

PERIOD ENDING: September 30, 2024

Investment Performance Review for

San Mateo County Employees' Retirement Association

Table of Contents



VERUSINVESTMENTS.COM

SEATTLE 206.622.3700 CHICAGO 312.815.5228 PITTSBURGH 412.784.6678 LOS ANGELES 310.297.1777 SAN FRANCISCO 415.362.3484

Market Environment	ТАВ І	Diversifying	TAB IV
Total Fund	TAB II	Inflation Hedge	TAB V
Growth	TAB III	Appendix	TAB VI

3rd quarter summary

THE ECONOMY

- On September 18th, the Federal Reserve cut interest rates by 50 basis points, bringing the target rate from 5.25-5.50% to 4.75-5.00%. This larger cut surprised many investors who still see inflation risks on the horizon and the economy as generally strong. This move likely kicks off a multi-year period of cuts as the Fed brings interest rates towards what they see as a more neutral level.
- U.S. inflation (CPI) fell to 2.4% year-over-year in September, moving closer to the Fed's 2% target. However, risks remain that inflation moderates above the Fed target, as shelter inflation is still elevated and food prices accelerated in September. Core inflation (ex-Food & Energy) has not budged from Q2 levels—at 3.3% year-over-year.

EQUITY

- Global markets delivered strong performance, with consistent results across regions. Emerging markets (MSCI EM +8.7%) led, followed by international developed (MSCI EAFE +7.3%) and lastly the U.S. market (S&P 500 +5.9%).
 U.S. dollar weakness provided particular benefits to investors in international developed equities.
- Small cap and value style investing reversed their run of underperformance during the second quarter. Small cap led large cap by +3.2% (-8.9% over the past year), while value also outperformed by +6.2% (-14.4% over the past year). Despite this improvement, the market environment has been incredibly difficult for these style factors.

FIXED INCOME

- The 10-year U.S. Treasury yield fell from 4.36% to 3.79% during the quarter, alongside a series of economic data releases that suggested inflation is moving further towards the Fed's 2% target, and that the labor market is softening. Interestingly, yields moved slightly higher in late September after the Fed's aggressive 50 bps rate cut.
- Default activity remained low, given economic strength.
 High yield bond default rates continued to decline, falling to 1.4%, well below the long-term annual average of 3.4%.
 However, distressed exchange activity was high. Total distressed exchange volume was roughly \$13.5 billion, the second largest quarter on record (since Q4 2008).

ASSET ALLOCATION ISSUES

- China announced an aggressive stimulus program in the form of both fiscal and monetary support. Those moves followed a People's Bank of China rate cut from 2.3% to 2.0%. Chinese equities rallied more than 30% in late September. It is not yet clear whether these efforts will help solve any of China's deep and structural issues.
- On August 5th, volatility spiked 42 points to 66, marking the largest one day jump in volatility in modern market history. This was widely attributed to the unwinding of carry trade positions (one popular carry trade involved borrowing in Yen to invest in equities) following a weak labor market data release and an unexpected interest rate hike from the Bank of Japan.

In September, the Fed enacted the first of likely a series of interest rate cuts.

A soft landing appears very possible for the U.S. economy.



U.S. economics summary

- On September 18th, the Federal Reserve cut interest rates by 50 basis points, bringing the target rate from 5.25-5.50% to 4.75-5.00%. This larger cut surprised many investors who still see inflation risks on the horizon and see the economy as generally strong. This move likely kicks off a multi-year period of cuts as the Fed brings interest rates towards what they see as a more neutral level.
- U.S. inflation (CPI) fell to 2.4% year-over-year in September, moving closer to the Fed's 2% target. However, risks remain that inflation remains above the Fed target, as shelter inflation is still high and food prices accelerated in September. Core inflation (ex-Food & Energy) has not budged from Q2 levels—at 3.3% year-over-year.
- Since earlier in 2024, unemployment had been ticking higher, but in August and September this trend reversed, with unemployment ending the quarter at 4.1%. The September nonfarm employment report reflected a 254,000

- gain in jobs, dramatically outperforming expectations. The impacts of unlawful immigration on official employment statistics have continued to cause discrepancies in data and confusion regarding true labor conditions. We believe analyzing jobs data requires careful analysis.
- Multiple labor strikes have been occurring around the country, including Boeing and the International Longshoremen's Association (ILA). As organized labor fights for higher wages and benefits, disruptions to production and trade could contribute to inflation flareups.
- Consumer sentiment improved slightly during the third quarter, as illustrated by the University of Michigan Consumer Sentiment survey. Households expressed further frustration about high prices, but optimism has grown around the economy and the inflation outlook. According to the survey, expectations have brightened for Americans across the economic and political spectrum.

	Most Recent	12 Months Prior
Real GDP (YoY)	2.7% 9/30/24	2.4% 6/30/23
Inflation	3.3%	3.7%
(CPI YoY, Core)	9/30/24	9/30/23
Expected Inflation (5yr-5yr forward)	2.3% 9/30/24	2.5% 9/30/23
Fed Funds Target	4.75–5.00%	5.25–5.50%
Range	9/30/24	9/30/23
10-Year Rate	3.79% 9/30/24	4.59% 9/30/23
U-3	4.1%	3.8%
Unemployment	9/30/24	9/30/23
U-6	7.7%	7.0%
Unemployment	9/30/24	9/30/23



International economics summary

- The Eurozone faces slowing growth, with recession potentially imminent for Germany. A global shift in consumer purchase patterns towards services and away from goods has likely had a major impact on manufacturing-heavy economies. These effects are biting especially hard in export-heavy economies such as Germany and Japan. China's struggling economy is having widespread impacts on global growth, as well as energy and other commodity prices.
- Falling inflation and moderating economic growth creates conditions central banks may see as conducive to interest rate cuts. The European Central Bank and Federal Reserve kicked off a rate cutting cycle during the quarter. The Bank of Japan stands out from the crowd, deciding earlier this year to raise rates modestly. The bank sees Japan's economy growing faster than potential and wishes to normalize rates carefully.
- One year has passed since the Hamas attack on Israel, and the beginning of

- the Israel-Hamas war. The conflict has now broadened out as Israel engages with the Iranian-backed militia Hezbollah, which is designated a terrorist group by much of the western world. Over the past month, Israel and Iran have clashed directly, substantially increasing risks of widespread war in the Middle East.
- China announced an aggressive economic stimulus program in the form of fiscal and monetary support. Those moves followed a People's Bank of China rate cut from 2.3% to 2.0%.
 Chinese equities rallied more than 30% in the last few weeks of September. It is not yet clear whether these developments will be sufficient to help turnaround the Chinese economy, which faces serious structural issues.
- India continues to be the fastestgrowing major economy in the world, posting strong real GDP growth (+6.7%) on the back of a rapidly growing manufacturing sector and large investments in public infrastructure.

Area	GDP (Real, YoY)	Inflation (CPI, YoY)	Unemployment
United States	2.7% 9/30/24	2.4 % 9/30/24	4.1% 9/30/24
Eurozone	0.6% 6/30/24	1.7% 9/30/24	6.4% 8/31/24
Japan	(1.0%) 6/30/24	2.2 % 9/30/24	2.5% 8/31/24
BRICS Nations	4.8 % 6/30/24	2.0% 9/30/24	5.3% 12/31/23
Brazil	3.3% 6/30/24	4.4% 9/30/24	6.6% 8/31/24
Russia	4.1% 6/30/24	8.6% 9/30/24	2.4% 8/31/24
India	6.7% 6/30/24	5.5% 9/30/24	7.8% 9/30/24
China	4.6% 9/30/24	0.4% 9/30/24	5.1% 9/30/24

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 markets delivered strong performance during the quarter, with fairly consistent results across broad regions. Emerging markets (MSCI EM +8.7%) led, followed by international developed equities (MSCI EAFE +7.3%), and lastly the domestic market (S&P 500 +5.9%). Dollar weakness provided particular benefits to investors in international developed equities.
- Market expectations for Federal Reserve rate cuts became aggressive, after the Fed cut by 50 basis points on September 18th. This likely contributed to dollar weakness, since expectations for lower rates make U.S. dollar holdings less attractive.
- S&P 500 blended year-over-year earnings growth was +3.4%, as of October 18th. Once again, technology companies led the way on earnings, providing growth of +15.2%, while Healthcare ranked second at +10.9%. Materials (-2.7%) and Energy (-20.9%) both

- acted as a drag on overall index earnings.
- Small cap and value reversed their run of underperformance. Small cap led large cap by +3.2% (Russell 2000 +9.3% vs. Russell 1000 +6.1%) in Q3, while value outperformed growth by +6.2% (Russell 1000 Value +9.4% vs. Russell 1000 Growth +3.2%). Despite size and style factors performing well during Q3, both have done poorly over the past full year, with small cap and value underperforming by -8.9% and -14.4%, respectively.
- On August 5th, volatility spiked 42 points to 66, marking the largest one day jump in volatility in modern market history. This was widely attributed to significant investor unwinding of carry trade positions (borrowing in Yen to purchase U.S. equities) following a weak labor market data release and an unexpected interest rate hike from the Bank of Japan.

	QТD ТО	TAL RETURN	1 YEAR TOTA	AL RETURN
	(unhedged)	(hedged)	(unhedged)	(hedged)
U.S. Large Cap (S&P 500)		5.9%	36.4	1%
U.S. Small Cap (Russell 2000)		9.3%	26.8	3%
U.S. Equity (Russell 3000)		6.2%	35.2	2%
U.S. Large Value (Russell 1000 Value)		9.4%	27.8	3%
US Large Growth (Russell 1000 Growth)		3.2%	42.2	2%
Global Equity (MSCI ACWI)	6.6%	5.1%	31.8%	30.8%
International Large (MSCI EAFE)	7.3%	1.5%	24.8%	20.9%
Eurozone (EURO STOXX 50)	6.6%	2.9%	29.4%	25.1%
U.K. (FTSE 100)	8.0%	1.9%	23.5%	12.9%
Japan (TOPIX)	(4.9%)	(4.0%)	21.7%	22.2%
Emerging Markets (MSCI Emerging Markets)	8.7%	6.7%	26.1%	25.2%

Source: Standard & Poor's, FTSE, MSCI, STOXX, JPX, as of 9/30/24



Domestic equity

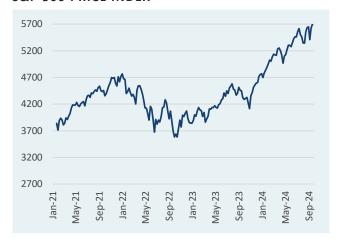
U.S. equities underperformed both international and emerging market shares—the S&P 500 ended Q3 up +5.9%. Market momentum was fueled by strengthening earnings expectations and a solid macro environment. Easing inflation and a normalizing labor market allowed for the Fed to kick off its rate cutting cycle on September 18th with a 50 bps cut. Many other central banks have also pivoted towards lower interest rates.

S&P 500 blended year-over-year earnings growth was +3.4%, as of October 18th. If earnings growth remains positive, it will mark a fifth straight quarter of positive earnings growth for large cap domestic equities. Once again, the Technology sector has led the way in earnings,

providing gains of +15.6%, year-over-year. The Communication Services sector was close behind at a +10.6% pace. Industrials (-8.4%) and Energy (-26.0%) both acted as a drag on the index.

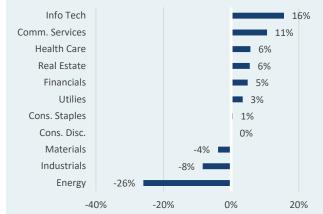
Robust price gains have continued to push valuations higher for the S&P 500, further generating concerns that U.S. equities are *priced for perfection*. Despite this, a resilient economy, interest rate cuts, and decreasing inflation risks arguably provide some fundamental justification for richer prices. Investors will be looking for these conditions to persist, specifically the trajectory of earnings and a path to profitability for recent substantial investments into artificial intelligence capabilities.

S&P 500 PRICE INDEX



Source: Standard & Poor's, as of 9/30/24

S&P 500 BLENDED EPS GROWTH (YOY)



Source: Factset, as of 9/30/24

S&P 500 EPS GROWTH (YEAR-OVER-YEAR)



Source: Factset, Verus, as of 10/18/24



Domestic equity size & style

Small cap and value reversed their run of underperformance. Small cap led large cap by +3.2% (Russell 2000 +9.3% vs. Russell 1000 +6.1%) in Q3, while value outperformed growth by +6.2% (Russell 1000 Value +9.4% vs. Russell 1000 Growth +3.2%). Despite size and style factors performing well during the quarter, both have done poorly over the past year, with small cap and value underperforming by -8.9% and -14.4%, respectively.

Sector performance differences continue to fuel significant volatility across size and style factors. The Information

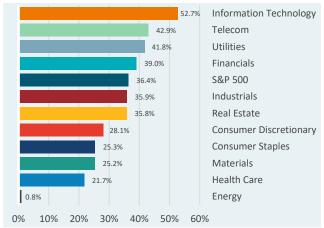
Technology sector, which has a much greater concentration to Growth stocks, has delivered outsize performance. Mega cap technology companies have led other S&P 500 constituents during the past year. On the other hand, the Energy sector which has a much greater concentration of Value stocks, has lagged the overall index considerably over the same time period. For investors who engage in tactical factor timing, the current environment has likely proved particularly difficult to do so profitably.

Despite a strong showing in Q3, small cap and value underperformed by -8.9% and -14.4% over the past year, respectively

VALUE VS. GROWTH 1-YR ROLLING



S&P 500 SECTOR RETURNS (PAST 1 YEAR)



Source: Standard & Poor's, as of 9/30/24

1-YEAR SIZE & STYLE PERFORMANCE

	Value	Core	Growth
Large Cap	27.8%	35.7%	42.2%
Mid Cap	29.0%	29.3%	29.3%
Small Cap	25.9%	26.8%	27.7%

Source: FTSE, as of 9/30/24



Source: FTSE, as of 9/30/24

8

International developed equity

International developed shares (MSCI EAFE +7.3%) outperformed the U.S. market (S&P 500 +5.9%) during the quarter, but trailed emerging market equities (MSCI EM +8.7%). It should be noted that most of this performance was due to currency movements, rather than equity market performance. Unhedged currency exposure contributed +5.8% of the +7.3% index total return.

On a hedged basis, the international developed equity market underperformed the rest of the world (MSCI EAFE Hedged +1.5%). Many developed economies face more sluggish growth, with Europe's largest economy, Germany, now expected to contract -0.2% this year. High energy prices and increased competition with China have weighed on

European manufacturing. The European Union announced duties on these foreign exports with the goal of protecting their manufacturing sector. The European Central Bank has also implemented an accelerated rate cutting cycle in comparison to the U.S., where inflation is under the 2% target, and rate cuts may be necessary to stimulate growth.

Japanese equities saw significant volatility in Q3, as an unexpected rate hike followed by weak U.S. economic data triggered what appeared to be the unwinding of a carry trade, triggering a sharp sell-off. Japanese equities recovered most of these losses, but the MSCI Japan (hedged) ended the guarter down -4.0%.

INTERNATIONAL DEVELOPED EQUITY



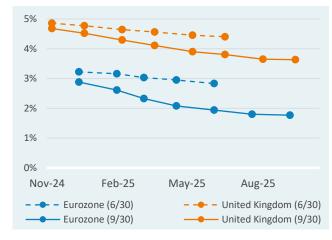
Source: MSCI, as of 9/30/24

MSCI EAFE PERFORMANCE



Source: MSCI, as of 9/30/24

ECB & BOE RATE EXPECTATIONS VS Q2



Source: Bloomberg, as of 9/30/24



Emerging market equity

Emerging market equities (MSCI EM +8.7%) outperformed both international developed (MSCI EAFE +7.3%) and domestic equities (S&P 500 +5.9%) over the quarter. After dragging the index lower for multiple years, Chinese equities delivered an aggressive rally in September on government stimulus news, though in early October this reversed and much of those gains were lost.

China announced an aggressive economic stimulus program in September, with President Xi pledging both fiscal and

monetary support. Spending was specifically aimed at the ailing real estate market, and at mitigating the downward trajectory of the stock market. Those moves followed the People's Bank of China rate cut from 2.3% to 2.0%. It is not yet clear whether these developments will be sufficient to help turn around the Chinese economy, which faces serious structural issues such as a declining population, shrinking workforce, and a real estate crisis due to substantial excess inventory.

EMERGING MARKET EQUITY



MSCI EM 2024 SECTOR RETURNS YTD (USD)



Source: MSCI, J.P. Morgan, as of 9/30/24

CHINA UNDERPERFORMANCE PARTLY REVERSED



Source: MSCI, as of 9/30/24



Source: MSCI, as of 9/30/24

Fixed income environment

- On September 18th, the Federal Reserve cut interest rates by 50 bps, bringing the target rate from 5.25-5.50% to 4.75-5.00%. This larger cut surprised many investors who still see inflation risks and a generally strong economy. This move likely kicks off a multi-year period of cuts as the Fed brings interest rates towards what they believe to be a more neutral level. Investors have now focused sharply on what the neutral interest rate level, or "R-star", might be today.
- The 10-year U.S. Treasury yield fell from 4.36% to 3.79% during the quarter, alongside a series of economic data releases that suggested inflation is moving further towards the Fed's 2% target, and that the labor market is softening. Interestingly, yields moved slightly higher in late September after the Fed rate cut.
- Most credit indices saw positive returns, rising with the rest of the fixed income universe. However, greater credit risk only provided marginally higher returns, with high

- yield outperforming investment grade by +0.1%. Bank Loans (S&P/LSTA Leveraged Loan) underperformed other major fixed income indices, as the floating rate nature (and ultra-low duration) of bank loans meant these bonds did not benefit from the decline in yields.
- The U.S. yield curve uninverted during the quarter, indicated by the 10-year minus the 2-year Treasury yield, as shorter-term interest rates dropped along with more aggressive Federal Reserve rate cut expectations. This ended more that two years of yield curve inversion.
- Default activity remained low in Q3 as the economy remained strong. High yield bond default rates continued to decline, falling to 1.4%, down from 2.2% a year ago and well below the long-term annual average of 3.4%. However, distressed exchange activity was high. Total distressed credit volume was roughly \$13.5 billion, the second largest quarterly total on record (since Q4 2008).

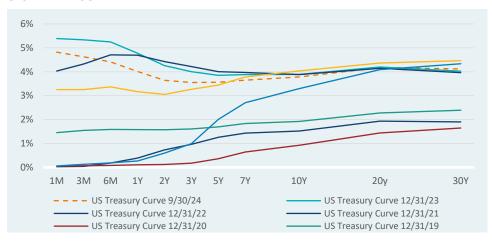
	QTD Total Return	1 Year Total Return
Core Fixed Income (Bloomberg U.S. Aggregate)	5.2%	11.6%
Core Plus Fixed Income (Bloomberg U.S. Universal)	5.2%	12.1%
U.S. Treasuries (Bloomberg U.S. Treasury)	4.7%	9.7%
U.S. Treasuries: Long (Bloomberg U.S. Treasury 20+)	8.0%	15.2%
U.S. High Yield (Bloomberg U.S. Corporate HY)	5.3%	15.7%
Bank Loans (S&P/LSTA Leveraged Loan)	2.1%	9.6%
Emerging Market Debt Local (JPM GBI-EM Global Diversified)	9.0%	13.4%
Emerging Market Debt Hard (JPM EMBI Global Diversified)	6.2%	18.6%
Mortgage-Backed Securities (Bloomberg MBS)	5.5%	12.3%

Source: Standard & Poor's, J.P. Morgan, Bloomberg, as of 9/30/24

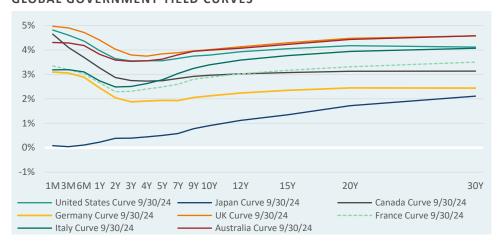


Yield environment

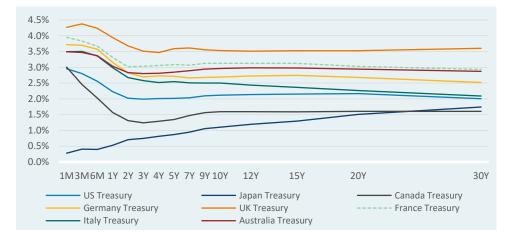
U.S. YIELD CURVE



GLOBAL GOVERNMENT YIELD CURVES



YIELD CURVE CHANGES OVER LAST FIVE YEARS



IMPLIED CHANGES OVER NEXT YEAR



Source: Bloomberg, as of 9/30/24



Currency

U.S. dollar weakness resulted in gains for investors with unhedged foreign currency exposure. Market expectations for Federal Reserve rate cuts have become fairly aggressive over the past month, following the surprise 50 basis point cut on September 18th. This has contributed to dollar weakness— expectations for lower rates in the future make holding the U.S. dollars less attractive.

Investors without a currency hedging program gained +5.8% from their international developed equity exposure (MSCI EAFE) during the quarter due to currency movements, and +3.9% over the past year. The return impact from unhedged Japanese currency exposure, which has delivered extreme losses in recent quarters, sharply reversed direction and resulted in a +10.9% gain (represented by the TOPIX Index).

A more thoughtful portfolio approach to currency exposure has provided the dual benefit of lower portfolio volatility and also higher returns—a rare proposition in markets. This approach involves reducing the uncompensated risk of unhedged foreign currency exposure, and instead of unhedged exposure, making 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. This approach, represented by the MSCI Currency Factor Mix Index—has offered a positive one-year rolling return over most periods with far lower volatility than the unhedged currency exposure that many investors hold. The past year of intense currency market volatility is testament to this approach.

