PERSPECTIVES THAT DRIVE ENTERPRISE SUCCESS

PERIOD ENDING: March 31, 2024

Investment Performance Review for

San Mateo County Employees' Retirement Association

Table of Contents

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1st quarter summary

THE ECONOMIC CLIMATE

— Real GDP growth unexpectedly slowed in Q1 to 1.6% quarter-over-quarter (3.0% year-over-year), falling short of economist forecasts for 2.5% growth. The GDP release reflected positive but decelerating spending by households, slowing exports, and less government expenditures. Residential fixed investment accelerated partly driven by new single-family home construction, while private inventory investment fell.

— The U.S. job market has been incredibly resilient, with unemployment rising slightly from 3.7% to 3.8% but labor participation improving from 62.5% to 62.7%. Some economists and investors have begun to partially attribute surprisingly strong labor conditions to substantial immigration (both legal and illegal) in recent years.

PORTFOLIO IMPACTS

— The 10-year U.S. Treasury yield rose 32 basis points to 4.20% during Q1 on broad acknowledgment that disinflation trends have stalled and that the Federal Reserve may not cut rates in 2024 as significantly as markets had hoped for.

— Market-priced volatility (Cboe VIX Index) remained incredibly low during the quarter, ending at 13.0 in March. Historically, market volatility of this level has coincided with strong upward trending risk markets and investor enthusiasm.

THE INVESTMENT CLIMATE

— Equity markets delivered another quarter of large gains—much of the performance fueled by richer valuations rather than fundamentals. Credit spreads declined further to very low levels, leading to moderate returns for higher risk credit. Many markets appear to be priced to perfection as recession fears subside.

— U.S. inflation increased in Q1, following a handful of hotter-than-expected inflation and jobs reports. Headline inflation increased from 3.3% to 3.5% year-over-year in March, while core CPI (ex-food & energy) declined slightly from 3.9% to 3.8%. It now seems more likely that inflation ends this year closer to, or above, 3% rather than 2%.

ASSET ALLOCATION ISSUES

— U.S. equities (S&P 500 +10.6%) once again outpaced international developed equities (MSCI EAFE +5.8%) and emerging market equities (MSCI EM +2.4%) during the quarter. The domestic market has also delivered outperformance over the past year, fueled by the artificial intelligence boom. Telecom (+49.8%) and Technology (+46.0%) saw the biggest gains across the S&P 500.

— Style factor investing underperformed during Q1. Small cap lagged large cap by -5.1% (Russell 2000 +5.2% vs. Russell 1000 +10.3%). Value underperformed Growth by -2.4% (Russell 1000 Value +9.0% vs. Russell 1000 Growth +11.4%). Mega cap companies continue to dominate large cap index performance and affect style behavior.

Equity markets delivered another large rally in Q1, while credit showed mildly positive returns

Stubborn inflation and fewer Fed interest rate cuts seem likely for 2024

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U.S. economics summary

— Real GDP growth unexpectedly slowed in Q1 to 1.6% quarter-over-quarter (3.0% year-over-year), falling short of economist forecasts for 2.5% growth. The GDP release reflected positive but decelerating spending by households, slowing exports, and less government expenditures. Residential fixed investment accelerated partly driven by new single-family home construction, while private inventory investment fell.

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— Inflation adjusted consumer spending has remained moderate, at 2.4% YoY in February. Purchases of services have materially outpaced purchases of goods in recent years, a reversal of the historically unprecedented boom in goods purchases that occurred during the pandemic.

— Employment has been incredibly resilient. Unemployment was stable during Q1, while labor participation increased. Some economists and investors have partially attributed labor market gains to substantial immigration (both legal and illegal) in recent years—with millions of immigrants being of working age and seeking work. Given the level of immigration, we expect official labor data has been, and will continue to be, meaningfully impacted.

— Consumer sentiment has jumped significantly on better financial situations of households, expectations that inflation will further ease, and a steadying economy. At the same time, The NFIB Small Business Optimism index deteriorated to the weakest level since 2012. Inflation remains a top concern, and business owners indicated they could not find qualified candidates to fill job openings.

	Most Recent	12 Months Prior
Real GDP *(YoY)*	3.0% *3/31/24*	1.7% *3/31/23*
Inflation *(CPI YoY, Core)*	3.8% *3/31/24*	5.6% *3/31/23*
Expected Inflation *(5yr-5yr forward)*	2.3% *3/31/24*	2.2% *3/31/23*
Fed Funds Target Range	5.25–5.50% *3/31/24*	4.75–5.00% *3/31/23*
10-Year Rate	4.20% *3/31/24*	3.47% *3/31/23*
U-3 Unemployment	3.8% *3/31/24*	3.5% *3/31/23*
U-6 Unemployment	7.3% *3/31/24*	6.7% *3/31/23*

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International economics summary

— The broad global narrative remains similar to last quarter, as global metrics paint a picture of slowing yet resilient economic growth. While a hotter March inflation print in the U.S. changed expectations around the policy path of the Federal Reserve, inflation in international developed economies has shown greater signs of moderation, putting central banks such as the European Central Bank and Bank of England on a path to policy easing.

— Developed economies continue to juggle economic growth and inflation. Price pressures have shown signs of easing across the Eurozone and U.K., with inflation sitting at 2.4% and 3.2%, respectively. Despite inflation moderation, conditions remain weak across the Eurozone, with GDP nearly flat on a year-over-year basis and unemployment elevated at 6.5%.

— In Japan, growth conditions also remain shaky, as the country nearly avoided a technical recession following an upward revised GDP release. While the BOJ formally ended its zero-interest rate policy, the Japanese Yen weakened further against the U.S. dollar after unclear guidance from the BOJ and expectations for higher U.S. interest rates. The Japanese economic story remains challenged despite positive performance of the equity market.

— Growth in emerging markets continues to offset slowing activity in developed economies, as year-over-year GDP growth of 8.4% and 5.3% in India and China outpace most of the globe. China remains in the headlines given that economic and technological rivalry with the U.S. persists. Despite sentiment challenges, growth has remained above the target of 5%, even in the face of a lagging property market and financial stress seen amongst local-government financing vehicles and regional banks.

Area	GDP (Real, YoY)	Inflation (CPI, YoY)	Unemployment
United States	3.0% _3/31/24_	3.5% _3/31/24_	3.8% _3/31/24_
Eurozone	0.1% _12/31/23_	2.4% _3/31/24_	6.5% _2/29/24_
Japan	1.2% _12/31/23_	2.6% _3/31/24_	2.6% _2/29/24_
BRICS Nations	5.3% _12/31/23_	1.7% _3/31/24_	4.8% _12/31/22_
Brazil	2.1% _12/31/23_	3.9% _3/31/24_	7.8% _2/29/24_
Russia	4.9% _12/31/23_	7.7% _3/31/24_	2.8% _2/29/24_
India	8.4% _12/31/23_	4.9% _3/31/24_	7.6% _3/31/24_
China	5.3% _3/31/24_	0.1% _3/31/24_	5.2% _3/31/24_

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.

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Equity environment

— U.S. equities (S&P 500 +10.6%) continued an impressive rally during the first quarter, once again outpacing international developed equities (MSCI EAFE +5.8%) and emerging markets (MSCI EM +2.4%). The domestic market has also delivered outperformance over the past year, fueled by the artificial intelligence boom. Telecom (+49.8%) and Technology (+46.0%) saw the biggest gains during the period.

— The U.S. dollar gained in value during Q1, likely buoyed by the higher for longer interest rate narrative. A reassessment of the Federal Reserve policy path for 2024 has improved the outlook for the dollar, as currencies which offer higher interest rates, and relatively attractive prospects for continued higher interest rates, tend to better hold their value. Losses from unhedged Japanese currency exposure has been extreme (-9.3% over the quarter, -25.2% over the past year, as indicated by the TOPIX Index).

— Style investing underperformed during Q1. Small cap lagged large cap by -5.1% (Russell 2000 +5.2% vs. Russell 1000 +10.3%). Value underperformed Growth by -2.4% (Russell 1000 Value +9.0% vs. Russell 1000 Growth +11.4%). Style premia has also suffered over the past full year. Small cap underperformed large cap by -10.2% while value stocks underperformed growth by -18.7%.

— Market-priced volatility (Cboe VIX Index) remained incredibly low during the quarter, ending at 13.0 in March. Historically, market volatility of this level has coincided with strong upward trending risk asset prices and investor enthusiasm.

	QTD TOTAL RETURN		1 YEAR TOTAL RETURN	
	(unhedged)	(hedged)	(unhedged)	(hedged)
U.S. Large Cap (S&P 500)	10.6%		29.9%	
U.S. Small Cap (Russell 2000)	5.2%		19.7%	
U.S. Equity (Russell 3000)	10.0%		29.3%	
U.S. Large Value (Russell 1000 Value)	9.0%		20.3%	
US Large Growth (Russell 1000 Growth)	11.4%		39.0%	
Global Equity (MSCI ACWI)	8.2%	9.6%	23.2%	25.4%
International Large (MSCI EAFE)	5.8%	10.5%	15.3%	22.4%
Eurozone (EURO STOXX 50)	10.3%	13.1%	20.1%	23.6%
U.K. (FTSE 100)	3.0%	4.0%	10.7%	9.1%
Japan (TOPIX)	10.0%	19.3%	24.0%	49.2%
Emerging Markets (MSCI Emerging Markets)	2.4%	4.4%	8.2%	10.7%

Source: Russell Investments, MSCI, STOXX, FTSE, JPX, as of 3/31/24

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Domestic equity

U.S. equities notched another quarter of outperformance over international developed and emerging market shares, with the S&P 500 finishing up +10.6%. Market momentum carried forward from the end of 2023, as large cap equities advanced off a boost to corporate earnings from developments in accelerated computing and artificial intelligence. At the same time, economic indicators reflected resilience across labor and economic activity, alleviating some fears around potential recession.

Large technology company performance has helped push the broader index higher, as the Magnificent Seven contributed around 37% of the S&P 500's total return in the first quarter, per Morningstar. A combination of Nvidia, Microsoft, Meta, and Amazon drove 47% of total returns. The Magnificent 7

stocks fueled nearly two-thirds of index performance in 2023. These figures exemplify the outsized impact large companies have had on broader domestic equity returns, both to the downside and upside.

On the other hand, these strong price gains have moved valuations towards the richer side of the historical range, and the term "priced for perfection" has become more popular amongst the news lexicon. U.S. shares have also been relatively unbothered by changing expectations for the Federal Reserve rate hiking path. The higher for longer narrative has had a large negative impact on bond markets, but apparently little impact on risk assets, so far.

S&P 500 PRICE INDEX

Source: Bloomberg, as of 3/31/24

Q1 2024 SECTOR PERFORMANCE

15.8%	Telecom
13.7%	Energy
12.7%	Information Technology
12.5%	Financials
11.0%	Industrials
10.6%	S&P 500
8.9%	Materials
8.8%	Health Care
7.5%	Consumer Staples
5.0%	Consumer Discretionary
4.6%	Utilities
-0.5%	Real Estate
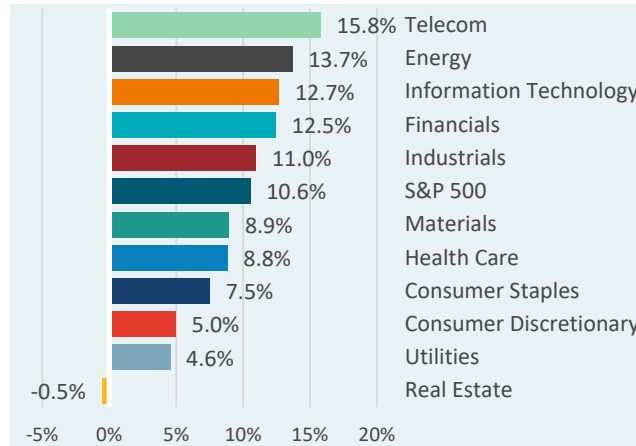
Source: Morningstar, as of 3/31/24

NVIDIA EPS GROWTH (YEAR-OVER-YEAR)
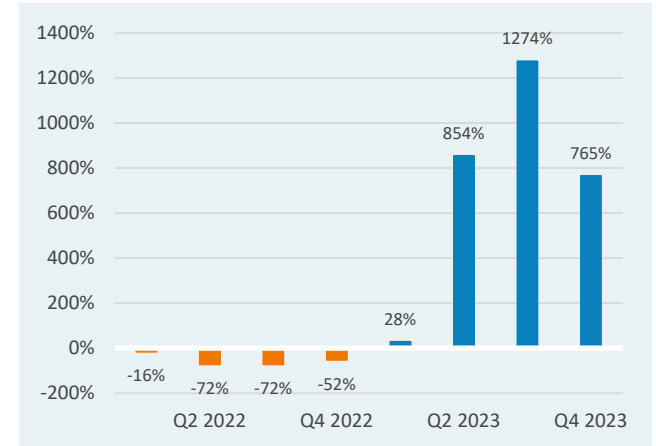
Source: Nvidia, as of 3/31/24. GAAP Diluted EPS

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Domestic equity size & style

Small cap and value style investing underperformed during Q1. Small cap lagged large cap by -5.1% (Russell 2000 +5.2% vs. Russell 1000 +10.3%). Value underperformed Growth by -2.4% (Russell 1000 Value +9.0% vs. Russell 1000 Growth +11.4%). These style premia also suffered over the past full year. Small cap underperformed large cap by -10.2% while value stocks underperformed growth by -18.7%.

Mega cap companies continue to dominate large cap index performance. The "Magnificent 7" securities, including Amazon, Netflix, Google, Meta, Nvidia, Apple, and Tesla, drove the index into drawdown territory during 2022, contributed to a strong bounce back rally in 2023, then have pushed the index higher still in 2024. However, performance of this group

has been a bit mixed year-to-date, with Apple and Tesla lagging the overall index materially. Index concentration has created headwinds for the performance of active managers, on average, and dominant growth stocks have pushed the overall index towards a higher multiple while depressing dividend yields.

Variability in the behavior of style factors, often driven by idiosyncratic sector moves and broader macro themes, continues to provide evidence that style investing should typically be a longer-term endeavor. Short-term factor timing decisions should in most circumstances be pursued only in the rare occasion of obvious market mispricing and a foreseen catalyst for price correction.

VALUE VS. GROWTH 1-YR ROLLING
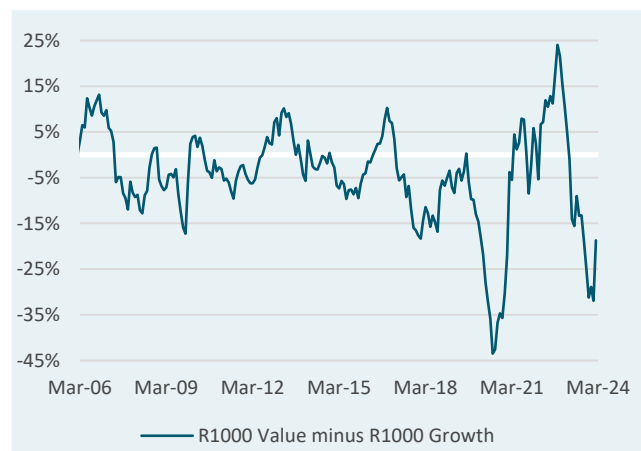
Source: FTSE, as of 3/31/24

SMALL CAP VS LARGE CAP 1-YR ROLLING
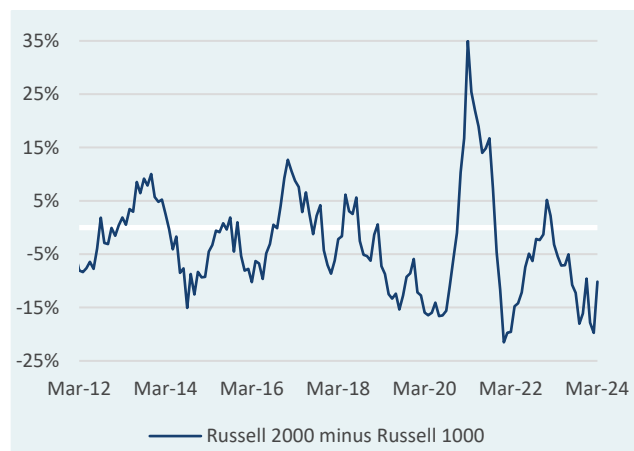
Source: FTSE, as of 3/31/24

1-YEAR SIZE & STYLE PERFORMANCE

	Value	Core	Growth
Large Cap	20.3%	29.9%	39.0%
Mid Cap	20.4%	22.3%	26.3%
Small Cap	18.8%	19.7%	20.3%

Source: FTSE, as of 3/31/24

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International developed equity

International developed shares notched a strong first quarter, although returns trailed domestic equities. The MSCI EAFE index returned +5.8% in unhedged U.S. dollar terms, materially lower than the hedged return of +10.5%. The dollar's advance was likely fueled by higher rate expectations for the Federal Reserve, along with expected policy easing decisions from the European Central Bank and Bank of Japan, both of which are positive for the U.S. dollar (i.e. led to losses for unhedged investors).

Resilient global economic growth has been a tailwind to performance amongst international developed shares. All major regional equities (Eurozone, Japan, and United Kingdom)

saw positive returns over the period.

While performance has been better than expected, future growth catalysts remain uncertain. Falling Eurozone inflation boosted regional risk assets, as inflation fell from 3.1% to 2.4% in March. Easing inflation has taken some pressure off the ECB, resulting in rising expectations for rate cuts in June. In Japan, equites have carried forward positive momentum from 2023, evident by the Nikkei achieving a 34-year high in February. Easy monetary policy from the BOJ continues to provide a boost to local earnings, while poor inflation and wage growth metrics have provided little evidence for the BOJ to quickly move away from their low interest rate policy.

INTERNATIONAL DEVELOPED EQUITY

Source: MSCI, as of 3/31/24

NIKKEI 225 INDEX
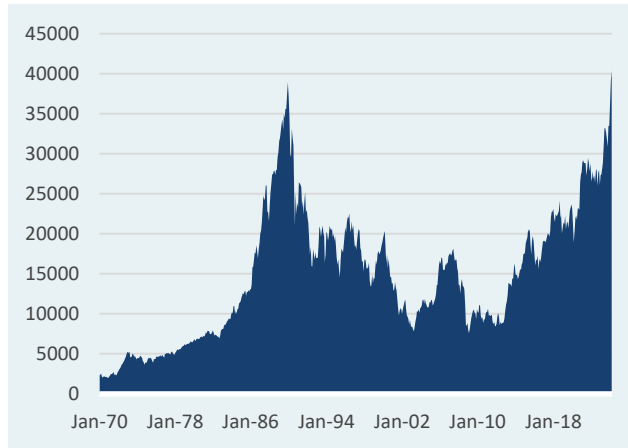
Source: Bloomberg, Nikkei, as of 3/31/24

ECB RATE EXPECTATIONS

Despite expectations for rate cuts, the current path of rates is considerably higher relative to the start of the year

Source: Bloomberg, as of 3/31/24

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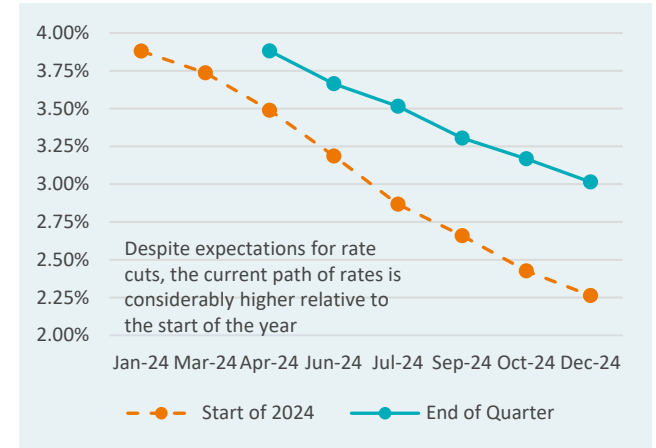
Emerging market equity

Emerging markets have delivered mild gains year-to-date, rising +2.4%, and are up +8.2% over the past year. Chinese equities have continued to act as a drag the index, down -2.2% in 2024, and -17.1% over the past year.

From a sector perspective, the momentum behind accelerated computing carried into emerging markets, as the information technology sector outperformed (+9.5%), driven by gains from South Korea & Taiwan. Peru, Turkey, and Columbia were the best performing countries in the first quarter, seeing gains of +15.5%, +14.1%, and +12.5% - broadly gaining off strength in oil and copper.

China remains a large question mark among emerging market country exposures, facing significant structural headwinds in the form of a declining population, imbalances in the real estate market, and a reversal in sentiment from the international community which contributed to a broad withdrawal of foreign direct investment, for example. Additionally, many U.S.-based institutional investors have centered on the possibility of top-down government restrictions on China investment that, if imposed, could result in losses to existing exposure as this could cause a way of selling activity. An invasion of Taiwan remains another risk, though we believe the chances of this are remote.

EMERGING MARKET EQUITY
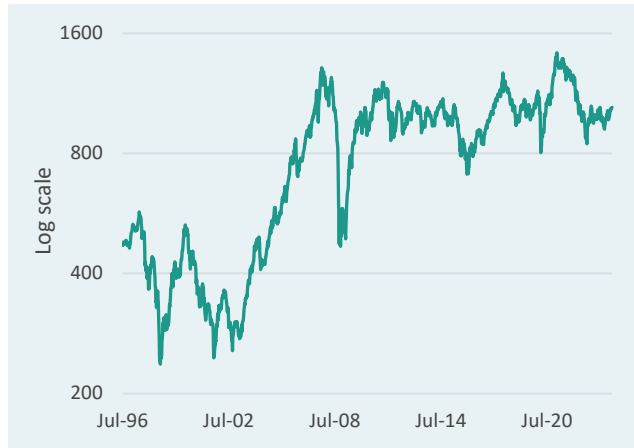
Source: MSCI, as of 3/31/24

MSCI EM Q1 2024 SECTOR RETURNS (USD)
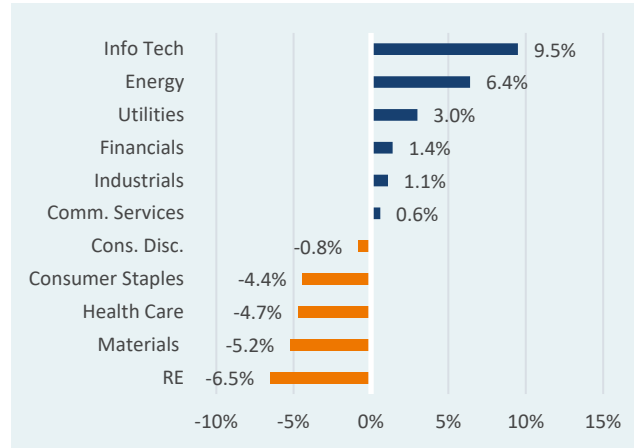
Source: MSCI, J.P. Morgan, as of 3/31/24

ISHARES ETF MONTHLY FUND FLOWS ($M USD)
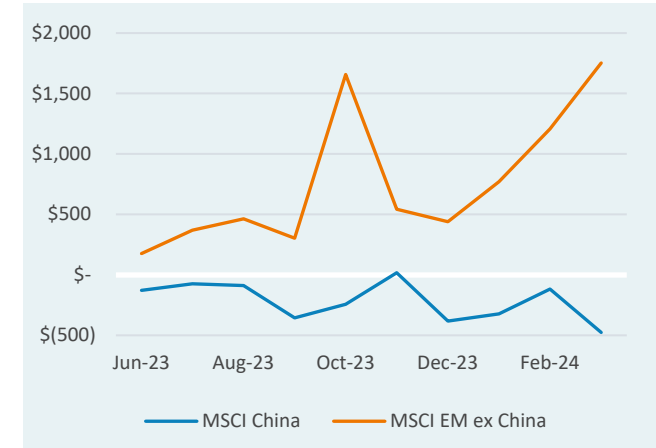
Source: BlackRock, Bloomberg, as of 3/31/24

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10

Fixed income environment

— The 10-year U.S. Treasury yield rose 32 basis points from 3.88% to 4.20% during Q1 on broad acknowledgment that disinflation trends have stalled and that the Federal Reserve may not cut rates in 2024 as significantly as markets had hoped for. Yields across the Treasury curve increased, with shorter-term rates rising more than longer-term.

— Domestic high-quality, duration-sensitive bonds experienced slight losses during the quarter, while most credit indices saw positive returns. High yield gained +1.5% (Bbg U.S. Corporate High Yield), while bank loans rose +2.5% (S&P/LSTA Leveraged Loan). Longer duration investment grade corporate bonds (Bloomberg U.S. Long Corporate Credit) declined by -1.7% during the quarter as both rising interest rates and concerns about inflation detracted from performance.

— The U.S. yield curve has remained inverted since June 6th, 2022, marking the longest yield curve inversion on

record. This is indicated by the 10-year minus 2-year Treasury yield—ending the quarter at -39bps, down slightly from -35bps in Q4. While the yield curve has historically been a reliable predictor of recession, economic growth remains robust.

— Although default activity remains low, volumes increased as slowing economic growth and rising borrowing costs acted as headwinds. During the period, $20.6 billion of bank loan and high yield bonds were affected by default or distressed exchanges, up from $15.8 billion in the prior quarter. Notable company defaults included Jo-Ann's (Retail), Hornblower (Travel & Leisure), and RobertShaw (Technology).

— Structured credit hedge funds, which focus on credit sectors such as CLOs, ABS (auto, credit card, etc), MBS, and CMBS, continue to deliver strong returns relative to traditional high yield and remain competitive versus leveraged loan indices.

