





**Table of Contents** 

# **Table of Contents**

- 1. Economic and Market Update as of December 31, 2023
- 2. Q4 Executive Summary
- 3. Performance Update as of December 31, 2023
- 4. Disclaimer, Glossary, and Notes

# **Economic and Market Update**

Data as of December 31, 2023



# Commentary

 $\rightarrow$  Most markets rallied in the fourth quarter in anticipation that policy rates cuts were ahead in 2024.

- Major central banks have largely paused interest rates hikes. Markets are now largely expecting the FOMC to maintain interest rates at the current levels and begin cutting rates as soon as Q1 2024.
- Inflation rose in December in the US and Europe, but both finished the year much lower than where they started. China remained in deflationary territory (-0.3%) at year-end.
- US equity markets (Russell 3000 index) posted strong gains for the quarter (12.1%), raising full year results to +26.0%. Most sectors rallied, with more defensive sectors lagging.
- Non-US developed equity markets also rallied in the fourth quarter (MSCI EAFE 10.4%), with the weakening of the US dollar contributing meaningfully (10.4% versus 5.0% ex.-US dollar influence). The performance difference between US and international developed equities for the year remained wide (26.0% versus 18.2%).
- Emerging market equities were up 7.9% in the fourth quarter and 9.8% for calendar 2023 but trailed developed markets due to lagging returns in China (-4.2% Q4/-11.2% one-year). Emerging market equities ex.-China returned 20% in 2023.
- Interest rates generally fell in the fourth quarter, particularly for longer-dated maturities. The broad US bond market rallied (6.8%) for the quarter, lifting 2023 returns into positive territory (5.5%).
- → Looking to 2024, the paths of inflation and monetary policy, China's economic disorder and slowing economic growth, and the wars in Ukraine and Israel, will be key.

# MEKETA

#### **Economic and Market Update**



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

- → After a tough start to the quarter on lingering fears that the Federal Reserve might keep interest rates "higher for longer", markets rallied in November and December. Economic data generally coming in below expectations sparked expectations that the Federal Reserve might really be done raising policy rates for this cycle.
- → Strong results for the quarter built on gains for the year with all asset classes finishing in positive territory in 2023, except commodities.

<sup>&</sup>lt;sup>1</sup> Source: Bloomberg. Data is as of December 31, 2023.



	December	Q4	1 YR	3 YR	5 YR	10 YR
Domestic Equity	(%)	(%)	(%)	(%)	(%)	(%)
S&P 500	4.5	11.7	26.3	10.0	15.7	12.0
Russell 3000	5.3	12.1	26.0	8.6	15.2	11.5
Russell 1000	4.9	12.0	26.5	9.0	15.5	11.8
Russell 1000 Growth	4.4	14.2	42.7	8.9	19.5	14.9
Russell 1000 Value	5.5	9.5	11.5	8.9	10.9	8.4
Russell MidCap	7.7	12.8	17.2	5.9	12.7	9.4
Russell MidCap Growth	7.6	14.5	25.9	1.3	13.8	10.6
Russell MidCap Value	7.8	12.1	12.7	8.4	11.2	8.3
Russell 2000	12.2	14.0	16.9	2.2	10.0	7.2
Russell 2000 Growth	12.0	12.7	18.7	-3.5	9.2	7.2
Russell 2000 Value	12.4	15.3	14.6	8.0	10.0	6.8

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

US Equities: The Russell 3000 rallied 5.3% in December, bringing fourth quarter results to +12.1%. US stocks were up 26.0% in 2023.

- $\rightarrow$  US equities had a strong final quarter of the year, driven by expectations that rate cuts may be ahead in 2024.
- → Small cap stocks outperformed their large cap peers for the quarter while growth outpaced value with the exception of small cap. Large cap stocks outperformed small cap stocks by a wide margin for the calendar year and growth outpaced value across market caps.
- $\rightarrow$  Calendar year results were clearly driven by large cap technology stocks. Within the S&P 500 index, the "Magnificent 7" stocks generated more than 50% of the total gains.

<sup>&</sup>lt;sup>1</sup> Source: Bloomberg. Data is as of December 31, 2023. Magnificent Seven stocks include: Apple, Microsoft, Alphabet, Amazon, Nvidia, Tesla, and Meta.





# Russell 3000 Sector Returns<sup>1</sup>

- $\rightarrow$  All sectors posted gains for the fourth quarter, except for energy (-7.2%) given oil's recent declines. Technology (+16.2%) led the way for the quarter followed by financials (+14.6%).
- $\rightarrow$  In 2023, technology (+64.7%) and consumer discretionary (+35.0%) sectors had the best results, helped respectively by artificial intelligence optimism and a healthy US consumer. Traditionally defensive sectors like utilities (-7.8%) and consumer staples (-5.0%) trailed.

<sup>&</sup>lt;sup>1</sup> Source: Bloomberg. Data is as of December 31, 2023.

Foreign Equity	December (%)	Q4 (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)
MSCI ACWI ex. US	5.0	9.8	15.6	1.5	7.1	3.8
MSCI EAFE	5.3	10.4	18.2	4.0	8.2	4.3
MSCI EAFE (Local Currency)	2.9	5.0	16.2	8.7	9.5	6.6
MSCI EAFE Small Cap	7.3	11.1	13.2	-0.7	6.6	4.8
MSCI Emerging Markets	3.9	7.9	9.8	-5.1	3.7	2.7
MSCI Emerging Markets (Local Currency)	3.1	5.6	9.9	-2.5	5.4	5.2
MSCI China	-2.4	-4.2	-11.2	-18.5	-2.8	0.9

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

Foreign Equity: Developed international equities (MSCI EAFE) gained 5.3% in December and 10.4% in the fourth quarter bringing calendar year results to 18.2%. Emerging market equities (MSCI EM) rose 3.9% in December, 7.9% for the quarter, and 9.8% for the year.

- → Optimism around lower inflation and potentially peaking and declining policy rates drove gains in the UK and Europe. Japan had weaker results for the quarter as concerns over a strengthening yen weighed on returns in December. Overall weakness in the US dollar also contributed to quarterly and full year results across developed markets.
- → Emerging markets also experienced strong performance in the fourth quarter but trailed developed markets. China weighed on relative results for the quarter and year, declining 4.2% and 11.2%, respectively. Slowing growth, issues in the property sector, and on-going tensions with the US all weighed on results.

<sup>&</sup>lt;sup>1</sup> Source: Bloomberg. Data is as of December 31, 2023.





- EAFE - EM - US



- → Given the strong technology-driven rally last year, the US equity price-to-earnings ratio increased above its 21st
  - century average. Fourth quarter gains brought valuations to their highest level for the year.
- → International market valuations also increased in the fourth quarter, but remain below the US. In the case of developed markets, valuations finished the year close to the their long-term average, while emerging markets remained well below their average.

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

							Current	
Fixed Income	December (%)	<b>Q4</b> (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)	Yield (%)	Duration (Years)
Bloomberg Universal	3.8	6.8	6.2	-3.0	1.4	2.1	4.8	6.1
Bloomberg Aggregate	3.8	6.8	5.5	-3.3	1.1	1.8	4.5	6.3
Bloomberg US TIPS	2.7	4.7	3.9	-1.0	3.2	2.4	4.2	6.7
Bloomberg Short-term TIPS	1.1	2.6	4.6	2.3	3.4	2.0	4.5	2.4
Bloomberg High Yield	3.7	7.2	13.4	2.0	5.4	4.6	7.6	3.8
JPM GBI-EM Global Diversified (USD)	3.2	8.1	12.7	-3.2	1.1	0.1	6.5	5.0

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

### Fixed Income: The Bloomberg Universal index rose 3.8% in December, 6.8% for the quarter, and 6.2% for the year.

- → Policy rate expectations swung from pessimism to optimism in November and December. Signs of the labor market cooling and improving inflation led investors to bring forward expectations for interest rate cuts to early 2024, leading to one of the best quarterly results in over twenty years.
- → The broad US bond market (Bloomberg Aggregate) rallied 6.8% for the quarter, lifting full-year performance into positive territory (+5.5%). The broader TIPS index rose 4.7% for the quarter and 3.9% for the year, while the less interest-rate-sensitive short-term TIPS index rose 2.6% and 4.6% over the same periods.
- → High yield bonds rallied on better risk sentiment (+7.2%), as did emerging market bonds (+8.1%). Both asset classes produced double-digit results last year.

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

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

- → The more policy sensitive short-term maturities were higher this year while longer-term maturities finished the year where they started.
- → Still, rates declined sharply over the quarter, particularly at the longer end of the yield curve on continued easing of inflation-related risks and speculation that the Federal Reserve is done with their policy rate increases for this cycle.
- → For the quarter, two-year Treasury yields fell from 5.05% to 4.24% while ten-year Treasury yields declined from 4.56% to 3.88%.
- → The yield curve remained inverted at year-end despite a recent flattening trend. The spread between the 2-year and 10-year Treasury was -0.37% at the end of December.

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



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



- → Expectations of peaking policy rates and the corresponding increase in risk appetite benefited credit in the fourth quarter with spreads (the added yield above a comparable maturity Treasury) narrowing. All spreads remain below their respective long run averages.
- → High yield spreads continue to be the furthest below their long-term average given the overall risk appetite last year and lower duration. Investment-grade corporate and emerging market spreads are also below their respective long-term averages, but by smaller margins.

<sup>&</sup>lt;sup>1</sup> Sources: Bloomberg. Data is as of December 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.





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

- → Volatility in equities (VIX) finished the year close to its lows, remaining well below the long-term average as the focus shifted to peaking policy rates and the potential for a soft landing.
- → Volatility in the bond market (MOVE) remained elevated to close out 2023 and is well above its long-run average (89.1). The bond market remained on edge for most of 2024 largely driven by uncertainty about the ultimate path of monetary policy.

<sup>&</sup>lt;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 December 2023. The average line indicated is the average of the VIX and MOVE values between January 2000 and December 2023.





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

- → Year-over-year headline inflation rose from 3.1% to 3.4% in December, coming in above expectations of 3.2%. An increase in shelter (+6.2%) drove results, with food also increasing from a year prior (+2.7%) and energy prices falling (-2.0%). Month-over-month inflation came in at 0.3%, above expectations of 0.2% and the prior reading of 0.1%.
- → Core inflation excluding food and energy declined in December (3.9% versus 4.0%) year-over-year, with shelter costs again driving the total core index increase.
- → Inflation expectations (breakevens) have remained relatively stable despite the recent significant volatility in inflation.

<sup>&</sup>lt;sup>1</sup> Source: FRED. Data is as December 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.





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

- $\rightarrow$  Outside the US, inflation is also falling across major economies with China slipping into deflation.
- → In the eurozone, inflation experienced a dramatic decline last year. Despite a small increase in December (2.9% versus 2.4%) it finished the year below the 3.4% year-over-year reading in the US.
- $\rightarrow$  Inflation in Japan remains near levels not seen in almost a decade, driven by food and home related items.

<sup>&</sup>lt;sup>1</sup> Source: FRED for United States CPI and Eurozone CPI. Source: Bloomberg for Japan CPI, China CPI, and Eurozone December flash estimate. Data is as December 31, 2023, except Japan which is as of November 30, 2023.





- $\rightarrow$  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.
- → In December, US unemployment remained unchanged (3.7%) and came in slightly below expectations of an increase to 3.8%. The number of jobs added did come in above expectations (216k versus 175k) though with the most jobs added in the government, leisure and hospitality, and health care sectors.
- $\rightarrow$  The labor force participation remained relatively stable at 62.5%, well off the lows of the pandemic (60.1%) but not back to pre-pandemic levels (63.3%).
- $\rightarrow$  The pace of hourly wage growth has declined from its peak of close to 6.0% finishing 2023 at 4.1% yoy. Wage growth remains positive in real terms though.

Source: FRED. Data is as December 31, 2023.





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

- → 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 a key 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 mitigated by recently initiated repayment and forgiveness programs.
- $\rightarrow$  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>&</sup>lt;sup>1</sup> Source: FRED. Data is as of September 30, 2023. Revolving Consumer Credit data is seasonally adjusted to remove distortions during the holiday season.