EFFECT OF CURRENCY (1-YEAR ROLLING)



U.S. DOLLAR MAJOR CURRENCY INDEX



Source: FRED, Verus, as of 9/30/24

EMBEDDED CURRENCY VS CURRENCY FACTORS



Source: MSCI, Verus, as of 9/30/24 "Embedded Currency Exposure" is the currency return impact from not hedging currency risk



Source: MSCI, Verus, as of 9/30/24

Detailed index returns

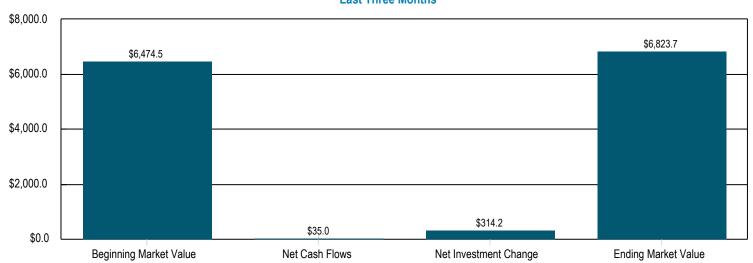
DOMESTIC EQUITY								FIXED INCOME							
	Month	QTD	YTD	1 Year	3 Year	5 Year	10 Year		Month	QTD	YTD	1 Year	3 Year	5 Year	10 Year
Core Index								Broad Index							
S&P 500	2.1	5.9	22.1	36.4	11.9	16.0	13.4	Bloomberg US TIPS	1.5	4.1	4.9	9.8	(0.6)	2.6	2.5
S&P 500 Equal Weighted	2.3	9.6	15.2	28.8	8.2	12.8	11.1	Bloomberg US Treasury Bills	0.5	1.4	4.1	5.6	3.5	2.3	1.7
DJ Industrial Average	2.0	8.7	13.9	28.8	10.0	11.8	12.0	Bloomberg US Agg Bond	1.3	5.2	4.4	11.6	(1.4)	0.3	1.8
Russell Top 200	2.1	5.2	23.3	37.7	12.6	17.2	14.1	Bloomberg US Universal	1.4	5.2	4.9	12.1	(1.1)	0.7	2.2
Russell 1000	2.1	6.1	21.2	35.7	10.8	15.6	13.1	Duration							
Russell 2000	0.7	9.3	11.2	26.8	1.8	9.4	8.8	Bloomberg US Treasury 1-3 Yr	0.8	2.9	4.1	6.8	1.3	1.5	1.4
Russell 3000	2.1	6.2	20.6	35.2	10.3	15.3	12.8	Bloomberg US Treasury Long	2.0	7.8	2.4	15.4	(8.4)	(4.3)	1.1
Russell Mid Cap	2.2	9.2	14.6	29.3	5.8	11.3	10.2	Bloomberg US Treasury	1.2	4.7	3.8	9.7	(1.8)	(0.2)	1.3
Style Index								Issuer							
Russell 1000 Growth	2.8	3.2	24.5	42.2	12.0	19.7	16.5	Bloomberg US MBS	1.2	5.5	4.5	12.3	(1.2)	0.0	1.4
Russell 1000 Value	1.4	9.4	16.7	27.8	9.0	10.7	9.2	Bloomberg US Corp. High Yield	1.6	5.3	8.0	15.7	3.1	4.7	5.0
Russell 2000 Growth	1.3	8.4	13.2	27.7	(0.4)	8.8	8.9	Bloomberg US Agency Interm	0.9	3.1	4.2	7.5	0.5	1.1	1.5
Russell 2000 Value	0.1	10.2	9.2	25.9	3.8	9.3	8.2	Bloomberg US Credit	1.7	5.7	5.2	13.8	(1.1)	1.1	2.8
INTERNATIONAL EQUITY								OTHER							
Broad Index								Index							
MSCI ACWI	2.3	6.6	18.7	31.8	8.1	12.2	9.4	Bloomberg Commodity	4.9	0.7	5.9	1.0	3.7	7.8	0.0
MSCI ACWI ex US	2.7	8.1	14.2	25.4	4.1	7.6	5.2	Wilshire US REIT	2.6	15.2	14.9	33.6	4.6	5.4	7.8
MSCI EAFE	0.9	7.3	13.0	24.8	5.5	8.2	5.7	CS Leveraged Loans	0.7	2.1	6.6	9.7	6.3	5.6	4.9
MSCI EM	6.7	8.7	16.9	26.1	0.4	5.7	4.0	S&P Global Infrastructure	3.8	13.4	18.0	30.9	9.6	6.9	6.3
MSCI EAFE Small Cap	2.6	10.5	11.1	23.5	(0.4)	6.4	6.2	Alerian MLP	(0.4)	0.7	20.0	23.6	25.3	12.5	1.6
Style Index								Regional Index							
MSCI EAFE Growth	0.4	5.7	12.3	26.5	1.9	7.7	6.6	JPM EMBI Global Div	1.8	6.2	8.6	18.6	(0.4)	0.9	3.3
MSCI EAFE Value	1.4	8.9	13.8	23.1	8.9	8.3	4.6	JPM GBI-EM Global Div	3.4	9.0	4.9	13.4	0.6	0.6	0.6
Regional Index								Hedge Funds							
MSCI UK	0.3	7.9	15.4	23.3	9.8	7.9	4.1	HFRI Composite	0.3	1.3	6.2	10.7	3.4	7.0	4.9
MSCI Japan	(0.6)	5.7	12.4	21.6	2.7	7.1	6.4	HFRI FOF Composite	0.2	1.1	6.0	9.3	2.3	5.3	3.6
MSCI Euro	1.8	6.9	12.8	27.3	6.7	9.1	5.7	Currency (Spot)							
MSCI EM Asia	8.0	9.5	21.6	29.7	0.8	7.2	5.6	Euro	0.8	4.1	1.0	5.4	(1.3)	0.5	(1.2)
MSCI EM Latin American	0.1	3.7	(12.5)	2.8	7.2	2.1	0.6	Pound Sterling	2.1	6.1	5.2	9.9	(0.2)	1.7	(1.9)
								Yen	1.8	12.5	(1.4)	4.3	(8.0)	(5.5)	(2.6)

Source: Morningstar, HFRI, as of 9/30/24



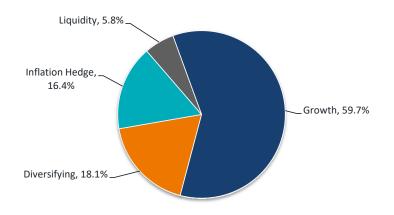
Portfolio Reconciliation								
	3 Mo	1 Yr						
Beginning Market Value	\$6,474,493,630	\$5,924,747,612						
Net Cash Flows	\$34,974,448	-\$68,212,934						
Net Investment Change	\$314,210,176	\$967,143,576						
Ending Market Value	\$6.823.678.255	\$6.823.678.255						

Change in Market Value Last Three Months



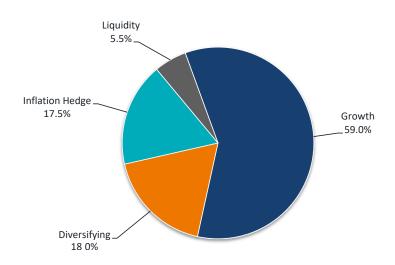


Current w/ Overlay



ASSET ALLOCATION	MARKET VALUE W/	W/ OVERLAY	W/O OVERLAY
Growth	4,071,321,231	59.7%	58.9%
Diversifying	1,238,245,988	18.1%	18.3%
Inflation Hedge	1,119,941,910	16.4%	16.2%
Liquidity	394,169,125	5.8%	6.6%
TOTAL	6,823,678,255	100.0%	100.0%

Target



ASSET ALLOCATION	W/ OVERLAY	TARGET	DIFF
Growth	59.7%	59.0%	0.7%
Diversifying	18.1%	18.0%	0.1%
Inflation Hedge	16.4%	17.5%	-1.1%
Liquidity	5.8%	5.5%	0.3%
TOTAL	100.0%	100.0%	0.0%



		Statistics Summa 3 Years	ary		
	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio	Information Ratio	Tracking Error
Total Fund	4.3 (60)	7.4 (16)	0.1 (57)	-0.6 (80)	2.1 (5)
Policy Index	5.5 (17)	8.6 (32)	0.3 (15)	-	0.0
Simple Benchmark	4.2 (63)	10.8 (78)	0.1 (66)	-0.4 (57)	2.9 (62)
InvMetrics Public DB > \$1B Median	4.6	9.2	0.2	-0.3	2.7
		Statistics Summa 5 Years	ary		
	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio	Information Ratio	Tracking Error
Total Fund	7.0 (89)	8.4 (18)	0.6 (52)	-0.5 (94)	2.3 (5)
Policy Index	8.1 (47)	9.0 (25)	0.7 (26)	-	0.0
Simple Benchmark	7.8 (64)	10.9 (69)	0.5 (78)	0.0 (64)	2.8 (38)
InvMetrics Public DB > \$1B Median	8.0	9.9	0.6	0.0	3.0
		Statistics Summa 10 Years	ary		
	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio	Information Ratio	Tracking Error
Total Fund	6.7 (66)	7.4 (21)	0.7 (37)	-0.4 (84)	1.8 (1)
Policy Index	7.4 (27)	7.9 (33)	0.7 (25)	-	0.0
Simple Benchmark	7.1 (46)	9.3 (74)	0.6 (65)	-0.1 (41)	2.2 (22)
InvMetrics Public DB > \$1B Median	7.0	8.3	0.7	-0.1	2.4



SamCERA September 30, 2024

- The Total Fund, net of manager fees, returned 4.4% in the third quarter of 2024 and in the ranked 68th percentile among other public plans greater than \$1 billion (median of 4.7%). It lagged the policy index return of 4.5%. The Total Fund ex Overlay returned 4.3% for the quarter. The Total Fund one-year return of 15.9% lagged the policy index return of 18.1% and ranked in the 67th percentile of its peer universe. The three-year return of 4.3% (60th percentile) lagged the median large public plan (4.6%) and lagged the policy index (5.5%).
 - Third quarter results were enhanced by the following factors:
 - 1. PanAgora Low Vol outperformed the Russell 1000 Index (9.8% vs 6.1%) due to a shift in market sentiment from growth stocks to low volatility/value stocks.
 - 2. Mondrian gained 11.2% outperforming the MSCI World ex US Value (9.4%), and ranked in the 7th percentile of peers. Mondrian's value approach was a tailwind due to the shift in market preference towards value stocks.
 - Third quarter results were hindered by the following factors:
 - 1. Absolute return managers lagged during the third quarter. Quantitative managers underperformed due to the volatility in the markets, particularly when the Bank of Japan raised rates in August.

Total Fund** Policy Index	6,823,678,255	100.0	4.4 (68)	0.0 (57)						
Policy Index			(/	9.8 (57)	4.4 (68)	15.9 (67)	11.7 (79)	4.3 (60)	7.0 (89)	6.7 (66)
			4.5 (60)	11.9 (13)	4.5 (60)	18.1 (34)	14.2 (34)	5.5 (17)	8.1 (47)	7.4 (27)
Simple Benchmark			5.2 (29)	10.9 (26)	5.2 (29)	18.8 (27)	13.9 (40)	4.2 (63)	7.8 (64)	7.1 (46)
InvMetrics Public DB > \$1B			4.7	9.9	4.7	17.5	13.7	4.6	8.0	7.0
Total Fund ex Overlay	6,807,928,178	99.8	4.3 (69)	9.7 (58)	4.3 (69)	15.8 (68)	11.5 (79)	4.2 (62)	7.0 (90)	6.6 (69)
Policy Index			4.5 (60)	11.9 (13)	4.5 (60)	18.1 (34)	14.2 (34)	5.5 (17)	8.1 (47)	7.4 (27)
Simple Benchmark			5.2 (29)	10.9 (26)	5.2 (29)	18.8 (27)	13.9 (40)	4.2 (63)	7.8 (64)	7.1 (46)
InvMetrics Public DB > \$1B			4.7	9.9	4.7	17.5	13.7	4.6	8.0	7.0
Growth Portfolio	4,071,321,231	59.7	5.7	13.8	5.7	22.7	18.7			
Blended Growth Index			5.4	17.3	5.4	26.8	22.8	8.1	11.9	-
US Equity	1,629,707,063	23.9	7.5 (4)	20.8 (10)	7.5 (4)	34.1 (36)	25.3 (64)	11.0 (9)	13.7 (73)	11.9 (64)
Blended US Equity Index			6.2 (51)	20.6 (14)	6.2 (51)	35.2 (16)	27.6 (19)	10.3 (23)	15.3 (20)	12.8 (19)
Russell 3000 Index			6.2 (51)	20.6 (14)	6.2 (51)	35.2 (16)	27.6 (19)	10.3 (23)	15.3 (20)	12.8 (20)
BlackRock Russell 1000	953,703,281	14.0	6.1 (40)	21.2 (43)	6.1 (40)	35.7 (39)	28.3 (33)	10.8 (46)	15.6 (29)	-
DE Shaw	258,659,706	3.8	8.9 (8)	28.6 (3)	8.9 (8)	41.2 (7)	28.7 (28)	12.9 (15)	15.6 (31)	13.4 (14)
PanAgora Defuseq	275,176,857	4.0	9.8 (3)	16.6 (77)	9.8 (3)	25.6 (88)	16.3 (99)	8.7 (78)	9.0 (97)	-
Russell 1000 Index			6.1 (40)	21.2 (43)	6.1 (40)	35.7 (39)	28.2 (33)	10.8 (46)	15.6 (29)	13.1 (24)
eV US Large Cap Core Equity Median			5.7	20.3	5.7	34.1	26.5	10.5	14.4	12.2
PGIM Quant Solutions	134,356,232	2.0	9.8 (26)	12.2 (44)	9.8 (26)	26.4 (39)	22.3 (21)	7.6 (21)	11.0 (54)	-
Russell 2000 Index			9.3 (39)	11.2 (55)	9.3 (39)	26.8 (37)	17.5 (66)	1.8 (80)	9.4 (78)	8.8 (74)
eV US Small Cap Core Equity Median			8.5	11.6	8.5	25.3	19.4	5.0	11.1	9.5
International Equity	1,286,635,700	18.9	6.0 (81)	11.9 (86)	6.0 (81)	21.4 (93)	21.2 (81)	3.2 (59)	7.8 (55)	5.7 (36)
Blended International Equity Index			5.9 (82)	14.6 (17)	5.9 (82)	23.7 (60)	21.7 (77)	5.9 (10)	8.9 (24)	6.2 (24)
International Equity x Currency Overlay	1,292,309,024	18.9	9.2	14.0	9.2	25.3	22.1	3.7	8.1	5.9
Blended International Equity Index			5.9	14.6	5.9	23.7	21.7	5.9	8.9	6.2
Baillie Gifford	318,710,768	4.7	9.7 (12)	12.9 (40)	9.7 (12)	25.7 (46)	19.1 (70)	-4.6 (77)	6.0 (83)	5.8 (80)
MSCI ACWI ex US			8.2 (28)	14.7 (22)	8.2 (28)	26.0 (41)	23.5 (26)	4.7 (11)	8.1 (44)	5.7 (82)
MSCI ACWI ex US Growth			7.0 (44)	14.3 (24)	7.0 (44)	27.1 (29)	21.5 (54)	1.1 (35)	7.4 (57)	6.3 (65)
Mondrian	320,835,532	4.7	11.2 (7)	15.1 (24)	11.2 (7)	25.5 (22)	26.0 (30)	6.3 (45)	7.3 (79)	4.6 (76)
MSCI AC World ex USA Value			9.4 (25)	15.1 (24)	9.4 (25)	24.9 (27)	25.5 (36)	8.2 (19)	8.5 (58)	4.9 (68)
MSCI AC World ex USA Index			8.2 (40)	14.7 (27)	8.2 (40)	26.0 (17)	23.5 (59)	4.7 (71)	8.1 (61)	5.7 (37)
BlackRock MSCI ACWI EX-US IMI	652,093,294	9.6	8.1 (28)	14.0 (32)	8.1 (28)	25.0 (41)	22.7 (45)	3.9 (49)	-	-
MSCI AC World ex USA IMI (Net)			8.2 (23)	13.9 (33)	8.2 (23)	25.1 (41)	22.6 (48)	3.7 (54)	7.7 (61)	5.3 (74)
Record Dynamic Currency Hedge	-5,673,324	-0.1	8.6	2,241.6	8.6	-1,198.0	-	-	-	-

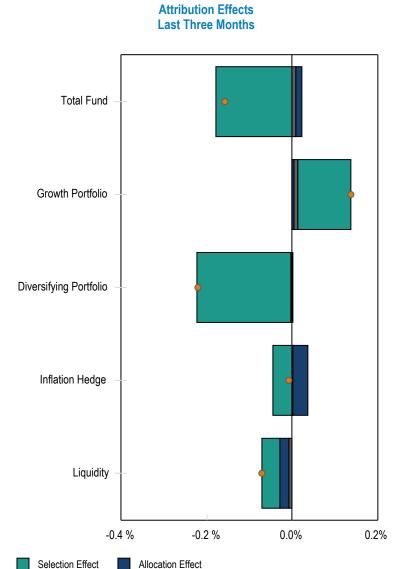
	Market Value	% of Portfolio	3 Mo Rank	YTD	Fiscal YTD	1 Yr Rank	2 Yrs Rank	3 Yrs Rank	5 Yrs Rank	10 Yrs Rank
Private Equity***	450,610,461	6.6	1.7 (20)	7.5 (11)	1.7 (20)	9.5 (8)	6.4 (25)	-0.3 (82)	16.2 (15)	17.5 (4)
Blended Private Equity Index			3.1 (3)	28.8 (1)	3.1 (3)	26.1 (1)	24.0 (1)	11.1 (2)	17.2 (10)	15.1 (12)
Opportunistic Credit	704,368,007	10.3	3.4	6.1	3.4	10.3	-	-		-
Opportunistic Credit Index			4.4	7.9	4.4	14.5	12.4	3.9	5.0	5.0
Public Credit	503,435,391	7.4	4.5	7.3	4.5	13.0	10.2	3.9	5.0	5.3
Blmbg. U.S. Corp: High Yield Index			5.3	8.0	5.3	15.7	13.0	3.1	4.7	5.0
Beach Point Select	118,274,631	1.7	4.0 (68)	7.3 (53)	4.0 (68)	12.1 (85)	11.0 (78)	5.6 (4)	8.2 (1)	-
Brigade Capital	115,717,668	1.7	6.0 (3)	8.9 (6)	6.0 (3)	12.3 (83)	9.6 (89)	3.1 (51)	5.7 (13)	4.7 (44)
One William Street	67,976,680	1.0	2.2 (99)	7.8 (28)	2.2 (99)	10.5 (93)	-	-	-	-
Blmbg. U.S. Corp: High Yield Index			5.3 (11)	8.0 (25)	5.3 (11)	15.7 (13)	13.0 (16)	3.1 (52)	4.7 (36)	5.0 (23)
eV US High Yield Fixed Inc Median			4.4	7.3	4.4	14.3	11.9	3.1	4.4	4.6
PIMCO Diversified	137,370,349	2.0	5.1 (23)	7.0 (75)	5.1 (23)	15.3 (40)	11.2 (84)	0.6 (100)	2.0 (100)	-
Blmbg. U.S. Corp: High Yield Index			5.3 (14)	8.0 (40)	5.3 (14)	15.7 (25)	13.0 (39)	3.1 (72)	4.7 (61)	5.0 (59)
Eaton Vance Emerging Markets Debt Opportunities Fund	64,096,064	0.9	4.1 (94)	-	4.1 (94)	-	-	-	-	-
JPM EMB (JEMB) Hard Currency/Local Currency 50-50			7.2 (32)	6.8 (68)	7.2 (32)	15.0 (79)	13.1 (74)	0.5 (72)	1.3 (83)	2.2 (69)
eV Emg Mkts Fixed Inc - Blended Currency			6.6	7.6	6.6	17.4	14.6	1.0	1.9	2.6
Private Credit	200,932,616	2.9	0.8	3.0	0.8	3.1	4.5	4.1	5.4	-
Credit Suisse Leveraged Loan Index 1 Qtr Lag			1.9	7.4	1.9	11.0	10.6	6.0	5.4	4.6
AG CSF ADF II	3,631,108	0.1	5.2	6.0	5.2	13.4	-	-	-	-
AG CSF II	24,026,997	0.4	4.0	8.4	4.0	14.2	14.0	-	-	-
Angelo Gordon Credit Solutions	6,455,317	0.1	3.1 (89)	5.6 (93)	3.1 (89)	10.6 (93)	8.8 (96)	4.9 (6)	-	-
Blackrock DL Feeder IX-U	39,185,628	0.6	0.0	1.5	0.0	3.7	6.1	5.4	-	-
Comvest Credit Partners VII	6,447,560	0.1	0.0	-	0.0	-	-	-	-	-
PIMCO Private Income	49,716,568	0.7	0.0	4.2	0.0	5.2	5.2	4.0	6.6	-
TCP Direct Lending VIII	9,739,114	0.1	2.1	3.6	2.1	5.6	6.3	5.0	5.5	-
White Oak Yield	29,812,350	0.4	0.0	4.4	0.0	5.3	3.8	4.6	5.0	-
White Oak YSF V	31,917,973	0.5	0.0 (100)	3.3 (100)	0.0 (100)	1.9 (100)	0.8 (100)	1.5 (96)	-	-
Credit Suisse Leveraged Loan Index 1 Qtr Lag			1.9 (100)	7.4 (48)	1.9 (100)	11.0 (91)	10.6 (84)	6.0 (3)	5.4 (18)	4.6 (52)
eV US High Yield Fixed Inc Median			4.4	7.3	4.4	14.3	11.9	3.1	4.4	4.6

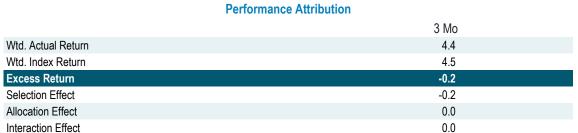
	Market Value	% of Portfolio	3 Mo Rank	YTD	Fiscal YTD	1 Yr Rank	2 Yrs Rank	3 Yrs Rank	5 Yrs Rank	10 Yrs Rank
Diversifying Portfolio	1,238,245,988	18.1	3.5	4.2	3.5	9.2	3.9			•
Blended Diversifying Index			4.7	5.0	4.7	11.6	6.6	1.4	2.2	3.1
Defensive Fixed Income	918,223,163	13.5	5.6	4.2	5.6	13.0	6.1	-1.4	0.7	2.1
Blended Defensive Fixed Income Benchmark			5.8	4.0	5.8	12.6	5.3	-1.8	0.1	1.7
DoubleLine	274,670,494	4.0	5.4 (28)	5.9 (48)	5.4 (28)	12.9 (23)	6.6 (44)	-1.1 (76)	-	-
Blmbg. U.S. Aggregate Index			5.2 (39)	4.4 (88)	5.2 (39)	11.6 (68)	6.0 (68)	-1.4 (88)	0.3 (68)	1.8 (59)
eV US Securitized Fixed Inc Median			4.5	5.8	4.5	12.2	6.5	0.1	1.2	2.3
FIAM Bond	194,283,357	2.8	5.1 (54)	4.8 (49)	5.1 (54)	12.2 (31)	6.6 (24)	-0.9 (24)	1.3 (10)	2.5 (6)
NISA Core Bond	296,032,763	4.3	5.2 (40)	4.6 (75)	5.2 (40)	11.7 (64)	6.2 (63)	-1.1 (41)	-	-
Blmbg. U.S. Aggregate Index			5.2 (42)	4.4 (85)	5.2 (42)	11.6 (71)	6.0 (77)	-1.4 (72)	0.3 (85)	1.8 (78)
eV US Core Fixed Inc Median			5.2	4.8	5.2	11.9	6.3	-1.2	0.7	2.1
NISA Long Treasury	140,245,151	2.1	7.8	2.4	7.8	15.6	-	-	-	-
Blmbg. U.S. Treasury: Long			7.8	2.4	7.8	15.4	2.4	-8.4	-4.3	1.1
Absolute Return	320,022,825	4.7	-2.2 (93)	2.8 (80)	-2.2 (93)	0.2 (89)	-1.1 (87)	3.6 (54)	1.0 (82)	1.2 (82)
Absolute Return Custom Index			2.3 (26)	6.9 (54)	2.3 (26)	9.4 (60)	9.1 (49)	7.6 (11)	6.4 (44)	5.8 (12)
CFM Systematic Global Macro	113,693,468	1.7	4.0 (43)	3.9 (82)	4.0 (43)	9.3 (65)	-1.4 (94)	5.0 (52)	-	-
Graham Quant Macro	97,486,839	1.4	-10.1 (100)	2.5 (87)	-10.1 (100)	-6.1 (96)	-0.9 (94)	5.8 (46)	-	-
PIMCO MAARS Fund LP	108,842,518	1.6	-0.5 (88)	7.7 (55)	-0.5 (88)	6.3 (77)	3.2 (83)	10.8 (20)	-	-
Absolute Return Custom Index			2.3 (61)	6.9 (61)	2.3 (61)	9.4 (65)	9.1 (53)	7.6 (35)	6.4 (57)	5.8 (51)
eV Alt All Multi-Strategy Median			3.3	8.4	3.3	12.0	9.7	5.2	7.0	5.8
Inflation Hedge	1,119,941,910	16.4	1.6	4.0	1.6	3.6	0.7	3.7	4.1	-
Blended Inflation Hedge Index			1.8	4.0	1.8	0.6	-1.6	3.3	5.4	5.1
Real Estate	465,534,714	6.8	-0.5 (82)	-2.5 (66)	-0.5 (82)	-6.6 (64)	-7.2 (61)	-0.1 (76)	2.6 (55)	6.1 (12)
NCREIF ODCE			0.2 (61)	-2.6 (67)	0.2 (61)	-7.3 (68)	-9.7 (87)	-0.2 (80)	2.9 (43)	6.1 (12)
Harrison Street Core Property	90,318,057	1.3	-0.1	-1.5	-0.1	-4.9	-4.0	1.6	-	-
Invesco	222,848,719	3.3	-1.0	-5.8	-1.0	-10.2	-11.5	-2.1	1.4	5.4
Invesco US Val IV	99,531	0.0	-0.2	-15.0	-0.2	-31.6	-42.5	-41.0	-25.4	-
Invesco US Val V	22,961,470	0.3	-0.7	-3.2	-0.7	-26.2	-18.3	-10.1	-0.7	-
Invesco US Val VI	24,355,357	0.4	0.0	10.5	0.0	-3.4	-4.3	-	-	-
PGIM RE US Debt Fund	72,917,325	1.1	1.7	5.0	1.7	6.4	6.5	6.2	5.7	-
NCREIF ODCE			0.2	-2.6	0.2	-7.3	-9.7	-0.2	2.9	6.1
Stockbridge Value IV	25,426,593	0.4	-3.0	-6.6	-3.0	-6.5	-4.4	6.8	-	-
Stockbridge Value V	6,607,662	0.1	-0.9	-	-0.9	-	-	-	-	-
NCREIF ODCE			0.2	-2.6	0.2	-7.3	-9.7	-0.2	2.9	6.1



