

# Austin Fire Fighters Relief and Retirement Fund

February 24, 2023

Investment Meeting

## Agenda

1. Economic and Market Update
2. Executive Summary
3. 4Q22 Investment Report
4. Public manager fee benchmarking
5. Passive framework
6. Annual Investment Policy Statement Review
7. Roadmap
8. Appendix
  - Disclaimer, Glossary and Notes

# **Economic and Market Update**

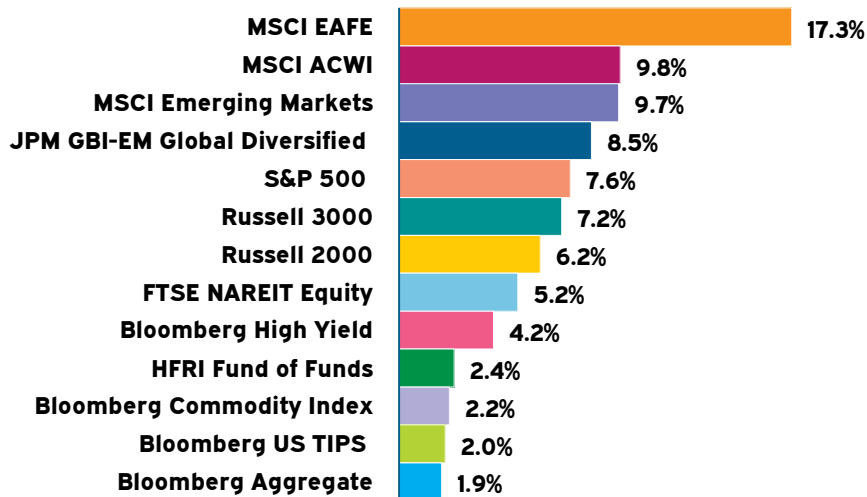
Data as of December 31, 2022

## Commentary

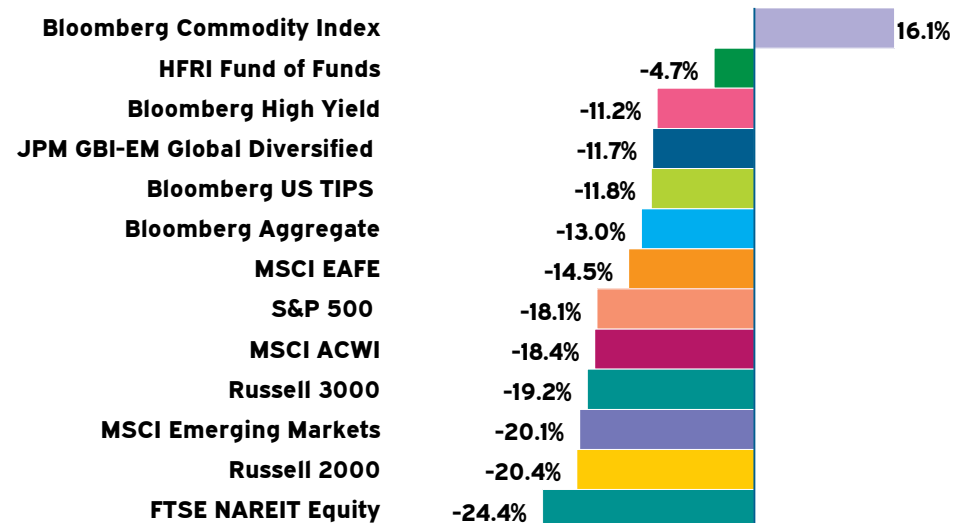
- Ending a very tough year, most asset classes posted gains in the fourth quarter on signs that policy tightening would slow given cooling inflation.
- Chairman Powell's testimony in November reiterated previous messaging on persistent and high inflation and the need for an extended period of monetary tightening weighing on assets in December. Markets remained focused though on signs that inflation is falling and that the size of future Fed rate hikes could be lower.
  - US equity markets sold off (-5.9%) in December but returned 7.2% in the fourth quarter as investors balanced the Fed's caution with improving inflation data.
  - In developed equity markets outside the US, sentiment deteriorated somewhat in December, but they posted a strong fourth quarter return of 17.3% driven by a falling US dollar and results in Europe where inflation started to slow.
  - Emerging market equities declined in December too (-1.4%) but less than the US and also had a strong fourth quarter (+9.7%). A weaker US dollar, declining inflation globally, and signs of China reopening its economy all contributed to the results.
  - Bonds experienced one of the worst years on record given inflation levels and the rapid rise in interest rates. Optimism over declining inflation and a slower pace of policy tightening benefited bonds overall in the fourth quarter though.
- Looking to 2023, the path of inflation and monetary policy, slowing growth globally, China reopening its economy, and the war in Ukraine will all be key.

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

#### Fourth Quarter



#### 2022



→ After broad declines in Q3 driven by expectations for further policy tightening, most major asset classes were up in the fourth quarter on hopes of inflation and policy tightening peaking.

→ Outside of commodities, all other public market asset classes declined in 2022. It was the first time since the 1960s that both stocks and bonds declined together in a calendar year.

<sup>1</sup> Source: Bloomberg and FactSet. Data is as of December 31, 2022.

### Domestic Equity Returns<sup>1</sup>

Domestic Equity	December (%)	Q4 (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)
S&P 500	-5.8	7.6	-18.1	7.7	9.4	12.6
Russell 3000	-5.9	7.2	-19.2	7.1	8.8	12.1
Russell 1000	-5.8	7.2	-19.1	7.3	9.1	12.4
Russell 1000 Growth	-7.7	2.2	-29.1	7.8	11.0	14.1
Russell 1000 Value	-4.0	12.4	-7.5	6.0	6.7	10.3
Russell MidCap	-5.4	9.2	-17.3	5.9	7.1	11.0
Russell MidCap Growth	-6.0	6.9	-26.7	3.9	7.6	11.4
Russell MidCap Value	-5.1	10.5	-12.0	5.8	5.7	10.1
Russell 2000	-6.5	6.2	-20.4	3.1	4.1	9.0
Russell 2000 Growth	-6.4	4.1	-26.4	0.6	3.5	9.2
Russell 2000 Value	-6.6	8.4	-14.5	4.7	4.1	8.5

**US Equities: Russell 3000 Index declined 5.9% for December but gained 7.2% for the quarter. Historic inflation and rapidly rising interest rates led to significant declines (-19.2%) for the full year.**

- US stocks fell broadly in December on the Federal Reserve signaling its continued resolve to raise rates but gained overall for the quarter on hopes that interest rates could be peaking soon given slowing inflation.
- All sectors declined during December, led by consumer discretionary and technology with defensive sectors declining less. For the quarter though, most sectors were up led by energy and industrials.
- In a continuation on the overall trend in 2022 value stocks outperformed growth stocks in the fourth quarter given higher interest rates and slowing growth.

<sup>1</sup> Source: Bloomberg. Data is as of December 31, 2022.

### Foreign Equity Returns<sup>1</sup>

Foreign Equity	December (%)	Q4 (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)
MSCI ACWI ex. US	-0.7	14.3	-16.0	0.1	0.9	3.8
MSCI EAFE	0.1	17.3	-14.5	0.9	1.5	4.7
MSCI EAFE (Local Currency)	-3.0	8.7	-7.0	3.6	3.8	7.6
MSCI EAFE Small Cap	1.1	15.8	-21.4	-0.9	0.0	6.2
MSCI Emerging Markets	-1.4	9.7	-20.1	-2.7	-1.4	1.4
MSCI Emerging Markets (Local Currency)	-2.0	6.6	-15.5	0.1	1.3	4.6
MSCI China	5.2	13.5	-21.9	-7.5	-4.5	2.4

Developed international equities (MSCI EAFE) rose 0.1% in December and an impressive 17.3% in the fourth quarter. Emerging markets (MSCI EM) fell -1.4% in December but gained 9.7% for the quarter. Inflation and rising rates also weighed on international equities last year, as well as a strong US dollar for most of the year.

- International developed market equities, specifically Europe, held up better relative to the rest of the world in December with the MSCI EAFE up 0.1%. In the fourth quarter, they returned a significant 17.3% due in part to the recent weakness in the US dollar (they returned only 8.7% in local terms) leading to lower declines for the year.
- In December emerging markets outperformed the US but trailed developed market equities as China’s rally was not enough to offset weakness elsewhere (e.g., India -5.5%). For the quarter, a weakening US dollar and China reopening led to strong results (+9.7%), but emerging markets remained the weakest for 2022 due to China.
- Like the US, value outpaced growth globally in 2022.

<sup>1</sup> Source: Bloomberg. Data is as of December 31, 2022.

### Fixed Income Returns<sup>1</sup>

Fixed Income	December (%)	Q4 (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)	Current Yield (%)	Duration (Years)
Bloomberg Universal	-0.3	2.2	-13.0	-2.5	0.2	1.3	5.1	6.2
Bloomberg Aggregate	-0.5	1.9	-13.0	-2.7	0.0	1.1	4.7	6.4
Bloomberg US TIPS	-1.0	2.0	-11.8	1.2	2.1	1.1	4.4	6.7
Bloomberg High Yield	-0.6	4.2	-11.2	0.0	2.3	4.0	9.0	4.4
JPM GBI-EM Global Diversified (USD)	2.2	8.5	-11.7	-6.1	-2.5	-2.0	5.8	4.9

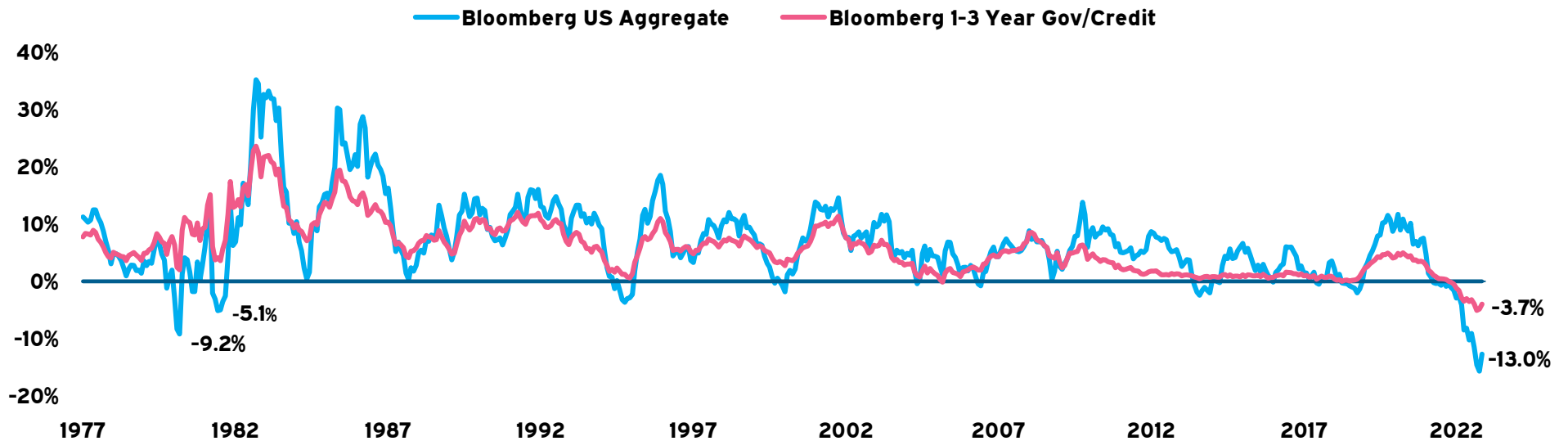
**Fixed Income: The Bloomberg Universal fell -0.3% in December but rose 2.2% for the fourth quarter. Last year was one of the worst on record, with the broad bond market declining 13%.**

- The Federal Reserve reconfirming its commitment to tighten policy in the face of high inflation weighed on US fixed income in December. For the quarter though the broad US bond market (Bloomberg Aggregate) was up 1.9% on hopes that inflation would continue to decline and corresponding expectations for the slowing of policy rate hikes.
- TIPS produced similar results to the broad US bond market for the quarter but outperformed for the year given their inflation adjustment.
- Riskier bonds outperformed for the quarter due to improving risk sentiment with emerging market bonds performing particularly well.

<sup>1</sup> Source: Bloomberg. JPM GBI-EM data is from InvestorForce. Data is as of December 31, 2022. The yield and duration data from Bloomberg is defined as the index's yield to worst and modified duration respectively.



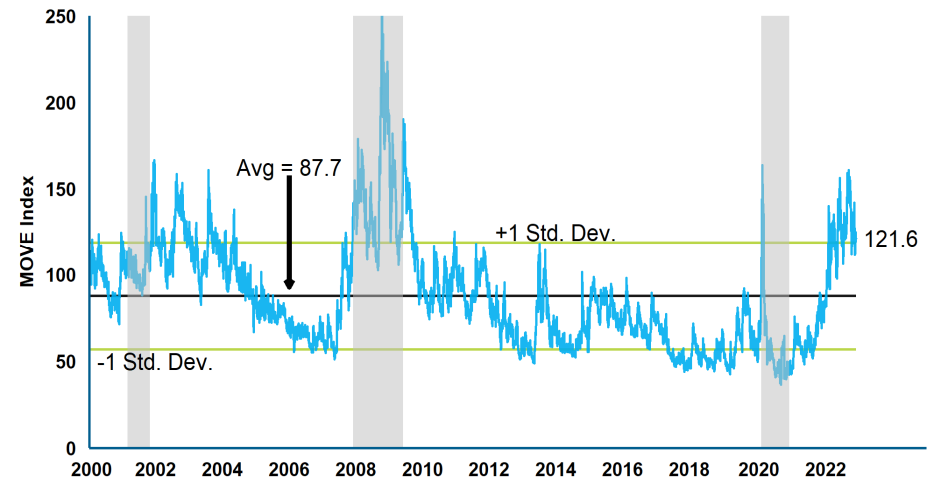
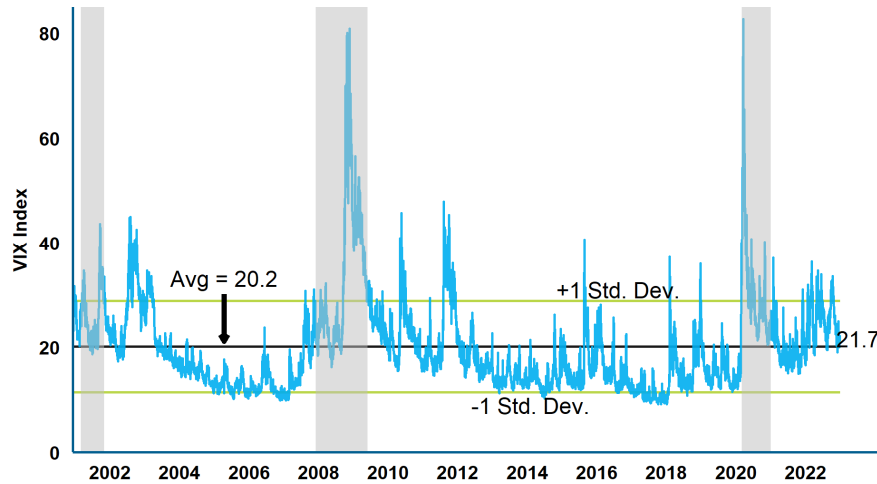
Fixed Income  
Rolling One-year Returns<sup>1</sup>



- Last year was one of the worst return periods for the US bond market given the historic inflation levels and the corresponding rapid rise in interest rates.
- The broad bond market (Bloomberg US Aggregate) declined 13% in 2022 making it one of the worst periods on record.
- Short-term bond declines were far smaller (-3.7%) last year, but also were one of the worst on record.

<sup>1</sup> Source: Bloomberg. Data is as of December 31, 2022.

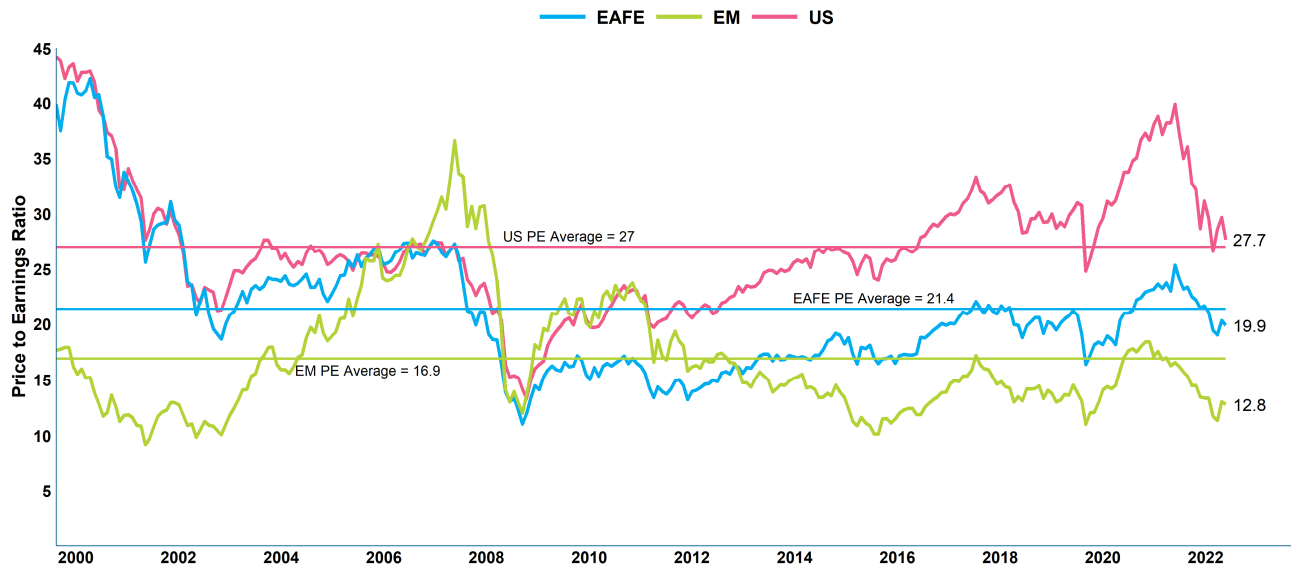
**Equity and Fixed Income Volatility<sup>1</sup>**



- Volatility in equities (VIX) finished the year down from its highs and near its long run average as investors anticipated the potential end of Fed rate hikes this year.
- Fixed income (MOVE) remained elevated and well above its long-run average at year-end due to the uncertain path of US interest rates as the Federal Reserve continues its hawkish stance on inflation.

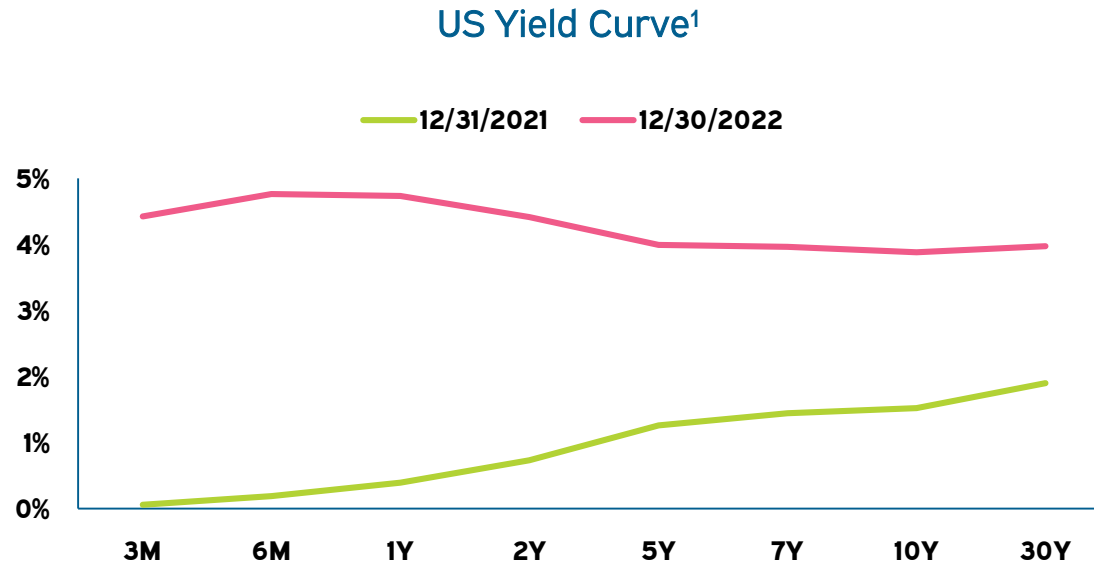
<sup>1</sup> Equity and Fixed Income Volatility – Source: Bloomberg. Implied volatility as measured using VIX Index for equity markets and the MOVE Index to measure interest rate volatility for fixed income markets. Data is as of December 2022. The average line indicated is the average of the VIX and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

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



- After December’s sell-off, US equity price-to-earnings ratio finished the year near its long-term (21st century) average.
- International developed market valuations rose but remain below their own long-term average, with those for emerging markets the lowest and well under the long-term average.
- Price declines have been the main driver of recent multiple compression as earnings have remained resilient. Concerns remain over whether earnings strength will continue in the face of slowing growth.

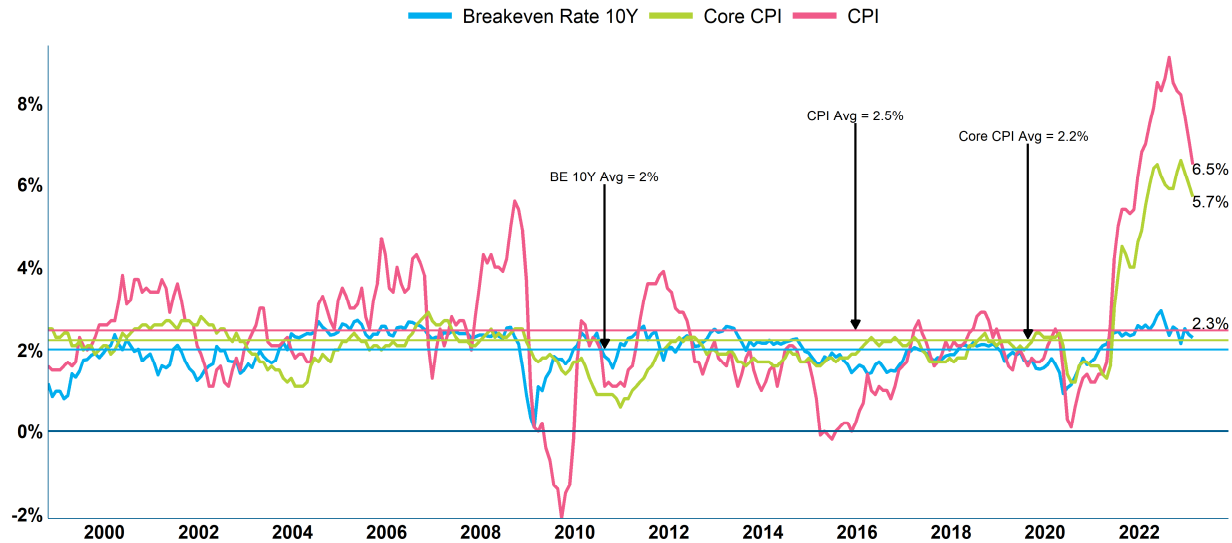
<sup>1</sup> US Equity Cyclically Adjusted P/E on S&P 500 Index. Source: Robert Shiller, Yale University, and Meketa Investment Group. Developed and Emerging Market Equity (MSCI EAFE and EM Index) Cyclically Adjusted P/E – Source: MSCI and Bloomberg. Earnings figures represent the average of monthly “as reported” earnings over the previous ten years. Data is as of December 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.



- In December, policy-sensitive interest rates at the front-end of the curve continued to rise with the two-year Treasury yield increasing from 4.3% to 4.4%. Longer dated ten-year Treasury yields also increased (3.6% to 3.9%). For the year, the yield curve rose dramatically across maturities and moved from steep to inverted.
- The Fed remains strongly committed to fighting inflation, as it increased rates another 50 basis points to a range of 4.0% to 4.5% at its December meeting. This brought the total number of increases for 2022 to seven.
- The yield spread between two-year and ten-year Treasuries narrowed somewhat to -0.54% after finishing November at -0.70%. The more closely watched measure by the Fed of three-month and ten-year Treasuries also remained inverted. Historically, inversions in the yield curve have often preceded recessions.

<sup>1</sup> Source: Bloomberg. Data is as of December 31, 2022.

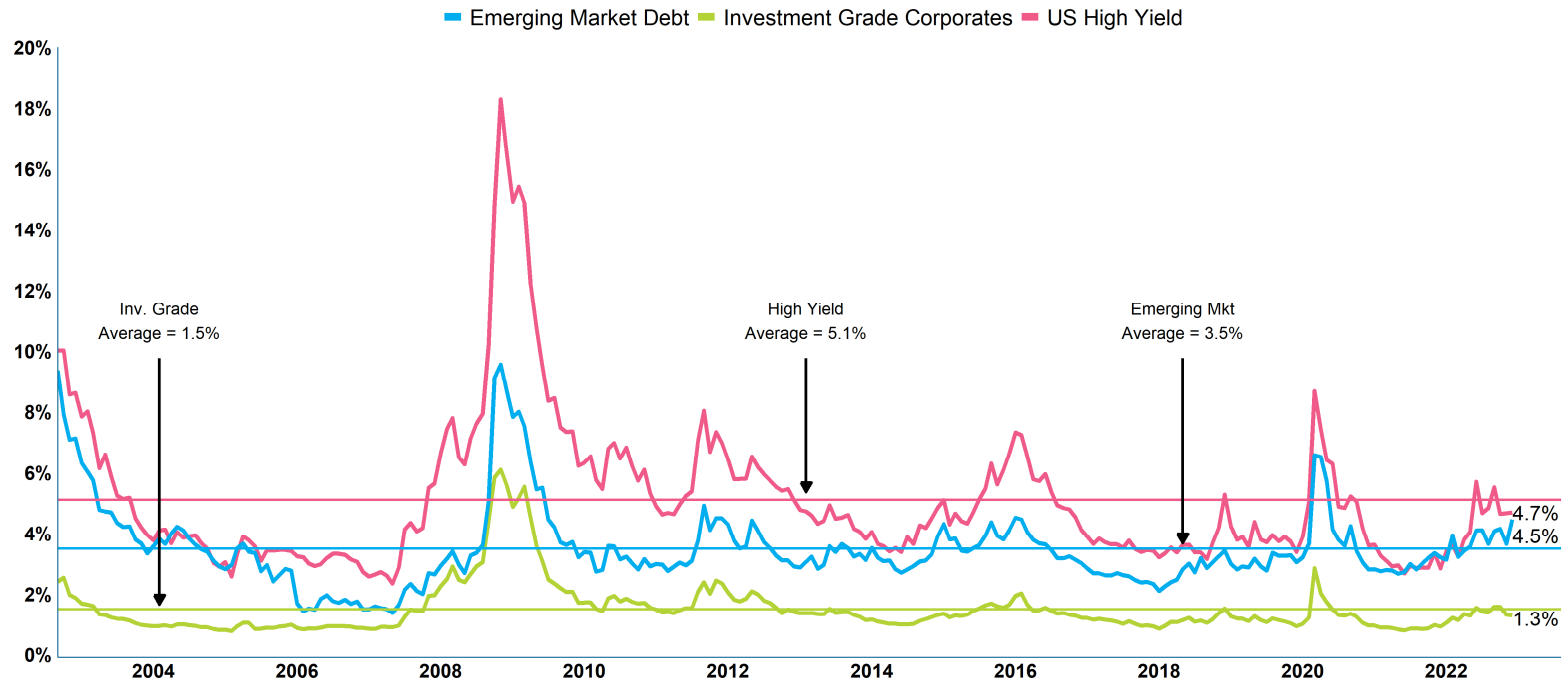
**Ten-Year Breakeven Inflation and CPI<sup>1</sup>**



- In December inflation continued to decline (6.5% versus 7.1%) matching expectations and providing support for the Fed to slow the pace of policy tightening. Energy prices fell again for the month but remain up 7.3% from a year prior, while food prices fell slightly, and stickier service prices continued to increase.
- Core inflation – excluding food and energy – also continued to decline in December (5.7% versus 6.0%) and matched estimates.
- Inflation expectations (breakevens) declined slightly for the month (2.3% versus 2.4%) and remain well below current inflation levels as investors anticipate a significant moderation in inflation.

