

# Merced County Employees' Retirement Association

December 14, 2023

Meeting Materials

1. Forward-Looking Calendar
2. Economic and Market Update as of October 31, 2023
3. Q3 Executive Summary
4. Performance Update as of September 30, 2023
5. Asset Allocation Kickoff – Themes/Topics to Consider
6. Disclaimer, Glossary, and Notes

## **Forward-Looking Calendar**

## 2023 & 2024 Q1 Forward Looking Calendar

Status	Meeting	Topic 1	Topic 2	Topic 3
Completed	May	Quarterly Performance Review (23Q1)	US Fixed Income Manager Update	
	June	Performance Review-Consent (April)		
	July	Performance Review-Consent (May)		
	August	Quarterly Performance Review (23Q2)	Update on GQG Partners	Understanding China
	September	Performance Review-Consent (July)		
	October	Performance Review-Consent (August)		
	November	Macroeconomic Update		
Current	December	Quarterly Performance Report (23Q3)	Macroeconomic Review	Asset Allocation Timeline & Themes
Future	January	Performance Review-Consent (October final & November)		
	February	Quarterly Performance Report (23Q4)	Meketa's Capital Markets Expectations	Strategic Asset Allocation Review: Themes & Impact on MCERA
	March	Performance Review-Consent (January)	Strategic AA Review: Alternative Portfolios Review	
	April	Performance Review-Consent (February)	Strategic AA Review: Policy/Benchmark Review	
	May	Quarterly Performance Report (24Q1)	Revised IPS (per SAA results)	

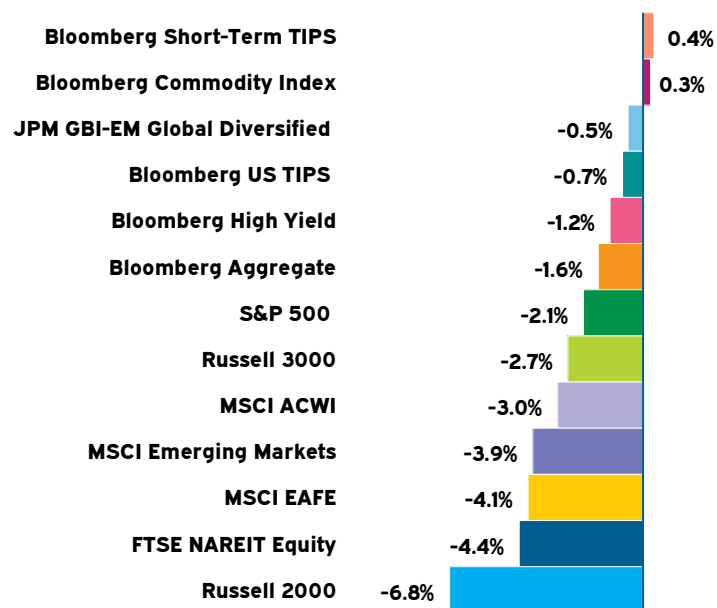
## Economic and Market Update as of October 31, 2023

### Commentary

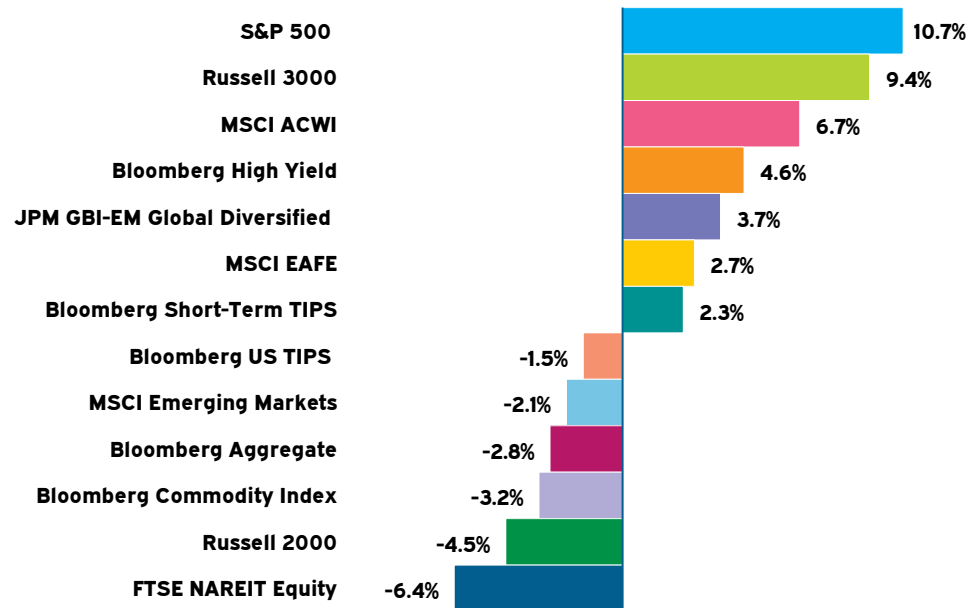
- Global markets continued to struggle in October, as expectations remained on the Fed keeping interest rates higher for longer due to resilient economic data.
- The Federal Open Markets Committee (FOMC), which increased policy rates in July by 0.25% to a range of 5.25% - 5.5%, has been on pause since. Markets are now largely expecting the FOMC to maintain interest rates at this level through the first half of next year with cuts to follow.
  - US equity markets (Russell 3000 index) fell in October (-2.7%), lowering the year-to-date gains to 9.4%. Most sectors except utilities struggled in October.
  - Non-US developed equity markets declined more than the US in October (MSCI EAFE -4.1%), with the strength of the US dollar weighing on returns. This widened the gap between US and international developed equities for the year (to 9.4% versus 2.7%).
  - Emerging market equities also fell in October (-3.9%), with negative results driven by China and the strong US dollar. Emerging markets continue to significantly trail developed market equities year-to-date, returning -2.1%, again driven by losses from China (-11.2%).
  - Interest rates generally rose in October, particularly for longer-dated maturities. The broad US bond market declined (-1.6%) in October falling further into negative territory (-2.8%) year-to-date, as higher income has offset a portion of the capital losses from rising rates.
- For the rest of this year and into 2024, the paths of inflation and monetary policy, slowing global growth, and the wars in Ukraine and Israel will all be key.

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

#### QTD



#### YTD



→ After a strong start to the year, the prospect of higher interest rates for longer given resilient economic data has weighed on markets from August through October.

<sup>1</sup> Source: Bloomberg. Data is as of October 31, 2023.

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

Domestic Equity	October (%)	Q3 (%)	YTD (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)
S&P 500	-2.1	-3.3	10.7	10.1	10.3	11.0	11.2
Russell 3000	-2.7	-3.3	9.4	8.4	9.2	10.2	10.5
Russell 1000	-2.4	-3.1	10.3	9.5	9.5	10.7	10.9
Russell 1000 Growth	-1.4	-3.1	23.2	19.0	8.7	14.2	13.8
Russell 1000 Value	-3.5	-3.2	-1.8	0.1	10.2	6.6	7.6
Russell MidCap	-5.0	-4.7	-1.3	-1.0	6.0	7.1	8.0
Russell MidCap Growth	-5.1	-5.2	4.3	3.3	0.8	8.1	9.1
Russell MidCap Value	-5.0	-4.5	-4.4	-3.6	8.8	5.7	6.9
Russell 2000	-6.8	-5.1	-4.5	-8.6	3.9	3.3	5.6
Russell 2000 Growth	-7.7	-7.3	-2.9	-7.6	-1.8	2.7	5.7
Russell 2000 Value	-6.0	-3.0	-6.5	-9.9	9.7	3.3	5.2

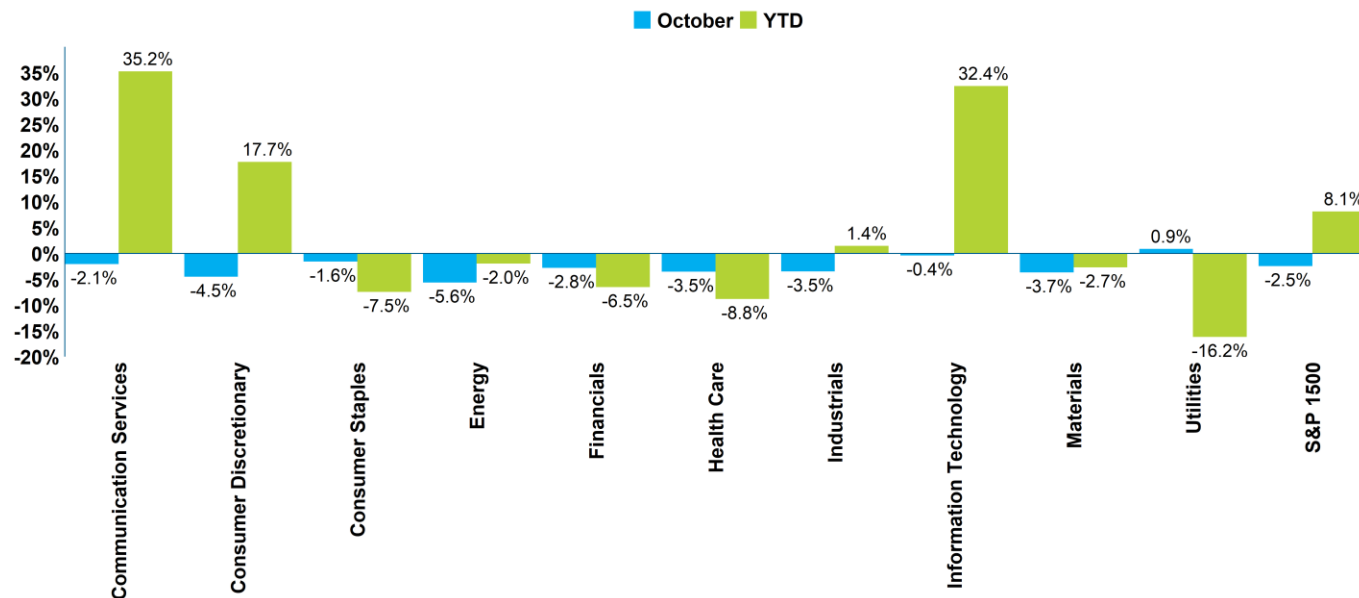
### US Equities: The Russell 3000 Index fell 2.7% in October but is up 9.4% YTD.

- A surprisingly strong September jobs report and third quarter GDP reading reinforced investors' expectations that the Federal Reserve will keep interest rates higher for longer and broadly weighed on US equities.
- The utility sector was the only sector that posted a gain during October. Energy stocks experienced the steepest fall, followed by consumer discretionary stocks.
- Large cap stocks outperformed small cap stocks during October driven by the technology sector. Microsoft and Amazon, both of which reported stronger than expected third quarter results, were significant contributors to this dynamic.

<sup>1</sup> Source: Bloomberg. Data is as of October 31, 2023.



### S&P 1500 Sector Returns<sup>1</sup>



→ Except for utilities all sectors were down in October.

→ So far in 2023, the communication services (+35.2%) and technology (+32.4%) sectors had the best results, helped by artificial intelligence optimism. Given the continued strength in the US consumer the consumer discretionary sector followed (+17.7%), while more traditionally defensive sectors like utilities (-16.2%), health care (-8.8%), and consumer staples (-7.5%) have trailed.

<sup>1</sup> Source: Bloomberg. Data is as of October 31, 2023.

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

Foreign Equity	October (%)	Q3 (%)	YTD (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)
MSCI ACWI ex. US	-4.1	-3.8	1.0	12.1	3.0	3.5	2.5
MSCI EAFE	-4.1	-4.1	2.7	14.4	5.7	4.1	3.1
MSCI EAFE (Local Currency)	-3.4	-1.3	7.0	10.4	11.0	6.4	6.0
MSCI EAFE Small Cap	-5.9	-3.5	-4.2	6.5	0.3	1.6	3.4
MSCI Emerging Markets	-3.9	-2.9	-2.1	10.8	-3.7	1.6	1.2
MSCI Emerging Markets (Local Currency)	-3.6	-1.4	0.3	9.8	-1.1	3.6	4.2
MSCI China	-4.3	-1.9	-11.2	21.1	-16.9	-2.6	1.0

**Foreign Equity: Developed international equities (MSCI EAFE) fell 4.1% in October, dropping the YTD gain to 2.7%. Emerging market equities (MSCI EM) fell 3.9% in the period and were down 2.1% YTD.**

- Non-US equities fell for the third consecutive month with steeper declines compared to the US market. The continued strength of the US dollar contributed to losses, as well as the ongoing geopolitical crisis in the Middle East.
- European equities struggled due to slowing growth, falling PMI, and a contraction in household and business credit supply. The UK saw greater losses, with sticky inflation, and continued wage growth suggesting that rates will be high for some time. Japan remains the best performing market year-to-date, though the TOPIX lost momentum in October.
- Emerging market equity performance was slightly better than developed international equities, but the declines for the month brought year-to-date results into negative territory. While there were some positive data out of China on industrial production and retail sales, continued weakness in real estate and new US chip restrictions weighed on market sentiment.

<sup>1</sup> Source: Bloomberg. Data is as of October 31, 2023.

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

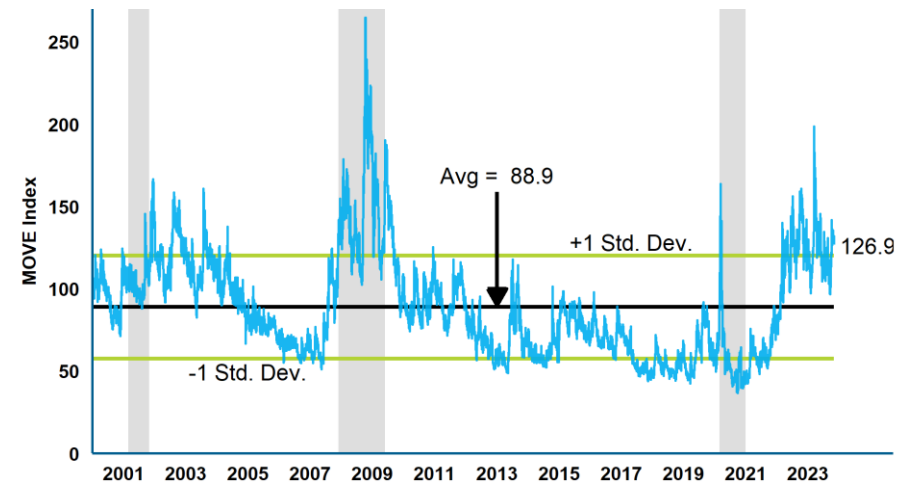
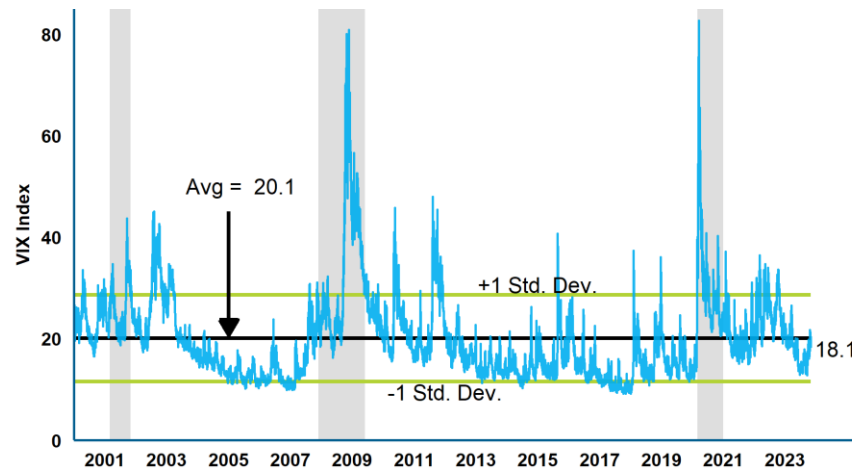
Fixed Income	October (%)	Q3 (%)	YTD (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)	Current Yield (%)	Duration (Years)
Bloomberg Universal	-1.5	-2.9	-2.1	1.2	-5.0	0.2	1.2	6.0	5.9
Bloomberg Aggregate	-1.6	-3.2	-2.8	0.4	-5.6	-0.1	0.9	5.6	6.1
Bloomberg US TIPS	-0.7	-2.6	-1.5	-0.7	-2.0	2.3	1.6	5.2	6.6
Bloomberg Short-term TIPS	0.4	0.4	2.3	2.6	2.1	3.0	1.7	5.4	2.5
Bloomberg High Yield	-1.2	0.5	4.6	6.2	1.2	3.0	3.9	9.5	4.0
JPM GBI-EM Global Diversified (USD)	-0.5	-3.3	3.7	13.5	-3.0	0.3	-1.2	7.0	4.9

### Fixed Income: The Bloomberg Universal index declined 1.5% in October and 2.1% YTD.

- Expectations for policy rates to remain higher for longer than previously expected continued to weigh on yields in October.
- The broad US bond market (Bloomberg Aggregate) fell 1.6% in the month, driving year-to-date performance further into negative territory. The broader TIPS index fell by 0.7%, while the less interest-rate-sensitive short-term TIPS index outperformed most sectors, up 0.4%.
- High yield bonds also weakened, declining 1.2%, and emerging market bonds fell 0.5%. Volatility in both asset classes is being driven by movement in broader interest rates, but also a modest deterioration in risk appetite.

<sup>1</sup> Source: Bloomberg. JPM GBI-EM data is from InvestorForce. Data is as of October 31, 2023. The yield and duration data from Bloomberg is defined as the index's yield to worst and modified duration respectively.

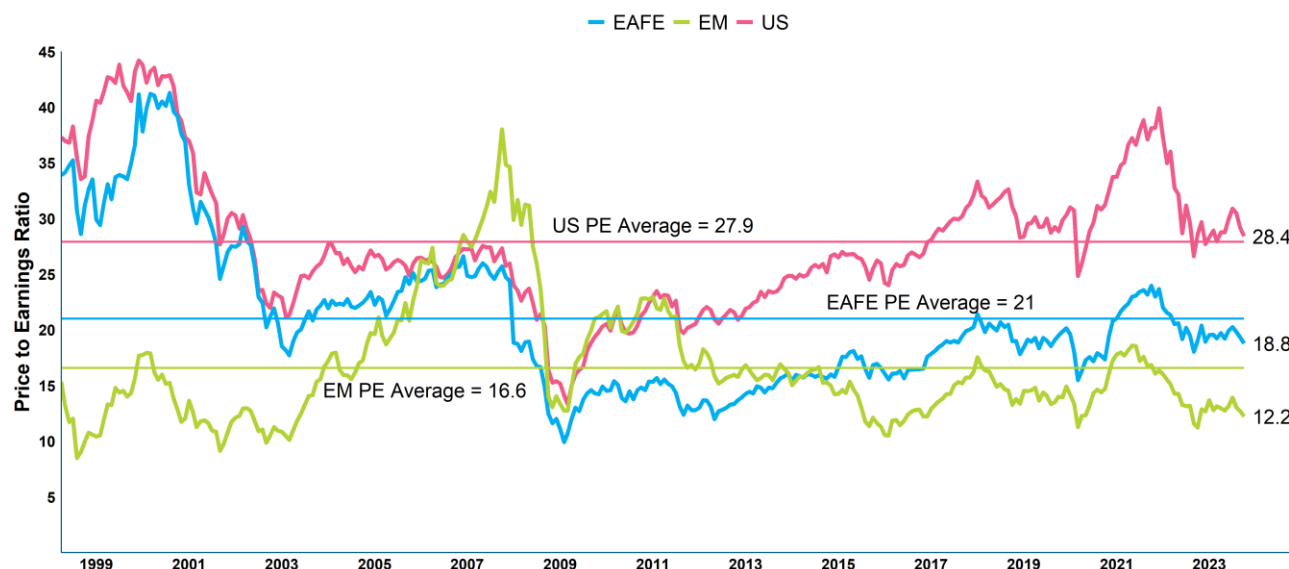
### Equity and Fixed Income Volatility<sup>1</sup>



- Volatility in equities (VIX) increased in October but finished at a level near the long-term average. The recent increase in equity volatility has largely been driven by investors coming to terms that interest rates might remain higher for a longer period.
- In comparison, volatility in the bond market (MOVE) remains well above its long-run average (88.9) after last year's historic losses and due to continued policy uncertainty. In October, fixed income volatility finished higher compared to where it started, like equities, driven by expectations for rates to stay higher for longer and increased concerns about future US debt issuance.

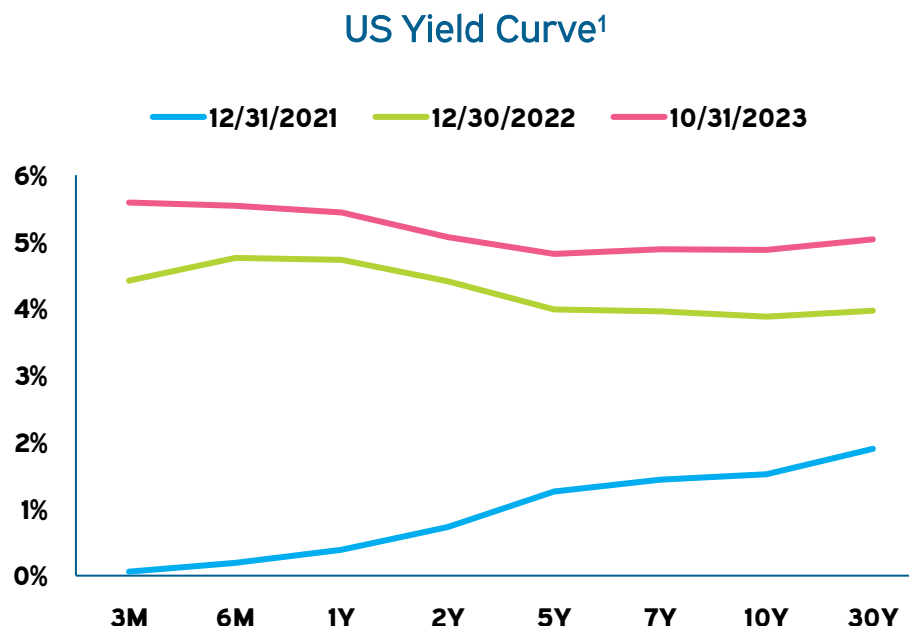
<sup>1</sup> Equity Volatility – Source: FRED. Fixed Income Volatility – Source: Bloomberg. Implied volatility as measured using VIX Index for equity markets and the MOVE Index to measure interest rate volatility for fixed income markets. Data is as of October 2023. The average line indicated is the average of the VIX and MOVE values between January 2000 and October 2023.

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



- Given the strong technology-driven rally this year, the US equity price-to-earnings ratio increased above its long-run (21st century) average. With the equity market decline in August through October, the P/E ratio fell from its recent peak.
- International developed market valuations are below their own long-term average, with those for emerging markets the lowest and well under the long-term average (close to one standard deviation below).

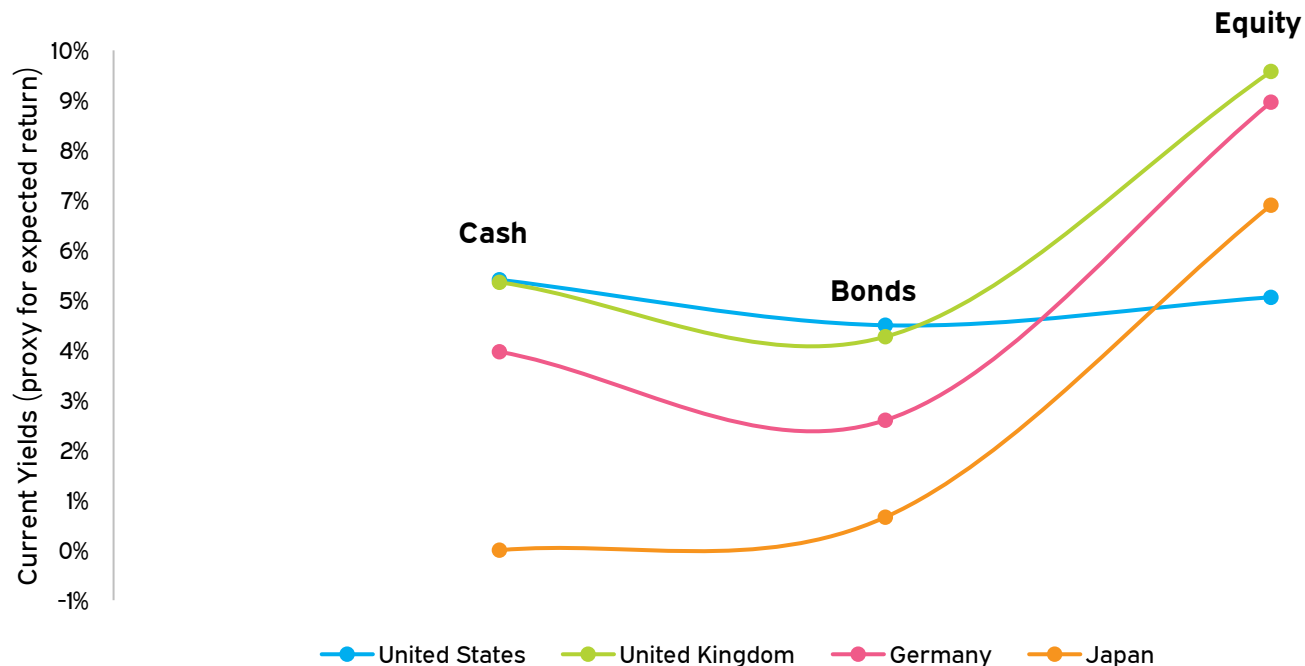
<sup>1</sup> US Equity Cyclically Adjusted P/E on S&P 500 Index. Source: Robert Shiller, Yale University, and Meketa Investment Group. Developed and Emerging Market Equity (MSCI EAFE and EM Index) Cyclically Adjusted P/E – Source: Bloomberg. Earnings figures represent the average of monthly “as reported” earnings over the previous ten years. Data is as of October 2023. The average line is the long-term average of the US, EM, and EAFE PE values from April 1998 to the recent month-end respectively.



- Overall rates continued to increase this year, particularly at the policy sensitive front-end of the yield curve, but at a much slower pace compared to last year.
- In October, very short-term interest rates (two years or less) increased only slightly as monetary policy has likely reached close to its terminal rate for this cycle. By contrast, longer-term rates continued their dramatic rise as investors come to terms with rates remaining higher for longer. The ten-year Treasury yield has experienced a significant increase from 3.9% to 4.9% since the beginning of the year.
- Because of the dynamic above, the yield curve's inversion decreased further with the spread between two-year and ten-year Treasuries at -0.15% at the end of October (it started the third quarter at -1.05%).

<sup>1</sup> Source: Bloomberg. Data is as of October 31, 2023.

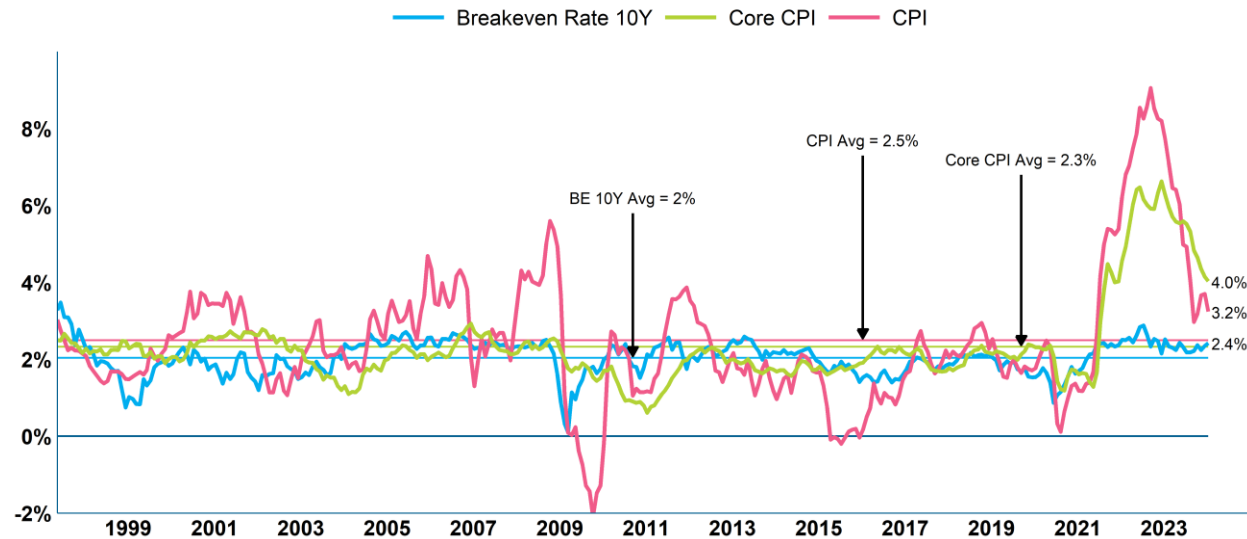
### Return-to-Risk Spectrum: Current Pricing<sup>1</sup>



- Historically, and intuitively, the return/risk line should be upward sloping. Equities (riskier assets) should exhibit higher expected returns (proxied by earnings yield) compared to bonds, which in-turn should exhibit higher expected returns compared to cash.
- For most developed markets, bonds are yielding less than cash.
- In the United States, equities are yielding nearly the same as bonds. For most other developed markets, equities are priced more attractively compared to bonds.

<sup>1</sup> Source: OECD and MSCI. Data is as of October 31, 2023.

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



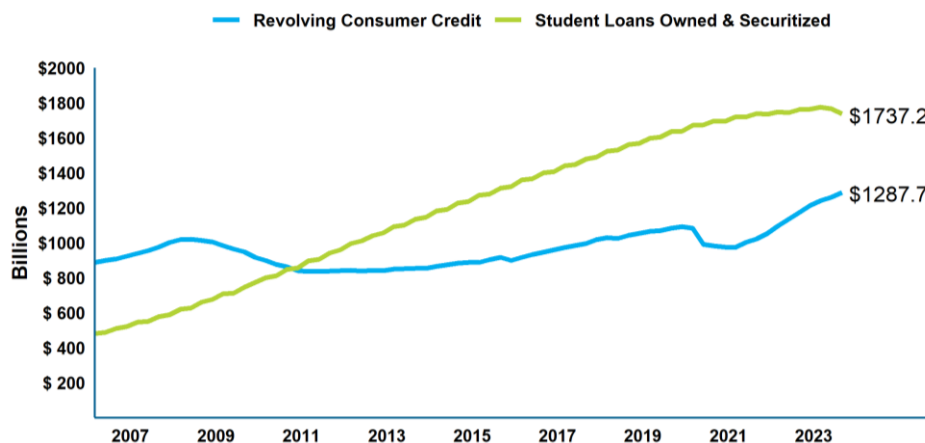
- Year-over-year headline inflation fell from 3.7% to 3.2%, coming in slightly below expectations. Declines were driven by energy, used cars and trucks, and medical services.
- Core inflation – excluding food and energy – fell slightly (4.1% to 4.0%) year-over-year. It remains stubbornly high, though, driven by shelter costs (+6.7%), particularly owners' equivalent rent, and transportation services (+9.2%).
- Inflation expectations (breakevens) remain below current inflation as investors continue to expect inflation to track back toward the Fed's 2% average target.

<sup>1</sup> Source: FRED. Data is as October 31, 2023. The CPI and 10 Year Breakeven average lines denote the average values from February 1997 to the present month-end, respectively. Breakeven values represent month-end values for comparative purposes.

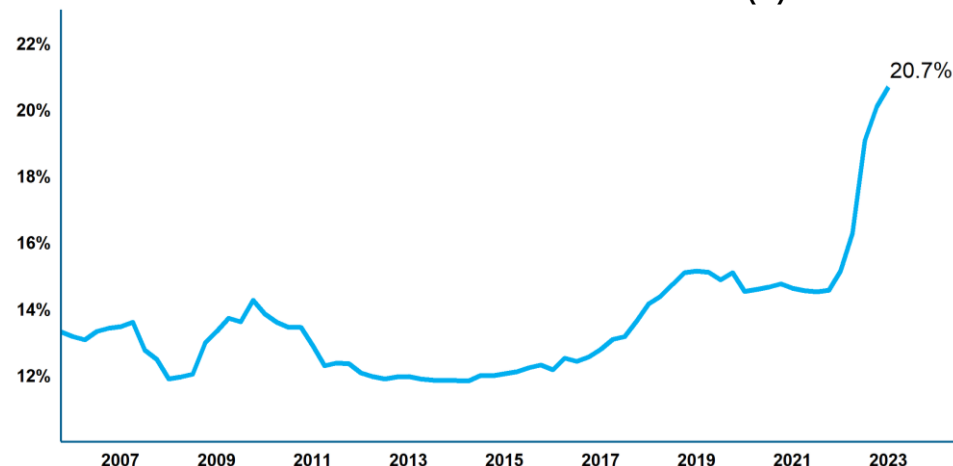


### US Consumer Under Stress?<sup>1</sup>

**Revolving Consumer Credit & Student Loans (\$B)**



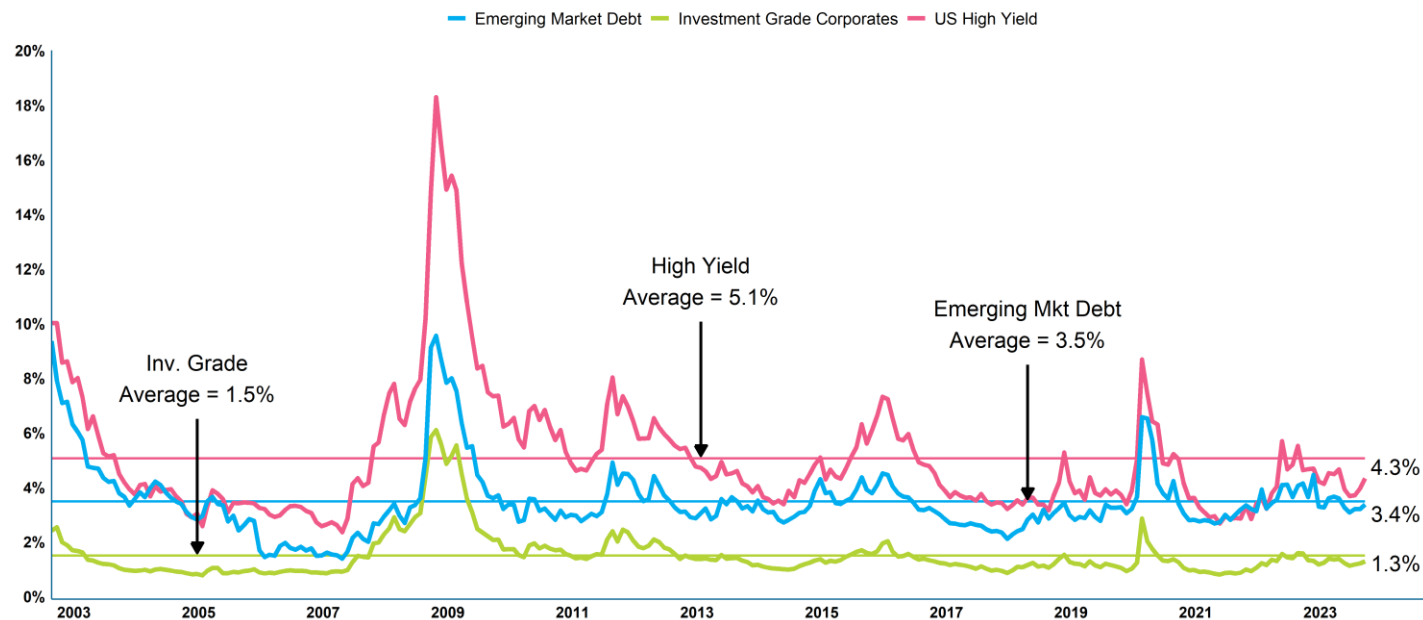
**Consumer Credit Card Interest Rates (%)**



- Despite the strong labor market and higher wages, pressures have started to build on the US consumer. This is an important consideration as consumer spending has been an important driver of economic growth.
- Revolving consumer credit surged to new highs in 2023 even as credit card interest rates hit levels not seen before (the prior peak was around 19% in the 1980s).
- The return of student loan repayments after a three-year pandemic-related reprieve could add to pressures on consumers' budgets. This might be partially balanced by recently initiated repayment and forgiveness programs.
- As we look ahead, the strength of the US consumer will remain key as this sector makes up most of the domestic economy (GDP).

