

November 30, 2022

Investment Meeting

BOSTON CHICAGO LONDON MIAMI NEW YORK PORTLAND SAN DIEGO

**MEKETA.COM** 



Agenda

## Agenda

- 1. Economic and Market Update
- 2. Executive Summary
- 3. 3Q22 Investment Report
- 4. Annual Private Equity Pacing Review
- 5. Update on Crow Real Estate Fund X
- 6. Memos in the Quarter
- 7. Presentation by Sanderson International Value
- 8. Roadmap
- 9. Appendix
  - Disclaimer, Glossary and Notes

## **Economic and Market Update**

Data as of September 30, 2022



## Commentary

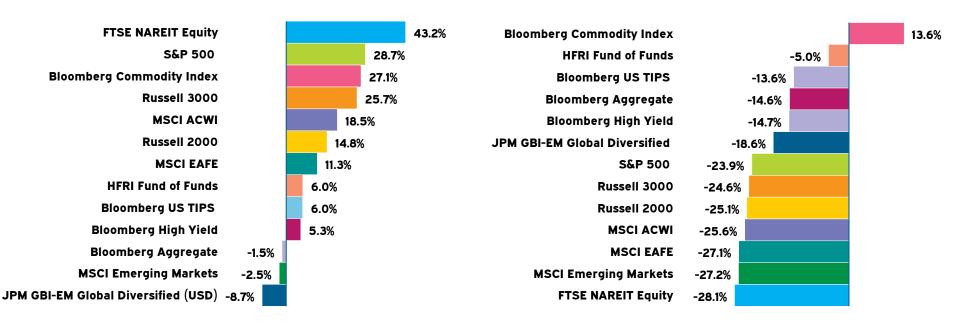
- → After a strong July, global markets sold off in August and September, leading to quarterly declines as slower growth and higher inflation weighed on sentiment.
  - The Federal Reserve maintained its aggressive tightening campaign with future hikes expected as US inflation continues to surprise to the upside and labor markets remain tight.
  - In **Europe**, inflation hit a multi-decade high on **energy prices**. In the UK, Liz Truss became the new prime minister with her government quickly announcing a fiscal package in September. The proposal was poorly received by markets, as it undermined efforts of the central bank to lower inflation.
  - Equity markets significantly declined for the month leading to quarterly losses with **international markets declining the most**. The war in Ukraine has elevated prices in Europe, while tight COVID-19 policies, slowing growth, and property market issues have weighed on China. Continued US dollar strength has been a further headwind.
  - For the quarter, in a reversal of the prior trend, **growth outpaced value** across the capitalization spectrum but continued to trail year-to-date.
  - Interest rates rose significantly across the US yield curve for the month and quarter with the curve remaining inverted (ten-year yield minus the two-year yield) by 44 basis points. This is by far the worst start to a calendar year for bond investors.
- → Persistently high inflation and the likely increased pace of the policy response, the war in Ukraine, lingering COVID-19 issues, and lockdowns in China will all have considerable consequences for the global economy.

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2021

### **Economic and Market Update**

2022 Through September



### Index Returns<sup>1</sup>

- → Except for emerging markets and the broad US investment grade bond market (Bloomberg Aggregate), most asset classes appreciated in 2021.
- → After a brief rally in July most asset classes declined significantly in August and September as it became clear further policy tightening would be taken to try to control inflation. Except for commodities, all major assets classes have experienced significant declines year-to-date.

<sup>&</sup>lt;sup>1</sup> Source: Bloomberg and FactSet. Data is as of September 30, 2022.



Year	S&P 500 Return (Jan. – Sep.)	Year	Bloomberg US Agg. Return (Jan. – Sep.)
1931	-34.3%	2022	-14.6%
1974	-32.8%	1981	-3.9%
2002	-28.2%	1994	-3.3
2022	-23.9%	1987	-2.9
2001	-20.4%	2013	-1.9
1962	-19.4%	2018	-1.6
2008	-19.3%	2021	-1.6
1937	-17.3%	1999	-0.7
1966	-15.1%	1996	0.6
1946	-11.3%	2008	0.6

## Top Ten Worst Starts to a Calendar Year<sup>1</sup>

- → Persistently high inflation, a jump in interest rates, and global growth concerns gave rise to one of the worst first nine months to a calendar year on record for both stocks and bonds.
- → The US bond market (Bloomberg Aggregate) had by far its worst start to a year on record while the US equity market (S&P 500) had its 4th worst start to a year.
- $\rightarrow$  The only other year that falls into both top ten lists is 2008, the year of the Global Financial Crisis.

<sup>&</sup>lt;sup>1</sup> Source: Bloomberg and InvestorForce. Data represents returns from January through September for each calendar year going back as far as data is available for each index.

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### **Economic and Market Update**

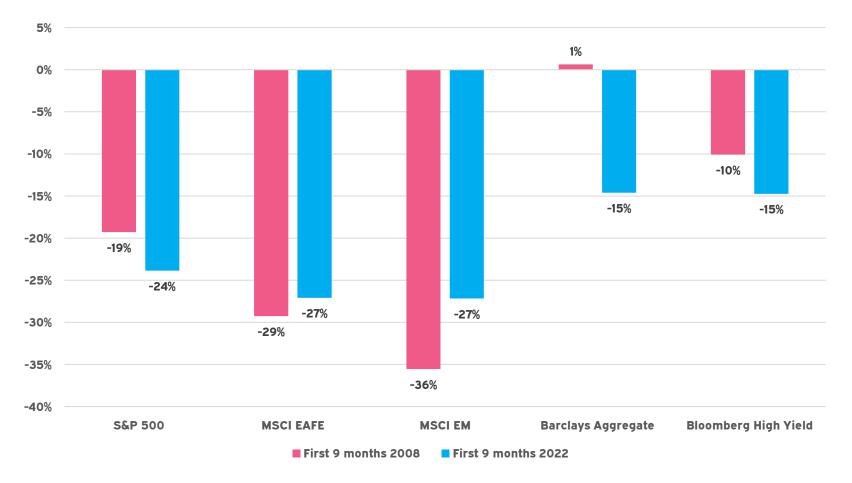
Period of Decline	Peak-to-Trough Decline of the S&P 500	Approximate Time to Recovery
Sept 1929 to June 1932	-85%	266 months
February 1937 to April 1942	-57%	48 months
May 1946 to February 1948	-25%	27 months
August 1956 to October 1957	-22%	11 months
December 1961 to June 1962	-28%	14 months
February 1966 to October 1966	-22%	7 months
November 1968 to May 1970	-36%	21 months
January 1973 to October 1974	-48%	69 months
September 1976 to March 1978	-19%	17 months
November 1980 to August 1982	-27%	3 months
August 1987 to December 1987	-32%	19 months
July 1990 to October 1990	-20%	4 months
July 1998 to August 1998	-19%	3 months
March 2000 to October 2002	-49%	56 months
October 2007 to March 2009	-57%	49 months
February 2020 to March 2020	-34%	5 months
January 2022 to September 2022	-25%	TBD
Average	-36%	39 months
Average ex. Great Depression	-33%	24 months

### Prior Drawdowns and Recoveries from 1926-2022<sup>1</sup>

- $\rightarrow$  The decline in the S&P 500 this year brings it into bear market territory.
- → Markets are continuing to reprice on inflation and growth data. The market made a new low in September, and it remains to be seen if the subsequent rise in the S&P 500 is sustainable or if it will continue to make lower lows.
- → Financial markets have experienced material declines with some frequency, and while some declines took time to recover, in all cases they eventually did.

<sup>&</sup>lt;sup>1</sup> Source: Goldman Sachs and Bloomberg. Recent peak to trough decline represents the January 3, 2022 – September 30, 2022, decline.

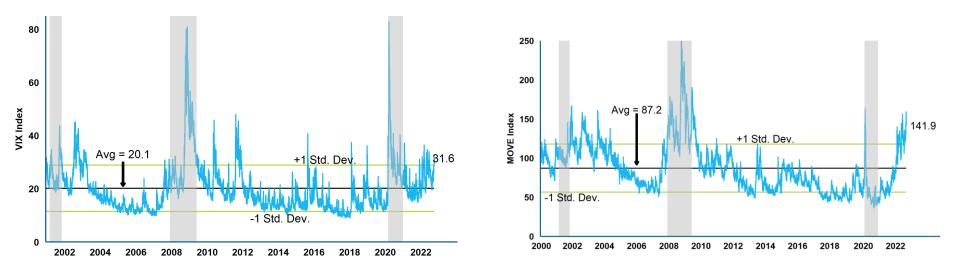




2008 vs. 2022

→ International equity markets are down nearly as much as 2008. US equity is down more. Bonds have had their worst year ever due to inflation and the Federal Reserve's actions.



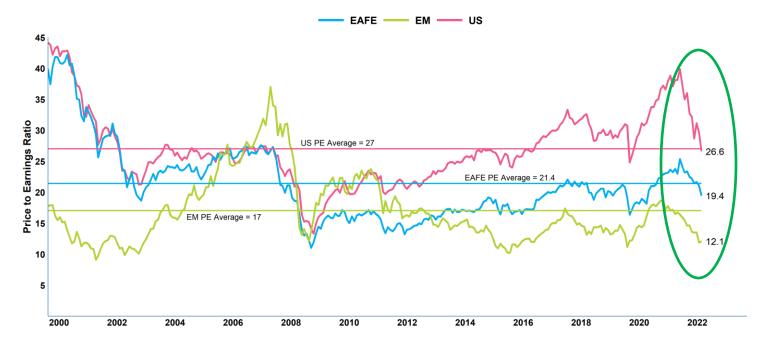


## Equity and Fixed Income Volatility<sup>1</sup>

- → Volatility in equities (VIX) and fixed income (MOVE) rose in September and finished higher overall for the quarter as the Federal Reserve and other central banks made it clear that they were committed to aggressively tightening monetary policy to fight high inflation.
- → Fixed income volatility remains particularly high due to the uncertain path of short-term interest rates given stubbornly high inflation. Issues related to the UK's announcement to offer tax breaks despite the central bank's efforts to fight inflation also contributed to volatility in fixed income markets.

<sup>&</sup>lt;sup>1</sup> Equity and Fixed Income Volatility – Source: Bloomberg. Implied volatility as measured using VIX Index for equity markets and the MOVE Index to measure interest rate volatility for fixed income markets. Data is as of September 2022. The average line indicated is the average of the VIX and MOVE values between January 2000 and the recent month-end respectively.



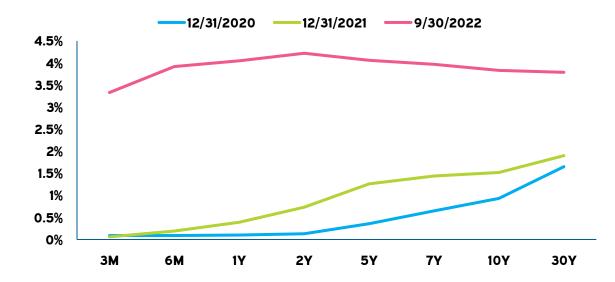


## Equity Cyclically Adjusted P/E Ratios<sup>1</sup>

- → September price declines brought US equity price-to-earnings ratios slightly below the long-term (21<sup>st</sup> Century) average.
- → International developed market valuations remain below the US and are below their own long-term average, with those for emerging markets the lowest and well under the long-term average.

<sup>&</sup>lt;sup>1</sup> US Equity Cyclically Adjusted P/E on S&P 500 Index. Source: Robert Shiller, Yale University, and Meketa Investment Group. Developed and Emerging Market Equity (MSCI EAFE and EM Index) Cyclically Adjusted P/E – Source: MSCI and Bloomberg. Earnings figures represent the average of monthly "as reported" earnings over the previous ten years. Data is as of September 30, 2022. The average line is the long-term average of the US, EM, and EAFE PE values from December 1999 to the recent month-end respectively.



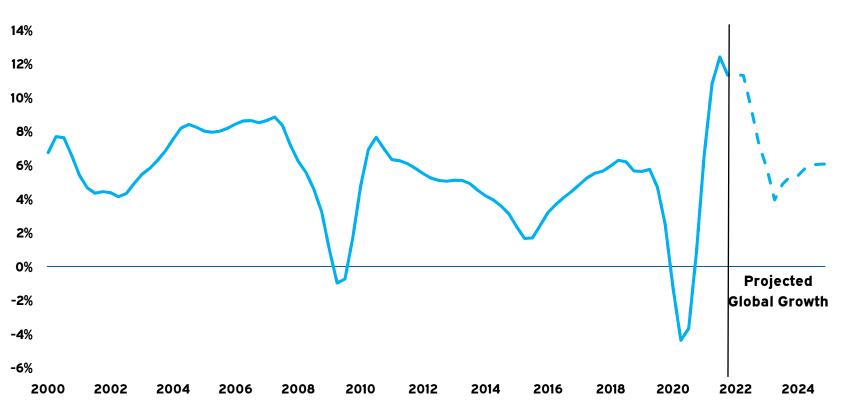


## US Yield Curve<sup>1</sup>

- $\rightarrow$  Rates across the yield curve remain far higher than at the start of the year.
- → In September, rates rose across the yield curve, finishing the quarter significantly higher. Yields on two-year Treasuries increased 0.79% just in the month of September bring the quarterly increase to 1.32%, while ten-year Treasuries rose 0.64% for the month and 0.82% for the quarter.
- → The Fed remains strongly committed to fighting inflation, as it increased rates another 75 basis points to a range of 3.0% and 3.25%. This was the fifth increase this year and the third consecutive increase of this amount.
- → The yield spread between two-year and ten-year Treasuries remained negative, finishing September at -0.44%. Inversions in the yield curve have historically often preceded recessions.

<sup>&</sup>lt;sup>1</sup> Source: Bloomberg. Data is as of September 30, 2022.



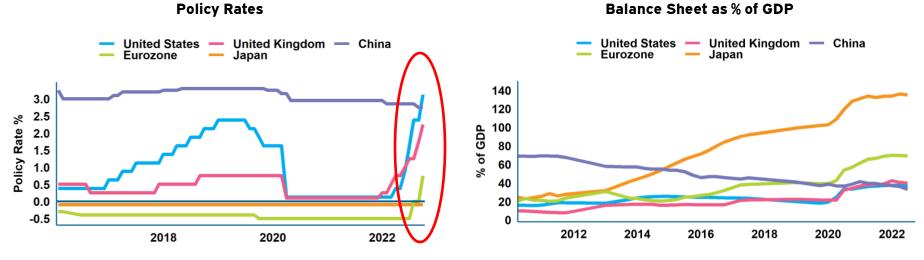


## Global Nominal Gross Domestic Product (GDP) Growth<sup>1</sup>

- → Global economies are expected to slow in 2022 compared to 2021, with risks of recession increasing given persistently high inflation and related tighter monetary policy.
- $\rightarrow$  The delicate balancing act of central banks trying to reduce inflation without dramatically impacting growth will remain key.

<sup>&</sup>lt;sup>1</sup> Source: Oxford Economics (World GDP, US\$ prices & PPP exchange rate, nominal, % change YoY). Updated September 2022. Nominal expectations for GDP remain much higher than real GDP expectations given the elevated inflation levels.



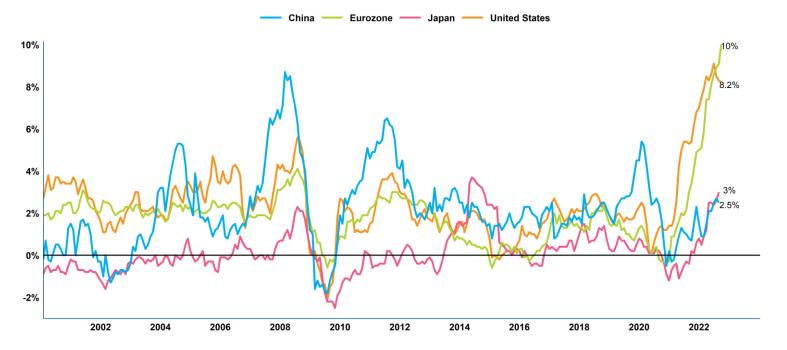


## Central Bank Response<sup>1</sup>

- → After global central banks took extraordinary action to support economies during the pandemic, including policy rate cuts and emergency stimulus through quantitative easing (QE), many are now aggressively reducing support in the face of high inflation.
- → The pace of withdrawing support varies across central banks with the US taking a more aggressive approach. The UK is also aggressively increasing rates, but recent talks of easing fiscal policy (this ultimately did not happen) created significant volatility that spilled over into other markets.
- → The one notable central bank outlier is China, where the central bank has lowered rates and reserve requirements in response to slowing growth.
- → The risk remains for a policy error, particularly overtightening, as record inflation, the war in Ukraine, and a tough COVID-19 policy in China could suppress global growth.

<sup>&</sup>lt;sup>1</sup> Source: Bloomberg. Policy rate data is as of September 30, 2022. China policy rate is defined as the medium-term lending facility 1 year interest rate. Balance sheet as % of GDP is based on quarterly data and is as of June 30, 2022.





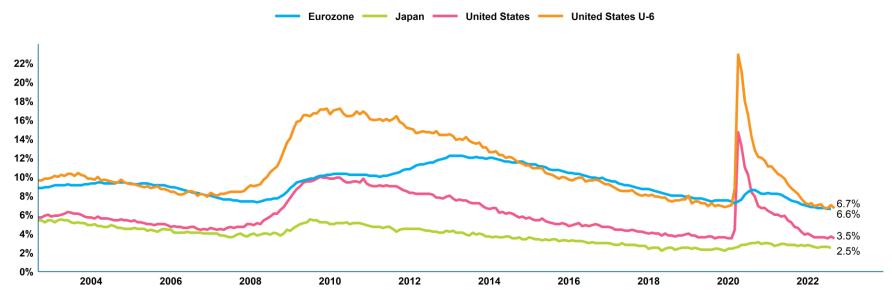
## Inflation (CPI Trailing Twelve Months)<sup>1</sup>

- → Inflation increased dramatically from the lows of the pandemic, particularly in the US and Eurozone where it has reached levels not seen in many decades.
- → Supply issues related to the pandemic, record monetary and fiscal stimulus, strict COVID-19 restrictions in China, and higher prices in many commodities driven by the war in Ukraine have been key global drivers of inflation.

<sup>&</sup>lt;sup>1</sup> Source: Bloomberg. Data is as of September 2022. The most recent data for Japan and China is as of August 31, 2022.



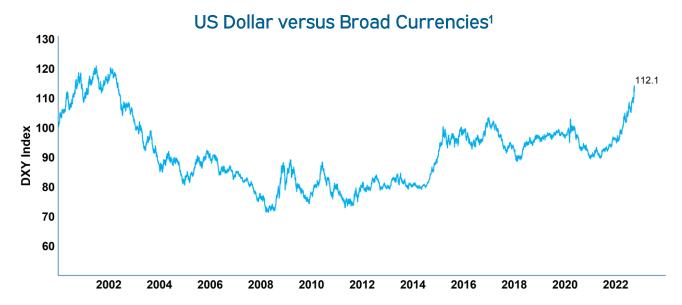
## Unemployment<sup>1</sup>



- → As economies have largely reopened, helped by vaccines for the virus, improvements have been seen in the labor market.
- $\rightarrow$  Despite slowing growth and high inflation the US labor market remains a bright spot. Unemployment in the US, which experienced the steepest rise from the pandemic, declined to pre-pandemic (3.5%) levels. The broader measure (U-6) that includes discouraged and underemployed workers declined but is much higher at 6.7%.
- → The strong labor market and higher wages, although beneficial for workers, motivates the Fed's efforts to fight inflation, likely leading to eventually higher unemployment.