Total Fund Performance Summary (Net of Fees)

	Market Value	% of Portfolio	3 Mo Rank	YTD	Fiscal YTD	1 Yr Rank	2 Yrs Rank	3 Yrs Rank	5 Yrs Rank	10 Yrs Rank
Private Real Assets	406,933,336	6.0	1.6	9.9	1.6	14.4	8.6	8.9	11.1	7.9
Blended Private Real Assets Index			2.2	13.0	2.2	7.9	7.0	7.4	6.8	6.4
Blended Secondary CA Private RA Index			2.1	6.0	2.1	8.3	7.6	11.6	8.8	6.5
Private Real Asset***	277,272,367	4.1	1.5	8.8	1.5	13.2	8.0	8.5	10.9	-
Brookfield Super-Core Infrastructure Partners	66,770,054	1.0	1.9	8.2	1.9	10.1	8.9	-	-	-
KKR Diversified Core Infrastructure Fund	62,890,915	0.9	1.9	6.2	1.9	7.1	-	-	-	-
Public Real Assets	247,473,860	3.6	5.7	8.7	5.7	11.7	7.9	5.4	3.5	-
Blended Public Real Assets Index			5.7	8.7	5.7	12.0	8.0	5.5	6.1	5.6
SSgA Custom Real Assets	247,473,860	3.6	5.7	8.7	5.7	11.7	7.9	5.4	6.1	-
SSgA Custom Real Assets Index			5.7	8.7	5.7	12.0	8.0	5.5	6.1	-
Liquidity	394,169,125	5.8	1.9	4.0	1.9	6.3	5.4	-		
Blended Liquidity Index			2.7	4.3	2.7	6.9	5.0	-	-	-
Cash Flow-Matched Liquidity	300,620,132	4.4	2.1	4.1	2.1	6.6	5.3	-		
Bloomberg U.S. Gov/Credit 1-3 Year Index			3.0	4.4	3.0	7.2	5.0	1.5	1.7	1.6
Bloomberg U.S. Credit 1-3 Year Index			3.1	5.0	3.1	8.1	5.8	2.0	2.2	2.1
Insight Investment*	285,905,001	4.2	2.3	4.4	2.3	6.9	5.6	-	-	-
Bloomberg U.S. Credit 1-3 Year Index			3.1	5.0	3.1	8.1	5.8	2.0	2.2	2.1
County Treasury Pool**	14,715,131	0.2	0.0	1.7	0.0	2.8	3.3	2.5	2.1	2.1
90 Day U.S. Treasury Bill			1.4	4.0	1.4	5.5	5.0	3.5	2.3	1.6
Cash & Cash Overlay	115,020,809	1.7	1.4	4.2	1.4	5.7	5.4	3.9	2.6	1.8
90 Day U.S. Treasury Bill			1.4	4.0	1.4	5.5	5.0	3.5	2.3	1.6
General Account	99,270,731	1.5	1.4	4.2	1.4	5.7	5.4	3.9	2.7	2.6
90 Day U.S. Treasury Bill			1.4	4.0	1.4	5.5	5.0	3.5	2.3	1.6



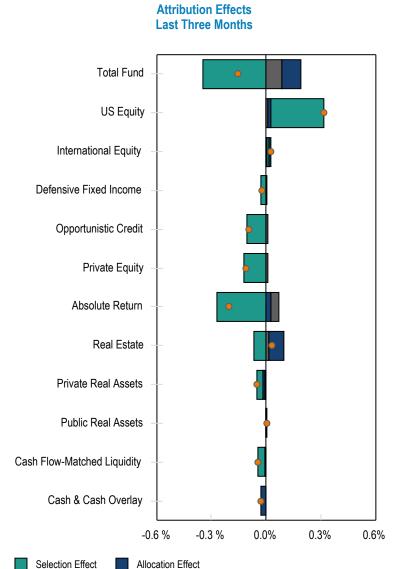


Attribution Summary Last Three Months

	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Interaction Effects	Total Effects
Growth Portfolio	5.7	5.4	0.2	0.1	0.0	0.0	0.1
Diversifying Portfolio	3.5	4.7	-1.2	-0.2	0.0	0.0	-0.2
Inflation Hedge	1.6	1.8	-0.2	0.0	0.0	0.0	0.0
Liquidity	1.9	2.7	-0.8	0.0	0.0	0.0	-0.1
Total Fund	4.4	4.5	-0.2	-0.2	0.0	0.0	-0.2

Interaction Effect

Total Effects



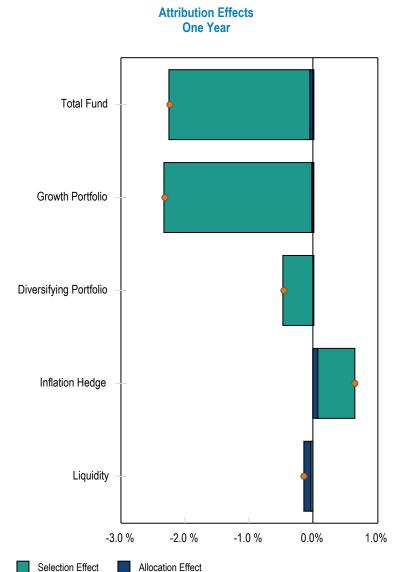
	Performance Attribution
	3 Mo
Wtd. Actual Return	4.4
Wtd. Index Return	4.5
Excess Return	-0.2
Selection Effect	-0.3
Allocation Effect	0.1
Interaction Effect	0.1

Attribution Summary Last Three Months

	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Interaction Effects	Total Effects
US Equity	7.5	6.2	1.3	0.3	0.0	0.0	0.3
International Equity	6.0	5.9	0.0	0.0	0.0	0.0	0.0
Defensive Fixed Income	5.6	5.8	-0.2	0.0	0.0	0.0	0.0
Opportunistic Credit	3.4	4.4	-0.9	-0.1	0.0	0.0	-0.1
Private Equity	1.7	3.1	-1.4	-0.1	0.0	0.0	-0.1
Absolute Return	-2.2	2.3	-4.5	-0.3	0.0	0.0	-0.2
Real Estate	-0.5	0.2	-0.7	-0.1	0.1	0.0	0.0
Private Real Assets	1.6	2.2	-0.5	0.0	0.0	0.0	-0.1
Public Real Assets	5.7	5.7	0.0	0.0	0.0	0.0	0.0
Cash Flow-Matched Liquidity	2.1	3.0	-0.9	0.0	0.0	0.0	0.0
Cash & Cash Overlay	1.4	1.4	0.0	0.0	0.0	0.0	0.0
Total Fund	4.4	4.5	-0.2	-0.3	0.1	0.1	-0.2

Total Effects

Interaction Effect



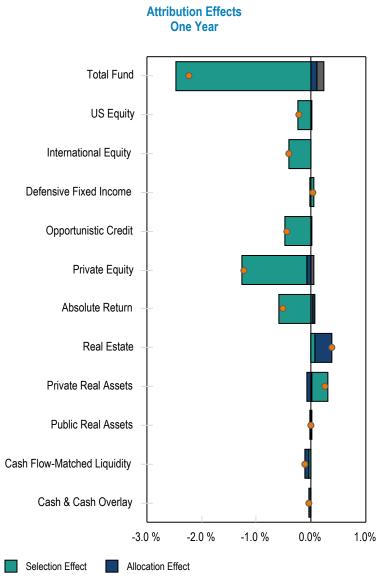
	Performance Attribution
	1 Yr
Wtd. Actual Return	15.9
Wtd. Index Return	18.1
Excess Return	-2.2
Selection Effect	-2.2
Allocation Effect	0.0
Interaction Effect	0.0

Attribution Summary One Year

	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Interaction Effects	Total Effects
Growth Portfolio	22.7	26.8	-4.1	-2.3	0.0	0.0	-2.3
Diversifying Portfolio	9.2	11.6	-2.4	-0.5	0.0	0.0	-0.5
Inflation Hedge	3.6	0.6	3.0	0.6	0.1	0.0	0.7
Liquidity	6.3	6.9	-0.6	0.0	-0.1	0.0	-0.1
Total Fund	15.9	18.1	-2.2	-2.2	0.0	0.0	-2.2

Interaction Effect

Total Effects



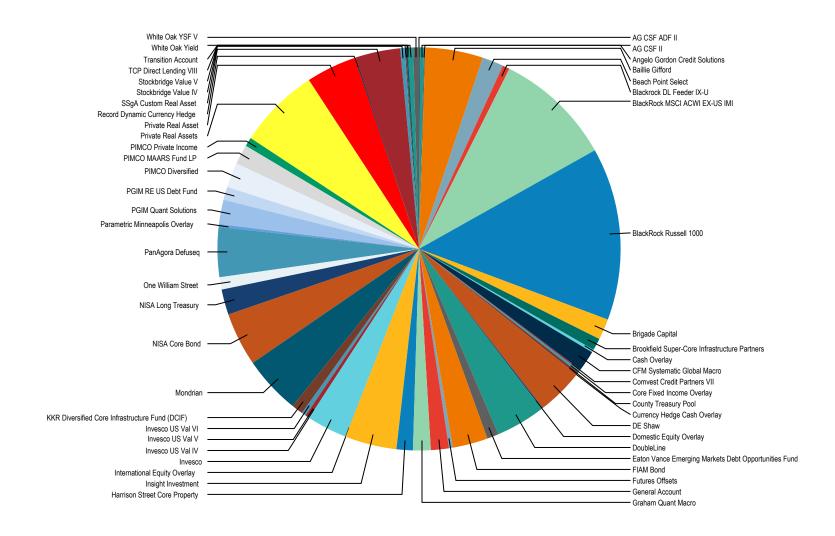
	Performance Attribution
	1 Yr
Wtd. Actual Return	15.9
Wtd. Index Return	18.1
Excess Return	-2.2
Selection Effect	-2.5
Allocation Effect	0.1
Interaction Effect	0.1

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	23.4	23.0	34.1	35.2	-1.1	-0.2	0.0	0.0	-0.2
International Equity	18.3	18.0	21.4	23.7	-2.4	-0.4	0.0	0.0	-0.4
Defensive Fixed Income	12.8	12.5	13.0	12.6	0.4	0.1	0.0	0.0	0.0
Opportunistic Credit	10.7	11.0	10.3	14.5	-4.2	-0.5	0.0	0.0	-0.4
Private Equity	6.7	7.0	9.5	26.1	-16.7	-1.2	-0.1	0.1	-1.2
Absolute Return	5.5	6.0	0.2	9.4	-9.3	-0.6	0.0	0.0	-0.5
Real Estate	7.7	9.0	-6.6	-7.3	0.6	0.1	0.3	0.0	0.4
Private Real Assets	5.5	5.0	14.4	7.9	6.4	0.3	-0.1	0.0	0.3
Public Real Assets	3.1	3.0	11.7	12.0	-0.3	0.0	0.0	0.0	0.0
Cash Flow-Matched Liquidity	4.9	4.5	6.6	7.2	-0.6	0.0	-0.1	0.0	-0.1
Cash & Cash Overlay	1.5	1.0	5.7	5.5	0.2	0.0	0.0	0.0	0.0
Total Fund	100.0	100.0	15.9	18.1	-2.2	-2.5	0.1	0.1	-2.2

Total Effects

Interaction Effect



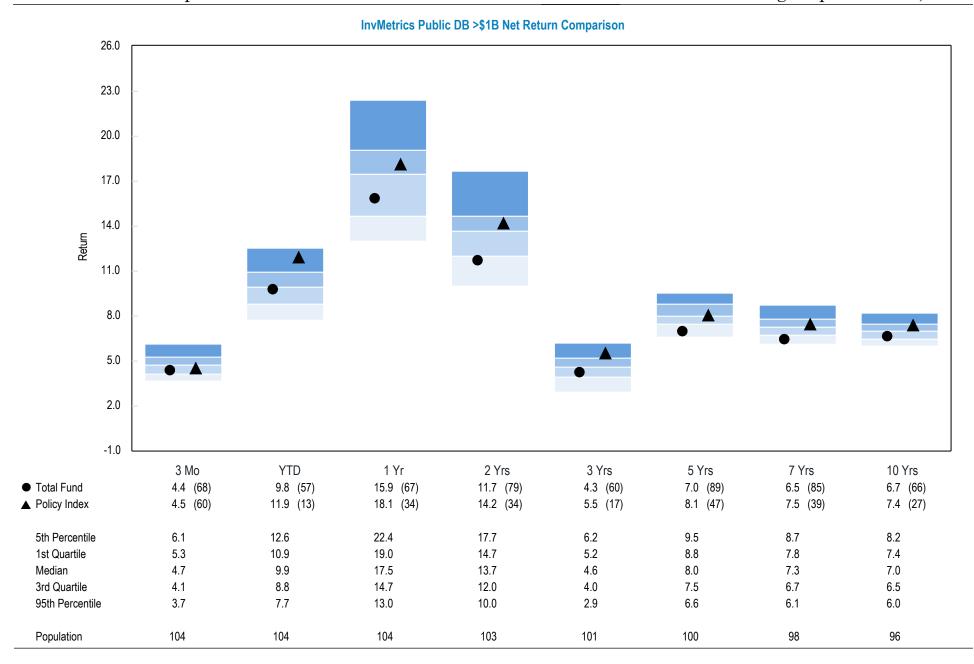


Name	Market Value	% of Portfolio
BlackRock Russell 1000	\$953,703,281	14.0
DE Shaw	\$258,659,706	3.8
PanAgora Defuseq	\$275,176,857	4.0
PGIM Quant Solutions	\$134,356,232	2.0
Domestic Equity Overlay	\$7,810,988	0.1
Baillie Gifford	\$318,710,768	4.7
Mondrian	\$320,835,532	4.7
BlackRock MSCI ACWI EX-US IMI	\$652,093,294	9.6
International Equity Overlay	\$669,430	0.0
DoubleLine	\$274,670,494	4.0
FIAM Bond	\$194,283,357	2.8
NISA Core Bond	\$296,032,763	4.3
NISA Long Treasury	\$140,245,151	2.1
Core Fixed Income Overlay	\$12,991,398	0.2
AG CSF ADF II	\$3,631,108	0.1
AG CSF II	\$24,026,997	0.4
Angelo Gordon Credit Solutions	\$6,455,317	0.1
Beach Point Select	\$118,274,631	1.7
Brigade Capital	\$115,717,668	1.7
PIMCO Diversified	\$137,370,349	2.0
Eaton Vance Emerging Markets Debt Opportunities Fund	\$64,096,064	0.9
Blackrock DL Feeder IX-U	\$39,185,628	0.6
Comvest Credit Partners VII	\$6,447,560	0.1
PIMCO Private Income	\$49,716,568	0.7
TCP Direct Lending VIII	\$9,739,114	0.1
White Oak Yield	\$29,812,350	0.4
White Oak YSF V	\$31,917,973	0.5
Private Equity	\$450,610,461	6.6

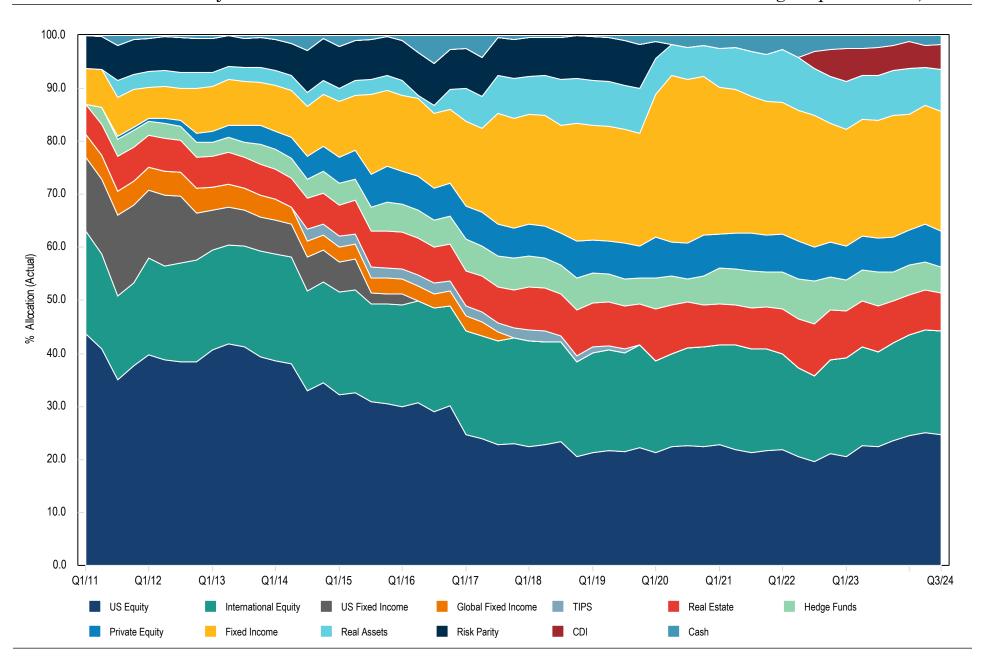


Total Fund Manager Allocation Analysis

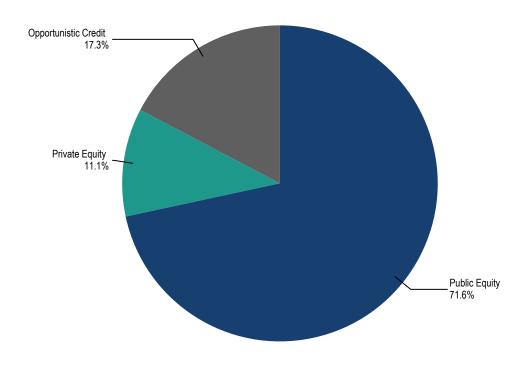
Name	Market Value	% of Portfolio
CFM Systematic Global Macro	\$113,693,468	1.7
Graham Quant Macro	\$97,486,839	1.4
PIMCO MAARS Fund LP	\$108,842,518	1.6
Harrison Street Core Property	\$90,318,057	1.3
Invesco	\$222,848,719	3.3
Invesco US Val IV	\$99,531	0.0
Invesco US Val V	\$22,961,470	0.3
Invesco US Val VI	\$24,355,357	0.4
PGIM RE US Debt Fund	\$72,917,325	1.1
Stockbridge Value IV	\$25,426,593	0.4
Stockbridge Value V	\$6,607,662	0.1
Private Real Assets	\$277,272,367	4.1
Brookfield Super-Core Infrastructure Partners	\$66,770,054	1.0
KKR Diversified Core Infrastructure Fund	\$62,890,915	0.9
SSgA Custom Real Asset	\$247,473,860	3.6
Insight Investment	\$285,905,001	4.2
County Treasury Pool	\$14,715,131	0.2
General Account	\$99,270,731	1.5
Cash Overlay	\$15,750,076	0.2
Transition Account	-	0.0
Futures Offsets	-\$21,471,816	-0.3
Total Fund	\$6,823,678,255	100.0









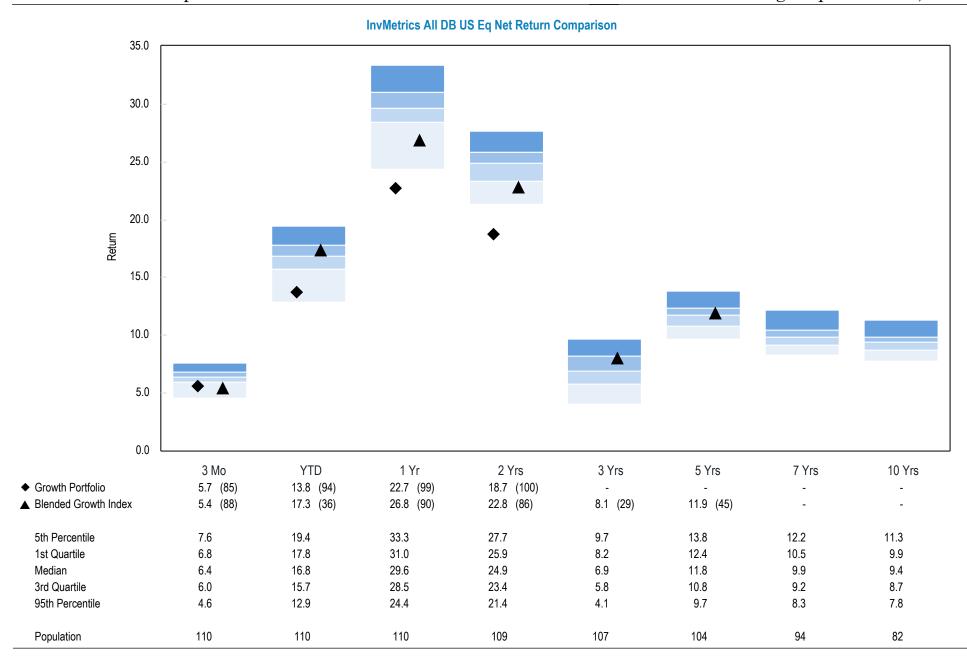


			Manager Contribution to
	Actual \$	Actual %	Excess Return %
US Equity	\$1,629,707,063	40.0%	0.5%
International Equity	\$1,286,635,700	31.6%	0.0%
Private Equity	\$450,610,461	11.1%	-0.2%
Opportunistic Credit	\$704,368,007	17.3%	-0.2%
Actual vs. Policy Weight Difference			0.1%
Total	\$4,071,321,231	100.0%	0.3%

Statistics Summary 3 Years

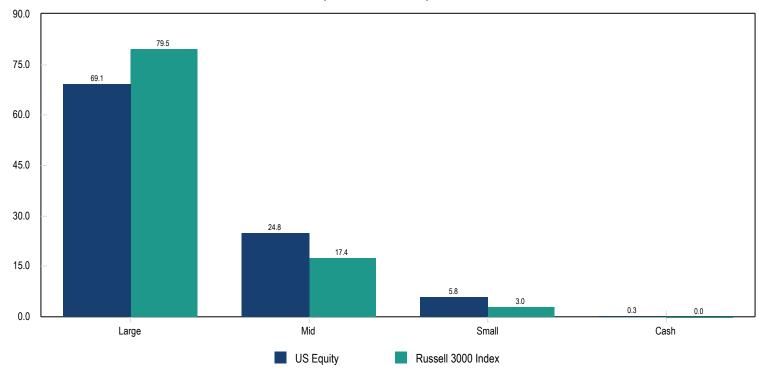
	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio	Information Ratio	Tracking Error
Growth Portfolio	22.7	7.5	2.1	-1.4	2.4
Blended Growth Index	26.8	8.1	2.4	-	0.0
US Equity	34.1	11.5	2.2	-0.6	1.5
Blended US Equity Index	35.2	12.1	2.2	-	0.0
International Equity	21.4	10.2	1.4	-1.1	1.8
Blended International Equity Index	23.7	9.6	1.7	-	0.0
Private Equity	9.5	7.4	0.5	-0.9	16.7
Blended Private Equity Index	26.1	14.4	1.3	-	0.0
Opportunistic Credit	10.3	3.3	1.4	-2.6	1.5
Opportunistic Credit Index	14.5	4.1	2.1	-	0.0













