

PA Public School Employees' Retirement System | Fourth Quarter 2019

---

## Quarterly Investment Review

Visit the *Retirement and Investments Thought Leadership Site* (<https://retirement-investment-insights.aon.com>); sharing our best thinking.

As of December 31, 2019

## Market Highlights

	Performance(%)											Inception Date
	1 Quarter	YTD	FYTD	1 Year	3 Years	5 Years	10 Years	15 Years	20 Years	25 Years	Since Inception	
<b>Equity</b>												
S&P 500 Index	9.07	31.49	10.92	31.49	15.27	11.70	13.56	9.00	6.06	10.22	10.21	01/01/1926
S&P MidCap 400	7.06	26.20	6.97	26.20	9.26	9.03	12.72	9.48	9.50	12.08	13.20	01/01/1985
S&P SmallCap 600	8.21	22.78	8.00	22.78	8.36	9.56	13.35	9.20	9.80	11.21	11.07	11/01/1994
MSCI EAFE Index (Net)	8.17	22.01	7.01	22.01	9.56	5.67	5.50	4.84	3.32	5.15	8.68	01/01/1970
MSCI AC World ex USA IMI Index (Net)	9.20	21.63	7.33	21.63	9.84	5.71	5.21	5.48	3.96	5.33	5.22	06/01/1994
MSCI AC World ex USA Index (Net)	8.92	21.51	6.96	21.51	9.87	5.51	4.97	5.25	3.85	5.48	4.95	01/01/2001
MSCI Emerging Markets Index (Net)	11.84	18.44	7.09	18.44	11.57	5.61	3.68	7.48	6.69	5.74	10.16	02/01/1988
MSCI Emerging Markets IMI (Net)	11.59	17.65	6.81	17.65	11.00	5.30	3.60	7.51	6.30	4.62	4.87	06/01/1994
<b>Fixed Income</b>												
Blmbg. Barc. U.S. Aggregate	0.18	8.72	2.45	8.72	4.03	3.05	3.75	4.15	5.03	5.57	7.31	01/01/1976
Barclays Universal Index	0.45	9.29	2.58	9.29	4.30	3.44	4.12	4.42	5.27	5.79	6.12	01/01/1990
Blmbg. Barc. U.S. Treasury: Long	-4.12	14.83	3.47	14.83	6.95	4.13	7.01	6.39	7.30	7.65	8.22	01/01/1973
Barclays Global Agg GDP Weighted Dev x U.S. Index (unhedged)	0.72	5.51	0.22	5.51	4.37	1.62	1.82	2.70	N/A	N/A	2.70	01/01/2005
Barclays Global Agg GDP Weighted Dev x U.S. Index (hedged)	-1.23	8.07	1.75	8.07	4.55	3.94	4.45	4.53	N/A	N/A	4.53	01/01/2005
Blmbg. Barc. U.S. Corp: High Yield	2.61	14.32	3.98	14.32	6.37	6.13	7.57	7.20	7.14	7.57	8.82	07/01/1983
S&P/LSTA Leveraged Loan Index + 200 bps	2.24	10.81	3.77	10.81	6.43	6.53	7.11	6.85	6.96	N/A	7.05	01/01/1997
JPM GBI-EM Broad Diversified	4.82	12.21	3.83	12.21	6.81	3.11	3.12	5.19	N/A	N/A	6.44	01/01/2003
JPM EMBI Global Diversified	1.81	15.04	3.34	15.04	6.69	6.24	6.90	7.26	8.89	10.34	9.03	01/01/1994
ICE BofAML Emerging Market Corporate Plus Index (U	2.21	12.49	3.81	12.49	6.02	5.74	6.28	6.17	7.01	N/A	7.37	01/01/1999
Blmbg. Barc. U.S. Govt Infl. Linked All Maturities	0.74	8.75	2.23	8.75	3.44	2.66	3.46	3.84	5.57	N/A	5.25	03/01/1997
Blmbg Barc World ex U.S. ILB Index (H\$)	-5.15	7.98	0.56	7.98	4.15	5.15	5.46	5.29	5.36	N/A	5.99	01/01/1997
ICE BofAML USD 3-Mo Deposit Offered Rate Average I	0.52	2.49	1.13	2.49	1.98	1.38	N/A	N/A	N/A	N/A	1.31	09/01/2014
ICE BofAML 3 Month U.S. T-Bill	0.46	2.28	1.03	2.28	1.67	1.07	0.58	1.39	1.78	2.48	4.84	01/01/1978
ICE BofAML US Treasury Bills 0-3M	0.44	2.21	0.98	2.21	1.62	1.02	0.54	1.32	1.69	2.39	2.49	07/01/1992

As of December 31, 2019

## Market Highlights

	Performance(%)											
	1 Quarter	YTD	FYTD	1 Year	3 Years	5 Years	10 Years	15 Years	20 Years	25 Years	Since Inception	Inception Date
<b>Infrastructure</b>												
FTSE Dev. Core Infrastr 50/50 Index (Net) (Hedged)	1.98	25.75	5.83	25.75	12.19	8.77	10.88	N/A	N/A	N/A	10.88	01/01/2010
FTSE Developed Core Infrac 50/50 Index (Net)	3.12	25.04	5.32	25.04	12.12	7.59	9.88	N/A	N/A	N/A	9.88	01/01/2010
<b>MLP</b>												
Alerian Midstream Energy Index	2.19	24.05	0.21	24.05	1.63	-0.99	N/A	N/A	N/A	N/A	2.68	10/01/2013
<b>Commodities</b>												
Bloomberg Commodity Index Total Return	4.42	7.69	2.50	7.69	-0.94	-3.92	-4.73	-2.55	1.03	1.70	2.08	02/01/1991
Bloomberg Gold Subindex Total Return	3.34	18.03	7.29	18.03	8.97	4.43	2.69	7.81	8.00	5.41	4.87	02/01/1991
<b>Real Estate</b>												
Burgiss (Lagged) - Opportunistic	1.03	6.20	2.99	6.20	9.37	8.84	9.84	8.60	8.83	9.38	8.98	04/01/1993
Burgiss (Lagged) - Value Added	0.75	6.00	2.58	6.00	10.00	10.98	11.13	9.45	9.47	9.89	9.78	04/01/1994
NCREIF ODCE NOF 1 Quarter Lag	1.08	4.65	1.86	4.65	6.34	8.36	9.84	6.88	7.27	8.02	6.85	04/01/1981
FTSE EPRA/NAREIT Developed Index (Net)	1.75	21.91	6.46	21.91	8.28	5.56	8.37	N/A	N/A	N/A	6.25	03/01/2005
FTSE EPRA/NAREIT Custom Dev 100% Hedged USD (Net)	0.95	22.75	6.91	22.75	8.49	6.49	N/A	N/A	N/A	N/A	10.65	01/01/2012
Wilshire US Real Estate Securities Index	-1.07	25.79	6.70	25.79	7.88	7.21	12.11	7.83	11.29	10.68	11.70	01/01/1978
<b>Risk Parity</b>												
Blended Policy (Risk Parity)	2.68	23.53	6.19	23.53	9.39	6.74	8.78	8.04	9.19	N/A	5.49	10/01/2012
<b>Absolute Return</b>												
HFRI FOF: Conservative Index + 100 bps	1.93	7.41	2.13	7.41	4.19	3.36	3.82	3.44	4.19	5.84	6.62	01/01/1990
<b>Private Equity</b>												
Burgiss Private Equity (1Q Lag)	0.54	7.78	4.26	7.78	12.98	10.97	12.63	9.62	6.81	N/A	6.47	04/01/1998

As of December 31, 2019

## Trailing Period Performance

	Performance(%)											Inception Date
	1 Quarter	YTD	FYTD	1 Year	3 Years	5 Years	10 Years	15 Years	20 Years	25 Years	Since Inception	
<b>PSERS Total Fund Composite</b>	2.09	12.92	4.14	12.92	8.40	6.83	8.11	6.50	5.82	8.17	9.64	07/01/1982
<i>Blended Policy (Total Plan)</i>	1.94	14.29	4.47	14.29	8.64	6.87	7.64	6.18	5.16	N/A	N/A	
Value Added	0.15	-1.37	-0.33	-1.37	-0.24	-0.04	0.47	0.32	0.66	N/A	N/A	
<b>Total Public Global and Private Equity Exposure (hedged)</b>	4.69	16.53	6.46	16.53	12.14	9.37	N/A	N/A	N/A	N/A	8.98	10/01/2014
<i>Blended Policy (Total Equity Exposure)</i>	4.53	16.32	6.61	16.32	12.36	9.77	N/A	N/A	N/A	N/A	9.49	
Value Added	0.16	0.21	-0.15	0.21	-0.22	-0.40	N/A	N/A	N/A	N/A	-0.51	
<b>Total Fixed Income Exposure</b>	-1.03	9.71	2.09	9.71	6.54	5.90	7.18	6.55	7.04	N/A	6.73	07/01/1998
<i>Blended Policy (Total FI)</i>	-0.91	11.36	2.70	11.36	5.23	4.44	4.93	5.36	5.99	N/A	5.76	
Value Added	-0.12	-1.65	-0.61	-1.65	1.31	1.46	2.25	1.19	1.05	N/A	0.97	
<b>Total Real Asset Exposure (unlevered/hedged)</b>	2.21	12.57	3.31	12.57	5.90	4.49	N/A	N/A	N/A	N/A	3.89	10/01/2014
<i>Blended Policy (Real Assets) (Hedged)</i>	2.32	12.04	3.05	12.04	5.96	4.38	N/A	N/A	N/A	N/A	3.72	
Value Added	-0.11	0.53	0.26	0.53	-0.06	0.11	N/A	N/A	N/A	N/A	0.17	
<b>Risk Parity Composite (vol adjusted)</b>	2.86	20.63	5.28	20.63	8.29	5.69	N/A	N/A	N/A	N/A	4.84	10/01/2012
<i>Blended Policy (Risk Parity)</i>	2.68	23.53	6.19	23.53	9.39	6.74	8.78	8.04	9.19	N/A	5.49	
Value Added	0.18	-2.90	-0.91	-2.90	-1.10	-1.05	N/A	N/A	N/A	N/A	-0.65	
<b>Total Absolute Return Composite</b>	2.23	4.00	2.86	4.00	3.99	3.93	5.52	N/A	N/A	N/A	5.05	10/01/2005
<i>Blended Policy (Absolute Return)</i>	1.93	6.53	3.38	6.53	5.75	5.07	6.16	6.77	7.08	7.26	6.71	
Value Added	0.30	-2.53	-0.52	-2.53	-1.76	-1.14	-0.64	N/A	N/A	N/A	-1.66	
<b>Financing Composite</b>	0.43	N/A	0.95	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.95	07/01/2019
<i>ICE BofAML USD 3-Mo Deposit Offered Rate Average Index</i>	0.52	2.49	1.13	2.49	1.98	1.38	N/A	N/A	N/A	N/A	1.13	
Value Added	-0.09	N/A	-0.18	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-0.18	
<b>Cash &amp; Cash Equivalents</b>	0.48	2.28	1.01	2.28	1.85	1.25	1.42	0.76	0.46	N/A	0.61	07/01/1998
<i>ICE BofAML US Treasury Bills 0-3M</i>	0.44	2.21	0.98	2.21	1.62	1.02	0.54	1.32	1.69	2.39	1.90	
Value Added	0.04	0.07	0.03	0.07	0.23	0.23	0.88	-0.56	-1.23	N/A	-1.29	

As of December 31, 2019

## Trailing Period Performance

	Performance(%)											Inception Date
	1 Quarter	YTD	FYTD	1 Year	3 Years	5 Years	10 Years	15 Years	20 Years	25 Years	Since Inception	
<b>PSERS Total Fund Composite</b>	2.09	12.92	4.14	12.92	8.40	6.83	8.11	6.50	5.82	8.17	9.64	07/01/1982
<i>Blended Policy (Total Plan)</i>	1.94	14.29	4.47	14.29	8.64	6.87	7.64	6.18	5.16	N/A	N/A	
Value Added	0.15	-1.37	-0.33	-1.37	-0.24	-0.04	0.47	0.32	0.66	N/A	N/A	
<b>Total Public Global and Private Equity Exposure (hedged)</b>	4.69	16.53	6.46	16.53	12.14	9.37	N/A	N/A	N/A	N/A	8.98	10/01/2014
<i>Blended Policy (Total Equity Exposure)</i>	4.53	16.32	6.61	16.32	12.36	9.77	N/A	N/A	N/A	N/A	9.49	
Value Added	0.16	0.21	-0.15	0.21	-0.22	-0.40	N/A	N/A	N/A	N/A	-0.51	
<b>Total Public Global Equity Composite (hedged)</b>	9.17	26.11	9.53	26.11	12.28	9.31	10.34	7.98	6.39	N/A	7.20	07/01/1998
<i>Blended Policy (Public Equity) (Hedged)</i>	8.53	25.37	8.84	25.37	11.85	8.68	9.59	7.46	5.29	N/A	6.31	
Value Added	0.64	0.74	0.69	0.74	0.43	0.63	0.75	0.52	1.10	N/A	0.89	
<b>Total Private Equity (hedged)</b>	-0.11	7.01	3.06	7.01	12.45	9.80	11.04	11.84	10.26	N/A	10.25	07/01/1998
<i>Burgiss Private Equity (1Q Lag)</i>	0.54	7.78	4.26	7.78	12.98	10.97	12.63	9.62	6.81	N/A	6.50	
Value Added	-0.65	-0.77	-1.20	-0.77	-0.53	-1.17	-1.59	2.22	3.45	N/A	3.75	
<b>Total Fixed Income Exposure</b>	-1.03	9.71	2.09	9.71	6.54	5.90	7.18	6.55	7.04	N/A	6.73	07/01/1998
<i>Blended Policy (Total FI)</i>	-0.91	11.36	2.70	11.36	5.23	4.44	4.93	5.36	5.99	N/A	5.76	
Value Added	-0.12	-1.65	-0.61	-1.65	1.31	1.46	2.25	1.19	1.05	N/A	0.97	
<b>Investment Grade Composite</b>	-2.52	11.60	2.80	11.60	5.62	3.82	N/A	N/A	N/A	N/A	4.68	10/01/2014
<i>Blended Policy (Investment Grade)</i>	-2.41	12.48	3.14	12.48	5.88	3.83	4.96	5.00	N/A	N/A	4.33	
Value Added	-0.11	-0.88	-0.34	-0.88	-0.26	-0.01	N/A	N/A	N/A	N/A	0.35	
<b>Credit-Related (hedged)</b>	2.15	6.53	2.17	6.53	7.44	6.76	N/A	N/A	N/A	N/A	6.28	10/01/2014
<i>Blended Policy (Credit-Related)</i>	2.31	13.61	3.54	13.61	6.33	5.49	N/A	N/A	N/A	N/A	4.84	
Value Added	-0.16	-7.08	-1.37	-7.08	1.11	1.27	N/A	N/A	N/A	N/A	1.44	
<b>Inflation Protected (unlevered)</b>	-1.87	6.32	0.93	6.32	2.95	4.08	6.93	6.88	N/A	N/A	6.81	04/01/2004
<i>Blended Policy (Inflation Protected)</i>	-2.23	8.73	1.67	8.73	3.99	4.02	4.06	4.26	5.87	N/A	4.26	
Value Added	0.36	-2.41	-0.74	-2.41	-1.04	0.06	2.87	2.62	N/A	N/A	2.55	
<b>Total Real Asset Exposure (unlevered/hedged)</b>	2.21	12.57	3.31	12.57	5.90	4.49	N/A	N/A	N/A	N/A	3.89	10/01/2014
<i>Blended Policy (Real Assets) (Hedged)</i>	2.32	12.04	3.05	12.04	5.96	4.38	N/A	N/A	N/A	N/A	3.72	
Value Added	-0.11	0.53	0.26	0.53	-0.06	0.11	N/A	N/A	N/A	N/A	0.17	
<b>Total Infrastructure Composite (unlevered/hedged)</b>	0.56	17.09	-1.10	17.09	5.68	N/A	N/A	N/A	N/A	N/A	6.08	11/01/2015
<i>Blended Policy (Infrastructure Hedged)</i>	2.43	19.50	0.95	19.50	6.80	5.61	9.26	N/A	N/A	N/A	6.67	
Value Added	-1.87	-2.41	-2.05	-2.41	-1.12	N/A	N/A	N/A	N/A	N/A	-0.59	
<b>Total Commodities Composite (unlevered)</b>	4.18	10.97	4.39	10.97	3.36	0.62	-1.09	N/A	N/A	N/A	-0.55	11/01/2006
<i>Blended Policy (Commodities)</i>	4.02	11.67	4.40	11.67	2.84	-0.69	-2.67	N/A	N/A	N/A	-2.86	
Value Added	0.16	-0.70	-0.01	-0.70	0.52	1.31	1.58	N/A	N/A	N/A	2.31	

As of December 31, 2019

## Trailing Period Performance

	Performance(%)											Inception Date
	1 Quarter	YTD	FYTD	1 Year	3 Years	5 Years	10 Years	15 Years	20 Years	25 Years	Since Inception	
Total Real Estate (unlevered/hedged)	1.75	11.10	5.49	11.10	10.40	10.01	10.44	7.01	8.38	9.33	8.25	04/01/1981
<i>Blended Policy (Total Real Estate) (Hedged)</i>	0.93	7.68	3.30	7.68	9.07	9.25	10.16	8.81	8.99	9.51	8.54	
Value Added	0.82	3.42	2.19	3.42	1.33	0.76	0.28	-1.80	-0.61	-0.18	-0.29	
Risk Parity Composite (vol adjusted)	2.86	20.63	5.28	20.63	8.29	5.69	N/A	N/A	N/A	N/A	4.84	10/01/2012
<i>Blended Policy (Risk Parity)</i>	2.68	23.53	6.19	23.53	9.39	6.74	8.78	8.04	9.19	N/A	5.49	
Value Added	0.18	-2.90	-0.91	-2.90	-1.10	-1.05	N/A	N/A	N/A	N/A	-0.65	
Total Absolute Return Composite	2.23	4.00	2.86	4.00	3.99	3.93	5.52	N/A	N/A	N/A	5.05	10/01/2005
<i>Blended Policy (Absolute Return)</i>	1.93	6.53	3.38	6.53	5.75	5.07	6.16	6.77	7.08	7.26	6.71	
Value Added	0.30	-2.53	-0.52	-2.53	-1.76	-1.14	-0.64	N/A	N/A	N/A	-1.66	
Financing Composite	0.43	N/A	0.95	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.95	07/01/2019
<i>ICE BofAML USD 3-Mo Deposit Offered Rate Average Index</i>	0.52	2.49	1.13	2.49	1.98	1.38	N/A	N/A	N/A	N/A	1.13	
Value Added	-0.09	N/A	-0.18	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-0.18	
Cash & Cash Equivalents	0.48	2.28	1.01	2.28	1.85	1.25	1.42	0.76	0.46	N/A	0.61	07/01/1998
<i>ICE BofAML US Treasury Bills 0-3M</i>	0.44	2.21	0.98	2.21	1.62	1.02	0.54	1.32	1.69	2.39	1.90	
Value Added	0.04	0.07	0.03	0.07	0.23	0.23	0.88	-0.56	-1.23	N/A	-1.29	

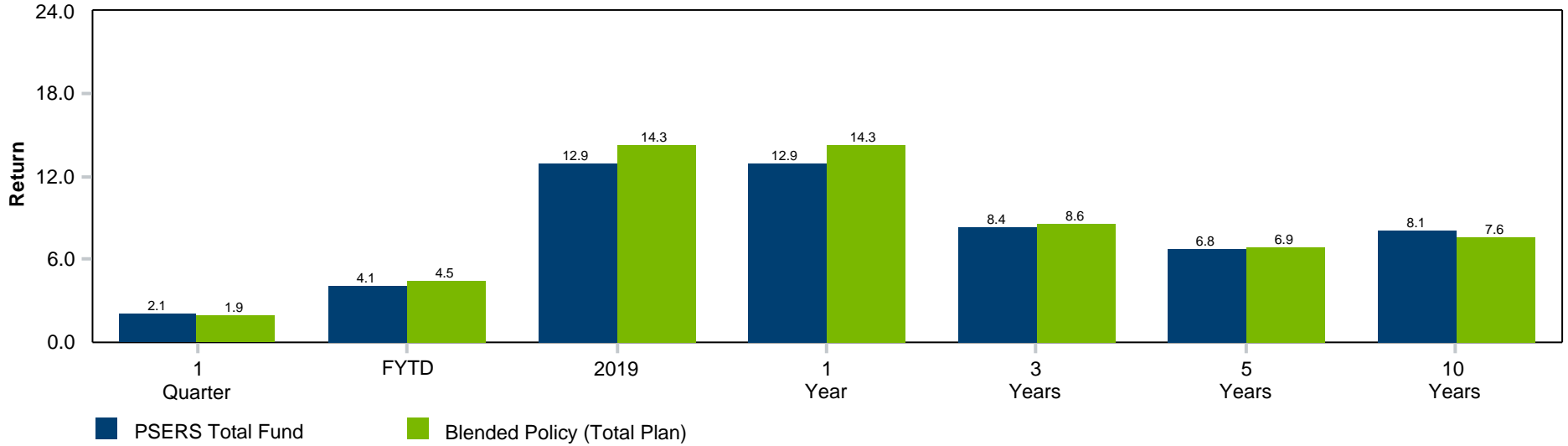
As of December 31, 2019

## Trailing Period Performance

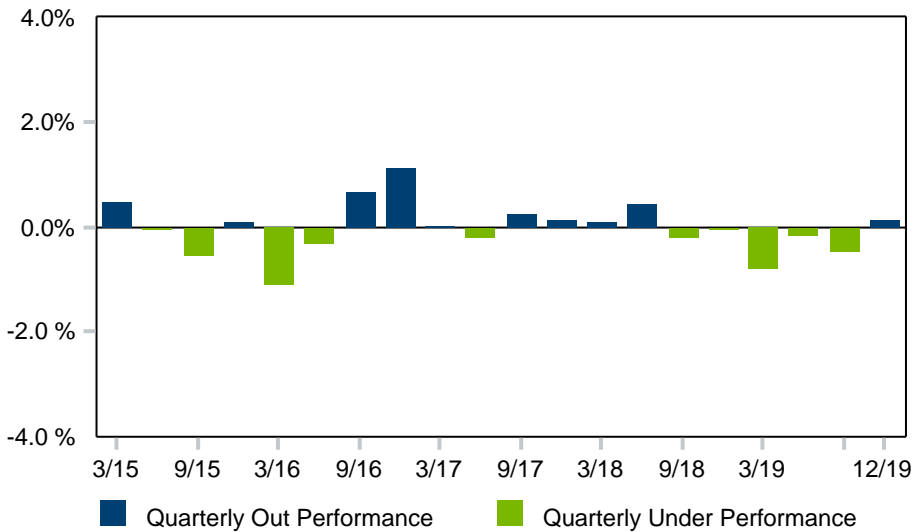
	Performance(%)													
	1 Quarter	2 Quarters	3 Quarters	YTD	FYTD	1 Year	3 Years	5 Years	10 Years	15 Years	20 Years	25 Years	Since Inception	Inception Date
PSERS Total Fund	2.09	4.14	7.39	12.92	4.14	12.92	8.40	6.83	8.11	6.50	5.82	8.17	9.64	07/01/1982
<i>Blended Policy (Total Plan)</i>	1.94	4.47	7.89	14.29	4.47	14.29	8.64	6.87	7.64	6.18	5.16	N/A	N/A	
Value Added	0.15	-0.33	-0.50	-1.37	-0.33	-1.37	-0.24	-0.04	0.47	0.32	0.66	N/A	N/A	

Performance Summary

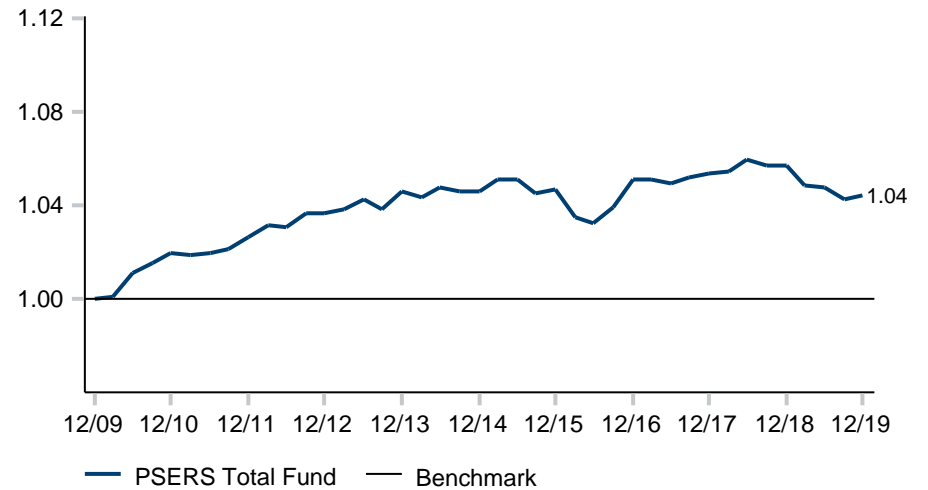
Return Summary



Quarterly Excess Performance



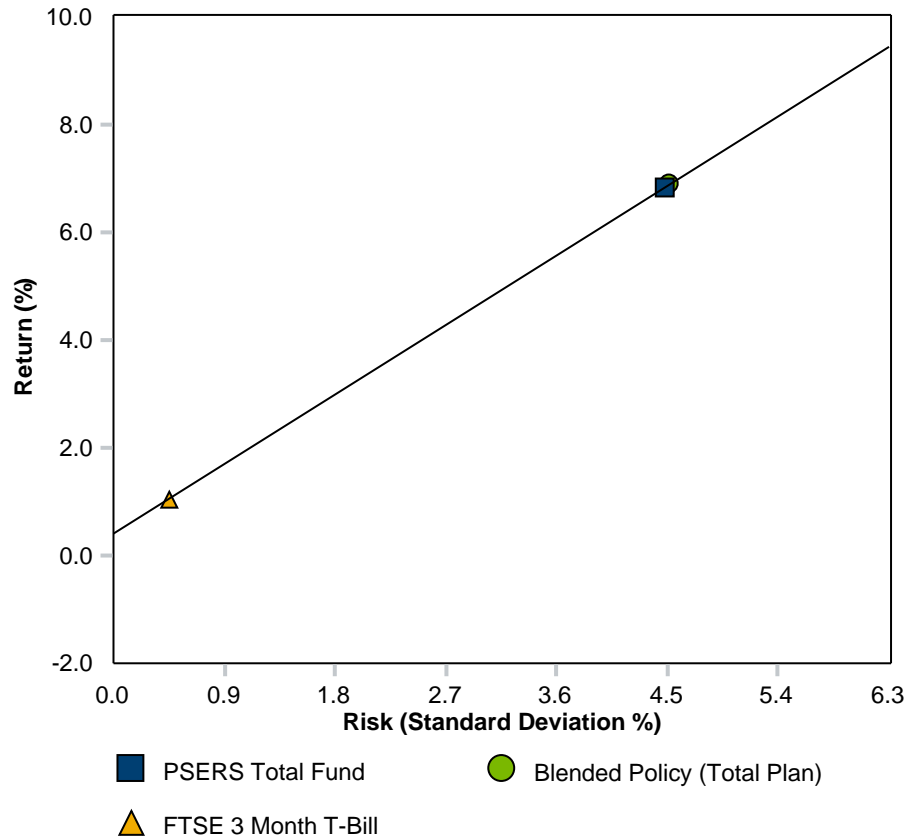
Ratio of Cumulative Wealth - 10 Years



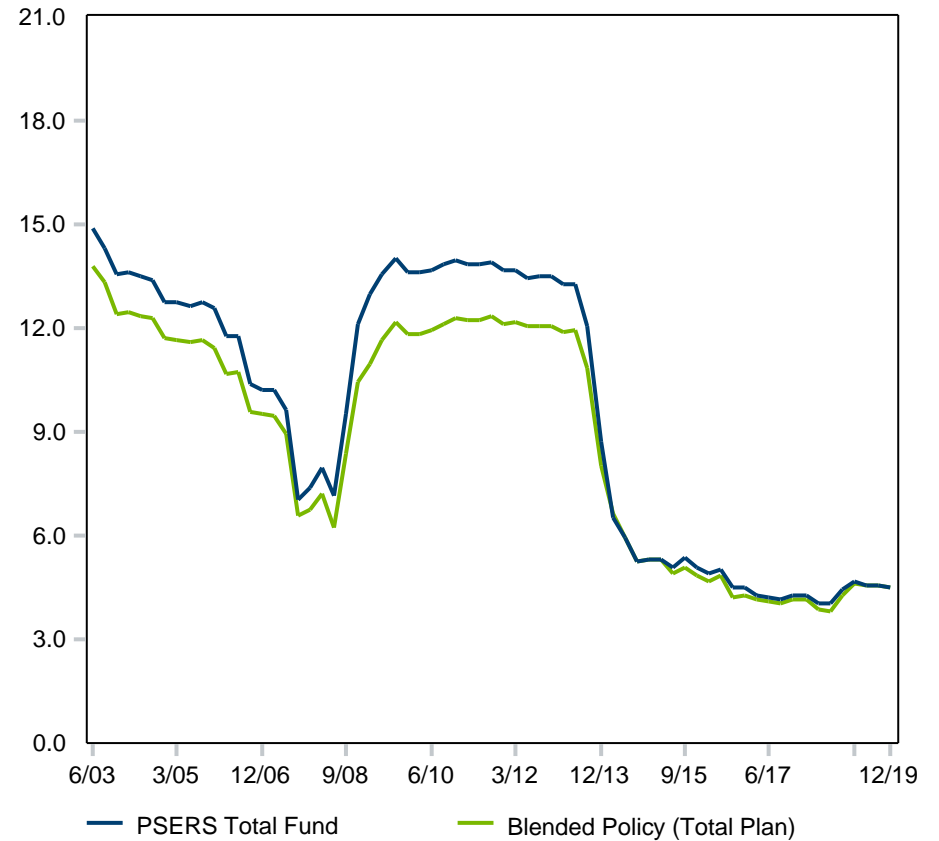


Risk Profile

Annualized Return vs. Annualized Standard Deviation 5 Years



Rolling 5 Years Standard Deviation

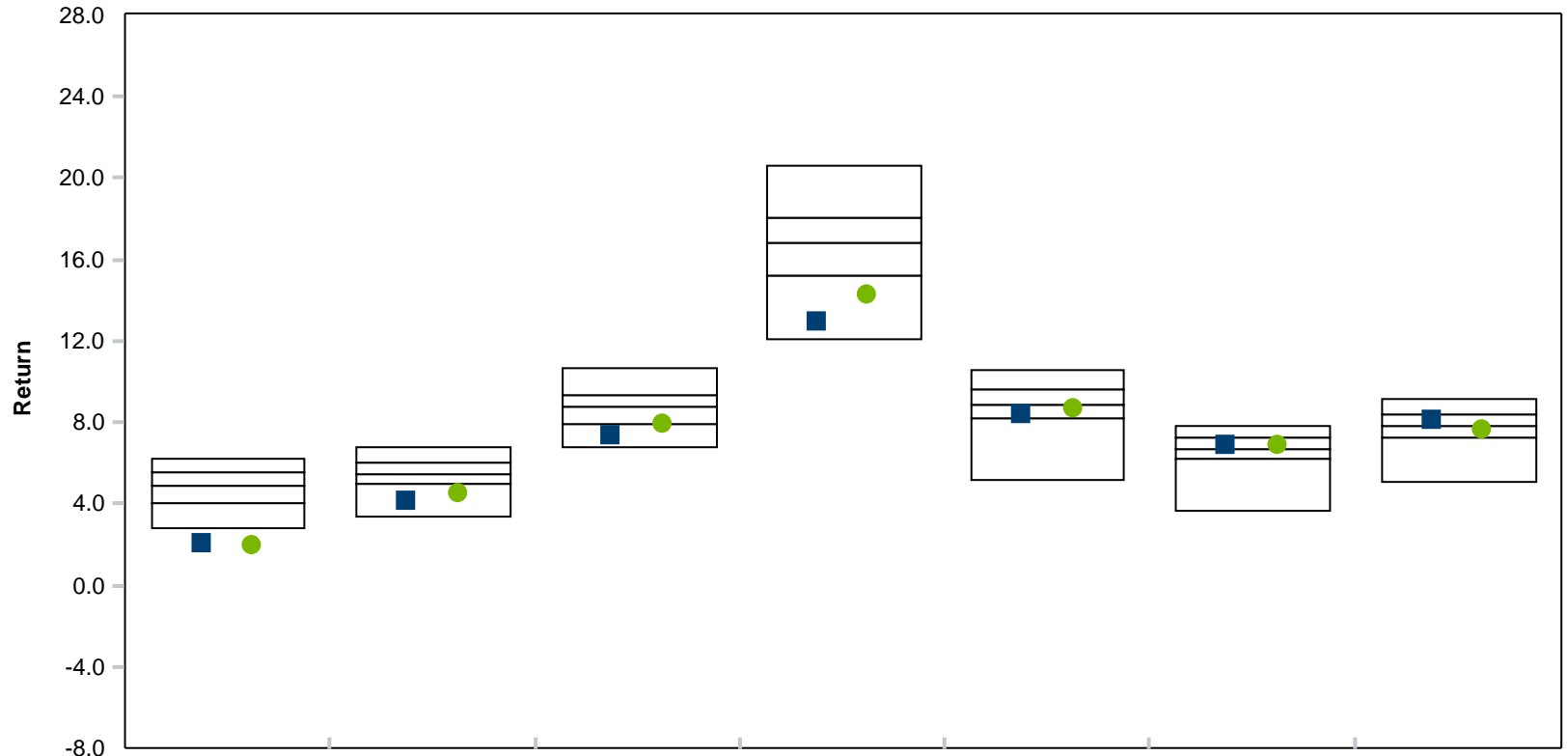


5 Years Historical Statistics

	Active Return	Tracking Error	Information Ratio	R-Squared	Sharpe Ratio	Alpha	Beta	Return	Standard Deviation	Actual Correlation
PSERS Total Fund	-0.04	1.03	-0.04	0.95	1.29	0.19	0.97	6.83	4.48	0.97
Blended Policy (Total Plan)	0.00	0.00	N/A	1.00	1.29	0.00	1.00	6.87	4.52	1.00
FTSE 3 Month T-Bill	-5.75	4.45	-1.29	0.04	N/A	0.91	0.02	1.05	0.46	0.19

Peer Group Analysis

All Public Plans > \$1B-Total Fund

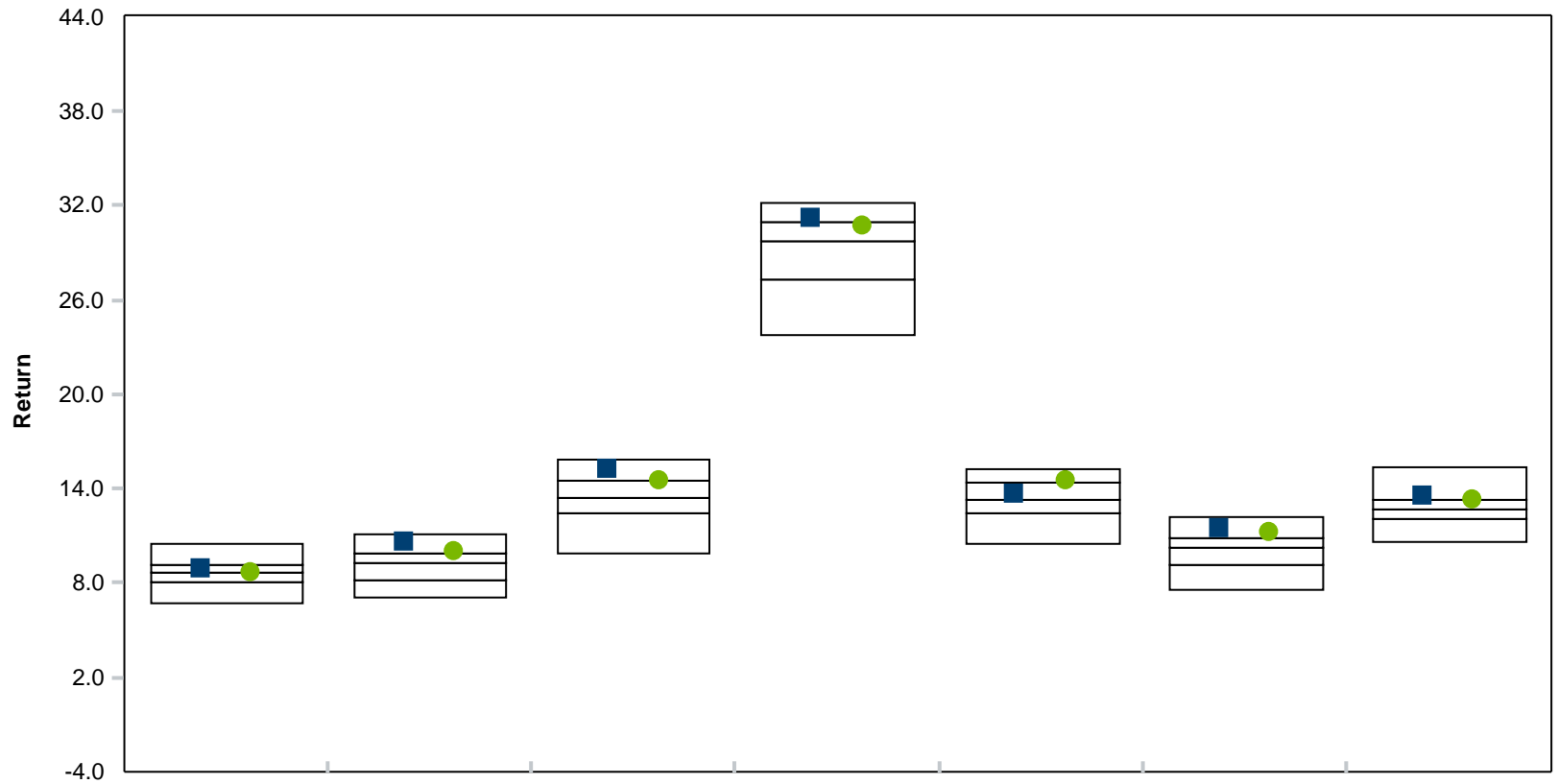


	1 Quarter	2 Quarters Ending Dec-2019	3 Quarters Ending Dec-2019	1 Year	3 Years	5 Years	10 Years
■ PSERS Total Fund	2.09 (97)	4.14 (91)	7.39 (90)	12.92 (93)	8.40 (67)	6.83 (41)	8.11 (39)
● Blended Policy (Total Plan)	1.94 (97)	4.47 (90)	7.89 (78)	14.29 (85)	8.64 (60)	6.87 (40)	7.64 (61)
5th Percentile	6.18	6.79	10.64	20.59	10.59	7.85	9.13
1st Quartile	5.57	5.98	9.35	18.05	9.61	7.22	8.42
Median	4.85	5.50	8.79	16.81	8.85	6.67	7.85
3rd Quartile	4.04	4.96	7.94	15.19	8.20	6.19	7.24
95th Percentile	2.85	3.37	6.77	12.07	5.21	3.61	5.10
Population	148	148	148	147	145	144	136

Parentheses contain percentile rankings.

Plan Sponsor Peer Group Analysis

All Public Plans > \$1B-US Equity Segment

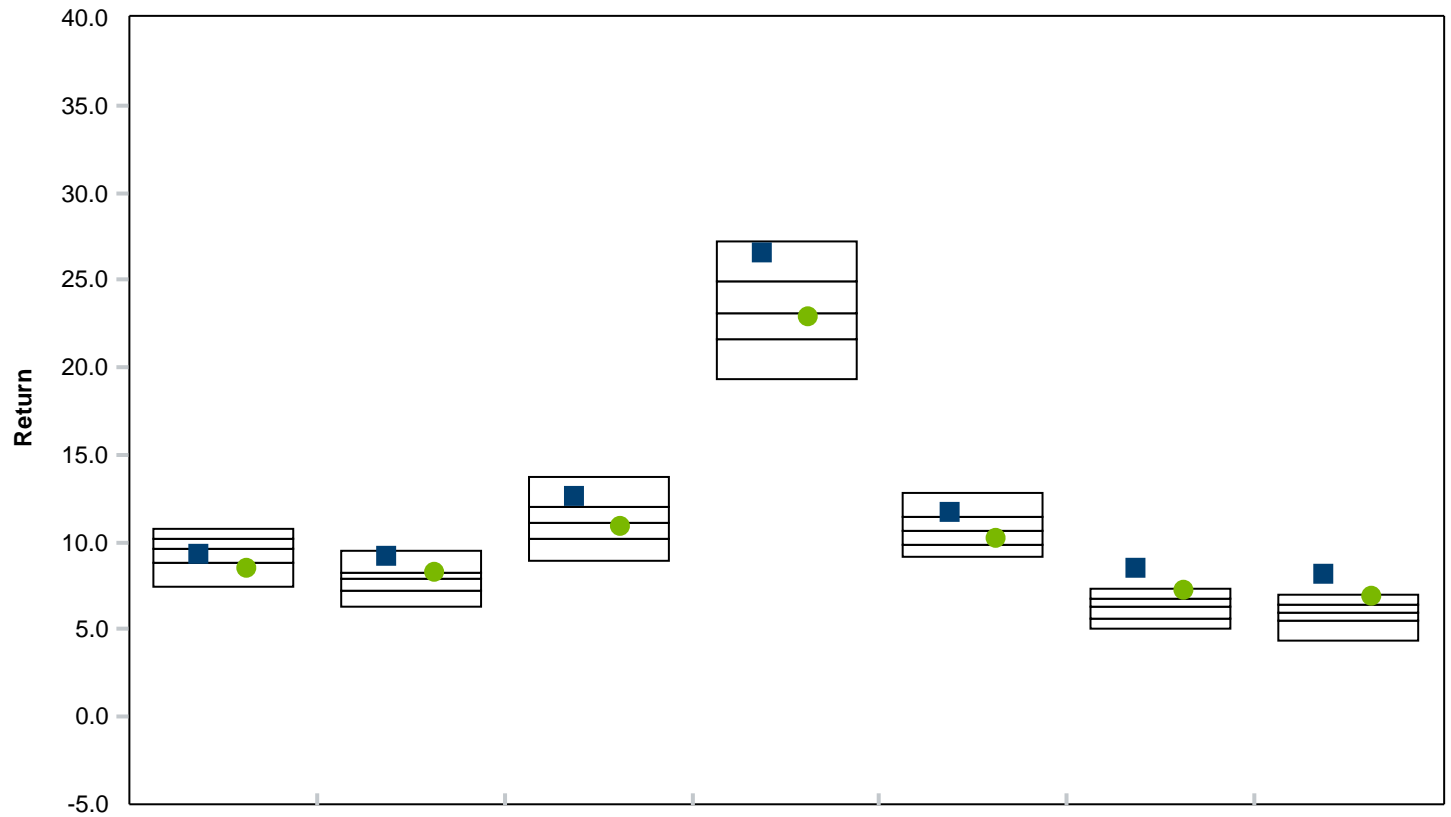


	1 Quarter	2 Quarters	3 Quarters	1 Year	3 Years	5 Years	10 Years
■ Total US Equity Composite	8.94 (38)	10.64 (12)	15.24 (11)	31.17 (21)	13.67 (44)	11.42 (16)	13.60 (15)
● Blended Policy (Tot US Eq)	8.71 (47)	10.05 (20)	14.49 (25)	30.71 (29)	14.54 (22)	11.25 (20)	13.34 (21)
5th Percentile	10.47	11.08	15.88	32.22	15.19	12.18	15.43
1st Quartile	9.15	9.92	14.47	30.94	14.43	10.83	13.25
Median	8.64	9.32	13.41	29.75	13.31	10.19	12.74
3rd Quartile	8.01	8.21	12.43	27.25	12.51	9.10	12.08
95th Percentile	6.71	7.04	9.92	23.80	10.45	7.57	10.66
Population	56	56	56	54	51	49	34

Parentheses contain percentile rankings.

