the fortieth (40th) percentile or better.	46			1	
Artisan Global Opportunities (SA)					
The manager return exceeds the benchmark (net of fees).	10.07%	11.17%		1	
The manager performed at the fortieth (40th) percentile or better.	48			1	
NT Collective Daily ACW IM Lending (CF)					
The manager return exceeds the benchmark (net of fees).	9.87%	9.67%	<b>√</b>		
The manager performed at the fortieth (40th) percentile or better.	40				
WTC-CTF Global Perspectives (CF)					
The manager return exceeds the benchmark (net of fees).	8.34%	6.68%	1		
The manager performed at the fortieth (40th) percentile or better.	53			1	
GQG Partners Emg Mkts Eq (CF)					
The manager return exceeds the benchmark (net of fees).	N/A				Insufficient History
The manager performed at the fortieth (40th) percentile or better.	N/A				Insufficient History
Fixed Income	10/4				mounionentinotory
The fixed income composite rate of return exceeds the benchmark (net of fees).	1.13%	-0.33%	1		
The fixed income composite performed at the fortieth (40th) percentile or better.	20		1		
FCI Advisors (SA)					
The manager return exceeds the benchmark (net of fees).	0.11%	-0.21%	1		
The manager performed at the fortieth (40th) percentile or better.	38		✓		
PIMCO:Income;Inst (PIMIX)					
The manager return exceeds the benchmark (net of fees).	2.89%	-0.33%	1		
The manager performed at the fortieth (40th) percentile or better.	19		✓		
Direct Lending					
The direct lending composite rate of return exceeds the benchmark (net of fees).	2.93%	7.25%		1	
White Oak Fixed Income C LP					
The manager return exceeds the benchmark (net of fees).	2.89%	7.25%		1	
Ares Pathfinder Core LP	2.03 /0	1.2070			
The manager return exceeds the benchmark (net of fees).	N/A				Insufficient History
Real Estate	N/A				insumcient history
The real estate composite rate of return exceeds the benchmark (net of fees).	2.92%	1.99%	1		
Morgan Stanley Prime Property LLC					
The manager return exceeds the benchmark (net of fees).	4.07%	1.99%	1		
PGIM Real Estate PRISA II (CF)	₩.U/ 70	1.33 /0			
The manager return exceeds the benchmark (net of fees).	1.70%	1.99%		1	
Absolute Return	1.7070	1.5570			
The absolute return composite rate of return exceeds the benchmark (net of fees).	6.67%	7.57%		1	
Grosvenor FOB (CF)					
The manager return exceeds the benchmark (net of fees).	7.20%	5.38%	√		
Private Equity					
The private equity composite rate of return exceeds the benchmark (net of fees).	Not M	aterial			
	1			1	1

The Investment Policy Review for the Police Retirement System of Kansas City, Missouri examines client specific net returns, except for the Total Fund which examines client specific gross return. Managers that do not have 5 years of client specific net performance populate are backfilled with composite/manager gross performance until sufficient historical client-specific net performance is available. GQG Partners Emg Mkts Eq (CF) currently will not have 5 years of composite level returns. The two private equity managers are in their final stages of distributing capital; performance for these managers is not relevant.



## Asset Allocation by Manager



Schedule of Investable Assets												
Periods Ending	Beginning Market Value (\$)	Net Cash Flow (\$)	Gain/Loss (\$)	Ending Market Value (\$)	% Return							
QTD	1,044,993,053	-7,124,606	-12,658,754	1,025,209,694	-1.21							
CYTD	985,298,647	-27,186,986	67,098,032	1,025,209,694	6.86							
FYTD	989,196,181	-16,237,511	52,251,023	1,025,209,694	5.28							

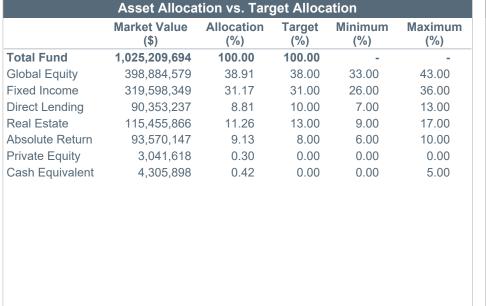
Allocations shown may not sum up to 100% exactly due to rounding. Performance shown is net of fees.

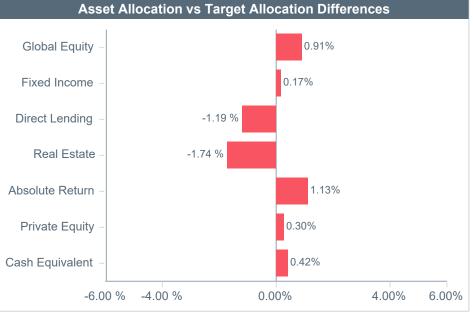


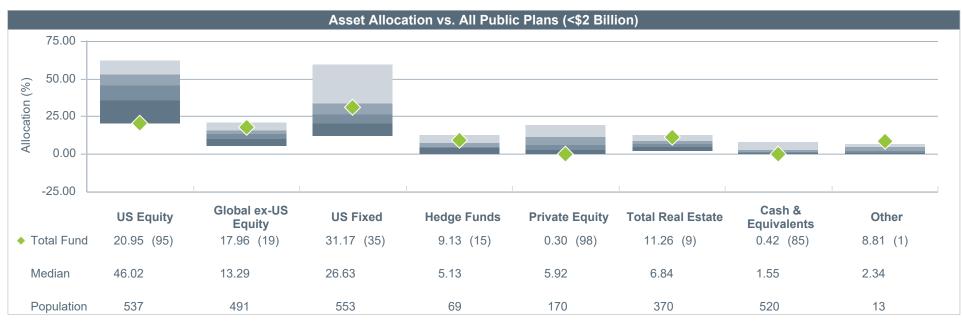
## Kansas City Police Employees' Retirement Systems KCPERS Police

As of December 31, 2024

Total Fund vs. All Public Plans (<\$2 Billion)







Parentheses contain percentile ranks. Allocations may not sume up to 100% exactly due to rounding. The Board has elected not to make additional Private Equity commitments and as a result, the Private Equity allocation is winding down. 'Other' consists of the Direct Lending composite.



## Kansas City Police Employees' Retirement Systems KCPERS Police Asset Allocation & Performance

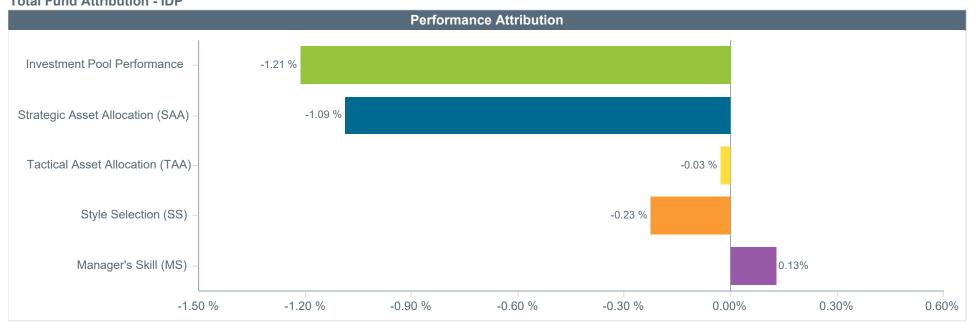
	Market Value (\$M)	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2023	2022	2021	Since Incep.	Inception Date
Total Fund (Gross)	1,025.21	-1.11	5.59	7.36	7.36	2.00	5.69	5.82	6.35	9.86	-10.04	10.90	8.94	12/01/1974
All Public Plans (<\$2 Billion)		-1.08	8.64	10.74	10.74	2.95	7.09	7.02	7.15	13.26	-13.22	13.88	-	
Rank		52	93	89	89	77	84	84	78	88	14	84	-	
Total Fund	1,025.21	-1.21	5.28	6.86	6.86	1.47	5.14	5.27	5.82	9.26	-10.53	10.29	6.35	07/01/2013
Target Allocation Index		-1.09	6.93	7.84	7.84	2.42	5.41	5.65	5.92	9.62	-9.11	9.89	6.34	
Difference		-0.13	-1.65	-0.98	-0.98	-0.95	-0.27	-0.38	-0.10	-0.35	-1.41	0.40	0.01	
6.85% Annualized Return		1.67	4.52	6.85	6.85	6.85	6.85	6.85	6.85	6.85	6.85	6.85	6.85	
Difference		-2.88	0.76	0.01	0.01	-5.38	-1.71	-1.58	-1.03	2.41	-17.38	3.44	-0.50	
Global Equity	\$398.88	-2.67	7.16	12.51	12.51	3.38	8.66	8.09	8.88	20.44	-18.46	16.64	9.50	07/01/2013
MSCI ACW IM Index (USD) (Net)		-1.24	11.83	16.37	16.37	4.90	9.67	8.78	9.00	21.58	-18.40	18.22	9.55	
Difference		-1.43	-4.67	-3.86	-3.86	-1.52	-1.01	-0.70	-0.13	-1.14	-0.05	-1.58	-0.06	
IM Global Large Cap Equity (MF) Median		-1.67	9.68	14.52	14.52	2.74	9.02	9.36	9.42	21.22	-22.05	16.85	9.76	
Rank		64	74	65	65	40	59	74	65	58	34	54	58	
Fixed Income	\$319.60	-2.36	5.05	2.80	2.80	-0.90	1.13	2.14	2.45	7.03	-11.54	-0.45	2.68	07/01/2013
Bloomberg US Agg Bond Index		-3.06	4.69	1.25	1.25	-2.41	-0.33	0.97	1.35	5.53	-13.01	-1.55	1.72	
Difference		0.70	0.36	1.55	1.55	1.51	1.46	1.17	1.10	1.50	1.47	1.09	0.96	
IM Global Fixed Income (MF) Median		-1.55	4.41	2.32	2.32	-1.70	-0.18	0.83	1.07	6.74	-14.66	-2.73	1.26	
Rank		59	21	39	39	34	20	16	13	38	31	10	11	
Direct Lending	\$90.35	0.00	1.89	0.98	0.98	2.47	2.93			9.56	-2.75	4.60	4.49	04/01/2018
S&P UBS Lvg'd Loan Index+2%		0.00	4.11	8.18	8.18	7.98	7.25	7.09	6.94	15.30	0.92	7.51	7.03	
Difference		0.00	-2.22	-7.20	-7.20	-5.51	-4.32	-	-	-5.74	-3.68	-2.91	-2.54	
Real Estate	\$115.46	1.17	0.24	-1.61	-1.61	-1.92	2.92	4.12	6.10	-9.53	6.00	21.73	7.20	07/01/2013
NCREIF ODCE Index (AWA) (Net)		0.96	0.32	-2.27	-2.27	-3.14	1.99	3.08	4.94	-12.73	6.55	21.02	5.84	
Difference		0.21	-0.08	0.66	0.66	1.22	0.93	1.03	1.15	3.20	-0.55	0.72	1.36	
Absolute Return	\$93.57	5.10	8.45	13.88	13.88	5.19	6.67	5.29	4.71	9.33	-6.52	6.32	4.54	08/01/2014
Absolute Return Custom Benchmark		2.51	4.72	7.25	7.25	3.50	5.29	4.50	4.10	4.80	-1.35	6.77	3.95	
Difference		2.59	3.72	6.64	6.64	1.69	1.37	0.78	0.61	4.53	-5.17	-0.45	0.59	
Long Term Absolute Return Custom Benchmark		2.41	6.89	10.51	10.51	9.09	7.57	7.46	6.96	10.27	6.53	5.05	6.84	
Difference		2.69	1.56	3.37	3.37	-3.90	-0.90	-2.18	-2.25	-0.94	-13.05	1.27	-2.30	

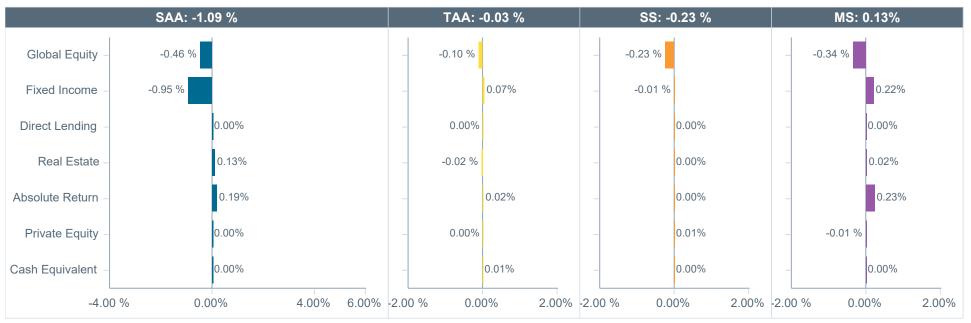
See addendum for custom index comments. 6.85% annualized return represents the System's long-term return goal based on the System's current actuarial assumed rate of return.

Performance shown is net of fees, unless otherwise noted. Performance is annualized for periods greater than one year. Manager inception dates shown represent the first full month of performance following initial funding. Fiscal year ends 04/30. Direct Lending performance is currently unavailable.



## Kansas City Police Employees' Retirement Systems KCPERS Police Total Fund Attribution - IDP

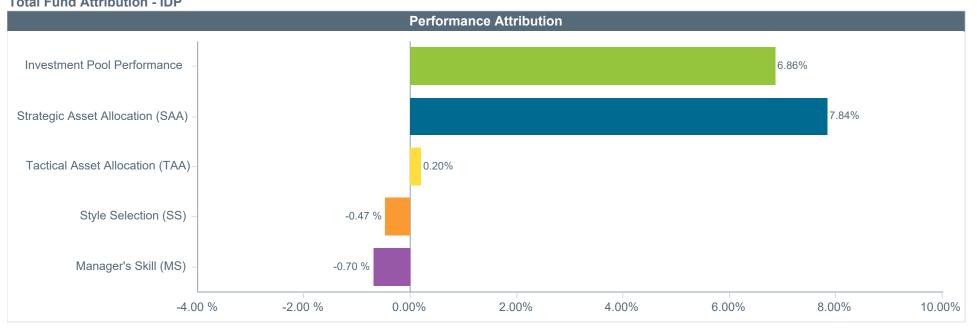


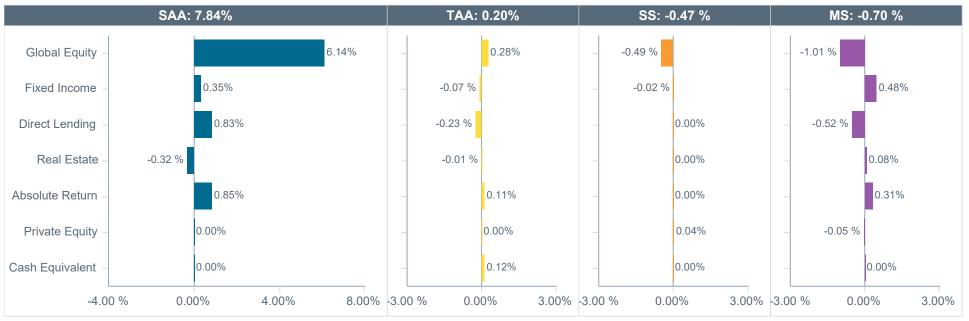


Performance shown is net of fees. Calculation is based on monthly periodicity. See Glossary for additional information regarding the Total Fund Attribution - IDP calculation.



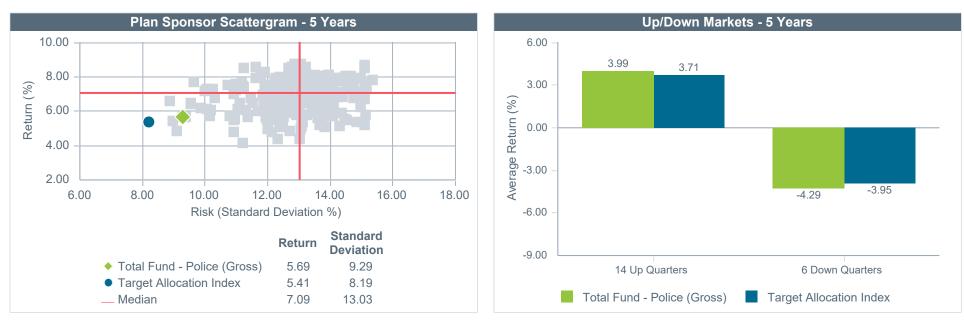
## Kansas City Police Employees' Retirement Systems KCPERS Police Total Fund Attribution - IDP





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

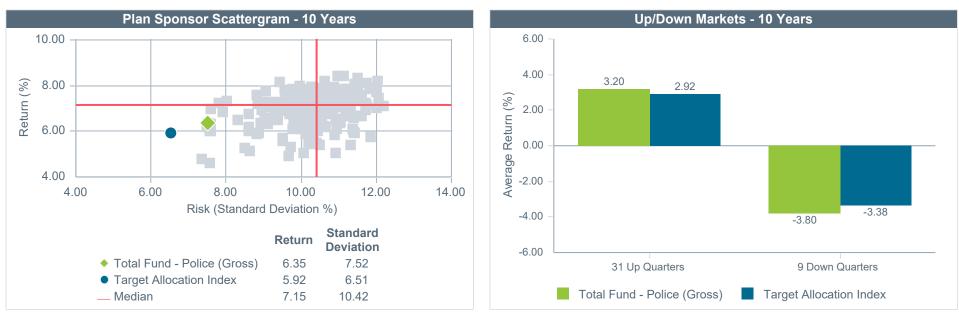


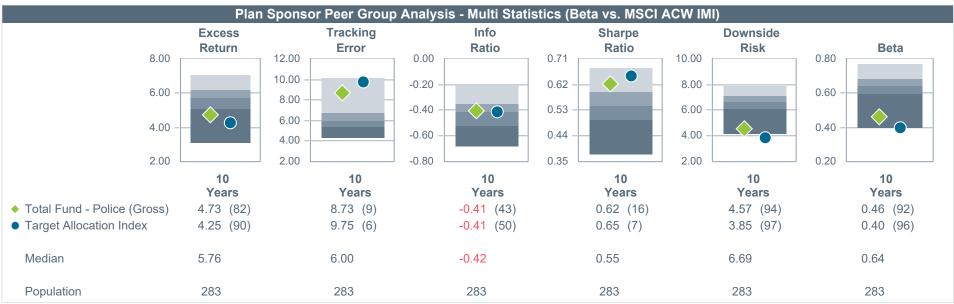


	Plan	Sponsor Peer Group An	alysis - Multi Statis	stics (Beta vs. MSCI AC	CW IMI)	
	Excess	Tracking	Info	Sharpe	Downside	
8.00	Return	<b>Error</b> 14.00 -0.1	20 Ratio	<b>Ratio</b>	<b>Risk</b>	<b>Beta</b>
0.00					12.00	1.00
6.00 -		11.00 •0	40		10.00 -	0.80 -
4.00 -		8.000.		0.44	8.00	0.60 -
	$\diamond$			0.35		
2.00 -		5.000.	80	0.26	6.00	0.40
0.00		2.00 -1.	00	0.17	4.00	0.20
	5	5	5	5	5	5
	Years	Years	Years	Years	Years	Years
<ul> <li>Total Fund - Police (Gross)</li> </ul>	3.56 (89)	10.57 (9)	<b>-0.50</b> (49)	0.38 (63)	5.82 (93)	0.47 (93)
<ul> <li>Target Allocation Index</li> </ul>	3.20 (92)	11.73 (7)	-0.49 (44)	0.39 (58)	5.01 (96)	0.41 (95)
Median	5.34	6.98	-0.51	0.40	8.42	0.66
Population	325	325	325	325	325	325

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



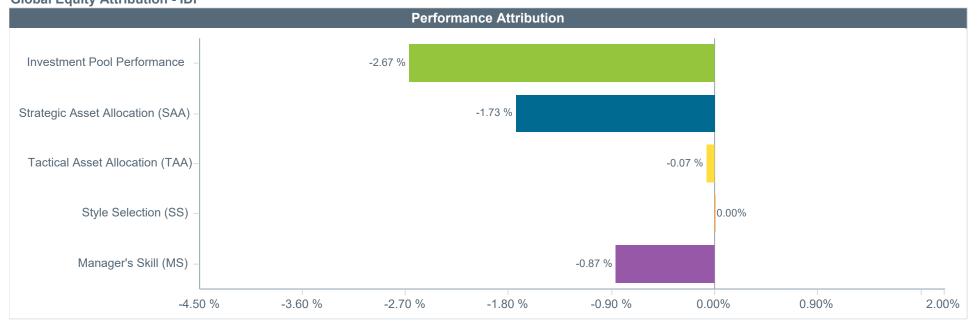


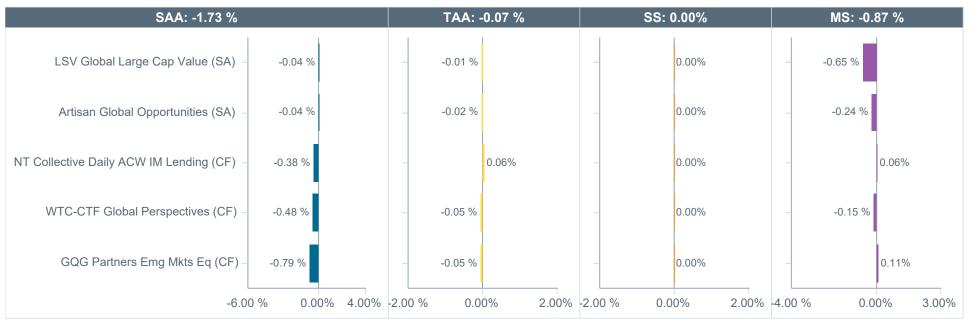


Performance shown is gross of fees. Calculation is based on quarterly periodicity. Parentheses contain percentile ranks.



