



# Board of Retirement Regular Meeting

## Sacramento County Employees' Retirement System

### Agenda Item 11

**MEETING DATE:**    **May 23, 2018**

**SUBJECT:**           **Total Fund Investment Performance Report  
First Quarter 2018**

**SUBMITTED FOR:**    \_\_\_ **Consent**           \_\_\_ **Deliberation and Action**           \_\_\_ **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 March 31, 2018.

**PURPOSE**

To comply with SCERS' investment policy statement reporting requirements and provide a summary of SCERS' Total Fund investment returns and market environment discussion as of the quarter ending March 31, 2018.

**SCERS TOTAL FUND RETURNS**

This item summarizes SCERS' Total Fund investment returns as presented in Verus' Investment Performance Review for the period ending March 31, 2018. Please note that returns for SCERS' private equity, private credit, non-core real estate, and real assets portfolios are lagged one-quarter.

**SCERS TOTAL FUND PERFORMANCE SUMMARY**  
Quarter Reporting Periods Ending March 31, 2018

SCERS ASSET CLASS	Quarter	Fiscal Year-to-Date	1-Year	3-Year	5-Year	Since Inception	Since Inception Date
<b>SCERS TOTAL FUND Return w/Overlay</b>	<b>0.6%</b>	<b>8.8%</b>	<b>12.6%</b>	<b>7.3%</b>	<b>8.0%</b>	<b>8.4%</b>	Jun-86
Policy Index	0.5%	7.3%	10.3%	6.9%	7.9%	8.6%	
InvestorForce Public DB > \$1B	0.1%	7.7%	11.1%	7.1%	8.0%	8.3%	
<b>SCERS TOTAL FUND Return w/o Overlay</b>	<b>0.7%</b>	<b>8.9%</b>	<b>12.9%</b>	<b>7.6%</b>	<b>8.1%</b>	<b>8.3%</b>	Jun-86
Policy Index	0.5%	7.3%	10.3%	6.9%	7.9%	8.6%	
<b>GROWTH ASSET CATEGORY</b>	<b>0.5%</b>	<b>11.1%</b>	<b>16.3%</b>			<b>16.3%</b>	Mar-17
Custom Benchmark	0.3%	9.8%	14.0%			14.0%	
<b>DIVERSIFYING ASSET CATEGORY</b>	<b>-0.4%</b>	<b>1.6%</b>	<b>3.2%</b>			<b>3.2%</b>	Mar-17
Custom Benchmark	-0.3%	1.3%	2.9%			2.9%	
<b>REAL RETURN ASSET CATEGORY</b>	<b>2.8%</b>	<b>10.0%</b>	<b>12.4%</b>			<b>12.4%</b>	Mar-17
Custom Benchmark	2.7%	7.2%	8.4%			8.4%	
<b>OPPORTUNITIES PORTFOLIO</b>	<b>-2.0%</b>	<b>-1.8%</b>	<b>1.7%</b>	<b>7.0%</b>	<b>4.5%</b>	<b>16.2%</b>	Aug-07
Custom Benchmark	0.5%	7.3%	10.3%	6.9%	7.9%	N/A	

Verus' report has been reformatted to reflect SCERS' new 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, fiscal YTD, 1-Year, and since inception (Mar-17) performance for this report, without a historical track record (3-Year and 5-Year). Verus will continue to fill in historical performance for some segments in future reports, as is feasible.

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. Several of the asset class benchmarks are carry-over benchmarks from the prior policy index benchmark, while many were changed as part of the implementation of the new asset allocation, including those for Private Equity, Private Credit, Absolute Return, Real Estate, and Real Assets. A comparison of the new and prior policy benchmarks is shown on the next page.

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SCERS BENCHMARK SUMMARY As of March 31, 2018		
Asset Class	Prior Benchmark	New Benchmark
<b>SCERS Total Fund</b>	10% (91-Day T-Bill + 5%) + 15% (Barclays Agg. ) + 1% (BofA High Yield) + 2.4% (Citi WGBI) + 15% (CPI-U Headline + 5%) + 1% (CS Leverage Loan) + 0.6% (JPM GBI EM) + 22.5% (MSCI ACWI ex.-U.S.) + 10% (Russell 1000 + 3%) + 22.5% (Russell 3000)	10% (91-Day T-Bill + 5%) + 10% (Barclays Agg. ) + 5% (Barclays U.S. TIPS) + 1% (BofA High Yield) + 2% (Bloomberg Commodity) + 2.4% (Citi WGBI) + 7% (CPI-U Headline + 5%) + 1% (CS Leverage Loan) + 4% (CS Leveraged Loan + 2%) + 0.6% (JPM GBI EM) + 21% (Russell 3000) + 20% (MSCI ACWI ex.-U.S.) + 7% (NCREIF) + 9% (Cambridge All PE)
<b>Growth Asset Category</b>	NA	5.08% (91 Day T-Bill + 5%) + 1.7% (BofA High Yield) + 1.7% (CS Leveraged Loan) + 6.78% (CS Leveraged Loan + 2%) + 35.59% (Russell 3000) + 33.9% (MSCI ACWI ex.-U.S.) + 15.25% (Cambridge All PE)
Public Equities	MSCI ACWI	MSCI ACWI
US Equities	Russell 3000	Russell 3000
International Equities	MSCI ACWI ex.-U.S.	MSCI ACWI ex.-U.S. IMI
Private Equity	Russell 1000 + 3%	Cambridge All PE
Public Credit	50% (BofA High Yield) + 50% (CS Leverage Loan)	50% (BofA High Yield) + 50% (CS High Yield)
Private Credit	NA	CS Leveraged Loan + 2%
Growth Absolute Return	91 Day T-Bill + 5%	HFRI FoF Composite Index +1%
<b>Diversifying Asset Category</b>	NA	28% (91 Day T-Bill + 5%) + 40% (Barclays U.S. Agg.) + 20% (Barclays U.S. TIPS) + 9.6% (Citi WGBI ex.-U.S.) + 2.4% (JPM GBI EM Diversified)
Core/Core Plus Fixed Income	Barclays U.S. Aggregate	Barclays U.S. Aggregate
U.S. Treasury	NA	Barclays U.S. Aggregate
Global Fixed Income	80% Citi WGBI + 20% JPMorgan GBI EM	80% Citi WGBI + 20% JPMorgan GBI EM
Diversifying Absolute Return	91 Day T-Bill + 5%	HFRI FoF Conservtive Index
<b>Real Return Asset Category</b>	NA	43.75% (NCREIF) + 43.75% (CPI-U Headline + 5%) + 12.5% (Bloomberg Commodity)
Real Estate	NA	65% (NFI-ODCE) + 35% (NFI-ODCE +1%)
Core Real Estate	NFI-ODCE	NFI-ODCE
Non-Core Real Estate	NFI-ODCE + 1%	NFI-ODCE + 1%
Real Assets	CPI-U Headline + 5%	45% (Cambridge Infrastructure) + 35% (Cambridge Energy) + 10% (NCREIF Agriculture) + 10% (NCREIF Timber)
Commodities	Bloomberg Commodity Index	Bloomberg Commodity Index
SSgA Real Assets Proxy	20% (Barclays U.S. TIPS) + 30% (Dow Jones U.S. Select REIT) + 25% (MSCI World Natural Resources) + 25% (S&P Goldman Sachs Commodities)	20% (Barclays U.S. TIPS) + 30% (Dow Jones U.S. Select REIT) + 25% (MSCI World Natural Resources) + 25% (S&P Goldman Sachs Commodities)
<b>Opportunities Portfolio</b>	SCERS Total Fund	SCERS Total Fund

## **SCERS GROWTH ASSET CATEGORY RETURNS**

SCERS GROWTH Performance Summary for the periods ending 3/31/18	Quarter	Fiscal Year-to- Date	1-Year	Since Inception	Since Inception Date
<b>SCERS GROWTH ASSET CATEGORY</b>	<b>0.5%</b>	<b>11.1%</b>	<b>16.3%</b>	<b>16.3%</b>	Mar-17
Custom Benchmark	0.3%	9.8%	14.0%	14.0%	
<b>Public Equity</b>	<b>-0.3%</b>	<b>11.5%</b>	<b>17.2%</b>	<b>9.6%</b>	Jun-11
MSCI ACWI	-1.0%	10.1%	14.8%	8.2%	
<b>Private Equity (lagged 1 quarter)</b>	<b>5.0%</b>	<b>15.7%</b>	<b>20.2%</b>	<b>1.1%</b>	Feb-08
Cambridge All PE	4.1%	11.2%	14.9%	10.0%	
<b>Public Credit</b>	<b>1.4%</b>	<b>2.6%</b>	<b>4.4%</b>	<b>4.6%</b>	Nov-13
Custom Benchmark	0.3%	2.7%	4.2%	4.5%	
<b>Private Credit (lagged 1 quarter)</b>	<b>1.6%</b>	<b>4.3%</b>	<b>8.0%</b>	<b>7.1%</b>	Mar-17
Credit Suisse Leveraged Loan + 2%	2.1%	5.5%	6.6%	7.2%	
<b>Growth Absolute Return</b>	<b>0.0%</b>	<b>4.3%</b>	<b>6.8%</b>	<b>5.0%</b>	Aug-04
HFRI FoF Composite +1%	0.5%	5.5%	7.0%	6.4%	

### **Public Equity Portfolio Returns**

The SCERS Public Equity portfolio is comprised of a combination of U.S. and International exposures across large and small cap strategies. Over half of the U.S. Large Cap portfolio is passively managed and the remaining balance is actively managed, while the entire U.S. Small Cap portfolio is actively managed. The SCERS International Equity portfolio is a combination of developed and emerging markets exposure, with the entire portfolio actively managed across large and small cap strategies.

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SCERS PUBLIC EQUITY Performance Summary for the periods ending 3/31/18	Quarter	Fiscal Year-to-Date	1-Year	Since Inception	Since Inception Date
<b>SCERS PUBLIC EQUITY PORTFOLIO</b>	<b>-0.3%</b>	<b>11.5%</b>	<b>17.2%</b>	<b>9.6%</b>	Jun-11
MSCI ACWI	-1.0%	10.1%	14.8%	8.2%	
<b>SCERS U.S. Equity</b>	<b>-0.7%</b>	<b>10.4%</b>	<b>14.0%</b>	<b>10.1%</b>	Jun-86
Russell 3000	-0.6%	10.5%	13.8%	10.2%	
<b>U.S. Large Cap</b>	<b>-0.3%</b>	<b>11.4%</b>	<b>15.0%</b>	<b>6.2%</b>	Mar-98
Russell 1000	-0.7%	10.6%	14.0%	6.7%	
<b>U.S. Small Cap</b>	<b>0.5%</b>	<b>11.1%</b>	<b>15.6%</b>	<b>12.1%</b>	Dec-90
Russell 2000	-0.1%	9.1%	11.8%	10.9%	
<b>SCERS International Equity</b>	<b>0.3%</b>	<b>12.6%</b>	<b>20.6%</b>	<b>6.7%</b>	Dec-87
MSCI ACWI ex-U.S.	-1.1%	10.4%	17.0%	6.5%	
<b>International Developed</b>	<b>0.3%</b>	<b>12.0%</b>	<b>20.2%</b>	<b>4.9%</b>	Mar-98
MSCI World ex-U.S.	-1.9%	8.1%	14.5%	5.0%	
<b>Emerging Markets</b>	<b>0.5%</b>	<b>16.0%</b>	<b>23.7%</b>	<b>7.0%</b>	Jan-00
MSCI Emerging Markets	1.5%	17.8%	25.4%	7.7%	

### First Quarter 2018:

- SCERS Public Equity portfolio returned -0.3% versus the benchmark return of -1.0%.
- SCERS U.S. Equity portfolio returned -0.7% versus the benchmark return of -0.6%.
  - SCERS U.S. Large Cap portfolio returned -0.3% versus the benchmark return of -0.7%. Manager returns compared to their respective benchmark:
    - JP Morgan (130/30): -1.6% versus -0.7%
    - Brown Advisory (growth): +7.2% versus +1.4%
    - Eagle Capital (core): +0.6% versus -0.7%
    - Huber Capital (value): -4.5% versus -2.8%
  - SCERS U.S. Small Cap portfolio returned +0.5% versus the benchmark return of -0.1%. Manager returns compared to their respective benchmark:
    - UBS Global (growth): +4.6% versus +2.3%
    - Weatherbie (growth): +3.8% versus +2.3%
    - DGHM (value): -4.0% versus -2.6%
    - Wedge Capital (value): -3.0% versus -2.6%
  - SCERS eliminated the allocation to U.S. REITs during the first quarter with trading completed during the first week of March 2018.
- SCERS International Equity portfolio returned +0.3% versus the benchmark return of -1.1%.

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- SCERS International Developed portfolio returned +0.3% versus the benchmark return of -1.9%. Manager returns compared to their respective benchmark:
    - Lazard (ACWI ex US): +2.1% versus -1.1%
    - Walter Scott (large cap growth): +0.2% versus -1.5%
    - LSV (large cap value): -0.8% versus -2.4%
    - Mondrian (small cap value): -1.4% versus -0.4%
    - William Blair (small cap growth): -0.4% versus -0.4%
  - SCERS Emerging Markets portfolio returned +0.5% versus the benchmark return of +1.5%. Manager returns compared to their respective benchmark:
    - Baillie Gifford (all cap): +1.3% versus +1.5%
    - Mondrian (all cap): +0.3% versus +1.5%
  - SCERS eliminated the allocation to Small Cap Emerging Markets during the first quarter with trading completed during the first week of March 2018.
  - SCERS eliminated the allocation to International REITs during the first quarter with trading completed during the first week of March 2018.

#### Fiscal YTD:

- SCERS Public Equity portfolio returned +11.5% versus the benchmark return of +10.1%.
- SCERS U.S. Equity portfolio returned +10.4% versus the benchmark return of +10.5%.
  - SCERS U.S. Large Cap portfolio returned +11.4% versus the benchmark return of +10.6%. Manager returns compared to their respective benchmark:
    - JP Morgan (130/30): +10.3% versus +10.6%
    - Brown Advisory (growth): +21.5% versus +15.8%
    - Eagle Capital (core): +12.3% versus +10.6%
    - Huber Capital (value): +8.3% versus +5.5%
  - SCERS U.S. Small Cap portfolio returned +11.1% versus the benchmark return of +9.1%. Manager returns compared to their respective benchmark:
    - UBS Global (growth): +15.0% versus +13.6%
    - Weatherbie (growth): +21.0% versus +13.6%
    - DGHM (value): +4.7% versus +4.4%
    - Wedge Capital (value): +2.4% versus +4.4%
- SCERS International Equity portfolio returned +12.6% versus the benchmark return of +10.4%.
  - SCERS International Developed portfolio returned +12.0% versus the benchmark return of +8.1%. Manager returns compared to their respective benchmark:

- Lazard (ACWI ex US): +15.0% versus +10.4%
- Walter Scott (large cap growth): +11.1% versus +8.9%
- LSV (large cap value): +9.9% versus +7.3%
- Mondrian (small cap value): +10.9% versus +13.2%
- William Blair (small cap growth): +14.2% versus +13.2%
- SCERS Emerging Markets portfolio returned +16.0% versus the benchmark return of +17.8%. Manager returns compared to their respective benchmark:
  - Baillie Gifford (all cap): +22.0% versus +17.8%
  - Mondrian (all cap): +10.7% versus +17.8%

**Private Equity Portfolio Returns**

The SCERS Private Equity portfolio remains earlier in its investments cycle (the J-curve effect) and less seasoned, so returns over the reporting periods are lower than the benchmark period returns. In order to calculate SCERS’ Total Fund return, SCERS’ private equity returns are time-weighted (TWR) rather than on a typical internal rate of return (IRR) basis. However, Cliffwater’s Alternative Asset (private equity and real assets) quarterly performance report uses an IRR calculation, which accounts for the timing of investment cash flows. The Private Equity performance will be covered in greater detail in the Cliffwater private equity report, which will be presented at the June Board meeting.

Please note that returns for SCERS’ private equity portfolio is lagged one-quarter.

SCERS PRIVATE EQUITY Performance Summary for the periods ending 12/31/17	Quarter	Fiscal Year-to-Date	1-Year	Since Inception	Since Inception Date
SCERS Private Equity	5.0%	15.7%	20.2%	1.1%	Feb-08
Cambridge All PE	4.1%	11.2%	14.9%	10.0%	

Current Quarter:

- SCERS Private Equity portfolio returned +5.0% versus the benchmark return of +4.1%. Notable outperformers include:
  - Thamo Bravo XI (buyout): +27.5%
  - Accel-KKR II (venture capital): +15.1%
  - Spectrum Equity VII (buyout): +12.8%
  - Marlin Heritage (buyout): +9.0%
- SCERS made a \$40 million commitment to Linden Capital Partners IV in the first quarter of 2018.

Fiscal YTD (ending 12/31/17):

- SCERS Private Equity portfolio returned +15.7% versus the benchmark return of +11.2%. Notable outperformers include:
  - Marlin Heritage (buyout): +51.7%
  - Summit Ventures IV (venture capital): +41.5%
  - Spectrum Equity VII (buyout): +38.7%
  - Thamo Bravo XI (buyout): +38.3%
  - Waterland V (buyout): +32.7%
  - Accel-KKR IV (venture capital): +32.0%
  - H.I.G Capital V (buyout): +31.7%

**Public/Private Credit Portfolio Returns**

SCERS PUBLIC / PRIVATE CREDIT Performance Summary for the periods ending 3/31/18	Quarter	Fiscal Year-to-Date	1-Year	Since Inception	Since Inception Date
SCERS Public Credit (current quarter)	1.4%	2.6%	4.4%	4.6%	Nov-13
Custom Benchmark	0.3%	2.7%	4.2%	4.5%	
SCERS Private Credit (lagged 1 quarter)	1.6%	4.3%	8.0%	7.1%	Oct-11
Credit Suisse Leverage Loan + 2%	2.1%	5.5%	6.6%	7.2%	

First Quarter 2018:

- SCERS Public Credit portfolio returned +1.4% versus the benchmark return of +0.3%.
- SCERS Private Credit portfolio returned +1.6% versus the benchmark return of +2.1% lagged one quarter. Notable outperformers include:
  - Summit Partners Credit II: +3.2%
- SCERS made the following Private Credit commitments during the first quarter of 2018:
  - \$50 million commitment to Summit Partners Credit Fund III

Fiscal YTD:

- SCERS Public Credit portfolio returned +2.6% versus the benchmark return of +2.7%.
- SCERS Private Credit portfolio returned +4.3% versus the benchmark return of +5.5%. Notable outperformers include:
  - Summit Partners Credit II: +8.4%

## Growth Absolute Return Portfolio Returns

SCERS GROWTH ABSOLUTE RETURN Performance Summary for the periods ending 3/31/18	Quarter	Fiscal Year-to- Date	1-Year	Since Inception	Since Inception Date
SCERS Growth Absolute Return	0.0%	4.3%	6.8%	5.0%	Aug-07
HFRI FoF Index +1%	0.5%	5.5%	7.0%	6.4%	

### First Quarter 2018:

- SCERS Growth Absolute Return portfolio was flat versus the benchmark return of +0.5%. Notable outperformers within the direct portfolio include:
  - OZ Domestic Partners II (multi-strategy): +2.2%
- Grosvenor separate account returns:
  - SCARF: +0.8%
  - Interim SCARF B: +0.9%
- SCERS did not make any Growth Absolute Return commitments or investments during the first quarter 2018.

### Fiscal YTD:

- SCERS Growth Absolute Return portfolio returned +4.3% versus the benchmark return of +5.5%. Notable outperformers include:
  - OZ Domestic Partners II (multi-strategy): +6.0%
  - Third Point (event driven): +5.9%
- Grosvenor separate account returns:
  - SCARF: +6.4%
  - Interim SCARF B: +4.8%

## SCERS DIVERSIFYING ASSET CATEGORY RETURNS

SCERS DIVERSIFYING Performance Summary for the periods ending 3/31/18	Quarter	Fiscal Year-to- Date	1-Year	Since Inception	Since Inception Date
SCERS DIVERSIFYING ASSET CATEGORY	-0.4%	1.6%	3.2%	3.2%	Mar-17
Custom Benchmark	-0.3%	1.3%	2.9%	2.9%	
<b>Core/Core Plus Fixed Income</b>	-1.3%	0.4%	2.2%	3.0%	Jun-11
Barclays US Aggregate TR	-1.5%	-0.2%	1.2%	2.7%	
<b>U.S. Treasury</b>	N/A	N/A	N/A	0.9%	Feb-18
Barclays US Treasury TR	-1.2%	-0.7%	0.4%	0.9%	
<b>Global Fixed Income</b>	3.9%	7.0%	11.9%	3.7%	May-13
Custom Benchmark	2.9%	6.2%	9.4%	1.4%	
<b>Diversifying Absolute Return</b>	-0.6%	2.1%	1.1%	2.4%	Nov-11
HFRI FoF Conservative Index	0.6%	3.1%	4.5%	5.0%	

## Fixed Income Portfolio Returns

SCERS FIXED INCOME Performance Summary for the periods ending 3/31/18	Quarter	Fiscal Year-to-Date	1-Year	Since Inception	Since Inception Date
<b>SCERS Core/Core Plus Fixed Income</b>	-1.3%	0.4%	2.2%	3.0%	Jun-11
Barclays U.S. Aggregate	-1.5%	-0.2%	1.2%	2.7%	
<b>SCERS U.S. Treasury</b>	N/A	N/A	N/A	0.9%	Feb-18
Barclays US Treasury TR	-1.2%	-0.7%	0.4%	0.9%	
<b>SCERS Global Fixed Income</b>	3.9%	7.0%	11.9%	3.7%	May-13
Custom Benchmark	2.9%	6.2%	9.4%	1.4%	

### First Quarter 2018:

- SCERS Core/Core Plus Fixed Income portfolio returned -1.3% versus the benchmark return of -1.5%.
  - Prudential (core plus): -1.3%
  - TCW MetWest (core plus): -1.1%
- SCERS U.S. Treasury return for the quarter was not available versus the benchmark return of -1.2%. The mandate for SCERS U.S. Treasury manager, Neuberger Berman, was converted effective February 2018. The performance for Neuberger Berman during the first quarter is a blend of Core/Core Plus Fixed Income and U.S. Treasury.
  - Neuberger Berman: -1.2%
- SCERS Global Fixed Income portfolio returned +3.9% versus benchmark return of +2.9%.
  - Brandywine Global (global opportunistic): +3.9%

### Fiscal YTD:

- SCERS Core/Core Plus Fixed Income portfolio returned +0.4% versus the benchmark return of -0.2%.
  - Prudential (core plus): +0.9%
  - TCW MetWest (core plus): +0.4%
- SCERS U.S. Treasury return for Fiscal YTD was not available versus the benchmark return of -0.7%. The performance for Neuberger Berman for the Fiscal YTD is a blend of Core/Core Plus Fixed income and U.S. Treasury.
  - Neuberger Berman: +0.1%
- SCERS Global Fixed Income portfolio returned +7.0% versus the benchmark return of +6.2%.
  - Brandywine Global (global opportunistic): +7.0%

## Diversifying Absolute Return Portfolio Returns

SCERS DIVERSIFYING ABSOLUTE RETURN Performance Summary for the periods ending 3/31/18	Quarter	Fiscal Year-to-Date	1-Year	Since Inception	Since Inception Date
SCERS Diversifying Absolute Return	-0.6%	2.1%	1.1%	2.4%	Nov-11
HFRI FoF Conservative Index	0.6%	3.1%	4.5%	5.0%	

### First Quarter 2018:

- SCERS Diversifying Absolute Return portfolio returned -0.6% versus the benchmark return of +0.6%. Notable outperformers within the direct portfolio include:
  - Laurion Capital (market neutral): +4.7%
  - Elliott Associates (event driven): +1.7%
- Notable underperformers include:
  - Graham Global (systematic global macro): -5.6%
  - AQR Delta II (multi-strategy): -3.8%
- Grosvenor separate account returns:
  - SCARF: -0.1%
  - SCARF B: +0.3%
- SCERS did not make any Diversifying Absolute Return commitments or investments during the first quarter of 2018.

