

Board of Retirement Regular Meeting

Sacramento County Employees' Retirement System

Agenda Item 17

MEETING DATE: May 20, 2020

SUBJECT: Total Fund Investment Performance Report –

First Quarter 2020

		Deliberation		Receive
SUBMITTED FOR: $_$	_ Consent	and Action	<u> X</u>	and File

RECOMMENDATION

Staff and Verus recommend the Board receive and file the SCERS Total Fund Investment Performance Review report, prepared by Verus, for the quarter ending March 31, 2020.

PURPOSE

This agenda item complies with SCERS' investment policy statement reporting requirements and contributes to the effective management and oversight of investment activities.

SCERS TOTAL FUND RETURNS

This item summarizes SCERS' Total Fund investment returns as presented in Verus' Investment Performance Review for the period ending March 31, 2020. Please note that returns for SCERS' private equity, private credit, non-core real estate, and real assets portfolios are lagged one quarter.

Verus' report has been formatted to reflect SCERS' strategic asset allocation, including the Growth, Diversifying, and Real Return asset categories. Please note that asset category composites were added to align with SCERS' strategic asset allocation, so the performance of these segments includes the current quarter, YTD, 1-Year, 3-Year, and since inception March 2017 performance for this report, without a 5-Year historical track record.

SCERS TOTAL FUND PERFORMANCE SUMMARY Quarter Reporting Periods Ending March 31, 2020

SCERS ASSET CLASS	Quarter	Fiscal Year- to-Date	1-Year	3-Year	5-Year	Since Inception	Since Inception Date
SCERS TOTAL FUND Return w/Overlay	-9.7%	-4.3%	-1.1%	5.5%	5.2%	8.1%	Jun-86
Policy Index	-9.2%	-4.8%	-1.8%	4.0%	4.5%	8.2%	
InvestorForce Public DB > \$1B	-12.6%	-8.1%	-5.0%	2.4%	3.3%	7.7%	
SCERS TOTAL FUND Return w/o Overlay	-10.0%	-4.7%	-1.5%	5.4%	5.2%	7.9%	Jun-86
Policy Index	9.2%	-4.8%	-1.8%	4.0%	4.5%	8.2%	
GROWTH ASSET CATEGORY	-16.4%	-9.3%	-5.8%	5.0%	-	5.0%	Mar-17
Custom Benchmark	-15.6%	-9.5%	-6.1%	3.7%	-	3.7%	
DIVERSIFYING ASSET CATEGORY	-1.4%	0.8%	3.7%	2.9%	-	2.9%	Mar-17
Custom Benchmark	0.6%	2.6%	5.4%	3.7%	-	3.7%	
REAL RETURN ASSET CATEGORY	-0.6%	2.6%	4.5%	8.1%	-	8.1%	Mar-17
Custom Benchmark	-1.0%	0.1%	1.4%	4.8%	-	4.8%	
OPPORTUNITIES PORTFOLIO	2.0%	9.4%	8.6%	5.1%	7.0%	14.9%	Oct-07
Custom Benchmark	-9.2%	-4.8%	-1.8%	4.0%	4.5%	8.2%	
DEDICATED CASH	0.3%	0.9%	-	-	-	0.9%	Jun-19
Overnight LIBOR	0.2%	0.9%	-	-	-	0.9%	

The financial markets experienced significant declines during the first quarter as the response to the Covid-19 pandemic plunged the global economy into recession. The SCERS portfolio returned -9.7% for the first quarter, underperforming the policy index benchmark return of -9.2% and above the median public fund return of -12.6%. For the fiscal year-to-date return through March 31, 2020, the SCERS portfolio returned -4.3%, outperforming the policy index benchmark return of -4.8% and median public fund return of -8.1%.

Growth Asset Category

Equity markets faced the fastest decline on record, tumbling over 20% into bear market territory from all-time highs in under 20 trading days. From the market high in mid-February to the March low point, the Dow Jones Industrial Index declined 38%. The Russell 2000 small cap index declined 44% from its high point, before ending the quarter down 31%. Equity markets recovered some losses during the final week of March following announcements of extensive monetary and fiscal policy response by the U.S. and global governments. During the quarter, growth oriented stocks significantly outperformed value stocks, while large cap outperformed small cap stocks. SCERS' Public Equity portfolio slightly underperformed the MSCI ACWI benchmark for the quarter and fiscal year to date, with the U.S. Equity portfolio trailing its benchmark and the International Equity portfolio outperforming. The Growth Absolute Return portfolio underperformed its benchmark, with long-biased equity oriented managers facing sharp declines along with the public equity markets. Private market returns are lagged by one quarter and therefore don't reflect the market declines in the first quarter. Private Equity continued to show strong returns through 12/31/19, up 3.7% for the quarter and 12.6% for the fiscal year-to-date.

SCERS GROWTH Performance Summary for the periods ending 3/31/20	Quarter	Fiscal Year- to-Date	1-Year	Since Inception	Since Inception Date
SCERS GROWTH ASSET CATEGORY	-16.4%	-9.3%	-5.8%	5.0%	Mar-17
Custom Benchmark	-15.6%	-9.5%	-6.1%	3.7%	
Public Equity	-21.8%	-14.5%	-11.2%	6.3%	Jun-11
MSCI ACWI	-21.4%	-14.3%	-11.3%	5.1%	
Private Equity (lagged 1 quarter)	3.7%	12.6%	18.5%	4.1%	Feb-08
Cambridge All PE	4.4%	8.8%	13.6%	10.4%	
Public Credit	-17.6%	-15.3%	-13.8%	1.0%	Nov-13
Custom Benchmark	-13.2%	-10.3%	-8.5%	2.4%	
Private Credit (lagged 1 quarter)	2.8%	6.6%	9.8%	7.1%	Mar-17
Credit Suisse Leveraged Loan + 2%	2.2%	5.7%	10.2%	6.7%	
Growth Absolute Return	-15.4%	-12.1%	-10.1%	3.6%	Aug-04
HFRI FoF Composite +1%	-8.2%	-5.8%	-4.1%	5.3%	

Diversifying Asset Category

The Diversifying Asset Category declined 1.4% during, trailing the benchmark return of +0.6%, but significantly outperforming the Growth asset category during a turbulent quarter. For the fiscal YTD, the Diversifying portfolio is still positive, returning +0.8%. Fixed income markets were positive during the first quarter, led by U.S. Treasuries, as investors sought out safe haven assets. There was notable dispersion in performance for SCERS' Core/Core Plus Fixed Income portfolio, as managers with greater exposure to duration and credit risk underperformed the benchmark. For the first quarter and fiscal YTD, the U.S. Treasury portfolio returned +8.2% and +10.0%, respectively, compared to the Core/Core Plus portfolio return of +0.1% and +3.0% over the same time periods. SCERS' Global Fixed Income portfolio declined 11.2% in the quarter and significantly lagged its benchmark, hurt by exposure to emerging market debt and currency movements. The Diversifying Absolute Return portfolio also lagged, declining 6.3% during the quarter as parts of the credit market faced extreme levels of distress and illiquidity, comparable to levels not seen since the financial crisis in 2008-2009. Managers within the Diversifying Absolute Return portfolio experienced a wide range of outcomes during the quarter, with a 40% spread between the top and bottom performing managers.

SCERS DIVERSIFYING Performance Summary for the periods ending 3/31/20	Quarter	Fiscal Year- to-Date	1-Year	Since Inception	Since Inception Date
SCERS DIVERSIFYING ASSET CATEGORY	-1.4%	0.8%	3.7%	2.9%	Mar-17
Custom Benchmark	0.6%	2.5%	5.4%	3.7%	
Core/Core Plus Fixed Income	0.1%	3.0%	6.5%	3.6%	Jun-11
Barclays US Aggregate TR	3.1%	5.7%	8.9%	3.6%	
U.S. Treasury	8.2%	10.0%	13.2%	8.8%	Feb-18
Barclays US Treasury TR	8.2%	9.9%	13.2%	8.8%	
Global Fixed Income	-11.2%	-8.8%	-5.6%	1.0%	May-13
Custom Benchmark	-1.6%	-0.3%	3.7%	1.1%	
Diversifying Absolute Return	-6.3%	-4.9%	-3.2%	1.2%	Nov-11
HFRI FoF Conservative Index	-7.1%	-5.6%	-4.2%	3.5%	

Real Return Asset Category

SCERS' Real Return portfolio was slightly negative in the quarter, returning -0.6%, and outperforming the asset category benchmark return of -1.0%. SCERS' Real Return portfolio is a mix of liquid investments that are valued as of 3/31/20, and private market investments where returns are lagged one quarter. SCERS' Liquid Real Return, which includes the Brookfield Liquid Real Return actively managed account and the SSgA Passive Real Return Proxy, declined 16.7% during the quarter as listed infrastructure and real estate investment trusts (REITs) were significantly impacted by the measures taken to control Covid-19. Commodity markets were also significantly impacted during the quarter, with oil prices declining over 60%. SCERS' Core Real Estate portfolio, where valuations and performance are current as of 3/31/20, was up +1.1% for the quarter, slightly exceeding the NFI-ODCE benchmark return of +1.0%. Non-Core Opportunistic and Value Add Real Estate, whose returns are lagged by one quarter, were the top performing segments during the quarter, up +4.1% and +14.7%, respectively. For the fiscal YTD, the Real Return asset category returned +2.6%, outperforming the benchmark return of +0.1%.

SCERS REAL RETURN Performance Summary	Quarter	Fiscal Year- to-Date	1-Year	Since Inception	Since Inception Date
SCERS REAL RETURN ASSET CATEGORY					
SCERS Real Return w/ SSgA Proxy	-0.6%	2.6%	4.5%	8.1%	Mar-17
SCERS Real Return w/o SSgA Proxy	-0.6%	2.6%	4.5%	9.0%	Mar-17
Custom Benchmark	-1.0%	0.1%	1.4%	4.8%	Mar-17
SCERS Real Estate	2.2%	6.3%	8.2%	11.2%	Jun-11
Custom Benchmark	1.8%	3.9%	5.1%	9.5%	
Core Real Estate (as of 3/31/20)					
Separate Account	0.0%	4.3%	9.4%	7.4%	Sep-08
Commingled Funds	1.1%	5.6%	7.8%	5.3%	Sep-08
NFI-ODCE	1.0%	3.8%	4.9%	5.6%	Sep-08
Non-Core Real Estate (as of 12/31/19)					
Opportunistic	4.1%	4.9%	5.3%	20.1%	Feb-14
Value Add	14.7%	22.8%	23.9%	0.1%	Sep-08
NFI-ODCE net +1%	3.3%	3.9%	5.4%	10.0%	Feb-14
				7.8%	Sep-08
SCERS Real Assets (as of 12/31/19)	1.0%	3.2%	6.1%	5.3%	Jan-13
Custom Benchmark	1.0%	0.6%	2.9%	5.9%	
SCERS Liquid Real Return (as of 3/31/20)	-16.7%	-14.2%	-	-14.2%	Jun-19
SSgA Real Assets	-17.4%	-14.6%	-	-14.6%	

SCERS' policy index benchmark includes a blended weighted average of the individual asset class benchmarks, as defined within SCERS' Master IPS, and as shown below.

SCERS BENCHMARK SUMMARY As of March 31, 2020				
Asset Class	Policy Index Benchmark			
Growth Asset Category	Blended Weighted Average of Asset Class Benchmarks			
US Equities	Russell 3000			
International Equities	MSCI ACWI exU.S. IMI			
Private Equity	Cambridge All PE			
Public Credit	50% (BofA High Yield) + 50% (CS High Yield)			
Private Credit	CS Leveraged Loan + 2%			
Growth Absolute Return	HFRI FoF Composite Index +1%			
Diversifying Asset Category	Blended Weighted Average of Asset Class Benchmarks			
Core/Core Plus Fixed Income	Barclays U.S. Aggregate			
U.S. Treasury	Barclays U.S. Treasury			
Global Fixed Income	80% Citi WGBI + 20% JPMorgan GBI EM			
Diversifying Absolute Return	HFRI FoF Conservtive Index			
Real Return Asset Category	Blended Weighted Average of Asset Class Benchmarks			
Real Estate	65% (NFI-ODCE) + 35% (NFI-ODCE +1%)			
Real Assets	45% (Cambridge Infrastructure) + 35% (Cambridge Energy) + 10% (NCREIF Agriculture) + 10% (NCREIF Timber)			
Liquid Real Return	30% (Barclays U.S. TIPS) + 25% (S&P Global Infrastructure Index) + 15% (Global REITs) + 10% (S&P Global Natural Resources Index) + 10% (Bloomberg Commodity Index) + 10% (U.S. Dollar Floating Rate Notes)			
Opportunities Portfolio	SCERS Total Fund			
Dedicated Cash	Overnight LIBOR			

May 20, 2020 Page 6 of 6 Agenda Item 17

<u>ATTACHMENT</u>	
Verus' Investment Performance Review for SC	CERS for the period ending March 31, 2020.
Prepared by:	
/S/	
Brian Miller Investment Officer	
Reviewed by:	
/S/	/S/
Steve Davis Chief Investment Officer	Eric Stern Chief Executive Officer







PERIOD ENDING: MARCH 31, 2020

Investment Performance Review for

Sacramento County Employees' Retirement System

Table of Contents



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Market Environment	ТАВ І
Total Fund	TAB II
Policy Index and	TAB III
Benchmark History	

1st quarter summary

THE ECONOMIC CLIMATE

- Real GDP grew at a 0.3% rate year-over-year in the first quarter (-4.8% quarterly annualized rate). Personal consumption expenditures shrunk -7.6%, resulting in a -5.3% hit to headline growth. Forecasts of Q2 GDP growth have varied between -15% to -35%.
- The U.S. government quickly crafted and implemented historic stimulus measures to combat the economic impact of the virus. Support of this magnitude has not been seen since the Great Depression of the 1930s.

PORTFOLIO IMPACTS

- U.S. equities experienced an unusually sudden and significant sell-off in March as investors grew fearful of the health and economic impacts of COVID-19. During Q1 the S&P 500 fell -19.6%, international developed equities (MSCI EAFE) fell -22.8% and emerging markets (MSCI EM) fell -23.6%.
- U.S. core inflation increased 2.1% YoY in March. Headline inflation slowed to 1.5%, pushed lower by a sharp decline in energy prices which will likely have persistent effects in future months. Downward pressure could be compounded as households slow spending due to loss of income and a greater propensity to save rather than spend.

THE INVESTMENT CLIMATE

- In mid-March, the Federal Open Market Committee cut interest rates by a full 1.00% to a new range of 0 0.25%.
 This surprise action was taken on a Sunday with the intent to get out ahead of economic impacts of COVID-19.
- Implied volatility spiked in March to a record daily close of 82.7%, surpassing the high of 80.9% reached in November 2008 during the depths of the global financial crisis.
- Central banks are facing an economic slowdown and need for monetary policy support, but very little room to cut interest rates. This is a risk that has been discussed for years. We believe fiscal policies will play a much larger role in addressing the inevitable economic slowdown.

ASSET ALLOCATION ISSUES

- Risk markets experienced one of the most sudden corrections on record, amidst extreme volatility. The S&P 500 showed its largest one-day drop since 1987 (March 16 -11.98%) and its largest one-day gain since 2008 (March 24 +9.38%). Implied volatility reached global financial crisis levels, and high yield credit spreads temporarily expanded above 11%. Some of these losses were recovered toward the end of March as the market rebounded.
- The U.S. dollar appreciated significantly in the first quarter, rising 7.1% on a trade-weighted basis, resulting in losses for investors with unhedged currency exposure.

An underweight risk stance appears appropriate in today's environment

We remain watchful for investment opportunities



U.S. economics summary

- Real GDP grew at a 0.3% rate year-over-year in the first quarter (-4.8% quarterly annualized rate). Personal consumption expenditures shrunk -7.6%, resulting in a -5.3% hit to headline growth. Forecasts of Q2 GDP growth have varied between -15% to -35%.
- The U.S. government quickly crafted and implemented historic stimulus measures to combat the economic impacts of the virus. Support of this magnitude has not been seen since the Great Depression of the 1930s.
- U.S. core inflation rose 2.1% YoY in March. Headline inflation slowed to 1.5%, pushed lower by a sharp decline in energy prices which will likely have persistent effects in the coming months. This downward pressure could be compounded as households slow spending due to loss of income and show a greater propensity to save.

- The U.S. labor market exhibited a sharp weakening in March, as unemployment jumped to 4.4%. Some have estimated the true unemployment rate in April to be above 10%.
- March economic data should not be expected to fully reflect the extent of COVID-19. We are watching daily data releases to gain a better understanding of how conditions are evolving.
- The Bloomberg Consumer Comfort Index exhibited its sharpest two week drop since 1985, from 63.0 to 56.3, dipping from a 20-year high of 67.3 that was achieved in January.
- Existing homes sales increased +7.2% in February YoY, and new homes sales were up +14.3%. The 30-year fixed mortgage interest rate has continued to fall, finishing Q1 at 3.33%.

	Most Recent	12 Months Prior
GDP (YoY)	0.3% 3/31/20	2.7% 3/31/19
Inflation (CPI YoY, Core)	2.1% 3/31/20	2.0% 3/31/19
Expected Inflation (5yr-5yr forward)	1.3% 3/31/20	2.4% 3/31/19
Fed Funds Target Range	0% – 0.25% 3/31/20	2.25% – 2.50% 3/31/19
10 Year Rate	0.7% 3/31/20	2.4% 3/31/19
U-3 Unemployment	4.4% 3/31/20	3.8% 3/31/19
U-6 Unemployment	8.7% 3/31/20	7.4% 3/31/19



International economics summary

- Most international developed economies grew at a rate of 0.5% to 2.5% in Q4. The low and stable expansion of recent years has changed suddenly with the onset of COVID-19. Many global economies will enter recession in 2020. On April 14th the IMF revised their 2020 global growth forecast from +3.3% to -3.0%.
- Governments are using monetary and fiscal policies to fill the large hole in spending and lending that the slowdown may cause. These policies vary in their characteristics and aggressiveness.
- Governments with limited ability to implement stimulus policies may face tougher economic fallout.
 Specifically, European Union member nations that cannot exercise independent actions may see greater difficulties ahead as income gaps cannot be supplemented with fiscal spending.

