California Public Employees' Retirement System

Universe Comparison Report – June 30, 2013

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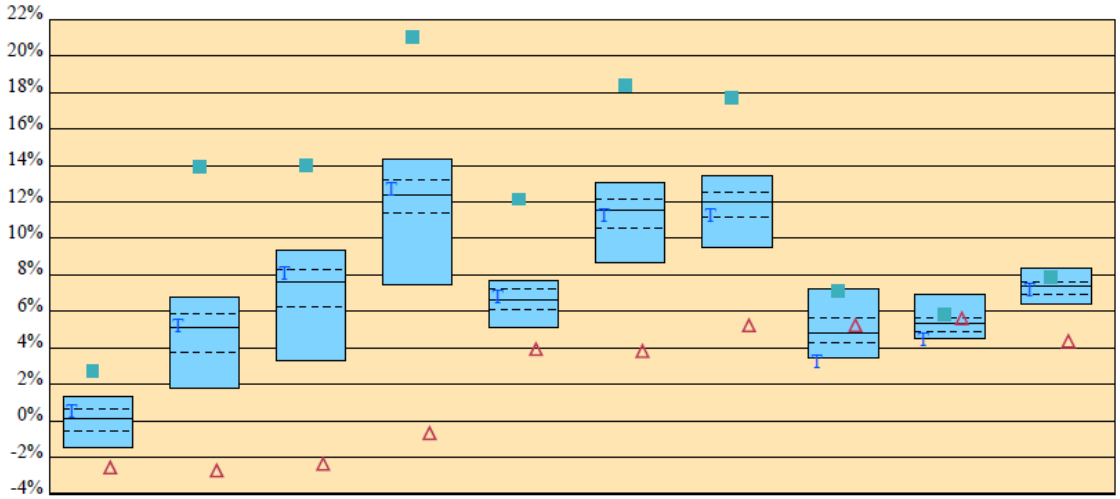
August 2013

Total Fund – Universe Comparison

Wilshire

California Public Employees Retirement
Total Returns of Public Funds > $10 Billion
Rates of Return for Periods Ending June 30, 2013



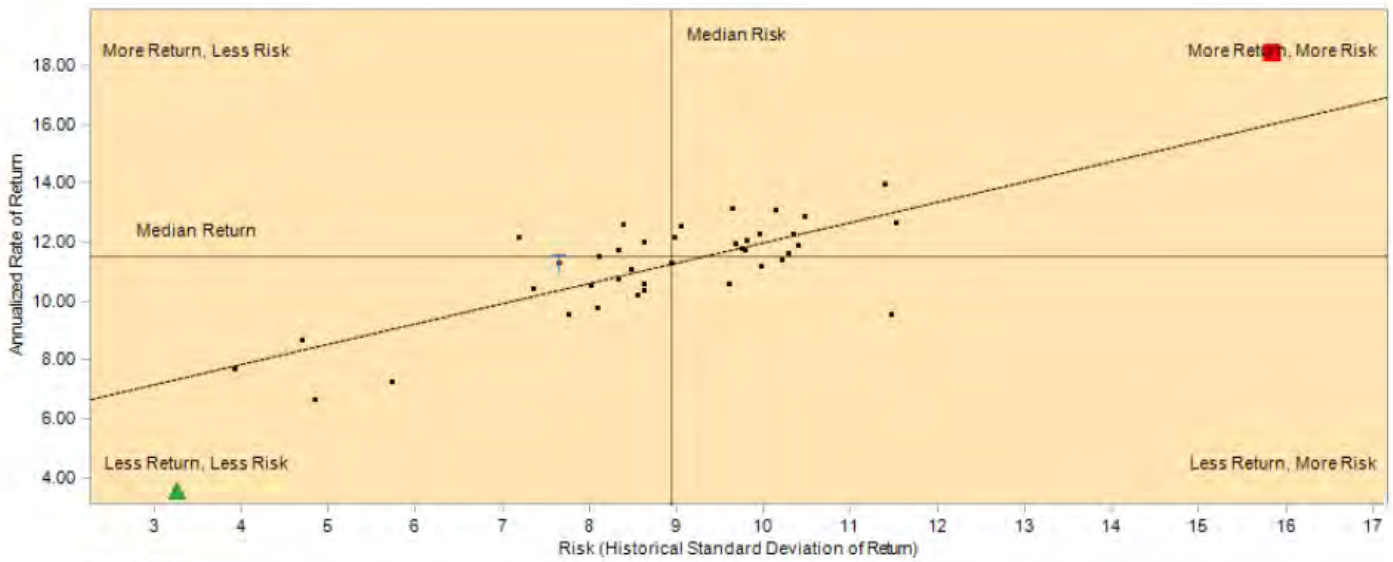
	1 Quarter	2 Quarters	3 Quarters	1 Year	2 Years	3 Years	4 Years	5 Years	7 Years	10 Years
5th Percentile	1.35	6.79	9.39	14.38	7.69	13.07	13.42	7.27	6.92	8.34
25th Percentile	0.67	5.89	8.33	13.25	7.20	12.16	12.53	5.63	5.66	7.65
Median	0.10	5.15	7.65	12.40	6.66	11.52	12.04	4.79	5.34	7.42
75th Percentile	-0.53	3.76	6.25	11.39	6.13	10.54	11.19	4.26	4.92	6.92
95th Percentile	-1.43	1.82	3.29	7.44	5.14	8.64	9.47	3.43	4.51	6.44
T Total Plan - Composites	0.58 (27)	5.22 (42)	8.08 (32)	12.75 (37)	6.79 (40)	11.29 (58)	11.29 (68)	3.27 (99)	4.51 (96)	7.24 (59)
■ Wilshire 5000	2.77 (1)	13.97 (1)	14.08 (1)	21.10 (1)	12.20 (1)	18.45 (1)	17.75 (1)	7.19 (5)	5.87 (14)	7.95 (11)
△ Barclays Govt/Credit	-2.51 (96)	-2.67 (100)	-2.31 (100)	-0.62 (100)	3.98 (96)	3.88 (100)	5.29 (100)	5.29 (36)	5.67 (22)	4.43 (100)

GOF returns are used in universe comparison.

Total Fund – Risk and Return

Wilshire

California Public Employees Retirement System
Risk vs Total Returns of Public Funds > $10 Billion
3 Years Ending June 30, 2013



Alpha: 5.08
Beta: 0.69
R-Squared: 0.57

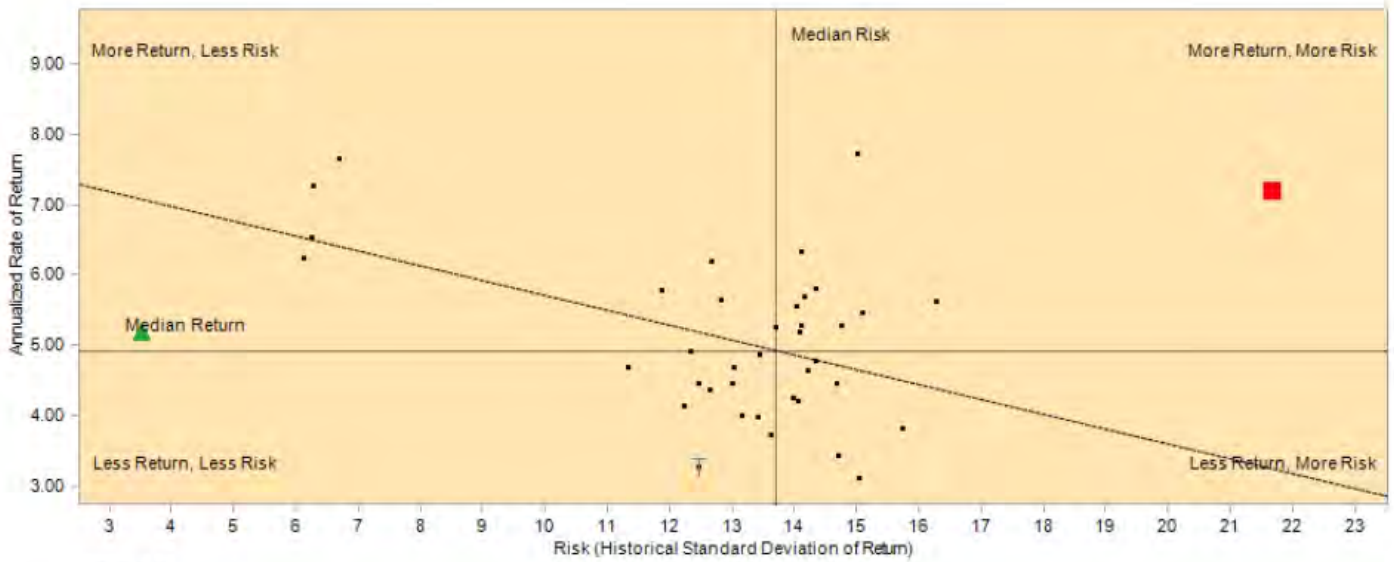
	Risk Value	Risk Rank	Return Value	Return Rank
Total Plan - Composites	7.65	85	11.29	58
Wilshire 5000	15.85	1	18.45	1
Barclays Aggregate	3.27	100	3.51	100
Median	8.94		11.52	

GOF returns are used in universe comparison.