## Kansas City Police Employees' Retirement Systems KCPERS Police Global Equity Attribution - IDP

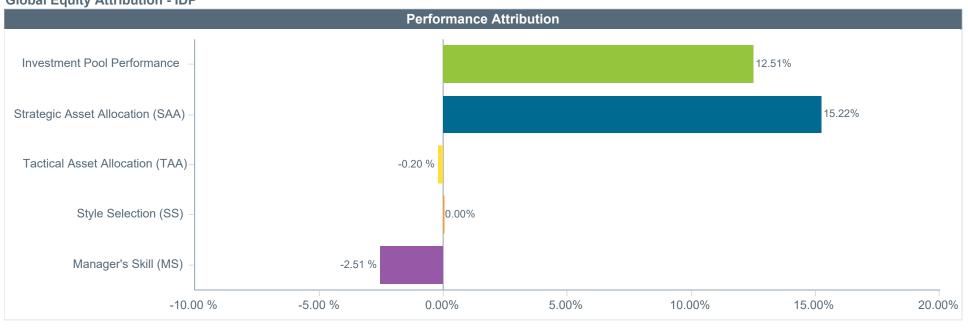


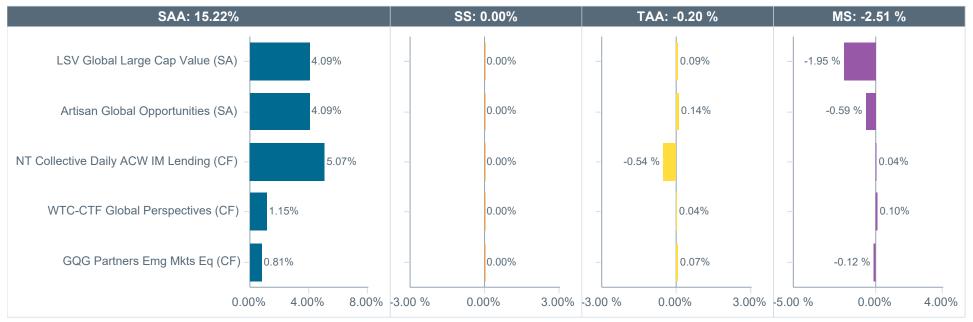


Performance shown is net of fees. Calculation is based on monthly periodicity. See Glossary for additional information regarding the Total Fund Attribution - IDP calculation.



## Kansas City Police Employees' Retirement Systems KCPERS Police Global Equity Attribution - IDP

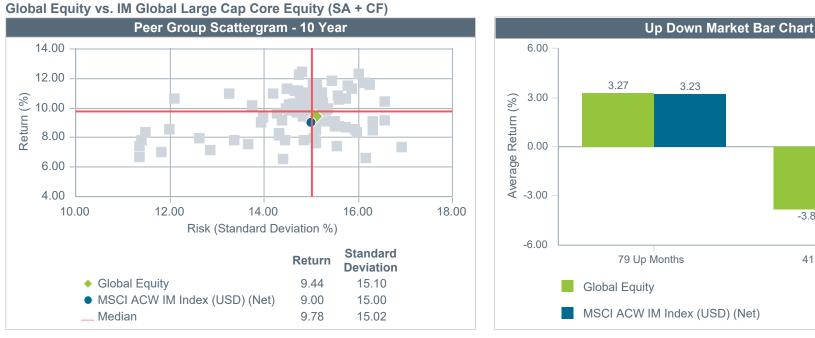




Performance shown is net of fees. Calculation is based on monthly periodicity. See Glossary for additional information regarding the Total Fund Attribution - IDP calculation.



## Kansas City Police Employees' Retirement Systems **KCPERS** Police





-3.84

-3.82

41 Down Months

#### Peer Group Analysis - Multi Statistics Info **Excess** Tracking Sharpe **Downside** Return Error Ratio Ratio Risk Beta 14.00 11.00 1.00 12.00 1.48 1.20 12.00 8.00 1.05 0.80 10.00 1.00 $\diamond$ 10.00 5.00 0.62 0.60 $\diamond$ $\bigcirc$ $\diamond$ 8.00 2.00 0.19 8.00 0.80 0.40 6.00 -0.24 -1.00 0.20 6.00 4.00 -4.00 -0.67 0.60 10 10 10 10 10 10 Years Years Years Years Years Years 8.44 (57) 0.24 (48) 0.56 (63) Global Equity 1.70 (96) 9.84 (28) 1.00 (25) MSCI ACW IM Index (USD) (Net) 8.03 (66) 0.00 (100) N/A 0.54 (67) 9.83 (29) 1.00 (25) Median 8.70 4.30 0.21 0.59 9.59 0.97 115 115 115 Population 115 115 115

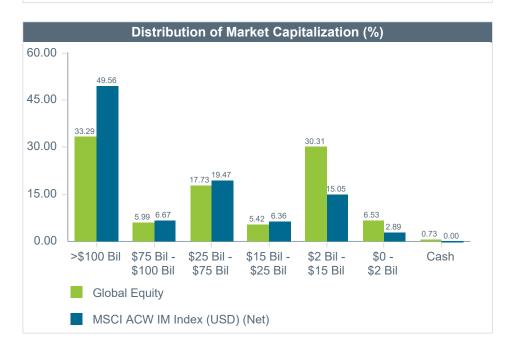
Performance shown is gross of fees. Calculation is based on monthly periodicity. Parentheses contain percentile ranks.



## Kansas City Police Employees' Retirement Systems Global Equity vs. MSCI ACW IM Index (USD) (Net) Portfolio Characteristics

Тор Т	en Equity H	loldings		
	Portfolio Weight (%)	Benchmark Weight (%)	Active Weight (%)	Quarterly Return (%)
Apple Inc	2.05	4.38	-2.33	7.60
Amazon.com Inc	1.46	2.39	-0.93	17.74
NVIDIA Corporation	1.40	3.79	-2.39	10.59
Netflix Inc	1.32	0.44	0.88	25.67
Taiwan Semiconductor Mfg (ADR)	1.29	0.93	0.36	14.08
Boston Scientific Corp	1.21	0.15	1.06	6.59
Microsoft Corp	1.07	3.43	-2.36	-1.85
Tencent Holdings LTD	1.00	0.40	0.60	-6.21
arGEN-X SE	0.94	0.04	0.90	13.45
Advanced Micro Devices Inc	0.92	0.23	0.69	-26.38
% of Portfolio	12.66	16.18	-3.52	

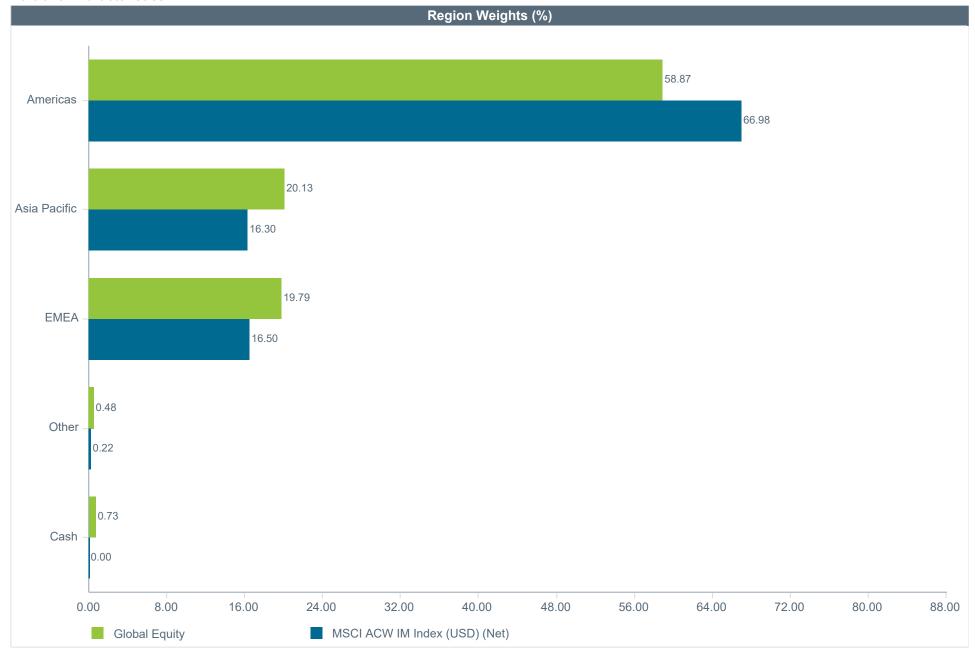
	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap (\$M)	331,135	661,594
Median Mkt. Cap (\$M)	2,143	2,397
Price/Earnings Ratio	19.07	21.58
Price/Book Ratio	3.21	3.72
5 Yr. EPS Growth Rate (%)	15.12	17.58
Current Yield (%)	2.10	1.88
Beta (5 Years, Monthly)	0.99	1.00
Number of Securities	4,774	8,640





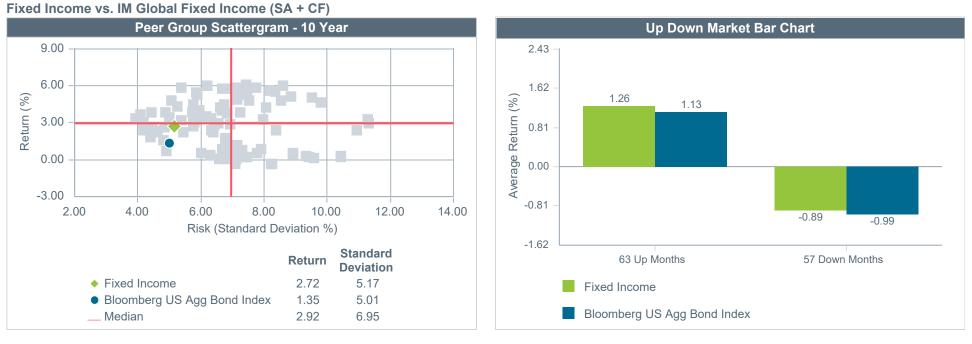


## Kansas City Police Employees' Retirement Systems Global Equity vs. MSCI ACW IM Index (USD) (Net) Portfolio Characteristics





## Kansas City Police Employees' Retirement Systems KCPERS Police



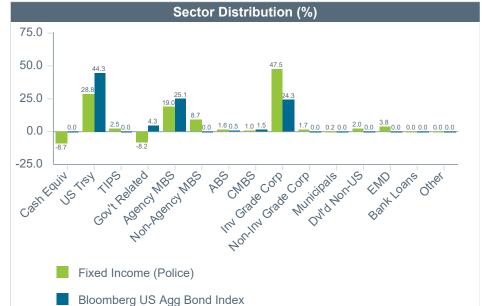


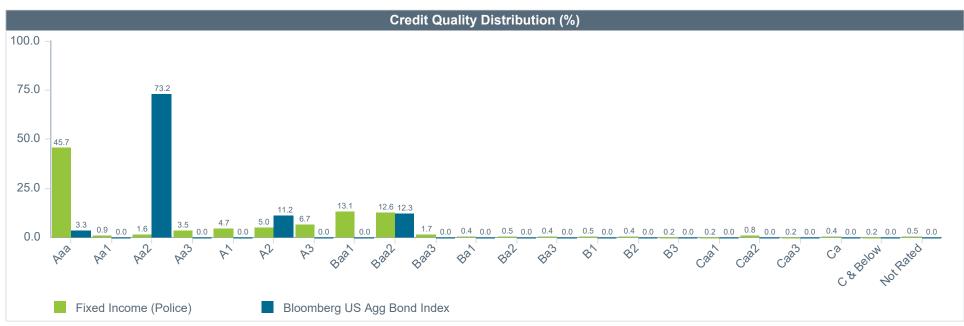
Performance shown is gross of fees. Calculation is based on monthly periodicity. Parentheses contain percentile ranks.



## Kansas City Police Employees' Retirement Systems Fixed Income (Police) vs. Bloomberg US Agg Bond Index Portfolio Characteristics

	Portfolio	Benchmark
Effective Duration	5.71	6.08
Avg. Maturity	7.72	8.35
Avg. Quality	A1	Aa2/Aa3
Coupon Rate (%)	3.80	3.42
Yield To Maturity (%)	4.94	4.91
Holdings Count	9,608	13,630





Allocation to "Other" consists of Convertible Bonds, Preferred Stock, and Euro/Yankee Bonds. PIMCO:Income;Inst (PIMIX) effective duration is used as modified duration.



## Kansas City Police Employees' Retirement Systems KCPERS Police Asset Allocation & Performance - Gross of Fees

	Market Value (\$M)	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2023	2022	2021	Since Incep.	Inception Date
Global Equity														
LSV Global Large Cap Value (SA)	\$87.24	-3.05	6.43	10.56	10.56	5.79	8.40	7.44	8.14	16.57	-8.13	22.90	7.86	05/01/2014
MSCI Wrld Index (USD) (Net)		-0.16	13.20	18.67	18.67	6.34	11.17	10.24	9.95	23.79	-18.14	21.82	9.56	
Difference		-2.89	-6.77	-8.11	-8.11	-0.55	-2.76	-2.80	-1.81	-7.22	10.01	1.08	-1.70	
MSCI Wrld Val Index (USD) (Net)		-4.20	7.35	11.47	11.47	5.13	6.97	6.18	6.65	11.51	-6.52	21.94	6.22	
Difference		1.16	-0.92	-0.90	-0.90	0.66	1.43	1.26	1.48	5.06	-1.61	0.95	1.64	
IM Global Large Cap Value Equity (SA+CF) Median		-3.93	6.34	10.49	10.49	4.99	8.27	7.65	8.01	19.40	-10.19	19.23	7.61	
Rank		37	48	50	50	42	47	53	48	67	35	14	42	
Artisan Global Opportunities (SA)	\$88.37	-1.15	8.20	16.63	16.63	0.84	10.85	11.31	12.41	24.57	-29.41	15.26	12.14	05/01/2014
MSCI Wrld Index (USD) (Net)		-0.16	13.20	18.67	18.67	6.34	11.17	10.24	9.95	23.79	-18.14	21.82	9.56	
Difference		-0.99	-5.00	-2.04	-2.04	-5.50	-0.31	1.07	2.46	0.78	-11.27	-6.55	2.58	
MSCI Wrld Grth Index (USD) (Net)		3.81	19.00	25.92	25.92	6.89	14.64	13.78	12.85	37.00	-29.21	21.18	12.54	
Difference		-4.96	-10.81	-9.29	-9.29	-6.04	-3.79	-2.48	-0.44	-12.43	-0.20	-5.92	-0.40	
IM Global Large Cap Growth Equity (SA+CF) Median		-1.55	10.53	16.15	16.15	3.34	10.76	10.67	10.78	22.78	-23.01	17.88	10.52	
Rank		47	65	48	48	76	50	41	26	39	77	64	27	
NT Collective Daily ACW IM Lending (CF)	\$122.51	-1.11	11.89	16.49	16.49	5.26	9.96	9.14	9.41	21.43	-17.56	18.12	8.97	03/01/2014
MSCI ACW IM Index (USD) (Net)		-1.24	11.83	16.37	16.37	4.90	9.67	8.78	9.00	21.58	-18.40	18.22	8.56	
Difference		0.12	0.06	0.11	0.11	0.35	0.29	0.36	0.40	-0.15	0.85	-0.10	0.41	
IM Global Large Cap Core Equity (SA+CF) Median		-1.52	9.77	15.25	15.25	5.22	9.98	9.61	9.78	21.08	-16.80	20.00	9.50	
Rank		41	36	45	45	50	51	55	57	50	55	64	61	
WTC-CTF Global Perspectives (CF)	\$58.56	-3.98	7.05	9.08	9.08	3.09	-	-	-	16.67	-13.92	22.80	13.47	11/01/2020
MSCI ACW Sm Cap Index (USD) (Net)		-3.26	8.12	7.66	7.66	0.76	6.68	5.70	7.26	16.84	-18.67	16.10	9.69	
Difference		-0.72	-1.07	1.42	1.42	2.33	-	-	-	-0.16	4.75	6.71	3.78	
IM Global Small Cap Equity (SA+CF) Median		-3.85	8.50	9.52	9.52	0.88	8.88	7.63	8.94	18.14	-20.59	21.14	10.00	
Rank		59	67	53	53	33	-	-	-	56	29	40	30	
GQG Partners Emg Mkts Eq (CF)	\$42.20	-6.86	-3.04	7.58	7.58	3.81	-	-	-	31.02	-20.64	-0.82	5.47	11/01/2020
MSCI Emg Mkts Index (USD) (Net)		-8.01	4.55	7.50	7.50	-1.92	1.70	1.38	3.64	9.83	-20.09	-2.54	1.83	
Difference		1.14	-7.59	0.07	0.07	5.73	-	-	-	21.19	-0.55	1.72	3.64	
IM Emerging Markets Equity (SA+CF) Median		-6.81	4.44	8.08	8.08	-0.24	3.65	2.88	4.96	12.91	-19.54	1.13	3.64	
Rank		52	99	56	56	24				4	58	61	41	

Performance shown is gross of fees, unless otherwise noted. Performance is annualized for periods greater than one year. Manager inception dates shown represent the first full month of performance following initial funding. Fiscal year ends 04/30. White Oak Income performance is currently unavailable.



## Kansas City Police Employees' Retirement Systems KCPERS Police Asset Allocation & Performance - Gross of Fees

	Market Value (\$M)	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2023	2022	2021	Since Incep.	Inception Date
Fixed Income														
FCI Advisors (SA)	\$221.26	-2.95	4.82	1.73	1.73	-2.23	0.25	1.59	1.89	6.08	-13.41	-1.92	6.85	01/01/197
Bloomberg US Govt Crdt Bond Index		-3.08	4.39	1.18	1.18	-2.59	-0.21	1.12	1.50	5.72	-13.58	-1.75	6.63	
Difference		0.13	0.43	0.55	0.55	0.35	0.47	0.47	0.39	0.36	0.17	-0.17	0.22	
Bloomberg US Agg Bond Index		-3.06	4.69	1.25	1.25	-2.41	-0.33	0.97	1.35	5.53	-13.01	-1.55	-	
Difference		0.11	0.14	0.48	0.48	0.17	0.58	0.62	0.54	0.55	-0.40	-0.37	-	
IM U.S. Broad Market Core Fixed Income (SA+CF) Median		-2.99	5.00	1.91	1.91	-2.01	0.24	1.47	1.85	5.98	-12.95	-1.24	-	
Rank		43	69	59	59	73	50	37	47	48	80	94	-	
PIMCO:Income;Inst (PIMIX)	\$98.34	-0.85	6.18	5.94	5.94	2.55	3.41	3.80	-	9.86	-7.34	3.11	3.88	09/01/201
Bloomberg US Agg Bond Index		-3.06	4.69	1.25	1.25	-2.41	-0.33	0.97	1.35	5.53	-13.01	-1.55	0.91	
Difference		2.21	1.50	4.69	4.69	4.96	3.73	2.84	-	4.33	5.67	4.66	2.97	
IM Multi-Sector General Bond (MF) Median		-0.96	6.22	5.83	5.83	1.36	2.86	3.53	4.00	9.13	-10.73	2.56	3.53	
Rank		46	52	49	49	19	31	33	-	37	20	42	26	
Direct Lending														
White Oak Fixed Income C LP	\$69.62	0.00	2.19	1.53	1.53	3.61	4.26	-	-	11.51	-1.77	6.85	6.05	04/01/201
S&P UBS Lvg'd Loan Index+2%		0.00	4.11	8.18	8.18	7.98	7.25	7.09	6.94	15.30	0.92	7.51	7.03	
Difference		0.00	-1.92	-6.65	-6.65	-4.37	-2.98	-	-	-3.79	-2.69	-0.66	-0.98	
Ares Pathfinder Core LP	\$20.73	0.00	-	-	-	-	-	-	-	-	-	-	3.45	07/01/202
S&P UBS Lvg'd Loan Index+2%		0.00	4.11	8.18	8.18	7.98	7.25	7.09	6.94	15.30	0.92	7.51	2.56	
Difference		0.00	-	-	-	-	-	-	-	-	-	-	0.89	
Real Estate														
Morgan Stanley Prime Property LLC	\$60.91	0.77	1.36	0.21	0.21	0.74	5.15	6.02	7.79	-4.98	7.38	22.89	8.06	10/01/201
NCREIF ODCE Index (AWA) (Gross)		1.16	0.96	-1.43	-1.43	-2.32	2.87	3.99	5.88	-12.02	7.47	22.17	6.06	
Difference		-0.39	0.41	1.65	1.65	3.07	2.28	2.03	1.91	7.03	-0.08	0.73	1.99	
PGIM Real Estate PRISA II (CF)	\$54.55	2.18	0.68	-1.45	-1.45	-2.56	2.85	4.43	6.65	-12.28	7.02	23.18	6.73	10/01/200
NCREIF ODCE Index (AWA) (Gross)		1.16	0.96	-1.43	-1.43	-2.32	2.87	3.99	5.88	-12.02	7.47	22.17	6.59	
Difference		1.02	-0.28	-0.02	-0.02	-0.24	-0.02	0.44	0.77	-0.26	-0.44	1.01	0.14	
Absolute Return														
Grosvenor FOB (CF) (Net)	\$93.57	5.10	8.45	13.88	13.88	5.19	7.20	5.56	4.87	9.33	-6.52	6.32	4.78	08/01/201
HFN FOF Multi-Strat Index (Net)		2.51	4.72	7.25	7.25	3.50	5.38	4.24	3.56	4.80	-1.35	6.77	3.54	
Difference		2.59	3.72	6.64	6.64	1.69	1.81	1.32	1.30	4.53	-5.17	-0.45	1.24	
ICE BofAML 3 Mo US T-Bill Index+5%		2.41	6.89	10.51	10.51	9.09	7.59	7.47	6.85	10.27	6.53	5.05	6.78	
Difference		2.69	1.56	3.37	3.37	-3.90	-0.39	-1.91	-1.99	-0.94	-13.05	1.27	-2.00	

Performance shown is gross of fees, unless otherwise noted. Performance is annualized for periods greater than one year. Manager inception dates shown represent the first full month of performance following initial funding. Fiscal year ends 04/30. White Oak Income performance is currently unavailable.



