

Wilshire

California Public Employees' Retirement System

Universe Comparison Report

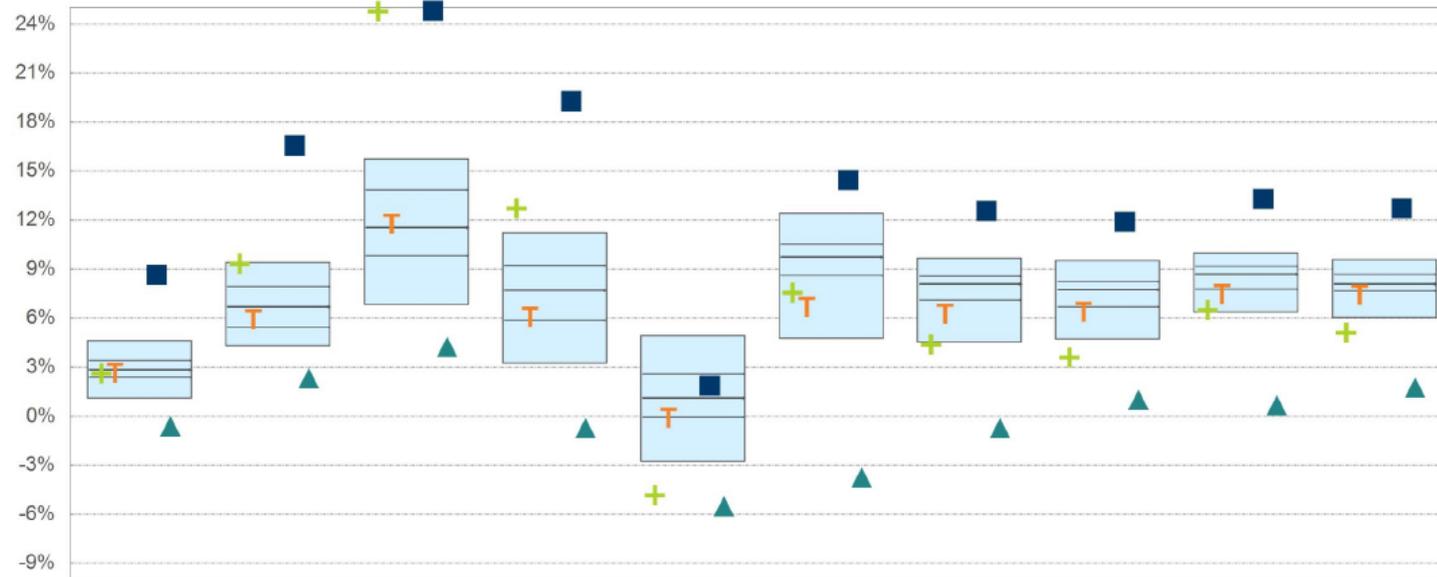
Second Quarter 2023

Peer Universe Comparison

CalPERS Public Employees' Retirement Fund (PERF)

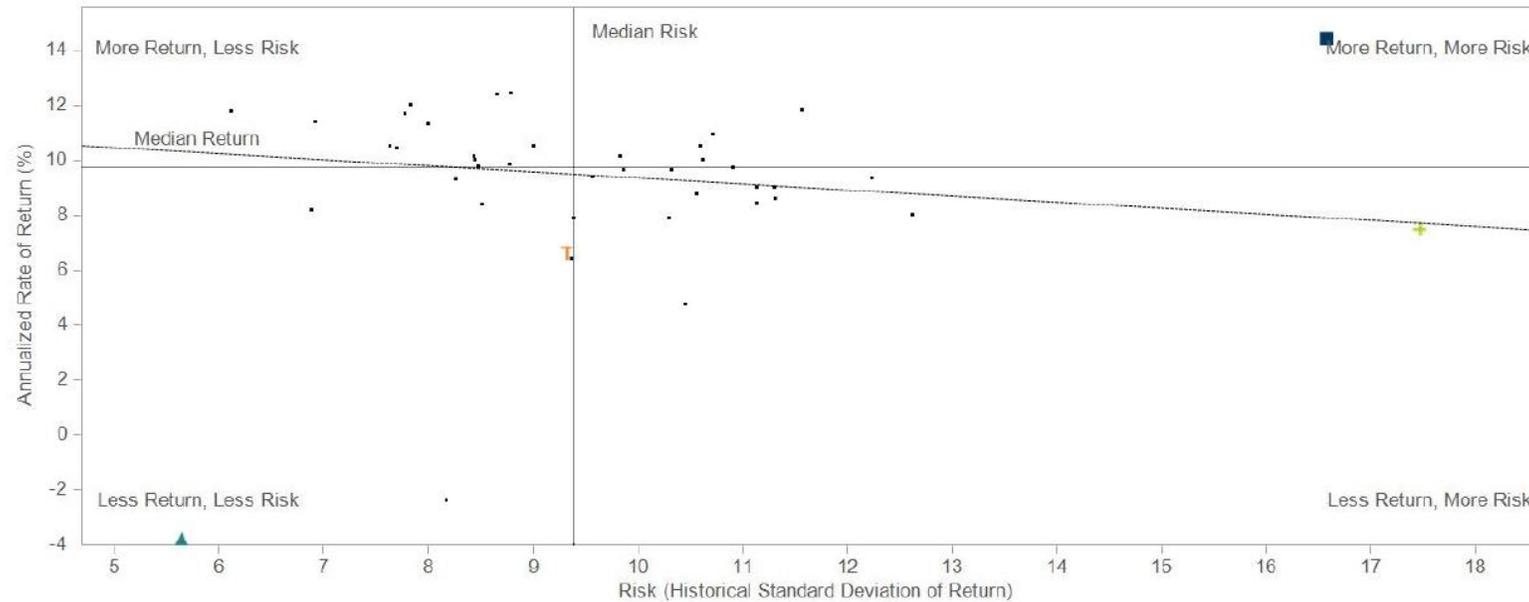
PERF Total Fund – Return Comparison Public Funds > \$10 Billion

