



**PERSPECTIVES
THAT DRIVE
ENTERPRISE
SUCCESS**



PERIOD ENDING: September 30, 2023

Investment Performance Review for

San Mateo County Employees' Retirement Association

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THE ECONOMIC CLIMATE

- Real GDP increased at a 2.9% pace from a year ago in Q3 (4.9% QoQ annualized rate). The large uptick was driven by consumption, which continues to show resiliency. A combination of pandemic related excess savings and a strong decade of household wealth expansion is likely providing a cushion against an economic slowdown.
- The unemployment rate increased slightly during the quarter from 3.6% to 3.8%, though this appears to be due to more workers rejoining the labor force and seeking employment (a positive rather than negative development). The total size of the U.S. workforce grew by 580,000 in Q3.

PORTFOLIO IMPACTS

- The U.S. consumer has shown resiliency, with ongoing moderate spending activity. However, personal savings rates are nearly the lowest on record. We believe depressed savings activity without a commensurate surge in spending, and very poor sentiment, suggests high inflation is squeezing household budgets.
- The Cboe VIX implied volatility index remained below-average for most of the third quarter, before rising to 17.5 to end September. Market risk has been falling fairly consistently throughout the year, which may be at least partly attributed to the perception that certain risks, such as regional bank contagion and near-term recession, have eased.

THE INVESTMENT CLIMATE

- The 10-year U.S. Treasury yield increased during the quarter to 4.58%—a level not seen since 2007—likely supported by *higher for longer* interest rate expectations. This led to a flattening of the yield curve.
- U.S. headline inflation ticked up from 3.1% to 3.7% year-over-year. Core CPI (ex-food & energy) continued to fall from 4.9% to 4.1%. Shelter costs jumped unexpectedly in September showing the largest rise since May, and along with rising energy prices have generated concerns of renewed inflation. A material weakening of the job market and U.S. economy will likely be needed to bring inflation down to a 2% level.

ASSET ALLOCATION ISSUES

- Nearly all asset classes produced materially negative performance during the quarter, including global equities (-3.4%), U.S. core fixed income (-3.2%) and U.S. Treasuries (-3.1%). Highly correlated markets created difficulties for investors, as diversification produced limited value.
- U.S. investors continue to face a difficult environment for style factor investing. Over the past year, mega cap growth stocks have propelled the U.S. market higher, leading to dramatic outperformance of growth stocks and large cap stocks. However, value investing has delivered exceptional results in international developed markets, outperforming growth stocks by 11.5%.

Nearly all asset classes produced materially negative performance during the quarter

A material weakening of the job market and/or U.S. economy will likely be needed to bring inflation down to a 2% level

U.S. economics summary

- Real GDP increased at a 2.9% pace from a year ago in the third quarter (4.9% quarter-over-quarter annualized rate). The large uptick was driven by consumption, which continues to show resiliency. While many investors have expected high inflation and weaker wage growth to impact spending, a combination of pandemic related excess savings and a strong decade of household wealth expansion is likely providing a cushion against an economic slowdown.
- U.S. headline inflation ticked up during the quarter, from 3.1% to 3.7% year-over-year in September. Core CPI (ex-food & energy) continued to fall from 4.9% to 4.1%. Shelter costs jumped unexpectedly in September, which along with rising energy prices have generated fresh concerns of renewed inflation.
- The U.S. consumer has shown resiliency, with continued moderate spending levels. However, personal savings rates are nearly the lowest on record. We believe depressed savings activity, along with mild household spending and very poor sentiment, suggests high inflation is squeezing household budgets.
- The unemployment rate increased slightly during the quarter from 3.6% to 3.8%, though this appears to be due to more workers rejoining the labor force and seeking employment (a positive rather than negative development). The total size of the U.S. workforce grew by 580,000 in Q3.
- Consumer sentiment readings were mixed during Q3 but remain poor. According to the Conference Board survey, the future outlook for income, business, and labor conditions fell very sharply and are now at levels that historically have signaled recession within a year.

	Most Recent	12 Months Prior
Real GDP (YoY)	2.9% 9/30/23	1.7% 9/30/22
Inflation (CPI YoY, Core)	4.1% 9/30/23	8.2% 9/30/22
Expected Inflation (5yr-5yr forward)	2.4% 9/30/23	2.1% 9/30/22
Fed Funds Target Range	5.25–5.50% 9/30/23	3.00–3.25% 9/30/22
10-Year Rate	4.58% 9/30/23	3.83% 9/30/22
U-3 Unemployment	3.8% 9/30/23	3.5% 9/30/22
U-6 Unemployment	7.0% 9/30/23	6.7% 9/30/22

International economics summary

- Countries struggling to control inflation—primarily advanced economies—face a challenging path. Many central banks are grappling with high prices and slow growth, and the balancing act of fighting inflation but also trying to avoid recession. In contrast, most emerging economies are exceeding growth expectations, outside of China. Some of this strength has come from trade rotation as tensions remain between the U.S. and China and businesses rethink their trade partners.
- The IMF’s October World Economic Outlook was little changed from July Projections, as global growth is still expected to slow in 2024. Regional divergences remained an emphasis, as emerging economies are projected to drive global output. India is expected to outpace all other countries with growth forecasts above 6% for both 2023 and 2024.
- Inflation in the Eurozone and United Kingdom has remained sticky, with inflation in September coming in at 4.3% and 6.7% year-over-year, respectively. Monetary policy is expected to be tighter for both the ECB and BOE, although rate decisions diverged at their respective September meetings, as the ECB raised rates by another 25 bps, while the BOE voted 5-4 to maintain their bank rate at 5.25%.
- Japan was a bright spot amongst developed economies, driven by strong exports in the second quarter. While growth was positive, the potential for an early end to ultra loose Bank of Japan (BOJ) monetary policy presents a potential headwind. A weak Japanese Yen adds to this story, as the currency has been greatly devalued, largely due to the BOJ’s contrarian monetary policy relative to other major central banks.

Area	GDP (Real, YoY)	Inflation (CPI, YoY)	Unemployment
United States	2.9% 9/30/23	3.7% 9/30/23	3.8% 9/30/23
Eurozone	0.5% 6/30/23	4.3% 9/30/23	6.4% 8/31/23
Japan	1.6% 6/30/23	2.8% 9/30/23	2.7% 8/31/23
BRICS Nations	6.1% 6/30/23	1.7% 9/30/23	4.8% 12/31/22
Brazil	3.4% 6/30/23	5.2% 9/30/23	7.8% 8/31/23
Russia	4.9% 6/30/23	6.0% 9/30/23	3.0% 8/31/23
India	7.8% 6/30/23	5.0% 9/30/23	7.1% 9/30/23
China	4.9% 9/30/23	0.0% 9/30/23	5.0% 9/30/23

NOTE: India lacks reliable government unemployment data. Unemployment rate shown above is estimated from the Centre for Monitoring Indian Economy. The Chinese unemployment rate represents the monthly surveyed urban unemployment rate in China.

Equity environment

- Global equities delivered negative performance during the quarter (MSCI ACWI -3.4%). Weakness in markets was broad-based, with international developed (MSCI EAFE -4.1%) slightly underperforming domestic and emerging market equities (S&P 500 -3.3%, MSCI EM -2.9%).
- Over the quarter, the valuation gap between domestic and international equities grew even larger. An analysis of international developed Price/Earnings ratios shows that all sectors currently hold a valuation discount relative to U.S. shares, and that those discounts are generally much wider than the historical average.
- Currency movements dragged portfolio performance lower for investors with unhedged foreign currency exposure. Investors with unhedged international developed equity exposure saw losses of -

3.6% due to currency volatility during the quarter.

- U.S. investors continue to face a difficult environment for style factor investing. Over the past year, mega cap growth stocks have propelled the U.S. market higher, leading to dramatic outperformance of growth stocks and large cap stocks. However, value investing has delivered exceptional results in international developed markets, with value stocks outperforming growth by 11.5%.
- The Cboe VIX implied volatility index remained below-average for most of the third quarter, before rising to 17.5% to end September. Market risk has been falling fairly consistently throughout the year.

	QTD TOTAL RETURN		1 YEAR TOTAL RETURN	
	(unhedged)	(hedged)	(unhedged)	(hedged)
U.S. Large Cap (S&P 500)	(3.3%)		21.6%	
U.S. Small Cap (Russell 2000)	(5.1%)		8.9%	
U.S. Equity (Russell 3000)	(3.3%)		20.5%	
U.S. Large Value (Russell 1000 Value)	(3.2%)		14.4%	
US Large Growth (Russell 1000 Growth)	(3.1%)		27.7%	
Global Equity (MSCI ACWI)	(3.4%)	(2.3%)	20.8%	20.4%
International Large (MSCI EAFE)	(4.1%)	(0.5%)	25.6%	24.1%
Eurozone (EURO STOXX 50)	(7.7%)	(4.3%)	39.4%	33.0%
U.K. (FTSE 100)	(1.9%)	2.2%	25.3%	16.0%
Japan (TOPIX)	(1.0%)	4.0%	25.7%	36.6%
Emerging Markets (MSCI Emerging Markets)	(2.9%)	(1.3%)	11.7%	11.1%

Source: Russell Investments, MSCI, STOXX, FTSE, JPX, as of 9/30/23

Domestic equity

Domestic equities finished lower to end the quarter, breaking the previous three consecutive quarters of gains. The S&P 500 Index ended September down -3.3%, alongside losses across all other regional equity groups. Strong gains in July—influenced by better-than-expected earnings—were pared by losses in August and September as the *higher for longer* narrative raised recession fears while also helping to push Treasury yields significantly higher.

Early Q3 gains were driven by a continued rally across mega-cap technology names and better-than-expected earnings. Second quarter earnings marked the third straight quarter of year-over-year declines, yet the -4.1% fall was much better than the initially feared -7.0% projection

by FactSet. From a sector perspective, equity movements were less concentrated relative to the prior quarter. Energy was an outlier, where the sector’s +12.2% gain was a function of higher oil prices due primarily to supply related issues.

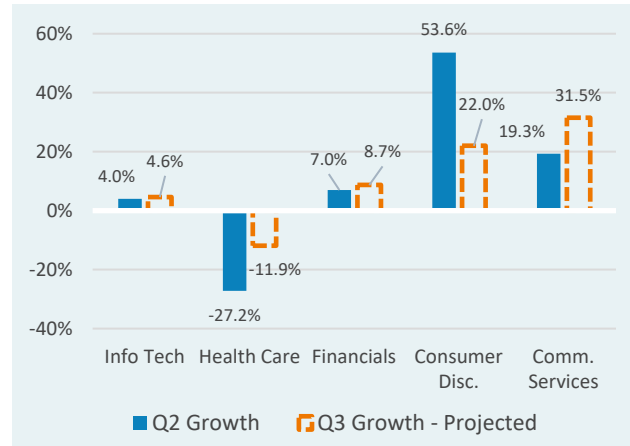
Going forward, domestic equities remain challenged on both the earnings and valuations front. Earnings growth is expected to decline for the fourth straight quarter, although stable expectations amongst the S&P 500’s largest sectors could provide an anchor. Earnings stability of some of the largest index names may also be contributing to higher valuations, which remain expensive relative to international developed and emerging market equities.

S&P 500 PRICE INDEX



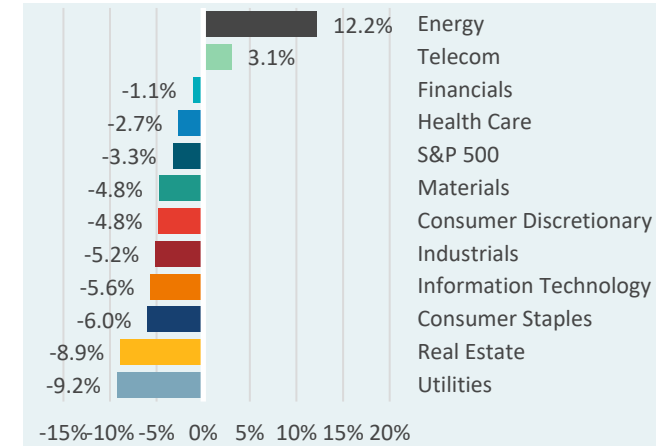
Source: Bloomberg, as of 9/30/23

FIVE LARGEST SECTORS EPS GROWTH YOY



Source: FactSet, as of 9/30/23

Q3 2023 SECTOR PERFORMANCE



Source: Morningstar, as of 9/30/23

Domestic equity size & style

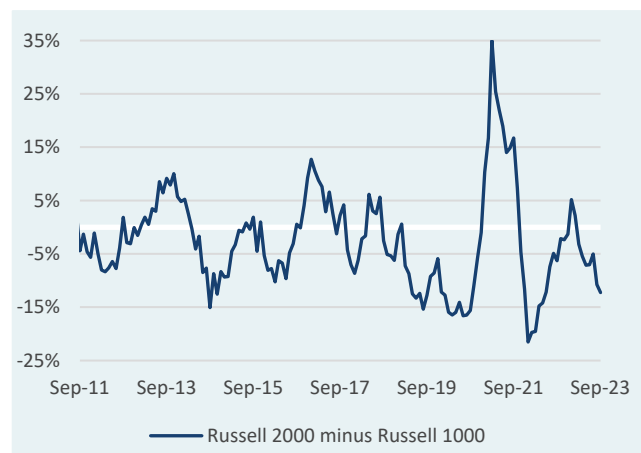
Investors continue to face a difficult environment for style factor investing. Value underperformed growth mildly during the quarter (-3.2% vs. -3.1%), with sector trends appearing to have had less of an impact on value vs. growth stocks during Q2. Small cap equities materially lagged large caps (-5.1% vs -3.3%). *Higher for longer* rate expectations likely contributed to a repricing of growth-focused assets that are more sensitive to interest rate fluctuations.

Over the past year, mega cap growth stocks have propelled the U.S. market higher, leading to dramatic outperformance

of growth stocks and large cap stocks. Many of these market-leading stocks are concentrated in the Information Technology and Telecom sectors, which have outperformed the overall index (+41.1% and 38.5%, respectively).

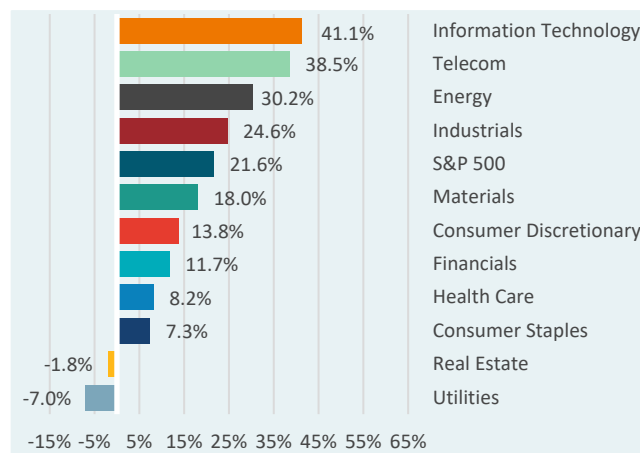
In recent years value stocks have been extremely cheap. Value has rarely been this discounted relative to growth, and during the few historical periods when this was the case, value outperformed significantly. However, value has failed to deliver similar outperformance during the current period.

SMALL CAP VS LARGE CAP (YOY)



Source: FTSE, as of 9/30/23

VALUE VS GROWTH (YOY)



Source: Morningstar, as of 9/30/23

1-YEAR SIZE & STYLE PERFORMANCE

	Value	Core	Growth
Large Cap	14.4%	21.2%	27.7%
Mid Cap	11.0%	13.4%	17.5%
Small Cap	7.8%	8.9%	9.6%

Source: FTSE, as of 9/30/23

International developed equity

International developed shares fell -4.1% during Q3 in unhedged currency terms, underperforming U.S. and emerging markets. However, international developed equities in hedged currency terms were the best performing markets (returning -0.5%), as currency hedging would have avoided the U.S. dollar surge fueled by a *higher for longer* interest rate narrative.

Underperformance within the Eurozone dragged the overall index lower, with the STOXX 50 Index falling -7.7% over the quarter in unhedged terms—the worst performer across regional indices. The broader bloc continues to struggle to bring down inflation, while policymakers also deal with stagnant economic growth. In contrast to weakness seen from European

shares, Japanese equities delivered another quarter of positive performance in unhedged terms (TOPIX -1.0%), and significant outperformance in currency hedged terms (+4.0%). While a weaker Japanese Yen (JPY) hurt performance in U.S. dollar terms, the weak JPY has boosted local corporate earnings. These currency movements combined with meaningful inflation and equity reforms—meant to spark investment in wages, higher growth, and therefore shareholder value—have been a tailwind to strong year-over-year Japanese equity performance.

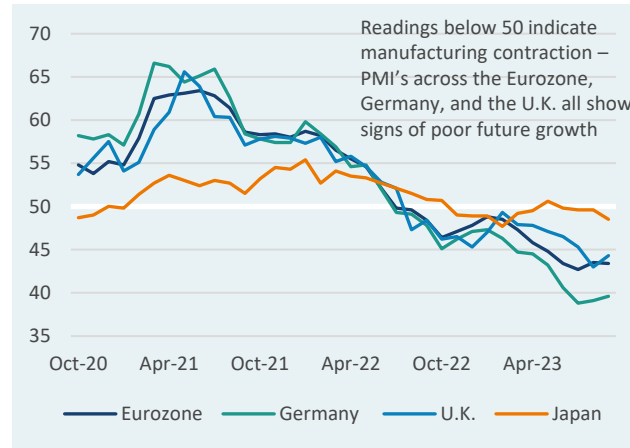
Overall, we believe international developed equities are less attractive in the near-term, specifically due to the economic headwinds facing the U.K. and broader Eurozone.

INTERNATIONAL DEVELOPED EQUITY



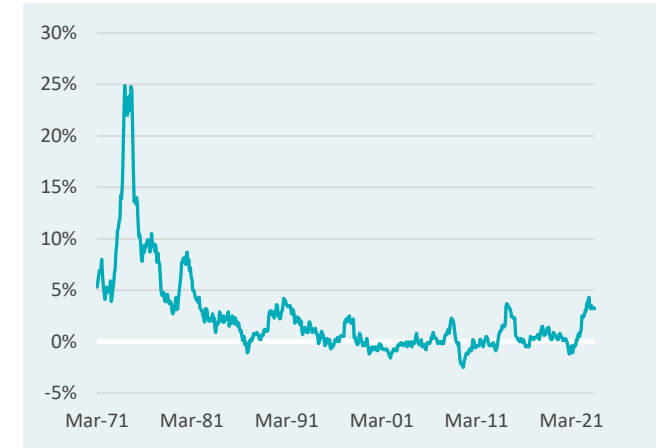
Source: MSCI, as of 9/30/23

MANUFACTURING PMI



Source: S&P Global, as of 9/30/23

JAPANESE CPI



Source: Japan MIC, as of 8/31/23

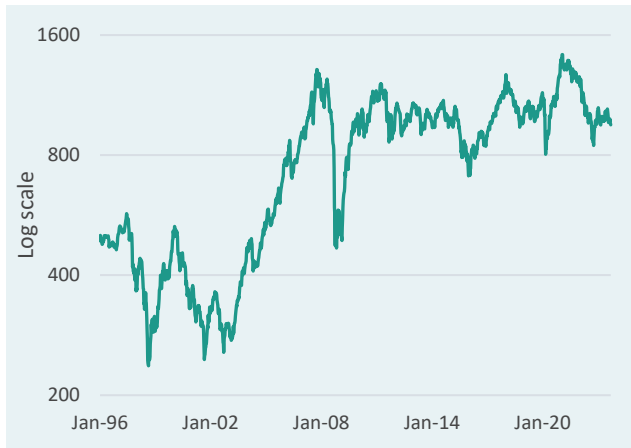
Emerging market equity

Emerging market equities outperformed domestic equities and international developed equities in Q3. The MSCI EM Index fell -2.9%, while the S&P 500 was -3.3% lower and the MSCI EAFE Index dropped -4.1%. Emerging markets have provided only a 2.1% annualized return over the past decade.

From an individual country perspective, the two largest weights in the index—China and India—outperformed, although Chinese equities were still -1.9% lower. This impact counterbalanced losses across other markets, since the combined weight of both countries makes up approximately 45% of the MSCI Emerging Markets Index.

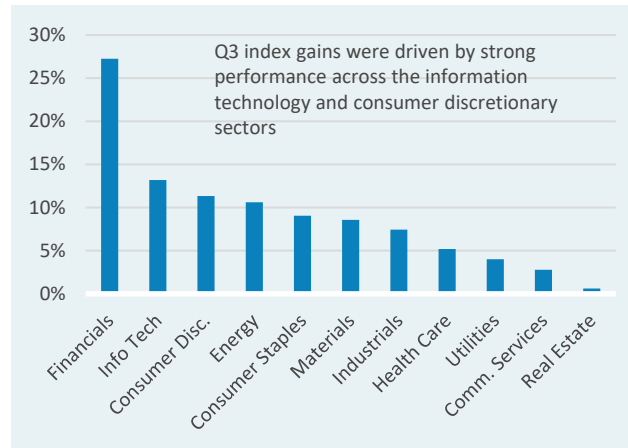
Emerging market equities continue to offer fairly cheap valuations, yet sentiment has grown negative, especially as concerns around China are now mainstream. Outside of geopolitical tensions, the Chinese economy continues to show signs of struggle despite some small government stimulus efforts. The property market remains a large pain point, evidenced by credit stress and falling contracted sales amongst large property developers such as Country Garden and Evergrande.

EMERGING MARKET EQUITY



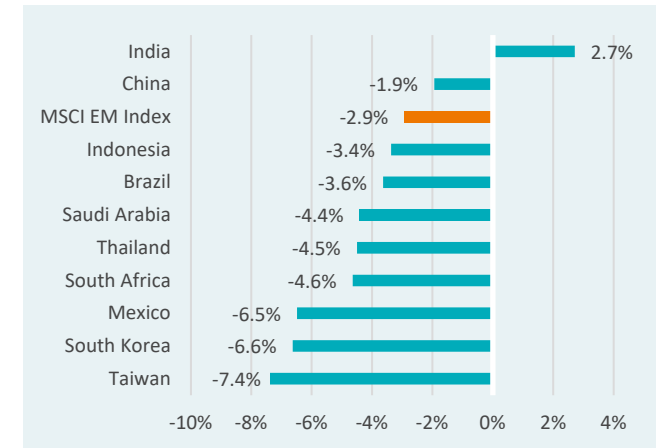
Source: MSCI, as of 9/30/23

MSCI INDIA SECTOR WEIGHTS



Source: MSCI, as of 9/30/23

Q3 2023 MSCI EM COUNTRY RETURNS (USD)



Source: Bloomberg, MSCI, as of 9/30/23

Fixed income environment

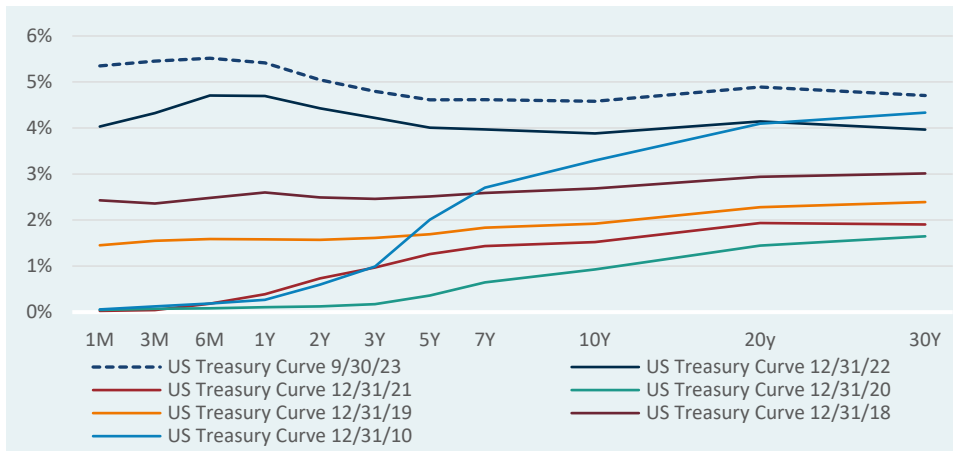
- The 10-year U.S. Treasury yield increased during the quarter from 3.81% to 4.58%—a level not seen since 2007—likely supported by *higher for longer* interest rate expectations. This has led to a flattening of the yield curve, though the curve remains inverted at -0.5% (defined as the 10-year Treasury yield minus 2-year Treasury yield).
- Rising interest rates combined with lower inflation have brought real (inflation-adjusted, based on the U.S. TIPS Inflation Breakeven Rate) 10- and 30-year Treasury yields to the highest levels in over a decade. Real yields for 10- and 30-year Treasuries finished the month at 2.24% and 2.33%, respectively. In March of 2022 these rates were negative.
- The Federal Reserve hiked interest rates by 0.25% in July but held rates steady at the September meeting as inflation moderated. Importantly, Chairman Powell signaled that additional rate hikes may be warranted if the economy remains strong and inflation above target.
- During Q3, higher quality bonds and U.S. Treasuries saw mild losses due primarily to their longer duration profile. Riskier credit performed well, with larger coupons and shorter duration contributing to positive performance.
- Longer duration investment grade corporate bonds (Bloomberg U.S. Long Corporate Credit) performed very poorly, falling by -7.3% during the quarter as rising interest rates acted as a headwind.
- With inflation moderating during the quarter, investors expressed optimism that the Federal Reserve would soon pause interest rate hikes. However, interest rate volatility increased during the period as concerns related to the U.S. government's budget deficit and the amount of expected issuance contributed to higher long-term bond yields.

	QTD Total Return	1 Year Total Return
Core Fixed Income (Bloomberg U.S. Aggregate)	(3.2%)	0.6%
Core Plus Fixed Income (Bloomberg U.S. Universal)	(2.9%)	1.6%
U.S. Treasuries (Bloomberg U.S. Treasury)	(3.1%)	(0.8%)
U.S. Treasuries: Long (Bloomberg U.S. Treasury 20+)	(13.0%)	(10.7%)
U.S. High Yield (Bloomberg U.S. Corporate HY)	0.5%	10.3%
Bank Loans (S&P/LSTA Leveraged Loan)	3.4%	13.0%
Emerging Market Debt Local (JPM GBI-EM Global Diversified)	(3.3%)	13.1%
Emerging Market Debt Hard (JPM EMBI Global Diversified)	(2.2%)	10.0%
Mortgage-Backed Securities (Bloomberg MBS)	(4.1%)	(0.2%)

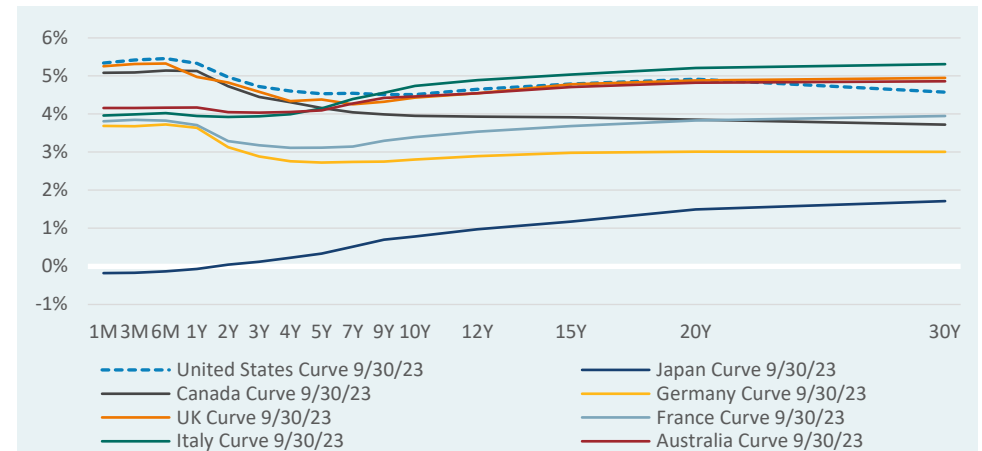
Source: Bloomberg, as of 9/30/23

Yield environment

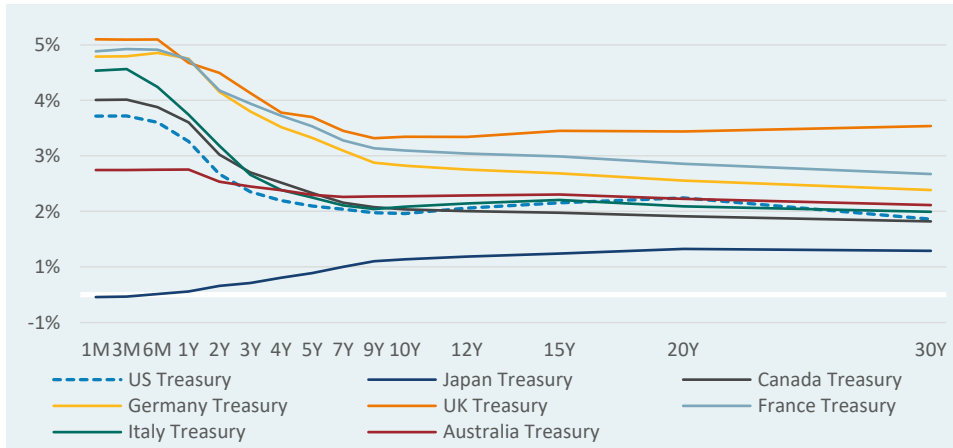
U.S. YIELD CURVE



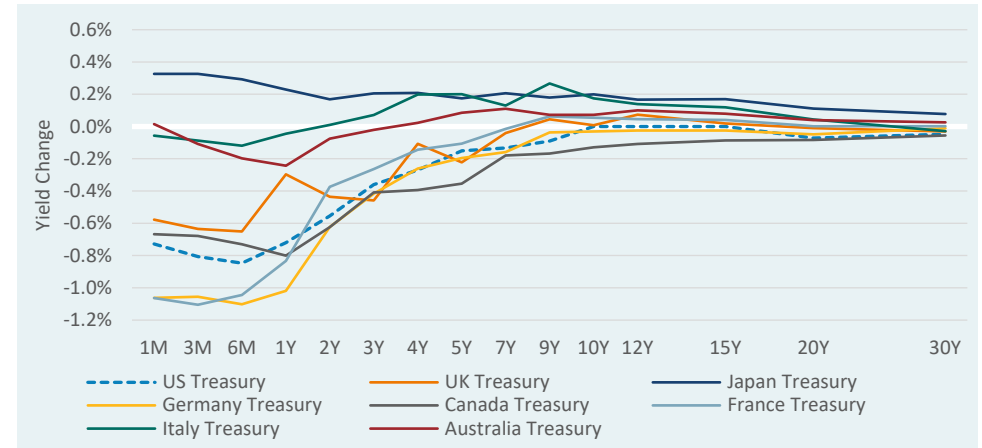
GLOBAL GOVERNMENT YIELD CURVES



YIELD CURVE CHANGES OVER LAST FIVE YEARS



IMPLIED CHANGES OVER NEXT YEAR



Source: Bloomberg, as of 9/30/23

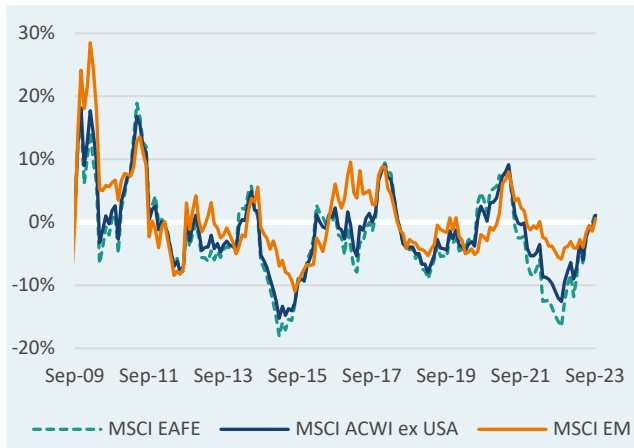
Currency

Currency movements dragged portfolio performance lower for investors with unhedged foreign exposure. On a trade-weighted basis, the value of the U.S. dollar shot higher as investors questioned the falling inflation story and bond yields rose on the *higher for longer* interest rate narrative.

Investors with unhedged international developed equity exposure saw losses of -3.6% due to currency movements in Q3. After recently experiencing deep losses over multiple years from unhedged foreign currency exposure, along with ongoing volatility, many investors may be interested in exploring more thoughtful approaches to currency. A currency hedging program can reduce the uncompensated risk of unhedged foreign

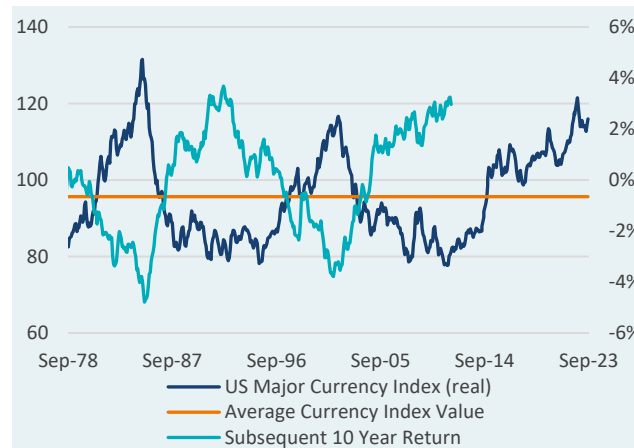
currency exposure (what we call “embedded currency” risk). Additionally, the MSCI Currency Factor Mix Index—a representation of a passive investment in the currency market, by investing in currencies with higher interest rates, currencies that are undervalued, and currencies that are showing positive price momentum—has shown a positive one-year rolling return over most periods with low volatility. This is an approach to thoughtfully gain exposure to the currency market with the objective of generating a moderate positive return. A currency hedging program along with a passive investment in the currency market may allow investors to reduce overall portfolio risk while moderately increasing total portfolio expected returns.