## Kansas City Police Employees' Retirement Systems KCPERS Police

Asset Allocation & Performance - Net of Fees

	Market Value (\$M)	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2023	2022	2021	Since Incep.	Inception Date
Global Equity														
LSV Global Large Cap Value (SA)	\$87.24	-3.19	6.12	9.89	9.89	5.14	7.73	6.77	7.45	15.84	-8.70	22.15	7.19	05/01/2014
MSCI Wrld Index (USD) (Net)		-0.16	13.20	18.67	18.67	6.34	11.17	10.24	9.95	23.79	-18.14	21.82	9.56	
Difference		-3.03	-7.08	-8.78	-8.78	-1.20	-3.44	-3.47	-2.49	-7.95	9.44	0.33	-2.37	
MSCI Wrld Val Index (USD) (Net)		-4.20	7.35	11.47	11.47	5.13	6.97	6.18	6.65	11.51	-6.52	21.94	6.22	
Difference		1.01	-1.23	-1.57	-1.57	0.01	0.76	0.59	0.80	4.33	-2.18	0.20	0.97	
Artisan Global Opportunities (SA)	\$88.37	-1.33	7.82	15.83	15.83	0.12	10.07	10.51	11.60	23.67	-29.94	14.46	11.34	05/01/2014
MSCI Wrld Index (USD) (Net)		-0.16	13.20	18.67	18.67	6.34	11.17	10.24	9.95	23.79	-18.14	21.82	9.56	
Difference		-1.17	-5.38	-2.84	-2.84	-6.22	-1.10	0.27	1.65	-0.12	-11.80	-7.36	1.78	
MSCI Wrld Grth Index (USD) (Net)		3.81	19.00	25.92	25.92	6.89	14.64	13.78	12.85	37.00	-29.21	21.18	12.54	
Difference		-5.14	-11.19	-10.09	-10.09	-6.77	-4.58	-3.27	-1.25	-13.33	-0.73	-6.72	-1.20	
NT Collective Daily ACW IM Lending (CF)	\$122.51	-1.13	11.85	16.41	16.41	5.17	9.87	9.05	9.31	21.33	-17.63	18.01	8.88	03/01/2014
MSCI ACW IM Index (USD) (Net)		-1.24	11.83	16.37	16.37	4.90	9.67	8.78	9.00	21.58	-18.40	18.22	8.56	
Difference		0.11	0.02	0.04	0.04	0.27	0.20	0.27	0.31	-0.25	0.77	-0.21	0.32	
WTC-CTF Global Perspectives (CF)	\$58.56	-4.19	6.46	8.18	8.18	2.24	-	-	-	15.73	-14.63	21.82	12.54	11/01/2020
MSCI ACW Sm Cap Index (USD) (Net)		-3.26	8.12	7.66	7.66	0.76	6.68	5.70	7.26	16.84	-18.67	16.10	9.69	
Difference		-0.93	-1.66	0.52	0.52	1.48	-	-	-	-1.11	4.04	5.72	2.86	
GQG Partners Emg Mkts Eq (CF)	\$42.20	-7.05	-3.56	6.72	6.72	2.98	-	-	-	30.00	-21.28	-1.61	4.63	11/01/2020
MSCI Emg Mkts Index (USD) (Net)		-8.01	4.55	7.50	7.50	-1.92	1.70	1.38	3.64	9.83	-20.09	-2.54	1.83	
Difference		0.95	-8.11	-0.78	-0.78	4.90	-	-	-	20.17	-1.19	0.93	2.80	
Fixed Income														
FCI Advisors (SA)	\$221.26	-2.99	4.73	1.58	1.58	-2.38	0.11	1.44	1.74	5.93	-13.54	-2.06	2.06	07/01/2013
Bloomberg US Govt Crdt Bond Index		-3.08	4.39	1.18	1.18	-2.59	-0.21	1.12	1.50	5.72	-13.58	-1.75	1.84	
Difference		0.09	0.33	0.41	0.41	0.21	0.32	0.32	0.24	0.21	0.04	-0.31	0.21	
Bloomberg US Agg Bond Index		-3.06	4.69	1.25	1.25	-2.41	-0.33	0.97	1.35	5.53	-13.01	-1.55	1.72	
Difference		0.08	0.04	0.33	0.33	0.03	0.43	0.47	0.39	0.40	-0.53	-0.51	0.34	
PIMCO:Income;Inst (PIMIX)	\$98.34	-0.97	5.83	5.42	5.42	2.04	2.89	3.28	-	9.32	-7.81	2.61	3.35	09/01/2017
Bloomberg US Agg Bond Index		-3.06	4.69	1.25	1.25	-2.41	-0.33	0.97	1.35	5.53	-13.01	-1.55	0.91	
Difference		2.09	1.15	4.17	4.17	4.45	3.22	2.31	-	3.79	5.20	4.15	2.44	

Performance shown is net of fees. Performance is annualized for periods greater than one year. Manager inception dates shown represent the first full month of performance following initial funding. Fiscal year ends 04/30. White Oak Fixed Income performance is currently unavailable.



## Kansas City Police Employees' Retirement Systems KCPERS Police

Asset Allocation & Performance - Net of Fees

Associ Anooution & Fortonnunoc	1101 01 1 000													
	Market Value (\$M)	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2023	2022	2021	Since Incep.	Inception Date
Direct Lending														
White Oak Fixed Income C LP	\$69.62	0.00	1.69	0.77	0.77	2.40	2.89	-	-	9.56	-2.75	4.60	4.46	04/01/2018
S&P UBS Lvg'd Loan Index+2%		0.00	4.11	8.18	8.18	7.98	7.25	7.09	6.94	15.30	0.92	7.51	7.03	
Difference		0.00	-2.43	-7.41	-7.41	-5.58	-4.36	-	-	-5.74	-3.68	-2.91	-2.58	
Ares Pathfinder Core LP	\$20.73	0.00	-	-	-	-	-	-	-	-	-	-	3.45	07/01/2024
S&P UBS Lvg'd Loan Index+2%		0.00	4.11	8.18	8.18	7.98	7.25	7.09	6.94	15.30	0.92	7.51	2.56	
Difference		0.00	-	-	-	-	-	-	-	-	-	-	0.89	
Real Estate														
Morgan Stanley Prime Property LLC	\$60.91	0.54	0.58	-0.77	-0.77	-0.26	4.07	4.91	6.65	-5.79	6.14	21.48	6.92	10/01/2014
NCREIF ODCE Index (AWA) (Net)		0.96	0.32	-2.27	-2.27	-3.14	1.99	3.08	4.94	-12.73	6.55	21.02	5.13	
Difference		-0.42	0.26	1.49	1.49	2.88	2.08	1.83	1.71	6.94	-0.41	0.47	1.79	
PGIM Real Estate PRISA II (CF)	\$54.55	1.90	-0.18	-2.58	-2.58	-3.66	1.70	3.26	5.50	-13.29	5.86	21.86	6.65	07/01/2013
NCREIF ODCE Index (AWA) (Net)		0.96	0.32	-2.27	-2.27	-3.14	1.99	3.08	4.94	-12.73	6.55	21.02	5.84	
Difference		0.94	-0.50	-0.31	-0.31	-0.52	-0.29	0.18	0.56	-0.56	-0.69	0.84	0.81	
Absolute Return														
Grosvenor FOB (CF)	\$93.57	5.10	8.45	13.88	13.88	5.19	7.20	5.56	4.87	9.33	-6.52	6.32	4.78	08/01/2014
HFN FOF Multi-Strat Index (Net)		2.51	4.72	7.25	7.25	3.50	5.38	4.24	3.56	4.80	-1.35	6.77	3.54	
Difference		2.59	3.72	6.64	6.64	1.69	1.81	1.32	1.30	4.53	-5.17	-0.45	1.24	
ICE BofAML 3 Mo US T-Bill Index+5%		2.41	6.89	10.51	10.51	9.09	7.59	7.47	6.85	10.27	6.53	5.05	6.78	
Difference		2.69	1.56	3.37	3.37	-3.90	-0.39	-1.91	-1.99	-0.94	-13.05	1.27	-2.00	

Performance shown is net of fees. Performance is annualized for periods greater than one year. Manager inception dates shown represent the first full month of performance following initial funding. Fiscal year ends 04/30. White Oak Fixed Income performance is currently unavailable.



## Kansas City Police Employees' Retirement Systems KCPERS Police Private Investment Lagged Performance Asset Allocation & Performance

	Market Value (M)	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2023	2022	2021	Since Incep.	Inception Date
Police - Direct Lending	\$79.88	2.00	1.89	0.98	2.94	2.21	3.23	-		9.56	-2.75	4.60	4.66	04/01/2018
White Oak Fixed Income C LP	\$69.62	1.79	1.69	0.77	2.72	2.14	3.19	-	-	9.56	-2.75	4.60	4.63	04/01/2018
CS Lvg'd Loan Index+2%		2.56	4.11	8.18	11.82	8.41	7.71	7.34	6.95	15.30	0.92	7.51	7.31	
Difference		-0.77	-2.43	-7.41	-9.09	-6.27	-4.52	-	-	-5.74	-3.68	-2.91	-2.68	

Performance shown is net of fees, unless otherwise noted. Performance and market values are preliminary and subject to change. Performance is annualized for periods greater than one year. Manager inception dates shown represent the first full month of performance following initial funding. Fiscal year ends 04/30.



## Kansas City Police Employees' Retirement Systems

## Alternative Investment Private Equity Fund Performance Listing

Fund Name	Vintage	Asset Class	Commitment (\$)	Paid In Capital (\$)	Distributions (\$)	Valuation (\$)	Fund IRR (%)	Quartile	Index IRR (%)	Fund Multiple
JP Morgan European Corporate Finance Investors III	e 2006	Private Equity - Non-US Private Equity	1,500,000	1,450,556	2,222,627	20,813	7.55	2nd	10.92	1.55
JP Morgan US Corporate Finance Investors III	2006	Private Equity - Buyout	6,000,000	6,071,914	12,024,983	311,326	13.27	1st	8.83	2.03
JP Morgan Venture Capital Investors III	2006	Private Equity - Venture	2,500,000	2,564,459	4,063,055	582,961	8.82	1st	12.19	1.81
Abbott Capital Private Equity VI LP	2008	Private Equity - Fund of Funds	10,000,000	9,950,088	16,466,935	2,612,741	12.47	2nd	13.83	1.92
			20,000,000	20,037,018	34,777,600	3,527,841	11.81		11.61	1.91

Certain valuations (marked with a ") are preliminary estimates of valuation as of the date of reporting and reflect the estimated impact of subsequent net cash contributions/distributions. These figures may be used in calculations contained in this report. Index IRR represents the dollar-weighted returns calculated using the S&P 500 Index (Cap Wtd) assuming an index investment with the same cash flow timing. IRRs are shown only for investments with one year or more of cash flows and for which an accurate IRR could be calculated. Applicable IRRs are marked with 'N/M' for not material. Fund IRR is the annualized since-inception net internal rate for the indicated fund or composite. Fund Multiple is the since inception sum of distributions and valuation divided by paid in capital. Quartile data is based on information provided by Preqin.



## Kansas City Police Employees' Retirement Systems

Alternative Investment Private Credit Fund Performance Listing

Fund Name	Vintage	Asset Class	Commitment (\$)	Paid In Capital (\$)	Distributions (\$)	Valuation (\$)	Fund IRR (%)	Quartile	Index IRR (%)	Fund Multiple
White Oak Fixed Income Fund C, LP-SI	P 2014	Private Credit - Direct Lending	55,000,000	55,000,000	0	69,619,272	4.35	4th	7.47	1.27
Ares Pathfinder Core Fund LP	2021	Private Credit - Specialty Finance	40,000,000	9,920,000	0	10,261,941	N/M	N/A	N/M	1.03
			95,000,000	64,920,000	0	79,881,213	4.42		7.48	1.23

Certain valuations (marked with a "") are preliminary estimates of valuation as of the date of reporting and reflect the estimated impact of subsequent net cash contributions/distributions. These figures may be used in calculations contained in this report. Index IRR represents the dollar-weighted returns calculated using the S&P UBS Leveraged Loan Index+2% assuming an index investment with the same cash flow timing. IRRs are shown only for investments with one year or more of cash flows and for which an accurate IRR could be calculated. Applicable IRRs are marked with 'N/M' for not material. Fund IRR is the annualized since-inception net internal rate for the indicated fund or composite. Fund Multiple is the since inception sum of distributions and valuation divided by paid in capital. Quartile data is based on information provided by Preqin.



## Kansas City Police Employees' Retirement Systems KCPERS Police Schedule of Investable Assets by Manager

	LSV Global Large Cap Value (SA)									
Periods Ending	Beginning Market Value (\$)	Net Cash Flow (\$)	Gain/Loss (\$)	Ending Market Value (\$)	% Return					
Quarter	99,020,367	-8,851,575	-2,924,532	87,244,260	-3.19					

	Artisan Global Opportunities (SA)									
Periods Ending	Beginning Market Value (\$)	Net Cash Flow (\$)	Gain/Loss (\$)	Ending Market Value (\$)	% Return					
Quarter	100,524,952	-10,829,279	-1,323,589	88,372,084	-1.33					

NT Collective Daily ACW IM Lending (CF)									
Beginning Market Value (\$)	Net Cash Flow (\$)	Gain/Loss (\$)	Ending Market Value (\$)	% Return					
123,885,374	18,280	-1,398,595	122,505,058	-1.13					
	Market Value (\$)	Market Value (\$) Cash Flow (\$)	Market Value (\$) Cash Flow (\$) Gain/Loss (\$)	Market Value (\$) Cash Flow (\$) Gain/Loss (\$) Market Value (\$)					

	WTC-CTF Global Perspectives (CF)									
Periods Ending	Beginning Market Value (\$)	Net Cash Flow (\$)	Gain/Loss (\$)	Ending Market Value (\$)	% Return					
Quarter	71,167,510	-10,000,000	-2,608,373	58,559,137	-4.19					

	GQG Partners Emg Mkts Eq (CF)									
Periods Ending	Beginning Market Value (\$)	Net Cash Flow (\$)	Gain/Loss (\$)	Ending Market Value (\$)	% Return					
Quarter	45,407,595	-	-3,203,555	42,204,040	-7.05					

FCI Advisors (SA)									
Periods Ending	Beginning Market Value (\$)	Net Cash Flow (\$)	Gain/Loss (\$)	Ending Market Value (\$)	% Return				
Quarter	197,469,039	30,070,368	-6,276,721	221,262,686	-2.99				

Performance shown is net of fees and will not match subsequent comparative performance gross of fees.



## Kansas City Police Employees' Retirement Systems KCPERS Police Schedule of Investable Assets by Manager

PIMCO:Income;Inst (PIMIX)					
Periods Ending	Beginning Market Value (\$)	Net Cash Flow (\$)	Gain/Loss (\$)	Ending Market Value (\$)	% Return
Quarter	99,302,674	-	-967,011	98,335,663	-0.97

Morgan Stanley Prime Property LLC						
Periods Ending	Beginning Market Value (\$)	Net Cash Flow (\$)	Gain/Loss (\$)	Ending Market Value (\$)	% Return	
Quarter	61,577,982	-1,003,593	333,016	60,907,405	0.54	

PGIM Real Estate PRISA II (CF)					
Periods Ending	Beginning Market Value (\$)	Net Cash Flow (\$)	Gain/Loss (\$)	Ending Market Value (\$)	% Return
Quarter	53,864,199	-337,694	1,021,957	54,548,461	1.90

Grosvenor FOB (CF)						
Periods Ending	Beginning Market Value (\$)	Net Cash Flow (\$)	Gain/Loss (\$)	Ending Market Value (\$)	% Return	
Quarter	89,026,584	-	4,543,563	93,570,147	5.10	

Performance shown is net of fees and will not match subsequent comparative performance gross of fees.



## Kansas City Police Employees' Retirement Systems KCPERS Police Fee Schedule

Manager	Fee Schedule	Aggregate Assets (\$)	Estimated Annual Fee (%)	Market Value as of 12/31/2024	Estimated Annual Fee (\$)
LSV Global Large Cap Value (SA)	0.75 % of First \$25 M 0.65 % of Next \$25 M 0.55 % of Next \$50 M 0.45 % Thereafter	102,620,128	0.62	87,244,260	541,378
Artisan Global Opportunities (SA)	0.80 % of First \$50 M 0.60 % of Next \$50 M 0.50 % Thereafter	88,372,084	0.71	88,372,084	630,233
NT Collective Daily ACW IM Lending (CF)	0.08 % of First \$50 M 0.05 % Thereafter	143,423,218	0.06	122,505,058	74,065
WTC-CTF Global Perspectives (CF)	1.00 % of Assets	69,107,177	1.00	58,559,137	585,591
GQG Partners Emg Mkts Eq (CF)	0.85 % of First \$25 M 0.80 % Thereafter	49,451,299	0.83	42,204,040	348,300
FCI Advisors (SA)	0.50 % of First \$5 M 0.40 % of Next \$5 M 0.30 % of Next \$10 M 0.20 % of Next \$10 M 0.12 % Thereafter	258,838,735	0.14	221,262,686	315,950
PIMCO:Income;Inst (PIMIX)	0.50 % of Assets	118,913,833	0.50	98,335,663	491,678
White Oak Fixed Income C LP	1.00% of Assets	81,347,685	1.00	69,619,272	696,193
Ares Pathfinder Core LP	1.05% of Assets	24,362,409	1.05	20,733,965	217,707
Morgan Stanley Prime Property LLC	0.84 % of Assets	71,287,388	0.84	60,907,405	511,622



### Kansas City Police Employees' Retirement Systems KCPERS Police Fee Schedule

Manager	Fee Schedule	Aggregate Assets (\$)	Estimated Annual Fee (%)	Market Value as of 12/31/2024	Estimated Annual Fee (\$)
PGIM Real Estate PRISA II (CF)	1.20 % of First \$25 M 1.15 % of Next \$25 M 1.05 % of Next \$50 M 0.95 % of Next \$100 M 0.90 % of Next \$100 M 0.85 % Thereafter	63,836,508	1.15	54,548,461	626,165
Grosvenor FOB (CF)	1.15 % of First \$25 M 1.00 % of Next \$25 M 0.80 % of Next \$50 M 0.60 % Thereafter	109,513,308	0.91	93,570,147	849,787
Coltv. Short Term Invt. Fund	0.15 % of Assets	8,201,345	0.15	4,305,898	6,459

#### Fee Notes:

White Oak Fixed Income C LP - Fee structure is 1.25% when aggregate assets are below \$10M, and 1.00% when aggregate assets are above \$10M.

Ares Pathfinder Core LP has an incentive fee of 15% over a 6% annualized hurdle.

The incentive fee for Morgan Stanley Prime Property LLC for each calendar year is capped at 35 basis points per annum.

The fee schedule shown for PGIM Real Estate PRISA II (CF) represents the maximum annual fee and may be lower depending on the fund's operating cash flow.

Grosvenor FOB (CF) fee has a 75 basis point minimum. The fee schedule shown for Grosvenor FOB (CF) excludes the underlying manager's fees.

The annual management fee for Abbott Capital Private Equity VI LP is 1.00% with 0% carried interest for initial 8 years thereafter the fee is reduced by 10% per year.

JP Morgan Private Equity III (CF) consists of three separate funds: European Corporate Finance Investors III, U.S. Corporate Finance Investors III, and Venture Capital Investors III. The annual management fee pertains to the percentage of committed capital, is level for the first eight years, and is then reduced each successive year by 10% of the preceding year's fee. Each fund is also subject to an incentive/carried interest fee, which is 10% for secondary partnership investments and 20% for direct co-investments.

European and U.S. Corporate Finance Investors III Management fee for initial 8 years: 0.90% Average fee over 15 years: 0.76% Venture Capital Investors III Management fee for initial 8 years: 1.10% Average fee over 15 years: 0.93%

Mutual fund fees are sourced from Morningstar and/or the investment manager.