	QTD Total Return	1 Year Total Return
Core Fixed Income (Bloomberg U.S. Aggregate)	(0.8%)	1.7%
Core Plus Fixed Income (Bloomberg U.S. Universal)	(0.5%)	2.7%
U.S. Treasuries (Bloomberg U.S. Treasury)	(1.0%)	0.1%
U.S. Treasuries: Long (Bloomberg U.S. Treasury 20+)	(3.8%)	(7.3%)
U.S. High Yield (Bloomberg U.S. Corporate HY)	1.5%	11.2%
Bank Loans (S&P/LSTA Leveraged Loan)	2.5%	12.4%
Emerging Market Debt Local (JPM GBI-EM Global Diversified)	(2.1%)	4.9%
Emerging Market Debt Hard (JPM EMBI Global Diversified)	2.0%	11.3%
Mortgage-Backed Securities (Bloomberg MBS)	(1.0%)	1.4%

Source: Bloomberg, as of 3/31/24

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Yield environment

U.S. YIELD CURVE

Legend:
- US Treasury Curve 3/31/24
- US Treasury Curve 12/31/23
- US Treasury Curve 12/31/22
- US Treasury Curve 12/31/21
- US Treasury Curve 12/31/20
- US Treasury Curve 12/31/19
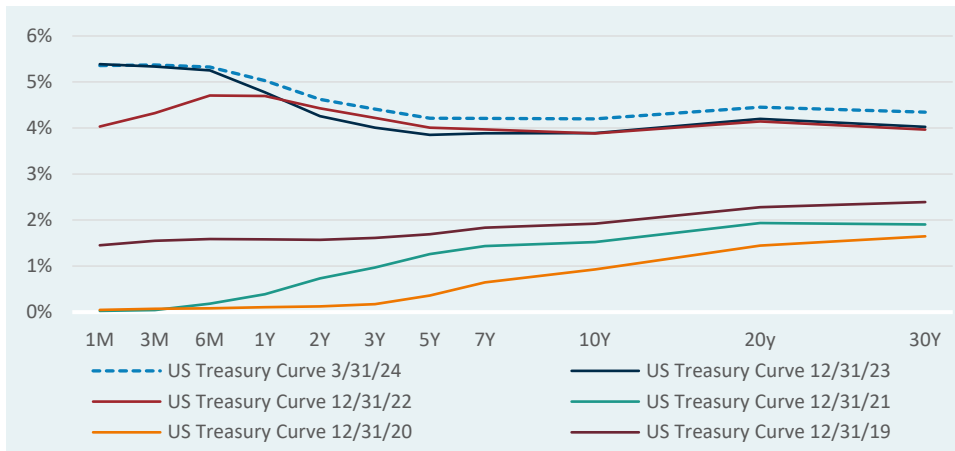
GLOBAL GOVERNMENT YIELD CURVES

Legend:
- United States Curve 3/31/24
- Japan Curve 3/31/24
- Canada Curve 3/31/24
- Germany Curve 3/31/24
- UK Curve 3/31/24
- France Curve 3/31/24
- Italy Curve 3/31/24
- Australia Curve 3/31/24
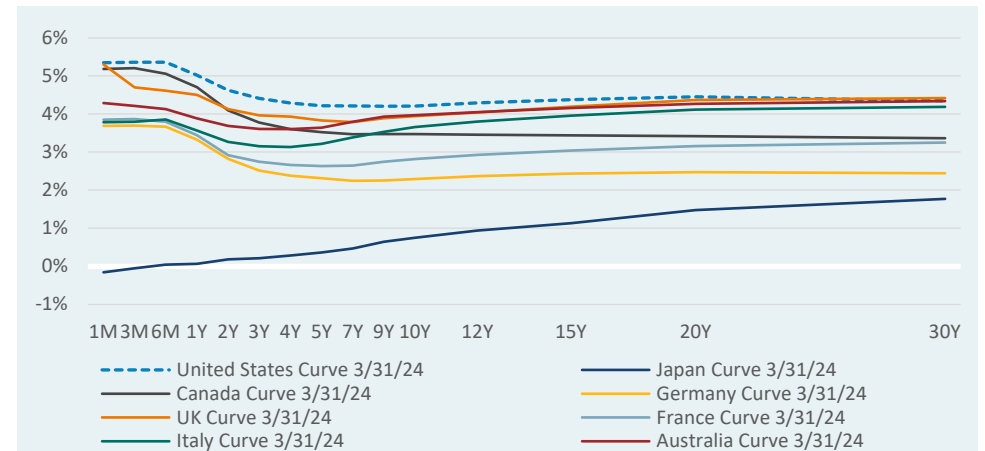
YIELD CURVE CHANGES OVER LAST FIVE YEARS

Legend:
- US Treasury
- Japan Treasury
- Canada Treasury
- Germany Treasury
- UK Treasury
- France Treasury
- Italy Treasury
- Australia Treasury
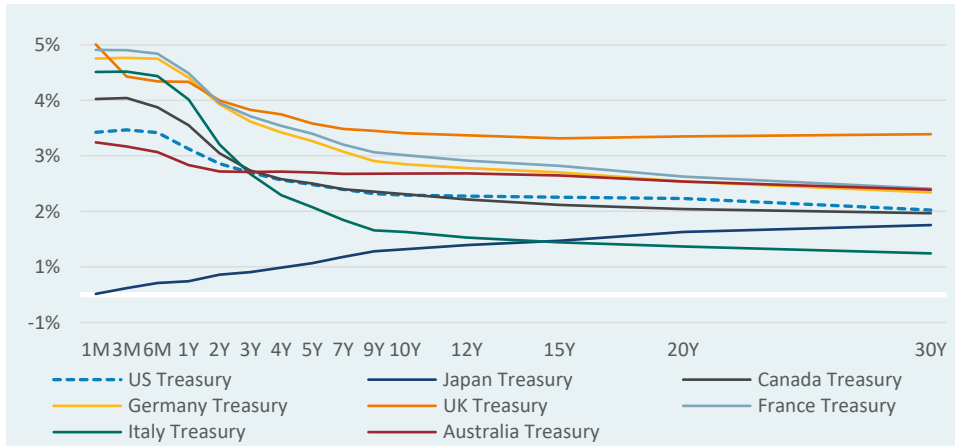
IMPLIED CHANGES OVER NEXT YEAR

Legend:
- US Treasury
- UK Treasury
- Japan Treasury
- Germany Treasury
- Canada Treasury
- France Treasury
- Italy Treasury
- Australia Treasury

Source: Bloomberg, as of 3/31/24

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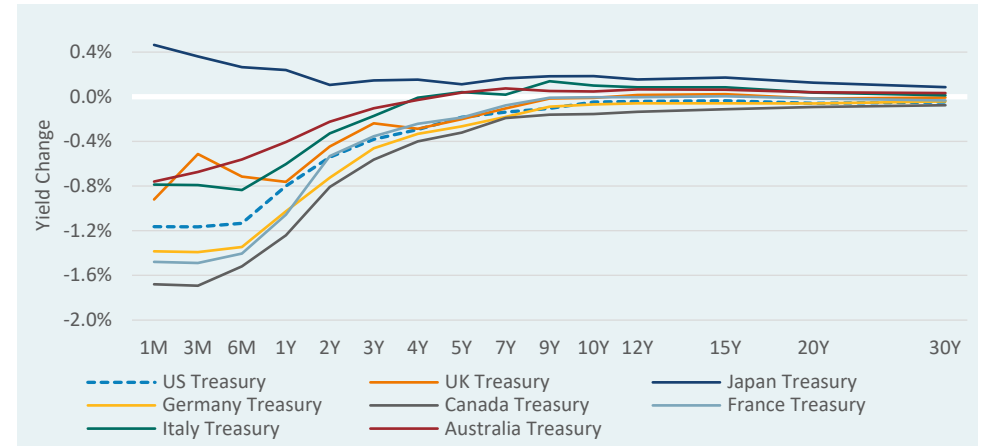
Currency

The U.S. dollar gained in value during the quarter, likely buoyed by the *higher for longer* interest rate narrative. A reassessment of the Federal Reserve policy path for 2024 has improved the outlook for the dollar, as currencies which offer higher interest rates, and relatively attractive prospects for continued higher interest rates, tend to better hold their value.

Investors without a currency hedging program in place lost -4.7% from their international developed equity exposure (MSCI EAFE) during the quarter and -7.1% over the past year. Losses from unhedged Japanese currency exposure have been extreme (-9.3% over the quarter, -25.2% over the past year, based on the TOPIX Index), while unhedged European equity exposure losses due to currency have been milder (-2.8% over the quarter, -2.5% over the past year, based on the EURO Stoxx 50 Index).

This past year marks another period of uncompensated volatility and losses caused by unhedged currency market exposure. The benefits which a more thoughtful currency approach might deliver have been on display for a number of years. This approach involves reducing the uncompensated risk of unhedged foreign currency exposure, and instead of unhedged exposure to currency markets, 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.

EFFECT OF CURRENCY (1-YEAR ROLLING)
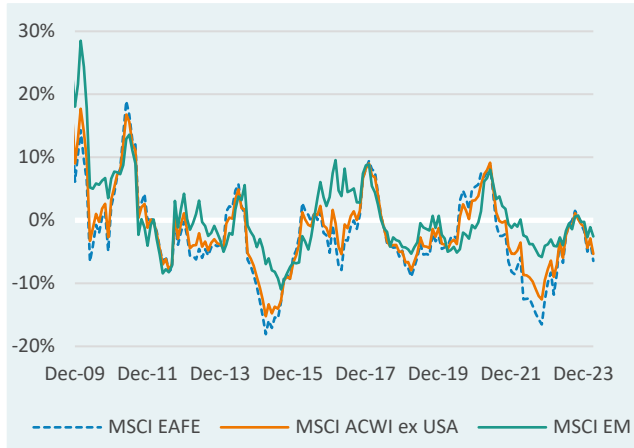
Source: MSCI, as of 3/31/24

U.S. DOLLAR MAJOR CURRENCY INDEX
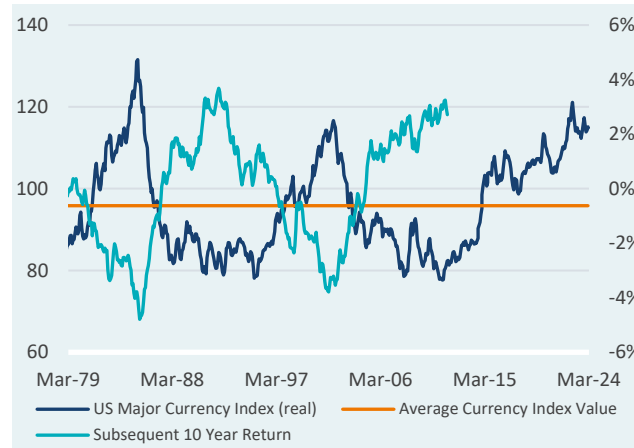
Source: Bloomberg, as of 3/31/24

EMBEDDED CURRENCY VS CURRENCY FACTORS

Source: Bloomberg, MSCI, as of 3/31/24

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Detailed index returns

DOMESTIC EQUITY

Core Index	Month	QTD	YTD	1 Year	3 Year	5 Year	10 Year
S&P 500	3.2	10.6	10.6	29.9	11.5	15.1	13.0
S&P 500 Equal Weighted	4.5	7.9	7.9	19.4	8.2	12.4	10.9
DJ Industrial Average	2.2	6.1	6.1	22.2	8.7	11.3	11.8
Russell Top 200	2.9	10.8	10.8	32.4	12.0	16.1	13.7
Russell 1000	3.2	10.3	10.3	29.9	10.5	14.8	12.7
Russell 2000	3.6	5.2	5.2	19.7	(0.1)	8.1	7.6
Russell 3000	3.2	10.0	10.0	29.3	9.8	14.3	12.3
Russell Mid Cap	4.3	8.6	8.6	22.3	6.1	11.1	9.9
Style Index							
Russell 1000 Growth	1.8	11.4	11.4	39.0	12.5	18.5	16.0
Russell 1000 Value	5.0	9.0	9.0	20.3	8.1	10.3	9.0
Russell 2000 Growth	2.8	7.6	7.6	20.3	(2.7)	7.4	7.9
Russell 2000 Value	4.4	2.9	2.9	18.8	2.2	8.2	6.9

FIXED INCOME

Broad Index	Month	QTD	YTD	1 Year	3 Year	5 Year	10 Year
Bloomberg US TIPS	0.8	(0.1)	(0.1)	0.5	(0.5)	2.5	2.2
Bloomberg US Treasury Bills	0.5	1.3	1.3	5.3	2.6	2.0	1.4
Bloomberg US Agg Bond	0.9	(0.8)	(0.8)	1.7	(2.5)	0.4	1.5
Bloomberg US Universal	1.0	(0.5)	(0.5)	2.7	(2.1)	0.7	1.8
Duration							
Bloomberg US Treasury 1-3 Yr	0.4	0.3	0.3	2.9	0.0	1.1	1.1
Bloomberg US Treasury Long	1.2	(3.3)	(3.3)	(6.1)	(8.0)	(2.8)	1.2
Bloomberg US Treasury	0.6	(1.0)	(1.0)	0.1	(2.7)	(0.1)	1.0
Issuer							
Bloomberg US MBS	1.1	(1.0)	(1.0)	1.4	(2.8)	(0.4)	1.1
Bloomberg US Corp. High Yield	1.2	1.5	1.5	11.2	2.2	4.2	4.4
Bloomberg US Agency Interm	0.4	0.2	0.2	3.2	(0.6)	0.8	1.2
Bloomberg US Credit	1.2	(0.4)	(0.4)	4.1	(1.9)	1.4	2.5

INTERNATIONAL EQUITY

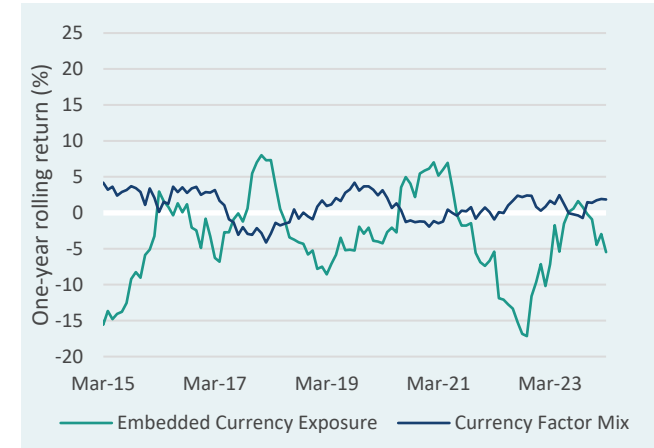| Broad Index	Month	QTD	YTD	1 Year	3 Year	5 Year	10 Year
MSCI ACWI	3.1	8.2	8.2	23.2	7.0	10.9	8.7
MSCI ACWI ex US	3.1	4.7	4.7	13.3	1.9	6.0	4.3
MSCI EAFE	3.3	5.8	5.8	15.3	4.8	7.3	4.8
MSCI EM	2.5	2.4	2.4	8.2	(5.1)	2.2	2.9
MSCI EAFE Small Cap	3.7	2.4	2.4	10.4	(1.4)	4.9	4.7
Style Index							
MSCI EAFE Growth	2.3	7.0	7.0	13.3	2.8	7.8	5.9
MSCI EAFE Value	4.4	4.5	4.5	17.3	6.6	6.4	3.5
Regional Index							
MSCI UK	4.5	3.1	3.1	10.9	7.7	5.1	2.9
MSCI Japan	3.0	11.0	11.0	25.8	3.7	7.8	6.7
MSCI Euro	4.1	8.4	8.4	17.4	6.9	9.0	4.7
MSCI EM Asia	3.0	3.4	3.4	6.3	(6.5)	2.8	4.5
MSCI EM Latin American	1.0	(4.0)	(4.0)	22.6	10.5	3.7	1.7

OTHER

Index	Month	QTD	YTD	1 Year	3 Year	5 Year	10 Year
Bloomberg Commodity	3.3	2.2	2.2	(0.6)	9.1	6.4	(1.6)
Wilshire US REIT	1.5	(0.0)	(0.0)	12.4	4.5	4.4	6.7
CS Leveraged Loans	0.8	2.5	2.5	12.4	5.8	5.3	4.6
S&P Global Infrastructure	4.6	1.3	1.3	4.1	5.5	4.9	5.2
Alerian MLP	4.9	14.7	14.7	37.3	29.2	10.4	2.9
Regional Index							
JPM EMBI Global Div	2.1	2.0	2.0	11.3	(1.4)	0.7	3.0
JPM GBI-EM Global Div	(0.0)	(2.1)	(2.1)	4.9	(1.6)	0.1	(0.3)
Hedge Funds							
HFRI Composite	2.5	4.9	4.9	12.1	4.3	7.0	5.0
HFRI FOF Composite	1.3	3.9	3.9	9.4	2.8	5.0	3.6
Currency (Spot)							
Euro	(0.2)	(2.2)	(2.2)	(0.6)	(2.8)	(0.8)	(2.4)
Pound Sterling	(0.1)	(0.9)	(0.9)	2.2	(2.9)	(0.6)	(2.7)
Yen	(1.1)	(6.9)	(6.9)	(12.1)	(10.0)	(6.1)	(3.8)

Source: Morningstar, HFRI, as of 3/31/24

Verus

Portfolio Reconciliation

	3 Mo	1 Yr
Beginning Market Value	$6,189,641,095	$5,923,464,796
Net Cash Flows	$14,837,051	-$82,806,462
Net Investment Change	$208,530,030	$572,349,842
Ending Market Value	**$6,413,008,176**	**$6,413,008,176**

Change in Market Value
Last Three Months
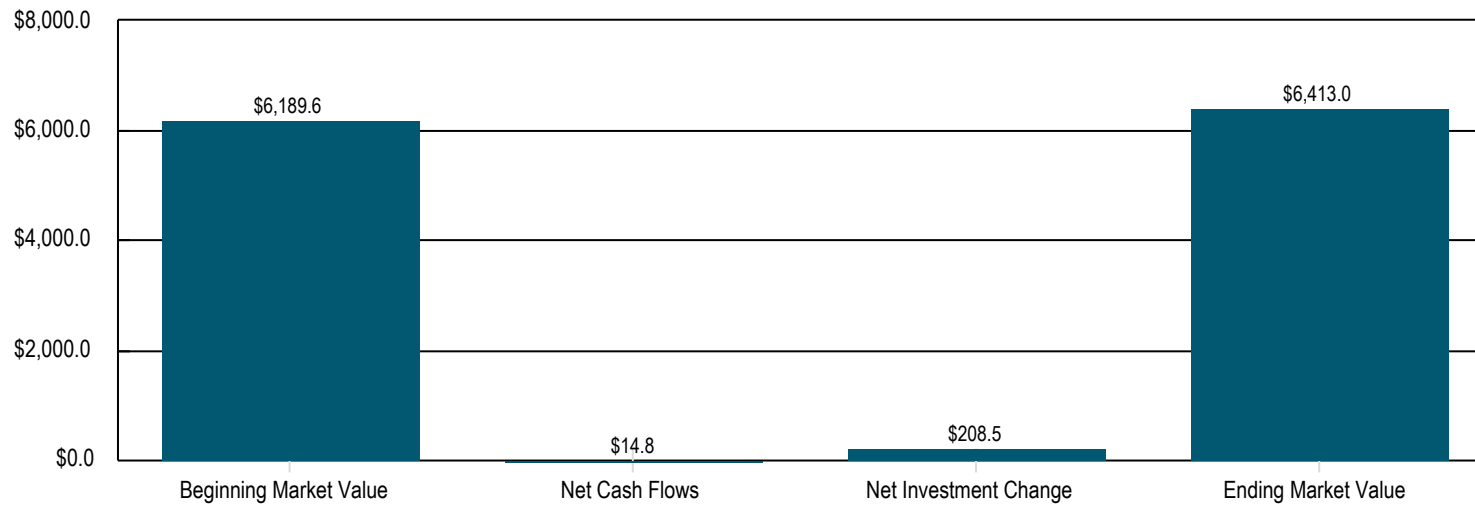
Current w/ Overlay

Liquidity, 5.5%

Inflation Hedge, 15.9%

Growth, 60.0%
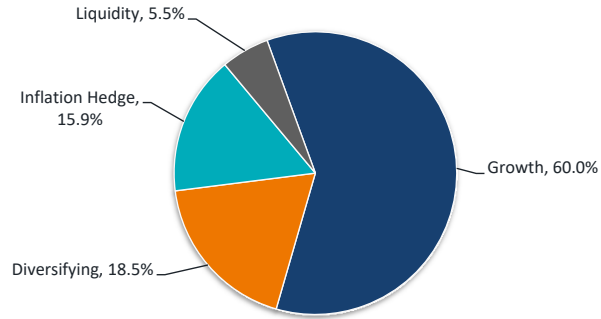
Diversifying, 18.5%

ASSET ALLOCATION	MARKET VALUE W/	W/ OVERLAY	W/O OVERLAY
Growth	3,850,044,929	60.0%	58.9%
Diversifying	1,186,916,950	18.5%	18.3%
Inflation Hedge	1,022,744,492	15.9%	16.2%
Liquidity	353,301,804	5.5%	6.6%
TOTAL	**6,413,008,176**	**100.0%**	**100.0%**

Target

Liquidity 5.5%

Inflation Hedge 17.5%

Growth 59.0%
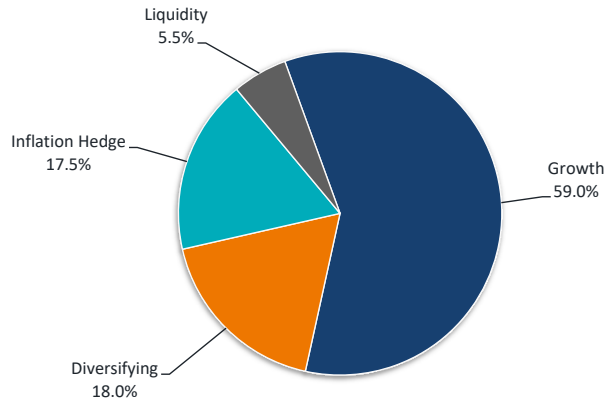
Diversifying 18.0%

ASSET ALLOCATION	W/ OVERLAY	TARGET	DIFF
Growth	60.0%	59.0%	1.0%
Diversifying	18.5%	18.0%	0.5%
Inflation Hedge	15.9%	17.5%	-1.6%
Liquidity	5.5%	5.5%	0.0%
TOTAL	**100.0%**	**100.0%**	**0.0%**

Verus

Statistics Summary
3 Years

	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio	Information Ratio	Tracking Error
Total Fund	4.3 (62)	7.4 (12)	0.3 (50)	-0.5 (86)	2.0 (1)
Policy Index	5.2 (30)	8.4 (31)	0.3 (21)	-	0.0
Policy Index II	4.7 (49)	8.8 (37)	0.3 (40)	-0.9 (98)	0.6 (1)
InvMetrics Public DB > $1B Median	4.6	10.3	0.3	-0.1	3.1

Statistics Summary
5 Years

	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio	Information Ratio	Tracking Error
Total Fund	6.7 (81)	8.7 (17)	0.6 (35)	-0.5 (95)	2.3 (1)
Policy Index	7.7 (47)	9.1 (20)	0.6 (21)	-	0.0
Policy Index II	7.4 (64)	9.4 (25)	0.6 (29)	-0.5 (96)	0.5 (1)
InvMetrics Public DB > $1B Median	7.7	11.2	0.5	0.1	3.2

Statistics Summary
10 Years

	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio	Information Ratio	Tracking Error
Total Fund	6.3 (69)	7.5 (16)	0.7 (34)	-0.4 (88)	1.8 (1)
Policy Index	6.9 (45)	7.9 (22)	0.7 (25)	-	0.0
Policy Index II	-	-	-	-	-
InvMetrics Public DB > $1B Median	6.7	9.2	0.6	0.0	2.6

Verus

— The Total Fund, net of manager fees, returned 3.3% in the first quarter of 2024 and in the ranked 75th percentile among other public plans greater than \$1 billion (median of 3.7%). It lagged the policy index return of 4.7%. The Total Fund ex Overlay returned 3.3% for the quarter. The Total Fund one-year return of 9.6% lagged the policy index return of 12.4% and ranked in the 80th percentile of its peer universe. The three-year return of 4.3% (62nd percentile) lagged the median large public plan (4.6%) and the policy index (5.2%).

— First quarter results were enhanced by the following factors:

1. The Absolute return composite provided tailwinds during the quarter on a strong performance from Graham. Which gained 17% during Q1.

— First quarter results were hindered by the following factors:

1. PanAgora Defensive Equity trailed the Russell 1000 (5.9% vs 10.3%). PanAgora's low volatility strategy is more risk diversified than the index and hurt as relatively few large names (mostly not low vol candidates) continued to drive the Russell 1000 Returns.

2. The International composite lagged the composite index gaining 3.6% and 6.2% respectively. Both active managers struggled during the quarter, underperforming their respective benchmarks by approximately 1% each.

3. Private Equity lagged it's public market equivalent benchmark losing -1.5% versus 12.8% for the benchmark. It's important to note the benchmark is considered an opportunity cost (as it's not investable) and ranks in the top 1% of Private Equity managers for the quarter.

	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
Total Fund**	**6,413,008,176**	**100.0**	**3.3**	**(75)**	**3.3 (75)**	**7.3 (77)**	**9.6**	**(80)**	**2.9**	**(67)**	**4.3**	**(62)**	**6.7**	**(81)**	**6.3**	**(69)**
Policy Index			4.7	(20)	4.7 (20)	9.3 (35)	12.4	(33)	3.9	(30)	5.2	(30)	7.7	(47)	6.9	(45)
Simple Benchmark			4.0	(45)	4.0 (45)	8.2 (55)	11.1	(54)	2.5	(81)	4.2	(63)	7.2	(69)	6.7	(51)
InvMetrics Public DB > $1B			3.7		3.7	8.8	11.5		3.4		4.6		7.7		6.7	
Total Fund ex Overlay	**6,401,709,834**	**99.8**	**3.3**	**(77)**	**3.3 (77)**	**7.3 (77)**	**9.5**	**(81)**	**2.8**	**(68)**	**4.2**	**(62)**	**6.6**	**(82)**	**6.2**	**(71)**
Policy Index			4.7	(20)	4.7 (20)	9.3 (35)	12.4	(33)	3.9	(30)	5.2	(30)	7.7	(47)	6.9	(45)
Simple Benchmark			4.0	(45)	4.0 (45)	8.2 (55)	11.1	(54)	2.5	(81)	4.2	(63)	7.2	(69)	6.7	(51)
InvMetrics Public DB > $1B			3.7		3.7	8.8	11.5		3.4		4.6		7.7		6.7	
Growth Portfolio	**3,850,044,929**	**60.0**	**5.2**		**5.2**	**10.9**	**15.3**		**-**		**-**		**-**		**-**	
Blended Growth Index			7.7		7.7	15.6	21.7		7.1		7.3		11.2		-	
US Equity	**1,547,967,868**	**24.1**	**9.3**	**(65)**	**9.3 (65)**	**17.5 (79)**	**24.8**	**(89)**	**8.4**	**(64)**	**9.7**	**(35)**	**12.7**	**(90)**	**11.1**	**(80)**
Blended US Equity Index			10.0	(36)	10.0 (36)	19.3 (49)	29.3	(41)	8.7	(40)	9.8	(31)	14.3	(28)	12.2	(35)
Russell 3000 Index			10.0	(36)	10.0 (36)	19.3 (49)	29.3	(41)	8.7	(40)	9.8	(31)	14.3	(28)	12.3	(26)
BlackRock Russell 1000	920,367,929	14.4	10.3	(53)	10.3 (53)	19.6 (47)	29.9	(40)	9.1	(47)	10.4	(45)	14.8	(31)	-	
DE Shaw	226,044,929	3.5	12.4	(21)	12.4 (21)	20.8 (33)	28.0	(49)	8.1	(63)	10.2	(50)	13.4	(56)	12.6	(27)
PanAgora Defuseq	249,715,404	3.9	5.9	(95)	5.9 (95)	8.3 (99)	9.7	(100)	3.9	(98)	7.0	(90)	8.8	(97)	-	
Russell 1000 Index			10.3	(52)	10.3 (52)	19.6 (47)	29.9	(40)	9.1	(47)	10.5	(45)	14.8	(31)	12.7	(27)
eV US Large Cap Core Equity Median			10.4		10.4	19.0	27.9		8.8		10.1		13.8		11.9	
PGIM Quant Solutions	134,191,761	2.1	4.5	(75)	4.5 (75)	15.3 (36)	23.4	(28)	7.5	(25)	6.3	(26)	9.3	(69)	-	
Russell 2000 Index			5.2	(67)	5.2 (67)	13.8 (52)	19.7	(47)	2.9	(71)	-0.1	(90)	8.1	(89)	7.6	(79)
eV US Small Cap Core Equity Median			5.9		5.9	13.9	19.1		5.2		4.1		10.3		8.7	
International Equity	**1,204,174,007**	**18.8**	**4.3**	**(71)**	**4.3 (71)**	**8.6 (83)**	**11.7**	**(84)**	**4.6**	**(58)**	**1.7**	**(68)**	**6.8**	**(50)**	**4.8**	**(37)**
Blended International Equity Index			6.2	(19)	6.2 (19)	12.4 (17)	15.9	(18)	6.5	(14)	4.4	(10)	7.7	(15)	5.3	(19)
International Equity x Currency Overlay	**1,200,351,829**	**18.7**	**3.6**		**3.6**	**8.3**	**10.4**		**4.1**		**1.4**		**6.6**		**4.7**	
Blended International Equity Index			6.2		6.2	12.4	15.9		6.5		4.4		7.7		5.3	
Baillie Gifford	291,486,610	4.5	3.8	(72)	3.8 (72)	3.8 (89)	4.2	(91)	-1.9	(80)	-6.6	(85)	5.2	(76)	4.5	(87)
MSCI ACWI ex US			4.8	(59)	4.8 (59)	10.9 (30)	13.8	(33)	4.2	(35)	2.4	(20)	6.5	(66)	4.7	(85)
MSCI ACWI ex US Growth			6.0	(44)	6.0 (44)	9.3 (46)	11.5	(50)	2.4	(52)	-0.5	(48)	6.6	(65)	5.5	(62)
Mondrian	284,414,641	4.4	2.2	(73)	2.2 (73)	8.8 (71)	11.9	(67)	4.6	(70)	2.4	(80)	4.5	(89)	3.3	(77)
MSCI AC World ex USA Value			3.6	(48)	3.6 (48)	12.5 (43)	16.2	(38)	6.0	(56)	5.3	(35)	6.0	(64)	3.8	(73)
MSCI AC World ex USA Index			4.8	(31)	4.8 (31)	10.9 (57)	13.8	(53)	4.2	(75)	2.4	(78)	6.5	(61)	4.7	(20)
BlackRock MSCI ACWI EX-US IMI	615,535,183	9.6	4.3	(63)	4.3 (63)	10.4 (50)	13.2	(52)	3.4	(66)	1.9	(60)	-		-	
MSCI AC World ex USA IMI (Net)			4.3	(63)	4.3 (63)	10.6 (46)	13.2	(52)	3.2	(67)	1.7	(61)	6.0	(69)	4.3	(77)
Record Dynamic Currency Hedge	3,822,177	0.1	546.8		546.8	-1,305.9	-30,263.1		-		-		-		-	

* Total Fund and asset class aggregates are ranked in InvMetrics universes. Managers are ranked in eVest (eA) manager universes.
** Includes Parametric Minneapolis manager funded in August 2013
See Appendix for Benchmark History