<sup>1</sup> Source: FRED. Revolving Consumer Credit and Student Loans data is as of September 30, 2023. Revolving Consumer Credit data is seasonally adjusted to remove distortions during the holiday season. Consumer Credit Card Interest Rates data is as of June 30, 2023.

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

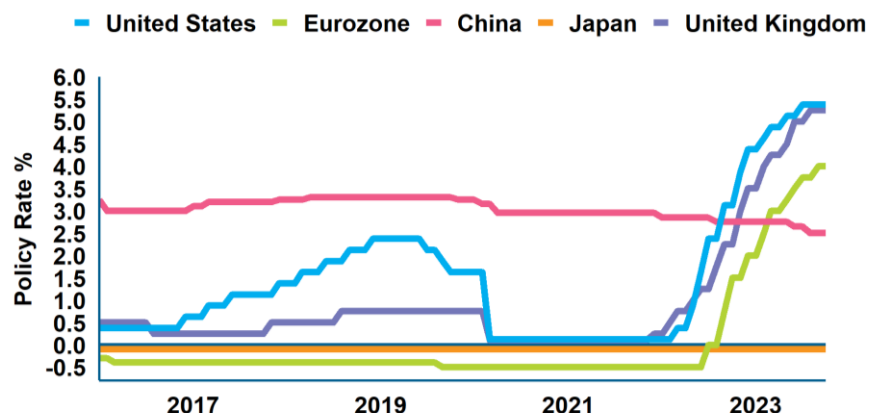


- Credit spreads (the added yield above a comparable maturity Treasury) increased in October but remained below their respective long run averages.
- High yield spreads continue to be the furthest below their long-term average given the overall risk appetite this year. Investment-grade and emerging market spreads are also below their respective long-term averages, but by smaller margins.

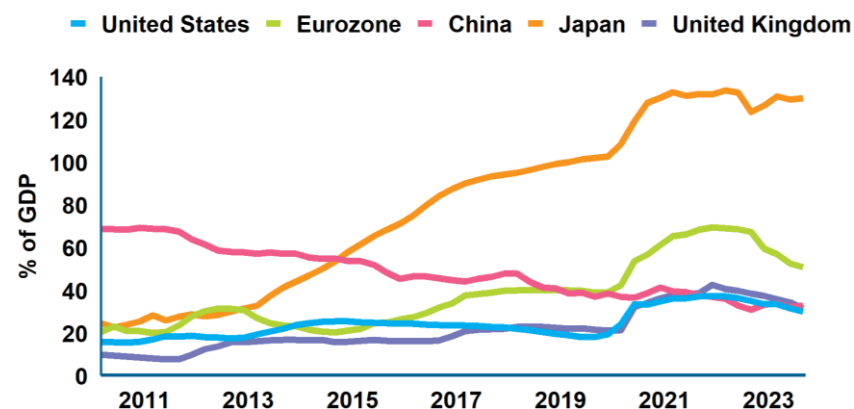
<sup>1</sup> Sources: Bloomberg. Data is as of October 31, 2023. Average lines denote the average of the investment grade, high yield, and emerging market spread values from September 2002 to the recent month-end, respectively.

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

**Policy Rates**



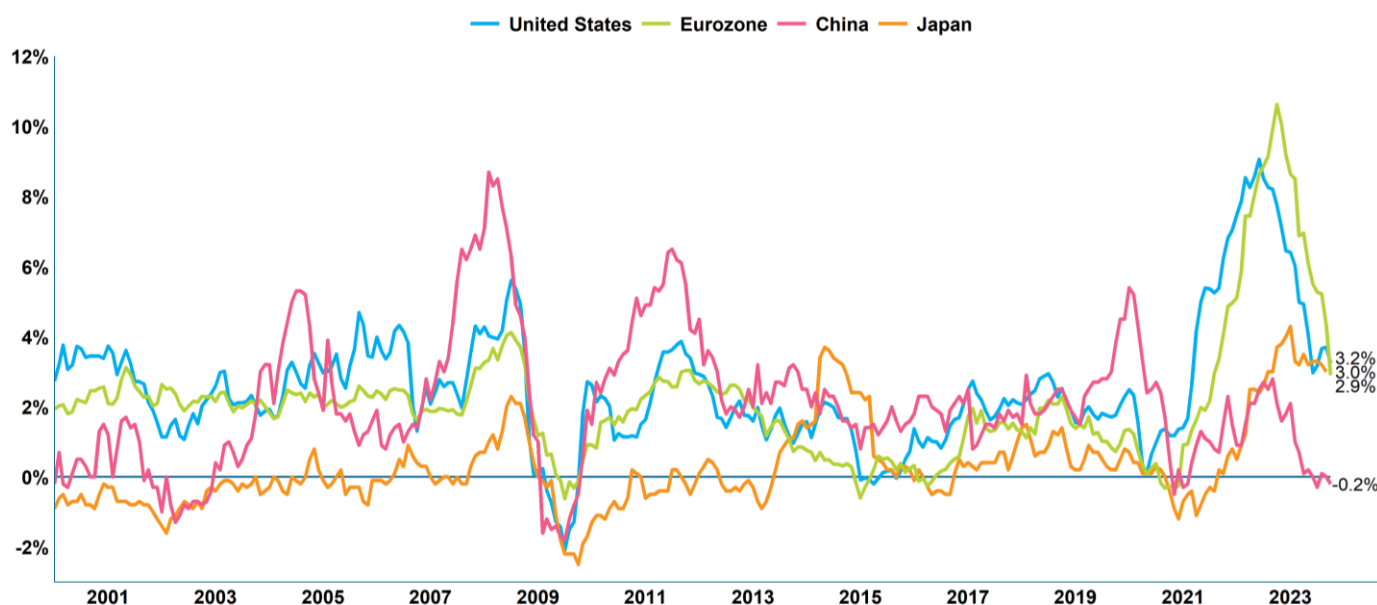
**Balance Sheet as % of GDP**



- Slowing inflation and growth have led to expectations for a reduction in the pace of aggressive policy tightening.
- In July, the Fed raised rates another 25 basis points to a range of 5.25% to 5.50% and then kept rates at this level at their September and October/November meetings. Markets are not expecting any additional rate hikes.
- The European Central Bank paused in October, with lower-than-expected inflation and weaker growth. In Japan, the BoJ has further relaxed its yield curve control on the 10-year bond, and expectations for further policy normalization are rising.
- The central bank in China has continued to cut interest rates and inject liquidity into the banking system, as weaker than expected economic data appears to indicate a widespread slowdown.
- Risks remain for a policy error as central banks attempt to balance bringing down inflation, maintaining financial stability, and supporting growth.

<sup>1</sup> Source: Bloomberg. Policy rate data is as of October 31, 2023. 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 September 30, 2023.

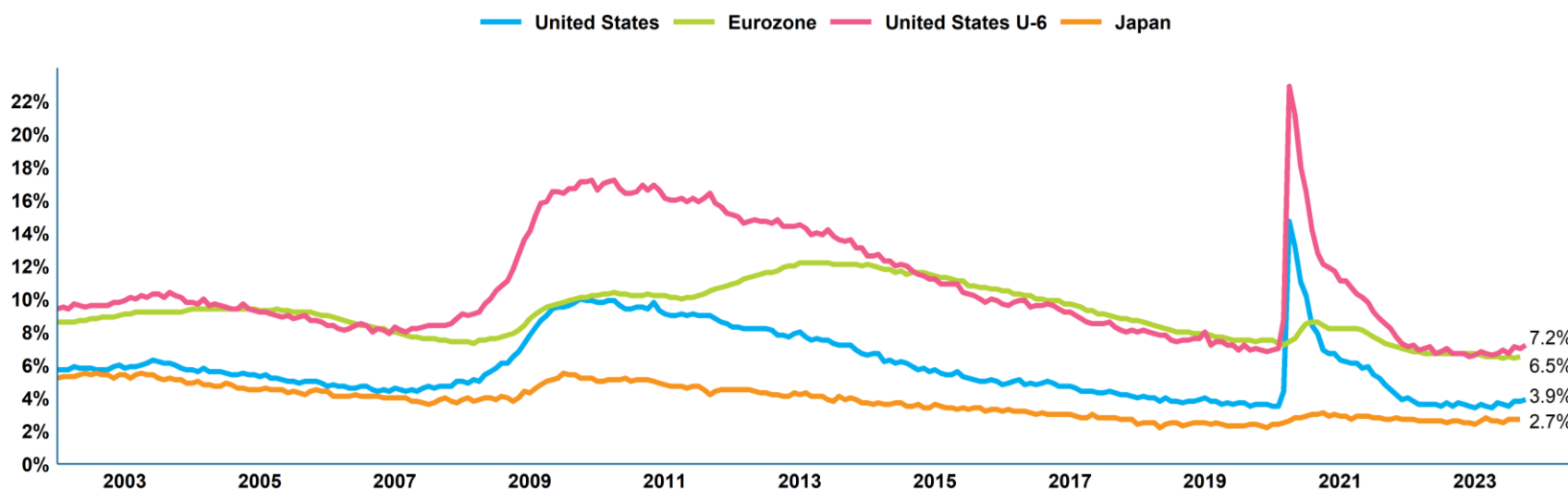
## Inflation (CPI Trailing Twelve Months)<sup>1</sup>



- The inflation picture remains mixed across the major economies.
- In the US, inflation fell from 3.7% to 3.2%, driven by falling energy prices. In the eurozone inflation experienced a dramatic decline in October (4.3% to 2.9%), to a level below the US, also driven by a decline in energy prices. Despite 2023's significant declines in the US and Europe, inflation levels remain elevated compared to central bank targets.
- Inflation in Japan, has increased to levels not seen in almost a decade, driven by food and home related items. In China, deflationary pressures returned in October, as consumption declined after the holiday earlier in the month.

<sup>1</sup> United States CPI and Eurozone CPI – Source: FRED. Japan CPI and China CPI - Source: Bloomberg. Data is as October 31, 2023. The most recent data for Japanese inflation is as of September 30, 2023.

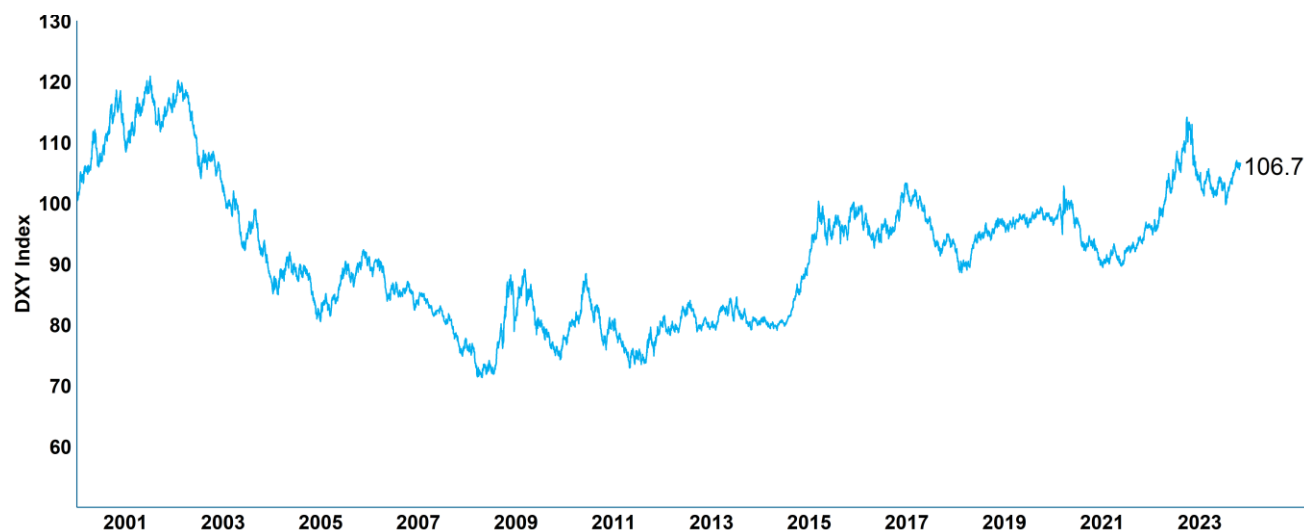
### Unemployment<sup>1</sup>



- Overall, the US labor market remains healthy with the unemployment rate relatively low, wage growth now positive in real terms, and initial claims for unemployment staying subdued. The pace of wage growth has slowed though, and despite remaining elevated, the number of job openings has declined from recent highs.
- In October, US unemployment increased slightly (3.8% to 3.9%), with job gains of 150,000 coming in below expectations of 180,000. The labor force participation rate declined slightly over the month from 62.8% to 62.7%, well off the lows of the pandemic (60.1%) but not back to pre-pandemic levels (63.3%). Broader measures of unemployment (U-6) finished the quarter at 7.2%, up from the September reading of 7.0%.
- Unemployment in Europe (6.5%) remains higher than the US, while levels in Japan (2.7%) remained low through the pandemic given less layoffs.

<sup>1</sup> Eurozone Unemployment - Source: Bloomberg. Japan, United States, United States U-6 Unemployment – Source: FRED. Data is as October 31, 2023, for the US. The most recent data for Eurozone and Japan unemployment is as of September 30, 2023.

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



- After a strong 2022, the US dollar declined late last year and into early this year as weaker economic data and lower inflation led to investors anticipating the end of FOMC tightening.
- Recently though, the dollar reversed course and appreciated against major currencies as relative growth remains strong and investors anticipate the FOMC keeping interest rates higher for longer.
- For the rest of this year, the track of inflation across economies and the corresponding monetary policies will likely be key drivers of currency moves.

<sup>1</sup> Source: Bloomberg. Data as of October 31, 2023.

## Summary

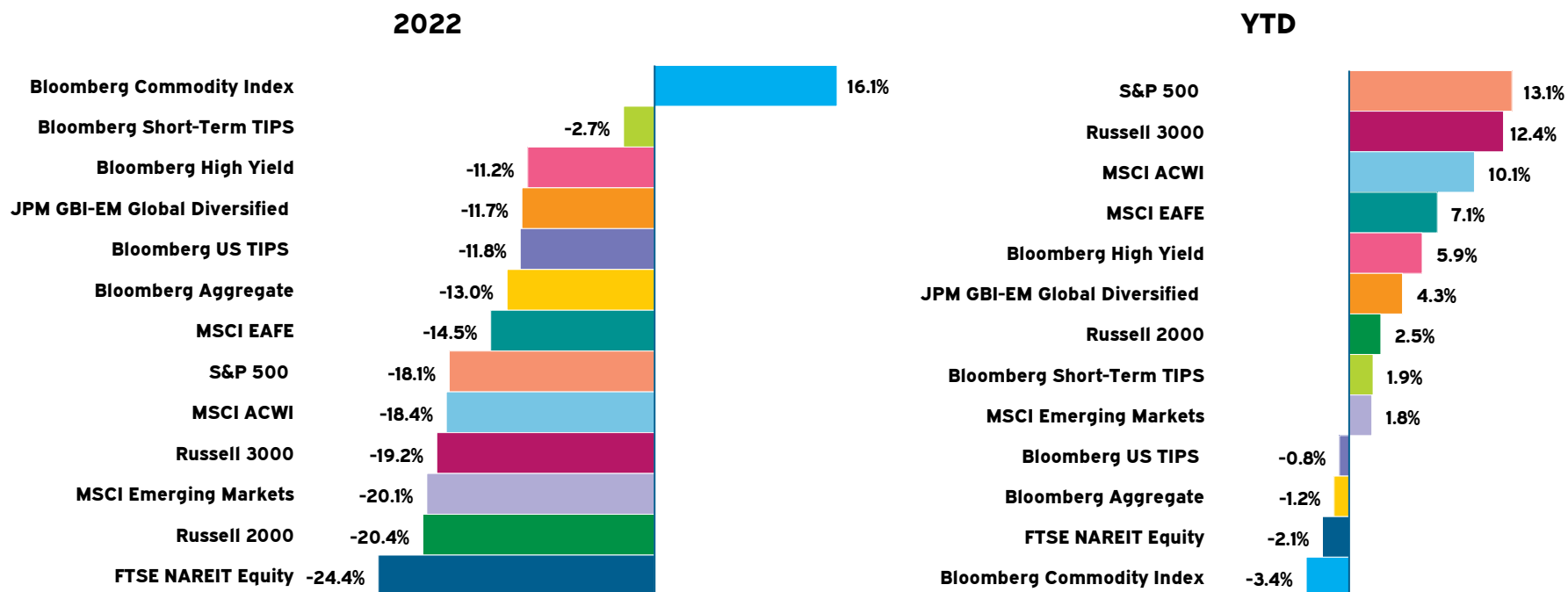
### Key Trends:

- The impact of inflation still above policy targets will remain key, with bond market volatility likely to stay high.
- Global monetary policies could diverge going forward. The risk of policy errors remains elevated as central banks try to reduce persistent inflation while not tipping their economies into recession.
- Growth is expected to slow globally this year, with many economies forecasted to tip into recession. However, optimism has been building that some economies could experience soft landings. Inflation, monetary policy, and the war will all be key.
- In the US, consumers could feel pressure as certain components of inflation (e.g., shelter), remain high, borrowing costs are elevated, and the job market may weaken.
- The key for US equities going forward will be whether earnings can remain resilient if growth continues to slow. Also, the future paths of the large technology companies that have driven market gains will be important.
- Equity valuations remain lower in emerging and developed markets, but risks remain, including the potential for recent strength in the US dollar to persist, higher inflation weighing particularly on Europe, and China's sluggish economic reopening and on-going weakness in the real estate sector. Japan's recent hint at potentially tightening monetary policy along with changes in corporate governance in the country could influence relative results.
- Recent, heightened tensions in Israel could add to overall uncertainty and drive safe haven flows.

## **Q3 Executive Summary**



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



- After a particularly difficult 2022, most public market assets are up thus far in 2023, led by developed market equities.
- While hopes for a soft landing remain in place, the prospect of higher interest rates for longer weighed on market sentiment in August and September.

<sup>1</sup> Source: Bloomberg. Data is as of September 30, 2023.

### Performance Overview – Q3 2023

Total Market Value		Q3 Results		5 Year Results	
Q3 2023	\$1,107,098,901	MercedCERA	-1.2%	MercedCERA	6.4%
Q2 2023	\$1,104,362,386	Policy Benchmark	-0.6%	Policy Benchmark	6.3%

As of September 30, 2023, the value of the Fund's assets was \$1,107 million.

- The MercedCERA portfolio returned -1.2% for the quarter, trailing its policy index by 60 basis points. This translates to annualized returns of 5.7%, 6.4% and 6.8% over the three, five and ten-year trailing periods. The portfolio's since inception annualized return is 7.8%.
- Over the tumultuous quarter public equities especially struggled in the portfolio. US Equities returned -3.8%, trailing index return of -3.5%. Developed International Equity returned -2.4% over the period, though it outpacing the benchmark by 120 basis points. Emerging Markets Equity posted -5.3% over the period, trailing the benchmark by 210 basis points. US Fixed Income returned -3.3%, trailing the index by 50 basis points. Opportunistic Credit the only positive returns amongst public markets at 1.2%, outpacing the blended benchmark by 150 basis points. Real Estate posted -2.7% for the quarter, matching the benchmark performance. Private Equity returned a modest 2.4%, compared to the (public market plus premium) index return of 7.4%. Real Assets returned 1.5%, trailing the index by 3.4%.
- Private Equity results relative to the benchmark were the primary detractor from performance over the quarter, though strong performance from Real Assets and Hedge Fund partially offset this gap.

### Public Manager Highlights Q3 2023

9 out of 13 Public Active Managers<sup>1</sup> either outperformed or matched their respective benchmarks for Q3 2023.

#### Total Equity (Active)

- US Equity, returning -3.8%, trailed the benchmark (Russell 3000) by 50 bps over the period. BNY Mellon Newton Dynamic US Equity, MercedCERA's active US large cap manager, returned -3.9%, trailing their benchmark by 60 basis points. Champlain Small Cap, the portfolio's small cap active manager, returned -6.8%, sharply trailed the benchmark return of -5.1%. Underperformance was attributable largely to the fund's intentional exclusion of the Energy sector, which was the strongest performing sector for the period.
- Developed International Equity returned -2.4%, outpacing its benchmark by 120 bps as all four managers in the sleeve either matched or outpaced their respective benchmarks. GQG International returned -1.0% outpacing its benchmark by 280 bps. Portfolio overweight and stock selection in the Energy sector, as well as manager selection in the Information Health Care and Utilities sectors contributed to the strong performance. Driehaus returned -2.6%, outpacing the benchmark by 110 bps.
- Artisan & RWC, the two managers in the Emerging Markets space posted returns of -7.2% & -1.0% respectively. Relative to their index (MSCI Emerging Markets) return of -2.9%, Artisan sharply trailed the index, whereas RWC outperformed over the period. Artisan is a benchmark-agnostic strategy that invests in a small number of securities. Artisan cited positions in Ayden, Southeast Asian e-commerce/gaming platform Sea and French luxury goods group LVMH as top detractors over the period.

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<sup>1</sup> Excludes Public Managers that do not have a full quarter of performance, Private Markets and Hedge Fund Managers.

## Public Manager Highlights Q3 2023 (continued)

## Total Fixed Income (Active)

- US Fixed Income returned -3.3%, trailing the benchmark by 50 bps. Brandywine provided the weakest returns on both absolute (-5.5%) and relative to benchmark basis (trailed the Bloomberg US Aggregate by 2.3%), whereas Wellington Core Bond and Payden & Rygel Low Duration returned -3.1% and 1.0% respectively, with both funds marginally outpacing their respective indices.
- Opportunistic Credit returned 1.2%, outpacing the blended benchmark return of -0.7%. Both PIMCO and GoldenTree funds posted positive relative returns for the quarter, though PIMCO posted negative returns on an absolute basis. PIMCO Income Fund returned -0.5%, outpacing its index by 2.7%, as exposures to European and Japanese duration contributed. Sculptor was redeemed over the period and the remaining balance is a residual.

## Active Manager Expectations

Manager	Strategy Description	Beta (High/Neutral/Low)	Tracking Error Range (basis points)	Environments Manager Underperforms
<b>Domestic Equity</b>				
Champlain Small Cap	Moderately diversified small cap portfolio.	Low	4.0% to 7.0%	In low quality rallies.
Newton/Mellon Capital MCM Dynamic US Equity	Very diversified, quantitative, large cap core portfolio. Also has exposure to fixed income assets.	Neutral (higher in more recent periods)	2.5% to 5.0%	When investors misprice forward looking return/risk characteristics; when returns are concentrated in one sector.
<b>Developed Markets Equity (Non-US)</b>				
Driehaus International Small Cap Growth	Diversified growth manager that seeks to invest in companies experiencing positive growth inflections, using a combination of fundamental and macroeconomic analysis.	Low	4.0% to 7.0%	At market inflection points, with abrupt leadership change. Deep value, low quality market environments.
Acadian ACWI ex US Small Cap Equity	Very diversified international small cap portfolio, employing highly adaptive quantitative models.	Neutral	2.5% to 4.5%	During narrow markets, abrupt changes in leadership. In "value" challenged periods.
First Eagle International Value Fund	Benchmark agnostic, diversified international value manager with strategic gold allocation and willingness to utilize cash when valuations are elevated across the market.	Low	5.0% to 10.0%	In growth- and momentum-led rallies, where value discipline and an allocation to cash will be headwinds, and if physical gold underperforms.
GQG International Equity	Benchmark agnostic, concentrated international quality-growth equity manager with valuation discipline and macro awareness. Willing to invest in US-listed companies.	Low	5.0% to 10.0%	In cyclical recoveries where deep value, asset-heavy, smaller cap stocks rally.

### Active Manager Expectations (continued)

Manager	Strategy Description	Beta (High/Neutral/Low)	Tracking Error Range (basis points)	Environments Manager Underperforms
<b>Emerging Markets Equity</b>				
Artisan Developing World	Concentrated, benchmark agnostic emerging markets strategy focused on high quality companies, overlaid with top-down macro (currency) awareness.	Neutral	5.0% to 10.0%	During cyclical rallies concentrated in deeper value, smaller cap stocks.
RWC Emerging Markets	Concentrated, growth-at-a-reasonable-price emerging markets equity strategy focused on mid cap stocks.	High	6.0% to 10.0%	Narrow rallies in large cap stocks where small and mid-caps lag, periods of heightened market volatility, deep drawdowns in asset-heavy cyclicals.
<b>Investment Grade Bonds</b>				
Brandywine	Top-down, macro, value-oriented strategy that invests with a benchmark agnostic philosophy	Neutral	2.0% to 7.0%	
Payden & Rygel	Short-term portfolios with emphasis on sector selection and yield curve management rather than relying on duration management	Low	0.2% to 0.7%	
Wellington	Benchmark-relative, diversified strategy with emphasis on individual security analysis, with Broad Markets teams' top-down sector views taken into consideration	Neutral	1.0 to 1.5%	
<b>Opportunistic Credit</b>				
PIMCO Income	Global multi-sector, benchmark agnostic approach, utilizing firm's resources to identify best income ideas while staying senior in the capital structure.	Low	1.5% to 3.5%	During periods of lower quality bond rallies and volatility in interest rates and certain currencies.
GoldenTree Multi-Sector Credit	Bottom-up security selection, managing risk and adding value through credit sector rotation.	Low	2.5% to 4.5%	During initial periods of economic recovery and rapid spread tightening.

### Manager Monitor

Manager	Significant Events (Yes/No)	Last Meeting w Board of Retirement	Last Meeting with MIG	Comments
<b>Domestic Equity Assets</b>				
BNY Mellon Newton Dynamic US Equity Fund	No	-	June-23	Review of strategy, and discussion on current market environment.
Champlain Small Cap	No	-	Dec-23	Notes will be entered soon
<b>Developed Markets Equity (Non-US) Assets</b>				
Driehaus International Small Cap Growth	No	-	Oct-23	Review of strategy, no changes to conviction level. Regarding market outlooks, team somewhat bearish on China due to geopolitical concerns.
Acadian ACWI ex US Small Cap Equity	No	-	Feb- 23	Review of strategy, no changes to conviction level.
First Eagle International Value Fund	No	-	Mar-23	Review of strategy, no changes to conviction level
GQG International Equity	Yes	-	Jun-23	Discussion with management team regarding leadership turnover & non-US Equity strategies. Fund remains on Watch status.
<b>Emerging Markets Equity Assets</b>				
Artisan Developing World	No	-	Jun-23	Discussion around trend of increasing develop markets names exposure in portfolio. No major changes to conviction level.
RWC Emerging Markets	No	-	Nov-22	Review of strategy, no changes to conviction level.
<b>US Fixed Income Assets</b>				
Brandywine US Fixed Income	No	-	Mar-23	Review of strategy, no changes to conviction level
Payden & Rygel Low Duration	No	-	Aug-23	Review of strategy, no changes to conviction level
Wellington Core Bond	No	-	Mar-23	Review of strategy, no changes to conviction level
<b>Opportunistic Credit</b>				
PIMCO Income Fund	No	-	Dec-22	Discussion around impact of Portfolio Manager departure. No concerns after review.
GoldenTree Multi-Sector Credit	No	-	Mar-23	Review of strategy, no changes to conviction level.
<b>Private Equity Program</b>	N/A	N/A	N/A	Oversight by Cliffwater.
<b>Real Assets Program</b>	N/A	N/A	N/A	Oversight by Cliffwater.
<b>Hedge Fund Program</b>	N/A	N/A	N/A	Oversight by Cliffwater.

### Active Manager Peer Rankings<sup>1</sup>

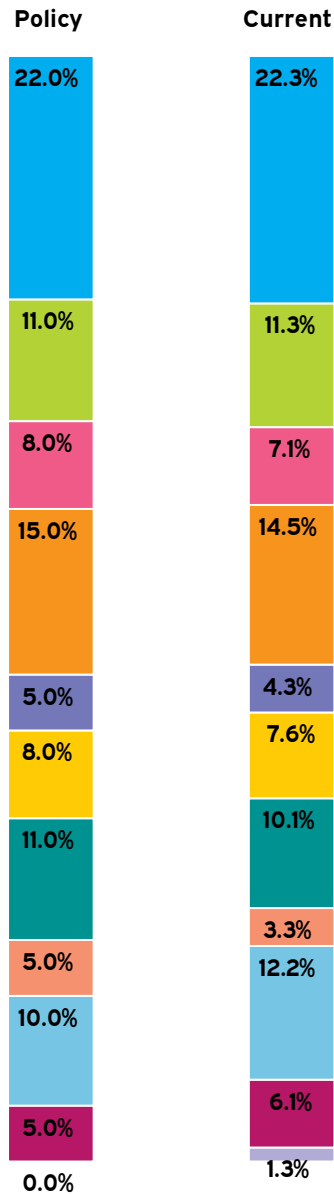
Investment Managers	Product	Peer Group	Market Value					Client Inception	Years in Portfolio
			(\$M)	1YR	3YR	5YR	10YR		
Champlain	Small Cap Fund	US Small Cap Core	27	60	95	90	58	Nov-20	2.8
Mellon Capital	Dynamic US Equity Strategy	US Large Cap Core	53	46	63	23	4	Dec-12	10.7
Acadian	All-Country World ex US Small Cap	Non-US Div Small Cap	14	71	19	9	24	May-19	4.3
Driehaus	International Small Cap Growth	ACWI ex US Small Cap Growth	14	44	30	6	2	May-19	4.3
GQG	International Equity	All ACWI ex US Equity	49	32	38	3	-	Dec-19	3.7
First Eagle	International Value	EAFE Value Equity	48	99	91	61	67	Dec-19	3.7
Artisan	Developing World	Emerging Markets	53	18	99	6	-	Dec-19	3.7
RWC	Emerging Markets	Emerging Markets	25	71	51	50	12	Dec-19	3.7
Brandywine	US Fixed Income	US Fixed Income	32	100	16	1	1	Nov-22	0.8
Payden & Rygel	Low Duration	US Short Duration Gov/Cred Fixed Income	8	34	44	51	40	Nov-22	0.8
Wellington	Core Bond	US Fixed Income	48	28	94	90	68	Nov-22	0.8
PIMCO	Income Fund	Global Multi-Sector Fixed Income	12	43	16	28	16	May-19	4.3
GoldenTree	Multi-Sector Credit Strategy	Global Multi-Sector Fixed Income	25	15	10	14	14	Jun-19	4.2

<sup>1</sup> Source: eVestment. Ranks are greyed out for periods before Merced CERA was invested.