### Fiscal YTD:

- SCERS Diversifying Absolute Return portfolio returned +2.1% versus the benchmark return of +3.1% Notable outperformers within the direct portfolio include:
  - Laurion Capital (market neutral): +8.9%
  - Elliott Associates (event driven): +6.6%
  - Winton Diversified Futures (systematic global macro): +5.5%
- Notable underperformers include:
  - Brevan Howard (discretionary global macro): +0.1%
- Grosvenor separate account returns:
  - SCARF: -0.9%
  - SCARF B: -0.8%

## **SCERS REAL RETURN ASSET CATEGORY RETURNS**

The SCERS Real Return portfolio includes the SSgA Real Assets overlay proxy, which is used to fill the gap between SCERS' actual and target allocations within the asset category. Most of the gap between actual and target allocation is within the Real Assets asset class. As of March

31, 2018, the SSgA proxy equals \$306.4 million. The SSgA proxy is a mix of publicly traded securities, including global infrastructure stocks, global natural resource stocks, global REITs, Treasury Inflation Protected Securities ('TIPS'), and U.S. dollar floating rate notes. This proxy was restructured in January 2018, as part of the Overlay program restructure. As additional commitments are made over time, the gap will continue to decrease.

Similar to the Private Equity portfolio, the SCERS Real Assets portfolio, which includes mostly private market investments, remains early in its investments cycle (the J-curve effect) and less seasoned, so returns over the reporting periods are lower than the benchmark period returns. In addition, the Verus real estate and private real asset returns are measured on a time-weighted (TWR) basis rather than on an internal rate of return (IRR) basis. Please note that returns for SCERS' non-core real estate and real assets portfolio are lagged one quarter. The Real Assets performance will be covered in greater detail in the Cliffwater real assets report at the June Board meeting. Real Estate performance will be covered by Townsend, which will also be presented at the June Board meeting.

SCERS REAL RETURN Performance Summary	Quarter	Fiscal Year-to-Date	1-Year	Since Inception	Since Inception Date
<b>SCERS REAL RETURN ASSET CATEGORY</b>					
SCERS Real Return w/ SSgA Proxy	2.8%	10.0%	12.4%	12.4%	Mar-17
SCERS Real Return w/o SSgA Proxy	4.1%	11.5%	14.8%	14.8%	Mar-17
Custom Benchmark	2.7%	7.2%	8.4%	8.4%	Mar-17
<b>SCERS Real Estate</b>	<b>3.3%</b>	<b>10.9%</b>	<b>14.9%</b>	<b>12.4%</b>	<b>Jun-11</b>
Custom Benchmark	2.8%	6.1%	8.0%	10.5%	
<b>Core Real Estate (as of 3/31/18)</b>					
Separate Account	1.9%	9.8%	13.4%	6.1%	Sep-08
Commingled Funds	2.3%	10.5%	13.1%	4.7%	Sep-08
NFI-ODCE	2.2%	6.3%	8.1%	5.4%	
<b>Non-Core Real Estate (as of 12/31/17)</b>					
Opportunistic	8.5%	19.9%	24.4%	32.8%	Feb-14
Value Add	4.9%	1.6%	13.7%	-3.5%	Sep-08
NFI-ODCE net +1%	3.9%	5.8%	7.7%	11.5%	Feb-14
				8.0%	Sep-08
<b>SCERS Real Assets (as of 12/31/17)</b>	<b>6.4%</b>	<b>14.1%</b>	<b>17.9%</b>	<b>4.5%</b>	<b>Jan-13</b>
Custom Benchmark	3.4%	8.4%	10.1%	6.9%	
<b>SCERS Commodities (as of 3/31/18)</b>					
Bloomberg Commodity Index	0.1%	1.5%	-3.0%	-6.4%	May-08
	-0.4%	6.9%	3.7%	-8.4%	
<b>SSgA Real Assets Proxy (as of 3/31/18)</b>					
SSgA Real Assets	-3.5%	3.0%	2.3%	1.1%	Jan-08
	-3.4%	2.9%	2.2%	N/A	

#### First Quarter 2018:

- SCERS Real Return portfolio returned +2.8% with the SSgA Proxy overlay and +4.1% without the overlay, versus the benchmark return of +2.7%.

- 
- SCERS Real Estate portfolio returned +3.3% versus the benchmark return of +2.8%.
    - SCERS Core Real Estate separate account portfolio returned +1.9% versus the benchmark return of +2.2%.
      - BlackRock: +2.2%
      - Barings/Cornerstone: +1.1%
    - SCERS Core Real Estate commingled fund portfolio returned +2.3% versus the benchmark return of +2.2%. Notable outperformers include:
      - Prologis Targeted Euro Logistics: +7.1%
      - Prologis Targeted US Logistics: +3.8%
    - SCERS Non-Core Real Estate portfolio returned as follows versus the benchmark return of +3.9%:
      - Opportunistic portfolio: +8.5%
      - Value Add portfolio: +4.9%
      - Notable outperformers include:
        - ✓ NREP Nordic Strategies II: +24.1%
        - ✓ NREP Nordic Strategies I: +21.1%
        - ✓ Och-Ziff Real Estate III: +13.2%
        - ✓ European RE Debt II: +9.9%
  - SCERS Real Assets portfolio returned +6.4% versus the benchmark return of +3.4%. Notable outperformers include:
    - Carlyle Power II: +39.4%
    - Quantum Energy VI: +21.3%
    - EnCap Flatrock Midstream III: +14.6%
  - SCERS Commodities portfolio returned +0.1% versus the benchmark return of -0.4%.
    - Gresham Strategic Commodities: +0.1%
  - The SSgA Real Assets overlay proxy returned -3.5%
  - SCERS made the following Real Return commitments during the first quarter of 2018:
    - \$40 million commitment to NREP Nordic Strategies Fund III (Opportunistic Real Estate)
    - \$22.5 million commitment to EnCap Flatrock Midstream Fund IV (Real Assets)

#### Fiscal YTD:

- SCERS Real Return portfolio returned +10.0% with the SSgA Proxy overlay and +11.5% without the overlay, versus the benchmark return of +7.2%.

- 
- SCERS Real Estate portfolio return was +10.9% versus the benchmark return of +6.1%.
    - SCERS Core Real Estate separate account portfolio returned +9.8% versus the benchmark return of +6.3%.
      - BlackRock: +7.6%
      - Barings/Cornerstone: +15.1%
    - SCERS Core Real Estate commingled fund portfolio returned +10.5% versus the benchmark return of +6.3%. Notable outperformers include:
      - Prologis Targeted Euro Logistics: +31.7%
      - Prologis Targeted US Logistics: +16.9%
      - Jamestown Premier Property: +13.2%
    - SCERS Non-Core Real Estate portfolio returned as follows versus the benchmark return of +5.8%:
      - Opportunistic portfolio: +19.9%
      - Value Add portfolio: +1.6%
      - Notable outperformers include:
        - ✓ NREP Nordic Strategies I: +56.4%
        - ✓ NREP Nordic Strategies II: +50.3%
        - ✓ Och-Ziff Real Estate III: +25.4%
        - ✓ European RE Debt II: +23.4%
        - ✓ KKR Real Estate Partners Americas: +19.6%
        - ✓ ECE Euro Prime Shopping II: +18.1%
  - SCERS Real Assets portfolio returned +14.1% versus the benchmark return of +8.4%. Notable outperformers include:
    - Quantum Energy Partners VI: +38.3%
    - Carlyle Power II: +37.5%
    - EnCap Flatrock Midstream III: +30.6%
    - Pantheon Ventures: +29.7%
  - SCERS Commodities portfolio returned +1.5% versus the benchmark return of +6.9%.
    - Gresham Strategic Commodities: +1.5%
  - The SSgA Real Assets overlay proxy returned +3.0%.

**SCERS OPPORTUNITIES PORTFOLIO RETURNS**

SCERS OPPORTUNITIES Performance Summary for the periods ending 3/31/18	Quarter	Fiscal Year-to-Date	1-Year	Since Inception	Since Inception Date
SCERS Opportunities	-2.0%	-1.8%	1.7%	16.2%	Aug-07
Policy Index	0.5%	7.3%	10.3%	N/A	

**First Quarter 2018:**

- SCERS Opportunities portfolio returned -2.0% versus the benchmark return of +0.5%.
- SCERS did not make any Opportunities commitments or investments during the first quarter of 2018.

**Fiscal YTD:**

- SCERS Opportunities portfolio returned -1.8% versus the benchmark return of +7.4%.

**MARKET RECAP**

The first quarter of 2018 saw the return of volatility across the global financial markets. Following calendar year 2017, which produced strong returns with benign volatility, equity markets declined across most regions and volatility, as measured by the CBOE Volatility Index (VIX), increased significantly from the historically low levels to start the year.

The U.S. economy continued to post strong growth in the first quarter, with real GDP growth of +2.9% year-over-year (YoY), the highest rate of growth since 2015. Despite job growth below expectations in February and March, the unemployment rate fell to 3.9%, marking the lowest level in 18 years. Inflation continued to inch higher in the U.S., with the core personal consumption expenditure (PCE) index up +1.9% YoY in the first quarter, just slightly below the Fed’s 2% target. The Fed raised its benchmark rate 25 basis points at its February meeting, to a target range of 1.50% - 1.75%, but kept rates unchanged at its April meeting. Newly appointed Fed chairman Jerome Powell appears to support the continuation of Fed policy towards gradual monetary tightening.

Global trade concerns were a significant factor contributing to equity market volatility during the quarter as President Trump instituted tariffs on steel, aluminum, and a broad range of Chinese imports. The Chinese government quickly responded, announcing new tariffs on U.S. goods and a willingness for future action. Chinese A-Shares declined 2.8% during March, on a local currency basis, as trade concerns intensified.

*Equity Market Performance, as of March 31, 2018*

	Total Return (%)				
	Month	QTD	CYTD	FYTD	1 Year
S&P 500 Index	-2.54	-0.76	-0.76	10.58	13.99
Russell 2000 Index	1.29	-0.08	-0.08	9.11	11.79
Russell 3000 Index	-2.01	-0.64	-0.64	10.48	13.81
MSCI AC World Index	-2.14	-0.96	-0.96	10.14	14.85
MSCI AC Asia Pacific Index	-2.18	-0.04	-0.04	13.70	20.30
MSCI AC Europe Index	-1.34	-1.84	-1.84	7.04	14.74
MSCI Emerging Markets Index	-1.86	1.42	1.42	17.56	24.93

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Equity markets posted modest declines during the first quarter of 2018, with the MSCI AC World Index declining 1%. Among developed markets, Europe led global markets lower, down 1.8%, compared to S&P 500 decline of 0.8% and the slight decline for the MSCI Asia Pacific Index. Emerging Markets were the bright spot in the quarter, advancing 1.4%.

Within the U.S. equity markets, small caps outperformed large caps, with the Russell 2000 down just 0.1% compared to the Russell 1000 decline of 0.7%. Growth stocks continued the recent trend of outperforming Value stocks, across both large cap and small cap. The Russell 1000 Growth advanced 1.4% versus the Russell 1000 Value decline of 2.8%. The spread in small caps was even more significant during the quarter, with the Russell 2000 Growth up 2.3% versus the Russell 2000 Value down 2.6%.

### **ATTACHMENT**

Verus' Investment Performance Review for SCERS for the period ending March 31, 2018.

Prepared by:

/S/

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Brian Miller  
Investment Officer

Reviewed by:

/S/

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Steve Davis  
Chief Investment Officer

/S/

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Eric Stern  
Chief Executive Officer



**PERSPECTIVES  
THAT DRIVE  
ENTERPRISE  
SUCCESS**



**PERIOD ENDING: MARCH 31, 2018**

Investment Performance Review for

**Sacramento County Employees' Retirement System**

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Market Environment **TAB I**

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Total Fund **TAB II**

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Policy Index and  
Benchmark History **TAB III**

# 1<sup>st</sup> quarter summary

## THE ECONOMIC CLIMATE

- The U.S. economy is expected to grow at around 2.2% in Q1. Economists expect a slightly quicker rate of growth throughout the year. We believe that this *middle-of-the-road* expansion – characterized as not too fast and not too slow – may allow the U.S. economy to continue expanding for longer than expected.
- The U.S. has enacted a 25% tariff on steel and a 10% tariff on aluminum, which went into effect on March 23<sup>rd</sup>. The U.S. also engaged with China over allegations of asymmetrical trade policies and intellectual property theft.

## PORTFOLIO IMPACTS

- Global economic growth has improved – low inflation, strong employment, and accommodative foreign central bank policies have been supportive of equity prices. In the U.S., monetary tightening has yet to have a major impact on equities.
- Concerns over increasing trade protectionism weighed on financial markets. The tariffs placed on steel and aluminum are not likely to have a material impact on asset prices, but escalating tensions and retaliatory measures could have a negative impact on global growth.

## THE INVESTMENT CLIMATE

- Excitement and optimism over tax cuts helped lead equities higher to begin the year. However, markets stumbled in February – falling roughly 10%. Equities recovered much of the losses throughout the quarter, but then fell back to their lows at the end of March.
- 2018 is expected to be a banner year for U.S. corporate profits. Earnings for the calendar year are forecast to grow 17.3%, with 7.3% revenue growth. These 2018 expectations may already be priced in.
- February’s market correction appeared isolated to the equity markets. “Risk-off” selling that often accompanies market drawdowns was not apparent – credit spreads, U.S. Treasuries, and gold, reacted minimally.

## ASSET ALLOCATION ISSUES

- Upward price momentum in equities has diminished following the February market correction. Investor sentiment is less positive, but the global economic and earnings backdrop remains intact. We believe a neutral or mild risk overweight is warranted in this environment.
- Equity volatility spiked in February, ending the period of extreme calm that investors experienced since the beginning of 2017. The VIX Index averaged 20.7 during the last two months of the quarter.

Changing market dynamics suggest a neutral or mild risk overweight may be warranted

# U.S. economics summary

- Economic growth remained near expansion highs in the fourth quarter. U.S. real GDP growth was 2.6% from the previous year. Consumer spending and investment pushed the economy ahead, while falling exports were a drag on growth.
- The U.S. enacted a 25% tariff on steel and 10% tariff on aluminum, which went into effect March 23<sup>rd</sup>. The U.S. has engaged with China over allegations of asymmetrical trade policies and intellectual property theft, creating concerns over the risks of a trade war.
- Additions to U.S. payrolls averaged 202,000 per month in the first quarter, above the expansion average.
- In recent years, the U.S. has seen discouraged and part-time workers drawn back to full-time employment. This effect can be

quantified by the shrinking difference between U-6 and U-3 unemployment figures. The difference between these two measures fell to 3.9%, matching expansion lows.

- Core CPI inflation moved from 1.8% to 2.1% YoY during the quarter, the highest rate in more than a year. Prices jumped in March primarily due to the low base effect from an unexpected drop in wireless telecom prices one year ago.
- The Fed raised interest rates on March 21<sup>st</sup> to 1.50-1.75%. Comments made during the March meeting suggest the FOMC expects continued moderate economic activity, spending, and business investment. Unsurprisingly, the Committee stated that the U.S. inflation rate is expected to stabilize at the 2% target over the near-term.

	Most Recent	12 Months Prior
GDP (YoY)	2.6% <i>12/31/17</i>	1.8% <i>12/31/16</i>
Inflation (CPI YoY, Core)	2.1% <i>3/31/18</i>	2.0% <i>3/31/17</i>
Expected Inflation (5yr-5yr forward)	2.2% <i>3/31/18</i>	2.2% <i>3/31/17</i>
Fed Funds Target Range	1.50 – 1.75% <i>3/31/18</i>	0.75 – 1.00% <i>3/31/17</i>
10 Year Rate	2.8% <i>3/31/18</i>	2.4% <i>3/31/17</i>
U-3 Unemployment	4.1% <i>3/31/18</i>	4.5% <i>3/31/17</i>
U-6 Unemployment	8.0% <i>3/31/18</i>	8.8% <i>3/31/17</i>

# International economics summary

- International economic growth was strong across countries in the fourth quarter, but a combination of recent economic data coming in below expectations and trade concerns created risks to the synchronized global growth narrative.
- The U.S. implemented 25% and 10% tariffs on steel and aluminum imports, respectively. When the tariffs were initially announced the White House pushed for all countries to be subject to them. However, many countries, such as Canada and Mexico, were given exemptions to allow for ongoing negotiations.
- In April, concerns over trade shifted to escalating tensions between the U.S. and China.
- The Eurozone experienced above-trend growth in the fourth quarter at 2.7% YoY, driven by contributions from household spending and fixed capital investment.
- Economic data out of the Eurozone consistently missed expectations in the first quarter. Industrial production was particularly disappointing – the year-over-year rate fell from 5.2% in December to 2.9% in February.
- Global PMIs remained above 50, indicating expansion in the manufacturing sector, although several countries experienced a decline. The Eurozone PMI fell from 60.8 to 56.6 during the quarter.
- The populist Five Star Movement performed better than expected in the Italian general election in March, winning the most seats of any party. However, no party won a majority in Parliament, resulting in the need to form a coalition government. Increasing support for populist governments (i.e. Hungary and Poland) across Europe remains a risk to investors.

Area	GDP (Real, YoY)	Inflation (CPI, YoY)	Unemployment
United States	2.5% <i>12/31/17</i>	2.4% <i>3/31/18</i>	4.1% <i>3/31/18</i>
Western Europe	2.5% <i>12/31/17</i>	1.3% <i>3/31/18</i>	7.4% <i>12/31/17</i>
Japan	2.0% <i>12/31/17</i>	1.5% <i>2/28/18</i>	2.5% <i>2/28/18</i>
BRICS Nations	6.2% <i>12/31/17</i>	2.6% <i>3/31/18</i>	5.6% <i>12/31/17</i>
Brazil	2.1% <i>12/31/17</i>	2.7% <i>3/31/18</i>	12.4% <i>3/31/18</i>
Russia	0.9% <i>12/31/17</i>	2.4% <i>3/31/18</i>	5.0% <i>2/28/18</i>
India	7.2% <i>12/31/17</i>	4.4% <i>2/28/18</i>	8.8% <i>12/31/17</i>
China	6.8% <i>12/31/17</i>	2.1% <i>3/31/18</i>	3.9% <i>12/31/17</i>

# Equity environment

- We maintain an overweight position to equities primarily due to enthusiasm for emerging markets. Though the February market correction dampened investor excitement, it is helpful to remind ourselves that 10% equity drawdowns are fairly common.
- Upward price momentum in equities has diminished following the February market correction. Investor sentiment is less positive, but the global economic and earnings backdrop remains intact.
- 2018 is expected to be a banner year for U.S. corporate profits. Earnings for the year are forecast to grow 17.3%, with revenue growth of 7.3% according to Factset - a rare and impressive year for U.S. businesses. A continuation of this trend would be supportive of equity performance.
- Equity valuations (price-to-earnings multiples) fell to more attractive levels in Q1 due to the combination of lower equity prices and strong earnings growth.
- Equity volatility has remained extremely low since the beginning of 2017. However, the equity drawdown and volatility spike in February appears to have ended this period of calm. Investors might expect a more normal volatility environment going forward.
- Currency movement has contributed to volatility and great return disparity for investors with unhedged investments in international assets. A hedging program could allow investors to reduce or eliminate uncompensated currency risk.

	QTD TOTAL RETURN		YTD TOTAL RETURN		1 YEAR TOTAL RETURN	
	(unhedged)	(hedged)	(unhedged)	(hedged)	(unhedged)	(hedged)
US Large Cap (Russell 1000)	(2.0%)		(2.0%)		12.4%	
US Small Cap (Russell 2000)	(1.1%)		(1.1%)		10.5%	
US Large Value (Russell 1000 Value)	(4.0%)		(4.0%)		5.6%	
US Large Growth (Russell 1000 Growth)	(0.1%)		(0.1%)		19.3%	
International Large (MSCI EAFE)	(1.6%)	(3.8%)	(1.6%)	(3.8%)	14.4%	7.1%
Eurozone (Euro Stoxx 50)	(0.5%)	(3.2%)	(0.5%)	(3.2%)	18.0%	0.3%
U.K. (FTSE 100)	(3.8%)	(6.9%)	(3.8%)	(6.9%)	11.9%	1.2%
Japan (NIKKEI 225)	0.6%	(5.3%)	0.6%	(5.3%)	20.9%	15.2%
Emerging Markets (MSCI Emerging Markets)	1.2%	0.4%	1.2%	0.4%	23.1%	20.4%

Source: Russell Investments, MSCI, STOXX, FTSE, Nikkei, as of 3/31/18

# Domestic equity

U.S. equities delivered a loss in Q1 (Russell 1000 -2.0%) - a change of pace from steady and strong gains in 2017. Equity indexes around the world fell between 8-12% in early February as the recent bull run was interrupted. Since the selloff, most markets have been rangebound but relatively flat overall. Volatility seems to have returned to the markets as sizable day-to-day swings have been the norm.

While large price movements tend to naturally cause

investor fear, it is not apparent that the attractive macro picture has changed – i.e. positive economic growth, very strong earnings gains, and healthy sentiment. Equity prices typically follow growth and corporate profit trends over the medium and long-term term, which likely provides some support against larger downside equity movement.

However, the February selloff has dampened recent positive upward price momentum. Momentum is now more neutral as market prices flatten out.

**Fundamentals appear unchanged despite falling prices**

## U.S. EQUITIES



Source: Russell Investments, as of 3/31/18

## EARNINGS GROWTH



Source: S&P 500, as of 3/31/18

## S&P 500 PRICE & EARNINGS



Source: Bloomberg, as of 3/31/18

# Domestic equity size & style

Large cap equities (Russell 1000 -2.0%) lagged small cap equities (Russell 2000 -1.1%) during the quarter. Value stocks delivered exceptionally poor performance in Q1 (Russell 1000 Value -4.0% vs. Russell 1000 Growth -0.1%), dragged down by the energy and materials sectors, which are heavily tilted towards value. Despite a sell-off in mega-cap tech stocks in March due mainly to company-specific issues, such as a data breach at Facebook and President Trump targeting Amazon over its relationship with the U.S. Postal Service, tech was still the best performing sector in the first quarter.

Traditional style factors – small cap and value in particular – have hit a rough patch since the 2008-2009 global financial crisis. It may be helpful to remember that these periods do occur. In fact, there are multiple points in history where the equity small-cap and value premiums delivered negative returns over more than a 10 year period.

In U.S. equities, value has continued to underperform in recent years, while momentum delivered outperformance alongside the bull market rally.

**SMALL CAP VS LARGE CAP (YOY)**



Source: FTSE, as of 3/31/18

**VALUE VS GROWTH (YOY)**



Source: FTSE, as of 3/31/18

**BLOOMBERG FACTOR PERFORMANCE**



Source: Bloomberg, as of 3/31/18

# International developed equity

Unhedged International equities were in line with U.S. equities during Q1, delivering slightly negative performance. The MSCI EAFE Index returned -1.5%. Positive currency returns masked underperformance of local developed market equities. On a hedged basis, the MSCI EAFE Index posted a -3.8% return. Looking forward, accelerating corporate earnings, and more attractive valuations following the February fall in equity prices, may be supportive for another positive year in 2018. Forward one year earnings growth is expected to be around 15%.

Along with the U.S., most developed markets also experienced an approximate 10% drawdown in February, but were not as quick to recover. Most regional benchmarks finished the quarter still 7-10% below recent peaks.

Trailing P/E ratios for the EAFE Index have moved to below average, providing a possible value opportunity. However, downside risks to these markets, including political issues and reliance on central bank support may be a justification for low valuations.