- The World Trade Organization (WTO) forecast a 13%-32% fall in global trade in 2020 – a larger decrease than witnessed during the global financial crisis. This forecast was paired with the expectation of a 21%-24% rebound in trade throughout 2021.
- While not yet reflected in the most recent economic data, unemployment rates around the world are certain to rise considerably.
- The COVID-19 virus breakout originated in China, and many investors have pointed to China as a testcase for how the virus might play out economically. Although the data released by China suggests the outbreak has been defeated, there is increasing evidence that the severity of virus has been underreported – perhaps severely.

Area	GDP (Real, YoY)	Inflation (CPI, YoY)	Unemployment
United States	0.3% 3/31/20	1.5% 3/31/20	4.4% 3/31/20
Eurozone	1.0% 12/31/19	0.7% 3/31/20	7.3% 2/29/20
Japan	(0.7%) 12/31/19	0.4% 3/31/20	2.3% 2/29/20
BRICS Nations	5.0% 12/31/19	4.9 % <i>3/31/20</i>	5.0% 12/31/19
Brazil	1.7% 12/31/19	3.3% 3/31/20	11.6% 2/29/20
Russia	2.1% 12/31/19	2.6% 3/31/20	4.6 % <i>2/29/20</i>
India	4.7 % 12/31/19	5.9% 3/31/20	8.5% 12/31/17
China	6.0% 12/31/19	4.3 % <i>3/31/20</i>	3.6% 12/31/19



Equity environment

- U.S. equities experienced an unusually sudden and significant sell-off in March as investors grew fearful of the health and economic impacts of COVID-19 spread.
 During Q1 the S&P 500 fell -19.6%, international developed equities (MSCI EAFE) fell -22.8% and emerging markets (MSCI EM) fell -23.6%.
- The greatest influence on equity performance in 2020 will perhaps be the path of corporate earnings.
 The degree to which corporate earnings will fall is largely unknown with few reliable estimates.
- Implied volatility spiked in March to a record daily close of 82.7%, surpassing the high of 80.9% in November 2008 during the depths of the global financial crisis.
- In March, a squabble between
 OPEC+ members led to a historic drop in energy prices. The energy sector faces sharply falling demand

- and potentially significant oversupply due to oil producers' decision to ramp up production in an oil war. The energy sector experienced a loss of -50.5% in Q1.
- The U.S. dollar appreciated significantly in the first quarter, rising 7.1% on a trade-weighted basis, resulting in large losses for investors with unhedged currency exposure. As is often the case during higher risk market environments, demand for safehaven currencies positively impacted the dollar.
- Value stocks severely underperformed growth stocks during the first quarter (Russell 1000 Value -26.7%, Russell 1000 Growth -14.1%). Small cap stocks underperformed large cap stocks by a similar magnitude (Russell 2000 -30.6%, Russell 1000 -20.2%). Value and size factors continue to experience an extended period of relative underperformance.

	QTD TOTA	L RETURN	1 YEAR TOT	AL RETURN
	(unhedged)	(hedged)	(unhedged)	(hedged)
US Large Cap (S&P 500)	(19.	6%)	(7.0	0%)
US Small Cap (Russell 2000)	(30.	6%)	(24.	0%)
US Large Value (Russell 1000 Value)	(26.	7%)	(17.2%)	
US Large Growth (Russell 1000 Growth)	(14.1%)		(0.9%)	
International Large (MSCI EAFE)	(22.8%)	(19.9%)	(14.4%)	(10.3%)
Eurozone (Euro Stoxx 50)	(27.0%)	(24.8%)	(16.6%)	(12.0%)
U.K. (FTSE 100)	(28.8%)	(23.0%)	(22.0%)	(16.4%)
Japan (NIKKEI 225)	(18.6%)	(18.8%)	(6.7%)	(6.8%)
Emerging Markets (MSCI Emerging Markets)	(23.6%)	(18.5%)	(17.7%)	(12.7%)

Source: Russell Investments, MSCI, STOXX, FTSE, Nikkei, as of 3/31/20



Domestic equity

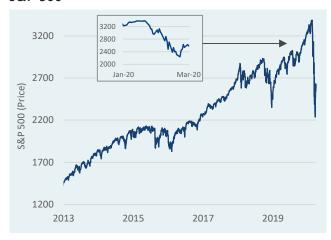
U.S. equities experienced an unusually sudden and significant sell-off in March as investors grew fearful of the health and economic impacts of COVID-19 spread. During Q1 the S&P 500 fell -19.6%, international developed equities (MSCI EAFE) fell -22.8% and emerging markets (MSCI EM) fell -23.6%.

At the same time that COVID-19 was spreading throughout the U.S., a squabble between OPEC+ members led to a historic drop in energy prices. The energy sector faces a perfect storm — sharply falling demand due to a global economic slowdown, and potentially significant oversupply due to oil producers' decision to ramp up production in an oil war. The energy sector experienced a loss of -50.5% in Q1.

The greatest influence on equity performance in 2020 will perhaps be the path of corporate earnings. The degree to which corporate earnings will fall throughout the year is largely unknown with few reliable estimates.

We continue to believe an underweight to international developed equities is appropriate. The economic pain that European Union member countries face may be significant, and membership to the EU inherently limits the ability of these countries to enact certain changes to address weakening economies. The U.S. market may continue to perform relatively well throughout the economic recovery.

S&P 500

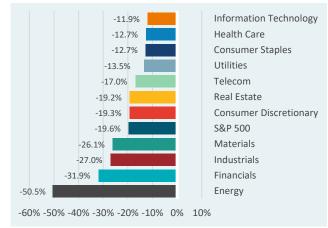


WORST S&P 500 MAX MONTHLY DRAWDOWNS



Source: Standard & Poor's, as of 3/31/20

Q1 SECTOR PERFORMANCE



Source: Standard & Poor's, as of 3/31/20



Source: Standard & Poor's, as of 3/31/20

Domestic equity size & style

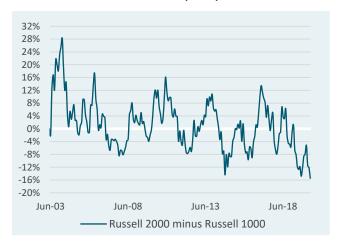
Value stocks severely underperformed growth stocks during the first quarter (Russell 1000 Value -26.7%, Russell 1000 Growth -14.1%). Small cap stocks underperformed large cap stocks by a similar magnitude (Russell 2000 -30.6%, Russell 1000 -20.2%). Value and size factors continue to experience a surprisingly long period of relative underperformance.

Once again, the impact of sector performance on the value premium in Q1 was notable – specifically energy and financial sectors (-50.5% and -31.9%, respectively) which tend to be value-tilted. Energy prices saw a historic drop fueled by OPEC+ infighting and likely the intent of the cartel to push out U.S. energy producers. Financial stocks delivered losses as

falling interest rates hurt profitability. Information Technology (-11.9%), a sector that tends to contain more growth stocks, was the best performer.

We believe that it is extremely difficult to successfully make short-term bets on style factors. Factor performance can be incredibly noisy and vulnerable to sector randomness. Market events of the past month seem to support this belief. While value in particular continues to be historically cheap, price itself does not translate to short-term outperformance — a catalyst for a turnaround should also be clearly identified and understood. We remain watchful and believe that consistent long-term exposure to these style factors is an ideal implementation approach for most investors, most of the time.

SMALL CAP VS LARGE CAP (YOY)



VALUE VS GROWTH (YOY)



Source: FTSE, as of 3/31/20

VALUE HISTORICALLY CHEAP



Source: Russell, Bloomberg, as of 3/31/20



Source: FTSE, as of 3/31/20

International developed equity

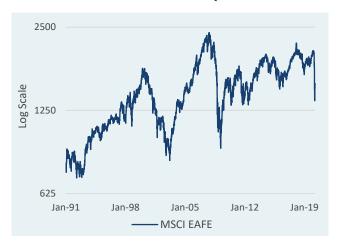
Equity markets around the world sold off broadly in the first quarter, down between -16% to -29%. Japanese equities were among the best performing (MSCI Japan -17%) while the U.K. was one of the worst performing (MSCI U.K. -29%).

As the global transactional currency, demand for U.S. dollars tends to ramp up when markets become stressed and companies abroad require dollars to pay down dollar-denominated liabilities. In the first quarter, the U.S. dollar gained +2.3% against the Euro and +6.4% against the British pound, resulting in losses for U.S. investors in European

equities with unhedged currency exposure. In mid-March, the Federal Reserve expanded its dollar swap liquidity lines and opened a FIMA repo facility which will allow foreign monetary authorities to enter repurchase agreements with the Fed. Both measures worked to help improve U.S. dollar liquidity abroad, and as a result, slow the pace of appreciation of the U.S. dollar relative to international pairs.

Cross-currency basis, which measure the additional premia investors must pay to swap one currency for another over a term, narrowed in March, signaling that the Fed's efforts to ease dollar funding strains have proved effective thus far.

INTERNATIONAL DEVELOPED EQUITIES



EFFECT OF CURRENCY (1-YEAR ROLLING)



Source: MSCI, as of 3/31/20

3M/3M CROSS CURRENCY BASIS SWAPS



Source: Bloomberg, as of 3/31/20



Source: MSCI, as of 3/31/20

Emerging market equity

Emerging market equities (MSCI EM -23.6%) underperformed both U.S. (S&P 500 -19.6%) and international developed equities (MSCI EAFE -22.8%) over the quarter. Within the complex, Latin American equities (MSCI EM Latin American -45.6%) dramatically underperformed Asian equities (MSCI EM Asia -18.1%), which were propped up by remarkably resilient Chinese equity markets. Currency exposure also played a big role in the outperformance of EM Latin America over EM Asia, as the U.S. dollar strengthened significantly against the Brazilian real, and the Mexican peso, and was little changed against the Chinese renminbi.

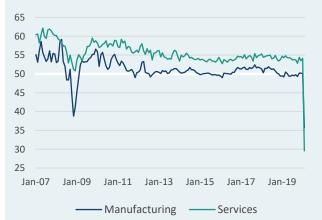
Inflation remains low in emerging economies and may face downward pressure in the coming months as energy prices have fallen. Central banks may have more room to maneuver relative to developed economies with regard to monetary policy, as interest rates are closer to average levels.

Countries viewed as having poor health infrastructure as well as economic dependence on oil prices fared the worst. Mexico's sovereign debt rating was downgraded by several rating agencies, and Moody's downgraded South Africa's sovereign debt rating below investment-grade.

EMERGING MARKET EQUITY



CHINA PURCHASING MANAGERS' INDICES



Source: China Federation of Logistics and Purchasing, as of 2/29/20

INFLATION (CPI YOY)



Source: Bloomberg, as of 2/29/20



Source: MSCI, as of 3/31/20

Interest rate environment

- In mid-March, the Federal Open
 Market Committee cut interest rates
 by a full 1.00% to a new range of 0 –
 0.25%. This surprise action was
 taken on a Sunday with the intent to
 get out ahead of the economic
 impacts of COVID-19.
- On April 9th, the Federal Reserve announced an additional \$2.3 Trillion program aimed towards providing financing to small businesses and municipalities. The program included \$1M-\$25M sized loans at an interest rate of 2.5%-4.0% with a four-year maturity. This move involved Fed purchases of certain types of low-grade speculative debt, a reversal from comments just weeks earlier that the Federal Reserve would stick to investment-grade debt purchases.
- The European Central Bank (ECB) announced a €750B asset purchase program in March to address effects of the virus. ECB President Christine Lagarde claimed that there are "no limits to our commitment to the

- euro". Bond yields of Euro member countries fell on the news.
- Central banks are now facing a unique problem – an immediate economic slowdown and need for monetary policy support, but very little room to cut interest rates to provide that support. This is a risk that has been discussed by investors for years, only now becoming reality. We believe fiscal policies will play a much larger role in addressing the inevitable economic slowdown.
- The Federal Reserve rolled out several liquidity programs which were components of its Global Financial Crisis playbook and are aimed at ensuring the flow of credit to U.S. households and businesses, as well as financial market stability. The New York Fed began offering up to \$500B in overnight liquidity through repurchase agreements and has expanded dollar swap lines to alleviate any possible strains in global U.S. dollar funding markets.

Area	Short Term (3M)	10-Year
United States	0.09%	0.67%
Germany	(0.71%)	(0.47%)
France	(0.50%)	(0.02%)
Spain	(0.23%)	0.67%
Italy	(0.05%)	1.52%
Greece	0.16%	1.63%
U.K.	0.03%	0.36%
Japan	(0.30%)	0.01%
Australia	0.37%	0.76%
China	1.34%	2.58%
Brazil	3.37%	7.77%
Russia	5.47%	6.70%

Source: Bloomberg, as of 3/31/20



Yield environment

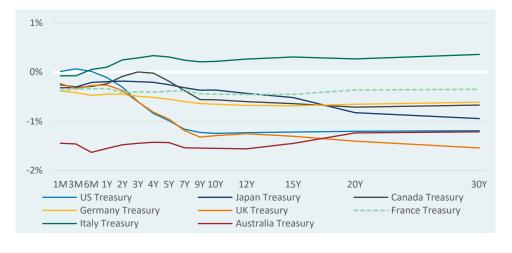
U.S. YIELD CURVE



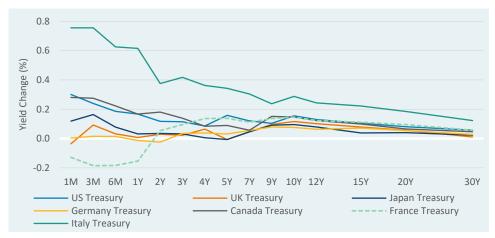
GLOBAL GOVERNMENT YIELD CURVES



YIELD CURVE CHANGES OVER LAST FIVE YEARS



IMPLIED CHANGES OVER NEXT YEAR



Source: Bloomberg, as of 3/31/20



Currency

The U.S. dollar appreciated significantly in the first quarter, rising 7.1% on a trade-weighted basis, resulting in losses for investors with unhedged currency exposure. As is often the case during higher risk market environments, demand for safe-haven currencies contributed to the rising dollar.

Historically speaking, environments where the U.S. dollar was much more expensive than average tended to be followed by an eventual mean-reversion. However, this mean-reversion effect is not a sure bet, and it can take years (or perhaps decades) to occur. As recent years have shown,

leaving currency exposure unhedged tends to result in uncompensated volatility, and occasional (or frequent) large and sharp losses or gains.

The MSCI Currency Factor Mix Index, constructed as a combination of individual Currency Factor indices (carry, value, momentum) advanced 1.2% in Q1. The momentum factor (+8.7%) posted strong gains as appreciating currencies continued to strengthen while the carry factor (-7.2%) lagged as the exchange rate adjustments implied by local interest rate differentials occurred faster than expected.

BLOOMBERG DOLLAR SPOT INDEX



Source: Bloomberg, as of 3/31/20

USD CURRENCY LEVEL & SUBSEQUENT RETURN



Source: Federal Reserve, Verus, as of 3/31/20

EMBEDDED CURRENCY VS CURRENCY BETA



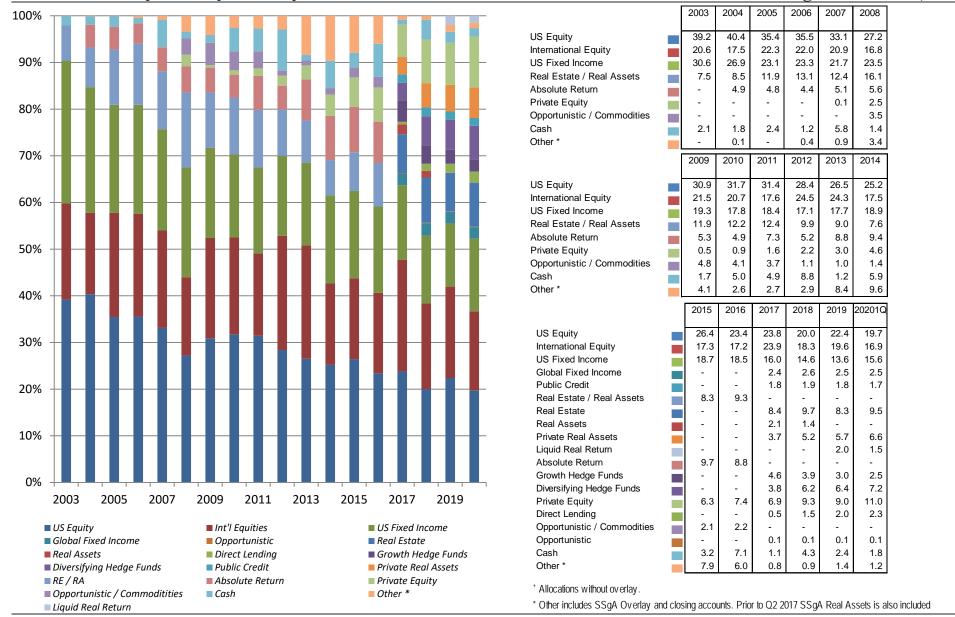
Source: MSCI, Bloomberg, as of 3/31/20



Total Fund

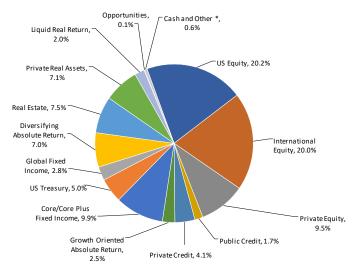
Actual Yearly and Quarterly Asset Allocation

Period Ending: March 31, 2020

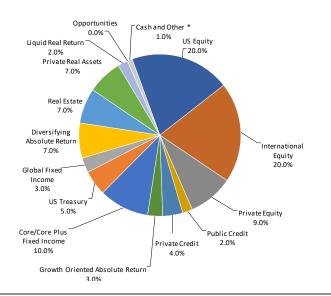




Current w/Overlay



ASSET ALLOCATION	MARKET VALUE W/OVERLAY	W/OVERLAY	W/O OVERLAY
US Equity	1,865,594,637	20.2%	19.7%
International Equity	1,852,602,193	20.0%	16.9%
Private Equity	878,791,827	9.5%	10.9%
Public Credit	154,533,470	1.7%	1.7%
Private Credit	377,439,244	4.1%	2.3%
Growth Oriented Absolute Return	236,049,992	2.5%	2.5%
Core/Core Plus Fixed Income	920,600,825	9.9%	10.2%
US Treasury	463,669,688	5.0%	5.4%
Global Fixed Income	258,696,583	2.8%	2.5%
Diversifying Absolute Return	649,812,621	7.0%	7.2%
Real Estate	693,833,005	7.5%	9.5%
Private Real Assets	661,327,256	7.1%	6.6%
Liquid Real Return	184,877,772	2.0%	1.5%
Opportunities	6,691,688	0.1%	0.1%
Cash and Other *	53,343,327	0.6%	3.0%
TOTAL	9,257,864,129	100.0%	100.0%



ASSET ALLOCATION	ACTUAL	TARGET	DIFF
US Equity	20.2%	20.0%	0.2%
International Equity	20.0%	20.0%	0.0%
Private Equity	9.5%	9.0%	0.5%
Public Credit	1.7%	2.0%	-0.3%
Private Credit	4.1%	4.0%	0.1%
Growth Oriented Absolute Return	2.5%	3.0%	-0.5%
Core/Core Plus Fixed Income	9.9%	10.0%	-0.1%
US Treasury	5.0%	5.0%	0.0%
Global Fixed Income	2.8%	3.0%	-0.2%
Diversifying Absolute Return	7.0%	7.0%	0.0%
Real Estate	7.5%	7.0%	0.5%
Private Real Assets	7.1%	7.0%	0.1%
Liquid Real Return	2.0%	2.0%	0.0%
Opportunities	0.1%	0.0%	0.1%
Cash and Other *	0.6%	1.0%	-0.4%



^{*} Other includes closing accounts (Heitman), Transition Account and SSgA Overlay of \$109 million.