**Performance Update**  
As of September 30, 2023

Total Fund | As of September 30, 2023



Allocation vs. Targets and Policy						
	Current Balance (\$)	Current Allocation (%)	Policy (%)	Difference (%)	Policy Range (%)	Within IPS Range?
US Equity	246,926,582	22.3	22.0	0.3	16.0 - 27.0	Yes
International Equity	124,806,688	11.3	11.0	0.3	6.0 - 16.0	Yes
Emerging Markets Equity	78,549,947	7.1	8.0	-0.9	4.0 - 12.0	Yes
Private Equity	160,047,998	14.5	15.0	-0.5	5.0 - 20.0	Yes
Direct Lending	47,468,627	4.3	5.0	-0.7	0.0 - 10.0	Yes
Real Estate	84,654,041	7.6	8.0	-0.4	6.0 - 10.0	Yes
US Fixed Income	111,416,400	10.1	11.0	-0.9	6.0 - 16.0	Yes
Opportunistic Credit	36,453,793	3.3	5.0	-1.7	3.0 - 7.0	Yes
Hedge Funds	134,879,252	12.2	10.0	2.2	5.0 - 15.0	Yes
Real Assets	67,842,535	6.1	5.0	1.1	3.0 - 7.0	Yes
Cash	14,047,922	1.3	0.0	1.3	0.0 - 5.0	Yes
<b>Total</b>	<b>1,107,093,784</b>	<b>100.0</b>	<b>100.0</b>	<b>0.0</b>		

### Asset Allocation & Performance | As of September 30, 2023

	Market Value \$	% of Portfolio	1 Mo (%)	QTD (%)	YTD (%)	Fiscal YTD	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
<b>Total Fund (Net)</b>	1,107,093,784	100.0	-1.7	-1.2	5.4	-1.2	9.8	5.7	6.4	7.0	7.8	Jan-95
<b>Total Fund (Gross)</b>			-1.7	-1.1	5.7	-1.1	10.1	6.1	6.8	7.4	8.0	Jan-95
<i>Policy Index</i>			-1.3	-0.6	7.6	-0.6	12.8	6.6	6.3	7.1	6.1	
<b>Total Fund w/o Alternatives (Net)</b>	598,153,410	54.0	-3.9	-3.3	6.8	-3.3	14.1	2.6	5.3	6.5	--	Jan-08
<b>Total Fund w/o Alternatives (Gross)</b>			-3.8	-3.2	7.1	-3.2	14.5	3.0	5.7	6.8	--	Jan-08
<i>Policy Index w/o AI</i>			-3.4	-3.1	5.6	-3.1	13.8	3.2	4.4	5.8	--	
<b>US Equity (Net)</b>	246,926,582	22.3	-5.0	-3.8	11.3	-3.8	19.3	8.7	8.3	11.4	10.0	Jan-95
<b>US Equity (Gross)</b>			-5.0	-3.8	11.5	-3.8	19.6	8.9	8.6	11.6	10.1	Jan-95
<i>Russell 3000</i>			-4.8	-3.3	12.4	-3.3	20.5	9.4	8.8	11.0	10.0	
<b>International Equity (Net)</b>	203,356,635	18.4	-3.6	-3.5	7.1	-3.5	18.5	-0.1	5.2	4.6	5.3	Jan-99
<b>International Equity (Gross)</b>			-3.5	-3.3	7.7	-3.3	19.5	0.7	6.0	5.3	5.6	Jan-99
<i>International Equity Custom</i>			-3.0	-3.5	5.2	-3.5	20.1	3.0	2.5	3.6	4.1	
<b>Developed International Equity (Net)</b>	124,806,688	11.3	-3.0	-2.4	4.8	-2.4	18.6	4.0	4.5	4.4	3.8	Feb-08
<b>Developed International Equity (Gross)</b>			-3.0	-2.3	5.4	-2.3	19.5	4.7	5.0	5.0	4.4	Feb-08
<i>Custom Blended Developed International Equity BM</i>			-3.5	-3.6	6.7	-3.6	24.3	5.4	3.2	3.8	2.8	
<b>Emerging Markets Equity (Net)</b>	78,549,947	7.1	-4.5	-5.3	10.9	-5.3	18.3	-7.1	5.4	4.3	4.0	May-12
<b>Emerging Markets Equity (Gross)</b>			-4.4	-5.0	11.8	-5.0	19.5	-6.2	6.4	5.3	4.9	May-12
<i>MSCI EM</i>			-2.6	-2.9	1.8	-2.9	11.7	-1.7	0.6	2.3	2.1	
<b>US Fixed Income (Net)</b>	111,416,400	10.1	-2.6	-3.3	-1.8	-3.3	-1.3	-5.7	-0.5	1.0	4.2	Jan-95
<b>US Fixed Income (Gross)</b>			-2.6	-3.3	-1.8	-3.3	-1.3	-5.6	-0.4	1.2	4.3	Jan-95
<i>US Fixed Income Custom Benchmark</i>			-2.3	-2.8	-0.9	-2.8	0.8	-4.8	0.0	1.3	4.4	

Data Prior to March 2018 provided by prior consultant.

## Asset Allocation & Performance | As of September 30, 2023

	Market Value \$	% of Portfolio	1 Mo (%)	QTD (%)	YTD (%)	Fiscal YTD	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
<b>Opportunistic Credit (Net)</b>	<b>36,453,793</b>	<b>3.3</b>	<b>-0.6</b>	<b>1.2</b>	<b>7.5</b>	<b>1.2</b>	<b>10.3</b>	<b>4.6</b>	<b>--</b>	<b>--</b>	<b>4.3</b>	<b>May-19</b>
<b>Opportunistic Credit (Gross)</b>			<b>-0.6</b>	<b>1.3</b>	<b>8.0</b>	<b>1.3</b>	<b>10.9</b>	<b>5.2</b>	<b>--</b>	<b>--</b>	<b>4.7</b>	<b>May-19</b>
50% Barclays US Aggregate / 25% Barclays US High Yield / 25% Credit Suisse Lever			-1.3	-0.7	3.3	-0.7	5.9	-0.7	--	--	1.3	
<b>Real Estate (Net)</b>	<b>84,654,041</b>	<b>7.6</b>	<b>-2.5</b>	<b>-2.7</b>	<b>-5.3</b>	<b>-2.7</b>	<b>-5.0</b>	<b>4.1</b>	<b>2.6</b>	<b>5.3</b>	<b>6.5</b>	<b>Dec-10</b>
<b>Real Estate (Gross)</b>			<b>-2.5</b>	<b>-2.7</b>	<b>-5.3</b>	<b>-2.7</b>	<b>-5.0</b>	<b>4.1</b>	<b>2.6</b>	<b>5.7</b>	<b>7.5</b>	<b>Apr-99</b>
Custom Blended Real Estate Benchmark			-2.7	-2.7	-10.4	-2.7	-10.0	8.0	6.1	7.9	7.2	
CPI +5% (Seasonally Adjusted)			0.8	2.4	6.7	2.4	8.9	11.0	9.2	7.9	7.7	
<b>Private Real Estate (Net)</b>	<b>69,554,442</b>	<b>6.3</b>	<b>-1.3</b>	<b>-1.3</b>	<b>-5.3</b>	<b>-1.3</b>	<b>-6.2</b>	<b>5.8</b>	<b>3.6</b>	<b>5.8</b>	<b>6.9</b>	<b>Dec-10</b>
<b>Private Real Estate (Gross)</b>			<b>-1.3</b>	<b>-1.3</b>	<b>-5.3</b>	<b>-1.3</b>	<b>-6.2</b>	<b>5.8</b>	<b>3.7</b>	<b>6.3</b>	<b>7.7</b>	<b>Apr-99</b>
Custom Blended Real Estate Benchmark			-2.7	-2.7	-10.4	-2.7	-10.0	8.0	6.1	7.9	7.2	
<b>Private Equity (Net)</b>	<b>160,047,998</b>	<b>14.5</b>	<b>2.7</b>	<b>2.7</b>	<b>4.1</b>	<b>2.7</b>	<b>4.5</b>	<b>24.6</b>	<b>16.7</b>	<b>14.2</b>	<b>10.4</b>	<b>Jul-05</b>
<b>Private Equity (Gross)</b>			<b>2.7</b>	<b>2.7</b>	<b>4.1</b>	<b>2.7</b>	<b>4.5</b>	<b>24.6</b>	<b>16.7</b>	<b>14.2</b>	<b>10.5</b>	<b>Jul-05</b>
Custom Private Equity Benchmark			6.4	7.4	27.6	7.4	20.7	19.0	15.2	16.0	--	
<b>Direct Lending (Net)</b>	<b>47,468,627</b>	<b>4.3</b>	<b>2.7</b>	<b>2.7</b>	<b>7.4</b>	<b>2.7</b>	<b>9.1</b>	<b>10.8</b>	<b>--</b>	<b>--</b>	<b>9.9</b>	<b>Jul-20</b>
<b>Direct Lending (Gross)</b>			<b>2.7</b>	<b>2.7</b>	<b>7.4</b>	<b>2.7</b>	<b>9.1</b>	<b>10.8</b>	<b>--</b>	<b>--</b>	<b>9.9</b>	<b>Jul-20</b>
S&P LSTA Leveraged Loan +2%			1.1	4.0	11.8	4.0	15.3	8.2	6.5	6.4	9.1	
<b>Hedge Fund (Net)</b>	<b>134,879,252</b>	<b>12.2</b>	<b>0.6</b>	<b>2.0</b>	<b>4.0</b>	<b>2.0</b>	<b>4.5</b>	<b>6.5</b>	<b>4.2</b>	<b>--</b>	<b>4.3</b>	<b>Jul-14</b>
<b>Hedge Fund (Gross)</b>			<b>0.7</b>	<b>2.3</b>	<b>4.8</b>	<b>2.3</b>	<b>5.5</b>	<b>7.5</b>	<b>5.0</b>	<b>--</b>	<b>4.8</b>	<b>Jul-14</b>
Custom Blended Hedge Fund Benchmark			-0.4	0.5	2.8	0.5	4.6	3.8	3.4	--	3.2	
<b>Real Assets (Net)</b>	<b>67,842,535</b>	<b>6.1</b>	<b>1.2</b>	<b>1.5</b>	<b>7.7</b>	<b>1.5</b>	<b>11.8</b>	<b>14.5</b>	<b>11.1</b>	<b>9.3</b>	<b>9.6</b>	<b>Dec-10</b>
<b>Real Assets (Gross)</b>			<b>1.2</b>	<b>1.5</b>	<b>7.8</b>	<b>1.5</b>	<b>11.9</b>	<b>14.7</b>	<b>11.2</b>	<b>9.8</b>	<b>10.2</b>	<b>Dec-10</b>
Custom Blended Real Assets Benchmark			-2.5	-1.9	-1.5	-1.9	12.4	7.9	5.5	6.8	--	
CPI +5% (Seasonally Adjusted)			0.8	2.4	6.7	2.4	8.9	11.0	9.2	7.9	7.8	

Real Assets includes State Street Real Assets NL Fund.

## Asset Allocation & Performance | As of September 30, 2023

	Market Value \$	% of Portfolio	1 Mo (%)	QTD (%)	YTD (%)	Fiscal YTD	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Private Infrastructure (Net)	30,452,288	2.8	1.9	1.9	10.7	1.9	12.2	12.4	13.0	--	10.1	Jan-15
Private Infrastructure (Gross)			1.9	1.9	10.7	1.9	12.2	12.6	13.1	--	10.2	Jan-15
<i>S&amp;P Global Infrastructure</i>			-4.7	-7.3	-3.7	-7.3	6.9	7.3	4.1	5.1	3.9	
Private Natural Resources (Net)	24,284,142	2.2	2.0	2.0	11.0	2.0	16.9	23.2	13.5	--	15.7	Oct-15
Private Natural Resources (Gross)			2.0	2.0	11.0	2.0	16.9	23.2	13.5	--	15.7	Oct-15
<i>S&amp;P Global Natural Resources Sector Index (TR)</i>			-0.3	3.7	0.5	3.7	17.8	19.2	6.4	5.2	11.2	
Cash (Net)	14,047,922	1.3	0.3	0.9	4.8	0.9	2.4	0.9	1.1	--	--	Dec-10
Cash (Gross)			0.3	0.9	4.8	0.9	2.4	0.9	1.1	--	--	Dec-10

## Asset Allocation & Performance | As of September 30, 2023

	Market Value \$	% of Portfolio	1 Mo (%)	QTD (%)	YTD (%)	Fiscal YTD	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
<b>Total Fund</b>	<b>1,107,093,784</b>	<b>100.0</b>	<b>-1.7</b>	<b>-1.2</b>	<b>5.4</b>	<b>-1.2</b>	<b>9.8</b>	<b>5.7</b>	<b>6.4</b>	<b>7.0</b>	<b>7.8</b>	<b>Jan-95</b>
<i>Policy Index</i>			<i>-1.3</i>	<i>-0.6</i>	<i>7.6</i>	<i>-0.6</i>	<i>12.8</i>	<i>6.6</i>	<i>6.3</i>	<i>7.1</i>	<i>6.1</i>	
<b>Total Fund w/o Alternatives</b>	<b>598,153,410</b>	<b>54.0</b>	<b>-3.9</b>	<b>-3.3</b>	<b>6.8</b>	<b>-3.3</b>	<b>14.1</b>	<b>2.6</b>	<b>5.3</b>	<b>6.5</b>	<b>--</b>	<b>Jan-08</b>
<i>Policy Index w/o AI</i>			<i>-3.4</i>	<i>-3.1</i>	<i>5.6</i>	<i>-3.1</i>	<i>13.8</i>	<i>3.2</i>	<i>4.4</i>	<i>5.8</i>	<i>--</i>	
<b>US Equity</b>	<b>246,926,582</b>	<b>22.3</b>	<b>-5.0</b>	<b>-3.8</b>	<b>11.3</b>	<b>-3.8</b>	<b>19.3</b>	<b>8.7</b>	<b>8.3</b>	<b>11.4</b>	<b>10.0</b>	<b>Jan-95</b>
<i>Russell 3000</i>			<i>-4.8</i>	<i>-3.3</i>	<i>12.4</i>	<i>-3.3</i>	<i>20.5</i>	<i>9.4</i>	<i>8.8</i>	<i>11.0</i>	<i>10.0</i>	
BNY Mellon Newton Dynamic US Equity	52,547,041	4.7	-5.2	-3.9	11.1	-3.9	18.5	8.3	9.6	13.3	14.5	Jan-13
<i>S&amp;P 500 Index</i>			<i>-4.8</i>	<i>-3.3</i>	<i>13.1</i>	<i>-3.3</i>	<i>21.6</i>	<i>10.2</i>	<i>9.9</i>	<i>11.9</i>	<i>12.9</i>	
BNY Mellon Large Cap	167,708,271	15.1	-4.9	-3.3	12.8	-3.3	20.8	9.5	9.6	--	12.1	Apr-16
<i>Russell 1000 Index</i>			<i>-4.7</i>	<i>-3.1</i>	<i>13.0</i>	<i>-3.1</i>	<i>21.2</i>	<i>9.5</i>	<i>9.6</i>	<i>11.6</i>	<i>12.1</i>	
Champlain Small Cap	26,671,270	2.4	-5.8	-6.8	2.5	-6.8	11.7	--	--	--	4.7	Nov-20
<i>Russell 2000 Index</i>			<i>-5.9</i>	<i>-5.1</i>	<i>2.5</i>	<i>-5.1</i>	<i>8.9</i>	<i>7.2</i>	<i>2.4</i>	<i>6.6</i>	<i>6.6</i>	
<b>International Equity</b>	<b>203,356,635</b>	<b>18.4</b>	<b>-3.6</b>	<b>-3.5</b>	<b>7.1</b>	<b>-3.5</b>	<b>18.5</b>	<b>-0.1</b>	<b>5.2</b>	<b>4.6</b>	<b>5.3</b>	<b>Jan-99</b>
<i>International Equity Custom</i>			<i>-3.0</i>	<i>-3.5</i>	<i>5.2</i>	<i>-3.5</i>	<i>20.1</i>	<i>3.0</i>	<i>2.5</i>	<i>3.6</i>	<i>4.1</i>	
<b>Developed International Equity</b>	<b>124,806,688</b>	<b>11.3</b>	<b>-3.0</b>	<b>-2.4</b>	<b>4.8</b>	<b>-2.4</b>	<b>18.6</b>	<b>4.0</b>	<b>4.5</b>	<b>4.4</b>	<b>3.8</b>	<b>Feb-08</b>
<i>Custom Blended Developed International Equity BM</i>			<i>-3.5</i>	<i>-3.6</i>	<i>6.7</i>	<i>-3.6</i>	<i>24.3</i>	<i>5.4</i>	<i>3.2</i>	<i>3.8</i>	<i>2.8</i>	
Acadian ACWI ex U.S. Small Cap Equity	14,117,187	1.3	-2.9	-1.6	4.0	-1.6	17.0	7.4	--	--	7.4	May-19
<i>MSCI AC World ex USA Small Cap (Net)</i>			<i>-3.8</i>	<i>-1.7</i>	<i>5.0</i>	<i>-1.7</i>	<i>19.0</i>	<i>4.0</i>	<i>2.6</i>	<i>4.3</i>	<i>3.8</i>	
Driehaus International Small Cap Growth	13,735,749	1.2	-5.0	-2.6	2.6	-2.6	19.7	1.9	--	--	6.3	May-19
<i>MSCI AC World ex USA Small Growth Index (Net)</i>			<i>-5.0</i>	<i>-3.7</i>	<i>3.6</i>	<i>-3.7</i>	<i>15.7</i>	<i>-0.3</i>	<i>2.1</i>	<i>4.4</i>	<i>3.2</i>	
GQG International Equity	48,687,392	4.4	-2.1	-1.0	7.8	-1.0	22.4	4.4	--	--	6.1	Dec-19
<i>MSCI AC World ex USA (Net)</i>			<i>-3.2</i>	<i>-3.8</i>	<i>5.3</i>	<i>-3.8</i>	<i>20.4</i>	<i>3.7</i>	<i>2.6</i>	<i>3.3</i>	<i>2.6</i>	

Historical returns for the US Equity Composite prior to January 2012 and for the International Equity Composite prior to December 2010 are gross only.

### Asset Allocation & Performance | As of September 30, 2023

	Market Value \$	% of Portfolio	1 Mo (%)	QTD (%)	YTD (%)	Fiscal YTD	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
First Eagle International Value Fund <i>MSCI EAFE (Net)</i>	48,266,360	4.4	-3.4	-4.1	2.6	-4.1	14.9	3.3	--	--	1.8	Dec-19
			-3.4	-4.1	7.1	-4.1	25.6	5.8	3.2	3.8	3.3	
<b>Emerging Markets Equity</b> <i>MSCI EM</i>	<b>78,549,947</b>	<b>7.1</b>	<b>-4.5</b>	<b>-5.3</b>	<b>10.9</b>	<b>-5.3</b>	<b>18.3</b>	<b>-7.1</b>	<b>5.4</b>	<b>4.3</b>	<b>4.0</b>	<b>May-12</b>
			-2.6	-2.9	1.8	-2.9	11.7	-1.7	0.6	2.3	2.1	
Artisan Developing World TR <i>MSCI Emerging Markets (Net)</i>	53,387,369	4.8	-4.6	-7.2	15.7	-7.2	22.3	-9.5	--	--	2.9	Dec-19
			-2.6	-2.9	1.8	-2.9	11.7	-1.7	0.6	2.1	0.2	
RWC <i>MSCI Emerging Markets (Net)</i>	25,162,578	2.3	-4.3	-1.0	2.1	-1.0	10.7	0.0	--	--	-0.1	Dec-19
			-2.6	-2.9	1.8	-2.9	11.7	-1.7	0.6	2.1	0.2	
<b>US Fixed Income</b> <i>US Fixed Income Custom Benchmark</i>	<b>111,416,400</b>	<b>10.1</b>	<b>-2.6</b>	<b>-3.3</b>	<b>-1.8</b>	<b>-3.3</b>	<b>-1.3</b>	<b>-5.7</b>	<b>-0.5</b>	<b>1.0</b>	<b>4.2</b>	<b>Jan-95</b>
			-2.3	-2.8	-0.9	-2.8	0.8	-4.8	0.0	1.3	4.4	
Vanguard Short-Term Treasury Index Fund <i>Blmbg. 1-3 Govt</i>	6,553,341	0.6	0.0	0.7	1.7	0.7	2.4	-1.0	1.0	--	1.0	Mar-18
			0.0	0.7	1.7	0.7	2.5	-0.9	1.0	0.8	1.0	
Vanguard Total Bond Market Index Fund <i>Blmbg. U.S. Aggregate Index</i>	17,095,573	1.5	-2.5	-3.1	-0.9	-3.1	0.7	-5.2	--	--	-0.9	May-19
			-2.5	-3.2	-1.2	-3.2	0.6	-5.2	0.1	1.1	-0.9	
Payden & Rygel Low Duration Fund <i>Blmbg. U.S. Treasury: 1-3 Year</i>	8,068,337	0.7	0.0	1.0	1.7	1.0	--	--	--	--	5.4	Nov-22
			0.0	0.7	1.7	0.7	2.4	-0.9	1.0	0.8	2.5	
Brandywine US Fixed Income <i>Blmbg. U.S. Aggregate Index</i>	31,544,831	2.8	-3.9	-5.5	-2.5	-5.5	--	--	--	--	-5.3	Nov-22
			-2.5	-3.2	-1.2	-3.2	0.6	-5.2	0.1	1.1	2.0	
Wellington Core Bond <i>Blmbg. U.S. Aggregate Index</i>	48,154,318	4.3	-2.6	-3.1	-2.3	-3.1	--	--	--	--	-0.1	Nov-22
			-2.5	-3.2	-1.2	-3.2	0.6	-5.2	0.1	1.1	2.0	

Developed International Equity and Emerging Markets Equity composites were only reported as one composite prior to March 2018.

### Asset Allocation & Performance | As of September 30, 2023

	Market Value \$	% of Portfolio	1 Mo (%)	QTD (%)	YTD (%)	Fiscal YTD	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
<b>Opportunistic Credit</b>	<b>36,453,793</b>	<b>3.3</b>	<b>-0.6</b>	<b>1.2</b>	<b>7.5</b>	<b>1.2</b>	<b>10.3</b>	<b>4.6</b>	--	--	<b>4.3</b>	<b>May-19</b>
50% Barclays US Aggregate / 25% Barclays US High Yield / 25% Credit Suisse Lever			-1.3	-0.7	3.3	-0.7	5.9	-0.7	--	--	1.3	
PIMCO Income Fund	11,518,806	1.0	-1.4	-0.5	3.2	-0.5	6.8	0.7	--	--	1.6	May-19
Blmbg. U.S. Aggregate Index			-2.5	-3.2	-1.2	-3.2	0.6	-5.2	0.1	1.1	-0.9	
GoldenTree Multi-Sector Credit	24,542,421	2.2	-0.3	2.0	7.3	2.0	11.9	4.8	--	--	4.3	Jun-19
50% BBg US High Yield TR/50% Credit Suisse Leveraged Loans			-0.2	1.9	7.9	1.9	11.4	3.9	3.7	4.3	3.7	
Sculptor Credit Opportunities Domestic Partners, LP	392,565	0.0	0.0	0.0	11.0	0.0	11.0	9.8	--	--	10.2	Jul-20
50% BBg US High Yield TR/50% Credit Suisse Leveraged Loans			-0.2	1.9	7.9	1.9	11.4	3.9	3.7	4.3	4.9	
<b>Real Estate</b>	<b>84,654,041</b>	<b>7.6</b>	<b>-2.5</b>	<b>-2.7</b>	<b>-5.3</b>	<b>-2.7</b>	<b>-5.0</b>	<b>4.1</b>	<b>2.6</b>	<b>5.3</b>	<b>6.5</b>	<b>Dec-10</b>
Custom Blended Real Estate Benchmark			-2.7	-2.7	-10.4	-2.7	-10.0	8.0	6.1	7.9	9.2	
CPI +5% (Seasonally Adjusted)			0.8	2.4	6.7	2.4	8.9	11.0	9.2	7.9	7.8	
Vanguard REIT Index	15,099,599	1.4	-7.3	-8.5	-5.3	-8.5	-1.2	2.3	--	--	1.4	Sep-20
Spliced Vanguard REIT Benchmark			-7.3	-8.5	-5.3	-8.5	-1.1	2.4	2.5	5.6	1.5	
<b>Private Real Estate</b>	<b>69,554,442</b>	<b>6.3</b>	<b>-1.3</b>	<b>-1.3</b>	<b>-5.3</b>	<b>-1.3</b>	<b>-6.2</b>	<b>5.8</b>	<b>3.6</b>	<b>5.8</b>	<b>6.9</b>	<b>Dec-10</b>
Custom Blended Real Estate Benchmark			-2.7	-2.7	-10.4	-2.7	-10.0	8.0	6.1	7.9	9.2	
Greenfield Gap VII	889,884	0.1	2.8	2.8	-9.3	2.8	-1.7	23.3	17.6	--	15.9	Jan-15
Patron Capital V	5,572,654	0.5	-6.2	-6.2	4.9	-6.2	-10.6	-7.8	-6.7	--	0.5	Feb-16
UBS Trumbull Property	24,050,907	2.2	-3.7	-3.7	-15.2	-3.7	-15.2	2.8	1.3	4.4	6.1	Apr-99
Carlyle Realty VIII	2,643,733	0.2	2.3	2.3	-5.6	2.3	1.1	43.6	19.8	--	10.8	Jan-18
Taconic CRE Dislocation Fund II	3,213,226	0.3	0.0	0.0	15.0	0.0	15.3	9.8	--	--	9.2	Nov-18
Carmel Partners Investment Fund VII	3,974,665	0.4	2.8	2.8	1.5	2.8	6.4	-3.0	--	--	-19.9	Apr-19

Sculptor market value reflects holdback from June liquidation.

All private markets performance and market values reflect a 6/30/2023 capital account balance unless otherwise noted.

Private Real Estate results prior to 1/1/2019 were included in the Real Assets composite. All results for the Private Real Estate composite that include the period prior to 1/1/2019 will reflect only the latest lineup of managers that Meketa received information for, therefore it may not reflect the entire Private Real Estate composite at that given time.



## Asset Allocation & Performance | As of September 30, 2023

	Market Value \$	% of Portfolio	1 Mo (%)	QTD (%)	YTD (%)	Fiscal YTD	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
AG Realty Value Fund X, L.P.	3,591,243	0.3	-1.6	-1.6	-2.5	-1.6	-2.8	14.5	--	--	5.7	Jun-19
Rockpoint Real Estate Fund VI, L.P.	4,430,134	0.4	-1.5	-1.5	-3.5	-1.5	-5.9	12.7	--	--	10.3	May-20
Cerberus Real Estate Debt Fund, L.P.	4,986,525	0.5	3.6	3.6	5.6	3.6	7.5	11.5	--	--	10.6	Jul-20
Taconic CRE Dislocation Onshore Fund III	5,897,317	0.5	0.5	0.5	2.3	0.5	3.6	--	--	--	6.4	Jun-21
Starwood Distressed Opportunity Fund XII Global	1,827,383	0.2	1.6	1.6	-2.5	1.6	-3.4	--	--	--	116.7	Jun-21
Carlyle Realty Partners IX	953,185	0.1	1.8	1.8	-31.3	1.8	-45.1	--	--	--	-149.8	Dec-21
Carmel Partners Investment Fund VIII	3,870,102	0.3	-0.6	-0.6	-3.2	-0.6	-4.8	--	--	--	-11.1	Apr-22
Rockpoint Real Estate Fund VII L.P.	3,653,484	0.3	2.1	2.1	11.9	2.1	12.6	--	--	--	13.6	Aug-22
<b>Private Equity</b>	<b>160,047,998</b>	<b>14.5</b>	<b>2.7</b>	<b>2.7</b>	<b>4.1</b>	<b>2.7</b>	<b>4.5</b>	<b>24.6</b>	<b>16.7</b>	<b>14.2</b>	<b>10.4</b>	<b>Jul-05</b>
<i>Custom Private Equity Benchmark</i>			<i>6.4</i>	<i>7.4</i>	<i>27.6</i>	<i>7.4</i>	<i>20.7</i>	<i>19.0</i>	<i>15.2</i>	<i>16.0</i>	<i>--</i>	
Taconic Credit Dislocation Fund IV L.P.	1,600,000	0.1	0.0	0.0	--	0.0	--	--	--	--	0.0	Jul-23
Khosla Ventures Seed F, L.P.	386,557	0.0	-0.9	-0.9	--	-0.9	--	--	--	--	-0.9	Jul-23
Adams Street	4,017,607	0.4	0.2	0.2	-2.3	0.2	-4.9	14.0	11.2	12.7	8.1	Oct-05
Invesco VI	548,079	0.0	-9.2	-9.2	-28.8	-9.2	-44.2	21.7	16.9	15.1	14.7	Jul-13
Ocean Avenue II	8,857,322	0.8	2.2	2.2	-6.6	2.2	0.9	53.3	32.2	--	22.0	Jul-14
Pantheon I	62,508	0.0	-0.2	-0.2	1.5	-0.2	-2.4	-9.9	-13.8	-3.7	-1.5	Jan-06
Pantheon II	2,867,486	0.3	1.0	1.0	1.2	1.0	-0.9	16.4	12.6	14.0	12.4	Jan-12
Pantheon Secondary	109,717	0.0	-0.8	-0.8	-0.9	-0.8	-2.6	-9.1	-6.8	-1.5	0.5	Jul-07
Davidson Kempner Long-Term Distressed Opportunities Fund IV	2,509,577	0.2	3.2	3.2	26.4	3.2	39.8	29.6	18.9	--	18.9	Apr-18

Pantheon I includes Pantheon US Fund VI and Pantheon Europe Fund IV. Pantheon Europe Fund IV is adjusting from the 12/31/2022 NAV.

Pantheon II includes Pantheon US Fund IX, Pantheon Asia Fund VI, and Pantheon Europe Fund VII.

Pantheon Secondary includes Pantheon GLO SEC III B.

Adams Street includes Adams street 2005, Adams Street 2007, and Adams Street 2011.

## Asset Allocation & Performance | As of September 30, 2023

	Market Value \$	% of Portfolio	1 Mo (%)	QTD (%)	YTD (%)	Fiscal YTD	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
GTCR Fund XII	5,414,726	0.5	0.5	0.5	-0.2	0.5	-0.5	25.1	16.1	--	15.0	Jun-18
Carrick Capital Partners III	6,614,638	0.6	2.9	2.9	4.7	2.9	4.5	17.9	11.7	--	11.3	Aug-18
Cressey & Company Fund VI	5,353,718	0.5	0.6	0.6	4.2	0.6	0.0	25.6	--	--	16.0	Jan-19
TCV X	6,781,347	0.6	9.0	9.0	11.0	9.0	10.6	25.1	--	--	18.7	Apr-19
Accel-KKR Growth Capital Partners III	4,653,584	0.4	-12.7	-12.7	-8.6	-12.7	-9.6	15.4	--	--	6.3	Jul-19
Genstar Capital Partners IX	9,111,229	0.8	3.6	3.6	8.5	3.6	15.1	34.7	--	--	26.6	Aug-19
Cortec Group Fund VII	8,757,099	0.8	4.2	4.2	22.9	4.2	20.9	28.4	--	--	27.1	Dec-19
Spark Capital Growth Fund III	8,788,037	0.8	0.1	0.1	-25.2	0.1	-26.2	22.2	--	--	16.0	Mar-20
Spark Capital VI	3,412,852	0.3	38.7	38.7	34.5	38.7	33.5	11.3	--	--	6.8	Mar-20
Summit Partners Growth Equity Fund X-A	8,462,805	0.8	1.7	1.7	12.8	1.7	16.1	7.4	--	--	6.7	Mar-20
Taconic Market Dislocation Fund III L.P.	7,305,831	0.7	5.0	5.0	6.7	5.0	8.8	16.1	--	--	14.8	Jul-20
Marlin Heritage Europe II, L.P.	7,580,097	0.7	0.5	0.5	15.1	0.5	14.3	0.0	--	--	0.0	Oct-20
Khosla Ventures VII	4,777,075	0.4	2.0	2.0	7.7	2.0	8.4	--	--	--	5.8	Jan-21
Accel-KKR Capital Partners VI	3,504,623	0.3	0.0	0.0	0.0	0.0	0.0	--	--	--	-5.2	Feb-21
Khosla Ventures Seed E	2,059,506	0.2	7.4	7.4	15.1	7.4	16.2	--	--	--	129.7	Feb-21
TCV XI	4,480,146	0.4	-1.4	-1.4	-5.6	-1.4	-12.0	--	--	--	-5.1	Feb-21
Thoma Bravo Discover Fund III	8,710,275	0.8	1.8	1.8	5.7	1.8	4.5	--	--	--	6.6	Jun-21
Summit Partners Venture Capital Fund V-A	3,201,124	0.3	5.0	5.0	6.1	5.0	4.4	--	--	--	-3.7	May-21

### Asset Allocation & Performance | As of September 30, 2023

	Market Value \$	% of Portfolio	1 Mo (%)	QTD (%)	YTD (%)	Fiscal YTD	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
GTCR Fund XIII/A & B	4,053,042	0.4	2.7	2.7	-1.6	2.7	-3.1	--	--	--	91.4	Jun-21
Genstar Capital Partners X	5,817,483	0.5	-1.3	-1.3	1.4	-1.3	3.5	--	--	--	5.3	Oct-21
Nautic Partners X	2,976,672	0.3	5.1	5.1	11.9	5.1	16.6	--	--	--	3.4	Jan-22
Spark Capital Growth Fund IV	1,649,822	0.1	-2.3	-2.3	47.9	-2.3	41.8	--	--	--	15.6	Jan-22
Spark Capital VII	1,002,587	0.1	-1.9	-1.9	-6.1	-1.9	-8.2	--	--	--	-7.6	Feb-22
TCV Velocity Fund I	2,871,349	0.3	57.7	57.7	43.0	57.7	33.6	--	--	--	-1.1	Feb-22
Accel-KKR Growth Capital Partners IV	1,644,428	0.1	0.8	0.8	2.0	0.8	-1.0	--	--	--	-18.1	Apr-22
Summit Partners Growth Equity Fund XI-A	2,140,413	0.2	1.1	1.1	12.6	1.1	9.5	--	--	--	-46.5	Apr-22
GTCR Strategic Growth Fund I/A&B LP	1,429,793	0.1	0.5	0.5	-14.7	0.5	-28.5	--	--	--	-42.7	Jul-22
Threshold Ventures IV LP	821,312	0.1	-4.1	-4.1	-16.3	-4.1	-27.3	--	--	--	-23.9	Aug-22
Thoma Bravo Discovery Fund IV	3,467,051	0.3	1.0	1.0	10.0	1.0	--	--	--	--	10.0	Jan-23
Marlin Heritage III	989,055	0.1	0.7	0.7	-83.1	0.7	--	--	--	--	-83.1	Jan-23
Cortec Group Fund VIII, L.P.	1,262,543	0.1	-5.2	-5.2	--	-5.2	--	--	--	--	-6.3	Apr-23
Khosla Ventures VIII	-5,117	0.0	0.0	--	--	--	--	--	--	--	0.0	Sep-23
<b>Direct Lending</b>	<b>47,468,627</b>	<b>4.3</b>	<b>2.7</b>	<b>2.7</b>	<b>7.4</b>	<b>2.7</b>	<b>9.1</b>	<b>10.8</b>	<b>--</b>	<b>--</b>	<b>9.9</b>	<b>Jul-20</b>
<i>S&amp;P LSTA Leveraged Loan +2%</i>			<i>1.1</i>	<i>4.0</i>	<i>11.8</i>	<i>4.0</i>	<i>15.3</i>	<i>8.2</i>	<i>6.5</i>	<i>6.4</i>	<i>9.1</i>	
Silver Point Specialty Credit Fund II, L.P.	6,232,542	0.6	2.7	2.7	9.3	2.7	13.1	11.2	--	--	10.3	Jul-20
Ares Senior Direct Lending Fund II	11,014,026	1.0	4.2	4.2	9.1	4.2	10.2	--	--	--	10.0	Jan-22
Varagon Capital Direct Lending Fund	9,974,239	0.9	2.2	2.2	2.9	2.2	2.2	--	--	--	1.1	Jan-22