Verus⁷⁷⁷®

19

	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*	417,452,034	6.5	-1.5	(100)	-1.5 (100)	1.6 (65)	4.1	(68)	-4.3	(100)	5.1	(95)	18.9	(15)	17.3	(-)
Blended Private Equity Index			12.8	(1)	12.8 (1)	19.5 (1)	29.0	(1)	3.9	(34)	11.6	(77)	18.2	(33)	14.2	(-)
Opportunistic Credit	680,451,020	10.6	1.9		1.9	7.0	-		-		-		-		-	
Opportunistic Credit Index			1.8		1.8	9.4	11.7		4.3		3.2		4.7		4.5	
Public Credit	477,577,013	7.4	1.8		1.8	8.0	10.5		3.2		3.2		4.5		5.1	
Blmbg. U.S. Corp: High Yield Index			1.5		1.5	9.2	11.2		3.7		2.2		4.2		4.4	
Angelo Gordon Opportunistic	37,084	0.0	0.0		0.0	10.5	6.7		3.6		6.4		6.4		-	
Beach Point Select	112,828,229	1.8	2.3	(17)	2.3 (17)	9.6 (24)	13.1	(8)	3.7	(41)	5.6	(3)	8.2	(1)	-	
Brigade Capital	108,730,541	1.7	2.4	(17)	2.4 (17)	7.6 (84)	11.4	(26)	1.2	(97)	2.8	(32)	4.7	(24)	4.2	(46)
One William Street	65,290,050	1.0	3.6	(3)	3.6 (3)	8.8 (49)	-		-		-		-		-	
Blmbg. U.S. Corp: High Yield Index			1.5	(59)	1.5 (59)	9.2 (30)	11.2	(29)	3.7	(44)	2.2	(56)	4.2	(39)	4.4	(29)
eV US High Yield Fixed Inc Median			1.6		1.6	8.8	10.4		3.5		2.3		4.0		4.1	
PIMCO Diversified	130,041,883	2.0	1.3	(79)	1.3 (79)	8.0 (85)	9.0	(89)	1.8	(97)	-0.3	(100)	1.9	(100)	-	
Blmbg. U.S. Corp: High Yield Index			1.5	(67)	1.5 (67)	9.2 (48)	11.2	(47)	3.7	(66)	2.2	(78)	4.2	(70)	4.4	(61)
Eaton Vance Emerging Markets Debt Opportunities Fund	60,649,226	0.9	-		-	-	-		-		-		-		-	
JPM EMB (JEMB) Hard Currency/Local Currency 50-50			0.0	(84)	0.0 (84)	5.3 (87)	7.6	(90)	2.4	(70)	-1.1	(81)	0.9	(76)	1.6	(71)
eV Emg Mkts Fixed Inc - Blended Currency			1.3		1.3	7.5	10.8		3.1		-0.3		1.5		2.1	
Private Credit	202,874,008	3.2	2.0		2.0	3.7	6.1		4.4		5.0		5.9		-	
Credit Suisse Leveraged Loan Index 1 Qtr Lag			2.9		2.9	9.6	13.0		5.8		5.6		5.6		4.4	
AG CSF ADF II	8,551,567	0.1	2.2		2.2	12.3	19.9		-		-		-		-	
AG CSF II	25,186,892	0.4	2.8		2.8	12.1	20.9		7.4		-		-		-	
Angelo Gordon Credit Solutions	8,101,910	0.1	2.1	(21)	2.1 (21)	9.4 (28)	12.3	(11)	3.6	(47)	6.9	(1)	-		-	
Blackrock DL Feeder IX-U	41,459,701	0.6	3.4		3.4	8.8	13.2		8.2		7.6		-		-	
PIMCO Private Income	51,032,037	0.8	2.8		2.8	5.6	7.6		4.1		5.7		-		-	
TCP Direct Lending VIII	10,558,386	0.2	1.9		1.9	4.9	8.4		5.3		5.3		5.8		-	
White Oak Yield	29,518,478	0.5	0.0		0.0	1.4	3.0		2.8		3.8		4.7		-	
White Oak YSF V	28,465,037	0.4	0.0	(100)	0.0 (100)	-0.8 (100)	0.5	(100)	-0.5	(100)	0.7	(97)	-		-	
Credit Suisse Leveraged Loan Index 1 Qtr Lag			2.9	(8)	2.9 (8)	9.6 (22)	13.0	(8)	5.8	(5)	5.6	(3)	5.6	(10)	4.4	(30)
eV US High Yield Fixed Inc Median			1.6		1.6	8.8	10.4		3.5		2.3		4.0		4.1	

Verus

	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	**1,186,916,950**	**18.5**	**1.4**		**1.4**	**4.9**	**4.7**		**-**		**-**		**-**		**-**	
Blended Diversifying Index			-0.2		-0.2	3.1	3.3		1.2		0.3		2.1		2.8	
Defensive Fixed Income	**827,086,013**	**12.9**	**-1.0**		**-1.0**	**2.9**	**2.2**		**-1.3**		**-2.4**		**0.5**		**1.8**	
Blended Defensive Fixed Income Benchmark			-1.4		-1.4	1.1	0.2		-2.3		-2.9		0.1		1.4	
DoubleLine	259,371,713	4.0	0.2	(56)	0.2 (56)	3.4 (58)	2.7	(58)	-1.4	(64)	-2.4	(61)	-		-	
Blmbg. U.S. Aggregate Index			-0.8	(71)	-0.8 (71)	2.6 (70)	1.7	(69)	-1.6	(71)	-2.5	(63)	0.4	(54)	1.5	(58)
eV US Securitized Fixed Inc Median			0.6		0.6	4.5	4.6		-0.1		-1.5		0.8		2.1	
FIAM Bond	129,473,314	2.0	-0.5	(55)	-0.5 (55)	3.3 (32)	2.8	(21)	-1.2	(37)	-1.9	(22)	1.3	(8)	2.2	(8)
NISA Core Bond	250,708,957	3.9	-0.6	(66)	-0.6 (66)	2.8 (61)	2.0	(69)	-1.3	(45)	-2.1	(42)	-		-	
Blmbg. U.S. Aggregate Index			-0.8	(88)	-0.8 (88)	2.6 (82)	1.7	(80)	-1.6	(73)	-2.5	(77)	0.4	(85)	1.5	(79)
eV US Core Fixed Inc Median			-0.5		-0.5	3.0	2.2		-1.3		-2.2		0.7		1.8	
NISA Long Treasury	178,709,279	2.8	-3.3		-3.3	-3.7	-		-		-		-		-	
Blmbg. U.S. Treasury: Long			-3.3		-3.3	-3.9	-6.1		-11.2		-8.0		-2.8		1.2	
Absolute Return	**359,830,937**	**5.6**	**7.0**	**(3)**	**7.0 (3)**	**9.3 (34)**	**10.1**	**(51)**	**6.7**	**(11)**	**5.9**	**(56)**	**1.4**	**(91)**	**2.1**	**(-)**
Absolute Return Custom Index			2.3	(60)	2.3 (60)	7.2 (59)	9.4	(58)	8.1	(1)	6.7	(51)	6.1	(75)	5.5	(-)
Acadian MAAR Fund LLC	78,842,351	1.2	1.4	(78)	1.4 (78)	-2.0 (93)	-3.1	(95)	-0.8	(79)	-0.8	(83)	-		-	
CFM Systematic Global Macro	89,091,660	1.4	-0.2	(88)	-0.2 (88)	7.2 (56)	3.7	(83)	7.1	(30)	6.1	(37)	-		-	
Graham Quant Macro	96,384,914	1.5	17.6	(2)	17.6 (2)	16.5 (13)	19.3	(15)	10.8	(13)	11.2	(17)	-		-	
PIMCO MAARS Fund LP	95,512,011	1.5	9.5	(13)	9.5 (13)	15.0 (16)	20.1	(14)	13.3	(8)	12.9	(12)	-		-	
Absolute Return Custom Index			2.3	(67)	2.3 (67)	7.2 (57)	9.4	(50)	8.1	(25)	6.7	(35)	6.1	(49)	5.5	(51)
eV Alt All Multi-Strategy Median			3.6		3.6	8.0	9.4		4.3		4.6		6.0		5.6	
Inflation Hedge	**1,022,744,492**	**15.9**	**0.0**		**0.0**	**-1.6**	**-2.4**		**-2.0**		**5.6**		**3.5**		**-**	
Blended Inflation Hedge Index			1.5		1.5	-3.2	-4.0		-2.8		5.8		5.5		5.0	
Real Estate	**469,175,499**	**7.3**	**-1.9**	**(40)**	**-1.9 (40)**	**-7.8 (25)**	**-8.8**	**(27)**	**-4.4**	**(-)**	**3.2**	**(-)**	**3.4**	**(-)**	**6.8**	**(-)**
NCREIF ODCE			-2.4	(44)	-2.4 (44)	-8.8 (48)	-11.3	(37)	-7.3	(-)	3.4	(-)	3.5	(-)	6.8	(-)
Harrison Street Core Property	90,070,560	1.4	-1.7		-1.7	-7.2	-7.0		-0.2		3.4		-		-	
Invesco	236,259,624	3.7	-3.5		-3.5	-9.5	-11.9		-7.6		2.6		2.5		6.3	
Invesco US Val IV	316,296	0.0	-9.0		-9.0	-47.3	-48.0		-54.5		-38.4		-23.5		-	
Invesco US Val V	23,475,055	0.4	-1.0		-1.0	-27.6	-28.0		-17.1		-5.3		1.0		-	
Invesco US Val VI	20,574,834	0.3	0.0		0.0	-15.4	-16.1		-		-		-		-	
PGIM RE US Debt Fund	73,294,772	1.1	1.5		1.5	4.2	6.1		6.2		5.9		5.6		-	
NCREIF ODCE			-2.4		-2.4	-8.8	-11.3		-7.3		3.4		3.5		6.8	
Stockbridge Value IV	25,184,358	0.4	0.0		0.0	-4.9	-4.8		5.0		-		-		-	
NCREIF ODCE			-2.4		-2.4	-8.8	-11.3		-7.3		3.4		3.5		6.8	

NISA Core Treasury funded 6/15/2023.
See Appendix for Benchmark History
Stockbridge as of 12/31/2023 +/- cashflows.

Verus

21

	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***	**342,881,027**	**5.3**	**1.7**		**1.7**	**5.5**	**6.5**		**6.2**		**11.5**		**9.6**		**-**	
Blended Private Real Assets Index			8.6		8.6	2.8	6.0		5.5		9.1		9.5		6.3	
Blended Secondary CA Private RA Index			1.2		1.2	4.8	5.9		10.0		14.0		8.4		-	
Public Real Assets	**210,687,966**	**3.3**	**1.1**		**1.1**	**3.2**	**0.8**		**-3.2**		**5.7**		**1.6**		**-**	
Blended Public Real Assets Index			1.1		1.1	3.4	1.1		-3.0		5.7		4.4		5.2	
SSgA Custom Real Assets	210,687,966	3.3	1.1		1.1	3.2	0.8		-3.2		5.7		4.4		-	
SSgA Custom Real Assets Index			1.1		1.1	3.4	1.1		-3.0		5.7		4.4		-	
Liquidity	**353,301,804**	**5.5**	**0.9**		**0.9**	**4.4**	**5.2**		**-**		**-**		**-**		**-**	
Blended Liquidity Index			0.6		0.6	3.9	3.8		-		-		-		-	
Cash Flow-Matched Liquidity	**315,424,434**	**4.9**	**0.8**		**0.8**	**4.4**	**4.8**		**-**		**-**		**-**		**-**	
Bloomberg U.S. Gov/Credit 1-3 Year Index			0.4		0.4	3.9	3.5		1.9		0.2		1.4		1.3	
Bloomberg U.S. Credit 1-3 Year Index			0.7		0.7	4.5	4.7		2.5		0.8		1.8		1.8	
Insight Investment*	304,813,869	4.8	0.8		0.8	4.5	4.9		-		-		-		-	
Bloomberg U.S. Credit 1-3 Year Index			0.7		0.7	4.5	4.7		2.5		0.8		1.8		1.8	
County Treasury Pool**	10,610,564	0.2	0.3		0.3	1.7	4.5		2.8		2.2		2.1		2.0	
90 Day U.S. Treasury Bill			1.3		1.3	4.0	5.2		3.9		2.6		2.0		1.4	
Cash & Cash Overlay	**73,263,361**	**1.1**	**1.4**		**1.4**	**4.3**	**5.9**		**4.4**		**3.0**		**2.1**		**1.5**	
90 Day U.S. Treasury Bill			1.3		1.3	4.0	5.2		3.9		2.6		2.0		1.4	
General Account	61,965,032	1.0	1.4		1.4	4.4	5.7		4.4		3.0		2.5		2.4	
90 Day U.S. Treasury Bill			1.3		1.3	4.0	5.2		3.9		2.6		2.0		1.4	

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

**Attribution Effects
Last Three Months**

Performance Attribution

	3 Mo
Wtd. Actual Return	3.3
Wtd. Index Return	4.7
Excess Return	**-1.4**
Selection Effect	-1.4
Allocation Effect	0.0
Interaction Effect	0.0

**Attribution Summary
Last Three Months**

	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Interaction Effects	Total Effects
Growth Portfolio	5.2	7.7	-2.5	-1.5	0.0	0.0	-1.5
Diversifying Portfolio	1.4	-0.2	1.5	0.3	0.0	0.0	0.3
Inflation Hedge	0.0	1.5	-1.5	-0.3	0.0	0.0	-0.2
Liquidity	0.9	0.6	0.3	0.0	-0.1	0.0	0.0
Total Fund	**3.3**	**4.7**	**-1.4**	**-1.4**	**0.0**	**0.0**	**-1.4**

*Interaction Effects include Residual Effects

Verus

Attribution Effects
Last Three Months

Legend:
- Selection Effect (teal)
- Allocation Effect (dark blue)
- Interaction Effect (gray)
- Total Effects (orange)

Performance Attribution

	3 Mo
Wtd. Actual Return	3.3
Wtd. Index Return	4.7
Excess Return	**-1.4**
Selection Effect	-1.5
Allocation Effect	0.0
Interaction Effect	0.0

Attribution Summary
Last Three Months

	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Interaction Effects	Total Effects
US Equity	9.3	10.0	-0.7	-0.2	0.0	0.0	-0.1
International Equity	4.3	6.2	-2.0	-0.3	0.0	0.0	-0.3
Defensive Fixed Income	-1.0	-1.4	0.4	0.1	0.0	0.0	0.0
Opportunistic Credit	1.9	1.8	0.0	0.0	0.0	0.0	0.0
Private Equity	-1.5	12.8	-14.3	-1.0	0.0	0.1	-1.0
Absolute Return	7.0	2.3	4.7	0.3	0.0	0.0	0.3
Real Estate	-1.9	-2.4	0.4	0.0	0.1	0.0	0.1
Private Real Assets	1.7	8.6	-6.9	-0.3	0.0	0.0	-0.4
Public Real Assets	1.1	1.1	0.0	0.0	0.0	0.0	0.0
Cash Flow-Matched Liquidity	0.8	0.4	0.4	0.0	0.0	0.0	0.0
Cash & Cash Overlay	1.4	1.3	0.1	0.0	0.0	0.0	0.0
Total Fund	**3.3**	**4.7**	**-1.4**	**-1.5**	**0.0**	**0.0**	**-1.4**

Interaction Effects include Residual Effects

Verus

**Attribution Effects
One Year**

	Selection Effect		Allocation Effect
	Interaction Effect		Total Effects
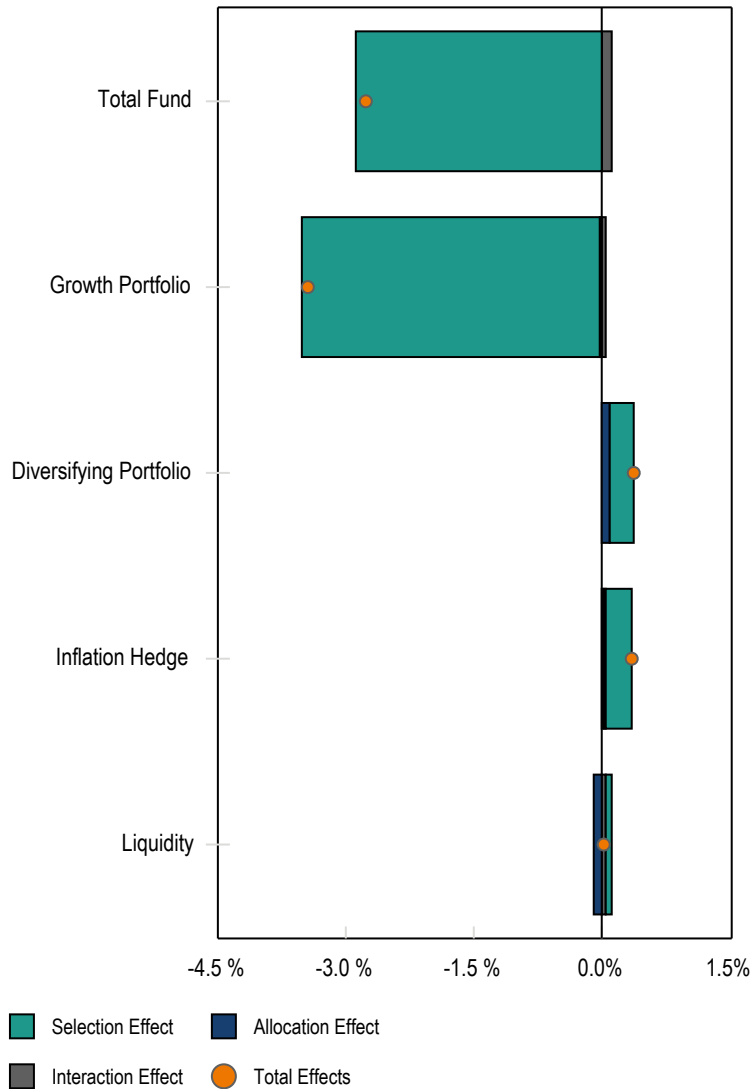
Performance Attribution

	1 Yr
Wtd. Actual Return	9.6
Wtd. Index Return	12.4
Excess Return	**-2.8**
Selection Effect	-2.9
Allocation Effect	0.0
Interaction Effect	0.1

**Attribution Summary
One Year**

	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Interaction Effects	Total Effects
Growth Portfolio	15.3	21.7	-6.3	-3.5	0.0	0.1	-3.5
Diversifying Portfolio	4.7	3.3	1.4	0.3	0.1	0.0	0.4
Inflation Hedge	-2.4	-4.0	1.6	0.3	0.0	0.0	0.3
Liquidity	5.2	3.8	1.4	0.1	-0.1	0.0	0.0
Total Fund	**9.6**	**12.4**	**-2.8**	**-2.9**	**0.0**	**0.1**	**-2.8**

Interaction Effects include Residual Effects

Verus

Attribution Effects
One Year
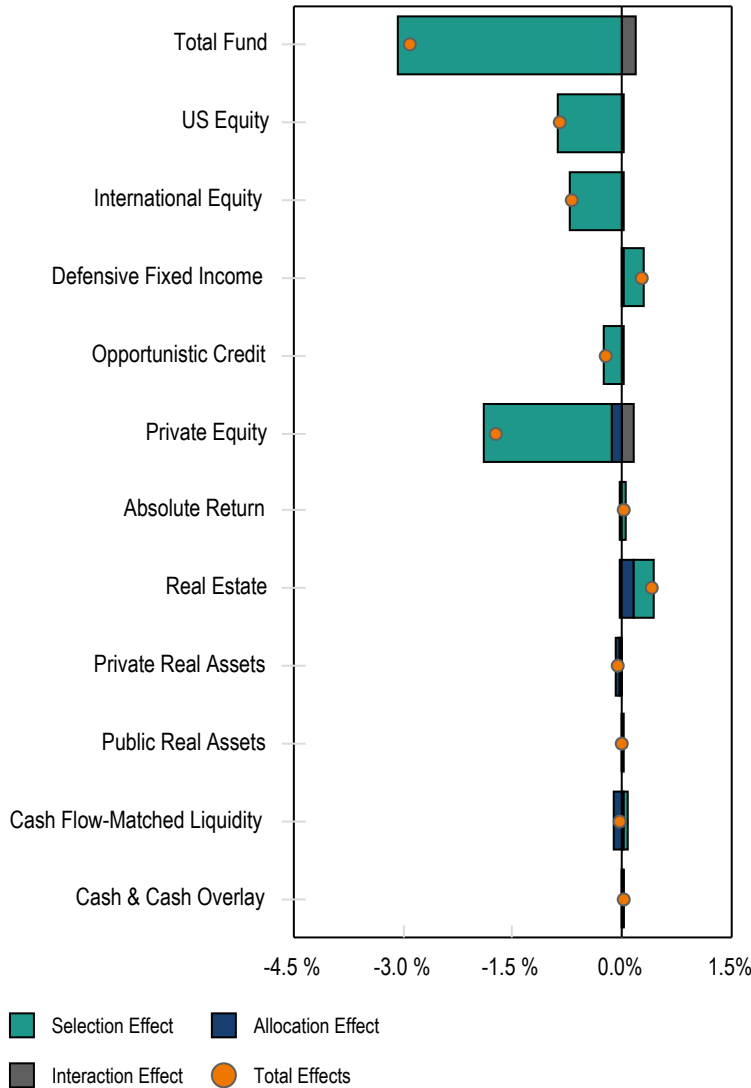
Performance Attribution

	1 Yr
Wtd. Actual Return	9.6
Wtd. Index Return	12.6
Excess Return	**-2.9**
Selection Effect	-3.1
Allocation Effect	0.0
Interaction Effect	0.2

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	22.3	22.5	24.8	29.3	-4.5	-0.9	0.0	0.0	-0.9
International Equity	18.5	18.3	11.7	15.9	-4.2	-0.7	0.0	0.0	-0.7
Defensive Fixed Income	12.3	12.5	2.2	0.2	2.0	0.3	0.0	0.0	0.3
Opportunistic Credit	10.6	10.8	9.5	11.7	-2.2	-0.3	0.0	0.0	-0.2
Private Equity	6.5	7.0	4.1	29.0	-24.9	-1.8	-0.1	0.2	-1.7
Absolute Return	5.8	6.3	10.1	9.4	0.7	0.0	0.0	0.0	0.0
Real Estate	8.4	9.0	-8.8	-11.3	2.4	0.3	0.2	0.0	0.4
Private Real Assets	5.3	5.0	6.5	6.0	0.5	0.0	0.0	0.0	-0.1
Public Real Assets	3.0	3.3	0.8	1.1	-0.3	0.0	0.0	0.0	0.0
Cash Flow-Matched Liquidity	5.3	4.5	4.8	3.5	1.3	0.1	-0.1	0.0	0.0
Cash & Cash Overlay	2.0	1.0	5.9	5.2	0.6	0.0	0.0	0.0	0.0
Total Fund	**100.0**	**100.0**	**9.6**	**12.6**	**-2.9**	**-3.1**	**0.0**	**0.2**	**-2.9**

Interaction Effects include Residual Effects

Verus

Pie chart labels (clockwise from top right):
- Acadian MAAR Fund LLC
- AG CSF ADF II
- AG CSF II
- Angelo Gordon Credit Solutions
- Angelo Gordon Opportunistic
- Baillie Gifford
- Beach Point Select
- Blackrock DL Feeder IX-U
- BlackRock MSCI ACWI EX-US IMI
- BlackRock Russell 1000
- Brigade Capital
- Cash Overlay
- CFM Systematic Global Macro
- Core Fixed Income Overlay
- County Treasury Pool
- Currency Hedge Cash Overlay
- DE Shaw
- Domestic Equity Overlay
- DoubleLine
- Eaton Vance Emerging Markets Debt Opportunities Fund
- FIAM Bond
- Futures Offsets
- General Account
- Graham Quant Macro
- Harrison Street Core Property
- Insight Investment
- International Equity Overlay
- Invesco
- Invesco US Val IV
- Invesco US Val V
- Invesco US Val VI
- Mondrian
- NISA Core Bond
- NISA Long Treasury
- One William Street
- PanAgora Defuseq
- Parametric Minneapolis Overlay
- PGIM Quant Solutions
- PGIM RE US Debt Fund
- PIMCO Diversified
- PIMCO MAARS Fund LP
- PIMCO Private Income
- Private Equity
- Private Real Assets
- Record Dynamic Currency Hedge
- SSgA Custom Real Assets
- Stockbridge Value IV
- TCP Direct Lending VIII
- White Oak Yield
- White Oak YSF V

Name	Market Value	% of Portfolio
BlackRock Russell 1000	$920,367,929	14.4
DE Shaw	$226,044,929	3.5
PanAgora Defuseq	$249,715,404	3.9
PGIM Quant Solutions	$134,191,761	2.1
Domestic Equity Overlay	$17,647,845	0.3
Baillie Gifford	$291,486,610	4.5
Mondrian	$284,414,641	4.4
BlackRock MSCI ACWI EX-US IMI	$615,535,183	9.6
International Equity Overlay	$8,915,396	0.1
DoubleLine	$259,371,713	4.0
FIAM Bond	$129,473,314	2.0
NISA Core Bond	$250,708,957	3.9
NISA Long Treasury	$178,709,279	2.8
Core Fixed Income Overlay	$8,822,750	0.1
AG CSF ADF II	$8,551,567	0.1
AG CSF II	$25,186,892	0.4
Angelo Gordon Credit Solutions	$8,101,910	0.1
Angelo Gordon Opportunistic	$37,084	0.0
Beach Point Select	$112,828,229	1.8
Brigade Capital	$108,730,541	1.7
PIMCO Diversified	$130,041,883	2.0
Eaton Vance Emerging Markets Debt Opportunities Fund	$60,649,226	0.9
Blackrock DL Feeder IX-U	$41,459,701	0.6
PIMCO Private Income	$51,032,037	0.8
TCP Direct Lending VIII	$10,558,386	0.2
White Oak Yield	$29,518,478	0.5
White Oak YSF V	$28,465,037	0.4
Private Equity	$417,452,034	6.5

Name	Market Value	% of Portfolio
Acadian MAAR Fund LLC	$78,842,351	1.2
CFM Systematic Global Macro	$89,091,660	1.4
Graham Quant Macro	$96,384,914	1.5
PIMCO MAARS Fund LP	$95,512,011	1.5
Harrison Street Core Property	$90,070,560	1.4
Invesco	$236,259,624	3.7
Invesco US Val IV	$316,296	0.0
Invesco US Val V	$23,475,055	0.4
Invesco US Val VI	$20,574,834	0.3
PGIM RE US Debt Fund	$73,294,772	1.1
Stockbridge Value IV	$25,184,358	0.4
Private Real Assets	$342,881,027	5.3
SSgA Custom Real Assets	$210,687,966	3.3
Insight Investment	$304,813,869	4.8
County Treasury Pool	$10,610,564	0.2
General Account	$61,965,032	1.0
Cash Overlay	$11,298,342	0.2
Transition Account	-	0.0
Futures Offsets	-$35,385,991	-0.6
Total Fund	**$6,413,008,176**	**100.0**

InvMetrics Public DB >$1B Net Return Comparison
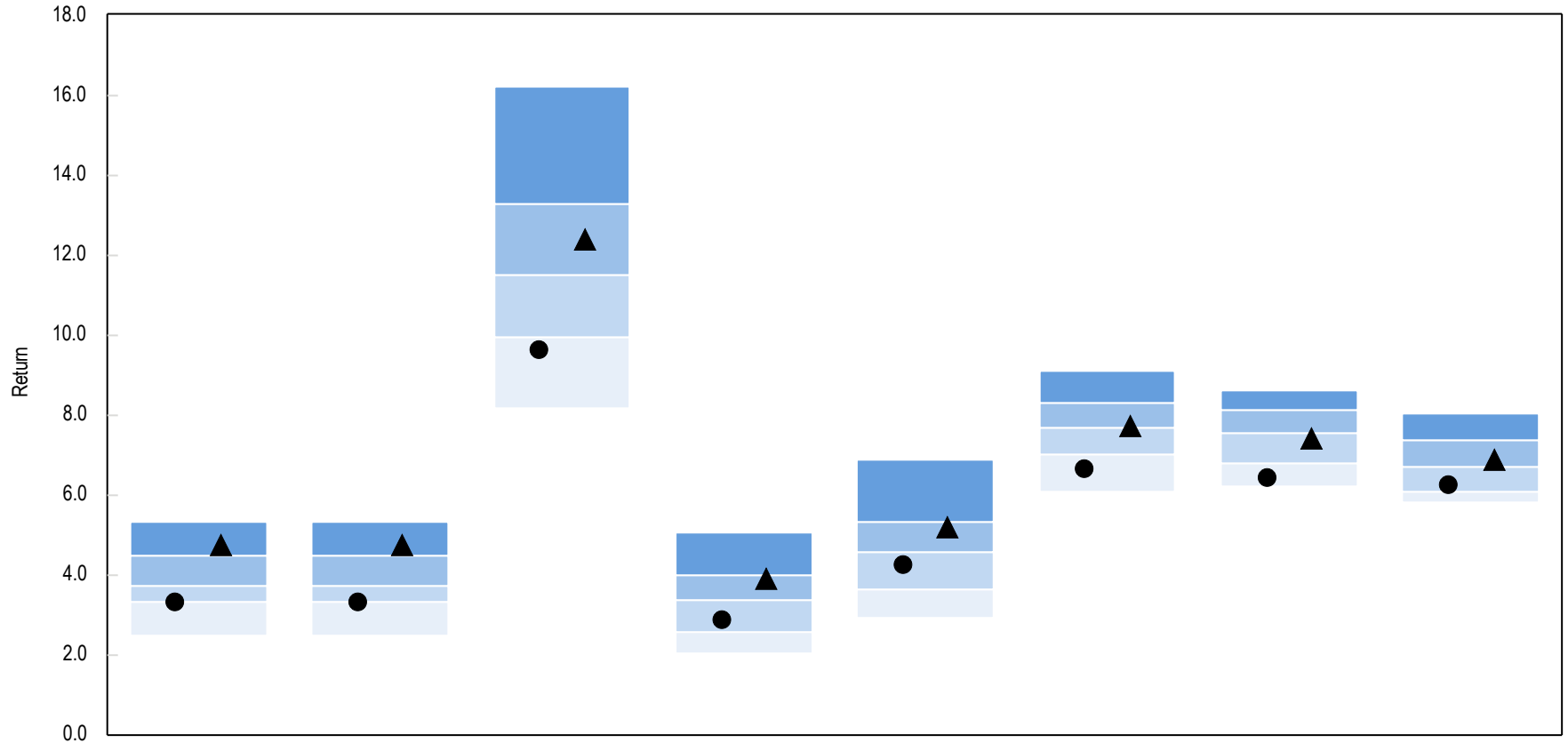
	3 Mo	YTD	1 Yr	2 Yrs	3 Yrs	5 Yrs	7 Yrs	10 Yrs
● Total Fund	3.3 (75)	3.3 (75)	9.6 (80)	2.9 (67)	4.3 (62)	6.7 (81)	6.4 (88)	6.3 (69)
▲ Policy Index	4.7 (20)	4.7 (20)	12.4 (33)	3.9 (30)	5.2 (30)	7.7 (47)	7.4 (53)	6.9 (45)
5th Percentile	5.3	5.3	16.2	5.1	6.9	9.1	8.6	8.0
1st Quartile	4.5	4.5	13.3	4.0	5.3	8.3	8.2	7.4
Median	3.7	3.7	11.5	3.4	4.6	7.7	7.6	6.7
3rd Quartile	3.3	3.3	10.0	2.6	3.6	7.0	6.8	6.1
95th Percentile	2.5	2.5	8.2	2.0	2.9	6.1	6.2	5.8
Population	88	88	45	41	39	38	37	33