- The Total Plan returned -9.8% net in the first quarter of 2020 and ranked in the first quartile among other public funds greater than \$1 billion (-12.6% median plan return). The Fund lagged its policy index (-9.2%) during this time period. The Total Plan w/o Overlay returned -10.0% for the quarter, net of fees. Longer term, the three-year return of 5.3% beat the median large public plan peer group (2.6%) and ranked in the top decile. The five-year returns of 4.9% ranked in the top decile of all large public plans in the universe.
- First quarter results (net) were enhanced by the following factors:
 - Weatherbie beat the Russell 2000 Growth index (-18.3% vs. -25.8%) and ranked in the top of its peers. The portfolio benefited
 from an overweight position in the information technology and consumer discretionary sectors, which had some of the best
 sector return for the quarter.
 - Walter Scott lost 12.7% ranked in the top percentile of its peers and beat the MSCI ACWI ex US Growth (-17.7%.) Walter Scott
 noted their focus on quality balance sheets helped in international markets during the quarter.
 - JP Morgan 130/30 lost -17.2% beating the Russell 1000 (-20.2%). Shorts in the retail, REITS, and energy holdings contributed to relative outperformance.
 - The U.S. Treasury portfolio managed by Neuberger Berman was up 8.2% for the quarter. As intended, this portfolio helped during turbulent markets.
- First quarter results (net) were hindered by the following factors:
 - Eagle Equity lost -23.7% trailing the Russell 1000 which lost -20.2%. Eagles sizable stakes in banks, travel, and aerospace hurt their relative performance.
 - Growth Absolute return managers lost -15.4%, underperforming the HFRI FoF index (-8.3%). Negative results weighed on the total portfolio's relative returns.
 - 3. Brigade Capital trailed its custom index (-17.6% vs -13.2%). Brigade's investments in high yield, EMD, and investment grade securities hurt relative performance during the quarter as spreads widened significantly.



	Market Value (\$)	% of Portfolio	3 Mo (%)		Fiscal YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	Inception (%)	Inception Date ⁺
Total Fund - Gross*	9,257,864,129	100.0	-9.7	15	-4.3	9	-1.1	6	5.5	3	5.2	6	8.1	Jun-86
Total Fund - Net			-9.8	16	-4.4	10	-1.3	12	5.3	4	4.9	9	7.8	
Policy Index1++			-9.2	13	-4.8	16	-1.8	16	4.0	16	4.5	17	8.2	Jun-86
InvMetrics Public DB > \$1B Gross Median			-12.6		-7.9		-4.9		2.6		3.4		7.7	Jun-86
Total Fund ex Overlay - Gross [™]	9,149,284,885	98.8	-10.0	19	-4.6	15	-1.5	14	5.4	4	5.2	6	7.9	Jun-86
Total Fund ex Overlay - Net			-10.0	20	-4.8	16	-1.8	15	5.2	4	5.0	8	7.7	
Policy Index			-9.2	13	-4.8	16	-1.8	16	4.0	16	4.5	17	8.2	Jun-86
Allocation ex Overlay Index			-9.2	11	-4.9	16	-2.0	16	4.1	15				Jun-86
Growth Asset Category - Gross	5,009,776,695	54.1	-16.4		-9.3		-5.8		5.0				5.0	Mar-17
Growth Asset Category - Net			-16.4		-9.4		-6.0		4.7				4.7	
Growth Custom ¹			-15.6		-9.5		-6.1		3.7				3.7	Mar-17
Public Equities - Gross	3,393,417,686	36.7	-21.8		-14.5		-11.2		2.4		3.9		6.3	Jun-11
Public Equities - Net			-21.8		-14.7		-11.6		2.0		3.5		5.9	
MSCI ACWI			-21.4		-14.3		-11.3		1.5		2.8		5.1	Jun-11
US Equity - Gross	1,825,697,587	19.7	-21.1	27	-13.3	24	-9.6	26	3.9	24	5.6	25	9.4	Jun-86
US Equity - Net			-21.1	29	-13.4	25	-9.9	29	3.7	29	5.3	34	9.2	
Russell 3000 ¹			-20.9	24	-12.7	17	-9.1	18	4.0	21	5.8	19	9.6	Jun-86
InvMetrics All DB US Eq Gross Median			-22.2		-14.8		-11.3		2.8		4.7		9.4	Jun-86
Large Cap - Gross	1,671,351,021	18.1	-20.6	-	-12.4	-	-8.6		4.5		6.1		5.6	Mar-98
Large Cap - Net			-20.6		-12.5		-8.8		4.2		5.8		5.4	
Russell 1000			-20.2		-11.8		-8.0		4.6		6.2		6.1	<i>Mar-</i> 98

^{1.} See Policy Index and Benchmark History



^{*}Total Fund and asset class composites are ranked against InvestorForce universes. Managers are ranked against eVest manager universes. Net Returns are ranked against gross universe. Ranking of 1 is a top ranking and ranking of 100 is a bottom rating.

^{**}Total Fund ex Overlay returns from 2/1/2006-12/31/2010 were calculated using the overlay impact provided by SSgA.

⁺ Since inception date denotes last day of the month.

⁺⁺ Thomson Reuters C|A All Private Equity, Cambridge Associates Private Energy and Cambridge Associates Private Infrastructure Indicies are preliminary.

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	Fiscal YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	Inception (%)	Inception Date
Large Cap - Index - Gross	1,009,788,531	10.9	-20.1		-11.7		-7.9		4.6		6.2		9.5	Sep-08
Large Cap - Index - Net			-20.1	-	-11.7	-	-8.0		4.6		6.2		9.4	
Russell 1000			-20.2		-11.8		-8.0		4.6		6.2		9.5	Sep-08
AB - Gross	1,009,788,531	10.9	-20.1	59	-11.7	60	-7.9	60	4.6	62	6.2	70	9.4	Apr-89
AB - Net			-20.1	59	-11.7	60	-8.0	62	4.6	66	6.2	72	9.4	
Russell 1000			-20.2	66	-11.8	65	-8.0	64	4.6	66	6.2	70		Apr-89
eV US Passive Large Cap Equity Gross Median			-19.6		-10.9		-7.0		5.1	_	6.7		9.4	Apr-89
Large Cap - Enhanced - Gross	210,598,425	2.3	-21.0		-13.5		-11.0						-6.7	Jul-18
Large Cap - Enhanced - Net			-21.0	-	-13.7	-	-11.2		-				-6.9	
Russell 1000			-20.2		-11.8		-8.0		4.6		6.2		-3.8	Jul-18
AQR US Enhanced Equity - Gross	210,598,425	2.3	-21.0	53	-13.5	60	-11.0	64					-6.7	Jul-18
AQR US Enhanced Equity - Net			-21.0	53	-13.7	62	-11.2	68					-6.9	
Russell 1000			-20.2	36	-11.8	34	-8.0	32	4.6	36	6.2	39	-3.8	Jul-18
eV US Enh Equity Gross Median			-20.9		-12.7		-9.4		4.1		5.9		-4.7	Jul-18
Large Cap (130/30) - Gross	232,492,467	2.5	-19.1		-10.4		-7.2		3.9		5.8		10.0	Sep-08
Large Cap (130/30) - Net			-19.2	-	-10.7	-	-7.7		3.3		5.1		9.4	
Russell 1000			-20.2		-11.8		-8.0		4.6		6.2		9.5	Sep-08
JP Morgan 130/30 - Gross	121,985,737	1.3	-17.1	16	-8.0	12	-4.1	13	5.3	22	6.6	31	10.1	Jul-08
JP Morgan 130/30 - Net			-17.2	16	-8.4	13	-4.8	17	4.6	26	5.9	36	9.4	
Russell 1000			-20.2	45	-11.8	37	-8.0	36	4.6	26	6.2	34	8.5	Jul-08
eV Extended US Equity Gross Median			-21.0		-13.2		-10.2		1.9		4.5		8.8	Jul-08
DE Shaw Broad Mkt Core Alpha Ext - Gross	110,506,730	1.2	-21.2	57	-12.8	49	-10.4	51					-5.3	Jan-19
DE Shaw Broad Mkt Core Alpha Ext - Net			-21.3	57	-13.1	50	-10.8	52					-5.6	
Russell 1000			-20.2	45	-11.8	37	-8.0	36	4.6	26	6.2	34	-2.8	Jan-19
eV Extended US Equity Gross Median			-21.0		-13.2		-10.2		1.9		4.5		-6.7	Jan-19



	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	Fiscal YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	Inception (%)	Inception Date
Large Cap Active - Gross	218,471,599	2.4	-23.6		-16.5		-10.5		3.0		5.4		8.7	Sep-08
Large Cap Active - Net			-23.7		-16.9		-11.2		2.2		4.6		8.0	
Russell 1000 ¹			-20.2		-11.8		-8.0		1.7		4.3		7.7	Sep-08
Eagle Capital - Gross	218,451,334	2.4	-23.6	87	-16.5	88	-10.5	71	4.0	54	6.2	43	10.8	Feb-12
Eagle Capital - Net			-23.7	87	-16.9	91	-11.2	76	3.2	66	5.4	59	10.0	
Russell 1000			-20.2	56	-11.8	47	-8.0	50	1.7	78	4.3	78	9.0	Feb-12
eV US Large Cap Core Equity Gross Median			-19.8		-12.1		-8.1		4.2		5.8		9.9	Feb-12
Small Cap - Gross	154,346,565	1.7	-26.0		-21.5		-19.5		1.0		3.4		10.8	Dec-90
Small Cap - Net			-26.3		-22.0		-20.2		0.4		2.8		10.1	
Russell 2000			-30.6		-25.5		-24.0		-4.6		-0.2		9.2	Dec-90
Small Cap - Growth - Gross	89,869,432	1.0	-17.8		-15.4		-12.1		11.7		9.1		10.7	Sep-08
Small Cap - Growth - Net			-18.3		-16.0		-13.2		11.0		8.5		10.0	
Russell 2000 Growth			-25.8		-20.8		-18.6		0.1		1.7		8.1	Sep-08
Weatherbie - Gross	89,869,432	1.0	-17.8	14	-15.4	22	-12.1	31	13.9	7	12.1	5	12.1	Dec-02
Weatherbie - Net			-18.3	16	-16.0	25	-13.2	35	13.2	8	11.4	6	11.2	
Russell 2000 Growth			-25.8	69	-20.8	60	-18.6	66	0.1	78	1.7	80	9.1	Dec-02
eV US Small Cap Growth Equity Gross Median			-23.6		-19.9		-15.7		3.8		4.2		11.0	Dec-02
Small Cap - Value - Gross	64,477,133	0.7	-35.1		-28.7		-27.9		-9.7		-2.5		5.2	Sep-08
Small Cap - Value - Net			-35.2		-29.0		-28.3		-10.3		-3.2		4.4	
Russell 2000 Value			-35.7		-30.6		-29.6		-9.5		-2.4		4.1	Sep-08
Dalton, Greiner - Gross	64,477,132	0.7	-35.1	52	-28.7	40	-27.9	45	-9.6	61	-2.6	65	7.6	Dec-00
Dalton, Greiner - Net			-35.2	53	-29.0	41	-28.3	48	-10.0	66	-3.2	71	6.8	
Russell 2000 Value			-35.7	58	-30.6	55	-29.6	61	-9.5	60	-2.4	62	6.2	Dec-00
eV US Small Cap Value Equity Gross Median			-35.0		-29.8		-28.6		-8.6		-2.0		8.2	Dec-00

^{1.} See Policy Index and Benchmark History.



	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	Fiscal YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	Inception (%)	Inception Date
International Equity - Gross	1,567,720,100	16.9	-22.6	27	-15.9	20	-13.0	22	0.6	13	1.5	13	5.7	Dec-87
International Equity - Net			-22.6	27	-16.1	23	-13.5	24	0.1	17	1.0	18	5.4	
MSCI ACWI ex US ¹			-23.3	34	-17.8	39	-15.1	39	-1.5	32	-0.2	41	5.4	Dec-87
InvMetrics All DB ex-US Eq Gross Median			-24.3		-18.4		-16.0		-2.4		-0.5		6.0	Dec-87
International - Developed - Gross	1,274,741,686	13.8	-21.6	34	-14.9	33	-11.5	35	1.1	28	2.2	23	3.7	Mar-98
International - Developed - Net			-21.7	35	-15.1	36	-12.1	39	0.6	34	1.7	28	3.3	
MSCI World ex US Gross			-23.1	51	-17.8	59	-14.4	52	-1.6	56	-0.3	61	3.7	Mar-98
InvMetrics All DB Dev Mkt ex-US Eq Gross Median			-23.1		-16.8		-14.1		-1.0		0.5		4.2	Mar-98
Lazard - Gross	307,638,930	3.3	-24.3	60	-19.0	65	-16.2	62	-0.1	44	0.4	56	5.4	Jun-12
Lazard - Net			-24.4	61	-19.2	66	-16.5	65	-0.4	47	0.1	60	5.1	
MSCI ACWI ex USA Gross			-23.3	49	-17.8	54	-15.1	55	-1.5	55	-0.2	62	3.5	Jun-12
eV All ACWI ex-US Equity Gross Median			-23.3		-17.0		-14.3		-0.8		0.7		5.0	Jun-12
Walter Scott & Partners Limited - Gross	497,946,660	5.4	-12.7	1	-5.8	1	-0.7	10	7.8	3			7.8	Mar-17
Walter Scott & Partners Limited - Net			-12.7	1	-5.9	1	-1.7	12	7.0	5			7.0	
MSCI World ex USA Growth GR USD			-17.7	37	-11.4	44	-6.1	40	3.1	53	2.5	41	3.1	Mar-17
eV EAFE Large Cap Growth Gross Median			-19.2		-12.0		-7.5		3.4		2.0		3.4	Mar-17
LSV - Gross	320,181,509	3.5	-28.5	68	-21.3	55	-19.7	59	-4.8	56	-1.2	38	2.6	Dec-04
LSV - Net			-28.6	70	-21.5	55	-20.1	60	-5.2	64	-1.6	47	2.1	
MSCI World ex US Value Gross			-28.6	71	-24.2	81	-22.6	78	-6.1	73	-3.1	87	2.2	Dec-04
eV EAFE Large Cap Value Gross Median			-25.9		-20.4		-18.9		-4.5		-1.7		3.0	Dec-04
Mondrian Dev Small Cap - Gross	75,193,785	0.8	-27.9	58	-21.1	58	-17.6	51	-1.8	54	1.1	54	5.7	Aug-10
Mondrian Dev Small Cap - Net			-27.9	58	-21.4	59	-18.0	53	-2.4	55	0.5	61	5.1	
MSCI World ex US Small Cap GD			-28.3	63	-20.3	49	-18.7	60	-3.2	65	0.8	58	5.2	Aug-10
eV ACWI ex-US Small Cap Equity Gross Median			-26.4		-20.5		-17.5		-1.2		2.0		6.8	Aug-10
William Blair Dev Small Cap - Gross	73,780,804	0.8	-25.0	34	-14.7	20	-9.9	17	-0.7	46	1.9	51	7.0	Sep-08
William Blair Dev Small Cap - Net			-25.2	38	-15.3	28	-10.7	24	-1.6	53	1.0	56	6.0	
MSCI World ex US Small Cap GD			-28.3	63	-20.3	49	-18.7	60	-3.2	65	0.8	58	5.6	Sep-08
eV ACWI ex-US Small Cap Equity Gross Median			-26.4		-20.5		-17.5		-1.2		2.0		7.4	Sep-08

^{1.} See Policy Index and Benchmark History.



