

## Allocations to Alternative Investments

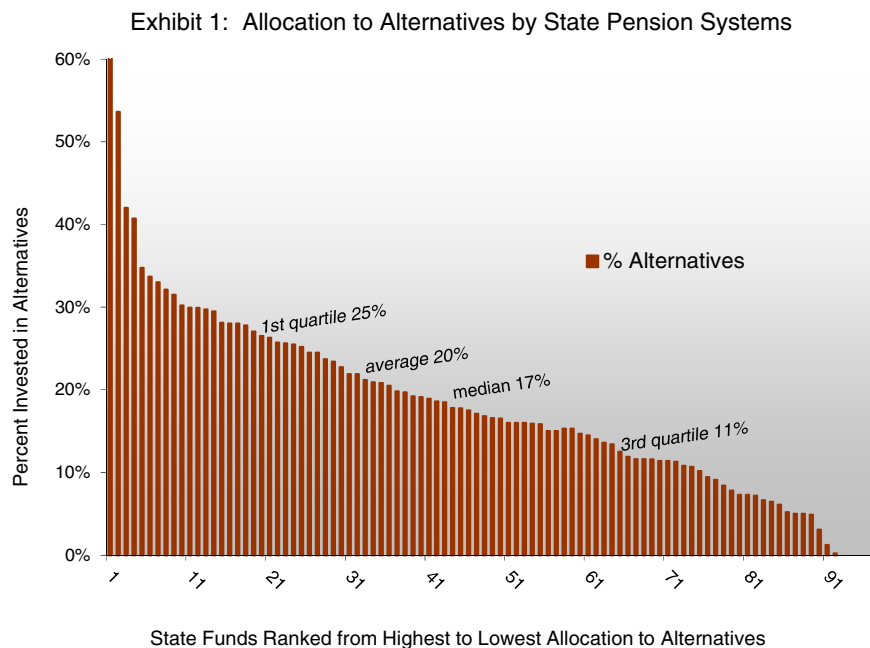
2011 Survey

### Summary

1. Roughly 20% of public pension assets and 14% of corporate pension assets are invested in alternatives.<sup>1</sup>
2. Allocations to alternative investments are increasing among large pension systems and at a rate of approximately 1% to 2% of total assets per year.
3. Endowment allocations to alternatives exceed 50% of assets, up from 37% before the financial crisis. This large increase is likely unintended and temporary, caused by the “denominator effect” of lower total assets and the inability to easily liquidate private investments.
4. Hedge funds represent the fastest growing subgroup of alternatives.

### Public Pension Systems<sup>2</sup>

Exhibit 1 shows allocations to alternative investments for 97 state-wide pension systems with collective assets totaling \$2.1 trillion for their most recent fiscal year, which for most plans ended at June 30, 2010. The median allocation to alternatives is 17% of total assets and the average allocation is 20%.<sup>3</sup>



<sup>1</sup> Alternatives include private equity, equity real estate, hedge funds and real assets such as oil & gas, infrastructure, and commodities.

<sup>2</sup> Sources: Cliffwater; 2010 Comprehensive Annual Financial Reports

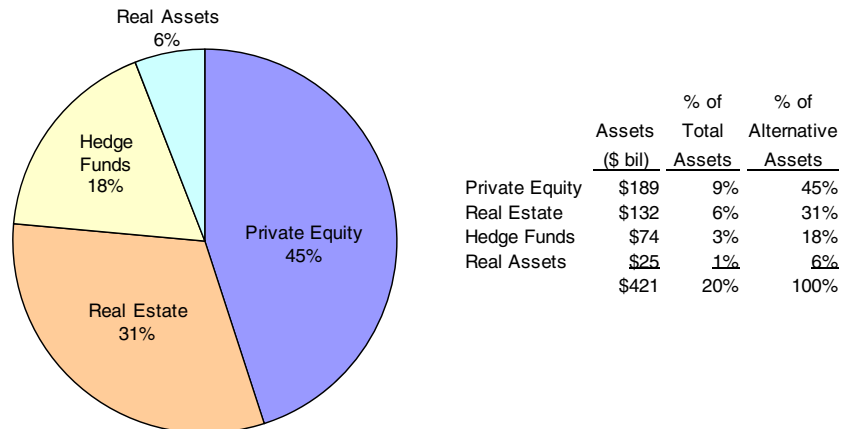
<sup>3</sup> The average allocation is calculated by taking the dollar allocation to alternatives across all pension systems and dividing by total pension assets for all systems. An average 20% allocation that exceeds a 17% median allocation means that larger pension systems tend to have higher alternatives allocations.