### Policy Rates<sup>1</sup>

- $\rightarrow$  Slowing inflation and growth have led to expectations for a reduction in the pace of aggressive policy tightening.
- → The Fed has been on hold since July 2023 when it raised rates to a range of 5.25%-5.50%. Markets are pricing in six rate cuts next year given the track of economic data and recent comments from the Fed, while the Fed itself is only predicting three. How this discrepancy is resolved will be key this year.
- → The European and UK central banks also recently paused their rate increases on slowing inflation. 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 maintained interest rates at record low levels and continues to inject liquidity into the banking system, as weaker than expected economic data appears to indicate a widespread slowdown.

<sup>&</sup>lt;sup>1</sup> Source: Bloomberg. Data is as of December 2023.





- $\rightarrow$  The US dollar declined around 5% in the fourth quarter as generally weaker economic data led investors to anticipate the end of FOMC tightening and interest rate cuts in 2024.
- $\rightarrow$  Overall, the dollar finished the year only slightly below where it started but it was a volatile year for the US currency as expectations related to monetary policy evolved.

<sup>&</sup>lt;sup>1</sup> Source: Bloomberg. Data as of December 31, 2023.



#### Summary

# Key Trends:

- $\rightarrow$  The impact of inflation still above policy targets will remain important, 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 further reduce inflation toward targets while not tipping their economies into recession. In the case of the US the resolution of the disparity between market expectations for the path of interest rates versus the Fed's dot plot will be key.
- → Global growth is expected to slow next year, with some economies forecasted to tip into recession. However, optimism has been building that certain economies could experience soft landings. Inflation, monetary policy, and geopolitical issues will remain key in 2024.
- → 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.
- $\rightarrow$  A focus 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 China's economic slowdown and on-going weakness in the real estate sector could spill over into key trading partners' economies. Japan's recent hint at potentially tightening monetary policy along with changes in corporate governance in the country could influence relative results.
- ightarrow Recent, heightened tensions in Israel could add to overall uncertainty and drive safe haven flows.

**Q**4 Executive Summary



**Q4 Executive Summary** 

# Performance Overview – Q4 2023

	Total Market Value	Q4 Results		5 Year Results			
Q4 2023	\$1,168,502,191	MercedCERA	6.0%	MercedCERA	9.3%		
Q3 2023	\$1,107,098,901	Policy Benchmark	5.8%	Policy Benchmark	9.7%		

# As of December 31, 2023, the value of the Fund's assets was \$1,169 million.

- $\rightarrow$  The MercedCERA portfolio returned 6.0% for the quarter, outpacing its policy index by 30 basis points. This translates to annualized returns of 4.6%, 9.3% and 7.1% over the three, five and ten-year trailing periods. The portfolio's since inception annualized return is 8.0%.
- → Both equities and fixed income markets rallied in the fourth quarter of 2024, which contributed to all public asset classes in the portfolio returning strong absolute returns over the period. US Equities returned 11.9%, marginally trailing index return of 12.1%. Developed International Equity returned 9.5% over the period, trailing the benchmark by 90 basis points. Emerging Markets Equity posted 9.1% over the period, outpacing the benchmark by 120 basis points. US Fixed Income returned 7.0%, outperforming the index by 60 basis points. Opportunistic Credit also saw strong returns at 4.2% over the quarter, though trailing the blended benchmark by 170 basis points. Real Estate posted 2.8% for the quarter, outpacing the benchmark by 470 basis points. Private Equity saw marginal returns at 0.5%, compared to the (public market plus premium) index return of -2.7%. Real Assets returned 3.3%, trailing the index return of 7.2%.
- → Relative outperformance from Real Estate and Private Equity contributed over the quarter, though underperformance from Hedge Funds and Real Assets versus their respective benchmarks partially offset.



**Q4 Executive Summary** 

# Public Manager Highlights Q4 2023

# <u>6 out of 13 Public Active Managers</u><sup>1</sup> either outperformed or matched their respective benchmarks for Q4 2023.

# Total Equity (Active)

- → US Equity, returned 11.9%, trailing the benchmark (Russell 3000) by 20 basis points. BNY Mellon Newton Dynamic US Equity, MercedCERA's active large cap manager, matched their benchmark return of 11.7%. Champlain Small Cap, the portfolio's active small cap manager, returned 11.3%, trailing the index return of 14.0%. Underperformance was attributable to the fund's exclusion of the Real Estate sector, stock selection in Health Care and portfolio's underweight tilts in Financials and Consumer discretionary, the two strongest performing sectors over the period.
- → Developed International Equity returned 9.5%, trailing its benchmark by 90 basis points as despite strong absolute returns for all managers in the sleeve, only GQG International outpaced its benchmark. GQG outpaced its benchmark by 210 basis points as stock selection in the Utilities sector, underweight allocation to China as well as stock selection in India contributed. Of the three remaining managers, First Eagle performed the worst on both absolute and relative to benchmark basis, as the manager's value tilt was out of favor over the period.
- → Artisan & RWC, the two managers in the Emerging Markets space posted returns of 11.8% & 3.5% respectively. Relative to their index (MSCI Emerging Markets) return of 7.9%, Artisan materially outpaced the index, whereas RWC underperformed over the period. Artisan is a benchmark-agnostic strategy that invests in a small number of securities. Artisan cited positions in Ayden, cybersecurity firm Crowdstrike and Netflix as some of the strongest contributors over the quarter.

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



**Q4 Executive Summary** 

# Public Manager Highlights Q4 2023 (continued)

# Total Fixed Income (Active)

- $\rightarrow$  US Fixed Income returned 7.0%, beating the benchmark by 60 basis points. Brandywine provided the strongest returns on both absolute (8.7%) and relative to benchmark basis (outpaced the Bloomberg US Aggregate by 1.9%), while Wellington Core Bond and Payden & Rygel Low Duration returned 7.3% and 2.8% respectively, with both funds outpacing their respective indices.
- → Opportunistic Credit returned 4.2%, trailing the blended benchmark return of 5.9%. Both PIMCO and GoldenTree funds posted positive absolute returns for the quarter, though PIMCO trailed relative to its benchmark. PIMCO Income Fund returned 5.9%, trailing its index by 6.8%, as exposures to non-Agency MBS, TIPS served as headwinds over the period.



**Q4 Executive Summary** 

# Active Manager Expectations

Manager	Strategy Description	Beta (High/Neutral/Low)	Tracking Error Range (basis points)	Environments Manager Underperforms
Domestic Equity				
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.
Developed Markets Equity (Non-US)				
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.



**Q4 Executive Summary** 

# Active Manager Expectations (continued)

Manager	Strategy Description	Beta (High/Neutral/Low)	Tracking Error Range (basis points)	Environments Manager Underperforms
Emerging Markets Equity				
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.
Investment Grade Bonds				
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%	
Opportunistic Credit				
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.



#### **Q4 Executive Summary**

# Manager Monitor

Manager	Significant Events (Yes/No)	Last Meeting w Board of Retirement	Last Meeting with MIG	Comments
Domestic Equity Assets				
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	Review of strategy & discussion of long-term management team succession plans, no changes to conviction level
Developed Markets Equity (Non-US) Assets				
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.
Emerging Markets Equity Assets				
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	-	Oct-23	Review of strategy, no changes to conviction level.
US Fixed Income Assets				
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
Opportunistic Credit				
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.
Private Equity Program	N/A	N/A	N/A	Oversight by Cliffwater.
Real Assets Program	N/A	N/A	N/A	Oversight by Cliffwater.
Hedge Fund Program	N/A	N/A	N/A	Oversight by Cliffwater.



#### **Q4 Executive Summary**

Investment Managers	Product	Peer Group	Market Value (\$M)	1YR	3YR	5YR	10YR	Client Inception	Years in Portfolio
Champlain	Small Cap Fund	US Small Cap Core	30	74	96	88	58	Nov-20	3.1
Mellon Capital	Dynamic US Equity Strategy	US Large Cap Core	59	40	70	25	5	Dec-12	11.0
Acadian	All-Country World ex US Small Cap	Non-US Div Small Cap	15	66	26	13	26	May-19	4.6
Driehaus	International Small Cap Growth	ACWI ex US Small Cap Growth	15	73	57	23	32	May-19	4.6
GQG	International Equity	All ACWI ex US Equity	54	10	13	6	-	Dec-19	4.0
First Eagle	International Value	EAFE Value Equity	52	99	90	89	70	Dec-19	4.0
Artisan	Developing World	Emerging Markets	60	9	98	7	-	Dec-19	4.0
RWC	Emerging Markets	Emerging Markets	26	88	87	43	24	Dec-19	4.0
Brandywine	US Fixed Income	US Fixed Income	34	88	15	1	1	Nov-22	1.1
Payden & Rygel	Low Duration	US Short Duration Gov/Cred Fixed Income	8	24	42	40	42	Nov-22	1.1
Wellington	Core Bond	US Fixed Income	51	18	92	76	65	Nov-22	1.1
РІМСО	Income Fund	Global Multi-Sector Fixed Income	12	60	18	54	15	May-19	4.6
GoldenTree	Multi-Sector Credit Strategy	Global Multi-Sector Fixed Income	26	53	10	25	15	Jun-19	4.5

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

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

**Performance Update** As of December 31, 2023

# MEKETA

# Merced County Employees' Retirement Association

#### Total Fund | As of December 31, 2023



		Allocation vs	. Targets	and Policy		
	Current Balance (\$)	Current Allocation (%)	Policy (%)	Difference (%)	Policy Range (%)	Within IPS Range?
US Equity	266,653,863	22.8	22.0	0.8	16.0 - 27.0	Yes
International Equity	136,776,913	11.7	11.0	0.7	6.0 - 16.0	Yes
Emerging Markets Equity	85,699,629	7.3	8.0	-0.7	4.0 - 12.0	Yes
Private Equity	171,512,381	14.7	15.0	-0.3	5.0 - 20.0	Yes
Direct Lending	53,879,070	4.6	5.0	-0.4	0.0 - 10.0	Yes
Real Estate	89,464,324	7.7	8.0	-0.3	6.0 - 10.0	Yes
US Fixed Income	118,382,464	10.1	11.0	-0.9	6.0 - 16.0	Yes
Opportunistic Credit	58,973,417	5.0	5.0	0.0	3.0 - 7.0	Yes
Hedge Funds	116,574,012	10.0	10.0	0.0	5.0 - 15.0	Yes
Real Assets	61,193,690	5.2	5.0	0.2	3.0 - 7.0	Yes
Cash	9,392,428	0.8	0.0	0.8	0.0 - 5.0	Yes
Total	1,168,502,191	100.0	100.0	0.0		



#### Market % of QTD Fiscal 1Yr 3 Yrs 5 Yrs 10 Yrs Inception Inception Value \$ Portfolio (%) YTD (%) (%) (%) (%) (%) Date Total Fund (Net) 1,168,502,191 100.0 6.0 4.7 11.7 4.6 9.3 7.1 8.0 Jan-95 Total Fund (Gross) 6.1 4.9 12.1 4.9 9.7 7.4 8.1 Jan-95 Policy Index 5.8 5.1 13.9 5.5 9.1 7.3 6.3 Total Fund w/o Alternatives (Net) 666,486,285 57.0 9.5 5.8 17.0 2.1 9.5 6.9 ---Jan-08 Total Fund w/o Alternatives (Gross) Jan-08 9.6 6.0 17.4 2.5 9.9 7.2 \_\_\_ Policy Index w/o AI 9.5 6.0 15.7 2.4 8.2 6.3 \_\_\_ US Equity (Net) 10.3 266.653.863 22.8 11.9 7.7 24.6 8.0 14.6 11.5 Jan-95 **US Equity (Gross)** 12.0 7.8 24.8 8.2 14.9 11.8 10.4 Jan-95 Russell 3000 12.1 8.4 26.0 8.5 15.0 11.2 10.3 International Equity (Net) 222.476.542 9.9 5.0 5.6 Jan-99 19.0 9.4 5.5 17.1 -2.0 International Equity (Gross) 9.6 5.9 10.6 5.7 6.0 Jan-99 18.1 -1.2 International Equity Custom 4.4 9.3 5.5 15.1 0.5 6.8 4.1 Developed International Equity (Net) 136,776,913 11.7 9.5 6.9 14.8 3.9 9.5 4.8 4.4 Feb-08 Developed International Equity (Gross) 4.9 Feb-08 9.7 7.2 15.7 4.7 10.1 5.3 Custom Blended Developed International Equity BM 104 6.4 17.7 35 8.1 43 3.4 4.7 Emerging Markets Equity (Net) 85.699.629 7.3 9.1 3.4 21.0 -10.8 9.0 5.2 Mav-12 **Emerging Markets Equity (Gross)** 9.4 3.9 22.2 -9.9 10.0 6.2 5.6 Mav-12 MSCI EM 7.9 4.7 -5.1 3.8 2.9 2.7 9.8 US Fixed Income (Net) 10.1 -3.7 0.6 4.4 Jan-95 118.382.464 7.0 3.5 5.0 1.7 US Fixed Income (Gross) 7.0 3.5 5.1 -3.7 0.7 1.8 4.5 Jan-95 US Fixed Income Custom Benchmark 6.4 3.4 5.4 -3.0 1.0 1.8 4.6

#### Asset Allocation & Performance | As of December 31, 2023

Data Prior to March 2018 provided by prior consultant.