	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	Fiscal YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	Inception (%)	Inception Date
International - Emerging - Gross	292,960,425	3.2	-26.3	58	-20.0	48	-18.9	47	-1.3	14	-0.5	36	5.0	Jan-00
International - Emerging - Net			-26.3	58	-20.1	49	-19.1	49	-1.6	18	-0.8	45	4.6	
MSCI Emerging Markets Gross			-23.6	22	-18.0	23	-17.4	32	-1.3	13	0.0	26	5.5	Jan-00
InvMetrics All DB Emg Mkt Eq Gross Median			-25.7		-20.3		-19.3		-3.4		-1.0		6.0	Jan-00
Baillie Gifford Emg All Cap - Gross	157,500,477	1.7	-26.5	66	-19.8	52	-17.9	46	1.8	15			6.5	Mar-16
Baillie Gifford Emg All Cap - Net			-26.5	66	-19.8	52	-17.9	46	1.8	15			6.5	
MSCI Emerging Markets Gross			-23.6	35	-18.0	36	-17.4	41	-1.3	38	0.0	52	3.2	Mar-16
eV Emg Mkts Equity Gross Median			-24.8		-19.6		-18.5		-2.0		0.1		2.8	Mar-16
Mondrian Emg All Cap - Gross	135,459,948	1.5	-26.0	64	-20.3	56	-20.0	63	-4.2	73			0.0	Mar-16
Mondrian Emg All Cap - Net			-26.0	64	-20.5	59	-20.4	66	-4.7	77			-0.5	
MSCI Emerging Markets Gross			-23.6	35	-18.0	36	-17.4	41	-1.3	38	0.0	52	3.2	Mar-16
eV Emg Mkts Equity Gross Median			-24.8		-19.6		-18.5		-2.0		0.1		2.8	Mar-16



	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	Fiscal YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	Inception (%)	Inception Date
Private Equity - Gross*****	1,011,621,977	10.9	3.7	22	12.6	18	18.5	16	20.7	6	15.6	14	4.1	Feb-08
Private Equity - Net			3.7	22	12.6	18	18.5	16	20.7	6	15.6	14	4.3	
Thomson Reuters C A All PE 1 Qtr Lag1*			4.4	17	8.8	37	13.6	36	13.2	41	11.7	41	10.4	Feb-08
Russell 3000 +3% 1Q Lag			9.8	1	17.0	5	34.0	1	17.6	17	14.3	20	12.0	Feb-08
InvMetrics All DB Private Eq Net Median			1.7		6.1		9.4		11.9		11.0		8.4	Feb-08
Abbott VI - Gross***	42,637,926	0.5	0.0		6.0		10.0		15.8		14.9		5.1	Jul-08
Abbott VI - Net			0.0		6.0		10.0		15.8		14.9		-	
Thomson Reuters C A All PE 1 Qtr Lag			4.4		8.8		13.6		13.2		11.7		11.3	Jul-08
Accel-KKR IV - Gross	13,465,962	0.1	1.6		29.7		33.2		65.5		42.4		12.9	Jun-13
Accel-KKR IV - Net			1.6		29.7		33.2		65.5		42.4		12.9	
Thomson Reuters C A All PE 1 Qtr Lag			4.4		8.8		13.6		13.2		11.7		14.2	Jun-13
Accel-KKR V - Gross	12,571,911	0.1	4.6		46.5		47.4		22.2				20.9	Jan-17
Accel-KKR V - Net			4.6		46.5		47.4		22.2				20.9	
Thomson Reuters C A All PE 1 Qtr Lag			4.4		8.8		13.6		13.2		11.7		14.7	Jan-17
Accel-KKR Growth Partners II - Gross	9,937,339	0.1	6.1		37.7		37.3		27.4		6.4		6.3	Feb-15
Accel-KKR Growth Partners II - Net			6.1		37.7		37.3		27.4		6.4		6.3	
Thomson Reuters C A All PE 1 Qtr Lag			4.4		8.8		13.6		13.2		11.7		11.5	Feb-15
Accel-KKR Growth Partners III - Gross	5,406,562	0.1	-0.7										-26.3	Jul-19
Accel-KKR Growth Partners III - Net			-0.7										-26.3	
Thomson Reuters C A All PE 1 Qtr Lag			4.4		8.8		13.6		13.2		11.7		8.8	Jul-19
Atalaya Special Opp VI - Gross	15,752,975	0.2	3.9		10.0		13.2		11.5				9.5	Apr-16
Atalaya Special Opp VI - Net			3.9		10.0		13.2		11.5				9.5	
Thomson Reuters C A All PE 1 Qtr Lag			4.4		8.8		13.6		13.2		11.7		15.5	Apr-16

^{1.} See Policy Index and Benchmark History.

⁺⁺⁺ Preliminary quarterly returns as of 3/31/2020 (Returns are not available at reporting period.)



^{*} Performance for Thomson Reuters C|A All PE 1 Qtr Lag is preliminary.

^{**} Private Equity Composite includes the historical returns of Summit Credit and Athyrium Opportunities up to 4/1/17.

⁺⁺ Returns are one-quarter lag.

⁺ Returns for private markets are shown on a time-weighted basis and may differ substantially from dollar-weighted returns.

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	Fiscal YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	Inception (%)	Inception Date
Cortec Group Fund VII - Gross Cortec Group Fund VII - Net	6,788,774	0.1	-0.9 -0.9										-0.9 -0.9	Dec-19
Thomson Reuters C A All PE 1 Qtr Lag			4.4	-	8.8		13.6		13.2		11.7		4.4	Dec-19
Davidson Kempner LT Dist Opp - Gross	31,460,717	0.3	5.8		7.5		8.5						12.5	Mar-18
Davidson Kempner LT Dist Opp - Net			5.8	-	7.5		8.5						12.5	
Thomson Reuters C A All PE 1 Qtr Lag			4.4		8.8		13.6		13.2		11.7		12.3	Mar-18
Dyal Capital Partners II - Gross	17,811,171	0.2	-2.4		-0.4		-0.6		-8.4		-9.1		-8.7	Dec-14
Dyal Capital Partners II - Net			-2.4		-0.4		-0.6		-8.4		-9.1		-8.7	
Thomson Reuters C A All PE 1 Qtr Lag			4.4		8.8		13.6		13.2		11.7		12.1	Dec-14
Dyal Capital Partners III - Gross	21,751,813	0.2	10.1		14.3		16.6		14.8				19.9	Dec-16
Dyal Capital Partners III - Net			10.1		14.3		16.6		14.8				19.9	
Thomson Reuters C A All PE 1 Qtr Lag			4.4		8.8		13.6		13.2		11.7		13.7	Dec-16
Garrison Investment Group - Gross	13,650,356	0.1	-0.4		0.6		2.0		3.1		-2.4		1.0	May-12
Garrison Investment Group - Net			-0.4		0.6		2.0		3.1		-2.4		1.0	
Thomson Reuters C A All PE 1 Qtr Lag			4.4		8.8		13.6		13.2		11.7		14.9	May-12
Harbourvest VIII - Gross	13,011,951	0.1	1.6		4.2		9.5		13.2		12.2		9.7	Dec-07
Harbourvest VIII - Net			1.6		4.2		9.5		13.2		12.2			
Thomson Reuters C A All PE 1 Qtr Lag			4.4		8.8		13.6		13.2		11.7		10.0	Dec-07
Harbourvest Intl VI - Gross	33,925,441	0.4	7.5		11.1		14.8		16.8		13.9		-5.6	Mar-09
Harbourvest Intl VI - Net			7.5		11.1		14.8	-	16.8		13.9		-	
Thomson Reuters C A All PE 1 Qtr Lag			4.4		8.8		13.6		13.2		11.7		16.0	Mar-09
H.I.G. Bayside Loan III - Gross	10,283,030	0.1	-2.5		-1.4		-2.4		7.9		9.1		6.0	Jan-13
H.I.G. Bayside Loan III - Net			-2.5		-1.4		-2.4	-	7.9		9.1		6.0	
Thomson Reuters C A All PE 1 Qtr Lag			4.4		8.8		13.6		13.2		11.7		15.4	Jan-13
H.I.G. Capital V - Gross	15,461,268	0.2	6.0		21.7		22.0		30.8		20.5		11.5	Jul-13
H.I.G. Capital V - Net			6.0		21.7		22.0		30.8		20.5		11.5	
Thomson Reuters C A All PE 1 Qtr Lag			4.4		8.8	-	13.6		13.2		11.7		14.0	Jul-13



	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	Fiscal YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	Inception (%)	Inception Date
H.I.G. Europe Capital II - Gross*	10,660,133	0.1	3.8		10.5		13.2	-	12.1					Jan-14
H.I.G. Europe Capital II - Net			3.8		10.5		13.2	-	12.1		-		-	
Thomson Reuters C A All PE 1 Qtr Lag			4.4		8.8		13.6		13.2		11.7		13.0	Jan-14
Khosla IV - Gross	14,462,588	0.2	-0.7		0.5		15.4		25.1		20.8		17.1	Jul-11
Khosla IV - Net			-0.7		0.5		15.4		25.1		20.8		17.1	
Thomson Reuters C A All PE 1 Qtr Lag			4.4		8.8		13.6		13.2		11.7	-	14.0	Jul-11
Khosla V - Gross	25,925,387	0.3	4.4		8.8		9.4		12.9		10.6		9.4	Nov-14
Khosla V - Net			4.4		8.8		9.4		12.9		10.6		9.4	
Thomson Reuters C A All PE 1 Qtr Lag			4.4		8.8		13.6		13.2		11.7		11.6	Nov-14
Khosla VI - Gross	13,066,754	0.1	-1.3		1.4		2.3						-3.5	Aug-18
Khosla VI - Net			-1.3		1.4		2.3						-3.5	
Thomson Reuters C A All PE 1 Qtr Lag			4.4		8.8		13.6		13.2		11.7		13.8	Aug-18
Linden Capital - Gross	41,389,104	0.4	-0.1		23.0		38.5		31.5				20.8	Jun-16
Linden Capital - Net			-0.1		23.0		38.5		31.5				20.8	
Thomson Reuters C A All PE 1 Qtr Lag			4.4		8.8		13.6		13.2		11.7	-	14.1	Jun-16
Linden Capital Partners IV - Gross	12,454,297	0.1	-1.3		-3.8		-30.8						7.0	Sep-18
Linden Capital Partners IV - Net			-1.3		-3.8		-30.8						7.0	
Thomson Reuters C A All PE 1 Qtr Lag			4.4		8.8		13.6		13.2		11.7		10.8	Sep-18
Marlin Equity IV - Gross	15,309,488	0.2	2.0		6.0		10.7		8.3		8.0		4.8	Nov-13
Marlin Equity IV - Net			2.0		6.0		10.7		8.3		8.0		4.8	
Thomson Reuters C A All PE 1 Qtr Lag			4.4		8.8		13.6		13.2		11.7		14.1	Nov-13
Marlin Equity V - Gross	10,651,671	0.1	3.0		19.5		22.4						13.5	Feb-18
Marlin Equity V - Net			3.0		19.5		22.4						13.5	
Thomson Reuters C A All PE 1 Qtr Lag			4.4		8.8		13.6		13.2		11.7		14.0	Feb-18
Thomson Reuters C A All PE 1 Qtr Lag			4.4		8.8		13.6		13.2		11.7		14.0	Feb-18

^{*} Unable to calculate a since inception return due to system limitations when HIG Europe Capital II experienced 2 quarters of negative fund values in 2016.



	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	Fiscal YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	Inception (%)	Inception Date
Marlin Heritage - Gross	7,474,151	0.1	10.2	-	25.3		39.4		41.7		35.3		25.9	Jul-14
Marlin Heritage - Net			10.2		25.3	-	39.4	-	41.7		35.3		25.9	
Thomson Reuters C A All PE 1 Qtr Lag	0.0=0.=44		4.4		8.8		13.6		13.2		11.7		12.4	Jul-14
Marlin Heritage II - Gross	8,272,514	0.1	3.7		10.9		11.4						-3.7	Oct-17
Marlin Heritage II - Net			3.7		10.9		11.4						-3.7	
Thomson Reuters C A All PE 1 Qtr Lag			4.4		8.8		13.6		13.2		11.7		13.6	Oct-17
Marlin Heritage Europe - Gross	15,108,662	0.2	13.5		27.1		32.9			-			18.0	Aug-17
Marlin Heritage Europe - Net			13.5		27.1		32.9			-			18.0	
Thomson Reuters C A All PE 1 Qtr Lag			4.4		8.8		13.6		13.2		11.7		14.0	Aug-17
New Enterprise 14 - Gross	31,249,384	0.3	9.5		15.7		18.4		19.0		18.3		14.6	May-12
New Enterprise 14 - Net			9.5		15.7		18.4		19.0		18.3		14.6	
Thomson Reuters C A All PE 1 Qtr Lag			4.4		8.8		13.6		13.2		11.7		14.9	May-12
New Enterprise 15 - Gross	49,735,309	0.5	4.5		13.0		19.9		24.0				17.0	Apr-15
New Enterprise 15 - Net			4.5		13.0		19.9		24.0				17.0	
Thomson Reuters C A All PE 1 Qtr Lag			4.4		8.8		13.6		13.2		11.7		12.4	Apr-15
New Enterprise 16 - Gross	26,355,299	0.3	6.8		6.8	-	9.9						5.9	May-17
New Enterprise 16 - Net			6.8		6.8		9.9						5.9	
Thomson Reuters C A All PE 1 Qtr Lag			4.4		8.8		13.6		13.2		11.7		14.0	May-17
New Enterprise 17 - Gross	4,396,566	0.0	2.8										-0.5	Jul-19
New Enterprise 17 - Net			2.8										-0.5	
Thomson Reuters C A All PE 1 Qtr Lag			4.4		8.8		13.6		13.2		11.7		8.8	Jul-19
Private Equity X - Gross	22,782,107	0.2	0.9		0.4		1.6		12.7		6.4		-1.0	Jun-08
Private Equity X - Net			0.9		0.4		1.6		12.7		6.4			
Thomson Reuters C A All PE 1 Qtr Lag			4.4		8.8		13.6		13.2		11.7		11.6	Jun-08
RCP Multi-Fund Feeder - Gross*	13,823,114	0.1	0.0		0.7		-0.2						-7.5	Nov-18
RCP Multi-Fund Feeder - Net			0.0		0.7		-0.2						-7.5	
Thomson Reuters C A All PE 1 Qtr Lag			4.4		8.8		13.6		13.2		11.7		12.2	Nov-18

^{*} Preliminary quarterly returns as of 3/31/2020 (Returns are not available at reporting period.)



	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	Fiscal YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	Inception (%)	Inception Date
RRJ Capital Master Fund II - Gross RRJ Capital Master Fund II - Net	15,735,028	0.2	-2.4 -2.4		-8.0 -8.0	 	-3.3 -3.3		8.1 8.1		7.5 7.5		11.2 11.2	May-13
Thomson Reuters C A All PE 1 Qtr Lag			4.4		8.8		13.6		13.2		11.7		14.7	May-13
RRJ Capital Master Fund III - Gross	14,165,530	0.2	0.9		9.3		14.3		15.7	-			-6.9	Dec-15
RRJ Capital Master Fund III - Net			0.9		9.3		14.3		15.7	-			-6.9	
Thomson Reuters C A All PE 1 Qtr Lag			4.4		8.8		13.6		13.2		11.7		14.7	Dec-15
Spectrum Equity - Gross	35,218,058	0.4	1.3		60.6		70.5		61.7		27.5		20.7	Dec-14
Spectrum Equity - Net			1.3		60.6		70.5		61.7		27.5		20.7	
Thomson Reuters C A All PE 1 Qtr Lag			4.4		8.8		13.6		13.2		11.7		12.1	Dec-14
Spectrum Equity Fund VIII - Gross	16,887,827	0.2	-1.3		-4.7		-9.0						-63.9	Jun-18
Spectrum Equity Fund VIII - Net			-1.3		-4.7		-9.0						-63.9	
Thomson Reuters C A All PE 1 Qtr Lag			4.4		8.8		13.6		13.2		11.7		12.4	Jun-18
Summit EUR Growth Equity II - Gross	19,677,564	0.2	14.0		46.7		43.1						118.3	Jan-18
Summit EUR Growth Equity II - Net			14.0		46.7		43.1						118.3	
Thomson Reuters C A All PE 1 Qtr Lag			4.4		8.8		13.6		13.2		11.7		13.5	Jan-18
Summit Ventures III - Gross	16,041,014	0.2	5.9		10.5		16.7		17.8		19.0		12.4	Jun-12
Summit Ventures III - Net			5.9		10.5		16.7		17.8		19.0		12.4	
Thomson Reuters C A All PE 1 Qtr Lag			4.4		8.8		13.6		13.2		11.7		14.6	Jun-12
Summit Ventures IV - Gross	17,712,855	0.2	3.7		13.0		17.1		37.2				34.4	May-16
Summit Ventures IV - Net			3.7		13.0		17.1		37.2				34.4	
Thomson Reuters C A All PE 1 Qtr Lag			4.4		8.8		13.6		13.2		11.7		15.8	May-16
Thoma Bravo XI - Gross	49,223,752	0.5	28.9		56.5		78.2		49.2		32.4		26.9	Jun-14
Thoma Bravo XI - Net			28.9		56.5		78.2		49.2		32.4		26.9	
Thomson Reuters C A All PE 1 Qtr Lag			4.4		8.8		13.6		13.2		11.7		12.4	Jun-14
Thoma Bravo XII - Gross	42,523,177	0.5	12.9		22.9		37.4		18.5				9.0	May-16
Thoma Bravo XII - Net			12.9		22.9		37.4		18.5				9.0	
Thomson Reuters C A All PE 1 Qtr Lag			4.4		8.8		13.6		13.2		11.7		15.8	May-16



	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	Fiscal YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	Inception (%)	Inception Date
Thoma Bravo XIII - Gross	28,780,575	0.3	9.2		8.4		6.8						6.2	Feb-19
Thoma Bravo XIII - Net			9.2		8.4		6.8						6.2	
Thomson Reuters C A All PE 1 Qtr Lag			4.4		8.8		13.6		13.2		11.7		11.3	Feb-19
Threshold Ventures III - Gross	3,413,128	0.0	-8.5										-8.5	Oct-19
Threshold Ventures III - Net			-8.5					-					-8.5	
Thomson Reuters C A All PE 1 Qtr Lag			4.4		8.8		13.6		13.2		11.7		4.9	Oct-19
TPG Opp Partners III - Gross	21,357,871	0.2	8.9		7.4		11.6		11.4		10.3		-12.7	Mar-14
TPG Opp Partners III - Net			8.9		7.4		11.6		11.4		10.3		-12.7	
Thomson Reuters C A All PE 1 Qtr Lag			4.4		8.8		13.6		13.2		11.7		12.3	Mar-14
Trinity Ventures XI - Gross	38,505,440	0.4	2.8		3.4		17.3		23.8		17.7		8.1	Apr-13
Trinity Ventures XI - Net			2.8		3.4		17.3	-	23.8		17.7		8.1	
Thomson Reuters C A All PE 1 Qtr Lag			4.4		8.8		13.6		13.2		11.7		14.8	Apr-13
Trinity Ventures XII - Gross	40,016,703	0.4	-0.3		6.7		28.1		37.5				20.3	Apr-16
Trinity Ventures XII - Net			-0.3		6.7		28.1		37.5				20.3	
Thomson Reuters C A All PE 1 Qtr Lag			4.4		8.8		13.6		13.2		11.7		15.5	Apr-16
TSG7 A LP - Gross**	14,830,545	0.2	4.1		11.5		13.0		11.0					Mar-16
TSG7 A LP - Net			4.1		11.5		13.0		11.0				-	
Thomson Reuters C A All PE 1 Qtr Lag			4.4		8.8		13.6		13.2		11.7		13.7	Mar-16
TSG7 B LP - Gross	1,758,439	0.0	-6.1		-7.5		-8.2		-15.6				-19.9	Jan-16
TSG7 B LP - Net			-6.1		-7.5		-8.2	-	-15.6				-19.9	
Thomson Reuters C A All PE 1 Qtr Lag			4.4		8.8		13.6		13.2		11.7		12.8	Jan-16
TSG8 LP - Gross*	5,123,069	0.1												Jan-19
TSG8 LP - Net														
Thomson Reuters C A All PE 1 Qtr Lag			4.4		8.8		13.6		13.2		11.7		10.5	Jan-19

^{*} Unable to calculate a quarterly and since inception return due to system limitations when account experienced serveral months of negative fund value in 2019 and 2020.