# **Civilian Plan**

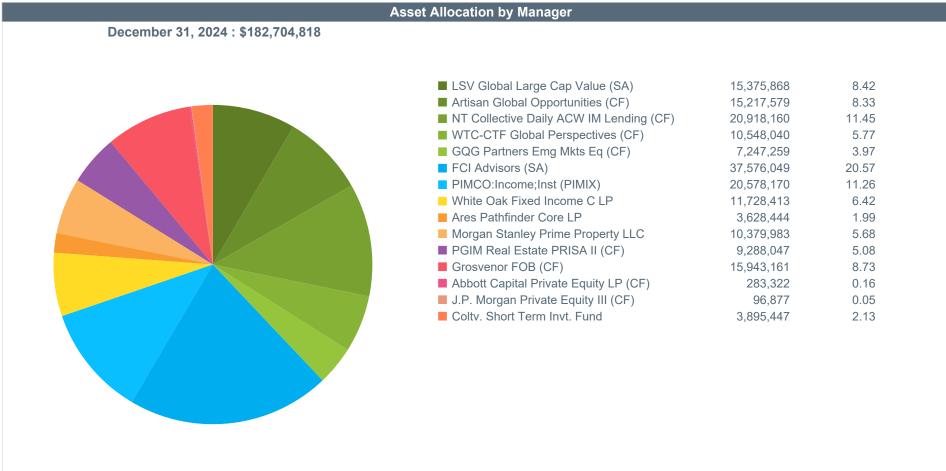
#### Kansas City Civilian Employees' Retirement Systems (KCPERS) Investment Objective Review As of December 31, 2024

Asset Allocation											
	Yes	No	Current	Min.	Target	Max.					
Global Equity	√		37.9%	33%	38%	43%					
Fixed Income	√		31.8%	26%	31%	36%					
Direct Lending	1		8.4%	7%	10%	13%					
Real Estate	4		10.8%	9%	13%	17%					
Absolute Return			8.7%	6%	8%	10%					
Private Equity	Not I	laterial	0.2%	0%	0%	0%					
Cash Equivalent	√		2.1%	0%	0%	5%					
Total Fund	√		100%	95%	100%	100%					

Investment Policy Guidelines	Plan Performance	Benchmark	Yes	No	Comments
Performance (over full market cycle of 5 years)	(Net)/Rank	Performance			
Total Fund Total fund composite rate of return exceeds the current Target Allocation Index (gross of					
fees) over 5 years.	5.70%	5.41%	1		
The total fund return is equal to or exceeds 6.85% annualized return (gross of fees) over	5.70%	6.85%		1	
5 years. Global Equity					
The global equity composite rate of return exceeds the benchmark (net of fees).	8.72%	9.67%		1	
The global equity composite performed at the fortieth (40th) percentile or better.	58			~	
LSV Global Large Cap Value (SA)					
The manager return exceeds the benchmark (net of fees).	7.87%	11.17%		1	
The manager performed at the fortieth (40th) percentile or better.	42			1	
Artisan Global Opportunities (SA)					
The manager return exceeds the benchmark (net of fees).	9.73%	11.17%		1	
The manager performed at the fortieth (40th) percentile or better.	52			<ul> <li>✓</li> </ul>	
NT Collective Daily ACW IM Lending (CF)					
The manager return exceeds the benchmark (net of fees).	9.90%	9.67%	<b>√</b>		
The manager performed at the fortieth (40th) percentile or better.	39		√		
WTC-CTF Global Perspectives (CF)					
The manager return exceeds the benchmark (net of fees).	8.36%	6.68%	1		
The manager performed at the fortieth (40th) percentile or better.	52			✓	
GQG Partners Emg Mkts Eq (CF)					Incufficient History
The manager return exceeds the benchmark (net of fees).	N/A				Insufficient History
The manager performed at the fortieth (40th) percentile or better.	N/A				Insufficient History
Fixed Income					
The fixed income composite rate of return exceeds the benchmark (net of fees).	1.20%	-0.33%	1		
The fixed income composite performed at the fortieth (40th) percentile or better.	19		1		
FCI Advisors (SA)					
The manager return exceeds the benchmark (net of fees).	0.09%	-0.21%	1		
The manager performed at the fortieth (40th) percentile or better.	41			1	
PIMCO:Income;Inst (PIMIX)					
The manager return exceeds the benchmark (net of fees).	2.89%	-0.33%	✓		
The manager performed at the fortieth (40th) percentile or better.	19		<ul> <li>✓</li> </ul>		
Direct Lending					
The direct lending composite rate of return exceeds the benchmark (net of fees).	2.93%	7.25%		1	
White Oak Fixed Income C LP					
The manager return exceeds the benchmark (net of fees).	2.89%	7.25%		1	
Ares Pathfinder Core LP	2.0070	112070			
The manager return exceeds the benchmark (net of fees).	N/A				Insufficient History
Real Estate					,,
The real estate composite rate of return exceeds the benchmark (net of fees).	2.93%	1.99%	1		
Morgan Stanley Prime Property LLC					
The manager return exceeds the benchmark (net of fees).	4.07%	1.99%	√		
PGIM Real Estate PRISA II (CF)					
The manager return exceeds the benchmark (net of fees). Absolute Return	1.70%	1.99%		√	
The absolute return composite rate of return exceeds the benchmark (net of fees).	6.63%	7.57%		1	
Grosvenor FOB (CF)					
The manager return exceeds the benchmark (net of fees). Private Equity	7.20%	5.38%	1		
The private equity composite rate of return exceeds the benchmark (net of fees).	Not M	aterial			

The Investment Policy Review for the Police Retirement System of Kansas City, Missouri examines client specific net returns, except for the Total Fund which examines client specific gross return. Managers that do not have 5 years of client specific net performance populate are backfilled with composite/manager gross performance until sufficient historical client-specific net performance is available. GQG Partners Emg Mkts Eq (CF) currently will not have 5 years of composite level returns. The two private equity managers are in their final stages of distributing capital; performance for these managers is not relevant.





Schedule of Investable Assets												
Periods Ending	Beginning Market Value (\$)	Net Cash Flow (\$)	Gain/Loss (\$)	Ending Market Value (\$)	% Return							
QTD	185,710,729	-659,416	-2,346,495	182,704,818	-1.27							
CYTD	173,348,364	-2,259,488	11,615,942	182,704,818	6.75							
FYTD	174,817,190	-1,270,286	9,157,914	182,704,818	5.25							

Allocations shown may not sum up to 100% exactly due to rounding. Performance shown is net of fees.



# Kansas City Police Employees' Retirement Systems **KCPERS Civilian Employees**

15,943,161

380,199

3,895,447

Absolute Return

**Cash Equivalent** 

**Private Equity** 

Total Fund vs.	All Public Plans	(<\$250 Milli	on)		
	Asset Alloca	tion vs. Tar	get Alloc	ation	
	Market Value (\$)	Allocation (%)	Target (%)	Minimum (%)	Maximum (%)
Total Fund	182,704,818	100.00	100.00	-	-
Global Equity	69,306,906	37.93	38.00	33.00	43.00
Fixed Income	58,154,219	31.83	31.00	26.00	36.00
Direct Lending	15,356,857	8.41	10.00	7.00	13.00
Real Estate	19,668,030	10.76	13.00	9.00	17.00

8.73

0.21

2.13

8.00

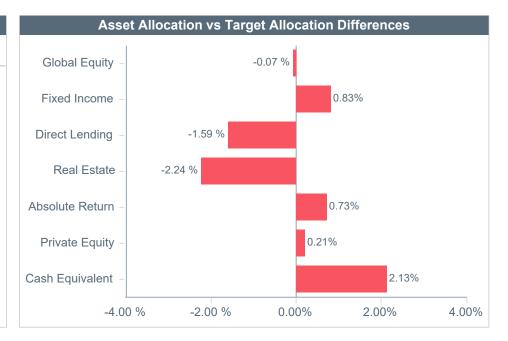
0.00

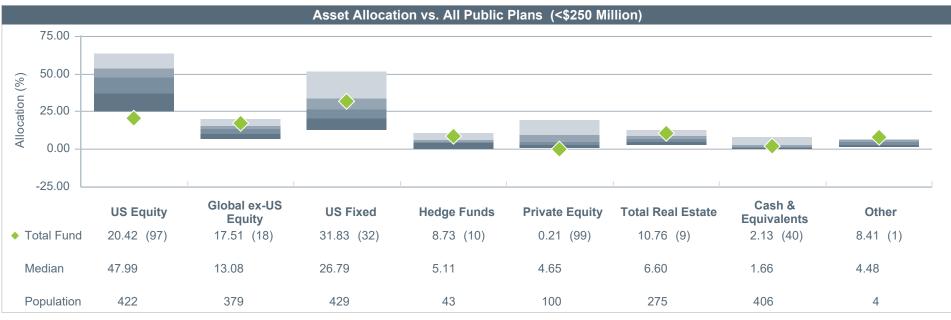
0.00

6.00

0.00

0.00





10.00

0.00

5.00

Parentheses contain percentile ranks. Allocations may not sume up to 100% exactly due to rounding. The Board has elected not to make additional Private Equity commitments and as a result, the Private Equity allocation is winding down. Other consists of the Direct Lending composite.



# Kansas City Police Employees' Retirement Systems KCPERS Civilian Employees

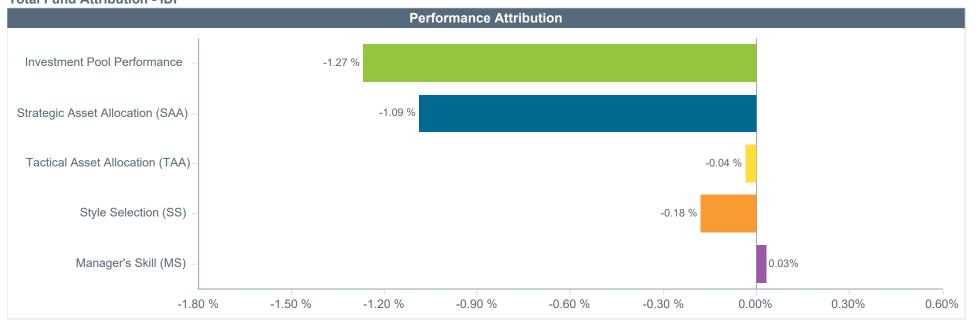
	Market Value (\$M)	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2023	2022	2021	Since Incep.	Inception Date
Total Fund (Gross)	\$182.70	-1.16	5.59	7.26	7.26	1.97	5.70	5.82	6.31	9.73	-9.93	10.75	6.53	10/01/2003
All Public Plans (<\$250 Million)		-1.12	8.77	11.07	11.07	2.98	7.07	7.09	7.17	13.79	-13.49	13.52	7.14	
Rank		52	95	90	90	79	84	83	78	90	12	84	81	
Total Fund	\$182.70	-1.27	5.25	6.75	6.75	1.42	5.14	5.26	5.77	9.11	-10.43	10.13	6.18	07/01/2013
Target Allocation Index		-1.09	6.93	7.84	7.84	2.42	5.41	5.65	5.92	9.62	-9.11	9.89	6.34	
Difference		-0.18	-1.68	-1.09	-1.09	-1.00	-0.27	-0.39	-0.15	-0.51	-1.31	0.24	-0.16	
6.85% Annualized Return		1.67	4.52	6.85	6.85	6.85	6.85	6.85	6.85	6.85	6.85	6.85	6.85	
Difference		-2.94	0.74	-0.10	-0.10	-5.43	-1.71	-1.59	-1.08	2.26	-17.28	3.28	-0.67	
Global Equity	\$69.31	-2.86	7.00	12.22	12.22	3.26	8.72	8.13	8.89	20.09	-18.31	16.82	9.50	07/01/2013
MSCI ACW IM Index (USD) (Net)		-1.24	11.83	16.37	16.37	4.90	9.67	8.78	9.00	21.58	-18.40	18.22	9.55	
Difference		-1.62	-4.83	-4.15	-4.15	-1.65	-0.95	-0.65	-0.11	-1.49	0.10	-1.40	-0.05	
IM Global Large Cap Equity (MF) Median		-1.67	9.68	14.52	14.52	2.74	9.02	9.36	9.42	21.22	-22.05	16.85	9.76	
Rank		64	76	66	66	42	58	73	65	60	33	52	58	
Fixed Income	\$58.15	-2.27	5.12	3.01	3.01	-0.74	1.20	2.19	2.45	7.18	-11.41	-0.37	2.69	07/01/2013
Bloomberg US Agg Bond Index		-3.06	4.69	1.25	1.25	-2.41	-0.33	0.97	1.35	5.53	-13.01	-1.55	1.72	
Difference		0.79	0.44	1.75	1.75	1.67	1.53	1.22	1.11	1.65	1.60	1.17	0.97	
IM Global Fixed Income (MF) Median		-1.55	4.41	2.32	2.32	-1.70	-0.18	0.83	1.07	6.74	-14.66	-2.73	1.26	
Rank		59	21	35	35	32	19	13	13	35	31	10	11	
Direct Lending	\$15.36	0.00	1.90	0.98	0.98	2.47	2.93	-	-	9.56	-2.75	4.60	4.49	04/01/2018
S&P UBS Lvg'd Loan Index+2%		0.00	4.11	8.18	8.18	7.98	7.25	7.09	6.94	15.30	0.92	7.51	7.03	
Difference		0.00	-2.21	-7.20	-7.20	-5.51	-4.32	-	-	-5.74	-3.68	-2.91	-2.54	
Real Estate	\$19.67	1.18	0.24	-1.60	-1.60	-1.91	2.93	4.13	6.11	-9.52	6.00	21.77	7.21	07/01/2013
NCREIF ODCE Index (AWA) (Net)		0.96	0.32	-2.27	-2.27	-3.14	1.99	3.08	4.94	-12.73	6.55	21.02	5.84	
Difference		0.22	-0.07	0.66	0.66	1.22	0.94	1.04	1.16	3.21	-0.55	0.76	1.37	
Absolute Return	\$15.94	5.10	8.45	13.89	13.89	5.19	6.63	5.27	4.71	9.33	-6.52	6.32	4.54	08/01/2014
Absolute Return Custom Benchmark		2.51	4.72	7.25	7.25	3.50	5.29	4.52	4.14	4.80	-1.35	6.77	3.98	
Difference		2.59	3.72	6.64	6.64	1.69	1.34	0.74	0.57	4.53	-5.17	-0.45	0.56	
Long Term Absolute Return Custom Benchmark		2.41	6.89	10.51	10.51	9.09	7.57	7.46	6.96	10.27	6.53	5.05	6.84	
Difference		2.69	1.56	3.38	3.38	-3.90	-0.94	-2.19	-2.26	-0.94	-13.05	1.27	-2.30	

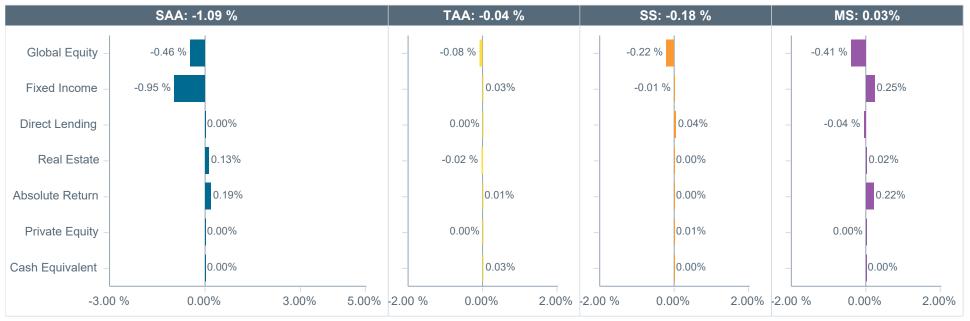
See addendum for custom index comments. 6.85% annualized return represents the System's long-term return goal based on the System's current actuarial assumed rate of return.

Performance shown is net of fees, unless otherwise noted. Performance is annualized for periods greater than one year. Manager inception dates shown represent the first full month of performance following initial funding. Fiscal year ends 04/30. Direct Lending performance is currently unavailable.



### Kansas City Police Employees' Retirement Systems KCPERS Civilian Employees Total Fund Attribution - IDP

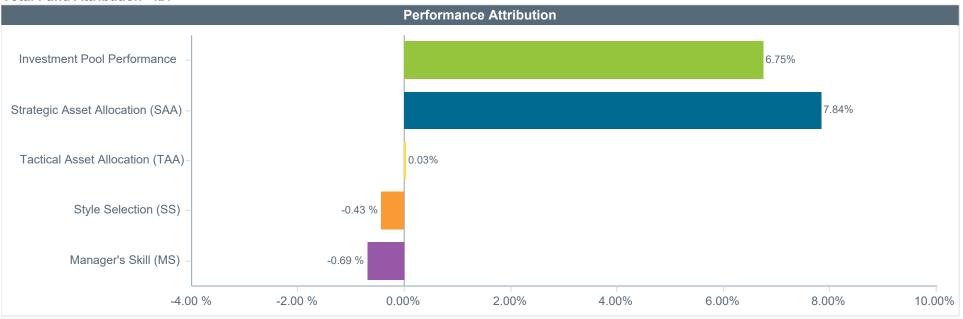


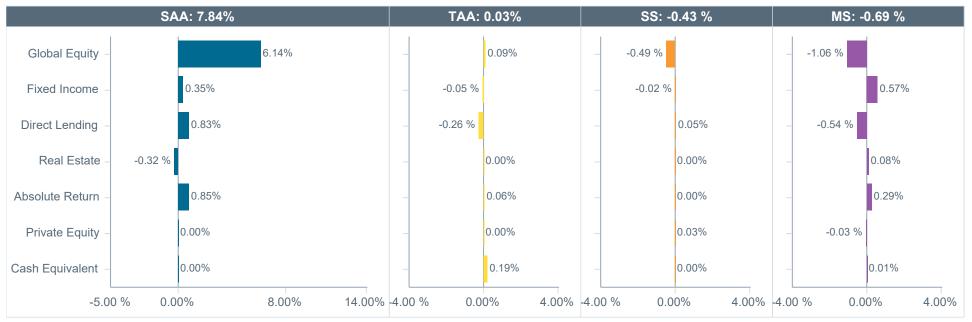


Performance shown is net of fees. Calculation is based on monthly periodicity. See Glossary for additional information regarding the Total Fund Attribution - IDP calculation.



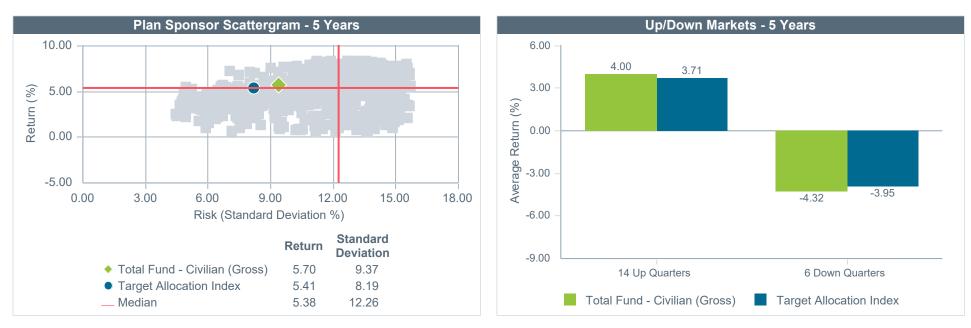
#### Kansas City Police Employees' Retirement Systems KCPERS Civilian Employees Total Fund Attribution - IDP





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

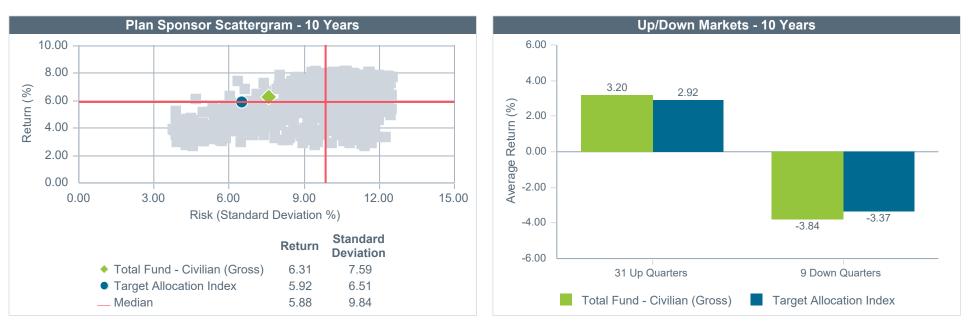


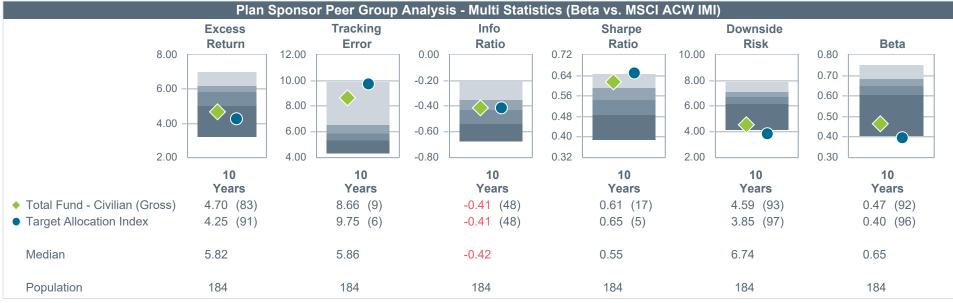




Performance shown is gross of fees. Calculation is based on quarterly periodicity. Parentheses contain percentile ranks.



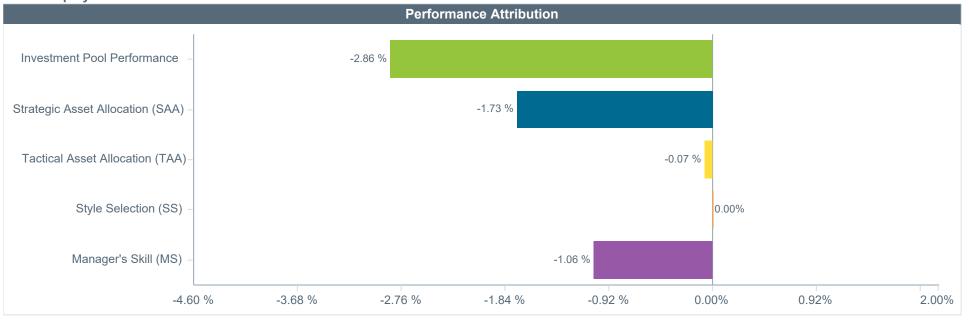


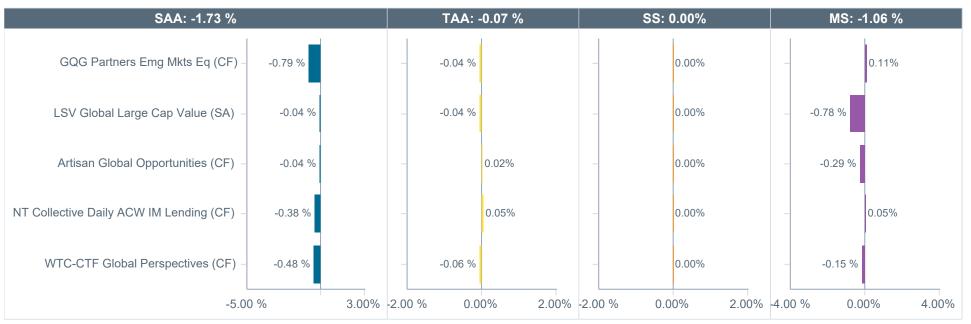


Performance shown is gross of fees. Calculation is based on quarterly periodicity. Parentheses contain percentile ranks.