Characteristics Characteristics Characteristics				
	Portfolio	Benchmark		
Number of Stocks	2,063	2,987		
Wtd. Avg. Mkt. Cap \$M	689,253.0	851,764.6		
Median Mkt. Cap \$M	4,456.9	2,253.1		
Price/Earnings ratio	24.9	26.9		
Current Yield (%)	1.4	1.3		
Beta (5 Years, Monthly)	0.9	1.0		
Price/Book ratio	4.2	4.7		
Return on Equity (%)	8.7	9.5		

Top Holdings		Best Perform	Best Performers		Worst Performers	
	(%)		Return (%)		Return (%)	
Microsoft Corp	5.0	Lumen Technologies Inc	545.5	LL Flooring Holdings Inc	-99.2	
Apple Inc	4.9	CommScope Holding Co Inc	396.7	Vertex Energy Inc	-87.8	
NVIDIA Corporation	3.9	Summit Therapeutics Inc	180.8	ALX Oncology Holdings Inc	-69.8	
Amazon.com Inc	2.7	AST SpaceMobile Inc	125.2	Cardlytics Inc	-61.0	
Meta Platforms Inc	1.5	Latham Group Inc	124.4	New Fortress Energy Inc	-58.3	
Alphabet Inc	1.4	Trinseo PLC	122.3	Wolfspeed Inc	-57.4	
Tesla Inc	1.2	Harrow Inc	115.2	Corbus Pharmaceuticals Holdings Inc	-54.4	
Broadcom Inc	1.1	Aurora Innovation Inc	113.7	Mobileye Global Inc	-51.2	
Berkshire Hathaway Inc	1.1	Redfin Corp	108.5	Trump Media & Technology Group Corp	-50.9	
Alphabet Inc	0.9	Bioventus Inc	107 8	Super Micro Computer Inc	-49.2	



US Equity Performance Attribution vs. Russell 3000 Index

	Attribution Effects			Performance		Sector Weights		
	Total Effects	Selection Effect	Allocation Effect	Interaction Effect	Portfolio	Benchmark	Portfolio	Benchmark
Energy	0.1	0.1	-0.1	0.0	0.7	-3.0	4.5	3.9
Materials	0.2	0.1	0.1	0.0	11.9	9.5	4.1	2.5
Industrials	-0.1	-0.1	0.0	0.0	9.8	11.0	9.6	9.4
Consumer Discretionary	0.1	0.1	0.0	0.0	9.1	8.2	11.3	10.1
Consumer Staples	0.2	0.1	0.0	0.0	10.4	8.5	6.7	5.5
Health Care	0.0	0.0	0.0	0.0	6.5	6.4	11.2	11.9
Financials	0.1	0.1	0.0	0.0	11.8	10.7	12.2	13.2
Information Technology	0.3	0.2	0.2	0.0	2.5	1.8	26.0	30.1
Communication Services	0.2	0.2	0.0	0.0	4.9	2.2	8.4	8.8
Utilities	0.1	0.0	0.2	0.0	17.2	18.7	3.6	2.2
Real Estate	0.0	0.0	0.0	0.0	18.3	17.2	2.4	2.6
Other	0.0	0.0	0.0	0.0	5.8	0.0	0.1	0.0
Cash	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
Total	1.2	0.9	0.4	0.0	7.5	6.2	100.0	100.0



U.S. Effective Style Map



	Portfolio	Benchmark
Number of Stocks	1,013	1,010
Wtd. Avg. Mkt. Cap \$M	890,760.4	894,448.7
Median Mkt. Cap \$M	15,140.6	15,165.1
Price/Earnings ratio	27.4	27.4
Current Yield (%)	1.3	1.3
Beta (5 Years, Monthly)	1.0	1.0
Price/Book ratio	4.9	4.9
Return on Equity (%)	9.9	9.9

Top Holdings		Best Perfor	mers	Worst Performers	
	(%)		Return (%)		Return (%)
Apple Inc	6.4	Exact Sciences Corporation	61.2	New Fortress Energy Inc	-58.3
Microsoft Corp	6.0	Inspire Medical Systems Inc	57.7	Wolfspeed Inc	-57.4
NVIDIA Corporation	5.4	AppLovin Corporation	56.9	Trump Media & Technology Group Corp	-50.9
Amazon.com Inc	3.3	Doximity Inc	55.8	Super Micro Computer Inc	-49.2
Meta Platforms Inc	2.4	Ubiquiti Inc	52.7	e I f Beauty Inc	-48.3
Alphabet Inc	1.8	Vornado Realty Trust	49.9	Celsius Holdings Inc	-45.1
Berkshire Hathaway Inc	1.6	GE Vernova Inc	48.7	Moderna Inc	-43.7
Alphabet Inc	1.6	V.F. Corp	48.5	DexCom Inc	-40.9
Broadcom Inc	1.5	Palantir Technologies Inc	46.9	Advance Auto Parts Inc.	-38.2
Tesla Inc	1.4	SharkNinia Inc.	44 7	Dollar General Corporation	-35.7



	Portfolio	Benchmark
Number of Stocks	145	1,010
Wtd. Avg. Mkt. Cap \$M	126,399.5	894,448.7
Median Mkt. Cap \$M	28,937.0	15,165.1
Price/Earnings ratio	20.9	27.4
Current Yield (%)	2.3	1.3
Beta (5 Years, Monthly)	0.8	1.0
Price/Book ratio	3.0	4.9
Return on Equity (%)	5.8	9.9

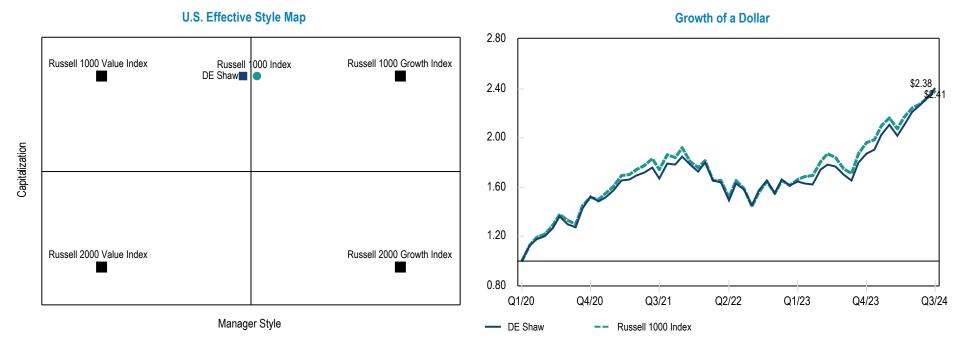
Top Holdings		Best Performers		Worst Performers	
	(%)		Return (%)		Return (%)
AT&T Inc	2.2	Kellanova	40.9	Trump Media & Technology Group Corp	-50.9
T-Mobile US Inc	2.0	Liberty Media Corp Liberty Live Group	32.0	Apellis Pharmaceuticals Inc	-24.8
Packaging Corp Of America	2.0	International Business Machines Corp	28.9	Matador Resources Co	-16.8
Amcor Plc	2.0	Bristol-Myers Squibb Co	26.5	BioMarin Pharmaceutical Inc	-14.6
AptarGroup Inc.	2.0	Cooper Cos Inc (The)	26.4	Permian Resources Corp	-14.5
Sonoco Products Co	1.8	Gilead Sciences Inc	23.3	Antero Resources Corporation	-12.2
OGE Energy Corp	1.8	Crown Castle Inc	23.0	Gentex Corporation	-11.6
Dominion Energy Inc	1.8	Progressive Corp (The)	22.2	Merck & Co Inc	-7.7
CMS Energy Corp	1.8	Fox Corp	22.0	Coty Inc	-6.3
Avangrid Inc	1.7	Public Service Enterprise Group Inc	21.9	MSA Safety Inc	-5.2



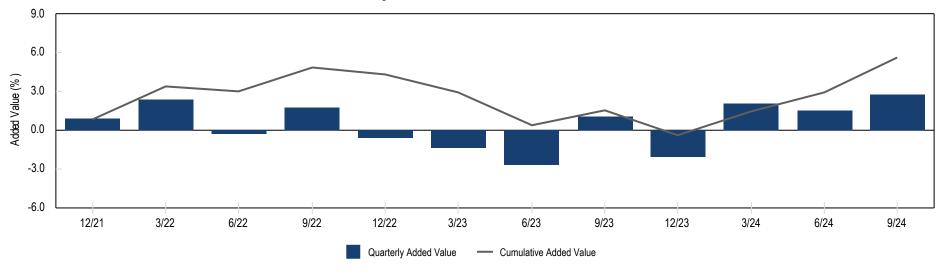
PanAgora Defuseq Performance Attribution vs. Russell 1000 Index

	Attribution Effects			Perfo	ormance	Sector Weights		
	Total Effects	Selection Effect	Allocation Effect	Interaction Effect	Portfolio	Benchmark	Portfolio	Benchmark
Energy	0.3	0.3	-0.3	0.3	5.6	-2.3	7.2	3.7
Materials	0.6	0.1	0.2	0.3	13.8	9.5	9.0	2.3
Industrials	-0.7	-0.7	0.0	0.0	3.4	11.2	9.5	9.0
Consumer Discretionary	0.0	0.1	0.0	0.0	9.0	8.1	8.4	10.1
Consumer Staples	0.6	0.2	0.2	0.3	12.1	8.7	13.0	5.6
Health Care	0.3	0.3	0.0	0.0	8.5	6.1	10.8	11.7
Financials	0.0	0.2	-0.1	-0.1	12.0	10.4	9.8	13.0
Information Technology	1.3	1.2	0.9	-0.9	5.9	1.9	9.1	30.8
Communication Services	1.1	1.0	0.0	0.1	13.4	2.0	9.8	9.2
Utilities	1.1	0.0	1.3	-0.2	17.6	19.1	12.1	2.2
Real Estate	-0.1	0.0	-0.1	0.0	16.4	17.2	1.2	2.4
Cash	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
Total	4.4	2.7	2.0	-0.2	10.6	6.1	100.0	100.0











eV US Small Cap Core Equity Net Return Comparison 40.0 35.0 30.0 25.0 20.0 Return 15.0 10.0 5.0 0.0 -5.0 3 Mo 1 Yr 2 Yrs 3 Yrs 5 Yrs 7 Yrs Fiscal YTD 10 Yrs 26.4 (39) 9.8 (26) 9.8 (26) 22.3 (21) 7.6 (21) 11.0 (54) 7.6 (78) PGIM Quant Solutions ▲ Russell 2000 Index 9.3 (39) 9.3 (39) 26.8 (37) 17.5 (66) 1.8 (80) 9.4 (78) 7.4 (84) 8.8 (74) 5th Percentile 11.6 11.6 34.1 27.0 11.1 16.1 13.1 13.1 1st Quartile 9.8 9.8 28.9 21.5 6.8 12.7 10.0 10.6 Median 8.5 8.5 25.3 19.4 5.0 11.1 8.7 9.5 3rd Quartile 7.1 7.1 21.9 16.4 2.6 9.6 7.8 8.7 95th Percentile 4.4 4.4 16.7 12.8 -0.8 7.6 5.9 7.2 144 Population 192 192 192 186 178 170 163



	Portfolio	Benchmark
Number of Stocks	327	1,977
Wtd. Avg. Mkt. Cap \$M	3,214.5	3,494.1
Median Mkt. Cap \$M	2,423.4	962.6
Price/Earnings ratio	17.2	17.7
Current Yield (%)	1.2	1.4
Beta (5 Years, Monthly)	1.0	1.0
Price/Book ratio	2.3	2.5
Return on Equity (%)	-1.6	1.8

Top Holdings		Best Perfo	rmers	Worst Performer	S
	(%)		Return (%)		Return (%)
Carpenter Technology Corp	1.0	Rocket Lab USA Inc	102.7	Pacira BioSciences Inc	-47.4
ACI Worldwide Inc	1.0	CareDx Inc	101.1	ModivCare Inc	-45.6
Frontdoor Inc	0.9	Axogen Inc	93.6	Clearwater Paper Corp	-41.1
Fluor Corp	0.9	Uniti Group Inc	93.2	Bumble Inc	-39.3
Avient Corp	0.8	ADMA Biologics Inc	78.8	Solo Brands Inc	-38.2
Belden Inc	0.8	Travere Therapeutics Inc	70.2	Integra LifeSciences Holdings Corp	-37.6
Primo Water Corp	0.8	Byrna Technologies Inc	70.0	PBF Energy Inc	-32.3
Box Inc	0.8	Compass Inc	69.7	iTeos Therapeutics Inc	-31.2
OUTFRONT Media Inc	0.7	Zeta Global Holdings Corp	69.0	Rambus Inc	-28.1
Tutor Perini Corp	0.7	Omnicell Inc	61.1	Kosmos Energy Ltd	-27.3

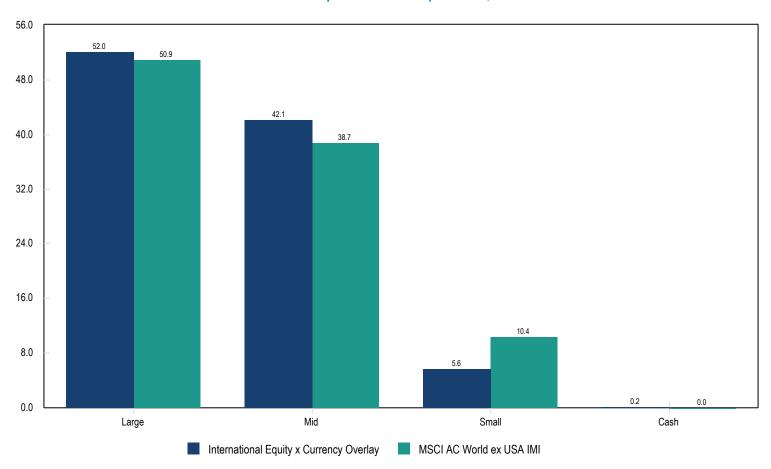


PGIM Quant Solutions Performance Attribution vs. Russell 2000 Index

	Attribution Effects			Performance		Sector Weights		
	Total Effects	Selection Effect	Allocation Effect	Interaction Effect	Portfolio	Benchmark	Portfolio	Benchmark
Energy	0.5	0.4	0.1	0.0	-4.9	-10.2	6.8	7.5
Materials	0.2	0.2	0.0	0.0	13.5	9.3	5.3	4.5
Industrials	0.0	0.0	0.0	0.0	8.9	8.8	17.7	17.2
Consumer Discretionary	0.1	0.1	0.0	0.0	11.7	10.8	10.8	10.4
Consumer Staples	0.2	0.2	0.0	0.0	8.7	3.3	4.4	3.5
Health Care	-0.1	-0.1	0.0	0.0	9.4	9.8	14.3	15.2
Financials	0.4	0.4	0.0	0.0	18.1	15.3	15.7	16.0
Information Technology	-0.2	-0.2	0.1	0.0	-3.3	-1.7	14.7	15.3
Communication Services	-0.3	-0.3	0.0	0.0	4.2	19.3	2.2	2.2
Utilities	0.1	0.0	0.0	0.0	13.6	12.8	3.2	2.6
Real Estate	0.2	0.3	-0.1	0.0	23.4	17.3	4.9	5.6
Cash	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	1.2	1.1	0.1	0.0	9.0	7.8	100.0	100.0



Market Capitalization as of September 30, 2024



	Characteristics	
	Portfolio	Benchmark
Number of Stocks	6,579	6,463
Wtd. Avg. Mkt. Cap \$M	99,335.5	94,861.9
Median Mkt. Cap \$M	2,124.5	2,117.0
Price/Earnings ratio	15.0	15.5
Current Yield (%)	2.8	2.9
Beta (5 Years, Monthly)	1.0	1.0
Price/Book ratio	2.7	2.6
Return on Equity (%)	4.4	4.5

Top Holdings		Best Performers		Worst Performers	
	(%)		Return (%)		Return (%)
Taiwan Semiconductor Man.	3.2	PT Wijaya Karya	362.8	Huazhong In-Vehicle Holdings Co Ltd	-82.4
Tencent Holdings LTD	1.3	GDS Holdings Limited	135.4	Nykode Therapeutics AS	-69.7
United Overseas Bank Ltd	1.2	Sunac China Holdings Ltd	129.0	Kustur Kusadasi Turizm Endustrisi AS	-58.3
ASML Holding NV	1.2	Guotai Junan International Holdings Ltd	125.5	Star Plus Legend Holdings Limited	-57.5
Alibaba Group Holding Ltd	0.9	PCBL Chemical Ltd	124.3	emeis Societe anonyme	-49.0
Sony Group Corporation	0.8	Nuix Limited	121.2	UBI Soft Entertainment SA	-48.5
Lloyds Banking Group PLC	0.8	Edelweiss Financial Services Ltd	119.3	Hana Materials Inc	-48.3
Banco Santander SA	0.8	Hellofresh Se	111.9	Kempower Oyj	-46.5
Fujitsu Ltd	0.8	Voronoi Inc	109.0	Fusion Finance Limited	-45.3
Samsung Electronics Co Ltd	0.8	Ginlong Technologies Co Ltd	106.9	Simmtech Co Ltd	-43.9



International Equity x Currency Overlay 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	0.2	0.1	0.1	0.0	0.8	-1.7	4.6	5.3
Materials	0.0	0.0	0.0	0.0	9.9	9.4	6.3	7.7
Industrials	0.4	0.3	0.0	0.1	11.0	8.7	17.2	15.0
Consumer Discretionary	0.3	0.3	0.0	0.0	13.5	11.3	12.1	11.2
Consumer Staples	0.0	0.0	0.0	0.0	10.4	10.9	7.4	7.1
Health Care	0.4	0.4	0.0	0.0	11.1	7.1	9.3	9.0
Financials	0.0	0.1	-0.1	0.0	12.2	11.5	17.9	20.2
Information Technology	0.0	0.1	-0.1	0.0	-0.4	-1.4	15.2	13.7
Communication Services	0.1	0.1	0.0	0.0	14.8	13.6	5.1	5.0
Utilities	0.0	0.0	0.0	0.0	14.8	13.3	2.8	3.1
Real Estate	-0.1	0.0	-0.1	0.0	17.2	17.1	1.5	2.8
Cash	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0
Total	1.3	1.5	-0.3	0.1	9.5	8.3	100.0	100.0



International Equity x Currency Overlay vs. MSCI AC World ex USA IMI

	Weights		Perfor	mance		Attributio	on Effects	
	Portfolio	Benchmark	Portfolio	Benchmark	Selection Effects	Country Effects	Interaction Effects	Total Effects
Australia	3.1	4.7	10.9	11.6	0.0	-0.1	0.0	-0.1
Austria	0.4	0.2	12.4	6.9	0.0	0.0	0.0	0.0
Belgium	0.6	0.5	13.6	12.8	0.0	0.0	0.0	0.0
Brazil	1.6	1.2	6.2	8.5	0.0	0.0	0.0	0.0
Canada	5.3	7.3	14.2	11.9	0.2	-0.1	0.0	0.0
Chile	0.3	0.1	8.8	6.1	0.0	0.0	0.0	0.0
China	5.8	5.7	27.8	24.5	0.2	0.0	0.0	0.2
Colombia	0.0	0.0	-0.4	-0.4	0.0	0.0	0.0	0.0
Czech Republic	0.0	0.0	5.0	4.9	0.0	0.0	0.0	0.0
Denmark	1.5	2.4	-3.2	-9.0	0.1	0.2	-0.1	0.2
Egypt	0.0	0.0	17.3	17.6	0.0	0.0	0.0	0.0
Finland	0.4	0.7	8.8	8.8	0.0	0.0	0.0	0.0
France	5.6	6.0	5.5	7.9	-0.1	0.0	0.0	-0.1
Germany	5.0	5.0	11.5	10.2	0.1	0.0	0.0	0.1
Greece	0.1	0.1	9.9	9.9	0.0	0.0	0.0	0.0
Hong Kong	2.3	1.6	25.8	19.6	0.1	0.1	0.0	0.2
Hungary	0.0	0.1	6.4	6.4	0.0	0.0	0.0	0.0
India	5.1	6.2	6.0	7.6	-0.1	0.0	0.0	-0.1
Indonesia	0.5	0.5	13.3	15.8	0.0	0.0	0.0	0.0
Ireland	1.2	0.9	9.3	10.5	0.0	0.0	0.0	0.0
Israel	0.3	0.6	11.0	10.9	0.0	0.0	0.0	0.0
Italy	2.0	1.6	15.0	12.1	0.0	0.0	0.0	0.1
Japan	16.6	15.4	8.4	7.1	0.2	0.0	0.0	0.2
Korea	3.0	3.6	-6.1	-5.4	0.0	0.1	0.0	0.1
Kuwait	0.1	0.2	3.8	3.8	0.0	0.0	0.0	0.0
Malaysia	0.3	0.5	19.1	17.3	0.0	0.0	0.0	0.0
Malta	0.0	0.0	7.0	7.0	0.0	0.0	0.0	0.0
Mexico	1.0	0.6	-5.2	-4.4	0.0	0.0	0.0	-0.1
Netherlands	4.8	3.5	3.8	-3.7	0.3	-0.2	0.1	0.2
New Zealand	0.1	0.2	9.1	9.1	0.0	0.0	0.0	0.0
Norway	0.3	0.5	1.5	1.5	0.0	0.0	0.0	0.0
Peru	0.2	0.0	13.0	7.9	0.0	0.0	0.0	0.0
Philippines	0.1	0.2	20.9	20.9	0.0	0.0	0.0	0.0



	We	ights	Perfor	mance		Attribution	on Effects	
	Portfolio	Benchmark	Portfolio	Benchmark	Selection Effects	Country Effects	Interaction Effects	Total Effects
Poland	0.1	0.3	-1.6	-1.6	0.0	0.0	0.0	0.0
Portugal	0.5	0.1	1.6	7.5	0.0	0.0	0.0	0.0
Qatar	0.1	0.2	9.5	9.5	0.0	0.0	0.0	0.0
Saudi Arabia	0.9	1.1	4.7	5.7	0.0	0.0	0.0	0.0
Singapore	1.7	1.0	14.1	18.5	0.0	0.1	0.0	0.0
South Africa	0.4	0.8	17.5	17.5	0.0	0.0	0.0	0.0
Spain	1.5	1.6	12.1	13.3	0.0	0.0	0.0	0.0
Sweden	3.2	2.2	9.4	9.3	0.0	0.0	0.0	0.0
Switzerland	4.8	6.0	9.2	8.2	0.1	0.0	0.0	0.1
Taiwan	5.6	5.8	0.4	0.4	0.0	0.0	0.0	0.0
Thailand	0.3	0.4	20.7	28.4	0.0	0.0	0.0	0.0
Turkey	0.2	0.3	-13.0	-13.0	0.0	0.0	0.0	0.0
United Arab Emirates	0.4	0.3	11.3	11.1	0.0	0.0	0.0	0.0
United Kingdom	10.7	8.9	10.8	8.6	0.2	0.0	0.0	0.2
United States	0.4	0.1	6.8	4.2	0.0	0.0	0.0	0.0
Other	1.1	0.3	19.6	16.0	0.0	0.1	0.0	0.1
Cash	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	100.0	100.0	9.5	8.3	1.0	0.1	0.1	1.3