⁺⁺ Unable to calculate a since inception return due to system limitations when account experienced 1 quarter of negative fund value in 2016.

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	Fiscal YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	Inception (%)	Inception Date
TSSP Opportunities Partners IV - Gross	7,497,517	0.1	0.2		4.2		9.3						7.9	Jan-19
TSSP Opportunities Partners IV - Net			0.2		4.2		9.3						7.9	
Thomson Reuters C A All PE 1 Qtr Lag			4.4		8.8		13.6		13.2		11.7		10.5	Jan-19
Waterland V - Gross	10,831,815	0.1	1.5		4.8	-	2.7		26.6		43.5		22.8	Aug-11
Waterland V - Net			1.5	-	4.8		2.7		26.6		43.5		22.8	
Thomson Reuters C A All PE 1 Qtr Lag			4.4		8.8		13.6		13.2		11.7		14.2	Aug-11
Waterland VI - Gross	20,332,965	0.2	-5.1		5.2		8.2		20.5				-4.5	Jul-15
Waterland VI - Net			-5.1		5.2		8.2		20.5				-4.5	
Thomson Reuters C A All PE 1 Qtr Lag			4.4		8.8		13.6		13.2		11.7		11.7	Jul-15
Wayzata Opportunities III - Gross	4,955,381	0.1	-0.1		-9.0		-6.0		-5.2		-2.6		-5.9	Feb-13
Wayzata Opportunities III - Net			-0.1	-	-9.0		-6.0		-5.2		-2.6		-5.9	
Thomson Reuters C A All PE 1 Qtr Lag			4.4		8.8		13.6		13.2		11.7		15.5	Feb-13
Public Credit - Gross	154,533,470	1.7	-17.6		-15.3		-13.8		-2.8		0.5		1.0	Nov-13
Public Credit - Net			-17.6		-15.3	-	-13.8	-	-2.8	-	0.5		1.0	
Brigade Custom ¹			-13.2		-10.3		-8.5		-0.1		2.0		2.4	Nov-13
Brigade Capital - Gross	154,533,470	1.7	-17.6	98	-15.3	99	-13.8	98	-2.8	99	0.5	99	1.0	Nov-13
Brigade Capital - Net			-17.6	98	-15.3	99	-13.8	98	-2.8	99	0.5	99	1.0	
Brigade Custom			-13.2	67	-10.3	76	-8.5	81	-0.1	89	2.0	88	2.4	Nov-13
eV US High Yield Fixed Inc Gross Median			-12.0		-8.4		-6.1		1.2		2.8		3.2	Nov-13

^{1.} See Policy Index and Benchmark History.



	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	Fiscal YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	Inception (%)	Inception Date
Private Credit - Gross***	215,081,329	2.3	2.8		6.6		9.8		7.4		7.3		7.1	Oct-11
Private Credit - Net			2.8	-	6.6		9.8	-	7.4	-	7.3		7.1	
Credit Suisse Leveraged Loan + 2% 1 Qtr Lag			2.2		5.7		10.2		6.5		6.6		6.7	Oct-11
Athyrium Opp II - Gross	15,249,446	0.2	8.0		12.8		15.5		10.8				8.0	Jun-15
Athyrium Opp II - Net			8.0		12.8		15.5		10.8				8.0	
Credit Suisse Leveraged Loan + 2% 1 Qtr Lag			2.2		5.7		10.2		6.5		6.6		6.4	Jun-15
Athyrium Opp III - Gross	14,955,563	0.2	2.4		4.8		6.9						-0.7	May-17
Athyrium Opp III - Net			2.4		4.8		6.9						-0.7	
Credit Suisse Leveraged Loan + 2% 1 Qtr Lag			2.2		5.7		10.2		6.5		6.6		6.3	May-17
Benefit St Pr Sr Secure Opp - Gross	47,052,496	0.5	1.6		4.5		8.5						5.4	Jan-18
Benefit St Pr Sr Secure Opp - Net			1.6		4.5		8.5						5.4	
Credit Suisse Leveraged Loan + 2% 1 Qtr Lag			2.2		5.7		10.2		6.5		6.6		6.5	Jan-18
Benefit St Pr Sr Secure Opp II - Gross	2,322,380	0.0	-5.9										-5.9	Dec-19
Benefit St Pr Sr Secure Opp II - Net			-5.9										-5.9	
Credit Suisse Leveraged Loan + 2% 1 Qtr Lag			2.2		5.7		10.2		6.5		6.6		2.2	Dec-19
OrbiMed Royalty & Credit Opp III - Gross	6,806,245	0.1	-5.9										-10.7	Sep-19
OrbiMed Royalty & Credit Opp III - Net			-5.9										-10.7	
Credit Suisse Leveraged Loan + 2% 1 Qtr Lag			2.2		5.7		10.2		6.5		6.6		3.7	Sep-19
Summit Credit - Gross	619,895	0.0	15.2		21.8		22.4		8.9		9.2		8.3	Oct-11
Summit Credit - Net			15.2		21.8		22.4		8.9		9.2		8.3	
Credit Suisse Leveraged Loan + 2% 1 Qtr Lag			2.2		5.7		10.2		6.5		6.6		6.7	Oct-11
Summit Credit II - Gross	28,083,442	0.3	2.5		6.1		10.7		8.6		7.7		6.8	Nov-14
Summit Credit II - Net			2.5		6.1		10.7		8.6		7.7		6.8	
Credit Suisse Leveraged Loan + 2% 1 Qtr Lag			2.2		5.7		10.2		6.5		6.6		6.1	Nov-14

^{*} Returns for private markets are shown on a time-weighted basis and may differ substantially from dollar-weighted returns.



⁺⁺Returns are one-quarter lag.

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	Fiscal YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	Inception (%)	Inception Date
Summit Credit III - Gross	28,818,467	0.3	6.0		13.2		17.3						12.6	Oct-18
Summit Credit III - Net			6.0		13.2		17.3						12.6	
Credit Suisse Leveraged Loan + 2% 1 Qtr Lag			2.2		5.7		10.2		6.5		6.6		6.2	Oct-18
TCP Direct Lending VIII - Gross	71,173,395	0.8	2.1		5.8		7.9						5.3	Feb-18
TCP Direct Lending VIII - Net			2.1		5.8		7.9						5.3	
Credit Suisse Leveraged Loan + 2% 1 Qtr Lag			2.2		5.7		10.2		6.5		6.6		6.6	Feb-18
Growth Oriented Absolute Return - Gross ^{*++}	235,122,233	2.5	-15.4		-12.1		-10.1		-1.4		0.0		3.6	Aug-04
Growth Oriented Absolute Return - Net			-15.4		-12.1		-10.1		-1.4		0.0		3.6	
HFRI FoF Composite Index + 1%			-8.2		-5.8		-4.1		1.2		2.8		5.3	Aug-04
Grosvenor SCARF Growth - Gross	108,618,315	1.2	-12.6	79	-10.3	77	-9.0	84	-0.3	77	0.4	69	3.8	Nov-11
Grosvenor SCARF Growth - Net			-12.6	79	-10.3	77	-9.0	84	-0.3	77	0.4	69	3.8	
HFRI FoF Composite Index + 1%			-8.2	59	-5.8	57	-4.1	60	1.2	56	2.8	26	3.7	Nov-11
eV Alt Fund of Funds - Multi-Strategy Median			-6.9		-4.8		-2.6		1.5		1.4		4.0	Nov-11
Lakewood - Gross	33,779,486	0.4	-31.1	90	-24.5	84	-23.3	84	-7.8	85	-1.8	74	0.6	Jun-13
Lakewood - Net			-31.1	90	-24.5	84	-23.3	84	-7.8	85	-1.8	74	0.6	
HFRI FoF Composite Index + 1%			-8.2	37	-5.8	42	-4.1	39	1.2	50	2.8	45	3.4	Jun-13
eV Alt Fundamental - Long/Short Equity Median			-12.8		-8.3		-7.0		1.2		2.0		3.9	Jun-13
Sculptor Domestic II - Gross	49,348,475	0.5	-6.7	47	-4.0	43	0.0	35	4.2	24	3.2	36	6.3	Dec-11
Sculptor Domestic II - Net			-6.7	47	-4.0	43	0.0	35	4.2	24	3.2	36	6.2	
HFRI FoF Composite Index + 1%			-8.2	53	-5.8	51	-4.1	52	1.2	50	2.8	39	3.7	Dec-11
eV Alt All Multi-Strategy Median			-7.5		-5.6		-3.8		1.2		1.5		3.8	Dec-11
Third Point Offshore Fund - Gross	43,375,957	0.5	-16.1	69	-12.9	63	-9.5	60	-0.7	66	1.2	60	6.4	Apr-12
Third Point Offshore Fund - Net			-16.1	69	-12.9	63	-9.5	60	-0.7	66	1.2	60	6.4	
HFRI FoF Composite Index + 1%			-8.2	40	-5.8	43	-4.1	41	1.2	50	2.8	34	3.6	Apr-12
eV Alt All Event Driven Median			-10.6		-7.9		-5.5		1.2		2.0		3.8	Apr-12

^{**} Composite reflects net returns from Cliffwater up to March 2017.



⁺⁺ Absolute Return managers are ranked in the eVest net of fee universe.

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	Fiscal YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	Inception (%)	Inception Date
Diversifying Asset Category - Gross	2,338,963,704	25.3	-1.4	-	0.8	-	3.7	-	2.9	-			2.9	Mar-17
Diversifying Asset Category - Net			-1.5		0.7		3.6		2.8	-	-		2.8	
Diversifying Custom ¹			0.6		2.6		5.4		3.7				3.7	Mar-17
Core/Core Plus Fixed Income - Gross	940,807,545	10.2	0.1		3.0		6.5		4.6		3.5		3.6	Jun-11
Core/Core Plus Fixed Income - Net			0.0		2.8		6.3		4.4		3.3		3.5	
BBgBarc US Aggregate TR			3.1		5.7		8.9		4.8		3.4		3.6	Jun-11
Prudential - Gross	472,277,839	5.1	-2.6	97	0.6	96	4.2	96	4.2	84	3.6	39	4.1	Jul-14
Prudential - Net			-2.6	97	0.4	97	3.9	96	4.0	90	3.4	63	3.9	
BBgBarc US Aggregate TR			3.1	20	5.7	20	8.9	20	4.8	39	3.4	66	3.6	Jul-14
eV US Core Fixed Inc Gross Median			1.9		4.4		7.7		4.7		3.5		3.8	Jul-14
TCW MetWest Fixed - Gross	468,529,706	5.1	2.9	26	5.5	24	8.9	20	5.2	16	3.8	20	6.0	Dec-01
TCW MetWest Fixed - Net			2.8	26	5.4	27	8.8	25	5.1	22	3.6	36	5.8	
BBgBarc US Aggregate TR			3.1	20	5.7	20	8.9	20	4.8	39	3.4	66	4.6	Dec-01
eV US Core Fixed Inc Gross Median			1.9		4.4		7.7		4.7		3.5		5.0	Dec-01
U.S. Treasury - Gross	498,924,550	5.4	8.2		10.0		13.2						8.8	Feb-18
U.S. Treasury - Net			8.2		10.0		13.2						8.7	
BBgBarc US Treasury TR			8.2		9.9		13.2		5.8		3.6		8.8	Feb-18
Neuberger Berman - Gross⁺	498,924,550	5.4	8.2	5	10.0	3	13.2	6	6.2	1	4.2	1	6.6	Jun-88
Neuberger Berman - Net			8.2	5	10.0	4	13.2	6	6.2	1	4.2	1	6.6	
BBgBarc US Govt TR			8.1	6	9.8	9	13.1	8	5.8	18	3.6	29	6.0	Jun-88
eV US Government Fixed Inc Gross Median			5.1		6.5		9.1		4.9		3.5			Jun-88

⁺ Account converted to U.S. Treasury from Core Fixed Income in February 2018. Reflects linked historical returns up to February 2018.



^{1.} See Policy Index and Benchmark History.

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	Fiscal YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	Inception (%)	Inception Date
Global Fixed Income - Gross	229,936,038	2.5	-11.2		-8.8	-	-5.6	-	0.0		0.5		1.0	May-13
Global Fixed Income - Net			-11.2		-9.1		-6.0		-0.4		0.1		0.6	
Brandywine Custom ¹			-1.6		-0.3		3.7		3.3		2.5		1.1	May-13
Brandywine Global - Gross	229,936,038	2.5	-11.2	70	-8.8	75	-5.6	72	0.0	82	0.5	88	1.0	May-13
Brandywine Global - Net			-11.2	71	-9.1	76	-6.0	74	-0.4	86	0.1	91	0.6	
Brandywine Custom			-1.6	22	-0.3	26	3.7	22	3.3	30	2.5	51	1.1	May-13
eV All Global Fixed Inc Gross Median			-6.4		-3.4		-0.7		2.1		2.5		2.4	May-13
Diversifying Absolute Return - Gross***	669,295,571	7.2	-6.3		-4.9		-3.2		-1.3		-0.4		1.2	Nov-11
Diversifying Absolute Return - Net			-6.3		-4.9	-	-3.2		-1.3	-	-0.4		1.2	
HFRI FoF Conservative Index			-7.1		-5.6		-4.2		0.6		2.4		3.5	Nov-11
AQR DELTA II - Gross	34,434,822	0.4	-20.3	86	-23.1	89	-26.3	93	-14.3	98	-6.9	94	-3.2	May-13
AQR DELTA II - Net			-20.3	86	-23.1	89	-26.3	93	-14.3	98	-6.9	94	-3.2	
HFRI FoF Conservative Index			-7.1	49	-5.6	51	-4.2	52	0.6	58	2.4	41	3.1	May-13
eV Alt All Multi-Strategy Median			-7.5		-5.6		-3.8		1.2		1.5		3.0	May-13
BlackRock Event Driven Equity Fund - Gross⁺	42,724,458	0.5											-4.9	Feb-20
BlackRock Event Driven Equity Fund - Net						-							-5.1	
HFRI FoF Conservative Index			-7.1	36	-5.6	43	-4.2	41	0.6	56	2.4	41	-6.6	Feb-20
eV Alt All Event Driven Median			-10.6		-7.9		-5.5		1.2		2.0		-10.0	Feb-20
Davidson Kempner Instl Partners LP - Gross	42,874,121	0.5	-8.4	53	-5.9	52							-5.5	Apr-19
Davidson Kempner Instl Partners LP - Net			-8.4	53	-5.9	52							-5.5	
HFRI FoF Conservative Index			-7.1	49	-5.6	51	-4.2	52	0.6	58	2.4	41	-5.1	Apr-19
eV Alt All Multi-Strategy Median			-7.5		-5.6		-3.8		1.2		1.5		-4.6	Apr-19

⁺ Funded February 2020.



^{1.} See Policy Index and Benchmark History.

^{*} Composite reflects net returns from Cliffwater up to March 2017.

⁺⁺ Absolute Return managers are ranked in the eVest net of fees universe.

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	Fiscal YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	Inception (%)	Inception Date
Elliot Associates - Gross*	59,012,737	0.6	2.2	5	4.2	8	7.3	6	5.5	11	6.8	11	7.3	Apr-12
Elliot Associates - Net			2.2	5	4.2	8	7.3	6	5.5	11	6.8	11	7.3	
HFRI FoF Conservative Index			-7.1	36	-5.6	43	-4.2	41	0.6	56	2.4	41	3.4	Apr-12
eV Alt All Event Driven Median			-10.6		-7.9		-5.5		1.2		2.0		3.8	Apr-12
Graham Global Inv II - Gross	33,259,512	0.4	-7.0	66	-1.3	44	5.2	39	-0.3	59			-1.3	Feb-17
Graham Global Inv II - Net			-7.0	66	-1.3	44	5.2	39	-0.3	59			-1.3	
HFRI FoF Conservative Index			-7.1	66	-5.6	64	-4.2	66	0.6	49	2.4	29	0.7	Feb-17
eV Alt All Managed Futures Median			-2.6		-1.9		0.2		0.4		0.3		0.1	Feb-17
Grosvenor SCARF Diversifying - Gross	148,463,653	1.6	-4.2	30	-2.0	31	0.5	26	-0.9	82	-1.2	86	1.1	Nov-11
Grosvenor SCARF Diversifying - Net			-4.2	30	-2.0	31	0.5	26	-0.9	82	-1.2	86	1.1	
HFRI FoF Conservative Index			-7.1	52	-5.6	55	-4.2	60	0.6	66	2.4	30	3.5	Nov-11
eV Alt Fund of Funds - Multi-Strategy Median			-6.9		-4.8		-2.6		1.5		1.4		4.0	Nov-11
Grosvenor SCARF B Diversifying - Gross	67,815,559	0.7	-4.4	32	-2.4	35	0.0	29	-1.6	85	-2.1	95	0.2	Jan-13
Grosvenor SCARF B Diversifying - Net			-4.4	32	-2.4	35	0.0	29	-1.6	85	-2.1	95	0.2	
HFRI FoF Conservative Index			-7.1	52	-5.6	55	-4.2	60	0.6	66	2.4	30	3.2	Jan-13
eV Alt Fund of Funds - Multi-Strategy Median			-6.9		-4.8		-2.6		1.5		1.4		3.4	Jan-13
KLS Diversified Fund - Gross	33,468,257	0.4	-16.8	91	-17.9	93	-16.9	89					-13.3	Dec-18
KLS Diversified Fund - Net			-16.8	91	-17.9	93	-16.9	89					-13.3	
HFRI FoF Conservative Index			-7.1	74	-5.6	76	-4.2	77	0.6	77	2.4	62	-1.0	Dec-18
eV Alt Relative Value - Multi-Market Arbitrage Median			4.4		4.9		5.7		4.1		4.7		5.4	Dec-18
Laurion Capital - Gross	55,067,053	0.6	15.4	2	13.5	15	17.3	11	10.5	11	7.4	9	7.8	Mar-14
Laurion Capital - Net			15.4	2	13.5	15	17.3	11	10.5	11	7.4	9	7.8	
HFRI FoF Conservative Index			-7.1	49	-5.6	60	-4.2	62	0.6	55	2.4	82	2.9	Mar-14
eV Alt Relative Value - Equity Relative Value Median			-7.2		-3.4		-2.8		1.2		3.9		4.8	Mar-14
LMR Fund LTD - Gross	34,252,987	0.4	-25.4	91									-23.9	Oct-19
LMR Fund LTD - Net			-25.4	91									-23.9	
HFRI FoF Conservative Index			-7.1	49	-5.6	51	-4.2	52	0.6	58	2.4	41	-5.7	Oct-19
eV Alt All Multi-Strategy Median			-7.5		-5.6		-3.8		1.2		1.5		-5.7	Oct-19

⁺ Preliminary quarterly returns as of 3/31/2020 (Market Values estimated based on preliminary performance numbers provided by the manager.)