<sup>&</sup>lt;sup>1</sup> Source: Bloomberg. Data is as of September 2022, for the US. The most recent data for Eurozone and Japanese unemployment is as of August 31, 2022.

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- → The US dollar continued to strengthen in September, increasing 7.1% overall for the quarter and reaching levels not seen in two decades.
- $\rightarrow$  The increased pace of policy tightening, stronger relative growth, and safe-haven flows all contributed to the dollar's strength this year.
- → The euro, yen, pound, and yuan have all experienced significant declines versus the dollar this year, adding to inflation.

<sup>&</sup>lt;sup>1</sup> Source: Bloomberg. Data as of September 30, 2022.



### Summary

## Key Trends in 2022:

- $\rightarrow$  The impacts of record high inflation will remain key, with market volatility likely to remain high.
- $\rightarrow$  The pace of **monetary tightening** globally will be faster than previously expected, with the risk of overtightening.
- $\rightarrow$  Valuations have significantly declined in the US to below long-term averages.
- → Outside the US, equity valuations remain lower in both emerging and developed markets, but major risks remain, including continued strength in the US dollar, higher inflation particularly weighing on Europe, and China maintaining its restrictive COVID-19 policies
- $\rightarrow$  Yields on nearly all fixed income investments are up materials vs. the start of the year.
- $\rightarrow$  Expect growth to slow globally in 2022 and into 2023 to the long-term trend or below. Inflation, monetary policy, and the war will all be key.
- → In the US the end of many fiscal programs is expected to put the burden of continued growth on consumers. Higher energy and food prices will depress consumers' spending in other areas
- $\rightarrow$  The stock market is a leading indicator and prolonged bull rallies often occur during recessions/times of depressed sentiment.

## **Executive Summary**



#### **Executive Summary**

## **3Q 22 Executive Summary**

Category	Results	Notes
Total Fund Performance	Negative	-4.9% (-\$54mm net investment change)
Performance vs. Benchmarks	Outperformed	-4.9% vs6.4% (static) and -7.1% (dynamic)
Performance vs. Peers	Underperformed	-4.9% vs3.8% median (88≞ percentile)
Asset Allocation Attribution Effects	Additive	Underweight international equity was additive
Active Public Managers vs. Benchmarks	Mixed	6 of 12 active managers beat respective benchmarks (after fees)
Active Public Managers vs. Peer Groups	Outperformed	7 of 11² active managers beat peer group median (after fees)
Compliance with Targets	In Compliance	All exposure within policy ranges

<sup>&</sup>lt;sup>1</sup> InvMetrics Public DB >\$1B net.

<sup>&</sup>lt;sup>2</sup> Excludes Aberdeen EMD. No appropriate peer group for Aberdeen blended currency emerging market debt. Peer groups only exist for local currency or USD strategies.



**Executive Summary** 

## Peer Rankings

 $\rightarrow$  The Fund ranks in the top quartile of \$1 billion+ plans over most time periods.

	<b>3</b> Q	22 (S&P 500	was - <b>4.9</b> %)		
As of 9/30/22	3Q 22	1 YR	3 YR	5 YR	10 YR
Peer Ranking	88	59	34	34	29
	2Q2	22 -  -  (S&P 500	was -16.1%)		
As of 6/30/22	2Q 22	1 YR	3 YR	5 YR	10 YR
Peer Ranking	29	31	9	15	14
	102	22 (S&P 500	was - <b>4.6</b> %)		
As of 3/31/22	1Q 22	1 YR	3 YR	5 YR	10 YR
Peer Ranking	55	30	17	19	21
	40	21 (S&P 500	was +11.0%)		
As of 12/31/21	4Q 21	1 YR	3 YR	5 YR	10 YR
Peer Ranking	79	10	24	12	20
	30	21 -  -  (S&P 500	was +0.6%)		
As of 9/30/21	3Q 21	1 YR	3 YR	5 YR	10 YR
Peer Ranking	5	6	5	11	19



### **Executive Summary**

## Peer Rankings (continued)

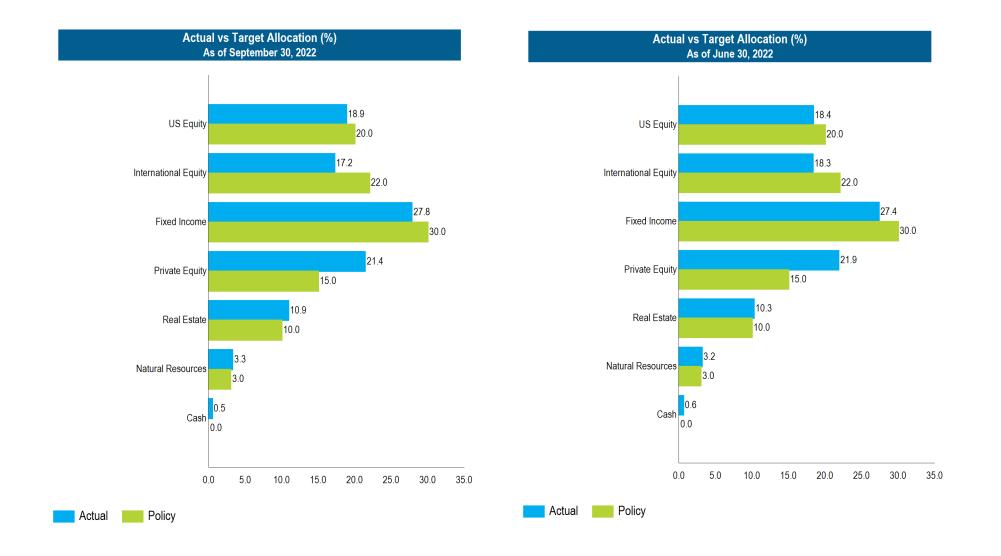
2Q21 (S&P 500 was +8.5%)											
As of 6/30/21	2Q 21	1 YR	З YR	5 YR	10 YR						
Peer Ranking	17	20	14	12	27						
1Q21 (S&P 500 was +6.2%)											
As of 3/31/21	1Q 21	1 YR	3 YR	5 YR	10 YR						
Peer Ranking	28	66	35	25	41						
	4Q2	20 (S&P 500	was +12.1%)								
As of 12/31/20	4Q 20	1 YR	3 YR	5 YR	10 YR						
Peer Ranking	35	20	20	22	34						
	30	20 (S&P 500	was +8.9%)								
As of 9/30/20	3Q 20	1 YR	3 YR	5 YR	10 YR						
Peer Ranking	22	44	34	25	41						
	2Q2	0 (S&P 500	was +20.5%)								
As of 6/30/20	2Q 20	1 YR	3 YR	5 YR	10 YR						
Peer Ranking	99	62	54	38	54						
	1Q2	20 (S&P 500	was -19.6%)								
As of 3/31/20	1Q 20	1 YR	3 YR	5 YR	10 YR						
Peer Ranking	5	8	8	8	25						

## **3Q22 Investment Report**

**Fund Summary** 

# ΜΕΚΕΤΑ

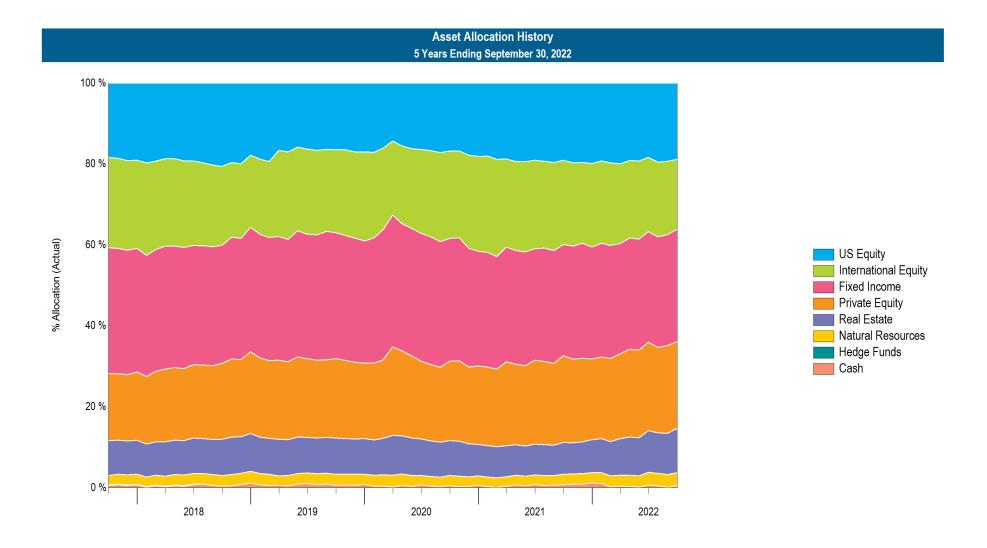
### **Austin Fire Fighters Relief and Retirement Fund**



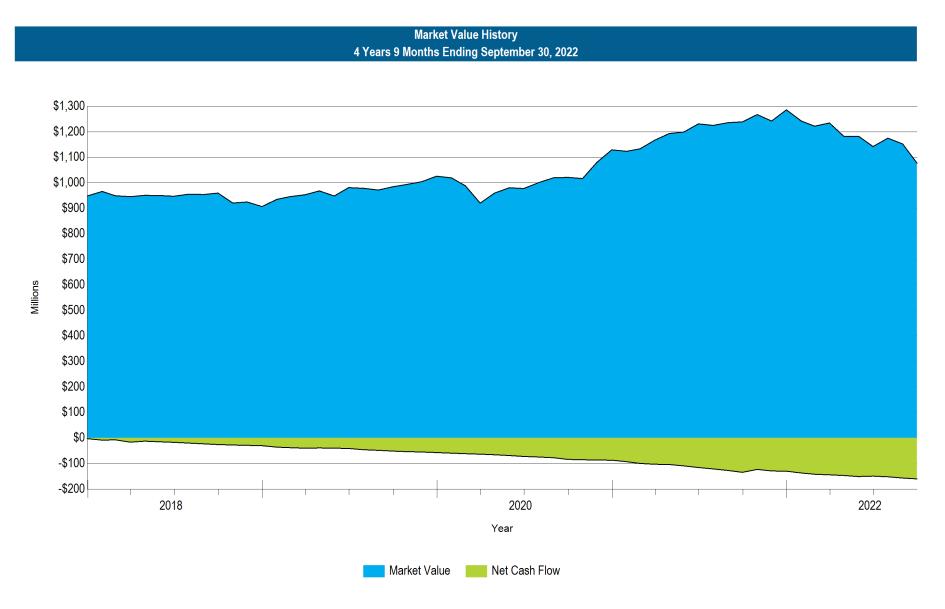


Allocation vs. Targets and Policy												
	Current Balance	Current Allocation	Policy	Policy Range	Within IPS Range?							
US Equity	\$203,247,467	19%	20%	13% - 27%	Yes							
International Equity	\$185,685,904	17%	22%	15% - 29%	Yes							
Fixed Income	\$299,675,600	28%	30%	20% - 40%	Yes							
Private Equity	\$230,766,482	21%	15%	5% - 25%	Yes							
Real Estate	\$117,507,066	11%	10%	0% - 20%	Yes							
Natural Resources	\$35,156,378	3%	3%	0% - 5%	Yes							
Cash	\$5,039,271	0%	<b>O</b> %	0% - 5%	Yes							
Total	\$1,077,078,168	100%	100%									





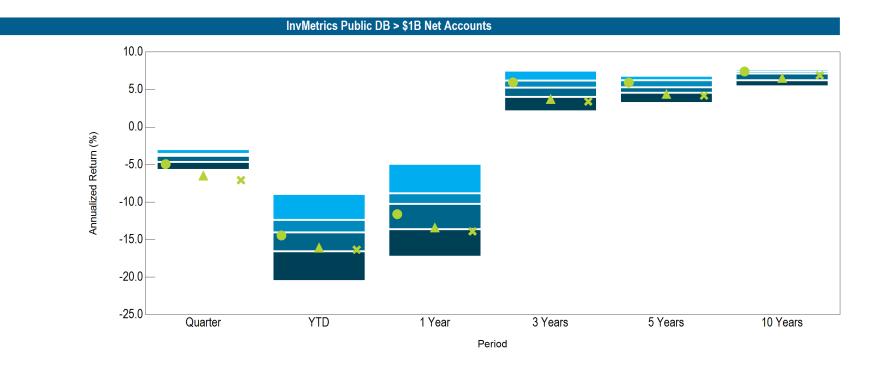








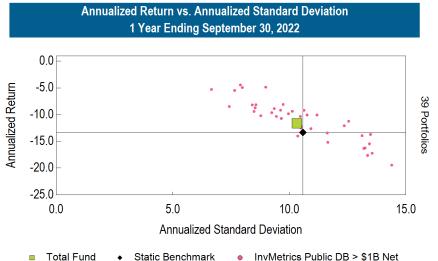




	Return (Rank)					
5th Percentile	-3.0	-9.0	-4.9	7.5	6.8	7.7
25th Percentile	-3.6	-12.4	-8.8	6.2	6.2	7.5
Median	-3.8	-14.0	-10.2	5.3	5.3	7.2
75th Percentile	-4.6	-16.5	-13.6	4.1	4.6	6.3
95th Percentile	-5.7	-20.5	-17.3	2.1	3.2	5.4
# of Portfolios	39	39	39	38	38	33
Total Fund	-4.9 (88)	-14.5 (59)	-11.6 (62)	5.9 (34)	5.9 (34)	7.4 (29)
Static Benchmark	-6.4 (99)	-16.1 (69)	-13.4 (74)	3.8 (80)	4.4 (78)	6.6 (64)
× Dynamic Benchmark	-7.1 (99)	-16.4 (75)	-13.9 (79)	3.4 (88)	4.2 (80)	6.9 (59)



Fund Summary | As of September 30, 2022



 Static Benchmark InvMetrics Public DB > \$1B Net

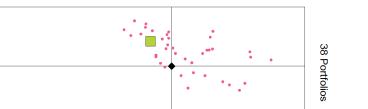


Annualized Standard Deviation

•

5.0

Static Benchmark



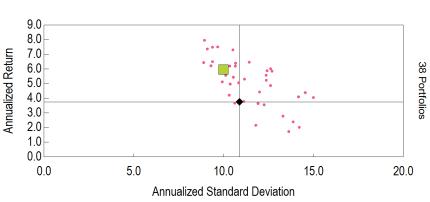
10.0

InvMetrics Public DB > \$1B Net



15.0

### 7.0 6.0

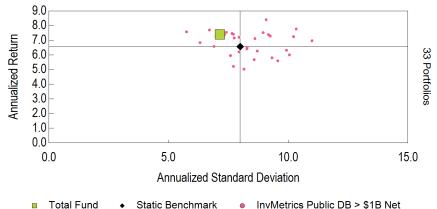


Annualized Return vs. Annualized Standard Deviation

3 Years Ending September 30, 2022

Total Fund Static Benchmark InvMetrics Public DB > \$1B Net

Annualized Return vs. Annualized Standard Deviation 10 Years Ending September 30, 2022



Total Fund

Annualized Return

2.0

1.0

0.0

0.0

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## Austin Fire Fighters Relief and Retirement Fund

	Asset Class Perf	ormanc	Asset Class Performance Summary (Net of Fees)												
	Market Value (\$) F	% of Portfolio	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	20 Yrs 2 (%)	5 Yrs (%)	S.I. (%)	S.I. Date			
Total Fund	1,077,078,168	100.0	-4.9	-14.5	-11.6	5.9	5.9	7.4	7.3	6.2	6.8	Mar-97			
Static Benchmark			-6.4	-16.1	-13.4	3.8	4.4	6.6				Mar-97			
Dynamic Benchmark			-7.1	-16.4	-13.9	3.4	4.2	6.9				Mar-97			
60% MSCI ACWI & 40% Barclays Agg			-5.9	-21.3	-18.1	1.3	2.9	4.9	6.3	5.2	5.6	Mar-97			
Domestic Equity	203,247,467	18.9	-3.3	-22.2	-15.9	6.9	7.5	10.2	9.6	6.9	7.9	Mar-97			
Russell 3000			-4.5	-24.6	-17.6	7.7	8.6	11.4	9.9	7.5	8.4	Mar-97			
International Equity	185,685,904	17.2	-11.3	-31.1	-31.8	-2.1	-1.9	3.6	5.7	3.9	4.7	Mar-97			
Spliced International Equity Benchmark			-9.9	-26.5	-25.2	-1.5	-0.8	3.0	6.4	4.0	4.4	Mar-97			
Private Equity	230,766,482	21.4	-4.5	-1.1	5.3	24.6	21.1	17.5			17.8	May-10			
Private Equity Benchmark			-15.2	-13.6	-14.0	8.3	8.2	12.8			13.9	May-10			
Fixed Income	299,675,600	27.8	-4.2	-15.8	-15.6	-2.7	-0.1	1.0	3.2	3.9	4.1	Mar-97			
Bloomberg US Aggregate TR			-4.8	-14.6	-14.6	-3.3	-0.3	0.9	3.1	4.0	4.2	Mar-97			
Real Estate	117,507,066	10.9	0.2	13.1	21.5	11.2	9.5	9.8			4.8	Dec-07			
NCREIF Property Index			0.6	9.4	16.1	9.9	8.6	9.5	8.9	9.4	6.9	Dec-07			
Natural Resources	35,156,378	3.3	-3.7	6.7	8.4	2.4	0.7			-	2.3	Feb-13			
S&P North American Natural Resources TR			-2.2	13.4	22.6	11.4	4.8	2.0	7.8	5.2	1.9	Feb-13			
Cash	5,039,271	0.5													



	Tr	ailing Ne	t Perforr	nance							
	Market Value (\$)	% of Portfolio	% of Sector	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	S.I. Date
Total Fund	1,077,078,168	100.0		-4.9	-14.5	-11.6	5.9	5.9	7.4	6.8	Mar-97
Static Benchmark				-6.4	-16.1	-13.4	3.8	4.4	6.6		Mar-97
Dynamic Benchmark				-7.1	-16.4	-13.9	3.4	4.2	6.9		Mar-97
60% MSCI ACWI & 40% Barclays Agg				-5.9	-21.3	-18.1	1.3	2.9	4.9	5.6	Mar-97
InvMetrics Public DB > \$1B Net Median				-3.8	-14.0	-10.2	5.3	5.3	7.2	6.7	Mar-97
InvMetrics Public DB > \$1B Net Rank				88	59	62	34	34	29	40	Mar-97
Domestic Equity	203,247,467	18.9	18.9	-3.3	-22.2	-15.9	6.9	7.5	10.2	7.9	Mar-97
Russell 3000				-4.5	-24.6	-17.6	7.7	8.6	11.4	8.4	Mar-97
eV All US Equity Net Median				-4.5	-23.8	-17.3	6.1	6.7	10.0	9.1	Mar-97
eV All US Equity Net Rank				31	41	43	39	40	46	88	Mar-97
Westwood Capital Large Cap Value	26,991,262	2.5	13.3	-4.0	-15.4	-7.6	4.8	7.1	9.9	8.2	Oct-01
Russell 1000 Value				-5.6	-17.8	-11.4	4.4	5.3	9.2	7.3	Oct-01
eV US Large Cap Value Equity Net Median				-5.6	-16.7	-10.0	5.7	6.2	9.5	8.0	Oct-01
eV US Large Cap Value Equity Net Rank				16	34	27	69	31	35	39	Oct-01
Westfield Small/Mid Cap Growth	55,391,372	5.1	27.3	0.1	-28.1	-26.0	8.6	9.0	10.9	11.8	Nov-02
Russell 2500 Growth				-0.1	-29.5	-29.4	4.8	6.3	10.3	10.5	Nov-02
eV US Small-Mid Cap Growth Equity Net Median				-1.0	-30.3	-28.0	6.5	8.5	10.4	10.4	Nov-02
eV US Small-Mid Cap Growth Equity Net Rank				38	26	35	27	41	38	22	Nov-02