International Equity x Currency Overlay vs. MSCI AC World ex USA IMI

	Weights			rmance		Attribution Effects			
	Portfolio	Benchmark	Portfolio	Benchmark	Selection Effects	Region Effects	Interaction Effects	Total Effects	
Americas	8.8	9.5	10.0	10.2	0.0	0.0	0.0	0.0	
Asia Pacific	44.5	45.8	10.2	9.1	0.5	0.0	0.0	0.5	
EMEA	45.1	44.4	8.6	7.0	0.7	0.0	0.0	0.7	
Other	1.1	0.3	19.6	16.0	0.0	0.1	0.0	0.1	
Cash	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total	100.0	100.0	9.5	8.3	1.3	0.0	0.0	1.3	



eV ACWI ex-US Growth Equity Net Return Comparison 44.0 36.0 28.0 20.0 Return 12.0 4.0 -4.0 -12.0 3 Mo Fiscal YTD 1 Yr 2 Yrs 3 Yrs 5 Yrs 7 Yrs 10 Yrs 9.7 (12) 9.7 (12) 19.1 (70) -4.6 (77) 4.8 (81) Baillie Gifford 25.7 (46) 6.0 (83) 5.8 (80) ▲ MSCI ACWI ex US 8.2 (28) 8.2 (28) 26.0 (41) 23.5 (26) 4.7 (11) 8.1 (44) 5.9 (52) 5.7 (82) 7.0 (44) ◆ MSCI ACWI ex US Growth 7.0 (44) 27.1 (29) 21.5 (54) 1.1 (35) 7.4 (57) 6.1 (49) 6.3 (65) 5th Percentile 11.4 11.4 38.1 28.8 6.2 13.2 10.4 10.2 1st Quartile 8.3 8.3 27.9 23.5 2.7 9.8 7.7 8.6 Median 6.4 6.4 24.9 22.1 -0.6 7.6 6.0 7.1 5.2 4.2 3rd Quartile 4.2 21.6 18.4 -4.2 6.5 5.9 95th Percentile 1.7 1.7 16.9 13.7 -9.2 4.2 3.2 5.1 Population 105 105 105 105 103 94 87 71



	Portfolio	Benchmark
Number of Stocks	85	2,094
Wtd. Avg. Mkt. Cap \$M	119,400.6	110,143.7
Median Mkt. Cap \$M	32,029.1	10,377.5
Price/Earnings ratio	18.3	15.6
Current Yield (%)	1.6	2.9
Beta (5 Years, Monthly)	1.1	1.0
Price/Book ratio	3.8	2.7
Return on Equity (%)	5.1	4.5

Top Holdings		Best Performers		Worst Perform	Worst Performers		
	(%)		Return (%)		Return (%)		
Taiwan Semiconductor Man.	5.8	Alibaba Group Holding Ltd	56.8	Samsung Electronics Co Ltd	-20.6		
United Overseas Bank Ltd	2.8	Centre Testing International Group Co Ltd	54.8	ASML Holding NV	-19.3		
ASML Holding NV	2.7	Contemporary Amperex Technology Co Ltd	44.9	Tokyo Electron Ltd	-17.8		
Investor AB publ	2.5	DSV A/S	35.0	Burberry Group PLC	-15.3		
Auto Trader Group plc	2.5	Techtronic Industries Co Ltd	34.5	Wal-Mart de Mexico SAB de CV	-11.3		
MercadoLibre Inc	2.4	Hong Kong Exchanges and Clearing Ltd	33.5	Soitec SA	-10.5		
Experian Plc	2.1	AIA Group Ltd	33.2	Softcat PLC	-9.4		
Cie Financiere Richemont	1.9	Adyen N.V	31.2	Fomento Economico Mexican	-7.5		
Techtronic Industries Co Ltd	1.8	KK Cosmos Yakuhin	29.8	Reliance Industries Ltd	-5.8		
LONZA GROUP AG	1.8	IMCD NV	25.6	Smc Corp	-5.5		



San Mateo County Employees' Retirement Association Period Ending: September 30, 2024

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

		Attribu	tion Effects		Performance		Sector Weights	
	Total Effects	Selection Effect	Allocation Effect	Interaction Effect	Portfolio	Benchmark	Portfolio	Benchmark
Energy	0.3	-0.2	0.4	0.2	-5.8	-1.5	1.4	5.5
Materials	0.1	0.4	0.0	-0.2	14.4	9.4	3.4	7.1
Industrials	1.5	0.9	0.0	0.5	15.3	8.7	21.7	13.7
Consumer Discretionary	0.9	0.6	0.1	0.2	16.4	11.4	15.4	11.1
Consumer Staples	-0.4	-0.3	0.1	-0.2	6.4	10.5	11.1	7.2
Health Care	0.7	0.9	0.0	-0.3	16.2	6.4	6.8	9.5
Financials	0.2	0.7	-0.3	-0.2	14.9	11.7	14.3	21.7
Information Technology	-0.9	-0.3	-0.5	-0.1	-3.4	-1.5	19.5	14.0
Communication Services	0.2	0.3	0.0	0.0	18.6	13.8	5.0	5.3
Utilities	-0.2	0.0	-0.2	0.0	0.0	13.6	0.0	3.1
Real Estate	-0.2	0.0	-0.2	0.0	0.0	17.2	0.0	1.8
Cash	-0.1	0.0	-0.1	0.0	0.0	0.0	1.4	0.0
Total	2.3	2.9	-0.6	0.0	10.5	8.2	100.0	100.0



Baillie Gifford vs. MSCI AC World ex USA Index

	Weights		Perfo	rmance		Attribution Effects			
	Portfolio	Benchmark	Portfolio	Benchmark	Selection Effects	Country Effects	Interaction Effects	Total Effects	
Australia	1.1	4.6	15.0	11.3	0.2	-0.1	-0.1	-0.1	
Austria	0.0	0.1	0.0	8.8	0.0	0.0	0.0	0.0	
Belgium	1.3	0.5	14.3	13.5	0.0	0.0	0.0	0.1	
Brazil	1.9	1.2	3.8	8.8	-0.1	0.0	0.0	-0.1	
Canada	2.8	7.4	16.1	12.2	0.3	-0.2	-0.2	-0.1	
Chile	0.7	0.1	11.8	5.3	0.0	0.0	0.0	0.0	
China	3.8	6.4	41.4	24.7	1.1	-0.4	-0.4	0.2	
Colombia	0.0	0.0	0.0	-0.4	0.0	0.0	0.0	0.0	
Czech Republic	0.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0	
Denmark	0.8	2.5	35.0	-10.2	1.1	0.3	-0.8	0.7	
Egypt	0.0	0.0	0.0	12.5	0.0	0.0	0.0	0.0	
Finland	0.0	0.6	0.0	8.2	0.0	0.0	0.0	0.0	
France	4.4	6.6	1.8	8.1	-0.4	0.0	0.1	-0.3	
Germany	2.0	5.5	12.0	10.7	0.1	-0.1	0.0	-0.1	
Greece	0.0	0.1	0.0	10.4	0.0	0.0	0.0	0.0	
Hong Kong	3.5	1.7	33.8	20.7	0.2	0.2	0.2	0.7	
Hungary	0.0	0.1	0.0	6.3	0.0	0.0	0.0	0.0	
India	3.7	5.6	2.1	7.6	-0.3	0.0	0.1	-0.2	
Indonesia	0.0	0.5	0.0	15.4	0.0	0.0	0.0	0.0	
Ireland	2.9	1.0	8.6	10.5	0.0	0.0	0.0	0.0	
Israel	0.0	0.5	0.0	11.7	0.0	0.0	0.0	0.0	
Italy	0.0	1.5	0.0	13.2	0.0	-0.1	0.0	-0.1	
Japan	16.0	14.4	7.0	5.8	0.2	0.0	0.0	0.2	
Korea	0.0	3.5	0.0	-5.9	0.0	0.5	0.0	0.5	
Kuwait	0.0	0.2	0.0	4.3	0.0	0.0	0.0	0.0	
Malaysia	0.0	0.4	0.0	20.4	0.0	0.0	0.0	0.0	
Mexico	1.7	0.6	-9.2	-3.4	0.0	-0.1	-0.1	-0.2	
Netherlands	9.9	4.0	4.2	-4.2	0.3	-0.7	0.5	0.1	
New Zealand	0.0	0.2	0.0	8.6	0.0	0.0	0.0	0.0	
Norway	0.0	0.4	0.0	2.2	0.0	0.0	0.0	0.0	
Peru	0.0	0.1	0.0	7.4	0.0	0.0	0.0	0.0	
Philippines	0.0	0.1	0.0	21.8	0.0	0.0	0.0	0.0	
Poland	0.0	0.3	0.0	-3.0	0.0	0.0	0.0	0.0	



	Wei	ights	Perfor	mance		Attributio	on Effects	
	Portfolio	Benchmark	Portfolio	Benchmark	Selection Effects	Country Effects	Interaction Effects	Total Effects
Portugal	1.2	0.1	0.7	6.1	0.0	0.0	-0.1	-0.1
Qatar	0.0	0.2	0.0	10.5	0.0	0.0	0.0	0.0
Saudi Arabia	0.0	1.1	0.0	5.9	0.0	0.0	0.0	0.0
Singapore	2.5	1.0	11.8	19.0	-0.1	0.2	-0.1	0.0
South Africa	0.0	0.8	0.0	16.7	0.0	-0.1	0.0	-0.1
Spain	0.0	1.6	0.0	13.9	0.0	-0.1	0.0	-0.1
Sweden	8.0	2.1	9.4	8.5	0.0	0.0	0.1	0.1
Switzerland	3.7	6.6	9.6	8.0	0.1	0.0	0.0	0.1
Taiwan	6.0	5.6	0.7	0.8	0.0	0.0	0.0	0.0
Thailand	0.0	0.4	0.0	29.7	0.0	-0.1	0.0	-0.1
Turkey	0.0	0.2	0.0	-12.2	0.0	0.0	0.0	0.0
United Arab Emirates	0.0	0.3	0.0	11.8	0.0	0.0	0.0	0.0
United Kingdom	16.3	8.9	13.7	8.0	0.5	0.0	0.4	0.9
United States	1.5	0.1	7.3	7.9	0.0	0.0	0.0	0.0
Other	2.8	0.2	23.1	20.8	0.0	0.3	0.1	0.4
Cash	1.4	0.0	0.0	0.0	0.0	-0.1	0.0	-0.1
Total	100.0	100.0	10.5	8.2	3.2	-0.5	-0.4	2.3



Baillie Gifford vs. MSCI AC World ex USA Index

	Weights			rmance		Attribution Effects			
	Portfolio	Benchmark	Portfolio	Benchmark	Selection Effects	Region Effects	Interaction Effects	Total Effects	
Americas	8.7	9.6	6.5	10.6	-0.4	0.0	0.0	-0.4	
Asia Pacific	36.6	44.2	12.2	9.1	1.4	-0.1	-0.2	1.1	
EMEA	50.6	45.9	9.5	6.8	1.3	-0.1	0.1	1.3	
Other	2.8	0.2	23.1	20.8	0.0	0.3	0.1	0.4	
Cash	1.4	0.0	0.0	0.0	0.0	-0.1	0.0	-0.1	
Total	100.0	100.0	10.5	8.2	2.2	0.1	0.0	2.3	



	Portfolio	Benchmark
Number of Stocks	121	1,202
Wtd. Avg. Mkt. Cap \$M	89,231.6	73,910.3
Median Mkt. Cap \$M	32,523.9	10,661.6
Price/Earnings ratio	12.0	11.7
Current Yield (%)	4.0	4.2
Beta (5 Years, Monthly)	1.0	1.0
Price/Book ratio	2.0	1.9
Return on Equity (%)	3.7	3.5

Top Holdings		Best Performers		Worst Perforn	Worst Performers		
	(%)		Return (%)		Return (%)		
Lloyds Banking Group PLC	3.0	Alibaba Group Holding Ltd	56.8	Kering	-21.0		
Fujitsu Ltd	2.9	Yum China Holdings Inc	46.7	Samsung Electronics Co Ltd	-20.6		
Banco Santander SA	2.7	Ping An Insurance Group Co of China Ltd	46.5	Kia Corporation	-18.7		
SSE plc	2.6	China Medical Sytem Holding Ltd	39.0	Joint Stock Company Kaspi kz	-16.7		
Enel Ente Nazionale	2.6	Kingfisher PLC	37.3	PetroChina Company Limited	-15.9		
Sony Group Corporation	2.6	Yibin Wuliangye Co Ltd	36.3	Samsung Electronics Co Ltd	-15.8		
TC Energy Corp	2.5	Gree Electric Appliances Inc	34.4	Mediatek Incorporation	-12.1		
Snam SPA	2.4	Fujitsu Ltd	31.8	BP plc	-11.3		
Allianz SE	2.3	Koninklijke Philips NV	29.9	Grupo Financiero Banorte	-8.7		
Taiwan Semiconductor Man.	2.3	TC Energy Corp	27.5	Shell Plc	-8.3		



Mondrian Performance Attribution vs. MSCI AC World ex USA Value

		Attribu	tion Effects		Performance		Sector Weights	
	Total Effects	Selection Effect	Allocation Effect	Interaction Effect	Portfolio	Benchmark	Portfolio	Benchmark
Energy	0.9	0.8	0.3	-0.2	7.6	-1.3	6.4	9.1
Materials	0.1	0.0	0.0	0.0	8.9	8.4	6.3	8.3
Industrials	0.1	0.1	0.0	0.1	9.8	8.9	17.9	9.5
Consumer Discretionary	0.5	0.3	0.0	0.1	14.5	10.4	10.7	8.1
Consumer Staples	0.2	0.5	-0.1	-0.2	21.3	13.7	4.0	6.3
Health Care	0.5	0.1	0.3	0.1	14.9	13.9	13.2	5.8
Financials	-0.3	0.1	-0.3	-0.1	11.6	11.3	16.3	33.2
Information Technology	0.5	0.7	-0.8	0.7	6.9	-2.9	13.7	6.7
Communication Services	0.0	0.0	0.0	0.0	13.6	13.1	5.5	5.0
Utilities	0.2	0.2	0.0	0.0	17.1	14.1	5.3	5.2
Real Estate	-0.2	0.0	-0.2	0.0	0.0	18.1	0.0	2.8
Cash	-0.1	0.0	-0.1	0.0	0.0	0.0	0.8	0.0
Total	2.3	2.7	-0.9	0.5	11.6	9.4	100.0	100.0



Mondrian vs. MSCI AC World ex USA Value

	14/0	ights	Danfar	mance	Attribution Effects			
	vve	igiitə	Perior	mance	Calcation			Total
	Portfolio	Benchmark	Portfolio	Benchmark	Selection Effects	Country Effects	Interaction Effects	Total Effects
Australia	1.5	4.5	2.7	11.5	-0.4	-0.1	0.3	-0.2
Austria	1.3	0.2	14.6	9.5	0.0	0.0	0.1	0.1
Belgium	0.0	0.4	0.0	9.4	0.0	0.0	0.0	0.0
Brazil	2.3	1.2	5.4	7.3	0.0	0.0	0.0	-0.1
Canada	2.9	7.6	26.1	16.7	0.7	-0.3	-0.4	-0.1
Chile	0.2	0.1	2.3	1.6	0.0	0.0	0.0	0.0
China	8.3	6.1	26.4	25.3	0.1	0.3	0.0	0.4
Colombia	0.0	0.0	0.0	-0.8	0.0	0.0	0.0	0.0
Czech Republic	0.0	0.0	0.0	4.6	0.0	0.0	0.0	0.0
Denmark	0.0	0.4	0.0	7.8	0.0	0.0	0.0	0.0
Egypt	0.0	0.0	0.0	14.7	0.0	0.0	0.0	0.0
Finland	0.0	1.1	0.0	8.5	0.0	0.0	0.0	0.0
France	6.2	6.3	2.9	10.9	-0.5	0.0	0.0	-0.5
Germany	9.0	6.5	13.1	10.7	0.2	0.0	0.1	0.3
Greece	0.0	0.1	0.0	9.4	0.0	0.0	0.0	0.0
Hong Kong	2.4	1.8	23.2	18.4	0.1	0.1	0.0	0.2
Hungary	0.0	0.1	0.0	4.5	0.0	0.0	0.0	0.0
India	3.1	5.7	3.0	6.0	-0.2	0.1	0.1	0.0
Indonesia	1.3	0.4	11.0	18.9	0.0	0.1	-0.1	0.0
Ireland	0.0	0.5	0.0	4.8	0.0	0.0	0.0	0.0
Israel	0.0	0.5	0.0	13.6	0.0	0.0	0.0	0.0
Italy	5.3	2.0	17.1	13.6	0.1	0.1	0.1	0.3
Japan	20.2	14.5	12.3	4.9	1.1	-0.3	0.4	1.2
Korea	4.8	3.8	-7.3	-7.8	0.0	-0.2	0.0	-0.1
Kuwait	0.0	0.2	0.0	5.3	0.0	0.0	0.0	0.0
Malaysia	0.5	0.4	23.6	25.3	0.0	0.0	0.0	0.0
Mexico	1.0	0.6	2.0	-1.2	0.0	0.0	0.0	0.0
Netherlands	2.3	2.0	29.9	5.6	0.5	0.0	0.1	0.6
New Zealand	0.0	0.1	0.0	-3.5	0.0	0.0	0.0	0.0
Norway	0.0	0.7	0.0	0.3	0.0	0.1	0.0	0.1
Peru	0.6	0.1	14.0	14.0	0.0	0.0	0.0	0.0
Philippines	0.0	0.2	0.0	20.5	0.0	0.0	0.0	0.0
Poland	0.0	0.3	0.0	-5.3	0.0	0.0	0.0	0.0



	Wei	ights	Perfor	mance		Attributio	on Effects	
	Portfolio	Benchmark	Portfolio	Benchmark	Selection Effects	Country Effects	Interaction Effects	Total Effects
Portugal	0.4	0.1	0.7	22.1	0.0	0.0	-0.1	-0.1
Qatar	0.0	0.2	0.0	9.2	0.0	0.0	0.0	0.0
Saudi Arabia	1.5	1.2	2.8	3.1	0.0	0.0	0.0	0.0
Singapore	2.2	1.0	11.8	17.7	-0.1	0.1	-0.1	0.0
South Africa	0.0	0.9	0.0	15.5	0.0	-0.1	0.0	-0.1
Spain	3.0	2.4	10.6	12.8	-0.1	0.0	0.0	0.0
Sweden	0.0	1.5	0.0	8.5	0.0	0.0	0.0	0.0
Switzerland	3.9	7.0	12.6	9.8	0.2	0.0	-0.1	0.1
Taiwan	4.6	4.9	-0.3	0.4	0.0	0.0	0.0	0.0
Thailand	0.0	0.4	0.0	26.0	0.0	-0.1	0.0	-0.1
Turkey	0.0	0.2	0.0	-11.4	0.0	0.0	0.0	0.0
United Arab Emirates	0.8	0.3	11.5	10.6	0.0	0.0	0.0	0.0
United Kingdom	8.7	11.0	10.4	8.3	0.2	0.0	0.0	0.2
Other	1.1	0.2	12.2	15.1	0.0	0.0	0.0	0.0
Cash	0.8	0.0	0.0	0.0	0.0	-0.1	0.0	-0.1
Total	100.0	100.0	11.6	9.4	1.8	0.1	0.3	2.3



Mondrian vs. MSCI AC World ex USA Value

	Weights		Perfor	Performance		Attribution Effects			
	Portfolio	Benchmark	Portfolio	Benchmark	Selection Effects	Region Effects	Interaction Effects	Total Effects	
Americas	7.0	9.7	14.3	14.1	0.0	-0.1	0.0	-0.1	
Asia Pacific	48.8	43.8	11.3	8.4	1.3	-0.1	0.1	1.4	
EMEA	42.3	46.3	11.8	9.3	1.1	0.0	-0.1	1.0	
Other	1.1	0.2	12.2	15.1	0.0	0.0	0.0	0.0	
Cash	8.0	0.0	0.0	0.0	0.0	-0.1	0.0	-0.1	
Total	100.0	100.0	11.6	9.4	2.4	-0.2	0.0	2.3	



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

		Attribu	tion 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	-1.7	-1.7	5.4	5.3
Materials	0.0	0.0	0.0	0.0	9.3	9.4	7.7	7.7
Industrials	0.0	0.0	0.0	0.0	8.7	8.7	14.9	15.0
Consumer Discretionary	0.0	0.0	0.0	0.0	11.3	11.3	11.2	11.2
Consumer Staples	0.0	0.0	0.0	0.0	10.8	10.9	7.1	7.1
Health Care	0.0	0.0	0.0	0.0	7.0	7.1	8.9	9.0
Financials	0.0	0.0	0.0	0.0	11.4	11.5	20.2	20.2
Information Technology	0.0	0.0	0.0	0.0	-1.3	-1.4	13.8	13.7
Communication Services	0.0	0.0	0.0	0.0	13.6	13.6	5.0	5.0
Utilities	0.0	0.0	0.0	0.0	13.2	13.3	3.1	3.1
Real Estate	0.0	0.0	0.0	0.0	17.2	17.1	2.7	2.8
Cash	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
Total	0.0	0.0	0.0	0.0	8.3	8.3	100.0	100.0



	Portfolio	Benchmark
Number of Stocks	6,545	6,463
Wtd. Avg. Mkt. Cap \$M	94,270.0	94,861.9
Median Mkt. Cap \$M	2,112.7	2,117.0
Price/Earnings ratio	15.5	15.5
Current Yield (%)	2.9	2.9
Beta (3 Years, Monthly)	1.0	1.0
Price/Book ratio	2.6	2.6
Return on Equity (%)	4.5	4.5

Top Holdings		Best Performers		Worst Performers	Worst Performers		
	(%)		Return (%)		Return (%)		
Taiwan Semiconductor Man.	2.3	PT Wijaya Karya	362.8	Huazhong In-Vehicle Holdings Co Ltd	-82.4		
Novo Nordisk A/S	1.2	GDS Holdings Limited	135.4	Nykode Therapeutics AS	-69.7		
Tencent Holdings LTD	1.2	Sunac China Holdings Ltd	129.0	Kustur Kusadasi Turizm Endustrisi AS	-58.3		
ASML Holding NV	1.0	Guotai Junan International Holdings Ltd	125.5	Star Plus Legend Holdings Limited	-57.5		
Nestle SA, Cham Und Vevey	0.7	PCBL Chemical Ltd	124.3	emeis Societe anonyme	-49.0		
Astrazeneca PLC	0.7	Nuix Limited	121.2	UBI Soft Entertainment SA	-48.5		
Samsung Electronics Co Ltd	0.7	Edelweiss Financial Services Ltd	119.3	Hana Materials Inc	-48.3		
SAP SE	0.7	Hellofresh Se	111.9	Kempower Oyj	-46.5		
Alibaba Group Holding Ltd	0.7	Voronoi Inc	109.0	Fusion Finance Limited	-45.3		
LVMH Moet Hennessy Louis V	0.6	Ginlong Technologies Co Ltd	106.9	Simmtech Co Ltd	-43.9		