Overall allocations to alternative investments increased among public pension systems over the prior year. The 20% current average allocation is up 2% from an 18% allocation at the end of the prior fiscal year.

There is a wide range of alternative allocations among public pension systems. Five of the 97 pension systems report no alternative investments and come from three states, while 11 pension systems from 8 states report alternative allocations above 30%.

The composition of alternatives for public pension systems is shown in Exhibit 2.

Exhibit 2: Composition of Alternative Investments among Public Pension Systems



Private equity and real estate together comprise three-quarters of current public pension allocations to alternatives, followed by an 18% allocation to hedge funds and a 6% allocation to real assets.

Underlying these allocations is a shift out of real estate and into hedge funds and real assets. Hedge funds currently represent 3% of total public pension assets and 18% of alternative assets. Those figures are up from 2% and 15%, respectively, in fiscal 2009. On the other hand, current real estate allocations equal to 6% of total assets and 31% of alternatives represent a year-over-year drop from 7% and 38%, respectively.

Independent industry surveys suggest that overall allocations to alternatives will increase and new allocations will be focused on hedge funds and real assets.<sup>4</sup>

### *Corporate Pensions<sup>5</sup>*

U.S. corporate defined benefit pension plan assets total approximately one trillion dollars and exhibit some of the same trends found in public defined benefit pension plans. Allocations to alternative assets are increasing, but at levels below public pension systems. The average weighting to alternatives equals 14%, which is below the 20% average allocation for public pension plans. It is very likely that corporate downsizing of defined benefit plans is contributing to the smaller alternatives allocations as these plans become more mature with greater benefit payouts.

<sup>4</sup> Source: Greenwich Associates; Prequin; Casey Quirk.

<sup>5</sup> Source: Greenwich Associates 2010 Report

The makeup of alternative allocations among corporate pension plans is different from public plans. Hedge funds represent 5% of total corporate pension assets and 39% of total alternatives, well above the 3% and 18% allocations for public plans. The higher corporate allocations to hedge funds come at the expense of real estate which represents just 3% of total corporate plan assets.

Corporate pension plan allocations to alternatives rose 1% over the past two years with hedge funds representing all of the increase. We might expect this trend to continue among liquidity minded corporate pension plans as hedge funds provide more flexibility than private equity and real estate.

### *Endowments<sup>6</sup>*

Endowments were early adaptors of alternative asset classes and their high allocations largely reflect that history. Today, alternatives equal 52% of endowment assets measured by dollar-weighting and 26% of endowment assets measured by equal-weighting. The large disparity between dollar and equal weighted values is caused by very high allocations to alternatives among a small number of universities that represent a large fraction of total endowment assets. Nonetheless, by either measure endowments are by far the largest percentage allocator to alternatives, if not by dollar amount due to their smaller asset base.

Hedge funds command the largest fraction of endowment alternative assets, representing 41% of alternatives and 21% of total endowment assets. Furthermore, hedge funds have the greatest weight of all asset classes used by endowments. Private equity represents the second largest slice of alternatives at 35%, followed by real assets at 14% and real estate at 10%.

It is unlikely that the high current endowment allocation to alternatives is intended. The 2008 financial crisis left many endowments in a liquidity squeeze which caused them to sell from traditional asset classes to meet spending needs because they could not liquidate private equity and real estate investments. Before 2008, endowments had a 37% allocation to alternatives and the 52% current level most probably reflects a 15% drop in overall assets coupled with an inability to liquidate private investments. Consequently, it would not be surprising to find allocations to alternatives, particularly private equity and real estate, to fall as a percentage of endowment assets over the next several years.

The likely slowing of investments in alternatives or, in some cases, divesting is already providing some opportunities for public and corporate pension plans to gain access to top tier managers that historically relied upon endowments for capital.

Stephen L. Nesbitt  
snesbitt@cliffwater.com  
April 4, 2011

*Cliffwater is a service mark of Cliffwater LLC.*

*The views expressed herein are the views of Cliffwater only through the date of this report and are subject to change based on market or other conditions. All information has been obtained from sources believed to be reliable, but its accuracy is not guaranteed. This report is being distributed for informational purposes only and should not be considered investment advice. The information we provide does not take into account any investor's particular investment objectives, strategies, tax status or investment horizon. Past performance does not guarantee future performance.*

---

<sup>6</sup> Data referenced for endowments come from the 2010 NACUBO-Commonfund Study of Endowments.