# Kansas City Police Employees' Retirement Systems KCPERS Civilian Employees Global Equity Attribution - IDP

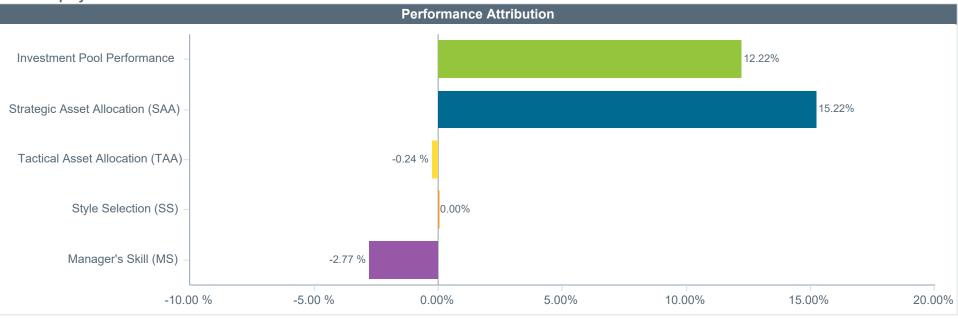


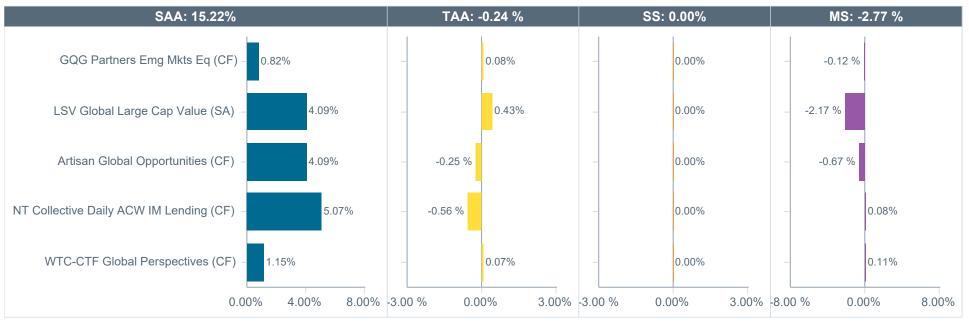


Performance shown is net of fees. Calculation is based on monthly periodicity. See Glossary for additional information regarding the Total Fund Attribution - IDP calculation.



# Kansas City Police Employees' Retirement Systems KCPERS Civilian Employees Global Equity Attribution - IDP





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



# Kansas City Police Employees' Retirement Systems KCPERS Civilian Employees Global Equity vs. IM Global Large Cap Equity (SA + CF)



		Peer Gro	up Analysis	s - Multi Si	tatistics					
	Excess Return	Tracking Error		Info Ratio		Sharpe Ratio	10.00	Downside Risk		Beta
14.00		11.00	1.48		1.00		12.00		1.20	
12.00 -		8.00	1.05 -		0.80 -		10.00		4.00	
10.00 -	-	5.00	0.62		0.60 -		10.00 -	$\diamond \circ$	1.00 -	• •
8.00 -	- • • -	2.00 -	0.19	←		$\diamond$ $\bigcirc$	8.00 -		0.80 -	
6.00 -	-	-1.00 -	-0.24		0.40 -					
4.00		-4.00	-0.67		0.20		6.00		0.60	
	10 Years	10 Years		10 Years		10 Years		10 Years		10 Years
<ul> <li>Global Equity</li> </ul>	8.48 (57)	1.79 (94)	(	).25 (48)		0.56 (62)		9.82 (29)		1.00 (25)
<ul> <li>MSCI ACW IM Index (USD) (Net)</li> </ul>	8.03 (66)	0.00 (100)		N/A		0.54 (67)		9.83 (29)		1.00 (25)
Median	8.70	4.30	(	).21		0.59		9.59		0.97
Population	115	115		115		115		115		115

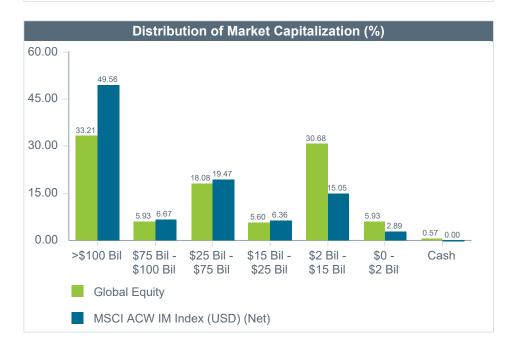
Performance shown is gross of fees. Calculation is based on monthly periodicity. Parentheses contain percentile ranks.



# Kansas City Police Employees' Retirement Systems Global Equity vs. MSCI ACW IM Index (USD) (Net) Portfolio Characteristics

Top Ten Equity Holdings												
	Portfolio Weight (%)	Benchmark Weight (%)	Active Weight (%)	Quarterly Return (%)								
Apple Inc	2.02	4.38	-2.36	7.60								
Amazon.com Inc	1.44	2.39	-0.95	17.74								
NVIDIA Corporation	1.37	3.79	-2.42	10.59								
Netflix Inc	1.30	0.44	0.86	25.67								
Taiwan Semiconductor Mfg (ADR)	1.28	0.93	0.35	14.08								
Boston Scientific Corp	1.19	0.15	1.04	6.59								
Microsoft Corp	1.05	3.43	-2.38	-1.85								
Tencent Holdings LTD	0.99	0.40	0.59	-6.21								
arGEN-X SE	0.92	0.04	0.88	13.45								
Oracle Corp	0.91	0.32	0.59	-1.98								
% of Portfolio	12.47	16.27	-3.80									

	Portfolio	Benchmark
Wtd. Avg. Mkt. Cap (\$M)	327,390	661,594
Vedian Mkt. Cap (\$M)	2,142	2,397
Price/Earnings Ratio	18.95	21.58
Price/Book Ratio	3.20	3.72
5 Yr. EPS Growth Rate (%)	14.77	17.58
Current Yield (%)	2.11	1.88
Beta (5 Years, Monthly)	0.99	1.00
Number of Securities	4,765	8,640

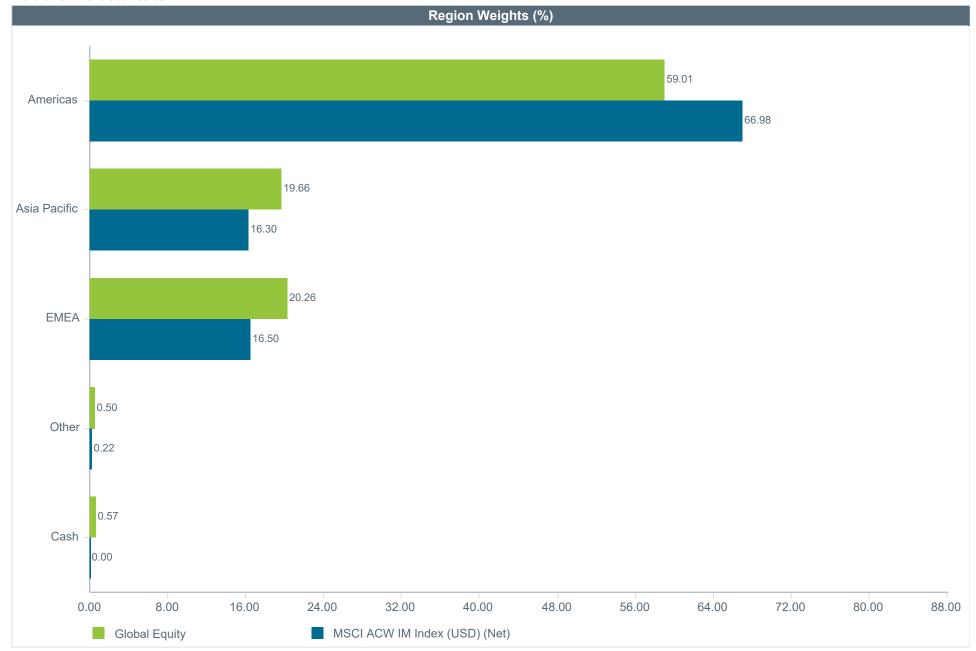






KVK

# Kansas City Police Employees' Retirement Systems Global Equity vs. MSCI ACW IM Index (USD) (Net) Portfolio Characteristics





# Kansas City Police Employees' Retirement Systems KCPERS Civilian Employees Fixed Income vs. IM Global Fixed Income (SA + CF)



Peer Group Analysis - Multi Statistics											
8.00	Excess Return	Tracking Error	Info Ratio	Sharpe Ratio	Downside Risk	1.68 <b>Beta</b>					
5.00 -		8.00	0.70 -	0.63 -	8.00 -	1.27					
2.00 -	<b>♦</b>	4.00	0.32	0.34	6.00	0.86					
-1.00 - -4.00		0.00 -	-0.44	-0.24 -	2.00	0.04					
-4.00	10 Years	-4.00 10 Years	-0.62 10 Years	-0.53 10 Years	0.00 10 Years	-0.3710 Years					
<ul><li>Fixed Income</li><li>Bloomberg US Agg Bond Index</li></ul>	1.08 (55) -0.29 (68)	1.66 (100) 0.00 (100)	0.82 (1) N/A	0.21 (49) -0.06 (69)	3.33 (86) 3.36 (86)	0.97 (45) 1.00 (42)					
Median	1.32	4.54	0.42	0.20	4.87	0.91					
Population	140	140	140	140	140	140					

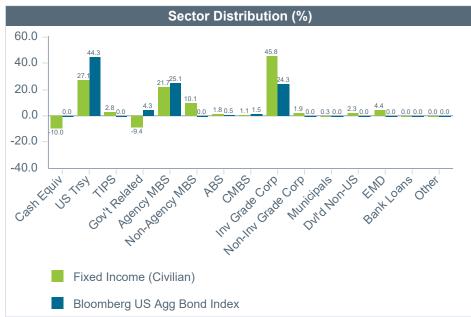
Performance shown is gross of fees. Calculation is based on monthly periodicity. Parentheses contain percentile ranks.

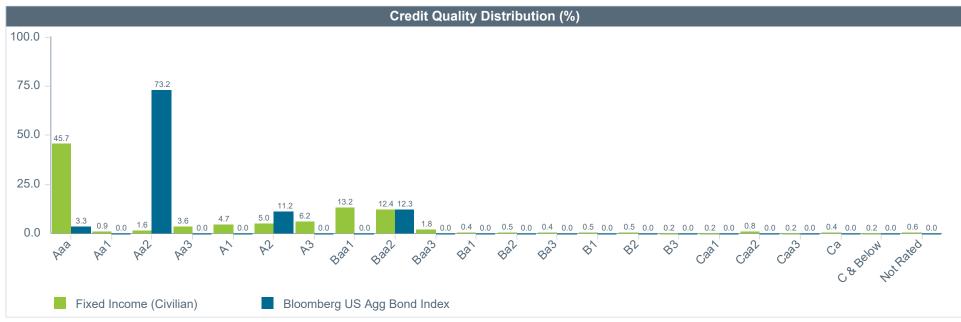




# Kansas City Police Employees' Retirement Systems Fixed Income (Civilian) vs. Bloomberg US Agg Bond Index Portfolio Characteristics

Po	rtfolio Characteristics	
	Portfolio	Benchmark
Effective Duration	5.63	6.08
Avg. Maturity	7.61	8.35
Avg. Quality	A1	Aa2/Aa3
Coupon Rate (%)	3.81	3.42
Yield To Maturity (%)	4.94	4.91
Holdings Count	9,611	13,630





Allocation to "Other" consists of Convertible Bonds, Preferred Stock, and Euro/Yankee Bonds. PIMCO:Income;Inst (PIMIX) effective duration is used as modified duration.



# Kansas City Police Employees' Retirement Systems KCPERS Civilian Employees Asset Allocation & Performance - Gross of Fees

	Market Value (\$M)	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2023	2022	2021	Since Incep.	Inception Date
Global Equity														
LSV Global Large Cap Value (SA)	\$15.38	-3.56	6.12	10.10	10.10	5.47	8.54	7.52	8.16	15.86	-8.02	24.55	7.85	05/01/2014
MSCI Wrld Index (USD) (Net)		-0.16	13.20	18.67	18.67	6.34	11.17	10.24	9.95	23.79	-18.14	21.82	9.56	
Difference		-3.41	-7.08	-8.57	-8.57	-0.86	-2.63	-2.72	-1.78	-7.92	10.13	2.74	-1.71	
MSCI Wrld Val Index (USD) (Net)		-4.20	7.35	11.47	11.47	5.13	6.97	6.18	6.65	11.51	-6.52	21.94	6.22	
Difference		0.64	-1.23	-1.37	-1.37	0.34	1.57	1.34	1.51	4.35	-1.50	2.61	1.63	
IM Global Large Cap Value Equity (SA+CF) Median		-3.93	6.34	10.49	10.49	4.99	8.27	7.65	8.01	19.40	-10.19	19.23	7.61	
Rank		40	52	53	53	46	44	53	47	70	35	7	42	
Artisan Global Opportunities (CF)	\$15.22	-1.37	7.89	16.27	16.27	0.63	10.66	11.15	12.34	24.47	-29.59	15.09	12.13	05/01/2014
MSCI Wrld Index (USD) (Net)		-0.16	13.20	18.67	18.67	6.34	11.17	10.24	9.95	23.79	-18.14	21.82	9.56	
Difference		-1.21	-5.31	-2.40	-2.40	-5.71	-0.50	0.91	2.39	0.68	-11.45	-6.72	2.57	
MSCI Wrld Grth Index (USD) (Net)		3.81	19.00	25.92	25.92	6.89	14.64	13.78	12.85	37.00	-29.21	21.18	12.54	
Difference		-5.18	-11.11	-9.65	-9.65	-6.26	-3.98	-2.64	-0.51	-12.53	-0.38	-6.09	-0.40	
IM Global Large Cap Growth Equity (SA+CF) Median		-1.55	10.53	16.15	16.15	3.34	10.76	10.67	10.78	22.78	-23.01	17.88	10.52	
Rank		49	68	49	49	78	51	43	30	39	78	64	27	
NT Collective Daily ACW IM Lending (CF)	\$20.92	-1.14	12.00	16.62	16.62	5.29	9.99	9.16	9.42	21.70	-17.76	18.14	8.99	03/01/2014
MSCI ACW IM Index (USD) (Net)		-1.24	11.83	16.37	16.37	4.90	9.67	8.78	9.00	21.58	-18.40	18.22	8.56	
Difference		0.10	0.16	0.25	0.25	0.38	0.32	0.38	0.41	0.12	0.64	-0.08	0.42	
IM Global Large Cap Core Equity (SA+CF) Median		-1.52	9.77	15.25	15.25	5.22	9.98	9.61	9.78	21.08	-16.80	20.00	9.50	
Rank		41	35	44	44	49	50	55	57	48	56	64	60	
WTC-CTF Global Perspectives (CF)	\$10.55	-3.97	7.07	9.11	9.11	3.13	-	-	-	16.75	-13.89	22.86	13.51	11/01/2020
MSCI ACW Sm Cap Index (USD) (Net)		-3.26	8.12	7.66	7.66	0.76	6.68	5.70	7.26	16.84	-18.67	16.10	9.69	
Difference		-0.71	-1.05	1.45	1.45	2.37	-	-	-	-0.08	4.78	6.76	3.83	
IM Global Small Cap Equity (SA+CF) Median		-3.85	8.50	9.52	9.52	0.88	8.88	7.63	8.94	18.14	-20.59	21.14	10.00	
Rank		58	67	52	52	33	-	-	-	55	29	40	30	
GQG Partners Emg Mkts Eq (CF)	\$7.25	-6.86	-3.04	7.58	7.58	3.81	-	-	-	31.02	-20.64	-0.82	5.47	11/01/2020
MSCI Emg Mkts Index (USD) (Net)		-8.01	4.55	7.50	7.50	-1.92	1.70	1.38	3.64	9.83	-20.09	-2.54	1.83	
Difference		1.14	-7.59	0.07	0.07	5.73	-	-	-	21.19	-0.55	1.72	3.64	
IM Emerging Markets Equity (SA+CF) Median		-6.81	4.44	8.08	8.08	-0.24	3.65	2.88	4.96	12.91	-19.54	1.13	3.64	
Rank		52	99	56	56	24	-	-	-	4	58	61	41	

Performance shown is gross of fees, unless otherwise noted. Performance is annualized for periods greater than one year. Manager inception dates shown represent the first full month of performance following initial funding. Fiscal year ends 04/30. White Oak Fixed Income performance is currently unavailable.



# Kansas City Police Employees' Retirement Systems

KCPERS Civilian Employees Asset Allocation & Performance - Gross of Fees

	Market Value (\$M)	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2023	2022	2021	Since Incep.	Inception Date
Fixed Income														
FCI Advisors (SA)	\$37.58	-2.95	4.85	1.79	1.79	-2.22	0.23	1.58	1.87	6.09	-13.42	-1.91	3.93	03/01/200
Bloomberg US Govt Crdt Bond Index		-3.08	4.39	1.18	1.18	-2.59	-0.21	1.12	1.50	5.72	-13.58	-1.75	3.65	
Difference		0.13	0.46	0.61	0.61	0.37	0.45	0.47	0.37	0.37	0.16	-0.16	0.28	
Bloomberg US Agg Bond Index		-3.06	4.69	1.25	1.25	-2.41	-0.33	0.97	1.35	5.53	-13.01	-1.55	3.55	
Difference		0.11	0.17	0.54	0.54	0.19	0.56	0.62	0.52	0.56	-0.41	-0.37	0.38	
IM U.S. Broad Market Core Fixed Income (SA+CF) Median		-2.99	5.00	1.91	1.91	-2.01	0.24	1.47	1.85	5.98	-12.95	-1.24	4.02	
Rank		43	68	56	56	73	51	38	48	48	80	93	58	
PIMCO:Income;Inst (PIMIX)	\$20.58	-0.85	6.18	5.94	5.94	2.55	3.41	3.80	-	9.86	-7.34	3.11	3.88	09/01/201
Bloomberg US Agg Bond Index		-3.06	4.69	1.25	1.25	-2.41	-0.33	0.97	1.35	5.53	-13.01	-1.55	0.91	
Difference		2.21	1.50	4.69	4.69	4.96	3.73	2.84	-	4.33	5.67	4.66	2.97	
IM Multi-Sector General Bond (MF) Median		-0.96	6.22	5.83	5.83	1.36	2.86	3.53	4.00	9.13	-10.73	2.56	3.53	
Rank		46	52	49	49	19	31	33	-	37	20	42	26	
Direct Lending														
White Oak Fixed Income C LP	\$11.73	0.00	2.19	1.52	1.52	3.62	4.27	-	-	11.56	-1.77	6.86	6.08	04/01/201
S&P UBS Lvg'd Loan Index+2%		0.00	4.11	8.18	8.18	7.98	7.25	7.09	6.94	15.30	0.92	7.51	7.03	
Difference		0.00	-1.92	-6.65	-6.65	-4.36	-2.97	-	-	-3.74	-2.69	-0.65	-0.95	
Ares Pathfinder Core LP	\$3.63	0.00	-	-	-	-	-	-	-	-	-	-	3.45	07/01/202
S&P UBS Lvg'd Loan Index+2%		0.00	4.11	8.18	8.18	7.98	7.25	7.09	6.94	15.30	0.92	7.51	2.56	
Difference		0.00	-	-	-	-	-	-	-	-	-	-	0.89	
Real Estate														
Morgan Stanley Prime Property LLC	\$10.38	0.77	1.36	0.21	0.21	0.74	5.15	6.02	7.79	-4.98	7.38	22.89	8.06	10/01/201
NCREIF ODCE Index (AWA) (Gross)		1.16	0.96	-1.43	-1.43	-2.32	2.87	3.99	5.88	-12.02	7.47	22.17	6.06	
Difference		-0.39	0.41	1.65	1.65	3.07	2.28	2.03	1.91	7.03	-0.08	0.73	1.99	
PGIM Real Estate PRISA II (CF)	\$9.29	2.18	0.68	-1.45	-1.45	-2.56	2.85	4.43	6.65	-12.28	7.02	23.18	6.73	10/01/200
NCREIF ODCE Index (AWA) (Gross)		1.16	0.96	-1.43	-1.43	-2.32	2.87	3.99	5.88	-12.02	7.47	22.17	6.59	
Difference		1.02	-0.28	-0.02	-0.02	-0.24	-0.02	0.44	0.77	-0.26	-0.44	1.01	0.14	
Absolute Return														
Grosvenor FOB (CF) (Net)	\$15.94	5.10	8.45	13.89	13.89	5.19	7.20	5.56	4.87	9.33	-6.52	6.32	4.78	08/01/201
HFN FOF Multi-Strat Index (Net)		2.51	4.72	7.25	7.25	3.50	5.38	4.24	3.56	4.80	-1.35	6.77	3.54	
Difference		2.59	3.72	6.64	6.64	1.69	1.82	1.32	1.30	4.53	-5.17	-0.45	1.24	
ICE BofAML 3 Mo US T-Bill Index+5%		2.41	6.89	10.51	10.51	9.09	7.59	7.47	6.85	10.27	6.53	5.05	6.78	
Difference		2.69	1.56	3.38	3.38	-3.90	-0.39	-1.91	-1.99	-0.94	-13.05	1.27	-2.00	

Performance shown is gross of fees, unless otherwise noted. Performance is annualized for periods greater than one year. Manager inception dates shown represent the first full month of performance following initial funding. Fiscal year ends 04/30. White Oak Fixed Income performance is currently unavailable.