Verus

30
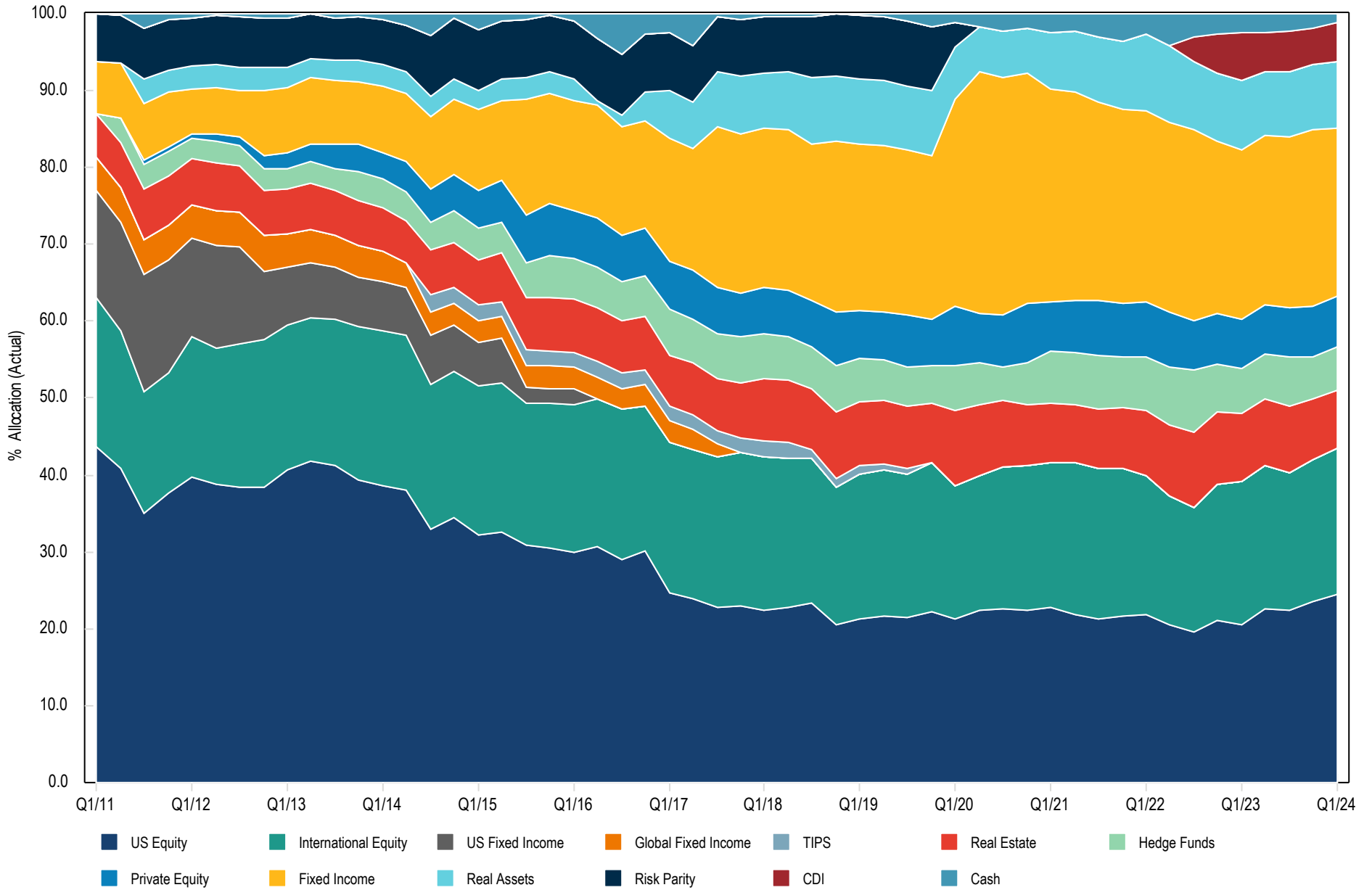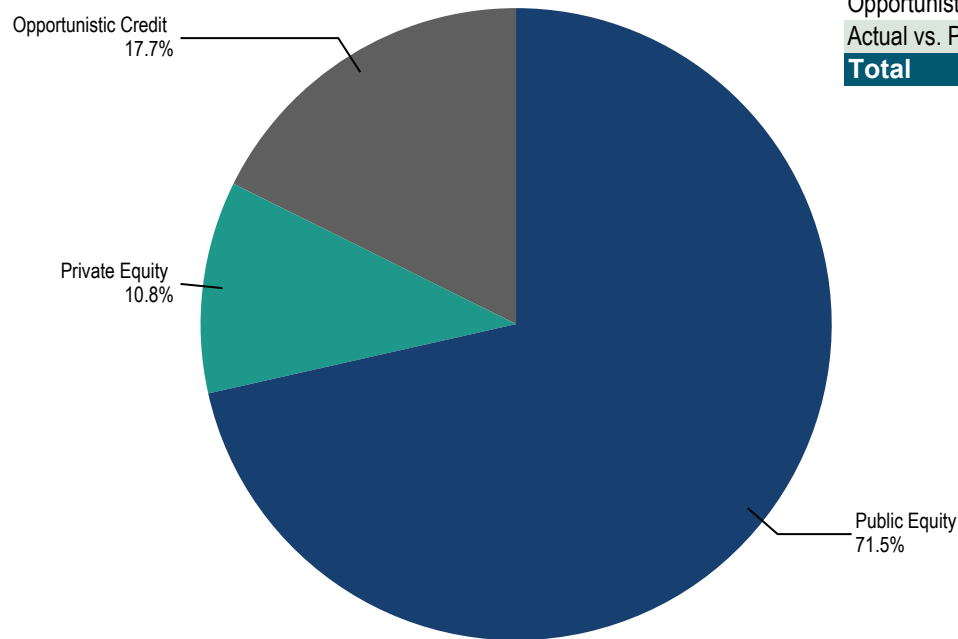
	Actual $	Actual %	Manager Contribution to Excess Return %
US Equity	$1,547,967,868	40.2%	-0.3%
International Equity	$1,204,174,007	31.3%	-0.6%
Private Equity	$417,452,034	10.9%	-1.6%
Opportunistic Credit	$680,451,020	17.6%	-0.1%
Actual vs. Policy Weight Difference			0.0%
Total	**$3,850,044,929**	**100.0%**	**-2.6%**

Statistics Summary
3 Years

	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio	Information Ratio	Tracking Error
Growth Portfolio	15.3	9.8	1.0	-3.2	1.7
Blended Growth Index	*21.7*	*9.5*	*1.6*	*-*	*0.0*
US Equity	24.8	13.5	1.3	-2.2	1.6
Blended US Equity Index	*29.3*	*13.8*	*1.6*	*-*	*0.0*
International Equity	11.7	13.3	0.5	-1.9	1.9
Blended International Equity Index	*15.9*	*12.1*	*0.9*	*-*	*0.0*
Private Equity	4.1	3.5	-0.3	-1.7	13.3
Blended Private Equity Index	*29.0*	*14.2*	*1.5*	*-*	*0.0*
Opportunistic Credit	9.5	3.5	1.2	-1.1	2.0
Opportunistic Credit Index	*11.7*	*4.4*	*1.4*	*-*	*0.0*

InvMetrics All DB US Eq Net Return Comparison
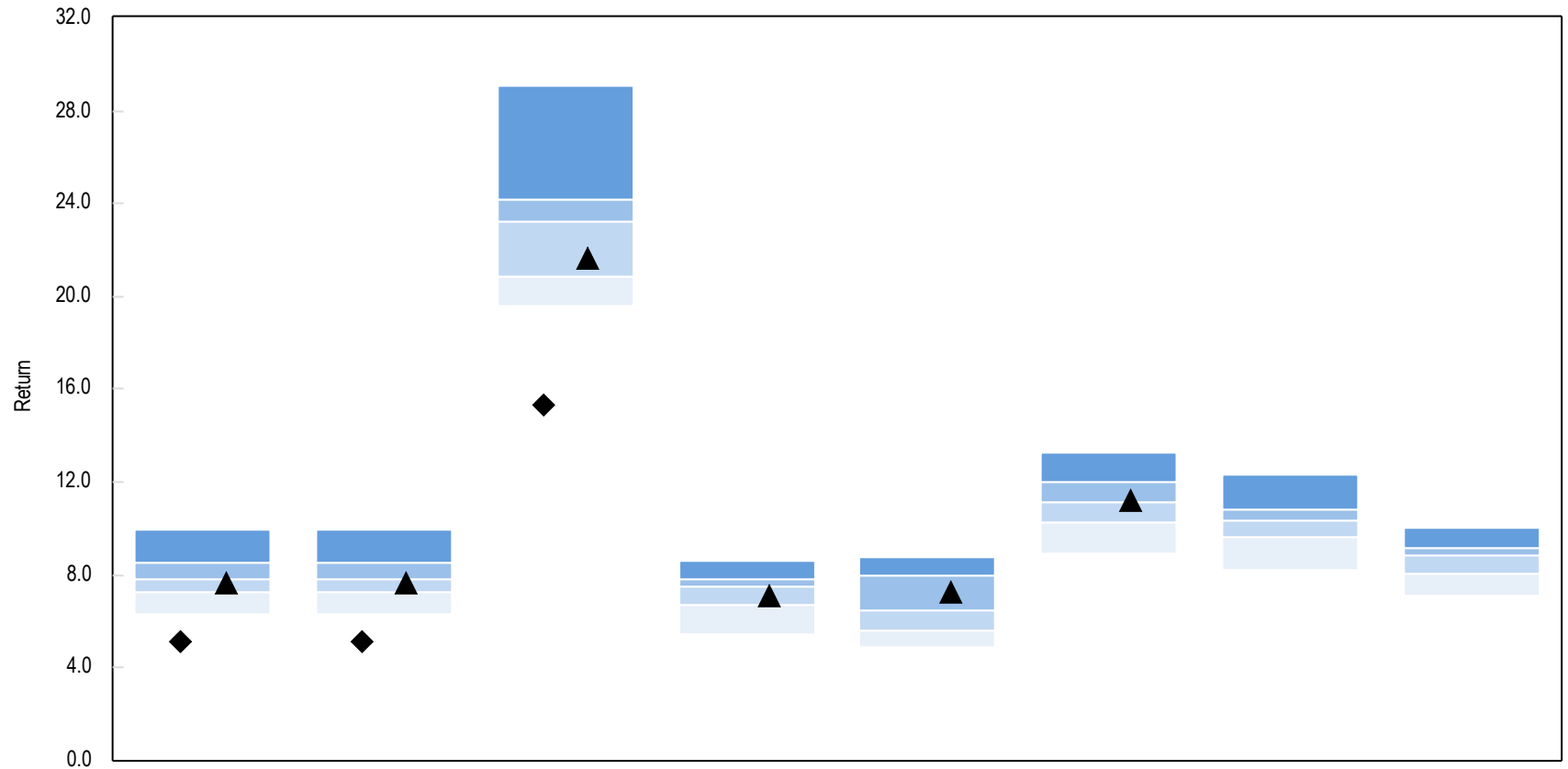
	3 Mo	YTD	1 Yr	2 Yrs	3 Yrs	5 Yrs	7 Yrs	10 Yrs
◆ Growth Portfolio	5.2 (99)	5.2 (99)	15.3 (100)	-	-	-	-	-
▲ Blended Growth Index	7.7 (60)	7.7 (60)	21.7 (70)	7.1 (64)	7.3 (39)	11.2 (48)	-	-
5th Percentile	10.0	10.0	29.0	8.6	8.8	13.3	12.3	10.0
1st Quartile	8.5	8.5	24.2	7.8	7.9	12.0	10.8	9.2
Median	7.8	7.8	23.2	7.5	6.5	11.2	10.3	8.9
3rd Quartile	7.3	7.3	20.9	6.7	5.6	10.3	9.6	8.1
95th Percentile	6.3	6.3	19.6	5.4	4.9	8.9	8.3	7.1
Population	95	95	35	21	20	19	15	11
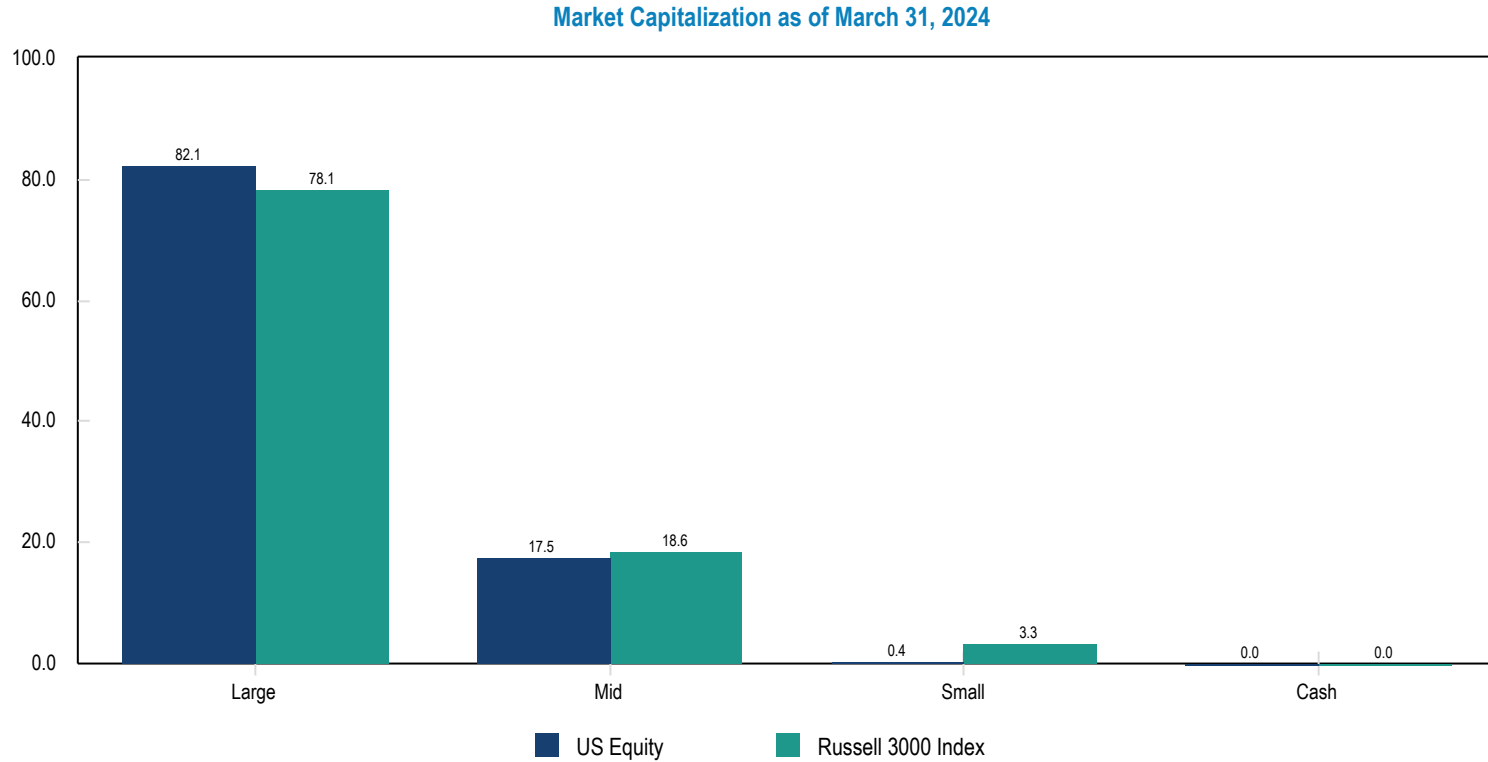
Market Capitalization as of March 31, 2024

	Large	Mid	Small	Cash
US Equity	82.1	17.5	0.4	0.0
Russell 3000 Index	78.1	18.6	3.3	0.0

Characteristics

	Portfolio	Benchmark
Number of Stocks	2,249	2,949
Wtd. Avg. Mkt. Cap $M	725,529.6	689,318.3
Median Mkt. Cap $M	3,402.3	2,222.2
Price/Earnings ratio	25.3	24.8
Current Yield (%)	1.4	1.4
Beta (5 Years, Monthly)	0.9	1.0
Price/Book ratio	4.5	4.4
Return on Equity (%)	11.4	10.6

Top Holdings

	(%)
Microsoft Corp	6.5
Apple Inc	5.2
NVIDIA Corporation	4.5
Amazon.com Inc	3.4
Meta Platforms Inc	2.2
Alphabet Inc	1.9
Berkshire Hathaway Inc	1.6
Alphabet Inc	1.6
Eli Lilly and Co	1.4
JPMorgan Chase & Co	1.2

Best Performers

	Return (%)
Viking Therapeutics Inc	340.6
Super Micro Computer Inc	255.3
Janux Therapeutics Inc	250.9
Arcutis Biotherapeutics Inc	206.8
Inotiv Inc	198.1
Avidity Biosciences Inc	182.0
Vera Therapeutics Inc	180.4
MicroStrategy Inc	169.9
Stoke Therapeutics Inc	156.7
Generation Bio Co	146.7

Worst Performers

	Return (%)
Amylyx Pharmaceuticals Inc	-80.7
WW International Inc	-78.9
iRobot Corp	-77.4
LivePerson Inc	-73.7
Office Properties Income Trust	-72.1
2U Inc	-68.3
New York Community Bancorp Inc	-68.2
CareMax Inc	-67.8
Solo Brands Inc	-64.8
RAPT Therapeutics Inc	-63.9

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	0.0	0.0	0.0	0.0	13.2	13.1	3.8	4.0
Materials	0.0	0.0	0.0	0.0	8.5	8.1	2.6	2.7
Industrials	0.0	0.0	0.0	0.0	11.4	11.1	9.5	10.0
Consumer Discretionary	0.0	0.0	0.0	0.0	5.7	5.6	10.9	10.9
Consumer Staples	0.0	0.0	0.0	0.0	7.7	7.6	5.8	5.7
Health Care	0.0	0.0	0.0	0.0	8.7	8.5	12.4	12.6
Financials	0.1	0.1	0.0	0.0	12.7	11.7	13.4	13.7
Information Technology	0.0	0.0	0.0	0.0	11.8	11.8	27.7	27.1
Communication Services	0.0	0.0	0.0	0.0	14.9	14.6	8.3	8.0
Utilities	0.0	0.0	0.0	0.0	5.4	4.8	2.2	2.3
Real Estate	0.0	0.0	0.0	0.0	-1.0	-1.1	2.8	3.0
Other	0.0	0.0	0.0	0.0	10.4	0.0	0.0	0.0
Cash	-0.1	0.0	-0.1	0.0	0.0	0.0	0.6	0.0
Total	**0.2**	**0.3**	**0.0**	**0.0**	**10.2**	**10.0**	**100.0**	**100.0**

U.S. Effective Style Map

Capitalization

Russell 1000 Value Index

US Equity

Blended US Equity Index

Russell 1000 Growth Index

Russell 2000 Value Index

Russell 2000 Growth Index

Manager Style
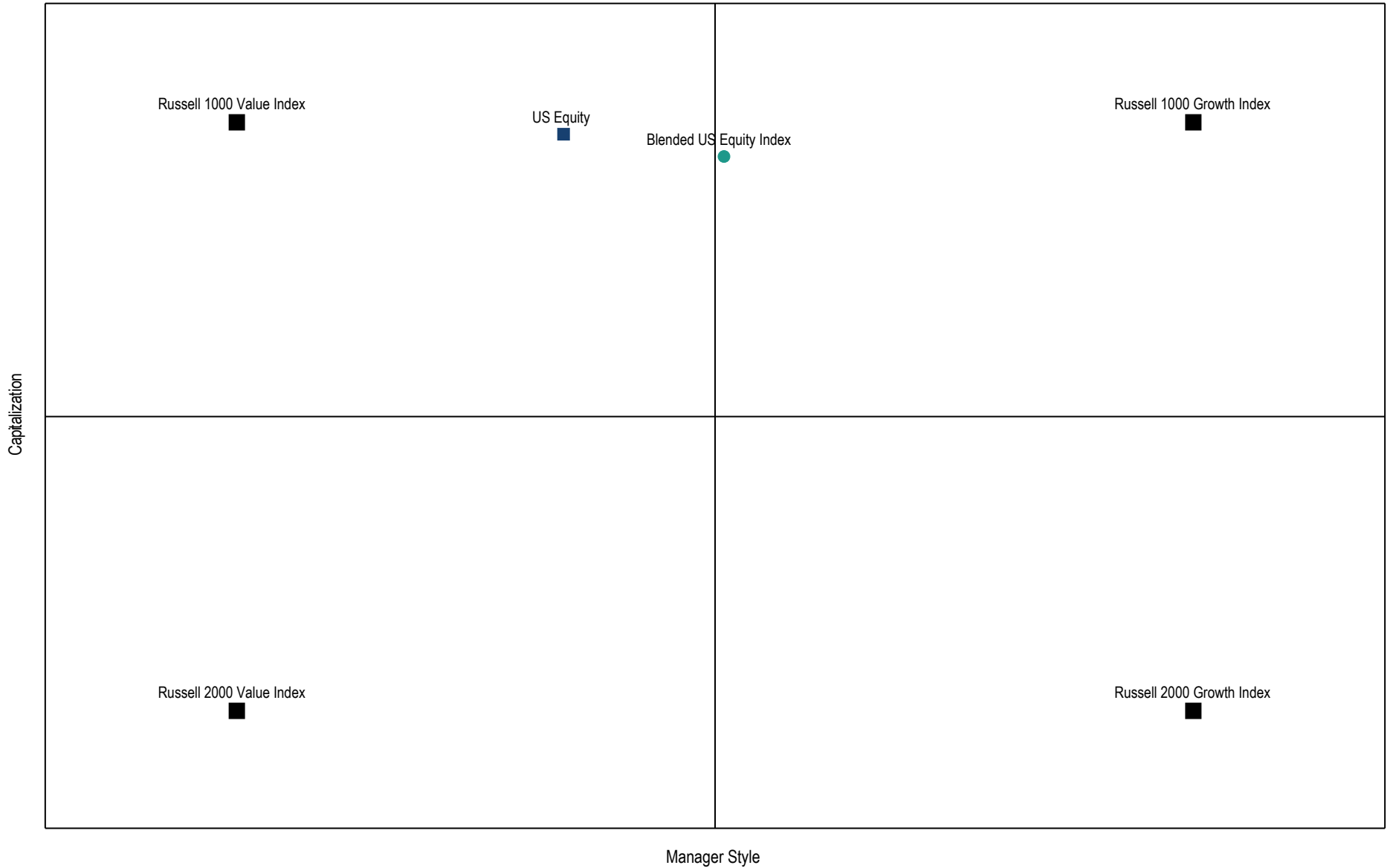
Characteristics

	Portfolio	Benchmark
Number of Stocks	1,011	1,004
Wtd. Avg. Mkt. Cap $M	726,894.2	726,935.2
Median Mkt. Cap $M	14,239.5	14,253.1
Price/Earnings ratio	25.3	25.4
Current Yield (%)	1.4	1.4
Beta (5 Years, Monthly)	1.0	1.0
Price/Book ratio	4.5	4.5
Return on Equity (%)	11.2	11.2

Top Holdings

	(%)
Microsoft Corp	6.5
Apple Inc	5.2
NVIDIA Corporation	4.5
Amazon.com Inc	3.4
Meta Platforms Inc	2.2
Alphabet Inc	1.9
Berkshire Hathaway Inc	1.6
Alphabet Inc	1.6
Eli Lilly and Co	1.4
JPMorgan Chase & Co	1.2

Best Performers

	Return (%)
NVIDIA Corporation	82.5
Vistra Corp	81.4
AppLovin Corporation	73.7
Shockwave Medical Inc	70.9
Vertiv Holdings Co	70.1
CAVA Group Inc	63.0
EMCOR Group Inc.	62.7
Maplebear Inc	58.9
Constellation Energy Corp	58.5
Williams-Sonoma Inc	58.0

Worst Performers

	Return (%)
New York Community Bancorp Inc	-68.2
SSR Mining Inc	-58.6
Rivian Automotive Inc	-53.3
agilon health inc	-51.4
AMC Entertainment Holdings Inc	-39.2
Iridium Communications Inc	-36.1
ViaSat Inc	-35.3
QuidelOrtho Corporation	-35.0
Unity Software Inc	-34.7
10x Genomics Inc	-32.9

Verus

Characteristics

	Portfolio	Benchmark
Number of Stocks	221	1,004
Wtd. Avg. Mkt. Cap $M	121,961.7	726,935.2
Median Mkt. Cap $M	27,923.5	14,253.1
Price/Earnings ratio	20.4	25.4
Current Yield (%)	2.8	1.4
Beta (5 Years, Monthly)	0.8	1.0
Price/Book ratio	2.8	4.5
Return on Equity (%)	3.6	11.2

Top Holdings

	(%)
AT&T Inc	2.2
Service Corp International	2.0
T-Mobile US Inc	1.8
Verizon Communications Inc	1.7
TJX Companies Inc (The)	1.6
Exxon Mobil Corp	1.6
Williams Cos Inc. (The)	1.6
Chevron Corp	1.5
Ardagh Metal Packaging SA	1.4
Amcor Plc	1.3

Best Performers

	Return (%)
Organon & Co	32.3
Progressive Corp (The)	30.5
Net Lease Office Properties	28.8
Kemper Corp	27.9
Berkley (W.R.) Corp	25.2
The Allstate Corporation	24.3
Fidelity National Information Services Inc	24.1
Brown & Brown Inc	23.3
Merck & Co Inc	21.8
Travelers Companies Inc (The)	21.4

Worst Performers

	Return (%)
AMC Entertainment Holdings Inc	-39.2
Sotera Health Co	-28.7
GameStop Corp.	-28.6
Olaplex Holdings Inc	-24.4
Healthcare Realty Trust Inc	-16.0
Zoetis Inc	-14.1
TFS Financial Corp	-12.6
Xcel Energy Inc.	-12.3
Archer-Daniels-Midland Co	-12.2
W. P. Carey Inc	-11.6

PanAgora Defuseq Performance Attribution vs. Russell 1000 Index

	Attribution Effects				Performance		Sector Weights	
	Total Effects	Selection Effect	Allocation Effect	Interaction Effect	Portfolio	Benchmark	Portfolio	Benchmark
Energy	-0.1	-0.1	0.1	-0.1	11.0	13.3	6.6	3.8
Materials	-0.1	0.0	-0.1	0.0	8.1	8.4	9.0	2.6
Industrials	-0.2	-0.2	0.0	0.0	8.9	11.3	9.5	9.6
Consumer Discretionary	0.1	0.0	0.1	0.0	6.1	5.7	8.6	10.9
Consumer Staples	-0.5	-0.2	-0.2	-0.2	4.7	7.7	12.2	5.8
Health Care	-0.5	-0.5	0.0	0.0	4.6	8.8	11.4	12.5
Financials	-0.1	0.1	-0.1	-0.1	13.6	12.7	7.5	13.5
Information Technology	-0.9	-1.9	-0.3	1.3	4.8	11.8	9.3	27.9
Communication Services	-1.0	-0.8	0.1	-0.2	4.8	14.9	10.5	8.3
Utilities	-0.9	-0.1	-0.5	-0.4	1.7	5.4	12.1	2.2
Real Estate	-0.1	0.0	0.0	0.0	-1.8	-1.1	3.1	2.8
Total	**-4.2**	**-3.7**	**-0.9**	**0.4**	**6.1**	**10.3**	**100.0**	**100.0**

U.S. Effective Style Map
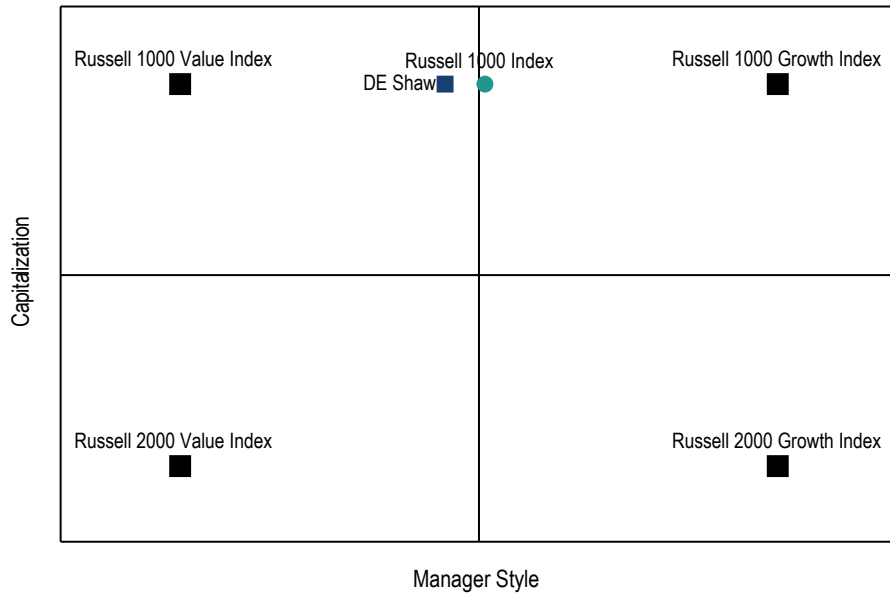
Growth of a Dollar