**EQUITY PERFORMANCE (3-YEAR ROLLING)**



Source: Bloomberg, as of 3/31/18

**EARNINGS GROWTH (YOY)**



Source: MSCI, as of 3/31/18 – YoY growth in forward earnings

**EFFECT OF CURRENCY (1-YEAR ROLLING)**



Source: MSCI, as of 3/31/18

# Emerging market equity

We maintain an overweight to emerging market equities. Emerging market equities have exhibited more modest valuations relative to developed markets such as the U.S., while these economies in aggregate continue to outpace developed economies by a wide margin. Furthermore, emerging market currencies remain depressed relative to history. Cheaper valuations, much stronger economic growth, and a currency tailwind may bode well for future performance.

Emerging economies have led the way over the past year in terms of economic growth, earnings, and equity performance. Emerging market equities have delivered positive performance year-to-date despite the February sell-off (MSCI Emerging Markets +1.2%) while developed markets were in negative territory to end the first quarter.

Coordinated global growth has helped propel emerging market equities forward

**EQUITY PERFORMANCE (3YR ROLLING)**



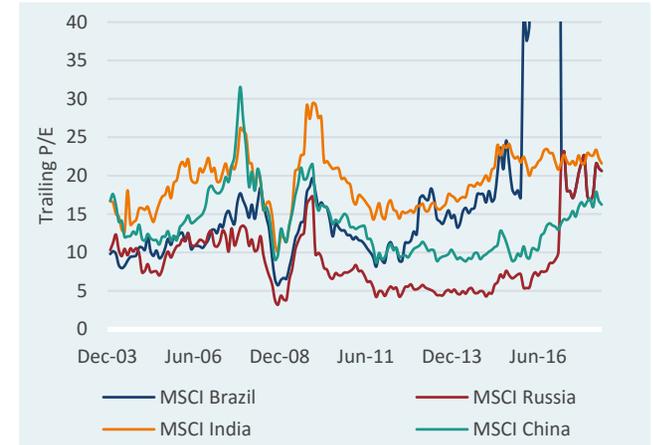
Source: Standard & Poor's, MSCI, as of 3/31/18

**ECONOMIC MOMENTUM**



Source: Bloomberg, as of 12/31/18

**BRIC VALUATIONS**



Source: MSCI, as of 3/31/18

# Interest rate environment

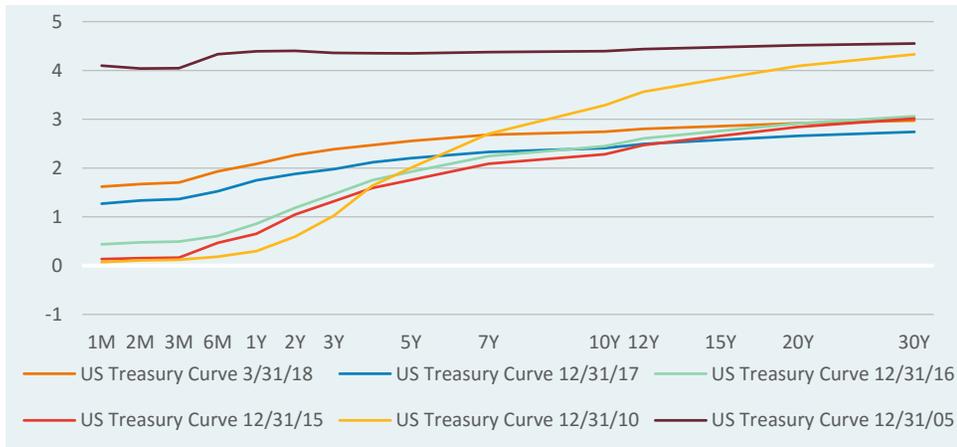
- The Fed raised interest rates by 25 bps to a target range of 1.50% - 1.75% in March, as expected. In his first public comments since taking over as Fed chairman, Jerome Powell's views appeared to support a continuation of gradual monetary tightening.
- According to the Fed dot plot, officials are expecting two additional rate hikes this year, on par with market pricing.
- Long-term Treasury yields rose at the beginning of the year, likely influenced by increasing growth and inflation expectations. The 10-year yield peaked at 2.95% in late February, up 55 bps from year-end. Yields failed to hold these levels, however, and finished the quarter at 2.74%.
- Short-term borrowing costs continued to rise during the quarter, especially in debt tied to Libor. The 3-month USD Libor rate moved steadily higher from 1.7% to 2.3%. Much of this increase was likely mechanical due to record high Treasury bill issuance and repatriation of foreign profits.
- Sovereign yields in developed Europe also ticked up in January, coinciding with yield increases in U.S. Treasuries, but came back down in the last two months of the quarter. German 10-year yields peaked at a two year high of 0.77% in early February before finishing the quarter at 0.50%.
- Developed international central banks remain accommodative compared to the Fed, but they have increasingly hinted towards policy normalization. The ECB is likely next in line to begin monetary tightening by ending asset purchases and raising rates sometime next year. The BOJ has yet to provide any details on ending its stimulus program, but officials have noted internal discussions have begun.

Area	Short Term (3M)	10 Year
United States	1.70%	2.74%
Germany	(0.75%)	0.50%
France	(0.58%)	0.72%
Spain	(0.50%)	1.16%
Italy	(0.43%)	1.79%
Greece	1.31%	4.32%
U.K.	0.49%	1.35%
Japan	(0.17%)	0.04%
Australia	2.03%	2.60%
China	3.12%	3.77%
Brazil	6.31%	9.50%
Russia	6.01%	7.16%

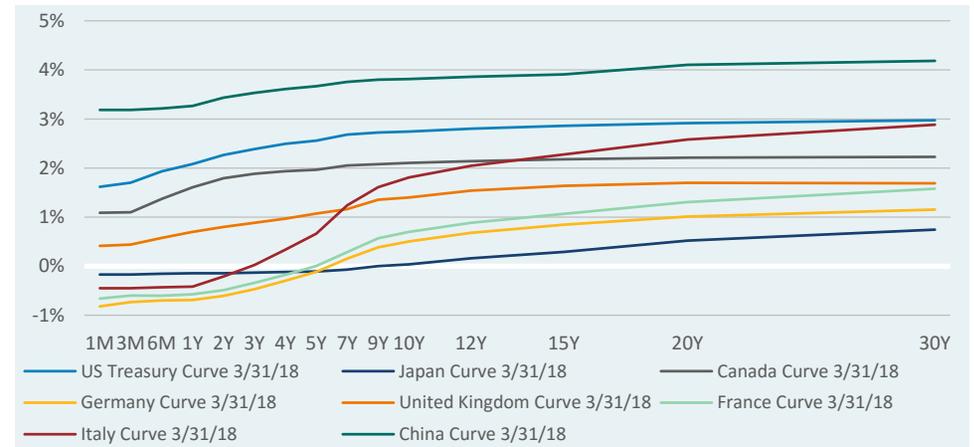
Source: Bloomberg, as of 3/31/18

# Yield environment

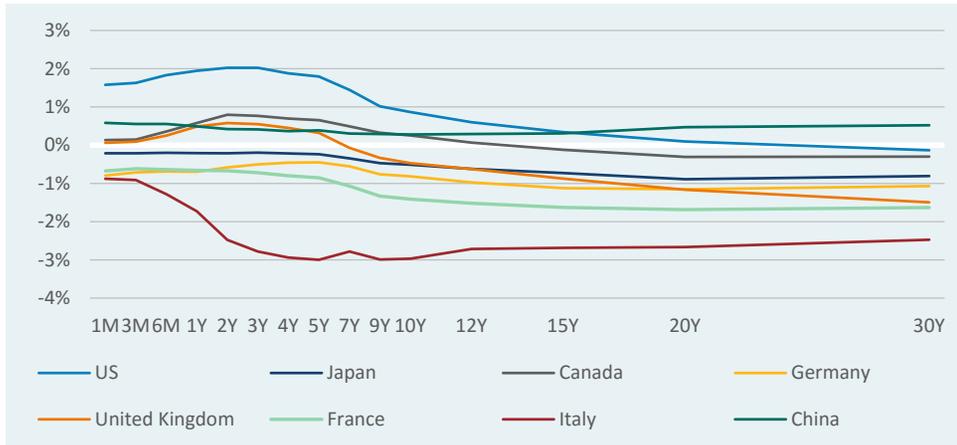
## U.S. YIELD CURVE



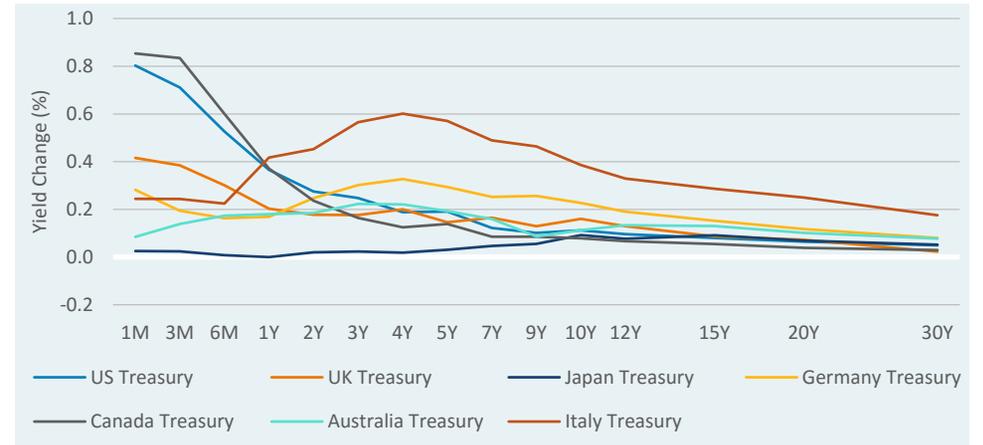
## GLOBAL GOVERNMENT YIELD CURVES



## YIELD CURVE CHANGES OVER LAST FIVE YEARS



## IMPLIED CHANGES OVER NEXT YEAR



Source: Bloomberg, as of 3/31/18

# Currency

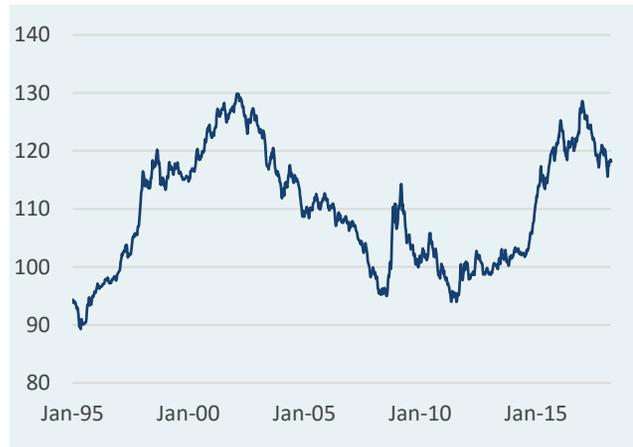
The U.S. dollar declined further to begin the quarter, but recovered slightly over the past two months. The broad U.S. trade weighted index fell 1.9% in the first quarter. This index was down 8.5% since peaking at the end of 2016.

Dollar depreciation has occurred despite widening short-term interest rate differentials between the U.S. and the rest of the developed world. Typically, higher interest rate differentials result in currency appreciation as investors take advantage of the yield, at least in the short-term.

Based on purchasing power parity (PPP), the dollar is overvalued against the currencies with the biggest weights in international equity benchmarks: the euro, yen, and pound.

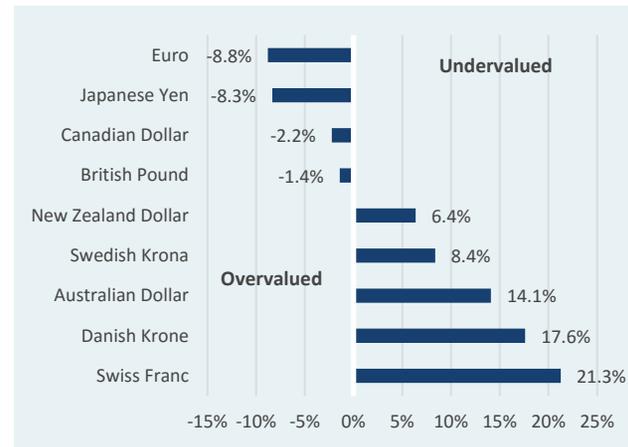
Unhedged foreign currency exposure added to equity returns over the past year, especially in developed markets. Although currency exposure has been positive lately, it has historically tended to experience large swings that add volatility to portfolios.

**U.S. DOLLAR TRADE WEIGHTED INDEX**



Source: Federal Reserve, as of 3/28/18

**CURRENCY VALUATIONS VS USD (PPP)**



Source: OECD, as of 3/31/2018 (see appendix)

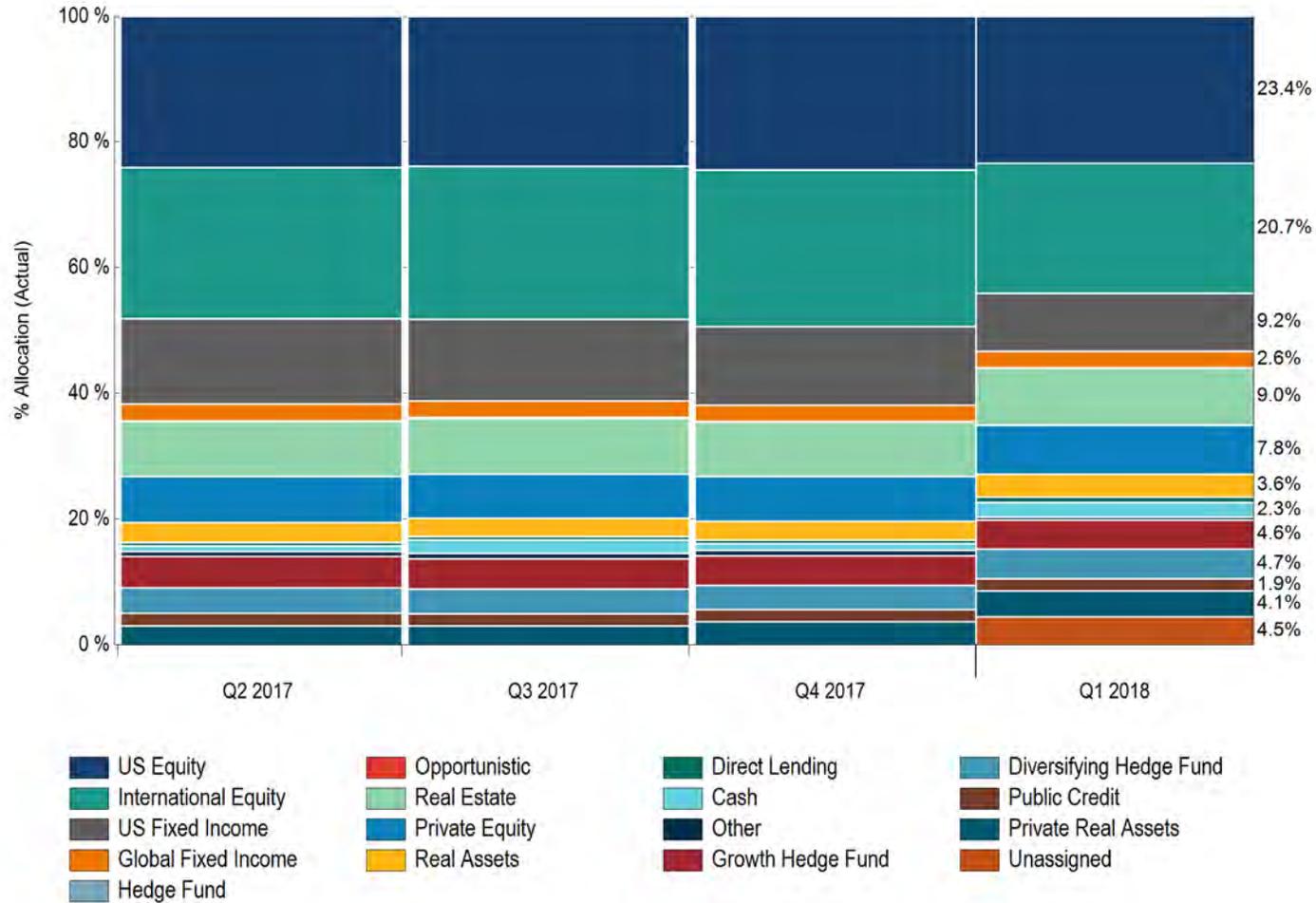
**EFFECT OF CURRENCY (1-YR ROLLING)**



Source: MSCI, as of 3/31/18

Total Fund  
Quarterly Asset Allocation

Period Ending: March 31, 2018

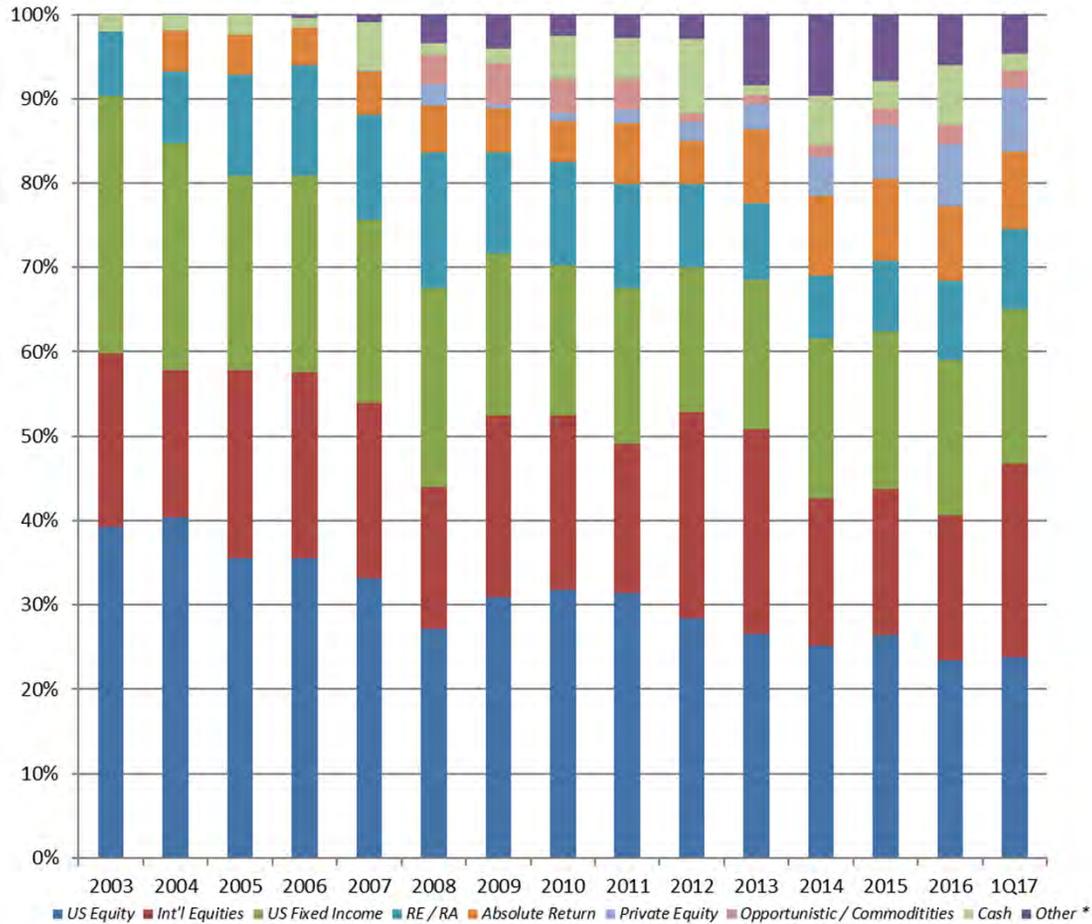


\* Other includes SSgA Overlay and closing accounts.

# Total Fund

## Actual Yearly and Quarterly Asset Allocation

Period Ending: March 31, 2018



	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	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 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 1Q+
US Equity	26.4	23.4	23.8
International Equity	17.3	17.2	22.9
US Fixed Income	18.7	18.5	18.2
Real Assets	8.3	9.3	9.5
Absolute Return	9.7	8.8	9.2
Private Equity	6.3	7.4	7.5
Opportunistic / Commodities	2.1	2.2	2.1
Cash	3.2	7.1	2.0
Other *	7.9	6.0	4.7

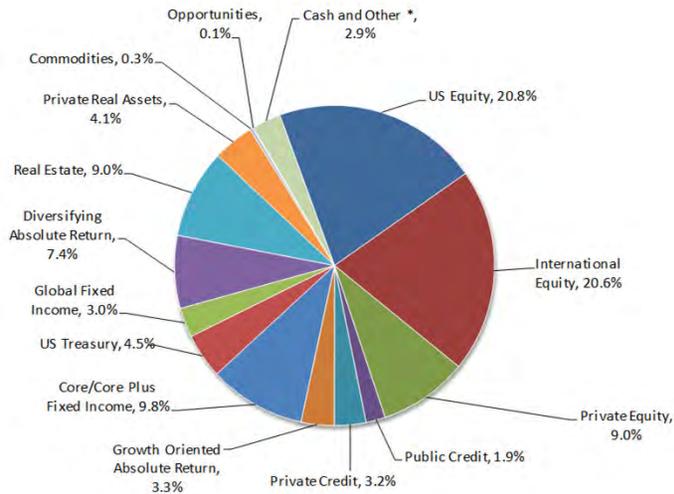
\* Allocations without overlay.

\* Other includes SSgA Overlay, SSgA Real Assets and closing accounts.

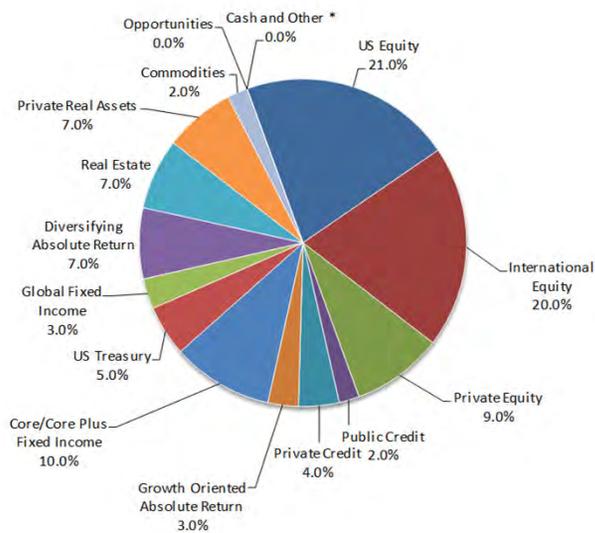
# Total Fund Asset Allocation Analysis

Period Ending: March 31, 2018

Current w/Overlay



Target



ASSET ALLOCATION	MARKET VALUE W/OVERLAY	W/OVERLAY	W/O OVERLAY
US Equity	1,919,117,428	20.8%	23.4%
International Equity	1,899,161,035	20.6%	20.7%
Private Equity	830,524,758	9.0%	7.8%
Public Credit	179,692,462	1.9%	1.9%
Private Credit	294,298,935	3.2%	1.0%
Growth Oriented Absolute Return	307,622,392	3.3%	4.0%
Core/Core Plus Fixed Income	901,780,771	9.8%	9.2%
US Treasury	418,703,598	4.5%	4.5%
Global Fixed Income	274,977,343	3.0%	2.6%
Diversifying Absolute Return	677,934,283	7.4%	5.3%
Real Estate	829,422,777	9.0%	9.0%
Private Real Assets	378,726,727	4.1%	4.1%
Commodities	27,204,804	0.3%	0.3%
Opportunities	9,386,111	0.1%	0.1%
Cash and Other *	267,845,114	2.9%	6.1%
<b>TOTAL</b>	<b>9,216,398,538</b>	<b>100.0%</b>	<b>100.0%</b>

ASSET ALLOCATION	ACTUAL	TARGET	DIFF
US Equity	20.8%	21.0%	-0.2%
International Equity	20.6%	20.0%	0.6%
Private Equity	9.0%	9.0%	0.0%
Public Credit	1.9%	2.0%	-0.1%
Private Credit	3.2%	4.0%	-0.8%
Growth Oriented Absolute Return	3.3%	3.0%	0.3%
Core/Core Plus Fixed Income	9.8%	10.0%	-0.2%
US Treasury	4.5%	5.0%	-0.5%
Global Fixed Income	3.0%	3.0%	0.0%
Diversifying Absolute Return	7.4%	7.0%	0.4%
Real Estate	9.0%	7.0%	2.0%
Private Real Assets	4.1%	7.0%	-2.9%
Commodities	0.3%	2.0%	-1.7%
Opportunities	0.1%	0.0%	0.1%
Cash and Other *	2.9%	0.0%	2.9%

\* Other includes closing accounts (Heitman), Transition Account, SSgA Overlay of \$42 million and SSgA Real Asset of \$306 million, which serve as overlay proxy for Real Assets.