Cumulative Periods Ending June 30, 2023



Percentile Rankings	1 Qtr	2 Qtrs	3 Qtrs	1 Year	2 Years	3 Years	4 Years	5 Years	7 Years	10 Years
5th	4.60	9.40	15.74	11.20	4.93	12.43	9.67	9.53	9.96	9.58
25th	3.43	7.93	13.86	9.22	2.60	10.53	8.59	8.24	9.19	8.69
50th	2.84	6.69	11.55	7.69	1.13	9.74	8.09	7.76	8.70	8.08
75th	2.38	5.43	9.83	5.85	-0.05	8.61	7.10	6.69	7.77	7.66
95th	1.13	4.32	6.84	3.28	-2.78	4.76	4.53	4.73	6.38	6.04
No. Of Obs	41	40	40	40	39	39	38	37	37	37
T Total Plan - Composite	2.44 (72)	5.72 (67)	11.55 (50)	5.85 (75)	-0.30 (83)	6.46 (93)	6.04 (93)	6.18 (90)	7.26 (90)	7.23 (84)
■ Wilshire 5000	8.44 (1)	16.34 (1)	24.60 (1)	19.06 (1)	1.66 (40)	14.24 (1)	12.33 (1)	11.67 (1)	13.05 (1)	12.51 (1)
+ MSCI AC World ExUS IMI	2.38 (75)	9.10 (5)	24.54 (1)	12.48 (1)	-5.06 (96)	7.33 (91)	4.18 (96)	3.38 (96)	6.29 (96)	4.88 (96)
▲ Bloomberg Aqqeate	-0.84 (99)	2.09 (99)	4.00 (99)	-0.94 (99)	-5.73 (99)	-3.97 (99)	-0.94 (99)	0.77 (99)	0.44 (99)	1.52 (99)

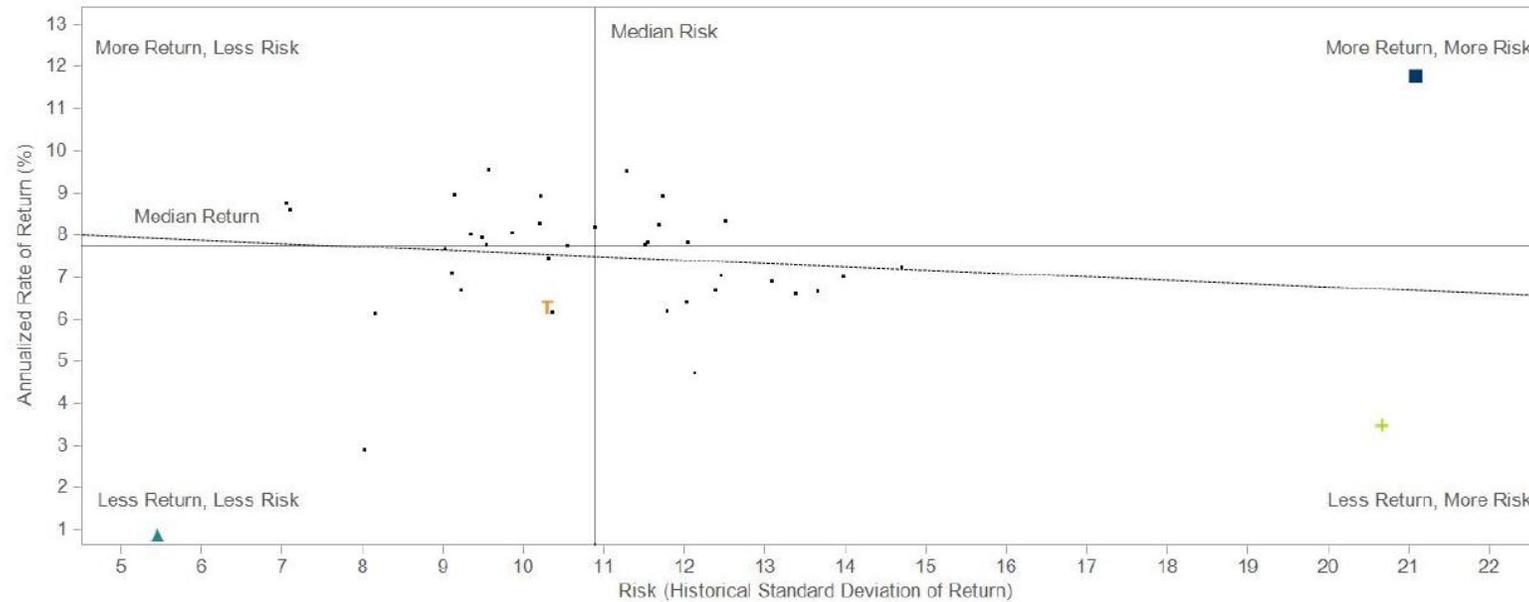
PERF Total Fund – Risk/Return Comparison Public Funds > \$10 Billion 3 Years Ending June 30, 2023