#### 5 Yrs Market % of QTD Fiscal 1Yr 3 Yrs 10 Yrs Inception Inception Value \$ Portfolio (%) YTD (%) (%) (%) (%) (%) Date **Opportunistic Credit (Net)** 5.0 4.2 5.4 12.0 4.3 \_\_\_ ---5.0 May-19 58,973,417 **Opportunistic Credit (Gross)** 4.3 5.7 12.7 4.8 5.4 May-19 \_\_\_ ---50% Barclays US Aggregate / 25% Barclays US High Yield / 25% Credit Suisse Lever 5.2 9.4 0.2 2.5 5.9 ---Real Estate (Net) 89,464,324 7.7 2.8 0.1 -2.6 4.5 2.9 5.4 6.6 Dec-10 Real Estate (Gross) 2.8 0.1 -2.6 4.5 2.9 5.8 7.5 Apr-99 54 Custom Blended Real Estate Benchmark -19 -45 -121 7.1 74 71 CPI +5% (Seasonally Adjusted) 1.7 4.1 8.5 10.9 9.3 79 7.7 Private Real Estate (Net) 71,626,850 Dec-10 6.1 -0.4 -1.7 -5.7 5.3 3.3 5.6 6.7 Private Real Estate (Gross) -0.4 Apr-99 -1.7 -5.7 5.4 3.3 6.0 7.6 Custom Blended Real Estate Benchmark 5.4 -1.9 -4.5 -12.1 7.1 7.4 7.1 Private Equity (Net) 171,512,381 14.7 0.5 3.2 4.6 20.7 16.4 13.8 10.3 Jul-05 Private Equity (Gross) 0.5 3.2 4.6 20.7 16.4 13.9 10.4 Jul-05 Custom Private Equity Benchmark 24.2 -2.7 4.5 13.8 15.0 14.9 \_\_\_ Direct Lending (Net) 10.4 Jul-20 53.879.070 4.6 2.8 5.6 9.1 ------10.1 Direct Lending (Gross) 10.4 Jul-20 2.8 5.6 9.1 10.1 ------S&P LSTA Leveraged Loan +2% 7.5 15.6 7.9 7.9 6.5 9.4 3.4 Hedge Fund (Net) 10.0 1.4 3.4 5.5 4.4 Jul-14 116.574.012 5.5 4.8 ---Hedge Fund (Gross) Jul-14 1.8 4.1 6.7 5.8 6.4 ---4.9 Custom Blended Hedge Fund Benchmark 3.4 4.0 6.3 2.2 5.1 3.5 ---Real Assets (Net) 61,193,690 5.2 3.3 4.8 11.3 14.1 12.0 9.5 9.7 Dec-10 Real Assets (Gross) 3.3 4.9 11.4 14.3 12.1 10.0 10.2 Dec-10 Custom Blended Real Assets Benchmark 5.2 7.2 5.6 9.4 7.9 7.1 \_\_\_

17

41

8.5

10.9

9.3

79

7.8

#### Asset Allocation & Performance | As of December 31, 2023

Real Assets includes State Street Real Assets NL Fund.

CPI +5% (Seasonally Adjusted)



#### Asset Allocation & Performance | As of December 31, 2023

	Market Value \$	% of Portfolio	QTD (%)	Fiscal YTD	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Private Infrastructure (Net)	31,003,268	2.7	1.5	3.4	12.3	12.3	12.6		10.0	Jan-15
Private Infrastructure (Gross)			1.5	3.4	12.3	12.5	12.7		10.1	Jan-15
S&P Global Infrastructure			10.9	2.9	6.8	6.0	7.4	5.7	4.9	
Private Natural Resources (Net)	25,810,705	2.2	5.4	7.6	17.0	24.7	14.4		15.9	Oct-15
Private Natural Resources (Gross)			5.4	7.6	17.0	24.7	14.4		15.9	Oct-15
S&P Global Natural Resources Sector Index (TR)			3.6	7.4	4.1	12.9	11.1	5.1	11.3	
Cash (Net)	9,392,428	0.8	1.1	2.0	5.9	1.3	1.2			Dec-10
Cash (Gross)			1.1	2.0	5.9	1.3	1.2			Dec-10



		Asset Anocation & Performance   As of December								51, 2025
	Market Value \$	% of Portfolio	QTD (%)	Fiscal YTD	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Total Fund	1,168,502,191	100.0	6.0	4.7	11.7	4.6	9.3	7.1	8.0	Jan-95
Policy Index			5.8	5.1	13.9	5.5	9.1	7.3	6.3	
Total Fund w/o Alternatives	666,486,285	57.0	9.5	5.8	17.0	2.1	9.5	6.9		Jan-08
Policy Index w/o Al			9.5	6.0	15.7	2.4	8.2	6.3		
US Equity	266,653,863	22.8	11.9	7.7	24.6	8.0	14.6	11.5	10.3	Jan-95
Russell 3000			12.1	8.4	26.0	8.5	15.0	11.2	10.3	
BNY Mellon Newton Dynamic US Equity	58,763,014	5.0	11.7	7.4	24.2	8.3	15.9	13.2	15.3	Jan-13
S&P 500 Index			11.7	<u>8</u> .0	26.3	10.0	15.7	12.0	13.7	
BNY Mellon Large Cap	178,205,552	15.3	12.1	8.4	26.4	9.0	15.5		13.3	Apr-16
Russell 1000 Index			12.0	8.4	26.5	9.0	15.5	11.8	13.3	
Champlain Small Cap	29,685,296	2.5	11.3	3.8	14.1	0.8			7.9	Nov-20
Russell 2000 Index			14.0	<u>8.2</u>	16.9	2.2	10.0	7.2	10.6	
International Equity	222,476,542	19.0	9.4	5.5	17.1	-2.0	9.9	5.0	5.6	Jan-99
International Equity Custom			9.3	5.5	15.1	0.5	6.8	4.1	4.4	
Developed International Equity	136,776,913	11.7	9.5	6.9	14.8	3.9	9.5	4.8	4.4	Feb-08
Custom Blended Developed International Equity BM			10.4	6.4	17.7	3.5	8.1	4.3	3.4	
Acadian ACWI ex U.S. Small Cap Equity	15,483,688	1.3	9.4	7.7	13.7	5.8			9.1	May-19
MSCI AC World ex USA Small Cap (Net)			10.1	8.3	15.7	1.5	7.9	4.9	5.7	
Driehaus International Small Cap Growth	15,061,807	1.3	9.4	6.6	12.3	-1.2			8.0	May-19
MSCI AC World ex USA Small Growth Index (Net)			10.2	6.1	14.1	-2.0	7.7	4.9	5.2	
GQG International Equity	54,478,376	4.7	11.9	10.8	20.6	6.6			8.6	Dec-19
MSCI AC World ex USA (Net)			<u>9.8</u>	5.6	15.6	1.5	7.1	3.8	4.8	

#### Asset Allocation & Performance | As of December 31, 2023

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 December 3											
	Market Value \$	% of Portfolio	QTD (%)	Fiscal YTD	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date		
First Eagle International Value Fund	51,753,042	4.4	7.2	2.8	10.0	2.3			3.5	Dec-19		
MSCI EAFE (Net)			10.4	5.9	18.2	4.0	8.2	4.3	5.7			
Emerging Markets Equity	85,699,629	7.3	9.1	3.4	21.0	-10.8	9.0	5.2	4.7	May-12		
MSCI EM			7.9	4.7	9.8	-5.1	3.8	2.9	2.7			
Artisan Developing World TR	59,666,787	5.1	11.8	3.8	29.3	-11.7			5.6	Dec-19		
MSCI Emerging Markets (Net)			7.9	4.7	9.8	-5.1	3.7	2.7	2.1			
RWC	26,032,843	2.2	3.5	2.5	5.6	-8.5			0.7	Dec-19		
MSCI Emerging Markets (Net)			7.9	4.7	9.8	-5.1	3.7	2.7	2.1			
US Fixed Income	118,382,464	10.1	7.0	3.5	5.0	-3.7	0.6	1.7	4.4	Jan-95		
US Fixed Income Custom Benchmark			6.4	3.4	5.4	-3.0	1.0	1.8	4.6			
Vanguard Short-Term Treasury Index Fund	6,719,430	0.6	2.5	3.3	4.3	-0.1	1.2		1.4	Mar-18		
Blmbg. 1-3 Govt			2.6	3.3	4.3	-0.1	1.3	1.1	1.4			
Vanguard Total Bond Market Index Fund	18,083,815	1.5	6.7	3.4	5.7	-3.3			0.6	May-19		
Blmbg. U.S. Aggregate Index			б.8	3.4	5.5	-3.3	1.1	1.8	0.5			
Payden & Rygel Low Duration Fund	8,213,705	0.7	2.8	3.8	4.5				7.1	Nov-22		
Blmbg. U.S. Treasury: 1-3 Year			2.6	3.3	4.3	-0.1	1.3	1.0	4.4			
Brandywine US Fixed Income	34,285,588	2.9	8.7	2.7	5.9				2.5	Nov-22		
Blmbg. U.S. Aggregate Index			б.8	3.4	5.5	-3.3	1.1	1.8	7.6			
Wellington Core Bond	51,079,926	4.4	7.3	4.0	4.9				6.2	Nov-22		
Blmbg. U.S. Aggregate Index			6.8	3.4	5.5	-3.3	1.1	1.8	7.6			

#### Asset Allocation & Performance | As of December 31, 2023

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



#### Asset Allocation & Performance | As of December 31, 2023 Market % of QTD Fiscal 1 Yr 3 Yrs 5 Yrs 10 Yrs Inception Inception

	Market Value \$	% of Portfolio	QTD (%)	Fiscal YTD	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Opportunistic Credit	58,973,417	5.0	4.2	5.4	12.0	4.3			5.0	May-19
50% Barclays US Aggregate / 25% Barclays US High Yield / 25% Credit Suisse Lever			5.9	5.2	9.4	0.2			2.5	
PIMCO Income Fund	12,004,880	1.0	5.9	5.3	9.3	1.1			2.8	May-19
Blmbg. U.S. Aggregate Index			6.8	3.4	5.5	-3.3	1.1	1.8	0.5	
GoldenTree Multi-Sector Credit	25,803,657	2.2	5.1	7.3	12.8	4.4			5.2	Jun-19
50% BBg US High Yield TR/50% Credit Suisse Leveraged Loans			5.0	7.0	13.3	3.9	5.5	4.5	4.6	
Sculptor Credit Opportunities Domestic Partners, LP	392,565	0.0	0.0	0.0	11.0	7.8			9.5	Jul-20
50% BBg US High Yield TR/50% Credit Suisse Leveraged Loans			5.0	7.0	13.3	3.9	5.5	4.5	6.0	
OWS Credit Opportunity Fund LP	20,772,315	1.8	2.3						2.3	Oct-23
50% BBg US High Yield TR/50% Credit Suisse Leveraged Loans			5.0	7.0	13.3	3.9	5.5	4.5	5.0	
Real Estate	89,464,324	7.7	2.8	0.1	-2.6	4.5	2.9	5.4	6.6	Dec-10
Custom Blended Real Estate Benchmark			-1.9	-4.5	-12.1	7.1	5.4	7.4	8.9	
CPI +5% (Seasonally Adjusted)			1.7	4.1	8.5	10.9	9.3	7.9	7.8	
Vanguard REIT Index	17,837,475	1.5	18.1	8.1	11.8	5.0			6.5	Sep-20
Spliced Vanguard REIT Benchmark			18.2	8.1	12.0	5.2	7.4	7.5	6.6	
Private Real Estate	71,626,850	6.1	-0.4	-1.7	-5.7	5.3	3.3	5.6	6.7	Dec-10
Custom Blended Real Estate Benchmark			-1.9	-4.5	-12.1	7.1	5.4	7.4	8.9	
Greenfield Gap VII	913,260	0.1	2.6	5.4	-6.9	23.8	18.1		15.8	Jan-15
Patron Capital V	4,937,697	0.4	-7.5	-13.2	-2.9	-12.1	-8.8		-0.5	Feb-16
UBS Trumbull Property	23,171,993	2.0	-1.5	-5.1	-16.4	2.5	0.7	4.0	5.9	Apr-99
Carlyle Realty VIII	2,553,121	0.2	0.6	2.9	-5.0	41.4	26.7		10.4	Jan-18
Taconic CRE Dislocation Fund II	3,303,159	0.3	2.8	2.8	18.3	10.5	9.7		9.3	Nov-18

Sculptor market value reflects holdback from June liquidation.