- The Total Plan returned 0.5% net in the first quarter of 2018 and ranked in the 27<sup>th</sup> percentile among other public funds greater than \$1 billion (0.1% median). The Fund matched its policy index (0.5%) during this time period. The Total Plan w/o Overlay returned 0.7% for the quarter, net of fees. Longer term, the three-year return of 7.0% ranked below the median large public plan peer group (7.1%) and five-year returns of 7.7% ranked below the median large public plan peer group (8.1%), net of fees.
- First quarter results (net) were enhanced by the following factors:
  1. Brown Advisory gained 7.2%, ranked in the top decile of its peers, and topped the Russell 1000 growth (1.4%). Outperformance was broad across sectors, but holdings in healthcare did particularly well with all healthcare positions outperforming the benchmark.
  2. Lazard (2.0%) outperformed the MSCI ACWI ex US index (-1.1%). Stock selection in the industrials, information technology, and financials sectors contributed to relative performance.
  3. UBS topped the Russell 2000 Growth (4.6% vs 2.3%). Stock selection within information technology, healthcare, and consumer discretionary helped performance. From a sector perspective, an overweight to information technology and underweight to real estate contributed to performance.
  4. Weatherbie gained 3.8% beating the Russell 2000 Growth (2.3%). The account benefited from stock selection in consumer discretionary, and an overweight to information technology.
  5. LSV beat the MSCI World ex US Value (-0.9% vs -2.4%). Stock selection in financials, and real estate contributed to relative performance.
- First quarter results (net) were hindered by the following factors:
  1. Huber trailed the Russell 1000 Value (-4.7% vs -2.8%). Stock selection in financials and energy hurt relative performance.
  2. Dalton, Greiner lost -4.2% trailing the Russell 2000 Value (-2.6%). Stock selection in 5 of the 16 sectors performed better than the benchmark.
  3. Mondrian Emerging All Cap gained 0.2%, lagging the MSCI Emerging Markets index 1.5% and ranked in the bottom quartile of its peers. The account lagged in January when index returns were strong, particularly in stock selection in China and Korea.

# Total Fund Performance Summary

Period Ending: March 31, 2018

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	Fiscal YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	Inception (%)	Inception <sup>+</sup> Date
<b>Total Fund- Gross *</b>	<b>9,216,398,538</b>	<b>100.0</b>	<b>0.6</b>	<b>25</b>	<b>8.8</b>	<b>12</b>	<b>12.6</b>	<b>11</b>	<b>7.3</b>	<b>33</b>	<b>8.0</b>	<b>51</b>	<b>8.4</b>	<b>Jun-86</b>
<b>Total Fund- Net</b>			<b>0.5</b>	<b>27</b>	<b>8.6</b>	<b>15</b>	<b>12.4</b>	<b>16</b>	<b>7.0</b>	<b>55</b>	<b>7.7</b>	<b>69</b>	<b>8.2</b>	
<i>Policy Index<sup>1</sup></i>			<i>0.5</i>	<i>27</i>	<i>7.3</i>	<i>67</i>	<i>10.3</i>	<i>70</i>	<i>6.9</i>	<i>58</i>	<i>7.9</i>	<i>58</i>	<i>8.6</i>	<i>Jun-86</i>
<i>InvestorForce Public DB &gt; \$1B Gross Median</i>			<i>0.1</i>		<i>7.7</i>		<i>11.1</i>		<i>7.1</i>		<i>8.0</i>		<i>8.3</i>	<i>Jun-86</i>
<b>Total Fund ex Overlay- Gross **</b>	<b>8,867,557,353</b>	<b>96.2</b>	<b>0.7</b>	<b>16</b>	<b>8.9</b>	<b>7</b>	<b>12.9</b>	<b>8</b>	<b>7.6</b>	<b>24</b>	<b>8.1</b>	<b>48</b>	<b>8.3</b>	<b>Jun-86</b>
<b>Total Fund ex Overlay- Net</b>			<b>0.7</b>	<b>17</b>	<b>8.8</b>	<b>12</b>	<b>12.7</b>	<b>10</b>	<b>7.3</b>	<b>32</b>	<b>7.8</b>	<b>65</b>	<b>8.1</b>	
<i>Policy Index<sup>1</sup></i>			<i>0.5</i>	<i>27</i>	<i>7.3</i>	<i>67</i>	<i>10.3</i>	<i>70</i>	<i>6.9</i>	<i>58</i>	<i>7.9</i>	<i>58</i>	<i>8.6</i>	<i>Jun-86</i>
<i>Allocation ex Overlay Index</i>			<i>0.5</i>	<i>27</i>	<i>7.5</i>	<i>53</i>	<i>10.7</i>	<i>61</i>	--	--	--	--	--	<i>Jun-86</i>
<b>Growth Asset Category- Gross</b>	<b>5,411,842,049</b>	<b>58.7</b>	<b>0.5</b>	--	<b>11.1</b>	--	<b>16.3</b>	--	--	--	--	--	<b>16.3</b>	<b>Mar-17</b>
<b>Growth Asset Category- Net</b>			<b>0.4</b>	--	<b>10.9</b>	--	<b>16.1</b>	--	--	--	--	--	<b>16.1</b>	
<i>Growth Custom<sup>1</sup></i>			<i>0.3</i>	--	<i>9.8</i>	--	<i>14.0</i>	--	--	--	--	--	<i>14.0</i>	<i>Mar-17</i>
<b>Equities- Gross Public</b>	<b>4,061,773,421</b>	<b>44.1</b>	<b>-0.3</b>	--	<b>11.5</b>	--	<b>17.2</b>	--	<b>9.7</b>	--	<b>10.4</b>	--	<b>9.6</b>	<b>Jun-11</b>
<b>Equities- Net</b>			<b>-0.3</b>	--	<b>11.2</b>	--	<b>16.9</b>	--	<b>9.4</b>	--	<b>10.0</b>	--	<b>9.3</b>	
<i>MSCI ACWI</i>			<i>-1.0</i>	--	<i>10.1</i>	--	<i>14.8</i>	--	<i>8.1</i>	--	<i>9.2</i>	--	<i>8.2</i>	<i>Jun-11</i>
<b>US Equity- Gross</b>	<b>2,154,001,616</b>	<b>23.4</b>	<b>-0.7</b>	<b>70</b>	<b>10.4</b>	<b>60</b>	<b>14.0</b>	<b>45</b>	<b>10.1</b>	<b>49</b>	<b>12.7</b>	<b>57</b>	<b>10.1</b>	<b>Jun-86</b>
<b>US Equity- Net</b>			<b>-0.8</b>	<b>76</b>	<b>10.2</b>	<b>68</b>	<b>13.7</b>	<b>58</b>	<b>9.8</b>	<b>62</b>	<b>12.4</b>	<b>70</b>	<b>9.9</b>	
<i>Russell 3000</i>			<i>-0.6</i>	<i>65</i>	<i>10.5</i>	<i>56</i>	<i>13.8</i>	<i>55</i>	<i>10.2</i>	<i>41</i>	<i>13.0</i>	<i>39</i>	<i>10.2</i>	<i>Jun-86</i>
<i>InvestorForce All DB US Eq Gross Median</i>			<i>-0.5</i>		<i>10.5</i>		<i>13.9</i>		<i>10.1</i>		<i>12.8</i>		<i>10.1</i>	<i>Jun-86</i>
<b>Large Cap- Gross</b>	<b>1,789,687,554</b>	<b>19.4</b>	<b>-0.3</b>	--	<b>11.4</b>	--	<b>15.0</b>	--	<b>10.7</b>	--	<b>13.2</b>	--	<b>6.2</b>	<b>Mar-98</b>
<b>Large Cap- Net</b>			<b>-0.3</b>	--	<b>11.2</b>	--	<b>14.8</b>	--	<b>10.4</b>	--	<b>12.9</b>	--	<b>6.0</b>	
<i>Russell 1000</i>			<i>-0.7</i>	--	<i>10.6</i>	--	<i>14.0</i>	--	<i>10.4</i>	--	<i>13.2</i>	--	<i>6.7</i>	<i>Mar-98</i>

\*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

Total Fund  
Performance Summary

Period Ending: March 31, 2018

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	Fiscal YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	Inception (%)	Inception Date
Large Cap - Index- Gross	1,162,296,109	12.6	-0.7	--	10.5	--	13.9	--	10.4	--	13.1	--	11.5	Sep-08
Large Cap - Index- Net			-0.7	--	10.5	--	13.9	--	10.3	--	13.1	--	11.5	
<i>Russell 1000</i>			-0.7	--	10.6	--	14.0	--	10.4	--	13.2	--	11.5	Sep-08
AB- Gross	1,162,296,109	12.6	-0.7	29	10.5	55	13.9	55	10.4	63	13.1	65	10.0	Apr-89
AB- Net			-0.7	29	10.5	56	13.9	55	10.3	64	13.1	65	10.0	
<i>Russell 1000<sup>1</sup></i>			-0.7	28	10.6	33	14.0	40	10.4	58	13.2	61	--	Apr-89
<i>eV US Passive Large Cap Equity Gross Median</i>			-0.8		10.6		13.9		10.5		13.3		10.1	Apr-89
Equity Active (130/30)- Gross	119,319,406	1.3	-1.6	--	10.3	--	12.6	--	9.9	--	14.3	--	12.3	Sep-08
Equity Active (130/30)- Net			-1.7	--	9.6	--	11.9	--	9.1	--	13.5	--	11.6	
<i>Russell 1000</i>			-0.7	--	10.6	--	14.0	--	10.4	--	13.2	--	11.5	Sep-08
JP Morgan 130/30- Gross	119,319,406	1.3	-1.6	74	10.3	73	12.6	80	9.9	74	14.3	66	12.0	Jul-08
JP Morgan 130/30- Net			-1.7	83	9.6	82	11.9	83	9.1	91	13.5	77	11.2	
<i>Russell 1000</i>			-0.7	53	10.6	70	14.0	53	10.4	58	13.2	88	10.3	Jul-08
<i>eV Extended US 130/30 Equity Gross Median</i>			-0.5		12.4		14.7		10.8		14.8		11.4	Jul-08
Large Cap Growth- Gross	136,545,946	1.5	7.2	--	21.5	--	28.3	--	12.4	--	13.5	--	11.5	Sep-08
Large Cap Growth- Net			7.2	--	21.3	--	28.2	--	12.2	--	13.3	--	11.2	
<i>Russell 1000 Growth</i>			1.4	--	15.8	--	21.3	--	12.9	--	15.5	--	13.4	Sep-08
Brown Advisory- Gross	136,545,946	1.5	7.2	3	21.5	8	28.3	11	12.4	37	13.5	78	13.1	Feb-12
Brown Advisory- Net			7.2	3	21.3	9	28.2	12	12.2	41	13.3	80	12.9	
<i>Russell 1000 Growth</i>			1.4	64	15.8	48	21.3	51	12.9	31	15.5	42	15.0	Feb-12
<i>eV US Large Cap Growth Equity Gross Median</i>			2.2		15.6		21.3		11.7		15.2		14.5	Feb-12
Large Cap Value- Gross	371,526,093	4.0	-1.1	--	11.0	--	15.0	--	11.1	--	12.8	--	11.2	Sep-08
Large Cap Value- Net			-1.3	--	10.4	--	14.2	--	10.2	--	12.0	--	10.6	
<i>Russell 1000 Value</i>			-2.8	--	5.5	--	6.9	--	7.9	--	10.8	--	9.5	Sep-08

1. See Policy Index and Benchmark History.

Total Fund  
Performance Summary

Period Ending: March 31, 2018

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	Fiscal YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	Inception (%)	Inception Date
Eagle Capital- Gross	252,859,175	2.7	0.6	4	12.3	7	17.0	4	12.0	3	14.5	4	15.4	Feb-12
Eagle Capital- Net			0.4	5	11.7	11	16.2	6	11.1	10	13.6	9	14.6	
<i>Russell 1000</i>			-0.7	12	10.6	21	14.0	14	10.4	16	13.2	18	13.8	Feb-12
<i>Russell 1000 Value</i>			-2.8	74	5.5	81	6.9	87	7.9	70	10.8	72	12.4	Feb-12
<i>eV US Large Cap Value Equity Gross Median</i>			-2.1		8.5		10.4		8.8		11.7		12.7	Feb-12
Huber Capital- Gross	118,666,917	1.3	-4.5	97	8.3	52	11.0	42	9.3	36	9.3	91	11.1	Feb-12
Huber Capital- Net			-4.7	98	7.8	58	10.3	54	8.5	59	8.5	96	10.4	
<i>Russell 1000 Value</i>			-2.8	74	5.5	81	6.9	87	7.9	70	10.8	72	12.4	Feb-12
<i>eV US Large Cap Value Equity Gross Median</i>			-2.1		8.5		10.4		8.8		11.7		12.7	Feb-12
<b>Small Cap- Gross</b>	<b>364,169,662</b>	<b>4.0</b>	<b>0.5</b>	<b>--</b>	<b>11.1</b>	<b>--</b>	<b>15.6</b>	<b>--</b>	<b>10.0</b>	<b>--</b>	<b>12.0</b>	<b>--</b>	<b>12.1</b>	<b>Dec-90</b>
<b>Small Cap- Net</b>			<b>0.4</b>	<b>--</b>	<b>10.7</b>	<b>--</b>	<b>15.0</b>	<b>--</b>	<b>9.3</b>	<b>--</b>	<b>11.3</b>	<b>--</b>	<b>11.4</b>	
<i>Russell 2000</i>			-0.1	--	9.1	--	11.8	--	8.4	--	11.5	--	10.9	Dec-90
<b>Small Cap - Growth- Gross</b>	<b>195,239,425</b>	<b>2.1</b>	<b>4.1</b>	<b>--</b>	<b>18.6</b>	<b>--</b>	<b>28.5</b>	<b>--</b>	<b>12.5</b>	<b>--</b>	<b>13.5</b>	<b>--</b>	<b>12.1</b>	<b>Sep-08</b>
<b>Small Cap - Growth- Net</b>			<b>4.1</b>	<b>--</b>	<b>18.4</b>	<b>--</b>	<b>28.2</b>	<b>--</b>	<b>12.1</b>	<b>--</b>	<b>12.9</b>	<b>--</b>	<b>11.4</b>	
<i>Russell 2000 Growth</i>			2.3	--	13.6	--	18.6	--	8.8	--	12.9	--	11.9	Sep-08
UBS- Gross	76,346,055	0.8	4.6	28	15.0	46	18.1	63	--	--	--	--	7.5	Jul-15
UBS- Net			4.6	29	14.9	46	17.8	65	--	--	--	--	7.4	
<i>Russell 2000 Growth</i>			2.3	60	13.6	56	18.6	60	8.8	68	12.9	66	8.9	Jul-15
<i>eV US Small Cap Growth Equity Gross Median</i>			3.0		14.4		20.8		10.1		13.8		10.1	Jul-15
Weatherbie- Gross	118,893,370	1.3	3.8	38	21.0	15	36.2	4	17.7	3	17.3	9	13.2	Dec-02
Weatherbie- Net			3.8	38	20.9	16	35.9	4	17.2	3	16.5	14	12.3	
<i>Russell 2000 Growth</i>			2.3	60	13.6	56	18.6	60	8.8	68	12.9	66	11.5	Dec-02
<i>eV US Small Cap Growth Equity Gross Median</i>			3.0		14.4		20.8		10.1		13.8		12.7	Dec-02
<b>Small Cap - Value- Gross</b>	<b>168,930,237</b>	<b>1.8</b>	<b>-3.5</b>	<b>--</b>	<b>3.5</b>	<b>--</b>	<b>3.6</b>	<b>--</b>	<b>7.4</b>	<b>--</b>	<b>10.5</b>	<b>--</b>	<b>10.3</b>	<b>Sep-08</b>
<b>Small Cap - Value- Net</b>			<b>-3.7</b>	<b>--</b>	<b>2.9</b>	<b>--</b>	<b>2.8</b>	<b>--</b>	<b>6.5</b>	<b>--</b>	<b>9.5</b>	<b>--</b>	<b>9.3</b>	
<i>Russell 2000 Value</i>			-2.6	--	4.4	--	5.1	--	7.9	--	10.0	--	8.9	Sep-08

# Total Fund Performance Summary

Period Ending: March 31, 2018

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	Fiscal YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	Inception (%)	Inception Date
Dalton, Greiner- Gross	79,860,599	0.9	-4.0	92	4.7	77	4.6	80	7.5	70	10.4	69	10.7	Dec-00
Dalton, Greiner- Net			-4.2	92	4.3	81	4.0	85	6.8	82	9.7	80	9.9	
<i>Russell 2000 Value</i>			-2.6	64	4.4	80	5.1	76	7.9	65	10.0	77	9.1	Dec-00
<i>eV US Small Cap Value Equity Gross Median</i>			-2.0		7.1		7.7		8.5		11.5		11.5	Dec-00
WEDGE Capital- Gross	89,069,638	1.0	-3.0	71	2.4	90	2.7	91	7.3	73	10.9	65	10.0	Apr-08
WEDGE Capital- Net			-3.2	76	1.7	93	1.7	95	6.3	84	9.8	80	9.0	
<i>Russell 2000 Value</i>			-2.6	64	4.4	80	5.1	76	7.9	65	10.0	77	8.3	Apr-08
<i>eV US Small Cap Value Equity Gross Median</i>			-2.0		7.1		7.7		8.5		11.5		10.2	Apr-08
<b>International Equity- Gross</b>	<b>1,907,771,805</b>	<b>20.7</b>	<b>0.3</b>	<b>25</b>	<b>12.6</b>	<b>18</b>	<b>20.6</b>	<b>18</b>	<b>8.5</b>	<b>23</b>	<b>7.3</b>	<b>46</b>	<b>6.7</b>	<b>Dec-87</b>
<b>International Equity- Net</b>			<b>0.1</b>	<b>30</b>	<b>12.3</b>	<b>24</b>	<b>20.2</b>	<b>22</b>	<b>8.1</b>	<b>31</b>	<b>6.9</b>	<b>58</b>	<b>6.4</b>	
<i>MSCI ACWI ex US<sup>1</sup></i>			-1.1	83	10.4	61	17.0	64	6.7	69	6.4	76	6.5	Dec-87
<i>InvestorForce All DB ex-US Eq Gross Median</i>			-0.4		10.8		18.0		7.3		7.2		7.3	Dec-87
<b>International - Developed- Gross</b>	<b>1,530,615,446</b>	<b>16.6</b>	<b>0.3</b>	<b>27</b>	<b>12.0</b>	<b>24</b>	<b>20.2</b>	<b>28</b>	<b>9.0</b>	<b>16</b>	<b>8.2</b>	<b>38</b>	<b>4.9</b>	<b>Mar-98</b>
<b>International - Developed- Net</b>			<b>0.2</b>	<b>29</b>	<b>11.8</b>	<b>25</b>	<b>19.8</b>	<b>29</b>	<b>8.5</b>	<b>25</b>	<b>7.8</b>	<b>47</b>	<b>4.5</b>	
<i>MSCI World ex US Gross</i>			-1.9	90	8.1	86	14.5	88	5.8	67	6.5	74	5.0	Mar-98
<i>InvestorForce All DB Dev Mkt ex-US Eq Gross Median</i>			-0.3		9.9		17.0		6.7		7.7		5.6	Mar-98
Lazard- Gross	383,315,133	4.2	2.1	15	15.0	26	23.3	30	8.1	54	9.0	38	11.4	Jun-12
Lazard- Net			2.0	16	14.7	26	23.0	31	7.8	59	8.7	43	11.1	
<i>MSCI ACWI ex USA Gross</i>			-1.1	74	10.4	63	17.0	70	6.7	74	6.4	85	8.5	Jun-12
<i>eV All ACWI ex-US Equity Gross Median</i>			-0.2		11.6		19.6		8.3		8.3		10.5	Jun-12
Walter Scott & Partners Limited- Gross	481,834,935	5.2	0.2	48	11.1	35	20.1	35	--	--	--	--	20.1	Mar-17
Walter Scott & Partners Limited- Net			0.1	49	11.0	35	19.9	37	--	--	--	--	19.9	
<i>MSCI World ex USA Growth GR USD</i>			-1.5	73	8.9	62	16.7	67	6.5	45	7.0	63	16.7	Mar-17
<i>eV EAFE Large Cap Growth Gross Median</i>			0.0		10.1		19.3		6.2		7.5		19.3	Mar-17

1. See Policy Index and Benchmark History.

Total Fund  
Performance Summary

Period Ending: March 31, 2018

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	Fiscal YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	Inception (%)	Inception Date
LSV- Gross	475,151,269	5.2	-0.8	28	9.9	31	16.6	31	8.4	12	8.7	23	5.4	Dec-04
LSV- Net			-0.9	33	9.7	32	16.3	36	8.0	23	8.3	38	4.9	
<i>MSCI World ex US Value Gross</i>			-2.4	74	7.3	66	12.3	74	5.1	81	6.0	88	5.0	Dec-04
<i>eV EAFE Large Cap Value Gross Median</i>			-1.5		8.7		14.4		6.6		7.8		5.9	Dec-04
Mondrian Dev Small Cap- Gross	94,955,378	1.0	-1.4	89	10.9	84	19.7	86	10.1	76	8.1	91	10.6	Aug-10
Mondrian Dev Small Cap- Net			-1.6	90	10.5	86	19.0	88	9.4	86	7.4	97	10.0	
<i>MSCI World ex US Small Cap GD</i>			-0.4	78	13.2	76	21.6	77	11.7	62	10.1	50	10.8	Aug-10
<i>eV ACWI ex-US Small Cap Equity Gross Median</i>			1.7		15.5		26.6		12.5		9.9		12.1	Aug-10
William Blair Dev Small Cap- Gross	95,345,791	1.0	-0.4	77	14.2	67	24.1	62	11.7	62	10.0	50	11.3	Sep-08
William Blair Dev Small Cap- Net			-1.0	85	13.3	75	23.1	70	10.8	69	9.1	76	10.3	
<i>MSCI World ex US Small Cap GD</i>			-0.4	78	13.2	76	21.6	77	11.7	62	10.1	50	10.1	Sep-08
<i>eV ACWI ex-US Small Cap Equity Gross Median</i>			1.7		15.5		26.6		12.5		9.9		11.9	Sep-08
<b>International - Emerging- Gross</b>	<b>376,766,723</b>	<b>4.1</b>	<b>0.5</b>	<b>82</b>	<b>16.0</b>	<b>55</b>	<b>23.7</b>	<b>36</b>	<b>7.9</b>	<b>81</b>	<b>4.3</b>	<b>71</b>	<b>7.0</b>	<b>Jan-00</b>
<b>International - Emerging- Net</b>			<b>0.4</b>	<b>84</b>	<b>15.6</b>	<b>57</b>	<b>23.2</b>	<b>42</b>	<b>7.6</b>	<b>92</b>	<b>4.1</b>	<b>72</b>	<b>6.6</b>	
<i>MSCI Emerging Markets Gross</i>			1.5	62	17.8	21	25.4	16	9.2	54	5.4	36	7.7	Jan-00
<i>InvestorForce All DB Emg Mkt Eq Gross Median</i>			1.8		16.2		21.5		9.4		4.9		7.3	Jan-00
Baillie Gifford Emg All Cap- Gross	199,022,340	2.2	1.3	60	22.0	14	33.3	10	--	--	--	--	27.5	Mar-16
Baillie Gifford Emg All Cap- Net			1.3	60	22.0	14	33.3	10	--	--	--	--	27.5	
<i>MSCI Emerging Markets Gross</i>			1.5	56	17.8	46	25.4	46	9.2	65	5.4	67	21.5	Mar-16
<i>eV Emg Mkts Equity Gross Median</i>			1.7		17.4		24.8		10.3		6.2		22.0	Mar-16
Mondrian Emg All Cap- Gross	177,744,383	1.9	0.3	79	10.7	93	15.4	94	--	--	--	--	14.6	Mar-16
Mondrian Emg All Cap- Net			0.2	82	10.2	93	14.7	96	--	--	--	--	14.0	
<i>MSCI Emerging Markets Gross</i>			1.5	56	17.8	46	25.4	46	9.2	65	5.4	67	21.5	Mar-16
<i>eV Emg Mkts Equity Gross Median</i>			1.7		17.4		24.8		10.3		6.2		22.0	Mar-16