Total Fund – Risk and Return

Wilshire

California Public Employees Retirement System
Risk vs Total Returns of Public Funds > $10 Billion
5 Years Ending June 30, 2013



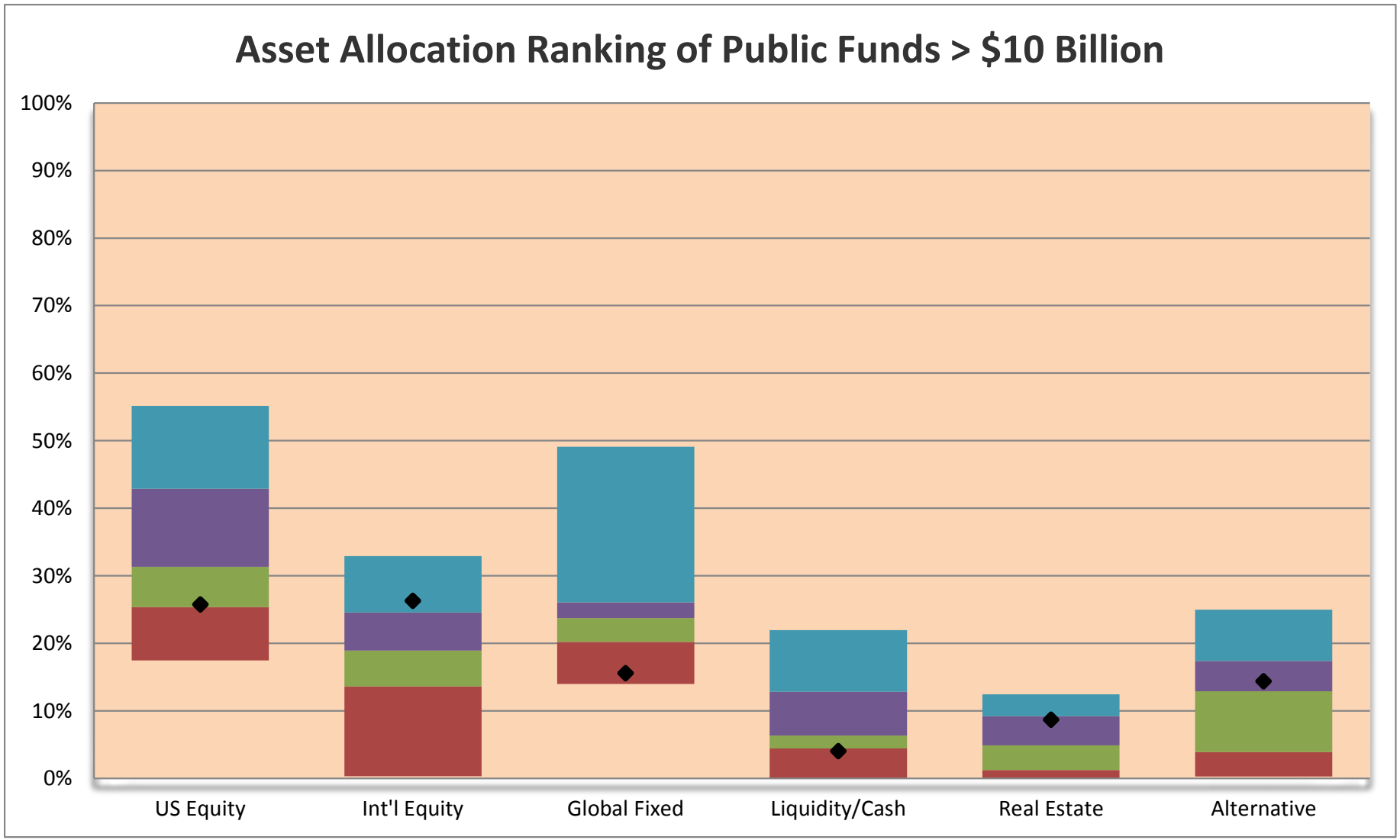
Alpha: 7.81
Beta: -0.21
R-Squared: 0.22

	Risk Value	Risk Rank	Return Value	Return Rank
Total Plan - Composites	12.48	80	3.27	99
Wilshire 5000	21.66	1	7.19	8
Barclays Aggregate	3.52	100	5.19	44
Median	13.70		4.92	

GOF returns are used in universe comparison.

Asset Allocation Ranking – Universe Analysis

Wilshire

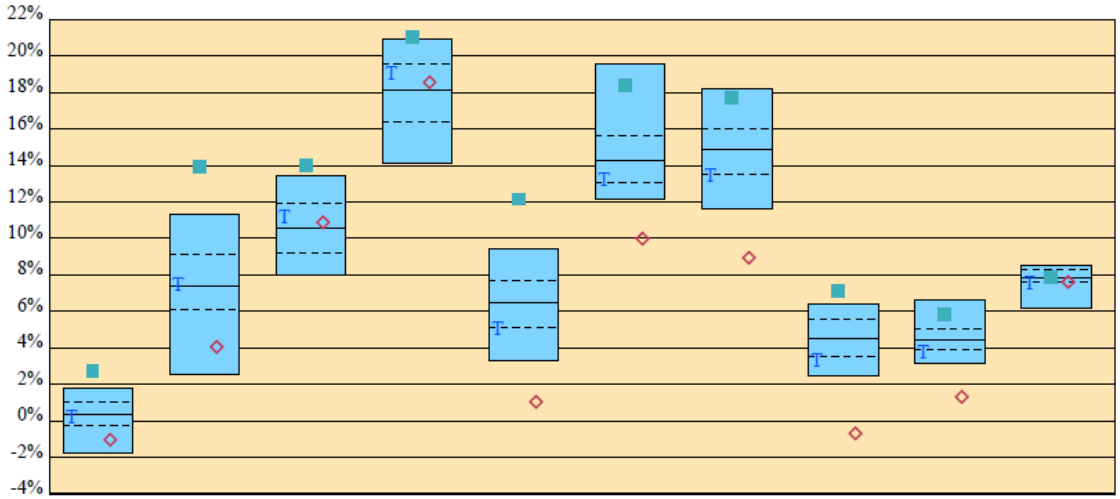


CalPERS	US Equity	Int'l Equity	Global Fixed	Liquidity/Cash	Real Estate	Alternative
Weight%(Rank)	25.75% (68)	26.29% (16)	15.58% (93)	4.04% (41)	8.70% (25)	14.40% (34)

Growth: Public Equity – Universe Comparison

Wilshire

California Public Employees Retirement
Equity Returns of Public Funds > $10 Billion
Rates of Return for Periods Ending June 30, 2013