EFFECT OF CURRENCY (1-YEAR ROLLING)



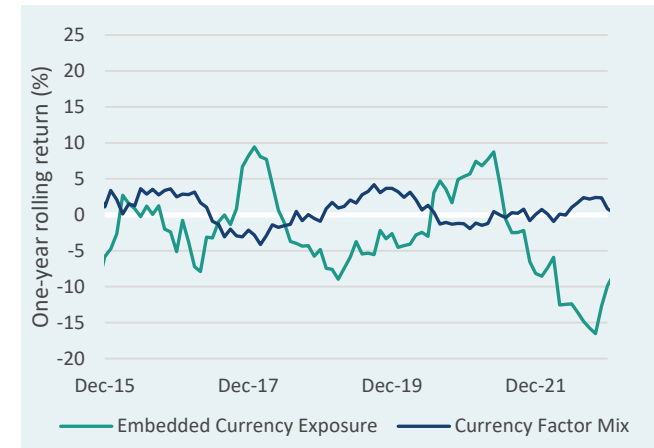
Source: MSCI, as of 9/30/23

BLOOMBERG DOLLAR SPOT INDEX



Source: Bloomberg, as of 9/30/23

EMBEDDED CURRENCY VS CURRENCY FACTORS



Source: Bloomberg, MSCI, as of 9/30/23

Detailed index returns

DOMESTIC EQUITY

	Month	QTD	YTD	1 Year	3 Year	5 Year	10 Year
Core Index							
S&P 500	(4.8)	(3.3)	13.1	21.6	10.2	9.9	11.9
S&P 500 Equal Weighted	(5.1)	(4.9)	1.8	13.6	11.4	8.0	10.2
DJ Industrial Average	(3.4)	(2.1)	2.7	19.2	8.6	7.1	10.8
Russell Top 200	(4.6)	(2.7)	16.3	23.9	10.0	10.8	12.6
Russell 1000	(4.7)	(3.1)	13.0	21.2	9.5	9.6	11.6
Russell 2000	(5.9)	(5.1)	2.5	8.9	7.2	2.4	6.6
Russell 3000	(4.8)	(3.3)	12.4	20.5	9.4	9.1	11.3
Russell Mid Cap	(5.0)	(4.7)	3.9	13.4	8.1	6.4	9.0
Style Index							
Russell 1000 Growth	(5.4)	(3.1)	25.0	27.7	8.0	12.4	14.5
Russell 1000 Value	(3.9)	(3.2)	1.8	14.4	11.1	6.2	8.4
Russell 2000 Growth	(6.6)	(7.3)	5.2	9.6	1.1	1.6	6.7
Russell 2000 Value	(5.2)	(3.0)	(0.5)	7.8	13.3	2.6	6.2

INTERNATIONAL EQUITY

Broad Index							
MSCI ACWI	(4.1)	(3.4)	10.1	20.8	6.9	6.5	7.6
MSCI ACWI ex US	(3.2)	(3.8)	5.3	20.4	3.7	2.6	3.3
MSCI EAFE	(3.4)	(4.1)	7.1	25.6	5.8	3.2	3.8
MSCI EM	(2.6)	(2.9)	1.8	11.7	(1.7)	0.6	2.1
MSCI EAFE Small Cap	(4.4)	(3.5)	1.8	17.9	1.1	0.8	4.3
Style Index							
MSCI EAFE Growth	(6.0)	(8.6)	4.3	20.0	0.4	3.2	4.4
MSCI EAFE Value	(0.8)	0.6	9.9	31.5	11.1	2.8	3.0
Regional Index							
MSCI UK	(0.8)	(1.5)	6.8	24.9	12.1	2.9	2.5
MSCI Japan	(2.1)	(1.6)	11.2	25.9	2.8	2.1	4.4
MSCI Euro	(5.4)	(7.5)	10.9	36.4	7.3	3.7	3.8
MSCI EM Asia	(2.6)	(2.9)	1.0	11.9	(3.5)	1.0	3.8
MSCI EM Latin American	(2.3)	(4.7)	12.9	19.4	15.1	2.8	0.2

FIXED INCOME

	Month	QTD	YTD	1 Year	3 Year	5 Year	10 Year
Broad Index							
Bloomberg US TIPS	(1.8)	(2.6)	(0.8)	1.2	(2.0)	2.1	1.7
Bloomberg US Treasury Bills	0.4	1.3	3.6	4.6	1.7	1.7	1.1
Bloomberg US Agg Bond	(2.5)	(3.2)	(1.2)	0.6	(5.2)	0.1	1.1
Bloomberg US Universal	(2.4)	(2.9)	(0.6)	1.6	(4.7)	0.3	1.4
Duration							
Bloomberg US Treasury 1-3 Yr	(0.0)	0.7	1.7	2.4	(0.9)	1.0	0.8
Bloomberg US Treasury Long	(7.3)	(11.8)	(8.6)	(9.1)	(15.7)	(2.8)	0.8
Bloomberg US Treasury	(2.2)	(3.1)	(1.5)	(0.8)	(5.8)	(0.1)	0.6
Issuer							
Bloomberg US MBS	(3.2)	(4.1)	(2.3)	(0.2)	(5.1)	(0.8)	0.6
Bloomberg US Corp. High Yield	(1.2)	0.5	5.9	10.3	1.8	3.0	4.2
Bloomberg US Agency Interim	(0.3)	0.2	1.6	2.5	(2.0)	0.7	0.9
Bloomberg US Credit	(2.6)	(3.0)	0.0	3.5	(4.8)	0.9	2.1

OTHER

Index							
Bloomberg Commodity	(0.7)	4.7	(3.4)	(1.3)	16.2	6.1	(0.7)
Wilshire US REIT	(6.5)	(6.4)	(0.2)	3.9	5.7	2.9	6.0
CS Leveraged Loans	0.9	3.4	9.9	12.5	5.9	4.3	4.3
S&P Global Infrastructure	(4.7)	(7.3)	(3.7)	6.9	7.3	4.1	5.1
Alerian MLP	2.4	9.4	20.2	32.7	43.5	6.4	1.7
Regional Index							
JPM EMBI Global Div	(2.6)	(2.2)	1.8	10.0	(4.6)	(0.4)	2.5
JPM GBI-EM Global Div	(3.4)	(3.3)	4.3	13.1	(2.7)	(0.0)	(0.8)
Hedge Funds							
HFRI Composite	(0.2)	0.8	4.3	6.7	6.9	5.0	4.6
HFRI FOF Composite	(0.2)	0.7	3.0	4.8	3.8	3.4	3.3
Currency (Spot)							
Euro	(2.5)	(3.0)	(0.8)	8.1	(3.4)	(1.8)	(2.4)
Pound Sterling	(3.7)	(4.0)	1.5	9.3	(1.9)	(1.3)	(2.8)
Yen	(2.4)	(3.1)	(11.6)	(3.0)	(10.9)	(5.3)	(4.1)

Source: Morningstar, HFRI, as of 9/30/23.

- The Total Fund, net of manager fees, returned -1.6% in the third quarter of 2023 and in the ranked 29th percentile among other public plans greater than \$1 billion (median of -1.9%). It lagged the policy index return of -0.9%. The Total Fund ex Overlay returned -1.6% for the quarter. The Total Fund one-year return of 7.7% lagged the policy index return of 10.6% and ranked in the 90th percentile of its peer universe. The three-year return of 5.3% (59th percentile) lagged the median large public plan (5.8%) and the policy index (5.7%).

- Third quarter results were enhanced by the following factors:
 1. PGIM Quant Solutions beat the Russell 2000 (-2.1% vs -5.1%) bringing the YTD outperformance to 5%. The Value and Qualities were the top performing factors, growth was also a positive contributor, but not to the same extent.

- Third quarter results were hindered by the following factors:
 1. PanAgora Defensive Equity lost -5.1% trailing the Russell 1000 which lost -3.1%. Year-to-date the lighter than benchmark weight to IT was a drag on relative performance.
 2. Baillie Gifford lost -10.1% and trailed the MSCI ACWI ex US Growth (-7.7%). Both Japanese holdings and exposure to China hurt relative performance for the quarter.

Total Fund
Performance Summary (Net of Fees)

San Mateo County Employees' Retirement Association
Period Ending: September 30, 2023

	Market Value	% of Portfolio	3 Mo Rank	YTD	1 Yr Rank	2 Yrs Rank	3 Yrs Rank	5 Yrs Rank	10 Yrs Rank
Total Fund**	5,925,126,884	100.0	-1.6 (29)	3.4 (80)	7.7 (90)	-1.1 (47)	5.3 (58)	4.9 (66)	6.1 (51)
<i>Policy Index</i>			-1.1 (14)	6.3 (7)	10.4 (39)	-0.2 (26)	5.6 (55)	5.6 (35)	6.6 (43)
<i>Simple Benchmark</i>			-2.9 (84)	3.8 (68)	9.2 (69)	-2.0 (66)	4.4 (85)	5.2 (56)	6.3 (50)
InvMetrics Public DB > \$1B Median			-1.9	4.6	9.8	-1.2	5.8	5.3	6.2
Total Fund ex Overlay	5,917,254,708	99.9	-1.6 (29)	3.3 (81)	7.3 (94)	-1.1 (48)	5.3 (58)	4.8 (68)	6.1 (54)
<i>Policy Index</i>			-1.1 (14)	6.3 (7)	10.4 (39)	-0.2 (26)	5.6 (55)	5.6 (35)	6.6 (43)
<i>Simple Benchmark</i>			-2.9 (84)	3.8 (68)	9.2 (69)	-2.0 (66)	4.4 (85)	5.2 (56)	6.3 (50)
InvMetrics Public DB > \$1B Median			-1.9	4.6	9.8	-1.2	5.8	5.3	6.2
Growth Portfolio	3,421,856,715	57.8	-2.2	6.4	14.8	-	-	-	-
<i>Blended Growth Index</i>			-0.7	11.3	18.9	-0.3	8.2	7.6	-
US Equity	1,315,019,186	22.2	-3.3 (37)	7.4 (89)	17.1 (82)	1.0 (10)	9.5 (48)	7.7 (79)	10.1 (73)
<i>Blended US Equity Index</i>			-3.3 (34)	12.4 (19)	20.5 (29)	-0.4 (35)	9.4 (53)	9.1 (18)	11.1 (27)
<i>Russell 3000 Index</i>			-3.3 (34)	12.4 (19)	20.5 (29)	-0.4 (35)	9.4 (53)	9.1 (18)	11.3 (21)
BlackRock Russell 1000	797,183,836	13.5	-3.1 (51)	13.0 (24)	21.2 (32)	0.2 (60)	9.5 (45)	9.6 (28)	-
DE Shaw	183,140,645	3.1	-2.1 (20)	10.0 (47)	17.3 (61)	0.9 (47)	9.5 (45)	8.0 (65)	11.4 (31)
PanAgora Defuseq	218,737,593	3.7	-5.1 (92)	-3.8 (100)	7.7 (99)	1.2 (43)	7.6 (73)	-	-
<i>Russell 1000 Index</i>			-3.1 (51)	13.0 (25)	21.2 (32)	0.2 (60)	9.5 (45)	9.6 (28)	11.6 (22)
<i>eV US Large Cap Core Equity Median</i>			-3.1	9.2	18.9	0.7	9.2	8.7	10.8
PGIM Quant Solutions	113,614,502	1.9	-2.1	7.8	18.3	-0.8	14.8	3.4	-
<i>Russell 2000 Index</i>			-5.1	2.5	8.9	-8.7	7.2	2.4	6.6
<i>eV US Small Cap Core Equity Median</i>			-4.6	4.2	13.1	-4.4	10.8	4.7	7.9
International Equity with Record	1,051,040,988	17.7	-4.0 (45)	6.9 (37)	21.1 (54)	-4.8 (39)	4.2 (48)	3.7 (27)	4.3 (23)
<i>Blended International Equity Index</i>			-2.0 (8)	7.6 (22)	19.7 (79)	-2.0 (8)	6.4 (18)	4.2 (13)	4.5 (20)
Baillie Gifford	242,827,684	4.1	-10.1 (87)	-0.7 (85)	12.8 (76)	-16.9 (79)	-6.0 (84)	1.4 (75)	3.8 (82)
<i>MSCI ACWI ex US</i>			-3.7 (7)	5.8 (25)	21.0 (25)	-4.6 (10)	4.2 (8)	3.1 (49)	3.9 (80)
<i>MSCI ACWI ex US Growth</i>			-7.3 (40)	2.9 (56)	16.2 (58)	-9.8 (39)	-1.6 (51)	2.9 (55)	4.3 (68)
Mondrian	264,329,446	4.5	-2.4 (67)	9.2 (48)	26.5 (56)	-2.1 (60)	6.9 (81)	2.1 (73)	3.1 (77)
<i>MSCI AC World ex USA Value</i>			0.1 (19)	8.9 (52)	26.1 (58)	0.8 (29)	10.3 (40)	3.0 (60)	3.2 (75)
<i>MSCI AC World ex USA Index</i>			-3.7 (84)	5.8 (80)	21.0 (78)	-4.6 (88)	4.2 (94)	3.1 (55)	3.8 (50)
BlackRock MSCI ACWI EX-US IMI	528,820,717	8.9	-3.5 (31)	5.5 (57)	20.5 (47)	-5.2 (46)	4.0 (47)	-	-
<i>MSCI AC World ex USA IMI (Net)</i>			-3.5 (30)	5.3 (60)	20.2 (54)	-5.5 (48)	3.8 (48)	2.6 (67)	3.5 (84)
Record Dynamic Currency Hedge	15,063,142	0.3	297.6	-	-	-	-	-	-

Total Fund
Performance Summary (Net of Fees)

San Mateo County Employees' Retirement Association
Period Ending: September 30, 2023

	Market Value	% of Portfolio	3 Mo Rank	YTD	1 Yr Rank	2 Yrs Rank	3 Yrs Rank	5 Yrs Rank	10 Yrs Rank
Private Equity***	382,514,815	6.5	1.3 (44)	4.6 (41)	3.4 (51)	-4.8 (97)	15.1 (68)	19.7 (7)	18.7 (12)
<i>Blended Private Equity Index</i>			8.2 (2)	26.1 (1)	22.0 (1)	4.3 (62)	17.0 (63)	14.4 (45)	14.6 (32)
Opportunistic Credit	673,281,726	11.4	0.9	-	-	-	-	-	-
<i>Opportunistic Credit Index</i>			1.2	6.7	10.3	-1.0	3.0	3.4	4.3
Public Credit	509,874,931	8.6	0.8	4.8	7.5	-0.4	3.3	3.5	5.0
<i>Blmbg. U.S. Corp: High Yield Index</i>			0.5	5.9	10.3	-2.7	1.8	3.0	4.2
AG CSF ADF II	7,390,200	0.1	2.7	13.9	-	-	-	-	-
AG CSF II	20,675,200	0.3	3.5	14.1	13.9	-	-	-	-
Angelo Gordon Opportunistic	33,574	0.0	0.0	-8.9	-10.9	0.9	8.7	4.6	-
Angelo Gordon Credit Solutions	10,926,909	0.2	2.3 (3)	7.3 (7)	7.0 (93)	2.2 (4)	11.1 (1)	-	-
Beach Point Select	115,114,534	1.9	2.5 (3)	8.1 (4)	9.9 (40)	2.5 (3)	8.2 (1)	6.8 (1)	-
Brigade Capital	112,774,733	1.9	2.0 (5)	8.3 (4)	6.9 (93)	-1.2 (29)	6.0 (2)	3.3 (29)	4.1 (36)
One William Street	61,500,258	1.0	2.5 (2)	-	-	-	-	-	-
<i>Blmbg. U.S. Corp: High Yield Index</i>			0.5 (57)	5.9 (32)	10.3 (33)	-2.7 (67)	1.8 (55)	3.0 (45)	4.2 (26)
<i>eV US High Yield Fixed Inc Median</i>			0.6	5.4	9.5	-2.3	1.9	2.9	3.9
PIMCO Diversified	129,111,218	2.2	-1.1 (99)	2.4 (99)	7.2 (94)	-6.0 (100)	-2.6 (100)	1.0 (100)	-
<i>Blmbg. U.S. Corp: High Yield Index</i>			0.5 (68)	5.9 (49)	10.3 (48)	-2.7 (81)	1.8 (73)	3.0 (76)	4.2 (60)
Franklin Templeton	52,348,305	0.9	-4.0 (84)	-3.8 (92)	7.9 (35)	-7.0 (62)	-5.6 (76)	-4.0 (98)	-1.2 (86)
<i>Blmbg. Global Multiverse</i>			-3.5 (75)	-1.9 (81)	2.7 (78)	-9.6 (76)	-6.6 (83)	-1.5 (80)	-0.3 (74)
<i>eV All Global Fixed Inc Median</i>			-1.6	1.5	5.6	-6.1	-2.4	0.9	1.7
Private Credit	163,406,796	2.8	1.3	3.9	5.7	4.5	5.9	6.2	-
<i>Credit Suisse Leveraged Loan Index 1 Qtr Lag</i>			3.1	8.8	10.1	3.5	6.2	4.0	4.1
Blackrock DL Feeder IX-U	41,558,162	0.7	3.0	7.2	8.5	6.2	6.7	-	-
PIMCO Private Income	51,162,727	0.9	1.7	5.9	5.2	3.4	7.5	-	-
TCP Direct Lending VIII	13,204,047	0.2	0.8	5.3	6.8	4.5	5.5	5.8	-
White Oak Yield	29,067,217	0.5	0.0	2.8	1.8	3.9	4.4	5.0	-
White Oak YSF V	28,414,643	0.5	0.0 (84)	-9.7 (100)	-0.8 (100)	1.0 (10)	-	-	-
<i>Credit Suisse Leveraged Loan Index 1 Qtr Lag</i>			3.1 (1)	8.8 (3)	10.1 (37)	3.5 (1)	6.2 (1)	4.0 (9)	4.1 (33)
<i>eV US High Yield Fixed Inc Median</i>			0.6	5.4	9.5	-2.3	1.9	2.9	3.9

Total Fund
Performance Summary (Net of Fees)

San Mateo County Employees' Retirement Association
Period Ending: September 30, 2023

	Market Value	% of Portfolio	3 Mo Rank	YTD	1 Yr Rank	2 Yrs Rank	3 Yrs Rank	5 Yrs Rank	10 Yrs Rank
Diversifying Portfolio	1,057,449,317	17.8	-1.3	0.1	-1.2	-	-	-	-
<i>Blended Diversifying Index</i>			-2.9	-0.1	1.8	-3.4	-2.0	1.7	2.4
Core Fixed	692,270,177	11.7	-4.2	-1.8	-0.3	-7.8	-5.2	-0.1	1.3
<i>Blended Core Fixed Income Benchmark</i>			-5.3	-3.4	-1.5	-8.3	-5.9	-0.3	0.9
DoubleLine	223,887,031	3.8	-3.1 (61)	0.1 (51)	0.7 (47)	-7.5 (79)	-5.3 (93)	-	-
<i>Blmbg. U.S. Aggregate Index</i>			-3.2 (62)	-1.2 (60)	0.6 (50)	-7.3 (73)	-5.2 (89)	0.1 (51)	1.1 (56)
FIAM Bond	136,394,714	2.3	-3.0 (40)	-0.7 (40)	1.2 (29)	-6.9 (25)	-4.5 (24)	0.9 (9)	1.8 (10)
NISA Core Bond	216,839,155	3.7	-3.2 (56)	-1.0 (67)	0.9 (51)	-6.9 (27)	-5.0 (49)	-	-
<i>Blmbg. U.S. Aggregate Index</i>			-3.2 (67)	-1.2 (78)	0.6 (70)	-7.3 (57)	-5.2 (76)	0.1 (79)	1.1 (80)
<i>eV US Core Fixed Inc Median</i>			-3.1	-0.9	0.9	-7.2	-5.0	0.4	1.4
NISA Long Treasury	110,023,152	1.9	-11.8	-	-	-	-	-	-
<i>Blmbg. U.S. Treasury: Long</i>			-11.8	-8.6	-9.1	-18.3	-15.7	-2.8	0.8
Absolute Return	365,179,140	6.2	4.8 (6)	4.2 (58)	-2.3 (95)	5.4 (13)	5.6 (39)	-0.1 (77)	2.0 (65)
<i>Absolute Return Custom Index</i>			2.3 (20)	6.7 (23)	8.7 (23)	6.7 (5)	5.8 (38)	5.8 (14)	5.2 (5)
Acadian MAAR Fund LLC	82,016,408	1.4	2.0 (36)	-0.1 (74)	-3.7 (90)	-0.7 (61)	-	-	-
CFM Systematic Global Macro	84,822,193	1.4	2.1 (34)	-3.7 (85)	-11.0 (97)	2.9 (40)	-	-	-
Graham Quant Macro	99,863,746	1.7	8.2 (5)	11.3 (11)	4.6 (58)	12.3 (8)	9.6 (30)	-	-
PIMCO MAARS Fund LP	98,476,792	1.7	6.4 (9)	8.6 (17)	0.2 (75)	13.2 (6)	10.8 (25)	-	-
<i>Absolute Return Custom Index</i>			2.3 (32)	6.7 (25)	8.7 (32)	6.7 (20)	5.8 (52)	5.8 (40)	5.2 (54)
<i>eV Alt All Multi-Strategy Median</i>			0.7	3.3	6.1	0.9	6.1	4.9	5.6
Inflation Hedge	1,007,402,740	17.0	-1.0	-2.9	-2.0	3.8	8.9	3.8	-
<i>Blended Inflation Hedge Index</i>			-1.3	-1.1	-3.8	4.7	10.0	6.2	-
Real Estate	514,594,961	8.7	-1.6 (28)	-4.7 (62)	-7.7 (72)	3.5 (20)	6.6 (31)	5.4 (4)	8.0 (1)
<i>NCREIF ODCE</i>			-1.9 (41)	-7.6 (78)	-12.1 (87)	3.6 (19)	7.1 (28)	5.7 (1)	8.2 (1)
Harrison Street Core Property	94,968,225	1.6	-2.2	-2.5	-3.1	5.0	6.1	-	-
Invesco	264,899,443	4.5	-1.7	-8.1	-12.8	2.2	6.6	4.9	7.7
Invesco US Val IV	432,108	0.0	-28.0	-50.7	-51.6	-45.2	-30.4	-17.3	-
Invesco US Val V	31,113,700	0.5	-4.0	-3.6	-9.5	-0.7	9.1	-	-
Invesco US Val VI	21,355,451	0.4	0.0	1.7	-2.2	-	-	-	-
PGIM RE US Debt Fund	74,671,299	1.3	1.3	4.9	6.7	6.0	5.8	5.7	-
<i>NCREIF ODCE</i>			-1.9	-7.6	-12.1	3.6	7.1	5.7	8.2
Stockbridge Value IV	27,154,735	0.5	-5.1	-4.5	-2.2	14.1	-	-	-
<i>NCREIF ODCE</i>			-1.9	-7.6	-12.1	3.6	7.1	5.7	8.2

*NISA Core Treasury funded 6/15/2023.
See Appendix for Benchmark History

Total Fund
Performance Summary (Net of Fees)

San Mateo County Employees' Retirement Association
Period Ending: September 30, 2023

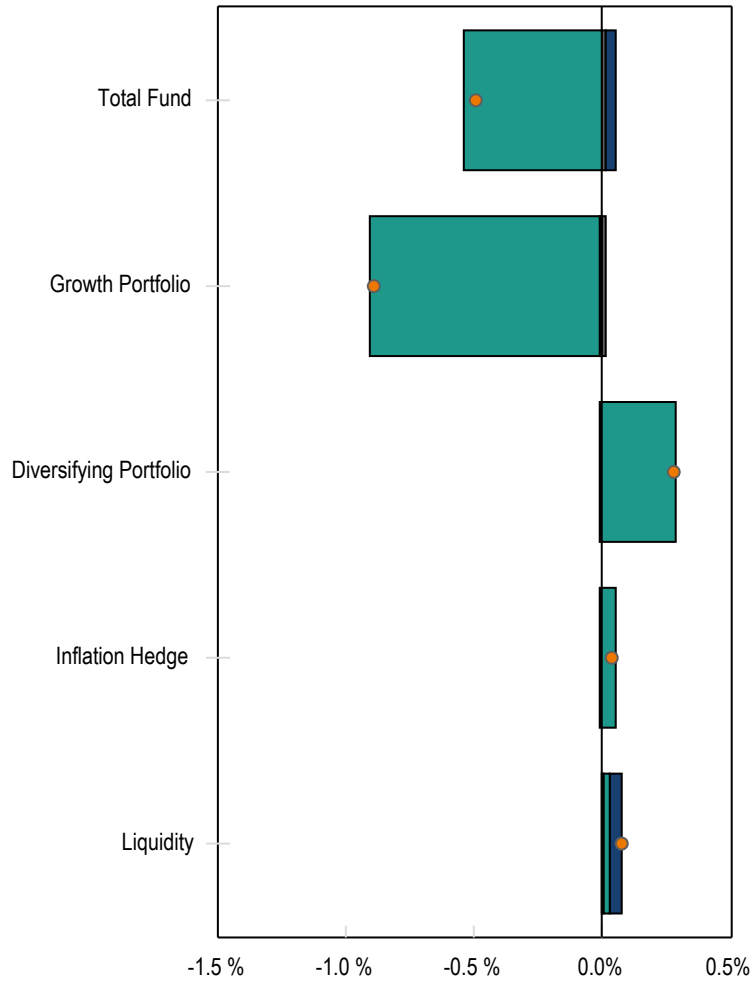
	Market Value	% of Portfolio	3 Mo Rank	YTD	1 Yr Rank	2 Yrs Rank	3 Yrs Rank	5 Yrs Rank	10 Yrs Rank
Private Real Asset***	320,233,648	5.4	-0.2	0.3	3.2	6.3	14.6	6.5	-
<i>Blended Private Real Asset Index</i>			-0.9	14.4	6.1	7.1	14.3	6.8	-
<i>Blended Secondary CA Private RA Index</i>			1.3	6.1	6.9	13.2	16.4	7.6	-
Public Real Assets	172,574,131	2.9	-0.7	-2.5	4.6	2.5	10.1	0.8	-
<i>Blended Public Real Asset Index</i>			-0.8	-2.9	4.2	2.3	10.0	3.6	-
SSgA Custom Real Asset	172,574,131	2.9	-0.7	-2.5	4.6	2.5	10.1	3.7	-
<i>SSgA Custom Real Asset Index</i>			-0.8	-2.9	4.2	2.3	10.0	3.6	-
Liquidity	438,418,112	7.4	1.2	3.3	4.5	-	-	-	-
<i>Blended Liquidity Index</i>			0.8	2.2	3.1	-	-	-	-
Cash Flow-Matched Liquidity	313,223,854	5.3	1.1	2.7	4.0	-	-	-	-
<i>Blmbg. 1-3 Year Gov/Credit index</i>			0.7	1.9	2.8	-1.2	-0.7	1.2	1.0
<i>Blmbg. 1-3 Year Credit</i>			0.8	2.2	3.5	-0.9	-0.3	1.6	1.5
Insight Investment*	297,195,840	5.0	1.2	2.9	4.3	-	-	-	-
<i>Blmbg. 1-3 Year Credit</i>			0.8	2.2	3.5	-0.9	-0.3	1.6	1.5
County Treasury Pool**	16,028,014	0.3	0.4	3.4	3.9	2.4	2.0	2.2	1.9
<i>90 Day U.S. Treasury Bill</i>			1.3	3.6	4.5	2.5	1.7	1.7	1.1
Cash & Cash Overlay	132,662,993	2.2	1.4	4.2	5.2	3.0	2.1	1.7	1.3
<i>90 Day U.S. Treasury Bill</i>			1.3	3.6	4.5	2.5	1.7	1.7	1.1
General Account	124,790,830	2.1	1.5	4.1	5.2	3.1	2.2	2.6	2.1
<i>90 Day U.S. Treasury Bill</i>			1.3	3.6	4.5	2.5	1.7	1.7	1.1

***Returns are one-quarter lag, excludes EnCap Energy Capital Fund and Sheridan Production Partners
See Appendix for Benchmark History

Total Fund
Performance Attribution

San Mateo County Employees' Retirement Association
Period Ending: September 30, 2023

Attribution Effects
Last Three Months



■ Selection Effect ■ Allocation Effect
■ Interaction Effect ● Total Effects

Performance Attribution

	3 Mo
Wtd. Actual Return	-1.6
Wtd. Index Return	-1.1
Excess Return	-0.5
Selection Effect	-0.5
Allocation Effect	0.0
Interaction Effect	0.0

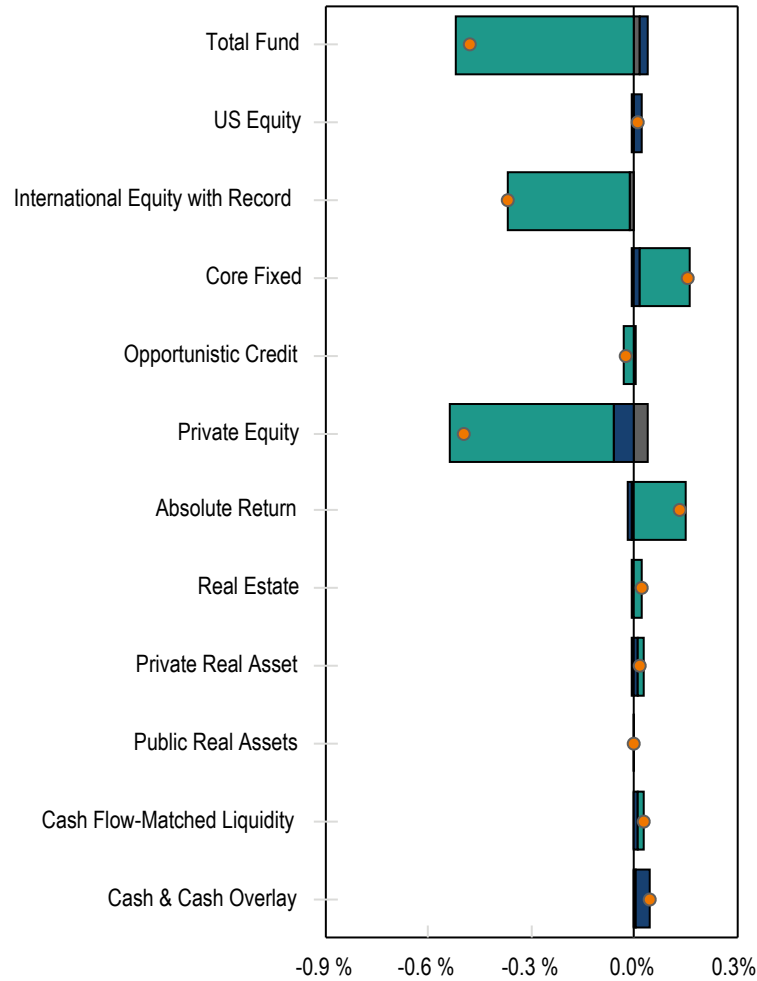
Attribution Summary
Last Three Months

	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Interaction Effects	Total Effects
Growth Portfolio	-2.2	-0.7	-1.5	-0.9	0.0	0.0	-0.9
Diversifying Portfolio	-1.3	-2.9	1.6	0.3	0.0	0.0	0.3
Inflation Hedge	-1.0	-1.3	0.3	0.0	0.0	0.0	0.0
Liquidity	1.2	0.8	0.4	0.0	0.0	0.0	0.1
Total Fund	-1.6	-1.1	-0.5	-0.5	0.0	0.0	-0.5

Total Fund
Performance Attribution

San Mateo County Employees' Retirement Association
Period Ending: September 30, 2023

Attribution Effects
Last Three Months



■ Selection Effect ■ Allocation Effect
■ Interaction Effect ● Total Effects

Performance Attribution

	3 Mo
Wtd. Actual Return	-1.6
Wtd. Index Return	-1.1
Excess Return	-0.5
Selection Effect	-0.5
Allocation Effect	0.0
Interaction Effect	0.0

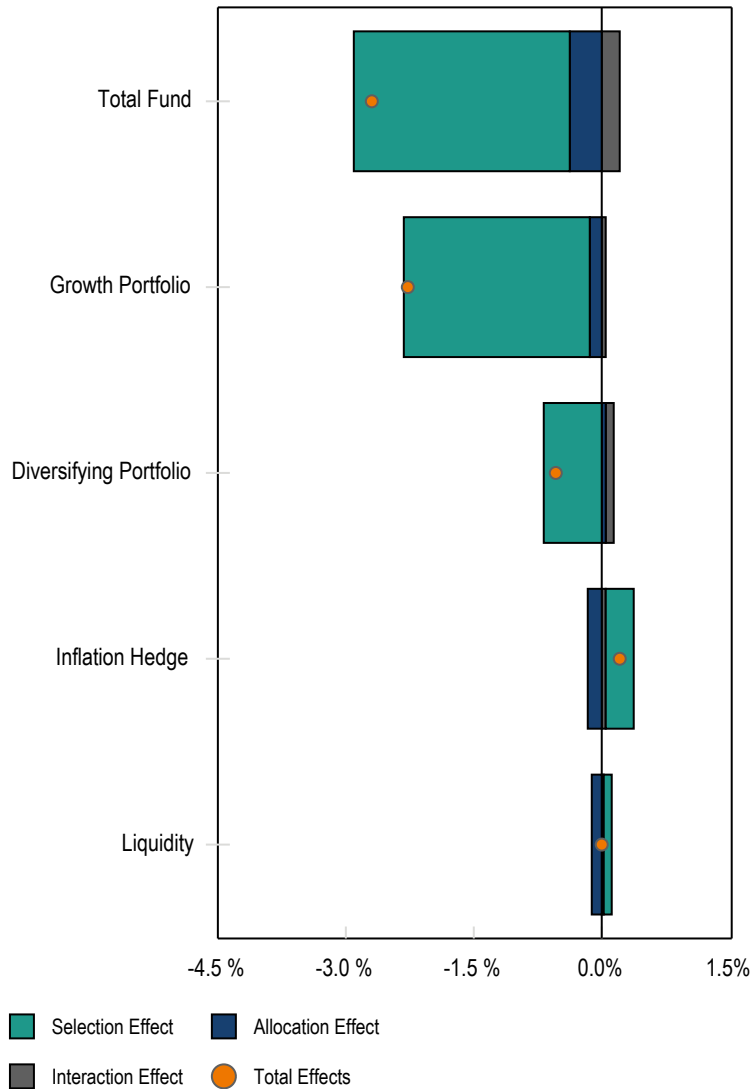
Attribution Summary
Last Three Months

	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Interaction Effects	Total Effects
US Equity	-3.3	-3.3	0.0	0.0	0.0	0.0	0.0
International Equity with Record	-4.0	-2.0	-2.0	-0.4	0.0	0.0	-0.4
Core Fixed	-4.2	-5.3	1.2	0.1	0.0	0.0	0.2
Opportunistic Credit	0.9	1.2	-0.3	0.0	0.0	0.0	0.0
Private Equity	1.3	8.2	-6.9	-0.5	-0.1	0.0	-0.5
Absolute Return	4.8	2.3	2.5	0.1	0.0	0.0	0.1
Real Estate	-1.6	-1.9	0.3	0.0	0.0	0.0	0.0
Private Real Asset	-0.2	-0.9	0.6	0.0	0.0	0.0	0.0
Public Real Assets	-0.7	-0.8	0.1	0.0	0.0	0.0	0.0
Cash Flow-Matched Liquidity	1.1	0.7	0.4	0.0	0.0	0.0	0.0
Cash & Cash Overlay	1.4	1.3	0.1	0.0	0.0	0.0	0.0
Total Fund	-1.6	-1.1	-0.5	-0.5	0.0	0.0	-0.5

Total Fund
Performance Attribution (1 Year)

San Mateo County Employees' Retirement Association
Period Ending: September 30, 2023

Attribution Effects
One Year



Performance Attribution

	1 Yr
Wtd. Actual Return	7.7
Wtd. Index Return	10.4
Excess Return	-2.7
Selection Effect	-2.5
Allocation Effect	-0.4
Interaction Effect	0.2

