Board of Retirement Regular Meeting

Sacramento County Employees' Retirement System

Agenda Item 16

MEETING DATE: **August 21, 2019**

SUBJECT: **Total Fund Investment Performance Report Second Quarter 2019**

SUBMITTED FOR: ___ **Consent** ___ **Deliberation and Action** _X_ **Receive 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 June 30, 2019.

PURPOSE

This agenda item does not specifically support the 2019-20 Strategic Management Plan, but 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 June 30, 2019. 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 reformatted to reflect SCERS' strategic asset allocation, including the Growth, Diversifying, and Real Return asset categories. Please note that new composites were added for the asset categories and several segments of the portfolio, so the performance of these segments includes the current quarter, YTD, 1-Year, and since inception March 2017 performance for this report, without a historical track record (3-Year and 5-Year).

SCERS TOTAL FUND PERFORMANCE SUMMARY
Quarter Reporting Periods Ending June 30, 2019

SCERS ASSET CLASS	Quarter	Year-to-Date	1-Year	3-Year	5-Year	Since Inception	Since Inception Date
SCERS TOTAL FUND Return w/Overlay	**3.3%**	**10.6%**	**7.2%**	**10.4%**	**6.5%**	**8.4%**	Jun-86
Policy Index	3.1%	9.4%	6.3%	8.7%	6.1%	8.5%	
InvestorForce Public DB > $1B	3.0%	10.4%	5.4%	8.9%	5.8%	8.2%	
SCERS TOTAL FUND Return w/o Overlay	**3.3%**	**10.1%**	**7.0%**	**10.2%**	**6.6%**	**8.3%**	Jun-86
Policy Index	3.1%	9.4%	6.3%	8.7%	6.1%	8.5%	
GROWTH ASSET CATEGORY	**3.9%**	**14.2%**	**8.1%**			**11.5%**	Mar-17
Custom Benchmark	3.6%	12.9%	6.8%			9.7%	
DIVERSIFYING ASSET CATEGORY	**2.9%**	**5.5%**	**5.6%**			**3.5%**	Mar-17
Custom Benchmark	2.7%	5.5%	5.9%			3.8%	
REAL RETURN ASSET CATEGORY	**1.9%**	**4.8%**	**5.2%**			**9.1%**	Mar-17
Custom Benchmark	1.3%	2.5%	4.2%			6.4%	
OPPORTUNITIES PORTFOLIO	**-0.7%**	**1.3%**	**5.3%**	**4.7%**	**6.8%**	**15.0%**	Oct-07
Custom Benchmark	3.1%	9.4%	6.3%	8.7%	6.1%	7.8%	

The SCERS portfolio returned +3.3% for the quarter, outperforming the +3.1% policy index benchmark and the median public fund return of +3.0%. For the fiscal year ending June 30, 2019, the SCERS portfolio returned +7.2%, exceeding SCERS' assumed rate of return of +7.0%, and outperforming the policy index benchmark return of 6.3% and median public fund return of 5.4%.

Growth Asset Category

During the quarter, growth assets continued to move higher following a strong first quarter. SCERS' Public Equity portfolio outperformed the MSCI ACWI benchmark, +3.8% vs. +3.6%. U.S. large capitalization stocks led the Public Equity segment for the quarter, advancing +4.4% compared to the Russell 1000 benchmark return of +4.2%. Private Equity, where results are lagged by one quarter, continued to show strong returns, returning +5.3% and +24.0% for the quarter and 1-year periods, respectively.

SCERS GROWTH Performance Summary for the periods ending 6/30/19	Quarter	Year-to-Date	1-Year	Since Inception	Since Inception Date
SCERS GROWTH ASSET CATEGORY	**3.9%**	**14.2%**	**8.1%**	**11.5%**	Mar-17
Custom Benchmark	3.6%	12.9%	6.8%	9.7%	
Public Equity	**3.8%**	**17.1%**	**6.1%**	**9.0%**	Jun-11
MSCI ACWI	3.6%	16.2%	5.7%	7.7%	
Private Equity (lagged 1 quarter)	**5.3%**	**8.5%**	**24.0%**	**3.3%**	Feb-08
Cambridge All PE	4.3%	3.2%	12.7%	10.3%	
Public Credit	**1.8%**	**6.0%**	**2.4%**	**4.2%**	Nov-13
Custom Benchmark	2.1%	7.8%	5.9%	4.7%	
Private Credit (lagged 1 quarter)	**3.0%**	**2.0%**	**5.6%**	**7.0%**	Mar-17
Credit Suisse Leveraged Loan + 2%	1.9%	6.3%	6.1%	7.0%	
Growth Absolute Return	**2.2%**	**8.7%**	**0.0%**	**4.7%**	Aug-04
HFRI FoF Composite +1%	1.7%	6.7%	2.2%	6.0%	

Diversifying Asset Category

The Diversifying Asset Category generated positive returns in the quarter, led by fixed income markets, driving interest rates lower with the 10-year U.S. Treasury yield ending the quarter at 2.00%, the lowest level since the fourth quarter of 2016. The Diversifying Asset Category returned +2.9% for the quarter, slightly outperforming the custom benchmark. On an absolute basis, the Global Fixed Income segment delivered the highest returns for the quarter, +3.5%, but trailed the benchmark return of +4.0%. The Diversifying Absolute Return asset class outperformed its benchmark for the quarter, +1.8% versus +1.5%, but continued to trail the benchmark for the 1-year period.

SCERS DIVERSIFYING Performance Summary for the periods ending 6/30/19	Quarter	Year-to-Date	1-Year	Since Inception	Since Inception Date
SCERS DIVERSIFYING ASSET CATEGORY	**2.9%**	**5.5%**	**5.6%**	**3.5%**	Mar-17
Custom Benchmark	2.7%	5.5%	5.9%	3.8%	
Core/Core Plus Fixed Income	**3.4%**	**7.0%**	**8.6%**	**3.6%**	Jun-11
Barclays US Aggregate TR	3.1%	6.1%	7.9%	3.2%	
U.S. Treasury	**3.0%**	**5.1%**	**7.2%**	**6.2%**	Feb-18
Barclays US Treasury TR	3.0%	5.2%	7.2%	6.2%	
Global Fixed Income	**3.5%**	**6.9%**	**4.9%**	**2.6%**	May-13
Custom Benchmark	4.0%	6.1%	6.3%	1.3%	
Diversifying Absolute Return	**1.8%**	**2.9%**	**0.3%**	**2.0%**	Nov-11
HFRI FoF Conservative Index	1.5%	4.7%	2.1%	4.6%	

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Real Return Asset Category

SCERS' Real Return portfolio was positive in the quarter, returning +1.9% including the Real Return Overlay Proxy, outperforming the asset category benchmark return of +1.3%. All segments of the portfolio contributed positively to performance in the quarter, with the exception of Commodities, which returned -1.9% for the quarter and -8.1% for the 1-year period.

The Real Return asset category was restructured at the June Board meeting, eliminating the Commodities allocation and replacing the allocation with a Liquid Real Return asset class. The revised asset category structure will be updated with the third quarter performance report. SCERS liquidated the remaining commodities investment at the end of June and shifted the allocation to the SSGA Real Return proxy. SCERS' Staff and Verus began a search for potential managers within the liquid real return segment of the market.

SCERS REAL RETURN Performance Summary	Quarter	Year-to-Date	1-Year	Since Inception	Since Inception Date
SCERS REAL RETURN ASSET CATEGORY					
SCERS Real Return w/ SSgA Proxy	1.9%	4.8%	5.2%	9.1%	Mar-17
SCERS Real Return w/o SSgA Proxy	1.9%	4.4%	5.7%	10.4%	Mar-17
Custom Benchmark	1.3%	2.5%	4.2%	6.4%	Mar-17
SCERS Real Estate	**1.5%**	**3.7%**	**2.8%**	**11.3%**	Jun-11
Custom Benchmark	1.2%	3.4%	6.8%	9.9%	
Core Real Estate (as of 6/30/19)					
Separate Account	0.0%	13.0%	11.9%	7.0%	Sep-08
Commingled Funds	1.8%	3.8%	7.9%	5.1%	Sep-08
NFI-ODCE	1.0%	2.4%	6.4%	5.6%	
Non-Core Real Estate (as of 3/31/19)					
Opportunistic	0.4%	2.6%	-13.2%	21.9%	Feb-14
Value Add	0.9%	0.2%	2.0%	-2.8%	Sep-08
NFI-ODCE net +1%	1.5%	5.1%	7.6%	10.6%	Feb-14
				8.0%	Sep-08
SCERS Real Assets (as of 3/31/19)	**2.8%**	**5.5%**	**12.8%**	**5.8%**	Jan-13
Custom Benchmark	2.3%	0.8%	4.7%	6.5%	
SCERS Commodities (as of 6/30/19)	**-1.9%**	**5.5%**	**-8.1%**	**-6.3%**	May-08
Bloomberg Commodity Index	-1.2%	5.1%	-6.8%	-8.1%	
SSgA Real Return Proxy (as of 6/30/19)	**2.1%**	**10.7%**	**5.3%**	**1.6%**	Jan-08
SSgA Real Assets	2.1%	10.6%	5.1%	N/A	

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 June 30, 2019

Asset Class	Policy Index Benchmark
Growth Asset Category	Blended Weighted Average of Asset Class Benchmarks
US Equities	Russell 3000
International Equities	MSCI ACWI ex.-U.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)
Commodities	Bloomberg Commodity Index
SSgA Real Assets Proxy	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

ATTACHMENT

Verus' Investment Performance Review for SCERS for the period ending June 30, 2019.

Prepared by:

/S/

Brian Miller
Investment Officer

Reviewed by:

/S/

Steve Davis
Chief Investment Officer

/S/

Eric Stern
Chief Executive Officer

Verus

PERSPECTIVES THAT DRIVE ENTERPRISE SUCCESS

PERIOD ENDING: JUNE 30, 2019

Investment Performance Review for

Sacramento County Employees' Retirement System

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2nd quarter summary

THE ECONOMIC CLIMATE

— U.S. real GDP expanded 3.2% YoY in Q1 (3.1% quarterly annualized rate). Year-over-year growth was the strongest since the second quarter of 2015. The U.S. Congressional Budget Office expects the U.S. economy to slow to a 2.1% pace in 2020, near the growth rate of other developed markets.

— Effective May 10th, U.S. tariff rates on $200 billion in Chinese imports were hiked from 10% to 25%, and the Chinese responded with commensurate tariff rate hikes. In June, Presidents Trump and Xi met on the sidelines of the G20 summit in Osaka. The meeting yielded a “trade truce” in which both countries agreed to pause any additional tariffs.

PORTFOLIO IMPACTS

— Equity performance in Q2 appears to have been largely driven by higher prices, rather than improved earnings expectations. Estimated Q2 S&P 500 earnings worsened from -0.5% to -2.6% during this time.

— U.S. inflation remained stable at 2.1% YoY in June, excluding food & energy. Headline inflation rose 1.6% YoY, dragged down by falling energy prices. Core inflation has been range-bound over the past five years, fluctuating between 1.7% and 2.3%. Investors and consumers expect this trend to continue.

THE INVESTMENT CLIMATE

— The Federal Open Market Committee left the range for its benchmark interest rate unchanged at 2.25%-2.50% and reiterated that it would continue to act appropriately to sustain the expansion. Markets interpreted the press conference as confirmation of a 0.25% rate cut in July.

— European Central Bank President Mario Draghi issued dovish forward guidance, announcing that “additional stimulus” was on the table should the economic backdrop worsen, and inflation remain subdued. European and international developed sovereign yields have fallen along with U.S. yields. German 10-year bunds closed the month at new lows of -0.33%.

ASSET ALLOCATION ISSUES

— Risk assets delivered strong returns over the quarter. Global Equities gained +3.6% and U.S. high yield gained +2.5%. Longer duration exposures generally outperformed as interest rates fell.

— U.S. equity prices have continued to rise on expectations of nearly three interest rate cuts in 2019 and perhaps an assumption that U.S. earnings exceptionalism will extend into the future. If domestic conditions converge with other developed economies and these expectations turn out to be overly optimistic, we believe U.S. equities may possess greater downside risk.

A neutral risk stance may be appropriate in today’s environment

U.S. economics summary

— U.S. real GDP expanded 3.2% YoY in Q1 (3.1% quarterly annualized rate). Year-over-year growth was the strongest since the second quarter of 2015.

— The U.S. economy is expected to slow to a 2.1% pace in 2020, near the growth rate of other developed markets, as indicated by the U.S. Congressional Budget Office.

— U.S.-China trade remained central to headlines over the quarter. Effective May 10th, U.S. tariff rates on $200 billion in Chinese imports were hiked from 10% to 25%, and the Chinese responded with commensurate tariff increases. In June, Presidents Trump and Xi met on the sidelines of the G20 summit in Osaka. The meeting yielded a "trade truce" in which both countries agreed to pause any additional tariff rate hikes.

— Headline CPI inflation fell from a YoY rate of 1.9% in March to 1.6% in June. PCE inflation, the Fed's preferred inflation gauge, ticked up from a YoY rate of 1.5% at the end of the 1st quarter to 1.6% in May.

— Average hourly earnings grew 3.1% YoY in June, below expectations of 3.2%. The average non-farm private workweek fell slightly from 34.5 hours per week to 34.4.

— The labor market continued to show strength in Q2. The U-3 unemployment rate touched 50-year lows at 3.6% in May and ended the quarter in June at 3.7%.

— The Federal Open Market Committee messaged that it would continue to "act as appropriate to sustain the expansion", which markets viewed as dovish. Over the quarter, expectations for additional 2019 rate cuts moved from a 64% chance of a 0.25% cut to a 61% chance of 0.75% in cuts.

	Most Recent	**12 Months Prior**
GDP *(YoY)*	3.2% *3/31/19*	2.6% *3/31/18*
Inflation *(CPI YoY, Core)*	2.1% *6/30/19*	2.2% *6/30/18*
Expected Inflation *(5yr-5yr forward)*	1.9% *6/30/19*	2.2% *6/30/18*
Fed Funds Target Range	2.25 – 2.50% *6/30/19*	1.75 – 2.00% *6/30/18*
10 Year Rate	2.0% *6/30/19*	2.9% *6/30/18*
U-3 Unemployment	3.7% *6/30/19*	4.0% *6/30/18*
U-6 Unemployment	7.2% *6/30/19*	7.8% *6/30/18*

International economics summary

— U.S.-China trade remained central to headlines over the quarter. Effective May 10th, U.S. tariff rates on $200 billion in Chinese imports were hiked from 10% to 25%, and the Chinese responded with commensurate tariff rate hikes. In June, Presidents Trump and Xi met on the sidelines of the G20 summit in Osaka. The meeting yielded a "trade truce" in which both countries agreed to pause any additional tariff rate hikes.

— The U.K. Prime Minister Theresa May announced her resignation effective June 7th. In July, Boris Johnson defeated Jeremy Hunt and will replace Theresa May as Britain's next prime minister. Mr. Johnson has taken a harder line on Brexit than Mr. Hunt, and his election likely increases the probability that the U.K. exits the E.U. without a deal.

— President Trump called off prospective 5% tariffs on Mexican imports after the two countries signed an immigration deal aimed at reducing illegal border crossings. The deal expanded the Migrant Protection Protocols program, which requires asylum-seekers to wait on the Mexican side of the border while their cases are reviewed.

— Chinese GDP growth slowed 0.2% to 6.2% YoY in the second quarter, its slowest rate in 27 years. On a brighter note, YoY growth in industrial production and retail sales both surprised to the upside, supporting the view that Beijing's countercyclical easing measures have proven effective.

— The Citi Global Economic Surprise Index fell from -18.8 to -27.7 in June, registering its 15th consecutive month in negative territory.

Area	**GDP (Real, YoY)**	**Inflation (CPI, YoY)**	**Unemployment**
United States	3.2% *3/31/19*	1.6% *6/30/19*	3.7% *6/30/19*
Eurozone	1.2% *3/31/19*	1.1% *5/31/19*	7.5% *5/31/19*
Japan	0.9% *3/31/19*	0.7% *5/31/19*	2.4% *5/31/19*
BRICS Nations	5.2% *3/31/19*	2.4% *3/31/19*	5.2% *3/31/19*
Brazil	1.4% *3/31/19*	3.4% *6/30/19*	12.4% *6/30/19*
Russia	2.7% *12/31/18*	4.7% *6/30/19*	4.5% *5/31/19*
India	7.2% *12/31/18*	3.2% *6/30/19*	8.5% *12/31/17*
China	6.4% *3/31/19*	2.7% *6/30/19*	3.7% *3/31/19*

Equity environment

— The Russell 1000 Index slightly outperformed international developed equities in Q2, gaining +4.2% while the MSCI EAFE Index gained +3.7%. Perceptions of an accommodative Federal Reserve and views that U.S.-China relations are on a productive track likely impacted price movement.

— Equity performance in Q2 appears to have been largely driven by higher prices, rather than improved earnings expectations. The valuation expansion of equity markets (U.S., international developed, emerging markets) aligned with performance over the quarter.

— According to FactSet, estimated Q2 S&P 500 YoY earnings worsened from -0.5% to -2.6% in Q2. Nine of eleven sectors saw downward revisions to EPS estimates. Further negative revisions will likely act as a headwind to equity performance.

— Currency movement had a material positive impact on unhedged exposure to the U.K. (+3.1%) and Japan (+2.3%) over the quarter, though currency movement had a negligible impact on overall international equity performance (MSCI EAFE). Unhedged currency movement on a 1-year basis has had a substantially negative effect on investors' performance.

— The J.P. Morgan Emerging Market Currency Index gained +0.5% in the second quarter, stabilizing after a downward trend since 2018.

— Size and value factors continued to underperform. Small-cap equities lagged large-cap by -2.1% during the quarter and -13.3% over the past year (Russell 2000 vs. Russell 1000). Value equities underperformed growth by -0.8% over the quarter and by -3.1% over the past year (Russell 1000 Value vs Russell 1000 Growth).

	QTD TOTAL RETURN		1 YEAR TOTAL RETURN	
	(unhedged)	(hedged)	(unhedged)	(hedged)
US Large Cap (Russell 1000)	4.2%		10.0%	
US Small Cap (Russell 2000)	2.1%		(3.3%)	
US Large Value (Russell 1000 Value)	3.8%		8.5%	
US Large Growth (Russell 1000 Growth)	4.6%		11.6%	
International Large (MSCI EAFE)	3.7%	3.5%	1.1%	4.8%
Eurozone (Euro Stoxx 50)	6.2%	6.4%	0.4%	8.6%
U.K. (FTSE 100)	4.0%	0.9%	(2.3%)	3.7%
Japan (NIKKEI 225)	3.1%	0.8%	0.1%	(2.6%)
Emerging Markets (MSCI Emerging Markets)	0.6%	0.1%	1.2%	1.7%

Source: Russell Investments, MSCI, STOXX, FTSE, Nikkei, as of 6/30/19

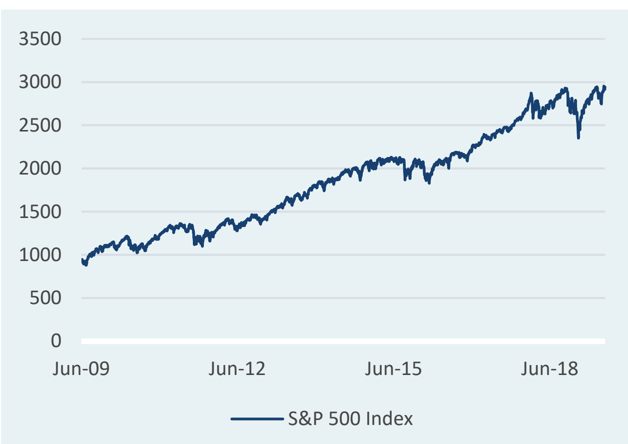
Domestic equity

U.S. equities outperformed in the second quarter following a strong rebound in the first quarter. The S&P 500 Index delivered a total return of 4.3%, bringing its first-half return to 18.5%. Perceptions of an accommodative Federal Reserve and views that U.S-China relations were on a productive track likely impacted price movement.

Over the last decade, U.S. equities have led global equity indices, which is not typically the case. In prior periods, U.S. equities have ranked from slightly below average to slightly above average among regional indices. Furthermore, a portion of U.S. equity outperformance has been due to a move towards high prices, which will most likely negatively impact future performance.

A number of secular trends have helped create a supportive environment for U.S. stocks. Technological advances, falling interest rates and therefore costs of corporate borrowing, and lower corporate tax rates have all helped to boost profit margins to all-time-highs. As expectations moderate, these margins may be increasingly scrutinized by investors.

U.S. EQUITIES



Source: Standard & Poors, as of 6/30/19

SECULAR TRENDS SUPPORTING MARGINS

Source: FRED, BLS, Bloomberg, Verus, as of 6/30/19

U.S. RELATIVE PERFORMANCE - HISTORICAL

	2014-2019	2009-2014	2004-2009	1999-2004	1994-1999
Best	United States	United States	China	Australia	Sweden
	Australia	Sweden	India	India	Spain
	France	Japan	Spain	Canada	France
	India	Germany	Australia	United States	United States
	UK	Switzerland	Sweden	Spain	Germany
	Italy	India	Canada	Switzerland	Switzerland
	Japan	Australia	Germany	UK	UK
	Sweden	UK	UK	Italy	Canada
	Canada	Canada	Switzerland	France	Australia
	Switzerland	France	France	Sweden	India
	Germany	Spain	United States	Japan	Japan
	China	China	Japan	Germany	
Worst	Spain	Italy	Italy		

Source: Verus, as of 6/30/19

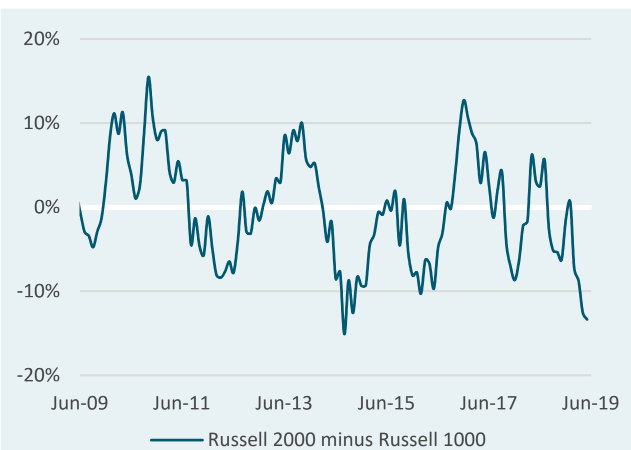
Domestic equity size & style

Size and value factors continued to underperform. Small-cap equities lagged large-cap by -2.1% during the quarter and -13.3% over the past year (Russell 2000 vs. Russell 1000). Value equities underperformed growth by -0.8% over the quarter and by -3.1% over the past year (Russell 1000 Value vs Russell 1000 Growth).

Similar to Q1, the impact of sector performance on the value premium was more nuanced in the second quarter. Financials (+8.0%) and Materials (+6.3%) outperformed the overall index (S&P 500 +13.6%), but Energy (-2.8%) underperformed. Information Technology performed better than the overall index (+6.1%) which acted as a headwind for value stocks.