Appendix: Fiscal 2010 Alternative Investment Allocations among State-wide Pension Plans

	Total Assets (\$mil)*	% Alternatives	% Private Equity	% Real Estate	% Hedge Funds	% Real Assets**
1 Pennsylvania State Employees'	\$24,436	61.3%	23.5%	8.7%	22.7%	6.4%
2 MOSERS	\$6,225	53.6%	9.8%		28.0%	15.8%
3 Washington State Inv Board	\$52,631	42.0%	25.8%	14.2%	0.8%	1.2%
4 Pennsylvania Public Schools	\$46,282	40.7%	20.4%	9.1%	11.2%	
5 Utah Retirement Systems	\$19,058	34.7%	7.4%	14.7%	12.7%	
6 Illinois Teachers	\$31,482	33.7%	9.5%	10.4%	3.9%	9.9%
7 MPERS (MoDOT & Patrol ERS)	\$1,217	33.0%	9.4%	12.7%	11%	
8 Oregon PERS	\$49,554	32.1%	21.0%	9.1%	2.0%	
9 Mass PRIT/PRIM	\$41,284	31.5%	10.6%	9.1%	7.7%	4.1%
10 Alaska TRS	\$2,715	30.2%	9.8%		5.1%	15.3%
11 Alaska PERS	\$5,382	29.9%	9.8%		5.1%	15.1%
12 Michigan State Police RS	\$1,000	29.9%	19.0%	9.3%	1.6%	
13 Michigan SERS	\$8,920	29.7%	18.3%	9.2%	2.2%	
14 Michigan Public School Employees	\$36,438	29.5%	19.1%	8.6%	1.8%	
15 NM Permanent Fund (SIC)-Severence	\$3,797	28.1%	15.9%	4.5%	7.7%	
16 Illinois Judges	\$8,684	28.0%	5.0%	10.0%	10.0%	3.0%
17 Illinois SERS	\$8,201	28.0%	5.0%	10.0%	10.0%	3.0%
18 New Mexico ERB	\$8,179	27.8%	8.8%	4.9%	13.3%	0.8%
19 Ohio School Employees RS	\$9,049	27.0%	9.2%	9.2%	8.6%	
20 CalPERS	\$203,753	26.5%	14.1%	7.4%	3%	2.5%
21 TCDRS	\$17,600	26.3%	3.6%	3.7%	19.0%	
22 CalStrs	\$129,961	25.7%	14.8%	10.0%	0.9%	
23 Delaware PERS	\$6,362	25.6%			3.3%	
24 South Dakota RS	\$6,563	25.5%	11.3%	9.3%	4.9%	
25 Louisiana State Employees' RS	\$7,961	25.2%	11.1%		14.1%	
26 Indiana PERS*	\$7,780	24.5%	8.2%	8.2%	8.2%	
27 Indiana Police & Fire*	\$3,013	24.5%	8.2%	8.2%	8.2%	
28 Virginia Retirement Systems	\$47,924	23.7%	9.0%	6.0%	9%	
29 Louisiana TRS	\$11,741	23.4%	18.5%	4.9%	0.0%	
30 Iowa Fire & Police	\$1,542	22.7%	15.7%	7.0%		
31 Land Grant - NM Permanent Fund	\$10,212	21.9%	8.8%	3.4%	9.7%	
32 Alaska Permanent Fund	\$33,255	21.9%	3.2%	10.4%	6.6%	1.7%
33 Texas TRS	\$94,125	21.2%	9.0%	2.0%	4.2%	6.0%
34 Missouri Public School RS	\$21,502	20.9%	4.5%	5.1%	11.3%	
35 Missouri Public Education ERS	\$2,105	20.8%	4.5%	5.1%	11.2%	
36 Iowa PERS	\$19,856	20.5%	12.7%	7.8%		
37 West Virginia PERS	\$3,244	19.8%	7.8%	0.5%	11.5%	
38 Michigan Municipal ERS	\$5,321	19.7%	9.5%	6.3%	1%	3.4%
39 West Virginia TRS	\$3,513	19.2%	7.8%	0.5%	10.9%	
40 Vermont Municipal Employees'	\$321	19.1%	0.3%	4.0%	12.8%	2.0%
41 Ohio STRS	\$58,774	18.9%	7.0%	11.3%	1%	
42 Colorado Fire and Police	\$2,832	18.6%	11.3%	4.1%	3%	
43 DC Retirement Board	\$3,743	18.5%	13.3%	5.2%		
44 South Carolina RS	\$19,812	17.8%	4.3%	0.6%	12.9%	
45 New Mexico PERA	\$10,150	17.8%	2.6%	1.6%	12.9%	0.7%
46 Colorado PERA	\$32,907	17.5%	9.6%	6.0%		1.9%