	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	Fiscal YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	Inception (%)	Inception Date
MW Global Opportunities Fund - Gross	42,932,774	0.5	0.7	14	4.8	13	6.2	12			-		5.8	Dec-18
MW Global Opportunities Fund - Net			0.7	14	4.8	13	6.2	12					5.8	
HFRI FoF Conservative Index			-7.1	34	-5.6	41	-4.2	40	0.6	54	2.4	47	-1.0	Dec-18
eV Alt Fundamental - Long/Short Equity Median			-12.8		-8.3		-7.0		1.2		2.0		-0.4	Dec-18
Two Sigma Risk Premia Enhanced - Gross	39,629,069	0.4	-12.3	67		-							-11.9	Sep-19
Two Sigma Risk Premia Enhanced - Net			-12.3	67		-							-11.9	
HFRI FoF Conservative Index			-7.1	49	-5.6	51	-4.2	52	0.6	58	2.4	41	-5.6	Sep-19
eV Alt All Multi-Strategy Median			-7.5		-5.6		-3.8		1.2		1.5		-6.1	Sep-19
Winton Diversified Futures - Gross	35,360,568	0.4	-7.8	70	-5.3	62	-5.3	69	0.0	56			0.3	Dec-16
Winton Diversified Futures - Net			-7.8	70	-5.3	62	-5.3	69	0.0	56			0.3	
HFRI FoF Conservative Index			-7.1	66	-5.6	64	-4.2	66	0.6	49	2.4	29	1.0	Dec-16
eV Alt All Managed Futures Median			-2.6		-1.9		0.2		0.4		0.3		0.5	Dec-16
Real Return (with SSgA RA Overlay Proxy) - Gross	1,624,464,149	17.5	-0.6		2.6		4.6		8.1				8.1	Mar-17
Real Return (with SSgA RA Overlay Proxy) - Net			-0.6	-	2.4	-	4.3		7.9	-			7.9	
Real Return Custom ^{1*}			-1.0		0.1	-	1.4		4.8				4.8	Mar-17
Real Return Asset Category - Gross	1,624,464,149	17.5	-0.6		2.6		4.5		9.0				9.0	Mar-17
Real Return Asset Category - Net			-0.6	-	2.4	-	4.3		8.8	-			8.8	
Real Return Custom			-1.0		0.1		1.4		4.8				4.8	Mar-17
Real Estate - Gross	875,673,870	9.5	2.2	4	6.3	4	8.2	4	9.7	3	9.6	5	11.2	Jun-11
Real Estate - Net			2.2	4	6.0	4	7.8	4	9.4	3	9.0	9	10.4	
Real Estate Custom ¹			1.8	6	3.9	31	5.1	36	6.9	24	8.0	41	9.5	Jun-11
InvMetrics All DB Real Estate Priv Net Median			0.8		3.3		4.5		6.3		7.5		9.0	Jun-11

^{*} Performance for Cambridge Associates Private Energy and Private Infrastructure Indexes is preliminary.



^{1.} See Policy Index and Benchmark History.

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	Fiscal YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	Inception (%)	Inception Date
Core RE -Separate - Gross	120,815	0.0	0.0		4.3		9.4		13.7		11.2		7.4	Sep-08
Core RE -Separate - Net			-0.8	-	-27.1	-	-23.8		-0.2	-	2.4		3.1	
NFI-ODCE			1.0		3.8		4.9		6.8		8.5		5.6	Sep-08
BlackRock RE Leveraged - Gross⁺	120,815	0.0	0.0		4.3		9.4		14.0		13.1		10.4	Dec-98
BlackRock RE Leveraged - Net			-0.8		-27.1		-23.8		0.3		4.5			
NFI-ODCE			1.0		3.8		4.9		6.8		8.5		8.3	Dec-98
Core RE -Limited Partnership - Gross	668,007,995	7.2	1.1		5.6		7.8		9.9		10.5	-	5.3	Sep-08
Core RE -Limited Partnership - Net			1.0		5.3	-	7.5	-	9.6	-	10.1		4.7	
NFI-ODCE			1.0		3.8		4.9		6.8		8.5		5.6	Sep-08
Brookfield Premier RE Partners - Gross**	107,124,893	1.2	1.9		6.4		8.4						8.3	Sep-18
Brookfield Premier RE Partners - Net			1.9		6.4		8.4	-					8.3	
NFI-ODCE			1.0		3.8		4.9		6.8		8.5		5.4	Sep-18
Clarion Lion Properties - Gross	127,374,421	1.4	1.4		5.1		6.6						7.2	Sep-18
Clarion Lion Properties - Net			1.2		4.5		5.8						6.3	
NFI-ODCE			1.0		3.8		4.9		6.8		8.5		5.4	Sep-18
Metlife Core Property - Gross	64,249,665	0.7	0.9		4.3		6.8		7.8		9.6		10.9	Dec-13
Metlife Core Property - Net			0.7		3.9		6.3		7.3		9.0		10.4	
NFI-ODCE			1.0		3.8		4.9		6.8		8.5		9.3	Dec-13
Prime Property - Gross	64,373,389	0.7	0.9		4.5		6.7		8.3		10.0		11.1	Sep-13
Prime Property - Net			0.6		3.6		5.5		7.2		8.8		9.9	
NFI-ODCE			1.0		3.8		4.9		6.8		8.5		9.5	Sep-13
Principal US Property - Gross	48,746,385	0.5	0.4		3.3		4.7		6.9				7.8	Oct-15
Principal US Property - Net			0.4		3.3		4.7		6.9				7.8	
NFI-ODCE			1.0		3.8		4.9		6.8		8.5		7.8	Oct-15

⁺⁺ Preliminary quarterly returns as of 3/31/2020 (Market Values estimated based on preliminary performance numbers provided by the manager.)



⁺ Preliminary quarterly returns as of 3/31/2020 (Returns are not available at reporting period.)

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	Fiscal YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	Inception (%)	Inception Date
Prologis Targeted Euro Logistics - Gross Prologis Targeted Euro Logistics - Net	55,626,905	0.6	0.4 0.4		6.8 6.8		10.0 10.0		16.3 16.3				11.8 11.8	Oct-15
NFI-ODCE			1.0		3.8		4.9	-	6.8		8.5		7.8	Oct-15
Prologis Targeted US Logistics - Gross	80,530,545	0.9	2.4		11.8		16.6		16.9				16.6	Jul-15
Prologis Targeted US Logistics - Net			2.4		11.8		16.6		16.9				16.6	
NFI-ODCE			1.0		3.8		4.9	-	6.8		8.5		8.2	Jul-15
Townsend Real Estate - Gross⁺	119,981,791	1.3	0.0		3.8		5.8		8.0				8.7	Mar-16
Townsend Real Estate - Net			0.0		3.8		5.8		8.0				8.7	
NFI-ODCE			1.0		3.8		4.9		6.8		8.5		7.2	Mar-16
Non-Core RE -Opportunistic - Gross***	154,197,092	1.7	4.1		4.9		5.3		5.9		10.7		20.1	Feb-14
Non-Core RE -Opportunistic - Net			4.1		4.9		5.3		5.9		10.1		19.3	
NFI-ODCE net +1% 1Q Lag			3.3		3.9		5.4		7.1		9.0		10.0	Feb-14
Carlyle China Realty - Gross	8,429,679	0.1	9.7		7.8		14.2						-1.8	Jun-17
Carlyle China Realty - Net			9.7		7.8		14.2						-1.8	
NFI-ODCE net +1% 1Q Lag			3.3		3.9		5.4		7.1		9.0		7.1	Jun-17
Carlyle China Rome Logistics - Gross	37,523,027	0.4	1.5		-0.4		6.4						-1.1	Jun-17
Carlyle China Rome Logistics - Net			1.5		-0.4		6.4						-1.1	
NFI-ODCE net +1% 1Q Lag			3.3		3.9		5.4		7.1		9.0		7.1	Jun-17
CIM Opportunity VIII - Gross	38,381,202	0.4	-2.3		-2.9		1.0		5.3		5.7		5.6	Feb-15
CIM Opportunity VIII - Net			-2.3		-2.9		1.0		5.3		4.6		4.5	
NFI-ODCE net +1% 1Q Lag			3.3		3.9		5.4		7.1		9.0		9.5	Feb-15
Kohlberg Kravis Roberts - Gross	4,346,336	0.0	4.2		4.8		7.3		-18.3		-2.0		9.3	Feb-14
Kohlberg Kravis Roberts - Net			4.2		4.8		7.3		-18.3		-2.1		9.1	
NFI-ODCE net +1% 1Q Lag			3.3		3.9		5.4		7.1		9.0		10.0	Feb-14
NREP Nordic Strat FCP-FIS - Gross	4,187,088	0.0	29.5		39.6		7.6		22.7		23.2		22.0	Dec-14
NREP Nordic Strat FCP-FIS - Net			29.5		39.6		7.6		22.7		23.2		22.0	
NFI-ODCE net +1% 1Q Lag			3.3		3.9		5.4		7.1		9.0		9.2	Dec-14

⁺⁺ Returns are one-quarter lag.

⁺ Preliminary quarterly returns as of 3/31/2020 (Returns are not available at reporting period.)



^{*} Returns for private markets are shown on a time-weighted basis and may differ substantially from dollar-weighted returns.

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	Fiscal YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	Inception (%)	Inception Date
NREP Nordic Strat II - Gross	31,241,754	0.3	7.9		12.0		10.1		23.3				14.9	Jun-16
NREP Nordic Strat II - Net			7.9		12.0		10.1		23.3				14.9	
NFI-ODCE net +1% 1Q Lag			3.3		3.9		5.4		7.1		9.0		7.4	Jun-16
NREP Nordic Strat III - Gross	16,274,332	0.2	14.3		7.1		-7.0					-	-7.9	Jul-18
NREP Nordic Strat III - Net			14.3		7.1		-7.0	-		-			-7.9	
NFI-ODCE net +1% 1Q Lag			3.3		3.9		5.4		7.1		9.0		6.8	Jul-18
Sculptor Real Estate Fund III - Gross	13,813,674	0.1	2.0		9.0		11.4		21.4		18.9		7.5	Sep-14
Sculptor Real Estate Fund III - Net			2.0		9.0		11.4		21.4		14.4		3.8	
NFI-ODCE net +1% 1Q Lag			3.3		3.9		5.4		7.1		9.0		9.3	Sep-14
Non-Core RE -Value Added - Gross***	53,347,968	0.6	14.7		22.8		23.9		17.3		11.7		0.1	Sep-08
Non-Core RE -Value Added - Net			14.7		22.8		23.9		17.3		11.2		-1.0	
NFI-ODCE net +1% 1Q Lag			3.3		3.9		5.4		7.1		9.2		7.8	Sep-08
Asana Partners Fund II - Gross+	2,449,958	0.0	8.0											Apr-19
Asana Partners Fund II - Net			8.0											
NFI-ODCE net +1% 1Q Lag			3.3		3.9		5.4		7.1		9.2		5.3	Apr-19
ECE Euro Prime Shopping II - Gross	31,168,306	0.3	4.5		5.4		3.8		9.7				13.5	Jul-15
ECE Euro Prime Shopping II - Net			4.5		5.4		3.8	-	9.7				12.4	
NFI-ODCE net +1% 1Q Lag			3.3		3.9		5.4		7.1		9.2		8.9	Jul-15
European RE Debt II - Gross	7,320,208	0.1	10.0		7.9		13.6		22.2		6.8		6.2	Nov-13
European RE Debt II - Net			10.0		7.9		13.6		22.2		6.8		6.2	
NFI-ODCE net +1% 1Q Lag			3.3		3.9		5.4		7.1		9.2		10.4	Nov-13
Hammes II - Gross	7,038,175	0.1	133.4		191.4		198.0		57.8				43.0	Jul-15
Hammes II - Net			133.4		191.4		198.0		57.8				40.1	
NFI-ODCE net +1% 1Q Lag			3.3		3.9		5.4		7.1		9.2		8.9	Jul-15

^{*} Returns for private markets are shown on a time-weighted basis and may differ substantially from dollar-weighted returns



⁺⁺ Returns are one-quarter lag.

⁺ Unable to calculate a since inception, YTD and 1-Year return due to system limitations when account experienced 2 quarter of negative fund value in 2019.

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	Fiscal YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	Inception (%)	Inception Date
Hammes III - Gross	5,291,888	0.1	1.3		-5.1		-21.1			-		-	-37.6	Oct-18
Hammes III - Net			1.3		-5.1		-21.1						-37.6	
NFI-ODCE net +1% 1Q Lag			3.3		3.9		5.4		7.1		9.2		6.6	Oct-18
UBS RE - Gross	79,433	0.0	-1.6		8.5		3.8		-5.0		0.6		-1.1	Sep-06
UBS RE - Net			-1.6		8.5		3.8		-5.0		0.4		-2.3	
NFI-ODCE net +1% 1Q Lag	_		3.3		3.9		5.4		7.1		9.2			Sep-06
Private Real Assets - Gross***	614,011,521	6.6	1.2		3.3		6.2		10.7		11.8		5.3	Jan-13
Private Real Assets - Net			1.2	-	3.3	-	6.2	-	10.7		11.8		5.3	
Private Real Assets Custom ¹⁺			1.0		0.6		2.9		5.7		5.9		5.9	Jan-13
CPI-U Headline +5%			1.0		4.6		6.5		6.9		6.6		6.5	Jan-13
ACM II - Gross	16,405,982	0.2	-5.6		-10.0		-11.0		-6.5				-6.9	Sep-16
ACM II - Net			-5.6		-10.0		-11.0		-6.5				-6.9	
NCREIF Farmland 1 Qtr Lag			2.3		4.1		4.8		5.9		7.0		6.3	Sep-16
ArcLight Energy VI - Gross	33,809,823	0.4	-4.1		-8.0		-5.1		8.7				6.3	Aug-15
ArcLight Energy VI - Net			-4.1		-8.0		-5.1		8.7				6.3	
Cambridge Associates Private Infrastructure 1 Qtr Lag			3.4		7.0		10.5		12.3		10.9		12.5	Aug-15
Atalaya SMA - Gross	16,971,495	0.2	1.4		4.9		12.0		11.1				9.2	May-15
Atalaya SMA - Net			1.4		4.9		12.0		11.1				9.2	
Cambridge Associates Private Infrastructure 1 Qtr Lag			3.4		7.0		10.5		12.3		10.9		11.3	May-15
Brookfield Infra III - Gross	32,217,731	0.3	3.4		13.0		18.7		11.5				12.8	May-16
Brookfield Infra III - Net			3.4		13.0		18.7		11.5				12.8	
Cambridge Associates Private Infrastructure 1 Qtr Lag			3.4		7.0		10.5		12.3		10.9		12.2	May-16
Brookfield Infra IV - Gross	15,013,645	0.2	-1.7										-2.2	Sep-19
Brookfield Infra IV - Net			-1.7					-		-		-	-2.2	
Cambridge Associates Private Infrastructure 1 Qtr Lag			3.4		7.0		10.5		12.3		10.9		4.6	Sep-19

^{1.} See Policy and Benchmark History.

^{*} Returns for private markets are shown on a time-weighted basis and may differ substantially from dollar-weighted returns.



⁺ Performance for Cambridge Associates Private Energy and Private Infrastructure Indexes is preliminary.

⁺⁺ Returns are one-quarter lag.