Plan Sponsor Peer Group Analysis

All Public Plans > \$1B-Intl. Equity Segment

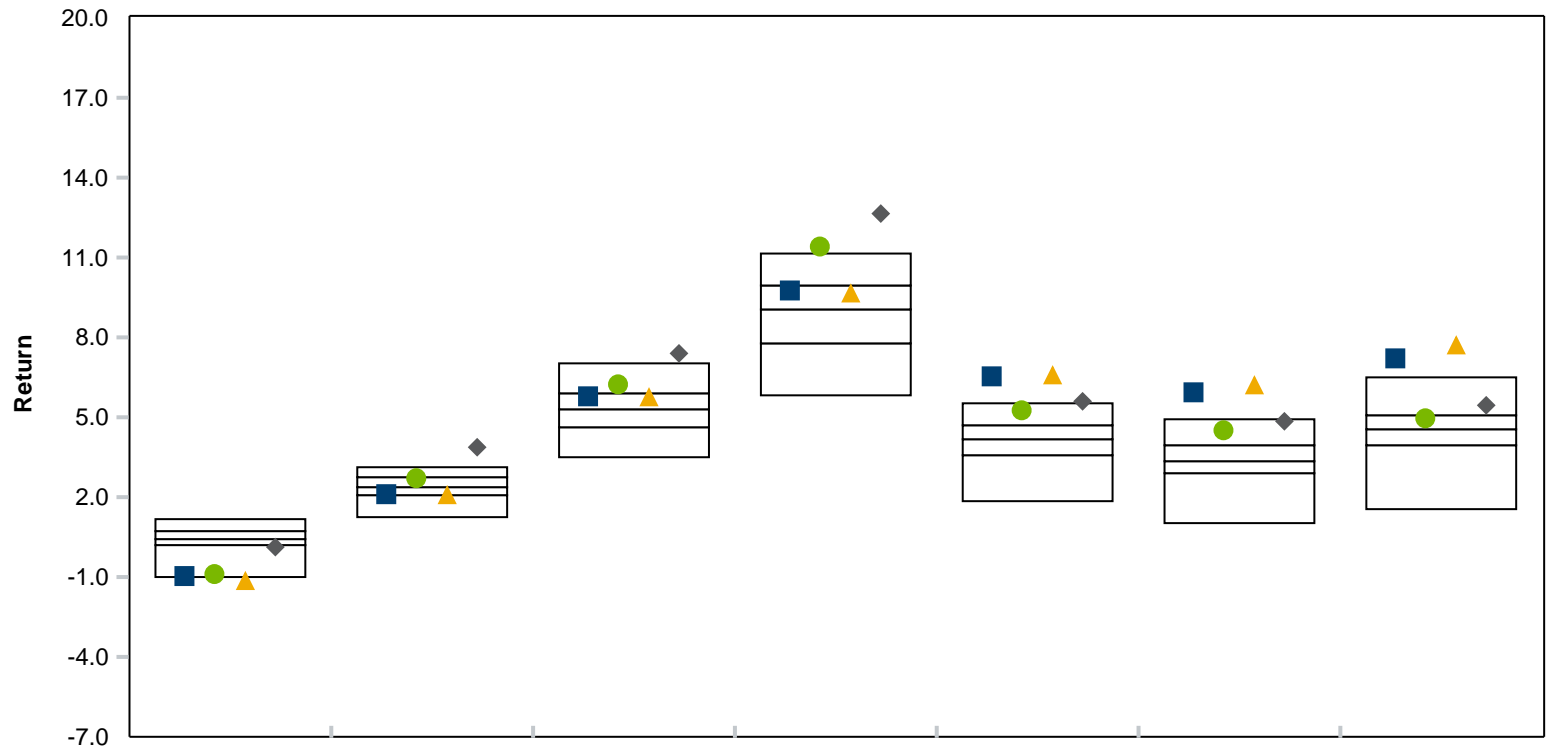


	1 Quarter	2 Quarters	3 Quarters	1 Year	3 Years	5 Years	10 Years
■ Total Non-U.S. Equity Composite (hedged)	9.31 (62)	9.14 (11)	12.61 (21)	26.55 (15)	11.69 (17)	8.51 (2)	8.11 (1)
● Blended Policy (Total Non-US Eq) (Hedged)	8.44 (85)	8.26 (27)	10.93 (56)	22.92 (57)	10.19 (64)	7.22 (11)	6.84 (12)
5th Percentile	10.76	9.52	13.76	27.25	12.83	7.39	7.03
1st Quartile	10.19	8.28	12.02	24.92	11.45	6.74	6.37
Median	9.60	7.87	11.13	23.11	10.61	6.27	5.92
3rd Quartile	8.76	7.20	10.21	21.57	9.89	5.67	5.51
95th Percentile	7.49	6.27	8.97	19.38	9.17	5.07	4.42
Population	55	54	54	53	53	50	33

Parentheses contain percentile rankings.

Plan Sponsor Peer Group Analysis

All Public Plans > \$1B-US Fixed Income Segment

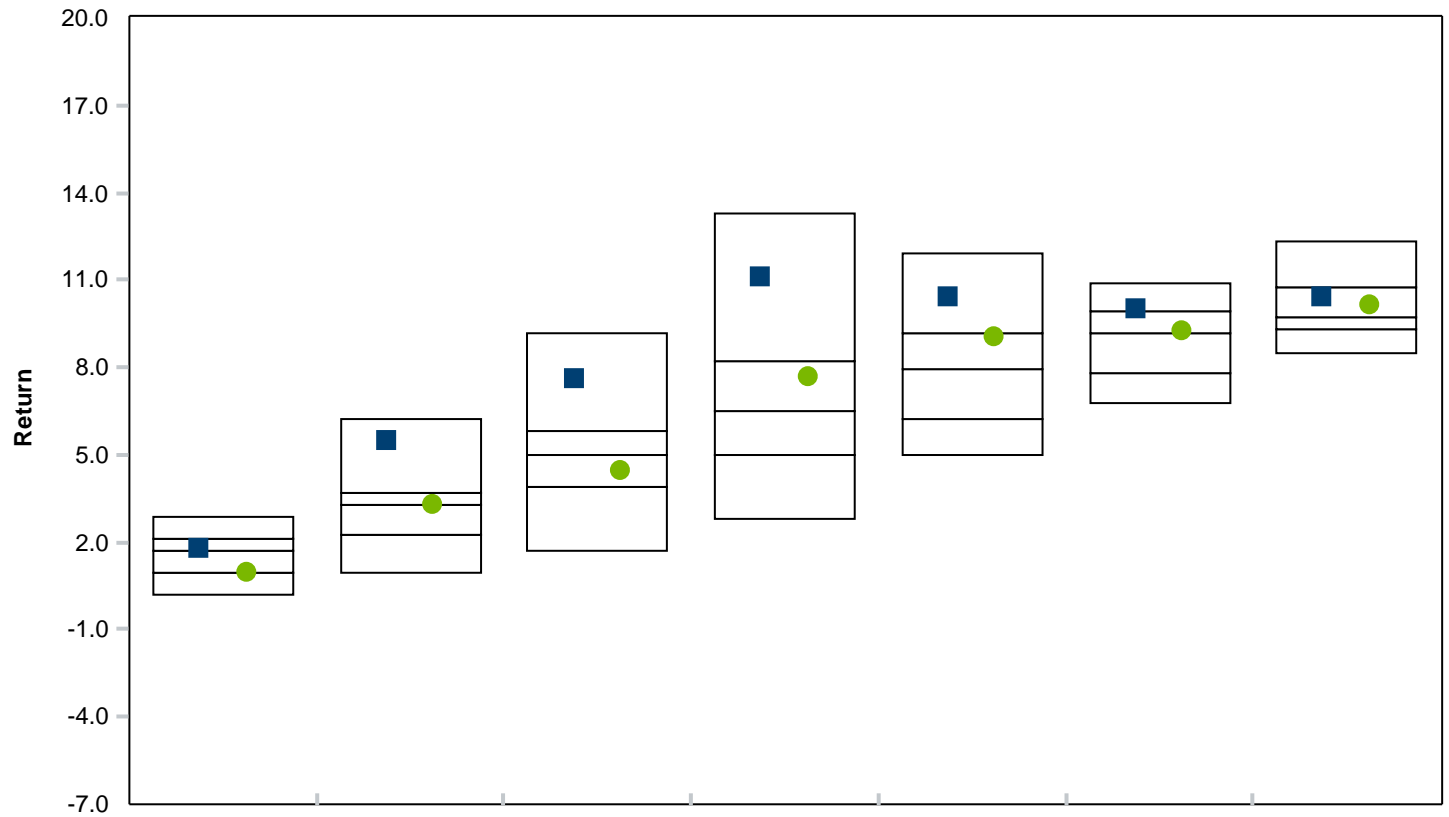


	1 Quarter	2 Quarters	3 Quarters	1 Year	3 Years	5 Years	10 Years
■ Total Fixed Income Exposure	-1.03 (97)	2.09 (75)	5.74 (31)	9.71 (28)	6.54 (1)	5.90 (1)	7.18 (1)
● Blended Policy (Total FI)	-0.91 (95)	2.70 (29)	6.20 (19)	11.36 (4)	5.23 (10)	4.44 (9)	4.93 (31)
▲ Total US Fixed Income Composite	-1.13 (100)	2.09 (75)	5.73 (32)	9.68 (28)	6.57 (1)	6.21 (1)	7.74 (1)
◆ Blended Policy (Total US FI)	0.13 (77)	3.88 (1)	7.39 (2)	12.66 (1)	5.59 (5)	4.87 (6)	5.48 (15)
5th Percentile	1.21	3.15	7.00	11.18	5.51	4.89	6.51
1st Quartile	0.72	2.74	5.89	9.98	4.72	3.97	5.07
Median	0.45	2.37	5.33	9.02	4.21	3.38	4.56
3rd Quartile	0.18	2.07	4.59	7.78	3.60	2.87	3.93
95th Percentile	-0.96	1.27	3.48	5.82	1.83	1.04	1.59
Population	56	56	56	55	53	52	35

Parentheses contain percentile rankings.

Plan Sponsor Peer Group Analysis

All Public Plans > \$1B-Real Estate Segment



	1 Quarter	2 Quarters	3 Quarters	1 Year	3 Years	5 Years	10 Years
■ Total Real Estate (unlevered/hedged)	1.75 (50)	5.49 (8)	7.61 (11)	11.10 (16)	10.40 (12)	10.01 (23)	10.44 (31)
● Blended Policy (Total Real Estate) (Hedged)	0.93 (76)	3.30 (50)	4.44 (68)	7.68 (35)	9.07 (28)	9.25 (49)	10.16 (35)
5th Percentile	2.85	6.21	9.17	13.29	11.94	10.88	12.35
1st Quartile	2.12	3.69	5.79	8.22	9.19	9.90	10.75
Median	1.74	3.28	5.02	6.51	7.97	9.14	9.70
3rd Quartile	0.97	2.23	3.88	4.99	6.23	7.81	9.34
95th Percentile	0.19	0.92	1.70	2.82	4.97	6.76	8.51
Population	42	36	35	34	25	20	12

Parentheses contain percentile rankings.

As of December 31, 2019

## Trailing Period Performance

	Performance(%)											Inception Date
	1 Quarter	YTD	FYTD	1 Year	3 Years	5 Years	10 Years	15 Years	20 Years	25 Years	Since Inception	
<b>PSERS Total Fund Composite</b>	2.09	12.92	4.14	12.92	8.40	6.83	8.11	6.50	5.82	8.17	9.64	07/01/1982
<i>Blended Policy (Total Plan)</i>	1.94	14.29	4.47	14.29	8.64	6.87	7.64	6.18	5.15	N/A	N/A	
Value Added	0.15	-1.37	-0.33	-1.37	-0.24	-0.04	0.47	0.32	0.67	N/A	N/A	
<b>Total Public Global and Private Equity Exposure (hedged)</b>	4.69	16.53	6.46	16.53	12.14	9.37	N/A	N/A	N/A	N/A	8.98	10/01/2014
<i>Blended Policy (Total Equity Exposure)</i>	4.53	16.32	6.61	16.32	12.36	9.77	N/A	N/A	N/A	N/A	9.49	
Value Added	0.16	0.21	-0.15	0.21	-0.22	-0.40	N/A	N/A	N/A	N/A	-0.51	
<b>Total Public Global Equity Composite (hedged)</b>	9.17	26.11	9.53	26.11	12.28	9.31	10.34	7.98	6.39	N/A	7.20	07/01/1998
<i>Blended Policy (Public Equity) (Hedged)</i>	8.53	25.37	8.84	25.37	11.85	8.68	9.59	7.46	5.29	N/A	6.31	
Value Added	0.64	0.74	0.69	0.74	0.43	0.63	0.75	0.52	1.10	N/A	0.89	
<b>Total US Equity Composite</b>	8.94	31.17	10.64	31.17	13.67	11.42	13.60	8.87	7.10	N/A	7.10	01/01/2000
<i>Blended Policy (Tot US Eq)</i>	8.71	30.71	10.05	30.71	14.54	11.25	13.34	9.04	6.32	N/A	6.32	
Value Added	0.23	0.46	0.59	0.46	-0.87	0.17	0.26	-0.17	0.78	N/A	0.78	
<b>Total Non-U.S. Equity x Emerging Markets Composite (hedged)</b>	9.14	27.31	9.36	27.31	11.80	8.88	N/A	N/A	N/A	N/A	8.74	04/01/2014
<i>Blended Policy (Non-US Equity x EM) (Hedged)</i>	7.89	22.75	7.94	22.75	10.00	7.32	6.97	6.84	5.09	N/A	7.18	
Value Added	1.25	4.56	1.42	4.56	1.80	1.56	N/A	N/A	N/A	N/A	1.56	
<b>Emerging Markets Equity Composite</b>	10.80	18.07	7.27	18.07	10.55	3.56	3.45	6.82	6.37	N/A	7.71	07/01/1998
<i>Blended Policy (EM)</i>	11.59	17.65	6.81	17.65	11.20	5.40	3.57	7.49	6.77	N/A	8.41	
Value Added	-0.79	0.42	0.46	0.42	-0.65	-1.84	-0.12	-0.67	-0.40	N/A	-0.70	
<b>Total Private Equity (hedged)</b>	-0.11	7.01	3.06	7.01	12.45	9.80	11.04	11.84	10.26	N/A	10.25	07/01/1998
<i>Burgiss Private Equity (1Q Lag)</i>	0.54	7.78	4.26	7.78	12.98	10.97	12.63	9.62	6.81	N/A	6.50	
Value Added	-0.65	-0.77	-1.20	-0.77	-0.53	-1.17	-1.59	2.22	3.45	N/A	3.75	
<b>Total Fixed Income Exposure</b>	-1.03	9.71	2.09	9.71	6.54	5.90	7.18	6.55	7.04	N/A	6.73	07/01/1998
<i>Blended Policy (Total FI)</i>	-0.91	11.36	2.70	11.36	5.23	4.44	4.93	5.36	5.99	N/A	5.76	
Value Added	-0.12	-1.65	-0.61	-1.65	1.31	1.46	2.25	1.19	1.05	N/A	0.97	
<b>Investment Grade Composite</b>	-2.52	11.60	2.80	11.60	5.62	3.82	N/A	N/A	N/A	N/A	4.68	10/01/2014
<i>Blended Policy (Investment Grade)</i>	-2.41	12.48	3.14	12.48	5.88	3.83	4.96	5.00	N/A	N/A	4.33	
Value Added	-0.11	-0.88	-0.34	-0.88	-0.26	-0.01	N/A	N/A	N/A	N/A	0.35	
<b>US Core Plus Fixed Income Composite</b>	-0.08	9.43	2.05	9.43	4.63	3.90	5.29	5.01	N/A	N/A	5.03	10/01/2004
<i>Blended Policy (Barclays Aggregate Index)</i>	0.18	8.72	2.45	8.72	4.03	3.05	3.73	4.15	5.08	5.63	4.17	
Value Added	-0.26	0.71	-0.40	0.71	0.60	0.85	1.56	0.86	N/A	N/A	0.86	
<b>Non-U.S. Developed Markets Fixed Income Composite</b>	0.58	2.81	1.18	2.81	2.21	1.38	2.24	3.18	4.52	N/A	4.41	07/01/1998
<i>Blended Policy (Barclays GlobalAgg GDP Weighted Dev xUS hedged)</i>	-1.23	8.07	1.75	8.07	4.55	2.52	2.55	3.24	N/A	N/A	N/A	
Value Added	1.81	-5.26	-0.57	-5.26	-2.34	-1.14	-0.31	-0.06	N/A	N/A	N/A	

As of December 31, 2019

## Trailing Period Performance

	Performance(%)											Inception Date
	1 Quarter	YTD	FYTD	1 Year	3 Years	5 Years	10 Years	15 Years	20 Years	25 Years	Since Inception	
U.S. Treasuries Total (unlevered)	-4.11	13.31	3.49	13.31	4.97	2.56	N/A	N/A	N/A	N/A	2.46	07/01/2012
<i>Blmbg. Barc. U.S. Treasury: Long</i>	-4.12	14.83	3.47	14.83	6.95	4.13	7.01	6.39	7.30	7.65	3.87	
Value Added	0.01	-1.52	0.02	-1.52	-1.98	-1.57	N/A	N/A	N/A	N/A	-1.41	
Credit-Related (hedged)	2.15	6.53	2.17	6.53	7.44	6.76	N/A	N/A	N/A	N/A	6.28	10/01/2014
<i>Blended Policy (Credit-Related)</i>	2.31	13.61	3.54	13.61	6.33	5.49	N/A	N/A	N/A	N/A	4.84	
Value Added	-0.16	-7.08	-1.37	-7.08	1.11	1.27	N/A	N/A	N/A	N/A	1.44	
Emerging Markets Fixed Income Composite	3.99	11.54	2.64	11.54	8.52	5.48	N/A	N/A	N/A	N/A	4.61	04/01/2010
<i>Blended Policy (EM FI)</i>	2.97	10.64	2.85	10.64	6.59	2.69	3.30	5.75	N/A	N/A	2.82	
Value Added	1.02	0.90	-0.21	0.90	1.93	2.79	N/A	N/A	N/A	N/A	1.79	
Private Credit Composite (hedged)	2.02	6.18	2.13	6.18	7.36	6.46	8.50	7.31	7.70	N/A	7.79	10/01/1999
<i>Blended Policy (Private Credit)</i>	2.24	13.90	3.60	13.90	6.24	6.05	7.53	7.19	7.43	7.76	7.45	
Value Added	-0.22	-7.72	-1.47	-7.72	1.12	0.41	0.97	0.12	0.27	N/A	0.34	
Inflation Protected (unlevered)	-1.87	6.32	0.93	6.32	2.95	4.08	6.93	6.88	N/A	N/A	6.81	04/01/2004
<i>Blended Policy (Inflation Protected)</i>	-2.23	8.73	1.67	8.73	3.99	4.02	4.06	4.26	5.87	N/A	4.26	
Value Added	0.36	-2.41	-0.74	-2.41	-1.04	0.06	2.87	2.62	N/A	N/A	2.55	
U.S. Inflation Protected (unlevered)	0.65	7.48	2.10	7.48	2.96	2.70	4.52	4.90	N/A	N/A	4.92	03/01/2004
<i>Blended Policy (U.S. Inflation Protected)</i>	0.74	8.37	2.09	8.37	3.30	2.61	3.36	3.79	5.51	N/A	3.89	
Value Added	-0.09	-0.89	0.01	-0.89	-0.34	0.09	1.16	1.11	N/A	N/A	1.03	
Non-U.S. Inflation Protected (unlevered)	-4.03	5.33	-0.20	5.33	3.12	N/A	N/A	N/A	N/A	N/A	3.05	02/01/2015
<i>Blmbg Barc World ex U.S. ILB Index (H\$)</i>	-5.15	7.98	0.56	7.98	4.15	5.15	5.46	5.29	5.36	N/A	4.49	
Value Added	1.12	-2.65	-0.76	-2.65	-1.03	N/A	N/A	N/A	N/A	N/A	-1.44	
Total Real Asset Exposure (unlevered/hedged)	2.21	12.57	3.31	12.57	5.90	4.49	N/A	N/A	N/A	N/A	3.89	10/01/2014
<i>Blended Policy (Real Assets) (Hedged)</i>	2.32	12.04	3.05	12.04	5.96	4.38	N/A	N/A	N/A	N/A	3.72	
Value Added	-0.11	0.53	0.26	0.53	-0.06	0.11	N/A	N/A	N/A	N/A	0.17	
Total Infrastructure Composite (unlevered/hedged)	0.56	17.09	-1.10	17.09	5.68	N/A	N/A	N/A	N/A	N/A	6.08	11/01/2015
<i>Blended Policy (Infrastructure Hedged)</i>	2.43	19.50	0.95	19.50	6.80	5.61	9.26	N/A	N/A	N/A	6.67	
Value Added	-1.87	-2.41	-2.05	-2.41	-1.12	N/A	N/A	N/A	N/A	N/A	-0.59	
Total Commodities Composite (unlevered)	4.18	10.97	4.39	10.97	3.36	0.62	-1.09	N/A	N/A	N/A	-0.55	11/01/2006
<i>Blended Policy (Commodities)</i>	4.02	11.67	4.40	11.67	2.84	-0.69	-2.67	N/A	N/A	N/A	-2.86	
Value Added	0.16	-0.70	-0.01	-0.70	0.52	1.31	1.58	N/A	N/A	N/A	2.31	
Total Real Estate (unlevered/hedged)	1.75	11.10	5.49	11.10	10.40	10.01	10.44	7.01	8.38	9.33	8.25	04/01/1981
<i>Blended Policy (Total Real Estate) (Hedged)</i>	0.93	7.68	3.30	7.68	9.07	9.25	10.16	8.81	8.99	9.51	8.54	
Value Added	0.82	3.42	2.19	3.42	1.33	0.76	0.28	-1.80	-0.61	-0.18	-0.29	

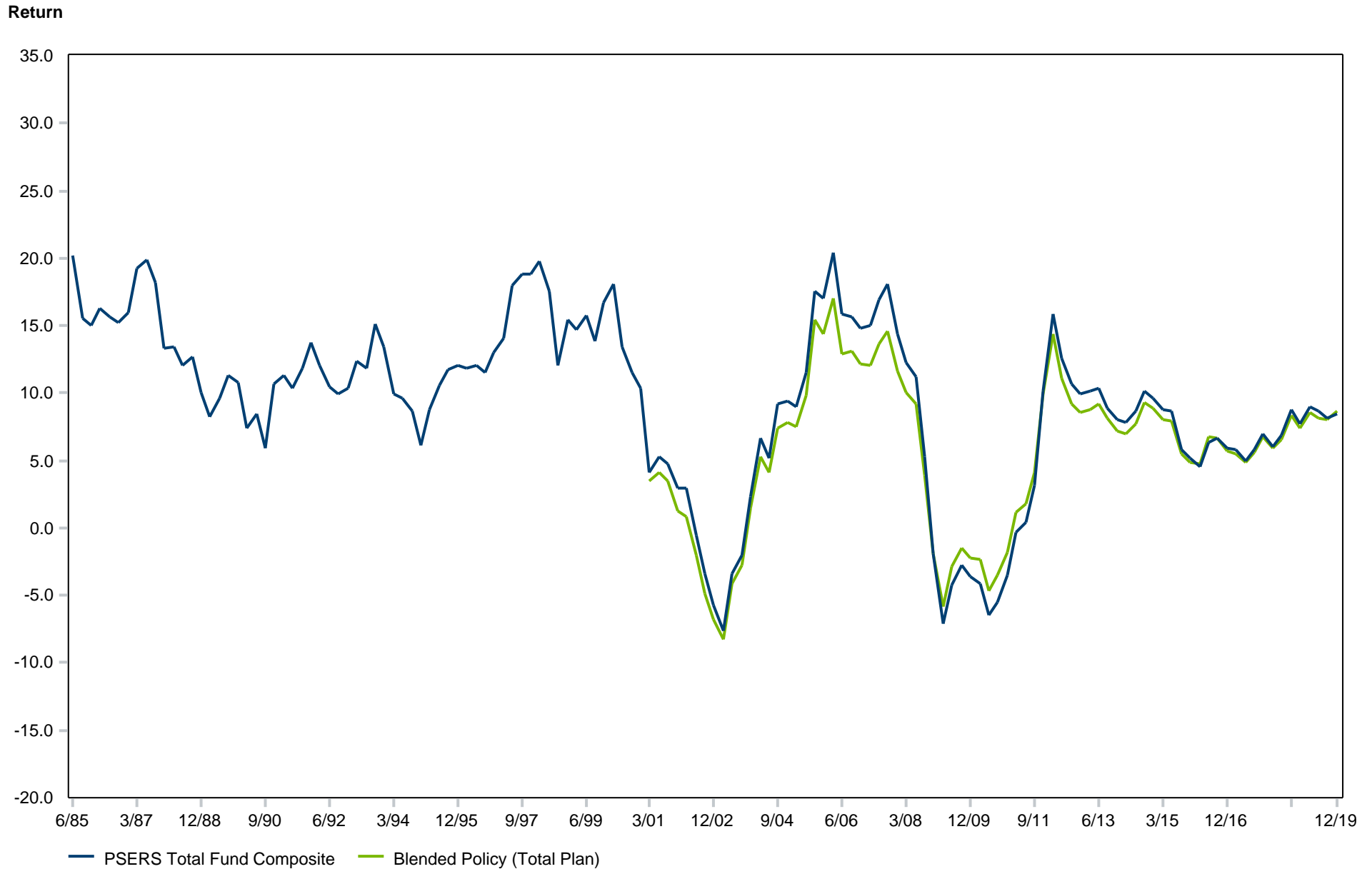


As of December 31, 2019

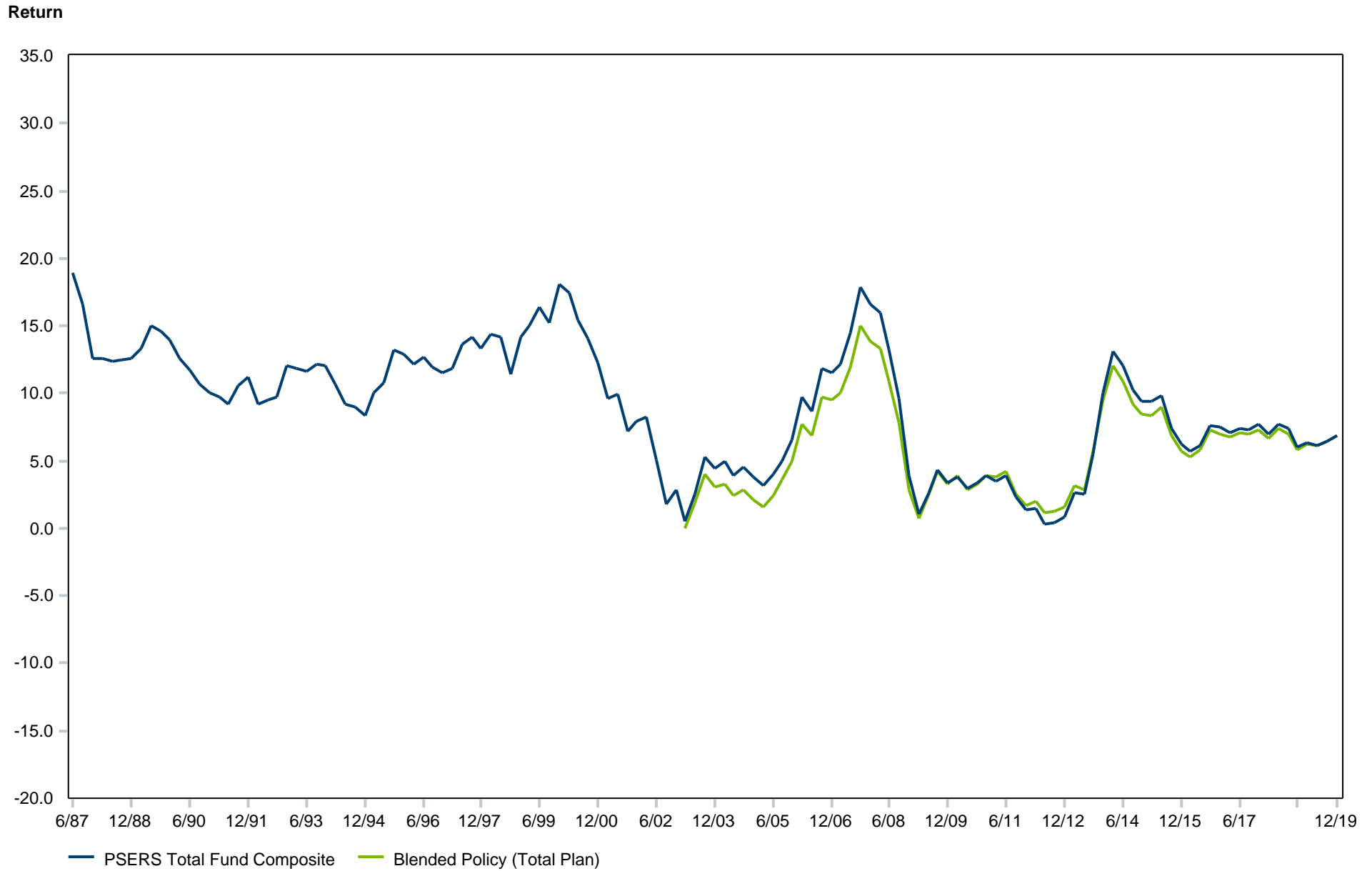
## Trailing Period Performance

	Performance(%)											
	1 Quarter	YTD	FYTD	1 Year	3 Years	5 Years	10 Years	15 Years	20 Years	25 Years	Since Inception	Inception Date
Private Real Estate Composite	1.84	9.76	5.33	9.76	10.75	10.38	10.46	7.82	8.45	N/A	9.40	07/01/1996
<i>Blended Policy (Private Real Estate)</i>	0.93	5.88	2.66	5.88	9.21	9.36	10.22	8.85	9.02	9.53	9.63	
Value Added	0.91	3.88	2.67	3.88	1.54	1.02	0.24	-1.03	-0.57	N/A	-0.23	
PTRES Composite (unlevered/hedged)	1.18	23.21	6.67	23.21	8.31	6.11	8.87	6.80	10.98	N/A	9.04	07/01/1997
<i>Blended Policy (PTRES) (Hedged)</i>	0.95	22.75	6.91	22.75	8.49	6.05	8.46	6.21	9.99	N/A	N/A	
Value Added	0.23	0.46	-0.24	0.46	-0.18	0.06	0.41	0.59	0.99	N/A	N/A	
Risk Parity Composite (vol adjusted)	2.86	20.63	5.28	20.63	8.29	5.69	N/A	N/A	N/A	N/A	4.84	10/01/2012
<i>Blended Policy (Risk Parity)</i>	2.68	23.53	6.19	23.53	9.39	6.74	8.78	8.04	9.19	N/A	5.49	
Value Added	0.18	-2.90	-0.91	-2.90	-1.10	-1.05	N/A	N/A	N/A	N/A	-0.65	
Total Absolute Return Composite	2.23	4.00	2.86	4.00	3.99	3.93	5.52	N/A	N/A	N/A	5.05	10/01/2005
<i>Blended Policy (Absolute Return)</i>	1.91	6.51	3.36	6.51	5.75	5.06	6.16	6.77	7.08	7.26	6.71	
Value Added	0.32	-2.51	-0.50	-2.51	-1.76	-1.13	-0.64	N/A	N/A	N/A	-1.66	
Financing Composite	0.43	N/A	0.95	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.95	07/01/2019
<i>ICE BofAML USD 3-Mo Deposit Offered Rate Average Index</i>	0.52	2.49	1.13	2.49	1.98	1.38	N/A	N/A	N/A	N/A	1.13	
Value Added	-0.09	N/A	-0.18	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-0.18	
Cash & Cash Equivalents	0.48	2.28	1.01	2.28	1.85	1.25	1.42	0.76	0.46	N/A	0.61	07/01/1998
<i>ICE BofAML US Treasury Bills 0-3M</i>	0.44	2.21	0.98	2.21	1.62	1.02	0.54	1.32	1.69	2.39	1.90	
Value Added	0.04	0.07	0.03	0.07	0.23	0.23	0.88	-0.56	-1.23	N/A	-1.29	

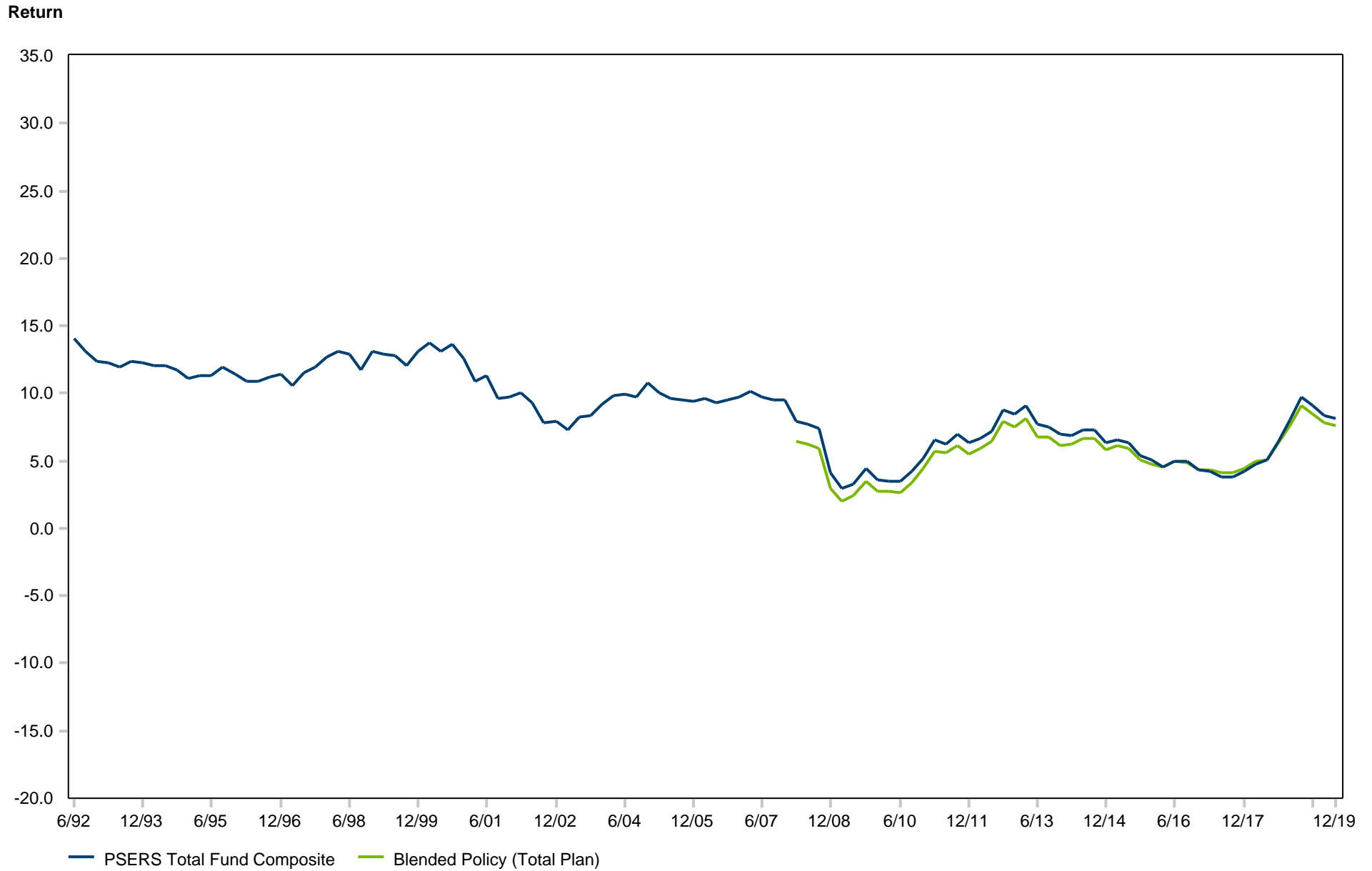
3-Year Rolling Returns



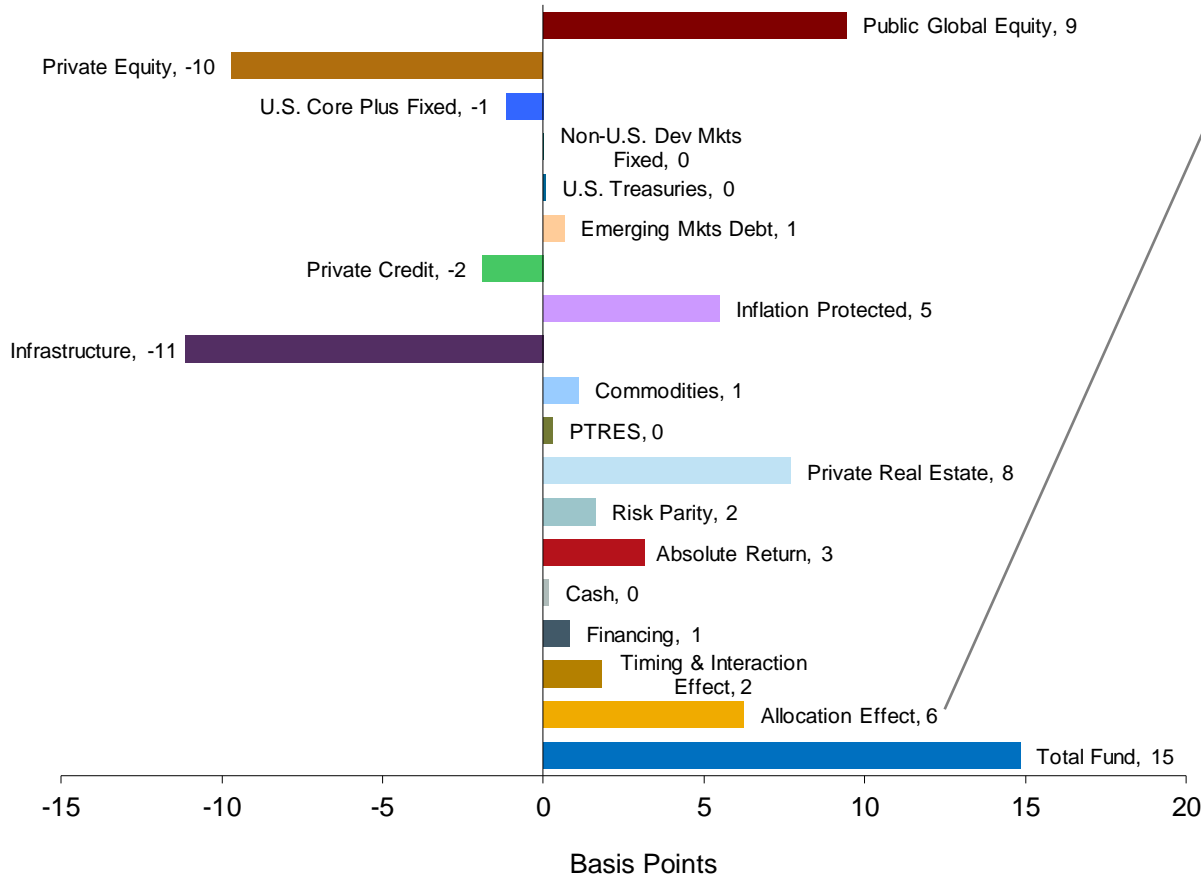
5-Year Rolling Returns



10-Year Rolling Returns



Performance Attribution – Total Fund

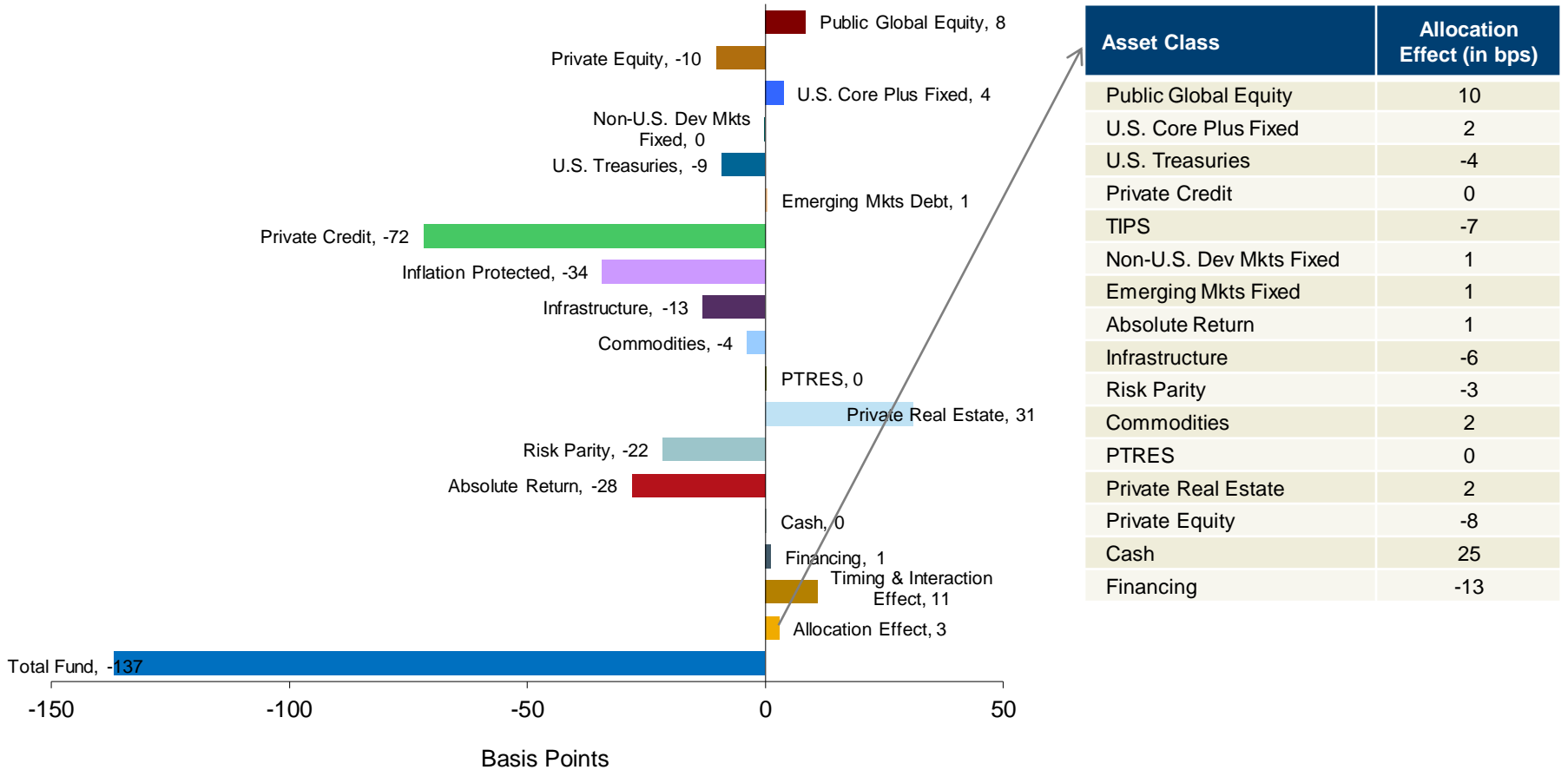


Asset Class	Allocation Effect (in bps)
Public Global Equity	9
U.S. Core Plus Fixed	0
U.S. Treasuries	-1
Private Credit	0
TIPS	-2
Non-U.S. Dev Mkts Fixed	0
Emerging Mkts Fixed	0
Absolute Return	3
Infrastructure	-2
Risk Parity	-1
Commodities	0
PTRES	0
Private Real Estate	0
Private Equity	0
Cash	2
Financing	-1

- The Selection Effect (shown by each composite bar above) represents the impact each composite had on Total Fund performance, based on its weight in the asset class and its performance relative to its blended asset class policy benchmark.
- The Allocation Effect represents the favorable or unfavorable impact of being over or under weight to each asset class relative to policy targets.
- The Timing & Interaction Effect captures the impact of intra-month cash flows on Total Fund return.