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	Market Value \$	% of Portfolio	1 Mo (%)	QTD (%)	YTD (%)	Fiscal YTD	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
AG Direct Lending Fund IV Annex	9,680,299	0.9	2.5	2.5	8.1	2.5	10.6	--	--	--	8.5	May-22
AG Direct Lending Fund V	4,634,443	0.4	1.5	1.5	7.4	1.5	9.0	--	--	--	7.7	Aug-22
Accel-KKR Credit Partners II LP	1,454,541	0.1	4.0	4.0	--	4.0	--	--	--	--	35.5	Mar-23
Silver Point Specialty Credit Fund III	4,478,537	0.4	1.5	1.5	--	1.5	--	--	--	--	-0.2	Mar-23
<b>Hedge Fund</b>	<b>134,879,252</b>	<b>12.2</b>	<b>0.6</b>	<b>2.0</b>	<b>4.0</b>	<b>2.0</b>	<b>4.5</b>	<b>6.5</b>	<b>4.2</b>	<b>--</b>	<b>4.3</b>	<b>Jul-14</b>
<i>Custom Blended Hedge Fund Benchmark</i>			<i>-0.4</i>	<i>0.5</i>	<i>2.8</i>	<i>0.5</i>	<i>4.6</i>	<i>3.8</i>	<i>3.4</i>	<i>--</i>	<i>3.2</i>	
OWS Credit Opportunity Fund LP	20,312,088	1.8	0.8	--	--	--	--	--	--	--	1.6	Aug-23
Hudson Bay Fund	15,413,110	1.4	0.9	2.5	--	2.5	--	--	--	--	2.8	Jun-23
Sculptor (OZ) Domestic II	264,914	0.0	-0.1	-0.3	7.1	-0.3	8.5	1.0	4.8	--	5.2	Jul-14
Graham Absolute Return	10,220,831	0.9	2.4	6.6	4.6	6.6	1.1	9.4	5.6	--	5.0	Sep-17
Wellington-Archipelago	15,748,989	1.4	-0.1	0.7	7.1	0.7	9.9	6.4	5.0	--	5.4	Sep-17
Marshall Wace Eureka	4,525,496	0.4	-0.3	0.7	1.2	0.7	0.6	6.2	5.2	--	5.6	Dec-17
Silver Point Capital	18,615,532	1.7	-0.7	-0.2	3.7	-0.2	3.5	13.2	8.0	--	7.8	Dec-17
Laurion Capital	13,652,956	1.2	0.7	2.0	3.7	2.0	4.0	6.7	9.2	--	9.3	Aug-18
Taconic Opportunity Fund	14,046,794	1.3	0.3	2.3	2.8	2.3	4.5	4.7	--	--	3.2	Jan-19
Marshall Wace Global Opportunities	10,880,704	1.0	0.0	1.8	5.8	1.8	5.8	4.4	--	--	5.5	May-20
Caxton Global Investments	11,197,836	1.0	2.3	3.3	-4.8	3.3	-4.0	--	--	--	4.6	May-21

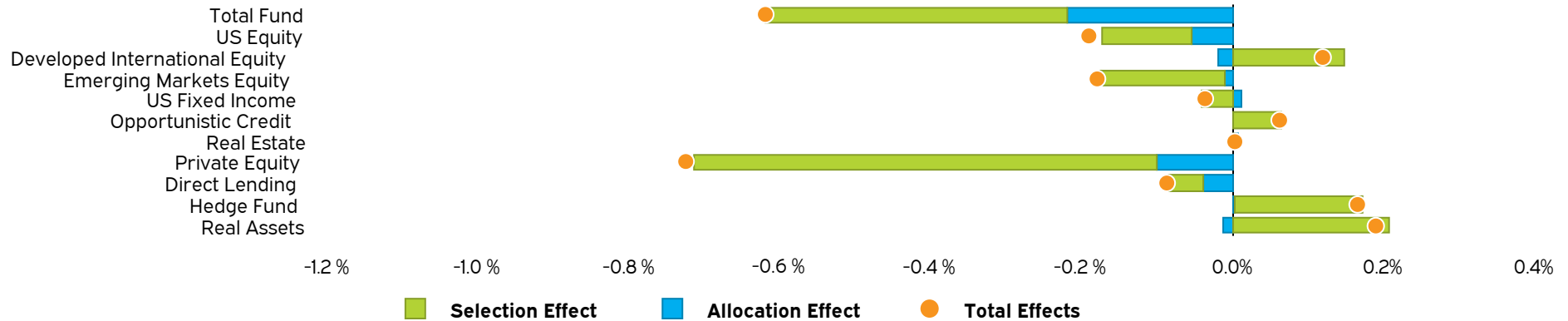
## Asset Allocation & Performance | As of September 30, 2023

	Market Value \$	% of Portfolio	1 Mo (%)	QTD (%)	YTD (%)	Fiscal YTD	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
<b>Real Assets</b>	<b>67,842,535</b>	<b>6.1</b>	<b>1.2</b>	<b>1.5</b>	<b>7.7</b>	<b>1.5</b>	<b>11.8</b>	<b>14.5</b>	<b>11.1</b>	<b>9.3</b>	<b>9.6</b>	<b>Dec-10</b>
<i>Custom Blended Real Assets Benchmark</i>			-2.5	-1.9	-1.5	-1.9	12.4	7.9	5.5	6.8	--	
SSgA	13,106,105	1.2	-2.0	-0.7	-2.7	-0.7	4.1	10.0	5.3	--	5.2	May-17
<i>Real Asset NL Custom Blended Index</i>			-2.1	-0.7	-2.4	-0.7	3.9	10.1	5.3	--	5.3	
<b>Private Infrastructure</b>	<b>30,452,288</b>	<b>2.8</b>	<b>1.9</b>	<b>1.9</b>	<b>10.7</b>	<b>1.9</b>	<b>12.2</b>	<b>12.4</b>	<b>13.0</b>	<b>--</b>	<b>10.1</b>	<b>Jan-15</b>
<i>S&amp;P Global Infrastructure</i>			-4.7	-7.3	-3.7	-7.3	6.9	7.3	4.1	5.1	3.9	
KKR Global II	5,063,482	0.5	1.9	1.9	19.4	1.9	23.9	20.3	22.7	--	17.0	Jan-15
North Haven Infrastructure II	2,725,546	0.2	-0.4	-0.4	-0.9	-0.4	0.5	9.8	9.3	--	8.1	Jun-15
ISQ Global Infrastructure Fund II	5,358,217	0.5	1.6	1.6	7.1	1.6	10.0	14.1	13.4	--	4.3	Jul-18
KKR Global Infrastructure Investors III	4,394,209	0.4	2.2	2.2	12.9	2.2	15.2	4.4	--	--	-1.7	Jan-19
Ardian Infrastructure Fund V	3,777,837	0.3	2.6	2.6	19.9	2.6	20.0	8.4	--	--	-8.0	Nov-19
ISQ Global Infrastructure Fund III	1,481,854	0.1	1.4	1.4	10.4	1.4	13.7	--	--	--	-552.8	Jun-21
KKR Global Infrastructure Investors IV	4,807,434	0.4	4.1	4.1	9.2	4.1	3.8	--	--	--	-221.2	Sep-21
BlackRock Global Infrastructure Fund IV	2,843,709	0.3	0.4	0.4	-12.0	0.4	--	--	--	--	-12.0	Dec-22
<b>Private Natural Resources</b>	<b>24,284,142</b>	<b>2.2</b>	<b>2.0</b>	<b>2.0</b>	<b>11.0</b>	<b>2.0</b>	<b>16.9</b>	<b>23.2</b>	<b>13.5</b>	<b>--</b>	<b>15.7</b>	<b>Oct-15</b>
<i>S&amp;P Global Natural Resources Sector Index (TR)</i>			-0.3	3.7	0.5	3.7	17.8	19.2	6.4	5.2	11.2	
EnCap Flatrock Midstream Fund V	2,051,195	0.2	-3.8	-3.8	--	-3.8	--	--	--	--	-3.8	Jun-23
EnCap Energy Capital Fund XII	2,431,717	0.2	0.0	--	--	--	--	--	--	--	0.0	Aug-23
EnCap XI	4,716,191	0.4	4.1	4.1	14.6	4.1	19.2	28.6	3.9	--	-6.8	Aug-17
EnCap IV	1,699,915	0.2	2.0	2.0	4.5	2.0	6.1	49.6	31.7	--	24.0	Mar-18

## Asset Allocation & Performance | As of September 30, 2023

	Market Value \$	% of Portfolio	1 Mo (%)	QTD (%)	YTD (%)	Fiscal YTD	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
GSO Energy Opportunities	604,201	0.1	0.1	0.1	14.2	0.1	34.4	40.4	17.7	--	18.6	Dec-15
Taurus Mining	381,913	0.0	1.4	1.4	9.7	1.4	18.6	51.6	30.1	--	25.7	Oct-15
Taurus Mining Annex	197,455	0.0	1.4	1.4	8.8	1.4	14.9	22.9	21.7	--	24.9	Feb-17
BlackRock Global Energy and Power Infrastructure Fund III LP	4,589,485	0.4	3.4	3.4	11.3	3.4	16.5	8.5	--	--	14.5	Aug-19
Tailwater Energy Fund IV, LP	3,642,065	0.3	0.8	0.8	17.0	0.8	32.1	29.8	--	--	6.6	Oct-19
Carnelian Energy Capital IV	3,970,006	0.4	4.2	4.2	6.8	4.2	4.2	--	--	--	-3.0	May-22
<b>Cash</b>	<b>14,047,922</b>	<b>1.3</b>	<b>0.3</b>	<b>0.9</b>	<b>4.8</b>	<b>0.9</b>	<b>2.4</b>	<b>0.9</b>	<b>1.1</b>	<b>--</b>	<b>--</b>	<b>Dec-10</b>
Cash	12,292,781	1.1	0.4	1.0	5.2	1.0	2.5	1.0	1.3	1.0	-1.4	Dec-10
Treasury Cash	1,755,141	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	--	0.1	Sep-17

#### Attribution Effects 3 Months Ending September 30, 2023

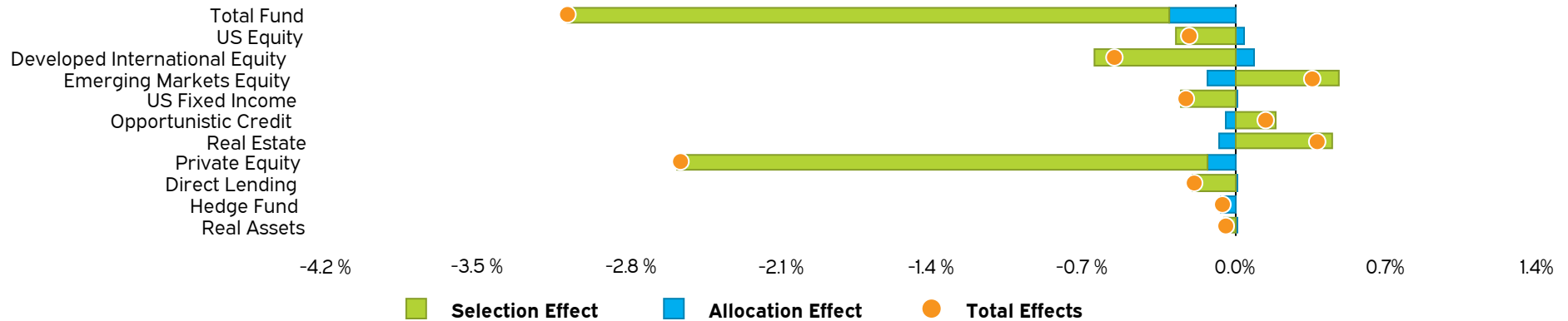


#### Attribution Summary 3 Months Ending September 30, 2023

	Wtd. Actual Return (%)	Wtd. Index Return (%)	Excess Return (%)	Selection Effect (%)	Allocation Effect (%)	Total Effect (%)
US Equity	-3.8	-3.3	-0.6	-0.1	-0.1	-0.2
Developed International Equity	-2.4	-3.6	1.2	0.1	0.0	0.1
Emerging Markets Equity	-5.3	-2.9	-2.3	-0.2	0.0	-0.2
US Fixed Income	-3.3	-2.8	-0.5	0.0	0.0	0.0
Opportunistic Credit	1.2	-0.7	1.8	0.1	0.0	0.1
Real Estate	-2.7	-2.7	0.0	0.0	0.0	0.0
Private Equity	2.7	7.4	-4.6	-0.6	-0.1	-0.7
Direct Lending	2.7	4.0	-1.3	0.0	0.0	-0.1
Hedge Fund	2.0	0.5	1.5	0.2	0.0	0.2
Real Assets	1.5	-1.9	3.4	0.2	0.0	0.2
<b>Total Fund</b>	<b>-1.2</b>	<b>-0.6</b>	<b>-0.6</b>	<b>-0.4</b>	<b>-0.2</b>	<b>-0.6</b>

#### Attribution Effects

1 Year Ending September 30, 2023



#### Attribution Summary

1 Year Ending September 30, 2023

	Wtd. Actual Return (%)	Wtd. Index Return (%)	Excess Return (%)	Selection Effect (%)	Allocation Effect (%)	Total Effect (%)
US Equity	19.3	20.5	-1.1	-0.3	0.0	-0.2
Developed International Equity	18.6	24.3	-5.7	-0.7	0.1	-0.6
Emerging Markets Equity	18.3	11.7	6.6	0.5	-0.1	0.4
US Fixed Income	-1.3	0.8	-2.1	-0.3	0.0	-0.2
Opportunistic Credit	10.3	5.9	4.3	0.2	0.0	0.1
Real Estate	-5.0	-10.0	5.0	0.4	-0.1	0.4
Private Equity	4.5	20.7	-16.2	-2.5	-0.1	-2.6
Direct Lending	9.1	15.3	-6.2	-0.2	0.0	-0.2
Hedge Fund	4.5	4.6	-0.1	0.0	-0.1	-0.1
Real Assets	11.8	12.4	-0.5	-0.1	0.0	0.0
<b>Total Fund</b>	<b>9.8</b>	<b>12.8</b>	<b>-3.1</b>	<b>-2.8</b>	<b>-0.3</b>	<b>-3.1</b>



Benchmark History		
From Date	To Date	Benchmark
Total Fund		
01/01/2022	Present	22.0% Russell 3000, 11.0% Custom Blended Developed International Equity BM, 8.0% MSCI EM, 11.0% US Fixed Income Custom Benchmark, 10.0% Custom Blended Hedge Fund Benchmark, 15.0% Custom Private Equity Benchmark, 5.0% S&P LSTA Leveraged Loan +2%, 5.0% Custom Blended Real Assets Benchmark, 8.0% Custom Blended Real Estate Benchmark, 5.0% 50% Barclays US Aggregate / 25% Barclays US High Yield / 25% Credit Suisse Lever
01/01/2020	01/01/2022	21.0% Russell 3000, 10.0% Custom Blended Developed International Equity BM, 8.0% MSCI EM, 18.0% BBgBarc US Aggregate TR, 10.0% Custom Blended Hedge Fund Benchmark, 15.0% Custom Private Equity Benchmark, 5.0% Custom Blended Real Assets Benchmark, 8.0% Custom Blended Real Estate Benchmark, 5.0% 50% Barclays US Aggregate / 25% Barclays US High Yield / 25% Credit Suisse Lever
07/01/2019	01/01/2020	21.0% US Equity Custom, 18.0% International Equity Custom, 18.0% US Fixed Custom, 10.0% Custom Blended Hedge Fund Benchmark, 15.0% Thomson Reuters Cambridge Private Equity Index, 5.0% Real Asset Custom, 8.0% NCREIF ODCE (Net), 5.0% 50% Barclays US Aggregate / 25% Barclays US High Yield / 25% Credit Suisse Lever
01/01/2019	07/01/2019	21.0% US Equity Custom, 23.0% US Fixed Custom, 18.0% International Equity Custom, 10.0% Custom Blended Hedge Fund Benchmark, 15.0% Thomson Reuters Cambridge Private Equity Index, 5.0% Real Asset Custom, 8.0% NCREIF ODCE (Net)
01/01/2017	01/01/2019	27.0% US Equity Custom, 22.0% US Fixed Custom, 23.0% International Equity Custom, 5.0% Custom Blended Hedge Fund Benchmark, 9.0% Thomson Reuters Cambridge Private Equity Index, 14.0% Real Asset Custom
07/01/2014	01/01/2017	22.7% Russell 1000 Index, 5.7% Russell 2000 Index, 23.6% International Equity Custom, 28.5% US Fixed Custom, 4.5% Custom Blended Hedge Fund Benchmark, 8.0% NCREIF ODCE (Net), 7.0% Thomson Reuters Cambridge Private Equity Index
US Equity		
01/01/2020	Present	100.0% Russell 3000 Index
12/31/1994	01/01/2020	100.0% Russell 3000
International Equity		
01/01/2019	Present	56.0% MSCI EAFE Index, 44.0% MSCI Emerging Markets Index
01/01/2017	01/01/2019	69.6% MSCI EAFE Index, 30.4% MSCI Emerging Markets Index
07/01/2013	01/01/2017	100.0% MSCI AC World ex USA index
US Fixed Income		
12/01/1994	Present	10.0% Blmbg. U.S. Treasury: 1-3 Year, 90.0% BBgBarc US Aggregate TR

## Benchmark History | As of September 30, 2023

From Date	To Date	Benchmark
Hedge Fund		
07/01/2017	Present	100.0% HFRI Fund of Funds Composite Index
01/01/2015	07/01/2017	50.0% HFRI Fund of Funds Composite Index, 50.0% HFRI RV: Multi-Strategy Index
Real Assets		
01/01/2022	Present	50.0% S&P Global Infrastructure, 50.0% S&P Global Natural Resources Sector Index (TR)
01/01/2020	01/01/2022	50.0% Cambridge Energy Upstream & Royalties & Private Energy (1 Quarter Lagged), 50.0% Cambridge Infrastructure (1 Quarter Lagged)
03/01/1999	01/01/2020	100.0% Real Asset Custom
SSgA		
04/01/2017	Present	10.0% S&P Global Infrastructure, 15.0% Dow Jones U.S. Select RESI, 25.0% Bloomberg Roll Select Commodity TR Index, 25.0% S&P Global LargeMidcap Resources & Commodities Ind, 25.0% Blmbg. U.S. TIPS
Private Real Estate		
01/01/2020	Present	100.0% NCREIF ODCE 1Q Lagged
03/01/1999	01/01/2020	100.0% NCREIF Fund Index-Open End Diversified Core Equity (VW) (Net)
Private Equity		
01/01/2022	Present	100.0% Custom PE BM (Jan 2022 -) 1Q Lag
01/01/2020	01/01/2022	100.0% Cambridge Global Private Equity & VC (1 Quarter Lagged)
12/31/1994	01/01/2020	100.0% Thomson Reuters Cambridge Private Equity Index

Annual Investment Expense Analysis				
	Fee Schedule	Market Value	Estimated Annual Fee (%)	Estimated Expense
<b>Total Fund</b>		<b>1,107,093,784</b>		
<b>Total Fund w/o Alternatives</b>		<b>598,153,410</b>		
<b>US Equity</b>		<b>246,926,582</b>		
BNY Mellon Newton Dynamic US Equity	0.30 % of Assets	52,547,041	0.30	157,641
BNY Mellon Large Cap	0.04 % of First \$100 M 0.02 % Thereafter	167,708,271	0.03	53,542
Champlain Small Cap	1.00 % of Assets	26,671,270	1.00	266,713
<b>International Equity</b>		<b>203,356,635</b>		
<b>Developed International Equity</b>		<b>124,806,688</b>		
Acadian ACWI ex U.S. Small Cap Equity	0.99 % of Assets	14,117,187	0.99	139,760
Driehaus International Small Cap Growth	0.90 % of Assets	13,735,749	0.90	123,622
GQG International Equity	0.50 % of Assets	48,687,392	0.50	243,437
First Eagle International Value Fund	0.79 % of Assets	48,266,360	0.79	381,304
<b>Emerging Markets Equity</b>		<b>78,549,947</b>		
Artisan Developing World TR	1.05 % of Assets	53,387,369	1.05	560,567
RWC	0.87 % of Assets	25,162,578	0.87	218,914
<b>MCERA US FIXED+OPP CREDIT</b>		<b>147,870,193</b>		
<b>US Fixed Income</b>		<b>111,416,400</b>		
Vanguard Short-Term Treasury Index Fund	0.05 % of Assets	6,553,341	0.05	3,277
Vanguard Total Bond Market Index Fund	0.04 % of Assets	17,095,573	0.04	5,983
Payden & Rygel Low Duration Fund	0.43 % of Assets	8,068,337	0.43	34,694
Brandywine US Fixed Income	0.29 % of Assets	31,544,831	0.29	91,480
Wellington Core Bond	0.12 % of Assets	48,154,318	0.12	57,785
<b>Opportunistic Credit</b>		<b>36,453,793</b>		
PIMCO Income Fund	0.51 % of Assets	11,518,806	0.51	58,746
GoldenTree Multi-Sector Credit	0.70 % of Assets	24,542,421	0.70	171,797
Sculptor Credit Opportunities Domestic Partners, LP	Performance Based 1.00 and 20.00	392,565	1.00	3,926

## Fee Schedule | As of September 30, 2023

	Fee Schedule	Market Value	Estimated Annual Fee (%)	Estimated Expense
<b>Real Estate</b>		<b>84,654,041</b>		
Vanguard REIT Index	0.10 % of Assets	15,099,599	0.10	15,100
<b>Private Real Estate</b>		<b>69,554,442</b>		
Greenfield Gap VII		889,884	-	-
Patron Capital V		5,572,654	-	-
UBS Trumbull Property		24,050,907	-	-
Carlyle Realty VIII		2,643,733	-	-
Taconic CRE Dislocation Fund II		3,213,226	-	-
Carmel Partners Investment Fund VII		3,974,665	-	-
AG Realty Value Fund X, L.P.		3,591,243	-	-
Rockpoint Real Estate Fund VI, L.P.		4,430,134	-	-
Cerberus Real Estate Debt Fund, L.P.		4,986,525	-	-
Taconic CRE Dislocation Onshore Fund III		5,897,317	-	-
Starwood Distressed Opportunity Fund XII Global		1,827,383	-	-
Carlyle Realty Partners IX		953,185	-	-
Carmel Partners Investment Fund VIII		3,870,102	-	-
Rockpoint Real Estate Fund VII L.P.		3,653,484	-	-
<b>Private Equity</b>		<b>160,047,998</b>		
Adams Street		4,017,607	-	-
Invesco VI		548,079	-	-
Ocean Avenue II		8,857,322	-	-
Pantheon I		62,508	-	-
Pantheon II		2,867,486	-	-
Pantheon Secondary		109,717	-	-
Davidson Kempner Long-Term Distressed Opportunities Fund IV		2,509,577	-	-
GTCR Fund XII		5,414,726	-	-
Carrick Capital Partners III		6,614,638	-	-
Cressey & Company Fund VI		5,353,718	-	-
TCV X		6,781,347	-	-

## Fee Schedule | As of September 30, 2023

	Fee Schedule	Market Value	Estimated Annual Fee (%)	Estimated Expense
Accel-KKR Growth Capital Partners III		4,653,584	-	-
Genstar Capital Partners IX		9,111,229	-	-
Cortec Group Fund VII		8,757,099	-	-
Spark Capital Growth Fund III		8,788,037	-	-
Spark Capital VI		3,412,852	-	-
Summit Partners Growth Equity Fund X-A		8,462,805	-	-
Taconic Market Dislocation Fund III L.P.		7,305,831	-	-
Marlin Heritage Europe II, L.P.		7,580,097	-	-
Khosla Ventures VII		4,777,075	-	-
Accel-KKR Capital Partners VI		3,504,623	-	-
Khosla Ventures Seed E		2,059,506	-	-
TCV XI		4,480,146	-	-
Thoma Bravo Discover Fund III		8,710,275	-	-
Summit Partners Venture Capital Fund V-A		3,201,124	-	-
GTCR Fund XIII/A & B		4,053,042	-	-
Genstar Capital Partners X		5,817,483	-	-
Nautic Partners X		2,976,672	-	-
Spark Capital Growth Fund IV		1,649,822	-	-
Spark Capital VII		1,002,587	-	-
TCV Velocity Fund I		2,871,349	-	-
Accel-KKR Growth Capital Partners IV		1,644,428	-	-
Summit Partners Growth Equity Fund XI-A		2,140,413	-	-
GTCR Strategic Growth Fund I/A&B LP		1,429,793	-	-
Threshold Ventures IV LP		821,312	-	-
Thoma Bravo Discovery Fund IV		3,467,051	-	-
Marlin Heritage III		989,055	-	-
Cortec Group Fund VIII, L.P.		1,262,543	-	-
<b>Direct Lending</b>		<b>47,468,627</b>		
Silver Point Specialty Credit Fund II, L.P.		6,232,542	-	-

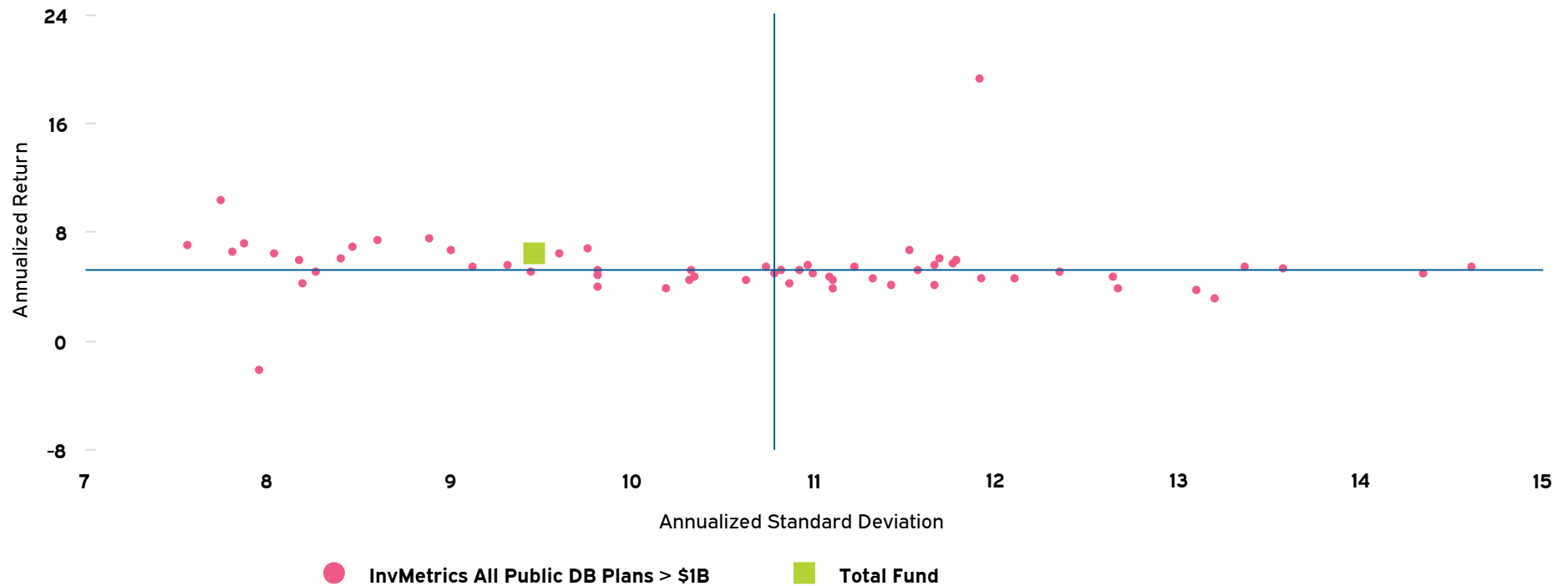
## Fee Schedule | As of September 30, 2023

	Fee Schedule	Market Value	Estimated Annual Fee (%)	Estimated Expense
Ares Senior Direct Lending Fund II		11,014,026	-	-
Varagon Capital Direct Lending Fund		9,974,239	-	-
AG Direct Lending Fund IV Annex		9,680,299	-	-
AG Direct Lending Fund V		4,634,443	-	-
Accel-KKR Credit Partners II LP		1,454,541	-	-
Silver Point Specialty Credit Fund III		4,478,537	-	-
<b>Hedge Fund</b>		<b>134,879,252</b>		
Sculptor (OZ) Domestic II	Performance Based 1.50 and 20.00	264,914	1.50	3,974
Graham Absolute Return	Performance Based 1.75 and 20.00	10,220,831	1.75	178,865
Wellington-Archipelago	Performance Based 1.00 and 20.00	15,748,989	1.00	157,490
Marshall Wace Eureka	Performance Based 2.00 and 20.00	4,525,496	2.00	90,510
Silver Point Capital	Performance Based 1.50 and 20.00	18,615,532	1.50	279,233
Laurion Capital	Performance Based 2.00 and 20.00	13,652,956	2.00	273,059
Taconic Opportunity Fund	Performance Based 1.40 and 20.00	14,046,794	1.40	196,655
Marshall Wace Global Opportunities	Performance Based 2.00 and 20.00	10,880,704	2.00	217,614
Caxton Global Investments	Performance Based 1.95 and 22.50	11,197,836	1.95	218,358
<b>Real Assets</b>		<b>67,842,535</b>		
SSgA	0.30 % of First \$50 M 0.27 % of Next \$50 M 0.25 % Thereafter Minimum Fee: \$20,000	13,106,105	0.30	39,318
<b>Private Infrastructure</b>		<b>30,452,288</b>		
KKR Global II		5,063,482	-	-
North Haven Infrastructure II		2,725,546	-	-
ISQ Global Infrastructure Fund II		5,358,217	-	-
KKR Global Infrastructure Investors III		4,394,209	-	-
Ardian Infrastructure Fund V		3,777,837	-	-
ISQ Global Infrastructure Fund III		1,481,854	-	-
KKR Global Infrastructure Investors IV		4,807,434	-	-

## Fee Schedule | As of September 30, 2023

	Fee Schedule	Market Value	Estimated Annual Fee (%)	Estimated Expense
BlackRock Global Infrastructure Fund IV		2,843,709	-	-
<b>Private Natural Resources</b>		<b>24,284,142</b>		
EnCap XI		4,716,191	-	-
EnCap Energy Capital Fund XII		2,431,717	-	-
EnCap IV		1,699,915	-	-
GSO Energy Opportunities		604,201	-	-
Taurus Mining		381,913	-	-
Taurus Mining Annex		197,455	-	-
BlackRock Global Energy and Power Infrastructure Fund III LP		4,589,485	-	-
Tailwater Energy Fund IV, LP		3,642,065	-	-
Carnelian Energy Capital IV		3,970,006	-	-
<b>Cash</b>		<b>14,047,922</b>		
Cash		12,292,781	-	-
Treasury Cash		1,755,141	-	-

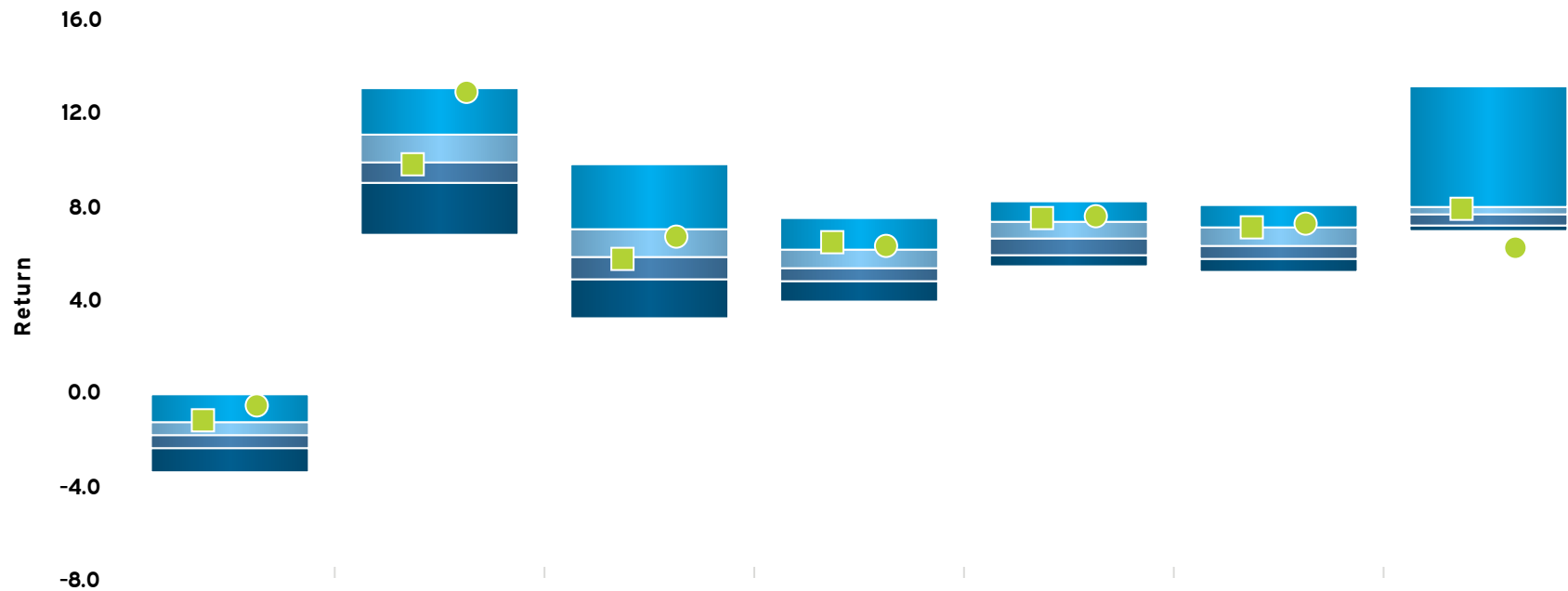
### Annualized Return vs. Annualized Standard Deviation 5 Years Ending September 30, 2023



	5 Years Return	5 Years Standard Deviation	5 Years Information Ratio	5 Years Beta	5 Years Sharpe Ratio	5 Years Tracking Error
Total Fund	6.4 (21)	9.5 (29)	0.1 (20)	1.0 (31)	0.5 (22)	3.0 (8)
Policy Index	6.3 (23)	9.2 (23)	-	1.0	0.5 (24)	0.0
InvMetrics All Public DB Plans > \$1B Median	5.3	10.8	-0.2	1.1	0.4	3.9



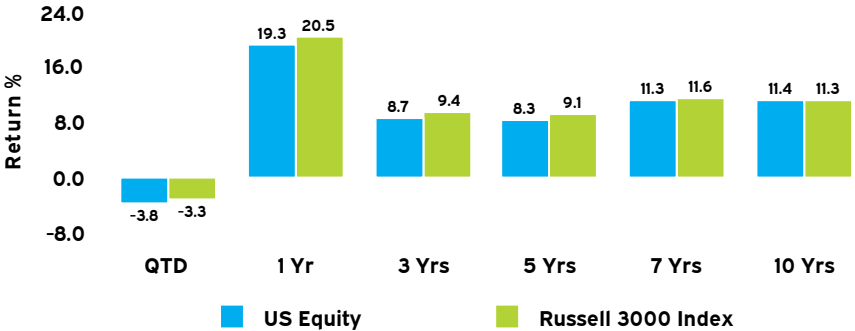
Statistics Summary						
3 Years Ending September 30, 2023						
	5 Years Return	5 Years Standard Deviation	5 Years Information Ratio	5 Years Beta	5 Years Sharpe Ratio	5 Years Tracking Error
Total Fund	6.4	9.5	0.1	1.0	0.5	2.9
<i>Policy Index</i>	<i>6.3</i>	<i>9.2</i>	<i>-</i>	<i>1.0</i>	<i>0.5</i>	<i>0.0</i>
InvMetrics All Public DB Plans > \$1B Median	5.3	10.8	-0.2	1.1	0.4	3.9



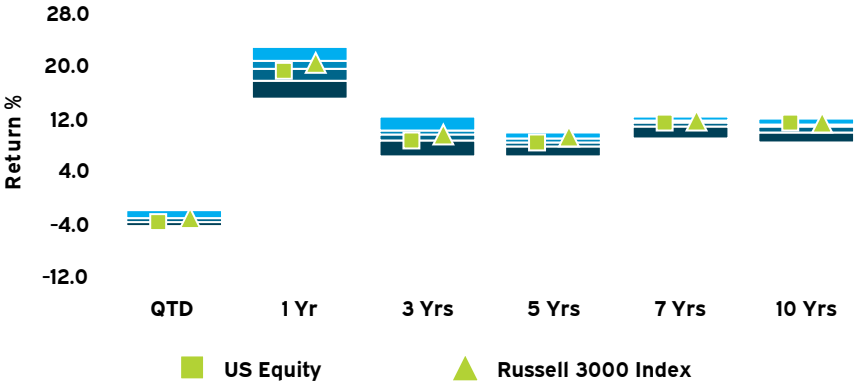
	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)	Since Inception
■ Total Fund	-1.2 (20)	9.8 (51)	5.7 (53)	6.4 (21)	7.4 (22)	7.0 (27)	7.8 (31)
● Policy Index	-0.6 (11)	12.8 (6)	6.6 (30)	6.3 (23)	7.5 (18)	7.1 (16)	6.1 (100)
5th Percentile	-0.1	13.0	9.7	7.4	8.1	8.0	13.0
1st Quartile	-1.3	11.0	6.9	6.1	7.3	7.0	7.9
Median	-1.9	9.8	5.7	5.3	6.5	6.2	7.6
3rd Quartile	-2.5	8.9	4.8	4.7	5.8	5.7	7.1
95th Percentile	-3.5	6.7	3.1	3.8	5.4	5.1	6.8
Population	79	73	63	61	60	54	19

Parentheses contain percentile rankings.  
Calculation based on monthly periodicity.