	Market Value (\$)	% of Portfolio	% of Sector	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	S.I. Date
Vaughan Nelson Small Cap Value	56,705,540	5.3	27.9	-4.3	-16.5	-7.9	7.6	5.9		7.8	Jan-16
Russell 2000 Value				-4.6	-21.1	-17.7	4.7	2.9	7.9	7.3	Jan-16
eV US Small Cap Value Equity Net Median				-4.8	-20.3	-14.9	5.3	3.4	8.6	7.2	Jan-16
eV US Small Cap Value Equity Net Rank				45	17	8	24	12		35	Jan-16
SSgA S&P 500	64,159,292	6.0	31.6	-4.9	-23.9	-15.5	8.1	9.2	11.7	8.5	Feb-04
S&P 500				-4.9	-23.9	-15.5	8.2	9.2	11.7	8.5	Feb-04
eV US Large Cap Equity Net Median				-5.1	-22.5	-15.1	6.5	7.7	10.4	8.3	Feb-04
eV US Large Cap Equity Net Rank				45	58	52	27	30	25	47	Feb-04
International Equity	185,685,904	17.2	17.2	-11.3	-31.1	-31.8	-2.1	-1.9	3.6	4.7	Mar-97
Spliced International Equity Benchmark				-9.9	-26.5	-25.2	-1.5	-0.8	3.0	4.4	Mar-97
Baillie Gifford International Growth Fund	25,601,666	2.4	13.8	-10.6	-42.0	-44.7	-0.8	0.0	6.0	8.1	May-09
MSCI ACWI ex USA				-9.9	-26.5	-25.2	-1.5	-0.8	3.0	5.2	May-09
MSCI EAFE				-9.4	-27.1	-25.1	-1.8	-0.8	3.7	5.4	May-09
eV ACWI ex-US All Cap Growth Eq Net Median				-9.1	-35.9	-34.8	-0.4	0.9	4.6	7.3	May-09
eV ACWI ex-US All Cap Growth Eq Net Rank				84	87	93	55	62	23	25	May-09
Sanderson International Value	37,610,112	3.5	20.3	-12.9	-29.2	-28.3	-5.3	-4.3		1.3	Feb-13
MSCI EAFE Value				-10.2	-21.1	-20.2	-2.8	-2.7	2.4	1.1	Feb-13
MSCI EAFE				-9.4	-27.1	-25.1	-1.8	-0.8	3.7	2.6	Feb-13
eV EAFE All Cap Value Net Median				-10.3	-22.4	-21.0	-1.4	-1.5	3.6	2.9	Feb-13
eV EAFE All Cap Value Net Rank				91	98	99	99	94		81	Feb-13



	Market Value (\$)	% of Portfolio	% of Sector	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	S.I. Date
Highclere International Small Cap	35,667,045	3.3	19.2	-11.5	-35.2	-36.6	-4.5	-3.9	4.1	4.9	Dec-09
MSCI EAFE Small Cap				-9.8	-32.1	-32.1	-2.2	-1.8	5.3	5.4	Dec-09
S&P EPAC Under USD2 Billion NR USD				-9.5	-31.6	-32.8	-2.1	-3.0	3.9	4.0	Dec-09
eV EAFE Small Cap Equity Net Median				-10.0	-32.5	-31.9	-1.5	-2.1	5.3	5.9	Dec-09
eV EAFE Small Cap Equity Net Rank				88	74	78	77	86	89	83	Dec-09
SSgA MSCI EAFE Fund	31,503,672	2.9	17.0	-9.3	-26.8	-24.9	-1.5	-0.6		2.9	Feb-13
MSCI EAFE				-9.4	-27.1	-25.1	-1.8	-0.8	3.7	2.6	Feb-13
eV EAFE Core Equity Net Median				-9.6	-28.3	-26.5	-1.5	-1.0	4.1	3.2	Feb-13
eV EAFE Core Equity Net Rank				41	34	32	52	36		65	Feb-13
DFA Emerging Markets Value	29,188,179	2.7	15.7	-9.8	-19.0	-18.7	0.8	-0.5	1.4	1.4	Dec-09
MSCI Emerging Markets Value NR USD				-11.0	<i>-23.3</i>	<i>-23.6</i>	-2.6	-2.1	-0.4	0.6	Dec-09
MSCI Emerging Markets				-11.6	-27.2	-28.1	-2.1	-1.8	1.0	1.8	Dec-09
eV Emg Mkts All Cap Value Equity Net Median				-10.3	-24.1	-24.0	-1.4	-1.2	1.8	1.9	Dec-09
eV Emg Mkts All Cap Value Equity Net Rank				44	23	22	24	32	59	60	Dec-09
TT Emerging Markets Equity	26,115,229	2.4	14.1	-13.4	-32.5	-34.6	-3.1			-3.9	Apr-19
MSCI Emerging Markets				-11.6	-27.2	-28.1	-2.1	-1.8	1.0	-2.8	Apr-19
eV Emg Mkts Equity Net Median				-10.2	-27.3	-28.1	-1.4	-1.6	1.5	-1.7	Apr-19
eV Emg Mkts Equity Net Rank				93	85	87	73			82	Apr-19



#### QTD 5 Yrs 10 Yrs Market Value % of % of YTD 1Yr 3 Yrs S.I. S.I. Date (\$) Portfolio Sector (%) (%) (%) (%) (%) (%) (%) -4.5 17.5 **Private Equity** 230,766,482 21.4 21.4 -1.1 5.3 24.6 21.1 17.8 May-10 -15.2 -13.6 8.3 12.8 Private Equity Benchmark -14.0 8.2 13.9 May-10 LGT Crown Global Opportunities VI 32,994,777 3.1 14.3 **Constitution Capital Partners** 14,166,524 1.3 6.1 StepStone Global Partners VI 1.5 7.2 16,510,634 Aberdeen Flag Private Equity VI 6.5 14,911,635 1.4 Cross Creek Capital Partners II - B 15,089,159 1.4 6.5 Partners Group Emerging Markets 2015 9,715,644 0.9 4.2 Cross Creek Capital Partners III 14.262.320 1.3 6.2 LGT Crown Asia II 9,884,323 0.9 4.3 57 Stars Global Opportunity 3 8,883,077 0.8 3.8 HarbourVest Co-Investment Fund IV 8,132,746 0.8 3.5 Aberdeen Flag Private Equity V 3.4 7,852,076 0.7 StepStone Global Partners V 9,648,683 0.9 4.2 HarbourVest 2013 Direct 5,794,354 0.5 2.5 Dover Street X, L.P. 30,228,234 2.8 13.1 Blue Bay Direct Lending 2,479,410 0.2 1.1 Private Advisors Co-Investment Fund III 4,114,008 0.4 1.8



### Fund Summary | As of September 30, 2022

	Market Value (\$)	% of Portfolio	% of Sector	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	S.I. Date
LGT Crown Europe Small Buyouts III	3,852,162	0.4	1.7								
Deutsche Bank SOF III	2,810,355	0.3	1.2								
SVB Strategic Investors Fund IX, L.P.	15,099,391	1.4	6.5								
LGT Crown Global Secondaries III	2,416,873	0.2	1.0								
Private Equity Investors V	1,313,867	0.1	0.6								
Partners Group U.S. Distressed Private Equity 2009	450,885	0.0	0.2								
LGT Crown Global Secondaries II	155,346	0.0	0.1								
Fixed Income	299,675,600	27.8	27.8	-4.2	-15.8	-15.6	-2.7	-0.1	1.0	4.1	Mar-97
Bloomberg US Aggregate TR				-4.8	-14.6	-14.6	-3.3	-0.3	0.9	4.2	Mar-97
SSgA Bond Fund	81,887,661	7.6	27.3	-4.7	-14.6	-14.7	-3.3	-0.3	0.8	2.9	Jan-04
Bloomberg US Aggregate TR				-4.8	-14.6	-14.6	-3.3	-0.3	0.9	3.0	Jan-04
eV US Core Fixed Inc Net Median				-4.6	-14.6	-14.6	-3.0	0.0	1.1	3.2	Jan-04
eV US Core Fixed Inc Net Rank				73	54	54	76	80	82	86	Jan-04
Loomis Sayles Core Plus Fixed Income	52,000,690	4.8	17.4	-4.2	-14.5	-14.6	-1.8	0.7		1.6	Jul-15
Bloomberg US Aggregate TR				-4.8	-14.6	-14.6	- <u>3.3</u>	-0.3	0.9	0.7	Jul-15
eV US Core Plus Fixed Inc Net Median				-4.3	-15.2	-15.2	-2.7	0.2	1.5	1.2	Jul-15
eV US Core Plus Fixed Inc Net Rank				41	29	38	21	20		27	Jul-15

Private Advisors Co-Investment Fund III market value is as of 3/31/2022 and updated for subsequent cashflows.

Private Equity Investors V market value is estimated as of 6/30/2022.



	Market Value (\$)	% of Portfolio	% of Sector	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	S.I. Date
Aberdeen Emerging Markets Bond Fund	59,275,997	5.5	19.8	-5.2	-24.3	-25.5	-7.9	-3.9		-0.3	Dec-14
JP Morgan EMBI Global Diversified				-4.6	-23.9	-24.3	-7.2	-2.6	1.1	0.5	Dec-14
50% JPM EMBI GD, 25% JPM GBI EM GD, 25% CMBI Broad				-4.3	-21.0	-21.9	-6.2	-2.3	0.7	0.4	Dec-14
SSGA TIPS	53,564,549	5.0	17.9	-5.1	-13.6	-11.6	0.7	1.9		1.4	Aug-14
Bloomberg US TIPS TR				-5.1	-13.6	-11.6	0.8	2.0	1.0	1.5	Aug-14
eV US TIPS / Inflation Fixed Inc Net Median				-5.0	-13.3	-11.4	0.9	2.0	1.0	1.5	Aug-14
eV US TIPS / Inflation Fixed Inc Net Rank				61	69	61	72	72		73	Aug-14
Pyramis Tactical Bond Fund	33,459,855	3.1	11.2	-2.7	-13.2	-12.7	-0.9	1.7		3.1	Aug-13
Bloomberg US Aggregate TR				-4.8	-14.6	-14.6	-3.3	-0.3	0.9	1.2	Aug-13
eV US Core Plus Fixed Inc Net Median				-4.3	-15.2	-15.2	-2.7	0.2	1.5	1.8	Aug-13
eV US Core Plus Fixed Inc Net Rank				7	13	11	14	5	-	2	Aug-13
Pacific Asset Management Bank Loans	19,486,848	1.8	6.5	1.2	-3.3	-2.4				1.9	Dec-19
Credit Suisse Leveraged Loans				1.2	- <i>3.3</i>	-2.6	2.1	3.0	3.7	2.2	Dec-19
Bank Loan MStar MF Median				1.2	-4.3	-3.9	1.1	2.1	3.0	1.2	Dec-19
Bank Loan MStar MF Rank				46	16	12				15	Dec-19
Real Estate	117,507,066	10.9	10.9	0.2	13.1	21.5	11.2	9.5	9.8	4.8	Dec-07
NCREIF Property Index				0.6	9.4	16.1	9.9	8.6	9.5	6.9	<i>Dec-07</i>
Clarion Partners Lion Properties Fund	94,853,055	8.8	80.7	0.4	14.9	23.6	13.2	11.0	11.3	7.2	Apr-05
NCREIF ODCE Equal Weighted (Net)				0.8	<i>13.3</i>	21.7	12.1	9.9	10.3	7.4	Apr-05
Portfolio Advisors Real Estate Fund V	7,880,294	0.7	6.7								
Partners Group Global RE 2011	914,399	0.1	0.8								



	Market Value (\$)	% of Portfolio	% of Sector	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	S.I. Date
Metropolitan Real Estate Distressed II	1,061,293	0.1	0.9								
Partners Group Distressed RE 2009	84,337	0.0	0.1								
Partners Group Real Estate Secondary 2017	12,713,688	1.2	10.8								
Natural Resources	35,156,378	3.3	3.3	-3.7	6.7	8.4	2.4	0.7		2.3	Feb-13
S&P North American Natural Resources TR				-2.2	13.4	22.6	11.4	4.8	2.0	1.9	Feb-13
Aether Real Assets III	11,592,437	1.1	33.0								
Aether Real Assets II	2,852,031	0.3	8.1								
Aether Real Assets IV	12,983,830	1.2	36.9								
Aether Real Assets V	7,728,080	0.7	22.0								
Cash	5,039,271	0.5	0.5								
Cash	5,039,271	0.5	100.0								



	Calendar Y	′ear Perf	ormance	•						
	2021 (%)	2020 (%)	2019 (%)	2018 (%)	2017 (%)	2016 (%)	2015 (%)	2014 (%)	2013 (%)	2012 (%)
Total Fund	17.6	12.9	15.7	-2.0	17.0	7.1	1.3	4.8	16.1	13.3
Static Benchmark	14.4	11.2	15.8	-3.6	16.4	9.6	-0.1	5.7	15.1	12.6
Dynamic Benchmark	14.9	10.5	14.6	-3.1	16.1	8.4	0.4	5.4	21.2	14.2
60% MSCI ACWI & 40% Barclays Agg	10.2	13.5	19.4	-5.5	15.4	5.9	-1.0	5.0	12.3	11.5
Domestic Equity	24.6	16.5	29.4	-7.9	21.8	9.9	0.2	10.0	31.3	16.9
Russell 3000	25.7	20.9	31.0	-5.2	21.1	12.7	0.5	12.6	33.6	16.4
Westwood Capital Large Cap Value	23.8	3.9	27.3	-5.7	20.4	10.9	-0.1	11.9	29.6	16.0
Russell 1000 Value	25.2	2.8	26.5	-8.3	13.7	17.3	-3.8	13.5	32.5	17.5
Westfield Small/Mid Cap Growth	16.2	34.2	35.2	-7.6	31.0	3.4	-4.1	7.8	37.2	19.5
Russell 2500 Growth	5.0	40.5	32.7	-7.5	24.5	9.7	-0.2	7.1	40.6	<b>16</b> .1
Vaughan Nelson Small Cap Value	31.0	9.6	25.0	-14.1	6.8	20.7				
Russell 2000 Value	28.3	4.6	22.4	-12.9	7.8	31.7	-7.5	4.2	34.5	18.0
SSgA S&P 500	28.6	18.3	31.5	-4.4	21.8	12.0	1.4	13.7	32.3	15.9
S&P 500	28.7	18.4	31.5	-4.4	21.8	12.0	1.4	13.7	32.4	16.0
International Equity	4.1	17.6	22.4	-15.9	34.0	5.0	-4.4	-4.4	19.7	18.1
Spliced International Equity Benchmark	7.8	10.7	21.5	-14.2	27.2	4.5	-5.7	-3.9	15.3	16.8
Baillie Gifford International Growth Fund	-9.4	63.0	37.3	-17.3	45.5	1.4	-2.9	-6.4	29.9	17.6
MSCI ACWI ex USA	7.8	10.7	21.5	-14.2	27.2	4.5	-5.7	-3.9	15.3	16.8
MSCI EAFE	11.3	7.8	22.0	-13.8	25.0	1.0	-0.8	-4.9	22.8	17.3



	2021 (%)	2020 (%)	2019 (%)	2018 (%)	2017 (%)	2016 (%)	2015 (%)	2014 (%)	2013 (%)	2012 (%)
Sanderson International Value	7.4	1.5	20.5	-18.2	26.1	2.5	-5.5	-2.3		
MSCI EAFE Value	10.9	-2.6	16.1	-14.8	21.4	5.0	-5.7	-5.4	23.0	17.7
MSCI EAFE	11.3	7.8	22.0	-13.8	25.0	1.0	-0.8	-4.9	22.8	17.3
Highclere International Small Cap	8.3	10.2	23.5	-18.8	30.9	10.3	6.5	-4.4	24.6	20.2
MSCI EAFE Small Cap	10.1	12.3	25.0	-17.9	33.0	2.2	9.6	-4.9	29.3	20.0
S&P EPAC Under USD2 Billion NR USD	8.1	13.7	18.0	-19.6	30.8	3.5	9.0	-4.3	23.6	16.8
SSgA MSCI EAFE Fund	11.4	8.2	22.4	-13.5	25.3	1.3	-0.6	-4.7		
MSCI EAFE	11.3	7.8	22.0	-13.8	25.0	1.0	-0.8	-4.9	22.8	17.3
DFA Emerging Markets Value	12.4	2.7	9.6	-11.9	33.8	19.8	-18.8	-4.4	-4.4	18.7
MSCI Emerging Markets Value NR USD	4.0	5.5	12.0	-10.7	<u> 28.1</u>	14.9	-18.6	-4.1	-5.1	15.9
MSCI Emerging Markets	-2.5	18.3	18.4	-14.6	37.3	11.2	-14.9	-2.2	-2.6	18.2
TT Emerging Markets Equity	-1.0	19.8								
MSCI Emerging Markets	-2.5	18.3	18.4	-14.6	37.3	11.2	-14.9	-2.2	-2.6	<i>18.2</i>
Private Equity	57.0	20.4	16.1	15.8	17.7	9.4	12.7	23.3	7.7	6.2
Private Equity Benchmark	29.9	12.6	3.4	5.4	25.4	<i>15.3</i>	4.4	17.1	36.3	19.4
LGT Crown Global Opportunities VI										
Constitution Capital Partners										
StepStone Global Partners VI										
Aberdeen Flag Private Equity VI										
Cross Creek Capital Partners II - B										



Fund Summary	As of September 30, 2022
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	2021 (%)	2020 (%)	2019 (%)	2018 (%)	2017 (%)	2016 (%)	2015 (%)	2014 (%)	2013 (%)	2012 (%)
Partners Group Emerging Markets 2015										
Cross Creek Capital Partners III										
LGT Crown Asia II										
57 Stars Global Opportunity 3										
HarbourVest Co-Investment Fund IV										
Aberdeen Flag Private Equity V										
StepStone Global Partners V										
HarbourVest 2013 Direct										
Dover Street X, L.P.										
Blue Bay Direct Lending										
Private Advisors Co-Investment Fund III										
LGT Crown Europe Small Buyouts III										
Deutsche Bank SOF III										
SVB Strategic Investors Fund IX, L.P.										
LGT Crown Global Secondaries III										
Private Equity Investors V										
Partners Group U.S. Distressed Private Equity 2009										
LGT Crown Global Secondaries II										