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

	Weights		Perfor	Performance		Attribution Effects			
	Portfolio	Benchmark	Portfolio	Benchmark	Selection Effects	Country Effects	Interaction Effects	Total Effects	
Australia	4.7	4.7	11.6	11.6	0.0	0.0	0.0	0.0	
Austria	0.2	0.2	6.8	6.9	0.0	0.0	0.0	0.0	
Belgium	0.5	0.5	12.8	12.8	0.0	0.0	0.0	0.0	
Brazil	1.2	1.2	8.5	8.5	0.0	0.0	0.0	0.0	
Canada	7.4	7.3	11.9	11.9	0.0	0.0	0.0	0.0	
Chile	0.1	0.1	6.1	6.1	0.0	0.0	0.0	0.0	
China	5.7	5.7	24.5	24.5	0.0	0.0	0.0	0.0	
Colombia	0.0	0.0	-0.4	-0.4	0.0	0.0	0.0	0.0	
Czech Republic	0.0	0.0	5.0	4.9	0.0	0.0	0.0	0.0	
Denmark	2.4	2.4	-9.0	-9.0	0.0	0.0	0.0	0.0	
Egypt	0.0	0.0	17.3	17.6	0.0	0.0	0.0	0.0	
Finland	0.7	0.7	8.8	8.8	0.0	0.0	0.0	0.0	
France	6.0	6.0	7.9	7.9	0.0	0.0	0.0	0.0	
Germany	4.8	5.0	10.1	10.2	0.0	0.0	0.0	0.0	
Greece	0.1	0.1	9.9	9.9	0.0	0.0	0.0	0.0	
Hong Kong	1.7	1.6	19.6	19.6	0.0	0.0	0.0	0.0	
Hungary	0.1	0.1	6.4	6.4	0.0	0.0	0.0	0.0	
India	6.5	6.2	7.6	7.6	0.0	0.0	0.0	0.0	
Indonesia	0.5	0.5	15.8	15.8	0.0	0.0	0.0	0.0	
Ireland	0.9	0.9	10.4	10.5	0.0	0.0	0.0	0.0	
Israel	0.7	0.6	11.0	10.9	0.0	0.0	0.0	0.0	
Italy	1.6	1.6	12.1	12.1	0.0	0.0	0.0	0.0	
Japan	15.4	15.4	7.1	7.1	0.0	0.0	0.0	0.0	
Korea	3.6	3.6	-5.4	-5.4	0.0	0.0	0.0	0.0	
Kuwait	0.2	0.2	3.8	3.8	0.0	0.0	0.0	0.0	
Malaysia	0.5	0.5	17.2	17.3	0.0	0.0	0.0	0.0	
Malta	0.0	0.0	7.0	7.0	0.0	0.0	0.0	0.0	
Mexico	0.6	0.6	-4.5	-4.4	0.0	0.0	0.0	0.0	
Netherlands	3.5	3.5	-3.7	-3.7	0.0	0.0	0.0	0.0	
New Zealand	0.2	0.2	9.1	9.1	0.0	0.0	0.0	0.0	
Norway	0.5	0.5	1.5	1.5	0.0	0.0	0.0	0.0	
Peru	0.0	0.0	7.9	7.9	0.0	0.0	0.0	0.0	
Philippines	0.2	0.2	20.9	20.9	0.0	0.0	0.0	0.0	



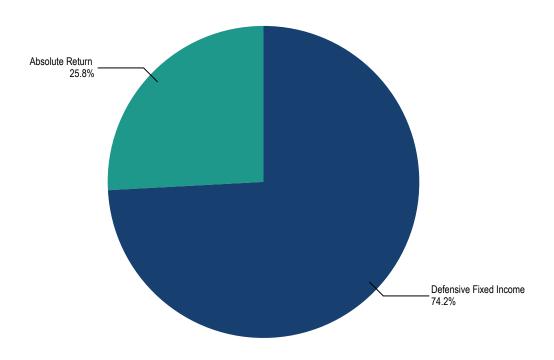
	Weights		Perfor	mance		Attributio	on Effects	
	Portfolio	Benchmark	Portfolio	Benchmark	Selection Effects	Country Effects	Interaction Effects	Total Effects
Poland	0.3	0.3	-1.6	-1.6	0.0	0.0	0.0	0.0
Portugal	0.1	0.1	7.6	7.5	0.0	0.0	0.0	0.0
Qatar	0.2	0.2	9.5	9.5	0.0	0.0	0.0	0.0
Saudi Arabia	1.2	1.1	5.7	5.7	0.0	0.0	0.0	0.0
Singapore	1.0	1.0	18.6	18.5	0.0	0.0	0.0	0.0
South Africa	0.8	0.8	17.5	17.5	0.0	0.0	0.0	0.0
Spain	1.6	1.6	13.3	13.3	0.0	0.0	0.0	0.0
Sweden	2.2	2.2	9.3	9.3	0.0	0.0	0.0	0.0
Switzerland	5.6	6.0	8.2	8.2	0.0	0.0	0.0	0.0
Taiwan	5.9	5.8	0.4	0.4	0.0	0.0	0.0	0.0
Thailand	0.6	0.4	20.7	28.4	0.0	0.0	0.0	0.0
Turkey	0.3	0.3	-13.0	-13.0	0.0	0.0	0.0	0.0
United Arab Emirates	0.3	0.3	11.1	11.1	0.0	0.0	0.0	0.0
United Kingdom	8.9	8.9	8.6	8.6	0.0	0.0	0.0	0.0
United States	0.1	0.1	4.2	4.2	0.0	0.0	0.0	0.0
Other	0.3	0.3	16.1	16.0	0.0	0.0	0.0	0.0
Cash	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	100.0	100.0	8.3	8.3	0.0	0.0	0.0	0.0



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

	Weights		Perfor	Performance		Attribution Effects			
	Portfolio	Benchmark	Portfolio	Benchmark	Selection Effects	Region Effects	Interaction Effects	Total Effects	
Americas	9.5	9.5	10.2	10.2	0.0	0.0	0.0	0.0	
Asia Pacific	46.4	45.8	9.1	9.1	0.0	0.0	0.0	0.0	
EMEA	43.7	44.4	6.9	7.0	0.0	0.0	0.0	0.0	
Other	0.3	0.3	16.1	16.0	0.0	0.0	0.0	0.0	
Cash	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total	100.0	100.0	8.3	8.3	0.0	0.0	0.0	0.0	



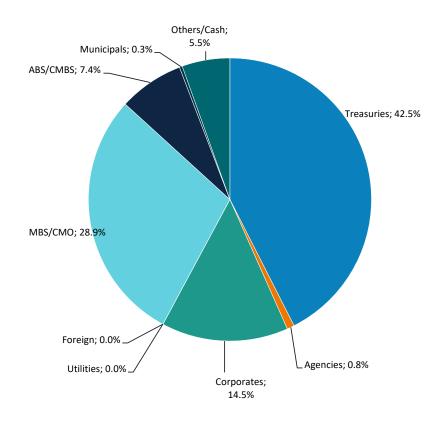


			Manager Contribution to
	Actual \$	Actual %	Excess Return %
Defensive Fixed Income	\$918,223,163	74.2%	-0.1%
Absolute Return	\$320,022,825	25.8%	-1.3%
Actual vs. Policy Weight Difference			0.2%
Total	\$1,238,245,988	100.0%	-1.2%

Statistics Summary 3 Years

	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio	Information Ratio	Tracking Error
Diversifying Portfolio	9.2	5.6	0.7	-1.0	2.1
Blended Diversifying Index	11.6	6.1	1.0	-	0.0
Defensive Fixed Income	13.0	8.8	0.8	0.8	0.4
Blended Core Fixed Income Benchmark	12.6	9.1	0.8	-	0.0
Absolute Return	0.2	7.4	-0.7	-1.2	7.4
Absolute Return Custom Index	9.4	0.2	21.1	-	0.0





		Bloomberg Aggregate	
Sector	Account Weight	Weight	Difference
Treasuries	42.5%	43.4%	-0.8%
Agencies	0.8%	4.5%	-3.7%
Corporates	14.5%	24.4%	-9.9%
Utilities	0.0%	0.0%	0.0%
Foreign	0.0%	0.0%	0.0%
MBS/CMO	28.9%	25.2%	3.8%
ABS/CMBS	7.4%	2.0%	5.5%
Municipals	0.3%	0.0%	0.3%
Others/Cash	5.5%	0.6%	4.9%
TOTAL	100.0%	100.0%	0.0%

Portfolio Characteristics	
	Portfolio
Total Number of Securities	
Total Market Value	\$ 905,231,765
Current Coupon	4.23
Yield to Maturity	4.69
Average Life	10.34
Duration	6.61
Quality	AA

Bloomberg Aggregate	
	3.35
	4.21
	8.39
	6.05
	AA

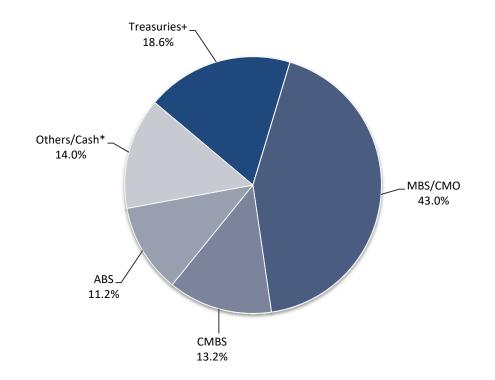
Yield to Maturity	
Range	% Held
0.0 - 5.0	78.9
5.0 - 7.0	17.5
7.0 - 9.0	2.5
9.0 - 11.0	0.4
11.0 - 13.0	0.1
13.0+	0.2
Unclassified	0.4

Average Life	
Range	% Held
0.0 - 1.0	7.9
1.0 - 3.0	11.1
3.0 - 5.0	14.6
5.0 - 10.0	36.4
10.0 - 20.0	13.7
20.0+	16.2
Unclassified	0.0

Duration	
Range	% Held
0.0 - 1.0	15.0
1.0 - 3.0	14.8
3.0 - 5.0	16.0
5.0 - 7.0	14.9
7.0 - 10.0	10.8
10.0+	28.5
Unclassified	0.0

Quality	
Range	% Held
Govt (10)	46.4
Aaa (10)	21.1
Aa (9)	10.8
A (8)	7.9
Baa (7)	11.4
Below Baa (6-1)	0.3
Other	2.1

Coupon	
Range	% Held
0.0 - 5.0	73.7
5.0 - 7.0	20.8
7.0 - 9.0	2.8
9.0 - 11.0	0.3
11.0 - 13.0	0.0
13.0+	0.0
Unclassified	2.5



Sector	Account Weight	Bloomberg Aggregate Weight	Difference
Treasuries [†]	18.6%	43.4%	-24.8%
Agencies	0.0%	4.5%	-4.5%
Corporates	0.0%	24.4%	-24.4%
Utilities	0.0%	0.0%	0.0%
Foreign	0.0%	0.0%	0.0%
MBS/CMO	43.0%	25.2%	17.9%
CMBS	13.2%	0.0%	13.2%
ABS	11.2%	2.0%	9.3%
Municipals	0.0%	0.0%	0.0%
Others/Cash*	14.0%	0.6%	13.5%
TOTAL	100.0%	100.0%	0.0%

⁺ May include TIPS allocation.

^{*} Includes CLOs.

Portfolio Characteristics	
	Portfolio
Total Number of Securities	262
Total Market Value	\$ 274,670,494
Current Coupon	5.57
Yield to Maturity	5.27
Average Life	6.83
Duration	3.07
Quality	AA

Bloomberg Aggregate
3.35
4.21
8.39
6.05
AA

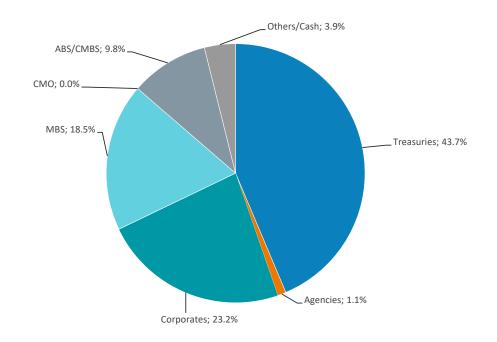
Yield to Maturity	
Range	% Held
0.0 - 5.0	55.9
5.0 - 7.0	35.4
7.0 - 9.0	7.4
9.0 - 11.0	0.7
11.0 - 13.0	0.1
13.0+	0.6
Unclassified	0.0

Average Life	
Range	% Held
0.0 - 1.0	18.1
1.0 - 3.0	7.4
3.0 - 5.0	14.2
5.0 - 10.0	43.7
10.0 - 20.0	11.8
20.0+	4.8
Unclassified	0.0

Duration	
Range	% Held
0.0 - 1.0	36.0
1.0 - 3.0	18.1
3.0 - 5.0	16.0
5.0 - 7.0	11.0
7.0 - 10.0	4.4
10.0+	14.6
Unclassified	0.0

Quality	
Range	% Held
Govt (10)	28.5
Aaa (10)	40.6
Aa (9)	4.4
A (8)	8.0
Baa (7)	10.9
Below Baa (6-1)	0.7
Other	6.9

Coupon	
Range	% Held
0.0 - 5.0	56.5
5.0 - 7.0	28.2
7.0 - 9.0	7.4
9.0 - 11.0	0.9
11.0 - 13.0	0.0
13.0+	0.0
Unclassified/Cash	6.9



Sector	Account Weight	Bloomberg Aggregate Weight	Difference
Treasuries	43.7%	43.4%	0.3%
Agencies	1.1%	4.5%	-3.5%
Corporates	23.2%	24.4%	-1.3%
Utilities	0.0%	0.0%	0.0%
Foreign	0.0%	0.0%	0.0%
MBS	18.5%	25.2%	-6.7%
CMO	0.0%	0.0%	0.0%
ABS/CMBS	9.8%	2.0%	7.8%
Municipals	0.0%	0.0%	0.0%
Others/Cash	3.9%	0.6%	3.3%
TOTAL	100.0%	100.0%	0.0%

Portfolio Characteristics	
	Portfolio
Total Number of Securities	505
Total Market Value	\$ 194,283,357
Current Coupon	4.20
Yield to Maturity	4.80
Average Life	8.93
Duration	6.14
Quality	AA-

Bloomberg Aggre	egate
	3.35
	4.21
	8.39
	6.05
	AA

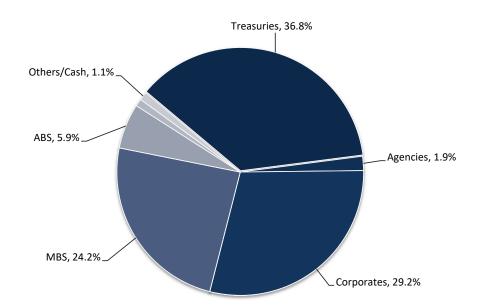
Yield to Maturity	
Range	% Held
0.0 - 5.0	80.3
5.0 - 7.0	17.5
7.0 - 9.0	1.1
9.0 - 11.0	0.5
11.0 - 13.0	0.5
13.0+	0.1
Unclassified	0.0

Average Life	
Range	% Held
0.0 - 1.0	5.7
1.0 - 3.0	9.5
3.0 - 5.0	18.7
5.0 - 10.0	50.0
10.0 - 20.0	3.5
20.0+	12.5
Unclassified	0.13

Duration	
Range	% Held
0.0 - 1.0	13.3
1.0 - 3.0	7.8
3.0 - 5.0	21.7
5.0 - 7.0	26.3
7.0 - 10.0	15.7
10.0+	14.9
Unclassified	0.13

Quality	
Range	% Held
Govt (10)	44.7
Aaa (10)	27.7
Aa (9)	2.9
A (8)	7.0
Baa (7)	17.4
Below Baa (6-1)	0.3
Other	0.00

Coupon	
Range	% Held
0.0 - 5.0	75.2
5.0 - 7.0	23.3
7.0 - 9.0	1.6
9.0 - 11.0	0.0
11.0 - 13.0	
13.0+	0.0
Unclassified	



Sector	Account Weight	Bloomberg Aggregate Weight	Difference
Treasuries	36.8%	43.4%	-6.5%
Agencies	1.9%	4.5%	-2.6%
Corporates	29.2%	24.4%	4.7%
Utilities	0.0%	0.0%	0.0%
Foreign	0.0%	0.0%	0.0%
MBS	24.2%	25.2%	-1.0%
CMO	0.0%	0.0%	0.0%
ABS	5.9%	2.0%	3.9%
Municipals	1.0%	0.0%	1.0%
Others/Cash	1.1%	0.6%	0.5%
TOTAL	100.0%	100.0%	0.0%

Portfolio Characteristics	
	Portfolio
Total Number of Securities	604
Total Market Value	\$ 296,032,763
Current Coupon	3.61
Yield to Maturity	4.32
Average Life	8.76
Duration	6.16
Quality	Aa2

Bloomberg Aggr	egate
	3.35
	4.21
	8.39
	6.05
	AA

Yield to Maturity	
Range	% Held
0.0 - 5.0	89.5
5.0 - 7.0	9.2
7.0 - 9.0	0.0
9.0 - 11.0	0.3
11.0 - 13.0	0.0
13.0+	0.0
Unclassified*	1.1

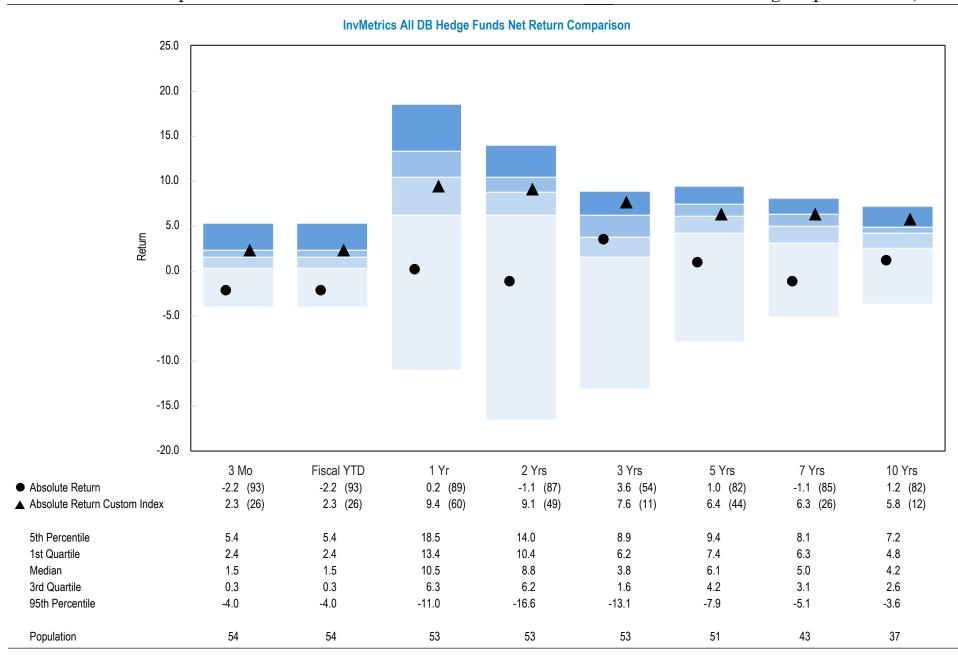
Average Life	
Range	% Held
0.0 - 1.0	3.7
1.0 - 3.0	20.8
3.0 - 5.0	19.2
5.0 - 10.0	38.1
10.0 - 20.0	8.4
20.0+	9.8
Unclassified	0.0

Duration	
Range	% Held
< 1.0	3.7
1.0 - 3.0	23.4
3.0 - 5.0	19.8
5.0 - 7.0	18.1
7.0 - 10.0	18.2
10.0+	16.8
Unclassified	0.0

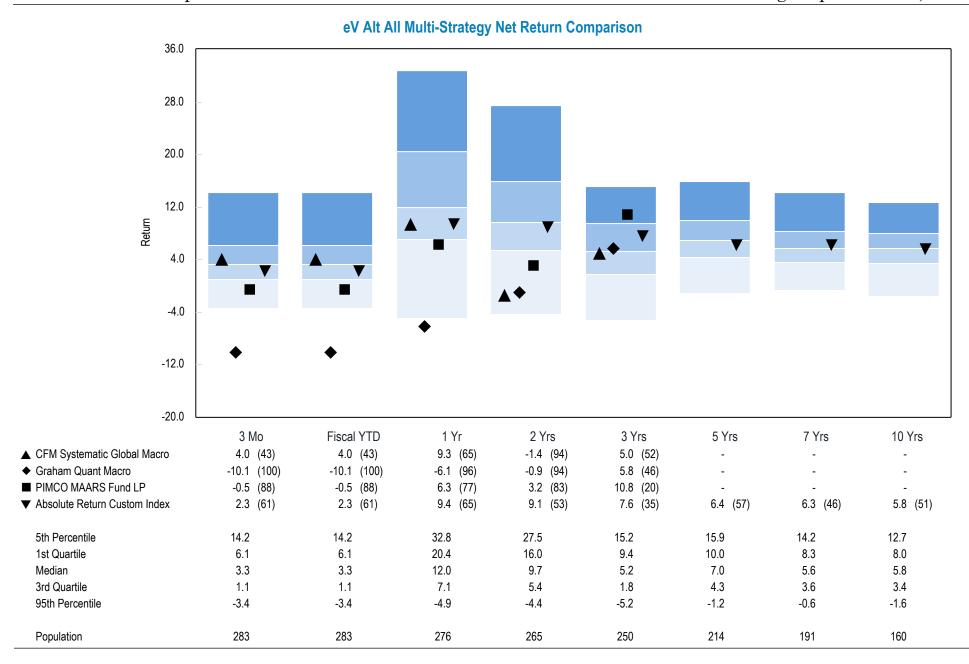
^{*}Unclassified includes a 0.65% cash position

Quality	
Range	% Held
Govt* (10)	38.7
Aaa (10)	8.6
Aa (9)	27.2
A (8)	12.1
Baa (7)	13.3
Below Baa (6-1)	0.0
Other	0.0

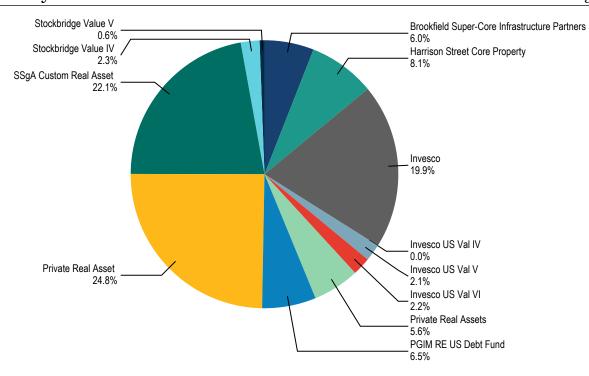
Coupon	
Range	% Held
0.0 - 5.0	76.4
5.0 - 7.0	21.9
7.0 - 9.0	0.6
9.0 - 10.0	0.0
10.0+	0.0
Unclassified	1.1











			Manager Contribution to
	Actual \$	Actual %	Excess Return %
Harrison Street Core Property	\$90,318,057	8.1%	0.0%
Invesco	\$222,848,719	19.9%	-0.3%
Invesco US Val IV	\$99,531	0.0%	0.0%
Invesco US Val V	\$22,961,470	2.1%	0.0%
Invesco US Val VI	\$24,355,357	2.2%	0.0%
PGIM RE US Debt Fund	\$72,917,325	6.5%	0.1%
Stockbridge Value IV	\$25,426,593	2.3%	-0.1%
Stockbridge Value V	\$6,607,662	0.6%	0.0%
Private Real Asset	\$277,272,367	24.8%	-0.1%
Brookfield Super-Core Infrastructure Partners	\$66,770,054	6.0%	0.0%
KKR Diversified Core Infrastructure Fund	\$62,890,915	5.6%	0.0%
SSgA Custom Real Asset	\$247,473,860	22.1%	0.0%
Actual vs. Policy Weight Difference			2.0%
Total	\$1,119,941,910	100.0%	1.5%