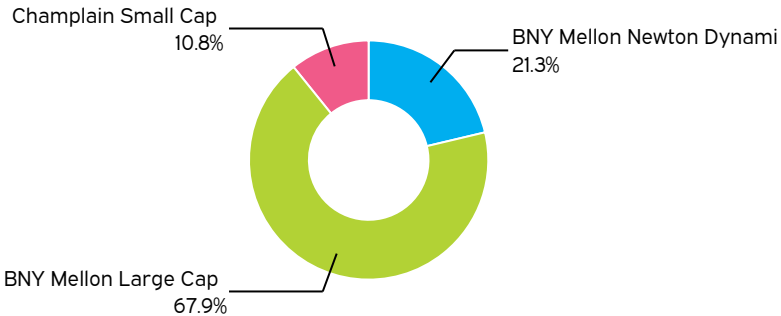
Return Summary



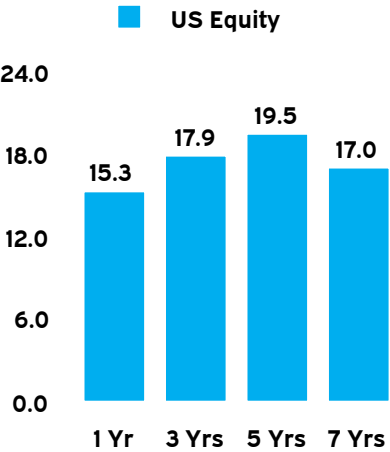
	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)
US Equity	-3.8	19.3	8.7	8.3	11.3	11.4
Russell 3000	-3.3	20.5	9.4	8.8	11.4	11.0
Excess Return	-0.5	-1.2	-0.7	-0.5	-0.1	0.4



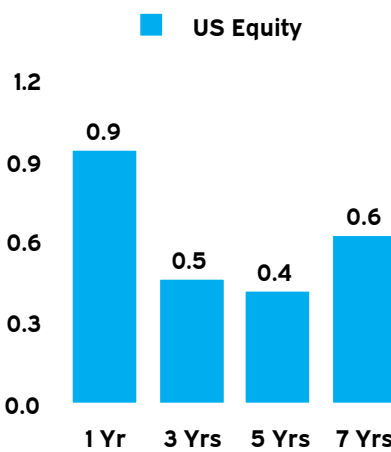
Current Allocation



Annualized Standard Deviation



Sharpe Ratio

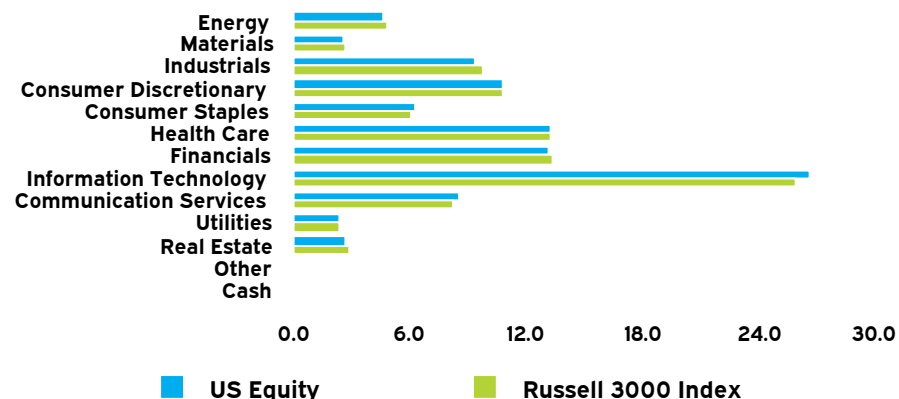


US Equity | As of September 30, 2023

### Equity Characteristics vs Russell 3000 Index

	Portfolio	Benchmark
Number of Holdings	1,073	2,994
Wtd. Avg. Mkt. Cap \$B	565.3	538.6
Median Mkt. Cap \$B	11.5	1.8
P/E Ratio	21.2	20.6
Yield (%)	1.6	1.6
EPS Growth - 5 Yrs. (%)	18.2	18.1
Price to Book	4.2	4.0

### Sector Weights (%)



### Top Holdings

Apple Inc	6.4
Microsoft Corp	5.9
Amazon.com Inc	2.9
NVIDIA Corporation	2.6
Alphabet Inc	2.0
Tesla Inc	1.7
Alphabet Inc	1.7
Meta Platforms Inc	1.7
Berkshire Hathaway Inc	1.6
Exxon Mobil Corp	1.2
% of Portfolio	27.7

### Ten Best Performers

	Quarterly Return (%)
AppLovin Corporation	55.3
Vertiv Holdings Co	50.2
Capri Holdings Ltd	46.6
Rivian Automotive Inc	45.7
Texas Pacific Land Corp	38.7
Affirm Holdings Inc	38.7
Splunk Inc	37.9
H&R Block Inc	36.2
Ollie's Bargain Outlet Holdings Inc	33.2
Hostess Brands Inc	31.6

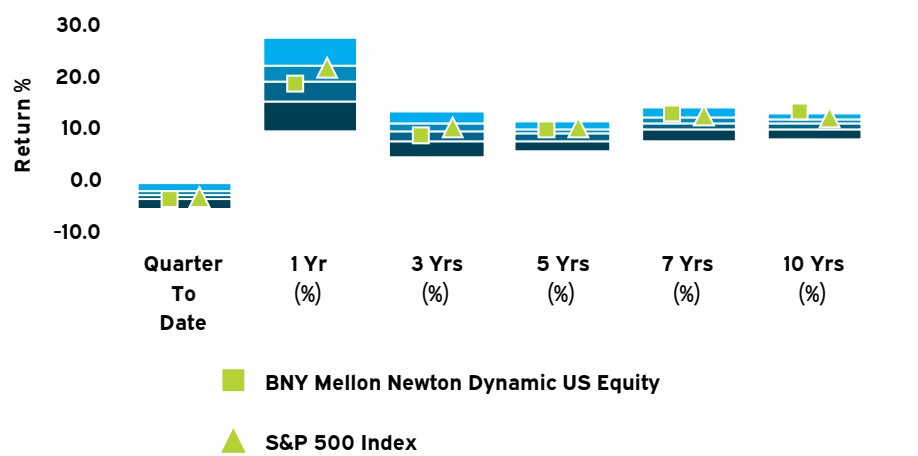
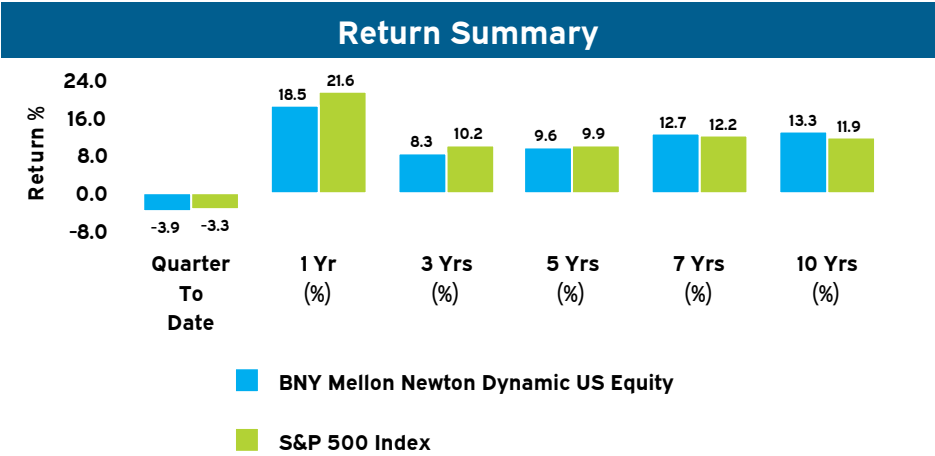
% of Portfolio

### Ten Worst Performers

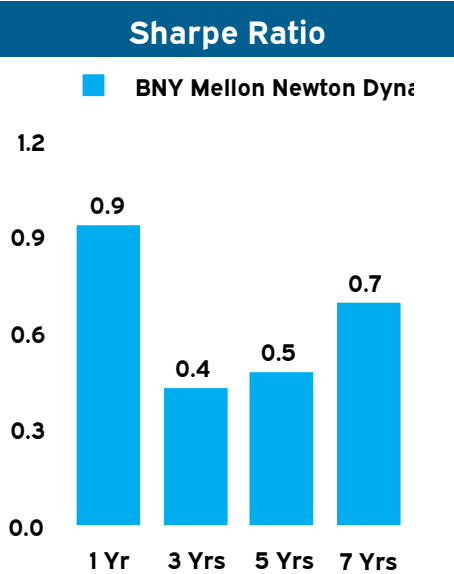
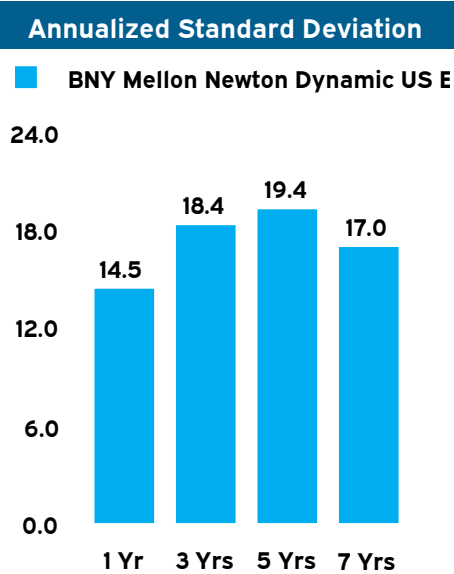
	Quarterly Return (%)
AMC Entertainment Holdings Inc	-79.4
Hawaiian Electric Industries Inc.	-65.0
NovoCure Limited	-61.1
Apellis Pharmaceuticals Inc	-58.2
ViaSat Inc.	-55.3
Petco Health & Wellness Co Inc	-54.0
Driven Brands Holdings Inc	-53.5
SolarEdge Technologies Inc	-51.9
Outset Medical Inc	-50.3
Zevia PBC	-48.5

% of Portfolio

BNY Mellon Newton Dynamic US Equity | As of September 30, 2023



	Quarter To Date	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)
BNY Mellon Newton Dynamic US Equity	-3.9	18.5	8.3	9.6	12.7	13.3
S&P 500 Index	-3.3	21.6	10.2	9.9	12.2	11.9
Excess Return	-0.6	-3.1	-1.9	-0.3	0.5	1.4



### BNY Mellon Newton Dynamic US Equity | As of September 30, 2023

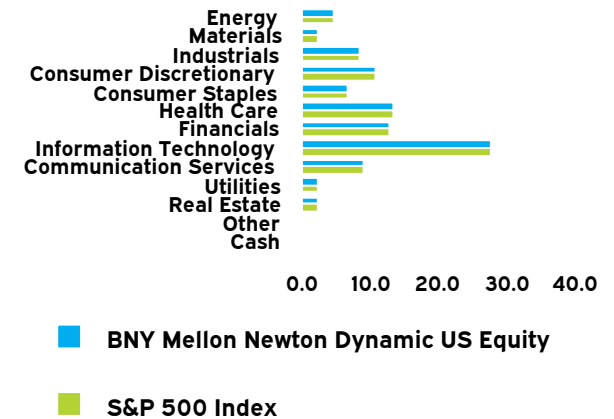
#### Equity Characteristics vs S&P 500 Index

	Portfolio	Benchmark
Number of Holdings	508	503
Wtd. Avg. Mkt. Cap \$B	544.1	622.9
Median Mkt. Cap \$B	30.4	30.4
P/E Ratio	21.8	21.8
Yield (%)	1.6	1.6
EPS Growth - 5 Yrs. (%)	18.3	18.3
Price to Book	4.3	4.3

#### Account Information

Account Name	BNY Mellon Newton Dynamic US Equity
Account Structure	Commingled Fund
Inception Date	11/30/2012
Asset Class	US Equity
Benchmark	S&P 500 Index
Peer Group	eV US Large Cap Core Equity

#### Sector Weights (%)



#### Top Holdings

Generic Fixed Income	12.4
Apple Inc	6.1
Microsoft Corp	5.7
Amazon.com Inc	2.8
NVIDIA Corporation	2.6
Alphabet Inc	1.9
Tesla Inc	1.7
Meta Platforms Inc	1.6
Alphabet Inc	1.6
Berkshire Hathaway Inc	1.6

#### Ten Best Performers

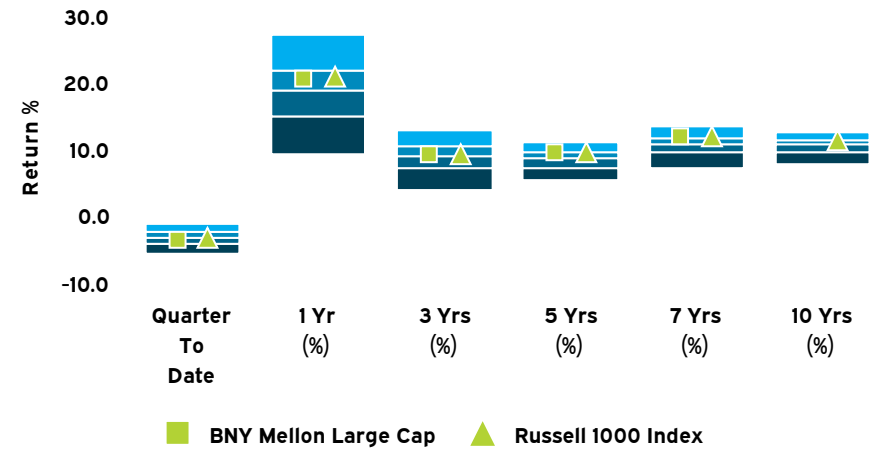
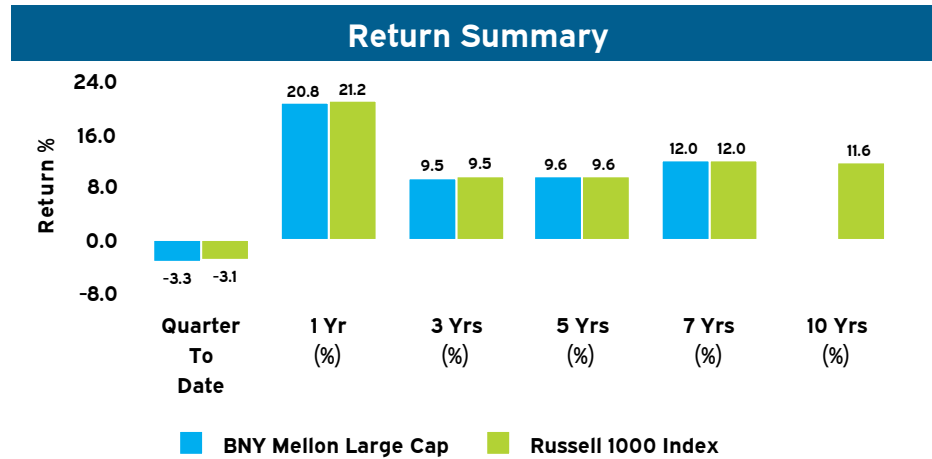
	Quarterly Return (%)
Zions Bancorporation National Association	31.4
Marathon Petroleum Corp	30.5
Phillips 66	27.1
CF Industries Holdings Inc	24.1
WestRock Company	24.1
Halliburton Co	23.2
Amgen Inc	22.0
Valero Energy Corp	21.8
APA Corporation	21.1
Western Digital Corp	20.3

#### Ten Worst Performers

	Quarterly Return (%)
SolarEdge Technologies Inc	-51.9
Insulet Corporation	-44.7
Dollar General Corporation	-37.5
FMC Corp.	-35.3
Resmed Inc	-32.1
Tapestry Inc	-32.1
Alaska Air Group Inc	-30.3
American Airlines Group Inc	-28.6
Enphase Energy Inc	-28.3
DexCom Inc	-27.4

## Merced County Employees' Retirement Association

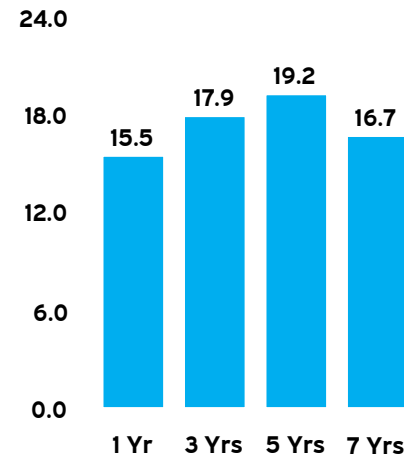
### BNY Mellon Large Cap | As of September 30, 2023



	Quarter To Date	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)
BNY Mellon Large Cap	-3.3	20.8	9.5	9.6	12.0	-
Russell 1000 Index	-3.1	21.2	9.5	9.6	12.0	11.6
Excess Return	-0.2	-0.4	0.0	0.0	0.0	-

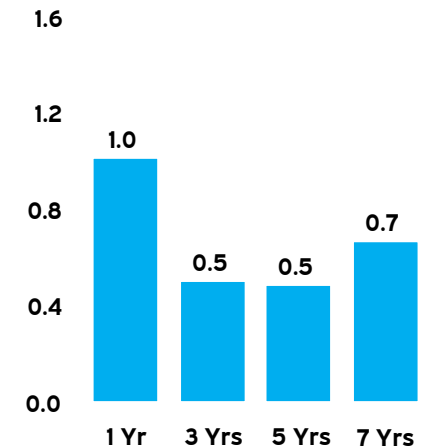
### Annualized Standard Deviation

■ BNY Mellon Large Cap



### Sharpe Ratio

■ BNY Mellon Large Cap



### BNY Mellon Large Cap | As of September 30, 2023

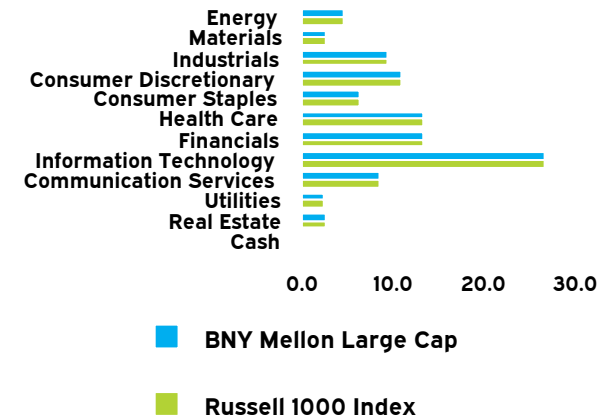
#### Equity Characteristics vs Russell 1000 Index

	Portfolio	Benchmark
Number of Holdings	1,012	1,009
Wtd. Avg. Mkt. Cap \$B	568.4	568.6
Median Mkt. Cap \$B	12.3	12.3
P/E Ratio	21.2	21.2
Yield (%)	1.6	1.6
EPS Growth - 5 Yrs. (%)	18.2	18.2
Price to Book	4.2	4.2

#### Account Information

Account Name	BNY Mellon Large Cap
Account Structure	Commingled Fund
Inception Date	03/31/2016
Asset Class	US Equity
Benchmark	Russell 1000 Index
Peer Group	eV US Large Cap Core Equity

#### Sector Weights (%)



#### Top Holdings

Apple Inc	6.4
Microsoft Corp	5.9
Amazon.com Inc	2.9
NVIDIA Corporation	2.6
Alphabet Inc	2.0
Tesla Inc	1.7
Alphabet Inc	1.7
Meta Platforms Inc	1.7
Berkshire Hathaway Inc	1.6
Exxon Mobil Corp	1.2
% of Portfolio	27.7

#### Ten Best Performers

	Quarterly Return (%)
AppLovin Corporation	55.3
Vertiv Holdings Co	50.2
Capri Holdings Ltd	46.6
Rivian Automotive Inc	45.7
Texas Pacific Land Corp	38.7
Affirm Holdings Inc	38.7
Splunk Inc	37.9
H&R Block Inc	36.2
Ollie's Bargain Outlet Holdings Inc	33.2
Zions Bancorporation National Association	31.4

% of Portfolio

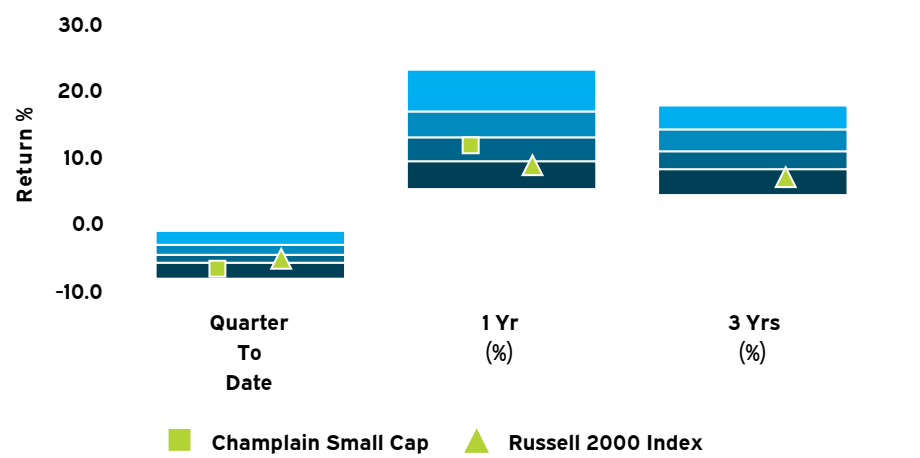
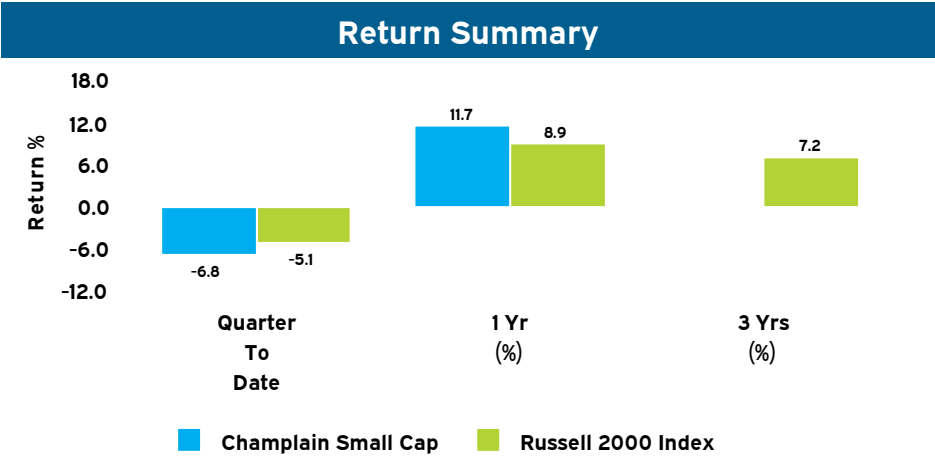
#### Ten Worst Performers

	Quarterly Return (%)
AMC Entertainment Holdings Inc	-79.4
Hawaiian Electric Industries Inc.	-65.0
NovoCure Limited	-61.1
Apellis Pharmaceuticals Inc	-58.2
ViaSat Inc.	-55.3
Petco Health & Wellness Co Inc	-54.0
Driven Brands Holdings Inc	-53.5
Olaplex Holdings Inc	-47.6
Masimo Corp	-46.7
Spirit Aerosystems Holdings Inc	-44.7

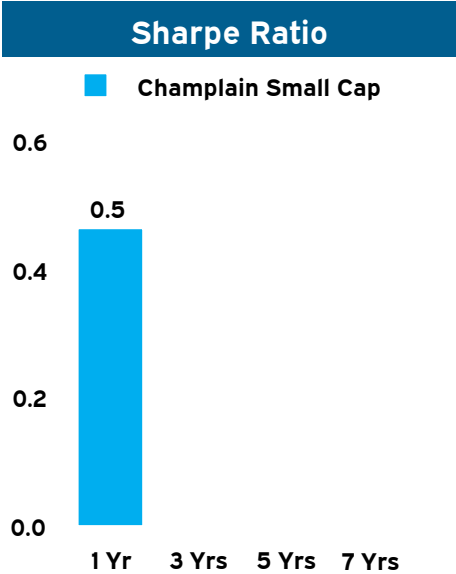
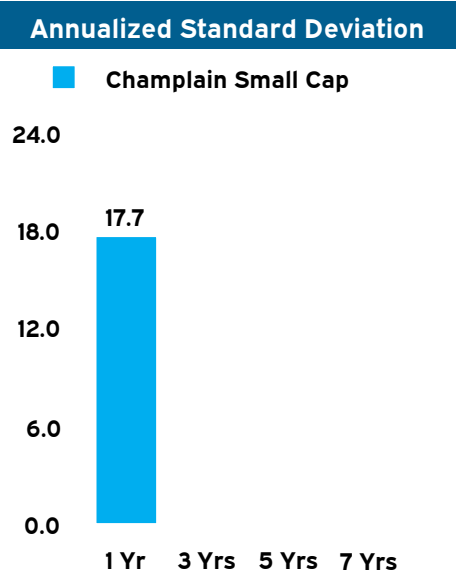
% of Portfolio



Champlain Small Cap | As of September 30, 2023



	Quarter To Date	1 Yr (%)	3 Yrs (%)
Champlain Small Cap	-6.8	11.7	-
Russell 2000 Index	-5.1	8.9	7.2
Excess Return	-1.7	2.8	-



### Champlain Small Cap | As of September 30, 2023

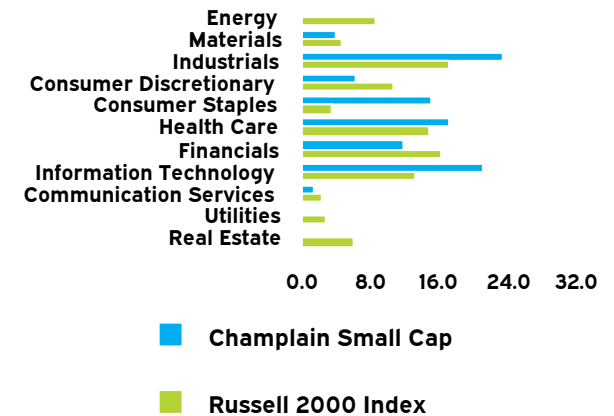
#### Equity Characteristics vs Russell 2000 Index

	Portfolio	Benchmark
Number of Holdings	73	1,985
Wtd. Avg. Mkt. Cap \$B	4.4	2.8
Median Mkt. Cap \$B	2.7	0.8
P/E Ratio	26.2	12.5
Yield (%)	0.7	1.7
EPS Growth - 5 Yrs. (%)	5.3	15.4
Price to Book	3.2	2.3

#### Account Information

Account Name	Champlain Small Cap
Account Structure	Mutual Fund
Inception Date	10/31/2020
Asset Class	US Equity
Benchmark	Russell 2000 Index
Peer Group	eV US Small Cap Core Equity

#### Sector Weights (%)



#### Top Holdings

Pure Storage Inc	4.0
New Relic Inc	3.2
MSA Safety Inc	3.1
John Bean Technologies Corp	3.0
Hostess Brands Inc	2.4
ESCO Technologies Inc.	2.4
Penumbra Inc	2.4
RB Global Inc	2.4
RBC Bearings Inc	2.2
Workiva Inc	2.2
% of Portfolio	27.3

#### Ten Best Performers

	Quarterly Return (%)
Ollie's Bargain Outlet Holdings Inc	33.2
Hostess Brands Inc	31.6
New Relic Inc	30.8
ServisFirst Bancshares Inc	28.2
Nutanix Inc	24.3
Sovos Brands Inc	15.3
Transcat Inc	14.8
Freshworks Inc	13.3
Independent Bank Corp.	11.5
Axonics Inc	11.2

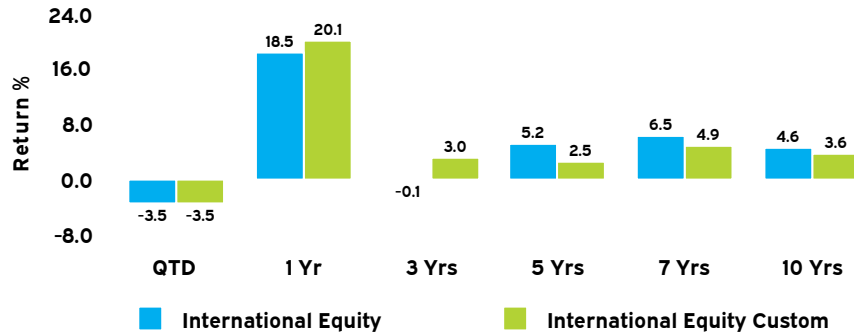
% of Portfolio

#### Ten Worst Performers

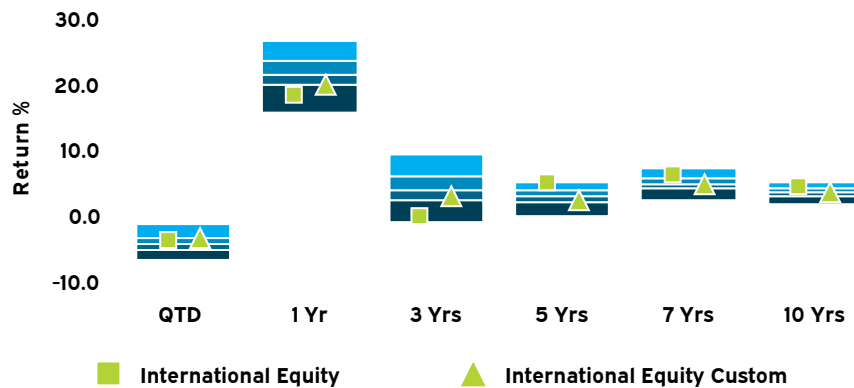
	Quarterly Return (%)
Outset Medical Inc	-50.3
Zevia PBC	-48.5
Leslie's Inc	-39.7
Inspire Medical Systems Inc	-38.9
Omnicell Inc	-38.9
Sally Beauty Holdings Inc	-32.1
Montrose Environmental Group Inc	-30.5
Penumbra Inc	-29.7
Planet Fitness Inc	-27.1
Generac Holdings Inc	-26.9

% of Portfolio

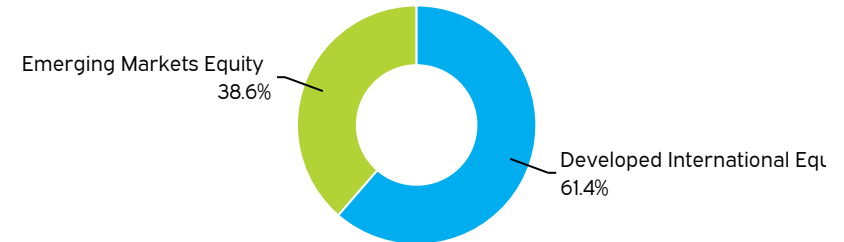
#### Return Summary



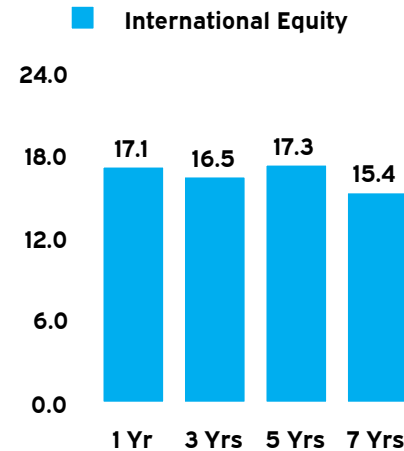
	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)
International Equity	-3.5	18.5	-0.1	5.2	6.5	4.6
International Equity Custom	-3.5	20.1	3.0	2.5	4.9	3.6
Excess Return	0.0	-1.6	-3.1	2.7	1.6	1.0