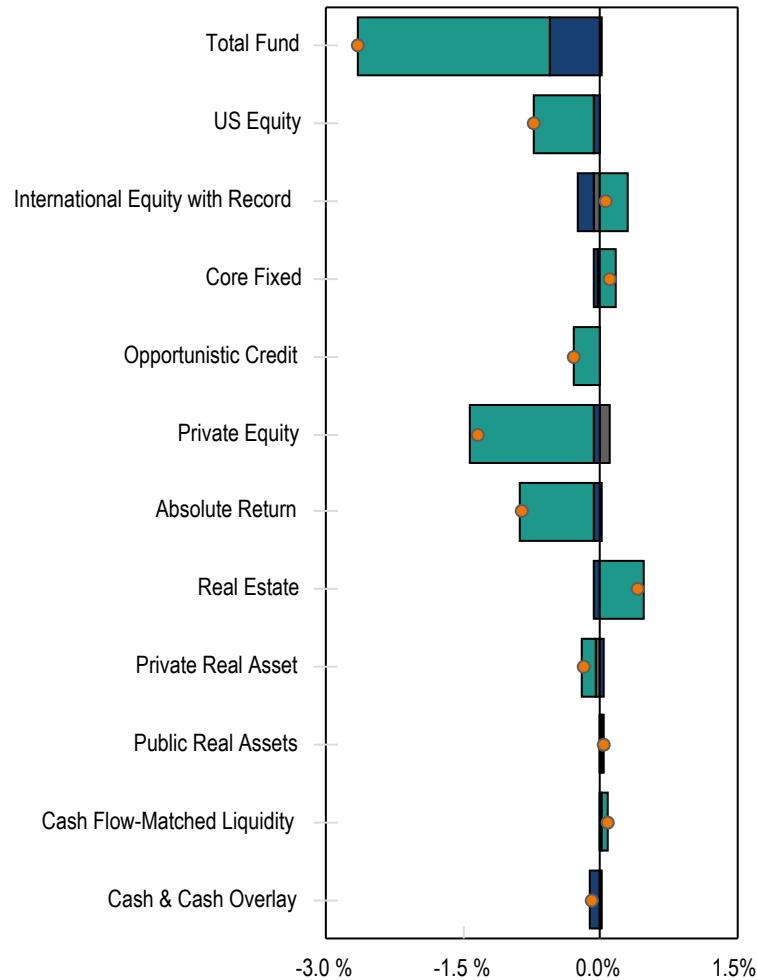
Attribution Summary
One Year

	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Interaction Effects	Total Effects
Growth Portfolio	14.8	18.9	-4.0	-2.2	-0.1	0.1	-2.3
Diversifying Portfolio	-1.2	1.8	-3.0	-0.7	0.1	0.1	-0.5
Inflation Hedge	-2.0	-3.8	1.8	0.3	-0.2	0.0	0.2
Liquidity	4.5	3.1	1.4	0.1	-0.1	0.0	0.0
Total Fund	7.7	10.4	-2.7	-2.5	-0.4	0.2	-2.7

Total Fund
Performance Attribution (1 Year)

San Mateo County Employees' Retirement Association
Period Ending: September 30, 2023

Attribution Effects
One Year



■ Selection Effect ■ Allocation Effect
■ Interaction Effect ● Total Effects

Performance Attribution

	1 Yr
Wtd. Actual Return	7.7
Wtd. Index Return	10.4
Excess Return	-2.6
Selection Effect	-2.1
Allocation Effect	-0.5
Interaction Effect	0.0

Attribution Summary
One Year

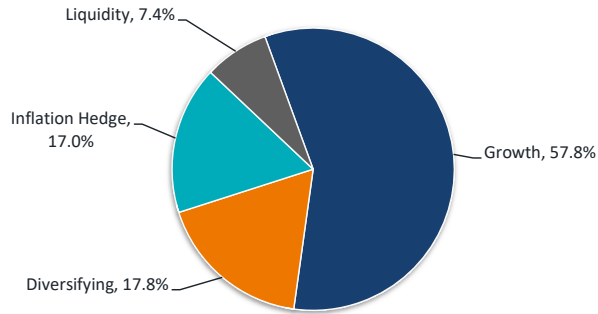
	Actual Weight (%)	Policy Weight (%)	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Interaction Effects	Total Effects
US Equity	21.2	21.5	17.1	20.5	-3.3	-0.6	-0.1	0.0	-0.7
International Equity with Record	18.2	18.8	21.1	19.7	1.4	0.3	-0.2	-0.1	0.1
Core Fixed	12.3	12.9	-0.3	-1.5	1.3	0.2	0.0	0.0	0.1
Opportunistic Credit	10.0	10.3	7.3	10.3	-2.9	-0.3	0.0	0.0	-0.3
Private Equity	6.4	7.0	3.4	22.0	-18.6	-1.4	-0.1	0.1	-1.3
Absolute Return	6.2	6.8	-2.3	8.7	-11.0	-0.8	-0.1	0.0	-0.8
Real Estate	9.0	9.0	-7.7	-12.1	4.5	0.5	-0.1	0.0	0.4
Private Real Asset	4.6	4.6	3.2	6.1	-2.9	-0.2	0.0	0.0	-0.2
Public Real Assets	4.0	3.8	4.6	4.2	0.3	0.0	0.0	0.0	0.0
Cash Flow-Matched Liquidity	5.3	4.5	4.0	2.8	1.2	0.1	0.0	0.0	0.1
Cash & Cash Overlay	2.8	1.0	5.2	4.5	0.8	0.0	-0.1	0.0	-0.1
Total Fund	100.0	100.0	7.7	10.4	-2.6	-2.1	-0.5	0.0	-2.6

* Interaction Effects include Residual Effects

Total Fund
Asset Allocation Analysis

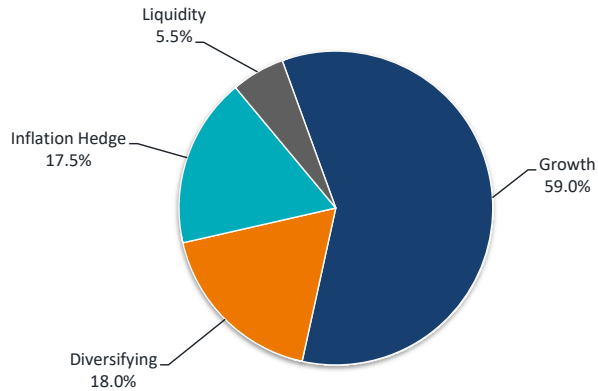
San Mateo County Employees' Retirement Association
Period Ending: September 30, 2023

Current w/ Overlay



ASSET ALLOCATION	MARKET VALUE W/	W/ OVERLAY	W/O OVERLAY
Growth	3,421,856,715	57.8%	57.7%
Diversifying	1,057,449,317	17.8%	17.8%
Inflation Hedge	1,007,402,740	17.0%	17.0%
Liquidity	438,418,112	7.4%	7.5%
TOTAL	5,925,126,884	100.0%	100.0%

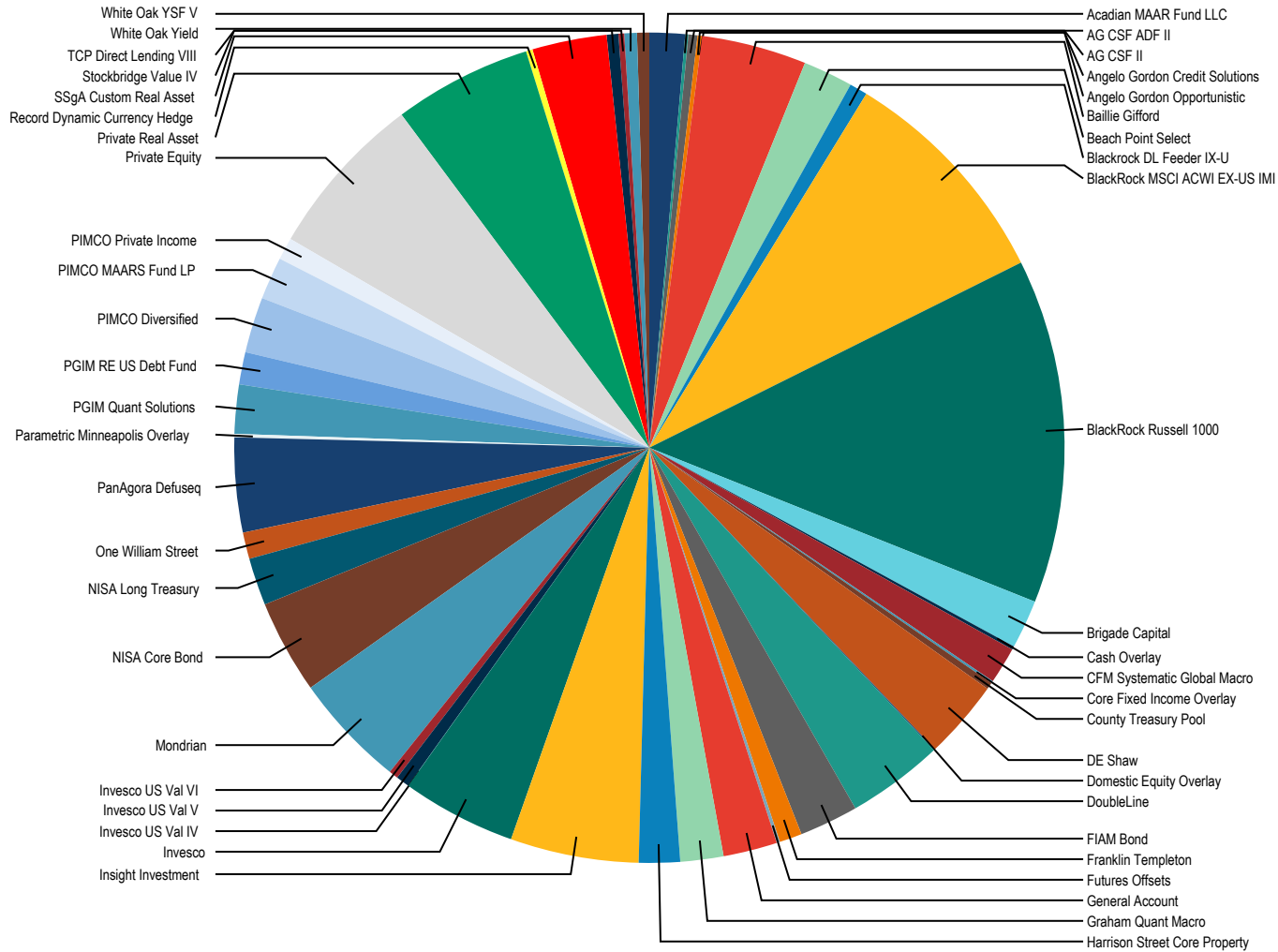
Target



ASSET ALLOCATION	W/ OVERLAY	TARGET	DIFF
Growth	57.8%	59.0%	-1.2%
Diversifying	17.8%	18.0%	-0.2%
Inflation Hedge	17.0%	17.5%	-0.5%
Liquidity	7.4%	5.5%	1.9%
TOTAL	100.0%	100.0%	0.0%

Total Fund
 Manager Allocation Analysis

San Mateo County Employees' Retirement Association
 Period Ending: September 30, 2023



Total Fund
 Manager Allocation Analysis

San Mateo County Employees' Retirement Association
 Period Ending: September 30, 2023

Name	Market Value	% of Portfolio
BlackRock Russell 1000	\$797,183,836	13.5
DE Shaw	\$183,140,645	3.1
PanAgora Defuseq	\$218,737,593	3.7
PGIM Quant Solutions	\$113,614,502	1.9
Domestic Equity Overlay	\$2,342,610	0.0
Baillie Gifford	\$242,827,684	4.1
Mondrian	\$264,329,446	4.5
BlackRock MSCI ACWI EX-US IMI	\$528,820,717	8.9
International Equity Overlay	-	0.0
DoubleLine	\$223,887,031	3.8
FIAM Bond	\$136,394,714	2.3
NISA Core Bond	\$216,839,155	3.7
NISA Long Treasury	\$110,023,152	1.9
Core Fixed Income Overlay	\$5,126,125	0.1
AG CSF ADF II	\$7,390,200	0.1
AG CSF II	\$20,675,200	0.3
Angelo Gordon Opportunistic	\$33,574	0.0
Angelo Gordon Credit Solutions	\$10,926,909	0.2
Beach Point Select	\$115,114,534	1.9
Brigade Capital	\$112,774,733	1.9
PIMCO Diversified	\$129,111,218	2.2
Franklin Templeton	\$52,348,305	0.9
Blackrock DL Feeder IX-U	\$41,558,162	0.7
PIMCO Private Income	\$51,162,727	0.9
TCP Direct Lending VIII	\$13,204,047	0.2
White Oak Yield	\$29,067,217	0.5
White Oak YSF V	\$28,414,643	0.5
Private Equity	\$382,514,815	6.5

Total Fund
 Manager Allocation Analysis

San Mateo County Employees' Retirement Association
 Period Ending: September 30, 2023

Name	Market Value	% of Portfolio
Acadian MAAR Fund LLC	\$82,016,408	1.4
CFM Systematic Global Macro	\$84,822,193	1.4
Graham Quant Macro	\$99,863,746	1.7
PIMCO MAARS Fund LP	\$98,476,792	1.7
Harrison Street Core Property	\$94,968,225	1.6
Invesco	\$264,899,443	4.5
Invesco US Val IV	\$432,108	0.0
Invesco US Val V	\$31,113,700	0.5
Invesco US Val VI	\$21,355,451	0.4
PGIM RE US Debt Fund	\$74,671,299	1.3
Stockbridge Value IV	\$27,154,735	0.5
Private Real Asset	\$320,233,648	5.4
SSgA Custom Real Asset	\$172,574,131	2.9
Insight Investment	\$297,195,840	5.0
County Treasury Pool	\$16,028,014	0.3
General Account	\$124,790,830	2.1
Cash Overlay	\$7,872,176	0.1
Transition Account	-	0.0
Futures Offsets	-\$7,468,735	-0.1
Total Fund	\$5,925,126,884	100.0

Total Fund
Risk vs. Return

San Mateo County Employees' Retirement Association
Period Ending: September 30, 2023

Statistics Summary
3 Years

	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio	Information Ratio	Tracking Error
Total Fund	5.3 (58)	7.6 (9)	0.5 (39)	-0.2 (73)	2.4 (9)
Policy Index	5.6 (55)	8.7 (27)	0.5 (44)	-	0.0
Policy Index II	5.2 (61)	9.0 (36)	0.4 (60)	-0.6 (98)	0.6 (1)
InvMetrics Public DB > \$1B Median	5.8	9.6	0.5	0.1	3.1

Statistics Summary
5 Years

	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio	Information Ratio	Tracking Error
Total Fund	4.9 (66)	8.9 (20)	0.4 (44)	-0.3 (83)	2.2 (1)
Policy Index	5.6 (35)	9.3 (24)	0.5 (30)	-	0.0
Policy Index II	5.4 (47)	9.6 (33)	0.4 (37)	-0.4 (92)	0.5 (1)
InvMetrics Public DB > \$1B Median	5.3	10.7	0.4	-0.1	3.0

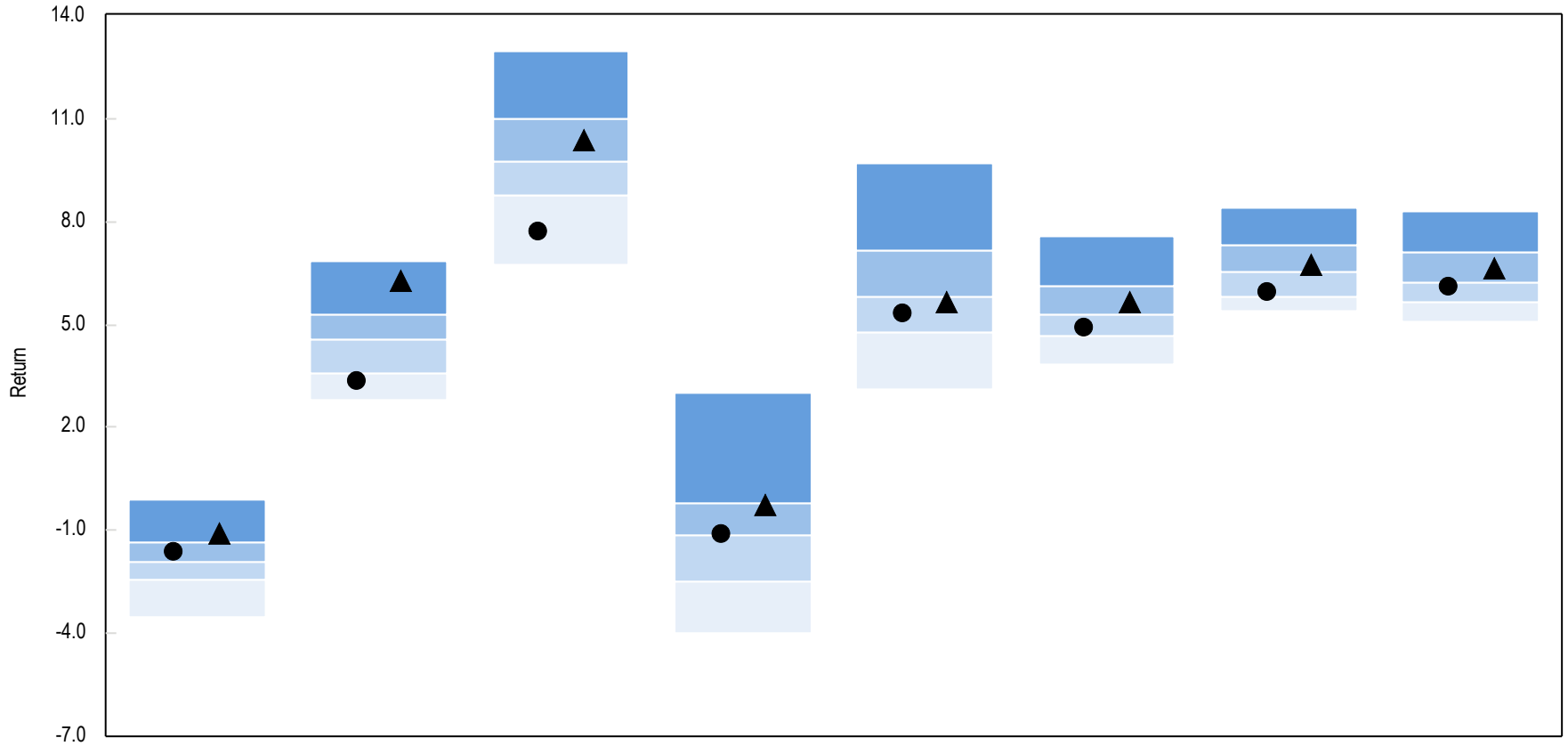
Statistics Summary
10 Years

	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio	Information Ratio	Tracking Error
Total Fund	6.1 (51)	7.5 (21)	0.7 (37)	-0.3 (66)	1.7 (1)
Policy Index	6.6 (43)	7.8 (33)	0.7 (33)	-	0.0
Policy Index II	-	-	-	-	-
InvMetrics Public DB > \$1B Median	6.2	8.6	0.6	-0.1	2.4

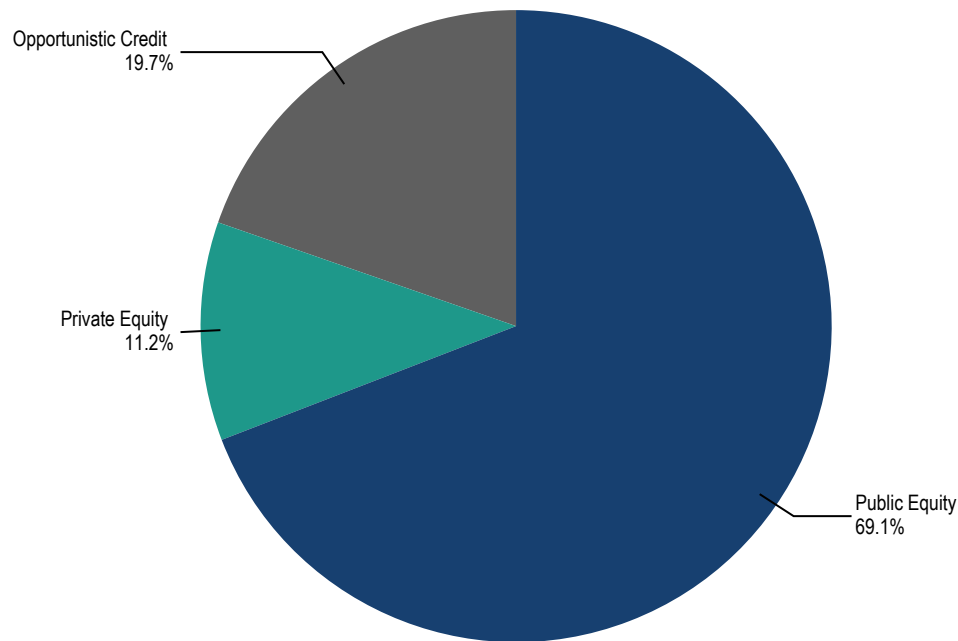
Total Fund
Peer Universe Comparison

San Mateo County Employees' Retirement Association
Period Ending: September 30, 2023

InvMetrics Public DB >\$1B Net Return Comparison



	3 Mo	YTD	1 Yr	2 Yrs	3 Yrs	5 Yrs	7 Yrs	10 Yrs
● Total Fund	-1.6 (29)	3.4 (80)	7.7 (90)	-1.1 (47)	5.3 (58)	4.9 (66)	6.0 (71)	6.1 (51)
▲ Policy Index	-1.1 (14)	6.3 (7)	10.4 (39)	-0.2 (26)	5.6 (55)	5.6 (35)	6.7 (48)	6.6 (43)
5th Percentile	-0.1	6.8	13.0	3.0	9.7	7.6	8.4	8.3
1st Quartile	-1.4	5.3	11.0	-0.2	7.2	6.1	7.3	7.1
Median	-1.9	4.6	9.8	-1.2	5.8	5.3	6.5	6.2
3rd Quartile	-2.5	3.6	8.8	-2.5	4.8	4.7	5.8	5.7
95th Percentile	-3.5	2.8	6.7	-4.0	3.1	3.8	5.4	5.1
Population	80	74	73	66	63	61	60	54

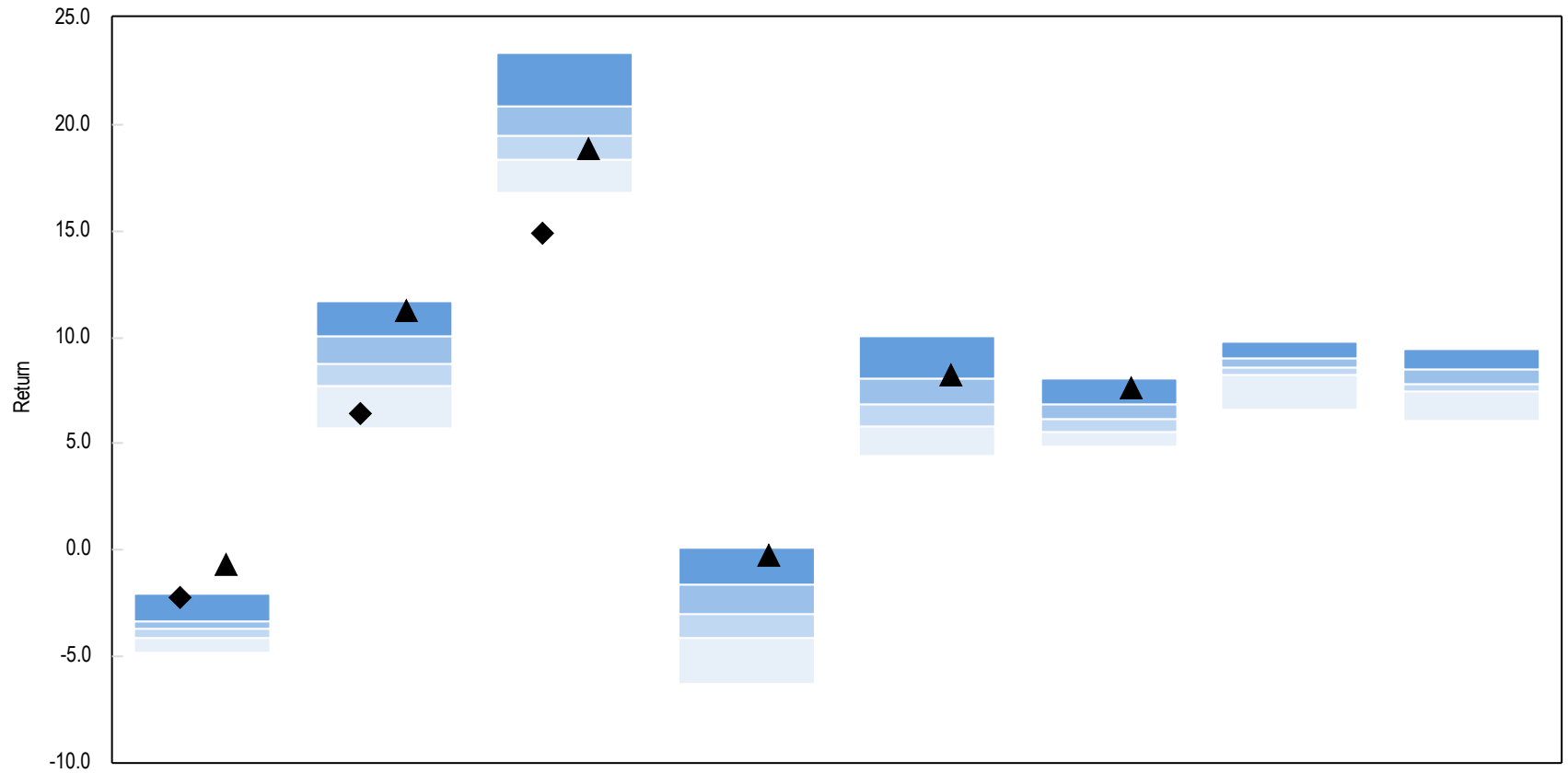


	Actual \$	Actual %	Manager Contribution to Excess Return %
US Equity	\$1,315,019,186	38.4%	0.0%
International Equity	\$1,051,040,988	30.7%	-0.6%
Private Equity	\$382,514,815	11.2%	-0.8%
Opportunistic Credit	\$673,281,726	19.7%	0.0%
Actual vs. Policy Weight Difference			-0.1%
Total	\$3,421,856,715	100.0%	-1.5%

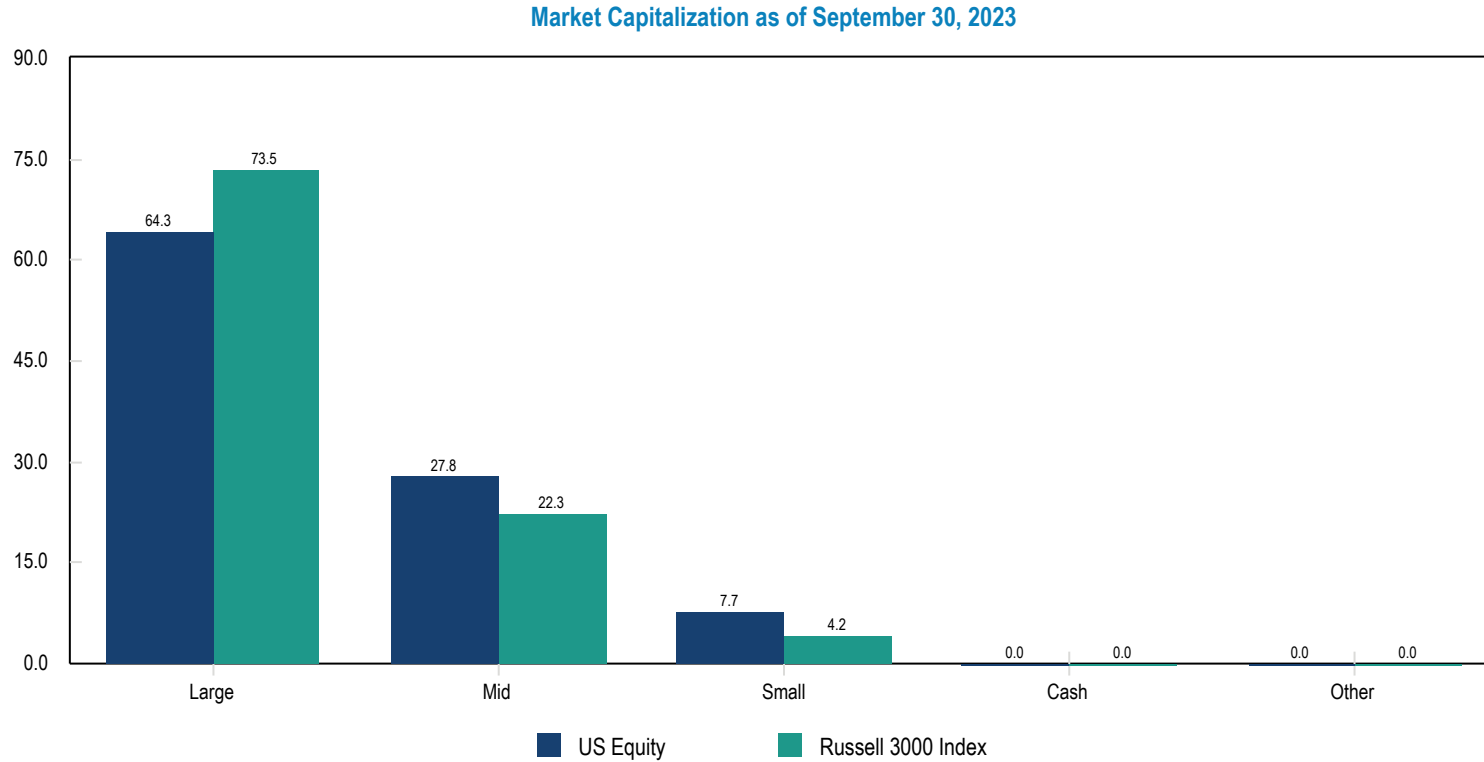
Statistics Summary
1 Year

	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio	Information Ratio	Tracking Error
Growth Portfolio	14.8	10.9	0.9	-1.2	2.9
<i>Blended Growth Index</i>	18.9	11.4	1.2	-	0.0
US Equity	17.1	15.3	0.8	-1.1	2.6
<i>Blended US Equity Index</i>	20.5	15.6	1.0	-	0.0
International Equity with Record	21.1	16.7	1.0	0.5	3.5
<i>Blended International Equity Index</i>	19.7	13.7	1.1	-	0.0
Private Equity	3.4	2.9	-0.3	-1.0	18.9
<i>Blended Private Equity Index</i>	22.0	19.1	0.9	-	0.0
Opportunistic Credit	7.3	3.4	0.8	-0.8	3.3
<i>Opportunistic Credit Index</i>	10.3	4.3	1.2	-	0.0

InvMetrics All DB US Eq Net Return Comparison



	3 Mo	YTD	1 Yr	2 Yrs	3 Yrs	5 Yrs	7 Yrs	10 Yrs
◆ Growth Portfolio	-2.2 (8)	6.4 (91)	14.8 (99)	-	-	-	-	-
▲ Blended Growth Index	-0.7 (1)	11.3 (11)	18.9 (65)	-0.3 (7)	8.2 (22)	7.6 (10)	-	-
5th Percentile	-2.0	11.7	23.4	0.1	10.0	8.1	9.8	9.5
1st Quartile	-3.3	10.1	20.8	-1.6	8.1	6.9	9.0	8.5
Median	-3.7	8.8	19.5	-3.0	6.9	6.2	8.6	7.8
3rd Quartile	-4.1	7.7	18.3	-4.1	5.8	5.6	8.2	7.4
95th Percentile	-4.8	5.7	16.7	-6.3	4.4	4.8	6.6	6.1
Population	112	105	104	84	81	75	66	54



US Equity
Equity Only Summary Statistics

San Mateo County Employees' Retirement Association
Period Ending: September 30, 2023

Characteristics

	Portfolio	Benchmark
Number of Stocks	2,237	2,994
Wtd. Avg. Mkt. Cap \$M	567,386.3	538,565.1
Median Mkt. Cap \$M	3,046.6	1,845.8
Price/Earnings ratio	21.1	20.6
Current Yield (%)	1.6	1.6
Beta (5 Years, Monthly)	0.9	1.0
Price/Book ratio	4.2	4.0
Return on Equity (%)	9.4	8.3

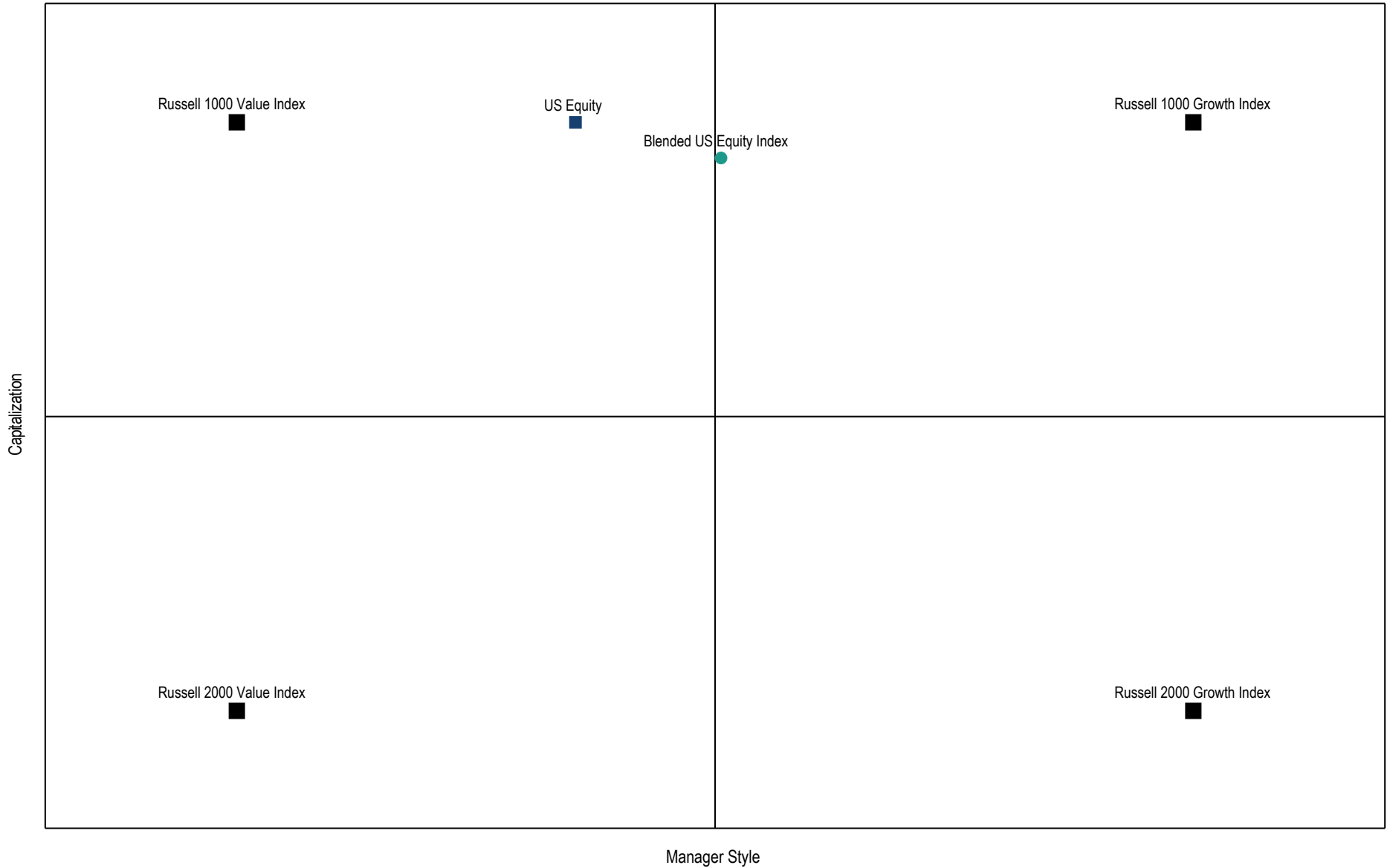
Top Holdings

Best Performers

Worst Performers

	(%)		Return (%)		Return (%)
Apple Inc	6.4	Tango Therapeutics Inc	239.2	AMC Entertainment Holdings Inc	-79.4
Microsoft Corp	5.9	Cardlytics Inc	161.1	Akoustis Technologies Inc	-76.3
Amazon.com Inc	2.9	United States Cellular Corp	143.7	Benson Hill Inc	-74.5
NVIDIA Corporation	2.6	Telephone and Data Systems Inc	124.8	TPI Composites Inc	-74.4
Alphabet Inc	2.0	Immunovant Inc	102.4	Kodiak Sciences Inc	-73.9
Tesla Inc	1.8	TETRA Technologies Inc.	88.8	Origin Materials Inc	-70.0
Alphabet Inc	1.7	Centrus Energy Corp	74.3	FibroGen Inc	-68.0
Meta Platforms Inc	1.7	Celestica Inc	69.1	TG Therapeutics Inc	-66.3
Berkshire Hathaway Inc	1.6	Hallador Energy Co	68.3	Farfetch Limited	-65.4
Unitedhealth Group Inc	1.2	Intercept Pharmaceuticals Inc	67.6	Hawaiian Electric Industries Inc.	-65.0