All private markets performance and market values reflect a 9/30/2023 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.


		Assei	Alloc	ation	x Peri	ormai	nce   /	AS OI D	ecemper	31, 2023
	Market Value \$	% of Portfolio	QTD (%)	Fiscal YTD	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Carmel Partners Investment Fund VII	4,149,910	0.4	-1.7	1.1	-0.2	-0.8			-19.3	Apr-19
AG Realty Value Fund X, L.P.	3,432,821	0.3	-1.4	-3.0	-3.9	12.9			5.1	Jun-19
Rockpoint Real Estate Fund VI, L.P.	4,594,861	0.4	-0.6	-2.1	-4.1	13.8			9.4	May-20
Cerberus Real Estate Debt Fund, L.P.	4,848,756	0.4	3.7	7.4	9.5	7.2			10.9	Jul-20
Taconic CRE Dislocation Onshore Fund III	6,192,808	0.5	5.0	5.6	7.4				7.8	Jun-21
Starwood Distressed Opportunity Fund XII Global	4,013,209	0.3	-5.1	-3.6	-7.4				97.1	Jun-21
Carlyle Realty Partners IX	1,391,161	0.1	2.7	4.5	-29.5				-154.9	Dec-21
Carmel Partners Investment Fund VIII	4,667,186	0.4	7.3	6.6	3.9				-5.8	Apr-22
Rockpoint Real Estate Fund VII L.P.	3,456,907	0.3	-2.9	-0.9	8.6				8.7	Aug-22
Private Equity	171,512,381	14.7	0.5	3.2	4.6	20.7	16.4	13.8	10.3	Jul-05
Custom Private Equity Benchmark			-2.7	4.5	24.2	13.8	15.0	14.9		
Taconic Credit Dislocation Fund IV L.P.	2,353,066	0.2	5.8	5.8					5.8	Jul-23
Khosla Ventures Seed F, L.P.	448,726	0.0	-3.8	-4.7					-4.7	Jul-23
Adams Street	3,735,169	0.3	-4.0	-3.8	-6.3	7.5	9.4	11.7	7.8	Oct-05
Invesco VI	477,377	0.0	-0.8	-10.0	-29.4	15.8	16.3	15.7	14.3	Jul-13
Ocean Avenue II	8,067,759	0.7	-8.9	-6.9	-14.9	38.7	28.8		20.2	Jul-14
Pantheon I	61,591	0.0	-1.5	-1.7	0.1	-10.3	-14.3	-4.4	-1.5	Jan-06
Pantheon II	2,685,109	0.2	-3.1	-2.1	-1.9	9.1	11.4	13.3	11.8	Jan-12
Pantheon Secondary	109,050	0.0	-0.6	-1.4	-1.5	-10.0	-7.7	-1.6	0.5	Jul-07

Asset Allocation & Performance | As of December 31, 2023

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 Panthron 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.



GTCR Fund XII

Spark Capital VI

Khosla Ventures VII

Accel-KKR Capital Partners VI

Thoma Bravo Discover Fund III

Khosla Ventures Seed F

TCV XI

TCV X

## **Merced County Employees' Retirement Association**

7.0

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12.8

0.0

15.6

-9.0

8.0

#### 1 Yr 3 Yrs 5 Yrs Market % of QTD Fiscal 10 Yrs Inception Inception Value \$ Portfolio (%) YTD (%) (%) (%) (%) (%) Date Davidson Kempner Long-Term Distressed Opportunities Fund IV 2,595,030 0.2 3.4 30.7 28.9 18.9 18.7 Apr-18 6.7 \_\_\_ 5,773,094 0.5 5.7 6.2 5.4 20.0 17.3 15.4 Jun-18 ---Carrick Capital Partners III 6.964.733 0.6 3.9 6.9 8.8 18.4 13.7 11.6 Aug-18 Cressey & Company Fund VI 5.244.612 14.7 14.7 0.4 -2.0 -1.5 2.1 18.8 ---Jan-19 6,528,208 0.6 -3.7 4.9 6.9 18.9 16.7 Apr-19 Jul-19 Accel-KKR Growth Capital Partners III 4,782,037 0.4 2.8 -10.3 -6.0 15.3 6.6 Genstar Capital Partners IX 9,423,443 0.8 4.7 8.5 13.6 30.8 26.2 Aug-19 Cortec Group Fund VII 8,757,315 29.4 25.3 Dec-19 0.7 0.0 4.2 22.9 ---Spark Capital Growth Fund III 8.642.283 0.7 -1.7 22.7 14.4 Mar-20 -1.6 -26.4 ---3,572,166 0.3 1.1 40.2 36.0 13.4 6.6 Mar-20 ---Summit Partners Growth Equity Fund X-A Mar-20 8,644,810 0.7 1.5 3.2 14.5 5.5 6.7 Taconic Market Dislocation Fund III L.P. 7,216,666 16.7 14.1 Jul-20 0.6 1.6 6.6 8.4 Marlin Heritage Europe II, L.P. 7,459,164 0.6 -1.6 13.3 -0.6 -0.5 Oct-20 -1.1

0.4

0.4

0.2

0.4

0.8

4.7

0.0

0.4

-3.6

2.2

6.8

0.0

7.9

-5.0

4.1

5.190.958

4,492,148

2,208,889

5,091,383

9,015,559

#### Asset Allocation & Performance | As of December 31, 2023

Jan-21

Feb-21

Feb-21

Feb-21

Jun-21

7.0

-4.7

114.2

-5.9

6.8

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#### Asset Allocation & Performance | As of December 31, 2023

	Market Value \$	% of Portfolio	QTD (%)	Fiscal YTD	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Summit Partners Venture Capital Fund V-A	3,177,638	0.3	-1.4	3.5	4.5				-3.9	May-21
GTCR Fund XIII/A & B	4,211,387	0.4	2.7	5.5	1.0				81.6	Jun-21
Genstar Capital Partners X	7,656,469	0.7	1.2	-0.1	2.6				5.2	Oct-21
Nautic Partners X	3,591,915	0.3	7.2	12.7	20.1				6.7	Jan-22
Spark Capital Growth Fund IV	2,151,963	0.2	-1.9	-4.1	45.1				12.4	Jan-22
Spark Capital VII	1,374,145	0.1	-1.4	-3.3	-7.4				-7.3	Feb-22
TCV Velocity Fund I	3,833,228	0.3	2.5	61.7	46.6				0.4	Feb-22
Accel-KKR Growth Capital Partners IV	1,643,602	0.1	-0.1	0.8	2.0				-15.7	Apr-22
Summit Partners Growth Equity Fund XI-A	2,217,386	0.2	3.0	4.2	16.1				-40.5	Apr-22
GTCR Strategic Growth Fund I/A&B LP	1,662,342	0.1	5.7	6.3	-9.8				-34.7	Jul-22
Threshold Ventures IV LP	788,922	0.1	-3.9	-7.9	-19.6				-22.4	Aug-22
Thoma Bravo Discovery Fund IV	4,823,186	0.4	3.1	4.1	13.4				13.4	Jan-23
Marlin Heritage III	1,010,729	0.1	-5.4	-4.8	-84.0				-84.0	Jan-23
Cortec Group Fund VIII, L.P.	1,019,466	0.1	-9.2	-14.0					-14.9	Apr-23
Khosla Ventures VIII	407,034	0.0	-1.9						-1.9	Sep-23
Ares Capital Europe VI (D) Levered, L.P.	2,370,816	0.2							6.5	Nov-23
Genstar Capital Partners XI	31,809	0.0							0.0	Nov-23



# Asset Allocation & Performance | As of December 31, 2023Market% ofQTDFiscal1 Yr3 Yrs5 Yrs10 YrsInceptionInceptionValue \$Portfolio(%)YTD(%)(%)(%)(%)Date

	Value \$	Portfolio	(%)	YTD	(%)	(%)	(%)	(%)	(%)	Date
Direct Lending	53,879,070	4.6	2.8	5.6	10.4	9.1			10.1	Jul-20
S&P LSTA Leveraged Loan +2%			3.4	7.5	15.6	7.9	7.9	6.5	9.4	
Silver Point Specialty Credit Fund II, L.P.	6,709,340	0.6	2.8	5.5	12.4	9.5			10.4	Jul-20
Ares Senior Direct Lending Fund II	11,701,804	1.0	4.3	8.7	13.9				11.0	Jan-22
Varagon Capital Direct Lending Fund	13,054,558	1.1	2.8	5.0	5.8				2.4	Jan-22
AG Direct Lending Fund IV Annex	9,660,920	0.8	2.9	5.4	11.2				9.0	May-22
AG Direct Lending Fund V	4,743,635	0.4	2.4	3.9	9.9				8.1	Aug-22
Accel-KKR Credit Partners II LP	2,133,217	0.2	2.9	7.0					39.4	Mar-23
Silver Point Specialty Credit Fund III	5,875,597	0.5	0.0	1.5					-0.2	Mar-23
Hedge Fund	116,574,012	10.0	1.4	3.4	5.5	4.8	5.5		4.4	Jul-14
Custom Blended Hedge Fund Benchmark			3.4	4.0	6.3	2.2	5.1		3.5	
Hudson Bay Fund	15,474,092	1.3	0.4	2.9					3.2	Jun-23
Sculptor (OZ) Domestic II	264,914	0.0	-0.4	-0.6	6.7	-0.9	5.9		5.0	Jul-14
Graham Absolute Return	10,113,950	0.9	-1.5	5.0	3.1	7.7	5.9		4.6	Sep-17
Wellington-Archipelago	16,323,182	1.4	3.4	4.1	10.7	5.7	7.5		5.7	Sep-17
Marshall Wace Eureka	4,574,285	0.4	0.6	1.3	1.7	3.8	6.6		5.4	Dec-17
Silver Point Capital	19,074,926	1.6	2.1	1.8	5.8	10.4	9.7		7.9	Dec-17
Laurion Capital	13,945,606	1.2	1.6	3.7	5.4	3.8	9.2		9.1	Aug-18
Taconic Opportunity Fund	14,187,887	1.2	0.7	2.9	3.5	2.9	3.2		3.2	Jan-19



### Asset Allocation & Performance | As of December 31, 2023

									•	
	Market Value \$	% of Portfolio	QTD (%)	Fiscal YTD	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Marshall Wace Global Opportunities	10,990,429	0.9	0.5	2.3	6.3	1.5			5.3	May-20
Caxton Global Investments	11,624,741	1.0	3.3	6.7	-1.7				5.4	May-21
Real Assets	61,193,690	5.2	3.3	4.8	11.3	14.1	12.0	9.5	9.7	Dec-10
Custom Blended Real Assets Benchmark			7.2	5.2	5.6	9.4	7.9	7.1		
SSgA	4,379,717	0.4	3.4	2.6	0.6	7.3	7.6		5.5	May-17
Real Asset NL Custom Blended Index			3.9	3.1	1.4	7.6	7.7		5.7	
Private Infrastructure	31,003,268	2.7	1.5	3.4	12.3	12.3	12.6		10.0	Jan-15
S&P Global Infrastructure			10.9	2.9	6.8	6.0	7.4	5.7	4.9	
KKR Global II	3,426,301	0.3	2.3	4.3	22.2	21.4	22.1		16.8	Jan-15
North Haven Infrastructure II	2,619,297	0.2	-1.6	-2.0	-2.5	9.0	8.5		7.7	Jun-15
ISQ Global Infrastructure Fund II	5,502,231	0.5	1.4	3.0	8.6	12.6	13.1		4.3	Jul-18
KKR Global Infrastructure Investors III	4,533,851	0.4	4.4	6.7	17.9	3.3	-0.8		-0.8	Jan-19
Ardian Infrastructure Fund V	4,202,553	0.4	0.8	3.4	20.9	6.8			-7.4	Nov-19
ISQ Global Infrastructure Fund III	2,058,769	0.2	2.0	3.4	12.6				-494.2	Jun-21
KKR Global Infrastructure Investors IV	4,916,721	0.4	2.6	6.7	12.0				-220.0	Sep-21
BlackRock Global Infrastructure Fund IV	2,749,883	0.2	-1.9	-1.5	-13.6				-12.6	Dec-22
Ardian Infrastructure Fund VI	993,662	0.1								