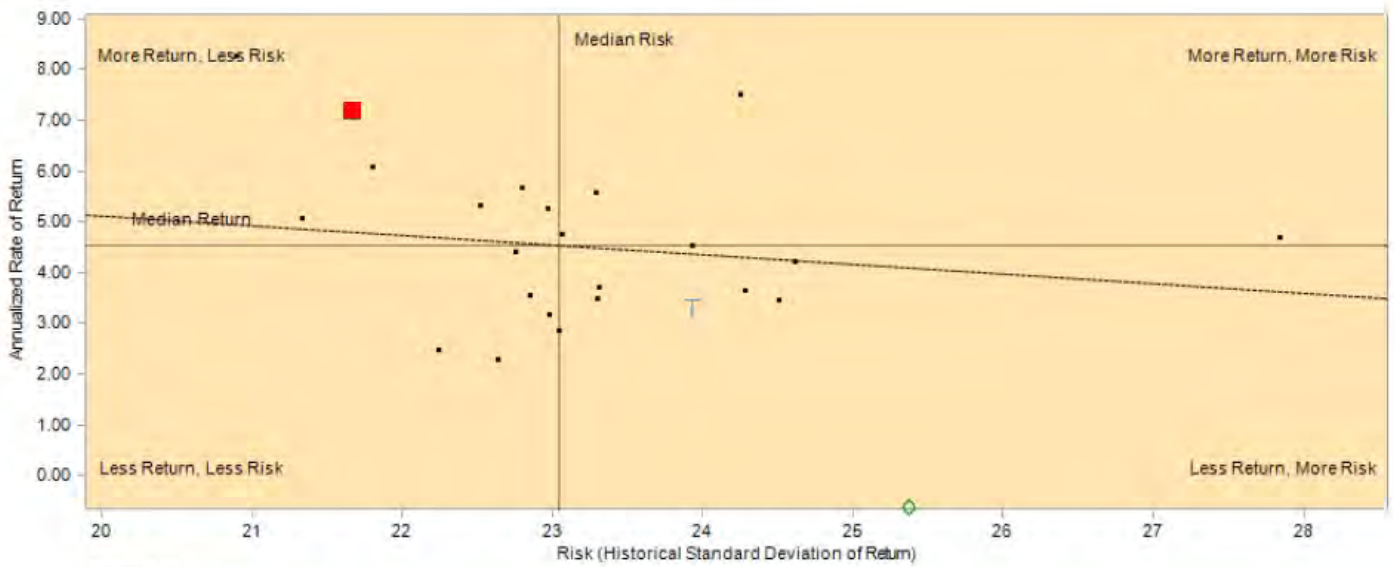
	1 Quarter	2 Quarters	3 Quarters	1 Year	2 Years	3 Years	4 Years	5 Years	7 Years	10 Years
5th Percentile	1.82	11.36	13.46	20.94	9.43	19.54	18.21	6.43	6.65	8.55
25th Percentile	1.00	9.10	11.96	19.61	7.67	15.61	15.99	5.57	5.05	8.30
Median	0.34	7.42	10.60	18.10	6.46	14.26	14.91	4.54	4.42	7.85
75th Percentile	-0.27	6.12	9.20	16.43	5.09	13.03	13.55	3.56	3.94	7.61
95th Percentile	-1.74	2.57	7.98	14.15	3.30	12.14	11.61	2.49	3.16	6.17
T Total Plan - Composites	0.23 (56)	7.48 (46)	11.23 (43)	19.07 (40)	5.12 (71)	13.29 (70)	13.49 (75)	3.31 (84)	3.82 (81)	7.59 (75)
■ Wilshire 5000	2.77 (1)	13.97 (1)	14.08 (1)	21.10 (1)	12.20 (1)	18.45 (5)	17.75 (5)	7.19 (1)	5.87 (5)	7.95 (43)
◇ MSCI EAFE (Net)	-0.98 (87)	4.11 (92)	10.94 (43)	18.62 (43)	1.10 (99)	10.04 (99)	9.00 (99)	-0.63 (100)	1.37 (100)	7.67 (66)

GOF returns are used in universe comparison.

Growth:
Public Equity – Risk and Return

Wilshire

California Public Employees Retirement System
Risk vs Total Equity Returns of Public Funds > $10 Billion
5 Years Ending June 30, 2013



Alpha: 8.91
Beta: -0.19
R-Squared: 0.03

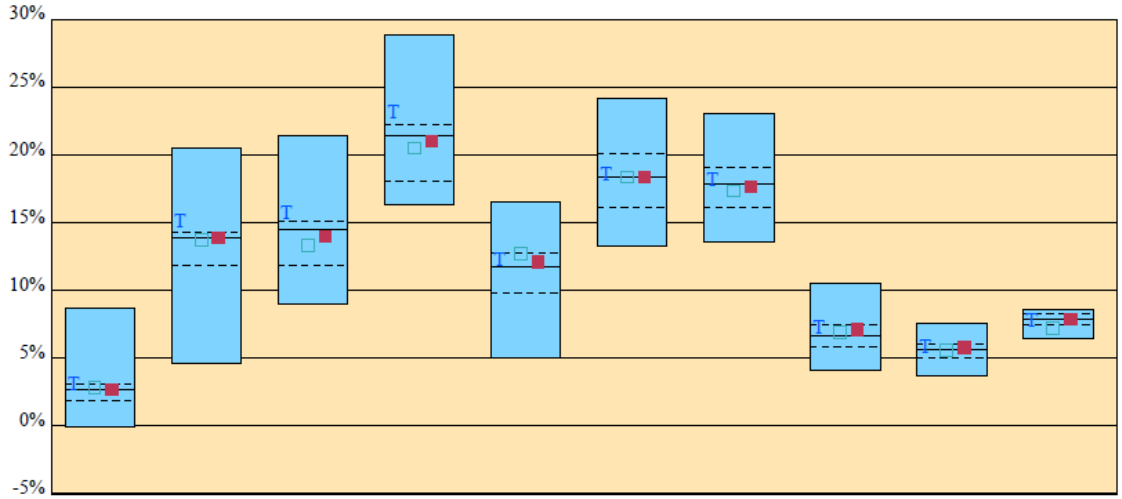
	Risk Value	Risk Rank	Return Value	Return Rank
Total Plan - Composites	23.93	29	3.31	84
Wilshire 5000	21.66	94	7.19	5
MSCI EAFE (Net)	25.38	5	-0.63	100
Median	23.04		4.54	

GOF returns are used in universe comparison.

Growth:
US Equity – Universe Comparison

Wilshire

California Public Employees Retirement
US Equity Returns of Public Funds > $10 Billion
Rates of Return for Periods Ending June 30, 2013



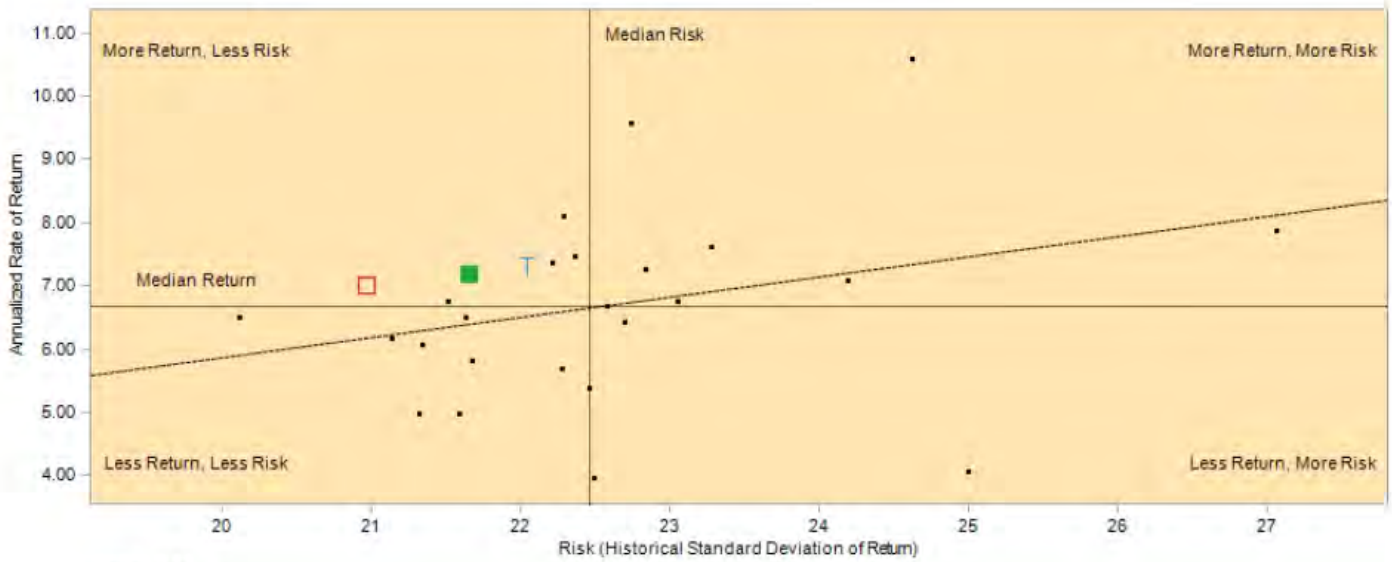
	1 Quarter	2 Quarters	3 Quarters	1 Year	2 Years	3 Years	4 Years	5 Years	7 Years	10 Years
5th Percentile	8.71	20.47	21.45	28.86	16.54	24.17	23.07	10.58	7.62	8.56
25th Percentile	3.11	14.32	15.13	22.25	12.82	20.12	19.09	7.46	6.04	8.29
Median	2.65	13.93	14.50	21.39	11.72	18.33	17.90	6.68	5.65	7.84
75th Percentile	1.89	11.84	11.90	18.07	9.80	16.17	16.18	5.81	5.02	7.44
95th Percentile	-0.11	4.64	9.03	16.35	4.99	13.24	13.61	4.07	3.67	6.41
T Total Plan - Composites	3.13 (22)	15.17 (8)	15.81 (14)	23.19 (11)	12.33 (34)	18.64 (39)	18.20 (29)	7.31 (29)	5.93 (30)	7.87 (41)
□ S&P 500	2.92 (41)	13.84 (53)	13.40 (65)	20.60 (62)	12.77 (25)	18.45 (42)	17.43 (54)	7.01 (37)	5.66 (45)	7.30 (83)
■ Wilshire 5000	2.77 (47)	13.97 (46)	14.08 (62)	21.10 (56)	12.20 (40)	18.45 (42)	17.75 (50)	7.19 (33)	5.87 (35)	7.95 (41)