U.S. Effective Style Map



Characteristics

	Portfolio	Benchmark
Number of Stocks	1,011	1,009
Wtd. Avg. Mkt. Cap \$M	568,459.5	568,620.9
Median Mkt. Cap \$M	12,268.7	12,272.6
Price/Earnings ratio	21.2	21.2
Current Yield (%)	1.6	1.6
Beta (5 Years, Monthly)	1.0	1.0
Price/Book ratio	4.2	4.2
Return on Equity (%)	10.2	10.2

Top Holdings

Best Performers

Worst Performers

	(%)		Return (%)		Return (%)
Apple Inc	6.4	AppLovin Corporation	55.3	AMC Entertainment Holdings Inc	-79.4
Microsoft Corp	5.9	Vertiv Holdings Co	50.2	Hawaiian Electric Industries Inc.	-65.0
Amazon.com Inc	2.9	Capri Holdings Ltd	46.6	NovoCure Limited	-61.1
NVIDIA Corporation	2.6	Rivian Automotive Inc	45.7	Apellis Pharmaceuticals Inc	-58.2
Alphabet Inc	2.0	Texas Pacific Land Corp	38.7	ViaSat Inc.	-55.3
Tesla Inc	1.7	Affirm Holdings Inc	38.7	Petco Health & Wellness Co Inc	-54.0
Alphabet Inc	1.7	Splunk Inc	37.9	Driven Brands Holdings Inc	-53.5
Meta Platforms Inc	1.7	H&R Block Inc	36.2	Olaplex Holdings Inc	-47.6
Berkshire Hathaway Inc	1.6	Ollie's Bargain Outlet Holdings Inc	33.2	Masimo Corp	-46.7
Exxon Mobil Corp	1.2	Zions Bancorporation National Association	31.4	Spirit Aerosystems Holdings Inc	-44.7

Characteristics

	Portfolio	Benchmark
Number of Stocks	241	1,009
Wtd. Avg. Mkt. Cap \$M	111,810.1	568,620.9
Median Mkt. Cap \$M	23,697.4	12,272.6
Price/Earnings ratio	19.6	21.2
Current Yield (%)	2.7	1.6
Beta (3 Years, Monthly)	0.7	1.0
Price/Book ratio	2.7	4.2
Return on Equity (%)	5.0	10.2

Top Holdings

Best Performers

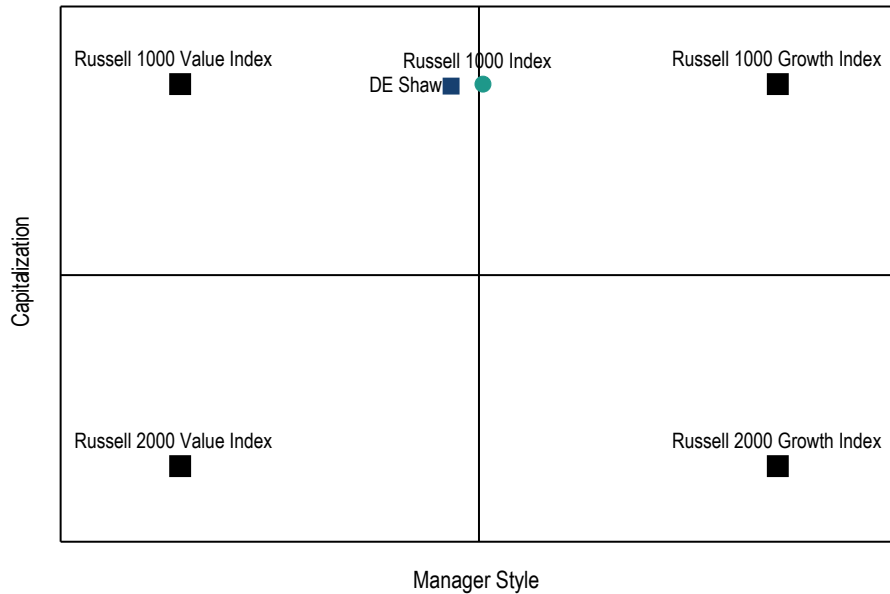
Worst Performers

	(%)		Return (%)		Return (%)
T-Mobile US Inc	1.9	Amgen Inc	22.0	Hawaiian Electric Industries Inc.	-65.0
Verizon Communications Inc	1.8	Packaging Corp Of America	17.2	Olaplex Holdings Inc	-47.6
AT&T Inc	1.7	Conocophillips	16.7	GameStop Corp.	-32.1
Chevron Corp	1.6	Assurant Inc.	14.8	Zimmer Biomet Holdings Inc	-22.8
Electronic Arts Inc	1.5	International Paper Co	13.0	NextEra Energy Inc	-22.3
Williams Cos Inc. (The)	1.5	Gentex Corporation	11.7	Johnson Controls International Plc	-21.4
Exxon Mobil Corp	1.5	Casey's General Stores Inc.	11.5	Keysight Technologies Inc	-21.0
Conocophillips	1.5	Exxon Mobil Corp	10.6	Sotera Health Co	-20.5
Fox Corp	1.5	Automatic Data Processing Inc	10.0	Hershey Co (The)	-19.4
Service Corp International	1.3	FactSet Research Systems Inc.	9.4	Avangrid Inc	-18.9

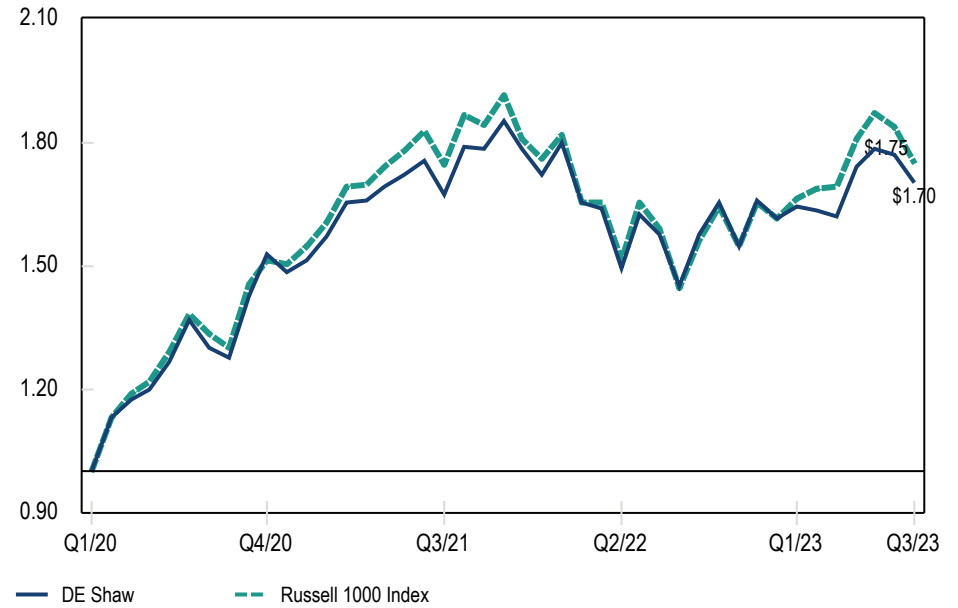
PanAgora Defuseq Performance Attribution vs. Russell 1000 Index

	Attribution Effects				Performance		Sector Weights	
	Total Effects	Selection Effect	Allocation Effect	Interaction Effect	Portfolio	Benchmark	Portfolio	Benchmark
Energy	-0.1	-0.3	0.3	-0.1	5.9	12.4	6.1	4.0
Materials	0.2	0.1	-0.1	0.2	-1.4	-4.6	9.3	2.7
Industrials	-0.3	-0.3	0.0	0.0	-7.8	-4.8	10.7	9.6
Consumer Discretionary	0.1	0.0	0.0	0.0	-4.3	-4.6	8.8	10.9
Consumer Staples	-0.5	-0.2	-0.2	-0.2	-8.5	-5.6	12.5	6.3
Health Care	-0.3	-0.3	0.0	0.1	-5.4	-3.0	10.6	13.3
Financials	0.0	0.2	-0.1	-0.1	1.0	-0.6	7.7	12.9
Information Technology	0.6	0.5	0.4	-0.3	-3.6	-5.4	8.5	27.1
Communication Services	-0.6	-0.6	0.1	-0.1	-4.5	2.4	9.5	8.1
Utilities	-0.8	0.0	-0.6	-0.1	-10.6	-9.2	12.4	2.5
Real Estate	-0.1	-0.1	-0.1	0.0	-10.9	-8.5	3.7	2.7
Cash	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
Total	-1.9	-0.9	-0.2	-0.7	-5.0	-3.1	100.0	100.0

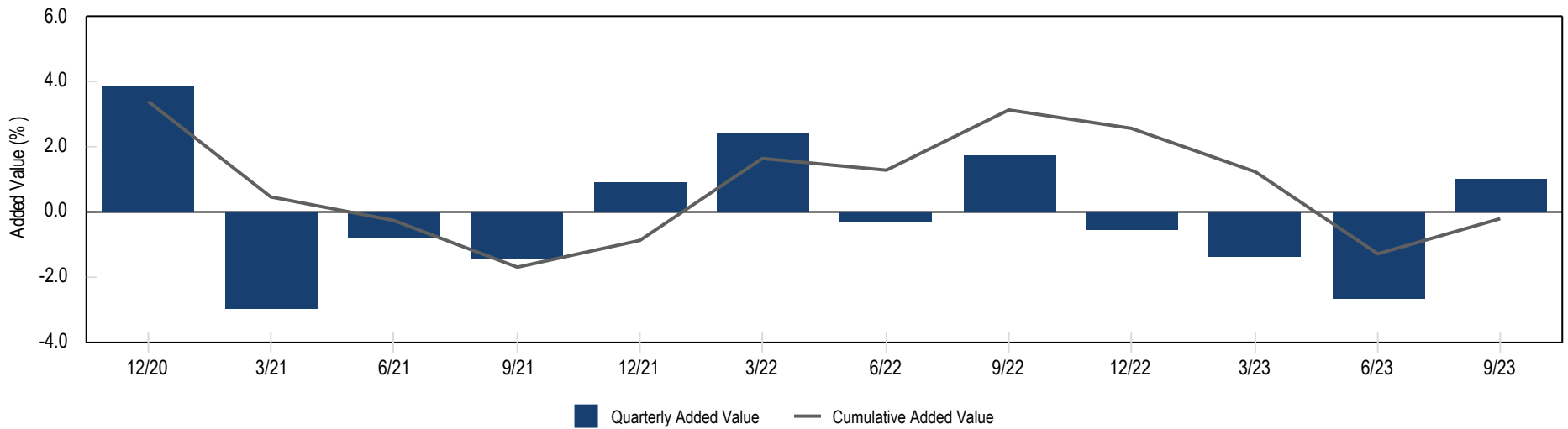
U.S. Effective Style Map



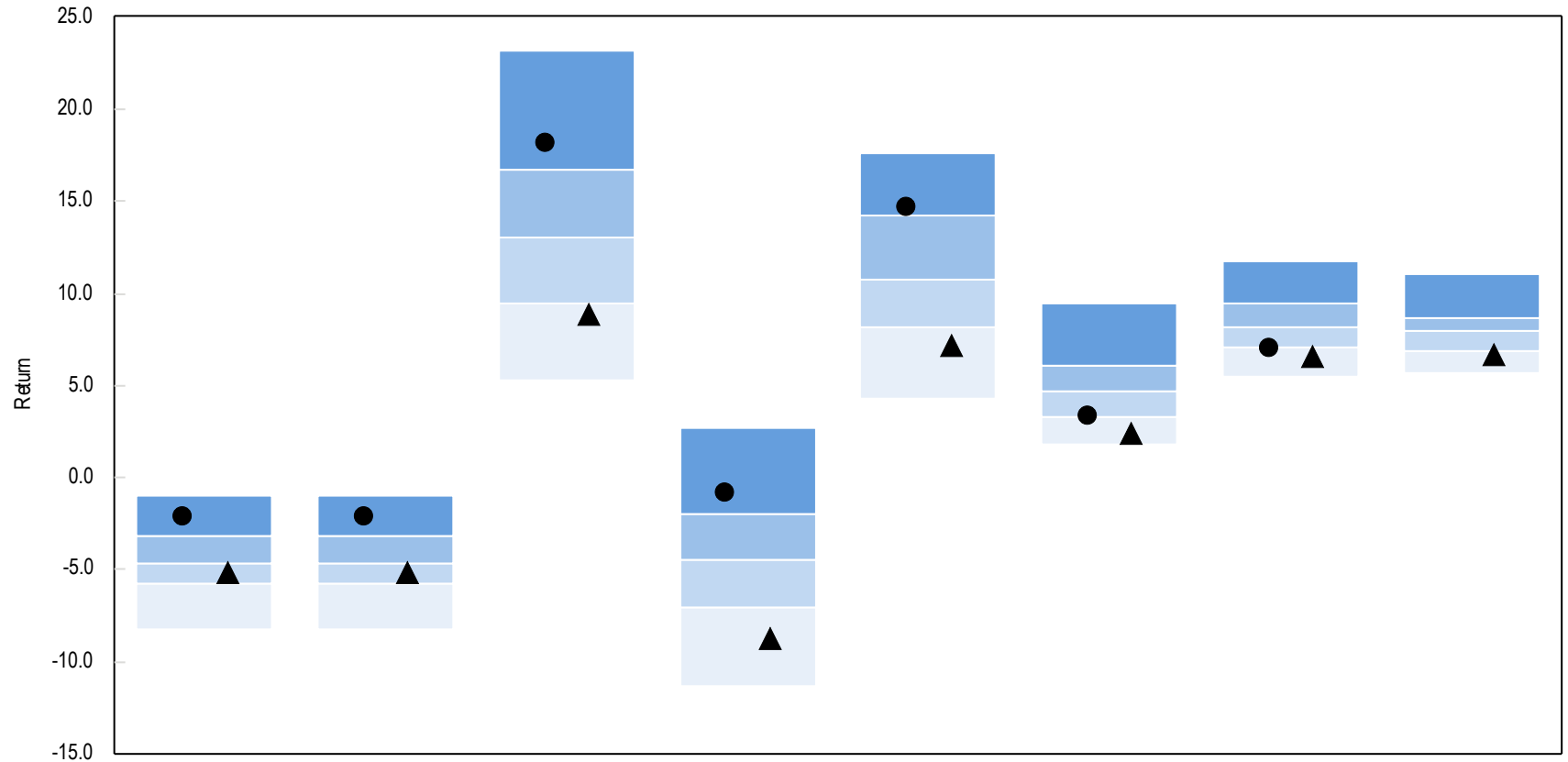
Growth of a Dollar



Quarterly and Cumulative Excess Performance



eV US Small Cap Core Equity Net Return Comparison



	3 Mo	Fiscal YTD	1 Yr	2 Yrs	3 Yrs	5 Yrs	7 Yrs	10 Yrs
● PGIM Quant Solutions	-2.1 (14)	-2.1 (14)	18.3 (17)	-0.8 (19)	14.8 (23)	3.4 (74)	7.1 (76)	-
▲ Russell 2000 Index	-5.1 (64)	-5.1 (64)	8.9 (78)	-8.7 (87)	7.2 (83)	2.4 (88)	6.6 (83)	6.6 (78)
5th Percentile	-1.0	-1.0	23.2	2.7	17.6	9.5	11.7	11.1
1st Quartile	-3.1	-3.1	16.7	-1.9	14.3	6.1	9.5	8.7
Median	-4.6	-4.6	13.1	-4.4	10.8	4.7	8.2	7.9
3rd Quartile	-5.8	-5.8	9.5	-7.0	8.2	3.3	7.1	6.8
95th Percentile	-8.3	-8.3	5.3	-11.3	4.3	1.8	5.5	5.7
Population	186	186	182	176	172	163	153	136

Characteristics

	Portfolio	Benchmark
Number of Stocks	350	1,985
Wtd. Avg. Mkt. Cap \$M	2,727.9	2,803.4
Median Mkt. Cap \$M	1,736.9	838.7
Price/Earnings ratio	10.4	12.5
Current Yield (%)	1.3	1.7
Beta (5 Years, Monthly)	1.0	1.0
Price/Book ratio	2.3	2.3
Return on Equity (%)	2.6	-27.0

Top Holdings

Best Performers

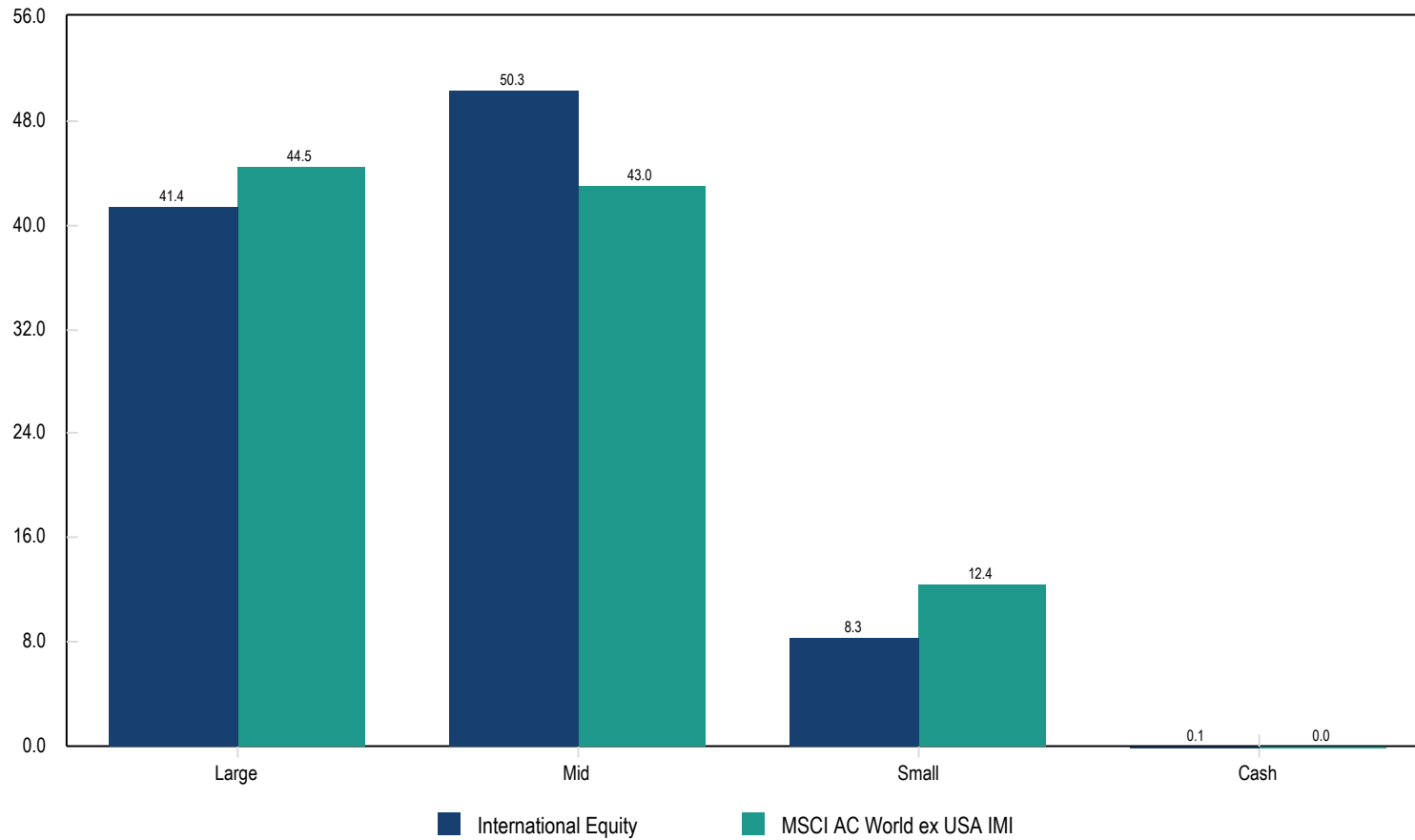
Worst Performers

	(%)		Return (%)		Return (%)
SM Energy Co	0.9	Telephone and Data Systems Inc	124.8	Vir Biotechnology Inc	-61.8
Axcelis Technologies Inc.	0.9	TETRA Technologies Inc.	88.8	2seventy bio Inc	-61.3
e.l.f. Beauty Inc	0.9	WW International Inc	64.7	Fate Therapeutics Inc	-55.5
SPS Commerce Inc	0.8	ThredUp Inc	64.3	Inogen Inc	-54.8
HealthEquity Inc	0.8	Hersha Hospitality Trust	62.7	JetBlue Airways Corp	-48.1
AppFolio Inc	0.8	First Foundation Inc	53.6	Enanta Pharmaceuticals Inc	-47.8
Veritiv Corp	0.8	Helix Energy Solutions Group Inc	51.4	Office Properties Income Trust	-45.0
Sterling Infrastructure Inc	0.8	NextGen Healthcare Inc	46.3	Tactile Systems Technology Inc	-43.6
Terex Corp	0.8	American Eagle Outfitters Inc.	41.9	Lumen Technologies Inc	-37.2
Peabody Energy Corp	0.8	Perdoceo Education Corp	40.3	Akoya Biosciences Inc	-37.1

PGIM Quant Solutions Performance Attribution vs. Russell 2000 Index

	Attribution Effects				Performance		Sector Weights	
	Total Effects	Selection Effect	Allocation Effect	Interaction Effect	Portfolio	Benchmark	Portfolio	Benchmark
Energy	0.7	0.5	0.1	0.1	27.0	18.9	7.4	6.8
Materials	-0.1	-0.1	0.0	0.0	-9.0	-7.0	4.2	4.6
Industrials	0.9	0.9	0.0	0.0	-0.2	-5.2	17.6	17.4
Consumer Discretionary	0.4	0.4	0.0	0.0	-2.4	-5.8	10.6	10.6
Consumer Staples	0.0	0.0	0.0	0.0	-2.7	-2.9	4.2	3.4
Health Care	0.2	0.2	0.0	0.0	-13.5	-14.8	17.1	16.9
Financials	0.8	0.9	0.0	0.0	7.0	1.2	14.7	15.1
Information Technology	0.0	0.0	0.0	0.0	-9.5	-9.1	13.0	13.6
Communication Services	0.4	0.3	0.0	0.1	4.9	-7.4	3.2	2.5
Utilities	0.0	-0.1	0.0	0.0	-14.6	-11.7	2.3	3.0
Real Estate	0.3	0.4	0.0	0.0	0.4	-5.4	5.4	6.1
Cash	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0
Total	3.6	3.3	0.2	0.1	-1.5	-5.1	100.0	100.0

Market Capitalization as of September 30, 2023



See appendix for the market capitalization breakpoints.

International Equity
Equity Only Summary Statistics

San Mateo County Employees' Retirement Association
Period Ending: September 30, 2023

Characteristics

	Portfolio	Benchmark
Number of Stocks	6,817	6,739
Wtd. Avg. Mkt. Cap \$M	64,835.5	71,239.2
Median Mkt. Cap \$M	1,525.4	1,519.4
Price/Earnings ratio	13.8	12.8
Current Yield (%)	3.0	3.3
Beta (5 Years, Monthly)	0.9	1.0
Price/Book ratio	2.4	2.3
Return on Equity (%)	3.5	5.4

Top Holdings

	(%)
United Overseas Bank Ltd	1.3
ASML Holding NV	1.2
Taiwan Semiconductor Man.	1.0
Novartis AG	1.0
LVMH Moet Hennessy Louis V	0.9
Taiwan Semiconductor Man.	0.9
Banco Santander SA	0.9
Sanofi	0.9
Shell Plc	0.9
Sony Group Corporation	0.8

Best Performers

	Return (%)
Posco Dx Company Ltd	247.0
Kiler Holding A.S.	162.5
IS Yatirim Menkul Degerler A.S.	161.5
Ulker Biskuvi Sanayi AS	158.7
Nuh Cimento Sanayii A.S.	153.3
Alfa Solar Enerji Sanayi Ve Ticaret Anonim Sirketi	150.1
Borusan	148.4
Canggang Railway Limited	144.6
Europower Enerji Ve Otomasyon Teknolojileri Sanayi Ticaret Anonim Sirketi	144.1
Kum Yang Co Ltd	121.2

Worst Performers

	Return (%)
Air France KLM SA	-93.2
Abalance Corp	-69.5
Alliance International Education Leasing Holdings Limited	-69.1
Grupo Casas Bahia S A	-68.2
Mesoblast Ltd	-66.7
Farfetch Limited	-65.4
Chalice Mining Ltd	-64.1
Abacus Group	-62.3
Idorsia Ltd	-60.7
Maxeon Solar Technologies Ltd	-58.8

International Equity Performance Attribution vs. MSCI AC World ex USA IMI

	Attribution Effects				Performance		Sector Weights	
	Total Effects	Selection Effect	Allocation Effect	Interaction Effect	Portfolio	Benchmark	Portfolio	Benchmark
Energy	-0.3	-0.1	-0.2	0.0	6.6	8.9	3.8	5.2
Materials	0.0	0.0	0.0	0.0	-3.5	-3.1	7.1	8.4
Industrials	-0.1	-0.2	0.0	0.0	-6.7	-5.2	11.5	14.3
Consumer Discretionary	-0.2	-0.1	0.0	0.0	-6.4	-5.3	13.6	12.1
Consumer Staples	-0.1	-0.1	0.0	0.0	-6.7	-5.7	9.5	8.3
Health Care	-0.3	-0.4	0.0	0.0	-6.7	-2.9	7.9	9.2
Financials	-0.5	-0.5	0.0	0.0	-2.7	-0.3	19.8	19.3
Information Technology	-0.5	-0.2	-0.2	-0.1	-9.4	-7.8	16.6	11.8
Communication Services	0.2	0.2	0.0	0.0	-0.9	-4.4	5.8	5.3
Utilities	0.1	0.1	0.0	0.0	-3.7	-7.3	2.3	3.2
Real Estate	0.0	0.0	0.0	0.0	-2.3	-2.2	1.5	2.9
Cash	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0
Total	-1.6	-1.3	-0.3	0.0	-5.1	-3.4	100.0	100.0

International Equity vs. MSCI AC World ex USA IMI

	Weights		Performance		Attribution Effects			
	Portfolio	Benchmark	Portfolio	Benchmark	Selection Effects	Country Effects	Interaction Effects	Total Effects
Australia	2.7	4.8	-2.2	-3.5	0.1	0.0	0.0	0.0
Austria	0.1	0.2	-3.5	-3.7	0.0	0.0	0.0	0.0
Belgium	0.6	0.6	-3.2	-5.0	0.0	0.0	0.0	0.0
Brazil	3.5	1.6	0.2	-5.7	0.1	0.0	0.1	0.2
Canada	5.1	7.5	-6.3	-3.7	-0.2	0.0	0.1	-0.1
Chile	0.4	0.2	-15.2	-9.5	0.0	0.0	0.0	0.0
China	12.7	6.7	-3.4	-2.5	-0.1	0.1	-0.1	-0.1
Colombia	0.0	0.0	3.2	3.1	0.0	0.0	0.0	0.0
Czech Republic	0.0	0.0	0.8	0.7	0.0	0.0	0.0	0.0
Denmark	1.2	1.9	-1.5	1.2	-0.1	0.0	0.0	-0.1
Egypt	0.0	0.0	19.3	19.7	0.0	0.0	0.0	0.0
Finland	0.4	0.7	-5.0	-5.0	0.0	0.0	0.0	0.0
France	4.6	6.7	-9.5	-6.9	-0.2	0.1	0.1	0.0
Germany	3.7	5.2	-9.4	-7.8	-0.1	0.1	0.0	0.0
Greece	0.1	0.1	-8.0	-8.0	0.0	0.0	0.0	0.0
Hong Kong	2.2	2.0	-9.8	-9.7	0.0	0.0	0.0	0.0
Hungary	0.0	0.1	1.0	1.0	0.0	0.0	0.0	0.0
India	6.4	4.5	3.1	4.6	-0.1	0.2	0.0	0.1
Indonesia	0.9	0.6	-5.3	-2.6	0.0	0.0	0.0	0.0
Ireland	0.7	0.8	-5.1	0.7	0.0	0.0	0.0	0.0
Israel	0.3	0.6	2.0	2.0	0.0	0.0	0.0	0.0
Italy	0.8	1.5	-3.1	-3.1	0.0	0.0	0.0	0.0
Japan	12.3	15.3	-5.5	-1.2	-0.7	-0.1	0.1	-0.6
Korea	5.4	3.5	-5.2	-5.4	0.0	0.0	0.0	0.0
Kuwait	0.1	0.2	-3.6	-3.6	0.0	0.0	0.0	0.0
Malaysia	0.2	0.4	5.3	5.2	0.0	0.0	0.0	0.0
Malta	0.0	0.0	-18.6	-18.6	0.0	0.0	0.0	0.0
Mexico	1.0	0.8	-2.9	-5.9	0.0	0.0	0.0	0.0
Netherlands	3.9	3.3	-16.2	-10.4	-0.2	0.0	0.0	-0.3
New Zealand	0.5	0.2	-8.0	-7.0	0.0	0.0	0.0	0.0
Norway	0.3	0.5	7.5	7.5	0.0	0.0	0.0	0.0
Peru	0.7	0.0	-13.2	-9.3	0.0	0.0	0.0	-0.1
Philippines	0.1	0.2	-3.4	-3.4	0.0	0.0	0.0	0.0

International Equity
Equity Performance Attribution

San Mateo County Employees' Retirement Association
Period Ending: September 30, 2023

	Weights		Performance			Attribution Effects			Total Effects
	Portfolio	Benchmark	Portfolio	Benchmark	Selection Effects	Country Effects	Interaction Effects		
Poland	0.1	0.2	-9.8	-9.7	0.0	0.0	0.0	0.0	
Portugal	0.5	0.1	-16.5	-4.1	0.0	0.0	0.0	-0.1	
Qatar	0.1	0.2	0.7	0.7	0.0	0.0	0.0	0.0	
Russia	0.0	0.0	-5.8	0.0	0.0	0.0	0.0	0.0	
Saudi Arabia	1.0	1.2	-6.2	-4.4	0.0	0.0	0.0	0.0	
Singapore	1.0	0.9	2.5	0.7	0.0	0.0	0.0	0.0	
South Africa	0.4	0.8	-2.4	-2.4	0.0	0.0	0.0	0.0	
Spain	0.8	1.6	-3.6	-3.6	0.0	0.0	0.0	0.0	
Sweden	2.5	2.1	-6.3	-7.1	0.0	0.0	0.0	0.0	
Switzerland	3.9	6.4	-9.8	-5.3	-0.3	0.0	0.1	-0.1	
Taiwan	7.1	4.5	-7.9	-5.5	-0.1	-0.1	-0.1	-0.2	
Thailand	0.4	0.6	-2.4	-3.6	0.0	0.0	0.0	0.0	
Turkey	0.1	0.2	40.0	40.0	0.0	0.0	0.0	0.0	
United Arab Emirates	0.2	0.4	6.1	6.1	0.0	0.0	0.0	0.0	
United Kingdom	8.5	9.2	-2.6	-1.9	-0.1	0.0	0.0	-0.1	
United States	0.7	0.2	-12.7	-14.5	0.0	-0.1	0.0	0.0	
Other	1.1	0.4	2.0	-0.5	0.0	0.0	0.0	0.0	
Cash	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total	100.0	100.0	-5.1	-3.4	-1.8	-0.1	0.3	-1.6	

International Equity vs. MSCI AC World ex USA IMI

	Weights		Performance			Attribution Effects		Total Effects
	Portfolio	Benchmark	Portfolio	Benchmark	Selection Effects	Region Effects	Interaction Effects	
Americas	11.4	10.2	-5.1	-4.5	-0.1	0.0	0.0	-0.1
Asia Pacific	52.0	44.2	-4.0	-2.2	-0.8	0.1	-0.1	-0.8
EMEA	34.9	45.2	-6.9	-4.4	-1.1	0.1	0.3	-0.8
Other	1.1	0.4	2.0	-0.5	0.0	0.0	0.0	0.0
Cash	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	100.0	100.0	-5.1	-3.4	-2.0	0.2	0.1	-1.6

Characteristics

	Portfolio	Benchmark
Number of Stocks	86	2,320
Wtd. Avg. Mkt. Cap \$M	64,330.6	82,287.9
Median Mkt. Cap \$M	21,258.2	8,822.4
Price/Earnings ratio	19.2	12.8
Current Yield (%)	1.5	3.4
Beta (5 Years, Monthly)	1.1	1.0
Price/Book ratio	3.7	2.4
Return on Equity (%)	-0.1	5.6

Top Holdings

Best Performers

Worst Performers

	(%)		Return (%)		Return (%)
Taiwan Semiconductor Man.	4.1	MakeMyTrip Ltd	50.2	Farfetch Limited	-65.4
United Overseas Bank Ltd	2.7	LY Corporation	16.2	Adyen N.V	-56.8
ASML Holding NV	2.6	UBI Soft Entertainment SA	15.3	AUTO1 Group SE	-30.8
MercadoLibre Inc	2.4	United Spirits Ltd	9.1	Nibe Industrier Ab, Markaryd	-30.3
Cie Financiere Richemont	2.3	Cochlear Ltd	8.8	Systemex Corp	-29.1
Auto Trader Group plc	2.1	MercadoLibre Inc	7.0	Cie Financiere Richemont	-25.6
Investor Ab, Stockholm	2.1	Alibaba Group Holding Ltd	5.5	Zalando SE	-22.2
Sartorius AG	2.0	Weir Group PLC	4.0	LONZA GROUP AG	-22.0
Mettler-Toledo International Inc	2.0	United Overseas Bank Ltd	3.9	Shiseido Co Ltd	-21.7
Shiseido Co Ltd	2.0	Rightmove PLC	3.8	Remy Cointreau SA	-21.6