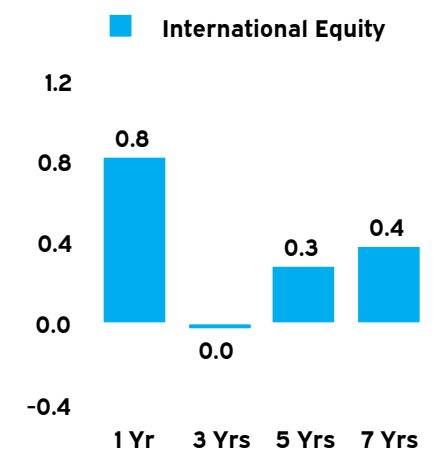
#### Current Allocation



#### Annualized Standard Deviation



#### Sharpe Ratio

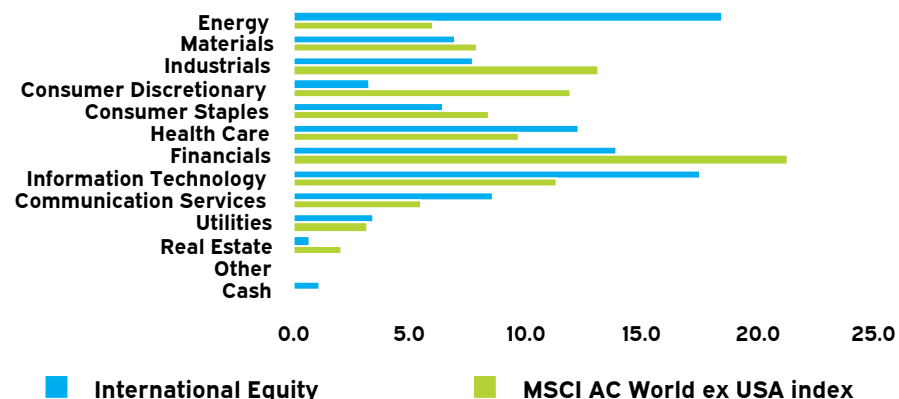


International Equity | As of September 30, 2023

### Equity Characteristics vs MSCI AC World ex USA index

	Portfolio	Benchmark
Number of Holdings	2,092	2,320
Wtd. Avg. Mkt. Cap \$B	180.5	82.3
Median Mkt. Cap \$B	0.6	8.8
P/E Ratio	12.8	12.8
Yield (%)	3.9	3.4
EPS Growth - 5 Yrs. (%)	19.9	10.5
Price to Book	3.2	2.4

### Sector Weights (%)



### Top Holdings

Novo Nordisk A/S	5.3
Astrazeneca PLC	4.7
TotalEnergies SE	4.7
NVIDIA Corporation	4.2
Glencore Plc	3.7
Petroleo Brasileiro S.A.- Petrobras	2.2
Petroleo Brasileiro S.A.- Petrobras	2.0
ASML Holding NV	1.9
Canadian Natural Resources Ltd	1.9
L'Oreal SA	1.9
% of Portfolio	32.5

### Ten Best Performers

	Quarterly Return (%)
Agesa Hayat ve Emeklilik A.S.	100.3
L&K Engineering Co Ltd	92.8
S P Setia Berhad	87.9
Wismilak Inti Makmur	87.5
AG Anadolu Grubu Holding Anonim Sirketi	87.3
Maruchiyo Yamaoka Corp	86.7
UP Fintech Holding Ltd	80.3
Fortune Electric Co Ltd	79.2
Jarlllytec Co Ltd	77.5
Sk-Electronics Co Ltd	75.6

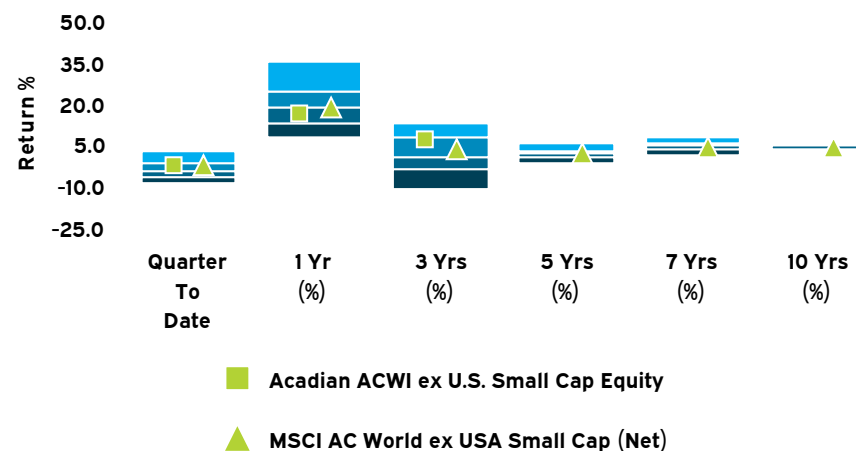
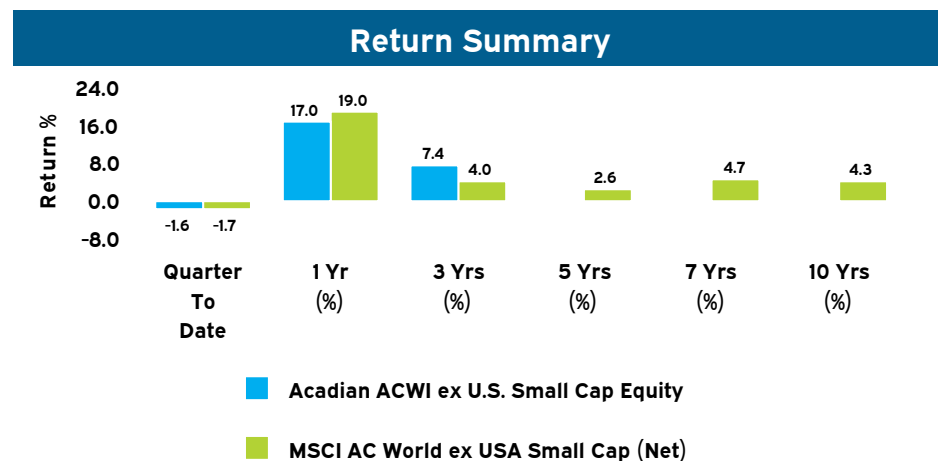
% of Portfolio

### Ten Worst Performers

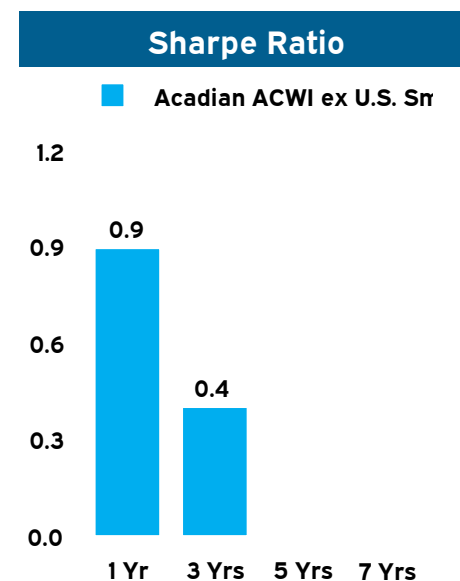
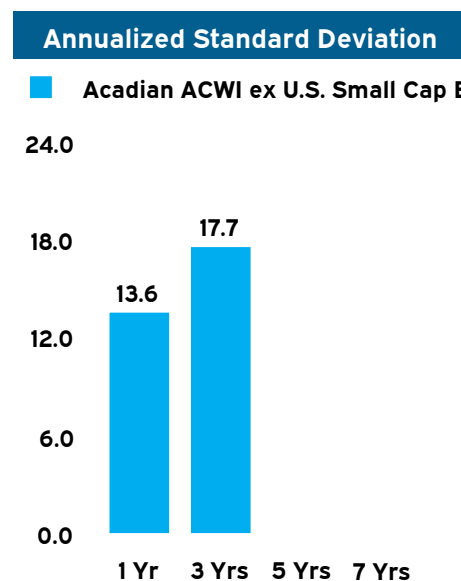
	Quarterly Return (%)
Air France KLM SA	-93.2
Xiwang Special Steel Co Ltd	-64.3
Frontier Developments Plc	-64.0
Azure Power Global Limited	-62.1
Adyen N.V	-56.8
Fullshare Holdings Ltd	-51.0
PT Temas Tbk	-44.3
IHS Holding Limited	-43.3
ASA International Group PLC	-41.6
Fountain Set (Holdings) Ltd	-40.3

% of Portfolio

Acadian ACWI ex U.S. Small Cap Equity | As of September 30, 2023



	Quarter To Date	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)
Acadian ACWI ex U.S. Small Cap Equity	-1.6	17.0	7.4	-	-	-
MSCI AC World ex USA Small Cap (Net)	-1.7	19.0	4.0	2.6	4.7	4.3
Excess Return	0.1	-2.0	3.4	-	-	-



### Acadian ACWI ex U.S. Small Cap Equity | As of September 30, 2023

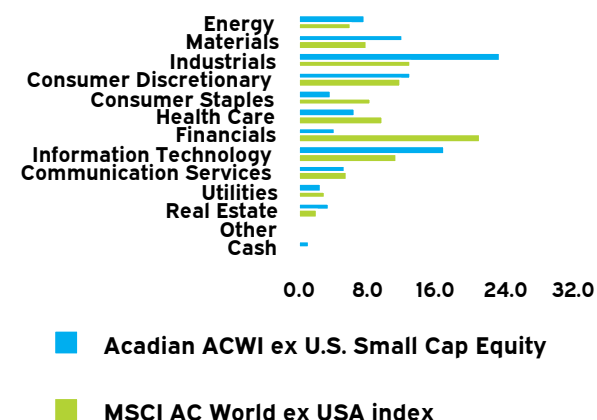
#### Equity Characteristics vs MSCI AC World ex USA index

	Portfolio	Benchmark
Number of Holdings	1,760	2,320
Wtd. Avg. Mkt. Cap \$B	2.1	82.3
Median Mkt. Cap \$B	0.5	8.8
P/E Ratio	9.3	12.8
Yield (%)	4.2	3.4
EPS Growth - 5 Yrs. (%)	18.7	10.5
Price to Book	2.1	2.4

#### Account Information

Account Name	Acadian ACWI ex U.S. Small Cap Equity
Account Structure	Commingled Fund
Inception Date	04/04/2019
Asset Class	International Equity
Benchmark	MSCI AC World ex USA Small Cap (Net)
Peer Group	eV ACWI ex-US Small Cap Equity

#### Sector Weights (%)



#### Top Holdings

Leonardo SPA	1.4
SCREEN Holdings Co Ltd	1.0
MEG Energy Corp	1.0
WNS (Holdings) Ltd	1.0
International Games System Co Ltd	1.0
Finning International Inc	0.9
Thyssenkrupp AG, Duisburg/Essen	0.9
MakeMyTrip Ltd	0.9
A2A SPA	0.8
Linamar Corp	0.8
% of Portfolio	9.7

#### Ten Best Performers

	Quarterly Return (%)
Agesa Hayat ve Emeklilik A.S.	100.3
L&K Engineering Co Ltd	92.8
S P Setia Berhad	87.9
Wismilak Inti Makmur	87.5
AG Anadolu Grubu Holding Anonim Sirketi	87.3
Maruchiyo Yamaoka Corp	86.7
UP Fintech Holding Ltd	80.3
Fortune Electric Co Ltd	79.2
Jarlllytec Co Ltd	77.5
Sk-Electronics Co Ltd	75.6

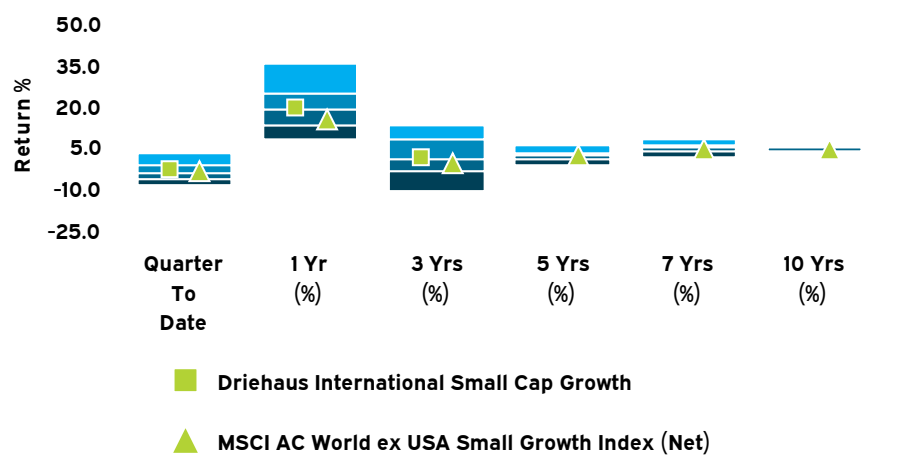
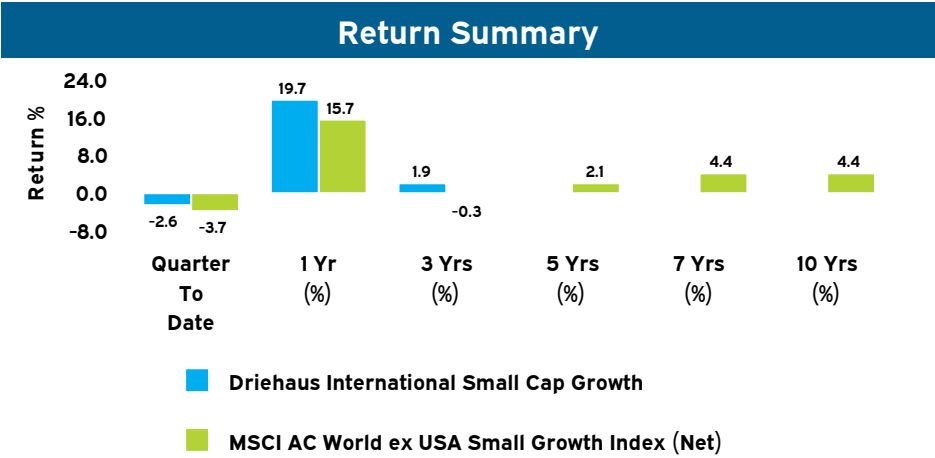
% of Portfolio

#### Ten Worst Performers

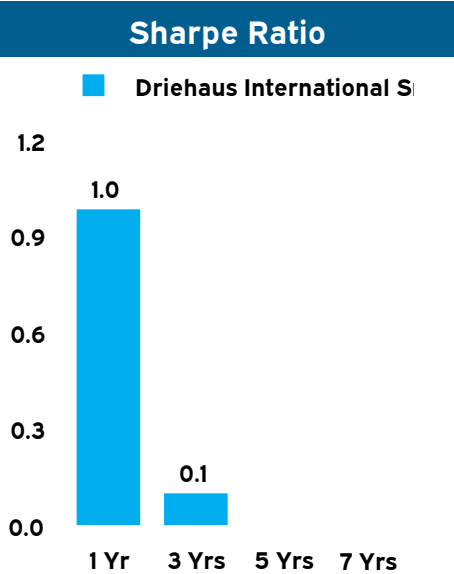
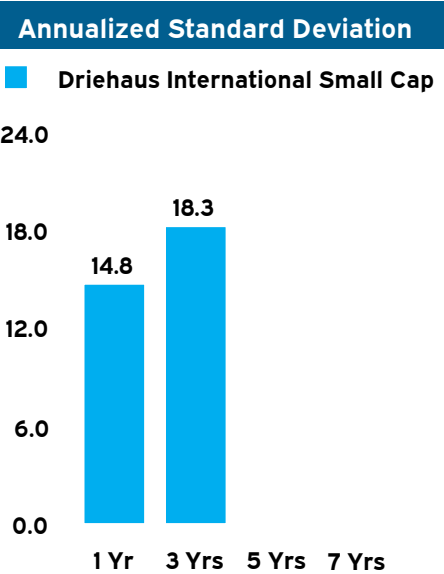
	Quarterly Return (%)
Air France KLM SA	-93.2
Xiwang Special Steel Co Ltd	-64.3
Frontier Developments Plc	-64.0
Azure Power Global Limited	-62.1
Fullshare Holdings Ltd	-51.0
PT Temas Tbk	-44.3
Fountain Set (Holdings) Ltd	-40.3
Temairazu Inc	-39.0
Addvise Group AB	-38.5
Double Standard Inc	-37.9

% of Portfolio

Driehaus International Small Cap Growth | As of September 30, 2023



	Quarter To Date	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)
Driehaus International Small Cap Growth	-2.6	19.7	1.9	-	-	-
MSCI AC World ex USA Small Growth Index (Net)	-3.7	15.7	-0.3	2.1	4.4	4.4
Excess Return	1.1	4.0	2.2	-	-	-



### DrieHaus International Small Cap Growth | As of September 30, 2023

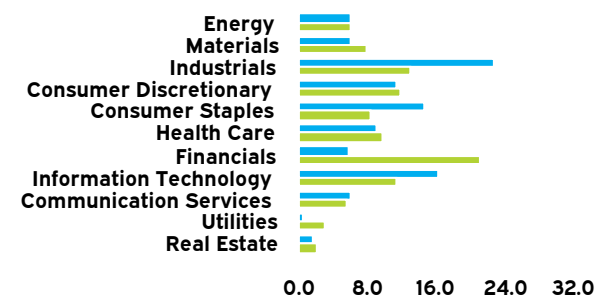
#### Equity Characteristics vs MSCI AC World ex USA index

	Portfolio	Benchmark
Number of Holdings	108	2,320
Wtd. Avg. Mkt. Cap \$B	4.8	82.3
Median Mkt. Cap \$B	3.9	8.8
P/E Ratio	18.0	12.8
Yield (%)	1.7	3.4
EPS Growth - 5 Yrs. (%)	10.5	10.5
Price to Book	2.6	2.4

#### Account Information

Account Name	DrieHaus International Small Cap Growth
Account Structure	Commingled Fund
Inception Date	04/25/2019
Asset Class	International Equity
Benchmark	MSCI AC World ex USA Small Growth Index (Net)
Peer Group	eV ACWI ex-US Small Cap Equity

#### Sector Weights (%)



■ DrieHaus International Small Cap Growth

■ MSCI AC World ex USA index

#### Top Holdings

Metso Oyj	2.2
Glanbia PLC	2.2
ConvaTec Group PLC	1.8
Asics Corp	1.8
Leonardo SPA	1.8
Fugro NV	1.8
Aixtron SE	1.7
Samsonite International SA	1.7
Sopra Steria Group SA	1.6
Rolls Royce Holdings PLC	1.5
% of Portfolio	18.1

#### Ten Best Performers

	Quarterly Return (%)
Camtek Ltd	74.7
Celestica Inc	69.2
Paladin Energy Ltd	46.1
Alchip Technologies Inc	45.4
Rolls Royce Holdings PLC	40.4
Hafnia Ltd	33.3
Ryohin Keikaku Co Ltd	33.2
Yellowcake Plc	31.5
Schibsted ASA	28.8
Leonardo SPA	27.5

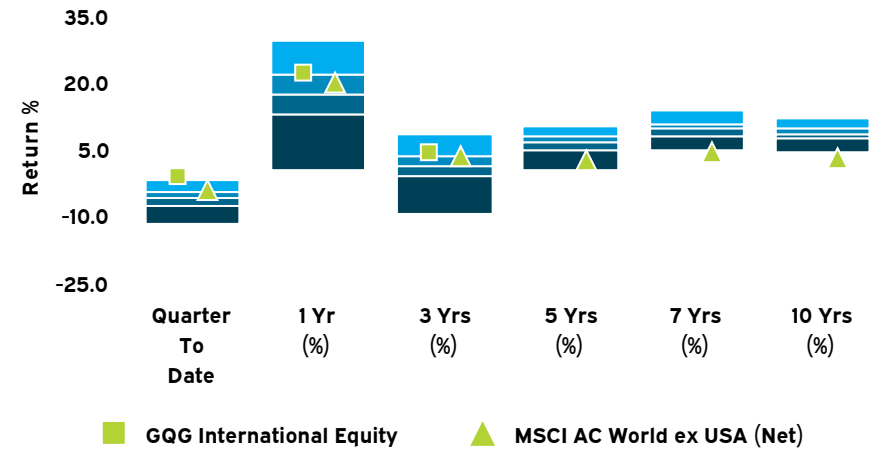
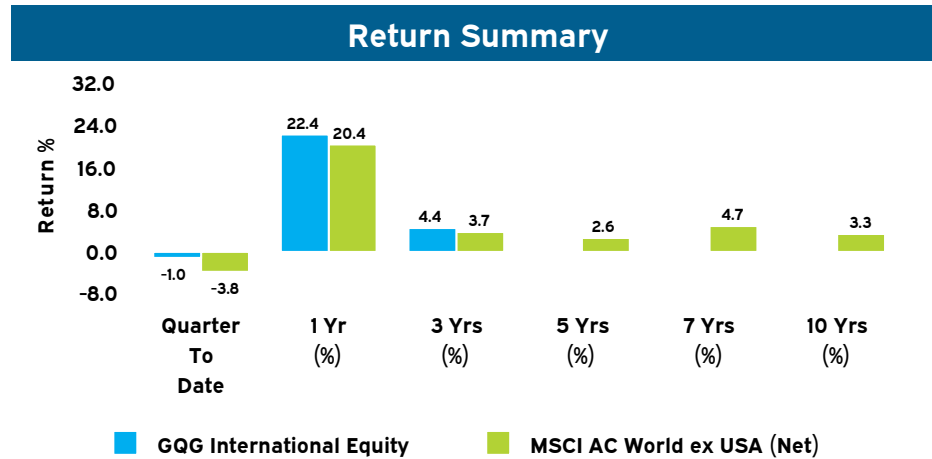
% of Portfolio

#### Ten Worst Performers

	Quarterly Return (%)
Harmonic Drive Systems Inc	-30.0
Vanguard International Semiconductor Corp	-21.4
Kinaxis Inc	-20.8
DO & CO AG	-18.9
Hugo Boss AG	-18.7
NICE Ltd	-17.7
Fielmann Group AG	-17.5
Wh Smith Plc	-16.2
Hiwin Technologies Corporation	-15.3
Monotaro Co Ltd	-15.0



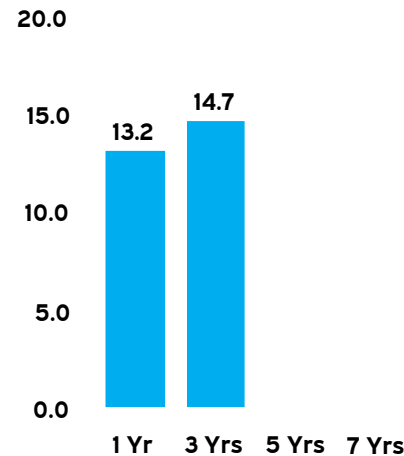
### GQG International Equity | As of September 30, 2023



	Quarter To Date	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)
GQG International Equity	-1.0	22.4	4.4	-	-	-
MSCI AC World ex USA (Net)	-3.8	20.4	3.7	2.6	4.7	3.3
Excess Return	2.8	2.0	0.7	-	-	-

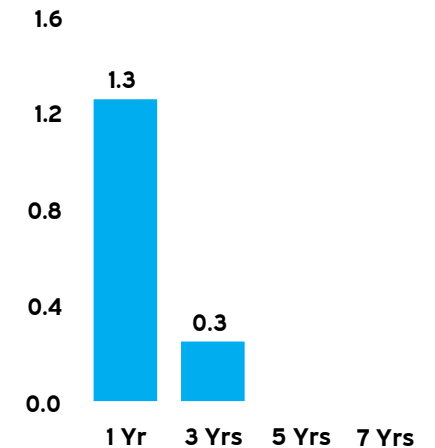
### Annualized Standard Deviation

GQG International Equity



### Sharpe Ratio

GQG International Equity



### GQG International Equity | As of September 30, 2023

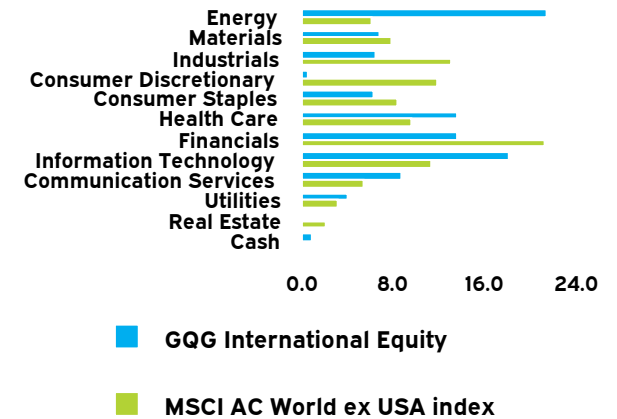
#### Equity Characteristics vs MSCI AC World ex USA index

	Portfolio	Benchmark
Number of Holdings	60	2,320
Wtd. Avg. Mkt. Cap \$B	212.0	82.3
Median Mkt. Cap \$B	64.5	8.8
P/E Ratio	13.2	12.8
Yield (%)	4.1	3.4
EPS Growth - 5 Yrs. (%)	19.6	10.5
Price to Book	3.3	2.4

#### Account Information

Account Name	GQG International Equity
Account Structure	Commingled Fund
Inception Date	12/01/2019
Asset Class	International Equity
Benchmark	MSCI AC World ex USA (Net)
Peer Group	eV Global Growth Equity

#### Sector Weights (%)



#### Top Holdings

Novo Nordisk A/S	6.6
Astrazeneca PLC	5.8
TotalEnergies SE	5.8
NVIDIA Corporation	4.8
Glencore Plc	4.6
Petroleo Brasileiro S.A.- Petrobras	2.7
Petroleo Brasileiro S.A.- Petrobras	2.5
ASML Holding NV	2.4
Canadian Natural Resources Ltd	2.4
L'Oreal SA	2.3
% of Portfolio	39.9

#### Ten Best Performers

	Quarterly Return (%)
Adani Power Ltd	49.2
Schlumberger Ltd	19.2
IDFC First Bank Ltd	18.8
Canadian Natural Resources Ltd	16.6
TotalEnergies SE	16.4
Eni SpA	14.1
Novo Nordisk A/S	14.0
PT Bank Mandiri (Persero) TBK	12.4
Petroleo Brasileiro S.A.- Petrobras	12.2
Petroleo Brasileiro S.A.- Petrobras	12.2

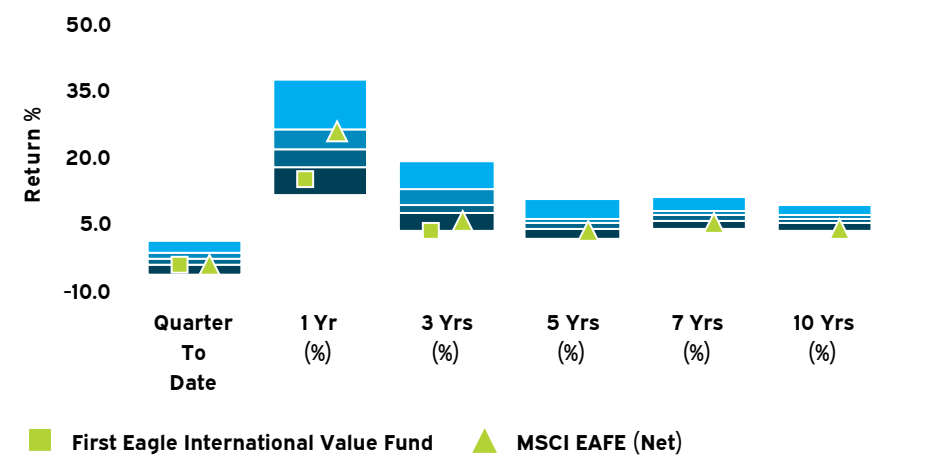
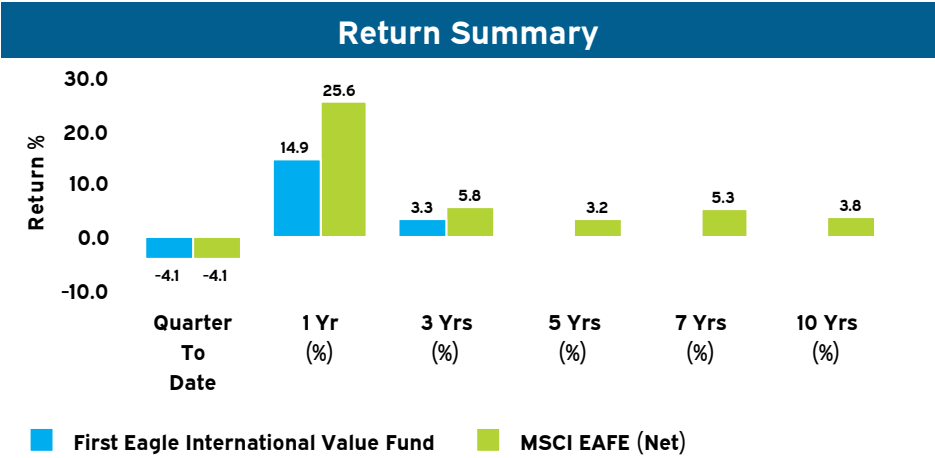
% of Portfolio

#### Ten Worst Performers

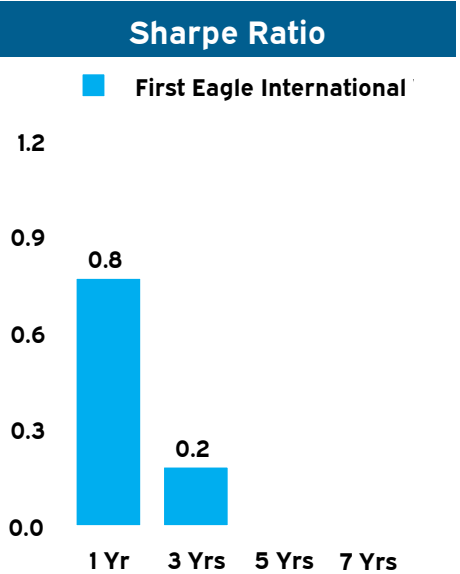
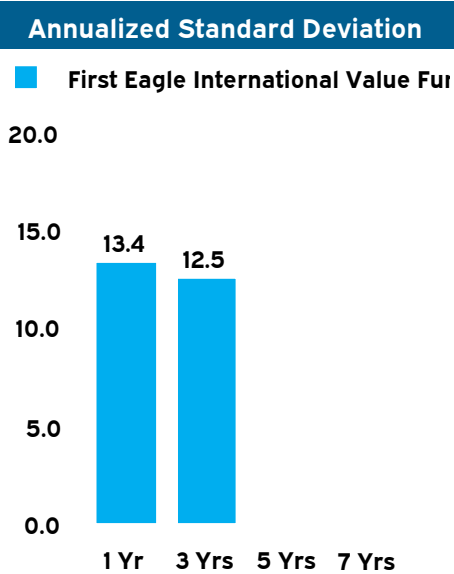
	Quarterly Return (%)
Cie Financiere Richemont AG, Zug	-25.6
Wisetech Global Ltd	-20.9
ASML Holding NV	-18.6
ASML Holding NV	-18.0
H D F C Bank Ltd	-14.4
Netflix Inc	-14.3
Taiwan Semiconductor Manufacturing	-11.9
H D F C Bank Ltd	-11.4
Sika AG, Baar	-10.8
Shin-Etsu Chemical Co Ltd	-10.8

% of Portfolio

First Eagle International Value Fund | As of September 30, 2023



	Quarter To Date	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)
First Eagle International Value Fund	-4.1	14.9	3.3	-	-	-
MSCI EAFE (Net)	-4.1	25.6	5.8	3.2	5.3	3.8
Excess Return	0.0	-10.7	-2.5	-	-	-



### First Eagle International Value Fund | As of September 30, 2023

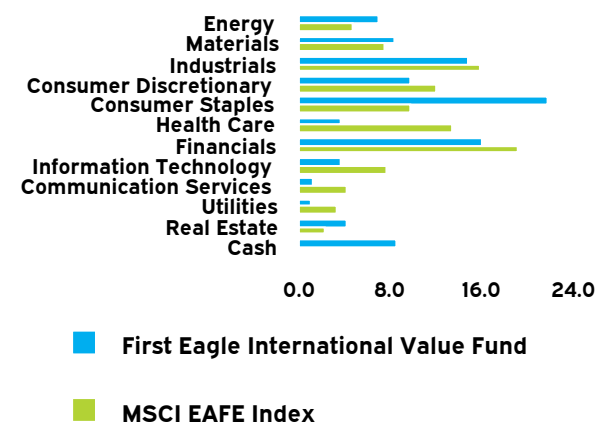
#### Equity Characteristics vs MSCI EAFE Index

	Portfolio	Benchmark
Number of Holdings	106	795
Wtd. Avg. Mkt. Cap \$B	37.2	81.3
Median Mkt. Cap \$B	15.0	12.1
P/E Ratio	12.7	13.0
Yield (%)	3.4	3.5
EPS Growth - 5 Yrs. (%)	9.5	9.3
Price to Book	1.7	2.4

#### Account Information

Account Name	First Eagle International Value Fund
Account Structure	Commingled Fund
Inception Date	12/01/2019
Asset Class	International Equity
Benchmark	MSCI EAFE (Net)
Peer Group	eV Global Value Equity

#### Sector Weights (%)



#### Top Holdings

Gold - Physical	11.1
Imperial Oil Ltd	3.9
Fomento Economico Mexican SAB de CV	2.4
Shell Plc	2.3
Danone SA	2.2
Unilever PLC	2.1
Willis Towers Watson plc	2.1
British American Tobacco PLC	2.0
Groupe Bruxelles Lambert SA	1.8
Cie Financiere Richemont AG, Zug	1.8
% of Portfolio	31.7

#### Ten Best Performers

	Quarterly Return (%)
AG Anadolu Grubu Holding Anonim Sirketi	87.3
Imperial Oil Ltd	21.6
Nong Shim Co Ltd	16.0
Mitsubishi Estate Co Ltd	11.9
Pilot Corp	9.1
Shell Plc	8.4
NAVER Corp	7.6
Svenska Handelsbanken	7.4
Haw Par Corp Ltd	6.7
MS&AD Insurance Group Holdings Inc	6.7