<sup>1</sup> Source: Bloomberg. Data is as of December 2022. The CPI and 10 Year Breakeven average lines denote the average values from August 1998 to the present month-end respectively. Breakeven values represent month-end values for comparative purposes.

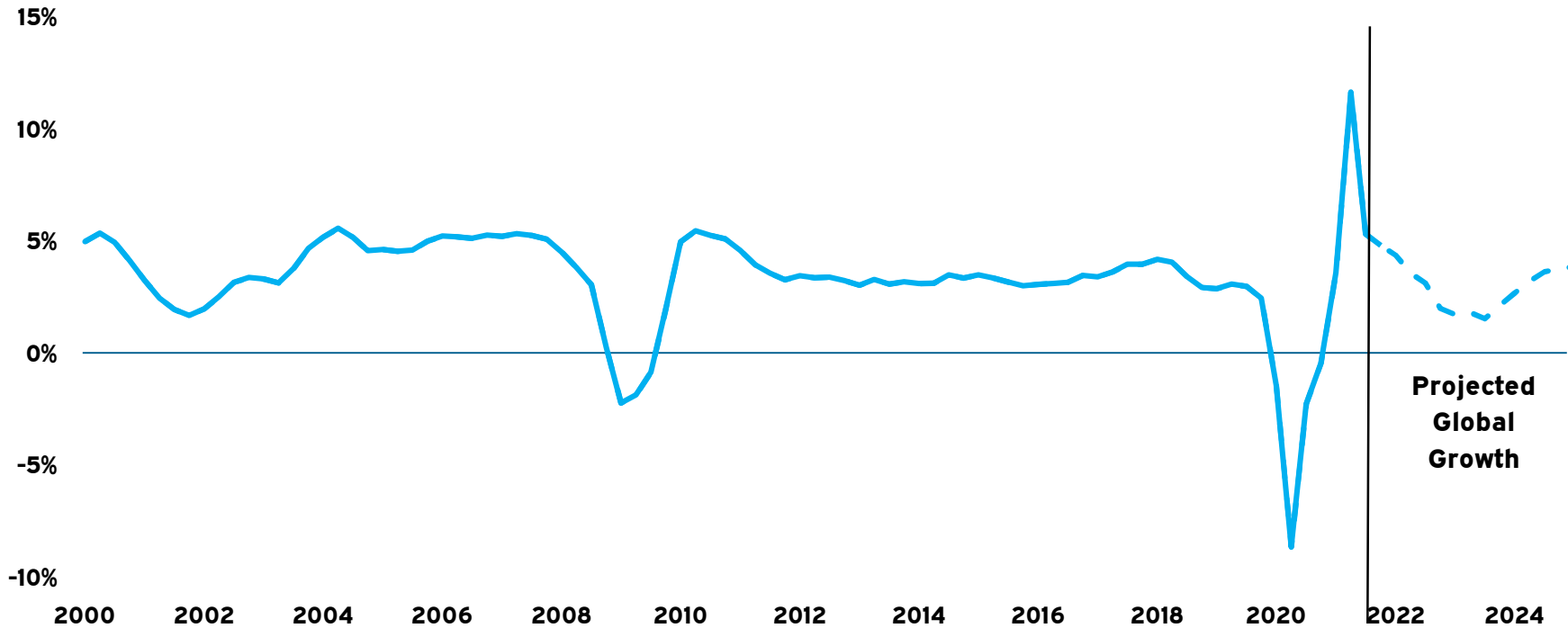
**Credit Spreads vs. US Treasury Bonds<sup>1</sup>**



- High yield spreads (the added yield above a comparable maturity Treasury) finished December at 4.7% (the same as the end of November) remaining below their long-run average.
- Investment grade spreads also held steady at 1.3% as attractive yields and strong balance sheets continued to attract investors, while emerging market spreads rose (4.5% versus 3.6%) due to concerns regarding slower growth and lower commodity prices.

<sup>1</sup> Sources: Bloomberg. Data is as of December 31, 2022. Average lines denote the average of the investment grade, high yield, and emerging market spread values from August 2000 to the recent month-end respectively.

**Global Real Gross Domestic Product (GDP) Growth<sup>1</sup>**

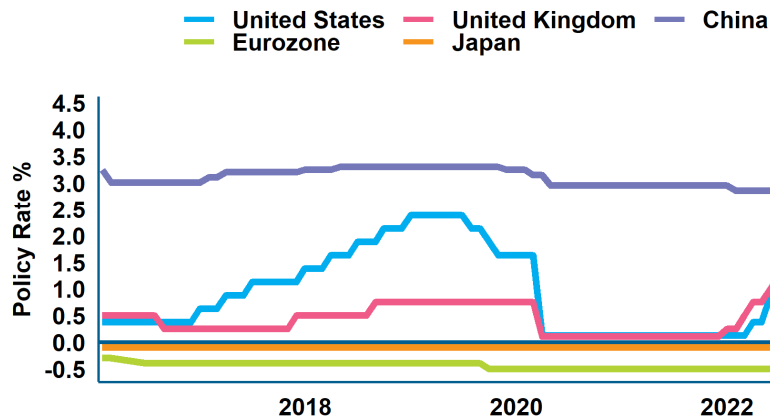


- Global economies are expected to slow in 2023 compared to 2022, with risks of recession increasing given persistently high inflation and related tighter monetary policy.
- The delicate balancing act of central banks trying to reduce inflation without dramatically impacting growth will remain key.

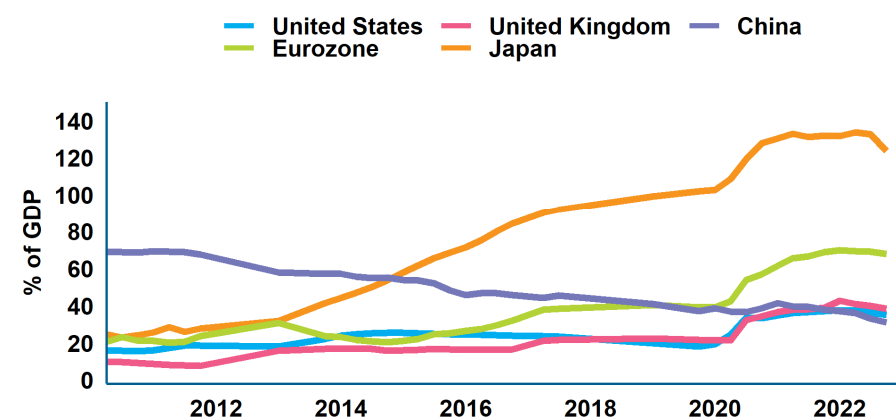
<sup>1</sup> Source: Oxford Economics (World GDP, US\$ prices & PPP exchange rate, real, % change YoY). Updated December 2022.

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

#### Policy Rates



#### Balance Sheet as % of GDP

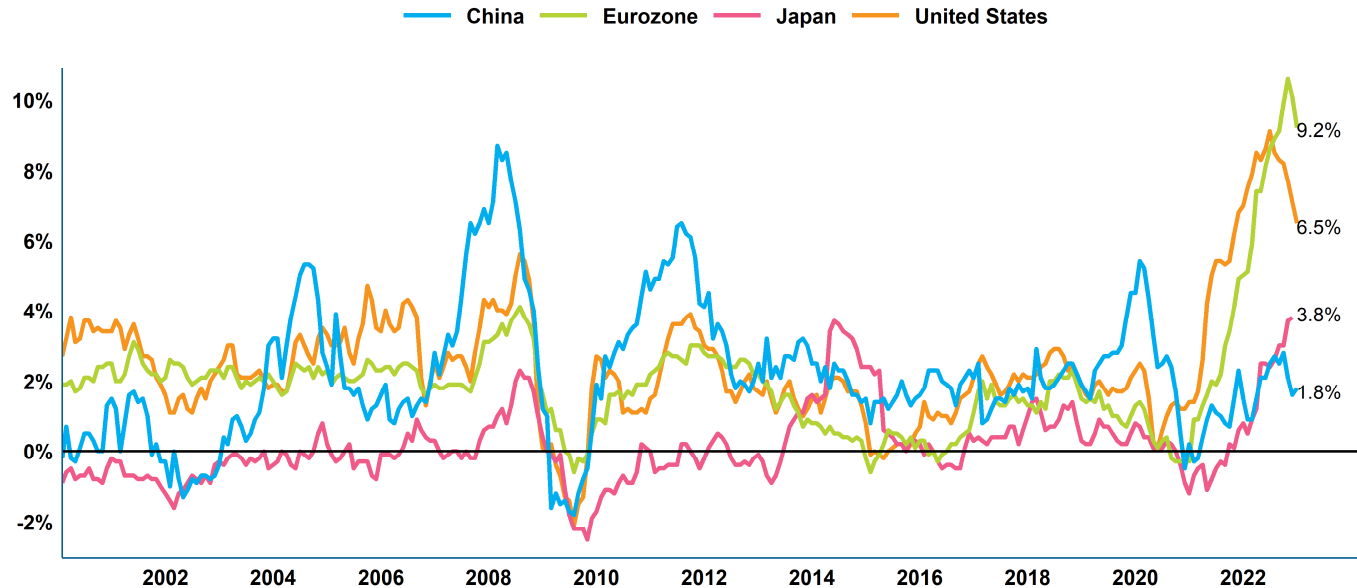


- In 2022 many central banks aggressively reduced pandemic-era policy support in the face of high inflation with the US taking a more aggressive approach.
- In December, the Bank of Japan relaxed its target yield for the 10-year bond which may mark an incremental step toward policy normalization after eight years of quantitative easing.
- 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 and aggressive tightening to date could heavily weigh on global growth. The Federal Reserve's policy rate path could diverge from others this year given their strong early start to tightening.

<sup>1</sup> Source: Bloomberg. Policy rate data is as of December 31, 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 December 31, 2022.



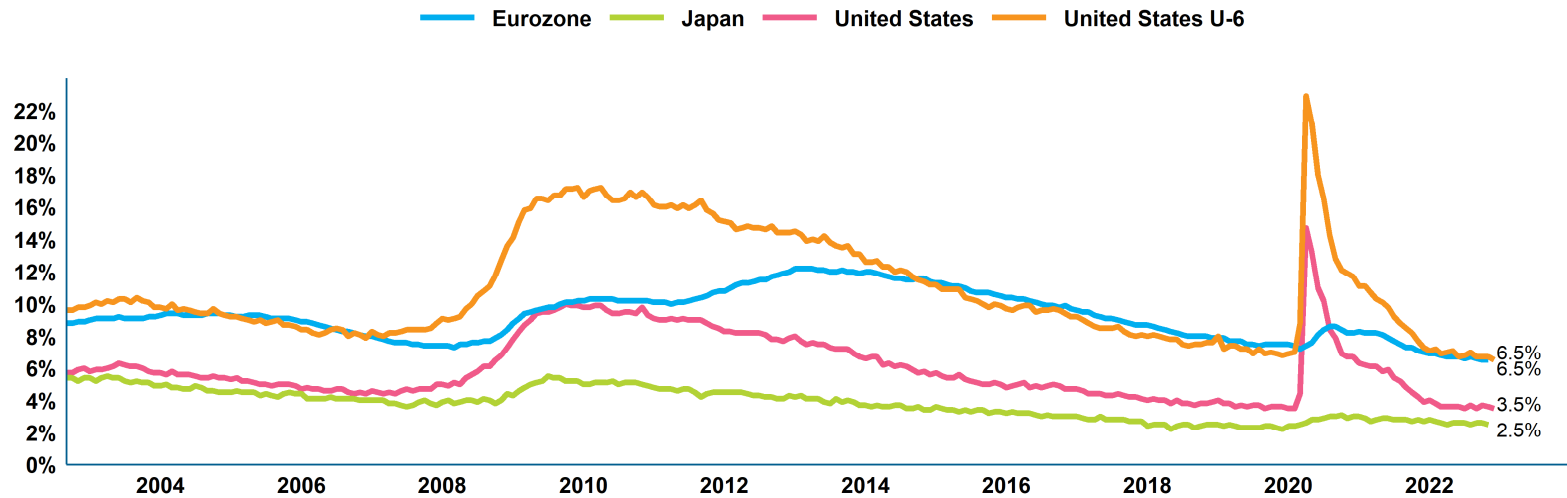
**Inflation (CPI Trailing Twelve Months)<sup>1</sup>**



- 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.
- Inflation pressures are slowly declining in the US, but they remain elevated, while in Europe they have reached historic levels due to skyrocketing energy prices and a weak euro.
- Supply issues related to the pandemic, record monetary and fiscal stimulus, strict COVID-19 restrictions in China, and higher commodity prices driven by the war in Ukraine have been key global drivers of inflation.

<sup>1</sup> Source: Bloomberg. Data is as of December 2022. The most recent Japanese inflation data is as of November 2022.

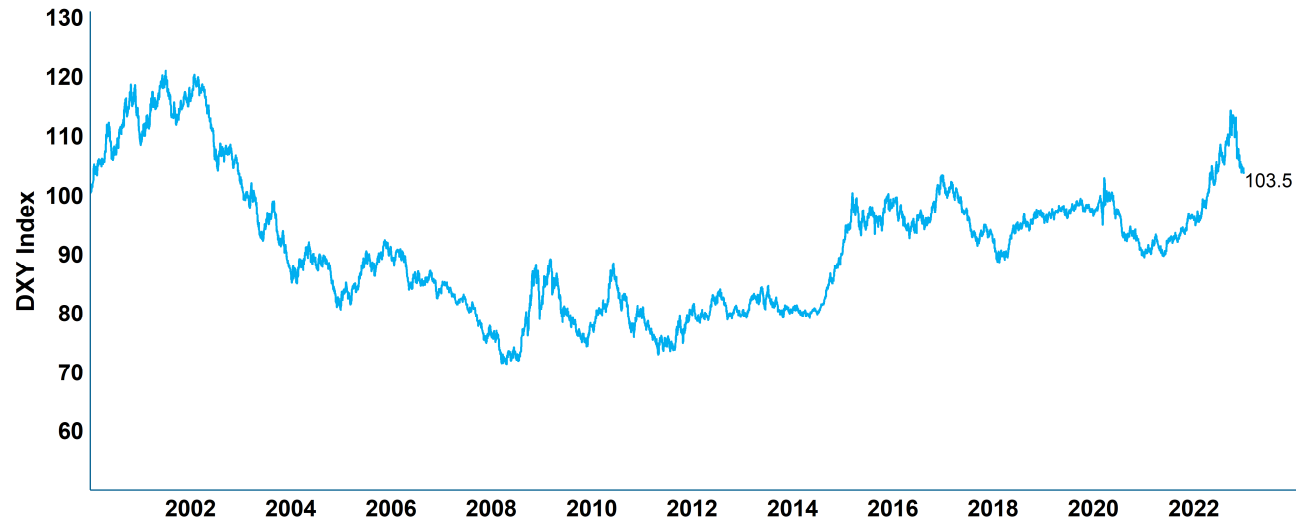
**Unemployment<sup>1</sup>**



- As economies have largely reopened, helped by vaccines for the virus, improvements have been seen in the labor market.
- 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, has remained in a tight 3.5%-3.7% range for most of the year.
- The strong labor market and higher wages, although beneficial for workers, motivates the Fed's efforts to fight inflation, likely leading to higher unemployment.

<sup>1</sup> Source: Bloomberg. Data is as December 31, 2022, for the US. The most recent data for Eurozone and Japanese unemployment is as of November 30, 2022.

US Dollar versus Broad Currencies<sup>1</sup>



- Overall, the US dollar continued to weaken from its recent peak in December as declining inflation supported the case for the Federal Reserve to slow its tightening.
- The dollar finished the year much higher than it started though due to the increased pace of policy tightening, stronger relative growth, and safe-haven flows.
- As we look to 2023, the track of inflation across economies and the corresponding monetary policy will likely be key drivers of currency moves.

<sup>1</sup> Source: Bloomberg. Data as of December 31, 2022.

## Summary

### Key Trends:

- The impacts of record high inflation will remain key, with market volatility likely to stay high.
- Monetary policy could diverge in 2023 with the Fed pausing and others continuing to tighten. The risk of policy errors in both directions remains.
- Growth will continue to slow globally next year, with many economies likely falling into recessions. 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 could weigh on consumer spending.
- Valuations have significantly declined in the US to around long-term averages, largely driven by price declines. The key going forward will be whether earnings can remain resilient if growth continues to slow.
- Outside the US, equity valuations remain lower in both emerging and developed markets, but risks remain, including potential continued strength in the US dollar, higher inflation particularly weighing on Europe, and China's rushed exit from COVID-19 restrictions and on-going weakness in the real estate sector.

## **Executive Summary**

4Q 22 Executive Summary

Category	Results	Notes
Total Fund Performance	Positive	4.3% (+\$47 mm net investment change)
Performance vs. Benchmarks	Beat one, Trailed One	4.3% vs. 4.8% (static) and 3.8% (dynamic)
Performance vs. Peers <sup>1</sup>	Underperformed	4.3% vs. 4.8% median (75 <sup>th</sup> percentile)
Asset Allocation Attribution Effects	Detractive	Underweight international equity hurt as it was the best performing asset class in 4Q
Active Public Managers vs. Benchmarks	Outperformed	7 of 13 active managers beat respective benchmarks (after fees)
Active Public Managers vs. Peer Groups	Outperformed	7 of 12 <sup>2</sup> active managers beat peer group median (after fees)
Compliance with Targets	In Compliance	All exposure within policy ranges

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

<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.

### Peer Rankings

→ The Fund ranks in the top third of \$1 billion+ plans over most longer trailing time periods. Based on the asset allocation, we have noticed the Fund tends to lag over shorter strong US equity driven quarters.

**4Q22 -- (S&P 500 was +7.6%)**

As of 12/31/22	4Q 22	1 YR	3 YR	5 YR	10 YR
Peer Ranking	75	54	23	28	30

**3Q22 -- (S&P 500 was -4.9%)**

As of 9/30/22	3Q 22	1 YR	3 YR	5 YR	10 YR
Peer Ranking	88	59	34	34	29

**2Q22 -- (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

**1Q22 -- (S&P 500 was -4.6%)**

As of 3/31/22	1Q 22	1 YR	3 YR	5 YR	10 YR
Peer Ranking	55	30	17	19	21

**4Q21 -- (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

#### Peer Rankings (continued)

3Q21 -- (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

2Q21 -- (S&P 500 was +8.5%)

As of 6/30/21	2Q 21	1 YR	3 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

4Q20 -- (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

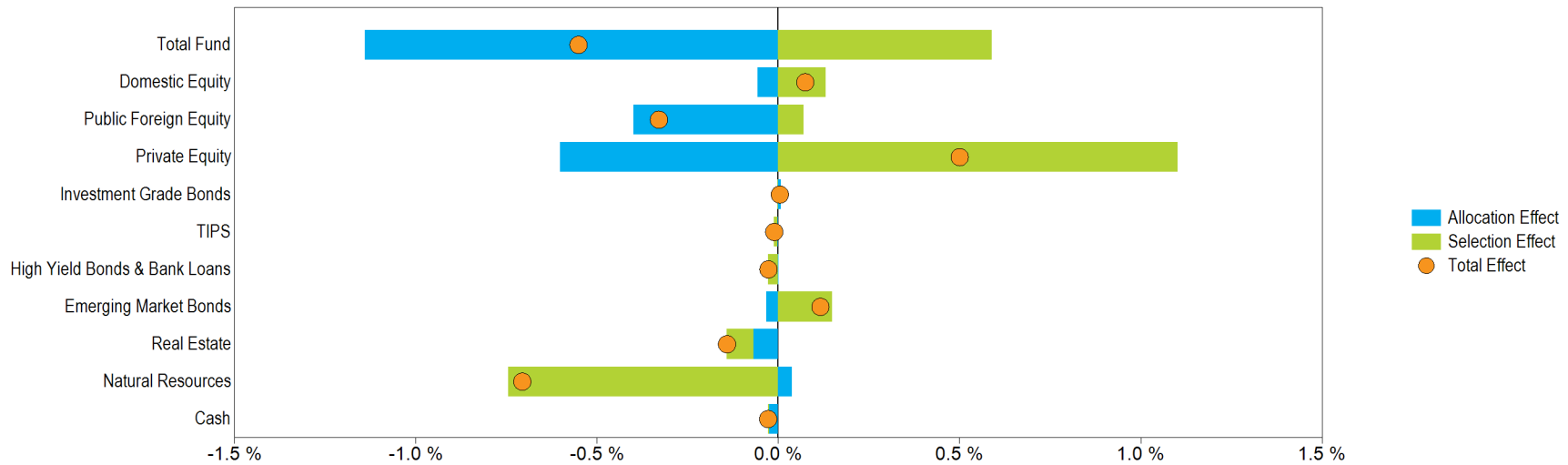
3Q20 -- (S&P 500 was +8.9%)

As of 9/30/20	3Q 20	1 YR	3 YR	5 YR	10 YR
Peer Ranking	22	44	34	25	41



# **Attribution Summary as of December 31,2022**

#### Attribution Effects



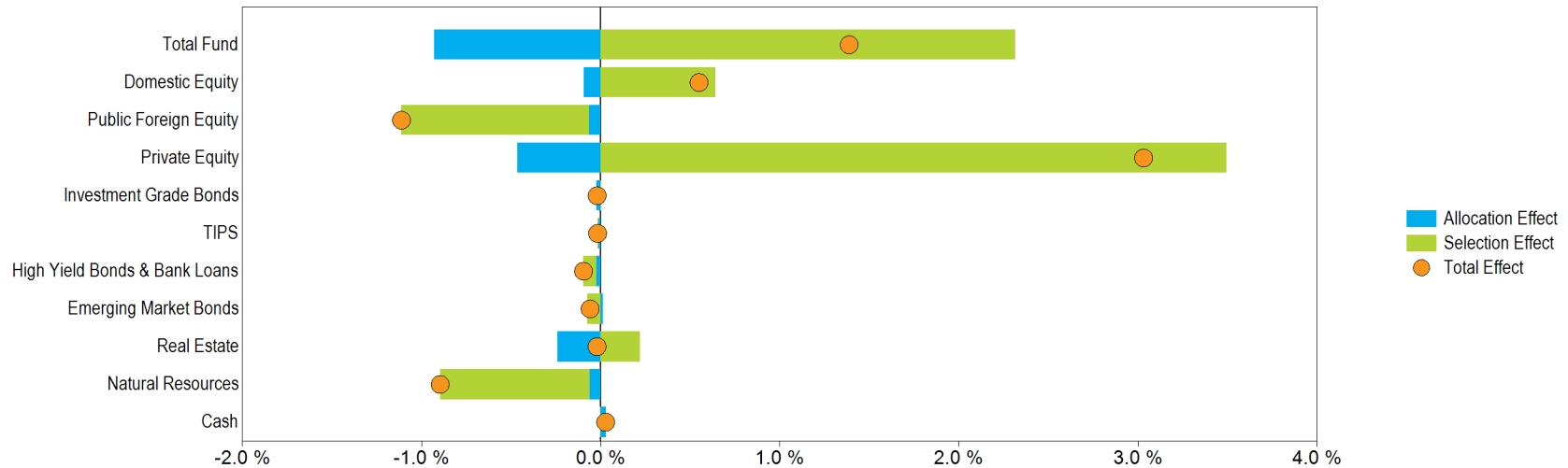
#### Attribution Summary

3 Months Ending December 31, 2022

	Policy Weight	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Total Effects
Domestic Equity	20.0%	7.9%	7.2%	0.7%	0.1%	-0.1%	0.1%
Public Foreign Equity	22.0%	14.6%	14.3%	0.3%	0.1%	-0.4%	-0.3%
Private Equity	15.0%	-0.5%	-6.3%	5.8%	1.1%	-0.6%	0.5%
Investment Grade Bonds	13.0%	1.8%	1.9%	0.0%	0.0%	0.0%	0.0%
TIPS	5.0%	1.8%	2.0%	-0.2%	0.0%	0.0%	0.0%
High Yield Bonds & Bank Loans	5.0%	2.8%	3.3%	-0.6%	0.0%	0.0%	0.0%
Emerging Market Bonds	7.0%	10.2%	7.3%	2.8%	0.1%	0.0%	0.1%
Real Estate	10.0%	-4.2%	-3.5%	-0.7%	-0.1%	-0.1%	-0.1%
Natural Resources	3.0%	-4.2%	18.3%	-22.5%	-0.7%	0.0%	-0.7%
Cash	0.0%	0.0%	0.8%	-0.8%	0.0%	0.0%	0.0%
<b>Total</b>	<b>100.0%</b>	<b>4.3%</b>	<b>4.9%</b>	<b>-0.6%</b>	<b>0.6%</b>	<b>-1.1%</b>	<b>-0.6%</b>

The performance calculation methodology in attribution tables is different from the standard time weighted returns (geometric linkage of monthly returns) found throughout the rest of the report. In attribution tables, the average weight of each asset class (over the specified time period) is multiplied by the time period performance of that asset class and summed. Values may not sum due to rounding.

#### Performance Attribution

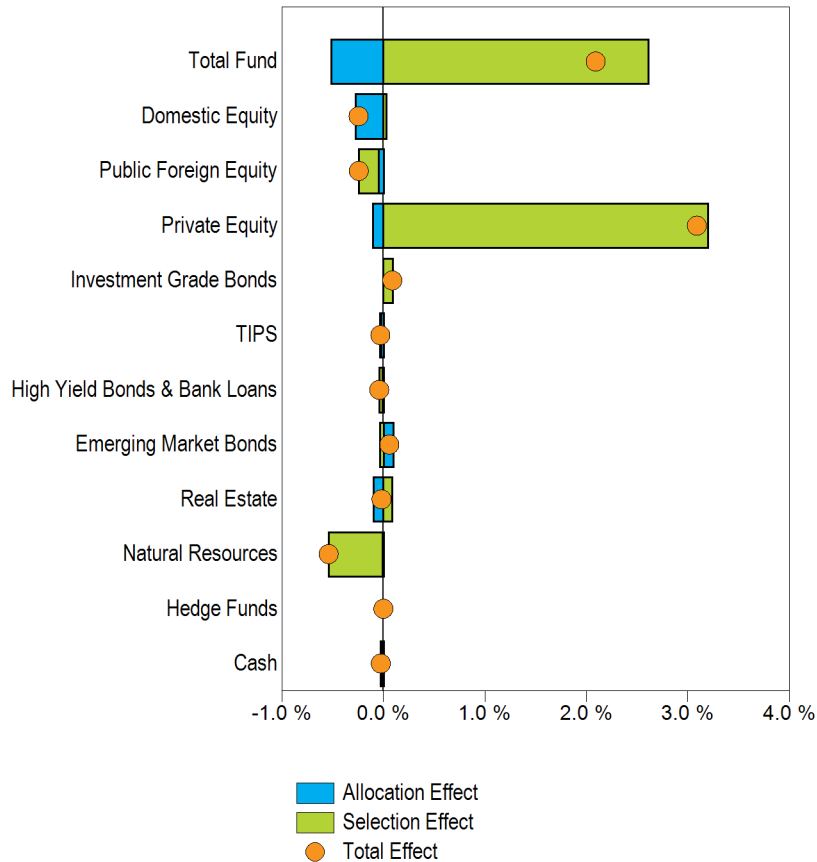


#### Attribution Summary 1 Year Ending December 31, 2022

	Policy Weight	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Total Effects
Domestic Equity	20.0%	-16.0%	-19.2%	3.2%	0.6%	-0.1%	0.5%
Public Foreign Equity	22.0%	-21.1%	-16.0%	-5.1%	-1.0%	-0.1%	-1.1%
Private Equity	15.0%	-1.6%	-19.0%	17.5%	3.5%	-0.5%	3.0%
Investment Grade Bonds	13.0%	-13.0%	-13.0%	0.0%	0.0%	0.0%	0.0%
TIPS	5.0%	-12.0%	-11.8%	-0.2%	0.0%	0.0%	0.0%
High Yield Bonds & Bank Loans	5.0%	-7.3%	-5.8%	-1.5%	-0.1%	0.0%	-0.1%
Emerging Market Bonds	7.0%	-16.6%	-15.2%	-1.3%	-0.1%	0.0%	-0.1%
Real Estate	10.0%	8.3%	5.5%	2.8%	0.2%	-0.2%	0.0%
Natural Resources	3.0%	2.2%	34.1%	-31.9%	-0.8%	-0.1%	-0.9%
Cash	0.0%	0.0%	1.5%	-1.5%	0.0%	0.0%	0.0%
<b>Total</b>	<b>100.0%</b>	<b>-10.7%</b>	<b>-12.1%</b>	<b>1.4%</b>	<b>2.3%</b>	<b>-0.9%</b>	<b>1.4%</b>

The performance calculation methodology in attribution tables is different from the standard time weighted returns (geometric linkage of monthly returns) found throughout the rest of the report. In attribution tables, the average weight of each asset class (over the specified time period) is multiplied by the time period performance of that asset class and summed. Values may not sum due to rounding.