GOF returns are used in universe comparison.

Growth: US Equity – Risk and Return

Wilshire

California Public Employees Retirement System
Risk vs US Equity Returns of Public Funds > $10 Billion
5 Years Ending June 30, 2013



Alpha: -0.54
Beta: 0.32
R-Squared: 0.09

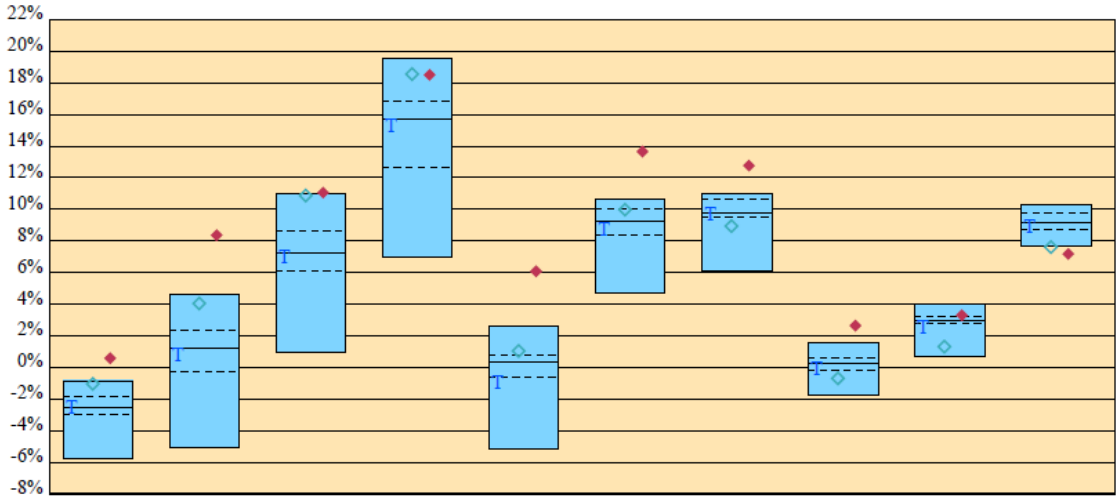
	Risk Value	Risk Rank	Return Value	Return Rank
Total Plan - Composites	22.05	66	7.31	29
S&P 500	20.97	99	7.01	37
Wilshire 5000	21.66	70	7.19	33
Median	22.46		6.68	

GOF returns are used in universe comparison.

Growth: International Equity – Universe Comparison

Wilshire

California Public Employees Retirement
International Equity Returns of Public Funds > $10 Billion
Rates of Return for Periods Ending June 30, 2013



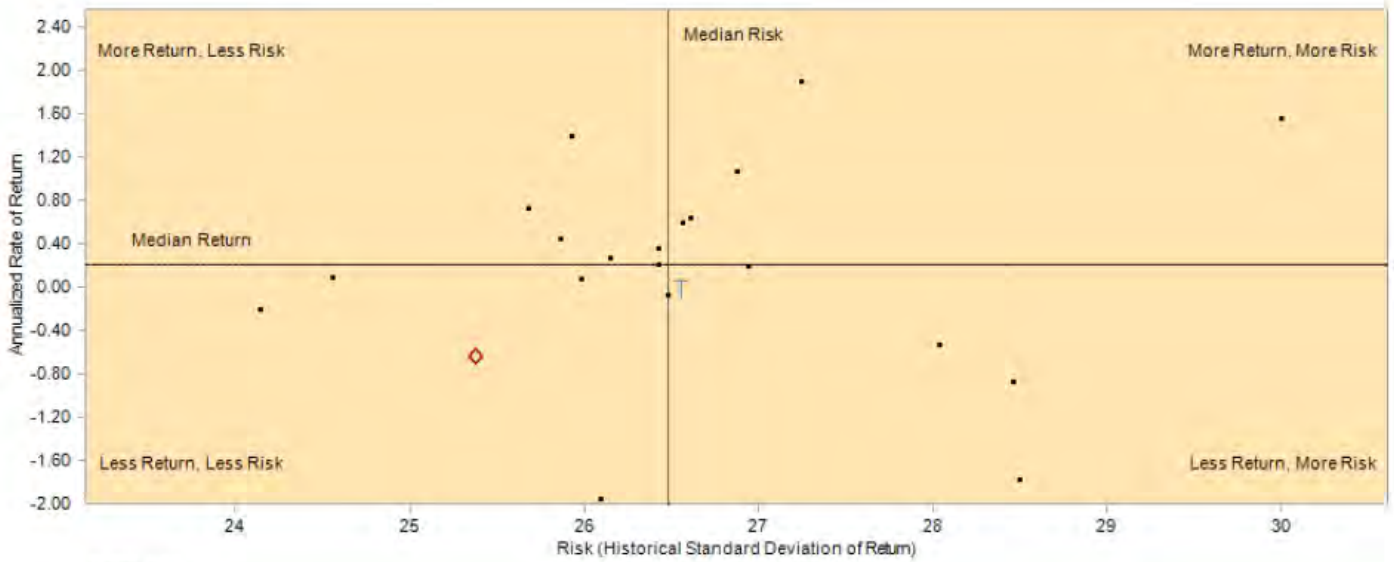
	1 Quarter	2 Quarters	3 Quarters	1 Year	2 Years	3 Years	4 Years	5 Years	7 Years	10 Years
5th Percentile	-0.84	4.66	10.96	19.59	2.63	10.66	10.99	1.55	4.00	10.31
25th Percentile	-1.86	2.32	8.62	16.82	0.78	10.01	10.62	0.64	3.23	9.78
Median	-2.58	1.25	7.20	15.74	0.34	9.26	9.77	0.21	3.00	9.17
75th Percentile	-2.99	-0.23	6.12	12.66	-0.66	8.34	9.47	-0.21	2.81	8.74
95th Percentile	-5.80	-5.05	0.92	6.99	-5.19	4.71	6.14	-1.78	0.69	7.63
T Total Plan - Composites	-2.50 (38)	0.83 (56)	7.06 (53)	15.30 (56)	-0.88 (78)	8.74 (70)	9.71 (60)	-0.02 (65)	2.58 (81)	8.95 (66)
◇ MSCI EAFE (Net)	-0.98 (8)	4.11 (5)	10.94 (5)	18.62 (5)	1.10 (15)	10.04 (21)	9.00 (84)	-0.63 (81)	1.37 (93)	7.67 (87)
◆ MSCI World (Net)	0.64 (1)	8.43 (1)	11.12 (1)	18.57 (5)	6.14 (1)	13.72 (1)	12.83 (1)	2.70 (1)	3.37 (18)	7.24 (99)

GOF returns are used in universe comparison.