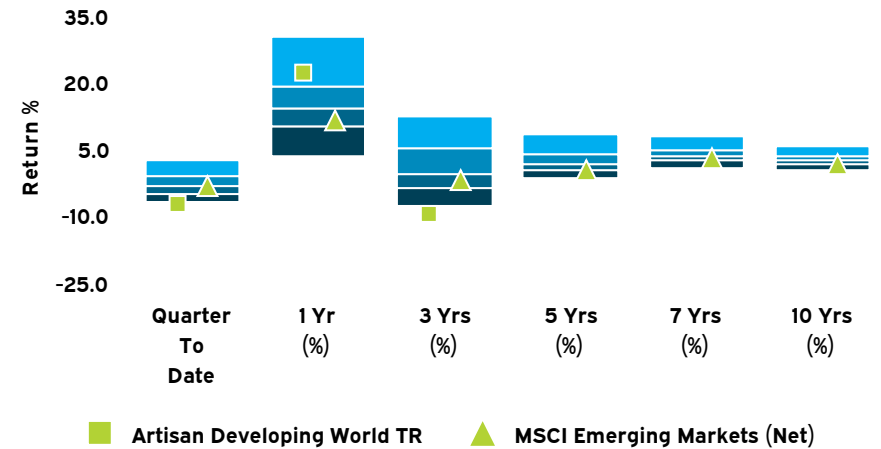
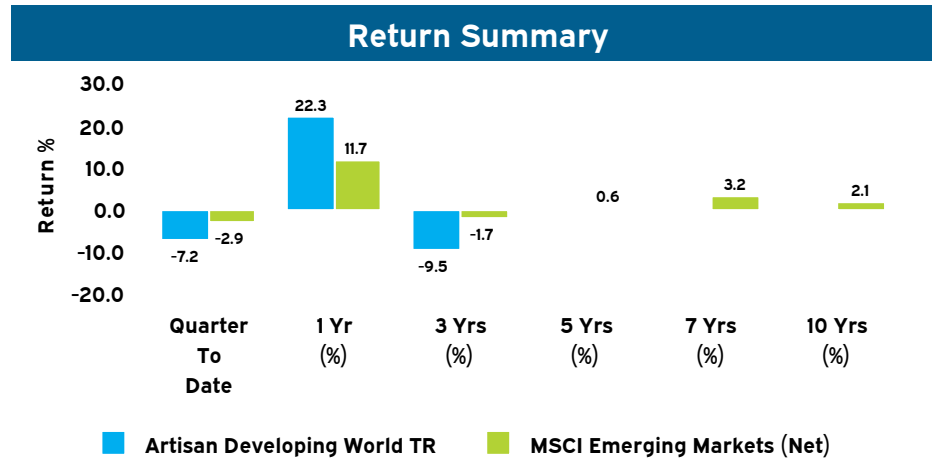
% of Portfolio

#### Ten Worst Performers

	Quarterly Return (%)
Cie Financiere Richemont AG, Zug	-25.6
Fanuc Corp	-25.1
Wendel	-22.5
Keyence Corp	-20.6
LVMH Moet Hennessy Louis Vuitton SE	-19.4
Hysan Development Co Ltd	-19.2
Chofu Seisakusho Co Ltd	-18.6
Shimano Inc	-18.5
Ambev SA	-18.2
Industrias Penoles S.A.B. de C.V.	-17.9

% of Portfolio

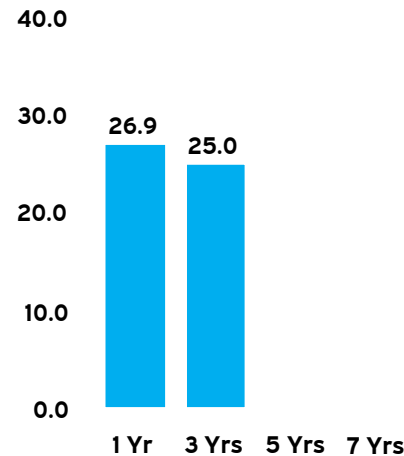
### Artisan Developing World TR | As of September 30, 2023



	Quarter To Date	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)
Artisan Developing World TR	-7.2	22.3	-9.5	-	-	-
MSCI Emerging Markets (Net)	-2.9	11.7	-1.7	0.6	3.2	2.1
Excess Return	-4.3	10.6	-7.8	-	-	-

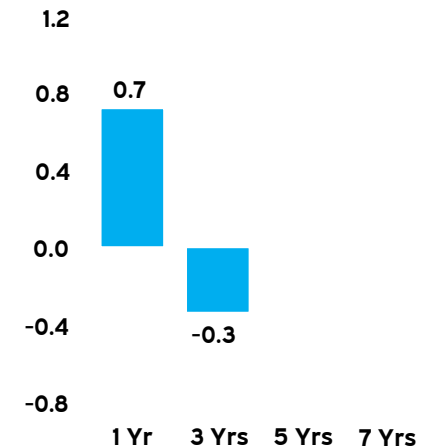
### Annualized Standard Deviation

■ Artisan Developing World TR



### Sharpe Ratio

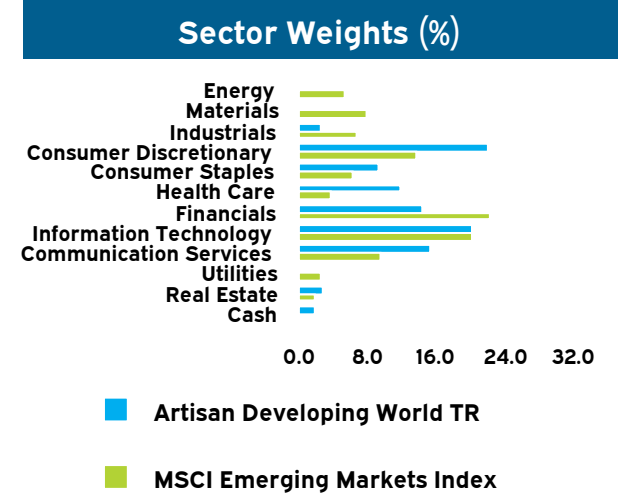
■ Artisan Developing Worl



### Artisan Developing World TR | As of September 30, 2023

Equity Characteristics vs MSCI Emerging Markets Index		
	Portfolio	Benchmark
Number of Holdings	43	1,437
Wtd. Avg. Mkt. Cap \$B	152.0	93.5
Median Mkt. Cap \$B	31.6	6.3
P/E Ratio	43.1	12.1
Yield (%)	0.5	3.1
EPS Growth - 5 Yrs. (%)	34.4	14.2
Price to Book	6.1	2.4

Account Information	
Account Name	Artisan Developing World TR
Account Structure	Commingled Fund
Inception Date	12/01/2019
Asset Class	International Equity
Benchmark	MSCI Emerging Markets (Net)
Peer Group	eV Emg Mkts Equity

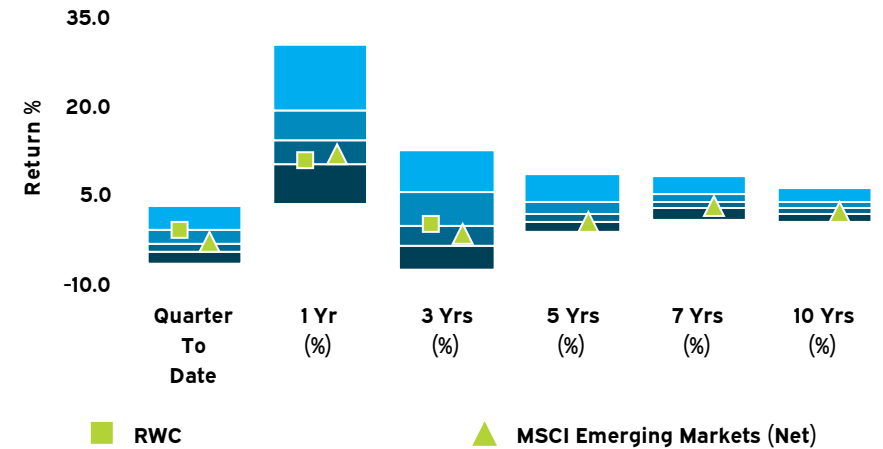
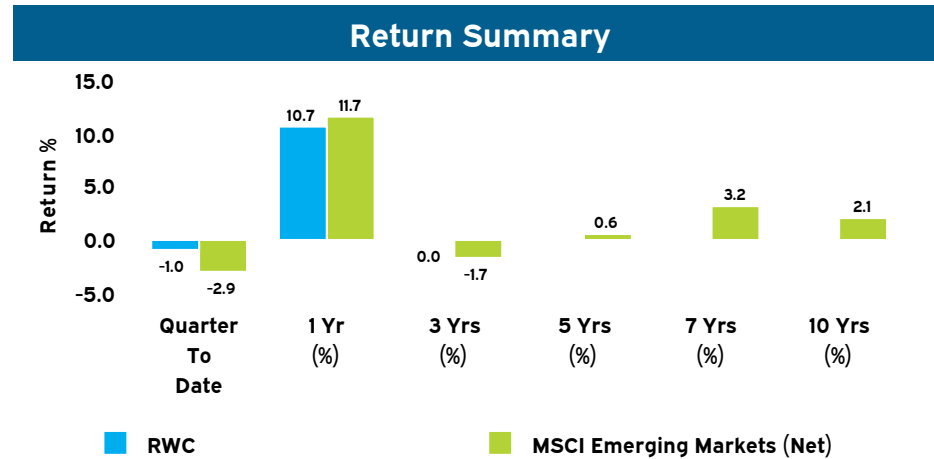


Top Holdings	
Airbnb Inc	5.6
MercadoLibre Inc	5.6
NVIDIA Corporation	5.6
Sea Limited	5.0
Visa Inc	4.9
CrowdStrike Holdings Inc	4.3
Meituan	3.9
ASML Holding NV	3.1
H D F C Bank Ltd	3.1
LVMH Moet Hennessy Louis Vuitton SE	3.1
% of Portfolio	44.2

Ten Best Performers	
	Quarterly Return (%)
MakeMyTrip Ltd	50.2
WuXi Biologics (Cayman) Inc	21.6
CrowdStrike Holdings Inc	14.0
Airbnb Inc	7.1
MercadoLibre Inc	7.0
Kweichow Moutai Co Ltd	5.8
KE HOLDINGS INC	5.6
Grab Holdings Limited	3.2
Veeva Systems Inc	2.9
NVIDIA Corporation	2.8
% of Portfolio	

Ten Worst Performers	
	Quarterly Return (%)
Adyen N.V	-56.8
Unity Software Inc	-27.7
Estee Lauder Cos Inc (The)	-26.1
Snap Inc	-24.7
Sea Limited	-24.3
LVMH Moet Hennessy Louis Vuitton SE	-19.4
ASML Holding NV	-18.6
JD Health International Inc	-17.8
Hermes International SA	-15.6
H D F C Bank Ltd	-14.4
% of Portfolio	

RWC | As of September 30, 2023



	Quarter To Date	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)
RWC	-1.0	10.7	0.0	-	-	-
MSCI Emerging Markets (Net)	-2.9	11.7	-1.7	0.6	3.2	2.1
Excess Return	1.9	-1.0	1.7	-	-	-



RWC | As of September 30, 2023

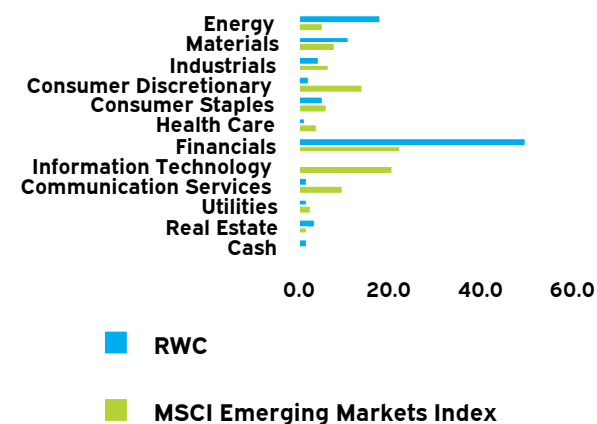
### Equity Characteristics vs MSCI Emerging Markets Index

	Portfolio	Benchmark
Number of Holdings	67	1,437
Wtd. Avg. Mkt. Cap \$B	1.8	93.5
Median Mkt. Cap \$B	0.7	6.3
P/E Ratio	5.0	12.1
Yield (%)	5.5	3.1
EPS Growth - 5 Yrs. (%)	14.8	14.2
Price to Book	2.0	2.4

### Account Information

Account Name	RWC
Account Structure	Commingled Fund
Inception Date	12/01/2019
Asset Class	International Equity
Benchmark	MSCI Emerging Markets (Net)
Peer Group	eV Emg Mkts Equity

### Sector Weights (%)



### Top Holdings

Kazatomprom JSC NAC	5.3
Halyk Bank of Kazakhstan Joint Stock Company	4.8
Georgia Capital Plc	4.5
Savannah Energy Plc	4.3
Nova Ljubljanska Banka d.d	3.7
Addiko Bank AG	3.6
Seplat Energy Plc	3.5
TBC Bank Group PLC	3.4
BK Group PLC	3.2
Energean plc	2.9
% of Portfolio	39.2

### Ten Best Performers

	Quarterly Return (%)
Kazatomprom JSC NAC	75.3
Melstacorp PLC	39.7
Meezan Bank Ltd	35.9
United Bank Limited	30.2
Honda Atlas Cars (Pakistan) Ltd	29.7
Kaspi kz Joint Stock Company	23.7
SSI Securities Corp	19.6
TBC Bank Group PLC	19.4
Sampath Bank Ltd	18.8
Hatton National Bank Ltd	17.4

% of Portfolio

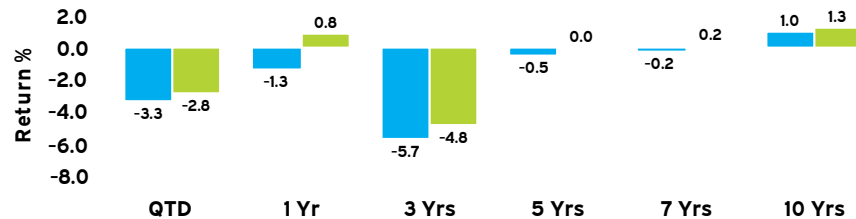
### Ten Worst Performers

IHS Holding Limited
ASA International Group PLC
KCB Group PLC
SolGold PLC
NGEX Minerals Ltd
Grupo Financiero Galicia Sa, Buenos Aires
East African Breweries Ltd
Nigerian Breweries PLC
Equity Group Holdings Ltd
Loma Negra Compania Industrial Argentina Sociedad ,
% of Portfolio



US Fixed Income | As of September 30, 2023

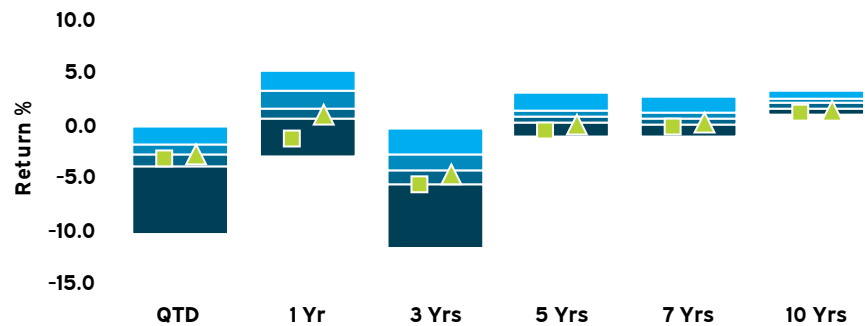
### Return Summary



■ US Fixed Income

■ US Fixed Income Custom Benchmark

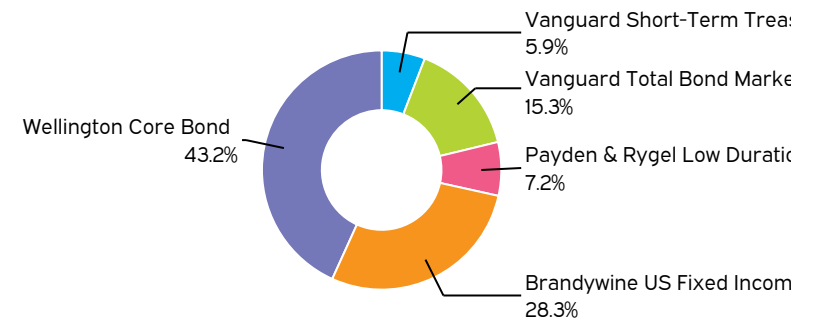
	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)
US Fixed Income	-3.3	-1.3	-5.7	-0.5	-0.2	1.0
US Fixed Income Custom Benchmark	-2.8	0.8	-4.8	0.0	0.2	1.3
Excess Return	-0.5	-2.1	-0.9	-0.5	-0.4	-0.3



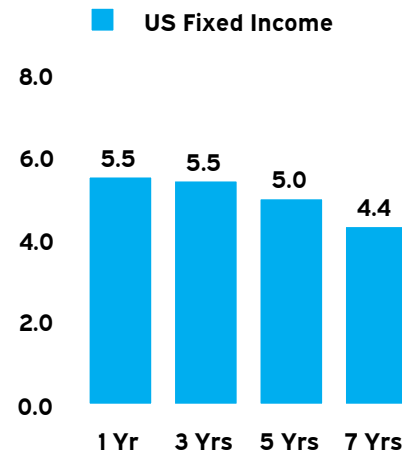
■ US Fixed Income

▲ US Fixed Income Custom Benchmark

### Current Allocation

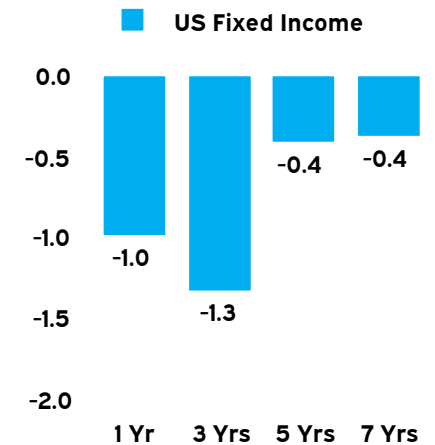


### Annualized Standard Deviation



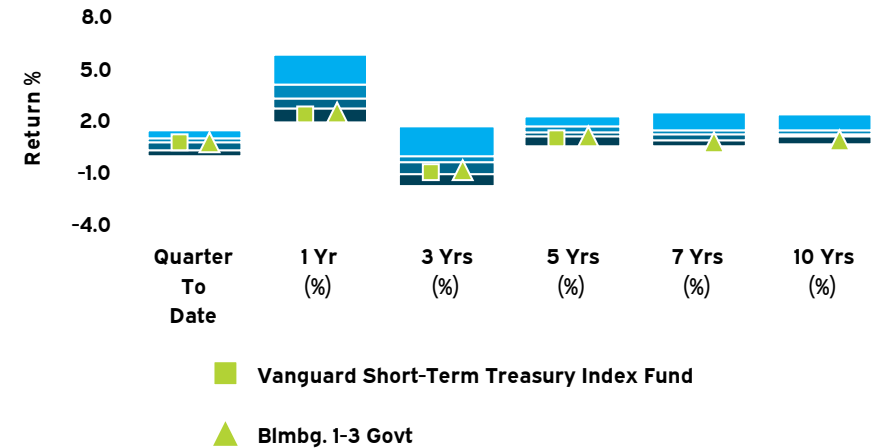
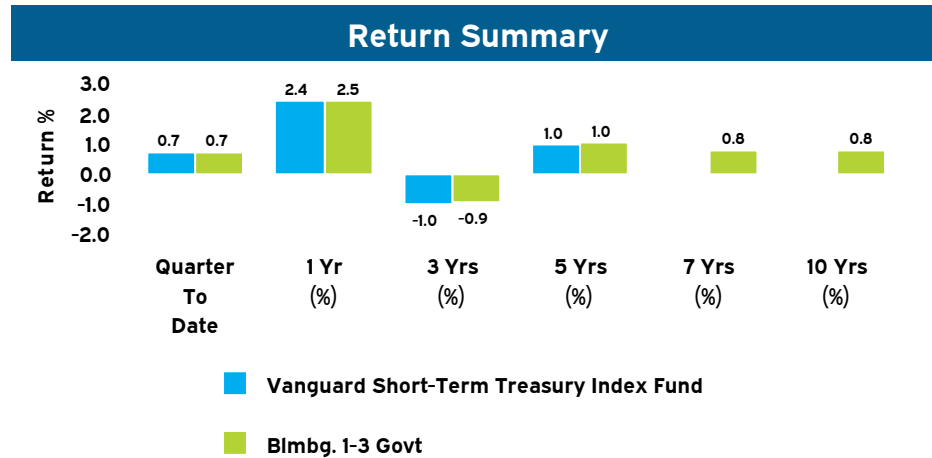
■ US Fixed Income

### Sharpe Ratio

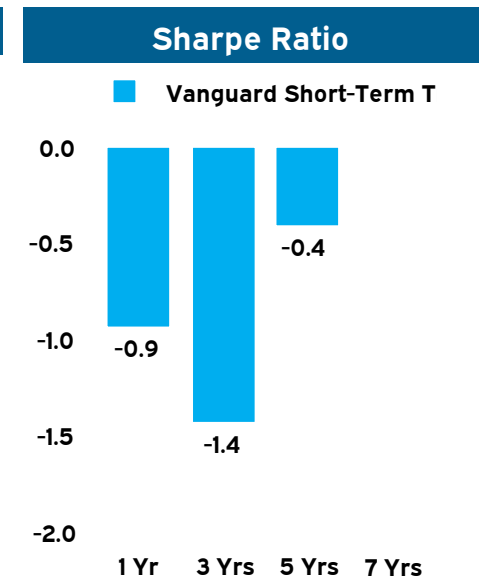
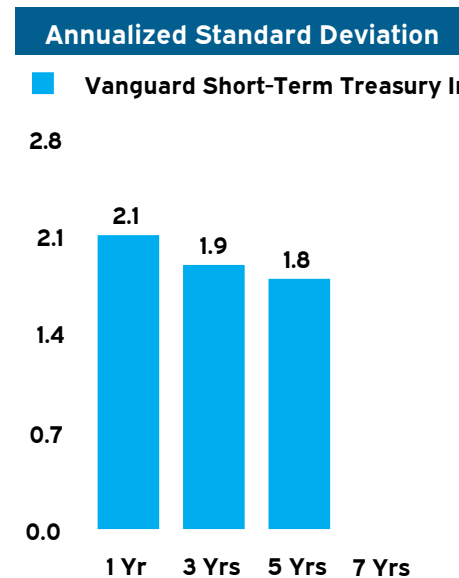


■ US Fixed Income

### Vanguard Short-Term Treasury Index Fund | As of September 30, 2023



	Quarter To Date	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)
Vanguard Short-Term Treasury Index Fund	0.7	2.4	-1.0	1.0	-	-
Blmbg. 1-3 Govt	0.7	2.5	-0.9	1.0	0.8	0.8
Excess Return	0.0	-0.1	-0.1	0.0	-	-

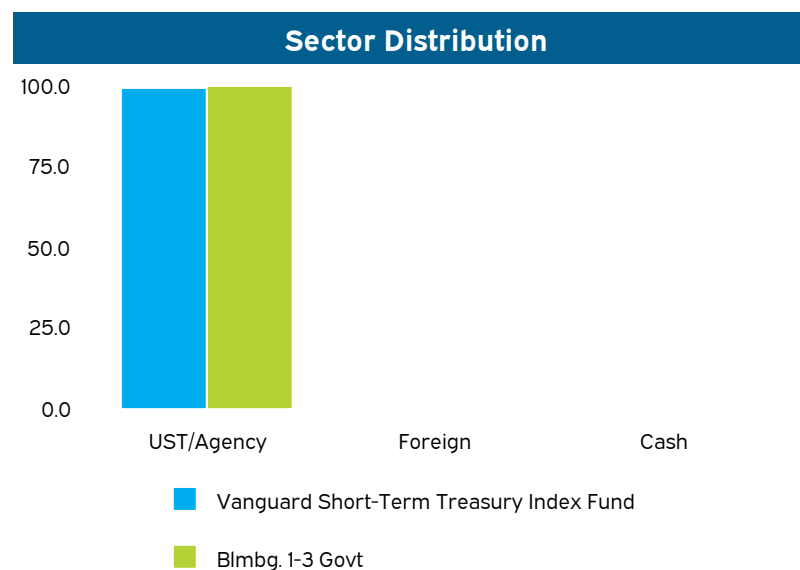
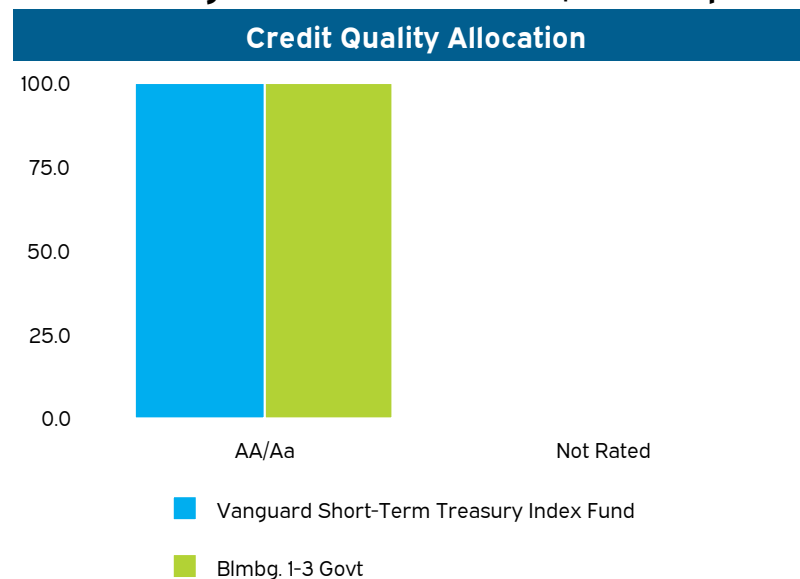


Account Information	
Account Name	Vanguard Short-Term Treasury Index Fund
Inception Date	02/26/2018
Account Structure	Mutual Fund
Asset Class	US Fixed Income
Benchmark	Blmbg. 1-3 Govt

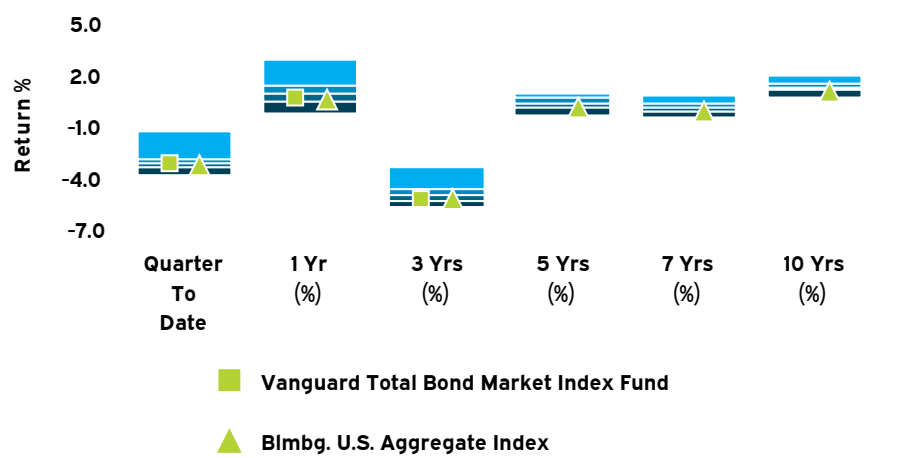
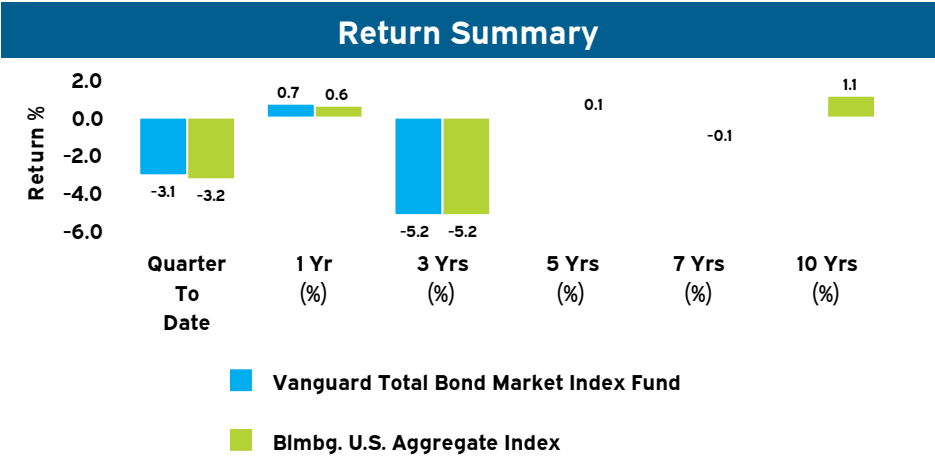
Fixed Income Characteristics		
	Q3 -23	Q2 -23
	Vanguard Short-Term Treasury Index Fund	Vanguard Short-Term Treasury Index Fu
Yield To Maturity	4.91	4.95
Average Duration	1.89	1.90
Average Quality	AA	AA
Weight Average Maturity	2.00	2.00

## Merced County Employees' Retirement Association

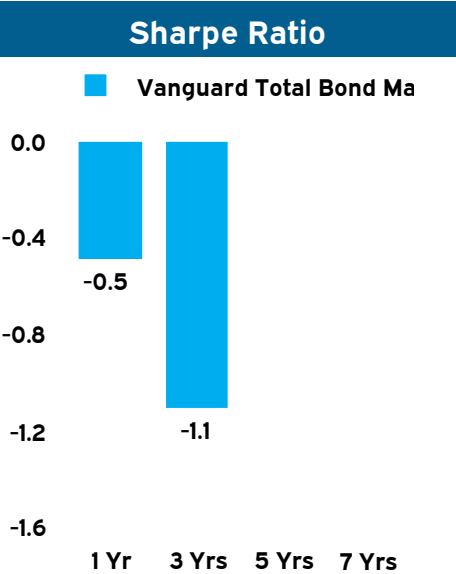
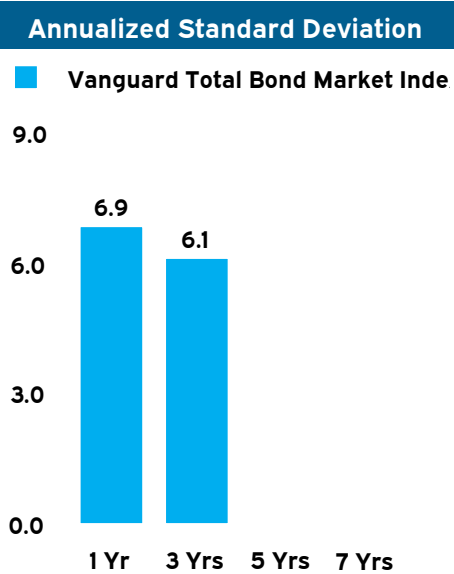
### Vanguard Short-term TIPS | As of September 30, 2023



Vanguard Total Bond Market Index Fund | As of September 30, 2023

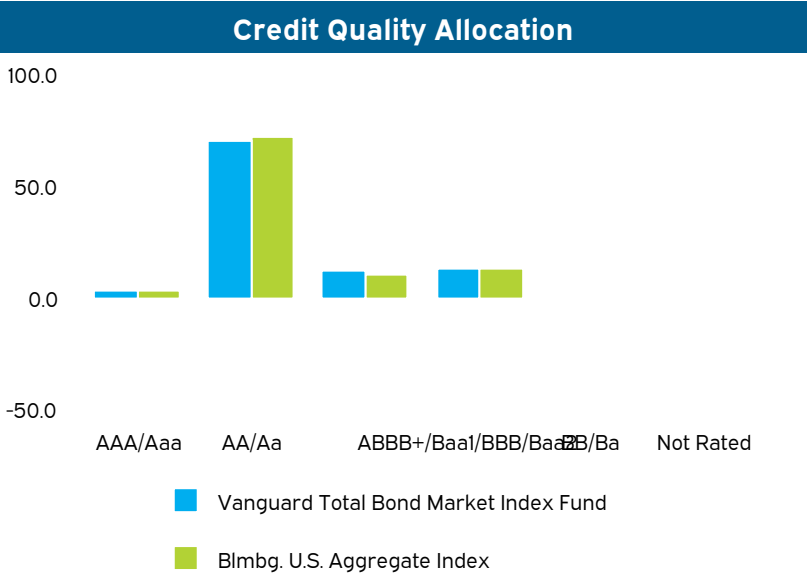


	Quarter To Date	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)
Vanguard Total Bond Market Index Fund	-3.1	0.7	-5.2	-	-	-
Blmbg. U.S. Aggregate Index	-3.2	0.6	-5.2	0.1	-0.1	1.1
Excess Return	0.1	0.1	0.0	-	-	-

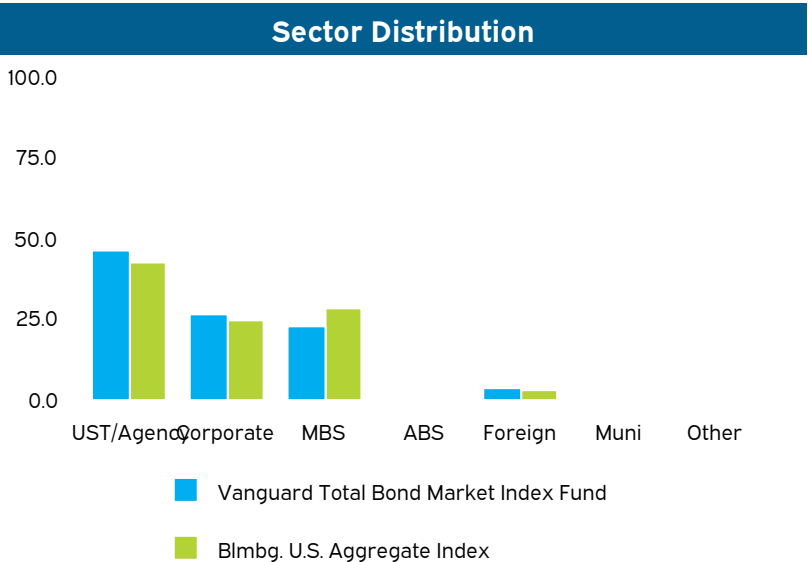


Vanguard Total Bond Market Index Fund | As of September 30, 2023

Account Information	
Account Name	Vanguard Total Bond Market Index Fund
Inception Date	04/12/2019
Account Structure	Mutual Fund
Asset Class	US Fixed Income
Benchmark	Blmbg. U.S. Aggregate Index



Fixed Income Characteristics		
	Q3 -23	
	Vanguard Total Bond Market Index Fund	Blmbg. U.S. Aggregate Index
Yield To Maturity	5.33	5.40
Average Duration	6.26	6.02
Average Quality	AA	AA/Aa
Weight Average Maturity	8.70	8.42