Alpha: 11.55
Beta: -0.22
R-Squared: 0.02

	Risk Value	Risk Rank	Return Value	Return Rank
T Total Plan - Composites	9.37	52	6.46	93
■ Wilshire 5000	16.63	1	14.24	1
+ MSCI AC World ExUS IMI Net	17.51	1	7.33	91
▲ Bloomberg Aggregate	5.69	100	-3.97	99
Median	9.39		9.74	

PERF Total Fund – Risk/Return Comparison Public Funds > \$10 Billion 5 Years Ending June 30, 2023

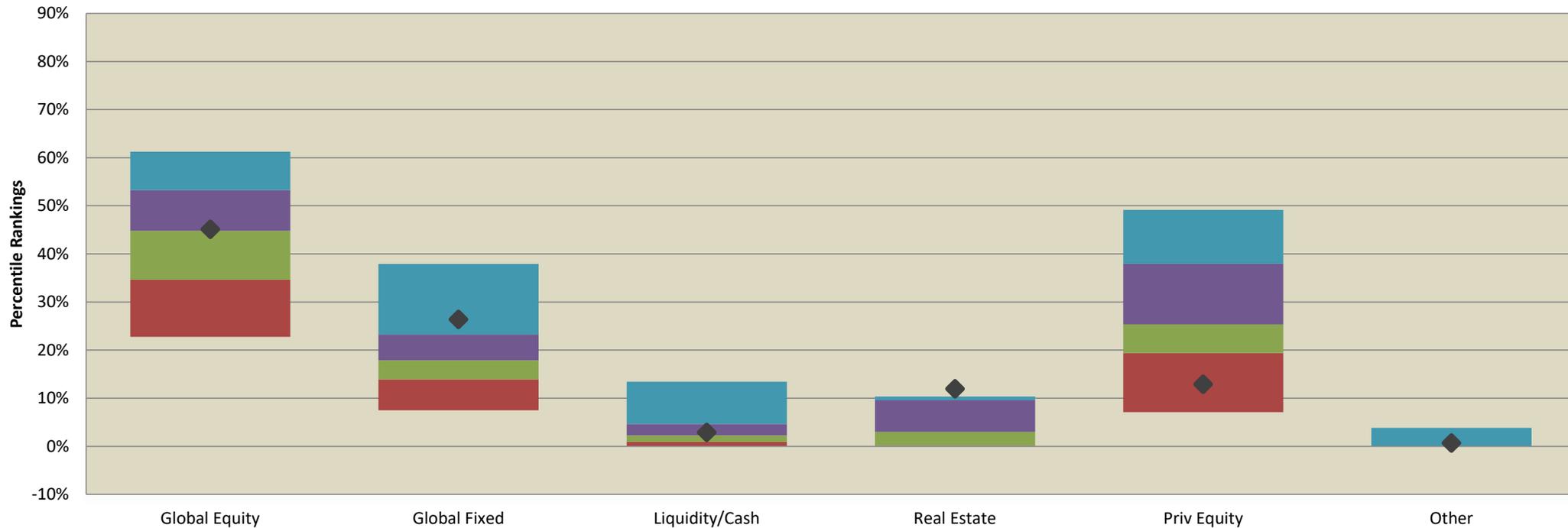


Alpha: 8.38
Beta: -0.08
R-Squared: 0.01

	Risk Value	Risk Rank	Return Value	Return Rank
T Total Plan - Composites	10.36	55	6.18	90
■ Wilshire 5000	21.15	1	11.67	1
+ MSCI AC World ExUS IMI Net	20.73	1	3.38	96
▲ Bloomberg Aggregate	5.51	100	0.77	99
Median	10.88		7.76	

PERF Total Fund – Asset Allocation Comparison Public Funds > \$10 Billion

Period Ending June 30, 2023



Percentile Rankings	Global Equity	Global Fixed	Liquidity/Cash	Real Estate	Priv Equity	Other
5th	61.25%	37.90%	13.44%	10.33%	49.13%	3.83%
25th	53.24%	23.25%	4.63%	9.57%	37.96%	0.10%
50th	44.80%	17.88%	2.27%	3.00%	25.35%	0.00%
75th	34.65%	13.92%	0.92%	0.16%	19.35%	0.00%
95th	22.75%	7.50%	0.01%	0.00%	7.12%	0.00%
CalPERS	45.11% (46)	26.41% (11)	2.91% (40)	11.98% (1)	12.90% (78)	0.70% (10)