### Asset Allocation & Performance | As of December 31, 2023

							•			•
	Market Value \$	% of Portfolio	QTD (%)	Fiscal YTD	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Private Natural Resources	25,810,705	2.2	5.4	7.6	17.0	24.7	14.4		15.9	Oct-15
S&P Global Natural Resources Sector Index (TR)			3.6	7.4	4.1	12.9	11.1	5.1	11.3	
EnCap Flatrock Midstream Fund V	2,585,649	0.2	-1.1	-4.9					-4.9	Jun-23
EnCap XI	5,263,900	0.5	13.5	18.2	30.0	36.6	7.6		-4.6	Aug-17
EnCap IV	1,727,352	0.1	0.9	3.0	5.5	50.6	32.3		23.1	Mar-18
GSO Energy Opportunities	336,208	0.0	15.3	15.4	31.6	44.5	20.7		20.1	Dec-15
Taurus Mining	338,345	0.0	-5.1	-3.8	4.1	50.1	28.3		24.1	Oct-15
Taurus Mining Annex	176,371	0.0	-6.2	-4.9	2.0	18.5	19.6		22.8	Feb-17
BlackRock Global Energy and Power Infrastructure Fund III LP	4,410,346	0.4	-0.5	2.9	10.7	8.3			13.5	Aug-19
Tailwater Energy Fund IV, LP	3,632,718	0.3	-0.3	0.5	16.7	25.3			6.2	Oct-19
Carnelian Energy Capital IV	4,252,970	0.4	8.8	13.4	16.3				2.6	May-22
EnCap Energy Capital Fund XII	3,086,847	0.3	14.4						14.4	Aug-23
Cash	9,392,428	0.8	1.1	2.0	5.9	1.3	1.2			Dec-10
Cash	7,999,948	0.7	1.3	2.2	6.5	1.4	1.4	1.1	-1.3	Dec-10
Treasury Cash	1,392,480	0.1	0.0	0.0	0.0	0.0	0.0		0.1	Sep-17



#### Total Fund Attribution | As of December 31, 2023



Attribution Summary 3 Months Ending December 31, 2023										
	Wtd. Actual Return (%)	Wtd. Index Return (%)	Excess Return (%)	Selection Effect (%)	Allocation Effect (%)	Total Effect (%)				
US Equity	11.9	12.1	-0.1	0.0	0.0	0.0				
Developed International Equity	9.5	10.4	-0.8	-0.1	0.0	-0.1				
Emerging Markets Equity	9.1	7.9	1.2	0.1	0.0	0.1				
US Fixed Income	7.0	6.4	0.6	0.1	0.0	0.1				
Opportunistic Credit	4.2	5.9	-1.7	-0.1	0.0	-0.1				
Real Estate	2.8	-1.9	4.7	0.4	0.0	0.4				
Private Equity	0.5	-2.7	3.2	0.4	0.0	0.4				
Direct Lending	2.8	3.4	-0.6	0.0	0.0	0.0				
Hedge Fund	1.4	3.4	-2.0	-0.2	0.0	-0.2				
Real Assets	3.3	7.2	-3.9	-0.2	0.0	-0.2				
Total Fund	6.0	5.8	0.2	0.2	0.0	0.2				



#### Total Fund Attribution | As of December 31, 2023



Attribution Summary 1 Year Ending December 31, 2023									
	Wtd. Actual Return (%)	Wtd. Index Return (%)	Excess Return (%)	Selection Effect (%)	Allocation Effect (%)	Total Effect (%)			
US Equity	24.6	26.0	-1.4	-0.3	0.1	-0.2			
Developed International Equity	14.8	17.7	-2.9	-0.4	0.0	-0.3			
Emerging Markets Equity	21.0	9.8	11.2	0.8	-0.1	0.8			
US Fixed Income	5.0	5.4	-0.4	-0.1	0.0	-0.1			
Opportunistic Credit	12.0	9.4	2.6	0.1	0.0	0.1			
Real Estate	-2.6	-12.1	9.5	0.9	0.0	0.9			
Private Equity	4.6	24.2	-19.5	-2.8	-0.3	-3.1			
Direct Lending	10.4	15.6	-5.2	-0.2	0.0	-0.2			
Hedge Fund	5.5	6.3	-0.9	-0.1	0.0	-0.1			
Real Assets	11.3	5.6	5.7	0.3	0.0	0.3			
Total Fund	11.7	13.9	-2.1	-1.7	-0.4	-2.1			



#### Benchmark History | As of December 31, 2023

		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 E	quity	
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 Incor	ne	
12/01/1994	Present	10.0% BImbg. U.S. Treasury: 1-3 Year, 90.0% BBgBarc US Aggregate TR



#### Benchmark History | As of December 31, 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 Es	state	
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 Analys	sis		
	Fee Schedule	Market Value	Estimated Annual Fee (%)	Estimated Expense
Total Fund		1,168,502,191		
Total Fund w/o Alternatives		666,486,285		
US Equity		266,653,863		
BNY Mellon Newton Dynamic US Equity	0.30 % of Assets	58,763,014	0.30	176,289
BNY Mellon Large Cap	0.04 % of First \$100 M 0.02 % Thereafter	178,205,552	0.03	55,641
Champlain Small Cap	1.00 % of Assets	29,685,296	1.00	296,853
International Equity		222,476,542		
Developed International Equity		136,776,913		
Acadian ACWI ex U.S. Small Cap Equity	0.99 % of Assets	15,483,688	0.99	153,289
Driehaus International Small Cap Growth	0.90 % of Assets	15,061,807	0.90	135,556
GQG International Equity	0.50 % of Assets	54,478,376	0.50	272,392
First Eagle International Value Fund	0.79 % of Assets	51,753,042	0.79	408,849
Emerging Markets Equity		85,699,629		
Artisan Developing World TR	1.05 % of Assets	59,666,787	1.05	626,501
RWC	0.87 % of Assets	26,032,843	0.87	226,486
MCERA US FIXED+OPP CREDIT		177,355,880		
US Fixed Income		118,382,464		
Vanguard Short-Term Treasury Index Fund	0.05 % of Assets	6,719,430	0.05	3,360
Vanguard Total Bond Market Index Fund	0.04 % of Assets	18,083,815	0.04	6,329
Payden & Rygel Low Duration Fund	0.43 % of Assets	8,213,705	0.43	35,319
Brandywine US Fixed Income	0.29 % of Assets	34,285,588	0.29	99,428
Wellington Core Bond	0.12 % of Assets	51,079,926	0.12	61,296
Opportunistic Credit		58,973,417		
PIMCO Income Fund	0.51 % of Assets	12,004,880	0.51	61,225
GoldenTree Multi-Sector Credit	0.70 % of Assets	25,803,657	0.70	180,626
Sculptor Credit Opportunities Domestic Partners, LP	Performance Based 1.00 and 20.00	392,565	1.00	3,926



			•	
	Fee Schedule	Market Value	Estimated Annual Fee (%)	Estimated Expense
OWS Credit Opportunity Fund LP		20,772,315	-	-
Real Estate		89,464,324		
Vanguard REIT Index	0.10 % of Assets	17,837,475	0.10	17,837
Private Real Estate		71,626,850		
Greenfield Gap VII		913,260	-	-
Patron Capital V		4,937,697	-	-
UBS Trumbull Property		23,171,993	-	-
Carlyle Realty VIII		2,553,121	-	-
Taconic CRE Dislocation Fund II		3,303,159	-	-
Carmel Partners Investment Fund VII		4,149,910	-	-
AG Realty Value Fund X, L.P.		3,432,821	-	-
Rockpoint Real Estate Fund VI, L.P.		4,594,861	-	-
Cerberus Real Estate Debt Fund, L.P.		4,848,756	-	-
Taconic CRE Dislocation Onshore Fund III		6,192,808	-	-
Starwood Distressed Opportunity Fund XII Global		4,013,209	-	-
Carlyle Realty Partners IX		1,391,161	-	-
Carmel Partners Investment Fund VIII		4,667,186	-	-
Rockpoint Real Estate Fund VII L.P.		3,456,907	-	-
Private Equity		171,512,381		
Adams Street		3,735,169	-	-
Invesco VI		477,377	-	-
Ocean Avenue II		8,067,759	-	-
Pantheon I		61,591	-	-
Pantheon II		2,685,109	-	-
Pantheon Secondary		109,050	-	-
Davidson Kempner Long-Term Distressed Opportunities Fund IV		2,595,030	-	-
GTCR Fund XII		5,773,094	-	-
Carrick Capital Partners III		6,964,733	-	-
Cressey & Company Fund VI		5,244,612	-	-



	Fee Schedule	Market Value	Estimated Annual Fee (%)	Estimated Expense
TCV X		6,528,208		-
Accel-KKR Growth Capital Partners III		4,782,037	-	-
Genstar Capital Partners IX		9,423,443	-	-
Cortec Group Fund VII		8,757,315	-	-
Spark Capital Growth Fund III		8,642,283	-	-
Spark Capital VI		3,572,166	-	-
Summit Partners Growth Equity Fund X-A		8,644,810	-	-
Taconic Market Dislocation Fund III L.P.		7,216,666	-	-
Marlin Heritage Europe II, L.P.		7,459,164	-	-
Khosla Ventures VII		5,190,958	-	-
Accel-KKR Capital Partners VI		4,492,148	-	-
Khosla Ventures Seed E		2,208,889	-	-
TCV XI		5,091,383	-	-
Thoma Bravo Discover Fund III		9,015,559	-	-
Summit Partners Venture Capital Fund V-A		3,177,638	-	-
GTCR Fund XIII/A & B		4,211,387	-	-
Genstar Capital Partners X		7,656,469	-	-
Nautic Partners X		3,591,915	-	-
Spark Capital Growth Fund IV		2,151,963	-	-
Spark Capital VII		1,374,145	-	-
TCV Velocity Fund I		3,833,228	-	-
Accel-KKR Growth Capital Partners IV		1,643,602	-	-
Summit Partners Growth Equity Fund XI-A		2,217,386	-	-
GTCR Strategic Growth Fund I/A&B LP		1,662,342	-	-
Threshold Ventures IV LP		788,922	-	-
Thoma Bravo Discovery Fund IV		4,823,186	-	-
Marlin Heritage III		1,010,729	-	-
Cortec Group Fund VIII, L.P.		1,019,466	-	-
Khosla Ventures VIII		407,034	-	-



	Fee Schedule	Market Value	Estimated Annual Fee (%)	Estimated Expense
Direct Lending		53,879,070		
Silver Point Specialty Credit Fund II, L.P.		6,709,340	-	-
Ares Senior Direct Lending Fund II		11,701,804	-	-
Varagon Capital Direct Lending Fund		13,054,558	-	-
AG Direct Lending Fund IV Annex		9,660,920	-	-
AG Direct Lending Fund V		4,743,635	-	-
Accel-KKR Credit Partners II LP		2,133,217	-	-
Silver Point Specialty Credit Fund III		5,875,597	-	-
Hedge Fund		116,574,012		
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	10,113,950	1.75	176,994
Wellington-Archipelago	Performance Based 1.00 and 20.00	16,323,182	1.00	163,232
Marshall Wace Eureka	Performance Based 2.00 and 20.00	4,574,285	2.00	91,486
Silver Point Capital	Performance Based 1.50 and 20.00	19,074,926	1.50	286,124
Laurion Capital	Performance Based 2.00 and 20.00	13,945,606	2.00	278,912
Taconic Opportunity Fund	Performance Based 1.40 and 20.00	14,187,887	1.40	198,630
Marshall Wace Global Opportunities	Performance Based 2.00 and 20.00	10,990,429	2.00	219,809
Caxton Global Investments	Performance Based 1.95 and 22.50	11,624,741	1.95	226,682
Real Assets		61,193,690		
SSgA	0.30 % of First \$50 M 0.27 % of Next \$50 M 0.25 % Thereafter Minimum Fee: \$20,000	4,379,717	0.46	20,000
Private Infrastructure		31,003,268		
KKR Global II		3,426,301	-	-
North Haven Infrastructure II		2,619,297	-	-
ISQ Global Infrastructure Fund II		5,502,231	-	-
KKR Global Infrastructure Investors III		4,533,851	-	-
Ardian Infrastructure Fund V		4,202,553	-	-