#### Attribution Effects 3 Years Ending December 31, 2022



#### Attribution Summary 3 Years Ending December 31, 2022

	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Total Effects
Domestic Equity	6.8%	7.1%	-0.2%	0.0%	-0.3%	-0.2%
Public Foreign Equity	-1.1%	0.1%	-1.2%	-0.2%	-0.1%	-0.2%
Private Equity	23.0%	5.8%	17.2%	3.2%	-0.1%	3.1%
Investment Grade Bonds	-2.1%	-2.7%	0.6%	0.1%	0.0%	0.1%
TIPS	1.1%	1.2%	-0.1%	0.0%	0.0%	0.0%
High Yield Bonds & Bank Loans	0.6%	1.1%	-0.5%	0.0%	0.0%	0.0%
Emerging Market Bonds	-5.6%	-4.8%	-0.8%	0.0%	0.1%	0.1%
Real Estate	9.0%	8.1%	0.9%	0.1%	-0.1%	0.0%
Natural Resources	2.2%	15.0%	-12.8%	-0.5%	0.0%	-0.5%
Hedge Funds	--	--	--	--	0.0%	--
Cash	0.0%	0.6%	-0.6%	0.0%	0.0%	0.0%
<b>Total</b>	<b>5.8%</b>	<b>3.7%</b>	<b>2.1%</b>	<b>2.6%</b>	<b>-0.5%</b>	<b>2.1%</b>

The performance calculation methodology in attribution tables is different from the standard time weighted returns (geometric linkage of monthly returns) found throughout the rest of the report. In attribution tables, the average weight of each asset class (over the specified time period) is multiplied by the time period performance of that asset class and summed. Values may not sum due to rounding.

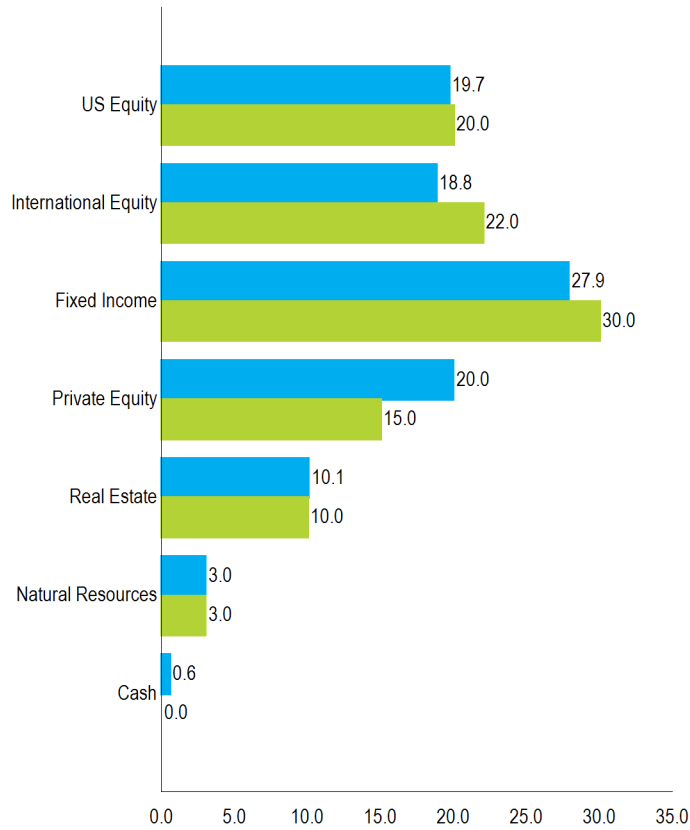
#### Quarterly Excess Performance



# 4Q22 Investment Report

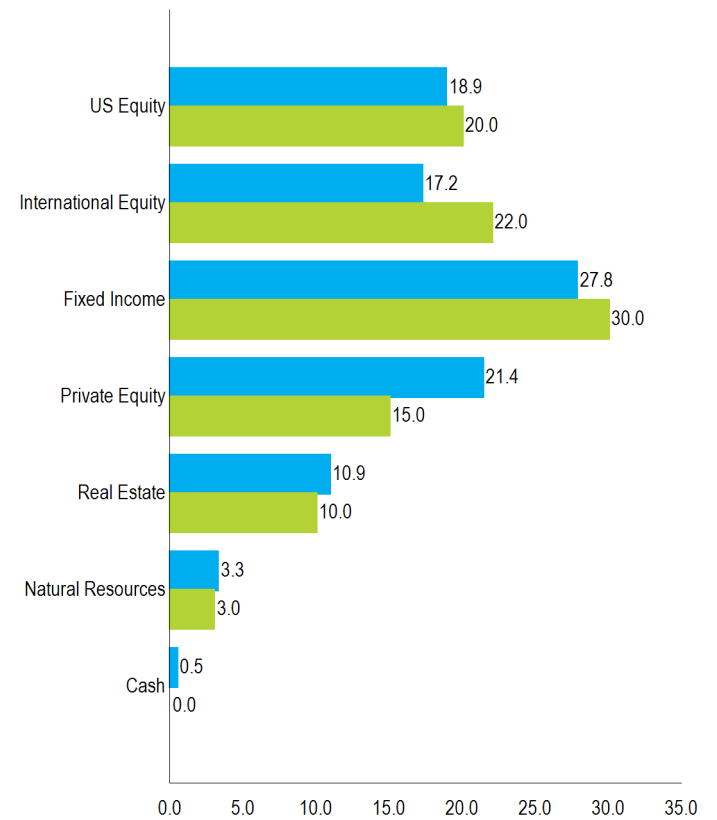
## Fund Summary

**Actual vs Target Allocation (%)**  
As of December 31, 2022



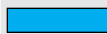





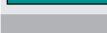
Actual Policy

**Actual vs Target Allocation (%)**  
As of September 30, 2022

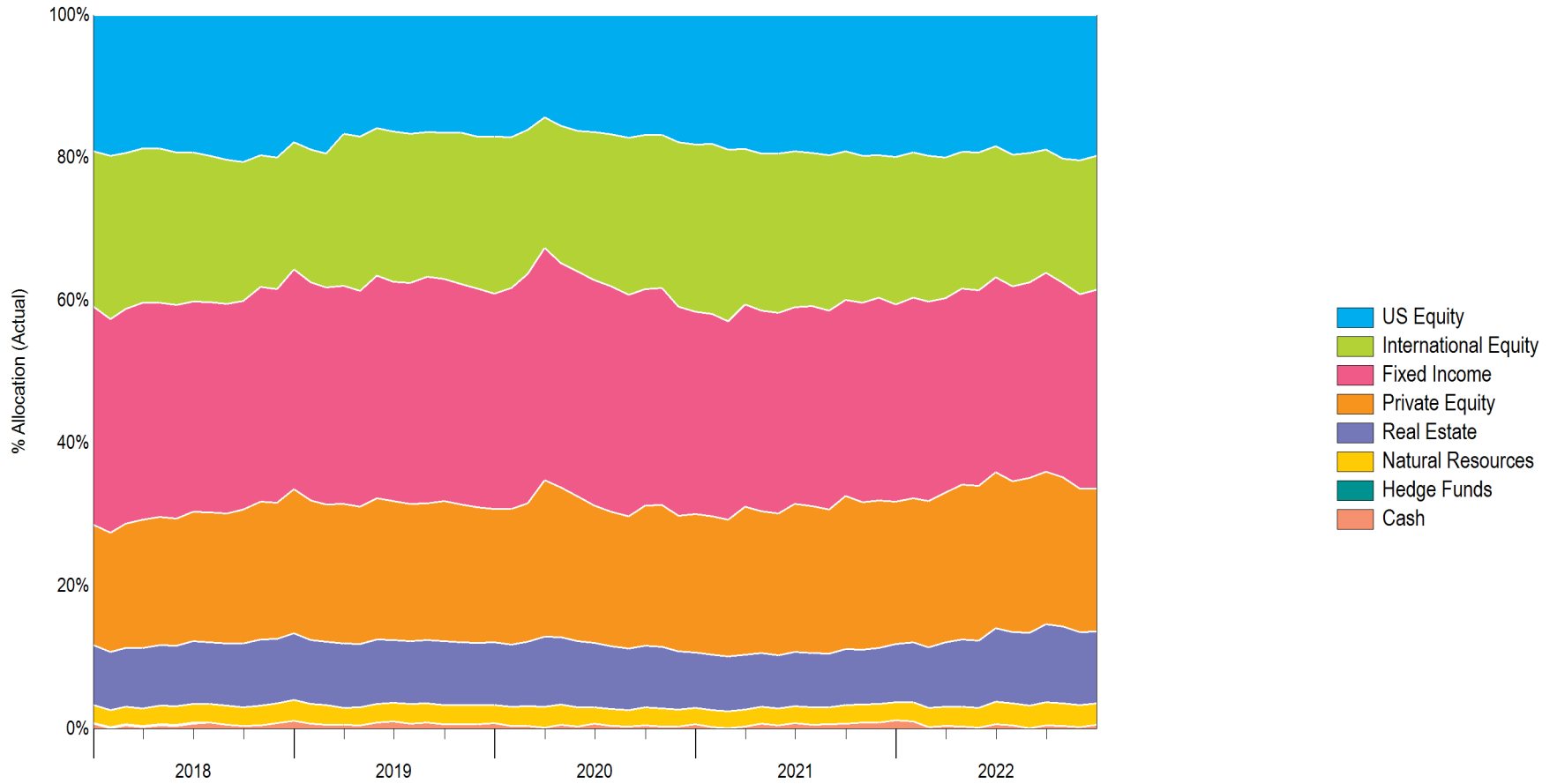


Actual Policy

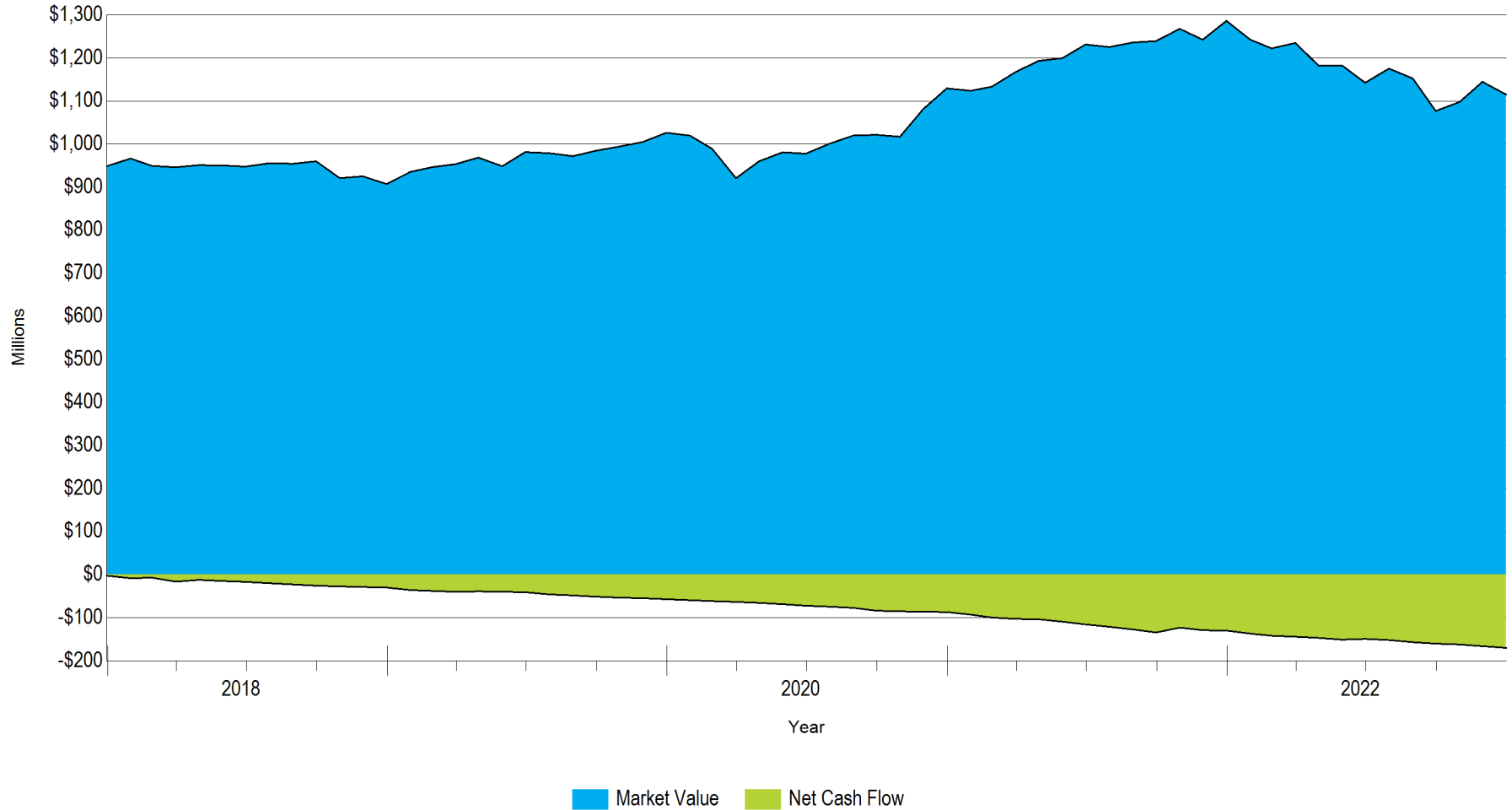


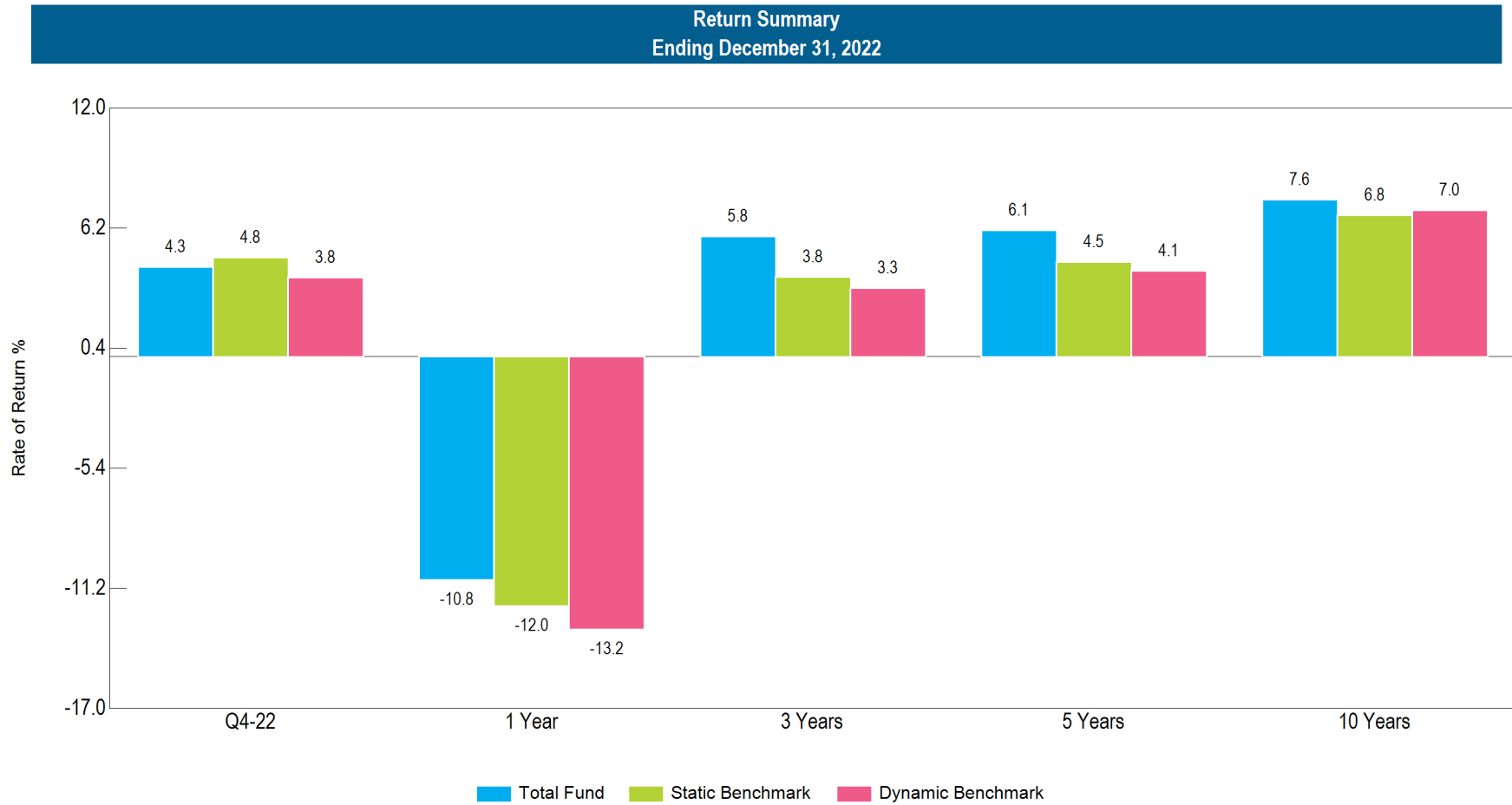
Allocation vs. Targets and Policy						
	Current Balance	Current Allocation	Policy	Policy Range	Within IPS Range?	
 US Equity	\$219,473,665	20%	20%	13% - 27%	Yes	
 International Equity	\$209,866,495	19%	22%	15% - 29%	Yes	
 Fixed Income	\$310,744,524	28%	30%	20% - 40%	Yes	
 Private Equity	\$222,712,723	20%	15%	5% - 25%	Yes	
 Real Estate	\$112,252,028	10%	10%	0% - 20%	Yes	
 Natural Resources	\$33,428,836	3%	3%	0% - 5%	Yes	
 Cash	\$6,417,091	1%	0%	0% - 5%	Yes	
<b>Total</b>	<b>\$1,114,895,362</b>	<b>100%</b>	<b>100%</b>			

Asset Allocation History  
5 Years Ending December 31, 2022

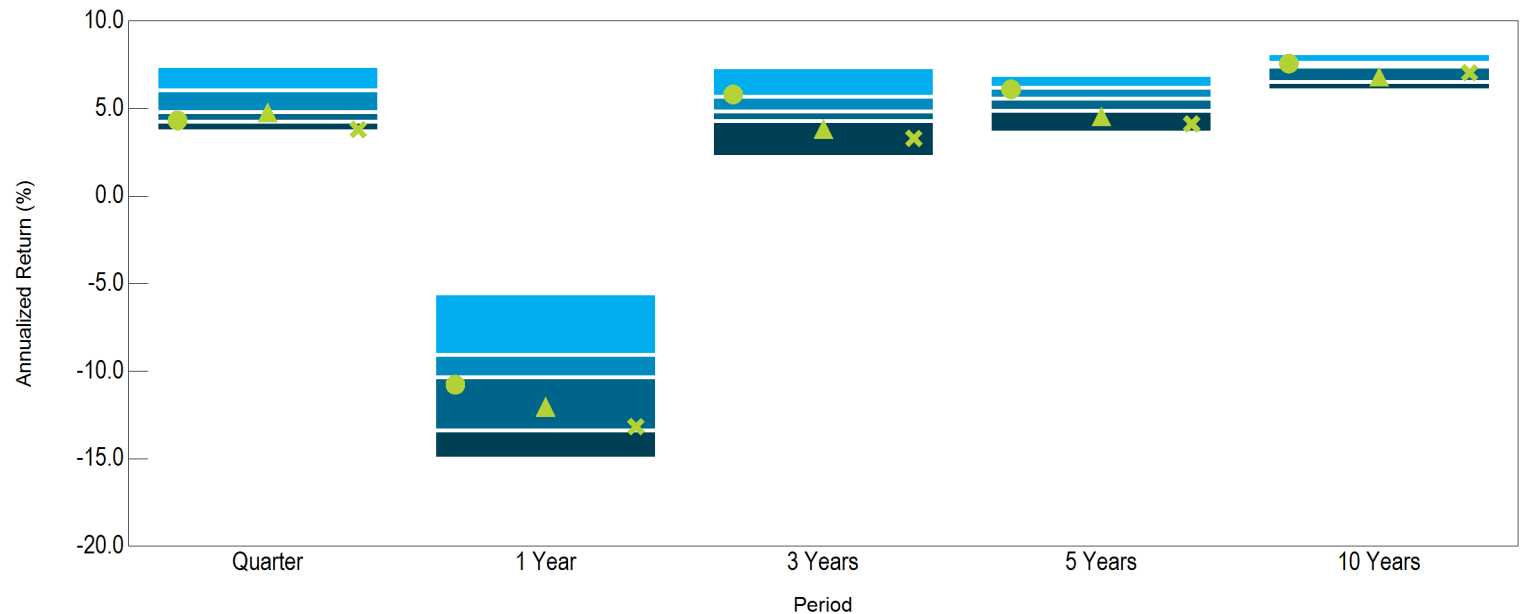


Market Value History  
5 Years Ending December 31, 2022



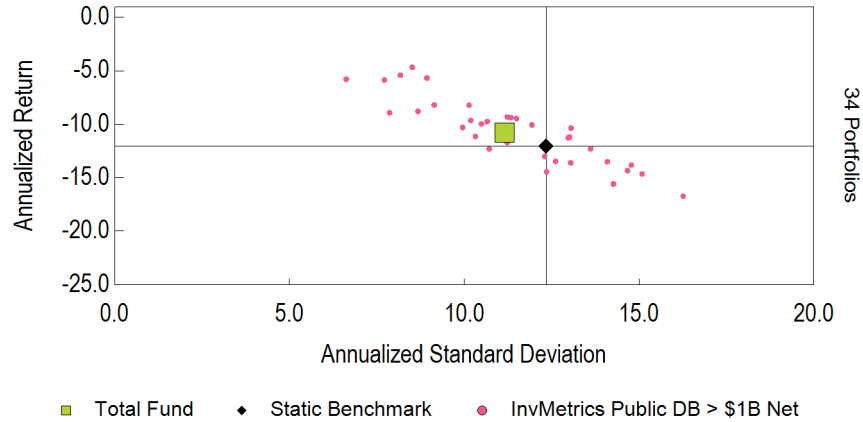


#### InvMetrics Public DB > \$1B Net Accounts

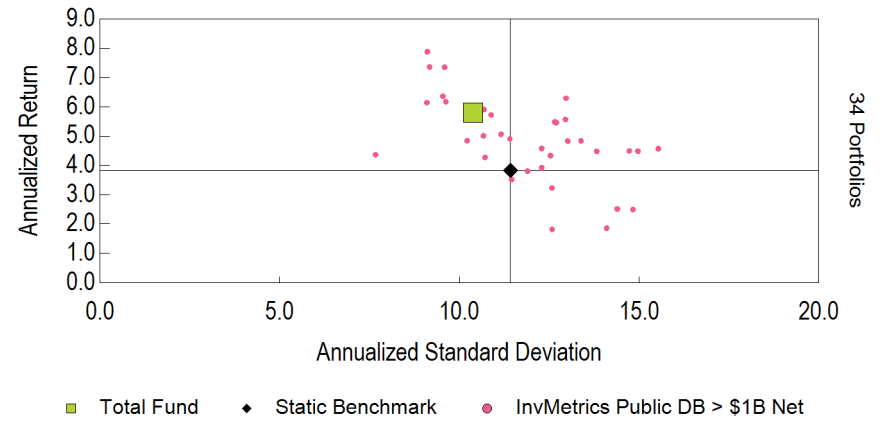


	Quarter		1 Year		3 Years		5 Years		10 Years	
<b>5th Percentile</b>	7.4		-5.6		7.4		6.9		8.1	
<b>25th Percentile</b>	6.1		-9.0		5.7		6.2		7.6	
<b>Median</b>	4.8		-10.3		4.8		5.6		7.4	
<b>75th Percentile</b>	4.3		-13.4		4.3		4.9		6.5	
<b>95th Percentile</b>	3.7		-15.0		2.3		3.6		6.0	
<b># of Portfolios</b>	34		34		34		34		31	
<b>● Total Fund</b>	4.3	(75)	-10.8	(54)	5.8	(23)	6.1	(28)	7.6	(30)
<b>▲ Static Benchmark</b>	4.8	(53)	-12.0	(66)	3.8	(82)	4.5	(82)	6.8	(64)
<b>✕ Dynamic Benchmark</b>	3.8	(91)	-13.2	(74)	3.3	(88)	4.1	(85)	7.0	(53)

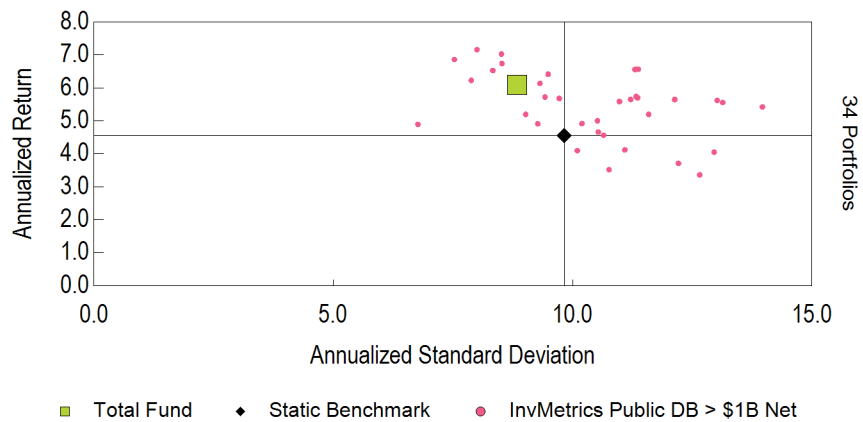
Annualized Return vs. Annualized Standard Deviation  
1 Year Ending December 31, 2022



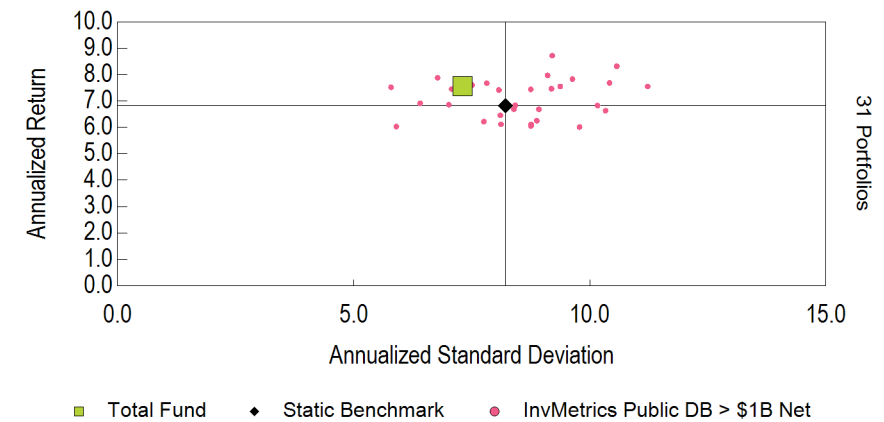
Annualized Return vs. Annualized Standard Deviation  
3 Years Ending December 31, 2022



Annualized Return vs. Annualized Standard Deviation  
5 Years Ending December 31, 2022



Annualized Return vs. Annualized Standard Deviation  
10 Years Ending December 31, 2022