# Kansas City Police Employees' Retirement Systems KCPERS Civilian Employees

Asset Allocation & Performance - Net of Fees

	Market Value (\$M)	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2023	2022	2021	Since Incep.	Inception Date
Global Equity														
LSV Global Large Cap Value (SA)	\$15.38	-3.71	5.80	9.43	9.43	4.83	7.87	6.85	7.48	15.15	-8.58	23.80	7.19	05/01/2014
MSCI Wrld Index (USD) (Net)		-0.16	13.20	18.67	18.67	6.34	11.17	10.24	9.95	23.79	-18.14	21.82	9.56	
Difference		-3.55	-7.39	-9.24	-9.24	-1.51	-3.29	-3.39	-2.46	-8.64	9.57	1.98	-2.37	
MSCI Wrld Val Index (USD) (Net)		-4.20	7.35	11.47	11.47	5.13	6.97	6.18	6.65	11.51	-6.52	21.94	6.22	
Difference		0.49	-1.54	-2.03	-2.03	-0.30	0.90	0.67	0.83	3.64	-2.06	1.85	0.96	
Artisan Global Opportunities (CF)	\$15.22	-1.58	7.29	15.30	15.30	-0.22	9.73	10.21	11.39	23.43	-30.20	14.10	11.19	05/01/2014
MSCI Wrld Index (USD) (Net)		-0.16	13.20	18.67	18.67	6.34	11.17	10.24	9.95	23.79	-18.14	21.82	9.56	
Difference		-1.42	-5.91	-3.37	-3.37	-6.56	-1.44	-0.03	1.45	-0.36	-12.06	-7.72	1.63	
MSCI Wrld Grth Index (USD) (Net)		3.81	19.00	25.92	25.92	6.89	14.64	13.78	12.85	37.00	-29.21	21.18	12.54	
Difference		-5.39	-11.72	-10.62	-10.62	-7.11	-4.92	-3.57	-1.46	-13.57	-0.99	-7.08	-1.35	
NT Collective Daily ACW IM Lending (CF)	\$20.92	-1.16	11.94	16.53	16.53	5.21	9.90	9.07	9.33	21.61	-17.83	18.05	8.90	03/01/2014
MSCI ACW IM Index (USD) (Net)		-1.24	11.83	16.37	16.37	4.90	9.67	8.78	9.00	21.58	-18.40	18.22	8.56	
Difference		0.08	0.11	0.16	0.16	0.30	0.23	0.29	0.33	0.02	0.58	-0.17	0.33	
WTC-CTF Global Perspectives (CF)	\$10.55	-4.19	6.46	8.18	8.18	2.26	-	-	-	15.78	-14.63	21.83	12.56	11/01/2020
MSCI ACW Sm Cap Index (USD) (Net)		-3.26	8.12	7.66	7.66	0.76	6.68	5.70	7.26	16.84	-18.67	16.10	9.69	
Difference		-0.93	-1.66	0.52	0.52	1.49	-	-	-	-1.06	4.04	5.73	2.87	
GQG Partners Emg Mkts Eq (CF)	\$7.25	-7.06	-3.56	6.72	6.72	2.98	-	-	-	30.00	-21.28	-1.61	4.63	11/01/2020
MSCI Emg Mkts Index (USD) (Net)		-8.01	4.55	7.50	7.50	-1.92	1.70	1.38	3.64	9.83	-20.09	-2.54	1.83	
Difference		0.95	-8.11	-0.78	-0.78	4.90	-	-	-	20.17	-1.19	0.93	2.80	
Fixed Income														
FCI Advisors (SA)	\$37.58	-2.98	4.76	1.65	1.65	-2.36	0.09	1.43	1.72	5.94	-13.55	-2.05	2.04	07/01/2013
Bloomberg US Govt Crdt Bond Index		-3.08	4.39	1.18	1.18	-2.59	-0.21	1.12	1.50	5.72	-13.58	-1.75	1.84	
Difference		0.09	0.36	0.47	0.47	0.23	0.30	0.32	0.22	0.22	0.03	-0.30	0.20	
Bloomberg US Agg Bond Index		-3.06	4.69	1.25	1.25	-2.41	-0.33	0.97	1.35	5.53	-13.01	-1.55	1.72	
Difference		0.08	0.07	0.39	0.39	0.05	0.41	0.47	0.37	0.41	-0.54	-0.51	0.32	
PIMCO:Income;Inst (PIMIX)	\$20.58	-0.97	5.83	5.42	5.42	2.04	2.89	3.28	-	9.32	-7.81	2.61	3.35	09/01/2017
Bloomberg US Agg Bond Index		-3.06	4.69	1.25	1.25	-2.41	-0.33	0.97	1.35	5.53	-13.01	-1.55	0.91	
Difference		2.09	1.15	4.17	4.17	4.45	3.22	2.31	-	3.79	5.20	4.15	2.44	

Performance shown is net of fees. Performance is annualized for periods greater than one year. Manager inception dates shown represent the first full month of performance following initial funding. Fiscal year ends 04/30. White Oak Fixed Income performance is currently unavailable.



# Kansas City Police Employees' Retirement Systems

# KCPERS Civilian Employees

**Asset Allocation & Performance - Net of Fees** 

	Market Value (\$M)	QTD	FYTD	CYTD	Year	3 Years	5 Years	7 Years	10 Years	2023	2022	2021	Since Incep.	Inception Date
Direct Lending														
White Oak Fixed Income C LP	\$11.73	0.00	1.69	0.77	0.77	2.40	2.89	-	-	9.56	-2.75	4.60	4.46	04/01/2018
S&P UBS Lvg'd Loan Index+2%		0.00	4.11	8.18	8.18	7.98	7.25	7.09	6.94	15.30	0.92	7.51	7.03	
Difference		0.00	-2.43	-7.41	-7.41	-5.58	-4.36	-	-	-5.74	-3.68	-2.91	-2.58	
Ares Pathfinder Core LP	\$3.63	0.00	-	-	-	-	-	-	-	-	-	-	3.45	07/01/2024
S&P UBS Lvg'd Loan Index+2%		0.00	4.11	8.18	8.18	7.98	7.25	7.09	6.94	15.30	0.92	7.51	2.56	
Difference		0.00	-	-	-	-	-	-	-	-	-	-	0.89	
Real Estate														
Morgan Stanley Prime Property LLC	\$10.38	0.54	0.58	-0.77	-0.77	-0.26	4.07	4.91	6.65	-5.79	6.14	21.48	6.92	10/01/2014
NCREIF ODCE Index (AWA) (Net)		0.96	0.32	-2.27	-2.27	-3.14	1.99	3.08	4.94	-12.73	6.55	21.02	5.13	
Difference		-0.42	0.26	1.49	1.49	2.88	2.08	1.83	1.71	6.94	-0.41	0.47	1.79	
PGIM Real Estate PRISA II (CF)	\$9.29	1.90	-0.18	-2.58	-2.58	-3.66	1.70	3.26	5.50	-13.29	5.86	21.86	6.65	07/01/2013
NCREIF ODCE Index (AWA) (Net)		0.96	0.32	-2.27	-2.27	-3.14	1.99	3.08	4.94	-12.73	6.55	21.02	5.84	
Difference		0.94	-0.50	-0.31	-0.31	-0.52	-0.29	0.18	0.56	-0.56	-0.69	0.84	0.81	
Absolute Return														
Grosvenor FOB (CF)	\$15.94	5.10	8.45	13.89	13.89	5.19	7.20	5.56	4.87	9.33	-6.52	6.32	4.78	08/01/2014
HFN FOF Multi-Strat Index (Net)		2.51	4.72	7.25	7.25	3.50	5.38	4.24	3.56	4.80	-1.35	6.77	3.54	
Difference		2.59	3.72	6.64	6.64	1.69	1.82	1.32	1.30	4.53	-5.17	-0.45	1.24	
ICE BofAML 3 Mo US T-Bill Index+5%		2.41	6.89	10.51	10.51	9.09	7.59	7.47	6.85	10.27	6.53	5.05	6.78	
Difference		2.69	1.56	3.38	3.38	-3.90	-0.39	-1.91	-1.99	-0.94	-13.05	1.27	-2.00	

Performance shown is net of fees. Performance is annualized for periods greater than one year. Manager inception dates shown represent the first full month of performance following initial funding. Fiscal year ends 04/30. White Oak Fixed Income performance is currently unavailable.



## Kansas City Police Employees' Retirement Systems KCPERS Civilian Private Investment Lagged Performance Asset Allocation & Performance

	Market Value (M)	QTD	FYTD	CYTD	1 Year	3 Years	5 Years	7 Years	10 Years	2023	2022	2021	Since Incep.	Inception Date
Civilian - Direct Lending	\$13.52	2.01	1.90	0.98	2.94	2.21	3.23			9.56	-2.75	4.60	4.67	04/01/2018
White Oak Fixed Income C LP	\$11.73	1.79	1.69	0.77	2.72	2.14	3.19	-	-	9.56	-2.75	4.60	4.63	04/01/2018
CS Lvg'd Loan Index+2%		2.56	4.11	8.18	11.82	8.41	7.71	7.34	6.95	15.30	0.92	7.51	7.31	
Difference		-0.77	-2.43	-7.41	-9.09	-6.27	-4.52	-	-	-5.74	-3.68	-2.91	-2.68	

Performance shown is net of fees, unless otherwise noted. Performance and market values are preliminary and subject to change. Performance is annualized for periods greater than one year. Manager inception dates shown represent the first full month of performance following initial funding. Fiscal year ends 04/30.



# Civilian Employees' Retirement System of the Police Department of Kansas City Alternative Investment Private Equity Fund Performance Listing

Fund Name	Vintage	Asset Class	Commitment (\$)	Paid In Capital (\$)	Distributions (\$)	Valuation (\$)	Fund IRR (%)	Quartile	Index IRR (%)	Fund Multiple
JP Morgan European Corporate Finance Investors III	e 2006	Private Equity - Non-US Private Equity	187,500	181,318	277,827	2,602	7.56	2nd	10.92	1.55
JP Morgan U.S. Corporate Finance Investors III	2006	Private Equity - Buyout	750,000	758,984	1,503,128	38,908	13.28	1st	8.83	2.03
JP Morgan Venture Capital Investors III	2006	Private Equity - Venture	312,500	320,553	507,881	72,875	8.82	1st	12.19	1.81
Abbott Capital Private Equity VI LP	2008	Private Equity - Fund of Funds	1,250,000	1,243,761	2,058,367	326,592	12.47	2nd	13.83	1.92
			2,500,000	2,504,616	4,347,203	440,977	11.81		11.61	1.91

Certain valuations (marked with a <sup>w</sup>) are preliminary estimates of valuation as of the date of reporting and reflect the estimated impact of subsequent net cash contributions/distributions. These figures may be used in calculations contained in this report. Index IRR represents the dollar-weighted returns calculated using the S&P 500 Index (Cap Wtd) assuming an index investment with the same cash flow timing. IRRs are shown only for investments with one year or more of cash flows and for which an accurate IRR could be calculated. Applicable IRRs are marked with 'N/M' for not material. Fund IRR is the annualized since-inception net internal rate for the indicated fund or composite. Fund Multiple is the since inception sum of distributions and valuation divided by paid in capital. Quartile data is based on information provided by Preqin.



Fund Name	Vintage	Asset Class	Commitment (\$)	Paid In Capital (\$)	Distributions (\$)	Valuation (\$)	Fund IRR (%)	Quartile	Index IRR (%)	Fund Multiple
White Oak Fixed Income Fund C, LP-SI	P 2014	Private Credit - Direct Lending	9,400,000	9,400,000	0	11,728,413	4.21	4th	7.50	1.25
Ares Pathfinder Core Fund LP	2021	Private Credit - Specialty Finance	7,000,000	1,736,000	0	1,795,840	N/M	N/A	N/M	1.03
			16,400,000	11,136,000	0	13,524,253	4.29		7.51	1.21

Certain valuations (marked with a "") are preliminary estimates of valuation as of the date of reporting and reflect the estimated impact of subsequent net cash contributions/distributions. These figures may be used in calculations contained in this report. Index IRR represents the dollar-weighted returns calculated using the S&P UBS Leveraged Loan Index+2% assuming an index investment with the same cash flow timing. IRRs are shown only for investments with one year or more of cash flows and for which an accurate IRR could be calculated. Applicable IRRs are marked with 'N/M' for not material. Fund IRR is the annualized since-inception net internal rate for the indicated fund or composite. Fund Multiple is the since inception sum of distributions and valuation divided by paid in capital. Quartile data is based on information provided by Preqin.



# Kansas City Police Employees' Retirement Systems KCPERS Civilian Employees Schedule of Investable Assets by Manager

	LSV Global Large Cap Value (SA)									
Periods Ending	Beginning Market Value (\$)	Net Cash Flow (\$)	Gain/Loss (\$)	Ending Market Value (\$)	% Return					
Quarter	18,451,413	-2,472,325	-603,220	15,375,868	-3.71					

	Artisan Global Opportunities (CF)									
Periods Ending	Beginning Market Value (\$)	Net Cash Flow (\$)	Gain/Loss (\$)	Ending Market Value (\$)	% Return					
Quarter	15,462,258	-	-244,679	15,217,579	-1.58					

NT Collective Daily ACW IM Lending (CF)										
Periods Ending	Beginning Market Value (\$)	Net Cash Flow (\$)	Gain/Loss (\$)	Ending Market Value (\$)	% Return					
Quarter	21,159,297	4,149	-245,286	20,918,160	-1.16					

	WTC-CTF Global Perspectives (CF)									
Periods Ending	Beginning Market Value (\$)	Net Cash Flow (\$)	Gain/Loss (\$)	Ending Market Value (\$)	% Return					
Quarter	12,516,229	-1,500,000	-468,189	10,548,040	-4.19					

	GQG Partners Emg Mkts Eq (CF)									
Periods Ending	Beginning Market Value (\$)	Net Cash Flow (\$)	Gain/Loss (\$)	Ending Market Value (\$)	% Return					
Quarter	7,797,372	-	-550,113	7,247,259	-7.06					

	FCI Advisors (SA)									
Periods Ending	Beginning Market Value (\$)	Net Cash Flow (\$)	Gain/Loss (\$)	Ending Market Value (\$)	% Return					
Quarter	34,648,679	4,012,281	-1,084,911	37,576,049	-2.98					

Performance shown is net of fees and will not match subsequent comparative performance gross of fees.



## Kansas City Police Employees' Retirement Systems KCPERS Civilian Employees Schedule of Investable Assets by Manager

PIMCO:Income;Inst (PIMIX)											
Periods Ending	Beginning Market Value (\$)	Net Cash Flow (\$)	Gain/Loss (\$)	Ending Market Value (\$)	% Return						
Quarter	20,780,532	-	-202,362	20,578,170	-0.97						

Morgan Stanley Prime Property LLC											
Periods Ending	Beginning Market Value (\$)	Net Cash Flow (\$)	Gain/Loss (\$)	Ending Market Value (\$)	% Return						
Quarter	10,426,303	-102,708	56,387	10,379,983	0.54						

PGIM Real Estate PRISA II (CF)										
Periods Ending	Beginning Market Value (\$)	Net Cash Flow (\$)	Gain/Loss (\$)	Ending Market Value (\$)	% Return					
Quarter	9,171,537	-57,500	174,010	9,288,047	1.90					

Grosvenor FOB (CF)										
Periods Ending	Beginning Market Value (\$)	Net Cash Flow (\$)	Gain/Loss (\$)	Ending Market Value (\$)	% Return					
Quarter	15,168,995	-	774,166	15,943,161	5.10					

Performance shown is net of fees and will not match subsequent comparative performance gross of fees.



# Kansas City Police Employees' Retirement Systems KCPERS Civilian Employees Fee Schedule

Manager	Fee Schedule	Aggregate Assets (\$)	Estimated Annual Fee (%)	Market Value as of 12/31/2024	Estimated Annual Fee (\$)
LSV Global Large Cap Value (SA)	0.75 % of First \$25 M 0.65 % of Next \$25 M 0.55 % of Next \$50 M 0.45 % Thereafter	102,620,128	0.62	15,375,868	95,412
Artisan Global Opportunities (CF)	0.85% of Assets	15,217,579	0.85	15,217,579	129,349
NT Collective Daily ACW IM Lending (CF)	0.08 % of First \$50 M 0.05 % Thereafter	143,423,218	0.06	20,918,160	12,647
WTC-CTF Global Perspectives (CF)	1.00 % of Assets	69,107,177	1.00	10,548,040	105,480
GQG Partners Emg Mkts Eq (CF)	0.85 % of First \$25 M 0.80 % Thereafter	49,451,299	0.83	7,247,259	59,810
FCI Advisors (SA)	0.50 % of First \$5 M 0.40 % of Next \$5 M 0.30 % of Next \$10 M 0.20 % of Next \$10 M 0.12 % Thereafter	258,838,735	0.14	37,576,049	53,656
PIMCO:Income;Inst (PIMIX)	0.50 % of Assets	118,913,833	0.50	20,578,170	102,891
White Oak Fixed Income C LP	1.00% of Assets	81,347,685	1.00	11,728,413	117,284
Ares Pathfinder Core LP	1.05% of Assets	24,362,409	1.05	3,628,444	38,099
Morgan Stanley Prime Property LLC	0.84 % of Assets	71,287,388	0.84	10,379,983	87,192



### Kansas City Police Employees' Retirement Systems KCPERS Civilian Employees Fee Schedule

Manager	Fee Schedule	Aggregate Assets (\$)	Estimated Annual Fee (%)	Market Value as of 12/31/2024	Estimated Annual Fee (\$)
PGIM Real Estate PRISA II (CF)	1.20 % of First \$25 M 1.15 % of Next \$25 M 1.05 % of Next \$50 M 0.95 % of Next \$100 M 0.90 % of Next \$100 M 0.85 % Thereafter	63,836,508	1.15	9,288,047	106,618
Grosvenor FOB (CF)	1.15 % of First \$25 M 1.00 % of Next \$25 M 0.80 % of Next \$50 M 0.60 % Thereafter	109,513,308	0.91	15,943,161	144,793
Coltv. Short Term Invt. Fund	0.15 % of Assets	8,201,345	0.15	3,895,447	5,843

#### Fee Notes:

White Oak Fixed Income C LP - Fee structure is 1.25% when aggregate assets are below \$10M, and 1.00% when aggregate assets are above \$10M.

Ares Pathfinder Core LP has an incentive fee of 15% over a 6% annualized hurdle.

The incentive fee for Morgan Stanley Prime Property LLC for each calendar year is capped at 35 basis points per annum.

The fee schedule shown for PGIM Real Estate PRISA II (CF) represents the maximum annual fee and may be lower depending on the fund's operating cash flow.

Grosvenor FOB (CF) fee has a 75 basis point minimum. The fee schedule shown for Grosvenor FOB (CF) excludes the underlying manager's fees.

The annual management fee for Abbott Capital Private Equity VI LP is 1.00% with 0% carried interest for initial 8 years thereafter the fee is reduced by 10% per year.

JP Morgan Private Equity III (CF) consists of three separate funds: European Corporate Finance Investors III, U.S. Corporate Finance Investors III, and Venture Capital Investors III. The annual management fee pertains to the percentage of committed capital, is level for the first eight years, and is then reduced each successive year by 10% of the preceding year's fee. Each fund is also subject to an incentive/carried interest fee, which is 10% for secondary partnership investments and 20% for direct co-investments.

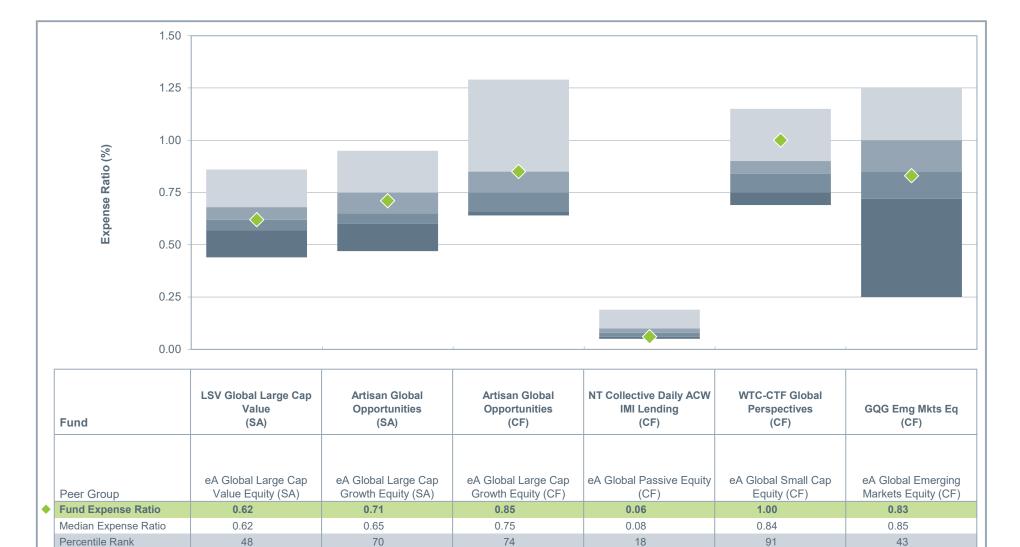
European and U.S. Corporate Finance Investors III
Management fee for initial 8 years: 0.90%
Average fee over 15 years: 0.76%

Venture Capital Investors III Management fee for initial 8 years: 1.10% Average fee over 15 years: 0.93%

Mutual fund fees are sourced from Morningstar and/or the investment manager.



Population



Fund Expense Ratios are intuitively ranked (i.e., a lower expense ratio yields a better percentile rank than a higher expense ratio). The fee peer groups consist of only institutional share classes.

87

107

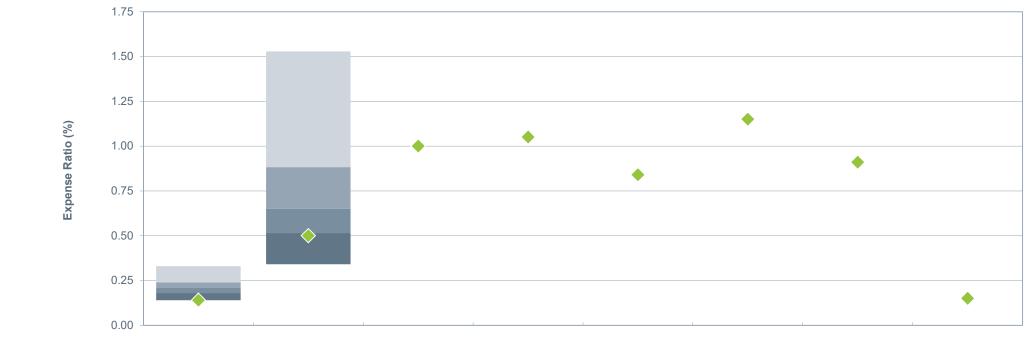


254

30

15

24



	Fund	FCI Advisors (SA)	PIMCO:Income;Inst (PIMIX)	White Oak Fixed Income C LP *	Ares Pathfinder Core LP *	Morgan Stanley Prime Property LLC *	PGIM Real Estate PRISA II (CF) *	Grosvenor FOB (CF) *	Coltv. Short Term Invt. Fund *
	Peer Group	eA US Core Fixed Income (SA)	Multi-Sector General Bond (MF)	N/A	N/A	N/A	N/A	N/A	N/A
•	Fund Expense Ratio	0.14	0.50	1.00	1.05	0.84	1.15	0.91	0.15
	Median Expense Ratio	0.21	0.65	N/A	N/A	N/A	N/A	N/A	N/A
	Percentile Rank	6	74	N/A	N/A	N/A	N/A	N/A	N/A
	Population	215	124	N/A	N/A	N/A	N/A	N/A	N/A

Fund Expense Ratios are intuitively ranked (i.e., a lower expense ratio yields a better percentile rank than a higher expense ratio). The fee peer groups consist of only institutional share classes. Funds with no applicable fee peer groups are denoted with an asterisk (\*).