PERF Global Equity – Return Comparison Public Funds > \$10 Billion

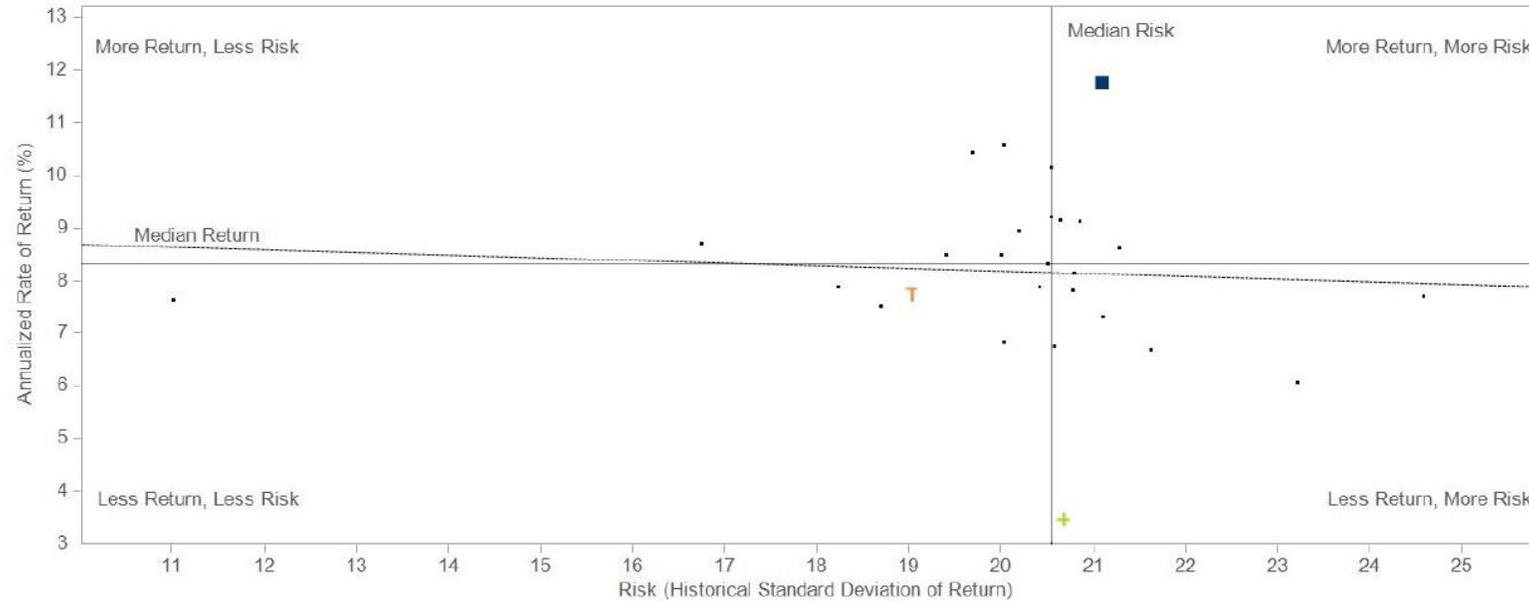
Cumulative Periods Ending June 30, 2023



Percentile Rankings	1 Qtr	2 Qtrs	3 Qtrs	1 Year	2 Years	3 Years	4 Years	5 Years	7 Years	10 Years
5th	8.02	15.46	26.61	18.90	2.27	13.95	11.05	10.58	12.16	11.31
25th	6.49	14.42	25.03	17.52	0.89	12.86	9.80	9.12	11.16	10.94
50th	5.74	12.77	23.99	16.19	-0.47	11.75	9.16	8.31	10.37	9.32
75th	4.72	11.25	22.28	13.71	-1.78	10.35	8.24	7.65	9.74	8.85
95th	3.09	7.88	15.87	10.20	-3.84	8.06	7.55	6.67	8.92	5.91
No. Of Obs	33	31	31	31	27	27	26	25	25	24
T Total Plan - Composite	5.25 (65)	11.50 (71)	22.56 (67)	14.09 (71)	-0.39 (42)	10.59 (70)	8.01 (83)	7.65 (75)	9.86 (66)	8.95 (62)
■ Wilshire 5000	8.44 (1)	16.34 (1)	24.60 (28)	19.06 (1)	1.66 (13)	14.24 (1)	12.33 (1)	11.67 (1)	13.05 (1)	12.51 (1)
+ MSCI AC World ExUS IMI	2.38 (100)	9.10 (88)	24.54 (31)	12.48 (88)	-5.06 (99)	7.33 (95)	4.18 (100)	3.38 (100)	6.29 (100)	4.88 (99)