	Fee Schedule	Market Value	Estimated Annual Fee (%)	Estimated Expense
ISQ Global Infrastructure Fund III		2,058,769	-	-
KKR Global Infrastructure Investors IV		4,916,721	-	-
BlackRock Global Infrastructure Fund IV		2,749,883	-	-
Ardian Infrastructure Fund VI		993,662	-	-
Private Natural Resources		25,810,705		
EnCap XI		5,263,900	-	-
EnCap IV		1,727,352	-	-
GSO Energy Opportunities		336,208	-	-
Taurus Mining		338,345	-	-
Taurus Mining Annex		176,371	-	-
BlackRock Global Energy and Power Infrastructure Fund III LP		4,410,346	-	-
Tailwater Energy Fund IV, LP		3,632,718	-	-
Carnelian Energy Capital IV		4,252,970	-	-
EnCap Energy Capital Fund XII		3,086,847	-	-
Cash		9,392,428		
Cash		7,999,948	-	-
Treasury Cash		1,392,480	-	-



Total Fund | As of December 31, 2023



InvMetrics All Public DB Plans > \$1B Total Fund

	5 Years Return	5 Years Standard Deviation	5 Years Information Ratio	5 Years Beta	5 Years Sharpe Ratio	5 Years Tracking Error
Total Fund	9.3 (18)	9.2 (18)	0.1 (17)	1.0 (22)	0.8 (13)	3.0 (4)
Policy Index	9.1 (19)	8.9 (17)	-	1.0	0.8 (13)	0.0
InvMetrics All Public DB Plans > \$1B Median	8.1	10.9	-0.2	1.1	0.6	4.0



### Multi Time Period Statistics | As of December 31, 2023

Statistics Summary 3 Years Ending December 31, 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	9.3	9.2	0.1	1.0	0.8	3.0
Policy Index	9.1	8.9	-	1.0	0.8	0.0
InvMetrics All Public DB Plans > \$1B Median	8.1	10.9	-0.2	1.1	0.6	4.0

# **MEKETA**

17.0

# Merced County Employees' Retirement Association

InvMetrics All Public DB Plans > \$1B | As of December 31, 2023



-1.0	I	I	I			I	I
	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)	Since Inception
Total Fund	6.0 (68)	11.7 (46)	4.6 (50)	9.3 (18)	8.2 (15)	7.1 (20)	8.0 (31)
Policy Index	5.8 (75)	13.9 (9)	5.5 (27)	9.1 (19)	8.2 (16)	7.3 (15)	6.3 (100)
5th Percentile	8.9	14.3	7.6	10.0	8.7	7.7	9.3
1st Quartile	7.6	12.6	5.6	8.9	7.9	6.8	8.1
Median	6.6	11.4	4.5	8.1	7.2	6.2	7.7
3rd Quartile	5.8	10.6	3.7	7.7	6.8	5.7	7.3
95th Percentile	4.5	8.0	2.4	6.9	6.1	5.3	7.0
Population	67	62	55	53	52	48	17

Parentheses contain percentile rankings. Calculation based on monthly periodicity.

MEKETA INVESTMENT GROUP



#### US Equity | As of December 31, 2023



	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)
US Equity	11.9	24.6	8.0	14.6	12.4	11.5
Russell 3000	12.1	26.0	8.5	15.0	12.5	11.2
Excess Return	-0.2	-1.4	-0.5	-0.4	-0.1	0.3



#### **Current Allocation**







# MEKETA

# Merced County Employees' Retirement Association

#### US Equity | As of December 31, 2023





Top Holdings				
Apple Inc	6.1			
Microsoft Corp	6.0			
Amazon.com Inc	2.9			
NVIDIA Corporation	2.5			
Alphabet Inc Class A	1.8			
Meta Platforms Inc	1.7			
Alphabet Inc Class C	1.5			
Tesla Inc	1.5			
Berkshire Hathaway Inc	1.4			
JPMorgan Chase & Co	1.1			
% of Portfolio	26.5			

Ten Best Performers					
	Quarterly Return (%)				
COINBASE GLOBAL INC	131.6				
Affirm Holdings Inc	131.0				
Gap Inc	99.6				
Spirit Aerosystems Holdings Inc	96.9				
Karuna Therapeutics Inc	87.2				
Rocket Cos Inc	77.0				
Block Inc	74.8				
Macy's Inc	74.8				
SentinelOne Inc	62.8				
Frontier Communications Parent Inc	61.9				

Ten Worst Performers					
	Quarterly Return (%)				
ChargePoint Holdings Inc	-52.9				
Plug Power Inc	-40.8				
James River Group Holdings Ltd	-39.5				
Maravai LifeSciences Holdings Inc	-34.5				
R1 RCM INC	-29.9				
Agilon Health Inc	-29.3				
BILL Holdings Inc	-24.8				
Lucid Group Inc	-24.7				
Hasbro Inc.	-21.6				
Confluent Inc	-21.0				





#### BNY Mellon Newton Dynamic US Equity | As of December 31, 2023



	Quarter To Date	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)
BNY Mellon Newton Dynamic US Equity	11.7	24.2	8.3	15.9	14.2	13.2
S&P 500 Index	11.7	26.3	10.0	15.7	13.4	12.0
Excess Return	0.0	-2.1	-1.7	0.2	0.8	1.2





#### BNY Mellon Newton Dynamic US Equity | As of December 31, 2023

Equity Characteristics vs S&P 500 Index					
	Portfolio	Benchmark			
Number of Holdings	508	503			
Wtd. Avg. Mkt. Cap \$B	635.9	714.1			
Median Mkt. Cap \$B	33.4	33.5			
P/E Ratio	24.0	24.0			
Yield (%)	1.5	1.5			
EPS Growth - 5 Yrs. (%)	16.9	16.9			
Price to Book	4.4	4.4			

Account Information					
BNY Mellon Newton Dynamic US Equity					
Commingled Fund					
11/30/2012					
US Equity					
S&P 500 Index					
eV US Large Cap Core Equity					



S&P 500 Index

Top Holdings				
Generic Fixed Income	10.9			
Apple Inc	6.3			
Microsoft Corp	6.2			
Amazon.com Inc	3.1			
NVIDIA Corporation	2.7			
Alphabet Inc Class A	1.8			
Meta Platforms Inc	1.7			
Alphabet Inc Class C	1.6			
Tesla Inc	1.5			
Berkshire Hathaway Inc	1.4			
% of Portfolio	37.2			

Ten Best Performers			
Quarterly Return (%)			
47.3			
43.4			
41.8			
41.7			
41.4			
40.5			
39.7			
37.5			
37.5			
36.7			

	Ten Worst Performers				
rly n		Quarterly Return (%)			
	Hasbro Inc.	-21.6			
	Paycom Software Inc	-20.1			
	Hormel Foods Corp	-14.8			
	Albemarle Corp	-14.8			
	Exxon Mobil Corp	-14.2			
	APA Corporation	-12.2			
	Pfizer Inc	-12.0			
	Charter Communications Inc	-11.6			
	BorgWarner Inc	-10.9			
	Bristol-Myers Squibb Co	-10.7			



#### BNY Mellon Large Cap | As of December 31, 2023



	Quarter To Date	<b>1 Yr</b> (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)
BNY Mellon Large Cap	12.1	26.4	9.0	15.5	13.2	-
Russell 1000 Index	12.0	26.5	9.0	15.5	13.2	11.8
Excess Return	0.1	-0.1	0.0	0.0	0.0	-







Equity Characteristics vs Russell 1000 Index				
	Portfolio	Benchmark		
Number of Holdings	1,008	1,010		
Wtd. Avg. Mkt. Cap \$B	652.3	653.3		
Median Mkt. Cap \$B	13.6	13.5		
P/E Ratio	23.3	23.3		
Yield (%)	1.5	1.5		
EPS Growth - 5 Yrs. (%)	16.8	16.8		
Price to Book	4.3	4.3		

#### BNY Mellon Large Cap | As of December 31, 2023



# Sector Weights (%)



Russell 1000 Index

Тор Но	ldings	Ten Best Perforn	Ten Best Performers		ners
Apple Inc Microsoft Corp	6.5 6.4		Quarterly Return		Quarterly Return
Amazon.com Inc	3.1		(%)		(%)
NVIDIA Corporation	2.7	COINBASE GLOBAL INC	131.6	ChargePoint Holdings Inc	-52.9
Alphabet Inc Class A	1.9	Affirm Holdings Inc	131.0	Plug Power Inc	-40.8
Meta Platforms Inc	1.8	Gap Inc	99.6	Maravai LifeSciences Holdings Inc	-34.5
Alphabet Inc Class C	1.6	Spirit Aerosystems Holdings Inc	96.9	RI RCM INC	-29.9
Tesla Inc	1.6	Karuna Therapeutics Inc	87.2	Agilon Health Inc	-29.3
Berkshire Hathaway Inc	1.5	,		•	
Eli Lilly and Co	1.1	Rocket Cos Inc	77.0	BILL Holdings Inc	-24.8
		Block Inc	74.8	Lucid Group Inc	-24.7
% of Portfolio	28.2	Macy's Inc	74.8	Hasbro Inc.	-21.6
		SentinelOne Inc	62.8	Confluent Inc	-21.0

61.9

Maplebear Inc

-20.9



36.0

Return %

#### Champlain Small Cap | As of December 31, 2023



28.0			
20.0			
12.0			
4.0			
-4.0			
	Quarter	1 Yr	3 Yrs
	То	(%)	(%)
	Date		
	E Champlain Small C	Cap 🔺 Russell 20	000 Index

	Quarter To Date	1 Yr (%)	<b>3 Yrs</b> (%)
Champlain Small Cap	11.3	14.1	0.8
Russell 2000 Index	14.0	16.9	2.2
Excess Return	-2.7	-2.8	-1.4





Equity Characteristics vs Russell 2000 Index						
Portfolio Benchmark						
Number of Holdings	73	1,966				
Wtd. Avg. Mkt. Cap \$B	4.5	3.2				
Median Mkt. Cap \$B	3.1	1.0				
P/E Ratio	27.9	14.8				
Yield (%)	0.6	1.5				
EPS Growth - 5 Yrs. (%)	6.4	11.9				
Price to Book	3.2	2.4				

#### Account Information

10/31/2020

**US Equity** 

Champlain Small Cap

Russell 2000 Index

eV US Small Cap Core Equity

Account Name

Inception Date

Asset Class

Benchmark

Peer Group

Account Structure Mutual Fund

## Sector Weight<u>s (%)</u>

Champlain Small Cap | As of December 31, 2023



**Top Holdings** 3.2 Pure Storage Inc **RBC Bearings Inc** 2.6 John Bean Technologies Corp 2.4 2.4 Freshworks Inc Nutanix Inc 2.4 ESCO Technologies Inc. 2.3 Smartsheet Inc 2.2 2.2 Inspire Medical Systems Inc Simply Good Foods Co (The) 2.1 Axonics Inc 2.0 % of Portfolio 23.8

Ten Best Performers			
	Quarterly Return (%)		
Sally Beauty Holdings Inc	58.5		
Planet Fitness Inc	48.4		
Bowlero Corp	47.2		
Wingstop Inc	42.8		
Tandem Diabetes Care Inc	42.4		
Nutanix Inc	36.7		
Independent Bank Corp.	35.2		
Q2 Holdings Inc	34.5		
Stock Yards Bancorp Inc	31.8		
Freshpet Inc	31.7		

Ten Worst Performers				
	Quarterly Return (%)			
James River Group Holdings Ltd	-39.5			
AtriCure Inc	-18.5			
Omnicell Inc	-16.5			
European Wax Center Inc	-16.1			
MGP Ingredients Inc	-6.5			
John Bean Technologies Corp	-5.3			
Hayward Holdings Inc	-3.5			
Barnes Group Inc	-3.4			
Selective Insurance Group Inc	-3.2			
Ollie's Bargain Outlet Holdings Inc	-1.7			



