

Alternative Investments: Are they Worth the Price?

- ✓ *Lessons from the Past Decade*
- ✓ *Prospects for the Next Decade*

Institutional investors are today grappling with an important decision of whether to increase their allocation to alternatives. Clearly disappointed with the performance of stocks, their largest asset class by weight, trustees are evaluating the prospects of new or higher allocations to private equity, hedge funds, and other alternative asset classes that offer the promise of higher return but with higher fees, less liquidity, and potentially unwanted public scrutiny if these investments underperform, or worse.¹

We provide a new perspective on alternative investments by examining the role they played in the performance of state-wide public pension plans over the past decade. We then consider what role alternatives will likely play over the next decade in assisting pensions and endowments in meeting their objectives. Some conclusions are:

1. Alternatives were an important positive contributor to institutional investment performance over the last 10 years, in most cases producing returns well above expectations, even when adjusted for higher fees.
 - a. Public pension plans with higher allocations to alternatives generally performed above those with lower or no alternative allocations over the last 10 years.
 - b. Large endowments, which have almost three times the allocation to alternatives compared to state pension plans, earned 10 year returns averaging 6.1%, well above the 2.7% return earned by state pension plans.
2. Traditional investment approaches produced very little alpha over the past decade.
3. Public pensions will likely move to increase their allocations to hedge funds, not only to bump up their total alternatives allocation from 16% currently, but to diversify their composition of alternatives which now relies upon private equity and real estate.
4. Institutions need alternative investments more than ever as valuations for traditional asset classes suggest future returns will fall well short of investment objectives.

Data Sources

We collected total fund and asset class returns for the 100 state-wide public pension plans, together representing approximately \$2.1 trillion in assets. The data comes from publicly available Comprehensive Annual Financial Reports (“CAFRs”) which self-report returns and performance benchmarks. The advantage of this data set is that it represents what returns pension plans achieved by their selection of managers, not just how a universe of managers performed.

¹ A recent *New York Times* lead business story, “Pension Funds Still Waiting for Big Payoff from Private Equity,” captures current sentiment among some institutional investors that private equity fees are too high and suggest that these managers may not be worth it. Similar concerns are directed at hedge funds, where initial encounters often lead to fee sticker shock, particularly juxtaposed to index funds that charge almost nothing and traditional stock and bond managers which seldom charge more than one-half of one percent.

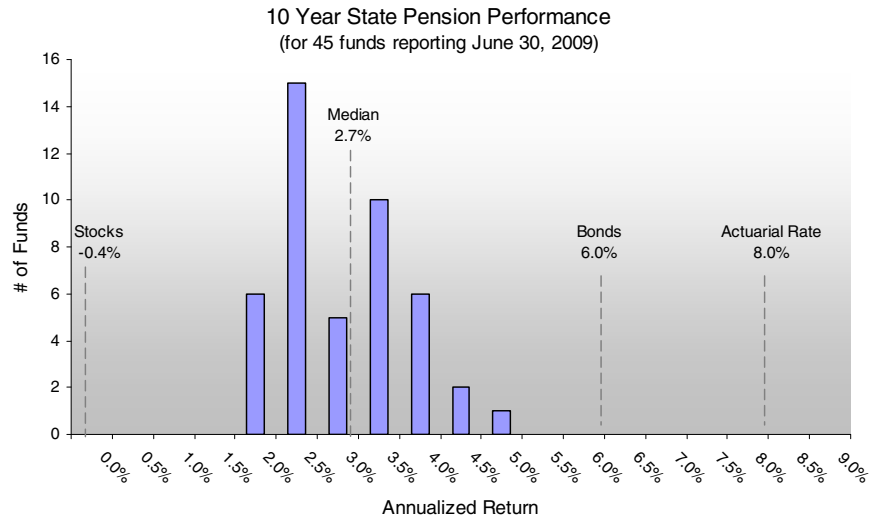
The views expressed herein are the views of Cliffwater only through the date of this report and are subject to change based on market or other conditions. All information has been obtained from sources believed to be reliable, but its accuracy is not guaranteed. This report is being distributed for informational 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.

Most CAFRs also disclose what return objective the pension plan was trying to achieve in selecting its investments, making it possible to determine success as predefined by the investor.

Total Fund Performance

Forty-five of the 100 public pension systems have June 30 fiscal years and disclosed 10-year returns. The distribution of these decade long returns is reported in Exhibit 1.