PERF Global Equity – Risk/Return Comparison Public Funds > \$10 Billion

5 Years Ending June 30, 2023

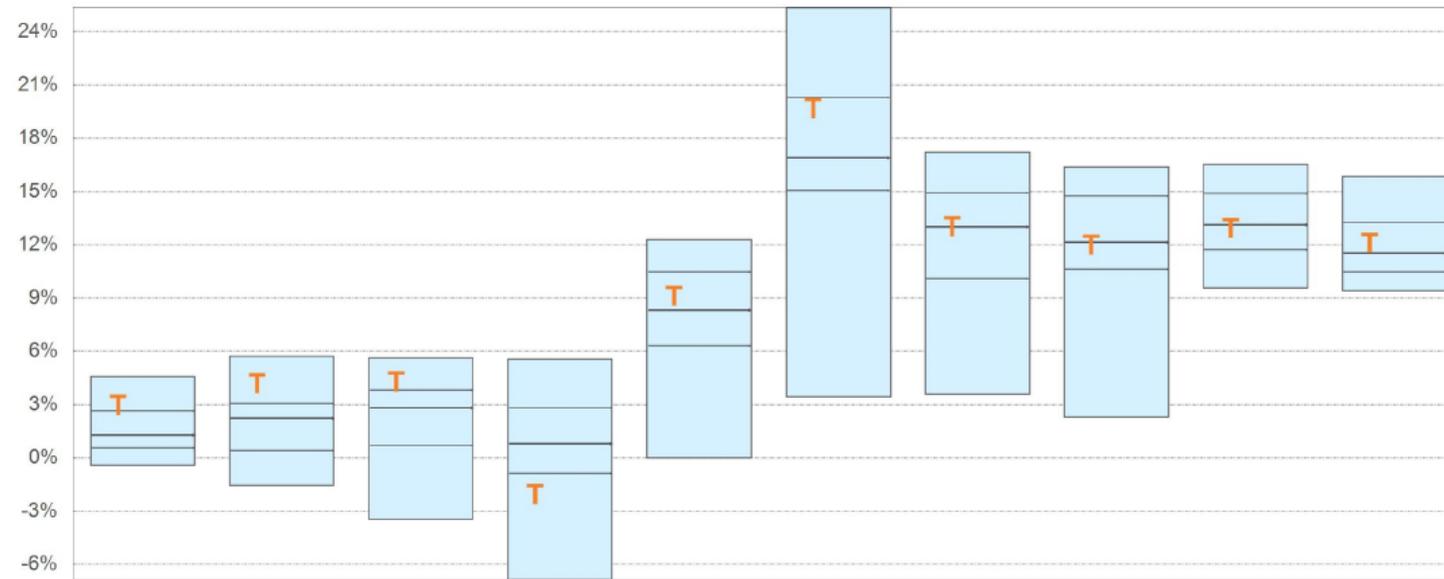


Alpha: 9.19
 Beta: -0.05
 R-Squared: 0.01

	Risk Value	Risk Rank	Return Value	Return Rank
T Total Plan - Composites	19.08	84	7.65	75
■ Wilshire 5000	21.15	17	11.67	1
+ MSCI AC World ExUS IMI Net	20.73	33	3.38	100
Median	20.54		8.31	

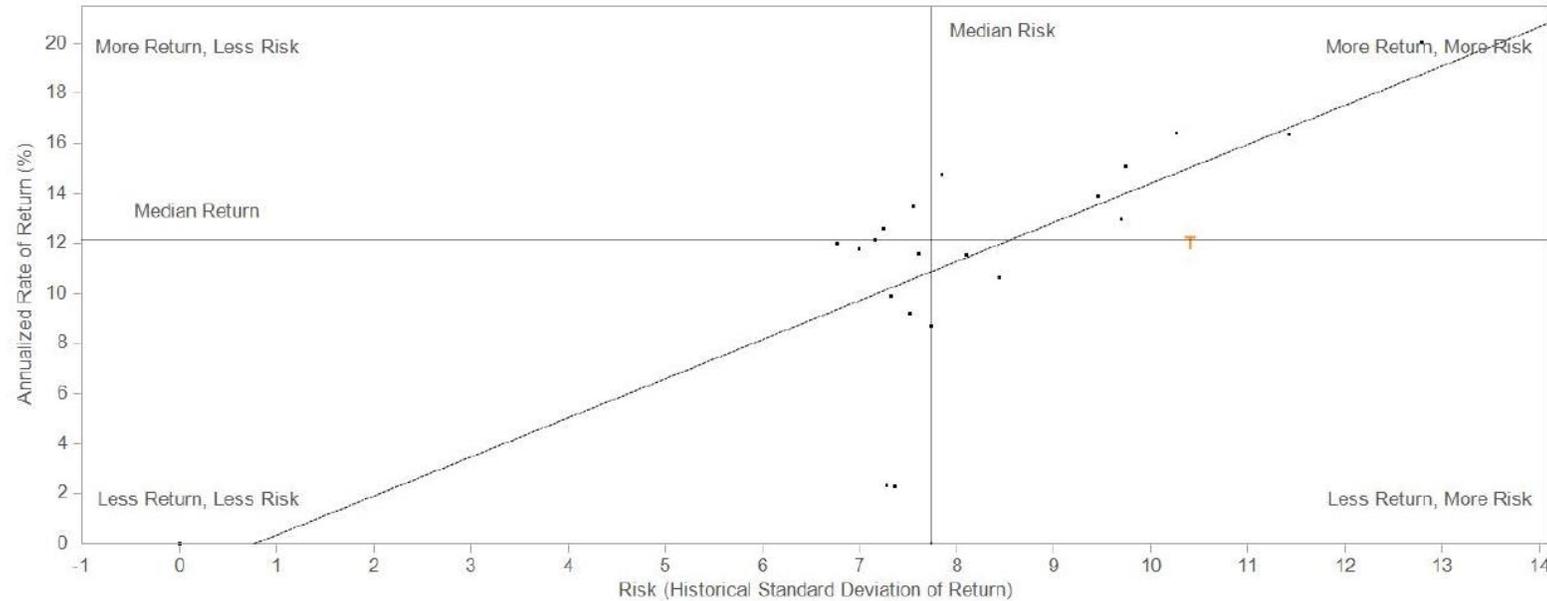
PERF Private Equity – Return Comparison Public Funds > \$10 Billion

Cumulative Periods Ending June 30, 2023



Percentile Rankings	1 Qtr	2 Qtrs	3 Qtrs	1 Year	2 Years	3 Years	4 Years	5 Years	7 Years	10 Years
5th	4.60	5.72	5.63	5.56	12.29	25.37	17.22	16.40	16.54	15.88
25th	2.63	3.06	3.82	2.81	10.50	20.31	14.92	14.74	14.89	13.27
50th	1.28	2.24	2.82	0.81	8.32	16.92	13.01	12.14	13.14	11.52
75th	0.55	0.41	0.69	-0.87	6.34	15.06	10.11	10.64	11.72	10.50
95th	-0.40	-1.55	-3.46	-6.86	0.00	3.46	3.60	2.29	9.60	9.42
No. Of Obs	30	29	29	29	24	24	23	22	20	18
T Total Plan - Composite	2.79 (21)	4.00 (12)	4.10 (21)	-2.24 (83)	8.93 (41)	19.51 (29)	12.84 (55)	11.81 (55)	12.74 (50)	11.90 (43)

PERF Private Equity – Risk/Return Comparison Public Funds > \$10 Billion 5 Years Ending June 30, 2023