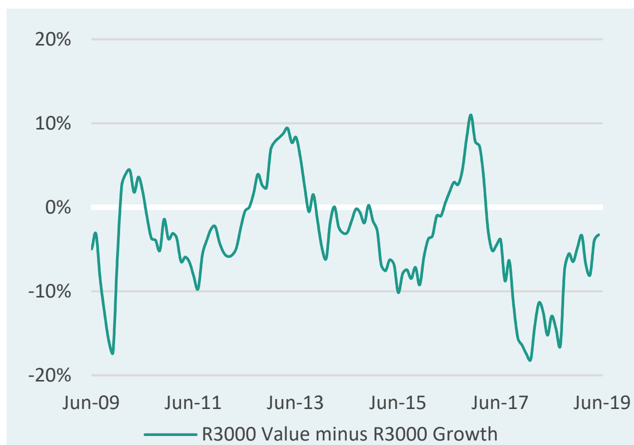
Both small cap and value premia have exhibited underperformance for an extended period of time. Longer periods of underperformance do not necessarily indicate an investment opportunity if value stocks and small cap stocks remain fairly-priced. This appears to be the case today, as neither value stocks nor small cap stocks are particularly cheap by traditional measures.

SMALL CAP VS LARGE CAP (YOY)



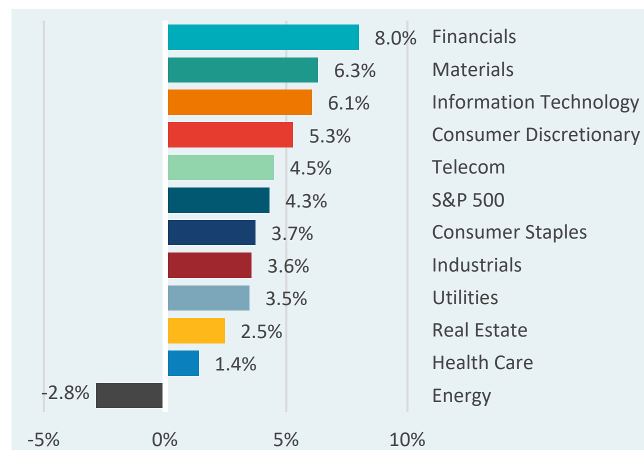
Source: FTSE, as of 6/30/19

VALUE VS GROWTH (YOY)



Source: FTSE, as of 6/30/19

Q2 S&P 500 SECTOR RETURNS



Source: Morningstar, as of 6/30/19

International developed equity

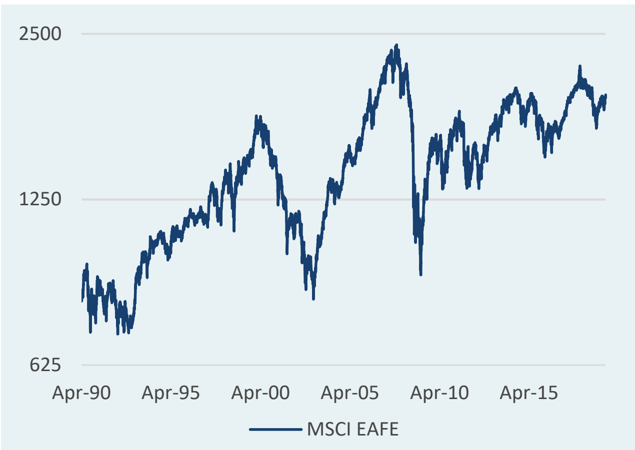
International developed equities posted a second consecutive quarter of solid performance. The MSCI EAFE Index returned +3.9% for the quarter (+14.5% YTD). On a currency hedged basis, the MSCI EAFE Index returned +3.5% for the quarter (+15.2% YTD), indicating that unhedged U.S. investors in EAFE equities benefited from non-dollar exposure over the quarter, but not in the year-to-date.

Japanese equities, which represent about 24% of the MSCI EAFE Index, underperformed, and gained only +0.5% in Q2. Japan's exposure China's economy, which in Q2 grew at its slowest pace in 27 years, likely weighed on performance.

U.K. equities underperformed the international developed equities on an unhedged basis, with the FTSE 100 Index delivering a +3.3% return for the quarter. In U.S. dollar terms, the FTSE 100 Index returned +4.0% in Q2, indicating that the weakness in the British Pound relative to the dollar presented headwinds for unhedged U.S. investors.

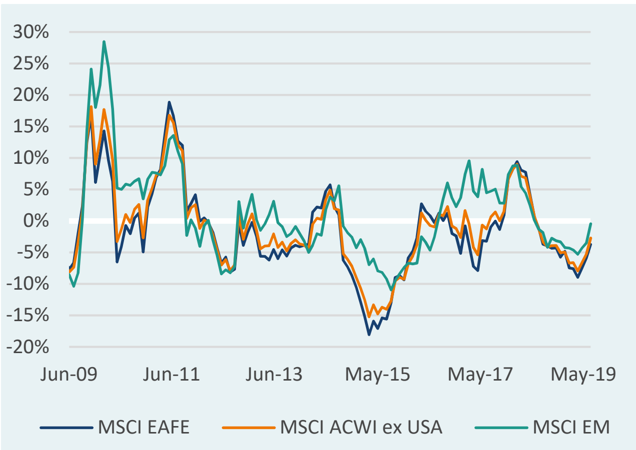
Wage gains and employment have been strong in the U.K., which would typically prompt higher rates and a stronger currency, but the uncertainty surrounding Brexit has likely had a significant impact on the British Pound.

INTERNATIONAL DEVELOPED EQUITIES



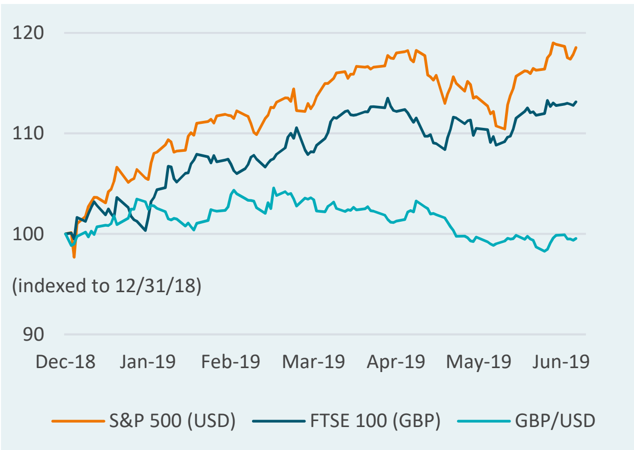
Source: MSCI, as of 6/30/19

EFFECT OF CURRENCY (1-YEAR ROLLING)



Source: MSCI, as of 6/30/19

YTD CUMULATIVE PERFORMANCE (U.S. VS. U.K.)



Source: Bloomberg, as of 6/30/19

Emerging market equity

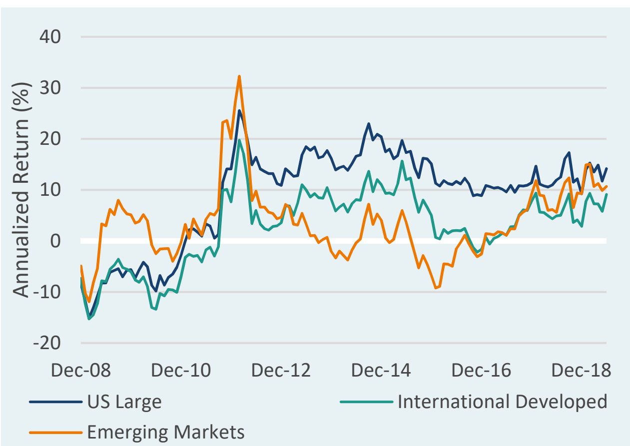
Emerging market equity performance (MSCI Emerging Markets +0.6%) lagged developed markets (MSCI EAFE +3.7%) over the quarter, while U.S. equities outperformed (Russell 1000 +4.2%). Economists expect emerging market economies to accelerate modestly in 2020 and expect developed economies to slow. This divergence may provide a tailwind to emerging market equity performance. Recent central bank dovishness may also boost returns, as easing conditions have often had an outsized positive impact on the emerging markets.

Equity multiples expanded in the second quarter but have kept near their long-term average - the U.S. being an exception. The divide between U.S. equity valuations and the rest of the world remains wide.

Decelerating global growth and a rising probability of recession presents unique risks to emerging markets, as these markets typically exhibit a higher beta during market downside and upside moves. However, a recession does not appear to be on the immediate horizon, and we believe recent central bank easing may lead to emerging market outperformance in the interim.

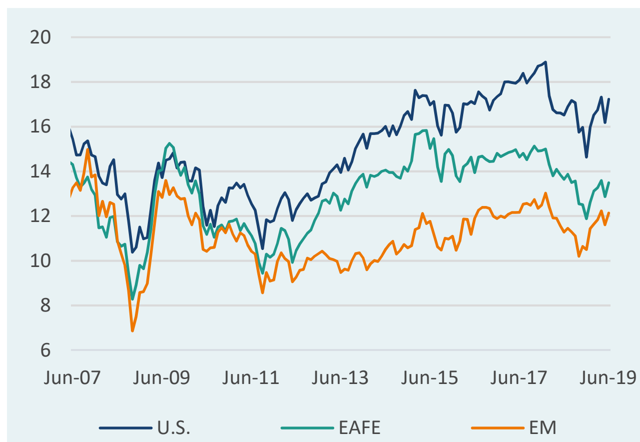
Moderate growth and central bank easing may boost emerging market equities

EQUITY PERFORMANCE (3-YR ROLLING)



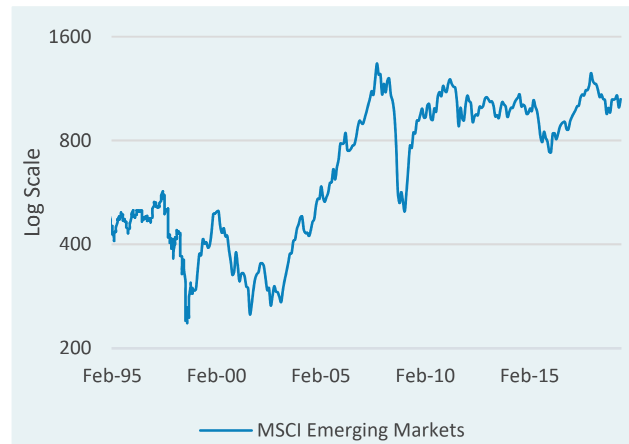
Source: Standard & Poor's, MSCI, as of 6/30/19

FORWARD P/E



Source: MSCI, as of 6/30/19

EMERGING MARKET PERFORMANCE



Source: MSCI, as of 6/30/19

Interest rate environment

— The Federal Open Market Committee left the range for its benchmark interest rate unchanged at 2.25%-2.50% and reiterated that it would continue to act appropriately to sustain the expansion. Markets viewed the Fed's press conference as successful in setting expectations for a 0.25% rate cut in July.

— The fed funds futures market now implies 2 or even 3 rate cuts (0.50% to 0.75% total cuts) as likely by the end of 2019. The market's expectation of three rate cuts seems aggressive, and we worry about possible downside to risk markets if the Fed does not deliver on these expectations.

— U.S. Treasury yields continued to push lower following the messaging from the Federal Reserve. The 10-year U.S. Treasury yield finished the quarter at 2.00%, down from 3.14% in Q4 2018.

— European Central Bank President Mario Draghi announced "additional stimulus" was on the table should the economic backdrop worsen and inflation remain subdued. Over the month, the likelihood that the ECB would cut its main deposit rate from -0.40% to -0.50% by its September meeting rose from 18% to 67%, as indicated by market pricing.

— European and international developed sovereign yields have fallen along with U.S. yields. German 10-year bunds closed the month at new lows of -0.33%.

— High yield bond spreads tightened alongside equities as the asset class was positively impacted by Federal Reserve dovishness. Anticipation of easier interest rate policies, which could potentially lengthen the credit cycle, has strengthened sentiment for risk assets.

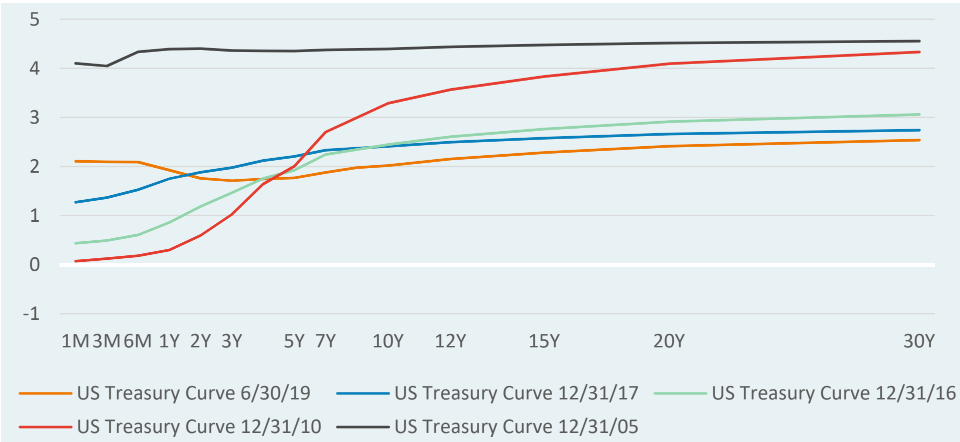
— Emerging market bonds delivered outsized returns in Q2. The JPM GBI-EM Index returned +5.6% and the JPM EMBI Index returned +4.1%.

Area	Short Term (3M)	10-Year
United States	2.09%	2.00%
Germany	(0.57%)	(0.33%)
France	(0.55%)	(0.01%)
Spain	(0.47%)	0.39%
Italy	(0.14%)	2.10%
Greece	0.99%	2.41%
U.K.	0.78%	0.83%
Japan	(0.08%)	(0.17%)
Australia	1.43%	1.32%
China	2.25%	3.21%
Brazil	6.24%	7.44%
Russia	8.03%	8.26%

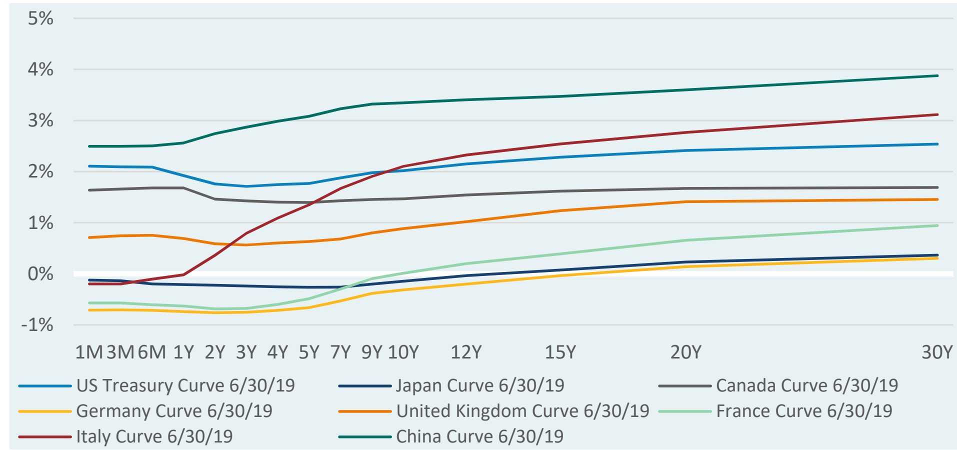
Source: Bloomberg, as of 6/30/19

Yield environment

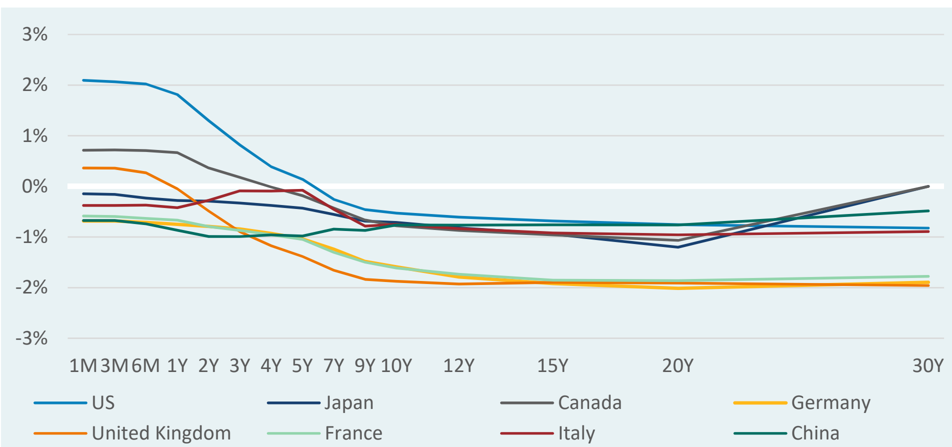
U.S. YIELD CURVE



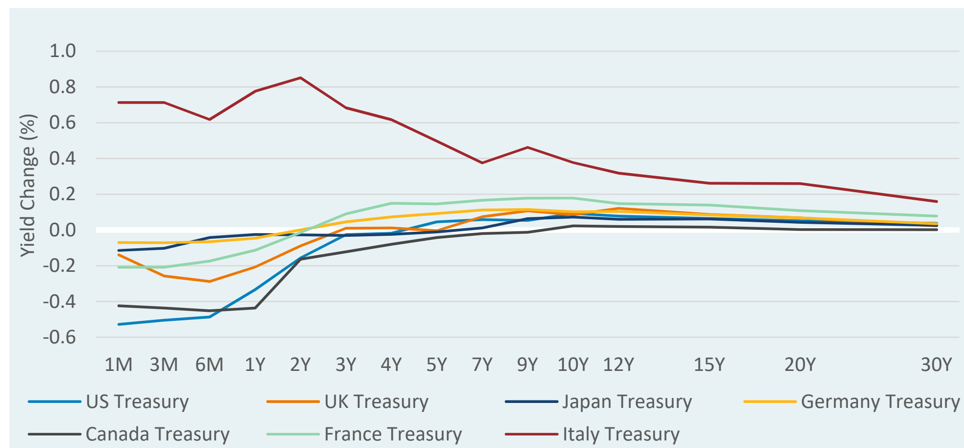
GLOBAL GOVERNMENT YIELD CURVES



YIELD CURVE CHANGES OVER LAST FIVE YEARS



IMPLIED CHANGES OVER NEXT YEAR



Source: Bloomberg, as of 6/30/19

Currency

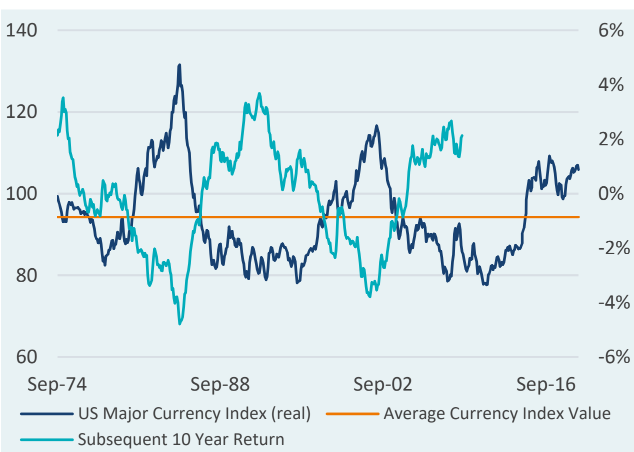
The U.S. dollar depreciated -0.2% in Q2 relative to a trade-weighted basket of currencies. After a period of strength in April and May, the dollar weakened significantly vs. developed currency pairs in June as the Federal Reserve issued dovish guidance. By the end of the quarter, markets were pricing between 0.50% and 0.75% in cuts to the federal funds range in 2019. In Europe, investors were pricing between 0.1% and 0.2% in cuts to the ECB's main deposit rate, which was already in negative territory at -0.40%.

Some analysts attributed the dollar's weakness relative to the euro as a byproduct of converging interest rate differentials driven by the Fed's ability to cut rates more significantly than the ECB.

Emerging market currencies rose in the second quarter, with the JPM Emerging Markets Currency Index gaining 0.5%. The South African Rand led the complex higher.