#### Fund Summary | As of September 30, 2022

	2021 (%)	2020 (%)	2019 (%)	2018 (%)	2017 (%)	2016 (%)	2015 (%)	2014 (%)	2013 (%)	2012 (%)
Fixed Income	0.0	8.3	10.5	-2.0	5.6	6.9	-2.1	3.1	-2.4	8.3
Bloomberg US Aggregate TR	-1.5	7.5	<u>8</u> .7	0.0	3.5	2.6	0.5	6.0	-2.0	4.2
SSgA Bond Fund	-1.6	7.5	8.7	0.0	3.5	2.6	0.5	5.9	-2.2	4.2
Bloomberg US Aggregate TR	-1.5	7.5	<u>8</u> .7	0.0	3.5	2.6	0.5	6.0	-2.0	4.2
Loomis Sayles Core Plus Fixed Income	-1.1	11.3	9.4	-0.4	5.4	6.9				
Bloomberg US Aggregate TR	-1.5	7.5	<u>8</u> .7	0.0	3.5	2.6	0.5	6.0	-2.0	4.2
Aberdeen Emerging Markets Bond Fund	-4.0	5.0	15.1	-7.5	13.0	13.3	-2.7			
JP Morgan EMBI Global Diversified	-1.8	<i>5.3</i>	15.0	-4.3	10.3	10.2	1.2	7.4	-5.3	17.4
50% JPM EMBI GD, 25% JPM GBI EM GD, 25% CMBI Broad	-3.3	5.2	14.2	-3.9	10.9	10.4	-1.3	3.1	-5.2	16.8
SSGA TIPS	5.9	10.9	8.3	-1.3	3.0	4.6	-1.5			
Bloomberg US TIPS TR	6.0	11.0	8.4	-1.3	3.0	4.7	-1.4	3.6	- <b>8</b> .6	7.0
Pyramis Tactical Bond Fund	1.2	9.3	13.2	-0.9	5.9	10.4	-1.8	5.3		
Bloomberg US Aggregate TR	-1.5	7.5	<u>8</u> .7	0.0	3.5	2.6	0.5	6.0	-2.0	4.2
Pacific Asset Management Bank Loans	5.2	2.6								
Credit Suisse Leveraged Loans	5.4	2.8	8.2	1.1	4.2	9.9	-0.4	2.1	6.2	9.4
Real Estate	20.2	-0.6	5.6	8.6	7.5	7.8	13.1	10.5	10.5	9.4
NCREIF Property Index	17.7	1.6	6.4	6.7	7.0	8.0	13.3	11.8	11.0	10.5
Clarion Partners Lion Properties Fund	22.4	1.4	6.3	9.2	8.0	9.3	15.7	12.3	11.8	9.9
NCREIF ODCE Equal Weighted (Net)	21.9	0.8	5.2	7.3	6.9	8.3	14.2	11.4	12.4	9.9

Portfolio Advisors Real Estate Fund V

Partners Group Global RE 2011



	2021 (%)	2020 (%)	2019 (%)	2018 (%)	2017 (%)	2016 (%)	2015 (%)	2014 (%)	2013 (%)	2012 (%)
Metropolitan Real Estate Distressed II										
Partners Group Distressed RE 2009										
Partners Group Real Estate Secondary 2017										
Natural Resources	15.9	-9.9	-13.4	2.1	15.7	8.6	-6.3	6.7		
S&P North American Natural Resources TR	39.9	-19.0	17.6	-21.1	1.2	30.9	-24.3	-9.8	16.5	2.2
Aether Real Assets III										
Aether Real Assets II										
Aether Real Assets IV										
Aether Real Assets V										
Cash										
Cash										



	Stati	stics Summary			
	5 Years Endi	ing September 30, 2	022		
	Anlzd Return	Anlzd Standard Deviation	Information Ratio	Sharpe Ratio	Tracking Error
Total Fund	5.9%	8.5%	0.5	0.6	3.3%
Static Benchmark	4.4%	9.4%		0.4	0.0%
Domestic Equity	7.5%	19.1%	-0.3	0.3	3.7%
Russell 3000	8.6%	18.6%		0.4	0.0%
Westwood Capital Large Cap Value	7.1%	16.4%	0.5	0.4	3.4%
Russell 1000 Value	5.3%	18.1%		0.2	0.0%
Westfield Small/Mid Cap Growth	9.0%	22.6%	0.5	0.3	5.5%
Russell 2500 Growth	6.3%	22.7%		0.2	0.0%
Vaughan Nelson Small Cap Value	5.9%	20.8%	0.5	0.2	6.3%
Russell 2000 Value	2.9%	23.4%		0.1	0.0%
SSgA S&P 500	9.2%	18.1%	-1.4	0.4	0.0%
S&P 500	9.2%	18.1%		0.5	0.0%
International Equity	-1.9%	17.8%	-0.3	-0.2	3.1%
Spliced International Equity Benchmark	-0.8%	16.4%		-0.1	0.0%
Baillie Gifford International Growth Fund	0.0%	21.9%	0.1	0.0	12.0%
MSCI ACWI ex USA	-0.8%	16.4%		-0.1	0.0%
Sanderson International Value	-4.3%	18.5%	-0.4	-0.3	4.0%



	Anlzd Return	Anlzd Standard Deviation	Information Ratio	Sharpe Ratio	Tracking Error
MSCI EAFE Value	-2.7%	18.3%		-0.2	0.0%
Highclere International Small Cap	-3.9%	18.3%	-0.7	-0.3	3.3%
MSCI EAFE Small Cap	-1.8%	19.1%		-0.2	0.0%
SSgA MSCI EAFE Fund	-0.6%	16.6%	1.9	-0.1	O.1%
MSCI EAFE	-0.8%	16.7%		-0.1	0.0%
DFA Emerging Markets Value	-0.5%	19.0%	0.4	-0.1	4.0%
MSCI Emerging Markets Value NR USD	-2.1%	17.8%		-0.2	0.0%
Private Equity	21.1%	11.4%	0.7	1.8	17.7%
Private Equity Benchmark	8.2%	16.5%		0.4	0.0%
Fixed Income	-0.1%	5.7%	0.1	-0.2	3.4%
Bloomberg US Aggregate TR	-0.3%	4.8%		-0.3	0.0%
SSgA Bond Fund	-0.3%	4.8%	-0.4	-0.3	O.1%
Bloomberg US Aggregate TR	-0.3%	4.8%		-0.3	0.0%
Loomis Sayles Core Plus Fixed Income	0.7%	5.0%	0.6	-0.1	1.7%
Bloomberg US Aggregate TR	-0.3%	4.8%		-0.3	0.0%
Aberdeen Emerging Markets Bond Fund	-3.9%	11.7%	-0.5	-0.4	2.5%
JP Morgan EMBI Global Diversified	-2.6%	10.6%		-0.3	0.0%
SSGA TIPS	1.9%	5.7%	-1.4	0.1	0.0%
Bloomberg US TIPS TR	2.0%	5.7%		0.2	0.0%
Pyramis Tactical Bond Fund	1.7%	6.4%	0.4	0.1	4.6%
Bloomberg US Aggregate TR	-0.3%	4.8%		-0.3	0.0%



	Anlzd Return	Anlzd Standard Deviation	Information Ratio	Sharpe Ratio	Tracking Error
Real Estate	9.5%	6.2%	0.4	1.4	2.1%
NCREIF Property Index	8.6%	4.9%		1.5	0.0%
Clarion Partners Lion Properties Fund	11.0%	6.6%	0.7	1.5	1.6%
NCREIF ODCE Equal Weighted (Net)	9.9%	6.2%		1.4	0.0%
Natural Resources	0.7%	13.0%	-0.1	0.0	33.2%
S&P North American Natural Resources TR	4.8%	29.7%		0.1	0.0%

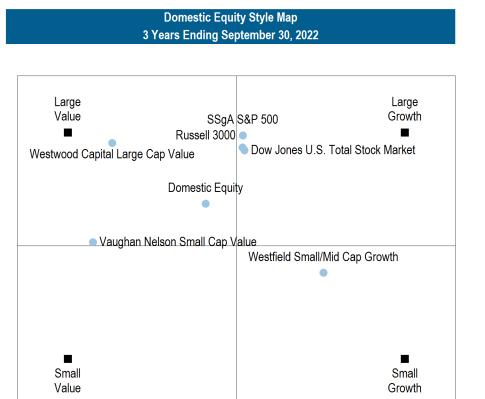
# **Fund Detail**

# **Domestic Equity**



#### Domestic Equity | As of September 30, 2022

Asset Allocation on September 30, 2022									
	Actual	Actual							
Westwood Capital Large Cap Value	\$26,991,262	13.3%							
Westfield Small/Mid Cap Growth	\$55,391,372	27.3%							
Vaughan Nelson Small Cap Value	\$56,705,540	27.9%							
SSgA S&P 500	\$64,159,292	31.6%							
Total	\$203,247,467	100.0%							

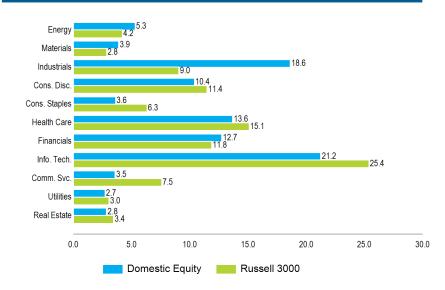


### Austin Fire Fighters Relief and Retirement Fund

#### Domestic Equity | As of September 30, 2022

Domestic Equity Characteristics					
	Portfolio	Index	Portfolio		
	Q3-22	Q3-22	Q2-22		
Market Value					
Market Value (\$M)	203.2		210.0		
Number Of Holdings	619	2986	614		
Characteristics					
Weighted Avg. Market Cap. (\$B)	184.9	402.3	194.1		
Median Market Cap (\$B)	21.3	2.3	22.3		
P/E Ratio	16.4	17.5	18.1		
Yield	1.7	1.8	1.5		
EPS Growth - 5 Yrs.	18.6	17.6	18.7		
Price to Book	3.0	3.5	3.1		

#### Sector Allocation (%) vs Russell 3000



Top 10 Holdings	
MICROSOFT CORP	2.3%
APPLE INC	2.2%
AMAZON.COM INC	1.1%
FMC CORP.	1.0%
SAIA INC	1.0%
ELEMENT SOLUTIONS INC	1.0%
INSIGHT ENTERPRISES INC	0.9%
ALPHABET INC	0.9%
JOHNSON & JOHNSON	0.9%
UNITEDHEALTH GROUP INC	0.9%
Total	12.0%

# **International Equity**



#### International Equity | As of September 30, 2022

Asset Allocation on September 30, 2022					
	Actual	Actual			
Baillie Gifford International Growth Fund	\$25,601,666	13.8%			
Sanderson International Value	\$37,610,112	20.3%			
Highclere International Small Cap	\$35,667,045	19.2%			
SSgA MSCI EAFE Fund	\$31,503,672	17.0%			
DFA Emerging Markets Value	\$29,188,179	15.7%			
TT Emerging Markets Equity	\$26,115,229	14.1%			
Total	\$185,685,904	100.0%			



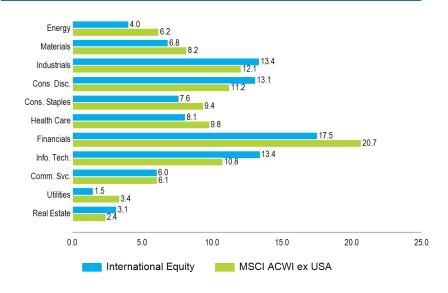


### Austin Fire Fighters Relief and Retirement Fund

#### International Equity | As of September 30, 2022

Total International Equity Characteristics					
	Portfolio	Index	Portfolio		
	Q3-22	Q3-22	Q2-22		
Market Value					
Market Value (\$M)	185.7		209.4		
Number Of Holdings	4428	2270	4230		
Characteristics					
Weighted Avg. Market Cap. (\$B)	51.3	71.1	62.2		
Median Market Cap (\$B)	0.9	7.8	1.0		
P/E Ratio	10.0	11.4	11.1		
Yield	4.0	3.7	3.6		
EPS Growth - 5 Yrs.	11.3	12.5	11.7		
Price to Book	2.2	2.4	2.2		

#### Sector Allocation (%) vs MSCI ACWI ex USA



Top 10 Holdings	
TAIWAN SEMICONDUCTOR MANUFACTURING CO LTD	1.6%
ASML HOLDING NV	1.1%
TENCENT HOLDINGS LTD	1.1%
SAMSUNG ELECTRONICS CO LTD	1.0%
ALIBABA GROUP HOLDING LTD	1.0%
PING AN INSURANCE GROUP	1.0%
RELIANCE INDUSTRIES LTD	0.9%
NESTLE SA, CHAM UND VEVEY	0.8%
FERRARI NV	0.8%
MERCADOLIBRE INC	0.7%
Total	10.1%



#### International Equity | As of September 30, 2022

Total International Equity Region Allocation				
	vs MSCI ACWI ex USA			
Region	% of Total	% of Bench	% Diff	
North America ex U.S.	0.4%	8.3%	-7.9%	
United States	4.0%	0.0%	4.0%	
Europe Ex U.K.	28.6%	30.2%	-1.6%	
United Kingdom	10.2%	9.7%	0.5%	
Pacific Basin Ex Japan	7.3%	8.0%	-0.7%	
Japan	17.6%	14.1%	3.4%	
Emerging Markets	30.1%	29.0%	1.1%	
Other	1.8%	0.8%	1.0%	
Total	100.0%	100.0%	0.0%	

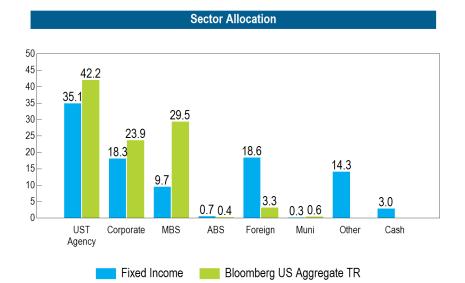
# **Fixed Income**

### Austin Fire Fighters Relief and Retirement Fund

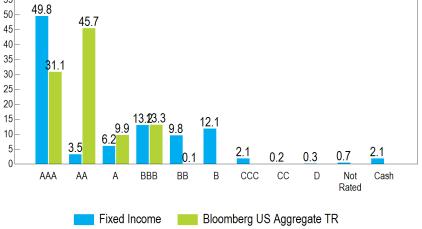
#### Fixed Income | As of September 30, 2022

Asset Allocation on September 30, 2022					
	Actual	Actual			
SSgA Bond Fund	\$81,887,661	27.3%			
Loomis Sayles Core Plus Fixed Income	\$52,000,690	17.4%			
Aberdeen Emerging Markets Bond Fund	\$59,275,997	19.8%			
SSGA TIPS	\$53,564,549	17.9%			
Pyramis Tactical Bond Fund	\$33,459,855	11.2%			
Pacific Asset Management Bank Loans	\$19,486,848	6.5%			
Total	\$299,675,600	100.0%			

Total Fixed Income Characteristics						
vs. Bloomberg US Aggregate TR						
	Portfolio	Index	Portfolio			
Q3-22 Q3-22 Q2-22						
Fixed Income Characteristics						
Yield to Maturity	7.2	4.7	5.8			
Average Duration	5.6	6.4	5.6			
Average Quality	А	AA	А			
Weighted Average Maturity	9.1	13.1	9.0			