# Total Fund Performance Summary

Period Ending: March 31, 2018

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	Fiscal YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	Inception (%)	Inception Date
<b>Private Equity- Gross**++</b>	<b>715,105,364</b>	<b>7.8</b>	<b>5.0</b>	<b>13</b>	<b>15.7</b>	<b>8</b>	<b>20.2</b>	<b>13</b>	<b>12.1</b>	<b>40</b>	<b>14.2</b>	<b>28</b>	<b>1.1</b>	<b>Feb-08</b>
<b>Private Equity- Net</b>			<b>5.0</b>	<b>13</b>	<b>15.7</b>	<b>8</b>	<b>20.2</b>	<b>13</b>	<b>12.1</b>	<b>40</b>	<b>14.2</b>	<b>28</b>	<b>1.3</b>	
<i>Thomson Reuters CJA All PE 1 Qtr Lag<sup>1+</sup></i>			4.1	26	11.2	36	14.9	46	11.2	46	16.7	10	10.0	Feb-08
<i>Russell 3000 +3% 1Q Lag</i>			7.1	7	16.6	6	24.1	8	14.1	17	18.6	7	11.5	Feb-08
<i>InvestorForce All DB Private Eq Net Median</i>			2.7		9.8		14.0		10.6		11.8		7.9	Feb-08
Abbott VI- Gross	57,652,512	0.6	5.2	--	16.0	--	20.9	--	16.0	--	15.1	--	3.4	Jul-08
Abbott VI- Net			5.2	--	16.0	--	20.9	--	16.0	--	15.1	--	--	
<i>Thomson Reuters CJA All PE 1 Qtr Lag</i>			4.1	--	11.2	--	14.9	--	11.2	--	16.7	--	11.0	Jul-08
Accel-KKR IV- Gross	11,884,999	0.1	3.7	--	32.0	--	52.2	--	25.3	--	--	--	-5.6	Jun-13
Accel-KKR IV- Net			3.7	--	32.0	--	52.2	--	25.3	--	--	--	-5.6	
<i>Thomson Reuters CJA All PE 1 Qtr Lag</i>			4.1	--	11.2	--	14.9	--	11.2	--	16.7	--	15.0	Jun-13
Accel-KKR V- Gross	5,502,329	0.1	3.7	--	3.6	--	13.8	--	--	--	--	--	11.7	Jan-17
Accel-KKR V- Net			3.7	--	3.6	--	13.8	--	--	--	--	--	11.7	
<i>Thomson Reuters CJA All PE 1 Qtr Lag</i>			4.1	--	11.2	--	14.9	--	11.2	--	16.7	--	18.7	Jan-17
Accel-KKR Growth Partners II- Gross	5,660,639	0.1	15.1	--	22.1	--	25.7	--	-6.0	--	--	--	-5.9	Feb-15
Accel-KKR Growth Partners II- Net			15.1	--	22.1	--	25.7	--	-6.0	--	--	--	-5.9	
<i>Thomson Reuters CJA All PE 1 Qtr Lag</i>			4.1	--	11.2	--	14.9	--	11.2	--	16.7	--	10.9	Feb-15
Atalaya Special Opp VI- Gross	18,634,848	0.2	2.7	--	6.2	--	7.4	--	--	--	--	--	5.3	Apr-16
Atalaya Special Opp VI- Net			2.7	--	6.2	--	7.4	--	--	--	--	--	5.3	
<i>Thomson Reuters CJA All PE 1 Qtr Lag</i>			4.1	--	11.2	--	14.9	--	11.2	--	16.7	--	18.9	Apr-16

1. See Policy Index and Benchmark History.

\*\* Private Equity Composite includes the historical returns of Summit Credit and Athyrum Opportunities up to 4/1/17.

+ Preliminary quarterly returns as of 03/31/2018 (Returns are not available at reporting period.)

++ Returns are one-quarter lag.

# Total Fund Performance Summary

Period Ending: March 31, 2018

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	Fiscal YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	Inception (%)	Inception Date
Davidson Kempner LT Dist Opp- Gross*	1,750,000	0.0	--	--	--	--	--	--	--	--	--	--	--	Mar-18
Davidson Kempner LT Dist Opp- Net			--	--	--	--	--	--	--	--	--	--	--	
<i>Thomson Reuters CJA All PE 1 Qtr Lag</i>			4.1	--	11.2	--	14.9	--	11.2	--	16.7	--	--	Mar-18
Dyal Capital Partners II- Gross	10,046,107	0.1	1.3	--	-0.4	--	1.6	--	-6.4	--	--	--	-5.9	Dec-14
Dyal Capital Partners II- Net			1.3	--	-0.4	--	1.6	--	-6.4	--	--	--	-5.9	
<i>Thomson Reuters CJA All PE 1 Qtr Lag</i>			4.1	--	11.2	--	14.9	--	11.2	--	16.7	--	12.0	Dec-14
Dyal Capital Partners III- Gross	12,616,097	0.1	-1.0	--	7.6	--	-1.8	--	--	--	--	--	13.5	Dec-16
Dyal Capital Partners III- Net			-1.0	--	7.6	--	-1.8	--	--	--	--	--	13.5	
<i>Thomson Reuters CJA All PE 1 Qtr Lag</i>			4.1	--	11.2	--	14.9	--	11.2	--	16.7	--	15.8	Dec-16
Garrison Investment Group- Gross	13,727,383	0.1	0.7	--	-0.5	--	-0.7	--	-7.0	--	-0.4	--	-0.4	May-12
Garrison Investment Group- Net			0.7	--	-0.5	--	-0.7	--	-7.0	--	-0.4	--	-0.4	
<i>Thomson Reuters CJA All PE 1 Qtr Lag</i>			4.1	--	11.2	--	14.9	--	11.2	--	16.7	--	15.8	May-12
Harbourvest VIII- Gross	21,828,846	0.2	4.8	--	14.6	--	20.2	--	13.8	--	16.0	--	9.6	Dec-07
Harbourvest VIII- Net			4.8	--	14.6	--	20.2	--	13.8	--	16.0	--	--	
<i>Thomson Reuters CJA All PE 1 Qtr Lag</i>			4.1	--	11.2	--	14.9	--	11.2	--	16.7	--	9.6	Dec-07
Harbourvest Intl VI- Gross	37,472,323	0.4	7.8	--	20.2	--	24.7	--	14.5	--	15.5	--	-9.3	Mar-09
Harbourvest Intl VI- Net			7.8	--	20.2	--	24.7	--	14.5	--	15.5	--	--	
<i>Thomson Reuters CJA All PE 1 Qtr Lag</i>			4.1	--	11.2	--	14.9	--	11.2	--	16.7	--	16.8	Mar-09
H.I.G. Bayside Loan III- Gross	22,287,924	0.2	-0.2	--	3.1	--	8.1	--	10.0	--	5.5	--	5.3	Jan-13
H.I.G. Bayside Loan III- Net			-0.2	--	3.1	--	8.1	--	10.0	--	5.5	--	5.3	
<i>Thomson Reuters CJA All PE 1 Qtr Lag</i>			4.1	--	11.2	--	14.9	--	11.2	--	16.7	--	16.6	Jan-13
H.I.G. Capital V- Gross	8,808,741	0.1	7.6	--	31.7	--	34.8	--	15.2	--	--	--	4.8	Jul-13
H.I.G. Capital V- Net			7.6	--	31.7	--	34.8	--	15.2	--	--	--	4.8	
<i>Thomson Reuters CJA All PE 1 Qtr Lag</i>			4.1	--	11.2	--	14.9	--	11.2	--	16.7	--	14.8	Jul-13

\* Funded in March 2018.

Total Fund  
Performance Summary

Period Ending: March 31, 2018

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	Fiscal YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	Inception (%)	Inception Date
H.I.G. Europe Capital II- Gross*	9,055,861	0.1	0.7	--	18.0	--	5.1	--	--	--	--	--	--	Jan-14
H.I.G. Europe Capital II- Net			0.7	--	18.0	--	5.1	--	--	--	--	--	--	
<i>Thomson Reuters CJA All PE 1 Qtr Lag</i>			4.1	--	11.2	--	14.9	--	11.2	--	16.7	--	13.3	Jan-14
Khosla IV- Gross	15,206,616	0.2	2.2	--	27.8	--	25.4	--	18.1	--	18.0	--	14.9	Jul-11
Khosla IV- Net			2.2	--	27.8	--	25.4	--	18.1	--	18.0	--	14.9	
<i>Thomson Reuters CJA All PE 1 Qtr Lag</i>			4.1	--	11.2	--	14.9	--	11.2	--	16.7	--	14.4	Jul-11
Khosla V- Gross	16,305,830	0.2	0.3	--	18.8	--	18.1	--	10.8	--	--	--	8.8	Nov-14
Khosla V- Net			0.3	--	18.8	--	18.1	--	10.8	--	--	--	8.8	
<i>Thomson Reuters CJA All PE 1 Qtr Lag</i>			4.1	--	11.2	--	14.9	--	11.2	--	16.7	--	11.2	Nov-14
Linden Capital- Gross	38,015,473	0.4	3.7	--	17.1	--	25.2	--	--	--	--	--	6.6	Jun-16
Linden Capital- Net			3.7	--	17.1	--	25.2	--	--	--	--	--	6.6	
<i>Thomson Reuters CJA All PE 1 Qtr Lag</i>			4.1	--	11.2	--	14.9	--	11.2	--	16.7	--	16.0	Jun-16
Marlin Equity IV- Gross	18,800,289	0.2	-0.2	--	2.7	--	-2.2	--	4.3	--	--	--	0.9	Nov-13
Marlin Equity IV- Net			-0.2	--	2.7	--	-2.2	--	4.3	--	--	--	0.9	
<i>Thomson Reuters CJA All PE 1 Qtr Lag</i>			4.1	--	11.2	--	14.9	--	11.2	--	16.7	--	14.9	Nov-13
Marlin Equity V- Gross**	2,045,582	0.0	--	--	--	--	--	--	--	--	--	--	0.0	Feb-18
Marlin Equity V- Net			--	--	--	--	--	--	--	--	--	--	0.0	
<i>Thomson Reuters CJA All PE 1 Qtr Lag</i>			4.1	--	11.2	--	14.9	--	11.2	--	16.7	--	4.1	Feb-18
Marlin Heritage- Gross	8,782,660	0.1	9.0	--	51.7	--	66.9	--	38.6	--	--	--	23.4	Jul-14
Marlin Heritage- Net			9.0	--	51.7	--	66.9	--	38.6	--	--	--	23.4	
<i>Thomson Reuters CJA All PE 1 Qtr Lag</i>			4.1	--	11.2	--	14.9	--	11.2	--	16.7	--	12.4	Jul-14
Marlin Heritage II- Gross	1,071,060	0.0	-11.9	--	--	--	--	--	--	--	--	--	-11.9	Oct-17
Marlin Heritage II- Net			-11.9	--	--	--	--	--	--	--	--	--	-11.9	
<i>Thomson Reuters CJA All PE 1 Qtr Lag</i>			4.1	--	11.2	--	14.9	--	11.2	--	16.7	--	7.8	Oct-17

\*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.

\*\*Funded in February 2018.

Total Fund  
Performance Summary

Period Ending: March 31, 2018

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	Fiscal YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	Inception (%)	Inception Date
Marlin Heritage Europe- Gross	4,507,081	0.0	-7.6	--	--	--	--	--	--	--	--	--	-7.6	Aug-17
Marlin Heritage Europe- Net			-7.6	--	--	--	--	--	--	--	--	--	-7.6	
<i>Thomson Reuters CJA All PE 1 Qtr Lag</i>			4.1	--	11.2	--	14.9	--	11.2	--	16.7	--	11.2	Aug-17
New Enterprise 14- Gross	36,263,741	0.4	3.1	--	5.2	--	14.7	--	16.4	--	16.1	--	12.4	May-12
New Enterprise 14- Net			3.1	--	5.2	--	14.7	--	16.4	--	16.1	--	12.4	
<i>Thomson Reuters CJA All PE 1 Qtr Lag</i>			4.1	--	11.2	--	14.9	--	11.2	--	16.7	--	15.8	May-12
New Enterprise 15- Gross	34,143,926	0.4	0.1	--	10.4	--	21.6	--	--	--	--	--	11.7	Apr-15
New Enterprise 15- Net			0.1	--	10.4	--	21.6	--	--	--	--	--	11.7	
<i>Thomson Reuters CJA All PE 1 Qtr Lag</i>			4.1	--	11.2	--	14.9	--	11.2	--	16.7	--	12.5	Apr-15
New Enterprise 16- Gross	5,942,169	0.1	0.6	--	-8.7	--	--	--	--	--	--	--	-8.7	May-17
New Enterprise 16- Net			0.6	--	-8.7	--	--	--	--	--	--	--	-8.7	
<i>Thomson Reuters CJA All PE 1 Qtr Lag</i>			4.1	--	11.2	--	14.9	--	11.2	--	16.7	--	14.9	May-17
Private Equity X- Gross	35,736,270	0.4	3.6	--	14.3	--	20.6	--	4.7	--	12.4	--	-3.0	Jun-08
Private Equity X- Net			3.6	--	14.3	--	20.6	--	4.7	--	12.4	--	--	
<i>Thomson Reuters CJA All PE 1 Qtr Lag</i>			4.1	--	11.2	--	14.9	--	11.2	--	16.7	--	11.5	Jun-08
RRJ Capital Master Fund II- Gross	20,147,710	0.2	8.1	--	15.6	--	12.6	--	8.6	--	--	--	13.5	May-13
RRJ Capital Master Fund II- Net			8.1	--	15.6	--	12.6	--	8.6	--	--	--	13.5	
<i>Thomson Reuters CJA All PE 1 Qtr Lag</i>			4.1	--	11.2	--	14.9	--	11.2	--	16.7	--	15.7	May-13
RRJ Capital Master Fund III- Gross	24,724,981	0.3	1.8	--	11.3	--	15.7	--	--	--	--	--	-23.2	Dec-15
RRJ Capital Master Fund III- Net			1.8	--	11.3	--	15.7	--	--	--	--	--	-23.2	
<i>Thomson Reuters CJA All PE 1 Qtr Lag</i>			4.1	--	11.2	--	14.9	--	11.2	--	16.7	--	16.7	Dec-15
Spectrum Equity- Gross	23,279,325	0.3	12.8	--	38.7	--	51.9	--	6.6	--	--	--	-1.1	Dec-14
Spectrum Equity- Net			12.8	--	38.7	--	51.9	--	6.6	--	--	--	-1.1	
<i>Thomson Reuters CJA All PE 1 Qtr Lag</i>			4.1	--	11.2	--	14.9	--	11.2	--	16.7	--	12.0	Dec-14

# Total Fund Performance Summary

Period Ending: March 31, 2018

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	Fiscal YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	Inception (%)	Inception Date
Summit EUR Growth Equity II- Gross*	1,611,542	0.0	--	--	--	--	--	--	--	--	--	--	0.0	Jan-18
Summit EUR Growth Equity II- Net			--	--	--	--	--	--	--	--	--	--	0.0	
<i>Thomson Reuters CJA All PE 1 Qtr Lag</i>			4.1	--	11.2	--	14.9	--	11.2	--	16.7	--	4.1	Jan-18
Summit Ventures III- Gross	15,561,738	0.2	7.4	--	27.2	--	31.5	--	24.3	--	16.0	--	12.7	Jun-12
Summit Ventures III- Net			7.4	--	27.2	--	31.5	--	24.3	--	16.0	--	12.7	
<i>Thomson Reuters CJA All PE 1 Qtr Lag</i>			4.1	--	11.2	--	14.9	--	11.2	--	16.7	--	15.4	Jun-12
Summit Ventures IV- Gross	12,883,409	0.1	0.4	--	41.5	--	41.4	--	--	--	--	--	33.6	May-16
Summit Ventures IV- Net			0.4	--	41.5	--	41.4	--	--	--	--	--	33.6	
<i>Thomson Reuters CJA All PE 1 Qtr Lag</i>			4.1	--	11.2	--	14.9	--	11.2	--	16.7	--	19.7	May-16
Thoma Bravo XI- Gross	42,612,403	0.5	27.5	--	38.3	--	38.3	--	19.2	--	--	--	14.1	Jun-14
Thoma Bravo XI- Net			27.5	--	38.3	--	38.3	--	19.2	--	--	--	14.1	
<i>Thomson Reuters CJA All PE 1 Qtr Lag</i>			4.1	--	11.2	--	14.9	--	11.2	--	16.7	--	12.3	Jun-14
Thoma Bravo XII- Gross	20,286,459	0.2	9.4	--	14.8	--	14.1	--	--	--	--	--	-2.4	May-16
Thoma Bravo XII- Net			9.4	--	14.8	--	14.1	--	--	--	--	--	-2.4	
<i>Thomson Reuters CJA All PE 1 Qtr Lag</i>			4.1	--	11.2	--	14.9	--	11.2	--	16.7	--	19.7	May-16
TPG Opp Partners III- Gross	21,742,984	0.2	4.8	--	9.2	--	13.1	--	10.1	--	--	--	-22.4	Mar-14
TPG Opp Partners III- Net			4.8	--	9.2	--	13.1	--	10.1	--	--	--	-22.4	
<i>Thomson Reuters CJA All PE 1 Qtr Lag</i>			4.1	--	11.2	--	14.9	--	11.2	--	16.7	--	12.3	Mar-14
Trinity Ventures XI- Gross	26,178,713	0.3	7.5	--	9.4	--	21.6	--	13.1	--	--	--	1.9	Apr-13
Trinity Ventures XI- Net			7.5	--	9.4	--	21.6	--	13.1	--	--	--	1.9	
<i>Thomson Reuters CJA All PE 1 Qtr Lag</i>			4.1	--	11.2	--	14.9	--	11.2	--	16.7	--	15.7	Apr-13
Trinity Ventures XII- Gross	11,523,382	0.1	-2.3	--	-3.7	--	25.6	--	--	--	--	--	-0.2	Apr-16
Trinity Ventures XII- Net			-2.3	--	-3.7	--	25.6	--	--	--	--	--	-0.2	
<i>Thomson Reuters CJA All PE 1 Qtr Lag</i>			4.1	--	11.2	--	14.9	--	11.2	--	16.7	--	18.9	Apr-16

\* Funded in March 2018.

# Total Fund Performance Summary

Period Ending: March 31, 2018

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	Fiscal YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	Inception (%)	Inception Date
TSG7 A LP- Gross*	6,875,254	0.1	7.2	--	10.4	--	6.1	--	--	--	--	--	--	Mar-16
TSG7 A LP- Net			7.2	--	10.4	--	6.1	--	--	--	--	--	--	
<i>Thomson Reuters CJA All PE 1 Qtr Lag</i>			4.1	--	11.2	--	14.9	--	11.2	--	16.7	--	15.0	Mar-16
TSG7 B LP- Gross	315,913	0.0	-11.1	--	-27.9	--	-32.2	--	--	--	--	--	-31.0	Jan-16
TSG7 B LP- Net			-11.1	--	-27.9	--	-32.2	--	--	--	--	--	-31.0	
<i>Thomson Reuters CJA All PE 1 Qtr Lag</i>			4.1	--	11.2	--	14.9	--	11.2	--	16.7	--	13.3	Jan-16
Waterland V- Gross**	14,118,750	0.2	4.4	--	32.7	--	33.5	--	58.7	--	64.6	--	22.6	Aug-11
Waterland V- Net			4.4	--	32.7	--	33.5	--	58.7	--	64.6	--	22.6	
<i>Thomson Reuters CJA All PE 1 Qtr Lag</i>			4.1	--	11.2	--	14.9	--	11.2	--	16.7	--	14.8	Aug-11
Waterland VI- Gross**	12,391,523	0.1	0.0	--	21.0	--	29.8	--	--	--	--	--	-17.6	Jul-15
Waterland VI- Net			0.0	--	21.0	--	29.8	--	--	--	--	--	-17.6	
<i>Thomson Reuters CJA All PE 1 Qtr Lag</i>			4.1	--	11.2	--	14.9	--	11.2	--	16.7	--	11.3	Jul-15
Waterland VI Over- Gross**	1,606	0.0	0.0	--	-41.5	--	-51.8	--	--	--	--	--	-74.2	Dec-15
Waterland VI Over- Net			0.0	--	-41.5	--	-51.8	--	--	--	--	--	-74.2	
<i>Thomson Reuters CJA All PE 1 Qtr Lag</i>			4.1	--	11.2	--	14.9	--	11.2	--	16.7	--	16.7	Dec-15
Wayzata Opportunities III- Gross	7,100,366	0.1	-2.4	--	-2.4	--	-1.5	--	0.5	--	-5.5	--	-5.4	Feb-13
Wayzata Opportunities III- Net			-2.4	--	-2.4	--	-1.5	--	0.5	--	-5.5	--	-5.4	
<i>Thomson Reuters CJA All PE 1 Qtr Lag</i>			4.1	--	11.2	--	14.9	--	11.2	--	16.7	--	16.7	Feb-13
<b>Public Credit- Gross</b>	<b>175,618,836</b>	<b>1.9</b>	<b>1.4</b>	<b>--</b>	<b>2.6</b>	<b>--</b>	<b>4.4</b>	<b>--</b>	<b>5.2</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>4.6</b>	<b>Nov-13</b>
<b>Public Credit- Net</b>			<b>1.4</b>	<b>--</b>	<b>2.6</b>	<b>--</b>	<b>4.4</b>	<b>--</b>	<b>5.2</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>4.6</b>	
<i>Brigade Custom<sup>1</sup></i>			0.3	--	2.7	--	4.2	--	4.8	--	--	--	4.5	Nov-13
Brigade Capital- Gross	175,618,836	1.9	1.4	2	2.6	25	4.4	34	5.2	40	--	--	4.6	Nov-13
Brigade Capital- Net			1.4	2	2.6	25	4.4	34	5.2	40	--	--	4.6	
<i>Brigade Custom<sup>1</sup></i>			0.3	15	2.7	25	4.2	48	4.8	56	--	--	4.5	Nov-13
<i>eV US High Yield Fixed Inc Gross Median</i>			-0.7		1.8		4.1		4.9		5.0		4.8	Nov-13

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

\*\* Preliminary quarterly returns as of 03/31/2018 (Returns are not available at reporting period.)