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	Fiscal YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	Inception (%)	Inception Date
Carlyle Power II - Gross	29,743,380	0.3	0.7 0.7		9.6 9.6		10.6 10.6	-	11.6 11.6				2.0 2.0	Oct-15
Carlyle Power II - Net			3.4		7.0		10.6		12.3		10.9		11.6	Oct-15
Cambridge Associates Private Infrastructure 1 Qtr Lag	16,524,911	0.2	-7.6		-22.2		-19.1		-6.4		6.1		-3.2	Jan-13
EnCap Energy IX - Gross	10,524,911	0.2			-22.2									Jan-13
EnCap Energy IX - Net			-7.6 -2.2		-8.2		-19.1 -6.4		-6.4 -0.1		6.1 -1.3		-3.2	lam 12
Cambridge Associates Private Energy 1 Qtr Lag	25 207 024	0.4					***		***		-1.3		0.2	Jan-13
EnCap Energy X - Gross	35,307,231	0.4	-0.1		-1.3 -1.3		-0.7		4.7 4.7				-0.4	Apr-15
EnCap Energy X - Net			-0.1				-0.7					-	-0.4	A 4.5
Cambridge Associates Private Energy 1 Qtr Lag	40 770 400	0.0	-2.2		-8.2		-6.4		-0.1		-1.3		-1.3	Apr-15
EnCap Flatrock Midstream III - Gross	16,776,103	0.2	-5.7		-4.7		2.3		9.9		17.3		6.7	Jul-14
EnCap Flatrock Midstream III - Net			-5.7		-4.7	-	2.3		9.9		17.3		6.7	
Cambridge Associates Private Infrastructure 1 Qtr Lag	0.004.044	0.4	3.4		7.0		10.5		12.3	-	10.9		10.4	Jul-14
EnCap Flatrock Midstream IV - Gross	8,831,011	0.1	0.9		9.2		24.9	-		-			0.4	Feb-18
EnCap Flatrock Midstream IV - Net			0.9	-	9.2		24.9						0.4	
Cambridge Associates Private Infrastructure 1 Qtr Lag			3.4		7.0		10.5		12.3		10.9		10.5	Feb-18
EQT Infrastructure Fund IV - Gross	15,770,760	0.2	8.8		-21.3					-		-	-21.3	Jun-19
EQT Infrastructure Fund IV - Net			8.8		-21.3					-			-21.3	
Cambridge Associates Private Infrastructure 1 Qtr Lag			3.4		7.0		10.5		12.3		10.9		7.0	Jun-19
First Reserve - Gross	22,609,707	0.2	-2.2		6.6		9.8		22.8		13.1		-0.1	Dec-14
First Reserve - Net			-2.2		6.6		9.8		22.8		13.1		-0.1	
Cambridge Associates Private Infrastructure 1 Qtr Lag			3.4		7.0		10.5		12.3		10.9		10.7	Dec-14
IFM Global Infrastructure US LP - Gross	130,267,920	1.4	5.2	-	11.7	-	14.6			-		-	14.4	Apr-17
IFM Global Infrastructure US LP - Net			5.2	-	11.7		14.6						14.4	
Cambridge Associates Private Infrastructure 1 Qtr Lag			3.4		7.0		10.5		12.3		10.9		12.7	Apr-17
ISQ Global Infrastructure Fund II - Gross	32,664,176	0.4	3.1		9.7		15.0						11.9	Oct-18
ISQ Global Infrastructure Fund II - Net			3.1		9.7		15.0						11.9	
Cambridge Associates Private Infrastructure 1 Qtr Lag			3.4		7.0		10.5		12.3		10.9		10.1	Oct-18



	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	Fiscal YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	Inception (%)	Inception Date
Meridiam Infra N America III - Gross	905,136	0.0	-27.0		-56.5		-61.3						-88.6	Sep-17
Meridiam Infra N America III - Net			-27.0		-56.5		-61.3						-88.6	
Cambridge Associates Private Infrastructure 1 Qtr Lag			3.4		7.0		10.5		12.3		10.9		10.7	Sep-17
Paine Schwartz Food Chain V - Gross*	4,104,975	0.0											0.0	Jan-20
Paine Schwartz Food Chain V - Net													0.0	
NCREIF Farmland 1 Qtr Lag			2.3		4.1		4.8		5.9		7.0		2.3	Jan-20
Pantheon Ventures - Gross	76,637,913	0.8	2.6		3.0		7.3		10.3		13.0		20.6	Jul-14
Pantheon Ventures - Net			2.6		3.0		7.3		10.3		13.0		20.6	
Cambridge Associates Private Infrastructure 1 Qtr Lag			3.4		7.0		10.5		12.3		10.9		10.4	Jul-14
Quantum Energy VI - Gross⁺	35,544,121	0.4	0.0		11.2		11.0		24.0		25.7		23.9	Nov-14
Quantum Energy VI - Net			0.0		11.2		11.0		24.0		25.7		23.9	
Cambridge Associates Private Energy 1 Qtr Lag			-2.2		-8.2		-6.4		-0.1		-1.3		-3.9	Nov-14
Quantum Energy VII - Gross+	19,851,109	0.2	0.0		-2.1		-2.4						-1.4	Aug-17
Quantum Energy VII - Net			0.0		-2.1		-2.4						-1.4	
Cambridge Associates Private Energy 1 Qtr Lag			-2.2		-8.2		-6.4		-0.1		-1.3		-0.9	Aug-17
Tailwater Energy Fund III - Gross	26,376,922	0.3	4.7		3.3		3.4						3.3	Sep-18
Tailwater Energy Fund III - Net			4.7		3.3		3.4						3.3	
Cambridge Associates Private Energy 1 Qtr Lag			-2.2		-8.2		-6.4		-0.1		-1.3		-7.5	Sep-18
Tailwater Energy IV - Gross	5,491,299	0.1	-16.1										-16.1	Oct-19
Tailwater Energy IV - Net			-16.1										-16.1	
Cambridge Associates Private Energy 1 Qtr Lag			-2.2		-8.2		-6.4		-0.1		-1.3		-5.8	Oct-19
Wastewater Opportunity - Gross	22,186,171	0.2	5.7		4.1		3.2		-1.0				-20.5	Dec-15
Wastewater Opportunity - Net			5.7		4.1		3.2		-1.0				-20.5	
Cambridge Associates Private Infrastructure 1 Qtr Lag			3.4		7.0		10.5		12.3		10.9		11.7	Dec-15

⁺ Preliminary quarterly returns as of 3/31/2020 (Returns are not available at reporting period.)



^{*} Funded January 2020.

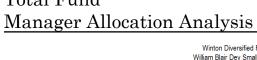
	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	Fiscal YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	Inception (%)	Inception Date
Liquid Real Return - Gross	134,778,758	1.5	-16.7		-14.2								-14.2	Jun-19
Liquid Real Return - Net			-16.8	-	-14.4			-	-	-			-14.4	
SSgA Real Asset ¹			-17.4		-14.6		-12.8		-2.2		-1.2		-14.6	Jun-19
Brookfield Liquid Real Return - Gross	84,945,741	0.9	-16.4										-14.7	Nov-19
Brookfield Liquid Real Return - Net			-16.5					-		-			-14.8	
Brookfield Real Return Custom ¹			-17.1										-15.4	Nov-19
SSgA Passive Real Return Proxy - Gross	49,833,017	0.5	-16.9		-14.3		-12.5		-1.9		-0.9		0.3	Jan-08
SSgA Passive Real Return Proxy - Net			-17.0		-14.5		-13.0	-	-2.2	-	-1.2		0.1	
SSgA Real Asset			-17.4		-14.6		-12.8		-2.2		-1.2			Jan-08
Opportunities Asset Category - Gross***	6,691,688	0.1	2.0		9.4		8.6		5.1		7.0		14.9	Oct-07
Opportunities Asset Category - Net			2.0	-	9.4		8.6		5.1		7.0		14.9	
Policy Index			-9.2		-4.8		-1.8		4.0		4.5		6.9	Oct-07
Atalaya Special Opportunities V - Gross	6,691,688	0.1	2.0		9.4		8.6		5.1		6.6		5.7	Jul-13
Atalaya Special Opportunities V - Net			2.0		9.4		8.6	-	5.1	-	6.6		5.7	
Thomson Reuters C A All PE 1 Qtr Lag			4.4		8.8		13.6		13.2		11.7	-	14.0	Jul-13
Cash - Gross	169,380,258	1.8	0.5		1.5		2.3		2.3		2.1		3.1	Jun-92
Cash - Net			0.5	-	1.5		2.3	-	2.3	-	2.1		-	
91 Day T-Bills			0.4		1.3		1.9		1.7		1.1		2.4	Jun-92
Cash Account - Gross	73,482,455	0.8	0.6		1.8		2.7		2.4		2.1		3.2	Jun-92
Cash Account - Net			0.6		1.8		2.7		2.4		2.1			
91 Day T-Bills			0.4		1.3		1.9		1.7		1.1		2.4	Jun-92
Dedicated Cash Allocation - Gross	95,897,804	1.0	0.3		0.9								0.9	Jun-19
Dedicated Cash Allocation - Net			0.3		0.9	-		-		-			0.9	
ICE LIBOR Spot/Next Overnight USD			0.2		0.9		1.3		1.1		0.8		0.9	Jun-19

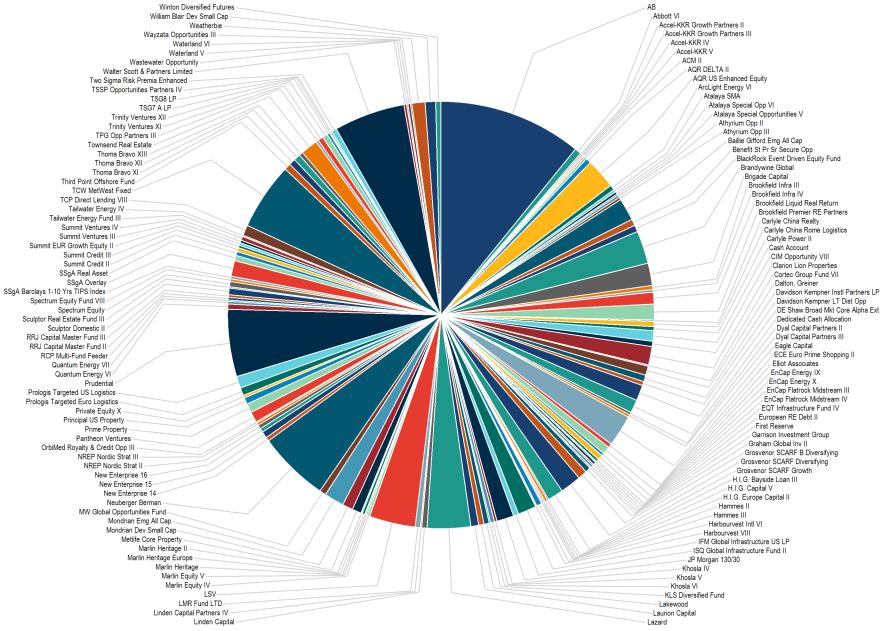
⁺⁺ Returns are one-quarter lag.



^{1.} See Policy and Benchmark History.

^{*} Composite reflects net returns from Cliffwater up to March 2017.







	Current	%
AB	\$1,009,788,531	10.9%
AQR US Enhanced Equity	\$210,598,425	2.3%
JP Morgan 130/30	\$121,985,737	1.3%
DE Shaw Broad Mkt Core Alpha Ext	\$110,506,730	1.2%
Eagle Capital	\$218,451,334	2.4%
Huber Capital	\$20,264	0.0%
Weatherbie	\$89,869,432	1.0%
Dalton, Greiner	\$64,477,132	0.7%
WEDGE Capital	\$1	0.0%
Lazard	\$307,638,930	3.3%
Walter Scott & Partners Limited	\$497,946,660	5.4%
LSV	\$320,181,509	3.5%
Mondrian Dev Small Cap	\$75,193,785	0.8%
William Blair Dev Small Cap	\$73,780,804	0.8%
Baillie Gifford Emg All Cap	\$157,500,477	1.7%
Mondrian Emg All Cap	\$135,459,948	1.5%
CBRE Clarion	\$17,988	0.0%
Abbott VI	\$42,637,926	0.5%
Accel-KKR IV	\$13,465,962	0.1%
Accel-KKR V	\$12,571,911	0.1%
Accel-KKR Growth Partners II	\$9,937,339	0.1%
Accel-KKR Growth Partners III	\$5,406,562	0.1%
Atalaya Special Opp VI	\$15,752,975	0.2%
Cortec Group Fund VII	\$6,788,774	0.1%
Davidson Kempner LT Dist Opp	\$31,460,717	0.3%
Dyal Capital Partners II	\$17,811,171	0.2%
Dyal Capital Partners III	\$21,751,813	0.2%
Garrison Investment Group	\$13,650,356	0.1%



	Current	%
Harbourvest VIII	\$13,011,951	0.1%
Harbourvest Intl VI	\$33,925,441	0.4%
H.I.G. Bayside Loan III	\$10,283,030	0.1%
H.I.G. Capital V	\$15,461,268	0.2%
H.I.G. Europe Capital II	\$10,660,133	0.1%
Khosla IV	\$14,462,588	0.2%
Khosla V	\$25,925,387	0.3%
Khosla VI	\$13,066,754	0.1%
Linden Capital	\$41,389,104	0.4%
Linden Capital Partners IV	\$12,454,297	0.1%
Marlin Equity IV	\$15,309,488	0.2%
Marlin Equity V	\$10,651,671	0.1%
Marlin Heritage	\$7,474,151	0.1%
Marlin Heritage II	\$8,272,514	0.1%
Marlin Heritage Europe	\$15,108,662	0.2%
New Enterprise 14	\$31,249,384	0.3%
New Enterprise 15	\$49,735,309	0.5%
New Enterprise 16	\$26,355,299	0.3%
New Enterprise 17	\$4,396,566	0.0%
Private Equity X	\$22,782,107	0.2%
RCP Multi-Fund Feeder	\$13,823,114	0.1%
RRJ Capital Master Fund II	\$15,735,028	0.2%
RRJ Capital Master Fund III	\$14,165,530	0.2%
Spectrum Equity	\$35,218,058	0.4%
Spectrum Equity Fund VIII	\$16,887,827	0.2%
Summit EUR Growth Equity II	\$19,677,564	0.2%
Summit Ventures III	\$16,041,014	0.2%
Summit Ventures IV	\$17,712,855	0.2%



	Current	%
Thoma Bravo XI	\$49,223,752	0.5%
Thoma Bravo XII	\$42,523,177	0.5%
Thoma Bravo XIII	\$28,780,575	0.3%
Threshold Ventures III	\$3,413,128	0.0%
TPG Opp Partners III	\$21,357,871	0.2%
Trinity Ventures XI	\$38,505,440	0.4%
Trinity Ventures XII	\$40,016,703	0.4%
TSG7 A LP	\$14,830,545	0.2%
TSG7 B LP	\$1,758,439	0.0%
TSG8 LP	\$5,123,069	0.1%
TSSP Opportunities Partners IV	\$7,497,517	0.1%
Waterland V	\$10,831,815	0.1%
Waterland VI	\$20,332,965	0.2%
Wayzata Opportunities III	\$4,955,381	0.1%
Brigade Capital	\$154,533,470	1.7%
Athyrium Opp II	\$15,249,446	0.2%
Athyrium Opp III	\$14,955,563	0.2%
Benefit St Pr Sr Secure Opp	\$47,052,496	0.5%
Benefit St Pr Sr Secure Opp II	\$2,322,380	0.0%
OrbiMed Royalty & Credit Opp III	\$6,806,245	0.1%
Summit Credit	\$619,895	0.0%
Summit Credit II	\$28,083,442	0.3%
Summit Credit III	\$28,818,467	0.3%
TCP Direct Lending VIII	\$71,173,395	0.8%
Grosvenor SCARF Growth	\$108,618,315	1.2%
Lakewood	\$33,779,486	0.4%
Sculptor Domestic II	\$49,348,475	0.5%
Third Point Offshore Fund	\$43,375,957	0.5%



	Current	%
Prudential	\$472,277,839	5.1%
TCW MetWest Fixed	\$468,529,706	5.1%
Neuberger Berman	\$498,924,550	5.4%
Brandywine Global	\$229,936,038	2.5%
AQR DELTA II	\$34,434,822	0.4%
BlackRock Event Driven Equity Fund	\$42,724,458	0.5%
Davidson Kempner Instl Partners LP	\$42,874,121	0.5%
Elliot Associates	\$59,012,737	0.6%
Graham Global Inv II	\$33,259,512	0.4%
Grosvenor SCARF Diversifying	\$148,463,653	1.6%
Grosvenor SCARF B Diversifying	\$67,815,559	0.7%
KLS Diversified Fund	\$33,468,257	0.4%
Laurion Capital	\$55,067,053	0.6%
LMR Fund LTD	\$34,252,987	0.4%
MW Global Opportunities Fund	\$42,932,774	0.5%
Two Sigma Risk Premia Enhanced	\$39,629,069	0.4%
Winton Diversified Futures	\$35,360,568	0.4%
BlackRock RE Leveraged	\$120,815	0.0%
Brookfield Premier RE Partners	\$107,124,893	1.2%
Clarion Lion Properties	\$127,374,421	1.4%
Metlife Core Property	\$64,249,665	0.7%
Prime Property	\$64,373,389	0.7%
Principal US Property	\$48,746,385	0.5%
Prologis Targeted Euro Logistics	\$55,626,905	0.6%
Prologis Targeted US Logistics	\$80,530,545	0.9%
Townsend Real Estate	\$119,981,791	1.3%
Carlyle China Realty	\$8,429,679	0.1%
Carlyle China Rome Logistics	\$37,523,027	0.4%



	Current	%
CIM Opportunity VIII	\$38,381,202	0.4%
Kohlberg Kravis Roberts	\$4,346,336	0.0%
NREP Nordic Strat FCP-FIS	\$4,187,088	0.0%
NREP Nordic Strat II	\$31,241,754	0.3%
NREP Nordic Strat III	\$16,274,332	0.2%
Sculptor Real Estate Fund III	\$13,813,674	0.1%
Asana Partners Fund II	\$2,449,958	0.0%
ECE Euro Prime Shopping II	\$31,168,306	0.3%
European RE Debt II	\$7,320,208	0.1%
Hammes II	\$7,038,175	0.1%
Hammes III	\$5,291,888	0.1%
UBS RE	\$79,433	0.0%
ACM II	\$16,405,982	0.2%
ArcLight Energy VI	\$33,809,823	0.4%
Atalaya SMA	\$16,971,495	0.2%
Brookfield Infra III	\$32,217,731	0.3%
Brookfield Infra IV	\$15,013,645	0.2%
Carlyle Power II	\$29,743,380	0.3%
EnCap Energy IX	\$16,524,911	0.2%
EnCap Energy X	\$35,307,231	0.4%
EnCap Flatrock Midstream III	\$16,776,103	0.2%
EnCap Flatrock Midstream IV	\$8,831,011	0.1%
EQT Infrastructure Fund IV	\$15,770,760	0.2%
First Reserve	\$22,609,707	0.2%
IFM Global Infrastructure US LP	\$130,267,920	1.4%
ISQ Global Infrastructure Fund II	\$32,664,176	0.4%



	Current	%
Meridiam Infra N America III	\$905,136	0.0%
Paine Schwartz Food Chain V	\$4,104,975	0.0%
Pantheon Ventures	\$76,637,913	0.8%
Quantum Energy VI	\$35,544,121	0.4%
Quantum Energy VII	\$19,851,109	0.2%
Tailwater Energy Fund III	\$26,376,922	0.3%
Tailwater Energy IV	\$5,491,299	0.1%
Wastewater Opportunity	\$22,186,171	0.2%
Brookfield Liquid Real Return	\$84,945,741	0.9%
SSgA Barclays 1-10 Yrs TIPS Index	\$14,890,793	0.2%
SSgA Real Asset	\$34,942,224	0.4%
Atalaya Special Opportunities V	\$6,691,688	0.1%
Cash Account	\$73,482,455	0.8%
Dedicated Cash Allocation	\$95,897,804	1.0%
Transition Account	\$1	0.0%
Heitman Adv JMB V	\$8,390	0.0%
SSgA Overlay	\$108,579,244	1.2%
Total	\$9,257,864,129	100.0%



Statistics Summary

3 Years

	Anlzd Return	Anlzd Return Rank	Anlzd Standard Deviation	Anlzd Standard Deviation Rank	Sharpe Ratio	Sharpe Ratio Rank	Information Ratio	Information Ratio Rank	Tracking Error	Tracking Error Rank
Total Fund	5.5%	3	7.5%	22	0.5	5	0.9	13	1.6%	72
Policy Index	4.0%	16	6.7%	14	0.3	18			0.0%	1
Total Fund ex Overlay	5.4%	4	7.5%	21	0.5	5	0.8	16	1.7%	79
Policy Index	4.0%	16	6.7%	14	0.3	18			0.0%	1