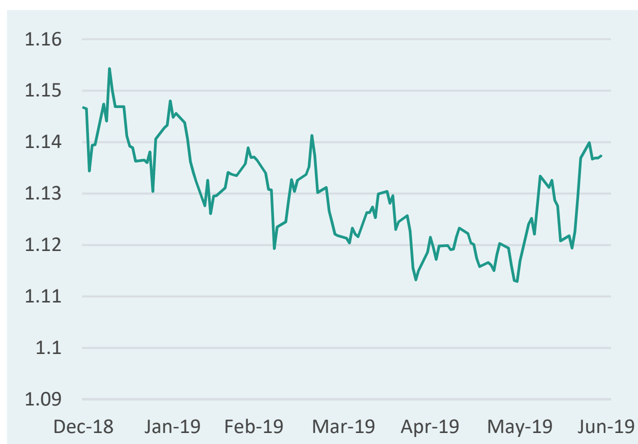
Surprise central bank dovishness has likely contributed to currency movement

U.S. DOLLAR TRADE WEIGHTED INDEX



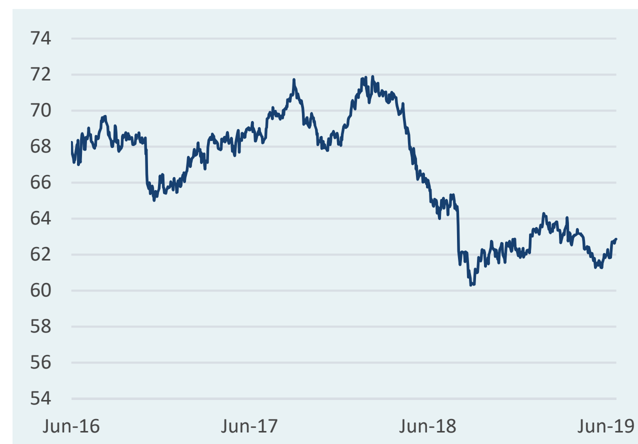
Source: Federal Reserve, Verus, as of 6/30/19

EUR/USD



Source: Bloomberg, as of 6/30/19

JPM EMERGING MARKET CURRENCY INDEX

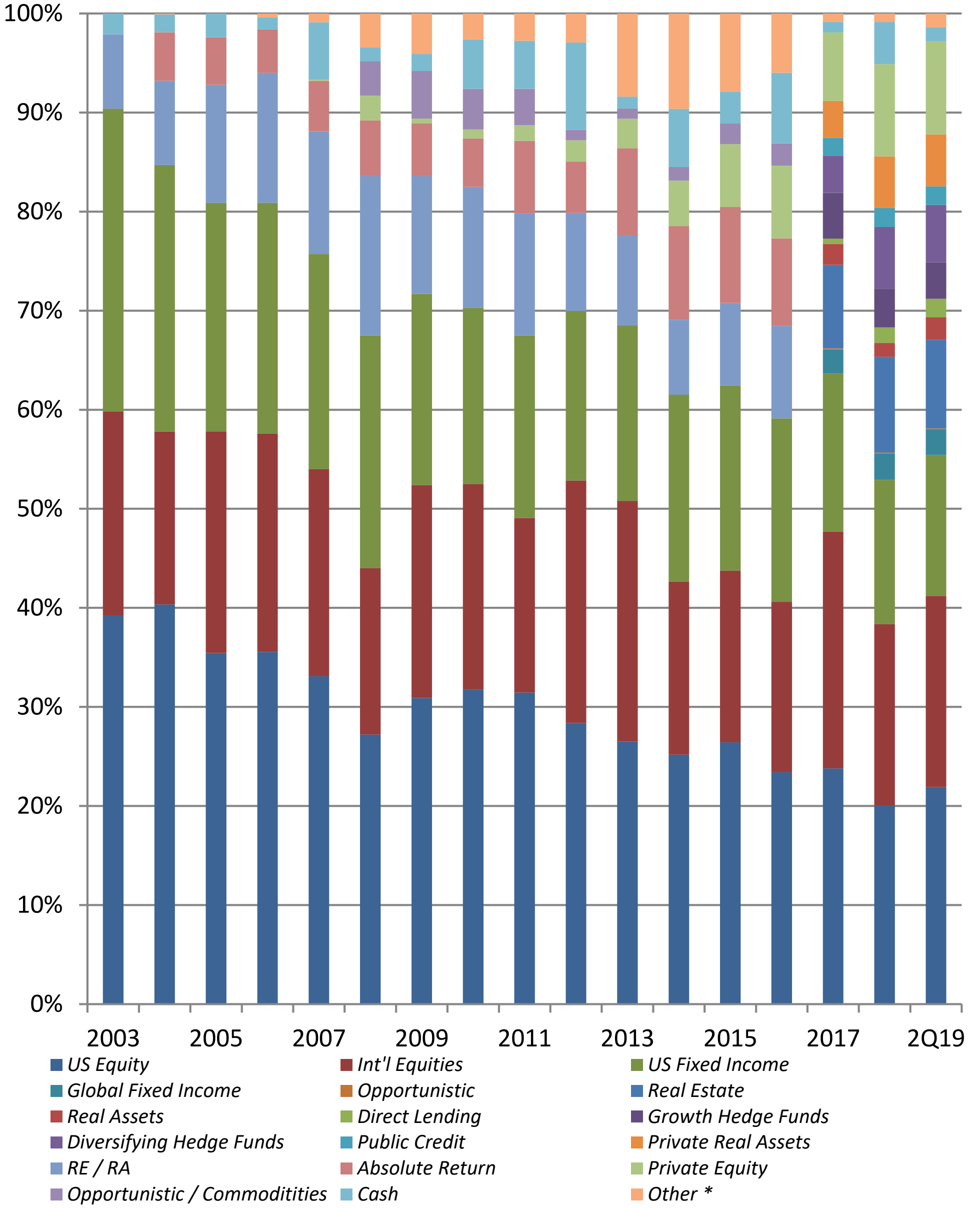


Source: Bloomberg, JPMorgan, as of 6/30/19

Total Fund

Actual Yearly and Quarterly Asset Allocation

Period Ending: June 30, 2019



	2003	2004	2005	2006	2007	2008
US Equity	39.2	40.4	35.4	35.5	33.1	27.2
International Equity	20.6	17.5	22.3	22.0	20.9	16.8
US Fixed Income	30.6	26.9	23.1	23.3	21.7	23.5
Real Estate / Real Assets	7.5	8.5	11.9	13.1	12.4	16.1
Absolute Return	-	4.9	4.8	4.4	5.1	5.6
Private Equity	-	-	-	-	0.1	2.5
Opportunistic / Commodities	-	-	-	-	-	3.5
Cash	2.1	1.8	2.4	1.2	5.8	1.4
Other *	-	0.1	-	0.4	0.9	3.4

	2009	2010	2011	2012	2013	2014
US Equity	30.9	31.7	31.4	28.4	26.5	25.2
International Equity	21.5	20.7	17.6	24.5	24.3	17.5
US Fixed Income	19.3	17.8	18.4	17.1	17.7	18.9
Real Estate / Real Assets	11.9	12.2	12.4	9.9	9.0	7.6
Absolute Return	5.3	4.9	7.3	5.2	8.8	9.4
Private Equity	0.5	0.9	1.6	2.2	3.0	4.6
Opportunistic / Commodities	4.8	4.1	3.7	1.1	1.0	1.4
Cash	1.7	5.0	4.9	8.8	1.2	5.9
Other *	4.1	2.6	2.7	2.9	8.4	9.6

	2015	2016	2017	2018	2019 2Q+
US Equity	26.4	23.4	23.8	20.0	21.9
International Equity	17.3	17.2	23.9	18.3	19.3
US Fixed Income	18.7	18.5	16.0	14.6	14.2
Global Fixed Income	-	-	2.4	2.6	2.6
Public Credit	-	-	1.8	1.9	1.9
Real Estate / Real Assets	8.3	9.3	-	-	-
Real Estate	-	-	8.4	9.7	9.0
Real Assets	-	-	2.1	1.4	2.3
Private Real Assets	-	-	3.7	5.2	5.2
Absolute Return	9.7	8.8	-	-	-
Growth Hedge Funds	-	-	4.6	3.9	3.7
Diversifying Hedge Funds	-	-	3.8	6.2	5.8
Private Equity	6.3	7.4	6.9	9.3	9.4
Direct Lending	-	-	0.5	1.5	1.9
Opportunistic / Commodities	2.1	2.2	-	-	-
Opportunistic	-	-	0.1	0.1	0.1
Cash	3.2	7.1	1.1	4.3	1.4
Other *	7.9	6.0	0.8	0.9	1.4

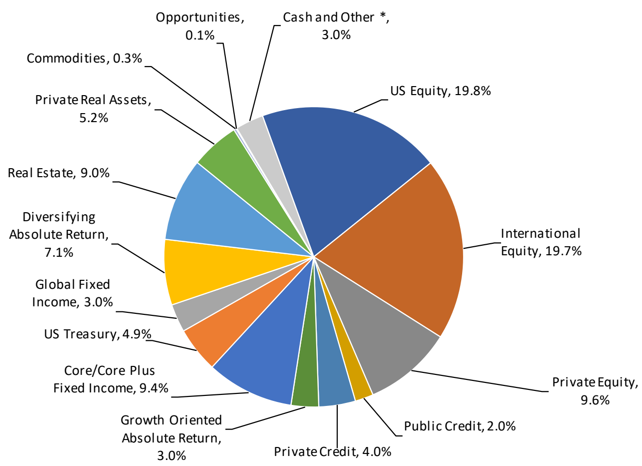
+ Allocations without overlay.

* Other includes SSgA Overlay and closing accounts. Prior to Q2 2017 SSgA Real Assets is also included

Total Fund
Asset Allocation Analysis

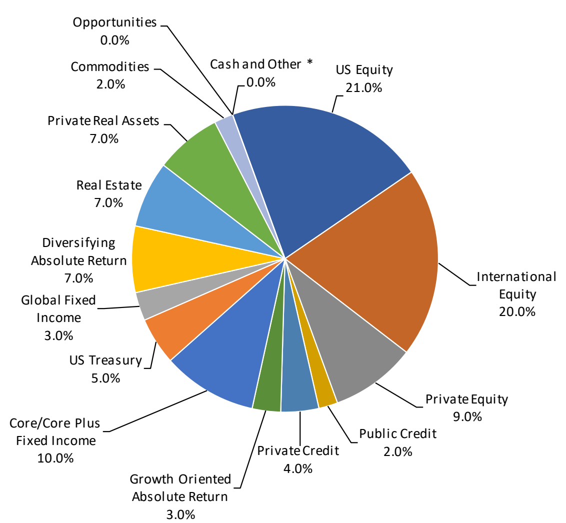
Period Ending: June 30, 2019

Current w/Overlay



ASSET ALLOCATION	MARKET VALUE W/OVERLAY	W/OVERLAY	W/O OVERLAY
US Equity	1,923,337,706	19.8%	21.9%
International Equity	1,914,896,426	19.7%	19.3%
Private Equity	930,874,817	9.6%	9.4%
Public Credit	191,912,928	2.0%	1.9%
Private Credit	383,755,857	4.0%	1.8%
Growth Oriented Absolute Return	289,076,066	3.0%	3.1%
Core/Core Plus Fixed Income	916,714,349	9.4%	9.5%
US Treasury	476,627,762	4.9%	4.7%
Global Fixed Income	294,819,584	3.0%	2.6%
Diversifying Absolute Return	685,500,419	7.1%	6.4%
Real Estate	869,686,123	9.0%	9.0%
Private Real Assets	509,274,391	5.2%	5.2%
Commodities	25,285,295	0.3%	0.3%
Opportunities	7,632,201	0.1%	0.1%
Cash and Other *	295,515,359	3.0%	4.8%
TOTAL	9,714,909,284	100.0%	100.0%

Target



ASSET ALLOCATION	ACTUAL	TARGET	DIFF
US Equity	19.8%	21.0%	-1.2%
International Equity	19.7%	20.0%	-0.3%
Private Equity	9.6%	9.0%	0.6%
Public Credit	2.0%	2.0%	0.0%
Private Credit	4.0%	4.0%	0.0%
Growth Oriented Absolute Return	3.0%	3.0%	0.0%
Core/Core Plus Fixed Income	9.4%	10.0%	-0.6%
US Treasury	4.9%	5.0%	-0.1%
Global Fixed Income	3.0%	3.0%	0.0%
Diversifying Absolute Return	7.1%	7.0%	0.1%
Real Estate	9.0%	7.0%	2.0%
Private Real Assets	5.2%	7.0%	-1.8%
Commodities	0.3%	2.0%	-1.7%
Opportunities	0.1%	0.0%	0.1%
Cash and Other *	3.0%	0.0%	3.0%

* Other includes closing accounts (Heitman), Transition Account, SSgA Overlay of $134 million and SSgA Real Asset of $196 million, which serve as overlay proxy for Real Assets.

– The Total Plan returned 3.3% gross in the second quarter of 2019 and ranked in the second quartile among other public funds greater than $1 billion (3.0% median). The Fund beat its policy index by 20bps during this time period. Longer term, the three-year return of 10.4% beat the median large public plan peer group by 150 bps and SCERS ranked in the top decile of all public plans in the universe. The five year returns of 6.5% ranked in the first quartile among peers.

– Second quarter results (net) were enhanced by the following factors:

1. Eagle Capital gained 6.9%, outperforming the Russell 1000 (4.2%). Eight of the nine sectors contributed positive performance relative to the benchmark for the quarter. Large contributors include Consumer Discretionary, Information Technology, Financials and Energy despite dragging interaction effects from being underweight relative to the benchmark.

2. Mondrian Developed Small Cap outperformed MSCI World ex US Small Cap (4.3% vs. 2.0%). Outperformance was driven by Industrials; In part due to a slight overweight relative to benchmark and strong security selection. Utilities and Information Technology performance can be attributed similarly, while outperformance for both sectors were only modest.

3. William Blair Developed Small Cap gained 5.4% beating the MSCI World US Small Cap (2.0%). Security selection drove outperformance for the quarter. Specifically, within Information Technology and Financials which contributed a combined 2.6% of outperformance.

4. Ballie Gifford Emerging All Cap (2.3%) beat the MSCI Emerging Markets (0.7%). Led mainly by security selection within Financials, the strategy also provided modest outperformance in six other sectors. Energy was a significant detractor from performance.

– Second quarter results (net) were hindered by the following factors:

1. AQR US Enhanced Equity underperformed Russell 1000 (2.9% vs. 4.2 %). Eight of the 11 sectors modestly underperformed relative to the benchmark.

2. Walter Scott & Partners Limited (4.6%) lagged its benchmark, MSCI World ex USA Growth (6.0%). Overweight’s in Energy, Real Estate, Utilities and Cash detracted from relative performance.

Total Fund
Performance Summary

Period Ending: June 30, 2019

	Market Value ($)	% of Portfolio	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	Inception (%)	Inception Date+
Total Fund- Gross*	**9,714,909,284**	**100.0**	**3.3**	**27**	**10.6**	**45**	**7.2**	**14**	**10.4**	**7**	**6.5**	**21**	**8.4**	**Jun-86**
Total Fund- Net			**3.2**	**33**	**10.5**	**49**	**6.9**	**17**	**10.1**	**11**	**6.2**	**30**	**8.2**	
Policy Index[1]			*3.1*	*45*	*9.4*	*79*	*6.3*	*23*	*8.7*	*57*	*6.1*	*32*	*8.5*	*Jun-86*
InvMetrics Public DB > $1B Gross Median			*3.0*		*10.4*		*5.4*		*8.9*		*5.8*		*8.2*	*Jun-86*
Total Fund ex Overlay- Gross**	**9,384,360,682**	**96.6**	**3.3**	**31**	**10.1**	**67**	**7.0**	**16**	**10.2**	**8**	**6.6**	**15**	**8.3**	**Jun-86**
Total Fund ex Overlay- Net			**3.2**	**38**	**9.9**	**69**	**6.8**	**19**	**10.0**	**13**	**6.3**	**22**	**8.1**	
Policy Index			*3.1*	*45*	*9.4*	*79*	*6.3*	*23*	*8.7*	*57*	*6.1*	*32*	*8.5*	*Jun-86*
Allocation ex Overlay Index			*3.0*	*52*	*9.0*	*87*	*6.1*	*29*	*--*	*--*	*--*	*--*	*--*	*Jun-86*
Growth Asset Category- Gross	**5,577,405,336**	**57.4**	**3.9**	**--**	**14.2**	**--**	**8.1**	**--**	**--**	**--**	**--**	**--**	**11.5**	**Mar-17**
Growth Asset Category- Net			**3.7**	**--**	**14.0**	**--**	**7.7**	**--**	**--**	**--**	**--**	**--**	**11.2**	
Growth Custom[1]			*3.6*	*--*	*12.9*	*--*	*6.8*	*--*	*11.7*	*--*	*--*	*--*	*9.7*	*Mar-17*
Public Equities- Gross	**4,004,593,100**	**41.2**	**3.8**	**--**	**17.1**	**--**	**6.1**	**--**	**13.0**	**--**	**7.3**	**--**	**9.0**	**Jun-11**
Public Equities- Net			**3.6**	**--**	**16.7**	**--**	**5.6**	**--**	**12.5**	**--**	**6.9**	**--**	**8.6**	
MSCI ACWI			*3.6*	*--*	*16.2*	*--*	*5.7*	*--*	*11.6*	*--*	*6.2*	*--*	*7.7*	*Jun-11*
US Equity- Gross	**2,127,362,893**	**21.9**	**4.2**	**45**	**19.2**	**33**	**8.8**	**37**	**14.3**	**29**	**10.1**	**33**	**10.1**	**Jun-86**
US Equity- Net			**4.1**	**51**	**19.0**	**37**	**8.5**	**43**	**14.0**	**44**	**9.8**	**45**	**9.9**	
Russell 3000[1]			*4.1*	*53*	*18.7*	*50*	*9.0*	*33*	*14.0*	*44*	*10.2*	*30*	*10.2*	*Jun-86*
InvMetrics All DB US Eq Gross Median			*4.1*		*18.7*		*8.0*		*13.8*		*9.7*		*10.0*	*Jun-86*
Large Cap- Gross	**1,927,938,308**	**19.8**	**4.4**	**--**	**18.6**	**--**	**9.3**	**--**	**14.6**	**--**	**10.3**	**--**	**6.4**	**Mar-98**
Large Cap- Net			**4.3**	**--**	**18.5**	**--**	**9.1**	**--**	**14.4**	**--**	**10.1**	**--**	**6.2**	
Russell 1000			*4.2*	*--*	*18.8*	*--*	*10.0*	*--*	*14.1*	*--*	*10.5*	*--*	*6.9*	*Mar-98*

**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.

1. See Policy Index and Benchmark History

	Market Value ($)	% of Portfolio	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	Inception (%)	Inception Date
Large Cap - Index- Gross	**1,160,590,716**	**11.9**	**4.3**	**--**	**18.8**	**--**	**10.0**	**--**	**14.1**	**--**	**10.4**	**--**	**11.4**	**Sep-08**
Large Cap - Index- Net			**4.3**	**--**	**18.8**	**--**	**10.0**	**--**	**14.1**	**--**	**10.4**	**--**	**11.4**	
Russell 1000			*4.2*	*--*	*18.8*	*--*	*10.0*	*--*	*14.1*	*--*	*10.5*	*--*	*11.4*	*Sep-08*
AB- Gross	1,160,590,716	11.9	4.3	60	18.8	29	10.0	61	14.1	64	10.4	72	10.1	Apr-89
AB- Net			4.3	61	18.8	30	10.0	64	14.1	66	10.4	73	10.0	
Russell 1000			*4.2*	*63*	*18.8*	*26*	*10.0*	*65*	*14.1*	*57*	*10.5*	*70*	*--*	*Apr-89*
eV US Passive Large Cap Equity Gross Median			*4.3*		*18.5*		*10.4*		*14.2*		*10.7*		*10.1*	*Apr-89*
Large Cap - Enhanced- Gross	**244,045,523**	**2.5**	**2.9**	**--**	**16.7**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**3.1**	**Jul-18**
Large Cap - Enhanced- Net			**2.9**	**--**	**16.5**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**2.9**	
Russell 1000			*4.2*	*--*	*18.8*	*--*	*10.0*	*--*	*14.1*	*--*	*10.5*	*--*	*6.3*	*Jul-18*
AQR US Enhanced Equity- Gross	244,045,523	2.5	2.9	79	16.7	64	--	--	--	--	--	--	3.1	Jul-18
AQR US Enhanced Equity- Net			2.9	80	16.5	66	--	--	--	--	--	--	2.9	
Russell 1000			*4.2*	*31*	*18.8*	*29*	*10.0*	*29*	*14.1*	*34*	*10.5*	*46*	*6.3*	*Jul-18*
eV US Enh Equity Gross Median			*3.9*		*17.7*		*8.5*		*13.5*		*10.4*		*5.0*	*Jul-18*
Large Cap (130/30)- Gross	**260,334,215**	**2.7**	**3.5**	**--**	**16.8**	**--**	**7.1**	**--**	**14.9**	**--**	**10.2**	**--**	**11.9**	**Sep-08**
Large Cap (130/30)- Net			**3.3**	**--**	**16.4**	**--**	**6.6**	**--**	**14.1**	**--**	**9.4**	**--**	**11.3**	
Russell 1000			*4.2*	*--*	*18.8*	*--*	*10.0*	*--*	*14.1*	*--*	*10.5*	*--*	*11.4*	*Sep-08*
JP Morgan 130/30- Gross	133,184,269	1.4	4.3	17	18.2	24	8.4	27	15.3	23	10.4	43	11.7	Jul-08
JP Morgan 130/30- Net			4.0	29	17.6	28	7.7	29	14.5	31	9.7	64	11.0	
Russell 1000			*4.2*	*18*	*18.8*	*10*	*10.0*	*16*	*14.1*	*36*	*10.5*	*42*	*10.4*	*Jul-08*
eV Extended US 130/30 Equity Gross Median			*3.3*		*15.7*		*4.8*		*13.1*		*10.1*		*11.0*	*Jul-08*
DE Shaw Broad Mkt Core Alpha Ext- Gross	127,149,946	1.3	2.7	63	--	--	--	--	--	--	--	--	7.7	Jan-19
DE Shaw Broad Mkt Core Alpha Ext- Net			2.7	67	--	--	--	--	--	--	--	--	7.6	
Russell 1000			*4.2*	*18*	*18.8*	*11*	*10.0*	*16*	*14.1*	*30*	*10.5*	*35*	*9.7*	*Jan-19*
eV Extended US Equity Gross Median			*3.2*		*14.9*		*3.7*		*12.6*		*9.8*		*6.1*	*Jan-19*

	Market Value ($)	% of Portfolio	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	Inception (%)	Inception Date
Large Cap Active- Gross	**262,967,855**	**2.7**	**7.1**	**--**	**21.3**	**--**	**11.1**	**--**	**16.2**	**--**	**10.0**	**--**	**11.1**	**Sep-08**
Large Cap Active- Net			**6.9**	**--**	**20.6**	**--**	**10.1**	**--**	**15.3**	**--**	**9.1**	**--**	**10.5**	
Russell 1000[1]			*4.2*	*--*	*18.2*	*--*	*10.3*	*--*	*10.8*	*--*	*7.8*	*--*	*9.5*	*Sep-08*
Eagle Capital- Gross	262,942,581	2.7	7.1	2	21.3	10	11.5	33	17.8	3	11.8	13	14.8	Feb-12
Eagle Capital- Net			6.9	3	20.6	15	10.4	40	16.9	6	11.0	31	14.0	
Russell 1000[1]			*4.2*	*48*	*18.2*	*46*	*10.3*	*41*	*10.8*	*90*	*7.8*	*91*	*11.9*	*Feb-12*
eV US Large Cap Core Equity Gross Median			*4.1*		*17.7*		*9.3*		*13.8*		*10.2*		*13.0*	*Feb-12*
Small Cap- Gross	**199,424,584**	**2.1**	**2.6**	**--**	**25.3**	**--**	**4.5**	**--**	**17.3**	**--**	**9.6**	**--**	**12.0**	**Dec-90**
Small Cap- Net			**2.2**	**--**	**24.9**	**--**	**3.9**	**--**	**16.6**	**--**	**8.9**	**--**	**11.3**	
Russell 2000			*2.1*	*--*	*17.0*	*--*	*-3.3*	*--*	*12.3*	*--*	*7.1*	*--*	*10.6*	*Dec-90*
Small Cap - Growth- Gross	**107,171,162**	**1.1**	**3.9**	**--**	**36.4**	**--**	**14.7**	**--**	**27.3**	**--**	**14.3**	**--**	**13.2**	**Sep-08**
Small Cap - Growth- Net			**3.4**	**--**	**35.7**	**--**	**14.0**	**--**	**26.8**	**--**	**13.7**	**--**	**12.5**	
Russell 2000 Growth			*2.7*	*--*	*20.4*	*--*	*-0.5*	*--*	*14.7*	*--*	*8.6*	*--*	*11.1*	*Sep-08*
Weatherbie- Gross	107,171,162	1.1	3.9	59	36.4	4	14.0	17	30.9	2	17.5	5	13.9	Dec-02
Weatherbie- Net			3.4	70	35.8	4	13.3	19	30.3	3	16.8	7	13.0	
Russell 2000 Growth			*2.7*	*80*	*20.4*	*65*	*-0.5*	*80*	*14.7*	*76*	*8.6*	*80*	*11.1*	*Dec-02*
eV US Small Cap Growth Equity Gross Median			*4.5*		*22.9*		*5.5*		*18.3*		*10.7*		*12.8*	*Dec-02*
Small Cap - Value- Gross	**92,253,422**	**0.9**	**1.1**	**--**	**14.5**	**--**	**-5.0**	**--**	**7.7**	**--**	**5.0**	**--**	**9.0**	**Sep-08**
Small Cap - Value- Net			**1.0**	**--**	**14.3**	**--**	**-5.5**	**--**	**6.9**	**--**	**4.3**	**--**	**8.1**	
Russell 2000 Value			*1.4*	*--*	*13.5*	*--*	*-6.2*	*--*	*9.8*	*--*	*5.4*	*--*	*8.0*	*Sep-08*
Dalton, Greiner- Gross	92,252,199	0.9	1.1	72	14.6	56	-5.0	52	8.2	77	4.6	78	9.9	Dec-00
Dalton, Greiner- Net			1.0	74	14.3	61	-5.4	55	7.5	86	4.0	84	9.1	
Russell 2000 Value			*1.4*	*68*	*13.5*	*72*	*-6.2*	*61*	*9.8*	*51*	*5.4*	*63*	*8.5*	*Dec-00*
eV US Small Cap Value Equity Gross Median			*2.2*		*15.1*		*-4.8*		*9.9*		*6.0*		*10.8*	*Dec-00*