Asset Class Performance Summary (Net of Fees)											
	Market Value (\$)	% of Portfolio	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	20 Yrs (%)	25 Yrs (%)	S.I. (%)	S.I. Date
<b>Total Fund</b>	<b>1,114,895,362</b>	<b>100.0</b>	<b>4.3</b>	<b>-10.8</b>	<b>5.8</b>	<b>6.1</b>	<b>7.6</b>	<b>7.4</b>	<b>6.3</b>	<b>6.9</b>	<b>Mar-97</b>
<i>Static Benchmark</i>			4.8	-12.0	3.8	4.5	6.8	6.9	--	--	Mar-97
<i>Dynamic Benchmark</i>			3.8	-13.2	3.3	4.1	7.0	--	--	--	Mar-97
<i>60% MSCI ACWI &amp; 40% Barclays Agg</i>			6.6	-16.0	1.6	3.5	5.4	6.3	5.5	5.8	Mar-97
<b>Domestic Equity</b>	<b>219,473,665</b>	<b>19.7</b>	<b>7.9</b>	<b>-16.0</b>	<b>6.8</b>	<b>7.8</b>	<b>10.9</b>	<b>9.8</b>	<b>7.2</b>	<b>8.2</b>	<b>Mar-97</b>
<i>Russell 3000</i>			7.2	-19.2	7.1	8.8	12.1	9.9	7.7	8.6	Mar-97
<b>International Equity</b>	<b>209,866,495</b>	<b>18.8</b>	<b>14.6</b>	<b>-21.1</b>	<b>-1.1</b>	<b>-0.1</b>	<b>4.4</b>	<b>6.2</b>	<b>4.9</b>	<b>5.2</b>	<b>Mar-97</b>
<i>Spliced International Equity Benchmark</i>			14.3	-16.0	0.1	0.9	3.8	6.7	4.9	4.9	Mar-97
<b>Private Equity</b>	<b>222,712,723</b>	<b>20.0</b>	<b>-0.5</b>	<b>-1.7</b>	<b>22.9</b>	<b>20.1</b>	<b>17.0</b>	--	--	<b>17.3</b>	<b>May-10</b>
<i>Private Equity Benchmark</i>			-6.3	-19.0	5.8	5.2	12.0	--	--	13.0	May-10
<b>Fixed Income</b>	<b>310,744,524</b>	<b>27.9</b>	<b>3.6</b>	<b>-12.7</b>	<b>-1.8</b>	<b>0.5</b>	<b>1.3</b>	<b>3.3</b>	<b>3.9</b>	<b>4.2</b>	<b>Mar-97</b>
<i>Bloomberg US Aggregate TR</i>			1.9	-13.0	-2.7	0.0	1.1	3.1	4.0	4.3	Mar-97
<b>Real Estate</b>	<b>112,252,028</b>	<b>10.1</b>	<b>-4.2</b>	<b>8.3</b>	<b>9.0</b>	<b>8.2</b>	<b>9.0</b>	--	--	<b>4.4</b>	<b>Dec-07</b>
<i>NCREIF Property Index</i>			-3.5	5.5	8.1	7.5	8.8	8.6	9.0	6.5	Dec-07
<b>Natural Resources</b>	<b>33,428,836</b>	<b>3.0</b>	<b>-4.2</b>	<b>2.2</b>	<b>2.2</b>	<b>-1.2</b>	--	--	--	<b>1.8</b>	<b>Feb-13</b>
<i>S&amp;P North American Natural Resources TR</i>			18.3	34.1	15.0	7.1	4.1	8.3	6.3	3.6	Feb-13
<b>Cash</b>	<b>6,417,091</b>	<b>0.6</b>									

Trailing Net Performance										
	Market Value (\$)	% of Portfolio	% of Sector	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	S.I. Date
<b>Total Fund</b>	<b>1,114,895,362</b>	<b>100.0</b>	<b>--</b>	<b>4.3</b>	<b>-10.8</b>	<b>5.8</b>	<b>6.1</b>	<b>7.6</b>	<b>6.9</b>	<b>Mar-97</b>
<i>Static Benchmark</i>				4.8	-12.0	3.8	4.5	6.8	--	Mar-97
<i>Dynamic Benchmark</i>				3.8	-13.2	3.3	4.1	7.0	--	Mar-97
<i>60% MSCI ACWI &amp; 40% Barclays Agg</i>				6.6	-16.0	1.6	3.5	5.4	5.8	Mar-97
<i>InvMetrics Public DB &gt; \$1B Net Median</i>				4.8	-10.3	4.8	5.6	7.4	6.9	Mar-97
<i>InvMetrics Public DB &gt; \$1B Net Rank</i>				75	54	23	28	30	52	Mar-97
<b>Domestic Equity</b>	<b>219,473,665</b>	<b>19.7</b>	<b>19.7</b>	<b>7.9</b>	<b>-16.0</b>	<b>6.8</b>	<b>7.8</b>	<b>10.9</b>	<b>8.2</b>	<b>Mar-97</b>
<i>Russell 3000</i>				7.2	-19.2	7.1	8.8	12.1	8.6	Mar-97
<i>eV All US Equity Net Median</i>				8.6	-16.9	6.4	7.4	10.9	9.3	Mar-97
<i>eV All US Equity Net Rank</i>				57	46	45	45	50	88	Mar-97
Westwood Capital Large Cap Value	30,054,402	2.7	13.7	11.2	-5.9	6.6	7.8	10.9	8.6	Oct-01
<i>Russell 1000 Value</i>				12.4	-7.5	6.0	6.7	10.3	7.8	Oct-01
<i>eV US Large Cap Value Equity Net Median</i>				12.7	-5.7	7.4	7.5	10.7	8.4	Oct-01
<i>eV US Large Cap Value Equity Net Rank</i>				78	52	64	47	46	40	Oct-01
Westfield Small/Mid Cap Growth	59,026,001	5.3	26.9	6.5	-23.4	6.1	8.3	11.1	12.0	Nov-02
<i>Russell 2500 Growth</i>				4.7	-26.2	2.9	6.0	10.6	10.6	Nov-02
<i>eV US Small-Mid Cap Growth Equity Net Median</i>				4.7	-28.1	5.2	7.9	10.9	10.8	Nov-02
<i>eV US Small-Mid Cap Growth Equity Net Rank</i>				28	25	41	42	46	19	Nov-02



### Fund Summary | As of December 31, 2022

	Market Value (\$)	% of Portfolio	% of Sector	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	S.I. Date
Vaughan Nelson Small Cap Value	61,382,721	5.5	28.0	8.0	-9.8	9.0	6.8	--	8.7	Jan-16
<i>Russell 2000 Value</i>				8.4	-14.5	4.7	4.1	8.5	8.2	Jan-16
<i>eV US Small Cap Value Equity Net Median</i>				10.8	-11.7	6.4	4.6	9.2	8.5	Jan-16
<i>eV US Small Cap Value Equity Net Rank</i>				84	34	21	22	--	45	Jan-16
SSgA S&P 500	69,010,541	6.2	31.4	7.6	-18.1	7.6	9.4	12.5	8.8	Feb-04
<i>S&amp;P 500</i>				7.6	-18.1	7.7	9.4	12.6	8.8	Feb-04
<i>eV US Large Cap Equity Net Median</i>				9.5	-15.4	7.0	8.4	11.5	8.7	Feb-04
<i>eV US Large Cap Equity Net Rank</i>				65	61	38	32	25	48	Feb-04
<b>International Equity</b>	<b>209,866,495</b>	<b>18.8</b>	<b>18.8</b>	<b>14.6</b>	<b>-21.1</b>	<b>-1.1</b>	<b>-0.1</b>	<b>4.4</b>	<b>5.2</b>	<b>Mar-97</b>
<i>Spliced International Equity Benchmark</i>				14.3	-16.0	0.1	0.9	3.8	4.9	Mar-97
Baillie Gifford International Growth Fund	28,945,644	2.6	13.8	13.1	-34.4	-1.1	1.9	6.7	9.0	May-09
<i>MSCI ACWI ex USA</i>				14.3	-16.0	0.1	0.9	3.8	6.2	May-09
<i>MSCI EAFE</i>				17.3	-14.5	0.9	1.5	4.7	6.5	May-09
<i>eV ACWI ex-US All Cap Growth Eq Net Median</i>				12.7	-27.7	1.1	2.3	5.5	8.3	May-09
<i>eV ACWI ex-US All Cap Growth Eq Net Rank</i>				47	86	69	58	32	26	May-09
Sanderson International Value	44,774,719	4.0	21.3	19.0	-15.7	-2.8	-2.0	--	3.0	Feb-13
<i>MSCI EAFE Value</i>				19.6	-5.6	0.6	0.2	3.5	2.9	Feb-13
<i>MSCI EAFE</i>				17.3	-14.5	0.9	1.5	4.7	4.2	Feb-13
<i>eV EAFE All Cap Value Net Median</i>				18.5	-8.4	1.4	1.0	4.4	4.2	Feb-13
<i>eV EAFE All Cap Value Net Rank</i>				43	94	99	99	--	74	Feb-13

	Market Value (\$)	% of Portfolio	% of Sector	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	S.I. Date
Highclere International Small Cap	41,739,584	3.7	19.9	17.0	-24.2	-3.3	-1.9	5.2	6.1	Dec-09
<i>MSCI EAFE Small Cap</i>				15.8	-21.4	-0.9	0.0	6.2	6.4	Dec-09
<i>S&amp;P EPAC Under USD2 Billion NR USD</i>				14.8	-21.5	-1.2	-1.7	4.8	5.0	Dec-09
<i>eV EAFE Small Cap Equity Net Median</i>				16.5	-20.8	-0.2	0.2	6.4	7.1	Dec-09
<i>eV EAFE Small Cap Equity Net Rank</i>				40	71	83	82	87	86	Dec-09
SSgA MSCI EAFE Fund	33,951,983	3.0	16.2	17.3	-14.1	1.2	1.8	--	4.4	Feb-13
<i>MSCI EAFE</i>				17.3	-14.5	0.9	1.5	4.7	4.2	Feb-13
<i>eV EAFE Core Equity Net Median</i>				16.1	-16.9	0.6	1.1	5.2	4.7	Feb-13
<i>eV EAFE Core Equity Net Rank</i>				27	28	43	34	--	63	Feb-13
DFA Emerging Markets Value	32,185,126	2.9	15.3	10.3	-10.7	1.0	-0.1	1.7	2.2	Dec-09
<i>MSCI Emerging Markets Value NR USD</i>				9.8	-15.8	-2.6	-1.6	0.1	1.4	Dec-09
<i>MSCI Emerging Markets</i>				9.7	-20.1	-2.7	-1.4	1.4	2.5	Dec-09
<i>eV Emg Mkts All Cap Value Equity Net Median</i>				12.7	-16.0	-0.6	-0.4	2.2	2.3	Dec-09
<i>eV Emg Mkts All Cap Value Equity Net Rank</i>				88	30	29	47	63	57	Dec-09
TT Emerging Markets Equity	28,269,439	2.5	13.5	8.2	-26.9	-4.7	--	--	-1.6	Apr-19
<i>MSCI Emerging Markets</i>				9.7	-20.1	-2.7	-1.4	1.4	-0.2	Apr-19
<i>eV Emg Mkts Equity Net Median</i>				10.3	-19.9	-1.6	-0.7	2.1	1.1	Apr-19
<i>eV Emg Mkts Equity Net Rank</i>				75	86	88	--	--	87	Apr-19

### Fund Summary | As of December 31, 2022

	Market Value (\$)	% of Portfolio	% of Sector	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	S.I. Date
<b>Private Equity</b>	<b>222,712,723</b>	<b>20.0</b>	<b>20.0</b>	<b>-0.5</b>	<b>-1.7</b>	<b>22.9</b>	<b>20.1</b>	<b>17.0</b>	<b>17.3</b>	<b>May-10</b>
<i>Private Equity Benchmark</i>				<i>-6.3</i>	<i>-19.0</i>	<i>5.8</i>	<i>5.2</i>	<i>12.0</i>	<i>13.0</i>	<i>May-10</i>
LGT Crown Global Opportunities VI	34,565,133	3.1	15.5							
Constitution Capital Partners	14,470,795	1.3	6.5							
StepStone Global Partners VI	15,293,095	1.4	6.9							
Aberdeen Flag Private Equity VI	14,342,251	1.3	6.4							
Cross Creek Capital Partners II - B	13,770,274	1.2	6.2							
Partners Group Emerging Markets 2015	9,394,785	0.8	4.2							
Cross Creek Capital Partners III	13,653,567	1.2	6.1							
LGT Crown Asia II	9,234,330	0.8	4.1							
57 Stars Global Opportunity 3	8,630,762	0.8	3.9							
HarbourVest Co-Investment Fund IV	7,421,372	0.7	3.3							
Aberdeen Flag Private Equity V	6,443,540	0.6	2.9							
StepStone Global Partners V	9,161,876	0.8	4.1							
HarbourVest 2013 Direct	5,349,627	0.5	2.4							
Dover Street X, L.P.	29,730,803	2.7	13.3							
Blue Bay Direct Lending	2,470,881	0.2	1.1							
Private Advisors Co-Investment Fund III	3,158,737	0.3	1.4							

### Fund Summary | As of December 31, 2022

	Market Value (\$)	% of Portfolio	% of Sector	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	S.I. Date
LGT Crown Europe Small Buyouts III	4,018,138	0.4	1.8							
Deutsche Bank SOF III	2,488,171	0.2	1.1							
SVB Strategic Investors Fund IX, L.P.	15,258,933	1.4	6.9							
LGT Crown Global Secondaries III	2,055,214	0.2	0.9							
Private Equity Investors V	1,240,176	0.1	0.6							
Partners Group U.S. Distressed Private Equity 2009	405,476	0.0	0.2							
LGT Crown Global Secondaries II	154,785	0.0	0.1							
<b>Fixed Income</b>	<b>310,744,524</b>	<b>27.9</b>	<b>27.9</b>	<b>3.6</b>	<b>-12.7</b>	<b>-1.8</b>	<b>0.5</b>	<b>1.3</b>	<b>4.2</b>	<b>Mar-97</b>
<i>Bloomberg US Aggregate TR</i>				<i>1.9</i>	<i>-13.0</i>	<i>-2.7</i>	<i>0.0</i>	<i>1.1</i>	<i>4.3</i>	<i>Mar-97</i>
SSgA Bond Fund	83,265,768	7.5	26.8	1.7	-13.2	-2.8	0.0	1.0	3.0	Jan-04
<i>Bloomberg US Aggregate TR</i>				<i>1.9</i>	<i>-13.0</i>	<i>-2.7</i>	<i>0.0</i>	<i>1.1</i>	<i>3.0</i>	<i>Jan-04</i>
<i>eV US Core Fixed Inc Net Median</i>				<i>1.8</i>	<i>-13.1</i>	<i>-2.4</i>	<i>0.2</i>	<i>1.3</i>	<i>3.3</i>	<i>Jan-04</i>
<i>eV US Core Fixed Inc Net Rank</i>				<i>60</i>	<i>61</i>	<i>82</i>	<i>80</i>	<i>83</i>	<i>84</i>	<i>Jan-04</i>
Loomis Sayles Core Plus Fixed Income	53,124,477	4.8	17.1	2.1	-12.7	-1.3	0.9	--	1.8	Jul-15
<i>Bloomberg US Aggregate TR</i>				<i>1.9</i>	<i>-13.0</i>	<i>-2.7</i>	<i>0.0</i>	<i>1.1</i>	<i>0.9</i>	<i>Jul-15</i>
<i>eV US Core Plus Fixed Inc Net Median</i>				<i>2.0</i>	<i>-13.4</i>	<i>-2.1</i>	<i>0.4</i>	<i>1.7</i>	<i>1.5</i>	<i>Jul-15</i>
<i>eV US Core Plus Fixed Inc Net Rank</i>				<i>42</i>	<i>27</i>	<i>19</i>	<i>19</i>	<i>--</i>	<i>24</i>	<i>Jul-15</i>

	Market Value (\$)	% of Portfolio	% of Sector	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	S.I. Date
Aberdeen Emerging Markets Bond Fund	65,367,498	5.9	21.0	10.2	-16.6	-5.6	-2.2	--	0.9	Dec-14
<i>JP Morgan EMBI Global Diversified</i>				8.1	-17.8	-5.3	-1.3	1.6	1.5	Dec-14
<i>50% JPM EMBI GD, 25% JPM GBI EM GD, 25% CMBI Broad</i>				7.3	-15.2	-4.8	-1.1	1.1	1.3	Dec-14
SSgA TIPS	54,551,729	4.9	17.6	1.8	-12.0	1.1	2.0	--	1.6	Aug-14
<i>Bloomberg US TIPS TR</i>				2.0	-11.8	1.2	2.1	1.1	1.7	Aug-14
<i>eV US TIPS / Inflation Fixed Inc Net Median</i>				2.0	-11.6	1.2	2.2	1.1	1.7	Aug-14
<i>eV US TIPS / Inflation Fixed Inc Net Rank</i>				69	78	79	72	--	72	Aug-14
Pyramis Tactical Bond Fund	34,396,829	3.1	11.1	2.7	-10.9	-0.5	2.0	--	3.3	Aug-13
<i>Bloomberg US Aggregate TR</i>				1.9	-13.0	-2.7	0.0	1.1	1.4	Aug-13
<i>eV US Core Plus Fixed Inc Net Median</i>				2.0	-13.4	-2.1	0.4	1.7	2.0	Aug-13
<i>eV US Core Plus Fixed Inc Net Rank</i>				13	8	13	4	--	2	Aug-13
Pacific Asset Management Bank Loans	20,038,223	1.8	6.4	2.8	-0.6	2.4	--	--	2.6	Dec-19
<i>Credit Suisse Leveraged Loans</i>				2.3	-1.1	2.3	3.2	3.8	2.8	Dec-19
<i>Bank Loan MStar MF Median</i>				2.6	-1.7	1.4	2.4	3.1	1.9	Dec-19
<i>Bank Loan MStar MF Rank</i>				39	18	8	--	--	16	Dec-19
<b>Real Estate</b>	<b>112,252,028</b>	<b>10.1</b>	<b>10.1</b>	<b>-4.2</b>	<b>8.3</b>	<b>9.0</b>	<b>8.2</b>	<b>9.0</b>	<b>4.4</b>	<b>Dec-07</b>
<i>NCREIF Property Index</i>				-3.5	5.5	8.1	7.5	8.8	6.5	Dec-07
Clarion Partners Lion Properties Fund	89,758,715	8.1	80.0	-5.4	8.7	10.5	9.4	10.4	6.8	Apr-05
<i>NCREIF ODCE Equal Weighted (Net)</i>				-5.1	7.6	9.7	8.3	9.5	7.0	Apr-05
Portfolio Advisors Real Estate Fund V	7,525,918	0.7	6.7							
Partners Group Global RE 2011	961,771	0.1	0.9							

	Market Value (\$)	% of Portfolio	% of Sector	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	S.I. Date
Metropolitan Real Estate Distressed II	1,055,460	0.1	0.9							
Partners Group Distressed RE 2009	73,335	0.0	0.1							
Partners Group Real Estate Secondary 2017	12,876,829	1.2	11.5							
<b>Natural Resources</b>	<b>33,428,836</b>	<b>3.0</b>	<b>3.0</b>	<b>-4.2</b>	<b>2.2</b>	<b>2.2</b>	<b>-1.2</b>	<b>--</b>	<b>1.8</b>	<b>Feb-13</b>
<i>S&amp;P North American Natural Resources TR</i>				<i>18.3</i>	<i>34.1</i>	<i>15.0</i>	<i>7.1</i>	<i>4.1</i>	<i>3.6</i>	<i>Feb-13</i>
Aether Real Assets III	11,080,850	1.0	33.1							
Aether Real Assets II	2,854,816	0.3	8.5							
Aether Real Assets IV	11,649,334	1.0	34.8							
Aether Real Assets V	7,843,836	0.7	23.5							
<b>Cash</b>	<b>6,417,091</b>	<b>0.6</b>	<b>0.6</b>							
Cash	6,417,091	0.6	100.0							

Calendar Year Performance										
	2022 (%)	2021 (%)	2020 (%)	2019 (%)	2018 (%)	2017 (%)	2016 (%)	2015 (%)	2014 (%)	2013 (%)
<b>Total Fund</b>	<b>-10.8</b>	<b>17.6</b>	<b>12.9</b>	<b>15.7</b>	<b>-2.0</b>	<b>17.0</b>	<b>7.1</b>	<b>1.3</b>	<b>4.8</b>	<b>16.1</b>
<i>Static Benchmark</i>	-12.0	14.4	11.2	15.8	-3.6	16.4	9.6	-0.1	5.7	15.1
<i>Dynamic Benchmark</i>	-13.2	14.9	10.5	14.6	-3.1	16.1	8.4	0.4	5.4	21.2
<i>60% MSCI ACWI &amp; 40% Barclays Agg</i>	-16.0	10.2	13.5	19.4	-5.5	15.4	5.9	-1.0	5.0	12.3
<b>Domestic Equity</b>	<b>-16.0</b>	<b>24.6</b>	<b>16.5</b>	<b>29.4</b>	<b>-7.9</b>	<b>21.8</b>	<b>9.9</b>	<b>0.2</b>	<b>10.0</b>	<b>31.3</b>
<i>Russell 3000</i>	-19.2	25.7	20.9	31.0	-5.2	21.1	12.7	0.5	12.6	33.6
Westwood Capital Large Cap Value	-5.9	23.8	3.9	27.3	-5.7	20.4	10.9	-0.1	11.9	29.6
<i>Russell 1000 Value</i>	-7.5	25.2	2.8	26.5	-8.3	13.7	17.3	-3.8	13.5	32.5
Westfield Small/Mid Cap Growth	-23.4	16.2	34.2	35.2	-7.6	31.0	3.4	-4.1	7.8	37.2
<i>Russell 2500 Growth</i>	-26.2	5.0	40.5	32.7	-7.5	24.5	9.7	-0.2	7.1	40.6
Vaughan Nelson Small Cap Value	-9.8	31.0	9.6	25.0	-14.1	6.8	20.7	--	--	--
<i>Russell 2000 Value</i>	-14.5	28.3	4.6	22.4	-12.9	7.8	31.7	-7.5	4.2	34.5
SSgA S&P 500	-18.1	28.6	18.3	31.5	-4.4	21.8	12.0	1.4	13.7	32.3
<i>S&amp;P 500</i>	-18.1	28.7	18.4	31.5	-4.4	21.8	12.0	1.4	13.7	32.4
<b>International Equity</b>	<b>-21.1</b>	<b>4.1</b>	<b>17.6</b>	<b>22.4</b>	<b>-15.9</b>	<b>34.0</b>	<b>5.0</b>	<b>-4.4</b>	<b>-4.4</b>	<b>19.7</b>
<i>Spliced International Equity Benchmark</i>	-16.0	7.8	10.7	21.5	-14.2	27.2	4.5	-5.7	-3.9	15.3
Baillie Gifford International Growth Fund	-34.4	-9.4	63.0	37.3	-17.3	45.5	1.4	-2.9	-6.4	29.9
<i>MSCI ACWI ex USA</i>	-16.0	7.8	10.7	21.5	-14.2	27.2	4.5	-5.7	-3.9	15.3
<i>MSCI EAFE</i>	-14.5	11.3	7.8	22.0	-13.8	25.0	1.0	-0.8	-4.9	22.8

### Fund Summary | As of December 31, 2022

	2022 (%)	2021 (%)	2020 (%)	2019 (%)	2018 (%)	2017 (%)	2016 (%)	2015 (%)	2014 (%)	2013 (%)
Sanderson International Value	-15.7	7.4	1.5	20.5	-18.2	26.1	2.5	-5.5	-2.3	--
<i>MSCI EAFE Value</i>	-5.6	10.9	-2.6	16.1	-14.8	21.4	5.0	-5.7	-5.4	23.0
<i>MSCI EAFE</i>	-14.5	11.3	7.8	22.0	-13.8	25.0	1.0	-0.8	-4.9	22.8
Highclere International Small Cap	-24.2	8.3	10.2	23.5	-18.8	30.9	10.3	6.5	-4.4	24.6
<i>MSCI EAFE Small Cap</i>	-21.4	10.1	12.3	25.0	-17.9	33.0	2.2	9.6	-4.9	29.3
<i>S&amp;P EPAC Under USD2 Billion NR USD</i>	-21.5	8.1	13.7	18.0	-19.6	30.8	3.5	9.0	-4.3	23.6
SSgA MSCI EAFE Fund	-14.1	11.4	8.2	22.4	-13.5	25.3	1.3	-0.6	-4.7	--
<i>MSCI EAFE</i>	-14.5	11.3	7.8	22.0	-13.8	25.0	1.0	-0.8	-4.9	22.8
DFA Emerging Markets Value	-10.7	12.4	2.7	9.6	-11.9	33.8	19.8	-18.8	-4.4	-4.4
<i>MSCI Emerging Markets Value NR USD</i>	-15.8	4.0	5.5	12.0	-10.7	28.1	14.9	-18.6	-4.1	-5.1
<i>MSCI Emerging Markets</i>	-20.1	-2.5	18.3	18.4	-14.6	37.3	11.2	-14.9	-2.2	-2.6
TT Emerging Markets Equity	-26.9	-1.0	19.8	--	--	--	--	--	--	--
<i>MSCI Emerging Markets</i>	-20.1	-2.5	18.3	18.4	-14.6	37.3	11.2	-14.9	-2.2	-2.6
<b>Private Equity</b>	<b>-1.7</b>	<b>57.0</b>	<b>20.4</b>	<b>16.1</b>	<b>15.8</b>	<b>17.7</b>	<b>9.4</b>	<b>12.7</b>	<b>23.3</b>	<b>7.7</b>
<i>Private Equity Benchmark</i>	-19.0	29.9	12.6	3.4	5.4	25.4	15.3	4.4	17.1	36.3
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 December 31, 2022

	2022 (%)	2021 (%)	2020 (%)	2019 (%)	2018 (%)	2017 (%)	2016 (%)	2015 (%)	2014 (%)	2013 (%)
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 December 31, 2022

	2022 (%)	2021 (%)	2020 (%)	2019 (%)	2018 (%)	2017 (%)	2016 (%)	2015 (%)	2014 (%)	2013 (%)
<b>Fixed Income</b>	<b>-12.7</b>	<b>0.0</b>	<b>8.3</b>	<b>10.5</b>	<b>-2.0</b>	<b>5.6</b>	<b>6.9</b>	<b>-2.1</b>	<b>3.1</b>	<b>-2.4</b>
<i>Bloomberg US Aggregate TR</i>	-13.0	-1.5	7.5	8.7	0.0	3.5	2.6	0.5	6.0	-2.0
SSgA Bond Fund	-13.2	-1.6	7.5	8.7	0.0	3.5	2.6	0.5	5.9	-2.2
<i>Bloomberg US Aggregate TR</i>	-13.0	-1.5	7.5	8.7	0.0	3.5	2.6	0.5	6.0	-2.0
Loomis Sayles Core Plus Fixed Income	-12.7	-1.1	11.3	9.4	-0.4	5.4	6.9	--	--	--
<i>Bloomberg US Aggregate TR</i>	-13.0	-1.5	7.5	8.7	0.0	3.5	2.6	0.5	6.0	-2.0
Aberdeen Emerging Markets Bond Fund	-16.6	-4.0	5.0	15.1	-7.5	13.0	13.3	-2.7	--	--
<i>JP Morgan EMBI Global Diversified</i>	-17.8	-1.8	5.3	15.0	-4.3	10.3	10.2	1.2	7.4	-5.3
<i>50% JPM EMBI GD, 25% JPM GBI EM GD, 25% CMBI Broad</i>	-15.2	-3.3	5.2	14.2	-3.9	10.9	10.4	-1.3	3.1	-5.2
SSgA TIPS	-12.0	5.9	10.9	8.3	-1.3	3.0	4.6	-1.5	--	--
<i>Bloomberg US TIPS TR</i>	-11.8	6.0	11.0	8.4	-1.3	3.0	4.7	-1.4	3.6	-8.6
Pyramis Tactical Bond Fund	-10.9	1.2	9.3	13.2	-0.9	5.9	10.4	-1.8	5.3	--
<i>Bloomberg US Aggregate TR</i>	-13.0	-1.5	7.5	8.7	0.0	3.5	2.6	0.5	6.0	-2.0
Pacific Asset Management Bank Loans	-0.6	5.2	2.6	--	--	--	--	--	--	--
<i>Credit Suisse Leveraged Loans</i>	-1.1	5.4	2.8	8.2	1.1	4.2	9.9	-0.4	2.1	6.2
<b>Real Estate</b>	<b>8.3</b>	<b>20.2</b>	<b>-0.6</b>	<b>5.6</b>	<b>8.6</b>	<b>7.5</b>	<b>7.8</b>	<b>13.1</b>	<b>10.5</b>	<b>10.5</b>
<i>NCREIF Property Index</i>	5.5	17.7	1.6	6.4	6.7	7.0	8.0	13.3	11.8	11.0
Clarion Partners Lion Properties Fund	8.7	22.4	1.4	6.3	9.2	8.0	9.3	15.7	12.3	11.8
<i>NCREIF ODCE Equal Weighted (Net)</i>	7.6	21.9	0.8	5.2	7.3	6.9	8.3	14.2	11.4	12.4
Portfolio Advisors Real Estate Fund V										
Partners Group Global RE 2011										