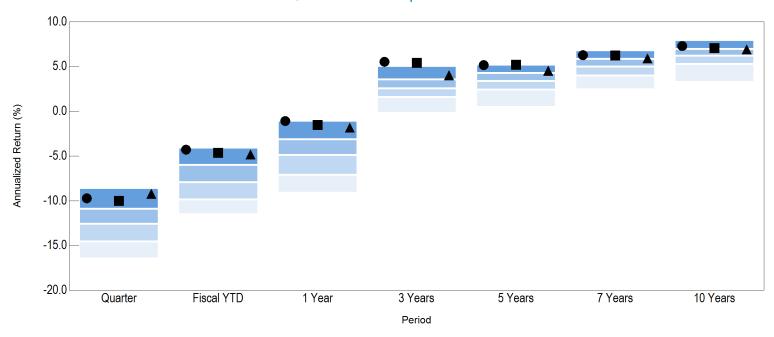
Statistics Summary

5 Years

	Anlzd Return	Anlzd Return Rank	Anlzd Standard Deviation	Anlzd Standard Deviation Rank	Sharpe Ratio	Sharpe Ratio Rank	Information Ratio	Information Ratio Rank	Tracking Error	Tracking Error Rank
Total Fund	5.2%	6	7.1%	30	0.6	12	0.4	27	1.7%	82
Policy Index	4.5%	17	6.2%	13	0.5	13			0.0%	1
Total Fund ex Overlay	5.2%	6	6.9%	23	0.6	9	0.4	22	1.6%	75
Policy Index	4.5%	17	6.2%	13	0.5	13			0.0%	1



InvMetrics Public DB > \$1B Gross Return Comparison

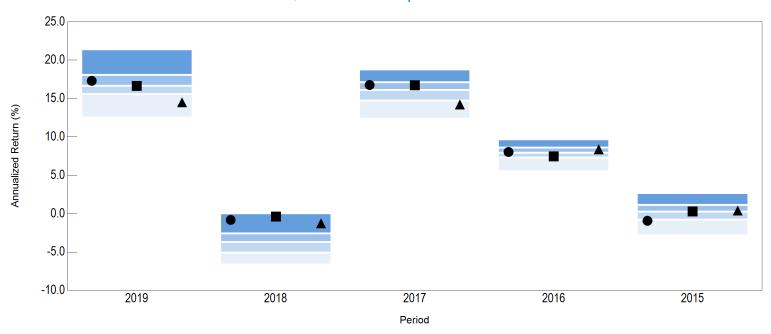


5th Percentile	
25th Percentile	
Median	
75th Percentile	
95th Percentile	
# of Portfolios	
Total Fund	

■ Total Fund ex Overlay
■ Policy Index

Return (Rar	nk)												
-8.6	•	-4.1		-1.1		5.0		5.2		6.8		7.9	
-10.9		-6.0		-3.1		3.6		4.3		5.9		7.0	
-12.6		-7.9		-4.9		2.6		3.4		5.0		6.2	
-14.5		-9.8		-7.1		1.6		2.4		4.0		5.3	
-16.4		-11.5		-9.1		-0.2		0.5		2.5		3.3	
75		75		75		75		74		72		69	
-9.7	(15)	-4.3	(9)	-1.1	(6)	5.5	(3)	5.2	(6)	6.3	(12)	7.3	(17)
-10.0	(19)	-4.6	(15)	-1.5	(14)	5.4	(4)	5.2	(6)	6.2	(14)	7.0	(24)
-9.2	(13)	-4.8	(16)	-1.8	(16)	4.0	(16)	4.5	(17)	5.9	(25)	6.9	(27)

InvMetrics Public DB > \$1B Gross Return Comparison



	Return (Rank)									
5th Percentile	21.4		0.0		18.8		9.7		2.7	
25th Percentile	18.1		-2.6		17.2		8.6		1.1	
Median	16.7		-3.7		16.2		8.0		0.3	
75th Percentile	15.6		-5.1		14.8		7.4		-0.7	
95th Percentile	12.5		-6.6		12.4		5.5		-2.8	
# of Portfolios	81		71		98		92		98	
Total Fund	17.3	(40)	-0.8	(7)	16.8	(38)	8.0	(46)	-0.9	(83)
■ Total Fund ex Overlay	16.6	(52)	-0.4	(6)	16.7	(39)	7.5	(73)	0.3	(51)
▲ Policy Index	14.5	(88)	-1.3	(10)	14.2	(82)	8.4	(34)	0.4	(46)



InvMetrics Public DB > \$1B Gross Return Comparison



	Return (Rank)									
5th Percentile	8.5		20.2		14.7		3.3		15.7	
25th Percentile	6.8		17.0		13.9		1.6		14.2	
Median	5.7		15.0		13.0		8.0		13.5	
75th Percentile	4.9		12.0		12.1		0.1		12.5	
95th Percentile	3.1		8.7		9.2		-0.9		10.2	
# of Portfolios	79		67		74		68		66	
Total Fund	5.5	(61)	16.5	(31)	13.7	(36)	0.4	(60)	13.2	(62)
■ Total Fund ex Overlay	5.3	(65)	15.6	(43)	13.6	(41)	-0.3	(86)	12.2	(81)
▲ Policy Index	6.4	(34)	14.0	(64)	13.4	(42)	1.0	(38)	13.5	(53)



Total Plan Policy Index	As of:									
	7/1/19	7/1/17	4/1/17	1/1/14	1/1/12	1/1/08	2/1/06	9/1/04	1/1/00	7/1/86
91-day UST Bill +5% (AR)			10.0%	10.0%	10.0%	5.0%	5.0%	5.0%		
BBgBarc Aggregate	10.0%	10.0%	10.0%	15.0%	20.0%	20.0%	25.0%	25.0%	30.0%	
BBgBarc US Treasury	5.0%	5.0%	5.0%							
ICE BofA ML High Yield II	1.0%	1.0%	1.0%	1.0%						
Bloomberg Commodity		2.0%	2.0%			5.0%				
Cambridge Associates Private Energy 1 Qtr Lag	2.5%	2.5%								
Cambridge Associates Private Infrastructure 1 Qtr Lag	3.2%	3.2%								
FTSE BIG										23.0%
FTSE WGBI ex US Unhedged	2.4%	2.4%	2.4%	2.4%						
CPI-U +5% (PRA)			7.0%	15.0%	15.0%					
Credit Suisse Leveraged Loans	1.0%	1.0%	1.0%	1.0%						
Credit Suisse Leveraged Loans +2% 1 Qtr Lag	4.0%	4.0%	4.0%							
JPM GBI EM Diversified	0.6%	0.6%	0.6%	0.6%						
HFRI FoF Composite Index + 1%	3.0%	3.0%								
HFRI FoF Conservative Index	7.0%	7.0%								
MSCI ACWI ex US	20.0%	20.0%	20.0%	22.5%	22.5%	20.0%				
MSCI EAFE							15.0%	15.0%	15.0%	15.0%
MSCI Emerging Markets							5.0%	5.0%	5.0%	
NAREIT						3.0%	3.0%			
NFI-ODCE	4.6%	4.6%								
NFI-ODCE net +1% 1Q Lag	2.5%	2.5%								
NCREIF			7.0%			12.0%	12.0%	15.0%	10.0%	15.0%
NCREIF Farmland 1 Qtr Lag	0.7%	0.7%								
NCREIF Timberland Index Lagged	0.7%	0.7%								
Russell 1000							30.0%	30.0%	35.0%	
Russell 1000 +3% 1QL (PE)				10.0%	10.0%					
Russell 2000							5.0%	5.0%	5.0%	
Russell 3000	20.0%	21.0%	21.0%	22.5%	22.5%	30.0%				47.0%
S&P 500 +2% 1QL (PE)						5.0%				
Thomson Reuters C A All PE 1 Qtr Lag	9.0%	9.0%	9.0%							
Bloomberg Roll Select Commodity Total Return	0.2%									
Bloomberg Barclays U.S. Floating Rate Note < 5 Yr	0.2%									
S&P Global LargeMidCap Commodity and Resources	0.2%									
S&P Global Infrastructure Index - Net of Tax on Dividend	0.5%									
Bloomberg Barclays U.S. Government Inflation-Linked 1-10 Yrs	0.6%									
FTSE EPRA Nareit Developed Liquid Index	0.3%									
ICE LIBOR Spot/Next Overnight USD	1.0%									
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%



Growth Benchmark	As of:			
	7/1/19	7/1/17	4/1/17	
91 Day T-Bill +5%			5.08%	
ICE BofA ML High Yield II	1.73%	1.70%	1.70%	
Credit Suisse Leveraged Loans	1.73%	1.70%	1.70%	
Credit Suisse Leveraged Loan + 2% 1 Qtr Lag	6.90%	6.78%	6.78%	
HFRI FoF Composite Index + 1%	5.17%	5.08%		
MSCI ACWI ex US	34.48%	33.90%	33.90%	
Russell 3000	34.48%	35.59%	35.59%	
Thomson Reuters C A All PE 1 Qtr Lag	15.52%	15.25%	15.25%	
	100.0%	100.0%	100.0%	
US Equity Benchmark	As of:			
	1/1/08	9/1/04	1/1/00	7/1/86
Russell 1000		85.71%	87.5%	
Russell 2000		14.29%	12.5%	
Russell 3000	100.0%			100.0%
	100.0%	100.0%	100.0%	100.0%
Large Cap Active Benchmark	As of:			
	2/1/19	9/1/08		
Russell 1000 Value		100.0%		
Russell 1000	100.0%	100.070		
	100.0%	100.0%		
International Equity Benchmark	As of:			
international Equity Benomiark	1/1/08	1/1/00	7/1/86	
MSCI ACWI ex US	100.0%	171700	171700	
MSCI EAFE	100.070	75.0%	100.0%	
MSCI Emerging Markets		25.0%	100.070	
WOOT Emerging warkers	100.0%	100.0%	100.0%	
	100.070	100.070	100.070	
Private Equity Benchmark	As of:			
	4/1/17	1/1/12	1/1/08	
Russell 1000 +3% 1QL		100.0%		
S&P 500 +2% 1QL			100.0%	
Thomson Reuters C A All PE 1 Qtr Lag	100.0%			
	100.0%	100.0%	100.0%	
Public Credit Benchmark	As of:			
	4/1/17			
ICE BofA ML High Yield II	50.0%			
Credit Suisse Leveraged Loans	50.0%			

Private Credit Benchmark	As of:	
	4/1/17	
Credit Suisse Leveraged Loan + 2% 1 Qtr Lag	100.0%	
	100.0%	
Growth Oriented Absolute Return Benchmark	As of:	
04 dov.LICT Bill . E0/	7/1/17	4/1/1 100.09
91-day UST Bill +5% HFRI FoF Composite Index + 1%	100.0%	100.09
HENT FOR Composite index + 1%	100.0%	100.0%
Diversifying Benchmark	As of:	
	7/1/17	4/1/1
91 Day T-Bill +5%		28.09
BBgBarc US Aggregate	40.0%	40.09
BBgBarc US Treasury	20.0%	20.0%
FTSE WGBI ex US Unhedged	9.6%	9.6%
HFRI FoF Conservative Index	28.0%	
JPM GBI EM Diversified	2.4%	2.49
	100.0%	100.09
Global Fixed Income Benchmark	As of:	
	6/1/13	
FTSE WGBI ex US Unhedged	80.0%	
JPM GBI EM Diversified	20.0%	
	100.0%	
Diversifying Absolute Return Benchmark	As of:	
Diversifying Absolute Retain Benominary	7/1/17	4/1/1
91-day UST Bill +5%		100.09
HFRI FoF Conservative Index	100.0%	100.07
	100.0%	100.09
Real Return Benchmark	As of:	
	4/1/19	4/1/1
Real Estate Benchmark	43.75%	43.75%
Private Real Assets Benchmark	43.75%	43.759
Bloomberg Commodity	40.500	12.509
Liquid Real Return Custom Benchmark	12.50% 100.0%	100.0%
	100.076	100.07
Real Estate Benchmark	As of:	
	7/1/17 7	71/2011
NCREIF		100.09
NFI-ODCE	65.0%	
NFI-ODCE net +1% 1Q Lag	35.0%	
	100.0%	100.0%



RE-Value Added Benchmark	As of:		
	7/1/16	10/1/08	
NCREIF +2% 1Q Lag		100.0%	
NFI-ODCE net +1% 1Q Lag	100.0%		
	100.0%	100.0%	
Private Real Assets Benchmark	As of:		
	7/1/17	4/1/17	
CPI-U Headline +5%		100.0%	
Cambridge Associates Private Energy 1 Qtr Lag	35.0%		
Cambridge Associates Private Infrastructure 1 Qtr Lag	45.0%		
NCREIF Farmland 1 Qtr Lag	10.0%		
NCREIF Timberland Index Lagged	10.0%		
	100.0%	100.0%	
Liquid Real Return Custom Benchmark	As of:		
•	7/1/19		
Bloomberg Roll Select Commodity Total Return	10.0%		
Bloomberg Barclays U.S. Floating Rate Note < 5 Yr	10.0%		
S&P Global LargeMidCap Commodity and Resources	10.0%		
S&P Global Infrastructure Index - Net of Tax on Dividend	25.0%		
Bloomberg Barclays U.S. Government Inflation-Linked 1-10 Yrs	30.0%		
FTSE EPRA Nareit Developed Liquid Index	15.0%		
	100.0%		

AllianceBernstein Benchmark	As of:	4/4/00	E/4/00
Russell 1000	1/1/01 100.0%	1/1/98	5/1/89
Russell 3000	100.070	100.0%	
Wilshire 2500			100.0%
	100.0%	100.0%	100.0%
Eagle Capital Benchmark	As of:		
	2/1/19	9/1/08	
Russell 1000 Value		100.0%	
Russell 1000	100.0%		
	100.0%	100.0%	
Brandywine Benchmark	As of:		
,	6/1/13		
FTSE WGBI ex US Unhedged	80.0%		
JPM GBI EM Diversified	20.0%		
	100.0%		
Brigade Benchmark	As of:		
2.192.00 201101111111	12/1/13		
ICE BofA ML High Yield II	50.0%		
Credit Suisse Leveraged Loans	50.0%		
	100.0%		
Brookfield Real Return Custom	As of:		
	12/1/2019		
FTSE Global Core Infrastructure 50/50 Index	30.0%		
FTSE EPRA Nareit Developed Index	20.0%		
ICE BofA 7% Constrained REIT Preferred Securities Index	10.0%		
ICE BofA USD Real Asset High Yield Custom Index	16.0%		
ICE BofA USD Real Asset Corporate Custom Index	24.0%		
	100.0%		
SSgA Real Asset Benchmark	As of:		
•	As of: 3/2/2018	10/1/15	2/1/08
BBgBarc US Govt Inflation-Linked 1-10 Yrs		10.0%	
BBgBarc US Govt Inflation-Linked 1-10 Yrs BBgBarc US TIPS	3/2/2018		
BBgBarc US Govt Inflation-Linked 1-10 Yrs BBgBarc US TIPS BBgBarc 1-10 Yr US TIPS	3/2/2018	10.0% 10.0%	
BBgBarc US Govt Inflation-Linked 1-10 Yrs BBgBarc US TIPS BBgBarc 1-10 Yr US TIPS BBgBarc Roll Select Commodity TR	3/2/2018 30.0% 10.0%	10.0%	
BBgBarc US Govt Inflation-Linked 1-10 Yrs BBgBarc US TIPS BBgBarc 1-10 Yr US TIPS BBgBarc Roll Select Commodity TR BBgBarc USD Floating Rate Note <5yr	3/2/2018	10.0% 10.0%	20.0%
BBgBarc US Govt Inflation-Linked 1-10 Yrs BBgBarc US TIPS BBgBarc 1-10 Yr US TIPS BBgBarc Roll Select Commodity TR BBgBarc USD Floating Rate Note <5yr DJ US Select REIT	30.0% 10.0% 10.0%	10.0% 10.0% 20.0%	20.0%
BBgBarc US Govt Inflation-Linked 1-10 Yrs BBgBarc US TIPS BBgBarc 1-10 Yr US TIPS BBgBarc Roll Select Commodity TR BBgBarc USD Floating Rate Note <5yr DJ US Select REIT FTSE EPRA/NAREIT Developed Liquid	3/2/2018 30.0% 10.0%	10.0% 10.0% 20.0%	20.0%
BBgBarc US Govt Inflation-Linked 1-10 Yrs BBgBarc US TIPS BBgBarc 1-10 Yr US TIPS BBgBarc Roll Select Commodity TR BBgBarc USD Floating Rate Note <5yr DJ US Select REIT FTSE EPRA/NAREIT Developed Liquid MSCI World Natural Resources	30.0% 10.0% 10.0% 15.0%	10.0% 10.0% 20.0%	20.0%
BBgBarc US Govt Inflation-Linked 1-10 Yrs BBgBarc US TIPS BBgBarc 1-10 Yr US TIPS BBgBarc Roll Select Commodity TR BBgBarc USD Floating Rate Note <5yr DJ US Select REIT FTSE EPRA/NAREIT Developed Liquid MSCI World Natural Resources S&P Global Large Mid Cap Commodity Resources	3/2/2018 30.0% 10.0% 10.0% 15.0%	10.0% 10.0% 20.0% 10.0% 20.0%	20.0%
BBgBarc US Govt Inflation-Linked 1-10 Yrs BBgBarc US TIPS BBgBarc 1-10 Yr US TIPS BBgBarc Roll Select Commodity TR BBgBarc USD Floating Rate Note <5yr DJ US Select REIT FTSE EPRA/NAREIT Developed Liquid MSCI World Natural Resources S&P Global Large Mid Cap Commodity Resources S&P Global Infrastructure	30.0% 10.0% 10.0% 15.0%	10.0% 10.0% 20.0%	20.0% 30.0% 25.0%
BBgBarc US Govt Inflation-Linked 1-10 Yrs BBgBarc US TIPS BBgBarc 1-10 Yr US TIPS BBgBarc Roll Select Commodity TR BBgBarc USD Floating Rate Note <5yr DJ US Select REIT FTSE EPRA/NAREIT Developed Liquid MSCI World Natural Resources S&P Global Large Mid Cap Commodity Resources	3/2/2018 30.0% 10.0% 10.0% 15.0%	10.0% 10.0% 20.0% 10.0% 20.0%	2/1/08 20.0% 30.0% 25.0%



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)].

Beachmark 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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