Growth: International Equity – Risk and Return

Wilshire

California Public Employees Retirement System
Risk vs Non-US Equity Returns of Public Funds > $10 Billion
5 Years Ending June 30, 2013



Alpha: 0.21
Beta: 0
R-Squared: 0

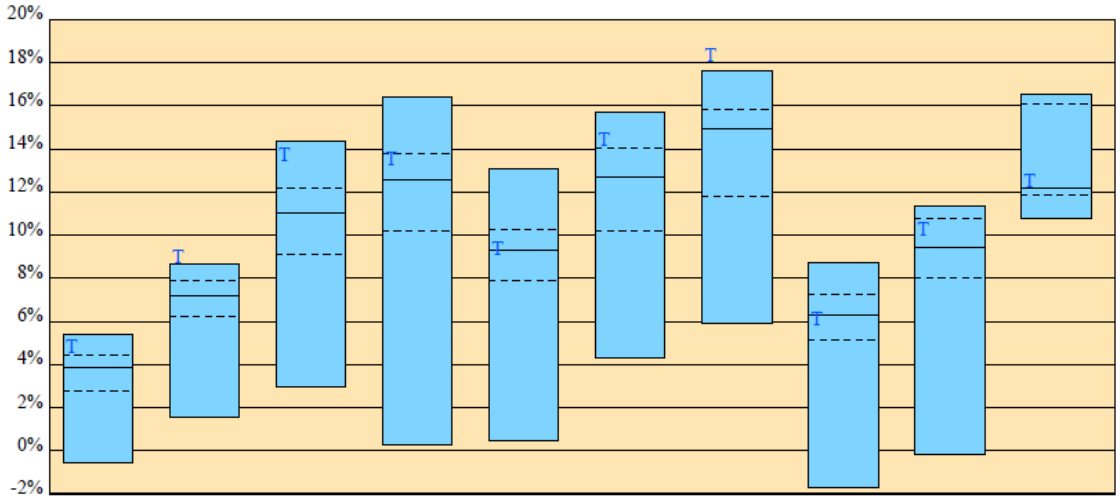
	Risk Value	Risk Rank	Return Value	Return Rank
Total Plan - Composites	26.56	45	-0.02	65
MSCI EAFE (Net)	25.38	93	-0.63	81
Median	26.48		0.21	

GOF returns are used in universe comparison.

Growth:
Private Equity – Universe Comparison

Wilshire

California Public Employees Retirement
Private Equity Returns of Public Funds > $10 Billion
Rates of Return for Periods Ending June 30, 2013



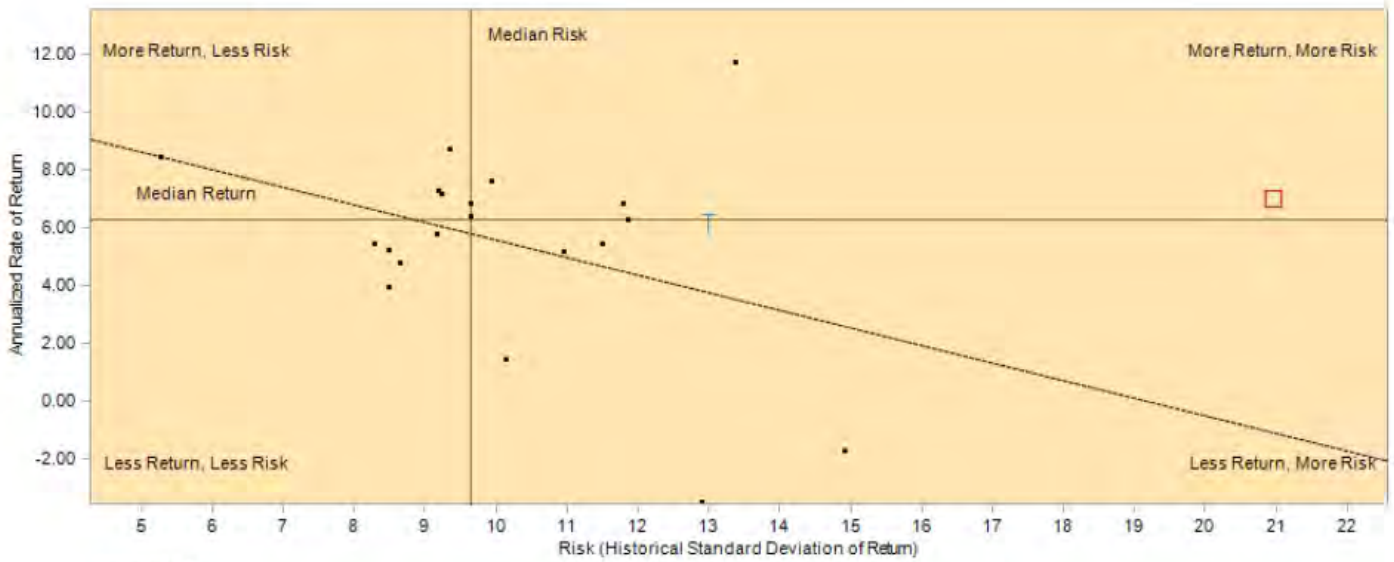
	1 Quarter	2 Quarters	3 Quarters	1 Year	2 Years	3 Years	4 Years	5 Years	7 Years	10 Years
5th Percentile	5.38	8.69	14.34	16.38	13.05	15.70	17.62	8.74	11.33	16.56
25th Percentile	4.43	7.90	12.21	13.76	10.27	14.04	15.85	7.26	10.78	16.06
Median	3.83	7.18	11.05	12.57	9.30	12.70	14.96	6.30	9.42	12.19
75th Percentile	2.79	6.20	9.10	10.23	7.91	10.19	11.78	5.17	8.00	11.88
95th Percentile	-0.56	1.57	2.99	0.29	0.49	4.30	5.89	-1.69	-0.20	10.75
T Total Plan - Composites	4.83 (15)	8.99 (1)	13.76 (5)	13.59 (25)	9.40 (45)	14.48 (17)	18.38 (1)	6.15 (50)	10.30 (31)	12.52 (41)

GOF returns are used in universe comparison.

Growth:
Private Equity – Risk and Return

Wilshire

California Public Employees Retirement System
Risk vs Total Private Equity Returns of Public Funds > $10 Billion
5 Years Ending June 30, 2013



Alpha: 11.68
Beta: -0.61
R-Squared: 0.15

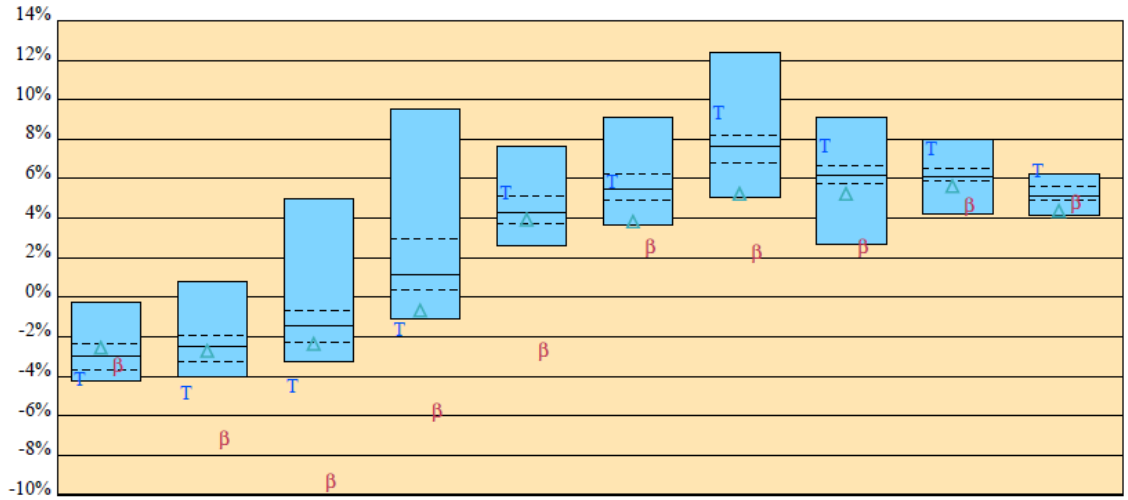
	Risk Value	Risk Rank	Return Value	Return Rank
Total Plan - Composites	13.00	5	6.15	50
S&P 500	20.97	1	7.01	30
Median	9.65		6.30	

GOF returns are used in universe comparison.