Baillie Gifford Performance Attribution vs. MSCI AC World ex USA Index

	Attribution Effects				Performance		Sector Weights	
	Total Effects	Selection Effect	Allocation Effect	Interaction Effect	Portfolio	Benchmark	Portfolio	Benchmark
Energy	-0.7	-0.9	-0.5	0.7	-8.8	8.3	1.2	5.4
Materials	-0.2	-1.1	0.0	1.0	-17.6	-3.3	1.0	7.9
Industrials	-0.7	-0.5	-0.1	-0.2	-9.2	-5.6	17.7	13.2
Consumer Discretionary	-1.4	-0.7	-0.2	-0.5	-11.2	-5.6	21.6	12.1
Consumer Staples	-0.6	-0.3	-0.1	-0.2	-9.8	-6.4	13.6	8.6
Health Care	-0.8	-0.8	0.0	0.0	-11.7	-2.8	9.5	9.5
Financials	-1.5	-2.0	-0.2	0.7	-10.2	-0.5	13.8	20.6
Information Technology	-1.0	-0.6	-0.2	-0.2	-13.9	-8.6	15.2	11.9
Communication Services	0.4	0.4	0.0	0.0	2.1	-4.9	6.2	5.5
Utilities	0.1	0.0	0.1	0.0	0.0	-7.7	0.0	3.2
Real Estate	-0.1	0.0	-0.1	0.0	0.0	-1.0	0.0	2.0
Cash	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0
Total	-6.5	-6.6	-1.2	1.4	-10.2	-3.7	100.0	100.0

Baillie Gifford vs. MSCI AC World ex USA Index

	Weights		Performance		Attribution Effects			Total Effects
	Portfolio	Benchmark	Portfolio	Benchmark	Selection Effects	Country Effects	Interaction Effects	
Australia	1.3	4.5	8.8	-3.3	0.6	0.0	-0.4	0.1
Austria	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Belgium	1.3	0.5	-1.7	-5.0	0.0	0.0	0.0	0.0
Brazil	1.5	1.5	-9.4	-4.8	-0.1	0.0	0.0	-0.1
Canada	3.6	7.6	-14.2	-3.8	-0.8	0.0	0.4	-0.4
Chile	0.0	0.2	0.0	-9.2	0.0	0.0	0.0	0.0
China	6.2	7.4	-5.6	-2.3	-0.2	0.0	0.0	-0.2
Colombia	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0
Czech Republic	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0
Denmark	1.1	2.0	-10.8	2.5	-0.3	-0.1	0.1	-0.2
Egypt	0.0	0.0	0.0	15.3	0.0	0.0	0.0	0.0
Finland	0.0	0.7	0.0	-3.9	0.0	0.0	0.0	0.0
France	4.8	7.4	-16.9	-6.8	-0.7	0.1	0.3	-0.4
Germany	5.0	5.5	-12.7	-7.7	-0.3	0.0	0.0	-0.2
Greece	0.0	0.1	0.0	-7.6	0.0	0.0	0.0	0.0
Hong Kong	3.2	2.1	-14.5	-10.3	-0.1	-0.1	0.0	-0.2
Hungary	0.0	0.1	0.0	0.4	0.0	0.0	0.0	0.0
India	5.0	4.1	4.0	2.6	0.1	0.1	0.0	0.1
Indonesia	0.0	0.6	0.0	-3.4	0.0	0.0	0.0	0.0
Ireland	1.1	0.9	-14.4	0.7	-0.1	0.0	0.0	-0.2
Israel	0.0	0.4	0.0	4.6	0.0	0.0	0.0	0.0
Italy	0.0	1.4	0.0	-2.8	0.0	0.0	0.0	0.0
Japan	18.7	14.5	-12.8	-1.5	-1.6	0.1	-0.5	-2.0
Korea	0.0	3.4	0.0	-6.1	0.0	0.1	0.0	0.1
Kuwait	0.0	0.2	0.0	-2.7	0.0	0.0	0.0	0.0
Malaysia	0.0	0.4	0.0	4.5	0.0	0.0	0.0	0.0
Mexico	0.9	0.8	-3.8	-6.4	0.0	0.0	0.0	0.0
Netherlands	9.1	3.6	-20.5	-10.5	-0.4	-0.4	-0.6	-1.3
New Zealand	1.5	0.2	-8.3	-8.4	0.0	-0.1	0.0	-0.1
Norway	0.0	0.4	0.0	12.0	0.0	-0.1	0.0	-0.1
Peru	0.0	0.0	0.0	-9.3	0.0	0.0	0.0	0.0
Philippines	0.0	0.2	0.0	-3.6	0.0	0.0	0.0	0.0
Poland	0.0	0.2	0.0	-11.5	0.0	0.0	0.0	0.0

	Weights		Performance			Attribution Effects			Total Effects
	Portfolio	Benchmark	Portfolio	Benchmark	Selection Effects	Country Effects	Interaction Effects		
Portugal	1.8	0.1	-18.3	-6.5	0.0	0.0	-0.2	-0.3	
Qatar	0.0	0.2	0.0	0.1	0.0	0.0	0.0	0.0	
Saudi Arabia	0.0	1.2	0.0	-4.4	0.0	0.0	0.0	0.0	
Singapore	2.3	0.8	3.9	2.4	0.0	0.1	0.0	0.1	
South Africa	0.0	0.8	0.0	-3.6	0.0	0.0	0.0	0.0	
Spain	0.0	1.6	0.0	-4.0	0.0	0.0	0.0	0.0	
Sweden	5.8	2.0	-5.6	-6.3	0.0	-0.1	0.0	-0.1	
Switzerland	3.7	7.0	-24.6	-5.2	-1.4	0.0	0.6	-0.7	
Taiwan	4.1	4.3	-13.4	-6.9	-0.3	0.0	0.0	-0.3	
Thailand	0.0	0.5	0.0	-4.5	0.0	0.0	0.0	0.0	
Turkey	0.0	0.2	0.0	32.7	0.0	-0.1	0.0	-0.1	
United Arab Emirates	0.0	0.4	0.0	6.1	0.0	0.0	0.0	0.0	
United Kingdom	11.7	9.3	-5.2	-1.7	-0.3	0.0	-0.1	-0.4	
United States	2.6	0.2	-12.4	-17.2	0.0	-0.3	0.1	-0.2	
Other	3.5	0.3	2.6	-4.7	0.0	0.0	0.2	0.2	
Cash	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total	100.0	100.0	-10.2	-3.7	-5.9	-0.8	0.2	-6.5	

Baillie Gifford vs. MSCI AC World ex USA Index

	Weights		Performance			Attribution Effects		
	Portfolio	Benchmark	Portfolio	Benchmark	Selection Effects	Region Effects	Interaction Effects	Total Effects
Americas	8.7	10.3	-11.7	-4.5	-0.7	0.0	0.1	-0.6
Asia Pacific	42.2	43.0	-8.2	-2.8	-2.3	0.0	0.0	-2.3
EMEA	45.4	46.4	-12.7	-4.4	-3.9	0.0	0.1	-3.8
Other	3.5	0.3	2.6	-4.7	0.0	0.0	0.2	0.2
Cash	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	100.0	100.0	-10.2	-3.7	-6.9	0.0	0.5	-6.5

Mondrian
Equity Only Summary Statistics

San Mateo County Employees' Retirement Association
Period Ending: September 30, 2023

Characteristics

	Portfolio	Benchmark
Number of Stocks	46	1,354
Wtd. Avg. Mkt. Cap \$M	49,879.6	63,383.9
Median Mkt. Cap \$M	24,241.9	8,618.3
Price/Earnings ratio	12.0	9.5
Current Yield (%)	4.2	4.8
Beta (5 Years, Monthly)	1.0	1.0
Price/Book ratio	1.7	1.7
Return on Equity (%)	2.7	3.1

Top Holdings

Best Performers

Worst Performers

	(%)		Return (%)		Return (%)
Banco Santander SA	4.3	Honda Motor Co Ltd	14.2	Kering	-17.1
Enel Ente Nazionale	3.9	Eni SpA	14.1	WPP PLC	-14.5
GSK plc	3.5	Toyota Industries Corp	12.1	TC Energy Corp	-12.9
Sanofi	3.5	Shell Plc	8.4	MINEBEA MITSUMI Inc	-12.6
Koninklijke Philips NV	3.5	Shell Plc	7.9	Aurizon Holdings Ltd	-11.8
Fujitsu Ltd	3.4	Bouygues, Guyancourt	4.6	CK Hutchison Holdings Ltd	-10.8
Sony Group Corporation	3.4	GSK plc	4.2	Mitsubishi Electric Corp	-10.7
CK Hutchison Holdings Ltd	3.4	United Overseas Bank Ltd	3.9	Snam SPA	-9.8
United Overseas Bank Ltd	3.3	Banco Santander SA	3.7	Sony Group Corporation	-8.3
Allianz SE	3.2	Kao Corp	3.1	Fujitsu Ltd	-7.7

Mondrian Performance Attribution vs. MSCI AC World ex USA Value

	Attribution Effects				Performance		Sector Weights	
	Total Effects	Selection Effect	Allocation Effect	Interaction Effect	Portfolio	Benchmark	Portfolio	Benchmark
Energy	-0.6	-0.3	-0.5	0.2	5.2	7.9	3.6	9.8
Materials	-0.3	-0.2	0.0	0.0	-2.8	-0.4	10.5	9.6
Industrials	0.3	0.0	0.3	0.0	0.0	-3.2	0.0	10.3
Consumer Discretionary	0.1	0.1	0.0	0.0	2.0	1.3	8.9	9.2
Consumer Staples	-0.1	0.0	-0.1	0.0	-3.9	-3.6	7.6	5.1
Health Care	-0.5	-0.7	0.0	0.2	-12.1	-0.8	4.2	6.4
Financials	-1.1	-1.2	0.0	0.1	-2.5	1.3	27.0	30.6
Information Technology	-2.2	-0.3	-0.5	-1.3	-8.4	-2.4	27.3	5.7
Communication Services	0.3	0.3	-0.1	0.1	2.3	-3.4	6.3	4.5
Utilities	0.5	0.7	0.2	-0.4	4.8	-7.5	2.7	5.6
Real Estate	0.0	0.0	0.0	0.0	0.0	-1.0	0.0	3.2
Cash	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0
Total	-3.4	-1.7	-0.6	-1.0	-3.4	0.0	100.0	100.0

Mondrian vs. MSCI AC World ex USA Value

	Weights		Performance			Attribution Effects		
	Portfolio	Benchmark	Portfolio	Benchmark	Selection Effects	Country Effects	Interaction Effects	Total Effects
Australia	0.0	4.8	0.0	-1.7	0.0	0.1	0.0	0.1
Austria	0.0	0.2	0.0	-0.5	0.0	0.0	0.0	0.0
Belgium	0.0	0.5	0.0	-6.3	0.0	0.0	0.0	0.0
Brazil	9.3	1.6	3.7	-2.3	0.1	-0.2	0.5	0.4
Canada	1.7	7.5	-13.5	-2.9	-0.8	0.2	0.6	0.0
Chile	1.1	0.2	-17.0	-4.1	0.0	0.0	-0.1	-0.2
China	31.2	7.1	-3.4	-0.7	-0.2	-0.1	-0.6	-1.0
Colombia	0.0	0.0	0.0	2.4	0.0	0.0	0.0	0.0
Czech Republic	0.0	0.0	0.0	-0.6	0.0	0.0	0.0	0.0
Denmark	0.0	0.4	0.0	-13.0	0.0	0.0	0.0	0.0
Egypt	0.0	0.0	0.0	12.9	0.0	0.0	0.0	0.0
Finland	0.0	1.1	0.0	-1.2	0.0	0.0	0.0	0.0
France	0.0	6.3	0.0	1.1	0.0	-0.1	0.0	-0.1
Germany	0.0	6.6	0.0	-7.6	0.0	0.5	0.0	0.5
Greece	0.0	0.1	0.0	-9.0	0.0	0.0	0.0	0.0
Hong Kong	1.4	2.2	0.3	-9.4	0.2	0.1	-0.1	0.2
Hungary	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0
India	11.2	4.1	1.6	3.6	-0.1	0.3	-0.1	0.0
Indonesia	2.5	0.6	-6.6	-1.6	0.0	0.0	-0.1	-0.2
Ireland	0.0	0.6	0.0	-1.0	0.0	0.0	0.0	0.0
Israel	0.0	0.4	0.0	14.5	0.0	-0.1	0.0	-0.1
Italy	0.0	2.0	0.0	0.6	0.0	0.0	0.0	0.0
Japan	0.0	15.0	0.0	5.4	0.0	-0.8	0.0	-0.8
Korea	14.7	3.6	-5.0	-1.8	-0.1	-0.2	-0.4	-0.7
Kuwait	0.0	0.2	0.0	-3.1	0.0	0.0	0.0	0.0
Malaysia	0.0	0.4	0.0	6.5	0.0	0.0	0.0	0.0
Mexico	1.5	0.8	0.6	-5.6	0.0	0.0	0.0	0.1
Netherlands	0.0	1.7	0.0	-1.4	0.0	0.0	0.0	0.0
New Zealand	0.0	0.1	0.0	-5.6	0.0	0.0	0.0	0.0
Norway	0.0	0.8	0.0	12.3	0.0	-0.1	0.0	-0.1
Peru	2.6	0.1	-13.3	-6.3	0.0	-0.2	-0.2	-0.3
Philippines	0.0	0.2	0.0	-2.6	0.0	0.0	0.0	0.0
Poland	0.0	0.2	0.0	-7.2	0.0	0.0	0.0	0.0

Mondrian
Equity Performance Attribution

San Mateo County Employees' Retirement Association
Period Ending: September 30, 2023

	Weights		Performance			Attribution Effects			Total Effects
	Portfolio	Benchmark	Portfolio	Benchmark	Selection Effects	Country Effects	Interaction Effects		
Portugal	0.0	0.1	0.0	-9.2	0.0	0.0	0.0	0.0	
Qatar	0.0	0.2	0.0	1.8	0.0	0.0	0.0	0.0	
Saudi Arabia	1.6	1.2	-8.9	-8.5	0.0	0.0	0.0	0.0	
Singapore	0.0	1.0	0.0	3.7	0.0	0.0	0.0	0.0	
South Africa	0.0	0.9	0.0	-1.1	0.0	0.0	0.0	0.0	
Spain	0.0	2.4	0.0	-0.9	0.0	0.0	0.0	0.0	
Sweden	0.0	1.7	0.0	0.9	0.0	0.0	0.0	0.0	
Switzerland	0.0	5.0	0.0	3.3	0.0	-0.2	0.0	-0.2	
Taiwan	15.3	4.0	-7.9	-2.1	-0.2	-0.2	-0.7	-1.1	
Thailand	0.0	0.6	0.0	-2.4	0.0	0.0	0.0	0.0	
Turkey	0.0	0.2	0.0	32.1	0.0	-0.1	0.0	-0.1	
United Arab Emirates	0.0	0.4	0.0	13.5	0.0	0.0	0.0	0.0	
United Kingdom	3.7	12.5	2.3	0.6	0.2	-0.1	-0.1	0.0	
United States	0.0	0.0	0.0	1.9	0.0	0.0	0.0	0.0	
Other	0.0	0.3	0.0	-5.4	0.0	0.0	0.0	0.0	
Cash	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total	100.0	100.0	-3.4	0.0	-0.9	-1.2	-1.3	-3.4	

Mondrian vs. MSCI AC World ex USA Value

	Weights		Performance		Attribution Effects			Total Effects
	Portfolio	Benchmark	Portfolio	Benchmark	Selection Effects	Region Effects	Interaction Effects	
Americas	16.2	10.2	-2.5	-3.0	0.1	-0.2	0.0	-0.1
Asia Pacific	76.4	43.6	-3.9	1.1	-2.2	0.4	-1.6	-3.5
EMEA	5.3	45.9	-1.1	-0.4	-0.3	0.2	0.3	0.1
Other	0.0	0.3	0.0	-5.4	0.0	0.0	0.0	0.0
Cash	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	100.0	100.0	-3.4	0.0	-2.4	0.4	-1.4	-3.4

BlackRock MSCI ACWI EX-US IMI Performance Attribution vs. MSCI AC World ex USA IMI (Net)

	Attribution Effects				Performance		Sector Weights	
	Total Effects	Selection Effect	Allocation Effect	Interaction Effect	Portfolio	Benchmark	Portfolio	Benchmark
Energy	0.0	0.0	0.0	0.0	8.9	8.9	5.3	5.2
Materials	0.0	0.0	0.0	0.0	-3.1	-3.1	8.4	8.4
Industrials	0.0	0.0	0.0	0.0	-5.2	-5.2	14.2	14.3
Consumer Discretionary	0.0	0.0	0.0	0.0	-5.2	-5.3	12.1	12.1
Consumer Staples	0.0	0.0	0.0	0.0	-5.6	-5.7	8.3	8.3
Health Care	0.0	0.0	0.0	0.0	-2.9	-2.9	9.0	9.2
Financials	0.0	0.0	0.0	0.0	-0.3	-0.3	19.3	19.3
Information Technology	0.0	0.0	0.0	0.0	-7.8	-7.8	11.9	11.8
Communication Services	0.0	0.0	0.0	0.0	-4.4	-4.4	5.3	5.3
Utilities	0.0	0.0	0.0	0.0	-7.1	-7.3	3.3	3.2
Real Estate	0.0	0.0	0.0	0.0	-2.3	-2.2	2.9	2.9
Total	0.0	0.0	0.0	0.0	-3.4	-3.4	100.0	100.0

Characteristics

	Portfolio	Benchmark
Number of Stocks	6,797	6,739
Wtd. Avg. Mkt. Cap \$M	69,632.0	71,239.2
Median Mkt. Cap \$M	1,523.3	1,519.4
Price/Earnings ratio	12.9	12.8
Current Yield (%)	3.3	3.3
Beta (3 Years, Monthly)	1.0	1.0
Price/Book ratio	2.3	2.3
Return on Equity (%)	5.5	5.4

Top Holdings

	(%)
Taiwan Semiconductor Man.	1.6
Novo Nordisk A/S	1.1
Nestle SA, Cham Und Vevey	1.1
Tencent Holdings LTD	1.0
Samsung Electronics Co Ltd	0.9
ASML Holding NV	0.9
Shell Plc	0.8
LVMH Moet Hennessy Louis V	0.8
Novartis AG	0.8
Toyota Motor Corp	0.7

Best Performers

	Return (%)
Posco Dx Company Ltd	247.0
Kiler Holding A.S.	162.5
IS Yatirim Menkul Degerler A.S.	161.5
Ulker Biskuvi Sanayi AS	158.7
Nuh Cimento Sanayii A.S.	153.3
Alfa Solar Enerji Sanayi Ve Ticaret Anonim Sirketi	150.1
Borusan	148.4
Canggang Railway Limited	144.6
Europower Enerji Ve Otomasyon Teknolojileri Sanayi Ticaret Anonim Sirketi	144.1
Kum Yang Co Ltd	121.2

Worst Performers

	Return (%)
Air France KLM SA	-93.2
Abalance Corp	-69.5
Alliance International Education Leasing Holdings Limited	-69.1
Grupo Casas Bahia S A	-68.2
Mesoblast Ltd	-66.7
Chalice Mining Ltd	-64.1
Abacus Group	-62.3
Idorsia Ltd	-60.7
Maxeon Solar Technologies Ltd	-58.8
Synthomer PLC	-58.5

BlackRock MSCI ACWI EX-US IMI vs. MSCI AC World ex USA IMI (Net)

	Weights		Performance		Attribution Effects			Total Effects
	Portfolio	Benchmark	Portfolio	Benchmark	Selection Effects	Country Effects	Interaction Effects	
Australia	4.8	4.8	-3.6	-3.5	0.0	0.0	0.0	0.0
Austria	0.2	0.2	-3.5	-3.7	0.0	0.0	0.0	0.0
Belgium	0.5	0.6	-5.0	-5.0	0.0	0.0	0.0	0.0
Brazil	1.5	1.6	-5.7	-5.7	0.0	0.0	0.0	0.0
Canada	7.6	7.5	-3.7	-3.7	0.0	0.0	0.0	0.0
Chile	0.2	0.2	-9.5	-9.5	0.0	0.0	0.0	0.0
China	6.7	6.7	-2.6	-2.5	0.0	0.0	0.0	0.0
Colombia	0.0	0.0	3.2	3.1	0.0	0.0	0.0	0.0
Czech Republic	0.0	0.0	0.8	0.7	0.0	0.0	0.0	0.0
Denmark	1.9	1.9	1.2	1.2	0.0	0.0	0.0	0.0
Egypt	0.0	0.0	19.3	19.7	0.0	0.0	0.0	0.0
Finland	0.7	0.7	-5.0	-5.0	0.0	0.0	0.0	0.0
France	6.7	6.7	-6.9	-6.9	0.0	0.0	0.0	0.0
Germany	4.9	5.2	-7.8	-7.8	0.0	0.0	0.0	0.0
Greece	0.1	0.1	-8.0	-8.0	0.0	0.0	0.0	0.0
Hong Kong	2.0	2.0	-9.7	-9.7	0.0	0.0	0.0	0.0
Hungary	0.1	0.1	1.0	1.0	0.0	0.0	0.0	0.0
India	4.6	4.5	4.6	4.6	0.0	0.0	0.0	0.0
Indonesia	0.6	0.6	-2.5	-2.6	0.0	0.0	0.0	0.0
Ireland	0.8	0.8	0.8	0.7	0.0	0.0	0.0	0.0
Israel	0.6	0.6	2.0	2.0	0.0	0.0	0.0	0.0
Italy	1.5	1.5	-3.1	-3.1	0.0	0.0	0.0	0.0
Japan	15.3	15.3	-1.2	-1.2	0.0	0.0	0.0	0.0
Korea	3.5	3.5	-5.4	-5.4	0.0	0.0	0.0	0.0
Kuwait	0.2	0.2	-3.6	-3.6	0.0	0.0	0.0	0.0
Malaysia	0.4	0.4	5.3	5.2	0.0	0.0	0.0	0.0
Malta	0.0	0.0	-18.6	-18.6	0.0	0.0	0.0	0.0
Mexico	0.8	0.8	-5.9	-5.9	0.0	0.0	0.0	0.0
Netherlands	3.3	3.3	-10.4	-10.4	0.0	0.0	0.0	0.0
New Zealand	0.2	0.2	-7.0	-7.0	0.0	0.0	0.0	0.0
Norway	0.5	0.5	7.5	7.5	0.0	0.0	0.0	0.0
Peru	0.0	0.0	-9.3	-9.3	0.0	0.0	0.0	0.0
Philippines	0.2	0.2	-3.4	-3.4	0.0	0.0	0.0	0.0

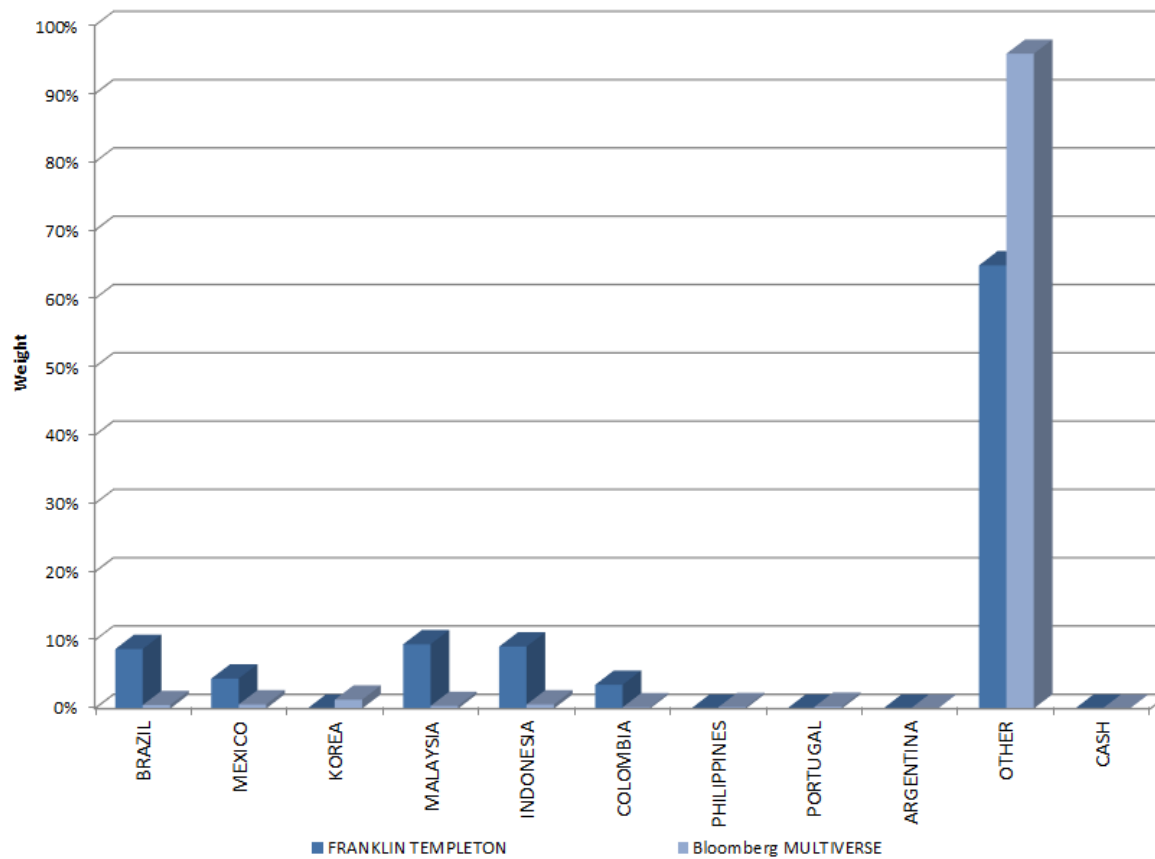
BlackRock MSCI ACWI EX-US IMI
Equity Performance Attribution

San Mateo County Employees' Retirement Association
Period Ending: September 30, 2023

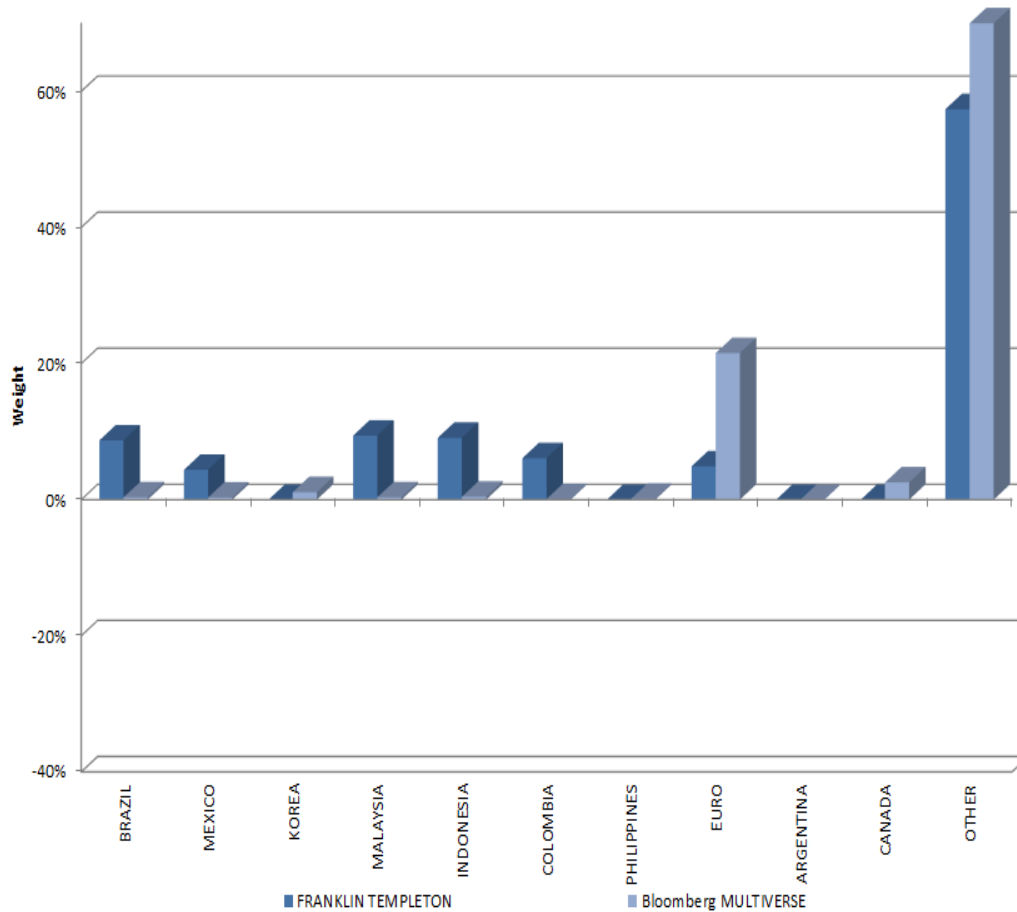
	Weights		Performance		Attribution Effects			Total Effects
	Portfolio	Benchmark	Portfolio	Benchmark	Selection Effects	Country Effects	Interaction Effects	
Poland	0.2	0.2	-9.8	-9.7	0.0	0.0	0.0	0.0
Portugal	0.1	0.1	-4.2	-4.1	0.0	0.0	0.0	0.0
Qatar	0.3	0.2	0.7	0.7	0.0	0.0	0.0	0.0
Russia	0.0	0.0	-5.8	0.0	0.0	0.0	0.0	0.0
Saudi Arabia	1.2	1.2	-4.4	-4.4	0.0	0.0	0.0	0.0
Singapore	0.9	0.9	0.7	0.7	0.0	0.0	0.0	0.0
South Africa	0.8	0.8	-2.4	-2.4	0.0	0.0	0.0	0.0
Spain	1.6	1.6	-3.6	-3.6	0.0	0.0	0.0	0.0
Sweden	2.1	2.1	-7.1	-7.1	0.0	0.0	0.0	0.0
Switzerland	6.0	6.4	-5.3	-5.3	0.0	0.0	0.0	0.0
Taiwan	4.6	4.5	-5.5	-5.5	0.0	0.0	0.0	0.0
Thailand	0.8	0.6	-2.4	-3.6	0.0	0.0	0.0	0.0
Turkey	0.2	0.2	40.0	40.0	0.0	0.0	0.0	0.0
United Arab Emirates	0.4	0.4	6.1	6.1	0.0	0.0	0.0	0.0
United Kingdom	9.3	9.2	-2.0	-1.9	0.0	0.0	0.0	0.0
United States	0.2	0.2	-14.4	-14.5	0.0	0.0	0.0	0.0
Other	0.4	0.4	-0.7	-0.5	0.0	0.0	0.0	0.0
Total	100.0	100.0	-3.4	-3.4	0.0	0.0	0.0	0.0

BlackRock MSCI ACWI EX-US IMI vs. MSCI AC World ex USA IMI (Net)

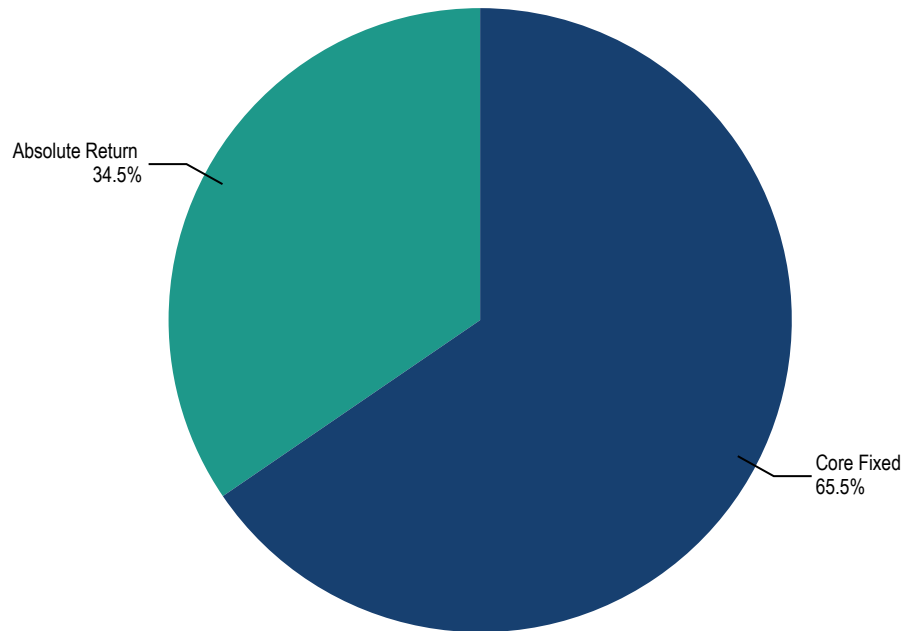
	Weights		Performance		Attribution Effects			Total Effects
	Portfolio	Benchmark	Portfolio	Benchmark	Selection Effects	Region Effects	Interaction Effects	
Americas	10.3	10.2	-4.5	-4.5	0.0	0.0	0.0	0.0
Asia Pacific	44.8	44.2	-2.2	-2.2	0.0	0.0	0.0	0.0
EMEA	44.5	45.2	-4.4	-4.4	0.0	0.0	0.0	0.0
Other	0.4	0.4	-0.7	-0.5	0.0	0.0	0.0	0.0
Total	100.0	100.0	-3.4	-3.4	0.0	0.0	0.0	0.0



COUNTRY	MARKET VALUE	FRANKLIN TEMPLETON	Bloomberg MULTIVERSE	DIFF
BRAZIL	\$ 4,578	8.7%	0.5%	+8.2%
MEXICO	\$ 2,308	4.4%	0.6%	+3.8%
KOREA	\$ -	0.0%	1.3%	-1.3%
MALAYSIA	\$ 4,944	9.4%	0.4%	+9.0%
INDONESIA	\$ 4,772	9.1%	0.6%	+8.5%
COLOMBIA	\$ 1,828	3.5%	0.2%	+3.3%
PHILIPPINES	\$ -	0.0%	0.2%	-0.2%
PORTUGAL	\$ -	0.0%	0.3%	-0.3%
ARGENTINA	\$ -	0.0%	0.0%	0.0%
OTHER	\$ 34,081	64.9%	95.9%	-31.0%
CASH	\$ -	0.0%	0.0%	0.0%
	\$ 52,512	100.0%	100.0%	0.0%



CURRENCY	MARKET VALUE	FRANKLIN TEMPLETON	Bloomberg MULTIVERSE	DIFF
BRAZIL	\$ 4,578	8.7%	0.4%	+8.4%
MEXICO	\$ 2,308	4.4%	0.3%	+4.1%
KOREA	\$ -	0.0%	1.1%	-1.1%
MALAYSIA	\$ 4,944	9.4%	0.4%	+9.1%
INDONESIA	\$ 4,772	9.1%	0.4%	+8.6%
COLOMBIA	\$ 3,203	6.1%	0.1%	+6.0%
PHILIPPINES	\$ -	0.0%	0.2%	-0.2%
EURO	\$ 2,570	4.9%	21.5%	-16.6%
ARGENTINA	\$ -	0.0%	0.0%	0.0%
CANADA	\$ -	0.0%	2.5%	-2.5%
OTHER	\$ 30,137	57.4%	73.1%	-15.7%
	\$ 52,512	100.0%	100.0%	0.0%