1 Year Ending December 31, 2019

Performance Attribution – Total Fund



- The Selection Effect (shown by each composite bar above) represents the impact each composite had on Total Fund performance, based on its weight in the asset class and its performance relative to its blended asset class policy benchmark.
- The Allocation Effect represents the favorable or unfavorable impact of being over or under weight to each asset class relative to policy targets.
- The Timing & Interaction Effect captures the impact of intra-month cash flows on Total Fund return.

As of December 31, 2019

## Trailing Period Performance

	Performance (%)													
	1 Quarter	2 Quarters Ending Dec-2019	3 Quarters Ending Dec-2019	FYTD	YTD	1 Year	3 Years	5 Years	10 Years	15 Years	20 Years	25 Years	Since Inception	Inception Date
<b>PSERS Total Fund</b>	2.09	4.14	7.39	4.14	12.92	12.92	8.40	6.83	8.11	6.50	5.82	8.17	9.64	07/01/1982
<i>Blended Policy (Total Plan)</i>	1.94	4.47	7.89	4.47	14.29	14.29	8.64	6.87	7.64	6.18	5.15	N/A	N/A	
Value Added	0.15	-0.33	-0.50	-0.33	-1.37	-1.37	-0.24	-0.04	0.47	0.32	0.67	N/A	N/A	
<b>Total Public Global and Private Equity Exposure (hedged)</b>	4.69	6.46	10.35	6.46	16.53	16.53	12.14	9.37	N/A	N/A	N/A	N/A	8.98	10/01/2014
<i>Blended Policy (Total Equity Exposure)</i>	4.53	6.61	10.45	6.61	16.32	16.32	12.36	9.77	N/A	N/A	N/A	N/A	9.49	
Value Added	0.16	-0.15	-0.10	-0.15	0.21	0.21	-0.22	-0.40	N/A	N/A	N/A	N/A	-0.51	
<b>Total Public Global Equity Composite (hedged)</b>	9.17	9.53	13.32	9.53	26.11	26.11	12.28	9.31	10.34	7.98	6.39	N/A	7.20	07/01/1998
<i>Blended Policy (Public Equity) (Hedged)</i>	8.53	8.84	12.08	8.84	25.37	25.37	11.85	8.68	9.59	7.46	5.29	N/A	6.31	
Value Added	0.64	0.69	1.24	0.69	0.74	0.74	0.43	0.63	0.75	0.52	1.10	N/A	0.89	
<b>Total US Equity Composite</b>	8.94	10.64	15.24	10.64	31.17	31.17	13.67	11.42	13.60	8.87	7.10	N/A	7.10	01/01/2000
<i>Blended Policy (Tot US Eq)</i>	8.71	10.05	14.49	10.05	30.71	30.71	14.54	11.25	13.34	9.04	6.32	N/A	6.32	
Value Added	0.23	0.59	0.75	0.59	0.46	0.46	-0.87	0.17	0.26	-0.17	0.78	N/A	0.78	
<b>PSERS-S&amp;P 500 Index Composite</b>	9.31	11.56	16.77	11.56	33.17	33.17	15.18	12.04	13.86	9.32	6.34	N/A	7.27	07/01/1998
<i>S&amp;P 500 Index</i>	9.07	10.92	15.70	10.92	31.49	31.49	15.27	11.70	13.56	9.00	6.06	10.22	7.00	
Value Added	0.24	0.64	1.07	0.64	1.68	1.68	-0.09	0.34	0.30	0.32	0.28	N/A	0.27	
<b>Radcliffe Specialty Finance Debt</b>	2.05	4.58	7.51	4.58	10.26	10.26	5.80	5.31	N/A	N/A	N/A	N/A	5.10	10/01/2014
<i>3-Month Libor + 0.60%</i>	0.67	1.38	2.17	1.38	3.00	3.00	2.61	2.02	1.47	2.35	2.66	3.40	1.96	
Value Added	1.38	3.20	5.34	3.20	7.26	7.26	3.19	3.29	N/A	N/A	N/A	N/A	3.14	
<b>PSERS-S&amp;P 400 Index Composite</b>	7.09	7.01	10.29	7.01	26.27	26.27	9.40	9.22	12.99	9.92	9.84	N/A	10.32	07/01/1998
<i>S&amp;P MidCap 400</i>	7.06	6.97	10.23	6.97	26.20	26.20	9.26	9.03	12.72	9.48	9.50	12.08	9.97	
Value Added	0.03	0.04	0.06	0.04	0.07	0.07	0.14	0.19	0.27	0.44	0.34	N/A	0.35	
<b>PSERS-S&amp;P 600 Index Composite</b>	8.31	8.13	10.16	8.13	22.96	22.96	8.59	10.07	14.12	9.99	10.42	N/A	9.85	06/01/1998
<i>S&amp;P SmallCap 600</i>	8.21	8.00	10.01	8.00	22.78	22.78	8.36	9.56	13.35	9.20	9.80	11.21	9.29	
Value Added	0.10	0.13	0.15	0.13	0.18	0.18	0.23	0.51	0.77	0.79	0.62	N/A	0.56	
<b>Total Non-U.S. Equity Composite (hedged)</b>	9.31	9.14	12.61	9.14	26.55	26.55	11.69	8.51	8.11	7.98	6.06	N/A	6.06	01/01/2000
<i>Blended Policy (Total Non-US Eq) (Hedged)</i>	8.44	8.26	10.93	8.26	22.92	22.92	10.19	7.22	6.84	6.76	5.03	N/A	5.03	
Value Added	0.87	0.88	1.68	0.88	3.63	3.63	1.50	1.29	1.27	1.22	1.03	N/A	1.03	
<b>Total Non-U.S. Equity x Emerging Markets Composite (hedged)</b>	9.14	9.36	12.93	9.36	27.31	27.31	11.80	8.88	N/A	N/A	N/A	N/A	8.74	04/01/2014
<i>Blended Policy (Non-US Equity x EM) (Hedged)</i>	7.89	7.94	10.72	7.94	22.75	22.75	10.00	7.32	6.97	6.84	5.09	N/A	7.18	
Value Added	1.25	1.42	2.21	1.42	4.56	4.56	1.80	1.56	N/A	N/A	N/A	N/A	1.56	
<b>Insight Everest Currency Hedge - Int'l Eq (notional)</b>	-2.23	0.95	0.55	0.95	1.42	1.42	0.13	2.27	2.14	N/A	N/A	N/A	1.55	07/01/2006
<i>Currency Hedge Benchmark - Int'l Eq</i>	-2.20	1.04	0.68	1.04	1.56	1.56	0.22	2.38	2.11	N/A	N/A	N/A	1.64	
Value Added	-0.03	-0.09	-0.13	-0.09	-0.14	-0.14	-0.09	-0.11	0.03	N/A	N/A	N/A	-0.09	
<b>Non-US Large/Mid Cap Equity Composite</b>	10.20	9.00	12.81	9.00	26.40	26.40	12.05	7.31	6.54	6.42	4.89	N/A	6.20	07/01/1998
<i>Blended Policy (MSCI World AC World ex USA net)</i>	8.92	6.96	10.15	6.96	21.51	21.51	9.87	5.51	4.97	5.36	4.00	5.71	5.05	
Value Added	1.28	2.04	2.66	2.04	4.89	4.89	2.18	1.80	1.57	1.06	0.89	N/A	1.15	
<b>PSERS ACWI x US Fund</b>	8.88	7.61	10.47	7.61	22.89	22.89	10.68	6.24	5.66	5.92	4.24	N/A	5.28	07/01/1998
<i>MSCI ACWI/EAFE Index Blend</i>	8.92	6.96	10.15	6.96	21.51	21.51	9.87	5.51	4.97	5.25	3.62	5.40	4.69	
Value Added	-0.04	0.65	0.32	0.65	1.38	1.38	0.81	0.73	0.69	0.67	0.62	N/A	0.59	
<b>BlackRock EMAA</b>	12.01	7.63	7.17	7.63	17.13	17.13	12.50	N/A	N/A	N/A	N/A	N/A	6.74	07/01/2015
<i>MSCI Emerging Markets Index (Net)</i>	11.84	7.09	7.74	7.09	18.44	18.44	11.57	5.61	3.68	7.48	6.69	5.74	5.57	
Value Added	0.17	0.54	-0.57	0.54	-1.31	-1.31	0.93	N/A	N/A	N/A	N/A	N/A	1.17	
<b>Active Non-US Large/Mid Cap Composite</b>	11.51	10.38	15.17	10.38	29.89	29.89	13.54	8.56	8.05	7.23	5.48	N/A	6.78	07/01/1998
<i>MSCI AC World ex USA Index (Net)</i>	8.92	6.96	10.15	6.96	21.51	21.51	9.87	5.51	4.97	5.25	3.85	5.48	4.99	
Value Added	2.59	3.42	5.02	3.42	8.38	8.38	3.67	3.05	3.08	1.98	1.63	N/A	1.79	
<b>Baillie Gifford</b>	12.31	10.24	16.45	10.24	32.51	32.51	14.38	9.17	8.28	9.01	N/A	N/A	9.66	07/01/2002
<i>MSCI AC World ex USA Index (Net)</i>	8.92	6.96	10.15	6.96	21.51	21.51	9.87	5.51	4.97	5.25	3.85	5.48	6.80	
Value Added	3.39	3.28	6.30	3.28	11.00	11.00	4.51	3.66	3.31	3.76	N/A	N/A	2.86	

As of December 31, 2019

## Trailing Period Performance

	Performance (%)													
	1 Quarter	2 Quarters Ending Dec-2019	3 Quarters Ending Dec-2019	FYTD	YTD	1 Year	3 Years	5 Years	10 Years	15 Years	20 Years	25 Years	Since Inception	Inception Date
BlackRock Emerging Markets Alpha Advantage Fund Ltd	11.97	7.25	6.87	7.25	16.88	16.88	13.00	9.42	9.69	N/A	N/A	N/A	24.44	12/01/2008
<i>MSCI Emerging Markets Index (Net)</i>	11.84	7.09	7.74	7.09	18.44	18.44	11.57	5.61	3.68	7.48	6.69	5.74	9.60	
Value Added	0.13	0.16	-0.87	0.16	-1.56	-1.56	1.43	3.81	6.01	N/A	N/A	N/A	14.84	
Effissimo Capital Partners Feeder Fund 2 LP	21.60	18.34	18.08	18.34	27.81	27.81	N/A	N/A	N/A	N/A	N/A	N/A	7.83	12/01/2018
<i>MSCI Japan in LC (Net)</i>	8.24	11.97	10.10	11.97	18.48	18.48	6.38	5.61	8.25	4.47	1.63	1.80	6.29	
Value Added	13.36	6.37	7.98	6.37	9.33	9.33	N/A	N/A	N/A	N/A	N/A	N/A	1.54	
Marathon Asset Mgmt	9.86	8.69	13.09	8.69	24.46	24.46	10.86	7.39	7.99	7.76	7.94	N/A	8.90	07/01/1998
<i>Blended Benchmark (MSCI ACWI ex USA net)</i>	8.92	6.96	10.15	6.96	21.51	21.51	9.87	5.51	4.97	5.34	3.98	5.62	5.12	
Value Added	0.94	1.73	2.94	1.73	2.95	2.95	0.99	1.88	3.02	2.42	3.96	N/A	3.78	
The Children's Investment Fund, LP	8.71	11.26	18.01	11.26	42.10	42.10	N/A	N/A	N/A	N/A	N/A	N/A	22.85	05/01/2018
<i>MSCI World Index (Net)</i>	8.56	9.14	13.50	9.14	27.67	27.67	12.57	8.74	9.47	6.92	4.50	7.39	9.72	
Value Added	0.15	2.12	4.51	2.12	14.43	14.43	N/A	N/A	N/A	N/A	N/A	N/A	13.13	
Non-US Small Cap Equity Composite	11.35	7.61	10.85	7.61	25.20	25.20	11.35	8.40	9.94	N/A	N/A	N/A	8.52	07/01/2005
<i>MSCI AC World ex USA Small Cap (Net)</i>	11.01	9.69	11.03	9.69	22.42	22.42	9.65	7.04	6.92	6.92	6.71	5.96	6.94	
Value Added	0.34	-2.08	-0.18	-2.08	2.78	2.78	1.70	1.36	3.02	N/A	N/A	N/A	1.58	
Acadian Asset Mgmt	11.41	7.52	8.63	7.52	20.12	20.12	10.61	8.69	9.49	N/A	N/A	N/A	9.72	07/01/2005
<i>Blended Benchmark (MSCI AC World ex USA Small Cap net)</i>	11.01	9.69	11.03	9.69	22.42	22.42	9.65	7.04	6.92	N/A	N/A	N/A	6.52	
Value Added	0.40	-2.17	-2.40	-2.17	-2.30	-2.30	0.96	1.65	2.57	N/A	N/A	N/A	3.20	
Oberweis Asset Mgmt	8.35	3.80	7.48	3.80	24.55	24.55	10.43	8.28	13.01	N/A	N/A	N/A	7.78	07/01/2008
<i>MSCI AC World ex USA Small Cap (Net)</i>	11.01	9.69	11.03	9.69	22.42	22.42	9.65	7.04	6.92	6.92	6.71	5.96	5.28	
Value Added	-2.66	-5.89	-3.55	-5.89	2.13	2.13	0.78	1.24	6.09	N/A	N/A	N/A	2.50	
QS Investors	12.20	9.71	10.62	9.71	21.77	21.77	8.65	6.74	8.98	N/A	N/A	N/A	5.99	07/01/2008
<i>MSCI AC World ex USA Small Cap (Net)</i>	11.01	9.69	11.03	9.69	22.42	22.42	9.65	7.04	6.92	6.92	6.71	5.96	5.28	
Value Added	1.19	0.02	-0.41	0.02	-0.65	-0.65	-1.00	-0.30	2.06	N/A	N/A	N/A	0.71	
Wasatch Int'l Small Cap	13.03	9.63	15.21	9.63	31.44	31.44	14.51	9.71	11.34	N/A	N/A	N/A	9.36	10/01/2005
<i>Blended Benchmark (MSCI AC World ex USA Small Cap net)</i>	11.01	9.69	11.03	9.69	22.42	22.42	9.65	7.04	6.92	N/A	N/A	N/A	6.04	
Value Added	2.02	-0.06	4.18	-0.06	9.02	9.02	4.86	2.67	4.42	N/A	N/A	N/A	3.32	
Emerging Markets Equity Composite	10.80	7.27	9.68	7.27	18.07	18.07	10.55	3.56	3.45	6.82	6.37	N/A	7.71	07/01/1998
<i>Blended Policy (EM)</i>	11.59	6.81	7.26	6.81	17.65	17.65	11.20	5.40	3.57	7.49	6.77	N/A	8.41	
Value Added	-0.79	0.46	2.42	0.46	0.42	0.42	-0.65	-1.84	-0.12	-0.67	-0.40	N/A	-0.70	
<i>MSCI Emerging Markets IMI (Net)</i>	11.59	6.81	7.26	6.81	17.65	17.65	11.00	5.30	3.60	7.51	6.30	4.62	7.55	
Value Added	-0.79	0.46	2.42	0.46	0.42	0.42	-0.45	-1.74	-0.15	-0.69	0.07	N/A	0.16	
Cederberg China Equity Fund	11.97	9.78	12.78	9.78	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	12.78	04/01/2019
<i>MSCI Golden Dragon Index (Net)</i>	14.19	9.50	7.29	9.50	23.78	23.78	14.89	8.15	6.73	8.48	N/A	N/A	7.29	
Value Added	-2.22	0.28	5.49	0.28	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	5.49	
Steadview Capital Partners LP	7.48	-1.02	-3.21	-1.02	-2.60	-2.60	N/A	N/A	N/A	N/A	N/A	N/A	-1.20	12/01/2018
<i>Nifty 50 Index</i>	6.05	3.22	4.68	3.22	12.12	12.12	15.22	9.22	10.31	14.05	12.82	11.13	11.07	
Value Added	1.43	-4.24	-7.89	-4.24	-14.72	-14.72	N/A	N/A	N/A	N/A	N/A	N/A	-12.27	
Wasatch EM Small Cap	11.64	9.86	14.70	9.86	28.27	28.27	13.36	4.64	7.59	N/A	N/A	N/A	7.80	07/01/2008
<i>Blended Policy (Wasatch EM)</i>	9.45	4.13	4.26	4.13	12.96	12.96	7.58	3.16	3.17	7.61	7.00	4.26	4.01	
Value Added	2.19	5.73	10.44	5.73	15.31	15.31	5.78	1.48	4.42	N/A	N/A	N/A	3.79	
Total Private Equity (hedged)	-0.11	3.06	7.02	3.06	7.01	7.01	12.45	9.80	11.04	11.84	10.26	N/A	10.25	07/01/1998
<i>Burgiss Private Equity (1Q Lag)</i>	0.54	4.26	8.67	4.26	7.78	7.78	12.98	10.97	12.63	9.62	6.81	N/A	6.50	
Value Added	-0.65	-1.20	-1.65	-1.20	-0.77	-0.77	-0.53	-1.17	-1.59	2.22	3.45	N/A	3.75	
Private Equity Composite (Buyout/Venture/Special Situations/Co-Invest)	-0.24	3.02	7.01	3.02	6.85	6.85	12.42	9.78	N/A	N/A	N/A	N/A	10.41	04/01/2012
Insight Wilson Currency Hedge - PE Internal Co-Invest (1Q Lag)(Notional)	4.92	5.00	6.35	5.00	9.09	9.09	3.45	N/A	N/A	N/A	N/A	N/A	3.43	10/01/2015
<i>Currency Hedge Benchmark - PE (1Q Lag)</i>	4.96	5.07	6.45	5.07	9.16	9.16	3.50	N/A	N/A	N/A	N/A	N/A	3.51	
Value Added	-0.04	-0.07	-0.10	-0.07	-0.07	-0.07	-0.05	N/A	N/A	N/A	N/A	N/A	-0.08	



As of December 31, 2019

## Trailing Period Performance

	Performance (%)													
	1 Quarter	2 Quarters Ending Dec-2019	3 Quarters Ending Dec-2019	FYTD	YTD	1 Year	3 Years	5 Years	10 Years	15 Years	20 Years	25 Years	Since Inception	Inception Date
PSERS Private Equity Internal Co-Invest Composite	0.73	2.48	7.58	2.48	9.48	9.48	13.52	18.79	N/A	N/A	N/A	N/A	25.90	04/01/2012
PSERS Private Equity Internal Co-Invest ex PA	0.26	2.24	6.70	2.24	10.03	10.03	12.81	18.50	N/A	N/A	N/A	N/A	25.70	04/01/2012
PSERS Private Equity Internal Pennsylvania Co-Invest Composite	5.16	4.82	16.26	4.82	5.43	5.43	20.17	N/A	N/A	N/A	N/A	N/A	17.62	12/01/2015
Special Situations Composite	1.32	2.20	4.77	2.20	1.76	1.76	7.09	4.62	8.21	8.30	N/A	N/A	7.40	04/01/2001
Buyout/Venture Capital-Growth Equity Composite	-0.64	3.24	7.38	3.24	7.55	7.55	13.28	10.29	11.26	12.31	10.50	N/A	10.18	07/01/1998
Buyout	-1.06	2.58	6.78	2.58	6.56	6.56	12.87	9.97	11.27	12.60	N/A	N/A	10.90	04/01/2001
Buyout x Tobacco Composite	-1.06	2.58	6.78	2.58	6.56	6.56	12.87	10.07	11.32	12.63	N/A	N/A	10.92	04/01/2001
Venture Capital - Growth Equity	1.52	6.70	10.52	6.70	12.73	12.73	15.27	12.12	10.66	9.68	N/A	N/A	5.27	04/01/2001
<b>Total Fixed Income Exposure</b>	<b>-1.03</b>	<b>2.09</b>	<b>5.74</b>	<b>2.09</b>	<b>9.71</b>	<b>9.71</b>	<b>6.54</b>	<b>5.90</b>	<b>7.18</b>	<b>6.55</b>	<b>7.04</b>	<b>N/A</b>	<b>6.73</b>	<b>07/01/1998</b>
<i>Blended Policy (Total FI)</i>	-0.91	2.70	6.20	2.70	11.36	11.36	5.23	4.44	4.93	5.36	5.99	N/A	5.76	
Value Added	-0.12	-0.61	-0.46	-0.61	-1.65	-1.65	1.31	1.46	2.25	1.19	1.05	N/A	0.97	
<b>Global Fixed Income Composite</b>	<b>0.48</b>	<b>2.17</b>	<b>5.73</b>	<b>2.17</b>	<b>9.73</b>	<b>9.73</b>	<b>5.09</b>	<b>3.77</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>3.45</b>	<b>07/01/2012</b>
<i>Blended Policy (Global FI)</i>	0.74	2.56	5.97	2.56	9.15	9.15	4.57	2.93	3.51	N/A	N/A	N/A	2.47	
Value Added	-0.26	-0.39	-0.24	-0.39	0.58	0.58	0.52	0.84	N/A	N/A	N/A	N/A	0.98	
<b>Total US Fixed Income Composite</b>	<b>-1.13</b>	<b>2.09</b>	<b>5.73</b>	<b>2.09</b>	<b>9.68</b>	<b>9.68</b>	<b>6.57</b>	<b>6.21</b>	<b>7.74</b>	<b>6.96</b>	<b>N/A</b>	<b>N/A</b>	<b>7.01</b>	<b>10/01/2004</b>
<i>Blended Policy (Total US FI)</i>	0.13	3.88	7.39	3.88	12.66	12.66	5.59	4.87	5.48	5.83	6.33	6.60	5.82	
Value Added	-1.26	-1.79	-1.66	-1.79	-2.98	-2.98	0.98	1.34	2.26	1.13	N/A	N/A	1.19	
<b>Total US Fixed Income ex TIPS Composite</b>	<b>-0.41</b>	<b>2.56</b>	<b>5.73</b>	<b>2.56</b>	<b>9.12</b>	<b>9.12</b>	<b>7.33</b>	<b>6.27</b>	<b>7.93</b>	<b>6.94</b>	<b>7.33</b>	<b>N/A</b>	<b>7.01</b>	<b>07/01/1998</b>
Investment Grade Composite	-2.52	2.80	7.86	2.80	11.60	11.60	5.62	3.82	N/A	N/A	N/A	N/A	4.68	10/01/2014
<i>Blended Policy (Investment Grade)</i>	-2.41	3.14	8.17	3.14	12.48	12.48	5.88	3.83	4.96	5.00	N/A	N/A	4.33	
Value Added	-0.11	-0.34	-0.31	-0.34	-0.88	-0.88	-0.26	-0.01	N/A	N/A	N/A	N/A	0.35	
<b>US Core Plus Fixed Income Composite</b>	<b>-0.08</b>	<b>2.05</b>	<b>5.55</b>	<b>2.05</b>	<b>9.43</b>	<b>9.43</b>	<b>4.63</b>	<b>3.90</b>	<b>5.29</b>	<b>5.01</b>	<b>N/A</b>	<b>N/A</b>	<b>5.03</b>	<b>10/01/2004</b>
<i>Blended Policy (Barclays Aggregate Index)</i>	0.18	2.45	5.61	2.45	8.72	8.72	4.03	3.05	3.73	4.15	5.08	5.63	4.17	
Value Added	-0.26	-0.40	-0.06	-0.40	0.71	0.71	0.60	0.85	1.56	0.86	N/A	N/A	0.86	
<b>BlackRock Global Alpha</b>	<b>0.26</b>	<b>2.95</b>	<b>7.16</b>	<b>2.95</b>	<b>12.84</b>	<b>12.84</b>	<b>5.14</b>	<b>4.39</b>	<b>6.74</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>6.80</b>	<b>07/01/2007</b>
<i>Blended Policy (Barclays Aggregate Index)</i>	0.18	2.45	5.61	2.45	8.72	8.72	4.03	3.05	3.73	4.15	5.08	5.63	4.28	
Value Added	0.08	0.50	1.55	0.50	4.12	4.12	1.11	1.34	3.01	N/A	N/A	N/A	2.52	
<b>PSERS Active Core Plus Fixed Income</b>	<b>-0.24</b>	<b>1.63</b>	<b>4.86</b>	<b>1.63</b>	<b>7.56</b>	<b>7.56</b>	<b>4.36</b>	<b>3.63</b>	<b>4.66</b>	<b>5.19</b>	<b>6.07</b>	<b>N/A</b>	<b>5.83</b>	<b>07/01/1998</b>
<i>Blmbg. Barc. U.S. Aggregate</i>	0.18	2.45	5.61	2.45	8.72	8.72	4.03	3.05	3.75	4.15	5.03	5.57	4.85	
Value Added	-0.42	-0.82	-0.75	-0.82	-1.16	-1.16	0.33	0.58	0.91	1.04	1.04	N/A	0.98	
<b>SEI Investment Management</b>	<b>-0.52</b>	<b>-0.30</b>	<b>0.85</b>	<b>-0.30</b>	<b>4.17</b>	<b>4.17</b>	<b>4.25</b>	<b>4.00</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>3.76</b>	<b>03/01/2014</b>
<i>ICE BofAML 1-3 Year U.S. Corporate</i>	0.88	1.89	3.52	1.89	5.43	5.43	2.97	2.46	2.63	3.32	4.02	4.63	2.21	
Value Added	-1.40	-2.19	-2.67	-2.19	-1.26	-1.26	1.28	1.54	N/A	N/A	N/A	N/A	1.55	
<b>Non-U.S. Developed Markets Fixed Income Composite</b>	<b>0.58</b>	<b>1.18</b>	<b>2.62</b>	<b>1.18</b>	<b>2.81</b>	<b>2.81</b>	<b>2.21</b>	<b>1.38</b>	<b>2.24</b>	<b>3.18</b>	<b>4.52</b>	<b>N/A</b>	<b>4.41</b>	<b>07/01/1998</b>
<i>Blended Policy (Barclays GlobalAgg GDP Weighted Dev xUS hedged)</i>	-1.23	1.75	4.78	1.75	8.07	8.07	4.55	2.52	2.55	3.24	N/A	N/A	N/A	
Value Added	1.81	-0.57	-2.16	-0.57	-5.26	-5.26	-2.34	-1.14	-0.31	-0.06	N/A	N/A	N/A	
<b>Alliance Bernstein Global Fixed</b>	<b>0.58</b>	<b>1.18</b>	<b>2.62</b>	<b>1.18</b>	<b>2.81</b>	<b>2.81</b>	<b>2.21</b>	<b>1.35</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>1.27</b>	<b>01/01/2012</b>
<i>Spliced Barclays GlobalAgg GDPWeighted Dev xUS</i>	-1.23	1.75	4.78	1.75	8.07	8.07	4.55	2.52	2.26	3.00	N/A	N/A	1.90	
Value Added	1.81	-0.57	-2.16	-0.57	-5.26	-5.26	-2.34	-1.17	N/A	N/A	N/A	N/A	-0.63	
<b>U.S. Treasuries Total (unlevered)</b>	<b>-4.11</b>	<b>3.49</b>	<b>9.76</b>	<b>3.49</b>	<b>13.31</b>	<b>13.31</b>	<b>4.97</b>	<b>2.56</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>2.46</b>	<b>07/01/2012</b>
<i>Blmbg. Barc. U.S. Treasury: Long</i>	-4.12	3.47	9.71	3.47	14.83	14.83	6.95	4.13	7.01	6.39	7.30	7.65	3.87	
Value Added	0.01	0.02	0.05	0.02	-1.52	-1.52	-1.98	-1.57	N/A	N/A	N/A	N/A	-1.41	
<b>PSERS Funded U.S. Long Treasuries</b>	<b>-4.11</b>	<b>3.49</b>	<b>9.76</b>	<b>3.49</b>	<b>14.75</b>	<b>14.75</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>19.24</b>	<b>12/01/2018</b>
<i>Blmbg. Barc. U.S. Treasury: Long</i>	-4.12	3.47	9.71	3.47	14.83	14.83	6.95	4.13	7.01	6.39	7.30	7.65	19.34	
Value Added	0.01	0.02	0.05	0.02	-0.08	-0.08	N/A	N/A	N/A	N/A	N/A	N/A	-0.10	
<b>Credit-Related (hedged)</b>	<b>2.15</b>	<b>2.17</b>	<b>3.42</b>	<b>2.17</b>	<b>6.53</b>	<b>6.53</b>	<b>7.44</b>	<b>6.76</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>6.28</b>	<b>10/01/2014</b>
<i>Blended Policy (Credit-Related)</i>	2.31	3.54	6.29	3.54	13.61	13.61	6.33	5.49	N/A	N/A	N/A	N/A	4.84	

As of December 31, 2019

## Trailing Period Performance

	Performance (%)													Inception Date
	1 Quarter	2 Quarters Ending Dec-2019	3 Quarters Ending Dec-2019	FYTD	YTD	1 Year	3 Years	5 Years	10 Years	15 Years	20 Years	25 Years	Since Inception	
Value Added	-0.16	-1.37	-2.87	-1.37	-7.08	-7.08	1.11	1.27	N/A	N/A	N/A	N/A	1.44	
Emerging Markets Fixed Income Composite	3.99	2.64	6.64	2.64	11.54	11.54	8.52	5.48	N/A	N/A	N/A	N/A	4.61	04/01/2010
Blended Policy (EM FI)	2.97	2.85	7.23	2.85	10.64	10.64	6.59	2.69	3.30	5.75	N/A	N/A	2.82	
Value Added	1.02	-0.21	-0.59	-0.21	0.90	0.90	1.93	2.79	N/A	N/A	N/A	N/A	1.79	
Franklin Templeton Emerging Fixed Income	3.99	2.64	6.64	2.64	11.54	11.54	8.52	6.48	6.53	N/A	N/A	N/A	7.50	10/01/2008
Blended Benchmark (Franklin)	2.95	3.69	7.86	3.69	13.29	13.29	7.42	3.18	4.03	5.33	5.99	6.39	4.46	
Value Added	1.04	-1.05	-1.22	-1.05	-1.75	-1.75	1.10	3.30	2.50	N/A	N/A	N/A	3.04	
Private Credit Composite (hedged)	2.02	2.13	3.19	2.13	6.18	6.18	7.36	6.46	8.50	7.31	7.70	N/A	7.79	10/01/1999
Blended Policy (Private Credit)	2.24	3.60	6.19	3.60	13.90	13.90	6.24	6.05	7.53	7.19	7.43	7.76	7.45	
Value Added	-0.22	-1.47	-3.00	-1.47	-7.72	-7.72	1.12	0.41	0.97	0.12	0.27	N/A	0.34	
Insight Oxygen Currency Hedge - Private Credit (notional)	-2.24	2.88	2.22	2.88	4.84	4.84	0.42	N/A	N/A	N/A	N/A	N/A	1.87	07/01/2015
Currency Hedge Benchmark - Private Credit	-2.25	2.70	1.99	2.70	4.56	4.56	0.09	2.89	2.58	1.21	N/A	N/A	1.52	
Value Added	0.01	0.18	0.23	0.18	0.28	0.28	0.33	N/A	N/A	N/A	N/A	N/A	0.35	
PSERS Private Credit Internal Co-Invest	8.08	5.29	13.90	5.29	9.92	9.92	-0.01	-14.79	N/A	N/A	N/A	N/A	-8.84	08/01/2013
Blended Policy (Private Credit)	2.24	3.60	6.19	3.60	13.90	13.90	6.24	6.05	7.53	7.19	7.43	7.76	5.72	
Value Added	5.84	1.69	7.71	1.69	-3.98	-3.98	-6.25	-20.84	N/A	N/A	N/A	N/A	-14.56	
Apollo European Principal Fund II	0.00	-3.66	-6.16	-3.66	-7.72	-7.72	0.57	4.37	N/A	N/A	N/A	N/A	4.36	10/01/2012
Blended Policy (Private Credit)	2.24	3.60	6.19	3.60	13.90	13.90	6.24	6.05	7.53	7.19	7.43	7.76	6.00	
Value Added	-2.24	-7.26	-12.35	-7.26	-21.62	-21.62	-5.67	-1.68	N/A	N/A	N/A	N/A	-1.64	
Apollo European Principal Fund III	0.00	6.40	5.66	6.40	16.52	16.52	N/A	N/A	N/A	N/A	N/A	N/A	-5.18	01/01/2018
Blended Policy (Private Credit)	2.24	3.60	6.19	3.60	13.90	13.90	6.24	6.05	7.53	7.19	7.43	7.76	5.61	
Value Added	-2.24	2.80	-0.53	2.80	2.62	2.62	N/A	N/A	N/A	N/A	N/A	N/A	-10.79	
Avenue Energy Opportunities Fund	2.57	-2.53	-8.84	-2.53	-5.83	-5.83	-0.36	N/A	N/A	N/A	N/A	N/A	0.94	02/01/2015
Blended Policy (Private Credit)	2.24	3.60	6.19	3.60	13.90	13.90	6.24	6.05	7.53	7.19	7.43	7.76	6.02	
Value Added	0.33	-6.13	-15.03	-6.13	-19.73	-19.73	-6.60	N/A	N/A	N/A	N/A	N/A	-5.08	
Avenue Energy Opportunities Fund II	2.20	9.72	4.43	9.72	7.52	7.52	N/A	N/A	N/A	N/A	N/A	N/A	3.54	09/01/2017
Blended Policy (Private Credit)	2.24	3.60	6.19	3.60	13.90	13.90	6.24	6.05	7.53	7.19	7.43	7.76	5.40	
Value Added	-0.04	6.12	-1.76	6.12	-6.38	-6.38	N/A	N/A	N/A	N/A	N/A	N/A	-1.86	
Avenue Europe SS III	4.14	2.89	6.41	2.89	7.70	7.70	7.48	N/A	N/A	N/A	N/A	N/A	7.06	01/01/2016
Blended Policy (Private Credit)	2.24	3.60	6.19	3.60	13.90	13.90	6.24	6.05	7.53	7.19	7.43	7.76	8.86	
Value Added	1.90	-0.71	0.22	-0.71	-6.20	-6.20	1.24	N/A	N/A	N/A	N/A	N/A	-1.80	
Bain Capital Credit Managed Account (PSERS), L.P.	1.33	-0.28	0.64	-0.28	4.64	4.64	5.30	5.49	6.58	N/A	N/A	N/A	7.34	07/01/2009
Blended Policy (Private Credit)	2.24	3.60	6.19	3.60	13.90	13.90	6.24	6.05	7.53	7.19	7.43	7.76	9.15	
Value Added	-0.91	-3.88	-5.55	-3.88	-9.26	-9.26	-0.94	-0.56	-0.95	N/A	N/A	N/A	-1.81	
Bain Capital Credit Opp. Fund IV	0.85	1.04	2.51	1.04	13.14	13.14	16.65	8.51	7.39	N/A	N/A	N/A	9.26	10/01/2008
Blended Policy (Private Credit)	2.24	3.60	6.19	3.60	13.90	13.90	6.24	6.05	7.53	7.19	7.43	7.76	9.05	
Value Added	-1.39	-2.56	-3.68	-2.56	-0.76	-0.76	10.41	2.46	-0.14	N/A	N/A	N/A	0.21	
Bain Capital Distressed and Special Situations 2013	-1.84	-5.74	-8.55	-5.74	-4.95	-4.95	4.17	3.25	N/A	N/A	N/A	N/A	4.93	10/01/2012
Blended Policy (Private Credit)	2.24	3.60	6.19	3.60	13.90	13.90	6.24	6.05	7.53	7.19	7.43	7.76	6.00	
Value Added	-4.08	-9.34	-14.74	-9.34	-18.85	-18.85	-2.07	-2.80	N/A	N/A	N/A	N/A	-1.07	
Bain Capital Distressed and Special Situations 2016 (A), L.P.	1.34	2.07	3.01	2.07	4.38	4.38	8.98	N/A	N/A	N/A	N/A	N/A	13.11	11/01/2015
Blended Policy (Private Credit)	2.24	3.60	6.19	3.60	13.90	13.90	6.24	6.05	7.53	7.19	7.43	7.76	7.25	
Value Added	-0.90	-1.53	-3.18	-1.53	-9.52	-9.52	2.74	N/A	N/A	N/A	N/A	N/A	5.86	
Bain Capital Distressed and Special Situations 2019 (A), L.P.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-2.71	12/01/2019
Blended Policy (Private Credit)	2.24	3.60	6.19	3.60	13.90	13.90	6.24	6.05	7.53	7.19	7.43	7.76	1.76	
Value Added	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-4.47	
Bain Capital Middle Market Credit 2010, L.P.	1.57	4.36	16.74	4.36	17.99	17.99	6.70	3.64	N/A	N/A	N/A	N/A	6.76	06/01/2010
Blended Policy (Private Credit)	2.24	3.60	6.19	3.60	13.90	13.90	6.24	6.05	7.53	7.19	7.43	7.76	7.51	

As of December 31, 2019

## Trailing Period Performance

	Performance (%)													Inception Date
	1 Quarter	2 Quarters Ending Dec-2019	3 Quarters Ending Dec-2019	FYTD	YTD	1 Year	3 Years	5 Years	10 Years	15 Years	20 Years	25 Years	Since Inception	
Value Added	-0.67	0.76	10.55	0.76	4.09	4.09	0.46	-2.41	N/A	N/A	N/A	N/A	-0.75	
Bain Capital Middle Market Credit 2014, L.P.	0.88	1.93	3.04	1.93	4.24	4.24	7.92	6.06	N/A	N/A	N/A	N/A	6.04	11/01/2013
<i>Blended Policy (Private Credit)</i>	2.24	3.60	6.19	3.60	13.90	13.90	6.24	6.05	7.53	7.19	7.43	7.76	5.47	
Value Added	-1.36	-1.67	-3.15	-1.67	-9.66	-9.66	1.68	0.01	N/A	N/A	N/A	N/A	0.57	
Brigade Distressed Value	4.77	-0.05	1.86	-0.05	7.25	7.25	6.51	6.20	N/A	N/A	N/A	N/A	6.87	10/01/2011
<i>Blended Policy (Private Credit)</i>	2.24	3.60	6.19	3.60	13.90	13.90	6.24	6.05	7.53	7.19	7.43	7.76	7.53	
Value Added	2.53	-3.65	-4.33	-3.65	-6.65	-6.65	0.27	0.15	N/A	N/A	N/A	N/A	-0.66	
Brigade Structured Credit Offshore Fund	1.27	2.21	3.82	2.21	11.89	11.89	7.09	7.90	N/A	N/A	N/A	N/A	7.71	11/01/2014
<i>Blended Policy (Private Credit)</i>	2.24	3.60	6.19	3.60	13.90	13.90	6.24	6.05	7.53	7.19	7.43	7.76	5.40	
Value Added	-0.97	-1.39	-2.37	-1.39	-2.01	-2.01	0.85	1.85	N/A	N/A	N/A	N/A	2.31	
Carlyle Energy Mezz. Opp. Fund	-17.31	-41.14	-42.82	-41.14	-44.42	-44.42	-23.99	-25.18	N/A	N/A	N/A	N/A	-13.66	10/01/2012
<i>Blended Policy (Private Credit)</i>	2.24	3.60	6.19	3.60	13.90	13.90	6.24	6.05	7.53	7.19	7.43	7.76	6.00	
Value Added	-19.55	-44.74	-49.01	-44.74	-58.32	-58.32	-30.23	-31.23	N/A	N/A	N/A	N/A	-19.66	
Carlyle Energy Mezz. Opp. Fund II	-4.15	-5.04	-5.21	-5.04	-4.41	-4.41	-0.60	N/A	N/A	N/A	N/A	N/A	-5.92	11/01/2015
<i>Blended Policy (Private Credit)</i>	2.24	3.60	6.19	3.60	13.90	13.90	6.24	6.05	7.53	7.19	7.43	7.76	7.25	
Value Added	-6.39	-8.64	-11.40	-8.64	-18.31	-18.31	-6.84	N/A	N/A	N/A	N/A	N/A	-13.17	
Cerberus Levered Loan Fund I	0.18	1.42	2.62	1.42	4.66	4.66	5.92	4.46	N/A	N/A	N/A	N/A	5.83	01/01/2012
<i>Blended Policy (Private Credit)</i>	2.24	3.60	6.19	3.60	13.90	13.90	6.24	6.05	7.53	7.19	7.43	7.76	6.94	
Value Added	-2.06	-2.18	-3.57	-2.18	-9.24	-9.24	-0.32	-1.59	N/A	N/A	N/A	N/A	-1.11	
Cerberus Levered Loan Fund II	-2.61	-4.00	-3.41	-4.00	-2.56	-2.56	0.72	2.65	N/A	N/A	N/A	N/A	5.52	01/01/2013
<i>Blended Policy (Private Credit)</i>	2.24	3.60	6.19	3.60	13.90	13.90	6.24	6.05	7.53	7.19	7.43	7.76	5.73	
Value Added	-4.85	-7.60	-9.60	-7.60	-16.46	-16.46	-5.52	-3.40	N/A	N/A	N/A	N/A	-0.21	
Cerberus PSERS Levered Loan Opportunities Fund	3.25	6.14	9.11	6.14	11.97	11.97	13.87	N/A	N/A	N/A	N/A	N/A	22.35	10/01/2015
<i>Blended Policy (Private Credit)</i>	2.24	3.60	6.19	3.60	13.90	13.90	6.24	6.05	7.53	7.19	7.43	7.76	7.79	
Value Added	1.01	2.54	2.92	2.54	-1.93	-1.93	7.63	N/A	N/A	N/A	N/A	N/A	14.56	
Clearlake Opportunities Partners II, LP	3.66	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3.66	09/01/2019
<i>Blended Policy (Private Credit)</i>	2.24	3.60	6.19	3.60	13.90	13.90	6.24	6.05	7.53	7.19	7.43	7.76	2.61	
Value Added	1.42	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1.05	
Galton Onshore Mortgage Recovery Fund III, LP	-3.32	-3.10	-2.66	-3.10	2.36	2.36	8.38	5.04	N/A	N/A	N/A	N/A	3.36	11/01/2013
<i>Blended Policy (Private Credit)</i>	2.24	3.60	6.19	3.60	13.90	13.90	6.24	6.05	7.53	7.19	7.43	7.76	5.47	
Value Added	-5.56	-6.70	-8.85	-6.70	-11.54	-11.54	2.14	-1.01	N/A	N/A	N/A	N/A	-2.11	
Galton Onshore Mortgage Recovery Fund IV, L.P.	3.10	0.92	-4.50	0.92	-2.10	-2.10	N/A	N/A	N/A	N/A	N/A	N/A	-8.71	11/01/2017
<i>Blended Policy (Private Credit)</i>	2.24	3.60	6.19	3.60	13.90	13.90	6.24	6.05	7.53	7.19	7.43	7.76	5.19	
Value Added	0.86	-2.68	-10.69	-2.68	-16.00	-16.00	N/A	N/A	N/A	N/A	N/A	N/A	-13.90	
Hayfin SOF II USD LP	2.43	2.61	5.17	2.61	6.74	6.74	11.14	N/A	N/A	N/A	N/A	N/A	N/A	09/01/2016
<i>Blended Policy (Private Credit)</i>	2.24	3.60	6.19	3.60	13.90	13.90	6.24	6.05	7.53	7.19	7.43	7.76	6.36	
Value Added	0.19	-0.99	-1.02	-0.99	-7.16	-7.16	4.90	N/A	N/A	N/A	N/A	N/A	N/A	
Hayfin SOF II USD Co-Invest	7.60	4.26	5.44	4.26	7.46	7.46	6.43	N/A	N/A	N/A	N/A	N/A	N/A	08/01/2016
<i>Blended Policy (Private Credit)</i>	2.24	3.60	6.19	3.60	13.90	13.90	6.24	6.05	7.53	7.19	7.43	7.76	6.84	
Value Added	5.36	0.66	-0.75	0.66	-6.44	-6.44	0.19	N/A	N/A	N/A	N/A	N/A	N/A	
Hayfin Special Opportunities Credit LP	3.06	-5.41	-3.21	-5.41	-7.59	-7.59	12.14	7.59	N/A	N/A	N/A	N/A	6.41	03/01/2013
<i>Blended Policy (Private Credit)</i>	2.24	3.60	6.19	3.60	13.90	13.90	6.24	6.05	7.53	7.19	7.43	7.76	5.59	
Value Added	0.82	-9.01	-9.40	-9.01	-21.49	-21.49	5.90	1.54	N/A	N/A	N/A	N/A	0.82	
ICG Europe Fund V	18.55	11.80	8.71	11.80	16.77	16.77	19.64	12.29	N/A	N/A	N/A	N/A	11.46	01/01/2013
<i>Blended Policy (Private Credit)</i>	2.24	3.60	6.19	3.60	13.90	13.90	6.24	6.05	7.53	7.19	7.43	7.76	5.73	
Value Added	16.31	8.20	2.52	8.20	2.87	2.87	13.40	6.24	N/A	N/A	N/A	N/A	5.73	
ICG Europe Fund VI	7.74	3.40	5.41	3.40	7.18	7.18	22.19	N/A	N/A	N/A	N/A	N/A	38.74	02/01/2016
<i>Blended Policy (Private Credit)</i>	2.24	3.60	6.19	3.60	13.90	13.90	6.24	6.05	7.53	7.19	7.43	7.76	9.51	