### Fund Summary | As of December 31, 2022

	2022 (%)	2021 (%)	2020 (%)	2019 (%)	2018 (%)	2017 (%)	2016 (%)	2015 (%)	2014 (%)	2013 (%)
Metropolitan Real Estate Distressed II										
Partners Group Distressed RE 2009										
Partners Group Real Estate Secondary 2017										
<b>Natural Resources</b>	<b>2.2</b>	<b>15.9</b>	<b>-9.9</b>	<b>-13.4</b>	<b>2.1</b>	<b>15.7</b>	<b>8.6</b>	<b>-6.3</b>	<b>6.7</b>	<b>--</b>
<i>S&amp;P North American Natural Resources TR</i>	<i>34.1</i>	<i>39.9</i>	<i>-19.0</i>	<i>17.6</i>	<i>-21.1</i>	<i>1.2</i>	<i>30.9</i>	<i>-24.3</i>	<i>-9.8</i>	<i>16.5</i>
Aether Real Assets III										
Aether Real Assets II										
Aether Real Assets IV										
Aether Real Assets V										
<b>Cash</b>										
Cash										

### Statistics Summary

5 Years Ending December 31, 2022

	Anlzd Return	Anlzd Standard Deviation	Information Ratio	Sharpe Ratio	Tracking Error
Total Fund	6.1%	8.8%	0.4	0.6	3.5%
Static Benchmark	4.5%	9.8%	--	0.3	0.0%
Domestic Equity	7.8%	19.7%	-0.3	0.3	3.7%
Russell 3000	8.8%	19.2%	--	0.4	0.0%
Westwood Capital Large Cap Value	7.8%	17.2%	0.3	0.4	3.4%
Russell 1000 Value	6.7%	18.9%	--	0.3	0.0%
Westfield Small/Mid Cap Growth	8.3%	22.9%	0.4	0.3	5.5%
Russell 2500 Growth	6.0%	23.1%	--	0.2	0.0%
Vaughan Nelson Small Cap Value	6.8%	21.5%	0.4	0.3	6.5%
Russell 2000 Value	4.1%	24.2%	--	0.1	0.0%
SSgA S&P 500	9.4%	18.7%	-1.4	0.4	0.0%
S&P 500	9.4%	18.7%	--	0.4	0.0%
International Equity	-0.1%	18.7%	-0.3	-0.1	3.1%
Spliced International Equity Benchmark	0.9%	17.2%	--	0.0	0.0%
Baillie Gifford International Growth Fund	1.9%	23.6%	0.1	0.0	12.6%
MSCI ACWI ex USA	0.9%	17.2%	--	0.0	0.0%
Sanderson International Value	-2.0%	19.4%	-0.5	-0.2	4.0%

	Anlzd Return	Anlzd Standard Deviation	Information Ratio	Sharpe Ratio	Tracking Error
MSCI EAFE Value	0.2%	19.2%	--	-0.1	0.0%
Highclere International Small Cap	-1.9%	19.0%	-0.6	-0.2	3.4%
MSCI EAFE Small Cap	0.0%	19.6%	--	-0.1	0.0%
SSgA MSCI EAFE Fund	1.8%	17.5%	2.1	0.0	0.1%
MSCI EAFE	1.5%	17.5%	--	0.0	0.0%
DFA Emerging Markets Value	-0.1%	19.9%	0.4	-0.1	3.9%
MSCI Emerging Markets Value NR USD	-1.6%	18.7%	--	-0.1	0.0%
Private Equity	20.1%	11.5%	0.8	1.6	18.3%
Private Equity Benchmark	5.2%	17.4%	--	0.2	0.0%
Fixed Income	0.5%	6.0%	0.1	-0.1	3.4%
Bloomberg US Aggregate TR	0.0%	5.1%	--	-0.2	0.0%
SSgA Bond Fund	0.0%	5.1%	-0.6	-0.2	0.1%
Bloomberg US Aggregate TR	0.0%	5.1%	--	-0.2	0.0%
Loomis Sayles Core Plus Fixed Income	0.9%	5.4%	0.5	0.0	1.7%
Bloomberg US Aggregate TR	0.0%	5.1%	--	-0.2	0.0%
Aberdeen Emerging Markets Bond Fund	-2.2%	12.3%	-0.3	-0.3	2.5%
JP Morgan EMBI Global Diversified	-1.3%	11.1%	--	-0.2	0.0%
SSgA TIPS	2.0%	5.8%	-1.1	0.1	0.1%
Bloomberg US TIPS TR	2.1%	5.8%	--	0.2	0.0%
Pyramis Tactical Bond Fund	2.0%	6.6%	0.4	0.1	4.6%
Bloomberg US Aggregate TR	0.0%	5.1%	--	-0.2	0.0%

	Anlzd Return	Anlzd Standard Deviation	Information Ratio	Sharpe Ratio	Tracking Error
Real Estate	8.2%	6.6%	0.4	1.1	2.1%
NCREIF Property Index	7.5%	5.2%	--	1.2	0.0%
Clarion Partners Lion Properties Fund	9.4%	7.2%	0.7	1.1	1.6%
NCREIF ODCE Equal Weighted (Net)	8.3%	6.7%	--	1.1	0.0%
Natural Resources	-1.2%	13.0%	-0.2	-0.2	34.2%
S&P North American Natural Resources TR	7.1%	30.8%	--	0.2	0.0%

## Fund Detail

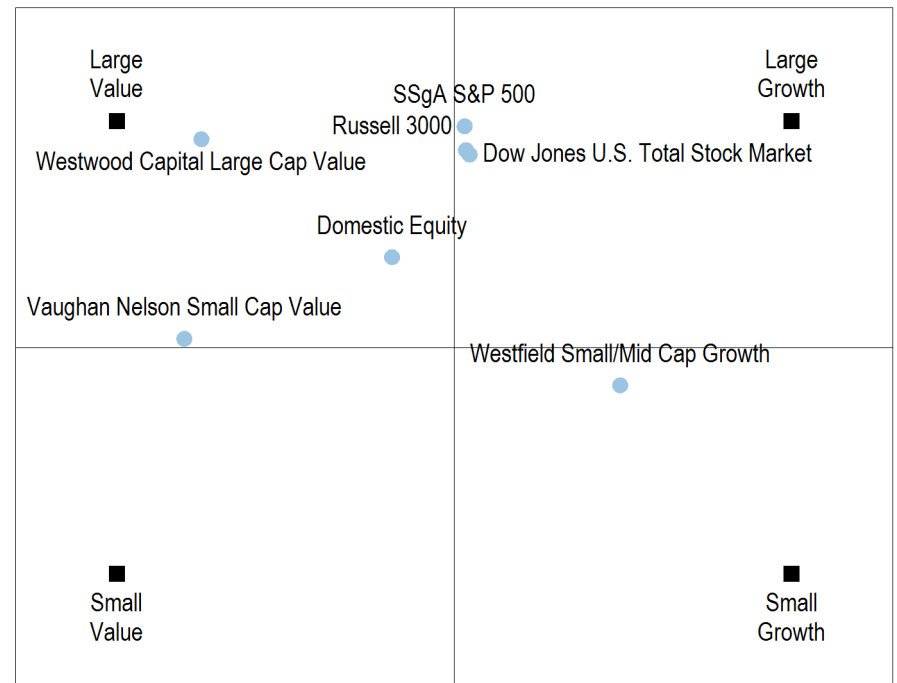
## Domestic Equity



#### Asset Allocation on December 31, 2022

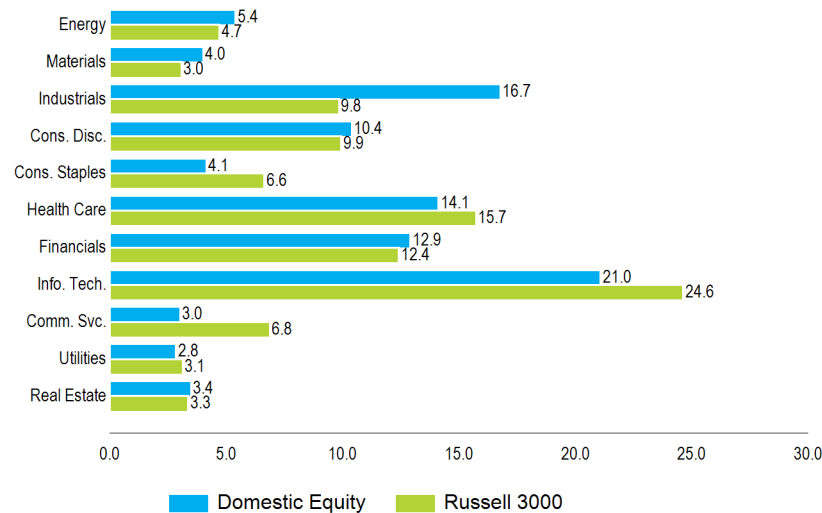
	Actual	Actual
Westwood Capital Large Cap Value	\$30,054,402	13.7%
Westfield Small/Mid Cap Growth	\$59,026,001	26.9%
Vaughan Nelson Small Cap Value	\$61,382,721	28.0%
SSgA S&P 500	\$69,010,541	31.4%
<b>Total</b>	<b>\$219,473,665</b>	<b>100.0%</b>

#### Domestic Equity Style Map 3 Years Ending December 31, 2022



Domestic Equity Characteristics			
	Portfolio Q4-22	Index Q4-22	Portfolio Q3-22
<b>Market Value</b>			
Market Value (\$M)	219.5	--	203.2
Number Of Holdings	623	2960	619
<b>Characteristics</b>			
Weighted Avg. Market Cap. (\$B)	170.3	360.3	184.9
Median Market Cap (\$B)	23.3	2.5	21.3
P/E Ratio	17.1	18.5	16.4
Yield	1.6	1.7	1.7
EPS Growth - 5 Yrs.	18.8	17.2	18.6
Price to Book	3.1	3.6	3.0

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



#### Top 10 Holdings

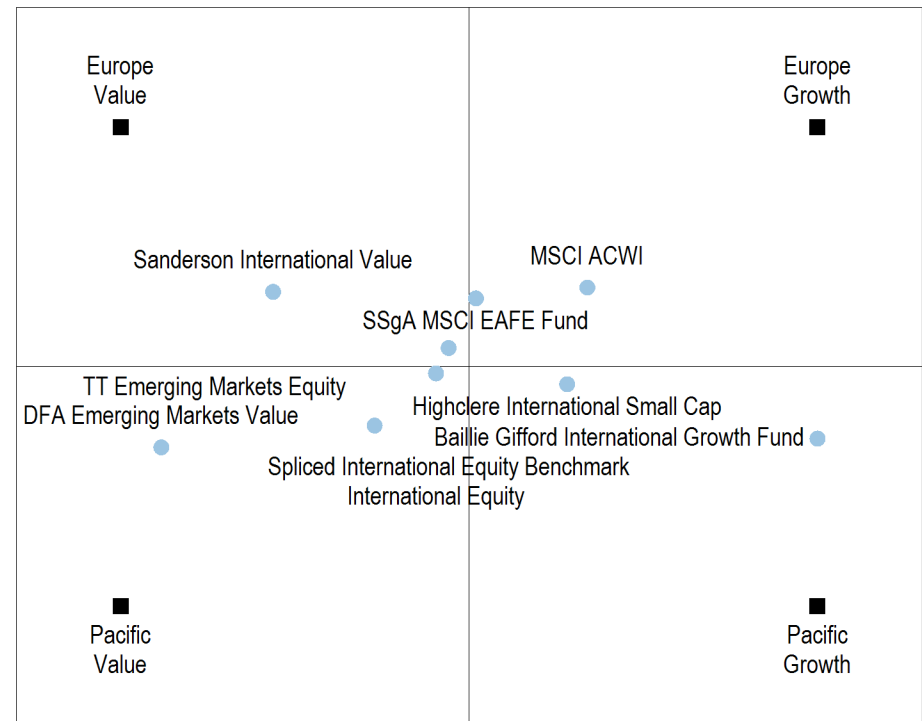
MICROSOFT CORP	2.2%
APPLE INC	1.9%
FMC CORP.	1.1%
INSIGHT ENTERPRISES INC	1.0%
SAIA INC	1.0%
ELEMENT SOLUTIONS INC	1.0%
JOHNSON & JOHNSON	1.0%
JPMORGAN CHASE & CO	0.9%
BERKSHIRE HATHAWAY INC	0.9%
UNITEDHEALTH GROUP INC	0.9%
<b>Total</b>	<b>11.8%</b>

## **International Equity**

#### Asset Allocation on December 31, 2022

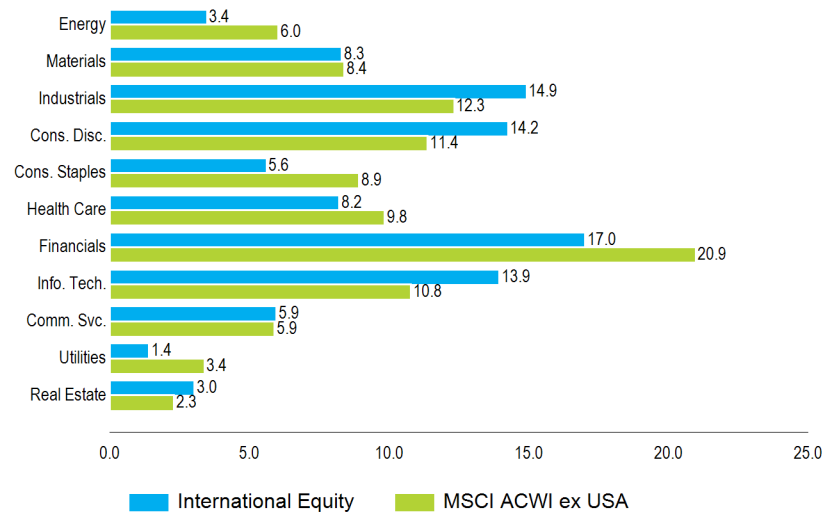
	Actual	Actual
Baillie Gifford International Growth Fund	\$28,945,644	13.8%
Sanderson International Value	\$44,774,719	21.3%
Highclere International Small Cap	\$41,739,584	19.9%
SSgA MSCI EAFE Fund	\$33,951,983	16.2%
DFA Emerging Markets Value	\$32,185,126	15.3%
TT Emerging Markets Equity	\$28,269,439	13.5%
<b>Total</b>	<b>\$209,866,495</b>	<b>100.0%</b>

#### International Equity Style Map 3 Years Ending December 31, 2022



Total International Equity Characteristics			
	Portfolio	Index	Portfolio
	Q4-22	Q4-22	Q3-22
<b>Market Value</b>			
Market Value (\$M)	209.9	--	185.7
Number Of Holdings	4236	2259	4270
<b>Characteristics</b>			
Weighted Avg. Market Cap. (\$B)	57.8	80.7	51.6
Median Market Cap (\$B)	1.0	8.9	0.9
P/E Ratio	11.7	12.8	10.0
Yield	3.3	3.4	4.0
EPS Growth - 5 Yrs.	10.7	11.6	11.3
Price to Book	2.2	2.4	2.3

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



#### Top 10 Holdings

TAIWAN SEMICONDUCTOR MANUFACTURING CO LTD	1.6%
ASML HOLDING NV	1.2%
SAMSUNG ELECTRONICS CO LTD	1.1%
TENCENT HOLDINGS LTD	1.1%
ALIBABA GROUP HOLDING LTD	1.0%
RELIANCE INDUSTRIES LTD	0.8%
FERRARI NV	0.7%
GENMAB A/S	0.7%
DEUTSCHE POST AG	0.7%
KERING	0.7%
<b>Total</b>	<b>9.6%</b>

#### Total International Equity Region Allocation

vs MSCI ACWI ex USA

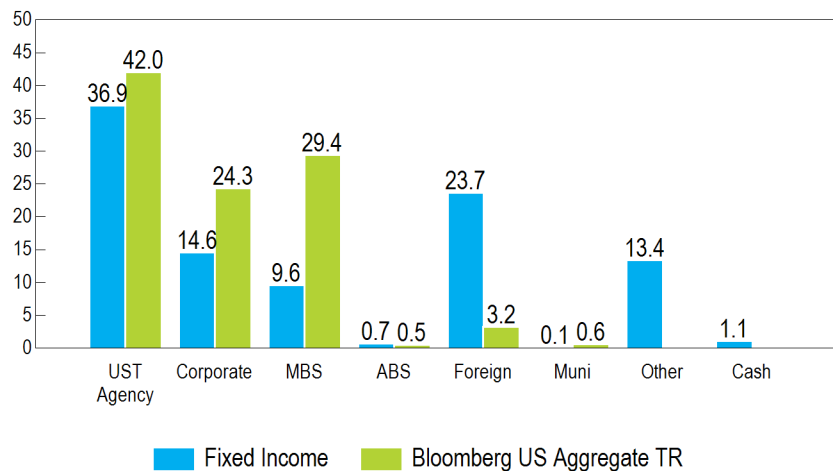
Region	% of Total	% of Bench	% Diff
North America ex U.S.	0.3%	7.7%	-7.4%
United States	4.4%	0.0%	4.4%
Europe Ex U.K.	30.2%	31.7%	-1.5%
United Kingdom	9.2%	9.8%	-0.6%
Pacific Basin Ex Japan	7.2%	8.1%	-0.9%
Japan	16.3%	14.0%	2.3%
Emerging Markets	30.4%	28.0%	2.4%
Other	2.0%	0.7%	1.3%
<b>Total</b>	<b>100.0%</b>	<b>100.0%</b>	<b>0.0%</b>

## Fixed Income

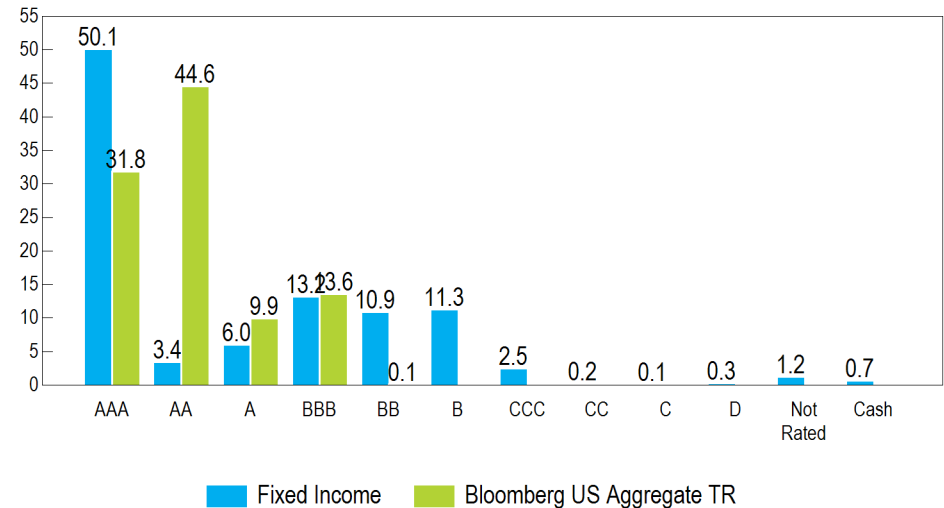
Asset Allocation on December 31, 2022		
	Actual	Actual
SSgA Bond Fund	\$83,265,768	26.8%
Loomis Sayles Core Plus Fixed Income	\$53,124,477	17.1%
Aberdeen Emerging Markets Bond Fund	\$65,367,498	21.0%
SSgA TIPS	\$54,551,729	17.6%
Pyramis Tactical Bond Fund	\$34,396,829	11.1%
Pacific Asset Management Bank Loans	\$20,038,223	6.4%
<b>Total</b>	<b>\$310,744,524</b>	<b>100.0%</b>

Total Fixed Income Characteristics vs. Bloomberg US Aggregate TR			
	Portfolio Q4-22	Index Q4-22	Portfolio Q3-22
Fixed Income Characteristics			
Yield to Maturity	6.6	4.6	7.2
Average Duration	5.8	6.2	5.6
Average Quality	A	AA	A
Weighted Average Maturity	9.0	8.4	9.1