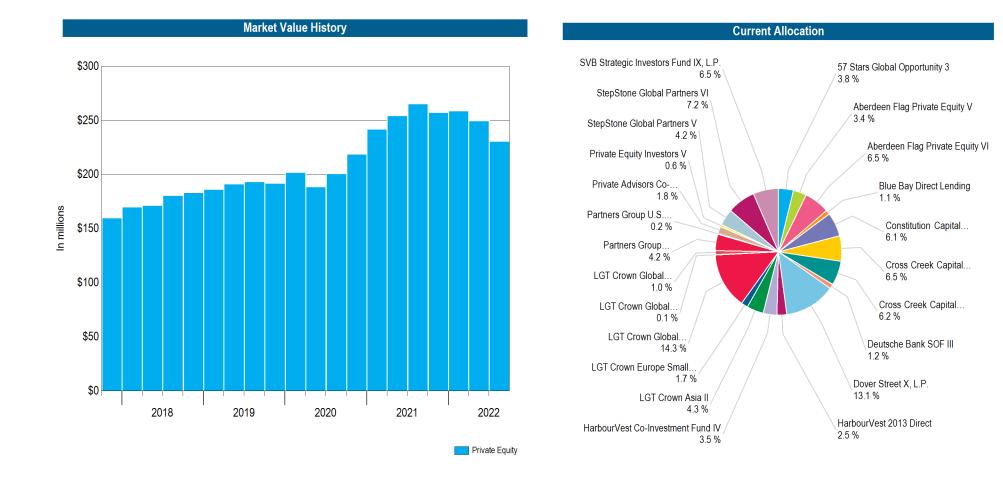
Credit Quality Allocation



MEKETA INVESTMENT GROUP

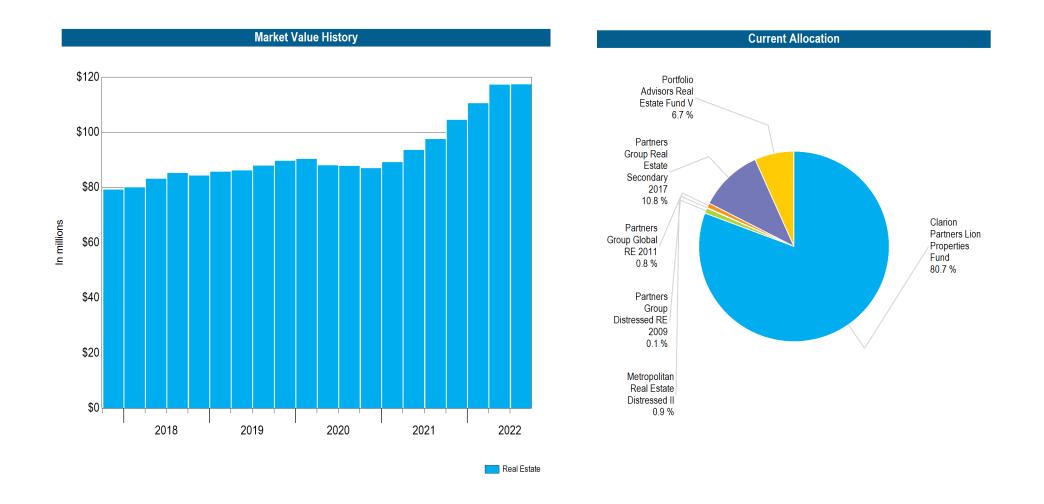


#### Private Equity | As of September 30, 2022



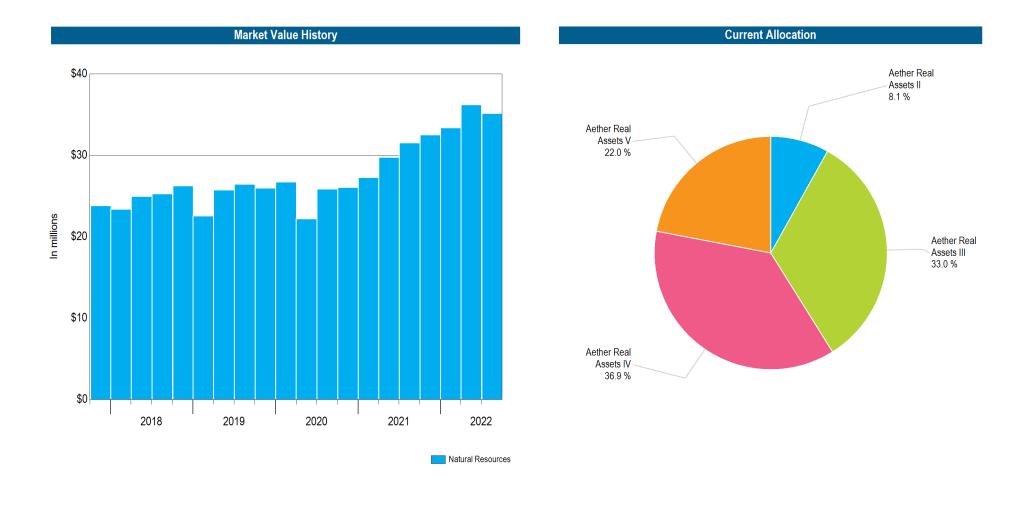


#### Real Estate | As of September 30, 2022





Natural Resources | As of September 30, 2022



# **Private Equity Assets**

# Austin Fire Fighters Relief and Retirement Fund

Private Equity Assets

Partnership	Focus	Туре	Vintage Year
Partners Group Distressed Private Equity 2009	Special Situations	Fund of Funds	2009
LGT Crown Global Secondaries II	Secondary Market	Fund of Funds	2009
Private Equity Investors V	Secondary Market	Fund of Funds	2009
Cross Creek Capital Partners II - B	Venture	Fund of Funds	2010
LGT Crown Asia II	Buyout	Fund of Funds	2011
StepStone Global Partners V	Venture	Fund of Funds	2011
57 Stars Global Opportunity 3	Diversified	Fund of Funds	2011
LGT Crown Europe Small Buyouts III	Buyout	Fund of Funds	2012
LGT Crown Global Secondaries III	Secondary Market	Fund of Funds	2012
Private Advisors Co-Investment Fund III	Co-investments	Fund of Funds	2013
HarbourVest 2013 Direct	<b>Co-investments</b>	Fund of Funds	2013
Cross Creek Capital Partners III	Venture	Fund of Funds	2013
Flag Private Equity V	Buyout	Fund of Funds	2012
StepStone Global Partners VI	Venture	Fund of Funds	2013
Constitution Capital Partners Ironsides III	Buyout	Fund of Funds	2014
Deutsche Bank Secondary Opportunities Fund III	Secondary Market	Fund of Funds	2014
Flag Private Equity VI	Buyout	Fund of Funds	2015
Blue Bay Direct Lending Fund II	Private Debt	Direct Fund	2015
Partners Group Emerging Markets 2015	Special Situations	Fund of Funds	2015
LGT Crown Global Opportunities VI	Diversified	Fund of Funds	2016
HarbourVest Co-Investment Fund IV	Co-investments	Fund of Funds	2017
SVB Strategic Investors Fund IX	Venture	Fund of Funds	2018
Dover Street X	Secondary Market	Fund of Funds	2020



#### **Private Equity Assets**

Partnership	Committed (\$mm)	Called (\$mm)	Distributed (\$mm)	Fair Value (\$mm)	nIRR <sup>.</sup> (%)	Vintage Year	TVPI Multiple
Partners Group Distressed Private Equity 2009	7.0	6.2	8.6	0.5	10.7	2009	1.5x
LGT Crown Global Secondaries II <sup>2</sup>	3.0	2.5	4.2	0.2	17.7	2009	1.8×
Private Equity Investors V	3.0	3.0	1.4	1.3	-1.4	2009	0.9x
Cross Creek Capital Partners II – B	12.5	11.7	26.4	15.1	20.8	2010	3.5x
LGT Crown Asia II <sup>2</sup>	10.0	9.4	10.1	9.9	13.0	2011	2.1x
StepStone Global Partners V	7.5	6.8	17.6	9.6	25.1	2011	4.0x
57 Stars Global Opportunity 3	10.0	10.4	5.4	8.9	7.0	2011	1.4x
LGT Crown Europe Small Buyouts III <sup>2</sup>	8.4	6.9	9.1	3.9	16.4	2012	1.9x
LGT Crown Global Secondaries III <sup>2</sup>	10.0	7.5	9.1	2.4	12.0	2012	1.5x
Private Advisors Co-Investment Fund III	10.0	10.6	13.0	4.14	12.4 <sup>3</sup>	2013	1.6x
HarbourVest 2013 Direct	10.0	9.7	15.6	5.8	19.0	2013	2.2x
Cross Creek Capital Partners III	7.5	6.9	8.0	14.3	24.8	2013	3.2x
Aberdeen Flag Private Equity V	10.0	10.0	12.5	7.9	18.1	2012	2.0x
StepStone Global Partners VI	7.5	6.8	9.9	16.5	25.8	2013	3.9x
Constitution Capital Partners Ironsides III	15.0	17.7	25.5	14.2	28.24   20.95	2014	2.2x
Deutsche Bank Secondary Opportunities Fund III	10.0	8.8	10.0	2.8	12.8	2014	1.5x
Aberdeen Flag Private Equity VI	15.0	14.0	15.6	14.9	22.1	2015	2.2x
Blue Bay Direct Lending Fund II	20.0	19.4	21.4	2.5	7.5	2015	1.2x
Partners Group Emerging Markets 2015	10.0	8.8	3.7	9.7	9.0	2015	1.5x
LGT Crown Global Opportunities VI <sup>2</sup>	40.0	32.9	21.0	33.0	15.1	2016	1.6x
HarbourVest Co-Investment Fund IV	10.0	8.1	7.5	8.1	18.1	2017	1.9×
SVB Strategic Investors Fund IX	10.0	8.2	0.0	15.1	34.3	2018	1.8x
Dover Street X <sup>3</sup>	40.0	24.3	7.8	30.2	59.1	2020	1.6x
Total	286.4	250.6	263.4	230.9			2.0x

<sup>1</sup> All performance figures are reported directly from managers, net of fees, as of 6/30/2022, unless otherwise noted.

<sup>&</sup>lt;sup>2</sup> Performance and Market values are as of 9/30/2022.

<sup>&</sup>lt;sup>3</sup>Market value is as of 3/31/2022 values provided by manager.

<sup>&</sup>lt;sup>3</sup>Constitution Capital Ironsides Partnership Fund III, as of 6/30/2022.

<sup>&</sup>lt;sup>5</sup>Constitution Capital Ironsides Co-Investment Fund III, as of 6/30/2022.

# **Real Estate Assets**



#### **Closed-Ends Funds**

Partnership	Focus	Туре	Vintage Year	TVPI Multiple
Partners Group U.S. Distressed 2009	U.S. Distressed	Fund of Funds	2009	1.4×
Metropolitan Real Estate Distressed II	Real Estate Debt	Fund of Funds	2009	1.3x
Partners Group Global RE 2011	Global	Fund of Funds	2011	1.3×
Portfolio Advisors Global Real Estate V	Global	Fund of Funds	2015	1.4×
Partners Group RE Secondary 2017	Global	Fund of Funds	2017	1.4×
				1.4x

Partnership	Committed (mm)	Called (mm)	Distributed (mm)	Fair Value (mm)	nIRR <sup>ı</sup> (%)
Partners Group U.S. Distressed 2009	\$12.0	\$11.2	\$15.1	0.1	7.2
Metropolitan Real Estate Distressed II	\$12.0	\$11.3	\$13.6	1.1	8.0
Partners Group Global RE 2011	\$6.7	\$4.9	\$5.7	0.9	6.6
Portfolio Advisors Global Real Estate V	\$15.0	\$12.6	\$9.7	7.9	7.3
Partners Group RE Secondary 2017	\$15.0	\$9.0	\$0.0	12.7	12.7
Total	\$60.7	\$49.0	\$44.1	\$22.7	

<sup>&</sup>lt;sup>1</sup> Performance figures are reported directly from manager, net of fees, as of 6/30/2022.

# **Natural Resources Assets**

## Austin Fire Fighters Relief and Retirement Fund

#### Natural Resources Assets

Partnership	Vintage Year	Committed (mm)	Called (mm)	Distributed (mm)	Fair Value (mm) <sup>,</sup>	Net IRR₂ %	TVPI Multiple <sup>2</sup>
Aether Real Assets II	2012	\$7.5	\$7.7	\$4.2	\$2.9	-1.6	0.9
Aether Real Assets III	2013	\$15.0	\$15.4	\$3.4	\$11.6	-0.6	1.0
Aether Real Assets IV	2016	\$10.0	\$10.0	\$0.8	\$13.0	9.8	1.4
Aether Real Assets V	2018	\$10.0	\$5.8	\$0.5	\$7.7	19.5	1.4
Total		\$42.5	\$38.9	\$8.9	\$35.2		1.1x

<sup>&</sup>lt;sup>1</sup> Fair Value is estimated directly from manager as of 3/31/2022.

 $<sup>^2</sup>$  Performance figures are reported directly from manager, net of fees, as of 3/31/2022.

# **Portfolio Reviews**

# Austin Fire Fighters Relief and Retirement Fund

#### Westwood Capital Large Cap Value | As of September 30, 2022

Account Information				
Account Name	Westwood Capital Large Cap Value			
Account Structure	Separate Account			
Investment Style	Active			
Inception Date	10/01/01			
Account Type	US Equity			
Benchmark	Russell 1000 Value			
Universe	eV US Large Cap Value Equity Net			

Portfolio Performance Summary								
	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs 1 (%)	0 Yrs (%)	S.I. (%)	S.I. Date
Westwood Capital Large Cap Value	-4.0	-15.4	-7.6	4.8	7.1	9.9	8.2	Oct-01
Russell 1000 Value	-5.6	-17.8	-11.4	4.4	5.3	9.2	7.3	Oct-01
eV US Large Cap Value Equity Net Median	-5.6	-16.7	-10.0	5.7	6.2	9.5	8.0	Oct-01
eV US Large Cap Value Equity Net Rank	16	34	27	69	31	35	39	Oct-01

Top 10 Holdings	
EATON CORP PLC	3.2%
GOLDMAN SACHS GROUP INC (THE)	3.2%
MICROSOFT CORP	3.1%
JOHNSON & JOHNSON	3.0%
DANAHER CORP	3.0%
AT&T INC	3.0%
BANK OF AMERICA CORP	2.9%
CASH - USD	2.9%
UNITEDHEALTH GROUP INC	2.7%
BECTON DICKINSON AND CO	2.5%
Total	29.4%

Westwood Capit	al Large Cap V	alue Character	ristics
	Portfolio	Index	Portfolio
	Q3-22	Q3-22	Q2-22
Market Value			
Market Value (\$M)	27.0		28
Number Of Holdings	47	855	4
Characteristics			
Weighted Avg. Market Cap. (\$B)	220.9	135.4	228.
Median Market Cap (\$B)	89.8	11.5	74.
P/E Ratio	15.5	14.1	16.
Yield	2.4	2.5	2.
EPS Growth - 5 Yrs.	13.0	12.5	14.
Price to Book	2.9	2.3	2.
Sector Distribution			
Energy	8.2	6.9	7.
Materials	0.0	4.2	1.
Industrials	13.6	10.2	11.
Consumer Discretionary	6.3	5.8	6.
Consumer Staples	5.9	7.3	6.
Health Care	16.3	17.5	16.
Financials	19.9	20.2	17.
Information Technology	9.4	8.9	9.
Communication Services	6.7	8.1	8.
Utilities	5.9	6.1	6.
Real Estate	4.9	4.9	5.

# Austin Fire Fighters Relief and Retirement Fund

#### Westfield Small/Mid Cap Growth | As of September 30, 2022

Account Information					
Account Name	Westfield Small/Mid Cap Growth				
Account Structure	Separate Account				
Investment Style	Active				
Inception Date	11/01/02				
Account Type	US Equity				
Benchmark	Russell 2500 Growth				
Universe	eV US Small-Mid Cap Growth Equity Net				

Portfolio Performance Summary								
	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs 1 (%)	0 Yrs (%)	S.I. (%)	S.I. Date
Westfield Small/Mid Cap Growth	0.1	-28.1	-26.0	8.6	9.0	10.9	11.8	Nov-02
Russell 2500 Growth	-0.1	-29.5	-29.4	4.8	6.3	10.3	10.5	Nov-02
eV US Small-Mid Cap Growth Equity Net Median	-1.0	-30.3	-28.0	6.5	8.5	10.4	10.4	Nov-02
eV US Small-Mid Cap Growth Equity Net Rank	38	26	35	27	41	38	22	Nov-02

Top 10 Holdings	
ADVANCED DRAINAGE SYSTEMS INC	3.0%
DIAMONDBACK ENERGY INC	2.6%
AMERICAN FINANCIAL GROUP INC	2.4%
ICON PLC	2.4%
CATALENT INC	2.3%
PAYLOCITY HOLDING CORP	2.3%
LPL FINANCIAL HOLDINGS INC	2.3%
VULCAN MATERIALS CO	2.2%
WILLSCOT MOBILE MINI HOLDINGS CORP	2.2%
ASCENDIS PHARMA AS	2.1%
Total	24.0%

Westfield Small	/Mid Cap Growt	h Characteristic	S
	Portfolio	Index	Portfolio
	Q3-22	Q3-22	Q2-22
Market Value			
Market Value (\$M)	55.4		55.3
Number Of Holdings	64	1355	6
Characteristics			
Weighted Avg. Market Cap. (\$B)	9.5	5.6	9.9
Median Market Cap (\$B)	8.6	1.6	7.:
P/E Ratio	16.9	17.0	19.9
Yield	0.9	0.9	0.9
EPS Growth - 5 Yrs.	27.8	21.7	27.
Price to Book	3.4	4.0	3.4
Sector Distribution			
Energy	4.6	5.5	3.9
Materials	4.1	4.8	3.
Industrials	21.2	17.8	19.5
Consumer Discretionary	13.6	12.0	9.8
Consumer Staples	0.0	3.7	0.0
Health Care	21.2	20.5	21.
Financials	7.5	7.1	8.0
Information Technology	22.3	22.8	24.9
Communication Services	0.3	1.9	1.3
Utilities	0.0	1.3	0.0
Real Estate	4.5	2.5	5.

# Austin Fire Fighters Relief and Retirement Fund

#### Vaughan Nelson Small Cap Value | As of September 30, 2022

Account Information					
Account Name	Vaughan Nelson Small Cap Value				
Account Structure	Separate Account				
Investment Style	Active				
Inception Date	1/01/16				
Account Type	US Equity				
Benchmark	Russell 2000 Value				
Universe	eV US Small Cap Value Equity Net				

Portfoli	io Perfo	orman	ce Si	ımmar	y			
	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	ō Yrs 1 (%)	0 Yrs (%)	S.I. (%)	S.I. Date
Vaughan Nelson Small Cap Value	-4.3	-16.5	-7.9	7.6	5.9		7.8	Jan-16
Russell 2000 Value	-4.6	-21.1	-17.7	4.7	2.9	7.9	7.3	Jan-16
eV US Small Cap Value Equity Net Median	-4.8	-20.3	-14.9	5.3	3.4	8.6	7.2	Jan-16
eV US Small Cap Value Equity Net Rank	45	17	8	24	12		35	Jan-16

Top 10 Holdings	
ELEMENT SOLUTIONS INC	3.5%
INSIGHT ENTERPRISES INC	3.5%
EXLSERVICE HOLDINGS INC	3.0%
WNS (HOLDINGS) LTD	2.9%
ASGN INC	2.6%
CBOE GLOBAL MARKETS INC	2.6%
GATX CORP.	2.4%
FEDERAL SIGNAL CORP.	2.3%
FRANKLIN ELECTRIC CO INC	2.3%
RAMBUS INC	2.1%
Total	27.2%

Vaughan Nelson Small Cap Value Characteristics							
	Portfolio	Index	Portfolio				
	Q3-22	Q3-22	Q2-22				
Market Value							
Market Value (\$M)	56.7		59.1				
Number Of Holdings	62	1394	64				
Characteristics							
Weighted Avg. Market Cap. (\$B)	4.8	2.2	5.4				
Median Market Cap (\$B)	3.9	0.9	4.6				
P/E Ratio	14.2	9.5	17.1				
Yield	1.9	2.5	1.7				
EPS Growth - 5 Yrs.	17.8	12.2	17.6				
Price to Book	2.3	1.5	2.4				
Sector Distribution							
Energy	5.4	5.8	6.2				
Materials	7.2	3.7	6.8				
Industrials	31.7	12.4	28.6				
Consumer Discretionary	7.7	9.4	6.4				
Consumer Staples	2.3	2.7	3.5				
Health Care	2.9	12.1	6.7				
Financials	16.8	29.2	14.9				
Information Technology	20.3	5.8	19.1				
Communication Services	0.0	2.9	2.1				
Utilities	3.4	5.2	4.5				
Real Estate	0.0	10.8	0.0				

### Austin Fire Fighters Relief and Retirement Fund

#### SSgA S&P 500 | As of September 30, 2022

_		SSgA	SSgA S&P 500 Characteristics					
58	P 500		Portfolio	Index	Port			
gle	d Fund		Q3-22	Q3-22	Q2			
P	assive	Market Value						
2	/01/04	Market Value (\$M)	64.2					
US	Equity	Number Of Holdings	506	503				
S8	P 500	Characteristics						
Equ	ity Net	Weighted Avg. Market Cap. (\$B)	464.9	468.4	47			
		Median Market Cap (\$B)	27.1	27.1				
5.I.	S.I.	P/E Ratio	18.3	18.6				
%)	Date	Yield	1.8	1.8				
3.5	Feb-04	EPS Growth - 5 Yrs.	17.2	17.0				
8.5	Feb-04	Price to Book	3.8	3.8				
3.3	Feb-04	Sector Distribution						
47	Feb-04	Energy	4.5	4.5				
		Materials	2.5	2.4				
		Industrials	7.6	7.8				
	6.8% 5.7%	Consumer Discretionary	11.5	12.1				
	3.3%	Consumer Staples	6.8	7.4				
	2.3%	Health Care	14.9	14.7				
	1.9%	Financials	10.8	11.3				
	1.7%	Information Technology	25.9	25.8	2			
	1.6% 1.5%	Communication Services	7.9	8.3				
	1.4%	Utilities	3.0	3.0				
	1.2%	Real Estate	2.7	2.7				

Account Information				
Account Name	SSgA S&P 500			
Account Structure	Commingled Fund			
Investment Style	Passive			
Inception Date	2/01/04			
Account Type	US Equity			
Benchmark	S&P 500			
Universe	eV US Large Cap Equity Net			

Portfolio Performance Summary								
	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	S.I. Date
SSgA S&P 500	-4.9	-23.9	-15.5	8.1	9.2	11.7	8.5	Feb-04
S&P 500	-4.9	-23.9	-15.5	8.2	9.2	11.7	8.5	Feb-04
eV US Large Cap Equity Net Median	-5.1	-22.5	-15.1	6.5	7.7	10.4	8.3	Feb-04
eV US Large Cap Equity Net Rank	45	58	52	27	30	25	47	Feb-04