As of December 31, 2019

## Trailing Period Performance

	Performance (%)													
	1 Quarter	2 Quarters Ending Dec-2019	3 Quarters Ending Dec-2019	FYTD	YTD	1 Year	3 Years	5 Years	10 Years	15 Years	20 Years	25 Years	Since Inception	Inception Date
Value Added	5.50	-0.20	-0.78	-0.20	-6.72	-6.72	15.95	N/A	N/A	N/A	N/A	N/A	29.23	
ICG Europe Fund VII	12.50	16.39	20.62	16.39	33.77	33.77	N/A	N/A	N/A	N/A	N/A	N/A	21.83	08/01/2018
Blended Policy (Private Credit)	2.24	3.60	6.19	3.60	13.90	13.90	6.24	6.05	7.53	7.19	7.43	7.76	7.06	
Value Added	10.26	12.79	14.43	12.79	19.87	19.87	N/A	N/A	N/A	N/A	N/A	N/A	14.77	
Latitude Management Real Estate Capital IV	1.87	3.52	4.91	3.52	6.74	6.74	N/A	N/A	N/A	N/A	N/A	N/A	4.30	05/01/2017
Blended Policy (Private Credit)	2.24	3.60	6.19	3.60	13.90	13.90	6.24	6.05	7.53	7.19	7.43	7.76	5.52	
Value Added	-0.37	-0.08	-1.28	-0.08	-7.16	-7.16	N/A	N/A	N/A	N/A	N/A	N/A	-1.22	
LBC Credit Partners III	-0.10	-0.57	-1.79	-0.57	-3.60	-3.60	-0.26	5.17	N/A	N/A	N/A	N/A	8.22	04/01/2013
Blended Policy (Private Credit)	2.24	3.60	6.19	3.60	13.90	13.90	6.24	6.05	7.53	7.19	7.43	7.76	5.50	
Value Added	-2.34	-4.17	-7.98	-4.17	-17.50	-17.50	-6.50	-0.88	N/A	N/A	N/A	N/A	2.72	
LBC-P Credit Fund LP	2.15	2.68	5.46	2.68	5.56	5.56	13.38	N/A	N/A	N/A	N/A	N/A	12.82	10/01/2016
Blended Policy (Private Credit)	2.24	3.60	6.19	3.60	13.90	13.90	6.24	6.05	7.53	7.19	7.43	7.76	6.31	
Value Added	-0.09	-0.92	-0.73	-0.92	-8.34	-8.34	7.14	N/A	N/A	N/A	N/A	N/A	6.51	
Mariner/Galton RMBS	0.41	3.26	7.53	3.26	10.85	10.85	7.17	5.94	N/A	N/A	N/A	N/A	7.99	05/01/2010
Blended Policy (Private Credit)	2.24	3.60	6.19	3.60	13.90	13.90	6.24	6.05	7.53	7.19	7.43	7.76	7.04	
Value Added	-1.83	-0.34	1.34	-0.34	-3.05	-3.05	0.93	-0.11	N/A	N/A	N/A	N/A	0.95	
Mariner International Infrastructure	1.86	4.80	7.63	4.80	9.35	9.35	9.08	8.34	N/A	N/A	N/A	N/A	5.37	12/01/2013
Blended Policy (Private Credit)	2.24	3.60	6.19	3.60	13.90	13.90	6.24	6.05	7.53	7.19	7.43	7.76	5.46	
Value Added	-0.38	1.20	1.44	1.20	-4.55	-4.55	2.84	2.29	N/A	N/A	N/A	N/A	-0.09	
Oaktree Loan Fund 2X, LP	7.09	7.44	7.75	7.44	8.05	8.05	4.05	-1.97	2.66	N/A	N/A	N/A	3.29	01/01/2008
Blended Policy (Private Credit)	2.24	3.60	6.19	3.60	13.90	13.90	6.24	6.05	7.53	7.19	7.43	7.76	7.61	
Value Added	4.85	3.84	1.56	3.84	-5.85	-5.85	-2.19	-8.02	-4.87	N/A	N/A	N/A	-4.32	
Park Square Credit Opportunities	1.34	4.94	8.18	4.94	13.96	13.96	6.24	N/A	N/A	N/A	N/A	N/A	9.82	11/01/2015
Blended Policy (Private Credit)	2.24	3.60	6.19	3.60	13.90	13.90	6.24	6.05	7.53	7.19	7.43	7.76	7.25	
Value Added	-0.90	1.34	1.99	1.34	0.06	0.06	0.00	N/A	N/A	N/A	N/A	N/A	2.57	
PIMCO BRAVO Fund III Onshore Feeder, L.P.	1.01	3.93	7.90	3.93	10.52	10.52	N/A	N/A	N/A	N/A	N/A	N/A	15.12	12/01/2017
Blended Policy (Private Credit)	2.24	3.60	6.19	3.60	13.90	13.90	6.24	6.05	7.53	7.19	7.43	7.76	5.53	
Value Added	-1.23	0.33	1.71	0.33	-3.38	-3.38	N/A	N/A	N/A	N/A	N/A	N/A	9.59	
PIMCO Commercial Real Estate Debt Fund, L.P.	0.34	2.86	6.07	2.86	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	5.30	02/01/2019
Blended Policy (Private Credit)	2.24	3.60	6.19	3.60	13.90	13.90	6.24	6.05	7.53	7.19	7.43	7.76	8.97	
Value Added	-1.90	-0.74	-0.12	-0.74	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-3.67	
Summit Partners Credit Fund II LP	2.42	3.77	6.03	3.77	6.39	6.39	8.47	7.62	N/A	N/A	N/A	N/A	6.80	11/01/2014
Blended Policy (Private Credit)	2.24	3.60	6.19	3.60	13.90	13.90	6.24	6.05	7.53	7.19	7.43	7.76	5.40	
Value Added	0.18	0.17	-0.16	0.17	-7.51	-7.51	2.23	1.57	N/A	N/A	N/A	N/A	1.40	
TCI Real Estate Partners Fund III, L.P.	2.37	5.66	10.57	5.66	12.59	12.59	N/A	N/A	N/A	N/A	N/A	N/A	12.59	01/01/2019
Blended Policy (Private Credit)	2.24	3.60	6.19	3.60	13.90	13.90	6.24	6.05	7.53	7.19	7.43	7.76	13.90	
Value Added	0.13	2.06	4.38	2.06	-1.31	-1.31	N/A	N/A	N/A	N/A	N/A	N/A	-1.31	
The Varde Scratch and Dent Fund, LP	1.76	2.63	3.84	2.63	7.18	7.18	7.00	7.03	N/A	N/A	N/A	N/A	7.67	12/01/2014
Blended Policy (Private Credit)	2.24	3.60	6.19	3.60	13.90	13.90	6.24	6.05	7.53	7.19	7.43	7.76	5.65	
Value Added	-0.48	-0.97	-2.35	-0.97	-6.72	-6.72	0.76	0.98	N/A	N/A	N/A	N/A	2.02	
The Varde Scratch and Dent Fund Feed I-A	2.33	4.57	6.77	4.57	8.92	8.92	7.92	N/A	N/A	N/A	N/A	N/A	N/A	08/01/2016
Blended Policy (Private Credit)	2.24	3.60	6.19	3.60	13.90	13.90	6.24	6.05	7.53	7.19	7.43	7.76	6.84	
Value Added	0.09	0.97	0.58	0.97	-4.98	-4.98	1.68	N/A	N/A	N/A	N/A	N/A	N/A	
TOP NPL (A)	-2.34	-1.00	-1.38	-1.00	-4.34	-4.34	-1.42	3.33	N/A	N/A	N/A	N/A	8.66	04/01/2012
Blended Policy (Private Credit)	2.24	3.60	6.19	3.60	13.90	13.90	6.24	6.05	7.53	7.19	7.43	7.76	6.45	
Value Added	-4.58	-4.60	-7.57	-4.60	-18.24	-18.24	-7.66	-2.72	N/A	N/A	N/A	N/A	2.21	
TPG Opportunities Partners II, LP	-1.63	-0.65	-0.66	-0.65	-1.44	-1.44	7.38	9.95	N/A	N/A	N/A	N/A	11.09	04/01/2012
Blended Policy (Private Credit)	2.24	3.60	6.19	3.60	13.90	13.90	6.24	6.05	7.53	7.19	7.43	7.76	6.45	

As of December 31, 2019

## Trailing Period Performance

	Performance (%)													Inception Date
	1 Quarter	2 Quarters Ending Dec-2019	3 Quarters Ending Dec-2019	FYTD	YTD	1 Year	3 Years	5 Years	10 Years	15 Years	20 Years	25 Years	Since Inception	
Value Added	-3.87	-4.25	-6.85	-4.25	-15.34	-15.34	1.14	3.90	N/A	N/A	N/A	N/A	4.64	
TPG Opportunities Partners III, LP	7.96	6.81	6.67	6.81	10.81	10.81	11.38	10.83	N/A	N/A	N/A	N/A	6.57	02/01/2014
Blended Policy (Private Credit)	2.24	3.60	6.19	3.60	13.90	13.90	6.24	6.05	7.53	7.19	7.43	7.76	5.40	
Value Added	5.72	3.21	0.48	3.21	-3.09	-3.09	5.14	4.78	N/A	N/A	N/A	N/A	1.17	
TPG TAO	3.39	5.57	7.60	5.57	11.03	11.03	9.51	9.75	N/A	N/A	N/A	N/A	9.75	01/01/2015
Blended Policy (Private Credit)	2.24	3.60	6.19	3.60	13.90	13.90	6.24	6.05	7.53	7.19	7.43	7.76	6.05	
Value Added	1.15	1.97	1.41	1.97	-2.87	-2.87	3.27	3.70	N/A	N/A	N/A	N/A	3.70	
TSSP Opportunities Partners IV, LP	0.07	2.77	4.42	2.77	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	9.59	02/01/2019
Blended Policy (Private Credit)	2.24	3.60	6.19	3.60	13.90	13.90	6.24	6.05	7.53	7.19	7.43	7.76	8.97	
Value Added	-2.17	-0.83	-1.77	-0.83	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.62	
Inflation Protected (unlevered)	-1.87	0.93	3.50	0.93	6.32	6.32	2.95	4.08	N/A	N/A	N/A	N/A	4.31	10/01/2014
Blended Policy (Inflation Protected)	-2.23	1.67	4.62	1.67	8.73	8.73	3.99	4.02	4.06	4.26	5.87	N/A	3.82	
Value Added	0.36	-0.74	-1.12	-0.74	-2.41	-2.41	-1.04	0.06	N/A	N/A	N/A	N/A	0.49	
U.S. Inflation Protected (unlevered)	0.65	2.10	4.61	2.10	7.48	7.48	2.96	2.70	4.52	4.90	N/A	N/A	4.92	03/01/2004
Blended Policy (U.S. Inflation Protected)	0.74	2.09	5.02	2.09	8.37	8.37	3.30	2.61	3.36	3.79	5.51	N/A	3.89	
Value Added	-0.09	0.01	-0.41	0.01	-0.89	-0.89	-0.34	0.09	1.16	1.11	N/A	N/A	1.03	
PSERS Total TIPS (unlevered)	0.65	2.10	4.61	2.10	7.48	7.48	2.96	2.70	3.73	4.16	N/A	N/A	4.19	04/01/2004
Blended Policy (U.S. Inflation Protected)	0.74	2.09	5.02	2.09	8.37	8.37	3.30	2.61	3.36	3.79	5.51	N/A	3.81	
Value Added	-0.09	0.01	-0.41	0.01	-0.89	-0.89	-0.34	0.09	0.37	0.37	N/A	N/A	0.38	
PSERS TIPS	0.52	2.11	4.93	2.11	8.05	8.05	3.68	2.94	4.65	5.02	N/A	N/A	5.01	04/01/2004
Blended Policy (U.S. Inflation Protected)	0.74	2.09	5.02	2.09	8.37	8.37	3.30	2.61	3.36	3.79	5.51	N/A	3.81	
Value Added	-0.22	0.02	-0.09	0.02	-0.32	-0.32	0.38	0.33	1.29	1.23	N/A	N/A	1.20	
PSERS TIPS Swap (Long)	0.77	2.13	5.05	2.13	8.41	8.41	3.31	N/A	N/A	N/A	N/A	N/A	2.39	09/01/2016
TIPS Swap Custom Benchmark	0.74	2.09	5.02	2.09	8.37	8.37	3.30	2.61	3.36	3.79	5.51	N/A	2.38	
Value Added	0.03	0.04	0.03	0.04	0.04	0.04	0.01	N/A	N/A	N/A	N/A	N/A	0.01	
Non-U.S. Inflation Protected (unlevered)	-4.03	-0.20	2.41	-0.20	5.33	5.33	3.12	N/A	N/A	N/A	N/A	N/A	3.05	02/01/2015
Bloomberg Barclays World Govt ex U.S. ILB Index (H\$)	-5.15	0.56	3.46	0.56	7.98	7.98	4.15	5.15	5.46	5.29	5.36	N/A	4.49	
Value Added	1.12	-0.76	-1.05	-0.76	-2.65	-2.65	-1.03	N/A	N/A	N/A	N/A	N/A	-1.44	
Bridgewater TIPS (unlevered)	-4.03	-0.20	2.41	-0.20	5.33	5.33	3.12	N/A	N/A	N/A	N/A	N/A	3.05	02/01/2015
BGI Custom IL Bond Index (unlevered)	-4.49	-0.66	1.90	-0.66	5.90	5.90	2.73	N/A	N/A	N/A	N/A	N/A	N/A	
Value Added	0.46	0.46	0.51	0.46	-0.57	-0.57	0.39	N/A	N/A	N/A	N/A	N/A	N/A	
PIMCO Multi-Sector Strategy	-0.79	2.20	6.02	2.20	9.50	9.50	5.33	3.89	N/A	N/A	N/A	N/A	3.91	07/01/2012
Blended Policy (PIMCO Multi-Sector)	-1.03	2.81	6.84	2.81	10.51	10.51	5.45	3.94	4.69	4.78	5.51	5.95	4.02	
Value Added	0.24	-0.61	-0.82	-0.61	-1.01	-1.01	-0.12	-0.05	N/A	N/A	N/A	N/A	-0.11	
Total Real Asset Exposure (unlevered/hedged)	2.21	3.31	5.29	3.31	12.57	12.57	5.90	4.49	N/A	N/A	N/A	N/A	3.89	10/01/2014
Blended Policy (Real Assets) (Hedged)	2.32	3.05	4.67	3.05	12.04	12.04	5.96	4.38	N/A	N/A	N/A	N/A	3.72	
Value Added	-0.11	0.26	0.62	0.26	0.53	0.53	-0.06	0.11	N/A	N/A	N/A	N/A	0.17	
Total Infrastructure Composite (unlevered/hedged)	0.56	-1.10	-0.36	-1.10	17.09	17.09	5.68	N/A	N/A	N/A	N/A	N/A	6.08	11/01/2015
Blended Policy (Infrastructure Hedged)	2.43	0.95	1.88	0.95	19.50	19.50	6.80	5.61	9.26	N/A	N/A	N/A	6.67	
Value Added	-1.87	-2.05	-2.24	-2.05	-2.41	-2.41	-1.12	N/A	N/A	N/A	N/A	N/A	-0.59	
Infrastructure x MLP (unlevered/hedged)	1.59	4.79	8.26	4.79	22.62	22.62	11.52	N/A	N/A	N/A	N/A	N/A	10.27	11/01/2015
Blended Policy (Infrastructure x MLP) (Hedged)	2.58	6.66	21.89	6.66	18.98	18.98	10.65	9.42	N/A	N/A	N/A	N/A	9.46	
Value Added	-0.99	-1.87	-13.63	-1.87	3.64	3.64	0.87	N/A	N/A	N/A	N/A	N/A	0.81	
Insight Nevada Currency Hedge - Infra (notional)	-2.53	0.87	0.51	0.87	0.84	0.84	0.13	N/A	N/A	N/A	N/A	N/A	0.46	12/01/2015
Currency Hedge Benchmark - Infra	-2.52	0.96	0.65	0.96	1.03	1.03	0.26	N/A	N/A	N/A	N/A	N/A	0.60	
Value Added	-0.01	-0.09	-0.14	-0.09	-0.19	-0.19	-0.13	N/A	N/A	N/A	N/A	N/A	-0.14	
Private Infrastructure Composite	0.44	3.14	4.83	3.14	14.75	14.75	N/A	N/A	N/A	N/A	N/A	N/A	12.25	05/01/2017

As of December 31, 2019

## Trailing Period Performance

	Performance (%)													
	1 Quarter	2 Quarters Ending Dec-2019	3 Quarters Ending Dec-2019	FYTD	YTD	1 Year	3 Years	5 Years	10 Years	15 Years	20 Years	25 Years	Since Inception	Inception Date
<i>FTSE Developed Core Infrastructure 50/50 Index (Net) 1Q Lag</i>	2.13	6.32	21.26	6.32	17.10	17.10	9.53	7.74	N/A	N/A	N/A	N/A	11.77	
Value Added	-1.69	-3.18	-16.43	-3.18	-2.35	-2.35	N/A	N/A	N/A	N/A	N/A	N/A	0.48	
Private Infrastructure ex Co-Invest	0.57	3.75	6.01	3.75	11.74	11.74	N/A	N/A	N/A	N/A	N/A	N/A	11.13	05/01/2017
PSERS Private Infrastructure Internal Co-Invest	-0.87	-1.92	-3.90	-1.92	27.86	27.86	N/A	N/A	N/A	N/A	N/A	N/A	27.56	11/01/2018
<b>Publicly-Traded Infrastructure Composite (unlevered)</b>	3.12	5.32	9.64	5.32	25.04	25.04	12.12	N/A	N/A	N/A	N/A	N/A	9.98	11/01/2015
<i>FTSE Developed Core Infrast 50/50 Index (Net)</i>	3.12	5.32	9.64	5.32	25.04	25.04	12.12	7.59	9.88	N/A	N/A	N/A	9.98	
Value Added	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	N/A	N/A	N/A	N/A	0.00	
PSERS Infrastructure Index (Long)	3.12	5.32	9.64	5.32	25.04	25.04	12.12	N/A	N/A	N/A	N/A	N/A	9.98	11/01/2015
<i>FTSE Developed Core Infrast 50/50 Index (Net)</i>	3.12	5.32	9.64	5.32	25.04	25.04	12.12	7.59	9.88	N/A	N/A	N/A	9.98	
Value Added	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	N/A	N/A	N/A	N/A	0.00	
<b>MLP Composite</b>	-0.09	-4.92	-5.64	-4.92	13.38	13.38	-2.18	-4.71	8.94	N/A	N/A	N/A	11.15	10/01/2008
<i>Blended Policy (MLP)</i>	2.19	-1.94	-2.52	-1.94	15.76	15.76	-1.17	-5.23	5.66	7.04	N/A	N/A	8.34	
Value Added	-2.28	-2.98	-3.12	-2.98	-2.38	-2.38	-1.01	0.52	3.28	N/A	N/A	N/A	2.81	
PSERS MLP	-0.18	-5.00	-5.71	-5.00	13.35	13.35	-2.03	N/A	N/A	N/A	N/A	N/A	-2.85	08/01/2015
<i>MLP Internal Blended Benchmark</i>	-0.08	-4.90	-5.62	-4.90	13.39	13.39	-2.02	-5.72	5.39	6.86	N/A	N/A	-3.66	
Value Added	-0.10	-0.10	-0.09	-0.10	-0.04	-0.04	-0.01	N/A	N/A	N/A	N/A	N/A	0.81	
<b>External MLP Composite</b>	-0.08	-4.90	-5.62	-4.90	13.39	13.39	N/A	N/A	N/A	N/A	N/A	N/A	-1.33	06/01/2017
<i>Blended Policy (MLP)</i>	2.19	-1.94	-2.52	-1.94	15.76	15.76	-1.17	-5.23	5.66	7.04	N/A	N/A	-0.31	
Value Added	-2.27	-2.96	-3.10	-2.96	-2.37	-2.37	N/A	N/A	N/A	N/A	N/A	N/A	-1.02	
Atlantic Trust	-0.18	-5.72	-6.93	-5.72	11.11	11.11	-2.47	-4.55	N/A	N/A	N/A	N/A	3.55	09/01/2012
<i>Blended Policy (MLP)</i>	2.19	-1.94	-2.52	-1.94	15.76	15.76	-1.17	-5.23	5.66	7.04	N/A	N/A	0.70	
Value Added	-2.37	-3.78	-4.41	-3.78	-4.65	-4.65	-1.30	0.68	N/A	N/A	N/A	N/A	2.85	
Harvest MLP	-0.92	-6.26	-6.59	-6.26	12.85	12.85	-2.54	-4.98	8.79	N/A	N/A	N/A	11.01	10/01/2008
<i>Blended Policy (MLP)</i>	2.19	-1.94	-2.52	-1.94	15.76	15.76	-1.17	-5.23	5.66	7.04	N/A	N/A	8.34	
Value Added	-3.11	-4.32	-4.07	-4.32	-2.91	-2.91	-1.37	0.25	3.13	N/A	N/A	N/A	2.67	
Salient	1.11	-2.68	-3.43	-2.68	15.94	15.94	-1.63	-4.65	N/A	N/A	N/A	N/A	3.80	08/01/2012
<i>Blended Policy (MLP)</i>	2.19	-1.94	-2.52	-1.94	15.76	15.76	-1.17	-5.23	5.66	7.04	N/A	N/A	0.91	
Value Added	-1.08	-0.74	-0.91	-0.74	0.18	0.18	-0.46	0.58	N/A	N/A	N/A	N/A	2.89	
<b>Total Commodities Composite (unlevered)</b>	4.18	4.39	7.36	4.39	10.97	10.97	3.36	0.62	-1.09	N/A	N/A	N/A	-0.55	11/01/2006
<i>Blended Policy (Commodities)</i>	4.02	4.40	7.10	4.40	11.67	11.67	2.84	-0.69	-2.67	N/A	N/A	N/A	-2.86	
Value Added	0.16	-0.01	0.26	-0.01	-0.70	-0.70	0.52	1.31	1.58	N/A	N/A	N/A	2.31	
Private Commodities Composite	-0.82	-4.80	0.38	-4.80	5.36	5.36	N/A	N/A	N/A	N/A	N/A	N/A	-10.34	11/01/2018
Private Commodities ex Co-Invest	-0.88	-5.02	0.33	-5.02	5.30	5.30	N/A	N/A	N/A	N/A	N/A	N/A	-10.38	11/01/2018
PSERS Private Commodities Internal Co-Invest	0.00	0.00	0.00	0.00	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.00	04/01/2019
<b>Commodities Composite ex Private (unlevered)</b>	4.32	4.65	9.92	4.65	13.72	13.72	4.20	1.11	-0.85	N/A	N/A	N/A	-0.36	11/01/2006
<i>Blended Policy (Commodities)</i>	4.02	4.40	7.10	4.40	11.67	11.67	2.84	-0.69	-2.67	N/A	N/A	N/A	-2.86	
Value Added	0.30	0.25	2.82	0.25	2.05	2.05	1.36	1.80	1.82	N/A	N/A	N/A	2.50	
<b>Commodities ex Private &amp; Gold (unlevered)</b>	5.14	2.57	1.25	2.57	7.94	7.94	0.50	-1.64	N/A	N/A	N/A	N/A	-6.52	03/01/2013
<i>Bloomberg Commodity Index Total Return</i>	4.42	2.50	1.29	2.50	7.69	7.69	-0.94	-3.92	-4.73	-2.55	1.03	1.70	-6.63	
Value Added	0.72	0.07	-0.04	0.07	0.25	0.25	1.44	2.28	N/A	N/A	N/A	N/A	0.11	
PSERS Commodity Beta (Long)	4.42	2.50	1.29	2.50	7.69	7.69	-0.94	-3.92	N/A	N/A	N/A	N/A	-8.09	05/01/2014
<i>Bloomberg Commodity Index Total Return</i>	4.42	2.50	1.29	2.50	7.69	7.69	-0.94	-3.92	-4.73	-2.55	1.03	1.70	-8.09	
Value Added	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	N/A	N/A	N/A	0.00	
Gresham	6.07	3.85	2.00	3.85	10.05	10.05	1.21	-2.55	-2.44	N/A	N/A	N/A	-3.52	10/01/2007
<i>Bloomberg Commodity Index Total Return</i>	4.42	2.50	1.29	2.50	7.69	7.69	-0.94	-3.92	-4.73	-2.55	1.03	1.70	-5.60	
Value Added	1.65	1.35	0.71	1.35	2.36	2.36	2.15	1.37	2.29	N/A	N/A	N/A	2.08	

As of December 31, 2019

## Trailing Period Performance

	Performance (%)													
	1 Quarter	2 Quarters Ending Dec-2019	3 Quarters Ending Dec-2019	FYTD	YTD	1 Year	3 Years	5 Years	10 Years	15 Years	20 Years	25 Years	Since Inception	Inception Date
Wellington Management Company	7.09	1.87	2.82	1.87	12.11	12.11	1.17	-0.43	-1.45	N/A	N/A	N/A	-0.74	01/01/2007
<i>Blended Benchmark (Wellington)</i>	6.34	1.01	0.49	1.01	10.45	10.45	2.04	-0.28	-0.57	N/A	N/A	N/A	0.23	
Value Added	0.75	0.86	2.33	0.86	1.66	1.66	-0.87	-0.15	-0.88	N/A	N/A	N/A	-0.97	
Gold Composite (unlevered)	3.34	7.29	16.40	7.29	16.89	16.89	7.65	3.83	N/A	N/A	N/A	N/A	-1.02	06/01/2012
<i>Bloomberg Gold Subindex Total Return</i>	3.34	7.29	16.96	7.29	18.03	18.03	8.97	4.43	2.69	7.81	8.00	5.41	-0.96	
Value Added	0.00	0.00	-0.56	0.00	-1.14	-1.14	-1.32	-0.60	N/A	N/A	N/A	N/A	-0.06	
PSERS Gold (Long)	3.34	7.29	16.96	7.29	18.03	18.03	8.97	N/A	N/A	N/A	N/A	N/A	6.32	09/01/2015
<i>Bloomberg Gold Subindex Total Return</i>	3.34	7.29	16.96	7.29	18.03	18.03	8.97	4.43	2.69	7.81	8.00	5.41	6.32	
Value Added	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	N/A	N/A	N/A	N/A	0.00	
Total Real Estate (unlevered/hedged)	1.75	5.49	7.61	5.49	11.10	11.10	10.40	10.01	10.44	7.01	8.38	9.33	8.25	04/01/1981
<i>Blended Policy (Total Real Estate) (Hedged)</i>	0.93	3.30	4.44	3.30	7.68	7.68	9.07	9.25	10.16	8.81	8.99	9.51	8.54	
Value Added	0.82	2.19	3.17	2.19	3.42	3.42	1.33	0.76	0.28	-1.80	-0.61	-0.18	-0.29	
PTRES Composite (unlevered/hedged)	1.18	6.67	8.15	6.67	23.21	23.21	8.31	6.11	8.87	6.80	10.98	N/A	9.07	07/01/1998
<i>Blended Policy (PTRES) (Hedged)</i>	0.95	6.91	6.68	6.91	22.75	22.75	8.49	6.05	8.46	6.21	9.99	N/A	8.40	
Value Added	0.23	-0.24	1.47	-0.24	0.46	0.46	-0.18	0.06	0.41	0.59	0.99	N/A	0.67	
Insight Sierra Currency Hedge - REIT (notional)	-1.78	0.91	0.56	0.91	1.35	1.35	0.18	N/A	N/A	N/A	N/A	N/A	0.58	12/01/2015
<i>Currency Hedge Benchmark - REIT</i>	-1.76	0.98	0.65	0.98	1.47	1.47	0.30	N/A	N/A	N/A	N/A	N/A	0.71	
Value Added	-0.02	-0.07	-0.09	-0.07	-0.12	-0.12	-0.12	N/A	N/A	N/A	N/A	N/A	-0.13	
PSERS REIT Index (Long)	1.75	6.46	6.39	6.46	21.91	21.91	8.28	N/A	N/A	N/A	N/A	N/A	6.55	11/01/2015
<i>FTSE EPRA/NAREIT Developed Index (Net)</i>	1.75	6.46	6.39	6.46	21.91	21.91	8.28	5.56	8.37	N/A	N/A	N/A	6.55	
Value Added	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	N/A	N/A	N/A	N/A	0.00	
Security Capital Preferred Growth	1.89	6.69	8.51	6.69	21.16	21.16	7.24	7.17	10.13	N/A	N/A	N/A	8.07	07/01/2008
<i>Wilshire US Real Estate Securities Index</i>	-1.07	6.70	8.43	6.70	25.79	25.79	7.88	7.21	12.11	7.83	11.29	10.68	8.38	
Value Added	2.96	-0.01	0.08	-0.01	-4.63	-4.63	-0.64	-0.04	-1.98	N/A	N/A	N/A	-0.31	
Private Real Estate Composite	1.84	5.33	7.72	5.33	9.76	9.76	10.75	10.38	10.46	7.82	8.45	N/A	9.40	07/01/1996
<i>Blended Policy (Private Real Estate)</i>	0.93	2.66	4.04	2.66	5.88	5.88	9.21	9.36	10.22	8.85	9.02	9.53	9.63	
Value Added	0.91	2.67	3.68	2.67	3.88	3.88	1.54	1.02	0.24	-1.03	-0.57	N/A	-0.23	
Private Real Estate ex Internal Co-Invest	1.84	5.32	7.69	5.32	9.64	9.64	10.64	10.27	10.39	7.10	8.04	N/A	8.97	07/01/1996
PSERS Real Estate Internal Co-Invest	1.81	5.69	8.81	5.69	14.68	14.68	15.47	16.60	N/A	N/A	N/A	N/A	21.09	07/01/2013
Risk Parity Composite (vol adjusted)	2.86	5.28	10.18	5.28	20.63	20.63	8.29	5.69	N/A	N/A	N/A	N/A	4.84	10/01/2012
<i>Blended Policy (Risk Parity)</i>	2.68	6.19	12.04	6.19	23.53	23.53	9.39	6.74	8.78	8.04	9.19	N/A	5.49	
Value Added	0.18	-0.91	-1.86	-0.91	-2.90	-2.90	-1.10	-1.05	N/A	N/A	N/A	N/A	-0.65	
BlackRock Market Advantage II (vol adjusted)	2.98	5.16	11.64	5.16	27.35	27.35	11.82	N/A	N/A	N/A	N/A	N/A	7.67	04/01/2015
Bridgewater All Weather @15% (vol adjusted)	2.78	4.58	9.30	4.58	19.61	19.61	8.58	5.54	N/A	N/A	N/A	N/A	4.68	10/01/2012
Bridgewater Optimal (vol adjusted)	2.40	2.11	4.57	2.11	8.98	8.98	1.99	N/A	N/A	N/A	N/A	N/A	2.89	11/01/2015
DE Shaw Orienteer HV (vol adjusted)	3.81	8.63	16.28	8.63	35.54	35.54	11.83	N/A	N/A	N/A	N/A	N/A	11.36	02/01/2016
PSERS Risk Parity Composite (vol adjusted to 12%)	2.75	5.42	9.91	5.42	19.06	19.06	8.07	6.23	N/A	N/A	N/A	N/A	4.90	02/01/2013
Total Absolute Return Composite	2.23	2.86	3.89	2.86	4.00	4.00	3.99	3.93	5.52	N/A	N/A	N/A	5.05	10/01/2005
<i>Blended Policy (Absolute Return)</i>	1.91	3.36	4.90	3.36	6.51	6.51	5.75	5.06	6.16	6.77	7.08	7.26	6.71	
Value Added	0.32	-0.50	-1.01	-0.50	-2.51	-2.51	-1.76	-1.13	-0.64	N/A	N/A	N/A	-1.66	
Aeolus Property Catastrophe Keystone PF Fund, LP	1.75	6.54	6.91	6.54	5.80	5.80	-6.29	0.80	N/A	N/A	N/A	N/A	7.25	06/01/2012
<i>Blended Policy (Absolute Return)</i>	1.91	3.36	4.90	3.36	6.51	6.51	5.75	5.06	6.16	6.77	7.08	7.26	5.64	
Value Added	-0.16	3.18	2.01	3.18	-0.71	-0.71	-12.04	-4.26	N/A	N/A	N/A	N/A	1.61	
AKAZ Offshore Fund Ltd	-2.99	-7.38	-8.68	-7.38	-12.18	-12.18	N/A	N/A	N/A	N/A	N/A	N/A	-12.18	01/01/2019
<i>Blended Policy (Absolute Return)</i>	1.91	3.36	4.90	3.36	6.51	6.51	5.75	5.06	6.16	6.77	7.08	7.26	6.51	
Value Added	-4.90	-10.74	-13.58	-10.74	-18.69	-18.69	N/A	N/A	N/A	N/A	N/A	N/A	-18.69	

As of December 31, 2019

## Trailing Period Performance

	Performance (%)													Inception Date
	1 Quarter	2 Quarters Ending Dec-2019	3 Quarters Ending Dec-2019	FYTD	YTD	1 Year	3 Years	5 Years	10 Years	15 Years	20 Years	25 Years	Since Inception	
Bridgewater Pure Alpha Fund II, Ltd.	3.89	4.71	5.95	4.71	-0.25	-0.25	6.03	5.71	12.20	N/A	N/A	N/A	11.17	01/01/2006
<i>Blended Policy (Absolute Return)</i>	1.91	3.36	4.90	3.36	6.51	6.51	5.75	5.06	6.16	6.77	7.08	7.26	6.68	
Value Added	1.98	1.35	1.05	1.35	-6.76	-6.76	0.28	0.65	6.04	N/A	N/A	N/A	4.49	
Brigade Leveraged Capital Structures Offshore Fund, Ltd.	1.20	0.53	2.47	0.53	8.05	8.05	5.53	5.12	4.99	N/A	N/A	N/A	5.48	10/01/2007
<i>Blended Policy (Absolute Return)</i>	1.91	3.36	4.90	3.36	6.51	6.51	5.75	5.06	6.16	6.77	7.08	7.26	6.50	
Value Added	-0.71	-2.83	-2.43	-2.83	1.54	1.54	-0.22	0.06	-1.17	N/A	N/A	N/A	-1.02	
Capula Global Relative Value Fund Limited	3.50	4.31	6.12	4.31	8.63	8.63	6.01	7.02	N/A	N/A	N/A	N/A	6.66	04/01/2011
<i>Blended Policy (Absolute Return)</i>	1.91	3.36	4.90	3.36	6.51	6.51	5.75	5.06	6.16	6.77	7.08	7.26	5.90	
Value Added	1.59	0.95	1.22	0.95	2.12	2.12	0.26	1.96	N/A	N/A	N/A	N/A	0.76	
Capula Tail Risk Fund Limited	-0.44	0.08	-0.72	0.08	-4.40	-4.40	-3.90	-1.83	N/A	N/A	N/A	N/A	-1.88	07/01/2011
<i>Blended Policy (Absolute Return)</i>	1.91	3.36	4.90	3.36	6.51	6.51	5.75	5.06	6.16	6.77	7.08	7.26	5.84	
Value Added	-2.35	-3.28	-5.62	-3.28	-10.91	-10.91	-9.65	-6.89	N/A	N/A	N/A	N/A	-7.72	
Carlyle Aviation/SASOF III LP	9.39	22.53	37.80	22.53	39.25	39.25	26.38	N/A	N/A	N/A	N/A	N/A	9.69	02/01/2015
<i>Blended Policy (Absolute Return)</i>	1.91	3.36	4.90	3.36	6.51	6.51	5.75	5.06	6.16	6.77	7.08	7.26	5.08	
Value Added	7.48	19.17	32.90	19.17	32.74	32.74	20.63	N/A	N/A	N/A	N/A	N/A	4.61	
Carlyle Aviation/SASOF IV LP	-3.32	2.39	3.43	2.39	6.06	6.06	N/A	N/A	N/A	N/A	N/A	N/A	11.13	04/01/2018
<i>Blended Policy (Absolute Return)</i>	1.91	3.36	4.90	3.36	6.51	6.51	5.75	5.06	6.16	6.77	7.08	7.26	6.32	
Value Added	-5.23	-0.97	-1.47	-0.97	-0.45	-0.45	N/A	N/A	N/A	N/A	N/A	N/A	4.81	
Caspian Keystone Focused Fund, Ltd.	2.94	9.47	8.49	9.47	28.20	28.20	11.87	N/A	N/A	N/A	N/A	N/A	12.39	06/01/2016
<i>Blended Policy (Absolute Return)</i>	1.91	3.36	4.90	3.36	6.51	6.51	5.75	5.06	6.16	6.77	7.08	7.26	5.52	
Value Added	1.03	6.11	3.59	6.11	21.69	21.69	6.12	N/A	N/A	N/A	N/A	N/A	6.87	
Caspian Select Credit International, Ltd.	2.07	1.70	3.50	1.70	5.20	5.20	4.27	2.04	N/A	N/A	N/A	N/A	3.34	04/01/2011
<i>Blended Policy (Absolute Return)</i>	1.91	3.36	4.90	3.36	6.51	6.51	5.75	5.06	6.16	6.77	7.08	7.26	5.90	
Value Added	0.16	-1.66	-1.40	-1.66	-1.31	-1.31	-1.48	-3.02	N/A	N/A	N/A	N/A	-2.56	
Falko Regional Aircraft Opportunities Fund II	-6.64	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-7.54	08/01/2019
<i>Blended Policy (Absolute Return)</i>	1.91	3.36	4.90	3.36	6.51	6.51	5.75	5.06	6.16	6.77	7.08	7.26	2.86	
Value Added	-8.55	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-10.40	
Garda Fixed Income Relative Value Opportunity Fund Ltd.	2.08	4.30	6.98	4.30	10.08	10.08	6.16	5.48	N/A	N/A	N/A	N/A	5.69	01/01/2012
<i>Blended Policy (Absolute Return)</i>	1.91	3.36	4.90	3.36	6.51	6.51	5.75	5.06	6.16	6.77	7.08	7.26	5.73	
Value Added	0.17	0.94	2.08	0.94	3.57	3.57	0.41	0.42	N/A	N/A	N/A	N/A	-0.04	
HS Group Sponsor Fund II, Ltd.	2.92	1.07	1.33	1.07	6.53	6.53	N/A	N/A	N/A	N/A	N/A	N/A	-2.43	06/01/2018
<i>Blended Policy (Absolute Return)</i>	1.91	3.36	4.90	3.36	6.51	6.51	5.75	5.06	6.16	6.77	7.08	7.26	6.36	
Value Added	1.01	-2.29	-3.57	-2.29	0.02	0.02	N/A	N/A	N/A	N/A	N/A	N/A	-8.79	
Independence Reinsurance Partners Composite	-1.97	1.36	2.98	1.36	4.76	4.76	-4.10	N/A	N/A	N/A	N/A	N/A	-1.20	02/01/2016
<i>Blended Policy (Absolute Return)</i>	1.91	3.36	4.90	3.36	6.51	6.51	5.75	5.06	6.16	6.77	7.08	7.26	5.40	
Value Added	-3.88	-2.00	-1.92	-2.00	-1.75	-1.75	-9.85	N/A	N/A	N/A	N/A	N/A	-6.60	
DaVinci Reinsurance Ltd.	-1.91	0.27	5.29	0.27	11.70	11.70	-2.03	N/A	N/A	N/A	N/A	N/A	0.92	02/01/2016
RenaissanceRe Medici Fund Ltd.	1.17	4.36	3.91	4.36	5.00	5.00	3.38	N/A	N/A	N/A	N/A	N/A	4.11	02/01/2016
Upsilon Diversified Fund Ltd.	-4.04	0.06	1.67	0.06	2.29	2.29	-26.09	N/A	N/A	N/A	N/A	N/A	-26.09	01/01/2017
Nephila/Nimbus Weather Fund	0.72	1.91	2.35	1.91	-2.33	-2.33	N/A	N/A	N/A	N/A	N/A	N/A	0.72	01/01/2018
<i>Blended Policy (Absolute Return)</i>	1.91	3.36	4.90	3.36	6.51	6.51	5.75	5.06	6.16	6.77	7.08	7.26	6.21	
Value Added	-1.19	-1.45	-2.55	-1.45	-8.84	-8.84	N/A	N/A	N/A	N/A	N/A	N/A	-5.49	
Nephila/Palmetto Fund Ltd.	-2.08	-0.08	1.38	-0.08	1.79	1.79	-2.97	-0.21	N/A	N/A	N/A	N/A	3.02	07/01/2011
<i>Blended Policy (Absolute Return)</i>	1.91	3.36	4.90	3.36	6.51	6.51	5.75	5.06	6.16	6.77	7.08	7.26	5.84	
Value Added	-3.99	-3.44	-3.52	-3.44	-4.72	-4.72	-8.72	-5.27	N/A	N/A	N/A	N/A	-2.82	
Oceanwood Investments SPC Co-Invest	8.36	5.46	14.51	5.46	32.78	32.78	N/A	N/A	N/A	N/A	N/A	N/A	22.05	10/01/2018
<i>Blended Policy (Absolute Return)</i>	1.91	3.36	4.90	3.36	6.51	6.51	5.75	5.06	6.16	6.77	7.08	7.26	6.46	



As of December 31, 2019

## Trailing Period Performance

	Performance (%)													
	1 Quarter	2 Quarters Ending Dec-2019	3 Quarters Ending Dec-2019	FYTD	YTD	1 Year	3 Years	5 Years	10 Years	15 Years	20 Years	25 Years	Since Inception	Inception Date
Value Added	6.45	2.10	9.61	2.10	26.27	26.27	N/A	N/A	N/A	N/A	N/A	N/A	15.59	
Oceanwood Opportunities Fund	4.21	4.54	4.66	4.54	7.99	7.99	7.32	5.05	N/A	N/A	N/A	N/A	4.68	09/01/2014
<i>Blended Policy (Absolute Return)</i>	1.91	3.36	4.90	3.36	6.51	6.51	5.75	5.06	6.16	6.77	7.08	7.26	4.98	
Value Added	2.30	1.18	-0.24	1.18	1.48	1.48	1.57	-0.01	N/A	N/A	N/A	N/A	-0.30	
OWS Credit Opportunity Offshore Fund III, Ltd.	1.54	3.00	4.94	3.00	7.42	7.42	10.47	N/A	N/A	N/A	N/A	N/A	9.96	12/01/2015
<i>Blended Policy (Absolute Return)</i>	1.91	3.36	4.90	3.36	6.51	6.51	5.75	5.06	6.16	6.77	7.08	7.26	5.35	
Value Added	-0.37	-0.36	0.04	-0.36	0.91	0.91	4.72	N/A	N/A	N/A	N/A	N/A	4.61	
Perry Partners LP	-6.60	-5.31	2.28	-5.31	18.34	18.34	-2.52	-2.81	N/A	N/A	N/A	N/A	-2.76	12/01/2013
<i>Blended Policy (Absolute Return)</i>	1.91	3.36	4.90	3.36	6.51	6.51	5.75	5.06	6.16	6.77	7.08	7.26	5.18	
Value Added	-8.51	-8.67	-2.62	-8.67	11.83	11.83	-8.27	-7.87	N/A	N/A	N/A	N/A	-7.94	
PIMCO PARS/GCOF/MAV/PCAF Composite	4.95	2.43	2.15	2.43	3.79	3.79	2.89	3.23	4.46	N/A	N/A	N/A	5.88	03/01/2008
<i>Blended Policy (Absolute Return)</i>	1.91	3.36	4.90	3.36	6.51	6.51	5.75	5.06	6.16	6.77	7.08	7.26	6.44	
Value Added	3.04	-0.93	-2.75	-0.93	-2.72	-2.72	-2.86	-1.83	-1.70	N/A	N/A	N/A	-0.56	
PIMCO Absolute Return Strategy V Offshore Fund, Ltd.	9.19	14.71	15.13	14.71	16.13	16.13	6.00	5.17	N/A	N/A	N/A	N/A	6.06	10/01/2012
PIMCO Global Credit Opportunity Offshore Fund, Ltd.	-0.62	-10.65	-9.44	-10.65	-12.91	-12.91	-0.87	3.38	N/A	N/A	N/A	N/A	5.17	10/01/2012
PIMCO Commodity Alpha Fund	6.01	4.59	2.20	4.59	10.10	10.10	9.60	N/A	N/A	N/A	N/A	N/A	11.61	03/01/2015
Two Sigma Risk Premia Enhanced Fund, LP	0.74	1.82	0.06	1.82	-0.25	-0.25	N/A	N/A	N/A	N/A	N/A	N/A	N/A	04/01/2017
<i>Blended Policy (Absolute Return)</i>	1.91	3.36	4.90	3.36	6.51	6.51	5.75	5.06	6.16	6.77	7.08	7.26	5.85	
Value Added	-1.17	-1.54	-4.84	-1.54	-6.76	-6.76	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Venor Capital Offshore, Ltd.	3.56	4.29	7.76	4.29	11.23	11.23	4.42	N/A	N/A	N/A	N/A	N/A	5.69	09/01/2016
<i>Blended Policy (Absolute Return)</i>	1.91	3.36	4.90	3.36	6.51	6.51	5.75	5.06	6.16	6.77	7.08	7.26	5.61	
Value Added	1.65	0.93	2.86	0.93	4.72	4.72	-1.33	N/A	N/A	N/A	N/A	N/A	0.08	
Cash & Cash Equivalents	0.48	1.01	1.62	1.01	2.28	2.28	1.85	1.25	1.42	0.76	0.46	N/A	0.61	07/01/1998
<i>ICE BofAML US Treasury Bills 0-3M</i>	0.44	0.98	1.60	0.98	2.21	2.21	1.62	1.02	0.54	1.32	1.69	2.39	1.90	
Value Added	0.04	0.03	0.02	0.03	0.07	0.07	0.23	0.23	0.88	-0.56	-1.23	N/A	-1.29	
PSERS Cash Management	0.48	1.06	1.67	1.06	2.35	2.35	1.78	1.13	0.80	0.30	0.13	0.96	2.42	07/01/1985
PSERS Derivatives Collateral	0.46	0.85	1.47	0.85	2.07	2.07	N/A	N/A	N/A	N/A	N/A	N/A	1.87	01/01/2018
RE Conversions	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	09/01/2015

As of December 31, 2019

## Trailing Period Performance

	Performance (%)													
	1 Quarter	2 Quarters Ending Dec-2019	3 Quarters Ending Dec-2019	FYTD	YTD	1 Year	3 Years	5 Years	10 Years	15 Years	20 Years	25 Years	Since Inception	Inception Date
<b>Financing Composite</b>	0.43	0.95	N/A	0.95	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.95	07/01/2019
<i>ICE BofAML USD 3-Mo Deposit Offered Rate Average Index</i>	0.52	1.13	1.79	1.13	2.49	2.49	1.98	1.38	N/A	N/A	N/A	N/A	1.13	
Value Added	-0.09	-0.18	N/A	-0.18	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-0.18	
<b>PSERS Commodity Beta (Short/Financing)</b>	0.34	0.77	N/A	0.77	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.77	07/01/2019
<i>FTSE 1 Month T-Bill</i>	0.43	0.97	1.59	0.97	2.20	2.20	1.61	1.01	0.52	1.25	1.60	2.24	0.97	
Value Added	-0.09	-0.20	N/A	-0.20	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-0.20	
<b>PSERS Gold (Short/Financing)</b>	0.40	0.94	N/A	0.94	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.94	07/01/2019
<i>FTSE 1 Month T-Bill</i>	0.43	0.97	1.59	0.97	2.20	2.20	1.61	1.01	0.52	1.25	1.60	2.24	0.97	
Value Added	-0.03	-0.03	N/A	-0.03	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-0.03	
<b>PSERS Infrastructure Index (Short/Financing)</b>	0.30	0.61	N/A	0.61	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.61	07/01/2019
<i>ICE BofAML USD 3-Mo Deposit Offered Rate Average Index</i>	0.52	1.13	1.79	1.13	2.49	2.49	1.98	1.38	N/A	N/A	N/A	N/A	1.13	
Value Added	-0.22	-0.52	N/A	-0.52	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-0.52	
<b>PSERS REIT Index (Short/Financing)</b>	0.29	0.56	N/A	0.56	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.56	07/01/2019
<i>ICE BofAML USD 3-Mo Deposit Offered Rate Average Index</i>	0.52	1.13	1.79	1.13	2.49	2.49	1.98	1.38	N/A	N/A	N/A	N/A	1.13	
Value Added	-0.23	-0.57	N/A	-0.57	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-0.57	
<b>PSERS TIPS Swap (Short/Financing)</b>	0.56	1.19	N/A	1.19	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1.19	07/01/2019
<i>ICE BofAML USD 3-Mo Deposit Offered Rate Average Index</i>	0.52	1.13	1.79	1.13	2.49	2.49	1.98	1.38	N/A	N/A	N/A	N/A	1.13	
Value Added	0.04	0.06	N/A	0.06	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.06	

The Short/Financing segments represent leverage, and therefore have negative asset balances. Due to the negative asset balance, a negative value-added relative to the benchmark represents outperformance, while a positive value added represents underperformance.