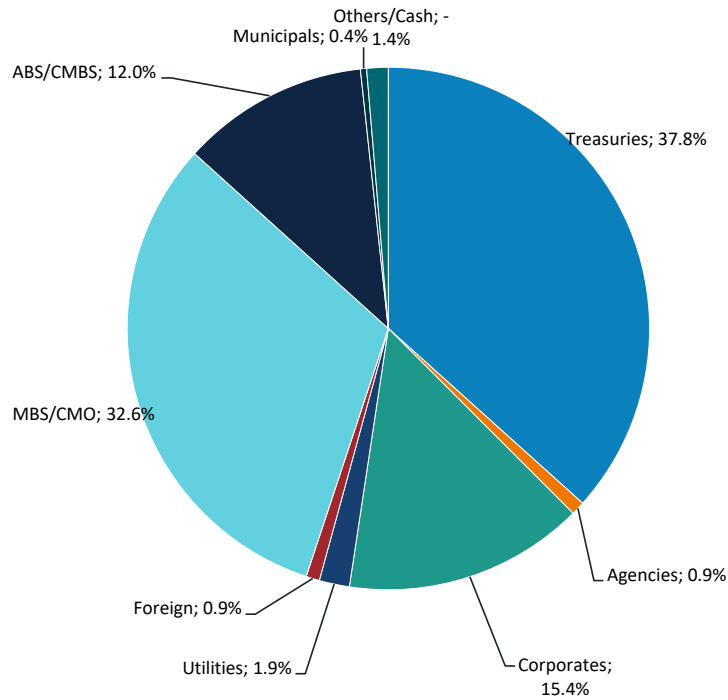
	Actual \$	Actual %	Manager Contribution to Excess Return %
Core Fixed Income	\$692,270,177	65.5%	0.8%
Absolute Return	\$365,179,140	34.5%	0.8%
Actual vs. Policy Weight Difference			0.1%
Total	\$1,057,449,317	100.0%	1.7%

Diversifying Portfolio
Risk vs. Return (1 Year)

San Mateo County Employees' Retirement Association
Period Ending: September 30, 2023

Statistics Summary
3 Years

	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio	Information Ratio	Tracking Error
Diversifying Portfolio	-1.2	2.8	-2.0	-1.0	3.1
<i>Blended Diversifying Index</i>	1.8	4.9	-0.5	-	0.0
Core Fixed	-0.3	6.8	-0.6	1.3	1.0
<i>Blended Core Fixed Income Benchmark</i>	-1.5	7.4	-0.8	-	0.0
Absolute Return	-2.3	7.6	-0.8	-1.4	7.5
<i>Absolute Return Custom Index</i>	8.7	0.2	25.6	-	0.0



Sector	Account Weight	Bloomberg Aggregate	
		Weight	Difference
Treasuries	37.8%	40.8%	-3.0%
Agencies	0.9%	5.1%	-4.2%
Corporates	15.4%	25.1%	-9.7%
Utilities	1.9%	0.0%	1.9%
Foreign	0.9%	0.0%	0.9%
MBS/CMO	32.6%	26.4%	6.2%
ABS/CMBS	12.0%	2.2%	9.8%
Municipals	0.4%	0.0%	0.4%
Others/Cash	-1.4%	0.4%	-1.8%
TOTAL	100.4%	100.0%	0.4%

Portfolio Characteristics		
	Portfolio	
Total Number of Securities		
Total Market Value	\$	709,972,599
Current Coupon		3.92
Yield to Maturity		6.06
Average Life		10.43
Duration		6.92
Quality		AA

Bloomberg Aggregate	
	2.95
	5.39
	8.45
	5.95
	AA

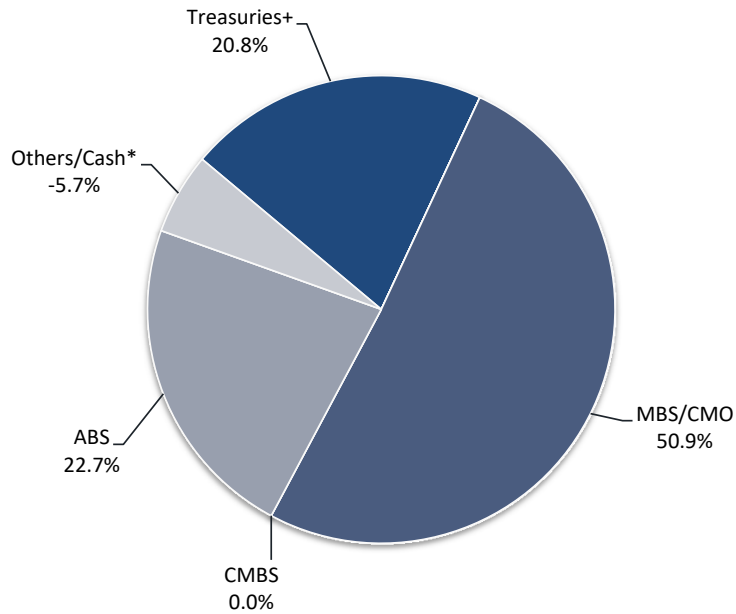
Yield to Maturity	
Range	% Held
0.0 - 5.0	27.6
5.0 - 7.0	57.3
7.0 - 9.0	10.4
9.0 - 11.0	2.8
11.0 - 13.0	0.9
13.0+	0.7
Unclassified	0.4

Average Life	
Range	% Held
0.0 - 1.0	-0.7
1.0 - 3.0	15.5
3.0 - 5.0	16.2
5.0 - 10.0	37.5
10.0 - 20.0	18.7
20.0+	12.8
Unclassified	0.0

Duration	
Range	% Held
0.0 - 1.0	6.2
1.0 - 3.0	17.0
3.0 - 5.0	19.6
5.0 - 7.0	19.7
7.0 - 10.0	14.5
10.0+	23.1
Unclassified	0.0

Quality	
Range	% Held
Govt (10)	50.9
Aaa (10)	26.8
Aa (9)	3.4
A (8)	9.0
Baa (7)	12.8
Below Baa (6-1)	0.6
Other	-3.6

Coupon	
Range	% Held
0.0 - 5.0	82.0
5.0 - 7.0	18.5
7.0 - 9.0	2.7
9.0 - 11.0	0.1
11.0 - 13.0	0.0
13.0+	0.0
Unclassified	-3.2



Sector	Account Weight	Bloomberg Aggregate Weight	Difference
Treasuries ⁺	23.5%	40.8%	-17.4%
Agencies	0.0%	5.1%	-5.1%
Corporates	0.0%	25.1%	-25.1%
Utilities	0.0%	0.0%	0.0%
Foreign	0.0%	0.0%	0.0%
MBS/CMO	57.4%	26.4%	31.0%
CMBS	0.0%	0.0%	0.0%
ABS	25.6%	2.2%	23.4%
Municipals	0.0%	0.0%	0.0%
Others/Cash*	-6.4%	0.4%	-6.8%
TOTAL	100.0%	100.0%	0.0%

+ May include TIPS allocation.

* Includes CLOs.

Portfolio Characteristics		
		Portfolio
Total Number of Securities		226
Total Market Value	\$	224,337,563
Current Coupon		5.92
Yield to Maturity		7.16
Average Life		9.47
Duration		6.27
Quality		AA+

Bloomberg Aggregate	
	2.95
	5.39
	8.45
	5.95
	AA

Yield to Maturity		
Range		% Held
0.0 - 5.0		-3.0
5.0 - 7.0		71.4
7.0 - 9.0		20.1
9.0 - 11.0		7.9
11.0 - 13.0		1.5
13.0+		1.9
Unclassified		0.0

Average Life		
Range		% Held
0.0 - 1.0		-7.5
1.0 - 3.0		22.3
3.0 - 5.0		9.9
5.0 - 10.0		42.1
10.0 - 20.0		26.9
20.0+		6.3
Unclassified		0.0

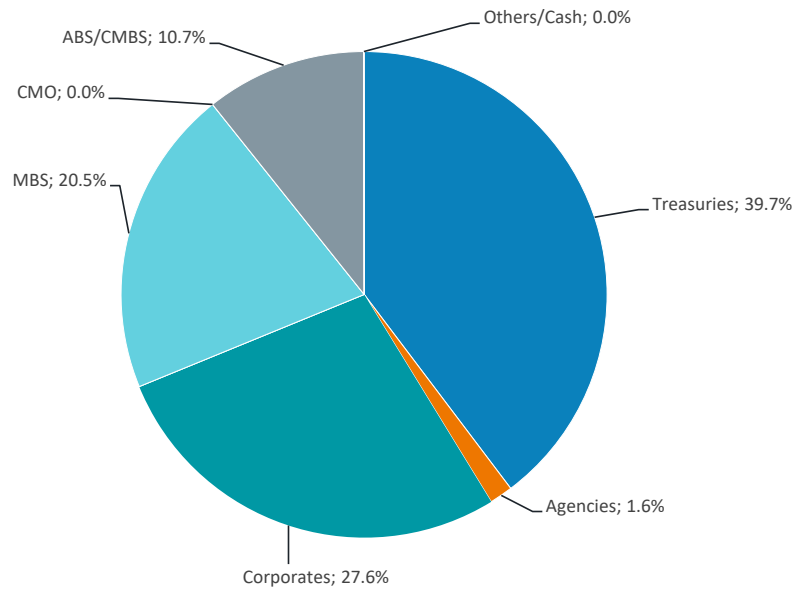
Duration		
Range		% Held
0.0 - 1.0		7.0
1.0 - 3.0		26.4
3.0 - 5.0		18.1
5.0 - 7.0		16.2
7.0 - 10.0		13.8
10.0+		18.5
Unclassified		0.0

Quality		
Range		% Held
Govt (10)		35.6
Aaa (10)		51.9
Aa (9)		6.0
A (8)		6.7
Baa (7)		9.5
Below Baa (6-1)		1.6
Other		-11.2

Coupon		
Range		% Held
0.0 - 5.0		85.6
5.0 - 7.0		19.8
7.0 - 9.0		5.7
9.0 - 11.0		0.2
11.0 - 13.0		0.0
13.0+		0.0
Unclassified/Cash		-11.4

FIAM Bond Duration Pool
Bond Sector Allocation

San Mateo County Employees' Retirement Association
Period Ending: September 30, 2023



Sector	Bloomberg Aggregate		
	Account Weight	Weight	Difference
Treasuries	39.7%	40.8%	-1.2%
Agencies	1.6%	5.1%	-3.5%
Corporates	27.6%	25.1%	2.5%
Utilities	0.0%	0.0%	0.0%
Foreign	0.0%	0.0%	0.0%
MBS	20.5%	26.4%	-5.9%
CMO	0.0%	0.0%	0.0%
ABS/CMBS	10.7%	2.2%	8.5%
Municipals	0.0%	0.0%	0.0%
Others/Cash	0.0%	0.4%	-0.4%
TOTAL	100.0%	100.0%	0.0%

FIAM Bond Market Duration Pool
Bond Summary Statistics

San Mateo County Employees' Retirement Association
Period Ending: September 30, 2023

Portfolio Characteristics		Portfolio
Total Number of Securities		452
Total Market Value	\$	136,394,714
Current Coupon		3.69
Yield to Maturity		5.81
Average Life		9.01
Duration		6.12
Quality		AA

Bloomberg Aggregate
2.95
5.39
8.45
5.95
AA

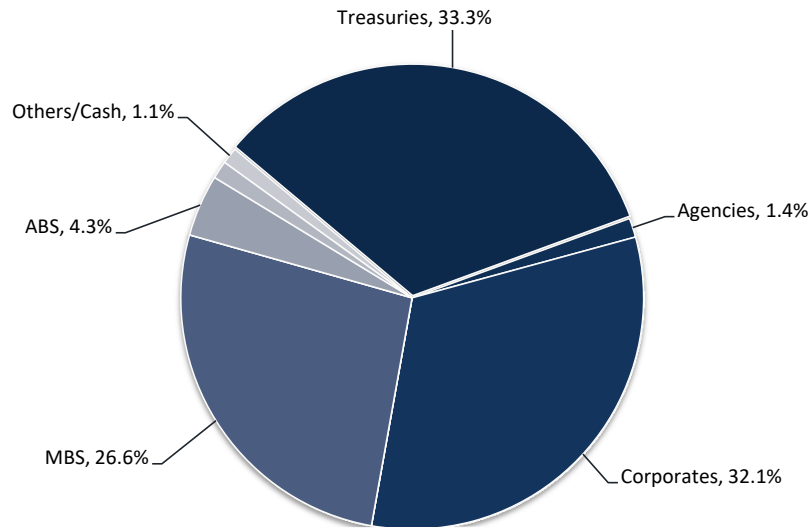
Yield to Maturity	
Range	% Held
0.0 - 5.0	37.4
5.0 - 7.0	48.8
7.0 - 9.0	11.0
9.0 - 11.0	1.1
11.0 - 13.0	1.4
13.0+	0.3
Unclassified	0.0

Average Life	
Range	% Held
0.0 - 1.0	0.9
1.0 - 3.0	9.3
3.0 - 5.0	26.7
5.0 - 10.0	44.1
10.0 - 20.0	8.3
20.0+	10.6
Unclassified	0.0

Duration	
Range	% Held
0.0 - 1.0	9.0
1.0 - 3.0	9.4
3.0 - 5.0	26.1
5.0 - 7.0	27.1
7.0 - 10.0	14.3
10.0+	14.1
Unclassified	0.0

Quality	
Range	% Held
Govt (10)	41.2
Aaa (10)	26.4
Aa (9)	3.0
A (8)	10.1
Baa (7)	19.0
Below Baa (6-1)	0.3
Other	0.0

Coupon	
Range	% Held
0.0 - 5.0	79.2
5.0 - 7.0	18.5
7.0 - 9.0	2.3
9.0 - 11.0	0.0
11.0 - 13.0	0.0
13.0+	0.0
Unclassified	0.0



Sector	Account Weight	Bloomberg Aggregate	
		Weight	Difference
Treasuries	33.3%	40.8%	-7.5%
Agencies	1.4%	5.1%	-3.7%
Corporates	32.1%	25.1%	7.0%
Utilities	0.0%	0.0%	0.0%
Foreign	0.0%	0.0%	0.0%
MBS	26.6%	26.4%	0.2%
CMO	0.0%	0.0%	0.0%
ABS	4.3%	2.2%	2.1%
Municipals	1.3%	0.0%	1.3%
Others/Cash	1.1%	0.4%	0.7%
TOTAL	100.0%	100.0%	0.0%

NISA Core Bond Market Duration Pool
Bond Summary Statistics

San Mateo County Employees' Retirement Association
Period Ending: September 30, 2023

Portfolio Characteristics		
	Portfolio	
Total Number of Securities		544
Total Market Value	\$	216,839,155
Current Coupon		2.45
Yield to Maturity		5.49
Average Life		9.31
Duration		6.09
Quality		Aa2

Bloomberg Aggregate	
	2.95
	5.39
	8.45
	5.95
	AA

Yield to Maturity		
Range	% Held	
0.0 - 5.0	30.0	
5.0 - 7.0	65.9	
7.0 - 9.0	2.9	
9.0 - 11.0	0.0	
11.0 - 13.0	0.0	
13.0+	0.0	
Unclassified*	1.1	

Average Life		
Range	% Held	
0.0 - 1.0	4.2	
1.0 - 3.0	18.4	
3.0 - 5.0	17.5	
5.0 - 10.0	37.0	
10.0 - 20.0	14.2	
20.0+	8.6	
Unclassified	0.0	

Duration		
Range	% Held	
< 1.0	4.4	
1.0 - 3.0	19.1	
3.0 - 5.0	20.3	
5.0 - 7.0	21.7	
7.0 - 10.0	18.8	
10.0+	15.6	
Unclassified	0.0	

*Unclassified includes a 0.65% cash position

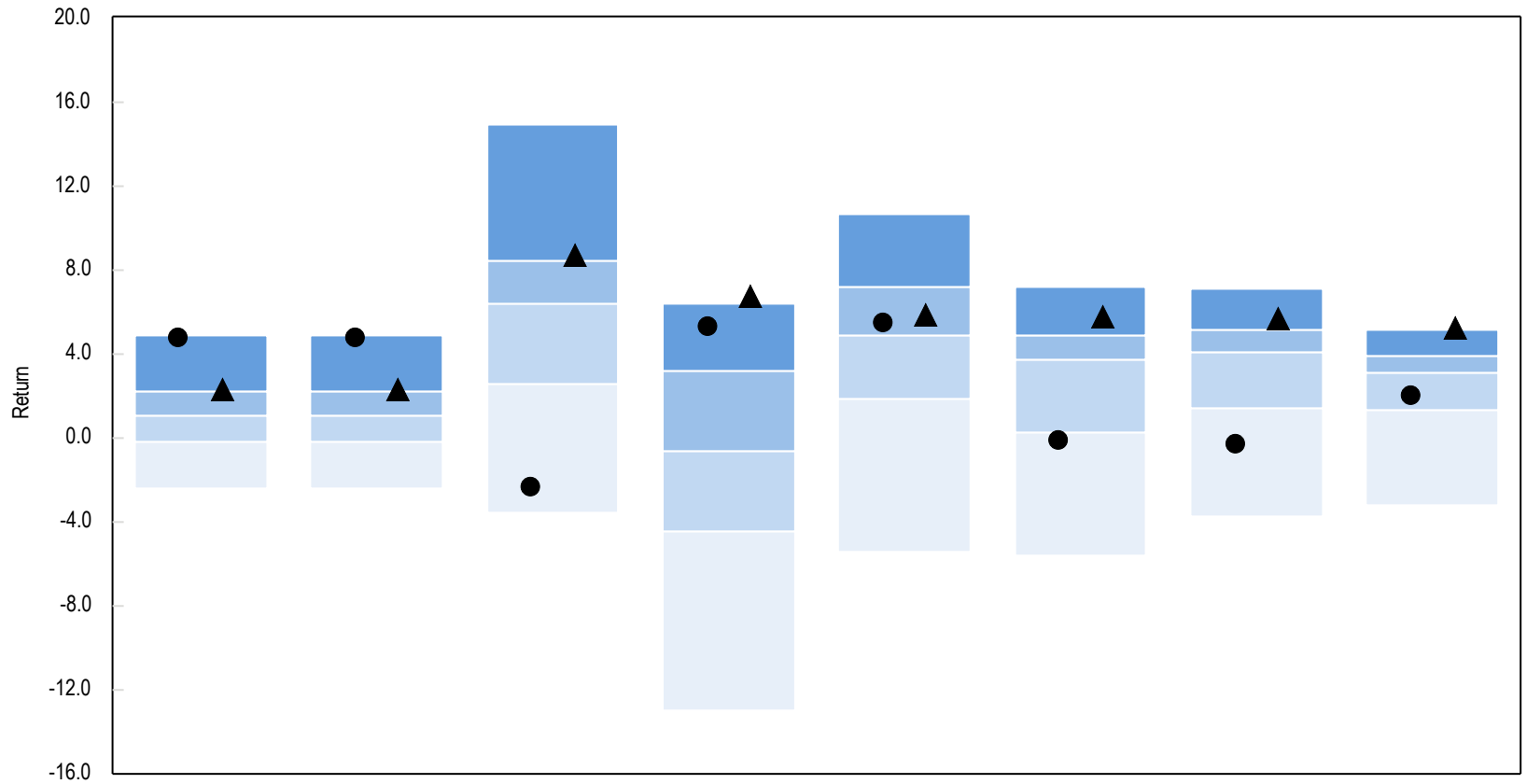
Quality		
Range	% Held	
Govt* (10)	62.0	
Aaa (10)	9.2	
Aa (9)	1.9	
A (8)	12.9	
Baa (7)	14.0	
Below Baa (6-1)	0.0	
Other	0.0	

Coupon		
Range	% Held	
0.0 - 5.0	76.2	
5.0 - 7.0	22.0	
7.0 - 9.0	0.6	
9.0 - 10.0	0.0	
10.0+	0.0	
Unclassified	1.1	

Absolute Return
Peer Universe Comparison

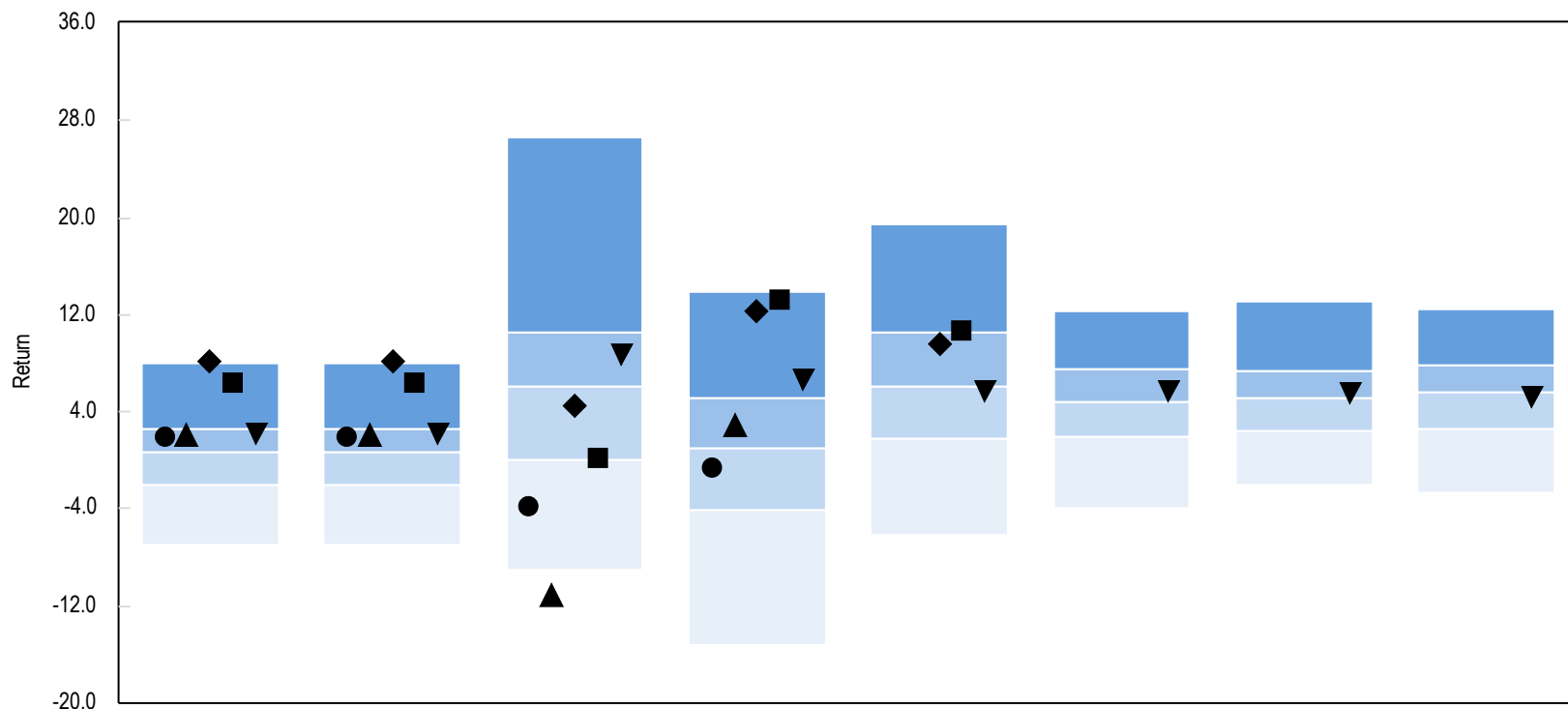
San Mateo County Employees' Retirement Association
Period Ending: September 30, 2023

InvMetrics All DB Hedge Funds Net Return Comparison

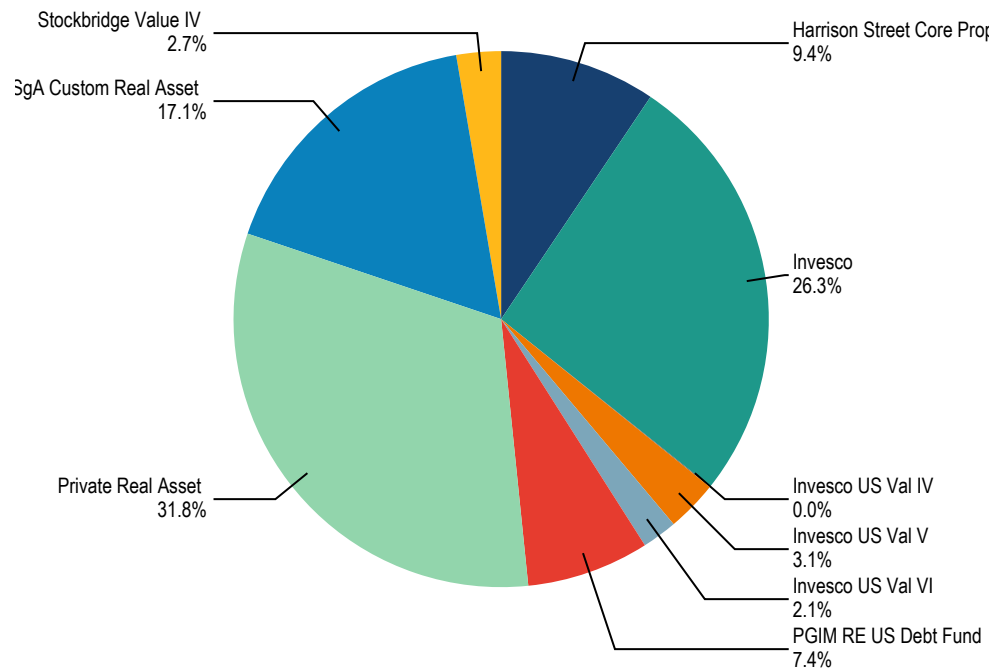


	3 Mo	Fiscal YTD	1 Yr	2 Yrs	3 Yrs	5 Yrs	7 Yrs	10 Yrs
● Absolute Return	4.8 (6)	4.8 (6)	-2.3 (95)	5.4 (13)	5.6 (39)	-0.1 (77)	-0.3 (89)	2.0 (65)
▲ Absolute Return Custom Index	2.3 (20)	2.3 (20)	8.7 (23)	6.7 (5)	5.8 (38)	5.8 (14)	5.7 (14)	5.2 (5)
5th Percentile	4.9	4.9	14.9	6.4	10.7	7.2	7.2	5.1
1st Quartile	2.2	2.2	8.4	3.2	7.2	4.9	5.1	3.9
Median	1.1	1.1	6.4	-0.6	4.9	3.7	4.0	3.1
3rd Quartile	-0.2	-0.2	2.6	-4.4	1.9	0.3	1.4	1.3
95th Percentile	-2.4	-2.4	-3.5	-12.9	-5.4	-5.6	-3.7	-3.2
Population	57	57	51	43	39	37	28	22

eV Alt All Multi-Strategy Net Return Comparison



	3 Mo	Fiscal YTD	1 Yr	2 Yrs	3 Yrs	5 Yrs	7 Yrs	10 Yrs
● Acadian MAAR Fund LLC	2.0 (36)	2.0 (36)	-3.7 (90)	-0.7 (61)	-	-	-	-
▲ CFM Systematic Global Macro	2.1 (34)	2.1 (34)	-11.0 (97)	2.9 (40)	-	-	-	-
◆ Graham Quant Macro	8.2 (5)	8.2 (5)	4.6 (58)	12.3 (8)	9.6 (30)	-	-	-
■ PIMCO MAARS Fund LP	6.4 (9)	6.4 (9)	0.2 (75)	13.2 (6)	10.8 (25)	-	-	-
▼ Absolute Return Custom Index	2.3 (32)	2.3 (32)	8.7 (32)	6.7 (20)	5.8 (52)	5.8 (40)	5.7 (47)	5.2 (54)
5th Percentile	8.0	8.0	26.7	13.8	19.4	12.4	13.0	12.5
1st Quartile	2.7	2.7	10.5	5.2	10.6	7.6	7.4	7.9
Median	0.7	0.7	6.1	0.9	6.1	4.9	5.2	5.6
3rd Quartile	-2.0	-2.0	0.1	-4.1	1.7	2.0	2.5	2.6
95th Percentile	-6.9	-6.9	-9.1	-15.2	-6.2	-3.9	-2.1	-2.6
Population	277	277	273	259	243	214	194	157



	Actual \$	Actual %	Manager Contribution to Excess Return %
Harrison Street Core Property	\$94,968,225	9.4%	0.0%
Invesco	\$264,899,443	26.3%	0.1%
Invesco US Val IV	\$432,108	0.0%	0.0%
Invesco US Val V	\$31,113,700	3.1%	-0.1%
Invesco US Val VI	\$21,355,451	2.1%	0.0%
PGIM RE US Debt Fund	\$74,671,299	7.4%	0.2%
Stockbridge Value IV	\$27,154,735	2.7%	-0.1%
Private Real Asset	\$320,233,648	31.8%	0.2%
SSgA Custom Real Asset	\$172,574,131	17.1%	0.0%
Actual vs. Policy Weight Difference			-0.1%
Total	\$1,007,402,740	100.0%	0.3%

Statistics Summary
3 Years

	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio	Information Ratio	Tracking Error
Inflation Hedge	8.9	5.3	1.2	-0.2	5.0
Blended Inflation Hedge Index	10.0	7.9	1.0	-	0.0
Real Estate	6.6	6.3	0.8	-0.2	3.1
NCREIF ODCE	7.1	8.9	0.6	-	0.0
Invesco	6.6	8.6	0.6	-0.3	1.8
NCREIF ODCE	7.1	8.9	0.6	-	0.0
Invesco US Val IV	-30.4	32.0	-1.0	-1.2	30.6
NCREIF ODCE	7.1	8.9	0.6	-	0.0
Invesco US Val V	9.1	9.8	0.7	0.3	7.1
NCREIF ODCE	7.1	8.9	0.6	-	0.0
PGIM RE US Debt Fund	5.8	0.8	4.5	-0.2	8.9
NCREIF ODCE	7.1	8.9	0.6	-	0.0
Private Real Asset	14.6	11.5	1.1	0.0	19.9
Blended Private Real Asset Index	14.3	16.8	0.8	-	0.0
Public Real Assets	10.1	13.0	0.7	0.3	0.4
Blended Public Real Asset Index	10.0	13.1	0.7	-	0.0
SSgA Custom Real Asset	10.1	13.0	0.7	0.3	0.4
SSgA Custom Real Asset Index	10.0	13.1	0.7	-	0.0

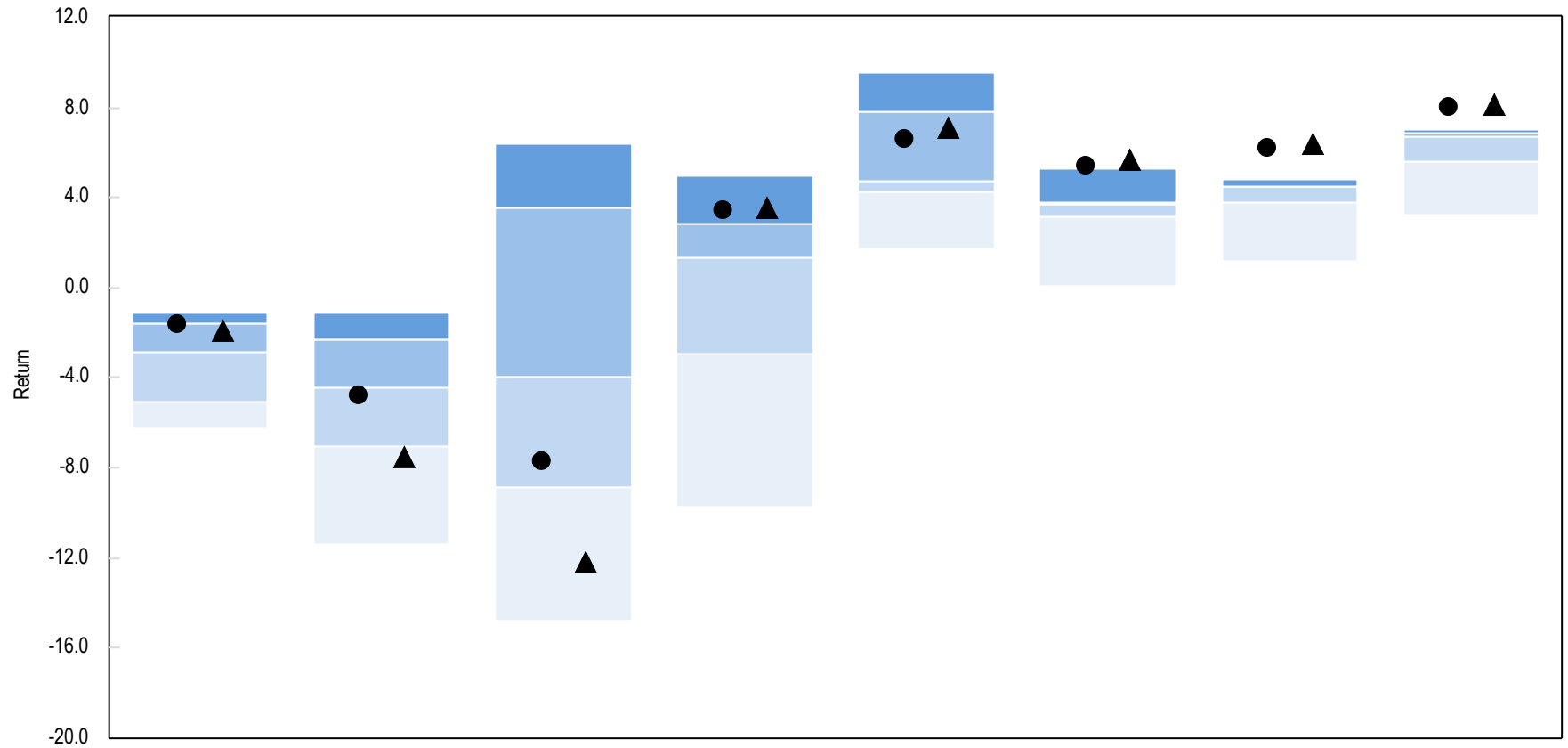
Inflation Hedge
Risk vs. Return

San Mateo County Employees' Retirement Association
Period Ending: September 30, 2023