Top 10 Holdings	
APPLE INC	6.8%
MICROSOFT CORP	5.7%
AMAZON.COM INC	3.3%
TESLA INC	2.3%
ALPHABET INC	1.9%
ALPHABET INC	1.7%
BERKSHIRE HATHAWAY INC	1.6%
UNITEDHEALTH GROUP INC	1.5%
JOHNSON & JOHNSON	1.4%
EXXON MOBIL CORP	1.2%
Total	27.3%

# Austin Fire Fighters Relief and Retirement Fund

#### Baillie Gifford International Growth Fund | As of September 30, 2022

Account Information				
Account Name	Baillie Gifford International Growth Fund			
Account Structure	Mutual Fund			
Investment Style	Active			
Inception Date	5/01/09			
Account Type	Non-US Stock Developed			
Benchmark	MSCI ACWI ex USA			
Universe	eV ACWI ex-US All Cap Growth Eq Net			

Portfolio Performance Summary								
	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs 1 (%)	0 Yrs (%)	S.I. (%)	S.I. Date
Baillie Gifford International Growth Fund	-10.6	-42.0	-44.7	-0.8	0.0	6.0	8.1	May-09
MSCI ACWI ex USA	-9.9	-26.5	-25.2	-1.5	-0.8	3.0	5.2	May-09
MSCI EAFE	-9.4	-27.1	-25.1	-1.8	-0.8	3.7	5.4	May-09
eV ACWI ex-US All Cap Growth Eq Net Median	-9.1	-35.9	-34.8	-0.4	0.9	4.6	7.3	May-09
eV ACWI ex-US All Cap Growth Eq Net Rank	84	87	93	55	62	23	25	May-09

Top 10 Holdings	
ASML HOLDING NV	6.0%
FERRARI NV	5.5%
MERCADOLIBRE INC	5.2%
MEITUAN DIANPING USD0.00001 A B CLASS ISIN KYG596691041	4.8%
KERING	4.4%
ADYEN N.V	4.1%
GENMAB A/S	4.1%
ARGEN-X SE	3.8%
TENCENT HOLDINGS LTD	3.7%
SPOTIFY TECHNOLOGY S.A	3.6%
Total	45.2%

Baillie	Gifford EAFE Fund Characteristics					
	Portfolio	Portfolic				
	Q3-22	Q3-22	Q2-22			
Market Value						
Market Value (\$M)	25.6		28.6			
Number Of Holdings	54	798	53			
Characteristics						
Weighted Avg. Market Cap. (\$B)	72.9	67.3	95.8			
Median Market Cap (\$B)	19.4	10.4	21.2			
P/E Ratio	26.2	12.2	23			
Yield	0.9	3.7	0.8			
EPS Growth - 5 Yrs.	17.1	11.1	18.3			
Price to Book	5.1	2.4	5.0			
Sector Distribution						
Energy	0.0	4.9	0.0			
Materials	2.7	7.5	2.9			
Industrials	7.7	15.0	7.			
Consumer Discretionary	28.8	11.0	28.			
Consumer Staples	5.4	11.3	6.			
Health Care	14.4	13.9	13.			
Financials	9.4	17.6	9.4			
Information Technology	21.0	7.9	19.			
Communication Services	8.9	4.8	10.			
Utilities	0.0	3.4	0.0			
Real Estate	0.0	2.8	0.0			

#### Austin Fire Fighters Relief and Retirement Fund

#### Sanderson International Value | As of September 30, 2022

	ernational Value		
	Portfolio	Index	Portfolio
	Q3-22	Q3-22	Q2-22
Market Value			
Market Value (\$M)	37.6		43.
Number Of Holdings	54	798	5
Characteristics			
Weighted Avg. Market Cap. (\$B)	51.8	67.3	59.8
Median Market Cap (\$B)	17.2	10.4	20.
P/E Ratio	9.4	12.2	11.0
Yield	4.1	3.7	4
EPS Growth - 5 Yrs.	10.1	11.1	9.
Price to Book	1.8	2.4	1.
Sector Distribution			
Energy	1.7	4.9	1.
Materials	6.0	7.5	5.
Industrials	19.7	15.0	20.
Consumer Discretionary	10.8	11.0	8.
Consumer Staples	11.9	11.3	13.
Health Care	8.0	13.9	8.
Financials	21.6	17.6	21.
Information Technology	10.1	7.9	9.
Communication Services	9.0	4.8	8.
Utilities	0.0	3.4	0.
Real Estate	0.0	2.8	0.

#### Account Information

Sanderson International Value
Commingled Fund
Active
2/01/13
Non-US Stock Developed
MSCI EAFE Value
eV EAFE All Cap Value Net

Portfolio Performance Summary								
	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	S.I. Date
Sanderson International Value	-12.9	-29.2	-28.3	-5.3	-4.3		1.3	Feb-13
MSCI EAFE Value	-10.2	-21.1	-20.2	-2.8	-2.7	2.4	1.1	Feb-13
MSCI EAFE	-9.4	-27.1	-25.1	-1.8	-0.8	3.7	2.6	Feb-13
eV EAFE All Cap Value Net Median	-10.3	-22.4	-21.0	-1.4	-1.5	3.6	2.9	Feb-13
eV EAFE All Cap Value Net Rank	91	98	99	99	94		81	Feb-13

Top 10 Holdings	
SAMSUNG ELECTRONICS CO LTD	3.4%
BRAMBLES LTD	3.2%
CRH PLC	2.9%
DEUTSCHE POST AG	2.9%
NINTENDO CO LTD	2.8%
NIPPON TELEGRAPH & TELEPHONE CORP NTT	2.8%
ISUZU MOTORS LTD	2.8%
PING AN INSURANCE GROUP	2.8%
IG GROUP HOLDINGS PLC	2.7%
DAIMLER TRUCK HOLDING AG COMMON STOCK	2.6%
Total	28.8%

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#### Austin Fire Fighters Relief and Retirement Fund

#### Highclere International Small Cap | As of September 30, 2022

## Account Information

me Highciere International Small Cap	Account Name
ructure Commingled Fund	Account Structure
Style Active	Investment Style
ate 12/01/09	Inception Date
pe Non-US Stock Developed	Account Type
MSCI EAFE Small Cap	Benchmark
eV EAFE Small Cap Equity Net	Universe

Portfolio Performance Summary								
	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	S.I. Date
Highclere International Small Cap	-11.5	-35.2	-36.6	-4.5	-3.9	4.1	4.9	Dec-09
MSCI EAFE Small Cap	-9.8	-32.1	-32.1	-2.2	-1.8	5.3	5.4	Dec-09
S&P EPAC Under USD2 Billion NR USD	-9.5	-31.6	-32.8	-2.1	-3.0	3.9	4.0	Dec-09
eV EAFE Small Cap Equity Net Median	-10.0	-32.5	-31.9	-1.5	-2.1	5.3	5.9	Dec-09
eV EAFE Small Cap Equity Net Rank	88	74	78	77	86	89	83	Dec-09

Top 10 Holdings				
G-7 HOLDINGS	1.2%			
EIKEN CHEMICAL	1.2%			
AICA KOGYO CO LTD	1.1%			
DAIWABO HOLDINGS	1.0%			
KNOW IT	1.0%			
AS ONE CORP	1.0%			
BIPROGY INC	1.0%			
PRESTIGE INTL.	0.9%			
IWATANI	0.9%			
CRANSWICK PLC	0.9%			
Total	10.1%			

Highclere International Small Cap Characteristics							
	Portfolio	Index	Portfolio				
	Q3-22	Q3-22	Q2-22				
Market Value							
Market Value (\$M)	35.7		40.3				
Number Of Holdings	180	2327	179				
Characteristics							
Weighted Avg. Market Cap. (\$B)	1.0	2.3	1.1				
Median Market Cap (\$B)	0.7	1.0	0.8				
P/E Ratio	12.1	10.7	14.0				
Yield	4.7	3.6	4.2				
EPS Growth - 5 Yrs.	8.1	9.5	9.0				
Price to Book	2.0	2.1	2.1				
Sector Distribution							
Energy	0.9	3.0	1.2				
Materials	6.0	9.8	5.4				
Industrials	21.6	22.3	20.8				
Consumer Discretionary	13.2	12.0	13.4				
Consumer Staples	8.3	6.5	7.6				
Health Care	8.1	6.9	9.4				
Financials	8.0	11.5	7.2				
Information Technology	15.3	9.2	15.6				
Communication Services	5.1	4.0	6.3				
Utilities	1.0	3.2	0.9				
Real Estate	8.3	11.6	8.3				

#### Austin Fire Fighters Relief and Retirement Fund

#### SSgA MSCI EAFE Fund | As of September 30, 2022

SSgA MSCI EAFE Fund Characteristics							
	Portfolio	Index	Portfoli				
	Q3-22	Q3-22	Q2-2				
Market Value							
Market Value (\$M)	31.5		34				
Number Of Holdings	972	798	79				
Characteristics							
Weighted Avg. Market Cap. (\$B)	68.1	67.3	73				
Median Market Cap (\$B)	8.7	10.4	11				
P/E Ratio	12.2	12.2	13				
Yield	3.7	3.7	3				
EPS Growth - 5 Yrs.	11.5	11.1	12				
Price to Book	2.4	2.4	2				
Sector Distribution							
Energy	4.6	4.9	4				
Materials	7.0	7.5	6				
Industrials	14.0	15.0	15				
Consumer Discretionary	10.1	11.0	11				
Consumer Staples	10.3	11.3	10				
Health Care	12.9	13.9	13				
Financials	16.5	17.6	1				
Information Technology	7.4	7.9	8				
Communication Services	4.5	4.8	4				
Utilities	3.1	3.4	3				
Real Estate	2.6	2.8	2				

Accoun	Account Information					
Account Name	SSgA MSCI EAFE Fund					
Account Structure	Commingled Fund					
Investment Style	Passive					
Inception Date	2/01/13					
Account Type	Non-US Stock Developed					
Benchmark	MSCI EAFE					
Universe	eV EAFE Core Equity Net					

Portfolio Performance Summary								
	QTD	YTD	1 Yr	3 Yrs	5 Yrs 1	0 Yrs	S.I.	S.I.
	(%)	(%)	(%)	(%)	(%)	(%)	(%)	Date
SSgA MSCI EAFE Fund	-9.3	-26.8	-24.9	-1.5	-0.6		2.9	Feb-13
MSCI EAFE	-9.4	-27.1	-25.1	-1.8	-0.8	3.7	2.6	Feb-13
eV EAFE Core Equity Net Median	-9.6	-28.3	-26.5	-1.5	-1.0	4.1	3.2	Feb-13
eV EAFE Core Equity Net Rank	41	34	32	52	36		65	Feb-13

Top 10 Holdings	
NESTLE SA, CHAM UND VEVEY	2.5%
ROCHE HOLDING AG	1.9%
SHELL PLC	1.5%
ASML HOLDING NV	1.4%
ASTRAZENECA PLC	1.4%
NOVARTIS AG	1.4%
NOVO NORDISK 'B'	1.3%
LVMH MOET HENNESSY LOUIS VUITTON SE	1.3%
TOYOTA MOTOR CORP	1.1%
BHP GROUP LTD	1.0%
Total	14.9%

#### Austin Fire Fighters Relief and Retirement Fund

#### DFA Emerging Markets Value | As of September 30, 2022

# Account InformationAccount NameDFA Emerging Markets ValueAccount StructureMutual FundInvestment StyleActiveInception Date12/01/09Account TypeNon-US Stock EmergingBenchmarkMSCI Emerging Markets Value NR USDUniverseeV Emg Mkts All Cap Value Equity Net

Portfolio Performance Summary								
	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs 1 (%)	0 Yrs (%)	S.I. (%)	S.I. Date
DFA Emerging Markets Value	-9.8	-19.0	-18.7	0.8	-0.5	1.4	1.4	Dec-09
MSCI Emerging Markets Value NR USD	-11.0	-23.3	-23.6	-2.6	-2.1	-0.4	0.6	Dec-09
MSCI Emerging Markets	-11.6	-27.2	-28.1	-2.1	-1.8	1.0	1.8	Dec-09
eV Emg Mkts All Cap Value Equity Net Median	-10.3	-24.1	-24.0	-1.4	-1.2	1.8	1.9	Dec-09
eV Emg Mkts All Cap Value Equity Net Rank	44	23	22	24	32	59	60	Dec-09

Top 10 Holdings	
RELIANCE INDUSTRIES LTD	3.5%
CHINA CONSTRUCTION BANK CORP	2.6%
PING AN INSURANCE GROUP	1.4%
HON HAI PRECISION INDUSTRY CO LTD	1.3%
CASH - USD	1.3%
PETROLEO BRASILEIRO S.A PETROBRAS	1.2%
SK HYNIX INC	1.1%
INDUSTRIAL AND COMMERCIAL BANK OF CHINA LIMITED	1.0%
BANK OF CHINA LTD	0.9%
AXIS BANK	0.9%
Total	15.3%

DFA Emerging Markets Value Characteristics							
Dra Linergin	Portfolio		Portfolio				
	Q3-22	Q3-22	Q2-22				
Market Value							
Market Value (\$M)	29.2		32.4				
Number Of Holdings	3227	804	3198				
Characteristics							
Weighted Avg. Market Cap. (\$B)	29.9	68.2	34.2				
Median Market Cap (\$B)	0.4	5.2	0.4				
P/E Ratio	6.4	7.9	6.9				
Yield	6.5	5.6	5.4				
EPS Growth - 5 Yrs.	11.9	9.7	11.9				
Price to Book	1.6	1.9	1.6				
Sector Distribution							
Energy	10.4	8.7	10.6				
Materials	14.2	10.7	14.9				
Industrials	9.2	5.6	9.0				
Consumer Discretionary	8.1	12.2	8.9				
Consumer Staples	3.1	4.7	3.0				
Health Care	2.6	2.3	2.3				
Financials	29.6	29.7	28.3				
Information Technology	11.6	13.7	11.2				
Communication Services	2.9	5.8	3.1				
Utilities	1.7	3.9	1.6				
Real Estate	4.9	2.8	5.2				

#### Austin Fire Fighters Relief and Retirement Fund

#### TT Emerging Markets Equity | As of September 30, 2022

	Account Information
Account Name	TT Emerging Markets Equity
Account Structure	Commingled Fund
Investment Style	Active
Inception Date	4/01/19
Account Type	Non-US Stock Emerging
Benchmark	MSCI Emerging Markets
Universe	eV Emg Mkts Equity Net

Portfolio Performance Summary								
	QTD	YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	S.I.	S.I.
	(%)	(%)	(%)	(%)	(%)	(%)	(%)	Date
TT Emerging Markets Equity	-13.4	-32.5	-34.6	-3.1			-3.9	Apr-19
MSCI Emerging Markets	-11.6	-27.2	-28.1	-2.1	-1.8	1.0	-2.8	Apr-19
eV Emg Mkts Equity Net Median	-10.2	-27.3	-28.1	-1.4	-1.6	1.5	-1.7	Apr-19
eV Emg Mkts Equity Net Rank	93	85	87	73			82	Apr-19

Top 10 Holdings	
CASH - USD	12.9%
TAIWAN SEMICONDUCTOR MANUFACTURING CO LTD	8.2%
ALIBABA GROUP HOLDING LTD	3.9%
H D F C BANK LTD	3.9%
TENCENT HOLDINGS LTD	3.7%
KRANESHARES CSI CHINA INTERNET ETF	2.9%
BARRICK GOLD CORP	2.7%
KB FINANCIAL GROUP INC	2.1%
GPO FINANCE BANORTE	2.1%
ALIBABA GROUP HOLDING LTD	2.1%
Total	44.6%

TT Emerging Markets Equity Characteristics								
	Portfolio	Index	Portfolio					
	Q3-22	Q3-22	Q2-22					
Market Value								
Market Value (\$M)	26.1		30.1					
Number Of Holdings	65	1384	68					
Characteristics								
Weighted Avg. Market Cap. (\$B)	113.8	86.9	142.4					
Median Market Cap (\$B)	27.5	5.5	19.4					
P/E Ratio	9.0	10.1	10.0					
Yield	3.5	3.8	2.8					
EPS Growth - 5 Yrs.	12.4	14.3	12.7					
Price to Book	2.2	2.5	2.1					
Sector Distribution								
Energy	8.0	5.3	9.3					
Materials	5.0	8.7	9.7					
Industrials	2.5	5.8	4.0					
Consumer Discretionary	9.8	14.0	10.2					
Consumer Staples	4.2	6.6	3.6					
Health Care	2.1	3.9	0.4					
Financials	20.8	22.6	18.7					
Information Technology	17.3	18.3	17.2					
Communication Services	5.5	9.7	6.2					
Utilities	3.3	3.2	4.0					
Real Estate	2.6	2.0	2.8					

#### Austin Fire Fighters Relief and Retirement Fund

#### SSgA Bond Fund | As of September 30, 2022

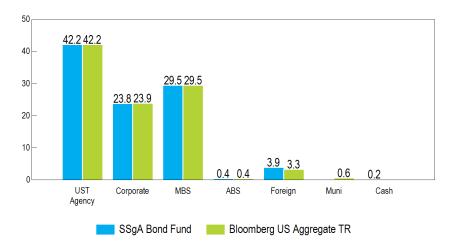
Acc	ount Information
Account Name	SSgA Bond Fund
Account Structure	Commingled Fund
Investment Style	Passive
Inception Date	1/01/04
Account Type	US Fixed Income Investment Grade
Benchmark	Bloomberg US Aggregate TR
Universe	eV US Core Fixed Inc Net

Portfolio Performance Summary							
	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	S.I. Date
SSgA Bond Fund	-4.7	-14.7	-3.3	-0.3	0.8	2.9	Jan-04
Bloomberg US Aggregate TR	-4.8	-14.6	-3.3	-0.3	0.9	3.0	Jan-04
eV US Core Fixed Inc Net Median	-4.6	-14.6	-3.0	0.0	1.1	3.2	Jan-04
eV US Core Fixed Inc Net Rank	73	54	76	80	82	86	Jan-04

SSgA Bond Fund Characteristics vs. Bloomberg US Aggregate TR								
Portfolio Index Portfolio								
	Q3-22	Q3-22	Q2-22					
Fixed Income Characteristics								
Yield to Maturity	4.8	4.7	3.7					
Average Duration	6.2	6.4	6.4					
Average Quality	AA	AA	AA					
Weighted Average Maturity	8.6	13.1	8.7					

**Credit Quality Allocation** 80 72.6 70 60 50 45.7 40 31.1 30 20 12.8 13.3 11.6 9.9 10 3.0 0.1 0 AAA AA BBB BB А SSgA Bond Fund Bloomberg US Aggregate TR

Sector Allocation



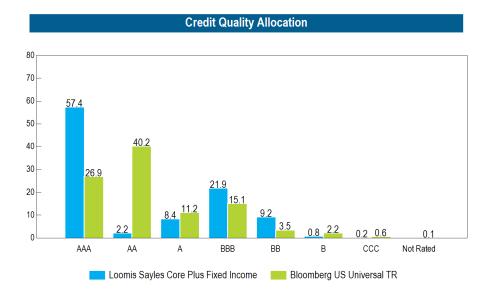
#### Austin Fire Fighters Relief and Retirement Fund