1. See Policy Index and Benchmark History.

Total Fund  
Performance Summary

Period Ending: March 31, 2018

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	Fiscal YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	Inception (%)	Inception Date
<b>Private Credit- Gross**</b>	<b>87,901,901</b>	<b>1.0</b>	<b>1.6</b>	<b>--</b>	<b>4.3</b>	<b>--</b>	<b>8.0</b>	<b>--</b>	<b>7.4</b>	<b>--</b>	<b>8.8</b>	<b>--</b>	<b>7.1</b>	<b>Oct-11</b>
<b>Private Credit- Net</b>			<b>1.6</b>	<b>--</b>	<b>4.3</b>	<b>--</b>	<b>8.0</b>	<b>--</b>	<b>7.4</b>	<b>--</b>	<b>8.8</b>	<b>--</b>	<b>7.1</b>	
<i>Credit Suisse Leveraged Loan + 2%</i>			2.1	--	5.5	--	6.6	--	6.4	--	6.2	--	7.2	Oct-11
Athyrium Opp II- Gross	16,942,354	0.2	1.9	--	4.4	--	7.2	--	--	--	--	--	4.8	Jun-15
Athyrium Opp II- Net			1.9	--	4.4	--	7.2	--	--	--	--	--	4.8	
<i>Credit Suisse Leveraged Loan + 2%</i>			2.1	--	5.5	--	6.6	--	6.4	--	6.2	--	6.5	Jun-15
Athyrium Opp III- Gross	6,978,488	0.1	-0.6	--	-10.9	--	--	--	--	--	--	--	-10.9	May-17
Athyrium Opp III- Net			-0.6	--	-10.9	--	--	--	--	--	--	--	-10.9	
<i>Credit Suisse Leveraged Loan + 2%</i>			2.1	--	5.5	--	6.6	--	6.4	--	6.2	--	5.6	May-17
Benefit St Pr Sr Secure Opp- Gross*	32,278,594	0.4	--	--	--	--	--	--	--	--	--	--	0.0	Jan-18
Benefit St Pr Sr Secure Opp- Net			--	--	--	--	--	--	--	--	--	--	0.0	
<i>Credit Suisse Leveraged Loan + 2%</i>			2.1	--	5.5	--	6.6	--	6.4	--	6.2	--	0.8	Jan-18
Summit Credit- Gross	3,834,489	0.0	0.9	--	2.7	--	7.0	--	8.8	--	9.7	--	7.8	Oct-11
Summit Credit- Net			0.9	--	2.7	--	7.0	--	8.8	--	9.7	--	7.8	
<i>Credit Suisse Leveraged Loan + 2%</i>			2.1	--	5.5	--	6.6	--	6.4	--	6.2	--	7.2	Oct-11
Summit Credit II- Gross	22,868,276	0.2	3.2	--	8.4	--	12.8	--	8.4	--	--	--	7.0	Nov-14
Summit Credit II- Net			3.2	--	8.4	--	12.8	--	8.4	--	--	--	7.0	
<i>Credit Suisse Leveraged Loan + 2%</i>			2.1	--	5.5	--	6.6	--	6.4	--	6.2	--	6.2	Nov-14
TCP Direct Lending VIII- Gross** TCP	4,999,700	0.1	--	--	--	--	--	--	--	--	--	--	0.0	Feb-18
Direct Lending VIII- Net			--	--	--	--	--	--	--	--	--	--	0.0	
<i>Credit Suisse Leveraged Loan + 2%</i>			2.1	--	5.5	--	6.6	--	6.4	--	6.2	--	0.5	Feb-18

++ Returns are lagged one quarter.

\* Funded in January 2018.

\*\* Funded in February 2018.

# Total Fund Performance Summary

Period Ending: March 31, 2018

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	Fiscal YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	Inception (%)	Inception Date
<b>Growth Oriented Absolute Return- Gross<sup>++</sup></b>	<b>371,442,528</b>	<b>4.0</b>	<b>0.0</b>	<b>--</b>	<b>4.3</b>	<b>--</b>	<b>6.8</b>	<b>--</b>	<b>3.7</b>	<b>--</b>	<b>5.5</b>	<b>--</b>	<b>5.0</b>	<b>Aug-04</b>
<b>Growth Oriented Absolute Return- Net</b>			<b>0.0</b>	<b>--</b>	<b>4.3</b>	<b>--</b>	<b>6.8</b>	<b>--</b>	<b>3.7</b>	<b>--</b>	<b>5.5</b>	<b>--</b>	<b>5.0</b>	
<i>HFRI FoF Composite Index + 1%<sup>1</sup></i>			<i>0.5</i>	<i>--</i>	<i>5.5</i>	<i>--</i>	<i>7.0</i>	<i>--</i>	<i>5.8</i>	<i>--</i>	<i>5.5</i>	<i>--</i>	<i>6.4</i>	<i>Aug-04</i>
Grosvenor- Gross	98,012	0.0	-1.7	88	-53.8	99	-54.4	99	-11.8	99	-5.6	99	0.3	Aug-04
Grosvenor- Net			-1.7	88	-53.8	99	-54.4	99	-11.8	99	-5.6	99	-0.1	
<i>HFRI FoF Composite Index + 1%</i>			<i>0.5</i>	<i>58</i>	<i>5.5</i>	<i>40</i>	<i>7.0</i>	<i>37</i>	<i>5.8</i>	<i>15</i>	<i>5.5</i>	<i>34</i>	<i>6.4</i>	<i>Aug-04</i>
<i>eV Alt Fund of Funds - Multi-Strategy Median</i>			<i>0.9</i>		<i>4.8</i>		<i>5.9</i>		<i>2.8</i>		<i>4.5</i>		<i>4.7</i>	<i>Aug-04</i>
Grosvenor SCARF Growth- Gross	156,239,165	1.7	0.8	51	6.4	31	8.5	26	3.7	31	5.3	35	6.6	Nov-11
Grosvenor SCARF Growth- Net			0.8	51	6.4	31	8.5	26	3.7	31	5.3	35	6.6	
<i>HFRI FoF Composite Index + 1%</i>			<i>0.5</i>	<i>58</i>	<i>5.5</i>	<i>40</i>	<i>7.0</i>	<i>37</i>	<i>5.8</i>	<i>15</i>	<i>5.5</i>	<i>34</i>	<i>5.4</i>	<i>Nov-11</i>
<i>eV Alt Fund of Funds - Multi-Strategy Median</i>			<i>0.9</i>		<i>4.8</i>		<i>5.9</i>		<i>2.8</i>		<i>4.5</i>		<i>5.4</i>	<i>Nov-11</i>
Grosvenor SCARF B Growth- Gross	34,244,466	0.4	0.9	49	4.8	50	7.5	33	3.2	40	4.8	44	5.1	Jan-13
Grosvenor SCARF B Growth- Net			0.9	49	4.8	50	7.5	33	3.2	40	4.8	44	5.1	
<i>HFRI FoF Composite Index + 1%</i>			<i>0.5</i>	<i>58</i>	<i>5.5</i>	<i>40</i>	<i>7.0</i>	<i>37</i>	<i>5.8</i>	<i>15</i>	<i>5.5</i>	<i>34</i>	<i>5.5</i>	<i>Jan-13</i>
<i>eV Alt Fund of Funds - Multi-Strategy Median</i>			<i>0.9</i>		<i>4.8</i>		<i>5.9</i>		<i>2.8</i>		<i>4.5</i>		<i>4.7</i>	<i>Jan-13</i>
JANA Partners- Gross	40,038,737	0.4	-2.3	79	-2.4	88	-1.0	87	-0.1	90	--	--	2.7	Jul-13
JANA Partners- Net			-2.3	79	-2.4	88	-1.0	87	-0.1	90	--	--	2.7	
<i>HFRI FoF Composite Index + 1%</i>			<i>0.5</i>	<i>43</i>	<i>5.5</i>	<i>39</i>	<i>7.0</i>	<i>39</i>	<i>5.8</i>	<i>40</i>	<i>5.5</i>	<i>51</i>	<i>5.5</i>	<i>Jul-13</i>
<i>eV Alt All Event Driven Median</i>			<i>0.2</i>		<i>3.7</i>		<i>5.1</i>		<i>4.7</i>		<i>5.6</i>		<i>5.3</i>	<i>Jul-13</i>
Lakewood- Gross	43,923,452	0.5	-3.4	79	0.4	83	1.9	81	5.9	47	--	--	6.7	Jun-13
Lakewood- Net			-3.4	79	0.4	83	1.9	81	5.9	47	--	--	6.7	
<i>HFRI FoF Composite Index + 1%</i>			<i>0.5</i>	<i>48</i>	<i>5.5</i>	<i>61</i>	<i>7.0</i>	<i>62</i>	<i>5.8</i>	<i>48</i>	<i>5.5</i>	<i>67</i>	<i>5.5</i>	<i>Jun-13</i>
<i>eV Alt Fundamental - Long/Short Equity Median</i>			<i>0.4</i>		<i>7.2</i>		<i>9.5</i>		<i>5.5</i>		<i>7.1</i>		<i>6.9</i>	<i>Jun-13</i>

<sup>++</sup> Absolute Return managers are ranked in the eVest net of fee universe.

<sup>\*</sup> Composite reflects net returns from Cliffwater up to March 2017.

1. See Policy Index and Benchmark History.

Total Fund  
Performance Summary

Period Ending: March 31, 2018

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	Fiscal YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	Inception (%)	Inception Date
OZ Domestic II- Gross	47,816,595	0.5	2.2	20	6.0	41	9.8	27	4.2	48	6.3	43	7.8	Dec-11
OZ Domestic II- Net			2.2	20	6.0	41	9.8	27	4.2	48	6.3	43	7.7	
<i>HFRI FoF Composite Index + 1%</i>			0.5	47	5.5	43	7.0	40	5.8	38	5.5	48	5.4	Dec-11
<i>eV Alt All Multi-Strategy Median</i>			0.3		4.6		5.5		3.6		5.0		5.8	Dec-11
Third Point Offshore Fund- Gross	49,082,101	0.5	-0.4	62	5.9	35	10.8	25	6.3	38	8.6	24	11.0	Apr-12
Third Point Offshore Fund- Net			-0.4	62	5.9	35	10.8	25	6.3	38	8.6	24	11.0	
<i>HFRI FoF Composite Index + 1%</i>			0.5	43	5.5	39	7.0	39	5.8	40	5.5	51	5.4	Apr-12
<i>eV Alt All Event Driven Median</i>			0.2		3.7		5.1		4.7		5.6		6.4	Apr-12
<b>Diversifying Asset Category- Gross</b>	<b>1,997,979,321</b>	<b>21.7</b>	<b>-0.4</b>	<b>--</b>	<b>1.6</b>	<b>--</b>	<b>3.2</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>3.2</b>	<b>Mar-17</b>
<b>Diversifying Asset Category- Net</b>			<b>-0.5</b>	<b>--</b>	<b>1.5</b>	<b>--</b>	<b>3.1</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>3.1</b>	
<i>Diversifying Custom<sup>1</sup></i>			-0.3	--	1.3	--	2.9	--	--	--	--	--	2.9	Mar-17
<b>Core/Core Plus Fixed Income- Gross</b>	<b>850,866,134</b>	<b>9.2</b>	<b>-1.3</b>	<b>--</b>	<b>0.4</b>	<b>--</b>	<b>2.2</b>	<b>--</b>	<b>2.0</b>	<b>--</b>	<b>2.4</b>	<b>--</b>	<b>3.0</b>	<b>Jun-11</b>
<b>Core/Core Plus Fixed Income- Net</b>			<b>-1.3</b>	<b>--</b>	<b>0.3</b>	<b>--</b>	<b>2.1</b>	<b>--</b>	<b>1.9</b>	<b>--</b>	<b>2.3</b>	<b>--</b>	<b>2.9</b>	
<i>BBgBarc US Aggregate TR</i>			-1.5	--	-0.2	--	1.2	--	1.2	--	1.8	--	2.7	Jun-11
Prudential- Gross	433,007,754	4.7	-1.3	45	0.9	7	3.2	4	2.9	5	--	--	3.8	Jul-14
Prudential- Net			-1.4	54	0.8	10	3.0	4	2.7	5	--	--	3.6	
<i>BBgBarc US Aggregate TR</i>			-1.5	67	-0.2	79	1.2	82	1.2	90	1.8	87	2.0	Jul-14
<i>eV US Core Fixed Inc Gross Median</i>			-1.4		0.0		1.6		1.6		2.2		2.4	Jul-14
TCW MetWest Fixed- Gross	417,858,380	4.5	-1.1	22	0.4	24	1.8	35	1.7	43	2.3	38	5.9	Dec-01
TCW MetWest Fixed- Net			-1.2	25	0.2	37	1.7	43	1.5	59	2.1	59	5.7	
<i>BBgBarc US Aggregate TR</i>			-1.5	67	-0.2	79	1.2	82	1.2	90	1.8	87	4.4	Dec-01
<i>eV US Core Fixed Inc Gross Median</i>			-1.4		0.0		1.6		1.6		2.2		4.8	Dec-01
<b>U.S. Treasury- Gross</b>	<b>418,703,598</b>	<b>4.5</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>0.9</b>	<b>Feb-18</b>
<b>U.S. Treasury- Net</b>			<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>0.9</b>	
<i>BBgBarc US Treasury TR</i>			-1.2	--	-0.7	--	0.4	--	0.4	--	1.1	--	0.9	Feb-18

1. See Policy Index and Benchmark History.

# Total Fund Performance Summary

Period Ending: March 31, 2018

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	Fiscal YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	Inception (%)	Inception Date
Neuberger Berman- Gross*	418,703,598	4.5	-1.2	93	0.1	12	1.6	1	1.4	1	2.1	1	6.5	Jun-88
Neuberger Berman- Net			-1.2	93	0.0	13	1.6	1	1.3	1	2.0	1	6.4	
<i>BBgBarc US Govt TR</i>			-1.1	87	-0.7	94	0.4	71	0.5	98	1.1	79	5.8	Jun-88
<i>eV US Government Fixed Inc Gross Median</i>			-0.8		-0.3		0.8		0.9		1.2		--	Jun-88
<b>Global Fixed Income- Gross</b>	<b>236,956,837</b>	<b>2.6</b>	<b>3.9</b>	<b>--</b>	<b>7.0</b>	<b>--</b>	<b>11.9</b>	<b>--</b>	<b>4.7</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>3.7</b>	<b>May-13</b>
<b>Global Fixed Income- Net</b>			<b>3.8</b>	<b>--</b>	<b>6.7</b>	<b>--</b>	<b>11.5</b>	<b>--</b>	<b>4.3</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>3.4</b>	
<i>Brandywine Custom<sup>1</sup></i>			2.9	--	6.2	--	9.4	--	3.9	--	--	--	1.4	May-13
Brandywine Global- Gross	236,956,837	2.6	3.9	4	7.0	12	11.9	12	4.7	26	--	--	3.7	May-13
Brandywine Global- Net			3.8	4	6.7	14	11.5	12	4.3	32	--	--	3.4	
<i>Brandywine Custom<sup>1</sup></i>			2.9	8	6.2	17	9.4	17	3.9	43	--	--	1.4	May-13
<i>eV All Global Fixed Inc Gross Median</i>			0.4		3.2		5.4		3.7		3.0		3.1	May-13
<b>Diversifying Absolute Return- Gross* **</b>	<b>491,452,752</b>	<b>5.3</b>	<b>-0.6</b>	<b>--</b>	<b>2.1</b>	<b>--</b>	<b>1.1</b>	<b>--</b>	<b>1.0</b>	<b>--</b>	<b>2.0</b>	<b>--</b>	<b>2.4</b>	<b>Nov-11</b>
<b>Diversifying Absolute Return- Net</b>			<b>-0.6</b>	<b>--</b>	<b>2.1</b>	<b>--</b>	<b>1.1</b>	<b>--</b>	<b>1.0</b>	<b>--</b>	<b>2.0</b>	<b>--</b>	<b>2.4</b>	
<i>HFRI FoF Conservative Index<sup>1</sup></i>			0.6	--	3.1	--	4.5	--	5.0	--	5.0	--	5.0	Nov-11
AQR DELTA II- Gross	69,737,787	0.8	-3.8	89	0.5	84	-0.8	86	3.3	53	--	--	4.9	May-13
AQR DELTA II- Net			-3.8	89	0.5	84	-0.8	86	3.3	53	--	--	4.9	
<i>HFRI FoF Conservative Index</i>			0.6	46	3.1	63	4.5	58	5.0	43	5.0	50	5.0	May-13
<i>eV Alt All Multi-Strategy Median</i>			0.3		4.6		5.5		3.6		5.0		5.3	May-13
Brevan Howard US- Gross	34,015,703	0.4	0.2	36	0.1	70	-2.8	83	-2.3	73	--	--	-0.7	Feb-14
Brevan Howard US- Net			0.2	36	0.1	70	-2.8	83	-2.3	73	--	--	-0.7	
<i>HFRI FoF Conservative Index</i>			0.6	32	3.1	50	4.5	35	5.0	15	5.0	21	5.0	Feb-14
<i>HFRI Fund of Funds Composite Index</i>			0.3	36	4.7	41	5.6	32	1.9	32	3.4	33	2.5	Feb-14
<i>eV Alt All Macro Median</i>			-0.5		3.1		2.1		-0.2		2.2		2.5	Feb-14

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

1. See Policy Index and Benchmark History.

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

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

Total Fund  
Performance Summary

Period Ending: March 31, 2018

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	Fiscal YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	Inception (%)	Inception Date
Claren Road Credit- Gross	143,727	0.0	1.4	47	-17.4	98	-12.6	95	-5.8	99	-5.2	99	-3.1	Jan-12
Claren Road Credit- Net			1.4	47	-17.4	98	-12.6	95	-5.8	99	-5.2	99	-3.1	
<i>HFRI FoF Conservative Index</i>			0.6	68	3.1	59	4.5	56	5.0	49	5.0	54	5.0	Jan-12
<i>eV Alt Fundamental - Long/Short Credit Median</i>			1.2		4.2		5.2		5.0		5.8		6.2	Jan-12
Elliot Associates- Gross*	53,775,550	0.6	1.7	24	6.6	30	7.1	38	8.1	23	7.7	28	8.1	Apr-12
Elliot Associates- Net			1.7	24	6.6	30	7.1	38	8.1	23	7.7	28	8.1	
<i>HFRI FoF Conservative Index</i>			0.6	42	3.1	55	4.5	57	5.0	47	5.0	54	5.0	Apr-12
<i>eV Alt All Event Driven Median</i>			0.2		3.7		5.1		4.7		5.6		6.4	Apr-12
Graham Global Inv II- Gross	33,319,369	0.4	-5.6	76	1.6	47	-0.6	53	--	--	--	--	-3.5	Feb-17
Graham Global Inv II- Net			-5.6	76	1.6	47	-0.6	53	--	--	--	--	-3.5	
<i>HFRI FoF Conservative Index</i>			0.6	24	3.1	39	4.5	33	5.0	18	5.0	24	4.6	Feb-17
<i>eV Alt All Managed Futures Median</i>			-1.4		1.2		0.2		-0.6		2.5		-0.9	Feb-17
Grosvenor SCARF Diversifying- Gross	111,762,700	1.2	-0.1	76	-0.9	99	-1.6	98	-1.6	96	0.9	96	1.7	Nov-11
Grosvenor SCARF Diversifying- Net			-0.1	76	-0.9	99	-1.6	98	-1.6	96	0.9	96	1.7	
<i>HFRI FoF Conservative Index</i>			0.6	57	3.1	75	4.5	64	5.0	19	5.0	40	5.0	Nov-11
<i>eV Alt Fund of Funds - Multi-Strategy Median</i>			0.9		4.8		5.9		2.8		4.5		5.4	Nov-11
Grosvenor SCARF B Diversifying- Gross	107,260,191	1.2	0.3	66	-0.8	99	-2.5	99	-2.8	97	0.4	97	0.7	Jan-13
Grosvenor SCARF B Diversifying- Net			0.3	66	-0.8	99	-2.5	99	-2.8	97	0.4	97	0.7	
<i>HFRI FoF Conservative Index</i>			0.6	57	3.1	75	4.5	64	5.0	19	5.0	40	5.0	Jan-13
<i>eV Alt Fund of Funds - Multi-Strategy Median</i>			0.9		4.8		5.9		2.8		4.5		4.7	Jan-13
Laurion Capital- Gross	45,050,301	0.5	4.7	6	8.9	12	10.2	4	5.4	34	--	--	6.4	Mar-14
Laurion Capital- Net			4.7	6	8.9	12	10.2	4	5.4	34	--	--	6.4	
<i>HFRI FoF Conservative Index</i>			0.6	35	3.1	48	4.5	53	5.0	39	5.0	48	5.0	Mar-14
<i>eV Alt Relative Value - Equity Relative Value Median</i>			-0.8		2.5		4.6		3.3		4.5		4.2	Mar-14

+ Preliminary quarterly returns as of 03/31/2018 (Returns are not available at reporting period.)

Total Fund  
Performance Summary

Period Ending: March 31, 2018

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	Fiscal YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	Inception (%)	Inception Date
Winton Diversified Futures- Gross	36,387,423	0.4	-2.2	57	5.5	31	3.0	37	--	--	--	--	3.2	Dec-16
Winton Diversified Futures- Net			-2.2	57	5.5	31	3.0	37	--	--	--	--	3.2	
<i>HFRI FoF Conservative Index</i>			0.6	24	3.1	39	4.5	33	5.0	18	5.0	24	4.8	Dec-16
<i>eV Alt All Managed Futures Median</i>			-1.4		1.2		0.2		-0.6		2.5		-0.8	Dec-16
<b>Real Return (with SSgA RA Overlay Proxy)- Gross</b>	<b>1,540,818,122</b>	<b>16.7</b>	<b>2.8</b>	<b>--</b>	<b>10.0</b>	<b>--</b>	<b>12.4</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>12.4</b>	<b>Mar-17</b>
Real Return (with SSgA RA Overlay Proxy)- Net			2.7	--	9.8	--	12.2	--	--	--	--	--	12.2	
<i>Real Return Custom<sup>1</sup></i>			2.7	--	7.2	--	8.4	--	--	--	--	--	8.4	Mar-17
<b>Real Return Asset Category- Gross</b>	<b>1,235,354,308</b>	<b>13.4</b>	<b>4.1</b>	<b>--</b>	<b>11.5</b>	<b>--</b>	<b>14.8</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>14.8</b>	<b>Mar-17</b>
Real Return Asset Category- Net			4.1	--	11.3	--	14.6	--	--	--	--	--	14.6	
<i>Real Return Custom<sup>1</sup></i>			2.7	--	7.2	--	8.4	--	--	--	--	--	8.4	Mar-17
<b>Real Estate- Gross</b>	<b>829,422,777</b>	<b>9.0</b>	<b>3.3</b>	<b>1</b>	<b>10.9</b>	<b>1</b>	<b>14.9</b>	<b>1</b>	<b>11.2</b>	<b>7</b>	<b>12.3</b>	<b>7</b>	<b>12.4</b>	<b>Jun-11</b>
Real Estate- Net			3.2	1	10.6	1	14.7	1	10.5	9	11.3	18	11.5	
<i>Real Estate Custom<sup>1</sup></i>			2.8	3	6.1	19	8.0	22	9.0	47	10.2	55	10.5	Jun-11
<i>InvestorForce All DB Real Estate Priv Net Median</i>			1.9		5.3		7.1		8.9		10.4		10.3	Jun-11
<b>Core RE -Separate- Gross</b>	<b>254,491,771</b>	<b>2.8</b>	<b>1.9</b>	<b>--</b>	<b>9.8</b>	<b>--</b>	<b>13.4</b>	<b>--</b>	<b>9.5</b>	<b>--</b>	<b>11.1</b>	<b>--</b>	<b>6.1</b>	<b>Sep-08</b>
Core RE -Separate- Net			1.7	--	9.4	--	13.0	--	8.7	--	10.0	--	5.2	
<i>NFI-ODCE</i>			2.2	--	6.3	--	8.1	--	10.0	--	11.4	--	5.4	Sep-08
BlackRock RE Leveraged- Gross	176,344,261	1.9	2.2	--	7.6	--	12.3	--	11.9	--	12.4	--	9.9	Dec-98
BlackRock RE Leveraged- Net			2.0	--	7.2	--	11.9	--	11.3	--	11.3	--	--	
<i>NFI-ODCE</i>			2.2	--	6.3	--	8.1	--	10.0	--	11.4	--	8.6	Dec-98
Cornerstone Leveraged- Gross	78,147,510	0.8	1.1	--	15.1	--	20.5	--	12.2	--	12.6	--	8.5	May-04
Cornerstone Leveraged- Net			1.1	--	14.6	--	19.9	--	11.2	--	11.5	--	--	
<i>NFI-ODCE</i>			2.2	--	6.3	--	8.1	--	10.0	--	11.4	--	8.3	May-04
BlackRock RE Unleveraged- Gross	--	--	2.0	--	6.7	--	10.8	--	11.3	--	11.5	--	10.3	Oct-95
BlackRock RE Unleveraged- Net			1.7	--	5.8	--	9.7	--	10.1	--	10.3	--	--	
<i>NFI-ODCE</i>			2.2	--	6.3	--	8.1	--	10.0	--	11.4	--	9.2	Oct-95