1. See Policy Index and Benchmark History.

	Market Value ($)	% of Portfolio	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	Inception (%)	Inception Date
International Equity- Gross	**1,877,230,207**	**19.3**	**3.4**	**32**	**14.7**	**34**	**3.3**	**12**	**11.0**	**13**	**3.8**	**23**	**6.4**	**Dec-87**
International Equity- Net			**3.1**	**44**	**14.2**	**42**	**2.4**	**18**	**10.4**	**22**	**3.3**	**33**	**6.1**	
MSCI ACWI ex US[1]			*3.2*	*40*	*14.0*	*48*	*1.8*	*26*	*9.9*	*34*	*2.6*	*57*	*6.2*	*Dec-87*
InvMetrics All DB ex-US Eq Gross Median			*2.9*		*13.9*		*0.5*		*9.3*		*2.8*		*7.0*	*Dec-87*
International - Developed- Gross	**1,510,895,029**	**15.6**	**3.9**	**25**	**14.8**	**46**	**2.4**	**31**	**11.3**	**30**	**4.2**	**36**	**4.7**	**Mar-98**
International - Developed- Net			**3.5**	**45**	**14.3**	**53**	**1.4**	**40**	**10.6**	**33**	**3.7**	**49**	**4.2**	
MSCI World ex US Gross			*4.1*	*22*	*15.1*	*43*	*1.8*	*36*	*9.6*	*53*	*2.6*	*72*	*4.8*	*Mar-98*
InvMetrics All DB Dev Mkt ex-US Eq Gross Median			*3.3*		*14.5*		*0.9*		*9.8*		*3.6*		*5.1*	*Mar-98*
Lazard- Gross	380,953,259	3.9	3.5	50	14.3	57	3.4	21	9.7	54	4.2	41	9.2	Jun-12
Lazard- Net			3.4	53	14.2	58	2.9	25	9.4	62	3.9	48	8.9	
MSCI ACWI ex USA Gross			*3.2*	*56*	*14.0*	*60*	*1.8*	*35*	*9.9*	*50*	*2.6*	*68*	*6.9*	*Jun-12*
eV All ACWI ex-US Equity Gross Median			*3.5*		*15.1*		*0.2*		*9.9*		*3.8*		*8.4*	*Jun-12*
Walter Scott & Partners Limited- Gross	528,791,956	5.4	5.5	62	17.9	69	9.0	2	--	--	--	--	13.6	Mar-17
Walter Scott & Partners Limited- Net			4.6	80	16.8	89	7.0	19	--	--	--	--	12.5	
MSCI World ex USA Growth GR USD			*6.0*	*50*	*19.3*	*49*	*4.8*	*49*	*9.9*	*77*	*4.5*	*51*	*9.8*	*Mar-17*
eV EAFE Large Cap Growth Gross Median			*5.9*		*18.9*		*4.7*		*10.8*		*4.5*		*10.0*	*Mar-17*
LSV- Gross	418,706,305	4.3	2.0	50	10.8	67	-3.1	52	9.3	29	2.4	34	4.4	Dec-04
LSV- Net			1.9	53	10.6	72	-3.6	56	8.9	35	2.0	52	4.0	
MSCI World ex US Value Gross			*2.1*	*49*	*10.9*	*65*	*-1.1*	*34*	*9.2*	*31*	*0.6*	*90*	*4.3*	*Dec-04*
eV EAFE Large Cap Value Gross Median			*1.9*		*11.5*		*-3.1*		*8.4*		*2.0*		*4.8*	*Dec-04*
Mondrian Dev Small Cap- Gross	95,334,735	1.0	4.5	31	15.1	48	-1.8	27	9.9	56	4.8	60	9.1	Aug-10
Mondrian Dev Small Cap- Net			4.3	33	14.7	49	-2.5	30	9.1	62	4.1	64	8.5	
MSCI World ex US Small Cap GD			*2.0*	*68*	*13.2*	*59*	*-5.8*	*57*	*8.8*	*66*	*3.8*	*72*	*8.4*	*Aug-10*
eV ACWI ex-US Small Cap Equity Gross Median			*3.2*		*14.3*		*-5.0*		*10.2*		*5.6*		*9.8*	*Aug-10*
William Blair Dev Small Cap- Gross	87,108,774	0.9	5.6	13	19.5	26	-4.9	49	7.8	79	4.3	63	9.1	Sep-08
William Blair Dev Small Cap- Net			5.4	15	19.0	29	-5.8	57	6.8	84	3.4	76	8.1	
MSCI World ex US Small Cap GD			*2.0*	*68*	*13.2*	*59*	*-5.8*	*57*	*8.8*	*66*	*3.8*	*72*	*8.2*	*Sep-08*
eV ACWI ex-US Small Cap Equity Gross Median			*3.2*		*14.3*		*-5.0*		*10.2*		*5.6*		*10.1*	*Sep-08*

1. See Policy Index and Benchmark History.

	Market Value ($)	% of Portfolio	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	Inception (%)	Inception Date
International - Emerging- Gross	**366,313,690**	**3.8**	**1.4**	**48**	**14.1**	**12**	**7.1**	**5**	**11.6**	**29**	**2.6**	**35**	**6.4**	**Jan-00**
International - Emerging- Net			**1.3**	**49**	**14.0**	**14**	**6.8**	**5**	**11.2**	**34**	**2.3**	**57**	**6.0**	
MSCI Emerging Markets Gross			*0.7*	*69*	*10.8*	*55*	*1.6*	*59*	*11.1*	*35*	*2.9*	*31*	*6.8*	*Jan-00*
InvMetrics All DB Emg Mkt Eq Gross Median			*1.1*		*10.9*		*2.3*		*9.5*		*2.5*		*6.2*	*Jan-00*
Baillie Gifford Emg All Cap- Gross	196,362,960	2.0	2.3	29	17.4	9	8.5	7	17.4	3	--	--	15.6	Mar-16
Baillie Gifford Emg All Cap- Net			2.3	29	17.4	9	8.5	7	17.4	3	--	--	15.6	
MSCI Emerging Markets Gross			*0.7*	*72*	*10.8*	*63*	*1.6*	*52*	*11.1*	*46*	*2.9*	*64*	*10.4*	*Mar-16*
eV Emg Mkts Equity Gross Median			*1.4*		*12.0*		*1.8*		*10.7*		*3.4*		*10.5*	*Mar-16*
Mondrian Emg All Cap- Gross	169,950,730	1.7	0.3	84	10.6	66	5.6	18	7.3	89	--	--	7.3	Mar-16
Mondrian Emg All Cap- Net			0.2	86	10.3	71	4.9	22	6.6	93	--	--	6.7	
MSCI Emerging Markets Gross			*0.7*	*72*	*10.8*	*63*	*1.6*	*52*	*11.1*	*46*	*2.9*	*64*	*10.4*	*Mar-16*
eV Emg Mkts Equity Gross Median			*1.4*		*12.0*		*1.8*		*10.7*		*3.4*		*10.5*	*Mar-16*

	Market Value ($)	% of Portfolio	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	Inception (%)	Inception Date
Private Equity- Gross+++**	**915,714,939**	**9.4**	**5.3**	**17**	**8.5**	**9**	**24.0**	**2**	**19.8**	**7**	**15.1**	**13**	**3.3**	**Feb-08**
Private Equity- Net			**5.3**	**17**	**8.5**	**9**	**24.0**	**2**	**19.8**	**7**	**15.1**	**13**	**3.5**	
Thomson Reuters C|A All PE 1 Qtr Lag[1]			*4.3*	*28*	*3.2*	*53*	*12.7*	*32*	*14.6*	*26*	*12.4*	*27*	*10.3*	*Feb-08*
Russell 3000 +3% 1Q Lag			*14.6*	*1*	*-0.5*	*89*	*11.8*	*35*	*16.5*	*16*	*13.4*	*22*	*11.3*	*Feb-08*
InvMetrics All DB Private Eq Net Median			*2.4*		*3.3*		*9.4*		*11.4*		*10.1*		*7.2*	*Feb-08*
Abbott VI- Gross	49,711,577	0.5	3.8	--	6.2	--	16.8	--	18.1	--	15.8	--	4.9	Jul-08
Abbott VI- Net			3.8	--	6.2	--	16.8	--	18.1	--	15.8	--	--	
Thomson Reuters C|A All PE 1 Qtr Lag			*4.3*	--	*3.2*	--	*12.7*	--	*14.6*	--	*12.4*	--	*11.2*	*Jul-08*
Accel-KKR IV- Gross	12,854,465	0.1	2.7	--	9.2	--	119.5	--	54.5	--	33.9	--	9.7	Jun-13
Accel-KKR IV- Net			2.7	--	9.2	--	119.5	--	54.5	--	33.9	--	9.7	
Thomson Reuters C|A All PE 1 Qtr Lag			*4.3*	--	*3.2*	--	*12.7*	--	*14.6*	--	*12.4*	--	*14.5*	*Jun-13*
Accel-KKR V- Gross	11,904,364	0.1	0.6	--	1.4	--	7.1	--	--	--	--	--	9.5	Jan-17
Accel-KKR V- Net			0.6	--	1.4	--	7.1	--	--	--	--	--	9.5	
Thomson Reuters C|A All PE 1 Qtr Lag			*4.3*	--	*3.2*	--	*12.7*	--	*14.6*	--	*12.4*	--	*15.5*	*Jan-17*
Accel-KKR Growth Partners II- Gross	10,282,583	0.1	-0.3	--	10.4	--	15.8	--	13.4	--	--	--	-0.2	Feb-15
Accel-KKR Growth Partners II- Net			-0.3	--	10.4	--	15.8	--	13.4	--	--	--	-0.2	
Thomson Reuters C|A All PE 1 Qtr Lag			*4.3*	--	*3.2*	--	*12.7*	--	*14.6*	--	*12.4*	--	*11.4*	*Feb-15*
Atalaya Special Opp VI- Gross	21,234,239	0.2	2.9	--	6.0	--	14.1	--	9.0	--	--	--	8.5	Apr-16
Atalaya Special Opp VI- Net			2.9	--	6.0	--	14.1	--	9.0	--	--	--	8.5	
Thomson Reuters C|A All PE 1 Qtr Lag			*4.3*	--	*3.2*	--	*12.7*	--	*14.6*	--	*12.4*	--	*16.4*	*Apr-16*
Davidson Kempner LT Dist Opp- Gross	23,617,389	0.2	1.0	--	4.4	--	16.9	--	--	--	--	--	14.0	Mar-18
Davidson Kempner LT Dist Opp- Net			1.0	--	4.4	--	16.9	--	--	--	--	--	14.0	
Thomson Reuters C|A All PE 1 Qtr Lag			*4.3*	--	*3.2*	--	*12.7*	--	*14.6*	--	*12.4*	--	*12.4*	*Mar-18*

1. See Policy Index and Benchmark History.

*** 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	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	Inception (%)	Inception Date
Dyal Capital Partners II- Gross	15,939,840	0.2	-0.2	--	-16.0	--	-18.3	--	-9.1	--	--	--	-10.0	Dec-14
Dyal Capital Partners II- Net			-0.2	--	-16.0	--	-18.3	--	-9.1	--	--	--	-10.0	
Thomson Reuters C|A All PE 1 Qtr Lag			*4.3*	--	*3.2*	--	*12.7*	--	*14.6*	--	*12.4*	--	*12.2*	*Dec-14*
Dyal Capital Partners III- Gross	18,209,229	0.2	2.0	--	0.8	--	18.7	--	--	--	--	--	20.0	Dec-16
Dyal Capital Partners III- Net			2.0	--	0.8	--	18.7	--	--	--	--	--	20.0	
Thomson Reuters C|A All PE 1 Qtr Lag			*4.3*	--	*3.2*	--	*12.7*	--	*14.6*	--	*12.4*	--	*14.2*	*Dec-16*
Garrison Investment Group- Gross	13,567,788	0.1	1.4	--	0.2	--	6.6	--	-0.4	--	-2.2	--	1.0	May-12
Garrison Investment Group- Net			1.4	--	0.2	--	6.6	--	-0.4	--	-2.2	--	1.0	
Thomson Reuters C|A All PE 1 Qtr Lag			*4.3*	--	*3.2*	--	*12.7*	--	*14.6*	--	*12.4*	--	*15.3*	*May-12*
Harbourvest VIII- Gross	15,940,067	0.2	5.1	--	2.0	--	11.9	--	14.8	--	13.8	--	9.9	Dec-07
Harbourvest VIII- Net			5.1	--	2.0	--	11.9	--	14.8	--	13.8	--	--	
Thomson Reuters C|A All PE 1 Qtr Lag			*4.3*	--	*3.2*	--	*12.7*	--	*14.6*	--	*12.4*	--	*9.9*	*Dec-07*
Harbourvest Intl VI- Gross	35,007,223	0.4	3.3	--	2.5	--	11.8	--	14.8	--	14.0	--	-6.9	Mar-09
Harbourvest Intl VI- Net			3.3	--	2.5	--	11.8	--	14.8	--	14.0	--	--	
Thomson Reuters C|A All PE 1 Qtr Lag			*4.3*	--	*3.2*	--	*12.7*	--	*14.6*	--	*12.4*	--	*16.3*	*Mar-09*
H.I.G. Bayside Loan III- Gross	14,834,227	0.2	-1.0	--	3.5	--	10.4	--	10.7	--	11.1	--	7.0	Jan-13
H.I.G. Bayside Loan III- Net			-1.0	--	3.5	--	10.4	--	10.7	--	11.1	--	7.0	
Thomson Reuters C|A All PE 1 Qtr Lag			*4.3*	--	*3.2*	--	*12.7*	--	*14.6*	--	*12.4*	--	*15.8*	*Jan-13*
H.I.G. Capital V- Gross	12,702,384	0.1	0.2	--	-0.6	--	21.4	--	33.2	--	12.5	--	9.3	Jul-13
H.I.G. Capital V- Net			0.2	--	-0.6	--	21.4	--	33.2	--	12.5	--	9.3	
Thomson Reuters C|A All PE 1 Qtr Lag			*4.3*	--	*3.2*	--	*12.7*	--	*14.6*	--	*12.4*	--	*14.3*	*Jul-13*
H.I.G. Europe Capital II- Gross*	8,598,613	0.1	2.4	--	-0.9	--	3.7	--	-34.1	--	--	--	--	Jan-14
H.I.G. Europe Capital II- Net			2.4	--	-0.9	--	3.7	--	-34.1	--	--	--	--	
Thomson Reuters C|A All PE 1 Qtr Lag			*4.3*	--	*3.2*	--	*12.7*	--	*14.6*	--	*12.4*	--	*13.2*	*Jan-14*

** 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	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	Inception (%)	Inception Date
Khosla IV- Gross	19,654,791	0.2	14.9	--	20.0	--	47.0	--	27.6	--	23.6	--	18.8	Jul-11
Khosla IV- Net			14.9	--	20.0	--	47.0	--	27.6	--	23.6	--	18.8	
Thomson Reuters C|A All PE 1 Qtr Lag			*4.3*	--	*3.2*	--	*12.7*	--	*14.6*	--	*12.4*	--	*14.1*	*Jul-11*
Khosla V- Gross	22,794,337	0.2	0.6	--	6.2	--	10.9	--	12.6	--	--	--	9.0	Nov-14
Khosla V- Net			0.6	--	6.2	--	10.9	--	12.6	--	--	--	9.0	
Thomson Reuters C|A All PE 1 Qtr Lag			*4.3*	--	*3.2*	--	*12.7*	--	*14.6*	--	*12.4*	--	*11.6*	*Nov-14*
Khosla VI- Gross	7,730,150	0.1	0.9	--	-1.7	--	--	--	--	--	--	--	-6.8	Aug-18
Khosla VI- Net			0.9	--	-1.7	--	--	--	--	--	--	--	-6.8	
Thomson Reuters C|A All PE 1 Qtr Lag			*4.3*	--	*3.2*	--	*12.7*	--	*14.6*	--	*12.4*	--	*12.7*	*Aug-18*
Linden Capital- Gross	51,977,938	0.5	12.6	--	23.5	--	42.4	--	18.2	--	--	--	18.2	Jun-16
Linden Capital- Net			12.6	--	23.5	--	42.4	--	18.2	--	--	--	18.2	
Thomson Reuters C|A All PE 1 Qtr Lag			*4.3*	--	*3.2*	--	*12.7*	--	*14.6*	--	*12.4*	--	*14.6*	*Jun-16*
Linden Capital Partners IV- Gross	4,843,323	0.0	-28.1	--	11.7	--	--	--	--	--	--	--	15.0	Sep-18
Linden Capital Partners IV- Net			-28.1	--	11.7	--	--	--	--	--	--	--	15.0	
Thomson Reuters C|A All PE 1 Qtr Lag			*4.3*	--	*3.2*	--	*12.7*	--	*14.6*	--	*12.4*	--	*7.1*	*Sep-18*
Marlin Equity IV- Gross	14,419,213	0.1	4.5	--	10.3	--	22.8	--	11.0	--	6.9	--	4.4	Nov-13
Marlin Equity IV- Net			4.5	--	10.3	--	22.8	--	11.0	--	6.9	--	4.4	
Thomson Reuters C|A All PE 1 Qtr Lag			*4.3*	--	*3.2*	--	*12.7*	--	*14.6*	--	*12.4*	--	*14.4*	*Nov-13*
Marlin Equity V- Gross	5,138,315	0.1	2.4	--	19.6	--	15.1	--	--	--	--	--	6.6	Feb-18
Marlin Equity V- Net			2.4	--	19.6	--	15.1	--	--	--	--	--	6.6	
Thomson Reuters C|A All PE 1 Qtr Lag			*4.3*	--	*3.2*	--	*12.7*	--	*14.6*	--	*12.4*	--	*15.2*	*Feb-18*
Thomson Reuters C|A All PE 1 Qtr Lag			*4.3*	--	*3.2*	--	*12.7*	--	*14.6*	--	*12.4*	--	*15.2*	*Feb-18*
Marlin Heritage- Gross	11,329,150	0.1	11.3	--	31.2	--	34.7	--	49.6	--	--	--	24.6	Jul-14
Marlin Heritage- Net			11.3	--	31.2	--	34.7	--	49.6	--	--	--	24.6	
Thomson Reuters C|A All PE 1 Qtr Lag			*4.3*	--	*3.2*	--	*12.7*	--	*14.6*	--	*12.4*	--	*12.5*	*Jul-14*
Marlin Heritage II- Gross	4,792,768	0.0	0.5	--	-0.6	--	-3.3	--	--	--	--	--	-11.0	Oct-17
Marlin Heritage II- Net			0.5	--	-0.6	--	-3.3	--	--	--	--	--	-11.0	
Thomson Reuters C|A All PE 1 Qtr Lag			*4.3*	--	*3.2*	--	*12.7*	--	*14.6*	--	*12.4*	--	*14.4*	*Oct-17*

	Market Value ($)	% of Portfolio	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	Inception (%)	Inception Date
Marlin Heritage Europe- Gross	7,949,157	0.1	4.5	--	20.3	--	24.0	--	--	--	--	--	10.7	Aug-17
Marlin Heritage Europe- Net			4.5	--	20.3	--	24.0	--	--	--	--	--	10.7	
Thomson Reuters C|A All PE 1 Qtr Lag			*4.3*	--	*3.2*	--	*12.7*	--	*14.6*	--	*12.4*	--	*14.9*	*Aug-17*
New Enterprise 14- Gross	30,161,916	0.3	2.3	--	1.6	--	13.5	--	16.7	--	17.9	--	13.9	May-12
New Enterprise 14- Net			2.3	--	1.6	--	13.5	--	16.7	--	17.9	--	13.9	
Thomson Reuters C|A All PE 1 Qtr Lag			*4.3*	--	*3.2*	--	*12.7*	--	*14.6*	--	*12.4*	--	*15.3*	*May-12*
New Enterprise 15- Gross	43,370,371	0.4	6.1	--	11.2	--	16.0	--	23.8	--	--	--	16.9	Apr-15
New Enterprise 15- Net			6.1	--	11.2	--	16.0	--	23.8	--	--	--	16.9	
Thomson Reuters C|A All PE 1 Qtr Lag			*4.3*	--	*3.2*	--	*12.7*	--	*14.6*	--	*12.4*	--	*12.5*	*Apr-15*
New Enterprise 16- Gross	20,127,122	0.2	2.9	--	4.1	--	18.1	--	--	--	--	--	4.7	May-17
New Enterprise 16- Net			2.9	--	4.1	--	18.1	--	--	--	--	--	4.7	
Thomson Reuters C|A All PE 1 Qtr Lag			*4.3*	--	*3.2*	--	*12.7*	--	*14.6*	--	*12.4*	--	*14.8*	*May-17*
Private Equity X- Gross+	25,517,927	0.3	0.0	--	-2.9	--	16.8	--	16.5	--	8.4	--	-1.2	Jun-08
Private Equity X- Net			0.0	--	-2.9	--	16.8	--	16.5	--	8.4	--	--	
Thomson Reuters C|A All PE 1 Qtr Lag			*4.3*	--	*3.2*	--	*12.7*	--	*14.6*	--	*12.4*	--	*11.6*	*Jun-08*
RCP Multi-Fund Feeder- Gross	7,695,161	0.1	-1.0	--	-10.6	--	--	--	--	--	--	--	-10.6	Nov-18
RCP Multi-Fund Feeder- Net			-1.0	--	-10.6	--	--	--	--	--	--	--	-10.6	
Thomson Reuters C|A All PE 1 Qtr Lag			*4.3*	--	*3.2*	--	*12.7*	--	*14.6*	--	*12.4*	--	*7.1*	*Nov-18*
RRJ Capital Master Fund II- Gross	20,531,607	0.2	5.2	--	9.2	--	20.2	--	12.0	--	11.8	--	14.3	May-13
RRJ Capital Master Fund II- Net			5.2	--	9.2	--	20.2	--	12.0	--	11.8	--	14.3	
Thomson Reuters C|A All PE 1 Qtr Lag			*4.3*	--	*3.2*	--	*12.7*	--	*14.6*	--	*12.4*	--	*15.0*	*May-13*
RRJ Capital Master Fund III- Gross	29,085,842	0.3	4.5	--	14.4	--	18.7	--	12.0	--	--	--	-10.6	Dec-15
RRJ Capital Master Fund III- Net			4.5	--	14.4	--	18.7	--	12.0	--	--	--	-10.6	
Thomson Reuters C|A All PE 1 Qtr Lag			*4.3*	--	*3.2*	--	*12.7*	--	*14.6*	--	*12.4*	--	*15.3*	*Dec-15*
Spectrum Equity- Gross	29,618,170	0.3	6.2	--	9.9	--	58.5	--	42.5	--	--	--	12.1	Dec-14
Spectrum Equity- Net			6.2	--	9.9	--	58.5	--	42.5	--	--	--	12.1	
Thomson Reuters C|A All PE 1 Qtr Lag			*4.3*	--	*3.2*	--	*12.7*	--	*14.6*	--	*12.4*	--	*12.2*	*Dec-14*

+ Preliminary quarterly returns as of 6/30/2019 (Returns are not available at reporting period.)