#### International Equity | As of December 31, 2023



	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)
International Equity	9.4	17.1	-2.0	9.9	8.3	5.0
International Equity Custom	9.3	15.1	0.5	6.8	6.5	4.1
Excess Return	0.1	2.0	-2.5	3.1	1.8	0.9



#### **Current Allocation**







# MEKETA

# Merced County Employees' Retirement Association

Sector Weights (%)

#### International Equity | As of December 31, 2023



17.5

			· · · · ·			
Energy Materials Industrials Consumer Discretionary Consumer Staples Health Care Financials Information Technology Communication Services Utilities Real Estate Other Cash				_		
	0.0	5.0	10.0	15.0	20.0	25.0
International Equ	uity		MSCI	AC World	ex USA inc	lex

Top Holdings	
Gold - Physical	5.8
Imperial Oil Ltd	1.9
Fomento Economico Mexican SAB de CV	1.4
Danone SA	1.4
Willis Towers Watson plc	1.3
Shell Plc	1.3
Unilever PLC	1.1
Cie Financiere Richemont AG, Zug	1.1
Investor AB publ	1.1
British American Tobacco PLC	1.1

Ten Best Performers
Scholar Education Group
GigaCloud Technology Inc
Zespol Elektrocieplowni Wroclawskich Kogeneracja S.A.,
Snap Inc
Camurus AB
Azure Power Global Limited
Micronics Japan Co Ltd
Lock & Lock Co Ltd
Honda Atlas Cars (Pakistan) Ltd
Hecto Financial Co Ltd

Ten Worst Performers				
	Quarterly Return (%)			
First Quantum Minerals Ltd	-65.3			
Tobii AB	-53.2			
Sierra Rutile Holdings Limited	-46.6			
Frontier Developments Plc	-38.1			
Wismilak Inti Makmur	-37.7			
WuXi Biologics (Cayman) Inc	-35.0			
Indika Energy TBK	-34.5			
Adcorp Holdings	-33.4			
Ensign Energy Services Inc	-31.7			
Taeyoung Engineering & Construction	-31.7			

% of Portfolio





#### Acadian ACWI ex U.S. Small Cap Equity | As of December 31, 2023



🔺 MSCI AC World ex USA Small Cap (Net)

	Quarter To Date	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)
Acadian ACWI ex U.S. Small Cap Equity	9.4	13.7	5.8	-	-	-
MSCI AC World ex USA Small Cap (Net)	10.1	15.7	1.5	7.9	6.7	4.9
Excess Return	-0.7	-2.0	4.3	-	-	-





#### Acadian ACWI ex U.S. Small Cap Equity | As of December 31, 2023

XD Inc

Equity Characteristics vs MSCI AC World ex USA index					
	Portfolio	Benchmark			
Number of Holdings	1,718	2,312			
Wtd. Avg. Mkt. Cap \$B	2.4	90.3			
Median Mkt. Cap \$B	0.5	9.8			
P/E Ratio	10.2	13.6			
Yield (%)	3.8	3.1			
EPS Growth - 5 Yrs. (%)	16.0	10.4			
Price to Book	2.1	2.5			

Αссοι	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				



MSCI AC World ex USA index

Top Holdings		Ten Best Performers	Ten Worst Performe	rs
SCREEN Holdings Co Ltd Marks and Spencer Group PLC International Games System Co Ltd	1.2 1.2 1.0	Scholar Education Group GigaCloud Technology Inc Zespol Elektrocieplowni Wroclawskich Kogeneracja S.A.,		Quarterly Return (%)
A2A SPA MakeMyTrip Ltd Boral Ltd Bld Chicony Electronics Co Ltd WNS (Holdings) Ltd Finning International Inc	0.9 0.9 0.8 0.8 0.7	Camurus AB Azure Power Global Limited Micronics Japan Co Ltd Lock & Lock Co Ltd Hecto Financial Co Ltd	Tobii AB Sierra Rutile Holdings Limited Frontier Developments Plc Wismilak Inti Makmur Indika Energy TBK Adcorp Holdings	-53.2 -46.6 -38.1 -37.7 -34.5 -33.4
Thyssenkrupp AG, Duisburg/Essen % of Portfolio	0.7 9.1	SCREEN Holdings Co Ltd Troax Group AB	Ensign Energy Services Inc Taeyoung Engineering & Construction Indivior PLC	-31.7 -31.7 -30.4

-28.0



#### **Return Summary** 20.0 14.1 15.0 Return % 12.3 9.4 10.2 10.0 7.7 6.8 4.9 5.0 0.0 -1.2 -2.0 -5.0 3 Yrs 5 Yrs 7 Yrs Quarter 1 Yr 10 Yrs (%) (%) (%) То (%) (%) Date **Driehaus International Small Cap Growth** MSCI AC World ex USA Small Growth Index (Net)

#### Driehaus International Small Cap Growth | As of December 31, 2023



A MSCI AC World ex USA Small Growth Index (Net)

	Quarter To Date	<b>1 Yr</b> (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)
Driehaus International Small Cap Growth	9.4	12.3	-1.2	-	-	-
MSCI AC World ex USA Small Growth Index (Net)	10.2	14.1	-2.0	7.7	6.8	4.9
Excess Return	-0.8	-1.8	0.8	-	-	-





#### Driehaus International Small Cap Growth | As of December 31, 2023

Equity Characteristics vs MSCI AC World ex USA index					
	Portfolio	Benchmark			
Number of Holdings	113	2,312			
Wtd. Avg. Mkt. Cap \$B	4.8	90.3			
Median Mkt. Cap \$B	4.1	9.8			
P/E Ratio	16.2	13.6			
Yield (%)	1.4	3.1			
EPS Growth - 5 Yrs. (%)	10.6	10.4			
Price to Book	2.6	2.5			

Αςςοι	int 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 Holdi	ings	
Miscellaneous Security	4.8	
Fugro NV	2.0	
ConvaTec Group PLC	1.9	
Glanbia PLC	1.9	
Leonardo SPA	1.9	
Aixtron SE	1.8	
DO & CO AG	1.6	
Celestica Inc	1.6	
Indra Sistemas SA, Madrid	1.4	
Seadrill Ltd	1.4	

20.3

Ten Best Performers		Ten W
	Quarterly Return (%)	
Alfen N.V.	56.6	Rohto Pharmaceutic
JINS HOLDINGS Inc	56.0	UBI Soft Entertainme
Be Semiconductor Industries NV	53.1	Syngene Internation
HPSP Co Ltd	52.4	Sanrio Co Ltd
Jeol Ltd	47.0	Bumrungrad Hospita
James Hardie Industries Plc	46.4	Capcom Co Ltd
Rolls Royce Holdings PLC	41.7	Asics Corp
Comet Holding AG, Wuennewil-Flamatt	41.0	CAE Inc.
Mycronic AB	37.1	APL Apollo Tubes Lt
Lotes Co Ltd	36.7	Paladin Energy Ltd

	Ten Worst Performers		
Quarterly Return (%)		Quarterly Return (%)	
56.6	Rohto Pharmaceutical Co Ltd	-25.8	
56.0	UBI Soft Entertainment SA	-21.6	
53.1	Syngene International Ltd	-13.0	
52.4	Sanrio Co Ltd	-12.4	
47.0	Bumrungrad Hospital Public Co Ltd	-11.6	
46.4	Capcom Co Ltd	-10.4	
41.7	Asics Corp	-9.8	
41.0	CAE Inc.	-7.5	
37.1	APL Apollo Tubes Ltd	-5.6	
36.7	Paladin Energy Ltd	-5.3	

% of Portfolio



#### GQG International Equity | As of December 31, 2023





	Quarter To Date	<b>1 Yr</b> (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)
GQG International Equity	11.9	20.6	6.6	-	-	-
MSCI AC World ex USA (Net)	9.8	15.6	1.5	7.1	6.3	3.8
Excess Return	2.1	5.0	5.1	-	-	-





Equity Characteristics vs MSCI AC World ex USA index			
	Portfolio	Benchmark	
Number of Holdings	61	2,312	
Wtd. Avg. Mkt. Cap \$B	244.8	90.3	
Median Mkt. Cap \$B	73.5	9.8	
P/E Ratio	15.5	13.6	
Yield (%)	2.9	3.1	
EPS Growth - 5 Yrs. (%)	17.2	10.4	
Price to Book	3.5	2.5	

#### GQG International Equity | As of December 31, 2023

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 (%)



MSCI AC World ex USA index

Top Holding	JS	Ten Best Performe	ers	Ten Worst Perfor	mers
Novo Nordisk A/S	6.9		Quarterly		Quarterly
Astrazeneca PLC	5.3		Return		Return
TotalEnergies SE	5.2		(%)		(%)
NVIDIA Corporation	5.0	Adani Green Energy Limited	61.4	Schlumberger Ltd	-10.3
Glencore Plc	4.7	Shin-Etsu Chemical Co Ltd	44.2	Aon plc	-10.1
ASML Holding NV	3.0	Advanced Micro Devices Inc	43.4	Tourmaline Oil Corp	-9.0
Canadian Natural Resources Ltd	2.5	Shopify Inc	42.8	IDFC First Bank Ltd	-7.1
Broadcom Inc	2.4	Rolls Royce Holdings PLC	41.7	Astrazeneca PLC	-0.3
Icici Bank Ltd	2.4	Arm Holdings plc	40.4	International Holding Co PJSC	-0.3
ASML Holding NV	2.2				
		Adani Power Ltd	38.8	Canadian Natural Resources Ltd	2.5
% of Portfolio	39.6	Broadcom Inc	35.0	Shell Plc	3.0
		GMR Airports Infrastructure Limited	35.0	TotalEnergies SE	3.1
		Tokyo Electron Ltd	30.8	Novartis AG	3.7





#### First Eagle International Value Fund | As of December 31, 2023



📕 First Eagle International Value Fund 🛛 🔺 MSCI EAFE (Net)



#### Quarter 10 Yrs 5 Yrs 7 Yrs 1 Yr 3 Yrs То (%) (%) (%) (%) (%) Date First Eagle International Value Fund -7.2 10.0 2.3 --6.9 4.3 MSCI EAFE (Net) 10.4 18.2 4.0 8.2 Excess Return -3.2 -8.2 -1.7 -\_



#### First Eagle International Value Fund | As of December 31, 2023

Equity Characteristics vs MSCI EAFE Index			
	Portfolio	Benchmark	
Number of Holdings	106	783	
Wtd. Avg. Mkt. Cap \$B	38.7	88.5	
Median Mkt. Cap \$B	16.2	13.4	
P/E Ratio	13.2	13.7	
Yield (%)	3.0	3.2	
EPS Growth - 5 Yrs. (%)	7.5	9.9	
Price to Book	1.8	2.6	

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 (%)



First Eagle International Value Fund

MSCI EAFE Index

Top Holdings		
Gold - Physical	10.5	
Imperial Oil Ltd	3.5	
Fomento Economico Mexican SAB de CV	2.5	
Danone SA	2.5	
Willis Towers Watson plc	2.4	
Shell Plc	2.3	
Unilever PLC	2.0	
Cie Financiere Richemont AG, Zug	1.9	
Investor AB publ	1.9	
British American Tobacco PLC	1.9	
% of Portfolio	31.4	

Ten Best Performers		
	Quarterly Return (%)	
Cia Energetica De Brasilia Ceb	41.2	
LE Lundbergforetagen AB	29.3	
Nihon Kohden Corp	28.0	
Industrias Penoles S.A.B. de C.V.	26.3	
Itausa S A	26.0	
Barrick Gold Corp	25.0	
Schindler Holding AG, Hergiswil	24.9	
Industrivaerden AB	22.6	
Wheaton Precious Metals Corp	22.1	
Grupo Mexico S.A.B. de C.V.	21.9	

Ten Worst Performers	
	Quarterly Return (%)
Franco-Nevada Corp	-16.7
AG Anadolu Grubu Holding Anonim Sirketi	-13.9
Pilot Corp	-12.3
Jardine Matheson Holdings Ltd	-11.2
Alibaba Group Holding Ltd	-10.2
Nong Shim Co Ltd	-9.8
Daiichikosho Co Ltd	-9.0
Great Eagle Holdings Ltd	-8.5
Nutrien Ltd	-7.9
Sanofi	-7.7