As of December 31, 2024



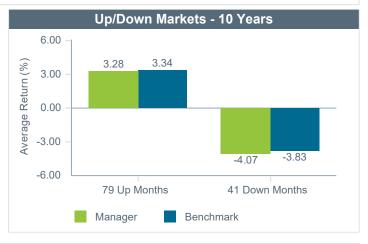
# **Investment Manager Profiles**

# Manager: LSV Global Large Cap Value (SA)

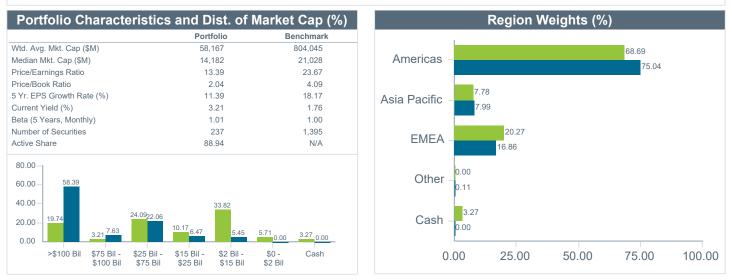
Peer Group: IM Global Large Cap Value Equity (SA+CF)

	Performance													
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2023	2022	2021	2020	2019			
Manager	-3.05	10.56	5.79	8.40	7.44	8.14	16.57	-8.13	22.90	2.87	26.36			
Benchmark	-0.16	18.67	6.34	11.17	10.24	9.95	23.79	-18.14	21.82	15.90	27.67			
Difference	-2.89	-8.11	-0.55	-2.76	-2.80	-1.81	-7.22	10.01	1.08	-13.03	-1.31			
Peer Group Median	-3.93	10.49	4.99	8.27	7.65	8.01	19.40	-10.19	19.23	6.89	24.33			
Rank	37	50	42	47	53	48	67	35	14	70	34			
Population	121	121	115	110	102	87	131	133	133	141	148			









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

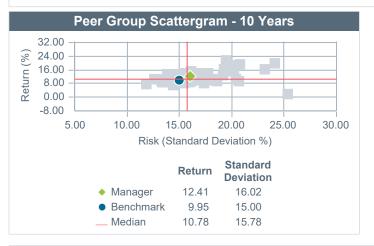


# Manager: Artisan Global Opportunities (SA)

# Benchmark: MSCI Wrld Index (USD) (Net)

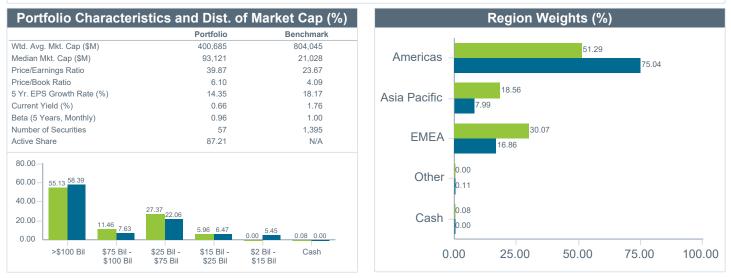
Peer Group: IM Global Large Cap Growth Equity (SA+CF)

	Performance													
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2023	2022	2021	2020	2019			
Manager	-1.15	16.63	0.84	10.85	11.31	12.41	24.57	-29.41	15.26	41.63	37.23			
Benchmark	-0.16	18.67	6.34	11.17	10.24	9.95	23.79	-18.14	21.82	15.90	27.67			
Difference	-0.99	-2.04	-5.50	-0.31	1.07	2.46	0.78	-11.27	-6.55	25.73	9.56			
Peer Group Median	-1.55	16.15	3.34	10.76	10.67	10.78	22.78	-23.01	17.88	29.21	31.63			
Rank	47	48	76	50	41	26	39	77	64	23	15			
Population	133	131	128	119	107	93	142	140	136	135	136			









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

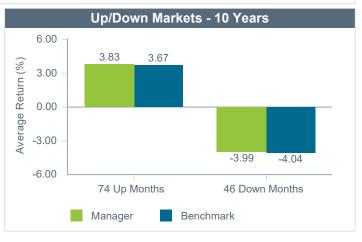


# Manager: WTC-CTF Global Perspectives (CF)

# Peer Group: IM Global Small Cap Equity (SA+CF) Performance OTD 1 3 5 7 10 2

	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2023	2022	2021	2020	2019
Manager	-4.18	8.19	2.26	8.35	6.70	8.58	15.78	-14.63	21.78	14.66	22.35
Benchmark	-3.26	7.66	0.76	6.68	5.70	7.26	16.84	-18.67	16.10	16.33	24.65
Difference	-0.92	0.53	1.50	1.67	1.00	1.32	-1.06	4.04	5.68	-1.67	-2.30
Peer Group Median	-3.85	9.52	0.88	8.88	7.63	8.94	18.14	-20.59	21.14	17.53	26.40
Rank	60	59	36	60	78	58	78	30	44	56	70
Population	20	20	19	17	14	11	25	26	26	28	29



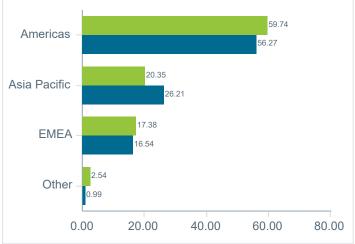




### Portfolio Characteristics and Dist. of Market Cap (%)

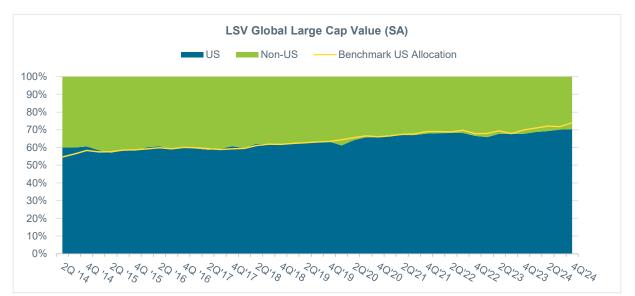


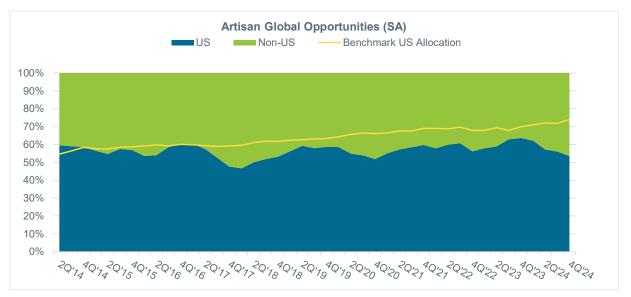
**Region Weights (%)** 

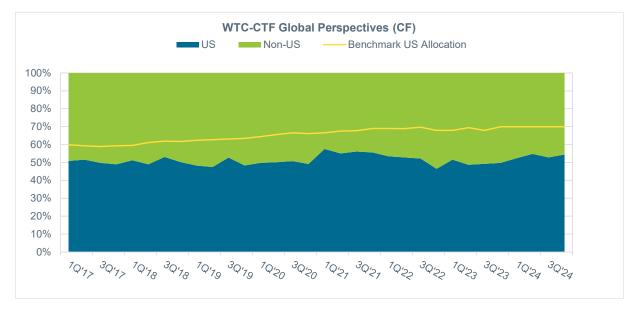


Performance shown is gross of fees and product specific. Calculation is based on monthly periodicity. Parentheses contain percentile ranks.









Global allocations shown for WTC-CTF Global Perspectives (CF) prior to KCPERS inception are provided by the manager.



# Manager: NT Collective Daily ACW IM Lending (CF)

Benchmark: MSCI ACW IM Index (USD) (Net) Peer Group: IM Global Equity (SA+CF)

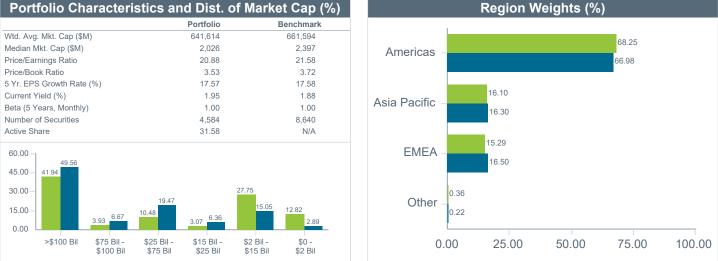
	Performance													
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2023	2022	2021	2020	2019			
Manager	-1.16	16.74	5.30	10.08	9.23	N/A	21.91	-17.95	18.55	16.75	26.88			
Benchmark	-1.24	16.37	4.90	9.67	8.78	9.00	21.58	-18.40	18.22	16.25	26.35			
Difference	80.0	0.37	0.40	0.41	0.44	N/A	0.33	0.46	0.33	0.50	0.52			
Peer Group Median	-2.85	12.41	4.36	9.28	9.02	9.43	20.16	-16.63	19.13	15.86	27.02			
Rank	33	32	40	42	48	N/A	42	57	55	46	51			
Population	504	501	484	452	411	347	561	578	573	604	624			







#### Portfolio Characteristics and Dist. of Market Cap (%)



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



### Manager: GQG Partners Emg Mkts Eq (CF)

#### As of December 31, 2024

#### Benchmark: MSCI Emg Mkts Index (USD) (Net) **Peer Group:** IM Emerging Markets Equity (SA+CF)

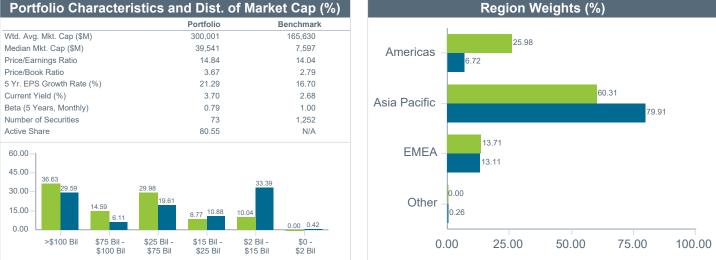
Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2023	2022	2021	2020	2019
Manager	-7.48	6.46	4.04	8.57	7.09	N/A	33.36	-20.68	-0.61	34.80	23.62
Benchmark	-8.01	7.50	-1.92	1.70	1.38	3.64	9.83	-20.09	-2.54	18.31	18.42
Difference	0.52	-1.05	5.96	6.88	5.71	N/A	23.53	-0.59	1.94	16.50	5.20
Peer Group Median	-6.81	8.08	-0.24	3.65	2.88	4.96	12.91	-19.54	1.13	18.31	20.15
Rank	63	68	22	15	9	N/A	2	58	60	15	33
Population	281	285	275	255	229	199	320	329	336	362	380







#### Portfolio Characteristics and Dist. of Market Cap (%)



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



#### Manager: FCI Advisors (SA)

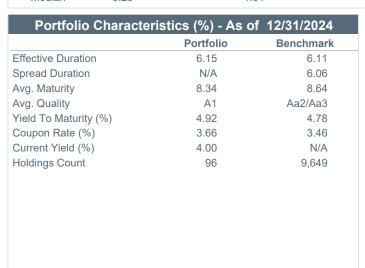
### Benchmark: Bloomberg US Govt Crdt Bond Index Peer Group: IM U.S. Broad Market Core Fixed Income (SA+CF)

Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2023	2022	2021	2020	2019
Manager	-2.95	1.73	-2.23	0.25	1.59	1.89	6.08	-13.41	-1.92	10.49	10.01
Benchmark	-3.08	1.18	-2.59	-0.21	1.12	1.50	5.72	-13.58	-1.75	8.93	9.71
Difference	0.13	0.55	0.35	0.47	0.47	0.39	0.36	0.17	-0.17	1.56	0.30
Peer Group Median	-2.99	1.91	-2.01	0.24	1.47	1.85	5.98	-12.95	-1.24	8.34	9.17
Rank	43	59	73	50	37	47	48	80	94	6	10
Population	124	124	122	122	119	116	138	146	152	160	162









Sector Distribution (%) - As of 12/31/2024



Performance shown is gross of fees and client specific. Calculation is based on monthly periodicity.



#### Manager: PIMCO:Income;Inst (PIMIX)

### Benchmark: Bloomberg US Agg Bond Index

Peer Group: IM Multi-Sector General Bond (MF)

	Performance										
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2023	2022	2021	2020	2019
Manager	-0.97	5.42	2.04	2.89	3.29	4.27	9.32	-7.81	2.61	5.80	8.07
Benchmark	-3.06	1.25	-2.41	-0.33	0.97	1.35	5.53	-13.01	-1.55	7.51	8.72
Difference	2.09	4.17	4.45	3.22	2.32	2.93	3.79	5.20	4.15	-1.71	-0.65
Peer Group Median	-1.26	4.87	0.36	1.77	2.43	2.98	8.16	-11.72	1.51	6.49	9.99
Rank	37	42	13	19	16	4	30	18	33	59	77
Population	473	466	438	352	297	228	464	469	445	401	386

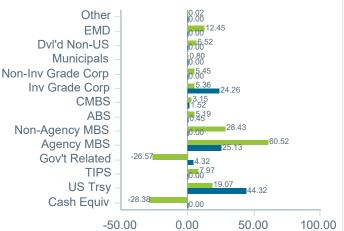








#### Sector Distribution (%) - As of 12/31/2024



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



#### Manager: Morgan Stanley Prime Property LLC

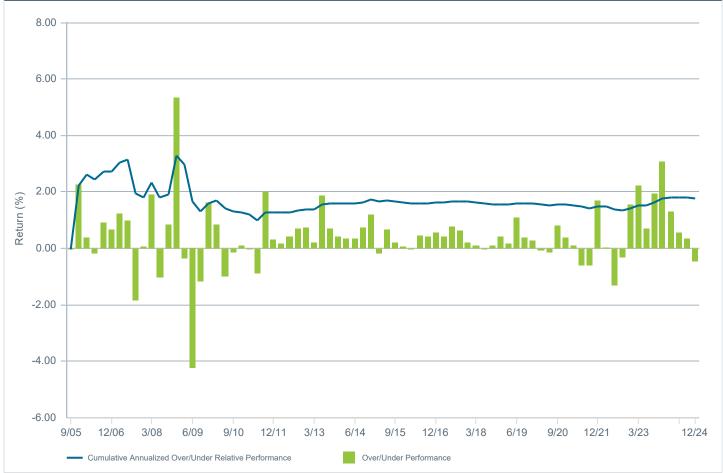
Benchmark: NCREIF ODCE Index (AWA) (Gross)

Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2023	2022	2021	2020	2019
Manager	0.70	0.29	0.83	5.18	6.03	7.79	-4.80	7.38	22.87	2.18	7.40
Benchmark	1.16	-1.43	-2.32	2.87	3.99	5.88	-12.02	7.47	22.17	1.19	5.34
Difference	-0.46	1.72	3.15	2.31	2.04	1.91	7.21	-0.09	0.71	0.99	2.06



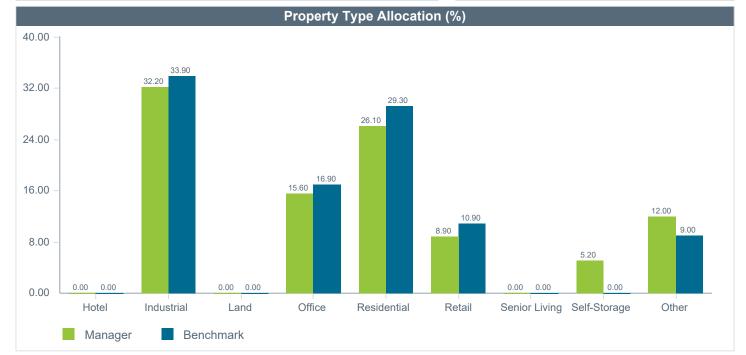
Actual Correlation - 10	rears
	Actual Correlation
NCREIF ODCE Index (AWA) (Gross)	0.96
S&P 500 Index (Cap Wtd)	-0.24
Russell 2000 Index	-0.25
MSCI EAFE Index (USD) (Net)	-0.29
MSCI Emg Mkts Index (USD) (Net)	-0.29
Bloomberg US Agg Bond Index	-0.31
Bloomberg US Trsy US TIPS Index	-0.17
Wilshire US REIT Index	0.00
HFRI FOF Comp Index	-0.28
Bloomberg Cmdty Index (TR)	0.19
ICE BofA 3 Mo US T-Bill Index	-0.65
Cons Price Index (Unadjusted)	0.34

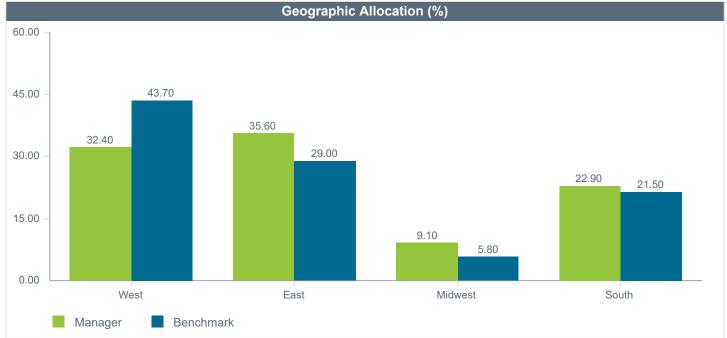
#### Relative Performance - Since Inception





#### **Investment Strategy Investment Profile Fund Inception** 1973 The Fund pursues a diversified core real estate strategy that invests in assets with stable, highly predictable cash flow returns. The Fund targets Legal Structure LLC high quality warehouse distribution and storage facilities, Class A multifamily **Fund Structure Open-End** communities, office buildings, top tier malls, retail, student housing, Gross Real Estate Assets (mm) \$ 41,273 healthcare-related real estate, and self-storage assets in targeted primary Fund Leverage % 26.40 markets. The Fund favors investing in major metropolitan markets and Portfolio Occupancy % 91.90 secondary markets expected to achieve above-average economic performance and believes that those cities offer better liquidity, more diverse Cash Reserve % 0.20 tenant bases, and stronger resilience to market cycles. It operates with Number of Investments 532 leverage of 50% or less and may invest up to 15% of its gross assets in Number of Limited Partners 475 higher-risk, value-added real estate investment opportunities.





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. Allocation to "Other" consists of entertainment, parking, data center, and operating land.

## KVK

### Manager: PGIM Real Estate PRISA II (CF)

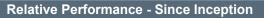
Benchmark: NCREIF ODCE Index (AWA) (Gross)

Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2023	2022	2021	2020	2019
Manager	2.18	-1.37	-2.46	2.94	4.50	6.70	-12.17	7.13	23.30	1.03	7.52
Benchmark	1.16	-1.43	-2.32	2.87	3.99	5.88	-12.02	7.47	22.17	1.19	5.34
Difference	1.02	0.06	-0.14	0.07	0.51	0.83	-0.16	-0.34	1.13	-0.16	2.18



#### -6.00 S&P 500 Index Bloomberg US Manager Benchmark (Cap Wtd) Agg Bond Index Standard Deviation 6.05 5.52 15.46 5.27 0.78 Sharpe Ratio 0.74 0.67 -0.05 Downside Risk 3.19 2.78 9.61 3.56 Excess Return 4.96 4.14 11.97 -0.28

Actual Correlation - 10	Years
	Actual Correlation
NCREIF ODCE Index (AWA) (Gross)	0.97
S&P 500 Index (Cap Wtd)	-0.30
Russell 2000 Index	-0.25
MSCI EAFE Index (USD) (Net)	-0.36
MSCI Emg Mkts Index (USD) (Net)	-0.36
Bloomberg US Agg Bond Index	-0.33
Bloomberg US Trsy US TIPS Index	-0.24
Wilshire US REIT Index	-0.07
HFRI FOF Comp Index	-0.29
Bloomberg Cmdty Index (TR)	0.14
ICE BofAML 3 Mo US T-Bill Index	-0.70
Cons Price Index (Unadjusted)	0.32



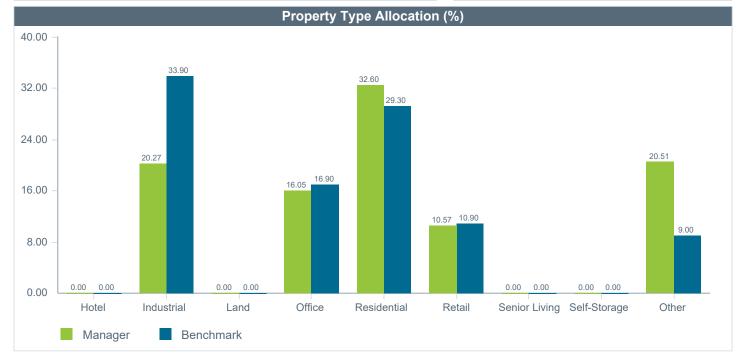


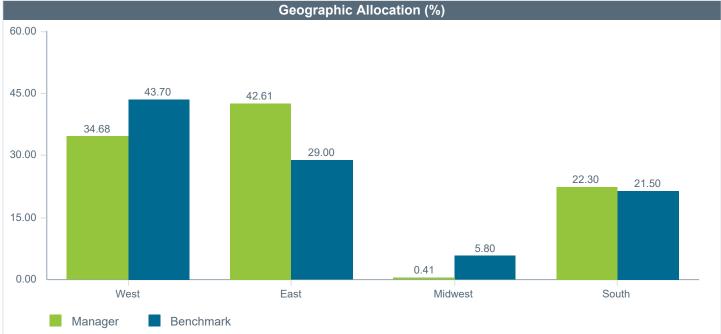


#### Investment Strategy

The Fund pursues a diversified core-plus real estate strategy that seeks to generate a total return before fees of 9.0% to 12.0% annually by structuring investments to enhance risk-adjusted returns. Investments may be made through direct property ownership or indirectly through such vehicles as joint ventures, general or limited partnerships, limited liability companies, mortgage loans and other loan types, including mezzanine debt, and debt secured by an interest in the borrowing entity or interests in companies or entities that directly or indirectly hold real estate or real estate interests. It operates with a leverage limit of 40% and may invest up to 35% of its gross assets in higher-risk, non-core real estate investment opportunities.