1. See Policy Index and Benchmark History.

Total Fund  
Performance Summary

Period Ending: March 31, 2018

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	Fiscal YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	Inception (%)	Inception Date
Cornerstone Unleveraged- Gross	--	--	1.0	--	10.6	--	14.4	--	8.6	--	9.4	--	7.2	Jun-04
Cornerstone Unleveraged- Net			0.9	--	10.3	--	13.9	--	8.1	--	8.9	--	--	
<i>NFI-ODCE</i>			2.2	--	6.3	--	8.1	--	10.0	--	11.4	--	8.3	Jun-04
<b>Core RE -Limited Partnership- Gross</b>	<b>379,638,727</b>	<b>4.1</b>	<b>2.3</b>	<b>--</b>	<b>10.5</b>	<b>--</b>	<b>13.1</b>	<b>--</b>	<b>11.9</b>	<b>--</b>	<b>12.2</b>	<b>--</b>	<b>4.7</b>	<b>Sep-08</b>
<b>Core RE -Limited Partnership- Net</b>			<b>2.3</b>	<b>--</b>	<b>10.3</b>	<b>--</b>	<b>12.8</b>	<b>--</b>	<b>11.5</b>	<b>--</b>	<b>11.6</b>	<b>--</b>	<b>4.0</b>	
<i>NFI-ODCE</i>			2.2	--	6.3	--	8.1	--	10.0	--	11.4	--	5.4	Sep-08
Jamestown Premier Property- Gross	17,283,960	0.2	3.0	--	13.2	--	15.5	--	12.3	--	--	--	12.1	Dec-13
Jamestown Premier Property- Net			3.0	--	13.2	--	15.5	--	12.3	--	--	--	12.1	
<i>NFI-ODCE</i>			2.2	--	6.3	--	8.1	--	10.0	--	11.4	--	10.8	Dec-13
Metlife Core Property- Gross	56,141,379	0.6	2.1	--	7.8	--	8.5	--	10.9	--	--	--	12.6	Dec-13
Metlife Core Property- Net			2.0	--	7.4	--	8.0	--	10.4	--	--	--	12.0	
<i>NFI-ODCE</i>			2.2	--	6.3	--	8.1	--	10.0	--	11.4	--	10.8	Dec-13
Prime Property- Gross	56,940,419	0.6	2.3	--	7.2	--	9.9	--	11.7	--	--	--	12.8	Sep-13
Prime Property- Net			2.0	--	6.5	--	8.8	--	10.5	--	--	--	11.6	
<i>NFI-ODCE</i>			2.2	--	6.3	--	8.1	--	10.0	--	11.4	--	11.0	Sep-13
Principal US Property- Gross	43,184,916	0.5	1.9	--	5.9	--	8.1	--	--	--	--	--	9.1	Oct-15
Principal US Property- Net			1.9	--	5.9	--	8.1	--	--	--	--	--	9.1	
<i>NFI-ODCE</i>			2.2	--	6.3	--	8.1	--	10.0	--	11.4	--	9.2	Oct-15
Prologis Targeted Euro Logistics- Gross	38,723,089	0.4	7.1	--	31.7	--	35.5	--	--	--	--	--	15.3	Oct-15
Prologis Targeted Euro Logistics- Net			7.1	--	31.7	--	35.5	--	--	--	--	--	15.3	
<i>NFI-ODCE</i>			2.2	--	6.3	--	8.1	--	10.0	--	11.4	--	9.2	Oct-15
Prologis Targeted US Logistics- Gross	64,585,277	0.7	3.8	--	16.9	--	20.8	--	--	--	--	--	17.8	Jul-15
Prologis Targeted US Logistics- Net			3.8	--	16.9	--	20.8	--	--	--	--	--	17.8	
<i>NFI-ODCE</i>			2.2	--	6.3	--	8.1	--	10.0	--	11.4	--	9.8	Jul-15
Townsend Real Estate- Gross	102,779,687	1.1	0.0	--	5.1	--	7.9	--	--	--	--	--	9.3	Mar-16
Townsend Real Estate- Net			0.0	--	5.1	--	7.9	--	--	--	--	--	9.3	
<i>NFI-ODCE</i>			2.2	--	6.3	--	8.1	--	10.0	--	11.4	--	8.2	Mar-16

+ Preliminary quarterly returns as of 03/31/2018 (Returns are not available at reporting period.)

Total Fund  
Performance Summary

Period Ending: March 31, 2018

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	Fiscal YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	Inception (%)	Inception Date
<b>Non-Core RE -Opportunistic- Gross**</b>	<b>137,035,655</b>	<b>1.5</b>	<b>8.5</b>	<b>--</b>	<b>19.9</b>	<b>--</b>	<b>24.4</b>	<b>--</b>	<b>20.3</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>32.8</b>	<b>Feb-14</b>
<b>Non-Core RE -Opportunistic- Net</b>			<b>8.5</b>	<b>--</b>	<b>19.9</b>	<b>--</b>	<b>24.4</b>	<b>--</b>	<b>19.2</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>31.6</b>	
<i>NFI-ODCE net +1% 1Q Lag</i>			3.9	--	5.8	--	7.7	--	10.4	--	--	--	11.5	Feb-14
Carlyle China Realty- Gross	3,527,965	0.0	2.2	--	-15.6	--	--	--	--	--	--	--	-15.6	Jun-17
Carlyle China Realty- Net			2.2	--	-15.6	--	--	--	--	--	--	--	-15.6	
<i>NFI-ODCE net +1% 1Q Lag</i>			3.9	--	5.8	--	7.7	--	10.4	--	--	--	5.8	Jun-17
Carlyle China Rome Logistics- Gross	10,698,728	0.1	4.4	--	-5.6	--	--	--	--	--	--	--	-5.6	Jun-17
Carlyle China Rome Logistics- Net			4.4	--	-5.6	--	--	--	--	--	--	--	-5.6	
<i>NFI-ODCE net +1% 1Q Lag</i>			3.9	--	5.8	--	7.7	--	10.4	--	--	--	5.8	Jun-17
CIM Opportunity VIII- Gross	28,370,849	0.3	-1.1	--	0.4	--	3.9	--	5.5	--	--	--	5.4	Feb-15
CIM Opportunity VIII- Net			-1.1	--	0.4	--	3.9	--	3.6	--	--	--	3.5	
<i>NFI-ODCE net +1% 1Q Lag</i>			3.9	--	5.8	--	7.7	--	10.4	--	--	--	11.2	Feb-15
Kohlberg Kravis Roberts- Gross	37,957,697	0.4	4.7	--	19.6	--	21.6	--	26.2	--	--	--	38.8	Feb-14
Kohlberg Kravis Roberts- Net			4.7	--	19.6	--	21.6	--	26.1	--	--	--	38.4	
<i>NFI-ODCE net +1% 1Q Lag</i>			3.9	--	5.8	--	7.7	--	10.4	--	--	--	11.5	Feb-14
NREP Nordic Strat FCP-FIS- Gross	16,197,852	0.2	21.1	--	56.4	--	65.0	--	36.4	--	--	--	33.2	Dec-14
NREP Nordic Strat FCP-FIS- Net			21.1	--	56.4	--	65.0	--	36.4	--	--	--	33.2	
<i>NFI-ODCE net +1% 1Q Lag</i>			3.9	--	5.8	--	7.7	--	10.4	--	--	--	10.7	Dec-14
NREP Nordic Strat II- Gross	22,681,012	0.2	24.1	--	50.3	--	55.4	--	--	--	--	--	21.0	Jun-16
NREP Nordic Strat II- Net			24.1	--	50.3	--	55.4	--	--	--	--	--	21.0	
<i>NFI-ODCE net +1% 1Q Lag</i>			3.9	--	5.8	--	7.7	--	10.4	--	--	--	8.1	Jun-16
OZ RE III- Gross	17,601,552	0.2	13.2	--	25.4	--	34.6	--	21.3	--	--	--	3.3	Sep-14
OZ RE III- Net			13.2	--	25.4	--	34.6	--	13.9	--	--	--	-2.2	
<i>NFI-ODCE net +1% 1Q Lag</i>			3.9	--	5.8	--	7.7	--	10.4	--	--	--	10.7	Sep-14

\*\* Returns are one-quarter lag.

# Total Fund Performance Summary

Period Ending: March 31, 2018

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	Fiscal YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	Inception (%)	Inception Date
<b>Non-Core RE -Value Added- Gross<sup>++</sup></b>	<b>58,256,624</b>	<b>0.6</b>	<b>4.9</b>	<b>--</b>	<b>1.6</b>	<b>--</b>	<b>13.7</b>	<b>--</b>	<b>7.1</b>	<b>--</b>	<b>9.8</b>	<b>--</b>	<b>-3.5</b>	<b>Sep-08</b>
<b>Non-Core RE -Value Added- Net</b>			<b>4.9</b>	<b>--</b>	<b>1.6</b>	<b>--</b>	<b>13.7</b>	<b>--</b>	<b>6.2</b>	<b>--</b>	<b>8.8</b>	<b>--</b>	<b>-4.8</b>	
<i>NFI-ODCE net +1% 1Q Lag<sup>1</sup></i>			3.9	--	5.8	--	7.7	--	10.7	--	11.8	--	8.0	Sep-08
AEW II- Gross	47,053	0.0	-4.6	--	-10.1	--	-17.4	--	-5.6	--	5.0	--	-0.1	May-07
AEW II- Net			-4.6	--	-10.1	--	-17.4	--	-6.2	--	4.1	--	-1.7	
<i>NFI-ODCE net +1% 1Q Lag</i>			3.9	--	5.8	--	7.7	--	10.7	--	11.8	--	--	May-07
ECE Euro Prime Shopping II- Gross	10,280,053	0.1	7.9	--	18.1	--	22.3	--	--	--	--	--	21.2	Jul-15
ECE Euro Prime Shopping II- Net			7.9	--	18.1	--	22.3	--	--	--	--	--	19.3	
<i>NFI-ODCE net +1% 1Q Lag</i>			3.9	--	5.8	--	7.7	--	10.7	--	11.8	--	10.4	Jul-15
European RE Debt II- Gross	12,787,730	0.1	9.9	--	23.4	--	63.5	--	7.5	--	--	--	6.4	Nov-13
European RE Debt II- Net			9.9	--	23.4	--	63.5	--	7.5	--	--	--	6.4	
<i>NFI-ODCE net +1% 1Q Lag</i>			3.9	--	5.8	--	7.7	--	10.7	--	11.8	--	12.0	Nov-13
Hammes II- Gross	18,979,986	0.2	2.6	--	-30.2	--	-28.6	--	--	--	--	--	-1.3	Jul-15
Hammes II- Net			2.6	--	-30.2	--	-28.6	--	--	--	--	--	-4.8	
<i>NFI-ODCE net +1% 1Q Lag</i>			3.9	--	5.8	--	7.7	--	10.7	--	11.8	--	10.4	Jul-15
Hines US Office II- Gross	587,083	0.0												
Hines US Office II- Net														
UBS RE- Gross	15,574,720	0.2	2.1	--	6.9	--	8.0	--	9.1	--	8.5	--	0.7	Sep-06
UBS RE- Net			2.1	--	6.9	--	8.0	--	8.7	--	8.1	--	-0.8	
<i>NFI-ODCE net +1% 1Q Lag</i>			3.9	--	5.8	--	7.7	--	10.7	--	11.8	--	--	Sep-06
<b>Private Real Assets- Gross<sup>++</sup></b>	<b>378,726,727</b>	<b>4.1</b>	<b>6.4</b>	<b>--</b>	<b>14.1</b>	<b>--</b>	<b>17.9</b>	<b>--</b>	<b>14.9</b>	<b>--</b>	<b>4.7</b>	<b>--</b>	<b>4.5</b>	<b>Jan-13</b>
<b>Private Real Assets- Net</b>			<b>6.4</b>	<b>--</b>	<b>14.1</b>	<b>--</b>	<b>17.9</b>	<b>--</b>	<b>14.9</b>	<b>--</b>	<b>4.7</b>	<b>--</b>	<b>4.5</b>	
<i>Private Real Assets Custom<sup>+</sup></i>			3.4	--	8.4	--	10.1	--	7.5	--	6.7	--	6.9	Jan-13
<i>CPI-U Headline +5%</i>			1.8	--	5.7	--	7.4	--	6.6	--	6.2	--	6.4	Jan-13

1. See Policy Index and Benchmark History.

+ Preliminary quarterly returns as of 03/31/2018.

++ Returns are one-quarter lag.

Total Fund  
Performance Summary

Period Ending: March 31, 2018

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	Fiscal YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	Inception (%)	Inception Date
ACM II- Gross	12,264,806	0.1	-1.5	--	-5.1	--	-6.8	--	--	--	--	--	-7.6	Sep-16
ACM II- Net			-1.5	--	-5.1	--	-6.8	--	--	--	--	--	-7.6	
<i>NCREIF Farmland 1 Qtr Lag</i>			2.9	--	5.7	--	6.2	--	7.9	--	11.3	--	7.1	Sep-16
ArcLight Energy VI- Gross	33,384,163	0.4	1.9	--	4.7	--	8.8	--	--	--	--	--	4.5	Aug-15
ArcLight Energy VI- Net			1.9	--	4.7	--	8.8	--	--	--	--	--	4.5	
<i>Cambridge Associates Private Infrastructure 1 Qtr Lag</i>			3.9	--	13.1	--	19.5	--	12.3	--	10.5	--	15.3	Aug-15
Atalaya SMA- Gross	26,724,263	0.3	2.2	--	7.2	--	8.7	--	--	--	--	--	7.0	May-15
Atalaya SMA- Net			2.2	--	7.2	--	8.7	--	--	--	--	--	7.0	
<i>Cambridge Associates Private Infrastructure 1 Qtr Lag</i>			3.9	--	13.1	--	19.5	--	12.3	--	10.5	--	13.1	May-15
Brookfield Infra III- Gross	15,700,924	0.2	4.8	--	8.7	--	11.4	--	--	--	--	--	14.3	May-16
Brookfield Infra III- Net			4.8	--	8.7	--	11.4	--	--	--	--	--	14.3	
<i>Cambridge Associates Private Infrastructure 1 Qtr Lag</i>			3.9	--	13.1	--	19.5	--	12.3	--	10.5	--	15.8	May-16
Carlyle Power II- Gross	19,830,169	0.2	39.4	--	37.5	--	34.4	--	--	--	--	--	2.2	Oct-15
Carlyle Power II- Net			39.4	--	37.5	--	34.4	--	--	--	--	--	2.2	
<i>Cambridge Associates Private Infrastructure 1 Qtr Lag</i>			3.9	--	13.1	--	19.5	--	12.3	--	10.5	--	13.9	Oct-15
EnCap Energy IX- Gross	24,933,195	0.3	6.1	--	3.6	--	2.6	--	19.0	--	-0.2	--	-0.2	Jan-13
EnCap Energy IX- Net			6.1	--	3.6	--	2.6	--	19.0	--	-0.2	--	-0.2	
<i>Cambridge Associates Private Energy 1 Qtr Lag</i>			3.5	--	4.8	--	7.0	--	0.2	--	0.9	--	1.6	Jan-13
EnCap Energy X- Gross	27,758,177	0.3	2.4	--	3.4	--	4.4	--	--	--	--	--	-3.7	Apr-15
EnCap Energy X- Net			2.4	--	3.4	--	4.4	--	--	--	--	--	-3.7	
<i>Cambridge Associates Private Energy 1 Qtr Lag</i>			3.5	--	4.8	--	7.0	--	0.2	--	0.9	--	0.2	Apr-15

Total Fund  
Performance Summary

Period Ending: March 31, 2018

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	Fiscal YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	Inception (%)	Inception Date
EnCap Flatrock Midstream IV- Gross	903,032	0.0	--	--	--	--	--	--	--	--	--	--	0.0	Feb-18
EnCap Flatrock Midstream IV- Net			--	--	--	--	--	--	--	--	--	--	0.0	
<i>Cambridge Associates Private Infrastructure 1 Qtr Lag</i>			3.9	--	13.1	--	19.5	--	12.3	--	10.5	--	3.9	Feb-18
EnCap Flatrock Midstream III- Gross	7,241,159	0.1	14.6	--	30.6	--	29.6	--	29.5	--	--	--	9.7	Jul-14
EnCap Flatrock Midstream III- Net			14.6	--	30.6	--	29.6	--	29.5	--	--	--	9.7	
<i>Cambridge Associates Private Infrastructure 1 Qtr Lag</i>			3.9	--	13.1	--	19.5	--	12.3	--	10.5	--	11.2	Jul-14
First Reserve- Gross	16,037,755	0.2	8.7	--	10.3	--	60.3	--	17.0	--	--	--	-4.5	Dec-14
First Reserve- Net			8.7	--	10.3	--	60.3	--	17.0	--	--	--	-4.5	
<i>Cambridge Associates Private Infrastructure 1 Qtr Lag</i>			3.9	--	13.1	--	19.5	--	12.3	--	10.5	--	11.8	Dec-14
IFM Global Infrastructure US LP- Gross	94,501,066	1.0	4.5	--	9.2	--	--	--	--	--	--	--	9.2	Apr-17
IFM Global Infrastructure US LP- Net			4.5	--	9.2	--	--	--	--	--	--	--	9.2	
<i>Cambridge Associates Private Infrastructure 1 Qtr Lag</i>			3.9	--	13.1	--	19.5	--	12.3	--	10.5	--	19.5	Apr-17
Meridiam Infra N America III- Gross	324,425	0.0	-62.3	--	--	--	--	--	--	--	--	--	-79.8	Sep-17
Meridiam Infra N America III- Net			-62.3	--	--	--	--	--	--	--	--	--	-79.8	
<i>Cambridge Associates Private Infrastructure 1 Qtr Lag</i>			3.9	--	13.1	--	19.5	--	12.3	--	10.5	--	8.7	Sep-17
Pantheon Ventures- Gross	60,722,394	0.7	1.7	--	29.7	--	30.2	--	21.3	--	--	--	32.5	Jul-14
Pantheon Ventures- Net			1.7	--	29.7	--	30.2	--	21.3	--	--	--	32.5	
<i>Cambridge Associates Private Infrastructure 1 Qtr Lag</i>			3.9	--	13.1	--	19.5	--	12.3	--	10.5	--	11.2	Jul-14
Quantum Energy VI- Gross	22,945,782	0.2	21.3	--	38.3	--	37.4	--	31.2	--	--	--	27.7	Nov-14
Quantum Energy VI- Net			21.3	--	38.3	--	37.4	--	31.2	--	--	--	27.7	
<i>Cambridge Associates Private Energy 1 Qtr Lag</i>			3.5	--	4.8	--	7.0	--	0.2	--	0.9	--	-4.1	Nov-14

\* Funded in February 2018.

# Total Fund Performance Summary

Period Ending: March 31, 2018

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	Fiscal YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	Inception (%)	Inception Date
Quantum Energy VII- Gross	8,687,308	0.1	9.1	--	--	--	--	--	--	--	--	--	-3.6	Aug-17
Quantum Energy VII- Net			9.1	--	--	--	--	--	--	--	--	--	-3.6	
<i>Cambridge Associates Private Energy 1 Qtr Lag</i>			3.5	--	4.8	--	7.0	--	0.2	--	0.9	--	4.8	Aug-17
Wastewater Opportunity- Gross	6,768,109	0.1	-3.4	--	-8.4	--	-12.7	--	--	--	--	--	-38.2	Dec-15
Wastewater Opportunity- Net			-3.4	--	-8.4	--	-12.7	--	--	--	--	--	-38.2	
<i>Cambridge Associates Private Infrastructure 1 Qtr Lag</i>			3.9	--	13.1	--	19.5	--	12.3	--	10.5	--	14.2	Dec-15
<b>Commodities- Gross</b>	<b>27,204,804</b>	<b>0.3</b>	<b>0.1</b>	<b>--</b>	<b>1.5</b>	<b>--</b>	<b>-3.0</b>	<b>--</b>	<b>-5.7</b>	<b>--</b>	<b>-8.6</b>	<b>--</b>	<b>-6.4</b>	<b>May-08</b>
<b>Commodities- Net</b>			<b>-0.1</b>	<b>--</b>	<b>1.2</b>	<b>--</b>	<b>-3.4</b>	<b>--</b>	<b>-6.3</b>	<b>--</b>	<b>-9.3</b>	<b>--</b>	<b>--</b>	
<i>Bloomberg Commodity Index TR USD</i>			-0.4	--	6.9	--	3.7	--	-3.2	--	-8.3	--	-8.4	May-08
Gresham- Gross	27,204,804	0.3	0.1	--	10.8	--	7.5	--	-2.1	--	-7.1	--	-7.6	Apr-08
Gresham- Net			-0.1	--	10.3	--	6.8	--	-2.8	--	-7.7	--	--	
<i>Bloomberg Commodity Index TR USD</i>			-0.4	--	6.9	--	3.7	--	-3.2	--	-8.3	--	-8.1	Apr-08
<b>Opportunities Asset Category- Gross*</b>	<b>9,386,111</b>	<b>0.1</b>	<b>-2.0</b>	<b>--</b>	<b>-1.8</b>	<b>--</b>	<b>1.7</b>	<b>--</b>	<b>7.0</b>	<b>--</b>	<b>4.5</b>	<b>--</b>	<b>16.5</b>	<b>Oct-07</b>
<b>Opportunities Asset Category- Net</b>			<b>-2.0</b>	<b>--</b>	<b>-1.8</b>	<b>--</b>	<b>1.7</b>	<b>--</b>	<b>7.0</b>	<b>--</b>	<b>4.5</b>	<b>--</b>	<b>16.5</b>	
<i>Policy Index<sup>1</sup></i>			0.5	--	7.3	--	10.3	--	6.9	--	7.9	--	8.1	Oct-07
Atalaya Special Opportunities V- Gross	9,386,111	0.1	-2.0	--	-1.8	--	1.7	--	6.5	--	--	--	5.2	Jul-13
Atalaya Special Opportunities V- Net			-2.0	--	-1.8	--	1.7	--	6.5	--	--	--	5.2	
<i>Thomson Reuters CJA All PE 1 Qtr Lag</i>			4.1	--	11.2	--	14.9	--	11.2	--	16.7	--	14.8	Jul-13
<b>SSgA Real Asset Overlay Proxy- Gross</b>	<b>306,366,846</b>	<b>3.3</b>	<b>-3.5</b>	<b>--</b>	<b>3.0</b>	<b>--</b>	<b>2.3</b>	<b>--</b>	<b>1.2</b>	<b>--</b>	<b>0.7</b>	<b>--</b>	<b>1.1</b>	<b>Jan-08</b>
<b>SSgA Real Asset Overlay Proxy- Net</b>			<b>-3.6</b>	<b>--</b>	<b>2.8</b>	<b>--</b>	<b>2.1</b>	<b>--</b>	<b>0.9</b>	<b>--</b>	<b>0.5</b>	<b>--</b>	<b>0.9</b>	
<i>SSgA Real Asset<sup>1</sup></i>			-3.4	--	2.9	--	2.2	--	0.9	--	0.6	--	--	Jan-08