Quarterly and Cumulative Excess Performance
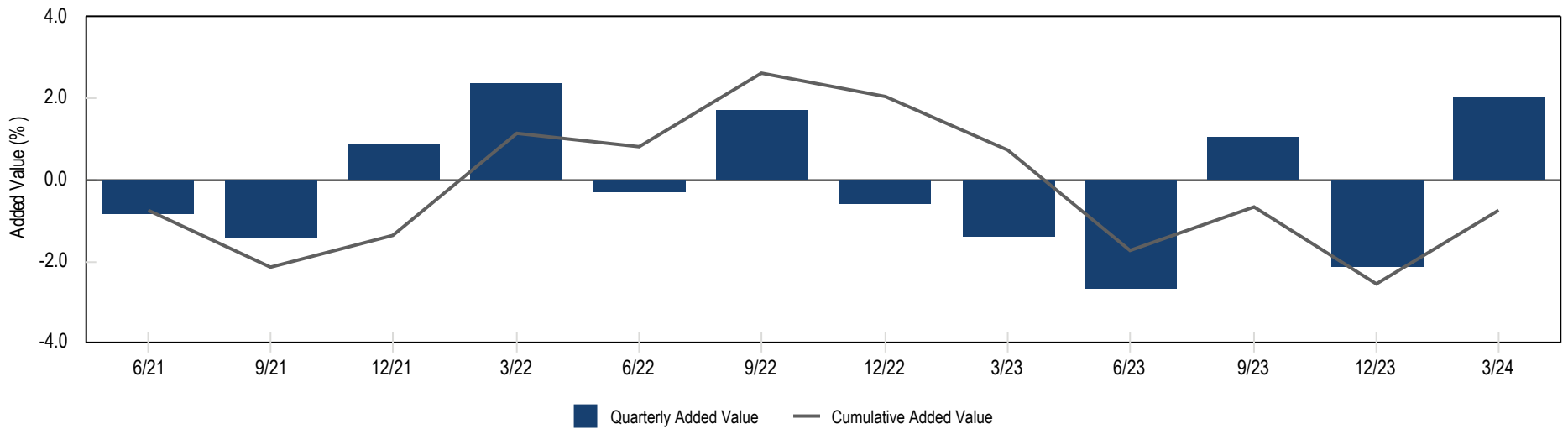
eV US Small Cap Core Equity Net Return Comparison
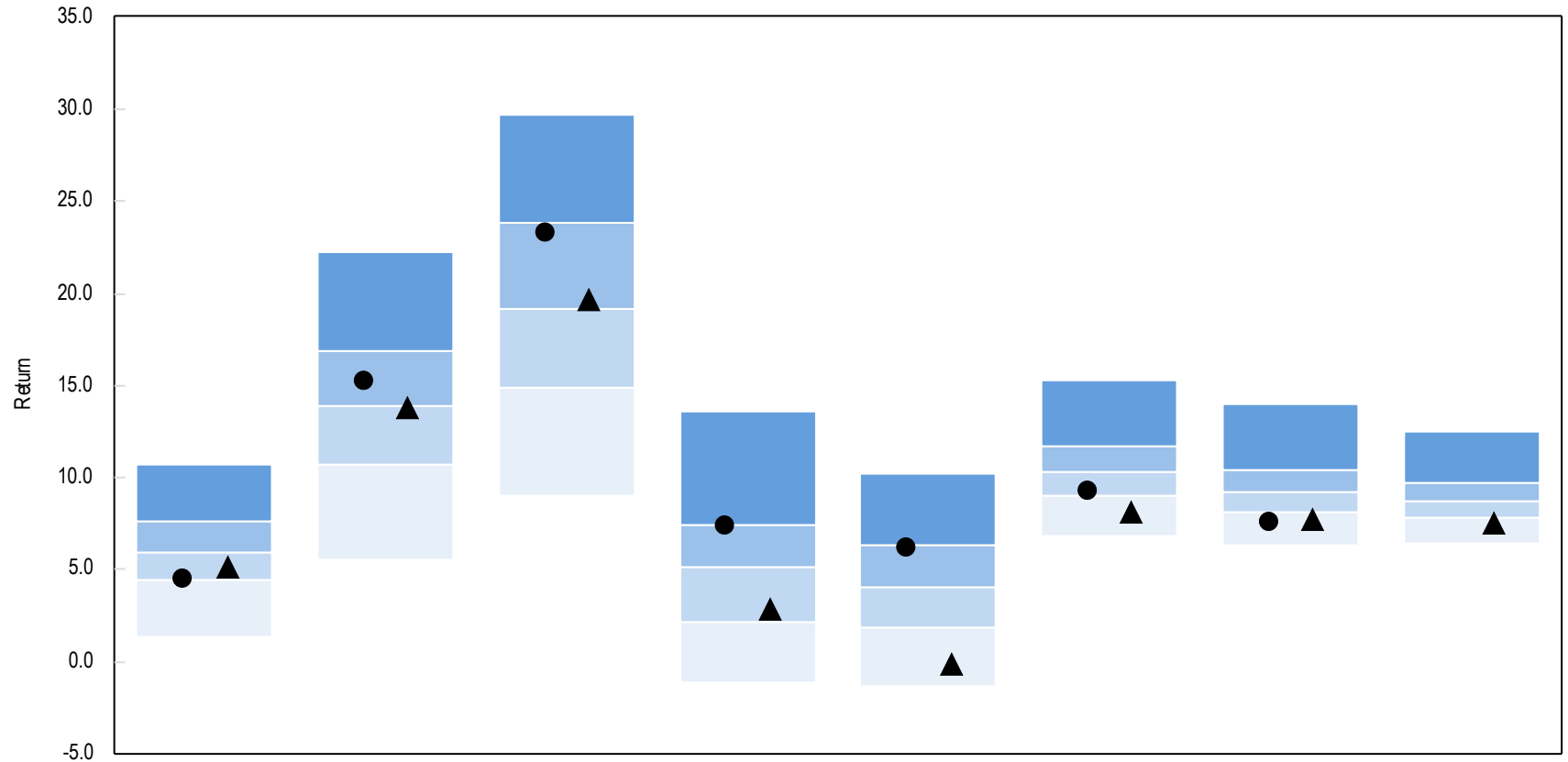
	3 Mo	Fiscal YTD	1 Yr	2 Yrs	3 Yrs	5 Yrs	7 Yrs	10 Yrs
● PGIM Quant Solutions	4.5 (75)	15.3 (36)	23.4 (28)	7.5 (25)	6.3 (26)	9.3 (69)	7.7 (82)	-
▲ Russell 2000 Index	5.2 (67)	13.8 (52)	19.7 (47)	2.9 (71)	-0.1 (90)	8.1 (89)	7.7 (82)	7.6 (79)
5th Percentile	10.7	22.3	29.7	13.6	10.2	15.3	14.0	12.5
1st Quartile	7.6	16.9	23.9	7.4	6.4	11.7	10.4	9.7
Median	5.9	13.9	19.1	5.2	4.1	10.3	9.2	8.7
3rd Quartile	4.5	10.7	14.9	2.2	1.9	9.1	8.1	7.8
95th Percentile	1.4	5.6	9.0	-1.1	-1.3	6.9	6.3	6.5
Population	194	193	191	183	181	174	162	146

Characteristics

	Portfolio	Benchmark
Number of Stocks	336	1,945
Wtd. Avg. Mkt. Cap $M	4,722.3	4,739.4
Median Mkt. Cap $M	2,200.4	933.2
Price/Earnings ratio	16.2	16.4
Current Yield (%)	1.2	1.4
Beta (5 Years, Monthly)	1.0	1.0
Price/Book ratio	2.5	2.6
Return on Equity (%)	1.2	0.4

Top Holdings

	(%)
Super Micro Computer Inc	2.5
AppFolio Inc	0.9
SM Energy Co	0.9
Abercrombie & Fitch Co.	0.9
Onto Innovation Inc	0.8
BellRing Brands Inc	0.8
CommVault Systems Inc	0.8
BGC Group Inc	0.8
GMS Inc	0.8
Fluor Corp	0.8

Best Performers

	Return (%)
Super Micro Computer Inc	255.3
MicroStrategy Inc	169.9
Sweetgreen Inc	123.5
Fate Therapeutics Inc	96.3
Enanta Pharmaceuticals Inc	85.5
Hims & Hers Health Inc	73.8
Carvana Co	66.1
Oscar Health Inc	62.5
Comfort Systems USA Inc	54.6
Palomar Holdings Inc	51.0

Worst Performers

	Return (%)
Office Properties Income Trust	-72.1
Solo Brands Inc	-64.8
Trinseo PLC	-54.8
TTEC Holdings Inc	-52.1
ModivCare Inc	-46.7
Douglas Elliman Inc	-46.4
MultiPlan Corp	-43.7
Acadia Pharmaceuticals Inc	-40.9
GoPro Inc	-35.7
Century Casinos Inc	-35.2

Verus

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	0.0	0.0	0.0	0.0	11.5	11.9	7.0	6.9
Materials	0.1	0.1	0.0	0.0	6.9	5.1	5.3	4.5
Industrials	0.6	0.6	0.0	0.0	11.8	8.6	17.8	17.0
Consumer Discretionary	0.0	0.0	0.0	0.0	5.8	5.5	11.0	11.0
Consumer Staples	-0.5	-0.4	0.0	-0.1	-7.3	4.5	4.0	3.4
Health Care	-0.6	-0.7	0.0	0.0	0.5	5.0	14.3	15.4
Financials	0.2	0.2	0.0	0.0	-0.1	-1.4	16.8	17.1
Information Technology	0.8	0.8	0.0	0.0	18.6	12.9	13.6	13.6
Communication Services	0.0	0.0	0.0	0.0	-3.0	-4.5	2.6	2.3
Utilities	0.1	0.1	0.0	0.0	0.5	-3.6	2.3	2.7
Real Estate	-0.1	-0.2	0.0	0.0	-4.5	-1.5	5.5	6.2
Total	**0.6**	**0.5**	**0.1**	**0.0**	**5.9**	**5.2**	**100.0**	**100.0**

Verus

Market Capitalization as of March 31, 2024
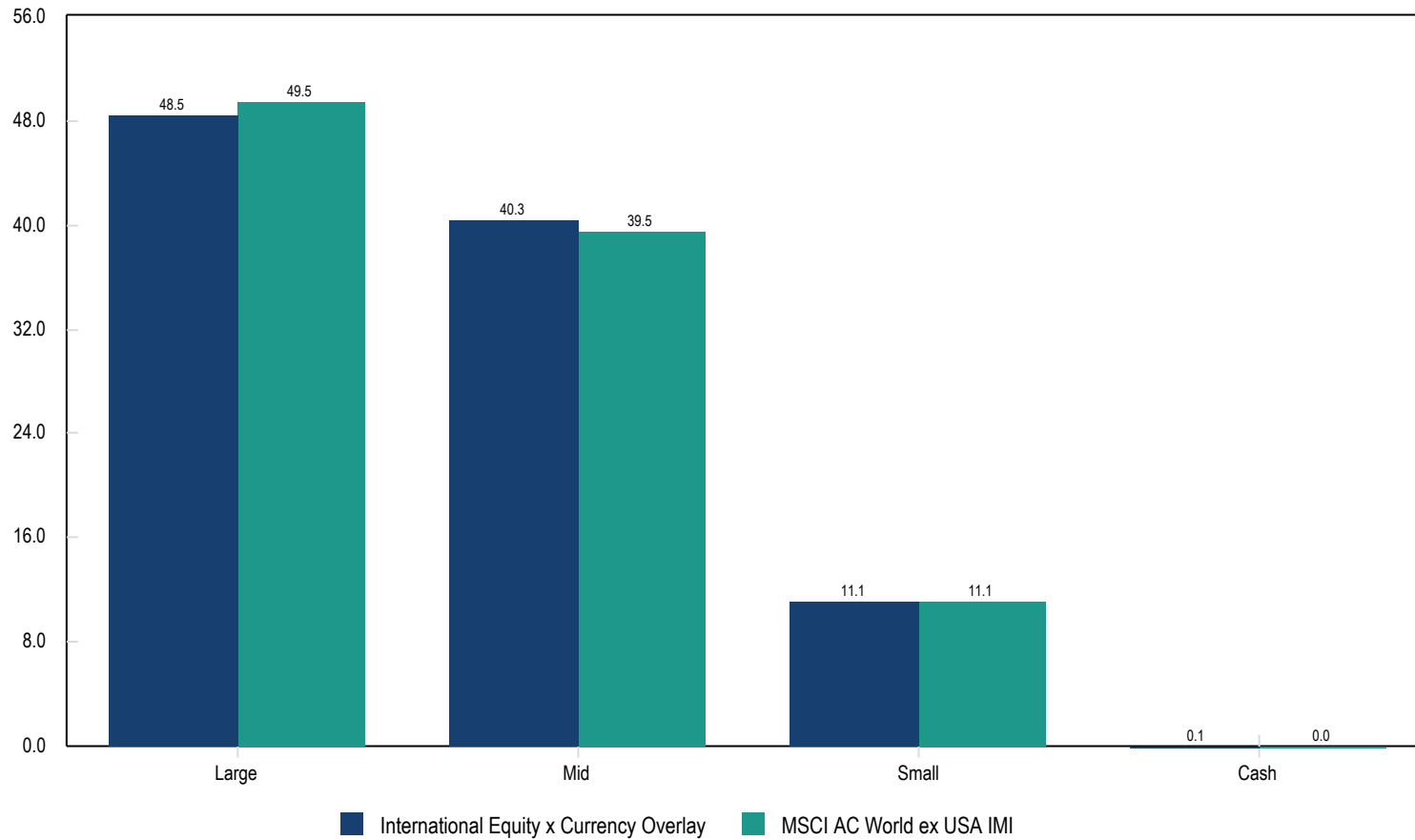
See appendix for the market capitalization breakpoints.

Characteristics

	Portfolio	Benchmark
Number of Stocks	6,746	6,655
Wtd. Avg. Mkt. Cap $M	89,215.1	88,290.2
Median Mkt. Cap $M	1,680.1	1,669.4
Price/Earnings ratio	15.5	15.4
Current Yield (%)	3.0	3.0
Beta (5 Years, Monthly)	1.0	1.0
Price/Book ratio	2.5	2.5
Return on Equity (%)	2.0	1.9

Top Holdings

	(%)
Taiwan Semiconductor Man.	2.3
Novo Nordisk A/S	1.4
ASML Holding NV	1.3
Samsung Electronics Co Ltd	1.1
Tencent Holdings LTD	0.9
Toyota Motor Corp	0.9
Nestle SA, Cham Und Vevey	0.9
LVMH Moet Hennessy Louis V	0.8
Shell Plc	0.7
SAP SE	0.6

Best Performers

	Return (%)
Agrotech Yuksek Teknoloji Ve Yatirim Anonim Sirketi	176.7
Enchem Co Ltd	173.2
Shinsung Delta Company Ltd	152.2
Sakura Internet Inc	139.7
Shihlin Electric And Engineering Corp	136.3
Micronics Japan Co Ltd	126.4
Reeder Teknoloji Sanayi ve Ticaret Anonim Sirketi	115.1
Fortress Real Estate Investments Limited	113.3
HD Hyundai Electric Co Ltd	108.8
Hanmi Semiconductor Co Ltd	108.2

Worst Performers

	Return (%)
CANARIABIO Inc	-81.5
Atos SE	-73.7
Cosmopolitan International Holdings Ltd	-72.0
SK D&D Co Ltd	-69.6
NKMAX CO Ltd	-69.0
Meyer Burger Technology AG	-68.2
Chongqing Hongjiu Fruit Co Limited	-66.9
Intrum Justitia AB	-66.2
CLOUDR GROUP LTD	-62.1
Aker Carbon Capture ASA	-60.0

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	0.0	0.0	0.0	0.0	5.5	5.6	5.2	5.4
Materials	0.0	-0.1	0.0	0.0	-2.1	-1.5	8.3	8.5
Industrials	0.0	0.0	0.0	0.0	6.6	6.8	14.3	14.4
Consumer Discretionary	0.0	0.0	0.0	0.0	6.2	6.3	11.8	11.5
Consumer Staples	0.0	-0.1	0.0	0.0	-3.5	-2.8	7.6	7.8
Health Care	0.0	0.0	0.0	0.0	3.4	3.4	8.2	9.0
Financials	0.0	0.0	0.0	0.0	6.3	6.1	19.7	19.8
Information Technology	0.1	0.1	0.1	0.0	10.6	10.2	13.3	12.4
Communication Services	0.0	0.0	0.0	0.0	1.6	1.9	5.4	5.0
Utilities	0.0	0.0	0.0	0.0	-1.6	-2.4	3.2	3.2
Real Estate	0.0	0.0	0.0	0.0	-0.9	-1.2	3.0	3.1
Total	**0.0**	**0.0**	**0.1**	**0.0**	**4.5**	**4.4**	**100.0**	**100.0**

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

| | Weights | | Performance | | Attribution Effects | | | |
	Portfolio	Benchmark	Portfolio	Benchmark	Selection Effects	Country Effects	Interaction Effects	Total Effects
Australia	4.9	4.9	1.0	1.0	0.0	0.0	0.0	0.0
Austria	0.2	0.2	-0.9	-0.8	0.0	0.0	0.0	0.0
Belgium	0.6	0.6	-0.6	-0.3	0.0	0.0	0.0	0.0
Brazil	1.9	1.6	-6.5	-6.8	0.0	0.0	0.0	0.0
Canada	7.6	7.5	4.2	4.3	0.0	0.0	0.0	0.0
Chile	0.2	0.2	-7.6	-5.0	0.0	0.0	0.0	0.0
China	6.6	5.8	-0.9	-0.8	0.0	0.0	0.0	0.0
Colombia	0.0	0.0	14.6	14.6	0.0	0.0	0.0	0.0
Czech Republic	0.0	0.0	-7.3	-7.2	0.0	0.0	0.0	0.0
Denmark	2.0	2.0	14.8	14.9	0.0	0.0	0.0	0.0
Egypt	0.0	0.0	-26.7	-26.6	0.0	0.0	0.0	0.0
Finland	0.7	0.7	-2.7	-2.7	0.0	0.0	0.0	0.0
France	6.5	6.5	5.3	5.4	0.0	0.0	0.0	0.0
Germany	4.9	5.1	6.4	6.4	0.0	0.0	0.0	0.0
Greece	0.1	0.1	7.2	7.3	0.0	0.0	0.0	0.0
Hong Kong	1.9	1.9	-10.5	-10.8	0.0	0.0	0.0	0.0
Hungary	0.1	0.1	1.3	1.3	0.0	0.0	0.0	0.0
India	5.7	5.1	4.7	5.0	0.0	0.0	0.0	0.0
Indonesia	0.7	0.5	1.1	1.4	0.0	0.0	0.0	0.0
Ireland	0.9	1.1	-1.8	2.2	0.0	0.0	0.0	0.0
Israel	0.6	0.6	9.0	9.3	0.0	0.0	0.0	0.0
Italy	1.5	1.5	12.2	12.4	0.0	0.0	0.0	0.0
Japan	15.6	15.4	9.7	9.9	0.0	0.0	0.0	0.0
Korea	4.1	3.7	2.0	1.6	0.0	0.0	0.0	0.0
Kuwait	0.2	0.2	8.3	8.3	0.0	0.0	0.0	0.0
Malaysia	0.4	0.4	3.9	4.1	0.0	0.0	0.0	0.0
Malta	0.0	0.0	14.6	13.6	0.0	0.0	0.0	0.0
Mexico	0.9	0.8	0.9	1.2	0.0	0.0	0.0	0.0
Netherlands	3.4	3.2	15.4	15.3	0.0	0.0	0.0	0.0
New Zealand	0.2	0.2	0.8	-0.6	0.0	0.0	0.0	0.0
Norway	0.6	0.6	-4.7	-4.8	0.0	0.0	0.0	0.0
Peru	0.1	0.0	12.2	10.9	0.0	0.0	0.0	0.0
Philippines	0.2	0.2	6.6	6.6	0.0	0.0	0.0	0.0

Verus

	Weights		Performance		Attribution Effects			
	Portfolio	Benchmark	Portfolio	Benchmark	Selection Effects	Country Effects	Interaction Effects	Total Effects
Poland	0.3	0.3	4.2	4.2	0.0	0.0	0.0	0.0
Portugal	0.2	0.1	-13.7	-10.0	0.0	0.0	0.0	0.0
Qatar	0.2	0.2	-5.5	-5.4	0.0	0.0	0.0	0.0
Russia	0.0	0.0	-2.8	0.0	0.0	0.0	0.0	0.0
Saudi Arabia	1.3	1.2	4.8	5.0	0.0	0.0	0.0	0.0
Singapore	1.0	1.0	-0.9	-0.9	0.0	0.0	0.0	0.0
South Africa	0.9	0.8	-7.0	-7.0	0.0	0.0	0.0	0.0
Spain	1.6	1.6	7.4	7.4	0.0	0.0	0.0	0.0
Sweden	2.4	2.3	1.0	1.0	0.0	0.0	0.0	0.0
Switzerland	6.0	6.4	-1.1	-1.2	0.0	0.0	0.0	0.0
Taiwan	5.3	4.8	12.6	11.3	0.1	0.0	0.0	0.1
Thailand	0.7	0.6	-6.3	-8.4	0.0	0.0	0.0	0.0
Turkey	0.2	0.2	12.8	12.2	0.0	0.0	0.0	0.0
United Arab Emirates	0.4	0.4	0.1	0.0	0.0	0.0	0.0	0.0
United Kingdom	5.4	8.9	3.4	2.8	0.1	0.1	0.0	0.1
United States	0.1	0.1	13.2	14.2	0.0	0.0	0.0	0.0
Other	0.5	0.4	-1.0	-2.4	0.0	0.0	0.0	0.0
Total	**100.0**	**100.0**	**4.5**	**4.4**	**0.0**	**0.0**	**0.0**	**0.0**

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

	Weights		Performance		Attribution Effects			
	Portfolio	Benchmark	Portfolio	Benchmark	Selection Effects	Region Effects	Interaction Effects	Total Effects
Americas	10.9	10.2	2.1	2.3	0.0	0.0	0.0	0.0
Asia Pacific	47.4	44.4	4.9	4.8	0.0	0.0	0.0	0.0
EMEA	41.3	45.0	4.7	4.5	0.1	0.0	0.0	0.1
Other	0.5	0.4	-1.0	-2.4	0.0	0.0	0.0	0.0
Total	**100.0**	**100.0**	**4.5**	**4.4**	**0.1**	**0.0**	**0.0**	**0.0**

eV ACWI ex-US Growth Equity Net Return Comparison
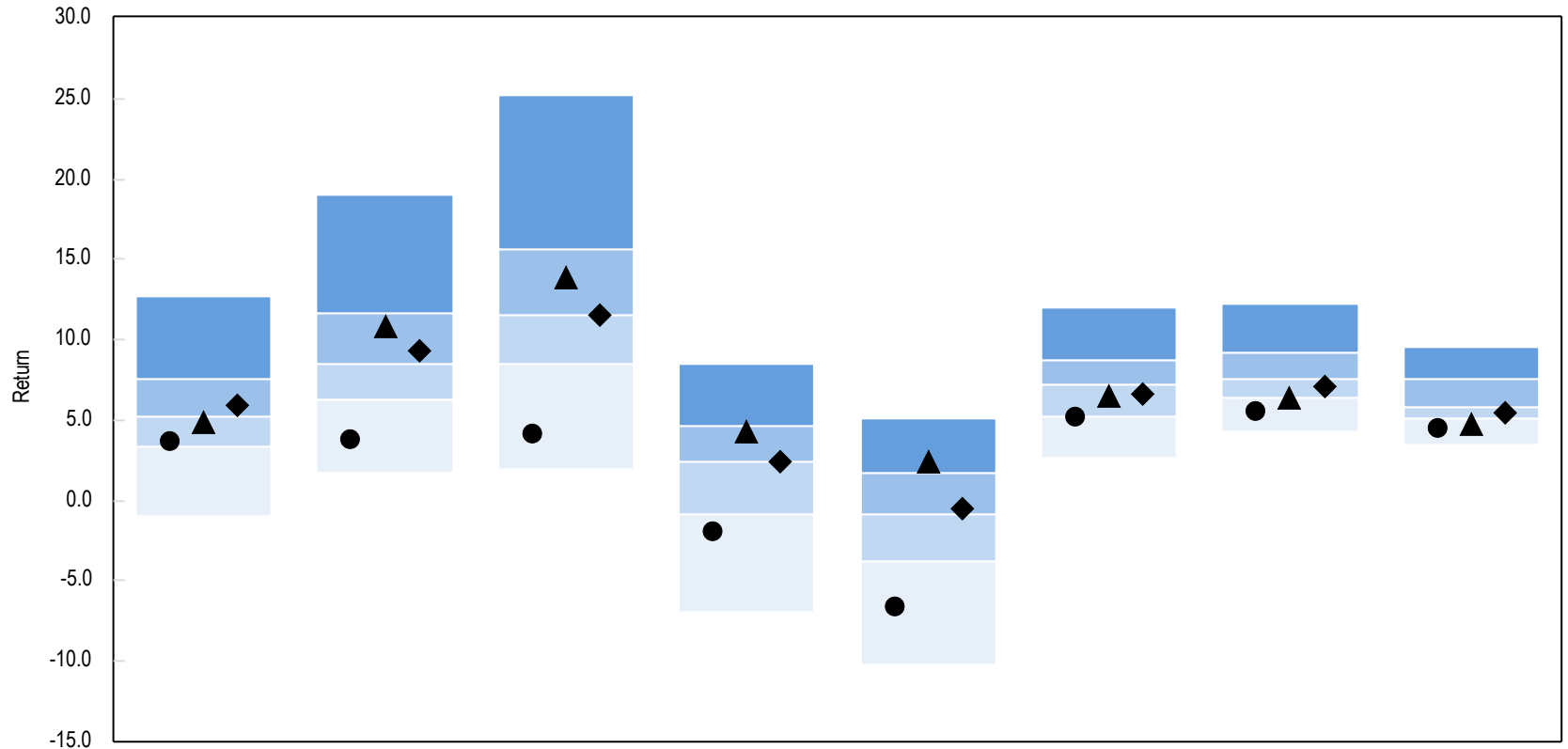
	3 Mo	Fiscal YTD	1 Yr	2 Yrs	3 Yrs	5 Yrs	7 Yrs	10 Yrs
● Baillie Gifford	3.8 (72)	3.8 (89)	4.2 (91)	-1.9 (80)	-6.6 (85)	5.2 (76)	5.5 (87)	4.5 (87)
▲ MSCI ACWI ex US	4.8 (59)	10.9 (30)	13.8 (33)	4.2 (35)	2.4 (20)	6.5 (66)	6.4 (76)	4.7 (85)
◆ MSCI ACWI ex US Growth	6.0 (44)	9.3 (46)	11.5 (50)	2.4 (52)	-0.5 (48)	6.6 (65)	7.0 (63)	5.5 (62)
5th Percentile	12.7	19.0	25.2	8.5	5.1	12.0	12.2	9.6
1st Quartile	7.6	11.6	15.6	4.7	1.7	8.8	9.2	7.6
Median	5.2	8.5	11.5	2.5	-0.8	7.2	7.6	5.8
3rd Quartile	3.4	6.2	8.5	-0.8	-3.8	5.2	6.4	5.2
95th Percentile	-0.9	1.7	2.0	-7.0	-10.2	2.7	4.3	3.5
Population	111	111	110	109	108	98	87	71

Verus

Characteristics

	Portfolio	Benchmark
Number of Stocks	82	2,231
Wtd. Avg. Mkt. Cap $M	97,483.6	102,127.2
Median Mkt. Cap $M	29,878.0	10,143.6
Price/Earnings ratio	23.2	15.5
Current Yield (%)	1.5	3.1
Beta (5 Years, Monthly)	1.1	1.0
Price/Book ratio	3.9	2.6
Return on Equity (%)	3.9	1.9

Top Holdings

	(%)
Taiwan Semiconductor Man.	4.5
ASML Holding NV	3.5
Tokyo Electron Ltd	2.5
United Overseas Bank Ltd	2.4
MercadoLibre Inc	2.3
Investor AB publ	2.2
Shopify Inc	2.2
Auto Trader Group plc	2.0
Cie Financiere Richemont	2.0
Experian Plc	1.9

Best Performers

	Return (%)
Jio Financial Services Limited	51.5
MakeMyTrip Ltd	51.2
Tokyo Electron Ltd	46.8
LONZA GROUP AG	42.7
Spotify Technology SA	40.4
Topicus.Com Inc	32.5
Adyen N.V	31.4
Taiwan Semiconductor Man.	31.3
ASML Holding NV	28.2
Intertek Group PLC, London	16.3

Worst Performers

	Return (%)
Soitec SA	-42.1
Silergy Corp	-36.7
LY Corporation	-26.7
AIA Group Ltd	-23.0
Jeronimo Martins Sgps SA, Lisboa	-22.0
Remy Cointreau SA	-20.6
B3 S.A.-Brasil Bolsa Balcao	-18.7
KK Cosmos Yakuhin	-17.2
H D F C Bank Ltd	-15.5
Burberry Group PLC	-15.1