Income – Universe Comparison

Wilshire

California Public Employees Retirement
Fixed Income Returns of Public Funds > $10 Billion
Rates of Return for Periods Ending June 30, 2013

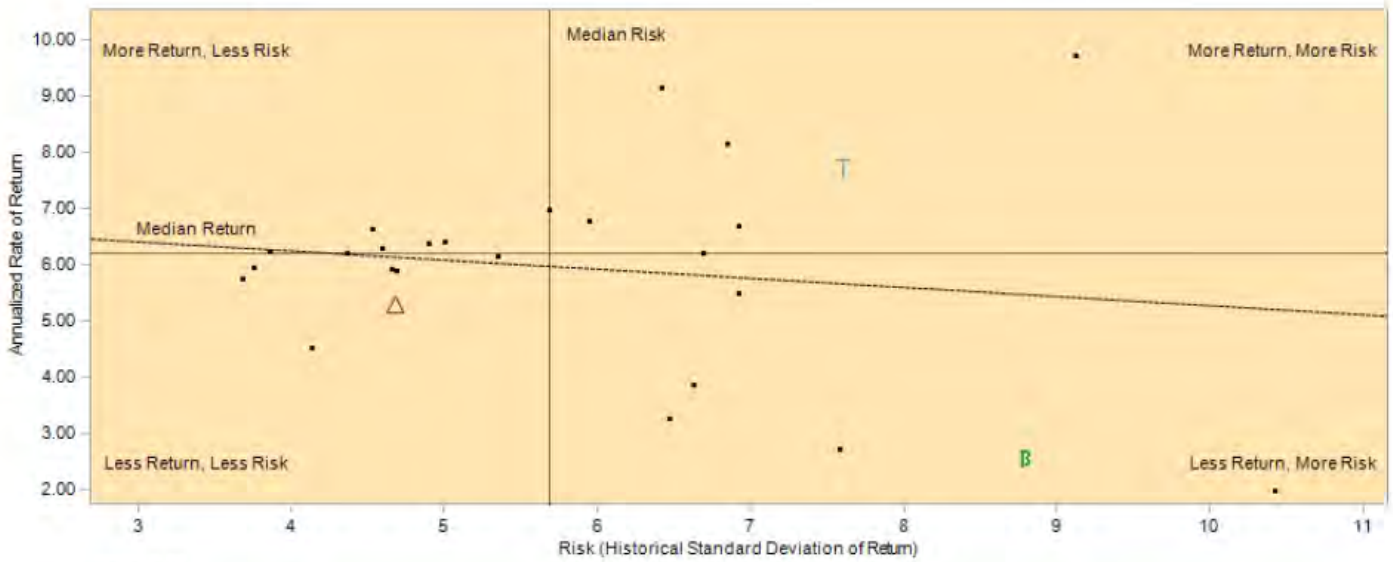


	1 Quarter	2 Quarters	3 Quarters	1 Year	2 Years	3 Years	4 Years	5 Years	7 Years	10 Years
5th Percentile	-0.28	0.79	4.98	9.53	7.61	9.12	12.36	9.13	8.02	6.24
25th Percentile	-2.32	-1.94	-0.69	2.97	5.11	6.24	8.21	6.68	6.53	5.59
Median	-2.96	-2.47	-1.45	1.13	4.26	5.50	7.61	6.20	6.09	5.14
75th Percentile	-3.69	-3.24	-2.27	0.36	3.74	4.89	6.81	5.75	5.87	4.89
95th Percentile	-4.21	-4.05	-3.23	-1.07	2.62	3.66	5.04	2.71	4.20	4.13
T Total Plan - Composites	-4.14 (93)	-4.86 (99)	-4.45 (99)	-1.62 (99)	5.32 (18)	5.88 (32)	9.38 (17)	7.70 (9)	7.55 (5)	6.45 (1)
Δ Barclays Govt/Credit	-2.51 (36)	-2.67 (50)	-2.31 (75)	-0.62 (92)	3.98 (60)	3.88 (91)	5.29 (91)	5.29 (79)	5.67 (79)	4.43 (81)
β Citigroup Non-US Govt Bond	-3.44 (71)	-7.14 (99)	-9.33 (100)	-5.72 (99)	-2.69 (100)	2.57 (100)	2.31 (100)	2.55 (99)	4.67 (84)	4.78 (81)

GOF returns are used in universe comparison.

Income – Risk and Return

California Public Employees Retirement System
Risk vs Total Fixed Income Returns of Public Funds > $10 Billion
5 Years Ending June 30, 2013



Alpha: 6.88
Beta: -0.16
R-Squared: 0.02

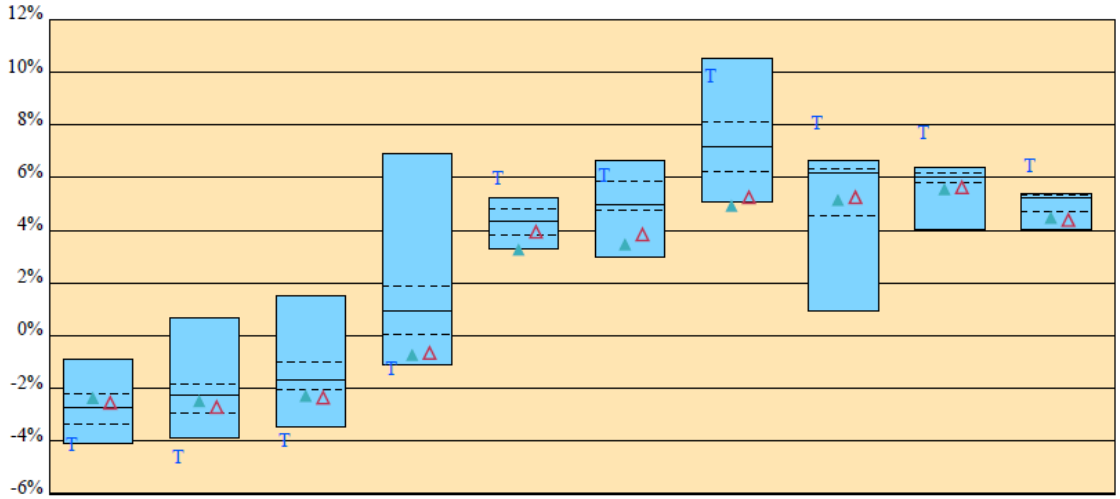
	Risk Value	Risk Rank	Return Value	Return Rank
Total Plan - Composites	7.61	9	7.70	9
Barclays Govt/Credit	4.68	66	5.29	79
Citi Non-US Gov Bond	8.79	9	2.55	99
Median	5.69		6.20	

GOF returns are used in universe comparison.

US Income – Universe Comparison

Wilshire

California Public Employees Retirement
US Fixed Income Returns of Public Funds > $10 Billion
Rates of Return for Periods Ending June 30, 2013