Exhibit 1: Total Fund Returns for Ten Years ending June 30, 2009



This was likely the worst decade on record for public pension plans, with the median plan returning just 2.7%, far short of the 8.0% average actuarial rate. The primary cause of this shortfall is not hard to see. Publicly traded stocks, representing over 50% of total assets, were down -0.4% for the decade, as measured by the MSCI World Equity Index.

Low returns over the decade also put some perspective on the severe underfunding condition in which most pensions now find themselves. A fully funded plan at the beginning of 2000 with an 8% actuarial rate but earning just 2.7% would have a 61% funding ratio by the end of 2009.² This simple math underscores the critical importance of asset returns in meeting benefit promises.

Our findings do not change materially when funds with fiscal dates other than June 30 are considered. The median total fund return for all 68 pension plans reporting 10 year returns regardless of their 2009 fiscal month end date was 3.1%.

Asset Class Performance

Exhibit 2 shows median 10 year asset class returns as reported by the state pension systems for fiscal years ending in 2009. The far right column gives the number of funds reporting returns for that asset class. For example, 68 funds reported 10 year returns for their total fund; 49 funds reported 10 year returns for U.S. fixed income; and 42 funds reported 10 year domestic equity returns. We highlight the 3.08% median 10-year total fund return for the 68 pension systems disclosing that return for their fiscal 2009.

² A dollar in assets grows to \$1.31 after 10 years at a 2.7% return while a dollar in liabilities grows to \$2.16 at an 8.0% actuarial rate. The ending funding ratio equals ending assets (\$1.31) divided by ending liabilities (\$2.16), or 0.61. Surveys at June 30, 2009 report average state funding ratios between 60% and 70%.

The importance of alternative asset classes as positive contributors to performance over the last decade is clear from Exhibit 2.

The highest returning category is a growing alternative asset class that institutions are calling “opportunistic.” These investments are not the typical private equity, real estate, or hedge fund assets but instead may combine features of two or three alternative asset classes or have a one-of-a-kind quality. Only two pension plans reported 10 year returns for this asset class but we expect many more funds to do so in the future.

Exhibit 2: Median 10 Year Asset Class Returns Reported by State Pension Systems

Asset Class	10 Year	
	Annual Return	# Funds Reporting
Opportunistic	11.15%	2
Emerging Markets Equity	10.32%	2
Private Equity	8.89%	19
Real Estate	7.92%	23
REITS	7.79%	2
US Fixed Income	6.20%	49
Non-US Fixed Income	6.00%	3
High Yield	5.02%	2
Absolute Return	4.60%	1
Small Cap US Equity	4.45%	2
Cash	3.50%	23
Total Fund	3.08%	68
International Equity	2.90%	31
Global Equity	0.28%	8
Domestic Equity	-0.87%	42

More important is private equity because it represents almost 8% of institutional assets. Its 10 year median annualized return of 8.89%, as shown in Exhibit 2, far exceeds returns achieved in traditional public equities – domestic equity -0.87%, global equity 0.28%, and international equity 2.90%. Furthermore, returns for private equity and the other alternative asset classes are almost certainly after fees, following industry practice for those asset classes, while returns reported for traditional asset classes are a mix of before and after fee calculations.³

No wonder interest in, and allocations to, private equity continue to grow.

Exhibit 3 provides additional good news to private equity investors. We show 10 year private equity returns reported by 19 individual state pension systems ranked from the highest return to the lowest return along with performance benchmarks and the resulting value-added, or excess over the benchmark. We also report how the returns were calculated, before or after fees. In all cases but one, the returns were calculated after fees. Our strong opinion is that for those systems that did not disclose how fees were treated, returns are calculated net of fees.

Most pension systems use as their private equity benchmark a public index plus a fixed percentage. For the purpose of consistency across the funds, we set the benchmark as the return on the Russell 3000 index only. For example, Fund 10 reported an 8.9% return for the decade while the Russell 3000 index returned -1.5% for the same period. The difference, 10.35%, is the annualized value added over 10 years.

³ The strong comparative showing for alternatives does not change materially if returns are adjusted for the practice of lagging private equity and real estate returns by one quarter. Private equity returns were positive in the 2nd quarter of 2009 which would have resulted in little change in reported returns. Real estate returns were, however, negative and 10 year returns reported without lag would have been modestly (<1%) less.