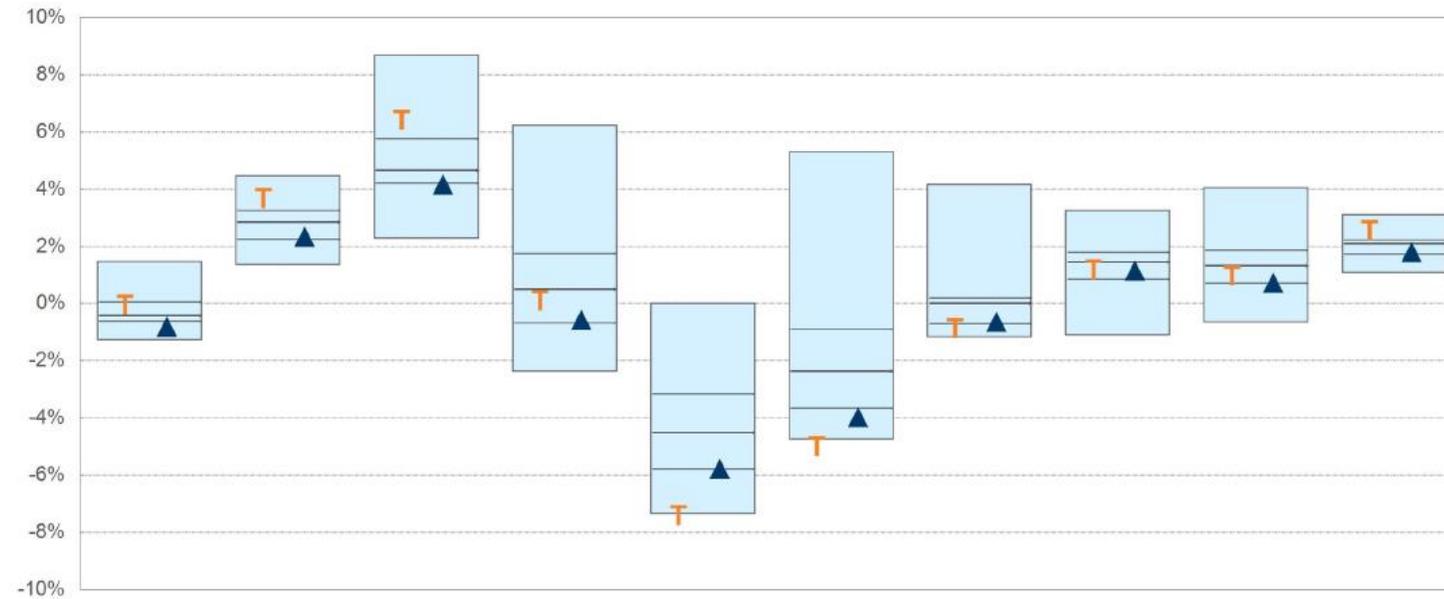


Alpha: -1.21
Beta: 1.56
R-Squared: 0.61

	Risk Value	Risk Rank	Return Value	Return Rank
T Total Plan - Composites	10.45	10	11.81	55
Median	7.75		12.14	