#### Artisan Developing World TR | As of December 31, 2023



	Quarter To Date	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)
Artisan Developing World TR	11.8	29.3	-11.7	-	-	-
MSCI Emerging Markets (Net)	7.9	9.8	-5.1	3.7	5.0	2.7
Excess Return	3.9	19.5	-6.6	-	-	-





Equity Characteristics vs MSCI Emerging Markets Index					
	Portfolio	Benchmark			
Number of Holdings	44	1,441			
Wtd. Avg. Mkt. Cap \$B	168.5	103.8			
Median Mkt. Cap \$B	49.0	7.0			
P/E Ratio	36.5	12.9			
Yield (%)	0.5	2.8			
EPS Growth - 5 Yrs. (%)	36.2	12.3			
Price to Book	5.9	2.5			

#### Artisan Developing World TR | As of December 31, 2023

Account Information			
Artisan Developing World TR			
Commingled Fund			
12/01/2019			
International Equity			
MSCI Emerging Markets (Net)			
eV Emg Mkts Equity			

### Sector Weights (%)



Artisan Developing World TR

MSCI Emerging Markets Index

Top Holding	IS	
MercadoLibre Inc	5.6	
NVIDIA Corporation	4.8	
Visa Inc	4.8	
Sea Limited	4.8	
MakeMyTrip Ltd	4.7	
Airbnb Inc	4.5	
Adyen N.V	4.2	
CrowdStrike Holdings Inc	3.6	
Nu Holdings Ltd	3.2	
Meituan	3.2	
% of Portfolio	43.4	

Ten Best Performers				
	Quarterly Return (%)			
Snap Inc	90.0	WuX		
Adyen N.V	72.5	Meitu		
CrowdStrike Holdings Inc	52.5	Bilibi		
Datadog Inc	33.3	Aliba		
Unity Software Inc	30.3	Seal		
Snowflake Inc	30.3	Veev		
Netflix Inc	28.9	Grab		
ASML Holding NV	28.9	Tenc		
MercadoLibre Inc	23.9	JD H		
MakeMyTrip Ltd	15.9	Airbr		

Ten Worst Performers			
	Quarterly Return (%)		
WuXi Biologics (Cayman) Inc	-35.0		
Meituan	-28.3		
Bilibili Inc	-11.6		
Alibaba Group Holding Ltd	-9.4		
Sea Limited	-7.8		
Veeva Systems Inc	-5.4		
Grab Holdings Limited	-4.8		
Tencent Holdings LTD	-3.8		
JD Health International Inc	-3.4		
Airbnb Inc	-0.8		







	Quarter To Date	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)
RWC	3.5	5.6	-8.5	-	-	-
MSCI Emerging Markets (Net)	7.9	9.8	-5.1	3.7	5.0	2.7
Excess Return	-4.4	-4.2	-3.4	-	-	-



### RWC | As of December 31, 2023



Equity Characteristics vs MSCI Emerging Markets Index					
	Portfolio	Benchmark			
Number of Holdings	56	1,441			
Wtd. Avg. Mkt. Cap \$B	1.9	103.8			
Median Mkt. Cap \$B	0.8	7.0			
P/E Ratio	5.6	12.9			
Yield (%)	4.6	2.8			
EPS Growth - 5 Yrs. (%)	14.1	12.3			
Price to Book	1.9	2.5			

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			

#### RWC | As of December 31, 2023



MSCI Emerging Markets Index

Top Holdings	
Savannah Energy Plc	5.6
Nova Ljubljanska Banka d.d	4.0
Seplat Energy Plc	3.9
TBC Bank Group PLC	3.7
Georgia Capital Plc	3.6
Addiko Bank AG	3.5
Military Commercial Joint Stock Bank	3.5
Halyk Bank of Kazakhstan Joint Stock Company	3.4
Guaranty Trust Bank PLC	3.2
Kazatomprom JSC NAC	3.1
% of Portfolio	37.5

Ten Best Performers	Ten Worst Performers		
Honda Atlas Cars (Pakistan) Ltd Meezan Bank Ltd		Quarterly Return (%)	
Telecom Argentina SA Lucky Cement Ltd	First Quantum Minerals Ltd	-65.3	
Ypf Sociedad Anonima Yacimientos Petroliferos Fiscale	Nigerian Breweries PLC	-21.6	
Jnited Bank I imited	SolGold PLC	-20.6	
Grupo Financiero Galicia Sa, Buenos Aires	East African Breweries Ltd	-17.9	
VGEX Minerals Ltd	Ceylon Cold Stores Ltd	-13.6	
Sphera Franchise Group S.A.	Masan Group Corp	-12.0	
Nova Ljubljanska Banka d.d	Equity Group Holdings Ltd	-10.6	
vova Ljubijaliska balika u.u	Vincom Retail Co Ltd	-10.6	
	Vietnam Dairy Product Co	-8.1	

Kazatomprom JSC NAC

-7.4



#### US Fixed Income | As of December 31, 2023



	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)
US Fixed Income	7.0	5.0	-3.7	0.6	1.0	1.7
US Fixed Income Custom Benchmark	6.4	5.4	-3.0	1.0	1.3	1.8
Excess Return	0.6	-0.4	-0.7	-0.4	-0.3	-0.1











# Merced County Employees' Retirement Association

US Fixed Income | As of December 31, 2023

US Fixed Income Portfolio Characteristics						
	Portfolio	Benchmark				
Yield To Maturity (%)	4.9	4.5				
Effective Duration	7.3	-				
Avg. Quality	AA	AA				





#### Vanguard Short-Term Treasury Index Fund | As of December 31, 2023





	Quarter To Date	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)
Vanguard Short-Term Treasury Index Fund	2.5	4.3	-0.1	1.2	-	-
Blmbg. 1-3 Govt	2.6	4.3	-0.1	1.3	1.2	1.1
Excess Return	-0.1	0.0	0.0	-0.1	-	-



# Merced County Employees' Retirement Association

#### Vanguard Short-term TIPS | As of December 31, 2023

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** Q4 -23 Q3 -23 Vanguard Short-Term Treasury Index Fund Vanguard Short-Term Treasury Index Fu Yield To Maturity 4.76 4.91 Average Duration 1.89 1.89 AA AA Average Quality Weight Average Maturity 2.00 2.00

Vanguard Short-Term Treasury Index Fund

#### Blmbg. 1-3 Govt







#### Vanguard Total Bond Market Index Fund | As of December 31, 2023

3 Yrs

(%)

5 Yrs

(%)

7 Yrs

(%)



	Quarter To Date	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)
Vanguard Total Bond Market Index Fund	6.7	5.7	-3.3	-	-	-
Blmbg. U.S. Aggregate Index	6.8	5.5	-3.3	1.1	1.3	1.8
Excess Return	-0.1	0.2	0.0	-	-	-

-4---

10 Yrs

(%)

# **Merced County Employees' Retirement Association**

### Vanguard Total Bond Market Index Fund | As of December 31, 2023



Vanguard Total Bond Market Index Fund

BImbg. U.S. Aggregate Index



#### **Return Summary** 6.0 4.5 4.3 4.5 Return % 2.8 3.0 2.6 1.3 1.2 1.5 1.0 0.0 -0.1 -1.5 Quarter 1 Yr 3 Yrs 5 Yrs 7 Yrs 10 Yrs (%) (%) (%) (%) (%) То Date Payden & Rygel Low Duration Fund Bimbg. U.S. Treasury: 1-3 Year

	Quarter To Date	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)
Payden & Rygel Low Duration Fund	2.8	4.5	-	-	-	-
Blmbg. U.S. Treasury: 1-3 Year	2.6	4.3	-0.1	1.3	1.2	1.0
Excess Return	0.2	0.2	-	-	-	-

#### Payden & Rygel Low Duration Fund | As of December 31, 2023



Payden & Rygel Low Duration Fund 🛛 🔺 Blmbg. U.S. Treasury: 1-3 Year



# Merced County Employees' Retirement Association

### Payden & Rygel Low Duration Fund | As of December 31, 2023

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						
	Q4 -23					
	Payden & Rygel Low Duration Fund	Bimbg. U.S. Treasury: 1-3 Yea				
Yield To Maturity	5.66	4.33				
Average Duration	1.84	1.84				
Average Quality	АА	AA				
Weight Average Maturity	2.10	1.97				





#### Brandywine US Fixed Income | As of December 31, 2023



	Quarter To Date	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)
Brandywine US Fixed Income	8.7	5.9	-	-	-	-
Blmbg. U.S. Aggregate Index	6.8	5.5	-3.3	1.1	1.3	1.8
Excess Return	1.9	0.4	-	-	-	-





# Merced County Employees' Retirement Association

### Brandywine US Fixed Income | As of December 31, 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						
	Q4 -23					
	Brandywine US Fixed Income	Blmbg. U.S. Aggregate Inde				
Yield To Maturity	4.55	4.53				
Average Duration	9.01	6.24				
Average Quality	AA	AA				
Weight Average Maturity	19.95	8.46				

Sector Distribution





### Wellington Core Bond | As of December 31, 2023



	Quarter To Date	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)
Wellington Core Bond	7.3	4.9	-	-	-	-
Blmbg. U.S. Aggregate Index	6.8	5.5	-3.3	1.1	1.3	1.8
Excess Return	0.5	-0.6	-	-	-	-





# Merced County Employees' Retirement Association

### Wellington Core Bond | As of December 31, 2023

	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								
	Q4 -23							
	Wellington Core Bond	Blmbg. U.S. Aggregate Inde						
Yield To Maturity	4.93	4.53						
Average Duration	6.51	6.24						
Average Quality	AA	AA						
Weight Average Maturity	-	8.46						

Sector Distribution

100.0





### PIMCO Income Fund | As of December 31, 2023





	Quarter To Date	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)
PIMCO Income Fund	5.9	9.3	1.1	-	-	-
Blmbg. U.S. Aggregate Index	6.8	5.5	-3.3	1.1	1.3	1.8
Excess Return	-0.9	3.8	4.4	-	-	-



# Merced County Employees' Retirement Association

#### PIMCO Income Fund | As of December 31, 2023

Account Information				
Account Name	PIMCO Income Fund			
Inception Date	04/30/2019			
Account Structure	Mutual Fund			
Asset Class	US Fixed Income			
Benchmark	Blmbg. U.S. Aggregate Index			



#### **Fixed Income Characteristics** Q4 -23 Blmbg. U.S. Aggregate Inde **PIMCO Income Fund** Yield To Maturity 6.54 4.53 Average Duration 6.24 3.55 Average Quality AAA AA Weight Average Maturity 5.31 8.46











	Quarter To Date	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)
Private Equity	0.5	4.6	20.7	16.4	15.9	13.8
Custom Private Equity Benchmark	-2.7	24.2	13.8	15.0	15.5	14.9
Excess Return	3.2	-19.6	6.9	1.4	0.4	-1.1





#### Hedge Fund | As of December 31, 2023



#### Custom Blended Hedge Fund Benchmark

	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)
Hedge Fund	1.4	5.5	4.8	5.5	5.5	-
Custom Blended Hedge Fund Benchmark	3.4	6.3	2.3	5.1	4.1	-
Excess Return	-2.0	-0.8	2.5	0.4	1.4	-



#### **Current Allocation**









#### Real Assets | As of December 31, 2023



#### Custom Blended Real Assets Benchmark

	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)
Real Assets	3.3	11.3	14.1	12.0	10.2	9.5
Custom Blended Real Assets Benchmark	7.2	5.6	9.4	8.2	7.5	7.3
Excess Return	-3.9	5.7	4.7	3.8	2.7	2.2



Custom Blended Real Assets Benchmark











#### Private Real Estate | As of December 31, 2023



	(%)	(%)	(%)	(%)	(%)	(%)
Private Real Estate	-0.4	-5.7	5.3	3.3	4.6	5.6
Custom Blended Real Estate Benchmark	-1.9	-12.1	7.1	5.4	5.9	7.4
Excess Return	1.5	6.4	-1.8	-2.1	-1.3	-1.8



### **Current Allocation**



# Annualized Standard Deviation





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

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

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

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

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

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

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

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

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



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

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

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

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

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

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

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



**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%.

5% (discount)=1% pro rata, plus=5 (yrs. to maturity)5.26% (current yield)=

= 6.26% (yield to maturity)

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

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

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

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

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

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

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