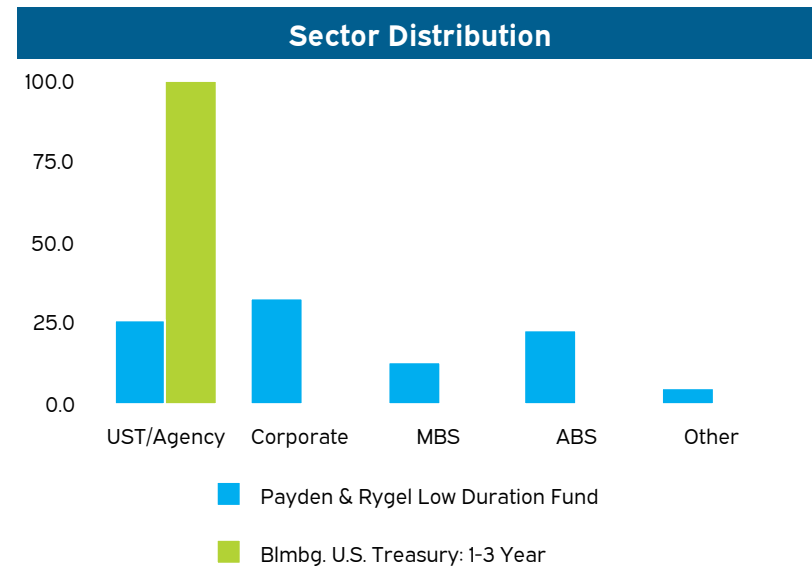
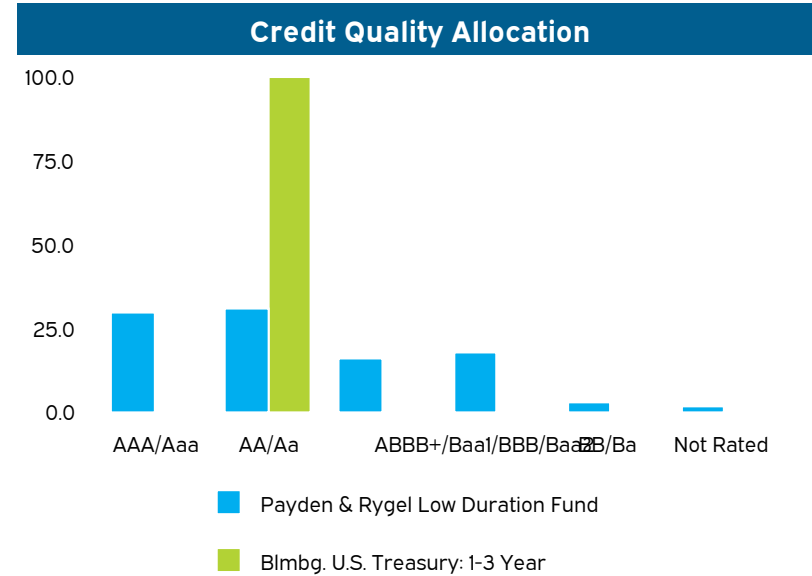


Account Information	
Account Name	Payden & Rygel Low Duration Fund
Inception Date	11/01/2022
Account Structure	Mutual Fund
Asset Class	US Fixed Income
Benchmark	Blmbg. U.S. Treasury: 1-3 Year

Fixed Income Characteristics		
	Q3 -23	
	Payden & Rygel Low Duration Fund	Blmbg. U.S. Treasury: 1-3 Year
Yield To Maturity	-	5.10
Average Duration	1.80	1.90
Average Quality	AA	AA
Weight Average Maturity	2.20	1.97

## Merced County Employees' Retirement Association

### Payden & Rygel Low Duration Fund | As of September 30, 2023



## Account Information

Account Name	Brandywine US Fixed Income
Inception Date	11/01/2022
Account Structure	Mutual Fund
Asset Class	US Fixed Income
Benchmark	Blmbg. U.S. Aggregate Index

## Fixed Income Characteristics

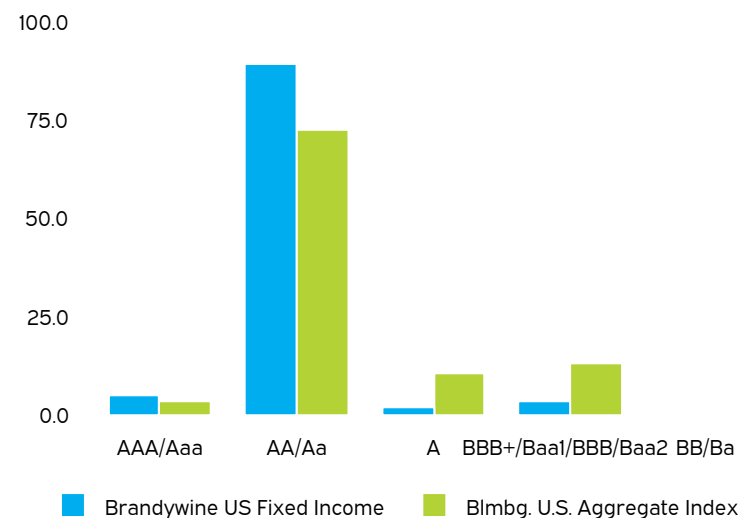
Q3 -23

	Brandywine US Fixed Income	Blmbg. U.S. Aggregate Index
Yield To Maturity	5.05	5.40
Average Duration	10.95	6.02
Average Quality	AA/Aa	AA/Aa
Weight Average Maturity	19.61	8.42

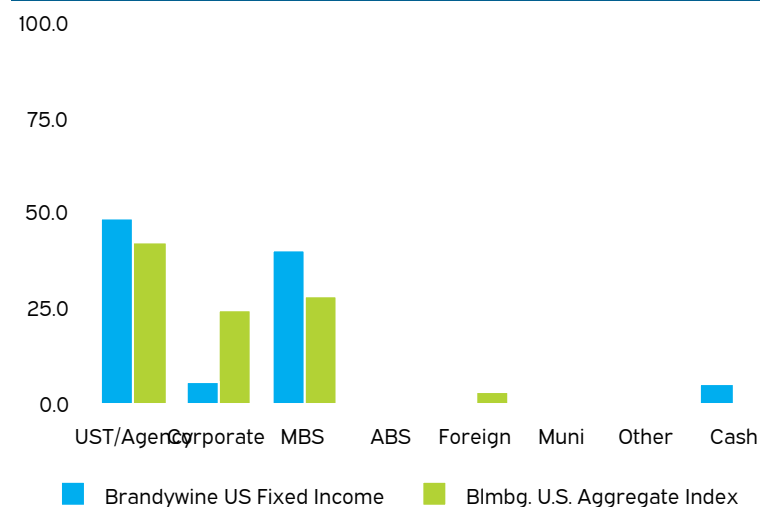
## Merced County Employees' Retirement Association

Brandywine US Fixed Income | As of September 30, 2023

### Credit Quality Allocation



### Sector Distribution



## Account Information

Account Name	Wellington Core Bond
Inception Date	11/01/2022
Account Structure	Mutual Fund
Asset Class	US Fixed Income
Benchmark	Blmbg. U.S. Aggregate Index

## Fixed Income Characteristics

Q3 -23

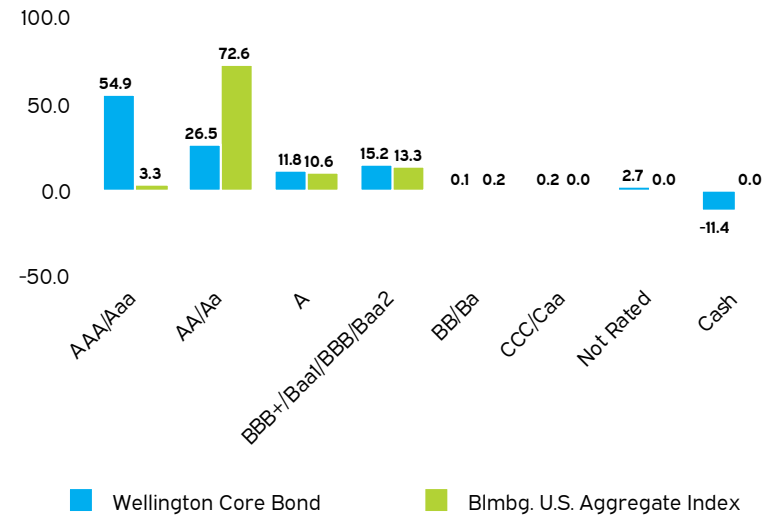
Wellington Core Bond Blmbg. U.S. Aggregate Index

Yield To Maturity	5.93	5.40
Average Duration	6.68	6.02
Average Quality	AA	AA/Aa
Weight Average Maturity	-	8.42

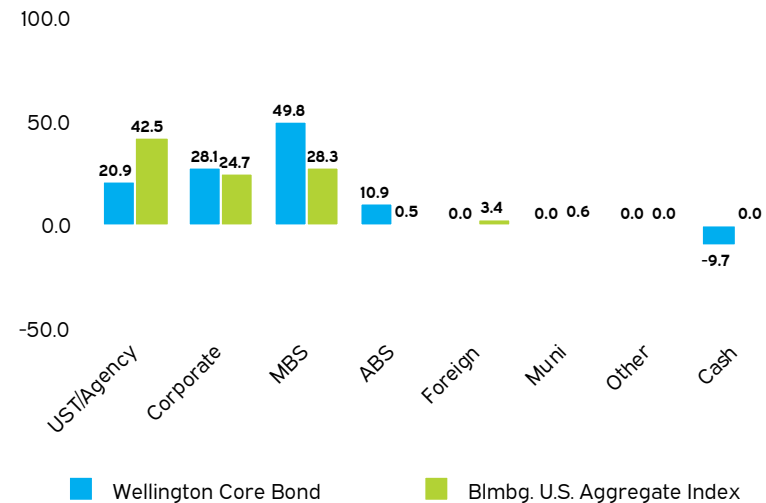
## Merced County Employees' Retirement Association

### Wellington Core Bond | As of September 30, 2023

#### Credit Quality Allocation

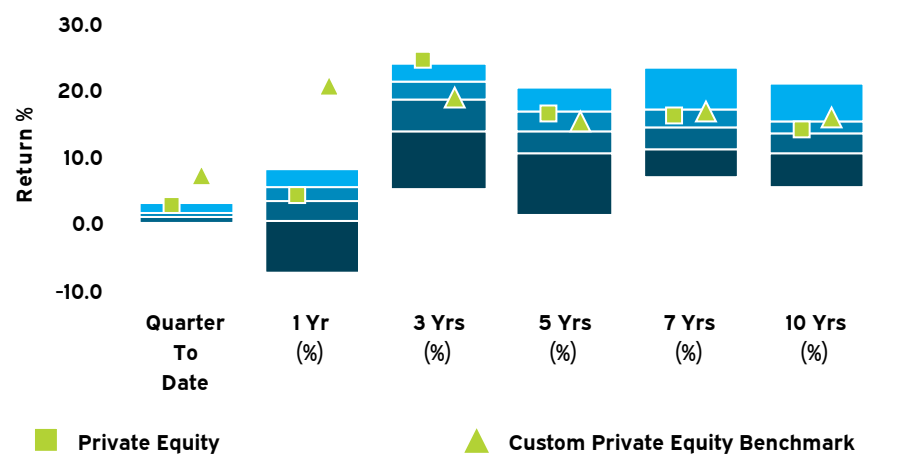
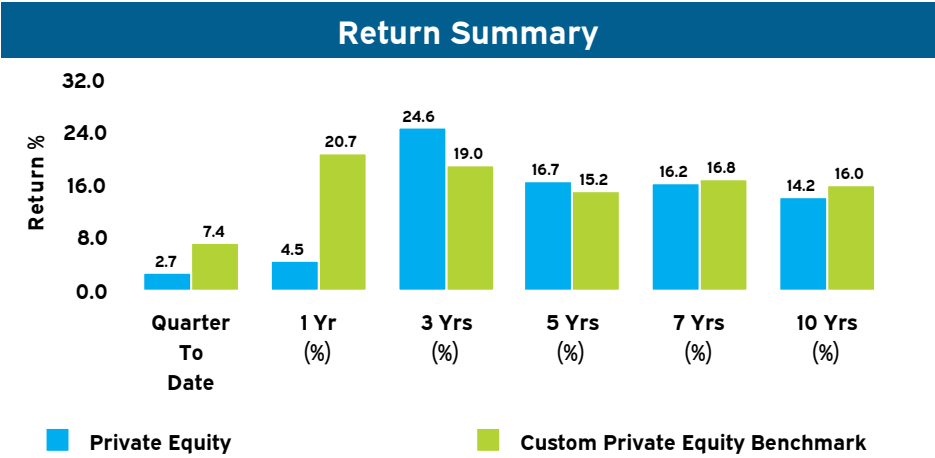


#### Sector Distribution

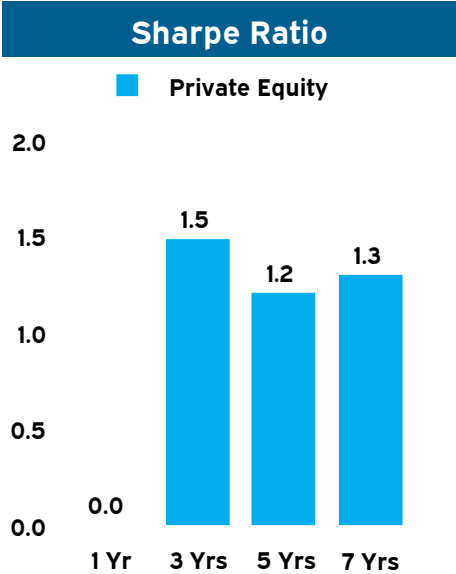
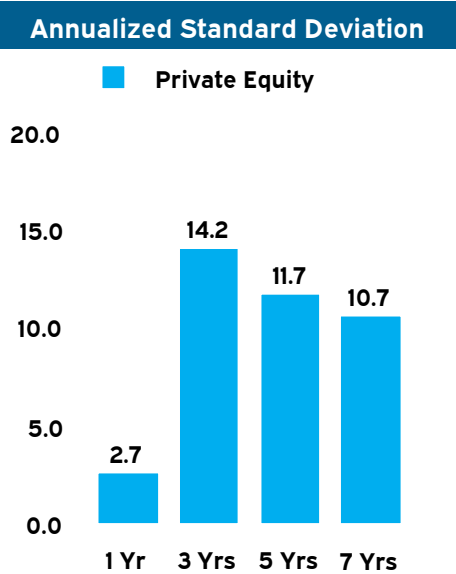




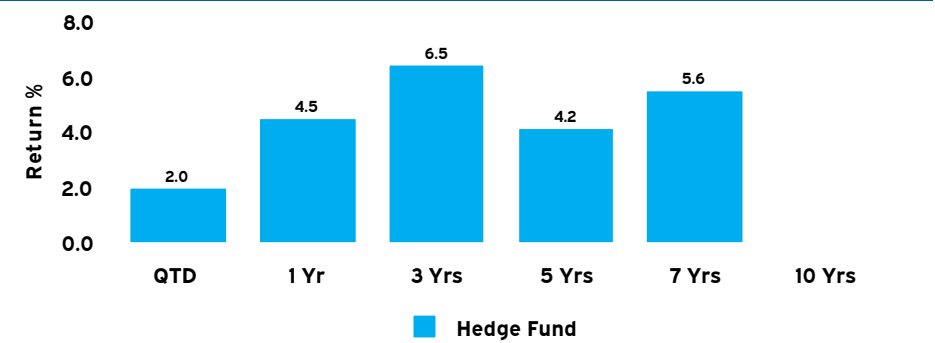
Private Equity | As of September 30, 2023



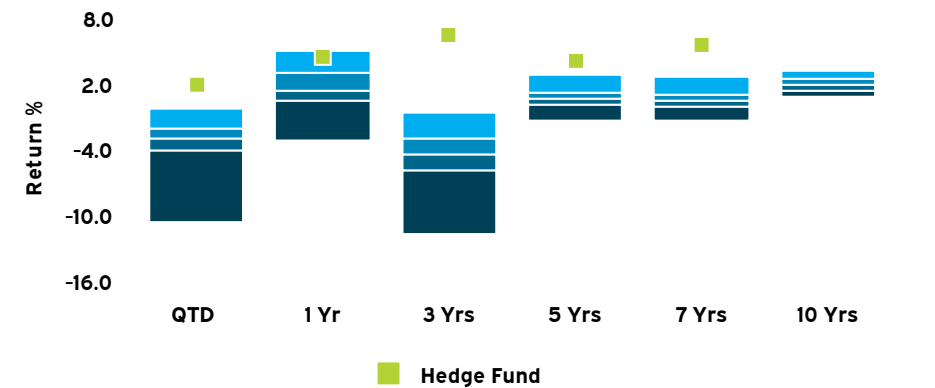
	Quarter To Date	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)
Private Equity	2.7	4.5	24.6	16.7	16.2	14.2
Custom Private Equity Benchmark	7.4	20.7	19.0	15.2	16.8	16.0
Excess Return	-4.7	-16.2	5.6	1.5	-0.6	-1.8



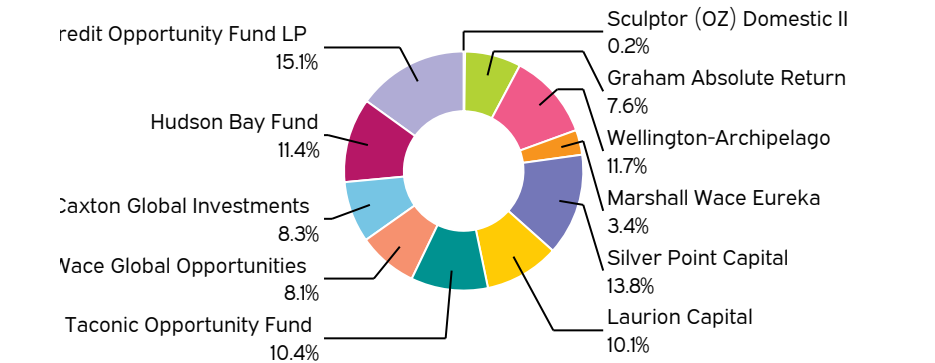
Return Summary



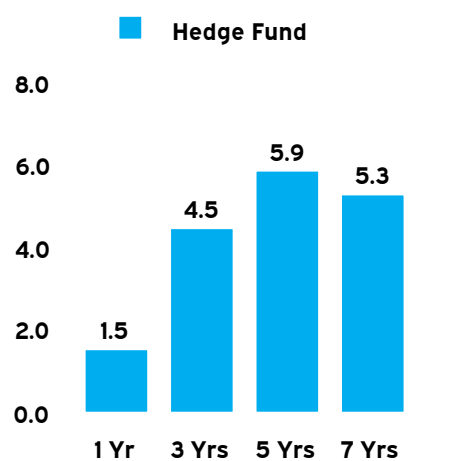
	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)
Hedge Fund	2.0	4.5	6.5	4.2	5.6	-
Custom Blended Hedge Fund Benchmark	0.5	4.6	3.8	3.4	3.8	-
Excess Return	1.5	-0.1	2.7	0.8	1.8	-



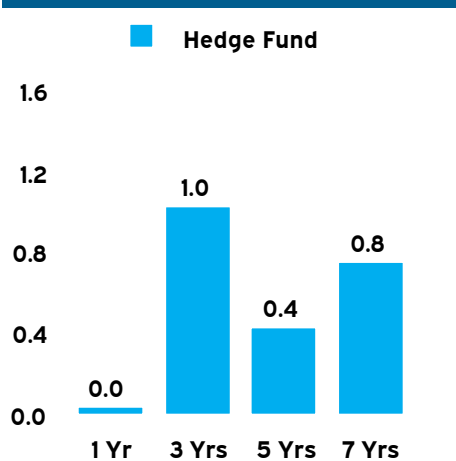
Current Allocation



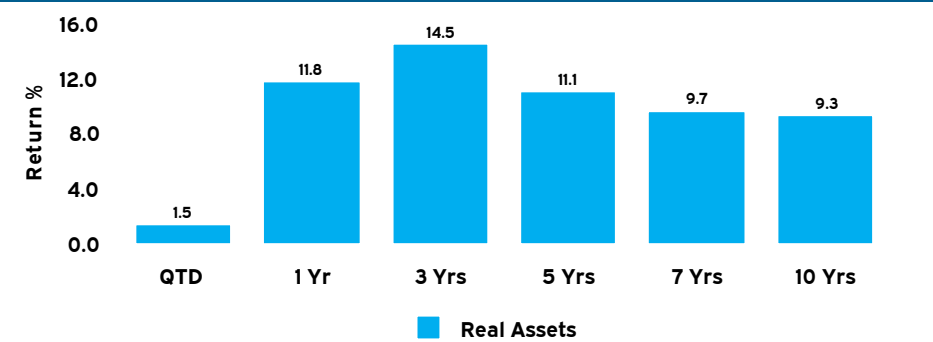
Annualized Standard Deviation



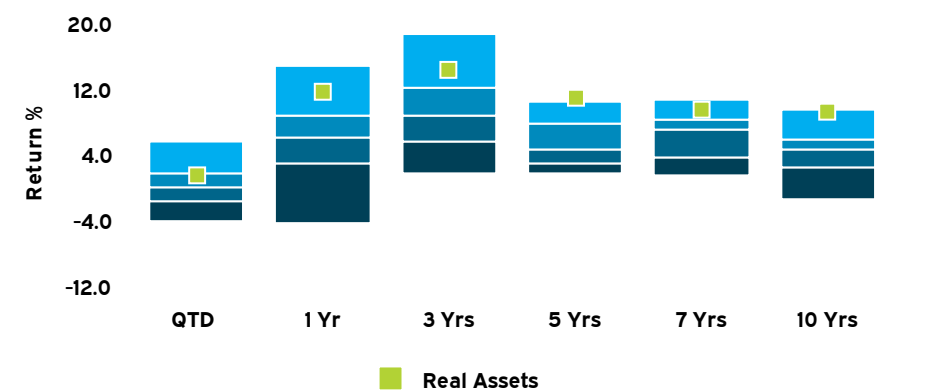
Sharpe Ratio



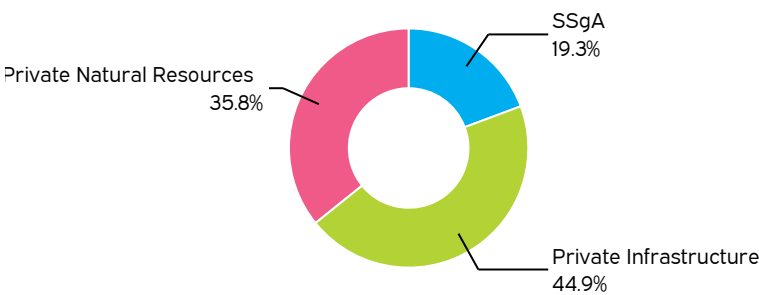
Return Summary



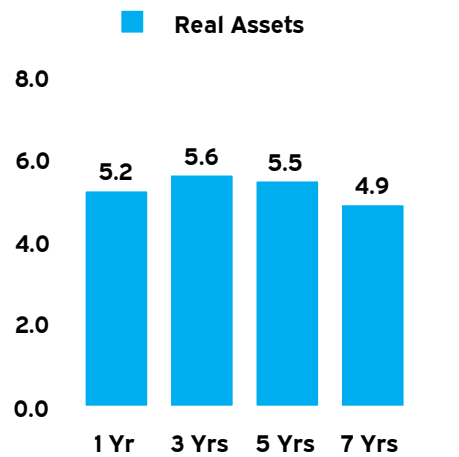
	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)
Real Assets	1.5	11.8	14.5	11.1	9.7	9.3
Custom Blended Real Assets Benchmark	-1.9	12.4	7.9	5.8	6.7	6.9
Excess Return	3.4	-0.6	6.6	5.3	3.0	2.4



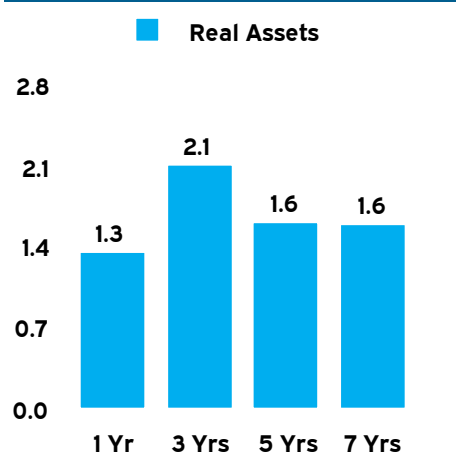
Current Allocation



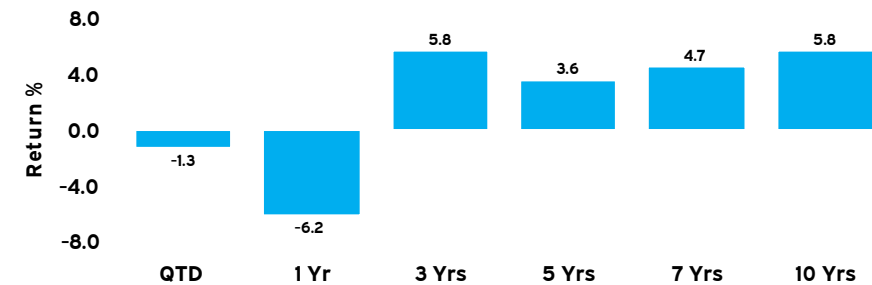
Annualized Standard Deviation



Sharpe Ratio

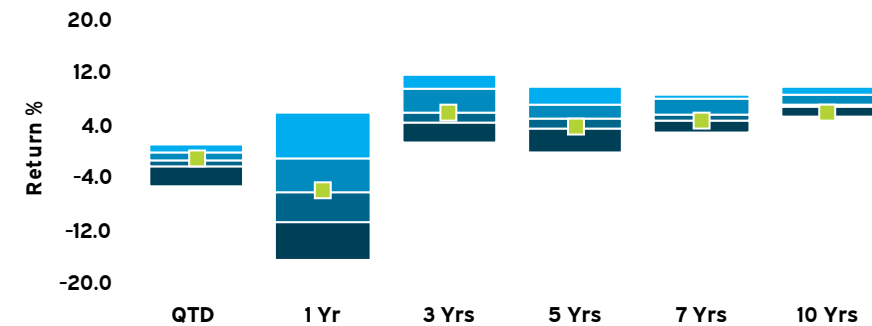


Return Summary



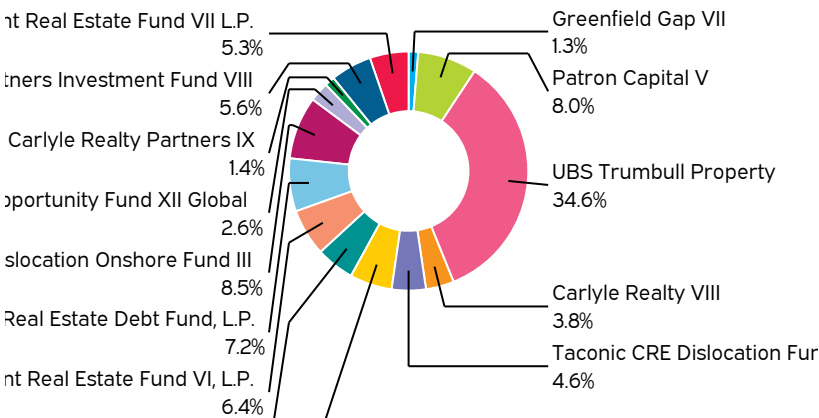
Private Real Estate

	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)
Private Real Estate	-1.3	-6.2	5.8	3.6	4.7	5.8
Custom Blended Real Estate Benchmark	-2.7	-10.0	8.0	6.1	6.4	7.9
Excess Return	1.4	3.8	-2.2	-2.5	-1.7	-2.1

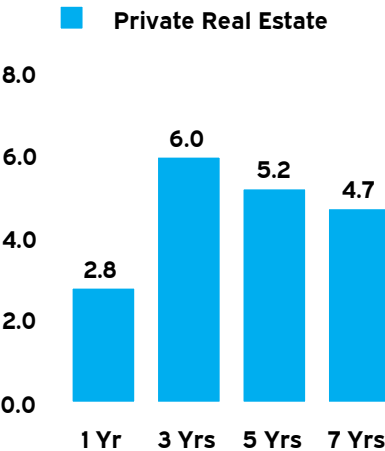


Private Real Estate

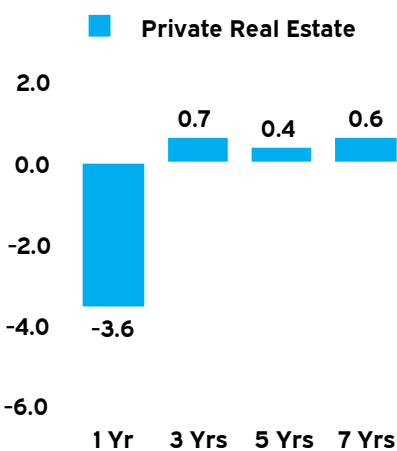
Current Allocation



Annualized Standard Deviation








Sharpe Ratio



## **Asset Allocation Kickoff - Themes/Topics to Consider**

#### Introduction

- Asset allocation should be reviewed regularly, to take into account new capital market assumptions and either confirm that the Board approves the course the Fund is on, or determine if a change is warranted. While the goal should always be to select an appropriate long-term allocation, occasionally, market or economic shifts may warrant a deeper dive.
- We have also worked with the Board to conduct regular deep dives into each of the main public market asset classes that Meketa oversees (Equities, Fixed Income).
- Throughout the course of the year, Meketa has presented education on a variety of topics as it relates to the next Asset Allocation Review. These included The Fed, Interest Rate Environment, China, and others.
- Meketa is looking forward to working through a formal Asset Allocation review with the Board, in early 2024.
- In our Asset Allocation Review, we apply Meketa's Capital Market Expectations to the current Strategic Asset Allocation (per Investment Policy Statement) to provide modeling analysis on expected long term returns for the portfolio as currently constructed. The analysis is intended to provide insights as to whether the current construction has expected risk/return attributes consistent with the Board's expectations, as well as scenarios which may affect performance.
- In addition to the quantitative analysis described above, Meketa believes it is crucial to also consider underlying themes that may continue to impact returns. While these factors are also considered in Meketa's Capital Market Expectations, we present additional context.
- On the slides that follow, we first provide a snapshot into the projected cadence of the Asset Allocation review process, as well as the themes/topics that Meketa believes the Board has expressed an interest in considering as we work through this process.

- 
- Step 1: Review 2024 Capital Market Assumptions and their impact on MercedCERA's expected long-term return  
1a: Discuss how themes below impact this discussion
- 
- Step 2: Look at Alternative Portfolios and their risk and return profiles  
2a: Select a new Asset Allocation Policy OR Reaffirm conviction in current policy
- 
- Step 3: Adopt new Policy Targets and Benchmark
- 
- Step 4: Implementation/Any manager/strategy additions/changes needed to move toward new policy
- 
- Step 5: Ongoing Monitoring

### Underlying Themes/Factors to Consider

#### China

- Chinese equities have struggled 2023 (MSCI China YTD return of -11.2%), trailing their Emerging Markets counterparts (MSCI Emerging Markets YTD return of -2.1%, MSCI EM ex-China return of 2.2%)<sup>1</sup>. Much of the underperformance has been attributed to the weak economic data as well as continued weakness in Chinese real estate and geopolitical concerns regarding the US-China relationship.
- Geopolitical tensions between US and China have been front and center since the trade war started by the Trump administration in 2018. Under the surface, China appears to have several key issues (aging population, collapse of domestic real estate sector, mass exodus of foreign investors, etc.) that serve as long term headwinds.
- MercedCERA exposure to China is included in the Appendix.

#### US Small Cap

- The US Small Cap sleeve has continued to underperform vs. Large Cap (Russell 2000 YTD return of -4.5%, vs. Russell 3000 YTD return of 9.4%). Much of this year's strong performance in Large Cap has been driven by rallies in a handful of technology/mega-cap stocks on investors' optimism around AI.
- The diverging returns over recent periods have resulted in attractive valuations for Small Cap equities, relative to their Large Cap counterparts. On the other hand, it is noteworthy to consider the higher interest rate sensitivity of US Small Cap equities as we navigate through this period of heightened rates.

<sup>1</sup> Returns as of October 31, 2023



### Underlying Themes/Factors to Consider (continued)

#### Fixed income/Interest Rate Environment

- The rising rate environment has been challenging to broad fixed income markets, as the Fed raised rates 11 times between 2022 and 2023, from near 0 to a target range of 5.25% - 5.50%. Through the end of October, the expectations of "higher for longer" policy rates continued to serve as a headwind to current performance.
- However, future yields are much higher than they have been in decades, and fixed income can play an interesting role in achieving assumed rates of return. .
- Markets reacted positively to October CPI data, which came in lower than estimates. Market expectations shifted from "higher for longer" to maintaining rates with potential for rate cuts.
- Given that Meketa's Capital Market Expectations now see attractive long term return prospects for Fixed Income asset classes, it may be worth considering increasing the policy allocation by reducing the Hedge Fund allocation which have much higher fees.

#### Cash

- While MercedCERA maintained a 0% policy target to Cash & Cash Equivalents, following our recent conversations with Merced CERA staff we have maintained a target of \$5M - \$7M in cash on hand for capital calls and distributions.
- Given the heightend rates environment, money markets are more attractive on a risk/return basis in comparison to when the previous Strategic Asset Allocation review was completed (2021), as well as providing liquidity for purposes of redemptions/capital calls.

## Appendix

### International Equity China Exposure Breakdown<sup>1</sup>

	International Developed Equity					Emerging Markets Equity			International Equity Total
	Acadian ACWI ex US	Driehaus	First Eagle	GQG	Intl Dev Total	Artisan	RWC	EM Total	
China	\$486,627.77	\$59,301.31	-	\$440,922.65	<b>\$986,851.73</b>	\$17,983,870.00	-	<b>\$17,983,870.00</b>	<b>\$18,970,721.73</b>
Total MV	\$14,228,882.12	\$13,791,001.62	\$49,988,324.38	\$46,412,911.00	<b>\$124,421,119.12</b>	\$56,588,640.64	\$25,590,154.08	<b>\$82,178,794.72</b>	<b>\$206,599,913.84</b>
% China Exposure (Fund)	3.42%	0.43%	0.00%	0.95%	<b>0.79%</b>	31.78%	0.00%	<b>21.88%</b>	<b>9.18%</b>
% China Exposure (Benchmark)	2.42%	2.42%	0.00%	9.06%		32.66%	32.66%		
% Diff	1.00%	-1.99%	0.00%	-8.11%		-0.88%	-32.66%		

<sup>1</sup> Regional exposure based on data as of 3/31/23.

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

**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.