PERF Income – Return Comparison Public Funds > \$10 Billion

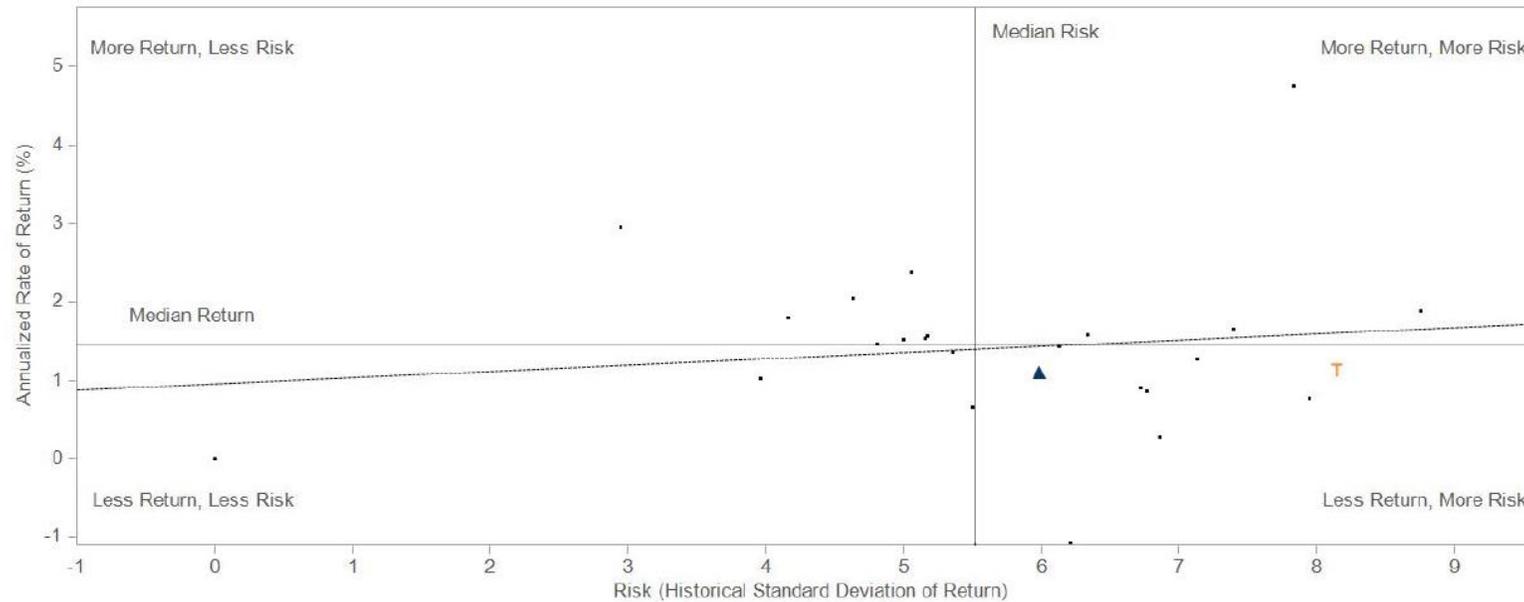
Cumulative Periods Ending June 30, 2023



Percentile Rankings	1 Qtr	2 Qtrs	3 Qtrs	1 Year	2 Years	3 Years	4 Years	5 Years	7 Years	10 Years
5th	1.47	4.46	8.69	6.25	0.00	5.30	4.17	3.27	4.05	3.12
25th	0.06	3.26	5.76	1.75	-3.15	-0.89	0.21	1.80	1.87	2.23
50th	-0.41	2.85	4.67	0.51	-4.50	-2.36	0.00	1.46	1.32	2.09
75th	-0.62	2.24	4.21	-0.68	-5.79	-3.65	-0.71	0.86	0.73	1.73
95th	-1.27	1.37	2.30	-2.36	-7.32	-4.73	-1.16	-1.09	-0.63	1.08
No. Of Obs	33	32	32	32	27	27	26	25	23	20
T Total Plan - Composite	-0.17 (40)	3.57 (12)	6.29 (21)	-0.02 (65)	-7.52 (95)	-5.11 (95)	-0.97 (87)	1.07 (62)	0.86 (65)	2.45 (12)
▲ Bloomberg Govt/Credit	-0.93 (81)	2.21 (75)	4.04 (75)	-0.70 (75)	-5.91 (75)	-4.11 (83)	-0.76 (79)	1.03 (62)	0.59 (79)	1.66 (75)

PERF Income – Risk/Return Comparison Public Funds > \$10 Billion

5 Years Ending June 30, 2023

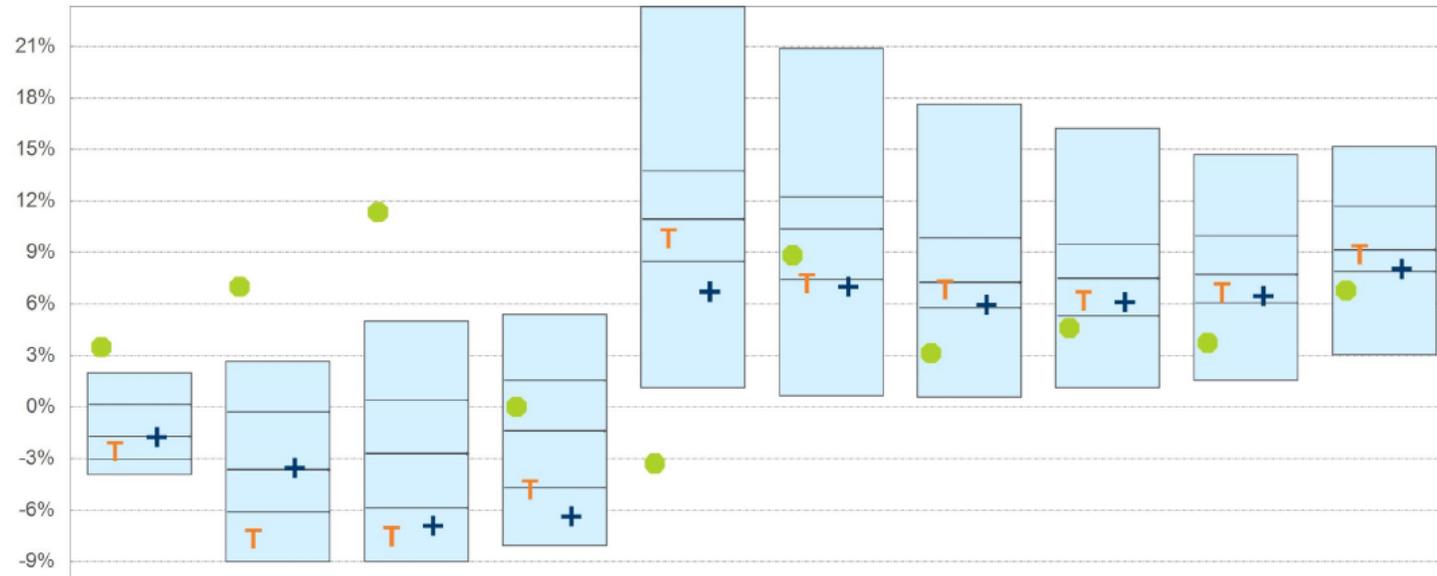


Alpha: 0.96
 Beta: 0.08
 R-Squared: 0.02

	Risk Value	Risk Rank	Return Value	Return Rank
T Total Plan - Composites	8.18	5	1.07	62
▲ Bloomberg Govt/Credit	6.02	45	1.03	62
Median	5.52		1.46	