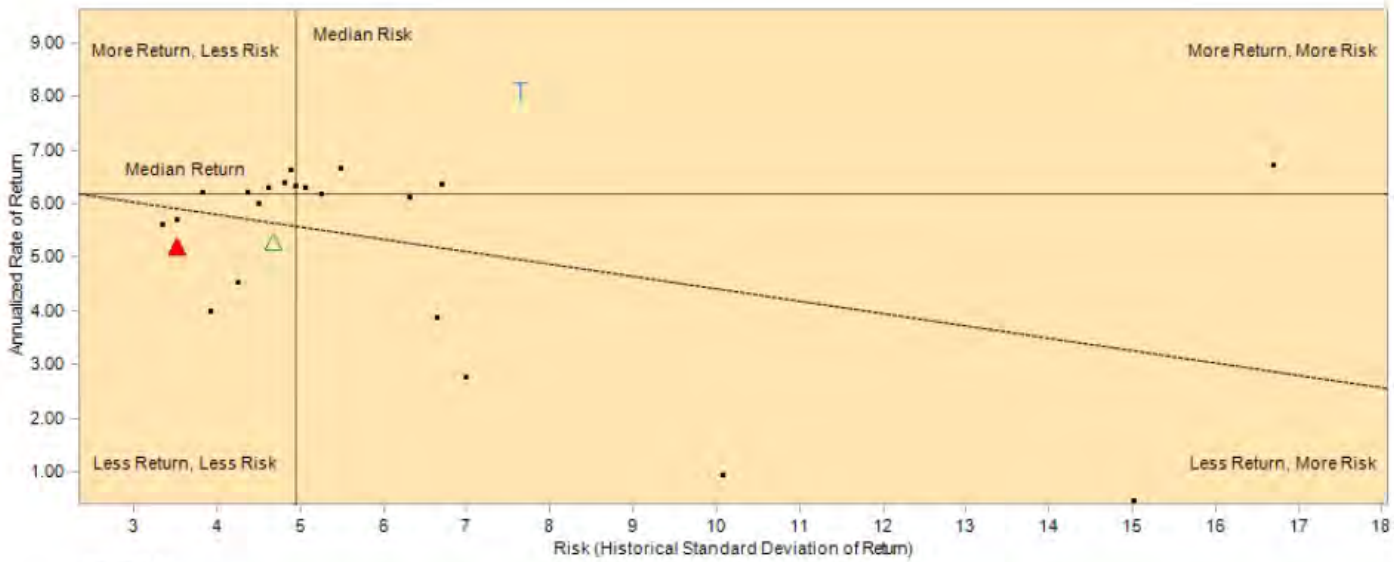
	1 Quarter	2 Quarters	3 Quarters	1 Year	2 Years	3 Years	4 Years	5 Years	7 Years	10 Years
5th Percentile	-0.87	0.68	1.52	6.89	5.25	6.63	10.53	6.66	6.41	5.40
25th Percentile	-2.20	-1.82	-1.00	1.88	4.83	5.84	8.13	6.34	6.19	5.32
Median	-2.74	-2.23	-1.66	0.93	4.36	4.97	7.15	6.17	6.03	5.25
75th Percentile	-3.34	-2.91	-2.06	0.05	3.80	4.76	6.21	4.54	5.83	4.72
95th Percentile	-4.07	-3.87	-3.46	-1.08	3.28	2.99	5.10	0.93	4.05	4.03
T Total Plan - Composites	-4.12 (95)	-4.58 (99)	-3.94 (99)	-1.22 (95)	6.02 (1)	6.13 (10)	9.90 (5)	8.09 (1)	7.75 (1)	6.48 (1)
▲ Barclays Aggregate	-2.32 (31)	-2.44 (57)	-2.24 (79)	-0.69 (87)	3.31 (91)	3.51 (94)	4.97 (99)	5.19 (70)	5.60 (81)	4.52 (75)
△ Barclays Govt/Credit	-2.51 (40)	-2.67 (60)	-2.31 (83)	-0.62 (87)	3.98 (66)	3.88 (89)	5.29 (94)	5.29 (70)	5.67 (81)	4.43 (75)

GOF returns are used in universe comparison.

US Income – Risk and Return

Wilshire

California Public Employees Retirement System
Risk vs US Fixed Income Returns of Public Funds > $10 Billion
5 Years Ending June 30, 2013



Alpha: 6.71
Beta: -0.23
R-Squared: 0.2

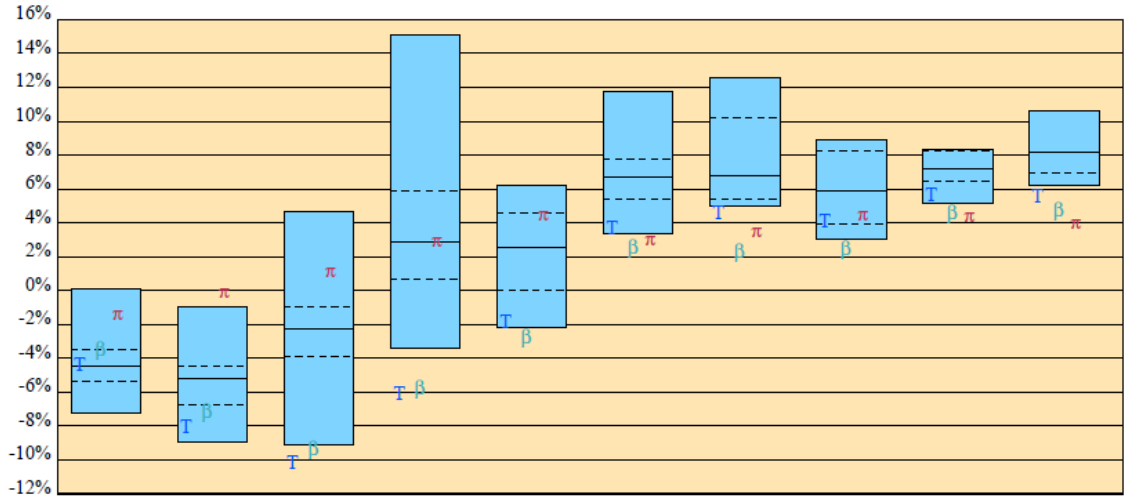
	Risk Value	Risk Rank	Return Value	Return Rank
Total Plan - Composites	7.64	10	8.09	1
Barclays Aggregate	3.52	93	5.19	70
Barclays Govt/Credit	4.68	60	5.29	70
Median	4.95		6.17	

GOF returns are used in universe comparison.

International Income – Universe Comparison

Wilshire

California Public Employees Retirement
International Fixed Income Returns of Public Funds > $10 Billion
Rates of Return for Periods Ending June 30, 2013



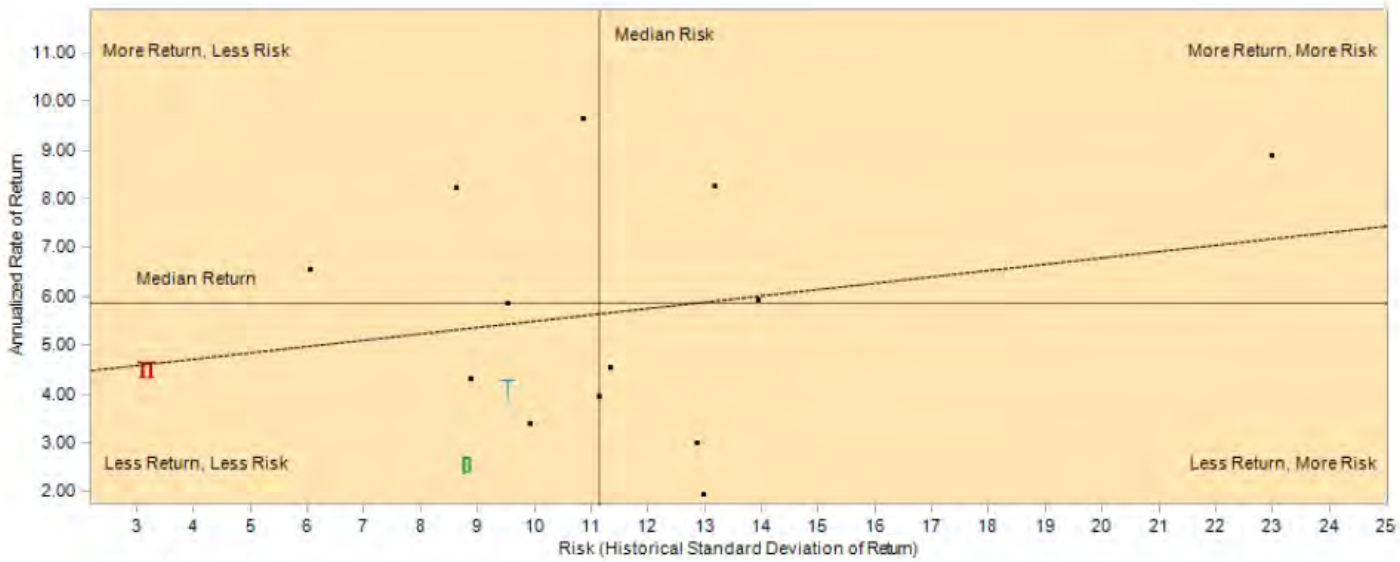
	1 Quarter	2 Quarters	3 Quarters	1 Year	2 Years	3 Years	4 Years	5 Years	7 Years	10 Years
5th Percentile	0.12	-0.92	4.63	15.08	6.22	11.77	12.61	8.88	8.37	10.62
25th Percentile	-3.48	-4.45	-0.99	5.86	4.62	7.78	10.24	8.22	8.23	10.62
Median	-4.49	-5.20	-2.27	2.89	2.58	6.74	6.82	5.85	7.17	8.17
75th Percentile	-5.33	-6.76	-3.92	0.71	0.06	5.39	5.38	3.96	6.45	6.96
95th Percentile	-7.25	-8.95	-9.12	-3.39	-2.20	3.40	4.99	3.00	5.17	6.25
T Total Plan - Composites	-4.36 (42)	-7.97 (91)	-10.14 (99)	-6.02 (100)	-1.84 (93)	3.75 (87)	4.67 (99)	4.11 (66)	5.68 (87)	5.58 (100)
β Citigroup Non-US Govt Bond	-3.44 (21)	-7.14 (87)	-9.33 (99)	-5.72 (100)	-2.69 (100)	2.57 (100)	2.31 (100)	2.55 (99)	4.67 (99)	4.78 (100)
π Citigroup Hedged Non-US Govt	-1.29 (5)	-0.03 (1)	1.17 (9)	2.99 (41)	4.56 (30)	3.08 (99)	3.54 (99)	4.52 (58)	4.46 (99)	4.02 (100)

GOF returns are used in universe comparison.