Statistics Summary
5 Years

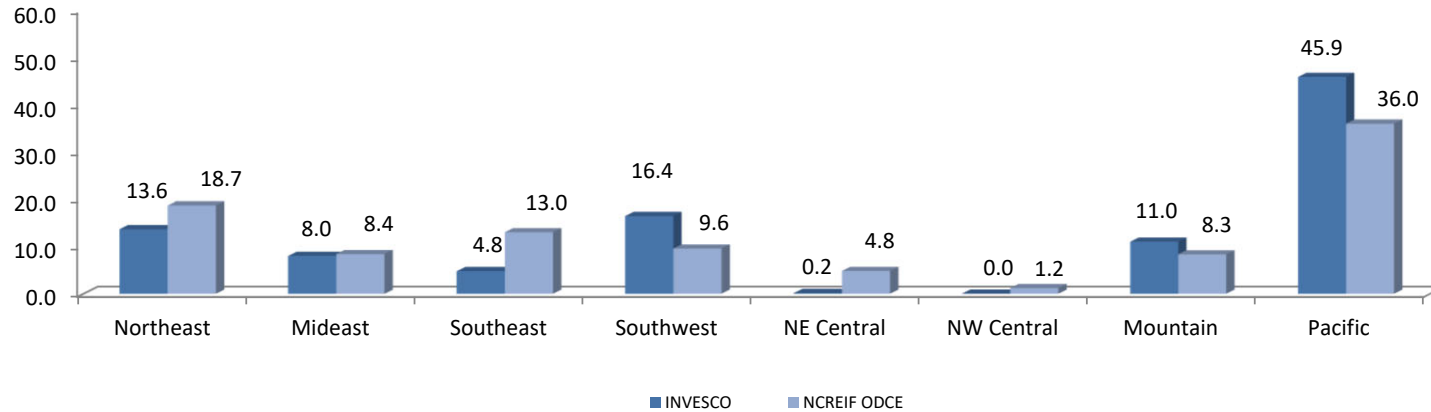
	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio	Information Ratio	Tracking Error
Inflation Hedge	3.8	6.6	0.3	-0.6	4.3
Blended Inflation Hedge Index	6.2	7.5	0.6	-	0.0
Real Estate	5.4	5.4	0.7	-0.1	2.5
NCREIF ODCE	5.7	7.1	0.6	-	0.0
Invesco	4.9	7.2	0.4	-0.4	2.0
NCREIF ODCE	5.7	7.1	0.6	-	0.0
Invesco US Val IV	-17.3	25.6	-0.6	-0.8	24.5
NCREIF ODCE	5.7	7.1	0.6	-	0.0
PGIM RE US Debt Fund	5.7	1.6	2.5	0.0	7.0
NCREIF ODCE	5.7	7.1	0.6	-	0.0
Private Real Asset	6.5	11.7	0.4	-0.1	20.1
Blended Private Real Asset Index	6.8	18.9	0.4	-	0.0
Public Real Assets	0.8	17.6	0.0	-0.7	3.4
Blended Public Real Asset Index	3.6	15.5	0.2	-	0.0
SSgA Custom Real Asset	3.7	15.4	0.2	0.1	0.7
SSgA Custom Real Asset Index	3.6	15.5	0.2	-	0.0

InvMetrics All DB Real Estate Public Net Return Comparison

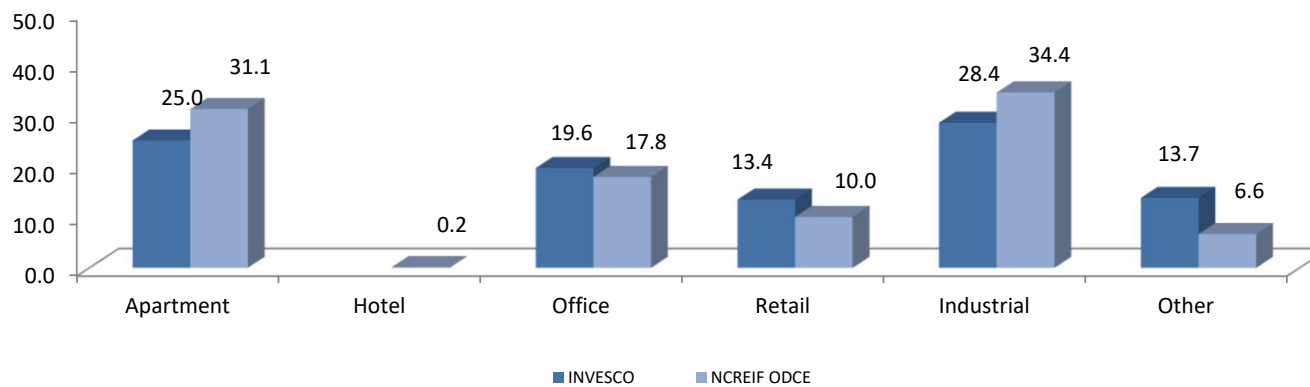


	3 Mo	YTD	1 Yr	2 Yrs	3 Yrs	5 Yrs	7 Yrs	10 Yrs
● Real Estate	-1.6 (28)	-4.7 (62)	-7.7 (72)	3.5 (20)	6.6 (31)	5.4 (4)	6.3 (1)	8.0 (1)
▲ NCREIF ODCE	-1.9 (41)	-7.6 (78)	-12.1 (87)	3.6 (19)	7.1 (28)	5.7 (1)	6.4 (1)	8.2 (1)
5th Percentile	-1.1	-1.1	6.4	5.0	9.6	5.3	4.8	7.1
1st Quartile	-1.6	-2.3	3.5	2.8	7.8	3.8	4.5	6.8
Median	-2.8	-4.5	-4.0	1.3	4.8	3.7	4.5	6.7
3rd Quartile	-5.0	-7.0	-8.9	-2.9	4.2	3.2	3.8	5.6
95th Percentile	-6.2	-11.4	-14.8	-9.7	1.7	0.0	1.2	3.2
Population	14	11	11	9	9	5	5	4

Geographic Diversification



Property Diversification



Cash & Cash Overlay
Risk vs. Return

San Mateo County Employees' Retirement Association
Period Ending: September 30, 2023

Statistics Summary
3 Years

	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio	Information Ratio	Tracking Error
County Treasury Pool	2.0	1.6	0.2	0.2	1.7
90 Day U.S. Treasury Bill	1.7	0.6	-	-	0.0
Cash & Cash Overlay	2.1	0.7	2.1	2.1	0.2
90 Day U.S. Treasury Bill	1.7	0.6	-	-	0.0
General Account	2.2	0.6	3.7	3.7	0.1
90 Day U.S. Treasury Bill	1.7	0.6	-	-	0.0

Acadian Asset Management – MAARS Fund

Acadian Multi-Asset Absolute Return (MAARS) strategy was inceptioned in November 2017. MAARS targets a volatility of 6%-8% and a return of cash plus 5%. This is a multi-factor strategy that aims to exploit behavioral inefficiencies within and across global markets and is designed to be diversifying, dynamic and defensive. It is market neutral, implemented using long and short positions across five primary asset classes (equity, fixed income, currency, commodities, and volatility) and over 100 underlying assets with a focus on liquid instruments. Return forecasts incorporate asset-specific and macroeconomic insights and are utilized to harvest active returns from within and across asset classes through market selection and directional positioning. The strategy integrates risk and return across asset classes. Avoidance of downside events is highlighted in the approach with a greater weighting in their models allocated to down market beneficiaries, such as quality factors, and asymmetric positioning which reduces positions when risk rises. Differentiated attributes of this are its approach and weighting to commodities and its volatility sleeve which can incorporate long volatility.

Angelo, Gordon & Co. – AG Opportunistic Whole Loan Fund

The Angelo Gordon Opportunistic Whole Loan (OWL) Fund was established to make investments primarily in a portfolio of non-performing loans (NPLs) and re-performing loans (RPLs). AG sees a lot of operational inefficiency in the market place. By acquiring these loans at a discounted price and replacing original servicers with better-focused special servicers, AG believes it can improve operational efficiency and generate attractive returns. In addition, OWL may also include investments in new residential mortgage loans and excess mortgage servicing rights. Opportunistic investments in commercial mortgage loans and other mortgage related investments may also be included in the Fund's portfolio. OWL is towards the end of its fund life and is continuing to sell down the fund's holdings and distribute proceeds to LPs.

Angelo, Gordon & Co. – Credit Solutions

The Angelo Gordon (AG) Credit Solutions Fund (CSF) expects to hold concentrated positions of 5-8% of NAV (averaging 30 positions over the life of the Fund with recycling). The Fund is targeting a net 15% IRR with a 5-7% current yield. The Fund should be 70% concentrated in the U.S. with the balance in Europe. Finally, while the opportunities can be sourced from both the public markets and the private markets, AG is finding compelling sources of return at this time through structuring new privately placed secured term loans out of public investments made by the firm. CSF will address corporate credit-based opportunities created in three main areas: 1) trading-based price dislocations that reduce creation multiples (price through the debt that must be repaid before value accrues to other stakeholders) while generating high current income; 2) opportunities in issuers tied to industries directly impacted by COVID-19 where the market's perception of the impact differs from the actual impact; and 3) corporate debt issuers that will be materially impacted by the pandemic and will need to restructure, but whose creation value is materially lower than the issuer's intrinsic value.

Angelo, Gordon & Co. – CSF (Annex) Dislocation II

The Angelo Gordon Annex Dislocation Fund II (ADFII)'s investment aim is to target senior securities of world-class businesses with irreplaceable assets and strong cash flow profiles which, because of market stress, can be purchased at a material discount to what they believe is a company's long-term intrinsic value. ADFII will invest opportunistically in securities or claims of companies in North America and Europe for which prices have, in Angelo Gordon's view, dislocated from long term fundamentals due to situational market volatility and stress.

Angelo, Gordon & Co. – Credit Solutions II

Like its predecessor funds, the Angelo Gordon (AG) Credit Solutions Fund II (CSF II) is an all-weather, solutions-based strategy that targets net returns of 14+% with 5-7% current yield. The Fund will invest in single-name opportunities where price movements and credit documents afford creative financing solutions. This could include companies with upcoming debt maturities, working capital issues, or inefficient capital structures that are inflating financing costs. In these cases, AG will seek to work with management and other creditors to structure a bespoke transaction that avoids bankruptcy and solves the issue for the company in exchange for debt securities with conservative attachment points and healthy yield. While the opportunities are likely to be sourced 75% from the public markets and 25% from the private markets, the "solutions" will likely be private products. During periods of dislocation, the Fund can pivot towards trading-oriented strategies where there is not a need for additional financing, such as sourcing debt in the secondary markets at discounts to intrinsic value. CSF II expects to hold concentrated positions of 5-8% of NAV (averaging 30 positions over the life of the Fund with recycling). The fund should be 70% concentrated in the U.S. with the balance in Europe.

Baillie Gifford – ACWI ex US Focus Equities

ACWI ex US Focus is a fundamental growth strategy. Research is organized primarily by regional teams, with each member of the ACWI ex US Focus Portfolio Construction Group representing a regional team. Four global sector groups also contribute research. Baillie Gifford conducts approximately 2000 company meetings annually both in Edinburgh and onsite. Companies are evaluated on their growth opportunity relative to the average company, their ability to execute on that opportunity, and the degree to which probability of future success is already valued by the market. Baillie Gifford's basic philosophy is that share prices ultimately follow earnings. They believe that the stock market has a recurring tendency to under-appreciate the value of long-term compound growth. The process seeks to add value through use of proprietary fundamental research to identify companies exhibiting some combination of sustained above average growth, and attractive financial characteristics. The portfolio generally holds 60-90 stocks, with country and sector weights +/-10% relative to the index and stock weights +/- 5% relative to the index.

Beach Point Capital Management, L.P. - Beach Point Select Fund

Beach Point Select Fund is a commingled fund vehicle within the firm's Opportunistic Credit strategy. This fund focuses on off-the-run, complex, and less-liquid securities. It is a best ideas portfolio of distressed debt, special situations, private/direct loans, catalyst-driven high yield bonds and bank loans, and credit-informed equities with a North American and European focus. The Select Fund differs from other funds and accounts in the Opportunistic Credit strategy by pursuing a more concentrated portfolio and emphasizing a higher percentage of less-liquid/private investments. Beach Point invests up and down the entire capital structure and it constructs portfolios with a bottom-up, research-driven approach that also takes into account top-down macro considerations. Its investment process includes idea generation, detailed credit analysis, relative value decision making and investment selection, portfolio construction and on-going monitoring. The ultimate goal of its investment process is to produce a well-diversified investment portfolio with limited downside risk and substantial upside potential.

BlackRock – MSCI ACWI ex US IMI Index

The ACWI ex US IMI Index Fund seeks to replicate the return of the MSCI ACWI ex US IMI Index. This index represents the developed equity markets outside of North America, including small cap equity. BlackRock monitors their funds daily to ensure that additions and deletions to the indexes, mergers and acquisitions, restructurings and other capitalization changes are made to the fund in such a way as to minimize tracking error and transactions costs.

BlackRock – Russell 1000 Index

The Russell 1000 Index Fund tracks large U.S. companies and achieve broad diversification with low costs by fully replicating the Russell 1000 Index. BlackRock monitors their funds daily to ensure that additions and deletions to the indexes, mergers and acquisitions, restructurings and other capitalization changes are made to the fund in such a way as to minimize tracking error and transactions costs.

BlackRock (formerly Tennenbaum Capital Partners) - Direct Lending Funds VIII and IX

TCP Direct Lending Fund VIII is a private investment fund managed by Tennenbaum Capital Partners ("TCP"). The Fund is designed to continue TCP's successful strategy of investing in privately-originated, performing senior secured debt primarily in North America-based companies with target enterprise values between \$100 million and \$1.5 billion. The Fund will include positions in 1st lien, 2nd lien and unitranche debt, with a preference for floating-rate debt, which TCP believes provides better flexibility to adapt to market conditions. TCP's direct lending strategy has generated attractive investment opportunities across market cycles, as evidenced by the Firm's prior direct lending track record. Fund VIII targets an unlevered annual yield of approximately 9-12%, with its return primarily driven by current income. SamCERA committed \$35 million to DLF VIII in June 2016 in its unlevered fund sleeve and \$35 million to the DLF IX in June 2019.

Brigade – Opportunistic Credit

Opportunistic Credit is a fundamental, bottom-up strategy focused on high yield corporate bonds and bank loans with tactical allocations to structured securities, convertibles, and other sectors of the bond markets as they become attractive on a relative value basis. While performing credits represent the majority, Brigade will invest up to 35% of the portfolio in distressed securities and restructuring situations if these types of opportunities are attractive on a risk-adjusted basis and the timing is right with respect to the credit cycle. The portfolio is comprised of mostly North American issuers, but they are not restricted geographically and expect to have a moderate allocation to Europe over time. Although the portfolio is generally long-only, Brigade has the ability to implement a limited amount of tactical macro hedges.

CFM - Systematic Global Macro

Capital Fund Management (CFM) Systematic Global Macro (SCM) is a directional strategy that takes long and short positions in liquid future and forwards across 130+ markets and across equities, bonds, currencies, and commodities. It is a new strategy that draws on model signals from existing strategies at the firm – Discus (diversified CTA), CFM ISTrends (trend following) and CFM ISTrend Equity Capped (defensive trend following) - and SamCERA is a seed investor with an attractive fee. SGM's objective is to provide absolute returns that are uncorrelated with traditional asset classes over a long time horizon with an annualized volatility target between 8% and 12%. SGM uses a diverse set of trading strategies that are based on factors (momentum, value, carry, macro and sentiment) across asset classes. These technical and fundamental factors operate at different time scales and can have varying degrees of influence on performance depending on market and economic conditions. An additional global macro defensive overlay is combined with these outputs in constructing the final portfolio. CFM uses a form of portfolio construction known as agnostic risk parity to ensure that the SGM portfolio is diversified on an out-of-sample basis. The goal of SGM is to generate consistent returns while limiting drawdowns.

DE Shaw – DE Shaw US Broad Market Core Alpha Extension Fund

The D. E. Shaw group believes that there exist some market inefficiencies that may be identified through quantitative analysis, advanced technology, and the insight of practitioners. Identifying these inefficiencies involves a process of hypothesis formulation, testing, and validation. Importantly, to avoid data-mining, the hypothesis formulation precedes the analysis of the historical data. D.E. Shaw's Structured Equity strategies rely largely on quantitative and computational investment techniques developed by the D. E. Shaw over the last two decades in the course of research conducted for purposes of managing the firm's hedge funds. D.E. Shaw's investment process involves a suite of quantitative models, each designed to capitalize on a distinct and uncorrelated set of market inefficiencies. Some of these models are technical in nature and involve price and volume inputs. Other models rely on fundamental data, such as figures gleaned from corporate balance sheets or income statements. Still others, again quantitative, anticipate or react to a particular corporate event or set of events. These models typically operate with forecast horizons of a few weeks to many months. The ability to trade on shorter-term signals distinguishes D.E. Shaw from many of its long only and 130/30 peers. Portfolio construction involves the use of a proprietary optimizer which runs dynamically throughout the trading day. The portfolio is broadly diversified with several hundred long and short positions. Over- and under-weighting of sectors and industries relative to the benchmark will be quite modest, with the intention that most of the alpha be generated by security selection. The US Broad Market Core Alpha Extension Fund is a 130/30 strategy which maintains a beta that is approximately neutral to the Russell 1000 Index.

DoubleLine – Securitized Income

The DoubleLine Securitized Income strategy is an actively managed, liquid, long only, intermediate-term fixed income product. The primary objective of the strategy is to seek and maximize current income and total return by utilizing a combination of Agency MBS and structured credit. The DoubleLine Structured Products team aims to offer clients investment grade exposure to both interest rate duration and credit spread to provide a more attractive total return profile compared to the benchmark. Securitized Income seeks to maximize income and total return by investing across the structured products universe, focusing on agency mortgage-backed securities (MBS) and investment grade securitized credit. DoubleLine takes a barbelled approach to investing in the securitized market, and they will separate rates from credit and will adjust the allocations to both at the based on the economic cycle and opportunities. Duration positioning is achieved through Agency MBS, Agency CMBS, and treasuries while credit exposure is attained through all areas of structured credit.

Fidelity (FIAM) – Broad Market Duration Separate Account

Pyramis' Broad Market Duration (BMD) investment strategy seeks to achieve absolute and risk-adjusted returns in excess of the BC U.S. Aggregate Index, focusing its investments in US Treasuries, agencies, investment grade corporate bonds, mortgage-backed and asset-backed securities. The BMD commingled pool can also hold small, opportunistic positions in out-of-benchmark securities, such as inflation-linked bonds. The investable universe includes all US dollar denominated, investment grade debt securities. The BMD investment approach emphasizes issuer and sector valuation and individual security selection. Through the integration of fundamental and quantitative research and trading, the BMD strategy is implemented in a team environment. Risk management technology is utilized to explicitly quantify benchmark exposures on a daily basis, and Pyramis uses the same analytical framework to assess both index and portfolio risk. Tracking error should range between 40 and 60 basis points per annum over the benchmark, and stringent portfolio construction risk control rules are strictly adhered to.

Franklin Templeton Investments – Global Fixed Income

Franklin Templeton manages the global bond mandate in an unconstrained fashion using a top-down, fundamental framework. In the short term and on a country-by-country basis there are often inefficiencies in global bond and currency markets, however, over the longer term the market will generally price to fundamentals. Thus, FT focuses on fundamental research to identify long-term opportunities and uses short-term market inefficiencies to build positions in such investments. The investment and portfolio construction process begin with the determination of the Fund's or institutional client's investment objectives, resulting in a set of risk-return parameters and exposure limits within which the portfolio is managed. Next the firm's global economic outlook for the industrialized countries is developed, with a focus on interest rate and exchange rate forecasts. The portfolio's interest rate outlook is a function of global general equilibrium macroeconomic analysis as well as country-specific research. Macroeconomic conditions in the G-3 economies are analyzed first, primarily with respect to how current and projected growth and inflation dynamics are expected to influence monetary policy. This analysis is then extended out to the rest of the industrialized countries (G-13) as well as emerging markets, which results in broad targets for cash, duration, currencies and the developed/emerging market mix. Using the firm's interest rate and exchange rate outlook, probability-weighted horizon returns for bonds of various countries are then calculated. This analysis is used to establish specific country weights and duration targets based on risk-adjusted expected total return measured in the portfolio's base currency. Analysis of emerging markets includes sovereign credit analysis along with greater emphasis on capital flows, inter-market dynamics and trends in the level of risk aversion in the market.

Graham – Quant Macro Fund

Graham Quant Macro ("GQM") is a directional, long and short strategy that utilizes fundamental and price-based indicators to establish return forecasts across global interest rates, foreign exchange, stock indices and commodities. The strategy incorporates a variety of submodels that generate macro fundamental forecasts, assess yield and earnings differentials, compare current valuations relative to historic fair value, and analyze directional price trends across markets. Quantitative risk management and portfolio construction techniques are used to diversify risk across the portfolio and enhance risk-adjusted returns. Historically, the average holding period has been approximately eight to ten weeks, although the sub-models will make daily adjustments to positions. The strategy is designed to have low correlation to traditional markets and other alternative strategies and has the potential to provide significant portfolio diversification benefits.

Harrison Street Core Property

Based in Chicago, Harrison Street's exclusive focus since inception in 2005 has been investing in non-core property sectors of the real estate market. The Harrison Street Core Fund is an open-end fund that invests primarily in stabilized education, healthcare, and self-storage real estate assets in the United States using modest leverage with an emphasis on generating current income. The focus on these alternative property types is intended to concentrate on areas of the real estate market that are less GDP sensitive with demand drivers that are more demographic driven such as aging populations, education growth and healthcare delivery. Each of these areas tend to be less tied to the business cycle, have fragmented ownership and more operationally intensive. The fund acts as a diversifier within real estate portfolios with sector exposures that are not a typical focus of other core ODCE funds.

INVESCO Realty Advisors – INVESCO Core Equity, LLC

SamCERA is a founding member of INVESCO's open-end Core Equity real estate fund and rolled its separate account properties into the fund. INVESCO Core Equity, LLC (the "Fund") is a perpetual life, open-end vehicle which invests in a diversified portfolio of institutional quality office, retail, industrial and multifamily residential real estate assets. The Fund buys core properties that are located within the United States, typically requiring an investment of \$10 million or more. The portfolio cannot be more than 30% leveraged.

INVESCO Realty Advisors – INVESCO US Val IV, V, & VI

Invesco has provided SamCERA with Core Real Estate exposure since 2004 through the Invesco Core Equity Fund. The Invesco real estate team manages around \$62B in assets with investments and offices around the globe. Invesco Value Fund's looks to acquire fundamentally sound but broken "core" assets that can be repositioned into institutional-quality, income producing properties. Investments are limited to direct equity interests in office, multi-family, retail and industrial properties across the US. The Fund is expected to be geographically concentrated in U.S. gateway cities and top 25 Metropolitan Statistical Areas (MSA's). Invesco Value Fund's provide a complement to the more conservative Invesco Core Fund and offers the potential of enhanced returns to the SamCERA Real Estate portfolio.

Insight Investments – Cash Flow Matched Liquidity

Insight is the fixed income sleeve of Mellon Capital. The strategy seeks to invest in short duration fixed income securities that match the negative cash flows of the Plan (similar to an LDI plan). Insight receives estimates of three years of cash flows from the actuarial report. Once a year, if market conditions allow, SamCERA will re-invest "year 3" net cash flows. Insight uses their credit analysis team for analyzing all credits or potential investments to the fund.

Mondrian Investment Partners – International Equity

Mondrian is a value-oriented, defensive manager whose investment philosophy is based on the principle that investments must be evaluated for their fundamental long-term value. The firm's philosophy involves three stated investment objectives: 1) provide a rate of return meaningfully greater than the client's domestic rate of inflation, 2) structure client portfolios that preserve capital during protracted international market declines, and 3) provide portfolio performance that is less volatile than benchmark indices and other international managers. Mondrian applies typical value screening criteria to a universe of 1,500 stocks, from which 500 are selected for more detailed work. Through fundamental research, and the deliberations of the Investment Committee, the universe is further reduced to a list of 150 stocks. The investment team conducts detailed fundamental analysis on the remaining stocks, a process which includes applying the firm's dividend discount model consistently across all markets and industries. Mondrian also uses a purchasing power parity model to give an accurate currency comparison of the value of the stocks under consideration. The firm will only consider buying stocks in countries with good investor protection practices and relatively simple repatriation procedures. A computer-based optimization program is employed in the portfolio construction process. Mondrian's portfolio holds 80-125 issues.

NISA – Core Bond

NISA applies a risk-controlled approach to all of its fixed income portfolios. This approach does not permit large bets or positions that generate significant tracking error versus the benchmark. Instead, NISA invests in a large number of small, diversified, active positions which seek tight tracking error to the chosen benchmark. Benchmark weight is a significant consideration when constructing and managing portfolios. The investment strategy is comprised of strategic (top-down) and tactical (bottom-up) decisions. Strategic decisions include sector selection and yield curve positioning while tactical decisions include industry and security selection and trading activity. Review of both strategic and tactical decisions is continual. The amount of portfolio risk budget devoted to one aspect versus the other will change as market conditions warrant. In general, strategic decisions change relatively infrequently, while tactical decisions, especially security selection, will change fairly often as market conditions provide opportunities. Over a typical market cycle, the bottom-up is expected to contribute to 70% of value-added while top-down is roughly 30%.

NISA – Long Treasury

A passive implementation of long treasuries managed to the Bloomberg Long Treasury Index. This strategy seeks to replicate the characteristics of its benchmark.

PanAgora Asset Management – Defensive U.S. Equity Low Volatility

PanAgora's Defensive Equity strategy seeks to harness the 'low-volatility premium' through a systematic, factor-based investment approach focused on achieving market-like returns with less risk. This is accomplished by leveraging PanAgora's proprietary Risk Parity portfolio construction methodology, which seeks to efficiently capture the equity premium associated with low volatility, while taking minimal unintended risks. Since the firm's inception, PanAgora has been using quantitative techniques to integrate fundamental insights with large amounts of dynamic market data. They score individual securities on a factor basis and also on a diversification basis, in the context of a broadly diversified portfolio. The portfolio construction process optimizes the portfolio around the intended factor exposure (volatility) while maintaining equal risk contribution across sectors (ex., overweight utilities and consumer staples, underweight financials and technology). Shorter term volatility and longer term correlation analysis is combined in the approach. The result for the US Defensive Equity strategy is a portfolio expected to have lower volatility (beta around 0.65-0.75), and similar returns relative to the capitalization-weighted benchmark over a full market cycle. PanAgora expects the strategy to participate in approximately 75% of up markets and 55% in down markets.

Parametric Overlay – Cash Overlay and Currency Hedge

Parametric's cash overlay program is an efficient way for SamCERA to maintain its target asset allocation in a systematic fashion through cash securitization at the fund and manager level transition/reallocation support and asset class rebalancing back to target within defined bands. The cash overlay program is invested synthetically using liquid futures with cash balances reviewed daily. A combination of large and small cap futures implementation is the proxy for private equity. SamCERA's investment guidelines initially allowed only for cash overlay. Rebalancing was added to the SamCERA program in January 2014. Cash overlay and rebalancing is expected to add 10-20 bps to the portfolio over time. The purpose of the currency is first and foremost to lower portfolio risk and secondarily to add incremental performance.

PIMCO Diversified

PIMCO's Diversified Income (DI) Fund is a multi-sector strategy that invests across a broad spectrum of global credit market sectors, including investment grade and high yield corporate debt, as well as emerging markets. The allocation among these will vary based on PIMCO's assessment of global trends and relative valuations. This active and dynamic approach allows for increased responsiveness in asset allocation to changing economic and market conditions while remaining anchored by PIMCO's investment process and longer-term orientation. The ability to invest globally helps to improve diversification and may allow investors to benefit from differences in business cycles across regions and credit quality trends across credit sectors. PIMCO's DI investment strategy seeks to provide high yield-like returns with lower volatility against a blended index (1/3 Bloomberg Barclays Global Agg Credit ex-EM; 1/3 BofA Merrill Lynch BB-B rated Developed Markets High Yield; 1/3 JPMorgan EMBI Global). The fund allows for a duration band of 3-8 years. The team focuses its investments into these groups: credit strategies (investment grade, high yield, emerging markets and non-core credits including MBS, municipals and other govt-related sectors); duration strategies (U.S. and non-U.S. duration) and currencies (tactical non-USD exposure).

PIMCO – MAARS

PIMCO MAARS is an alternative risk premia strategy that looks for risks associated with: (1) Supply and Demand Constraints, (2) Behavioral Biases, and (3) Asymmetric Risks (event risk). As reflected in the design of the MAARS strategies, PIMCO believes that alternative risk premia strategies are best implemented using a systematic approach that minimizes the discretionary inputs in day-to-day portfolio management. MAARS places a greater emphasis and weighting on global interest rates, currencies and commodities and a lesser emphasis on equities than many of its Alt Beta peers. Relative to Alt Beta peers, the strategy's rates and currency (FX) models are particularly robust, reflective of PIMCO's core competency and long history managing these asset classes using derivative instruments.

PIMCO Private Income Fund

PIMCO Private Income Fund (PIF) uses an opportunistic and flexible approach to global private credit. PIF provides a total return oriented global credit exposure utilizing both top-down sector relative value and bottom up security selection. The strategy invests across private residential, commercial, corporate and specialty finance markets. PIMCO's Private Income Fund (PIF) is targeting 8-12% net returns with income providing most of the fund's returns. The Private Income Investment Committee (IC) identifies market themes and direction for their relative value framework, and sector specialists provide recommendations to the PM team within that construct. PIF has the ability to invest throughout the capitalization structure. The fund can use a moderate amount of leverage to enhance portfolio returns (1.5 times with a hard cap of 2 times).

PGIM RE Debt

PGIM Real Estate US Debt Fund (PREDS) focuses on a loan origination strategy with a mix of 20% senior long duration loans on stable assets, 60% senior short/medium duration loans on stable and transitional assets, and 20% mezzanine mid/long duration debt. SamCERA was a founding investor in the PREDS strategy which invests in US commercial real estate debt in an open-ended vehicle with a return target of 7-8% (gross) coming from stable current income. The fund makes investments in first lien mortgages and mezzanine debt. First lien mortgages can be floating rate or fixed rate, but only floating rate loans will use leverage. Subordinate investments (mezzanine debt and preferred equity) will be limited by design. The fund can source and invest in secondary loans through a variety of Prudential real estate professionals, but the primary focus will be on direct origination through the real estate finance team.

PGIM Quantitative Solutions – Small-Cap Core

Quantitative Management Associates (QMA) utilizes a bottom-up quantitative framework in order provide a diversified exposure to core U.S. small-cap stocks, while attempting to produce consistent outperformance versus the benchmark with moderate tracking error levels. QMA uses an adaptive, systematic investment process to exploit opportunities created by mispriced securities to consistently add value over long time periods. Bottom-up stock selection drives exposure to key sources of alpha (valuation, growth, and quality). The QMA stock selection model adapts to changes in company growth rates and market environments by putting more emphasis on valuation for slowly growing companies, and more emphasis on future growth projections for companies with higher projected growth rates.

Record Dynamic Currency

Record is one of the world's largest and longest standing currency managers. The Record Dynamic Currency Hedging program uses a systematic process which exploits inefficiencies in the FX markets. The strategy focuses on currencies' tendency to trend, in an explicable, repeatable way.

State Street Global Advisors (SSgA) Custom Real Asset

SSgA Custom Real Asset portfolio uses a portfolio of liquid real assets to proxy private real assets. The portfolio is comprised of equal weightings of the Bloomberg Roll Select Commodity Index, S&P Global Mid-Large Cap Natural Resources Index, S&P Global Infrastructure Index, and Bloomberg Barclays TIPS Index. SSgA provides beta exposure through these underlying liquid components which can be customized to changing client needs (ex., TIPS was added in May 2020 with the other three parts of the portfolio reduced pro-rata). The portfolio is used to fund upcoming private real asset mandates.

Stockbridge Value IV

Stockbridge Value IV will implement a value-added strategy that will seek to own assets that are undervalued, underutilized, and/or not operating to their full potential. The manager will add value with their internal asset management team through active strategies including additional capital investment, leasing, recapitalization, renovation and/or development. The fund will target three to five year holding periods for investments, with disposition taking place after the completion of the value-add strategy. The fund will target 15 to 25 mid-sized investments, diversified by geography and property type. The strategy will target 21 markets in the United States in which the firm has boots on the ground coverage with dedicated acquisitions professionals and asset managers responsible for knowing each market extensively with a vast network of relationships.

White Oak - White Oak Yield Spectrum Fund/Fund V

The White Oak Yield Spectrum Fund's objective is to earn substantial current income by originating, extending, and/or investing in a diversified portfolio of primarily senior secured corporate credit and debt instruments consisting of term loans, asset-based loans and equipment leases and loans issued by small to middle-market companies located primarily in the United States and Canada. It focuses on providing self-originated deals for predominantly non-sponsored, privately-held borrowers.