PERF Real Estate – Return Comparison Public Funds > \$10 Billion

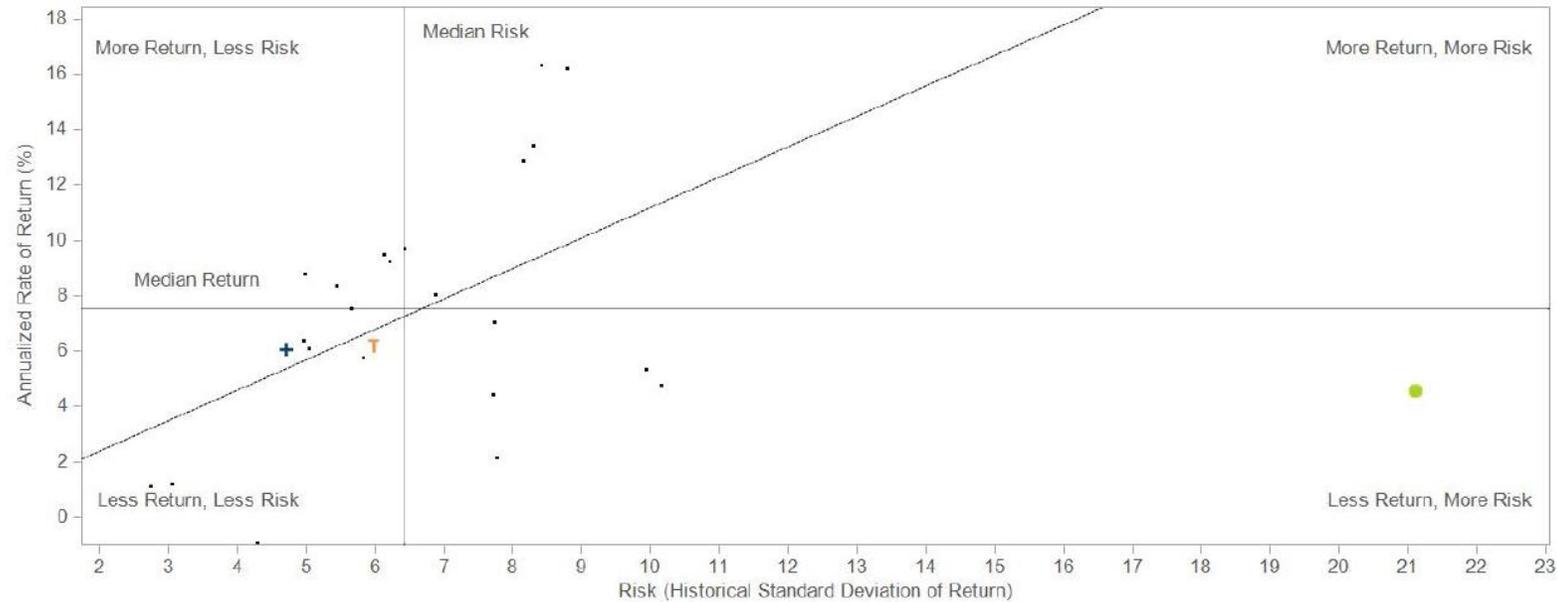
Cumulative Periods Ending June 30, 2023



Percentile Rankings	1 Qtr	2 Qtrs	3 Qtrs	1 Year	2 Years	3 Years	4 Years	5 Years	7 Years	10 Years
5th	1.98	2.68	4.99	5.40	23.33	20.88	17.61	16.21	14.72	15.18
25th	0.17	-0.27	0.39	1.54	13.74	12.23	9.84	9.49	10.00	11.69
50th	-1.72	-3.66	-2.72	-1.39	10.97	10.37	7.26	7.52	7.73	9.15
75th	-3.03	-6.11	-5.88	-4.68	8.46	7.45	5.78	5.33	6.06	7.91
95th	-3.92	-9.01	-9.00	-8.08	1.11	0.67	0.58	1.13	1.55	3.06
No. Of Obs	28	27	26	26	23	23	23	22	22	19
T Total Plan - Composite	-2.80 (64)	-7.88 (87)	-7.73 (83)	-5.03 (79)	9.62 (55)	7.01 (75)	6.64 (50)	5.99 (65)	6.45 (65)	8.69 (56)
+ NCREIF Property Indx	-1.98 (53)	-3.75 (54)	-7.12 (83)	-6.59 (83)	6.51 (79)	6.80 (79)	5.75 (75)	5.90 (65)	6.24 (70)	7.82 (81)
● Wilshire RESI	3.29 (1)	6.78 (1)	11.14 (1)	-0.19 (37)	-3.49 (99)	8.61 (60)	2.93 (84)	4.39 (84)	3.51 (84)	6.57 (81)

PERF Real Estate – Risk/Return Comparison Public Funds > \$10 Billion

5 Years Ending June 30, 2023



	Risk Value	Risk Rank	Return Value	Return Rank
T Total Plan - Composites	6.05	60	5.99	65
+ NCREIF Property Indx	4.78	89	5.90	65
● Wilshire RESI	21.18	1	4.39	84
Median	6.44		7.52	

Important Information

Wilshire is a global financial services firm providing diverse services to various types of investors and intermediaries. Wilshire's products, services, investment approach and advice may differ between clients and all of Wilshire's products and services may not be available to all clients. For more information regarding Wilshire's services, please see Wilshire's ADV Part 2 available at www.wilshire.com/ADV.

Wilshire believes that the information obtained from third party sources contained herein is reliable, but has not undertaken to verify such information. Wilshire gives no representations or warranties as to the accuracy of such information, and accepts no responsibility or liability (including for indirect, consequential or incidental damages) for any error, omission or inaccuracy in such information and for results obtained from its use.

This material may include estimates, projections, assumptions and other "forward-looking statements." Forward-looking statements represent Wilshire's current beliefs and opinions in respect of potential future events. These statements are not guarantees of future performance and undue reliance should not be placed on them. Such forward-looking statements necessarily involve known and unknown risks and uncertainties, which may cause actual events, performance and financial results to differ materially from any projections. Forward-looking statements speak only as of the date on which they are made and are subject to change without notice. Wilshire undertakes no obligation to update or revise any forward-looking statements.

Wilshire Advisors, LLC (Wilshire) is an investment advisor registered with the SEC. Wilshire® is a registered service mark.

Copyright © 2023 Wilshire. All rights reserved.