Verus

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

	Attribution Effects				Performance		Sector Weights	
	Total Effects	Selection Effect	Allocation Effect	Interaction Effect	Portfolio	Benchmark	Portfolio	Benchmark
Energy	0.1	0.5	0.0	-0.4	14.7	5.5	1.2	5.6
Materials	0.2	-0.2	0.3	0.1	-4.4	-1.8	3.6	8.0
Industrials	-0.3	-0.3	0.1	-0.1	5.0	7.1	19.2	13.4
Consumer Discretionary	-0.2	-0.2	0.1	-0.1	4.9	7.0	16.3	11.5
Consumer Staples	-1.4	-0.6	-0.4	-0.4	-10.2	-3.2	13.5	8.0
Health Care	0.3	0.3	0.0	0.0	6.9	4.0	8.4	9.3
Financials	-0.8	-1.1	-0.1	0.4	0.8	6.1	14.0	21.2
Information Technology	1.3	0.7	0.3	0.3	16.9	11.4	17.2	12.5
Communication Services	-0.1	-0.1	0.0	0.0	1.0	2.1	6.5	5.2
Utilities	0.2	0.0	0.2	0.0	0.0	-2.9	0.0	3.2
Real Estate	0.1	0.0	0.1	0.0	0.0	-0.3	0.0	2.1
Total	**-0.7**	**-1.0**	**0.6**	**-0.3**	**4.1**	**4.7**	**100.0**	**100.0**

Verus

Baillie Gifford vs. MSCI AC World ex USA Index

	Weights		Performance		Attribution Effects			
	Portfolio	Benchmark	Portfolio	Benchmark	Selection Effects	Country Effects	Interaction Effects	Total Effects
Australia	1.6	4.7	-4.4	0.9	-0.3	0.1	0.2	0.0
Austria	0.0	0.1	0.0	0.5	0.0	0.0	0.0	0.0
Belgium	1.5	0.5	-5.5	1.3	0.0	0.0	-0.1	-0.1
Brazil	1.6	1.6	-9.7	-7.3	0.0	0.0	0.0	0.0
Canada	3.5	7.7	3.3	4.2	-0.1	0.0	0.0	0.0
Chile	0.0	0.1	0.0	-4.1	0.0	0.0	0.0	0.0
China	3.3	6.5	-4.1	-0.6	-0.2	0.2	0.1	0.1
Colombia	0.0	0.0	0.0	14.6	0.0	0.0	0.0	0.0
Czech Republic	0.0	0.0	0.0	-7.7	0.0	0.0	0.0	0.0
Denmark	0.9	2.1	-6.9	15.2	-0.5	-0.1	0.3	-0.3
Egypt	0.0	0.0	0.0	-29.5	0.0	0.0	0.0	0.0
Finland	0.0	0.7	0.0	-3.3	0.0	0.1	0.0	0.1
France	5.8	7.1	-4.3	5.7	-0.7	0.0	0.1	-0.6
Germany	3.6	5.5	10.2	7.1	0.2	0.0	-0.1	0.1
Greece	0.0	0.1	0.0	6.6	0.0	0.0	0.0	0.0
Hong Kong	4.1	2.0	-6.1	-11.2	0.1	-0.3	0.1	-0.1
Hungary	0.0	0.1	0.0	0.4	0.0	0.0	0.0	0.0
India	4.7	4.7	8.1	6.1	0.1	0.0	0.0	0.1
Indonesia	0.0	0.5	0.0	2.5	0.0	0.0	0.0	0.0
Ireland	2.9	1.2	8.3	1.8	0.1	0.0	0.1	0.1
Israel	0.0	0.4	0.0	12.1	0.0	0.0	0.0	0.0
Italy	0.0	1.5	0.0	12.7	0.0	-0.1	0.0	-0.1
Japan	17.3	14.4	-1.4	11.0	-1.8	0.2	-0.4	-2.0
Korea	0.0	3.6	0.0	1.7	0.0	0.1	0.0	0.1
Kuwait	0.0	0.2	0.0	8.3	0.0	0.0	0.0	0.0
Malaysia	0.0	0.4	0.0	3.2	0.0	0.0	0.0	0.0
Mexico	2.2	0.8	-2.1	0.5	0.0	-0.1	0.0	-0.1
Netherlands	9.8	3.6	17.3	15.8	0.1	0.7	0.1	0.8
New Zealand	1.5	0.2	13.5	1.5	0.0	0.0	0.2	0.1
Norway	0.0	0.4	0.0	-6.7	0.0	0.0	0.0	0.0
Peru	0.0	0.1	0.0	10.9	0.0	0.0	0.0	0.0
Philippines	0.0	0.2	0.0	6.4	0.0	0.0	0.0	0.0
Poland	0.0	0.3	0.0	4.5	0.0	0.0	0.0	0.0

Verus

	Weights		Performance			Attribution Effects		
	Portfolio	Benchmark	Portfolio	Benchmark	Selection Effects	Country Effects	Interaction Effects	Total Effects
Portugal	1.6	0.1	-22.0	-14.6	0.0	-0.3	-0.1	-0.4
Qatar	0.0	0.2	0.0	-6.3	0.0	0.0	0.0	0.0
Saudi Arabia	0.0	1.2	0.0	4.2	0.0	0.0	0.0	0.0
Singapore	2.4	0.9	0.7	-0.1	0.0	-0.1	0.0	-0.1
South Africa	0.0	0.8	0.0	-7.9	0.0	0.1	0.0	0.1
Spain	0.0	1.7	0.0	7.4	0.0	0.0	0.0	0.0
Sweden	6.2	2.1	1.8	1.7	0.0	-0.1	0.0	-0.1
Switzerland	2.6	6.9	19.7	-1.2	1.4	0.3	-0.9	0.8
Taiwan	4.2	4.5	31.3	12.5	0.8	0.0	-0.1	0.8
Thailand	0.0	0.5	0.0	-8.1	0.0	0.1	0.0	0.1
Turkey	0.0	0.2	0.0	14.9	0.0	0.0	0.0	0.0
United Arab Emirates	0.0	0.4	0.0	0.4	0.0	0.0	0.0	0.0
United Kingdom	11.9	8.9	1.7	3.1	-0.1	-0.1	0.0	-0.2
United States	2.4	0.1	9.8	14.5	0.0	0.2	-0.1	0.1
Other	4.4	0.3	7.8	-4.8	0.0	-0.4	0.5	0.2
Total	**100.0**	**100.0**	**4.1**	**4.7**	**-0.9**	**0.3**	**0.0**	**-0.7**

Baillie Gifford vs. MSCI AC World ex USA Index

	Weights		Performance		Attribution Effects			
	Portfolio	Benchmark	Portfolio	Benchmark	Selection Effects	Region Effects	Interaction Effects	Total Effects
Americas	9.7	10.4	1.6	2.1	-0.1	0.0	0.0	0.0
Asia Pacific	39.1	43.0	3.1	5.3	-0.9	0.0	0.1	-0.9
EMEA	46.9	46.3	5.1	4.9	0.1	0.0	0.0	0.1
Other	4.4	0.3	7.8	-4.8	0.0	-0.4	0.5	0.2
Total	**100.0**	**100.0**	**4.1**	**4.7**	**-0.9**	**-0.4**	**0.6**	**-0.7**

Characteristics

	Portfolio	Benchmark
Number of Stocks	128	1,315
Wtd. Avg. Mkt. Cap $M	74,380.6	68,529.3
Median Mkt. Cap $M	27,697.4	9,588.2
Price/Earnings ratio	10.9	11.1
Current Yield (%)	4.1	4.5
Beta (5 Years, Monthly)	1.0	1.0
Price/Book ratio	1.9	1.7
Return on Equity (%)	2.5	-1.1

Top Holdings

	(%)
Banco Santander SA	3.1
Taiwan Semiconductor Man.	2.8
Lloyds Banking Group PLC	2.7
Fujitsu Ltd	2.7
Enel Ente Nazionale	2.3
Allianz SE	2.3
SSE plc	2.3
TC Energy Corp	2.2
Sony Group Corporation	2.2
GSK plc	2.2

Best Performers

	Return (%)
Hon Hai Precision Industry	37.7
Hyundai Motor Co	35.7
Xinyi Solar Holdings Ltd	32.6
PetroChina Co Ltd	29.4
Toyota Industries Corp	27.6
Hitachi Ltd	27.4
Taiwan Semiconductor Man.	26.6
SK Hynix Inc	23.7
Heidelberg Materials AG	23.1
Honda Motor Co Ltd	22.0

Worst Performers

	Return (%)
China Medical Sytem Holding Ltd	-40.7
Jeronimo Martins Sgps SA, Lisboa	-22.0
Vale SA	-19.7
Sociedad Quimica y Minera de Chile SA Soqimich	-18.4
LONGi Green Energy Technology Co Ltd	-16.4
Lg Chem Ltd	-15.8
CSPC Pharmaceutical Group Ltd	-15.5
H D F C Bank Ltd	-15.5
Continental AG	-15.0
Perusahaan Perseroan	-14.7

Verus

Mondrian Performance Attribution vs. MSCI AC World ex USA Value

	Attribution Effects				Performance		Sector Weights	
	Total Effects	Selection Effect	Allocation Effect	Interaction Effect	Portfolio	Benchmark	Portfolio	Benchmark
Energy	-0.1	0.0	0.0	0.0	4.1	4.6	6.5	9.7
Materials	0.6	0.5	0.2	-0.1	1.6	-4.3	6.8	9.2
Industrials	-0.2	-0.3	0.2	-0.2	4.8	7.6	15.8	10.5
Consumer Discretionary	-1.0	-0.9	0.1	-0.2	-3.0	7.9	10.2	8.4
Consumer Staples	-0.1	0.0	-0.2	0.0	-1.0	-1.6	7.9	4.8
Health Care	-0.3	-0.1	-0.2	0.0	-2.4	-1.5	11.9	7.2
Financials	-0.6	-0.1	-0.5	0.0	6.9	7.2	16.4	30.7
Information Technology	1.0	0.5	0.0	0.6	11.9	3.4	12.3	5.8
Communication Services	-0.1	-0.1	0.0	0.0	-2.5	0.9	4.1	4.5
Utilities	-0.3	-0.2	-0.1	-0.1	-6.2	-3.0	7.5	5.7
Real Estate	0.2	0.0	0.2	0.0	0.0	-1.2	0.0	3.6
Cash	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0
Total	**-1.0**	**-0.7**	**-0.4**	**0.1**	**2.5**	**3.6**	**100.0**	**100.0**

Verus

Mondrian vs. MSCI AC World ex USA Value

	Weights		Performance			Attribution Effects		
	Portfolio	Benchmark	Portfolio	Benchmark	Selection Effects	Country Effects	Interaction Effects	Total Effects
Australia	1.5	4.6	3.2	-1.0	0.2	0.1	-0.1	0.2
Austria	0.4	0.2	4.6	6.2	0.0	0.0	0.0	0.0
Belgium	0.0	0.4	0.0	-0.6	0.0	0.0	0.0	0.0
Brazil	2.4	1.6	-4.3	-7.7	0.1	-0.1	0.0	0.0
Canada	2.7	7.9	2.4	2.4	0.0	0.1	0.0	0.1
Chile	0.3	0.2	-18.4	0.9	0.0	0.0	0.0	-0.1
China	7.0	6.3	-1.3	0.2	-0.1	0.0	0.0	-0.1
Colombia	0.0	0.0	0.0	13.1	0.0	0.0	0.0	0.0
Czech Republic	0.0	0.0	0.0	-8.0	0.0	0.0	0.0	0.0
Denmark	0.0	0.5	0.0	1.1	0.0	0.0	0.0	0.0
Egypt	0.0	0.0	0.0	-30.9	0.0	0.0	0.0	0.0
Finland	0.0	1.2	0.0	-3.9	0.0	0.1	0.0	0.1
France	7.2	6.7	0.4	3.6	-0.2	0.0	0.0	-0.2
Germany	7.4	6.5	3.4	3.6	0.0	0.0	0.0	0.0
Greece	0.0	0.1	0.0	10.0	0.0	0.0	0.0	0.0
Hong Kong	2.7	2.2	-10.9	-7.6	-0.1	-0.1	0.0	-0.1
Hungary	0.0	0.1	0.0	0.2	0.0	0.0	0.0	0.0
India	3.2	4.9	-1.9	7.0	-0.4	-0.1	0.2	-0.3
Indonesia	1.1	0.5	0.3	1.4	0.0	0.0	0.0	0.0
Ireland	0.0	0.3	0.0	13.4	0.0	0.0	0.0	0.0
Israel	0.0	0.4	0.0	9.8	0.0	0.0	0.0	0.0
Italy	4.7	2.1	-7.2	9.8	-0.4	0.2	-0.4	-0.6
Japan	19.0	14.3	6.4	14.0	-1.1	0.5	-0.3	-1.0
Korea	4.2	3.7	4.7	3.5	0.0	0.0	0.0	0.1
Kuwait	0.0	0.2	0.0	7.9	0.0	0.0	0.0	0.0
Malaysia	0.0	0.4	0.0	7.1	0.0	0.0	0.0	0.0
Mexico	0.8	0.8	-1.1	3.0	0.0	0.0	0.0	0.0
Netherlands	2.3	2.0	-13.7	8.2	-0.4	0.0	-0.1	-0.5
New Zealand	0.0	0.1	0.0	-8.0	0.0	0.0	0.0	0.0
Norway	0.0	0.8	0.0	-9.4	0.0	0.1	0.0	0.1
Peru	0.7	0.1	13.0	10.1	0.0	0.0	0.0	0.1
Philippines	0.0	0.2	0.0	2.5	0.0	0.0	0.0	0.0
Poland	0.0	0.3	0.0	4.5	0.0	0.0	0.0	0.0

	Weights		Performance			Attribution Effects		
	Portfolio	Benchmark	Portfolio	Benchmark	Selection Effects	Country Effects	Interaction Effects	Total Effects
Portugal	0.3	0.1	-22.0	-18.0	0.0	0.0	0.0	-0.1
Qatar	0.0	0.3	0.0	-7.0	0.0	0.0	0.0	0.0
Saudi Arabia	0.8	1.2	3.0	1.4	0.0	0.0	0.0	0.0
Singapore	1.9	1.0	0.7	-4.3	0.0	-0.1	0.0	0.0
South Africa	0.0	0.9	0.0	-14.7	0.0	0.2	0.0	0.2
Spain	2.7	2.4	17.0	10.7	0.2	0.0	0.0	0.2
Sweden	0.0	1.6	0.0	3.3	0.0	0.0	0.0	0.0
Switzerland	2.4	6.5	-2.0	-2.2	0.0	0.2	0.0	0.2
Taiwan	3.9	4.1	25.9	2.9	0.9	0.0	-0.1	0.9
Thailand	0.0	0.5	0.0	-8.6	0.0	0.1	0.0	0.1
Turkey	0.0	0.2	0.0	13.4	0.0	0.0	0.0	0.0
United Arab Emirates	0.6	0.4	0.9	3.9	0.0	0.0	0.0	0.0
United Kingdom	18.4	10.7	2.9	2.0	0.1	-0.1	0.1	0.1
United States	0.0	0.0	0.0	-6.8	0.0	0.0	0.0	0.0
Other	0.9	0.4	-5.5	-1.6	0.0	0.0	0.0	-0.1
Cash	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	**100.0**	**100.0**	**2.5**	**3.6**	**-1.2**	**1.0**	**-0.8**	**-1.0**

Mondrian vs. MSCI AC World ex USA Value

	Weights		Performance		Attribution Effects			
	Portfolio	Benchmark	Portfolio	Benchmark	Selection Effects	Region Effects	Interaction Effects	Total Effects
Americas	6.9	10.6	-0.3	0.9	-0.1	0.1	0.0	0.0
Asia Pacific	44.3	42.8	4.6	5.5	-0.4	0.0	0.0	-0.4
EMEA	47.2	46.3	1.2	2.4	-0.6	0.0	0.0	-0.6
Other	0.9	0.4	-5.5	-1.6	0.0	0.0	0.0	-0.1
Cash	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	**100.0**	**100.0**	**2.5**	**3.6**	**-1.1**	**0.1**	**0.0**	**-1.0**

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

| | Attribution Effects | | | | Performance | | Sector Weights | |
	Total Effects	Selection Effect	Allocation Effect	Interaction Effect	Portfolio	Benchmark	Portfolio	Benchmark
Energy	0.0	0.0	0.0	0.0	5.6	5.6	5.4	5.4
Materials	0.0	0.0	0.0	0.0	-1.5	-1.5	8.5	8.5
Industrials	0.0	0.0	0.0	0.0	6.8	6.8	14.4	14.4
Consumer Discretionary	0.0	0.0	0.0	0.0	6.3	6.3	11.5	11.5
Consumer Staples	0.0	0.0	0.0	0.0	-2.7	-2.8	7.8	7.8
Health Care	0.0	0.0	0.0	0.0	3.4	3.4	8.8	9.0
Financials	0.0	0.0	0.0	0.0	6.1	6.1	19.8	19.8
Information Technology	0.0	0.0	0.0	0.0	10.1	10.2	12.4	12.4
Communication Services	0.0	0.0	0.0	0.0	1.9	1.9	5.0	5.0
Utilities	0.0	0.0	0.0	0.0	-2.3	-2.4	3.2	3.2
Real Estate	0.0	0.0	0.0	0.0	-1.0	-1.2	3.0	3.1
Cash	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0
Total	**0.0**	**0.0**	**0.0**	**0.0**	**4.4**	**4.4**	**100.0**	**100.0**

Characteristics

	Portfolio	Benchmark
Number of Stocks	6,774	6,655
Wtd. Avg. Mkt. Cap $M	87,653.1	88,290.2
Median Mkt. Cap $M	1,679.9	1,669.4
Price/Earnings ratio	15.4	15.4
Current Yield (%)	3.0	3.0
Beta (3 Years, Monthly)	1.0	1.0
Price/Book ratio	2.5	2.5
Return on Equity (%)	1.9	1.9

Top Holdings

	(%)
Taiwan Semiconductor Man.	2.0
Novo Nordisk A/S	1.4
ASML Holding NV	1.3
Samsung Electronics Co Ltd	1.0
Toyota Motor Corp	0.9
Nestle SA, Cham Und Vevey	0.9
Tencent Holdings LTD	0.9
LVMH Moet Hennessy Louis V	0.8
Shell Plc	0.7
Astrazeneca PLC	0.7

Best Performers

	Return (%)
Agrotech Yuksek Teknoloji Ve Yatirim Anonim Sirketi	176.7
Enchem Co Ltd	173.2
Shinsung Delta Company Ltd	152.2
Sakura Internet Inc	139.7
Shihlin Electric And Engineering Corp	136.3
Micronics Japan Co Ltd	126.4
Reeder Teknoloji Sanayi ve Ticaret Anonim Sirketi	115.1
Fortress Real Estate Investments Limited	113.3
HD Hyundai Electric Co Ltd	108.8
Hanmi Semiconductor Co Ltd	108.2

Worst Performers

	Return (%)
CANARIABIO Inc	-81.5
Atos SE	-73.7
Cosmopolitan International Holdings Ltd	-72.0
SK D&D Co Ltd	-69.6
NKMAX CO Ltd	-69.0
Meyer Burger Technology AG	-68.2
Chongqing Hongjiu Fruit Co Limited	-66.9
Intrum Justitia AB	-66.2
CLOUDR GROUP LTD	-62.1
Aker Carbon Capture ASA	-60.0

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

| | Weights | | Performance | | Attribution Effects | | | |
	Portfolio	Benchmark	Portfolio	Benchmark	Selection Effects	Country Effects	Interaction Effects	Total Effects
Australia	4.9	4.9	1.0	1.0	0.0	0.0	0.0	0.0
Austria	0.2	0.2	-0.9	-0.8	0.0	0.0	0.0	0.0
Belgium	0.6	0.6	-0.5	-0.3	0.0	0.0	0.0	0.0
Brazil	1.6	1.6	-6.8	-6.8	0.0	0.0	0.0	0.0
Canada	7.5	7.5	4.3	4.3	0.0	0.0	0.0	0.0
Chile	0.2	0.2	-5.0	-5.0	0.0	0.0	0.0	0.0
China	5.8	5.7	-1.1	-1.1	0.0	0.0	0.0	0.0
Colombia	0.0	0.0	14.6	14.6	0.0	0.0	0.0	0.0
Czech Republic	0.0	0.0	-7.3	-7.2	0.0	0.0	0.0	0.0
Denmark	2.0	2.0	14.9	14.9	0.0	0.0	0.0	0.0
Egypt	0.0	0.0	-26.7	-26.6	0.0	0.0	0.0	0.0
Finland	0.7	0.7	-2.7	-2.7	0.0	0.0	0.0	0.0
France	6.5	6.5	5.4	5.4	0.0	0.0	0.0	0.0
Germany	4.9	5.1	6.3	6.4	0.0	0.0	0.0	0.0
Greece	0.1	0.1	7.2	7.3	0.0	0.0	0.0	0.0
Hong Kong	1.9	1.9	-10.8	-10.8	0.0	0.0	0.0	0.0
Hungary	0.1	0.1	1.3	1.3	0.0	0.0	0.0	0.0
India	5.3	5.1	5.1	5.0	0.0	0.0	0.0	0.0
Indonesia	0.5	0.5	1.3	1.4	0.0	0.0	0.0	0.0
Ireland	1.1	1.1	2.2	2.2	0.0	0.0	0.0	0.0
Israel	0.6	0.6	9.0	9.3	0.0	0.0	0.0	0.0
Italy	1.5	1.5	12.2	12.4	0.0	0.0	0.0	0.0
Japan	15.4	15.4	9.9	9.9	0.0	0.0	0.0	0.0
Korea	3.7	3.7	1.7	1.6	0.0	0.0	0.0	0.0
Kuwait	0.2	0.2	8.3	8.3	0.0	0.0	0.0	0.0
Malaysia	0.4	0.4	3.9	4.1	0.0	0.0	0.0	0.0
Malta	0.0	0.0	14.6	13.6	0.0	0.0	0.0	0.0
Mexico	0.8	0.8	1.3	1.2	0.0	0.0	0.0	0.0
Netherlands	3.2	3.2	15.4	15.3	0.0	0.0	0.0	0.0
New Zealand	0.2	0.2	-0.5	-0.6	0.0	0.0	0.0	0.0
Norway	0.6	0.6	-4.7	-4.8	0.0	0.0	0.0	0.0
Peru	0.0	0.0	10.9	10.9	0.0	0.0	0.0	0.0
Philippines	0.2	0.2	6.6	6.6	0.0	0.0	0.0	0.0

Verus

	Weights		Performance		Attribution Effects			
	Portfolio	Benchmark	Portfolio	Benchmark	Selection Effects	Country Effects	Interaction Effects	Total Effects
Poland	0.3	0.3	4.2	4.2	0.0	0.0	0.0	0.0
Portugal	0.1	0.1	-9.9	-10.0	0.0	0.0	0.0	0.0
Qatar	0.2	0.2	-5.5	-5.4	0.0	0.0	0.0	0.0
Russia	0.0	0.0	-2.8	0.0	0.0	0.0	0.0	0.0
Saudi Arabia	1.2	1.2	5.0	5.0	0.0	0.0	0.0	0.0
Singapore	1.0	1.0	0.7	0.8	0.0	0.0	0.0	0.0
South Africa	0.9	0.8	-6.9	-7.0	0.0	0.0	0.0	0.0
Spain	1.6	1.6	7.4	7.4	0.0	0.0	0.0	0.0
Sweden	2.3	2.3	1.0	1.0	0.0	0.0	0.0	0.0
Switzerland	5.9	6.4	-1.2	-1.2	0.0	0.0	0.0	0.0
Taiwan	4.8	4.8	11.2	11.2	0.0	0.0	0.0	0.0
Thailand	0.7	0.6	-6.3	-8.4	0.0	0.0	0.0	0.0
Turkey	0.2	0.2	12.8	12.2	0.0	0.0	0.0	0.0
United Arab Emirates	0.4	0.4	0.0	0.0	0.0	0.0	0.0	0.0
United Kingdom	8.9	8.9	2.8	2.8	0.0	0.0	0.0	0.0
United States	0.1	0.1	14.2	14.2	0.0	0.0	0.0	0.0
Other	0.4	0.4	-2.1	-2.2	0.0	0.0	0.0	0.0
Cash	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	**100.0**	**100.0**	**4.4**	**4.4**	**0.0**	**0.0**	**0.0**	**0.0**

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

	Weights		Performance		Attribution Effects			
	Portfolio	Benchmark	Portfolio	Benchmark	Selection Effects	Region Effects	Interaction Effects	Total Effects
Americas	10.3	10.2	2.3	2.3	0.0	0.0	0.0	0.0
Asia Pacific	44.9	44.4	4.8	4.8	0.0	0.0	0.0	0.0
EMEA	44.3	45.0	4.6	4.5	0.0	0.0	0.0	0.0
Other	0.4	0.4	-2.1	-2.2	0.0	0.0	0.0	0.0
Cash	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	**100.0**	**100.0**	**4.4**	**4.4**	**0.0**	**0.0**	**0.0**	**0.0**

Verus
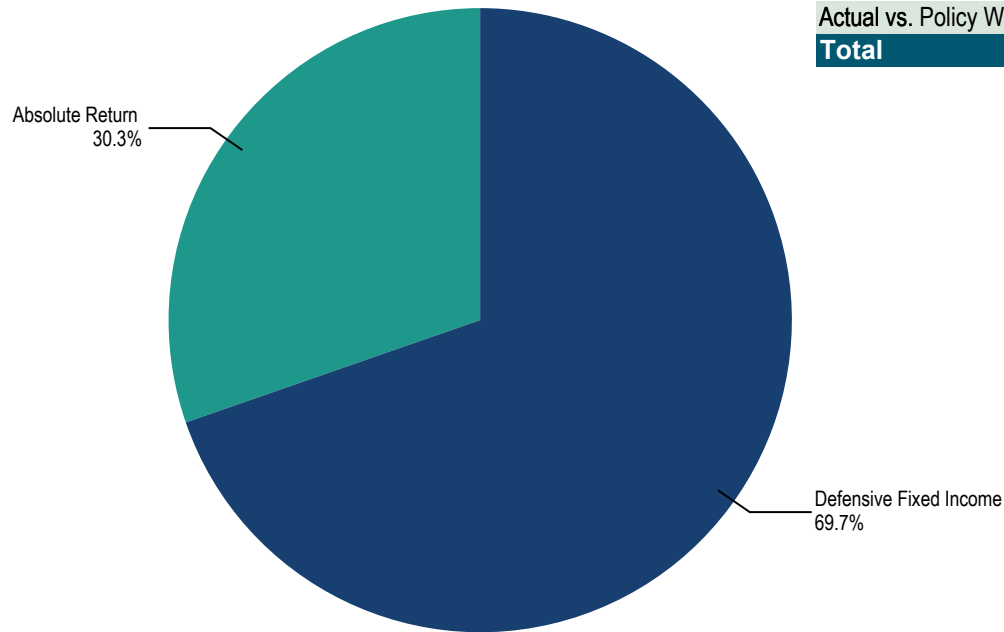
	Actual $	Actual %	Manager Contribution to Excess Return %
Defensive Fixed Income	$827,086,013	69.7%	0.3%
Absolute Return	$359,830,937	30.3%	1.4%
Actual vs. Policy Weight			-0.1%
Total	**$1,186,916,950**	**100.0%**	**1.5%**

Statistics Summary
3 Years

	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio	Information Ratio	Tracking Error
Diversifying Portfolio	4.7	5.1	-0.1	0.7	1.9
Blended Diversifying Index	*3.3*	*6.2*	*-0.3*	*-*	*0.0*
Defensive Fixed Income	2.2	8.7	-0.3	3.1	0.6
Blended Core Fixed Income Benchmark	*0.2*	*9.1*	*-0.5*	*-*	*0.0*
Absolute Return	10.1	5.3	0.9	0.1	5.3
Absolute Return Custom Index	*9.4*	*0.2*	*39.1*	*-*	*0.0*
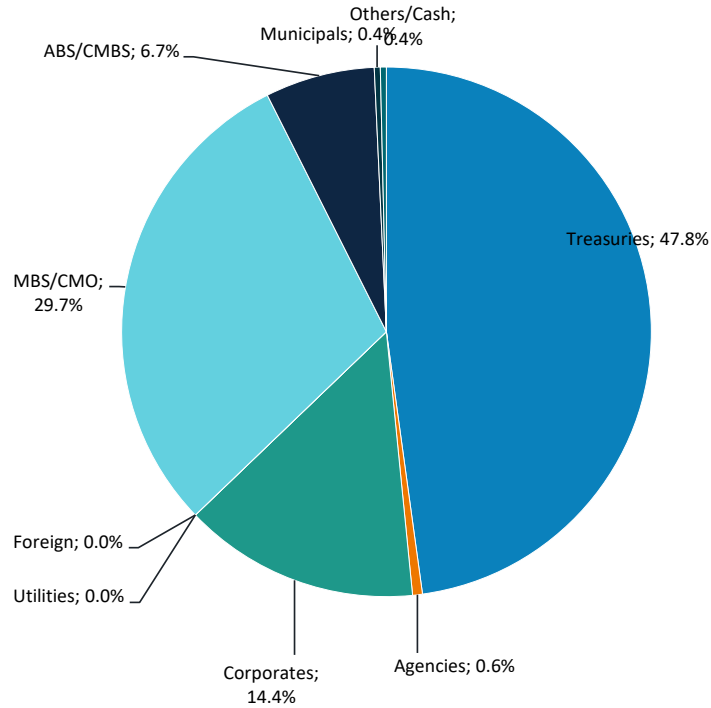
Sector	Account Weight	Bloomberg Aggregate Weight	Difference
Treasuries	47.8%	42.1%	5.7%
Agencies	0.6%	0.9%	-0.3%
Corporates	14.4%	28.9%	-14.5%
Utilities	0.0%	0.0%	0.0%
Foreign	0.0%	0.0%	0.0%
MBS/CMO	29.7%	26.0%	3.8%
ABS/CMBS	6.7%	0.5%	6.2%
Municipals	0.4%	0.0%	0.4%
Others/Cash	0.4%	1.6%	-1.2%
TOTAL	100.0%	100.0%	0.0%

Portfolio Characteristics		Bloomberg Aggregate
	Portfolio	
Total Number of Securities		
Total Market Value	$ 827,086,013	
Current Coupon	1.79	3.17
Yield to Maturity	2.39	4.85
Average Life	12.14	8.48
Duration	8.29	6.00
Quality	AA	AA

Yield to Maturity		Average Life		Duration	
Range	% Held	Range	% Held	Range	% Held
0.0 - 5.0	57.9	0.0 - 1.0	4.2	0.0 - 1.0	10.3
5.0 - 7.0	35.4	1.0 - 3.0	10.6	1.0 - 3.0	12.0
7.0 - 9.0	5.4	3.0 - 5.0	14.0	3.0 - 5.0	17.2
9.0 - 11.0	0.4	5.0 - 10.0	31.2	5.0 - 7.0	13.3
11.0 - 13.0	0.4	10.0 - 20.0	19.9	7.0 - 10.0	10.7
13.0+	0.2	20.0+	20.2	10.0+	36.5
Unclassified	0.3	Unclassified	0.0	Unclassified	0.0

Quality		Coupon	
Range	% Held	Range	% Held
Govt (10)	51.7	0.0 - 5.0	80.3
Aaa (10)	20.3	5.0 - 7.0	18.0
Aa (9)	10.5	7.0 - 9.0	2.5
A (8)	8.1	9.0 - 11.0	0.1
Baa (7)	9.9	11.0 - 13.0	0.0
Below Baa (6-1)	0.7	13.0+	0.0
Other	-1.2	Unclassified	-0.9

Verus

Sector	Account Weight	Bloomberg Aggregate Weight	Difference
Treasuries[+]	27.6%	42.1%	-14.5%
Agencies	0.0%	0.9%	-0.9%
Corporates	0.0%	28.9%	-28.9%
Utilities	0.0%	0.0%	0.0%
Foreign	0.0%	0.0%	0.0%
MBS/CMO	46.0%	26.0%	20.0%
CMBS	16.2%	0.0%	16.2%
ABS	9.5%	0.5%	9.0%
Municipals	0.0%	0.0%	0.0%
Others/Cash*	0.7%	1.6%	-0.9%
TOTAL	**100.0%**	**100.0%**	**0.0%**

+ May include TIPS allocation.