	Market Value ($)	% of Portfolio	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	Inception (%)	Inception Date
Spectrum Equity Fund VIII- Gross	6,693,395	0.1	-4.5	--	-8.9	--	-82.4	--	--	--	--	--	-82.4	Jun-18
Spectrum Equity Fund VIII- Net			-4.5	--	-8.9	--	-82.4	--	--	--	--	--	-82.4	
Thomson Reuters C|A All PE 1 Qtr Lag			*4.3*	--	*3.2*	--	*12.7*	--	*14.6*	--	*12.4*	--	*12.7*	*Jun-18*
Summit EUR Growth Equity II- Gross	10,483,361	0.1	-2.5	--	-4.1	--	480.2	--	--	--	--	--	151.8	Jan-18
Summit EUR Growth Equity II- Net			-2.5	--	-4.1	--	480.2	--	--	--	--	--	151.8	
Thomson Reuters C|A All PE 1 Qtr Lag			*4.3*	--	*3.2*	--	*12.7*	--	*14.6*	--	*12.4*	--	*14.3*	*Jan-18*
Summit Ventures III- Gross	14,510,531	0.1	5.6	--	5.1	--	8.5	--	22.9	--	19.0	--	12.2	Jun-12
Summit Ventures III- Net			5.6	--	5.1	--	8.5	--	22.9	--	19.0	--	12.2	
Thomson Reuters C|A All PE 1 Qtr Lag			*4.3*	--	*3.2*	--	*12.7*	--	*14.6*	--	*12.4*	--	*14.9*	*Jun-12*
Summit Ventures IV- Gross	13,179,822	0.1	3.6	--	22.2	--	56.7	--	40.1	--	--	--	38.8	May-16
Summit Ventures IV- Net			3.6	--	22.2	--	56.7	--	40.1	--	--	--	38.8	
Thomson Reuters C|A All PE 1 Qtr Lag			*4.3*	--	*3.2*	--	*12.7*	--	*14.6*	--	*12.4*	--	*16.8*	*May-16*
Thoma Bravo XI- Gross	46,374,600	0.5	13.8	--	9.5	--	47.0	--	35.0	--	20.2	--	20.2	Jun-14
Thoma Bravo XI- Net			13.8	--	9.5	--	47.0	--	35.0	--	20.2	--	20.2	
Thomson Reuters C|A All PE 1 Qtr Lag			*4.3*	--	*3.2*	--	*12.7*	--	*14.6*	--	*12.4*	--	*12.4*	*Jun-14*
Thoma Bravo XII- Gross	34,320,369	0.4	11.8	--	12.6	--	19.7	--	4.3	--	--	--	4.2	May-16
Thoma Bravo XII- Net			11.8	--	12.6	--	19.7	--	4.3	--	--	--	4.2	
Thomson Reuters C|A All PE 1 Qtr Lag			*4.3*	--	*3.2*	--	*12.7*	--	*14.6*	--	*12.4*	--	*16.8*	*May-16*
Thoma Bravo XIII- Gross	15,976,963	0.2	-1.5	--	--	--	--	--	--	--	--	--	-1.5	Feb-19
Thoma Bravo XIII- Net			-1.5	--	--	--	--	--	--	--	--	--	-1.5	
Thomson Reuters C|A All PE 1 Qtr Lag			*4.3*	--	*3.2*	--	*12.7*	--	*14.6*	--	*12.4*	--	*3.2*	*Feb-19*
TPG Opp Partners III- Gross	21,927,249	0.2	3.9	--	-0.5	--	8.5	--	13.0	--	7.1	--	-15.5	Mar-14
TPG Opp Partners III- Net			3.9	--	-0.5	--	8.5	--	13.0	--	7.1	--	-15.5	
Thomson Reuters C|A All PE 1 Qtr Lag			*4.3*	--	*3.2*	--	*12.7*	--	*14.6*	--	*12.4*	--	*12.4*	*Mar-14*
Trinity Ventures XI- Gross	37,012,073	0.4	13.4	--	21.6	--	47.8	--	22.0	--	18.5	--	8.5	Apr-13
Trinity Ventures XI- Net			13.4	--	21.6	--	47.8	--	22.0	--	18.5	--	8.5	
Thomson Reuters C|A All PE 1 Qtr Lag			*4.3*	--	*3.2*	--	*12.7*	--	*14.6*	--	*12.4*	--	*15.1*	*Apr-13*

	Market Value ($)	% of Portfolio	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	Inception (%)	Inception Date
Trinity Ventures XII- Gross	35,067,328	0.4	20.0	--	52.3	--	59.7	--	24.6	--	--	--	23.1	Apr-16
Trinity Ventures XII- Net			20.0	--	52.3	--	59.7	--	24.6	--	--	--	23.1	
Thomson Reuters C|A All PE 1 Qtr Lag			*4.3*	--	*3.2*	--	*12.7*	--	*14.6*	--	*12.4*	--	*16.4*	*Apr-16*
TSG7 A LP- Gross+	12,052,238	0.1	1.3	--	3.1	--	12.6	--	--	--	--	--	--	Mar-16
TSG7 A LP- Net			1.3	--	3.1	--	12.6	--	--	--	--	--	--	
Thomson Reuters C|A All PE 1 Qtr Lag			*4.3*	--	*3.2*	--	*12.7*	--	*14.6*	--	*12.4*	--	*14.1*	*Mar-16*
TSG7 B LP- Gross	1,116,477	0.0	-0.8	--	1.2	--	1.8	--	-21.1	--	--	--	-21.9	Jan-16
TSG7 B LP- Net			-0.8	--	1.2	--	1.8	--	-21.1	--	--	--	-21.9	
Thomson Reuters C|A All PE 1 Qtr Lag			*4.3*	--	*3.2*	--	*12.7*	--	*14.6*	--	*12.4*	--	*13.0*	*Jan-16*
TSG8 LP- Gross*	221,005	0.0	--	--	--	--	--	--	--	--	--	--	--	Jan-19
TSG8 LP- Net			--	--	--	--	--	--	--	--	--	--	--	
Thomson Reuters C|A All PE 1 Qtr Lag			*4.3*	--	*3.2*	--	*12.7*	--	*14.6*	--	*12.4*	--	*3.2*	*Jan-19*
TSSP Opportunities Partners IV- Gross	4,450,395	0.0	5.0	--	--	--	--	--	--	--	--	--	5.0	Jan-19
TSSP Opportunities Partners IV- Net			5.0	--	--	--	--	--	--	--	--	--	5.0	
Credit Suisse Leveraged Loan + 2%			*1.9*	--	*6.3*	--	*6.1*	--	*7.4*	--	*5.9*	--	*3.7*	*Jan-19*
Waterland V- Gross	11,510,616	0.1	-2.0	--	8.1	--	35.0	--	43.7	--	54.6	--	24.5	Aug-11
Waterland V- Net			-2.0	--	8.1	--	35.0	--	43.7	--	54.6	--	24.5	
Thomson Reuters C|A All PE 1 Qtr Lag			*4.3*	--	*3.2*	--	*12.7*	--	*14.6*	--	*12.4*	--	*14.4*	*Aug-11*
Waterland VI- Gross	23,907,948	0.2	2.9	--	-0.6	--	25.7	--	26.5	--	--	--	-6.6	Jul-15
Waterland VI- Net			2.9	--	-0.6	--	25.7	--	26.5	--	--	--	-6.6	
Thomson Reuters C|A All PE 1 Qtr Lag			*4.3*	--	*3.2*	--	*12.7*	--	*14.6*	--	*12.4*	--	*11.7*	*Jul-15*
Wayzata Opportunities III- Gross	5,769,323	0.1	3.4	--	0.8	--	-6.4	--	3.7	--	-1.1	--	-5.1	Feb-13
Wayzata Opportunities III- Net			3.4	--	0.8	--	-6.4	--	3.7	--	-1.1	--	-5.1	
Thomson Reuters C|A All PE 1 Qtr Lag			*4.3*	--	*3.2*	--	*12.7*	--	*14.6*	--	*12.4*	--	*15.9*	*Feb-13*

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

* *Contributions to date have been used to cover management fees and operating expenses.*

	Market Value ($)	% of Portfolio	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	Inception (%)	Inception Date
Public Credit- Gross	**182,387,811**	**1.9**	**1.8**	**--**	**6.0**	**--**	**2.4**	**--**	**7.1**	**--**	**3.5**	**--**	**4.2**	**Nov-13**
Public Credit- Net			**1.8**	**--**	**6.0**	**--**	**2.4**	**--**	**7.1**	**--**	**3.5**	**--**	**4.2**	
Brigade Custom[1]			*2.1*	*--*	*7.8*	*--*	*5.9*	*--*	*6.5*	*--*	*4.3*	*--*	*4.7*	*Nov-13*
Brigade Capital- Gross	182,387,811	1.9	1.8	89	6.0	93	2.4	99	7.1	58	3.5	91	4.2	Nov-13
Brigade Capital- Net			1.8	89	6.0	93	2.4	99	7.1	58	3.5	91	4.2	
Brigade Custom			*2.1*	*77*	*7.8*	*81*	*5.9*	*85*	*6.5*	*77*	*4.3*	*69*	*4.7*	*Nov-13*
eV US High Yield Fixed Inc Gross Median			*2.6*		*9.8*		*7.4*		*7.3*		*4.7*		*5.3*	*Nov-13*
Private Credit- Gross++*	**176,108,303**	**1.8**	**3.0**	**--**	**2.0**	**--**	**5.6**	**--**	**8.9**	**--**	**7.3**	**--**	**7.0**	**Oct-11**
Private Credit- Net			**3.0**	**--**	**2.0**	**--**	**5.6**	**--**	**8.9**	**--**	**7.3**	**--**	**7.0**	
Credit Suisse Leveraged Loan + 2%			*1.9*	*--*	*6.3*	*--*	*6.1*	*--*	*7.4*	*--*	*5.9*	*--*	*7.0*	*Oct-11*
Athyrium Opp II- Gross	13,008,311	0.1	2.3	--	2.5	--	9.1	--	10.4	--	--	--	6.3	Jun-15
Athyrium Opp II- Net			2.3	--	2.5	--	9.1	--	10.4	--	--	--	6.3	
Credit Suisse Leveraged Loan + 2%			*1.9*	*--*	*6.3*	*--*	*6.1*	*--*	*7.4*	*--*	*5.9*	*--*	*6.3*	*Jun-15*
Athyrium Opp III- Gross	12,205,718	0.1	2.0	--	1.9	--	3.8	--	--	--	--	--	-3.2	May-17
Athyrium Opp III- Net			2.0	--	1.9	--	3.8	--	--	--	--	--	-3.2	
Credit Suisse Leveraged Loan + 2%			*1.9*	*--*	*6.3*	*--*	*6.1*	*--*	*7.4*	*--*	*5.9*	*--*	*6.2*	*May-17*
Benefit St Pr Sr Secure Opp- Gross	46,052,452	0.5	3.8	--	1.3	--	4.1	--	--	--	--	--	5.0	Jan-18
Benefit St Pr Sr Secure Opp- Net			3.8	--	1.3	--	4.1	--	--	--	--	--	5.0	
Credit Suisse Leveraged Loan + 2%			*1.9*	*--*	*6.3*	*--*	*6.1*	*--*	*7.4*	*--*	*5.9*	*--*	*5.8*	*Jan-18*
Summit Credit- Gross	2,680,551	0.0	0.5	--	-11.1	--	-1.4	--	5.5	--	6.5	--	6.4	Oct-11
Summit Credit- Net			0.5	--	-11.1	--	-1.4	--	5.5	--	6.5	--	6.4	
Credit Suisse Leveraged Loan + 2%			*1.9*	*--*	*6.3*	*--*	*6.1*	*--*	*7.4*	*--*	*5.9*	*--*	*7.0*	*Oct-11*

1. *See Policy Index and Benchmark History.*

++ 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	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	Inception (%)	Inception Date
Summit Credit II- Gross	26,554,250	0.3	4.3	--	2.1	--	6.2	--	10.3	--	--	--	6.6	Nov-14
Summit Credit II- Net			4.3	--	2.1	--	6.2	--	10.3	--	--	--	6.6	
Credit Suisse Leveraged Loan + 2%			*1.9*	--	*6.3*	--	*6.1*	--	*7.4*	--	*5.9*	--	*6.1*	*Nov-14*
Summit Credit III- Gross	15,730,990	0.2	3.6	--	4.5	--	--	--	--	--	--	--	4.5	Oct-18
Summit Credit III- Net			3.6	--	4.5	--	--	--	--	--	--	--	4.5	
Credit Suisse Leveraged Loan + 2%			*1.9*	--	*6.3*	--	*6.1*	--	*7.4*	--	*5.9*	--	*3.4*	*Oct-18*
TCP Direct Lending VIII- Gross	59,876,031	0.6	2.0	--	3.0	--	5.8	--	--	--	--	--	3.9	Feb-18
TCP Direct Lending VIII- Net			2.0	--	3.0	--	5.8	--	--	--	--	--	3.9	
Credit Suisse Leveraged Loan + 2%			*1.9*	--	*6.3*	--	*6.1*	--	*7.4*	--	*5.9*	--	*5.8*	*Feb-18*
Growth Oriented Absolute Return- Gross++**	**298,601,183**	**3.1**	**2.2**	**--**	**8.7**	**--**	**0.0**	**--**	**6.6**	**--**	**3.0**	**--**	**4.7**	**Aug-04**
Growth Oriented Absolute Return- Net			**2.2**	**--**	**8.7**	**--**	**0.0**	**--**	**6.6**	**--**	**3.0**	**--**	**4.7**	
HFRI FoF Composite Index + 1%			*1.7*	--	*6.7*	--	*2.2*	--	*4.6*	--	*4.8*	--	*6.0*	*Aug-04*
Grosvenor SCARF Growth- Gross	148,617,864	1.5	1.4	63	5.3	58	-0.3	83	6.9	28	2.7	59	5.7	Nov-11
Grosvenor SCARF Growth- Net			1.4	63	5.3	58	-0.3	83	6.9	28	2.7	59	5.7	
HFRI FoF Composite Index + 1%			*1.7*	*56*	*6.7*	*47*	*2.2*	*50*	*4.6*	*67*	*4.8*	*22*	*4.9*	*Nov-11*
eV Alt Fund of Funds - Multi-Strategy Median			*1.9*		*6.2*		*2.1*		*5.3*		*3.1*		*5.1*	*Nov-11*
JANA Partners- Gross	4,050,323	0.0	-2.3	90	-0.2	89	-12.0	93	2.2	84	-1.3	94	1.1	Jul-13
JANA Partners- Net			-2.3	90	-0.2	89	-12.0	93	2.2	84	-1.3	94	1.1	
HFRI FoF Composite Index + 1%			*1.7*	*40*	*6.7*	*31*	*2.2*	*50*	*4.6*	*63*	*4.8*	*39*	*4.8*	*Jul-13*
eV Alt All Event Driven Median			*1.2*		*3.8*		*2.1*		*6.1*		*3.9*		*4.9*	*Jul-13*
Lakewood- Gross	44,755,348	0.5	1.6	53	14.8	25	3.1	38	5.7	64	4.4	54	5.6	Jun-13
Lakewood- Net			1.6	53	14.8	25	3.1	38	5.7	64	4.4	54	5.6	
HFRI FoF Composite Index + 1%			*1.7*	*52*	*6.7*	*64*	*2.2*	*42*	*4.6*	*70*	*4.8*	*50*	*4.8*	*Jun-13*
eV Alt Fundamental - Long/Short Equity Median			*1.8*		*9.4*		*0.2*		*7.5*		*4.7*		*6.1*	*Jun-13*

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

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

	Market Value ($)	% of Portfolio	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	Inception (%)	Inception Date
OZ Domestic II- Gross	51,396,439	0.5	4.1	19	12.5	15	5.4	35	9.4	26	5.5	40	7.5	Dec-11
OZ Domestic II- Net			4.1	19	12.5	15	5.4	35	9.4	26	5.5	40	7.4	
HFRI FoF Composite Index + 1%			*1.7*	*49*	*6.7*	*43*	*2.2*	*60*	*4.6*	*56*	*4.8*	*44*	*4.9*	*Dec-11*
eV Alt All Multi-Strategy Median			*1.7*		*5.4*		*3.5*		*5.3*		*4.2*		*6.1*	*Dec-11*
Third Point Offshore Fund- Gross	49,781,210	0.5	3.9	16	13.4	8	0.0	64	7.3	43	4.8	39	9.2	Apr-12
Third Point Offshore Fund- Net			3.9	16	13.4	8	0.0	64	7.3	43	4.8	39	9.2	
HFRI FoF Composite Index + 1%			*1.7*	*40*	*6.7*	*31*	*2.2*	*50*	*4.6*	*63*	*4.8*	*39*	*4.9*	*Apr-12*
eV Alt All Event Driven Median			*1.2*		*3.8*		*2.1*		*6.1*		*3.9*		*5.7*	*Apr-12*
Diversifying Asset Category- Gross	**2,255,377,928**	**23.2**	**2.9**	**--**	**5.5**	**--**	**5.6**	**--**	**--**	**--**	**--**	**--**	**3.5**	**Mar-17**
Diversifying Asset Category- Net			**2.9**	**--**	**5.4**	**--**	**5.5**	**--**	**--**	**--**	**--**	**--**	**3.4**	
Diversifying Custom[1]			*2.7*	*--*	*5.5*	*--*	*5.9*	*--*	*2.7*	*--*	*--*	*--*	*3.8*	*Mar-17*
Core/Core Plus Fixed Income- Gross	**925,114,222**	**9.5**	**3.4**	**--**	**7.0**	**--**	**8.6**	**--**	**3.5**	**--**	**3.7**	**--**	**3.6**	**Jun-11**
Core/Core Plus Fixed Income- Net			**3.4**	**--**	**6.9**	**--**	**8.5**	**--**	**3.3**	**--**	**3.6**	**--**	**3.4**	
BBgBarc US Aggregate TR			*3.1*	*--*	*6.1*	*--*	*7.9*	*--*	*2.3*	*--*	*2.9*	*--*	*3.2*	*Jun-11*
Prudential- Gross	470,406,400	4.8	3.6	8	7.5	8	8.9	9	4.4	3	--	--	4.6	Jul-14
Prudential- Net			3.5	9	7.4	10	8.8	11	4.2	4	--	--	4.4	
BBgBarc US Aggregate TR			*3.1*	*67*	*6.1*	*77*	*7.9*	*74*	*2.3*	*89*	*2.9*	*89*	*3.1*	*Jul-14*
eV US Core Fixed Inc Gross Median			*3.2*		*6.5*		*8.1*		*2.7*		*3.3*		*3.4*	*Jul-14*
TCW MetWest Fixed- Gross	454,707,822	4.7	3.2	40	6.6	45	8.3	38	3.2	20	3.4	40	5.9	Dec-01
TCW MetWest Fixed- Net			3.2	45	6.5	52	8.1	50	3.0	30	3.2	64	5.7	
BBgBarc US Aggregate TR			*3.1*	*67*	*6.1*	*77*	*7.9*	*74*	*2.3*	*89*	*2.9*	*89*	*4.5*	*Dec-01*
eV US Core Fixed Inc Gross Median			*3.2*		*6.5*		*8.1*		*2.7*		*3.3*		*4.9*	*Dec-01*

1. *See Policy Index and Benchmark History.*

	Market Value ($)	% of Portfolio	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	Inception (%)	Inception Date
U.S. Treasury- Gross	**456,625,016**	**4.7**	**3.0**	**--**	**5.1**	**--**	**7.2**	**--**	**--**	**--**	**--**	**--**	**6.2**	**Feb-18**
U.S. Treasury- Net			**2.9**	**--**	**5.1**	**--**	**7.2**	**--**	**--**	**--**	**--**	**--**	**6.1**	
BBgBarc US Treasury TR			*3.0*	--	*5.2*	--	*7.2*	--	*1.3*	--	*2.5*	--	*6.2*	*Feb-18*
Neuberger Berman- Gross+	456,625,016	4.7	3.0	7	5.1	19	7.2	20	2.3	1	3.0	1	6.5	Jun-88
Neuberger Berman- Net			2.9	8	5.1	24	7.2	24	2.3	1	3.0	1	6.4	
BBgBarc US Govt TR			*3.0*	*6*	*5.2*	*18*	*7.2*	*21*	*1.4*	*99*	*2.5*	*62*	*5.8*	*Jun-88*
eV US Government Fixed Inc Gross Median			*2.5*		*4.7*		*6.7*		*1.8*		*2.6*		--	*Jun-88*
Global Fixed Income- Gross	**252,909,068**	**2.6**	**3.5**	**--**	**6.9**	**--**	**4.9**	**--**	**3.3**	**--**	**2.0**	**--**	**2.6**	**May-13**
Global Fixed Income- Net			**3.4**	**--**	**6.7**	**--**	**4.5**	**--**	**2.9**	**--**	**1.6**	**--**	**2.3**	
Brandywine Custom[1]			*4.0*	--	*6.1*	--	*6.3*	--	*1.7*	--	*0.6*	--	*1.3*	*May-13*
Brandywine Global- Gross	252,909,068	2.6	3.5	34	6.9	45	4.9	70	3.3	58	1.9	60	2.6	May-13
Brandywine Global- Net			3.4	39	6.7	50	4.5	76	2.9	66	1.6	66	2.3	
Brandywine Custom			*4.0*	*16*	*6.1*	*64*	*6.3*	*52*	*1.7*	*85*	*0.6*	*84*	*1.3*	*May-13*
eV All Global Fixed Inc Gross Median			*3.1*		*6.7*		*6.4*		*3.9*		*2.7*		*3.1*	*May-13*
Diversifying Absolute Return- Gross++*	**620,729,622**	**6.4**	**1.8**	**--**	**2.9**	**--**	**0.3**	**--**	**1.6**	**--**	**1.1**	**--**	**2.0**	**Nov-11**
Diversifying Absolute Return- Net			**1.8**	**--**	**2.9**	**--**	**0.3**	**--**	**1.6**	**--**	**1.1**	**--**	**2.0**	
HFRI FoF Conservative Index[1]			*1.5*	--	*4.7*	--	*2.1*	--	*3.9*	--	*4.4*	--	*4.6*	*Nov-11*
AQR DELTA II- Gross	57,543,951	0.6	-4.1	94	-5.9	96	-12.2	93	-4.6	93	0.3	86	0.7	May-13
AQR DELTA II- Net			-4.1	94	-5.9	96	-12.2	93	-4.6	93	0.3	86	0.7	
HFRI FoF Conservative Index			*1.5*	*55*	*4.7*	*60*	*2.1*	*60*	*3.9*	*62*	*4.4*	*48*	*4.5*	*May-13*
eV Alt All Multi-Strategy Median			*1.7*		*5.4*		*3.5*		*5.3*		*4.2*		*4.9*	*May-13*