As of December 31, 2019

## Trailing Period Performance

	Performance (%)													Inception Date
	1 Quarter	2 Quarters Ending Dec-2019	3 Quarters Ending Dec-2019	FYTD	YTD	1 Year	3 Years	5 Years	10 Years	15 Years	20 Years	25 Years	Since Inception	
<b>PSERS Ultra Short Duration</b>	0.50	1.08	1.73	1.08	2.42	2.42	1.86	1.27	0.76	N/A	N/A	N/A	0.79	01/01/2009
<i>ICE BofAML US Treasury Bills 0-3M</i>	0.44	0.98	1.60	0.98	2.21	2.21	1.62	1.02	0.54	1.32	1.69	2.39	0.51	
Value Added	0.06	0.10	0.13	0.10	0.21	0.21	0.24	0.25	0.22	N/A	N/A	N/A	0.28	
<b>LIBOR Composite</b>	0.61	1.43	2.27	1.43	3.40	3.40	2.34	1.94	1.48	N/A	N/A	N/A	2.04	01/01/2007
<i>LIBOR Plus Hybrid</i>	0.52	1.13	1.79	1.13	2.49	2.49	1.97	1.38	0.85	1.79	2.13	N/A	1.41	
Value Added	0.09	0.30	0.48	0.30	0.91	0.91	0.37	0.56	0.63	N/A	N/A	N/A	0.63	
<b>Capula LIBOR Tail Risk</b>	-0.44	0.08	-0.72	0.08	-4.39	-4.39	-3.89	N/A	N/A	N/A	N/A	N/A	-2.87	10/01/2015
<i>LIBOR Plus Hybrid</i>	0.52	1.13	1.79	1.13	2.49	2.49	1.97	1.38	0.85	1.79	2.13	N/A	1.57	
Value Added	-0.96	-1.05	-2.51	-1.05	-6.88	-6.88	-5.86	N/A	N/A	N/A	N/A	N/A	-4.44	
<b>Penn Mutual Asset Management</b>	0.61	1.49	2.60	1.49	4.72	4.72	N/A	N/A	N/A	N/A	N/A	N/A	2.97	06/01/2017
<i>LIBOR Plus Hybrid</i>	0.52	1.13	1.79	1.13	2.49	2.49	1.97	1.38	0.85	1.79	2.13	N/A	2.12	
Value Added	0.09	0.36	0.81	0.36	2.23	2.23	N/A	N/A	N/A	N/A	N/A	N/A	0.85	
<b>PSERS LIBOR Plus</b>	0.59	1.31	2.12	1.31	3.16	3.16	2.30	1.76	1.27	N/A	N/A	N/A	1.89	01/01/2007
<i>LIBOR Plus Hybrid</i>	0.52	1.13	1.79	1.13	2.49	2.49	1.97	1.38	0.85	1.79	2.13	N/A	1.41	
Value Added	0.07	0.18	0.33	0.18	0.67	0.67	0.33	0.38	0.42	N/A	N/A	N/A	0.48	
<b>Radcliffe Ultra Short Duration</b>	0.82	1.82	2.91	1.82	4.69	4.69	3.31	3.28	N/A	N/A	N/A	N/A	2.97	06/01/2012
<i>Blended Benchmark (Radcliffe Ultra Short)</i>	0.51	1.11	1.78	1.11	2.45	2.45	2.01	1.41	0.87	1.74	2.05	2.79	1.03	
Value Added	0.31	0.71	1.13	0.71	2.24	2.24	1.30	1.87	N/A	N/A	N/A	N/A	1.94	
<b>PSERS Healthcare &amp; HOP</b>														
<b>PSERS Healthcare - HOP</b>	0.50	1.08	1.73	1.08	2.42	2.42	1.87	1.28	0.78	1.65	N/A	N/A	1.69	02/01/2002
<i>ICE BofAML 3 Month U.S. T-Bill</i>	0.46	1.03	1.67	1.03	2.28	2.28	1.67	1.07	0.58	1.39	1.78	2.48	1.39	
Value Added	0.04	0.05	0.06	0.05	0.14	0.14	0.20	0.21	0.20	0.26	N/A	N/A	0.30	
<b>PSERS Healthcare - Premium Assist</b>	0.54	1.16	1.86	1.16	2.61	2.61	1.98	1.44	1.08	2.11	2.55	N/A	2.83	01/01/1998
<i>ICE BofAML 3 Month U.S. T-Bill</i>	0.46	1.03	1.67	1.03	2.28	2.28	1.67	1.07	0.58	1.39	1.78	2.48	2.07	
Value Added	0.08	0.13	0.19	0.13	0.33	0.33	0.31	0.37	0.50	0.72	0.77	N/A	0.76	
<b>E/M Total Program Composite</b>	1.51	3.45	5.72	3.45	8.15	8.15	4.69	4.04	5.56	4.36	3.47	N/A	3.47	01/01/2000
<b>E/M Short Duration Cash</b>	1.52	3.38	5.49	3.38	7.80	7.80	4.71	4.41	N/A	N/A	N/A	N/A	4.32	10/01/2014
<b>Radcliffe Ultra Short Duration</b>	0.82	1.82	2.91	1.82	4.69	4.69	3.31	3.28	N/A	N/A	N/A	N/A	2.97	06/01/2012
<i>Blended Benchmark (Radcliffe Ultra Short)</i>	0.51	1.11	1.78	1.11	2.45	2.45	2.01	1.41	0.87	1.74	2.05	2.79	1.03	
Value Added	0.31	0.71	1.13	0.71	2.24	2.24	1.30	1.87	N/A	N/A	N/A	N/A	1.94	
<b>Radcliffe Specialty Finance Debt</b>	2.05	4.58	7.51	4.58	10.26	10.26	5.80	5.31	N/A	N/A	N/A	N/A	5.10	10/01/2014
<i>3-Month Libor + 0.60%</i>	0.67	1.38	2.17	1.38	3.00	3.00	2.61	2.02	1.47	2.35	2.66	3.40	1.96	
Value Added	1.38	3.20	5.34	3.20	7.26	7.26	3.19	3.29	N/A	N/A	N/A	N/A	3.14	

As of December 31, 2019

## Calendar Year Performance

	Performance (%)									
	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
<b>PSERS Total Fund</b>	12.92	0.55	12.19	10.83	-1.43	8.73	8.63	11.35	4.31	14.22
<i>Blended Policy (Total Plan)</i>	14.29	0.24	11.93	10.38	-1.50	8.71	7.70	10.19	3.70	11.98
Value Added	-1.37	0.31	0.26	0.45	0.07	0.02	0.93	1.16	0.61	2.24
<b>Total Public Global and Private Equity Exposure (hedged)</b>	16.53	1.31	19.45	9.45	1.39	N/A	N/A	N/A	N/A	N/A
<i>Blended Policy (Total Equity Exposure)</i>	16.32	2.07	19.48	9.48	2.62	N/A	N/A	N/A	N/A	N/A
Value Added	0.21	-0.76	-0.03	-0.03	-1.23	N/A	N/A	N/A	N/A	N/A
<b>Total Public Global Equity Composite (hedged)</b>	26.11	-8.20	22.26	9.23	0.92	8.15	24.43	17.07	-6.96	16.95
<i>Blended Policy (Public Equity) (Hedged)</i>	25.37	-9.06	22.74	8.89	-0.51	7.93	24.18	16.73	-7.83	14.34
Value Added	0.74	0.86	-0.48	0.34	1.43	0.22	0.25	0.34	0.87	2.61
<b>Total US Equity Composite</b>	31.17	-6.08	19.21	16.49	0.40	11.71	34.04	15.65	1.65	18.37
<i>Blended Policy (Tot US Eq)</i>	30.71	-5.20	21.28	12.66	0.64	12.51	33.39	16.42	0.80	16.52
Value Added	0.46	-0.88	-2.07	3.83	-0.24	-0.80	0.65	-0.77	0.85	1.85
<b>PSERS-S&amp;P 500 Index Composite</b>	33.17	-4.94	20.69	13.90	1.43	13.66	32.85	16.09	2.03	16.03
<i>S&amp;P 500 Index</i>	31.49	-4.38	21.83	11.96	1.38	13.69	32.39	16.00	2.11	15.06
Value Added	1.68	-0.56	-1.14	1.94	0.05	-0.03	0.46	0.09	-0.08	0.97
<b>Radcliffe Specialty Finance Debt</b>	10.26	1.83	5.47	5.97	3.22	N/A	N/A	N/A	N/A	N/A
<i>3-Month Libor + 0.60%</i>	3.00	2.95	1.88	1.35	0.92	0.84	0.87	1.03	0.94	0.95
Value Added	7.26	-1.12	3.59	4.62	2.30	N/A	N/A	N/A	N/A	N/A
<b>PSERS-S&amp;P 400 Index Composite</b>	26.27	-10.98	16.49	21.34	-2.20	9.87	33.45	18.78	-1.60	27.42
<i>S&amp;P MidCap 400</i>	26.20	-11.08	16.24	20.74	-2.18	9.77	33.50	17.88	-1.73	26.64
Value Added	0.07	0.10	0.25	0.60	-0.02	0.10	-0.05	0.90	0.13	0.78
<b>PSERS-S&amp;P 600 Index Composite</b>	22.96	-8.27	13.53	28.05	-1.47	6.23	43.13	17.70	1.64	27.47
<i>S&amp;P SmallCap 600</i>	22.78	-8.48	13.23	26.56	-1.97	5.76	41.31	16.33	1.02	26.31
Value Added	0.18	0.21	0.30	1.49	0.50	0.47	1.82	1.37	0.62	1.16
<b>Total Non-U.S. Equity Composite (hedged)</b>	26.55	-11.76	24.79	5.15	2.68	5.09	15.95	18.39	-13.34	16.00
<i>Blended Policy (Total Non-US Eq) (Hedged)</i>	22.92	-11.96	23.62	6.43	-0.50	3.97	16.36	17.03	-14.30	12.73
Value Added	3.63	0.20	1.17	-1.28	3.18	1.12	-0.41	1.36	0.96	3.27
<b>Total Non-U.S. Equity x Emerging Markets Composite (hedged)</b>	27.31	-11.71	24.31	5.60	3.70	N/A	N/A	N/A	N/A	N/A
<i>Blended Policy (Non-US Equity x EM) (Hedged)</i>	22.75	-11.87	23.03	6.25	0.66	4.75	16.36	17.03	-14.30	12.73
Value Added	4.56	0.16	1.28	-0.65	3.04	N/A	N/A	N/A	N/A	N/A
<b>Insight Everest Currency Hedge - Int'l Eq (notional)</b>	1.42	5.95	-6.57	4.02	7.13	10.98	-0.37	-1.46	0.00	1.39
<i>Currency Hedge Benchmark - Int'l Eq</i>	1.56	5.98	-6.46	4.18	7.24	11.05	-1.39	0.00	0.00	0.00
Value Added	-0.14	-0.03	-0.11	-0.16	-0.11	-0.07	1.02	-1.46	0.00	1.39
<b>Non-US Large/Mid Cap Equity Composite</b>	26.40	-13.84	29.19	3.99	-2.76	-3.41	17.33	17.78	-11.96	12.69
<i>Blended Policy (MSCI World AC World ex USA net)</i>	21.51	-14.20	27.19	4.50	-5.66	-3.87	15.29	16.83	-13.71	11.15
Value Added	4.89	0.36	2.00	-0.51	2.90	0.46	2.04	0.95	1.75	1.54
<b>PSERS ACWI x US Fund</b>	22.89	-13.83	28.03	5.35	-5.24	-3.41	16.07	17.57	-13.06	11.85
<i>MSCI ACWI/EAFE Index Blend</i>	21.51	-14.20	27.19	4.50	-5.66	-3.87	15.29	16.83	-13.71	11.15
Value Added	1.38	0.37	0.84	0.85	0.42	0.46	0.78	0.74	0.65	0.70

As of December 31, 2019

## Calendar Year Performance

	Performance (%)									
	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
BlackRock EMAA	17.13	-13.60	40.71	13.37	N/A	N/A	N/A	N/A	N/A	N/A
<i>MSCI Emerging Markets Index (Net)</i>	18.44	-14.58	37.28	11.19	-14.92	-2.19	-2.60	18.23	-18.42	18.88
Value Added	-1.31	0.98	3.43	2.18	N/A	N/A	N/A	N/A	N/A	N/A
Active Non-US Large/Mid Cap Composite	29.89	-13.85	30.80	2.28	0.72	-3.88	19.34	18.60	-8.26	15.23
<i>MSCI AC World ex USA Index (Net)</i>	21.51	-14.20	27.19	4.50	-5.66	-3.87	15.29	16.83	-13.71	11.15
Value Added	8.38	0.35	3.61	-2.22	6.38	-0.01	4.05	1.77	5.45	4.08
Baillie Gifford	32.51	-16.41	35.09	5.65	-1.91	-2.19	17.46	21.25	-11.41	15.75
<i>MSCI AC World ex USA Index (Net)</i>	21.51	-14.20	27.19	4.50	-5.66	-3.87	15.29	16.83	-13.71	11.15
Value Added	11.00	-2.21	7.90	1.15	3.75	1.68	2.17	4.42	2.30	4.60
BlackRock Emerging Markets Alpha Advantage Fund Ltd	16.88	-13.00	41.88	13.99	-4.61	0.42	0.71	26.62	-5.74	33.19
<i>MSCI Emerging Markets Index (Net)</i>	18.44	-14.58	37.28	11.19	-14.92	-2.19	-2.60	18.23	-18.42	18.88
Value Added	-1.56	1.58	4.60	2.80	10.31	2.61	3.31	8.39	12.68	14.31
Effissimo Capital Partners Feeder Fund 2 LP	27.81	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>MSCI Japan in LC (Net)</i>	18.48	-15.15	19.75	-0.74	9.93	9.48	54.58	21.57	-18.73	0.57
Value Added	9.33	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Marathon Asset Mgmt	24.46	-13.16	26.05	1.25	3.53	-5.35	25.79	18.82	-9.23	17.59
<i>Blended Benchmark (MSCI ACWI ex USA net)</i>	21.51	-14.20	27.19	4.50	-5.66	-3.87	15.29	16.83	-13.71	11.15
Value Added	2.95	1.04	-1.14	-3.25	9.19	-1.48	10.50	1.99	4.48	6.44
The Children's Investment Fund, LP	42.10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>MSCI World Index (Net)</i>	27.67	-8.71	22.40	7.51	-0.87	4.94	26.68	15.83	-5.54	11.76
Value Added	14.43	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Non-US Small Cap Equity Composite	25.20	-19.07	36.26	-0.91	9.41	-3.47	30.37	25.17	-15.55	29.62
<i>MSCI AC World ex USA Small Cap (Net)</i>	22.42	-18.20	31.65	3.91	2.60	-4.03	19.73	18.52	-18.50	25.21
Value Added	2.78	-0.87	4.61	-4.82	6.81	0.56	10.64	6.65	2.95	4.41
Acadian Asset Mgmt	20.12	-18.36	37.99	8.76	3.08	-0.19	24.86	25.11	-16.94	26.02
<i>Blended Benchmark (MSCI AC World ex USA Small Cap net)</i>	22.42	-18.20	31.65	3.91	2.60	-4.03	19.73	18.52	-18.50	25.21
Value Added	-2.30	-0.16	6.34	4.85	0.48	3.84	5.13	6.59	1.56	0.81
Oberweis Asset Mgmt	24.55	-23.62	41.55	-4.84	16.17	-2.82	59.12	31.95	-14.60	31.03
<i>MSCI AC World ex USA Small Cap (Net)</i>	22.42	-18.20	31.65	3.91	2.60	-4.03	19.73	18.52	-18.50	25.21
Value Added	2.13	-5.42	9.90	-8.75	13.57	1.21	39.39	13.43	3.90	5.82
QS Investors	21.77	-20.01	31.70	3.28	4.60	-0.18	26.34	21.71	-12.22	26.52
<i>MSCI AC World ex USA Small Cap (Net)</i>	22.42	-18.20	31.65	3.91	2.60	-4.03	19.73	18.52	-18.50	25.21
Value Added	-0.65	-1.81	0.05	-0.63	2.00	3.85	6.61	3.19	6.28	1.31
Wasatch Int'l Small Cap	31.44	-14.32	33.33	-7.75	14.73	-7.31	28.25	33.41	-13.75	34.70
<i>Blended Benchmark (MSCI AC World ex USA Small Cap net)</i>	22.42	-18.20	31.65	3.91	2.60	-4.03	19.73	18.52	-18.50	25.21
Value Added	9.02	3.88	1.68	-11.66	12.13	-3.28	8.52	14.89	4.75	9.49
Emerging Markets Equity Composite	18.07	-15.70	35.73	-3.95	-8.21	1.48	-0.24	21.03	-17.81	17.04
<i>Blended Policy (EM)</i>	17.65	-15.05	37.58	11.19	-14.92	-2.19	-2.60	18.23	-18.42	18.87
Value Added	0.42	-0.65	-1.85	-15.14	6.71	3.67	2.36	2.80	0.61	-1.83

As of December 31, 2019

## Calendar Year Performance

	Performance (%)									
	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
<i>MSCI Emerging Markets IMI (Net)</i>	17.65	-15.05	36.83	9.90	-13.86	-1.79	-2.20	18.69	-19.49	19.90
Value Added	0.42	-0.65	-1.10	-13.85	5.65	3.27	1.96	2.34	1.68	-2.86
Cederberg China Equity Fund	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>MSCI Golden Dragon Index (Net)</i>	23.78	-14.80	43.79	5.40	-7.43	7.72	6.89	22.19	-18.67	13.24
Value Added	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Steadview Capital Partners LP	-2.60	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>Nifty 50 Index</i>	12.12	4.72	30.27	4.48	-2.76	33.48	8.47	29.92	-23.62	19.54
Value Added	-14.72	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Wasatch EM Small Cap	28.27	-16.33	35.73	-3.95	-10.36	2.13	1.87	28.06	-12.98	42.87
<i>Blended Policy (Wasatch EM)</i>	12.96	-17.34	33.33	4.03	-9.81	1.49	1.01	22.60	-26.96	27.47
Value Added	15.31	1.01	2.40	-7.98	-0.55	0.64	0.86	5.46	13.98	15.40
<b>Total Private Equity (hedged)</b>	<b>7.01</b>	<b>14.47</b>	<b>16.09</b>	<b>9.63</b>	<b>2.39</b>	<b>10.03</b>	<b>12.73</b>	<b>13.27</b>	<b>9.96</b>	<b>15.58</b>
<i>Burgiss Private Equity (1Q Lag)</i>	7.78	15.75	15.59	8.72	7.34	15.79	15.05	12.02	12.77	16.00
Value Added	-0.77	-1.28	0.50	0.91	-4.95	-5.76	-2.32	1.25	-2.81	-0.42
Private Equity Composite (Buyout/Venture/Special Situations/Co-Invest)	6.85	14.52	16.11	9.59	2.39	10.03	12.72	N/A	N/A	N/A
Insight Wilson Currency Hedge - PE Internal Co-Invest (1Q Lag)(Notional)	9.09	4.51	-2.90	3.31	N/A	N/A	N/A	N/A	N/A	N/A
<i>Currency Hedge Benchmark - PE (1Q Lag)</i>	9.16	4.48	-2.78	3.51	N/A	N/A	N/A	N/A	N/A	N/A
Value Added	-0.07	0.03	-0.12	-0.20	N/A	N/A	N/A	N/A	N/A	N/A
PSERS Private Equity Internal Co-Invest Composite	9.48	8.34	23.34	27.85	26.47	37.82	39.75	N/A	N/A	N/A
PSERS Private Equity Internal Pennsylvania Co-Invest Composite	5.43	14.75	43.44	12.12	N/A	N/A	N/A	N/A	N/A	N/A
Special Situations Composite	1.76	11.46	8.28	1.58	0.50	12.79	12.21	13.49	2.43	19.36
Buyout/Venture Capital-Growth Equity Composite	7.55	15.61	16.92	10.08	1.97	9.30	12.53	13.20	12.00	14.24
Buyout	6.56	14.36	18.02	10.41	1.29	8.82	13.12	12.89	13.13	15.04
Buyout x Tobacco Composite	6.56	14.36	18.02	10.41	1.75	8.82	13.12	12.89	13.13	15.04
Venture Capital - Growth Equity	12.73	22.15	11.23	8.19	6.92	13.50	7.10	15.97	2.26	7.84
<b>Total Fixed Income Exposure</b>	<b>9.71</b>	<b>2.09</b>	<b>7.96</b>	<b>10.94</b>	<b>-0.70</b>	<b>10.29</b>	<b>-2.52</b>	<b>11.76</b>	<b>9.54</b>	<b>14.11</b>
<i>Blended Policy (Total FI)</i>	11.36	-0.43	5.10	9.49	-2.62	5.19	-4.69	9.86	7.27	10.27
Value Added	-1.65	2.52	2.86	1.45	1.92	5.10	2.17	1.90	2.27	3.84
Global Fixed Income Composite	9.73	-1.25	7.11	4.64	-0.92	3.69	-1.89	N/A	N/A	N/A
<i>Blended Policy (Global FI)</i>	9.15	-0.23	5.01	4.55	-3.35	2.65	-2.76	7.49	5.36	8.07
Value Added	0.58	-1.02	2.10	0.09	2.43	1.04	0.87	N/A	N/A	N/A
Total US Fixed Income Composite	9.68	2.24	7.93	11.28	0.35	12.94	-2.44	11.42	10.83	14.58
<i>Blended Policy (Total US FI)</i>	12.66	-0.35	4.87	9.61	-1.72	5.60	-2.92	9.48	8.46	10.45
Value Added	-2.98	2.59	3.06	1.67	2.07	7.34	0.48	1.94	2.37	4.13
Total US Fixed Income ex TIPS Composite	9.12	2.98	10.04	8.22	1.27	13.46	3.53	13.15	4.98	13.50
Investment Grade Composite	11.60	-3.54	9.46	2.62	-0.22	N/A	N/A	N/A	N/A	N/A
<i>Blended Policy (Investment Grade)</i>	12.48	0.40	5.11	2.23	-0.58	11.06	-5.59	4.39	14.57	7.30
Value Added	-0.88	-3.94	4.35	0.39	0.36	N/A	N/A	N/A	N/A	N/A

As of December 31, 2019

## Calendar Year Performance

	Performance (%)									
	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
US Core Plus Fixed Income Composite	9.43	-1.47	6.25	3.95	1.70	7.12	-0.86	8.06	9.31	10.25
<i>Blended Policy (Barclays Aggregate Index)</i>	8.72	0.01	3.54	2.65	0.55	5.97	-2.02	4.21	7.06	7.16
Value Added	0.71	-1.48	2.71	1.30	1.15	1.15	1.16	3.85	2.25	3.09
BlackRock Global Alpha	12.84	-5.50	8.99	4.31	2.25	7.79	1.52	12.05	11.18	13.67
<i>Blended Policy (Barclays Aggregate Index)</i>	8.72	0.01	3.54	2.65	0.55	5.97	-2.02	4.21	7.06	7.16
Value Added	4.12	-5.51	5.45	1.66	1.70	1.82	3.54	7.84	4.12	6.51
PSERS Active Core Plus Fixed Income	7.56	1.36	4.26	3.50	1.59	7.27	-2.01	5.78	9.34	8.54
<i>Blmbg. Barc. U.S. Aggregate</i>	8.72	0.01	3.54	2.65	0.55	5.97	-2.02	4.21	7.84	6.54
Value Added	-1.16	1.35	0.72	0.85	1.04	1.30	0.01	1.57	1.50	2.00
SEI Investment Management	4.17	0.85	7.83	7.34	0.04	N/A	N/A	N/A	N/A	N/A
<i>ICE BofAML 1-3 Year U.S. Corporate</i>	5.43	1.62	1.91	2.39	1.01	1.19	1.78	4.49	1.76	4.86
Value Added	-1.26	-0.77	5.92	4.95	-0.97	N/A	N/A	N/A	N/A	N/A
Non-U.S. Developed Markets Fixed Income Composite	2.81	0.42	3.43	6.23	-5.57	-1.09	-2.49	7.16	3.79	8.63
<i>Blended Policy (Barclays GlobalAgg GDP Weighted Dev xUS hedged)</i>	8.07	2.88	2.79	4.90	-5.56	-2.28	-1.49	6.70	4.48	5.84
Value Added	-5.26	-2.46	0.64	1.33	-0.01	1.19	-1.00	0.46	-0.69	2.79
Alliance Bernstein Global Fixed	2.81	0.42	3.43	6.23	-5.71	-1.80	-1.82	7.30	N/A	N/A
<i>Spliced Barclays GlobalAgg GDPWeighted Dev xUS</i>	8.07	2.88	2.79	4.90	-5.56	-2.28	-1.49	6.70	3.95	3.47
Value Added	-5.26	-2.46	0.64	1.33	-0.15	0.48	-0.33	0.60	N/A	N/A
U.S. Treasuries Total (unlevered)	13.31	-4.72	7.12	-0.04	-1.84	19.66	-12.10	N/A	N/A	N/A
<i>Blmbg. Barc. U.S. Treasury: Long</i>	14.83	-1.84	8.53	1.33	-1.21	25.07	-12.66	3.56	29.93	9.38
Value Added	-1.52	-2.88	-1.41	-1.37	-0.63	-5.41	0.56	N/A	N/A	N/A
PSERS Funded U.S. Long Treasuries	14.75	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>Blmbg. Barc. U.S. Treasury: Long</i>	14.83	-1.84	8.53	1.33	-1.21	25.07	-12.66	3.56	29.93	9.38
Value Added	-0.08	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Credit-Related (hedged)	6.53	5.38	10.49	11.05	0.70	N/A	N/A	N/A	N/A	N/A
<i>Blended Policy (Credit-Related)</i>	13.61	-2.29	8.30	15.99	-6.30	N/A	N/A	N/A	N/A	N/A
Value Added	-7.08	7.67	2.19	-4.94	7.00	N/A	N/A	N/A	N/A	N/A
Emerging Markets Fixed Income Composite	11.54	-0.96	15.68	9.28	-6.50	-3.52	-4.08	16.81	0.82	N/A
<i>Blended Policy (EM FI)</i>	10.64	-4.77	14.94	6.85	-11.72	-3.14	-5.39	16.00	-1.49	15.68
Value Added	0.90	3.81	0.74	2.43	5.22	-0.38	1.31	0.81	2.31	N/A
Franklin Templeton Emerging Fixed Income	11.54	-0.96	15.68	9.04	-1.75	-1.66	0.87	18.99	1.96	14.19
<i>Blended Benchmark (Franklin)</i>	13.29	-4.80	14.94	6.85	-11.72	-3.14	-5.39	19.47	4.47	10.95
Value Added	-1.75	3.84	0.74	2.19	9.97	1.48	6.26	-0.48	-2.51	3.24
Private Credit Composite (hedged)	6.18	5.85	10.10	11.12	-0.56	8.54	10.17	17.31	1.64	15.95
<i>Blended Policy (Private Credit)</i>	13.90	-2.08	7.50	17.13	-4.47	2.45	7.44	15.81	4.98	15.12
Value Added	-7.72	7.93	2.60	-6.01	3.91	6.09	2.73	1.50	-3.34	0.83
Insight Oxygen Currency Hedge - Private Credit (notional)	4.84	7.96	-10.54	4.29	N/A	N/A	N/A	N/A	N/A	N/A
<i>Currency Hedge Benchmark - Private Credit</i>	4.56	7.45	-10.74	4.01	10.55	13.41	-4.63	-2.06	1.12	4.49
Value Added	0.28	0.51	0.20	0.28	N/A	N/A	N/A	N/A	N/A	N/A

As of December 31, 2019

## Calendar Year Performance

	Performance (%)									
	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
PSERS Private Credit Internal Co-Invest	9.92	4.93	-13.32	-32.79	-33.14	15.79	N/A	N/A	N/A	N/A
<i>Blended Policy (Private Credit)</i>	13.90	-2.08	7.50	17.13	-4.47	2.45	7.44	15.81	4.98	15.12
Value Added	-3.98	7.01	-20.82	-49.92	-28.67	13.34	N/A	N/A	N/A	N/A
Apollo European Principal Fund II	-7.72	-1.81	12.25	14.56	6.31	8.80	-0.83	N/A	N/A	N/A
<i>Blended Policy (Private Credit)</i>	13.90	-2.08	7.50	17.13	-4.47	2.45	7.44	15.81	4.98	15.12
Value Added	-21.62	0.27	4.75	-2.57	10.78	6.35	-8.27	N/A	N/A	N/A
Apollo European Principal Fund III	16.52	-22.85	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>Blended Policy (Private Credit)</i>	13.90	-2.08	7.50	17.13	-4.47	2.45	7.44	15.81	4.98	15.12
Value Added	2.62	-20.77	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Avenue Energy Opportunities Fund	-5.83	0.51	4.50	41.63	N/A	N/A	N/A	N/A	N/A	N/A
<i>Blended Policy (Private Credit)</i>	13.90	-2.08	7.50	17.13	-4.47	2.45	7.44	15.81	4.98	15.12
Value Added	-19.73	2.59	-3.00	24.50	N/A	N/A	N/A	N/A	N/A	N/A
Avenue Energy Opportunities Fund II	7.52	-1.00	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>Blended Policy (Private Credit)</i>	13.90	-2.08	7.50	17.13	-4.47	2.45	7.44	15.81	4.98	15.12
Value Added	-6.38	1.08	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Avenue Europe SS III	7.70	4.11	10.73	5.81	N/A	N/A	N/A	N/A	N/A	N/A
<i>Blended Policy (Private Credit)</i>	13.90	-2.08	7.50	17.13	-4.47	2.45	7.44	15.81	4.98	15.12
Value Added	-6.20	6.19	3.23	-11.32	N/A	N/A	N/A	N/A	N/A	N/A
Bain Capital Credit Managed Account (PSERS), L.P.	4.64	0.33	11.22	17.80	-5.03	4.28	7.66	10.67	2.10	14.16
<i>Blended Policy (Private Credit)</i>	13.90	-2.08	7.50	17.13	-4.47	2.45	7.44	15.81	4.98	15.12
Value Added	-9.26	2.41	3.72	0.67	-0.56	1.83	0.22	-5.14	-2.88	-0.96
Bain Capital Credit Opp. Fund IV	13.14	12.06	25.20	2.05	-7.15	1.69	9.20	6.47	0.81	13.76
<i>Blended Policy (Private Credit)</i>	13.90	-2.08	7.50	17.13	-4.47	2.45	7.44	15.81	4.98	15.12
Value Added	-0.76	14.14	17.70	-15.08	-2.68	-0.76	1.76	-9.34	-4.17	-1.36
Bain Capital Distressed and Special Situations 2013	-4.95	5.36	12.90	7.00	-3.02	10.46	10.06	N/A	N/A	N/A
<i>Blended Policy (Private Credit)</i>	13.90	-2.08	7.50	17.13	-4.47	2.45	7.44	15.81	4.98	15.12
Value Added	-18.85	7.44	5.40	-10.13	1.45	8.01	2.62	N/A	N/A	N/A
Bain Capital Distressed and Special Situations 2016 (A), L.P.	4.38	10.30	12.41	29.32	N/A	N/A	N/A	N/A	N/A	N/A
<i>Blended Policy (Private Credit)</i>	13.90	-2.08	7.50	17.13	-4.47	2.45	7.44	15.81	4.98	15.12
Value Added	-9.52	12.38	4.91	12.19	N/A	N/A	N/A	N/A	N/A	N/A
Bain Capital Distressed and Special Situations 2019 (A), L.P.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>Blended Policy (Private Credit)</i>	13.90	-2.08	7.50	17.13	-4.47	2.45	7.44	15.81	4.98	15.12
Value Added	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Bain Capital Middle Market Credit 2010, L.P.	17.99	-4.09	7.34	-6.05	4.81	6.37	11.04	19.37	8.64	N/A
<i>Blended Policy (Private Credit)</i>	13.90	-2.08	7.50	17.13	-4.47	2.45	7.44	15.81	4.98	15.12
Value Added	4.09	-2.01	-0.16	-23.18	9.28	3.92	3.60	3.56	3.66	N/A
Bain Capital Middle Market Credit 2014, L.P.	4.24	9.22	10.41	5.91	0.81	7.00	N/A	N/A	N/A	N/A
<i>Blended Policy (Private Credit)</i>	13.90	-2.08	7.50	17.13	-4.47	2.45	7.44	15.81	4.98	15.12
Value Added	-9.66	11.30	2.91	-11.22	5.28	4.55	N/A	N/A	N/A	N/A



As of December 31, 2019

## Calendar Year Performance

	Performance (%)									
	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
Brigade Distressed Value	7.25	1.18	11.34	34.96	-17.17	3.66	11.12	10.71	N/A	N/A
<i>Blended Policy (Private Credit)</i>	13.90	-2.08	7.50	17.13	-4.47	2.45	7.44	15.81	4.98	15.12
Value Added	-6.65	3.26	3.84	17.83	-12.70	1.21	3.68	-5.10	N/A	N/A
Brigade Structured Credit Offshore Fund	11.89	1.14	8.52	26.20	-5.62	N/A	N/A	N/A	N/A	N/A
<i>Blended Policy (Private Credit)</i>	13.90	-2.08	7.50	17.13	-4.47	2.45	7.44	15.81	4.98	15.12
Value Added	-2.01	3.22	1.02	9.07	-1.15	N/A	N/A	N/A	N/A	N/A
Carlyle Energy Mezz. Opp. Fund	-44.42	-10.83	-11.38	-41.34	-9.01	19.08	20.66	N/A	N/A	N/A
<i>Blended Policy (Private Credit)</i>	13.90	-2.08	7.50	17.13	-4.47	2.45	7.44	15.81	4.98	15.12
Value Added	-58.32	-8.75	-18.88	-58.47	-4.54	16.63	13.22	N/A	N/A	N/A
Carlyle Energy Mezz. Opp. Fund II	-4.41	4.15	-1.36	-10.87	N/A	N/A	N/A	N/A	N/A	N/A
<i>Blended Policy (Private Credit)</i>	13.90	-2.08	7.50	17.13	-4.47	2.45	7.44	15.81	4.98	15.12
Value Added	-18.31	6.23	-8.86	-28.00	N/A	N/A	N/A	N/A	N/A	N/A
Cerberus Levered Loan Fund I	4.66	6.21	6.89	6.04	-1.29	3.38	9.09	12.20	N/A	N/A
<i>Blended Policy (Private Credit)</i>	13.90	-2.08	7.50	17.13	-4.47	2.45	7.44	15.81	4.98	15.12
Value Added	-9.24	8.29	-0.61	-11.09	3.18	0.93	1.65	-3.61	N/A	N/A
Cerberus Levered Loan Fund II	-2.56	3.29	1.52	3.25	8.03	13.92	12.21	N/A	N/A	N/A
<i>Blended Policy (Private Credit)</i>	13.90	-2.08	7.50	17.13	-4.47	2.45	7.44	15.81	4.98	15.12
Value Added	-16.46	5.37	-5.98	-13.88	12.50	11.47	4.77	N/A	N/A	N/A
Cerberus PSERS Levered Loan Opportunities Fund	11.97	11.52	18.25	36.14	N/A	N/A	N/A	N/A	N/A	N/A
<i>Blended Policy (Private Credit)</i>	13.90	-2.08	7.50	17.13	-4.47	2.45	7.44	15.81	4.98	15.12
Value Added	-1.93	13.60	10.75	19.01	N/A	N/A	N/A	N/A	N/A	N/A
Clearlake Opportunities Partners II, LP	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>Blended Policy (Private Credit)</i>	13.90	-2.08	7.50	17.13	-4.47	2.45	7.44	15.81	4.98	15.12
Value Added	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Galton Onshore Mortgage Recovery Fund III, LP	2.36	7.56	15.62	1.83	-1.33	-4.44	N/A	N/A	N/A	N/A
<i>Blended Policy (Private Credit)</i>	13.90	-2.08	7.50	17.13	-4.47	2.45	7.44	15.81	4.98	15.12
Value Added	-11.54	9.64	8.12	-15.30	3.14	-6.89	N/A	N/A	N/A	N/A
Galton Onshore Mortgage Recovery Fund IV, L.P.	-2.10	-12.51	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>Blended Policy (Private Credit)</i>	13.90	-2.08	7.50	17.13	-4.47	2.45	7.44	15.81	4.98	15.12
Value Added	-16.00	-10.43	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Hayfin SOF II USD LP	6.74	6.35	20.95	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>Blended Policy (Private Credit)</i>	13.90	-2.08	7.50	17.13	-4.47	2.45	7.44	15.81	4.98	15.12
Value Added	-7.16	8.43	13.45	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Hayfin SOF II USD Co-Invest	7.46	5.11	6.72	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>Blended Policy (Private Credit)</i>	13.90	-2.08	7.50	17.13	-4.47	2.45	7.44	15.81	4.98	15.12
Value Added	-6.44	7.19	-0.78	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Hayfin Special Opportunities Credit LP	-7.59	21.50	25.60	5.14	-2.76	-6.95	N/A	N/A	N/A	N/A
<i>Blended Policy (Private Credit)</i>	13.90	-2.08	7.50	17.13	-4.47	2.45	7.44	15.81	4.98	15.12
Value Added	-21.49	23.58	18.10	-11.99	1.71	-9.40	N/A	N/A	N/A	N/A