Policy Index & Benchmark History

San Mateo County Employees' Retirement Association Period Ending: September 30, 2023

Total Plan Policy Index	As of														
	7/1/23	3/1/23	10/1/22	7/1/22	2/1/21	1/1/21	7/1/20	4/1/20	10/1/19	7/1/19	4/1/19	1/1/19	10/1/18	4/1/18	10/1/17
10 Year Treasury +2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
60/40 MSCI World/Bloomberg Global Aggregate (RP)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	4.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%
60/40 Russell 3000/Bloomberg US Aggregate (RP)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
91 Day T-Bills	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Blended Opportunistic Index	11.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Bloomberg US Govt/Credit 1-3 Yr. TR	4.5%	4.5%	4.5%	1.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Bloomberg Aggregate	9.5%	12.5%	13.5%	16.5%	18.0%	21.0%	21.0%	18.0%	14.0%	14.0%	14.0%	14.0%	14.0%	14.0%	14.0%
Bloomberg BA Intermediate HY	0.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	8.0%	8.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%
Bloomberg BBB	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Bloomberg Credit BAA	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Bloomberg Long Treasury	3.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Bloomberg Multiverse	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Bloomberg TIPS	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Bloomberg Commodity	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Citigroup non-US WGBI	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
CPI + 5% (RA)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Blended Public Real Asset	3.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	0.0%
Blended Private Real Asset	5.0%	5.0%	4.0%	4.0%	4.0%	3.0%	3.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	8.0%
Libor +4% (HF)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%
SOFR +4% (HF)	6.0%	7.0%	7.0%	7.0%	7.0%	6.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
MSCI ACWI ex-US	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
MSCI ACWI ex US IMI 100% Hedged (Net)	9.0%	9.5%	9.5%	9.5%	9.5%	9.0%	9.0%	9.0%	9.0%	7.6%	5.7%	3.8%	1.9%	0.0%	0.0%
MSCI ACWI ex-US IMI	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
MSCI ACWI ex-US IMI (Net)	9.0%	9.5%	9.5%	9.5%	9.5%	9.0%	9.0%	9.0%	9.0%	11.4%	13.3%	15.2%	17.1%	19.0%	19.0%
MSCI EAFE	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
NCREIF ODCE	9.0%	9.0%	9.0%	9.0%	9.0%	10.0%	10.0%	9.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%
NCREIF Property	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Russell 1000	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Russell 1000 Value	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Russell 2000	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Russell 3000	23.0%	21.0%	21.0%	21.0%	22.0%	21.0%	21.0%	22.0%	22.0%	22.0%	22.0%	22.0%	22.0%	21.0%	21.0%
Russell 3000 +3% (PE)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	7.0%
Russell 3000 +3% 1Q Lag (PE)	7.0%	7.0%	7.0%	7.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	7.0%	0.0%
S&P 500	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Simple Benchmark	As of			
	7/1/23	3/1/23	10/1/22	7/1/22
MSCI ACWI IMI	59.0%	57.0%	57.0%	57.0%
Bloomberg US Aggregate	18.5%	19.5%	20.5%	23.5%
NFI ODCE	17.0%	18.0%	17.0%	17.0%
Bloomberg 1-3 Yr Govt/Credit Index	5.5%	5.5%	5.5%	2.5%
	100.0%	100.0%	100.0%	100.0%

Public Equity Benchmark	As of:																				
	7/1/23	7/1/22	2/1/21	7/1/20	10/1/19	7/1/19	4/1/19	1/1/19	10/1/18	10/1/17	2/1/17	10/1/16	9/1/16	1/1/16	1/1/14	10/1/10	5/1/07	6/1/00	3/1/99	9/1/98	1/1/96
MSCI ACWI ex-US	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	34.0%	31.3%	23.1%	0.0%	0.0%	0.0%
MSCI ACWI ex US IMI 100% Hedged (Net)	22.0%	23.8%	23.2%	23.1%	22.5%	18.5%	13.9%	9.3%	4.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
MSCI ACWI ex-US IMI	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	47.5%	45.2%	40.4%	41.7%	41.7%	40.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
MSCI ACWI ex US IMI (Net)	22.0%	23.8%	23.2%	23.1%	22.5%	27.8%	32.4%	37.0%	41.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
MSCI EAFE	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Russell 1000	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	50.0%	48.0%	52.8%	55.2%	61.5%	35.5%	33.3%	33.3%
Russell 1000 Value	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	8.0%	8.4%	0.0%
Russell 2000	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	8.3%	12.0%	13.2%	13.5%	15.4%	24.2%	25.0%	25.0%
Russell 3000	56.1%	52.5%	53.7%	53.9%	55.0%	53.7%	53.7%	53.7%	53.7%	52.5%	54.8%	59.6%	58.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
S&P 500	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	8.4%
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

US Equity Benchmark	As of:						
	9/1/16	1/1/16	6/1/00	3/1/99	9/1/98	7/1/96	1/1/95
Russell 1000	0.0%	85.7%	80.0%	52.0%	50.0%	50.0%	69.0%
Russell 1000 Value	0.0%	0.0%	0.0%	12.0%	12.5%	0.0%	0.0%
Russell 2000	0.0%	14.3%	20.0%	36.0%	37.5%	37.5%	14.0%
Russell 3000	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
S & P 500	0.0%	0.0%	0.0%	0.0%	0.0%	12.5%	17.0%
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

International Equity Benchmark	As of:								
	10/1/19	7/1/19	4/1/19	1/1/19	10/1/18	10/1/17	1/1/14	6/1/00	1/1/96
MSCI ACWI ex US	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%
MSCI ACWI ex US IMI 100% Hedged (Net)	50.0%	40.0%	30.0%	20.0%	10.0%	0.0%	0.0%	100.0%	0.0%
MSCI ACWI ex US IMI	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%
MSCI ACWI ex US IMI (Net)	50.0%	60.0%	70.0%	80.0%	90.0%	100.0%	0.0%	0.0%	0.0%
MSCI EAFE	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Core Fixed Income Benchmark	As of:	
	7/1/23	7/1/22
Bloomberg U.S. Aggregate Index	76.0%	100.0%
Bloomberg U.S. Treasury Long Index	24.0%	0.0%
	100.0%	100.0%

Opportunistic Credit Benchmark	As of:	
	7/1/23	7/1/22
Bloomberg US Corporate HY	73.0%	0.0%
Credit Suisse Leveraged Loan Index 1 Qtr Lag	27.0%	0.0%
Bloomberg BA Intermediate HY	0.0%	100.0%
	100.0%	100.0%

Public Credit Benchmark	As of:		
	7/1/23	1/1/14	12/1/09
Bloomberg US Corporate HY	100.0%	0.0%	100.0%
Bloomberg BA Intermediate HY	0.0%	100.0%	0.0%
Bloomberg Credit BAA	0.0%	0.0%	100.0%
	100.0%	100.0%	100.0%

Private Credit Benchmark	As of:		
	7/1/23	1/1/14	12/1/09
Credit Suisse Leveraged Loan Index 1 Qtr Lag	100.0%	0.0%	0.0%
Bloomberg US Corporate HY	0.0%	0.0%	100.0%
Cliffwater Direct Lending Index	0.0%	100.0%	0.0%
Bloomberg Credit BAA	0.0%	0.0%	100.0%
	100.0%	100.0%	100.0%

Private Equity Benchmark	As of:	
	4/1/18	10/1/10
Russell 3000 +3% 1Q Lag	100.0%	0.0%
Russell 3000 +3%	0.0%	100.0%
	100.0%	100.0%

Absolute Return Benchmark	As of:	
	1/1/21	10/1/10
Libor +4%	0.00%	100.00%
SOFR +4%	100.0%	0.0%
	100.0%	0.0%

Inflation Hedge Benchmark	As of:								
	3/1/23	2/1/21	7/1/20	4/1/20	10/1/19	4/1/18	2/1/17	10/1/16	4/1/16
Bloomberg TIPS	0.00%	0.00%	0.00%	0.00%	5.88%	11.1%	12.5%	14.3%	14.3%
Bloomberg Commodity	0.00%	0.00%	0.00%	0.00%	0.00%	0.0%	0.0%	0.0%	21.4%
CPI + 5% (RA)	0.00%	0.00%	0.00%	0.00%	0.00%	0.0%	0.0%	0.0%	14.3%
Blended Public Real Asset	22.22%	23.53%	23.53%	35.29%	35.29%	33.3%	0.0%	0.0%	0.0%
Blended Private Real Asset	27.78%	23.53%	17.65%	11.77%	11.77%	11.1%	43.8%	35.7%	0.0%
NCREIF ODCE	50.00%	52.94%	58.82%	52.94%	47.06%	44.4%	43.8%	50.0%	50.0%
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Public Real Asset Benchmark	As of:		
	5/1/20	10/1/16	1/1/14
Bloomberg Roll Select Commodity	25.0%	34.0%	0.0%
S&P Global Large-MidCap Commodity and Resources	25.0%	33.0%	0.0%
S&P Global Infrastructure	25.0%	33.0%	0.0%
CPI + 5%	0.0%	0.0%	100.0%
Bloomberg TIPS	25.0%	0.0%	0.0%
	100.0%	100.0%	100.0%

Private Real Asset Benchmark	As of:			
	1/1/21	4/1/18	10/1/16	1/1/14
Bloomberg Roll Select Commodity	0.00%	0.00%	34.00%	0.0%
S&P Global Large-MidCap Commodity and Resources	0.00%	0.00%	33.00%	0.0%
S&P Global Infrastructure	0.00%	0.00%	33.00%	0.0%
50/50 S&P Global Infra & Lrg-MidCap Com & Resources +2% 1QL	0.00%	100.00%	0.00%	0.0%
75/25 S&P Global Infra & Lrg-MidCap Com & Resources +2% 1QL	100.00%	0.00%	0.00%	0.0%
CPI + 5%	0.00%	0.00%	0.00%	100.0%
	100.0%	100.0%	100.0%	100.0%

Private RA Secondary Benchmark	As of:
	9/1/14
Cambridge Associates Private Natural Resources 1 Qtr Lag	50.0%
Cambridge Associates Private Infrastructure 1 Qtr Lag	50.0%
	100.0%

Real Estate Benchmark	As of:		
	1/1/09	6/1/00	7/1/96
10 Year Treasury +2%	0.0%	0.0%	100.0%
NCREIF ODCE	100.0%	0.0%	0.0%
NCREIF Property	0.0%	100.0%	0.0%
	100.0%	100.0%	100.0%

Liquidity Benchmark	As of:	
	10/1/22	7/1/22
Bloomberg US Govt/Credit 1-3 Yr. TR	81.8%	60.0%
91 Day T-Bills	18.2%	40.0%
	100.0%	100.0%

Baillie Gifford Benchmark	As of:	
	1/1/14	5/1/12
MSCI ACWI ex-US	100.0%	0.0%
MSCI EAFE	0.0%	100.0%
	100.0%	100.0%

Baillie Gifford Secondary Benchmark	As of:	
	1/1/14	5/1/12
MSCI ACWI ex-US Growth	100.0%	0.0%
MSCI EAFE Growth	0.0%	100.0%
	100.0%	100.0%

Brigade Secondary Benchmark	As of:	
	8/1/10	
Bloomberg High Yield	50.0%	
Credit Suisse Leveraged Loans	50.0%	
	100.0%	

PIMCO Diversified	As of:	
	9/1/17	
JPMorgan EMBI Global	33.333%	
BofAMLBB-BRatedDvlpdMktsHYHdgdUSD	33.333%	
Global Agg Credit Ex EM USD hedged	33.334%	
	100.0%	

SSgA Custom Real Asset	As of:	
	5/1/20	11/1/16
Bloomberg Roll Select Commodity	25.00%	33.33%
S&P Global Large-MidCap Commodity and Resources	25.00%	33.33%
S&P Global Infrastructure	25.00%	33.34%
Bloomberg TIPS	25.00%	0.00%
	100.0%	100.0%

Fee Schedule

San Mateo County Employees' Retirement Association Period Ending: September 30, 2023

Baillie Gifford

First \$25 million:	0.60% per annum
Next \$75 million:	0.50% per annum
Next \$300 million:	0.40% per annum
Thereafter:	0.30% per annum

BlackRock-Russell 1000 Index Fund

On All Assets:	0.01% per annum
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BlackRock-MSCI ACWI ex US IMI Index Fund

On All Assets:	0.045% per annum
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DoubleLine

On All Assets:	0.30% per annum
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NISA

First \$500 million:	0.15% per annum
Next \$1 billion:	0.125% per annum
Next \$1 billion:	0.105% per annum
Next \$1.5 billion:	0.085% per annum
Thereafter:	0.065% per annum

Franklin Templeton Investment

First \$50 million:	0.40% per annum
Next \$50 million:	0.30% per annum
Thereafter:	0.25% per annum

FIAM Bond

First \$50 million:	0.25% per annum
Next \$50 million:	0.20% per annum
Next \$100 million:	0.125% per annum
Thereafter:	0.10% per annum

PanAgora Asset Management

First \$50 million:	0.25% per annum
Next \$50 million:	0.15% per annum
Thereafter:	0.10% per annum

Parametric Overlay

First \$50 million:	0.12% per annum
Next \$100 million:	0.10% per annum
Thereafter:	0.05% per annum
Plus monthly reporting fee of \$1500	

PIMCO Diversified

On All Assets:	0.75% per annum
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PGIM Quantitative Solutions

First \$100 million:	0.55% per annum
Next \$100 million:	0.53% per annum
Thereafter:	0.49% per annum

Mondrian Investment Partners

First \$50 million:	1.00% per annum
Next \$150 million:	0.19% per annum
Thereafter:	0.33% per annum

Insight Investment

First \$200 million:	0.09% per annum
Next \$300 million:	0.08% per annum
Thereafter:	0.06% per annum

San Mateo County Employees' Retirement Association
Period Ending: September 30, 2023

Manager Compliance (Net)

Fund Name	Benchmark	Rule 1	Rule 2	Rule 3
Acadian US MGD V	Russell 1000 Index	-	-	-
DE Shaw	Russell 1000 Index	P	P	P
PanAgora Defuseq	Russell 1000 Index	-	-	-
PGIM Quant Solutions	Russell 2000 Index	✓	P	✓
Baillie Gifford	MSCI ACWI ex US	P	P	P
Mondrian	MSCI AC World ex USA Value	P	P	P
DoubleLine	Blmbg. U.S. Aggregate Index	-	-	-
FIAM Bond	Blmbg. U.S. Aggregate Index	✓	✓	✓
NISA Core Bond	Blmbg. U.S. Aggregate Index	-	-	-
NISA Long Treasury	Blmbg. U.S. Treasury: Long	-	-	-
AG CSF ADF II	Blmbg. U.S. Corp: High Yield Index	-	-	-
AG CSF II	Blmbg. U.S. Corp: High Yield Index	-	-	-
Angelo Gordon Opportunistic	Blmbg. U.S. Corp: High Yield Index	✓	-	✓
Angelo Gordon Credit Solutions	Blmbg. U.S. Corp: High Yield Index	-	-	-
Beach Point Select	Blmbg. U.S. Corp: High Yield Index	✓	✓	✓
Brigade Capital	Blmbg. U.S. Corp: High Yield Index	P	✓	P
PIMCO Diversified	Blmbg. U.S. Corp: High Yield Index	-	P	-
Franklin Templeton	Blmbg. Global Multiverse	P	P	P
Acadian MAAR Fund LLC	Absolute Return Custom Index	-	-	-
CFM Systematic Global Macro	Absolute Return Custom Index	-	-	-
Graham Quant Macro	Absolute Return Custom Index	-	-	-
PIMCO MAARS Fund LP	Absolute Return Custom Index	-	-	-

Rule 1 - Manager has underperformed the benchmark index for the five year period.

Rule 2 - Manager has underperformed the 50th percentile in the appropriate style universe for the five year period

Rule 3 - Excess 5 Year Sharpe Ratio vs. Benchmark is positive.

Manager Compliance (Gross)

Fund Name	Benchmark	Rule 1	Rule 2	Rule 3
Acadian US MGD V	Russell 1000 Index	-	-	-
DE Shaw	Russell 1000 Index	P	P	P
PanAgora Defuseq	Russell 1000 Index	-	-	-
PGIM Quant Solutions	Russell 2000 Index	✓	P	✓
Baillie Gifford	MSCI ACWI ex US	P	P	P
Mondrian	MSCI AC World ex USA Value	P	P	P
DoubleLine	Blmbg. U.S. Aggregate Index	-	-	-
FIAM Bond	Blmbg. U.S. Aggregate Index	✓	✓	✓
NISA Core Bond	Blmbg. U.S. Aggregate Index	-	-	-
NISA Long Treasury	Blmbg. U.S. Treasury: Long	-	-	-
AG CSF ADF II	Blmbg. U.S. Corp: High Yield Index	-	-	-
AG CSF II	Blmbg. U.S. Corp: High Yield Index	-	-	-
Angelo Gordon Opportunistic	Blmbg. U.S. Corp: High Yield Index	✓	-	✓
Angelo Gordon Credit Solutions	Blmbg. U.S. Corp: High Yield Index	-	-	-
Beach Point Select	Blmbg. U.S. Corp: High Yield Index	✓	✓	✓
Brigade Capital	Blmbg. U.S. Corp: High Yield Index	P	P	P
PIMCO Diversified	Blmbg. U.S. Corp: High Yield Index	-	P	-
Franklin Templeton	Blmbg. Global Multiverse	P	P	P
Acadian MAAR Fund LLC	Absolute Return Custom Index	-	-	-
CFM Systematic Global Macro	Absolute Return Custom Index	-	-	-
Graham Quant Macro	Absolute Return Custom Index	-	-	-
PIMCO MAARS Fund LP	Absolute Return Custom Index	-	-	-

Rule 1 - Manager has underperformed the benchmark index for the five year period.

Rule 2 - Manager has underperformed the 50th percentile in the appropriate style universe for the five year period

Rule 3 - Excess 5 Year Sharpe Ratio vs. Benchmark is positive.

Total Fund
Performance Summary (Gross of Fees)

San Mateo County Employees' Retirement Association
Period Ending: September 30, 2023

	Market Value	% of Portfolio	3 Mo Rank	Fiscal YTD	1 Yr Rank	2 Yrs Rank	3 Yrs Rank	5 Yrs Rank	10 Yrs Rank
Total Fund**	5,925,126,884	100.0	-1.5 (29)	-1.5 (29)	7.9 (92)	-0.9 (43)	5.5 (55)	5.1 (67)	6.4 (59)
Policy Index			-1.1 (18)	-1.1 (18)	10.4 (46)	-0.2 (30)	5.6 (54)	5.6 (47)	6.6 (48)
Simple Benchmark			-2.9 (84)	-2.9 (84)	9.2 (74)	-2.0 (71)	4.4 (83)	5.2 (66)	6.3 (61)
Total Fund ex Overlay	5,917,254,708	99.9	-1.5 (28)	-1.5 (28)	7.5 (94)	-0.9 (43)	5.5 (55)	5.0 (67)	6.3 (61)
Policy Index			-1.1 (18)	-1.1 (18)	10.4 (46)	-0.2 (30)	5.6 (54)	5.6 (47)	6.6 (48)
Simple Benchmark			-2.9 (84)	-2.9 (84)	9.2 (74)	-2.0 (71)	4.4 (83)	5.2 (66)	6.3 (61)
Growth Portfolio	3,421,856,715	57.8	-2.2	-2.2	15.0	-	-	-	-
Blended Growth Index			-0.7	-0.7	18.9	-0.3	8.2	7.6	-
US Equity	1,315,019,186	22.2	-3.2 (36)	-3.2 (36)	17.3 (83)	1.1 (12)	9.7 (51)	7.8 (82)	10.3 (78)
Blended US Equity Index			-3.3 (39)	-3.3 (39)	20.5 (33)	-0.4 (40)	9.4 (61)	9.1 (32)	11.1 (40)
Russell 3000 Index			-3.3 (39)	-3.3 (39)	20.5 (33)	-0.4 (40)	9.4 (61)	9.1 (32)	11.3 (29)
BlackRock Russell 1000	797,183,836	13.5	-3.1 (55)	-3.1 (55)	21.2 (36)	0.2 (69)	9.5 (56)	9.6 (41)	-
DE Shaw	183,140,645	3.1	-2.0 (19)	-2.0 (19)	17.6 (66)	1.2 (50)	9.8 (49)	8.4 (71)	11.9 (31)
PanAgora Defuseq	218,737,593	3.7	-5.1 (93)	-5.1 (93)	7.9 (98)	1.3 (49)	7.7 (83)	-	-
Russell 1000 Index			-3.1 (56)	-3.1 (56)	21.2 (36)	0.2 (69)	9.5 (56)	9.6 (42)	11.6 (45)
PGIM Quant Solutions	113,614,502	1.9	-2.0	-2.0	18.9	-0.2	15.4	3.9	-
Russell 2000 Index			-5.1	-5.1	8.9	-8.7	7.2	2.4	6.6
International Equity with Record	1,051,040,988	17.7	-4.0 (48)	-4.0 (48)	21.4 (61)	-4.5 (43)	4.5 (51)	3.7 (52)	4.4 (46)
Blended International Equity Index			-2.0 (10)	-2.0 (10)	19.7 (87)	-2.0 (12)	6.4 (33)	4.2 (31)	4.5 (43)
Baillie Gifford	242,827,684	4.1	-10.0 (87)	-10.0 (87)	13.3 (77)	-16.5 (80)	-5.6 (85)	1.8 (80)	4.2 (88)
MSCI ACWI ex US			-3.7 (7)	-3.7 (7)	21.0 (28)	-4.6 (10)	4.2 (12)	3.1 (69)	3.9 (91)
MSCI ACWI ex US Growth			-7.3 (44)	-7.3 (44)	16.2 (63)	-9.8 (40)	-1.6 (56)	2.9 (70)	4.3 (87)
Mondrian	264,329,446	4.5	-2.3 (72)	-2.3 (72)	27.0 (57)	-1.8 (67)	7.2 (83)	2.5 (76)	3.4 (81)
MSCI AC World ex USA Value			0.1 (22)	0.1 (22)	26.1 (59)	0.8 (41)	10.3 (48)	3.0 (72)	3.2 (82)
MSCI AC World ex USA Index			-3.7 (83)	-3.7 (83)	21.0 (86)	-4.6 (90)	4.2 (96)	3.1 (71)	3.8 (76)
BlackRock MSCI ACWI EX-US IMI	528,820,717	8.9	-3.5 (29)	-3.5 (29)	20.6 (57)	-5.2 (48)	4.1 (50)	-	-
MSCI AC World ex USA IMI (Net)			-3.5 (29)	-3.5 (29)	20.2 (65)	-5.5 (49)	3.8 (57)	2.6 (86)	3.5 (95)
Record Dynamic Currency Hedge	15,063,142	0.3	297.6	297.6	-	-	-	-	-

Total Fund
Performance Summary (Gross of Fees)

San Mateo County Employees' Retirement Association
Period Ending: September 30, 2023

	Market Value	% of Portfolio	3 Mo Rank	Fiscal YTD	1 Yr Rank	2 Yrs Rank	3 Yrs Rank	5 Yrs Rank	10 Yrs Rank
Private Equity***	382,514,815	6.5	1.3 (45)	1.3 (45)	3.4 (50)	-4.8 (98)	15.1 (69)	19.7 (8)	18.7 (14)
<i>Blended Private Equity Index</i>			8.2 (3)	8.2 (3)	22.0 (1)	4.3 (62)	17.0 (63)	14.4 (46)	14.6 (41)
Opportunistic Credit	673,281,726	11.4	0.9	0.9	-	-	-	-	-
<i>Opportunistic Credit Index</i>			1.2	1.2	10.3	-1.0	3.0	3.4	4.3
Public Credit	509,874,931	8.6	0.8	0.8	7.5	-0.4	3.3	3.5	5.4
<i>Blmbg. U.S. Corp: High Yield Index</i>			0.5	0.5	10.3	-2.7	1.8	3.0	4.2
AG CSF ADF II	7,390,200	0.1	2.7	2.7	-	-	-	-	-
AG CSF II	20,675,200	0.3	3.5	3.5	13.9	-	-	-	-
Angelo Gordon Opportunistic	33,574	0.0	0.0	0.0	-10.9	0.9	8.7	4.6	-
Angelo Gordon Credit Solutions	10,926,909	0.2	2.3 (2)	2.3 (2)	7.0 (96)	2.2 (6)	11.1 (1)	-	-
Beach Point Select	115,114,534	1.9	2.5 (2)	2.5 (2)	9.9 (55)	2.5 (4)	8.2 (1)	6.8 (1)	-
Brigade Capital	112,774,733	1.9	2.0 (5)	2.0 (5)	6.9 (96)	-1.2 (35)	6.0 (3)	3.3 (58)	4.3 (55)
One William Street	61,500,258	1.0	2.5 (2)	2.5 (2)	-	-	-	-	-
<i>Blmbg. U.S. Corp: High Yield Index</i>			0.5 (66)	0.5 (66)	10.3 (46)	-2.7 (81)	1.8 (71)	3.0 (75)	4.2 (59)
PIMCO Diversified	129,111,218	2.2	-1.1 (99)	-1.1 (99)	7.2 (94)	-6.0 (100)	-2.6 (100)	1.0 (100)	-
<i>Blended PIMCO Diversified Index</i>			-	-	-	-	-	-	-
<i>Blmbg. U.S. Corp: High Yield Index</i>			0.5 (68)	0.5 (68)	10.3 (48)	-2.7 (81)	1.8 (73)	3.0 (76)	4.2 (60)
Franklin Templeton	52,348,305	0.9	-4.0 (83)	-4.0 (83)	7.9 (40)	-7.0 (62)	-5.6 (75)	-4.0 (99)	-1.1 (91)
<i>Blmbg. Global Multiverse</i>			-3.5 (75)	-3.5 (75)	2.7 (80)	-9.6 (77)	-6.6 (83)	-1.5 (83)	-0.3 (79)
Private Credit	163,406,796	2.8	1.3	1.3	5.7	4.5	5.9	6.2	-
<i>Credit Suisse Leveraged Loan Index 1 Qtr Lag</i>			3.1	3.1	10.1	3.5	6.2	4.0	4.1
Blackrock DL Feeder IX-U	41,558,162	0.7	3.0	3.0	8.5	6.2	6.7	-	-
PIMCO Private Income	51,162,727	0.9	1.7	1.7	5.2	3.4	7.5	-	-
TCP Direct Lending VIII	13,204,047	0.2	0.8	0.8	6.8	4.5	5.5	5.8	-
White Oak Yield	29,067,217	0.5	0.0	0.0	1.8	3.9	4.4	5.0	-
White Oak YSF V	28,414,643	0.5	0.0 (87)	0.0 (87)	-0.8 (100)	1.0 (14)	-	-	-
<i>Credit Suisse Leveraged Loan Index 1 Qtr Lag</i>			3.1 (1)	3.1 (1)	10.1 (49)	3.5 (2)	6.2 (3)	4.0 (18)	4.1 (69)

Total Fund
Performance Summary (Gross of Fees)

San Mateo County Employees' Retirement Association
Period Ending: September 30, 2023

	Market Value	% of Portfolio	3 Mo Rank	Fiscal YTD	1 Yr Rank	2 Yrs Rank	3 Yrs Rank	5 Yrs Rank	10 Yrs Rank
Diversifying Portfolio	1,057,449,317	17.8	-1.3	-1.3	-1.0	-	-	-	-
<i>Blended Diversifying Index</i>			-2.9	-2.9	1.8	-3.4	-2.0	1.7	2.4
Core Fixed	692,270,177	11.7	-4.1	-4.1	-0.1	-7.7	-5.0	0.0	1.5
<i>Blended Core Fixed Income Benchmark</i>			-5.3	-5.3	-1.5	-8.3	-5.9	-0.3	0.9
DoubleLine	223,887,031	3.8	-3.1 (62)	-3.1 (62)	1.0 (49)	-7.3 (81)	-5.0 (93)	-	-
<i>Blmbg. U.S. Aggregate Index</i>			-3.2 (63)	-3.2 (63)	0.6 (56)	-7.3 (82)	-5.2 (96)	0.1 (56)	1.1 (68)
FIAM Bond	136,394,714	2.3	-3.0 (46)	-3.0 (46)	1.4 (36)	-6.8 (34)	-4.4 (31)	1.0 (19)	2.0 (17)
NISA Core Bond	216,839,155	3.7	-3.1 (61)	-3.1 (61)	1.1 (66)	-6.8 (37)	-4.8 (62)	-	-
<i>Blmbg. U.S. Aggregate Index</i>			-3.2 (76)	-3.2 (76)	0.6 (83)	-7.3 (77)	-5.2 (92)	0.1 (95)	1.1 (98)
NISA Long Treasury	110,023,152	1.9	-11.8	-11.8	-	-	-	-	-
<i>Blmbg. U.S. Treasury: Long</i>			-11.8	-11.8	-9.1	-18.3	-15.7	-2.8	0.8
Absolute Return	365,179,140	6.2	4.8 (5)	4.8 (5)	-2.3 (95)	5.4 (13)	5.6 (37)	-0.1 (75)	2.1 (63)
<i>Absolute Return Custom Index</i>			2.3 (21)	2.3 (21)	8.7 (24)	6.7 (5)	5.8 (37)	5.8 (13)	5.2 (10)
Acadian MAAR Fund LLC	82,016,408	1.4	2.0 (28)	2.0 (28)	-3.7 (89)	-0.7 (62)	-	-	-
CFM Systematic Global Macro	84,822,193	1.4	2.1 (26)	2.1 (26)	-11.0 (95)	2.9 (41)	-	-	-
Graham Quant Macro	99,863,746	1.7	8.2 (5)	8.2 (5)	4.6 (62)	12.3 (10)	9.6 (24)	-	-
PIMCO MAARS Fund LP	98,476,792	1.7	6.4 (8)	6.4 (8)	0.2 (82)	13.2 (9)	10.8 (22)	-	-
<i>Absolute Return Custom Index</i>			2.3 (25)	2.3 (25)	8.7 (39)	6.7 (22)	5.8 (50)	5.8 (42)	5.2 (35)
Inflation Hedge	1,007,402,740	17.0	-1.0	-1.0	-1.6	4.2	9.3	4.1	-
<i>Blended Inflation Hedge Index</i>			-1.3	-1.3	-3.8	4.7	10.0	6.2	-
Real Estate	514,594,961	8.7	-1.5 (31)	-1.5 (31)	-7.1 (66)	4.0 (6)	7.3 (29)	6.0 (10)	8.5 (1)
<i>NCREIF ODCE</i>			-1.9 (40)	-1.9 (40)	-12.1 (88)	3.6 (24)	7.1 (30)	5.7 (14)	8.2 (1)
Harrison Street Core Property	94,968,225	1.6	-1.9	-1.9	-2.1	6.1	7.3	-	-
Invesco	264,899,443	4.5	-1.6	-1.6	-12.5	2.5	6.9	5.2	8.1
Invesco US Val IV	432,108	0.0	-28.0	-28.0	-50.9	-44.4	-29.5	-16.3	-
Invesco US Val V	31,113,700	0.5	-4.0	-4.0	-8.8	0.0	10.0	-	-
Invesco US Val VI	21,355,451	0.4	0.0	0.0	-1.5	-	-	-	-
PGIM RE US Debt Fund	74,671,299	1.3	1.5	1.5	7.5	6.8	6.6	6.4	-
<i>NCREIF ODCE</i>			-1.9	-1.9	-12.1	3.6	7.1	5.7	8.2
Stockbridge Value IV	27,154,735	0.5	-4.7	-4.7	-0.8	16.6	-	-	-
<i>NCREIF ODCE</i>			-1.9	-1.9	-12.1	3.6	7.1	5.7	8.2

*NISA Core Treasury funded 6/15/2023.
See Appendix for Benchmark History

Total Fund
Performance Summary (Gross of Fees)

San Mateo County Employees' Retirement Association
Period Ending: September 30, 2023

	Market Value	% of Portfolio	3 Mo Rank	Fiscal YTD	1 Yr Rank	2 Yrs Rank	3 Yrs Rank	5 Yrs Rank	10 Yrs Rank
Private Real Asset***	320,233,648	5.4	-0.2	-0.2	3.2	6.3	14.6	6.5	-
<i>Blended Private Real Asset Index</i>			-0.9	-0.9	6.1	7.1	14.3	6.8	-
<i>Blended Secondary CA Private RA Index</i>			1.3	1.3	6.9	13.2	16.4	7.6	-
Public Real Assets	172,574,131	2.9	-0.7	-0.7	4.7	2.7	10.3	1.1	-
<i>Blended Public Real Asset Index</i>			-0.8	-0.8	4.2	2.3	10.0	3.6	-
SSgA Custom Real Asset	172,574,131	2.9	-0.7	-0.7	4.7	2.7	10.3	3.9	-
<i>SSgA Custom Real Asset Index</i>			-0.8	-0.8	4.2	2.3	10.0	3.6	-
Liquidity	438,418,112	7.4	1.3	1.3	4.6	2.4	1.8	1.5	-
<i>Blended Liquidity Index</i>			0.8	0.8	3.1	-	-	-	-
Cash Flow-Matched Liquidity	313,223,854	5.3	1.2	1.2	4.1	-	-	-	-
<i>Blmbg. 1-3 Year Gov/Credit index</i>			0.7	0.7	2.8	-1.2	-0.7	1.2	1.0
<i>Blmbg. 1-3 Year Credit</i>			0.8	0.8	3.5	-0.9	-0.3	1.6	1.5
Insight Investment*	297,195,840	5.0	1.2	1.2	4.3	-	-	-	-
<i>Blmbg. 1-3 Year Credit</i>			0.8	0.8	3.5	-0.9	-0.3	1.6	1.5
County Treasury Pool**	16,028,014	0.3	0.4	0.4	3.9	2.4	2.0	2.2	1.9
<i>90 Day U.S. Treasury Bill</i>			1.3	1.3	4.5	2.5	1.7	1.7	1.1
Cash & Cash Overlay	132,662,993	2.2	1.5	1.5	5.3	3.1	2.3	1.8	1.3
<i>90 Day U.S. Treasury Bill</i>			1.3	1.3	4.5	2.5	1.7	1.7	1.1
General Account	124,790,830	2.1	1.5	1.5	5.2	3.1	2.2	2.6	2.1
<i>90 Day U.S. Treasury Bill</i>			1.3	1.3	4.5	2.5	1.7	1.7	1.1

***Returns are one-quarter lag, excludes EnCap Energy Capital Fund and Sheridan Production Partners
See Appendix for Benchmark History

Glossary

Allocation Effect: An attribution effect that describes the amount attributable to the managers' asset allocation decisions, relative to the benchmark.

Alpha: The excess return of a portfolio after adjusting for market risk. This excess return is attributable to the selection skill of the portfolio manager. Alpha is calculated as: $\text{Portfolio Return} - [\text{Risk free Rate} + \text{Portfolio Beta} \times (\text{Market Return} - \text{Risk free Rate})]$.

Benchmark R squared: Measures how well the Benchmark return series fits the manager's return series. The higher the Benchmark R squared, the more appropriate the benchmark is for the manager.

Beta: A measure of systematic, or market risk; the part of risk in a portfolio or security that is attributable to general market movements. Beta is calculated by dividing the covariance of a security by the variance of the market.

Book to Market: The ratio of book value per share to market price per share. Growth managers typically have low book to market ratios while value managers typically have high book to market ratios.

Capture Ratio: A statistical measure of an investment manager's overall performance in up or down markets. The capture ratio is used to evaluate how well an investment manager performed relative to an index during periods when that index has risen (up market) or fallen (down market). The capture ratio is calculated by dividing the manager's returns by the returns of the index during the up/down market, and multiplying that factor by 100.

Correlation: A measure of the relative movement of returns of one security or asset class relative to another over time. A correlation of 1 means the returns of two securities move in lock step, a correlation of -1 means the returns of two securities move in the exact opposite direction over time. Correlation is used as a measure to help maximize the benefits of diversification when constructing an investment portfolio.

Excess Return: A measure of the difference in appreciation or depreciation in the price of an investment compared to its benchmark, over a given time period. This is usually expressed as a percentage and may be annualized over a number of years or represent a single period.

Information Ratio: A measure of a manager's ability to earn excess return without incurring additional risk. Information ratio is calculated as: excess return divided by tracking error.

Interaction Effect: An attribution effect that describes the portion of active management that is contributable to the cross interaction between the allocation and selection effect. This can also be explained as an effect that cannot be easily traced to a source.

Portfolio Turnover: The percentage of a portfolio that is sold and replaced (turned over) during a given time period. Low portfolio turnover is indicative of a buy and hold strategy while high portfolio turnover implies a more active form of management.

Price to Earnings Ratio (P/E): Also called the earnings multiplier, it is calculated by dividing the price of a company's stock into earnings per share. Growth managers typically hold stocks with high price to earnings ratios whereas value managers hold stocks with low price to earnings ratios.

R Squared: Also called the coefficient of determination, it measures the amount of variation in one variable explained by variations in another, i.e., the goodness of fit to a benchmark. In the case of investments, the term is used to explain the amount of variation in a security or portfolio explained by movements in the market or the portfolio's benchmark.

Selection Effect: An attribution effect that describes the amount attributable to the managers' stock selection decisions, relative to the benchmark.

Sharpe Ratio: A measure of portfolio efficiency. The Sharpe Ratio indicates excess portfolio return for each unit of risk associated with achieving the excess return. The higher the Sharpe Ratio, the more efficient the portfolio. Sharpe ratio is calculated as: $\text{Portfolio Excess Return} / \text{Portfolio Standard Deviation}$.

Sortino Ratio: Measures the risk adjusted return of an investment, portfolio, or strategy. It is a modification of the Sharpe Ratio, but penalizes only those returns falling below a specified benchmark. The Sortino Ratio uses downside deviation in the denominator rather than standard deviation, like the Sharpe Ratio.

Standard Deviation: A measure of volatility, or risk, inherent in a security or portfolio. The standard deviation of a series is a measure of the extent to which observations in the series differ from the arithmetic mean of the series. For example, if a security has an average annual rate of return of 10% and a standard deviation of 5%, then two thirds of the time, one would expect to receive an annual rate of return between 5% and 15%.

Style Analysis: A return based analysis designed to identify combinations of passive investments to closely replicate the performance of funds

Style Map: A specialized form or scatter plot chart typically used to show where a Manager lies in relation to a set of style indices on a two dimensional plane. This is simply a way of viewing the asset loadings in a different context. The coordinates are calculated by rescaling the asset loadings to range from -1 to 1 on each axis and are dependent on the Style Indices comprising the Map.

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