* Includes CLOs.

Portfolio Characteristics		Portfolio	Bloomberg Aggregate
Total Number of Securities		254	
Total Market Value	$	259,371,713	
Current Coupon		5.70	3.17
Yield to Maturity		5.94	4.85
Average Life		8.87	8.48
Duration		6.31	6.00
Quality		AA+	AA

Yield to Maturity			Average Life			Duration	
Range	% Held		Range	% Held		Range	% Held
0.0 - 5.0	26.6		0.0 - 1.0	10.2		0.0 - 1.0	25.2
5.0 - 7.0	55.5		1.0 - 3.0	9.4		1.0 - 3.0	13.2
7.0 - 9.0	15.9		3.0 - 5.0	15.9		3.0 - 5.0	22.7
9.0 - 11.0	0.7		5.0 - 10.0	37.1		5.0 - 7.0	9.9
11.0 - 13.0	0.8		10.0 - 20.0	20.4		7.0 - 10.0	8.3
13.0+	0.5		20.0+	7.0		10.0+	20.8
Unclassified	0.0		Unclassified	0.0		Unclassified	0.0

Quality			Coupon	
Range	% Held		Range	% Held
Govt (10)	38.3		0.0 - 5.0	74.0
Aaa (10)	43.4		5.0 - 7.0	23.1
Aa (9)	5.5		7.0 - 9.0	6.6
A (8)	7.7		9.0 - 11.0	0.4
Baa (7)	7.6		11.0 - 13.0	0.0
Below Baa (6-1)	1.5		13.0+	0.0
Other	-4.1		Unclassified/Cash	-4.1

Others/Cash; -1.3%
ABS/CMBS; 12.4%
CMO; 0.0%
MBS; 21.0%
Treasuries; 37.7%
Agencies; 1.3%
Corporates; 28.9%

Sector	Account Weight	Bloomberg Aggregate Weight	Difference
Treasuries	37.7%	42.1%	-4.4%
Agencies	1.3%	0.9%	0.4%
Corporates	28.9%	28.9%	0.0%
Utilities	0.0%	0.0%	0.0%
Foreign	0.0%	0.0%	0.0%
MBS	21.0%	26.0%	-5.0%
CMO	0.0%	0.0%	0.0%
ABS/CMBS	12.4%	0.5%	11.9%
Municipals	0.0%	0.0%	0.0%
Others/Cash	-1.3%	1.6%	-2.9%
TOTAL	100.0%	100.0%	0.0%

Verus

Portfolio Characteristics		
		Portfolio
Total Number of Securities		422
Total Market Value	$	129,473,314
Current Coupon		3.99
Yield to Maturity		5.28
Average Life		8.91
Duration		6.16
Quality		AA

	Bloomberg Aggregate
	3.17
	4.85
	8.48
	6.00
	AA

Yield to Maturity	
Range	**% Held**
0.0 - 5.0	50.0
5.0 - 7.0	45.1
7.0 - 9.0	2.8
9.0 - 11.0	1.3
11.0 - 13.0	0.7
13.0+	0.2
Unclassified	0.0

Average Life	
Range	**% Held**
0.0 - 1.0	0.7
1.0 - 3.0	10.1
3.0 - 5.0	24.0
5.0 - 10.0	47.9
10.0 - 20.0	6.9
20.0+	10.4
Unclassified	0.0

Duration	
Range	**% Held**
0.0 - 1.0	10.9
1.0 - 3.0	8.6
3.0 - 5.0	21.5
5.0 - 7.0	29.4
7.0 - 10.0	15.5
10.0+	14.2
Unclassified	0.0

Quality	
Range	**% Held**
Govt (10)	39.1
Aaa (10)	26.8
Aa (9)	3.4
A (8)	9.8
Baa (7)	20.4
Below Baa (6-1)	0.6
Other	0.0

Coupon	
Range	**% Held**
0.0 - 5.0	78.9
5.0 - 7.0	19.0
7.0 - 9.0	2.2
9.0 - 11.0	0.0
11.0 - 13.0	0.0
13.0+	0.0
Unclassified	0.0

Verus

Treasuries, 33.8%
Others/Cash, 0.8%
ABS, 5.9%
Agencies, 1.3%
MBS, 25.1%
Corporates, 31.8%
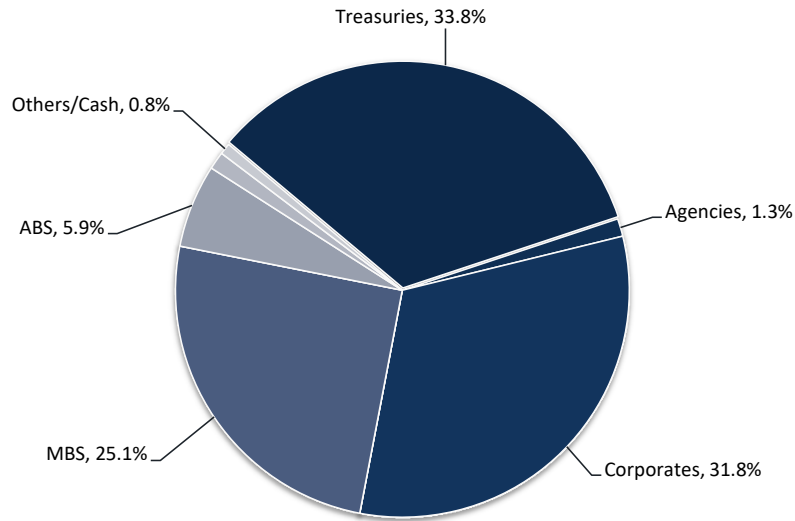
Sector	Account Weight	Bloomberg Aggregate Weight	Difference
Treasuries	33.8%	42.1%	-8.3%
Agencies	1.3%	0.9%	0.4%
Corporates	31.8%	28.9%	2.9%
Utilities	0.0%	0.0%	0.0%
Foreign	0.0%	0.0%	0.0%
MBS	25.1%	26.0%	-0.8%
CMO	0.0%	0.0%	0.0%
ABS	5.9%	0.5%	5.4%
Municipals	1.3%	0.0%	1.3%
Others/Cash	0.8%	1.6%	-0.8%
TOTAL	**100.0%**	**100.0%**	**0.0%**

Portfolio Characteristics		
		Portfolio
Total Number of Securities		600
Total Market Value	$	250,708,957
Current Coupon		3.66
Yield to Maturity		4.94
Average Life		9.13
Duration		6.11
Quality		Aa2

Bloomberg Aggregate
3.17
4.85
8.48
6.00
AA

Yield to Maturity	
Range	% Held
0.0 - 5.0	61.2
5.0 - 7.0	37.6
7.0 - 9.0	0.4
9.0 - 11.0	0.0
11.0 - 13.0	0.0
13.0+	0.0
Unclassified*	0.8

Average Life	
Range	% Held
0.0 - 1.0	2.9
1.0 - 3.0	20.0
3.0 - 5.0	17.6
5.0 - 10.0	40.2
10.0 - 20.0	10.3
20.0+	9.2
Unclassified	0.0

Duration	
Range	% Held
< 1.0	2.9
1.0 - 3.0	21.6
3.0 - 5.0	22.6
5.0 - 7.0	18.3
7.0 - 10.0	18.2
10.0+	16.4
Unclassified	0.0

*Unclassified includes a 0.65% cash position

Quality	
Range	% Held
Govt* (10)	35.1
Aaa (10)	9.2
Aa (9)	27.4
A (8)	13.9
Baa (7)	14.0
Below Baa (6-1)	0.5
Other	0.0

Coupon	
Range	% Held
0.0 - 5.0	72.7
5.0 - 7.0	25.9
7.0 - 9.0	0.6
9.0 - 10.0	0.0
10.0+	0.0
Unclassified	0.8

Verus

InvMetrics All DB Hedge Funds Net Return Comparison
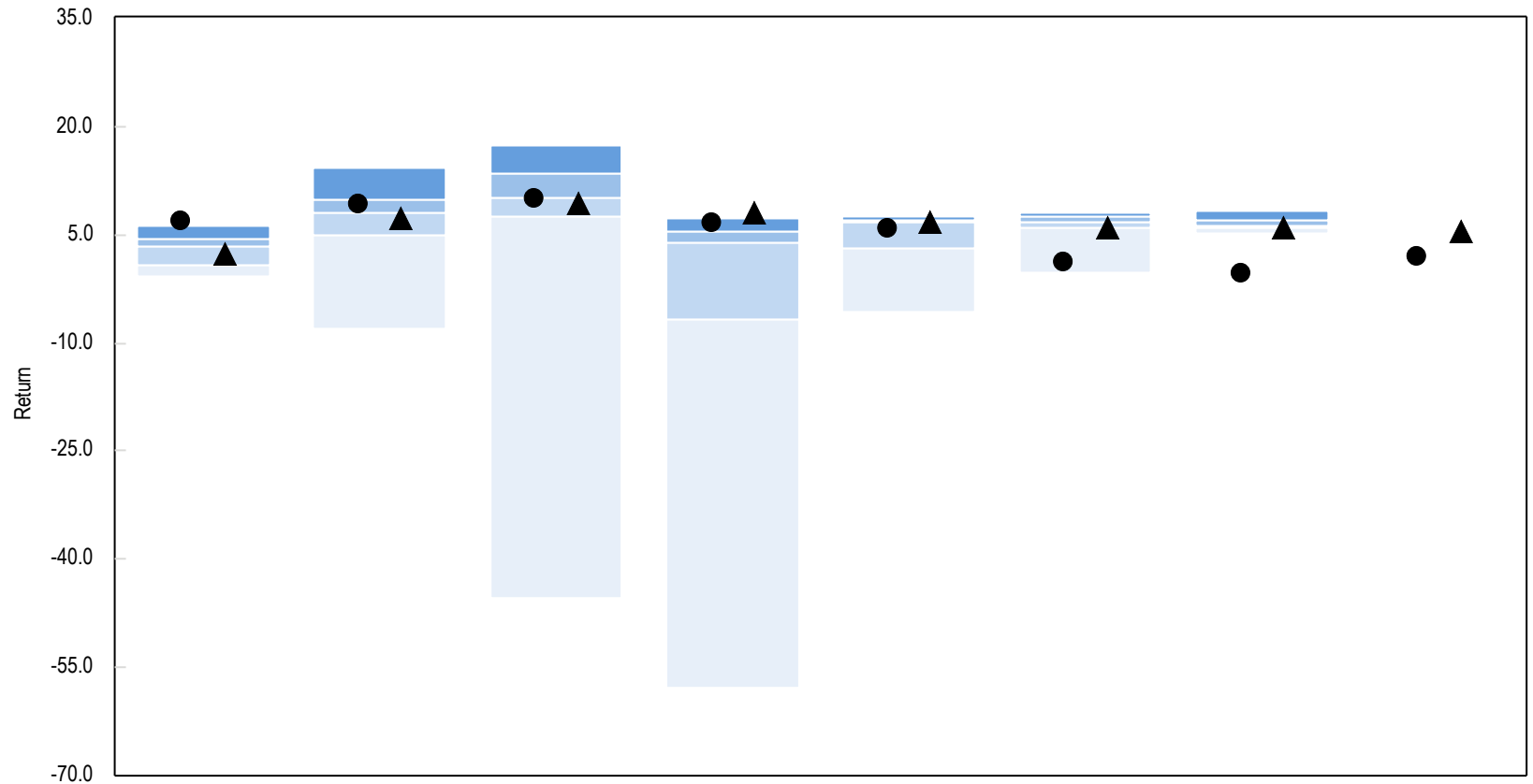
	3 Mo	Fiscal YTD	1 Yr	2 Yrs	3 Yrs	5 Yrs	7 Yrs	10 Yrs
● Absolute Return	7.0 (3)	9.3 (34)	10.1 (51)	6.7 (11)	5.9 (56)	1.4 (91)	-0.2 (100)	2.1 (-)
▲ Absolute Return Custom Index	2.3 (60)	7.2 (59)	9.4 (58)	8.1 (1)	6.7 (51)	6.1 (75)	6.0 (74)	5.5 (-)
5th Percentile	6.3	14.3	17.3	7.2	7.4	8.0	8.2	-
1st Quartile	4.3	9.8	13.4	5.4	7.0	7.5	6.9	-
Median	3.3	8.0	10.1	3.8	6.8	6.8	6.3	-
3rd Quartile	0.8	4.8	7.5	-6.6	3.1	6.1	6.0	-
95th Percentile	-0.8	-8.1	-45.3	-57.8	-5.7	-0.1	5.2	-
Population	61	23	16	7	5	5	4	2

eV Alt All Multi-Strategy Net Return Comparison
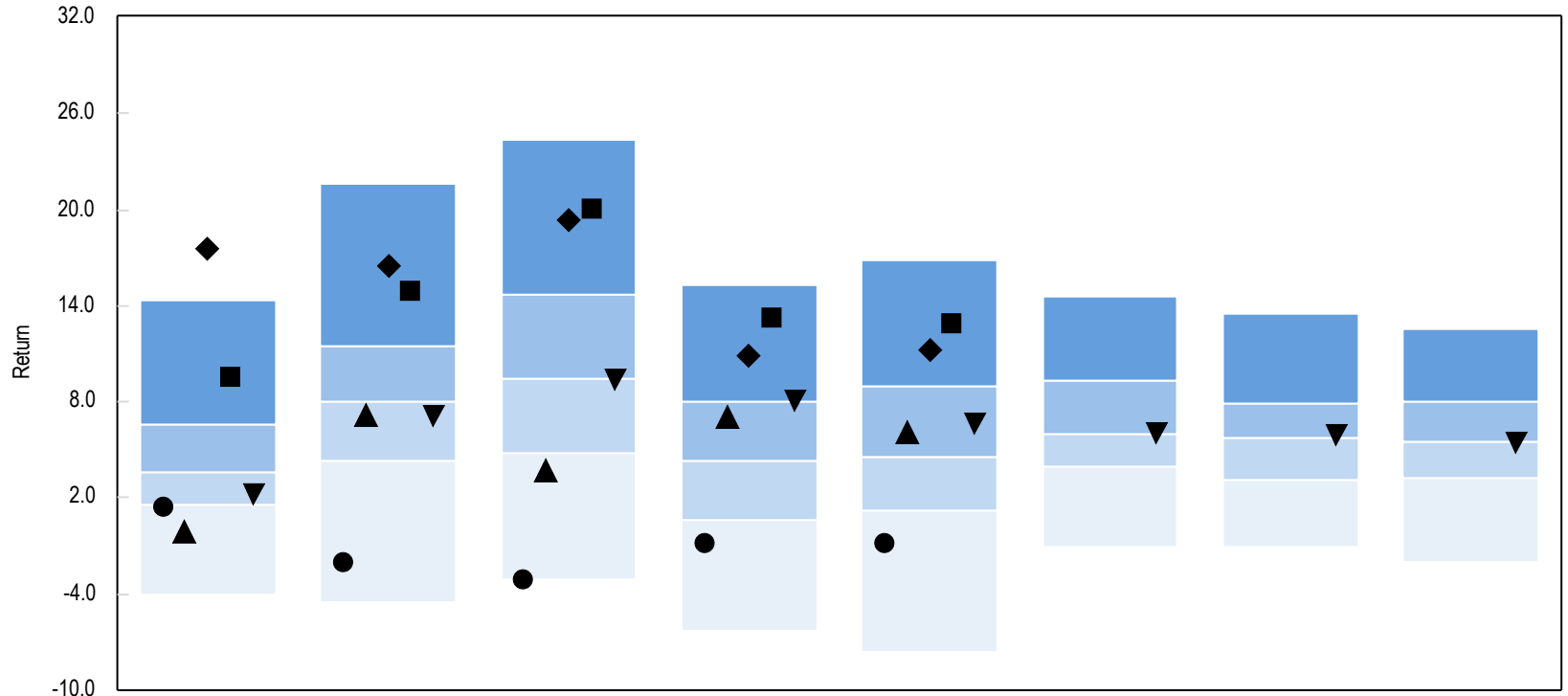
	3 Mo	Fiscal YTD	1 Yr	2 Yrs	3 Yrs	5 Yrs	7 Yrs	10 Yrs
● Acadian MAAR Fund LLC	1.4 (78)	-2.0 (93)	-3.1 (95)	-0.8 (79)	-0.8 (83)	-	-	-
▲ CFM Systematic Global Macro	-0.2 (88)	7.2 (56)	3.7 (83)	7.1 (30)	6.1 (37)	-	-	-
◆ Graham Quant Macro	17.6 (2)	16.5 (13)	19.3 (15)	10.8 (13)	11.2 (17)	-	-	-
■ PIMCO MAARS Fund LP	9.5 (13)	15.0 (16)	20.1 (14)	13.3 (8)	12.9 (12)	-	-	-
▼ Absolute Return Custom Index	2.3 (67)	7.2 (57)	9.4 (50)	8.1 (25)	6.7 (35)	6.1 (49)	6.0 (49)	5.5 (51)
5th Percentile	14.3	21.6	24.4	15.2	16.9	14.6	13.5	12.6
1st Quartile	6.6	11.4	14.7	8.0	8.9	9.3	7.9	8.0
Median	3.6	8.0	9.4	4.3	4.6	6.0	5.8	5.6
3rd Quartile	1.6	4.4	4.8	0.7	1.2	3.9	3.1	3.2
95th Percentile	-4.0	-4.5	-3.1	-6.3	-7.7	-1.0	-1.0	-2.0
Population	275	273	273	259	244	210	190	152

Verus

	Actual $	Actual %	Manager Contribution to Excess Return %
Harrison Street Core Property	$90,070,560	8.8%	0.1%
Invesco	$236,259,624	23.1%	-0.3%
Invesco US Val IV	$316,296	0.0%	0.0%
Invesco US Val V	$23,475,055	2.3%	0.0%
Invesco US Val VI	$20,574,834	2.0%	0.1%
PGIM RE US Debt Fund	$73,294,772	7.2%	0.3%
Stockbridge Value IV	$25,184,358	2.5%	0.1%
Private Real Assets	$342,881,027	33.5%	-2.3%
SSgA Custom Real Assets	$210,687,966	20.6%	0.0%
Actual vs. Policy Weight Difference			0.6%
Total	**$1,022,744,492**	**100.0%**	**-1.5%**
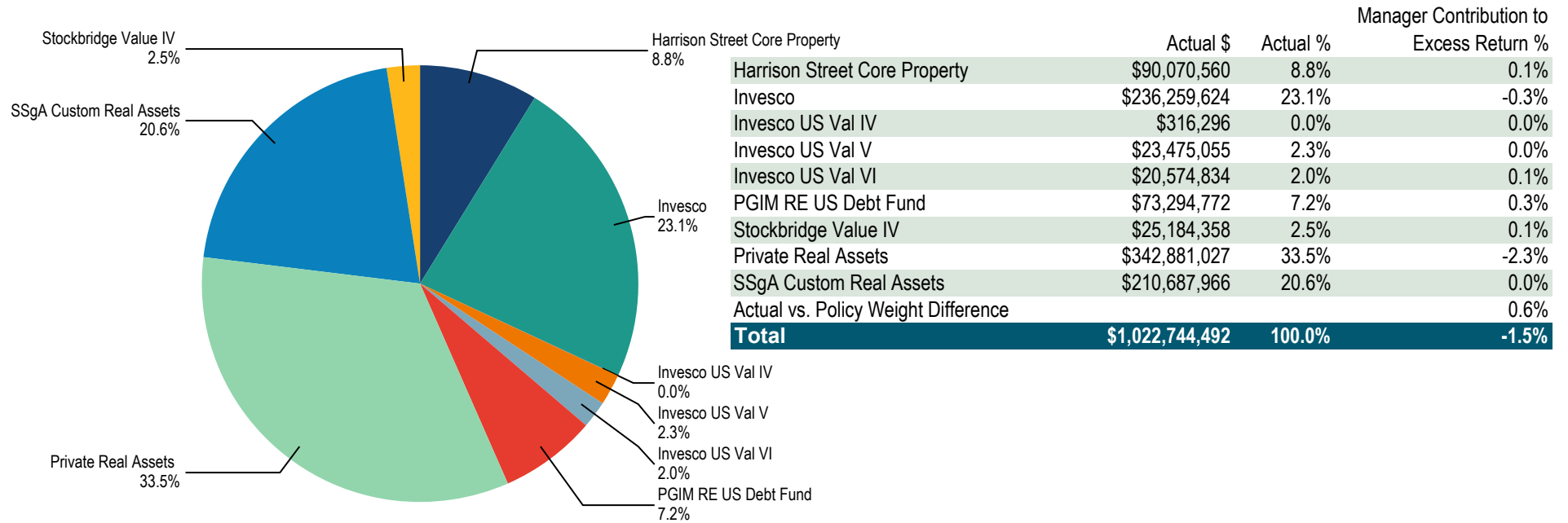
Statistics Summary
3 Years

	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio	Information Ratio	Tracking Error
Inflation Hedge	5.6	5.3	0.5	-0.1	4.9
Blended Inflation Hedge Index	5.8	8.0	0.4	-	0.0
Real Estate	3.2	7.0	0.1	-0.1	3.0
NCREIF ODCE	3.4	9.5	0.1	-	0.0
Invesco	2.6	9.3	0.1	-0.4	1.8
NCREIF ODCE	3.4	9.5	0.1	-	0.0
Invesco US Val IV	-38.4	33.2	-1.3	-1.4	31.0
NCREIF ODCE	3.4	9.5	0.1	-	0.0
Invesco US Val V	-5.3	15.9	-0.4	-0.7	11.9
NCREIF ODCE	3.4	9.5	0.1	-	0.0
PGIM RE US Debt Fund	5.9	0.7	3.6	0.2	9.4
NCREIF ODCE	3.4	9.5	0.1	-	0.0
Private Real Assets	11.5	9.2	0.9	0.1	17.0
Blended Private Real Assets Index	9.1	15.9	0.5	-	0.0
Public Real Assets	5.7	12.5	0.3	-0.1	0.3
Blended Public Real Assets Index	5.7	12.5	0.3	-	0.0
SSgA Custom Real Assets	5.7	12.5	0.3	-0.1	0.3
SSgA Custom Real Asset Index	5.7	12.5	0.3	-	0.0

Statistics Summary
5 Years

	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio	Information Ratio	Tracking Error
Inflation Hedge	3.5	6.5	0.2	-0.5	4.5
Blended Inflation Hedge Index	5.5	7.7	0.5	-	0.0
Real Estate	3.4	5.8	0.2	-0.1	2.5
NCREIF ODCE	3.5	7.5	0.2	-	0.0
Invesco	2.5	7.7	0.1	-0.4	2.0
NCREIF ODCE	3.5	7.5	0.2	-	0.0
Invesco US Val IV	-23.5	26.9	-0.9	-1.0	25.1
NCREIF ODCE	3.5	7.5	0.2	-	0.0
PGIM RE US Debt Fund	5.6	1.4	2.5	0.2	7.4
NCREIF ODCE	3.5	7.5	0.2	-	0.0
Private Real Assets	9.6	10.3	0.7	-0.1	20.4
Blended Private Real Assets Index	9.5	19.3	0.5	-	0.0
Public Real Assets	1.6	17.1	0.1	-0.7	3.3
Blended Public Real Assets Index	4.4	15.2	0.2	-	0.0
SSgA Custom Real Assets	4.4	15.0	0.2	-0.1	0.7
SSgA Custom Real Assets Index	4.4	15.2	0.2	-	0.0

InvMetrics All DB All Real Estate Net Return Comparison
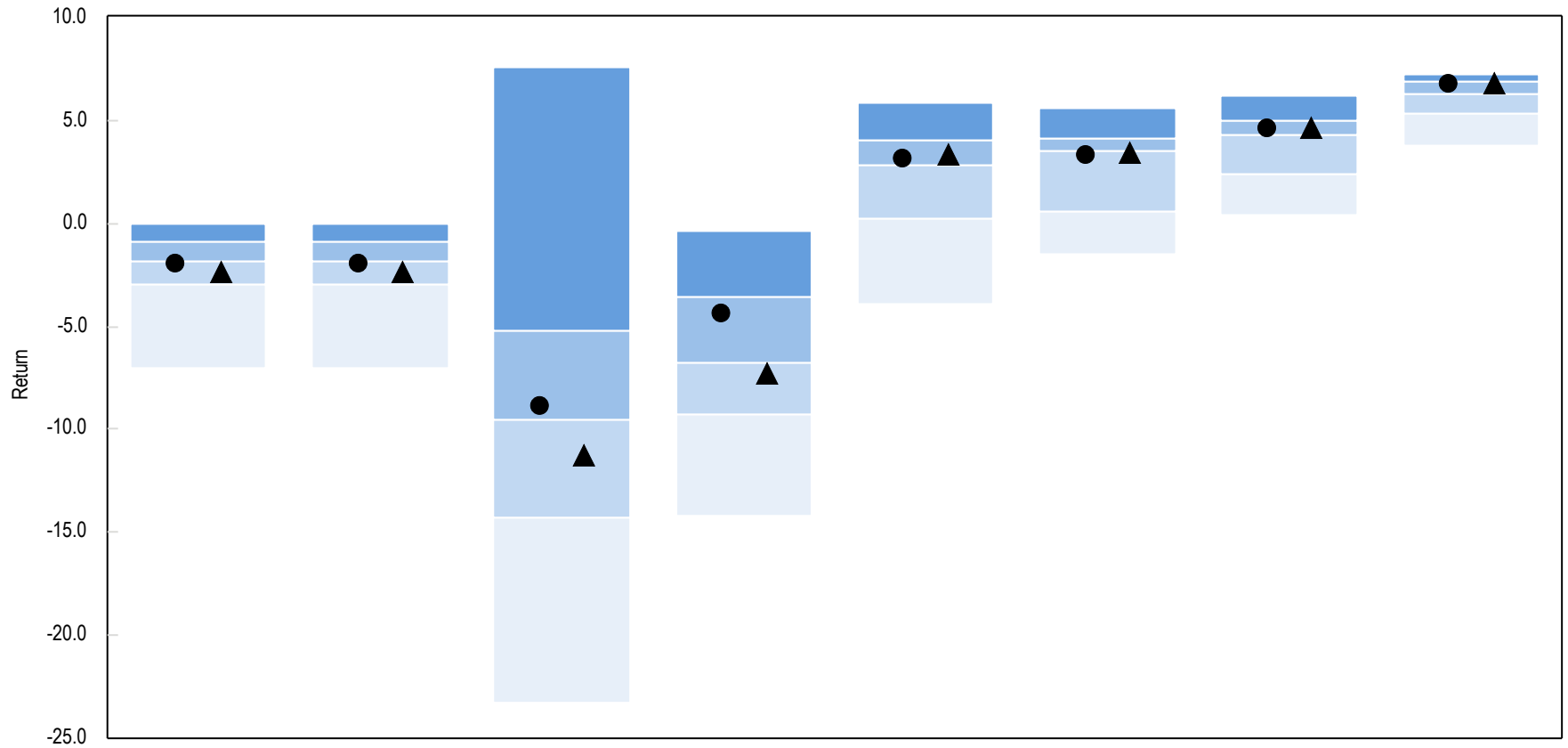
	3 Mo	YTD	1 Yr	2 Yrs	3 Yrs	5 Yrs	7 Yrs	10 Yrs
● Real Estate	-1.9 (54)	-1.9 (54)	-8.8 (45)	-4.4 (33)	3.2 (42)	3.4 (51)	4.6 (31)	6.8 (26)
▲ NCREIF ODCE	-2.4 (62)	-2.4 (62)	-11.3 (57)	-7.3 (56)	3.4 (38)	3.5 (51)	4.7 (30)	6.8 (27)
5th Percentile	0.0	0.0	7.6	-0.4	5.8	5.6	6.2	7.3
1st Quartile	-0.9	-0.9	-5.2	-3.6	4.1	4.1	5.0	6.8
Median	-1.8	-1.8	-9.6	-6.7	2.8	3.5	4.3	6.3
3rd Quartile	-2.9	-2.9	-14.3	-9.2	0.2	0.6	2.4	5.4
95th Percentile	-7.1	-7.1	-23.3	-14.2	-3.9	-1.5	0.4	3.8
Population	111	111	74	61	56	53	47	25