1. See Policy Index and Benchmark History.

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

** 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	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	Inception (%)	Inception Date
Davidson Kempner Instl Partners LP- Gross*	32,813,568	0.3	--	--	--	--	--	--	--	--	--	--	0.4	Apr-19
Davidson Kempner Instl Partners LP- Net			--	--	--	--	--	--	--	--	--	--	0.4	
HFRI FoF Conservative Index			*1.5*	*55*	*4.7*	*60*	*2.1*	*60*	*3.9*	*62*	*4.4*	*48*	*0.5*	*Apr-19*
eV Alt All Multi-Strategy Median			*1.7*		*5.4*		*3.5*		*5.3*		*4.2*		*0.4*	*Apr-19*
Elliot Associates- Gross+	56,692,713	0.6	3.1	21	4.5	44	3.8	37	7.7	40	6.4	22	7.5	Apr-12
Elliot Associates- Net			3.1	21	4.5	44	3.8	37	7.7	40	6.4	22	7.5	
HFRI FoF Conservative Index			*1.5*	*43*	*4.7*	*44*	*2.1*	*51*	*3.9*	*66*	*4.4*	*43*	*4.6*	*Apr-12*
eV Alt All Event Driven Median			*1.2*		*3.8*		*2.1*		*6.1*		*3.9*		*5.7*	*Apr-12*
Graham Global Inv II- Gross	33,709,010	0.3	6.6	17	11.0	24	3.4	56	--	--	--	--	-1.1	Feb-17
Graham Global Inv II- Net			6.6	17	11.0	24	3.4	56	--	--	--	--	-1.1	
HFRI FoF Conservative Index			*1.5*	*57*	*4.7*	*50*	*2.1*	*58*	*3.9*	*24*	*4.4*	*45*	*3.5*	*Feb-17*
eV Alt All Managed Futures Median			*2.1*		*4.6*		*4.1*		*0.5*		*3.7*		*1.7*	*Feb-17*
Grosvenor SCARF Diversifying- Gross	123,689,072	1.3	2.6	28	3.4	86	1.0	67	0.7	97	-0.3	99	1.5	Nov-11
Grosvenor SCARF Diversifying- Net			2.6	28	3.4	86	1.0	67	0.7	97	-0.3	99	1.5	
HFRI FoF Conservative Index			*1.5*	*60*	*4.7*	*67*	*2.1*	*50*	*3.9*	*76*	*4.4*	*31*	*4.6*	*Nov-11*
eV Alt Fund of Funds - Multi-Strategy Median			*1.9*		*6.2*		*2.1*		*5.3*		*3.1*		*5.1*	*Nov-11*
Grosvenor SCARF B Diversifying- Gross	148,700,366	1.5	2.6	27	4.1	76	1.3	63	-0.7	97	-0.9	99	0.6	Jan-13
Grosvenor SCARF B Diversifying- Net			2.6	27	4.1	76	1.3	63	-0.7	97	-0.9	99	0.6	
HFRI FoF Conservative Index			*1.5*	*60*	*4.7*	*67*	*2.1*	*50*	*3.9*	*76*	*4.4*	*31*	*4.5*	*Jan-13*
eV Alt Fund of Funds - Multi-Strategy Median			*1.9*		*6.2*		*2.1*		*5.3*		*3.1*		*4.5*	*Jan-13*
KLS Diversified Fund- Gross	40,751,928	0.4	1.2	56	1.9	56	--	--	--	--	--	--	1.9	Dec-18
KLS Diversified Fund- Net			1.2	56	1.9	56	--	--	--	--	--	--	1.9	
HFRI FoF Conservative Index			*1.5*	*52*	*4.7*	*31*	*2.1*	*61*	*3.9*	*41*	*4.4*	*54*	*4.7*	*Dec-18*
eV Alt Relative Value - Multi-Market Arbitrage Median			*1.5*		*2.2*		*4.9*		*3.2*		*5.1*		*2.2*	*Dec-18*

+ Preliminary quarterly returns as of 6/30/2019 (Market Values estimated based on preliminary performance numbers provided by the manager.)

** Funded April 2019.*

	Market Value ($)	% of Portfolio	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	Inception (%)	Inception Date
Laurion Capital- Gross	48,526,220	0.5	3.3	5	4.8	49	5.9	37	6.2	37	7.1	38	6.4	Mar-14
Laurion Capital- Net			3.3	5	4.8	49	5.9	37	6.2	37	7.1	38	6.4	
HFRI FoF Conservative Index			*1.5*	*39*	*4.7*	*50*	*2.1*	*63*	*3.9*	*58*	*4.4*	*52*	*4.4*	*Mar-14*
eV Alt Relative Value - Equity Relative Value Median			*1.1*		*4.4*		*4.8*		*4.6*		*4.4*		*4.4*	*Mar-14*
MW Global Opportunities Fund- Gross	40,978,660	0.4	1.4	55	2.4	81	--	--	--	--	--	--	2.4	Dec-18
MW Global Opportunities Fund- Net			1.4	55	2.4	81	--	--	--	--	--	--	2.4	
HFRI FoF Conservative Index			*1.5*	*54*	*4.7*	*74*	*2.1*	*42*	*3.9*	*74*	*4.4*	*54*	*4.7*	*Dec-18*
eV Alt Fundamental - Long/Short Equity Median			*1.8*		*9.4*		*0.2*		*7.5*		*4.7*		*9.4*	*Dec-18*
Winton Diversified Futures- Gross	37,324,134	0.4	-0.1	73	1.2	68	-0.4	72	--	--	--	--	2.6	Dec-16
Winton Diversified Futures- Net			-0.1	73	1.2	68	-0.4	72	--	--	--	--	2.6	
HFRI FoF Conservative Index			*1.5*	*57*	*4.7*	*50*	*2.1*	*58*	*3.9*	*24*	*4.4*	*45*	*3.6*	*Dec-16*
eV Alt All Managed Futures Median			*2.1*		*4.6*		*4.1*		*0.5*		*3.7*		*2.0*	*Dec-16*

	Market Value ($)	% of Portfolio	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	Inception (%)	Inception Date
Real Return (with SSgA RA Overlay Proxy)- Gross	1,600,383,186	16.5	1.9	--	4.8	--	5.2	--	--	--	--	--	9.1	Mar-17
Real Return (with SSgA RA Overlay Proxy)- Net			1.9	--	4.7	--	4.9	--	--	--	--	--	8.9	
Real Return Custom[1]			1.3	--	2.5	--	4.2	--	6.1	--	--	--	6.4	Mar-17
Real Return Asset Category- Gross	1,404,245,809	14.5	1.9	--	4.4	--	5.7	--	--	--	--	--	10.4	Mar-17
Real Return Asset Category- Net			1.9	--	4.3	--	5.4	--	--	--	--	--	10.2	
Real Return Custom			1.3	--	2.5	--	4.2	--	6.1	--	--	--	6.4	Mar-17
Real Estate- Gross	869,686,123	9.0	1.5	22	3.7	7	2.8	96	9.6	3	10.7	5	11.3	Jun-11
Real Estate- Net			1.5	27	3.6	8	2.5	96	9.2	4	9.9	15	10.5	
Real Estate Custom[1]			1.2	60	3.4	11	6.8	21	7.4	35	9.1	43	9.9	Jun-11
InvMetrics All DB Real Estate Priv Net Median			1.3		2.7		6.3		6.9		9.0		9.7	Jun-11
Core RE -Separate- Gross	2,490,508	0.0	0.0	--	13.0	--	11.9	--	13.3	--	11.8	--	7.0	Sep-08
Core RE -Separate- Net			-0.4	--	12.5	--	8.9	--	11.7	--	10.3	--	5.9	
NFI-ODCE			1.0	--	2.4	--	6.4	--	7.6	--	9.8	--	5.6	Sep-08
BlackRock RE Leveraged- Gross++	2,490,508	0.0	0.0	--	13.5	--	14.6	--	13.2	--	13.5	--	10.3	Dec-98
BlackRock RE Leveraged- Net			-0.4	--	13.1	--	12.4	--	12.1	--	12.1	--	--	
NFI-ODCE			1.0	--	2.4	--	6.4	--	7.6	--	9.8	--	8.5	Dec-98
Core RE -Limited Partnership- Gross	675,751,844	7.0	1.8	--	3.8	--	7.9	--	10.3	--	11.3	--	5.1	Sep-08
Core RE -Limited Partnership- Net			1.7	--	3.6	--	7.6	--	10.1	--	10.9	--	4.5	
NFI-ODCE			1.0	--	2.4	--	6.4	--	7.6	--	9.8	--	5.6	Sep-08
Brookfield Premier RE Partners- Gross+	103,823,335	1.1	2.0	--	4.0	--	--	--	--	--	--	--	5.9	Sep-18
Brookfield Premier RE Partners- Net			2.0	--	4.0	--	--	--	--	--	--	--	5.9	
NFI-ODCE			1.0	--	2.4	--	6.4	--	7.6	--	9.8	--	4.2	Sep-18
Clarion Lion Properties- Gross	155,505,371	1.6	1.4	--	3.5	--	--	--	--	--	--	--	5.6	Sep-18
Clarion Lion Properties- Net			1.2	--	3.0	--	--	--	--	--	--	--	4.9	
NFI-ODCE			1.0	--	2.4	--	6.4	--	7.6	--	9.8	--	4.2	Sep-18

1. *See Policy Index and Benchmark History.*

\+ *Preliminary quarterly returns as of 6/30/2019 (Market Values estimated based on preliminary performance numbers provided by the manager.)*

++ *Preliminary quarterly returns as of 6/30/2019 (Returns are not available at reporting period.)*

	Market Value ($)	% of Portfolio	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	Inception (%)	Inception Date
Jamestown Premier Property- Gross	18,397,265	0.2	2.3	--	1.9	--	4.6	--	8.7	--	10.2	--	10.5	Dec-13
Jamestown Premier Property- Net			2.3	--	1.9	--	4.6	--	8.7	--	10.2	--	10.5	
NFI-ODCE			*1.0*	--	*2.4*	--	*6.4*	--	*7.6*	--	*9.8*	--	*9.9*	*Dec-13*
Metlife Core Property- Gross	61,816,899	0.6	2.4	--	5.0	--	7.8	--	9.0	--	10.9	--	11.6	Dec-13
Metlife Core Property- Net			2.3	--	4.7	--	7.3	--	8.5	--	10.4	--	11.1	
NFI-ODCE			*1.0*	--	*2.4*	--	*6.4*	--	*7.6*	--	*9.8*	--	*9.9*	*Dec-13*
Prime Property- Gross	62,145,779	0.6	2.1	--	3.7	--	8.4	--	9.4	--	11.6	--	11.8	Sep-13
Prime Property- Net			1.8	--	3.1	--	7.2	--	8.2	--	10.4	--	10.6	
NFI-ODCE			*1.0*	--	*2.4*	--	*6.4*	--	*7.6*	--	*9.8*	--	*10.0*	*Sep-13*
Principal US Property- Gross	47,176,963	0.5	1.3	--	3.0	--	6.9	--	8.0	--	--	--	8.5	Oct-15
Principal US Property- Net			1.3	--	3.0	--	6.9	--	8.0	--	--	--	8.5	
NFI-ODCE			*1.0*	--	*2.4*	--	*6.4*	--	*7.6*	--	*9.8*	--	*8.4*	*Oct-15*
Prologis Targeted Euro Logistics- Gross	39,946,169	0.4	3.0	--	4.7	--	9.8	--	13.8	--	--	--	12.3	Oct-15
Prologis Targeted Euro Logistics- Net			3.0	--	4.7	--	9.8	--	13.8	--	--	--	12.3	
NFI-ODCE			*1.0*	--	*2.4*	--	*6.4*	--	*7.6*	--	*9.8*	--	*8.4*	*Oct-15*
Prologis Targeted US Logistics- Gross	73,497,105	0.8	4.3	--	7.3	--	14.3	--	17.2	--	--	--	16.7	Jul-15
Prologis Targeted US Logistics- Net			4.3	--	7.3	--	14.3	--	17.2	--	--	--	16.7	
NFI-ODCE			*1.0*	--	*2.4*	--	*6.4*	--	*7.6*	--	*9.8*	--	*8.8*	*Jul-15*
Townsend Real Estate- Gross+	113,442,958	1.2	0.0	--	1.5	--	5.2	--	8.6	--	--	--	8.9	Mar-16
Townsend Real Estate- Net			0.0	--	1.5	--	5.2	--	8.6	--	--	--	8.9	
NFI-ODCE			*1.0*	--	*2.4*	--	*6.4*	--	*7.6*	--	*9.8*	--	*7.7*	*Mar-16*
Non-Core RE -Opportunistic- Gross++*	**140,919,236**	**1.5**	**0.4**	**--**	**2.6**	**--**	**-13.2**	**--**	**8.8**	**--**	**21.9**	**--**	**21.9**	**Feb-14**
Non-Core RE -Opportunistic- Net			**0.4**	**--**	**2.6**	**--**	**-13.2**	**--**	**8.5**	**--**	**21.2**	**--**	**21.1**	
NFI-ODCE net +1% 1Q Lag			*1.5*	--	*5.1*	--	*7.6*	--	*8.0*	--	*10.2*	--	*10.6*	*Feb-14*
Carlyle China Realty- Gross	7,246,569	0.1	6.0	--	6.3	--	58.9	--	--	--	--	--	20.5	Jun-17
Carlyle China Realty- Net			6.0	--	6.3	--	58.9	--	--	--	--	--	20.5	
NFI-ODCE net +1% 1Q Lag			*1.5*	--	*5.1*	--	*7.6*	--	*8.0*	--	*10.2*	--	*7.8*	*Jun-17*

++ *Returns are one-quarter lag.*

\+ *Preliminary quarterly returns as of 6/30/2019 (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	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	Inception (%)	Inception Date
Carlyle China Rome Logistics- Gross	32,343,939	0.3	6.7	--	7.5	--	-14.7	--	--	--	--	--	-6.7	Jun-17
Carlyle China Rome Logistics- Net			6.7	--	7.5	--	-14.7	--	--	--	--	--	-6.7	
NFI-ODCE net +1% 1Q Lag			*1.5*	--	*5.1*	--	*7.6*	--	*8.0*	--	*10.2*	--	*7.8*	*Jun-17*
CIM Opportunity VIII- Gross	37,750,567	0.4	4.1	--	6.1	--	10.6	--	8.2	--	--	--	7.4	Feb-15
CIM Opportunity VIII- Net			4.1	--	6.1	--	10.6	--	7.8	--	--	--	6.0	
NFI-ODCE net +1% 1Q Lag			*1.5*	--	*5.1*	--	*7.6*	--	*8.0*	--	*10.2*	--	*10.3*	*Feb-15*
Kohlberg Kravis Roberts- Gross	8,741,042	0.1	2.4	--	1.5	--	-58.0	--	-11.8	--	8.9	--	9.7	Feb-14
Kohlberg Kravis Roberts- Net			2.4	--	1.5	--	-58.0	--	-11.8	--	8.8	--	9.4	
NFI-ODCE net +1% 1Q Lag			*1.5*	--	*5.1*	--	*7.6*	--	*8.0*	--	*10.2*	--	*10.6*	*Feb-14*
NREP Nordic Strat FCP-FIS- Gross	10,149,303	0.1	-22.9	--	-19.4	--	-23.4	--	13.5	--	--	--	17.1	Dec-14
NREP Nordic Strat FCP-FIS- Net			-22.9	--	-19.4	--	-23.4	--	13.5	--	--	--	17.1	
NFI-ODCE net +1% 1Q Lag			*1.5*	--	*5.1*	--	*7.6*	--	*8.0*	--	*10.2*	--	*9.9*	*Dec-14*
NREP Nordic Strat II- Gross	29,795,512	0.3	-1.7	--	3.3	--	4.0	--	14.6	--	--	--	14.6	Jun-16
NREP Nordic Strat II- Net			-1.7	--	3.3	--	4.0	--	14.6	--	--	--	14.6	
NFI-ODCE net +1% 1Q Lag			*1.5*	--	*5.1*	--	*7.6*	--	*8.0*	--	*10.2*	--	*8.0*	*Jun-16*
NREP Nordic Strat III- Gross	1,349,358	0.0	-13.1	--	-25.5	--	--	--	--	--	--	--	-18.7	Jul-18
NREP Nordic Strat III- Net			-13.1	--	-25.5	--	--	--	--	--	--	--	-18.7	
NFI-ODCE net +1% 1Q Lag			*1.5*	--	*5.1*	--	*7.6*	--	*8.0*	--	*10.2*	--	*7.5*	*Jul-18*
OZ RE III- Gross	13,542,946	0.1	2.2	--	5.3	--	10.9	--	20.7	--	--	--	5.8	Sep-14
OZ RE III- Net			2.2	--	5.3	--	10.9	--	19.6	--	--	--	1.7	
NFI-ODCE net +1% 1Q Lag			*1.5*	--	*5.1*	--	*7.6*	--	*8.0*	--	*10.2*	--	*10.0*	*Sep-14*
Non-Core RE -Value Added- Gross++*	**50,524,535**	**0.5**	**0.9**	**--**	**0.2**	**--**	**2.0**	**--**	**4.5**	**--**	**7.8**	**--**	**-2.8**	**Sep-08**
Non-Core RE -Value Added- Net			**0.9**	**--**	**0.2**	**--**	**2.0**	**--**	**4.2**	**--**	**7.1**	**--**	**-4.0**	
NFI-ODCE net +1% 1Q Lag			*1.5*	--	*5.1*	--	*7.6*	--	*8.0*	--	*10.5*	--	*8.0*	*Sep-08*
Asana Partners Fund II- Gross+	262,500	0.0	--	--	--	--	--	--	--	--	--	--	0.0	Apr-19
Asana Partners Fund II- Net			--	--	--	--	--	--	--	--	--	--	0.0	
NFI-ODCE net +1% 1Q Lag			*1.5*	--	*5.1*	--	*7.6*	--	*8.0*	--	*10.5*	--	*1.4*	*Apr-19*

++ *Returns are one-quarter lag.*

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

\+ *Funded April 2019.*

	Market Value ($)	% of Portfolio	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	Inception (%)	Inception Date
ECE Euro Prime Shopping II- Gross	23,187,638	0.2	-1.5	--	-2.7	--	-1.2	--	13.6	--	--	--	14.7	Jul-15
ECE Euro Prime Shopping II- Net			-1.5	--	-2.7	--	-1.2	--	12.7	--	--	--	13.5	
NFI-ODCE net +1% 1Q Lag			*1.5*	--	*5.1*	--	*7.6*	--	*8.0*	--	*10.5*	--	*9.6*	*Jul-15*
European RE Debt II- Gross	8,497,243	0.1	5.3	--	2.6	--	-1.0	--	8.0	--	5.8	--	5.6	Nov-13
European RE Debt II- Net			5.3	--	2.6	--	-1.0	--	8.0	--	5.8	--	5.6	
NFI-ODCE net +1% 1Q Lag			*1.5*	--	*5.1*	--	*7.6*	--	*8.0*	--	*10.5*	--	*11.1*	*Nov-13*
Hammes II- Gross	16,033,231	0.2	2.3	--	5.5	--	20.4	--	-1.9	--	--	--	4.4	Jul-15
Hammes II- Net			2.3	--	5.5	--	20.4	--	-2.6	--	--	--	1.9	
NFI-ODCE net +1% 1Q Lag			*1.5*	--	*5.1*	--	*7.6*	--	*8.0*	--	*10.5*	--	*9.6*	*Jul-15*
Hammes III- Gross	1,640,015	0.0	-16.8	--	-46.0	--	--	--	--	--	--	--	-46.0	Oct-18
Hammes III- Net			-16.8	--	-46.0	--	--	--	--	--	--	--	-46.0	
NFI-ODCE net +1% 1Q Lag			*1.5*	--	*5.1*	--	*7.6*	--	*8.0*	--	*10.5*	--	*5.4*	*Oct-18*
UBS RE- Gross	884,659	0.0	-4.4	--	-4.3	--	-24.8	--	-5.8	--	0.7	--	-1.8	Sep-06
UBS RE- Net			-4.4	--	-4.3	--	-24.8	--	-5.9	--	0.4	--	-3.1	
NFI-ODCE net +1% 1Q Lag			*1.5*	--	*5.1*	--	*7.6*	--	*8.0*	--	*10.5*	--	--	*Sep-06*
Private Real Assets- Gross++*	**509,274,391**	**5.2**	**2.8**	**--**	**5.5**	**--**	**12.8**	**--**	**16.9**	**--**	**21.1**	**--**	**5.8**	**Jan-13**
Private Real Assets- Net			**2.8**	**--**	**5.5**	**--**	**12.8**	**--**	**16.9**	**--**	**21.1**	**--**	**5.8**	
Private Real Assets Custom[1]			*2.3*	--	*0.8*	--	*4.7*	--	*7.2*	--	*6.3*	--	*6.5*	*Jan-13*
CPI-U Headline +5%			*1.8*	--	*3.6*	--	*6.6*	--	*7.0*	--	*6.2*	--	*6.5*	*Jan-13*
ACM II- Gross	13,514,769	0.1	-1.1	--	1.0	--	-1.3	--	--	--	--	--	-5.1	Sep-16
ACM II- Net			-1.1	--	1.0	--	-1.3	--	--	--	--	--	-5.1	
NCREIF Farmland 1 Qtr Lag			*0.7*	--	*3.6*	--	*6.1*	--	*6.4*	--	*8.2*	--	*6.6*	*Sep-16*
ArcLight Energy VI- Gross	36,153,388	0.4	3.2	--	1.2	--	27.6	--	16.1	--	--	--	9.9	Aug-15
ArcLight Energy VI- Net			3.2	--	1.2	--	27.6	--	16.1	--	--	--	9.9	
Cambridge Associates Private Infrastructure 1 Qtr Lag			*3.3*	--	*4.8*	--	*8.1*	--	*11.4*	--	*10.4*	--	*13.1*	*Aug-15*