As of December 31, 2019

## Calendar Year Performance

	Performance (%)									
	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
ICG Europe Fund V	16.77	14.74	27.83	6.38	-2.00	4.03	15.07	N/A	N/A	N/A
<i>Blended Policy (Private Credit)</i>	13.90	-2.08	7.50	17.13	-4.47	2.45	7.44	15.81	4.98	15.12
Value Added	2.87	16.82	20.33	-10.75	2.47	1.58	7.63	N/A	N/A	N/A
ICG Europe Fund VI	7.18	4.03	63.62	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>Blended Policy (Private Credit)</i>	13.90	-2.08	7.50	17.13	-4.47	2.45	7.44	15.81	4.98	15.12
Value Added	-6.72	6.11	56.12	N/A	N/A	N/A	N/A	N/A	N/A	N/A
ICG Europe Fund VII	33.77	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>Blended Policy (Private Credit)</i>	13.90	-2.08	7.50	17.13	-4.47	2.45	7.44	15.81	4.98	15.12
Value Added	19.87	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Latitude Management Real Estate Capital IV	6.74	6.22	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>Blended Policy (Private Credit)</i>	13.90	-2.08	7.50	17.13	-4.47	2.45	7.44	15.81	4.98	15.12
Value Added	-7.16	8.30	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
LBC Credit Partners III	-3.60	0.60	2.33	13.28	14.46	11.66	N/A	N/A	N/A	N/A
<i>Blended Policy (Private Credit)</i>	13.90	-2.08	7.50	17.13	-4.47	2.45	7.44	15.81	4.98	15.12
Value Added	-17.50	2.68	-5.17	-3.85	18.93	9.21	N/A	N/A	N/A	N/A
LBC-P Credit Fund LP	5.56	9.89	25.65	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>Blended Policy (Private Credit)</i>	13.90	-2.08	7.50	17.13	-4.47	2.45	7.44	15.81	4.98	15.12
Value Added	-8.34	11.97	18.15	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Mariner/Galton RMBS	10.85	3.03	7.78	3.87	4.38	8.61	8.55	21.64	1.67	N/A
<i>Blended Policy (Private Credit)</i>	13.90	-2.08	7.50	17.13	-4.47	2.45	7.44	15.81	4.98	15.12
Value Added	-3.05	5.11	0.28	-13.26	8.85	6.16	1.11	5.83	-3.31	N/A
Mariner International Infrastructure	9.35	9.47	8.44	8.67	5.82	-5.53	N/A	N/A	N/A	N/A
<i>Blended Policy (Private Credit)</i>	13.90	-2.08	7.50	17.13	-4.47	2.45	7.44	15.81	4.98	15.12
Value Added	-4.55	11.55	0.94	-8.46	10.29	-7.98	N/A	N/A	N/A	N/A
Oaktree Loan Fund 2X, LP	8.05	4.23	0.04	5.35	-23.74	-0.78	6.26	12.69	7.08	12.94
<i>Blended Policy (Private Credit)</i>	13.90	-2.08	7.50	17.13	-4.47	2.45	7.44	15.81	4.98	15.12
Value Added	-5.85	6.31	-7.46	-11.78	-19.27	-3.23	-1.18	-3.12	2.10	-2.18
Park Square Credit Opportunities	13.96	0.90	4.29	20.66	N/A	N/A	N/A	N/A	N/A	N/A
<i>Blended Policy (Private Credit)</i>	13.90	-2.08	7.50	17.13	-4.47	2.45	7.44	15.81	4.98	15.12
Value Added	0.06	2.98	-3.21	3.53	N/A	N/A	N/A	N/A	N/A	N/A
PIMCO BRAVO Fund III Onshore Feeder, L.P.	10.52	10.96	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>Blended Policy (Private Credit)</i>	13.90	-2.08	7.50	17.13	-4.47	2.45	7.44	15.81	4.98	15.12
Value Added	-3.38	13.04	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
PIMCO Commercial Real Estate Debt Fund, L.P.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>Blended Policy (Private Credit)</i>	13.90	-2.08	7.50	17.13	-4.47	2.45	7.44	15.81	4.98	15.12
Value Added	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Summit Partners Credit Fund II LP	6.39	6.93	12.18	13.37	-0.21	N/A	N/A	N/A	N/A	N/A
<i>Blended Policy (Private Credit)</i>	13.90	-2.08	7.50	17.13	-4.47	2.45	7.44	15.81	4.98	15.12
Value Added	-7.51	9.01	4.68	-3.76	4.26	N/A	N/A	N/A	N/A	N/A

As of December 31, 2019

## Calendar Year Performance

	Performance (%)									
	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
TCI Real Estate Partners Fund III, L.P.	12.59	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>Blended Policy (Private Credit)</i>	13.90	-2.08	7.50	17.13	-4.47	2.45	7.44	15.81	4.98	15.12
Value Added	-1.31	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
The Varde Scratch and Dent Fund, LP	7.18	5.60	8.25	6.67	7.48	N/A	N/A	N/A	N/A	N/A
<i>Blended Policy (Private Credit)</i>	13.90	-2.08	7.50	17.13	-4.47	2.45	7.44	15.81	4.98	15.12
Value Added	-6.72	7.68	0.75	-10.46	11.95	N/A	N/A	N/A	N/A	N/A
The Varde Scratch and Dent Fund Feed I-A	8.92	8.45	6.39	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>Blended Policy (Private Credit)</i>	13.90	-2.08	7.50	17.13	-4.47	2.45	7.44	15.81	4.98	15.12
Value Added	-4.98	10.53	-1.11	N/A	N/A	N/A	N/A	N/A	N/A	N/A
TOP NPL (A)	-4.34	-1.84	2.02	-3.30	27.19	30.38	12.18	N/A	N/A	N/A
<i>Blended Policy (Private Credit)</i>	13.90	-2.08	7.50	17.13	-4.47	2.45	7.44	15.81	4.98	15.12
Value Added	-18.24	0.24	-5.48	-20.43	31.66	27.93	4.74	N/A	N/A	N/A
TPG Opportunities Partners II, LP	-1.44	20.72	4.07	6.52	21.82	25.75	13.76	N/A	N/A	N/A
<i>Blended Policy (Private Credit)</i>	13.90	-2.08	7.50	17.13	-4.47	2.45	7.44	15.81	4.98	15.12
Value Added	-15.34	22.80	-3.43	-10.61	26.29	23.30	6.32	N/A	N/A	N/A
TPG Opportunities Partners III, LP	10.81	9.58	13.79	17.10	3.39	N/A	N/A	N/A	N/A	N/A
<i>Blended Policy (Private Credit)</i>	13.90	-2.08	7.50	17.13	-4.47	2.45	7.44	15.81	4.98	15.12
Value Added	-3.09	11.66	6.29	-0.03	7.86	N/A	N/A	N/A	N/A	N/A
TPG TAO	11.03	11.01	6.56	10.10	10.13	N/A	N/A	N/A	N/A	N/A
<i>Blended Policy (Private Credit)</i>	13.90	-2.08	7.50	17.13	-4.47	2.45	7.44	15.81	4.98	15.12
Value Added	-2.87	13.09	-0.94	-7.03	14.60	N/A	N/A	N/A	N/A	N/A
TSSP Opportunities Partners IV, LP	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>Blended Policy (Private Credit)</i>	13.90	-2.08	7.50	17.13	-4.47	2.45	7.44	15.81	4.98	15.12
Value Added	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Inflation Protected (unlevered)	6.32	0.50	2.11	9.25	2.47	N/A	N/A	N/A	N/A	N/A
<i>Blended Policy (Inflation Protected)</i>	8.73	0.10	3.32	10.22	-1.76	3.64	-8.61	6.98	13.56	6.31
Value Added	-2.41	0.40	-1.21	-0.97	4.23	N/A	N/A	N/A	N/A	N/A
U.S. Inflation Protected (unlevered)	7.48	-1.43	3.03	6.20	-1.46	5.03	-7.97	7.10	18.25	11.31
<i>Blended Policy (U.S. Inflation Protected)</i>	8.37	-1.26	3.01	4.68	-1.44	3.64	-8.61	6.98	13.56	6.31
Value Added	-0.89	-0.17	0.02	1.52	-0.02	1.39	0.64	0.12	4.69	5.00
PSERS Total TIPS (unlevered)	7.48	-1.43	3.03	6.20	-1.46	5.03	-7.97	7.03	13.96	7.12
<i>Blended Policy (U.S. Inflation Protected)</i>	8.37	-1.26	3.01	4.68	-1.44	3.64	-8.61	6.98	13.56	6.31
Value Added	-0.89	-0.17	0.02	1.52	-0.02	1.39	0.64	0.05	0.40	0.81
PSERS TIPS	8.05	-0.75	3.94	5.23	-1.46	5.03	-7.97	7.10	18.25	11.31
<i>Blended Policy (U.S. Inflation Protected)</i>	8.37	-1.26	3.01	4.68	-1.44	3.64	-8.61	6.98	13.56	6.31
Value Added	-0.32	0.51	0.93	0.55	-0.02	1.39	0.64	0.12	4.69	5.00
PSERS TIPS Swap (Long)	8.41	-1.26	3.01	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>TIPS Swap Custom Benchmark</i>	8.37	-1.26	3.01	4.68	-1.44	3.64	-8.61	6.98	13.56	6.31
Value Added	0.04	0.00	0.00	N/A	N/A	N/A	N/A	N/A	N/A	N/A

As of December 31, 2019

## Calendar Year Performance

	Performance (%)									
	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
Non-U.S. Inflation Protected (unlevered)	5.33	2.52	1.55	11.69	N/A	N/A	N/A	N/A	N/A	N/A
<i>Bloomberg Barclays World Govt ex U.S. ILB Index (H\$)</i>	7.98	1.29	3.29	14.53	-0.63	13.00	-1.99	4.35	9.22	4.85
Value Added	-2.65	1.23	-1.74	-2.84	N/A	N/A	N/A	N/A	N/A	N/A
Bridgewater TIPS (unlevered)	5.33	2.52	1.55	11.69	N/A	N/A	N/A	N/A	N/A	N/A
<i>BGI Custom IL Bond Index (unlevered)</i>	5.90	0.69	1.67	11.34	N/A	N/A	N/A	N/A	N/A	N/A
Value Added	-0.57	1.83	-0.12	0.35	N/A	N/A	N/A	N/A	N/A	N/A
PIMCO Multi-Sector Strategy	9.50	1.86	4.78	7.11	-3.32	5.22	-1.24	N/A	N/A	N/A
<i>Blended Policy (PIMCO Multi-Sector)</i>	10.51	2.07	3.95	6.36	-2.70	6.32	-0.73	7.46	7.84	6.54
Value Added	-1.01	-0.21	0.83	0.75	-0.62	-1.10	-0.51	N/A	N/A	N/A
Total Real Asset Exposure (unlevered/hedged)	12.57	-1.62	7.25	14.01	-8.04	N/A	N/A	N/A	N/A	N/A
<i>Blended Policy (Real Assets) (Hedged)</i>	12.04	-0.73	6.97	11.39	-6.53	N/A	N/A	N/A	N/A	N/A
Value Added	0.53	-0.89	0.28	2.62	-1.51	N/A	N/A	N/A	N/A	N/A
Total Infrastructure Composite (unlevered/hedged)	17.09	-8.88	10.63	11.66	N/A	N/A	N/A	N/A	N/A	N/A
<i>Blended Policy (Infrastructure Hedged)</i>	19.50	-8.03	10.85	11.81	-3.56	21.17	18.21	10.80	7.40	8.22
Value Added	-2.41	-0.85	-0.22	-0.15	N/A	N/A	N/A	N/A	N/A	N/A
Infrastructure x MLP (unlevered/hedged)	22.62	-0.60	13.80	11.66	N/A	N/A	N/A	N/A	N/A	N/A
<i>Blended Policy (Infrastructure x MLP) (Hedged)</i>	18.98	2.84	10.70	13.14	2.35	18.85	17.54	16.91	1.99	N/A
Value Added	3.64	-3.44	3.10	-1.48	N/A	N/A	N/A	N/A	N/A	N/A
Insight Nevada Currency Hedge - Infra (notional)	0.84	7.21	-7.14	1.84	N/A	N/A	N/A	N/A	N/A	N/A
<i>Currency Hedge Benchmark - Infra</i>	1.03	7.30	-7.04	1.99	N/A	N/A	N/A	N/A	N/A	N/A
Value Added	-0.19	-0.09	-0.10	-0.15	N/A	N/A	N/A	N/A	N/A	N/A
Private Infrastructure Composite	14.75	14.67	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>FTSE Developed Core Infrastructure 50/50 Index (Net) 1Q Lag</i>	17.10	0.74	11.38	14.65	-3.62	15.62	15.39	18.40	2.93	N/A
Value Added	-2.35	13.93	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Private Infrastructure ex Co-Invest	11.74	14.66	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
PSERS Private Infrastructure Internal Co-Invest	27.86	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Publicly-Traded Infrastructure Composite (unlevered)	25.04	-4.63	18.18	10.63	N/A	N/A	N/A	N/A	N/A	N/A
<i>FTSE Developed Core Infrast 50/50 Index (Net)</i>	25.04	-4.63	18.18	10.63	-7.56	16.02	15.48	11.49	8.00	10.34
Value Added	0.00	0.00	0.00	0.00	N/A	N/A	N/A	N/A	N/A	N/A
PSERS Infrastructure Index (Long)	25.04	-4.63	18.18	10.63	N/A	N/A	N/A	N/A	N/A	N/A
<i>FTSE Developed Core Infrast 50/50 Index (Net)</i>	25.04	-4.63	18.18	10.63	-7.56	16.02	15.48	11.49	8.00	10.34
Value Added	0.00	0.00	0.00	0.00	N/A	N/A	N/A	N/A	N/A	N/A
MLP Composite	13.38	-12.47	-5.68	24.62	-32.63	16.30	37.44	12.77	18.88	39.82
<i>Blended Policy (MLP)</i>	15.76	-11.67	-5.58	21.95	-35.07	7.66	29.75	4.95	14.47	35.17
Value Added	-2.38	-0.80	-0.10	2.67	2.44	8.64	7.69	7.82	4.41	4.65
PSERS MLP	13.35	-12.73	-4.92	22.29	N/A	N/A	N/A	N/A	N/A	N/A
<i>MLP Internal Blended Benchmark</i>	13.39	-12.37	-5.32	21.95	-35.07	7.66	29.75	4.95	14.47	35.17

As of December 31, 2019

## Calendar Year Performance

	Performance (%)									
	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
Value Added	-0.04	-0.36	0.40	0.34	N/A	N/A	N/A	N/A	N/A	N/A
External MLP Composite	13.39	-12.37	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>Blended Policy (MLP)</i>	15.76	-11.67	-5.58	21.95	-35.07	7.66	29.75	4.95	14.47	35.17
Value Added	-2.37	-0.70	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Atlantic Trust	11.11	-9.96	-7.28	28.14	-33.34	15.38	38.77	N/A	N/A	N/A
<i>Blended Policy (MLP)</i>	15.76	-11.67	-5.58	21.95	-35.07	7.66	29.75	4.95	14.47	35.17
Value Added	-4.65	1.71	-1.70	6.19	1.73	7.72	9.02	N/A	N/A	N/A
Harvest MLP	12.85	-13.34	-5.34	19.96	-30.25	17.87	35.60	12.80	18.88	39.82
<i>Blended Policy (MLP)</i>	15.76	-11.67	-5.58	21.95	-35.07	7.66	29.75	4.95	14.47	35.17
Value Added	-2.91	-1.67	0.24	-1.99	4.82	10.21	5.85	7.85	4.41	4.65
Salient	15.94	-13.40	-5.19	29.46	-36.06	15.15	38.62	N/A	N/A	N/A
<i>Blended Policy (MLP)</i>	15.76	-11.67	-5.58	21.95	-35.07	7.66	29.75	4.95	14.47	35.17
Value Added	0.18	-1.73	0.39	7.51	-0.99	7.49	8.87	N/A	N/A	N/A
Total Commodities Composite (unlevered)	10.97	-7.42	7.48	14.75	-18.59	-10.18	-11.16	2.41	-10.00	18.13
<i>Blended Policy (Commodities)</i>	11.67	-7.97	5.83	10.81	-19.85	-12.05	-10.34	-1.05	-13.32	16.82
Value Added	-0.70	0.55	1.65	3.94	1.26	1.87	-0.82	3.46	3.32	1.31
Private Commodities Composite	5.36	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Private Commodities ex Co-Invest	5.30	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
PSERS Private Commodities Internal Co-Invest	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Commodities Composite ex Private (unlevered)	13.72	-7.43	7.48	14.75	-18.59	-10.18	-11.16	2.41	-10.00	18.13
<i>Blended Policy (Commodities)</i>	11.67	-7.97	5.83	10.81	-19.85	-12.05	-10.34	-1.05	-13.32	16.82
Value Added	2.05	0.54	1.65	3.94	1.26	1.87	-0.82	3.46	3.32	1.31
Commodities ex Private & Gold (unlevered)	7.94	-10.74	5.35	18.03	-23.16	-15.07	N/A	N/A	N/A	N/A
<i>Bloomberg Commodity Index Total Return</i>	7.69	-11.25	1.70	11.77	-24.66	-17.01	-9.52	-1.06	-13.32	16.83
Value Added	0.25	0.51	3.65	6.26	1.50	1.94	N/A	N/A	N/A	N/A
PSERS Commodity Beta (Long)	7.69	-11.25	1.70	11.77	-24.66	N/A	N/A	N/A	N/A	N/A
<i>Bloomberg Commodity Index Total Return</i>	7.69	-11.25	1.70	11.77	-24.66	-17.01	-9.52	-1.06	-13.32	16.83
Value Added	0.00	0.00	0.00	0.00	0.00	N/A	N/A	N/A	N/A	N/A
Gresham	10.05	-11.23	6.13	12.90	-24.91	-16.31	-7.06	0.66	-6.15	20.92
<i>Bloomberg Commodity Index Total Return</i>	7.69	-11.25	1.70	11.77	-24.66	-17.01	-9.52	-1.06	-13.32	16.83
Value Added	2.36	0.02	4.43	1.13	-0.25	0.70	2.46	1.72	7.17	4.09
Wellington Management Company	12.11	-13.10	6.28	25.32	-24.58	-15.09	-5.05	2.92	-11.05	19.62
<i>Blended Benchmark (Wellington)</i>	10.45	-11.28	8.43	23.33	-24.75	-14.23	-2.79	4.39	-7.71	19.25
Value Added	1.66	-1.82	-2.15	1.99	0.17	-0.86	-2.26	-1.47	-3.34	0.37
Gold Composite (unlevered)	16.89	-4.57	11.82	7.68	-10.16	0.39	-28.37	N/A	N/A	N/A
<i>Bloomberg Gold Subindex Total Return</i>	18.03	-2.81	12.79	7.73	-10.88	-1.75	-28.66	6.08	9.63	28.72
Value Added	-1.14	-1.76	-0.97	-0.05	0.72	2.14	0.29	N/A	N/A	N/A
PSERS Gold (Long)	18.03	-2.81	12.79	7.73	N/A	N/A	N/A	N/A	N/A	N/A

As of December 31, 2019

## Calendar Year Performance

	Performance (%)									
	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
<i>Bloomberg Gold Subindex Total Return</i>	18.03	-2.81	12.79	7.73	-10.88	-1.75	-28.66	6.08	9.63	28.72
Value Added	0.00	0.00	0.00	0.00	N/A	N/A	N/A	N/A	N/A	N/A
<b>Total Real Estate (unlevered/hedged)</b>	<b>11.10</b>	<b>8.53</b>	<b>11.59</b>	<b>9.83</b>	<b>9.01</b>	<b>17.23</b>	<b>11.70</b>	<b>9.16</b>	<b>13.21</b>	<b>3.52</b>
<i>Blended Policy (Total Real Estate) (Hedged)</i>	7.68	8.64	10.91	7.68	11.40	14.95	10.56	9.06	15.56	5.63
Value Added	3.42	-0.11	0.68	2.15	-2.39	2.28	1.14	0.10	-2.35	-2.11
<b>PTRES Composite (unlevered/hedged)</b>	<b>23.21</b>	<b>-3.00</b>	<b>6.31</b>	<b>7.91</b>	<b>-1.89</b>	<b>20.09</b>	<b>4.10</b>	<b>13.75</b>	<b>4.71</b>	<b>16.82</b>
<i>Blended Policy (PTRES) (Hedged)</i>	22.75	-3.36	7.64	5.36	-0.32	14.73	2.24	29.85	-8.13	20.03
Value Added	0.46	0.36	-1.33	2.55	-1.57	5.36	1.86	-16.10	12.84	-3.21
<b>Insight Sierra Currency Hedge - REIT (notional)</b>	<b>1.35</b>	<b>5.00</b>	<b>-5.51</b>	<b>2.31</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
<i>Currency Hedge Benchmark - REIT</i>	1.47	5.11	-5.40	2.45	N/A	N/A	N/A	N/A	N/A	N/A
Value Added	-0.12	-0.11	-0.11	-0.14	N/A	N/A	N/A	N/A	N/A	N/A
<b>PSERS REIT Index (Long)</b>	<b>21.91</b>	<b>-5.63</b>	<b>10.36</b>	<b>4.06</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
<i>FTSE EPRA/NAREIT Developed Index (Net)</i>	21.91	-5.63	10.36	4.06	-0.79	15.02	3.67	27.73	-6.46	19.63
Value Added	0.00	0.00	0.00	0.00	N/A	N/A	N/A	N/A	N/A	N/A
<b>Security Capital Preferred Growth</b>	<b>21.16</b>	<b>-0.45</b>	<b>2.25</b>	<b>12.23</b>	<b>2.15</b>	<b>20.09</b>	<b>4.10</b>	<b>13.75</b>	<b>4.71</b>	<b>24.71</b>
<i>Wilshire US Real Estate Securities Index</i>	25.79	-4.80	4.84	7.62	4.81	31.53	2.15	17.55	8.56	29.12
Value Added	-4.63	4.35	-2.59	4.61	-2.66	-11.44	1.95	-3.80	-3.85	-4.41
<b>Private Real Estate Composite</b>	<b>9.76</b>	<b>9.98</b>	<b>12.53</b>	<b>10.10</b>	<b>9.54</b>	<b>17.15</b>	<b>11.92</b>	<b>9.79</b>	<b>13.48</b>	<b>1.04</b>
<i>Blended Policy (Private Real Estate)</i>	5.88	10.27	11.57	8.09	11.10	15.00	10.53	9.04	15.58	5.60
Value Added	3.88	-0.29	0.96	2.01	-1.56	2.15	1.39	0.75	-2.10	-4.56
<b>Private Real Estate ex Internal Co-Invest</b>	<b>9.64</b>	<b>9.79</b>	<b>12.51</b>	<b>9.97</b>	<b>9.46</b>	<b>17.07</b>	<b>11.85</b>	<b>9.79</b>	<b>13.48</b>	<b>1.04</b>
<b>PSERS Real Estate Internal Co-Invest</b>	<b>14.68</b>	<b>18.06</b>	<b>13.70</b>	<b>18.13</b>	<b>18.51</b>	<b>28.93</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
<b>Risk Parity Composite (vol adjusted)</b>	<b>20.63</b>	<b>-6.80</b>	<b>12.94</b>	<b>11.14</b>	<b>-6.54</b>	<b>10.17</b>	<b>-4.74</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
<i>Blended Policy (Risk Parity)</i>	23.53	-7.79	14.91	12.20	-5.66	10.41	-5.28	14.00	16.70	20.34
Value Added	-2.90	0.99	-1.97	-1.06	-0.88	-0.24	0.54	N/A	N/A	N/A
<b>BlackRock Market Advantage II (vol adjusted)</b>	<b>27.35</b>	<b>-5.42</b>	<b>16.06</b>	<b>11.69</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
<b>Bridgewater All Weather @15% (vol adjusted)</b>	<b>19.61</b>	<b>-6.28</b>	<b>14.19</b>	<b>11.60</b>	<b>-8.35</b>	<b>9.49</b>	<b>-4.57</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
<b>Bridgewater Optimal (vol adjusted)</b>	<b>8.98</b>	<b>-5.48</b>	<b>3.00</b>	<b>7.72</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
<b>DE Shaw Orienteer HV (vol adjusted)</b>	<b>35.54</b>	<b>-9.41</b>	<b>13.90</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
<b>PSERS Risk Parity Composite (vol adjusted to 12%)</b>	<b>19.06</b>	<b>-6.79</b>	<b>13.75</b>	<b>14.17</b>	<b>-6.14</b>	<b>10.21</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
<b>Total Absolute Return Composite</b>	<b>4.00</b>	<b>3.81</b>	<b>4.14</b>	<b>3.98</b>	<b>3.70</b>	<b>3.06</b>	<b>4.77</b>	<b>3.54</b>	<b>7.72</b>	<b>17.25</b>
<i>Blended Policy (Absolute Return)</i>	6.51	5.92	4.82	4.27	3.83	5.61	7.50	7.50	7.75	8.00
Value Added	-2.51	-2.11	-0.68	-0.29	-0.13	-2.55	-2.73	-3.96	-0.03	9.25
<b>Aeolus Property Catastrophe Keystone PF Fund, LP</b>	<b>5.80</b>	<b>-5.61</b>	<b>-17.60</b>	<b>10.24</b>	<b>14.72</b>	<b>19.41</b>	<b>22.65</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
<i>Blended Policy (Absolute Return)</i>	6.51	5.92	4.82	4.27	3.83	5.61	7.50	7.50	7.75	8.00
Value Added	-0.71	-11.53	-22.42	5.97	10.89	13.80	15.15	N/A	N/A	N/A
<b>AKAZ Offshore Fund Ltd</b>	<b>-12.18</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>

As of December 31, 2019

## Calendar Year Performance

	Performance (%)									
	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
<i>Blended Policy (Absolute Return)</i>	6.51	5.92	4.82	4.27	3.83	5.61	7.50	7.50	7.75	8.00
Value Added	-18.69	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Bridgewater Pure Alpha Fund II, Ltd.	-0.25	17.42	1.78	2.94	7.58	5.93	6.99	1.56	32.86	56.55
<i>Blended Policy (Absolute Return)</i>	6.51	5.92	4.82	4.27	3.83	5.61	7.50	7.50	7.75	8.00
Value Added	-6.76	11.50	-3.04	-1.33	3.75	0.32	-0.51	-5.94	25.11	48.55
Brigade Leveraged Capital Structures Offshore Fund, Ltd.	8.05	1.54	7.10	22.88	-11.10	0.51	6.12	7.05	2.90	7.84
<i>Blended Policy (Absolute Return)</i>	6.51	5.92	4.82	4.27	3.83	5.61	7.50	7.50	7.75	8.00
Value Added	1.54	-4.38	2.28	18.61	-14.93	-5.10	-1.38	-0.45	-4.85	-0.16
Capula Global Relative Value Fund Limited	8.63	5.14	4.30	9.01	8.09	8.62	8.18	0.83	N/A	N/A
<i>Blended Policy (Absolute Return)</i>	6.51	5.92	4.82	4.27	3.83	5.61	7.50	7.50	7.75	8.00
Value Added	2.12	-0.78	-0.52	4.74	4.26	3.01	0.68	-6.67	N/A	N/A
Capula Tail Risk Fund Limited	-4.40	0.80	-7.90	-0.57	3.32	-1.04	-3.41	-14.28	N/A	N/A
<i>Blended Policy (Absolute Return)</i>	6.51	5.92	4.82	4.27	3.83	5.61	7.50	7.50	7.75	8.00
Value Added	-10.91	-5.12	-12.72	-4.84	-0.51	-6.65	-10.91	-21.78	N/A	N/A
Carlyle Aviation/SASOF III LP	39.25	31.66	10.10	15.42	N/A	N/A	N/A	N/A	N/A	N/A
<i>Blended Policy (Absolute Return)</i>	6.51	5.92	4.82	4.27	3.83	5.61	7.50	7.50	7.75	8.00
Value Added	32.74	25.74	5.28	11.15	N/A	N/A	N/A	N/A	N/A	N/A
Carlyle Aviation/SASOF IV LP	6.06	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>Blended Policy (Absolute Return)</i>	6.51	5.92	4.82	4.27	3.83	5.61	7.50	7.50	7.75	8.00
Value Added	-0.45	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Caspian Keystone Focused Fund, Ltd.	28.20	-0.66	9.93	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>Blended Policy (Absolute Return)</i>	6.51	5.92	4.82	4.27	3.83	5.61	7.50	7.50	7.75	8.00
Value Added	21.69	-6.58	5.11	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Caspian Select Credit International, Ltd.	5.20	0.97	6.71	8.92	-10.40	3.11	9.82	11.83	N/A	N/A
<i>Blended Policy (Absolute Return)</i>	6.51	5.92	4.82	4.27	3.83	5.61	7.50	7.50	7.75	8.00
Value Added	-1.31	-4.95	1.89	4.65	-14.23	-2.50	2.32	4.33	N/A	N/A
Falko Regional Aircraft Opportunities Fund II	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>Blended Policy (Absolute Return)</i>	6.51	5.92	4.82	4.27	3.83	5.61	7.50	7.50	7.75	8.00
Value Added	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Garda Fixed Income Relative Value Opportunity Fund Ltd.	10.08	1.48	7.09	6.83	2.18	6.39	5.06	6.70	N/A	N/A
<i>Blended Policy (Absolute Return)</i>	6.51	5.92	4.82	4.27	3.83	5.61	7.50	7.50	7.75	8.00
Value Added	3.57	-4.44	2.27	2.56	-1.65	0.78	-2.44	-0.80	N/A	N/A
HS Group Sponsor Fund II, Ltd.	6.53	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>Blended Policy (Absolute Return)</i>	6.51	5.92	4.82	4.27	3.83	5.61	7.50	7.50	7.75	8.00
Value Added	0.02	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Independence Reinsurance Partners Composite	4.76	-0.36	-15.52	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>Blended Policy (Absolute Return)</i>	6.51	5.92	4.82	4.27	3.83	5.61	7.50	7.50	7.75	8.00
Value Added	-1.75	-6.28	-20.34	N/A	N/A	N/A	N/A	N/A	N/A	N/A
DaVinci Reinsurance Ltd.	11.70	1.97	-17.45	N/A	N/A	N/A	N/A	N/A	N/A	N/A

As of December 31, 2019

## Calendar Year Performance

	Performance (%)									
	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
RenaissanceRe Medici Fund Ltd.	5.00	4.06	1.11	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Upsilon Diversified Fund Ltd.	2.29	-5.34	-58.31	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nephila/Nimbus Weather Fund	-2.33	3.85	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>Blended Policy (Absolute Return)</i>	6.51	5.92	4.82	4.27	3.83	5.61	7.50	7.50	7.75	8.00
Value Added	-8.84	-2.07	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nephila/Palmetto Fund Ltd.	1.79	-4.70	-5.84	2.83	5.37	6.92	6.96	10.04	N/A	N/A
<i>Blended Policy (Absolute Return)</i>	6.51	5.92	4.82	4.27	3.83	5.61	7.50	7.50	7.75	8.00
Value Added	-4.72	-10.62	-10.66	-1.44	1.54	1.31	-0.54	2.54	N/A	N/A
Oceanwood Investments SPC Co-Invest	32.78	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>Blended Policy (Absolute Return)</i>	6.51	5.92	4.82	4.27	3.83	5.61	7.50	7.50	7.75	8.00
Value Added	26.27	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Oceanwood Opportunities Fund	7.99	-2.51	17.40	-5.12	9.10	N/A	N/A	N/A	N/A	N/A
<i>Blended Policy (Absolute Return)</i>	6.51	5.92	4.82	4.27	3.83	5.61	7.50	7.50	7.75	8.00
Value Added	1.48	-8.43	12.58	-9.39	5.27	N/A	N/A	N/A	N/A	N/A
OWS Credit Opportunity Offshore Fund III, Ltd.	7.42	8.88	15.28	10.03	N/A	N/A	N/A	N/A	N/A	N/A
<i>Blended Policy (Absolute Return)</i>	6.51	5.92	4.82	4.27	3.83	5.61	7.50	7.50	7.75	8.00
Value Added	0.91	2.96	10.46	5.76	N/A	N/A	N/A	N/A	N/A	N/A
Perry Partners LP	18.34	-22.48	0.98	8.03	-13.32	-4.25	N/A	N/A	N/A	N/A
<i>Blended Policy (Absolute Return)</i>	6.51	5.92	4.82	4.27	3.83	5.61	7.50	7.50	7.75	8.00
Value Added	11.83	-28.40	-3.84	3.76	-17.15	-9.86	N/A	N/A	N/A	N/A
PIMCO PARS/GCOF/MAV/PCAF Composite	3.79	2.19	2.68	0.54	7.08	4.70	2.16	14.21	5.85	2.03
<i>Blended Policy (Absolute Return)</i>	6.51	5.92	4.82	4.27	3.83	5.61	7.50	7.50	7.75	8.00
Value Added	-2.72	-3.73	-2.14	-3.73	3.25	-0.91	-5.34	6.71	-1.90	-5.97
PIMCO Absolute Return Strategy V Offshore Fund, Ltd.	16.13	-3.04	5.77	-0.14	8.20	14.38	0.90	N/A	N/A	N/A
PIMCO Global Credit Opportunity Offshore Fund, Ltd.	-12.91	11.38	0.42	10.19	10.03	7.34	11.11	N/A	N/A	N/A
PIMCO Commodity Alpha Fund	10.10	6.34	12.44	20.81	N/A	N/A	N/A	N/A	N/A	N/A
Two Sigma Risk Premia Enhanced Fund, LP	-0.25	7.30	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>Blended Policy (Absolute Return)</i>	6.51	5.92	4.82	4.27	3.83	5.61	7.50	7.50	7.75	8.00
Value Added	-6.76	1.38	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Venor Capital Offshore, Ltd.	11.23	-1.19	3.60	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>Blended Policy (Absolute Return)</i>	6.51	5.92	4.82	4.27	3.83	5.61	7.50	7.50	7.75	8.00
Value Added	4.72	-7.11	-1.22	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Cash & Cash Equivalents	2.28	2.23	1.03	0.40	0.33	0.29	0.28	3.84	3.06	0.47
<i>ICE BofAML US Treasury Bills 0-3M</i>	2.21	1.83	0.82	0.25	0.02	0.03	0.05	0.08	0.07	0.13
Value Added	0.07	0.40	0.21	0.15	0.31	0.26	0.23	3.76	2.99	0.34
PSERS Cash Management	2.35	2.06	0.93	0.40	-0.05	0.30	0.29	0.55	0.77	0.46



As of December 31, 2019

## Calendar Year Performance

	Performance (%)									
	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
PSERS Derivatives Collateral	2.07	1.66	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
RE Conversions	N/A	N/A	N/A	0.00	N/A	N/A	N/A	N/A	N/A	N/A

As of December 31, 2019

## Calendar Year Performance

	Performance (%)									
	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
<b>Financing Composite</b>	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>ICE BofAML USD 3-Mo Deposit Offered Rate Average Index</i>	2.49	2.22	1.22	0.70	0.29	N/A	N/A	N/A	N/A	N/A
Value Added	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<b>PSERS Commodity Beta (Short/Financing)</b>	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>FTSE 1 Month T-Bill</i>	2.20	1.82	0.80	0.21	0.02	0.02	0.01	0.04	0.04	0.10
Value Added	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<b>PSERS Gold (Short/Financing)</b>	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>FTSE 1 Month T-Bill</i>	2.20	1.82	0.80	0.21	0.02	0.02	0.01	0.04	0.04	0.10
Value Added	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<b>PSERS Infrastructure Index (Short/Financing)</b>	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>ICE BofAML USD 3-Mo Deposit Offered Rate Average Index</i>	2.49	2.22	1.22	0.70	0.29	N/A	N/A	N/A	N/A	N/A
Value Added	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<b>PSERS REIT Index (Short/Financing)</b>	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>ICE BofAML USD 3-Mo Deposit Offered Rate Average Index</i>	2.49	2.22	1.22	0.70	0.29	N/A	N/A	N/A	N/A	N/A
Value Added	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<b>PSERS TIPS Swap (Short/Financing)</b>	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>ICE BofAML USD 3-Mo Deposit Offered Rate Average Index</i>	2.49	2.22	1.22	0.70	0.29	N/A	N/A	N/A	N/A	N/A
Value Added	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

The Short/Financing segments represent leverage, and therefore have negative asset balances. Due to the negative asset balance, a negative value-added relative to the benchmark represents outperformance, while a positive value added represents underperformance.

As of December 31, 2019

## Calendar Year Performance

	Performance (%)									
	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
PSERS Ultra Short Duration	2.42	2.08	1.09	0.56	0.20	0.19	0.24	0.29	0.22	0.31
ICE BofAML US Treasury Bills 0-3M	2.21	1.83	0.82	0.25	0.02	0.03	0.05	0.08	0.07	0.13
Value Added	0.21	0.25	0.27	0.31	0.18	0.16	0.19	0.21	0.15	0.18
<b>LIBOR Composite</b>	<b>3.40</b>	<b>2.16</b>	<b>1.48</b>	<b>1.90</b>	<b>0.76</b>	<b>0.76</b>	<b>1.39</b>	<b>1.35</b>	<b>0.62</b>	<b>0.97</b>
LIBOR Plus Hybrid	2.49	2.25	1.18	0.71	0.28	0.24	0.28	0.46	0.32	0.34
Value Added	0.91	-0.09	0.30	1.19	0.48	0.52	1.11	0.89	0.30	0.63
Capula LIBOR Tail Risk	-4.39	0.79	-7.88	-0.57	N/A	N/A	N/A	N/A	N/A	N/A
LIBOR Plus Hybrid	2.49	2.25	1.18	0.71	0.28	0.24	0.28	0.46	0.32	0.34
Value Added	-6.88	-1.46	-9.06	-1.28	N/A	N/A	N/A	N/A	N/A	N/A
Penn Mutual Asset Management	4.72	1.47	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
LIBOR Plus Hybrid	2.49	2.25	1.18	0.71	0.28	0.24	0.28	0.46	0.32	0.34
Value Added	2.23	-0.78	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
PSERS LIBOR Plus	3.16	2.17	1.58	1.43	0.46	0.59	0.86	0.76	0.63	1.04
LIBOR Plus Hybrid	2.49	2.25	1.18	0.71	0.28	0.24	0.28	0.46	0.32	0.34
Value Added	0.67	-0.08	0.40	0.72	0.18	0.35	0.58	0.30	0.31	0.70
Radcliffe Ultra Short Duration	4.69	2.61	2.66	4.26	2.19	1.38	3.25	N/A	N/A	N/A
Blended Benchmark (Radcliffe Ultra Short)	2.45	2.30	1.27	0.74	0.32	0.23	0.27	0.42	0.34	0.34
Value Added	2.24	0.31	1.39	3.52	1.87	1.15	2.98	N/A	N/A	N/A
<b>PSERS Healthcare &amp; HOP</b>										
PSERS Healthcare - HOP	2.42	2.13	1.08	0.53	0.24	0.20	0.24	0.29	0.24	0.47
ICE BofAML 3 Month U.S. T-Bill	2.28	1.87	0.86	0.33	0.05	0.04	0.07	0.11	0.10	0.13
Value Added	0.14	0.26	0.22	0.20	0.19	0.16	0.17	0.18	0.14	0.34
PSERS Healthcare - Premium Assist	2.61	2.21	1.12	0.97	0.31	0.19	0.50	0.79	0.83	1.28
ICE BofAML 3 Month U.S. T-Bill	2.28	1.87	0.86	0.33	0.05	0.04	0.07	0.11	0.10	0.13
Value Added	0.33	0.34	0.26	0.64	0.26	0.15	0.43	0.68	0.73	1.15
<b>E/M Total Program Composite</b>	<b>8.15</b>	<b>1.81</b>	<b>4.20</b>	<b>4.09</b>	<b>2.07</b>	<b>-0.74</b>	<b>19.28</b>	<b>8.37</b>	<b>-5.72</b>	<b>16.52</b>
E/M Short Duration Cash	7.80	2.17	4.22	5.20	2.74	N/A	N/A	N/A	N/A	N/A
Radcliffe Ultra Short Duration	4.69	2.61	2.66	4.26	2.19	1.38	3.25	N/A	N/A	N/A
Blended Benchmark (Radcliffe Ultra Short)	2.45	2.30	1.27	0.74	0.32	0.23	0.27	0.42	0.34	0.34
Value Added	2.24	0.31	1.39	3.52	1.87	1.15	2.98	N/A	N/A	N/A
Radcliffe Specialty Finance Debt	10.26	1.83	5.47	5.97	3.22	N/A	N/A	N/A	N/A	N/A
3-Month Libor + 0.60%	3.00	2.95	1.88	1.35	0.92	0.84	0.87	1.03	0.94	0.95
Value Added	7.26	-1.12	3.59	4.62	2.30	N/A	N/A	N/A	N/A	N/A

As of December 31, 2019

## Fiscal Year Performance

	Performance (%)									
	FY19	FY18	FY17	FY16	FY15	FY14	FY13	FY12	FY11	FY10
<b>PSERS Total Fund</b>	6.66	9.26	10.20	1.33	3.41	14.82	7.95	3.44	20.36	14.58
<i>Blended Policy (Total Plan)</i>	7.88	8.20	8.42	3.21	3.04	14.32	6.68	2.35	19.34	12.38
Value Added	-1.22	1.06	1.78	-1.88	0.37	0.50	1.27	1.09	1.02	2.20
<b>Total Public Global and Private Equity Exposure (hedged)</b>	7.59	13.12	18.19	-0.94	N/A	N/A	N/A	N/A	N/A	N/A
<i>Blended Policy (Total Equity Exposure)</i>	7.72	13.59	18.01	-0.36	N/A	N/A	N/A	N/A	N/A	N/A
Value Added	-0.13	-0.47	0.18	-0.58	N/A	N/A	N/A	N/A	N/A	N/A
<b>Total Public Global Equity Composite (hedged)</b>	4.99	11.27	21.31	-3.94	7.75	21.68	18.57	-5.93	31.46	16.46
<i>Blended Policy (Public Equity) (Hedged)</i>	4.76	11.00	20.85	-4.97	6.59	23.10	17.43	-6.73	31.01	13.08
Value Added	0.23	0.27	0.46	1.03	1.16	-1.42	1.14	0.80	0.45	3.38
<b>Total US Equity Composite</b>	7.84	14.02	19.32	3.79	6.53	25.27	21.89	3.62	32.69	18.29
<i>Blended Policy (Tot US Eq)</i>	8.96	14.93	18.43	2.25	7.36	25.20	21.38	3.83	31.98	15.19
Value Added	-1.12	-0.91	0.89	1.54	-0.83	0.07	0.51	-0.21	0.71	3.10
<b>PSERS-S&amp;P 500 Index Composite</b>	11.07	12.88	18.86	4.58	7.54	24.77	21.30	5.38	30.90	15.64
<i>S&amp;P 500 Index</i>	10.42	14.37	17.90	3.99	7.42	24.61	20.60	5.45	30.69	14.43
Value Added	0.65	-1.49	0.96	0.59	0.12	0.16	0.70	-0.07	0.21	1.21
<b>Radcliffe Specialty Finance Debt</b>	6.98	2.50	5.73	3.96	N/A	N/A	N/A	N/A	N/A	N/A
<i>3-Month Libor + 0.60%</i>	3.18	2.38	1.60	1.10	0.85	0.84	0.93	1.04	0.91	0.95
Value Added	3.80	0.12	4.13	2.86	N/A	N/A	N/A	N/A	N/A	N/A
<b>PSERS-S&amp;P 400 Index Composite</b>	1.48	13.64	19.03	1.53	6.48	25.07	25.63	-1.74	39.65	26.85
<i>S&amp;P MidCap 400</i>	1.36	13.50	18.57	1.33	6.40	25.24	25.18	-2.33	39.38	24.93
Value Added	0.12	0.14	0.46	0.20	0.08	-0.17	0.45	0.59	0.27	1.92
<b>PSERS-S&amp;P 600 Index Composite</b>	-4.69	21.16	22.83	0.67	7.22	26.98	26.74	2.23	38.21	25.55
<i>S&amp;P SmallCap 600</i>	-4.88	20.50	22.47	-0.03	6.72	25.54	25.18	1.43	37.03	23.64
Value Added	0.19	0.66	0.36	0.70	0.50	1.44	1.56	0.80	1.18	1.91
<b>Total Non-U.S. Equity Composite (hedged)</b>	2.84	10.44	22.77	-8.25	9.31	17.94	16.08	-13.14	30.44	15.07
<i>Blended Policy (Total Non-US Eq) (Hedged)</i>	2.15	8.48	22.32	-9.38	6.23	21.10	13.91	-14.78	30.25	11.49
Value Added	0.69	1.96	0.45	1.13	3.08	-3.16	2.17	1.64	0.19	3.58
<b>Total Non-U.S. Equity x Emerging Markets Composite (hedged)</b>	3.09	10.59	23.22	-8.21	10.54	N/A	N/A	N/A	N/A	N/A
<i>Blended Policy (Non-US Equity x EM) (Hedged)</i>	2.22	8.47	22.26	-9.32	7.79	21.10	13.91	-14.78	30.25	11.49
Value Added	0.87	2.12	0.96	1.11	2.75	N/A	N/A	N/A	N/A	N/A
<b>Insight Everest Currency Hedge - Int'l Eq (notional)</b>	3.18	1.25	2.42	0.17	16.92	-3.68	1.05	-0.74	-1.68	2.83
<i>Currency Hedge Benchmark - Int'l Eq</i>	3.31	1.24	2.59	0.30	16.85	-3.06	0.00	0.00	0.00	0.00
Value Added	-0.13	0.01	-0.17	-0.13	0.07	-0.62	1.05	-0.74	-1.68	2.83
<b>Non-US Large/Mid Cap Equity Composite</b>	2.46	9.09	21.86	-9.37	-2.66	21.86	14.73	-12.91	31.93	11.17
<i>Blended Policy (MSCI World AC World ex USA net)</i>	1.29	7.28	20.45	-10.24	-5.26	21.75	13.63	-14.56	29.73	10.43
Value Added	1.17	1.81	1.41	0.87	2.60	0.11	1.10	1.65	2.20	0.74
<b>PSERS ACWI x US Fund</b>	1.56	8.48	21.13	-9.72	-4.44	21.74	14.66	-13.93	30.50	11.24
<i>MSCI ACWI/EAFE Index Blend</i>	1.29	7.28	20.45	-10.24	-5.26	21.75	13.63	-14.56	29.73	10.43
Value Added	0.27	1.20	0.68	0.52	0.82	-0.01	1.03	0.63	0.77	0.81