Verus

Geographic Diversification

Chart legend: ■ INVESCO ■ NCREIF ODCE

Region	INVESCO	NCREIF ODCE
Northeast	13.3	18.7
Mideast	8.0	8.3
Southeast	5.0	13.1
Southwest	16.4	9.7
NE Central	0.2	4.7
NW Central	0.0	1.2
Mountain	11.7	8.4
Pacific	45.5	35.9
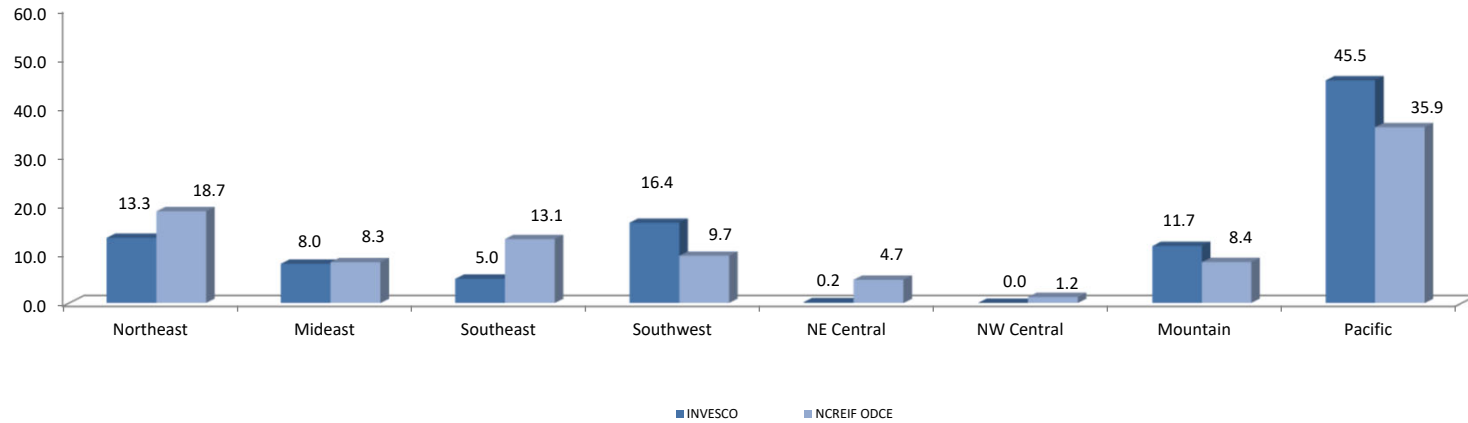
Property Diversification
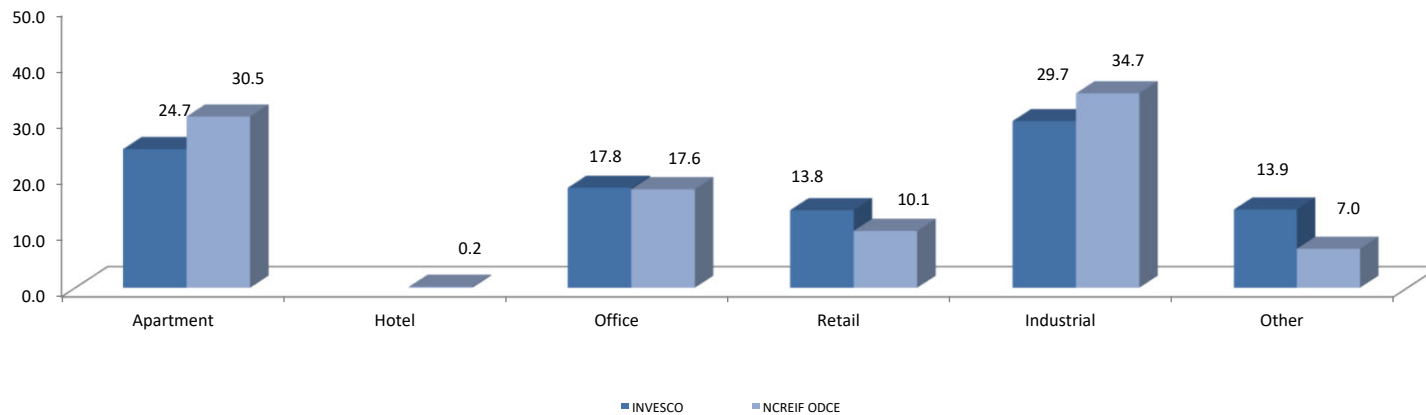
Chart legend: ■ INVESCO ■ NCREIF ODCE

Property Type	INVESCO	NCREIF ODCE
Apartment	24.7	30.5
Hotel		0.2
Office	17.8	17.6
Retail	13.8	10.1
Industrial	29.7	34.7
Other	13.9	7.0

Risk vs. Return

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**Statistics Summary
3 Years**

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	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio	Information Ratio	Tracking Error
County Treasury Pool	2.2	1.7	-0.2	-0.2	1.7
90 Day U.S. Treasury Bill	2.6	0.7	-	-	0.0
Cash & Cash Overlay	3.0	0.7	2.1	2.1	0.2
90 Day U.S. Treasury Bill	2.6	0.7	-	-	0.0
General Account	3.0	0.7	3.6	3.6	0.1
90 Day U.S. Treasury Bill	2.6	0.7	-	-	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. – AG Opportunistic Whole Loan Fund

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

Angelo, Gordon & Co. – Credit Solutions

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

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

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

Angelo, Gordon & Co. – Credit Solutions II

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

Baillie Gifford – ACWI ex US Focus Equities

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

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

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

BlackRock – MSCI ACWI ex US IMI Index

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

BlackRock – Russell 1000 Index

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

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

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

Brigade – Opportunistic Credit

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

CFM - Systematic Global Macro

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

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

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

DoubleLine – Securitized Income

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

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

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).

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

Simple Benchmark

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

Verus

Public Equity Benchmark

	As of: 7/1/23	7/1/22	2/1/21	7/1/20	10/1/19	7/1/19	4/1/19	1/1/19	10/1/18	10/1/17	2/1/17	10/1/16	9/1/16	1/1/16	1/1/14	10/1/10	5/1/07	6/1/00	3/1/99	9/1/98	1/1/96
MSCI ACWI ex-US	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	34.0%	31.3%	23.1%	0.0%	0.0%	0.0%
MSCI ACWI ex US IMI 100% Hedged (Net)	22.0%	23.8%	23.2%	23.1%	22.5%	18.5%	13.9%	9.3%	4.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
MSCI ACWI ex-US IMI	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	47.5%	45.2%	40.4%	41.7%	41.7%	40.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
MSCI ACWI ex US IMI (Net)	22.0%	23.8%	23.2%	23.1%	22.5%	27.8%	32.4%	37.0%	41.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
MSCI EAFE	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	32.3%	33.3%	33.3%
Russell 1000	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	50.0%	48.0%	52.8%	55.2%	61.5%	35.5%	33.3%	33.3%
Russell 1000 Value	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	8.0%	8.4%	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%	15.4%	24.2%	25.0%	25.0%
Russell 3000	56.1%	52.5%	53.7%	53.9%	55.0%	53.7%	53.7%	53.7%	53.7%	52.5%	54.8%	59.6%	58.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
S&P 500	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	8.4%
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

US Equity Benchmark

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

International Equity Benchmark

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

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

Public Credit Benchmark

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

Private Credit Benchmark

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

Verus

Private Equity Benchmark

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

Absolute Return Benchmark

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

Inflation Hedge Benchmark

	As of:								
	3/1/23	2/1/21	7/1/20	4/1/20	10/1/19	4/1/18	2/1/17	10/1/16	4/1/16
Bloomberg TIPS	0.00%	0.00%	0.00%	0.00%	5.88%	11.1%	12.5%	14.3%	14.3%
Bloomberg Commodity	0.00%	0.00%	0.00%	0.00%	0.00%	0.0%	0.0%	0.0%	21.4%
CPI + 5% (RA)	0.00%	0.00%	0.00%	0.00%	0.00%	0.0%	0.0%	0.0%	14.3%
Blended Public Real 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%
	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:			
	1/1/21	4/1/18	10/1/16	1/1/14
Bloomberg Roll Select Commodity	0.00%	0.00%	34.00%	0.0%
S&P Global Large-MidCap Commodity and Resources	0.00%	0.00%	33.00%	0.0%
S&P Global Infrastructure	0.00%	0.00%	33.00%	0.0%
50/50 S&P Global Infra & Lrg-MidCap Com & Resources +2% 1QL	0.00%	100.00%	0.00%	0.0%
75/25 S&P Global Infra & Lrg-MidCap Com & Resources +2% 1QL	100.00%	0.00%	0.00%	0.0%
CPI + 5%	0.00%	0.00%	0.00%	100.0%
	100.0%	100.0%	100.0%	100.0%

Private RA Secondary Benchmark

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

Real Estate Benchmark

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

Liquidity Benchmark

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

Verus

Baillie Gifford Benchmark

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

Baillie Gifford Secondary Benchmark

	As of:	
	1/1/14	**5/1/12**
MSCI ACWI ex-US Growth	100.0%	0.0%
MSCI EAFE Growth	0.0%	100.0%
	100.0%	**100.0%**

Brigade Secondary Benchmark

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

PIMCO Diversified

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

SSgA Custom Real 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 Infrastructure	25.00%	33.34%
Bloomberg TIPS	25.00%	0.00%
	100.0%	**100.0%**

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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

DoubleLine

On All Assets:	0.30% per annum

NISA

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

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

Manager Compliance (Net)

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

Rule 1 - Manager has underperformed the benchmark index for the five year period.
Rule 2 - Manager has underperformed the 50th percentile in the appropriate style universe for the five year period
Rule 3 - Excess 5 Year Sharpe Ratio vs. Benchmark is positive.

Manager Compliance (Gross)

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

Rule 1 - Manager has underperformed the benchmark index for the five year period.
Rule 2 - Manager has underperformed the 50th percentile in the appropriate style universe for the five year period
Rule 3 - Excess 5 Year Sharpe Ratio vs. Benchmark is positive.

	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**	**6,413,008,176**	**100.0**	**3.4**	**(74)**	**7.5 (79)**	**9.8**	**(79)**	**3.0**	**(62)**	**4.5**	**(50)**	**6.9**	**(75)**	**6.5**	**(60)**
Policy Index			*4.7*	*(19)*	*9.3 (34)*	*12.4*	*(31)*	*3.9*	*(32)*	*5.2*	*(30)*	*7.7*	*(49)*	*6.9*	*(49)*
Simple Benchmark			*4.0*	*(49)*	*8.2 (57)*	*11.1*	*(53)*	*2.5*	*(80)*	*4.2*	*(55)*	*7.2*	*(66)*	*6.7*	*(54)*
Total Fund ex Overlay	**6,401,709,834**	**99.8**	**3.4**	**(74)**	**7.4 (79)**	**9.7**	**(80)**	**3.0**	**(67)**	**4.4**	**(50)**	**6.8**	**(77)**	**6.4**	**(61)**
Policy Index			*4.7*	*(19)*	*9.3 (34)*	*12.4*	*(31)*	*3.9*	*(32)*	*5.2*	*(30)*	*7.7*	*(49)*	*6.9*	*(49)*
Simple Benchmark			*4.0*	*(49)*	*8.2 (57)*	*11.1*	*(53)*	*2.5*	*(80)*	*4.2*	*(55)*	*7.2*	*(66)*	*6.7*	*(54)*
Growth Portfolio	**3,850,044,929**	**60.0**	**5.2**		**11.0**	**15.5**		**-**		**-**		**-**		**-**	
Blended Growth Index			*7.7*		*15.6*	*21.7*		*7.1*		*7.3*		*11.2*		*-*	
US Equity	**1,547,967,868**	**24.1**	**9.4**	**(70)**	**17.6 (84)**	**25.0**	**(91)**	**8.5**	**(66)**	**9.9**	**(41)**	**12.8**	**(93)**	**11.3**	**(89)**
Blended US Equity Index			*10.0*	*(38)*	*19.3 (52)*	*29.3*	*(45)*	*8.7*	*(53)*	*9.8*	*(45)*	*14.3*	*(48)*	*12.2*	*(51)*
Russell 3000 Index			*10.0*	*(38)*	*19.3 (52)*	*29.3*	*(45)*	*8.7*	*(53)*	*9.8*	*(45)*	*14.3*	*(48)*	*12.3*	*(44)*
BlackRock Russell 1000	920,367,929	14.4	10.3	(53)	19.6 (50)	29.9	(44)	9.1	(57)	10.5	(57)	14.8	(45)	-	
DE Shaw	226,044,929	3.5	12.4	(22)	21.1 (34)	28.4	(52)	8.4	(65)	10.5	(56)	13.8	(62)	13.2	(28)
PanAgora Defuseq	249,715,404	3.9	5.9	(94)	8.4 (99)	9.9	(100)	4.0	(98)	7.1	(93)	8.9	(98)	-	
Russell 1000 Index			*10.3*	*(52)*	*19.6 (50)*	*29.9*	*(44)*	*9.1*	*(57)*	*10.5*	*(57)*	*14.8*	*(45)*	*12.7*	*(42)*
PGIM Quant Solutions	134,191,761	2.1	4.7	(74)	15.8 (33)	24.0	(24)	8.0	(20)	6.8	(22)	9.9	(57)	-	
Russell 2000 Index			*5.2*	*(67)*	*13.8 (52)*	*19.7*	*(47)*	*2.9*	*(71)*	*-0.1*	*(90)*	*8.1*	*(89)*	*7.6*	*(79)*
International Equity	**1,204,174,007**	**18.8**	**4.3**	**(69)**	**8.8 (86)**	**12.0**	**(87)**	**4.9**	**(61)**	**2.0**	**(69)**	**6.7**	**(66)**	**5.0**	**(60)**
Blended International Equity Index			*6.2*	*(22)*	*12.4 (20)*	*15.9*	*(23)*	*6.5*	*(22)*	*4.4*	*(16)*	*7.7*	*(35)*	*5.3*	*(46)*
Baillie Gifford	291,486,610	4.5	3.9	(72)	4.2 (92)	4.7	(92)	-1.4	(82)	-6.2	(88)	5.7	(82)	5.0	(91)
MSCI ACWI ex US			*4.8*	*(61)*	*10.9 (37)*	*13.8*	*(38)*	*4.2*	*(39)*	*2.4*	*(24)*	*6.5*	*(75)*	*4.7*	*(94)*
MSCI ACWI ex US Growth			*6.0*	*(46)*	*9.3 (49)*	*11.5*	*(57)*	*2.4*	*(62)*	*-0.5*	*(58)*	*6.6*	*(74)*	*5.5*	*(87)*
Mondrian	284,414,641	4.4	2.3	(79)	9.1 (75)	12.4	(73)	5.0	(77)	2.8	(88)	4.9	(96)	3.7	(83)
MSCI AC World ex USA Value			*3.6*	*(52)*	*12.5 (49)*	*16.2*	*(45)*	*6.0*	*(71)*	*5.3*	*(48)*	*6.0*	*(77)*	*3.8*	*(82)*
MSCI AC World ex USA Index			*4.8*	*(35)*	*10.9 (58)*	*13.8*	*(62)*	*4.2*	*(87)*	*2.4*	*(91)*	*6.5*	*(72)*	*4.7*	*(60)*
BlackRock MSCI ACWI EX-US IMI	615,535,183	9.6	4.3	(62)	10.4 (55)	13.2	(55)	3.5	(70)	1.9	(64)	-		-	
MSCI AC World ex USA IMI (Net)			*4.3*	*(62)*	*10.6 (53)*	*13.2*	*(56)*	*3.2*	*(73)*	*1.7*	*(69)*	*6.0*	*(84)*	*4.3*	*(96)*
Record Dynamic Currency Hedge	3,822,177	0.1	547.3		-1,308.3	-30,321.3		-		-		-		-	

* Total Fund and asset class aggregates are ranked in InvMetrics universes. Managers are ranked in eVest (eA) manager universes.
** Includes Parametric Minneapolis manager funded in August 2013
See Appendix for Benchmark History

Verus

103

	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*	417,452,034	6.5	-1.5	(100)	1.6 (63)	4.1	(61)	-4.3	(100)	5.1	(93)	18.9	(18)	17.3	(-)
Blended Private Equity Index			12.8	(1)	19.5 (1)	29.0	(1)	3.9	(19)	11.6	(76)	18.2	(42)	14.2	(-)
Opportunistic Credit	680,451,020	10.6	1.9		7.0	-		-		-		-		-	
Opportunistic Credit Index			1.8		9.4	11.7		4.3		3.2		4.7		4.5	
Public Credit	477,577,013	7.4	1.8		8.0	10.5		3.2		3.2		4.5		5.4	
Blmbg. U.S. Corp: High Yield Index			1.5		9.2	11.2		3.7		2.2		4.2		4.4	
Angelo Gordon Opportunistic	37,084	0.0	0.0		10.5	6.7		3.6		6.4		6.4		-	
Beach Point Select	112,828,229	1.8	2.3	(18)	9.6 (35)	13.1	(12)	3.7	(65)	5.6	(5)	8.2	(2)	-	
Brigade Capital	108,730,541	1.7	2.4	(17)	7.6 (88)	11.4	(38)	1.2	(98)	2.8	(50)	4.7	(43)	4.4	(64)
One William Street	65,290,050	1.0	3.6	(3)	8.8 (65)	-		-		-		-		-	
Blmbg. U.S. Corp: High Yield Index			1.5	(67)	9.2 (48)	11.2	(47)	3.7	(66)	2.2	(78)	4.2	(70)	4.4	(61)
PIMCO Diversified	130,041,883	2.0	1.3	(79)	8.0 (85)	9.0	(89)	1.8	(97)	-0.3	(100)	1.9	(100)	-	
Blmbg. U.S. Corp: High Yield Index			1.5	(67)	9.2 (48)	11.2	(47)	3.7	(66)	2.2	(78)	4.2	(70)	4.4	(61)
Eaton Vance Emerging Markets Debt Opportunities Fund	60,649,226	0.9	-		-	-		-		-		-		-	
JPM EMB (JEMB) Hard Currency/Local Currency 50-50			0.0	(84)	5.3 (87)	7.6	(90)	2.4	(70)	-1.1	(81)	0.9	(76)	1.6	(71)
Private Credit	202,874,008	3.2	2.0		3.7	6.1		4.4		5.0		5.9		-	
Credit Suisse Leveraged Loan Index 1 Qtr Lag			2.9		9.6	13.0		5.8		5.6		5.6		4.4	
AG CSF ADF II	8,551,567	0.1	2.2		12.3	19.9		-		-		-		-	
AG CSF II	25,186,892	0.4	2.8		12.1	20.9		7.4		-		-		-	
Angelo Gordon Credit Solutions	8,101,910	0.1	2.1	(21)	9.4 (28)	12.3	(11)	3.6	(47)	6.9	(1)	-		-	
Credit Suisse Leveraged Loan Index 1 Qtr Lag			2.9	(8)	9.6 (22)	13.0	(8)	5.8	(5)	5.6	(3)	5.6	(10)	4.4	(30)
Blackrock DL Feeder IX-U	41,459,701	0.6	3.4		8.8	13.2		8.2		7.6		-		-	
PIMCO Private Income	51,032,037	0.8	2.8		5.6	7.6		4.1		5.7		-		-	
TCP Direct Lending VIII	10,558,386	0.2	1.9		4.9	8.4		5.3		5.3		5.8		-	
White Oak Yield	29,518,478	0.5	0.0		1.4	3.0		2.8		3.8		4.7		-	
White Oak YSF V	28,465,037	0.4	0.0	(100)	-0.8 (100)	0.5	(100)	-0.5	(100)	0.7	(98)	-		-	
Credit Suisse Leveraged Loan Index 1 Qtr Lag			2.9	(8)	9.6 (32)	13.0	(12)	5.8	(10)	5.6	(5)	5.6	(15)	4.4	(61)

See Appendix for Benchmark History

Verus⁷⁷⁷®

	Market Value	% of Portfolio	3 Mo	Rank	Fiscal YTD	1 Yr	Rank	2 Yrs	Rank	3 Yrs	Rank	5 Yrs	Rank	10 Yrs	Rank
Diversifying Portfolio	**1,186,916,950**	**18.5**	**1.4**		**5.0**	**4.8**		**-**		**-**		**-**		**-**	
Blended Diversifying Index			*-0.2*		*3.1*	*3.3*		*1.2*		*0.3*		*2.1*		*2.8*	
Defensive Fixed Income	**827,086,013**	**12.9**	**-0.9**		**3.0**	**2.4**		**-1.1**		**-2.2**		**0.7**		**2.0**	
Blended Core Fixed Income Benchmark			*-1.4*		*1.1*	*0.2*		*-2.3*		*-2.9*		*0.1*		*1.4*	
DoubleLine	259,371,713	4.0	0.2	(55)	3.6 (58)	3.1	(59)	-1.1	(62)	-2.1	(60)	-		-	
Blmbg. U.S. Aggregate Index			*-0.8*	*(73)*	*2.6 (75)*	*1.7*	*(80)*	*-1.6*	*(83)*	*-2.5*	*(71)*	*0.4*	*(61)*	*1.5*	*(70)*
FIAM Bond	129,473,314	2.0	-0.5	(57)	3.4 (36)	3.0	(30)	-1.0	(46)	-1.7	(30)	1.4	(15)	2.4	(13)
NISA Core Bond	250,708,957	3.9	-0.6	(69)	2.9 (70)	2.1	(75)	-1.1	(59)	-2.0	(54)	-		-	
Blmbg. U.S. Aggregate Index			*-0.8*	*(95)*	*2.6 (87)*	*1.7*	*(87)*	*-1.6*	*(87)*	*-2.5*	*(90)*	*0.4*	*(95)*	*1.5*	*(97)*
NISA Long Treasury	178,709,279	2.8	-3.3		-3.7	-		-		-		-		-	
Blmbg. U.S. Treasury: Long			*-3.3*		*-3.9*	*-6.1*		*-11.2*		*-8.0*		*-2.8*		*1.2*	
Absolute Return	**359,830,937**	**5.6**	**7.0**	**(1)**	**9.3 (25)**	**10.1**	**(38)**	**6.7**	**(9)**	**5.9**	**(-)**	**1.4**	**(-)**	**2.1**	**(-)**
Absolute Return Custom Index			*2.3*	*(58)*	*7.2 (50)*	*9.4*	*(48)*	*8.1*	*(1)*	*6.7*	*(-)*	*6.1*	*(-)*	*5.5*	*(-)*
Acadian MAAR Fund LLC	78,842,351	1.2	1.4	(78)	-2.0 (94)	-3.1	(92)	-0.8	(81)	-0.8	(81)	-		-	
CFM Systematic Global Macro	89,091,660	1.4	-0.2	(83)	7.2 (61)	3.7	(89)	7.1	(30)	6.1	(31)	-		-	
Graham Quant Macro	96,384,914	1.5	17.6	(2)	16.5 (12)	19.3	(12)	10.8	(14)	11.2	(18)	-		-	
PIMCO MAARS Fund LP	95,512,011	1.5	9.5	(13)	15.0 (14)	20.1	(11)	13.3	(6)	12.9	(15)	-		-	
Absolute Return Custom Index			*2.3*	*(73)*	*7.2 (62)*	*9.4*	*(61)*	*8.1*	*(24)*	*6.7*	*(27)*	*6.1*	*(57)*	*5.5*	*(35)*
Inflation Hedge	**1,022,744,492**	**15.9**	**0.0**		**-1.3**	**-2.1**		**-1.7**		**6.0**		**3.8**		**-**	
Blended Inflation Hedge Index			*1.5*		*-3.2*	*-4.0*		*-2.8*		*5.8*		*5.5*		*5.0*	
Real Estate	**469,175,499**	**7.3**	**-1.8**	**(29)**	**-7.4 (1)**	**-8.3**	**(-)**	**-3.8**	**(-)**	**3.8**	**(-)**	**3.9**	**(-)**	**7.3**	**(-)**
NCREIF ODCE			*-2.4*	*(34)*	*-8.8 (70)*	*-11.3*	*(-)*	*-7.3*	*(-)*	*3.4*	*(-)*	*3.5*	*(-)*	*6.8*	*(-)*
Harrison Street Core Property	90,070,560	1.4	-1.5		-6.5	-6.1		0.8		4.5		-		-	
Invesco	236,259,624	3.7	-3.4		-9.2	-11.5		-7.3		3.0		2.9		6.7	
Invesco US Val IV	316,296	0.0	-9.0		-46.8	-47.4		-53.7		-37.5		-22.5		-	
Invesco US Val V	23,475,055	0.4	-0.7		-27.0	-27.3		-16.3		-4.5		2.0		-	
Invesco US Val VI	20,574,834	0.3	0.0		-15.0	-15.5		-		-		-		-	
PGIM RE US Debt Fund	73,294,772	1.1	1.7		4.8	6.9		7.0		6.7		6.3		-	
NCREIF ODCE			*-2.4*		*-8.8*	*-11.3*		*-7.3*		*3.4*		*3.5*		*6.8*	
Stockbridge Value IV	25,184,358	0.4	0.0		-4.3	-3.9		6.5		-		-		-	
NCREIF ODCE			*-2.4*		*-8.8*	*-11.3*		*-7.3*		*3.4*		*3.5*		*6.8*	

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

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	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*	**342,881,027**	**5.3**	**1.7**		**5.5**	**6.5**		**6.2**		**11.5**		**9.6**		**-**	
Blended Private Real Assets Index			8.6		2.8	6.0		5.5		9.1		9.5		6.3	
Blended Secondary CA Private RA Index			1.2		4.8	5.9		10.0		14.0		8.4		-	
Public Real Assets	**210,687,966**	**3.3**	**1.2**		**3.3**	**1.0**		**-3.0**		**5.9**		**1.9**		**-**	
Blended Public Real Assets Index			1.1		3.4	1.1		-3.0		5.7		4.4		5.2	
SSgA Custom Real Assets	210,687,966	3.3	1.2		3.3	1.0		-3.0		5.9		4.6		-	
SSgA Custom Real Assets Index			1.1		3.4	1.1		-3.0		5.7		4.4		-	
Liquidity	**353,301,804**	**5.5**	**0.9**		**4.4**	**5.3**		**3.9**		**2.7**		**2.0**		**-**	
Blended Liquidity Index			0.6		3.9	3.8		-		-		-		-	
Cash Flow-Matched Liquidity	**315,424,434**	**4.9**	**0.8**		**4.4**	**4.9**		**-**		**-**		**-**		**-**	
Bloomberg U.S. Gov/Credit 1-3 Year Index			0.4		3.9	3.5		1.9		0.2		1.4		1.3	
Bloomberg U.S. Credit 1-3 Year Index			0.7		4.5	4.7		2.5		0.8		1.8		1.8	
Insight Investment*	304,813,869	4.8	0.9		4.6	4.9		-		-		-		-	
Bloomberg U.S. Credit 1-3 Year Index			0.7		4.5	4.7		2.5		0.8		1.8		1.8	
County Treasury Pool**	10,610,564	0.2	0.3		1.7	4.5		2.8		2.2		2.1		2.0	
90 Day U.S. Treasury Bill			1.3		4.0	5.2		3.9		2.6		2.0		1.4	
Cash & Cash Overlay	**73,263,361**	**1.1**	**1.4**		**4.4**	**6.0**		**4.5**		**3.1**		**2.2**		**1.6**	
90 Day U.S. Treasury Bill			1.3		4.0	5.2		3.9		2.6		2.0		1.4	
General Account	61,965,032	1.0	1.4		4.5	5.9		4.5		3.1		2.6		2.4	
90 Day U.S. Treasury Bill			1.3		4.0	5.2		3.9		2.6		2.0		1.4	

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

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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 the exact opposite direction over time. Correlation is used as a measure to help maximize the benefits of diversification when constructing an investment portfolio.

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

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

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

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

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

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

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

Sharpe Ratio: A measure of portfolio efficiency. The Sharpe Ratio indicates excess portfolio return for each unit of risk associated with achieving the excess return. The higher the Sharpe Ratio, the more efficient the portfolio. Sharpe ratio is calculated as: 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.

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