Exhibit 3: Distribution of 10 Year Annualized Private Equity Returns Reported by State Pension Systems

	10 Year Return	Benchmark	Value Added	Fees	ending date
State Fund 1	16.1%	-1.5%	17.54%	Net	6/30/2009
State Fund 2	12.1%	-1.5%	13.56%	Net	6/30/2009
State Fund 3	11.9%	-0.8%	12.71%		12/31/2008
State Fund 4	11.8%	-1.5%	13.25%	Gross	6/30/2009
State Fund 5	11.5%	-1.5%	13.00%		6/30/2009
State Fund 6	11.2%	-0.2%	11.40%	Net	12/31/2009
State Fund 7	11.1%	-1.5%	12.56%	Net	6/30/2009
State Fund 8	10.4%	-2.3%	12.62%		3/31/2009
State Fund 9	9.4%	-0.8%	10.20%	Net	12/31/2008
State Fund 10	8.9%	-1.5%	10.35%	Net	6/30/2009
State Fund 11	8.2%	-1.5%	9.67%		6/30/2009
State Fund 12	7.3%	0.7%	6.57%		9/30/2009
State Fund 13	7.3%	0.7%	6.57%		9/30/2009
State Fund 14	7.3%	0.7%	6.57%		9/30/2009
State Fund 15	7.2%	-1.5%	8.66%	Net	6/30/2009
State Fund 16	6.8%	-1.5%	8.26%	Net	6/30/2009
State Fund 17	5.1%	-1.5%	6.56%		6/30/2009
State Fund 18	4.4%	-1.5%	5.86%	Gross	6/30/2009
State Fund 19	3.9%	-1.5%	5.36%	Net	6/30/2009

All 19 state systems reporting 10 year returns showed significant value added over the Russell 3000 index, even considering the 3% premium institutions generally tack on in constructing a benchmark.

The strong showing for private equity contrasts sharply with the value added produced in traditional asset classes. Exhibit 4 provides reported excess returns produced by pension systems in traditional stocks and bonds. Both trailing 5 and 10 years are provided for fiscal years ending in 2009.

Exhibit 4: Five and Ten Year Excess Returns (over Benchmarks) in Traditional Stock and Bonds

	Excess Returns	
	5 years	10 years
25th percentile	0.45%	0.82%
US Equity Median	0.00%	0.31%
75th percentile	-0.71%	0.10%
Count	75	42
25th percentile	0.78%	1.26%
Non-US Equity Median	0.03%	0.59%
75th percentile	-0.90%	-0.07%
Count	63	31
25th percentile	0.39%	0.34%
US Fixed Income	-0.28%	0.10%
75th percentile	-0.96%	-0.38%
Count	82	49

The reported returns are a mix of gross and net of fee, with almost a third not disclosing how fees are treated. Nonetheless, the distribution of excess returns is instructive in several ways.

Least promising is U.S. fixed income, where the median excess return is barely positive over 10 years and the distribution of outcomes over both 5 and 10 years appears to be skewed slightly negative. This also undermines the “enhanced” fixed income strategy that became popular during the decade, where incremental yield during the good times was more than offset by losses

during the two recessions. This is not to say that active management in fixed income will never work, just that it is unlikely that it should be viewed as a driver of performance.

The record for U.S. equity active management is not much better. This is somewhat surprising considering that periods of weak and declining markets are when managers are supposed to do well. On the positive side, first quartile returns are 0.82% over 10 years, though how much of that needs to be shaved due to fees is unknown. Anecdotally, most of the top performing pension systems in this asset class use “out of benchmark” strategies. For example, the best pension system in the U.S. equity asset class has a significant weighting to convertibles within U.S. equity. Another incorporates equity long/short hedge funds. Consequently, it is hard to say going forward whether selecting active equity managers in the traditional way will produce much in the way of excess return.

There is some promise in the non-U.S. equity excess returns, particularly over 10 years. This is the asset class that is thought to be the most inefficient, and it does appear that at least one-quarter of those reporting were able to produce healthy excess return of 0.78% over 5 years and 1.26% over 10 years.

Contribution to Performance from Alternatives

A precise determination of the contribution of alternative investments to pension performance over the last 10 years is impossible given the level of disclosure. However, we can approximate an answer by comparing the performance of pension funds with high alternative allocations against those with low alternative allocations. One difficulty in doing this is that fixed income allocations had a bigger impact on performance than alternative allocations so we need to neutralize for fixed income. Multiple regression allows us to separate the impact of fixed income from alternatives.

Our findings showed that for every 10% allocation to alternatives – private equity, absolute return, real estate, and real assets – pension returns were 1.1% higher for the decade, all else being equal.