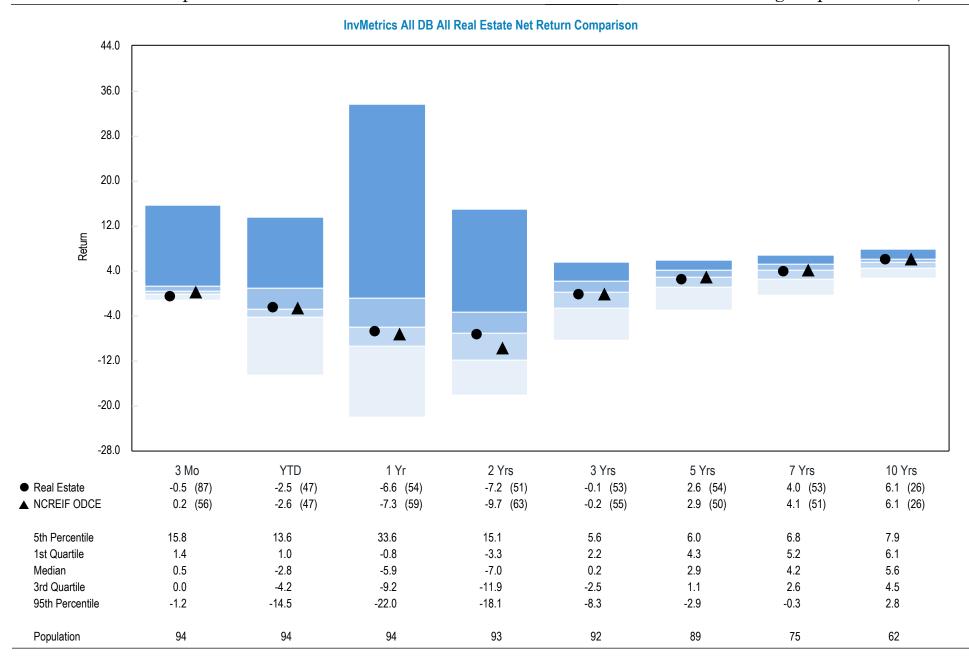
		3 Years			
	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio	Information Ratio	Tracking Error
Inflation Hedge	3.7	5.0	0.1	0.0	5.2
Blended Inflation Hedge Index	3.3	7.7	0.0	-	0.0
Real Estate	-0.1	5.9	-0.5	0.0	3.1
NCREIF ODCE	-0.2	8.5	-0.4	-	0.0
Invesco	-2.1	7.9	-0.6	-1.1	1.9
NCREIF ODCE	-0.2	8.5	-0.4	-	0.0
Invesco US Val IV	-41.0	32.8	-1.5	-1.5	31.0
NCREIF ODCE	-0.2	8.5	-0.4	-	0.0
Invesco US Val V	-10.1	14.6	-0.9	-0.8	11.8
NCREIF ODCE	-0.2	8.5	-0.4	-	0.0
PGIM RE US Debt Fund	6.2	0.7	3.0	0.7	8.3
NCREIF ODCE	-0.2	8.5	-0.4	-	0.0
Private Real Assets	8.9	7.2	0.7	0.0	17.3
Blended Private Real Assets Index	7.4	16.4	0.3	-	0.0
Public Real Assets	5.4	12.5	0.2	-0.2	0.3
Blended Public Real Assets Index	5.5	12.5	0.2	-	0.0
SSgA Custom Real Asset	5.4	12.5	0.2	-0.2	0.3
SSgA Custom Real Asset Index	5.5	12.5	0.2	-	0.0

Statistics Summary



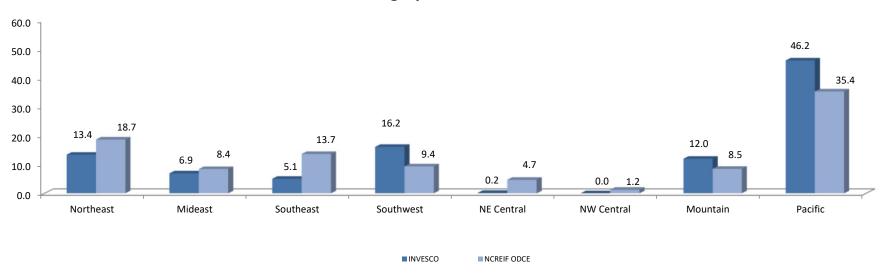
		Statistics Summary 5 Years			
	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio	Information Ratio	Tracking Error
Inflation Hedge	4.1	6.4	0.3	-0.3	4.8
Blended Inflation Hedge Index	5.4	7.6	0.4	-	0.0
Real Estate	2.6	5.8	0.1	-0.2	2.5
NCREIF ODCE	2.9	7.5	0.1	-	0.0
Invesco	1.4	7.7	-0.1	-0.7	2.1
NCREIF ODCE	2.9	7.5	0.1	-	0.0
Invesco US Val IV	-25.4	26.7	-1.0	-1.1	25.0
NCREIF ODCE	2.9	7.5	0.1	-	0.0
PGIM RE US Debt Fund	5.7	1.1	2.7	0.3	7.4
NCREIF ODCE	2.9	7.5	0.1	-	0.0
Private Real Assets	11.1	10.5	0.8	0.1	20.5
Blended Private Real Assets Index	6.8	19.0	0.3	-	0.0
Public Real Assets	3.5	16.8	0.2	-0.7	3.3
Blended Public Real Assets Index	6.1	14.9	0.3	-	0.0
SSgA Custom Real Asset	6.1	14.7	0.3	-0.1	0.7
SSgA Custom Real Asset Index	6.1	14.9	0.3	-	0.0



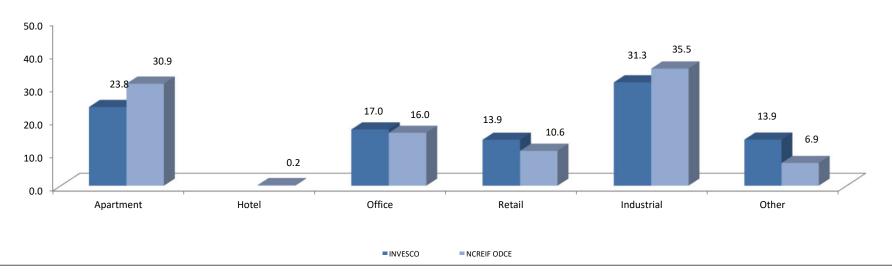




Geographic Diversification



Property Diversification





		Statistics Summa 3 Years	ary		
	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio	Information Ratio	Tracking Error
County Treasury Pool	2.5	1.8	-0.5	-0.5	1.9
90 Day U.S. Treasury Bill	3.5	0.6	-	-	0.0
Cash & Cash Overlay	3.9	0.7	2.1	2.1	0.2
90 Day U.S. Treasury Bill	3.5	0.6	-	-	0.0
General Account	3.9	0.6	3.2	3.2	0.1
90 Day U.S. Treasury Bill	3.5	0.6	-	-	0.0



Acadian Asset Management – MAARS Fund

Acadian Multi-Asset Absolute Return (MAARS) strategy was incepted in November 2017. MAARS targets a volatility of 6%-8% and a return of cash plus 5%. This is a multi-factorstrategy 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. – 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 underappreciate 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.

Eaton Vance – Emerging Markets Debt Opportunities Fund

Eaton Vance's Emerging Market Debt Opportunities (EMDO) strategy utilizes a combination approach to build a portfolio of fixed income securities that is highly diversified across geographies, issuers, credit quality, and currencies to achieve a higher expected return relative to the benchmark with similar volatility.

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 investment 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.



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 it's 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.



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
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%
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 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 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%
Blended Public Real Assets	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 Assets	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 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 (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%
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%
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%
	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				
	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%



3/1/99

0.0%

0.0%

0.0%

32.3%

8.0%

24.2%

0.0%

0.0%

0.0%

0.0%

0.0%

33.3%

8.4%

25.0%

0.0%

0.0%

0.0%

0.0%

33.3%

33.3%

0.0%

25.0%

0.0%

8.4%

23.1%

0.0%

0.0%

0.0%

61.5%

0.0%

15.4%

0.0%

0.0%

													OIIC	м 1		<u> </u>	CPU
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
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%
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%
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%
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%
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%
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%
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%
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%
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%
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%
	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%
HC Fauity Danahasaul	As of:																
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%										
3 & F 300	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								
MCCLACM/Lay LIC																	
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% 100.0%	0.0% 100.0%	0.0% 100.0%	0.0% 100.0%	0.0% 100.0%	0.0% 100.0%	0.0% 100.0%	0.0%	100.0%								
	100.076	100.0 /6	100.0 /6	100.076	100.078	100.0 /6	100.076	100.076	100.078								
Defensive 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:																
opportunistic orealt benchmark	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%															
Public Credit Benchmark	As of:	41414.4	40/4/00														
D	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% 100.0%	0.0% 100.0%	100.0%														
	100.076	100.070	100.078														
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%														
Pleamberg LIC Corporate LIV	0.00/	0.00/	100 00/														

100.0%

0.0%

100.0%

0.0%

100.0%

0.0%



Bloomberg US Corporate HY

Bloomberg Credit BAA

Cliffwater Direct Lending Index

Private Equity Benchmark	As of:								
D # 10000 00% 40 1	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:								
illiation rieage Denominark	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 Assets	22.22%	23.53%	23.53%	35.29%	35.29%	33.3%	0.0%	0.0%	0.0%
Blended Private Real Assets	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%
TOTAL OBSE	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Public Real Assets 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 Assets Benchmark	As of:								
1 HVate Real Addeto Bellollillark				1/1/14					
	1/1/21	4/1/18	10/1/16						
Bloomberg Roll Select Commodity	1/1/21 0.00%	4/1/18 0.00%	10/1/16 34 00%						
Bloomberg Roll Select Commodity S&P Global Large-MidCan Commodity and Resources	0.00%	0.00%	34.00%	0.0%					
S&P Global Large-MidCap Commodity and Resources	0.00% 0.00%	0.00% 0.00%	34.00% 33.00%	0.0%					
S&P Global Large-MidCap Commodity and Resources S&P Global Infrastructure	0.00% 0.00% 0.00%	0.00% 0.00% 0.00%	34.00% 33.00% 33.00%	0.0% 0.0% 0.0%					
S&P Global Large-MidCap Commodity and Resources S&P Global Infrastructure 50/50 S&P Global Infra & Lrg-MidCap Com & Resources +2% 1QL	0.00% 0.00% 0.00% 0.00%	0.00% 0.00% 0.00% 100.00%	34.00% 33.00% 33.00% 0.00%	0.0% 0.0% 0.0% 0.0%					
S&P Global Large-MidCap Commodity and Resources S&P Global Infrastructure 50/50 S&P Global Infra & Lrg-MidCap Com & Resources +2% 1QL 75/25 S&P Global Infra & Lrg-MidCap Com & Resources +2% 1QL	0.00% 0.00% 0.00% 0.00% 100.00%	0.00% 0.00% 0.00% 100.00% 0.00%	34.00% 33.00% 33.00% 0.00% 0.00%	0.0% 0.0% 0.0% 0.0% 0.0%					
S&P Global Large-MidCap Commodity and Resources S&P Global Infrastructure 50/50 S&P Global Infra & Lrg-MidCap Com & Resources +2% 1QL	0.00% 0.00% 0.00% 0.00% 100.00% 0.00%	0.00% 0.00% 0.00% 100.00% 0.00%	34.00% 33.00% 33.00% 0.00% 0.00% 0.00%	0.0% 0.0% 0.0% 0.0% 0.0% 100.0%					
S&P Global Large-MidCap Commodity and Resources S&P Global Infrastructure 50/50 S&P Global Infra & Lrg-MidCap Com & Resources +2% 1QL 75/25 S&P Global Infra & Lrg-MidCap Com & Resources +2% 1QL	0.00% 0.00% 0.00% 0.00% 100.00%	0.00% 0.00% 0.00% 100.00% 0.00%	34.00% 33.00% 33.00% 0.00% 0.00%	0.0% 0.0% 0.0% 0.0% 0.0%					
S&P Global Large-MidCap Commodity and Resources S&P Global Infrastructure 50/50 S&P Global Infra & Lrg-MidCap Com & Resources +2% 1QL 75/25 S&P Global Infra & Lrg-MidCap Com & Resources +2% 1QL	0.00% 0.00% 0.00% 0.00% 100.00% 100.00% As of:	0.00% 0.00% 0.00% 100.00% 0.00%	34.00% 33.00% 33.00% 0.00% 0.00% 0.00%	0.0% 0.0% 0.0% 0.0% 0.0% 100.0%					
S&P Global Large-MidCap Commodity and Resources S&P Global Infrastructure 50/50 S&P Global Infra & Lrg-MidCap Com & Resources +2% 1QL 75/25 S&P Global Infra & Lrg-MidCap Com & Resources +2% 1QL CPI + 5% Private RA Secondary Benchmark	0.00% 0.00% 0.00% 0.00% 100.00% 100.00% 100.0% As of: 9/1/14	0.00% 0.00% 0.00% 100.00% 0.00%	34.00% 33.00% 33.00% 0.00% 0.00% 0.00%	0.0% 0.0% 0.0% 0.0% 0.0% 100.0%					
S&P Global Large-MidCap Commodity and Resources S&P Global Infrastructure 50/50 S&P Global Infra & Lrg-MidCap Com & Resources +2% 1QL 75/25 S&P Global Infra & Lrg-MidCap Com & Resources +2% 1QL CPI + 5% Private RA Secondary Benchmark Cambridge Associates Private Natural Resources 1 Qtr Lag	0.00% 0.00% 0.00% 0.00% 100.00% 100.00% As of: 9/1/14 50.0%	0.00% 0.00% 0.00% 100.00% 0.00%	34.00% 33.00% 33.00% 0.00% 0.00% 0.00%	0.0% 0.0% 0.0% 0.0% 0.0% 100.0%					
S&P Global Large-MidCap Commodity and Resources S&P Global Infrastructure 50/50 S&P Global Infra & Lrg-MidCap Com & Resources +2% 1QL 75/25 S&P Global Infra & Lrg-MidCap Com & Resources +2% 1QL CPI + 5% Private RA Secondary Benchmark	0.00% 0.00% 0.00% 0.00% 100.00% 100.00% As of: 9/1/14 50.0%	0.00% 0.00% 0.00% 100.00% 0.00%	34.00% 33.00% 33.00% 0.00% 0.00% 0.00%	0.0% 0.0% 0.0% 0.0% 0.0% 100.0%					
S&P Global Large-MidCap Commodity and Resources S&P Global Infrastructure 50/50 S&P Global Infra & Lrg-MidCap Com & Resources +2% 1QL 75/25 S&P Global Infra & Lrg-MidCap Com & Resources +2% 1QL CPI + 5% Private RA Secondary Benchmark Cambridge Associates Private Natural Resources 1 Qtr Lag	0.00% 0.00% 0.00% 0.00% 100.00% 100.00% As of: 9/1/14 50.0%	0.00% 0.00% 0.00% 100.00% 0.00%	34.00% 33.00% 33.00% 0.00% 0.00% 0.00%	0.0% 0.0% 0.0% 0.0% 0.0% 100.0%					
S&P Global Large-MidCap Commodity and Resources S&P Global Infrastructure 50/50 S&P Global Infra & Lrg-MidCap Com & Resources +2% 1QL 75/25 S&P Global Infra & Lrg-MidCap Com & Resources +2% 1QL CPI + 5% Private RA Secondary Benchmark Cambridge Associates Private Natural Resources 1 Qtr Lag Cambridge Associates Private Infrastructure 1 Qtr Lag	0.00% 0.00% 0.00% 0.00% 100.00% 100.00% 400.00% 50.0% 100.0%	0.00% 0.00% 0.00% 100.00% 0.00%	34.00% 33.00% 33.00% 0.00% 0.00% 0.00%	0.0% 0.0% 0.0% 0.0% 0.0% 100.0%					
S&P Global Large-MidCap Commodity and Resources S&P Global Infrastructure 50/50 S&P Global Infra & Lrg-MidCap Com & Resources +2% 1QL 75/25 S&P Global Infra & Lrg-MidCap Com & Resources +2% 1QL CPI + 5% Private RA Secondary Benchmark Cambridge Associates Private Natural Resources 1 Qtr Lag	0.00% 0.00% 0.00% 0.00% 100.00% 100.00% 400.00% As of: 9/1/14 50.0% 50.0% 100.0% As of:	0.00% 0.00% 0.00% 100.00% 0.00% 0.00% 100.0%	34.00% 33.00% 33.00% 0.00% 0.00% 100.0%	0.0% 0.0% 0.0% 0.0% 0.0% 100.0%					
S&P Global Large-MidCap Commodity and Resources S&P Global Infrastructure Sol/50 S&P Global Infra & Lrg-MidCap Com & Resources +2% 1QL 75/25 S&P Global Infra & Lrg-MidCap Com & Resources +2% 1QL CPI + 5% Private RA Secondary Benchmark Cambridge Associates Private Natural Resources 1 Qtr Lag Cambridge Associates Private Infrastructure 1 Qtr Lag Real Estate Benchmark	0.00% 0.00% 0.00% 100.00% 100.00% 100.00% 50.00% As of: 9/1/14 50.0% 50.0% 100.0% As of: 1/1/09	0.00% 0.00% 100.00% 100.00% 0.00% 100.0%	34.00% 33.00% 33.00% 0.00% 0.00% 100.0%	0.0% 0.0% 0.0% 0.0% 0.0% 100.0%					
S&P Global Large-MidCap Commodity and Resources S&P Global Infrastructure 50/50 S&P Global Infra & Lrg-MidCap Com & Resources +2% 1QL 75/25 S&P Global Infra & Lrg-MidCap Com & Resources +2% 1QL CPI + 5% Private RA Secondary Benchmark Cambridge Associates Private Natural Resources 1 Qtr Lag Cambridge Associates Private Infrastructure 1 Qtr Lag Real Estate Benchmark 10 Year Treasury +2%	0.00% 0.00% 0.00% 100.00% 100.00% 100.00% 4s of: 9/1/14 50.0% 100.0% As of: 1/1/09 0.0%	0.00% 0.00% 100.00% 0.00% 0.00% 100.00%	34.00% 33.00% 33.00% 0.00% 0.00% 100.0%	0.0% 0.0% 0.0% 0.0% 0.0% 100.0%					
S&P Global Large-MidCap Commodity and Resources S&P Global Infrastructure 50/50 S&P Global Infra & Lrg-MidCap Com & Resources +2% 1QL 75/25 S&P Global Infra & Lrg-MidCap Com & Resources +2% 1QL CPI + 5% Private RA Secondary Benchmark Cambridge Associates Private Natural Resources 1 Qtr Lag Cambridge Associates Private Infrastructure 1 Qtr Lag Real Estate Benchmark 10 Year Treasury +2% NCREIF ODCE	0.00% 0.00% 0.00% 100.00% 100.00% 100.00% 4s of: 9/1/14 50.0% 50.0% 100.0% As of: 1/1/109 0.0% 100.0%	0.00% 0.00% 100.00% 100.00% 0.00% 100.00% 100.0%	34.00% 33.00% 33.00% 0.00% 0.00% 100.0% 7/1/96 100.0% 0.0%	0.0% 0.0% 0.0% 0.0% 0.0% 100.0%					
S&P Global Large-MidCap Commodity and Resources S&P Global Infrastructure 50/50 S&P Global Infra & Lrg-MidCap Com & Resources +2% 1QL 75/25 S&P Global Infra & Lrg-MidCap Com & Resources +2% 1QL CPI + 5% Private RA Secondary Benchmark Cambridge Associates Private Natural Resources 1 Qtr Lag Cambridge Associates Private Infrastructure 1 Qtr Lag Real Estate Benchmark 10 Year Treasury +2%	0.00% 0.00% 0.00% 100.00% 100.00% 100.00% 4s of: 9/1/14 50.0% 100.0% As of: 1/1/09 0.0%	0.00% 0.00% 100.00% 100.00% 0.00% 100.0%	34.00% 33.00% 33.00% 0.00% 0.00% 100.0% 100.0%	0.0% 0.0% 0.0% 0.0% 0.0% 100.0%					
S&P Global Large-MidCap Commodity and Resources S&P Global Infrastructure Sol/50 S&P Global Infra & Lrg-MidCap Com & Resources +2% 1QL 75/25 S&P Global Infra & Lrg-MidCap Com & Resources +2% 1QL CPI + 5% Private RA Secondary Benchmark Cambridge Associates Private Natural Resources 1 Qtr Lag Cambridge Associates Private Infrastructure 1 Qtr Lag Real Estate Benchmark 10 Year Treasury +2% NCREIF ODCE NCREIF Property	0.00% 0.00% 0.00% 100.00% 100.00% 100.00% 4s of: 9/1/14 50.0% 100.0% As of: 1/1/09 0.0% 100.0%	0.00% 0.00% 100.00% 100.00% 0.00% 100.00% 100.0%	34.00% 33.00% 33.00% 0.00% 0.00% 100.0% 7/1/96 100.0% 0.0%	0.0% 0.0% 0.0% 0.0% 0.0% 100.0%					
S&P Global Large-MidCap Commodity and Resources S&P Global Infrastructure 50/50 S&P Global Infra & Lrg-MidCap Com & Resources +2% 1QL 75/25 S&P Global Infra & Lrg-MidCap Com & Resources +2% 1QL CPI + 5% Private RA Secondary Benchmark Cambridge Associates Private Natural Resources 1 Qtr Lag Cambridge Associates Private Infrastructure 1 Qtr Lag Real Estate Benchmark 10 Year Treasury +2% NCREIF ODCE	0.00% 0.00% 0.00% 100.00% 100.00% 100.00% 4s of: 9/1/14 50.0% 50.0% 100.00% As of: 1/1/109 0.0% 100.0% As of:	0.00% 0.00% 0.00% 100.00% 0.00% 100.0% 100.0%	34.00% 33.00% 33.00% 0.00% 0.00% 100.0% 100.0%	0.0% 0.0% 0.0% 0.0% 0.0% 100.0%					
S&P Global Large-MidCap Commodity and Resources S&P Global Infrastructure 50/50 S&P Global Infra & Lrg-MidCap Com & Resources +2% 1QL 75/25 S&P Global Infra & Lrg-MidCap Com & Resources +2% 1QL CPI + 5% Private RA Secondary Benchmark Cambridge Associates Private Natural Resources 1 Qtr Lag Cambridge Associates Private Infrastructure 1 Qtr Lag Real Estate Benchmark 10 Year Treasury +2% NCREIF ODCE NCREIF Property Liquidity Benchmark	0.00% 0.00% 0.00% 100.00% 100.00% 100.00% As of: 9/1/14 50.0% 100.0% As of: 1/1/09 0.0% 100.0% As of: 10/1/22	0.00% 0.00% 100.00% 0.00% 100.00% 100.0% 6/1/00 0.0% 100.0%	34.00% 33.00% 33.00% 0.00% 0.00% 100.0% 100.0%	0.0% 0.0% 0.0% 0.0% 0.0% 100.0%					
S&P Global Large-MidCap Commodity and Resources S&P Global Infrastructure S&P Global Infras & Lrg-MidCap Com & Resources +2% 1QL 75/25 S&P Global Infra & Lrg-MidCap Com & Resources +2% 1QL CPI + 5% Private RA Secondary Benchmark Cambridge Associates Private Natural Resources 1 Qtr Lag Cambridge Associates Private Infrastructure 1 Qtr Lag Real Estate Benchmark 10 Year Treasury +2% NCREIF ODCE NCREIF Property Liquidity Benchmark Bloomberg US Govt/Credit 1-3 Yr. TR	0.00% 0.00% 0.00% 100.00% 100.00% 100.00% As of: 9/1/14 50.0% 50.0% 100.0% As of: 1/1/09 0.0% 100.0% As of: 10/1/22 81.8%	0.00% 0.00% 100.00% 100.00% 0.00% 100.0% 6/1/00 0.0% 100.0% 100.0%	34.00% 33.00% 33.00% 0.00% 0.00% 100.0% 100.0%	0.0% 0.0% 0.0% 0.0% 0.0% 100.0%					
S&P Global Large-MidCap Commodity and Resources S&P Global Infrastructure 50/50 S&P Global Infra & Lrg-MidCap Com & Resources +2% 1QL 75/25 S&P Global Infra & Lrg-MidCap Com & Resources +2% 1QL CPI + 5% Private RA Secondary Benchmark Cambridge Associates Private Natural Resources 1 Qtr Lag Cambridge Associates Private Infrastructure 1 Qtr Lag Real Estate Benchmark 10 Year Treasury +2% NCREIF ODCE NCREIF Property Liquidity Benchmark	0.00% 0.00% 0.00% 100.00% 100.00% 100.00% As of: 9/1/14 50.0% 100.0% As of: 1/1/09 0.0% 100.0% As of: 10/1/22	0.00% 0.00% 100.00% 0.00% 100.00% 100.0% 6/1/00 0.0% 100.0%	34.00% 33.00% 33.00% 0.00% 0.00% 100.0% 100.0%	0.0% 0.0% 0.0% 0.0% 0.0% 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%
D.III. O.W. 10		
Baillie Gifford Secondary Benchmark	As of:	5440
MOOL ACM/Leve LIC Consults	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:	
brigade occorridary benominark	8/1/10	
Bloomberg High Yield	50.0%	
Credit Suisse Leveraged Loans	50.0%	
Crodit Guidoc Edveragea Edulio	100.0%	
	1001070	
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 Assets	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 Large-MidCap Commodity and Resources S&P Global Infrastructure	25.00%	33.34%
S&P Global Large-MidCap Commodity and Resources		