As of December 31, 2019

## Fiscal Year Performance

	Performance (%)									
	FY19	FY18	FY17	FY16	FY15	FY14	FY13	FY12	FY11	FY10
BlackRock EMAA	-1.56	12.54	26.14	-10.82	N/A	N/A	N/A	N/A	N/A	N/A
<i>MSCI Emerging Markets Index (Net)</i>	1.21	8.20	23.75	-12.05	-5.12	14.31	2.87	-15.94	27.80	23.15
Value Added	-2.77	4.34	2.39	1.23	N/A	N/A	N/A	N/A	N/A	N/A
Active Non-US Large/Mid Cap Composite	3.37	9.84	22.82	-8.68	-0.58	21.79	14.47	-9.64	36.61	11.35
<i>MSCI AC World ex USA Index (Net)</i>	1.29	7.28	20.45	-10.24	-5.26	21.75	13.63	-14.56	29.73	10.43
Value Added	2.08	2.56	2.37	1.56	4.68	0.04	0.84	4.92	6.88	0.92
Baillie Gifford	3.55	9.84	26.71	-7.56	-0.19	21.03	14.86	-9.48	32.66	16.43
<i>MSCI AC World ex USA Index (Net)</i>	1.29	7.28	20.45	-10.24	-5.26	21.75	13.63	-14.56	29.73	10.43
Value Added	2.26	2.56	6.26	2.68	5.07	-0.72	1.23	5.08	2.93	6.00
BlackRock Emerging Markets Alpha Advantage Fund Ltd	-1.53	14.00	26.85	0.09	-1.93	12.01	10.52	-7.90	48.97	34.46
<i>MSCI Emerging Markets Index (Net)</i>	1.21	8.20	23.75	-12.05	-5.12	14.31	2.87	-15.94	27.80	23.15
Value Added	-2.74	5.80	3.10	12.14	3.19	-2.30	7.65	8.04	21.17	11.31
Effissimo Capital Partners Feeder Fund 2 LP	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>MSCI Japan in LC (Net)</i>	-6.80	8.94	30.53	-23.66	30.83	12.03	52.19	-8.34	3.14	-7.59
Value Added	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Marathon Asset Mgmt	1.93	7.29	20.66	-7.75	-2.58	22.73	20.83	-9.22	30.67	15.38
<i>Blended Benchmark (MSCI ACWI ex USA net)</i>	1.29	7.28	20.45	-10.24	-5.26	21.75	13.63	-14.56	29.73	10.43
Value Added	0.64	0.01	0.21	2.49	2.68	0.98	7.20	5.34	0.94	4.95
The Children's Investment Fund, LP	17.02	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>MSCI World Index (Net)</i>	6.33	11.09	18.20	-2.78	1.43	24.05	18.58	-4.98	30.51	10.20
Value Added	10.69	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Non-US Small Cap Equity Composite	-6.53	15.81	18.41	-1.64	0.64	26.17	28.16	-13.11	37.28	24.58
<i>MSCI AC World ex USA Small Cap (Net)</i>	-5.94	10.57	20.32	-5.46	-3.07	26.09	15.94	-16.43	34.24	19.98
Value Added	-0.59	5.24	-1.91	3.82	3.71	0.08	12.22	3.32	3.04	4.60
Acadian Asset Mgmt	-7.07	13.14	29.10	-2.57	-4.93	31.72	24.81	-13.84	33.88	23.57
<i>Blended Benchmark (MSCI AC World ex USA Small Cap net)</i>	-5.94	10.57	20.32	-5.46	-3.07	26.09	15.94	-16.43	34.24	19.98
Value Added	-1.13	2.57	8.78	2.89	-1.86	5.63	8.87	2.59	-0.36	3.59
Oberweis Asset Mgmt	-8.91	18.50	15.94	1.85	3.24	37.58	51.23	-14.30	48.16	24.24
<i>MSCI AC World ex USA Small Cap (Net)</i>	-5.94	10.57	20.32	-5.46	-3.07	26.09	15.94	-16.43	34.24	19.98
Value Added	-2.97	7.93	-4.38	7.31	6.31	11.49	35.29	2.13	13.92	4.26
QS Investors	-7.60	9.53	22.29	-7.42	2.82	26.68	22.72	-11.81	39.46	22.31
<i>MSCI AC World ex USA Small Cap (Net)</i>	-5.94	10.57	20.32	-5.46	-3.07	26.09	15.94	-16.43	34.24	19.98
Value Added	-1.66	-1.04	1.97	-1.96	5.89	0.59	6.78	4.62	5.22	2.33
Wasatch Int'l Small Cap	-3.33	19.25	11.10	0.59	4.10	17.17	29.93	-7.19	38.95	29.69
<i>Blended Benchmark (MSCI AC World ex USA Small Cap net)</i>	-5.94	10.57	20.32	-5.46	-3.07	26.09	15.94	-16.43	34.24	19.98
Value Added	2.61	8.68	-9.22	6.05	7.17	-8.92	13.99	9.24	4.71	9.71
Emerging Markets Equity Composite	-2.31	7.32	13.21	-9.57	0.43	10.02	8.26	-12.32	25.38	18.67
<i>Blended Policy (EM)</i>	0.47	8.20	23.75	-12.05	-5.12	14.31	2.86	-15.95	27.79	23.14
Value Added	-2.78	-0.88	-10.54	2.48	5.55	-4.29	5.40	3.63	-2.41	-4.47

As of December 31, 2019

## Fiscal Year Performance

	Performance (%)									
	FY19	FY18	FY17	FY16	FY15	FY14	FY13	FY12	FY11	FY10
<i>MSCI Emerging Markets IMI (Net)</i>	0.47	7.90	22.82	-12.16	-4.41	14.31	3.66	-16.28	27.53	24.57
Value Added	-2.78	-0.58	-9.61	2.59	4.84	-4.29	4.60	3.96	-2.15	-5.90
Cederberg China Equity Fund	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>MSCI Golden Dragon Index (Net)</i>	-1.96	14.49	30.56	-17.13	15.19	17.40	10.54	-14.22	21.76	12.97
Value Added	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Steadview Capital Partners LP	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>Nifty 50 Index</i>	10.88	14.09	16.28	0.56	11.55	32.35	12.38	-5.01	7.76	25.65
Value Added	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Wasatch EM Small Cap	2.85	7.32	13.21	-9.57	-0.22	5.09	14.95	-3.33	32.42	53.48
<i>Blended Policy (Wasatch EM)</i>	-2.19	5.34	16.91	-11.86	-2.49	15.94	9.37	-18.64	25.53	35.43
Value Added	5.04	1.98	-3.70	2.29	2.27	-10.85	5.58	15.31	6.89	18.05
<b>Total Private Equity (hedged)</b>	<b>11.21</b>	<b>16.27</b>	<b>14.36</b>	<b>3.44</b>	<b>2.63</b>	<b>14.27</b>	<b>10.34</b>	<b>9.43</b>	<b>18.60</b>	<b>22.39</b>
<i>Burgiss Private Equity (1Q Lag)</i>	10.75	17.16	13.08	6.33	8.56	19.00	10.16	8.07	20.83	22.30
Value Added	0.46	-0.89	1.28	-2.89	-5.93	-4.73	0.18	1.36	-2.23	0.09
Private Equity Composite (Buyout/Venture/Special Situations/Co-Invest)	11.12	16.35	14.27	3.44	2.63	14.26	10.34	N/A	N/A	N/A
Insight Wilson Currency Hedge - PE Internal Co-Invest (1Q Lag)(Notional)	11.93	-10.77	9.77	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>Currency Hedge Benchmark - PE (1Q Lag)</i>	11.89	-10.67	9.84	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Value Added	0.04	-0.10	-0.07	N/A	N/A	N/A	N/A	N/A	N/A	N/A
PSERS Private Equity Internal Co-Invest Composite	13.32	15.72	23.97	27.62	27.43	48.77	47.86	N/A	N/A	N/A
PSERS Private Equity Internal Pennsylvania Co-Invest Composite	7.19	37.67	23.23	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Special Situations Composite	5.72	12.28	6.34	-2.75	4.15	13.54	12.43	3.52	14.86	47.15
Buyout/Venture Capital-Growth Equity Composite	11.89	17.09	15.08	3.59	1.97	14.03	9.81	10.71	19.73	15.24
Buyout	10.81	16.69	15.86	4.60	0.62	13.53	10.28	11.27	20.46	16.25
Buyout x Tobacco Composite	10.81	16.69	15.86	5.15	0.55	13.53	10.28	11.27	20.46	16.25
Venture Capital - Growth Equity	17.36	19.24	11.10	-2.23	11.74	18.72	5.27	5.72	13.38	7.44
<b>Total Fixed Income Exposure</b>	<b>7.94</b>	<b>6.43</b>	<b>5.39</b>	<b>6.40</b>	<b>2.67</b>	<b>9.86</b>	<b>2.62</b>	<b>9.31</b>	<b>11.90</b>	<b>20.63</b>
<i>Blended Policy (Total FI)</i>	8.38	2.18	3.09	6.32	-1.19	6.52	-0.33	6.98	11.62	14.99
Value Added	-0.44	4.25	2.30	0.08	3.86	3.34	2.95	2.33	0.28	5.64
Global Fixed Income Composite	7.87	1.32	4.34	4.51	-2.48	6.27	2.20	N/A	N/A	N/A
<i>Blended Policy (Global FI)</i>	8.13	-0.01	0.65	5.60	-3.95	5.83	0.21	4.33	9.05	9.62
Value Added	-0.26	1.33	3.69	-1.09	1.47	0.44	1.99	N/A	N/A	N/A
Total US Fixed Income Composite	7.85	6.77	5.41	6.96	5.08	10.50	2.56	10.64	11.55	21.43
<i>Blended Policy (Total US FI)</i>	8.37	2.25	3.18	5.87	1.51	7.06	-0.50	8.52	10.38	16.97
Value Added	-0.52	4.52	2.23	1.09	3.57	3.44	3.06	2.12	1.17	4.46
Total US Fixed Income ex TIPS Composite	7.74	6.45	6.78	6.60	6.16	10.43	8.10	7.83	9.29	21.57
Investment Grade Composite	8.44	0.04	-1.84	15.02	N/A	N/A	N/A	N/A	N/A	N/A
<i>Blended Policy (Investment Grade)</i>	11.44	0.11	-2.57	10.21	1.54	5.63	-3.23	14.55	3.54	9.43
Value Added	-3.00	-0.07	0.73	4.81	N/A	N/A	N/A	N/A	N/A	N/A

As of December 31, 2019

## Fiscal Year Performance

	Performance (%)									
	FY19	FY18	FY17	FY16	FY15	FY14	FY13	FY12	FY11	FY10
US Core Plus Fixed Income Composite	7.56	0.93	3.39	6.27	2.03	5.33	1.97	9.97	6.34	15.86
<i>Blended Policy (Barclays Aggregate Index)</i>	7.87	-0.40	-0.31	6.00	1.86	4.37	-0.69	6.50	4.78	10.60
Value Added	-0.31	1.33	3.70	0.27	0.17	0.96	2.66	3.47	1.56	5.26
BlackRock Global Alpha	7.36	0.93	6.09	6.82	1.00	6.23	6.44	13.51	8.26	21.07
<i>Blended Policy (Barclays Aggregate Index)</i>	7.87	-0.40	-0.31	6.00	1.86	4.37	-0.69	6.50	4.78	10.60
Value Added	-0.51	1.33	6.40	0.82	-0.86	1.86	7.13	7.01	3.48	10.47
PSERS Active Core Plus Fixed Income	8.10	0.66	0.90	6.94	2.65	4.91	0.14	9.08	4.74	14.96
<i>Blmbg. Barc. U.S. Aggregate</i>	7.87	-0.40	-0.31	6.00	1.86	4.37	-0.69	7.47	3.90	9.50
Value Added	0.23	1.06	1.21	0.94	0.79	0.54	0.83	1.61	0.84	5.46
SEI Investment Management	3.27	5.03	14.10	-4.32	4.17	N/A	N/A	N/A	N/A	N/A
<i>ICE BofAML 1-3 Year U.S. Corporate</i>	5.06	0.68	1.43	2.32	0.95	2.66	2.55	2.24	4.10	8.27
Value Added	-1.79	4.35	12.67	-6.64	3.22	N/A	N/A	N/A	N/A	N/A
Non-U.S. Developed Markets Fixed Income Composite	1.42	2.37	1.49	8.62	-13.37	9.33	-0.61	0.92	11.47	14.06
<i>Blended Policy (Barclays GlobalAgg GDP Weighted Dev xUS hedged)</i>	7.99	3.11	-0.21	8.02	-14.08	9.76	-0.53	1.55	10.77	5.56
Value Added	-6.57	-0.74	1.70	0.60	0.71	-0.43	-0.08	-0.63	0.70	8.50
Alliance Bernstein Global Fixed	1.42	2.37	1.49	8.62	-14.28	10.00	0.00	N/A	N/A	N/A
<i>Spliced Barclays GlobalAgg GDPWeighted Dev xUS</i>	7.99	3.11	-0.21	8.02	-14.08	9.76	-0.53	-0.51	15.50	0.94
Value Added	-6.57	-0.74	1.70	0.60	-0.20	0.24	0.53	N/A	N/A	N/A
U.S. Treasuries Total (unlevered)	8.86	-2.11	-9.17	20.03	3.65	3.92	-7.36	N/A	N/A	N/A
<i>Blmbg. Barc. U.S. Treasury: Long</i>	12.30	-0.13	-7.22	19.30	6.33	6.26	-8.36	32.26	-1.14	12.02
Value Added	-3.44	-1.98	-1.95	0.73	-2.68	-2.34	1.00	N/A	N/A	N/A
PSERS Funded U.S. Long Treasuries	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>Blmbg. Barc. U.S. Treasury: Long</i>	12.30	-0.13	-7.22	19.30	6.33	6.26	-8.36	32.26	-1.14	12.02
Value Added	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Credit-Related (hedged)	5.43	9.69	12.52	-0.41	N/A	N/A	N/A	N/A	N/A	N/A
<i>Blended Policy (Credit-Related)</i>	7.62	2.29	11.37	2.00	N/A	N/A	N/A	N/A	N/A	N/A
Value Added	-2.19	7.40	1.15	-2.41	N/A	N/A	N/A	N/A	N/A	N/A
Emerging Markets Fixed Income Composite	10.00	3.54	13.54	-2.12	-8.79	7.20	4.24	0.69	16.60	N/A
<i>Blended Policy (EM FI)</i>	8.71	-1.43	4.85	2.85	-12.57	7.31	2.69	-2.29	19.67	15.48
Value Added	1.29	4.97	8.69	-4.97	3.78	-0.11	1.55	2.98	-3.07	N/A
Franklin Templeton Emerging Fixed Income	10.00	3.54	13.54	-0.35	-3.98	9.17	8.74	2.55	14.85	28.57
<i>Blended Benchmark (Franklin)</i>	10.37	-1.43	4.85	2.85	-12.57	7.31	4.35	8.06	10.96	8.00
Value Added	-0.37	4.97	8.69	-3.20	8.59	1.86	4.39	-5.51	3.89	20.57
Private Credit Composite (hedged)	5.11	10.14	12.45	0.12	4.45	12.29	14.03	6.21	11.85	25.53
<i>Blended Policy (Private Credit)</i>	7.48	2.62	12.70	1.62	-0.40	11.73	9.49	7.27	15.63	26.77
Value Added	-2.37	7.52	-0.25	-1.50	4.85	0.56	4.54	-1.06	-3.78	-1.24
Insight Oxygen Currency Hedge - Private Credit (notional)	5.64	-0.07	-1.06	1.15	N/A	N/A	N/A	N/A	N/A	N/A
<i>Currency Hedge Benchmark - Private Credit</i>	5.44	-0.58	-1.30	0.72	21.60	-5.34	-2.69	12.28	-17.57	13.43
Value Added	0.20	0.51	0.24	0.43	N/A	N/A	N/A	N/A	N/A	N/A

As of December 31, 2019

## Fiscal Year Performance

	Performance (%)									
	FY19	FY18	FY17	FY16	FY15	FY14	FY13	FY12	FY11	FY10
PSERS Private Credit Internal Co-Invest	5.48	-0.20	-11.18	-53.48	8.13	N/A	N/A	N/A	N/A	N/A
<i>Blended Policy (Private Credit)</i>	7.48	2.62	12.70	1.62	-0.40	11.73	9.49	7.27	15.63	26.77
Value Added	-2.00	-2.82	-23.88	-55.10	8.53	N/A	N/A	N/A	N/A	N/A
Apollo European Principal Fund II	-8.78	8.25	12.66	13.91	6.43	11.84	N/A	N/A	N/A	N/A
<i>Blended Policy (Private Credit)</i>	7.48	2.62	12.70	1.62	-0.40	11.73	9.49	7.27	15.63	26.77
Value Added	-16.26	5.63	-0.04	12.29	6.83	0.11	N/A	N/A	N/A	N/A
Apollo European Principal Fund III	12.94	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>Blended Policy (Private Credit)</i>	7.48	2.62	12.70	1.62	-0.40	11.73	9.49	7.27	15.63	26.77
Value Added	5.46	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Avenue Energy Opportunities Fund	-5.43	10.88	20.70	-14.28	N/A	N/A	N/A	N/A	N/A	N/A
<i>Blended Policy (Private Credit)</i>	7.48	2.62	12.70	1.62	-0.40	11.73	9.49	7.27	15.63	26.77
Value Added	-12.91	8.26	8.00	-15.90	N/A	N/A	N/A	N/A	N/A	N/A
Avenue Energy Opportunities Fund II	-5.88	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>Blended Policy (Private Credit)</i>	7.48	2.62	12.70	1.62	-0.40	11.73	9.49	7.27	15.63	26.77
Value Added	-13.36	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Avenue Europe SS III	5.10	9.10	17.43	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>Blended Policy (Private Credit)</i>	7.48	2.62	12.70	1.62	-0.40	11.73	9.49	7.27	15.63	26.77
Value Added	-2.38	6.48	4.73	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Bain Capital Credit Managed Account (PSERS), L.P.	2.08	8.26	16.85	-0.75	1.05	9.21	9.28	3.48	14.37	15.31
<i>Blended Policy (Private Credit)</i>	7.48	2.62	12.70	1.62	-0.40	11.73	9.49	7.27	15.63	26.77
Value Added	-5.40	5.64	4.15	-2.37	1.45	-2.52	-0.21	-3.79	-1.26	-11.46
Bain Capital Credit Opp. Fund IV	-17.48	74.59	8.74	-4.05	-1.73	5.63	8.55	-0.48	12.99	28.22
<i>Blended Policy (Private Credit)</i>	7.48	2.62	12.70	1.62	-0.40	11.73	9.49	7.27	15.63	26.77
Value Added	-24.96	71.97	-3.96	-5.67	-1.33	-6.10	-0.94	-7.75	-2.64	1.45
Bain Capital Distressed and Special Situations 2013	-0.82	17.51	14.21	-10.89	9.04	11.17	N/A	N/A	N/A	N/A
<i>Blended Policy (Private Credit)</i>	7.48	2.62	12.70	1.62	-0.40	11.73	9.49	7.27	15.63	26.77
Value Added	-8.30	14.89	1.51	-12.51	9.44	-0.56	N/A	N/A	N/A	N/A
Bain Capital Distressed and Special Situations 2016 (A), L.P.	5.79	14.84	22.38	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>Blended Policy (Private Credit)</i>	7.48	2.62	12.70	1.62	-0.40	11.73	9.49	7.27	15.63	26.77
Value Added	-1.69	12.22	9.68	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Bain Capital Distressed and Special Situations 2019 (A), L.P.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>Blended Policy (Private Credit)</i>	7.48	2.62	12.70	1.62	-0.40	11.73	9.49	7.27	15.63	26.77
Value Added	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Bain Capital Middle Market Credit 2010, L.P.	13.19	1.00	0.80	-6.21	7.90	9.09	18.35	11.81	6.52	N/A
<i>Blended Policy (Private Credit)</i>	7.48	2.62	12.70	1.62	-0.40	11.73	9.49	7.27	15.63	26.77
Value Added	5.71	-1.62	-11.90	-7.83	8.30	-2.64	8.86	4.54	-9.11	N/A
Bain Capital Middle Market Credit 2014, L.P.	5.89	11.69	8.40	-3.13	8.55	N/A	N/A	N/A	N/A	N/A
<i>Blended Policy (Private Credit)</i>	7.48	2.62	12.70	1.62	-0.40	11.73	9.49	7.27	15.63	26.77
Value Added	-1.59	9.07	-4.30	-4.75	8.95	N/A	N/A	N/A	N/A	N/A



As of December 31, 2019

## Fiscal Year Performance

	Performance (%)									
	FY19	FY18	FY17	FY16	FY15	FY14	FY13	FY12	FY11	FY10
Brigade Distressed Value	1.44	12.55	17.50	-4.43	1.41	16.08	10.29	N/A	N/A	N/A
<i>Blended Policy (Private Credit)</i>	7.48	2.62	12.70	1.62	-0.40	11.73	9.49	7.27	15.63	26.77
Value Added	-6.04	9.93	4.80	-6.05	1.81	4.35	0.80	N/A	N/A	N/A
Brigade Structured Credit Offshore Fund	7.82	6.80	19.43	2.07	N/A	N/A	N/A	N/A	N/A	N/A
<i>Blended Policy (Private Credit)</i>	7.48	2.62	12.70	1.62	-0.40	11.73	9.49	7.27	15.63	26.77
Value Added	0.34	4.18	6.73	0.45	N/A	N/A	N/A	N/A	N/A	N/A
Carlyle Energy Mezz. Opp. Fund	-15.51	-2.50	-18.66	-42.81	9.64	19.47	N/A	N/A	N/A	N/A
<i>Blended Policy (Private Credit)</i>	7.48	2.62	12.70	1.62	-0.40	11.73	9.49	7.27	15.63	26.77
Value Added	-22.99	-5.12	-31.36	-44.43	10.04	7.74	N/A	N/A	N/A	N/A
Carlyle Energy Mezz. Opp. Fund II	-0.15	7.43	-25.54	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>Blended Policy (Private Credit)</i>	7.48	2.62	12.70	1.62	-0.40	11.73	9.49	7.27	15.63	26.77
Value Added	-7.63	4.81	-38.24	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Cerberus Levered Loan Fund I	6.91	6.02	7.23	0.59	2.98	4.48	11.28	N/A	N/A	N/A
<i>Blended Policy (Private Credit)</i>	7.48	2.62	12.70	1.62	-0.40	11.73	9.49	7.27	15.63	26.77
Value Added	-0.57	3.40	-5.47	-1.03	3.38	-7.25	1.79	N/A	N/A	N/A
Cerberus Levered Loan Fund II	3.16	1.79	4.27	2.67	12.80	14.08	N/A	N/A	N/A	N/A
<i>Blended Policy (Private Credit)</i>	7.48	2.62	12.70	1.62	-0.40	11.73	9.49	7.27	15.63	26.77
Value Added	-4.32	-0.83	-8.43	1.05	13.20	2.35	N/A	N/A	N/A	N/A
Cerberus PSERS Levered Loan Opportunities Fund	10.23	13.34	27.07	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>Blended Policy (Private Credit)</i>	7.48	2.62	12.70	1.62	-0.40	11.73	9.49	7.27	15.63	26.77
Value Added	2.75	10.72	14.37	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Clearlake Opportunities Partners II, LP	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>Blended Policy (Private Credit)</i>	7.48	2.62	12.70	1.62	-0.40	11.73	9.49	7.27	15.63	26.77
Value Added	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Galton Onshore Mortgage Recovery Fund III, LP	10.35	7.34	12.49	0.66	-5.01	N/A	N/A	N/A	N/A	N/A
<i>Blended Policy (Private Credit)</i>	7.48	2.62	12.70	1.62	-0.40	11.73	9.49	7.27	15.63	26.77
Value Added	2.87	4.72	-0.21	-0.96	-4.61	N/A	N/A	N/A	N/A	N/A
Galton Onshore Mortgage Recovery Fund IV, L.P.	-8.83	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>Blended Policy (Private Credit)</i>	7.48	2.62	12.70	1.62	-0.40	11.73	9.49	7.27	15.63	26.77
Value Added	-16.31	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Hayfin SOF II USD LP	7.33	6.62	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>Blended Policy (Private Credit)</i>	7.48	2.62	12.70	1.62	-0.40	11.73	9.49	7.27	15.63	26.77
Value Added	-0.15	4.00	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Hayfin SOF II USD Co-Invest	5.46	5.82	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>Blended Policy (Private Credit)</i>	7.48	2.62	12.70	1.62	-0.40	11.73	9.49	7.27	15.63	26.77
Value Added	-2.02	3.20	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Hayfin Special Opportunities Credit LP	17.62	12.00	11.38	7.32	-12.42	12.68	N/A	N/A	N/A	N/A
<i>Blended Policy (Private Credit)</i>	7.48	2.62	12.70	1.62	-0.40	11.73	9.49	7.27	15.63	26.77
Value Added	10.14	9.38	-1.32	5.70	-12.02	0.95	N/A	N/A	N/A	N/A

As of December 31, 2019

## Fiscal Year Performance

	Performance (%)									
	FY19	FY18	FY17	FY16	FY15	FY14	FY13	FY12	FY11	FY10
ICG Europe Fund V	17.80	15.92	13.97	6.73	-8.96	31.02	N/A	N/A	N/A	N/A
<i>Blended Policy (Private Credit)</i>	7.48	2.62	12.70	1.62	-0.40	11.73	9.49	7.27	15.63	26.77
Value Added	10.32	13.30	1.27	5.11	-8.56	19.29	N/A	N/A	N/A	N/A
ICG Europe Fund VI	8.34	26.99	47.09	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>Blended Policy (Private Credit)</i>	7.48	2.62	12.70	1.62	-0.40	11.73	9.49	7.27	15.63	26.77
Value Added	0.86	24.37	34.39	N/A	N/A	N/A	N/A	N/A	N/A	N/A
ICG Europe Fund VII	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>Blended Policy (Private Credit)</i>	7.48	2.62	12.70	1.62	-0.40	11.73	9.49	7.27	15.63	26.77
Value Added	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Latitude Management Real Estate Capital IV	6.92	2.19	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>Blended Policy (Private Credit)</i>	7.48	2.62	12.70	1.62	-0.40	11.73	9.49	7.27	15.63	26.77
Value Added	-0.56	-0.43	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
LBC Credit Partners III	-3.51	3.93	4.05	14.72	15.81	9.47	N/A	N/A	N/A	N/A
<i>Blended Policy (Private Credit)</i>	7.48	2.62	12.70	1.62	-0.40	11.73	9.49	7.27	15.63	26.77
Value Added	-10.99	1.31	-8.65	13.10	16.21	-2.26	N/A	N/A	N/A	N/A
LBC-P Credit Fund LP	7.91	13.84	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>Blended Policy (Private Credit)</i>	7.48	2.62	12.70	1.62	-0.40	11.73	9.49	7.27	15.63	26.77
Value Added	0.43	11.22	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Mariner/Galton RMBS	10.52	3.17	7.30	0.81	10.27	6.20	18.40	8.12	8.08	N/A
<i>Blended Policy (Private Credit)</i>	7.48	2.62	12.70	1.62	-0.40	11.73	9.49	7.27	15.63	26.77
Value Added	3.04	0.55	-5.40	-0.81	10.67	-5.53	8.91	0.85	-7.55	N/A
Mariner International Infrastructure	11.07	5.46	8.53	10.09	-2.89	N/A	N/A	N/A	N/A	N/A
<i>Blended Policy (Private Credit)</i>	7.48	2.62	12.70	1.62	-0.40	11.73	9.49	7.27	15.63	26.77
Value Added	3.59	2.84	-4.17	8.47	-2.49	N/A	N/A	N/A	N/A	N/A
Oaktree Loan Fund 2X, LP	3.07	3.10	-2.73	-15.49	-13.72	16.35	6.08	9.99	14.48	17.05
<i>Blended Policy (Private Credit)</i>	7.48	2.62	12.70	1.62	-0.40	11.73	9.49	7.27	15.63	26.77
Value Added	-4.41	0.48	-15.43	-17.11	-13.32	4.62	-3.41	2.72	-1.15	-9.72
Park Square Credit Opportunities	8.50	1.53	9.88	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>Blended Policy (Private Credit)</i>	7.48	2.62	12.70	1.62	-0.40	11.73	9.49	7.27	15.63	26.77
Value Added	1.02	-1.09	-2.82	N/A	N/A	N/A	N/A	N/A	N/A	N/A
PIMCO BRAVO Fund III Onshore Feeder, L.P.	8.24	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>Blended Policy (Private Credit)</i>	7.48	2.62	12.70	1.62	-0.40	11.73	9.49	7.27	15.63	26.77
Value Added	0.76	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
PIMCO Commercial Real Estate Debt Fund, L.P.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>Blended Policy (Private Credit)</i>	7.48	2.62	12.70	1.62	-0.40	11.73	9.49	7.27	15.63	26.77
Value Added	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Summit Partners Credit Fund II LP	6.53	8.55	14.17	2.50	N/A	N/A	N/A	N/A	N/A	N/A
<i>Blended Policy (Private Credit)</i>	7.48	2.62	12.70	1.62	-0.40	11.73	9.49	7.27	15.63	26.77
Value Added	-0.95	5.93	1.47	0.88	N/A	N/A	N/A	N/A	N/A	N/A

As of December 31, 2019

## Fiscal Year Performance

	Performance (%)									
	FY19	FY18	FY17	FY16	FY15	FY14	FY13	FY12	FY11	FY10
TCI Real Estate Partners Fund III, L.P.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>Blended Policy (Private Credit)</i>	7.48	2.62	12.70	1.62	-0.40	11.73	9.49	7.27	15.63	26.77
Value Added	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
The Varde Scratch and Dent Fund, LP	7.53	6.56	7.29	7.65	N/A	N/A	N/A	N/A	N/A	N/A
<i>Blended Policy (Private Credit)</i>	7.48	2.62	12.70	1.62	-0.40	11.73	9.49	7.27	15.63	26.77
Value Added	0.05	3.94	-5.41	6.03	N/A	N/A	N/A	N/A	N/A	N/A
The Varde Scratch and Dent Fund Feed I-A	8.91	7.85	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>Blended Policy (Private Credit)</i>	7.48	2.62	12.70	1.62	-0.40	11.73	9.49	7.27	15.63	26.77
Value Added	1.43	5.23	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
TOP NPL (A)	-4.43	3.04	-7.61	19.20	28.56	23.03	10.82	N/A	N/A	N/A
<i>Blended Policy (Private Credit)</i>	7.48	2.62	12.70	1.62	-0.40	11.73	9.49	7.27	15.63	26.77
Value Added	-11.91	0.42	-20.31	17.58	28.96	11.30	1.33	N/A	N/A	N/A
TPG Opportunities Partners II, LP	1.84	19.41	5.30	15.55	20.34	14.77	15.10	N/A	N/A	N/A
<i>Blended Policy (Private Credit)</i>	7.48	2.62	12.70	1.62	-0.40	11.73	9.49	7.27	15.63	26.77
Value Added	-5.64	16.79	-7.40	13.93	20.74	3.04	5.61	N/A	N/A	N/A
TPG Opportunities Partners III, LP	3.04	18.07	13.83	12.79	-4.83	N/A	N/A	N/A	N/A	N/A
<i>Blended Policy (Private Credit)</i>	7.48	2.62	12.70	1.62	-0.40	11.73	9.49	7.27	15.63	26.77
Value Added	-4.44	15.45	1.13	11.17	-4.43	N/A	N/A	N/A	N/A	N/A
TPG TAO	7.83	8.28	11.66	6.88	N/A	N/A	N/A	N/A	N/A	N/A
<i>Blended Policy (Private Credit)</i>	7.48	2.62	12.70	1.62	-0.40	11.73	9.49	7.27	15.63	26.77
Value Added	0.35	5.66	-1.04	5.26	N/A	N/A	N/A	N/A	N/A	N/A
TSSP Opportunities Partners IV, LP	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>Blended Policy (Private Credit)</i>	7.48	2.62	12.70	1.62	-0.40	11.73	9.49	7.27	15.63	26.77
Value Added	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Inflation Protected (unlevered)	4.76	3.58	1.96	4.21	N/A	N/A	N/A	N/A	N/A	N/A
<i>Blended Policy (Inflation Protected)</i>	6.63	3.44	1.93	6.16	-1.73	4.44	-4.78	11.66	7.74	9.52
Value Added	-1.87	0.14	0.03	-1.95	N/A	N/A	N/A	N/A	N/A	N/A
U.S. Inflation Protected (unlevered)	3.82	2.24	0.75	4.66	-1.21	5.01	-4.12	14.36	10.96	17.60
<i>Blended Policy (U.S. Inflation Protected)</i>	4.84	2.11	-0.63	4.35	-1.73	4.44	-4.78	11.66	7.74	9.52
Value Added	-1.02	0.13	1.38	0.31	0.52	0.57	0.66	2.70	3.22	8.08
PSERS Total TIPS (unlevered)	3.82	2.24	0.75	4.66	-1.21	5.01	-4.12	12.17	7.80	10.95
<i>Blended Policy (U.S. Inflation Protected)</i>	4.84	2.11	-0.63	4.35	-1.73	4.44	-4.78	11.66	7.74	9.52
Value Added	-1.02	0.13	1.38	0.31	0.52	0.57	0.66	0.51	0.06	1.43
PSERS TIPS	4.98	2.87	0.19	4.66	-1.21	5.01	-4.12	14.36	10.96	17.60
<i>Blended Policy (U.S. Inflation Protected)</i>	4.84	2.11	-0.63	4.35	-1.73	4.44	-4.78	11.66	7.74	9.52
Value Added	0.14	0.76	0.82	0.31	0.52	0.57	0.66	2.70	3.22	8.08
PSERS TIPS Swap (Long)	4.84	2.11	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>TIPS Swap Custom Benchmark</i>	4.84	2.11	-0.63	4.35	-1.73	4.44	-4.78	11.66	7.74	9.52
Value Added	0.00	0.00	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

As of December 31, 2019

## Fiscal Year Performance

	Performance (%)									
	FY19	FY18	FY17	FY16	FY15	FY14	FY13	FY12	FY11	FY10
Non-U.S. Inflation Protected (unlevered)	5.92	5.01	3.06	4.26	N/A	N/A	N/A	N/A	N/A	N/A
<i>Bloomberg Barclays World Govt ex U.S. ILB Index (H\$)</i>	7.98	4.29	4.02	9.47	7.79	4.13	1.04	7.24	5.70	7.84
Value Added	-2.06	0.72	-0.96	-5.21	N/A	N/A	N/A	N/A	N/A	N/A
Bridgewater TIPS (unlevered)	5.92	5.01	3.06	4.26	N/A	N/A	N/A	N/A	N/A	N/A
<i>BGI Custom IL Bond Index (unlevered)</i>	5.83	3.90	1.50	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Value Added	0.09	1.11	1.56	N/A	N/A	N/A	N/A	N/A	N/A	N/A
PIMCO Multi-Sector Strategy	9.66	1.39	1.32	5.66	-1.01	7.47	3.06	N/A	N/A	N/A
<i>Blended Policy (PIMCO Multi-Sector)</i>	10.34	1.23	-1.30	7.97	-0.87	8.00	2.61	7.47	3.90	9.50
Value Added	-0.68	0.16	2.62	-2.31	-0.14	-0.53	0.45	N/A	N/A	N/A
Total Real Asset Exposure (unlevered/hedged)	4.49	7.77	4.12	0.48	N/A	N/A	N/A	N/A	N/A	N/A
<i>Blended Policy (Real Assets) (Hedged)</i>	5.10	7.56	2.32	1.89	N/A	N/A	N/A	N/A	N/A	N/A
Value Added	-0.61	0.21	1.80	-1.41	N/A	N/A	N/A	N/A	N/A	N/A
Total Infrastructure Composite (unlevered/hedged)	5.55	1.39	10.86	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>Blended Policy (Infrastructure Hedged)</i>	7.56	0.53	11.19	11.24	4.12	21.90	16.92	7.93	16.96	N/A
Value Added	-2.01	0.86	-0.33	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Infrastructure x MLP (unlevered/hedged)	14.68	4.50	9.79	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>Blended Policy (Infrastructure x MLP) (Hedged)</i>	18.35	1.64	11.67	1.68	16.94	13.27	18.15	7.97	8.89	N/A
Value Added	-3.67	2.86	-1.88	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Insight Nevada Currency Hedge - Infra (notional)	3.09	1.46	0.23	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>Currency Hedge Benchmark - Infra</i>	3.21	1.49	0.51	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Value Added	-0.12	-0.03	-0.28	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Private Infrastructure Composite	14.25	15.16	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>FTSE Developed Core Infrastructure 50/50 Index (Net) 1Q Lag</i>	14.07	4.61	9.20	2.78	8.13	12.42	16.86	7.82	13.41	N/A
Value Added	0.18	10.55	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Private Infrastructure ex Co-Invest	10.60	15.16	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
PSERS Private Infrastructure Internal Co-Invest	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Publicly-Traded Infrastructure Composite (unlevered)	14.33	3.38	9.82	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>FTSE Developed Core Infrast 50/50 Index (Net)</i>	14.33	3.38	9.82	10.84	-3.64	24.35	14.29	5.76	25.80	N/A
Value Added	0.00	0.00	0.00	N/A	N/A	N/A	N/A	N/A	N/A	N/A
PSERS Infrastructure Index (Long)	14.33	3.38	9.82	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>FTSE Developed Core Infrast 50/50 Index (Net)</i>	14.33	3.38	9.82	10.84	-3.64	24.35	14.29	5.76	25.80	N/A
Value Added	0.00	0.00	0.00	N/A	N/A	N/A	N/A	N/A	N/A	N/A
MLP Composite	1.55	0.27	4.19	-18.75	-10.14	35.97	37.08	13.73	34.02	46.51
<i>Blended Policy (MLP)</i>	3.23	-1.76	3.23	-18.93	-16.48	24.87	29.50	7.72	28.44	47.64
Value Added	-1.68	2.03	0.96	0.18	6.34	11.10	7.58	6.01	5.58	-1.13
PSERS MLP	1.13	0.60	3.41	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>MLP Internal Blended Benchmark</i>	1.72	0.18	3.23	-18.93	-16.48	24.87	29.50	7.72	28.44	47.64

As of December 31, 2019

## Fiscal Year Performance

	Performance (%)									
	FY19	FY18	FY17	FY16	FY15	FY14	FY13	FY12	FY11	FY10
Value Added	-0.59	0.42	0.18	N/A	N/A	N/A	N/A	N/A	N/A	N/A
External MLP Composite	1.72	0.18	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>Blended Policy (MLP)</i>	3.23	-1.76	3.23	-18.93	-16.48	24.87	29.50	7.72	28.44	47.64
Value Added	-1.51	1.94	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Atlantic Trust	2.27	0.56	3.98	-17.20	-9.18	34.56	N/A	N/A	N/A	N/A
<i>Blended Policy (MLP)</i>	3.23	-1.76	3.23	-18.93	-16.48	24.87	29.50	7.72	28.44	47.64
Value Added	-0.96	2.32	0.75	1.73	7.30	9.69	N/A	N/A	N/A	N/A
Harvest MLP	1.26	0.41	2.97	-17.08	-8.35	32.24	37.23	13.73	34.02	46.51
<i>Blended Policy (MLP)</i>	3.23	-1.76	3.23	-18.93	-16.48	24.87	29.50	7.72	28.44	47.64
Value Added	-1.97	2.17	-0.26	1.85	8.13	7.37	7.73	6.01	5.58	-1.13
Salient	1.78	-0.48	6.61	-23.36	-13.08	42.46	N/A	N/A	N/A	N/A
<i>Blended Policy (MLP)</i>	3.23	-1.76	3.23	-18.93	-16.48	24.87	29.50	7.72	28.44	47.64
Value Added	-1.45	1.28	3.38	-4.43	3.40	17.59	N/A	N/A	N/A	N/A
Total Commodities Composite (unlevered)	0.19	5.36	-3.48	-1.34	-18.27	9.69	-7.55	-13.38	31.84	5.93
<i>Blended Policy (Commodities)</i>	0.17	4.67	-6.41	-4.56	-19.59	8.22	-8.00	-14.32	25.89	2.75
Value Added	0.02	0.69	2.93	3.22	1.32	1.47	0.45	0.94	5.95	3.18
Private Commodities Composite	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Private Commodities ex Co-Invest	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
PSERS Private Commodities Internal Co-Invest	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Commodities Composite ex Private (unlevered)	2.42	5.36	-3.48	-1.34	-18.27	9.69	-7.55	-13.38	31.84	5.93
<i>Blended Policy (Commodities)</i>	0.17	4.67	-6.41	-4.56	-19.59	8.22	-8.00	-14.32	25.89	2.75
Value Added	2.25	0.69	2.93	3.22	1.32	1.47	0.45	0.94	5.95	3.18
Commodities ex Private & Gold (unlevered)	-6.61	9.83	-0.99	-9.73	-21.81	9.06	N/A	N/A	N/A	N/A
<i>Bloomberg Commodity Index Total Return</i>	-6.75	7.35	-6.50	-13.32	-23.71	8.21	-8.01	-14.32	25.91	2.75
Value Added	0.14	2.48	5.51	3.59	1.90	0.85	N/A	N/A	N/A	N/A
PSERS Commodity Beta (Long)	-6.75	7.35	-6.50	-13.32	-23.71	N/A	N/A	N/A	N/A	N/A
<i>Bloomberg Commodity Index Total Return</i>	-6.75	7.35	-6.50	-13.32	-23.71	8.21	-8.01	-14.32	25.91	2.75
Value Added	0.00	0.00	0.00	0.00	0.00	N/A	N/A	N/A	N/A	N/A
Gresham	-7.89	13.01	-3.23	-14.74	-23.20	10.36	-5.18	-11.94	32.94	6.96
<i>Bloomberg Commodity Index Total Return</i>	-6.75	7.35	-6.50	-13.32	-23.71	8.21	-8.01	-14.32	25.91	2.75
Value Added	-1.14	5.66	3.27	-1.42	0.51	2.15	2.83	2.38	7.03	4.21
Wellington Management Company	-5.14	13.57	1.06	-9.21	-24.65	17.89	-6.57	-15.16	36.73	9.58
<i>Blended Benchmark (Wellington)</i>	-5.76	17.66	-0.28	-8.70	-24.61	18.45	-3.65	-11.97	36.87	8.10
Value Added	0.62	-4.09	1.34	-0.51	-0.04	-0.56	-2.92	-3.19	-0.14	1.48
Gold Composite (unlevered)	9.84	-1.10	-7.45	12.97	-11.54	9.78	-23.83	N/A	N/A	N/A
<i>Bloomberg Gold Subindex Total Return</i>	12.06	0.20	-6.94	12.23	-11.72	7.70	-24.26	6.01	19.78	33.41
Value Added	-2.22	-1.30	-0.51	0.74	0.18	2.08	0.43	N/A	N/A	N/A
PSERS Gold (Long)	12.06	0.20	-6.94	N/A	N/A	N/A	N/A	N/A	N/A	N/A