1. See Policy Index and Benchmark History.

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

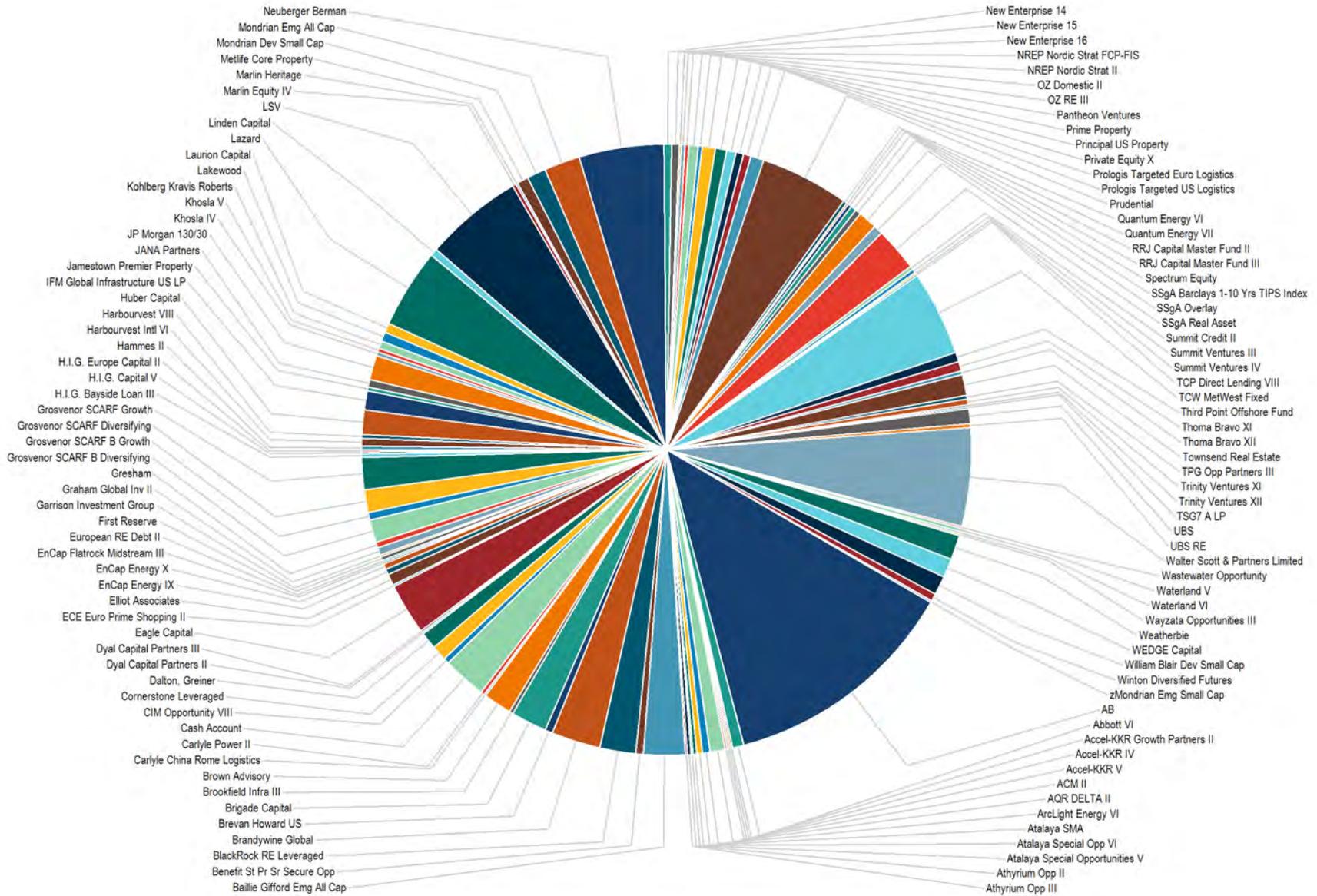
Total Fund  
Performance Summary

Period Ending: March 31, 2018

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	Fiscal YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	Inception (%)	Inception Date
Cash - Gross	212,803,972	2.3	-0.5	--	0.9	--	1.8	--	1.8	--	1.2	--	3.2	Jun-92
Cash - Net			-0.5	--	0.9	--	1.8	--	1.8	--	1.2	--	--	
91 Day T-Bills			0.4	--	0.9	--	1.2	--	0.5	--	0.3	--	2.5	Jun-92
Cash Account- Gross	212,803,972	2.3	-0.5	--	0.9	--	1.8	--	1.8	--	1.1	--	3.2	Jun-92
Cash Account- Net			-0.5	--	0.9	--	1.8	--	1.8	--	1.1	--	--	
91 Day T-Bills			0.4	--	0.9	--	1.2	--	0.5	--	0.3	--	2.5	Jun-92

# Total Fund Manager Allocation Analysis

Period Ending: March 31, 2018



Total Fund  
 Manager Allocation Analysis

Period Ending: March 31, 2018

	Current	%
AB	\$1,162,296,109	12.6%
JP Morgan 130/30	\$119,319,406	1.3%
Brown Advisory	\$136,545,946	1.5%
Eagle Capital	\$252,859,175	2.7%
Huber Capital	\$118,666,917	1.3%
UBS	\$76,346,055	0.8%
Weatherbie	\$118,893,370	1.3%
Dalton, Greiner	\$79,860,599	0.9%
WEDGE Capital	\$89,069,638	1.0%
CenterSquare	\$144,400	0.0%
Lazard	\$383,315,133	4.2%
Walter Scott & Partners Limited	\$481,834,935	5.2%
LSV	\$475,151,269	5.2%
Mondrian Dev Small Cap	\$94,955,378	1.0%
William Blair Dev Small Cap	\$95,345,791	1.0%
Baring	\$12,941	0.0%
Baillie Gifford Emg All Cap	\$199,022,340	2.2%
Mondrian Emg All Cap	\$177,744,383	1.9%
Mondrian Emg Small Cap	\$0	0.0%
CBRE Clarion	\$389,635	0.0%
Abbott VI	\$57,652,512	0.6%
Accel-KKR IV	\$11,884,999	0.1%
Accel-KKR V	\$5,502,329	0.1%
Accel-KKR Growth Partners II	\$5,660,639	0.1%
Atalaya Special Opp VI	\$18,634,848	0.2%
Davidson Kempner LT Dist Opp	\$1,750,000	0.0%
Dyal Capital Partners II	\$10,046,107	0.1%
Dyal Capital Partners III	\$12,616,097	0.1%

Total Fund  
 Manager Allocation Analysis

Period Ending: March 31, 2018

	Current	%
Garrison Investment Group	\$13,727,383	0.1%
Harbourvest VIII	\$21,828,846	0.2%
Harbourvest Intl VI	\$37,472,323	0.4%
H.I.G. Bayside Loan III	\$22,287,924	0.2%
H.I.G. Capital V	\$8,808,741	0.1%
H.I.G. Europe Capital II	\$9,055,861	0.1%
Khosla IV	\$15,206,616	0.2%
Khosla V	\$16,305,830	0.2%
Linden Capital	\$38,015,473	0.4%
Marlin Equity IV	\$18,800,289	0.2%
Marlin Equity V	\$2,045,582	0.0%
Marlin Heritage	\$8,782,660	0.1%
Marlin Heritage II	\$1,071,060	0.0%
Marlin Heritage Europe	\$4,507,081	0.0%
New Enterprise 14	\$36,263,741	0.4%
New Enterprise 15	\$34,143,926	0.4%
New Enterprise 16	\$5,942,169	0.1%
Private Equity X	\$35,736,270	0.4%
RRJ Capital Master Fund II	\$20,147,710	0.2%
RRJ Capital Master Fund III	\$24,724,981	0.3%
Spectrum Equity	\$23,279,325	0.3%
Summit EUR Growth Equity II	\$1,611,542	0.0%
Summit Ventures III	\$15,561,738	0.2%
Summit Ventures IV	\$12,883,409	0.1%
Thoma Bravo XI	\$42,612,403	0.5%
Thoma Bravo XII	\$20,286,459	0.2%
TPG Opp Partners III	\$21,742,984	0.2%
Trinity Ventures XI	\$26,178,713	0.3%

Total Fund  
 Manager Allocation Analysis

Period Ending: March 31, 2018

	Current	%
Trinity Ventures XII	\$11,523,382	0.1%
TSG7 A LP	\$6,875,254	0.1%
TSG7 B LP	\$315,913	0.0%
Waterland V	\$14,118,750	0.2%
Waterland VI	\$12,391,523	0.1%
Waterland VI Over	\$1,606	0.0%
Wayzata Opportunities III	\$7,100,366	0.1%
Brigade Capital	\$175,618,836	1.9%
Athyrium Opp II	\$16,942,354	0.2%
Athyrium Opp III	\$6,978,488	0.1%
Benefit St Pr Sr Secure Opp	\$32,278,594	0.4%
Summit Credit	\$3,834,489	0.0%
Summit Credit II	\$22,868,276	0.2%
TCP Direct Lending VIII	\$4,999,700	0.1%
Grosvenor	\$98,012	0.0%
Grosvenor SCARF Growth	\$156,239,165	1.7%
Grosvenor SCARF B Growth	\$34,244,466	0.4%
JANA Partners	\$40,038,737	0.4%
Lakewood	\$43,923,452	0.5%
OZ Domestic II	\$47,816,595	0.5%
Third Point Offshore Fund	\$49,082,101	0.5%
Prudential	\$433,007,754	4.7%
TCW MetWest Fixed	\$417,858,380	4.5%
Neuberger Berman	\$418,703,598	4.5%
Brandywine Global	\$236,956,837	2.6%
AQR DELTA II	\$69,737,787	0.8%
Brevan Howard US	\$34,015,703	0.4%
Claren Road Credit	\$143,727	0.0%

Total Fund  
 Manager Allocation Analysis

Period Ending: March 31, 2018

	Current	%
Elliot Associates	\$53,775,550	0.6%
Graham Global Inv II	\$33,319,369	0.4%
Grosvenor SCARF Diversifying	\$111,762,700	1.2%
Grosvenor SCARF B Diversifying	\$107,260,191	1.2%
Laurion Capital	\$45,050,301	0.5%
Winton Diversified Futures	\$36,387,423	0.4%
BlackRock RE Leveraged	\$176,344,261	1.9%
Cornerstone Leveraged	\$78,147,510	0.8%
BlackRock RE II Leveraged	\$0	0.0%
Jamestown Premier Property	\$17,283,960	0.2%
Metlife Core Property	\$56,141,379	0.6%
Prime Property	\$56,940,419	0.6%
Principal US Property	\$43,184,916	0.5%
Prologis Targeted Euro Logistics	\$38,723,089	0.4%
Prologis Targeted US Logistics	\$64,585,277	0.7%
Townsend Real Estate	\$102,779,687	1.1%
Carlyle China Realty	\$3,527,965	0.0%
Carlyle China Rome Logistics	\$10,698,728	0.1%
CIM Opportunity VIII	\$28,370,849	0.3%
Kohlberg Kravis Roberts	\$37,957,697	0.4%
NREP Nordic Strat FCP-FIS	\$16,197,852	0.2%
NREP Nordic Strat II	\$22,681,012	0.2%
OZ RE III	\$17,601,552	0.2%
AEW II	\$47,053	0.0%
ECE Euro Prime Shopping II	\$10,280,053	0.1%
European RE Debt II	\$12,787,730	0.1%
Hammes II	\$18,979,986	0.2%
Hines US Office II	\$587,083	0.0%

Total Fund  
 Manager Allocation Analysis

Period Ending: March 31, 2018

	Current	%
UBS RE	\$15,574,720	0.2%
ACM II	\$12,264,806	0.1%
ArcLight Energy VI	\$33,384,163	0.4%
Atalaya SMA	\$26,724,263	0.3%
Brookfield Infra III	\$15,700,924	0.2%
Carlyle Power II	\$19,830,169	0.2%
EnCap Energy IX	\$24,933,195	0.3%
EnCap Energy X	\$27,758,177	0.3%
EnCap Flatrock Midstream IV	\$903,032	0.0%
EnCap Flatrock Midstream III	\$7,241,159	0.1%
First Reserve	\$16,037,755	0.2%
IFM Global Infrastructure US LP	\$94,501,066	1.0%
Meridiam Infra N America III	\$324,425	0.0%
Pantheon Ventures	\$60,722,394	0.7%
Quantum Energy VI	\$22,945,782	0.2%
Quantum Energy VII	\$8,687,308	0.1%
Wastewater Opportunity	\$6,768,109	0.1%
Gresham	\$27,204,804	0.3%
Atalaya Special Opportunities V	\$9,386,111	0.1%
Cash Account	\$212,803,972	2.3%
Transition Account	\$183,201	0.0%
Heitman Adv JMB V	\$8,390	0.0%
SSgA Overlay	\$42,474,339	0.5%
SSgA Barclays 1-10 Yrs TIPS Index	\$91,764,045	1.0%
SSgA Real Asset	\$214,602,801	2.3%
SSgA S&P Global Infrastructure Index	\$0	0.0%
SSgA S&P MLP Index	\$0	0.0%
<b>Total</b>	<b>\$9,216,398,538</b>	<b>100.0%</b>

**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	7.3%	33	6.1%	57	1.1	38	0.2	56	1.9%	89
Policy Index	6.9%	58	5.0%	11	1.3	22	--	--	0.0%	1
Total Fund ex Overlay	7.6%	24	5.8%	41	1.2	29	0.4	43	1.7%	86
Policy Index	6.9%	58	5.0%	11	1.3	22	--	--	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	8.0%	51	5.9%	53	1.3	44	0.0	77	1.9%	88
Policy Index	7.9%	58	4.9%	10	1.6	18	--	--	0.0%	1
Total Fund ex Overlay	8.1%	48	5.6%	32	1.4	31	0.1	71	1.6%	81
Policy Index	7.9%	58	4.9%	10	1.6	18	--	--	0.0%	1

Total Fund  
Peer Universe Comparison

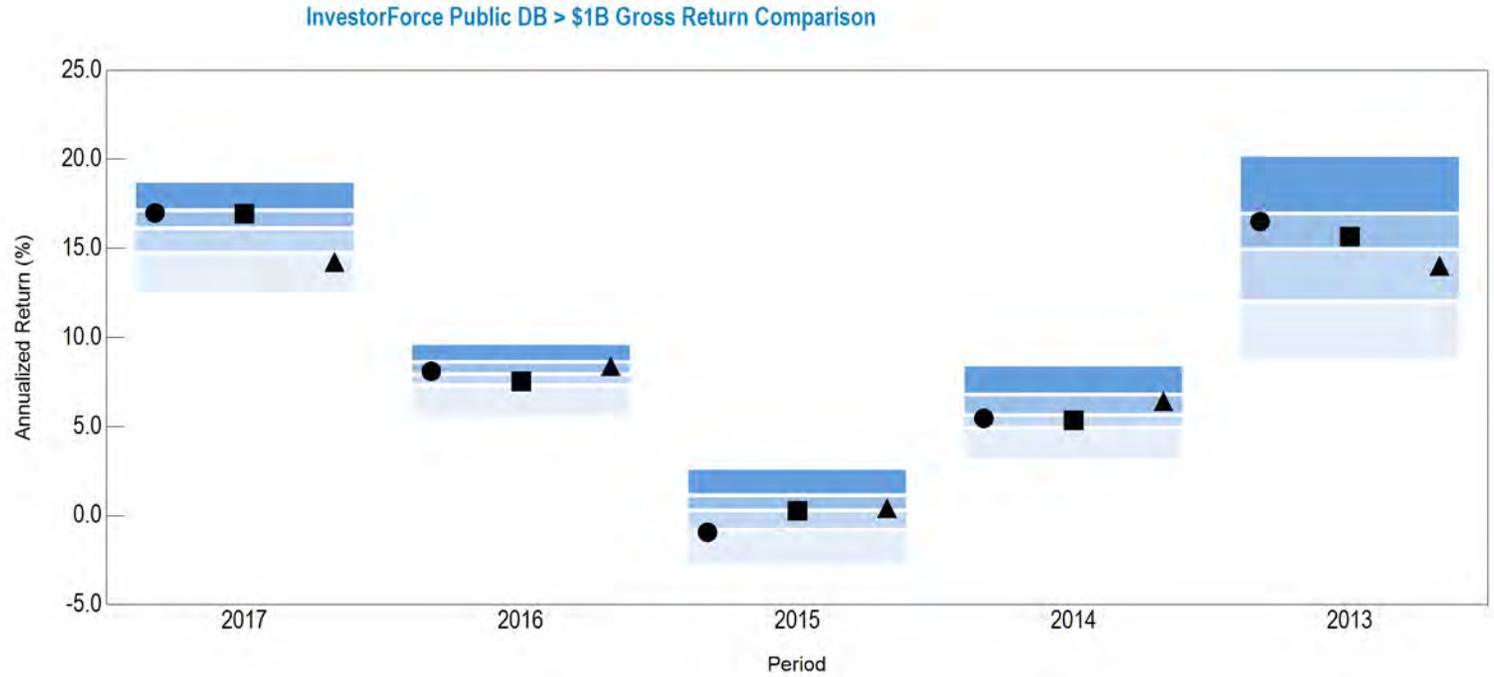
Period Ending: March 31, 2018



	Quarter		Fiscal YTD		1 Year		3 Years		5 Years		7 Years		10 Years	
<b>5th Percentile</b>	1.2		9.1		13.0		8.5		9.3		9.1		7.7	
<b>25th Percentile</b>	0.6		8.3		12.1		7.5		8.6		8.3		6.7	
<b>Median</b>	0.1		7.7		11.1		7.1		8.0		7.8		6.4	
<b>75th Percentile</b>	-0.3		7.0		10.1		6.5		7.2		7.1		5.8	
<b>95th Percentile</b>	-0.7		6.1		9.0		5.2		5.6		5.4		4.7	
<b># of Portfolios</b>	97		95		95		86		78		69		67	
<b>● Total Fund</b>	0.6	(25)	8.8	(12)	12.6	(11)	7.3	(33)	8.0	(51)	7.8	(52)	6.1	(66)
<b>■ Total Fund ex Overlay</b>	0.7	(16)	8.9	(7)	12.9	(8)	7.6	(24)	8.1	(48)	7.7	(58)	5.8	(73)
<b>▲ Policy Index</b>	0.5	(27)	7.3	(67)	10.3	(70)	6.9	(58)	7.9	(58)	7.6	(61)	6.1	(64)

Total Fund  
Peer Universe Comparison (Calendar Years)

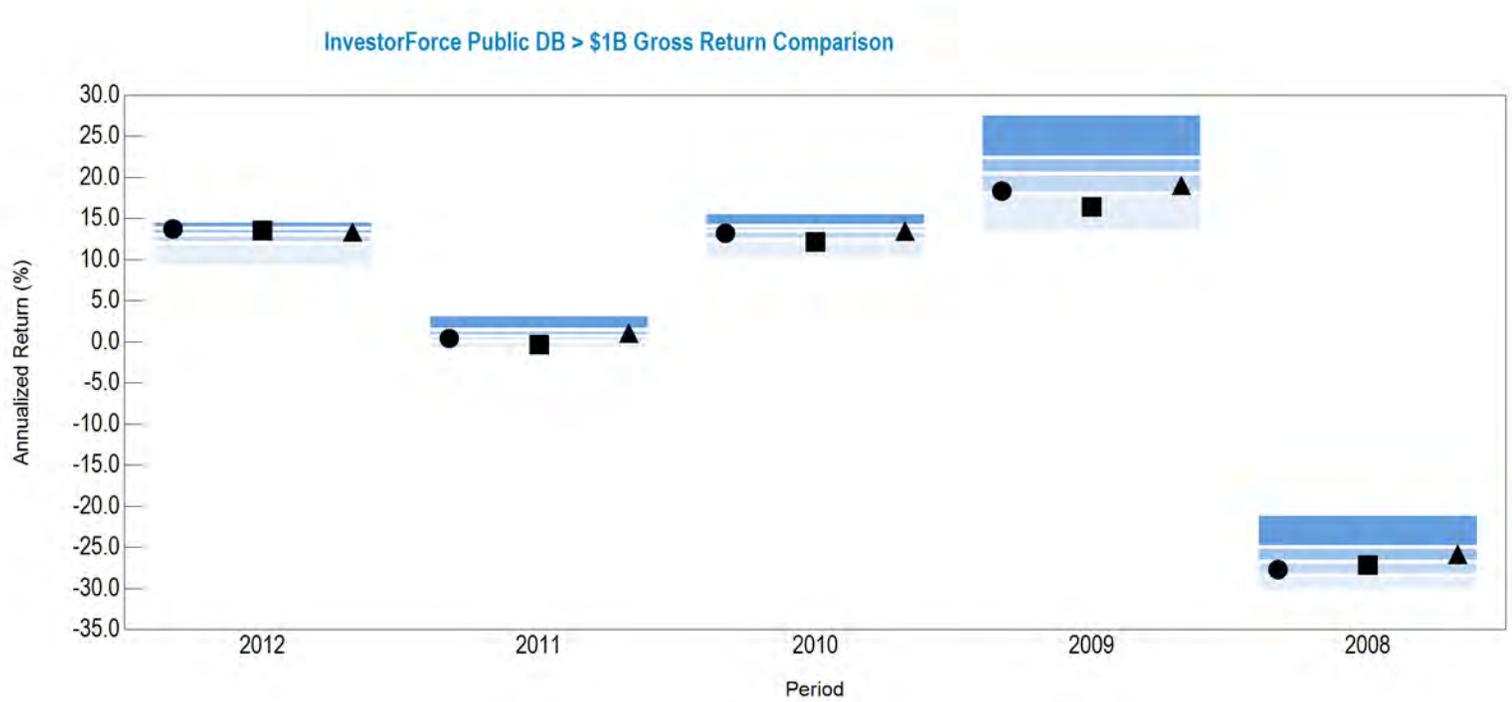
Period Ending: March 31, 2018



	2017		2016		2015		2014		2013	
5th Percentile	18.8		9.7		2.7		8.5		20.2	
25th Percentile	17.2		8.6		1.1		6.8		17.0	
Median	16.2		8.0		0.3		5.7		15.0	
75th Percentile	14.8		7.4		-0.7		4.9		12.0	
95th Percentile	12.4		5.5		-2.8		3.1		8.7	
# of Portfolios	98		92		98		79		67	
● Total Fund	17.0	(31)	8.1	(43)	-0.9	(83)	5.5	(61)	16.5	(31)
■ Total Fund ex Overlay	16.9	(31)	7.5	(69)	0.3	(51)	5.3	(65)	15.6	(43)
▲ Policy Index	14.2	(82)	8.4	(34)	0.4	(46)	6.4	(34)	14.0	(64)

Total Fund  
Peer Universe Comparison (Calendar Years)

Period Ending: March 31, 2018



	Return (Rank)				
	2012	2011	2010	2009	2008
5th Percentile	14.7	3.3	15.7	27.7	-21.0
25th Percentile	13.9	1.6	14.2	22.5	-24.9
Median	13.0	0.8	13.5	20.5	-26.7
75th Percentile	12.1	0.1	12.5	18.1	-28.3
95th Percentile	9.2	-0.9	10.2	13.4	-30.2
# of Portfolios	74	68	66	66	65
● Total Fund	13.7 (36)	0.4 (60)	13.2 (62)	18.3 (73)	-27.7 (65)
■ Total Fund ex Overlay	13.6 (41)	-0.3 (86)	12.2 (81)	16.4 (86)	-27.2 (53)
▲ Policy Index	13.4 (42)	1.0 (38)	13.5 (53)	19.0 (62)	-25.8 (42)

# Policy Index and Benchmark History

Period Ending: March 31, 2018

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%								
Citigroup BIG									23.0%
Citigroup 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 CJA 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%

# Policy Index and Benchmark History

Period Ending: March 31, 2018

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 CJA 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%

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 CJA 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%

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%
Citigroup 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	
Citigroup 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	7/1/2011
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%

## Policy Index and Benchmark History

Period Ending: March 31, 2018

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%

Brandywine Benchmark	As of:
	6/1/13
Citigroup 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:	
	10/1/15	2/1/08
BBgBarc US Govt Inflation-Linked 1-10 Yrs	10.0%	
BBgBarc US TIPS	10.0%	20.0%
BBgBarc Roll Select Commodity TR	20.0%	
DJ US Select REIT		30.0%
FTSE EPRA/NAREIT Developed Liquid	10.0%	
MSCI World Natural Resources	20.0%	25.0%
S&P Global Infrastructure	20.0%	
S&P GS Commodities		25.0%
S&P MLP	10.0%	
	100.0%	100.0%

# Glossary

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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