47 Indiana Teachers	\$4,236	17.1%	8.4%	3.9%	4.8%	
48 NY State Common	\$132,500	16.8%	9.7%	4.2%	2.9%	
49 Montana PERS	\$2,988	16.6%	11.3%	5.3%		
50 Maryland State RPS	\$28,500	16.5%	3.4%	6.1%	2.6%	4.4%
51 Minnesota SRS - SERF	\$6,755	16.0%				
52 Montana TRS	\$2,278	16.0%	11.0%	5.0%		
53 Wisconsin RS (SWIB) Core Fund	\$62,306	16.0%	6.0%	6.0%	4.0%	
54 Arkansas TRS	\$9,050	15.9%	6.8%	6.2%		2.9%
55 NY State Teachers RS (NYSTRS)	\$75,458	15.9%	7.9%	7.5%		0.4%
56 Kentucky ERS Pension Fund	\$10,469	15.0%	13.7%	0.6%	0.7%	
57 North Dakota Teachers' Fund	\$1,418	15.0%	5.0%	10.0%		
58 Minnesota SRS - PERF	\$10,153	15.3%				
59 Minnesota SRS - Police & Fire	\$3,956	15.3%				
60 Florida Retirement System	\$109,344	14.7%	4.1%	6.5%	4.1%	
61 Connecticut Teachers RS	\$13,864	14.5%	8.5%	4.1%	1.9%	
62 Minnesota SRS - Teachers RF	\$13,820	14.0%				
63 Rhode Island ERS (ERS, TRS)	\$6,069	13.6%	9.5%	4.1%		
64 Arkansas PERS	\$4,720	13.4%		5.4%		8.0%
65 Connecticut State ERS	\$8,789	12.5%	8.6%	2.0%	1.9%	
66 Missouri Local Government ERS	\$3,199	11.9%	2.8%		2%	7.2%
67 Hawaii ERS	\$10,583	11.6%	3.3%	6.9%		1.4%
68 New Jersey PERS	\$62,923	11.6%	4.8%	2.5%	4.3%	
69 Alabama ERS	\$7,972	11.6%		11.6%		
70 Alabama TRS	\$16,614	11.4%		11.4%		
71 Connecticut Municipal ERS	\$1,506	11.4%	8.1%	3.3%	0.0%	
72 Kansas PERS	\$11,232	11.3%	3.4%	7.9%		
73 Idaho PERS	\$10,528	10.8%	7.7%	3.1%		
74 North Carolina RS	\$45,877	10.7%	5.1%	4.5%	1%	
75 Ohio PERS	\$68,562	10.2%	3.7%	5.4%	1%	
76 Ohio Police & Fire	\$10,542	9.4%	3.4%	6.0%		
77 North Dakota PERS	\$1,509	9.1%	4.2%	4.9%		
78 Vermont State Employees'	\$1,160	8.4%	0.2%	3.6%		4.6%
79 New Hampshire RS	\$4,841	7.8%	1.9%	5.1%	1%	
80 Nevada PERS	\$20,900	7.3%	2.8%	4.5%		
81 Louisiana School ERS	\$1,251	7.3%	2.8%	4.5%		
82 Illinois Municipal	\$22,348	7.2%	3.5%		1%	0.6%
83 Wyoming RS	\$5,707	6.7%		5.2%	2%	
84 Arizona State Retirement	\$23,354	6.5%	2.1%	3.1%	1.3%	
85 Nebraska DB Plans	\$6,222	6.1%	2.3%	3.8%		
86 Mississippi PERS	\$16,788	5.2%	0.5%	4.6%	0.1%	
87 Kentucky TRS	\$12,679	5.0%	0.9%	3.3%		0.8%
88 Tennessee Consolidated RS	\$27,911	5.0%		5.0%		
89 Maine PERS	\$9,226	4.9%	0.1%	3.7%		1.1%
90 Texas ERS	\$18,097	3.1%				
91 Alabama JRF	\$219	1.2%		1.2%		
92 Vermont State Teachers' RS	\$1,298	0.2%		0.2%		
93 Georgia ERS	\$10,646	0.0%				
94 Georgia TRS	\$45,634	0.0%				
95 Oklahoma PERS	\$6,540	0.0%				
96 Oklahoma Teachers' RS	\$9,116	0.0%				
97 Texas Municipal RS	\$14,472	0.0%				
Totals	\$2,146,532	\$427,918 19.9%	\$189,313 9.0%	\$132,349 6.3%	\$74,243 3.5%	\$24,859 1.2%

\* Hedge funds invested within traditional asset classes are included.  
 \*\* includes timber, oil&gas, infrastructure, and commodities