1. See Policy Index and Benchmark History.
++ 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	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	Inception (%)	Inception Date
Atalaya SMA- Gross	16,894,642	0.2	6.7	--	8.0	--	13.4	--	11.2	--	--	--	9.6	May-15
Atalaya SMA- Net			6.7	--	8.0	--	13.4	--	11.2	--	--	--	9.6	
Cambridge Associates Private Infrastructure 1 Qtr Lag			*3.3*	--	*4.8*	--	*8.1*	--	*11.4*	--	*10.4*	--	*11.7*	*May-15*
Brookfield Infra III- Gross	29,425,752	0.3	5.1	--	6.2	--	6.4	--	12.0	--	--	--	11.7	May-16
Brookfield Infra III- Net			5.1	--	6.2	--	6.4	--	12.0	--	--	--	11.7	
Cambridge Associates Private Infrastructure 1 Qtr Lag			*3.3*	--	*4.8*	--	*8.1*	--	*11.4*	--	*10.4*	--	*12.8*	*May-16*
Carlyle Power II- Gross	18,445,342	0.2	0.9	--	4.5	--	16.5	--	8.3	--	--	--	-0.1	Oct-15
Carlyle Power II- Net			0.9	--	4.5	--	16.5	--	8.3	--	--	--	-0.1	
Cambridge Associates Private Infrastructure 1 Qtr Lag			*3.3*	--	*4.8*	--	*8.1*	--	*11.4*	--	*10.4*	--	*12.1*	*Oct-15*
EnCap Energy IX- Gross	22,176,813	0.2	4.0	--	-5.1	--	7.6	--	17.0	--	13.1	--	0.3	Jan-13
EnCap Energy IX- Net			4.0	--	-5.1	--	7.6	--	17.0	--	13.1	--	0.3	
Cambridge Associates Private Energy 1 Qtr Lag			*2.0*	--	*-5.2*	--	*0.5*	--	*9.3*	--	*-0.7*	--	*1.5*	*Jan-13*
EnCap Energy X- Gross	34,526,913	0.4	0.5	--	9.0	--	10.8	--	16.1	--	--	--	-0.1	Apr-15
EnCap Energy X- Net			0.5	--	9.0	--	10.8	--	16.1	--	--	--	-0.1	
Cambridge Associates Private Energy 1 Qtr Lag			*2.0*	--	*-5.2*	--	*0.5*	--	*9.3*	--	*-0.7*	--	*0.5*	*Apr-15*
EnCap Flatrock Midstream III- Gross	16,464,130	0.2	7.3	--	7.0	--	8.2	--	14.7	--	--	--	8.8	Jul-14
EnCap Flatrock Midstream III- Net			7.3	--	7.0	--	8.2	--	14.7	--	--	--	8.8	
Cambridge Associates Private Infrastructure 1 Qtr Lag			*3.3*	--	*4.8*	--	*8.1*	--	*11.4*	--	*10.4*	--	*10.6*	*Jul-14*
EnCap Flatrock Midstream IV- Gross	7,216,923	0.1	14.4	--	12.9	--	1.4	--	--	--	--	--	-5.9	Feb-18
EnCap Flatrock Midstream IV- Net			14.4	--	12.9	--	1.4	--	--	--	--	--	-5.9	
Cambridge Associates Private Infrastructure 1 Qtr Lag			*3.3*	--	*4.8*	--	*8.1*	--	*11.4*	--	*10.4*	--	*11.2*	*Feb-18*
EQT Infrastructure Fund IV- Gross*	1,400,489	0.0	--	--	--	--	--	--	--	--	--	--	--	Jun-19
EQT Infrastructure Fund IV- Net			--	--	--	--	--	--	--	--	--	--	--	
Cambridge Associates Private Infrastructure 1 Qtr Lag			*3.3*	--	*4.8*	--	*8.1*	--	*11.4*	--	*10.4*	--	--	*Jun-19*
First Reserve- Gross	27,261,418	0.3	3.0	--	3.9	--	9.9	--	29.3	--	--	--	-1.5	Dec-14
First Reserve- Net			3.0	--	3.9	--	9.9	--	29.3	--	--	--	-1.5	
Cambridge Associates Private Infrastructure 1 Qtr Lag			*3.3*	--	*4.8*	--	*8.1*	--	*11.4*	--	*10.4*	--	*10.9*	*Dec-14*

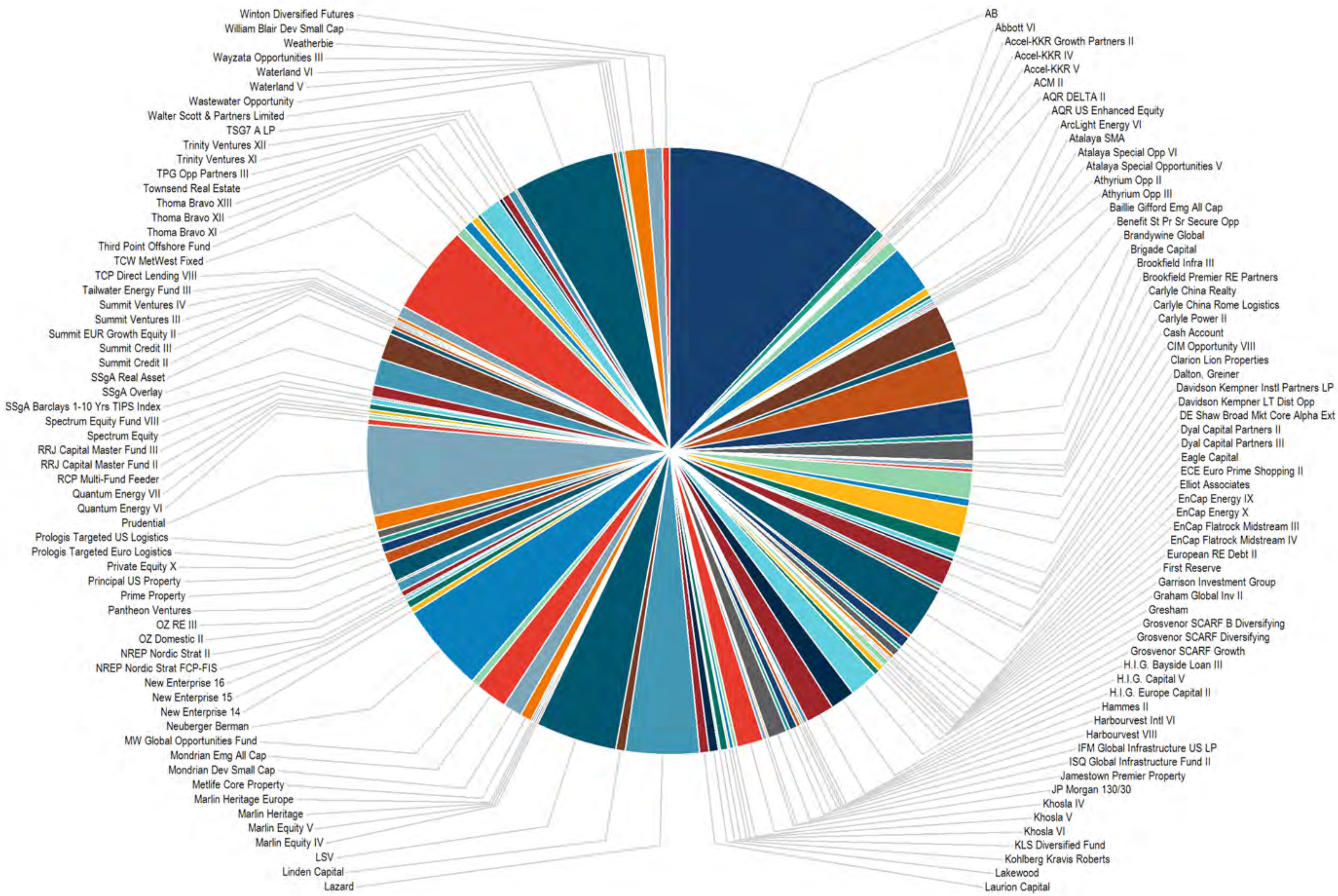
* *Funded June 2019.*

	Market Value ($)	% of Portfolio	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	Inception (%)	Inception Date
IFM Global Infrastructure US LP- Gross	93,752,715	1.0	2.6	--	5.6	--	13.2	--	--	--	--	--	13.8	Apr-17
IFM Global Infrastructure US LP- Net			2.6	--	5.6	--	13.2	--	--	--	--	--	13.8	
Cambridge Associates Private Infrastructure 1 Qtr Lag			*3.3*	--	*4.8*	--	*8.1*	--	*11.4*	--	*10.4*	--	*13.8*	*Apr-17*
ISQ Global Infrastructure Fund II- Gross	13,447,992	0.1	4.8	--	6.9	--	--	--	--	--	--	--	6.9	Oct-18
ISQ Global Infrastructure Fund II- Net			4.8	--	6.9	--	--	--	--	--	--	--	6.9	
Cambridge Associates Private Infrastructure 1 Qtr Lag			*3.3*	--	*4.8*	--	*8.1*	--	*11.4*	--	*10.4*	--	*7.1*	*Oct-18*
Meridiam Infra N America III- Gross	502,180	0.0	-11.0	--	-67.3	--	-91.1	--	--	--	--	--	-92.8	Sep-17
Meridiam Infra N America III- Net			-11.0	--	-67.3	--	-91.1	--	--	--	--	--	-92.8	
Cambridge Associates Private Infrastructure 1 Qtr Lag			*3.3*	--	*4.8*	--	*8.1*	--	*11.4*	--	*10.4*	--	*11.2*	*Sep-17*
Pantheon Ventures- Gross	92,749,089	1.0	4.2	--	6.5	--	12.5	--	17.1	--	--	--	27.1	Jul-14
Pantheon Ventures- Net			4.2	--	6.5	--	12.5	--	17.1	--	--	--	27.1	
Cambridge Associates Private Infrastructure 1 Qtr Lag			*3.3*	--	*4.8*	--	*8.1*	--	*11.4*	--	*10.4*	--	*10.6*	*Jul-14*
Quantum Energy VI- Gross	32,252,196	0.3	-0.2	--	6.8	--	25.2	--	37.7	--	--	--	25.4	Nov-14
Quantum Energy VI- Net			-0.2	--	6.8	--	25.2	--	37.7	--	--	--	25.4	
Cambridge Associates Private Energy 1 Qtr Lag			*2.0*	--	*-5.2*	--	*0.5*	--	*9.3*	--	*-0.7*	--	*-2.7*	*Nov-14*
Quantum Energy VII- Gross	17,267,975	0.2	-0.2	--	5.7	--	3.8	--	--	--	--	--	-0.8	Aug-17
Quantum Energy VII- Net			-0.2	--	5.7	--	3.8	--	--	--	--	--	-0.8	
Cambridge Associates Private Energy 1 Qtr Lag			*2.0*	--	*-5.2*	--	*0.5*	--	*9.3*	--	*-0.7*	--	*3.4*	*Aug-17*
Tailwater Energy Fund III- Gross	20,083,676	0.2	0.1	--	11.6	--	--	--	--	--	--	--	1.7	Sep-18
Tailwater Energy Fund III- Net			0.1	--	11.6	--	--	--	--	--	--	--	1.7	
Cambridge Associates Private Energy 1 Qtr Lag			*2.0*	--	*-5.2*	--	*0.5*	--	*9.3*	--	*-0.7*	--	*-3.1*	*Sep-18*
Wastewater Opportunity- Gross	15,737,989	0.2	-0.8	--	12.1	--	8.9	--	-7.1	--	--	--	-25.2	Dec-15
Wastewater Opportunity- Net			-0.8	--	12.1	--	8.9	--	-7.1	--	--	--	-25.2	
Cambridge Associates Private Infrastructure 1 Qtr Lag			*3.3*	--	*4.8*	--	*8.1*	--	*11.4*	--	*10.4*	--	*12.2*	*Dec-15*

	Market Value ($)	% of Portfolio	3 Mo (%)	Rank	YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	Inception (%)	Inception Date
Commodities- Gross	**25,285,295**	**0.3**	**-1.9**	**--**	**5.5**	**--**	**-8.1**	**--**	**-3.9**	**--**	**-10.0**	**--**	**-6.3**	**May-08**
Commodities- Net			**-2.1**	**--**	**5.1**	**--**	**-8.8**	**--**	**-4.5**	**--**	**-10.6**	**--**	**--**	
Bloomberg Commodity Index TR USD			*-1.2*	--	*5.1*	--	*-6.8*	--	*-2.2*	--	*-9.1*	--	*-8.1*	*May-08*
Gresham- Gross	25,285,295	0.3	-1.9	--	5.5	--	-8.1	--	-0.2	--	-8.4	--	-7.3	Apr-08
Gresham- Net			-2.1	--	5.1	--	-8.8	--	-0.9	--	-9.1	--	--	
Bloomberg Commodity Index TR USD			*-1.2*	--	*5.1*	--	*-6.8*	--	*-2.2*	--	*-9.1*	--	*-7.8*	*Apr-08*
Opportunities Asset Category- Gross*	**7,632,201**	**0.1**	**-0.7**	**--**	**1.3**	**--**	**5.3**	**--**	**4.7**	**--**	**6.8**	**--**	**15.0**	**Oct-07**
Opportunities Asset Category- Net			**-0.7**	**--**	**1.3**	**--**	**5.3**	**--**	**4.7**	**--**	**6.8**	**--**	**15.0**	
Policy Index			*3.1*	--	*9.4*	--	*6.3*	--	*8.7*	--	*6.1*	--	*7.8*	*Oct-07*
Atalaya Special Opportunities V- Gross	7,632,201	0.1	-0.7	--	1.3	--	5.3	--	3.8	--	6.4	--	4.9	Jul-13
Atalaya Special Opportunities V- Net			-0.7	--	1.3	--	5.3	--	3.8	--	6.4	--	4.9	
Thomson Reuters C|A All PE 1 Qtr Lag			*4.3*	--	*3.2*	--	*12.7*	--	*14.6*	--	*12.4*	--	*14.3*	*Jul-13*
SSgA Real Asset Overlay Proxy- Gross	**196,137,377**	**2.0**	**2.1**	**--**	**10.7**	**--**	**5.3**	**--**	**4.3**	**--**	**0.4**	**--**	**1.6**	**Jan-08**
SSgA Real Asset Overlay Proxy- Net			**1.8**	**--**	**10.3**	**--**	**4.9**	**--**	**4.0**	**--**	**0.1**	**--**	**1.4**	
SSgA Real Asset[1]			*2.1*	--	*10.6*	--	*5.1*	--	*4.2*	--	*0.1*	--	--	*Jan-08*
Cash - Gross	**139,691,017**	**1.4**	**0.8**	**--**	**1.5**	**--**	**3.0**	**--**	**2.1**	**--**	**1.7**	**--**	**3.2**	**Jun-92**
Cash - Net			**0.8**	**--**	**1.5**	**--**	**3.0**	**--**	**2.1**	**--**	**1.7**	**--**	**--**	
91 Day T-Bills			*0.6*	--	*1.2*	--	*2.3*	--	*1.4*	--	*0.9*	--	*2.4*	*Jun-92*
Cash Account- Gross	139,691,017	1.4	0.8	--	1.5	--	3.0	--	2.1	--	1.8	--	3.2	Jun-92
Cash Account- Net			0.8	--	1.5	--	3.0	--	2.1	--	1.8	--	--	
91 Day T-Bills			*0.6*	--	*1.2*	--	*2.3*	--	*1.4*	--	*0.9*	--	*2.4*	*Jun-92*

1. See Policy Index and Benchmark Histoy.

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


Winton Diversified Futures
William Blair Dev Small Cap
Weatherbie
Wayzata Opportunities III
Waterland VI
Waterland V
Wastewater Opportunity
Walter Scott & Partners Limited
TSG7 A LP
Trinity Ventures XII
Trinity Ventures XI
TPG Opp Partners III
Townsend Real Estate
Thoma Bravo XIII
Thoma Bravo XII
Thoma Bravo XI
Third Point Offshore Fund
TCW MetWest Fixed
TCP Direct Lending VIII
Tailwater Energy Fund III
Summit Ventures IV
Summit Ventures III
Summit EUR Growth Equity II
Summit Credit III
Summit Credit II
SSgA Real Asset
SSgA Overlay
SSgA Barclays 1-10 Yrs TIPS Index
Spectrum Equity Fund VIII
Spectrum Equity
RRJ Capital Master Fund III
RRJ Capital Master Fund II
RCP Multi-Fund Feeder
Quantum Energy VII
Quantum Energy VI
Prudential
Prologis Targeted US Logistics
Prologis Targeted Euro Logistics
Private Equity X
Principal US Property
Prime Property
Pantheon Ventures
OZ RE III
OZ Domestic II
NREP Nordic Strat II
NREP Nordic Strat FCP-FIS
New Enterprise 16
New Enterprise 15
New Enterprise 14
Neuberger Berman
MW Global Opportunities Fund
Mondrian Emg All Cap
Mondrian Dev Small Cap
Metlife Core Property
Marlin Heritage Europe
Marlin Heritage
Marlin Equity V
Marlin Equity IV
LSV
Linden Capital
Lazard
AB
Abbott VI
Accel-KKR Growth Partners II
Accel-KKR IV
Accel-KKR V
ACM II
AQR DELTA II
AQR US Enhanced Equity
ArcLight Energy VI
Atalaya SMA
Atalaya Special Opp VI
Atalaya Special Opportunities V
Athyrium Opp II
Athyrium Opp III
Baillie Gifford Emg All Cap
Benefit St Pr Sr Secure Opp
Brandywine Global
Brigade Capital
Brookfield Infra III
Brookfield Premier RE Partners
Carlyle China Realty
Carlyle China Rome Logistics
Carlyle Power II
Cash Account
CIM Opportunity VIII
Clarion Lion Properties
Dalton, Greiner
Davidson Kempner Instl Partners LP
Davidson Kempner LT Dist Opp
DE Shaw Broad Mkt Core Alpha Ext
Dyal Capital Partners II
Dyal Capital Partners III
Eagle Capital
ECE Euro Prime Shopping II
Elliot Associates
EnCap Energy IX
EnCap Energy X
EnCap Flatrock Midstream III
EnCap Flatrock Midstream IV
European RE Debt II
First Reserve
Garrison Investment Group
Graham Global Inv II
Gresham
Grosvenor SCARF B Diversifying
Grosvenor SCARF Diversifying
Grosvenor SCARF Growth
H.I.G. Bayside Loan III
H.I.G. Capital V
H.I.G. Europe Capital II
Hammes II
Harbourvest Intl VI
Harbourvest VIII
IFM Global Infrastructure US LP
ISQ Global Infrastructure Fund II
Jamestown Premier Property
JP Morgan 130/30
Khosla IV
Khosla V
Khosla VI
KLS Diversified Fund
Kohlberg Kravis Roberts
Lakewood
Laurion Capital

	Current	%
AB	$1,160,590,716	11.9%
AQR US Enhanced Equity	$244,045,523	2.5%
JP Morgan 130/30	$133,184,269	1.4%
DE Shaw Broad Mkt Core Alpha Ext	$127,149,946	1.3%
Brown Advisory	$0	0.0%
Eagle Capital	$262,942,581	2.7%
Huber Capital	$25,274	0.0%
UBS	$0	0.0%
Weatherbie	$107,171,162	1.1%
Dalton, Greiner	$92,252,199	0.9%
WEDGE Capital	$1,223	0.0%
CenterSquare	$0	0.0%
Lazard	$380,953,259	3.9%
Walter Scott & Partners Limited	$528,791,956	5.4%
LSV	$418,706,305	4.3%
Mondrian Dev Small Cap	$95,334,735	1.0%
William Blair Dev Small Cap	$87,108,774	0.9%
Baillie Gifford Emg All Cap	$196,362,960	2.0%
Mondrian Emg All Cap	$169,950,730	1.7%
CBRE Clarion	$21,488	0.0%
Abbott VI	$49,711,577	0.5%
Accel-KKR IV	$12,854,465	0.1%
Accel-KKR V	$11,904,364	0.1%
Accel-KKR Growth Partners II	$10,282,583	0.1%
Atalaya Special Opp VI	$21,234,239	0.2%
Davidson Kempner LT Dist Opp	$23,617,389	0.2%
Dyal Capital Partners II	$15,939,840	0.2%
Dyal Capital Partners III	$18,209,229	0.2%

	Current	%
Garrison Investment Group	$13,567,788	0.1%
Harbourvest VIII	$15,940,067	0.2%
Harbourvest Intl VI	$35,007,223	0.4%
H.I.G. Bayside Loan III	$14,834,227	0.2%
H.I.G. Capital V	$12,702,384	0.1%
H.I.G. Europe Capital II	$8,598,613	0.1%
Khosla IV	$19,654,791	0.2%
Khosla V	$22,794,337	0.2%
Khosla VI	$7,730,150	0.1%
Linden Capital	$51,977,938	0.5%
Linden Capital Partners IV	$4,843,323	0.0%
Marlin Equity IV	$14,419,213	0.1%
Marlin Equity V	$5,138,315	0.1%
Marlin Heritage	$11,329,150	0.1%
Marlin Heritage II	$4,792,768	0.0%
Marlin Heritage Europe	$7,949,157	0.1%
New Enterprise 14	$30,161,916	0.3%
New Enterprise 15	$43,370,371	0.4%
New Enterprise 16	$20,127,122	0.2%
Private Equity X	$25,517,927	0.3%
RCP Multi-Fund Feeder	$7,695,161	0.1%
RRJ Capital Master Fund II	$20,531,607	0.2%
RRJ Capital Master Fund III	$29,085,842	0.3%
Spectrum Equity	$29,618,170	0.3%
Spectrum Equity Fund VIII	$6,693,395	0.1%
Summit EUR Growth Equity II	$10,483,361	0.1%
Summit Ventures III	$14,510,531	0.1%
Summit Ventures IV	$13,179,822	0.1%

	Current	%
Thoma Bravo XI	$46,374,600	0.5%
Thoma Bravo XII	$34,320,369	0.4%
Thoma Bravo XIII	$15,976,963	0.2%
TPG Opp Partners III	$21,927,249	0.2%
Trinity Ventures XI	$37,012,073	0.4%
Trinity Ventures XII	$35,067,328	0.4%
TSG7 A LP	$12,052,238	0.1%
TSG7 B LP	$1,116,477	0.0%
TSG8 LP	$221,005	0.0%
TSSP Opportunities Partners IV	$4,450,395	0.0%
Waterland V	$11,510,616	0.1%
Waterland VI	$23,907,948	0.2%
Wayzata Opportunities III	$5,769,323	0.1%
Brigade Capital	$182,387,811	1.9%
Athyrium Opp II	$13,008,311	0.1%
Athyrium Opp III	$12,205,718	0.1%
Benefit St Pr Sr Secure Opp	$46,052,452	0.5%
Summit Credit	$2,680,551	0.0%
Summit Credit II	$26,554,250	0.3%
Summit Credit III	$15,730,990	0.2%
TCP Direct Lending VIII	$59,876,031	0.6%
Grosvenor SCARF Growth	$148,617,864	1.5%
JANA Partners	$4,050,323	0.0%
Lakewood	$44,755,348	0.5%
OZ Domestic II	$51,396,439	0.5%
Third Point Offshore Fund	$49,781,210	0.5%
Prudential	$470,406,400	4.8%
TCW MetWest Fixed	$454,707,822	4.7%