#### Loomis Sayles Core Plus Fixed Income | As of September 30, 2022

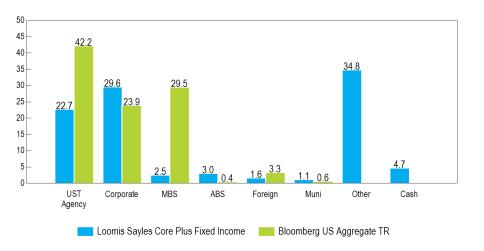
Α	count Information
Account Name	Loomis Sayles Core Plus Fixed Income
Account Structure	Commingled Fund
Investment Style	Active
Inception Date	7/01/15
Account Type	US Fixed Income Investment Grade
Benchmark	Bloomberg US Aggregate TR
Universe	eV US Core Plus Fixed Inc Net

Portfolio Performance Summary							
	QTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	S.I.	S.I.
	(%)	(%)	(%)	(%)	(%)	(%)	Date
Loomis Sayles Core Plus Fixed Income	-4.2	-14.6	-1.8	0.7		1.6	Jul-15
Bloomberg US Aggregate TR	-4.8	-14.6	-3.3	-0.3	0.9	0.7	Jul-15
eV US Core Plus Fixed Inc Net Median	-4.3	-15.2	<i>-2.</i> 7	0.2	1.5	1.2	Jul-15
eV US Core Plus Fixed Inc Net Rank	41	38	21	20		27	Jul-15

Loomis Sayles Core Plus Fixed Income Characteristics										
vs. Bloomberg US Aggregate TR										
Portfolio Index Portfo										
	Q3-22	Q3-22	Q2-22							
Fixed Income Characteristics										
Yield to Maturity	6.3	4.7	5.1							
Average Duration	6.5	6.4	6.3							
Average Quality	BBB	AA	BBB							
Weighted Average Maturity	9.5	13.1	9.0							



Sector Allocation



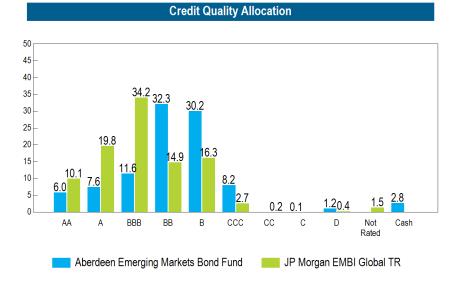
#### Austin Fire Fighters Relief and Retirement Fund

#### Aberdeen Emerging Markets Bond Fund | As of September 30, 2022

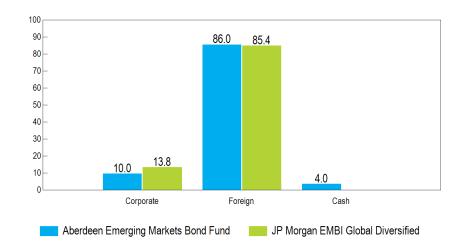
Account Information						
Account Name	Aberdeen Emerging Markets Bond Fund					
Account Structure	Commingled Fund					
Investment Style	Active					
Inception Date	12/01/14					
Account Type	International Emerging Market Debt					
Benchmark	JP Morgan EMBI Global Diversified					
Universe						

Portfolio Performance Summary								
	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	S.I. Date	
Aberdeen Emerging Markets Bond Fund	-5.2	-25.5	-7.9	-3.9		-0.3	Dec-14	
JP Morgan EMBI Global Diversified	-4.6	-24.3	-7.2	-2.6	1.1	0.5	Dec-14	
50% JPM EMBI GD, 25% JPM GBI EM GD, 25% CMBI Broad	-4.3	-21.9	-6.2	-2.3	0.7	0.4	Dec-14	

Aberdeen Emerging Markets Bond Fund Characteristics vs. JP Morgan EMBI Global TR									
	Portfolio	Index	Portfolio						
	Q2-22	Q2-22	Q1-22						
Fixed Income Characteristics									
Yield to Maturity	10.7	7.1	8.5						
Average Duration	5.9	7.0	6.9						
Average Quality	BB	BBB	BB						
Weighted Average Maturity	10.8	12.1	12.0						







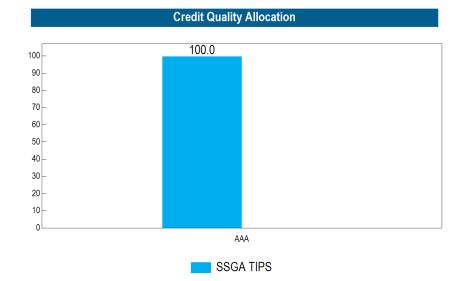
#### Austin Fire Fighters Relief and Retirement Fund

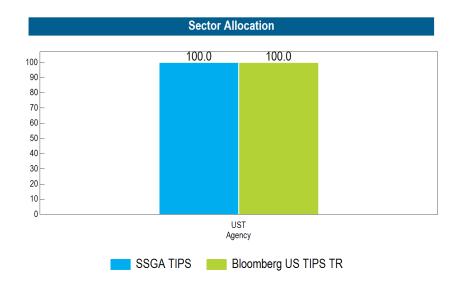
#### SSGA TIPS | As of September 30, 2022

Account Information							
Account Name	SSGA TIPS						
Account Structure	Commingled Fund						
Investment Style	Passive						
Inception Date	8/01/14						
Account Type	US Inflation Protected Fixed						
Benchmark	Bloomberg US TIPS TR						
Universe	eV US TIPS / Inflation Fixed Inc Net						

Portfolio Performance Summary								
	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs 1 (%)	0 Yrs (%)	S.I. (%)	S.I. Date
SSGA TIPS	-5.1	-13.6	-11.6	0.7	1.9		1.4	Aug-14
Bloomberg US TIPS TR	-5.1	-13.6	-11.6	0.8	2.0	1.0	1.5	Aug-14
eV US TIPS / Inflation Fixed Inc Net Median	-5.0	-13.3	-11.4	0.9	2.0	1.0	1.5	Aug-14
eV US TIPS / Inflation Fixed Inc Net Rank	61	69	61	72	72		73	Aug-14

SSGA TIPS Characteristics									
vs. Blo	omberg US TIPS TR								
	Portfolio	Index	Portfolio						
	Q3-22	Q3-22	Q2-22						
Fixed Income Characteristics									
Yield to Maturity	4.2	4.1	3.4						
Average Duration	5.9	6.8	5.1						
Average Quality	AAA	AA	AAA						
Weighted Average Maturity	7.3	7.3	7.4						





#### Austin Fire Fighters Relief and Retirement Fund

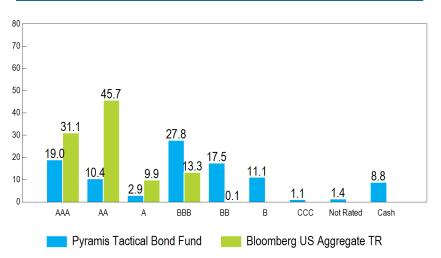
#### Pyramis Tactical Bond Fund | As of September 30, 2022

Account Information								
Account Name	Pyramis Tactical Bond Fund							
Account Structure	Commingled Fund							
Investment Style	Active							
Inception Date	8/01/13							
Account Type	US Fixed Income High Yield							
Benchmark	Bloomberg US Aggregate TR							
Universe	eV US Core Plus Fixed Inc Net							

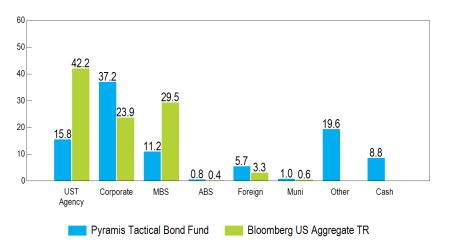
Portfolio Performance Summary								
	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	S.I. Date
Pyramis Tactical Bond Fund	-2.7	-13.2	-12.7	-0.9	1.7		3.1	Aug-13
Bloomberg US Aggregate TR	-4.8	-14.6	-14.6	-3.3	-0.3	0.9	1.2	Aug-13
eV US Core Plus Fixed Inc Net Median	-4.3	-15.2	-15.2	-2.7	0.2	1.5	1.8	Aug-13
eV US Core Plus Fixed Inc Net Rank	7	13	11	14	5	-	2	Aug-13

Pyramis Tactical Bond Fund Characteristics vs. Bloomberg US Aggregate TR										
Portfolio Index Portfo										
	Q3-22	Q3-22	Q2-22							
Fixed Income Characteristics										
Yield to Maturity	7.5	4.7	6.3							
Average Duration	5.1	6.4	5.4							
Average Quality	BBB	AA	BBB							
Weighted Average Maturity	11.7	13.1	11.4							

#### Credit Quality Allocation



**Sector Allocation** 



#### Austin Fire Fighters Relief and Retirement Fund

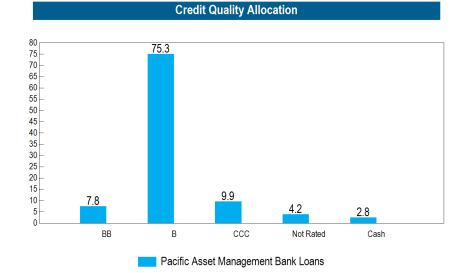
#### Pacific Asset Management Bank Loans | As of September 30, 2022

Account Information							
Account Name	Pacific Asset Management Bank Loans						
Account Structure	Commingled Fund						
Investment Style	Active						
Inception Date	12/01/19						
Account Type	US Fixed Income						
Benchmark	Credit Suisse Leveraged Loans						
Universe	Bank Loan MStar MF						

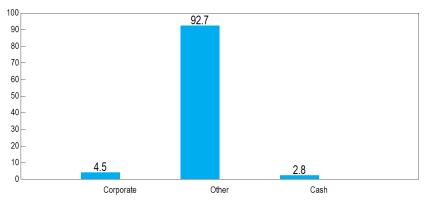
Portfolio Performance Summary								
	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	S.I. Date
Pacific Asset Management Bank Loans	1.2	-3.3	-2.4				1.9	Dec-19
Credit Suisse Leveraged Loans	1.2	-3.3	-2.6	2.1	3.0	3.7	2.2	Dec-19
Bank Loan MStar MF Median	1.2	-4.3	-3.9	1.1	2.1	3.0	1.2	Dec-19
Bank Loan MStar MF Rank	46	16	12				15	Dec-19

Pacific Asset Management Bank Loans Characteristics				
	Portfolio	Portfolio		
	Q3-22	Q2-22		
Fixed Income Characteristics				
Yield to Maturity	10.2	7.6		
Average Duration	0.4	0.3		
Average Quality	В	В		
Weighted Average Maturity	4.1	4.5		

Characteristics are not available for the Credit Suisse Leveraged Loan Index.

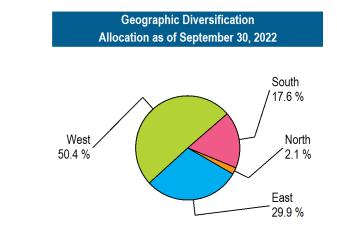


Sector Allocation



Pacific Asset Management Bank Loans

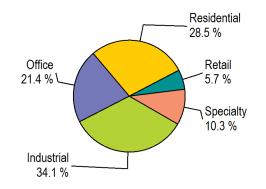
#### Clarion Partners Lion Properties Fund | As of September 30, 2022



Account Information				
Account Name	<b>Clarion Partners Lion Properties Fund</b>			
Account Structure	Commingled Fund			
Investment Style	Active			
Inception Date	4/01/05			
Account Type	Real Estate			
Benchmark	NCREIF ODCE Equal Weighted (Net)			
Universe				

Portfolio Performance Summary								
	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	S.I. Date
Clarion Partners Lion Properties Fund	0.4	14.9	23.6	13.2	11.0	11.3	7.2	Apr-05
NCREIF ODCE Equal Weighted (Net)	0.8	13.3	21.7	12.1	9.9	10.3	7.4	Apr-05

Property Type Allocation Allocation as of September 30, 2022



**MEKETA** 



#### Fee Summary | As of September 30, 2022

Investment Expense Analysis							
As Of September 30, 2022							
Name	Market Value	% of Portfolio	Estimated Fee	Estimated Fee Value			
Westwood Capital Large Cap Value	\$26,991,262	3.9%	0.50%	\$134,956			
Westfield Small/Mid Cap Growth	\$55,391,372	8.0%	0.39%	\$216,026			
Vaughan Nelson Small Cap Value	\$56,705,540	8.2%	0.90%	\$512,792			
SSgA S&P 500	\$64,159,292	9.3%	0.01%	\$8,916			
Baillie Gifford International Growth Fund	\$25,601,666	3.7%	0.61%	\$156,170			
Sanderson International Value	\$37,610,112	5.5%	0.84%	\$316,966			
Highclere International Small Cap	\$35,667,045	5.2%	1.16%	\$412,004			
SSgA MSCI EAFE Fund	\$31,503,672	4.6%	0.06%	\$18,902			
DFA Emerging Markets Value	\$29,188,179	4.2%	0.38%	\$110,915			
TT Emerging Markets Equity	\$26,115,229	3.8%	0.80%	\$208,922			
SSgA Bond Fund	\$81,887,661	11.9%	0.03%	\$24,566			
Loomis Sayles Core Plus Fixed Income	\$52,000,690	7.6%	0.29%	\$150,002			
Aberdeen Emerging Markets Bond Fund	\$59,275,997	8.6%	0.45%	\$266,742			
SSGA TIPS	\$53,564,549	7.8%	0.03%	\$16,069			
Pyramis Tactical Bond Fund	\$33,459,855	4.9%	0.34%	\$113,764			
Pacific Asset Management Bank Loans	\$19,486,848	2.8%	0.41%	\$79,896			
Total	\$688,608,971	100.0%	0.40%	\$2,747,608			

Estimated fees are based off of public investments only and are calculated by multiplying manager fee schedules by each fund's market value as of the report date. Estimated fees do not take into consideration potential performance based fees, fund expenses or charges. Private market fees are reported annually in separate report.

## **Private Equity Pacing History**



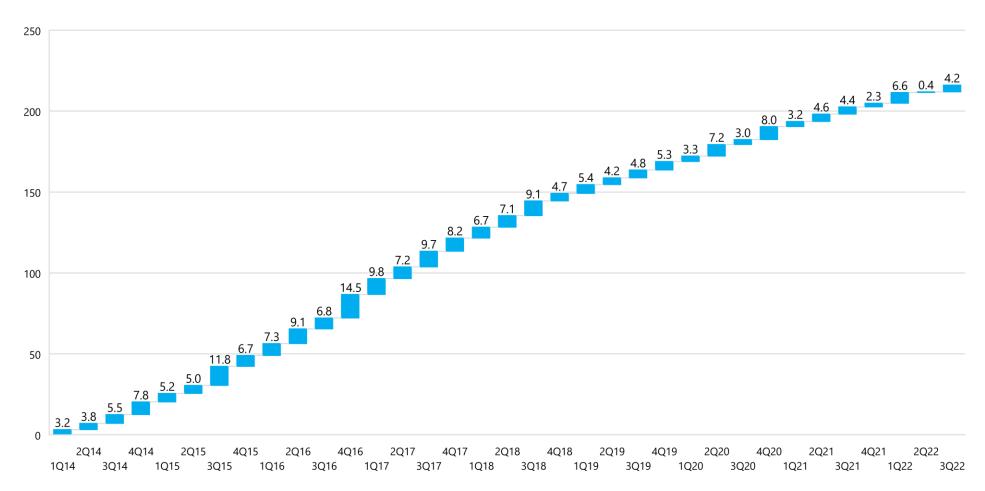
**Private Equity Pacing History** 

#### Background

 $\rightarrow$  Annually we conduct a review on the historical pace of capital calls, distributions, etc.



**Private Equity Pacing History** 

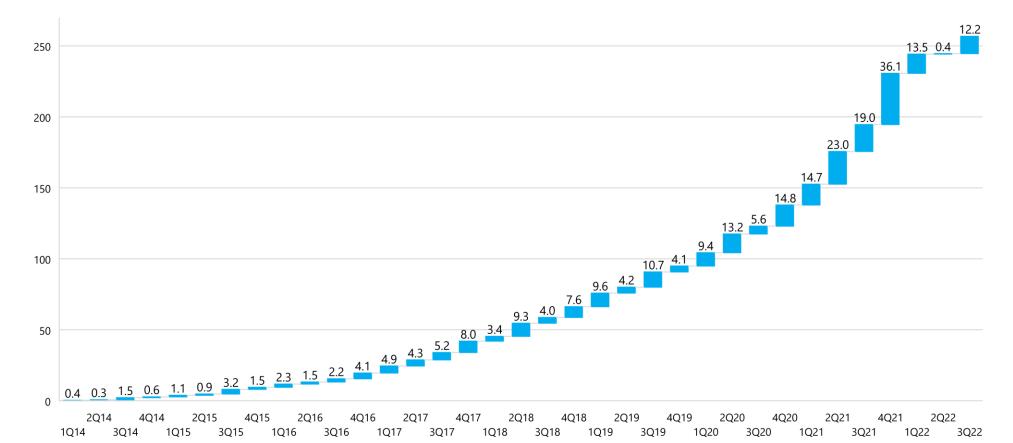


**Capital Calls History** 

 $\rightarrow$  Capital calls per-quarter have been rather steady over the life of the private equity program.



**Private Equity Pacing History** 



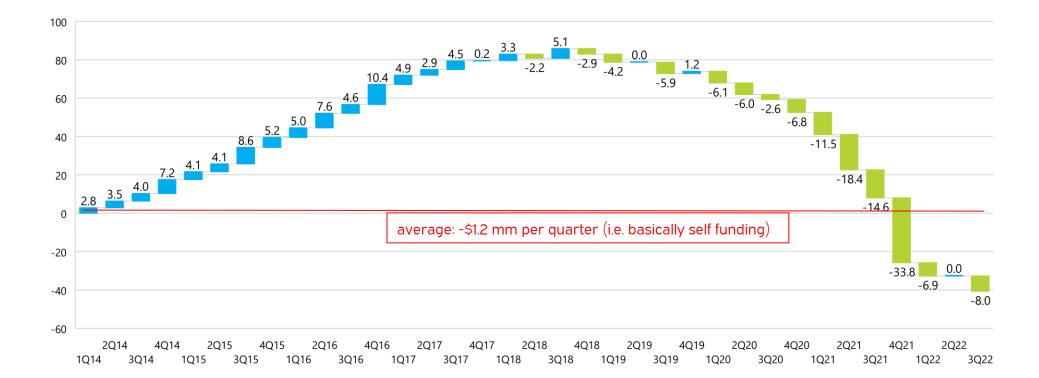
#### **Distributions History**

ightarrow The pace of distributions has accelerated significantly over the past two years.