### Sector Allocation

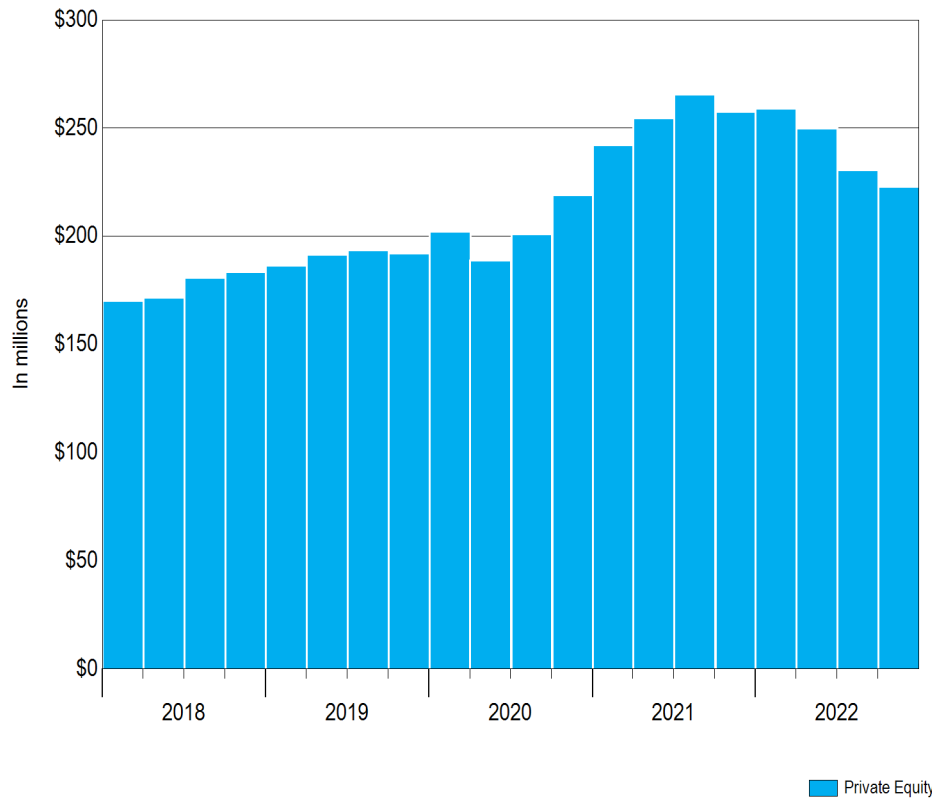


### Credit Quality Allocation

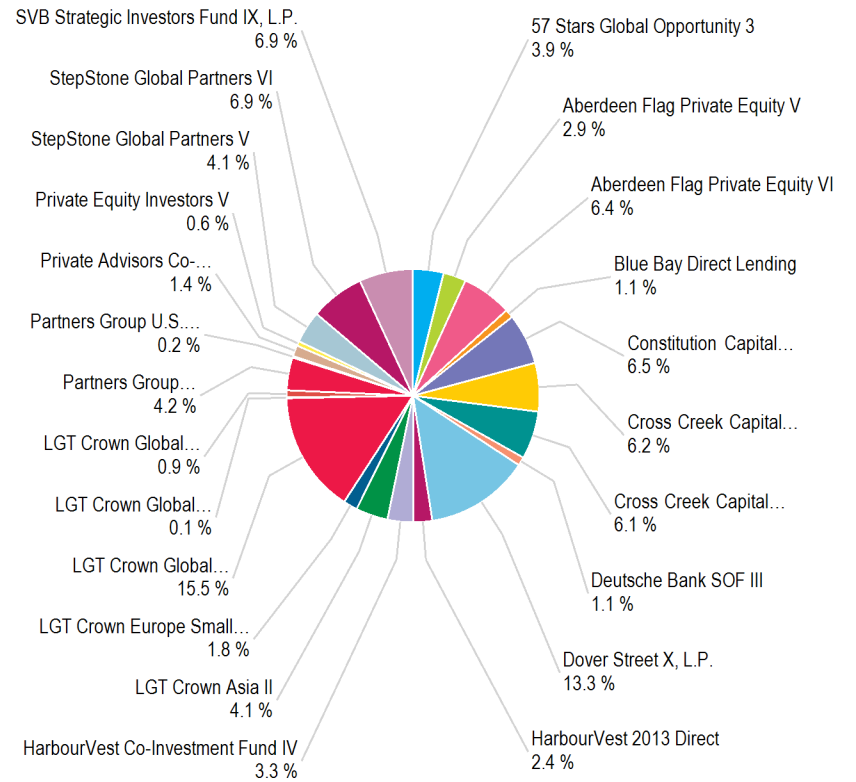




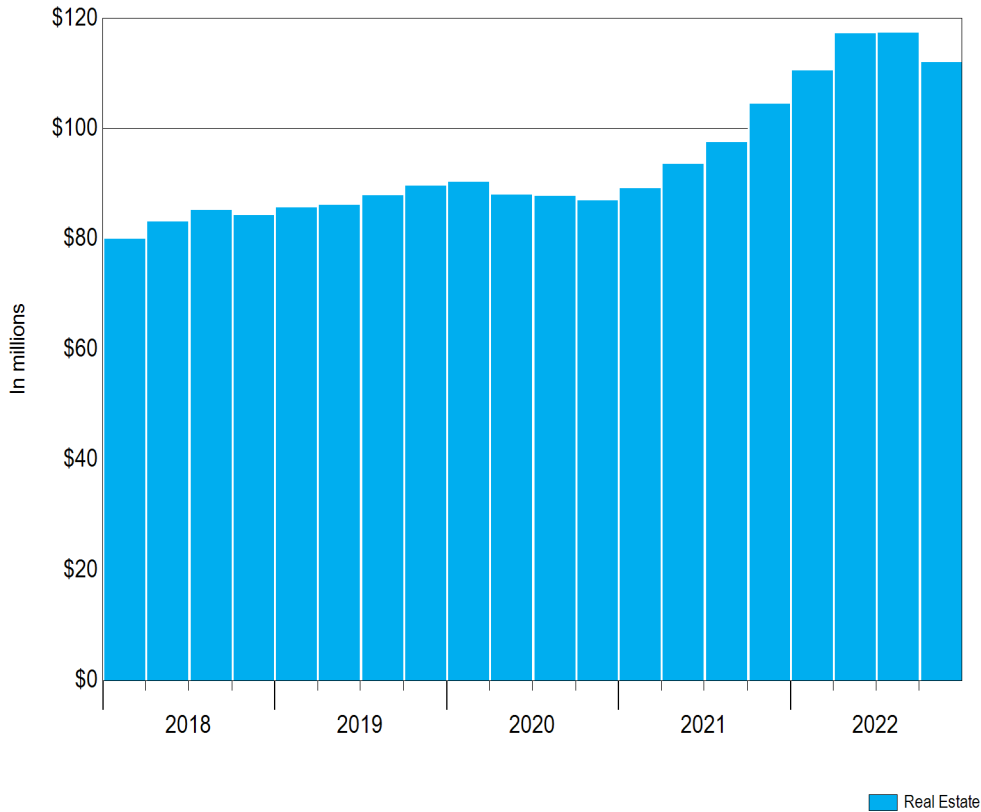
#### Market Value History



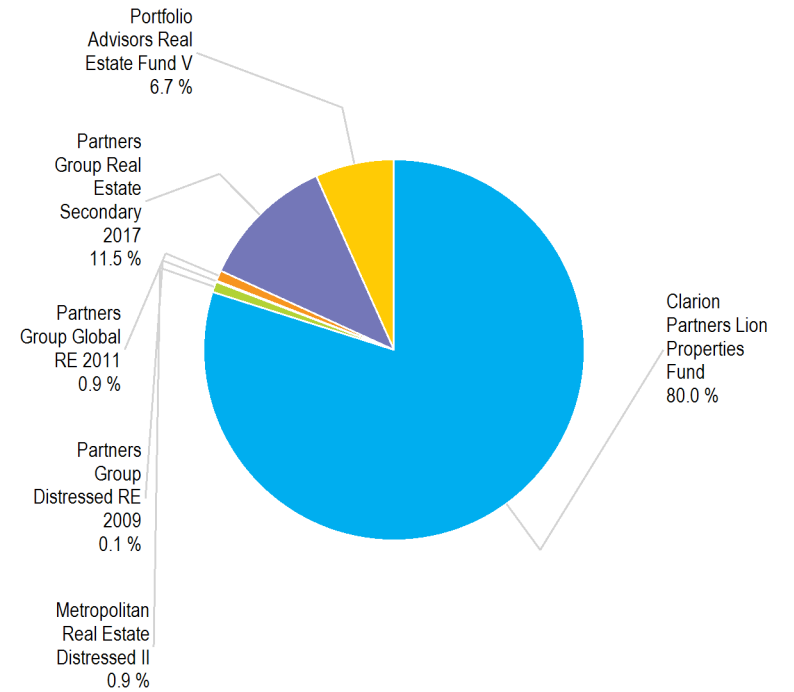
#### Current Allocation



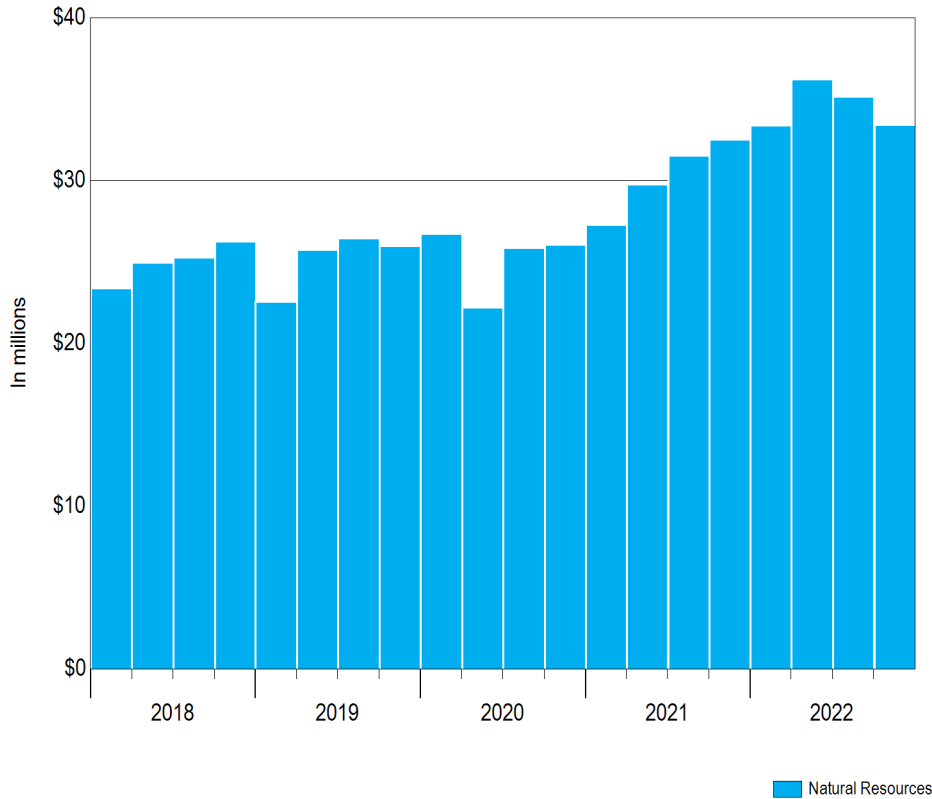
Market Value History



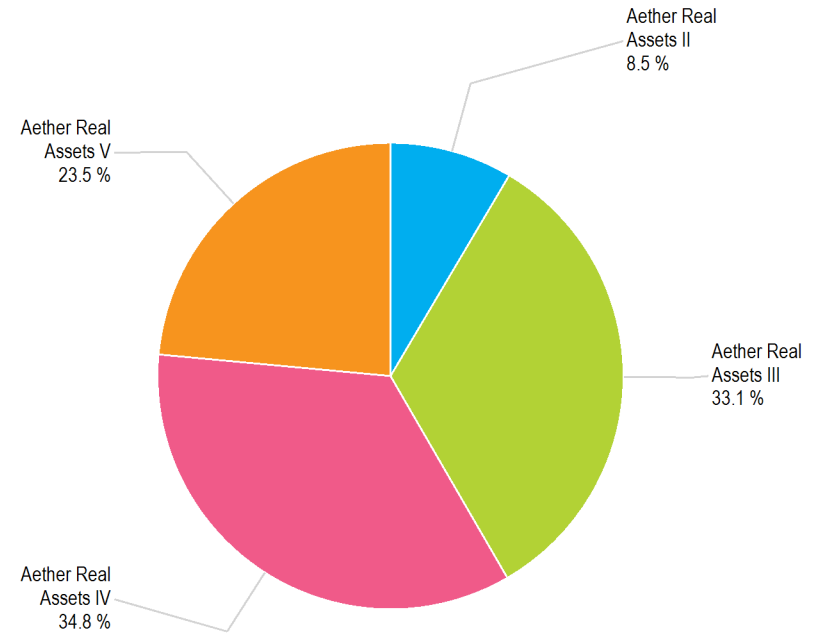
Current Allocation



#### Market Value History



#### Current Allocation



# Private Equity Assets

Partnership	Focus	Type	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	Co-investments	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>1</sup> (%)	Vintage Year	TVPI Multiple
Partners Group Distressed Private Equity 2009	7.0	6.2	8.7	0.4	10.3	2009	1.5x
LGT Crown Global Secondaries II <sup>2</sup>	3.0	2.5	4.2	0.2	17.7	2009	1.8x
Private Equity Investors V	3.0	3.0	1.4	1.2	-1.4 <sup>4</sup>	2009	0.9x
Cross Creek Capital Partners II – B	12.5	11.7	26.8	13.8	20.3	2010	3.5x
LGT Crown Asia II <sup>3</sup>	10.0	9.5	10.4	9.2	12.4	2011	2.1x
StepStone Global Partners V	7.5	6.8	17.8	9.2	24.8	2011	4.0x
57 Stars Global Opportunity 3	10.0	10.4	5.5	8.6	5.3	2011	1.4x
LGT Crown Europe Small Buyouts III <sup>3</sup>	8.4	7.7	10.2	4.0	16.1	2012	1.8x
LGT Crown Global Secondaries II <sup>3</sup>	10.0	7.6	9.6	2.1	12.0	2012	1.5x
Private Advisors Co-Investment Fund III	10.0	10.6	15.9	3.2	12.8	2013	1.8x
HarbourVest 2013 Direct	10.0	9.7	15.6	5.3	18.5	2013	2.2x
Cross Creek Capital Partners III	7.5	6.9	8.3	13.7	23.7	2013	3.2x
Aberdeen Flag Private Equity V	10.0	10.0	13.2	6.4	17.2	2012	2.0x
StepStone Global Partners VI	7.5	6.8	10.1	15.3	24.4	2013	3.7x
Constitution Capital Partners Ironsides III	15.0	17.6	25.5	14.5	27.6 <sup>5</sup>   20.8 <sup>6</sup>	2014	2.3x
Deutsche Bank Secondary Opportunities Fund III	10.0	8.8	10.3	2.5	12.5	2014	1.5x
Aberdeen Flag Private Equity VI	15.0	14.0	15.8	14.3	21.8	2015	2.2x
Blue Bay Direct Lending Fund II	20.0	19.4	21.4	2.5	7.4	2015	1.2x
Partners Group Emerging Markets 2015	10.0	8.8	4.2	9.4	8.9	2015	1.5x
LGT Crown Global Opportunities VI <sup>3</sup>	40.0	33.1	21.8	34.6	15.6	2016	1.7x
HarbourVest Co-Investment Fund IV	10.0	8.1	7.9	7.4	17.1	2017	1.9x
SVB Strategic Investors Fund IX	10.0	8.4	0.0	15.3	30.2	2018	1.8x
Dover Street X	40.0	25.3	8.8	29.7	47.2	2020	1.5x
<b>Total</b>	<b>286.6</b>	<b>252.9</b>	<b>273.4</b>	<b>222.7</b>			<b>2.0x</b>

<sup>1</sup> All performance figures are reported directly from managers, net of fees, as of 9/30/2022, unless otherwise noted.

<sup>2</sup> Performance and market value is as of 11/30/2022.

<sup>3</sup> Performance and market value is as of 12/31/2022

<sup>4</sup> Net IRR is as of 6/30/2022

<sup>5</sup> Constitution Capital Ironsides Partnership Fund III, as of 9/30/2022.

<sup>6</sup> Constitution Capital Ironsides Co-Investment Fund III, as of 9/30/2022.

# Real Estate Assets

Partnership	Focus	Type	Vintage Year	TVPI Multiple
Partners Group U.S. Distressed 2009	U.S. Distressed	Fund of Funds	2009	1.4x
Metropolitan Real Estate Distressed II	Real Estate Debt	Fund of Funds	2009	1.3x
Partners Group Global RE 2011	Global	Fund of Funds	2011	1.4x
Portfolio Advisors Global Real Estate V	Global	Fund of Funds	2015	1.2x
Partners Group RE Secondary 2017	Global	Fund of Funds	2017	1.4x
				<b>1.3x</b>

Partnership	Committed (mm)	Called (mm)	Distributed (mm)	Fair Value (mm)	nIRR <sup>1</sup> (%)
Partners Group U.S. Distressed 2009	\$12.0	\$11.2	\$15.1	0.1	7.0
Metropolitan Real Estate Distressed II	\$12.0	\$11.3	\$13.6	1.1	8.0 <sup>2</sup>
Partners Group Global RE 2011	\$6.7	\$5.4	\$6.4	1.0	6.4
Portfolio Advisors Global Real Estate V	\$15.0	\$14.6	\$10.0	7.5	7.4
Partners Group RE Secondary 2017	\$15.0	\$9.0	\$0.2	12.9	12.3
<b>Total</b>	<b>\$60.7</b>	<b>\$51.5</b>	<b>\$45.3</b>	<b>\$22.6</b>	

<sup>1</sup> Performance figures are reported directly from manager, net of fees, as of 9/30/2022.

<sup>2</sup> Net IRR is lagged as of 6/30/2022



## Natural Resources Assets

### Natural Resources Assets

Partnership	Vintage Year	Committed (mm)	Called (mm)	Distributed (mm)	Fair Value (mm)	Net IRR <sup>1</sup> %	TVPI Multiple <sup>2</sup>
Aether Real Assets II	2012	\$7.5	\$7.7	\$4.2	\$2.9	-1.6	0.9x
Aether Real Assets III	2013	\$15.0	\$15.5	\$3.4	\$11.1	-0.6	1.0x
Aether Real Assets IV	2016	\$10.0	\$10.0	\$1.1	\$11.6	6.8	1.3x
Aether Real Assets V	2018	\$10.0	\$5.8	\$0.5	\$7.8	19.7	1.3x
<b>Total</b>		<b>\$42.5</b>	<b>\$39.0</b>	<b>\$9.8</b>	<b>\$33.4</b>		<b>1.1x</b>

<sup>1</sup> Performance figures are reported directly from manager, net of fees, as of 9/30/2022.

## Portfolio Reviews

#### 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 (%)	10 Yrs (%)	S.I. (%)	S.I. Date
Westwood Capital Large Cap Value	11.2	-5.9	-5.9	6.6	7.8	10.9	8.6	Oct-01
Russell 1000 Value	12.4	-7.5	-7.5	6.0	6.7	10.3	7.8	Oct-01
eV US Large Cap Value Equity Net Median	12.7	-5.7	-5.7	7.4	7.5	10.7	8.4	Oct-01
eV US Large Cap Value Equity Net Rank	78	52	52	64	47	46	40	Oct-01

#### Top 10 Holdings

JPMORGAN CHASE & CO	3.7%
JOHNSON & JOHNSON	3.5%
DANAHER CORP	3.1%
MICROSOFT CORP	3.1%
BANK OF AMERICA CORP	2.9%
BECTON DICKINSON AND CO	2.7%
CHEVRON CORP	2.6%
WEC ENERGY GROUP INC	2.6%
MICROCHIP TECHNOLOGY INC	2.6%
CASH - USD	2.6%
<b>Total</b>	<b>29.5%</b>

#### Westwood Capital Large Cap Value Characteristics

	Portfolio Q4-22	Index Q4-22	Portfolio Q3-22
<b>Market Value</b>			
Market Value (\$M)	30.1	--	27.0
Number Of Holdings	46	852	47
<b>Characteristics</b>			
Weighted Avg. Market Cap. (\$B)	236.9	152.3	220.9
Median Market Cap (\$B)	104.1	11.9	89.8
P/E Ratio	18.7	15.6	15.5
Yield	2.1	2.3	2.4
EPS Growth - 5 Yrs.	13.2	12.6	13.0
Price to Book	2.9	2.5	2.9
<b>Sector Distribution</b>			
Energy	8.5	7.6	8.2
Materials	0.0	4.4	0.0
Industrials	13.2	10.7	13.6
Consumer Discretionary	6.7	5.8	6.3
Consumer Staples	8.3	7.4	5.9
Health Care	17.4	17.6	16.3
Financials	18.5	20.4	19.9
Information Technology	10.3	8.4	9.4
Communication Services	2.2	7.4	6.7
Utilities	6.6	5.9	5.9
Real Estate	5.6	4.5	4.9

#### 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 (%)	10 Yrs (%)	S.I. (%)	S.I. Date
Westfield Small/Mid Cap Growth	6.5	-23.4	-23.4	6.1	8.3	11.1	12.0	Nov-02
<i>Russell 2500 Growth</i>	4.7	-26.2	-26.2	2.9	6.0	10.6	10.6	Nov-02
<i>eV US Small-Mid Cap Growth Equity Net Median</i>	4.7	-28.1	-28.1	5.2	7.9	10.9	10.8	Nov-02
<i>eV US Small-Mid Cap Growth Equity Net Rank</i>	28	25	25	41	42	46	19	Nov-02

#### Top 10 Holdings

DIAMONDBACK ENERGY INC	2.8%
ASCENDIS PHARMA AS	2.5%
FIVE BELOW INC	2.5%
ICON PLC	2.4%
DECKERS OUTDOOR CORP	2.3%
WILLSCOT MOBILE MINI HOLDINGS CORP	2.3%
ENCORE WIRE CORP	2.2%
SUN COMMUNITIES INC.	2.2%
IDEX CORP	2.1%
RED ROCK RESORTS INC	2.1%
<b>Total</b>	<b>23.6%</b>

#### Westfield Small/Mid Cap Growth Characteristics

	Portfolio Q4-22	Index Q4-22	Portfolio Q3-22
<b>Market Value</b>			
Market Value (\$M)	59.0	--	55.4
Number Of Holdings	66	1340	64
<b>Characteristics</b>			
Weighted Avg. Market Cap. (\$B)	9.8	6.0	9.5
Median Market Cap (\$B)	9.3	1.8	8.6
P/E Ratio	17.1	16.7	16.9
Yield	0.9	0.9	0.9
EPS Growth - 5 Yrs.	28.2	22.0	27.8
Price to Book	3.7	4.1	3.4
<b>Sector Distribution</b>			
Energy	4.9	6.2	4.6
Materials	4.1	5.2	4.1
Industrials	17.0	18.5	21.2
Consumer Discretionary	15.3	12.2	13.6
Consumer Staples	0.0	4.0	0.0
Health Care	21.1	19.4	21.2
Financials	8.2	6.9	7.5
Information Technology	22.5	22.0	22.3
Communication Services	1.0	1.8	0.3
Utilities	0.0	1.3	0.0
Real Estate	3.3	2.6	4.5

#### 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

#### Portfolio Performance Summary

	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	S.I. Date
Vaughan Nelson Small Cap Value	8.0	-9.8	-9.8	9.0	6.8	--	8.7	Jan-16
Russell 2000 Value	8.4	-14.5	-14.5	4.7	4.1	8.5	8.2	Jan-16
eV US Small Cap Value Equity Net Median	10.8	-11.7	-11.7	6.4	4.6	9.2	8.5	Jan-16
eV US Small Cap Value Equity Net Rank	84	34	34	21	22	--	45	Jan-16

#### Top 10 Holdings

INSIGHT ENTERPRISES INC	3.9%
ELEMENT SOLUTIONS INC	3.6%
GATX CORP.	2.8%
RAMBUS INC	2.7%
WNS (HOLDINGS) LTD	2.6%
FABRINET	2.6%
ASGN INC	2.2%
PERFORMANCE FOOD GROUP COMPANY	2.1%
FRANKLIN ELECTRIC CO INC	2.0%
INTERNATIONAL GAME TECHNOLOGY PLC	2.0%
<b>Total</b>	<b>26.6%</b>

#### Vaughan Nelson Small Cap Value Characteristics

	Portfolio Q4-22	Index Q4-22	Portfolio Q3-22
<b>Market Value</b>			
Market Value (\$M)	61.4	--	56.7
Number Of Holdings	67	1383	62
<b>Characteristics</b>			
Weighted Avg. Market Cap. (\$B)	4.8	2.4	4.8
Median Market Cap (\$B)	4.1	0.9	3.9
P/E Ratio	13.8	10.5	14.2
Yield	1.9	2.3	1.9
EPS Growth - 5 Yrs.	19.1	13.3	17.8
Price to Book	2.3	1.6	2.3
<b>Sector Distribution</b>			
Energy	4.5	6.3	5.4
Materials	7.5	4.0	7.2
Industrials	28.3	13.3	31.7
Consumer Discretionary	8.2	9.8	7.7
Consumer Staples	2.6	2.7	2.3
Health Care	3.5	10.5	2.9
Financials	16.4	28.9	16.8
Information Technology	20.1	5.6	20.3
Communication Services	0.4	2.8	0.0
Utilities	3.4	5.3	3.4
Real Estate	3.5	10.7	0.0

#### 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	7.6	-18.1	-18.1	7.6	9.4	12.5	8.8	Feb-04
S&P 500	7.6	-18.1	-18.1	7.7	9.4	12.6	8.8	Feb-04
eV US Large Cap Equity Net Median	9.5	-15.4	-15.4	7.0	8.4	11.5	8.7	Feb-04
eV US Large Cap Equity Net Rank	65	61	61	38	32	25	48	Feb-04

#### Top 10 Holdings

APPLE INC	5.9%
MICROSOFT CORP	5.5%
AMAZON.COM INC	2.3%
BERKSHIRE HATHAWAY INC	1.7%
ALPHABET INC	1.6%
UNITEDHEALTH GROUP INC	1.5%
ALPHABET INC	1.4%
JOHNSON & JOHNSON	1.4%
EXXON MOBIL CORP	1.4%
JPMORGAN CHASE & CO	1.2%
<b>Total</b>	<b>23.9%</b>

#### SSgA S&P 500 Characteristics

	Portfolio Q4-22	Index Q4-22	Portfolio Q3-22
<b>Market Value</b>			
Market Value (\$M)	69.0	--	64.2
Number Of Holdings	504	503	506
<b>Characteristics</b>			
Weighted Avg. Market Cap. (\$B)	414.5	415.6	464.9
Median Market Cap (\$B)	29.6	29.6	27.1
P/E Ratio	19.3	19.5	18.3
Yield	1.8	1.7	1.8
EPS Growth - 5 Yrs.	16.9	16.8	17.2
Price to Book	3.9	3.9	3.8
<b>Sector Distribution</b>			
Energy	5.1	5.1	4.5
Materials	2.7	2.7	2.5
Industrials	8.4	8.6	7.6
Consumer Discretionary	9.5	10.0	11.5
Consumer Staples	7.1	7.8	6.8
Health Care	15.5	15.4	14.9
Financials	11.4	12.0	10.8
Information Technology	25.2	25.3	25.9
Communication Services	7.1	7.5	7.9
Utilities	3.0	3.0	3.0
Real Estate	2.6	2.6	2.7

#### Account Information

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

#### Portfolio Performance Summary

	QTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	S.I.	S.I. Date
	(%)	(%)	(%)	(%)	(%)	(%)	
Baillie Gifford International Growth Fund	13.1	-34.4	-1.1	1.9	6.7	9.0	May-09
MSCI ACWI ex USA	14.3	-16.0	0.1	0.9	3.8	6.2	May-09
MSCI EAFE	17.3	-14.5	0.9	1.5	4.7	6.5	May-09
eV ACWI ex-US All Cap Growth Eq Net Median	12.7	-27.7	1.1	2.3	5.5	8.3	May-09
eV ACWI ex-US All Cap Growth Eq Net Rank	47	86	69	58	32	26	May-09

#### Top 10 Holdings

ASML HOLDING NV	6.6%
FERRARI NV	4.9%
MERCADOLIBRE INC	4.8%
GENMAB A/S	4.7%
MEITUAN DIANPING USD0.00001 A B CLASS ISIN KYG596691041	4.6%
KERING	4.5%
TENCENT HOLDINGS LTD	4.1%
ADYEN N.V	4.0%
ARGEN-X SE	3.5%
LOREAL SA	2.9%
<b>Total</b>	<b>44.5%</b>

#### Baillie Gifford EAFE Fund Characteristics

	Portfolio	Index	Portfolio
	Q4-22	Q4-22	Q3-22
<b>Market Value</b>			
Market Value (\$M)	28.9	--	25.6
Number Of Holdings	55	796	54
<b>Characteristics</b>			
Weighted Avg. Market Cap. (\$B)	86.8	78.1	72.9
Median Market Cap (\$B)	19.5	11.8	19.4
P/E Ratio	28.2	13.7	26.2
Yield	0.8	3.4	0.9
EPS Growth - 5 Yrs.	16.8	9.9	17.1
Price to Book	5.4	2.4	5.1
<b>Sector Distribution</b>			
Energy	0.0	5.0	0.0
Materials	3.3	7.8	2.7
Industrials	9.3	15.1	7.7
Consumer Discretionary	27.9	11.1	28.8
Consumer Staples	5.4	10.5	5.4
Health Care	14.6	13.6	14.4
Financials	8.5	18.7	9.4
Information Technology	20.5	7.8	21.0
Communication Services	8.6	4.5	8.9
Utilities	0.0	3.5	0.0
Real Estate	0.0	2.6	0.0



#### Account Information

Account Name	Sanderson International Value
Account Structure	Commingled Fund
Investment Style	Active
Inception Date	2/01/13
Account Type	Non-US Stock Developed
Benchmark	MSCI EAFE Value
Universe	eV EAFE All Cap Value Net

#### Portfolio Performance Summary

	QTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	S.I.	S.I.
	(%)	(%)	(%)	(%)	(%)	(%)	Date
Sanderson International Value	19.0	-15.7	-2.8	-2.0	--	3.0	Feb-13
MSCI EAFE Value	19.6	-5.6	0.6	0.2	3.5	2.9	Feb-13
MSCI EAFE	17.3	-14.5	0.9	1.5	4.7	4.2	Feb-13
eV EAFE All Cap Value Net Median	18.5	-8.4	1.4	1.0	4.4	4.2	Feb-13
eV EAFE All Cap Value Net Rank	43	94	99	99	--	74	Feb-13

#### Top 10 Holdings

MISCELLANEOUS SECURITIES	7.4%
SAMSUNG ELECTRONICS CO LTD	3.5%
MELROSE INDUSTRIES PLC	3.0%
DEUTSCHE POST AG	3.0%
BRAMBLES LTD	2.9%
DAIMLER TRUCK HOLDING AG COMMON STOCK	2.8%
CRH PLC	2.8%
SHIN-ETSU CHEMICAL CO LTD	2.6%
IG GROUP HOLDINGS PLC	2.5%
MERCEDES-BENZ GROUP AG	2.4%
<b>Total</b>	<b>32.9%</b>

#### Sanderson International Value Characteristics

	Portfolio	Index	Portfolio
	Q4-22	Q4-22	Q3-22
<b>Market Value</b>			
Market Value (\$M)	44.8	--	37.6
Number Of Holdings	53	796	54
<b>Characteristics</b>			
Weighted Avg. Market Cap. (\$B)	60.3	78.1	51.8
Median Market Cap (\$B)	17.9	11.8	17.2
P/E Ratio	11.2	13.7	9.4
Yield	3.3	3.4	4.1
EPS Growth - 5 Yrs.	8.4	9.9	10.1
Price to Book	1.7	2.4	1.8
<b>Sector Distribution</b>			
Energy	1.6	5.0	1.7
Materials	8.0	7.8	6.0
Industrials	23.8	15.1	19.7
Consumer Discretionary	11.1	11.1	10.8
Consumer Staples	4.8	10.5	11.9
Health Care	5.6	13.6	8.0
Financials	17.1	18.7	21.6
Information Technology	10.3	7.8	10.1
Communication Services	8.2	4.5	9.0
Utilities	0.0	3.5	0.0
Real Estate	0.0	2.6	0.0

#### Account Information

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

#### Portfolio Performance Summary

	QTD	YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	S.I.	S.I.
	(%)	(%)	(%)	(%)	(%)	(%)	(%)	Date
Highclere International Small Cap	17.0	-24.2	-24.2	-3.3	-1.9	5.2	6.1	Dec-09
MSCI EAFE Small Cap	15.8	-21.4	-21.4	-0.9	0.0	6.2	6.4	Dec-09
S&P EPAC Under USD2 Billion NR USD	14.8	-21.5	-21.5	-1.2	-1.7	4.8	5.0	Dec-09
eV EAFE Small Cap Equity Net Median	16.5	-20.8	-20.8	-0.2	0.2	6.4	7.1	Dec-09
eV EAFE Small Cap Equity Net Rank	40	71	71	83	82	87	86	Dec-09

G-7 HOLDINGS	1.2%
MORINAGA MILK INDUSTRY CO LTD	1.1%
SHIZUOKA FINANCIAL GROUP INC	1.0%
IWATANI	1.0%
AICA KOGYO CO LTD	1.0%
DFDS A/S COPENHAGEN	1.0%
MARR	1.0%
SAWAI GROUP HOLDINGS CO LTD	0.9%
MAYR-MELNHOF KARTON AG	0.9%
PRESTIGE INTL.	0.9%
<b>Total</b>	<b>10.2%</b>

#### Highclere International Small Cap Characteristics

	Portfolio	Index	Portfolio
	Q4-22	Q4-22	Q3-22
<b>Market Value</b>			
Market Value (\$M)	41.7	--	35.7
Number Of Holdings	183	2276	180
<b>Characteristics</b>			
Weighted Avg. Market Cap. (\$B)	1.3	2.6	1.0
Median Market Cap (\$B)	0.9	1.2	0.7
P/E Ratio	13.4	11.9	12.1
Yield	3.7	3.4	4.7
EPS Growth - 5 Yrs.	6.7	8.6	8.1
Price to Book	2.1	2.1	2.0
<b>Sector Distribution</b>			
Energy	1.3	2.9	0.9
Materials	7.5	9.5	6.0
Industrials	20.5	22.9	21.6
Consumer Discretionary	12.7	12.3	13.2
Consumer Staples	7.1	6.5	8.3
Health Care	9.3	6.8	8.1
Financials	8.1	11.9	8.0
Information Technology	15.6	9.2	15.3
Communication Services	4.9	3.9	5.1
Utilities	1.2	3.2	1.0
Real Estate	7.5	11.0	8.3