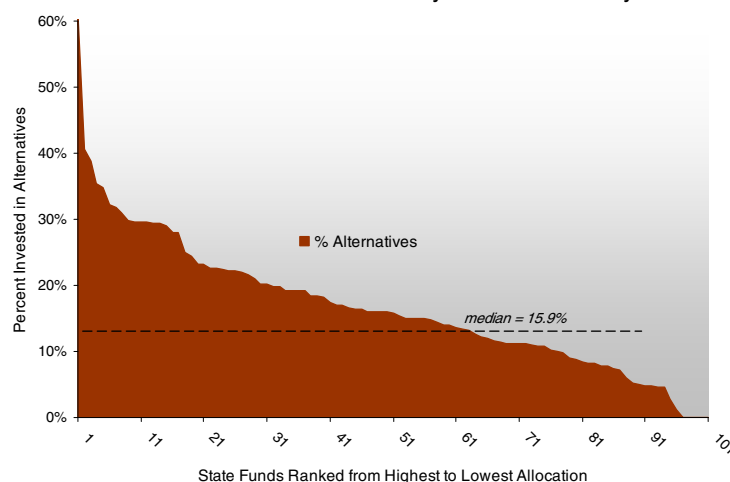
The importance of alternatives can also be seen by comparing the performance of state pension systems with larger college and university endowments, which on average have 51% of their total portfolios in alternatives.⁴ During the same 10 year period that state pension systems produced a median return of 2.7%, large endowments returned 6.1%. This advantage is entirely attributable to their high allocations to private equity and, especially, to hedge funds.

Alternative Allocations

Exhibit 5 ranks state pension systems by their allocation to alternatives, from high to low, as of fiscal year end 2009.

⁴ Source: National Association of College and University Business Officers (“NACUBO”)

Exhibit 5: Allocation to Alternatives by State Pension Systems



The range of allocations among pension systems is significant. Five pension systems had no allocations to alternatives, while 18 systems had allocations of 25% or more. The median allocation to alternatives was 15.9%. By contrast, endowments had an average allocation to alternatives of 51%.

The composition of investments within alternatives is shown in Exhibit 6, and contrasted with the alternatives composition for endowments.

Exhibit 6: Composition of Alternative Investments for Fiscal 2009

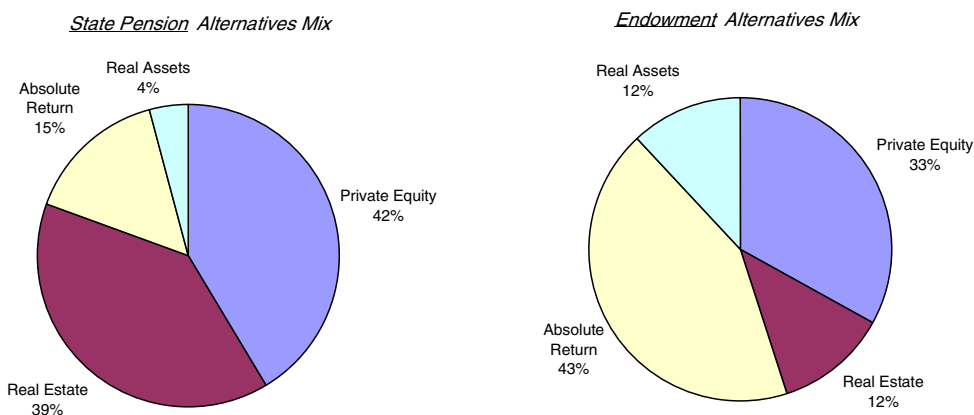


Exhibit 6 shows the difference in alternative strategies chosen by public pensions and endowments⁵. Public pensions have a preference for real estate while endowments place much greater weight on absolute return, or hedge funds. There are several reasons for this difference but the most likely is probably the familiarity public fund trustees have with real estate that they do not have with hedge funds. This educational shortfall will lessen over time and likely lead to higher allocations to absolute return for public funds.

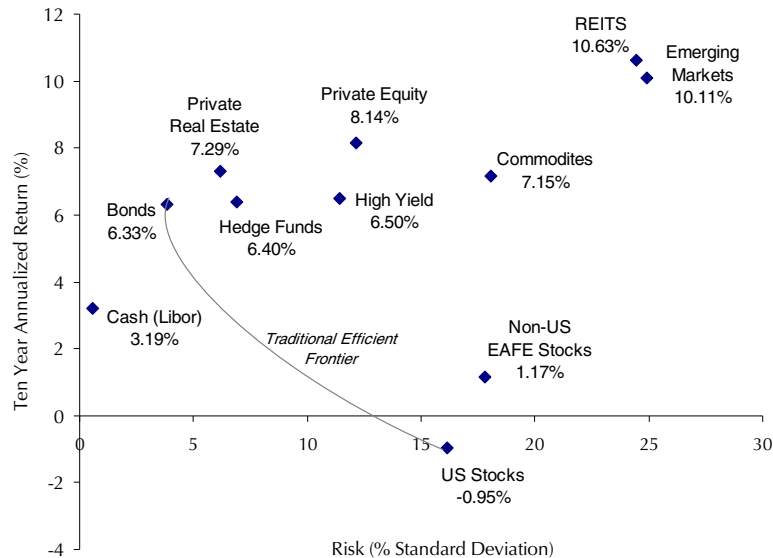
Risk-Adjusted Returns

A common perception is that alternative assets are too risky. The data however suggests something quite different. Exhibit 7 plots the 10 year return (vertical axis) and risk (horizontal