Investment Profile	
Fund Inception	1980
Legal Structure	REIT
Fund Structure	Open-End
Gross Real Estate Assets (mm) \$	15,439
Fund Leverage %	41.55
Portfolio Occupancy %	87.62
Cash Reserve %	1.93
Number of Investments	129
Number of Limited Partners	117





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. Allocation to "Other" consists of entertainment, parking, data center, and operating land.



#### Manager: Grosvenor Institutional Partners (CF)

Benchmark: HFN FOF Multi-Strat Index (Net)

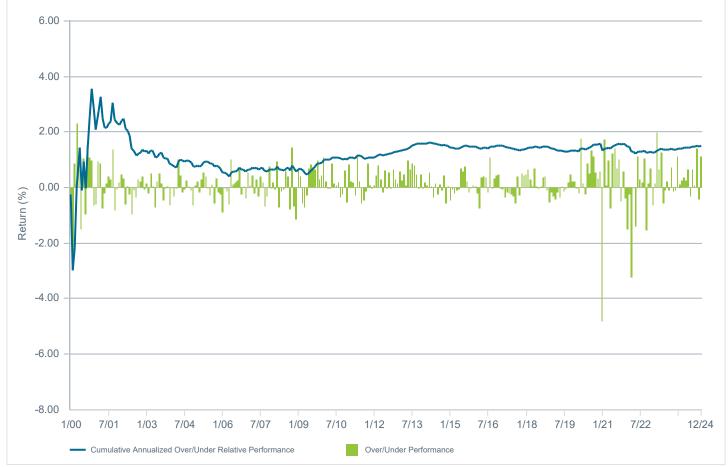
Performance											
	QTD	1 Year	3 Years	5 Years	7 Years	10 Years	2023	2022	2021	2020	2019
Manager	4.68	13.02	4.86	7.84	6.23	5.19	8.26	-5.76	7.87	17.24	6.14
Benchmark	2.51	7.25	3.50	5.38	4.24	3.56	4.80	-1.35	6.77	9.79	6.75
Difference	2.17	5.77	1.36	2.46	1.98	1.63	3.46	-4.41	1.10	7.46	-0.61



#### Actual Correlation 0.83 HFN FOF Multi-Strat Index (Net) S&P 500 Index (Cap Wtd) 0.58 Russell 2000 Index 0.54 MSCI EAFE Index (USD) (Net) 0.56 MSCI Emg Mkts Index (USD) (Net) 0.45 Bloomberg US Agg Bond Index 0.11 Bloomberg US Trsy US TIPS Index 0.18 Wilshire US REIT Index 0.37 HFRI FOF Comp Index 0.82 Bloomberg Cmdty Index (TR) 0.31 ICE BofAML 3 Mo US T-Bill Index 0.04 Cons Price Index (Unadjusted) -0.06

**Actual Correlation - 10 Years** 





Performance shown is net of fees and product specific. Calculation is based on monthly periodicity.



#### Kansas City Police Employees' Retirement Systems Grosvenor FOB

Investment Strategy

Grosvenor manages a customized hedge fund of fund portfolio for KCPERS, Grosvenor FOB Fund. The customized portfolio is structured to meet KCPERS specific needs of seeking a superior absolute and risk-adjusted rate of return, with low performance volatility, low correlations with global equity and fixed-income markets, over a full market cycle, and to preserve capital during challenging market environments. Specifically, the Fund seeks to generate a return of treasury bills + 600 basis points over a full market cycle, an annualized standard deviation of less than 10%, and a beta to equity markets of less than 0.4.

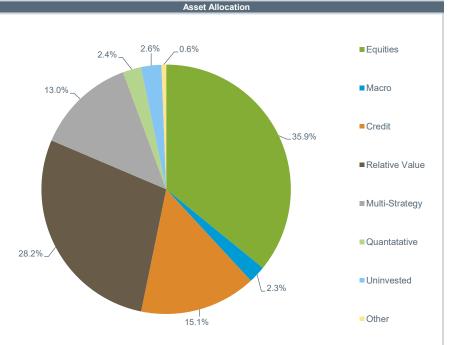
Strategy	Allocation as of 12/31/2024
Equities	35.9%
Macro	2.3%
Credit	15.1%
Relative Value	28.2%
Multi-Strategy	13.0%
Quantitative	2.4%
Uninvested	2.6%
Other	0.6%
	Stratogy Porformance Attribution

Strategy Ferrormance Attribution									
	QTD Rate Of Return	QTD Contrib to Rate Of Return	YTD Contrib to Rate Of Return	Allocation as of 12/31/2024					
Equities	8.62%	3.08%	7.44%	35.9%					
Macro	2.36%	0.05%	0.41%	2.3%					
Credit	2.79%	0.44%	2.01%	15.1%					
Relative Value	5.19%	1.46%	4.35%	28.2%					
Multi-Strategy	5.30%	0.69%	1.03%	13.0%					
Quantitative	-2.15%	-0.06%	0.07%	2.4%					
Commodities				0.0%					
Uninvested				2.6%					
Other	-31.82%	-0.30%	-0.46%	0.6%					
TOTAL	5.10%	5.36%	14.85%	100%					
Macro Credit Relative Value Multi-Strategy Quantitative Commodities Uninvested Other	2.36% 2.79% 5.19% 5.30% -2.15%   -31.82%	3.08% 0.05% 0.44% 1.46% 0.69% -0.06%  -0.30%	7.44% 0.41% 2.01% 4.35% 1.03% 0.07%  -0.46%	2.3% 15.1% 28.2% 13.0% 2.4% 0.0% 2.6% 0.6%					

	Derivatives	Report - Expo	sure Table	
Exposure Category			Notional	
Exposure Category	Long	Short	Gross	Net
U.S. / Canada	120.1	98.2	218.3	21.9
Latin America	0.9	0.2	1.1	0.7
Europe - Developed	42.2	30.6	72.8	11.6
Europe - Emerging	0.2	0.5	0.7	-0.3
Asia - Japan	4.7	5.7	10.4	-1.0
Asia - Developed ex Japan	8.0	4.5	12.5	3.5
Asia - Emerging	2.4	1.6	4.0	0.8
Middle East/Africa	0.2	0.2	0.4	0.0
Global	23.9	24.7	48.6	-0.8
Portfolio Fund Cash	-	-	-	-
Grosvenor Fund Cash	-	-	-	-
Tail Risk Protection	-	-	-	-
Total Grosvenor Fund	202.6	166.2	368.8	-

Fund Liquidity Schedule as of 12/31/2024 - (with lockup) Cumulative % Amount 2,896 2.66 2.66 Daily Monthly 12.55 10,792 9.90 Quarterly 38,877 35.65 48.20 Semi-annually 11.948 10.96 59.15 Annually 20.620 18.91 78.06 Every 18 Months 2,967 2.72 80.78 Biannually 2,892 2.65 83.43 Triannually 1,084 0.99 84.43 Other 9,100 8.34 92.77 Designated/Illiquid 7,884 7.23 100.00

Data is as of 12/31/2024 unless otherwise noted. Notional exposures will differ slightly from Grosvenor due to rounding.



Fund Details as of 12/31/2024

Fund Assets (USD millions): 110

Number of Investment Managers: 21

Portfolio Type: Offshore Non-Plan Asset

Top 10 Investment Managers % of NAV: 67.20 Top 20 Investment Managers % of NAV: 94.78

Style Mandate: Broad Mandate Multi-Strategy Portfolios

Inception Date: August 1, 2014

Number of Portfolio Funds: 21

Currency: USD



## Addendum & Glossary

## Kansas City Police Employees' Retirement Systems Addendum

#### Performance Related Comments

- Performance shown for composites is net of fees, unless otherwise noted. Performance shown for managers is gross of fees except for Grosvenor Institutional Partners (CF) which is shown net of fees.
- RVK began monitoring the assets and performance of Kansas City Police Employees' Retirement System in 07/2013.
- Performance shown on manager pages reflect the Police Retirement System for all funds.
- Gross performance shown for White Oak Fixed Income C LP differs from the manager's due to a difference in performance calculation methods.
- Performance shown for Financial Counselors may differ from what is reported by the manager due to differences in bond pricing between the manager and the custodian.
- Performance for White Oak Fixed Income C LP, Morgan Stanley Prime Property LLC, PGIM Real Estate PRISA II (CF), Abbott Capital Private Equity LP (CF), and J.P. Morgan Private Equity III (CF) is reported on a quarterly basis. Performance for Direct Lending is not yet available.

#### Index Comments

- The Target Allocation Indices are calculated monthly and currently consists of 38% MSCI ACW IM Index (USD) (Net), 31% Bloomberg US Agg Bond Index, 10% S&P UBS Leveraged Loan Index +2%, 13% NCREIF ODCE Index (AWA) (Net), and 8% Long Term Absolute Return Custom Benchmark.
  - Prior to 09/2023, the Target Allocation Indices consisted of 38% MSCI ACW IM Index (USD) (Net), 31% Bloomberg US Agg Bond Index, 7% ICE BofAML 3 Mo US T-Bill Index+5%, 13% NCREIF ODCE Index (AWA) (Net), and 11% Long Term Absolute Return Custom Benchmark.
  - Prior to 07/2020, the Target Allocation Indices consisted of 37% MSCI ACW IM Index (USD) (Net), 30% Bloomberg US Agg Bond Index, 5% ICE BofAmL 3 Mo US T-Bill Index+5%, 11% NCREIF ODCE Index (AWA) (Net), 15% Long Term Absolute Return Custom Benchmark, and 2% Cambridge US Prvt Eq Index (1 Qtr Lag).
  - Prior to 04/2018, the Target Allocation Indices consisted of 37% MSCI ACW IM Index (USD) (Net), 30% Bloomberg US Agg Bond Index, 5% Real Return Custom Benchmark, 11% NCREIF ODCE Index (AWA) (Net), 15% Long Term Absolute Return Custom Benchmark, and 2% Cambridge US Prvt Eq Index (1 Qtr Lag).
  - Prior to 07/2017, the Target Allocation Indices consisted of 35% MSCI ACW IM Index (USD) (Net), 30% Bloomberg US Agg Bond Index, 5% Real Return Custom Benchmark, 10% NCREIF ODCE Index (AWA) (Net), 15% Long Term Absolute Return Custom Benchmark, and 5% Cambridge US Prvt Eq Index (1 Qtr Lag).
  - Prior to 11/2014, the Target Allocation Indices consisted of 35% MSCI ACW IM Index (USD) (Net), 30% Bloomberg US Agg Bond Index, 5% Real Return Custom Benchmark, 10% NCREIF Property Index, 15% Long Term Absolute Return Custom Benchmark, and 5% Cambridge US Prvt Eq Index (1 Qtr Lag).
  - Prior to 07/2014, the Target Allocation Indices consisted of 35% MSCI ACW IM Index (USD) (Net), 30% Bloomberg US Agg Bond Index, 5% Real Return Custom Benchmark, 10% NCREIF Property Index, 15% HFRI FOF Comp Index, and 5% Cambridge US Prvt Eq Index (1 Qtr Lag).
  - Prior to 03/2014, the Target Allocation Indices consisted of 15% S&P 500 Index (Cap Wtd), 11% Russell 2000 Index, 10% MSCI EAFE Index (USD) (Net), 10% MSCI Emg Mkts Index (USD) (Net), 24% Bloomberg A+ US Gov't/Crdt Index, 5% ICE BofAML US Hi Yld Master II Index, 5% Real Return Custom Benchmark, 5% NCREIF Property Index, 10% HFRI FOF Composite Index, 3% Venture Economics All Private Equity Index (1 Qtr Lag), and 2% FTSE 3 Mo T-Bill Index.
- The Long Term Absolute Return Custom Benchmark consists of 100% ICE BofAML 3 Mo US T-Bill Index+5.
  - Prior to 07/2020, the Long Term Absolute Return Custom Benchmark consisted of 70% ICE BofAML 3 Mo US T-Bill Index+5% and 30% Consumer Price Index+5%.
- The Absolute Return Custom Benchmark is calculated monthly using beginning of month manager weights applied to each corresponding benchmark return.
- S&P UBS Leveraged Loan Index +2% benchmark for Direct Lending and White Oak Fixed Income Fund C L.P. assumes a 0.00% return during interim quarter months and when corresponding fund performance is not yet available.

#### Market Value Comments

- Market values shown for White Oak Fixed Income C LP is as of 09/30/2024.
- Market Values shown for Ares Pathfinder Core LP is as of 09/30/2024.
- Market values shown for Abbott Capital Private Equity LP (CF) are as of 09/30/2024, adjusted for subsequent cash flows.
- Market values shown for J.P. Morgan Private Equity III (CF) are as of 09/30/2024, adjusted for subsequent cash flows.

#### Miscellaneous Comments

- Fidelity Strat RI Rtn (FSRRX) was liquidated on 03/30/2018 and White Oak Fixed Income C LP was funded with the proceeds.
- S&P UBS Leveraged Loan Index +2% benchmark for Direct Lending, White Oak Fixed Income C LP, and Ares Pathfinder Core LP assumes a 0.00% return during interim quarter months and when corresponding fund performance is not yet available.
- GMO:Bchmk-Fr All;III (GBMFX) was liquidated on 06/24/2020.
- GQG Partners Emg Mkts Eq (CF) was incepted on 10/21/2020.
- On 10/30/2020, assets invested in WTC-CIF II US Sm Cap 2000 Series 1 (CF) and WTC-CTF Intl Sm Cap Research Equity (CF) were liquidated and used to fund WTC-CTF Global Perspectives (CF). LSV Emg Mkts Equity (CF) and LSV Emg Mkts Sm Cap Equity (CF) were liquidated on 11/23/2020 and 11/20/2020, respectively.
- Ares Pathfinder Core was incepted on 07/01/2024.



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 guality 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:

<u>S&amp;P</u>	Moody's	Explanation	<u>S&amp;P</u>	Moody's	Explanation	
Higher C	redit Quality – I	nvestment Grade	Lower Cr	Lower Credit Quality – Below Investment Grade		
AAA	Aaa	Prime/Highest credit quality	BB+	Ba1	Speculative/Low credit quality	
AA+	Aa1	High credit quality	BB	Ba2		
AA	Aa2	0	BB-	Ba3		
AA-	Aa3		B+	B1	Highly speculative	
A+	A1	Upper-medium credit quality	В	B2	0 7 1	
А	A2		B-	B3		
A-	A3		CCC+	Caa1	Substantial credit/default risk	
BBB+	Baa1	Lower-medium credit quality	CCC	Caa2	Extremely speculative	
BBB	Baa2	i y	CCC-	Caa3	5 1	
BBB-	Baa3		CC	Са	Vulnerable to default	
	2000		C	Ca		
			D	C	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., 1<sup>st</sup> quartile, 2<sup>nd</sup> guartile, 3<sup>rd</sup> guartile, and 4<sup>th</sup> guartile). The median observation is where the 2<sup>nd</sup> guartile and 3<sup>rd</sup> guartile 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. Attribution to "Other" is the result of securities based in industries that do not fit into any GICS classification.

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. Attribution to "EMEA" represents securities based in Europe, the Middle East, and Africa. Attribution to "Other" is the result of securities based in countries/regions that do not fit into any MSCI classification.

Style - Stocks are classified into the following style boxes: large/mid/small vs. growth/neutral/value. Stocks are classified along large/mid/small categories at the time of the Russell index rebalancing, using the index market cap boundaries as cutoff points. Stocks are classified along growth/neutral/value categories at the time of the Russell index rebalancing, using the price/book ratio as supplied by S&P Capital IQ. Stocks in the Russell 3000 Index portfolio are sorted by price/book ratio; names with the highest price/book ratio that make up 1/3 of the total market capitalization are assigned to the growth category, and names that make up the subsequent 1/3 of the total market capitalization are assigned to the neutral category, while the balance of 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 inflationlinked maturity curve and the yield of the closest nominal Treasury maturity.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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



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

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

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

Estimated Plan Hedge Ratio - The estimate of how well a Plan's investment portfolio is hedged against changes in interest rates - a primary driver of funded status movements. This is calculated by dividing the dollar-weighted values of both the Plan asset duration by the liability duration and multiplying by the estimated funded status. An estimated plan hedge ratio of zero indicates that the Plan's liabilities have not been hedged, whereas a value of one indicates fully hedged.

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

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

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

#### Peer Groups -

Plan Sponsor Peer Groups - RVK utilizes the Mellon Analytical Solutions Trust Universe along with the Investment Metrics Plan Sponsor Universe. The combined Mellon Analytical Solutions Trust Universe and Investment Metrics Plan Sponsor Universe is used for comparison of total fund composite results and utilizes actual client performance compiled from consultant and custodian data. The Plan Sponsor Peer Group database includes performance and other quantitative data for over 2,100 plans which include corporate, endowment, foundation, public, and Taft Hartley plans. Investment Manager Peer Groups - RVK utilizes Investment Metrics' Peer Groups for investment manager peer comparison and ranking. The Investment Metrics Peer Group database includes performance and other quantitative data for over 840 investment management firms and 29,000 investments products, across more than 160 standard peer groups. Mutual Fund Peer Groups are net of fees.

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

1 - Highest Statistical Value 100 - Lowest Statistical Value

Example: American Funds AMCP;R-4 (RAFEX) is ranked in the 4<sup>th</sup> 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  $\geq 10\%$  of the beginning-period portfolio market value or any cash flow that causes RVK calculated performance to deviate from manager/custodian reported performance in excess of 5 basis points for a given month.

**Composites** - The Modified Dietz methodology is utilized to calculate asset class, sub-asset class, and total fund composite performance. The Modified Dietz method calculates a time-weighted total rate of return that considers the timing of external cash flows; however, it does not utilize interim period performance to mitigate the impact of significant cash in- and outflows to the composite.

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

Portfolio Characteristics & Distribution (%) - Due to disclosure guidelines set by each investment manager, portfolio characteristics and distribution percentages shown are as of the most recent date available.

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

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

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

Return - Compounded rate of return for the period.

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

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



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

Asset Class	<b>RVK Liquidity Rating</b>	Asset Class	<b>RVK Liquidity Rating</b>
Liquid Investments		Less Liquid Investments	
T-Bills and Treasurys	100	Fixed Income Plus Sector	50
Cash Equivalents	98	Stable Value (Plan Sponsor Directed)	50
TIPS	95	Hedge Funds of Funds	35
US Large Cap Equity	95		
Diversified Real Return	93		
Stable Value (Participant Directed)	91		
Global Equity	90	Not Liquid Investments	
Non-US Large Cap Equity	90	Core Real Estate	25
Global Tactical Asset Allocation	88	Core Plus Real Estate	15
MLPs	85	Non-Core Real Estate	5
US Mid Cap Equity	85	Private Equity	5
US SMid Cap Equity	85	Private Credit	5
US Small Cap Equity	85		
REITs	85		
Non-US Small Cap Equity	85		
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. An allocation to "Other" is the result of securities that do not fit into RVK's standardized classification, such as Catastrophe, CLOs, Common Stock, Convertibles, CRTs, Derivatives, Direct Loans, Emerging Markets Local Corporates, ETFs, FX Forwards, Infrastructure Debt, Reverse Repo, Swaps, Trade Finance, Unsecured Bonds, and Other Assets.

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:

Capital Appreciation	Capital Preservation	Inflation
Public Equity	Core Fixed Income	TIPS
Private Equity	CMBS Fixed Income	Bank Loans
Preferred Securities	Asset Backed Fixed Income	Core Real Estate
High Yield	Domestic Core Plus Fixed Income	Real Return
Convertible Fixed Income	Mortgage Backed Fixed Income	Inflation Hedges
TALF Funds	International Developed Fixed Income	REITs
Distressed Debt	Cash Equivalents	Commodities
Emerging Market Fixed Income	Stable Value	
Value Added Real Estate		
	Public Equity Private Equity Preferred Securities High Yield Convertible Fixed Income TALF Funds Distressed Debt Emerging Market Fixed Income	Public EquityCore Fixed IncomePrivate EquityCMBS Fixed IncomePreferred SecuritiesAsset Backed Fixed IncomeHigh YieldDomestic Core Plus Fixed IncomeConvertible Fixed IncomeMortgage Backed Fixed IncomeTALF FundsInternational Developed Fixed IncomeDistressed DebtCash EquivalentsEmerging Market Fixed IncomeStable Value

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

**Opportunistic Real Estate** 

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

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

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

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



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

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

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

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

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

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

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



# RVK

**Disclaimer of Warranties and Limitation of Liability** - This document was prepared by RVK, Inc. (RVK) and may include information and data from some or all of the following sources: client staff; custodian banks; investment managers; specialty investment consultants; actuaries; plan administrators/record-keepers; index providers; as well as other third-party sources as directed by the client or as we believe necessary or appropriate. RVK has taken reasonable care to ensure the accuracy of the information or data, but makes no warranties and disclaims responsibility for the accuracy or completeness of information or data provided or methodologies employed by any external source. This document is provided for the client's internal use only. It should not be construed as legal or tax advice. It does not constitute a recommendation by RVK or an offer of, or a solicitation for, any particular security and it is not intended to convey any guarantees as to the future performance of the investment products, asset classes, or capital markets. This document should not be construed as investment advice: it does not reflect all potential risks with regard to the client's investments and should not be used to make investment decisions without additional considerations or discussions about the risks and limitations involved. Any decision, investment or otherwise, made on the basis of this document is the sole responsibility of the client or intended recipient.