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
BlackRock-MSCI ACWI ex US IMI Index Fund	
On All Assets:	0.045% per annum
<u>DoubleLine</u>	
On All Assets:	0.30% per annum
<u>NISA</u>	
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

Eaton Vance	
On All Assets:	0.54% 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
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, 2024

Manager Compliance (Net)

Fund Name	Benchmark	Rule 1	Rule 2	Rule 3
Acadian US MGD V	Russell 1000 Index	-	-	-
DE Shaw	Russell 1000 Index	B	✓	R
PanAgora Defuseq	Russell 1000 Index	R	B	R
PGIM Quant Solutions	Russell 2000 Index	✓	B	✓
Baillie Gifford	MSCI ACWI ex US	R	B	R
Mondrian	MSCI AC World ex USA Value	B	B	R
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 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	✓	✓	✓
PIMCO Diversified	Blmbg. U.S. Corp: High Yield Index	-	B	-
Eaton Vance Emerging Markets Debt Opportunities Fund	JPM EMB (JEMB) Hard Currency/Local Currency 50-50	-	-	-
CFM Systematic Global Macro	Absolute Return Custom Index	-	-	-
Graham Quant Macro	Absolute Return Custom Index	-	-	-
PIMCO MAARS Fund LP	Absolute Return Custom Index	-	-	-

San Mateo County Employees' Retirement Association Period Ending: September 30, 2024

Manager Compliance (Gross)

Fund Name	Benchmark	Rule 1	Rule 2	Rule 3
Acadian US MGD V	Russell 1000 Index	-	-	-
DE Shaw	Russell 1000 Index	✓	V	✓
PanAgora Defuseq	Russell 1000 Index	B	B	R
PGIM Quant Solutions	Russell 2000 Index	✓	B	✓
Baillie Gifford	MSCI ACWI ex US	B	B	R
Mondrian	MSCI AC World ex USA Value	B	B	R
DoubleLine	Blmbg. U.S. Aggregate Index	-	-	-
FIAM Bond	Blmbg. U.S. Aggregate Index	✓	V	V
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 Credit Solutions	Blmbg. U.S. Corp: High Yield Index	-	-	-
Beach Point Select	Blmbg. U.S. Corp: High Yield Index	✓	V	V
Brigade Capital	Blmbg. U.S. Corp: High Yield Index	✓	V	V
PIMCO Diversified	Blmbg. U.S. Corp: High Yield Index	-	B	-
Eaton Vance Emerging Markets Debt Opportunities Fund	JPM EMB (JEMB) Hard Currency/Local Currency 50-50	-	-	-
CFM Systematic Global Macro	Absolute Return Custom Index	-	-	-
Graham Quant Macro	Absolute Return Custom Index	-	-	-
PIMCO MAARS Fund LP	Absolute Return Custom Index	-	-	-

	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**	6,823,678,255	100.0	4.4 (60)	4.4 (60)	16.0 (63)	11.9 (76)	4.5 (57)	7.2 (82)	6.9	(63)
Policy Index			4.5 (54)	4.5 (54)	18.1 (35)	14.2 (39)	5.5 (21)	8.1 (55)	7.4	(44)
Simple Benchmark			5.2 (28)	5.2 (28)	18.8 (26)	13.9 (47)	4.2 (68)	7.8 (67)	7.1	(55)
Total Fund ex Overlay	6,807,928,178	99.8	4.4 (61)	4.4 (61)	15.9 (64)	11.6 (80)	4.4 (58)	7.1 (83)	6.8	(68)
Policy Index			4.5 (54)	4.5 (54)	18.1 (35)	14.2 (39)	5.5 (21)	8.1 (55)	7.4	(44)
Simple Benchmark			5.2 (28)	5.2 (28)	18.8 (26)	13.9 (47)	4.2 (68)	7.8 (67)	7.1	(55)
Growth Portfolio	4,071,321,231	59.7	5.7	5.7	22.8	18.9				
Blended Growth Index			5.4	5.4	26.8	22.8	8.1	11.9	-	
US Equity	1,629,707,063	23.9	7.5 (4)	7.5 (4)	34.3 (41)	25.5 (68)	11.1 (10)	13.8 (76)	12.1	(71)
Blended US Equity Index			6.2 (55)	6.2 (55)	35.2 (17)	27.6 (26)	10.3 (29)	15.3 (27)	12.8	(33)
Russell 3000 Index			6.2 (55)	6.2 (55)	35.2 (17)	27.6 (26)	10.3 (29)	15.3 (27)	12.8	(34)
BlackRock Russell 1000	953,703,281	14.0	6.1 (46)	6.1 (46)	35.7 (43)	28.3 (40)	10.8 (56)	15.7 (39)	-	
DE Shaw	258,659,706	3.8	8.9 (9)	8.9 (9)	41.6 (8)	29.1 (31)	13.2 (16)	15.9 (35)	14.0	(15)
PanAgora Defuseq	275,176,857	4.0	9.9 (4)	9.9 (4)	25.8 (90)	16.5 (98)	8.9 (85)	9.2 (98)	-	
Russell 1000 Index			6.1 (46)	6.1 (46)	35.7 (44)	28.2 (40)	10.8 (56)	15.6 (40)	13.1	(42)
PGIM Quant Solutions	134,356,232	2.0	9.9 (25)	9.9 (25)	27.1 (36)	22.9 (18)	8.2 (16)	11.6 (45)	-	
Russell 2000 Index			9.3 (39)	9.3 (39)	26.8 (37)	17.5 (66)	1.8 (80)	9.4 (78)	8.8	(74)
International Equity	1,286,635,700	18.9	6.0 (83)	6.0 (83)	21.6 (96)	21.5 (86)	3.5 (67)	7.7 (75)	5.9	(63)
Blended International Equity Index			5.9 (84)	5.9 (84)	23.7 (74)	21.7 (84)	5.9 (13)	8.9 (39)	6.2	(45)
Baillie Gifford	318,710,768	4.7	9.8 (12)	9.8 (12)	26.2 (47)	19.6 (73)	-4.2 (81)	6.5 (89)	6.3	(94)
MSCI ACWI ex US			8.2 (34)	8.2 (34)	26.0 (50)	23.5 (38)	4.7 (14)	8.1 (65)	5.7	(98)
MSCI ACWI ex US Growth			7.0 (47)	7.0 (47)	27.1 (39)	21.5 (63)	1.1 (40)	7.4 (77)	6.3	(93)
Mondrian	320,835,532	4.7	11.3 (8)	11.3 (8)	25.9 (28)	26.5 (37)	6.7 (58)	7.7 (87)	5.0	(78)
MSCI AC World ex USA Value			9.4 (25)	9.4 (25)	24.9 (35)	25.5 (46)	8.2 (37)	8.5 (68)	4.9	(78)
MSCI AC World ex USA Index			8.2 (40)	8.2 (40)	26.0 (28)	23.5 (78)	4.7 (81)	8.1 (81)	5.7	(65)
BlackRock MSCI ACWI EX-US IMI	652,093,294	9.6	8.1 (32)	8.1 (32)	25.0 (50)	22.8 (68)	4.0 (61)	- '	-	
MSCI AC World ex USA IMI (Net)			8.2 (31)	8.2 (31)	25.1 (50)	22.6 (72)	3.7 (65)	7.7 (79)	5.3	(93)
Record Dynamic Currency Hedge	-5,673,324	-0.1	9.4	9.4	-1,209.0	-	-	-	-	

	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***	450,610,461	6.6	1.7 (24)	1.7 (24)	9.5 (10)	6.4 (26)	-0.3 (83)	16.2 (22)	17.5	(6)
Blended Private Equity Index			3.1 (3)	3.1 (3)	26.1 (1)	24.0 (1)	11.1 (5)	17.2 (14)	15.1	(15)
Opportunistic Credit	704,368,007	10.3	3.4	3.4	10.4	-	-	-	-	
Opportunistic Credit Index			4.4	4.4	14.5	12.4	3.9	5.0	5.0	
Public Credit	503,435,391	7.4	4.5	4.5	13.0	10.2	3.9	5.0	5.6	
Blmbg. U.S. Corp: High Yield Index			5.3	5.3	15.7	13.0	3.1	4.7	5.0	
Beach Point Select	118,274,631	1.7	4.0 (76)	4.0 (76)	12.1 (88)	11.0 (85)	5.6 (5)	8.2 (2)	-	
Brigade Capital	115,717,668	1.7	6.0 (3)	6.0 (3)	12.3 (88)	9.6 (95)	3.1 (72)	5.7 (18)	4.9	(66)
One William Street	67,976,680	1.0	2.2 (99)	2.2 (99)	10.5 (96)	-	-	-	-	
Blmbg. U.S. Corp: High Yield Index			5.3 (14)	5.3 (14)	15.7 (25)	13.0 (39)	3.1 (72)	4.7 (61)	5.0	(59)
PIMCO Diversified	137,370,349	2.0	5.1 (23)	5.1 (23)	15.3 (40)	11.2 (84)	0.6 (100)	2.0 (100)	-	
Blmbg. U.S. Corp: High Yield Index			5.3 (14)	5.3 (14)	15.7 (25)	13.0 (39)	3.1 (72)	4.7 (61)	5.0	(59)
Eaton Vance Emerging Markets Debt Opportunities Fund	64,096,064	0.9	4.1 (94)	4.1 (94)	-	-	-	-	-	
JPM EMB (JEMB) Hard Currency/Local Currency 50-50			7.2 (32)	7.2 (32)	15.0 (79)	13.1 (74)	0.5 (72)	1.3 (83)	2.2	(69)
Private Credit	200,932,616	2.9	0.8	0.8	3.1	4.5	4.1	5.4		
Credit Suisse Leveraged Loan Index 1 Qtr Lag			1.9	1.9	11.0	10.6	6.0	5.4	4.6	
AG CSF ADF II	3,631,108	0.1	5.2	5.2	13.4	-	-	-	-	
AG CSF II	24,026,997	0.4	4.0	4.0	14.2	14.0	-	-	-	
Angelo Gordon Credit Solutions	6,455,317	0.1	3.1 (89)	3.1 (89)	10.6 (93)	8.8 (96)	4.9 (6)	-	-	
Credit Suisse Leveraged Loan Index 1 Qtr Lag			1.9 (100)	1.9 (100)	11.0 (91)	10.6 (84)	6.0 (3)	5.4 (18)	4.6	(52)
Blackrock DL Feeder IX-U	39,185,628	0.6	0.0	0.0	3.7	6.1	5.4	-	-	
Comvest Credit Partners VII	6,447,560	0.1	0.0	0.0	-	-	-	-	-	
PIMCO Private Income	49,716,568	0.7	0.0	0.0	5.2	5.2	4.0	6.6	-	
TCP Direct Lending VIII	9,739,114	0.1	2.1	2.1	5.6	6.3	5.0	5.5	-	
White Oak Yield	29,812,350	0.4	0.0	0.0	5.3	3.8	4.6	5.0	-	
White Oak YSF V	31,917,973	0.5	0.0 (100)	0.0 (100)	1.9 (100)	0.8 (100)	1.5 (98)	-	-	
Credit Suisse Leveraged Loan Index 1 Qtr Lag			1.9 (100)	1.9 (100)	11.0 (94)	10.6 (89)	6.0 (4)	5.4 (28)	4.6	(82)

	Market Value	% of Portfolio	3 Mo Rank	Fiscal YTD	1 Yr Rank	2 Yrs Rank	3 Yrs Rank	5 Yrs Rank	10 Yrs Ra	ank
Diversifying Portfolio	1,238,245,988	18.1	3.5	3.5	9.4	4.0				
Blended Diversifying Index			4.7	4.7	11.6	6.6	1.4	2.2	3.1	
Defensive Fixed Income	918,223,163	13.5	5.7	5.7	13.2	6.3	-1.2	0.9	2.3	
Blended Core Fixed Income Benchmark			5.8	5.8	12.6	5.3	-1.8	0.1	1.7	
DoubleLine	274,670,494	4.0	5.5 (30)	5.5 (30)	13.2 (24)	7.0 (45)	-0.9 (72)	-	-	
Blmbg. U.S. Aggregate Index			5.2 (44)	5.2 (44)	11.6 (75)	6.0 (78)	-1.4 (97)	0.3 (83)	1.8 (71)
FIAM Bond	194,283,357	2.8	5.2 (61)	5.2 (61)	12.4 (38)	6.8 (32)	-0.8 (32)	1.4 (16)	2.7 (*	(13)
NISA Core Bond	296,032,763	4.3	5.2 (49)	5.2 (49)	11.9 (70)	6.3 (75)	-1.0 (57)	-	-	
Blmbg. U.S. Aggregate Index			5.2 (57)	5.2 (57)	11.6 (82)	6.0 (89)	-1.4 (90)	0.3 (95)	1.8 (9	(98)
NISA Long Treasury	140,245,151	2.1	7.8	7.8	15.6	-	-	-	-	
Blmbg. U.S. Treasury: Long			7.8	7.8	15.4	2.4	-8.4	-4.3	1.1	
Absolute Return	320,022,825	4.7	-2.2 (93)	-2.2 (93)	0.2 (90)	-1.1 (87)	3.6 (56)	1.0 (82)	1.2 (8	81)
Absolute Return Custom Index			2.3 (25)	2.3 (25)	9.4 (59)	9.1 (54)	7.6 (14)	6.4 (53)	5.8 ((13)
CFM Systematic Global Macro	113,693,468	1.7	4.0 (48)	4.0 (48)	9.3 (76)	-1.4 (94)	5.0 (55)	-	-	
Graham Quant Macro	97,486,839	1.4	-10.1 (99)	-10.1 (99)	-6.1 (95)	-0.9 (94)	5.8 (47)	-	-	
PIMCO MAARS Fund LP	108,842,518	1.6	-0.5 (85)	-0.5 (85)	6.3 (86)	3.2 (88)	10.8 (18)	-	-	
Absolute Return Custom Index			2.3 (68)	2.3 (68)	9.4 (76)	9.1 (61)	7.6 (29)	6.4 (53)	5.8 (4	(40)
Inflation Hedge	1,119,941,910	16.4	1.7	1.7	3.9	1.0	4.1	4.5		
Blended Inflation Hedge Index			1.8	1.8	0.6	-1.6	3.3	5.4	5.1	
Real Estate	465,534,714	6.8	-0.3 (81)	-0.3 (81)	-6.1 (63)	-6.7 (53)	0.5 (75)	3.2 (65)	6.6 (2	22)
NCREIF ODCE			0.2 (74)	0.2 (74)	-7.3 (73)	-9.7 (89)	-0.2 (84)	2.9 (70)	6.1 (3	(37)
Harrison Street Core Property	90,318,057	1.3	0.1	0.1	-3.9	-3.0	2.6	-	-	
Invesco	222,848,719	3.3	-0.9	-0.9	-9.9	-11.2	-1.8	1.8	5.8	
Invesco US Val IV	99,531	0.0	-0.2	-0.2	-31.3	-41.8	-40.2	-24.5	-	
Invesco US Val V	22,961,470	0.3	-0.4	-0.4	-25.4	-17.4	-9.2	0.3	-	
Invesco US Val VI	24,355,357	0.4	0.0	0.0	-2.8	-3.6	-	-	-	
PGIM RE US Debt Fund	72,917,325	1.1	1.9	1.9	7.2	7.4	7.0	6.4	-	
NCREIF ODCE			0.2	0.2	-7.3	-9.7	-0.2	2.9	6.1	
Stockbridge Value IV	25,426,593	0.4	-2.6	-2.6	-5.3	-3.0	8.8	-	-	
Stockbridge Value V	6,607,662	0.1	-0.9	-0.9	-	-	-	-	-	
NCREIF ODCE			0.2	0.2	-7.3	-9.7	-0.2	2.9	6.1	

	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 Assets***	406,933,336	6.0	1.6	1.6	14.4	8.6	8.9	11.1	8.6
Blended Private Real Assets Index			2.2	2.2	7.9	7.0	7.4	6.8	6.4
Blended Secondary CA Private RA Index			2.1	2.1	8.3	7.6	11.6	8.8	6.5
Private Real Asset	277,272,367	4.1	1.5	1.5	13.2	8.0	8.5	10.9	-
Brookfield Super-Core Infrastructure Partners	66,770,054	1.0	1.9	1.9	10.1	8.9	-	-	-
KKR Diversified Core Infrastructure Fund (DCIF)	62,890,915	0.9	1.9	1.9	7.1	-	-	-	-
Public Real Assets	247,473,860	3.6	5.8	5.8	11.9	8.1	5.6	3.7	-
Blended Public Real Assets Index			5.7	5.7	12.0	8.0	5.5	6.1	5.6
SSgA Custom Real Assets	247,473,860	3.6	5.8	5.8	11.9	8.1	5.6	6.3	-
SSgA Custom Real Assets Index			5.7	5.7	12.0	8.0	5.5	6.1	-
Liquidity	394,169,125	5.8	1.9	1.9	6.4	5.5	3.7	2.5	-
Blended Liquidity Index			2.7	2.7	6.9	5.0	-	-	-
Cash Flow-Matched Liquidity	300,620,132	4.4	2.1	2.1	6.6	5.4	-	-	-
Bloomberg U.S. Gov/Credit 1-3 Year Index			3.0	3.0	7.2	5.0	1.5	1.7	1.6
Bloomberg U.S. Credit 1-3 Year Index			3.1	3.1	8.1	5.8	2.0	2.2	2.1
Insight Investment*	285,905,001	4.2	2.3	2.3	7.0	5.7	-	-	-
Bloomberg U.S. Credit 1-3 Year Index			3.1	3.1	8.1	5.8	2.0	2.2	2.1
County Treasury Pool**	14,715,131	0.2	0.0	0.0	2.8	3.3	2.5	2.1	2.1
90 Day U.S. Treasury Bill			1.4	1.4	5.5	5.0	3.5	2.3	1.6
Cash & Cash Overlay	115,020,809	1.7	1.4	1.4	5.8	5.5	4.0	2.7	1.9
90 Day U.S. Treasury Bill			1.4	1.4	5.5	5.0	3.5	2.3	1.6
General Account	99,270,731	1.5	1.4	1.4	5.8	5.5	4.0	2.8	2.6
90 Day U.S. Treasury Bill			1.4	1.4	5.5	5.0	3.5	2.3	1.6

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: Portfolio Return [Risk free Rate + Portfolio Beta x (Market Return 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 lock step, 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 lock step, 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 lock step, 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 lock step, 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 lock step, 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 lock step, 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 lock step, 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 lock step, 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 lock step, 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 lock step, 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 lock step, a correlation of 1 means the returns of 1 me

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: Portfolio Excess Return / 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.



Disclaimer

This report contains confidential and proprietary information and is subject to the terms and conditions of the Consulting Agreement. It is being provided for use solely by the customer. The report may not be sold or otherwise provided, in whole or in part, to any other person or entity without written permission from Verus Advisory, Inc., (hereinafter Verus) or as required by law or any regulatory authority. The information presented does not constitute a recommendation by Verus and cannot be used for advertising or sales promotion purposes. This does not constitute an offer or a solicitation of an offer to buy or sell securities, commodities or any other financial instruments or products.

The information presented has been prepared using data from third party sources that Verus believes to be reliable. While Verus exercised reasonable professional care in preparing the report, it cannot guarantee the accuracy of the information provided by third party sources. Therefore, Verus makes no representations or warranties as to the accuracy of the information presented. Verus takes no responsibility or liability (including damages) for any error, omission, or inaccuracy in the data supplied by any third party. Nothing contained herein is, or should be relied on as a promise, representation, or guarantee as to future performance or a particular outcome. Even with portfolio diversification, asset allocation, and a long-term approach, investing involves risk of loss that the investor should be prepared to bear.

The information presented may be deemed to contain forward-looking information. Examples of forward looking information include, but are not limited to, (a) projections of or statements regarding return on investment, future earnings, interest income, other income, growth prospects, capital structure and other financial terms, (b) statements of plans or objectives of management,(c) statements of future economic performance, and (d) statements of assumptions, such as economic conditions underlying other statements. Such forward-looking information can be identified by the use of forward looking terminology such as believes, expects, may, will, should, anticipates, or the negative of any of the foregoing or other variations thereon comparable terminology, or by discussion of strategy. No assurance can be given that the future results described by the forward-looking information will be achieved. Such statements are subject to risks, uncertainties, and other factors which could cause the actual results to differ materially from future results expressed or implied by such forward looking information. The findings, rankings, and opinions expressed herein are the intellectual property of Verus and are subject to change without notice. The information presented does not claim to be all-inclusive, nor does it contain all information that clients may desire for their purposes. The information presented should be read in conjunction with any other material provided by Verus, investment managers, and custodians.

Verus will make every reasonable effort to obtain and include accurate market values. However, if managers or custodians are unable to provide the reporting period's market values prior to the report issuance, Verus may use the last reported market value or make estimates based on the manager's stated or estimated returns and other information available at the time. These estimates may differ materially from the actual value. Hedge fund market values presented in this report are provided by the fund manager or custodian. Market values presented for private equity investments reflect the last reported NAV by the custodian or manager net of capital calls and distributions as of the end of the reporting period. These values are estimates and may differ materially from the investments actual value. Private equity managers report performance using an internal rate of return (IRR), which differs from the time-weighted rate of return (TWRR) calculation done by Verus. It is inappropriate to compare IRR and TWRR to each other. IRR figures reported in the illiquid alternative pages are provided by the respective managers, and Verus has not made any attempts to verify these returns. Until a partnership is liquidated (typically over 10-12 years), the IRR is only an interim estimated return. The actual IRR performance of any LP is not known until the final liquidation.

Verus receives universe data from InvMetrics, eVestment Alliance, and Morningstar. We believe this data to be robust and appropriate for peer comparison. Nevertheless, these universes may not be comprehensive of all peer investors/managers but rather of the investors/managers that comprise that database. The resulting universe composition is no static and will change over time. Returns are annualized when they cover more than one year. Investment managers may revise their data after report distribution. Verus will make the appropriate correction to the client account but may or may not disclose the change to the client based on the materiality of the change.