⁵Source: NACUBO.

axis) for alternative and traditional asset classes. Return and risk is provided for index returns, not returns achieved by pension systems because the monthly/quarterly data from pension systems is not available in CAFRs. However, the index return data does not differ materially from the pension asset class returns.

Exhibit 7: Ten Year Return and Risk for Traditional and Alternative Asset Classes



The risk level for private equity in Exhibit 7 is lower than the public equity indexes.⁶ Hedge fund risk is higher than for bonds, but not substantially so. Our conclusion is that alternative investments have demonstrated only moderate risk over the last ten years, consistent with levels that are acceptable to institutional investors.

Lessons Learned

Our look back at the last decade yields some interesting facts and lessons. Firstly, stocks, the growth engine for pensions in the 1990s, proved to be an unreliable source of return in the 2000s. Further, global diversification did not help much unless the allocation was to emerging markets, which were coming off a severe drawdown in 1999 from the Asian Debt Crisis.

A decade-long environment of market dislocation and poor overall returns should have been an ideal environment for traditional active management. Yet our findings show that pension systems were able to extract only modest, if any excess return (alpha) from these traditional stock and bond asset classes. When they did, it was at times due to “out-of-benchmark” strategies.⁷

By contrast, those state pension funds that invested in alternative assets benefited significantly, boosting their return by 1% annually for every 10% allocation to alternatives. Private equity performed the highest of all the alternative groups, and was a significant source of alpha. State pensions did not really begin to invest in hedge funds until mid decade but endowments have long invested a significant fraction of their portfolios in hedge funds which helped them as a group perform much better than state pensions over the decade.

⁶ Private equity and hedge fund risk levels are 12.1% and 6.9%, respectively.

⁷ For example, the pension system with the highest excess return in domestic stocks used a sizable allocation to convertible bonds to achieve its results.

Looking Ahead

It has never been more challenging for trustees and professionals overseeing institutional capital. The 1970s, like the last decade, yielded dismal stock and bond returns. But at least asset classes looked extraordinarily cheap at the end of the 1970s. Bond yields were well into the double digits and price-earnings ratios were single digit. That condition allowed for an historic recovery in pension and endowment values during the 1980s and 1990s.

Unfortunately, 2010 does not offer the same opportunity as 1980. Bond yields are 4%. Price-earnings multiples are over 16, using a recovery level of earnings. This translates into an expected stock return of 8% at best. Trustees need to recognize that, unlike 30 years ago, traditional asset classes will not deliver the growth necessary to keep up with liabilities. We estimate that funds can expect only a 6% to 7% return from a diversified portfolio of traditional asset classes. And for many institutions, like defined benefit pension plans, time is running out as the maturity of their liabilities shortens, creating rising benefit payouts. This means that the risk associated with stocks becomes even less tolerable because assets can not recover if they have already been paid out.

Alternative investments alone can not offer a solution, but they have now clearly demonstrated that they offer return and risk advantages over traditional asset classes that are worth serious consideration.

One obstacle to higher alternatives allocations is education, which extends not only to trustees but to advisors as well. Asset allocation is practiced by capable professionals who rely principally on long time series of exchange traded information to make recommendations/decisions. This naturally creates a bias towards the traditional asset classes that possess these characteristics and against asset classes that don't fit the model. Most attempt to bridge model deficiencies by first electing an alternatives allocation and reverse engineering model assumptions that yield the answer they want. While sympathetic to the challenges of modeling, we believe this approach will always create a systematic underweight to alternatives.

Our own view is that institutions should be thinking about significantly increasing their alternatives allocations, subject to liquidity requirements. Doing so will present its own unique challenges. Implementing alternatives asset classes requires more work and higher cost, but we believe the payoff will be significant for those who choose to seriously engage the opportunity.

Stephen L. Nesbitt
Cliffwater LLC
310-448-5020
snesbitt@cliffwater.com
April 7, 2010

Cliffwater is a service mark of Cliffwater LLC.