#### 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 (%)	10 Yrs (%)	S.I. (%)	S.I. Date
SSgA MSCI EAFE Fund	17.3	-14.1	-14.1	1.2	1.8	--	4.4	Feb-13
MSCI EAFE	17.3	-14.5	-14.5	0.9	1.5	4.7	4.2	Feb-13
eV EAFE Core Equity Net Median	16.1	-16.9	-16.9	0.6	1.1	5.2	4.7	Feb-13
eV EAFE Core Equity Net Rank	27	28	28	43	34	--	63	Feb-13

#### Top 10 Holdings

NESTLE SA, CHAM UND VEVEY	2.2%
ASML HOLDING NV	1.6%
NOVO NORDISK 'B'	1.6%
ROCHE HOLDING AG	1.5%
ASTRAZENECA PLC	1.5%
SHELL PLC	1.4%
LVMH MOET HENNESSY LOUIS VUITTON SE	1.4%
NOVARTIS AG	1.3%
BHP GROUP LTD	1.1%
TOTALENERGIES SE	1.1%
<b>Total</b>	<b>14.7%</b>

#### SSgA MSCI EAFE Fund Characteristics

	Portfolio Q4-22	Index Q4-22	Portfolio Q3-22
<b>Market Value</b>			
Market Value (\$M)	34.0	--	31.5
Number Of Holdings	809	796	802
<b>Characteristics</b>			
Weighted Avg. Market Cap. (\$B)	78.6	78.1	68.8
Median Market Cap (\$B)	11.6	11.8	10.2
P/E Ratio	13.8	13.7	12.2
Yield	3.4	3.4	3.7
EPS Growth - 5 Yrs.	9.9	9.9	11.7
Price to Book	2.5	2.4	2.4
<b>Sector Distribution</b>			
Energy	4.8	5.0	5.0
Materials	7.6	7.8	7.5
Industrials	14.7	15.1	14.7
Consumer Discretionary	10.7	11.1	10.8
Consumer Staples	10.0	10.5	11.1
Health Care	13.1	13.6	14.0
Financials	17.9	18.7	17.4
Information Technology	7.6	7.8	7.9
Communication Services	4.4	4.5	4.7
Utilities	3.4	3.5	3.4
Real Estate	2.6	2.6	2.8

#### Account Information

Account Name	DFA Emerging Markets Value
Account Structure	Mutual Fund
Investment Style	Active
Inception Date	12/01/09
Account Type	Non-US Stock Emerging
Benchmark	MSCI Emerging Markets Value NR USD
Universe	eV Emg Mkts All Cap Value Equity Net

#### Portfolio Performance Summary

	QTD	YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	S.I.	S.I.
	(%)	(%)	(%)	(%)	(%)	(%)	(%)	Date
DFA Emerging Markets Value	10.3	-10.7	-10.7	1.0	-0.1	1.7	2.2	Dec-09
MSCI Emerging Markets Value NR USD	9.8	-15.8	-15.8	-2.6	-1.6	0.1	1.4	Dec-09
MSCI Emerging Markets	9.7	-20.1	-20.1	-2.7	-1.4	1.4	2.5	Dec-09
eV Emg Mkts All Cap Value Equity Net Median	12.7	-16.0	-16.0	-0.6	-0.4	2.2	2.3	Dec-09
eV Emg Mkts All Cap Value Equity Net Rank	88	30	30	29	47	63	57	Dec-09

#### Top 10 Holdings

RELIANCE INDUSTRIES LTD	3.4%
CHINA CONSTRUCTION BANK CORP	2.6%
PING AN INSURANCE GROUP	1.4%
SK HYNIX INC	1.2%
HON HAI PRECISION INDUSTRY CO LTD	1.2%
INDUSTRIAL AND COMMERCIAL BANK OF CHINA LIMITED	1.1%
AXIS BANK	1.1%
PETROLEO BRASILEIRO S.A.- PETROBRAS	0.9%
ALIBABA GROUP HOLDING LTD	0.9%
SAMSUNG ELECTRONICS CO LTD	0.9%
<b>Total</b>	<b>14.8%</b>

#### DFA Emerging Markets Value Characteristics

	Portfolio Q4-22	Index Q4-22	Portfolio Q3-22
<b>Market Value</b>			
Market Value (\$M)	32.2	--	29.2
Number Of Holdings	3174	816	3228
<b>Characteristics</b>			
Weighted Avg. Market Cap. (\$B)	30.2	53.7	29.9
Median Market Cap (\$B)	0.5	6.2	0.4
P/E Ratio	7.1	8.7	6.4
Yield	5.8	5.1	6.5
EPS Growth - 5 Yrs.	12.5	10.6	11.9
Price to Book	1.6	1.9	1.6
<b>Sector Distribution</b>			
Energy	10.2	7.8	10.4
Materials	15.2	10.5	14.2
Industrials	9.7	5.9	9.2
Consumer Discretionary	8.5	12.1	8.1
Consumer Staples	3.0	3.4	3.1
Health Care	2.5	2.2	2.6
Financials	30.4	31.6	29.6
Information Technology	11.2	15.3	11.6
Communication Services	2.8	4.7	2.9
Utilities	1.5	3.7	1.7
Real Estate	4.7	2.8	4.9

#### 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	8.2	-26.9	-26.9	-4.7	--	--	-1.6	Apr-19
MSCI Emerging Markets	9.7	-20.1	-20.1	-2.7	-1.4	1.4	-0.2	Apr-19
eV Emg Mkts Equity Net Median	10.3	-19.9	-19.9	-1.6	-0.7	2.1	1.1	Apr-19
eV Emg Mkts Equity Net Rank	75	86	86	88	--	--	87	Apr-19

#### Top 10 Holdings

TAIWAN SEMICONDUCTOR MANUFACTURING CO LTD	8.5%
CASH - USD	4.7%
ALIBABA GROUP HOLDING LTD	4.4%
SAMSUNG ELECTRONICS CO LTD	3.6%
TENCENT HOLDINGS LTD	3.3%
360 DIGITECH INC	3.0%
EMAAR PROPERTIES	2.8%
KB FINANCIAL GROUP INC	2.7%
H D F C BANK LTD	2.7%
JD.COM INC	2.5%
<b>Total</b>	<b>38.3%</b>

#### TT Emerging Markets Equity Characteristics

	Portfolio	Index	Portfolio
	Q4-22	Q4-22	Q3-22
<b>Market Value</b>			
Market Value (\$M)	28.3	--	26.1
Number Of Holdings	86	1375	65
<b>Characteristics</b>			
Weighted Avg. Market Cap. (\$B)	120.7	95.7	113.8
Median Market Cap (\$B)	30.0	6.5	27.5
P/E Ratio	12.6	11.4	9.0
Yield	2.2	3.4	3.5
EPS Growth - 5 Yrs.	13.9	14.6	12.4
Price to Book	2.3	2.6	2.2
<b>Sector Distribution</b>			
Energy	3.8	4.9	8.0
Materials	7.9	8.9	5.0
Industrials	4.2	6.1	2.5
Consumer Discretionary	18.1	14.1	9.8
Consumer Staples	2.7	6.4	4.2
Health Care	4.9	4.1	2.1
Financials	22.2	22.1	20.8
Information Technology	21.2	18.6	17.3
Communication Services	6.5	9.9	5.5
Utilities	2.7	3.0	3.3
Real Estate	2.8	1.9	2.6

#### Account Information

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

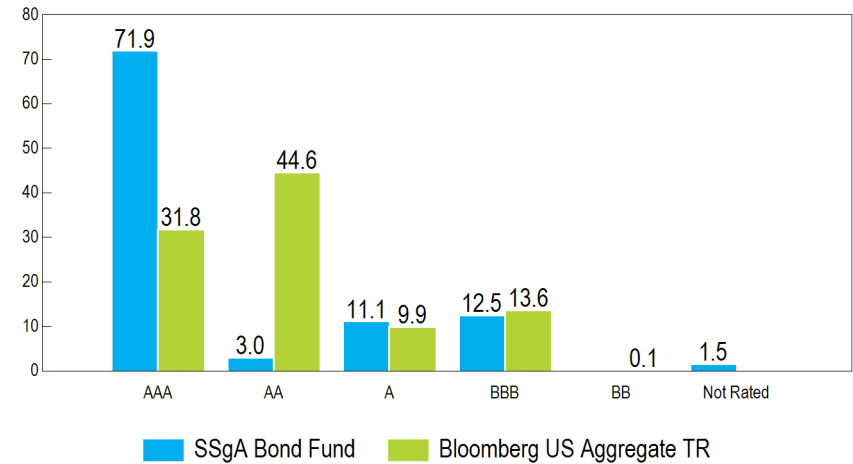
#### Portfolio Performance Summary

	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	S.I. Date
SSgA Bond Fund	1.7	-13.2	-2.8	0.0	1.0	3.0	Jan-04
Bloomberg US Aggregate TR	1.9	-13.0	-2.7	0.0	1.1	3.0	Jan-04
eV US Core Fixed Inc Net Median	1.8	-13.1	-2.4	0.2	1.3	3.3	Jan-04
eV US Core Fixed Inc Net Rank	60	61	82	80	83	84	Jan-04

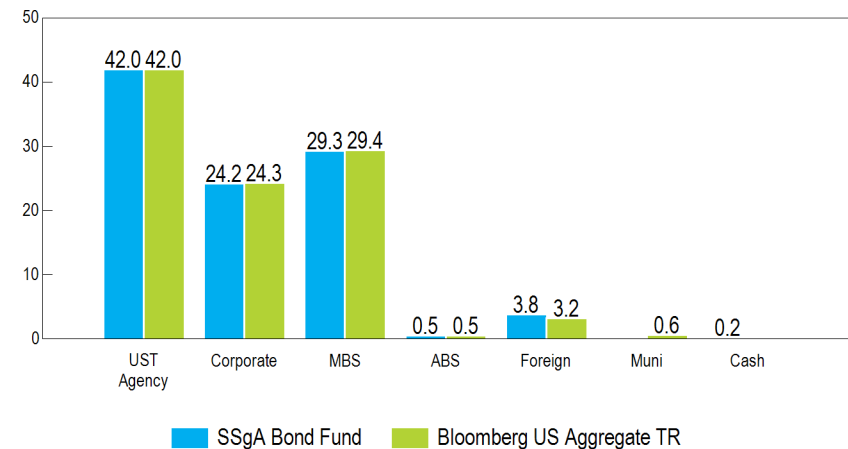
#### SSgA Bond Fund Characteristics vs. Bloomberg US Aggregate TR

	Portfolio Q4-22	Index Q4-22	Portfolio Q3-22
<b>Fixed Income Characteristics</b>			
Yield to Maturity	4.7	4.6	4.8
Average Duration	6.2	6.2	6.2
Average Quality	AA	AA	AA
Weighted Average Maturity	8.6	8.4	8.6

#### Credit Quality Allocation



#### Sector Allocation



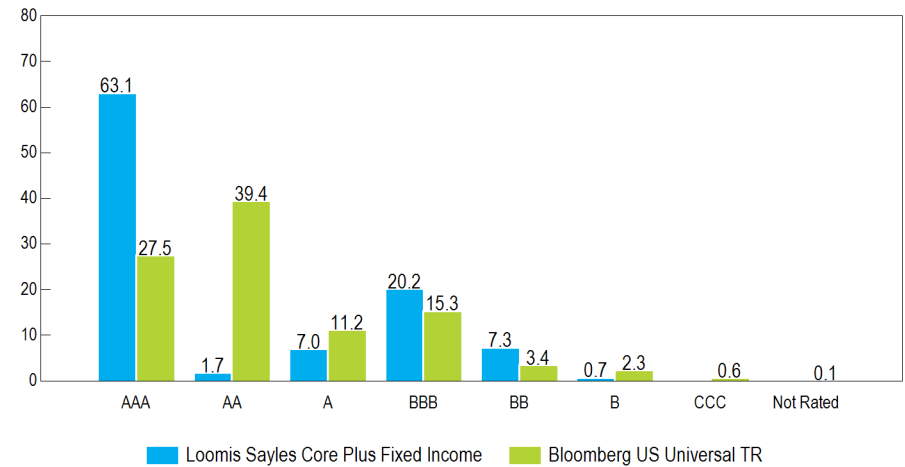
#### Account Information

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

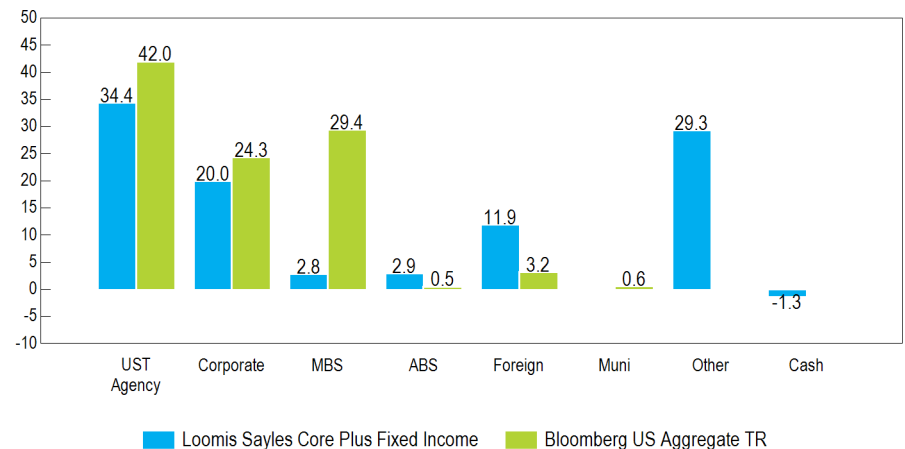
#### Portfolio Performance Summary

	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	S.I. Date
Loomis Sayles Core Plus Fixed Income	2.1	-12.7	-1.3	0.9	--	1.8	Jul-15
Bloomberg US Aggregate TR	1.9	-13.0	-2.7	0.0	1.1	0.9	Jul-15
eV US Core Plus Fixed Inc Net Median	2.0	-13.4	-2.1	0.4	1.7	1.5	Jul-15
eV US Core Plus Fixed Inc Net Rank	42	27	19	19	--	24	Jul-15

#### Credit Quality Allocation



#### Sector Allocation



#### Loomis Sayles Core Plus Fixed Income Characteristics vs. Bloomberg US Aggregate TR

	Portfolio Q4-22	Index Q4-22	Portfolio Q3-22
<b>Fixed Income Characteristics</b>			
Yield to Maturity	5.4	4.6	6.3
Average Duration	7.0	6.2	6.5
Average Quality	BBB	AA	BBB
Weighted Average Maturity	8.8	8.4	9.5

### Aberdeen Emerging Markets Bond Fund | As of December 31, 2022

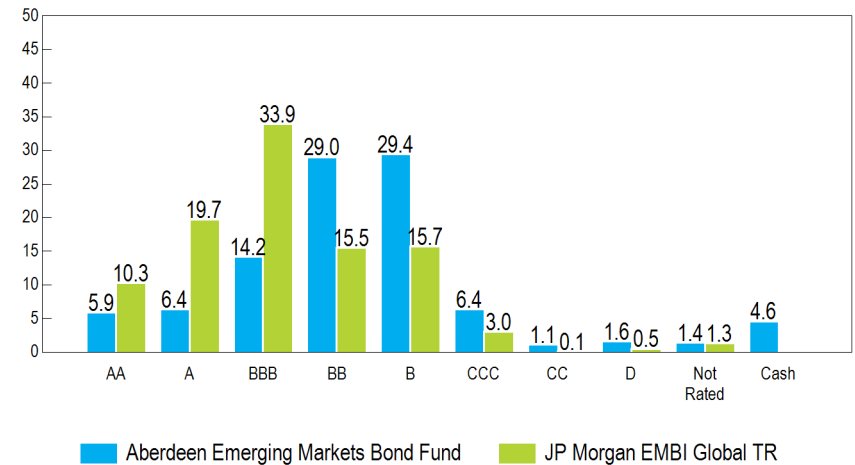
#### Account Information

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

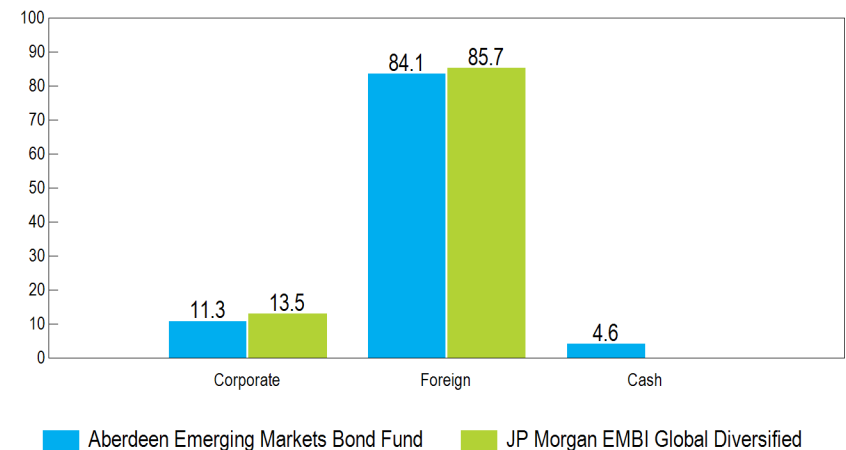
#### Portfolio Performance Summary

	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	S.I. Date
Aberdeen Emerging Markets Bond Fund	10.2	-16.6	-5.6	-2.2	--	0.9	Dec-14
JP Morgan EMBI Global Diversified	8.1	-17.8	-5.3	-1.3	1.6	1.5	Dec-14
50% JPM EMBI GD, 25% JPM GBI EM GD, 25% CMBI Broad	7.3	-15.2	-4.8	-1.1	1.1	1.3	Dec-14

#### Credit Quality Allocation



#### Sector Allocation



#### Aberdeen Emerging Markets Bond Fund Characteristics

##### vs. JP Morgan EMBI Global TR

	Portfolio Q3-22	Index Q3-22	Portfolio Q2-22
<b>Fixed Income Characteristics</b>			
Yield to Maturity	12.7	8.0	10.7
Average Duration	5.9	6.8	5.9
Average Quality	BB	BBB	BB
Weighted Average Maturity	11.1	12.0	10.8



#### Account Information

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

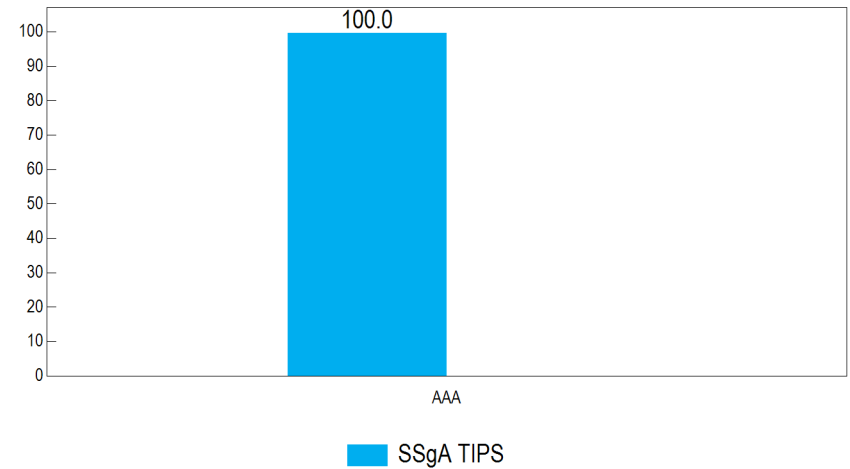
#### Portfolio Performance Summary

	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	S.I. Date
SSgA TIPS	1.8	-12.0	-12.0	1.1	2.0	--	1.6	Aug-14
Bloomberg US TIPS TR	2.0	-11.8	-11.8	1.2	2.1	1.1	1.7	Aug-14
eV US TIPS / Inflation Fixed Inc Net Median	2.0	-11.6	-11.6	1.2	2.2	1.1	1.7	Aug-14
eV US TIPS / Inflation Fixed Inc Net Rank	69	78	78	79	72	--	72	Aug-14

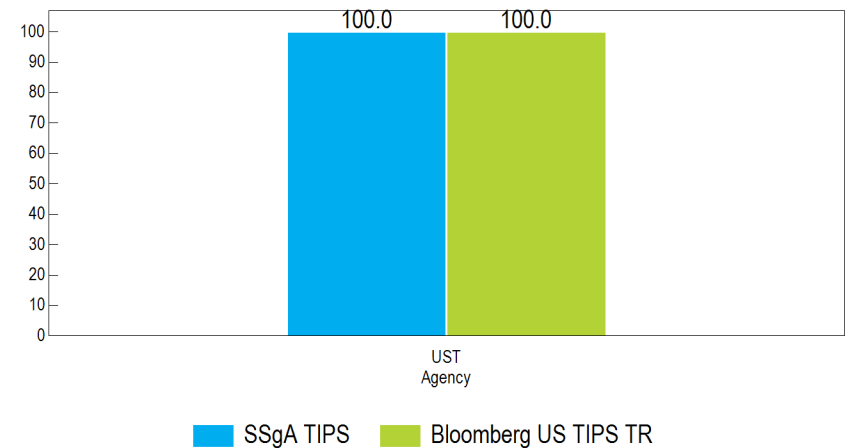
#### SSGA TIPS Characteristics vs. Bloomberg US TIPS TR

	Portfolio Q4-22	Index Q4-22	Portfolio Q3-22
<b>Fixed Income Characteristics</b>			
Yield to Maturity	4.3	4.1	4.2
Average Duration	5.4	6.6	5.9
Average Quality	AAA	AA	AAA
Weighted Average Maturity	7.1	7.1	7.3

#### Credit Quality Allocation



#### Sector Allocation



#### Account Information

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

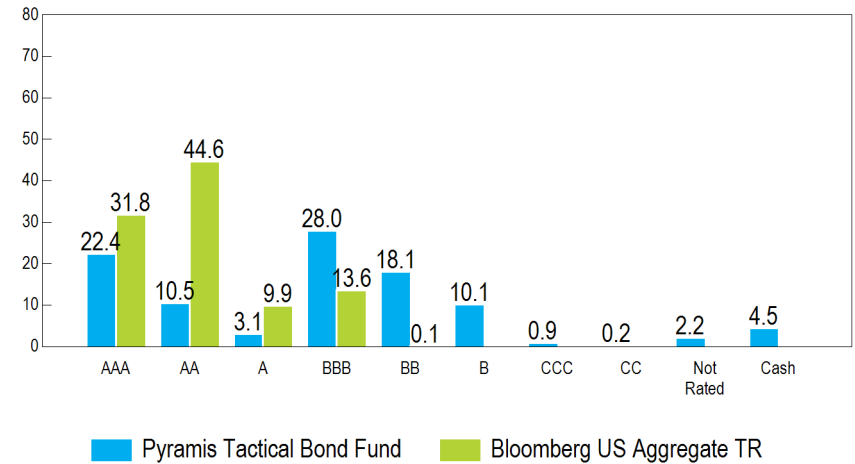
#### Portfolio Performance Summary

	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	S.I. Date
Pyramis Tactical Bond Fund	2.7	-10.9	-10.9	-0.5	2.0	--	3.3	Aug-13
Bloomberg US Aggregate TR	1.9	-13.0	-13.0	-2.7	0.0	1.1	1.4	Aug-13
eV US Core Plus Fixed Inc Net Median	2.0	-13.4	-13.4	-2.1	0.4	1.7	2.0	Aug-13
eV US Core Plus Fixed Inc Net Rank	13	8	8	13	4	--	2	Aug-13

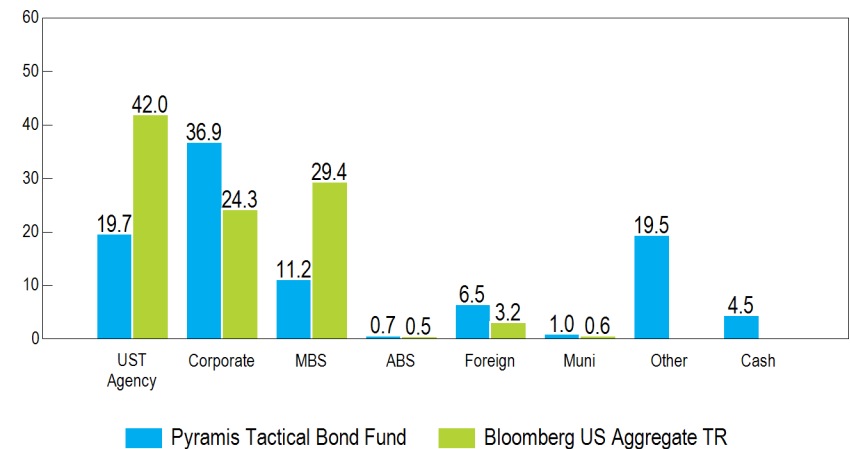
#### Pyramis Tactical Bond Fund Characteristics vs. Bloomberg US Aggregate TR

	Portfolio Q4-22	Index Q4-22	Portfolio Q3-22
<b>Fixed Income Characteristics</b>			
Yield to Maturity	7.3	4.6	7.5
Average Duration	5.4	6.2	5.1
Average Quality	BBB	AA	BBB
Weighted Average Maturity	13.2	8.4	11.7

#### Credit Quality Allocation



#### Sector Allocation



#### Account Information

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

#### Portfolio Performance Summary

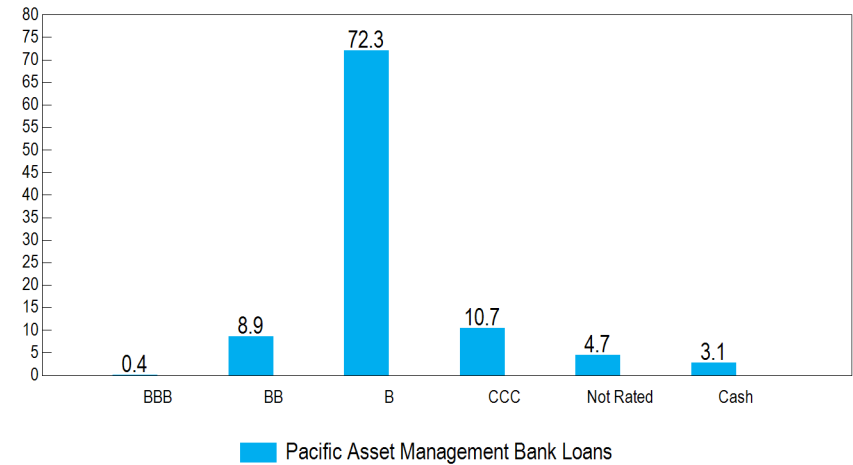
	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	S.I. Date
Pacific Asset Management Bank Loans	2.8	-0.6	-0.6	2.4	--	--	2.6	Dec-19
<i>Credit Suisse Leveraged Loans</i>	2.3	-1.1	-1.1	2.3	3.2	3.8	2.8	Dec-19
<i>Bank Loan MStar MF Median</i>	2.6	-1.7	-1.7	1.4	2.4	3.1	1.9	Dec-19
<i>Bank Loan MStar MF Rank</i>	39	18	18	8	--	--	16	Dec-19

#### Pacific Asset Management Bank Loans Characteristics

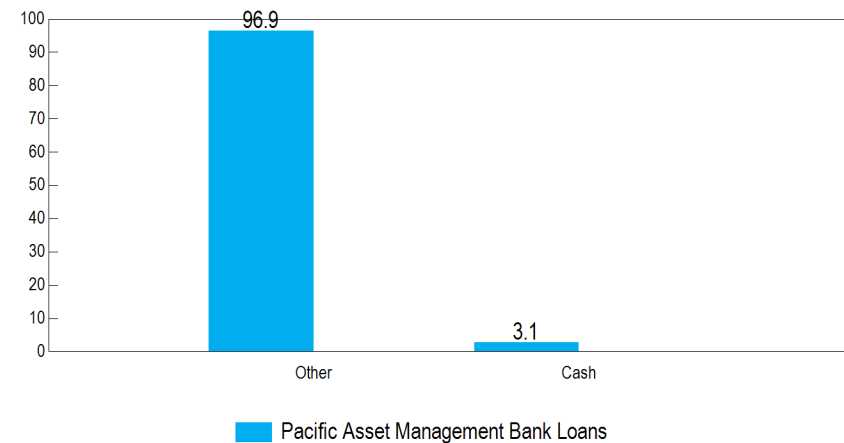
	Portfolio Q4-22	Portfolio Q3-22
<b>Fixed Income Characteristics</b>		
Yield to Maturity	9.8	10.2
Average Duration	0.3	0.4
Average Quality	B	B
Weighted Average Maturity	4.2	4.1

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

#### Credit Quality Allocation



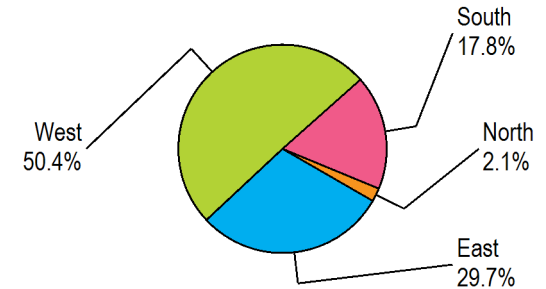
#### Sector Allocation



#### Account Information

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

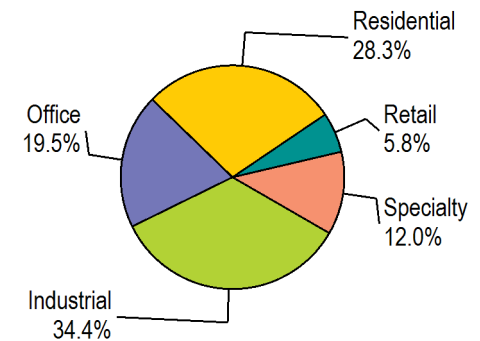
#### Geographic Diversification Allocation as of December 31, 2022



#### Portfolio Performance Summary

	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	S.I. Date
Clarion Partners Lion Properties Fund	-5.4	8.7	8.7	10.5	9.4	10.4	6.8	Apr-05
NCREIF ODCE Equal Weighted (Net)	-5.1	7.6	7.6	9.7	8.3	9.5	7.0	Apr-05

#### Property Type Allocation Allocation as of December 31, 2022



Investment Expense Analysis				
As Of December 31, 2022				
Name	Market Value	% of Portfolio	Estimated Fee	Estimated Fee Value
Westwood Capital Large Cap Value	\$30,054,402	4.1%	0.50%	\$150,272
Westfield Small/Mid Cap Growth	\$59,026,001	8.0%	0.68%	\$401,377
Vaughan Nelson Small Cap Value	\$61,382,721	8.3%	0.89%	\$547,870
SSgA S&P 500	\$69,010,541	9.3%	0.01%	\$9,401
Baillie Gifford International Growth Fund	\$28,945,644	3.9%	0.61%	\$176,568
Sanderson International Value	\$44,774,719	6.0%	0.73%	\$328,536
Highclere International Small Cap	\$41,739,584	5.6%	1.14%	\$475,766
SSgA MSCI EAFE Fund	\$33,951,983	4.6%	0.06%	\$20,371
DFA Emerging Markets Value	\$32,185,126	4.3%	0.38%	\$122,303
TT Emerging Markets Equity	\$28,269,439	3.8%	0.80%	\$226,156
SSgA Bond Fund	\$83,265,768	11.3%	0.03%	\$24,980
Loomis Sayles Core Plus Fixed Income	\$53,124,477	7.2%	0.29%	\$152,811
Aberdeen Emerging Markets Bond Fund	\$65,367,498	8.8%	0.45%	\$294,154
SSgA TIPS	\$54,551,729	7.4%	0.03%	\$16,366
Pyramis Tactical Bond Fund	\$34,396,829	4.6%	0.34%	\$116,949
Pacific Asset Management Bank Loans	\$20,038,223	2.7%	0.41%	\$82,157
<b>Total</b>	<b>\$740,084,684</b>	<b>100.0%</b>	<b>0.43%</b>	<b>\$3,146,036</b>

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.