**Private Equity Pacing History** 

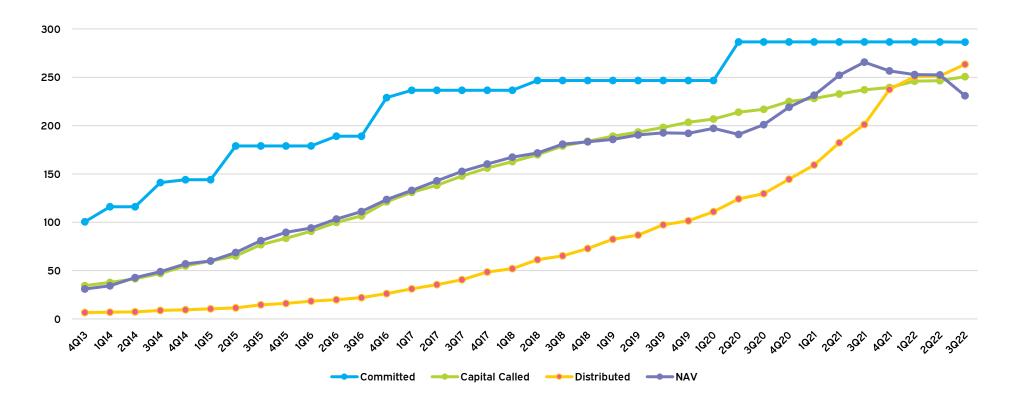




→ As the private equity program has matured, more cash is coming back in distributions (negative number) than being called to fund newer commitments. Overall the program has been self funding.



**Private Equity Pacing History** 



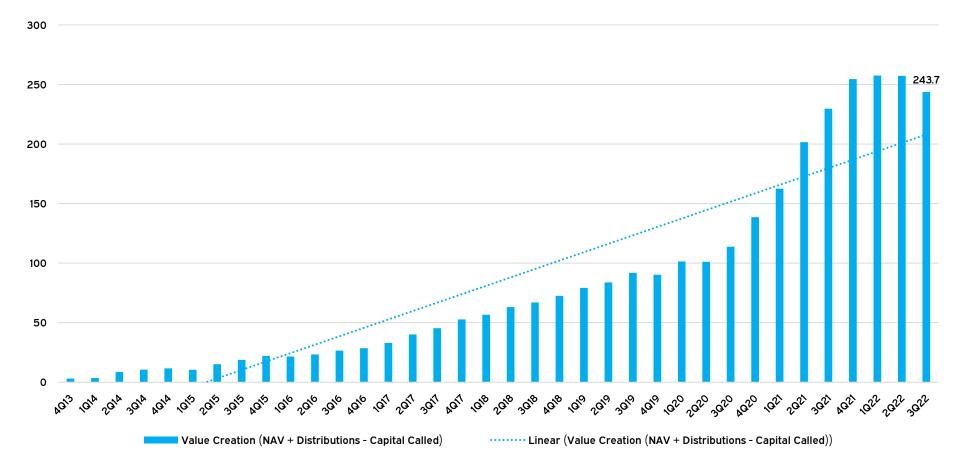
#### Private Equity Total History (Cumulative)

- $\rightarrow$  The 2020 \$40 mm commitment to HarbourVest Dover Street X can be seen in the top blue line
- → There has been a slight downward trend in NAV as distributions have accelerated and appreciation levels have slowed given market conditions.



**Private Equity Pacing History** 



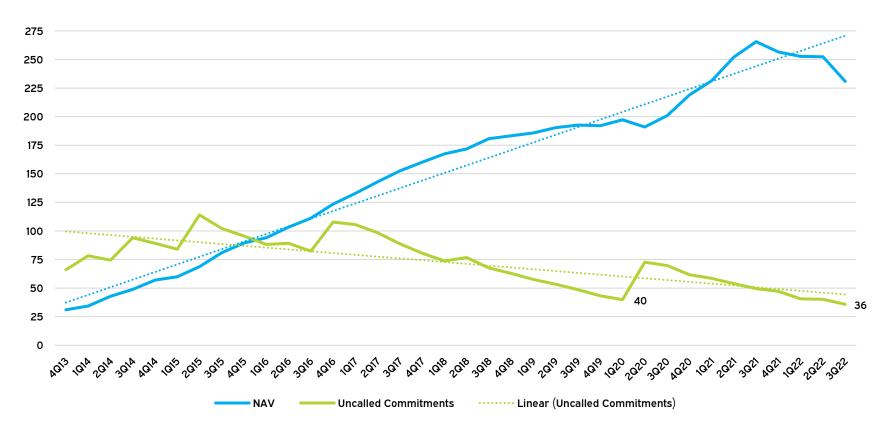


→ Value creation has been consistent. There has been a significant acceleration in the past two years relative to historical trend.



**Private Equity Pacing History** 





→ Uncalled committed level is at its lowest level (\$36 mm), indicating an additional commitment could be appropriate in 2023. The uncalled commitment level (green line) has averaged around \$70 million.



**Private Equity Pacing History** 

15% Target to Private Equity Fund of Funds					
Year Type		Amount			
Year1+/-	Global Primary Fund of Funds (1)	\$40-50 mm			
Year 2 +/-	Specialized Fund of Funds (1 to 2)	\$20 mm			
Year 3 +/-	Global Secondary Fund of Funds (1)	\$40-50 mm			
Years 4-6	Same cycle repeats				

#### Historical Commitment Plan

#### **Actual Implementation**

Year	Туре	Fund	Amount
2016	Global Primary Fund of Funds	LGT Crown Global Opportunities Fund VI	\$40 mm
2017	Specialized Fund of Funds	HarbourVest Co-investment Fund IV	\$10 mm
2018	Specialized Fund of Funds	SVB Strategic Investors Fund IX	\$10 mm
2020	Global Secondary Fund of Funds	HarbourVest Dover Street X	\$40 mm



**Private Equity Pacing History** 

#### **Next Steps**

- $\rightarrow$  We are now at the stage of the pacing program where the "cycle repeats."
- → We will continue to monitor Austin Fire's private equity exposure and the universe of General Partners raising new funds.

Update on Crow Real Estate X



Update on Crow Real Estate X

#### Background

- $\rightarrow$  At the August 2022 meeting the Trustees voted to commit \$20 mm to Crow Real Estate X (value add real estate investment)
- → Funding will come from partial redemption of Clarion Lion Properties Real Estate Fund (core real estate investment).

#### Status

 $\rightarrow$  As of the beginning of November the subscription documents and side letter were still in legal review.

## Memos in the Quarter



5200 Blue Lagoon Drive Suite 120 Miami, FL 33126 305.341.2900 Meketa.com

#### **MEMORANDUM**

- TO: Trustees, Austin Fire Fighters Relief and Retirement Fund
- FROM: Leandro A. Festino, Aaron C. Lally, Colin Kowalski, Meketa Investment Group
- **DATE:** August 25, 2022
- **RE:** Sanderson Fee Reduction

#### OVERVIEW

Austin Fire Fighters Relief and Retirement Fund (the "Fund") is invested in Sanderson's International Value Fund. As of June 30, 2022 the Fund had \$43 mm invested in the strategy (approximately 3.8% of the total Fund). Since inception the strategy has generated a net return of 2.8%, relative to a return of 2.3% for the MSCI EAFE Value benchmark.

#### SUMMARY & CONCLUSIONS

Sanderson is reducing its fee. We assume this could be related to performance struggles.

#### DETAILS

The old effective fee was 82 bps. The new effective fee is 74 bps. Based on the June 30, 2022 market value the expected annual fee savings are \$35,000.

Old Effective Fee			New Effective Fee		
1st \$10 mm	100 bps	\$100,000	1st \$25 mm	80 bps	\$200,000
Next \$15 mm	90 bps	\$135,000	Next \$25 mm	65 bps	\$118,242
Next \$25 mm	65 bps	\$118,242	Next \$25 mm	55 bps	-
Next \$25	55 bps	-			
Remainder	45 bps	-	Remainder	45 bps	-
Total Fee		\$353,242	Total Fee		\$318,242

While we are pleased with the proactive fee reduction, we are disappointed in the investment performance. Firm assets have been declining over the past five years from a highwater mark of \$12 bb at the end of 2017, down to \$8 bb at the end of 2019, down to \$5 bb at the end of 2021, and currently  $\sim$ \$2.5 bb.

#### **NEXT STEPS**

We would like Sanderson to attend the November meeting to reeducate the Board on the merits of strategy and discuss recent performance struggles and the decline in assets under management.

Please feel free to give us a call with any questions.

LAF/ACL/CK/nd

## **Presentation by Sanderson International Value**

## Roadmap



5200 Blue Lagoon Drive Suite 120 Miami, FL 33126 305.341.2900 Meketa.com

#### AUSTIN FIRE FIGHTERS RELIEF AND RETIREMENT FUND

#### PRELIMINARY ROAD MAP

#### November 2022 Investment Committee Meeting

- 1. Economic review
- 2. 3Q performance review
- 3. Annual private equity pacing review
- 4. Update on Crow Real Estate Fund X
- 5. Memos from the quarter
- 6. Presentation by Sanderson International Value

#### February 2023 Investment Committee Meeting

- 1. Annual asset study review
- 2. Annual Investment Policy Statement review
- 3. 4Q performance review
- 4. Fiscal Year review
- 5. Memos from the quarter

<sup>&</sup>lt;sup>1</sup> Dates and actions subject to change based on client needs and capital market conditions

## Appendix

Disclaimer, Glossary, and Notes



#### **Disclaimer, Glossary, and Notes**

WE HAVE PREPARED THIS REPORT FOR THE SOLE BENEFIT OF AUSTIN FIRE FIGHTERS RELIEF AND RETIREMENT FUND.

SIGNIFICANT EVENTS MAY OCCUR (OR HAVE OCCURRED) AFTER THE DATE OF THIS REPORT AND THAT IT IS NOT OUR FUNCTION OR RESPONSIBILITY TO UPDATE THIS REPORT. ANY OPINIONS OR RECOMMENDATIONS PRESENTED HEREIN REPRESENT OUR GOOD FAITH VIEWS AS OF THE DATE OF THIS REPORT AND ARE SUBJECT TO CHANGE AT ANY TIME. ALL INVESTMENTS INVOLVE RISK. THERE CAN BE NO GUARANTEE THAT THE STRATEGIES, TACTICS, AND METHODS DISCUSSED HERE WILL BE SUCCESSFUL.

INFORMATION USED TO PREPARE THIS REPORT WAS OBTAINED FROM INVESTMENT MANAGERS, CUSTODIANS, AND OTHER EXTERNAL SOURCES. WHILE WE HAVE EXERCISED REASONABLE CARE IN PREPARING THIS REPORT, WE CANNOT GUARANTEE THE ACCURACY OF ALL SOURCE INFORMATION CONTAINED HEREIN.

CERTAIN INFORMATION CONTAINED IN THIS REPORT MAY CONSTITUTE "FORWARD - LOOKING STATEMENTS," WHICH CAN BE IDENTIFIED BY THE USE OF TERMINOLOGY SUCH AS "MAY," "WILL," "SHOULD," "EXPECT," "AIM", "ANTICIPATE," "TARGET," "PROJECT," "ESTIMATE," "INTEND," "CONTINUE" OR "BELIEVE," OR THE NEGATIVES THEREOF OR OTHER VARIATIONS THEREON OR COMPARABLE TERMINOLOGY. ANY FORWARD-LOOKING STATEMENTS, FORECASTS, PROJECTIONS, VALUATIONS, OR RESULTS IN THIS PRESENTATION ARE BASED UPON CURRENT ASSUMPTIONS. CHANGES TO ANY ASSUMPTIONS MAY HAVE A MATERIAL IMPACT ON FORWARD - LOOKING STATEMENTS, FORECASTS, PROJECTIONS, VALUATIONS, VALUATIONS, OR RESULTS IN THIS PRESENTATION ARE BASED UPON CURRENT, PROJECTIONS, VALUATIONS, OR RESULTS. ACTUAL RESULTS MAY THEREFORE BE MATERIALLY DIFFERENT FROM ANY FORECASTS, PROJECTIONS, VALUATIONS, OR RESULTS IN THIS PRESENTATION.

PERFORMANCE DATA CONTAINED HEREIN REPRESENT PAST PERFORMANCE. PAST PERFORMANCE IS NO GUARANTEE OF FUTURE RESULTS.



#### **Disclaimer, Glossary, and Notes**

Credit Risk: Refers to the risk that the issuer of a fixed income security may default (i.e., the issuer will be unable to make timely principal and/or interest payments on the security.)

**Duration:** Measure of the sensitivity of the price of a bond to a change in its yield to maturity. Duration summarizes, in a single number, the characteristics that cause bond prices to change in response to a change in interest rates. For example, the price of a bond with a duration of three years will rise by approximately 3% for each 1% decrease in its yield to maturity. Conversely, the price will decrease 3% for each 1% increase in the bond's yield. Price changes for two different bonds can be compared using duration. A bond with a duration of six years will exhibit twice the percentage price change of a bond with a three-year duration. The actual calculation of a bond's duration is somewhat complicated, but the idea behind the calculation is straightforward. The first step is to measure the time interval until receipt for each cash flow (coupon and principal payments) from a bond. The second step is to compute a weighted average of these time intervals. Each time interval is measured by the present value of that cash flow. This weighted average is the duration of the bond measured in years.

**Information Ratio:** This statistic is a measure of the consistency of a portfolio's performance relative to a benchmark. It is calculated by subtracting the benchmark return from the portfolio return (excess return), and dividing the resulting excess return by the standard deviation (volatility) of this excess return. A positive information ratio indicates outperformance versus the benchmark, and the higher the information ratio, the more consistent the outperformance.

Jensen's Alpha: A measure of the average return of a portfolio or investment in excess of what is predicted by its beta or "market" risk. Portfolio Return- [Risk Free Rate+Beta\*(market return-Risk Free Rate)].

**Market Capitalization:** For a firm, market capitalization is the total market value of outstanding common stock. For a portfolio, market capitalization is the sum of the capitalization of each company weighted by the ratio of holdings in that company to total portfolio holdings; thus it is a weighted-average capitalization. Meketa Investment Group considers the largest 65% of the broad domestic equity market as large capitalization, the next 25% of the market as medium capitalization, and the smallest 10% of stocks as small capitalization.

Market Weighted: Stocks in many indices are weighted based on the total market capitalization of the issue. Thus, the individual returns of higher market-capitalization issues will more heavily influence an index's return than the returns of the smaller market-capitalization issues in the index.

Maturity: The date on which a loan, bond, mortgage, or other debt/security becomes due and is to be paid off.

**Prepayment Risk:** The risk that prepayments will increase (homeowners will prepay all or part of their mortgage) when mortgage interest rates decline; hence, investors' monies will be returned to them in a lower interest rate environment. Also, the risk that prepayments will slow down when mortgage interest rates rise; hence, investors will not have as much money as previously anticipated in a higher interest rate environment. A prepayment is any payment in excess of the scheduled mortgage payment.

Price-Book Value (P/B) Ratio: The current market price of a stock divided by its book value per share. Meketa Investment Group calculates P/B as the current price divided by Compustat's quarterly common equity. Common equity includes common stock, capital surplus, retained earnings, and treasury stock adjusted for both common and nonredeemable preferred stock. Similar to high P/E stocks, stocks with high P/B's tend to be riskier investments.



#### **Disclaimer, Glossary, and Notes**

**Price-Earnings (P/E) Ratio:** A stock's market price divided by its current or estimated future earnings. Lower P/E ratios often characterize stocks in low growth or mature industries, stocks in groups that have fallen out of favor, or stocks of established blue chip companies with long records of stable earnings and regular dividends. Sometimes a company that has good fundamentals may be viewed unfavorably by the market if it is an industry that is temporarily out of favor. Or a business may have experienced financial problems causing investors to be skeptical about is future. Either of these situations would result in lower relative P/E ratios. Some stocks exhibit above-average sales and earnings growth or expectations for above average growth. Consequently, investors are willing to pay more for these companies' earnings, which results in elevated P/E ratios. In other words, investors will pay more for shares of companies whose profits, in their opinion, are expected to increase faster than average. Because future events are in no way assured, high P/E stocks tend to be riskier and more volatile investments. Meketa Investment Group calculates P/E as the current price divided by the I/B/E/S consensus of twelve-month forecast earnings per share.

**Quality Rating:** The rank assigned a security by such rating services as Fitch, Moody's, and Standard & Poor's. The rating may be determined by such factors as (1) the likelihood of fulfillment of dividend, income, and principal payment of obligations; (2) the nature and provisions of the issue; and (3) the security's relative position in the event of liquidation of the company. Bonds assigned the top four grades (AAA, AA, A, BBB) are considered investment grade because they are eligible bank investments as determined by the controller of the currency.

Sharpe Ratio: A commonly used measure of risk-adjusted return. It is calculated by subtracting the risk free return (usually three-month Treasury bill) from the portfolio return and dividing the resulting excess return by the portfolio's total risk level (standard deviation). The result is a measure of return per unit of total risk taken. The higher the Sharpe ratio, the better the fund's historical risk adjusted performance.

STIF Account: Short-term investment fund at a custodian bank that invests in cash-equivalent instruments. It is generally used to safely invest the excess cash held by portfolio managers.

**Standard Deviation:** A measure of the total risk of an asset or a portfolio. Standard deviation measures the dispersion of a set of numbers around a central point (e.g., the average return). If the standard deviation is small, the distribution is concentrated within a narrow range of values. For a normal distribution, about two thirds of the observations will fall within one standard deviation of the mean, and 95% of the observations will fall within two standard deviations of the mean.

**Style:** The description of the type of approach and strategy utilized by an investment manager to manage funds. For example, the style for equities is determined by portfolio characteristics such as price-to-book value, price-to-earnings ratio, and dividend yield. Equity styles include growth, value, and core.

Tracking Error: A divergence between the price behavior of a position or a portfolio and the price behavior of a benchmark, as defined by the difference in standard deviation.



#### **Disclaimer, Glossary, and Notes**

Yield to Maturity: The yield, or return, provided by a bond to its maturity date; determined by a mathematical process, usually requiring the use of a "basis book." For example, a 5% bond pays \$5 a year interest on each \$100 par value. To figure its current yield, divide \$5 by \$95—the market price of the bond—and you get 5.26%. Assume that the same bond is due to mature in five years. On the maturity date, the issuer is pledged to pay \$100 for the bond that can be bought now for \$95. In other words, the bond is selling at a discount of 5% below par value. To figure yield to maturity, a simple and approximate method is to divide 5% by the five years to maturity, which equals 1% pro rata yearly. Add that 1% to the 5.26% current yield, and the yield to maturity is roughly 6.26%.

<u>5% (discount)</u> = 5 (yrs. to maturity) =

1% pro rata, plus 5.26% (current yield)

6.26% (yield to maturity)

Yield to Worst: The lowest potential yield that can be received on a bond without the issuer actually defaulting. The yield to worst is calculated by making worst-case scenario assumptions on the issue by calculating the returns that would be received if provisions, including prepayment, call, or sinking fund, are used by the issuer.

=

**NCREIF Property Index (NPI):** Measures unleveraged investment performance of a very large pool of individual commercial real estate properties acquired in the private market by tax-exempt institutional investors for investment purposes only. The NPI index is capitalization-weighted for a quarterly time series composite total rate of return.

**NCREIF Fund Index - Open End Diversified Core Equity (NFI-ODCE)**: Measures the investment performance of 28 open-end commingled funds pursuing a core investment strategy that reflects funds' leverage and cash positions. The NFI-ODCE index is equal-weighted and is reported gross and net of fees for a quarterly time series composite total rate of return.

Sources: Investment Terminology, International Foundation of Employee Benefit Plans, 1999. The Handbook of Fixed Income Securities, Fabozzi, Frank J., 1991

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Throughout this report, numbers may not sum due to rounding.

Returns for periods greater than one year are annualized throughout this report.

Values shown are in millions of dollars, unless noted otherwise.