	Current	%
Neuberger Berman	$456,625,016	4.7%
Brandywine Global	$252,909,068	2.6%
AQR DELTA II	$57,543,951	0.6%
Davidson Kempner Instl Partners LP	$32,813,568	0.3%
Elliot Associates	$56,692,713	0.6%
Graham Global Inv II	$33,709,010	0.3%
Grosvenor SCARF Diversifying	$123,689,072	1.3%
Grosvenor SCARF B Diversifying	$148,700,366	1.5%
KLS Diversified Fund	$40,751,928	0.4%
Laurion Capital	$48,526,220	0.5%
MW Global Opportunities Fund	$40,978,660	0.4%
Winton Diversified Futures	$37,324,134	0.4%
BlackRock RE Leveraged	$2,490,508	0.0%
Brookfield Premier RE Partners	$103,823,335	1.1%
Clarion Lion Properties	$155,505,371	1.6%
Jamestown Premier Property	$18,397,265	0.2%
Metlife Core Property	$61,816,899	0.6%
Prime Property	$62,145,779	0.6%
Principal US Property	$47,176,963	0.5%
Prologis Targeted Euro Logistics	$39,946,169	0.4%
Prologis Targeted US Logistics	$73,497,105	0.8%
Townsend Real Estate	$113,442,958	1.2%
Carlyle China Realty	$7,246,569	0.1%
Carlyle China Rome Logistics	$32,343,939	0.3%
CIM Opportunity VIII	$37,750,567	0.4%
Kohlberg Kravis Roberts	$8,741,042	0.1%
NREP Nordic Strat FCP-FIS	$10,149,303	0.1%
NREP Nordic Strat II	$29,795,512	0.3%

	Current	%
NREP Nordic Strat III	$1,349,358	0.0%
OZ RE III	$13,542,946	0.1%
Asana Partners Fund II	$262,500	0.0%
ECE Euro Prime Shopping II	$23,187,638	0.2%
European RE Debt II	$8,497,243	0.1%
Hammes II	$16,033,231	0.2%
Hammes III	$1,640,015	0.0%
Hines US Office II	$19,249	0.0%
UBS RE	$884,659	0.0%
ACM II	$13,514,769	0.1%
ArcLight Energy VI	$36,153,388	0.4%
Atalaya SMA	$16,894,642	0.2%
Brookfield Infra III	$29,425,752	0.3%
Carlyle Power II	$18,445,342	0.2%
EnCap Energy IX	$22,176,813	0.2%
EnCap Energy X	$34,526,913	0.4%
EnCap Flatrock Midstream III	$16,464,130	0.2%
EnCap Flatrock Midstream IV	$7,216,923	0.1%
EQT Infrastructure Fund IV	$1,400,489	0.0%
First Reserve	$27,261,418	0.3%
IFM Global Infrastructure US LP	$93,752,715	1.0%
ISQ Global Infrastructure Fund II	$13,447,992	0.1%
Meridiam Infra N America III	$502,180	0.0%
Pantheon Ventures	$92,749,089	1.0%
Quantum Energy VI	$32,252,196	0.3%
Quantum Energy VII	$17,267,975	0.2%

	Current	%
Tailwater Energy Fund III	$20,083,676	0.2%
Wastewater Opportunity	$15,737,989	0.2%
Gresham	$25,285,295	0.3%
Atalaya Special Opportunities V	$7,632,201	0.1%
Cash Account	$139,691,017	1.4%
Transition Account	$1	0.0%
Heitman Adv JMB V	$8,390	0.0%
SSgA Overlay	$134,411,225	1.4%
SSgA Barclays 1-10 Yrs TIPS Index	$58,805,348	0.6%
SSgA Real Asset	$137,332,029	1.4%
Total	**$9,714,909,284**	**100.0%**

Statistics Summary

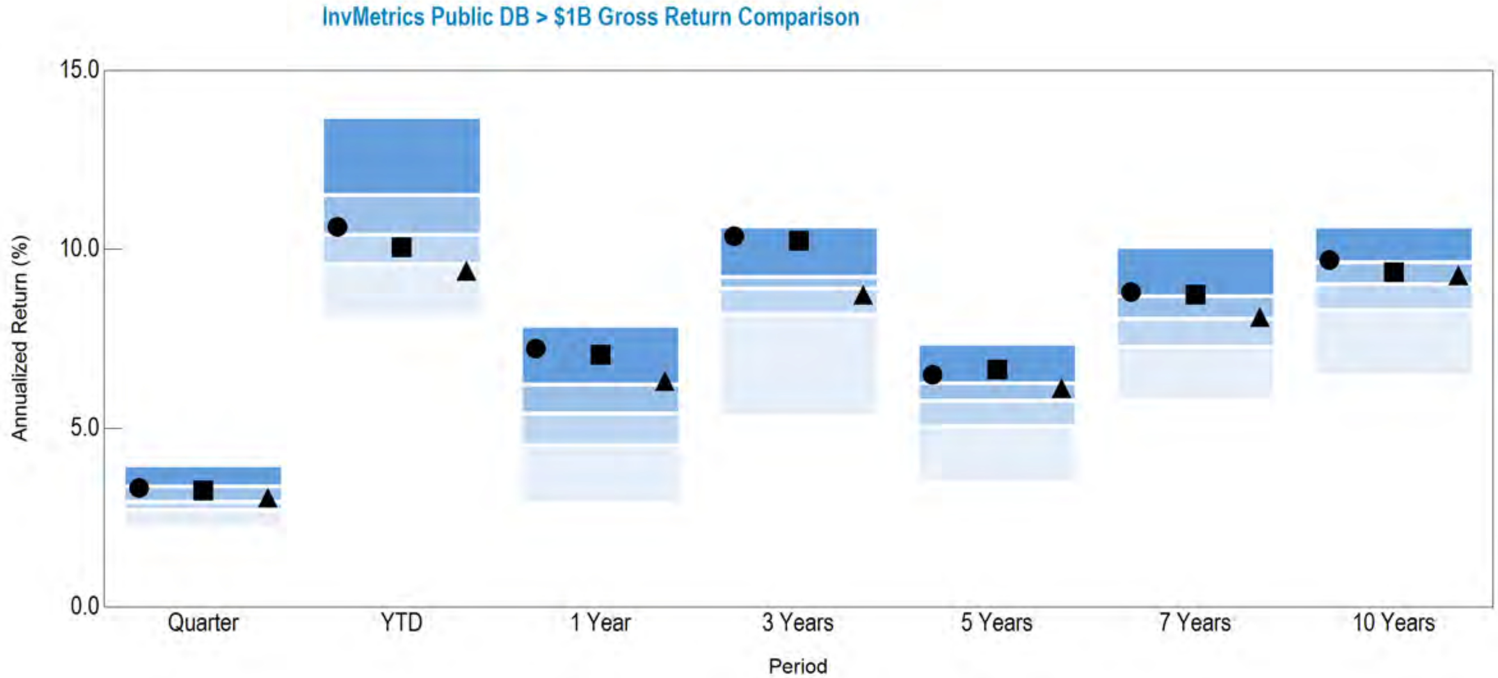
3 Years

	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	10.4%	7	5.7%	34	1.6	9	1.1	13	1.5%	83
Policy Index	8.7%	57	5.1%	14	1.4	18	--	--	0.0%	1
Total Fund ex Overlay	10.2%	8	5.5%	27	1.6	8	1.0	17	1.5%	84
Policy Index	8.7%	57	5.1%	14	1.4	18	--	--	0.0%	1

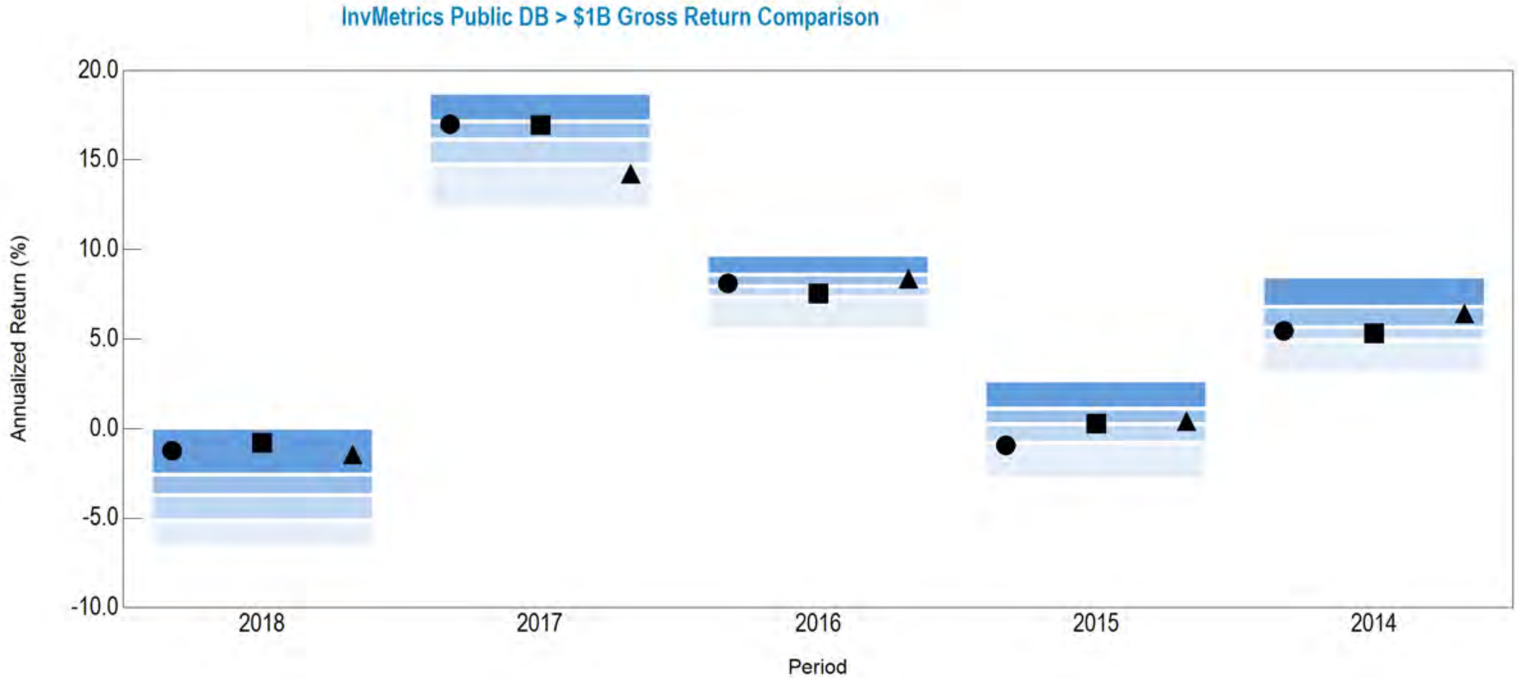
Statistics Summary

5 Years

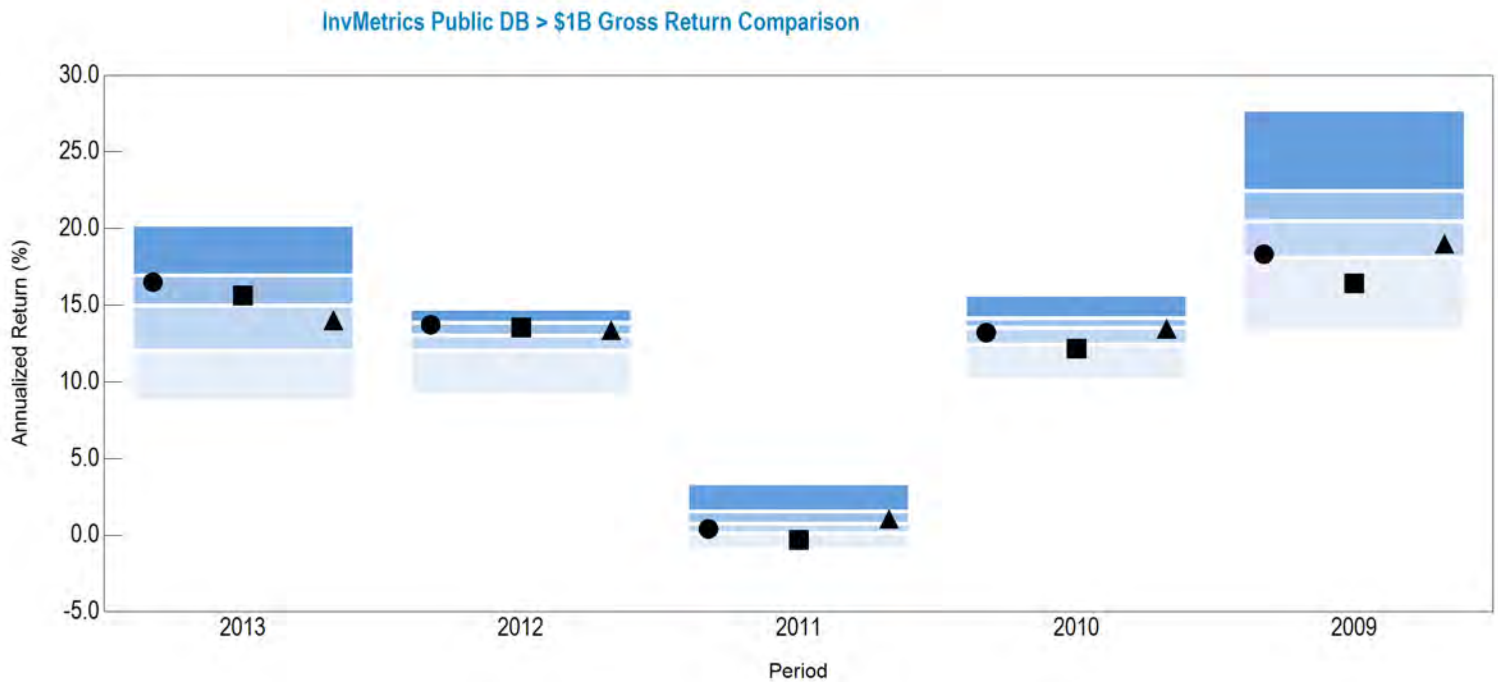
	Anlzd Return	Anlzd Return Rank	Anlzd Standard Deviation	Anlzd Standard Deviation Rank	Sharpe Ratio	Sharpe Ratio Rank	Information Ratio	Information Ratio Rank	Tracking Error	Tracking Error Rank
Total Fund	6.5%	21	6.2%	44	0.9	21	0.2	42	1.8%	89
Policy Index	6.1%	32	5.5%	12	1.0	12	--	--	0.0%	1
Total Fund ex Overlay	6.6%	15	5.9%	27	1.0	10	0.3	31	1.5%	82
Policy Index	6.1%	32	5.5%	12	1.0	12	--	--	0.0%	1



Return (Rank)	Quarter		YTD		1 Year		3 Years		5 Years		7 Years		10 Years	
5th Percentile	4.0		13.7		7.9		10.6		7.3		10.1		10.6	
25th Percentile	3.4		11.5		6.2		9.2		6.3		8.7		9.6	
Median	3.0		10.4		5.4		8.9		5.8		8.1		9.0	
75th Percentile	2.7		9.6		4.5		8.2		5.1		7.3		8.3	
95th Percentile	2.2		8.1		2.9		5.4		3.5		5.8		6.5	
# of Portfolios	88		88		88		88		84		82		77	
● **Total Fund**	3.3	(27)	10.6	(45)	7.2	(14)	10.4	(7)	6.5	(21)	8.8	(20)	9.7	(23)
■ **Total Fund ex Overlay**	3.3	(31)	10.1	(67)	7.0	(16)	10.2	(8)	6.6	(15)	8.7	(21)	9.4	(40)
▲ **Policy Index**	3.1	(45)	9.4	(79)	6.3	(23)	8.7	(57)	6.1	(32)	8.1	(50)	9.3	(43)



Return (Rank)	2018		2017		2016		2015		2014	
5th Percentile	0.0		18.8		9.7		2.7		8.5	
25th Percentile	-2.6		17.2		8.6		1.1		6.8	
Median	-3.7		16.2		8.0		0.3		5.7	
75th Percentile	-5.1		14.8		7.4		-0.7		4.9	
95th Percentile	-6.6		12.4		5.5		-2.8		3.1	
# of Portfolios	71		98		92		98		79	
● Total Fund	-1.2	(10)	17.0	(31)	8.1	(43)	-0.9	(83)	5.5	(61)
■ Total Fund ex Overlay	-0.8	(7)	17.0	(31)	7.5	(69)	0.3	(51)	5.3	(65)
▲ Policy Index	-1.4	(10)	14.2	(82)	8.4	(34)	0.4	(46)	6.4	(34)



Return (Rank)	2013		2012		2011		2010		2009	
5th Percentile	20.2		14.7		3.3		15.7		27.7	
25th Percentile	17.0		13.9		1.6		14.2		22.5	
Median	15.0		13.0		0.8		13.5		20.5	
75th Percentile	12.0		12.1		0.1		12.5		18.1	
95th Percentile	8.7		9.2		-0.9		10.2		13.4	
# of Portfolios	67		74		68		66		66	
● Total Fund	16.5	(31)	13.7	(36)	0.4	(60)	13.2	(62)	18.3	(73)
■ Total Fund ex Overlay	15.6	(43)	13.6	(41)	-0.3	(86)	12.2	(81)	16.4	(86)
▲ Policy Index	14.0	(64)	13.4	(42)	1.0	(38)	13.5	(53)	19.0	(62)

Total Plan Policy Index	As of: 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%	15.0%	20.0%	20.0%	25.0%	25.0%	30.0%	
BBgBarc US Treasury	5.0%	5.0%							
ICE BofA ML High Yield II	1.0%	1.0%	1.0%						
Bloomberg Commodity	2.0%	2.0%			5.0%				
Cambridge Associates Private Energy 1 Qtr Lag	2.5%								
Cambridge Associates Private Infrastructure 1 Qtr Lag	3.2%								
FTSE BIG									23.0%
FTSE WGBI ex US Unhedged	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%						
Credit Suisse Leveraged Loans +2%	4.0%	4.0%							
JPM GBI EM Diversified	0.6%	0.6%	0.6%						
HFRI FoF Composite Index + 1%	3.0%								
HFRI FoF Conservative Index	7.0%								
MSCI ACWI ex US	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%								
NFI-ODCE net +1% 1Q Lag	2.5%								
NCREIF		7.0%			12.0%	12.0%	15.0%	10.0%	15.0%
NCREIF Farmland 1 Qtr Lag	0.7%								
NCREIF Timberland Index Lagged	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	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%							
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Growth Benchmark	As of: 7/1/17	4/1/17
91 Day T-Bill +5%		5.08%
ICE BofA ML High Yield II	1.70%	1.70%
Credit Suisse Leveraged Loans	1.70%	1.70%
Credit Suisse Leveraged Loan + 2%	6.78%	6.78%
HFRI FoF Composite Index + 1%	5.08%	
MSCI ACWI ex US	33.90%	33.90%
Russell 3000	35.59%	35.59%
Thomson Reuters C|A All PE 1 Qtr Lag	15.25%	15.25%
	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%	
	100.0%	100.0%

International Equity Benchmark	As of: 1/1/08	1/1/00	7/1/86
MSCI ACWI ex US	100.0%		
MSCI EAFE		75.0%	100.0%
MSCI Emerging Markets		25.0%	
	100.0%	100.0%	100.0%

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%
	100.0%

Private Credit Benchmark	As of: 4/1/17
Credit Suisse Leveraged Loan + 2%	100.0%
	100.0%

Growth Oriented Absolute Return Benchmark	As of: 7/1/17	4/1/17
91-day UST Bill +5%		100.0%
HFRI FoF Composite Index + 1%	100.0%	
	100.0%	100.0%

Growth Oriented Absolute Return Benchmark	As of: 7/1/17	4/1/17
91-day UST Bill +5%		100.0%
HFRI FoF Composite Index + 1%	100.0%	
	100.0%	100.0%

Diversifying Benchmark	As of: 7/1/17	4/1/17
91 Day T-Bill +5%		28.0%
BBgBarc US Aggregate	40.0%	40.0%
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%	2.4%
	100.0%	100.0%

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: 7/1/17	4/1/17
91-day UST Bill +5%		100.0%
HFRI FoF Conservative Index	100.0%	
	100.0%	100.0%

Real Return Benchmark	As of: 4/1/17
Real Estate Benchmark	43.75%
Private Real Assets Benchmark	43.75%
Bloomberg Commodity	12.50%
	100.0%

Real Estate Benchmark	As of: 7/1/17	71/2011
NCREIF		100.0%
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%

AllianceBernstein Benchmark	As of: 1/1/01	1/1/98	5/1/89
Russell 1000	100.0%		
Russell 3000		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: 12/1/13
ICE BofA ML High Yield II	50.0%
Credit Suisse Leveraged Loans	50.0%
	100.0%

SSgA Real Asset Benchmark	As of: 3/2/2018	10/1/15	2/1/08
BBgBarc US Govt Inflation-Linked 1-10 Yrs		10.0%	
BBgBarc US TIPS		10.0%	20.0%
BBgBarc 1-10 Yr US TIPS	30.0%		
BBgBarc Roll Select Commodity TR	10.0%	20.0%	
BBgBarc USD Floating Rate Note <5yr	10.0%		
DJ US Select REIT			30.0%
FTSE EPRA/NAREIT Developed Liquid	15.0%	10.0%	
MSCI World Natural Resources		20.0%	25.0%
S&P Global Large Mid Cap Commodity Resources	10.0%		
S&P Global Infrastructure	25.0%	20.0%	
S&P GS Commodities			25.0%
S&P MLP		10.0%	
	100.0%	100.0%	100.0%

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)].

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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Verus receives universe data from InvMetrics, eVestment Alliance, and Morningstar. We believe this data to be robust and appropriate for peer comparison. Nevertheless, these universes may not be comprehensive of all peer investors/managers but rather of the investors/managers that comprise that database. The resulting universe composition is not static and will change over time. Returns are annualized when they cover more than one year. Investment managers may revise their data after report distribution. Verus will make the appropriate correction to the client account but may or may not disclose the change to the client based on the materiality of the change.

SCERS
SACRAMENTO COUNTY
EMPLOYEES' RETIREMENT SYSTEM

Retirement Board Order

Sacramento County Employees' Retirement System

Before the Board of Retirement
August 21, 2019

MOTION:

Total Fund Investment Performance Report—Second Quarter 2019

THE BOARD OF RETIREMENT hereby accepts the recommendation of staff to receive and file the Total Fund Investment Performance Report—Second Quarter 2019.

I HEREBY CERTIFY that the above order was passed and adopted on August 21, 2019 by the following vote of the Board of Retirement, to wit:

AYES: Fowler, Kelly, DeVore, Diepenbrock, Gin, Lamera, Matré, O'Neil, Petersen

NOES: None

ABSENT: None

ABSTAIN: None

Richard B. Fowler II
Board President

Eric Stern
Chief Executive Officer and
Board Secretary