Westfield has a performance based fee. The fee ranges from minimum of 0.20% to a maximum of 1.30% based on the relative performance over the trailing three years. Included here is the average actual fee paid over the past three years.

# Public Manager Fee Benchmarking

## Overview

- Investment management fees represent a significant component of a fund's expenses and should be monitored closely.
- Meketa Investment Group continually seeks to negotiate and reduce management fees for its clients where possible.
- Typically, the biggest fee savings can be generated by using index funds in efficient asset classes.
- The following page lists each active public investment manager and compares the fee Austin Fire pays vs. the median fee for similar investment strategies.

**Estimated Manager Fees – Active Managers**

 as of December 31, 2022<sup>1</sup>

Account	Market Value As of 12/31/2022 (\$)	Asset Type	Estimated Annual Fee (%)	Estimated Annual Fee (\$)	Peer Ranking Percentile (%)	Peer Median Fee (%)
Westwood Capital Large Cap Value	30,054,402	Domestic Equity	0.50	150,272	25	0.57
Westfield Small/Mid Cap Growth	59,026,001	Domestic Equity	0.68	230,201	17	0.81
Vaughan Nelson Small Cap Value	61,382,721	Domestic Equity	0.89	547,870	69	0.83
Ballie Gifford Int'l Growth	28,945,644	Int'l Equity	0.61	176,568	8	0.85
Sanderson Int'l Value	44,774,719	Int'l Equity	0.73	328,536	30	0.75
Highclere Int'l Small Cap	41,739,584	Int'l Equity	1.14	475,766	93	0.90
DFA Emerging Markets Value	32,185,126	Int'l Equity	0.38	122,303	1	0.98
TT Emerging Markets Equity	28,269,439	Int'l Equity	0.80	226,156	40	0.85
Loomis Sayles Core Plus Bond	53,124,477	Fixed Income	0.29	152,811	26	0.30
Aberdeen Emerging Markets Bond	65,367,498	Fixed Income	0.45	294,154	11	0.60
Pyramis Tactical Bond	34,396,829	Fixed Income	0.34	116,949	56	0.32
Pacific Asset Mgmt. Bank Loans	20,038,223	Fixed Income	0.41	82,157	8	0.50

→ A peer ranking of 1 means lowest cost in peer group, a peer ranking of 99 means highest cost in peer group.

<sup>1</sup> Calculations were not reconciled with actual fees paid by the Pension Fund and will not match exactly. The table is for illustrative purposes only. Public market fees were calculated by multiplying manager fee schedule by market value as of December 31, 2022. Westfield has a performance based fee. The fee ranges from minimum of 0.20% to a maximum of 1.30% based on the relative performance over the trailing three years. Included here is the average actual fee paid over the past three years.



Estimated Manager Fees – Passive Strategies

as of December 31, 2022<sup>1</sup>

Account	Market Value As of 12/31/2022 (\$)	Asset Type	Estimated Annual Fee (%)	Estimated Annual Fee (\$)	Peer Ranking Percentile (%)	Peer Median Fee (%)
<b>Index Assets</b>						
SSgA S&P 500	69,010,541	Domestic Equity	0.01	9,401	1	0.50
SSgA MSCI EAFE	33,951,983	Int'l Equity	0.06	20,37	1	0.75
SSgA Agg. Bond	83,265,768	Fixed Income	0.03	24,980	1	0.26
SSgA TIPS	54,551,729	Fixed Income	0.03	16,366	1	0.30

<sup>1</sup> Calculations were not reconciled with actual fees paid by the Pension Fund and will not match exactly. The table is for illustrative purposes only. Public market fees were calculated by multiplying manager fee schedule by market value as of December 31, 2022.

#### Summary

- Austin Fire pay lower than median fee on 9 of 12 active public manager strategies.
- The index fund fees are significantly lower than the active manager fees.

# Passive Framework

#### Target Goal

- Based on conversations with the Board over the past year, we recommend implementing an approach to increase passive exposure.
- The framework below outlines a plan to increase passive exposure by roughly 10%.

#### Quantitative Factors

- Our proposed plan is to shift \$10 mm each month (\$120 mm total) from actively managed equity and fixed income strategies to existing passive strategies.
- We will seek to execute the trades with staff in the second half of each month.

#### Qualitative Factors

- In order to have some flexibility with the framework to incorporate real world market dynamics, we anticipate evaluating a number of factors when making a recommendation each month. Specifically we will evaluate:
  - Trailing period returns, with the preference of reducing exposure from outperforming strategies (i.e. “sell high)
  - If a manager is significantly underperforming and at risk of termination, this may also lend itself to a recommendation to reduce exposure and rotate into passive.
  - Generally we will only move assets within an asset class (i.e. from *active* international equity to *passive* international equity).

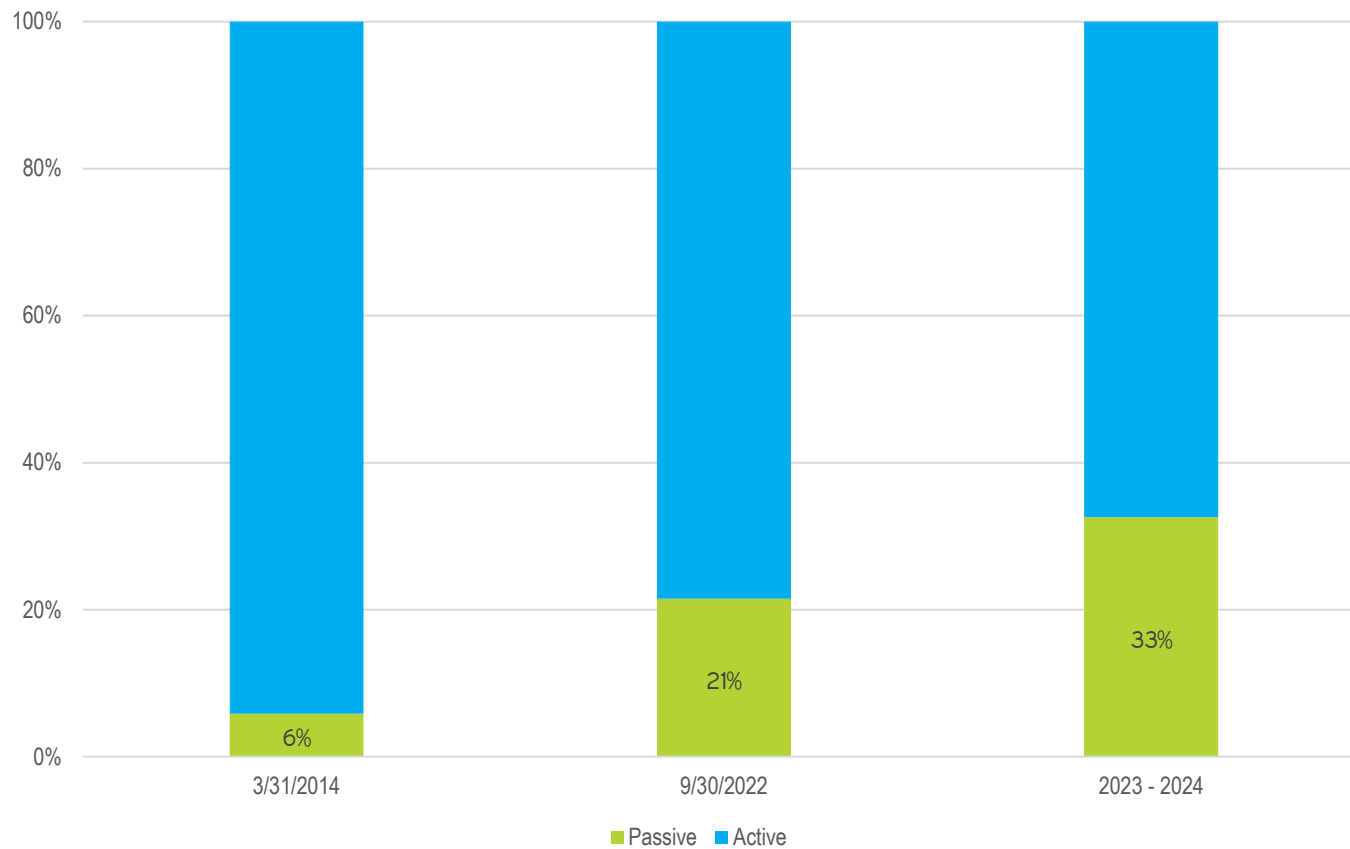
### Qualitative Factors (continued)

- If a situation arises due to market conditions (e.g. large equity rally) that results in a need to rebalance across asset classes (e.g. selling equities and adding to fixed income) to get closer to policy targets, we will use that opportunity to rotate from active to passive and the trades will count towards the \$120 mm target

### Procedural

- Today we are seeking Board approval of the framework.
- Each month we anticipate evaluating returns/exposure during the first 15 days of the month, which will result in a recommendation to Staff for execution in the second half of each month (without Board involvement)
- The framework is consistent with the Board approved policy asset allocation.
- We will summarize all trades for the Board in our quarterly Board report.

#### Past – Present – and Future



→ This framework would increase total Fund level passive exposure from 21% to 33%.

→ When Meketa started working with Austin Fire in 2014, passive exposure was only 6%.

Estimated Fee Savings

Total value of transfers	Estimated Blended Average <b>Active</b> Public Manager Fee	Estimated Blended Average <b>Passive</b> Public Manager Fee	Estimated Annual Savings
	0.59%	0.03%	0.56%
\$120,000,000	\$707,000	\$39,000	\$668,000

→ We estimate Austin Fire can save approximately \$668,000 per year with this framework.

→ Calculation methodology:

- There are twelve active public managers, so we calculated the average fee, assuming for simplicity that \$10 mm comes from each public manager.
- There are four passive index funds, so we calculated the average fee, assuming each one gets equal weight contribution.
- Estimated fee savings are simply the difference in fees.

# Investment Policy Statement Review



### Investment Policy Statement Review

- We conducted our annual review of the Investment Policy Statement (“IPS”).
- We have no recommended changes.
- A full copy of the IPS is contained in this report.

**Revised February 2022**

**Statement of Investment Policies and Objectives**

*for*

**Austin Fire Fighters Relief and Retirement Fund**

***Table of Contents***

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**Statement of Investment Policies and Objectives**  
*for*  
**Austin Fire Fighters Relief and Retirement Fund**

*Original Adoption Date: 12/10/2002*

*Revised: 12/12/2006*

*Revised: 6/29/2009*

*Revised: 10/25/2010*

*Revised: 8/24/2012*

*Revised: 9/16/2014*

*Revised: 2/11/2016*

*Revised: 2/26/2018*

*Revised: 6/28/2021*

*Revised: 2/28/2022*

## **I. STATEMENT OF POLICY**

### **Purpose**

This document is the official policy governing the investment practices of the Austin Fire Fighters Relief and Retirement Fund (the “Fund”). These policies and objectives (the “Policy”) have been adopted by the Board of Trustees of the Fund (the “Board”), which has the fiduciary duty of overseeing Fund investments. The Policy is not to be deviated from by any responsible party without the prior written permission of the Board. All previous Fund investment policies and objectives are superseded by this document. Any revisions to this document will be promptly supplied to the appropriate parties in written format.

### **Investment Goals**

The purpose of the Fund is to accumulate the financial reserves necessary to provide for the retirement pension benefits and other benefits set forth in the Fund’s governing statute (e.g., COLAs) for eligible members of the Fund and their beneficiaries. A primary investment goal of the Fund is to emphasize consistency of growth in a manner that protects the Fund from excessive volatility in market value from year to year, while achieving its performance objective over a long-term horizon.

The Board, with consultation, advice, and assistance from the investment consultant, will use the Fund’s asset allocation as the primary tool to achieve this goal. As this is a long-term projection and investments are subject to short-term volatility, the main investment review focus of the Board will be to emphasize total return of the Fund over a long-term time horizon. Each manager selected by the Board is expected to maintain a consistent philosophy and style, perform well versus others utilizing the same style, add incremental value after costs, and provide investment management in compliance with this document and the manager’s contract with the Fund or other operating documents.

## **II. INVESTMENT OBJECTIVES**

The primary objective of the Fund is to provide sufficient return and liquidity to pay the benefit obligations of the Fund on a timely and regular basis. The Fund is a permanent one and there is currently no expectation of need for significant liquidity from the Fund's portfolio. The Fund shall be considered a total return fund, with appropriate recognition given to both current income and capital appreciation. The Board accepts the risks associated with investing in public and private capital markets (market risks), but will minimize wherever possible those risks for which the Fund is unlikely to be compensated (non-market or diversifiable risks). The risk and return investment objectives of the Fund are set forth below and should strive to be achieved in a manner consistent with the goals stated in Section I above.

### **A. Risk Objectives**

- To accept the minimum level of risk required to achieve the Fund's return objective as stated immediately below.
- To minimize the likelihood of experiencing a loss over any full market cycle.
- To use diversification to minimize exposure to company and industry-specific risks in the aggregate investment portfolio.

### **B. Return Objective**

- To manage the Fund's assets so as to achieve a high likelihood of attaining a 7.3% nominal return over long-term time horizon.

### **C. Performance Objective**

- To manage the Fund's assets so as to achieve a high likelihood of outperforming the total return of an index composed of a mix of asset class benchmarks over a market cycle. The benchmarks used for each asset class, as well as the mix of such benchmarks to determine the Fund's composite index, will be determined by the Board and set forth in its Operating Procedures.

## **III. INVESTMENT CONSTRAINTS**

### **A. Legal and Regulatory**

The Board intends that the assets of the Fund at all times are invested in accordance with applicable federal and Texas law and regulations, including its governing statute, its governing instruments, and applicable fiduciary standards. The Board will retain legal counsel when appropriate to review contracts and provide advice with respect to applicable statutes and regulations.

### **B. Time Horizon**

The Fund will be managed on a going-concern basis. The assets of the Fund will be invested with a long-term horizon (twenty years or more), consistent with the participant demographics and the purpose of the Fund.

**C. Liquidity**

The Board intends to maintain sufficient liquidity to meet at least three years of anticipated beneficiary payments. To this end, the Board intends to invest no more than 40% of the Fund's assets in illiquid vehicles. Illiquid vehicles are defined as those vehicles that do not allow withdrawals to occur on at least a quarterly basis.

**D. Over-Concentration**

The securities representing equity of any one company shall not exceed 6% of the market value of the Fund. Fixed income securities of any one corporation shall be limited to 6%, at market, of the Fund.

**IV. ALLOCATION OF INVESTMENT RESPONSIBILITIES****A. Board of Trustees**

The Board has the fiduciary responsibility for managing the investment process. In fulfilling this responsibility, the Board will establish and maintain investment policies and objectives. Within this framework, the Board will select, contract with, monitor, and evaluate the investment consultant, investment managers, bank custodian, and other parties to ensure that actual results meet objectives.

**B. Fund Staff**

The Staff of the Fund is responsible for oversight and management of the day-to-day operations of the Fund. This includes, but is not limited to, oversight of Fund policies and procedures, working closely with the investment consultant and investment managers, executing and reconciling all private market cash flows for the Fund, oversight of budget, oversight of manager fee payment and reconciliation, Board meeting preparation and coordination. Staff is responsible for direct communication with Fund participants related to all retirement calculations.

**C. Investment Consultant**

The investment consultant's duty is to render competent, professional advice and assistance and to work with the Board with respect to the investment process. This includes meeting at least quarterly with the Board to provide perspective as to the Fund's goals and analysis of the Fund's investments. The consultant will advise, consult, and work with the Board to develop and maintain a properly diversified portfolio.

The investment consultant will perform its duties and obligations to the Board in conformance with generally accepted industry standards and its contract with the Fund.

Fund allocation and performance will be regularly reviewed and recommendations will be made as appropriate. The consultant will assist the Board in investment manager selection, when needed, and will promptly inform the Board and discuss the impact of material changes taking place within any current manager's organization and/or investment process. Within this process, the investment consultant assumes fiduciary responsibility for advice given regarding the management of the investment process.

#### **D. Investment Managers**

The investment managers for separately managed accounts will construct and manage investment portfolios consistent with the investment philosophy and disciplines they were hired to implement and which are specified in this document and in their respective investment management agreement (IMA) they execute with the Fund. Investment managers will select specific securities, buy and sell such securities, and manage the investment portfolio within their guidelines. The Board also believes that investment decisions are best made when not restricted by excessive procedure. Therefore, full discretion is delegated to the investment managers to carry out the investment of the respective portfolios within stated guidelines.

The Board may also invest in pooled investment vehicles or private market investment vehicles. The governing instruments of these vehicles should specify the applicable investment philosophy and disciplines and provide the investment guidelines for the investment.

#### **E. Custodian Bank**

The custodian bank will hold all cash and securities, and will regularly value, list and summarize these holdings for the Board's review. In addition, a bank or trust depository arrangement will be utilized to accept and hold cash prior to allocating it to the investment manager, and to invest such cash in liquid, interest-bearing instruments.

### **V. FIDUCIARY CONDUCT**

An investment fiduciary includes, but is not limited to, a person who exercises discretionary authority or control in the investment of the assets of the Fund or who renders, for a fee, advice for the Fund. The term investment fiduciary includes, but is not limited to the members of the Board, the Fund Administrator, the investment consultant, and investment managers. An investment fiduciary shall discharge his or her duties in accordance with the fiduciary standards set forth in Section 802.203 of the Texas Government Code and other applicable law.

### **VI. AVAILABLE ASSET CLASSES AND INVESTMENT GUIDELINES**

In consultation with the investment consultant and after proper consideration of the Board's investment objectives and asset allocation plan as discussed herein, the Board will determine the asset classes available for investment of Fund assets. The list of asset classes available for investment will be set forth in the Fund's Operating Procedures and updated as necessary. The specific degrees of diversification within each asset class will also be addressed in the Fund's Operating Procedures or each manager's investment guidelines, as applicable.

The investment guidelines for available asset classes, if applicable, are reflected in the Fund's Operating Procedures. In addition, specific investment guidelines for investment managers of separately managed accounts will be incorporated in the agreement with the Fund. Within their investment guidelines, each investment manager will also be furnished with a list of asset types and investment strategies that are forbidden. Investment guidelines

for pooled investment vehicles or private market investment vehicles will be set forth in the governing instruments of such vehicles.

## **VII. ASSET ALLOCATION**

The Fund's achievement of its risk and return objectives is a function, in large part, of the Fund's asset allocation. The Board recognizes that the allocation of monies to various asset classes will be the major determinant of the Fund's return and risk experience over time. Therefore, the Board will allocate investments across available asset classes that, based on historical and expected returns and risks, provide the highest likelihood of meeting the Fund's investment objectives.

In determining the appropriate asset allocation, the expected return and risk behavior of each asset class and the likely interaction of various asset classes in a portfolio are to be considered. These "market assumptions" are to be determined and considered by the Board when establishing the asset allocation of the Fund. The Board, with the assistance of the investment consultant, will determine the applicable market assumptions, including the expected return, volatility, and correlations for each asset class, which will be set forth in the Fund's Operating Procedures.

### **A. Long-Term Allocation Ranges**

Based on its determination of the appropriate risk posture for the Fund and its long-term return expectations, the Board and investment consultant have established the following asset mix guidelines for the Fund:

<u>Asset Class</u>	<u>Fund Guidelines</u>
Equity Investments	30-55%
Fixed Income Investments	20-40%
Alternatives	10-40%

Unneeded cash reserves can be a drag on the Fund's performance and the overall level of cash held by the Fund shall typically remain under 5% unless extraordinary circumstances warrant otherwise.

### **B. Long-Term Allocation Targets**

Based on the investment objectives and constraints of the Fund, and on the expected behavior of the available asset classes, the Board will specify a long-term target allocation for each available asset class. These targets will be expressed as a percentage of the Fund's overall market value. These targets will be selected in conjunction with the appropriate ranges listed above to accommodate permissible variation resulting from market forces. The Fund's target allocations are listed in the Operating Procedures. The Board will review its asset allocation targets and ranges at least annually or sooner if warranted by a material event in either the liability structure of the plan or the capital markets.

The long-term target allocations are intended as strategic goals, not short-term imperatives. Thus, it is permissible for the overall Fund's asset allocation to deviate from the long-term target, as would likely occur during manager transitions, asset class restructurings, and other temporary changes in the Fund. Deviations from targets that occur due to capital market changes are discussed below.



### **C. Rebalancing**

In general, cash flows to and from the Fund will be allocated in such a manner as to move each asset class toward its target allocation.

The Board recognizes that, periodically, market forces may move the Fund's allocations outside the target ranges. The Board also recognizes that failing to rebalance the allocations would unintentionally change the Fund's structure and risk posture. Consequently, the Board has established a process to rebalance the allocations periodically.

On at least an annual basis, if any strategic allocation is outside the specified target range, assets will be shifted to return the strategy to the target range. The specific plan for rebalancing will identify those assets that can be shifted at the lowest possible risk and cost, if the rebalancing cannot be accomplished solely by allocating contributions and withdrawals.

## **VIII. EVALUATION AND REVIEW**

As a function of its fiduciary responsibilities to monitor the investment decisions it makes on behalf of the Fund, the Board will regularly review the investments of the Fund. This review and evaluation of investments will be conducted in accordance with the following:

- On a quarterly basis, the Board, through the report of the investment consultant, will review the overall investment performance of the Fund and individual investment managers. This report will include a review of performance generally and in relation to the composite and asset class benchmarks established by the Board.
- The investment consultant will continually monitor the investment managers and other investments of the Fund to ensure that managers or such investments performed in accordance with applicable investment guidelines and the expected philosophy, methodology and style. The investment consultant will report to the Board on a quarterly basis any material deviation from the applicable guidelines or any other structural, organizational, philosophical, or other material change that warrants the Board's attention.
- At least annually, the Board will review the asset allocation of the Fund to determine if it remains appropriate in order to achieve the investment objectives of the Fund. This review will include an evaluation of market assumptions utilized in establishing the asset allocation to determine if any changes to these assumptions are warranted, as well as if any other asset classes should be made available for investment.
- At least annually, the Board will formally review this Policy to determine whether it continues to be appropriate in light of the Board's investment goals and objectives and changes in the capital markets and/or the Fund's condition or circumstances.

## **IX. SECURITIES LENDING**

The Board may select an agent to lend the financial securities of the Fund, but has no obligation to do so. The securities lending program shall in no way inhibit the trading activities of the investment managers of the Fund.

## **X. TRADING**

In accordance with the legal and fiduciary obligations imposed on investment managers by either their agreements with the Fund or applicable federal or Texas law, all trades executed by managers must be for the exclusive benefit of the Fund's participants and beneficiaries. Managers are expected to seek best execution on all trades.

## **XI. VOTING OF PROXIES**

The Board has delegated the responsibility of voting all proxies to the investment managers. The Board expects that managers will execute all proxies in a timely fashion. Also, the Board expects the managers to provide a full accounting of all proxy votes, and upon request, a written explanation of individual voting decisions.

## **XII. INVESTMENT COSTS**

The Board intends to monitor and control investment costs at every level of the Fund through the following:

- Professional fees will be negotiated whenever possible.
- Where appropriate, passive portfolios will be used to minimize management fees and portfolio turnover.
- The Fund may enter into performance-based fees with specific managers.
- If possible, assets will be transferred in-kind during manager transitions and Fund restructurings to eliminate unnecessary turnover expenses.
- Managers are instructed to seek best execution.

# Roadmap

## AUSTIN FIRE FIGHTERS RELIEF AND RETIREMENT FUND

### PRELIMINARY ROAD MAP<sup>1</sup>

#### February 2023 Investment Committee Meeting

1. 4Q performance review
2. Public manager fee benchmarking
3. Passive exposure framework
4. Annual Investment Policy Statement review
5. Memos from the quarter

#### May 2023 Investment Committee Meeting

1. Annual asset study review

#### August 2023 Investment Committee Meeting

1. Asset allocation/liability study
2. Annual Operating Procedures review
3. Annual private equity peer performance benchmarking

#### November 2023 Investment Committee Meeting

1. Annual private equity pacing study

#### Ongoing 2023 objectives

1. Evaluate private equity commitments
2. Investment Education Sessions

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

# Appendix

## **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.

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

**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.  $\text{Portfolio Return} - [\text{Risk Free Rate} + \text{Beta} * (\text{market return} - \text{Risk Free Rate})]$ .

**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.



**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 its 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.

**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%.

$$\frac{5\% \text{ (discount)}}{5 \text{ (yrs. to maturity)}} = 1\% \text{ pro rata, plus } 5.26\% \text{ (current yield)} = 6.26\% \text{ (yield to maturity)}$$

**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.