As of December 31, 2019

## Fiscal Year Performance

	Performance (%)									
	FY19	FY18	FY17	FY16	FY15	FY14	FY13	FY12	FY11	FY10
<i>Bloomberg Gold Subindex Total Return</i>	12.06	0.20	-6.94	12.23	-11.72	7.70	-24.26	6.01	19.78	33.41
Value Added	0.00	0.00	0.00	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<b>Total Real Estate (unlevered/hedged)</b>	<b>7.57</b>	<b>13.63</b>	<b>8.38</b>	<b>8.86</b>	<b>13.92</b>	<b>16.44</b>	<b>8.53</b>	<b>7.96</b>	<b>20.18</b>	<b>-10.80</b>
<i>Blended Policy (Total Real Estate) (Hedged)</i>	6.40	13.29	6.61	9.99	16.00	11.12	9.72	9.78	17.80	-9.63
Value Added	1.17	0.34	1.77	-1.13	-2.08	5.32	-1.19	-1.82	2.38	-1.17
<b>PTRES Composite (unlevered/hedged)</b>	<b>9.80</b>	<b>7.02</b>	<b>0.32</b>	<b>14.37</b>	<b>-0.66</b>	<b>9.42</b>	<b>10.62</b>	<b>9.58</b>	<b>18.35</b>	<b>37.59</b>
<i>Blended Policy (PTRES) (Hedged)</i>	9.08	6.35	1.41	10.08	-0.26	12.49	14.21	1.14	31.53	24.34
Value Added	0.72	0.67	-1.09	4.29	-0.40	-3.07	-3.59	8.44	-13.18	13.25
<b>Insight Sierra Currency Hedge - REIT (notional)</b>	<b>2.65</b>	<b>1.14</b>	<b>2.41</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
<i>Currency Hedge Benchmark - REIT</i>	2.77	1.22	2.57	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Value Added	-0.12	-0.08	-0.16	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<b>PSERS REIT Index (Long)</b>	<b>7.68</b>	<b>5.64</b>	<b>0.21</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
<i>FTSE EPRA/NAREIT Developed Index (Net)</i>	7.68	5.64	0.21	11.58	-0.36	13.55	13.50	1.62	32.52	24.23
Value Added	0.00	0.00	0.00	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<b>Security Capital Preferred Growth</b>	<b>9.33</b>	<b>10.31</b>	<b>-5.05</b>	<b>23.75</b>	<b>-0.66</b>	<b>9.42</b>	<b>10.62</b>	<b>9.58</b>	<b>18.39</b>	<b>49.64</b>
<i>Wilshire US Real Estate Securities Index</i>	10.47	4.00	-1.23	23.55	5.59	13.77	8.38	12.56	35.69	56.07
Value Added	-1.14	6.31	-3.82	0.20	-6.25	-4.35	2.24	-2.98	-17.30	-6.43
<b>Private Real Estate Composite</b>	<b>7.45</b>	<b>14.45</b>	<b>9.58</b>	<b>8.59</b>	<b>14.38</b>	<b>16.65</b>	<b>9.24</b>	<b>7.88</b>	<b>20.17</b>	<b>-18.58</b>
<i>Blended Policy (Private Real Estate)</i>	6.16	14.43	7.43	9.52	16.07	11.08	9.71	9.79	17.75	-9.60
Value Added	1.29	0.02	2.15	-0.93	-1.69	5.57	-0.47	-1.91	2.42	-8.98
<b>Private Real Estate ex Internal Co-Invest</b>	<b>7.21</b>	<b>14.43</b>	<b>9.50</b>	<b>8.44</b>	<b>14.33</b>	<b>16.53</b>	<b>9.24</b>	<b>7.88</b>	<b>20.17</b>	<b>-18.59</b>
<b>PSERS Real Estate Internal Co-Invest</b>	<b>17.39</b>	<b>15.86</b>	<b>13.70</b>	<b>22.90</b>	<b>20.44</b>	<b>43.40</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
<b>Risk Parity Composite (vol adjusted)</b>	<b>8.16</b>	<b>6.76</b>	<b>7.18</b>	<b>0.01</b>	<b>-0.86</b>	<b>18.07</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
<i>Blended Policy (Risk Parity)</i>	9.41	6.11	5.81	5.14	-0.81	16.45	-1.58	14.02	25.44	22.34
Value Added	-1.25	0.65	1.37	-5.13	-0.05	1.62	N/A	N/A	N/A	N/A
<b>BlackRock Market Advantage II (vol adjusted)</b>	<b>14.12</b>	<b>9.80</b>	<b>9.32</b>	<b>2.84</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
<b>Bridgewater All Weather @15% (vol adjusted)</b>	<b>7.69</b>	<b>8.75</b>	<b>6.11</b>	<b>0.23</b>	<b>-1.39</b>	<b>17.61</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
<b>Bridgewater Optimal (vol adjusted)</b>	<b>2.98</b>	<b>2.92</b>	<b>10.15</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
<b>DE Shaw Orienteer HV (vol adjusted)</b>	<b>16.55</b>	<b>5.67</b>	<b>5.80</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
<b>PSERS Risk Parity Composite (vol adjusted to 12%)</b>	<b>6.53</b>	<b>6.63</b>	<b>7.82</b>	<b>3.06</b>	<b>1.22</b>	<b>16.65</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
<b>Total Absolute Return Composite</b>	<b>2.42</b>	<b>4.84</b>	<b>9.00</b>	<b>-3.43</b>	<b>4.30</b>	<b>6.69</b>	<b>4.34</b>	<b>2.79</b>	<b>14.13</b>	<b>17.15</b>
<i>Blended Policy (Absolute Return)</i>	6.16	5.34	4.53	4.01	3.76	7.50	7.50	7.50	8.00	8.00
Value Added	-3.74	-0.50	4.47	-7.44	0.54	-0.81	-3.16	-4.71	6.13	9.15
<b>Aeolus Property Catastrophe Keystone PF Fund, LP</b>	<b>-6.01</b>	<b>-18.92</b>	<b>10.44</b>	<b>13.46</b>	<b>17.42</b>	<b>20.76</b>	<b>17.52</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
<i>Blended Policy (Absolute Return)</i>	6.16	5.34	4.53	4.01	3.76	7.50	7.50	7.50	8.00	8.00
Value Added	-12.17	-24.26	5.91	9.45	13.66	13.26	10.02	N/A	N/A	N/A
<b>AKAZ Offshore Fund Ltd</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>

As of December 31, 2019

## Fiscal Year Performance

	Performance (%)									
	FY19	FY18	FY17	FY16	FY15	FY14	FY13	FY12	FY11	FY10
<i>Blended Policy (Absolute Return)</i>	6.16	5.34	4.53	4.01	3.76	7.50	7.50	7.50	8.00	8.00
Value Added	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Bridgewater Pure Alpha Fund II, Ltd.	4.78	11.11	13.87	-16.02	9.04	18.96	4.35	13.55	46.81	32.28
<i>Blended Policy (Absolute Return)</i>	6.16	5.34	4.53	4.01	3.76	7.50	7.50	7.50	8.00	8.00
Value Added	-1.38	5.77	9.34	-20.03	5.28	11.46	-3.15	6.05	38.81	24.28
Brigade Leveraged Capital Structures Offshore Fund, Ltd.	4.43	7.03	13.44	-3.04	-0.58	9.38	5.22	2.72	7.34	16.60
<i>Blended Policy (Absolute Return)</i>	6.16	5.34	4.53	4.01	3.76	7.50	7.50	7.50	8.00	8.00
Value Added	-1.73	1.69	8.91	-7.05	-4.34	1.88	-2.28	-4.78	-0.66	8.60
Capula Global Relative Value Fund Limited	6.76	4.29	8.19	6.85	9.48	8.50	4.71	4.33	N/A	N/A
<i>Blended Policy (Absolute Return)</i>	6.16	5.34	4.53	4.01	3.76	7.50	7.50	7.50	8.00	8.00
Value Added	0.60	-1.05	3.66	2.84	5.72	1.00	-2.79	-3.17	N/A	N/A
Capula Tail Risk Fund Limited	-2.15	-3.70	-5.07	1.62	0.05	-4.72	-6.02	4.38	N/A	N/A
<i>Blended Policy (Absolute Return)</i>	6.16	5.34	4.53	4.01	3.76	7.50	7.50	7.50	8.00	8.00
Value Added	-8.31	-9.04	-9.60	-2.39	-3.71	-12.22	-13.52	-3.12	N/A	N/A
Carlyle Aviation/SASOF III LP	34.92	9.49	29.78	-6.52	N/A	N/A	N/A	N/A	N/A	N/A
<i>Blended Policy (Absolute Return)</i>	6.16	5.34	4.53	4.01	3.76	7.50	7.50	7.50	8.00	8.00
Value Added	28.76	4.15	25.25	-10.53	N/A	N/A	N/A	N/A	N/A	N/A
Carlyle Aviation/SASOF IV LP	12.06	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>Blended Policy (Absolute Return)</i>	6.16	5.34	4.53	4.01	3.76	7.50	7.50	7.50	8.00	8.00
Value Added	5.90	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Caspian Keystone Focused Fund, Ltd.	17.11	3.39	11.46	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>Blended Policy (Absolute Return)</i>	6.16	5.34	4.53	4.01	3.76	7.50	7.50	7.50	8.00	8.00
Value Added	10.95	-1.95	6.93	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Caspian Select Credit International, Ltd.	3.17	4.36	12.60	-8.81	-3.26	10.05	11.26	-0.33	N/A	N/A
<i>Blended Policy (Absolute Return)</i>	6.16	5.34	4.53	4.01	3.76	7.50	7.50	7.50	8.00	8.00
Value Added	-2.99	-0.98	8.07	-12.82	-7.02	2.55	3.76	-7.83	N/A	N/A
Falko Regional Aircraft Opportunities Fund II	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>Blended Policy (Absolute Return)</i>	6.16	5.34	4.53	4.01	3.76	7.50	7.50	7.50	8.00	8.00
Value Added	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Garda Fixed Income Relative Value Opportunity Fund Ltd.	5.82	4.24	8.67	2.70	2.61	8.19	5.71	N/A	N/A	N/A
<i>Blended Policy (Absolute Return)</i>	6.16	5.34	4.53	4.01	3.76	7.50	7.50	7.50	8.00	8.00
Value Added	-0.34	-1.10	4.14	-1.31	-1.15	0.69	-1.79	N/A	N/A	N/A
HS Group Sponsor Fund II, Ltd.	-3.41	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>Blended Policy (Absolute Return)</i>	6.16	5.34	4.53	4.01	3.76	7.50	7.50	7.50	8.00	8.00
Value Added	-9.57	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Independence Reinsurance Partners Composite	-1.73	-14.61	7.55	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>Blended Policy (Absolute Return)</i>	6.16	5.34	4.53	4.01	3.76	7.50	7.50	7.50	8.00	8.00
Value Added	-7.89	-19.95	3.02	N/A	N/A	N/A	N/A	N/A	N/A	N/A
DaVinci Reinsurance Ltd.	6.18	-17.12	10.99	N/A	N/A	N/A	N/A	N/A	N/A	N/A

As of December 31, 2019

## Fiscal Year Performance

	Performance (%)									
	FY19	FY18	FY17	FY16	FY15	FY14	FY13	FY12	FY11	FY10
RenaissanceRe Medici Fund Ltd.	0.87	3.28	5.09	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Upsilon Diversified Fund Ltd.	-7.45	-57.78	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nephila/Nimbus Weather Fund	-0.32	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>Blended Policy (Absolute Return)</i>	6.16	5.34	4.53	4.01	3.76	7.50	7.50	7.50	8.00	8.00
Value Added	-6.48	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nephila/Palmetto Fund Ltd.	-2.98	-6.49	2.72	5.73	6.01	6.96	9.40	5.47	N/A	N/A
<i>Blended Policy (Absolute Return)</i>	6.16	5.34	4.53	4.01	3.76	7.50	7.50	7.50	8.00	8.00
Value Added	-9.14	-11.83	-1.81	1.72	2.25	-0.54	1.90	-2.03	N/A	N/A
Oceanwood Investments SPC Co-Invest	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>Blended Policy (Absolute Return)</i>	6.16	5.34	4.53	4.01	3.76	7.50	7.50	7.50	8.00	8.00
Value Added	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Oceanwood Opportunities Fund	0.88	5.55	22.41	-13.29	N/A	N/A	N/A	N/A	N/A	N/A
<i>Blended Policy (Absolute Return)</i>	6.16	5.34	4.53	4.01	3.76	7.50	7.50	7.50	8.00	8.00
Value Added	-5.28	0.21	17.88	-17.30	N/A	N/A	N/A	N/A	N/A	N/A
OWS Credit Opportunity Offshore Fund III, Ltd.	6.30	13.52	19.58	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>Blended Policy (Absolute Return)</i>	6.16	5.34	4.53	4.01	3.76	7.50	7.50	7.50	8.00	8.00
Value Added	0.14	8.18	15.05	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Perry Partners LP	7.68	-1.12	2.13	-13.85	-8.99	N/A	N/A	N/A	N/A	N/A
<i>Blended Policy (Absolute Return)</i>	6.16	5.34	4.53	4.01	3.76	7.50	7.50	7.50	8.00	8.00
Value Added	1.52	-6.46	-2.40	-17.86	-12.75	N/A	N/A	N/A	N/A	N/A
PIMCO PARS/GCOF/MAV/PCAF Composite	3.78	1.61	2.25	0.06	7.54	3.75	8.55	6.96	8.40	18.90
<i>Blended Policy (Absolute Return)</i>	6.16	5.34	4.53	4.01	3.76	7.50	7.50	7.50	8.00	8.00
Value Added	-2.38	-3.73	-2.28	-3.95	3.78	-3.75	1.05	-0.54	0.40	10.90
PIMCO Absolute Return Strategy V Offshore Fund, Ltd.	1.15	-0.18	2.76	-0.21	16.79	7.24	N/A	N/A	N/A	N/A
PIMCO Global Credit Opportunity Offshore Fund, Ltd.	3.31	6.01	7.54	3.76	8.15	5.93	N/A	N/A	N/A	N/A
PIMCO Commodity Alpha Fund	6.95	11.65	19.37	18.94	N/A	N/A	N/A	N/A	N/A	N/A
Two Sigma Risk Premia Enhanced Fund, LP	2.00	7.85	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>Blended Policy (Absolute Return)</i>	6.16	5.34	4.53	4.01	3.76	7.50	7.50	7.50	8.00	8.00
Value Added	-4.16	2.51	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Venor Capital Offshore, Ltd.	-0.35	13.92	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>Blended Policy (Absolute Return)</i>	6.16	5.34	4.53	4.01	3.76	7.50	7.50	7.50	8.00	8.00
Value Added	-6.51	8.58	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Cash & Cash Equivalents	2.62	1.79	0.34	-0.24	0.86	0.33	0.54	6.14	0.68	0.51
<i>ICE BofAML US Treasury Bills 0-3M</i>	2.28	1.30	0.44	0.13	0.02	0.03	0.08	0.04	0.13	0.12
Value Added	0.34	0.49	-0.10	-0.37	0.84	0.30	0.46	6.10	0.55	0.39
PSERS Cash Management	2.42	1.73	0.34	0.08	0.15	0.33	0.55	0.46	0.70	0.50



As of December 31, 2019

## Fiscal Year Performance

	Performance (%)									
	FY19	FY18	FY17	FY16	FY15	FY14	FY13	FY12	FY11	FY10
PSERS Derivatives Collateral	2.22	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
RE Conversions	N/A	N/A	0.00	N/A	N/A	N/A	N/A	N/A	N/A	N/A

As of December 31, 2019

## Fiscal Year Performance

	Performance (%)									
	FY19	FY18	FY17	FY16	FY15	FY14	FY13	FY12	FY11	FY10
<b>Financing Composite</b>	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>ICE BofAML USD 3-Mo Deposit Offered Rate Average Index</i>	2.59	1.67	0.94	0.46	N/A	N/A	N/A	N/A	N/A	N/A
Value Added	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<b>PSERS Commodity Beta (Short/Financing)</b>	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>FTSE 1 Month T-Bill</i>	2.28	1.27	0.42	0.11	0.02	0.01	0.04	0.03	0.08	0.09
Value Added	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<b>PSERS Gold (Short/Financing)</b>	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>FTSE 1 Month T-Bill</i>	2.28	1.27	0.42	0.11	0.02	0.01	0.04	0.03	0.08	0.09
Value Added	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<b>PSERS Infrastructure Index (Short/Financing)</b>	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>ICE BofAML USD 3-Mo Deposit Offered Rate Average Index</i>	2.59	1.67	0.94	0.46	N/A	N/A	N/A	N/A	N/A	N/A
Value Added	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<b>PSERS REIT Index (Short/Financing)</b>	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>ICE BofAML USD 3-Mo Deposit Offered Rate Average Index</i>	2.59	1.67	0.94	0.46	N/A	N/A	N/A	N/A	N/A	N/A
Value Added	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<b>PSERS TIPS Swap (Short/Financing)</b>	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>ICE BofAML USD 3-Mo Deposit Offered Rate Average Index</i>	2.59	1.67	0.94	0.46	N/A	N/A	N/A	N/A	N/A	N/A
Value Added	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

The Short/Financing segments represent leverage, and therefore have negative asset balances. Due to the negative asset balance, a negative value-added relative to the benchmark represents outperformance, while a positive value added represents underperformance.

As of December 31, 2019

## Fiscal Year Performance

	Performance (%)									
	FY19	FY18	FY17	FY16	FY15	FY14	FY13	FY12	FY11	FY10
PSERS Ultra Short Duration	2.50	1.54	0.75	0.36	0.19	0.26	0.22	0.27	0.30	0.33
<i>ICE BofAML US Treasury Bills 0-3M</i>	2.28	1.30	0.44	0.13	0.02	0.03	0.08	0.04	0.13	0.12
Value Added	0.22	0.24	0.31	0.23	0.17	0.23	0.14	0.23	0.17	0.21
<b>LIBOR Composite</b>	<b>3.07</b>	<b>1.86</b>	<b>1.60</b>	<b>1.21</b>	<b>0.73</b>	<b>1.38</b>	<b>1.29</b>	<b>0.90</b>	<b>0.92</b>	<b>1.35</b>
<i>LIBOR Plus Hybrid</i>	2.59	1.67	0.92	0.47	0.25	0.25	0.35	0.43	0.35	0.35
Value Added	0.48	0.19	0.68	0.74	0.48	1.13	0.94	0.47	0.57	1.00
Capula LIBOR Tail Risk	-2.15	-3.69	-5.06	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>LIBOR Plus Hybrid</i>	2.59	1.67	0.92	0.47	0.25	0.25	0.35	0.43	0.35	0.35
Value Added	-4.74	-5.36	-5.98	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Penn Mutual Asset Management	3.43	2.52	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>LIBOR Plus Hybrid</i>	2.59	1.67	0.92	0.47	0.25	0.25	0.35	0.43	0.35	0.35
Value Added	0.84	0.85	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
PSERS LIBOR Plus	2.90	1.92	1.48	0.87	0.49	0.94	0.65	0.70	0.96	1.53
<i>LIBOR Plus Hybrid</i>	2.59	1.67	0.92	0.47	0.25	0.25	0.35	0.43	0.35	0.35
Value Added	0.31	0.25	0.56	0.40	0.24	0.69	0.30	0.27	0.61	1.18
Radcliffe Ultra Short Duration	4.19	2.38	3.35	3.09	1.77	3.10	2.81	N/A	N/A	N/A
<i>Blended Benchmark (Radcliffe Ultra Short)</i>	2.57	1.77	0.99	0.50	0.25	0.24	0.33	0.43	0.31	0.34
Value Added	1.62	0.61	2.36	2.59	1.52	2.86	2.48	N/A	N/A	N/A
<b>PSERS Healthcare &amp; HOP</b>										
PSERS Healthcare - HOP	2.51	1.57	0.76	0.38	0.21	0.21	0.25	0.27	0.36	0.52
<i>ICE BofAML 3 Month U.S. T-Bill</i>	2.31	1.36	0.49	0.19	0.02	0.06	0.11	0.05	0.16	0.16
Value Added	0.20	0.21	0.27	0.19	0.19	0.15	0.14	0.22	0.20	0.36
PSERS Healthcare - Premium Assist	2.68	1.63	0.90	0.68	0.30	0.41	0.41	0.79	1.10	1.57
<i>ICE BofAML 3 Month U.S. T-Bill</i>	2.31	1.36	0.49	0.19	0.02	0.06	0.11	0.05	0.16	0.16
Value Added	0.37	0.27	0.41	0.49	0.28	0.35	0.30	0.74	0.94	1.41
<b>E/M Total Program Composite</b>	<b>6.03</b>	<b>2.08</b>	<b>3.62</b>	<b>3.07</b>	<b>-0.32</b>	<b>15.74</b>	<b>10.26</b>	<b>-5.04</b>	<b>20.63</b>	<b>14.69</b>
<b>E/M Short Duration Cash</b>	<b>5.75</b>	<b>2.45</b>	<b>4.66</b>	<b>3.57</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
Radcliffe Ultra Short Duration	4.19	2.38	3.35	3.09	1.77	3.10	2.81	N/A	N/A	N/A
<i>Blended Benchmark (Radcliffe Ultra Short)</i>	2.57	1.77	0.99	0.50	0.25	0.24	0.33	0.43	0.31	0.34
Value Added	1.62	0.61	2.36	2.59	1.52	2.86	2.48	N/A	N/A	N/A
Radcliffe Specialty Finance Debt	6.98	2.50	5.73	3.96	N/A	N/A	N/A	N/A	N/A	N/A
<i>3-Month Libor + 0.60%</i>	3.18	2.38	1.60	1.10	0.85	0.84	0.93	1.04	0.91	0.95
Value Added	3.80	0.12	4.13	2.86	N/A	N/A	N/A	N/A	N/A	N/A

## Asset Allocation

	Total Fund	
	(\$)	%
<b>PSERS Total Fund Composite</b>	<b>59,279,184</b>	<b>100.0</b>
<b>Total Public Global Equity Composite (hedged)</b>	<b>10,033,013</b>	<b>16.9</b>
Equity Rebalance Account	-	0.0
PSERS Non-US Equity Rebalance Account	-3,285	0.0
PSERS Equity Liquidation	883	0.0
Global Tax Reclaim	80	0.0
<b>Total US Equity Composite</b>	<b>2,927,122</b>	<b>4.9</b>
PSERS-S&P 500 Index Composite	2,272,424	3.8
Radcliffe Specialty Finance Debt	388,302	0.7
PSERS-S&P 400 Index Composite	339,496	0.6
PSERS-S&P 600 Index Composite	315,201	0.5
<b>Total Non-U.S. Equity Composite (hedged)</b>	<b>7,108,212</b>	<b>12.0</b>
<b>Total Non-U.S. Equity x Emerging Markets Composite (hedged)</b>	<b>6,355,406</b>	<b>10.7</b>
Insight Everest Currency Hedge - Int'l Eq	-22,711	0.0
Non-US Large/Mid Cap Equity Composite	5,477,313	9.2
PSERS ACWI x US Fund	2,687,611	4.5
BlackRock EMAA	500,128	0.8
<b>Active Non-US Large/Mid Cap Composite</b>	<b>2,789,702</b>	<b>4.7</b>
Baillie Gifford	966,159	1.6
BlackRock Emerging Markets Alpha Advantage Fund Ltd	165,315	0.3
Effissimo Capital Partners Feeder Fund 2 LP	234,373	0.4
Marathon Asset Mgmt	890,490	1.5
The Children's Investment Fund, LP	533,365	0.9
<b>Non-US Small Cap Equity Composite</b>	<b>900,804</b>	<b>1.5</b>
Acadian Asset Mgmt	269,919	0.5
Fidelity Institutional Int'l Small Cap	112	0.0
Oberweis Asset Mgmt	207,330	0.3
QS Investors	99,592	0.2
Wasatch Int'l Small Cap	323,851	0.5
<b>Emerging Markets Equity Composite</b>	<b>752,806</b>	<b>1.3</b>
Cederberg China Equity Fund	224,675	0.4
Steadview Capital Partners LP	163,512	0.3

Private Equity, Private Real Estate, Private Infrastructure, and Private Commodities investments are valued on a one quarter lag.

## Asset Allocation

	Total Fund	
	(\$)	%
Wasatch EM Small Cap	364,619	0.6
<b>Total Private Equity (hedged)</b>	<b>8,532,057</b>	<b>14.4</b>
Insight Wilson Currency Hedge - PE Internal Co-Invest (1Q Lag)	2,722	0.0
Managed Stock Distribution	6,929	0.0
PSERS Private Equity Internal Co-Invest ex PA	785,877	1.3
PSERS Private Equity Internal Pennsylvania Co-Invest Composite	83,463	0.1
PSERS Private Equity Internal Co-Invest - PA Internal	3,025	0.0
PSERS Private Equity Internal Co-Invest - PA External	80,439	0.1
Buyout	5,400,306	9.1
Special Situations Composite	1,183,749	2.0
Venture Capital - Growth Equity	1,069,010	1.8
<b>Total Fixed Income Exposure</b>	<b>18,067,397</b>	<b>30.5</b>
<b>Investment Grade Composite</b>	<b>5,851,401</b>	<b>9.9</b>
US Core Plus Fixed Income Composite	2,335,259	3.9
BlackRock Global Alpha	847,979	1.4
PSERS Active Core Plus Fixed Income	1,366,646	2.3
SEI Investment Management	120,633	0.2
Non-U.S. Developed Markets Fixed Income Composite	7,182	0.0
Alliance Bernstein Global Fixed	7,182	0.0
U.S. Treasuries Total Composite	3,508,960	5.9
PSERS Funded U.S. Long Treasuries	3,508,960	5.9
<b>Credit-Related (hedged)</b>	<b>5,691,312</b>	<b>9.6</b>
Emerging Markets Fixed Income Composite	393,692	0.7
Franklin Templeton Emerging Fixed Income	393,692	0.7
Private Credit Composite (hedged)	5,297,620	8.9
Insight Oxygen Currency Hedge - Private Credit	-4,673	0.0
PSERS Private Credit Internal Co-Invest	135,499	0.2
Apollo European Principal Fund II	38,159	0.1
Apollo European Principal Fund III	92,635	0.2
Avenue Energy Opportunities Fund	202,710	0.3
Avenue Energy Opportunities Fund II	104,419	0.2

Private Equity, Private Real Estate, Private Infrastructure, and Private Commodities investments are valued on a one quarter lag.

## Asset Allocation

	Total Fund	
	(\$)	%
Avenue Europe SS III	224,885	0.4
Bain Capital Credit Managed Account (PSERS), L.P.	397,788	0.7
Bain Capital Credit Opp. Fund IV	24,690	0.0
Bain Capital Distressed and Special Situations 2013	170,336	0.3
Bain Capital Distressed and Special Situations 2016 (A), L.P.	279,405	0.5
Bain Capital Distressed and Special Situations 2019 (A), L.P.	36,881	0.1
Bain Capital Middle Market Credit 2010, L.P.	28,254	0.0
Bain Capital Middle Market Credit 2014, L.P.	86,215	0.1
Brigade Distressed Value	172,979	0.3
Brigade Structured Credit Offshore Fund	293,603	0.5
Carlyle Energy Mezz. Opp. Fund	41,785	0.1
Carlyle Energy Mezz. Opp. Fund II	108,590	0.2
Cerberus Levered Loan Fund I	1,464	0.0
Cerberus Levered Loan Fund II	59,751	0.1
Cerberus PSERS Levered Loan Opportunities Fund	290,399	0.5
Clearlake Opportunities Partners II, LP	12,197	0.0
Galton Onshore Mortgage Recovery Fund III, LP	25,510	0.0
Galton Onshore Mortgage Recovery Fund IV, L.P.	112,945	0.2
Hayfin SOF II USD LP	125,211	0.2
Hayfin SOF II USD Co-Invest	34,089	0.1
Hayfin Special Opportunities Credit LP	28,770	0.0
ICG Europe Fund V	49,165	0.1
ICG Europe Fund VI	160,849	0.3
ICG Europe Fund VII	68,299	0.1
Latitude Management Real Estate Capital IV	44,805	0.1
LBC Credit Partners III	49,226	0.1
LBC-P Credit Fund LP	254,990	0.4
Mariner/Galton RMBS	214,470	0.4
Mariner International Infrastructure	79,560	0.1
Oaktree Loan Fund 2X, LP	12,628	0.0
Park Square Credit Opportunities	204,815	0.3
PIMCO BRAVO Fund III Onshore Feeder, L.P.	210,223	0.4
PIMCO Commercial Real Estate Debt Fund, L.P.	21,027	0.0

Private Equity, Private Real Estate, Private Infrastructure, and Private Commodities investments are valued on a one quarter lag.

## Asset Allocation

	Total Fund	
	(\$)	%
SSG Capital Partners V, LP	10,505	0.0
SSG Capital Partners V Sidecar, LP	36	0.0
Summit Partners Credit Fund II LP	167,544	0.3
TCI Real Estate Partners Fund III, L.P.	56,848	0.1
The Varde Scratch and Dent Fund, LP	38,793	0.1
The Varde Scratch and Dent Fund Feed I-A	50,267	0.1
TOP NPL (A)	4,927	0.0
TPG Opportunities Partners II, LP	10,312	0.0
TPG Opportunities Partners III, LP	82,886	0.1
TPG TAO	355,408	0.6
TSSP Opportunities Partners IV, LP	25,539	0.0
<b>Inflation Protected</b>	<b>6,505,864</b>	<b>11.0</b>
U.S. Inflation Protected (unlevered)	4,198,007	7.1
PSERS Total TIPS (unlevered)	4,198,007	7.1
Non-U.S. Inflation Protected (levered)	2,307,857	3.9
Bridgewater TIPS (levered)	2,307,857	3.9
PIMCO Multi-Sector Strategy	16,768	0.0
PSERS Fixed Liquidation	2,051	0.0
Fixed Rebalance Account	-	0.0
<b>Total Real Asset Exposure (unlevered/hedged)</b>	<b>13,719,331</b>	<b>23.1</b>
<b>Total Infrastructure Composite (unlevered/hedged)</b>	<b>3,427,300</b>	<b>5.8</b>
Infrastructure x MLP (unlevered/hedged)	1,627,942	2.7
Insight Nevada Currency Hedge - Infra	-10,316	0.0
Private Infrastructure Composite	380,066	0.6
Private Infrastructure ex Co-Invest	342,620	0.6
PSERS Private Infrastructure Internal Co-Invest	37,446	0.1
Publicly-Traded Infrastructure Composite (unlevered)	1,258,192	2.1
PSERS Infrastructure Index (Long)	1,258,192	2.1
MLP Composite	1,799,358	3.0
PSERS MLP	351,627	0.6

Private Equity, Private Real Estate, Private Infrastructure, and Private Commodities investments are valued on a one quarter lag.

## Asset Allocation

	Total Fund	
	(\$)	%
External MLP Composite	1,447,731	2.4
Atlantic Trust	471,111	0.8
Harvest MLP	465,213	0.8
Salient	511,407	0.9
<b>Total Commodities Composite (unlevered)</b>	<b>4,578,338</b>	<b>7.7</b>
Private Commodities Composite	131,844	0.2
Private Commodities ex Co-Invest	120,282	0.2
PSERS Private Commodities Internal Co-Invest	11,562	0.0
Commodities Composite ex Private (unlevered)	4,446,494	7.5
PSERS Commodity Beta (Long)	1,648,295	2.8
Gresham	340,911	0.6
Wellington Management Company	453,487	0.8
Gold Composite (unlevered)	2,003,800	3.4
PSERS Gold (Long)	2,003,800	3.4
<b>Total Real Estate (unlevered/hedged)</b>	<b>5,713,694</b>	<b>9.6</b>
PTRES Composite (unlevered/hedged)	725,678	1.2
Insight Sierra Currency Hedge - REIT	-2,719	0.0
PSERS REIT Index (Long)	528,606	0.9
Security Capital Preferred Growth	199,791	0.3
Private Real Estate	4,988,016	8.4
Private Real Estate ex Internal Co-Invest	4,909,823	8.3
PSERS Real Estate Internal Co-Invest	78,193	0.1
<b>Risk Parity Composite</b>	<b>4,279,580</b>	<b>7.2</b>
BlackRock Market Advantage II	512,251	0.9
Bridgewater All Weather @15%	701,356	1.2
Bridgewater Optimal	563,152	0.9
DE Shaw Orienteer HV	481,518	0.8
PSERS Risk Parity Composite	2,021,303	3.4
PSERS Risk Parity	1,711,894	2.9
PSERS Risk Parity LIBOR	309,409	0.5
<b>Total Absolute Return Composite</b>	<b>6,092,566</b>	<b>10.3</b>

Private Equity, Private Real Estate, Private Infrastructure, and Private Commodities investments are valued on a one quarter lag.



## Asset Allocation

	Total Fund	
	(\$)	%
Aeolus Property Catastrophe Keystone PF Fund, LP	367,018	0.6
AKAZ Offshore Fund Ltd	175,631	0.3
Bridgewater Pure Alpha Fund II, Ltd.	1,054,762	1.8
Brigade Leveraged Capital Structures Offshore Fund, Ltd.	330,321	0.6
Capula Global Relative Value Fund Limited	488,265	0.8
Capula Tail Risk Fund Limited	307,588	0.5
Carlyle Aviation/SASOF II LP	1,284	0.0
Carlyle Aviation/SASOF III LP	35,156	0.1
Carlyle Aviation/SASOF IV LP	60,479	0.1
Caspian Keystone Focused Fund, Ltd.	14,664	0.0
Caspian Select Credit International, Ltd.	266,389	0.4
Falko Regional Aircraft Opportunities Fund II	29,044	0.0
Garda Fixed Income Relative Value Opportunity Fund Ltd.	455,522	0.8
HS Group Sponsor Fund II, Ltd.	41,062	0.1
Independence Reinsurance Partners Composite	209,104	0.4
Independence Reinsurance Partners Cash	12	0.0
DaVinci Reinsurance Ltd.	56,750	0.1
Renaissance Medici Fund Ltd.	64,423	0.1
Upsilon Diversified Fund	87,920	0.1
Nephila/Nimbus Weather Fund	150,134	0.3
Nephila/Palmetto Fund Ltd.	206,832	0.3
Oceanwood Investments SPC Co-Invest	15,783	0.0
Oceanwood Opportunities Fund	255,207	0.4
OWS Credit Opportunity Offshore Fund III, Ltd.	294,708	0.5
Perry Partners LP	14,015	0.0
PIMCO PARS/GCOF/MAV/PCAF Composite	918,225	1.5
PIMCO PARS	308,286	0.5
PIMCO GCOF	272,748	0.5
PIMCO Commodity Alpha Fund	337,191	0.6
Two Sigma Risk Premia Enhanced Fund, LP	220,991	0.4
Venor Capital Offshore, Ltd.	180,381	0.3
<b>Cash &amp; Cash Equivalents</b>	<b>3,803,232</b>	<b>6.4</b>

Private Equity, Private Real Estate, Private Infrastructure, and Private Commodities investments are valued on a one quarter lag.

## Asset Allocation

	Total Fund	
	(\$)	%
PSERS Cash Management	3,168,964	5.3
PSERS Derivatives Collateral	634,268	1.1
RE Conversions	-	0.0
<b>Financing Composite</b>	<b>-5,248,032</b>	<b>-8.9</b>
PSERS Commodity Beta (Short/Financing)	-828,166	-1.4
PSERS Gold (Short/Financing)	-1,664,020	-2.8
PSERS Infrastructure Index (Short/Financing)	-630,193	-1.1
PSERS REIT Index (Short/Financing)	-262,322	-0.4
PSERS TIPS Swap (Short/Financing)	-1,863,332	-3.1

Private Equity, Private Real Estate, Private Infrastructure, and Private Commodities investments are valued on a one quarter lag.

## Schedule of Investable Assets

Quarter Ending	Beginning Market Value (\$000)	Contributions (\$000)	Withdrawals (\$000)	Net Cash Flow (\$000)	Net Gain/Loss (\$000)	Ending Market Value (\$000)	Net Return (%)
Jun-2013	-	-	-	-	-	49,017,040.37	-
Sep-2013	49,017,040.37	4,636,922.82	6,172,104.01	-1,535,181.19	1,390,116.47	48,871,975.66	2.9
Dec-2013	48,871,975.66	5,867,242.37	6,252,435.21	-385,192.84	1,652,703.45	50,139,486.27	3.4
Mar-2014	50,139,486.27	4,406,958.92	5,416,004.58	-1,009,045.66	1,799,515.72	50,929,956.34	3.6
Jun-2014	50,929,956.34	7,554,255.99	8,049,348.85	-495,092.86	2,126,107.48	52,560,970.96	4.2
Sep-2014	52,560,970.96	5,613,796.98	6,298,432.85	-684,635.87	305,918.49	52,182,253.57	0.6
Dec-2014	52,182,253.57	9,486,756.02	10,202,396.23	-715,640.21	73,391.93	51,540,005.29	0.1
Mar-2015	51,540,005.29	10,008,587.78	10,707,898.63	-699,310.86	1,465,859.22	52,306,553.66	2.9
Jun-2015	52,306,553.66	5,794,431.23	6,620,947.13	-826,515.90	-85,942.86	51,394,094.90	-0.2
Sep-2015	51,394,094.90	8,230,771.92	9,673,052.94	-1,442,281.03	-2,021,300.10	47,930,513.77	-4.0
Dec-2015	47,930,513.77	7,625,267.24	8,688,588.51	-1,063,321.26	11,691.83	46,878,884.34	0.0
Mar-2016	46,878,884.34	5,942,062.19	6,052,023.77	-109,961.58	695,895.38	47,464,818.14	1.5
Jun-2016	47,464,818.14	5,626,818.39	6,000,209.13	-373,390.75	1,880,401.97	48,971,829.36	4.0
Sep-2016	48,971,829.36	5,501,625.43	6,080,823.79	-579,198.36	1,805,042.28	50,197,673.28	3.7
Dec-2016	50,197,673.28	6,462,818.85	6,783,275.18	-320,456.32	613,829.27	50,491,046.22	1.2
Mar-2017	50,491,046.22	4,304,959.51	4,961,133.73	-656,174.21	1,627,829.91	51,462,701.92	3.3
Jun-2017	51,462,701.92	4,192,658.62	4,236,025.27	-43,366.65	847,229.68	52,266,564.95	1.7
Sep-2017	52,266,564.95	4,525,861.55	5,015,428.95	-489,567.40	1,651,228.38	53,428,225.93	3.2
Dec-2017	53,428,225.93	5,197,997.67	5,324,115.82	-126,118.15	1,904,074.35	55,206,182.13	3.6
Mar-2018	55,206,182.13	5,951,560.62	7,081,966.94	-1,130,406.32	77,423.55	54,153,199.36	0.1
Jun-2018	54,153,199.36	4,621,763.51	4,487,735.72	134,027.79	1,127,175.16	55,414,402.32	2.1
Sep-2018	55,414,402.32	6,964,171.95	7,649,828.39	-685,656.44	679,160.88	55,407,906.76	1.2
Dec-2018	55,407,906.76	8,699,410.82	9,051,212.77	-351,801.95	-1,576,844.00	53,479,260.81	-2.8
Mar-2019	53,479,260.81	9,768,856.90	10,186,205.00	-417,348.10	2,733,656.69	55,795,569.40	5.1
Jun-2019	55,795,569.40	6,309,755.30	6,335,026.46	-25,271.16	1,733,400.83	57,503,699.06	3.1
Sep-2019	57,503,699.06	4,809,331.59	5,187,856.62	-378,525.03	1,147,444.34	58,272,618.36	2.0
Dec-2019	58,272,618.36	5,372,034.74	5,568,825.13	-196,790.39	1,203,355.65	59,279,183.62	2.1
	49,017,040.37	163,476,678.92	178,082,901.63	-14,606,222.71	24,868,365.95	59,279,183.62	7.6

## Disclaimer

### **Past performance is not necessarily indicative of future results.**

Unless otherwise noted, performance returns presented reflect the respective fund's performance as indicated. Returns may be presented on a before-fees basis (gross) or after-fees basis (net). After-fee performance is net of each respective sub-advisors' investment management fees and include the reinvestment of dividends and interest as indicated on the notes page within this report or on the asset allocation and performance summary pages. Actual returns may be reduced by AHIC's investment advisory fees or other trust payable expenses you may incur as a client. AHIC's advisory fees are described in Form ADV Part 2A. Portfolio performance, characteristics and volatility also may differ from the benchmark(s) shown.

The information contained herein is confidential and proprietary and provided for informational purposes only. It is not complete and does not contain certain material information about making investments in securities including important disclosures and risk factors. All securities transactions involve substantial risk of loss. Under no circumstances does the information in this report represent a recommendation to buy or sell stocks, limited partnership interests, or other investment instruments.

The data contained in these reports is compiled from statements provided by custodian(s), record-keeper(s), and/or other third-party data provider(s). This document is not intended to provide, and shall not be relied upon for, accounting and legal or tax advice. AHIC has not conducted additional audits and cannot warrant its accuracy or completeness. We urge you to carefully review all custodial statements and notify AHIC with any issues or questions you may have with respect to investment performance or any other matter set forth herein.

The mutual fund information found in this report is provided by Thomson Reuters Lipper and AHIC cannot warrant its accuracy or timeliness. Thomson Reuters Lipper Global Data Feed provides comprehensive coverage of mutual fund information directly to Investment Metrics, AHIC's performance reporting vendor, via the PARis performance reporting platform. Thomson Reuters Lipper is the data provider chosen by Investment Metrics, and as such, AHIC has no direct relationship with Thomson Reuters Lipper.

Refer to Hedge Fund Research, Inc. [www.hedgefundresearch.com](http://www.hedgefundresearch.com) for information on HFR indices.

FTSE International Limited ("FTSE") © FTSE 2017. "FTSE®" and "FTSE4Good®" are trademarks of the London Stock Exchange Group companies and are used by FTSE International Limited under license. The FTSE indices are calculated by FTSE International Limited in conjunction with Indonesia Stock Exchange, Bursa Malaysia Berhad, The Philippine Stock Exchange, Inc., Singapore Exchange Securities Trading Limited and the Stock Exchange of Thailand (the "Exchanges"). All intellectual property rights in the FTSE/ASEAN Index vest in FTSE and the Exchanges. Neither FTSE nor its licensors accept any liability for any errors or omissions in the FTSE indices and / or FTSE ratings or underlying data. No further distribution of FTSE Data is permitted without FTSE's express written consent.

Aon Hewitt Investment Consulting, Inc. ("AHIC") is a federally registered investment advisor with the U.S. Securities and Exchange Commission ("SEC"). AHIC is also registered with the Commodity Futures Trade Commission as a commodity pool operator and a commodity trading advisor, and is a member of the National Futures Association. The AHIC ADV Form Part 2A disclosure statement is available upon written request to:

Aon Hewitt Investment Consulting, Inc.  
200 East Randolph Street  
Suite 700  
Chicago, IL 60601  
ATTN: AHIC Compliance Officer