International Income – Risk and Return

Wilshire

California Public Employees Retirement System
Risk vs Non-US Fixed Income Returns of Public Funds > $10 Billion
5 Years Ending June 30, 2013



Alpha: 4.2
Beta: 0.13
R-Squared: 0.05

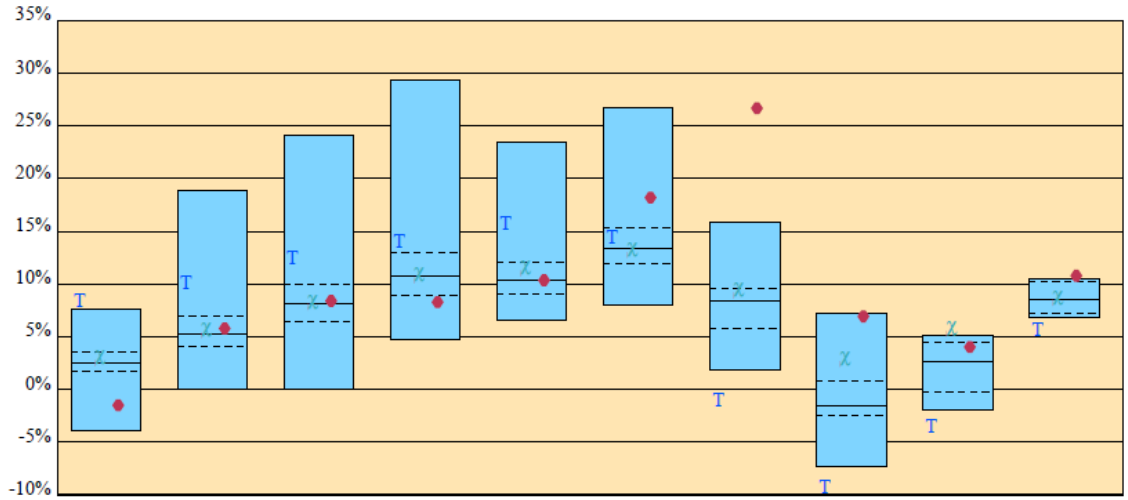
	Risk Value	Risk Rank	Return Value	Return Rank
Total Plan - Composites	9.54	75	4.11	66
Citi Hedge NonUS Gov	3.18	100	4.52	58
Citi Non-US Gov Bond	8.79	87	2.55	99
Median	11.13		5.85	

GOF returns are used in universe comparison.

Real Estate – Universe Comparison

Wilshire

California Public Employees Retirement
Real Estate Returns of Public Funds > $10 Billion
Rates of Return for Periods Ending June 30, 2013



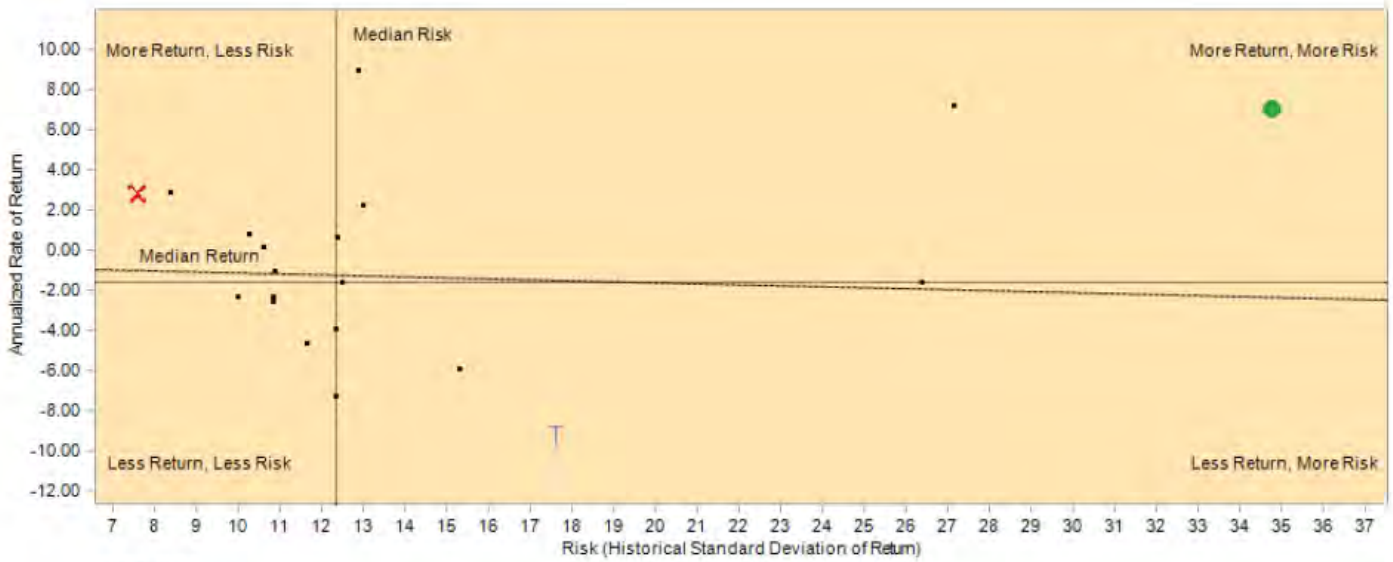
	1 Quarter	2 Quarters	3 Quarters	1 Year	2 Years	3 Years	4 Years	5 Years	7 Years	10 Years
5th Percentile	7.56	18.94	24.14	29.35	23.48	26.68	15.88	7.21	5.09	10.46
25th Percentile	3.54	6.98	10.03	12.94	12.12	15.40	9.63	0.84	4.43	10.21
Median	2.51	5.21	8.11	10.76	10.38	13.35	8.45	-1.57	2.58	8.52
75th Percentile	1.78	4.12	6.43	8.92	9.02	11.88	5.79	-2.52	-0.23	7.26
95th Percentile	-3.93	0.00	0.00	4.75	6.63	8.01	1.80	-7.27	-2.01	6.82
T Total Plan - Composites	8.49 (1)	10.12 (5)	12.55 (9)	14.12 (15)	15.84 (5)	14.51 (37)	-0.95 (100)	-9.18 (99)	-3.45 (99)	5.67 (99)
χ NCREIF Property Index	2.87 (37)	5.51 (39)	8.19 (42)	10.73 (50)	11.38 (37)	13.14 (55)	9.29 (25)	2.79 (12)	5.65 (1)	8.59 (37)
● Wilshire RESI	-1.41 (92)	5.89 (35)	8.50 (42)	8.38 (79)	10.45 (45)	18.30 (10)	26.78 (1)	7.03 (5)	4.12 (25)	10.88 (1)

GOF returns are used in universe comparison.

Real Estate – Risk and Returns

Wilshire

California Public Employees Retirement System
Risk vs Total Real Estate Returns of Public Funds > $10 Billion
5 Years Ending June 30, 2013



Alpha: -0.62
Beta: -0.05
R-Squared: 0

	Risk Value	Risk Rank	Return Value	Return Rank
Total Plan - Composites	17.63	12	-9.18	99
NCREIF Property Indx	7.59	100	2.79	12
Wilshire RESI	34.76	1	7.03	5
Median	12.37		-1.57	

GOF returns are used in universe comparison.

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